REBUILDING
A LEGACY OF RESILIENCE

CODE 2
DESIGN PHASE
REPORT
AUGUST 2025

Rewiewed Date: 8/25/2025

EMANUEL BENJAMIN OLIVER PK-8 SCHOOL

[CODE 2] ST. THOMAS, U.S. VIRGIN ISLANDS

SUFFOLK CBNA AMERICARIBE ZYSCOVICH

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1.0 INTRODUCTION

A. PURPOSE

This report provides a basis for understanding project development history, requirements tabulation, and conceptual execution strategy for the proposed replacement of the Emanuel Benjamin Oliver PK-8 School in St. Thomas, U.S. Virgin Islands. Active involvement by the user during all phases of project development, design, and construction is essential to ensure the facility meets all Virgin Islands Department of Education (VIDE) criteria, functional and master plan requirements. The following design assumptions were used to establish a basis for the programming cost estimate only. The design assumptions are not intended to be prescriptive and are included to provide confirmation of the program site and serve as the basis for the cost estimate confirmation.

B. GOALS AND OBJECTIVES

The goal of VIDE is to design schools to meet 21st century learning objectives to include innovation in education, curriculum delivery, use of technology, and the requirements for resiliency, sustainability, and energy conservation. VIDE requires schools of the future to be flexible and adaptable, allowing adjustments to new and innovative ways to deliver instruction and meet the needs of all students. A focus on quality, resiliency, and value must be maintained throughout the project including design and construction. The ultimate objectives for VIDE in partnership with the Virgin Islands Office of Disaster Recovery within the Virgin Islands Public Finance Authority, are to deliver the project on time, within available funds, and in a safe manner that satisfies the needs of students, faculty, and families of the territory.

C. SUMMARY

In the process of meeting the goals and objectives defined above and below with VIDE's mission and vision, the PDT were able to accomplish the following tasks so as to move this important project forward:

- ✓ Program + Scope Confirmation
- ✓ Site Horizontal Control Confirmation
- ✓ Plan Horizontal Control Confirmation
- ✓ Aesthetic Approach Confirmation

VIDE Mission Statement

The Virgin Islands Department of Education (VIDE) provides a safe and nurturing environment, high quality instruction, and continuous support so ALL students succeed in college and careers as citizens in a globally diverse world.

VIDE Vision

The VIDE embraces ALL students and empowers them to achieve their fullest potential.

2.0 BACKGROUND

A. EXISTING FACILITY

Emanuel Benjamin Oliver PK-8 School is not operational due to sustained damage. It's intended location is the former site of the EB Oliver Elementary School located in St. Thomas, US Virgin Islands. The original academic buildings were constructed in 1962 and have not been functioning for over seven years. Due to its being out of use, there is no current Space Curricula Alignment Indicator (SCAI) measuring the ability to be a community resource, stimulating architecture, safe and secure supervision and security, learning environments that connects flexibility and comfort and health.

The findings of the PDT (Planning Design Team) are consistent with this recommendation based on site observation for the entire facility to be demolished. The planned new facility will allow for the intended development of a new Educational Pre-K to 8th grade configuration and to deliver a project-based 21st Century curriculum.

As outlined above, the total area of the existing permanent facilities is approximately 58,000 SF.

The total area of the existing relocatable / temporary facilities is approximately 0 SF.

The following permanent buildings are recommended to remain: No existing facilities (0 SF).

Existing School Site Aerial

VIDE Public Schools: Modernization / Expansion Projects on the Islands
St. Thomas – **Emanuel Benjamin Oliver PreK-8 School** - Replacement

Responses

Erika Gulick *April 1, 2025 at 7:43 PM*	The general area identified by Suffolk within Parcel A is intended to be redeveloped as part of this project. Surveys should be conducted and any easement information, deeds, project boundary, legal descriptions and ownership should be confirmed by a registered land surveyor through Suffolk-CBNA with the Government of the Virgin Islands, including the Department of Property and Procurement, as soon as possible as part of its pre-construction services.	**Attachments** --

PARCEL LEGEND

A
Property I 105604031600
Address 148-325 ANNAS RETREAT NEW QTR
Owner GOVERNMENT OF THE V.I.
Address 8100 Lindbergh Bay 61
St Thomas VI 00802

B
Property ID 105604030200
Address 6A ESTATE ANNAS RETREAT NEW
QUARTEROwner GOVERNMENT OF THE V.I.
Address 8100 Lindbergh Bay 61
St Thomas VI 00802

C
Property ID 105604036400
Address 148-324A ANNAS RETREAT NEW QTR.
Owner GOVERNMENT OF THE V.I.
Address 8100 Lindbergh Bay 61
St Thomas VI 00802

D
Property ID 105604026300
Address 148-324 ANNAS RETREAT NEW QTR.
Owner RIZZOLO BART
Address 3140 S BRONCO ST ,
LAS VEGAS NV 89146

E
Property ID 105603013800
Address 27 ESTATE CHARLOTTE AMALIE
NO.3 NEW QTR
Owner HARTHMAN LEASING II LLLP
Address PO BOX 503330 , ST. THOMAS VI 00805

F
Property ID 105604031200
Address 5A ANNAS RETREAT NEW QTR
Owner STEELE ANNA'S RETREAT LLC
Address 4026 Annas Retreat , St Thomas VI 00802

G
Property ID 105604031400
Address ANNAS RETREAT 2&2H No.1 NEW QTR.
Owner Professional Des and 2-H & Rem 2
Address PO Box 304062 , St Thomas VI 00803

H
Property ID 105604031500
Address EST. ANNAS RETREAT 6-1 NEW QTR.
Owner EMMANUEL BAPTIST CHURCH INC
Address P.O.BOX 3539 , ST THOMAS VI 00801

I
Property ID 105604030100
Address ANNAS RETREAT 6-2 NEW QTR
Owner EMMANUEL BAPTIST CHURCH INC
Address P.O.BOX 3539 , ST THOMAS VI 00801

J
Property ID 105604023800
Address 148-297 ANNA'S RETREAT NEW QTR
Owner ABRAHAM OSWIN & M. A
Address PO Box 502811 , St Thomas VI 00805

K
Property ID 105604025000
Address ANNAS RETREAT 148-259 NEW QTR
Owner MINERVA V BERNIER AND
ELLEN A DANIEL
Address 701 MC GLAUGHLIN RD ,
FAIRFIELD PA 17320

SITE CONFIRMED

See additional meeting notes in blue.

PARCEL INFORMATION: https://usvi.mapgeo.io/datasets/stt-properties?abuttersDistance=120&latlng=18.344529%2C-64.936122&previewId=105302250700&zoom=19

3.0 REQUIREMENT / PROGRAM TABULATION

A. REQUIREMENT / AUTHORIZATIONS TABULATION

The proposed replacement of the Oliver PK-8 School has a projected population of 487 students Specifications for the spaces planned. The school is authorized to include a range from 68,500 to 73,900 gross square feet (GSF) with exterior covered areas. The intent for the re-programming of the facility is to: 1) accommodate the change to a PK-8 educational model; and 2) bring the facilities in alignment with VIDE's curriculum delivery requirements for 21st Century project-based learning and teaching pedagogy.

For the purpose of evaluating programming requirements, a model PK-8 program (1,070 Student Stations) was developed and provided by VIDE for determining the standards by which the programming shall be based for the planned curriculum delivery. This model was adapted, as demonstrated below, to be specific to the school facilities' capabilities and determine a new final capacity. All modifications are denoted for clarity in developing the final approved program. Please see detailed program included herein.

US VIRGIN ISLANDS

OLIVER PK-8 PROGRAM ANALYSIS

U.S. Virgin Islands PK-8 Planning Program	eline	Revised 10/25/2023	1,070 Target Capacity	Revised 7/21/2025	469 Target Capacity
		DESIGN PARAMETERS		PROGRAM WITH REDUCED STUDENT STATIONS	
Program Area Summary					
1.0 Administration		6,650	0	5,075	0
2.0 Core Academic		64,925	1,086	20,060	397
3.0 Elective Spaces		6,825	155	3,200	60
4.0 Media Center		5,250	0	4,200	0
5.0 SPED Services					0
6.0 Food Service		12,125	0	7,925	0
7.0 Physical Education		18,100	30	12,500	30
8.0 Building Support		1,775	0	1,775	0
Total Useable Area (Net Square Feet- NSF):	#REF!	115,650	1,271	54,735	487
General Building Area: Walls, Partitions, Mech. Elec., Circula #REF! *Based on industry standards that include outdoor circulation	25% of Net SF	28,913		13,684 25%	
Total Building Area (Gross Square Feet- GSF):	#REF!	144,563		68,419 140 (1,437.50) -2.0% -1,075 (SF BELOW 69,794)	
*Additional Covered Outdoor Learning Spaces	10% of Net SF	11,565	10%	10% 5,474	
TOTAL BUILDING AREA WITH OUTDOOR LEARNING		156,128	STUDENT STATIONS 1,271	73,892	STUDENT STATIONS 487

Note: Final facility area will be per the facility design.

The final program area will be updated with the next phase of design development.

US VIRGIN ISLANDS

OLIVER PK-8 PROGRAM ANALYSIS

U.S. Virgin Islands PK-8 Planning Program *eline* *Revised 10/25/2023* *1,070 Target Capacity*

DESIGN PARAMETERS

Revised 7/21/2025 *469 Target Capacity*

PROGRAM WITH REDUCED STUDENT STATIONS

	Program Area Summary																			
												Delta						Delta		
1.0	Administration				6,650		0		5,075			5,075	#DIV/0!		0		0			
2.0	Core Academic				64,925		1,086		20,060			20,060	#DIV/0!		397		397			
3.0	Elective Spaces				6,825		155		3,200			3,200	#DIV/0!		60		60			
4.0	Media Center				5,250		0		4,200			4,200	#DIV/0!		0		0			
5.0	SPED Services								0			0	#DIV/0!		0		0			
6.0	Food Service				12,125		0		7,925			7,925	#DIV/0!		0		0			
7.0	Physical Education				18,100		30		12,500			12,500	#DIV/0!		30		30			
8.0	Building Support				1,775		0		1,775			1,775	#DIV/0!		0		0			
	Total Useable Area (Net Square Feet- NSF):	*#REF!*			*115,650*		1,271	(12,350.00)	*54,735*			54,735	#DIV/0!		487		487			
	General Building Area: Walls, Partitions, Mech. Elec., Circula	*#REF!*		*25% of Net SF*	*28,913*				*13,684*		*25%*	13,684	#DIV/0!							
	*Based on Industry standards that include outdoor circulation																			
	Total Building Area (Gross Square Feet- GSF):	*#REF!*			*144,563*			(15,437.50)	*68,419*		*140*	68,419	#DIV/0!							
								-2.0%	*-1,375*	*(SF BELOW 69,794)*										
	Additional Covered Outdoor Learning Spaces			*10% of Net SF*	*11,565*	10%		*10%*	*5,474*											
	TOTAL BUILDING AREA WITH OUTDOOR LEARNING				156,128	STUDENT STATIONS	1,271		73,892			73,892	#DIV/0!	STUDENT STATIONS	487		487	##		
														(S.S. ABOVE 469)	*18*					

BASE PROGRAM

CODE 3 CHARRETTE - CONFIRMED PROGRAM *(VIDE REDUCED PROGRAM 6/26/2025)*

Base Program	ning Pro	RFP - Planning Program			Functional Capacity			RFP Planning Program				Actual Capacity				
Description of Program, Department, or Unit	Total Area (nsf) Requir ement	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	Delta	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	Delta	NOTES
1.0 Administration				**6,650** 5.8%						**5,075** 9.3%	-1,575 #DIV/0!			**0**	0	
1.1 Administration Offices																
Main School Lobby		1	350	350				1	225	225	-125 -35.71%				#VALUE!	This includes safe & secure vestibule. - *Reduction accepted.*
Toilet		1	75	75				1	75	75	0 0.00%				#VALUE!	This includes safe & secure vestibule
Secure Vestibule								0	0	0	0 #DIV/0!				0	
Reception/Office		1	750	750				1	500	500	-250 -33.33%				#VALUE!	*Reduction accepted.*
Secretary/Bookeeper Office								1	0	0	0 #DIV/0!				0	
Principal Office		1	175	175				1	175	175	0 0.00%				0	
Toilet		1	75	75				1	75	75	0 0.00%				#VALUE!	This includes safe & secure vestibule
Assistant Principal Office		2	150	300				2	150	300	0 0.00%				#VALUE!	*Reduction not accepted.*
Conference Room		1	200	200				1	200	200	0 0.00%				0	
Staff Work/Mail		1	375	375				1	375	375	0 0.00%				0	
Faculty Lounge		1	375	375				1	375	375	0 0.00%				0	
SRO Office		1	150	150				1	150	150	0 0.00%				0	
Monitors' Office		1	150	150				1	150	150	0 0.00%				0	
Staff Toilet		1	75	75				1	75	75	0 0.00%				0	
Mother's Room		1	75	75				1	75	75	0 0.00%				0	
Office Supply Storage		1	75	75				1	75	75	0 0.00%				0	
Parent Center (Phone Rooms?)		1	325	325				1	150	150	-175 -53.85%				#VALUE!	*Reduction accepted.*
IT/AV		1	50	50				1	50	50	0 0.00%				0	
Storage		1	50	50				1	50	50	0 0.00%				0	
Mechanical		1	275	275				1	150	150	-125 -45.45%				0	
Subtotal				3,900			0			3,225	-675 #DIV/0!			0	#VALUE!	
1.2 Student Services																
Reception/Guidance Clerk		1	200	200				1	125	125	-75 -37.50%				#VALUE!	*Reduction accepted.*
Counselor's Office		2	150	300				2	125	250	-50 -16.67%				#VALUE!	*Reduction accepted.*
Registrar's Office		1	150	150				1	125	125	-25 -16.67%				#VALUE!	*Reduction accepted.*
Time-Out/Tardy Room		2	375	750				1	150	150	-600 -80.00%				#VALUE!	*Reduction accepted.*
Speech Therapy		1	250	250				1	250	250	0 0.00%				0	
Records Room		1	125	125				1	125	125	0 0.00%				0	
Conference Room		1	200	200				1	150	150	-50 -25.00%				#VALUE!	*Reduction accepted.*
Staff Toilet		1	75	75				1	75	75	0 0.00%				0	
Subtotal				2,050			0			1,250	-800 #DIV/0!			0	#VALUE!	
1.3 Health Clinic																
Exam/Cot		1	300	300				1	100	100	-200 -66.67%				#VALUE!	*Reduction accepted.*
Office		1	125	125				1	125	125	0 0.00%				0	
Infirmary		1	175	175				1	275	275	100 57.14%				#VALUE!	*Increase accepted - to be confirmed in design.*
Toilet		1	100	100				1	100	100	0 0.00%				#VALUE!	Include shower - ADA
Subtotal				700			0			600	-100 #DIV/0!			0	#VALUE!	

U.S. Virgin Islands PK-8 Program of Spaces

BASE PROGRAM

CODE 3 CHARRETTE - CONFIRMED PROGRAM *(VIDE REDUCED PROGRAM 6/26/2025)*

Base Program	ning Pro	RFP - Planning Program			Functional Capacity			RFP Planning Program				Actual Capacity				
Description of Program, Department, or Unit	Total Area (nsf) Requirement	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	Delta	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	Delta	NOTES
2.0 Core Academic				**64,925**						**20,060**	**-44,865**			**397**	**#VALUE!**	
2.1 Pre-K Core Academic																
SMALL LEARNING COMMUNITY																
Pre-K Learning Suite--Classroom w/RR		**2**	**1,200**	**2,400**	2	17	34	0	1,200	**0**	-2,400	-100.00%	0	17	0	#VALUE!	*Combined in SLC.*
Multipurpose/Gross Motor		**1**	**1,700**	**1,700**				0	1,700	**0**	-1,700	-100.00%				#VALUE!	*Removed gross motor skills dedicated space for PK - Combined with SLC.*
Toilet		**1**	**50**	**50**				0	50	**0**	-50	-100.00%				#VALUE!	*Restroom per room accepted.*
Teacher Planning		**1**	**350**	**350**				0	200	**0**	-350	-100.00%				#VALUE!	*Reduction / removal accepted with number of staff.*
Toilet		**1**	**50**	**50**				0	50	**0**	-50	-100.00%				0	
Storage		**1**	**75**	**75**				0	75	**0**	-75	-100.00%				0	
IT/AV		**1**	**75**	**75**				0	75	**0**	-75	-100.00%				0	
Mechanical		**1**	**275**	**275**				0	150	**0**	-275	-100.00%				#VALUE!	*Reduction accepted - confirm in design.*
Outdoor Learning Space								0		**0**	0	#DIV/0!				0	
Subtotal				**4,975**			**34**			**0**	-4,975	#DIV/0!			**0**	#VALUE!	
2.2 Elementary Core Academic																
SMALL LEARNING COMMUNITY																
Learning Suite 1-- Classroom w/RR (Pre-K)								1	1,200	**1,200**	1,200	#DIV/0!	1	17	17	#VALUE!	*Classrooms to be standard size in parity with territory PK-8 classrooms. Reduced to 1.*
Learning Suite 1-- Classroom w/RR (Kinder)		**1**	**1,200**	**1,200**	1	25	25	1	1,200	**1,200**	0	0.00%	1	25	25	#VALUE!	*Classrooms to be standard size in parity with territory PK-8 classrooms. Reduced to 1.*
Learning Suite 1-- Classroom (1st-5th)		**5**	**850**	**4,250**	5	30	150	5	850	**4,250**	0	0.00%	5	30	150	#VALUE!	*Classrooms to be standard size in parity with territory PK-8 classrooms. (Added 1 Flex to stack.)*
Open Collaboration Space		**2**	**1,200**	**2,400**				1	1,200	**1,200**	-1,200	-50.00%				#VALUE!	*Standard size in parity with territory PK-8 grade level programs.*
Small Group Instruction		**2**	**125**	**250**				1	-125	**-125**	-375	-150.00%				#VALUE!	*Reduction accepted.*
Distance Learning		**1**	**125**	**125**				1	125	**125**	0	0.00%				0	
Teacher Planning *(Future Classroom Expansion)*		**1**	**500**	**500**				1	850	**850**	350	70.00%				#VALUE!	*Standardized with the classroom size for flexibility in future.*
Toilet		**1**	**50**	**50**				2	50	**100**	50	100.00%				0	
Office		**1**	**75**	**75**				1	75	**75**	0	0.00%				0	
Student Restrooms		**2**	**250**	**500**				2	150	**300**	-200	-40.00%				#VALUE!	*Reduction accepted.*
Toilet		**1**	**75**	**75**				0	75	**0**	-75	-100.00%				0	
Custodial		**1**	**75**	**75**				1	75	**75**	0	0.00%				0	
Storage		**1**	**325**	**325**				1	150	**150**	-175	-53.85%				#VALUE!	*Reduction accepted.*
MEP/IT		**1**	**325**	**325**				1	200	**200**	-125	-38.46%				#VALUE!	*Reduction accepted.*
Shared Outdoor Learning Space #1								0	0	**0**	0	#DIV/0!				0	
DEDUCT ALTERNATE																0	
SMALL LEARNING COMMUNITY																	
Learning Suite 2-- Classroom w/RR (SPED)		**1**	**1,200**	**1,200**	1	25	25	0	1,200	**0**	-1,200	-100.00%	0	25	0	#VALUE!	*Footprint entitlement approval only.*
Storage		**1**	**125**	**125**				0	125	**0**	-125	-100.00%				#VALUE!	*Footprint entitlement approval only.*
Learning Suite 2-- Classroom (1st-5th)		**5**	**850**	**4,250**	5	30	150	0	850	**0**	-4,250	-100.00%	0	30	0	#VALUE!	*Footprint entitlement approval only.*
Open Collaboration Space		**2**	**1,200**	**2,400**				0	1,200	**0**	-2,400	-100.00%				#VALUE!	*Footprint entitlement approval only.*
Small Group Instruction		**2**	**125**	**250**				0	125	**0**	-250	-100.00%				#VALUE!	*Footprint entitlement approval only.*
Teacher Planning *(Future Classroom Expansion)*		**1**	**500**	**500**				0	850	**0**	-500	-100.00%				#VALUE!	*Footprint entitlement approval only.*
Toilet		**1**	**50**	**50**				0	50	**0**	-50	-100.00%				0	*Footprint entitlement approval only.*
Office		**1**	**75**	**75**				0	75	**0**	-75	-100.00%				0	*Footprint entitlement approval only.*
Student Restrooms		**2**	**250**	**500**				0	150	**0**	-500	-100.00%				#VALUE!	*Footprint entitlement approval only.*
Toilet		**1**	**75**	**75**				0	75	**0**	-75	-100.00%				0	*Footprint entitlement approval only.*
Custodial		**1**	**75**	**75**				0	75	**0**	-75	-100.00%				0	*Footprint entitlement approval only.*
Storage		**1**	**325**	**325**				0	150	**0**	-325	-100.00%				#VALUE!	*Footprint entitlement approval only.*
MEP/Water Heater		**1**	**325**	**325**				0	200	**0**	-325	-100.00%				#VALUE!	*Footprint entitlement approval only.*
Shared Outdoor Learning Space #2								0	0	**0**	0	#DIV/0!				0	*Footprint entitlement approval only.*
SMALL LEARNING COMMUNITY																0	
Learning Suite 3-- Classroom w/RR (Kinder)		**1**	**1,200**	**1,200**	1	25	25	0	1,200	**0**	-1,200	#DIV/0!	0	25	0	#VALUE!	*Removed with Student Station Reduction - Accepted.*
Learning Suite 3-- Classroom (1st-5th)		**5**	**850**	**4,250**	5	30	150	0	850	**0**	-4,250	#DIV/0!	0	30	0	#VALUE!	*Removed with Student Station Reduction - Accepted.*
Open Collaboration Space		**2**	**1,200**	**2,400**				0	1,200	**0**	-2,400	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Small Group Instruction		**2**	**125**	**250**				0	125	**0**	-250	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Distance Learning		**1**	**125**	**125**				0	125	**0**	-125	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Teacher Planning		**1**	**500**	**500**				0	850	**0**	-500	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Toilet		**1**	**50**	**50**				0	50	**0**	-50	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Office		**1**	**75**	**75**				0	75	**0**	-75	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Student Restrooms		**2**	**250**	**500**				0	150	**0**	-500	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Toilet		**1**	**75**	**75**				0	75	**0**	-75	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Custodial		**1**	**75**	**75**				0	75	**0**	-75	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Storage		**1**	**325**	**325**				0	150	**0**	-325	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
MEP/IT		**1**	**325**	**325**				0	200	**0**	-325	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Shared Outdoor Learning Space #3								0	50	**0**	0	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
SMALL LEARNING COMMUNITY																	
Learning Suite 4-- Classroom w/RR (SPED)		**1**	**1,200**	**1,200**	1	25	25	0	1,200	**0**	-1,200	#DIV/0!	0	25	0	#VALUE!	*Removed with Student Station Reduction - Accepted.*
Storage		**1**	**125**	**125**				0	125	**0**	-125	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Learning Suite 24-- Classroom (1st-5th)		**5**	**850**	**4,250**	5	30	150	0	850	**0**	-4,250	#DIV/0!	0	30	0	#VALUE!	*Removed with Student Station Reduction - Accepted.*
Open Collaboration Space		**2**	**1,200**	**2,400**				0	1,200	**0**	-2,400	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Small Group Instruction		**2**	**125**	**250**				0	125	**0**	-250	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Distance Learning								0	0	**0**	0	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Teacher Planning		**1**	**500**	**500**				0	850	**0**	-500	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Toilet		**1**	**50**	**50**				0	50	**0**	-50	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Office		**1**	**75**	**75**				0	75	**0**	-75	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Student Restrooms		**2**	**250**	**500**				0	250	**0**	-500	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Toilet		**1**	**75**	**75**				0	75	**0**	-75	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Custodial		**1**	**75**	**75**				0	75	**0**	-75	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Storage		**1**	**325**	**325**				0	150	**0**	-325	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
MEP/IT		**1**	**325**	**325**				0	200	**0**	-325	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Shared Outdoor Learning Space #4								0	0	**0**	0	#DIV/0!				#VALUE!	*Removed with Student Station Reduction - Accepted.*
Subtotal				**40,600**			**700**			**9,600**	-31,000	#DIV/0!			**192**	#VALUE!	

U.S. Virgin Islands PK-8 Program of Spaces

BASE PROGRAM

CODE 3 CHARRETTE - CONFIRMED PROGRAM *(VIDE REDUCED PROGRAM 6/26/2025)*

Base Program	ning Pro	RFP - Planning Program			Functional Capacity			RFP Planning Program				Actual Capacity				
Description of Program, Department, or Unit	Total Area (nsf) Requirement	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	Delta	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	Delta	NOTES
2.3 Middle School Core Academic																
SMALL LEARNING COMMUNITY																
Learning Suite-- Studio (4th-5th)								2	850	1,700	1,700	2	30	60	60	*Reduced numbers of students accepted. Size of classrooms standardized.*
Learning Suite-- Studio (6th-8th)		8	850	6,800	8	30	240	3	850	2,550	-4,250	3	30	90	#VALUE!	*Reduced numbers of students accepted. Size of classrooms stnadardized.*
Learning Suite-- Studio w/RR (SPED)		1	1,200	1,200	1	25	25	1	1,200	1,200	0	1	25	25	#VALUE!	Science
Learning Suite-- Science Colab		1	2,000	2,000	1	27	27	0	2,000	0	-2,000	0	27	0	#VALUE!	*Reduction accepted, with reduced student stations.*
Learning Suite-- Science Lab		1	1,000	1,000	1	30	30	1	1,000	1,000	0	1	30	30	30	
Learning Suite-- Science Maker		1	300	300				0	300	0	-300				#VALUE!	*Reduction accepted, with reduced student stations.*
Learning Suite-- Fabrication Lab		1	750	750	1	30	30	0	750	0	-750	0	30	0	#VALUE!	*Reduction accepted, with reduced student stations.*
Learning Suite-- Prep		1	175	175				1	175	175	0				0	
Open Collaborative Space		2	1,400	2,800				1	1,200	1,200	-1,600				#VALUE!	*Standard size in parity with territory PK-8 grade level programs.*
Small Group Instruction		4	200	800				1	200	200	-600				#VALUE!	*Reduction accepted.*
Distance Learning		2	200	400				1	200	200	-200				#VALUE!	*Reduction accepted.*
Teacher Planning		1	1,200	1,200				1	850	850	-350				#VALUE!	*Removed at 2nd SLC/*
Office		1	100	100				1	100	100	0				#VALUE!	*Reduction accepted.*
1 Toilet		1	50	50				1	50	50	0				#VALUE!	*Reduction accepted.*
IT/AV		1	50	50				1	50	50	0				#VALUE!	*Reduction accepted.*
Learning Suite Storage		1	550	550				1	550	550	0				0	
Student Restrooms		4	150	600				4	65	260	-340				#VALUE!	*Reduction accepted for individual restrooms for age groups.*
Toilet		1	50	50				1	50	50	0				0	
Custodial		2	75	150				1	75	75	-75				#VALUE!	*Reduction accepted.*
Mechanical		1	375	375				1	250	250	-125				#VALUE!	*Reduction accepted.*
Elevator								1	0	0	0				0	
Shared Outdoor Space for 6-8								1	0	0	0				0	
Subtotal				19,350			352			10,460	-8,890			205	#VALUE!	
3.0 Elective Spaces				6,825						3,200	-3,625			60	#VALUE!	
3.1 Fine Arts																
Art/Culture Lab		1	1,900	1,900	1	30	30	1	1,200	1,200	-700	1	30	30	#VALUE!	*Elective spaces to 1,200 SF.*
Storage		1	250	250				1	125	125	-125				#VALUE!	*Reduction accepted.*
MDF		1	125	125				1	100	100	-25				#VALUE!	*Reduction accepted.*
Choir (Make Music - General)		1	1,350	1,350	1	41	41	0	1,000	0	-1,350	0	41	0	#VALUE!	*Reduction accepted, with reduced student stations.*
Storage		2	150	300				1	125	125	-175				0	
IT/AV		1	75	75				1	75	75	0				0	
Band/Orchestra		1	1,200	1,200	1	54	54	0	1,200	0	-1,200	0	54	0	#VALUE!	*Removed 1 elective space per VIDE 06/26/2025.*
Steel Pan Drums (or Choir - General Music - Exterior Opportunity)		1	1,200	1,200	1	30	30	1	1,200	1,200	0	1	30	30	#VALUE!	*Removed 1 elective space per VIDE 06/26/2025.*
Storage		1	425	425				1	125	125	-300				#VALUE!	*Reduction accepted.*
Mech/ Elec								1	250	250	-250				0	
Outdoor Learning Space								0	0	0	0				0	
Subtotal				6,825			155			3,200	-3,625			60	#VALUE!	
4.0 Media Center				5,250						4,200	-1,050			0	0	
4.1 Media Center																
Media Center (Add Immersive Learning Environment - Wonder Wall)		1	4,300	4,300				1	3,150	3,150	-1,150				#VALUE!	Combined, but with ability to have different areas for PK-5 & 6-8 - *Reduction accepted, with Emersive Space to be designed ad included.*
Distance Learning		1	175	175				1	175	175	0				0	
Small Group Room		2	75	150				1	75	75	-75				#VALUE!	*Reduction accepted, with reduced student stations.*
Storage		2	100	200				1	100	100	-100				#VALUE!	*Reduction accepted, with reduced student stations.*
Office		1	175	175				1	175	175	0				0	
Workroom (w/ Sink)		1	175	175				1	175	175	0				0	
Toilet		1	75	75				2	75	150	75				#VALUE!	*Added restroom for M/F.*
MECH								1	200	200	200				0	
Subtotal				5,250			0			4,200	-1,050			0	#VALUE!	
5.0 Special Education Services				0						0	0			0	0	
5.1 Special Education Services																
*See Core Academic program for incorporation of SPED spaces.										0	0					

U.S. Virgin Islands PK-8 Program of Spaces

BASE PROGRAM

CODE 3 CHARRETTE - CONFIRMED PROGRAM *(VIDE REDUCED PROGRAM 6/26/2025)*

Base Program	ning Pro	RFP - Planning Program			Functional Capacity			RFP Planning Program				Actual Capacity				
Description of Program, Department, or Unit	Total Area (nsf) Requir ement	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	Delta	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	Delta	NOTES
6.0 Food Service				**12,125**						**7,925**	-4,200			**0**	0	
6.1 Food Service																
PK-5 Dining Area		1	4,300	4,300				1	3,600	3,600	-700				#VALUE!	*WILL ALSO BE COMMMUNITY/MULT-PURPOSE ROOM; 469 (66% of student body) / 2 lunch periods = 240 students @ once; **240 students x 15 sf each = 3,600 sf** (Reduced with reduced student stations.) Plan for slightly oversized core.*
PK-5 Outdoor Covered Dining/Play Area											0				0	
Shared Stage		1	1,000	1,000				1	750	750	-250				#VALUE!	Opens to both dining areas; Adjacency or proximity to Music Rooms
Chair Storage (300 chairs)		1	200	200				1	200	200	0				#VALUE!	Store Outdoor furniture
Boys Restroom w/ Changing Room		1	400	400				1	200	200	-200				0	
Girls Restroom w/ Changing Room		1	400	400				1	200	200	-200				0	
6-8 Dining Area		1	2,200	2,200				0	1,500	0	-2,200				#VALUE!	*Combined area for single dining space (3 lunches 3,600 / 20 sf/occ = 180/seating).*
6-8 Outdoor Covered Dining/Play Area								1			0				0	
Kitchen/Serving Area		1	3,100	3,100				1	2,500	2,500	-600				#VALUE!	*Reuced with reduced student stations.*
Dishwashing Room		1						1			0				0	
Dry Storage		1						1			0				0	
Cooler/Freezer		1						1			0				0	
Office		1	75	75				1	75	75	0				0	
Toilet		1	50	50				1	50	50	0				0	
Changing/Lockers		1	200	200				1	150	150	-50				#VALUE!	*Reduction accepted.*
Laundry/Chemical Storage		1	125	125				1	125	125	0				0	
Janitor		1	75	75				1	75	75	0				0	
											0				0	
Elec Vault											0				0	
Subtotal				12,125			0			7,925	-4,200			0	#VALUE!	
7.0 Physical Education				**18,100**						**12,500**	-5,600			**30**	#VALUE!	
7.1 Physical Education																
Gymnasium ~~(seats 600)~~		1	9,000	9,000				1	8,500	8,500	-500				#VALUE!	*Reduction accepted. **(8,500 SF/40 SF/Occ Safe Room = 210 Occupants - 8,500 SF/20 SF/Occ Safe Room = 420 Occupants)**.*
Physical Education/Health Classroom		1	900	900	1	30	30	1	850	850	-50	1	30	30	#VALUE!	*Reduced Seating to 250.*
Indoor Exercise Room (Weights)		1	700	700				0	400	0	-700				#VALUE!	*Reduced numbers of students accepted. Size of classrooms stnadardized.*
Locker Room/Restroom		2	650	1,300				0	400	0	-1,300				#VALUE!	*Reduction accepted.*
Spectator Restroom		2	350	700				2	250	500	-200				#VALUE!	*Removed by VIDE 6/26/2025.*
PE/Coach Office		1	175	175				1	175	175	0				#VALUE!	*Increase needed to meet minimum numbers of restrooms for occupancy.*
IT/AV		1	50	50				1	50	50	0				0	*Reduction accepted.*
Storage		3	300	900				1	200	200	-700				#VALUE!	*Reduction accepted.*
Custodial		1	75	75				1	75	75	0				0	
Mechanical/Water Heater		1	300	300				1	300	300	0				0	
Fire Pump								1	500	500	500				#VALUE!	*Estimated added SF for required shelter / safe room (to b confimed in design).*
Electrical								1	500	500	500				#VALUE!	*Estimated added SF for required shelter / safe room (to b confimed in design).*
Battery Storage								1	850	850	850				#VALUE!	*Estimated added SF for required shelter / safe room (to b confimed in design).*
Mezzanine (Submit RFI for Confirming Calc + #)		1	4,000	4,000				0	1,000	0	-4,000				#VALUE!	*Mezzanine able to be removed from prototype design and program (cost savings).*
Subtotal				18,100			30			12,500	-5,600			30	#VALUE!	
8.0 Campus Support				**1,775**						**1,775**	0			**0**	0	
8.1 Utility Building																
Emergency Electrical		1	825	825				1	825	825	0				0	
Electrical		1	650	650				1	650	650	0				0	
Mechanical		1	300	300				1	300	300	0				0	
Storage								0	0	0	0				0	
Pool Equipment / storage								0	0	0	0				0	
Subtotal				1,775			0			1,775	0			0	0	
9.0 Site										**0**				**0**		
9.1 Site																
Outdoor Playground Areas				0						0	0				0	
Multi-Purpose Field										0	0				0	
Pool										0	0				0	
Basketball Courts										0	0				0	
Gardens										0	0				0	
Parking for XXX										0	0				0	
				0			0			0	0			0	0	

4.0 CONCEPTUAL BUILDING DESIGN

A. CONCEPT BUILDING PLAN SUMMARY

Based on site constraints, adjacency requirements, and building area limitation, the concept design for the Oliver PreK-8 School includes an all-new school facility on the former elementary school site total four (4) new buildings. We have evolved the conceptual design provided as outlined below.

