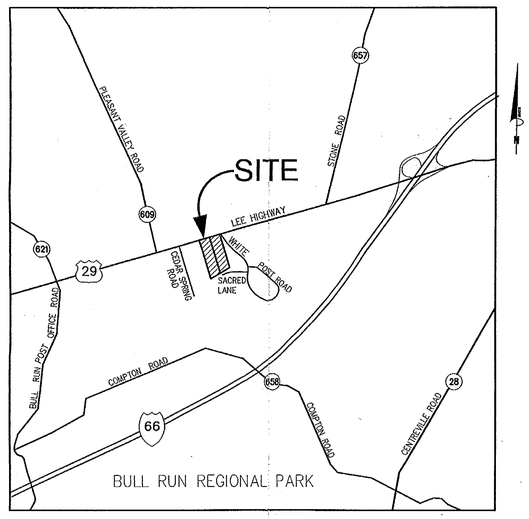
SPECIAL EXCEPTION PLAT AMENDMENT
SPECIAL PERMIT PLAT
MULFORD SCHOOL

SULLY DISTRICT FAIRFAX COUNTY, VIRGINIA

SEA 2005-SU-0144
SP-2005-SU-0231

GENERAL NOTES

1. THE SUBJECT PROPERTY IS DELINEATED ON FAIRFAX COUNTY TAX MAP 064-2 ((03)), PARCELS 22 AND 23.
2. THE PROPERTY OWNER/ SITE ADDRESS IS:
   PRESTON AND BEVERLEY MULFORD
   15109 LEE HWY
   CENTREVILLE, VA 20121
3. THE PROPERTY IS ZONED R-C (RESIDENTIAL CONSERVATION) AND CONTAINS A TOTAL OF 14.49 ACRES, (631,399 S.F.). PARCEL 22 CONTAINS 7.51 ACRES (327,516 S.F.). PARCEL 23 CONTAINS 6.97 ACRES (303,883 S.F.)
4. BOUNDARY INFORMATION SHOWN IS FROM BOUNDARY SURVEY PERFORMED BY BOWMAN CONSULTING GROUP, LTD. IN NOVEMBER 2002. (DEED BOOK 1553, PAGE 511) FOR PARCEL 22 AND MAY 2005 FOR PARCEL 23.
5. PER SECTION 3-C04 OF THE ZONING ORDINANCE, A CATEGORY 3 SPECIAL EXCEPTION IS REQUIRED.
   A) THE PURPOSE OF THE SPECIAL EXCEPTION PLAT AMENDMENT IS TO PERMIT RESIDENTIAL USE ON THE SECOND FLOOR OF THE EXISTING SCHOOL.
   B) THE PURPOSE OF THE GROUP #6 SPECIAL PERMIT APPLICATION IS TO ALLOW THE USE OF RIDING AND BOARDING STABLES.
6. ACCESS TO THE FACILITY IS FROM THE LEE HIGHWAY (ROUTE 29) ENTRANCE.
7. THE SUBJECT PROPERTY WILL BE SERVED BY PUBLIC WATER AND SEWER. SANITARY SEWER AND PUBLIC WATER EXTENSIONS FROM THE EXISTING ON-SITE SYSTEMS ARE BEING PROPOSED TO SERVICE THE PROPOSED POOL AND BATH HOUSE. THE FUTURE HOUSE INDICATED ON PARCEL 23 IS ANTICIPATED TO BE SERVED BY PUBLIC WATER AND SEWER EXTENSION/CONNECTIONS WITHIN SACRED LANE (ROUTE 7512)
8. TOPOGRAPHY SHOWN IN THE VICINITY OF THE SUBJECT PROPERTY WAS FIELD RUN BY BOWMAN CONSULTING GROUP, LTD. FOR PARCEL 22 IN NOVEMBER 2002, AND FOR PARCEL 23 ON MAY 2005.
9. THERE IS NO FLOODPLAIN WITHIN THE SUBJECT PARCELS.
10. THE PROPERTY HAS NO DELINEATED RESOURCE PROTECTION AREA AS DESIGNATED WITHIN THE CHESAPEAKE BAY PRESERVATION AREA MAPS PREPARED BY FAIRFAX COUNTY.
11. THERE ARE NO KNOWN UTILITY EASEMENTS GREATER THAN 25 FEET IN WIDTH ON THE SITE.
12. THERE ARE NO KNOWN GRAVES, OBJECTS OR STRUCTURES MARKING A PLACE OF BURIAL ONSITE.
13. THIS PROPOSED USE CONFORMS TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS, ADOPTED STANDARDS AND ANY APPLICABLE CONDITIONS EXCEPT THE FOLLOWING:
    A. A MODIFICATION OF THE REQUIRED TRANSITIONAL SCREENING ALONG A PORTION OF THE SOUTHERN AND EASTERN PROPERTY LINES, TO THAT WHICH IS SHOWN ON SHEET 3, IS HEREBY REQUESTED AND GRANTED WITH APPROVED SITE PLAN (#1832-SP-001).
    B. A DUSTLESS SURFACE WAIVER FOR THE BARN ACCESS ROAD WILL BE APPLIED FOR DURING THE FINAL SITE PLAN.
    C. A WAIVER OF THE ASPHALT TRAIL ALONG THE FRONTAGE OF LOT 23 AND THE STONE TRAIL ALONG THE FRONTAGE OF LOTS 22 AND 23 AS REQUIRED BY THE COMPREHENSIVE PLAN IS HEREBY REQUESTED.
14. STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES (SWM/ BMP) IS PROVIDED ON-SITE, PER SITE PLAN (#1832-SP-001)
15. MULFORD SCHOOL WILL BE IN OPERATION AS FOLLOWS:
    - MONDAY THROUGH FRIDAY, 8:00 A.M.-5:00 P.M., YEAR ROUND – PRE-SCHOOL, PRE-K, AND KINDERGARTNERS. APPROXIMATELY 150 STUDENTS PER YEAR, WITH 80 STUDENTS ATTENDING THE A.M. AND P.M. SESSIONS.
    - SATURDAY, 9:00 A.M.-3:00 P.M., YEAR ROUND AND/OR SEASONALLY AS APPROPRIATE – HORSE TRAINING (UP TO 25 STUDENTS PER DAY), KARATE (UP TO 30 STUDENTS PER DAY), DANCE (UP TO 30 STUDENTS PER DAY), PIANO AND OTHER EDUCATIONAL LESSONS (UP TO 5 STUDENTS PER DAY).
    - SUNDAY, 12:00 P.M.-4:00 P.M., YEAR ROUND – RECITALS AND SMALL CONCERTS.
16. THE HORSES, BARN AND PADDOCK ARE FOR THE PERSONAL USE OF THE CARETAKERS, NURSERY SCHOOL AND FOR HORSEBACK RIDING LESSONS. THE LESSONS WILL BE CONDUCTED YEAR ROUND AS FOLLOWS:
    - WEEKDAYS, 2:00 P.M.-6:00 P.M. (UP TO 12 STUDENTS PER DAY)
    - SATURDAY AND SUNDAY, 9:00 A.M.-3:00 P.M. (UP TO 35 STUDENTS PER DAY)
17. THE EXISTING HOUSE (WITHIN PARCEL 22) SHOWN ON SHEET 2 IS TO REMAIN AND SERVE AS THE PROPRIETOR'S RESIDENCE.
18. THE SUBJECT PROPERTY IS WITHIN THE SOIL AND WATER CONSERVATION DISTRICT.
19. ALL SITE DEVELOPMENT PERMIT RELATED ITEMS (INCLUDING HEALTH DEPARTMENT) ASSOCIATED WITH THE FUTURE HOUSE INDICATED ON PARCEL 23 AND THE POOL/BATH HOUSE WILL BE ADDRESSED WITH FINAL ENGINEERING PLANS.



