SPECIAL EXCEPTION PLAT

FOR

FAIRBROOK HOTEL

SULLY DISTRICT

FAIRFAX COUNTY, VIRGINIA

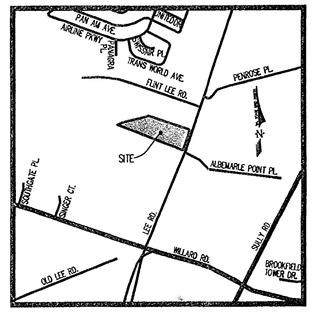
GENERAL NOTES

1. THE SUBJECT SITE IS LOCATED ON FAIRFAX COUNTY TAX MAP PARCEL 34-3-((01))-0022 AND IS ZONED I-3 "LIGHT INTENSITY INDUSTRIAL" DISTRICT.
2. THE SUBJECT SITE IS LOCATED WITHIN THE WATER SUPPLY PROTECTION OVERLAY (WS) DISTRICT AND THE APPLICANT WILL DEVELOP THE SITE IN COMPLIANCE WITH THE APPLICABLE PROVISIONS OF THE ZONING ORDINANCE WS OVERLAY DISTRICT REGULATIONS.
3. THE TOTAL LAND AREA INCLUDED IN THE GENERALIZED DEVELOPMENT PLAN (GDP) IS 226,724.74 SQUARE-FEET OR 5.20 ACRES. THIS AREA SHALL BE REFERRED TO AS THE "SITE".
4. BOUNDARY AND TOPOGRAPHY INFORMATION HEREON IS BASED ON FIELD RUN SURVEY PREPARED BY URBAN ENGINEERING & ASSOC.. INC. DATED FEBRUARY, 2005 AND IS REFERENCED HORIZONTALLY TO NAD 1983 AND VERTICALLY TO NAVD 1929.
5. THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT.
6. INFORMATION REGARDING THE OWNERS OF THE PARCELS MENTIONED HEREON IS PROVIDED ON THE COVER SHEET.
7. THE APPLICANT WILL PROVIDE AN ENTRANCE SIGN IN COMPLIANCE WITH THE APPLICABLE ZONING REGULATIONS FOR THE SUBJECT SITE.
8. THE SITE DATA SHOWN HEREON IS SUBJECT TO REVISION BASED UPON FINAL BUILDING FOOTPRINTS, OPENSPACE, PARKING LAYOUT AND BUILDING AREAS. THE PLAN IS CONCEPTUAL AND IS INTENDED TO BE USED IN CONJUNCTION WITH THE LAND USE APPROVAL PROCESS. IT IS NOT AN ENGINEERING CONSTRUCTION DRAWING AND MINOR DEVIATION AND ADJUSTMENTS MAY BE REQUIRED, CONSISTENT WITH SECTION 78-222 OF THE FAIRFAX COUNTY CODE.
9. THIS SITE IS SERVED BY PUBLIC WATER AND PUBLIC SEWER.
10. STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES ARE TO BE SURFACE AND/OR SUBSURFACE AND PROVIDED ONSITE. THE GENERAL LOCATION OF THE FACILITIES ARE DEPICTED ON THE GDP FOR THIS APPLICATION.
11. TO THE BEST OF OUR KNOWLEDGE, EXCEPT FOR THE MODIFICATIONS REQUESTED HEREIN, THE PROPOSED DEVELOPMENT OF THE SUBJECT PROPERTY CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES, REGULATIONS, AND ADOPTED STANDARDS.
12. CONSTRUCTION SHALL COMMENCE UPON RECEIPT OF ALL APPROPRIATE TOWN, COUNTY, AND OTHER REGULATORY AGENCY APPROVALS/PERMITS.
13. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO KNOWN GRAVES ON THE SITE.
14. ALL NEW, ONSITE UTILITIES ARE TO BE UNDERGROUND.
15. THE FINAL ALIGNMENT OF ALL PROPOSED WATER MAINS SHOWN ON THIS GDP ARE TO BE DETERMINED AT THE TIME OF SITE PLAN SUBMISSION.
16. THIS PROPOSED DEVELOPMENT IS IN CONFORMANCE WITH THE COMPREHENSIVE PLAN AND ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED CONDITIONS WITH THE EXCEPTION OF THE FOLLOWING:

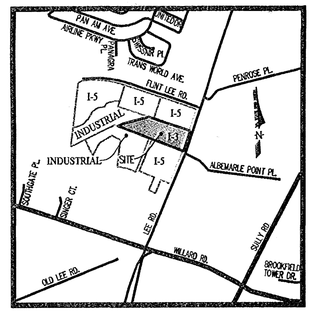
    A. MODIFICATION OF ZONING ORDINANCE SECTION 9-512; "ADDITIONAL STANDARDS FOR HOTELS, MOTELS."
17. THE FIELD-VERIFIED RPA AND 100-YEAR FLOODPLAIN LIMITS SHOWN ON THIS PLAN ARE PER FAIRFAX COUNTY RPA PLAN (FFX. CO. PLAN # 3775-RPA-002-1) APPROVED ON 11/16/2007.

I HEREBY PROFFER THAT THE DEVELOPMENT OF THE SUBJECT PROPERTY OF THIS APPLICATION SHALL BE IN SUBSTANTIAL CONFORMITY WITH THE CONDITIONS SET FORTH IN THIS SUBMISSION.

Clayton Tock — 10/10/08
DATE



VICINITY MAP
SCALE: 1"=1000'



ZONING MAP
SCALE: 1"=1000'

SITE DATA

AREA DATA

TOTAL LAND AREA = 226,724.74 S.F. = 5.20 AC.
AREA OF STREET DEDICATION = 0.00 S.F. = 0.00 AC.
NET SITE AREA = 226,724.74 S.F. = 5.20 AC.
MAXIMUM FAR PERMITTED = 0.40
MAXIMUM FAR PROPOSED = 0.286

ZONING

EXISTING ZONING = I-3 (INDUSTRIAL)
PROPOSED ZONING = I-3 (INDUSTRIAL)

USE

EXISTING: VACANT
PROPOSED: HOTEL

BUILDING DATA

MAXIMUM BUILDING HEIGHT PERMITTED = 75'
PROPOSED BUILDING HEIGHT = 65'
TOTAL HOTEL GROSS FLOOR AREA PROPOSED = 65,021 G.S.F.
TOTAL UNITS = 102
MIN. FRONT YARD SETBACK = CONTROLLED BY 45° BULK PLANE ANGLE, BUT NOT LESS THAN 40'
PROVIDED FRONT YARD SET BACK = 105.11 (58° BULK PLANE ANGLE)
MIN. SIDE YARD REQUIREMENT = CONTROLLED BY 45° BULK PLANE ANGLE
PROVIDED SIDE YARD SETBACK = 71.02' (47° BULK PLANE ANGLE)
= 128.73' (62° BULK PLANE ANGLE)
MIN. REAR YARD REQUIREMENT = CONTROLLED BY 45° BULK PLANE ANGLE
PROVIDED REAR YARD SETBACK = 329.88' (77° BULK PLANE ANGLE)

PARKING TABULATION

I. PARKING REQUIRED BY PROPOSED USE

A. HOTEL PARKING SPACES

1 PER UNIT X 102 = 102 SPACES
4 PER 50 UNITS X 102 = 9 SPACES

TOTAL PARKING REQUIRED = 111 SPACES

II. TOTAL PARKING SPACES PROVIDED

STANDARD PARKING = 111 SPACES
HANDICAPED PARKING = 5 SPACES (2 VAN ACCESIBLE)

TOTAL PARKING PROVIDED = 116 SPACES

III. LOADING SPACES

A. REQUIRED
LOADING SPACES REQUIRED
1 SPACE FOR FIRST 10,000 GSF = 1 SPACE
1 SPACE FOR EACH ADDITIONAL 100,000 GSF = 1 SPACE

TOTAL LOADING SPACE REQUIRED = 2 SPACE

B. PROVIDED = 2 SPACES

RECEIVED
Department of Planning & Zoning
OCT 10 2008
Zoning Evaluation Division

OPEN SPACE

OPEN SPACE REQUIRED = 15% OF GROSS SITE AREA = 0.15*(226,724.74 S.F.) = 34,008.71 S.F. OR 0.78 AC.
OPEN SPACE PROVIDED = 169,910 S.F. OR 3.90 AC.

IMPERVIOUS AREA

TOTAL PROP. IMPERVIOUS AREA = 62,109.34 S.F. OR 1.43 AC.

OWNER INFORMATION

JAI HOTELS LLC,
45620 FALKE PZ
STERLING, VA 20166
PHONE: 703-864-5948
CONTACT: VINAY PATEL

ENGINEER

URBAN LTD.
4200 D TECHNOLOGY DR.
CHANTILLY, VA. 20151
PHONE: 703-642-2306
CONTACT: CLAYTON TOCK

ATTORNEY

WALSH, COLUCCI, LUBELEY, EMRICH, & WALSH, P.C.
2200 CLARENDON BLVD.
THIRTEENTH FLOOR
ARLINGTON, VA. 22201-3359
PHONE: 703-528-4700
CONTACT: MARTIN WALSH

Application No. SE-2008-SU-001 Staff S.B.
APPROVED (SE) (SP) PLAN
SEE DEV CONDS DATED 10/20/2008
Date of (BOS) (BZA) approval 10/20/2008
Sheet 1 of 13

SHEET INDEX

1. COVER SHEET
2. GENERAL NOTES & DETAILS
3. EXISTING CONDITIONS
4. EXISTING VEGETATION MAP
5. SPECIAL EXCEPTIONS PLAT
6-6A. OUTFALL MAP
7-7A. BMP PLAN & DETAILS
8. SWM MAP
9. SIGHT DISTANCE PLAN & PROFILE
10. CONCEPTUAL LANDSCAPE PLAN
11. OPEN SPACE EXHIBIT

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
11-16-07
12-27-07
03-19-08
04-17-08
05-08-08
05-23-08
10-10-08

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
No. 036790
10/10/08
PROFESSIONAL ENGINEER

COVER SHEET

FAIRBROOK HOTEL
SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS SHOWN C.I. N/A DATE: NOV., 2007

SHEET 1 OF 11

FILE No. PREL-1823

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OUTFALL NARRATIVE

THE SUBJECT SITE IS LOCATED WITHIN CUB RUN WATERSHED. SITE DRAINS EAST TO WEST THROUGH PROPOSED CLOSED CONDUIT SYSTEMS. PROPOSED CLOSED CONDUIT SYSTEM DISCHARGES TO PROPOSED SWM VAULT AND FROM THE SWM VAULT INTO SCHNEIDER RUN. WITH THIS PROPOSED DEVELOPMENT, STORM WATER FROM THE SITE WILL BE CAPTURED VIA ADEQUATELY ENGINEERED DROP INLETS LOCATED THROUGHOUT THE SITE, AND THEN THE CAPTURED STORMWATER IS CONVEYED TO THE PROPOSED SWM VAULT IN THE NORTHWEST CORNER OF THE DEVELOPMENT BY PROPOSED ONSITE CLOSED STORM CONDUIT SYSTEM. THE PROPOSED SWM VAULT DISCHARGES INTO EXISTING 100 YEAR FLOODPLAIN AND THEN TO SCHNEIDER RUN, AND ULTIMATELY TO CUB RUN. IT HAS BEEN DEMONSTRATED ON THE STORM COMPUTATIONS THAT THE EXISTING AND THE PROPOSED CLOSED STORM CONDUIT SYSTEMS CONVEY THE RUNOFF FROM THE SUBJECT SITE TO THE EXISTING STREAM ADEQUATELY.

THE ADEQUATE OUTFALL ANALYSIS HAS BEEN PROVIDED ON SHEET 6-6A IN COMPLIANCE WITH THE NEW ADEQUATE OUTFALL PROVISIONS OF PFM THAT WERE ADOPTED BY THE BOARD OF SUPERVISORS AND EFFECTIVE FEBRUARY 7, 2006. THE POINT OF CONFLUENCE HAS BEEN IDENTIFIED AND THE OUTFALL ANALYSIS THAT IS REPRESENTATIVE OF THE STREAM REACHES FOR THE ENTIRE EXTENT OF THE DOWNSTREAM DRAINAGE AREA, 531.27 AC, HAS BEEN CONDUCTED ACCORDING TO THE PFM SECTION 6-0203.2B. THREE CROSS SECTIONS HAVE BEEN PLACED ON SCHNEIDER RUN WITHIN THE 150' FROM THE POINT OF THE CONFLUENCE FOR THE ANALYSIS. THE OVERVIEW OF THE DRAINAGE AREA AND THE TIME OF CONCENTRATION COMPUTATIONS HAVE BEEN PROVIDED ON SHEET 6. THE CROSS SECTIONS AND THE COMPUTATIONS FOR THE OUTFALL ANALYSIS HAVE BEEN PROVIDED ON SHEET 6A. BASED ON THE RESULTS OF THE OUTFALL ANALYSIS, 2 AND 10 YEAR STORM EVENTS AT THE OUTFALL HAVE BEEN HANDLED ADEQUATELY. THE WATER SURFACE ELEVATIONS FOR THE 10 YEAR FLOW HAVE BEEN COMPUTED AS FOR THE CROSS SECTIONS 1-3 RESPECTIVELY AND ALL WATER SURFACE ELEVATIONS HAVE BEEN MAINTAINED IN THE BED OF SCHNEIDER BRANCH AND THE VELOCITIES FOR THE 2 YEAR STORM EVENT AT THE CROSS SECTIONS HAVE BEEN COMPUTED AS 2.40, 2.44, AND 2.29 FPS RESPECTIVELY, WHICH ARE ALL IN THE LIMITS OF THE PERMISSIBLE VELOCITY FOR THE NATURAL STREAM CHANNEL PER VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 3RD EDITION, TABLE 5-22. PLEASE SEE SHEET 6A FOR THE COMPUTATIONS.