It is proposed for the new facilities be placed to maximize the greatest level area on the existing site for connectivity and accessibility concerns for students and faculty. A new Administration and Media Center facility will create a secure entry and point of control for the site while also maximizing use of the media center for needed assemblies and optimized views. Additionally, the dining commons facility has been brought further forward to provide for efficient site circulation as well as secure location to allow for community use and performances. We have included a "proto-part" optimized Fort layout with PK-8th grade accommodated based on the anticipated student population (see prior programming section). Additionally, the Gymnasium structure has been amended to reduce overall size (and spectator seating) as well as has reduced the support areas in alignment with VIDE's curriculum requirements.

The maintenance / service and support functions remain at the north side of the campus adjacent to the service area and food service entrance/access. Due to existing extreme topography change at the north side of the site, the access road has been truncated to facilitate deliveries thus affecting the service and food service access and location. Further, support service yards have been relocated to the access road area to facilitate ease of maintenance access.

The entry area for the campus has been re-imagined incorporating the new security and safety campus standards. This has allowed for the development of the exterior architecture, canopies, administration areas and entry sequence. The more forward feeling alternate design strategy for the campus has been generally accepted and approved.

Entry Perspective – Conceptual Design Rendering

The design and cost estimate is based on the new Oliver PreK-8 School being designed and constructed minimizing impact to the site and grade stabilization requirements. The planned new campus will be designed in alignment with the designated bridging documents construction systems utilizing reinforced masonry and concrete walls with selective rainscreen and conventional building skin elements exterior veneer over a protective membrane and exterior insulation construction for the exterior envelope. The roof systems is planned to be sloped standing seam to match the existing construction of adjacent buildings. The materials will be consistent on all facades of the facility.

The entire facility is planned to be handicap accessible and comply with requirements of the Uniform Federal Accessibility Standard and ABA Accessibility Guidelines. All interior finishes will comply with the bridging documents Master Plan materials standards / specifications, and in coordination with the existing facility construction as appropriate.

Conceptual Rendering

CAMPUS BUILDING + PROGRAM REORGANIZATION

EMANUEL BENJAMIN OLIVER PREK-8

square footage comments on Bundle 2 - STT

- *As per Bundle 2 documents: 67,086sf net, 83,856sf gross. RFP identified 69,794 sf gross requiring a reduction of **14K. 21K** if you add the 10% targeted savings from the matrix. **(Note: optimization has been balanced across the entire bundle.)***
- *This is reduced to 74,231 gsf for the additional SLC + 6979 gsf. If you target an additional 10% reduction, that equals the 11, 416gsf identified in the chart.*
- *Functional capacity is identified as 608 (although this assumes simultaneous use of electives.)*
  318 students at core classrooms without additional SLC. 464 students with added SLC.
- ***ADMIN** includes 375sf each for workroom and lounge. This allows for the reduction of planning spaces in the SLC's. Due to the size of the school, this consolidation is acceptable pragmatically. No reduction, but this facilitates other reductions in the SLC's Combined Admin/Media building. .*
- ***CORE ACADEMICS** (29,310 net sf/464 students in core classrooms vs the 608 max. capcity)*
  - *Combine Prek with core academic by relocating to SLC with two floors each with a total of 12 classrooms. **(SAVINGS of 2400sf + 1700 sf = 4100sf)***
  - *Delete teacher planning in SLC's. Activity to happen in Admin building **(SAVINGS of 850 x 2 = 1700sf) Do not recommend.***
  - ***Delete 2 "extra spaces – currently 7 classrooms per floor. (SAVINGS of 850 sf x 2 = 1700sf). The current SLC's are drawn as 14 spaces total versus 10 + required. Do not recommend taking this savings or deduction of Teacher's Planning as a space.)***

    That leave 1 class per grade, pl
- ***ELECTIVES** (4200sf)*
  - *Reduce "big" rooms from 3 to 2. Currently arts, band, steel pan. This is tied to the conversation of what programs where and equity versus parity. **(SAVINGS of 1000sf)***
- ***MEDIA** (4200sf)*
  - *Combine Admin and Media "masses" reducing exterior wall and footprint. With the correct adjacencies, parts of the media center can also support teacher gatherings.*

Reduction in SLC footprint is not recommended.

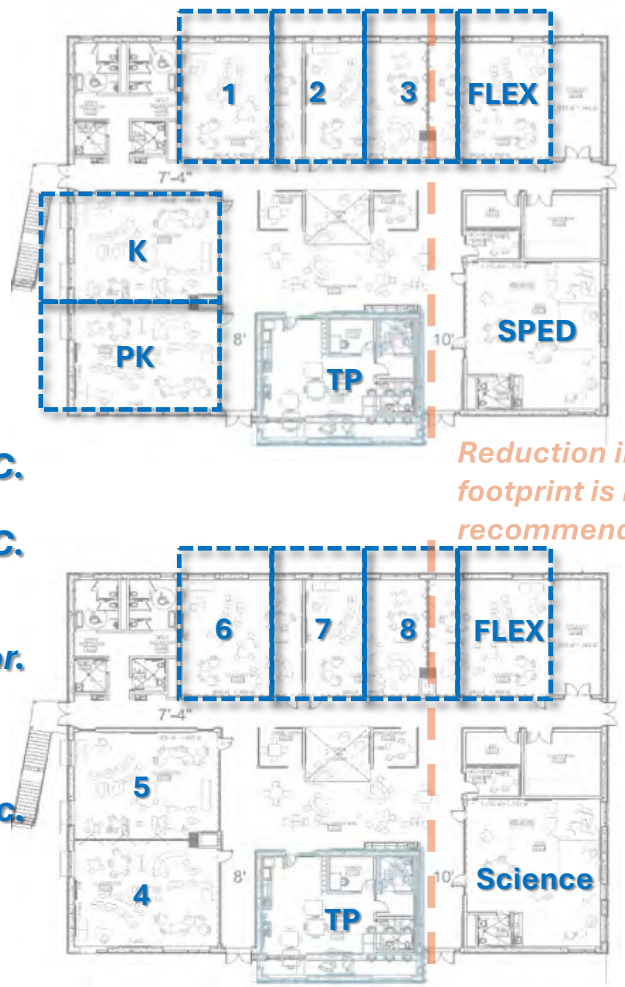
EMANUEL BENJAMIN OLIVER PREK-8

square footage comments on Bundle 2 - STT

PROGRAM ADJUSTMENT APPROACH

- *As per Bundle 2 documents: 67,086sf net, 83,856sf gross. RFP identified 69,794 sf gross requiring a reduction of **14K. 21K** if you add the 10% targeted savings from the matrix. **(Note: optimization has been balanced across the entire bundle.)***
- *This is reduced to 74,231 gsf for the additional SLC + 6979 gsf. If you target an additional 10% reduction, that equals the 11, 416gsf identified in the chart.*
- *Functional capacity is identified as 608 (although this assumes simultaneous use of electives.) 318 students at core classrooms without additional SLC. 464 students with added SLC.*
- ***ADMIN** includes 375sf each for workroom and lounge. This allows for the reduction of planning spaces in the SLC's. Due to the size of the school, this consolidation is acceptable pragmatically. No reduction, but this facilitates other reductions in the SLC's Combined Admin/Media building. .*
- ***CORE ACADEMICS** (29,310 net sf/464 students in core classrooms vs the 608 max. capcity)*
  - *Combine Prek with core academic by relocating to SLC with two floors each with a total of 12 classrooms. **(SAVINGS of 2400sf + 1700 sf = 4100sf)** ..... **Moved to SLC.***
  - *Delete teacher planning in SLC's. Activity to happen in Admin building **(SAVINGS of 850 x 2 = 1700sf) Do not recommend.** ..... **No change. Keep in SLC.***
  - ***Delete 2 "extra spaces – currently 7 classrooms per floor. (SAVINGS of 850 sf x 2 = 1700sf). The current SLC's are drawn as 14 spaces total versus 10 + required. Do not recommend taking this savings or deduction of Teacher's Planning as a space.)** ..... **FLEX at each floor.***

  That leave 1 class per grade, pl
- ***ELECTIVES** (4200sf)*
  - *Reduce "big" rooms from 3 to 2. Currently arts, band, steel pan. This is tied to the conversation of what programs where and equity versus parity. **(SAVINGS of 1000sf)** ..... **Reduced to 1 Music.***
- ***MEDIA** (4200sf)*
  - *Combine Admin and Media "masses" reducing exterior wall and footprint. With the correct adjacencies, parts of the media center can also support teacher gatherings.*



Reduction in SLC footprint is not recommended.

EMANUEL BENJAMIN OLIVER PREK-8

square footage comments on Bundle 2 - STT

- *FOOD SERVICE (9,424sf)*
  - *Combine dining. Delete MS Dining. (SAVINGS of 1500sf)* ..... ***Net SF reduction of (1,500 SF) as noted.***
- *PE (13,100sf)*
  - *Delete health classroom (SAVINGS of 750sf). Not accepted by VIDE.* ..... ***No change.***
  - *Delete locker rooms/restrooms. Use spectator restrooms as additional bathroom capacity (SAVINGS of 800gsf)* ..... ***NET SF change of (600 SF) as 200 SF added back to restrooms for code compliance.***
- *BUILDING SUPPORT (1,775sf)*

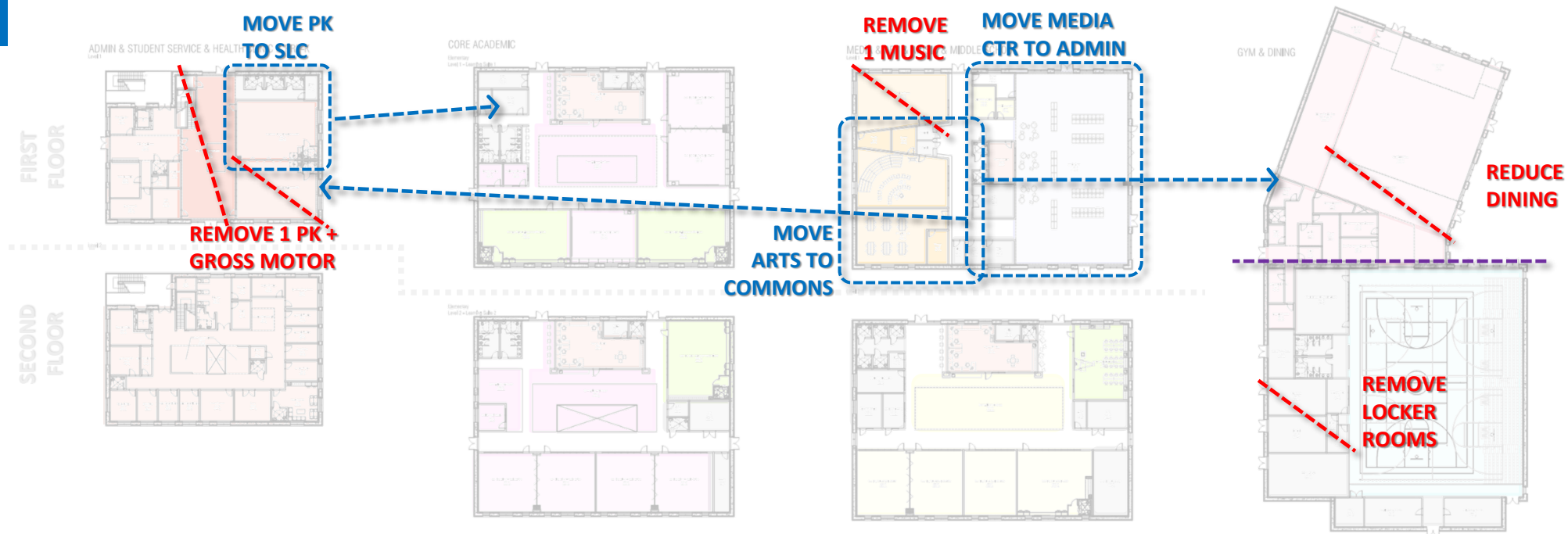
- ***TOTAL NET SAVINGS of 11,550.***
- ***TOTAL GROSS SAVINGS of 14,437 sf. Versus targeted 11,416 gsf***

- ***RECOMMEND YOU KEEP***
  A TOTAL of 3400sf x 1.25 = 4,250gsf
- ***KEEP HEALTH ROOM FOR A TOTAL of 750sf x 1.25 = 938gsf***
- ***14,437-5186 = 9,251sf RECOMMENDED SAVINGS.***

83,856 GSF – 68,419 GSF = (15,437 SF) Reduction

Achieved 10% Savings Below RFP SF with Higher Student Stations....

PROTO-PARTS



LEGEND

- ADMININSTRATION
- DINING
- MEDIA CENTER
- GYMNASIUM / PHYSCIAL ED
- SPECAILS
- SPECAIL ED
- PK
- K-5
- 6-8
- SUPPORT

CONCEPT FLOOR PLAN CONFIRMED

5.0 CONCEPTUAL SITE PLAN

A. SITE PLAN SUMMARY

The intent of this design effort is to confirm the path for redeveloping an existing non-operational school site to accommodate a new PK-8 educational program model and allow the displaced students collocated with the Bowsky PK-8 and Gomez Elementary Schools to return to their "home school". Currently, the expanded enrollment has been accommodated through the temporary portable facilities on the noted alternate sites. While an all-new facility, the campus development is to be planned in a way that avoids interfering with potential future phases of expansion.

In review of the existing conditions and preliminary master planning by VIDE, the team has confirmed the amended program and planning for the school campus. The base program will provide a completely new school facility including a gymnasium (FEMA Safe Room) facility. The proto-part assembly of the campus has been adapted through the Schematic Design Phase to include an Administration / Media Center building, a 2-story SLC (K-5 + 6-8) building, Electives and Dining Commons building and Gymnasium building planned to be placed on the site utilizing the most level areas available in the existing natural form of the site to create an overall accessible "plinth". The new drop-off/pick-up area and parking lot will be located at the north side of the site and will be configured to reinforce a clear sense of entry and security. In an effort to mitigate development costs, fire department access will be coordinated to allow for building and site-specific fire department connections at the court.

All environmental documentation is processed and preliminary applicable environmental clearances for the project will be secured. The Cultural Resources Survey indicates no conflict for the currently developed site and final determination is in process and will be completed with the required final environmental documentation.

A topographic boundary survey and seismic evaluation is in process of being finalized for the design development. The survey will include ground-penetrating Radar GPR, underground utility's locations, and environmental and hazmat surveys. Site contamination is not present, per our understanding. Building asbestos and hazardous material are not anticipated; however, this will be confirmed as the appropriate remediation will be required.

Parking for the school is to be planned at a ratio of one parking space per member of staff, including food service, custodial, maintenance, and IT staffing. Additionally, one visitor space is planned per ten students. Five percent of the total spaces are required to be Americans with Disabilities Act (ADA) accessible.

B. PHASING

Due to the vacancy of the site, there are no planned phasing conditions.

C. DEMOLITION

The existing facilities will be removed/demolished.

6.0 ENVIRONMENTAL HAZARDS

A. ENVIRONMENTAL ASSESSMENT

Environmental site surveys have been completed both for the Environmental Assessment (EA) for EHP and FCD and the Phase I Environmental Assessment. The draft EA is attached here with pending the next phase of design. The Phase I Environmental Assessment which documents the recognized environmental conditions of the site will be completed during the next phase of design.

B. FLOODPLANS

After review of local regulations and the existing site storm water master plan it was determined that the project is not located in a flood zone. The site is within Flood Zone X as shown on FEMA's FIRM Map 28 of 94 and the US Virgin Island Flood Hazard Resource Map. The site grading is planned to generally match the existing ground elevation, with minimal soil fill to facilitate proper drainage and site preparation. The new facilities are planned to be at the same level as the existing adjacent building elevations (to the extent possible). The initial elevation will be determined from an official topographic survey during the design stage. Additional fill, grading and retaining walls will likely be required to control perimeter site elevation requirements as well as the potential need to elevate select areas of the site and new structure. Coastal Flooding will have no effect on the New School.

Per response to RFI #19, there is no Tsunami flood level requirement for this school location, so the Base elevation requirements shall be based on the FEMA FIRM Map. We understand that an existing Tsunami evacuation and response plan for the school is already in place and will continue to serve as the primary life safety measure for the school during tsunami emergencies.

C. CULTURAL RESOURCES

A Section 106 request for the project site will be prepared by the Bioimpact, Inc. for submittal to DPNR's Office of Historic Preservation for advice on the project and to receive State Historic Preservation Office (SHPO) clearance. Historical and cultural assets are not expected to be present on the site. The planned project development is not expected to impact cultural resources.

D. WETLANDS

The proposed site for the facility is previously developed and does not occupy or disturb any known wetlands or wetland buffers. The property is not shown as a wetland on Fish and Wildlife Services' National Wetland Inventory. Riparian streams are shown to the east and west of the site. Amy Dempsey with BioImpact, Inc is a certified wetland delineator and has confirmed that no wetland impacts are anticipated.

E. CRITICAL ZONES / BUFFERS

After review of available documentation and consulting with the Installation Environmental Office, it was determined that the project is not within the first-tier jurisdiction of Coastal Zone Management (CZM) or riparian buffer areas. The project is required to go through a Federal Consistency Determination. There are riparian areas to the east and west, both are outside the disturbance footprint. (Please see notes provided in Environmental Assessment related to tsunami inundation zone.)

F. VEGETATION

A terrestrial survey has been completed for the site and there are no endangered or threatened species or habitat on the project site. The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) project tool also concurs that no ESA species or habitats are expected. The terrestrial survey was done throughout the property to look for the VI Tree Boa, and no tree boas or their habitat were found on the property. There are some larger trees on the site which will be protected, and all larger trees will be preserved if possible.

G. OPERATIONS CONTRAINTS

A determination was made after review and consultation with all potential affected parties that the final project will not encroach or constrain any planned future site and adjacent site operations.

H. HAZARDOUS MATERIALS

All hazardous materials shall be managed as specified and regulated in a Hazardous Materials Management Procedures Program (HMMP). Additional investigation, engineering, and mitigation design will be addressed by the JV in the next phase of design development. There is a backup generator on site which has an internal fuel tank. There appear to be no leaks from this tank, however there are small quantities of hydrocarbons in containers around the generator and some de minimis staining. Any fuel in the tank of the generator and the small quantities of hydrocarbons present will be properly disposed of. Site hazardous materials removal will follow the applicable requirements as it relates to removal, receipt, distribution, storage and disposition of all hazardous materials on the site.

The presence of existing asbestos, lead-based paint, PCBs, etc. shall be investigated and a plan will be determined for any required abatement. Due to the age of the building, these hazards may be present and will require proper removal, disposal and mitigation in accordance with applicable standards.

7.0 SUPPORTING INFRASTRUCTURE

Note: Structural, Civil, and MEPFP outline specifications subject to revision and value engineering through design process.

A. SITE PREPARATION AND GRADING

U.S. Virgin Islands Management Plans & Guidelines
Virgin Islands Department of Natural Resources (VIDPNR)
USVI Environmental Protection Handbook
Virgin Islands Water and Power Authority (WAPA)
Recommended Standards for Wastewater Facilities
American Water Works Association (AWWA)
Americans with Disabilities Act (ADA)
Geometric Design of Highways and Streets (AASHTO)
FDOT Standards Index
NFPA Fire Codes NFPA 101
ICC500-202 Standard for the Design and construction of Storm Shelters
FEMA P-361 FEMA Standard for Design of Safe Rooms for Tornadoes and Hurricanes
IBC 2024 International Building Code, 2024
2021 US Virgin Island Code, Title 29 - Public Planning and Development, Chapter 5- Building Code

Existing Conditions:
The existing site is located at the top of a hill that is about 100-feet above the surrounding landscape. All of the existing buildings on the site are beyond repair and will be demolished. The site is currently accessed by a two-lane two-way road that approaches the school from the north. For the exception of the existing parking area and the existing building foot prints the majority of the site is covered with grass. The existing grades on the center if the cluster of buildings is relatively flat but rapidly slopes down away in the east, south and west direction. The site slightly slopes up from the center of the building cluster towards the north.

New Site Grading:
The project is within FEMA Zone X. Therefore, we propose placing the Minimum Finished Floor Elevation 8-inches above existing site grade.

Demolition:
All existing buildings located on site shall be demolished along with the existing drop-off and parking area located along Palmetto Area. The existing cisterns shall also be demolished, and the area backfilled with material per compaction requirements specified by the Geotechnical Engineer.

Other site features that shall be demolished include drainage structures, drainage pipes, fences and walkways within the drop-off, parking area and within the footprint of the proposed new buildings and parking area.

B. STRUCTURAL – LOAD & SEISMIC (Structural – TT)

Design Criteria:

The structure will be designed and detailed in accordance with the following criteria. In the case of conflict between these criteria, the most stringent requirement will govern.

IBC 2024	International Building Code, 2024
2021 US Virgin Island Code, Title 29 - Public Planning and Development, Chapter 5- Building Code	
ASCE 7-16	Minimum Design Loads for Buildings and Other Structures, 2016
ICC500-202	Standard for the Design and construction of Storm Shelters
FEMA P-361	FEMA Standard for Design of Safe Rooms for Tornadoes and Hurricanes
ACI 318-19	Building Code Requirements for Structural Concrete, 2019
TMS 402/602-16	Building Code Requirements and Specifications for Masonry Structures, 2016
AISC 360-16	Specification for Structural Steel Buildings, 2016
AISC 341-16	Seismic Provisions for Structural Steel Buildings
AISI S100-16	Specification for Design of Cold Formed Steel Structural Members
AISI S240-15	Standards for Cold Formed Steel Structural Members
ASCE 41-17	Seismic Evaluation and Retrofit of Existing Buildings
IEBC 2024	International Existing Building Code, 2024i

Design Basis:

Oliver PK-8 School will be a replacement school with an overall square footage of approximately 68,000-70,000 GSF (to be confirmed by Architecture). The building components will include four new buildings that include Admin/Media, Gym (Safe Room), Dining Common / Arts and New 2-Story Fort. Building locations in the overall site are being coordinated with Architecture, Civil and Geotechnical disciplines to limit as much as possible the need of cut and fill material and retaining walls due to the steep slopes present on site.

All new building structures will be designed in accordance with IBC 2024. The new gymnasium structure is designated as a Storm Shelter Safe Room; hence the building is considered a Risk Category IV building and will be designed in accordance ICC 500-202 and FEMA P-361.

New Building Construction Description:

New building structural faming systems will consider various factors, with the guidance of the structural narrative from the Design Criteria, such as:

- Local construction materials and availability
- Geotechnical considerations to be received
- Exposure classification to coastal environments
- High seismic region
- Wind loading
- Storm Shelter, where applicable
- Sustainability and resilience

Based on Lockhart PK-8 School as a reference for precedent, structural framing system may consist of the following:

Gravity Framing:	Steel columns and metal deck on steel beams and girder framing
Foundation System:	Cast-in-place footings
Lateral Force Resisting System:	Masonry Special reinforced shear walls (for shorter single-story buildings) and cast in place concrete shear walls with thickness vary from 12" to 18" thick, where needed for buildings with higher roof elevations.

C. HEATING / VENTILATION / AIR CONDITIONING

Codes and Standards

1. The design of all HVAC and Process systems must comply with the applicable codes and standards established for the project, including local and state building codes, health department codes, as well as owner-designated standards and sustainability guidelines.
2. Codes - The following publications will be used as codes for the design of the HVAC systems on this project:
   2024 International Building Code (IBC)
   2024 International Existing Building Code (IEBC)
   2024 International Energy Conservation Code (IECC) & ANSI/ASHRAE/IES Standard 90.1-2019
   2024 International Mechanical Code (IMC)
   2024 International Plumbing Code (IPC)
   2024 International Fuel Gas Code (IFGC)
   2020 National Electrical Code (NEC) - Effective January 1, 2023
   National Fire Protection Association (NFPA) 101 Life Safety Code - 2015 (effective July 1, 2017)
3. Standards and Guidelines - The following publication will be used as standards for reference and care of the HVAC systems on this project.
   NFPA 1, Fire Code, 2024 edition
   NFPA 13, Std. for the Installation of Sprinkler Systems, 2025 edition
   NFPA 15, Std. for Water Spray Fixed Systems for Fire Protection, 2022 edition
   NFPA 20, Std. for the Installation of Stationary Pumps for Fire Pumps for Fire Protection, 2025 Ed.
   NFPA 25, Std. for the Inspection, Testing, & Maint. of Water-Based Fire Protection Sys., 2023 Ed.
   NFPA 30, Flammable and Combustible Liquids Code, 2024 edition
   NFPA 54, National Fuel Gas Code, 2024 edition
   NFPA 70®, National Electrical Code®, 2023 edition
   NFPA 72®, National Fire Alarm and Signaling Code, 2025 edition
   NFPA 90A, Std. for the Installation of Air-Conditioning and Ventilating Systems, 2024 edition
   NFPA 90B, Std. for the Installation of Warm Air Heating and Air-Conditioning Systems, 2024 Ed.
   NFPA 101, Life Safety Code, 2024 edition
   NFPA 110, Standard for Emergency and Standby Power Systems, 2025 edition
   2022 ASHRAE Refrigeration
   2023 ASHRAE HVAC Applications
   2024 ASHRAE HVAC Systems and Equipment
   2025 ASHRAE Fundamentals
   ASHRAE Guideline 0-2019: The Commissioning Process

OUTDOOR DESIGN CONDITIONS

1. For all designed spaces
   a. Summer outdoor design conditions have been selected based on the 0.4% °F wet bulb (wb) and mean coincident dry bulb (db) conditions listed in the latest ASHRAE Fundamentals Handbook for the project location (with owner exception).
   b. Winter outdoor design conditions have been selected based on the 99.6% °F heating dry bulb (db) conditions listed in the latest ASHRAE Fundamentals Handbook for the St. Thomas Cyril King Airport. This value is recommended to minimize the number of hours per year that design conditions are exceeded.
2. The following will be the design conditions, as recorded at the St Thomas Cyril King Airport (Weather Station 985430):

a. Summer Outside: 89.8 °F DB / 78.2 °F WB
b. Summer Dehumidification 83.7 °F DB / 80.3 °F WB / 79.2 °F DB [DP]
c. Summer Evaporation 85.9 °F DB / 80.3 °F WB
d. Summer Enthalpy 86.5 °F DB / 80.9 °F WB / 44.5 btu/lb
e. Winter Outside: 70.5 °F

2021 ASHRAE Handbook - Fundamentals (IP)

ST THOMAS CYRIL KING, VIRGIN ISLANDS, U.S. (WMO: 785430)

Lat:**18.336N** Long:**64.98W** Elev:**20** StdP: **14.69** Time zone:**-4.00 (W04)** Period:**98-19** WBAN:**11640**

Annual Heating, Humidification, and Ventilation Design Conditions

Coldest Month	Heating DB		Humidification DP/MCDB and HR						Coldest month WS/MCDB				MCWS/PCWD to 99.6% DB		WSF
			99.6%			99%			0.4%		1%				
	99.6%	99%	DP	HR	MCDB	DP	HR	MCDB	WS	MCDB	WS	MCDB	MCWS	PCWD	
2	**70.5**	**71.7**	**57.5**	**70.5**	**76.2**	**60.2**	**78.0**	**76.5**	**22.8**	**78.9**	**21.2**	**79.0**	**6.7**	**80**	**0.464**

Annual Cooling, Dehumidification, and Enthalpy Design Conditions

Hottest Month	Hottest Month DB Range	Cooling DB/MCWB						Evaporation WB/MCDB						MCWS/PCWD to 0.4% DB	
		0.4%		1%		2%		0.4%		1%		2%			
		DB	MCWB	DB	MCWB	DB	MCWB	WB	MCDB	WB	MCDB	WB	MCDB	MCWS	PCWD
8	**8.7**	**89.8**	**78.2**	**88.9**	**78.1**	**88.2**	**78.0**	**80.9**	**85.9**	**80.3**	**85.7**	**79.9**	**85.5**	**14.2**	**130**

Dehumidification DP/MCDB and HR									Enthalpy/MCDB						Extreme Max WB
0.4%			1%			2%			0.4%		1%		2%		
DP	HR	MCDB	DP	HR	MCDB	DP	HR	MCDB	Enth	MCDB	Enth	MCDB	Enth	MCDB	
79.2	**151.6**	**83.7**	**78.7**	**149.1**	**83.6**	**78.1**	**146.0**	**83.6**	**44.5**	**86.5**	**43.9**	**85.7**	**43.3**	**85.2**	**84.4**

Extreme Annual Design Conditions

Extreme Annual WS				Extreme Annual Temperature				n-Year Return Period Values of Extreme Temperature							
				Mean		Standard deviation		n=5 years		n=10 years		n=20 years		n=50 years	
1%	2.5%	5%		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
20.8	**18.8**	**17.6**	DB	**67.3**	**92.7**	**3.5**	**2.4**	**64.8**	**94.4**	**62.7**	**95.8**	**60.8**	**97.2**	**58.3**	**98.9**
			WB	**58.4**	**81.6**	**5.6**	**1.2**	**54.3**	**82.4**	**51.0**	**83.1**	**47.8**	**83.8**	**43.7**	**84.6**

HVAC BUILDING SYSTEMS DESCRIPTION

1. Central Energy Plant
   a. The new Pre-K through 8 complex will be cooled via chilled water central plant distribution. The central plant shall consist of two (2) high efficiency air-cooled rotary screw chillers. Chilled water piping systems shall include a variable-primary pumping distribution to the building cooling equipment. Acceptable manufacturers include Carrier, Daikin, JCI, Trane or equivalent air-cooled chiller manufacturer. Chillers shall include low-sound packages. Operational noise should meet local ordinances. The chiller plant is estimated to provide a nominal 500 tons of cooling. The chiller plant shall be capable of producing 66% of the calculated block load with one chiller.
   b. Initial chiller sizing for the (2) rotary screw chillers is 250 tons each.
   c. Each chiller's condensing coil shall be hot dipped at the factory or remote facility to prevent premature corrosion. This coil coating is for protection from the environmental salty sea air.
2. Underground Chilled Water Piping
   a. The building will be provided with new 6" chilled water supply and return piping from the new central energy plant. Underground chilled water piping shall be minimized as practical. Underground chilled water piping shall be direct burial HDPE piping.
      i. HDPE Carrier Pipe: The innermost pipe, made of High-Density Polyethylene, carries the chilled water. HDPE is chosen for its excellent resistance to corrosion, chemical inertness, flexibility, and smooth interior bore.
      ii. Thermal Insulation: Surrounding the HDPE carrier pipe is a layer of high-efficiency, closed-cell insulation, polyurethane foam. This foam is injected or foamed around the carrier pipe during manufacturing, creating a uniform, continuous barrier.

iii. HDPE Outer Jacket: The entire assembly (carrier pipe + insulation) is encased in a robust, corrugated High-Density Polyethylene outer jacket.