VICINITY MAP
SCALE: 1"=2000'

APPLICANT:
MULFORD ENTERPRISES, INC.
15109 LEE HIGHWAY
CENTREVILLE, VA 20121

PREPARED BY:
BOWMAN CONSULTING GROUP, LTD.
14020 THUNDERBOLT PLACE, SUITE 300
CHANTILLY, VA 20151

Application No. SEA 2005-SU-0144 Staff
APPROVED SE / SP PLAN
SIEE DEV CONDS DATED 3/14/06
Date of (BOS) (BZA) approval 3/13/06
Sheet 1 of 7

RECEIVED
Department of Planning & Zoning
MAR 13 2006
Zoning Evaluation Division

MULFORD SCHOOL
SHEET INDEX:

1. COVER SHEET
2. SPECIAL EXCEPTION PLAT
3. LANDSCAPE PLAN
4. EXISTING VEGETATION/CONDITIONS MAP
4A. WATER QUALITY/ADEQUATE OUTFALL ANALYSIS
4B. WATER QUALITY/ADEQUATE OUTFALL ANALYSIS
5. ARCHITECTURAL ELEVATIONS

Bowman CONSULTING
Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151
Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowmanconsulting.com

COVER SHEET
MULFORD SCHOOL
FAIRFAX COUNTY, VIRGINIA
SULLY DISTRICT

SE
COUNTY PROJECT NUMBER

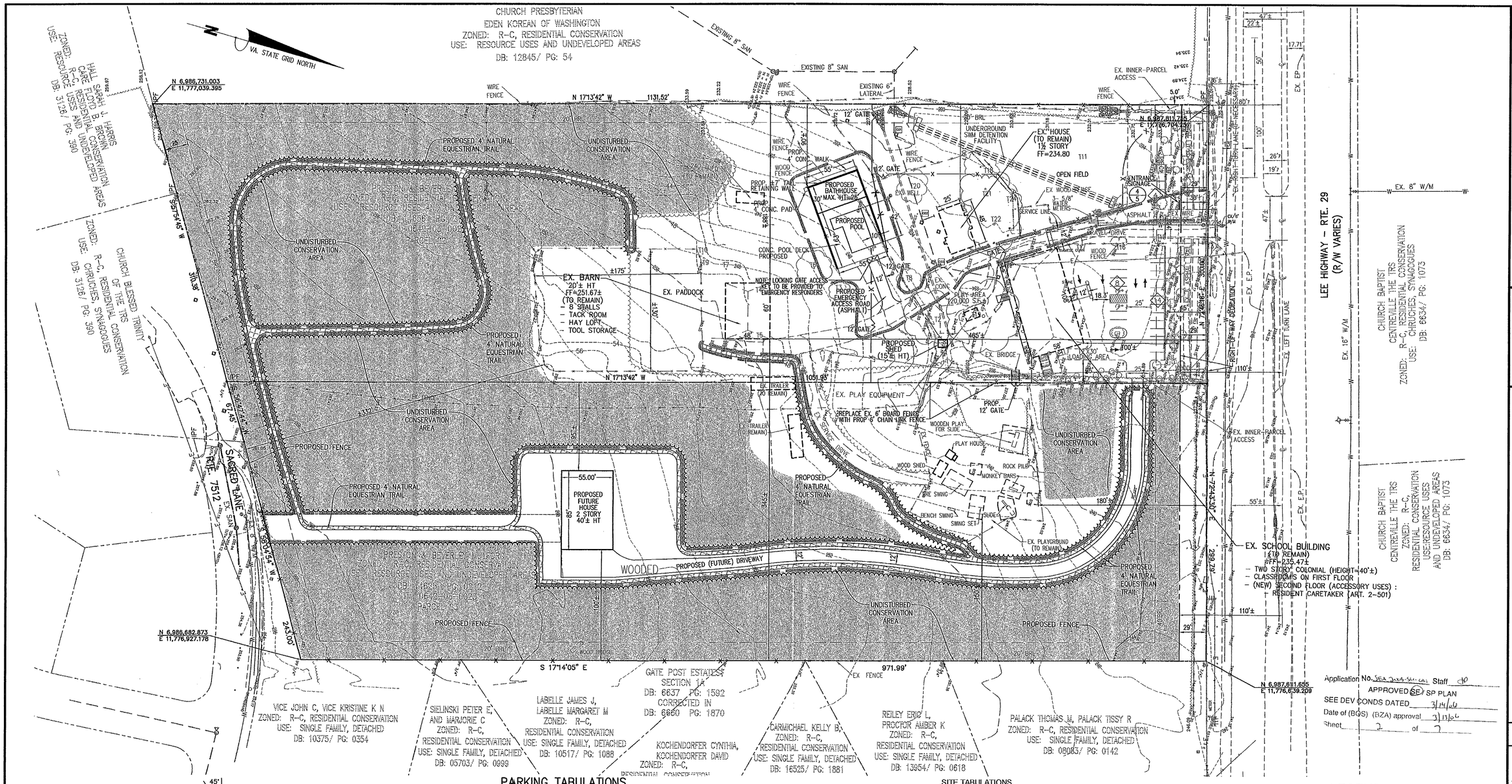
COMMONWEALTH OF VIRGINIA
MATTHEW J. TAUSCHER
No.000832
3/24/06
CERTIFIED LANDSCAPE ARCHITECT

PLAN STATUS	
5/12/05	AMENDMENT
08/10/05	RESUBMITTED
08/24/05	RESUBMITTED
09/07/05	RESUBMITTED
09/16/05	RESUBMITTED
01/09/06	RESUBMITTED
02/24/06	REVISED
DATE	DESCRIPTION

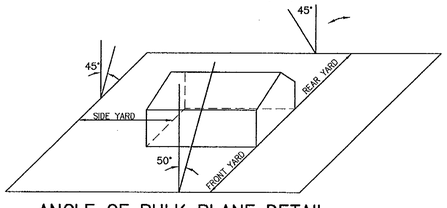
SG	RRM	MWB
DESIGN	DRAWN	CHKD

SCALE H: AS SHOWN V:
JOB No. 2166-02-003
DATE: NOVEMBER 8, 2002
FILE No. 2166-D-ZP-004
SHEET 1 OF 5

Cad file name : P:\2166 - Mulford Daycare\2166-02-003 (PLN)\Planning\Plans and Submissions\DWGS\rev_022406\COVER-SEP_010606.dwg



Application No. SE 2005-SU-021 Staff JP
APPROVED (SE) SP PLAN
SEE DEV CONDS DATED 3/14/06
Date of (BOS) (BZA) approval 3/13/06
Sheet 2 of 7



ANGLE OF BULK PLANE DETAIL

BULK REGULATION

MAXIMUM BUILDING HT. : 60'
PROPOSED BUILDING HT. : 40'±
MINIMUM YARD REQUIREMENTS:

A. FRONT YARD: CONTROLLED BY A 50° ANGLE OF BULK PLANE, BUT NOT LESS THAN 40'
B. SIDE YARD: CONTROLLED BY A 45° ANGLE OF BULK PLANE, BUT NOT LESS THAN 20'
C. REAR YARD: CONTROLLED BY A 45° ANGLE OF BULK PLANE, BUT NOT LESS THAN 25'

PARKING TABULATIONS

(REFER TO COVER SHEET NOTES 15 & 16 FOR OPERATING TIMES OF SPECIFIC USES)

WEEKDAY OPERATIONS (REQUIRED PARKING):

NURSERY SCHOOL (SECT 11-106.2.B)

REQUIRED:
0.16 SPACES/CHILD (FOR A SCHOOL OF MORE THAN 100 STUDENTS)
PROPOSED NUMBER OF STUDENTS=150 (150 x 0.16): 24 SPACES
SPACES REQUIRED: 24 SPACES

RIDING/BOARDING STABLES-RECREATION FACILITY (11-104.18)

REQUIRED:
1 SPACE/3 PERSON BASED ON OCCP. LOAD (@ 7 STUDENTS PER CLASS) = 2 SPACES
(3 CLASSES OF 7 STUDENTS PER CLASS @ ALTERNATING TIME OF DAY)
1 SPACE/EMPLOYEE (@ 1 EMPLOYEE (INSTRUCTOR)) =1 SPACES
SPACES REQUIRED: 3 SPACES

WEEKDAY OPERATIONS (PROVIDED PARKING):

PARKING SPACES: 26 SPACES
HANDICAPPED SPACES: 1 VAN SPACE
TOTAL SPACES PROVIDED: 27 SPACES
LOADING SPACES: 1 SPACE

WEEKEND OPERATIONS (REQUIRED PARKING):

PRIVATE SCHOOL - GENERAL EDUCATION (11-106.17)

(INCLUDES DANCE/KARATE/PIANO/OTHER EDUCATIONAL)

REQUIRED:
1 SPACE/FACULTY AND STAFF @ 3 FACULTY/STAFF = 3 SPACES
4 SPACES FOR VISITORS = 4 SPACES
SPACES REQUIRED: 7 SPACES

