

GARFIELD ELEMENTARY SCHOOL

GENERALIZED DEVELOPMENT PLAN

PCA 89-L-008

LEE DISTRICT

FAIRFAX COUNTY, VIRGINIA

JUNE 29, 2012

REVISED: AUGUST 15, 2012

REVISED: SEPTEMBER 24, 2012

REVISED: OCTOBER 5, 2012

REVISED: OCTOBER 19, 2012

REVISED: OCTOBER 25, 2012

REVISED: NOVEMBER 7, 2012



VICINITY MAP

SCALE: 1" = 2,000'

OWNER/APPLICANT

FAIRFAX COUNTY SCHOOL BOARD
8115 Gatehouse Road
Suite 5400
Falls Church, VA 22042
Telephone 571.423.1075

ENGINEER/LANDSCAPE ARCHITECT/PLANNER

THE BC CONSULTANTS
12600 Fair Lakes Circle
Suite 100
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Telephone 703.449.8100
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SHEET INDEX

ATTORNEY/AGENT

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BC Consultants

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Application No. PCA 89-L-008 Staff M.A. Tsai
APPROVED DEVELOPMENT PLAN
(DP) (CDP) (FDP) (CSP) (CSPA)
See Proffer Conds Dated 11/30/2012
Date of (BC) (BZA) (PC) Approval 1/8/2013
Sheet 1 of 13

RECEIVED
Department of Planning & Zoning
DEC 08 2012
Zoning Evaluation Division



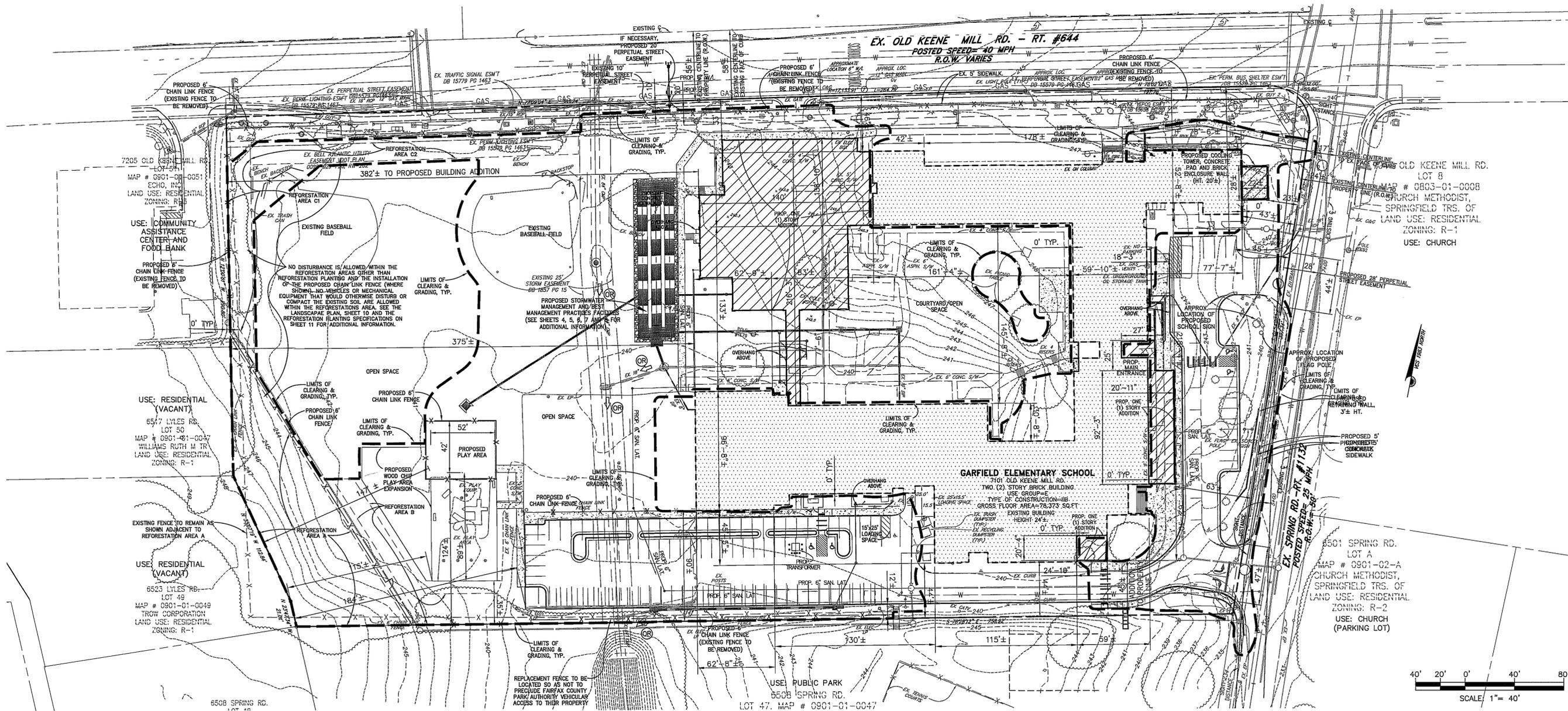
SHEET 1 OF 13
PROJECT # 11518.01

LOT 4B, MAP # 0803-01-004B
 SPRINGFIELD PLAZA LLC
 LAND USE: COMMUNITY RETAIL,
 ZONING: C-6

SPRINGFIELD PLAZA LLC
 LAND USE: COMMUNITY RETAIL, ZONING: C-6

USE: LOW RISE OFFICE
 (ACROSS OLD KEENE MILL ROAD)

USE: COMMERCIAL SHOPPING CENTER
 (ACROSS OLD KEENE MILL ROAD)



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GENERALIZED DEVELOPMENT PLAN
 PCA 89-L-008
**GARFIELD ELEMENTARY SCHOOL
 RENOVATION & EXPANSION**
 IEE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

SITE TABULATIONS:

EXISTING ZONING:	R-3, H-C
EXISTING USE:	ELEMENTARY SCHOOL
LAND AREA:	8.13864 Ac. or 354,519 s.f. (1)
EXISTING GROSS FLOOR AREA:	58,881 s.f. ±
APPROVED GROSS FLOOR AREA:	73,776 s.f.
PROPOSED ADDITIONAL GROSS FLOOR AREA:	4,597 s.f.
PROPOSED TOTAL GROSS FLOOR AREA:	78,373 s.f. ±
EXISTING FLOOR AREA RATIO:	0.17
APPROVED FLOOR AREA RATIO:	0.21
MAXIMUM FLOOR AREA RATIO ALLOWED BY ORDINANCE:	0.30 (PUBLIC USES)
PROPOSED FLOOR AREA RATIO:	0.22 ±
OPEN SPACE REQUIRED:	NO REQUIREMENT
OPEN SPACE PROVIDED:	217,121 s.f. ± (61.2% ± of LAND AREA)
PARKING SPACES REQUIRED:	60 SPACES (2)
PARKING SPACES PROVIDED:	79 SPACES
LOADING SPACES REQUIRED:	2 SPACES
LOADING SPACES PROVIDED:	2 SPACES
MAXIMUM BUILDING HEIGHT ALLOWED:	60'
MAXIMUM BUILDING HEIGHT PROPOSED:	28.75' ±

GENERAL NOTES:

1. THE INFORMATION SHOWN ON THIS GENERALIZED DEVELOPMENT PLAN (GDP) IS IN AGREEMENT WITH MINOR SITE PLAN (9599-MSP-002) PREVIOUSLY SUBMITTED TO THE FAIRFAX COUNTY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES). 9599-MSP-002 IS BEING REVIEWED CONCURRENT WITH THIS PROFFERED CONDITION PLAN AMENDMENT APPLICATION. REVISIONS TO THIS GDP MAY BE PERMITTED AS DIRECTED AND APPROVED BY DPWES PROVIDED THAT ANY REVISIONS MADE ARE IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 18, PART 2, SECTION 204, PARAGRAPH 5 OF THE FAIRFAX COUNTY ZONING ORDINANCE.
2. THE DIMENSIONS FOR ALL PROPOSED STRUCTURES (EXPANSIONS) AND THE DIMENSIONS FOR ALL PROPOSED PERIPHERAL YARDS ARE SHOWN ON THE PLAN. THE DIMENSIONS FOR ALL EXISTING STRUCTURE AND EXISTING PERIPHERAL YARDS ARE SHOWN ON THE PLAN AND ON SHEET 9 - EXISTING CONDITIONS AND EXISTING VEGETATION MAP.

SITE TABULATIONS FOOTNOTES:

- (1) THE APPROVED REZONING 89-L-008 REFLECTED THE LAND AREA AS APPROXIMATELY 8.053 ACRES. THE AREA WAS BASED ON INFORMATION OF RECORD AND DID NOT CONSTITUTE A FIELD RUN BOUNDARY SURVEY. IT WAS LISTED AS 8.0530 ACRES OF LAND, MORE OR LESS" IN THE METES AND BOUNDS DESCRIPTION INCLUDED WITH RZ 89-L-008.
- (2) THE BOUNDARY INFORMATION SHOWN ON THIS GDP WAS TAKEN FROM A FIELD RUN BOUNDARY SURVEY PERFORMED BY BC CONSULTANTS AND DATED APRIL 22, 2011. THE BOUNDARY SURVEY CONFIRMED THE ACTUAL SITE AREA AS 8.14 ACRES (354,519 S.F.) AND SHALL BE THE BASIS OF THE LAND AREA PROPOSED WITH THIS PROFFERED CONDITION AMENDMENT APPLICATION. NO DEDICATION, SALE OR OTHERWISE TRANSFER OF LAND IS PROPOSED WITH THIS PROFFERED CONDITION AMENDMENT APPLICANT.
- (3) ONE (1) SPACE PER EACH FACULTY OR STAFF MEMBER AND OTHER FULL-TIME EMPLOYEE FOR 54 SPACES PLUS FOUR (4) VISITORS SPACES BASED ON A PREVIOUS REVIEW BY THE DIRECTOR.

LEGEND:

	PROPOSED BUILDING EXPANSION
	EXISTING BUILDING
	APPROXIMATE LIMITS OF CLEARING AND GRADING

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	BEARING	CHORD	DELTA
1	17,133.91'	264.79'	132.40'	N 77°35'38" E	264.79'	0°53'08"
2	32.00'	55.88'	38.18'	S 51°55'57" E	49.05'	100°03'41"

Application No. PCA 89-L-008 Staff M.A. Iral
 APPROVED DEVELOPMENT PLAN
 (DP) (GDP) (CDP) (FDP) (CSP) (CSA)
 See Proffer Conds Dated 11/30/2012
 Date of (BC) (BZA) (PC) Approval 1/8/2013
 Sheet 2 of 13

BC REVISIONS	REVISED: 11-7-12
REVISED: 8-15-12	REVISED: 11-7-12
REVISED: 9-24-12	REVISED: 11-7-12
REVISED: 10-9-12	REVISED: 11-7-12
REVISED: 10-19-12	REVISED: 11-7-12
REVISED: 10-25-12	REVISED: 11-7-12
APPLICANT:	FAIRFAX COUNTY SCHOOL BOARD
PROJECT:	8115 GATEHOUSE ROAD
LOCATION:	FALLS CHURCH, VA 22042
DESIGNED BY:	DDD
DRAFTED BY:	CAD
CHECKED BY:	PLR
DATE:	JUNE 29, 2012
SCALE:	HOR. 1" = 40'
	VERT. N/A
SHEET 2 OF 13	
CO. NO.	
CAD NAME: G11518GDP	
LAYOUT: GDP	
FILE NO. 11518.01-00	

GENERAL NOTES:

- THE PROPERTY DELINEATED ON THIS GENERALIZED DEVELOPMENT (GDP) IS IDENTIFIED ON FAIRFAX COUNTY TAX MAP #90-1 ((1)) PARCEL 52 AND IS ZONED R-3, H-C.
- THE FAIRFAX COUNTY SCHOOL BOARD PROPOSES AN EXPANSION TO GARFIELD ELEMENTARY SCHOOL. A MINOR SITE PLAN (9599-MSP-002) FOR THE EXPANSION WAS SUBMITTED TO THE FAIRFAX COUNTY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES ON MAY 8, 2012 AND IS CURRENTLY UNDER REVIEW. A REZONING APPLICATION (RZ 89-L-008) WAS APPROVED FOR THE SCHOOL BY THE FAIRFAX COUNTY BOARD OF SUPERVISORS ON JUNE 26, 1989. THIS REZONING PERMITTED FUTURE EXPANSION OF THE SCHOOL UP TO A MAXIMUM GROSS FLOOR AREA (GFA) OF 73,776 SQUARE FEET AND A FLOOR AREA RATIO (FAR) UP TO 0.21. THE PURPOSE OF THE PROFFERED CONDITION AMENDMENT APPLICATION IS TO PERMIT AN ADDITIONAL 4,597 SQUARE FEET FOR THE PROPOSED EXPANSION OF THE SCHOOL FOR A TOTAL GFA OF 78,373 SQUARE FEET AT A 0.22 FAR.
- THE BOUNDARY INFORMATION SHOWN ON THIS GDP IS TAKEN FROM A FIELD RUN BOUNDARY SURVEY PERFORMED BY BC CONSULTANTS AND DATED APRIL 22, 2011.
- THE TOPOGRAPHIC INFORMATION SHOWN ON THIS GDP IS BASED ON PHOTOMETRIC MAPPING PREPARED BY MCKENZIE SNYDER, INC. AND FIELD ENHANCEMENTS PERFORMED BY BC CONSULTANTS AND DATED APRIL 25, 2011. THE TOPOGRAPHY IS SHOWN AT ONE (1) FOOT CONTOUR INTERVALS.
- THE PROPERTY SHOWN ON THIS GDP IS IN THE LEE MAGISTERIAL DISTRICT, ACCOTINK-LOWER POTOMAC SANITARY SEWER SHED AND THE ACCOTINK CREEK WATERSHED.
- TO THE BEST OF OUR KNOWLEDGE THIS DEVELOPMENT IS IN CONFORMANCE WITH THE FAIRFAX COUNTY COMPREHENSIVE PLAN AND WILL CONFORM TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS AND CONDITIONS AS PREVIOUSLY APPROVED, MODIFIED OR WAIVED IN CONJUNCTION WITH THE APPROVAL OF RZ 89-L-008 AND WITH THIS GDP AS LISTED BELOW.

IN ACCORDANCE WITH THE PROVISIONS OF FAIRFAX COUNTY ZONING ORDINANCE ARTICLE 13, SECTION 13-305, PARAGRAPH 14, A MODIFICATION OF THE TYPE ONE (1) TRANSITIONAL SCREENING REQUIREMENTS ADJACENT TO THE RESIDENTIAL PROPERTIES AT THE SOUTHWESTERN PROPERTY LINES IS REQUESTED TO PERMIT THE USE OF THE PROPOSED REFORESTATION AREA 'A' AND THE SUPPLEMENTAL EVERGREEN AND DECIDUOUS TREES AS SHOWN ON THE PLAN. SEE SHEETS 10 AND 11 FOR ADDITIONAL INFORMATION.

A MODIFICATION OF THE LOCATION OF THE BARRIER REQUIRED ADJACENT TO THE RESIDENTIAL PROPERTIES AT THE SOUTHWESTERN PROPERTY LINES IS REQUESTED TO THE LOCATION OF THE PROPOSED BARRIER (SIX (6) FEET CHAIN LINK FENCE) AS SHOWN ON THE PLAN ALONG THE EASTERN SIDE OF REFORESTATION AREA 'A'.

IN ACCORDANCE WITH THE PROVISIONS OF FAIRFAX COUNTY ZONING ORDINANCE ARTICLE 13, SECTION 13-305, PARAGRAPH 14, A MODIFICATION OF THE TYPE ONE (1) TRANSITIONAL SCREENING REQUIREMENTS ADJACENT TO THE ECHO, INC. PROPERTY AT THE WESTERN PROPERTY LINE IS REQUESTED TO PERMIT THE USE OF THE PROPOSED REFORESTATION AREA 'C1' AS SHOWN ON THE PLAN. SEE SHEETS 10 AND 11 FOR ADDITIONAL INFORMATION.

A MODIFICATION OF THE LOCATION OF THE BARRIER REQUIRED ADJACENT TO THE ECHO, INC. PROPERTY AT THE WESTERN PROPERTY LINE IS REQUESTED TO THE LOCATION OF THE PROPOSED BARRIER (SIX (6) FEET CHAIN LINK FENCE) AS SHOWN ON THE PLAN ALONG THE WESTERN PROPERTY LINE.

WAIVER OF THE FAIRFAX COUNTY-COUNTYWIDE TRAILS REQUIREMENT FOR A MAJOR PAVED TRAIL AND AN ON-ROAD BICYCLE TRAIL IS REQUESTED ALONG THE SITE'S FRONTAGE WITH OLD KEENE MILL ROAD. AN EXISTING FIVE (5) FEET CONCRETE SIDEWALK IS PROVIDED ALONG OLD KEENE MILL ROAD.

REQUEST BOARD OF SUPERVISORS' APPROVAL TO ALLOW AN APPROXIMATELY 20 FEET HIGH BRICK ENCLOSURE WALL (AT THE COOLING TOWER AT THE NORTHEAST CORNER OF THE SITE) IN THE FRONT YARD OF THE SCHOOL'S FRONTAGE WITH SPRING ROAD.