3. Chilled Water Pumping System
   a. The chilled water pumping system shall be configured as a Lead/Standby System in a Variable/Primary pumping system. Total of 2 pumps (1 – Primary / 1 – Standby).
   b. Pumps shall be split-coupled end suction pumps. Pumps should be controlled via variable frequency drives. Pumps shall be equipped with strainers, shut-off valves, check valves.
   c. Primary and Standby pumps shall be sized for 365 GPM and roughly 75 feet of head pressure.
   d. Pump motor horsepower is estimated to be 15 Horsepower.
4. Building Cooling Approach
   a. The approximate tonnage for the renovation/addition to the Oliver Pre-K through 8 is approximately 180 tons (2 – 250-ton chillers for N+1 redundancy). The building's cooling distribution pressure is anticipated to occur from the existing central energy plant with two new pumps (primary/standby) for building pressure control in low load conditions. Chilled water shut-off valves will be provided at each building's entrance. The valves are intended to be placed in the risers of exterior mechanical rooms. The piping system will be designed for a 12-degree temperature difference at the cooling coil with inlet water temperature of 45 °F.
   b. Chilled water discharge temperature shall be evaluated for a reset schedule; however, due to the prevalence of dehumidification needs, reset scheduling is unlikely.
5. Blind Flange and Valves
   a. The central energy plant shall have the ability to connect a temporary chiller via blind flanges and butterfly valves. These blind valves and flanges shall be provided in an accessible location.
6. Aboveground Chilled Water Piping
   a. Aboveground chilled water supply and return piping from the mechanical rooms to AHU's and FCU's shall be pre-insulated HDPE. Aboveground chilled water piping shall be minimized as practical. Underground chilled water piping shall be direct burial HDPE piping.
      i. HDPE is significantly lighter than metallic pipes, simplifying handling, shipping, and installation, especially in overhead applications.
      ii. HDPE is a flexible material. This flexibility allows for natural movement and absorption of some stresses, including minor building deflections or seismic activity which this complex exists in. It also means it can be manufactured in long coils or sticks, reducing the number of field joints.

AIR HANDLING UNIT EQUIPMENT

1. There will be Dedicated Outside Air Handlings (DOAS) that will provide pre-conditioned ventilation to each fan coil unit while the facility is in operation.
2. Air will leave the cooling coil at the Dedicated Outside Air Handling Units at approximately 52°F and be supplied to the occupied spaces at 55 °F (fan reheat/duct heat loss) and will return to the unit using a ducted return air system. The air system controls will allow for temperature resetting to eliminate simultaneous heating and cooling.
3. The air handlers will be semi-custom built up units (Carrier, Daikin, JCI, Trane or Equivalent). The DOAS shall be double-wall construction with 2" insulation. The units will have direct driven fans with variable frequency drives. They will have insulated, sloped, stainless steel drain pans. The air

filtration will utilize 90-95% filters. The final filters are conceptualized as factory charge 2" disposable filters with an initial MERV rating of 14 (3M Filtrete Filters or similar). Ductwork will be galvanized sheet metal wrapped with mineral-fiber insulation outside of the mechanical room. Ductwork will be galvanized sheet metal insulated with mineral fiber board inside mechanical rooms.

4. The Dedicated outside air cooling coil shall be hot dipped at the factory or remote facility to protect the coil from premature failure due to corrosion.
5. The dedicated outside air handling units shall be evaluated to be equipped with a fully modulating air-to-air heat-pipe run-around coil for pre-cooling and reheating to provide sensible reheating but also providing dehumidification. This option will be evaluated to maintain proper indoor humidity levels without overcooling. This evaluation will be determined in the early energy modeling phase for appropriateness.
6. The dedicated outside air handling units shall be equipped with air-to-air energy recovery to recapture energy from the exhaust air systems prior to exiting the buildings.
7. All air handling units will utilize two-way chilled water, pressure-independent, characteristic control valves to match water flow with building cooling demands.
8. Air handling equipment shall be equipped with a strainer with blowdown, supply and return shutoff valves, control valve, temperature gauges, pressure gauges, manual air vent, BMS sensors and P/T ports.

FAN COIL UNIT EQUIPMENT

1. Fan coil units shall be provided to individual zone spaces which include classrooms, teacher planning, storage, counseling, science & maker spaces, workrooms, conference rooms, music, distance learning, PK Multipurpose, timeout, etc.
2. Fan coil units shall be equipped with multi-speed fans, overflow condensate drain pan with water sensor for fan shutdown, and factory-mounted disconnect.
3. Fan coil units will utilize two-way chilled water, pressure-independent, characteristic control valves to match water flow with building cooling demands.
4. Fan coil units shall be installed in an accessible location.
5. 42" working clearance shall be provided in front of disconnect. 36" working clearance shall be provided in front of filter section.
6. Fan coil equipment shall be equipped with a strainer with blowdown, supply and return shutoff valves, control valve, automatic air vent, BMS sensors and P/T ports.

TERIMINAL UNITS

1. Single-Duct terminal units shall be provided for each controllable zone to modulate ventilation to the fan coil unit(s) based on a demand ventilation control sequence. Single-Duct terminal units will be provided without heat and will be controlled via CO_2 sensors located in the space that the fan coil unit delivers air.
2. Terminal units shall be installed in an accessible location.
3. 24" working clearance in front of control panel.

BUILDING EXHAUST

1. All toilets will be exhausted directly to the outside at the rate of 50 cfm / water closet or urinal. Toilet exhaust will be through constant exhaust fans connected to exhaust ductwork and exhausted at fan

on the roof or through exterior louvers. The toilet exhaust fan will be interlocked with coordinating air handling units. The exhaust fan system will run continuously during occupied times and shut off during unoccupied times.

2. Janitor's closets and trash rooms shall be exhausted at a rate of 1 CFM/GSF but not less than 100 CFM.
3. The kitchen will be exhausted at a rate of 0.70 CFM/GSF.
4. Educational Science laboratories will be exhausted at a rate of 1 CFM/GSF.
5. Art classrooms will be exhausted at a rate of 0.70 CFM/GSF.
6. Storage rooms that contain chemicals or fuel will be exhausted at a rate of 1.5 CFM/GSF.
7. Locker Rooms shall be exhausted at a rate of 0.50 CFM/GSF.
8. All laboratory hoods shall be exhausted based on intended experiments and meet manufacturer's exhaust recommendations. Exhaust shall be provided at hood, distributed via FRP with appropriate resin to achieve compliance with UL 181.
9. It is intended that laboratory systems would be virtual without the use of chemicals. However, if a fume hood is provided, the laboratory exhaust system ductwork should be routed through the roof to the laboratory exhaust fan and discharged at least 25 feet away from the roof. Laboratory exhaust ductwork shall be evaluated for use by other man
10. The DOAS exhaust air section, which includes its fan shall modulate to track with the demand control ventilation strategy to limit building over-pressurization. Fans should be sized to allow for adequate building pressurization and to provide code minimum exhaust.
11. Motorized exhaust fans are to have speed control, use solid state speed control.

ENERGY CODE COMPLIANCE

1. The design will need to comply with the mandatory provisions of the 2021 International Energy Conservation Code (IECC) and ANSI/ASHRAE/IES Standard 90.1-2019.
2. The facility has been modeled early for energy conservation. IES VE-Pro 2025 was utilized to review energy consumption. The energy model fully analyzed loads from cooling, lighting, power and envelope.
3. The energy model will be the basis for design to achieve NetZero Energy Cost per the negotiated contract with the USVI WAPA (Water and Power Authority).

D. PLUMBING DESIGN GUIDELINES

SYSTEM DESCRIPTION

1. Codes and Standards
   a. The design of all Plumbing and Process systems must comply with the applicable codes and standards established for the project, including local and state building codes, health department codes, as well as owner-designated standards and sustainability guidelines.
2. Codes - The following publications will be used as codes for design of the Plumbing systems on this project:
   International Building Code (2021)
   International Mechanical Code (2021)
   International Plumbing Code (2021)
   International Fuel Gas Code (2021)
   International Energy Conservation Code (2021)
   International Fire Code (2021)
3. Local Standards
   a. US Virgin Islands Local Jurisdiction Requirements
4. Other Standards - The Piping Systems will be designed in accordance with appropriate portions of the following Guidelines and Standards:
   Occupational Safety and Health Act (OSHA)
   National Fire Protection Association (NFPA)
   American National Standards Institute (ANSI)
   American Society of Mechanical Engineers (ASME)
   American Society of Sanitary Engineering (ASSE)
   American Society for Testing and Materials (ASTM)
   American Water Works Association (AWWA)
   ADA Standards for Accessible Design (ADA)
   National Sanitation Foundation (NSF)
   Cast Iron Soil Pipe Institute (CSPI)
   Plumbing and Drainage Institute (PDI)
   ANSI Z358.1 Emergency Eyewash and Shower Equipment, 2015
   American Society of Plumbing Engineers (ASPE) Data books.

Building Systems

1. Water Systems

System Type	Minimum Design Pressure at Fixture (psi)	Maximum Design Pressure at Fixture (psi)	Maximum Fluid Velocity (ft/sec)	Maximum Pressure Loss (psi/100ft)	Note
Domestic Cold Water	20	80	6	4	
Domestic Hot Water	20	80	6	4	Note 1

Note 1 - Potable hot water shall be distributed at 120 °F to all fixtures and scientific equipment. The final water temperature shall be controlled locally at the fixtures and equipment with the use of thermostatic mixing valves.

   a. All domestic system valves shall be bronze ball valves.

b. Additional pressure reduction to better the building's EUI will be evaluated in the field during the commissioning process.

2. Drainage Systems

System Type	Peak Rainfall Intensity (inches/hour)	Event Duration (minutes)	Event Return Period (years)	Fluid Velocity (ft/sec)	Note
Storm Water (Primary)	4.5	60	100	3-5	
Storm Water (Secondary)	4.5	60	100	3-5	
Sanitary Waste	NA	NA	NA	2-4	Note 1

Note 1 - Liquids or solids that constitute a hazard to humans or animals, capable of causing damage or hazard to structures equipment or create any hazard in the receiving waters of the sewage treatment plant shall not be introduced into the sewage system.

Water and Energy Conservation

1. Plumbing Fixtures
   a. Plumbing fixtures shall be installed using the following maximum volumes of water:

Plumbing Fixtures	Flow rate
Water Closet	1.28/0.8 gallons per flush
Urinal	0.125 gallons per flush
Kitchen sink	1.5 gallons per minute
Laboratory sink	1.5 gallons per minute
Lavatory sink	0.5 gallons per minute

2. Energy Conservation
   a. Optimize Energy Performance: Plumbing equipment contributes to overall energy use. The following methods may contribute to energy conservation:
      i. Reduce operating water pressures (exact pressure requirements will be determined in the commissioning process).
      ii. Install high efficiency motors, pumps, and water heaters
      iii. Design energy-conserving distribution systems

D. PLUMBING SYSTEM CRITERIA

1. Overview
   a. Anticipated program includes office spaces, conference rooms, classrooms, science lab, IT space and mechanical/electrical equipment spaces.
2. Anticipated services to be provided include:
   a. Water service and meter.
   b. Sanitary main(s) exiting the buildings to site/civil connections.
   c. Storm drainage main(s) exiting the buildings to site/civil connections.
   d. Sanitary waste and vent systems.
   e. Storm water systems.
   f. Secondary storm drainage systems discharging to daylight at grade or scuppered.

g. Potable hot and cold-water system.
h. Elevator hoist way sump pumps.

3. Overall, the plumbing systems will be designed to promote the safety, comfort and convenience of the building occupants, as well as providing reliable, sustainable and efficient operation of the facility.

Potable Cold-Water System

1. The facility will collect roof stormwater runoff to an approximate 150,000-gallon underground cistern. The cistern will be used for fire protection water storage, grey water distribution to water closets, urinals, and exterior wall hydrants.
   a. A particulate filter shall be provided upstream of the cistern to collect large debris and contaminants.
   b. Chlorination distribution system shall be provided to the cistern to limit biological growth.
   c. A portable water, drinking water, system consisting of controllers, pumps, particulate filter, carbon filter, reverse osmosis filter, break tank, UVc light, biological filter and HDPE piping distribution shall be provided to deliver potable grade drinking water to lavatories, drinking fountains and sinks.
   d. The domestic water system consists of controllers, pumps and HDPE distribution piping.
   e. A secondary connection from WAPA shall be provided for use in low-cistern water conditions. Both electronic and mechanical water level monitoring shall be provided to automatically fill water to the break tank.
2. The proposed water distribution for the facility will be 4 inches. The backup water service from WAPA is anticipated to be 2 inches. The incoming main and water meter will be located on the ground floor. Duplex backflow preventers located outside of the building will be provided on the incoming water service to protect the site distribution main.
3. Shut-off valves will be provided at each branch take-off. Locate plumbing valves in accessible areas, in corridors if possible. Valves shall not be permitted above bathroom stalls.
4. Hose bibs will be provided in all public toilet rooms, locker rooms and at all mechanical rooms. Group toilet rooms shall be key access.
5. Wall hydrants will be provided around the perimeter of the building within 100 feet of each other and at each face of the roof.
6. Hose bibb adjacent to track and play courts shall be provided for pressure washing. Hose bibb shall be key locked.
7. Water hammer arrestors shall be provided on all quick action valves connected to domestic water system.
8. Backflow prevention devices shall be provided for any coffee maker connected directly to the domestic water system.
9. The underground piping shall be HDPE.
10. Isolation valves shall be provided at entrance of the new/renovated building. Shutoff valves shall be provided at trunk line branches within a building so that water service shutdowns do not affect an entire building for isolated situations and in main piping within large buildings with long pipe runs. Valves shall be located above acoustic tile ceilings. Where not possible a minimum 24"x24" ceiling access panel shall be provided to facilitate maintenance.

11. All exposed pipe in kitchens shall be Type L copper.

Domestic Hot Water System

1. Domestic hot water will be made available for janitorial needs using individual electric hot water heaters located in the janitor's closet. Piping systems shall be insulated to comply with ASHRAE 90.1 to prevent excessive heat loss and conserve energy. Hot water re-circulating pumps are not anticipated but will be provided for hot water piping where runs exceed 50'-0".
2. Liquid Propane Instantaneous hot water heaters are anticipated for the kitchen and showers. Size and location shall be determined based on the anticipated flow rate needed for those spaces. Liquid propane tanks shall be located near the heaters to limit gas piping distribution on the site.
3. All hot water piping will be insulated with mineral fiber insulation.
4. Shut-off valves will be provided at each take-off branch. Valves will be located at accessible locations.
5. Design Hot Water Temperatures 110 °F: Clinic Sinks, Showers, Staff Toilet Room Sinks, Custodial Mop Sinks and Kitchen Hand Sinks.
6. Design Hot Water Temperatures 140 °F: Pot Wash, 3-Compartment Sink, Dishwashers.

Piping Materials

1. Domestic cold and hot water piping material will be HDPE or other approved plastic piping system with supports per manufacturer's recommendations. The domestic water distribution system shall be constructed utilizing an adequately sized system sized to limit velocity to 8 fps to reduce noise and water hammer.

Storm Drainage System

1. Storm water drainage system will be provided to convey precipitation from roof drains to the on-site, underground 150,000-gallon cistern. A particulate filter shall be provided prior to entrance of the cistern. Storm water will be collected by gravity. If cistern capacity is exceeded with on-site collection of water, a storm bypass shall be provided, and storm water shall be discharged to the site civil system.
2. Storm piping is intended to be HDPE and sized for expected rainfall collection on a flow basis.

Sanitary Waste System

1. Conventional (two-pipe) interior waste collection systems will be provided. A hard-piped sanitary waste and vent riser system will service plumbing fixtures in toilet rooms, hand sinks, mop sinks, exterior can wash and floor drains in toilet rooms, indirect drains and mechanical equipment rooms.
2. Sanitary waste and vent piping will be HDPE. Sanitary piping will be designed for 1/8" per 1'-0" of slope for 3" pipe and larger. Piping smaller than 3" will be designed for 1/4" per 1'-0" of slope. Cleanouts will be provided to meet code and good design practices.
3. Cleanout installed outside the building shall be configured with two separate Y fittings installed in opposing directions instead of single 2-way cleanout fitting.
4. Grease piping shall be provided from the 3-compartment sink to a grease interceptor located at the exterior of the facility in an accessible location.
5. Grease piping is intended to be high-temperature Schedule 80 PVC or HDPE approved for high temperatures.

6. Cross fittings are NOT permitted in sanitary waste pipe.
7. DWV Double Wye Fittings are NOT permitted in the Sanitary Waste line.
8. Routing of sanitary mains beneath corridor with cleanouts in the corridor (or non-student occupied spaces adjoining the corridor) is preferred.

Liquid Propane Gas System

1. A liquid propane storage tank, gauges, piping and regulation shall be provided for distribution to the hot water heater for the kitchen and cooking equipment for the kitchen. Tank shall be sized for monthly filling.
2. A liquid propane storage tank, gauges, piping and regulation shall be provided for distribution to the hot water heater for the locker room showers. Tank shall be sized for monthly filling.
3. Gas piping shall be corrugated stainless steel or Type "L" copper and provided in a carrier pipe underground if buried underground. Carrier piping shall be properly vented.

E. WATER / SEWER / GAS

Water

The potable water for the site will be provided from an on-site cistern that will collect building roof stormwater runoff. A portion of the collected roof water will be treated to drinking water quality standards and stored in a separate underground chamber adjacent to the cistern. In addition, there will be a 2-inch diameter non-potable water main that will slowly bring makeup water to the cistern from an existing non-potable WAPA water main located along Palmetto Road. The flow of non-potable water to the cistern will be controlled via floats to maintain a certain water level elevation in the cistern.

Potable water distribution pipes shall be minimum 4-inch DIP. The potable water shall be pumped from the potable water cistern chamber to the various buildings throughout the site.

Fire water shall come from the cistern. The water shall be pumped from the cistern to the various fire hydrants located throughout the project site. Fire hydrants shall be located so that points within 250-feet of the hydrant can be reached by a fire hose.

Sanitary Sewer

The gravity sanitary sewer collection system within the school site shall be composed of concrete sanitary sewer manholes and minimum 8-inch diameter SDR35 PVC pipes. Sanitary sewer manholes shall be located at maximum 400-foot spacing and at every change in pipe direction. Sanitary sewer service laterals shall be minimum 6-inch diameter SDR35 PVC pipe with cleanouts at the exit point from a building and change in pipe direction. The proposed gravity sanitary sewer system shall connect to the existing public sanitary sewer that runs along Palmetto Road.

A concrete sanitary sewer holding tank with a 3-day holding capacity will be required. The proposed gravity sanitary sewer system shall be designed with a diversion structure that allows for sanitary sewage to be diverted to the holding tank during emergencies.

Gas

The project will not incorporate a gas utility system.

F. ELECTRICAL NARRATIVE

Electrical Design Criteria

Codes and Standards

1. The design of all Electrical and Process systems must comply with the applicable codes and standards established for the project, including local and state building codes, health department codes, as well as owner-designated standards and sustainability guidelines.
2. Codes - The following publications will be used as codes for design of the electrical systems on this project:
   2024 International Building Code (IBC)
   2024 International Existing Building Code (IEBC)
   2024 International Energy Conservation Code (IECC) and ANSI/ASHRAE/IES Standard 90.1-2019
   2024 International Mechanical Code (IMC)
   2024 International Plumbing Code (IPC)
   2024 International Fuel Gas Code (IFGC)
   2020 National Electrical Code (NEC) - Effective January 1, 2023
   National Fire Protection Association (NFPA) 101 Life Safety Code - 2015 (effective July 1, 2017)
3. Standards - The following publication will be used as standards for reference and care of the electrical systems on this project.
   NFPA 1, Fire Code, 2021 edition
   NFPA 70®, National Electrical Code®, 2020 edition
   NFPA 72®, National Fire Alarm and Signaling Code, 2019 edition
   NFPA 101, Life Safety Code, 2021 edition
   The following industry standards are also referenced to establish design criteria:
   Institute of Electrical and Electronics Engineers (IEEE)
   American with Disabilities Act (ADA)
   Illumination Engineering Society (IES) Handbook 10th Edition
   National Electrical Manufacturers Association (NEMA)
   Occupational Safety and Health Administration (OSHA)
   Underwriters Laboratories (UL)

Electrical Power and Lighting Criteria

1. The design of all Electrical systems must comply with the applicable codes as referenced by the Building Code. The electrical systems will be designed in accordance with the following local and national codes:
2. All of the power densities listed below are preliminary and will be refined as the design progresses in the design development and construction document phases of this project.

Power Density Assumptions				
Area	Distribution System Level			Estimated Service Demand (W/GSF)
	Local Branch Panel (W/GSF)	Local Distribution Panels (W/GSF)	Service Equipment (W/GSF)	
Office Lighting	3	2.5	2	1.1
Office Power	6	4	2	1.5
Conference Lighting	3	2.5	2	1.1
Conference Power	6	4	2	1.5
Kitchen Lighting	5	3	2	3
Kitchen Power	10	25	2	35
Cafeteria Lighting	5	3	2	3
Cafeteria Power	6	4	2	1.1
Classroom Lighting	5	3	2	3
Classroom Power	6	4	2	1.5
Science Classroom Lighting	5	3	2	3
Science Classroom Power	6	4	2	1.5
Media Lighting	3	2.5	2	1.1
Media Power	6	4	2	1.5
Corridor Lighting	2	1.5	2	1
Corridor Power	2	2	2	2
Restroom Lighting	3	2.5	2	1.1
Restroom Power	2	2	2	2
Mechanical Equipment	18	30	10	5
Design Average	**15-20**	**25-30**	**8-10**	**15-20**

3. Equipment Sizing Criteria: Service and distribution system components including switchboards, distribution panelboards, feeders, transformers, circuit breakers and other equipment, will be sized for present loads and future allowances as follows:
4. Switchboards will include 20 percent
5. Distribution panels will include 25 percent.
6. Lighting panels will include 25 percent.
7. General purpose branch circuit panels will include 25 percent.

8. Lighting Criteria: Unless otherwise noted, illumination levels will be selected according to the method described in the 10th Edition Handbook of the Illuminating Engineering Society of North America (IESNA).

Average Footcandles (FC)		
Area	FC Range at Task Area	Weighted FC Average
Offices	30-40	35
Conference Rooms	20-30	20
Kitchen	40-50	30
Cafeteria	25-30	15
Classroom	40-50	30
Media	20-30	20
Corridors	10-15	10
Restrooms	7.5-30	18
Stairwells	10-15	15
Storage	10-30	15
Mechanical/ Electrical/IT	20-40	30

Minimum Egress Maintained Footcandle Illumination Area	
	Recommended Level
Path of Egress	1 average, .2 minimum
Exterior Exit Discharge	1 average, .2 minimum
Stair/Elevator Lobby	1 minimum

Electrical Systems Description

Medium Voltage Distribution

1. Utility Company Interface: The main electrical service to the building will be fed from one (1) 750 kVA, pad mounted utility transformer.
2. Utility service lines will enter the campus via a Medium Voltage above ground tap box at elevation 11' above sea level.
3. A medium voltage above ground net metering cabinet will be provided ahead of the utility transformer.
4. Medium voltage concentric neutral cabling and dead front connections will be made per WAPA standards.
5. All equipment shall be at 11' above sea level. This will be accomplished either by grading or by above ground vault extensions.
6. Medium voltage manholes will be provided were necessary based on site conditions.
7. Direction boring will be utilized wherever possible.

Building Electrical Service – Central Energy Plant (CEP)

1. Utility Company Interface: The main electrical service to the building will be fed from one (1) 750 kVA, pad mounted utility transformer
2. The utility transformer will step down the utility service lines to 480Y/277V and serve one (1) 480Y/277V, 3 phase, 4 wire switchboards. Electric service will be secondary metered at the switchboards. The electrical service disconnecting means will be contained in a floor-mounted switchboard.
3. The new facility is estimated to be a 2,000-amp electrical service.
4. Emergency Roll up Generator power connection will be provided for campus. If there is an EHPA Shelter, this system will have its own roll up generator connection.
5. The main campus electrical distribution system will remain phased to accommodate the CM's approach to construction.
6. The existing buildings will be served by a new central electrical service.
7. Buildings will be fully renovated, and all electrical system modifications will be provided in order to accommodate and bring the facility to current code and meet local standards.

New Building Normal and Standby Power Distribution

1. Main distribution feeders will be raceway and wire for horizontal and vertical distribution, in accordance with local Standards. Distribution for the facility will be 480 volt, 3 phase, 3 wire for motor loads, 480Y/277 volt, 3 phase, 4 wire for miscellaneous power and lighting loads, 208Y/120 volt, 3 phase, 4 wire for miscellaneous power loads via dry type transformers. Electric closets will be provided on each floor.
2. Each electrical room will have a lighting panel, with an estimated 125A panel rating. The electrical room will also be provided with an estimated 75kVA dry-type step-down transformer. Each transformer will feed a two-section or three-section panelboard with 84 to 126 poles, and a main breaker rated at 300 amps. The mechanical panel in each electrical room is anticipated to be rated between 225 and 400 amps and be provided with 42 poles.
3. All panelboards to have a main breaker based on NEC requirements and surge protection devices to create a cascading surge protection design.
4. The electrical distribution system will be a fully-rated system with circuit breakers coordinated per the requirements of the NEC. The expected kAIC rating of the switchboard, lighting panels and mechanical panels will be 65kAIC. The expected kAIC rating of the 120/208V panels will be 10kAIC.
5. Transformers will meet the efficiency requirements defined by DOE 2016. Transformers will have 220 C rated insulation. Transformer will be UL listed and meet requirements of latest NEMA and ANSI standards.
6. Vibration Isolation: All transformers, whether hung from the structure or floor mounted, will be provided vibration isolation devices.
7. Each floor will be provided with an electrical room. The main electrical room will be located on the ground floor, as close to the location of the utility transformer as possible, on an exterior wall. The 2nd floor electrical rooms will be vertically stacked above the first floor electrical rooms, one set of stacked rooms on each side of the building. This allows for reduced feeder/circuit runs and a cleaner distribution system .

8. Emergency Electrical Distribution: The emergency distribution system will utilize a dedicated emergency electrical room in the building C for the ATS equipment and emergency distribution switchboards. All branch/distribution panel boards will be located with the normal electrical panels within a typical electrical room. This distribution system will stack and all feeders will be fire protected per the NEC requirements.

New Photovoltaic System

1. A minimum 1200A rated switchboard shall be provided to connect PV inverters located within each building back to a single point. This distribution panel will interconnect with the main electrical switchgear to provide PV generator electrical power @ 480V 3ph. Each building will have either a single or multiple local inverter that will connected as noted.
2. There shall be a networked PV microgrid control system provided throughout the campus. This control system will monitor all microgrid system components and also provide instruction for switching to stored battery energy throughout normal operation.
3. The estimated system capacity total 500kW. This is intended to generator a Net Zero outcome as it relates to power. However, the final system capacity may vary.

Distribution Systems Voltage and Starter Criteria

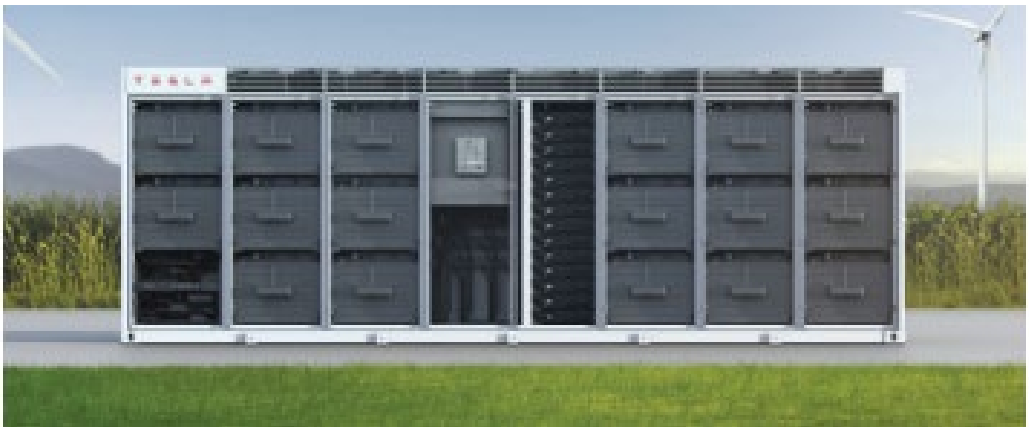
1. The nominal distribution system Voltages will be as follows:
   a. 480V, 3 phase for equipment (mechanical, plumbing, other large loads)
   b. 277V, 1 phase for lighting, normal and emergency
   c. 208V, 3 phase for miscellaneous equipment loads as required
   d. 120V, 1 phase for convenience power in office, general areas, etc.
   e. 120V, 1 phase for other miscellaneous systems (fire alarm, communications, etc.)
2. Motor Voltages
   a. Less than 4 HP – single phase (voltage may vary)
   b. 4 and larger HP – three phase (voltage may vary)
3. Motor Starter Types
   a. ¼ HP and below – Thermal overload switch
   b. 1/3 to 25 HP – VFD or combination circuit breaker and reduced voltage starter.
   c. Above 25 HP – VFD
4. Variable Frequency Drives (VFD): VFD's will be provided for equipment identified by Division 23. VFD's will be 6 or 12 pulse IGBT type drives. The design will include dV/dt filters and line reactors to mitigate harmonics.

Building Standby Emergency Power/Battery Backup/Solar Photovoltaic Panels

1. Centralized Building and standby emergency storage system, 1725kW/3500kWh, 480V, 3-ph with a minimum of 3000A of inverter output capacity.

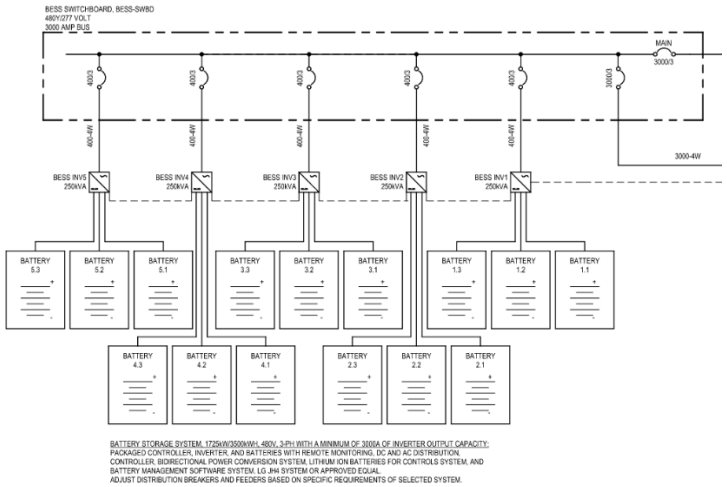
Option 1:

A. Centralized integrated battery storage solution will be utilized for energy storage and energy management. This system will allow the PV and battery system interact with the facility energy usage, allowing it to monitor energy production, storage, discharge, usage rates and predict demand.
B. Scalable battery capacity up to 1 GWH. This system will need approximately 3.5 MWh of battery storage.
C. Turn key system – connection of power and communications is all the system will require once located and placed on site. This allows for fast termination and minimal labor effort.
D. Integrated optimization software developed for SCADA integration and fast response controls.
E. Ventilation and safety features built in and provided without the construction of a battery room.
F. Reduced foot print overall.
G. Ease of permitting.
H. Basis of Design – TESLA MEGAPACK

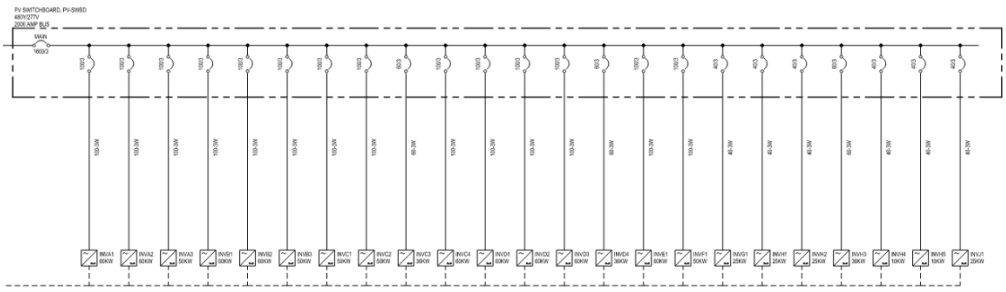


Option 2:

A. Traditional switchgear, inverter, and battery storage design.
B. Battery rooms and required HVAC/Safety designs
C. Containment system design
D. Integration of controls systems across multiple system components from differing manufacturers.
E. Large footprint/space requirements
F. Separate fire protection system requirements.



2. Whole system transfer switches will be manual open transition, with bypass isolation. The transfer switch withstand ratings will be selected with consideration given to the upstream overcurrent protective device clearing times. The transfer switch used for emergency power will be selected with 18 or 30 cycles rating to allow for selectively coordinated overcurrent protective devices.
3. A Manual transfer switch connection will be provided for the shelter emergency power as a backup to the centralized battery system. Basis of Design will be Trystar with network connectivity. Cam lock cable transition between normal source and alternate source.
4. At each building, a centralized battery inverter will be provided to provide Life safety lighting throughout. All life safety systems within each building will be provided with battery power per the requirements of NFPA.
5. At each building, a PV system and inverter will be installed and connected to a centralized combiner panel. This combiner panel will be connected to the main switchgear to provide solar energy to the entire campus and provide charging to the battery storage system.



