CONCEPTUAL DEVELOPMENT PLAN/FINAL DEVELOPMENT PLAN

TAX MAP 46-4 ((19)) (01) -0101 THRU -0421 TAX MAP 56-2 ((27)) (07) -0101 THRU -0410
TAX MAP 46-4 ((19)) (02) -0101 THRU -0306 TAX MAP 56-2 ((27)) (08) -0101 THRU -0413
TAX MAP 46-4 ((19)) (03) -0101 THRU -0413 TAX MAP 56-2 ((27)) (09) -0101 THRU -0413
TAX MAP 46-4 ((19)) (04) -0101 THRU -0410 TAX MAP 56-2 ((27)) (10) -0101 THRU -0410
TAX MAP 56-2 ((27)) (05) -0101 THRU -0413 TAX MAP 56-2 ((27)) (11) -0101 THRU -0410
TAX MAP 56-2 ((27)) -0101 THRU -0413 TAX MAP 56-2 ((01)) 18A

SPECIAL EXCEPTION AMENDMENT PLAT/SEA

FOR TAX MAP 56-2 ((01)) 18A

FAIRFAX RIDGE LAND BAYS A & B

Providence Magisterial District
Fairfax County, Virginia

PREPARED FOR:

TCR MID-ATLANTIC PROPERTIES

APRIL 4, 2005

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 1 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

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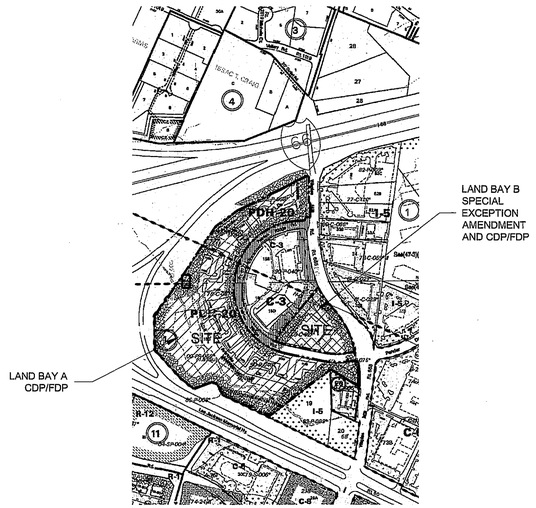
13 STREETSCAPE PLAN*

*THESE SHEETS ARE FOR LANDBAY A ONLY, WHICH WAS PREVIOUSLY CONSTRUCTED. NO CHANGES ARE PROPOSED.



VICINITY MAP
SCALE: 1"= 500'

REVISION

REVISED JUNE 27, 2005 - COUNTY COMMENTS
REVISED JUNE 5, 2006 - COUNTY COMMENTS
REVISED JULY 12, 2006 - COUNTY COMMENTS
REVISED JULY 20, 2006 - COUNTY COMMENTS
REVISED AUGUST 31, 2006 - COUNTY COMMENTS
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REVISED FEBRUARY 26, 2007 - COUNTY COMMENTS
REVISED MARCH 13, 2007 - COUNTY COMMENTS
REVISED MAY 22, 2007 - BULK PLANE/ELEVATION FOR FAIRFAX RIDGE RD.
REVISED FEBRUARY 19, 2010 - CDP/ FDP RESUBMISSION
REVISED MAY 25, 2010 - COUNTY COMMENTS
REVISED AUGUST 16, 2010 - COUNTY COMMENTS
REVISED SEPTEMBER 13, 2010 - COUNTY COMMENTS
REVISED NOVEMBER 29, 2010 - COUNTY COMMENTS
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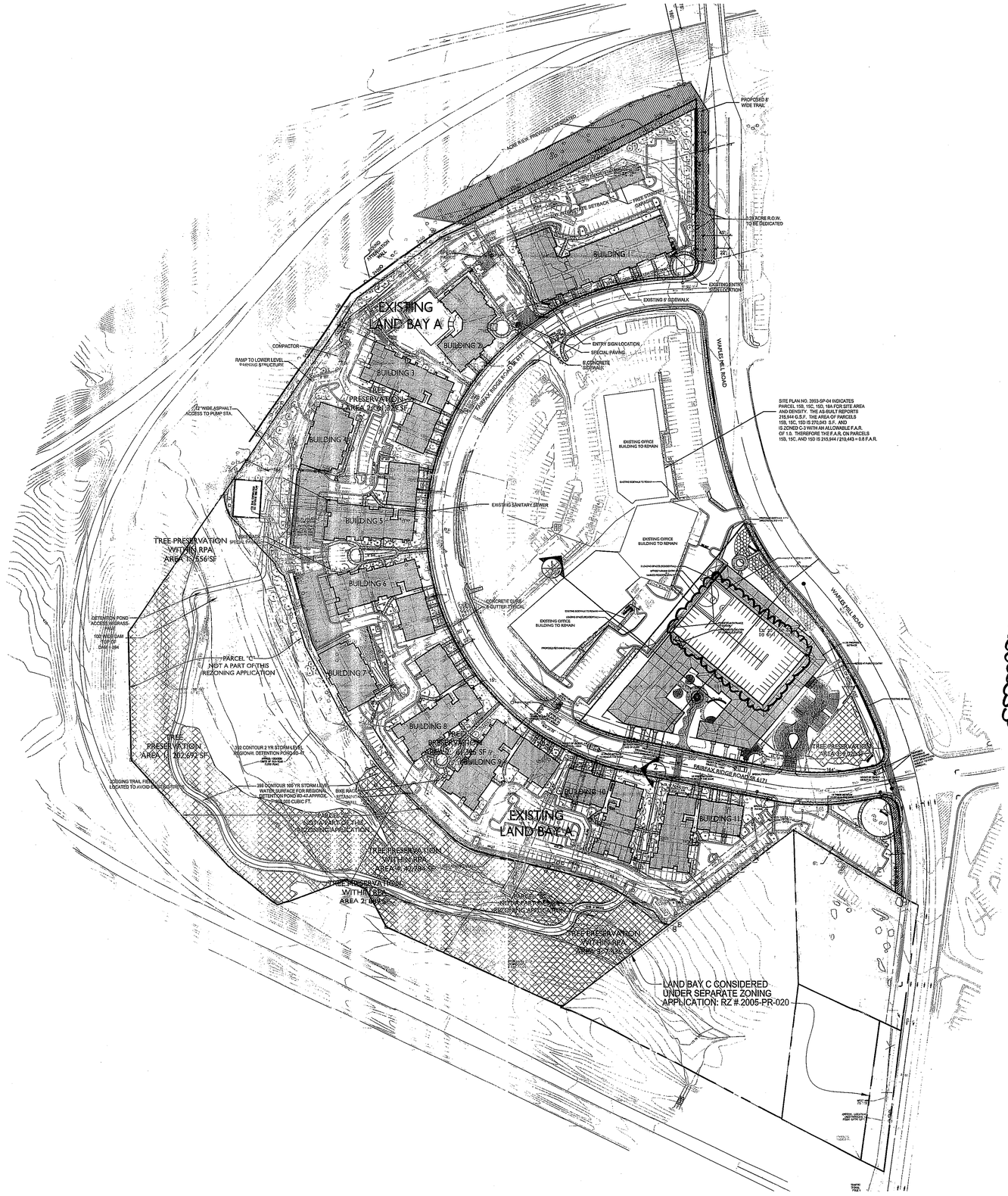

FINAL DEVELOPMENT PLAN TABULATION FOR LAND BAY A

SITE AREA:	536,695 SF OR 12.32082 AC.
AREA DEDICATED TO BOS-ZONED PDH-20 GRANTED DENSITY CREDIT DB 20235 PG2134:	326,800 SF OR 7.50230 AC.
PREVIOUS STREET DEDICATION WITH DENSITY CREDIT DB 13119 PG1704:	42,354 SF OR 0.97231 AC.
TOTAL AREA FOR DENSITY CALCULATION	905,849 SF OR 20.79543 AC.
NUMBER OF MULTI-FAMILY DWELLING UNITS:	420
CLUBHOUSE/LEASING OFFICE:	6,500 SQUARE FEET
NUMBER OF RESIDENTIAL STORIES	
BUILDINGS 1 - 4	4 STORIES
BUILDING HEIGHT:	60 FEET
BUILDINGS 5-12	5 STORIES
BUILDING HEIGHT:	65 FEET
NUMBER OF PARKING GARAGE LEVELS:	2
HEIGHT OF PARKING GARAGE:	8 FEET
OPEN SPACE REQUIRED:	40% (8.31 AC)
OPEN SPACE PROVIDED:	23.8% (4.95 +/- AC)
DEVELOPED RECREATIONAL OPEN SPACE: (INCLUDES POOL, RECREATIONAL FACILITIES IN CLUBHOUSE, TOTLOT, AMENITY COURTYARDS, AND JOGGING TRAIL.)	1.65 AC +/- 1.65 AC.+/-

**SEE SHEET 3 NOTE 25.H. REGARDING WAIVER OF OPEN SPACE REQUIREMENT.

PARKING TABULATION (PER APPROVED AS-BUILT #3993-SAB-002)

REQUIRED: 399 MULTI-FAMILY UNITS AT 1.6 PER UNIT OR 639 SPACES
REQUIRED: 21 MULTI-FAMILY (RENTAL TOWNS) UNITS AT 2.3 SPACES PER UNIT OR 49 SPACES
REQUIRED: 688 SPACES
PROVIDED: 689 SPACES

BREAKDOWN:	SURFACE REGULAR=	363 (INC. H/C)
	UNATTACHED GARAGE=	10
	TANDEM SPACES=	79
	INTERIOR BLDG SPACES=	89
	STRUCTURED PARKING=	148 (INC. 5 H/C)

NOTE: NO NEW CONSTRUCTION IS PROPOSED FOR LAND BAY A. ALL STRUCTURES ARE EXISTING AND WILL REMAIN.

FINAL DEVELOPMENT PLAN TABULATION FOR LAND BAY B (T.M. 56-2-01-0018A)

SITE AREA:	138,931 SF OR 3.18940 AC
PROPOSED MAXIMUM NUMBER OF MULTI-FAMILY DWELLING UNITS:	150
PROPOSED CLUBHOUSE/LEASING OFFICE:	4,500 SQUARE FEET MINIMUM
MAXIMUM NUMBER OF RESIDENTIAL STORIES:	4 STORIES PLUS BASEMENT
MAXIMUM BUILDING HEIGHT	60 FEET
MAXIMUM # OF PARKING GARAGE LEVELS:	7
MAXIMUM HEIGHT OF PARKING GARAGE ABOVE GROUND:	60 FEET
OPEN SPACE REQUIRED	40% (1.28 AC)
OPEN SPACE PROVIDED	44% (1.40 AC)
DEVELOPED RECREATIONAL OPEN SPACE: (INCLUDES AMENITY COURTYARD, CLUBHOUSE, RESIDENTIAL ENTRANCE AND SEATING AREA)	0.37 AC +/-

RESIDENTIAL PARKING SPACES REQUIRED:	240 SPACES
*OFFICE PARKING:	275 SPACES
TOTAL PARKING REQUIRED	515 SPACES
*PARKING PROVIDED:	
RESIDENTIAL PARKING: (A MINIMUM OF 1 SPACE PER BEDROOM WILL BE PROVIDED)	259 SPACES
*OFFICE PARKING:	275 SPACES
ADDITIONAL RESIDENTIAL PARKING:	100 SPACES
TOTAL PARKING PROVIDED	634 SPACES
LOADING SPACES PROVIDED: 2	

SEE NOTE #6 ON SHEET 3.
*NOTE: OFFICE PARKING PROVIDED PURSUANT TO EASEMENT AGREEMENT (DEED BOOK 5748 PAGE 860) WITH GATEWAY PIEDMONT INC. TM #56-2-01-0018A. THE NUMBER OF SPACES PROVIDED FOR THE OFFICE WILL EQUAL THE NUMBER OF SPACES DEMOLISHED DURING CONSTRUCTION.

SPECIAL EXCEPTION TABULATION FOR LAND BAY B ONLY

SPECIAL EXCEPTION AREA: 138,931 SF OR 3.18942 AC

*THIS SPECIAL EXCEPTION IS SUBJECT TO PARAGRAPH 6C OF SECTION 6-108 OF THE ZONING ORDINANCE WHICH STATES IN GENERAL THAT THE MAXIMUM TOTAL LAND AREA DEVOTED TO A SECONDARY USE WITHIN A PDH-30 DISTRICT CANNOT EXCEED 200 SQUARE FEET OF COMMERCIAL LAND AREA PER DWELLING UNIT WITHIN A P DISTRICT. 570 DWELLING UNITS ARE PROPOSED PURSUANT TO THIS CDP/FDP; THEREFORE, THE MAXIMUM LAND AREA DESIGNATED FOR THIS USE CANNOT EXCEED 114,000 SF OR 2.62 AC. 24,840 SF IS PROVIDED FOR PARKING FOR THE ADJOINING OFFICE BUILDING IN LAND BAY B.

ADU REQUIREMENT FOR 150 TOTAL NEW UNITS

PLAN RECOMMENDATION= 20-25 DU/AC
ACREAGE=23.98 ACRES
EXISTING UNITS=420, 140 MID-RISE UNITS, 280 LOW-RISE UNITS
PROPOSED UNITS=150, ALL MID-RISE UNITS
TOTAL=570 UNITS, 280 LOW RISE, 290 MID-RISE
PROPOSED DENSITY= 23.77 DU/AC
10% DENSITY BONUS = 22 - 27.5 DU/AC
17% DENSITY BONUS = 23.4 - 29.25 DU/AC

LOW-RISE ADU CALCULATION FOR 280 LOW-RISE UNITS
PROPOSED DENSITY - LOW END OF PLAN RECOMMENDATION X 6.25% X # OF PROPOSED UNITS
HIGH END OF DENSITY BONUS - LOW END OF DENSITY BONUS

23.77 - 20 = 3.77 = .685 X 6.25 = 4.28% 280 X 4.28% = 12 ADUS
27.5 - 22 5.5

MID-RISE ADU CALCULATION FOR 290 MID-RISE UNITS
PROPOSED DENSITY - LOW END OF PLAN RECOMMENDATION X 5.0% X # OF PROPOSED UNITS
HIGH END OF DENSITY BONUS - LOW END OF DENSITY BONUS

23.77 - 20 = 3.77 = .644 X 5 = 3.22% 290 X 3.22% = 9 ADUS
29.25 - 23.4 5.85

TOTAL ADU UNIT COUNT
TOTAL UNITS=150 UNITS
TOTAL MARKET RATE UNITS=129 UNITS
TOTAL ADU'S=21 UNITS

ADU'S WILL BE LOCATED ON LAND BAY B.

NOTE: APPLICANT RESERVES THE RIGHT TO CONSTRUCT FEWER DWELLING UNITS AND PROPORTIONALLY REDUCE THE NUMBER OF REQUIRED ADUS.

LAND BAYS A & B: CONCEPTUAL DEVELOPMENT PLAN TABULATION

SITE AREA, LAND BAY A:	536,695 SF OR 12.32082 AC
SITE AREA, LAND BAY B:	138,931 SF OR 3.18940 AC
AREA DEDICATED TO BOS-ZONED PDH-20 GRANTED DENSITY CREDIT DB 20235 PG2134:	326,800 SF OR 7.502030 AC.
PREVIOUS STREET DEDICATION WITH DENSITY CREDIT DB 13119 PG1705:	42,354 SF OR 0.97231 AC
TOTAL SITE AREA:	1,044,780 SF OR 23.98483 AC.
PROPOSED ZONING:	
LAND BAYS A & B AND PREVIOUS STREET DEDICATION (16.48253 AC):	PDH-30
AREA DEDICATED TO BOS-ZONED (7.50203 AC):	PDH-20

PROPOSED USE: MULTIFAMILY DWELLINGS AND SECONDARY USE (OFFICE PARKING)

DENSITY CALCULATIONS FOR LAND BAYS A & B:

DENSITY PERMITTED: (PDH-30)(16.48253 AC)	=	494.47 D.U.'S
DENSITY PERMITTED: (PDH-20)(7.50203 AC)	=	150.04 D.U.'S
TOTAL DENSITY PERMITTED:	=	644.51 D.U.'S
UNITS EXISTING IN LAND BAY A:		420 MULTIFAMILY D.U.'S
UNITS PROPOSED IN LAND BAY B:		150 MULTIFAMILY D.U.'S
TOTAL UNITS PROPOSED:		570 MULTIFAMILY D.U.'S
OVERALL DENSITY:		23.76 D.U.A.
OPEN SPACE REQUIRED:		40.0% (9.59 ACRES)
OPEN SPACE PROVIDED:		26.4% (6.35 ACRES)
DEVELOPED RECREATIONAL OPEN SPACE:		2.02 ACRES

**SEE SHEET 3, NOTE 25.H. REGARDING WAIVER OF OPEN SPACE REQUIREMENT.

SEE TABULATIONS THIS SHEET FOR LAND BAY A AND LAND BAY B FOR THE FOLLOWING:
PARKING
ADU'S

LEGEND

- PROPERTY LINE
- STREAM BED
- 100 YEAR FLOODPLAIN
- LIMITS OF CLEARING AND GRADING
- SIDEWALK
- SOUND ATTENUATION WALL
- LIMIT OF SPECIAL EXCEPTION
- EXISTING TREES TO REMAIN
- ROW DEDICATION
- RETAINING WALL
- NOISE CONTOUR***

***NOISE CONTOURS SHOWN ON THIS SHEET ARE FROM THE TRAFFIC NOISE ANALYSIS FOR FAIRFAX RIDGE, REPORT #5039, REVISED 2 NOVEMBER 2001, PREPARED BY POLYSONICS CORPORATION. THESE NOISE CONTOURS ARE BASED UPON MEASUREMENT SURVEYS PRIOR TO THE CONSTRUCTION OF THE SOUND WALLS ALONG I-66.

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 2 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

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9/6/2011
LANDSCAPE ARCHITECT

Fairfax Ridge Land Bays A & B

CDP/FDP

TCR Mid Atlantic Properties, Inc.; Providence Magisterial District, Fairfax County, Virginia

CDP/ FDP/SE Plat

REVISIONS:
JUNE 27, 2005
JUNE 5, 2006
JUNE 16, 2006
JULY 13, 2006
JULY 20, 2006
AUGUST 31, 2006
NOVEMBER 27, 2006
DECEMBER 22, 2006
JANUARY 22, 2007
FEBRUARY 9, 2007
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MAY 22, 2007
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AUGUST 16, 2010
SEPTEMBER 13, 2010
NOVEMBER 29, 2010
JANUARY 20, 2011
MARCH 18, 2011
AUGUST 26, 2011
SEPTEMBER 6, 2011

DATE: 4/4/05
DESIGNED BY: KT
DRAWN BY: CA
CHECKED BY:
O.C. BY:
SCALE AS SHOWN
PROJECT #: 2005007

SHEET NUMBER: 2

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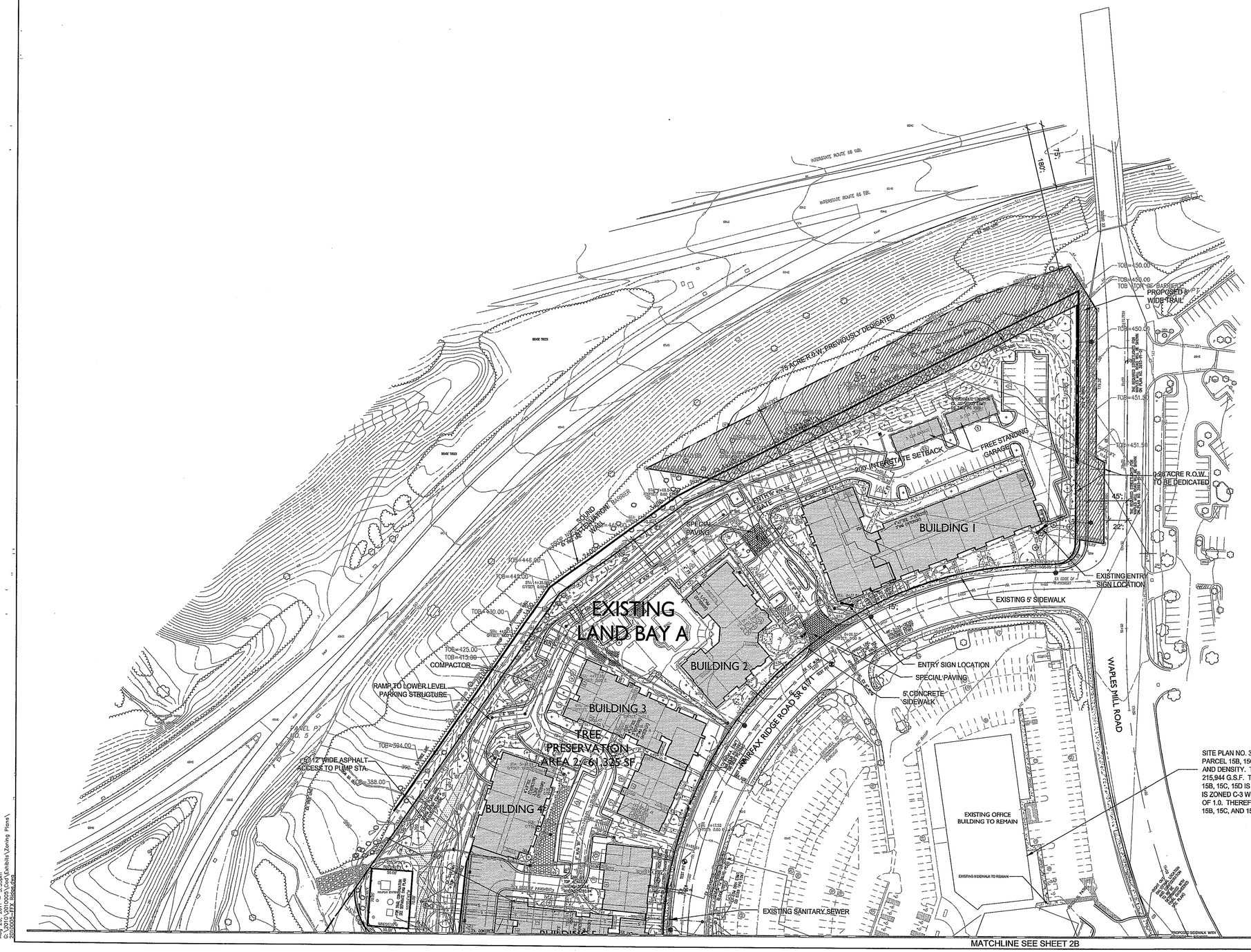

MATCHLINE SEE SHEET 2B

LEGEND

- PROPERTY LINE
- STREAM BED
- 100 YEAR FLOODPLAIN
- LIMITS OF CLEARING AND GRADING
- SIDEWALK
- SOUND ATTENUATION WALL
- LIMIT OF SPECIAL EXCEPTION
- EXISTING TREES TO REMAIN
- ROW DEDICATION
- RETAINING WALL

NOTE: THIS SHEET IS FOR LAND BAY A ONLY AND IS ALREADY CONSTRUCTED. NO CHANGES ARE PROPOSED.

Application No. RZ / FDP 2006-PR-027 Staff T.S.
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(DP) (FDP) (CDP) (FDP)
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Sheet 3 of 29
FDP approved by PC 10-20-2011 no conditions
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SITE PLAN NO. 3993-SP-04 INDICATES PARCEL 15B, 15C, 15D, 18A FOR SITE AREA AND DENSITY. THE AS-BUILT REPORTS 215,944 G.S.F. THE AREA OF PARCELS 15B, 15C, 15D IS 270,043 S.F. AND IS ZONED C-3 WITH AN ALLOWABLE F.A.R. OF 1.0. THEREFORE THE F.A.R. ON PARCELS 15B, 15C, AND 15D IS 215,944 / 210,443 = 0.8 F.A.R.

NOTES:
1. FOR TABULATIONS SEE SHEET 2
2. FOR PLAN NOTES SEE SHEET 3

NORTH
30 0' 30 60 120

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Fairfax Ridge Land Bay A
CDP/FDP
TCR Mid Atlantic Properties, Inc.; Providence Magisterial District, Fairfax County, Virginia

CDP/ FDP/SE Plat Enlargement

REVISIONS:
6-27-06, 2006
SEPTEMBER 13, 2010
JULY 12, 2006
JULY 20, 2006
AUGUST 31, 2006
OCTOBER 27, 2006
DECEMBER 22, 2006
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FEBRUARY 19, 2010
MAY 25, 2010
AUGUST 16, 2010
SEPTEMBER 13, 2010
NOVEMBER 29, 2010
JANUARY 7, 2011
AUGUST 26, 2011

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2A

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MATCHLINE SEE SHEET 2A

TREE PRESERVATION WITHIN RPA AREA 1: 556 SF

BIKE RACK SPECIAL PAVING

BUILDING 5

BUILDING 6

DETENTION POND ACCESS W/GRASS-PAVE

100' WIDE DAM TOP OF DAM = 394

PARCEL "C" NOT A PART OF THIS REZONING APPLICATION

BUILDING 7

TREE PRESERVATION AREA 1: 202,692 SF

392 CONTOUR 2 YR STORM LEVEL REGIONAL DETENTION POND #D-47

JOGGING TRAIL FIELD LOCATED TO AVOID EXISTING TREES

396 CONTOUR 100 YR STORM LEVEL WATER SURFACE FOR REGIONAL DETENTION POND #D-47 APPROX. 809,000 CUBIC FT.

BIKE RACK

RETAINING WALL

PARCEL "C" NOT A PART OF THIS REZONING APPLICATION

TREE PRESERVATION WITHIN RPA AREA 4: 42,784 SF

RETAINING WALL

TREE PRESERVATION WITHIN RPA AREA 2: 889 SF

PARCEL "C" NOT A PART OF THIS REZONING APPLICATION

TREE PRESERVATION WITHIN RPA AREA 3: 7,436 SF

CONCRETE CURB & GUTTER TYPICAL

EXISTING OFFICE BUILDING TO REMAIN

EXISTING OFFICE BUILDING TO REMAIN

SEE SHEET 2C FOR PROPOSED LAND BAY B

BUILDING 8

TREE PRESERVATION AREA 2: 67,385 SF

BUILDING 9

EXISTING LAND BAY A

BUILDING 10

BUILDING 11

WARBLSTMILL ROAD

FAIRFAX RIDGE ROAD SR 6171

TREE PRESERVATION AREA 3: 9,020 SF

LAND BAY C CONSIDERED UNDER SEPARATE ZONING APPLICATION: RZ # 2005-PR-020

LEGEND

- PROPERTY LINE
- STREAM BED
- 100 YEAR FLOODPLAIN
- LIMITS OF CLEARING AND GRADING
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LEGEND

- PROPERTY LINE
- STREAM BED
- 100 YEAR FLOODPLAIN
- LIMITS OF CLEARING AND GRADING*
- SIDEWALK
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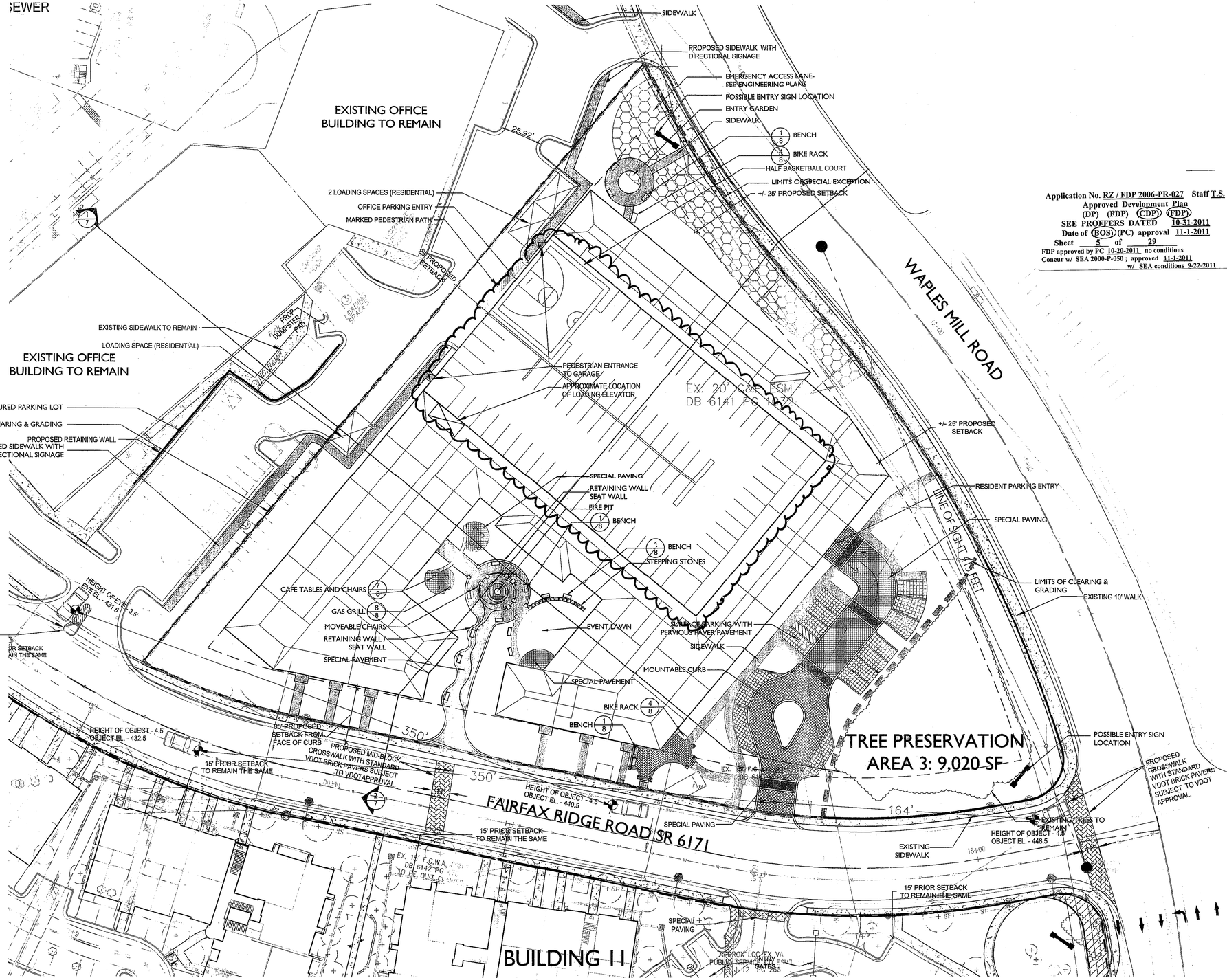
*DOES NOT INCLUDE DISTRUBANCE FOR UTILITY CONNECTION AND ANY NECESSARY OFF SITE IMPROVEMENTS.

