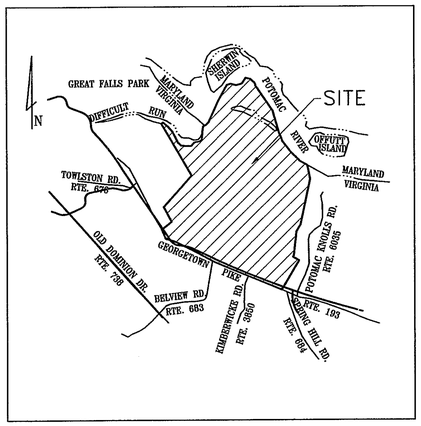
THE MADEIRA SCHOOL

Dranesville District Fairfax County, Virginia

Special Exception Amendment Plat



VICINITY MAP
SCALE : 1"= 2,000'

Applicant:
The Madeira School
8328 Georgetown Pike
McLean, VA 22102

Sheet Index

1. COVER SHEET
2. NOTES & TABULATION / SOILS MAP / ANGLE OF BULK PLANE
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14. EXISTING VEGETATION MAP
15. STORMWATER MANAGEMENT
16. STORMWATER MANAGEMENT

The Madeira School
Special Exception Amendment Plat
SEA-D-030-8

Dewberry

Dewberry & Davis LLC
A Dewberry Company

8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
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SEAL

COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLETON
Lic. No. 20112
9-29-08
PROFESSIONAL ENGINEER

Application No. SEA 83-D-030-08 Staff P.B.
Approved SE / SEA Plan
See Dev. Conds. Dated Oct 22, 2008
Date of P.C. Oct 22, 2008
Date of BOS Jan 12, 2009
Sheet 1 of 16

RECEIVED
Department of Planning & Zoning
OCT 01 2008
Zoning Evaluation Division

Rev. September 29, 2008
Rev. April 4, 2008
January 11, 2008

M-10673

NOTES:

1. THIS SPECIAL EXCEPTION AMENDMENT APPLICATION IS TO PERMIT THE FURTHER IMPLEMENTATION OF MADEIRA SCHOOL'S MASTER PLAN OF ULTIMATE DEVELOPMENT AS PREVIOUSLY APPROVED BY THE BOARD OF SUPERVISORS. ADAPTIVE REUSE AND EXPANSION OF EXISTING FACILITIES WAS APPROVED AS PART OF THE 2002 SPECIAL EXCEPTION APPLICATION. PROPOSED IMPROVEMENTS INCLUDE THE REPLACEMENT AND RELOCATION OF THE EXISTING WASTEWATER TREATMENT PLANT (WWTP), THE RELOCATION OF A NEW FACILITIES MANAGEMENT BUILDING. FURTHER, TWO OF THE APPROVED FACULTY HOUSING UNITS WILL BE REMOVED AND ANOTHER SIX UNITS WILL BE RELOCATED NEAR THE EXISTING BEECHES COMMUNITY. THESE PROPOSED USES ARE ACCESSORY TO THE EXISTING PRIVATE SCHOOL OF GENERAL EDUCATION WITH AN ENROLLMENT OF MORE THAN 100 STUDENTS DAILY. ALL PREVIOUSLY APPROVED STRUCTURES THAT HAVE NOT YET BEEN CONSTRUCTED ARE DEEMED TO BE APPROVED PURSUANT TO THE PREVIOUS APPROVAL AND ARE DEPICTED HEREON.

2. FOR THE PURPOSE OF THIS SPECIAL EXCEPTION AMENDMENT APPLICATION, A DWELLING UNIT, AS SHOWN HEREON, IS A RESIDENCE FOR SCHOOL FACULTY AND/OR STAFF. AN ACCESSORY UNIT IS A UNIT WITHIN AN EXISTING OR PROPOSED BUILDING TO HOUSE ADULTS WHO SUPERVISE AND OVERSEE THE DORMITORY ACTIVITY AND ONE SUCH UNIT IS FOR THE STABLE CARETAKERS.

3. THE PROPERTY THAT IS THE SUBJECT OF THIS APPLICATION IS IDENTIFIED ON THE FAIRFAX COUNTY ZONING MAP AS 20-1 ((1)) 14 AND 20-2 ((1)) 1 AND IS LOCATED IN THE R-E DISTRICT.

4. THE BOUNDARY INFORMATION SHOWN HEREON IS FROM EXISTING RECORDS. DEWBERRY AND DAVIS ASSUMES NO RESPONSIBILITIES FOR DESIGN OR CONSTRUCTION CHANGES CAUSED BY INACCURACIES IN THE BOUNDARY INFORMATION SHOWN HEREON. THERE IS A DISCREPANCY IN THE LAND AREA BETWEEN THE COUNTY RECORDS AND DEWBERRY. DEWBERRY RESEARCH IS BASED ON PREVIOUS SURVEYS, BY OTHERS, RESULTING IN A DIFFERENCE OF 4.62 ACRES LESS IN THE COUNTY RECORDS VERSUS THE COMPUTING DONE BY DEWBERRY.

5. GIVEN THE FACT THAT THE TOTAL SITE AREA IS MORE THAN 370 ACRES, A WAIVER OF DEPICTING THE TOPOGRAPHY HAS BEEN PREVIOUSLY APPROVED ON PORTIONS OF THE SITE THAT ARE NEITHER DEVELOPED NOR THE SUBJECT OF ANY PROPOSED IMPROVEMENTS. A REAFFIRMATION OF THAT WAIVER IS HEREBY REQUESTED.

   THE TOPOGRAPHY SHOWN ON THAT PORTION OF THE PROPERTY THAT IS DEVELOPED AND/OR ADDITIONAL DEVELOPMENT IS PROPOSED IS AT TWO (2) FOOT CONTOUR INTERVALS FROM AERIAL PHOTOGRAPHY AND FIELD RUN VERIFICATION AND ENHANCEMENT BY DEWBERRY & DAVIS LLC.

6. THE MINIMUM YARD REQUIREMENTS SET FORTH IN THE R-E DISTRICT REGULATIONS OF THE ZONING ORDINANCE FOR OTHER STRUCTURES ARE AS FOLLOWS:

   FRONT YARD: CONTROLLED BY A 55° ANGLE OF BULK PLANE, BUT NOT LESS THAN 50 FEET

   SIDE YARD: CONTROLLED BY A 45° ANGLE OF BULK PLANE, BUT NOT LESS THAN 20 FEET

   REAR YARD: CONTROLLED BY A 45° ANGLE OF BULK PLANE, BUT NOT LESS THAN 25 FEET

7. SANITARY SEWER IS PROVIDED BY EXISTING APPROVED PRIVATE ON-SITE WASTE WATER TREATMENT PLANT (WWTP). ONE PURPOSE OF THIS SEA IS THE REPLACEMENT AND RELOCATION OF THE WWTP. PUBLIC WATER HAS BEEN INSTALLED ON THE SITE BY THE FAIRFAX COUNTY WATER AUTHORITY.

8. THE EXISTING STRUCTURES WERE CONSTRUCTED BETWEEN 1930 AND 2005, AND WILL BE RETAINED EXCEPT FOR THE WWTP.

9. WITH THE EXCEPTION OF THOSE SIGNS POSTED AND PERMITTED ON GEORGETOWN PIKE, THERE ARE NO SIGNS, LIGHTED OR NON-LIGHTED, THAT CAN BE SEEN FROM PROPERTIES ADJACENT TO OR OFF-SITE OF THE SCHOOL CAMPUS.

10. STORMWATER MANAGEMENT WILL BE PROVIDED BY TWO UNDERGROUND FACILITIES IN ACCORDANCE WITH CURRENT PUBLIC FACILITY MANUAL STANDARDS. HOWEVER, BASED ON THE INSIGNIFICANT INCREASE IN RUNOFF BEING GENERATED FROM THIS PROPOSED PROJECT, A WAIVER OF NORMAL STORMWATER MANAGEMENT REQUIREMENTS WILL BE SUBMITTED TO THE DIRECTOR OF THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES. BEST MANAGEMENT PRACTICES (BMP) WILL BE PROVIDED FOR THE PROPOSED HOUSING THROUGH THE USE OF OPEN SPACE CREDITS, IN ACCORDANCE WITH CURRENT PUBLIC FACILITIES MANUAL STANDARDS.

    THERE ARE SEVERAL OUTFALLS FOR THE SITE, ALL OF WHICH ULTIMATELY DRAIN TO THE POTOMAC RIVER. THE POTOMAC RIVER CONSTITUTES A MAJOR FLOODPLAIN WITH A DRAINAGE AREA 100 TIMES THAT OF THE SITE. FIELD INSPECTION SHOWS THAT THESE OUTFALLS ARE VEGETATED, STABLE WITH DEFINED BED AND BANKS. DUE TO THE MINIMAL INCREASE IN IMPERVIOUS AREA TO ANY SINGLE OUTFALL WITH THE PROPOSED DEVELOPMENT, IT IS ASSUMED THAT THE OUTFALLS WILL BE ADEQUATE TO CONVEY THE FLOW TO THE 100 YEAR FLOODPLAIN OF THE POTOMAC RIVER. THE OUTFALLS ARE WITHIN THE LIMITS OF THE MADEIRA SCHOOL PROPERTY. DOCUMENTATION FOR THE ADEQUACY OF THE OUTFALLS WILL BE PROVIDED AT THE TIME OF FINAL SITE PLAN.

11. THE ADOPTED COMPREHENSIVE PLAN IDENTIFIES A COUNTYWIDE TRAIL ALONG THE FRONTAGE OF THE SUBJECT PROPERTY CONTIGUOUS TO GEORGETOWN PIKE. HOWEVER, A WAIVER OF THE REQUIREMENT TO CONSTRUCT THE TRAIL (WAIVER NO. 011423) WAS APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT ON MARCH 14, 1991. AS A CONDITION OF THAT WAIVER, THE MADEIRA SCHOOL DEDICATED A 12-FOOT WIDE PUBLIC ACCESS EASEMENT FOR FUTURE TRAIL CONSTRUCTION. A REAFFIRMATION OF THAT WAIVER IS HEREBY REQUESTED. AS PART OF THE 2002 SPECIAL EXCEPTION APPLICATION THE SCHOOL CONTRIBUTED FUNDS FOR THE CONSTRUCTION OF THIS TRAIL BY OTHERS.

    THE ADOPTED COMPREHENSIVE PLAN ALSO IDENTIFIES A STREAM VALLEY TRAIL ALONG THE POTOMAC RIVER FRONTAGE. A WAIVER OF THIS REQUIREMENT IS REQUESTED.

12. PURSUANT TO PAR. 4 OF SECT. 13-104 AND PAR. 3 OF SECT. 13-304, A WAIVER IS REQUESTED TO USE EXISTING VEGETATION, AS WELL AS EXISTING TOPOGRAPHY, WHICH WAIVER HAS BEEN PREVIOUSLY APPROVED TO SATISFY THE TRANSITIONAL SCREENING REQUIREMENTS OF THE ZONING ORDINANCE. FURTHER, AS PROVIDED FOR IN PAR. 12 OF SECT. 13-304 OF THE ZONING ORDINANCE, A WAIVER OF THE BARRIER REQUIREMENTS WAS APPROVED IN CONJUNCTION WITH THE PREVIOUS SEA APPROVAL; THEREFORE, A REAFFIRMATION OF THIS WAIVER IS HEREBY REQUESTED.

13. A STATEMENT WHICH CONFIRMS THE OWNERSHIP OF THE PROPERTY AND THE NATURE OF THE APPLICANT'S INTEREST IN THE SAME IS CONTAINED ON THE AFFIDAVIT AND OTHER APPLICATION MATERIALS TO BE PROVIDED SEPARATELY.