Electrical Branch Circuit Wiring

1. The power distribution system design will limit voltage drop on panel feeders to 2% for feeders and 3% for branch circuits as a project standard. Feeders and branch circuits will be upsized as required. Feeders and branch circuits larger than 100A will be insulated aluminum and 100A or less will consist of insulated copper conductors in raceway. Grounding wires will be Copper. Wiring methods will be concealed where possible. Mechanical equipment feeders are required to be insulated copper.
2. A minimum of 20-ampere branch circuits will be provided for lighting and power. The minimum size wire for standard 120-volt, 20 ampere circuits shall be #12 AWG. The minimum size wire for any special purpose receptacles will be #10 AWG.
3. All lighting and power circuits will be provided with dedicated neutrals.
4. Receptacles with integral 5 mA ground fault protection will be provided in the following areas or as required by code or program:
    a. Restrooms
    b. Roof
    c. Exterior outlets.
    d. Wet Locations
    e. Where located within 6 foot radius of water supply, such as sinks.
    f. Vending machines
    g. Entrance Lobbies

5. Feeders and branch circuit wiring will be concealed wherever possible. Wiring method applications include:

Application	Raceway	Conductors
Feeders: outdoor, underground	Concrete Encased PVC	XHHW or THHN copper/AL Wet Listed
Feeders; Outdoor, aboveground	Rigid Steel conduit	XHHW or THHN copper/AL Wet Listed
Feeders; Indoors concealed	Rigid Steel Conduit, IMC or EMT	THHN-THWN copper/AL conductors
Feeders; indoors exposed	RSC, IMC, or EMT	THHN-THWN copper/AL conductors
Branch Circuits	EMT	THHN-THWN copper/AL conductors
Emergency and Legally Required Feeders	RSC, IMC, or EMT protected in accordance with NEC or fire rated cable assembly	THHN-THWN copper/AL conductors protected in accordance with NEC or MI Cable.

6. Rigid Steel Conduit (RGS)
    a. Exposed exterior locations (including loading dock).
    b. Ductbank elbows/turn-ups into equipment or above grade. If below grade, elbow shall be zinc coated to provide corrosion resistance.

   c. Other areas subject to physical abuse.
7. Schedule 40 PVC
   a. Concrete encased raceway in slab, in ductbank or under slab.
8. Electrical Metallic Tubing (EMT)
   a. Other interior exposed areas.
   b. Set screw fittings

Grounding

1. The building grounding electrode system will consist of all code required grounding electrodes bonded together including metal underground water pipes, metal frame of building or structure, concrete encased electrodes and ground rods.
2. The grounding system will be in accordance with NFPA 70. The grounding will consist of a three ground rods in a triad arrangement connected with 4/0 AWG bare copper ground conductor under a minimum of 1 foot of cover. The ground rods will be copper clad steel rods 3/4-inch diameter x 10 feet long with top 1 foot below grade. Ground rods will be located as a minimum one at each lightning protection down conductor, three at the service entrance location spaced at least one rod length from each other and at least the same distance from other grounding electrodes and at no more than 100 foot intervals around the perimeter.
3. The building main electrical room will be provided with a connection to the grounding electrode system for bonding the neutral conductor at the transformer secondary overcurrent protective device. The grounding electrode system will also be extended to ground buses located distributed electrical rooms for supplemental grounding and bonding of separately derived systems.
4. A separate connection to the grounding electrode system will be extended to ground buses located in the main communication and intermediate distributed communication rooms.
5. All underground connections and connections to structural steel will be exothermically welded connections. Above ground exposed connections will be bolted connections.
6. All feeders and branch circuits will have an insulated equipment grounding conductor.
7. Electrically classified, hazardous, areas will be provided with a supplemental ground bus to ensure exposed metal surfaces are at an equipotential level.

Lightning Protection

1. The building will be equipped with a conventional NFPA 780 lightning protection system to safeguard persons and property from hazards arising from exposure to lightning.

Lighting

1. The lighting systems (luminaires, placement, and controls) used will be selected to satisfy the prescribed visual, environmental, and energy requirement while also eliminating light trespass from the building and site. In addition to designing for task requirements, lighting systems will be designed to create pleasant aesthetic and psychological impressions in finished spaces.
2. The lighting design will include predominantly high performance, fixtures to optimize lumen output and energy efficiency. Fixture construction for Mechanical/Electrical areas, elevator pits, etc. will be commercial specification-grade LED luminaires as a minimum standard of quality.

3. The lighting design will include predominantly high performance, LED fixtures to optimize lumen output and energy efficiency and 0-10V dimming. General interior areas in offices and conference rooms will be provided with 2'x2', volumetric fixtures, utilizing LED technology.
4. Coordination with architect for any specialty lighting will be given to the lobby, conference, and other specialized spaces to accommodate a desire for a unique and inviting atmosphere. Fixture selection will be performed by architect in this situation and reviewed by the owner prior to incorporation into the plans by the TLC design team.
5. Light fixtures in stairways shall be mounted above the landings and on the walls adjacent to the stairs. All fixtures within the stairwells shall be connected to inverters.
6. Exit lights will be LED edge-lit type in front of house spaces. Exterior and back of house spaces will be thermoplastic type UL listed for the space that they are installed.
7. Emergency lighting and exit lights will be provided and powered by inverter.
8. Emergency lighting will be provided in electrical rooms, mechanical rooms, public restrooms, classrooms, and conference rooms, in addition to where required by code.
9. Exterior lighting will consist of building mounted LED luminaires. Exterior site lighting shall be 480V three-phase balanced load. Exterior building lighting, will be 277V. Landscape lighting, if desired, will be designed by a landscape architect and the power for these fixtures will be accommodated on TLC plans.

Lighting Controls

1. The lighting control system shall consist of local indoor automatic, digital network area lighting controls. The building lighting control will be provided by a combination of Vacancy/occupancy sensors and photocells (for dimmed daylight harvesting). The controls will be automated wherever possible for the maximum reduction of energy consumption.
2. It is anticipated that a SensorSwitch nLight, or equal, lighting control system will be used as a basis of design for the building lighting control system, which will be interfaced with the BAS system through BACnet protocol. The nLight, or equal, system will control restrooms, corridors and exterior lighting.
3. In individual spaces such as private offices, small conference rooms, storage rooms, lighting control shall be through stand-alone components, not interfaced with the building lighting control system.
4. Vacancy sensor dual technology shall be provided in all offices. Occupancy sensor dual technology shall be provided in all restrooms, common areas, open office areas and corridors.
5. All rooms which exceed the required wattage within a natural lighting level zone will be provided with daylight sensor dimming control.
6. Mechanical rooms, electrical rooms, telecommunications closets will be provided with only local switching for lighting controls.
7. Exterior Fixtures designated for security purposes will be controlled by photocell on/photocell off operation, while the remaining fixtures will be controlled by photocell on/timeclock off operation through a building lighting control system, which is to be interfaced with the BAS system.

Emergency Lighting

1. An emergency lighting system will be provided to allow the safe evacuation of the building in the event of a loss of the normal lighting power.

2. Exit signs and emergency path of egress lighting will be provided in accordance with applicable codes in exit routes, exit stairways, exit passageways, open plan office spaces, electric rooms and mechanical rooms.

Required Electrical Studies

1. In order to provide a baseline database for operation and maintenance of the building, the project specifications will require the following studies to be performed by the installing contractor. All electrical studies will be performed by a registered professional engineer and submitted for review and approval by the electrical engineer and Owner prior to releasing any equipment and shall include the following:
    a. Short circuit: Study shall be conducted at all busses in the system. Study shall be performed for both utility, generator and transition mode. Study shall assume full contribution from all motor loads. A full report shall be provided showing fault currents in all configurations and associated X/R ratio.
    b. Selective Coordination: Study shall provide all settings for programmable trip units and adjustable breakers. The emergency system breakers shall be fully coordinated as required by the NEC. Study shall include copies of all TC curves used and graphic and text data indicating proper coordination. The contractor will be required to provide the appropriate breaker type/style/rating/framing as required by this study.
    c. Arc Flash: Study shall indicate working distance for all panels. Study shall include all labeling required per NFPA 70E. Labels will be required in electronic format and installation of labels will be included as a requirement of the specification.

G. COMMUNICATIONS AND TECHNOLOGY

Technology Project Overview

1. This project involves multiple buildings across the property. Some buildings will be renovated and others will be fully new construction.
2. The MDF will be installed in one of the first phase's completed building. This MDF must also be constructed in a location free and clear of footer to allow distribution of multiple 4" conduits. These conduits cannot exceed (2) 90-degree bends. All conduits designated for fiber optics must have a 10x bend radius. Once the new MDF is up and running, a new Fiber optic cable will be provided, and a scheduled switchover with VIDE will take place to minimize downtime. A set of new service provider conduits will also be provided to the coordinated location on the property line to allow for a clean break from the existing campus network and minimal rework and site conflicts with the new parking lot.

General Communications Requirements

IDFs and MDF Requirements:

1. A minimum of four (4) 4" PVC conduits will be provided from an existing site telecommunications manhole to the new main telecommunications room (MDF) in the new building. The MDF room will be 10' x 20' minimum. (specific sizes will be identified and provided to the architect during the early DD phase once a Revit model is provided and an initial layout is available). The MDF will be for the entrance facility and cabling for the first floor up to the maximum 100-meter distance to any station outlet in the building.
2. Telecommunications rooms (IDFs) will be stacked in the building to provide a practical method of system wiring concerning the distance to the user. IDFs will be located on the 1st and 2nd floors of the building to maintain the maximum 100-meter distance to any station outlet in the building. IDF rooms will be 8' x 10' minimum (specific sizes will be identified and provided to the architect during the early DD phase once a Revit model is provided and an initial layout is available).
3. (1) 4" Conduits will be provided with (4) 1" Innerducts for Voice/Data only and (2) 4" conduits with (4) 1" Conduits for public address, Fire alarm, Master Clock and all other Technology cables.
4. The MDF/IDF room will have data racks for network equipment provided by VIDE, with an overhead ladder cable tray from the rack to the wall.

Equipment & Layout

1. Racks & Cabinets: Floor-mounted or wall-mounted racks house switches, patch panels, and other active components.
2. Clearances & Accessibility: Maintain minimum clearance of 3 feet around equipment for easy maintenance.
3. Grounding & Bonding: All equipment is properly grounded per TIA-607-D standards to prevent electrical hazards.
4. Patch panels shall be used for structured cable termination and efficient cable management.

Wireless & IP Integration

1. Structured cabling supports Wi-Fi access points (APs) at strategic locations for optimal coverage and performance.
2. Power over Ethernet (PoE) technology is implemented for APs, security cameras, and VoIP phones to reduce power cabling needs.
1. Classrooms must have (2) duplex data outlets for classroom use. One is in front near the teaching wall (TI), and the other is in the back of the room for flexible teacher/classroom use. An additional duplex data outlet for the WAP is located above the ceiling at the center of the room. The teacher wall data outlet (TI) must include (2) data outlets and (1) HDMI cable to the projector installed in the room.
2. Conference rooms must have (2) duplex data outlets (one for phone/ one for printer). They must also have a floor box/poke-thru in the center of the area under the table with (2) data outlets installed.
3. Offices must have (2) data outlets with (3) data jacks in each and installed on opposite walls for flexible office layout.
4. Overhead cable tray will be provided as a telecommunication distribution system throughout the facility. The cable tray will be wire mesh type with minimum dimensions of 4 inches deep and 18 inches wide. The cable tray must also be installed 12" away from the wall.

Safety and Security Compliance

1. Fire-rated cables and conduits comply with local and national building codes.
2. Secure network infrastructure minimizes unauthorized access and cyber threats.
3. Regular testing and certification ensure adherence to performance benchmarks.

Data and Telephone System

1. The data system wiring will be provided in conjunction with meeting with VIDE and DLR. It will consist of T568B RJ-45 jacks at designated locations and Category 6A UTP cabling terminated in designated MDF or IDF. Fiber optic cabling (In 1" multicell innerduct) will be provided from MDF to each IDF and terminated in rack-mounted fiber optic distribution centers (FDC). The data riser cable shall be 62.5 µm multi-mode / 9 µm single mode fiber optic cable. The data system shall exhibit a forward band-pass of 1 GHz.
2. Any copper or fiber optic cable installed in conduits in the ground shall be provided as flooding cable or with a water-blocking compound.
3. CCTV cameras Category 6A cable must be orange in color
4. All other data cables must be blue in color
5. In addition to the contractor's 1-year warranty on all labor and materials, the manufacturer of the horizontal distribution system must provide a 25-year system performance warranty.
6. All Data cabling will terminate on patch panels in the IT rack of the associated MDF or IDF. For any devices that require a copper connection, a patch cable will be provided and connected to a 24-port voice patch panel that is then connected to a 66-block installed on the wall.
7. The number of telephone pairs required will be coordinated with the VIDE and DLR.

8. Telephone lines will be provided in the building elevators, which utilize a permanently mounted telephone. Wall-mounted outlets for emergency telephones will be on each floor.
9. Primary Protector blocks must protect all 66 blocks between the MDF and the IDF.
10. An owner-provided contractor installs wireless access points and all wireless access point brackets. However, the contractor also provides all wireless access point hangers, which must be B-Line BA50A.

Video Systems

1. Video systems in all teaching spaces are to be via mobile carts, providing the greatest flexibility of room arrangements, and allows the instructor to use displays or projection carts for their specific segments of instruction. The connection points for the mobile video carts are provided on three of the walls, and the floor (second story and above) via a connection plate. These mobile video carts will be fed from a user-provided laptop, or additional school-provided sources.
    a. A wireless transmitter shall be installed on each mobile cart, or wireless sharing devices, to pass audio/video content to the in-room amplifier and ceiling mounted speakers.
    b. Control and selection of the video input signals are provided by the push-button control panel mounted on/near the teaching wall.

Intercom System

1. Master Stations: Centralized control panels located in administrative offices or security rooms allow for direct communication with all areas.
2. Substations: Wall-mounted or desktop intercom units placed in classrooms, offices, and common areas provide two-way communication.
3. Hands-Free Operation: Touchless communication options for sanitary and safety purposes.
4. IP-Based Intercoms: Use Power over Ethernet (PoE) for simplified installation and integration with the existing network infrastructure.
5. Audio Quality: High-definition audio codes ensure clear voice transmission.

Paging System:

1. Zoned Paging: Customizable zones (e.g., floors, departments, or buildings) enable targeted announcements, reducing unnecessary disruptions.
2. All-Call Capability: Allows facility-wide announcements for emergencies or general information.
3. Outdoor & Indoor Speakers: Weather-resistant speakers for external areas and ceiling or wall-mounted speakers for internal spaces ensure complete coverage.
4. Integration with Emergency Systems: Connects with fire alarms and emergency notification systems for coordinated responses.

Clock System

1. Synchronized Clocks: Wireless (Battery Operated) analog clocks synchronized via Network Time Protocol (NTP) or GPS provide consistent and accurate time display across the facility.
2. Bell & Tone Scheduling: Integrated with the paging system for automated bell schedules in educational or industrial settings.
3. Centralized Management Software: Unified interface for managing intercom, paging, and clock systems, accessible from desktops, tablets, or mobile devices.
4. User Permissions: Role-based access control to prevent unauthorized use.

Video Surveillance System

1. A video surveillance system comprises a camera, data transmission wiring, and a control station with associated equipment. Provide a surface-mounted data outlet above each camera location for all interior cameras. All interior cameras must be semi-recessed and installed on a Caddy ATA41 T-Grid mount. Flush-mounted cameras are not accepted. A surface-mounted data outlet must be provided within 12 inches of the thru-wall sleeve for exterior-mounted wall cameras. Parking lot pole-mounted cameras are not allowed.
2. Video Management System (VMS)
    a. Centralized Video Monitoring: Security personnel can access live feeds and recorded footage via a unified control center.
    b. Motion Detection & AI-Based Analytics: Triggers alerts based on motion, facial recognition, and unusual activity.
    c. Automated Event Tagging: Smart indexing for quick retrieval of critical events.
    d. Multi-User Access: Role-based permissions allow different levels of access for administrators, security staff, and IT personnel.
3. Network & Data Storage
    a. Edge & Cloud Storage: Combination of local Network Video Recorders (NVRs), cloud-based storage, and redundant backup systems for data security.
    b. RAID-Configured Servers: Redundant storage for failover protection against data loss.
    c. Bandwidth Optimization: Efficient video compression (H.265/H.264) reduces network load while maintaining video quality.
4. Integration with Security Systems
    a. Access Control System Integration: Cameras monitor entry points, logging activity with door access systems.
    b. Alarm & Intrusion Detection: Video verification for triggered alarms to reduce false alerts.
5. Remote Monitoring
    a. Mobile & Web Access: Security teams can monitor and manage video feeds remotely via secure mobile applications and web dashboards.

Access Control and Intrusion Protection

1. The AC/IDS will be a smart, forward-thinking system that keeps the facility secure. It will manage who comes in and detects any unauthorized activity. By combining advanced security features like authentication, intrusion sensors, and real-time alerts with a central monitoring system, it allows you to be proactive about security. This ensures a rapid response to threats and helps you meet compliance standards, keeping your environment safe and controlled.
2. Intrusion Detection System (IDS)
    a. Motion Sensors Detectors: Detect unauthorized movement and forced entry.
    b. Door & Window Contact Sensors: Monitor doors, windows, and restricted entry points.
    c. Tamper Detection Alerts: Sends real-time notifications for system tampering or disabled sensors.
    d. Silent & Audible Alarms: Configurable alerting system for discreet or loud deterrence.
3. Centralized Monitoring & Control
    a. Security Operations Software: Centralized dashboard for live monitoring of access points and intrusion events.
    b. Real-Time Alerts & Notifications: Security teams receive instant alerts via mobile apps, email, and SMS.
    c. Event Logging & Audit Trails: Tracks all access events, attempts, and security violations.

Fire Alarm Distributed Antenna System Infrastructure (FADAS)

1. A fire alarm distributed antenna system is not intended for the facility as it was not expressed in the design criteria as required.

Cellular Distributed Antenna System Infrastructure (CDAS)

1. A CDAS system is not intended for the project.

H. FIRE PROTECTION DESIGN GUIDELINES

Fire Protection System Criteria

1. Overview
    a. This Fire Safety Systems section of the Basis of Design document is intended to describe the fire suppression and fire / emergency alarm and signaling systems necessary to satisfy minimum fire protection code requirements and stakeholder objectives for the proposed construction.
    b. This building incorporates a standard automatic wet pipe sprinkler system design based on NFPA 13 requirements for building protection and life safety issues. This system shall be designed, installed and tested by a licensed fire protection contractor. The system shall comply with NFPA 13 requirements and shall be hydraulically calculated based on the building occupancy and area hazard/density designation. This building shall also be required to comply with NFPA 14 regulations for building standpipe installations. A fire pump will be required to maintain pressure and flow requirements based on the available site water pressure and the height of the building.
    c. The project includes the construction of classrooms, conference rooms, multipurpose spaces, offices, kitchen, media and other support spaces.
    d. Fire protection for the site shall be provided by an on-site UL-listed pumping system utilizing the on-site cistern storage. A electric-driven fire pump shall provide the pressure and flow needed to meet NFPA design requirements. A jockey pump shall be provided to limit the starting and stopping of the large fire protection pump.
    e. The fire pump shall be complete with system controllers.
    f. Site fire hydrants shall be pressurized by the on-site pumping system.
    g. Fire protection piping shall be HDPE approved for fire protection systems.
    h. Dry chemical system shall be provided to the kitchen grease hood.

Fire Protection Building System Description

1. Automatic Sprinkler Systems
    a. The proposed building will be protected throughout by an automatic sprinkler system designed in accordance with NFPA 13. Sprinklers will be provided in all areas required by NFPA 13, local code requirements in accordance with fully sprinklered buildings. Unless noted otherwise, building sprinkler systems will be automatic wet-pipe type.
    b. The sprinkler system shall be maintained in accordance with NFPA 25.
    c. The wet-pipe automatic sprinkler system will be zoned per floor via zone control assemblies each inclusive of indicating isolation valve, check valve, flow switch and combination test/drain valve.
    d. All automatic sprinkler systems shall be equipped with local water flow alarms (zoned in coordination with the fire alarm and smoke control zoning) and supply valve supervisory switches (tamper switches; one per valve). Activation of a water flow alarm will result in a full "FIRE ALARM" in the building resulting in evacuation of occupants and automatic notification to the local fire department. Closure of a sprinkler control valve shall result in a

"SUPERVISORY SIGNAL" being sent to the central building fire monitoring console in order to notify building maintenance of a potential problem (closed system valve).

e. Sprinklers will be quick / fast response type throughout, unless not permitted by NFPA 13 (extra hazard occupancies) or otherwise not suitable for an application (high temperature spaces).

f. The riser and associated fire pump shall be sized to provide 60 psi at the inlet side of the highest hose valve. Hydraulic calculations and pipe sizes for each standpipe shall be based on providing 250 gpm at the hydraulically most remote two hose connections on the most remote standpipe and at the top most outlet of each additional standpipe, not to exceed 1,000 gpm.

Special Application Automatic Fire Suppression

1. Where the immediate application of fire suppression water represents a potential hazard to occupant safety or protected equipment, preaction sprinkler and / or alternative fire extinguishing systems may be used.

Fire Department Connection

1. The building shall be served with one (1) fire department connections, located near pavement or sidewalk but shall not be installed behind shrubbery or planters. Each connection shall be identified with a reflective screen-printed sign having symbols given in NFPA 170.

Water Supply

1. The on-site non-potable water distribution network will supply the building fire sprinkler via an underground piping service entrance.
2. An 8-in underground fire services will supply the buildings.

Fire Protection System Criteria

1. General
   a. The project location is the United States Virgin Islands; and is subject to the requirements of the laws, regulations, ordinances, codes and referenced design standards as adopted and amended by the regulatory entities in authority.
   b. The design of the fire protection system will comply with the applicable National Fire Protection Standards and International Building Codes established for the project.

I. STORM DRAIN AND STORM WATER MANAGEMENT

The proposed stormwater management system for the project site will honor the existing stormwater flow patterns of the general area where the project is located. Site stormwater runoff will be collected by precast concrete catch basins and conveyed to an on-site exfiltration gallery via concrete pipes. Stormwater runoff collected on the building roofs will be conveyed by PVC SDR35 rainwater leaders to concrete conveyance pipes which will convey the stormwater to a cistern. The cistern overflow will be designed to discharge towards the southeast of the site like the existing cistern.

Site stormwater runoff will be collected and directed to an exfiltration gallery. We anticipate locating the exfiltration gallery near the drop-off area. The exfiltration gallery overflow shall be designed with an overflow towards the southeast.

J. PAVEMENTS

All pavement requirements will be determined based on a soils report to be completed before the design phase.

At a minimum the asphalt pavement sections for parking, driveways and roads shall consist of a minimum of 2-inch asphalt, 8-inch rock base meeting minimum LBR 100 and compacted to 100% maximum density per AASHTO T-180 and 12-inch stabilized subgrade with minimum LBR 40 compacted to 98% maximum density per AASHTO T-180.

At a minimum the concrete sidewalks shall be 6-inch thick 3,000-psi concrete with broom finish over a 12-inch stabilized subgrade.

At a minimum concrete pavement shall be 6-inch thick with 4,000-psi concrete with welded wire mesh reinforcement over an 8-inch rock base meeting minimum LBR 100 and compacted to 100% maximum density per AASHTO T-180 with a 12-inch stabilized subgrade with minimum LBR 49 compacted to 98% maximum density per AASHTO T-180.

K. TRANSITIONAL STRUCTURES AND SPACES

Based on current condition, no temporary facilities are required.

8.0 SAFETY / SECURITY

A. SAFETY / SECURITY STANDARDS

Design Criteria

The design of the site and facilities will be performed in accordance with the standards listed below. In the case of conflict between these criteria, the most stringent requirement will govern. Further development of the design will be held in compliance with these standards.

NFPA Fire Codes	NFPA 101
ICC500-202	Standard for the Design and construction of Storm Shelters
FEMA P-361	FEMA Standard for Design of Safe Rooms for Tornadoes and Hurricanes
IBC 2024	International Building Code, 2024

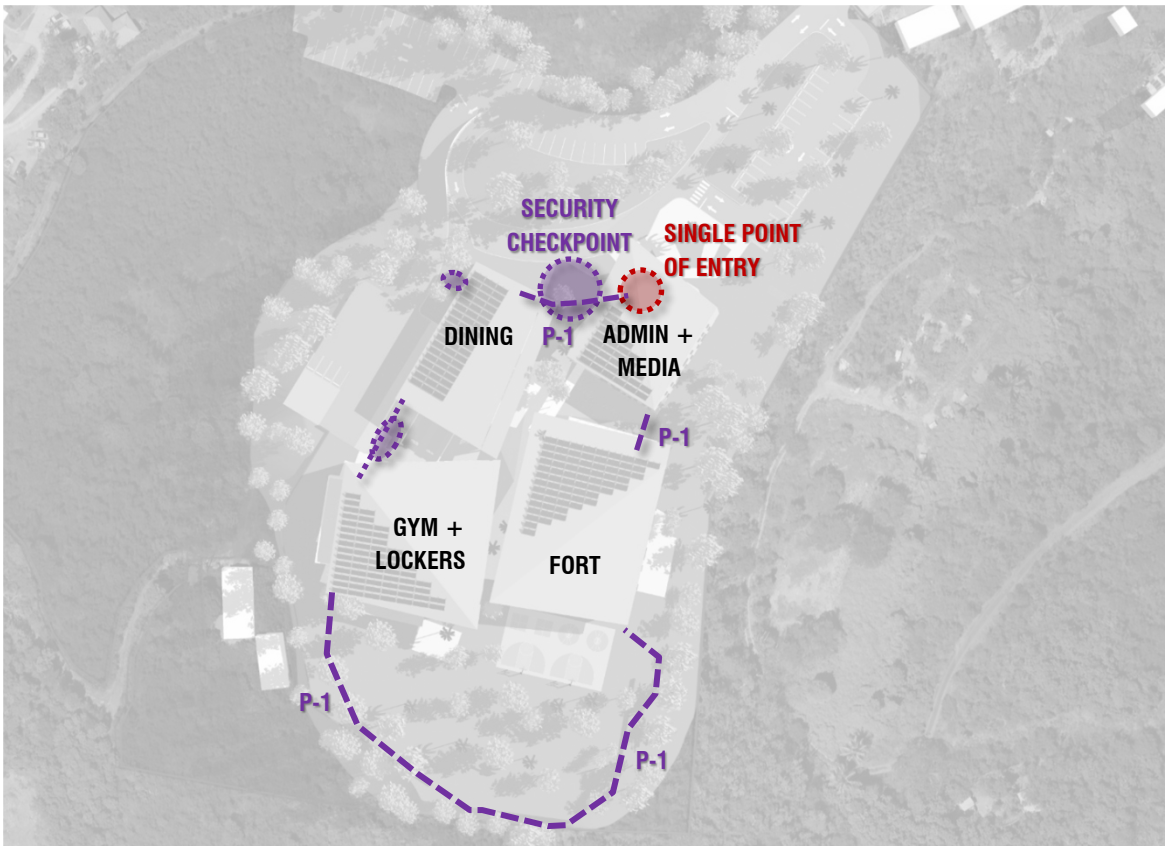
2021 US Virgin Island Code, Title 29 - Public Planning and Development, Chapter 5- Building Code

Basis of Design

The proposed development is a new replacement of an existing non-operating school campus.

The school is planned to be located within a secure perimeter (P-1). A secondary perimeter (P-2) will be located within the property to define the zone at which students are secure within the campus during operations. A single point of entry is defined at the Administration to control the campus.

Refer to Site Safety / Security Diagram below:



Site Features:

Playground equipment will be located within the protective perimeter (P-2). All electrical and mechanical equipment, i.e., specify transformers, condensers, chillers, etc., as well as all trash containers and the respective enclosures will be located within a secure perimeter and away from schools and support buildings. Parking areas for schools and support buildings will be in areas of control and ease of visual supervision. Access gates will control access to the site as well as prevent access within the P-2 boundary during school operations.

Per Charrette discussion, VIDE is implementing new metal detector access point controls and scanners. VIDE is to provide the new security standards and requirements for these systems in the next design phase. Designated locations are indicated for preliminary recommendations on the Site Safety / Security Diagram.

Drive-Up / Drop-Off Roadways:

Barriers and Roadways will be provided to protect drive and drop-off areas. Gates and controls will be placed to secure access accordingly. Passive barriers will be proposed in the design phase to limit ease of access for vehicles to designated drop-off and building areas.

Building and Vertical Construction Features:

Electronic Physical Access Control Systems

The intent for the new planned expansion will reshape and re-position the administrative suite for the campus to create a new centralized single point of entry at the front of the school. This initial move will relocate the control point in compliance with VIDE's security requirements.

Access Control – Locations

Access control to schools and support buildings will use a centralized system in coordination with VIDE standards.

Access Control – Interior Doors

Based on the design configuration of the remodel and expansion to the school, it may be necessary to equip additional interior doors with controls. This item is to be evaluated and designed in accordance with VIDE standards.

Smart Cards

The renovation and expansion areas planned will use the Common Access Card as the identity credential for supporting interoperable access to the schools in accordance with the VIDE security criteria.

Smart Cad Security Management Software

The expansion and renovation area of the school shall be designed to use a fully integrated access control solution to always monitor and track who is coming and going (when applicable), approved by VIDE personnel. The software will allow the school and support buildings to grant access to VIDE personnel. The software will be designed to include real-time messaging and cross platform communications to manage the access control system. The software will allow VIDE to terminate access.

Intercom Requirements

The project delivery team shall make every effort to integrate security intercoms (e.g., public call stations) with remote door and remote gate release in accordance with the VIDE operational requirements. If unable to integrate into the existing system, a new system shall be provided.

Intercom System Functions

The new expansion and renovation areas planned shall have an intercom system to provide visitors and, on occasion, students and staff the means to communicate with the administrative suite for entry into the school or support buildings. By providing these types of systems, it eliminates the need for students and staff to leave doors propped open for convenience, enhancing force protection.

Ai-Phone Intercom System Locations

The project delivery team will place the master station at a reception desk inside the administrative suite, central storage, receiving room, and kitchen office.

Access Control Support Equipment

The new single point of entry and administration suite shall have installed the controls client enrollment workstation. The client enrollment workstation is to manage the access control system and issue temporary access badges to authorized visitors, volunteers, and contractors.

Door Position Sensors

Door position sensors are recommended to be provided for all new and renovated areas to report the open or closed status of a door to the access control system, allowing it to engage locks, annunciate alarm conditions, and other actions that provide security integrity. This item shall be addressed in the design phase.

9.0 SUMMARY OF SCOPE CHANGES

A. SCOPE DEVELOMENT / DESIGN CHANGES

- Reduce one (1) K-5 SLC – provide Deduct Alternate with budget cost (Closed – Removed.)
- RFI #010: Electrical installation to be designed for net 0 criteria. Provide 115% electricity demand with PV panels and 3-days battery backup.
- RFI #017: Change of code from IBC 2021 to 2024.
- RFI #022: Confirmation that all "semi-conditioned" areas as defined in bridging documents should air conditioned (Closed)
- Revision of program and capacity compared to bridging documents. (Closed)
- RFI #027: Gym ~~and Dining~~ Building is to be designed as a storm shelter per ICC 500 (Closed)
- New Construction plan optimization to remove +/- 2,000 SF at 2-Story SLC (Closed)
- ~~Additional Drop Off areas for parents and bus access.~~
- Security scanner (magnetic) check points for all entering the site (2).
- Security Entrance Standards (New)
- Finish Material Standards (New)

B. POTENTIAL ADDITIONAL SCOPE IMPACTS (OPEN RFIs)

- RFI #024: Transformers and flume hood
- RFI #025: MEP criteria and basis of design documentation (Closed)
- RFI #026: Energy modeling/microgrid criteria (Closed)
- RFI #030: Fire truck specifications (Closed)
- RFI #033: WAPA handbook (Closed)
- RFI #034: Traffic study parameters (Closed)
- RFI #035: VITEMA maintenance capacity (Closed)

10.0 SPECIFICATIONS

Please see attached Specifications Table of Contents for intended specifications development.