(THE LARGER CLASS SIZES OF KARATE AND DANCE INSTRUCTION WILL OPERATE AT SEPARATE TIMES ON SATURDAY, THERFORE PARKING REQUIREMENTS/PROVISIONS WILL BE AT SEPARATE INTERVALS)

RIDING/BOARDING STABLES-RECREATION FACILITY (11-104.18)

REQUIRED:
1 SPACE/3 PERSON BASED ON OCCP. LOAD (@ 7 STUDENTS PER CLASS) = 2 SPACES
(5 CLASSES OF 7 STUDENTS PER CLASS @ ALTERNATING TIME OF DAY)
1 SPACE/EMPLOYEE (@ 1 EMPLOYEE (INSTRUCTOR)) =1 SPACES
SPACES REQUIRED: 3 SPACES

WEEKEND OPERATIONS (PROVIDED PARKING):

PARKING SPACES: 26 SPACES
HANDICAPPED SPACES: 1 VAN SPACE
TOTAL SPACES PROVIDED: 27 SPACES

SITE TABULATIONS

FLOOR AREA RATIO (F.A.R.) CALCULATIONS:

GROSS SITE AREA: 631,399.00 ± SF
14.49 ± ACRES
ALLOWABLE F.A.R.: 0.10

STRUCTURE	SQ. FT.
EXISTING HOUSE (PARCEL 22):	1,500
EXISTING SCHOOL:	9,300
EXISTING BARN:	2,880
PROPOSED BATHHOUSE:	1,650
EXISTING SHEDS:	600
EXISTING TRAILERS:	1,350
PROPOSED HOUSE (PARCEL 23):	9,350
PROPOSED SHED:	150
TOTAL:	26,780

PROPOSED F.A.R. =0.043
RIGHT OF WAY DEDICATION =8,690 SF
(NO STREET IMPROVEMENT)
OPEN SPACE REQUIRED: N/A
(PER SEC. 3-C09 OF THE ZONING ORDINANCE)
OPEN SPACE PROVIDED: 75% ±

UNDISTURBED OPEN SPACE REQUIRED: 50%
UNDISTURBED OPEN SPACE PROVIDED: 50% ±

ANIMAL UNITS CALCULATIONS

SITE AREA = 14.49± ACRES
1 ANIMAL UNIT = 3 HORSES PER ACRE
(PER SEC. 2-512, 3A OF THE ZONING ORDINANCE)

ALLOWABLE HORSES = 43
PROPOSED HORSES = 10

LEGEND

- PROPOSED FENCE
- EXISTING FENCE
- EXISTING CONTOUR
- EXISTING TREE CANOPY
- PROPOSED TREELINE
- PROPOSED LIMITS OF CONSTRUCTION
- R/W — RIGHT-OF-WAY
- EXISTING WATERLINE
- 5' S/W — PROPOSED 5' SIDEWALK
- OU — OVERHEAD UTILITY
- EP — EDGE OF PAVEMENT
- CENTERLINE OF RIGHT-OF-WAY
- BRL — BUILDING RESTRICTION LINE

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

Bowman CONSULTING

Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151
Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowmanconsulting.com

SPECIAL EXCEPTION PLAT
AMENDMENT
MULFORD SCHOOL
SULLY DISTRICT
FAIRFAX COUNTY, VIRGINIA

SE
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
MATTHEW J. TAUSCHER
No.000832
CERTIFIED LANDSCAPE ARCHITECT
2/24/06

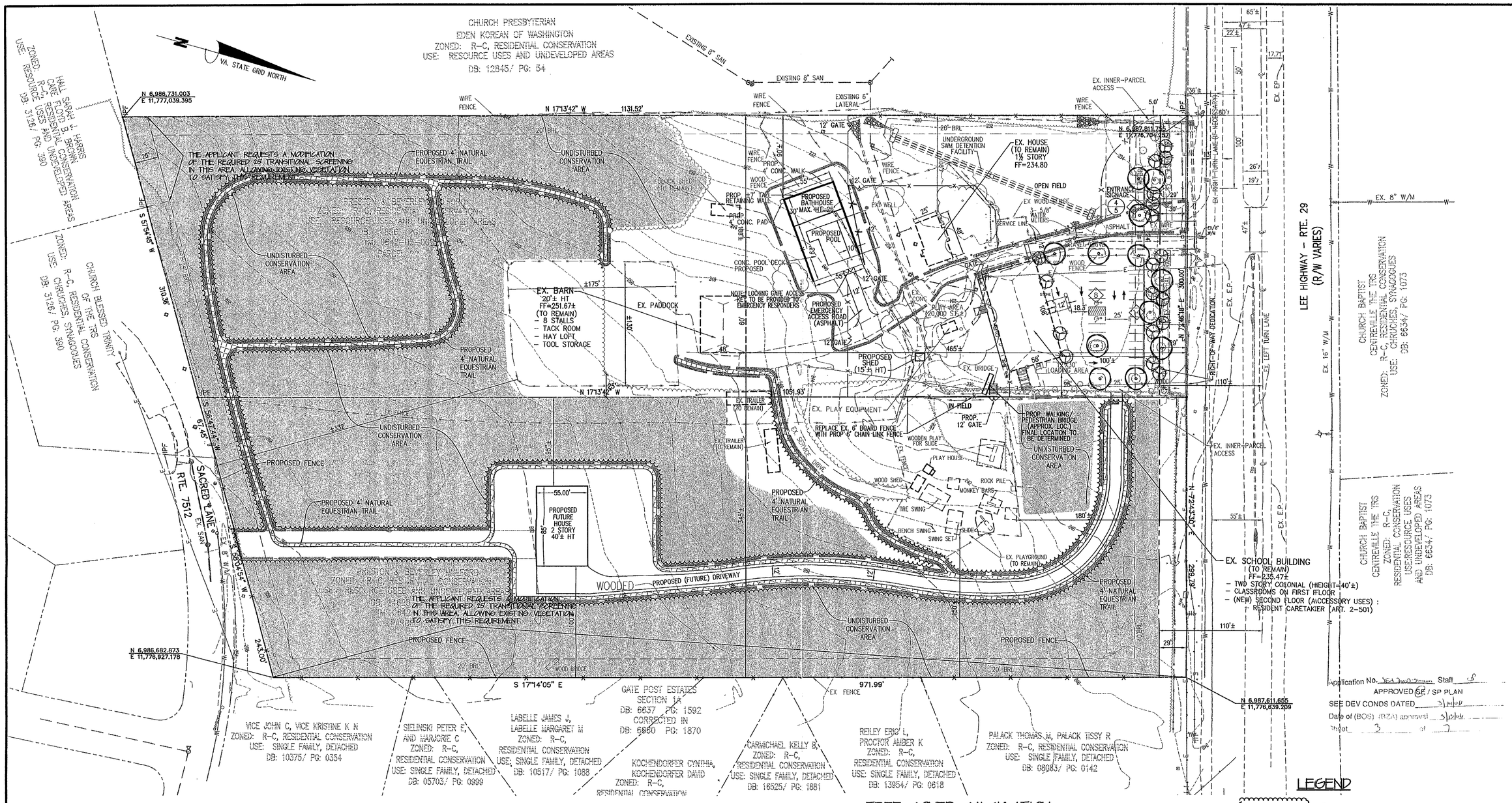
PLAN STATUS	
5/12/05	AMENDMENT
08/10/05	RESUBMITTED
08/24/05	RESUBMITTED
09/07/05	RESUBMITTED
09/16/05	RESUBMITTED
01/09/06	RESUBMITTED

DATE	DESCRIPTION

SG	RRM	MWB
DESIGN	DRAWN	CHKD

SCALE H: 1"= 50' V: N/A
JOB No. 2166-02-003
DATE: NOVEMBER 8, 2002
FILE No. 2166-D-ZP-004
SHEET 2 OF 5

Cad file name : P:\2166 - Mulford Daycare\2166-02-003 (PLN)\Planning\Plans and Submissions\DWGS\rev_022406\SPEC-EXC-PLT_022406.dwg



Application No. SEA 2003-Sunion Staff SP
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 3/10/06
Date of (BOS) (BZA) approval 3/10/06
Sheet 3 of 7

PLANT LIST AND INFORMATION BASED ON SE-2003-SU-001

PLANT LIST

TREES TO CONSIST OF BUT NOT LIMITED TO THE FOLLOWING:

DECIDUOUS SHADE TREES

ACER RUBRUM
CARPINUS CAROLINIANA
GLEDITSIA TRIACANTHOS VAR. INERMIS "SKYLINE"
QUERCUS ALBA
QUERCUS COCCINEA
QUERCUS PHELLOS
QUERCUS RUBRA
PLATANUS OCCIDENTALIS
ZELKOVA SERRATA

EVERGREEN TREES

CUPRESSOCYPARIS LEYLANDII
ILEX ATTENUATA FOSTERI
PINUS RIGIDA
PINUS TAEDA

ORNAMENTAL TREES

BETULA NIGRA
CERCIS CANADENSIS
CORNUS KOUSA
MAGNOLIA SOULANGIANA
PRUNUS VIRGINIANA

SHRUBS

BUXUS MICROPHYLLA
ILEX VAR.
JUNIPERUS VAR.
PRUNUS LAUROCERASUS
RHODODENDRON VAR. (AZALEA)

NOTES:

1. LANDSCAPE PLANS ARE CONCEPTUAL AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, PLANT AVAILABILITY, FINAL ARCHITECTURE AND UTILITY LOCATIONS. FINAL LANDSCAPING PLANS WILL BE IN SUBSTANTIAL CONFORMANCE TO THAT WHICH IS SHOWN.