14. THE EXACT LOCATION OF THE DRIVEWAYS, SIDEWALKS AND PARKING AREAS ARE PRELIMINARY AND SCHEMATIC AND ARE NOT TO BE CONSIDERED FINAL. THEY ARE SUBJECT TO ADJUSTMENT AND REFINEMENT WITH FINAL ENGINEERING AND DESIGN AND AS LONG AS SUCH CHANGES ARE IN SUBSTANTIAL CONFORMANCE WITH THE SPECIAL EXCEPTION PLAT.

15. THE FOOTPRINTS OF THE STRUCTURES SHOWN HEREON MAY BE MODIFIED IN ACCORDANCE WITH THE PROVISIONS OF PAR. 4 OF SECT. 9-004 OF THE ZONING ORDINANCE SO LONG AS THE OPEN SPACE REPRESENTED IN THE TABULATION AND THE DIMENSIONS TO THE PERIPHERAL LOT LINES ARE NOT DIMINISHED. THE SIZE AND SHAPE OF THE BUILDINGS ARE PRELIMINARY AND MAY VARY, AND THE EXACT LOCATIONS OF THE BUILDINGS MAY CHANGE AS A RESULT OF FINAL ENGINEERING, ARCHITECTURAL DESIGN AND/OR FINAL DEVELOPMENT PROGRAM REFINEMENTS AS LONG AS THEY ARE IN SUBSTANTIAL CONFORMANCE WITH THE SPECIAL EXCEPTION PLAT.

16. THE GENERAL AREA SERVED BY THE PROPOSED USE IS THE WASHINGTON METROPOLITAN AREA, PRIMARILY THE VIRGINIA AND MARYLAND SUBURBS. THE TRAFFIC IMPACT WILL NOT CHANGE AS A RESULT OF THIS APPLICATION. GEORGETOWN PIKE OPERATES AT ADEQUATE LEVELS OF SERVICE DURING THE SCHOOL'S PEAK HOURS. ALSO, ADDITIONAL ON CAMPUS FACULTY HOUSING IS PROPOSED AS PART OF THIS APPLICATION. OVERALL, THE TRAFFIC IMPACT WILL NOT CHANGE FROM WHAT IT IS CURRENTLY.

17. PARKING WILL BE PROVIDED IN ACCORDANCE WITH ARTICLE 11 OF THE ZONING ORDINANCE. THE NUMBER OF PARKING SPACES MAY BE ADJUSTED IN ACCORDANCE WITH NOTE 14 ABOVE.

18. THE APPLICANT RESERVES THE RIGHT TO GRADE AND MAINTAIN THE PADDOCK AREAS AS WELL AS THE MULTI-PURPOSE ATHLETIC FIELDS AS REQUIRED.

19. THE APPLICANT RESERVES THE RIGHT TO CONDUCT A FORMAL RESOURCE PROTECTION AREA DELINEATION STUDY AT A FUTURE DATE TO CONFIRM THE EXACT LOCATION OF BOTH THE RPA AND EQC.

20. THE LIMITS OF CLEARING AND GRADING SHOWN HEREON SHOULD BE CONSIDERED APPROXIMATE AND ARE SUBJECT TO MINOR MODIFICATION AT FINAL ENGINEERING.

21. ARCHITECTURAL SKETCHES OF THE PROPOSED BUILDINGS ARE NOT AVAILABLE AT THIS TIME.

22. WITH THE EXCEPTION OF TWO ABOVE GROUND GASOLINE TANKS FOR THE EXCLUSIVE USE OF MADEIRA SCHOOL STAFF VEHICLES AND NATURAL GAS AND FUEL OIL TO HEAT THE BUILDINGS, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO HAZARDOUS OR TOXIC SUBSTANCES STORED ON THE PROPERTY. FURTHER, THE PROPOSED USE WILL NOT GENERATE, UTILIZE, STORE, TREAT OR DISPOSE OF SUCH SUBSTANCES ON THE SUBJECT PROPERTY.

23. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO GRAVES LOCATED ON THE SUBJECT PROPERTY.

24. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO UTILITY EASEMENTS HAVING A WIDTH OF TWENTY-FIVE (25) FEET OR MORE LOCATED ON THE SUBJECT PROPERTY.

25. THE STATEMENTS AND ADDITIONAL INFORMATION REQUIRED BY THE PROVISIONS OF SECT. 9-011 OF THE ZONING ORDINANCE ARE FURNISHED IN A SEPARATE ASSOCIATED DOCUMENT.

26. TO THE BEST OF OUR KNOWLEDGE, EXCEPT FOR THE WAIVERS AND MODIFICATIONS MENTIONED ABOVE, THE PROPOSED DEVELOPMENT OF THE SUBJECT PROPERTY CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES, REGULATIONS AND ADOPTED STANDARDS.

TABULATION:

TOTAL SITE AREA ..... 376.16 AC*
EXISTING/PROPOSED ZONING ..... RE

CURRENTLY APPROVED GROSS FLOOR AREA ..... 526,158 ± SF
PROPOSED GROSS FLOOR AREA ..... (3000) ± SF**
TOTAL GROSS FLOOR AREA ..... 523,158 ± SF***

TOTAL NUMBER OF EXISTING AND APPROVED DWELLING UNITS 41

TOTAL NUMBER OF ADDITIONAL PROPOSED DWELLING UNITS ..... (4)

TOTAL NUMBER OF DWELLING UNITS AT COMPLETION OF ALL PHASES OF THE PROPOSED DEVELOPMENT 37

MAXIMUM FLOOR AREA RATIO 0.15
PROPOSED FLOOR AREA RATIO 0.0319

MAXIMUM HEIGHT ..... 50 FT
NUMBER OF STORIES 4

PARKING SPACES REQUIRED 176
(0.3 SPACE/STUDENT x 338 STUDENTS +
2 SPACES/SINGLE FAMILY DETACHED DWELLING UNIT x 37 (SFD)
PARKING SPACES PROVIDED 467
EXISTING PARKING SPACES 296
PROPOSED AND APPROVED PARKING SPACES 171

AREA OF ENCROACHMENT INTO THE EQC ..... -0-

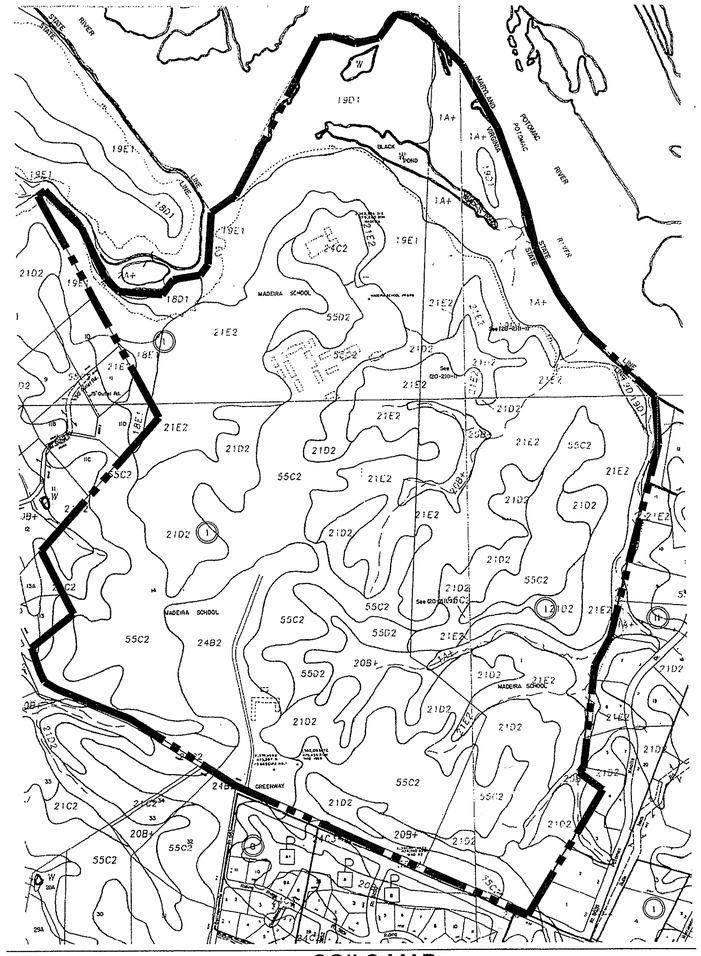
OPEN SPACE REQUIRED (0%) ..... NONE
OPEN SPACE PROVIDED (85±%) ..... 336.54± AC

* SEE NOTE FOUR (4)

** SEE DETAILED BREAKDOWN OF CHANGES IN GROSS FLOOR AREA ON THIS SHEET.

*** INCLUDES GROSS FLOOR AREA OF EXISTING AND PROPOSED DWELLING UNITS.

	Approved	Proposed	Delta
Maintenance Facility	7,000.00	10,000.00	3,000.00
Dwelling Units	(11DU'S) 33,000.00	(9 DU'S) 27,000.00	(6,000.00)
Total	40,000.00	37,000.00	(3,000.00)



SOILS MAP
SCALE: 1" = 500'

SOILS LEGEND

1A+ MIXED ALLUVIAL LAND
2A+ CHEWACLA SILT LOAM
18D1 ROCKY LAND (ACIDIC ROCK), HILLY PHASE
18E1 ROCKY LAND (ACIDIC ROCK), STEEP PHASE
19D1 VERY ROCKY LAND (ACIDIC ROCK), HILLY PHASE
19E1 VERY ROCKY LAND (ACIDIC ROCK), STEEP PHASE
20B+ MEADOWVILLE SILT LOAM
21C2 MANOR SILT LOAM, ROLLING PHASE
21D2 MANOR SILT LOAM, HILLY PHASE
21E2 MANOR SILT LOAM, STEEP PHASE
24B2 ELIOAK SILT LOAM, UNDULATING PHASE
24C2 ELIOAK SILT LOAM, ROLLING PHASE
55C2 GLENELG SILT LOAM, ROLLING PHASE
55D2 GLENELG SILT LOAM, HILLY PHASE

Application No. SEA 83-D-030-08 Staff P.B.
Approved SEV SEA Plan

See Dev. Conds. Dated Oct 22, 2008
Date of P.C. Oct 22, 2008
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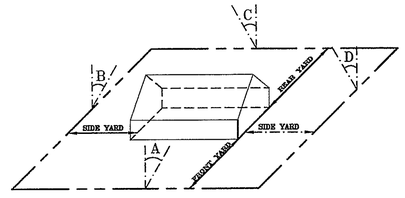
Sheet 2 of 16



FRONT YARD : ∠ 1 A 55° WITH A BUILDING HEIGHT OF 50', THE FRONT YARD = 71' BUT NOT LESS THAN 50'

SIDE YARD : ∠ 1 B 45° WITH A BUILDING HEIGHT OF 50', THE SIDE YARD = 50' BUT NOT LESS THAN 10'

REAR YARD : ∠ 1 C 45° WITH A BUILDING HEIGHT OF 50', THE REAR YARD = 6' BUT NOT LESS THAN 25'

ANGLE OF BULK PLANE

MINIMUM REQUIRED YARD FOR BUILDING WITH 50' HEIGHT

Dewberry®

THE MADEIRA SCHOOL

SPECIAL EXCEPTION AMENDMENT PLAT

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLEITON
Lic. No. 20112
9-29-2008
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

No.	DATE	BY	Description
2	09.29.08	JMC	
1	04.04.08	JMC	

REVISIONS

DRAWN BY JMC
APPROVED BY
CHECKED BY LAM
DATE January 11, 2008

TITLE
The Madeira School

Notes & Tabulations

PROJECT NO.