SECTION 00 0110

TABLE OF CONTENTS

List of Specifications	Description	Discipline	SD Sub. 08-01-2025
28 0800	Commissioning of Electrical	Elec	
28 0900	Instrumentation and Control for Electrical Systems	Elec	
28 0913	Electrical Power Monitoring and Control	Elec	
28 0919	Contactors	Elec	
26 0923	Lighting Control Devices	Elec	
26 1116.11	Secondary Unit Substations with Switchgear Secondary	Elec	
26 1200	Medium Voltage Transformers	Elec	
26 2116	Service Entrance	Elec	
26 2200	Low Voltage Transformers	Elec	
26 2413	Distribution Switchboards	Elec	
26 2416	Panelboards	Elec	
26 2713	Electricity Metering	Elec	
26 2716	Cabinets and Enclosures	Elec	
26 2726	Wiring Devices	Elec	
26 2816	Disconnect Switches	Elec	
26 3100	Photovoltaic Controllers	Elec	
26 3323	Central Battery Equipment	Elec	
26 3600	Transfer Switches	Elec	
26 4100	Lightning Protection Systems	Elec	
26 4300	Surge Protective Devices	Elec	
26 4313	Surge Protectors for Data and Electronic Equipment	Elec	
26 5100	Luminaires	Elec	
26 5616	Site Lighting – Parking Perimeter Lighting	Elec	
DIVISION 27	**COMMUNICATIONS**		
27 0510	Basic Specialty System Requirements	Elec	
27 1000	Stuctured Cabling	Elect	
27 1343	Telephone Service Entrance	Elect	
27 4100	Audio Visual Systems	Elect	
27 5113	Appendix A Programming Information Template	Elect	

List of Specifications	Description	Discipline	SD Sub. 08-01-2025
27 5113	Cellular Repeater System	Elect	
DIVISION 28	**ELECTRICAL SAFETY AND SECURITY**		
28 0537	Security Voice Communications - Distributed Antenna System	Elect	
28 1000	Access Control System	Elect	
28 2000	Video Surveillance System	Elect	
28 3000	Intrusion Detection System	Elect	
28 4700	Voice Evacuation Fire Alarm and Smoke Detection Systems	Elect	
DIVISION 31	**EARTHWORK**		
31 3116	Termite Control	Arch	
31 6100	Footings	Struct	
	See Civil Drawings		
DIVISION 32	**EXTERIOR IMPROVEMENTS**		
32 3113	Chain Link Fences and Gates	Arch	
32 3119	Estate Metal Fences and Gates	Arch	
32 3300	Site Furnishings	Arch	
	See Civil Drawings		
DIVISION 33	**UTILITIES**		
33 1600	Water Utility Storage Tanks	Mech	
	See Civil Drawings		

END OF SECTION

APPENDICES

Yvonne E. Milliner-Bowsky

Jane E. Tuitt

Lockhart Family

Ivanna Eudora Kean

Emanuel Benjamin Oliver

Ulla F. Muller

HONORING A LEGACY

RFQ 001-2024-STX/STT/STJ I *St. Thomas Schools Bundle 2*
Rebuild USVI Construction Services

Preconstruction Services
Code 2 - Planning Charrette
DAY FOUR

15-18 July 2025

DESIGN CHARRETTE

CODE 2 DAY 4
ATTENDANCE LIST

Rebuild USVI Construction Services
St. Thomas Schools Bundle 2
RFQ 001-2024-STX/STT/STJ
ODR Project No.: 2025-ODR-0029

SUFFOLK | CBNA | ZYSCOVICH

CODE 2 DESIGN CHARRETTE 7/18/2026

NAME	DEPARTMENT / ORGANIZATION	EMAIL	PHONE NUMBER
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SCHEDULE

LOCATION — **Jacobs UVI Office** *(St. Thomas, 48 Norre Gade, Charlotte Amalie, St Thomas 00804, U.S. Virgin Islands*

Sunday 7/13/2025	Monday 7/14/2025	Tuesday 7/15/2025	Wednesday 7/16/2025	Thursday 7/17/2025	Friday 7/18/2025	Saturday 7/19/2025
	0800-1200 TRAVEL	0800-0900 On-Site Team Meeting / Set-Up	0800-0900 On-Site Team Meeting / Set-Up	0800-0900 On-Site Team Meeting / Set-Up	0800-0900 On-Site Team Meeting / Set-Up	
		0900-1030 Lockhart PK-8: Schematic Design Approach — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)	0900-1000 Tuitt PK-1: Update — Site Confirmation / Concept Review (VIDE, Jacobs, McKissack, DLR)	0900-1100 OAC Meeting — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)	0900-1000 Out Brief / Preliminary Delivery of Findings Action Items List/Due Outs (VIDE, Jacobs, McKissak, DLR)	
		1030-1200 Admin Center: Schematic Design Approach — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)	1000-1200 Bowsky PK-8: Schemate Design Approach — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)	1100-1200 Muller PK-8: Code 0/3 Recap — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)	1000-1200 Team Workshop Session / As Necessary	
	1200-1300	1200-1300 Lunch Break	1200-1300 Utility Coordination VIDE / WAPA — Utility Review (VIDE, Jacobs, McKissack, DLR)	1200-1300 Lunch Break	1200-1300	
	1300-1800	1300-1600 Oliver PK-8: Schematic Design Approach — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)	1300-1700 Kean HS: Schematic Design / Civil Approach — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)	1300-1400 Admin Center: Design Recap — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)	TRAVEL	
				1400-1500 Oliver PK-8: Design Recap — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)		
				1500-1600 Kean HS: Design Recap — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)		
		1600-1700 Muller PK-8: Code 0/3 — Site Confirmation / Concept Review (VIDE, Jacobs, McKissack, DLR)				
		1700-1800 Wrap Up	1700-1800 Kean HS: Code 2 Reivew with Commissioner — Architectural Character / Concept Review (VIDE, Jacobs, McKissack, DLR)	1600-1800 All: Civil Recap — Schematic Design / Confirmation (VIDE, Jacobs, McKissack, DLR)		

AGENDA

SUMMARY

WHY ARE WE HERE TODAY

SCHEDULE

DAY ONE: Design Approach

- Lockhart PK-8
- Administrative Center / Conference Center
- EB Oliver PK-8
- Muller PK-8 (Program + Planning)

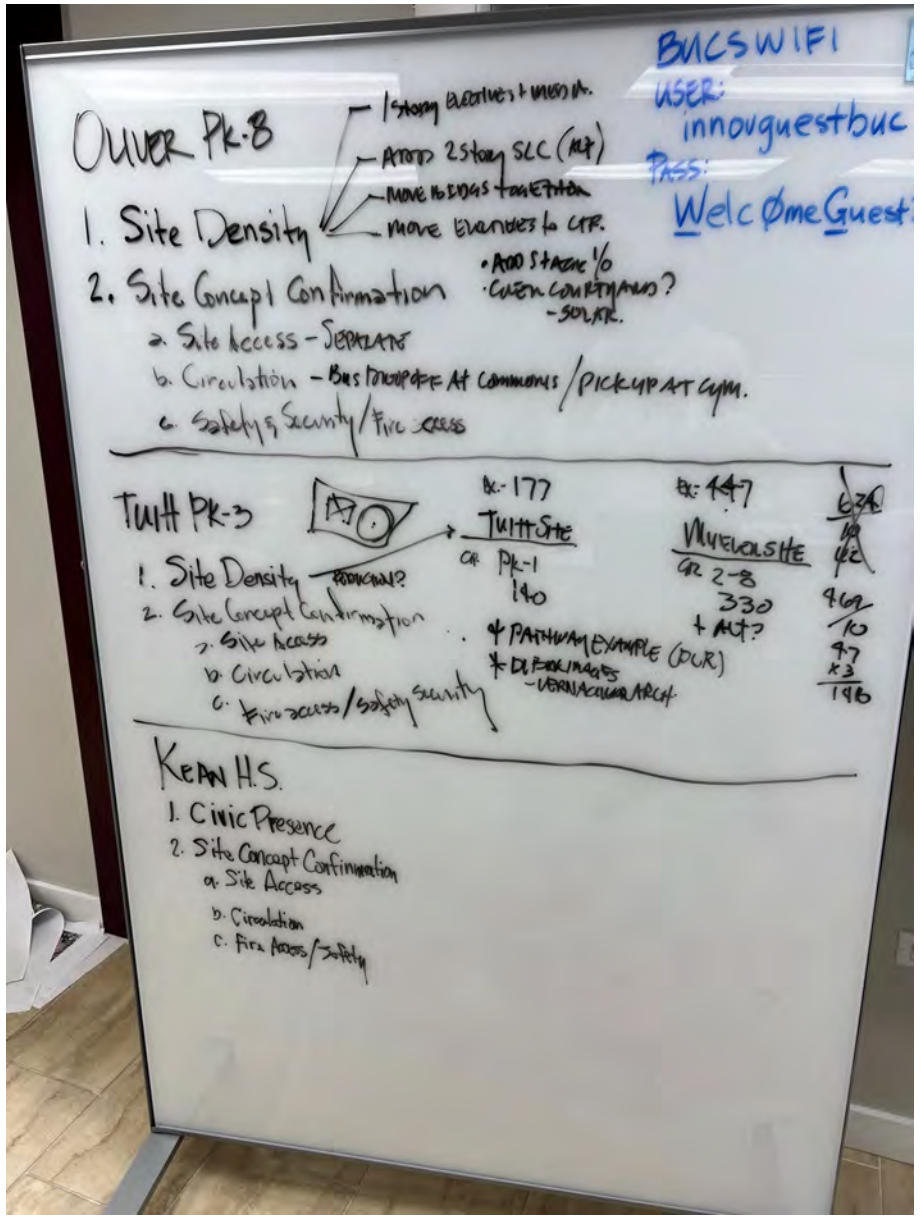
DAY TWO: Concept Approach Confirmation

- Tuitt PK-8
- Bowsky PK-8
- WAPA – Overall Approach
- Kean HS

DAY THREE: Site Visit + Working Day

DAY FOUR: Concept Design Alignment Confirmation (ALL)

NEXT STEPS



PROGRAM & PLANNING VALIDATION

CODE 0 PROGRAMMING CHARRETTE

PROGRAM & PLANNING VALIDATION

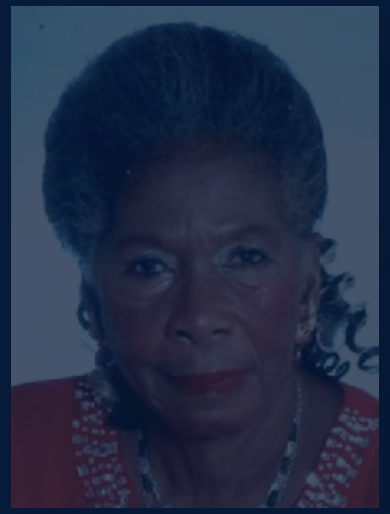
CODE 3 PLANNING CHARRETTE

DESIGN APPROACH – DAY 2 OUTCOME

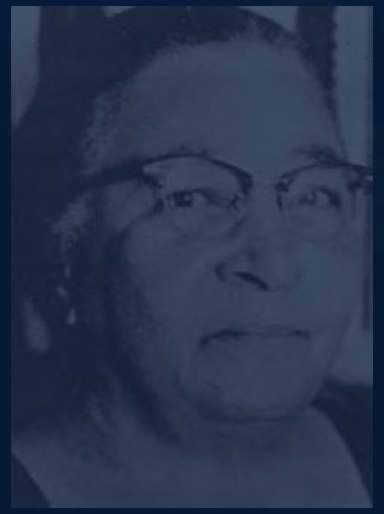
CODE 2 DESIGN CHARRETTE

CRITICAL STEP THIS WEEK

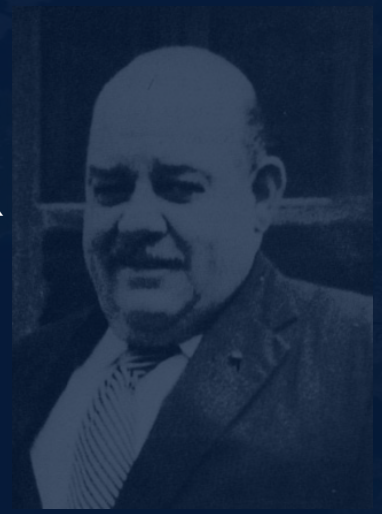
	CODE 0 PROGRAMMING CHARRETTE			CODE 3 PLANNING CHARRETTE			CODE 2 DESIGN CHARRETTE			
	SITE CONFIRMED	SITE CONFIRMED	PROGRAM CONFIRMED	CONCEPT PLAN CONFIRMED	MASSING CONFIRMED	BUDGET CONFIRMED	PROGRAM / SCOPE FINALIZED	HORIZONTAL CONTROL SITE	HORIZONTAL CONTROL PLAN	AESTHETIC APPROACH
LOCKHART PK-8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
OLIVER PK-8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ADMIN / CONF CENTER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BOWSKY PK-8	✓	✓	✓	✓	✓	✓	☹	☹	✓	✓
KEAN HS	✓	✓	✓	✓	✓	✓	😐	😐	😐	✓
TUITT PK-1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MULLER PK-8	✓	✓	✓	✓	✓	✓				



Yvonne E. Milliner-Bowsky



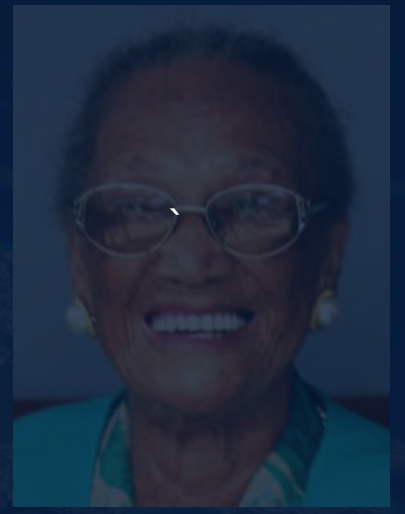
Jane E. Tuitt



Lockhart Family

Ivanna Eudora Kean

Emanuel Benjamin Oliver



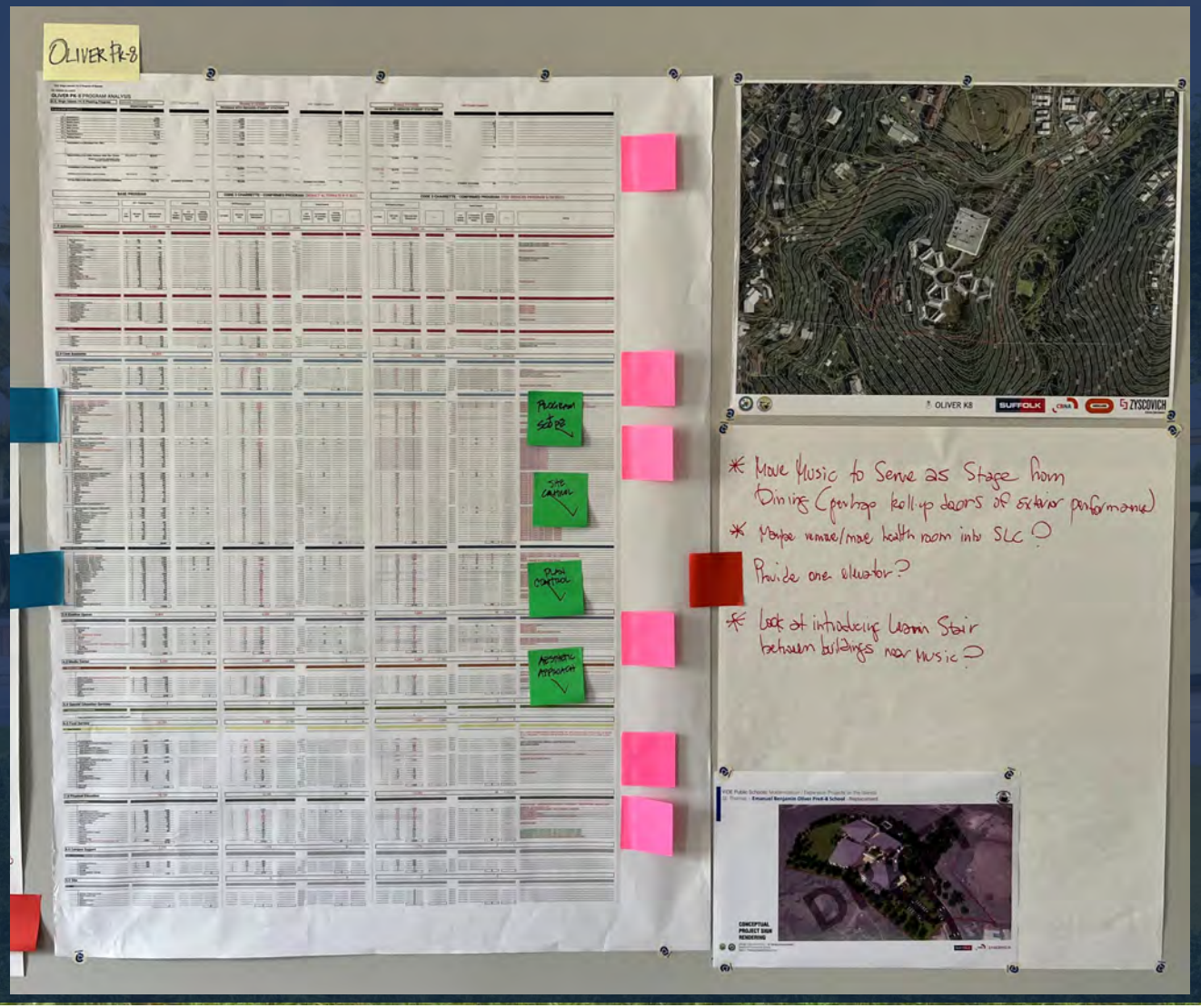
Ulla F. Muller

EMANUEL BENJAMIN OLIVER PK-8

HONORING A LEGACY

MEETING NOTES

- [x] PROGRAM / SCOPE FINALIZED
- [x] HORIZONTAL CONTROL - SITE
- [x] HORIZONTAL CONTROL - PLAN
- [x] AESTHETIC APPROACH



VIDE Public Schools: Modernization / Expansion Projects on the Islands
St. Thomas – **Emanuel Benjamin Oliver PreK-8 School** - Replacement
SITE PARCEL(s)

Responses

Erika Gulick *April 1, 2025 at 7:43 PM*	The general area identified by Suffolk within Parcel A is intended to be redeveloped as part of this project. Surveys should be conducted and any easement information, deeds, project boundary, legal descriptions and ownership should be confirmed by a registered land surveyor through Suffolk-CBNA with the Government of the Virgin Islands, including the Department of Property and Procurement, as soon as possible as part of its pre-construction services.	**Attachments** --

PARCEL LEGEND

A
Property I 105604031600
Address 148-325 ANNAS RETREAT NEW QTR
Owner GOVERNMENT OF THE V.I.
Address 8100 Lindbergh Bay 61
St Thomas VI 00802

B
Property ID 105604030200
Address 6A ESTATE ANNAS RETREAT NEW
QUARTEROwner GOVERNMENT OF THE V.I.
Address 8100 Lindbergh Bay 61
St Thomas VI 00802

C
Property ID 105604036400
Address 148-324A ANNAS RETREAT NEW QTR.
Owner GOVERNMENT OF THE V.I.
Address 8100 Lindbergh Bay 61
St Thomas VI 00802

D
Property ID 105604026300
Address 148-324 ANNAS RETREAT NEW QTR.
Owner RIZZOLO BART
Address 3140 S BRONCO ST ,
LAS VEGAS NV 89146

E
Property ID 105603013800
Address 27 ESTATE CHARLOTTE AMALIE
NO.3 NEW QTR
Owner HARTHMAN LEASING II LLLP
Address PO BOX 503330 , ST. THOMAS VI 00805

F
Property ID 105604031200
Address 5A ANNAS RETREAT NEW QTR
Owner STEELE ANNA'S RETREAT LLC
Address 4026 Annas Retreat , St Thomas VI 00802

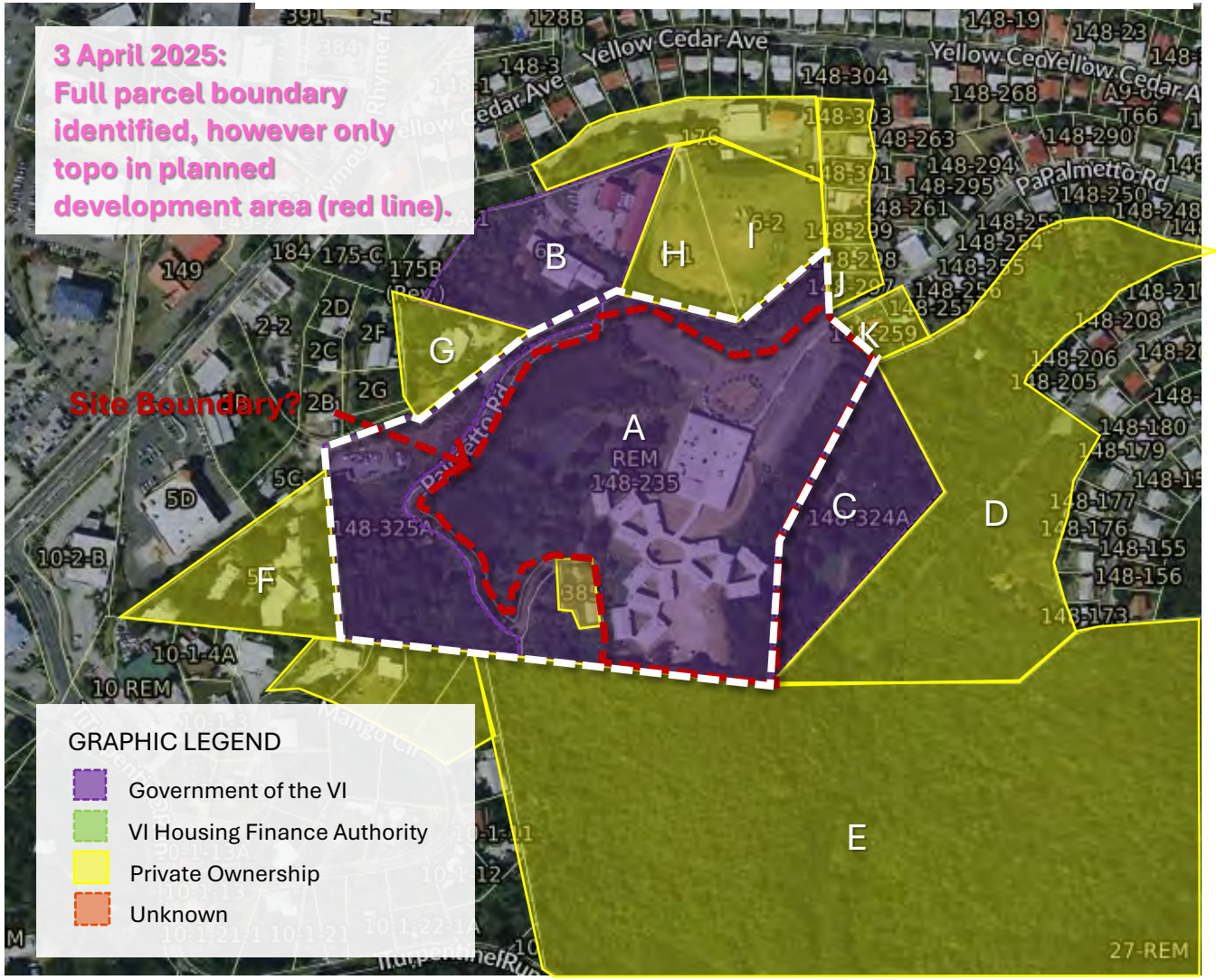
G
Property ID 105604031400
Address ANNAS RETREAT 2&2H No.1 NEW QTR.
Owner Professional Des and 2-H & Rem 2
Address PO Box 304062 , St Thomas VI 00803

H
Property ID 105604031500
Address EST. ANNAS RETREAT 6-1 NEW QTR.
Owner EMMANUEL BAPTIST CHURCH INC
Address P.O.BOX 3539 , ST THOMAS VI 00801

I
Property ID 105604030100
Address ANNAS RETREAT 6-2 NEW QTR
Owner EMMANUEL BAPTIST CHURCH INC
Address P.O.BOX 3539 , ST THOMAS VI 00801

J
Property ID 105604023800
Address 148-297 ANNA'S RETREAT NEW QTR
Owner ABRAHAM OSWIN & M. A
Address PO Box 502811 , St Thomas VI 00805

K
Property ID 105604025000
Address ANNAS RETREAT 148-259 NEW QTR
Owner MINERVA V BERNIER AND
ELLEN A DANIEL
Address 701 MC GLAUGHLIN RD ,
FAIRFIELD PA 17320



SITE CONFIRMED

St. Thomas – **Emanuel Benjamin Oliver PreK-8 School** - Replacement

PROGRAM SUMMARY

SCOPE: Currently K-6 (not in use) going to a PK-8. Add MS components, learning suites and activated outdoor environments.

June 3, 2024
Criteria Documents
(4 of 6 Of STT Education Bundle)

Oliver PreK-8 will be a replacement school using the criteria that was developed throughout the FEMA funding and master plan process. Oliver will house a student population of approximately 469 with an overall square footage of 69,794gsf,. The proposed PreK-8 school is sited on the southern portion of the site to allow for appropriate site/civil interventions on the northern portion of the site where there is substantial ground water. The building components will include two new two story "Small Learning Communities: that include Elective Spaces and the Media Center on the Ground Floor, a Gymnasium/Commons, which will comply with all the requirements of IBC 2021. These "kit of parts" ar defined in the Markoe Bridging Documents that are reminiscent of the Oliver courtyards.

General Information to be included in Progressive Design Build Package:

- Master Plan for USVI (including FFE)
- Design Guideline (FEMA Criteria)
- BBA
- Oct 3 + 5 "kit of Part" Diagrams from Oct 3 + 5 Community Meetings
- Diagram on structural requirements for appropriate risk category

Specific for Oliver:

- Program Summary for Tuitt indicates average square footages that were laid out in the Prek-8 documents.

Program Area				Functional Capacity	
1.0	Administration		5,066		
2.0	Core Academic		21,725	374	
3.0	Elective Spaces		3,550	95	
4.0	Media Center		4,000		
5.0	SPED Services				
6.0	Food Service		7,725		
7.0	Physical Education		12,000		
8.0	Building Support		1,775		
	Total Useable Area (Net Square Feet- NSF):		55,835	469	
	General Building Area: Walls, Partitions, Mech. Elec., Circulation:	25% of Net SF	13,959	(28% of Gross)	
	Total Building Area (Gross Square Feet- GSF):		69,794		
	*Additional Covered Outdoor Learning Spaces	10% of Net SF	5,584		
	TOTAL BUILDING AREA WITH OUTDOOR LEARNING		75,377		

*Based on industry standards that include outdoor circulation

- Markoe PDF of SD Report and "Bridging Documents"
- Specifications

GRADE LEVELS CONFIRMED

STUDENT STATIONS:
Functional Capacity: 469
Program SF: 69,794 GSF
SF/SS: 148 SF

PROGRAM SUMMARY

EMANUEL BENJAMIN OLIVER PREK-8
program

U.S. Virgin Islands PK-8 Planning Program | Revised 9/17/2020

U.S. Virgin Islands PK-8 Program of Spaces

US VIRGIN ISLANDS

OLIVER PK-8 PROGRAM ANALYSIS

U.S. Virgin Islands PK-8 Planning Program		DESIGN PARAMETERS		Revised 4/10/2025 PROGRAM WITH REDUCED STUDENT STATIONS		
Program Area Summary						
1.0	Administration	6,650	0	5,075	0	
2.0	Core Academic	64,925	1,086	29,310	464	
3.0	Elective Spaces	6,825	155	4,200	114	
4.0	Media Center	5,250	0	4,200	0	
5.0	SPED Services				0	
6.0	Food Service	12,125	0	9,425	0	
7.0	Physical Education	18,100	30	13,100	30	
8.0	Building Support	1,775	0	1,775	0	
	Total Useable Area (Net Square Feet- NSF):	*115,650*	1,271	*67,085*	608	
	General Building Area: Walls, Partitions, Mech. Elec., Circulat	25% of Net SF	*28,913*	*16,771*	25%	
	*Based on industry standards that include outdoor circulation					
	Total Building Area (Gross Square Feet- GSF):		*144,563*	*83,856*		
	*Additional Covered Outdoor Learning Spaces	10% of Net SF	*11,565*			
	TOTAL BUILDING AREA WITH OUTDOOR LEARNING		156,128	90,565		
		STUDENT STATIONS	1,271	STUDENT STATIONS	608	

4. Reduce commons by 3,000sf. Support areas by 1575sf.
5. Show dotted line for additional "future" SLC's.

US VIRGIN ISLANDS
SCHEMATIC DESIGN

STUDENT STATIONS:
Functional Capacity: 608
Program SF: 90,565 GSF
SF/SS: 148 SF

PROGRAM SUMMARY

RFP SFBANK ACCOUNT

CODE 0/3 SF ESCROW

	Capacity (students)		GFA (SF)				
				GFA (SF) RFP ASUMPTION 08.16.2024			
	RFP Capacity	Code 3 Charette Capacity	GFA (SF) RFP Criteria	GFA (SF) A=(1)+(2)+(3)	Renovation (1)	New Construction (2)	Area optimization (3)
Tuitt PreK-1	469	140	69,794	62,815		69,794	(6,979)
Oliver PreK-8	469	608	69,794	62,815		69,794	(6,979)
Lockhart PreK-8	1070	1121	144,563	144,563	63,355	81,208	
Bowsky PreK-8	750	624	113,978	109,238	53,978	60,000	(4,740)
Kean HS	1000	1159	147,215	132,493		147,215	(14,722)
Admin Center	150	177	80,000	76,000		80,000	(4,000)
	3908	**3829**	**625,344**	**587,924**	**117,333**	**508,011**	(37,420)

587,924 SF

(61,306 SF)

PROGRAM SUMMARY

(e) ebo/mmg 06.27.2025

draft report

! Grossing factor 25% as per RFP

	CHARETTE New Construction (2)	Difference B-A	Comment
Tuitt PreK-1	30,313	(82,562)	
Oliver PreK-8	74,231	11,416	Correction deduct alternate SLC - 9 625 sf
Lockhart PreK-8	76,959	(21,219)	
Bowsky PreK-8	18,862	(36,398)	
Kean HS	3,980	31,487	
Admin Center	,940	(31,060)	
	409,285	(61,306)	

STUDENT STATIONS:
Functional Capacity: 608
Program SF: 90,565 GSF
SF/SS: 148 SF

PROGRAM CONFIRMED

EMANUEL BENJAMIN OLIVER PREK-8

square footage comments on Bundle 2 - STT

- *As per Bundle 2 documents: 67,086sf net, 83,856sf gross. RFP identified 69,794 sf gross requiring a reduction of **14K. 21K** if you add the 10% targeted savings from the matrix. **(Note: optimization has been balanced across the entire bundle.)***
- *This is reduced to 74,231 gsf for the additional SLC + 6979 gsf. If you target an additional 10% reduction, that equals the 11, 416gsf identified in the chart.*
- *Functional capacity is identified as 608 (although this assumes simultaneous use of electives.)*
  318 students at core classrooms without additional SLC. 464 students with added SLC.
- ***ADMIN** includes 375sf each for workroom and lounge. This allows for the reduction of planning spaces in the SLC's. Due to the size of the school, this consolidation is acceptable pragmatically. No reduction, but this facilitates other reductions in the SLC's Combined Admin/Media building. .*
- ***CORE ACADEMICS** (29,310 net sf/464 students in core classrooms vs the 608 max. capcity)*
  - *Combine Prek with core academic by relocating to SLC with two floors each with a total of 12 classrooms. **(SAVINGS of 2400sf + 1700 sf = 4100sf)***
  - *Delete teacher planning in SLC's. Activity to happen in Admin building **(SAVINGS of 850 x 2 = 1700sf) Do not recommend.***
  - ***Delete 2 "extra spaces – currently 7 classrooms per floor. (SAVINGS of 850 sf x 2 = 1700sf). The current SLC's are drawn as 14 spaces total versus 10 + required. Do not recommend taking this savings or deduction of Teacher's Planning as a space.)***

    That leave 1 class per grade, pl
- ***ELECTIVES** (4200sf)*
  - *Reduce "big" rooms from 3 to 2. Currently arts, band, steel pan. This is tied to the conversation of what programs where and equity versus parity. **(SAVINGS of 1000sf)***
- ***MEDIA** (4200sf)*
  - *Combine Admin and Media "masses" reducing exterior wall and footprint. With the correct adjacencies, parts of the media center can also support teacher gatherings.*

Reduction in SLC footprint is not recommended.