IT IS THE OPINION OF URBAN ENGINEERING & ASSOCIATES, INC. THAT THE STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICE HAVE BEEN MET FOR THE SITE AND THAT AN ADEQUATE OUTFALL EXISTS FOR THE PROPOSED CLOSED CONDUIT SYSTEMS.

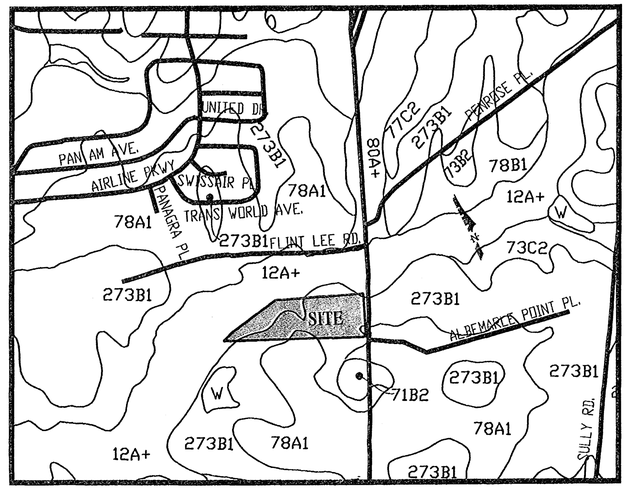
Clayton Tock 10/10/08

URBAN ENGINEERING & ASSOCIATES, INC. DATE

CLAYTON C. TOCK, P.E., ASSOCIATE

SOIL MAP

SCALE: 1"=500'



PARCEL 1:

SOIL ID NUMBERS	SERIES NAME	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	SLOPE STABILITY	ERODABILITY	PROBLEM CLASS
12A+	ROWLAND	POOR	POOR	GOOD	SLIGHT	A
273B1	READINGTON	GOOD	MARGINAL	GOOD	MODERATE	B
78A1	CALVERTON	POOR	MARGINAL	GOOD	SLIGHT	A

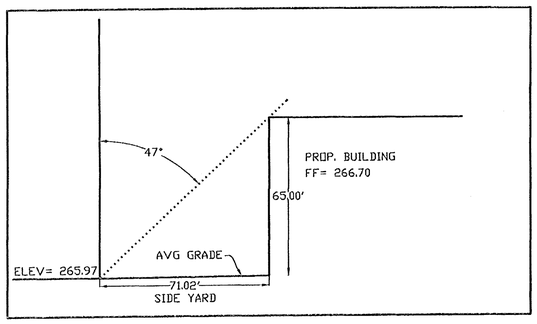
CHESAPEAKE BAY PRESERVATION AREA

THE LIMITS OF CLEARING AND GRADING ASSOCIATED WITH THIS PLAN DOES ENCROACH RPA LIMITS OF THE CHESAPEAKE BAY PRESERVATION AREA. ALL NECESSARY DISTURBANCE PERMITS WILL BE OBTAINED AND RPA TO BE RESTORED BACK TO EXISTING CONDITIONS.

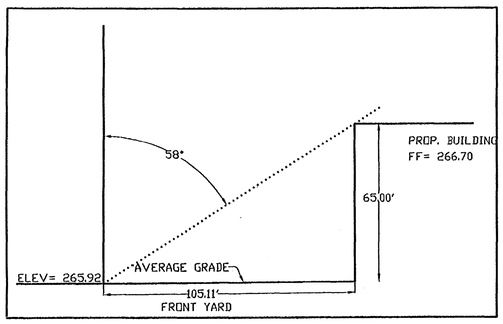
GENERAL NOTES

THE APPLICANT WILL PROVIDE AN ENTRANCE SIGN IN COMPLIANCE WITH THE APPLICABLE ZONING REGULATIONS FOR THE SUBJECT SITE.

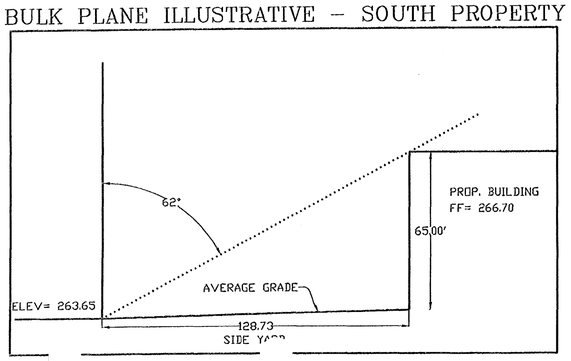
BULK PLANE ILLUSTRATIVE – NORTH PROPERTY LINE



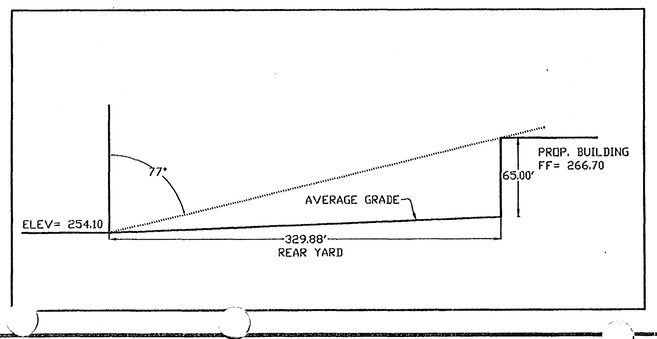
BULK PLANE ILLUSTRATIVE – EAST PROPERTY LINE



BULK PLANE ILLUSTRATIVE – SOUTH PROPERTY LINE



BULK PLANE ILLUSTRATIVE – WEST PROPERTY LINE



Application No. SE-2008-SU-001 Staff S.B.

APPROVED (SE) (SP) PLAN

SEE DEV. CONDS DATED 10/20/2008

Date of (BOS) (BZA) approval 10/20/2008

Sheet 2 of 13

LEGEND:

	EXISTING OVERHEAD WIRE
G	EXISTING GAS LINE
G	PROPOSED GAS LINE
GV	EXISTING GAS VALVE
GV	PROPOSED GAS VALVE
WM	EXISTING WATER METER
WM	PROPOSED WATER METER
WV	EXISTING WATER VALVE
WV	PROPOSED WATER VALVE
T.B.R.	TO BE REMOVED
S, C, HC	STANDARD, COMPACT, AND HANDICAP PARKING SPACE DESIGNATOR
V	VISITOR PARKING SPACE
FF	FINISHED FLOOR
PROP.	PROPOSED
EX.	EXISTING
SF	SQUARE FEET
GSF	GROSS SQUARE FEET
NSF	NET SQUARE FEET

	EXISTING STORM DRAIN STRUCTURE
	PROPOSED STORM DRAIN STRUCTURE
00	EXISTING CONTOUR (1')
00	PROPOSED CONTOUR (1')
00	EXISTING CONTOUR (5')
00	PROPOSED CONTOUR (5')
	EXISTING SANITARY SEWER
S	PROPOSED SANITARY SEWER
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
	EXISTING TREE LINE
	EXISTING PROPERTY LINE
	PROPOSED PROPERTY LINE
	EXISTING PROPERTY LINE PIPES
	PROPOSED PROPERTY LINE PIPES
	EX. FIRE HYDRANT
	PROP. FIRE HYDRANT
LOD	PROPOSED LIMITS OF CLEARING & GRADING
	EXISTING CURB & GUTTER
CSCG-1	PROPOSED CURB & GUTTER
CSCG-2	REVERSE FLOW CURB & GUTTER
	EXISTING POWER POLE
	PROPOSED ENTRANCE/EXIT TO BUILDING

	EXISTING TRAFFIC POLE
	TRAFFIC SIGN
	STREET SIGN
+25.6	EXISTING SPOT ELEVATION
+25 60	PROP. SPOT ELEVATION
	EXISTING FENCE
	EXISTING LIGHTING
	PROPOSED LIGHTING
	STREET LIGHTS (DETAIL AND SPEC. BY ARCHITECT)
	TEST PIT REQUIRED
	PROPOSED CSRP-1
	BENCHMARK
	EXISTING WETLANDS
	STREAM EDGE (WATER CONVEYANCE)
	EXISTING TREE
	PROPOSED TREE
VPD	PROJECTED TRAFFIC COUNT (BASED ON 6TH ED. OF ITE TRIP GENERATION BOOK)

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
11-16-07
02-27-08
03-14-08
04-17-08
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COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER CLAYTON C. TOCK No. 038760 10/10/08

GENERAL NOTES AND DETAILS

FAIRBROOK HOTEL

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS SHOWN C.I. N/A DATE: NOV., 2007

SHEET 2 OF 11

FILE No. PREL-1823

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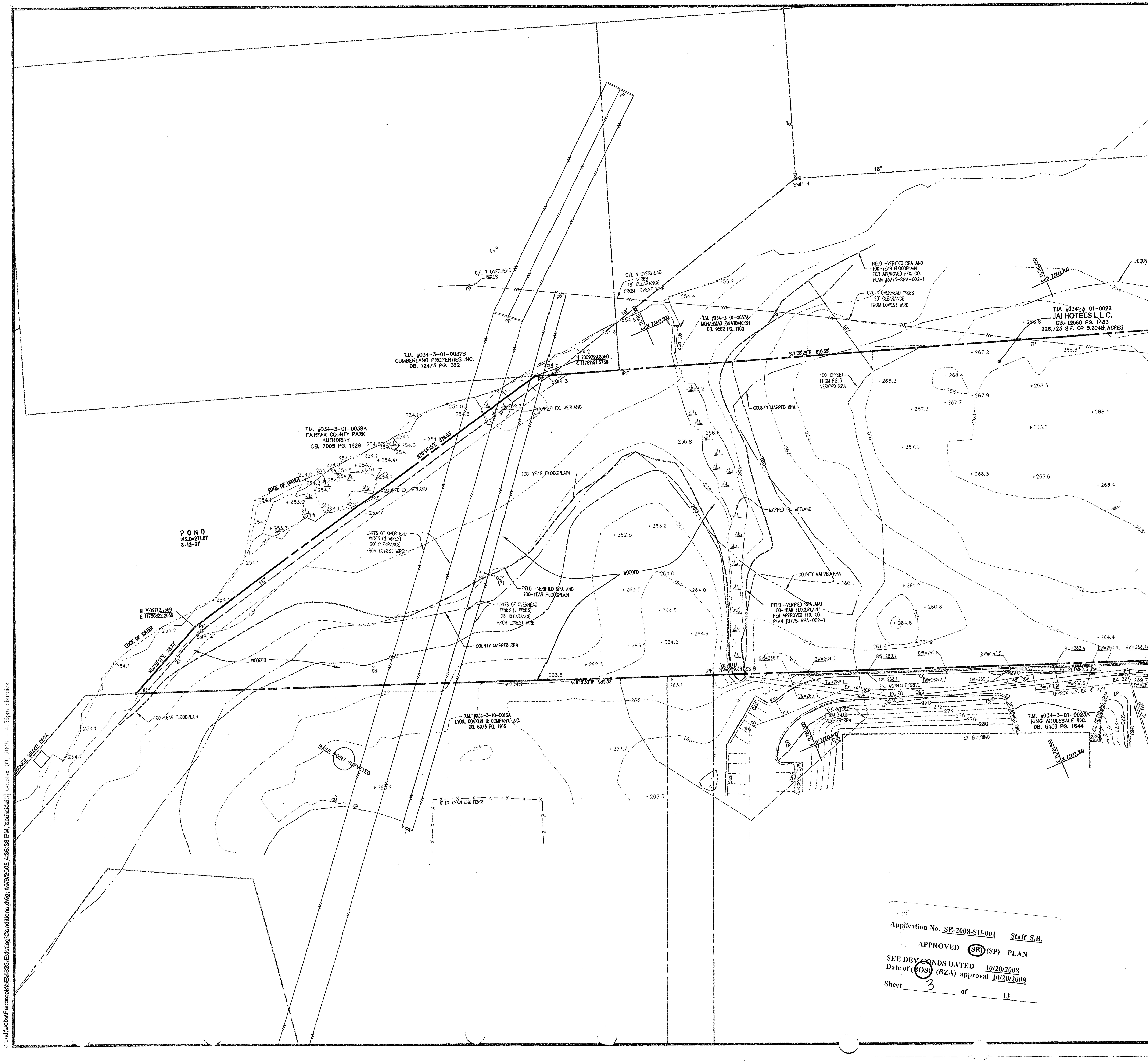

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REVISIONS

No.	DATE	DESCRIPTION

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
No. 036790
10/10/08
PROFESSIONAL ENGINEER

EXISTING CONDITIONS

FAIRBROOK HOTEL

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=40' C.I. =2' DATE: NOV., 2007