2

SHEET NO. 2 OF 16

M-10673

DETAIL SUMMARY OF EXISTING / PROPOSED UNITS

Name of Residence	Type of Residence	Plat Reference Number
Farmhouse	Single Family	1
Beeches 1	Single Family	2
Beeches 2	Single Family	3
Beeches 3	Single Family	4
Beeches 4	Single Family	5
Beeches 5	Single Family	6
Beeches 6	Single Family	7
Beeches 7	Single Family	8
Beeches 8	Single Family	9
The Dale	Single Family	10
The Land	Single Family	11
Faculty House #3	Single Family	12
Sayre House	Single Family	13
McCrea House	Single Family	14
The Laurels	Single Family	15
Maynard South	Single Family	16
Maynard North	Single Family	17
The Hill	Single Family	18
Riverview A	Apartment	19
Riverview B	Apartment	20
Riverview C	Apartment	21
Riverview D	Apartment	22
Meyer House	Single Family	23
Total Existing		**23**

Name of Proposed Residence	Type of Residence	Plat Reference Number
Faculty Home 1 on Access Road	Single Family	1
Faculty Home 2 on Access Road	Single Family	2
Faculty Home 3 on Access Road	Single Family	3
Proposed Beeches II - 1	Single Family	4
Proposed Beeches II - 2	Single Family	5
Proposed Beeches II - 3	Single Family	6
Proposed Beeches II - 4	Single Family	7
Proposed Beeches II - 5	Single Family	8
Proposed Beeches II - 6	Single Family	9
New Dorm Renovation	Apartment	10
New Dorm Renovation	Apartment	11
New Dorm Renovation	Apartment	12
New Dorm Renovation	Apartment	13
Proposed Chapel Auditorium	Apartment	14
Total Proposed		**14**
Total After Completion of Expansion / Renovation	23 Existing Residences +14 Proposed with Application **37 Final Total**	

DETAIL SUMMARY OF ACCESSORY UNITS

Name of Accessory Residence	Type of Accessory Residence	Plat Reference Number
Above Stable	Accessory Unit	1
West Dorm	Accessory Unit	3
East Dorm	Accessory Unit	4
Main Dorm	Accessory Unit	5
North Dorm	Accessory Unit	6
South Dorm	Accessory Unit	7
New Dorm	Accessory Unit	8

REFORESTATION FOR EXISTING WWTP DEMOLITION (SHEET 12 OF 16)

.25 ACRES TO REESTABLISH			
SECTION 118-3-3 BAY ORDINANCE REQUIREMENTS:			
	MINIMUM OF 100 OVERSTORY TREES PER ACRE	(.25A)	25 OVERSTORY TREES
	MINIMUM OF 200 UNDERSTORY TREES PER ACRE	(.25A)	50 UNDERSTORY TREES
	MINIMUM OF 1089 SHRUBS PER ACRE	(.25A)	272 SHRUBS

POSSIBLE PLANT PALLETTE FOR REFORESTATION

BOTANICAL NAME	COMMON NAME
Acer rubrum	Red Maple
Cercis canadensis	Eastern Redbud
Chionanthus virginicus	White Fringetree
Clethra alnifolia	Sweet Pepperbush
Cornus amomum	Silky Dogwood
Cornus florida	Flowering Dogwood
Halesia carolina	Carolina Silverbell
Ilex glabra	Inkberry Holly
Ilex verticillata	Winterberry Holly
Itea virginica	Virginia Sweetspire
Kalmia latifolia	Mountain Laurel
Leucothoe racemosa	Sweetbells Leucothoe
Lindera benzoin	Spicebush
Oxydendrum arboreum	Sourwood
Pieris floribunda	Fetter Bush
Quercus phellos	Willow Oak
Rhodendron atlanticum	Dwarf Azalea
Rhododendron catawbiense	Catawba Rhododendron
Rhododendron periclymenoides	Pinxterbloom Azalea
Tilia americana	American Linden
Vibumum dentatum	Arrowwood Vibumum

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Sheet 3 of 16

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THE MADEIRA SCHOOL
SPECIAL EXCEPTION AMENDMENT
PLAT
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
TIMOTHY CHARLES CULLEITON
Lic. No. 20112
4-29-08
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

No.	DATE	BY	Description
2	09.29.08	JMC	
1	04.04.08	JMC	

REVISIONS

DRAWN BY JMC
APPROVED BY
CHECKED BY LAM
DATE January 11, 2008

TITLE
The Madeira School

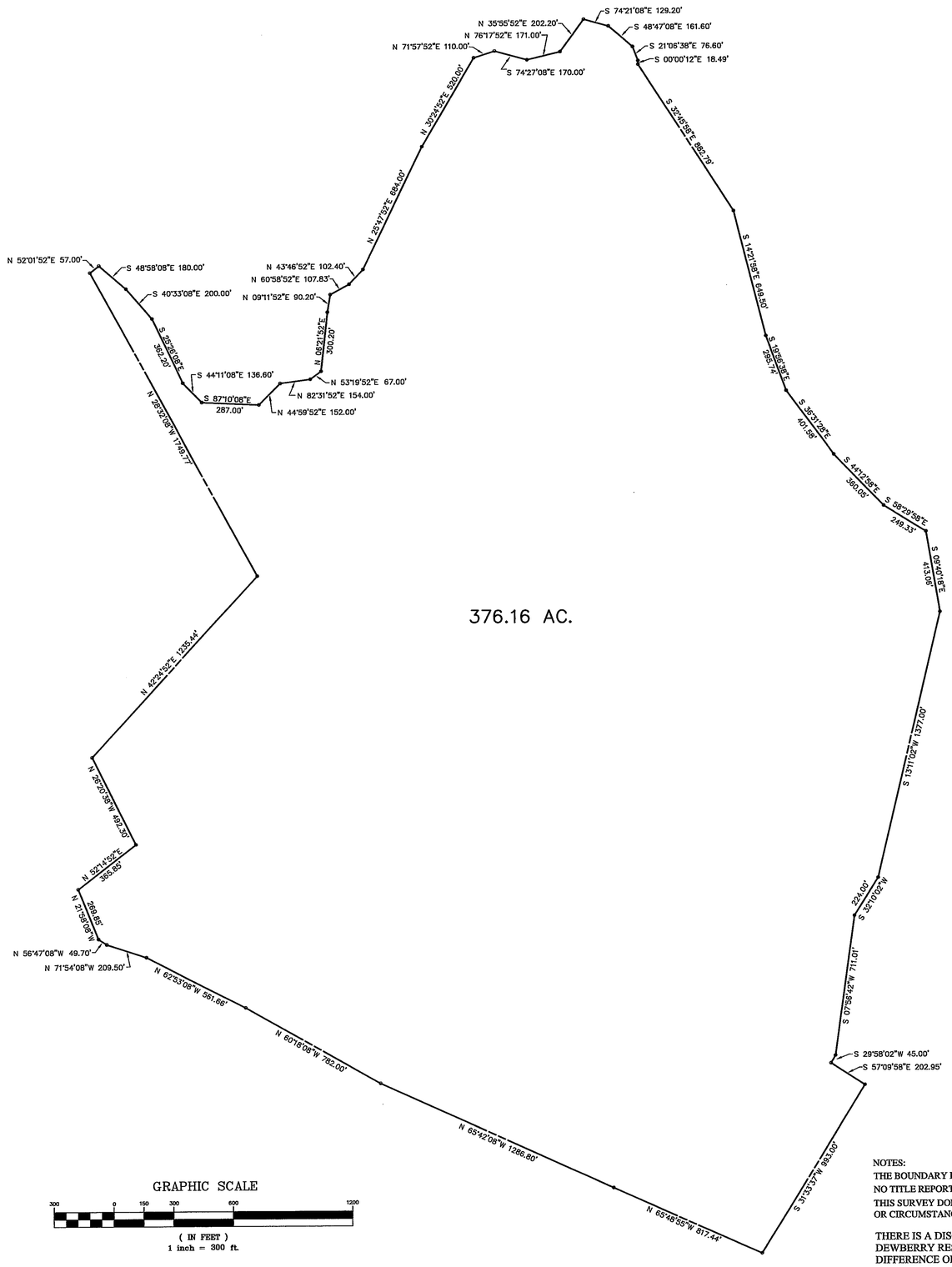
Existing / Proposed Residences

PROJECT NO.

3

SHEET NO. 3 OF 16

M-10673



GRAPHIC SCALE

300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft.

NOTES:
THE BOUNDARY INFORMATION SHOWN HEREON WAS TAKEN FROM EXISTING RECORDS AND IS APPROXIMATE.
NO TITLE REPORT WAS FURNISHED.
THIS SURVEY DOES NOT PURPORT TO REFLECT ALL EASEMENTS, EMCUMBRANCES OR CIRCUMSTANCES AFFECTING THE TITLE TO THE SUBJECT PROPERTY.

THERE IS A DISCREPANCY IN THE LAND AREA BETWEEN THE COUNTY RECORDS AND DEWBERRY. DEWBERRY RESEARCH IS BASED ON PREVIOUS SURVEYS BY OTHERS, RESULTING IN A DIFFERENCE OF 4.62 ACRES LESS IN THE COUNTY RECORDS VERSUS THE COMPUTING DONE BY DEWBERRY.

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Sheet 4 of 16

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COMMONWEALTH OF VIRGINIA
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9-29-08
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
0' 300' 600'

No.	DATE	BY	Description
2	09.29.08	JMC	
1	04.04.08	JMC	

REVISIONS

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APPROVED BY
CHECKED BY LAM
DATE January 11, 2008

TITLE
The Madeira School

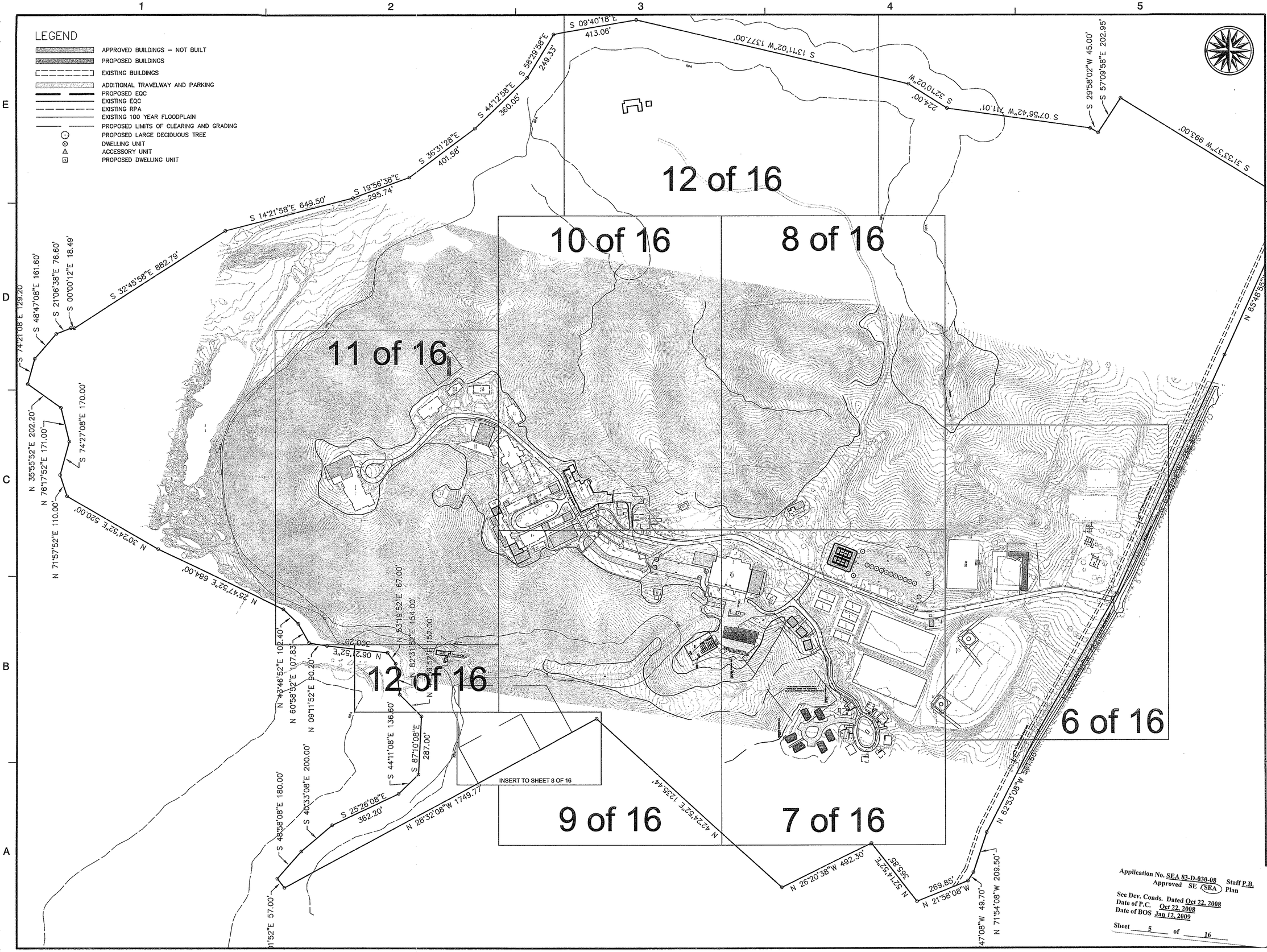
Special Exception Amendment
Property Boundary

PROJECT NO.