- ACCORDING TO THE FAIRFAX COUNTY-COUNTYWIDE TRAILS PLAN (ADOPTED BY THE BOARD OF SUPERVISORS ON JUNE 17, 2002), A MAJOR PAVED TRAIL IS REQUIRED ALONG THE SITE'S FRONTAGE WITH OLD KEENE MILL ROAD (RT. 644). A MODIFICATION OF THIS REQUIREMENT HAS BEEN REQUESTED. SEE GENERAL NOTE 6 ABOVE. NO TRAIL IS REQUIRED ALONG THE SITE'S FRONTAGE WITH SPRING ROAD (RT. 1132). A MINOR PAVED TRAIL IS REQUIRED ON THE EASTERN (OPPOSITE) SIDE OF SPRING ROAD.
- THE FAIRFAX COUNTY WATER AUTHORITY IS THE PUBLIC WATER SUPPLY AGENCY FOR THIS DEVELOPMENT. THE COUNTY OF FAIRFAX IS THE SANITARY SEWER SUPPLY AGENCY FOR THIS DEVELOPMENT.
- THIS PLAN SHOWS ALL KNOWN EXISTING UNDERGROUND UTILITIES AND ALL EXISTING UTILITY EASEMENTS OF 25' OR MORE. THE LOCATIONS OF THE EASEMENTS SHOWN ARE FROM TAX RECORDS AND/OR DEEDS AND INFORMATION OF RECORD. NO TITLE REPORT WAS FURNISHED.
- TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE PROPOSED BUILDING EXPANSION WILL NOT GENERATE, UTILIZE, STORE, TREAT OR DISPOSE ANY HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PARTS 116.4, 302.4 AND 355; ANY HAZARDOUS WASTE AS SET FORTH IN COMMONWEALTH OF VIRGINIA/DEPARTMENT OF WASTE MANAGEMENT VR 672-10-1 - VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS; AND/OR ANY PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280. TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE SUBSTANCES THAT MAY BE UTILIZED, STORED AND DISPOSED OF IN CONJUNCTION WITH THE PROPOSED BUILDING PROGRAM EXPANSION AND/OR THE MAINTENANCE OF THE BUILDING PROGRAM AND GROUNDS WILL BE IN ACCORDANCE WITH SAID REGULATIONS.
- THERE ARE NO KNOWN GRAVES OR PLACES OF BURIAL ON SITE.
- THE PROPOSED LIMITS OF CLEARING AND GRADING ARE AS SHOWN ON THIS GDP. THESE LIMITS ARE APPROXIMATE AND SUBJECT TO ADJUSTMENT AT THE TIME OF FINAL GRADING, ENGINEERING AND LOCATION OF PROPOSED UTILITIES. WHERE THE LIMITS OF CLEARING AND GRADING ARE SHOWN ADJACENT TO A PROPERTY LINE, IT SHOULD BE ASSUMED THAT THE LIMITS EXTEND TO THE PROPERTY LINE.
- PARKING WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE. THE APPLICANT RESERVES THE RIGHT TO INCREASE OR DECREASE THE NUMBER OF PARKING SPACES AS REPRESENTED IN THE TABULATION SO LONG AS THE RESULTING NUMBER OF SPACES SATISFIES THE MINIMUM NUMBER PRESCRIBED BY THE APPLICABLE PROVISIONS IN THE ZONING ORDINANCE AND/OR THE AMOUNT OF OPEN SPACE AND THE MINIMUM DISTANCES TO THE PERIPHERAL LOT LINES ARE NOT DIMINISHED.
- THE PROPERTY IS LOCATED WITHIN THE SPRINGVALE COMMUNITY PLANNING SECTOR (S4) OF THE SPRINGFIELD PLANNING DISTRICT (AREA IV) OF THE COMPREHENSIVE PLAN AND IS PLANNED FOR PUBLIC USE.
- IT IS UNDERSTOOD THAT ADDITIONAL SITE FEATURES SUCH AS BENCHES, WALKWAYS, FLAGPOLES, TRELLISES, WATER FOUNTAINS OR FEATURES, SIGNS, WALLS, FENCES, LIGHT STANDARDS AND/OR UTILITY MAINTENANCE STRUCTURES NOT REPRESENTED ON THIS GDP MAY BE PROVIDED AS LONG AS THE RESULTANT PROPOSED DEVELOPMENT IS IN SUBSTANTIAL CONFORMANCE WITH THAT REPRESENTED ON THIS GDP. IT IS ALSO UNDERSTOOD THAT MOBILE AND LAND-BASED TELECOMMUNICATION FACILITIES MAY BE PROVIDED ON SITE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN SECT. 2-514 OF THE ZONING ORDINANCE. ALL SIGNS WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN ARTICLE 12 OF THE ZONING ORDINANCE.

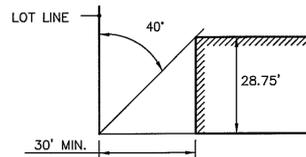
ALTHOUGH THE PROPOSED EXPANSION WILL ELIMINATE THE NEED FOR TEMPORARY TRAILERS ON THE PROPERTY IN THE NEAR TERM, THE APPLICANT REQUESTS THE FLEXIBILITY TO PROVIDE TEMPORARY TRAILERS FOR EDUCATIONAL PURPOSES ON THE PROPERTY, IF DETERMINED NECESSARY BASED ON FUTURE ENROLLMENT PROJECTIONS. THE LOCATION OF THE TEMPORARY TRAILERS WILL BE DETERMINED BY THE APPLICANT IN CONSULTATION WITH DPWES.

**ZONING ORDINANCE, ARTICLE 18-202
PARAGRAPH 10 COMMENTS:**

- SCALE AND NORTH ARROW AS SHOWN ON THE PLAN.
- THE APPROXIMATE DIMENSIONS OF ALL EXISTING AND PROPOSED STRUCTURES ARE AS SHOWN ON THE GENERALIZED DEVELOPMENT PLAN (GDP). THE TOTAL GROSS FLOOR AREA AND THE BUILDING HEIGHT PRESENTED IN THE SITE TABULATIONS SHOWN ON SHEET 2 ARE TO BE CONSIDERED MAXIMUMS. THE DIMENSIONS TO THE PERIPHERAL LOT LINES AS REPRESENTED ON THE GDP ARE TO BE CONSIDERED MINIMUMS WITH THE UNDERSTANDING THAT ALL DIMENSIONS SHOWN ON THIS GDP ARE SUBJECT TO MINOR MODIFICATIONS PURSUANT TO PAR. 5 OF 18-204 OF THE ZONING ORDINANCE. THE ANGLE OF BULK PLANE IS AS SHOWN BELOW.
- THE PROPOSED TRAFFIC CIRCULATION IS AS SHOWN ON THE PLAN. REFER TO GENERAL NOTE 7 FOR INFORMATION CONCERNING THE TRAILS REQUIREMENT.
- OPEN SPACE AREAS ARE AS SHOWN ON THE PLAN. COMMUNITY FACILITIES AND/OR PUBLIC FACILITIES INCLUDE THE EXISTING AND PROPOSED (STRUCTURED) PLAY AREAS, THE EXISTING BASKETBALL COURT AND THE BASEBALL/OPEN FIELDS.
- TWO (2) PROPOSED SANITARY SEWER LATERALS CONNECTING TO THE EXISTING SANITARY SEWER ARE AS SHOWN ON THE PLAN. NO OTHER SANITARY SEWER IMPROVEMENTS ARE PROPOSED WITH THIS GDP.
- ALL STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES REQUIREMENTS FOR THE PROPERTY ARE PROVIDED ON SHEETS 4, #, 5, 6, 7 AND 8.
- THE LOCATION OF ALL EXISTING UTILITY EASEMENTS HAVING A WIDTH OF 25 FEET OR MORE, AND ALL MAJOR UNDERGROUND UTILITY EASEMENTS REGARDLESS OF WIDTH ARE AS SHOWN ON THE PLAN. REFER TO GENERAL NOTE 9 FOR ADDITIONAL INFORMATION.
- REFER TO THE SITE TABULATIONS ON SHEET 2 FOR REQUIRED PARKING SPACE INFORMATION.
- REFER TO GENERAL NOTE 4 FOR INFORMATION CONCERNING EXISTING TOPOGRAPHY.
- THERE ARE NO SCENIC ASSESTS OR NATURAL FEATURES DESERVING OF PROTECTION ON THE PROPERTY.
- THE ADJACENT PROPERTIES WILL BE PROTECTED FROM ANY ADVERSE EFFECTS PROMPTED BY THE PROPOSED DEVELOPMENT USING TRANSITIONAL SCREENING AND BARRIERS AS APPROVED, MODIFIED OR WAIVED. REFER TO SHEET 11 FOR ADDITIONAL INFORMATION CONCERNING TRANSITIONAL SCREENING AND BARRIERS.
- THE EXISTING STRUCTURES ARE AS SHOWN ON THE PLAN. REFER TO SHEET 9 FOR THEIR LOCATIONS AND DATES OF CONSTRUCTION. THE EXISTING TEMPORARY (CLASSROOM) TRAILERS WILL BE REMOVED. ALL OTHER EXISTING STRUCTURES WILL BE RETAINED.
- REFER TO THE SITE TABULATIONS ON SHEET 2 FOR INFORMATION CONCERNING GROSS FLOOR AREA AND THE FLOOR AREA RATIO. THE FLOOR AREA REPRESENTED IN THE TABULATION IS GROSS FLOOR AREA AS DEFINED IN THE FAIRFAX COUNTY ZONING ORDINANCE.
- NOT APPLICABLE. RESIDENTIAL UNITS ARE NOT PROPOSED WITH THIS APPLICATION. MINIMUM OPEN SPACE PROVIDED IS NOT A REQUIREMENT OF THE R-3 ZONE.
- THERE ARE NO SPECIAL AMENITIES PROPOSED WITH THIS DEVELOPMENT.
- THERE ARE NO PUBLIC IMPROVEMENTS TO THE EXISTING ROADWAYS PROPOSED WITH THIS GDP. ALL OTHER IMPROVEMENTS TO THE SITE ARE AS SHOWN ON THE PLAN. REFER TO NOTE Q FOR CONSTRUCTION TIMING INFORMATION.
- THE DEVELOPMENT SCHEDULE FOR THIS PROJECT HAS NOT BEEN DETERMINED BY THE APPLICANT AND WILL DEPEND ON THE PROJECTED NEEDS OF THE SCHOOL DISTRICT.
- NO FLOODPLAINS (AS DESIGNATED BY THE FEDERAL EMERGENCY AGENCY, UNITED STATES GEOLOGICAL SURVEY OR FAIRFAX COUNTY), RESOURCE PROTECTION AREAS OR ENVIRONMENT QUALITY CORRIDORS ARE LOCATED ON THE SITE. THE ENTIRE SITE IS A RESOURCE MANAGEMENT AREA.
- THERE ARE NO IMPROVEMENTS TO THE PUBLIC RIGHT-OF-WAY PROPOSED WITH THIS PLAN. ALL REQUIRED DIMENSIONS ARE AS SHOWN ON THE PLAN.
- THE APPROXIMATE LIMITS OF CLEARING AND GRADING ARE AS SHOWN ON THE PLAN. INFORMATION CONCERNING PROPOSED LANDSCAPING AND SCREENING IS AS SHOWN ON SHEET 10 AND 11 REFER TO SHEETS 9 FOR INFORMATION CONCERNING EXISTING VEGETATION.
- THERE ARE NO KNOWN GRAVES OR PLACES OF BURIAL LOCATED ON THE SITE.
- APPLICANT AND OWNER:

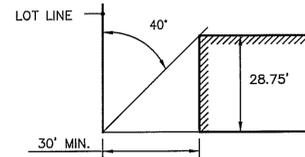
FAIRFAX COUNTY SCHOOL BOARD
8115 GATEHOUSE ROAD
SUITE 5400
FALLS CHURCH, VA 22042

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Sheet 3 of 13



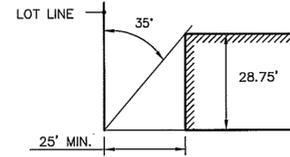
40° ANGLE AT 28.75 FEET = 24.1 FEET
MIN. FRONT YARD = 30 FEET
FRONT YARD AT OLD KEENE MILL ROAD = 30 FEET

FRONT YARD AT OLD KEENE MILL ROAD



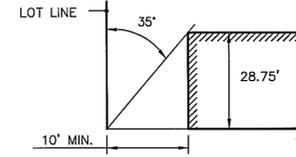
40° ANGLE AT 28.75 FEET = 24.1 FEET
MIN. FRONT YARD = 30 FEET
FRONT YARD AT SPRING ROAD = 30 FEET

FRONT YARD AT SPRING ROAD



35° ANGLE AT 28.75 FEET = 20.1 FEET
MIN. REAR YARD = 25 FEET
SIDE YARD AT W/SW PROP. LINE = 25 FEET

REAR YARD AT WEST/SOUTHWEST PROPERTY LINE



35° ANGLE AT 28.75 FEET = 20.1 FEET
MIN. SIDE YARD = 10 FEET
SIDE YARD AT SOUTH PROP. LINE = 20.1 FEET

SIDE YARD AT SOUTH PROPERTY LINE

ANGLE OF BULK PLANE

NO SCALE

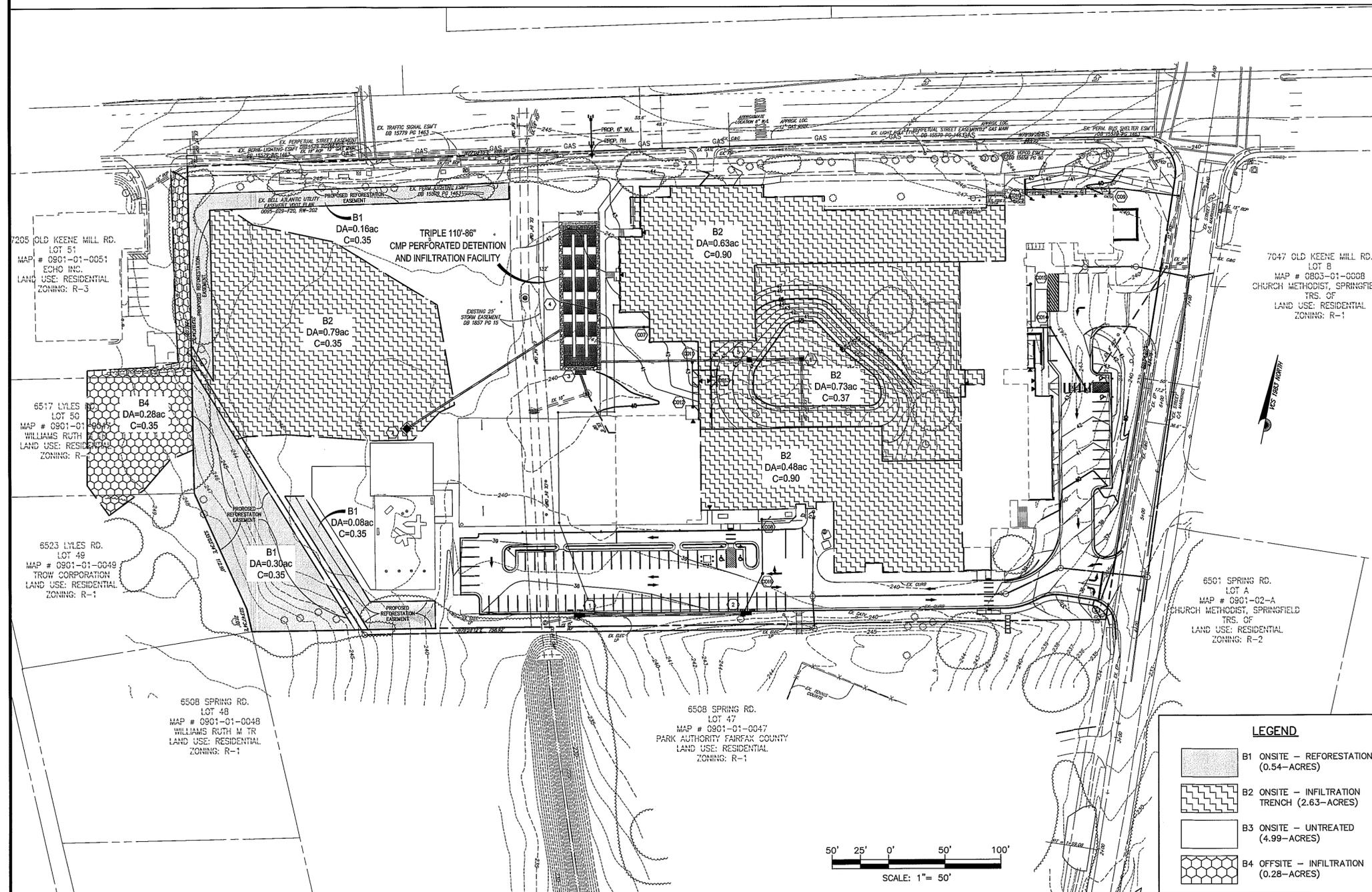
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GENERAL NOTES AND COMMENTS
PCA 89-L-008
**GARFIELD ELEMENTARY SCHOOL
RENOVATION & EXPANSION**
LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

EC REVISIONS	REVISED: 11-7-12
REVISED: 8-15-12	REVISED: 11-7-12
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REVISED: 10-5-12	
REVISED: 10-19-12	
REVISED: 10-25-12	
FAIRFAX COUNTY SCHOOL BOARD 8115 GATEHOUSE ROAD FALLS CHURCH, VA 22042	
DESIGNED BY: DDD	
DRAFTED BY: CAD	
CHECKED BY: PLR	
DATE: JUNE 29, 2012	
SCALE: HOR. N/A VERT. N/A	
SHEET 3 OF 13	
CO. NO.	
CAD NAME: G11518NOT	
LAYOUT: NOTES	
FILE NO. 11518.01-	

WATER QUALITY MAP
1"=50'



WATER QUALITY NARRATIVE

THIS SITE IS WITHIN THE ACCOTINK WATERSHED. THE INCREASE IN IMPERVIOUS AREA IS 13.8%, WHICH IS LESS THAN THE 20% MAXIMUM REQUIRED FOR PROPOSED IMPROVEMENTS TO BE CONSIDERED REDEVELOPMENT. THUS, THE POSPHORUS REMOVAL CALCULATIONS FOR REDEVELOPMENT WERE UTILIZED PER PFM 6-0401.2B TO DETERMINE THE REQUIRED POSPHORUS REMOVAL TO BE 20.90%. THE WATER QUALITY REQUIREMENT IS MET BY USING A PROPOSED REFORESTATION EASEMENT AREA AND INFILTRATION OF DETAINED STORMWATER FROM AN UNDERGROUND PERFORATED CMP DETENTION FACILITY. THESE TWO WATER QUALITY TREATMENT FACILITIES WILL PROVIDE 29.74% PHOSPHORUS REMOVAL FOR THE SITE. THUS, BMP REQUIREMENTS ARE MET FOR THIS SITE. THE REFORESTATION AREA AND UNDERGROUND PERFORATED CMP DETENTION AND INFILTRATION FACILITY WILL BE PRIVATELY MAINTAINED BY FAIRFAX COUNTY PUBLIC SCHOOLS.