NOTE: ALL IMPROVEMENTS, MATERIALS AND LANDSCAPING SHOWN WITHIN VDOT R.O.W. ARE SUBJECT TO VDOT APPROVAL.



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Fairfax Ridge Land Bay B
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TCR 'Mid Atlantic Properties, Inc.; Providence Magisterial District, Fairfax County, Virginia

CDP/ FDP Plat Enlargement

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JANUARY 17, 2011
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NOTES:

1. THE PROPERTY SHOWN HEREON IDENTIFIED BY TAX REFERENCE: TAX MAP 46-4 ((19)) (01) -0101 THRU -0421; TAX MAP 46-4 ((19)) (02) -0101 THRU -0306; TAX MAP 46-4 ((19)) (03) -0101 THRU -0413; TAX MAP 46-4 ((19)) (04) -0101 THRU -0410; TAX MAP 46-4 ((19)) (05) -0101 THRU -0413; TAX MAP 46-4 ((19)) (06) -0101 THRU -0413; TAX MAP 46-4 ((19)) (07) -0101 THRU -0410; TAX MAP 46-4 ((19)) (08) -0101 THRU -0413; TAX MAP 46-4 ((19)) (09) -0101 THRU -0413; TAX MAP 46-4 ((19)) (10) -0101 THRU -0410; TAX MAP 46-4 ((19)) (11) -0101 THRU -0410 AND 56-2-01-0018A ALL CURRENTLY ZONED PDH-20.

2. THE PURPOSE OF THIS APPLICATION IS TO REZONE TAX MAP PARCELS REFERENCED IN NOTE #1 ABOVE OWNED BY FAIRFAX RIDGE LIMITED PARTNERSHIP, FAIRFAX RIDGE DEVELOPMENT, LLC, AND VARIOUS INDIVIDUAL OWNERS FROM PDH-20 TO PDH-30 TO PERMIT MULTIFAMILY DEVELOPMENT. CDP/FDP APPROVAL IS SOUGHT FOR THE ENTIRE APPLICATION AREA. THE SPECIAL EXCEPTION AMENDMENT IS TO ALLOW PARKING FOR AN OFF-SITE COMMERCIAL CENTER/USE IN A PDH-30 ZONE. THE EXISTING PARKING LOT WILL BE REPLACED BY A STRUCTURED UNDERGROUND PARKING FACILITY ON PARCEL 18A (LAND BAY B).

3. BOUNDARY INFORMATION PREPARED BY VIKA, INC THROUGH FIELD SURVEY IN MARCH, 2002 (LAND BAYS A AND B). TOPOGRAPHY IS FROM AN AERIAL SURVEY AND IS AT A TWO (2) FOOT CONTOUR INTERVAL. TOPOGRAPHY SHOWN ON LAND BAY A IS PRIOR TO CONSTRUCTION, AS-BUILT TOPOGRAPHY NOT YET AVAILABLE. LANDDESIGN, INC. ASSUMES NO RESPONSIBILITY FOR DESIGN OR CONSTRUCTION CHANGES CAUSED BY INACCURACIES IN THE TOPOGRAPHIC INFORMATION.

4. THE BUILDING FOOTPRINT FOR LANDBAY B REPRESENTED HEREON ARE APPROXIMATE. THE BUILDING FOOTPRINT MAY BE INCREASED OR DECREASED AND/OR THE NUMBER OF RESIDENTIAL UNITS IN EACH BUILDING MAY BE MODIFIED SO LONG AS THE OPEN SPACE PROVIDED IN THE TABULATION AND THE MINIMUM DIMENSIONS TO THE PERIPHERAL LOT LINES AND LANDSCAPING AS SHOWN ON THIS PLAN ARE NOT DIMINISHED. THE APPLICANT RESERVES THE RIGHT TO DEVELOP A LESSER NUMBER OF DWELLING UNITS OR SQUARE FEET THAN THAT NUMBER REPRESENTED IN THE TABULATION AND RESERVES THE RIGHT TO REDUCE THE NUMBER OF PARKING SPACES AND ADUS ACCORDINGLY. ALL BUILDINGS SHOWN ON LANDBAY A ARE EXISTING AND WILL REMAIN. NO NEW CONSTRUCTION IS PROPOSED FOR LAND BAY A.

5. AFFORDABLE DWELLING UNITS WILL BE PROVIDED IN ACCORDANCE WITH ARTICLE 2-800 OF THE ZONING ORDINANCE.

6. PARKING WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE. THE NUMBER OF PARKING SPACES PROVIDED MAY BE ADJUSTED BASED ON THE ACTUAL NUMBER OF UNITS CONSTRUCTED. FREESTANDING GARAGES AS SHOWN ON CDP/FDP PLAT MAY OR MAY NOT BE PROVIDED. IF PROVIDED, GARAGES AND ANY TANDEM SPACE BEHIND WILL COUNT AS PART OF THE REQUIRED PARKING SPACES. THE APPLICANT RESERVES THE RIGHT TO PROVIDE MORE THAN THE MINIMUM REQUIRED PROVIDED OPEN SPACE IS NOT DECREASED OR THE PARKING LOCATED CLOSER TO THE PROPERTY LINE. ON SITE PARKING MAY BE LOCATED ON THE SURFACE, BENEATH THE BUILDINGS, IN TANDEM SPACES, WITHIN THE BUILDING FOOTPRINT AND/OR IN PARKING STRUCTURE(S).

7. IN ACCORDANCE WITH PARAGRAPH 5 OF SECTION 18-204 OF THE ZONING ORDINANCE, MINOR MODIFICATIONS TO THE SIZES, DIMENSIONS, FOOTPRINTS AND LOCATIONS OF BUILDINGS, SIDEWALKS, TRAILS AND UTILITIES MAY OCCUR WITH FINAL ENGINEERING AND DESIGN WITHOUT REQUIRING AN AMENDMENT TO THIS CDP/FDP PLAT.

8. THERE ARE EXISTING FLOOD PLAIN, STORM DRAINAGE AND SANITARY SEWER EASEMENTS SHOWN ON THE GRAPHIC. THE RESOURCE PROTECTION AREA (RPA) IS SHOWN HEREON.

9. THE LIMITS OF CLEARING AND GRADING AND THE LANDSCAPED OPEN SPACE AREA REPRESENTED ON THE GRAPHIC ARE PRELIMINARY AND SUBJECT TO MODIFICATION AT THE TIME OF FINAL ENGINEERING AND DESIGN. LANDSCAPING AND TREE COVER CONSISTING OF A COMBINATION OF EVERGREEN AND DECIDUOUS TREES WILL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ARTICLE 13 AND IN CONFORMANCE WITH THIS CDP/FDP PLAT.

10. STORM WATER MANAGEMENT (SWM) WILL BE PROVIDED FOR THE SITE IN REGIONAL DRY POND #D47 PREVIOUSLY CONSTRUCTED IN THE EQC AREA IN ACCORDANCE WITH THE REQUIREMENTS OF THE FAIRFAX COUNTY REGIONAL STORM WATER MANAGEMENT PLAN PREPARED BY CAMP DRESSER AND KCKEE DATED NOVEMBER 1988. BEST MANAGEMENT PRACTICES (BMP'S) WILL BE PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ORDINANCES UNLESS MODIFIED BY PROFFERED CONDITIONS AND/OR WAIVED BY THE DIRECTOR OF DPWES AS ALLOWED WITHIN THE ORDINANCE. THE REGIONAL POND #D47 HAS BEEN CONSTRUCTED ON LAND BAY A PURSUANT TO THE APPROVED REGIONAL POND SITE PLAN. THE ADEQUACY OF DOWNSTREAM DRAINAGE IMPROVEMENTS AND CAPACITY OF STORM DRAINAGE PIPES THAT WILL CARRY RUNOFF FROM THE SITE HAS BEEN DEMONSTRATED WITH THE APPROVED PLANS. LANDSCAPING AND AND TREE PRESERVATION AREAS IN AND NEAR THE STORM WATER MANAGEMENT FACILITY HAVE BEEN PROVIDED.

11. THERE ARE NO UTILITY EASEMENTS LOCATED ON THE SUBJECT PROPERTY THAT HAVE A WIDTH OF TWENTY-FIVE FEET OR MORE. EXISTING UTILITY EASEMENTS ARE SHOWN ON THE FDPA.

12. THERE ARE NO KNOWN GRAVES LOCATED ON THE SUBJECT PROPERTY.

13. THE PROPERTY IS LOCATED WITHIN LAND UNIT K WITHIN THE FAIRFAX CENTER AREA OF AREA LLL. THE PROPOSED DEVELOPMENT COMPLIES WITH THE APPLICABLE DEVELOPMENT CRITERIA WITHIN THE COMPREHENSIVE PLAN.

14. THE PROPOSED DEVELOPMENT ON THE SUBJECT PROPERTY WILL NOT POSE ANY ADVERSE EFFECT ON ADJACENT OR NEIGHBORING PROPERTIES.

15. ADDITIONAL SITE FEATURES SUCH AS GAZEBOS, TRELLISES, ENTRANCE SIGNS, GATEHOUSES, FENCES AND/OR WALLS NOT REPRESENTED HEREON MAY BE PROVIDED IN ACCORDANCE WITH THE ZONING ORDINANCE.

16. THE PROPOSED DEVELOPMENT MAY INCLUDE ACTIVE AND PASSIVE RECREATION FACILITIES SUCH AS SITTING AREAS, SWIMMING POOL, TOT LOT, COMMUNITY CLUBHOUSE, EXERCISE ROOM, PEDESTRIAN AND BICYCLE TRAILS, AND/OR LANDSCAPE GARDENS.

17. SUBJECT TO MARKET CONDITIONS, IT IS CURRENTLY ANTICIPATED THAT CONSTRUCTION OF THE PROPOSED DEVELOPMENT WILL COMMENCE AS SOON AS ALL NECESSARY COUNTY APPROVALS AND PERMITS ARE OBTAINED.

18. THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES STORED ON THE SUBJECT PROPERTY. FURTHER, THE PROPOSED USE WILL NOT GENERATE, UTILIZE, STORE, TREAT OR DISPOSE OF SUCH SUBSTANCES ON THE PROPERTY.

19. THE MAXIMUM RESIDENTIAL BUILDING HEIGHT IS SIXTY FEET (60'). SOME BUILDINGS MAY HAVE ONE LEVEL OF DWELLING UNITS WHICH WILL BE BELOW OR PARTIALLY BELOW FINISHED GRADE, OR TWO TO TWO AND A HALF LEVELS OF PARKING WHICH WILL BE BELOW OR PARTIALLY BELOW FINISHED GRADE.

20. PUBLIC WATER AND SEWER SHALL BE PROVIDED. ALL OTHER PUBLIC UTILITIES SHALL BE PROVIDED TO THE SITE BY EXTENSION OF EXISTING SERVICE IN THE AREA. SOLID WASTE REMOVAL SHALL BE PROVIDED BY PRIVATE CONTRACTOR.

21. IF AN AMENDMENT TO ANY PORTION OF THE FDP OR CDP OR SPECIAL EXCEPTION BECOMES NECESSARY AT A LATER DATE, THE APPLICANT RESERVES THE RIGHT TO SUBMIT ONLY THAT PORTION WHICH IS AFFECTED BY THE AMENDMENT FOR PLANNING COMMISSION REVIEW AND APPROVAL.

22. TITLE REPORTS HAVE BEEN PROVIDED FOR BOTH LAND BAYS A AND B AND HAVE BEEN INCORPORATED INTO THE CERTIFIED PLAT.

23. THE DEVELOPER RESERVES THE RIGHT TO LOCATE TEMPORARY CONSTRUCTION/SALES/LEASING TRAILERS ON THE SITE.

24. THE DEVELOPER RESERVES THE RIGHT TO PROVIDE ACCESS CONTROL FEATURES FOR THE RESIDENTIAL COMPONENT WHICH MAY CONSIST OF ONE OR MORE OF THE FOLLOWING: ENTRY AND EGRESS GATES, GUARDHOUSE(S), PERIPHERAL FENCING AND PEDESTRIAN GATE(S) WITHIN THE CONFINES OF THE GARAGE.

25. THE PROPOSED DEVELOPMENT CONFORMS TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS WITH THE EXCEPTION OF:

A. A WAIVER OF THE LOADING SPACE REQUIREMENT OF ARTICLE 11 FOR LAND BAY A FOR MULTIFAMILY DWELLINGS IS HEREBY REQUESTED.
B. A MODIFICATION OF TRANSITIONAL SCREENING AND A WAIVER OF THE BARRIER REQUIREMENT ALONG THE R.O.W. OF I-66 UNDER SECTION 13-304 PARAGRAPH 3 OF THE ZONING ORDINANCE.
C. WAIVER OF SERVICE DRIVE REQUIREMENT ALONG I-66 AND ROUTE 50.
D. A WAIVER OF THE ON-SITE STORM WATER MANAGEMENT REQUIREMENT.
E. WAIVER OF THE TRANSITIONAL YARD SCREENING AND BARRIER REQUIREMENTS PURSUANT TO ZONING ORDINANCE SECTION 13-305 PARAGRAPHS (1) AND (6) BETWEEN THE MULTI-FAMILY RESIDENTIAL USES AND OFFICE/COMMERCIAL USES WITHIN THE DEVELOPMENT.
F. A MODIFICATION OF THE INTERIOR PARKING LOT LANDSCAPING REQUIREMENTS OF SECTION 13-202 PARAGRAPH (6) OF THE ZONING ORDINANCE ON THE PARKING STRUCTURE, ABOVE GRADE, TO THAT SHOWN ON WITH THE CDP APPLICATION.
G. MODIFICATION OF SECTION 7-0802.2 OF THE PFM AND SECTION 11.102.12 OF THE ZONING ORDINANCE TO ALLOW FOR THE PROJECTION, BY NO MORE THAN 4%, OF THE STALL AREA OF STRUCTURAL COLUMNS INTO PARKING STALLS IN PARKING STRUCTURES. SUCH PARKING SPACES SHALL COUNT TOWARD THE NUMBER OF PARKING SPACES REQUIRED BY THE ZONING ORDINANCE.
H. WAIVER OF OPEN SPACE REQUIREMENT (2.0. 6-110).

26. THE EQC LINE DEPICTED ON THESE PLANS WAS ESTABLISHED WITH THE APPROVED REZONING #RZ90-P-040.

27. THE DEVELOPMENT ON LAND BAY A PURSUANT TO THE APPROVED SITE PLAN IS SUBSTANTIALLY COMPLETE. NO DEVELOPMENT IS PROPOSED FOR LAND BAY A, EXCEPT FOR THAT SHOWN HEREON WHICH IS NECESSARY TO INTERGRATE LAND BAYS A AND B APPROPRIATELY.

28. THE NATURAL FEATURES AND SCENIC ASSETS ON LAND BAY A, TO INCLUDE FLOODPLAINS, WETLANDS, EQC AND WATERCOURSES HAVE BEEN PROTECTED AND PRESERVED, AND A PEDESTRIAN TRAIL PROVIDED, PURSUANT TO THE APPROVED PLANS.

29. LOADING SPACES FOR LAND BAY B WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE. THE NUMBER OF SPACES MAY BE ADJUSTED BASED UPON THE ACTUAL GROSS SQUARE FOOTAGE CONSTRUCTED.

30. APPLICANT RESERVES THE RIGHT TO CONSTRUCT FEWER DWELLING UNITS AND PROPORTIONALLY REDUCE THE NUMBER OF REQUIRED ADUS.

31. ALL IMPROVEMENTS, MATERIALS AND LANDSCAPING SHOW WITHIN VDOT R.O.W. IS SUBJECT TO VDOT APPROVAL.

SOILS MAP
Scale: 1"=500'

SOILS LEGEND

ORANGE SOILS GROUP

20B+	Meadowville Silt Loam
24B	Elioak Silt Loam
52B+	Elbert Silt Loam, Undulating Phase
55C2	Glenelg Silt Loam, Rolling Phase
59B2	Orange Silt Loam, Undulating Phase
59C2	Bremo Orange Silt Loam, Rolling Phase
66C2	Lloyd Loam, Rolling Phase
66D2	Lloyd Loam, Hilly Loam
69C2	Enon Silt Loam, Rolling Phase
141E1	Rocky Land Greenstone, 25%+ slopes with slight erosion.
152B2	Elbert Orange Group, moderate erosion

ANGLE OF BULK PLANE: MULTI-FAMILY BUILDING: PDH30

THE BUILDING(S) IN LANDBAY B WILL COMPLY WITH THE MINIMUM REQUIRED YARD FOR MULTIFAMILY BUILDINGS AT PERIPHERAL BOUNDARIES IN A R-30 ZONE FOR AFFORDABLE DWELLING UNIT DEVELOPMENTS. THESE MINIMUMS REQUIREMENTS ARE LISTED IN THE TABLE BELOW

YARD		ANGLE	DISTANCE
FRONT	=	20 DEGREES	NOT LESS THAN 15'
SIDE	=	15 DEGREES	NOT LESS THAN 10'
REAR	=	15 DEGREES	NOT LESS THAN 15'

LANDBAY B (AT SOUTHWEST CORNER)

NOTE:
THERE IS NO ANGLE OF BULK PLANE REQUIREMENT SPECIFIED FOR THE PDH DISTRICT, THIS GRAPHIC DEPICTION OF THE R-30 DISTRICT REQUIREMENTS IS FOR REFERENCE ONLY IN CONSIDERATION OF THE DESIGN STANDARD SET FORTH IN PAR. 1 OF SECTION 16-102 OF THE ZONING ORDINANCE. ACTUAL BUILDING HEIGHTS AND YARDS ARE AS SHOWN ON THE CDP/FDP.

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 6 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

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COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
9/6/2011
LANDSCAPE ARCHITECT

Fairfax Ridge Land Bays A & B
CDP/FDP
TCR Mid Atlantic Properties, Inc.; Providence Magisterial District, Fairfax County, Virginia

GENERAL NOTES / SOILS MAP / BULK PLANE DIAGRAM

MAY 25, 2010
AUGUST 16, 2010
SEPTEMBER 13, 2010
NOVEMBER 29, 2010
JANUARY 7, 2011
MARCH 18, 2011
AUGUST 26, 2011

REVISIONS:
6-27-05
JUNE 5, 2006
JULY 12, 2006
JULY 20, 2006
AUGUST 31, 2006
NOVEMBER 27, 2006
DECEMBER 21, 2006
JANUARY 22, 2007
MAY 22, 2007
FEBRUARY 19, 2010

DATE: 4/4/05
DESIGNED BY: KT
DRAWN BY: CA
CHECKED BY:
Q.C. BY:
SCALE: AS SHOWN
PROJECT #: 2005007

SHEET NUMBER:
3

Aug 25, 2011 – 3:36pm
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2010005–FFX Ridge.dwg

Table 12.19 Tree Selection and Canopy Cover					
Deciduous Trees					
Category	**Botanical Name**	**Qty.**	**Size**	**10-year Tree Canopy Area**	**Tree Canopy Sub-total**
I	*Ginkgo biloba* (male only)	12	1" ca.	40	480 sf
II	*Cornus kousa*	16	1" cal.	75	1,200 sf
III	*Betula nigra*	5	2" cal.	150	750 sf
IV	*Ginkgo biloba* (male only)	6	2" cal.	200	1,200
IV	*Acer rubrum*	25	3" cal.	250	6,250 sf
					9,880 sf
Evergreen Trees					
Category	**Botanical Name**	**Qty.**	**Size**	**10-year Tree Canopy Area**	**Tree Canopy Sub-total**
I	*Ilex x attenuata 'Fosteri'*	40	6'-8' ht.	40	1,600 sf
IV	*Magnolia grandiflora*	12	8'-10' ht	200	2,400 sf
					4,000 sf
	Total 10-Year Tree Canopy Provided by Planting				13,880 sf

*Note: The above plant list is preliminary and not inclusive of all species that may be specified. Final plant selection will be made at site plan submission and shall meet required 10-year tree canopy area per category.

TREE PRESERVATION AREA

TREE PRESERVATION AREA WITHIN 100 YEAR FLOODPLAIN

EXISTING TREE TO REMAIN

TREE PROVIDING SHADE TO PARKING L

PARKING LOT AREAS TO BE COUNTED

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 7 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011 w/ SEA conditions 9-22-2011

LANDBAY A

Table 12.10 10-Year Tree Canopy Calculation Worksheet			
Step		**Totals**	**Reference**
A. Tree Preservation Target Calculations and Statement			
A	Pre-development area of existing tree canopy (from exisiting vegetation map)(SF) =	264,017	see § 12-0507.2
B	Percentage of gross site area covered by existing tree canopy =	30.6%	
C	Percentage of 10-year tree canopy required for site =	10.0%	see Table 12.4
D	Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	30.6%	
E	Proposed percentage of canopy requirement that will be met through tree preservation =	353.3%	
F	Has the Tree Preservation Target minimum been met?	Yes	Provide Yes or No
G	If No for line A 6, then a request to deviate from the Tree Preservation Target shall be provided on the plan that states one or more of the justifications listed in § 12-0507.3 along with a narrative that provides a site-specific explanation of why the T	–	Provide sheet number, see § 12-0507.3
H	If step A 7 requires a narrative, it shall be prepared in accordance with § 12-0507.4	–	see § 12-0507.4
B. Tree Canopy Requirement			
B1	Identify gross site area (SF) =	863,495	§ 12-0510.1A
B2	Subtract area dedicated to parks, road frontage(SF) =	0	§ 12-0510.1B
B3	Subtract area of exemptions(SF) =	0	§ 12-0510.1C(1) through § 12-0510.1C(6)
B4	Adjusted gross site area (B1-B2,B3)(SF) =	863,495	Square feet
B5	Identify the site's zoning and/or use	PHD-30	
B6	Percentage of 10-year tree canopy required =	10.0%	§ 12-0509.1 and Table 12.4
B7	Area of 10-year Tree Canopy Required (B4 x B6)(SF) =	86,350	Square feet
B8	Modification of 10-year Tree Canopy Requirements requested?	No	Yes or No
B9	If B8 is yes, then list plan sheet where modification request is located		Sheet number
C. Tree Preservation			
C 1	Tree Preservation Target Area(SF) =	26,402	Square Feet
C 2	Total canopy area meeting standards of § 12-0400 (SF) =	264,017	Square Feet
C 3	C 2 x 1.25(SF) =	253,365	*Does not include Existing Landscape Plantings in Area "C" of the EVM* §12-0509.3B
C 4	Total canopy area provided by unique or valuable forest or woodland communities(SF) =	0	Square Feet
C 5	C 4 x 1.5(SF) =	0	§ 12-0509.3B(1)
C 6	total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees (SF) =	0	Square Feet
C 7	C 6 x 1.5 to 3.0 (SF)=	0	§ 12-0509.3B(2)
C 8	Canopy area of trees within resource Protection Areas and 100-year floodplains (SF) =	51,665	Square Feet
C 9	C 8 x 1.0 (SF) =	51,665	§ 12-0509.3C(1)
C 10	Total of C 3, C 5, C 7 and C 9 =	305,030	If area of C 10 is es than B 7 remainder of requirement must be met through tree planting - go to D
D. Tree Planting			
D 1	Area of canopy to be met through tree planting (B 7-C10) =	-218,681	Square feet
D 2	Area of canopy planted for air quality benefits =	0	Square feet
D 3	D 2 x 1.5 (SF) =	0	§ 12-0509.4B(1)
D 4	Area of canopy planted for energy conservation =	0	Square feet
D 5	D 4 x 1.5 (SF) =	0	§ 12-0509.4B(2)
D 6	Area of canopy planted for water uality benefits =	0	Square feet
D 7	D 6 x 1.25 (SF) =	0	§ 12-0509.4B(3)
D 8	Area of canopy planted for wildlife benefits =	0	Square feet
D 9	D 8 x 1.5 (SF) =	0	§ 12-0509.4B(4)
D 10	Area of canopy provided by native trees =	0	Square feet
D 11	D 10 x 1.5 (SF) =	0	§ 12-0509.4B(5)
D 12	Area of canopy provided by improved cultivars and varieties =	0	Square feet
D 13	D 12 x 1.25 (SF) =	0	§ 12-0509.4B(6)
D 14	Area of canopy provided through tree seedlings (SF) =	0	§ 12-0509.4D(1)(a)
D 15	D 14 x 1.0 =	0	Square feet
D 16	Percentage of D 14 represented by D 15 =	0	Must not exceed 33% of D 14
D 17	Area of canopy to be planted with no benefit credits =	0	Square feet
D 18	Total of canopy area provided through tree planting =	0	Square feet
D 19	Is an offsite planting relief requested?	No	Yes or No
D 20	Tree Bank or Tree Fund?	No	Yes or No § 12-0511
D 21	Canopy area requested to be provided through offsite banking or tree fund =	No	Square feet
D 22	Amount to be deposited into the Tree Preservation and Planting Fund =	No	
E. Total of 10-year Tree Canopy Provided			
E 1	Total of canopy area provided through tree preservation (C 10) =	305,030	Square feet
E 2	Total of canopy area provided through tree planting (D 18) =	0	Square feet
E 3	Total of canopy area provided through offsite mechanism (D 21) =	0	Square feet
E 4	Total of 10-year Tree Canopy Provided (SF)=	305,030	Total of E 1 through E 3, area should meet or exceed area in B 7