4

SHEET NO. 4 OF 16

M-10673



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KEY PLAN

SCALE

0' 200' 400'

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1	04.04.08	JMC	

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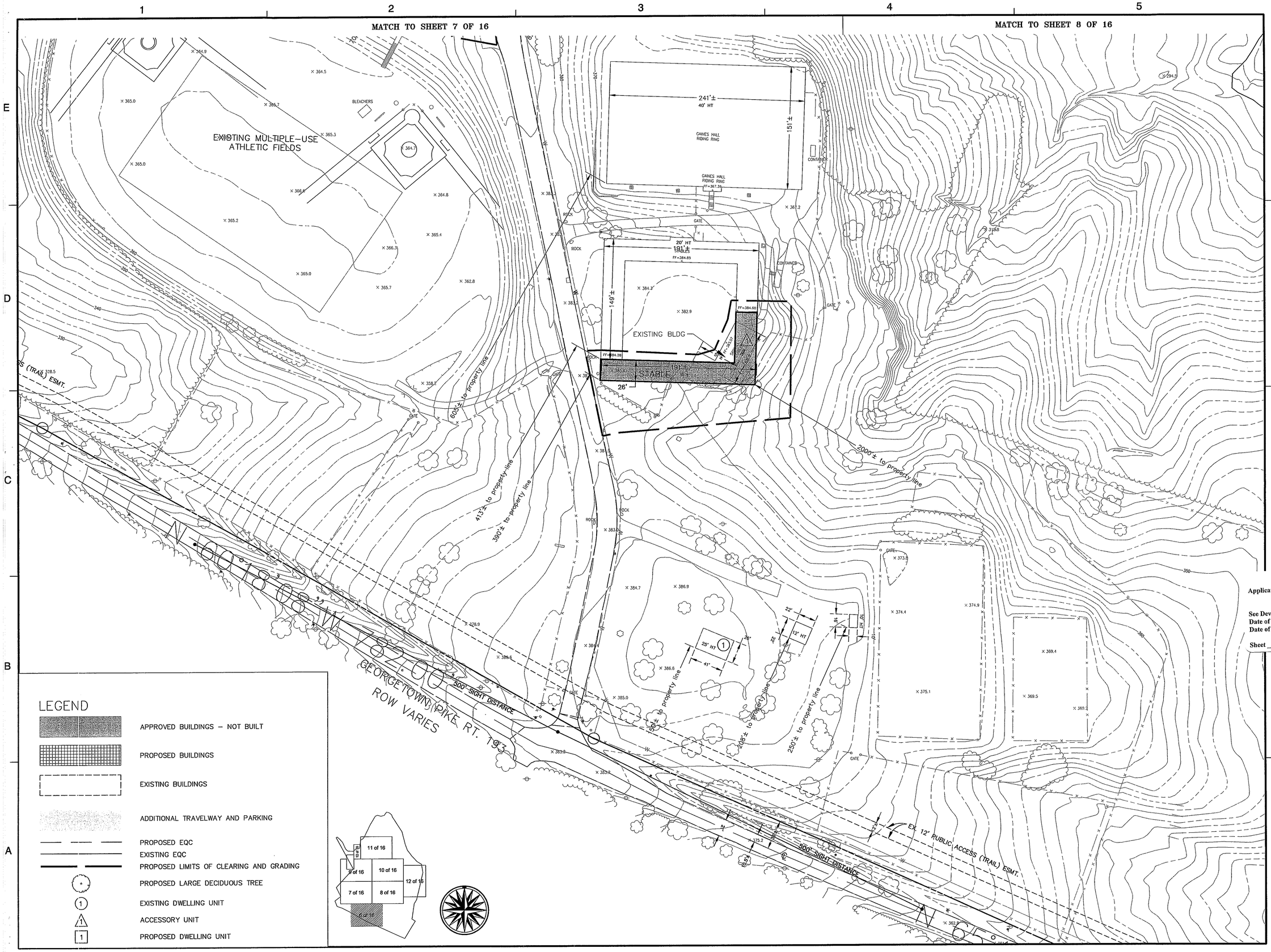
Special Exception Amendment
Overall

PROJECT NO.

5

SHEET NO. 5 OF 16

M-10673



LEGEND

- APPROVED BUILDINGS – NOT BUILT
- PROPOSED BUILDINGS
- EXISTING BUILDINGS
- ADDITIONAL TRAVELWAY AND PARKING
- PROPOSED EQC
- EXISTING EQC
- PROPOSED LIMITS OF CLEARING AND GRADING
- PROPOSED LARGE DECIDUOUS TREE
- EXISTING DWELLING UNIT
- ACCESSORY UNIT
- PROPOSED DWELLING UNIT

Dewberry

THE MADEIRA SCHOOL

SPECIAL EXCEPTION AMENDMENT PLAT

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

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KEY PLAN

SCALE
0' 50' 100'

Application No. SEA 83-D-030-08 Staff P.B.
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See Dev. Conds. Dated Oct 22, 2008
Date of P.C. Oct 22, 2008
Date of BOS Jan 12, 2009

Sheet 6 of 16

No.	DATE	BY	Description
2	09.29.08	JMC	
1	04.04.08	JMC	

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DATE January 11, 2008

TITLE
The Madeira School

Special Exception Amendment Plat

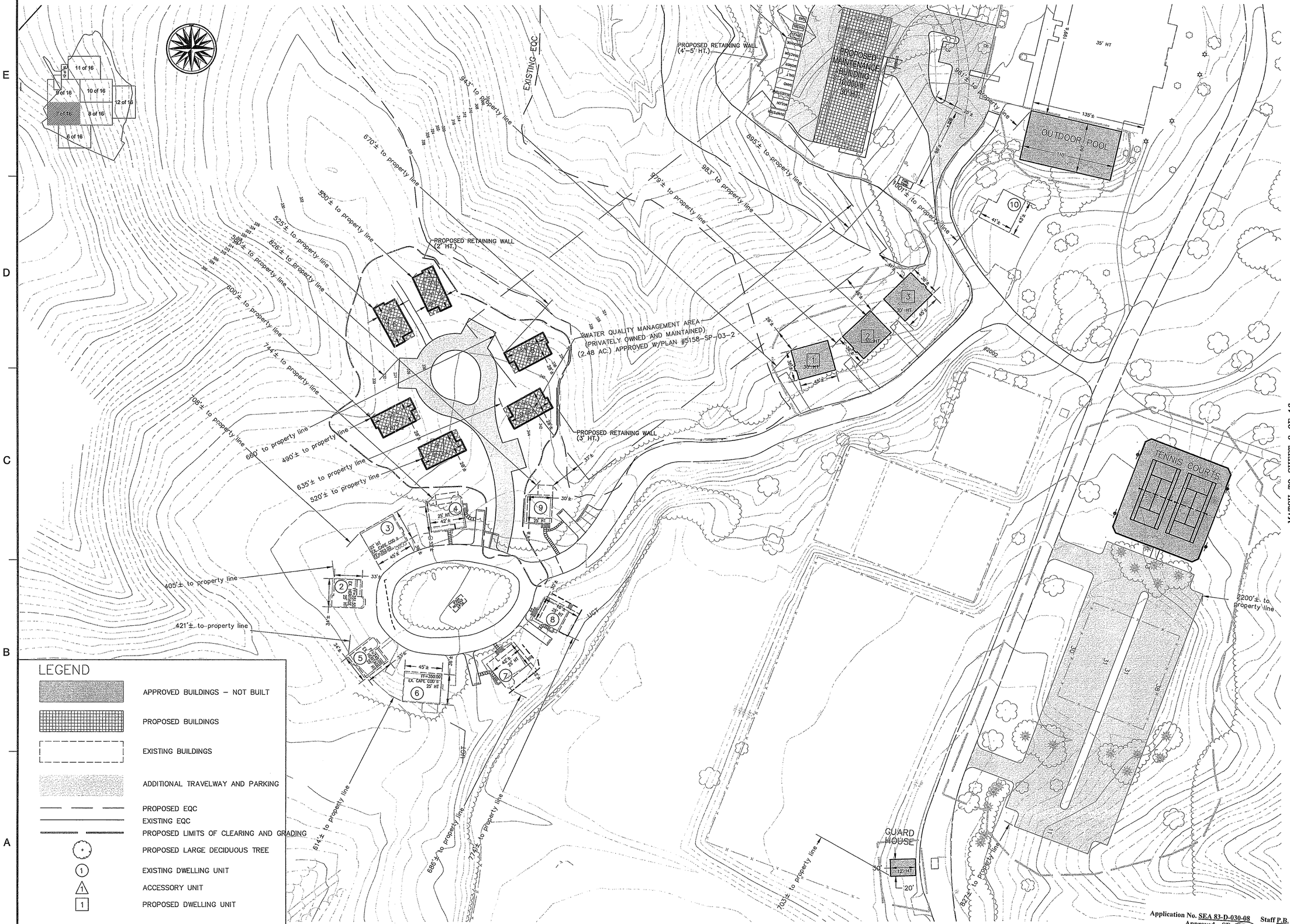
PROJECT NO.

6

SHEET NO. 6 OF 16

M-10673

MATCH TO SHEET 9 OF 16



MATCH TO SHEET 6 OF 16

MATCH TO SHEET 8 OF 16

Application No. SEA 83-D-030-08 Staff P.B.
Approved SE (SEA) Plan

See Dev. Conds. Dated Oct 22, 2008
Date of P.C. Oct 22, 2008
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Sheet 7 of 16

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THE MADEIRA SCHOOL

SPECIAL EXCEPTION AMENDMENT PLAT

DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

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9-29-2008
PROFESSIONAL ENGINEER

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Special Exception Amendment Plat

PROJECT NO.