SHEET 3 OF 11

FILE No.
PREL-1823

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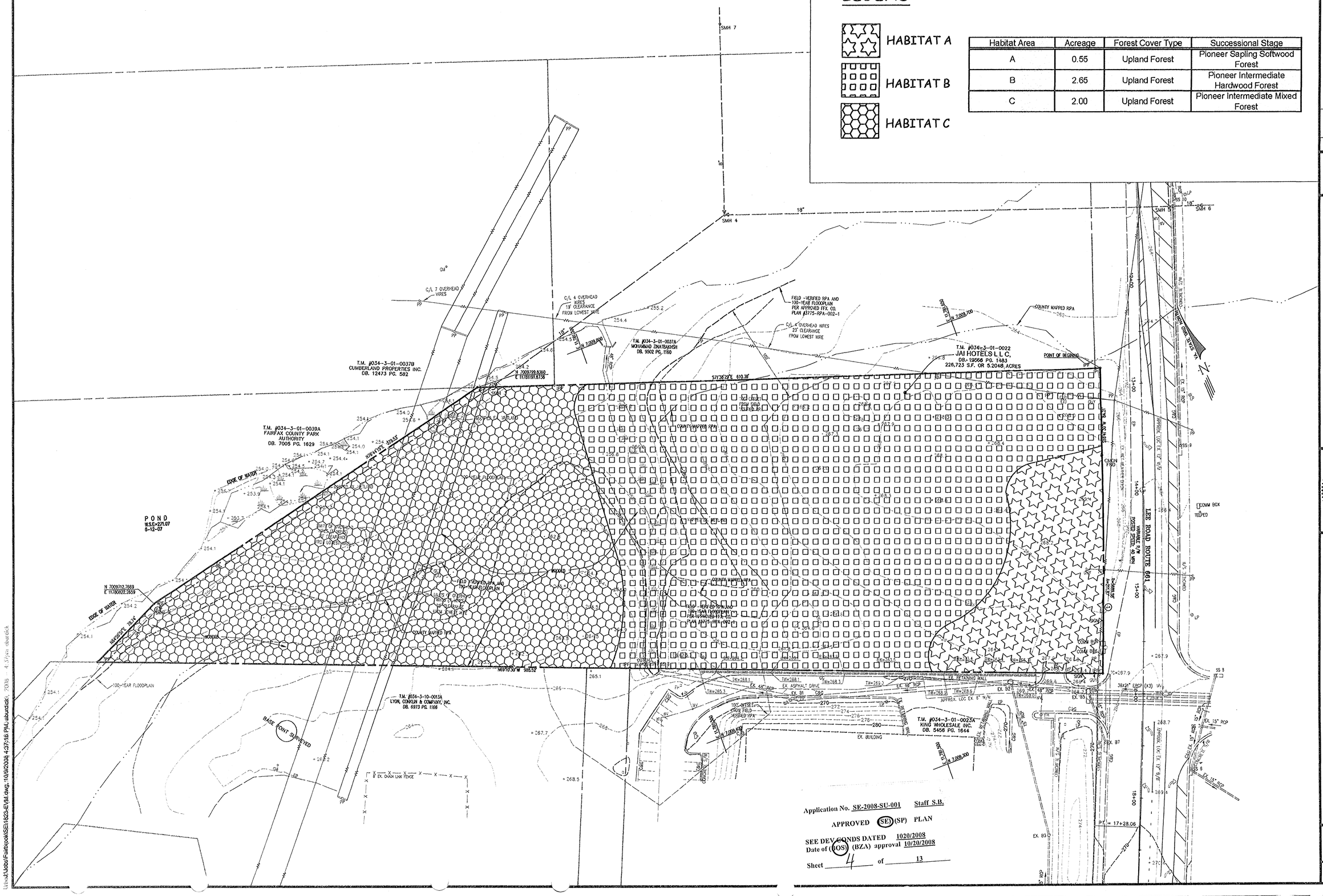

LEGEND

HABITAT A

HABITAT B

HABITAT C

Habitat Area	Acreage	Forest Cover Type	Successional Stage
A	0.55	Upland Forest	Pioneer Sapling Softwood Forest
B	2.65	Upland Forest	Pioneer Intermediate Hardwood Forest
C	2.00	Upland Forest	Pioneer Intermediate Mixed Forest

Application No. SE-2008-SU-001 Staff S.B.

APPROVED (SE) (SP) PLAN

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Date of (BOS) (BZA) approval 10/20/2008

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CLAYTON C. TOCK
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10/10/08
PROFESSIONAL ENGINEER

EXISTING VEGETATION MAP

FAIRBROOK HOTEL

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

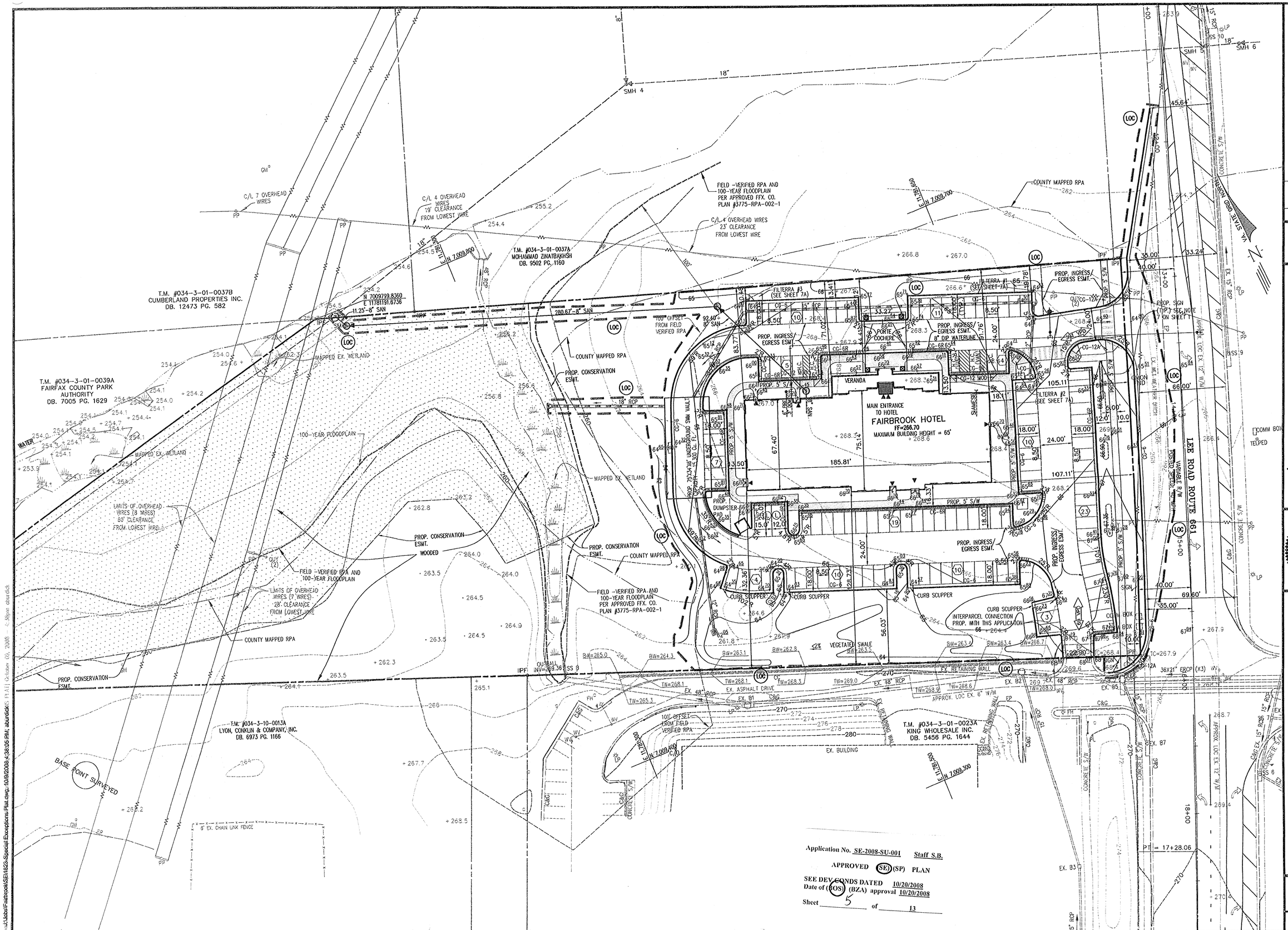
C.I. N/A

DATE: NOV., 2007

SCALE: 1"=40'

SHEET 4 OF 11

FILE No. PREL-1823



Application No. SE-2008-SU-001 Staff S.B.

APPROVED (SE) (SP) PLAN

SEE DEV CONDS DATED 10/20/2008
Date of (BOS) (BZA) approval 10/20/2008

Sheet 5 of 13

No.	DATE	DESCRIPTION

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CLAYTON C. TOCK
No. 038790
10/10/08
PROFESSIONAL ENGINEER

SPECIAL EXCEPTIONS PLAT

FAIRBROOK HOTEL

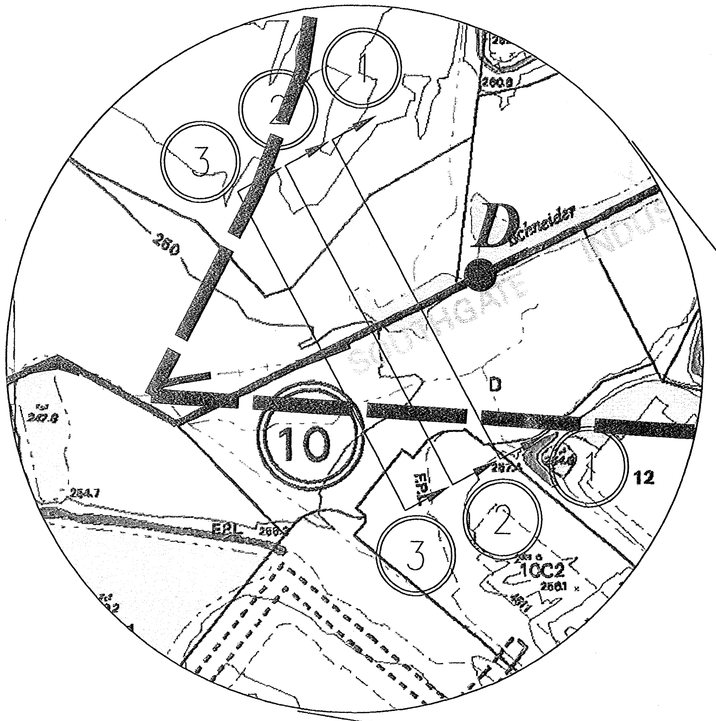
SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30' C.I. =2' DATE: NOV., 2007

SHEET
5
OF
11

FILE No.
PREL-1823

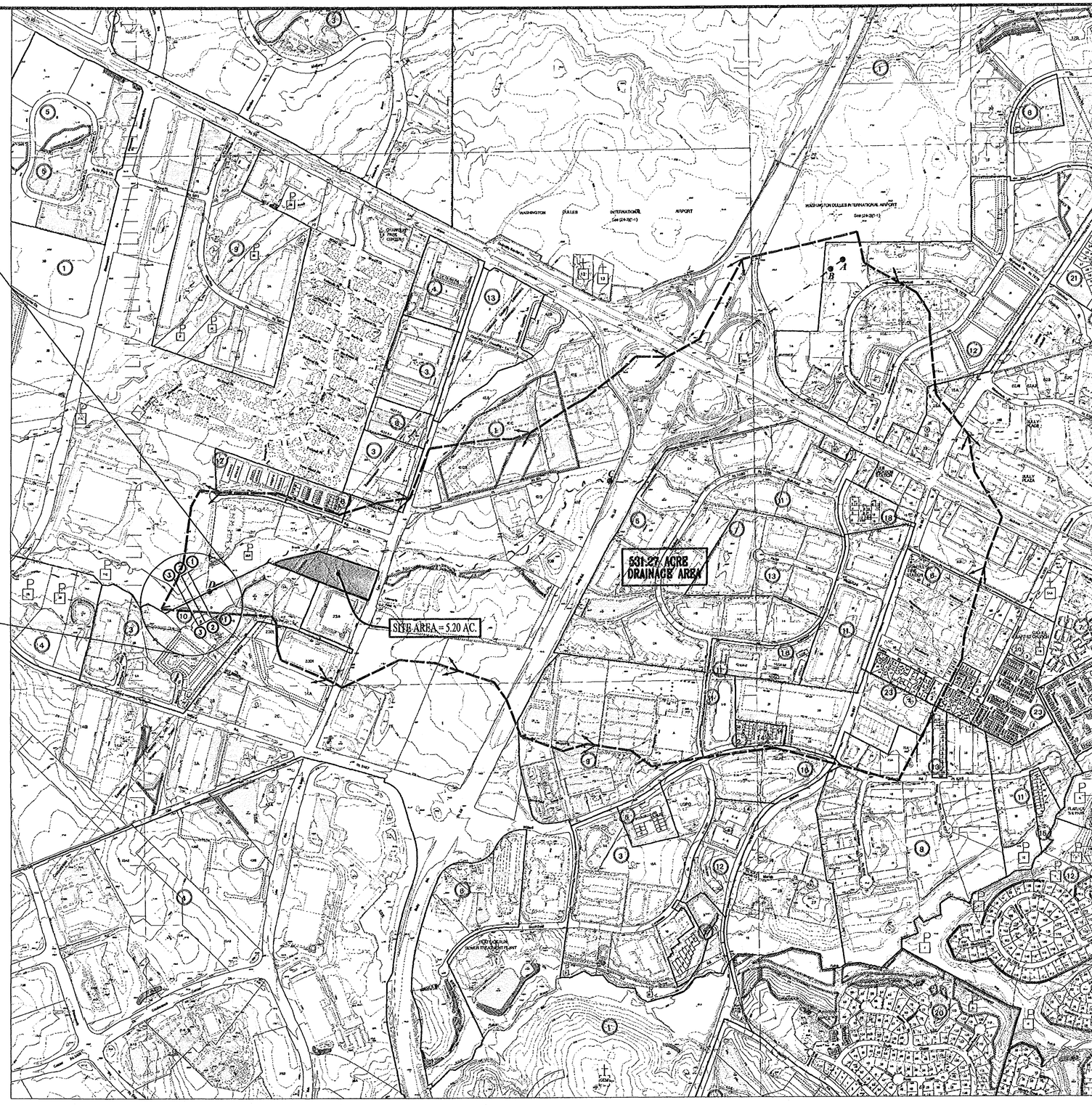
CROSS-SECTION ENLARGMENT



SCALE : 1"=100'

Time of Concentration

SHEET FLOW		Segment ID	A-B	
1	Surface description (Table 3-1)		Dense Grass	
2	Manning's Roughness Coeff., n (Table 3-1)		0.15	
3	Flow Length, L (Total L,300')	ft	150	
4	Two-Yr 24-hour Rainfall (P)	in	3.2	
5	Land slope, s	ft/ft	0.011	
6	T=0.0007(nL)^0.8 / P^0.5 * s^0.4	hr	0.287	17.21 min.
SHALLOW CONCENTRATED FLOW		Segment ID	B-C	
7	Surface Description (Paved or Unpaved)		Unpaved	
8	Flow Length, L	ft	3381	
9	Watercourse slope, s	ft/ft	0.0122	
10	Average velocity, V (Figure 3-1)	ft/sec	1.7	
11	T=L / (3600*V)	hr	0.552	33.15 min.
CHANNEL FLOW		Segment ID	C-D	
17	Cross sectional flow area, a	ft^2	438.81	
18	Wetted perimeter, pw	ft	289.02	
19	Hydraulic Radius, r=a/pw	ft	1.518268632	
20	Channel slope, s	ft/ft	0.0028	
21	Manning's roughness coefficient, n		0.035	
22	V=(1.49*r^(2/3)*s^(1/2))/n	ft/sec	2.98	
23	Flow length, L	ft	4742	
24	T=L/(3600*V)	hr	0.443	26.56 min.
25	Total Watercourse Time of Concentration	hr	1.282	76.92 min.