LAND BAY B

Table 12.12 10-Year Tree Canopy Calculation Worksheet			
Step		**Totals**	**Reference**
A. Tree Preservation Target Calculations and Statement			
A	Pre-development area of existing tree canopy (from exisiting vegetation map)(SF) =	37,720	see § 12-0507.2
B	Percentage of gross site area covered by existing tree canopy =	27.2%	
C	Percentage of 10-year tree canopy required for site =	10.0%	see Table 12.4
D	Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	27.2%	
E	Proposed percentage of canopy requirement that will be met through tree preservation =	116.7%	
F	Has the Tree Preservation Target minimum been met?	Yes	Provide Yes or No
G	If No for line A 6, then a request to deviate from the Tree Preservation Target shall be provided on the plan that states one or more of the justifications listed in § 12-0507.3 along with a narrative that provides a site-specific explanation of why the T	–	Provide sheet number, see § 12-0507.3
H	If step A 7 requires a narrative, it shall be prepared in accordance with § 12-0507.4	–	see § 12-0507.4
B. Tree Canopy Requirement			
B1	Identify gross site area (SF) =	138,931	§ 12-0510.1A
B2	Subtract area dedicated to parks, road frontage(SF) =	42,354	§ 12-0510.1B
B3	Subtract area of exemptions(SF) =	0	§ 12-0510.1C(1) through § 12-0510.1C(6)
B4	Adjusted gross site area (B1-B2,B3)(SF) =	96,577	Square feet
B5	Identify the site's zoning and/or use	PHD-30	
B6	Percentage of 10-year tree canopy required =	10.0%	§ 12-0509.1 and Table 12.4
B7	Area of 10-year Tree Canopy Required (B4 x B6)(SF) =	9,658	Square feet
B8	Modification of 10-year Tree Canopy Requirements requested?	No	Yes or No
B9	If B8 is yes, then list plan sheet where modification request is located		Sheet number
C. Tree Preservation			
C 1	Tree Preservation Target Area(SF) =	2,622	Square Feet
C 2	Total canopy area meeting standards of § 12-0400 (SF) =	9,020	Square Feet
C 3	C 2 x 1.25(SF) =	11,275	§ 12-0509.3B
C 4	Total canopy area provided by unique or valuable forest or woodland communities(SF) =	0	Square Feet
C 5	C 4 x 1.5(SF) =	0	§ 12-0509.3B(1)
C 6	total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees (SF) =	0	Square Feet
C 7	C 6 x 1.5 to 3.0 (SF)=	0	§ 12-0509.3B(2)
C 8	Canopy area of trees within resource Protection Areas and 100-year floodplains (SF) =	0	Square Feet
C 9	C 8 x 1.0 (SF) =	0	§ 12-0509.3C(1)
C 10	Total of C 3, C 5, C 7 and C 9 =	11,275	If area of C 10 is es than B 7 remainder of requirement must be met through tree planting - go to D
D. Tree Planting			
D 1	Area of canopy to be met through tree planting (B 7-C10) =	-1,617	Square feet
D 2	Area of canopy planted for air quality benefits =		Square feet
D 3	D 2 x 1.5 (SF) =	0	§ 12-0509.4B(1)
D 4	Area of canopy planted for energy conservation =		Square feet
D 5	D 4 x 1.5 (SF) =	0	§ 12-0509.4B(2)
D 6	Area of canopy planted for water uality benefits =		Square feet
D 7	D 6 x 1.25 (SF) =	0	§ 12-0509.4B(3)
D 8	Area of canopy planted for wildlife benefits =		Square feet
D 9	D 8 x 1.5 (SF) =	0	§ 12-0509.4B(4)
D 10	Area of canopy provided by native trees =		Square feet
D 11	D 10 x 1.5 (SF) =	0	§ 12-0509.4B(5)
D 12	Area of canopy provided by improved cultivars and varieties =		Square feet
D 13	D 12 x 1.25 (SF) =	0	§ 12-0509.4B(6)
D 14	Area of canopy provided through tree seedlings (SF) =		§ 12-0509.4D(1)(a)
D 15	D 14 x 1.0 =	0	Square feet
D 16	Percentage of D 14 represented by D 15 =	0	Must not exceed 33% of D 14
D 17	Area of canopy to be planted with no benefit credits =	13,880	Square feet
D 18	Total of canopy area provided through tree planting =	13,880	Square feet
D 19	Is an offsite planting relief requested?	No	Yes or No
D 20	Tree Bank or Tree Fund?	No	Yes or No § 12-0511
D 21	Canopy area requested to be provided through offsite banking or tree fund =	No	Square feet
D 22	Amount to be deposited into the Tree Preservation and Planting Fund =	No	
E. Total of 10-year Tree Canopy Provided			
E 1	Total of canopy area provided through tree preservation (C 10) =	11,275	Square feet
E 2	Total of canopy area provided through tree planting (D 18) =	13,880	Square feet
E 3	Total of canopy area provided through offsite mechanism (D 21) =	0	Square feet
E 4	Total of 10-year Tree Canopy Provided (SF)=	25,155	Total of E 1 through E 3, area should meet or exceed area in B 7

Table 12.13 Interior Parking Lot Landscaping Calculations		
		Remarks
Area to be counted (SF) =	34,238	square feet
Interior Landscaping Required (5%) =	1,712	square feet
Total Shade tree Canopy Provided		
(6 trees @ 200 ft²) ea.) =	1,200	Not counting benefit credits
(8 trees @ 250 ft²) ea.) =	2,000	Not counting benefit credits
Total Area Required (SF) =	1,712	5%
Total Area Provided (SF)=	3,200	9%

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Fairfax Ridge Land Bays A & B
CDP/FDP
TCR Mid Atlantic Properties, Inc., Providence Magisterial District, Fairfax County, Virginia

Landscape Plan

REVISIONS:
6-27-05
JUNE 5, 2006
JULY 12, 2006
JULY 20, 2006
AUGUST 31, 2006
NOVEMBER 27, 2006
DECEMBER 21, 2006
JANUARY 22, 2007
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FEBRUARY 26, 2007
MARCH 13, 2007
MAY 22, 2007
FEBRUARY 19, 2010
MAY 25, 2010
AUGUST 16, 2010
SEPTEMBER 13, 2010
NOVEMBER 29, 2010
JANUARY 7, 2011
MARCH 18, 2011
MARCH 25, 2011
MAY 5, 2011
AUGUST 26, 2011
SEPTEMBER 6, 2011

DATE: 4/4/05
DESIGNED BY: KT
DRAWN BY: CA
CHECKED BY:
Q.C. BY:
SCALE: AS SHOWN
PROJECT #: 2005007

SHEET NUMBER:
4

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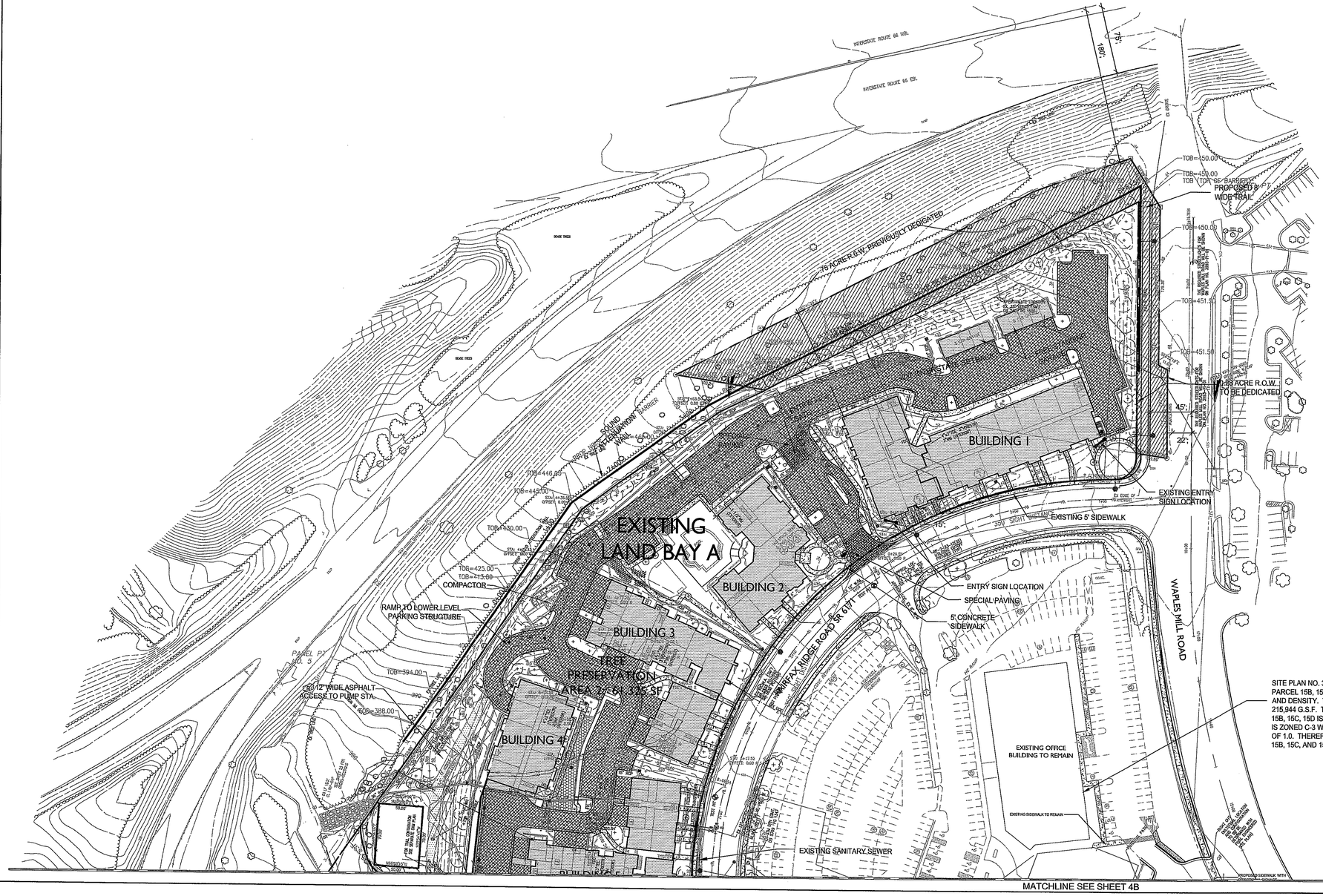
2010005–FFX Ridge.dwg



MATCHLINE SEE SHEET 4B

LEGEND

- DECIDUOUS TREE
- DECIDUOUS TREE
- DECIDUOUS TREE
- EVERGREEN TREE
- TREE PRESERVATION AREA
- TREE PRESERVATION AREA WITHIN 100 YEAR FLOODPLAIN
- EXISTING TREE TO REMAIN
- (P) TREE PROVIDING SHADE TO PARKING LOT

PARKING LOT AREAS TO BE COUNTED

NOTE: THIS SHEET IS FOR LAND BAY A ONLY AND IS ALREADY CONSTRUCTED. NO CHANGES ARE PROPOSED.

NOTES:
1. FOR TABULATIONS SEE SHEET 2
2. FOR PLAN NOTES SEE SHEET 3
3. FOR PLANTING CALCULATIONS SHEE SHEET 4

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 3 of 29
FDP approved by PC 10-20-2011 no conditions
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Fairfax Ridge Land Bay A
CDP/FDP
TCR Mid Atlantic Properties, Inc.; Providence Magisterial District, Fairfax County, Virginia

Landscape Plan Enlargement

REVISIONS:
4.27.05
JUNE 5, 2006
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JULY 20, 2006
AUGUST 17, 2006
NOVEMBER 27, 2006
DECEMBER 21, 2006
JANUARY 22, 2007
MARCH 2, 2007
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SEPTEMBER 13, 2010
NOVEMBER 29, 2010
JULY 7, 2011
MAY 6, 2011
AUGUST 26, 2011

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CHECKED BY:
QC BY:
SCALE: AS SHOWN
PROJECT #: 2005007

SHEET NUMBER:
4A

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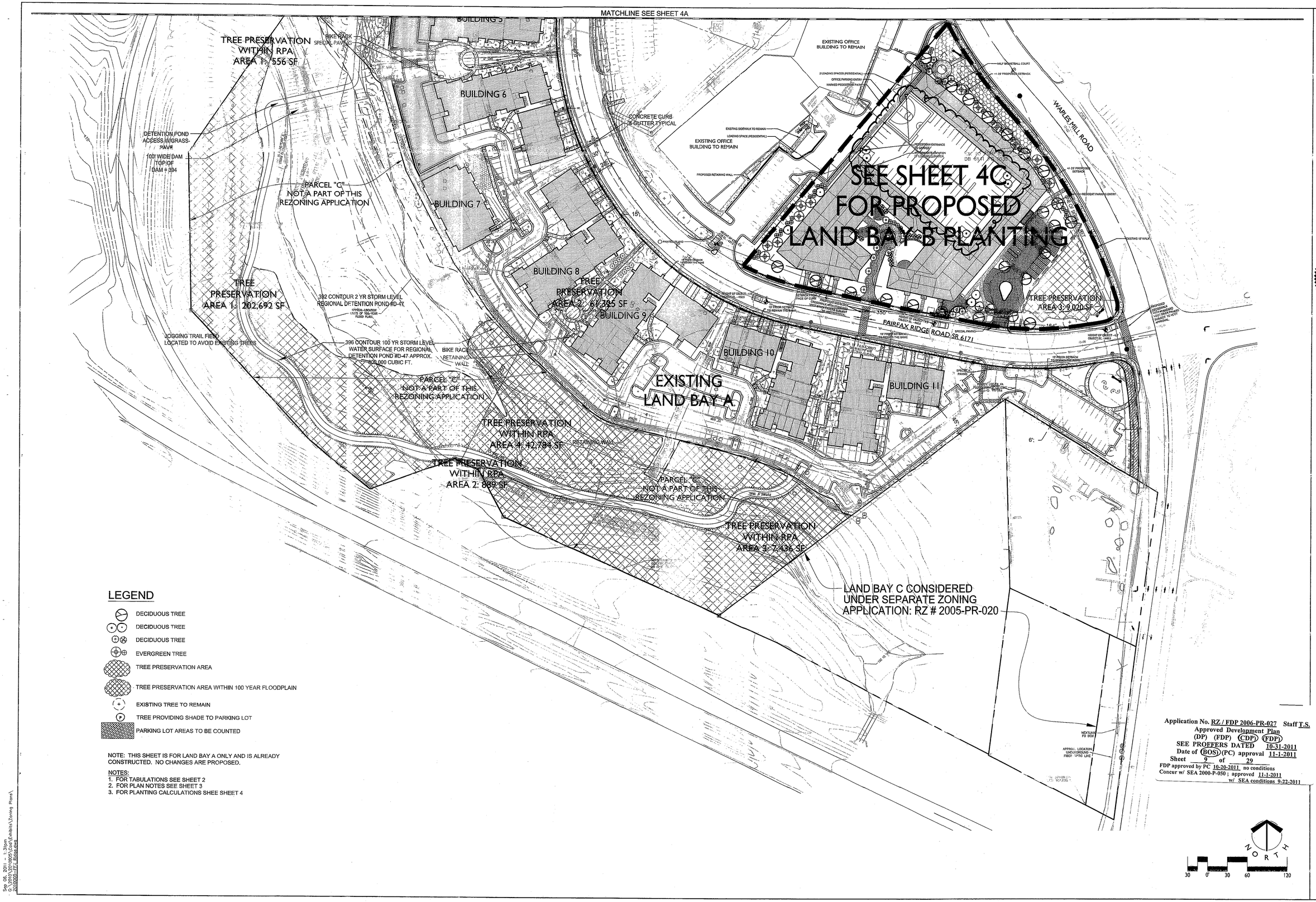

LEGEND

- DECIDUOUS TREE
- DECIDUOUS TREE
- DECIDUOUS TREE
- EVERGREEN TREE
- TREE PRESERVATION AREA
- TREE PRESERVATION AREA WITHIN 100 YEAR FLOODPLAIN
- EXISTING TREE TO REMAIN
- TREE PROVIDING SHADE TO PARKING LOT
- PARKING LOT AREAS TO BE COUNTED

NOTE: THIS SHEET IS FOR LAND BAY A ONLY AND IS ALREADY CONSTRUCTED. NO CHANGES ARE PROPOSED.

NOTES:
1. FOR TABULATIONS SEE SHEET 2
2. FOR PLAN NOTES SEE SHEET 3
3. FOR PLANTING CALCULATIONS SHEE SHEET 4

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4B

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RY SEWER

EXISTING OFFICE BUILDING TO REMAIN

25.92'

PROPOSED SIDEWALK WITH DIRECTIONAL SIGNAGE

HALF BASKETBALL COURT

+/- 25' PROPOSED SETBACK

2 LOADING SPACES (RESIDENTIAL)

OFFICE PARKING ENTRY

MARKED PEDESTRIAN PATH

25' PROPOSED SETBACK

EXISTING SIDEWALK TO REMAIN

LOADING SPACE (RESIDENTIAL)

EXISTING OFFICE BUILDING TO REMAIN

PROP DUMPSTER PAD

PROPOSED RETAINING WALL

PEDESTRIAN ENTRANCE TO GARAGE

APPROXIMATE LOCATION OF LOADING ELEVATOR

WAPLES MILL ROAD

+/- 25' PROPOSED SETBACK

RESIDENT PARKING ENTRY

LINE OF SIGHT 415 FEET

EXISTING 10' WALK

15' PRIOR SETBACK TO REMAIN THE SAME

30' PROPOSED SETBACK FROM FACE OF CURB

PROPOSED MID-BLOCK CROSSWALK WITH STANDARD VDOT BRICK PAVERS SUBJECT TO VDOTAPPROVAL

15' PRIOR SETBACK TO REMAIN THE SAME

350'

FAIRFAX RIDGE ROAD SR 6171

SPECIAL PAVING

15' PRIOR SETBACK TO REMAIN THE SAME

TREE PRESERVATION AREA 3: 9,020 SF

164'

PROPOSED CROSSWALK WITH STANDARD VDOT BRICK PAVERS SUBJECT TO VDOT APPROVAL.

18+00

15' PRIOR SETBACK TO REMAIN THE SAME

SPECIAL PAVING

BUILDING II

ENTRY GATES

15 0' 15 30 60

NORTH

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
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SEE PROFFERS DATED 10-31-2011
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Sheet 10 of 29
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Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

LEGEND

- DECIDUOUS TREE
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- DECIDUOUS TREE
- EVERGREEN TREE
- TREE PRESERVATION AREA
- TREE PRESERVATION AREA WITHIN 100 YEAR FLOODPLAIN
- EXISTING TREE TO REMAIN
- TREE PROVIDING SHADE TO PARKING LOT
- PARKING LOT AREAS TO BE COUNTED

TREES
FOR EXISTING TREES TO REMAIN SEE THE PROFFERS
FOR ADDITIONAL INFORMATION. PURSUANT TO THESE PROFFERS, A CERTIFIED ARBORIST SHALL REVIEW THE TREES. TREES THAT ARE DEAD OR DYING MAY BE REMOVED IN ACCORDANCE WITH THESE PROFFERS.

NOTES:
1. FOR TABULATIONS SEE SHEET 2
2. FOR PLAN NOTES SEE SHEET 3
3. FOR PLANTING CALCULATIONS SEE SHEET 4
4. ALL IMPROVEMENTS, MATERIALS AND LANDSCAPING SHOWN WITHIN VDOT R.O.W. ARE SUBJECT TO VDOT APPROVAL.

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REVISIONS:
NOVEMBER 27, 2006 SEPTEMBER 13, 2010
DECEMBER 15, 2006 NOVEMBER 29, 2010
JANUARY 22, 2007 JANUARY 7, 2011
FEBRUARY 2, 2007 AUGUST 26, 2011
FEBRUARY 15, 2007 SEPTEMBER 6, 2011
MARCH 13, 2007
MAY 22, 2007
FEBRUARY 19, 2010
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AUGUST 16, 2010

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PROJECT #: 2005007

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4C

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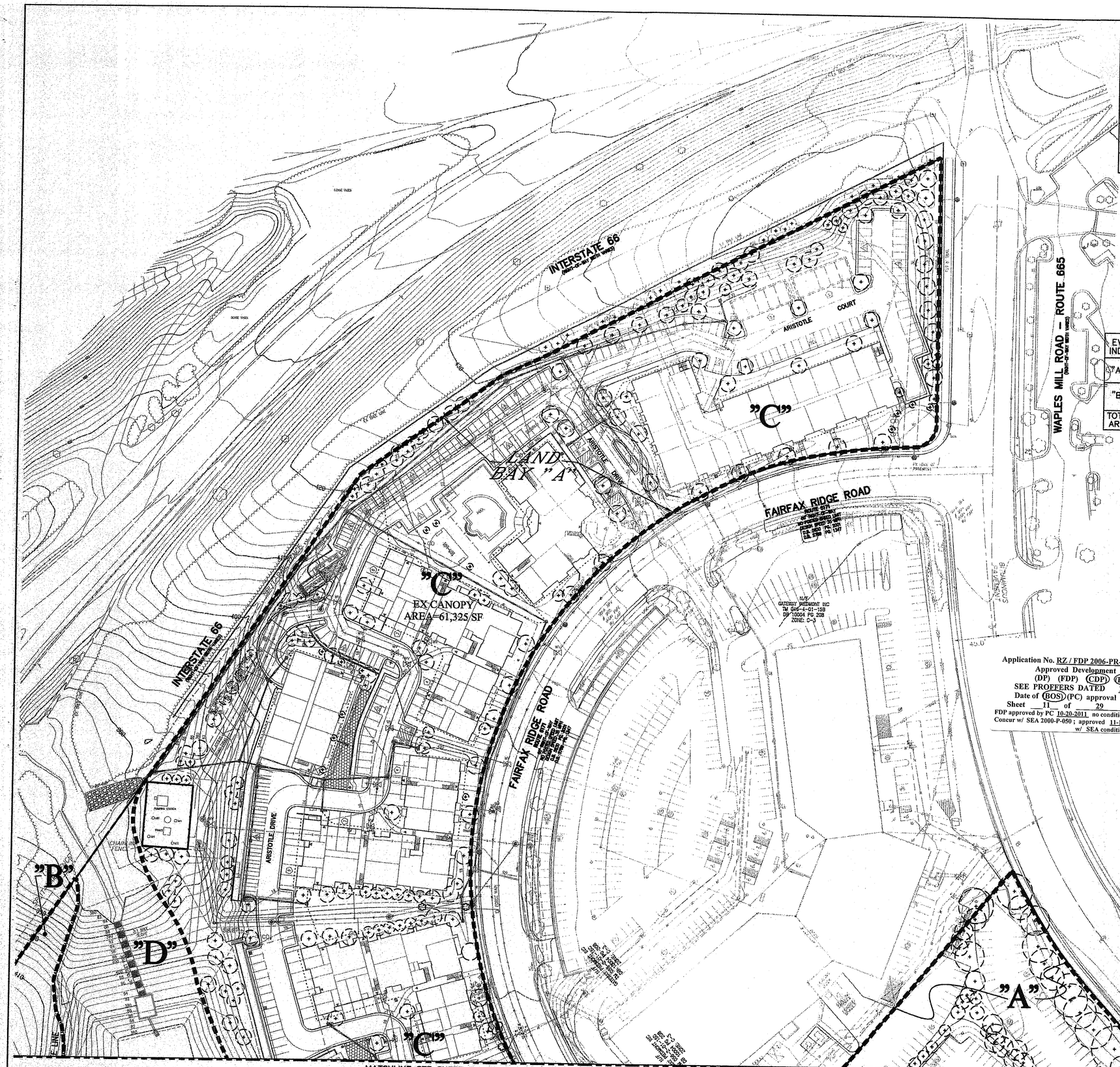

EXISTING VEGETATION COVER TYPES – LAND BAY "A"

EVM INDEX	COVER TYPE	SUCCESSIONAL STAGE	AREA	COVER CONDITION	PRIMARY SPECIES	COMMENTS
"B"	UPLAND FOREST	LONG-TERM SUB-CLIMAX	200,911 SF (4.6123 AC)	GOOD	SEE COVER TYPE TABLE	SEMI-MATURE WOOD STAND BORDERED BY PUBLIC ROW AND DEVELOPED AREA.
"C"	DEVELOPED/ MAINTAINED	EARLY SUCCESSIONAL	556,704 SF (12.7801 AC)	GOOD	SEE COVER TYPE TABLE	DEVELOPED MULTI-FAMILY COMMUNITY WITH LAWN & LANDSCAPED OPEN SPACE AREAS.
"D"	EXISTING SWM FACILITY/ MAINTAINED	N/A	105,880 SF (2.4307 AC)	GOOD	SEE COVER TYPE TABLE	FAIRFAX COUNTY REGIONAL SWM POND No. D-47, MAINTAINED FACILITY.
TOTAL AREA	–	–	863,495 SF (19.8231 AC)	–	–	–

LB-"A" VEGETATION PRIMARY SPECIES

"B" PRIMARY SPECIES
Acer – Maple
Fraxinus – Ash
Platanus – London Plane
Prunus – Cherry
Quercus – Oak
Ulmus – Elm

"C" PRIMARY SPECIES
Acer – Maple
Azalea – Hybrids
Betula – Birch
Cornus– Dogwood
Cupressocyparis – L. Cypress
Gleditsia – Locust
Ilex – Holly
Magnolia – Star/Southern Magnolia
Picea – Spruce
Pinus – Pine
Platanus – London Plane
Prunus – Cherry
Quercus – Oak
Tilia – Linden

"D" PRIMARY SPECIES
Tall grass species maintained within a SWM pond and surrounding the existing stormwater management facility.

EXISTING VEGETATION COVER TYPES – LAND BAY "B"

EVM INDEX	COVER TYPE	SUCCESSIONAL STAGE	AREA	COVER CONDITION	PRIMARY SPECIES	COMMENTS
"A"	DEVELOPED PARKING AREA WITH INTERIOR AND PERIPHERAL LANDSCAPING	N/A	126,662 SF (2.9077 AC)	GOOD	SEE COVER TYPE TABLE	DEVELOPED PARKING LOT WITH LANDSCAPING AND MAINTAINED LAWN AREA.
"B"	UPLAND FOREST	LONG-TERM SUB-CLIMAX	12,269 SF (0.2816 AC)	GOOD	SEE COVER TYPE TABLE	SEMI-MATURE WOOD STAND BORDERED BY PUBLIC ROW AND LAWN/PARKING AREA.
TOTAL AREA	–	–	138,931 SF (3.1894 AC)	–	–	–

LB-"B" VEGETATION PRIMARY SPECIES

"A" PRIMARY SPECIES
Acer rubrum – Red Maple
Fraxinus americana–White Ash
Picea glauca – White Spruce
Pinus strobus – Eastern White Pine
Pyrus calleryana – Callery Pear
Quercus palustris –Pin Oak
Zelkova serrata – Japanese Zelkova

"B" PRIMARY SPECIES
Acer rubrum – Red Maple
Carya glabra – Pignut Hickory
Nyssa sylvatica – Black Gum
Pinus virginiana – Virginia Pine
Pyrus calleryana – Callery Pear
Quercus phellos – Willow Oak
Quercus rubra – Red Oak
Quercus alba – White Oak

LB-A EVM NARRATIVE

COVER AREA-B: THIS IS AN EXISTING UPLAND FOREST. THERE ARE VARIOUS LEVELS OF VEGETATION MATURITY WITH A TRUNK CAUPER FROM 6" TO 34". THIS AREA HAS A MIX OF DECIDUOUS HARDWOOD TO CONIFEROUS PINE. THE CONDITION OF THIS VEGETATION IS OF GOOD VIGOR, VITALITY AND HEALTH.
COVER AREA-C: THIS AREA IS CLASSIFIED AS DEVELOPED MULIT-RESIDENTIAL BUILDINGS WITH IMPERVIOUS PARKING LOT AREA AND MAINTAINED LANDSCAPED AREAS. THE LANDSCAPED AREAS CONSIST OF MAINTAINED LAWN AREA, DECIDUOUS AND CONIFEROUS TREES, ORNIMENTAL TREES AND FOUNDATION PLANTINGS. THE CONDITION OF THIS VEGETATION IS GENERALLY OF GOOD VIGOR, VITALITY AND HEALTH.
COVER AREA-D: THIS AREA IS AN EXISTING REGIONAL STORMWATER MANAGEMENT FACILITY AND IS PLANTED WITH LOW MAINTENANCE GRASS PLANT MATERIAL. A PORTION OF THIS AREA WAS PREVIOUSLY WOODED, THEN CLEARED AND SEEDED FOR STABILIZATION. THE VEGETATION IN AREA "D" IS OF GOOD HEALTH.