7

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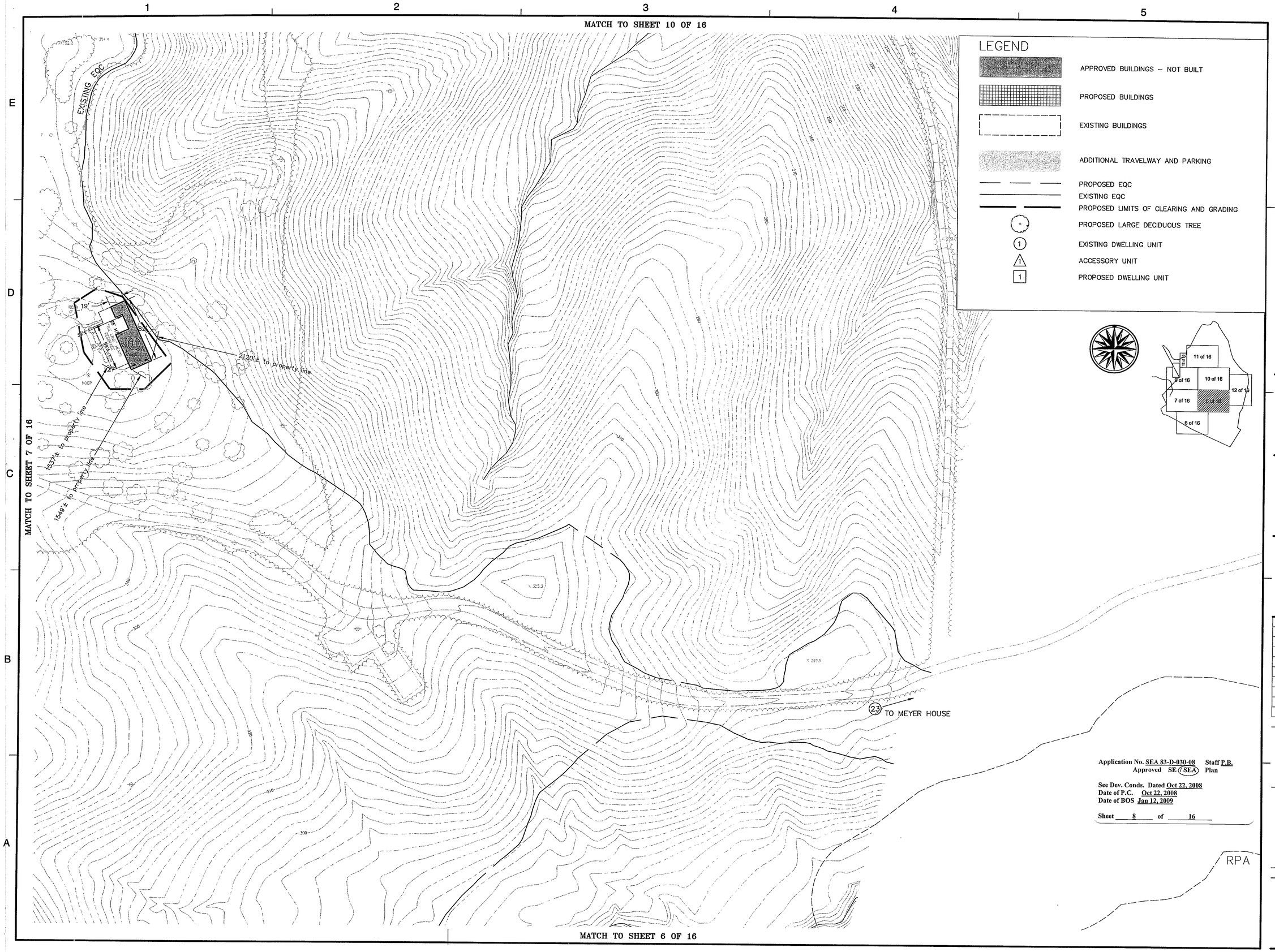
M-10673



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Sheet 8 of 16

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The Madeira School

Special Exception Amendment Plat

PROJECT NO.

8

SHEET NO. 8 OF 16

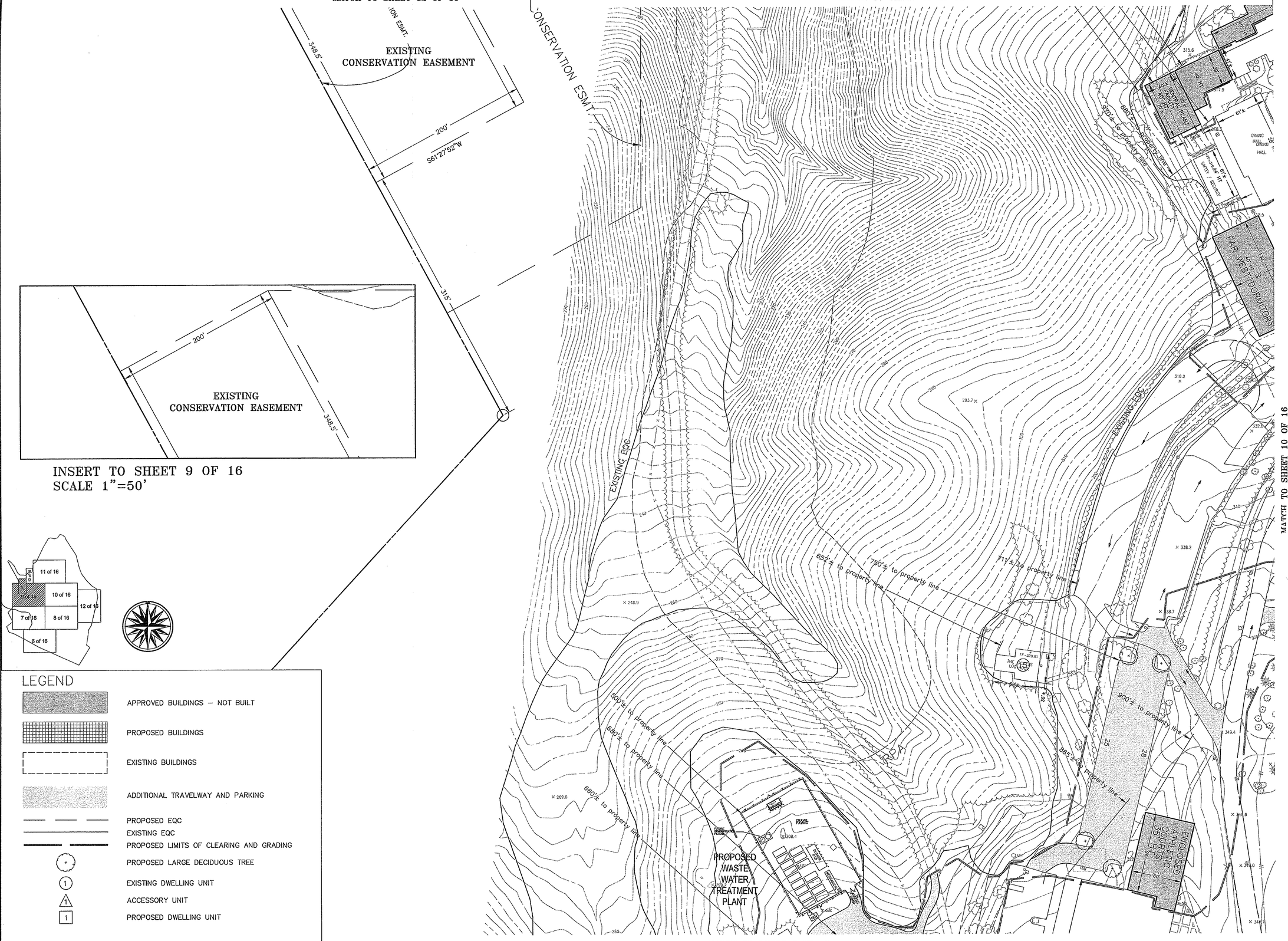
M-10673

MATCH TO SHEET 12 OF 16

MATCH TO SHEET 11 OF 16

MATCH TO SHEET 10 OF 16

MATCH TO SHEET 7 OF 16



INSERT TO SHEET 9 OF 16
SCALE 1"=50'

LEGEND

- APPROVED BUILDINGS – NOT BUILT
- PROPOSED BUILDINGS
- EXISTING BUILDINGS
- ADDITIONAL TRAVELWAY AND PARKING
- PROPOSED EQC
- EXISTING EQC
- PROPOSED LIMITS OF CLEARING AND GRADING
- PROPOSED LARGE DECIDUOUS TREE
- (1) EXISTING DWELLING UNIT
- 1 ACCESSORY UNIT
- [1] PROPOSED DWELLING UNIT

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The Madeira School

Special Exception
Amendment Plat

PROJECT NO.

9

SHEET NO. 9 OF 16

M-10673

MATCH TO SHEET 11 OF 16

MATCH TO SHEET 9 OF 16

MATCH TO SHEET 12 OF 16

MATCH TO SHEET 8 OF 16

Application No. SEA 83-D-030-08 Staff P.B.
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Sheet 10 of 16

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Special Exception Amendment Plat

PROJECT NO.

10

SHEET NO. 10 OF 16

M-10673

LEGEND

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- PROPOSED BUILDINGS
- EXISTING BUILDINGS
- ADDITIONAL TRAVELWAY AND PARKING
- PROPOSED EQC
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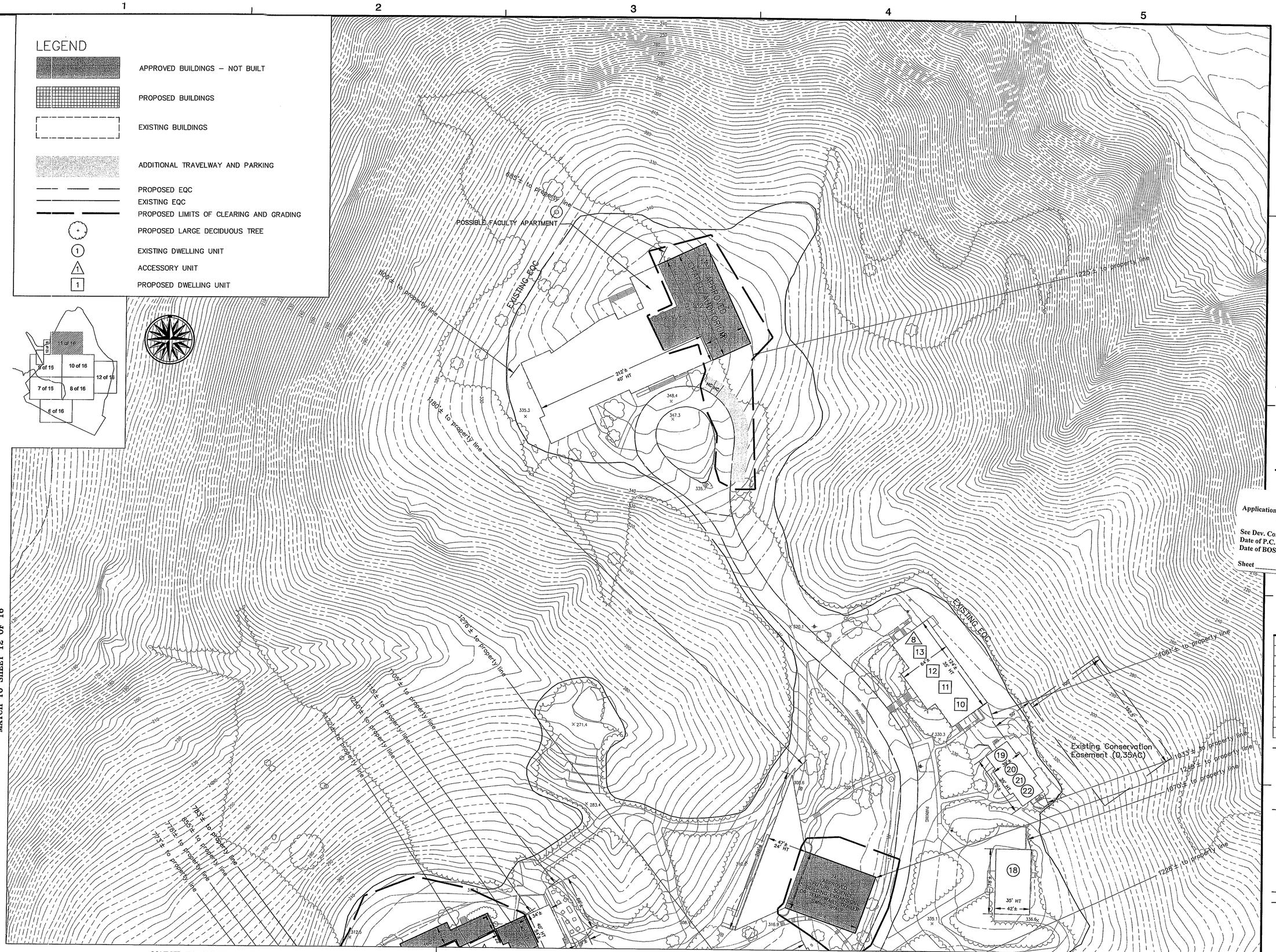