SCALE : 1"=500'

Application No. SE-2008-SU-001 Staff S.B.

APPROVED (SE) (SP) PLAN

SEE DEV CONDS DATED 10/20/2008
Date of (BOS) (BZA) approval 10/20/2008

Sheet 6 of 13

LEGEND:

SUBJECT SITE

THIS MAP IS FOR INFORMATION PURPOSES ONLY !

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
11-16-07
12-27-07
03-19-08
04-17-08
05-08-08
05-23-08
10-10-08

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Planners · Engineers · Landscape Architects · Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
No. 038790
10/10/08
PROFESSIONAL ENGINEER

OUTFALL MAP

FAIRBROOK HOTEL

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=500' C.I. =5' DATE: NOV., 2007

SHEET 6 OF 11

FILE No. PREL-1823

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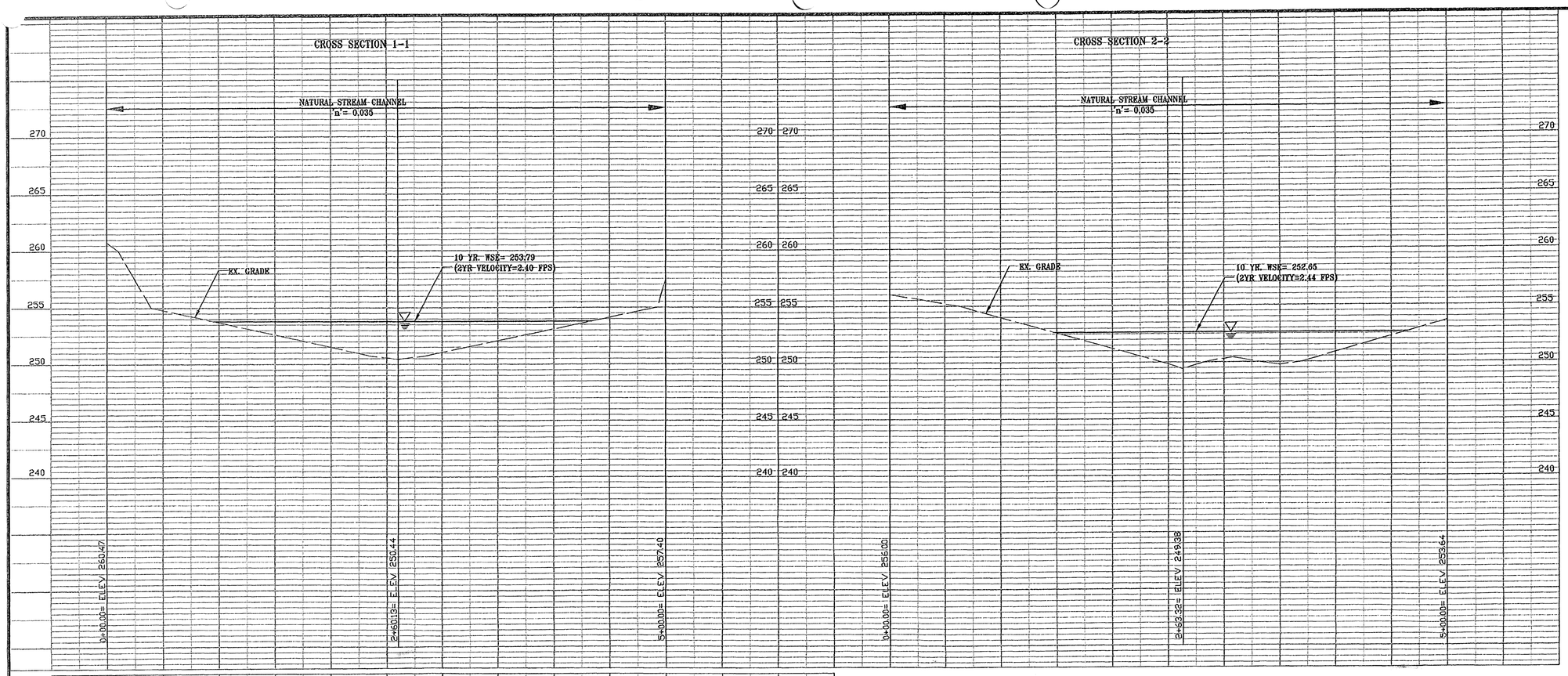

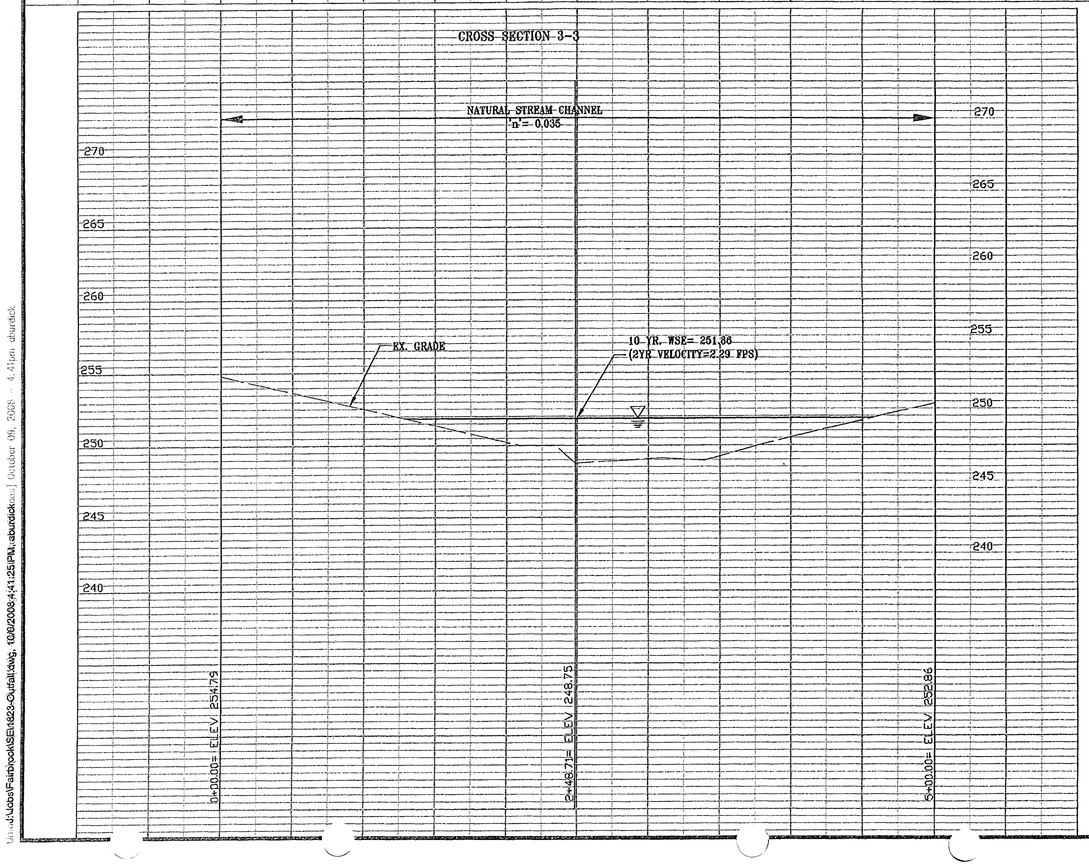

POST DEVELOPMENT CONDITIONS:

CROSS SECTION 1-1

DA = 531.27 AC.
C' FACTOR = 0.80
I2 = 2.76 IN/HR
I10 = 3.71 IN/HR
Tc = 76.92 MIN (SEE SHEET 5 FOR THE Tc COMPUTATION)

Q2 = 1,173.04 CFS
Q10 = 1,576.81 CFS
CHANNEL SLOPE= 0.28%
n' = 0.035 NATURAL STREAM CHANNEL

V2=	2.40 FPS*
D10=	3.35 FT.

POST DEVELOPMENT CONDITIONS:

CROSS SECTION 2-2

DA = 531.27 AC.
C' FACTOR = 0.80
I2 = 2.76 IN/HR
I10 = 3.71 IN/HR
Tc = 76.92 MIN (SEE SHEET 5 FOR THE Tc COMPUTATION)

Q2 = 1,173.04 CFS
Q10 = 1,576.81 CFS
CHANNEL SLOPE= 0.28%
n' = 0.035 NATURAL STREAM CHANNEL

V2=	2.44 FPS*
D10=	3.27 FT.

POST DEVELOPMENT CONDITIONS:

CROSS SECTION 3-3

DA = 531.27 AC.
C' FACTOR = 0.80
I2 = 2.76 IN/HR
I10 = 3.71 IN/HR
Tc = 76.92 MIN (SEE SHEET 5 FOR THE Tc COMPUTATION)

Q2 = 1,173.04 CFS
Q10 = 1,576.81 CFS
CHANNEL SLOPE= 0.28%
n' = 0.035 NATURAL STREAM CHANNEL

V2=	2.29 FPS*
D10=	3.11 FT.

*PERMISSIBLE VELOCITY IS 10 FPS PER TABLE 5-22 OF VESCH, THIRD EDITION.

Application No. SE-2008-SU-001 Staff S.B.

APPROVED (SE) (SP) PLAN

SEE DEV. CONDS DATED 10/20/2008
Date of (POS) (BZA) approval 10/20/2008

Sheet 7 of 13

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10/10/08
PROFESSIONAL ENGINEER

OUTFALL CROSS SECTIONS

FAIRBROOK HOTEL

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: NOV., 2007

SCALE: 1"=50' (H); 1"=5' (V) CL =N/A

SHEET 6A OF 11

FILE No. PREL-1823

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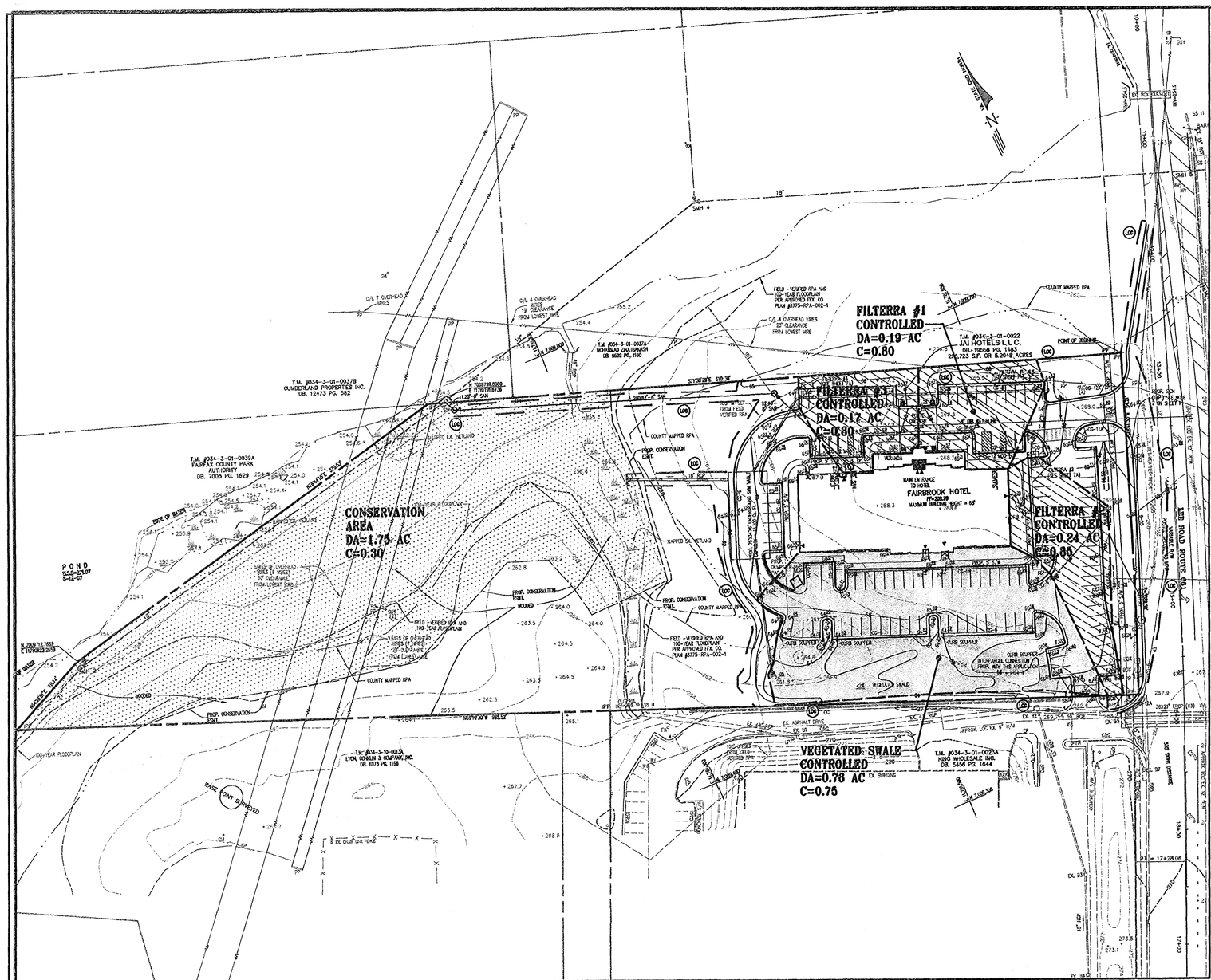