LB-B EVM NARRATIVE

COVER AREA-A: COVER TYPE-A ACCOUNTS FOR APPROXIMATELY 85% OF LAND BAY-B. COVER AREA-A HAS BEEN DEVELOPED AS AN ASPHALT PARKING LOT WHICH HAS PERIPHERAL AND INTERIOR PARKING LOT LANDSCAPING.THE PARKING LOT PLANT MATERIAL THIS HAS BEEN WELL MAINTAINED AND HAS AN AGE CLASS OF SEMI-MATURE TO MATURE. PORTIONS OF THE PLANT MATERIAL ALONG WAPLE'S MILL ROAD SHOW "HARD" UTILITY PRUNE WHERE SOME EXISTING CANOPIES HAVE BEEN TOPPED. THIS REGULAR UTILITY PRUNING ROUTINE HAS KEPT THE CANOPIES CLEAR OF EXISTING OVERHEAD WIRES BUT HAS COMPROMISED THE SYMMETRY AND FORM OF THESE PEARS AND WHITE PINES. THE REMAINDER OF THE SUBJECT SITE IS AN EXISTING UPLAND FOREST WOOD STAND THAT APPEARS TO HAVE BEEN PRESERVED AT THE TIME WHEN LAND BAY-B WAS INITIALLY DEVELOPED.
COVER AREA-B: THE TREES WITHIN THIS AREA ARE AT AN EARLY SUCCESSIONAL TO SUB-CLIMAX DYNAMIC STAGE CATEGORY. THERE ARE MATURE UPLAND HARDWOOD TREES WITHIN COVER AREA-B. THE PRIMARY SPECIES IDENTIFIED ARE OUTLINED ABOVE. COVER AREA-B VEGETATION OVERALL SHOWS GOOD VIGOR, VITALITY AND GENERALLY GOOD HEALTH.
THIS CDP/FDP CALLS FOR REDEVELOPMENT OF LAND BAY-B WHERE THE PARKING AREA AND ASSOCIATED LANDSCAPING WILL BE REMOVED (COVER AREA-A). THE INTENT IS TO PRESERVE COVER AREA-B WITH THIS REDEVELOPMENT.

Application No. RZ / FDP 2006-PR-027 Staff T.S.
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(DP) (FDP) (CDP) (FDP)
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Sheet 11 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

PLAN PREPARED BY: NELSON P. KIRCHNER, CLA
CERTIFIED ARBORIST NO. MA-4720A
SIGNATURE _____ DATE 5/5/11

VA. STATE GRID NORTH

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

NO.	DESCRIPTION	REVIEW BY	APPROVED	DATE

REVISION APPROVED BY:
DIVISION OF DESIGN REVIEW

VIKA
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GPS SERVICES
VIKA INCORPORATED
8180 GREENSBORO DRIVE ■ SUITE 200 ■ MCLEAN, VIRGINIA 22102
(703) 442-7800 ■ FAX (703) 761-2787
MCLEAN, VA GERMANTOWN, MD

ALEXAN AT FAIRFAX RIDGE PHASE II

PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA

EXISTING VEGATATION MAP

VIKA REVISIONS
REVISIONS 6/20/05
REVISE PROPERTY
LABELS 7-7-2006
EVM RESUBMISSION
05/21/2010
FFX CO UFMD CMMT'S
10/15/2010
REVISED PER PARCEL "C" DEDICATION
03/18/2011
UFMD CMMT'S 5/5/11

DATE: FEB 2005
DES. NPK DWN. NPK
SCALE: 1"=50'
PROJECT/FILE NO. 6301
SHEET NO. 5

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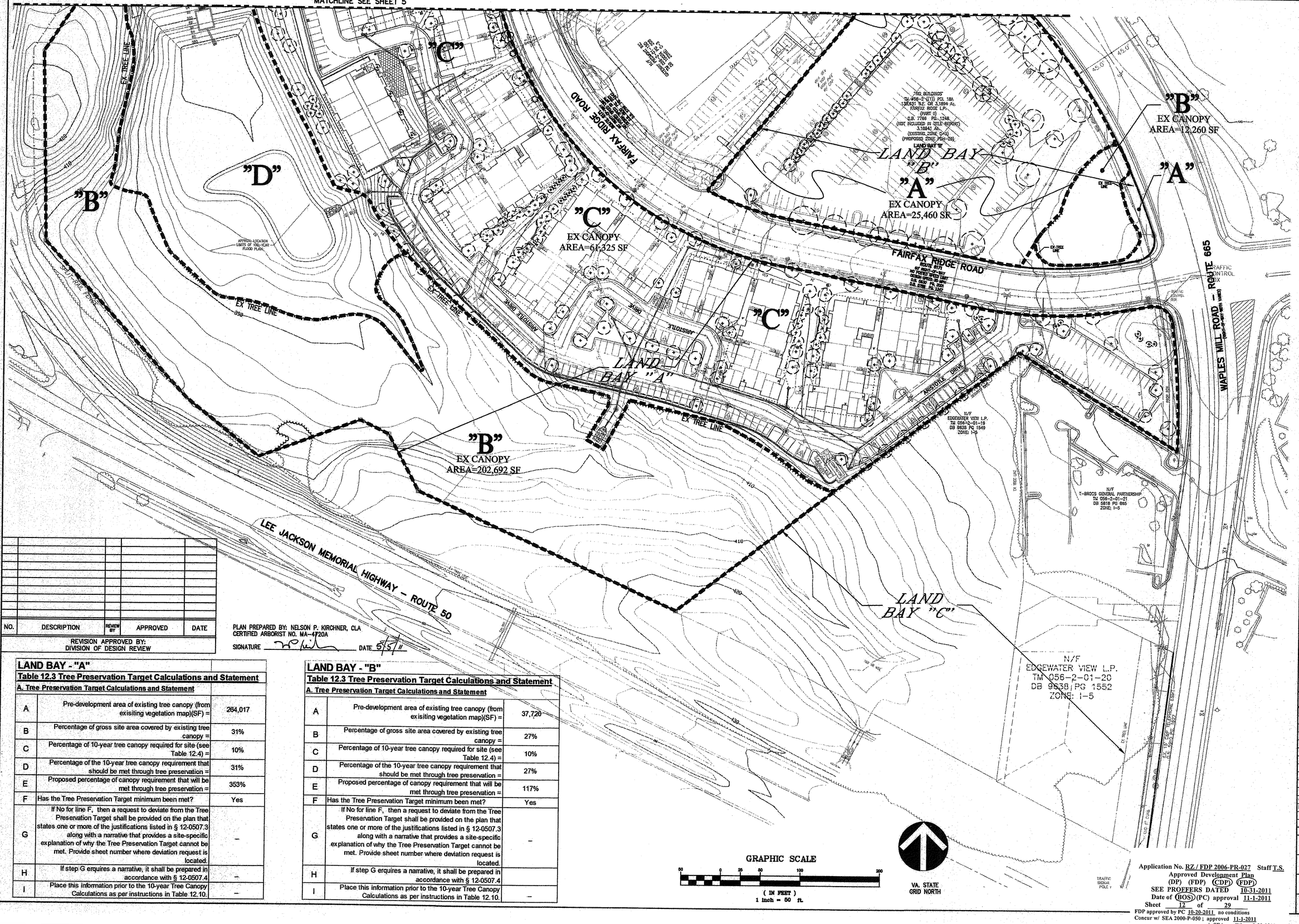
MATCHLINE SEE SHEET 5



NO.	DESCRIPTION	REVIEW BY	APPROVED	DATE

REVISION APPROVED BY:
DIVISION OF DESIGN REVIEW

PLAN PREPARED BY: NELSON P. KIRCHNER, CLA
CERTIFIED ARBORIST NO. MA-4720A
SIGNATURE _____ DATE 5/5/11

LAND BAY - "A"

Table 12.3 Tree Preservation Target Calculations and Statement

A. Tree Preservation Target Calculations and Statement

A	Pre-development area of existing tree canopy (from exisiting vegetation map)(SF) =	264,017
B	Percentage of gross site area covered by existing tree canopy =	31%
C	Percentage of 10-year tree canopy required for site (see Table 12.4) =	10%
D	Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	31%
E	Proposed percentage of canopy requirement that will be met through tree preservation =	353%
F	Has the Tree Preservation Target minimum been met?	Yes
G	If No for line F, then a request to deviate from the Tree Preservation Target shall be provided on the plan that states one or more of the justifications listed in § 12-0507.3 along with a narrative that provides a site-specific explanation of why the Tree Preservation Target cannot be met. Provide sheet number where deviation request is located.	–
H	If step G erquires a narrative, it shall be prepared in accordance with § 12-0507.4	–
I	Place this information prior to the 10-year Tree Canopy Calculations as per instructions in Table 12.10.	–

LAND BAY - "B"

Table 12.3 Tree Preservation Target Calculations and Statement

A. Tree Preservation Target Calculations and Statement

A	Pre-development area of existing tree canopy (from exisiting vegetation map)(SF) =	37,720
B	Percentage of gross site area covered by existing tree canopy =	27%
C	Percentage of 10-year tree canopy required for site (see Table 12.4) =	10%
D	Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	27%
E	Proposed percentage of canopy requirement that will be met through tree preservation =	117%
F	Has the Tree Preservation Target minimum been met?	Yes
G	If No for line F, then a request to deviate from the Tree Preservation Target shall be provided on the plan that states one or more of the justifications listed in § 12-0507.3 along with a narrative that provides a site-specific explanation of why the Tree Preservation Target cannot be met. Provide sheet number where deviation request is located.	–
H	If step G erquires a narrative, it shall be prepared in accordance with § 12-0507.4	
I	Place this information prior to the 10-year Tree Canopy Calculations as per instructions in Table 12.10.	–

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ALEXAN AT FAIRFAX RIDGE PHASE II

PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA

EXISTING VEGETATION MAP

VIKA REVISIONS
REVISE PROPERTY
LABELS 7-7-2008
REV EX. TREE LINE 11/01/05
REVISIONS 6/20/05
EVM RESUBMISSION 05/21/2010
FFX CO UFMD CMMT'S 10/15/2010
REVISED PER PARCEL "C" DEDICATION 03/18/2011
UFMD CMMT'S 5/5/11

DATE: FEB 2005
DES. NPK DWN. NPK
SCALE: 1"=50'
PROJECT/FILE NO. 6301
SHEET NO. 5A

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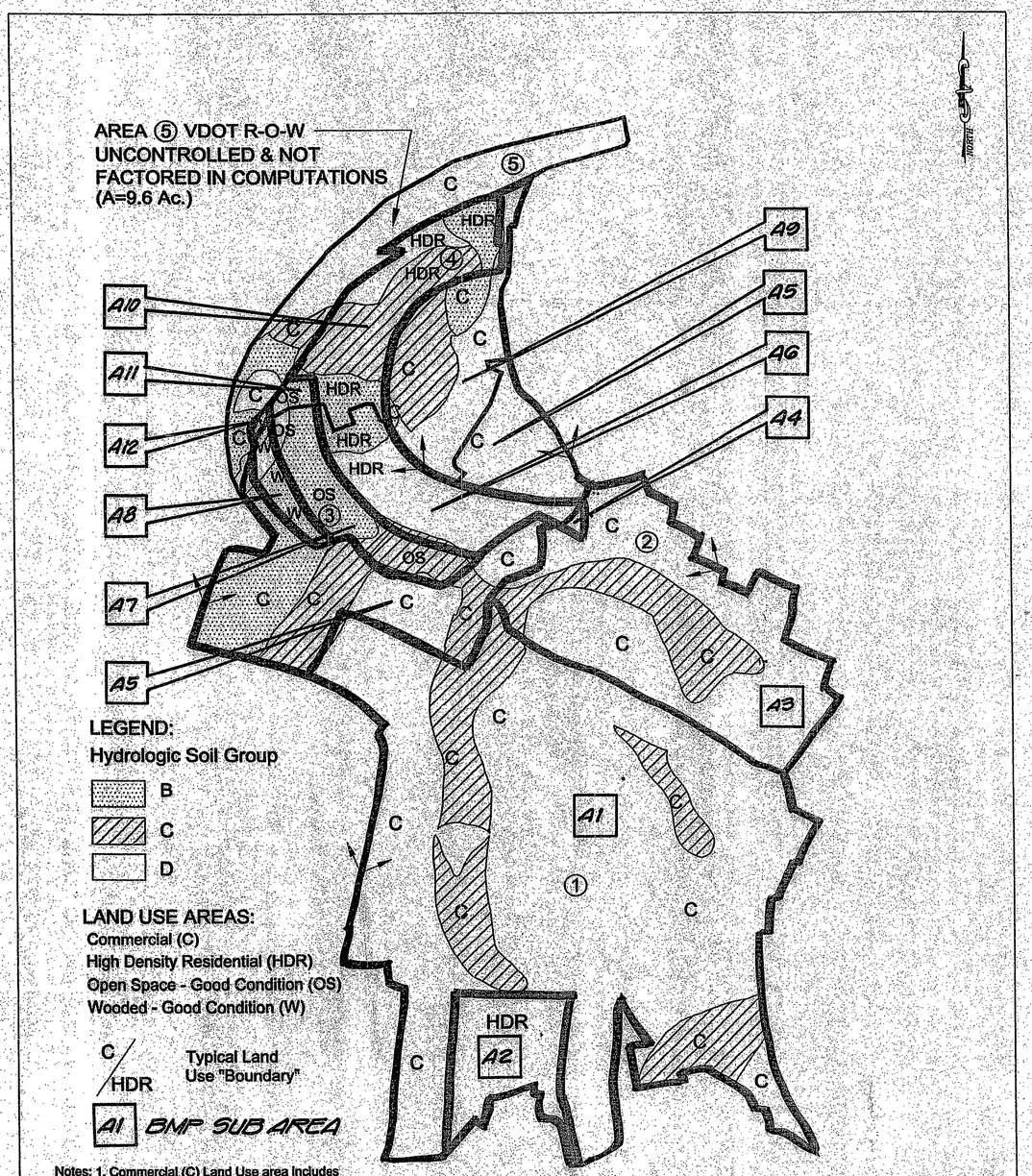


Notes: 1. Commercial (C) Land Use area includes Office / Retail / Hotel / ROW Mix (85% Impervious)
2. Source of Base Data, Exhibit 5: Overall Composite of Fairfax County Digital Data (Land Use, Drainage Area, and Hydrologic Soil Groups, Compiled by WSSI)

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:

Special Permits (8-011 2J & 2L)	Special Exceptions (9-011 2J & 2L)
Cluster Subdivision (9-615 1C & 1N)	Commercial Revitalization Districts (9-622 2A (12) & (14))
Development Plans PRC District (16-302-3 & 4L)	PRC Plan (16-303 1E & 1O)
FDP P Districts (except PRC) (16-502 1F & 1Q)	Amendments (18-202 10F & 10I)

☑ 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').

☑ 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet L-2

☑ 3. Provide:

Facility Name/ Type & No. (e.g. dry pond A, inlet vault, underground vault, etc.)	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
Totals						

* Stormwater management for this project is to occur in regional Pond #47

☑ 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet L-2. Pond inlet and outlet pipe systems are shown on Sheet L-2.

☑ 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet L-2. Type of maintenance access road surface noted on the plat is L-2 (asphalt, geoblock, gravel, etc.).

☑ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet L-2.

☑ 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 6

☑ 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 6 → 6D.

☑ 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 6 → 6D.

☑ 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets L-2 & L-3.

☐ 11. A submission waiver is requested for N/A

☐ 12. Stormwater management is not required because N/A

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 13 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

STORMATER MANAGEMENT NARRATIVE

STORMWATER MANAGEMENT FOR THE SUBJECT PROPERTY IS PROVIDED IN REGIONAL STORMWATER MANAGEMENT POND #47.

ADEQUACY OF OUTFALL NARRATIVE

THE PROPOSED OUTFALL FOR THE SUBJECT SITE IS AN UNNAMED TRIBUTARY OF DIFFICULT RUN. THIS TRIBUTARY IS AN EXISTING STREAM WITH DEFINED BED AND BANKS AND APPEARS TO BE IN SATISFACTORY CONDITION. THIS TRIBUTARY IS LOCATED IMMEDIATELY UPSTREAM OF REGIONAL STORMWATER MANAGEMENT POND NO-47, WHICH PROVIDES BOTH BMP AND STORMWATER MANAGEMENT FOR THE SUBJECT SITE. THE ADEQUACY OF OUTFALL OF THE REGIONAL POND WAS DEMONSTRATED WITH PLAN NO. 3995-SP-006.

COMMONWEALTH OF VIRGINIA
EDMUND J. IGNACIO
No. 026579
12/10/01
PROFESSIONAL ENGINEER

THIS SHEET FOR INFORMATION ONLY

VIKA
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GPS SERVICES
VIKA INCORPORATED
8180 GREENSBORO DRIVE ■ SUITE 200 ■ McLEAN, VIRGINIA 22102
(703)442-7800 ■ FAX (703)761-2787
McLEAN, VA ■ GERMANTOWN, MD

FAIRFAX RIDGE
REGIONAL STORMWATER MANAGEMENT POND #D-47
PROVIDENCE MAGISTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

BMP MAP

VIKA REVISIONS

DATE: DEC., 2001
DES. EJI | DWN. CAD
SCALE: AS SHOWN
PROJECT/FILE NO. 6301
SHEET NO. ~~15~~ 16

TR-20 ROUTINGS (PREDEVELOPED CONDITIONS)

```
****************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY*****************

JOB TR-20                     FULLPRINT          SUMMARY
TITLE     FAIRFAX RIDGE REGIONAL SWM POND - EXISTING CONDITIONS
TITLE     FILE NAME: X:      \DATA \6301 \EXCONDR.DAT
 6 RUNOFF 1 001     1     0.2278      73.5      0.53
   ENDATA
 7 INCREM 6          .10
 7 COMPUT 7 001  01           3.2          1.0       2 2  01  02
   ENDCMP 1
 7 COMPUT 7 001  01           5.2          1.0       2 2  01  10
   ENDCMP 1
 7 COMPUT 7 001  01           7.3          1.0       2 2  01  00
   ENDCMP 1
   ENDJOB 2

******************************END OF 80-80 LIST******************************

EXECUTIVE CONTROL INCREM    MAIN TIME INCREMENT =    .100 HOURS


EXECUTIVE CONTROL COMPUT    FROM XSECTION   1  TO XSECTION   1
   STARTING TIME =    .00      RAIN DEPTH =  3.20       RAIN DURATION =  1.00
   ANT. RUNOFF COND. = 2         MAIN TIME INCREMENT =   .100 HOURS
   ALTERNATE NO. = 1             STORM NO. = 2              RAIN TABLE NO. = 2


OPERATION RUNOFF    XSECTION   1
        OUTPUT HYDROGRAPH =  1       AREA =     .23 SQ MI
        INPUT RUNOFF CURVE = 74.     TIME OF CONCENTRATION =     .53 HOURS
        COMPUTED INTERNAL TIME INCREMENT =  .0707 HOURS

   PEAK TIME(HRS)            PEAK DISCHARGE(CFS)            PEAK ELEVATION(FEET)
     12.23                        111.5                          (RUNOFF)

   RUNOFF ABOVE BASEFLOW  (BASEFLOW =     .00 CFS)
                1.01 WATERSHED INCHES;      148 CFS-HRS;         12.3 ACRE-FEET.


EXECUTIVE CONTROL ENDCMP     COMPUTATIONS COMPLETED FOR PASS   1

EXECUTIVE CONTROL COMPUT    FROM XSECTION   1  TO XSECTION   1
   STARTING TIME =    .00      RAIN DEPTH =  5.20       RAIN DURATION =  1.00
   ANT. RUNOFF COND. = 2         MAIN TIME INCREMENT =   .100 HOURS
   ALTERNATE NO. = 1             STORM NO. =10              RAIN TABLE NO. = 2


OPERATION RUNOFF    XSECTION   1
        OUTPUT HYDROGRAPH =  1       AREA =     .23 SQ MI
        INPUT RUNOFF CURVE = 74.     TIME OF CONCENTRATION =     .53 HOURS
        COMPUTED INTERNAL TIME INCREMENT =  .0707 HOURS

   PEAK TIME(HRS)            PEAK DISCHARGE(CFS)            PEAK ELEVATION(FEET)
     12.21                        290.1                          (RUNOFF)

   RUNOFF ABOVE BASEFLOW  (BASEFLOW =     .00 CFS)
                2.48 WATERSHED INCHES;      365 CFS-HRS;         30.1 ACRE-FEET.


EXECUTIVE CONTROL ENDCMP     COMPUTATIONS COMPLETED FOR PASS   2
1
                          SUMMARY TABLE 1
                          ---------------
   SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
   A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
F-FLAT TOP HYDROGRAPH   T-TRUNCATED HYDROGRAPH   R-RISING TRUNCATED HYDROGRAPH

XSECTION/  STANDARD                                        PEAK DISCHARGE
STRUCTURE   CONTROL    DRAINAGE   RUNOFF
-----------------------------------------------------------
  ID       OPERATION     AREA     AMOUNT   ELEVATION   TIME     RATE    RATE
                        (SQ MI)    (IN)      (FT)      (HR)    (CFS)   (CSM)

RAINFALL OF   3.20 inches AND  24.00 hr DURATION, BEGINS AT     .0 hrs.
RAINTABLE NUMBER  2,    ARC 2
MAIN TIME INCREMENT   .100 HOURS

   ALTERNATE    1   STORM    2
   ---------------------------------
XSECTION   1  RUNOFF       .23     1.01        ---       12.23      111    482.6

RAINFALL OF   5.20 inches AND  24.00 hr DURATION, BEGINS AT     .0 hrs.

   ALTERNATE    1   STORM   10
   ---------------------------------
XSECTION   1  RUNOFF       .23     2.48        ---       12.21      290   1260.9

RAINFALL OF   7.30 inches AND  24.00 hr DURATION, BEGINS AT     .0 hrs.

   ALTERNATE    1   STORM    0
   ---------------------------------
XSECTION   1  RUNOFF       .23     4.25        ---       12.20      509   2213.0
                          SUMMARY TABLE 3
                          ---------------
     STORM DISCHARGES (CFS) AT XSECTIONS AND STRUCTURES FOR ALL ALTERNATES
     QUESTION MARK (?) AFTER: OUTFLOW PEAK - RISING TRUNCATED HYDROGRAPH.

XSECTION/          DRAINAGE
STRUCTURE            AREA        STORM NUMBERS.........
  ID               (SQ MI)         0        2        10

                                         -2 YR. PREDEVELOPED FLOW
XSECTION    1         .23                       -10 YR. PREDEVELOPED FLOW
-----------------------------------
   ALTERNATE    1                509     [111]    [290]
```

TR-20 ROUTINGS (UNCONTROLLED AREA – ULTIMATE CONDITIONS)

```
****************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY*****************

JOB TR-20                     FULLPRINT          SUMMARY
TITLE     FAIRFAX RIDGE REGIONAL SWM POND - UNCONTROLLED AREA
TITLE     FILE NAME: X:      \DATA \6301 \UNCONTR.DAT
 6 RUNOFF 1 001     1     0.0259      90.7      0.16
   ENDATA
 7 INCREM 6          .10
 7 COMPUT 7 001  01           3.2          1.0       2 2  01  02
   ENDCMP 1
 7 COMPUT 7 001  01           5.2          1.0       2 2  01  10
   ENDCMP 1
   ENDJOB 2

******************************END OF 80-80 LIST******************************

EXECUTIVE CONTROL INCREM    MAIN TIME INCREMENT =    .100 HOURS


EXECUTIVE CONTROL COMPUT    FROM XSECTION   1  TO XSECTION   1
   STARTING TIME =    .00      RAIN DEPTH =  3.20       RAIN DURATION =  1.00
   ANT. RUNOFF COND. = 2         MAIN TIME INCREMENT =   .100 HOURS
   ALTERNATE NO. = 1             STORM NO. = 2              RAIN TABLE NO. = 2


OPERATION RUNOFF    XSECTION   1
        OUTPUT HYDROGRAPH =  1       AREA =     .03 SQ MI
        INPUT RUNOFF CURVE = 91.     TIME OF CONCENTRATION =     .16 HOURS
        COMPUTED INTERNAL TIME INCREMENT =  .0213 HOURS

   PEAK TIME(HRS)            PEAK DISCHARGE(CFS)            PEAK ELEVATION(FEET)
     11.98                        49.5                           (RUNOFF)

   RUNOFF ABOVE BASEFLOW  (BASEFLOW =     .00 CFS)
                2.23 WATERSHED INCHES;       37 CFS-HRS;          3.1 ACRE-FEET.

*** WARNING - MAIN TIME INCREMENT (  .100) IS GREATER THAN 50          % OF THE
              TIME OF CONCENTRATION (  .16) FOR SUBWATERSHED XSECTION    1.
              THIS WILL REDUCE THE COMPUTED PEAK BY ABOUT   -.3          %.          ***


EXECUTIVE CONTROL ENDCMP     COMPUTATIONS COMPLETED FOR PASS   1


EXECUTIVE CONTROL COMPUT    FROM XSECTION   1  TO XSECTION   1
   STARTING TIME =    .00      RAIN DEPTH =  5.20       RAIN DURATION =  1.00
   ANT. RUNOFF COND. = 2         MAIN TIME INCREMENT =   .100 HOURS
   ALTERNATE NO. = 1             STORM NO. =10              RAIN TABLE NO. = 2


                          SUMMARY TABLE 1
                          ---------------
   SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
   A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
F-FLAT TOP HYDROGRAPH   T-TRUNCATED HYDROGRAPH   R-RISING TRUNCATED HYDROGRAPH

XSECTION/  STANDARD                                        PEAK DISCHARGE
STRUCTURE   CONTROL    DRAINAGE   RUNOFF   ------------------------------------------
  ID       OPERATION     AREA     AMOUNT   ELEVATION   TIME     RATE    RATE
                        (SQ MI)    (IN)      (FT)      (HR)    (CFS)   (CSM)

RAINFALL OF   3.20 inches AND  24.00 hr DURATION, BEGINS AT     .0 hrs.
RAINTABLE NUMBER  2,    ARC 2
MAIN TIME INCREMENT   .100 HOURS

   ALTERNATE    1   STORM    2
   ---------------------------------
XSECTION   1  RUNOFF       .03     2.23        ---       11.98       50   1666.7

RAINFALL OF   5.20 inches AND  24.00 hr DURATION, BEGINS AT     .0 hrs.

   ALTERNATE    1   STORM   10
   ---------------------------------
XSECTION   1  RUNOFF       .03     4.14        ---       11.98       89   2966.7


                          ---------------
     STORM DISCHARGES (CFS) AT XSECTIONS AND STRUCTURES FOR ALL ALTERNATES
     QUESTION MARK (?) AFTER: OUTFLOW PEAK - RISING TRUNCATED HYDROGRAPH.

XSECTION/          DRAINAGE
STRUCTURE            AREA        STORM NUMBERS.........
  ID               (SQ MI)         2        10

                                -2 YR. UNCONTROLLED FLOW (ULTIMATE)
XSECTION    1         .03              -10 YR. UNCONTROLLED FLOW (ULTIMATE)
-----------------------------------
   ALTERNATE    1              [50]     [89]
```

THIS SHEET FOR INFORMATION ONLY

TR-20 SCHEMATIC

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 14 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

BMP ORIFICE SIZING

$Q_{AVG} = \frac{V_{WQ}}{(40\ HR)(3600\ SEC/HR)}$

$Q_{AVG} = \frac{324{,}000}{(40\ HR)(3600\ SEC/HR)}$

$Q_{AVG} =$ 2.25 CFS

$Q_{MAX} = 2*Q_{AVG} = 2*2.25 = 4.50$ CFS

FROM STAGE STORAGE CHART
324,000 CF AT ELEV. =388.00

$H_{MAX} =$ 9 FT

$Q = CA\sqrt{2GH}$ ORIFICE EQUATION

$A = \frac{Q}{C\sqrt{2GH}}$

$A = \frac{4.5}{0.6\sqrt{2*32.2*9}}$

A = 0.3115 SF

D = 0.63 FT = 7.5 INCH DIA ORIFICE

COMMONWEALTH OF VIRGINIA
EDMUND J. IGNACIO
No. 033579
8/23/02
PROFESSIONAL ENGINEER

BMP FACILITY DESIGN FORMAT

PLAN NAME: FAIRFAX RIDGE REGIONAL POND   DATE: 12/9/01

PLAN NUMBER: 3993-SP-06   ENGINEER: EJI

WATER QUALITY CONTROL NARRATIVE

REGIONAL STORMWATER MANAGEMENT POND NO. D-47 IS LOCATED IN THE DIFFICULT RUN WATERSHED AND IS BEING CONSTRUCTED IN CONJUNCTION WITH THE ALEXAN AT FAIRFAX RIDGE SITE PLAN (3993-SP-05). DUE TO THE REGIONAL NATURE OF THIS FACILITY, A CONSIDERABLE AMOUNT OF OFFSITE AREA IS TO BE CONTROLLED BY THIS FACILITY.
THE EXTENDED DETENTION DRY POND HAS BEEN DESIGNED TO MEET THE 40% PHOSPHOROUS REDUCTION REQUIRED FOR SITES NOT LOCATED IN THE WATERSHED OVERLAY PROTECTION DISTRICT. THE FACILITY PROVIDES 324,000 CU. FT. OF BMP STORAGE AT ELEVATION 388.00. THE BMP ORIFICE HAS BEEN SIZED TO PROVIDE A 40 HR. DRAWDOWN PER THE PLAN PROFFERS. THE FACILITY WILL BE OWNED AND MAINTAINED BY FAIRFAX COUNTY.