PHOSPHORUS REMOVAL CALCULATIONS FOR REDEVELOPMENT SITES

Per PFM 6-0401.2B, the Redevelopment of any property not currently served by one or more BMPs, the required reduction in phosphorus loads will be computed for each site based on the formula:

$$[1 - 0.9(I_{pre} / I_{post})] \times 100 = \% \text{ P removal}$$

Site Area = 8.16 Acres	Acres	Percent
Pre "C" factor = 0.53	3.12	38%
Post "C" factor = 0.56	3.58	44%

$$\% \text{ P Removal} = [1 - 0.9(\frac{3.12}{3.58})] \times 100 = 21.56\%$$

required for site

BMP FACILITY DESIGN CALCULATIONS

II. WATERSHED INFORMATION

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

SUBAREA DESIGNATION & DESCRIPTION	"C"	AREA (AC.)
(1)	(2)	(3)
B1 Onsite - Reforestation	0.35	0.54
B2 Onsite - Infiltration	0.59	2.63
B3 Onsite - Untreated	0.56	4.99
B4 Offsite - Infiltration	0.35	0.28

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

(A) AREA OF THE SITE	(a)	8.16 ACRES	
(B) SUBAREA DESIGNATION	"C"	AREA (AC.)	PRODUCT
(1)	(2)	(3)	(4)
B1 Onsite - Reforestation	0.35	X 0.54	= 0.19
B2 Onsite - Infiltration	0.59	X 2.63	= 1.55
B3 Onsite - Untreated	0.56	X 4.99	= 2.79
B4 Offsite - Infiltration	0.35	X 0.28	= 0.10
(b) TOTAL			= 4.53
(C) WEIGHTED AVERAGE "C" FACTOR	(b) / (a) = (c)		0.56

PART 3: COMPUTE THE TOTAL PHOSPHORUS REMOVAL FOR THE SITE

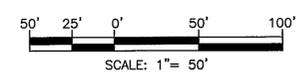
SUBAREA DESIGNATION	BMP TYPE	REMOVAL EFF. (%)	AREA RATIO	"C" FACTOR RATIO	PRODUCT
(1)	(2)	(3)	(4)	(5)	(6)
B1	Onsite - Reforestation	70	X 0.07	X 1.00	= 4.90
B2	Onsite - Infiltration	70	X 0.32	X 1.05	= 23.52
B3	Onsite - Untreated	0	X 0.61	X 1.00	= 0.00
B4	Offsite - Infiltration	70	X 0.03	X 0.63	= 1.32
(a) TOTAL					= 29.74

PART 4: DETERMINE COMPLIANCE WITH PHOSPHORUS REMOVAL REQUIREMENT

(A) SELECT REQUIREMENT:	(a)	21.56 %
(FAIRFAX COUNTY CHESAPEAKE BAY PRESERVATION AREA - 40%)		
OR (FAIRFAX COUNTY WATER SUPPLY OVERLAY DISTRICT - 50%)		
(B) IF LINE 3 (a)	29.74 % > LINE 4(a)	21.56 %
THEN PHOSPHORUS REMOVAL REQUIREMENT IS SATISFIED.		

LEGEND

- B1 ONSITE - REFORESTATION (0.54-ACRES)
- B2 ONSITE - INFILTRATION TRENCH (2.63-ACRES)
- B3 ONSITE - UNTREATED (4.99-ACRES)
- B4 OFFSITE - INFILTRATION (0.28-ACRES)



NOTE: THE INFORMATION SHOWN ON THIS GENERALIZED DEVELOPMENT PLAN (GDP) IS IN AGREEMENT WITH MINOR SITE PLAN (9599-MSP-002) PREVIOUSLY SUBMITTED TO THE FAIRFAX COUNTY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES). 9599-MSP-002 IS BEING REVIEWED CONCURRENT WITH THIS PROFFERED CONDITION PLAN AMENDMENT APPLICATION. REVISIONS TO THIS GDP MAY BE PERMITTED AS DIRECTED AND APPROVED BY DPWES PROVIDED THAT ANY REVISIONS MADE ARE IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 18, PART 2, SECTION 204, PARAGRAPH 5 OF THE FAIRFAX COUNTY ZONING ORDINANCE.

Application No. **PCA 89-L-008** Staff **M.A. Tsai**
APPROVED DEVELOPMENT PLAN
 (DP) (GDP) (CDP) (FDP) (CSP) (CSPA)
 See Proffer Conds Dated **11/30/2012**
 Date of (BOS) (BZA) (PC) Approval **1/8/2013**
 Sheet 4 of 13

REQUIRED 100-YEAR VOLUME COMPUTATION

100 YR (2-HR) STORM VOLUME (R) = 4.5" RAINFALL PER PFM TABLE 6.19
 COURTYARD AREA (A) = 31,795 SQ. FT. (0.73 AC.)
 100-YR VOLUME = (A) * (R) = (31,975 SQFT) * (4.5"/12) = 11,923 CUBIC FEET

PROVIDED 100-YEAR VOLUME COMPUTATION

Elevation (ft)	Planimeter (sq.in)	Area (sq.ft)	A1+A2+sq.r.(A1*A2) (sq.ft)	Volume (cu.ft)	Volume Sum (cu.ft)
239.00	-----	10	0	0	0
240.00	-----	6060	6316	2105	2105
241.00	-----	7328	20052	6684	8789
241.50	-----	8570	23823	3970	12760

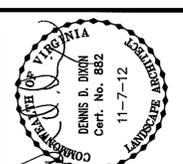
POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

$$\text{Volume} = (1/3) * (EL2-EL1) * (\text{Areal} + \text{Area2} + \text{sq.rt.}(\text{Areal} * \text{Area2}))$$

where: EL1, EL2 = Lower and upper elevations of the increment
 Areal, Area2 = Areas computed for EL1, EL2, respectively
 Volume = Incremental volume between EL1 and EL2

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BMP COMPUTATIONS
PCA 89-L-008
GARFIELD ELEMENTARY SCHOOL
RENOVATION & EXPANSION
 LEE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

REVISED	DATE	BY
8-15-12	11-7-12	DDD
9-24-12		
10-5-12		
10-19-12		
10-25-12		

APPLICANT: FAIRFAX COUNTY SCHOOL BOARD
 6115 GARDNER CHURCH, VA 22042

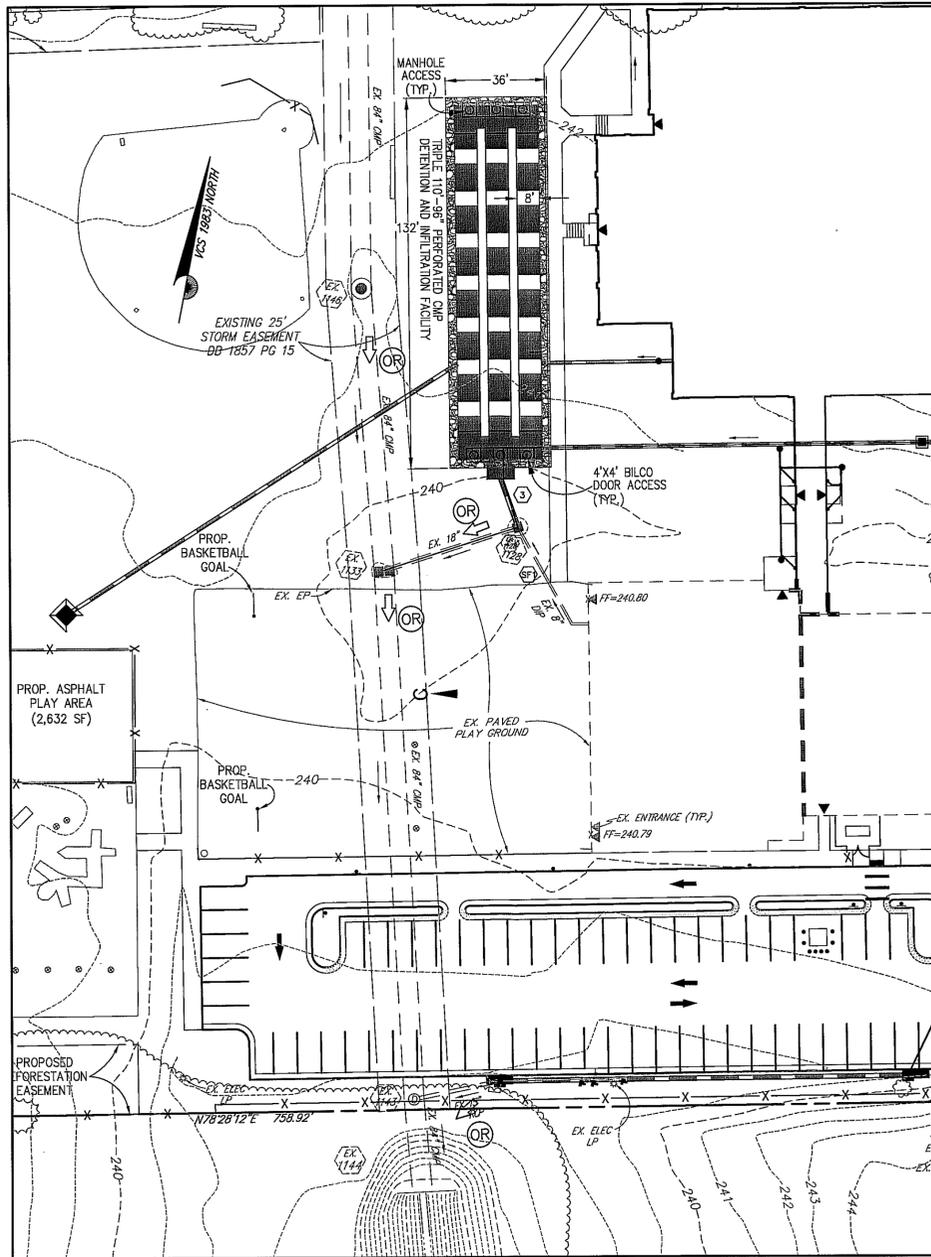
DESIGNED BY: DDD
 DRAFTED BY: CAD
 CHECKED BY: PLR
 DATE: JUNE 29, 2012
 SCALE: HOR. 1"= 40'
 VERT. N/A

SHEET 4 OF 13

CO. NO.
 CAD NAME: 11518-BMP A
 LAYOUT: BMP
 FILE NO. 11518.01-00

STORMWATER DETENTION AND OVERLAND RELIEF MAP

1"=30'



NOTE: THE INFORMATION SHOWN ON THIS GENERALIZED DEVELOPMENT PLAN (GDP) IS IN AGREEMENT WITH MINOR SITE PLAN (9599-MSP-002) PREVIOUSLY SUBMITTED TO THE FAIRFAX COUNTY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES). 9599-MSP-002 IS BEING REVIEWED CONCURRENT WITH THIS PROFFERED CONDITION PLAN AMENDMENT APPLICATION. REVISIONS TO THIS GDP MAY BE PERMITTED AS DIRECTED AND APPROVED BY DPWES PROVIDED THAT ANY REVISIONS MADE ARE IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 16, PART 2, SECTION 204, PARAGRAPH 5 OF THE FAIRFAX COUNTY ZONING ORDINANCE.

Application No. PCA 89-L-008 Staff M.A. Tsai
 APPROVED DEVELOPMENT PLAN
 (DP) (GDD) (CDP) (FDP) (CSP) (CSPA)
 See Proffer Conds Dated 11/30/2012
 Date of (BOS) (BZA) (PC) Approval 1/8/2013
 Sheet 5 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 (8-011 2J & 2L)
- Cluster Subdivision (9-615 1G & 1N)
- Development Plans PRC District (16-302 2 & 4L)
- FDP - P Districts (except PRC) 916-502 1F & 1Q)
- Special Exceptions (9-011 2J & 2L)
- Commercial Revitalization Districts (9-622 2A (12)&(14))
- PRC Plan (16-303 1E & 10)
- Amendments (18-202 10F & 10I)

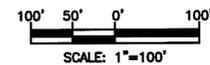
1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading to accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheets 5 and 10.
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.)
Underground Perforated CMP and Infiltration Trench	2.63	0.28	2.91	4,800	16,588	N/A
(e.g., dry pond A, inlit. trench, underground vault, etc.)	0.54	-	0.54	0	N/A	N/A
Reforestation	0.54	-	0.54	0	N/A	N/A
Totals	3.17	0.28	3.45	4,800	16,588	
4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 21
 Pond inlet and outlet pipe systems are shown on Sheets 4, 5, 7 and 8.
5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheets 4 and 5.
 Type of maintenance access road surface noted on the plat is asphalt (asphalt, geoblock, gravel, etc.)
6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 10.
7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 5.
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 8.
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 Sheets 7 and 8.
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 3, 4 and 5.
11. A submission waiver is requested for: N/A
12. Stormwater management is not required because: N/A

Revised 2-21-2008

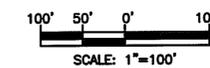
PRE-DEVELOPMENT C-FACTOR

	AREA	C	C*A
IMPERVIOUS AREA=	3.12 AC	0.90	2.81
LAWN=	5.04 AC	0.30	1.51
	8.16 AC	0.53	



POST-DEVELOPMENT C-FACTOR

	AREA	C	C*A
IMPERVIOUS AREA=	3.55 AC	0.90	3.20
LAWN=	4.61 AC	0.30	1.38
	8.16 AC	0.56	



STORMWATER MANAGEMENT NARRATIVE

THIS 8.16-ACRES SITE IS LOCATED WITHIN THE ACCOTINK CREEK WATERSHED. THE PRE-DEVELOPMENT CONDITION TOTAL RELEASE FROM THIS SITE IS 23.56-CFS AND 31.43-CFS FOR THE 2- AND 10-YEAR STORMS, RESPECTIVELY. THERE ARE NO EXISTING STORMWATER MANAGEMENT FACILITIES ONSITE.

THREE 110' LONG, 96" DIAMETER PERFORATED CMP UNDERGROUND DETENTION FACILITY IS PROPOSED FOR THIS SITE TO PROVIDE WATER QUALITY TREATMENT FOR THE 2-YEAR STORM THROUGH INFILTRATION, AND TO PROVIDE CONTROLLED RELEASE DURING THE 2-YEAR AND 10-YEAR STORM. THE PROPOSED UNDERGROUND DETENTION WILL DETAIN APPROXIMATELY 1.84-ACRES OF ONSITE RUNOFF. THE POST-DEVELOPMENT CONDITION TOTAL RELEASE FROM THIS SITE IS 18.21-CFS AND 25.92-CFS FOR THE 2- AND 10-YEAR STORMS, RESPECTIVELY.