I. WATER QUALITY NARRATIVE

II. WATERSHED INFORMATION

Part 1: List all of the Subareas and "C" factors used in the BMP Computations

Subarea Designation (1)	"C" (2)	Acres (3)
Onsite Controlled by Filterra #1	0.80	0.19
Onsite Controlled by Filterra #2	0.85	0.24
Onsite Controlled by Filterra #3	0.80	0.17
Vegetated Swale	0.75	0.76
Conservation Easement	0.30	1.75
Onsite Uncontrolled	0.35	2.13
	Total	5.24

Part 3: Compute the Total Phosphorus Removal for the Site

Subarea Designation (1)	Removal Efficiency (%) (3)		Area Ratio (4)		"C" Ratio (5)		Product (6)
Onsite Controlled by Filterra #1	65	x	0.04	x	1.78	=	4.24
Onsite Controlled by Filterra #2	65	x	0.05	x	1.89	=	5.68
Onsite Controlled by Filterra #3	65	x	0.03	x	1.78	=	3.79
Vegetated Swale	65	x	0.15	x	1.67	=	15.88
Conservation Easement	100	x	0.34	x	0.78	=	26.26
		x		x		=	
		x		x		=	
		x		x		=	
		x		x		=	
		x		x		=	
		x		x		=	
		x		x		=	

(a) Total = 55.85

Part 4: Determine Compliance with Phosphorus Removal Requirement

III a. PHOSPHORUS REMOVAL - "OCCOQUAN METHOD"

Part 2: Compute the Weighted Average "C" Factor for the Site

(A) Area of the Site (a) 5.20 acres

Subarea Designation (1)	"C" (2)		Acres (3)		Product (4)
Onsite Controlled by Filterra #1	0.80	x	0.19	=	0.15
Onsite Controlled by Filterra #2	0.85	x	0.24	=	0.20
Onsite Controlled by Filterra #3	0.80	x	0.17	=	0.14
Vegetated Swale	0.75	x	0.76	=	0.57
Conservation Easement	0.30	x	1.75	=	0.53
Onsite Uncontrolled	0.35	x	2.13	=	0.75
		x		=	
		x		=	
		x		=	

(b) Total 2.33

(C) Weighted average "C" factor (b)/(a) = (C) 0.45

(A) Select Requirement (a) 50.00%

Water Supply Overlay District (Occoquan Watershed) = 50% (Fairfax County and Prince William County)

Chesapeake Bay Preservation Area (New Development) = 40% (Fairfax County) 50% (Prince William County)

Chesapeake Bay Preservation Area (Redevelopment)

Where,
"I" Pre-Development Impervious Area = 0.10 Ac.
"I" Post-Development Impervious Area = 1.63
[1 - 0.9 x ("I" pre/"I" post)] x 100 = 94.48%

(B) If Line 3(a) > Line 4(a), the Phosphorus removal requirement is satisfied.

Line 3(a) 55.85% >= 50.00%

PHOSPHORUS REMOVAL REQUIREMENT IS SATISFIED

B.M.P. NARRATIVE

THE TOTAL SITE AREA IS 5.20 ACRES. THE EXISTING UNDISTURBED SITE HAD 0.10 AC. OF IMPERVIOUS AREA. THE POST DEVELOPMENT IMPROVEMENTS HAVE INCREASED THE IMPERVIOUS AREA TO 1.42 ACRES. THE SITE IS LOCATED WITHIN THE WATER SUPPLY OVERLAY DISTRICT AND THEREFORE IT HAS A POLLUTANT REMOVAL RATE REQUIREMENT OF 50%. A BEST MANAGEMENT PRACTICES FACILITY IN FORM OF THREE (3) FILTERRA INLETS WITH 65% POLLUTANT REMOVAL EFFICIENCY, AND A VEGETATED SWALE WITH 65% EFFICIENCY HAVE BEEN PROVIDED ONSITE. THE PROPOSED FILTERRA INLETS TREAT A TOTAL AREA OF 0.56 ACRES AND THE VEGETATED SWELL TREATS A TOTAL AREA OF 0.76 ACRES. FURTHER MORE A CONSERVATION EASEMENT HAS BEEN PROPOSED AS SHOWN ON THIS SHEET AT THE WESTERN SIDE OF THE SUBJECT SITE IN ORDER TO MAXIMIZE THE WATER QUALITY CONTROL PROVIDED ON SITE. AS A RESULT OF THE PROPOSED FILTERRA INLETS AND THE VEGETATED SWALE, A POLLUTANT REMOVAL RATE OF 55.74% HAS BEEN ACHIEVED. ACHIEVED 55.74% REMOVAL RATE INCLUDES THE WATER QUALITY MANAGEMENT CREDIT OBTAINED DUE TO THE PROPOSED UNDISTURBED 1.75 ACRES CONSERVATION EASEMENT ON THE SUBJECT SITE.

THE PHOSPHOROUS REMOVAL REQUIREMENT OF 50% HAS BEEN SATISFIED BY THE PROPOSED BEST MANAGEMENT PRACTICES (BMP) PROPOSED FOR THE SUBJECT SITE. PLEASE REFER TO THIS SHEET FOR THE BMP DRAINAGE DIVIDES AND BMP COMPUTATIONS.

LEGEND

ONSITE CONTROLLED AREA BY VEGETATED SWALE

ONSITE CONTROLLED AREA BY FILTERRA

Application No. SE-2008-SU-001 Staff S.B.

APPROVED (SE)(SP) PLAN

SEE DEV CONDS DATED 10/20/2008
Date of (BOS) (BZA) approval 10/20/2008

Sheet 8 of 13

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 (9-011 2J & 2L)	Special Exceptions (9-011 2J & 2L)
Cluster Subdivision (9-615 1G & 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)

- [x] 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
- [x] 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 5.
- [x] 3. Provide:

Facility Name/ Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
SWM VAULT	1.94	0.00	1.94	2,550	15,300	N/A
Totals						

- [x] 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 5. Pond inlet and outlet pipe systems are shown on Sheet N/A.
- [ ] 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet N/A. Type of maintenance access road surface noted on the plat is N/A (asphalt, geoblock, gravel, etc.).
- [ ] 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet N/A.
- [x] 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 7 & 8.
- [x] 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 & 6A.
- [x] 9. A description of how the outfall requirements, including known changes to contributing drainage areas (i.e. drainage diversions), of the Public Facilities Manual will be satisfied is provided on Sheet 2.
- [x] 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 2.
- [ ] 11. A submission waiver is requested for _____.
- [x] 12. Stormwater management is not required because N/A (SWM is required and provided).

Revised 2-21-2006

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BEST MANAGEMENT PRACTICES (B.M.P.) PLAN

FAIRBROOK HOTEL

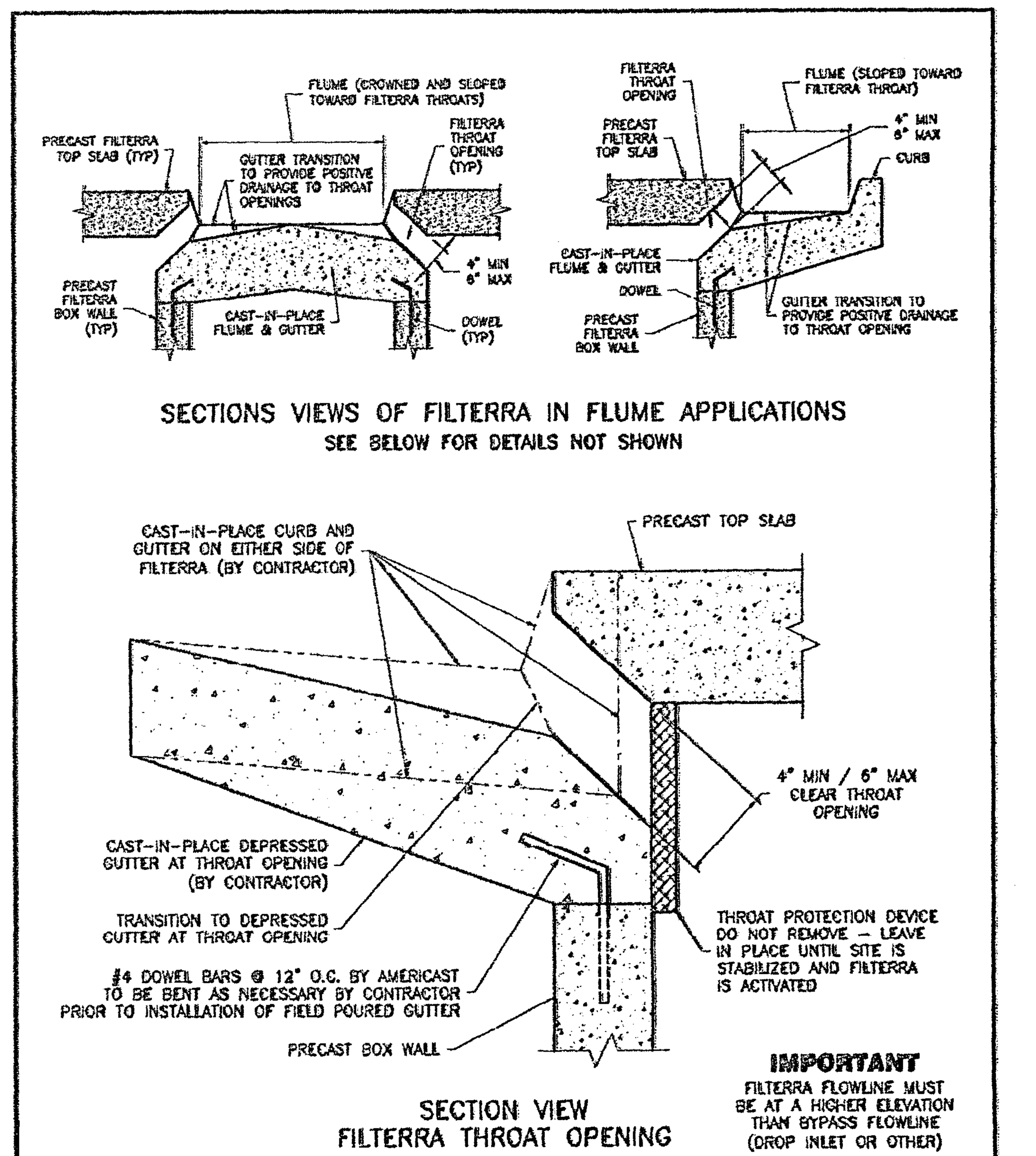
SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: NOV., 2007

SCALE: 1"=50' C.I. N/A

SHEET 7 OF 11

FILE No. PREL-1823

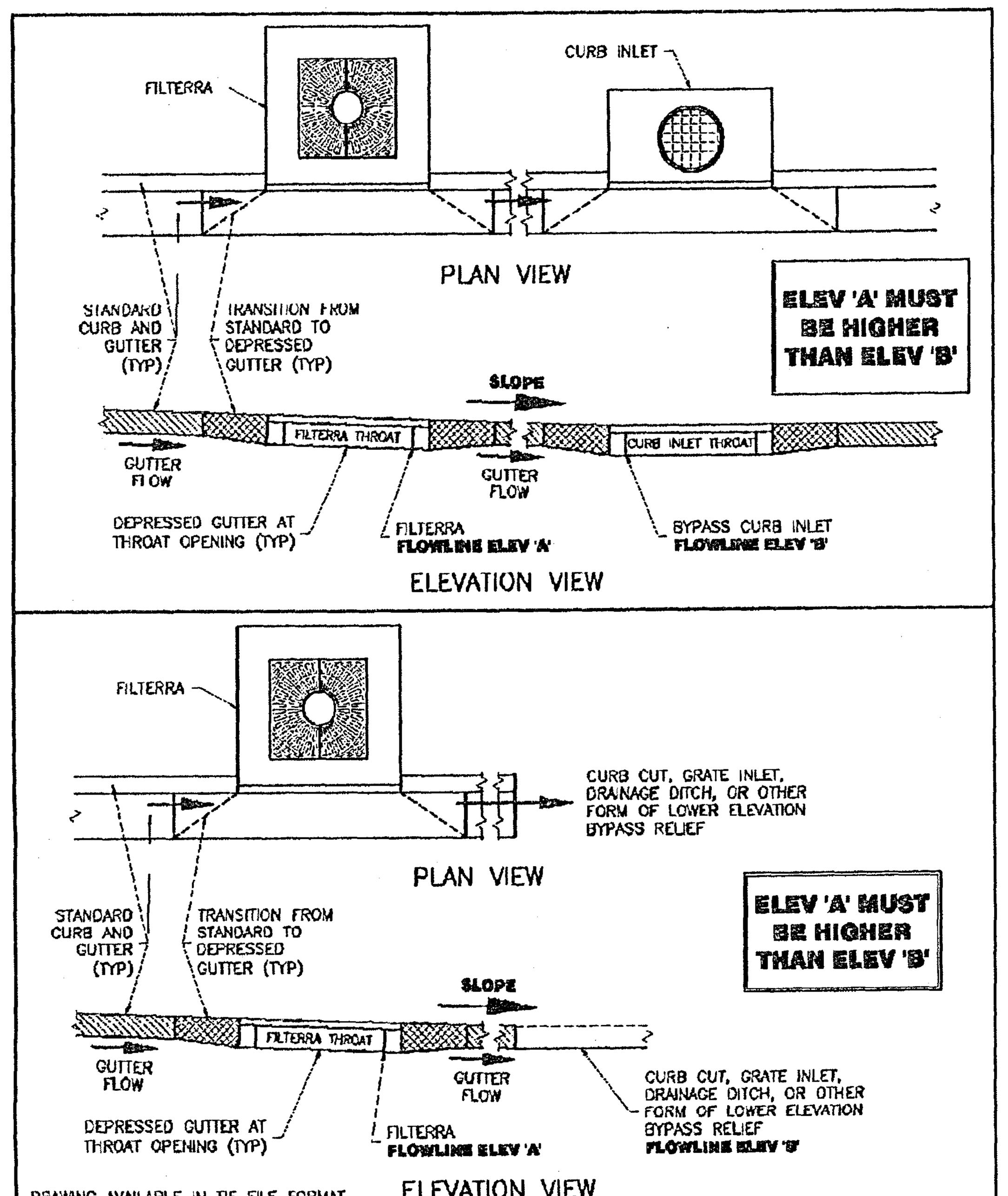


IMPORTANT
FILTERRA FLOWLINE MUST BE AT A HIGHER ELEVATION THAN BYPASS FLOWLINE (DROP INLET OR OTHER)

DRAWING AVAILABLE IN TIF FILE FORMAT.