WATERSHED DATA

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

	SUBAREA DESIGNATION & DESCRIPTION	"C"	ACRES
A1	Subarea I – Commerical (Controlled)	0.81	71.10
A2	Subarea I – Residential (Controlled)	0.69	6.10
A3	Subarea II – Commerical (Controlled)	0.81	22.10
A4	Subarea II – Residential (Controlled)	0.69	0.20
A5	Subarea III – Commerical (Controlled)	0.81	17.10
A6	Subarea III – Residential (Controlled)	0.69	6.70
A7	Subarea III – Open Space – (Qualifying open space)	0.20	3.20
A8	Subarea III – Woods (Qualifying open space)	0.20	2.70
A9	Subarea IV – Commerical (Uncontrolled)	0.81	8.40
A10	Subarea IV – Residential (Uncontrolled)	0.69	7.60
A11	Subarea IV – Open Space – (Uncontrolled)	0.20	0.50
A12	Subarea IV – Woods (Uncontrolled)	0.20	0.1

PHOSPHORUS REMOVAL

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

A AREA OF SITE   A 145.80 ACRES

	B SUBAREA DESIGNATION	"C"	X ACRES	=PRODUCT
A1	Subarea I – Commerical (Controlled)	0.81	71.1	57.59
A2	Subarea I – Residential (Controlled)	0.69	6.1	4.21
A3	Subarea II – Commerical (Controlled)	0.81	22.1	17.90
A4	Subarea II – Residential (Controlled)	0.69	0.2	0.14
A5	Subarea III – Commerical (Controlled)	0.81	17.1	13.85
A6	Subarea III – Residential (Controlled)	0.69	6.7	4.62
A7	Subarea III – Open Space – (Qualifying open space)	0.20	3.2	0.64
A8	Subarea III – Woods (Qualifying open space)	0.20	2.7	0.54
A9	Subarea IV – Commerical (Uncontrolled)	0.81	8.4	6.80
A10	Subarea IV – Residential (Uncontrolled)	0.69	7.6	5.24
A11	Subarea IV – Open Space – (Uncontrolled)	0.20	0.5	0.10
A12	Subarea IV – Woods (Uncontrolled)	0.20	0.1	0.02

B TOTAL = 111.65

C WEIGHTED AVERAGE "C" FACTOR B/A   C 0.77

PART 3 COMPUTE THE TOTAL PHOSPHORUS REMOVAL FOR THE SITE

SUBAREA DESIGNATION	BMP TYPE	REMOVAL EFF. %		AREA RATIO		"C" FACTOR RATIO		PRODUCT
A1	ENHANCED EXT. DET DRY POND	55	X	0.488	X	1.05	=	28.18
A2	ENHANCED EXT. DET DRY POND	55	X	0.042	X	0.90	=	2.08
A3	ENHANCED EXT. DET DRY POND	55	X	0.152	X	1.05	=	8.78
A4	ENHANCED EXT. DET DRY POND	55	X	0.001	X	0.90	=	0.05
A5	ENHANCED EXT. DET DRY POND	55	X	0.117	X	1.05	=	6.76
A6	ENHANCED EXT. DET DRY POND	55	X	0.046	X	0.90	=	2.28
A7	OPEN SPACE	100	X	0.022	X	1.00	=	2.19
A8	OPEN SPACE	100	X	0.019	X	1.00	=	1.85
A9	UNCONTROLLED	0	X	0.058	X	1.05	=	0.00
A10	EXT. DET DRY POND	0	X	0.052	X	0.90	=	0.00
A11	EXT. DET DRY POND	0	X	0.003	X	0.39	=	0.00
A12	EXT. DET DRY POND	0	X	0.001	X	0.39	=	0.00

A SELECT REQUIREMENT   A TOTAL = 52.17

PART 4 DETERMINE COMPLIANCE WITH PHOSPHORUS REMOVAL REQUIREMENT

A SELECT REQUIREMENT   A 40.0 %

WATER SUPPLY OVERLAY DISTRICT (OCCOQUAN) 50.0 %

(NEW DEVELOPMENT)
CHESAPEAKE BAY RESOURCE PRESERVATION AREA 40.0 %

(REDEVELOPMENT) %

B IF LINE 3A 47.8% > LINE 4A 40.0% , THEN PHOSPHORUS REMOVAL REQUIREMENT IS SATISFIED.

STORAGE

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

A LIST THE AREAS TO BE CONTROLLED BY THE PROPOSED BMP.   A= 123.3

	B SUBAREA DESIGNATION	"C"	X ACRES	= PRODUCT
A1	Subarea I – Commerical (Controlled)	0.81	71.1	57.59
A2	Subarea I – Residential (Controlled)	0.69	6.1	4.21
A3	Subarea II – Commerical (Controlled)	0.81	22.1	17.90
A4	Subarea II – Residential (Controlled)	0.69	0.2	0.14
A5	Subarea III – Commerical (Controlled)	0.81	17.1	13.85
A6	Subarea III – Residential (Controlled)	0.69	6.7	4.62

B TOTAL = 98.31

C WEIGHTED AVERAGE "C" FACTOR B/A = C   0.80

PART 8

A EXTENDED DETENTION
CHART A6-40 VALUE FOR BMP STORAGE PER ACRE
[(4375 X "C") – 875] OR [31.25 X % IMP.] =   3500 CF/AC

VOLUME REQUIRED=   2625 X 123.3 = 323663 CF

x:\data\6301c\bmpcomp.xls

ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GPS SERVICES

VIKA INCORPORATED
8180 GREENSBORO DRIVE SUITE 200 ■ McLEAN, VIRGINIA 22102
(703)442-7800 ■ FAX (703)761-2787
McLEAN, VA   GERMANTOWN, MD

FAIRFAX RIDGE
REGIONAL STORMWATER MANAGEMENT POND
#D-47
PROVIDENCE MAGISTERIAL DISTRCIT
FAIRFAX COUNTY, VIRGINIA

POND ROUTINGS (TR-20 COMPUTATIONS) AND BMP COMPUTATIONS

VIKA REVISIONS

DATE: DEC., 2001
DES. EJI   DWN. CAD
SCALE: AS SHOWN
PROJECT/FILE NO. 6301
SHEET NO. ~~20 OF 44~~

6301pond903.dwg 12-10-01 1:22:21 pm EST

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY**********

JOB TR-20                 FULLPRINT            SUMMARY
TITLE     FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS
TITLE     FILE NAME: X:\DATA\6301\PROP4.DAT
 2 XSECTN   003            1.
 8                        394.0       0.0          0.0
 8                        396.0       249.9        56.0
 8                        398.0       1419.9       212.0
 8                        400.0       4258.3       448.0
 8                        402.0       8836.8       724.0
 8                        404.0       14571.8      1037.0
 8                        406.0       22086.4      1393.0
 8                        408.0       31715.3      1783.0
 8                        410.0       42558.8      2026.0
 9 ENDTBL
 3 STRUCT        01       425.0       0.0          0.0
 9 ENDTBL
 3 STRUCT          03
 8                        378.00      0.0          0.000
 8                        379.00      1.070        0.328
 8                        380.00      1.660        0.637
 8                        382.00      2.450        2.117
 8                        384.00      3.040        3.984
 8                        386.00      3.530        6.216
 8                        387.00      3.750        7.540
 8                        388.00      6.050        8.877
 8                        390.00      8.350        12.24
 8                        391.00      9.200        14.50
 8                        392.70      11.24        18.57
 8                        393.00      21.00        19.72
 8                        393.50      55.610       21.20
 8                        394.00      103.55       22.66
 8                        394.60      174.68       24.46
 8                        395.00      284.20       26.26
 8                        396.00      745.46       29.85
 8                        397.00      937.37       34.08
 8                        398.00      968.11       38.30
 8                        399.00      997.97       43.11
 9 ENDTBL
 6 RUNOFF 1     01      1 0.1206      94.6         0.32
 6 RUNOFF 1     01      2 0.0348      94.7         0.25
 6 ADDHYD 4     01 1 2 5
 6 REACH  3 003     5   6 1250.
 6 RUNOFF 1     03      3 0.0464      87.3         0.17              1 1   1 1 1
 6 ADDHYD 4     03 3 6 7                                             1 1   1 1 1
 6 RESVOR 2     03 7    5 378.00                                     1 1   1 1 1
   ENDATA
 7 INCREM 6               0.10
 7 COMPUT 7     01     03             2.7          1.               2 2   01  01
   ENDCMP 1
 7 COMPUT 7     01     03             3.2          1.               2 2   01  02
1
```

SUMMARY TABLE 1

```
   SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
    A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
F-FLAT TOP HYDROGRAPH   T-TRUNCATED HYDROGRAPH   R-RISING TRUNCATED HYDROGRAPH

XSECTION/  STANDARD                                          PEAK DISCHARGE
STRUCTURE   CONTROL    DRAINAGE   RUNOFF    -----------------------------------------
   ID      OPERATION    AREA      AMOUNT    ELEVATION    TIME       RATE     RATE
                       (SQ MI)     (IN)       (FT)       (HR)      (CFS)    (CSM)

RAINFALL OF   2.70 inches AND  24.00 hr DURATION, BEGINS AT    .0 hrs.
RAINTABLE NUMBER  2,    ARC 2
MAIN TIME INCREMENT   .100 HOURS

  ALTERNATE   1   STORM   1
  ---------------------------
STRUCTURE  1  RUNOFF     .12     2.12        ---      12.07      169   1408.3
STRUCTURE  1  RUNOFF     .03     2.13        ---      12.03       55   1833.3
STRUCTURE  1  ADDHYD     .16     2.12        ---      12.06      222   1387.5
XSECTION   3  REACH      .16     2.12     395.74      12.17      217   1356.3
STRUCTURE  3  RUNOFF     .05     1.50        ---      11.99       60   1200.0

STRUCTURE  3  ADDHYD     .20     1.98     394.86      12.14      246   1230.0
STRUCTURE  3  RESVOR     .20     1.56     390.91      15.60F      9F     45.0

RAINFALL OF   3.20 inches AND  24.00 hr DURATION, BEGINS AT    .0 hrs.

  ALTERNATE   1   STORM   2
  ---------------------------
STRUCTURE  1  RUNOFF     .12     2.60        ---      12.07      207   1725.0
STRUCTURE  1  RUNOFF     .03     2.61        ---      12.03       66   2200.0
STRUCTURE  1  ADDHYD     .16     2.60        ---      12.06      271   1693.8
XSECTION   3  REACH      .16     2.60     396.03      12.17      267   1668.8
STRUCTURE  3  RUNOFF     .05     1.94        ---      11.99       77   1540.0

STRUCTURE  3  ADDHYD     .20     2.45     395.04      12.13      304   1520.0
STRUCTURE  3  RESVOR     .20     1.91     392.45      15.60F     11F     55.0

RAINFALL OF   5.20 inches AND  24.00 hr DURATION, BEGINS AT    .0 hrs.

  ALTERNATE   1   STORM   10
  ---------------------------
STRUCTURE  1  RUNOFF     .12     4.57        ---      12.07      353   2941.7
STRUCTURE  1  RUNOFF     .03     4.58        ---      12.03      113   3766.7
STRUCTURE  1  ADDHYD     .16     4.57        ---      12.06      461   2881.3
XSECTION   3  REACH      .16     4.57     396.36      12.16      460   2875.0
STRUCTURE  3  RUNOFF     .05     3.78        ---      11.99      148   2960.0
1
TR20 --------------------------------------------------------------------- SCS -
```

SUMMARY TABLE 1

```
   SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
    A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
F-FLAT TOP HYDROGRAPH   T-TRUNCATED HYDROGRAPH   R-RISING TRUNCATED HYDROGRAPH

XSECTION/  STANDARD                                          PEAK DISCHARGE
STRUCTURE   CONTROL    DRAINAGE   RUNOFF    -----------------------------------------
   ID      OPERATION    AREA      AMOUNT    ELEVATION    TIME       RATE     RATE
                       (SQ MI)     (IN)       (FT)       (HR)      (CFS)    (CSM)


  ALTERNATE   1   STORM   10
  ---------------------------
STRUCTURE  3  ADDHYD     .20     4.39     395.54      12.12      534   2670.0
STRUCTURE  3  RESVOR     .20     3.74     394.66      12.45      192    960.0
1
TR20 --------------------------------------------------------------------- SCS -
          FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS        VERSION
07/24/**              FILE NAME: X:\DATA\6301\PROP4.DAT                2.04TEST
10:55:48                   SUMMARY, JOB NO.   1                        PAGE  17
```

SUMMARY TABLE 2

```
          MODIFIED ATT-KIN REACH ROUTING IN ORDER PERFORMED.
 QUESTION MARK (?) AFTER: OUTFLOW PEAK - MAX. NUMBER ROUTING ITERATIONS USED;
                          LENGTH FACTOR - VALUE K* GREATER THAN  1.0;
                          ATT-KIN COEFF - VALUE C GREATER THAN 0.667.

                    HYDROGRAPH INFORMATION          ROUTING PARAMETERS
                  -------------------------  ------------------------------
            FLOOD    INFLOW       OUTFLOW       Q-A EQ.            PEAK  ATT-
XSEC REACH  PLAIN  ----------  -----------  ------------ LENGTH  RATIO  KIN
 ID  LENGTH LENGTH PEAK  TIME  PEAK   TIME  COEFF POWER FACTOR   Q/I   COEFF
     (FT)   (FT)  (CFS)  (HR)  (CFS)  (HR)   (X)   (M)   (k*)    (Q*)   (C)

BASEFLOW IS   .0 CFS

  ALTERNATE   1   STORM   1
  ---------------------------
 3   1250          216  12.1   215  12.2   1.31  1.31   .038   .993   .90?

  ALTERNATE   1   STORM   2
  ---------------------------
 3   1250          264  12.1   262  12.2   1.31  1.31   .036   .995   .92?

  ALTERNATE   1   STORM   10
  ---------------------------
 3   1250          449  12.1   448  12.2   1.31  1.31   .029   .999   .98?
1
TR20 --------------------------------------------------------------------- SCS -
          FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS        VERSION
07/24/**              FILE NAME: X:\DATA\6301\PROP4.DAT                2.04TEST
10:55:48                   SUMMARY, JOB NO.   1                        PAGE  18
```

SUMMARY TABLE 3

```
   STORM DISCHARGES (CFS) AT XSECTIONS AND STRUCTURES FOR ALL ALTERNATES
   QUESTION MARK (?) AFTER: OUTFLOW PEAK - RISING TRUNCATED HYDROGRAPH.

XSECTION/              DRAINAGE
STRUCTURE                AREA      STORM NUMBERS..........
   ID                  (SQ MI)        1          2          10

STRUCTURE   3            .20
----------------------------------
  ALTERNATE   1                     [9]        [11]       [192]

STRUCTURE   1            .16
----------------------------------
  ALTERNATE   1                     222        271         461

XSECTION    3            .16
----------------------------------
  ALTERNATE   1                     217        267         460
```

1 YEAR ROUTED FLOW

2 YEAR ROUTED FLOW

10 YEAR ROUTED FLOW

```
******************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                 FULLPRINT            SUMMARY
TITLE     FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS - SDF & FBH
TITLE     FILE NAME: X:\DATA\6301\PROPSDF.DAT
 2 XSECTN   003            1.
 8                        394.0       0.0          0.0
 8                        396.0       249.9        56.0
 8                        398.0       1419.9       212.0
 8                        400.0       4258.3       448.0
 8                        402.0       8836.8       724.0
 8                        404.0       14571.8      1037.0
 8                        406.0       22086.4      1393.0
 8                        408.0       31715.3      1783.0
 8                        410.0       42558.8      2026.0
 9 ENDTBL
 3 STRUCT        01       425.0       0.0          0.0
 9 ENDTBL
 3 STRUCT          03
 8                        392.70      0.00         0.00
 8                        393.00      10.19        0.93
 8                        394.00      91.90        4.37
 8                        394.60      162.38       6.38
 8                        395.00      271.16       7.79
 8                        396.00      731.14       11.54
 8                        397.00      1235.07      15.61
 8                        398.00      1270.88      19.99
 8                        399.00      1305.71      24.68
 8                        400.00      1339.63      29.60
 9 ENDTBL
 6 RUNOFF 1     01      1 0.1206      94.6         0.32        1         1
 6 RUNOFF 1     01      2 0.0348      94.7         0.25        1         1
 6 ADDHYD 4     01 1 2 5                                       1         1
 6 REACH  3 003     5   6 1250.                                1         1
 6 RUNOFF 1     03      3 0.0464      87.3         0.17        1 1   1 1 1
 6 ADDHYD 4     03 3 6 7                                       1 1   1 1 1
 6 RESVOR 2     03 7    5 392.70                               1 1   1 1 1
   ENDATA
 7 INCREM 6               0.10
 7 COMPUT 7     01     03             7.2          1.          2 2   01  10
   ENDCMP 1
 7 COMPUT 7     01     03             10.95        1.          2 2   01  15
   ENDCMP 1
 7 COMPUT 7     01     03             18.25        1.          2 2   01  25
   ENDCMP 1
   ENDJOB 2

********************************END OF 80-80 LIST*********************************
```

SUMMARY TABLE 1

```
   SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
    A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
F-FLAT TOP HYDROGRAPH   T-TRUNCATED HYDROGRAPH   R-RISING TRUNCATED HYDROGRAPH

XSECTION/  STANDARD                                          PEAK DISCHARGE
STRUCTURE   CONTROL    DRAINAGE   RUNOFF    -----------------------------------------
   ID      OPERATION    AREA      AMOUNT    ELEVATION    TIME       RATE     RATE
                       (SQ MI)     (IN)       (FT)       (HR)      (CFS)    (CSM)

RAINFALL OF   7.20 inches AND  24.00 hr DURATION, BEGINS AT    .0 hrs.
RAINTABLE NUMBER  2,    ARC 2
MAIN TIME INCREMENT   .100 HOURS

  ALTERNATE   1   STORM   10
  ---------------------------
STRUCTURE  1  RUNOFF     .12     6.55        ---      12.07      494   4116.7
STRUCTURE  1  RUNOFF     .03     6.56        ---      12.02      159   5300.0
STRUCTURE  1  ADDHYD     .16     6.55        ---      12.06      646   4037.5
XSECTION   3  REACH      .16     6.55     396.68      12.06      646   4037.5
STRUCTURE  3  RUNOFF     .05     5.70        ---      11.99      217   4340.0

STRUCTURE  3  ADDHYD     .20     6.36     396.22      12.03      844   4220.0
STRUCTURE  3  RESVOR     .20     6.37     395.99      12.13      726   3630.0

RAINFALL OF  10.95 inches AND  24.00 hr DURATION, BEGINS AT    .0 hrs.

  ALTERNATE   1   STORM   15
  ---------------------------
STRUCTURE  1  RUNOFF     .12    10.28        ---      12.07      760   6333.3
STRUCTURE  1  RUNOFF     .03    10.30        ---      12.02      245   8166.7
STRUCTURE  1  ADDHYD     .16    10.29        ---      12.06      994   6212.5
XSECTION   3  REACH      .16    10.29     397.27      12.06      994   6212.5
STRUCTURE  3  RUNOFF     .05     9.37        ---      11.98      348   6960.0

STRUCTURE  3  ADDHYD     .20    10.08     399.22      12.03     1313   6565.0
STRUCTURE  3  RESVOR     .20    10.07     396.83      12.12     1147   5735.0

RAINFALL OF  18.25 inches AND  24.00 hr DURATION, BEGINS AT    .0 hrs.

  ALTERNATE   1   STORM   25
  ---------------------------
STRUCTURE  1  RUNOFF     .12    17.56        ---      12.07     1274  10616.7
STRUCTURE  1  RUNOFF     .03    17.58        ---      12.02      410  13666.7
STRUCTURE  1  ADDHYD     .16    17.56        ---      12.05     1667  10418.8
XSECTION   3  REACH      .16    17.56     398.17      12.05     1667  10418.8
STRUCTURE  3  RUNOFF     .05    16.60        ---      11.98      596  11920.0
1
TR20 --------------------------------------------------------------------- SCS -
     FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS - SDF &  VERSION
08/26/**              FILE NAME: X:\DATA\6301\PROPSDF.DAT              2.04TEST
13:40:41                   SUMMARY, JOB NO.   1                        PAGE  17
```

SUMMARY TABLE 1

```
   SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
    A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
F-FLAT TOP HYDROGRAPH   T-TRUNCATED HYDROGRAPH   R-RISING TRUNCATED HYDROGRAPH

XSECTION/  STANDARD                                          PEAK DISCHARGE
```

```
STRUCTURE   CONTROL    DRAINAGE   RUNOFF    -----------------------------------------
   ID      OPERATION    AREA      AMOUNT    ELEVATION    TIME       RATE     RATE
                       (SQ MI)     (IN)       (FT)       (HR)      (CFS)    (CSM)


  ALTERNATE   1   STORM   25
  ---------------------------
STRUCTURE  3  ADDHYD     .20    17.34     425.73      12.03     2212  11060.0
STRUCTURE  3  RESVOR     .20    17.40     399.93      12.20     1337   6685.0
1
TR20 --------------------------------------------------------------------- SCS -
     FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS - SDF &  VERSION
08/26/**              FILE NAME: X:\DATA\6301\PROPSDF.DAT              2.04TEST
13:40:41                   SUMMARY, JOB NO.   1                        PAGE  18
```

SUMMARY TABLE 2

```
          MODIFIED ATT-KIN REACH ROUTING IN ORDER PERFORMED.
 QUESTION MARK (?) AFTER: OUTFLOW PEAK - MAX. NUMBER ROUTING ITERATIONS USED;
                          LENGTH FACTOR - VALUE K* GREATER THAN  1.0;
                          ATT-KIN COEFF - VALUE C GREATER THAN 0.667.

                    HYDROGRAPH INFORMATION          ROUTING PARAMETERS
                  -------------------------  ------------------------------
            FLOOD    INFLOW       OUTFLOW       Q-A EQ.            PEAK  ATT-
XSEC REACH  PLAIN  ----------  -----------  ------------ LENGTH  RATIO  KIN
 ID  LENGTH LENGTH PEAK  TIME  PEAK   TIME  COEFF POWER FACTOR   Q/I   COEFF
     (FT)   (FT)  (CFS)  (HR)  (CFS)  (HR)   (X)   (M)   (k*)    (Q*)   (C)

BASEFLOW IS   .0 CFS

  ALTERNATE   1   STORM   10
  ---------------------------
 3   1250          627  12.1   627  12.1   1.31  1.31   .025  1.000  1.00?

  ALTERNATE   1   STORM   15
  ---------------------------
 3   1250          964  12.1   964  12.1   1.31  1.31   .022  1.000  1.00?

  ALTERNATE   1   STORM   25
  ---------------------------
 3   1250         1615  12.1  1615  12.1   1.24  1.32   .017  1.000  1.00?
1
TR20 --------------------------------------------------------------------- SCS -
     FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS - SDF &  VERSION
08/26/**              FILE NAME: X:\DATA\6301\PROPSDF.DAT              2.04TEST
13:40:41                   SUMMARY, JOB NO.   1                        PAGE  19
```

SUMMARY TABLE 3

```
   STORM DISCHARGES (CFS) AT XSECTIONS AND STRUCTURES FOR ALL ALTERNATES
   QUESTION MARK (?) AFTER: OUTFLOW PEAK - RISING TRUNCATED HYDROGRAPH.