Garfield - Stormwater Management Allowable Release Computations

Onsite Pre-Development: Flow Calculations					Pre-Devel.
Storm Frequency	Cf	C	I (in/hr)	Area (Ac.)	Peak Flow (cfs)
2-Year (Site Area)	1.00	0.53	5.45	8.16	23.56
10-Year (Site Area)	1.00	0.53	7.27	8.16	31.43

Post-Development: Controlled/Uncontrolled Areas

Description:	Weighted "C"	Area (Ac.)	Post-Develop. Peak Flow (cfs)
Onsite Detained			
2-Year	0.67	1.84	6.74
10-Year	0.67	1.84	9.00
Onsite Undetained			
2-Year	0.53	6.32	18.21
10-Year	0.53	6.32	24.29
Total Onsite Area =	8.16		

Offsite Detained		
Storm Frequency	Area (Ac.)	Peak Flow (cfs)
2-Year	0.00	0.00
10-Year	0.00	0.00

Onsite & Offsite Composite 'C' to Detention Facility = 0.67

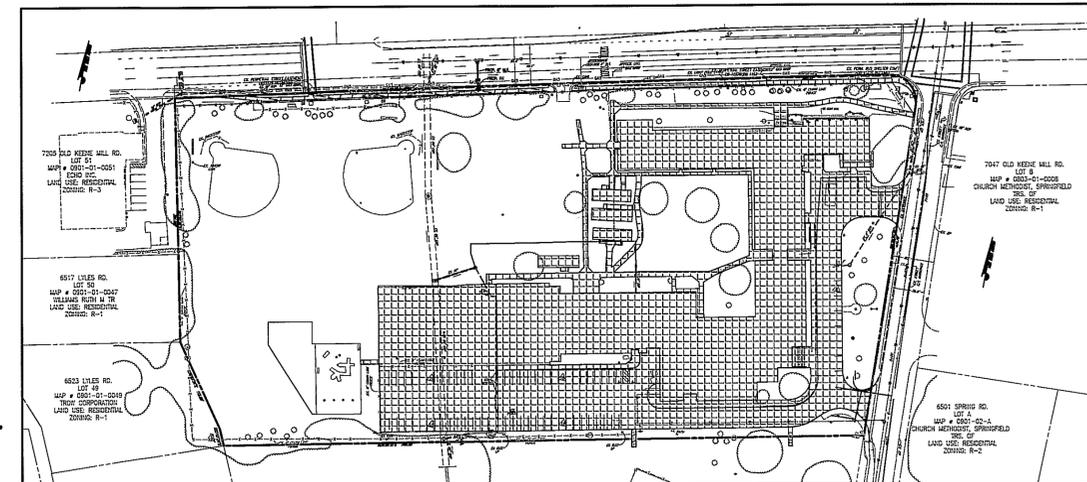
OVERALL SITE Post-Development Discharge

Storm Frequency	Detained Release (cfs)	Post-Onsite Undetained (cfs)	Post-Development Outflow (cfs)
2-Year	0.00	18.21	18.21
10-Year	1.63	24.29	25.92

**Time of concentration for pre and post development computations is 5 minutes.

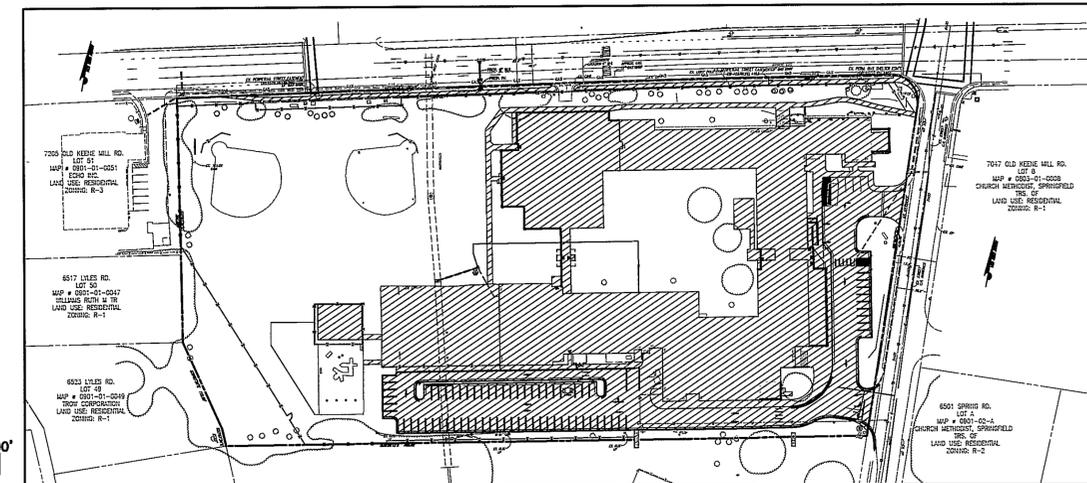
PRE-DEVELOPMENT IMPERVIOUS AREA MAP

1"=100'



POST-DEVELOPMENT IMPERVIOUS AREA MAP

1"=100'



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STORMWATER CALCULATIONS
 PCA 89-L-008
GARFIELD ELEMENTARY SCHOOL
RENOVATION & EXPANSION
 IEE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

REVISED	DATE
8-15-12	REVISED 8-24-12
9-15-12	REVISED 10-5-12
10-15-12	REVISED 10-19-12
11-7-12	REVISED 10-25-12

DESIGNED BY: DDD
 DRAFTED BY: CAD
 CHECKED BY: PLR
 DATE: JUNE 29, 2012
 SCALE: HOR. 1"= 100'
 VERT. N/A

SHEET 5 OF 13

CO. NO.
 CAD NAME: G11518-SWM-CA
 LAYOUT: SWM Calculation
 FILE NO. 11518.01-00

OUTLET CONNECTIVITY

REQUESTED POND WS ELEVATIONS:

Min. Elev. = 228.50 ft
 Increment = .50 ft
 Max. Elev. = 236.50 ft

 OUTLET CONNECTIVITY

----> Forward Flow Only (UpStream to DnStream)
 <--- Reverse Flow Only (DnStream to UpStream)
 <--- Forward and Reverse Both Allowed

Structure	No.	Outfall	E1, ft	E2, ft
Wet-Rectangular	WR	---	CV 234.417	236.500
Culvert-Circular	CV	---	TW 229.850	236.500
TW SETUP, DS Channel				

OUTLET STRUCTURE INPUT DATA

Structure ID = CV
 Structure Type = Culvert-Circular

No. Barrels = 1
 Barrel Diameter = 18.00 in
 Upstream Invert = 229.85 ft
 Dnstream Invert = 229.60 ft
 Horiz. Length = 19.00 ft
 Barrel Length = 19.00 ft
 Barrel Slope = .01316 ft/ft

OUTLET CONTROL DATA

Manning's n = .0130
 Ke = 2000 (forward entrance loss)
 Kb = .018213 (per ft of full flow)
 Kr = .5000 (reverse entrance loss)
 HW Convergence = .001 +/- ft

INLET CONTROL DATA

Equation form = 1
 Inlet Control K = .0018
 Inlet Control M = 2.0000
 Inlet Control c = .02920
 Inlet Control Y = .7400
 T1 ratio (HW/D) = 1.056
 T2 ratio (HW/D) = 1.201
 Slope Factor = -.500

Use unsubmerged inlet control Form 1 equ. below T1 elev.
 Use submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...
 At T1 Elev = 231.43 ft ----> Flow = 7.58 cfs
 At T2 Elev = 231.65 ft ----> Flow = 8.66 cfs

Structure ID = TW
 Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
 Maximum Iterations = 40
 Min. TW tolerance = .01 ft
 Max. TW tolerance = .01 ft
 Min. HW tolerance = .01 ft
 Max. HW tolerance = .01 ft
 Min. Q tolerance = .00 cfs
 Max. Q tolerance = .00 cfs

DETENTION FACILITY DISCHARGE SUMMARY

MASTER NETWORK SUMMARY
 SCS Unit Hydrograph Method
 Hydrograph File Import Option Used For 1 node(s)

(*Node=Outfall; +Node=Diversions;)
 (Trun= HYG Truncation: Blank=None; L=Left; R=Right; LR=Left&Right)

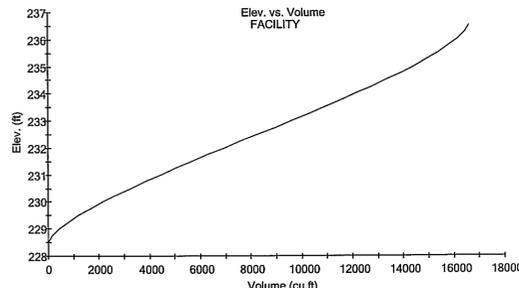
Node ID	Type	Return Event	HYG Vol cu.ft	Trun	Opeak min	Opeak cfs	Max WSEL ft	Max Pond Storage cu.ft
FACILITY	IN POND	2	12798		5.00	8.70		
FACILITY	IN POND	10	17027		5.00	11.60		
FACILITY	IN POND	100	29447		5.00	19.62		
FACILITY	OUT POND	2	0		2.50	.00	234.27	12805
FACILITY	OUT POND	10	3876		55.00	1.69	234.54	13433
FACILITY	OUT POND	100	16296		22.50	6.77	234.74	13890
*OUTFALL	JCT	2	0		2.50	.00		
*OUTFALL	JCT	10	3876		55.00	1.69		
*OUTFALL	JCT	100	16296		22.50	6.77		
RAINFALL	HYG	2	12798		5.00	8.70		
RAINFALL	HYG	10	17027		5.00	11.60		
RAINFALL	HYG	100	29447		5.00	19.62		

POND VOLUME

COMPUTED VOLUMES FOR A PIPE

US Invert Elev. = 228.50 ft
 DS Invert Elev. = 228.50 ft
 Barrel Length = 110.00 ft
 Computed Slope = .000000 ft/ft
 Diameter = 96.00 in
 # of Barrels = 3.00
 Slice Width = 1.00 ft
 Vertical Incr. = .25 ft

Elevation (ft)	Perpendicular DS Depth (ft)	Wetted DS Area (sq.ft)	Wetted Length (ft)	Filled Length (ft)	Perpendicular US Depth (ft)	US Area (sq.ft)	Total Volume (cu.ft)
228.50	.00	.0000	110.00	.00	.00	.0000	0
228.75	.25	.4670	110.00	.00	.25	.4670	154
229.00	.50	1.3080	110.00	.00	.50	1.3080	432
229.25	.75	2.3794	110.00	.00	.75	2.3794	785
229.50	1.00	3.6265	110.00	.00	1.00	3.6265	1197
229.75	1.25	5.0161	110.00	.00	1.25	5.0161	1655
230.00	1.50	6.5244	110.00	.00	1.50	6.5244	2153
230.25	1.75	8.1331	110.00	.00	1.75	8.1331	2684
230.50	2.00	9.8270	110.00	.00	2.00	9.8270	3243
230.75	2.25	11.5932	110.00	.00	2.25	11.5932	3826
231.00	2.50	13.4202	110.00	.00	2.50	13.4202	4429
231.25	2.75	15.2980	110.00	.00	2.75	15.2980	5048
231.50	3.00	17.2169	110.00	.00	3.00	17.2169	5682
231.75	3.25	19.1681	110.00	.00	3.25	19.1681	6325
232.00	3.50	21.1432	110.00	.00	3.50	21.1432	6977
232.25	3.75	23.1340	110.00	.00	3.75	23.1340	7634
232.50	4.00	25.1327	110.00	.00	4.00	25.1327	8294
232.75	4.25	27.1314	110.00	.00	4.25	27.1314	8953
233.00	4.50	29.1223	110.00	.00	4.50	29.1223	9610
233.25	4.75	31.0974	110.00	.00	4.75	31.0974	10262
233.50	5.00	33.0486	110.00	.00	5.00	33.0486	10906
233.75	5.25	34.9675	110.00	.00	5.25	34.9675	11539
234.00	5.50	36.8452	110.00	.00	5.50	36.8452	12159
234.25	5.75	38.6723	110.00	.00	5.75	38.6723	12762
234.50	6.00	40.4385	110.00	.00	6.00	40.4385	13345
234.75	6.25	42.1324	110.00	.00	6.25	42.1324	13904
235.00	6.50	43.7411	110.00	.00	6.50	43.7411	14435
235.25	6.75	45.2494	110.00	.00	6.75	45.2494	14932
235.50	7.00	46.6390	110.00	.00	7.00	46.6390	15391
235.75	7.25	47.8861	110.00	.00	7.25	47.8861	15802
236.00	7.50	48.9574	110.00	.00	7.50	48.9574	16156
236.25	7.75	49.7985	110.00	.00	7.75	49.7985	16434
236.50	8.00	50.2655	110.00	110.00	8.00	50.2655	16588



POST DEVELOPMENT 2-YEAR ROUTING SUMMARY

No Infiltration

INITIAL CONDITIONS

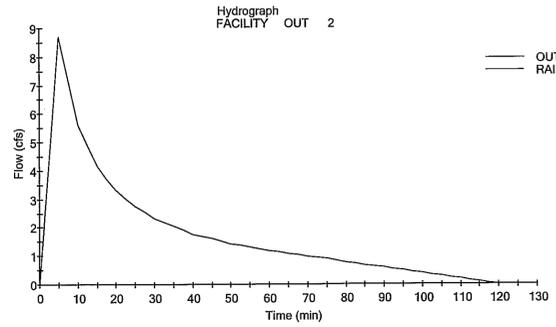
Starting WS Elev = 228.50 ft
 Starting Volume = 0 cu.ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = 2.50 min

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 8.70 cfs at 5.00 min
 Peak Outflow = .00 cfs at 2.50 min
 Peak Elevation = 234.27 ft
 Peak Storage = 12805 cu.ft

HYDROGRAPH ORDINATES (cfs)

Time min	Time on left	Output	Time increment = 2.50 min
0.00	.00	.00	.00
12.50	.00	.00	.00
25.00	.00	.00	.00
37.50	.00	.00	.00
50.00	.00	.00	.00
62.50	.00	.00	.00
75.00	.00	.00	.00
87.50	.00	.00	.00
100.00	.00	.00	.00
112.50	.00	.00	.00



POST DEVELOPMENT 10-YEAR ROUTING SUMMARY

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 228.50 ft
 Starting Volume = 0 cu.ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = 2.50 min

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

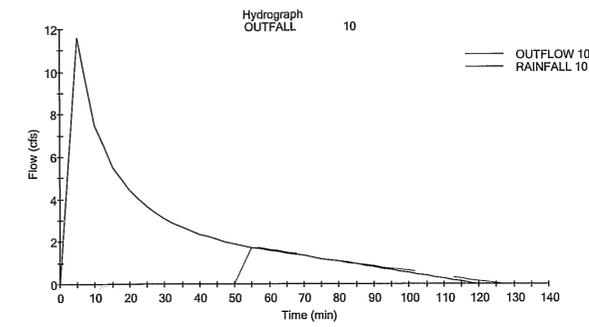
Peak Inflow = 11.60 cfs at 5.00 min
 Peak Outflow = 1.69 cfs at 55.00 min
 Peak Elevation = 234.54 ft
 Peak Storage = 13433 cu.ft

POND ROUTED TOTAL OUTFLOW HYG...

HYG file =
 HYG ID = FACILITY OUT
 HYG Tag = 10
 Peak Discharge = 1.69 cfs
 Time to Peak = 55.00 min
 HYG Volume = 3876 cu.ft

HYDROGRAPH ORDINATES (cfs)

Time min	Time on left	Output	Time increment = 2.50 min
0.00	.00	.00	.00
12.50	.00	.00	.00
25.00	.00	.00	.00
37.50	.00	.00	.00
50.00	.00	.00	.00
62.50	1.55	1.49	1.69
75.00	1.22	1.15	1.09
87.50	.90	.83	.77
100.00	.62	.57	.51
112.50	.32	.25	.19
125.00	.04	.02	.01
137.50	.00	.00	.00



DETENTION VOLUME

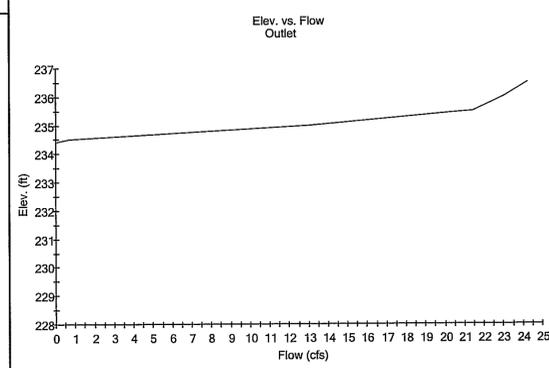
INITIAL CONDITIONS

Starting WS Elev = 228.50 ft
 Starting Volume = 0 cu.ft
 Starting Outflow = .00 cfs
 Starting Infiltr. = .00 cfs
 Starting Total Qout = .00 cfs
 Time Increment = 2.50 min

Elevation ft	Outflow cfs	Storage cu.ft	Infiltr. cfs	Q Total cfs	2S/t + 0 cfs
228.50	.00	0	.00	.00	.00
229.00	.00	432	.00	.00	5.76
229.50	.00	1197	.00	.00	15.96
229.85	.00	1854	.00	.00	24.73
230.00	.00	2153	.00	.00	28.71
230.50	.00	3243	.00	.00	43.24
231.00	.00	4429	.00	.00	59.05
231.50	.00	5682	.00	.00	75.75
232.00	.00	6977	.00	.00	93.03
232.50	.00	8294	.00	.00	110.58
233.00	.00	9610	.00	.00	128.14
233.50	.00	10906	.00	.00	145.41
234.00	.00	12159	.00	.00	162.12
234.42	.00	13151	.00	.00	175.34
234.50	.71	13345	.00	.71	178.64
235.00	13.14	14435	.00	13.14	205.60
235.50	21.45	15391	.00	21.45	226.67
236.00	23.02	16156	.00	23.02	236.43
236.50	24.26	16588	.00	24.26	245.42

COMPOSITE OUTFLOW SUMMARY

WS Elev, Total Q Elev. ft	Q cfs	Converge TW Elev Error +/-ft	Notes Contributing Structures
228.50	.00	Free Outfall	(no Q: WR, CV)
229.00	.00	Free Outfall	(no Q: WR, CV)
229.50	.00	Free Outfall	(no Q: WR, CV)
229.85	.00	Free Outfall	(no Q: WR, CV)
230.00	.00	Free Outfall	(no Q: WR, CV)
230.50	.00	Free Outfall	(no Q: WR, CV)
231.00	.00	Free Outfall	(no Q: WR, CV)
231.50	.00	Free Outfall	(no Q: WR, CV)
232.00	.00	Free Outfall	(no Q: WR, CV)
232.50	.00	Free Outfall	(no Q: WR, CV)
233.00	.00	Free Outfall	(no Q: WR, CV)
233.50	.00	Free Outfall	(no Q: WR, CV)
234.00	.00	Free Outfall	(no Q: WR, CV)
234.42	.00	Free Outfall	(no Q: WR, CV)
234.50	.71	Free Outfall	WR, CV
235.00	13.14	Free Outfall	WR, CV
235.50	21.45	Free Outfall	WR, CV
236.00	23.02	Free Outfall	WR, CV
236.50	24.26	Free Outfall	WR, CV



OVERLAND RELIEF NARRATIVE

THE EXISTING SCHOOL AND ADDITION HAS SEVERAL FLOOR ELEVATIONS. THE ELEVATION AT THE MAIN ENTRANCE IS 248.33. THE ELEVATION OF THE GYM IS 240.8. THE ELEVATION OF THE ADDITION AT THE NORTHWEST ENTRANCE IS 245.83, AND THE ELEVATION OF THE ENTRANCE FOR THE ADDITION AT THE CONNECTION WITH THE EXISTING SCHOOL IS 243.33.