AMERICAST® | DATE: 02-23-05 | DWG: CGT-3 | filterra US PAT 6,277,274 AND 6,569,321

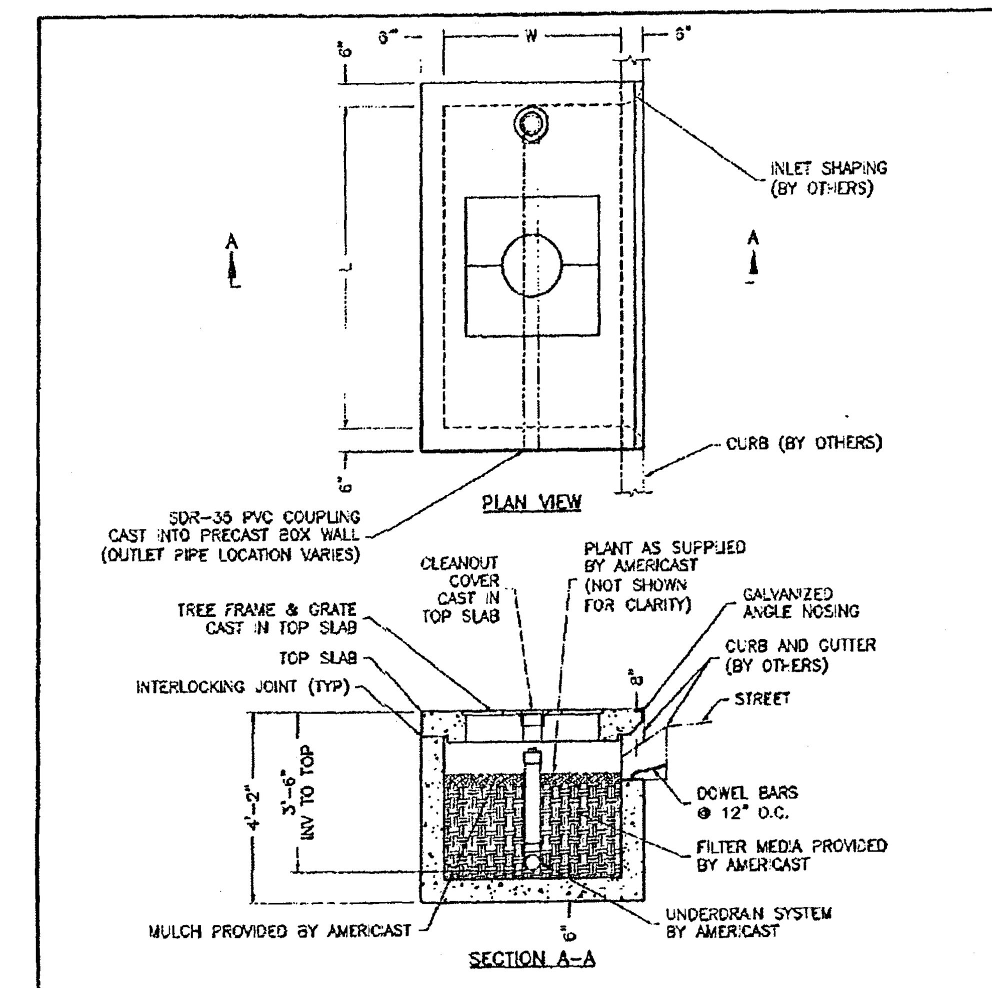
FILTERRA® THROAT OPENING AND GUTTER OR FLUME DETAIL



DRAWING AVAILABLE IN TIF FILE FORMAT.

AMERICAST® | DATE: 05-09-05 | DWG: FLR-2 | filterra US PAT 6,277,274 AND 6,569,321

FILTERRA® TYPICAL FLOWLINE RELATIONSHIP FOR REQUIRED EFFECTIVE BYPASS



DESIGNATION	L	W	TREE GRATE QTY & SIZE	OUTLET PIPE
6 x 4	6'-0"	4'-0"	(1) 3x3	4" SDR-35 PVC
8 x 4	8'-0"	4'-0"	(1) 3x3	4" SDR-35 PVC
8 x 6	8'-0"	6'-0"	(1) 4x4	4" SDR-35 PVC
10 x 6	10'-0"	6'-0"	(1) 4x4	6" SDR-35 PVC
12 x 6	12'-0"	6'-0"	(2) 4x4	6" SDR-35 PVC

DRAWING AVAILABLE IN TIF FILE FORMAT.

AMERICAST® Copyright © 2004 by Americast | DATE: 12-22-04 | DWG: FTNW-2 | filterra US PAT 6,277,274 AND 6,569,321

PRECAST FILTERRA® UNIT NARROW WIDTH CONFIGURATION
MID-ATLANTIC REGION

filterra

Activation

A. Activation of the Filterra® unit is performed ONLY by the Supplier. Purchaser is responsible for Filterra® inlet protection and subsequent clean out cost. This process cannot commence until the project site is fully stabilized and cleaned (full landscaping, grass cover, final paving and street sweeping completed), negating the chance of construction materials contaminating the Filterra® system. Care shall be taken during construction not to damage the protective throat and top plates.

B. Activation includes installation of plant(s) and mulch layers as necessary.

Maintenance

A. Each correctly installed Filterra® unit is to be maintained by the Supplier, or a Supplier approved contractor for a minimum period of 1 year. The cost of this service is to be included in the price of each Filterra® unit. Extended maintenance contracts are available at extra cost upon request.

B. Annual maintenance consists of a maximum of (2) scheduled visits. The visits are scheduled seasonally; the spring visit aims to clean up after winter loads including salts and sands. The fall visit helps the system by removing excessive leaf litter.

C. Each maintenance visit consists of the following tasks.

1. Filterra® unit inspection
2. Foreign debris, silt, mulch & trash removal
3. Filter media evaluation and recharge as necessary
4. Plant health evaluation and pruning or replacement as necessary
5. Replacement of mulch
6. Disposal of all maintenance refuse items
7. Maintenance records updated and stored (reports available upon request)

D. The beginning and ending date of Supplier's obligation to maintain the installed system shall be determined by the Supplier at the time the system is activated. Owners must promptly notify the Supplier of any damage to the plant(s), which constitute(s) an integral part of the bioretention technology.

filterra

Filterra Standard Plan Notes

Construction & Installation

A. Each unit shall be constructed at the locations and elevations according to the sizes shown on the approved drawings. Any modifications to the elevation or location shall be at the direction of and approved by the Engineer.

B. If the Filterra® is stored before installation, the top slab must be placed on the box using the 2x4 wood provided, to prevent any contamination from the site. All internal fittings supplied (if any), must be left in place as per the delivery.

C. The unit shall be placed on a compacted sub-grade with a minimum 6-inch gravel base matching the final grade of the curb line in the area of the unit. The unit to be placed such that the unit and top slab match the grade of the curb in the area of the unit. Compact undisturbed sub-grade materials to 95% of maximum density at -1- 2% of optimum moisture. Unsuitable material below sub-grade shall be replaced to the site engineer's approval.

D. Outlet connections shall be aligned and sealed to meet the approved drawings with modifications necessary to meet site conditions and local regulations.

E. Once the unit is set, the internal wooden forms and protective mesh cover must be left intact. Remove only the temporary wooden shipping blocks between the box and top slab. The top lid should be sealed onto the box section before backfilling, using a non-shrink grout, butyl rubber or similar waterproof seal. The boards on top of the lid and boards sealed in the unit's throat must NOT be removed. The Supplier (Americast or its authorized dealer) will remove these sections at the time of activation. Backfilling should be performed in a careful manner, bringing the appropriate fill material up in 6" lifts on all sides. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of Filterra® unit shall conform to ASTM specification C891 "Standard Practice for Installation of Underground Precast Utility Structures", unless directed otherwise in contract documents.

F. Curb and gutter construction (where present) shall ensure that the flow-line of the Filterra® units is at a greater elevation than the flow-line of the bypass structure or relief (drop inlet, curb cut or similar). Failure to comply with this guideline may cause failure and/or damage to the Filterra® environmental device.

filterra
A Growing Idea in Stormwater Filtration.

Filterra® Stormwater Bioretention Filtration System

Sizing Made Easy – Mid-Atlantic Region

Filterra® sizing is easy. Since the filter flow rate is known, the annual volume of runoff treated can be calculated based on the relationship of filter surface area to drainage area to rainfall intensity as shown in Figure 1 below.

The target annual volume treated for Filterra® is 90%. The filter surface area (FSA) to drainage area (DA) ratio should always be a minimum of 0.33%. For example, based on this target ratio, a 36-square-foot filter (6' x 6') will treat 0.25 acre of drainage area. Other Filterra® sizes and their corresponding minimum drainage areas are listed in Table 1. Sizing of Filterra® is based on TOTAL contributing drainage areas, regardless of the percent imperviousness.

Mid-Atlantic Filterra® FSA/DA Graph

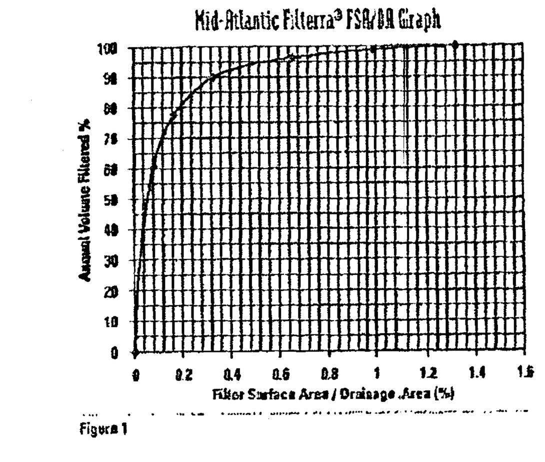


Figure 1

Design Assistance

Phone or email us at design@filterra.com to request your Filterra® Placement Design Package. This includes placement "Do's and Don'ts," example scenarios, detail drawings, specifications, project information sheet, and other essential design information.

Sizing Procedure

1) Use the Filterra® Placement Design Package as a reference
2) Determine Filterra® locations (with effective bypass) in accordance with placement guidelines
3) Determine contributing drainage areas to each Filterra®
4) Choose the corresponding size Filterra® from Table 1
5) Complete the project information sheet
6) For best results, get us involved early in the design process. Send your completed project information sheet along with plans to Americast for placement and application review.

Mid-Atlantic Region Filterra® Sizes

Available Sizes	Total Contributing Drainage Area
4' x 6' or 6' x 4'	0.17 ac
4' x 8' or 8' x 4'	0.22 ac
Standard 6' x 6'	0.25 ac
6' x 8' or 8' x 6'	0.33 ac
6' x 10' or 10' x 6'	0.42 ac
6' x 12' or 12' x 6'	0.50 ac

Table 1

AMERICAST A Division of Valley Blox, Inc.

Manufactured by Americast • 11352 Virginia Precast Road • Ashland, Virginia 23005
Phone: (804) 798-6068 • Toll Free: (800) 999-CAST (2278) • Fax: (804) 798-3428
Email: filterra@americastusa.com • www.americastusa.com