DLR Group

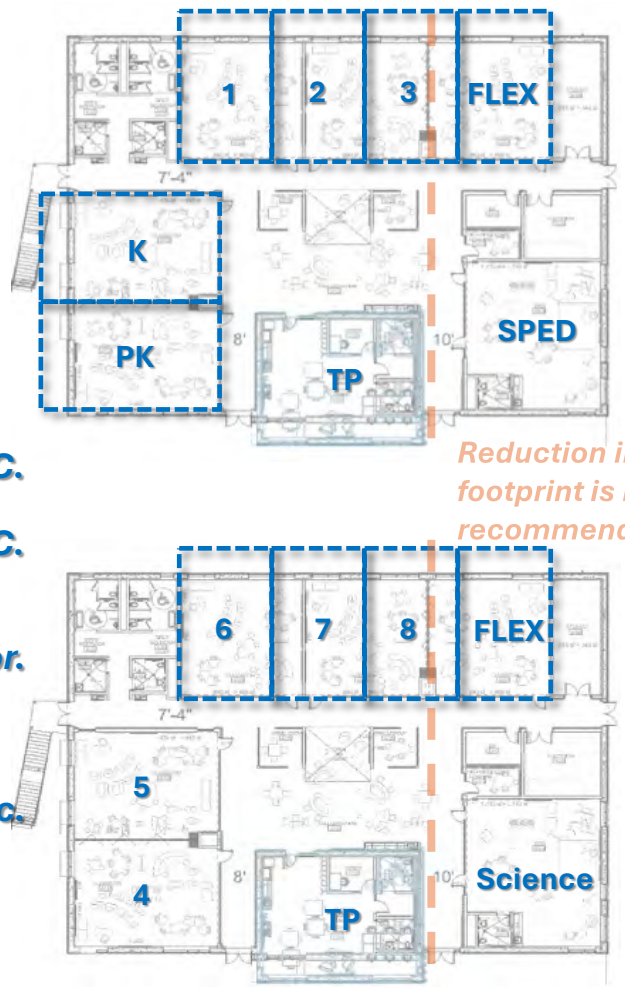
EMANUEL BENJAMIN OLIVER PREK-8

square footage comments on Bundle 2 - STT

PROGRAM ADJUSTMENT APPROACH

- *As per Bundle 2 documents: 67,086sf net, 83,856sf gross. RFP identified 69,794 sf gross requiring a reduction of **14K. 21K** if you add the 10% targeted savings from the matrix. **(Note: optimization has been balanced across the entire bundle.)***
- *This is reduced to 74,231 gsf for the additional SLC + 6979 gsf. If you target an additional 10% reduction, that equals the 11, 416gsf identified in the chart.*
- *Functional capacity is identified as 608 (although this assumes simultaneous use of electives.) 318 students at core classrooms without additional SLC. 464 students with added SLC.*
- ***ADMIN** includes 375sf each for workroom and lounge. This allows for the reduction of planning spaces in the SLC's. Due to the size of the school, this consolidation is acceptable pragmatically. No reduction, but this facilitates other reductions in the SLC's Combined Admin/Media building. .*
- ***CORE ACADEMICS** (29,310 net sf/464 students in core classrooms vs the 608 max. capcity)*
  - *Combine Prek with core academic by relocating to SLC with two floors each with a total of 12 classrooms. **(SAVINGS of 2400sf + 1700 sf = 4100sf)** ..... **Moved to SLC.***
  - *Delete teacher planning in SLC's. Activity to happen in Admin building **(SAVINGS of 850 x 2 = 1700sf) Do not recommend.** ..... **No change. Keep in SLC.***
  - ***Delete 2 "extra spaces – currently 7 classrooms per floor. (SAVINGS of 850 sf x 2 = 1700sf). The current SLC's are drawn as 14 spaces total versus 10 + required. Do not recommend taking this savings or deduction of Teacher's Planning as a space.)** ..... **FLEX at each floor.***

  That leave 1 class per grade, pl
- ***ELECTIVES** (4200sf)*
  - *Reduce "big" rooms from 3 to 2. Currently arts, band, steel pan. This is tied to the conversation of what programs where and equity versus parity. **(SAVINGS of 1000sf)** ..... **Reduced to 1 Music.***
- ***MEDIA** (4200sf)*
  - *Combine Admin and Media "masses" reducing exterior wall and footprint. With the correct adjacencies, parts of the media center can also support teacher gatherings.*



Reduction in SLC footprint is not recommended.

EMANUEL BENJAMIN OLIVER PREK-8

square footage comments on Bundle 2 - STT

- ***FOOD SERVICE*** *(9,424sf)*
  - *Combine dining. Delete MS Dining.* ***(SAVINGS of 1500sf)*** ..... ***Net SF reduction of (1,500 SF) as noted.***
- ***PE*** *(13,100sf)*
  - *Delete health classroom (SAVINGS of 750sf).* ***Not accepted by VIDE.*** ..... ***No change.***
  - *Delete locker rooms/restrooms. Use spectator restrooms as additional bathroom capacity* ***(SAVINGS of 800gsf)*** ..... ***NET SF change of (600 SF) as 200 SF added back to restrooms for code compliance.***
- *BUILDING SUPPORT (1,775sf)*

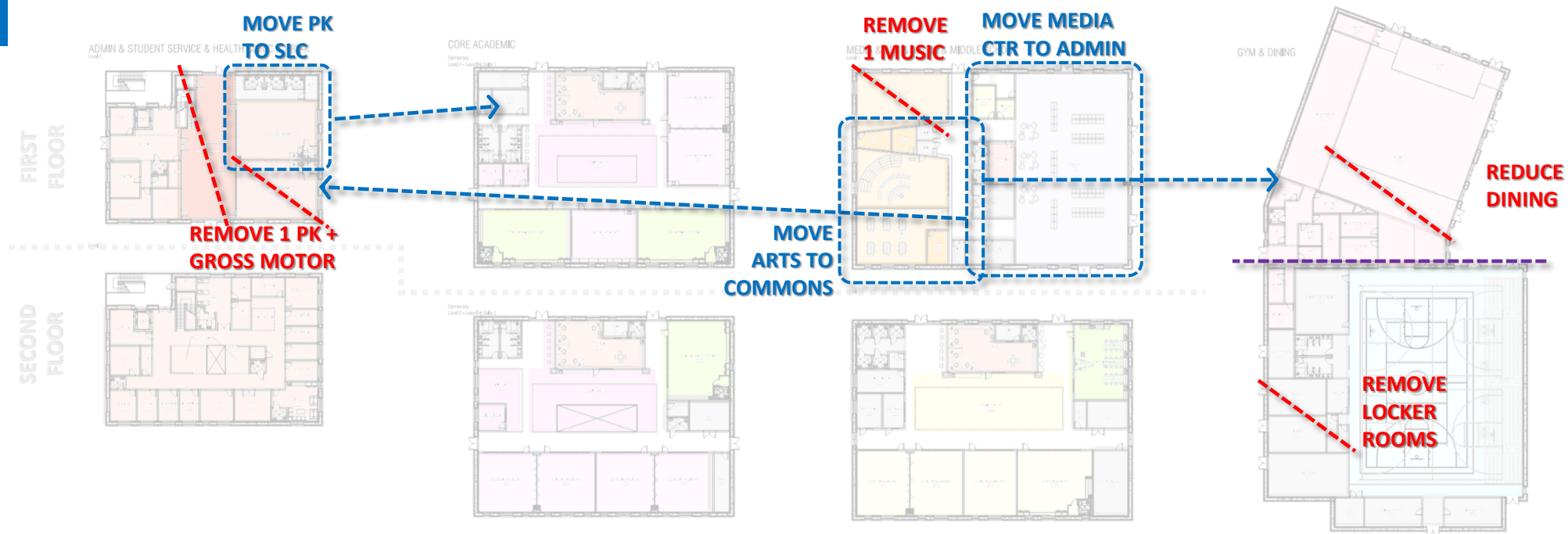
- ***TOTAL NET SAVINGS of 11,550.***
- ***TOTAL GROSS SAVINGS of 14,437 sf. Versus targeted 11,416 gsf***

- ***RECOMMEND YOU KEEP***
  A TOTAL of 3400sf x 1.25 = 4,250gsf
- ***KEEP HEALTH ROOM FOR A TOTAL of 750sf x 1.25 = 938gsf***
- ***14,437-5186 = 9,251sf RECOMMENDED SAVINGS.***

83,856 GSF – 68,419 GSF = (15,437 SF) Reduction

Achieved 10% Savings Below RFP SF with Higher Student Stations....

PROTO-PARTS



LEGEND

- ADMININSTRATION
- DINING
- MEDIA CENTER
- GYMNASIUM / PHYSCIAL ED
- SPECAILS
- SPECAIL ED
- PK
- K-5
- 6-8
- SUPPORT

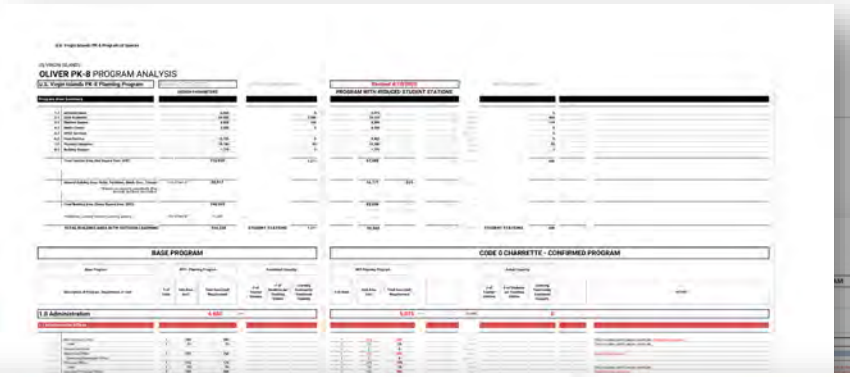
CONCEPT FLOOR PLAN CONFIRMED

PROGRAM SUMMARY

EMANUEL BENJAMIN OLIVER PREK-8
program

U.S. Virgin Islands PK-8 Planning Program | Revised 9/17/2020

Program Area


OLIVER PK-8 PROGRAM ANALYSIS

BASE PROGRAM | CODE 0 CHARRETTE - CONFIRMED PROGRAM

OLIVER PK-8 PROGRAM ANALYSIS

U.S. Virgin Islands PK-8 Planning Program	Revised 10/25/2023 DESIGN PARAMETERS	1,070 Target Capacity	Revised 4/10/2025 PROGRAM WITH REDUCED STUDENT STATIONS	469 Target Capacity	Revised 7/11/2025 PROGRAM WITH REDUCED STUDENT STATIONS	469 Target Capacity
Program Area Summary						
1.0 Administration	6,650	0	5,075	0	5,075	0
2.0 Core Academic	64,925	1,086	29,310	464	20,060	397
3.0 Elective Spaces	6,825	155	4,200	114	3,200	60
4.0 Media Center	5,250	0	4,200	0	4,200	0
5.0 SPED Services				0		0
6.0 Food Service	12,125	0	9,425	0	7,925	0
7.0 Physical Education	18,100	30	13,100	30	12,500	30
8.0 Building Support	1,775	0	1,775	0	1,775	0
Total Useable Area (Net Square Feet- NSF):	115,650	1,271	67,085	608	54,735	487
General Building Area: Walls, Partitions, Mech. Elec., Circulatio *Based on industry standards that include outdoor circulation	25% of Net SF 28,913		16,771 25%		13,684 25%	
Total Building Area (Gross Square Feet- GSF):	144,563		83,856		68,419	
*Additional Covered Outdoor Learning Spaces	10% of Net SF 11,565					
TOTAL BUILDING AREA WITH OUTDOOR LEARNING	156,128	STUDENT STATIONS 1,271	90,565	STUDENT STATIONS 608	68,419	STUDENT STATIONS 487

3. Delete "other electives spaces" for 2400sf.
4. Reduce commons by 3,000sf. Support areas by 1575sf.
5. Show dotted line for additional "future" SLC's.

US VIRGIN ISLANDS
SCHEMATIC DESIGN

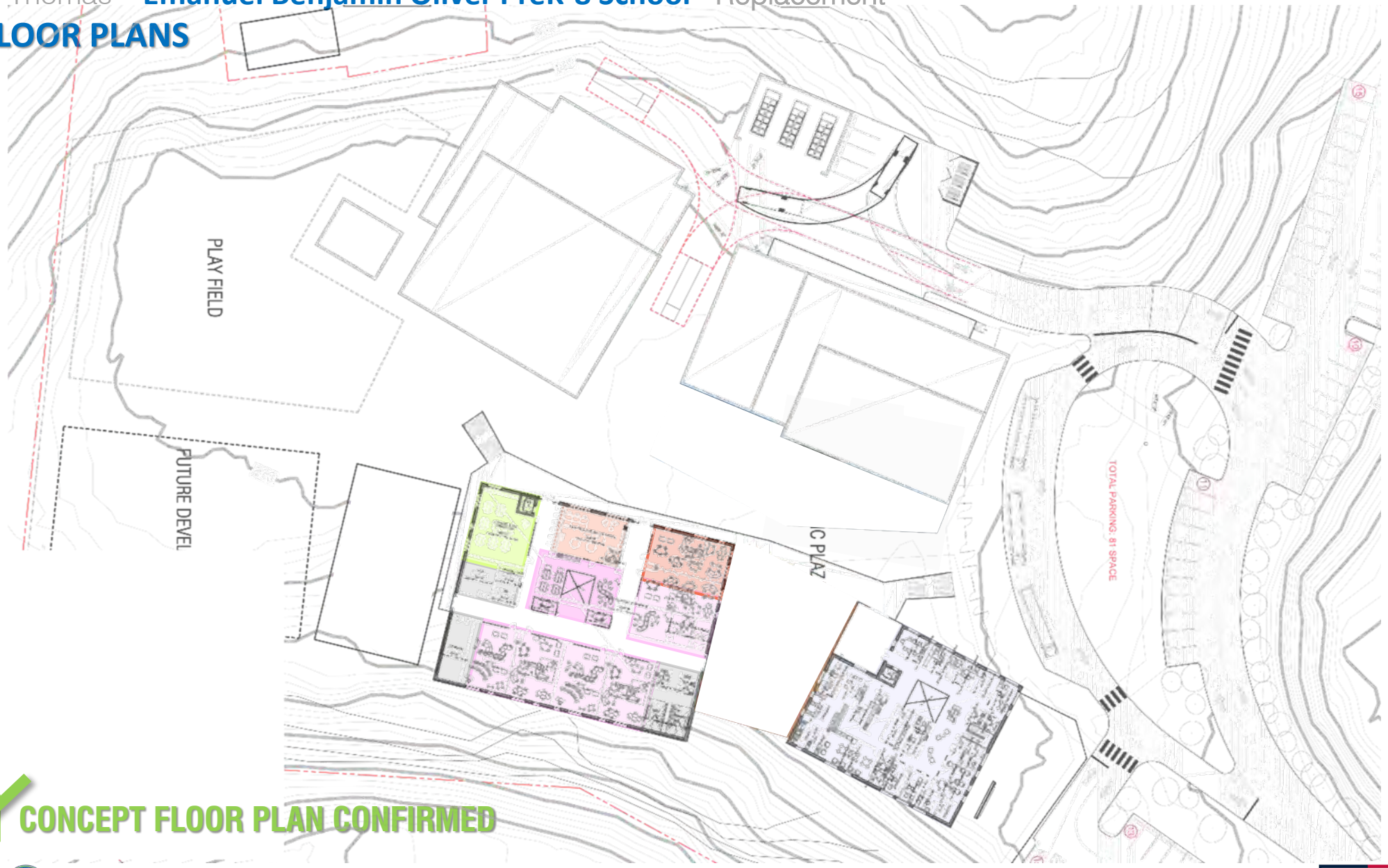
STUDENT STATIONS:
Functional Capacity: 487
Program SF: 68,419 GSF
SF/SS: 140 SF

FLOOR PLANS

CONCEPT FLOOR PLAN CONFIRMED

FIRST FLOOR

FLOOR PLANS



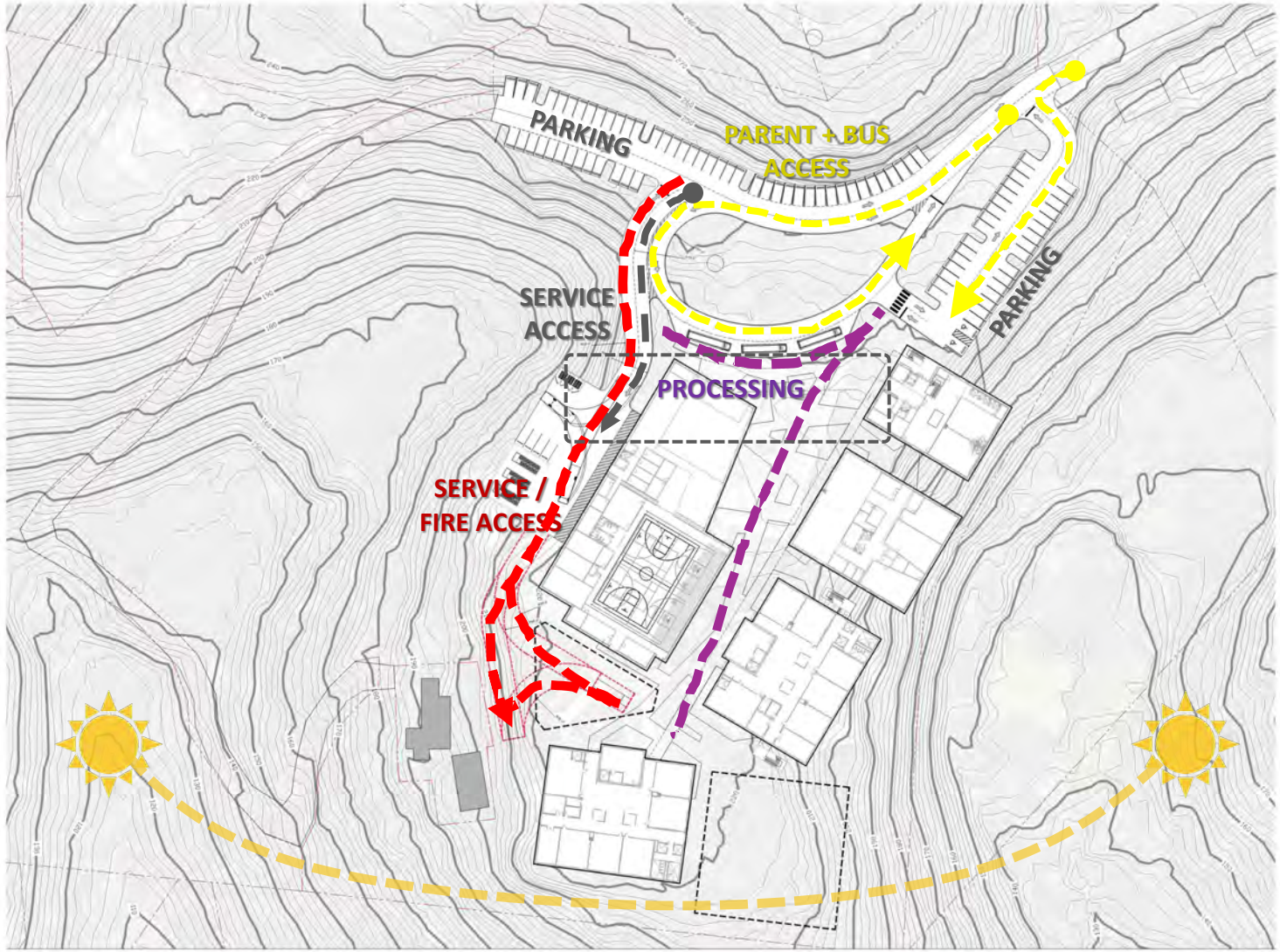
LEGEND

- ADMININSTRATION
- DINING
- MEDIA CENTER
- GYMNASIUM / PHYSCIAL ED
- SPECAILS
- SPECAIL ED
- PK
- K-5
- 6-8
- SUPPORT

CONCEPT FLOOR PLAN CONFIRMED

SECOND FLOOR

CONCEPT SITE PLAN ANALYSIS



CONVEX + COMPACT

WORKING ACTION ITEM LIST

Action Item	Responsible	Target Date	Action
Densify Buildings to Minimize Fill	ZYS	7/25	Adjust Site Locations of Bldgs to Mitigate extreme South Slope
Review Siting to Pull Buildings Closer Together	ZYS	7/25	Review Survey and Bring Facilities Tighter Together Reduction of Cut/Fill for Complex Site Reduce Fill / Extended Foundations
Relocate Central Plant + Battery Room from the Gym Volume and Place at North Side of the Site (Design Phase Coordination)	ZYS	8/1	Design new Central Plant at the North Side of the Site Roof top Access? Coordinate location with Roadway
Move Music Room to Serve as Stage	ZYS	8/1	Music Room to Flex to Operation as Stage / Music Room Adjust Plan Location / Develop Indoor + Outdoor location
Adjust Corner SPED Room to Health Classroom	ZYS	8/1	Reduction of 1 Classroom (New SAFE Room)
Adjust Design for 1 Elevator at Admin (Design Phase Coordination)	ZYS	7/25	Adjust the location of the Elevator to Facilitate 1 Location at Admin to Serve Facility (Elevator Access Controlled by Faculty)
Review Options for Amphitheater / Social Steps (Plaza) (Design Phase Coordination)	ZYS	7/25	Develop Option for Exterior Court Social Stair
Fire Dept. Review (Design Phase Coordination)	ZYS	9/1	Review Access Conditions for Fire Department
CEP Design (Design Phase Coordination)	ZYS + TLC	-	ZYS to work with TLC to Design CEP at North Side of the Site
Existing Courts (NW Side)	ZYS + JV	8/1	Confirm Courts to be Removed (Out of Scope)

EXISTING SITE CONDITIONS

SITE PLAN OVERLAY (SITE VISIT)

SITE PLAN OVERLAY (SITE VISIT)

CAMPUS ARCHITECTURE

Oliver PreK-8 School

Interpretive / Revival

Transitional

Contemporary

CAMPUS ARCHITECTURE

CONTEMPORARY DESIGN AESTHETIC

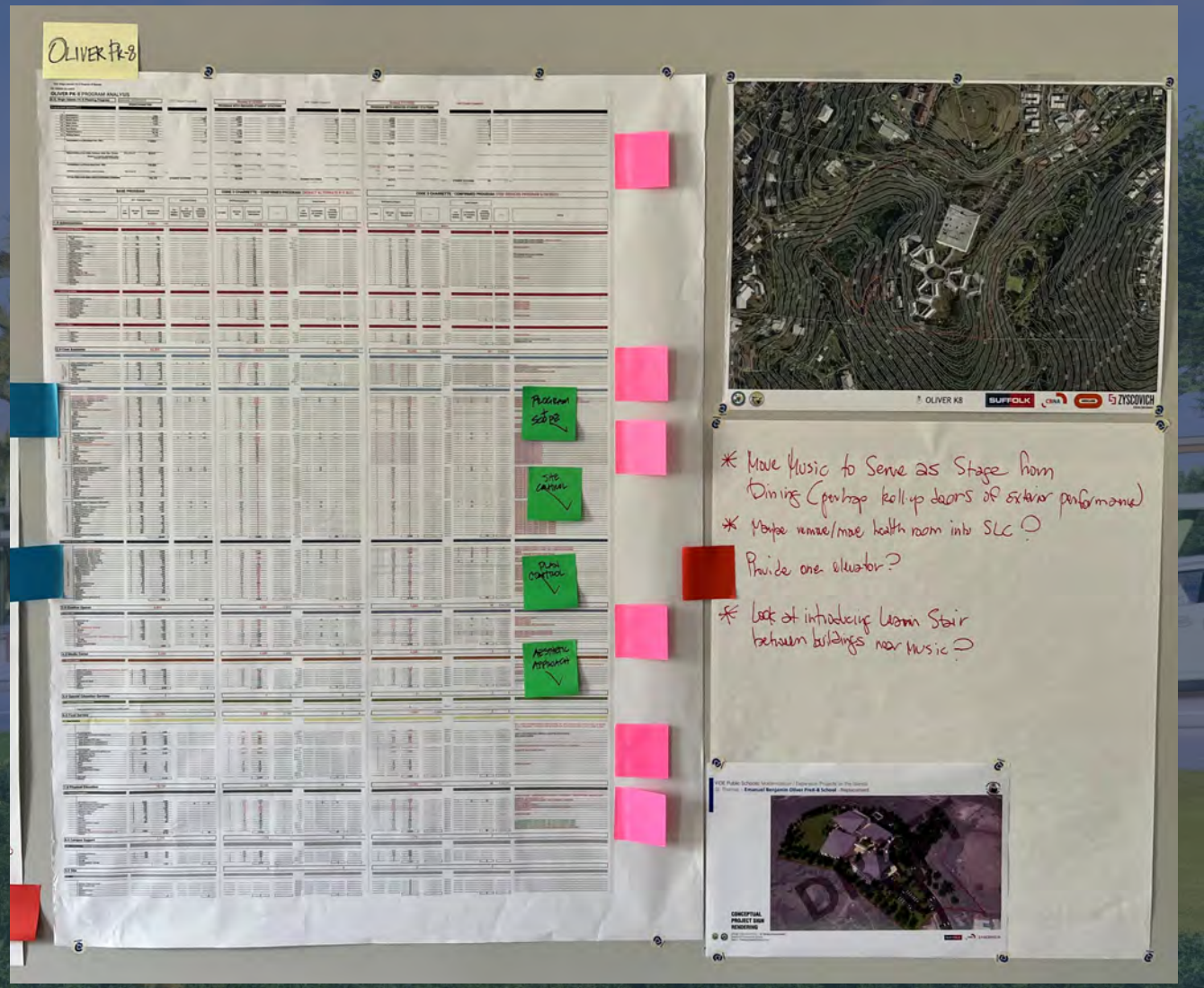
AESTHETIC DESIGN APPROACH CONFIRMED

CAMPUS ARCHITECTURE

CONTEMPORARY DESIGN AESTHETIC

AESTHETIC DESIGN APPROACH CONFIRMED

MEETING NOTES



PROGRAM SUMMARY

RFP
SFBANK ACCOUNT

CODE 0/3
SF ESCROW

	Capacity (students)		GFA (SF)								
				GFA (SF) RFP ASUMPTION 08.16.2024				GFA (SF) AFTER CODE 3 CHARETTE			Difference	! Grossing factor 25% as per RFP
	RFP Capacity	Code 3 Charette Capacity	GFA (SF) RFP Criteria	GFA (SF) A=(1)+(2)+(3)	Renovation (1)	New Construction (2)	Area optimization (3)	GFA (SF) B=(1)+(2)	Renovation (1)	New Construction (2)	B-A	Comment
Tuitt PreK-1	469	140	69,794	62,815		69,794	(6,979)	30,313		30,313	(32,502)	
Oliver PreK-8	469	608	69,794	62,815		69,794	(6,979)	74,231		74,231	11,416	Correction deduct alternate SLC - 9 625 sf
Lockhart PreK-8	1070	1121	144,563	144,563	63,355	81,208		140,314	63,355	76,959	(4,249)	
Bowsky PreK-8	750	624	113,978	109,238	53,978	60,000	(4,740)	72,840	53,978	18,862	(36,398)	
Kean HS	1000	1159	147,215	132,493		147,215	(14,722)	163,980		163,980	31,487	
Admin Center	150	177	80,000	76,000		80,000	(4,000)	44,940		44,940	(31,060)	
	3908	**3829**	**625,344**	**587,924**	**117,333**	**508,011**	**(37,420)**	526,618	117,333	409,285	(61,306)	

587,924 SF

(61,306 SF)

Code 2 Program Savings <u>+/- (20,000 SF)</u>

+/- (80,000 SF)

Muller PK-8 +/- 69,000 SF

DESIGN APPROACH – DAY 4 OUTCOME

CODE 2 DESIGN CHARRETTE

CRITICAL STEP THIS WEEK

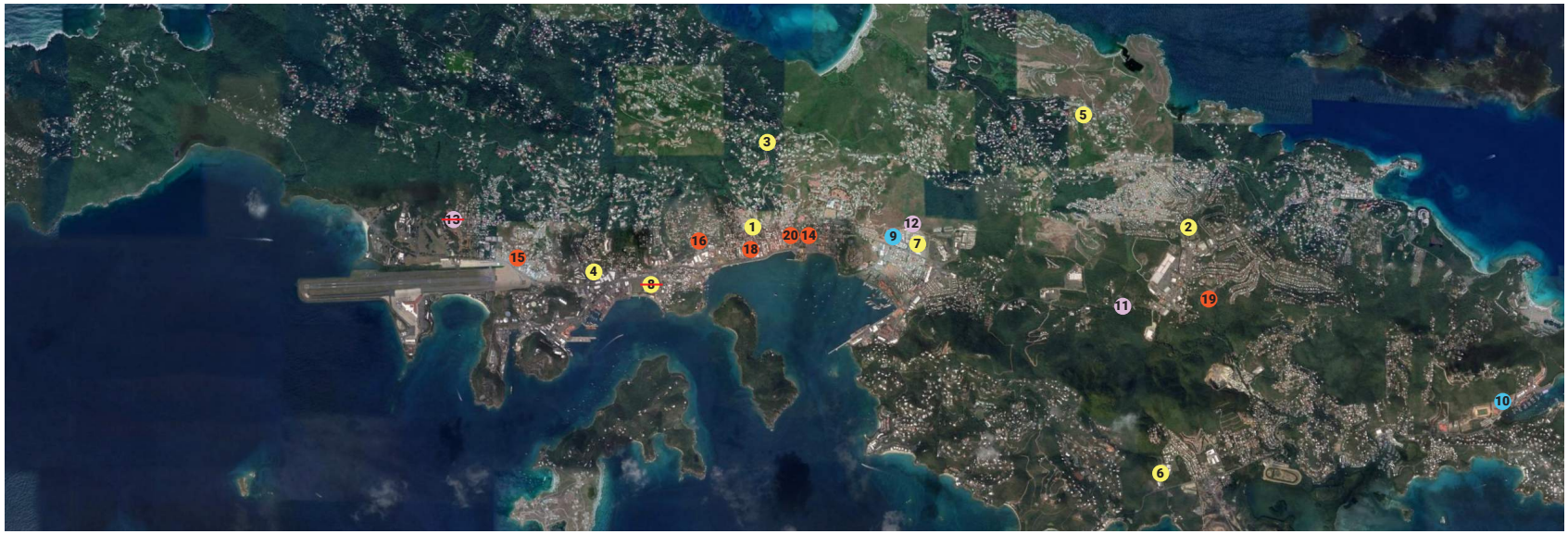
	CODE 0 PROGRAMMING CHARRETTE			CODE 3 PLANNING CHARRETTE			CODE 2 DESIGN CHARRETTE			
	SITE CONFIRMED	SITE CONFIRMED	PROGRAM CONFIRMED	CONCEPT PLAN CONFIRMED	MASSING CONFIRMED	BUDGET CONFIRMED	PROGRAM / SCOPE FINALIZED	HORIZONTAL CONTROL SITE	HORIZONTAL CONTROL PLAN	AESTHETIC APPROACH
LOCKHART PK-8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
OLIVER PK-8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ADMIN / CONF CENTER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
BOWSKY PK-8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
KEAN HS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TUITT PK-1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MULLER PK-8	✓	✓	✓	✓	✓	✓				

THANK YOU!


SUFFOLK
CBNA
AMERICARIBE
ZYSCOVICH

All Facilities Map

USVI Public Schools: St. Thomas



Elementary / Middle Schools			3,278	3,870
School	Current Configuration	Proposed Configuration	Current Enrollment	Functional Capacity
1. Jane E. Tuitt Elementary School	K-5	PreK-3	226	132
2. Joseph Gomez Elementary School	K-5	Site of Opportunity	528	N/A
3. Joseph Sibilly Elementary School	K-6	PreK-3	237	132*
4. Ulla F. Muller Elementary School**	K-6	PreK-8	464	1,070
5. Yvonne E. Milliner-Bowsky Elementary School	K-5	PreK-8	390	895
6. Bertha C. Boschulte Middle School	6-8	PreK-8	566	895
7. Lockhart Elementary School Students currently in modulars on site	6-8	PreK-8	359	895
8. Addelita Cancryn Junior High School Students currently in Lockhart building	4-8	Merged	756	N/A

Key

** - New Build

* - May be increased in the future with an addition

~~X~~ - Currently Closed

High Schools			1,705	1,950
School	Current Configuration	Proposed Configuration	Current Enrollment	Projected Capacity
9. Charlotee Amalie High School**	9-12	9-12	1,019	1,350
10. Ivanna Eudora Kean High School	9-12	9-12	686	768
Adult Ed				
School	Current Configuration	Proposed Configuration	Current Enrollment	Projected Capacity
11. Edith L. Williams Alternative Academy	Varies	Varies	Varies	Varies
12. Wheatley Skills Center	CTE	Discovery Center	Varies	Varies
13. Gladys A. Abraham Elementary School	Closed	CTE	N/A	Varies

Support Buildings

14. VIDE Headquarters	- services moving to Gomez	- existing location for special training
15. School Lunch/Procurement Warehouse	- services moving to Cancryn	- existing location to be closed
16. Marcelli Annex	- existing services to remain (non-profit organization/after school programs)	
17. Curriculum Center	- services moving to Gomez	- existing location to be demolished
18. Leonard Dober Elementary School	- current school is closed	- to be used as cultural center
19. E. Benjamin Oliver Elementary School	- current school is closed	- identified as a site of opportunity
20. Jarvis Annex	- identified as site of opportunity	- services moving to Dober

PreK-8

PreK-8 Advancement Opportunities

PreK-8 Program Summary

The following program of spaces for the proposed new PreK-8 facilities was populated based on feedback gathered during programming workshops and from a cross reference of programs from various standards, including: North Carolina Public Schools Facilities Guidelines, Austin Public Schools Educational Specifications, and the Portland Public Schools Educational Specifications. It also draws from virtual tours and precedents such as Jefferson Terrace Academy and Capps Middle School.

Projects that are focused on modernizations/expansions are derivative of these programs to ensure equity between the new and existing schools.

The program of spaces is divided into eight main categories of square footage that are then combined to generate a total proposed square footage for a PreK-8 facility. There is also an addition of 20% net to gross area, based on industry standards as applied to the Virgin Islands.

These categories include: 1) administration, 2) core academics, 3) elective spaces, 4) media center, 5) SPED services, 6) food services, 7) physical education, and 8) building support. A ninth site category can also be found at the bottom of the program of spaces, but it does not account for any square footage and serves solely as a check-list of site elements that would potentially need to be considered on a PreK-8 campus.