XSECTION/              DRAINAGE
STRUCTURE                AREA      STORM NUMBERS..........
   ID                  (SQ MI)       10         15          25

STRUCTURE   3            .20
----------------------------------
  ALTERNATE   1                    [726]      [1147]      [1337]

STRUCTURE   1            .16
----------------------------------
  ALTERNATE   1                     646        994        1667

XSECTION    3            .16
----------------------------------
  ALTERNATE   1                     646        994        1667
1
TR20
```

100 YEAR ROUTED FLOW

SDF (1.5 X 100 YEAR) ROUTED FLOW

FBH (2.5 X 100 YEAR) ROUTED FLOW

DETENTION ANALYSIS

I. PREDEVELOPED Q_2 AND Q_{10}
Q_{2PRE} = 111 CFS (FROM TR-20 - SEE SHEET 20)
Q_{10PRE} = 290 CFS (FROM TR-20 - SEE SHEET 20)

II. POST DEVELOPED Q (UNCONTROLLED AREA)
Q_{2POST} = 50 CFS (FROM TR-20 - SEE SHEET 21)
Q_{10POST} = 89 CFS (FROM TR-20 - SEE SHEET 21)

III. ALLOWABLE RELEASE (Q_{ALLOW})FROM POND
Q_{ALLOW} = (PREDEVELOPED FLOW - UNCONTROLLED FLOW)
Q_{2ALLOW} = 111 - 50
Q_{2ALLOW} = 61 CFS
$Q_{10ALLOW}$ = 290 - 89
$Q_{10ALLOW}$ = 201 CFS

VI. ROUTING RESULTS
Q_{2ROUTE} = 11 CFS (FROM TR-20 - SEE SHEET 21)
$Q_{10ROUTE}$ = 192 CFS (FROM TR-20 - SEE SHEET 21)
Q_{2POST} = 50 + 11 = 61 CFS
Q_{10POST} = 89 + 192 = 281 CFS

(Q_{2POST} = 61 CFS) < (Q_{2PRE} = 111 CFS)
THE 2 YR FLOW HAS BEEN REDUCED TO A LEVEL THAT IS 55% OF THE 2 YR PREDEVELOPED FLOW.

(Q_{10POST} = 281 CFS) < (Q_{10PRE} = 290 CFS)
THE 10 YR FLOW HAS BEEN REDUCED TO A LEVEL LESS THAN THE 10 YR PREDEVELOPED FLOW.

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 15 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

COMMONWEALTH OF VIRGINIA
EDMUND J. IGNACIO
No. 033579
8/20/02
PROFESSIONAL ENGINEER

THIS SHEET FOR INFORMATION ONLY

NO.	DESCRIPTION	REVIEW BY	APPROVED	DATE

REVISION APPROVED BY:
DIVISION OF DESIGN REVIEW 6B of 6

VIKA
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GPS SERVICES
VIKA INCORPORATED
8180 GREENSBORO DRIVE SUITE 200 ■ McLEAN, VIRGINIA 22102
(703)442-7800 ■ FAX (703)761-2787
McLEAN, VA   GERMANTOWN, MD

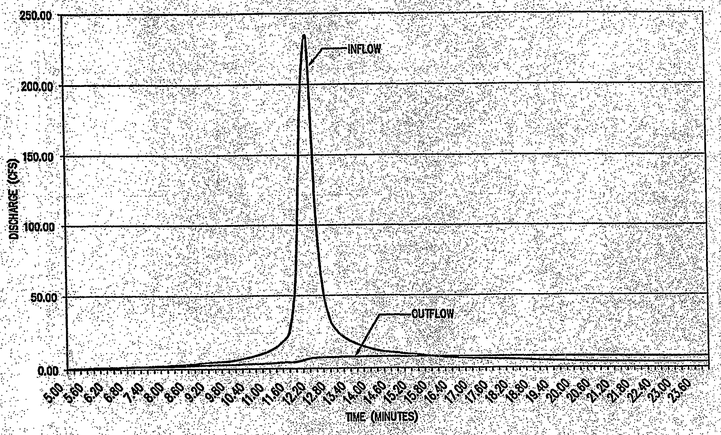
FAIRFAX RIDGE
REGIONAL STORMWATER MANAGEMENT POND
#D-47
PROVIDENCE MAGISTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

POND ROUTINGS (TR-20 COMPUTATIONS)

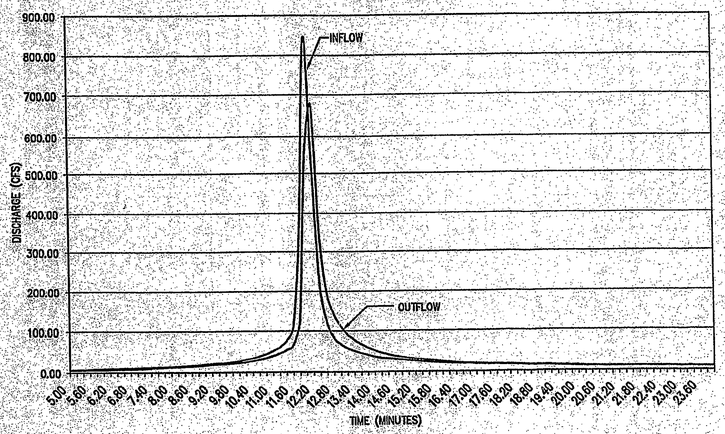
VIKA REVISIONS

DATE: DEC., 2001
DES. EJI
DWN.
SCALE: AS SHOWN
PROJECT/FILE NO. 6301
SHEET NO. ~~21 OF 44~~

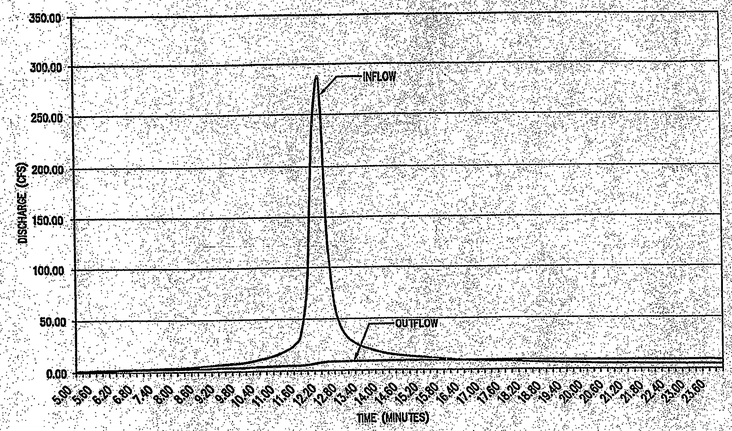
1 – YEAR HYDROGRAPHS



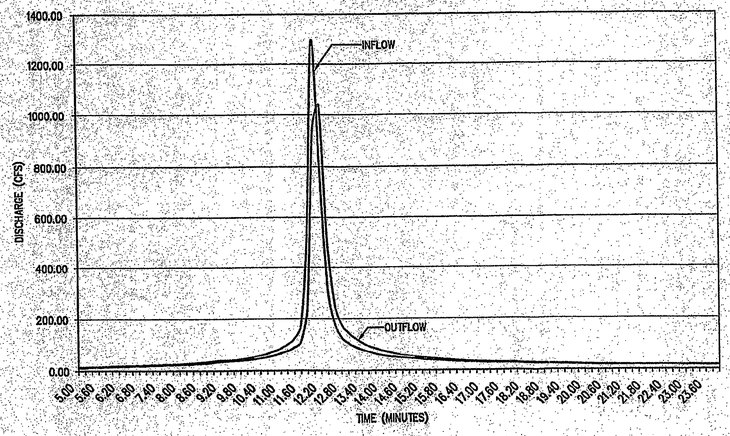
100 YEAR HYDROGRAPHS



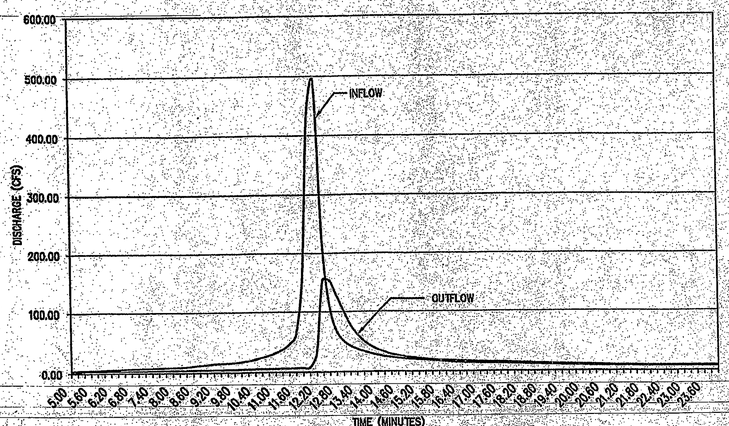
2 – YEAR HYDROGRAPHS



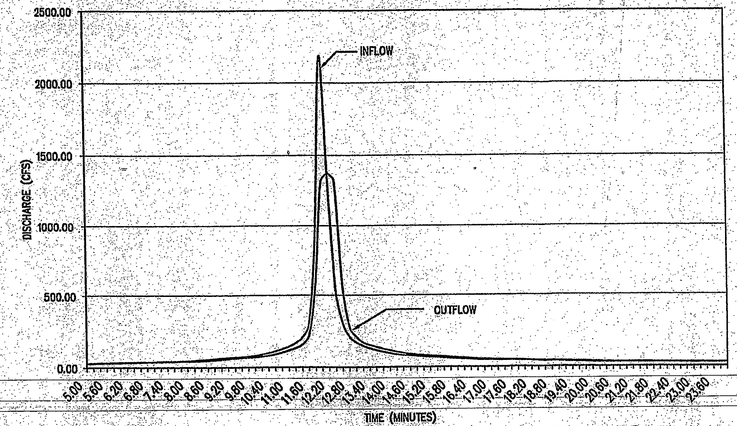
SDF (1.5X100 YEAR) HYDROGRAPHS



10 – YEAR HYDROGRAPHS



FBH (2.5X100 YEAR) HYDROGRAPHS



THIS SHEET FOR INFORMATION ONLY

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 16 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

VIKA
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GPS SERVICES
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FAIRFAX RIDGE
REGIONAL STORMWATER MANAGEMENT POND #D-47
PROVIDENCE MAGISTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

HYDROGRAPHS

COMMONWEALTH OF VIRGINIA
EDMUND J. IGNACIO
No. 093579
PROFESSIONAL ENGINEER
12/3/02

VIKA REVISIONS

NO.	DESCRIPTION	REVIEW BY	APPROVED	DATE

REVISION APPROVED BY:
DIVISION OF DESIGN REVIEW

DATE: DEC., 2001
DES. EJI | DWN. MMW
SCALE: AS SHOWN
PROJECT/FILE NO. 6301
SHEET NO. ~~22 OF 41~~ 6C of 6

6301pond903.dwg 12-10-01 12:21 pm EST

```
*****************80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY******************

JOB TR-20                  FULLPRINT            SUMMARY
TITLE    FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS - SDF & FBH
TITLE    FILE NAME: X:\DATA\6301\PROPSDF.DAT
 2 XSECTN   003          1.
 8                    394.0       0.0        0.0
 8                    396.0       249.9      56.0
 8                    398.0       1419.9     212.0
 8                    400.0       4258.3     448.0
 8                    402.0       8836.8     724.0
 8                    404.0       14571.8    1037.0
 8                    406.0       22086.4    1393.0
 8                    408.0       31715.3    1783.0
 8                    410.0       42558.8    2026.0
 9 ENDTBL
 3 STRUCT      01     425.0      0.0        0.0
 9 ENDTBL
 3 STRUCT      03
 8                    394.60      0.00       0.00
 8                    395.00      70.58      1.41
 8                    396.00      462.16     5.16
 8                    397.00      805.52     9.41
 8                    398.00      1312.05    13.65
 8                    399.00      1360.00    18.45
 8                    400.00      1399.38    23.25
 8                    401.00      2670.00    27.00
 9 ENDTBL
 6 RUNOFF 1   01    1 0.1206     94.6       0.32        1       1
 6 RUNOFF 1   01    2 0.0348     94.7       0.25        1       1
 6 ADDHYD 4   01 1 2 5                                  1       1
 6 REACH  3 003   5   6 1250.                           1       1
 6 RUNOFF 1   03    3 0.0464     87.3       0.17        1       1
 6 ADDHYD 4   03 3 6 7                                  1       1
 6 RESVOR 2   03 7   5 394.60                           1       1
   ENDATA
 7 INCREM 6          0.10
 7 COMPUT 7   01   03             25.55      1.         2 2  01  35
   ENDCMP 1
   ENDJOB 2

********************************END OF 80-80 LIST*********************************
                          SUMMARY TABLE 1
                          ---------------
   SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL IN ORDER PERFORMED.
   A CHARACTER FOLLOWING THE PEAK DISCHARGE TIME AND RATE (CFS) INDICATES:
F-FLAT TOP HYDROGRAPH   T-TRUNCATED HYDROGRAPH   R-RISING TRUNCATED HYDROGRAPH

XSECTION/  STANDARD                                    PEAK DISCHARGE
STRUCTURE   CONTROL    DRAINAGE  RUNOFF   ------------------------------------
   ID      OPERATION    AREA     AMOUNT   ELEVATION   TIME     RATE     RATE
                       (SQ MI)    (IN)      (FT)      (HR)     (CFS)    (CSM)

RAINFALL OF  25.55 inches AND  24.00 hr DURATION, BEGINS AT    .0 hrs.
RAINTABLE NUMBER  2,    ARC 2
MAIN TIME INCREMENT   .100 HOURS

      ALTERNATE    1   STORM   35
  ---------------------------------
STRUCTURE  1  RUNOFF      .12    24.86       ---     12.07    1796  14966.7
STRUCTURE  1  RUNOFF      .03    24.87       ---     12.02     575  19166.7
STRUCTURE  1  ADDHYD      .16    24.86       ---     12.06    2345  14656.3
XSECTION   3  REACH       .16    24.86    398.65     12.06    2345  14656.3
STRUCTURE  3  RUNOFF      .05    23.86       ---     11.98     842  16840.0

STRUCTURE  3  ADDHYD      .20    24.63    401.35     12.03    3111  15555.0


STRUCTURE  3  RESVOR      .20    24.90    401.40     12.11    3174  15870.0

RAINFALL OF  29.20 inches AND  24.00 hr DURATION, BEGINS AT    .0 hrs.

                        SUMMARY TABLE 2
                        ---------------
        MODIFIED ATT-KIN REACH ROUTING IN ORDER PERFORMED.
  QUESTION MARK (?) AFTER: OUTFLOW PEAK - MAX. NUMBER ROUTING ITERATIONS USED;
                           LENGTH FACTOR - VALUE K* GREATER THAN  1.0;
                           ATT-KIN COEFF - VALUE C GREATER THAN 0.667.

                 HYDROGRAPH INFORMATION         ROUTING PARAMETERS
               ------------------------   ----------------------------
          FLOOD   INFLOW       OUTFLOW      Q-A EQ.            PEAK  ATT-
XSEC REACH PLAIN ----------  ----------  ------------ LENGTH  RATIO  KIN
 ID LENGTH LENGTH PEAK  TIME  PEAK  TIME  COEFF POWER FACTOR  Q/I  COEFF
     (FT)  (FT)  (CFS)  (HR)  (CFS) (HR)   (X)   (M)   (K*)   (Q*)  (C)

BASEFLOW IS    .0 CFS

  ALTERNATE    1   STORM   35
  -------------------------
 3   1250        2275  12.1   2275  12.1   1.06   1.35   .013  1.000  1.00?

  ALTERNATE    1   STORM   40
  -------------------------
 3   1250        2589  12.1   2589  12.1   1.00   1.36   .012  1.000  1.00?
1
TR20 ------------------------------------------------------------------ SCS -
       FAIRFAX RIDGE REGIONAL SWM POND - PROPOSED CONDITIONS - SDF &  VERSION
08/26/**             FILE NAME: X:\DATA\6301\PROPSDF.DAT              2.04TEST
23:24:20                      SUMMARY, JOB NO.   1                    PAGE   9

                        SUMMARY TABLE 3
                        ---------------
   STORM DISCHARGES (CFS) AT XSECTIONS AND STRUCTURES FOR ALL ALTERNATES
   QUESTION MARK (?) AFTER: OUTFLOW PEAK - RISING TRUNCATED HYDROGRAPH.