EX. INLET 1146 IS A GRATE INLET IN A SUMP WITH A TOP ELEVATION OF 240.47. IT IS LOCATED WEST OF THE SCHOOL ADDITION. OVERLAND RELIEF IS PROVIDED AT AN ELEVATION OF 240.9 TO THE SOUTH AND FLOWING TOWARD EX. INLET 1133. THE PONDING AT THIS INLET WOULD ONLY AFFECT THE SCHOOL AT THE NORTHWEST ENTRANCE OF THE ADDITION, WHICH IS ALMOST 5 FEET ABOVE THE OVERLAND RELIEF ELEVATION. THUS, OVERLAND RELIEF IS PROVIDED.

EX. INLET 1133 IS A DOUBLE GRATE INLET IN A SUMP WITH A TOP ELEVATION OF 238.98. IT IS LOCATED AT THE REAR OF THE BUILDING APPROXIMATELY IN LINE WITH THE NORTHWEST CORNER OF THE GYM. OVERLAND RELIEF IS PROVIDED AT AN ELEVATION OF 240.1 TO THE SOUTH AND FLOWS OVERLAND TOWARD THE SOUTHERN PARKING LOT. THE PONDING AT THIS INLET WOULD ONLY AFFECT THE GYM. THE GYM IS JUST OVER 8 INCHES ABOVE THE OVERLAND RELIEF ELEVATION. THUS, OVERLAND RELIEF IS PROVIDED.

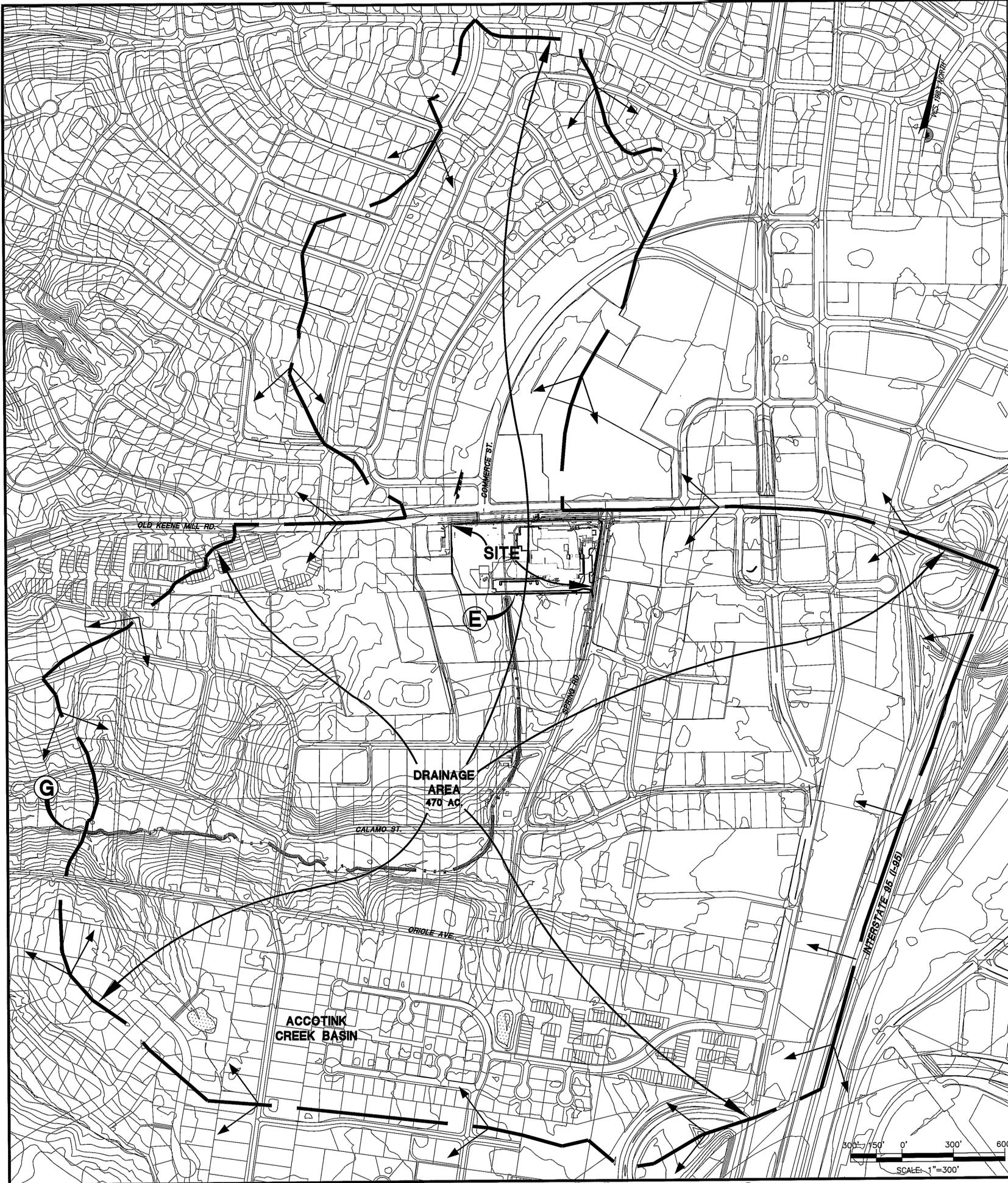
EX. INLET 1128 IS A GRATE INLET IN A SUMP WITH A TOP ELEVATION OF 238.78. IT IS LOCATED AT THE REAR OF THE BUILDING AND IS THE SAME STRUCTURE THAT THE STORMWATER SYSTEM AND ROOF DRAIN SYSTEM TIES INTO. OVERLAND RELIEF IS PROVIDED AT AN ELEVATION OF 239.3 TO THE WEST AND FLOWS OVERLAND TOWARD INLET 1133. THE PONDING AT THIS INLET WOULD ONLY AFFECT THE GYM. THE GYM IS JUST 1.5 FEET ABOVE THE OVERLAND RELIEF ELEVATION. THUS, OVERLAND RELIEF IS PROVIDED.

INLET 1 IS A DROP INLET IN A SUMP WITH A TOP ELEVATION OF 237.33. IT IS LOCATED IN THE SOUTHERN PARKING LOT. OVERLAND RELIEF IS PROVIDED TO THE SOUTHWEST AT ELEVATION 237.77. THE FLOW CONTINUES OFFSITE TOWARDS AN EXISTING HEADWALL AND CHANNEL ON THE ADJACENT PROPERTY TO THE SOUTH. THE PONDING AT THIS INLET DOES NOT FLOOD ANY BUILDINGS. THUS, OVERLAND RELIEF IS PROVIDED.

OVERLAND RELIEF IS PROVIDED IN THE COURTYARD THROUGH STORAGE. THE OVERLAND RELIEF IS NOT DESIGNED TO FLOW OUT OF THE COURTYARD BECAUSE THAT WOULD ENTAIL WATER FLOWING THROUGH THE BUILDING SINCE THE COURTYARD IS AN ENCLOSED SPACE. THE COURTYARD IS GRADED TO STORE THE 100-YEAR STORM AS IF THE INLETS WERE CLOGGED. ADDITIONALLY, THE PIPES LEADING FROM THE COURTYARD TO THE SITE STORM SEWER ARE DESIGNED TO CARRY THE 100-YEAR STORM.

NOTE: THE INFORMATION SHOWN ON THIS GENERALIZED DEVELOPMENT PLAN (GDP) IS IN AGREEMENT WITH MINOR SITE PLAN (9599-MSP-002) PREVIOUSLY SUBMITTED TO THE FAIRFAX COUNTY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES). 9599-MSP-002 IS BEING REVIEWED CONCURRENT WITH THIS PROFFERED CONDITION PLAN AMENDMENT APPLICATION. REVISIONS TO THIS GDP MAY BE PERMITTED AS DIRECTED AND APPROVED BY DPWES PROVIDED THAT ANY REVISIONS MADE ARE IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 18, PART 2, SECTION 204, PARAGRAPH 5 OF THE FAIRFAX COUNTY ZONING ORDINANCE.

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DOWNSTREAM IMPOUNDMENTS NARRATIVE

FAIRFAX COUNTY REQUIREMENTS DICTATE THAT DOWNSTREAM IMPOUNDMENTS BE IDENTIFIED WITHIN A DRAINAGE AREA THAT IS 100 TIMES THE DISTURBED PORTION OF THE SITE.

THE 4.50-ACRES OF DISTURBED AREA OF THE SITE REACHES AN UNNAMED TRIBUTARY OF LONG BRANCH AT POINT 'E' THROUGH A CLOSED STORM SEWER SYSTEM. AT POINT 'E' THE RUNOFF IS DISCHARGED INTO AN OPEN CHANNEL WHERE IT IS CONVEYED TO POINT 'G'. AT POINT 'G', THE DRAINAGE AREA HAS BEEN CALCULATED TO BE ABOUT 470 ACRES, WHICH IS MORE THAN 100 TIMES THE DISTURBED AREA. THERE ARE NO DOWNSTREAM IMPOUNDMENTS BETWEEN THE SITE AND POINT 'G'. THUS, A BATHYMETRIC SURVEY WILL NOT BE REQUIRED.

EXTENT OF REVIEW NARRATIVE

THERE ARE TWO OUTFALLS FOR WHICH IMPROVEMENTS ARE BEING PROPOSED. THE EXISTING STORMWATER SYSTEM ONSITE LEAVES THE PROPERTY AT EXISTING STRUCTURE 1143 (POINT E). THE RUNOFF IS CONVEYED THROUGH AN EXISTING 84" DIAMETER STORM SEWER SYSTEM UNDER THE PLAYING FIELDS AND PARKING OVERFLOW TO THE WEST OF THE GARFIELD ELEMENTARY SCHOOL BUILDING AND CONTINUES SOUTH, OFFSITE WHERE IT OUTFALLS TO AN OPEN DRAINAGE CHANNEL.

PROPOSED IMPROVEMENTS TO THIS OUTFALL END AT TWO LOCATIONS; AT EXISTING STRUCTURE 1128 (POINT 'A') AND ALONG THE EXISTING 15" STORM SEWER PIPE (FROM EX. 1143 TO EX. 1141) THAT IS APPROXIMATELY 31 FEET UPSTREAM OF EX. 1143.

THE DRAINAGE AREA OF THE SYSTEM AT WHICH OUR DRAINAGE IMPROVEMENTS STOP, AT EXISTING STRUCTURE 1128, IS 3.06 ACRES. THE POINT OF CONFLUENCE WITH EXISTING STRUCTURE 1128 IS DOWNSTREAM AT EXISTING STRUCTURE 1133 (POINT 'B'). THE TOTAL ONSITE AND OFFSITE DRAINAGE AREA AT EX. 1133 IS 91.44 ACRES. WE ANALYZED THE EXISTING 84" PIPE AND IT IS ADEQUATE. SEE STORM SEWER COMPUTATIONS AS SHOWN ON ADEQUATE OUTFALL ANALYSIS, SHEET 8.

AT EXISTING STRUCTURE 1133, THE DRAINAGE AREA OF THE EXISTING 84" DIAMETER PIPES IS 91.44 ACRES, WHICH IS MORE THAN 90% OF 3.06 ACRES. THE OUTFALL ANALYSIS MUST EXTEND 150' DOWNSTREAM OF EXISTING STRUCTURE 1133. WE ANALYZED THE OUTFALL WITHIN THE EXISTING 84" DIAMETER STORM SEWER AND IT IS ADEQUATE, AS SHOWN ON STORM COMPUTATIONS SPREADSHEET, SHEET 16. IN ACCORDANCE WITH 6-0203.2A, THE EXTENT OF REVIEW ENDS AT THIS POINT. IT IS THE OPINION OF THE ENGINEER THAT THE SYSTEM PROVIDES AN ADEQUATE OUTFALL FOR THE PROPOSED IMPROVEMENTS.

THE DRAINAGE AREA OF THE SYSTEM AT WHICH OUR DRAINAGE IMPROVEMENTS STOP, AT PROPOSED STRUCTURE 1 (POINT 'D'), IS 0.98 ACRES. THE POINT OF CONFLUENCE WITH PROPOSED STRUCTURE 1 IS DOWNSTREAM AT EXISTING STRUCTURE 1143 (POINT 'E'). THE TOTAL ONSITE AND OFFSITE DRAINAGE AREA AT EX. 1143 IS 95.07 ACRES.

AT EXISTING STRUCTURE 1143, THE DRAINAGE AREA OF THE EXISTING 84" DIAMETER PIPES IS 95.07 ACRES, WHICH IS MORE THAN 90% OF 0.98 ACRES. THE OUTFALL ANALYSIS MUST EXTEND 150' DOWNSTREAM OF EXISTING STRUCTURE 1143. WE ANALYZED THE OUTFALL AND IT IS ADEQUATE, AS SHOWN ON ADEQUATE OUTFALL ANALYSIS, SHEET B. IN ACCORDANCE WITH 6-0203.2A, THE EXTENT OF REVIEW ENDS AT THIS POINT. IT IS THE OPINION OF THE ENGINEER THAT THE SYSTEM PROVIDES AN ADEQUATE OUTFALL FOR THE PROPOSED IMPROVEMENTS.

LEGEND

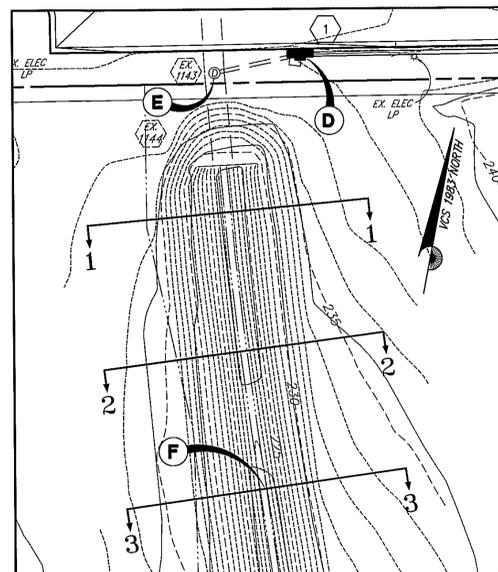
- A** THE POINT WHERE IMPROVEMENTS TO EXISTING STORM SEWER END AT EXISTING STRUCTURE 1128 AND EXTENT OF REVIEW BEGINS (3.06 AC.)
- B** POINT OF CONFLUENCE WHERE THE CONTRIBUTING DRAINAGE AREA (91.44 ACRES) IS GREATER THAN 90% OF THE DRAINAGE AREA AT POINT D. [PFM §6-0203.2A]
- C** 150' DOWNSTREAM FROM CONFLUENCE AT POINT E. THE EXTENT OF REVIEW ENDS HERE [PFM 6-0203.2A]
- D** THE POINT WHERE IMPROVEMENTS TO EXISTING STORM SEWER END AT PROPOSED STRUCTURE 1 AND EXTENT OF REVIEW BEGINS (0.98 ACRES).
- E** POINT OF CONFLUENCE WHERE THE CONTRIBUTING DRAINAGE AREA (95.07 ACRES) IS GREATER THAN 90% OF THE DRAINAGE AREA AT POINT A. [PFM §6-0203.2A]
- F** 150' DOWNSTREAM FROM CONFLUENCE AT POINT B. THE EXTENT OF REVIEW ENDS HERE [PFM 6-0203.2A]
- G** DOWNSTREAM IMPOUNDMENTS REVIEW LIMITS MET FOR ALL OUTFALLS (PER LTI 03-05)

DETECTION PONDS/WATER IMPOUNDMENTS

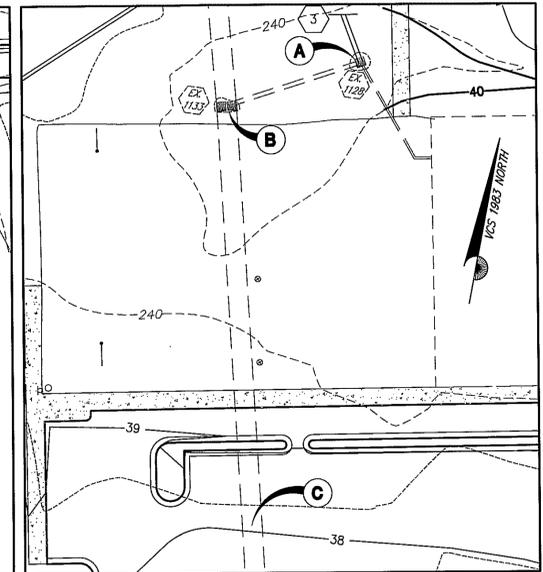
FLOW PATH

Application No. PCA 89-L-008 Staff M.A. Tsai
 APPROVED DEVELOPMENT PLAN
 (DP) (DD) (CDP) (FDP) (CSP) (CSPA)
 See Proffer Conds Dated 11/30/2012
 Date of (BOS) (BZA) (PC) Approval 1/8/2013
 Sheet 7 of 13

NOTE: THE INFORMATION SHOWN ON THIS GENERALIZED DEVELOPMENT PLAN (GDP) IS IN AGREEMENT WITH MINOR SITE PLAN (9599-MSP-002) PREVIOUSLY SUBMITTED TO THE FAIRFAX COUNTY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES). 9599-MSP-002 IS BEING REVIEWED CONCURRENT WITH THIS PROFFERED CONDITION PLAN AMENDMENT APPLICATION. REVISIONS TO THIS GDP MAY BE PERMITTED AS DIRECTED AND APPROVED BY DPWES PROVIDED THAT ANY REVISIONS MADE ARE IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 18, PART 2, SECTION 204, PARAGRAPH 5 OF THE FAIRFAX COUNTY ZONING ORDINANCE.