Each campus is further broken down by age, through communities of elementary and middle school students. In order to provide appropriate collaboration space among age appropriate cohorts, there will be separate K-5 learning suites and 6-8 learning suites.

The optimum capacity for the PreK-8 has been calculated based on the learning suite layouts along with the maximum number of students per class within each grade level. The calculations are laid out in the following chart.

	1 Section	2 Sections	3 Sections	4 Sections	5 Sections
Pre-K	17	17	17	17	17
TOTALS	**17**	**34**	**51**	**68**	**85**
K	25	25	25	25	25
First	30	30	30	30	30
Second	30	30	30	30	30
Third	30	30	30	30	30
Fourth	30	30	30	30	30
Fifth	30	30	30	30	30
TOTALS	**175**	**384**	**525**	**700**	**875**
Sixth	30	30	30	30	30
Seventh	27	27	27	27	27
Eighth	27	27	27	27	27
TOTALS	**84**	**168**	**252**	**336**	**420**
TOTAL	**1070**				

Capacity calculations

U.S. Virgin Islands PK-8 Planning Program	Revised 6/22/2020	1,070 Target Capacity

Program Area					Functional Capacity
1.0	Administration			6,630	
2.0	Core Academic			65,200	1,070
3.0	Elective Spaces			6,400	
4.0	Media Center			4,850	
5.0	SPED Services			2,350	
6.0	Food Service			12,400	
7.0	Physical Education			10,870	
8.0	Building Support			650	
	Total Useable Area (Net Square Feet- NSF):			***109,350***	***1,070***
	General Building Area: Walls, Partitions, Mech. Elec., Circulation:	*25% of Net SF*		***27,338***	*(20% of Gross)*
					*Based on Industry standards that include outdoor circulation
	Total Building Area (Gross Square Feet- GSF):			***136,688***	
	**Additional Covered Outdoor Learning Spaces*	*5% of Net SF*		*5,468*	
	TOTAL BUILDING AREA WITH OUTDOOR LEARNING			**142,155**	*All new buids should be refined and reduced by 10% in order to meet budgetary requirements

PreK-8 Advancement Opportunities

		Planning Program			Functional Capacity			
	Description of Program, Department or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	NOTES
1.0 Administration								
1.1 Administration Offices								
	Main School Lobby (w/ restrooms)	1	600	600				This includes safe & secure vestibule
	Reception	1	300	300				
	Secretary/Bookeeper Office	1	150	150				
	Principal Office (w/ restroom)	1	250	250				
	Assistant Principal Office	2	150	300				
	Conference Room	1	200	200				
	Staff Work/Mail	1	400	400				
	Faculty Lounge	1	400	400				
	SRO Office	1	150	150				
	Monitors' Office	1	150	150				
	Supply Room	1	75	75				
	Toilet	2	50	100				
	Mother's Room	2	100	200				
	Office Supply Storage	1	75	75				
	Parent Center	1	400	400				
	Subtotal			3,750				
1.2 Student Services								
	Reception/Guidance Clerk	1	150	150				
	Counselor's Office	2	120	240				
	Registrar's Office	1	120	120				
	Time-Out/Tardy Room	2	400	800				
	Speech Therapy	1	250	250				
	Record's Room	1	200	200				
	Conference Room	1	200	200				
	Storage/Work Area	1	120	120				
	Subtotal			2,080				
1.3 Health Clinic								
	Exam/Cot	1	350	350				
	Office	1	150	150				
	Infirmary	1	200	200				
	Toilet	1	100	100				Include shower - ADA
	Subtotal			800				

		Planning Program			Functional Capacity			
	Description of Program, Department or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	NOTES
2.0 Core Academic								
2.1 Pre-K Core Academic								
	Pre-K Learning Suite-- Studio w/RR	**2**	**1,200**	**2,400**	2	17	34	
	Outdoor Learning Space							
	Subtotal			**2,400**			**34**	
2.2 Elementary Core Academic								
	Learning Suite 1-- Studio w/RR (Kinder)	**1**	**1,200**	**1,200**	1	25	25	
	Learning Suite 1-- Studio (1st-5th)	**5**	**850**	**4,250**	5	30	150	
	Flex Studio	**1**	**800**	**800**				
	Resource Studio							
	Open Collaboration Space	**1**	**1,000**	**1,000**				
	Maker Space	**1**	**400**	**400**				
	Small Group Instruction	**2**	**200**	**400**				
	Teacher Planning	**1**	**600**	**600**				Includes two 50 sf Phone Rooms
	Learning Suite Storage	**1**	**400**	**400**				
	Student Restrooms	**2**	**300**	**600**				
	Staff Restroom	**1**	**100**	**100**				
	Custodial	**1**	**100**	**100**				
	Shared Outdoor Learning Space #1							
	Learning Suite 2-- Studio w/RR (Kinder)	**1**	**1,200**	**1,200**	1	25	25	
	Learning Suite 2-- Studio (1st-5th)	**5**	**850**	**4,250**	5	30	150	
	Flex Studio	**1**	**800**	**800**				
	Resource Studio							
	Open Collaboration Space	**1**	**1,000**	**1,000**				
	Maker Space	**1**	**400**	**400**				
	Small Group Instruction	**2**	**200**	**400**				
	Teacher Planning	**1**	**600**	**600**				Includes two 50 sf Phone Rooms
	Learning Suite Storage	**1**	**400**	**400**				
	Student Restrooms	**2**	**300**	**600**				
	Staff Restroom	**1**	**100**	**100**				
	Custodial	**1**	**100**	**100**				
	Shared Outdoor Learning Space #2							
	Learning Suite 3-- Studio w/RR (Kinder)	**1**	**1,200**	**1,200**	1	25	25	
	Learning Suite 3-- Studio (1st-5th)	**5**	**850**	**4,250**	5	30	150	
	Flex Studio	**1**	**800**	**800**				
	Resource Studio							Waiting for district direction
	Open Collaboration Space	**1**	**1,000**	**1,000**				
	Maker Space	**1**	**400**	**400**				
	Small Group Instruction	**2**	**200**	**400**				
	Teacher Planning	**1**	**600**	**600**				Includes two 50 sf Phone Rooms
	Learning Suite Storage	**1**	**400**	**400**				
	Student Restrooms	**2**	**300**	**600**				
	Staff Restroom	**1**	**100**	**100**				
	Custodial	**1**	**100**	**100**				

PreK-8 Advancement Opportunities

	Description of Program, Department or Unit	Planning Program: # of Units	Planning Program: Unit Area (nsf)	Planning Program: Total Area (nsf) Requirement	Functional Capacity: # of Teacher Stations	Functional Capacity: # of Students per Teaching Station	Functional Capacity: Learning Community Functional Capacity	NOTES
	Learning Suite 4-- Studio w/RR (Kinder)	**1**	**1,200**	**1,200**	1	25	25	
	Learning Suite 4-- Studio (1st-5th)	**5**	**850**	**4,250**	5	30	150	
	Flex Studio	**1**	**800**	**800**				
	Resource Studio							
	Open Collaboration Space	**1**	**1,000**	**1,000**				
	Maker Space	**1**	**400**	**400**				
	Small Group Instruction	**2**	**200**	**400**				
	Teacher Planning	**1**	**600**	**600**				Includes two 50 sf Phone Rooms
	Learning Suite Storage	**1**	**400**	**400**				
	Student Restrooms	**2**	**300**	**600**				
	Staff Restroom	**1**	**100**	**100**				
	Custodial	**1**	**100**	**100**				
	Subtotal			**39,400**			**700**	
2.3 Middle School Core Academic								
	6th Grade Learning Suite-- Studio	**3**	**850**	**2,550**	3	30	90	
	6th Grade Learning Suite-- Science Lab	**1**	**1,000**	**1,000**	1	30	30	
	Flex Studio	**1**	**800**	**800**				
	Resource Studio							
	Open Collaborative Space	**1**	**1,000**	**1,000**				
	Maker Space	**1**	**400**	**400**				
	Small Group Instruction	**2**	**200**	**400**				
	Teacher Planning	**1**	**450**	**450**				Includes two 50 sf Phone Rooms
	Learning Suite Storage	**1**	**400**	**400**				
	Student Restrooms	**2**	**300**	**600**				
	Staff Restroom	**1**	**100**	**100**				
	Custodial	**1**	**100**	**100**				
	7th Grade Learning Suite-- Studio	**3**	**850**	**2,550**	3	27	81	
	7th Grade Learning Suite-- Science Lab	**1**	**1,000**	**1,000**	1	27	27	
	Flex Studio	**1**	**800**	**800**				
	Resource Studio							
	Open Collaborative Space	**1**	**1,000**	**1,000**				
	Maker Space	**1**	**400**	**400**				
	Small Group Instruction	**2**	**200**	**400**				
	Teacher Planning	**1**	**450**	**450**				Includes two 50 sf Phone Rooms
	Learning Suite Storage	**1**	**400**	**400**				
	Student Restrooms	**2**	**300**	**600**				
	Staff Restroom	**1**	**100**	**100**				
	Custodial	**1**	**100**	**100**				
	8th Grade Learning Suite-- Studio	**3**	**850**	**2,550**	3	27	81	
	8th Grade Learning Suite-- Science Lab	**1**	**1,000**	**1,000**	1	27	27	
	Flex Studio	**1**	**800**	**800**				
	Resource Studio							
	Open Collaborative Space	**1**	**1,000**	**1,000**				
	Maker Space	**1**	**400**	**400**				
	Small Group Instruction	**2**	**200**	**400**				
	Teacher Planning	**1**	**450**	**450**				Includes two 50 sf Phone Rooms
	Learning Suite Storage	**1**	**400**	**400**				
	Student Restrooms	**2**	**300**	**600**				
	Staff Restroom	**1**	**100**	**100**				
	Custodial	**1**	**100**	**100**				
	Shared Outdoor Space for 6-8							
	Subtotal			**23,400**			**336**	

		Planning Program			Functional Capacity			
	Description of Program, Department or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	NOTES
3.0 Elective Spaces								
3.1 Fine Arts								Combined Fine Arts Suite that is central to all Learning Suites
	Fine Arts Labs	2	1,400	2,800				
	Instrument Storage	1	400	400				
	Art Supply Storage	1	200	200				
	Outdoor Learning Space							
	Subtotal			3,400				
3.2 Other Elective Spaces								
	Other Elective Spaces	2	1,400	2,800				
	Storage	1	200	200				
	Subtotal			3,000				
4.0 Media Center								
4.1 Media Center								
	Media Center	1	4,300	4,300				Combined, but with ability to have different areas for PK-5 & 6-8
	Book/General Storage	1	200	200				
	Office (w/ restroom)	1	150	150				
	Workroom (w/ sink)	1	200	200				
	Subtotal			4,850				
5.0 Special Education Services								
5.1 Special Education Services								
	Self-Contained Studio	2	1,000	2,000	2	15	30	
	Shared Restroom	1	150	150				With Shower
	Shared Kitchenette/Laundry Room	1	200	200				
	Subtotal			2,350			30	*NOT COUNTED IN CURRENT CAPACITY

PreK-8 Advancement Opportunities

		Planning Program			Functional Capacity			
	Description of Program, Department or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Learning Community Functional Capacity	NOTES
6.0 Food Service								
6.1 Food Service								
	PK-5 Dining Area	1	4,300	4,300				WILL ALSO BE COMMMUNITY/MULT-PURPOSE ROOM; 706 (66% of student body) / 2 lunch periods = 353 students @ once; **353 students x 12 sf each = 4,300 sf**
	PK-5 Outdoor Covered Dining/Play Area							
	Shared Stage	1	1,000	1,000				Opens to both dining areas; Adjacency or proximity to Music Rooms
	Chair Storage (300 chairs)	1	200	200				Store Outdoor furniture
	Boys Restroom w/ Changing Room	1	400	400				
	Girls Restroom w/ Changing Room	1	400	400				
	6-8 Dining Area	1	2,200	2,200				364 (34% of student body) / 2 lunch periods = 182 students @ once; **182 students x 12 sf each = 2,200 sf**
	6-8 Outdoor Covered Dining/Play Area							
	Serving Area	1	1,200	1,200				**20% of 6,000 sf dining space = 1,200 sf**; Could be 2 separate serving areas
	Kitchen	1	1,000	1,000				
	Office (w/ restroom)	1	150	150				
	Dishwashing Room	1	225	225				
	Dry Storage	1	300	300				
	Cooler/Freezer	1	600	600				
	Restroom/Lockers	1	200	200				
	Locker Room (w/ restroom)	1	125	125				
	Laundry/Chemical Storage	1	100	100				
	Subtotal			12,400				
7.0 Physical Education								
7.1 Physical Education								
	Gymnasium (seats 600)	1	7,500	7,500				
	Physical Education/Health Classroom	1	900	900				
	Locker Room/Restroom	2	800	1,600				
	PE/Coach Office	1	120	120				
	PE Storage	1	250	250				
	Indoor Exercise Room (Weight)	1	500	500				
	Subtotal			10,870				

	Description of Program, Department or Unit	Planning Program # of Units	Planning Program Unit Area (nsf)	Planning Program Total Area (nsf) Requirement	Functional Capacity # of Teacher Stations	Functional Capacity # of Students per Teaching Station	Functional Capacity Learning Community Functional Capacity	NOTES
8.0 Building Support								
8.1 Maintenance & Custodial								
	Receiving Storage/Locker Area	1	200	200				
	Office/Planning Area	1	100	100				
	Custodial Equipment/Supply	2	150	300				
	Restroom	1	50	50				
	Subtotal			650				
9.0 Site								
9.1 Site								
	Shared PK & K Playground							
	1-5 Playground							
	Multi-purpose field							
	Basketball Courts							
	Gardens							
	Parking for XXX							

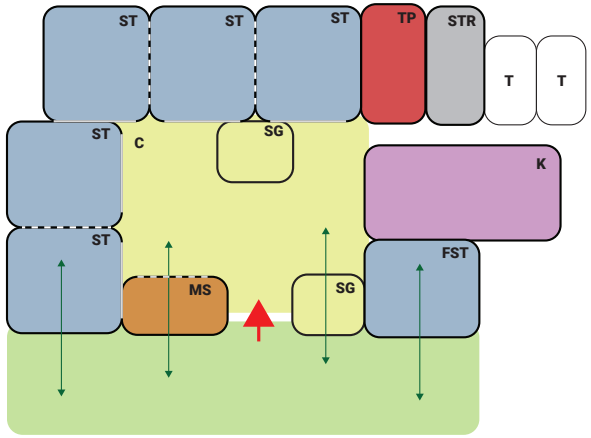
PreK-8 Advancement Opportunities

Adjacency Strategies/Learning Suites

Having a program of spaces is essential to identifying and further developing various space types, which ultimately serve as a kit of parts for a building.

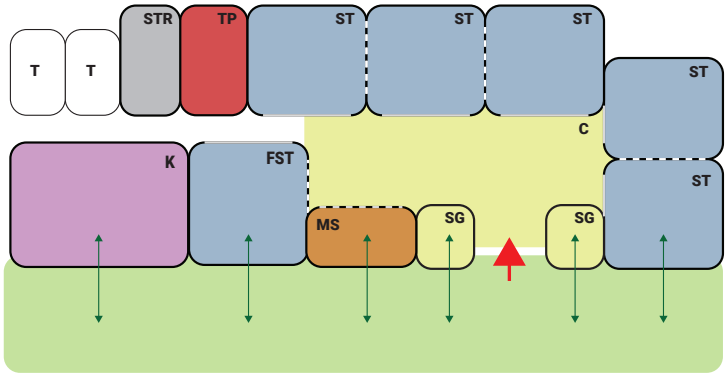
These space types can then be manipulated or arranged in various ways to generate different learning suite layout options that best fit the needs of future-facing learning practices in the USVI. Based on the key space types that were identified in the visioning process and informed by national benchmarks, learning suite solutions were created for various grade levels. The following layouts can be applied across modernizations/expansions and new builds.

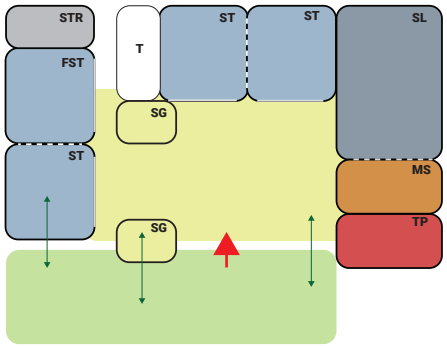
K-5 Learning Suite Program Key



K-5 Learning suite *Central program layout - total student capacity: 175*

K-5 Learning suite *Linear program layout - total student capacity: 175*

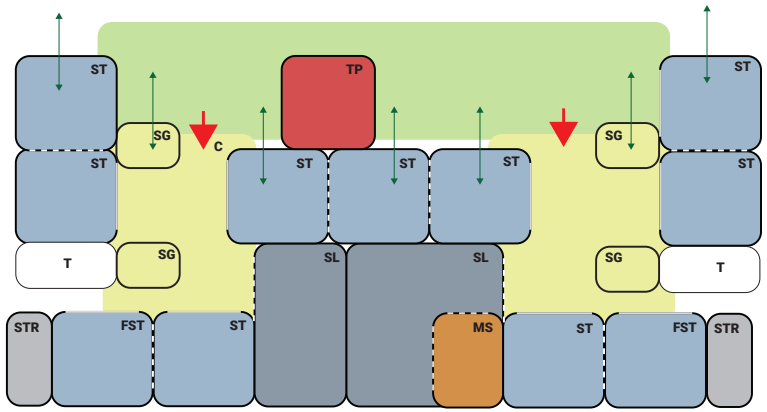




6-8 Learning Suite Program Key

6-8 Learning suite *One grade level - total student capacity: 120*

6-8 Middle school *Grades 6-8 - total student capacity: 360*



PreK-8 Program Summary

Adjacency Strategies/Learning Suites Precedents

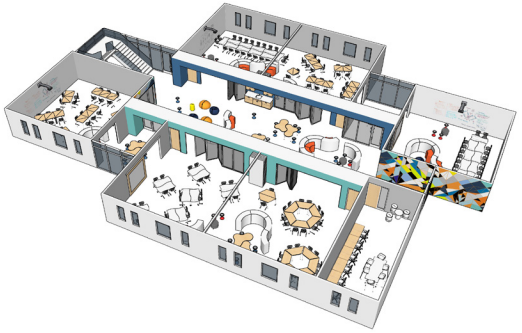
Jefferson Terrace Academy
East Baton Rouge Parish School District I Baton Rouge, Louisiana

Grade levels are paired together in learning communities to foster collaborative learning and vertical opportunities for students excelling past their grade level.

The learning suite diagrams to the right illustrate three scenarios that were explored during design. The layout below illustrates the final iteration.

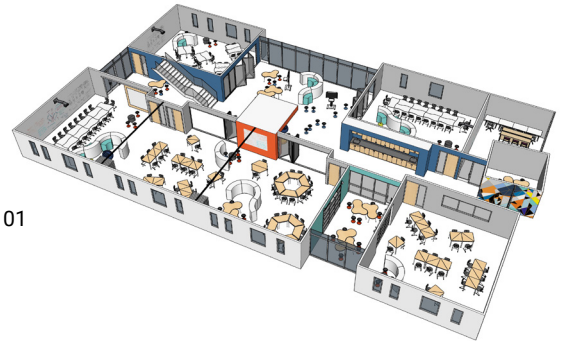
Final

Option 03



Option 02

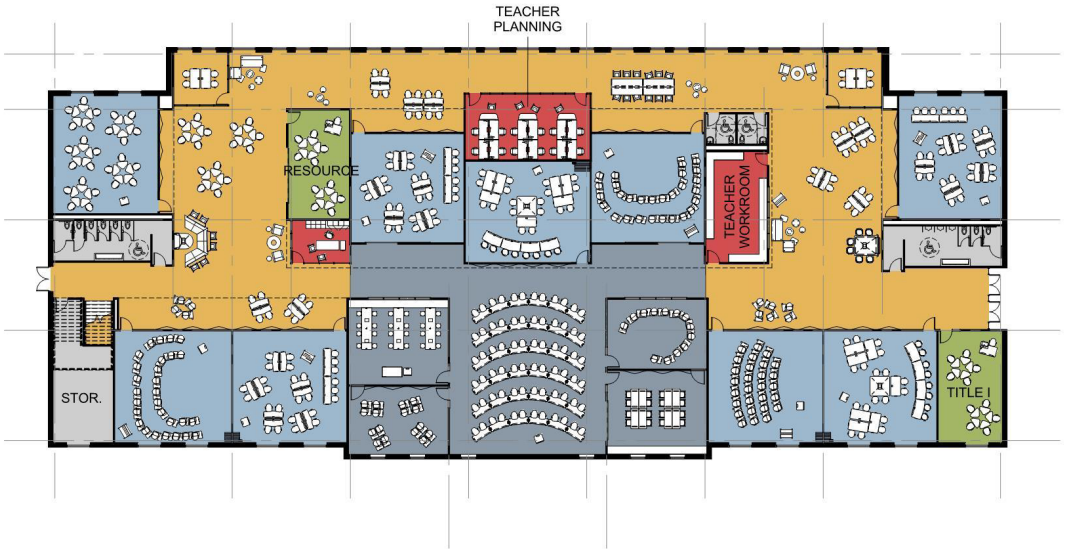
Option 01



Capps Middle School
Putnam City Schools I Warr Acres, Oklahoma

The west portion of the building caters to the administrative, elective, and athletic programs for the facility, while the east serves as the learning communities for 6-8 grades. Connecting the two ends is a 200'+ media hub.

Each learning center is planned around collaborative learning and teaching, with spaces to facilitate both student and teacher cross pollination.



PreK-8 Case Study

St. Thomas

New Ulla F. Muller PreK-8

***POTENTIAL PRIMARY SHELTER**

Existing Building Area 39,682 SF
New Building Area ≈ 136,688 SF
Enrollment 464 Students
Actual student enrollment 2019/2020
Functional Capacity 1070 Students **+606 Students**

*All construction shall be per the design guidelines included at the end of this section.

Design Statement

New Construction at Existing Site:

The new Ulla F. Muller PreK-8 requires demolition of the existing Ulla F. Muller Elementary School and construction of a new building on that site.

Program Deviations:

- No athletic fields provided on site

Critical Cost Considerations:

- Elevator(s) to meet ADA compliance
- New site circulation and drop-off
- New outdoor learning/play environments
- Assume 4000 SF of covered outdoor space
- Assume hip roofs at all buildings
- Demolition of existing buildings
- The entire site is in a floodplain and the building will need to be raised above ground level.
- Adding/updating perimeter fence

Top *Existing Ulla F. Muller Elementary campus that will be demolished to make way for a new Ulla F. Muller PreK-8 building.*

Bottom *Existing Ulla F. Muller outdoor play area*

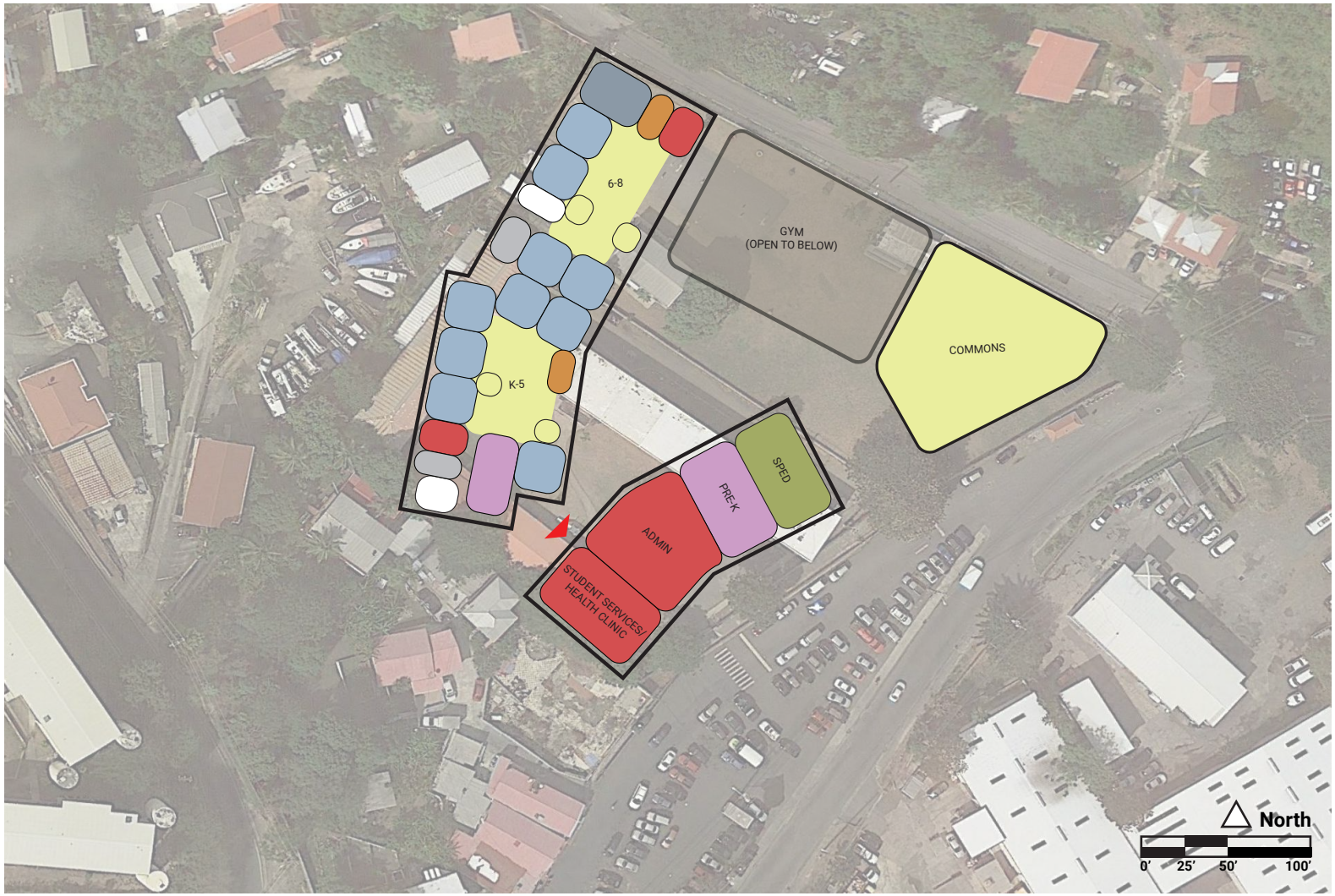
Level 01

PreK-8 Case Study

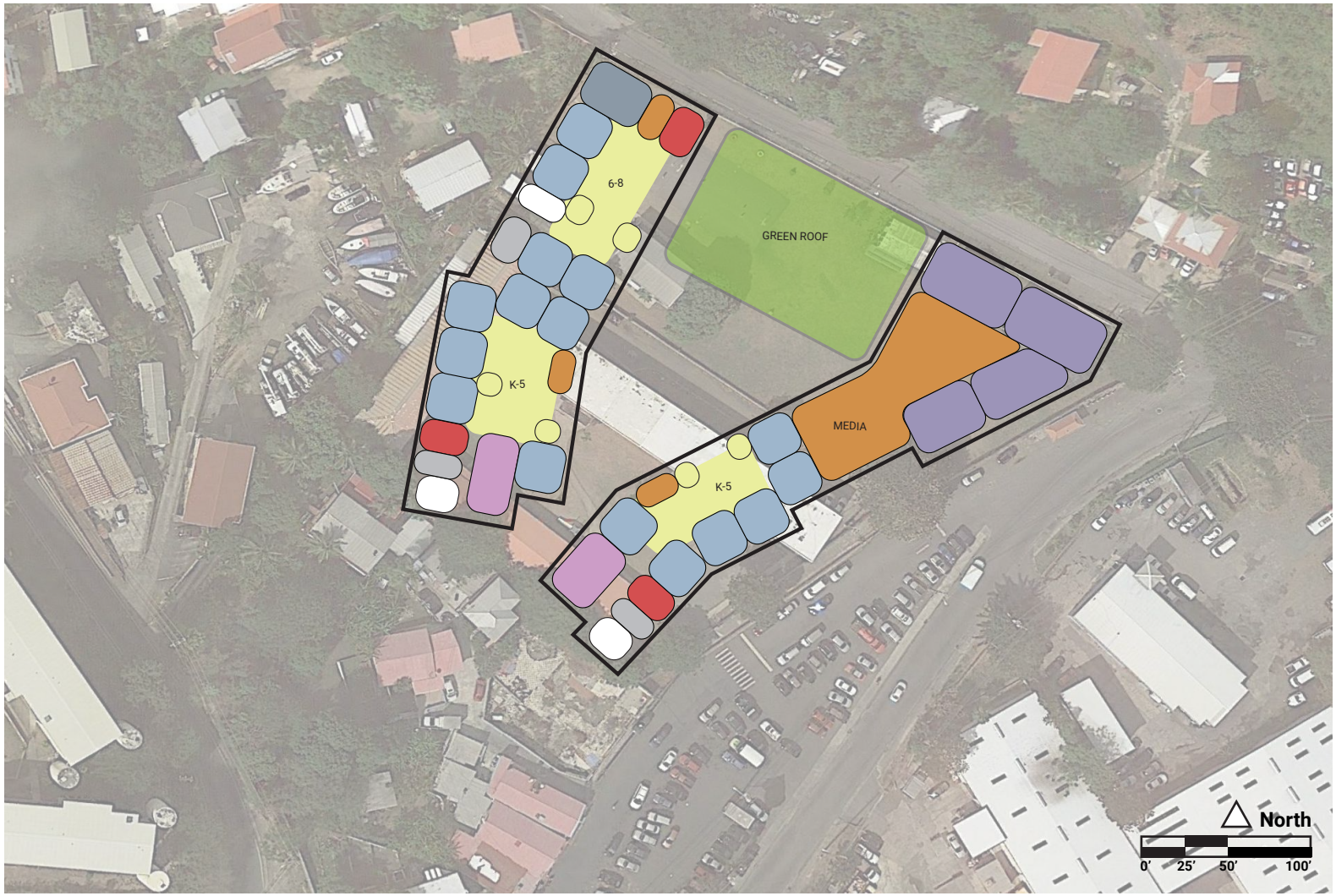
St. Thomas

Ulla F. Muller PreK-8

Level 02



Level 03



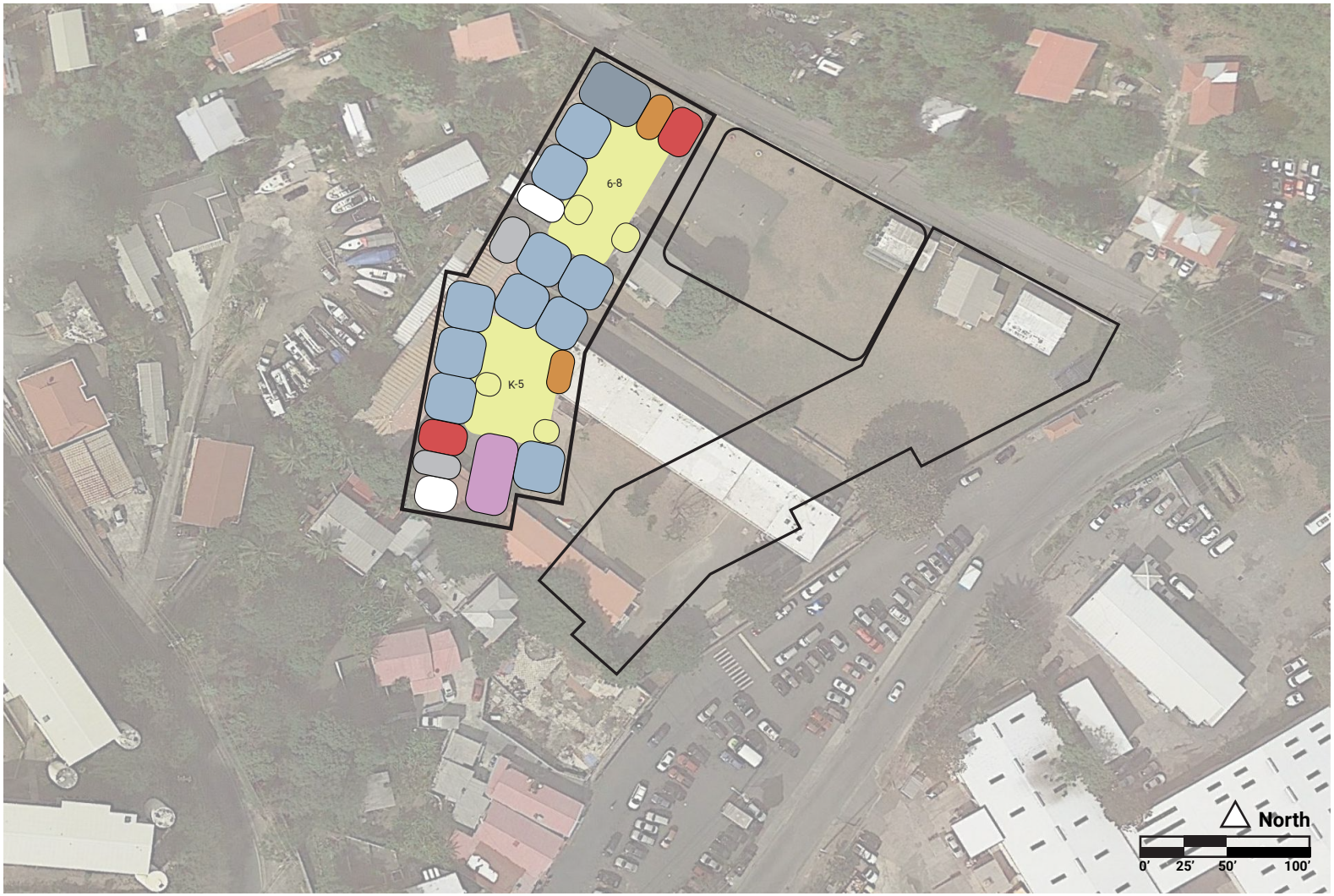
LEGEND

- NEW
- FUTURE PHASE
- EXISTING
- FLOODPLAIN
- MAIN ENTRY
- OUTDOOR
- PARKING
- ADMIN
- COMMONS/COLAB
- LEARNING STUDIO
- KINDER/PRE-K
- SCIENCE
- MEDIA/MAKER
- SPED
- ELECTIVES
- ATHLETICS
- STORAGE
- RESTROOM

PreK-8 Case Study

St. Thomas

Level 04



LEGEND

- NEW
- FUTURE PHASE
- EXISTING
- FLOODPLAIN
- MAIN ENTRY
- OUTDOOR
- PARKING
- ADMIN
- COMMONS/COLAB
- LEARNING STUDIO
- KINDER/PRE-K
- SCIENCE
- MEDIA/MAKER
- SPED
- ELECTIVES
- ATHLETICS
- STORAGE
- RESTROOM

PreK-3 Case Study

St. Thomas

Jane E. Tuitt PreK-3

*All construction shall be per the design guidelines included at the end of this section.