MATCH TO SHEET 12 OF 16

MATCH TO SHEET 9 OF 16

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Sheet 11 of 16

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The Madeira School

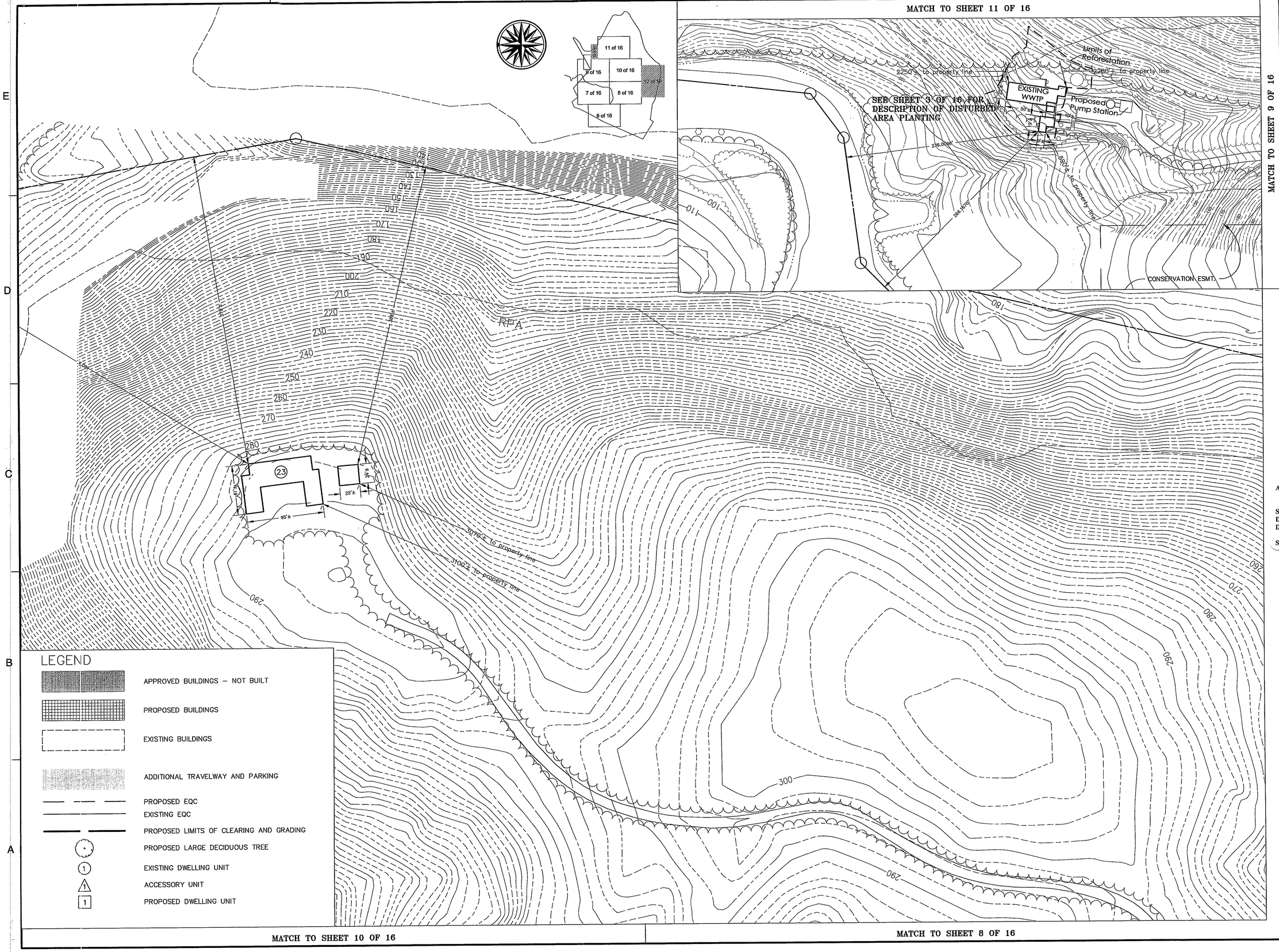
Special Exception
Amendment Plat

PROJECT NO.

11

SHEET NO. 11 OF 16

M-10673



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Sheet 12 of 16

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The Madeira School

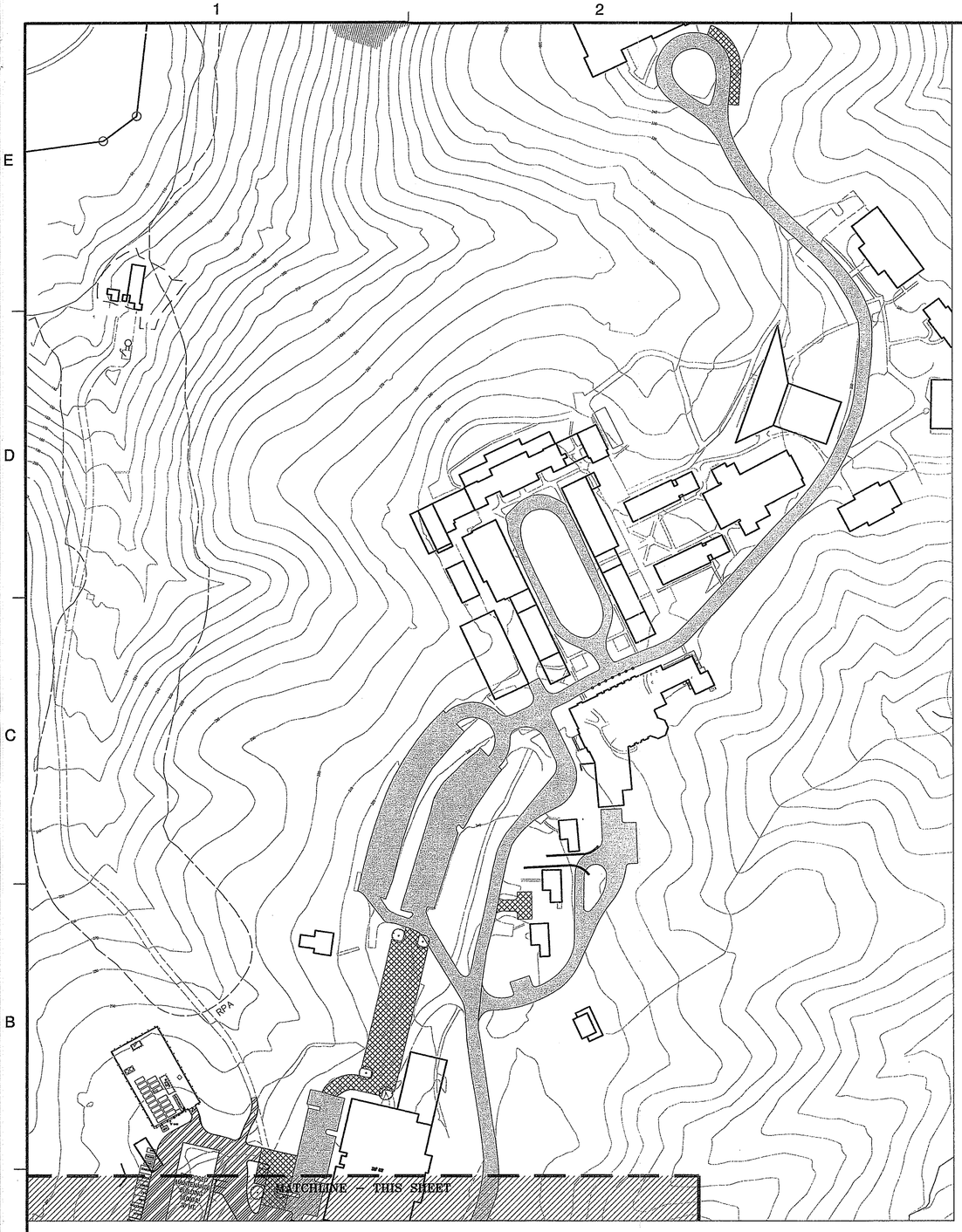
Special Exception Amendment Plat

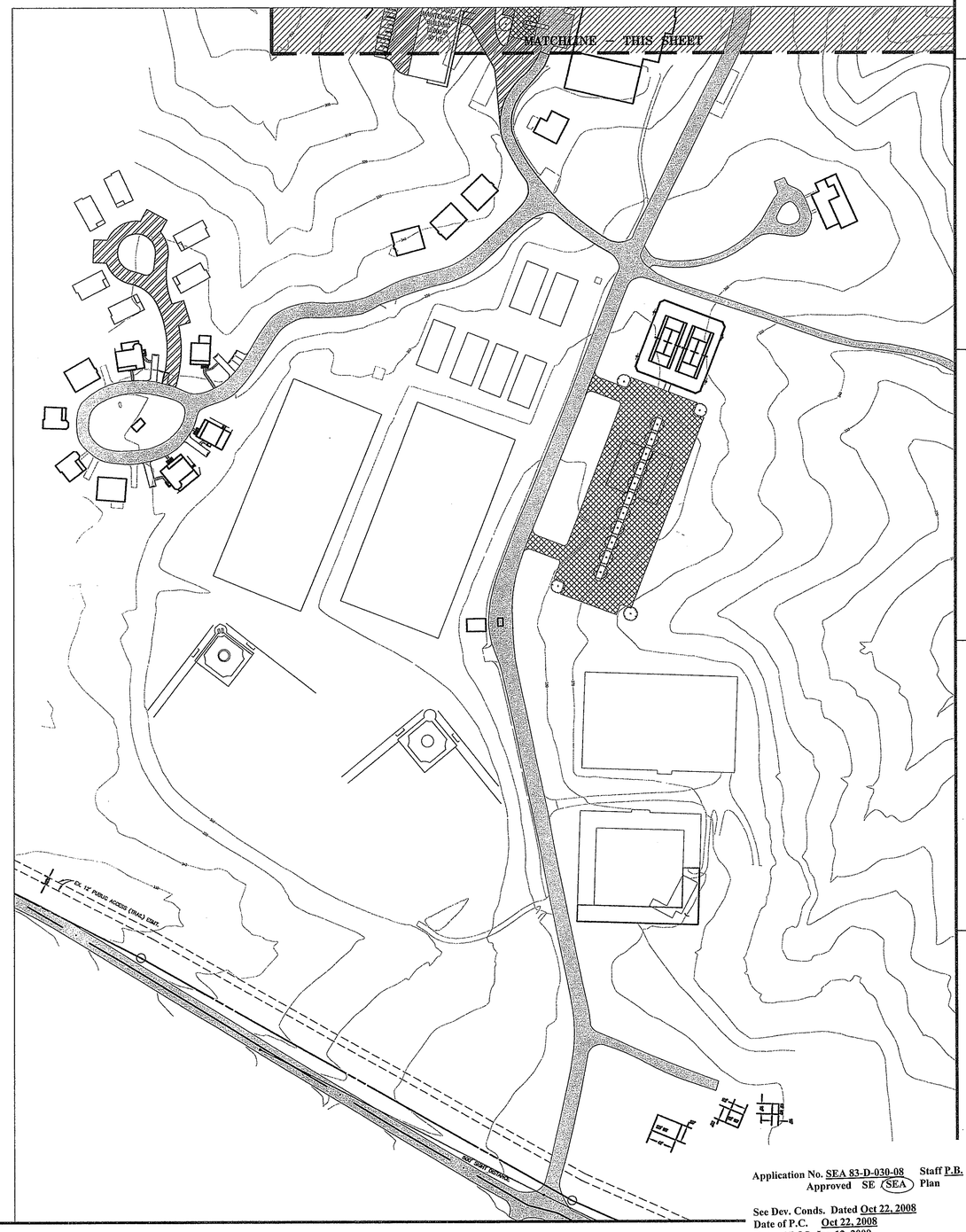
PROJECT NO.

12

SHEET NO. 12 OF 16

M-10673





LEGEND

- APPROVED PARKING – NOT BUILT
- PROPOSED PARKING
- EXISTING PARKING

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KEY PLAN

SCALE
0' 100' 200'

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The Madeira School

Special Exception Amendment
Parking and Travel Ways

PROJECT NO.