* CROSS-SECTION DETAILS ON SHEET 8
 SCALE: 1" = 30'



SCALE: 1" = 30'

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OUTFALL & EXTENT OF REVIEW COMPUTATIONS
 PCA 89-L-008
**GARFIELD ELEMENTARY SCHOOL
 RENOVATION & EXPANSION**
 LEE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	REVISED 11-7-12
8-15-12	
REVISED 9-24-12	
REVISED 10-5-12	
REVISED 10-19-12	
REVISED 10-25-12	
DESIGNED BY: DDD	
DRAFTED BY: CAD	
CHECKED BY: PLR	
DATE: JUNE 29, 2012	
SCALE: HOR. AS SHOWN	
VERT. N/A	
SHEET 7 OF 13	
CO. NO.	
CAD NAME: G11518-OUT	
LAYOUT: EXTENT OF REVIEW	
FILE NO. 11518.01-00	

PRE-DEVELOPMENT OUTFALL MAP

SCALE: 1"=100'



SYMBOL	OUTFALL #	DESCRIPTION	PRE-DEV. AREA (AC.)	PRE-DEV. C-FACTOR	PRE-DEV. FLOW	PRE Q ₂ (CFS)	PRE Q ₁₀ (CFS)	POST-DEV. AREA (AC)	POST-DEV. C-FACTOR	CHANGE IN FLOW	POST-DEV. FLOW (AC)	POST Q ₂ (CFS)	POST Q ₁₀ (CFS)	ADEQUACY CONCLUSION
	1	ONSITE- STORM SEW. INLETS	4.22	0.55	CONCENT-RATED	12.65	16.87	5.53	0.55	Y	CONCENT-RATED	16.58	22.11	ADEQUATE PER PFM 6-0203.3B(3)
	2	ONSITE- EX. OFFSITE CHANNEL	1.99	0.36	SHEET	3.90	5.21	0.91	0.42	DECREASE	SHEET	2.08	2.78	ADEQUATE PER PFM 6-0202.6A
	3	ONSITE- SPRING RD	1.09	0.62	SHEET	3.68	4.91	1.02	0.69	INCREASE	SHEET	3.84	5.12	ADEQUATE PER PFM 6-0202.6B
	4	ONSITE- EX. INLET ON SPRING RD	0.86	0.75	SHEET	3.51	4.69	0.70	0.71	DECREASE	CONCENT-RATED	2.71	3.61	YES NO DRAINAGE IMPROVEMENTS

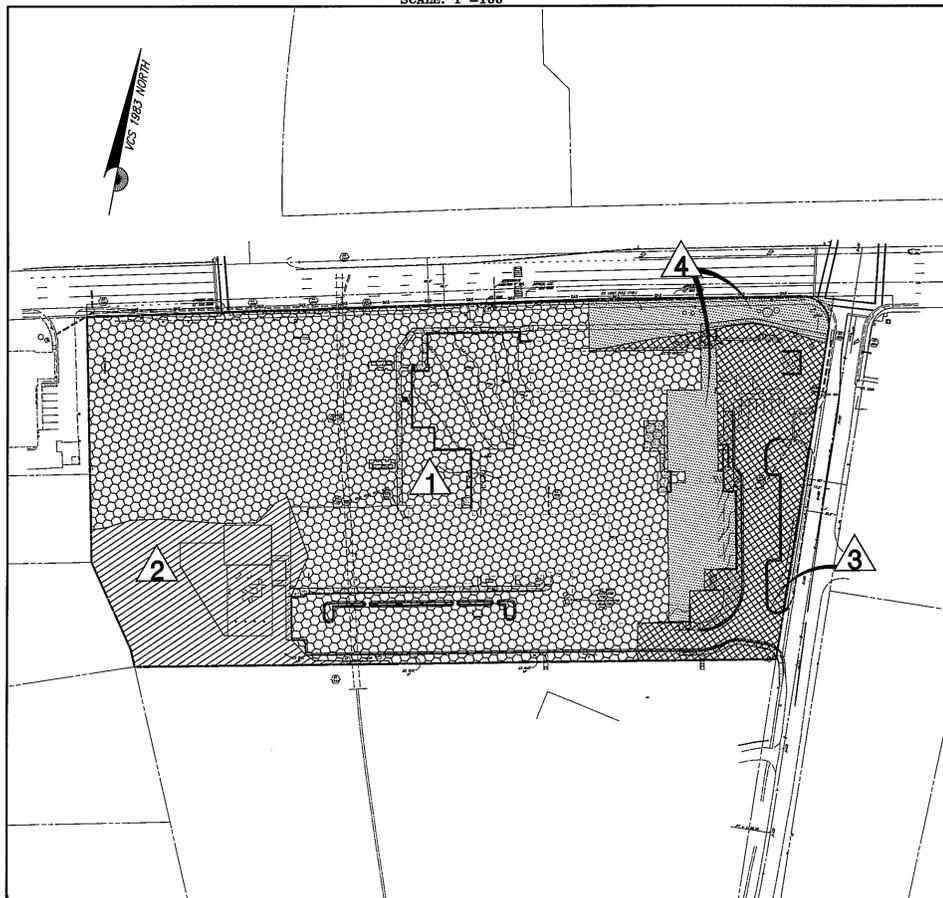
NOTE: THE INFORMATION SHOWN ON THIS GENERALIZED DEVELOPMENT PLAN (GDP) IS IN AGREEMENT WITH MINOR SITE PLAN (9599-MSP-002) PREVIOUSLY SUBMITTED TO THE FAIRFAX COUNTY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES). 9599-MSP-002 IS BEING REVIEWED CONCURRENT WITH THIS PROFFERED CONDITION PLAN AMENDMENT APPLICATION. REVISIONS TO THIS GDP MAY BE PERMITTED AS DIRECTED AND APPROVED BY DPWES PROVIDED THAT ANY REVISIONS MADE ARE IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 18, PART 2, SECTION 204, PARAGRAPH 5 OF THE FAIRFAX COUNTY ZONING ORDINANCE.

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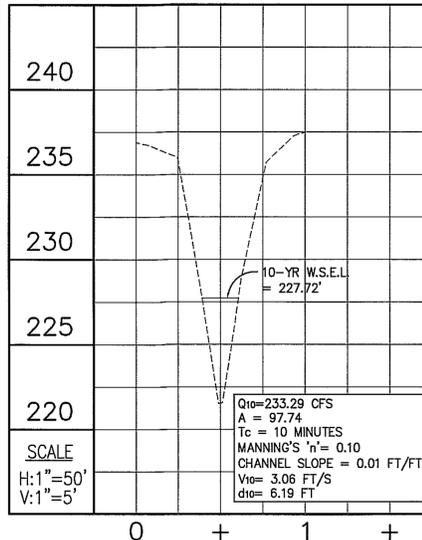


POST-DEVELOPMENT OUTFALL MAP

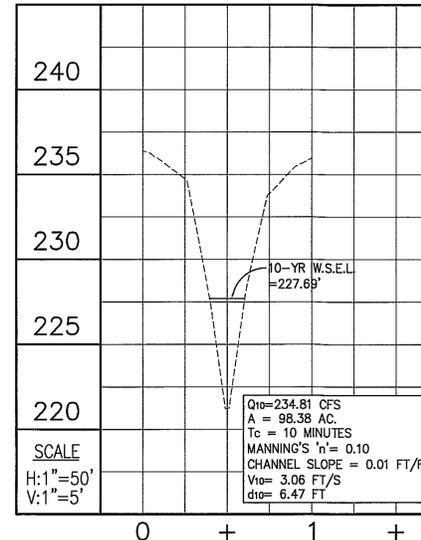
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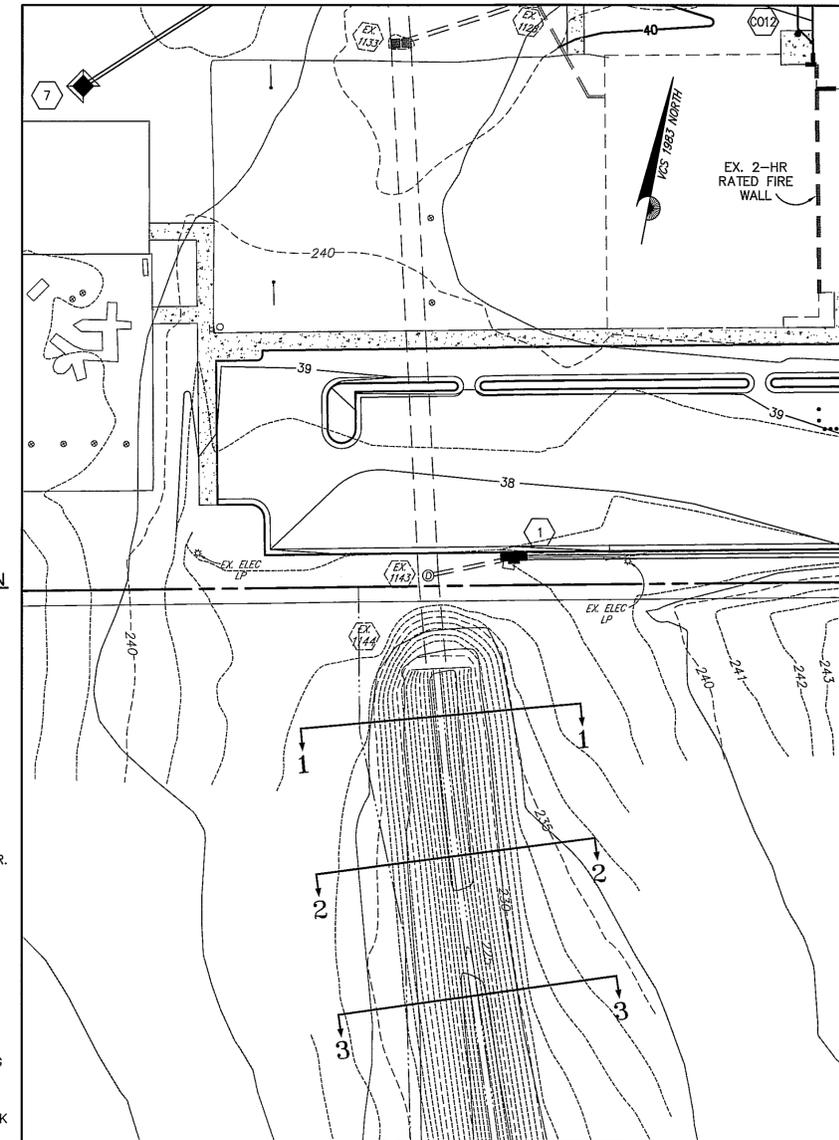
SECTION 1



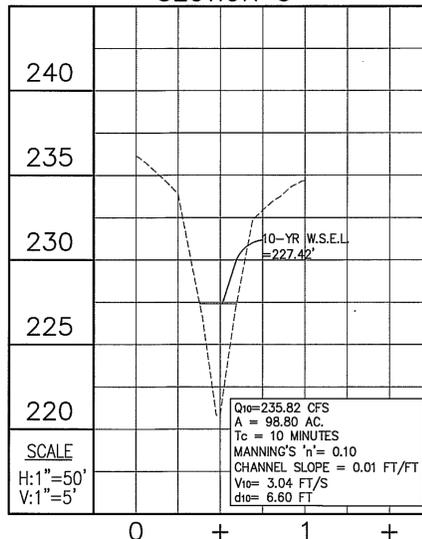
SECTION 2



PLAN VIEW OF CROSS-SECTIONS
SCALE: 1"=30'



SECTION 3



ADEQUATE OUTFALL NARRATIVE AND DESCRIPTION OF EXISTING CONDITIONS

APPROXIMATELY 88.70 ACRES OF OFFSITE DRAINAGE AREA IS CONVEYED THROUGH AN EXISTING 84" DIAMETER CMP STORM SEWER SYSTEM WHICH DRAINS SOUTH CROSSING UNDER OLD KEENE MILL ROAD. THE EXISTING STORM SEWER CONTINUES SOUTH, ONSITE UNDER THE GARFIELD ELEMENTARY SCHOOL PLAYING FIELDS AND PARKING OVERFLOW. THE EXISTING SYSTEM CAPTURES AN ADDITIONAL 1.54 ACRES OF OFFSITE RUNOFF FROM OLD KEENE MILL ROAD, 0.28 ACRES OF OFFSITE RUNOFF FROM PROPERTIES ALONG THE WESTERN PROPERTY LINE, AND ALSO 5.53 ACRES OF ONSITE RUNOFF (POST-DEVELOPMENT). THE POINT AT WHICH THE 84" DIAMETER STORM SEWER SYSTEM LEAVES THE SITE IS AT EXISTING STRUCTURE 1143 (STR. 1143) AND THE TOTAL ONSITE AND OFFSITE DRAINAGE AREA AT THIS POINT IS 96.05 ACRES.

THERE ARE TWO OUTFALLS FOR WHICH IMPROVEMENTS ARE BEING PROPOSED. THE POINT THE IMPROVEMENTS END IS ONSITE AT STRUCTURE 1. ONSITE RUNOFF FROM STRUCTURE 1 DRAINS INTO STR. 1143.

THE RUNOFF CONTINUES SOUTH AND OFFSITE THROUGH THE 84" DIAMETER EXISTING STORM SEWER SYSTEM, WHERE IT OUTFALLS TO AN OPEN DRAINAGE CHANNEL WITHIN THE TRIBUTARY OF ACCOTINK CREEK. CROSS-SECTION DETAILS ARE PROVIDED OF THE EXISTING OPEN CHANNEL EVERY 50 FEET (SEE CROSS SECTION-1 THROUGH CROSS SECTION-3, THIS SHEET) DOWNSTREAM OF STR. 1143. THE COMPUTATIONS FOR THE CROSS-SECTIONS ILLUSTRATE THE RUNOFF FOR THE 10-YEAR STORM IS NON-EROSIVE AND CONTAINED WITHIN THE BANKS OF A MAN-MADE GRASS CHANNEL.

THE RUNOFF CONTINUES SOUTH FOR APPROXIMATELY 1,400 FEET PASSING THROUGH A RESIDENTIAL NEIGHBORHOOD BEFORE REACHING A CULVERT CROSSING AT CALAMO STREET. AFTER RUNOFF FLOWS PAST CALAMO STREET THE OPEN DRAINAGE CHANNEL TURNS WEST AND RUNOFF CONTINUES FOR APPROXIMATELY 4,000 FEET BEFORE REACHING ACCOTINK CREEK. THE POINT RUNOFF REACHES ACCOTINK CREEK THE DRAINAGE AREA IS GREATER THAN ONE SQUARE MILE AND THE DESCRIPTION OF EXISTING CONDITIONS ENDS, PER Z.O.9-011.2(2)(C).