TREE TABLE

T1	30" OAK	T13	14" FRUIT
T2	24" OAK	T14	14" FRUIT
T3	12" CEDAR	T15	14" FRUIT
T4	12" CEDAR	T16	14" FRUIT
T5	12" CEDAR	T17	14" FRUIT
T6	12" SYCAMORE	T18	14" FRUIT
T7	15" HICKORY	T19	37" MAPLE
T8	9" GREEN ASH	T20	15" FRUIT
T9	19" LOCUST	T21	20" MAPLE
T10	13" LOCUST	T22	24" MAPLE
T11	25" ASH	T23	7" FRUIT
T12	14" FRUIT	T24	12" MAGNOLOA

TREE COVER CALCULATION

GROSS SITE AREA:	631,399 SF (14.49 AC)	
ZONING:	R-C, RESIDENTIAL-CONSERVATION	
DEDUCTABLE AREAS:		
BUILDINGS	16,150 SF±	
HORSE RING/POOL	17,400 SF±	
RIGHT-OF-WAY DEDICATION	8,700 SF±	
TOTAL:	42,250 SF±	
ADJUSTED SITE AREA:	589,149 SF±	
REQUIRED TREE COVER:	117,829 SF (20%)	
EXISTING TREE COVER TO REMAIN:	322,000 SF±	(308,800 SF±) ⚠
PROPOSED LANDSCAPING:	1,350 SF±	
TOTAL TREE COVER PROVIDED:	323,350 SF± (51%)	(310,150 SF±(0.49%)) ⚠

INTERIOR PARKING LOT LANDSCAPING:

TOTAL PARKING AREA	24,000 SF±
REQUIRED LANDSCAPING	1,200 SF (5%)
PROPOSED LANDSCAPING	1,500 SF (6.25%)

LEGEND

- TREE SAVE AREA
- TREES TO BE PRESERVED
- EXISTING TREELINE
- LARGE SHADE TREE (2"-2.5" CALIPER)
- ORNAMENTAL TREE (1"-1.5" CALIPER)
- EVERGREEN TREE (6-7 HEIGHT)

— TREES PROVIDED AS PART OF SE-2003-SU-001

⚠ TREE COVER CALCULATIONS MODIFIED WITH THIS APPLICATION (SEA-2003-SU-)

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

Bowman CONSULTING

Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151
Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowmanconsulting.com

LANDSCAPE PLAN
MULFORD SCHOOL
FAIRFAX COUNTY, VIRGINIA
SULLY DISTRICT

SE
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
KATHERINE MUSCHER
No.000832
2/24/06
CERTIFIED LANDSCAPE ARCHITECT

PLAN STATUS	
5/12/05	AMENDMENT
08/10/05	RESUBMITTED
08/24/05	RESUBMITTED
09/07/05	RESUBMITTED
09/16/05	RESUBMITTED
01/09/06	RESUBMITTED
02/24/06	REVISED

DATE	DESCRIPTION

SG	RRM	MWB
DESIGN	DRAWN	CHKD

SCALE H: 1" = 50' V: N/A

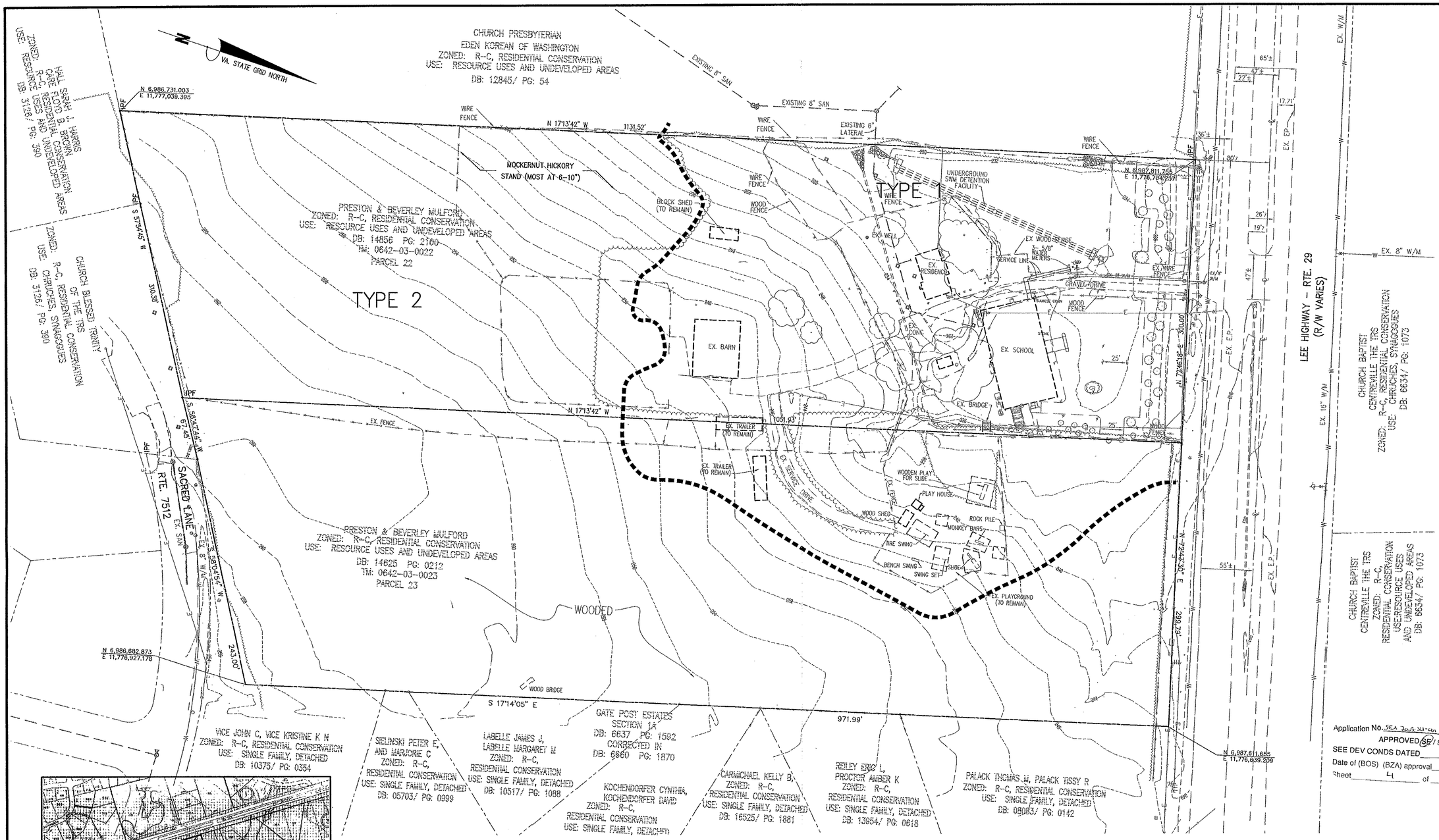
JOB No. 2166-02-003

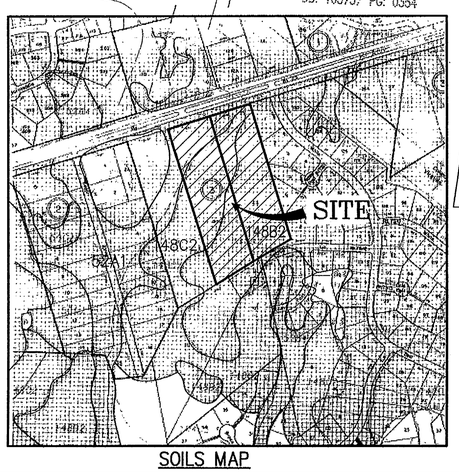
DATE: NOVEMBER 8, 2002

FILE No. 2166-D-ZP-004

SHEET 3 OF 5

Cad file name : P:\2166 - Mulford Daycare\2166-02-003 (PLN)\Planning\Plans and Submissions\DWGS\rev_022406\LS-SEP_022406.dwg