U.S. Patent #6,277,274
#6,569,321

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BMP DETAILS

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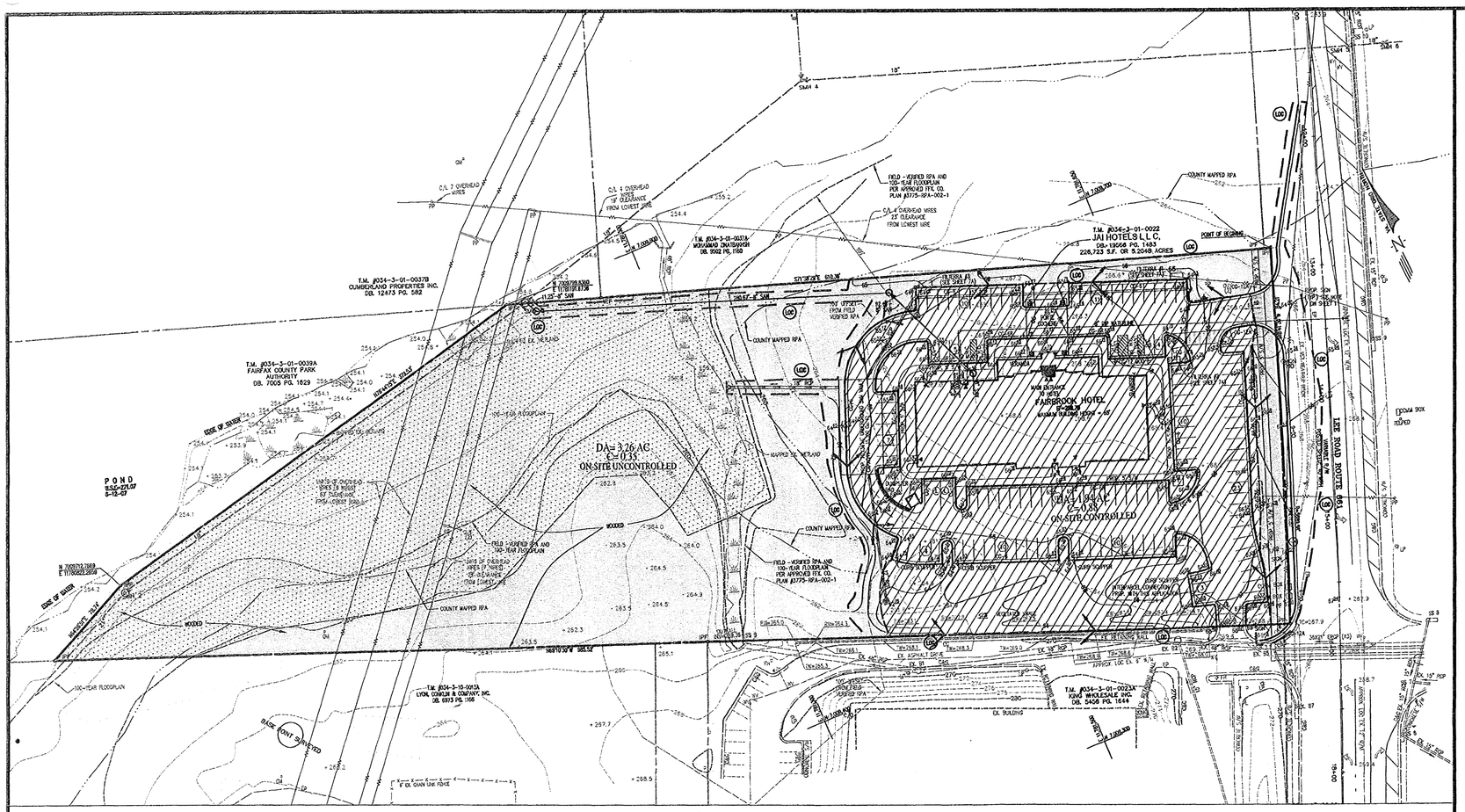
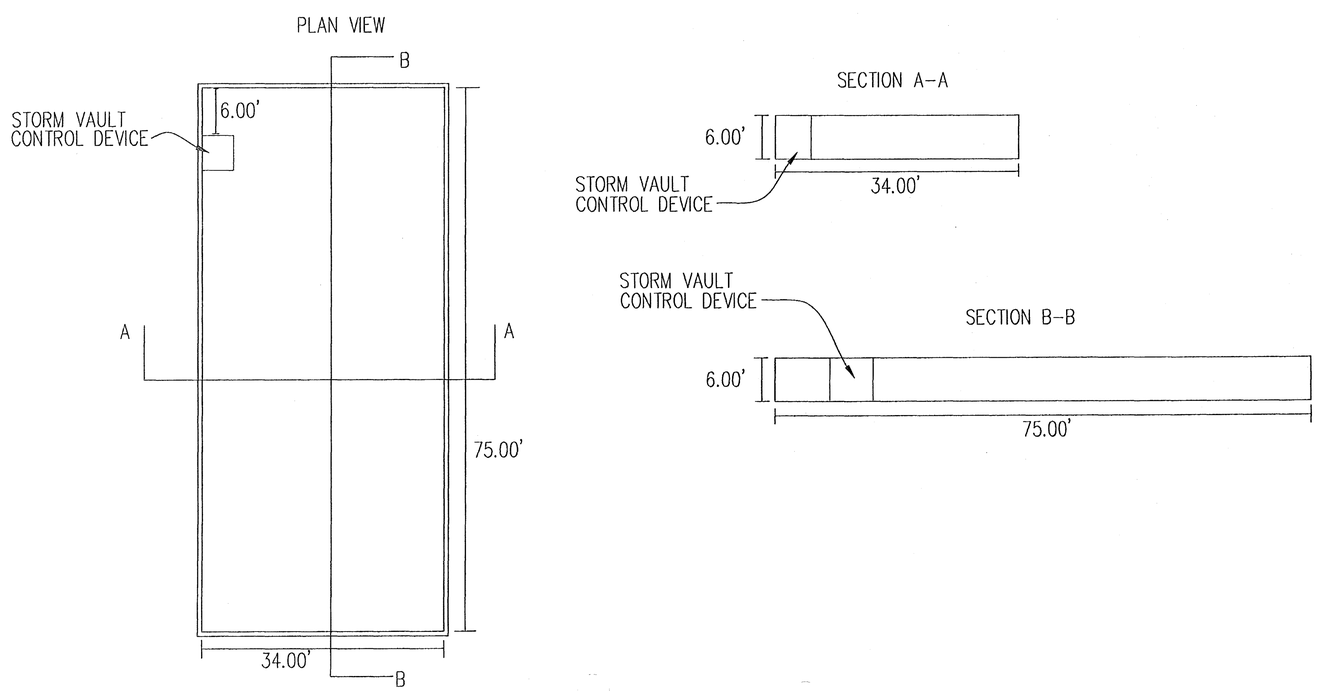


SWM VAULT DETAIL



SWM CALCULATIONS

1. SITE DESCRIPTION:
   LOCATION: CUB RUN WATERSHED
   TOTAL SITE AREA=226,724.74 S.F. (5.20 AC.)
   TOTAL ON-SITE CONTROLLED=84,649.28 S.F. (1.94 AC.)
   TOTAL ON-SITE UNCONTROLLED=142,075.46 S.F. (3.26 AC.)
   TOTAL OFF-SITE CONTROLLED=0.00 S.F. (0.00 AC.)
   TIME OF CONCENTRATION: Tc=5 MINUTES
   RAINFALL INTENSITY 2 -YEAR=5.45 IN/HR
   10-YEAR=7.3 IN/HR
   100-YEAR=10.0 IN/HR

2. PRE-DEVELOPED RUN-OFF:
   ACTUAL C FACTOR, C=0.35
   Q2=(0.35)*(5.45 IN/HR)*(5.20 AC)=9.92 CFS
   Q10=(0.35)*(7.27 IN/HR)*(5.20 AC)=13.23 CFS

3. ON-SITE UNCONTROLLED:
   ACTUAL C FACTOR, C=0.35
   Q2=(0.35)*(5.45 IN/HR)*(3.26 AC)=6.22 CFS
   Q10=(0.35)*(7.27 IN/HR)*(3.26 AC)=8.30 CFS

4. OFF-SITE CONTROLLED:
   Q2 & Q10 = 0.0 CFS

5. ALLOWABLE RELEASE RATE:
   Q(ALLOWABLE)=Q(PRE)-Q(ONSITE UNCONTROLLED)+Q(OFFSITE CONTROLLED)
   Q2 ALLOWABLE = (Q2 PRE) - (Q2 UNCONTROLLED) + (Q2 OFFSITE CONTROLLED)
   Q2 ALLOWABLE = 9.92 CFS - 6.22 CFS + 0.0 CFS
   Q2 ALLOWABLE = 3.70 CFS

   Q10 ALLOWABLE = (Q10 PRE) - (Q10 UNCONTROLLED) +(Q10 OFFSITE CONTROLLED)
   Q10 ALLOWABLE = 13.23 CFS - 8.30 CFS + 0.0 CFS
   Q10 ALLOWABLE = 4.93 CFS

SWM NARRATIVE

THE SUBJECT SITE IS LOCATED WITHIN CUB RUN WATERSHED. TOTAL SITE AREA IS 5.20 AC. A STORM WATER MANAGEMENT (SWM) ANALYSIS COMPARING THE EXISTING 10 YEAR RUNOFF TO THE PROPOSED 10 YEAR RUNOFF HAS BEEN PERFORMED FOR THE SUBJECT SITE. SWM VAULTS HAVE BEEN SIZED BASED ON THE 10-YEAR STORM EVENT.

THE EXISTING IMPERVIOUS AREA FOR THE SITE HAS BEEN COMPUTED AS 0.10 ACRES PRODUCING A RUNOFF COEFFICIENT ("C") OF 0.35 FOR THE PRE-DEVELOPMENT CONDITIONS. PROPOSED DEVELOPMENT OF THE SUBJECT SITE INCREASES THE TOTAL IMPERVIOUSNESS OF THE SITE TO 1.42 ACRES. PROPOSED SWM SYSTEM CONTROLS THE DRAINAGE RUNOFF FROM 1.94 ACRES OF TOTAL SITE AREA AND THE REST OF THE SITE, 3.26 ACRES ONSITE UNCONTROLLED, DISCHARGES INTO EXISTING WETLANDS.

THE PROPOSED STORM WATER MANAGEMENT SYSTEM FOR THE SUBJECT SITE CONSISTS OF ONE (1) PROPOSED UNDERGROUND SWM VAULT. IT HAS BEEN LOCATED AT THE WEST SIDE OF THE SUBJECT SITE. PROPOSED SWM VAULT CONTROLS 1.94 ACRES DRAINAGE AREA AND DISCHARGES INTO THE EXISTING WETLANDS LIMITS WITHIN THE ALLOWABLE REALEASE RATES THAT HAVE BEEN COMPUTED ON THIS SHEET.

THE TOTAL PRE-DEVELOPMENT DISCHARGE FROM THE SUBJECT SITE HAS BEEN COMPUTED AS 13.23 CFS FOR 10 YEAR STORM EVENT. PER FAIRFAX COUNTY STORM WATER MANAGEMENT REQUIREMENTS, THE POST DEVELOPMENT DISCHARGE FROM THE SITE SHALL BE REDUCED BY 20% THEREFORE THE OVERALL PROPOSED SWM SYSTEM HAS BEEN DESIGNED ACCORDING TO THE REDUCED POST-DEVELOPMENT RUNOFF. THE PROPOSED SWM SYSTEM DISCHARGES INTO THE EXISTING WETLANDS AT THE REDUCED POST-DEVELOPMENT RUNOFF, WHICH HAS BEEN COMPUTED AS 4.93 CFS. PLEASE REFER TO THIS SHEET FOR THE SWM COMPUTATIONS AND DRAINAGE DIVIDES.

PROPOSED SWM VAULT REQUIRES A VOLUME OF 14,307 CUBIC FEET. THE VOLUME PROVIDED IS 15,300 CUBIC FEET WITH A FOOTPRINT OF 2550 SQ. FT. AND A DEPTH OF 6 FT. (SEE THIS SHEET)

THE PROPOSED IMPROVEMENTS TO THE SUBJECT SITE DO NOT INCREASE THE STORM WATER RUNOFF AND REDUCES IT MORE THAN 20% AS A RESULT OF PROVIDING A STORM WATER MANAGEMENT DETENTION SYSTEM. THEREFORE THE EXISTING STORM SYSTEM WILL HANDLE THE RUNOFF FROM THE SUBJECT SITE ADEQUATELY.

LEGEND

ON-SITE CONTROLLED

ON-SITE UNCONTROLLED

DRAINAGE AREA DELINEATION

Application No. SE-2008-SU-001 Staff S.B.

APPROVED (SE) (SP) PLAN

SEE DEV CONDS DATED 10/20/2008
Date of (BOS) (BZA) approval 10/20/2008

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No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
11-16-07
12-27-07
04-19-08
04-17-08
05-08-08
05-23-08
10-10-08

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
No. 038700
10/10/08
PROFESSIONAL ENGINEER

SWM DIVIDES

FAIRBROOK HOTEL
SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=50' C.I. =2' DATE: NOV., 2007

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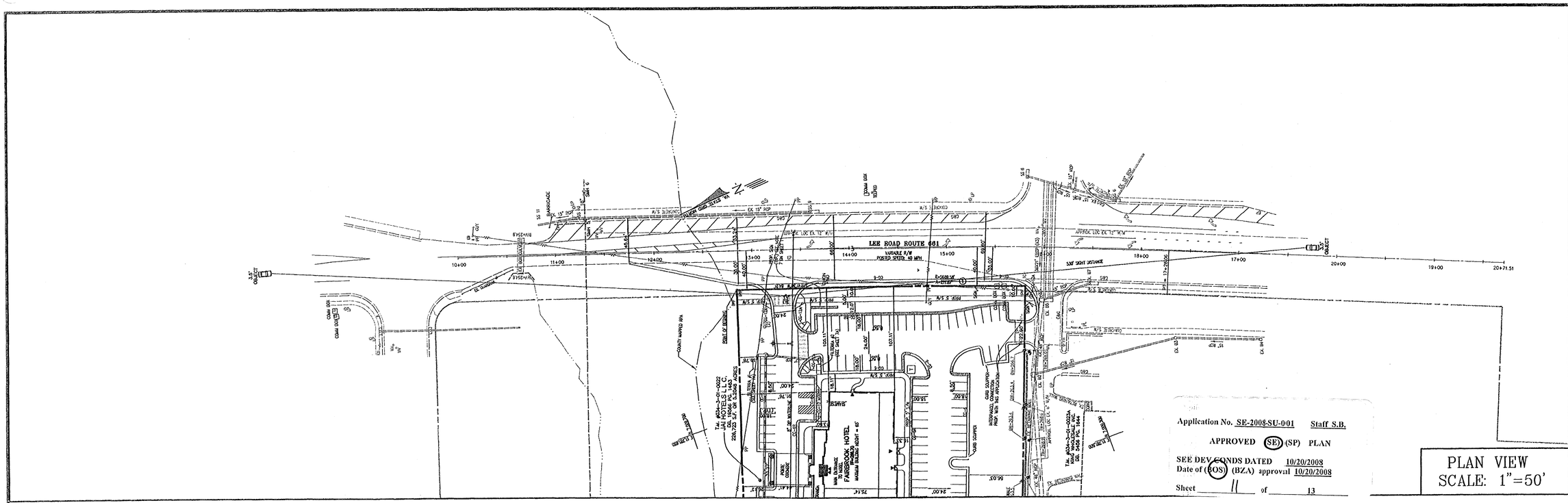
FILE No. PREL-1823