XSECTION/          DRAINAGE
STRUCTURE            AREA       STORM NUMBERS.........
 ID                (SQ MI)        35

STRUCTURE   3         .20
----------------------------
  ALTERNATE    1                 3174

STRUCTURE   1         .16
----------------------------
  ALTERNATE    1                 2345

XSECTION    3         .16
----------------------------
  ALTERNATE    1                 2345
1
TR20               *** TR-20 RUN COMPLETED ***
```

DAM BREACH SUMMARY

STORM CAUSING THE DAM OVERTOPPING: 3.5 X 100 YR (SEE THIS SHEET FOR ROUTING)
FOR 3.5 X 100 YR EVENT, THE PEAK ELEVATION IS 401.40 FT (1.40 FT ABOVE THE DAM TOP)

NWS SIMPLIFIED DAM-BREAK FORMULA
PEAK FLOW FOLLOWING THE POTENTIAL DAM FAILURE:
Qbmax = Qo + 3.1*Br* ((C/((tf/60) + C/(sqrt(H)))))^3) (CFS); C=(23.4*As)/Br
As = RESERVOIR SURFACE AREA (ACRES) AT THE MAXIMUM ELEVATION OF POOL LEVEL.

H = ELEVATION (ft) OF MAXIMUM POOL LEVEL MINUS (-) FINAL BREACH BOTTOM ELEVATION; THIS IS CALLED "THE HEAD ON THE BREACH".

Br = AVERAGE FINAL BREACH WIDTH (ft). (2.5*H EARTH DAMS)

tf = TIME OF FAILURE (MINUTES). (H/2 EARTH DAMS)

Qo = ADDITIONAL (NONBREACH) OUTFLOW (cfs) AT TIME T (i.e. SPILLWAY FLOW, TURBINE FLOW, AND/OR CREST OVERFLOW) (OPTIONAL DATA VALUE, MAY BE SET TO 0).

POND D-47
OVERTOPPING DAM BREACH

THE CREST OF THE RISER AT THE TIME OF THE POTENTIAL DAM FAILURE IS 401.40 FT.
SO THE HEIGHT OF THE WATER:
H = 401.40 - 376.00 = 25.4 FT.

Br = (2 TO 3 TIMES DAM HEIGHT, PFM 4-1603.RD) 2 * 25.4 = 50.8

tf = (2 FT/MIN PER PFM 1-1603.4D) 25.4/2 = 12.70

Qo = 3174 CFS (SEE 3.5 X 100 -YR ROUTING THIS SHEET)

THE CORRESPONDING SURFACE AREA AS:
AS = 220,414 FT2 = 5.06 AC

THEREFORE, THE PEAK FLOW FOR THE POTENTIAL DAM FAILURE IS:

Qbmax = Qo + 3.1*BR* ((C/((tf/60) + C/(sqrt(H)))))^3) (CFS); C=(23.4*As)/Br

Qbmax =3174 + 3.1*50.80 * ((2.33/(12.70/60) + (2.33/(5.04))))^3) (CFS);
C=(23.4*5.06)/50.80=2.33

Qbmax = 9600 CFS

POND D-47
SUNNY DAY BREACH

THE CREST OF THE RISER AT THE TIME OF THE POTENTIAL DAM FAILURE IS 178.13 FT.
SO THE HEIGHT OF THE WATER:
H = 394.60 - 376.00 = 18.60 FT.

Br = (2 TO 3 TIMES DAM HEIGHT, PFM 4-1603.RD) 2. * 18.60 = 37.20

tf = (2 FT/MIN PER PFM 1-1603.4D) 18.60/2 = 9.30

Qo = 0.0 CFS

THE CORRESPONDING SURFACE AREA AS:
AS = 114,000 FT2 = 2.61 AC

THEREFORE, THE PEAK FLOW FOR THE POTENTIAL DAM FAILURE IS:

Qbmax = Q0 + 3.1*BR* ((C/((tf/60) + C/(sqrt(H)))))^3) (CFS); C=(23.4*As)/Br

Qbmax =0.00 + 3.1*37.2 * ((2.33/((9.30/60) + (2.33/(4.31))))^3) (CFS);
C=(23.4*5.06)/50.8=2.33

Qbmax = 4330 CFS

DAM BREACH NARRATIVE

ANALYSIS CRITERIA AND ASSUMPTIONS

1. THIS ANALYSIS HAS BEEN PERFORMED TO STUDY THE EFFECT OF A DAM FAILURE ON THE EXISTING DOWNSTREAM PROPERTY.
2. THE POTENTIAL FOR DAM FAILURE WAS ANALYZED FOR BOTH THE SUNNY DAY AND OVERTOPPING STORMS.
3. IT WAS DETERMINED THAT THE DAM WOULD OVERTOP DURING THE 3.5 X 100 YEAR EVENT AND THAT THE DEPTH OF THE OVERTOPPING WATER WOULD BE 1.16 FEET (SEE DAM BREACH SUMMARY ON THIS SHEET).
4. THE NATIONAL WEATHER SERVICE SIMPLIFIED DAM-BREAK FLOOD FORECASTING MODEL WAS USED TO COMPUTE THE DAM BREACH FLOWS (SEE CALCULATIONS, THIS SHEET).
5. THE SUNNY DAY BREACH ANALYSIS WAS CONDUCTED DOWNSTREAM TO A POINT, WHERE THE DAM BREACH FLOOD DEPTH WOULD BE LESS THAN THE 100-YR FLOOD DEPTH THAT WOULD BE EXPERIENCED WITHOUT THE DAM. THE ANALYSIS WAS TERMINATED AT THIS POINT, BASED ON THE PFM CRITERIA (SEE 6-1603.4A). IN THE EVENT OF A SUNNY DAY BREACH, NO FLOODING OF STRUCTURES WILL OCCUR.
6. THE OVERTOPPING BREACH ANALYSIS WAS CONDUCTED DOWNSTREAM TO A POINT, WHERETHE DAM BREACH FLOOD DEPTH WOULD ATTENUATE TO WITHIN +1.0 FOOT OF THE FLOOD DEPTH THAT WOULD BE EXPERIENCED WITHOUT THE DAM. THE ANALYSIS WAS TERMINATED AT THIS POINT, BASED ON THE PFM CRITERIA (SEE 6-1603.4B). IN THE EVENT OF A DAM FAILURE DUE TO THE 5.0 X 100 YEAR EVENT, NO FLOODING OF STRUCTURES WILL OCCUR.
7. PLATE 46-6 OF THE PFM REQUIRES SAFE PASSAGE OF 1.5 X 100 YEAR EVENT, THE SPILLWAY CONFORMS TO THE REQUIREMENT OF INCREASED SPILLWAY SIZE AND POND VOLUME AS REQUIRED BY 6-1603.4E OF THE PFM.

CONCLUSION

THE OVERTOPPING DEPTH OF WATER IS SIGNIFICANTLY LOWER THAN THE DEPTHS CONSIDERED DAM DAMAGING (1 TO 5 FEET) AND THE EVENT REQUIRED TO CAUSE THE OVERTOPPING (350 YEAR STORM) IS EXTREMELY UNLIKELY. THEREFORE, THE PROBABILITY OF THE DAM FAILURE IN THIS CASE IS NEGLIGIBLE. BOTH THE SUNNY DAY AND OVERTOPPING DAM BREACH ANALYSIS SHOWED NO EXISTING STRUCTURES WERE FLOODED.

FAIRFAX COUNTY TOPOGRAPHIC MAP
SCALE: 1"=500'

Application No. RZ / FDP 2006-PR-027 Staff T.S.
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(DP) (FDP) (CDP) (FDP)
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Date of (BOS) (PC) approval 11-1-2011
Sheet 17 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011 w/ SEA conditions 9-22-2011

COMMONWEALTH OF VIRGINIA
EDMUND J. IGNACIO
No. 033579
8/26/02
PROFESSIONAL ENGINEER

3.5X100 YEAR STORM EVENT W/O DAM

RATIONAL METHOD CALCULATIONS
Q=Cf x C x i x A
Cf = 1.25 (100 YEAR EVENT)
Cf = 0.6
I = 9.84 (100 YEAR EVENT)
A = 600 AC (AT SELECTED CROSS-SECTION)
Q = 15500 CFS

100 YEAR STORM EVENT W/O DAM

RATIONAL METHOD CALCULATIONS
Q=Cf x C x i x A
Cf = 1.25 (100 YEAR EVENT)
Cf = 0.6
I = 9.84 (100 YEAR EVENT)
A = 600 AC (AT SELECTED CROSS-SECTION)
Q = 4428 CFS

(WATER SURFACE ELEVATIONS GENERATED THROUGH FLOWMASTER)

SECTION A~A

SCALE: 1"=50' (H); 1"=5'(V)

THIS SHEET FOR INFORMATION ONLY

NO.	DESCRIPTION	REVIEW BY	APPROVED	DATE

REVISION APPROVED BY:
DIVISION OF DESIGN REVIEW

VIKA
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ GPS SERVICES
VIKA INCORPORATED
8180 GREENSBORO DRIVE SUITE 200 ■ McLEAN, VIRGINIA 22102
(703)442-7800 ■ FAX (703)761-2787
McLEAN, VA GERMANTOWN, MD

FAIRFAX RIDGE
REGIONAL STORMWATER MANAGEMENT POND
#D-47
PROVIDENCE MAGISTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DAM BREACH ANALYSIS

VIKA REVISIONS

DATE: DEC., 2001
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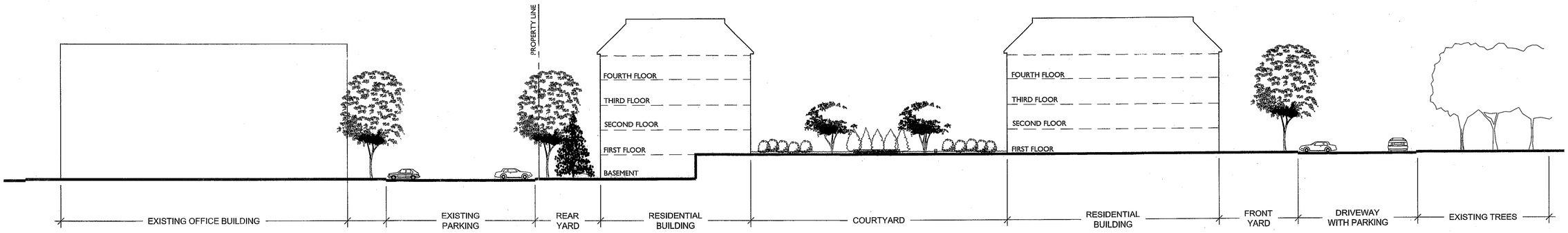
DWN. CADD
SCALE: AS SHOWN
PROJECT/FILE NO. 6301
SHEET NO. ~~20 OF 11~~

6D of 6



1/7 A-A'
SECTION

1"=20'

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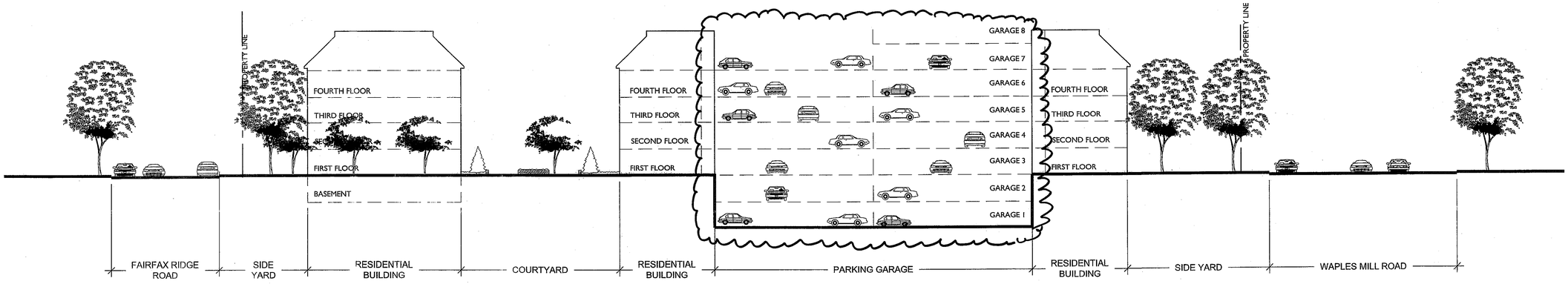

2/7 B-B'
SECTION

1"=20'

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Cert. No. 952
9/6/2011
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Fairfax Ridge Land Bays A & B
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Sections

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SEPTEMBER 6, 2011

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NOVEMBER 27, 2006
DECEMBER 21, 2006
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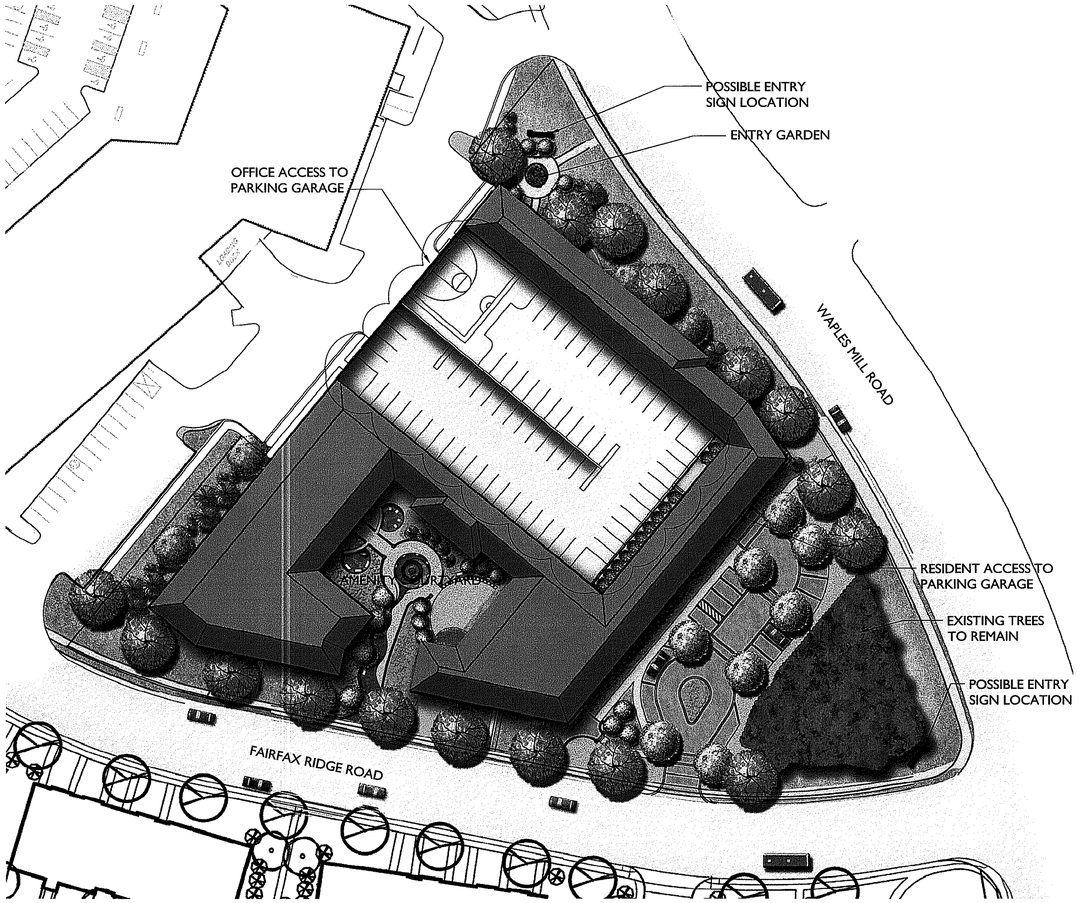
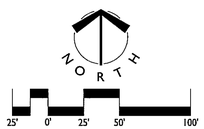
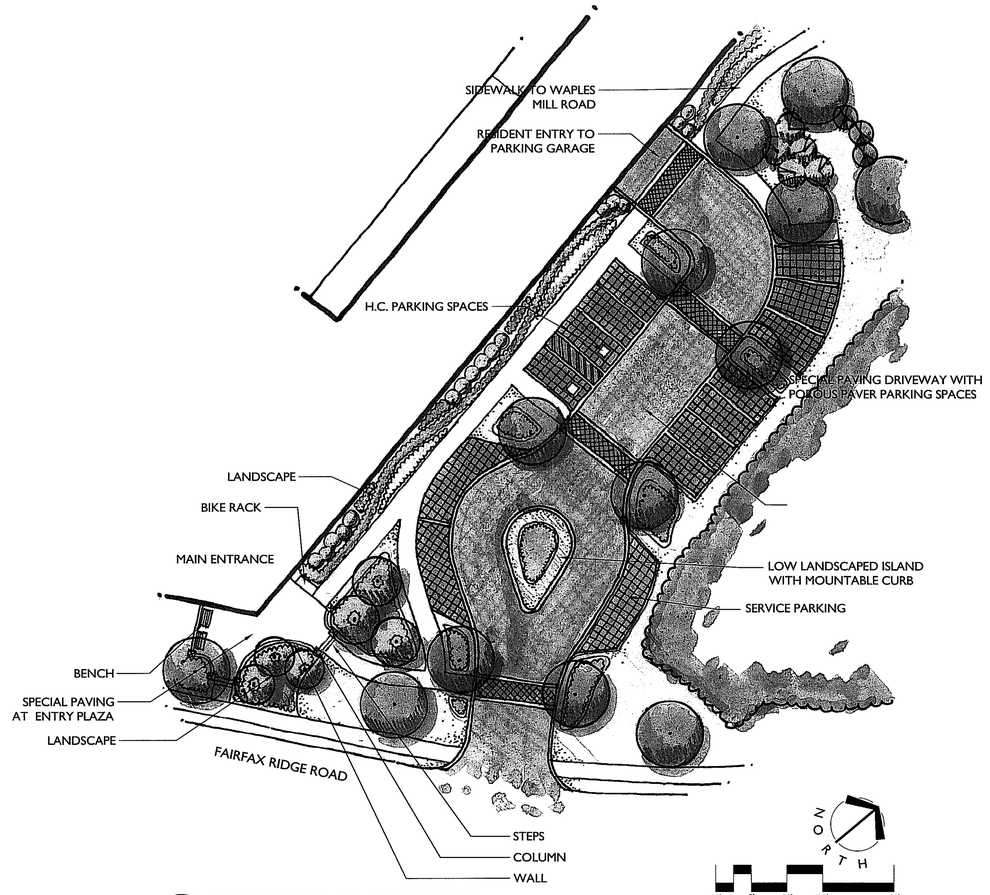


1 / 7A LAND BAY B ILLUSTRATIVE PLAN 1"=50'





2 / 7A BUILDING ENTRANCE PLAN 1"=20'

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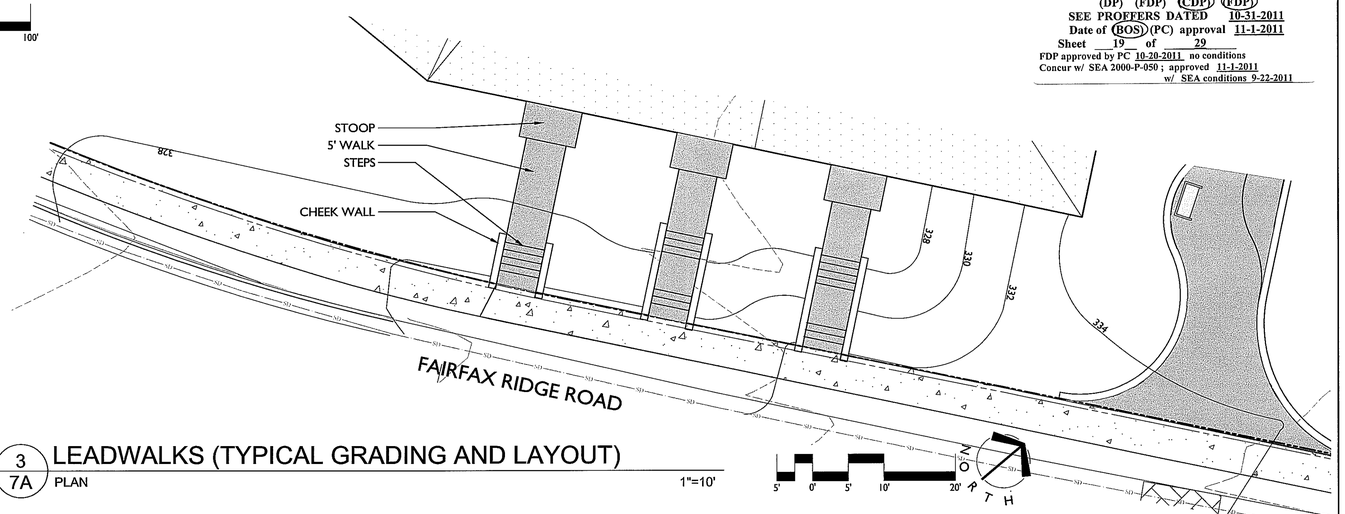

3 / 7A LEADWALKS (TYPICAL GRADING AND LAYOUT) PLAN 1"=10'

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Fairfax Ridge Land Bay B CDP/FDP

TCR Mid Atlantic Properties, Inc.; Providence Magisterial District, Fairfax County, Virginia

Site Rendering & Landbay B Enlargement

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MAY 25, 2010
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SEPTEMBER 13, 2010
NOVEMBER 29, 2010
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AUGUST 26, 2011
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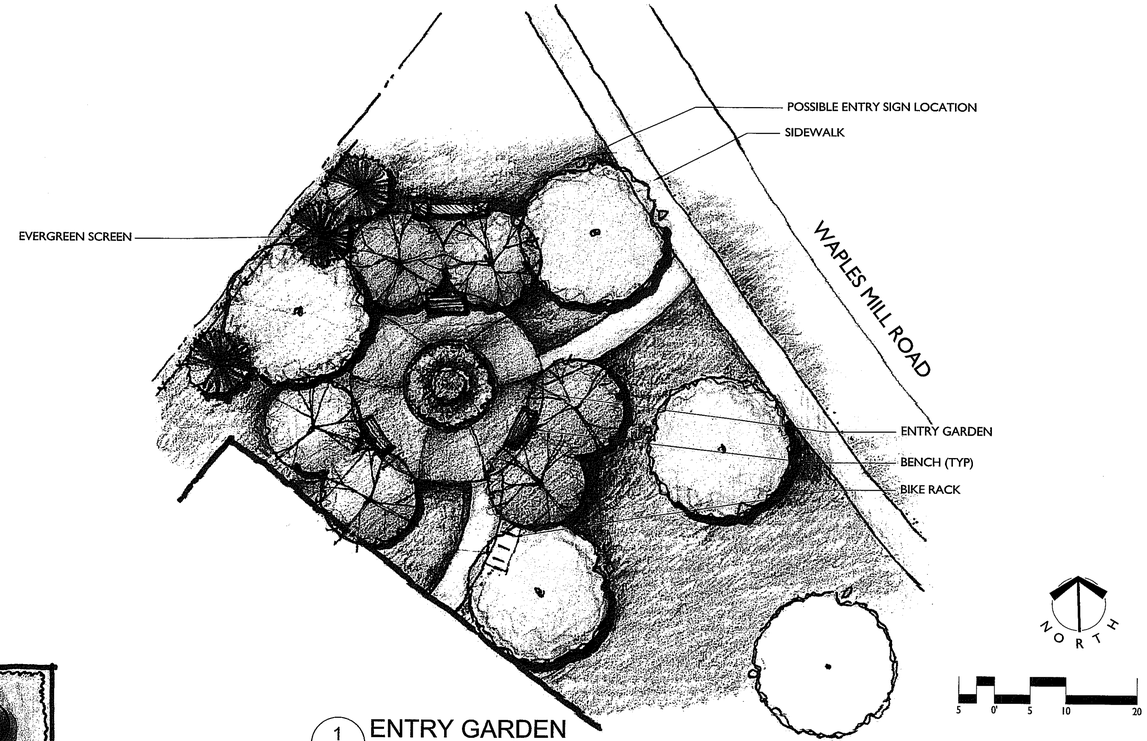
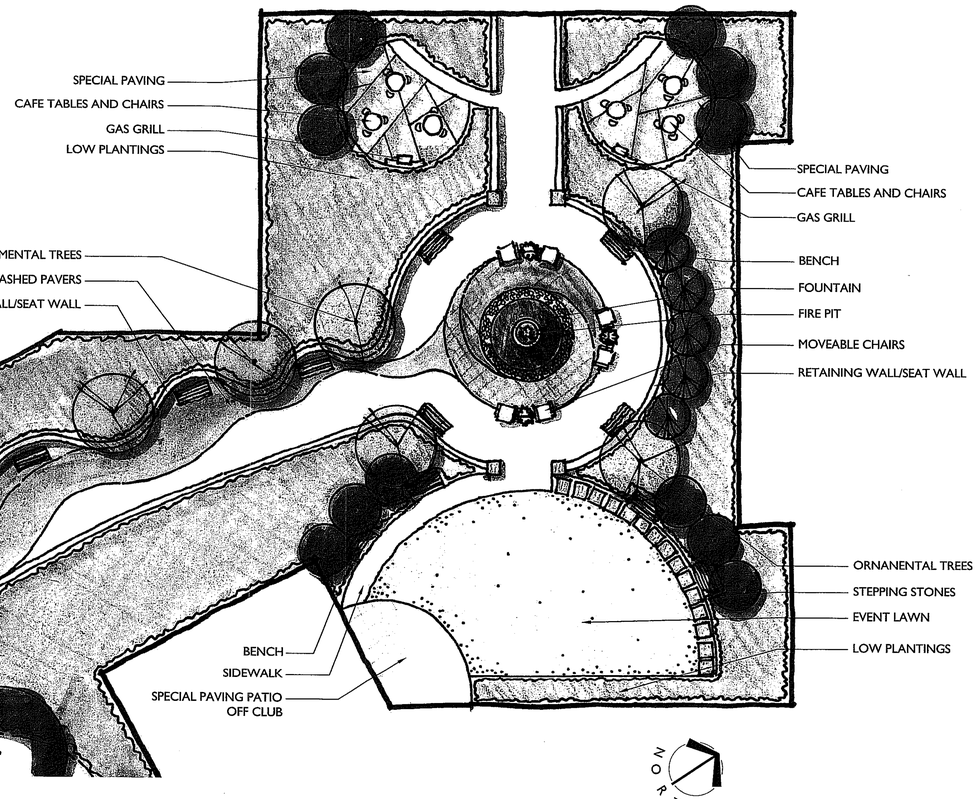


1/7B ENTRY GARDEN PLAN

1"=10'



2/7B AMENITY COURTYARD ENLARGEMENT PLAN

1"=10'

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Landbay B Enlargements

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Waples Road Elevation

Rear Elevation

Fairfax Ridge Road Elevation

Front Elevation

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Architectural Elevations

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SUMMER

WINTER

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Shadow Studies

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FEBRUARY 19, 2010
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AUGUST 4, 2010
SEPTEMBER 13, 2010
NOVEMBER 29, 2010
AUGUST 26, 2011

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SCALE: AS SHOWN
PROJECT #: 2005007

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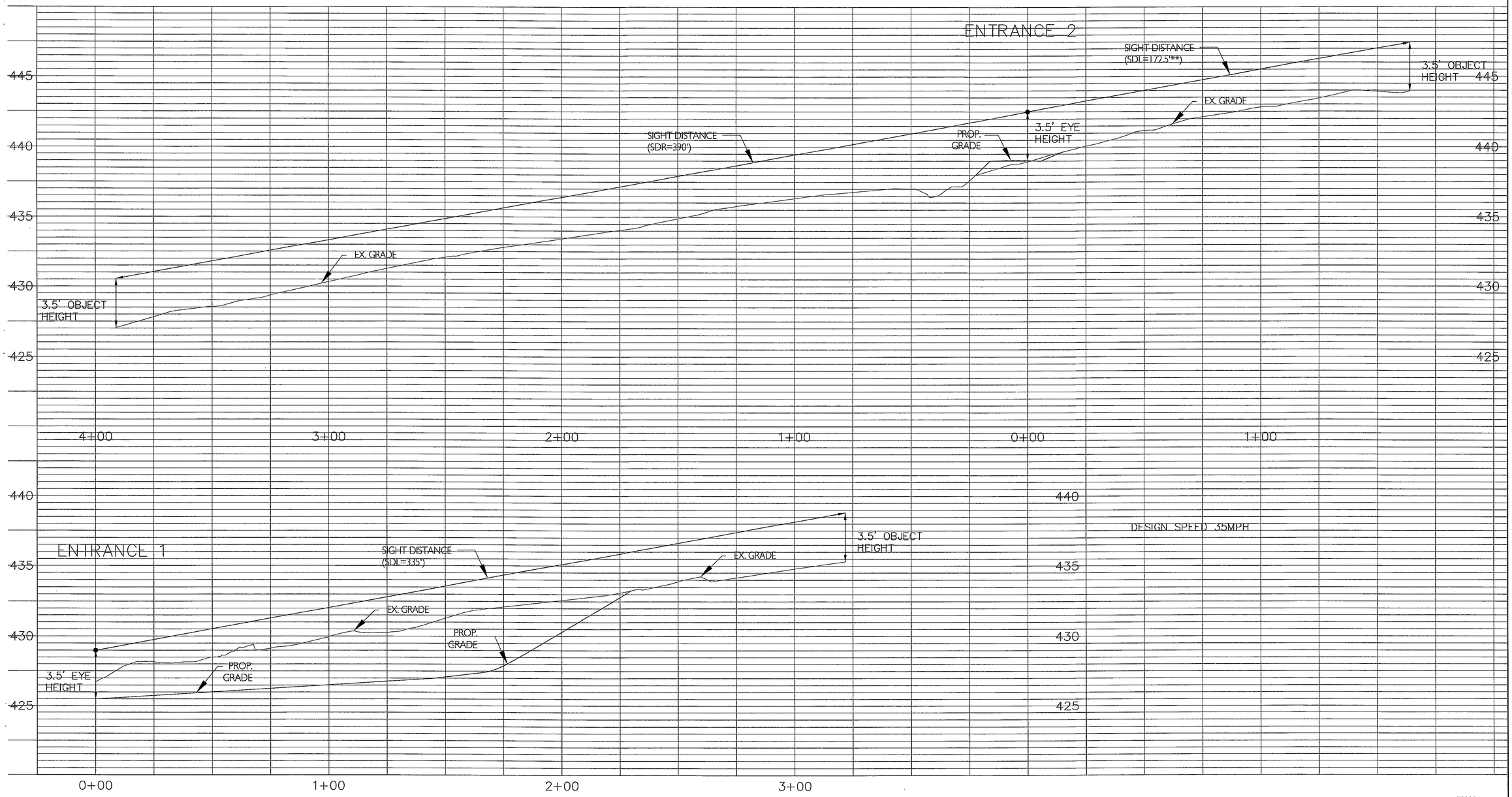

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SIGHT DISTANCE PROFILES

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PROJECT #: 2005007

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STYLE: HOMESTEAD SERIES
MODEL 28
SLATS: 3" X 4", "CHERRY" REINFORCED,
RECYCLED PLASTIC SLATS
FRAME: BLACK POWDER COAT
STANDARD SURFACE MOUNT WITH TAMPER PROOF
BOLTS.

MANUFACTURER:
VICTOR STANLEY, INC.
P.O. BOX 330
DUNKIRK, MARYLAND 20754
TEL: 301-855-8300
FAX: 410-257-7579

NOTES:
1. OR APPROVED EQUAL
2. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

1/8 BENCH

05A-33

PICTORIAL — NTS

MODEL:Pi
DIMENSIONS: 5"X21.5"X43"
COLOR: BLACK POWDERCOAT

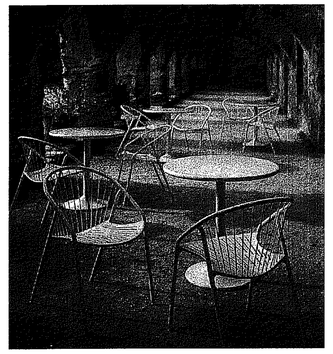
MANUFACTURER:
LANDSCAPE FORMS
431 LAWNDALE AVENUE
KALAMAZOO, MI 49001
800-521-2546

NOTES:
1. OR APPROVED EQUAL
2. BIKE RACK TO BE SURFACE MOUNTED PER MANUFACTURER'S INSTRUCTIONS

4/8 BIKE RACK

10C-006

PICTORIAL — NTS



MANUFACTURER:
LANDSCAPE FORMS, INC.
431 LAWNDALE AVENUE
KALAMAZOO, MI 49048
800-430-6209 PH.
269-381-3455 FAX
WWW.LANDSCAPEFORMS.COM

TABLE:
COLLECTION NAME: PARK CENTRE
TABLE TOP WITH SINGLE
EMBEDDED SUPPORT
MODEL: 30" CIRCULAR
STEEL POWDERCOAT FINISH

CHAIRS:
COLLECTION NAME: CATENA
STEEL POWDERCOAT FINISH

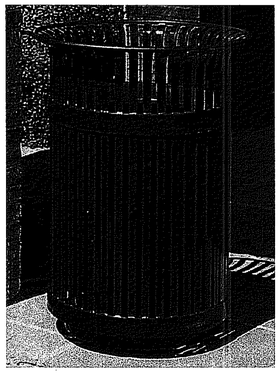
REP:
BARBARA NOLAN, INC.
PH (703) 648-0848
FAX (703) 648-0849

NOTES:
1. OR APPROVED EQUAL
2. INSTALL PER MANUFACTURER'S INSTRUCTIONS

7/8 CAFE TABLE AND CHAIRS

05H-061

PICTORIAL — NTS



STYLE:
IRONSITES MODEL NUMBER S-42 (36 GAL.)
FRAME COLOR: BLACK

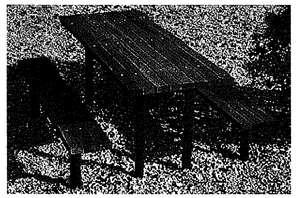
MANUFACTURER:
VICTOR STANLEY, INC.
P.O. BOX 330
DUNKIRK, MARYLAND 20754
TEL: 301-855-8300
FAX: 410-257-7579

NOTES:
1. OR APPROVED EQUAL.
2. RECEPTACLE TO BE MOUNTED IN GROUND PER MANUFACTURERS INSTRUCTIONS.

2/8 WASTE RECEPTACLE

05F-023

NTS



MANUFACTURER:
VICTOR STANLEY, INC.
P.O. BOX 330
DUNKIRK, MARYLAND 20754
TEL: 301-855-8300
FAX: 410-257-7579

STYLE: HOMESTEAD SERIES
MODEL: ST-6
SLATS: 2" X 4", "CHERRY" REINFORCED, RECYCLED PLASTIC
FRAME: BLACK POWDER COAT STANDARD

NOTES:
1. OR APPROVED EQUAL
2. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