SOILS MAP

TREE TABLE

T1	30" OAK	T13	14" FRUIT
T2	24" OAK	T14	14" FRUIT
T3	12" CEDAR	T15	14" FRUIT
T4	12" CEDAR	T16	14" FRUIT
T5	12" CEDAR	T17	14" FRUIT
T6	12" SYCAMORE	T18	14" FRUIT
T7	15" HICKORY	T19	37" MAPLE
T8	9" GREEN ASH	T20	15" FRUIT
T9	13" LOCUST	T21	20" MAPLE
T10	13" LOCUST	T22	24" MAPLE
T11	25" ASH	T23	7" FRUIT
T12	14" FRUIT	T24	12" MAGNOLOA

SOILS

52A1 – ELBERT SILT LOAM, NEARLY LEVEL PHASE
148B2 – IREDELL–MECKLINBERG SILT LOAMS, UNDULATING PHASE
148C2 – IREDELL–MECKLINBERG SILT LOAMS, ROLLING PHASE

EXISTING VEGETATION LEGEND

	Cover Type	Primary Species	Understory Species	Successional Stage	Condition	Area
1	Maintained Grasslands	*Mostly open turf area, few trees present. Specimens worthy of preservation are indicated on the plan.*	*Mostly open turf area, few trees present. Specimens worthy of preservation are indicated on the plan.*	*N/A*	*Specimens: Good to excellent*	*175,052 SF 4.02 AC.*
	Comments	*Topography immediately around and in front of the house is very flat at 0-2%. The open field behind the house is fairly hilly at 6-8%+. There are some nice specimens in this area worthy of keeping as there are also a number that need removed, but it's mostly turf or bare soil.*				
2	Upland Forest	*Quercus alba, Q. rubra, Q. velutina Fraxinus pensylvanica, F. americana, and Juglans nigra.*	*Primarily Juniperus virginiana and Carya tomentosa with lesser sizes of the primary species, Cornus florida, and Prunus sp.*	*Sub-climax*	*Fair to good*	*152,440 SF 3.5 AC.*
	Comments	*An existing diverse canopy is in relatively healthy condition, however, the understory is fairly sparse due to years of trampling by horses roaming throughout the site. The average dbh of the canopy is 16-22" (with a few 22"+) and the average for the sparse understory is 6-8". The slope from the woods edge to about halfway back is 4-6% and the back of the property flattens to a ridge (high point). There are a number of trees along the property line that have been used for posts for barbed wire fencing. Due to the proposed use of childcare, and likely heavy use of the entire grounds, all of these trees should be removed as a present or future hazard (most are either dead or in some stage of decline from the "wire wrap").*				
						TOTAL = 7.52 AC

LEGEND

40 — EXISTING CONTOUR
EXISTING VEGETATION
TYPE 2 — EX. TREE COVER TYPE

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

Application No. SEA 2003-SU-041 Staff SP
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 3/14/06
Date of (BOS) (BZA) approval 3/13/06
Sheet 4 of 7

Bowman CONSULTING

Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151
Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowmanconsulting.com

EXISTING VEGETATION / CONDITIONS MAP

MULFORD SCHOOL

SULLY DISTRICT

FAIRFAX COUNTY, VIRGINIA

SE
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
MATTHEW J. LAUSCHER
No.000832
CERTIFIED LANDSCAPE ARCHITECT
1-9-06

PLAN STATUS	
5/12/05	AMENDMENT
08/10/05	RESUBMITTED
08/24/05	RESUBMITTED
09/07/05	RESUBMITTED
09/16/05	RESUBMITTED
01/09/06	RESUBMITTED

DATE	DESCRIPTION

SG	RRM	MWB
DESIGN	DRAWN	CHKD

SCALE H: 1"= 50' V: N/A

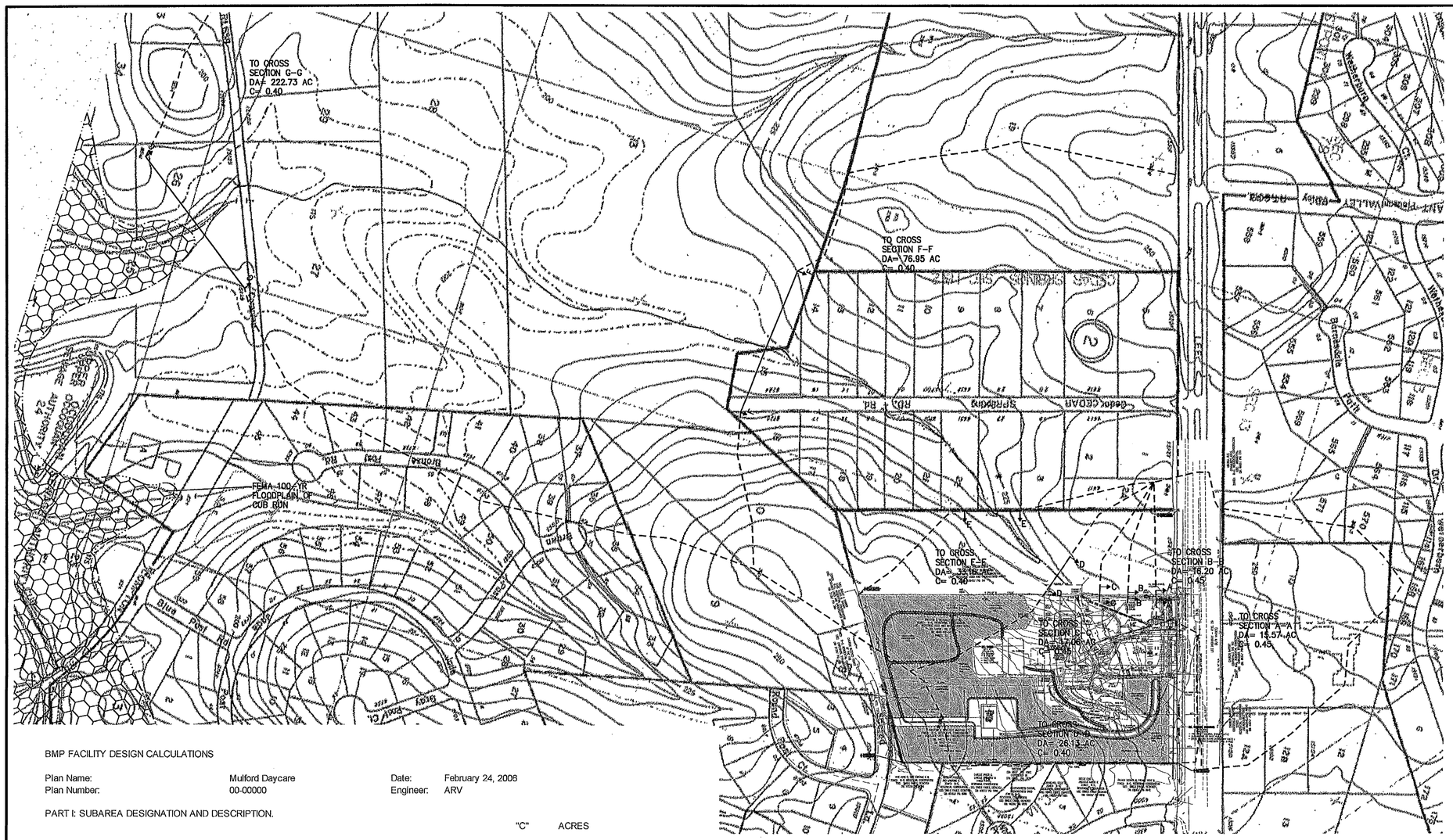
JOB No. 2166-02-003

DATE: NOVEMBER 8, 2002

FILE No. 2166-D-ZP-004

SHEET 4 OF 5

Cad file name : P:\2166 - Mulford Daycare\2166-02-003 (PLN)\Planning\Plans and Submissions\DWGS\subm_010906\Ex-Vegie-Map_010606.dwg