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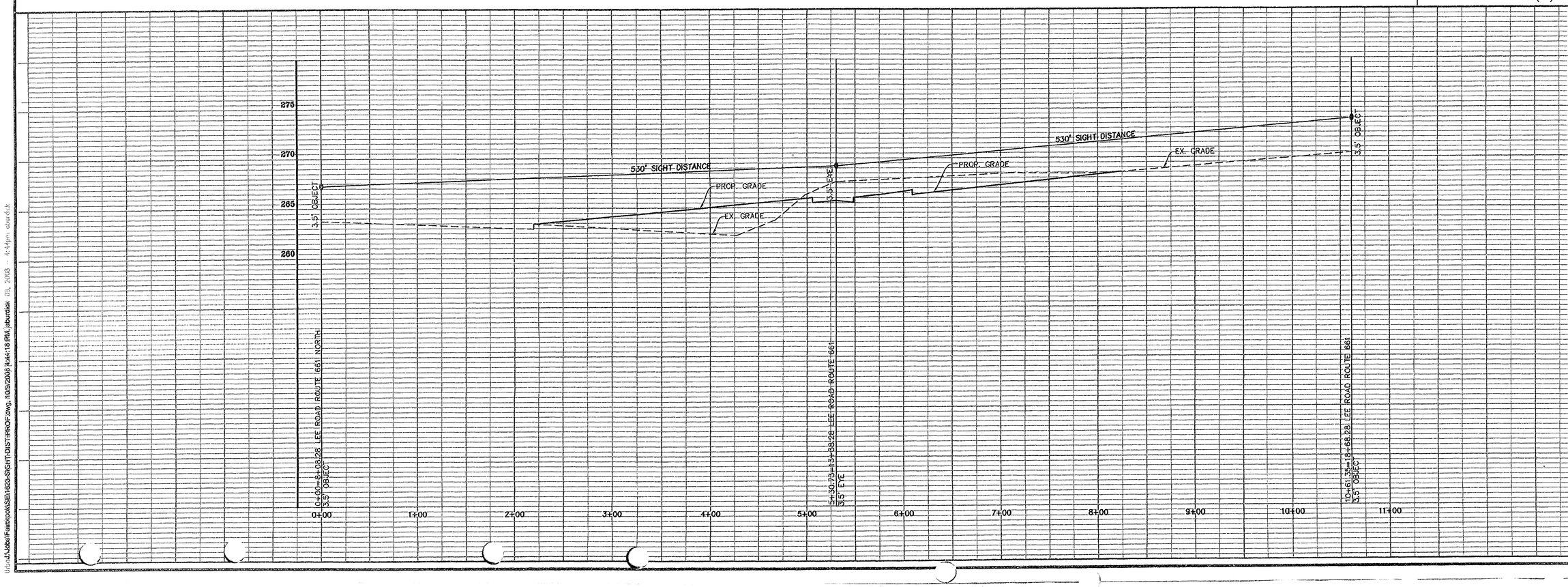
PLAN VIEW
SCALE: 1"=50'

LEE ROAD ROUTE 661

VDOT OWNED & MAINTAINED
POSTED SPEED=40 MPH
EX. R/W WIDTH VARIES

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



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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
No. 036790
10/10/08
PROFESSIONAL ENGINEER

SIGHT DISTANCE PLAN AND PROFILE

FAIRBROOK HOTEL
SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.I. N/A
DATE: NOV. 2007

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TYPICAL PLANT PALETTE

Botanical Name	Common Name	Size
CANOPY TREES		
Acer rubrum 'October Glory'	October Glory Red Maple	2" cal.
Liquidambar styraciflua	Sweetgum	3" cal.
Platanus occidentalis	Sycamore	3" cal.
Quercus palustris	Pin Oak	3" cal.
Quercus phellos	Willow Oak	3" cal.
Quercus rubra	Red Oak	2" cal.
ORNAMENTAL / EVERGREEN TREES		
Cercis canadensis	Eastern Redbud	8'-10' ht.
Cornus florida	Flowering Dogwood	8'-10' ht.
Hammelis virginiana	Witch Hazel	6'-8' ht.
Ilex opaca	American Holly	8'-8' ht.
Juniperus virginiana	Eastern Redcedar	6'-8' ht.
Betula nigra	River Birch	6'-8' ht.
Magnolia lilliflora x stellata 'Susan'	Susan Magnolia	6'-8' ht.
Magnolia soulangiana	Saucer Magnolia	6'-8' ht.
Magnolia Virginiana	Sweetbay Magnolia	8'-10' ht.
Pinus strobus	White Pine	8'-10' ht.
SHRUBS / GROUNDCOVERS / PERENNIALS / MISC.		
Azalea 'Delaware Valley'	White Azalea	30"
Calamagrostis acutiflora 'Karl Forester'	Feather Reed Grass	3 gal.
Cotoneaster dammeri 'Coral Beauty'	Coral Beauty Cotoneaster	18"-24"
Hemerocallis minor 'Stella D'Oro'	Stella D'Oro Daylily	2 gal.
Hydrangea quercifolia	Oakleaf Hydrangea	30-36"
Hypericum calycinum	Aaronsbeard St. John's Wort	3 gal.
Ilex crenata 'Hellen'	Helleri Holly	18"-24"
Ilex x meserveae 'Blue Princess'	Blue Princess Holly	30"-36"
Viburnum rhytidophylum	Leatherleaf Viburnum	30"-36"

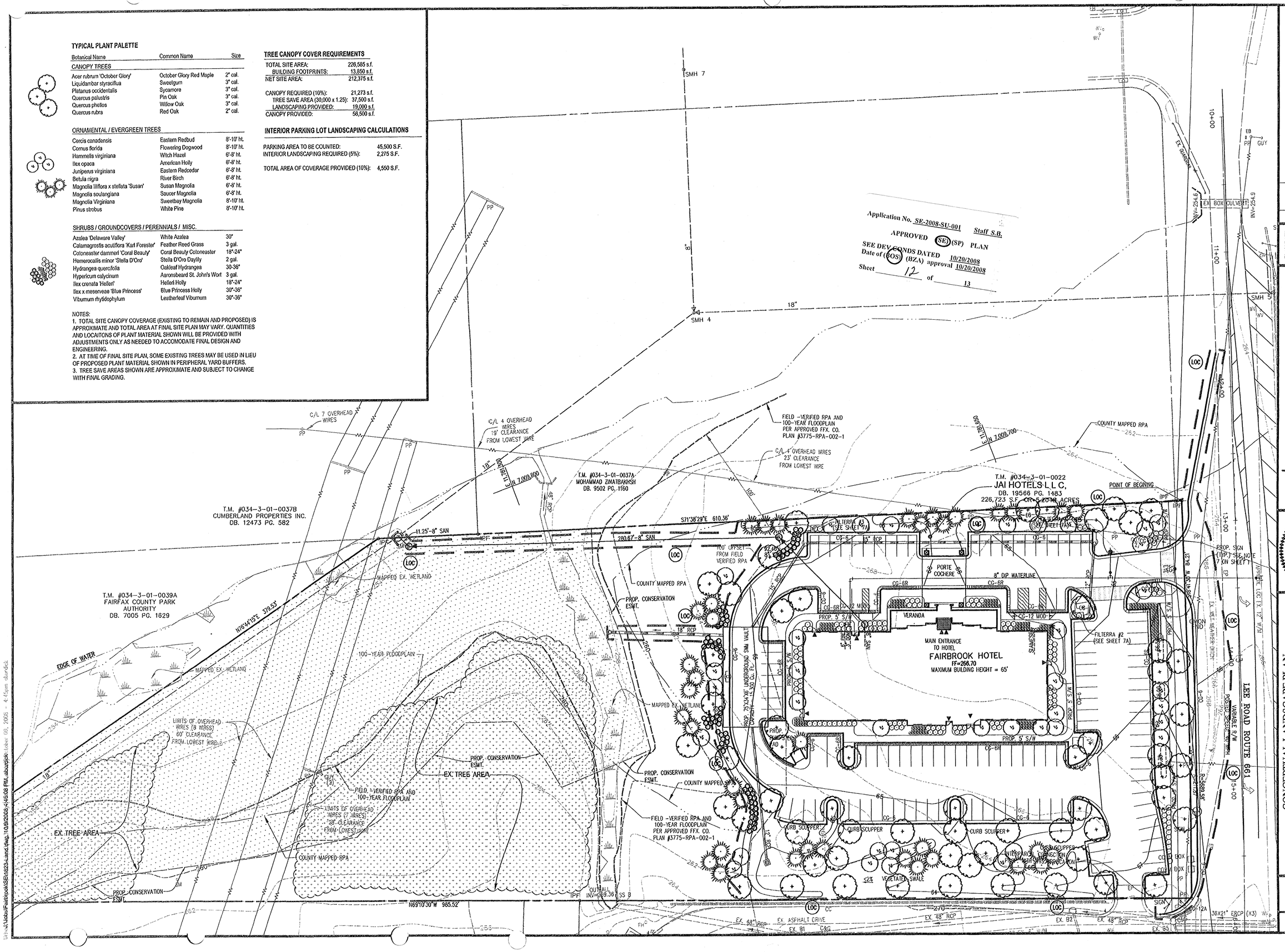
NOTES:
1. TOTAL SITE CANOPY COVERAGE (EXISTING TO REMAIN AND PROPOSED) IS APPROXIMATE AND TOTAL AREA AT FINAL SITE PLAN MAY VARY. QUANTITIES AND LOCAITONS OF PLANT MATERIAL SHOWN WILL BE PROVIDED WITH ADJUSTMENTS ONLY AS NEEDED TO ACCOMODATE FINAL DESIGN AND ENGINEERING.
2. AT TIME OF FINAL SITE PLAN, SOME EXISTING TREES MAY BE USED IN LIEU OF PROPOSED PLANT MATERIAL SHOWN IN PERIPHERAL YARD BUFFERS.
3. TREE SAVE AREAS SHOWN ARE APPROXIMATE AND SUBJECT TO CHANGE WITH FINAL GRADING.

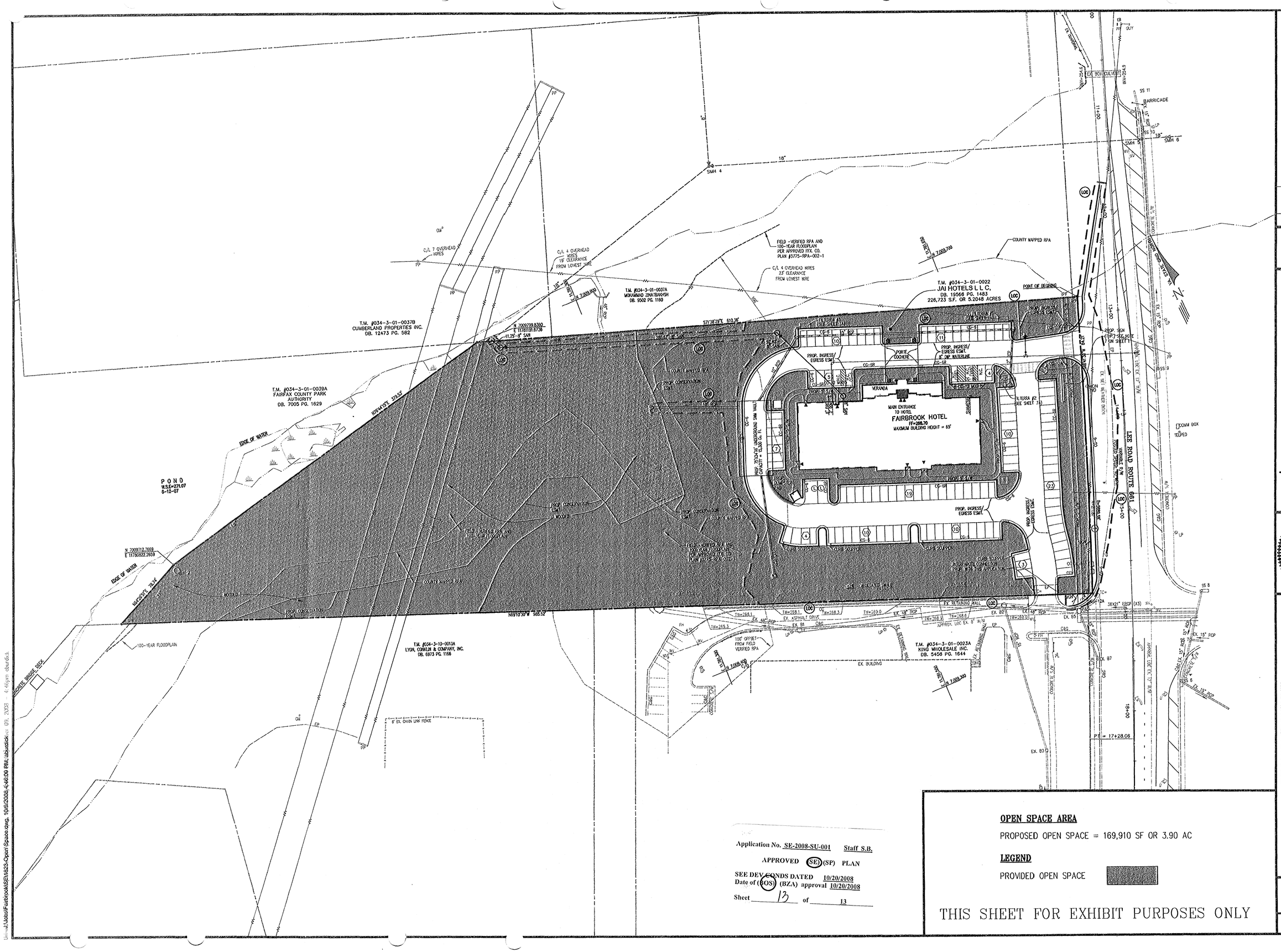
TREE CANOPY COVER REQUIREMENTS

TOTAL SITE AREA:	226,585 s.f.
BUILDING FOOTPRINTS:	13,850 s.f.
NET SITE AREA:	212,375 s.f.
CANOPY REQUIRED (10%):	21,273 s.f.
TREE SAVE AREA (30,000 x 1.25):	37,500 s.f.
LANDSCAPING PROVIDED:	19,000 s.f.
CANOPY PROVIDED:	56,500 s.f.

INTERIOR PARKING LOT LANDSCAPING CALCULATIONS

PARKING AREA TO BE COUNTED:	45,500 S.F.
INTERIOR LANDSCAPING REQUIRED (5%):	2,275 S.F.
TOTAL AREA OF COVERAGE PROVIDED (10%):	4,550 S.F.





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OPEN SPACE AREA

PROPOSED OPEN SPACE = 169,910 SF OR 3.90 AC

LEGEND

PROVIDED OPEN SPACE

THIS SHEET FOR EXHIBIT PURPOSES ONLY

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OPEN SPACE EXHIBIT

FAIRBROOK HOTEL

SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=40' C.I. =N/A DATE: NOV., 2007

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