PROPOSED STORM DRAIN DESIGN COMPUTATIONS (DETERMINED FROM LIBRARY PLANS AND OUR SURVEY)

From Struct. #	To Struct. #	Structure Type	Drainage Area (acres)	Runoff C Factor	C * A		Time of Concentration		Flow		Profile											
					Incum. C * A	Accum. C * A	tc To Pipe (min.)	Time In Pipe (min.)	Accum. Time (min.)	Intensity "I" (in./hr.)	Q Incum. (c.f.s.)	Q Accum. (c.f.s.)	Pipe Diameter (inches)	Slope (%)	Manning's "n" Factor	Maximum Q (c.f.s.)	Flow Full Velocity (f.p.s.)	Length (ft.)	Fall (ft.)	Upper Invert	Lower Invert	Top Elev.
EX.1133	EX.1143	EX. YI	0.57	0.56	0.32	48.01	10	10	4.68	1.50	224.69	84"	0.81	0.013	674.96	14.94	189'	1.54'	223.03	221.49	238.98	8.95'

ADEQUATE OUTFALL OF EXISTING 84" PIPE
 ACCUMULATED FLOW IS LESS THAN THE CAPACITY OF THE EXISTING 84" PIPE, THUS THE PIPES ARE ADEQUATE.

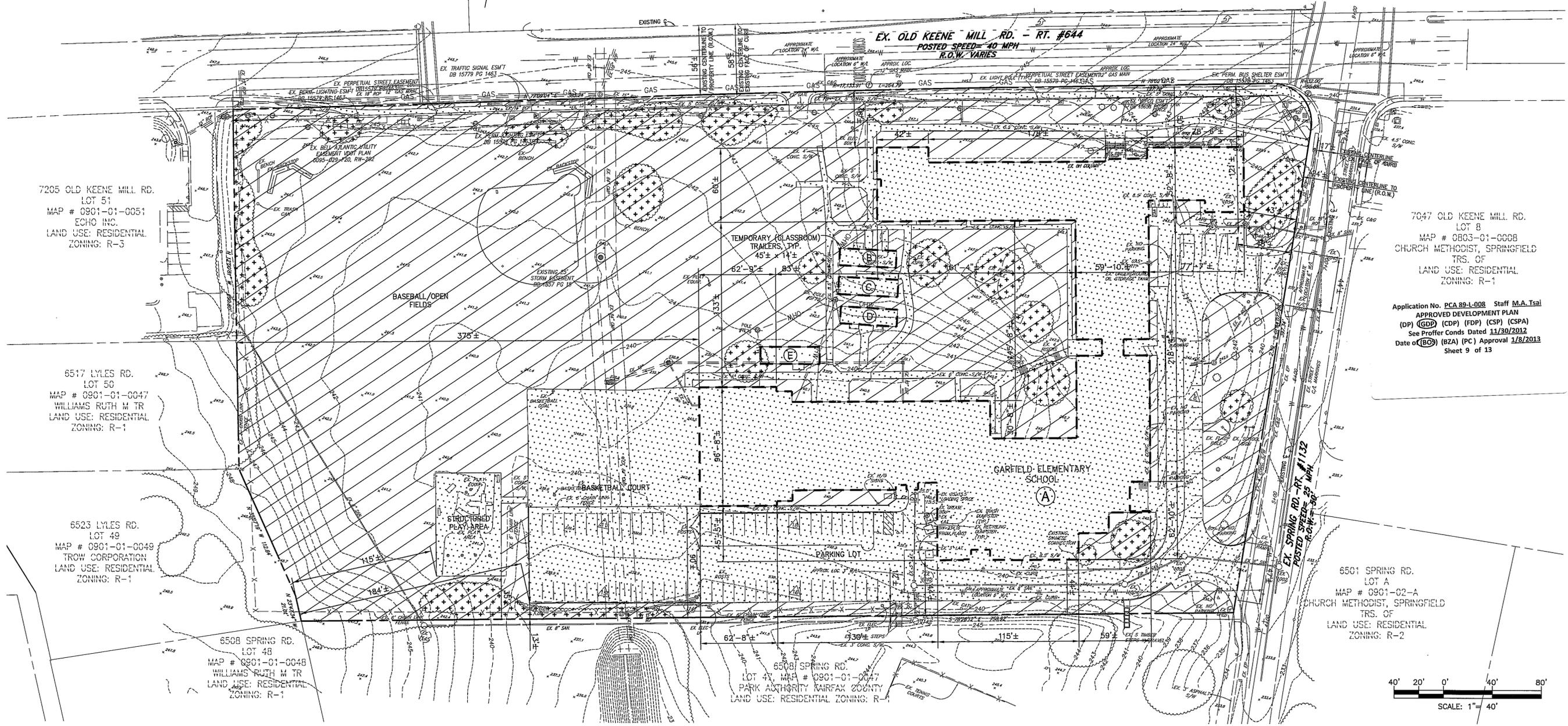
ADEQUATE OUTFALL ANALYSIS
 PCA 89-L-008
**GARFIELD ELEMENTARY SCHOOL
 RENOVATION & EXPANSION**
 LEE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

BC REVISIONS	DESIGNED BY: DDD
8-15-12	DRAFTED BY: CAD
REVISOR	CHECKED BY: PLR
9-24-12	DATE: JUNE 29, 2012
10-5-12	SCALE: HOR. AS NOTED
10-19-12	VERT. AS NOTED
10-25-12	SHEET 8 OF 13
APPLICANT:	CO. NO.
FAIRFAX COUNTY SCHOOL BOARD	CAD NAME: G11518-OUT
8115 GATEHOUSE ROAD	LAYOUT: OUTFALL ANALYSIS
FALLS CHURCH, VA 22042	FILE NO. 11518.01-00

Application No. PCA 89-L-008 Staff M.A. Tsai
 APPROVED DEVELOPMENT PLAN
 (DP) (GDP) (CDP) (FDP) (CSP) (CSPA)
 See Proffer Conds Dated 11/30/2012
 Date of (GDP) (BZA) (PC) Approval 1/8/2013
 sheet 8 of 13

7200 OLD KEENE MILL RD. LOT 4B, MAP # 0803-01-004B
 SPRINGFIELD PLAZA LLC, LAND USE: COMMUNITY RETAIL, ZONING: C-6

6436 SPRINGFIELD PZ, LOT 4A, MAP # 0803-01-004A, SPRINGFIELD PLAZA LLC
 LAND USE: COMMUNITY RETAIL, ZONING: C-6



7205 OLD KEENE MILL RD.
 LOT 51
 MAP # 0901-01-0051
 ECHO INC.
 LAND USE: RESIDENTIAL
 ZONING: R-5

6517 LYLES RD.
 LOT 50
 MAP # 0901-01-0047
 WILLIAMS RUTH M TR
 LAND USE: RESIDENTIAL
 ZONING: R-1

6523 LYLES RD.
 LOT 49
 MAP # 0901-01-0049
 TROW CORPORATION
 LAND USE: RESIDENTIAL
 ZONING: R-1

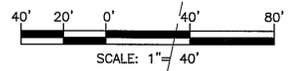
6508 SPRING RD.
 LOT 4B
 MAP # 0901-01-0048
 WILLIAMS RUTH M TR
 LAND USE: RESIDENTIAL
 ZONING: R-1

6508 SPRING RD.
 LOT 4A, MAP # 0901-01-0047
 PARK AUTHORITY FAIRFAX COUNTY
 LAND USE: RESIDENTIAL ZONING: R-1

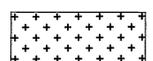
7047 OLD KEENE MILL RD.
 LOT B
 MAP # 0803-01-0008
 CHURCH METHODIST, SPRINGFIELD
 TRS. OF
 LAND USE: RESIDENTIAL
 ZONING: R-1

Application No. PCA 89-1-008 Staff M.A. Tsai
 APPROVED DEVELOPMENT PLAN
 (DP) (GDP) (CDP) (FDP) (CSP) (CSPA)
 See Proffer Conds Dated 11/30/2012
 Date of (BOS) (BZA) (PC) Approval 1/8/2013
 Sheet 9 of 13

6501 SPRING RD.
 LOT A
 MAP # 0901-02-A
 CHURCH METHODIST, SPRINGFIELD
 TRS. OF
 LAND USE: RESIDENTIAL
 ZONING: R-2



EXISTING VEGETATION MAP LEGEND:

-  COVER TYPE 5 (DEVELOPED LAND)
-  COVER TYPE 6 (MAINTAINED GRASSLANDS)
-  COVER TYPE 9 (LANDSCAPED TREE CANOPY)
 THE COVER TYPES LISTED ABOVE ARE DELINEATED WITHIN THIS AREA.

NOTE: COVER TYPE 9 REPRESENTS THE EXISTING PRE-DEVELOPMENT TREE CANOPY OF 22,462 S.F.±

EXISTING VEGETATION MAP SUMMARY AND NARRATIVE:

COVER TYPE NO.	COVER TYPE DESIGNATION	SUCCESSIONAL STAGE	HEALTH AND CONDITION	AREA (Ac.±)	NARRATIVE
5	DEVELOPED LAND	N/A	N/A	3.24	AREAS OF CONSTRUCTED FEATURES INCLUDING BUILDINGS, ASPHALT DRIVE AISLES AND PARKING LOTS, PAVED WALKWAYS AND PAVED PLAY AREAS.
6	MAINTAINED GRASSLANDS	N/A	N/A	4.90	GRASSED AND LANDSCAPED AREAS, ATHLETIC FIELDS OR OTHER GREEN AREAS DEVOID OF NATURAL VEGETATION.
				TOTAL	8.14
9	LANDSCAPED TREE CANOPY	N/A	N/A	0.52*	TREE CANOPY ESTABLISHED THROUGH THE PLANTING OF NURSERY STOCK TREES THAT IS NOT PART OF A NATURAL FOREST COMMUNITY.

* THE LANDSCAPED TREE CANOPY AREA (COVER TYPE 9) OF 0.55 ACRES ± OVERLAPS COVER TYPES 5 AND 6 AND IS INCLUDED IN THE 8.14 ACRES TOTAL REPORTED ABOVE.

EXISTING BUILDING/STRUCTURE INVENTORY:

STRUCTURE	TYPE	HEIGHT	DATE OF CONSTRUCTION	FINAL STATUS
A	2 STORY BRICK BUILDING	24'±	1953	TO BE RETAINED
B	TEMPORARY (CLASSROOM) TRAILER	12'±	UNKNOWN	TO BE REMOVED
C	TEMPORARY (CLASSROOM) TRAILER	12'±	UNKNOWN	TO BE REMOVED
D	TEMPORARY (CLASSROOM) TRAILER	12'±	UNKNOWN	TO BE REMOVED
E	TEMPORARY (CLASSROOM) TRAILER	12'±	UNKNOWN	TO BE REMOVED

EXISTING CONDITIONS AND EXISTING VEGETATION MAP
 PCA 89-1-008

**GARFIELD ELEMENTARY SCHOOL
 RENOVATION & EXPANSION**

LEE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

BC Consultants
 Planners • Engineers • Surveyors • Landscape Architects
 12600 Fair Lakes Circle, Suite 100, Fairfax, VA 22033
 (703)449-8100 (703)449-8108 (Fax)
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BC REVISIONS
 8-15-12 REVISED: 11-7-12
 9-24-12
 10-5-12
 10-19-12
 10-25-12
 APPLICANT: FAIRFAX COUNTY SCHOOL BOARD
 8115 GATHERHOUSE ROAD
 FALLS CHURCH, VA 22042

DESIGNED BY: DDD
 DRAFTED BY: CAD
 CHECKED BY: PLR
 DATE: JUNE 29, 2012
 SCALE: HOR. 1" = 40'
 VERT. N/A

SHEET 9 OF 13

CO. NO.
 CAD NAME: G11518EXT
 LAYOUT: EXISTING
 FILE NO. 11518.01-00

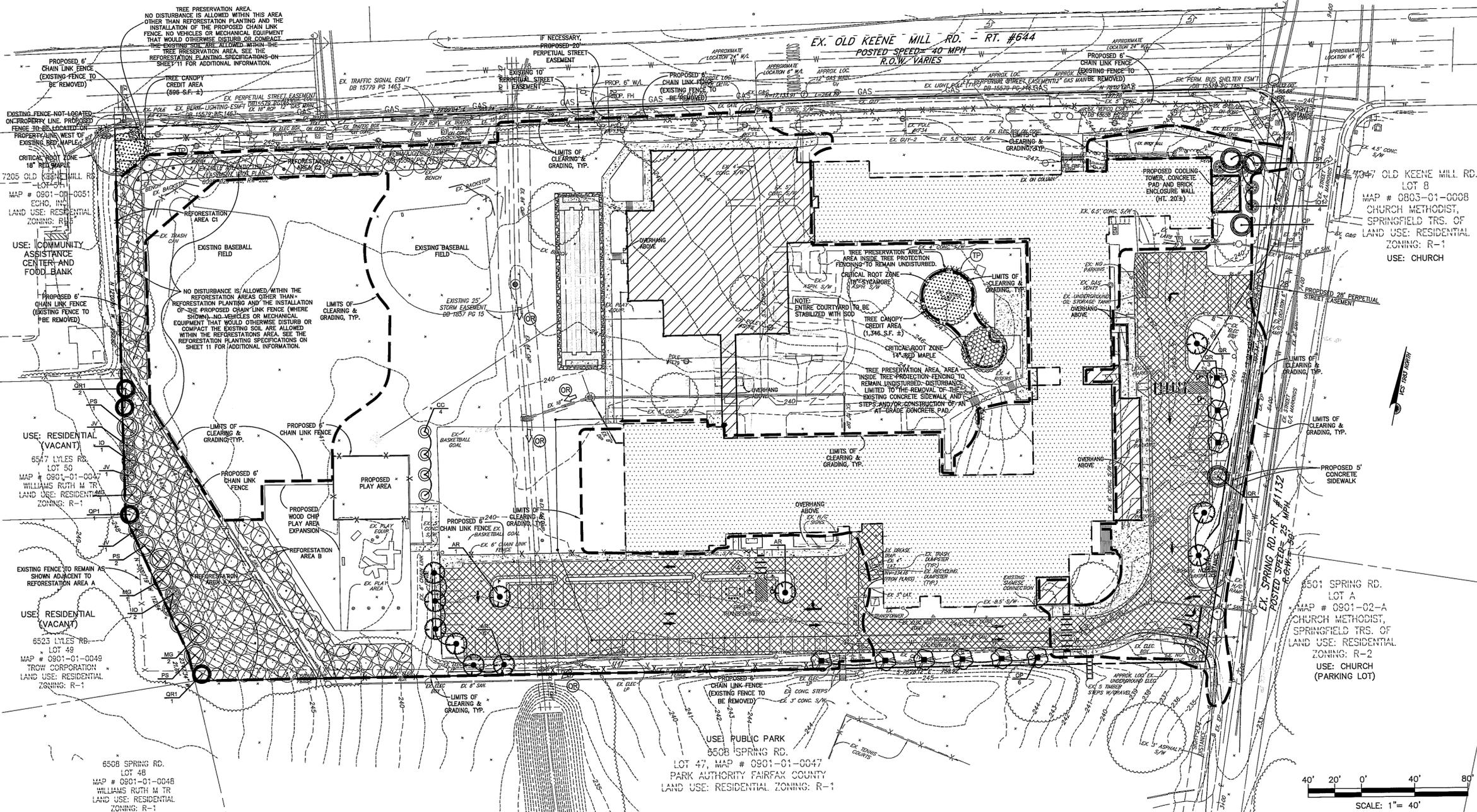
THIS PLAN FOR LANDSCAPING PURPOSES ONLY

7200 OLD KEENE MILL RD.
LOT 4B, MAP # 0803-01-0048
SPRINGFIELD PLAZA LLC,
LAND USE: COMMUNITY RETAIL,
ZONING: C-6

6436 SPRINGFIELD PZ, LOT 4A, MAP # 0803-01-004A,
SPRINGFIELD PLAZA LLC
LAND USE: COMMUNITY RETAIL, ZONING: C-6

USE: LOW RISE OFFICE
(ACROSS OLD KEENE MILL ROAD)

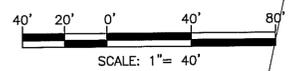
USE: COMMERCIAL SHOPPING CENTER
(ACROSS OLD KEENE MILL ROAD)



- LEGEND:**
- DECIDUOUS REFORESTATION TREES: *
CATEGORY III (1"-2" CAL.)
CATEGORY II (1" CAL.)
 - EVERGREEN REFORESTATION TREES: *
CATEGORY IV (6'-8' HT.)
CATEGORY II (6'-8' HT.)
 - CATEGORY II (1" CAL.)
DECIDUOUS (UNDERSTORY) TREES
 - CATEGORY IV (1" OR 2" CAL.)
DECIDUOUS (OVERSTORY) TREES
 - CATEGORY II (8' HT.)
EVERGREEN (UNDERSTORY) TREES
 - CATEGORY IV (8' HT.)
EVERGREEN (OVERSTORY) TREES
 - CATEGORY IV (2" CAL.)
DECIDUOUS TREES FOR
PERIPHERAL PARKING LOT
LANDSCAPING CREDIT
 - CATEGORY IV DECIDUOUS TREES
(2" CAL.) FOR INTERIOR PARKING
LOT LANDSCAPING CREDIT
 - TP
XXX TREE PROTECTION
FENCING
 - EXISTING TREELINE
 - PROPOSED TREELINE
 - LIMITS OF CLEARING
AND GRADING
 - POST DEVELOPMENT TREE
CANOPY CREDIT AREA
(1,942 s.f.)
 - POST DEVELOPMENT TREE
CANOPY NON-CREDIT
AREA (NO TREE CANOPY
CREDIT TAKEN)
 - REFORESTATION AREA
 - INTERIOR PARKING LOT
AREA (42,855 s.f.)
 - EXISTING BUILDING
 - PROPOSED BUILDING
EXPANSION

* SEE THE REFORESTATION AREA PLANT LIST ON SHEET 11 FOR ADDITIONAL INFORMATION.