VA STATE GRID NORTH

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

ADEQUATE OUTFALL NARRATIVE:

THIS PROJECT IS FOR NEW CONSTRUCTION ON THE MULFORD SCHOOL PROPERTY AND THE ADJACENT PARCEL. A POOL, BATH HOUSE, AND ACCESS DRIVE ARE PROPOSED ON THE SCHOOL GROUNDS, AND CONSTRUCTION OF A TWO-STORY HOUSE AND APPROX. 750 LF OF DRIVEWAY IS PROPOSED FOR THE ADJACENT PARCEL. THE SITE IS LOCATED WITHIN THE CUB RUN WATERSHED. THE MAJORITY OF THE IMPERIVOUS AREA STORMWATER RUNOFF FROM THIS SITE IS COLLECTED IN A CLOSED CONDUIT SYSTEM AND CONVEYED TO A PRIVATELY MAINTANTED UNDERGROUND DETENTION FACILITY. THE REMAINING STORMWATER RUNOFF FROM THIS SITE FLOWS AS UNCONTROLLED SHEET FLOW. THE PROPOSED UNDERGROUND FACILITY DISCHARGES INTO A DEFINED EXISTING NATURAL CHANNEL, WHICH IS LOCATED ON THE WESTERN SIDE OF THE SITE.

THE TWO AND TEN YEAR POST DEVELOPMENT STORMWATER RUNOFF FROM THIS SITE WILL BE DETAINED TO PRE-DEVELOPMENT FLOW RATES BY WAY OF A PROPOSED PRIVATELY MAINTANTED UNDERGOUND STORMWATER MANAGEMENT FACILITY. APPROXIMATELY 2.07 ACRES OF ON-SITE AND 0.07 ACRES OF OFF SITE STORMWATER RUNOFF WILL BE DISCHARGED INTO THE PROPOSED UNDERGROUND FACILITY. THIS FACILITY IS DESIGNED TO OVERDIETAIN THE STORMWATER RUNOFF FROM THE ON-SITE AND OFF-SITE AREAS. THEREFORE, THE COMBINED CONTROLLED AND UNCONTROLLED STORMWATER RUNOFF FROM THE DEVELOPED SITE WILL BE LESS THAN OR EQUAL TO THE PRE-DEVELOPED CONDITION FOR THE TWO AND TEN YEAR EVENTS. SEE ALLOWABLE RELEASE RATE CALCULATION ON THIS SHEET.

AN ADEQUATE OUTFAILL ANALYSIS HAS BEEN PROVIDED FOR THIS DEVELOPMENT, SEE SHEETS 4B & 4C. AT ALL CROSS SECTIONS THE TWO YEAR AND 10 YIEAR STORMS DO NOT OVERTOP THE EXISTING CHANNEL (SEE SUPPIORTING CALCULATION ON SHEET 12).

IT IS THE OPINION OF THE SUBMITTING ENGINEER OF RECORD, BOWMAN CONSULTING, THAT AN ADEQUATE OUTFALL HAS BEEN PROVIDED FOR THIS PROJECT.

BMP FACILITY DESIGN CALCULATIONS

Plan Name: Mulford Daycare — Date: February 24, 2006
Plan Number: 00-00000 — Engineer: ARV

PART I: SUBAREA DESIGNATION AND DESCRIPTION.

		"C"	ACRES
A1	DEVELOPED & EXISTING AREA UNCONTROLLED	0.40	5.170
A2	DEVELOPED AREA CONTROLLED (ONLY DETENTION)	0.50	2.070
A3	OPEN SPACE (BMP CREDITED AREA)	0.20	7.250
A4	OFF SITE UNCONTROLLED	0.90	0.070
		TOTAL	14.56

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

(A) AREA OF SITE (a) 14.49 Ac

Subarea	Description	"C"	ACRES	C X A
A1	DEVELOPED & EXISTING AREA UNCONTROLLED	0.40	5.170	2.07
A2	DEVELOPED AREA CONTROLLED (ONLY DETENTION)	0.50	2.070	1.04
A3	OPEN SPACE (BMP CREDITED AREA)	0.20	7.250	1.45
			TOTAL =	4.55

WT."C" = 0.31

PART 3: Calculate Total Phosphorous Removal for Site.

Subarea	BMP Type	Removal EFF. (%)	Area Ratio	C"Factor Ratio	Product
A1	UNCONTROLLED	0	0.357	1.273	0.00
A2	UNCONTROLLED	0	0.143	1.591	0.00
A3	UNCONTROLLED	100	0.500	1.000	50.03
				TOTAL =	50.03 Percent (%)

PART 4: Determine compliance with requirements.

Water Supply Overlay District
(Occoquan Watershed) — Req'd Removal: 50%

If Part 3 50.03% is greater than 50% :
Then the Phosphorous removal requirement is satisfied.

WATER QUALITY NARRATIVE:

BEST MANAGEMENT PRACITCES (BMPs) ARE PROVIDED FOR THIS DEVELOPMENT BY THE PROPOSED PERMANENT CONVERSATION AREA, APPROXIMATELY 50% OF THE TOTAL SITE AREA. THE CONSERVATION AREA HAS A PHOSPHOROUS REMOVAL EFFICIENCY OF 100%.

THE SITE IS LOCATED IN THE CUB RUN WATERSHED WHICH REQUIRES 50% PHOSPHOROUS REMOVAL. IN ORDER TO ACHIEVE THE REQUIRED REMOVAL RATE, 7.25 ACRES OF THE SITE HAVE BEEN PROVIDED AS WATER QUALITY MANAGEMENTA AND CONSERVATION AREA. AN EASEMENT HAS BEEN PROVIDED ON THE PLAN TO DELINEATE THE PERMENANT CONSERVATION AREA. THIS AREA SHALL NOT BE DISTURBED OR USED WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE DIRECTOR OF DEPARTMENT PUBLIC WORKS AND ENVIRONMENTAL SERVICES.

THE 7.25 ACRES OF UNDISTURBED ACHIEVES A TOTAL PHOSPHORUS REMOVAL OF 50.03% WHICH MEETS THE 50% PHOSPHOROUS REMOVAL REQUIREMENT FOR THIS WATERSHED.

Application No. SEA 2005-SU-001 Staff SP
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 3/21/06
Date of (BOS) (BZA) approval 3/13/06
Sheet 5 of 7

STORMWATER DETENTION CALCULATIONS

ALLOWABLE RELEASE RATE FROM SITE:

SITE AREA = 14.49 AC. C = 0.31, C = 0.27 (2 YEAR), Tc = 5 MIN
Q = CIA
$Q_{2\ pre}$ = 1 X 0.27 X 5.45 X 14.49 = 21.32 cfs
$Q_{10\ pre}$ = 1 X 0.31 X 7.27 X 14.49 = 32.66 cfs
$Q_{100\ pre}$ = 1.25 X 0.31 X 9.84 X 14.49 = 55.25 cfs

UNCONTROLLED RUNOFF FROM THE SITE

AREA = 12.42 AC. C = 0.28
$Q_{2\ uncont}$ = 0.28 X 5.45 X 12.42 = 18.95 cfs
$Q_{10\ uncont}$ = 0.28 X 7.27 X 12.42 = 25.28 cfs
$Q_{100\ uncont}$ = 0.28 X 9.84 X 12.42 = 34.22 cfs

OFFSITE AREA TO POND

$A_{offsite}$ = 0.07 AC., C = 0.90
Q_2 = 0.90 X 0.07 X 5.45 = 0.34 cfs
Q_{10} = 0.90 X 0.07 X 7.27 = 0.46 cfs

ALLOWABLE RIELEASE RATE TO POND

= Q_{pre} − Q_{uncont} + $Q_{offsite}$
Q_2 (allowable release from pond) = 21.32 − 18.95 + 0.34 = 2.71 cfs
Q_{10} (allowable release from pond) = 32.66 − 25.28 + 0.46 = 7.84 cfs

ACTUAL RELEASE TO POND

ACTUAL RELEASE DUE TO THE PROPOSED DEVELOPMENT FROM THE SITE MUST BE ≤ TO ALLOWABLE RELEASE RATE

Q POND RELEASE ≤ ALLOWABLE RELEASE RATE

2-YEAR:
0.56 cfs < 2.71 cfs (SATISFIED)
∴ DETENTION FOR 2-YEAR STORM PROVIDED

10-YEAR:
2.53 cfs < 7.84 cfs (SATISFIED)
∴ DETENTION FOR 10-YEAR STORM PROVIDED

FOR CROSS SECTION ANALYSES SEE SHEET 4B.