13

ET NO. 13 OF 16
M-10673

Application No. SEA 83-D-030-08 Staff P.B.
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See Dev. Conds. Dated Oct 22, 2008
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EXISTING VEGETATION MAP COVER TYPE SUMMARY

	Cover Type	Primary Species	Succesional Stage	Condition	Acreage	Comments
A	Maintained Grassland	n/a	n/a	n/a	73.79±ac.	Area contains academic buildings, dormitories, residences, and athletic fields
B	Upland Forest	Tulip Poplar, Pine, Maple, Oak	Sub-climax	Generally good	263.17±ac.	Mature forest with an understory of Dogwood, Holly, and Mountain Laurel.
C	Lowland Forest	Hickory, Maple	Sub-climax	Generally good	39.20±ac.	Mature forest adjacent to Potomac River. Area includes the Black Pond and the Yellow Pond.
				Total Area	376.16±ac.	

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0' 300' 600'

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Existing Vegetation Map

PROJECT NO.

14

SHEET NO. 14 OF 16

M-10673

Application No. SEA 83-D-030-08 Staff P.B.
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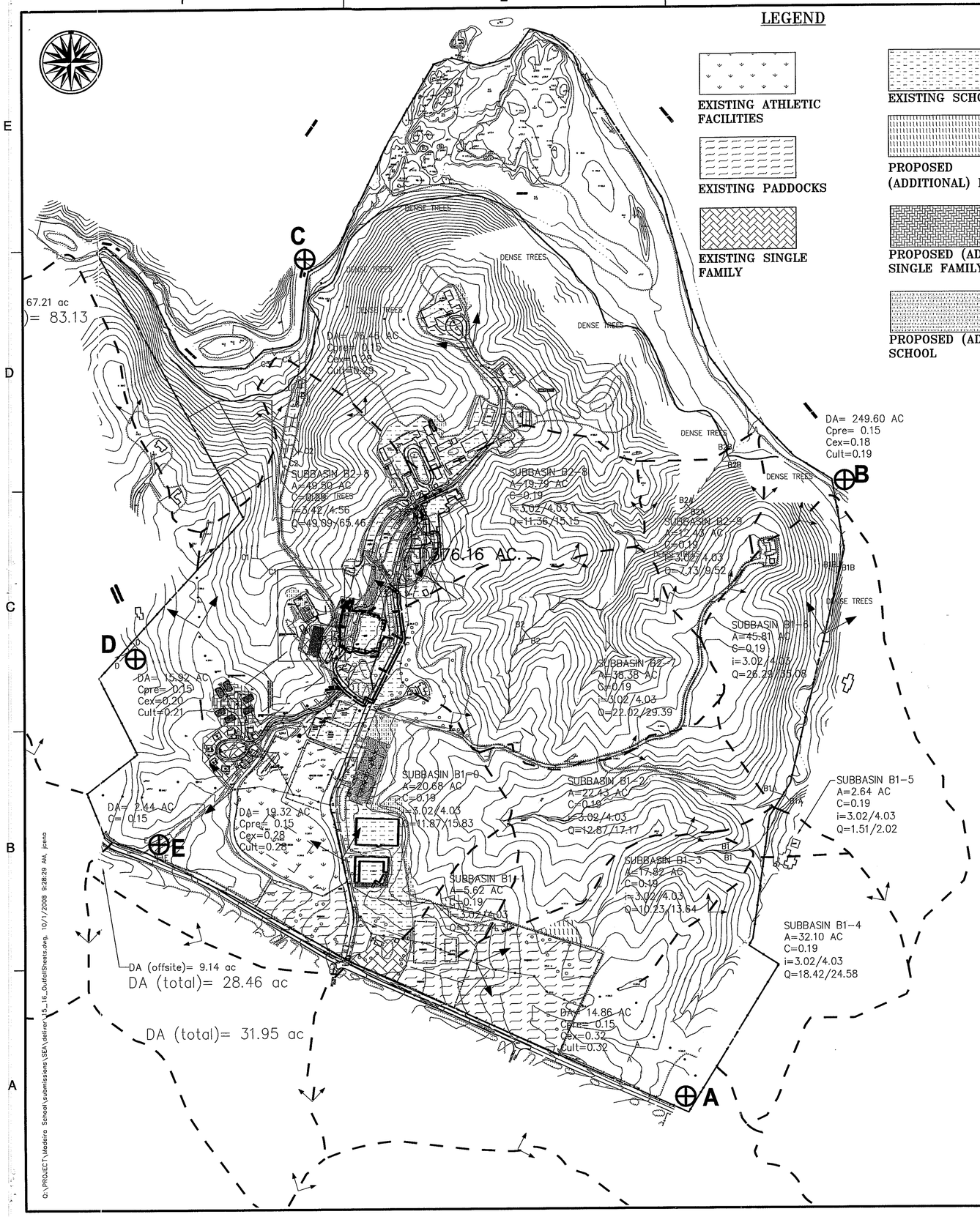

Madeira School SEA Outfall Narrative

The 376 acre Madeira School property is located at the mouth of the Difficult Run watershed. The northern border of the property is formed by the Potomac River. Generally, the property is heavily wooded and steeply sloped (exceeding 25% in places) with the exception of the centrally located school area. Existing SWM facilities include an underground detention facility located behind the athletic facility (Outfall C) and several Conservation Easements scattered throughout the site although most have been congregated along the northwest property line adjacent to the Washington Woods on the Potomac subdivision.

There are 5 primary outfalls for the property:

A. Outfall A (14.86 ac) is located in the southeast corner of the property. This outfall is approximately two thirds paddocks (horse grazing area) in moderate to good condition and one third heavily wooded. Runoff leaving the site via this outfall exits through a swale (wooded) and culvert below Georgetown Pike (Rt. 193). This swale proceeds southeasterly where it joins an unnamed tributary at the Spring Hill Road culvert. This tributary changes direction becoming a northeasterly running stream that eventually turns into Bullneck Run. Bullneck Run discharges to the Potomac approximately 3400' east of the site.

B. Outfall B is located at the northeast corner of the property and represents the most downstream point of the Potomac River immediately adjacent to the property. Approximately two thirds (249.6 ac) of the school property drains through the property (either through the Black Pond or unnamed streams/tributaries located on-site) to the Potomac River. The bulk of this outfall is densely wooded with steep slopes. A small portion of the school and paddock areas is included in this outfall.

C. Outfall C (76.46 ac) is located in the northwest corner of the site where Difficult Run discharges to the Potomac River and represents the portion of the site that drains to Difficult Run. Much of this outfall is directed through a small, unnamed drainage located on-site. The bulk of the school facilities are located in this outfall. Other than the school facilities the outfall is heavily wooded and steeply sloped.

D. Outfall D (15.92 ac) is located along the western property line adjacent to the Washington Woods on the Potomac subdivision. This outfall is a shallow swale directed to the SWM pond located in the Washington Woods subdivision. The outfall is generally undeveloped in existing conditions and densely wooded. The Washington Woods SWM facility discharges to an unnamed tributary which eventually joins Difficult Run just west of the site.

E. Outfall E (19.32 ac) is located in the southwest corner of the site. This outfall is mostly wooded with moderate slopes although it does contain a horse paddock in moderate to good condition and an athletic field in good condition. Runoff from this outfall is conveyed through a culvert under Georgetown Pike (Rt. 193) to an unnamed tributary to Rocky Run. Rocky Run discharges to Difficult Run approximately 2200' upstream (west) of the site.

Hydrology for the various outfalls is presented on this sheet. The total increase in runoff- over pre-(any) development projected for full development of the school program as outlined in this SEA is 90 cfs for the 2-year storm and 120 cfs for the 10-year storm. These increases do not account for any detention that has (behind athletic center) or may be provided. Outfall analysis has been performed assuming no detention in an effort to support the SWM detention waiver request. It should also be noted that the drainage area to each outfall has not been modified based on proposed (or ultimate) conditions as it is believed that the development program is generally possible within the outfalls as indicated; minor internal diversions that may be necessary will be addressed during the detailed site plan preparation for that improvement. These internal diversions will not compromise the overall watershed (Difficult Run/Potomac River) boundary.

Outfall A Analysis
The SEA proposes to modify the paddocks in this area in an effort to improve the existing land cover condition transforming what is today grazing area in poor to moderate condition into grazing area in moderate to good condition. As indicated in the hydrology, there is no increase in runoff to this outfall, in fact it is believed that there will be a decrease following final improvements. A field inspection of the outfall has been performed- to just downstream of the Spring Hill Road culvert (the extent of downstream review) and the outfall appears to be functioning properly; no downstream drainage complaints are on record for this area. No further analysis is being performed at this time given the limited changes to this outfall.

Outfall B Analysis
Several critical sections within the main natural channels (B1 and B2) have been provided to demonstrate adequate conveyance to the Potomac River. These channels have adequate capacities. The soil in these areas is believed to be a mixed alluvial (B1) and a silt loam (B2). These are generally heavily wooded areas; where the channels develop into streams they are pebbly and relatively clean. Permissible velocities are estimated to be between 3.5-6 fps. The 2-year velocity in the sample sections ranges from 3.8-10.1 fps. The drainage area of the Potomac River at the site, specifically the most downstream point (as identified on the map) is approximately 11,000 square miles (~75% of the total Potomac River basin area). According to section 6-0203.2B, where runoff from the site directly enters the Potomac (the entirety of Outfall B whether sheet flow at the northernmost section or directly via the two onsite natural channels), the drainage area is greater than 100 times the contributing area of the development site therefore this represents the termination point of downstream review.

Outfall C Analysis
Several critical sections have been provided for the natural channel conveying the bulk of the runoff from this outfall to Difficult Run. Sections have been located downstream of the bulk of the school runoff contributions. These sections demonstrate adequate capacity. Solls in this area are believed to be a silt loam transitioning to a rocky land where the channel meets Difficult Run. The permissible velocity is estimated to be between 3.5-5.5 fps. The 2-year velocity ranges from 5.4-8.2 fps. The drainage area to Difficult Run is 58 square miles or 37,120 acres. According to section 6-0203.2B, where runoff from the site directly enters Difficult Run (the entirety of Outfall C whether sheet flow at the northwest "finger" or via the onsite natural channel), the drainage area is greater than 100 times the contributing area of the development site (37,120 ac > 7,646 ac= 100 * 76.46ac) therefore this represents the termination point of downstream review.

Outfall D Analysis
A typical section has been provided at the site boundary where runoff exits the site onto the adjacent *Washington Woods on the Potomac* subdivision. This water is conveyed to an adjacent stormwater management facility. Discharge from the SWM facility is conveyed via an unnamed natural channel to Difficult Run- the extent of downstream review. A field inspection of the outfall has been performed and it appears to be functioning properly; there are no downstream drainage complaints on file. Additional analysis for this particular outfall (including surveyed cross sections and more detailed information on the offsite SWM facility) will be provided as part of the site plan preparation for the individual improvements in this outfall.

Outfall E Analysis
The SEA proposes to modify the paddocks in this area in an effort to improve the existing land cover condition similar to Outfall A. As indicated in the hydrology, there is no increase in runoff to this outfall, in fact it is believed that there will be a decrease following final improvements. A field inspection of the outfall has been performed- to just downstream of the Georgetown Pike culvert (the extent of downstream review) and the outfall appears to be functioning properly; no downstream drainage complaints are on record for this area. No further analysis is being performed at this time given the limited changes to this outfall.

It is the opinion of the engineer based on field inspection and overall proximity to the ultimate outfall that the outfalls are adequate. Given the very steep slopes it is expected that the velocities are somewhat high however it should be noted that they do not substantially exceed permissible velocities in any one outfall and in fact generally fall within a reasonable range. Additional analysis will be provided within the respective outfalls as part of the final site plan submittal for improvements in those watersheds.

SWM Narrative

SWM in the form of quantity and quality is required for the further development of the 376 acre Madeira School property.

All stormwater quality control requirements will be met through the use of conservation easements. It is estimated, based on the below computation, that an additional 2.5+/- acres of conservation easements will be required to accommodate the proposed (ultimate) improvements. The exact size and location of the area will be determined during the detailed site plan process for these improvements. Sufficient land exists on the property to accommodate this requirement.