NOTE: SEE SHEET 9 FOR THE EXISTING PRE-DEVELOPMENT TREE CANOPY.



TRANSITIONAL SCREENING AND BARRIER SUMMARY:

EXISTING USE (SITE): ELEMENTARY SCHOOL (LAND USE 4, COMMUNITY USES (GROUP 4)).

NORTHERN BOUNDARY (ACROSS OLD KEENE MILL ROAD):
NO TRANSITIONAL SCREENING OR BARRIERS ARE REQUIRED. ADJACENT USES (ACROSS OLD KEENE MILL ROAD) ARE LOW RISE OFFICE (LAND USE 8, OFFICES) AND COMMERCIAL SHOPPING CENTER (LAND USE 9, RETAIL SALE ESTABLISHMENT-LARGE).

EASTERN BOUNDARY (ACROSS SPRING ROAD):
NO TRANSITIONAL SCREENING OR BARRIERS ARE REQUIRED. ADJACENT USE (ACROSS SPRING ROAD) IS A CHURCH (LAND USE 4, CHURCH, et al.).

SOUTHERN BOUNDARY:
NO TRANSITIONAL SCREENING OR BARRIERS ARE REQUIRED. ADJACENT USE IS FAIRFAX COUNTY PARK AUTHORITY OWNED SPRINGVALE PARK (LAND USE 12, QUASI-PUBLIC USES (CATEGORY 3)).

WESTERN BOUNDARY:

TYPE ONE (1) TRANSITIONAL SCREENING AND A TYPE D, E OR F BARRIER IS REQUIRED ADJACENT TO TAX MAP # 90-1 ((1)), PARCEL 51A. ADJACENT USE IS A COMMUNITY ASSISTANCE CENTER/FOOD BANK ZONED R-3 (LAND USE 4, COMMUNITY USES (GROUP 4)).

IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 13 SECTION 13-305 PARAGRAPH 14 OF THE FAIRFAX COUNTY ZONING ORDINANCE, A MODIFICATION TO USE A PROPOSED REFORESTATION AREA (AREA 'C1') AS SHOWN ON THE PLAN HAS BEEN REQUESTED IN LIEU OF THE REQUIRED TRANSITIONAL SCREENING. REFER TO THE TRANSITIONAL SCREENING CALCULATIONS AT WESTERN PROPERTY LINES SHOWN ON SHEET 11.

A MODIFICATION OF THE LOCATION OF THE REQUIRED BARRIER HAS BEEN REQUESTED TO THE LOCATION OF THE PROPOSED SIX (6) FEET CHAIN LINK FENCE WHERE SHOWN ON THE PLAN ON THE WESTERN PROPERTY LINE.

TYPE ONE (1) TRANSITIONAL SCREENING AND A TYPE D, E OR F BARRIER IS REQUIRED ADJACENT TO TAX MAP # 90-1 ((1)), PARCEL 47 AND TAX MAP # 90-1 ((1)), PARCEL 49. ADJACENT USE IS (VACANT) RESIDENTIAL LAND ZONED R-1 (LAND USE 1, DWELLING (DETACHED)).

IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 13 SECTION 13-305 PARAGRAPH 14 OF THE FAIRFAX COUNTY ZONING ORDINANCE, A MODIFICATION TO USE A PROPOSED REFORESTATION AREA (AREA 'A') AND THE PROPOSED SUPPLEMENTAL EVERGREEN AND DECIDUOUS TREES AS SHOWN ON THE PLAN HAS BEEN REQUESTED IN LIEU OF THE REQUIRED TRANSITIONAL SCREENING. REFER TO THE TRANSITIONAL SCREENING CALCULATIONS AT SOUTHWEST PROPERTY LINES SHOWN ON SHEET 11.

A MODIFICATION OF THE LOCATION OF THE REQUIRED BARRIER HAS BEEN REQUESTED TO THE LOCATION OF THE PROPOSED SIX (6) FEET CHAIN LINK FENCE WHERE SHOWN ON THE PLAN ON THE EAST SIDE OF REFORESTATION AREA 'A'.

NOTE: THE INFORMATION SHOWN ON THIS GENERALIZED DEVELOPMENT PLAN (GDP) IS IN AGREEMENT WITH MINOR SITE PLAN (9599-MSP-002) PREVIOUSLY SUBMITTED TO THE FAIRFAX COUNTY DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWS). 9599-MSP-002 IS BEING REVIEWED CONCURRENT WITH THIS PROFFERED CONDITION PLAN AMENDMENT APPLICATION. REVISIONS TO THIS GDP MAY BE PERMITTED AS DIRECTED AND APPROVED BY DPWS PROVIDED THAT ANY REVISIONS MADE ARE IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 18, PART 2, SECTION 204, PARAGRAPH 5 OF THE FAIRFAX COUNTY ZONING ORDINANCE.

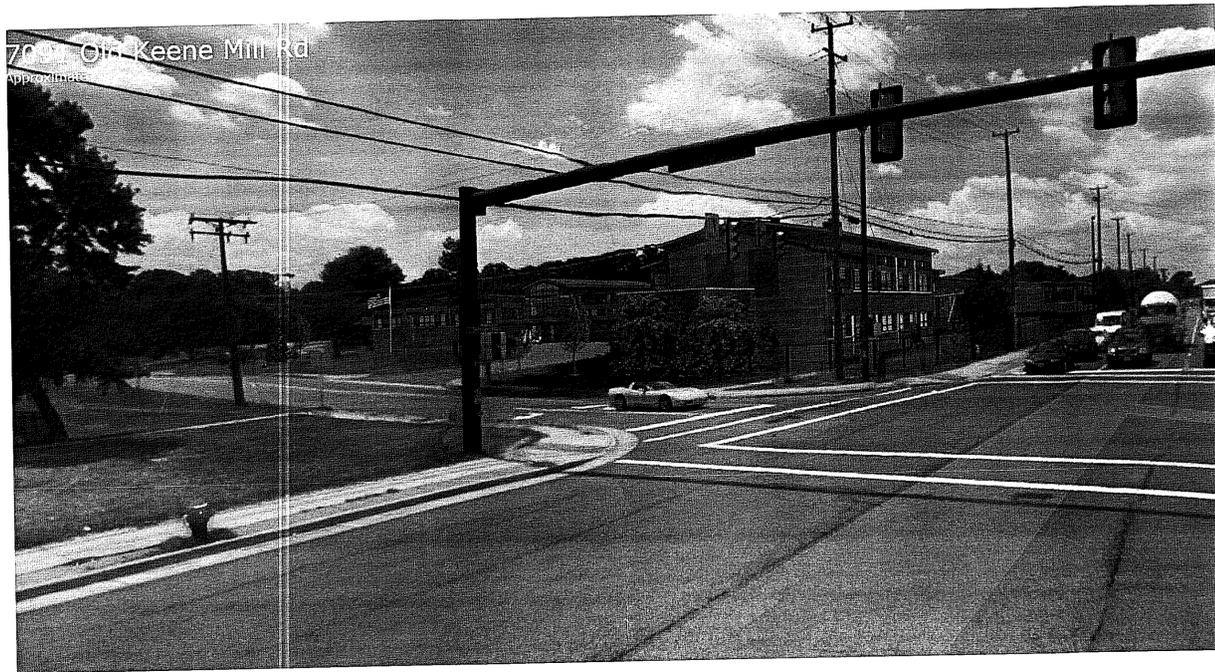
Application No. **PCA 89-L-008** Staff **M.A. Tsai**
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP) (CSP) (CSPA)
See Proffer Conds Dated **11/30/2012**
Date of (BO) (BZA) (PC) Approval **1/8/2013**
Sheet 10 of 13

BC Consultants
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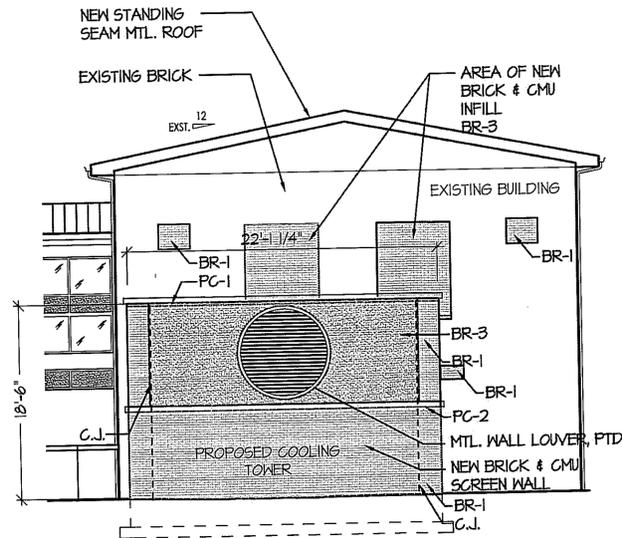


LANDSCAPE PLAN
PCA 89-L-008
GARFIELD ELEMENTARY SCHOOL
RENOVATION & EXPANSION
LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

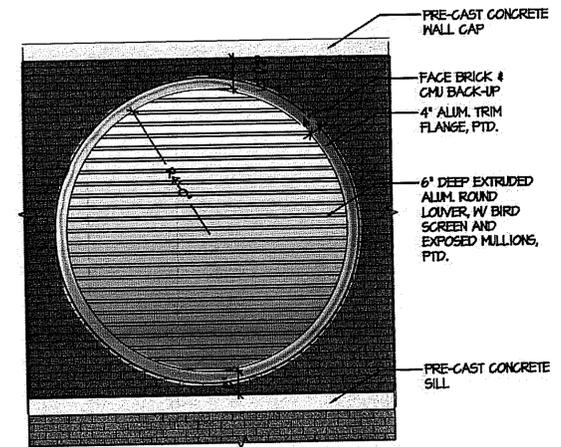
BC REVISIONS	REVISIONS
8-15-12	REVISIONS: 11-7-12
9-24-12	REVISIONS: 9-24-12
10-5-12	REVISIONS: 10-5-12
10-19-12	REVISIONS: 10-19-12
10-25-12	REVISIONS: 10-25-12
APPLICANT: FAIRFAX COUNTY SCHOOL BOARD	
1515 PALM BLVD, SUITE 200	
FALLS CHURCH, VA 22042	
DESIGNED BY: DDD	
DRAFTED BY: CAD	
CHECKED BY: PLR	
DATE: JUNE 29, 2012	
SCALE: HOR. 1" = 40'	
VERT. N/A	
SHEET 10 OF 13	
CO. NO.	
CAD NAME: G11518-LSC	
LAYOUT: LSC	
FILE NO. 11518.01-00	



1 PERSPECTIVE ELEVATION - OLD KEENE MILL ROAD AND SPRING ROAD
12 NO SCALE

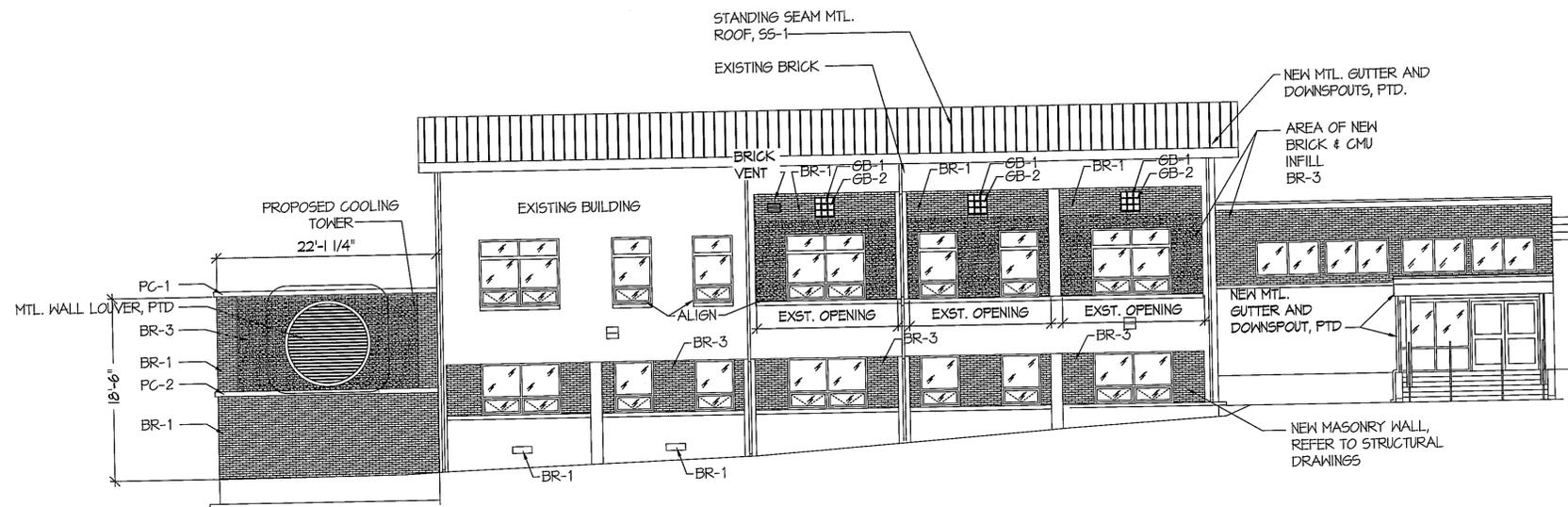


2 COOLING TOWER - EAST ELEVATION
12 NO SCALE
NOTE: PROPOSED BUILDING MATERIALS TO MATCH EXISTING CONSTRUCTION



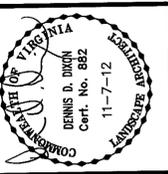
3 COOLING TOWER - LOUVER DETAIL
12 NO SCALE

EXTERIOR MATERIAL SCHEDULE						
NO.	MATERIAL	COLOR	DIMENSIONS	MANUFACTURER	NAME	REMARKS
BR-1	BRICK	RED	2-1/4 x 3-5/8 x 7-5/8	BELDEN BRICK	MODULAR BELCREST	760A / 700 (80% / 20%) USED ON NEWER PORTIONS OF EXISTING BUILDING FOR AREAS OF INFILL
BR-2	BRICK	RED	2-1/4 x 3-5/8 x 7-5/8	LAWRENCEVILLE BRICK	FARMINGTON	4-302 USED ON OLDER PORTIONS OF EXISTING BUILDING FOR AREAS OF INFILL
BR-3	BRICK	BLACK	2-1/4 x 3-5/8 x 7-5/8	BELDEN BRICK	FBX BLACK DIAMOND VELOUR	--- USED EXISTING BUILDING FOR AREAS OF INFILL AND NEW ADDITIONS
GB-1	GLAZED BRICK	LIGHT BLUE	7-5/8 x 3-5/8 x 7-5/8	ELGIN BUTLER	GLOSSY BLUEBONNETT	4039 USED ON DETAIL ABOVE WINDOWS
GB-2	GLAZED BRICK	DARK BLUE	7-5/8 x 3-5/8 x 7-5/8	ELGIN BUTLER	DYNAMIC BLUE	4580 USED ON DETAIL ABOVE WINDOWS
PC-1	PRE-CAST CONC.	TAN	5x3-5/8x24	---	---	--- NEW WINDOW SILL
PC-2	PRE-CAST CONC.	TAN	5x3-5/8x60	---	---	--- 1/4" SOLARCOOL GREY #2, 1/2" AIR, 1/4" SUNGATE 500 ANN LAMI .060 PVB
GL-1	GLASS	---	---	VITRO AMERICA, LLC	ENERGY GLAZE DUAL SEALED INSUL.	---
SS-1	STANDING SEAM METAL ROOFING	BLUE	---	PAC CLAD	BERKSHIRE BLUE	---
---	WINDOW FRAME / EXTERIOR DOORS	SANDSTONE	---	---	---	---



4 COOLING TOWER - NORTH ELEVATION
12 NO SCALE
NOTE: PROPOSED BUILDING MATERIALS TO MATCH EXISTING CONSTRUCTION

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COOLING TOWER ELEVATIONS AND DETAILS
PCA 89-L-008
GARFIELD ELEMENTARY SCHOOL
RENOVATION & EXPANSION
LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

IBC REVISIONS
SHEET ADDED 10-19-12
REVISED 10-25-12
REVISED 11-7-12
APPLICANT:
FAIRFAX COUNTY SCHOOL BOARD
8115 GATHERHOUSE ROAD
FALLS CHURCH, VA 22042

Application No. PCA 89-L-008 Staff M.A. Tsai
APPROVED DEVELOPMENT PLAN
(DP) (GDP) (CDP) (FDP) (CSP) (CSPA)
See Proffer Conds. Dated 11/30/2012
Date of (BOS) (BZA) (PC) Approval 1/9/2013
Sheet 12 of 13

DESIGNED BY: DDD
DRAFTED BY: CAD
CHECKED BY: PLR
DATE: JUNE 29, 2012
SCALE: HOR. N/A
VERT. N/A
SHEET 12 OF 13
CO. NO.
CAD NAME: G11518BELEV
LAYOUT: ELEVATION
FILE NO. 11518.01-00