Bowman CONSULTING

Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151
Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowmanconsulting.com

WATER QUALITY/ADEQUATE OUTFALL ANALYSIS

MULFORD SCHOOL

FAIRFAX COUNTY, VIRGINIA

SULLY DISTRICT

SE
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
MATTHEW L. TAUSCHER
No.000832
REGISTERED LANDSCAPE ARCHITECT
2-24-06

PLAN STATUS	
5/12/05	AMENDMENT
08/10/05	RESUBMITTED
08/24/05	RESUBMITTED
09/07/05	RESUBMITTED
09/16/05	RESUBMITTED
01/09/06	RESUBMITTED
02/24/06	REVISED
DATE	DESCRIPTION

SG	RRM	MWB
DESIGN	DRAWN	CHKD

SCALE H: 1"=200' V:

JOB No. 2166-02-003

DATE: NOVEMBER 8, 2002

FILE No. 2166-D-ZP-004

SHEET 4A OF 5

Cad file name : P:\2166 - Mulford Daycare\2166-02-003 (PLN)\Planning\Plans and Submissions\DWGS\rev_022406\2166-02-001-ADEQUATE-OUTFALL_010506.dwg

2 & 10-YR WSE AT CROSS SECTION A-A

2-YR

Project Description	
Worksheet	X-SECTION A-A
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.040
Slope	0.006400 ft/ft
Water Surface Elevation	231.95 ft
Elevation Range	230.64 to 234.00
Discharge	27.33 cfs

10-YR

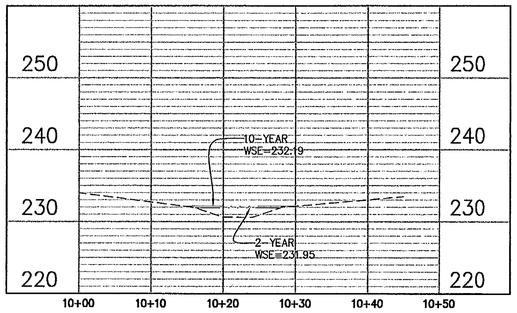
Project Description	
Worksheet	X-SECTION A-A
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.040
Slope	0.006400 ft/ft
Water Surface Elevation	232.19 ft
Elevation Range	230.64 to 234.00
Discharge	35.73 cfs

DA= 15.57 AC
C= 0.45
I_2 = 3.90 in/hr
I_{10}= 5.10 in/hr
T_c = 15 min
Q = CIA
Q_2= 27.33 cfs
Q_{10}= 35.73 cfs
V_2 = 2.66 ft/s

CROSS SECTION A-A

SCALE = H:1"=10'
V:1"=10'



2 & 10-YR WSE AT CROSS SECTION B-B

2-YR

Project Description	
Worksheet	X-SECTION B-B
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.040
Slope	0.012500 ft/ft
Water Surface Elevation	232.06 ft
Elevation Range	230.00 to 232.50
Discharge	28.43 cfs

10-YR

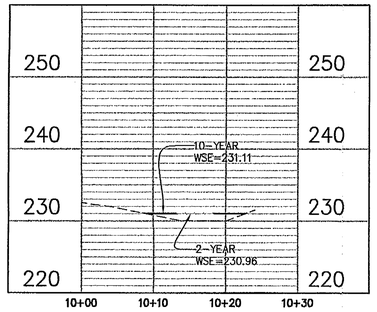
Project Description	
Worksheet	X-SECTION B-B
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.040
Slope	0.012500 ft/ft
Water Surface Elevation	231.11 ft
Elevation Range	230.00 to 232.50
Discharge	37.18 cfs

DA= 16.20 AC
C= 0.45
I_2 = 3.90 in/hr
I_{10}= 5.10 in/hr
T_c = 15 min
Q = CIA
Q_2= 28.43 cfs
Q_{10}= 37.18 cfs
V_2 = 3.29 ft/s

CROSS SECTION B-B

SCALE = H:1"=10'
V:1"=10'



2 & 10-YR WSE AT CROSS SECTION C-C

2-YR

Project Description	
Worksheet	X-SECTION C-C
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.035
Slope	0.012500 ft/ft
Water Surface Elevation	229.30 ft
Elevation Range	228.40 to 234.00
Discharge	20.94 cfs

10-YR

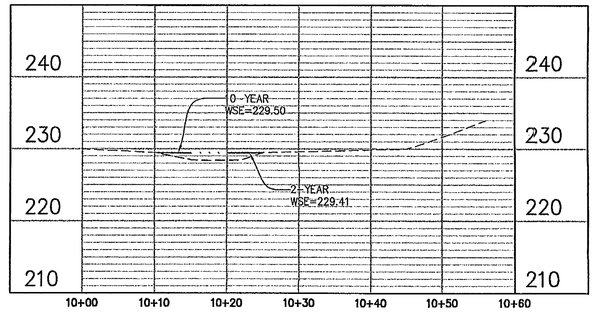
Project Description	
Worksheet	X-SECTION C-C
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.035
Slope	0.012500 ft/ft
Water Surface Elevation	229.43 ft
Elevation Range	228.40 to 234.00
Discharge	39.15 cfs

DA= 17.06 AC
C= 0.45
I_2 = 3.90 in/hr
I_{10}= 5.10 in/hr
T_c = 15 min
Q = CIA
Q_2= 29.94 cfs
Q_{10}= 39.15 cfs
V_2 = 3.49 ft/s

CROSS SECTION C-C

SCALE = H:1"=10'
V:1"=10'



2 & 10-YR WSE AT CROSS SECTION D-D

2-YR

Project Description	
Worksheet	X-SECTION D-D
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.035
Slope	0.028000 ft/ft
Water Surface Elevation	228.87 ft
Elevation Range	228.00 to 230.00
Discharge	40.77 cfs

10-YR

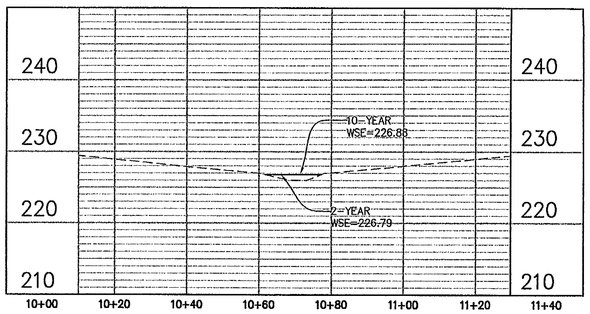
Project Description	
Worksheet	X-SECTION D-D
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.035
Slope	0.028000 ft/ft
Water Surface Elevation	228.98 ft
Elevation Range	228.00 to 230.00
Discharge	53.31 cfs

DA= 26.13 AC
C= 0.40
I_2 = 3.90 in/hr
I_{10}= 5.10 in/hr
T_c = 15 min
Q = CIA
Q_2= 40.77 cfs
Q_{10}= 53.31 cfs
V_2 = 3.96 ft/s

CROSS SECTION D-D

SCALE = H:1"=20'
V:1"=10'



2 & 10-YR WSE AT CROSS SECTION E-E

2-YR

Project Description	
Worksheet	X-SECTION E-E
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.060
Slope	0.021100 ft/ft
Water Surface Elevation	220.36 ft
Elevation Range	219.10 to 224.00
Discharge	51.74 cfs

10-YR

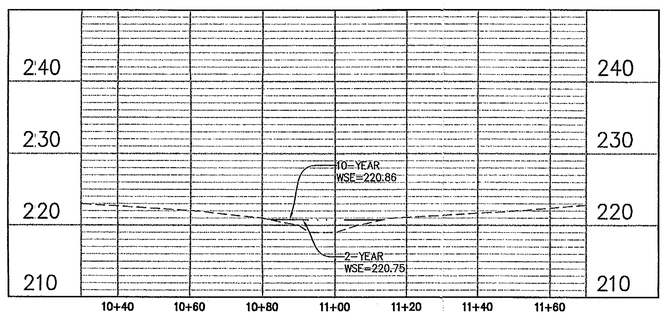
Project Description	
Worksheet	X-SECTION E-E
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Mannings Coefficient	0.060
Slope	0.021100 ft/ft
Water Surface Elevation	220.53 ft
Elevation Range	219.10 to 224.00
Discharge	67.65 cfs