Conservation Easement Required:
1.63 acres SF Residential @ 0.5
2.45 acres School Facilities @ 0.6
1.05 acres Pasture/Paddocks @ 0.45
A= 5.13 acres, Cw= 0.54
BMP provided via open space= 100% efficiency; BMP requirement = 40%
Area of Conservation Esmt = .4 * 5.13= 2.05 acres

A waiver of stormwater management quantity control requirements has been submitted as part of this application. Given the site's proximity to Difficult Run and the Potomac River, the minimal increase in runoff projected for the ultimate improvements (120 cfs/376 ac = 0.32 cfs/ac for the 10-year and 90 cfs/376 ac= 0.24 cfs/ac for the 2-year over pre-development conditions and evenly distributed), the environmentally sensitive nature of the site (EQC and floodplains), and the stability/adequacy of the outfalls, it is the opinion of the engineer that detention requirements should be waived.

Madeira School SEA SWM and Outfall Analysis

Outfall	DA	C	t_c (min)	i_2 (in/hr)	i_{10} (in/hr)	Q_2 (cfs)	Q_{10} (cfs)
Pre-Development							
A	14.86	0.15	15	3.9	5.1	8.69	11.37
B	249.6	0.15	25	3.02	4.03	113.07	150.88
C	76.46	0.15	20	3.42	4.56	39.22	52.30
D	15.92	0.15	15	3.9	5.1	9.31	12.18
E	19.32	0.15	15	3.9	5.1	11.30	14.78
Totals	**376.16**	**0.15**				**181.60**	**241.51**
Cw for site							
Existing							
A	14.86	0.32	15	3.9	5.1	18.55	24.25
B	249.6	0.18	25	3.02	4.03	135.68	181.06
C	76.46	0.28	20	3.42	4.56	73.22	97.62
D	15.92	0.20	15	3.9	5.1	12.42	16.24
E	19.32	0.28	15	3.9	5.1	21.10	27.59
Totals	**376.16**	**0.21**				**260.96**	**346.76**
Cw for site					Δ (ex-pre)	79.36	105.25
Ultimate							
A	14.86	**0.32**	15	3.9	5.1	18.55	24.25
B	249.6	**0.19**	25	3.02	4.03	143.22	191.12
C	76.46	**0.29**	20	3.42	4.56	75.83	101.11
D	15.92	**0.21**	15	3.9	5.1	13.04	17.05
E	19.32	**0.28**	15	3.9	5.1	21.10	27.59
Totals	**376.16**	**0.22**				**271.73**	**361.12**
Cw for site					Δ(ult-ex)	10.77	14.36
					Δ(ult-pre)	90.13	119.61

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Sheet 15 of 16

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The Madeira School

Special Exception Amendment
EXISTING DIVIDES

PROJECT NO.

15

SHEET NO. 15 OF 16

M-10673

Worksheet for B1A-2yrvelocity

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.02095	ft/ft
Discharge	58.12	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00	202.00
0+03	200.00
0+11	198.00
0+19	196.00
0+27	194.00
0+35	192.00
0+47	192.00
0+60	194.00
0+72	196.00
0+93	198.00
1+10	200.00
1+26	202.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 202.00)	(0+35, 192.00)	0.035
(0+35, 192.00)	(0+47, 192.00)	0.050
(0+47, 192.00)	(1+26, 202.00)	0.035

Results

Normal Depth	0.89	ft
Elevation Range	192.00 to 202.00 ft	
Flow Area	15.16	ft²
Wetted Perimeter	21.66	ft

Worksheet for B1A-2yrvelocity

Results

Top Width	21.48	ft
Normal Depth	0.89	ft
Critical Depth	0.79	ft
Critical Slope	0.03353	ft/ft
Velocity	3.83	ft/s
Velocity Head	0.23	ft
Specific Energy	1.12	ft
Froude Number	0.80	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

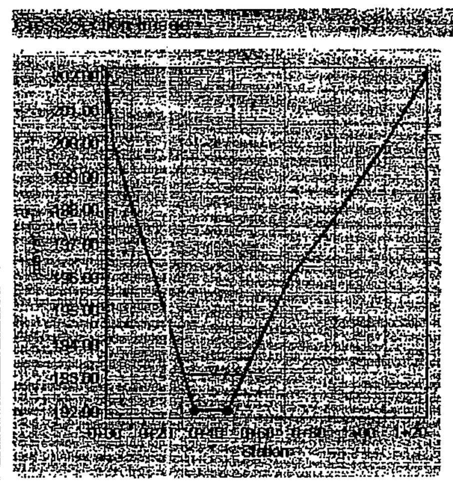
GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.89	ft
Critical Depth	0.79	ft
Channel Slope	0.02095	ft/ft
Critical Slope	0.03353	ft/ft

Input Data

Channel Slope	0.02095	ft/ft
Normal Depth	1.04	ft
Discharge	77.54	ft³/s

Cross Section Image



Worksheet for B2B2-2yrvelocity

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.09473	ft/ft
Discharge	22.02	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00	240.00
0+12	238.00
0+23	236.00
0+35	234.00
0+50	236.00
0+65	238.00
0+78	240.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 240.00)	(0+23, 238.00)	0.035
(0+23, 238.00)	(0+50, 238.00)	0.050
(0+50, 238.00)	(0+78, 240.00)	0.035

Results

Normal Depth	0.81	ft
Elevation Range	234.00 to 240.00 ft	
Flow Area	4.43	ft²
Wetted Perimeter	11.03	ft
Top Width	10.91	ft
Normal Depth	0.81	ft
Critical Depth	0.92	ft
Critical Slope	0.04786	ft/ft
Velocity	4.98	ft/s

Results

Velocity Head	0.38	ft
Specific Energy	1.20	ft
Froude Number	1.38	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

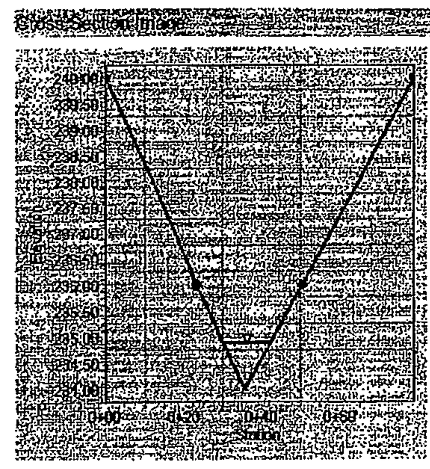
GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.81	ft
Critical Depth	0.92	ft
Channel Slope	0.09473	ft/ft
Critical Slope	0.04786	ft/ft

Input Data

Channel Slope	0.09473	ft/ft
Normal Depth	0.90	ft
Discharge	29.39	ft³/s

Cross Section Image



Worksheet for C1C1-2yrvelocity

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.09640	ft/ft
Discharge	49.09	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00	260.00
0+07	258.00
0+14	256.00
0+35	254.00
0+61	252.00
0+81	250.00
0+93	250.00
1+05	252.00
1+11	254.00
1+18	256.00
1+25	258.00
1+31	260.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 260.00)	(0+61, 252.00)	0.035
(0+61, 252.00)	(1+05, 252.00)	0.050
(1+05, 252.00)	(1+31, 260.00)	0.035

Results

Normal Depth	0.56	ft
Elevation Range	250.00 to 260.00 ft	
Flow Area	9.18	ft²
Wetted Perimeter	20.81	ft

Results

Top Width	20.73	ft
Normal Depth	0.56	ft
Critical Depth	0.69	ft
Critical Slope	0.04539	ft/ft
Velocity	5.35	ft/s
Velocity Head	0.44	ft
Specific Energy	1.01	ft
Froude Number	1.42	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

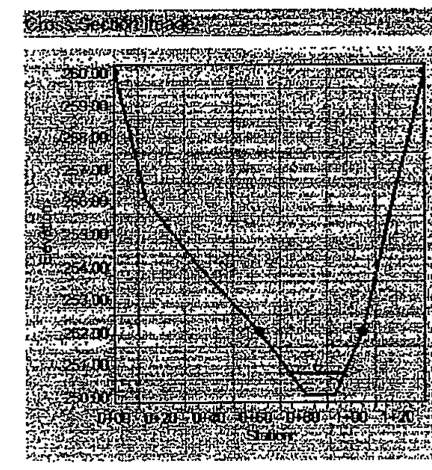
GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.56	ft
Critical Depth	0.69	ft
Channel Slope	0.09640	ft/ft
Critical Slope	0.04539	ft/ft

Input Data

Channel Slope	0.09640	ft/ft
Normal Depth	0.68	ft
Discharge	65.46	ft³/s

Cross Section Image



Worksheet for DD-2yrvelocity

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.06454	ft/ft
Discharge	14.90	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00	270.00
0+08	268.00
0+16	266.00
0+25	264.00
0+35	262.00
0+50	260.00
0+67	260.00
1+25	262.00

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 270.00)	(1+25, 262.00)	0.035

Results

Normal Depth	0.21	ft
Elevation Range	260.00 to 270.00 ft	
Flow Area	4.41	ft²
Wetted Perimeter	25.16	ft
Top Width	25.14	ft
Normal Depth	0.21	ft
Critical Depth	0.26	ft
Critical Slope	0.02998	ft/ft
Velocity	3.38	ft/s
Velocity Head	0.18	ft

Results

Specific Energy	0.38	ft
Froude Number	1.42	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

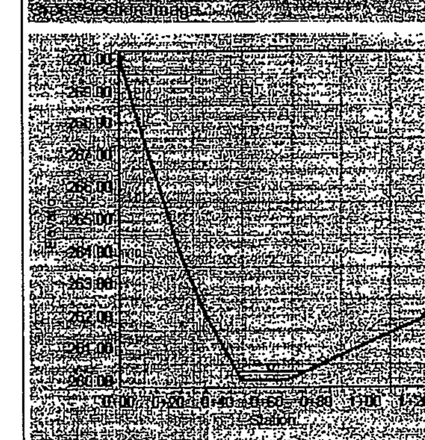
GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.21	ft
Critical Depth	0.26	ft
Channel Slope	0.06454	ft/ft
Critical Slope	0.02998	ft/ft

Input Data

Channel Slope	0.06454	ft/ft
Normal Depth	0.24	ft
Discharge	19.49	ft³/s

Cross Section Image



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 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 4-10
- [X] 3. Provide:

Facility Name/ Type & No. (e.g. dry pond A, infil. trench, 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)
Ugrd. Det.		0				N/A
Cons. Esmt.		N/A	N/A			
Totals						

- [X] 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 12. Pond inlet and outlet pipe systems are shown on Sheet N/A.
- 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 NA (asphalt, geoblock, gravel, etc.).
- N/A [ ] 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 12.
- [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 12.
- [X] 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 12,13
- [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 2,4-10.
- [X] 11. A submission waiver is requested for SWM Detention
- N/A [ ] 12. Stormwater management is not required because N/A

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Application No. SEA 83-D-030-08 Staff P.B.
Approved SE / (SEA) Plan

See Dev. Conds. Dated Oct 22, 2008
Date of P.C. Oct 22, 2008
Date of BOS Jan 12, 2009

Sheet 16 of 16

Dewberry

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THE MADEIRA SCHOOL
SPECIAL EXCEPTION AMENDMENT PLAT
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL: COMMONWEALTH OF VIRGINIA — TIMOTHY CHARLES CULLEITON — Lic. No. 20112 — 9-29-08 — PROFESSIONAL ENGINEER

KEY PLAN

SCALE

No.	DATE	BY	Description
2	09.29.08	JMC	
1	04.04.08	JMC	

REVISIONS

DRAWN BY JMC
APPROVED BY
CHECKED BY LAM
DATE January 11, 2008

TITLE
The Madeira School
Special Exception Amendment
PROPOSED DIVIDES

PROJECT NO.

16

SHEET NO. 16 OF 16

M-10673