3. SURFACE MOUNT WITH TAMPER PROOF BOLTS.
4. EXTEND TABLE TOP FOR ADA ACCESSIBILITY.

5/8 PICNIC TABLE

05G-055

PICTURE — NTS

MODEL: A30
30,000 BTU INPUT
ELECTRONIC IGNITION
330 SQUARE INCH COOKING AREA
121 SQUARE INCH WARMING RACK

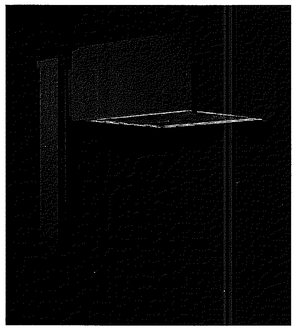
MANUFACTURER
AEI CORPORATION PGS PRODUCTS DIVISION
2641 DU BRIDGE AVENUE
IRVINE, CA 92623-6097
PH: 949-474-3070

NOTES:
1. PROVIDE CONNECTION TO BUILDING PROPANE SYSTEM
2. INSTALL PER MANUFACTURER'S INSTRUCTIONS

8/8 GAS GRILL

05L-044

PICTORAL — NTS



LUMINAIRE MODEL: FORM TEN SQUARE FORM AREA LIGHTING EH/H ARM MOUNT

POLE MODEL: CA4-STB (CRUCIFORM ALUMINUM WITH STEEL BASE TENON)

COLOR: BLACK

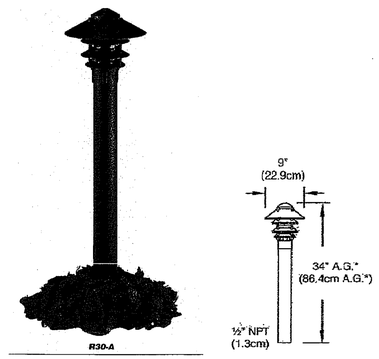
MANUFACTURED BY:
GARDCO LIGHTING
1611 CLOVIS BARKER ROAD
SAN MARCOS, TX 78666
512-753-1000

NOTES:
1. OR APPROVED EQUAL.
2. THE HEIGHT OF THE POLES AND FIXTURES (INCLUDING MOUNTING BASE, IF ANY SHALL NOT EXCEED THE HEIGHT OF THE BUILDINGS OR 25 FEET, WHICHEVER IS LESS.
3. ALL PARKING LOT LIGHTING SHALL CONSIST OF FULL CUT-OFF FIXTURES.
4. FOR USE IN PARKING LOTS AND AREAS REQUIRING CONTROL OF LIGHT SPILL OVER.

3/8 PARKING LOT/DECK LIGHT

05B-624

PICTORIAL — NTS



PATHLYTE
MODEL: R30-A
COLOR: BLACK
OR APPROVED EQUAL

COORDINATE LOCATIONS WITH LOCATIONS SHOWN ON PLAN.

ALL JUNCTION BOXES TO BE BELOW GRADE.

PATH LIGHT

MANUFACTURED BY:
HADCO
100 CRAFTWAY
LITTLESTOWN, PA 17340
717-359-7131

6/8 PATH LIGHT

05B-625

PICTORAL — NTS

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 24 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

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COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
9/6/2011
LANDSCAPE ARCHITECT

Fairfax Ridge Land Bay B

CDP/FDP

TCR Mid Atlantic Properties, Inc.; Providence Magisterial District, Fairfax County, Virginia

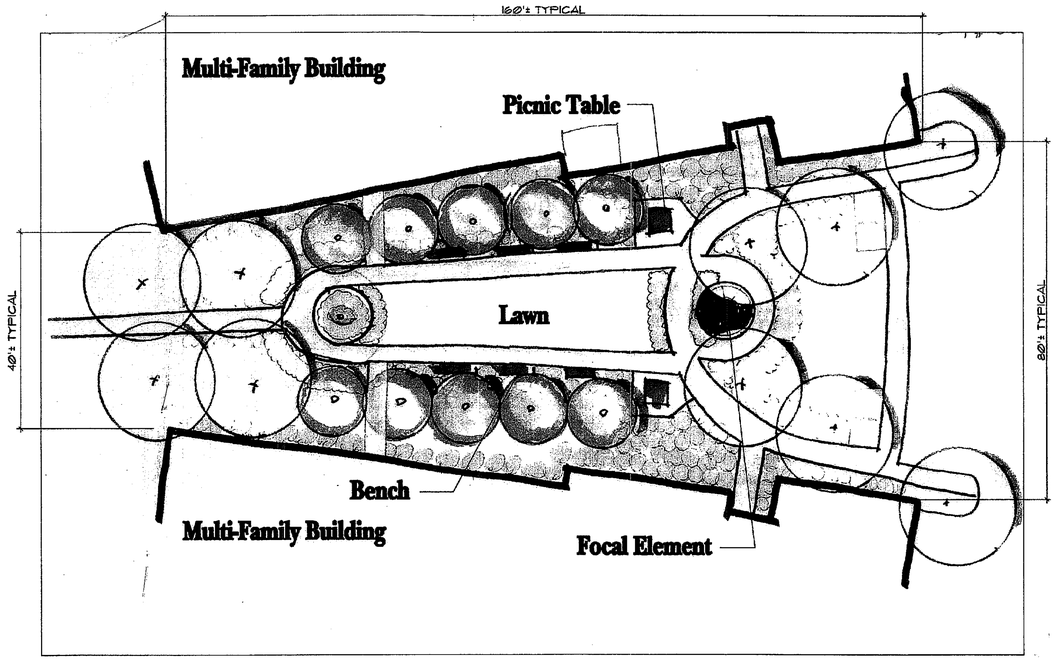
Site Details

REVISIONS:
DECEMBER 22, 2006
JANUARY 22, 2007
FEBRUARY 9, 2007
MAY 14, 2010
FEBRUARY 19, 2010
MAY 25, 2010
AUGUST 16, 2010
SEPTEMBER 23, 2010
NOVEMBER 29, 2010
AUGUST 26, 2011

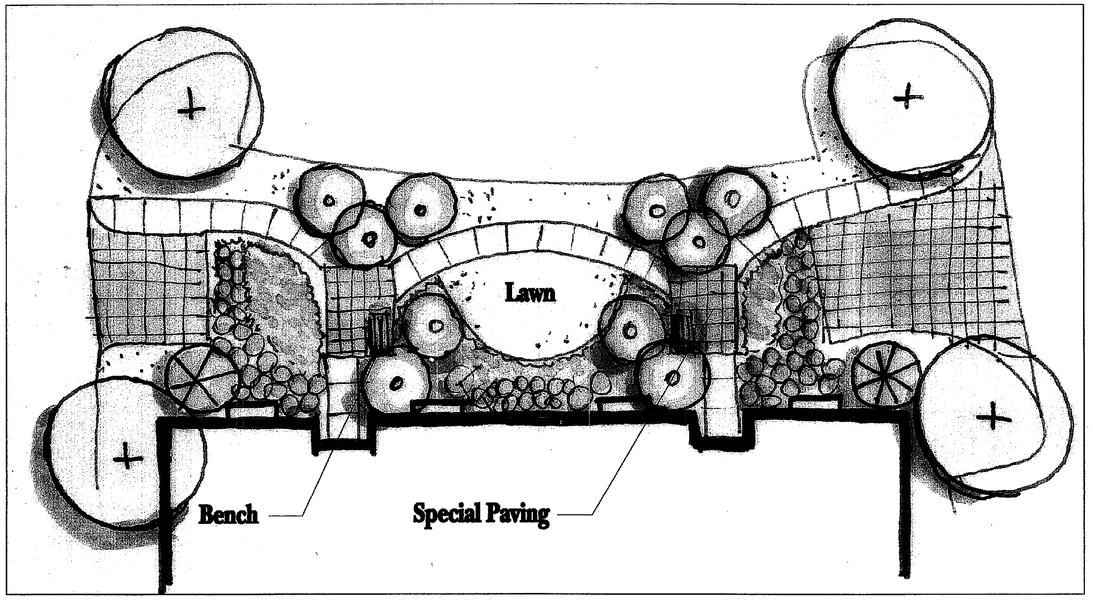
DATE: 4/4/05
DESIGNED BY: KT
DRAWN BY: CA
CHECKED BY:
Q.C. BY:
SCALE: AS SHOWN
PROJECT #: 2005007

SHEET NUMBER: 8

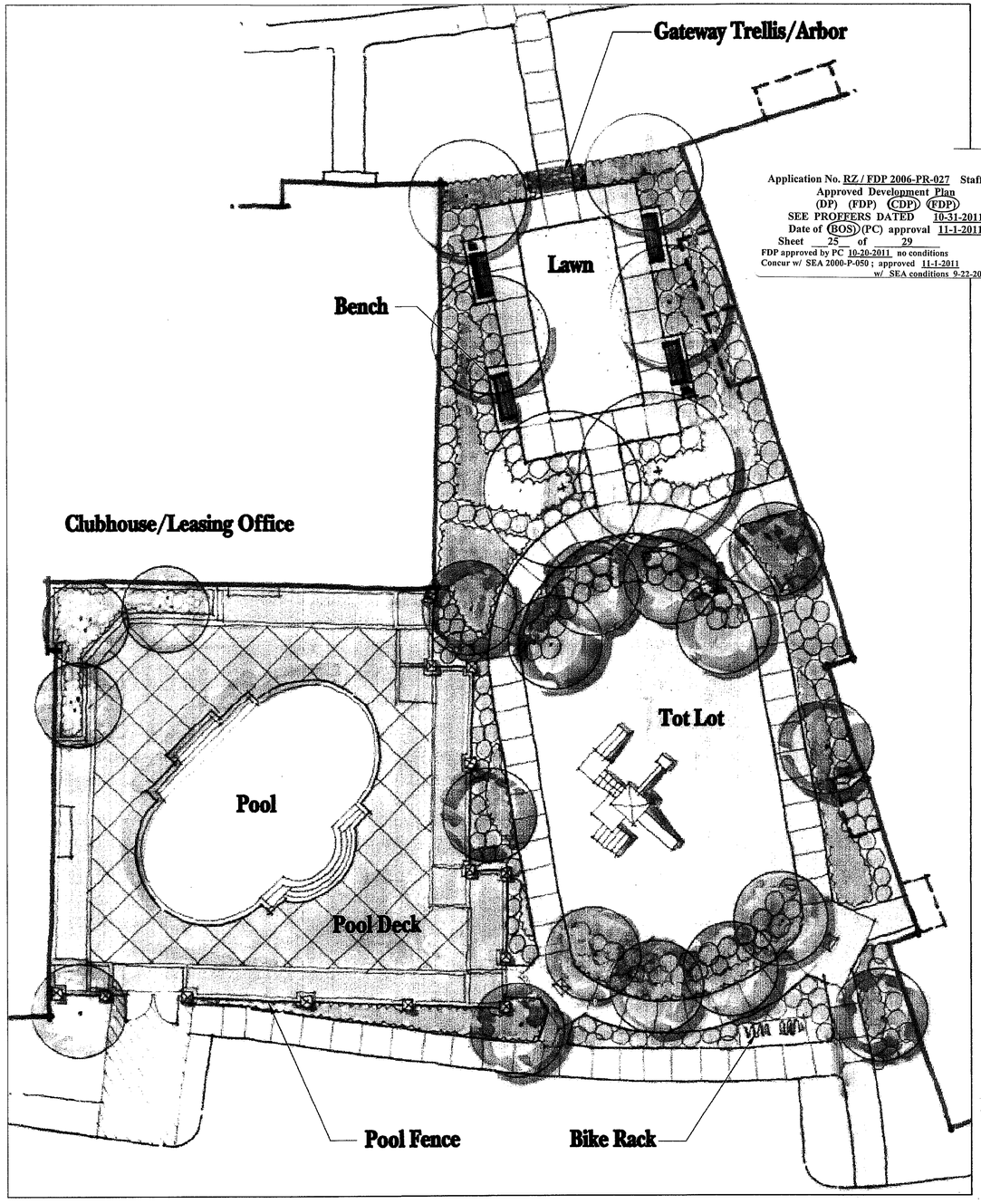
Jun 25, 2011 - 5:15pm
G:\2010_2010005\Cad\Exhibits\Zoning Plans\2010005-FFX_Ridge.dwg



1/5 TYPICAL COURTYARD CONCEPT
PLAN
NOT TO SCALE



2/5 SMALL BUILDING COURTYARD
PLAN
NOT TO SCALE



3/5 POOL AND TOTLOT COURTYARD
PLAN
NOT TO SCALE

NOTE: THIS SHEET INCLUDED FOR INFORMATION ONLY. THIS CDP/FDP WAS APPROVED BY THE PLANNING COMMISSION ON MAY 7, 2001. NO CHANGES ARE PROPOSED.

NOTE:
LANDSCAPING SHOWN ON THIS SHEET IS PRELIMINARY, IT REPRESENTS THE QUANTITY AND THE LEVEL OF QUALITY OF LANDSCAPE MATERIAL THAT IS PROPOSED. THE ACTUAL LOCATIONS, TYPES AND AMOUNTS OF VEGETATION AND FURNITURE WILL BE DETERMINED PURSUANT TO MORE DETAILED LANDSCAPE PLANS TO BE PREPARED AND SUBMITTED IN CONJUNCTION WITH THE SITE PLAN.

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 652
9/6/2011
LANDSCAPE ARCHITECT

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
Sheet 25 of 29
FDP approved by PC 10-20-2011 no conditions
Concur w/ SEA 2000-P-050 ; approved 11-1-2011
w/ SEA conditions 9-22-2011

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Fairfax Ridge
Limited Partnership

Fairfax Ridge
CDP/FDP 2000-PR-056/SE 00-P-050
Providence Magisterial District
Fairfax County, Virginia

Courtyard and Pool Concepts

REVISIONS
3/29/01 COUNTY COMMENTS
3/16/01 ADDITIONAL INFORMATION
4/13/01 COUNTY COMMENTS

DATE: 2/9/01
DES. BK
DWN. MW
SCALE: AS SHOWN
PROJECT/FILE NO. 2000018
SHEET NO. 5 OF 10

NOTE: THIS SHEET INCLUDED FOR INFORMATION ONLY. THIS CDP/FDP WAS APPROVED BY THE PLANNING COMMISSION ON MAY 7, 2001. NO CHANGES ARE PROPOSED.

1/7 Fairfax Ridge Road - Partial Street Elevation
ELEVATION NTS

2/7 Overlook Street - Partial Street Elevation
ELEVATION NTS

NOTE:
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NOTE:
THE BUILDING ELEVATIONS ON THIS SHEET ARE PRELIMINARY. THEY ARE PRESENTED TO ILLUSTRATE THE GENERAL CHARACTER AND ARCHITECTURAL THEME OF THE PROPOSED BUILDINGS. THE ELEVATIONS WILL BE REFINED AND SUBJECT TO MINOR MODIFICATIONS WITH FINAL ARCHITECTURE, ENGINEERING AND DESIGN.

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
9/6/2011
LANDSCAPE ARCHITECT

Application No. RZ / FDP 2006-PR-027 Staff T.S.
Approved Development Plan
(DP) (FDP) (CDP) (FDP)
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Sheet 26 of 29
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w/ SEA conditions 9-22-2011

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Fairfax Ridge
Limited Partnership

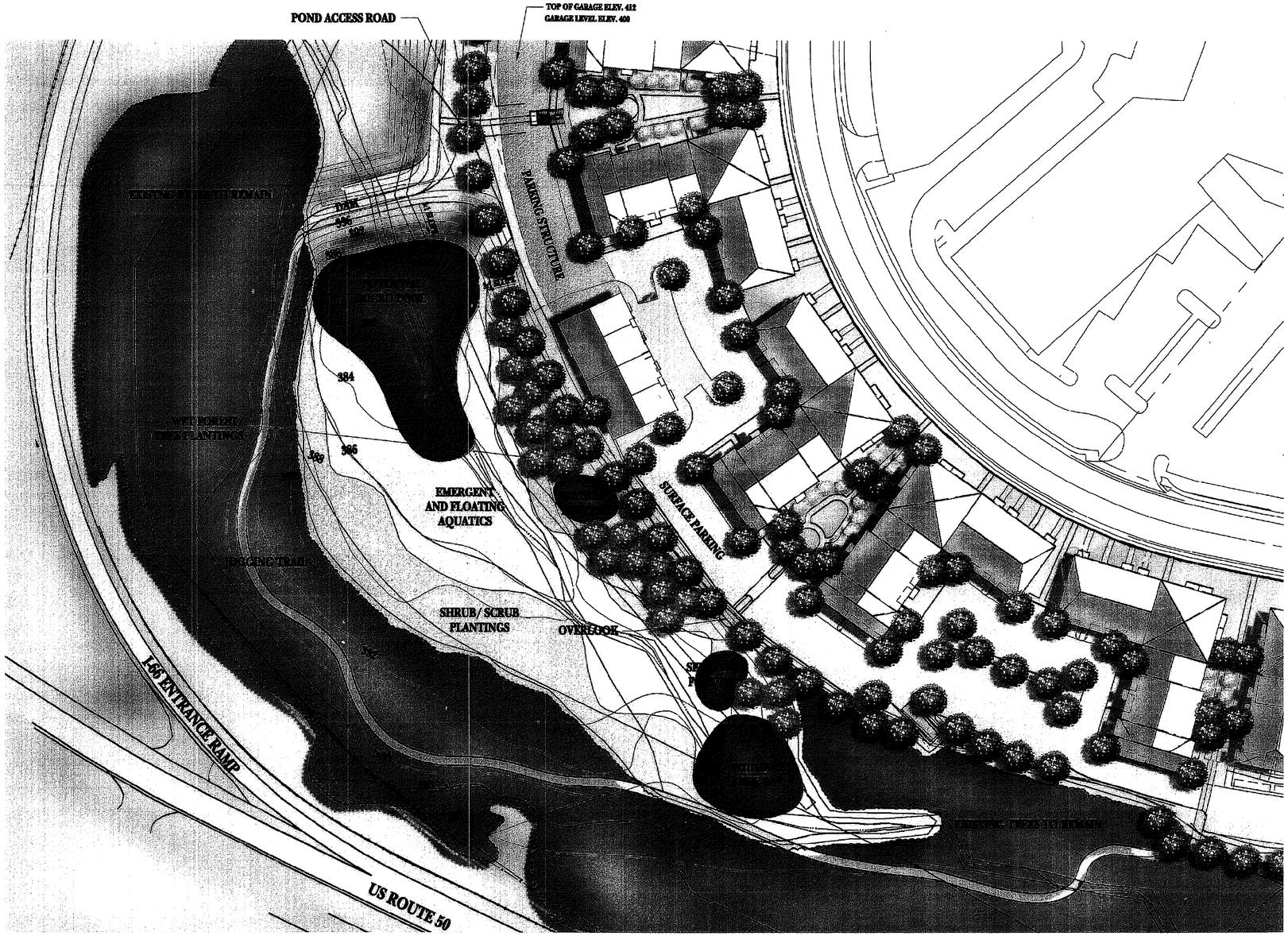
Fairfax Ridge
CDP/FDP 2000-PR-056/SE 00-P-050
Providence Magisterial District
Fairfax County, Virginia

Conceptual Architectural Elevation / Site Section

REVISIONS
3/09/01 COUNTY COMMENTS
3/16/01 ADDITIONAL INFORMATION
4/13/01 COUNTY COMMENTS

DATE: 2/9/01
DES. BK | DWN. MW
SCALE: 1:200
PROJECT/FILE NO. 200001B
SHEET NO. 1 OF 10

NOTE: THIS SHEET INCLUDED FOR INFORMATION ONLY. THIS CDP/FDP WAS APPROVED BY THE PLANNING COMMISSION ON MAY 7, 2001. NO CHANGES ARE PROPOSED.



1/8 CONCEPTUAL POND DESIGN
PLAN — NOT TO SCALE

SCALE: 1"=50'
0 25 50 100

DETENTION POND PLANT LIST

THE PLANTS SELECTED BELOW ARE REPRESENTATIVE OF THE TYPES OF PLANTS TO BE INSTALLED. ACTUAL FINAL SELECTION WILL DEPEND UPON SITE SPECIFIC OPPORTUNITIES AND CONSTRAINTS INCLUDING ASPECT, ORIENTATION, USE, SOIL CONDITIONS AND PLANTING AREAS.

WET FOREST/TREE LAYER (ELEVATION 389-392 +/-
ACER RUBRUM - RED MAPLE
FRAXINUS PENNSYLVANICA - GREEN ASH
QUERCUS PHELLOS - WILLOW OAK
QUERCUS PALUSTRIS - PIN OAK
PLANTANUS OCCIDENTALIS--AMERICAN SYCAMORE
LIQUIDAMBAR STYRACIFLUA--SWEET GUM
TAXODIUM DISTICHUM--BALD CYPRESS

SHRUB SCRUB (ELEVATION 386-389 +/-
CORNUS AMMONUM--SILKY DOGWOOD
ITEA VIRGINICA--VIRGINIA SWEETSPIRE
ALNUS SERRULATA--BROOKSIDE ALDER
ILEX VERTICILLATA--COMMON WINTERBERRY
VIBURNUM DENTATUM--SOUTHERN ARROWOOD
BETULA NIGRA--RIVER BIRCH
CORNUS SERICEA--RED OSIER DOGWOOD

EMERGENT AND FLOATING AQUATICS
NYMPHAEA--FRAGRANT WATERLILY
IRIS VERSICOLOR--BLUE IRIS
IRIS PSEUDACORUS--YELLOW IRIS
ACORUS CALAMUS--SWEET FLAG
HIBISCUS MOSCHEUTOS--MARSH HIBISCUS
SCIRPUS VALIDUS--SOFT STEM BULL RUSH
SCIRPUS AMERICANUS--OLNEY'S BULL RUSH
PONTEDERIA CORDATA--PICKEREL WEED

Application No. RZ / FDP 2006-PR-027 Staff T.S.
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(DP) (FDP) (CDP) (FDP)
SEE PROFFERS DATED 10-31-2011
Date of (BOS) (PC) approval 11-1-2011
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2 YEAR POND
(ELEVATION 392) - 3 ACRES

10 YEAR POND
(ELEVATION 394) - 3.5 ACRES

100 YEAR POND
(ELEVATION 396) - 4.1 ACRES

NOTE:
1. LANDSCAPING SHOWN ON THIS SHEET IS PRELIMINARY, IT REPRESENTS THE QUANTITY AND THE LEVEL OF QUALITY OF LANDSCAPE MATERIAL THAT IS PROPOSED. THE ACTUAL LOCATIONS, TYPES AND AMOUNTS OF VEGETATION WILL BE DETERMINED PURSUANT TO MORE DETAILED LANDSCAPE PLANS TO BE PREPARED AND SUBMITTED IN CONJUNCTION WITH THE SITE PLAN.

2. EXISTING TREES TO BE MAINTAINED PER THE PROFFERS FOR THIS REGIONAL DETENTION POND ALONG THE WESTERN AND SOUTHERN SIDES.

3. THE STORM WATER POND ELEVATIONS, DESIGN AND PLANTING LOCATIONS ARE SUBJECT TO CHANGE BASED UPON FINAL ENGINEERING AND REVIEW BY DPWES.

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
9/6/2011
LANDSCAPE ARCHITECT

LandDesign, Inc.
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Alexandria, VA 22314-2815
703/549-7784
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Fairfax Ridge
Limited Partnership

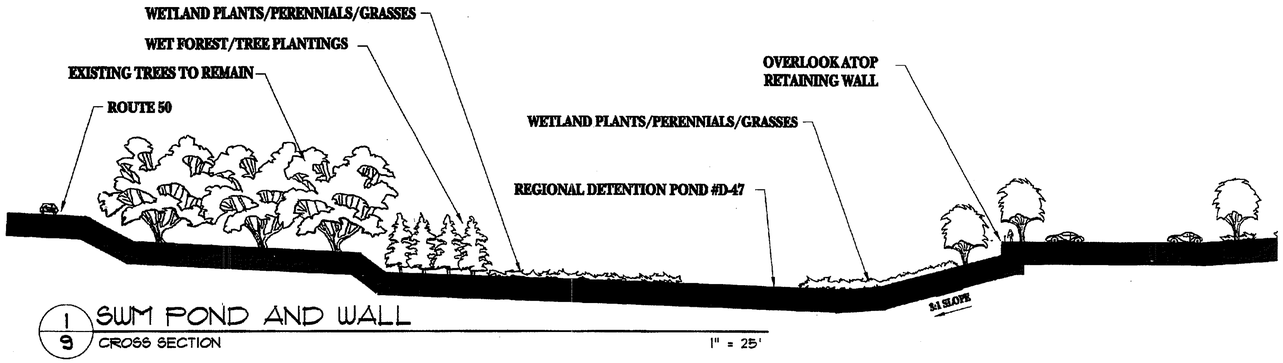
Fairfax Ridge
CDP/FDP 2000-PR-056/SE 00-P-050
Providence Magisterial District
Fairfax County, Virginia

Regional Detention Pond
#D - 47 Plan

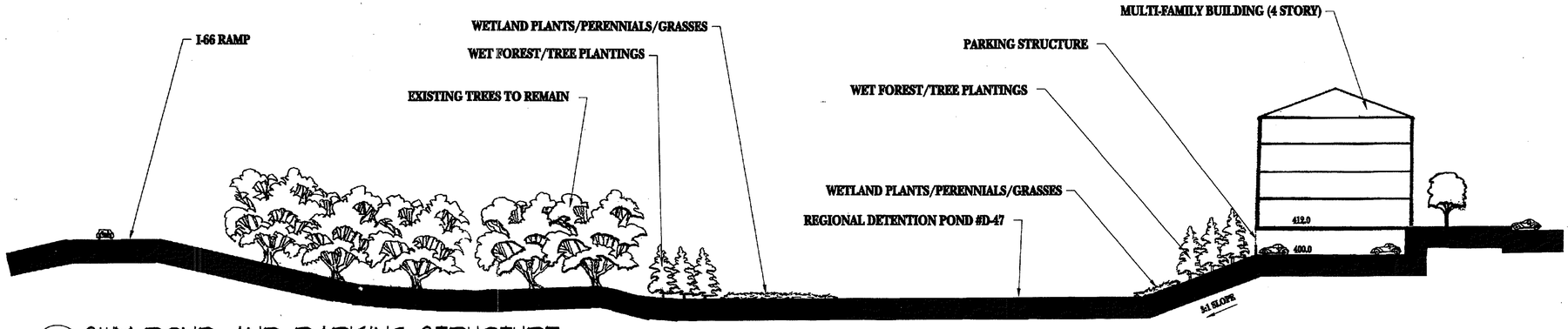
REVISIONS
3/16/01
ADDITIONAL INFO
4/13/01 COUNTY
COMMENTS

DATE: 3/09/01
DES. BK | DWN. MW
SCALE: 1"=50'
PROJECT/FILE NO. 200018
SHEET NO. 8 OF 10

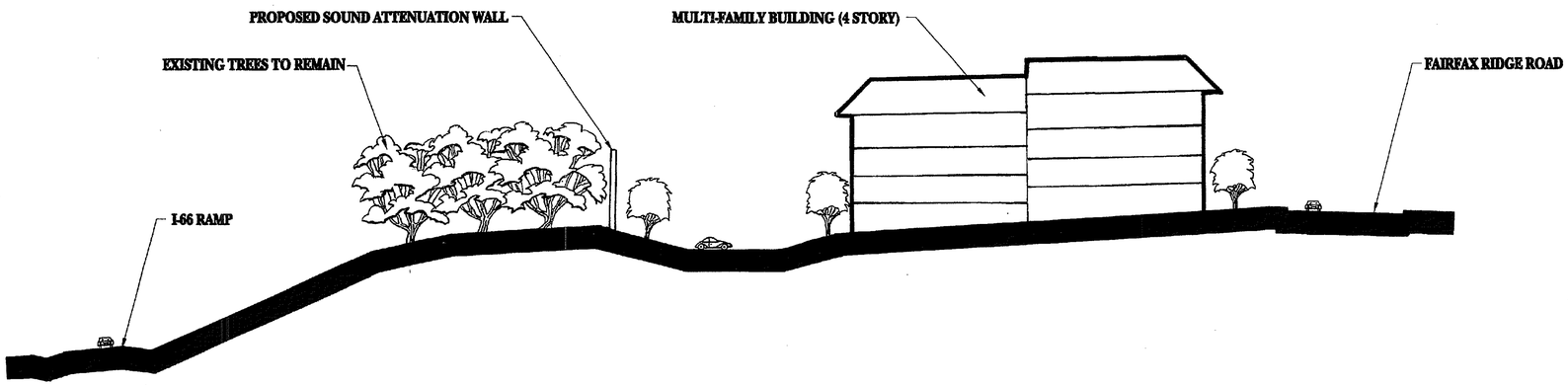
NOTE: THIS SHEET INCLUDED FOR INFORMATION ONLY. THIS CDP/FDP WAS APPROVED BY THE PLANNING COMMISSION ON MAY 7, 2001. NO CHANGES ARE PROPOSED.



1/9 SWM POND AND WALL
CROSS SECTION
1" = 25'



2/9 SWM POND AND PARKING STRUCTURE
CROSS SECTION
1" = 25'



3/9 PROPOSED SOUND ATTENUATION WALL
CROSS SECTION
1" = 25'

Application No. RZ / FDP 2006-PR-027 Staff T.S.
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(DP) (FDP) (CDP) (FDP)
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COMMONWEALTH OF VIRGINIA
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9/6/2011
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Alexandria, VA 22314-2815 Fax: 703/549-4884

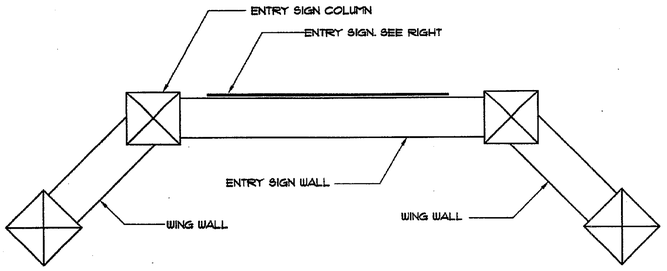
Fairfax Ridge
Limited Partnership

Fairfax Ridge
CDP/FDP 2000-PR-056/SE 00-P-050
Providence Magisterial District
Fairfax County, Virginia

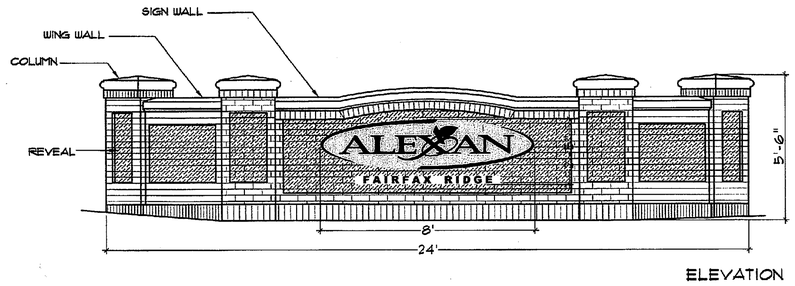
Regional Detention Pond #D - 47 Cross Section

REVISIONS
3/16/01 ADDITIONAL INFORMATION
4/13/01 COUNTY COMMENTS

DATE: 2/9/01
DES. BK | DWN. MW
SCALE: 1"=25'
PROJECT/FILE NO. 2000018
SHEET NO. 9 OF 10



PLAN



ELEVATION

NOTE:
THIS SIGN MONUMENT IS FOR ILLUSTRATIVE PURPOSES ONLY. THE FINAL DESIGN OF THE MONUMENT WILL BE EQUAL IN CHARACTER AND QUALITY.

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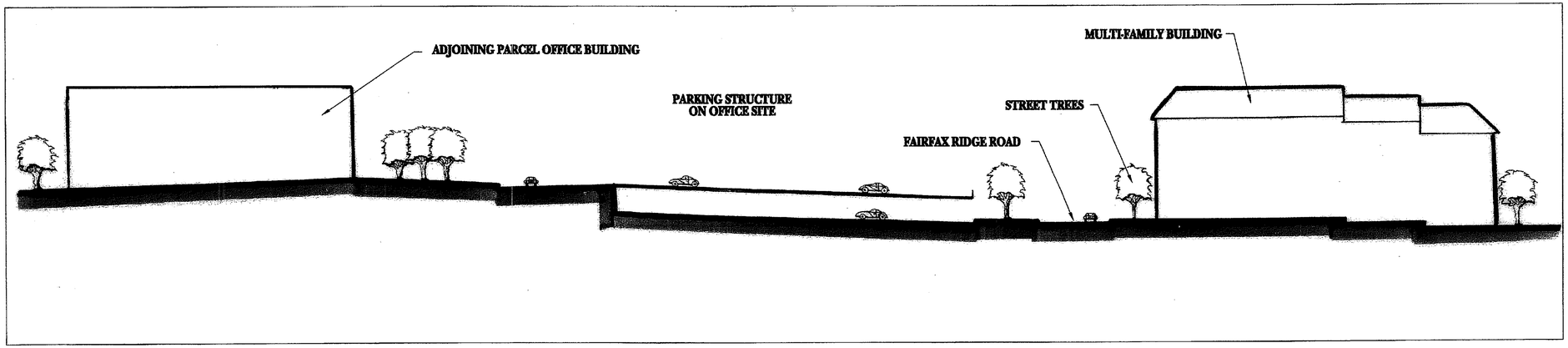
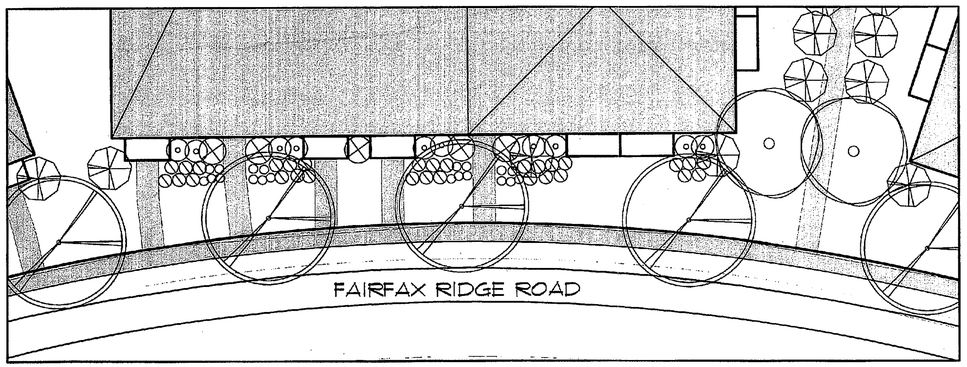
1/10 ENTRY SIGN AND MONUMENT
PLAN/ELEVATION

01A-342
3/8"=1'-0"



2/10 CONCEPTUAL ARCHITECTURE - SITE SECTION
SECTION

SCALE: 1"=25'
0 12.5 25 50



3/10 TYPICAL STREETSCAPE PLAN
PLAN

NOTE:
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LEGEND

- EXISTING 8" CALIPER LARGE DECIDUOUS TREE
- LARGE DECIDUOUS TREE, MIN. 3-1/2" CALIPER
- LARGE DECIDUOUS TREE, MIN. 2-1/2" CALIPER
- ORNAMENTAL/FLOWERING TREE (SMALL OR MEDIUM DECIDUOUS TREE), MIN. 1" CALIPER
- COMPACT OR SMALL EVERGREEN TREE, MIN.: 6' - 8' HEIGHT
- LARGE SHRUBS, MIN. 30"-36" HT.
- MEDIUM SHRUBS, MIN. 18"-24" HT.
- SMALL SHRUBS AND GROUNDCOVERS, SIZES VARY: 4" TO 1 GALLON POTS
- EXISTING TREES TO REMAIN

3/4"=1'-0"

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
9/6/2011
LANDSCAPE ARCHITECT

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Fairfax Ridge
Limited Partnership

Fairfax Ridge
CDP/FDP 2000-PR-056/SE 00-P-050
Providence Magisterial District
Fairfax County, Virginia

Streetscape Plan

REVISIONS
2/09/01 COUNTY COMMENTS
3/09/01 COUNTY COMMENTS
3/16/01 ADDITIONAL INFO
4/13/01 COUNTY COMMENTS

DATE: 3/15/00
DES. KT DWN. MW
SCALE: AS SHOWN
PROJECT/FILE NO. 2000018
SHEET NO. 10 OF 10