DA= 33.16 AC
C= 0.40
I_2 = 3.90 in/hr
I_{10}= 5.10 in/hr
T_c = 15 min
Q = CIA
Q_2= 51.74 cfs
Q_{10}= 67.65 cfs
V_2 = 2.98 ft/s

CROSS SECTION E-E

SCALE = H:1"=20'
V:1"=10'



2 & 10-YR WSE AT CROSS SECTION F-F

2-YR

Project Description	
Worksheet	X-SECTION F-F
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Manning's Coefficient	0.030
Slope	0.01178 ft/ft
Water Surface Elevation	204.38 ft
Elevation Range	203.16 to 219.00
Discharge	120.04 cfs

10-YR

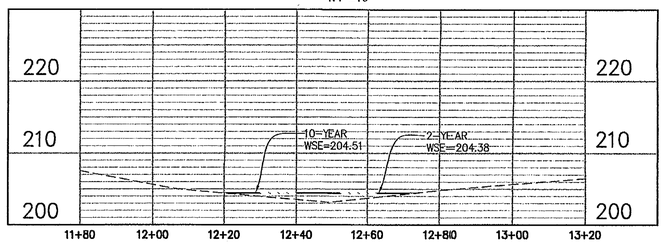
Project Description	
Worksheet	X-SECTION F-F
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Manning's Coefficient	0.030
Slope	0.01178 ft/ft
Water Surface Elevation	204.51 ft
Elevation Range	203.16 to 219.00
Discharge	156.98 cfs

DA= 76.95 AC
C= 0.40
I_2 = 3.90 in/hr
I_{10}= 5.10 in/hr
T_c = 15 min
Q = CIA
Q_2= 120.04 cfs
Q_{10}= 156.98 cfs
V_2 = 3.88 ft/s

CROSS SECTION F-F

SCALE = H:1"=20'
V:1"=10'

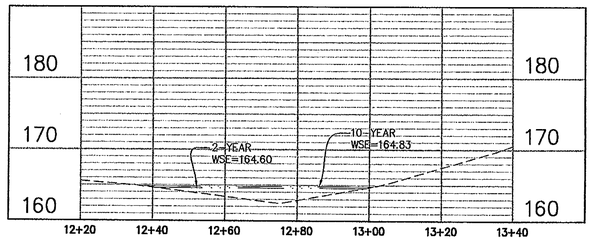


2 & 10-YR WSE AT CROSS SECTION G-G

DA= 222.73
C= 0.40
I_2 = 3.90 in/hr
I_{10}= 5.10 in/hr
T_c = 15 min
Q = CIA
Q_2= 347.46 cfs
Q_{10}= 454.37 cfs
V_2 = 5.97 ft/s

CROSS SECTION G-G

SCALE = H:1"=20'
V:1"=10'



2-YR

Project Description	
Worksheet	X-SECTION G-G
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Manning's Coefficient	0.030
Slope	0.01388 ft/ft
Water Surface Elevation	164.56 ft
Elevation Range	162.48 – 186.00
Discharge	347.46 cfs

10-YR

Project Description	
Worksheet	X-SECTION G-G
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data	
Manning's Coefficient	0.030
Slope	0.01388 ft/ft
Water Surface Elevation	164.78 ft
Elevation Range	162.48 – 186.00
Discharge	454.37 cfs

Application No. SEA 2000-SU-001 Staff JB
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 3/13/06
Date of (BOS) (BZA) approval 3/13/06
Sheet 6 of 7

Cad file name : P:\2166 - Mulford Daycare\2166-02-003 (PLN)\Planning\Plans and Submissions\DWGS\subm_010906\2166-02-001-ADEQUATE-OUTFALL_010506.dwg

Bowman CONSULTING

Bowman Consulting Group, Ltd.
3863 Centerview Drive
Suite 300
Chantilly, Virginia 20151
Phone: (703) 464-1000
Fax: (703) 481-9410
www.bowmanconsulting.com

© Bowman Consulting Group, Ltd.

WATER QUALITY/ADEQUATE OUTFALL ANALYSIS
MULFORD SCHOOL
FAIRFAX COUNTY, VIRGINIA
SULLY DISTRICT

COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
ROY E. WAUGH
No.018683
1-9-06
PROFESSIONAL ENGINEER

PLAN STATUS	
01/09/06	RESUBMITTED

DATE	DESCRIPTION

AV	AV	REW
DESIGN	DRAWN	CHKD

SCALE H: V: AS SHOWN
JOB No. 2166-02-001
DATE: APRIL, 2003
FILE No. 2166-D-CP-001
SHEET 4B OF 5

1/5 FRONT ELEVATION

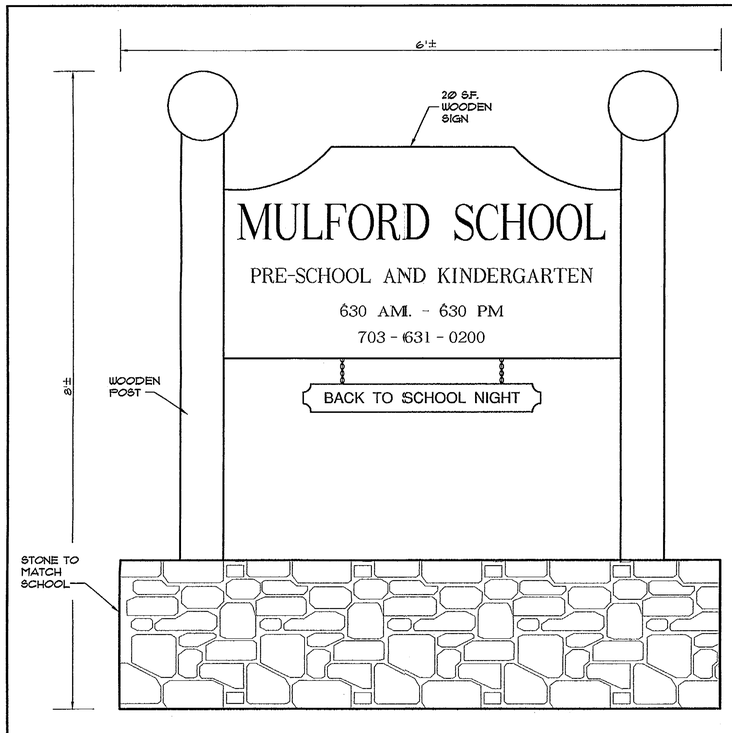
2/5 REAR ELEVATION

3/5 SIDE ELEVATION

PROPOSED BUILDING MATERIALS:

- GRAY AND BLUE FIELDSTONE
- LIGHT GRAY VINYL SIDING

THIS SHEET FOR ILLUSTRATIVE PURPOSES ONLY !!



4/5 ENTRANCE SIGN DETAIL

ARCHITECTURAL ELEVATIONS PREPARED BY:

dBF Associates Architects
6818 Tennyson Drive
McLean, VA 22101
ph: 703.356.2215
fax: 703.356.4304
dbfassociates.com

Application No. SE2 2003-SU-001 Staff
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 3/14/06
Date of (BOS) (BZA) approval 2/13/06
Sheet 7 of 7

Bowman CONSULTING
Bowman Consulting Group, Ltd.
14020 Thunderbolt Place
Suite 300
Chantilly, Virginia 20151
Phone: (703) 464-1000
Fax: (703) 481-9720
www.bowmanconsulting.com

ARCHITECTURAL ELEVATIONS
EXISTING SCHOOL BUILDING
MULFORD SCHOOL
FAIRFAX COUNTY, VIRGINIA
SULLY DISTRICT

SE
COUNTY PROJECT NUMBER

COMMONWEALTH OF VIRGINIA
MATTHEW J. HAUSCHER
No.000832
CERTIFIED LANDSCAPE ARCHITECT
1-9-06

PLAN STATUS	
5/12/05	AMENDMENT
08/10/05	RESUBMITTED
08/24/05	RESUBMITTED
09/07/05	RESUBMITTED
09/16/05	RESUBMITTED
01/09/06	RESUBMITTED
DATE	DESCRIPTION

SG	RRM	MWB
DESIGN	DRAWN	CHKD

SCALE H: NTS V:

JOB No. 2166-02-003

DATE: NOVEMBER 8, 2002

FILE No. 2166-D-ZP-004

SHEET 5 OF 5

Cad file name : P:\2166 - Mulford Daycare\2166-02-003 (PLN)\Planning\Plans and Submissions\DWGS\subm_010906\ARCH-ELEV_010606.dwg