Existing Building Area 15,488 SF
New Building Area 15,488 SF
Enrollment 226 Students
Actual student enrollment 2019/2020
Functional Capacity 132 Students △ **-94 Students**

Design Statement

Modernization at Existing:

The modernization of Jane E. Tuitt requires converting a traditional K-5 elementary to a PreK-3. The overall campus planning remains the same, with modifications made to the buildings for new and different programs.

Program Deviations:

- Small group learning is covered outdoor space
- Electives, SPED, media, commons & administration SF are reduced per reduced population
- No gymnasium (existing condition)

Critical Cost Considerations:

- Elevator(s) to meet ADA compliance
- Replacement of jalousie windows
- Renovated outdoor learning/play environments
- Improved site circulation and parking
- HVAC upgrades
- Exterior facade renovations
- Communications/IT and security upgrades
- Adding/updating perimeter fence

DISCLAIMER: Proposed modernization is contingent on confirmation that the existing structure either meets or can be modified to meet current structural code requirements.

Level 01

LEGEND

- NEW
- FUTURE PHASE
- EXISTING
- FLOODPLAIN
- MAIN ENTRY
- OUTDOOR
- PARKING
- ADMIN
- COMMONS/COLAB
- LEARNING STUDIO
- KINDER/PRE-K
- SCIENCE
- MEDIA/MAKER
- SPED
- ELECTIVES
- ATHLETICS
- STORAGE
- RESTROOM

PreK-3 Case Study

St. Thomas

Level 02

LEGEND

- NEW
- FUTURE PHASE
- EXISTING
- FLOODPLAIN
- MAIN ENTRY
- OUTDOOR
- PARKING
- ADMIN
- COMMONS/COLAB
- LEARNING STUDIO
- KINDER/PRE-K
- SCIENCE
- MEDIA/MAKER
- SPED
- ELECTIVES
- ATHLETICS
- STORAGE
- RESTROOM

PreK-8 Case Study

St. Thomas

Lockhart-Cancryn PreK-8

***IDENTIFIED AS PRIMARY SHELTER**

Existing Building Area 59,530 SF
New Building Area ≈ 114,000 SF
Enrollment 359 Students

Actual student enrollment 2019/2020

Functional Capacity 895 Students Δ **+536 Students**

*All construction shall be per the design guidelines included at the end of this section.

Design Statement

Modernization at Existing:

The modernization of Lockhart-Cancryn PreK-8 requires converting a traditional K-5 elementary to a PreK-8. The existing building will be restored to an elementary school with some modifications to accommodate new and different programs. A large new addition to the south is required to accommodate all of the middle school core learning and a new gym.

Program Deviations:

- Small Group Learning is Outside for All Elementary
- No Outdoor Fields Exist on This Campus

Critical Cost Considerations:

- Renovated outdoor learning/play environments
- Replacement of jalousie windows
- Improved site circulation and parking
- HVAC upgrades
- Assume 4000 SF of covered outdoor space
- Assume hip roofs at all locations of new construction
- Communications/IT and security upgrades
- Adding/updating perimeter fence

DISCLAIMER: Proposed modernization is contingent on confirmation that the existing structure either meets or can be modified to meet current structural code requirements.

Level 01

PreK-8 Case Study

St. Thomas

Yvonne E. Milliner-Bowsky PreK-8

Existing Building Area 53,978 SF
New Building Area ≈ 116,700 SF
Enrollment 390 Students
Actual student enrollment 2019/2020
Functional Capacity 895 Students **+505 Students**

*All construction shall be per the design guidelines included at the end of this section.

Design Statement

Modernization at Existing:

The modernization of Yvonne E. Milliner-Bowsky PreK-8 requires converting a traditional K-5 elementary to a PreK-8. One shuttered building will be renovated to accommodate the new central administration. The other shuttered building will be demolished to make way for new additions so accommodate the bulk of core learning.

Program Deviations:

- Small Group Learning is Outside at Existing Buildings
- Media Center is Sized Smaller Due to Existing Constraints
- No Outdoor Fields Exist on This Campus

Critical Cost Considerations:

- Elevator(s) to meet ADA compliance
- Replacement of jalousie windows
- Renovated outdoor learning/play environments
- Improved site circulation and parking
- HVAC upgrades
- Underground concrete box culvert under new building
- Assume hip roofs at all locations of new construction
- Demolition of shuttered buildings
- Communications/IT and security upgrades
- Adding/updating perimeter fence

DISCLAIMER: Proposed modernization is contingent on confirmation that the existing structure either meets or can be modified to meet current structural code requirements.

Level 01

LEGEND

- NEW
- FUTURE PHASE
- EXISTING
- FLOODPLAIN
- MAIN ENTRY
- OUTDOOR
- PARKING
- ADMIN
- COMMONS/COLAB
- LEARNING STUDIO
- KINDER/PRE-K
- SCIENCE
- MEDIA/MAKER
- SPED
- ELECTIVES
- ATHLETICS
- STORAGE
- RESTROOM

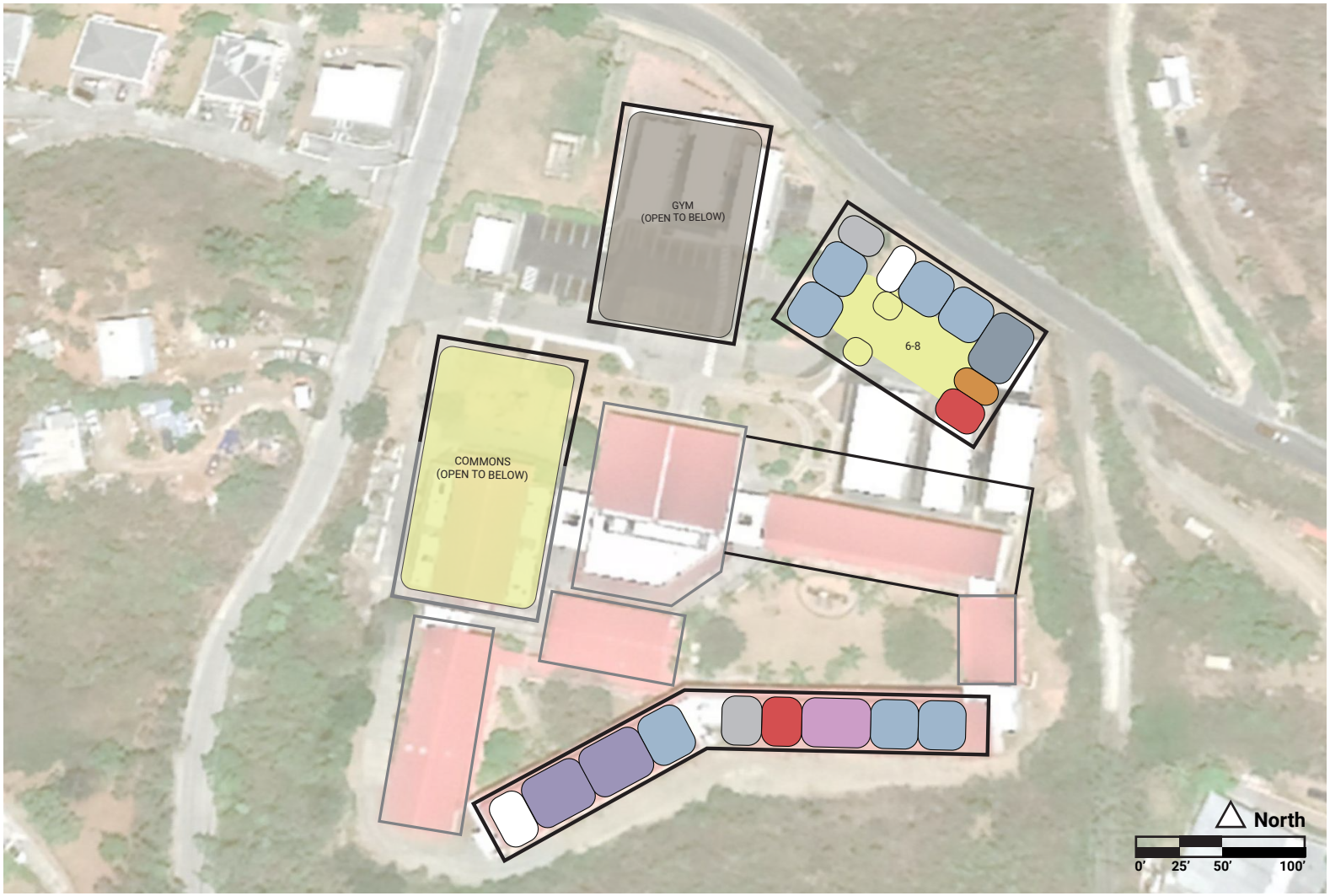
PreK-8 Case Study

St. Thomas

Yvonne E. Milliner-Bowsky PreK-8

Level 02

Level 03



LEGEND

- NEW
- FUTURE PHASE
- EXISTING
- FLOODPLAIN
- MAIN ENTRY
- OUTDOOR
- PARKING
- ADMIN
- COMMONS/COLAB
- LEARNING STUDIO
- KINDER/PRE-K
- SCIENCE
- MEDIA/MAKER
- SPED
- ELECTIVES
- ATHLETICS
- STORAGE
- RESTROOM

9-12

9-12 Advancement Opportunities

9-12 Program Summary

The following Program of Spaces for the proposed new comprehensive 9-12 high school was populated based on feedback gathered during programming workshops and from a cross reference of programs from various standards, including: North Carolina Public Schools Facilities Guidelines, Austin Public Schools Educational Specifications, and the Portland Public Schools Educational Specifications. It also draws from virtual tours and precedents such as Canyon View High School.

Projects that are focused on modernizations/expansions are derivative of these programs to ensure equity between the new and existing schools.

The program of spaces is divided into nine main categories of square footage that are then combined to generate a total proposed square footage for a high school facility. There is also an addition of 20% net to gross area based on industry standards as applicable to the Virgin Islands.

These categories include:
1) administration, 2) core academics, 3) elective spaces, 4) media center, 5) multi-purpose spaces; 6) SPED services, 7) food services, 8) physical education, and 9) building support.

A 10th site category can also be found at the bottom of the program of spaces, but it does not account for any square footage and serves solely as a check-list of site elements that would potentially need to be considered on a high school campus.

There are various line items in the program of spaces that are highlighted in light blue. These are all of the spaces that, while potentially dispersed throughout various areas of the building, would be directly tied to a CTE pathway.

The following program is indicative only of a comprehensive high school. St. Croix Central High School and Ivanna Eudora Kean High School have both been identified to house magnet programs which will be included adjacent to those school layouts.

Charlotte Amalie High School - Comprehensive High School Program

Virgin Islands High School Planning Program | ***Revised 3/27/2020*** | ***1,350 Target Capacity***

Program Area					Max Capacity	Functional Capacity	Utilization Factor	
1.0	Administration			9,445				
2.0	Core Academic			51,400	*864*	*756*	*87.5%*	
3.0	Elective Spaces			60,750	*453*	*340*	*75%*	*White Box @ 50%*
4.0	Media Center			7,050				
5.0	Multi-Purpose Area			9,400	*189*	*135*	*75%*	*Digital Maker Space @ 50%*
6.0	SPED Services			4,675	*24*	*24*	*100%*	
7.0	Food Service			13,575				
8.0	Physical Education			38,740	*186*	*134*	*75%*	*Weight Room @ 50%*
9.0	Building Support			4,100				
	Total Useable Area (Net Square Feet- NSF):			***199,135***	***1,716***	***1,388***		
					1,500 Capacity with 3 Learning Suites	1,199 Capacity with 3 Learning Suites		
	General Building Area: Walls, Partitions, Mech. Elec., Circulation:	*25% of Net SF*		***49,784***	*(20% of Gross SF)* *Based on Industry standards that include outdoor circulation			
	Total Building Area (Gross Square Feet- GSF):			***248,919***				
	**Additonal Covered Outdoor Learning Spaces*	*5% of Net SF*		*9,957*				
	TOTAL BUILDING AREA WITH OUTDOOR LEARNING			**258,876**	*All new buids should be refined and reduced by 10% in order to meet budgetary requirements			

9-12 Advancement Opportunities

		Planning Program			Capacity				
	Description of Department, Program, or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
1.0 Administration									
1.1 Administration Offices									
	Main School Lobby	1	642	642					This includes safe & secure vestibule
	Open Office Space	1	778	778					
	Principal's Secretary Office	1	150	150					
	Principal Office	1	250	250					
	Assistant Principal Office	4	150						Inegrated in Learning Suites
	Principal's Conference Room	1	300	300					
	Conference Room	1	450	450					
	Workroom	1	400	400					
	Break Room	1	400	400					
	SRO Office	1	125	125					
	Monitors' Office	1	200	200					Multiple monitors will office out of space
	ISS Room	1	600	600					
	ISS Restroom	1	75	75					
	Toilet	2	75	150					
	Book Room	1	300	300					
	Security (Technology) Room	1	75	75					
	IT Office	1	150	150					
	Mother's Room	2	100	200					
	Parent Center	1	400	400					Workroom/Welcome Center for Parents
	Subtotal			5,645					
1.2 Counselor Suite 1									
	Reception/Waiting	1	250	250					
	Counselors Office	2	150	300					
	Clerk Office	1	150	150					
	Registrar Office	1	150	150					
	Vault/Records	1	400	400					
	Conference Room	1	200	200					
	Storage Room	1	100	100					
	Subtotal			1,550					
1.3 Counselor Suite 2									
	Reception/Waiting/Clerk	1	500	500					
	Counselors Office	2	150	300					
	Registrar Office	1	150	150					
	Conference Room	1	200	200					
	Storage Room	1	100	100					
	Subtotal			1,250					

	Description of Department, Program, or Unit	Planning Program # of Units	Unit Area (nsf)	Total Area (nsf) Requirement	Capacity # of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
	1.4 Health Clinic								*Want clinic to serve as clinic for public/community use*
	Waiting	1	200	200					
	Treatment/Cot Area	1	350	350					
	Office	1	150	150					
	Exam Room	1	100	100					
	Storage	1	100	100					
	Toilet	1	100	100					Include shower - ADA
	Subtotal			1,000					
	2.0 Core Academic								
	2.1 Learning Suites								
	Learning Suite 1-- Studios	5	950	4,750	5	27	135	118	
	Learning Suite 1-- Science Lab	2	1,200	2,400	2	27	54	47	1 lab per LS is fume hood/chem equipped
	Chem Prep Room	1	300	300					
	Flex Studio	1	950	950	1	27	27	24	
	Resource Studio								
	Open Collaboration Space/Maker Space	1	1,650	1,650					
	Small Group Instruction	2	200	400					1 combined or 2 separate
	Teacher Planning	1	1,200	1,200					Includes two 50 sf Phone Rooms & 1 RR
	Learning Suite Storage	1	250	250					
	Student Restrooms	2	300	600					
	Staff Restroom	1	100	100					
	Custodial Closet	1	100	100					
	Assistant Principal Office	1	150	150					
	Covered Outdoor Learning Space								
	Learning Suite 2-- Studios	5	950	4,750	5	27	135	118	
	Learning Suite 2-- Science Lab	2	1,200	2,400	2	27	54	47	1 lab per LS is fume hood/chem equipped
	Chem Prep Room	1	300	300					
	Flex Studio	1	950	950	1	27	27	24	
	Resource Studio								
	Open Collaboration Space/Maker Space	1	1,650	1,650					
	Small Group Instruction	2	200	400					1 combined or 2 separate
	Teacher Planning	1	1,200	1,200					Includes two 50 sf Phone Rooms & 1 RR
	Learning Suite Storage	1	250	250					
	Student Restrooms	2	300	600					
	Staff Restroom	1	100	100					
	Custodial Closet	1	100	100					
	Assistant Principal Office	1	150	150					
	Outdoor Learning Space								

9-12 Advancement Opportunities

	Description of Department, Program, or Unit	Planning Program # of Units	Unit Area (nsf)	Total Area (nsf) Requirement	Capacity # of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
	Learning Suite 3-- Studios	**5**	**950**	**4,750**	5	27	135	118	
	Learning Suite 3-- Science Lab	**2**	**1,200**	**2,400**	2	27	54	47	1 lab per LS is fume hood/chem equipped
	Chem Prep Room	**1**	**300**	**300**					
	Flex Studio	**1**	**950**	**950**	1	27	27	24	
	Resource Studio								
	Open Collaboration Space/Maker Space	**1**	**1,650**	**1,650**					
	Small Group Instruction	**2**	**200**	**400**					1 combined or 2 separate
	Teacher Planning	**1**	**1,200**	**1,200**					Includes two 50 sf Phone Rooms & 1 RR
	Learning Suite Storage	**1**	**250**	**250**					
	Student Restrooms	**2**	**300**	**600**					
	Staff Restroom	**1**	**100**	**100**					
	Custodial Closet	**1**	**100**	**100**					
	Assistant Principal Office	**1**	**150**	**150**					
	Outdoor Learning Space								
	Learning Suite 4-- Studios	**5**	**950**	**4,750**	5	27	135	118	
	Learning Suite 4-- Science Lab	**2**	**1,200**	**2,400**	2	27	54	47	1 lab per LS is fume hood/chem equipped
	Chem Prep Room	**1**	**300**	**300**					
	Flex Studio	**1**	**950**	**950**	1	27	27	24	
	Resource Studio								
	Open Collaboration Space/Maker Space	**1**	**1,650**	**1,650**					
	Small Group Instruction	**2**	**200**	**400**					1 combined or 2 separate
	Teacher Planning	**1**	**1,200**	**1,200**					Includes two 50 sf Phone Rooms & 1 RR
	Learning Suite Storage	**1**	**250**	**250**					
	Student Restrooms	**2**	**300**	**600**					
	Staff Restroom	**1**	**100**	**100**					
	Custodial Closet	**1**	**100**	**100**					
	Assistant Principal Office	**1**	**150**	**150**					
	Outdoor Learning Space								
	Subtotal			**51,400**			**864**	**756**	

	Description of Department, Program, or Unit	Planning Program # of Units	Planning Program Unit Area (nsf)	Planning Program Total Area (nsf) Requirement	Capacity # of Teacher Stations	Capacity # of Students per Teaching Station	Capacity Max Capacity	Capacity Functional Capacity	NOTES
	3.0 Elective Spaces								
	3.1 Fine Arts								
	Multi-Purpose Room (White Box)	1	4,000	4,000	1	54	54	27	TO BECOME COMMUNITY GATHERING SPACE AND AUDITORIUM LOBBY
	Outdoor & White Box Storage	1	700	700					
	Broadcast/Media Classroom	1	800	800	1	27	27	20	**CTE PATHWAY**
	Broadcast Studio	1	450	450					
	Broadcast Control Room	1	150	150					
	Auditorium	1	6,000	6,000					500 seats (250 in back)
	Stage	1	3,000	3,000					
	Makeup/Green Room	1	250	250					
	Costume Storage	1	200	200					
	Scene Shop	1	1,400	1,400					
	Tool Storage	1	300	300					
	Women's Dressing Room	1	600	600					
	Men's Dressing Room	1	600	600					
	Audience Restrooms	2	400	800					
	Concessions	1	250	250					
	Theater Classroom	1	1,600	1,600	1	27	27	20	
	Band Room	1	2,700	2,700	1	54	54	41	
	Choir Room	1	1,600	1,600	1	41	41	30	
	Piano Studio	1	800	800	1	15	15	11	Piano/keyboard classes
	Instrument Storage	1	700	700					
	Band Booster Storage	1	100	100					
	Practice Room	8	100	800					
	Shared Ensemble Room	2	600	1,200	1	15	15	11	Steel Pan & Jazz or XYZ
	Band Office	1	150	150					
	Choir Office	1	150	150					
	Piano Storage	1	100	100					
	Shared Music Library	1	150	150					
	Shared Costume/Robe Storage	1	500	500					
	2D Art Room	2	1,600	3,200	2	27	54	41	
	2D Art Storage	1	250	250					
	3D Art Room	1	1,600	1,600	1	27	27	20	
	3D Art Storage	1	200	200					
	Kiln	1	150	150					
	Dance/Cheerleading	1	2,800	2,800	1	41	41	30	Place between Fine Arts & Athletics
	Mat Storage	1	300	300					
	Costume Storage	1	200	200					
	Subtotal			38,750			273	205	
	3.2 CTE								
	Low Intensity Labs	3	2,500	7,500	3	24	72	54	**3 CTE PATHWAYS**
	High Intensity Labs	2	5,000	10,000	2	24	48	36	**2 CTE PATHWAYS**
	Subtotal			17,500			120	90	

9-12 Advancement Opportunities

	Description of Department, Program, or Unit	Planning Program: # of Units	Planning Program: Unit Area (nsf)	Planning Program: Total Area (nsf) Requirement	Capacity: # of Teacher Stations	Capacity: # of Students per Teaching Station	Capacity: Max Capacity	Capacity: Functional Capacity	NOTES
3.3 JROTC									
	JROTC Classroom	2	1,000	2,000	2	30	60	45	2 Classrooms could join to be shooting range
	JROTC Armory	1	200	200					
	JROTC Uniform Storage	1	800	800					
	JROTC Office	1	200	200					
	JROTC Dressing Rooms	2	400	800					
	Student Restrooms	2	250	500					
	Outdoor Drill Space								Could be outdoor shooting range
	Subtotal			4,500			60	45	
4.0 Media Center									
4.1 Media Center									*Media Center should be front & center of campus (Lee Elementary style)*
	Media Center	1	5,100	5,100					1,350 students x 4 sf = 5,400 sf
	Conference Room	1	300	300					
	Production/Publication/Print Space	1	200	200					
	Study Room	2	200	400					Flexibility to be 1 room @ 400 sf or 2 @ 200 sf
	IT Help Desk	1	150	150					
	Book/Supply Storage	1	400	400					
	Office	1	150	150					
	Staff Restroom	1	75	75					
	Student Restroom	1	75	75					
	Workroom (w/ sink)	1	200	200					
	Subtotal			7,050					
5.0 Multi-Purpose Area									
5.1 Multi-Purpose									
	Flex Lab	2	1,200	2,400	2	27	54	41	PROXIMITY TO DIGITAL MAKER SPACE
	Flex Studios	4	900	3,600	4	27	108	81	PROXIMITY TO DIGITAL MAKER SPACE
	Medium Group Rooms	1	600	600					PROXIMITY TO DIGITAL MAKER SPACE
	Small Group Rooms	2	450	900					PROXIMITY TO DIGITAL MAKER SPACE
	Digital Maker Space	1	800	800	1	27	27	14	ADJACENT TO WHITE BOX
	Digital Maker Space Storage	1	200	200					AJDACENT TO DIGITAL MAKER SPACE
	Audio/Recording Space	1	200	200					AJDACENT TO DIGITAL MAKER SPACE
	Career Center	1	700	700					ADJACENT TO MEDIA CENTER
	Subtotal			9,400			189	135	

	Description of Department, Program, or Unit	Planning Program # of Units	Unit Area (nsf)	Total Area (nsf) Requirement	Capacity # of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
	6.0 Special Education Services								
	6.1 Special Education Services								
	Self-Contained Studio	2	950	1,900	2	12	24	24	
	Shared Kitchenette	1	400	400					
	Kitchenette Pantry	1	100	100					
	Shared Laundry Room	1	100	100					
	Shared Restroom	1	200	200					
	Small SPED Studio	1	600	600					
	Small SPED Studio Storage	1	50	50					
	Small SPED Studio Restroom	1	75	75					
	Subtotal			3,425			24	24	
	6.2 Special Education Support Suite								
	SPED Clerk/Itenerant	1	350	350					
	SPED Records Room	1	100	100					
	SPED Chair Office	1	200	200					
	SPED Office	1	200	200					
	Conference Room	1	400	400					
	Subtotal			1,250					
	7.0 Food Service								
	7.1 Food Service								
	Cafeteria	1	6,300	6,300					1,350 Students / 3 lunch periods = 450 students x 14 sf per student = 6,300 sf
	Outdoor Eating Area								Provide 450 seats outdoors
	Cafeteria Restrooms	2	400	800					
	Serving Area	1	800	800					
	Servery Storage	1	100	100					
	Servery Custodial	1	75	75					
	Grab & Go Serving Area	1	200	200					
	Kitchen	1	5,000	5,000					
	Office (w/ restroom)								Included in kitchen SF
	Dishwashing Room								Included in kitchen SF
	Dry Storage								Included in kitchen SF
	Cooler/Freezer								Included in kitchen SF
	Restroom/Lockers								Included in kitchen SF
	Kitchen Receiving	1	300	300					
	Subtotal			13,575					

9-12 Advancement Opportunities

	Description of Department, Program, or Unit	Planning Program # of Units	Planning Program Unit Area (nsf)	Planning Program Total Area (nsf) Requirement	Capacity # of Teacher Stations	Capacity # of Students per Teaching Station	Capacity Max Capacity	Capacity Functional Capacity	NOTES
	8.0 Physical Education								
	8.1 Physical Education								
	Anxillary Gym	1	8,000	8,000	1	54	54	41	
	PE Storage	1	700	700					
	General Athletics Storage	1	700	700					
	Anxillary Gym/Athletics Restrooms	4	300	1,200					
	Shared Weight Room	1	3,000	3,000	1	24	24	12	
	Training Room	1	600	600					
	Health Classroom	1	800	800	1	27	27	20	CTE PATHWAY AS NURSING (WITH NURSE) OR SPORTS MEDICINE (WITH ATHLETICS)
	Training Classroom	1	800	800	1	27	27	20	
	Laundry Room	1	100	100					
	Competition Gym	1	13,000	13,000	1	54	54	41	REQUESTED ARENA WOULD BE: 12,400 (2 side-by-side courts) + 8,000 (2,000 Seating Capacity) = 20,400 sf
	Concessions	1	200	200					
	Spectator Restrooms	2	500	1,000					
	Spectator Family Restroom	1	100	100					
	PE Storage	1	400	400					
	General Athletics Storage	1	700	700					
	Womens Locker Room	1	1,200	1,200					
	Womens Showers/Restrooms	1	500	500					
	Womens Coaches Office	1	150	150					
	Womens Coaches Restroom	1	75	75					
	Mens Locker Room	1	1,200	1,200					
	Mens Showers/Restrooms	1	500	500					
	Mens Coaches Office	1	150	150					
	Mens Coaches Restroom	1	75	75					
	Subtotal			35,150			186	134	

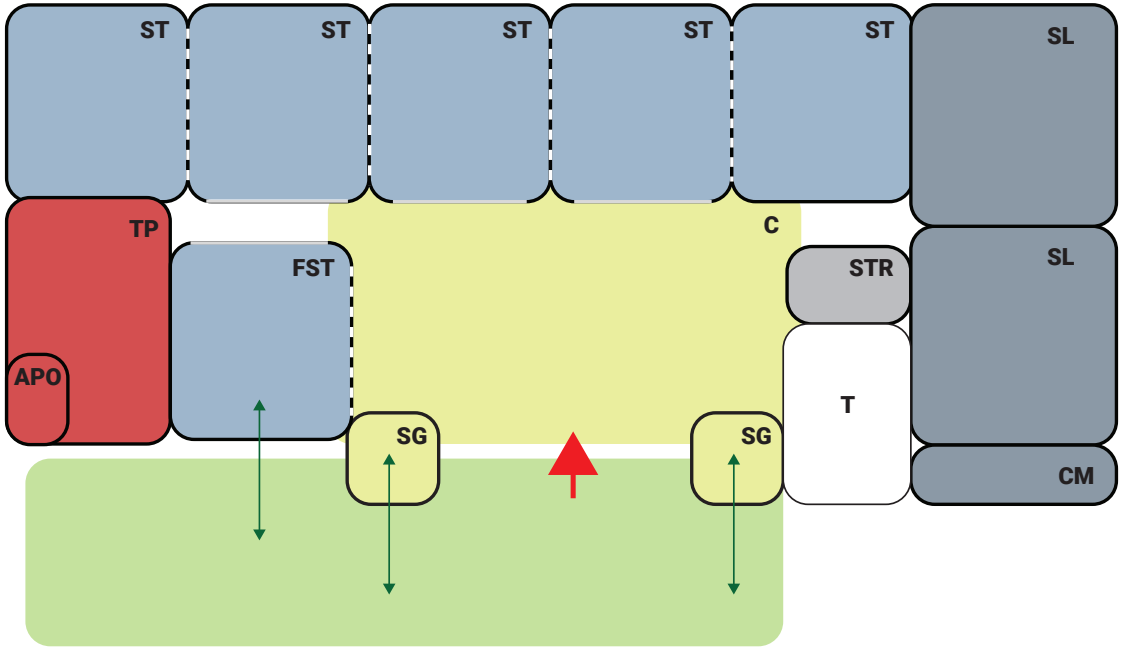
	Description of Department, Program, or Unit	Planning Program # of Units	Unit Area (nsf)	Total Area (nsf) Requirement	Capacity # of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
8.2 Concessions & Storage									
	Concessions	1	800	800					
	Custodial Room	1	60	60					
	Tickets/Store	1	150	150					
	Pantry	1	60	60					
	Storage	1	500	500					
	Public Restrooms	2	500	1,000					
	Public Family Restroom	2	100	200					
	Cooler Wash Area	1	120	120					
	Officials Locker Room	1	100	100					
	Officials Restroom	1	100	100					
	Field Storage	1	500	500					
	Subtotal			3,590					
9.0 Building Support									
9.1 Maintenance & Custodial									
	Maintenance Receiving	1	400	400					
	Equipment Storage	1	600	600					
	Custodial Storage	1	200	200					
	Outsource Custodial Storage	1	200	200					
	Water Heater Room	1	100	100					
	Office	1	200	200					
	Break Room	1	300	300					
	Restroom	1	100	100					
	Maintenance Room	1	2,000	2,000					
	Subtotal			4,100					
10.0 Site									
10.1 Site									
	Parking for XXX								
	Staff & Visitor Parking for XXX								
	Greenhouses	2							
	Field with Track								

9-12 Advancement Opportunities

Adjacency Strategies/Learning Suites

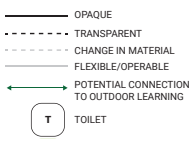
Having a program of spaces is essential to identifying and further developing various space types, which ultimately serve as a kit of parts for a building.

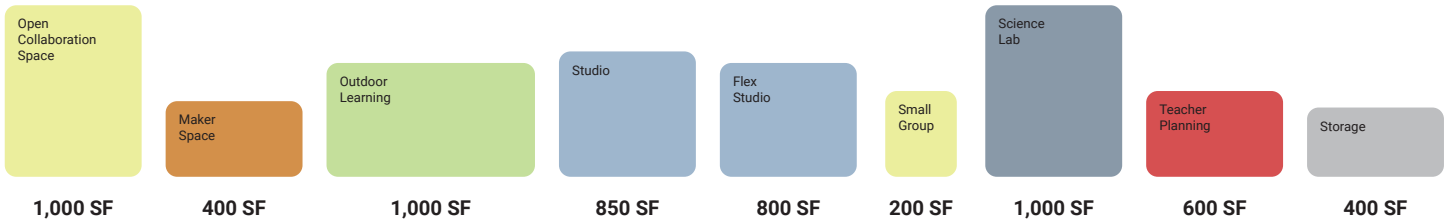
These space types can then be manipulated or arranged in various ways to generate different learning suite layout options that best fit the needs of future-facing learning practices in the USVI. Based on the key space types that were identified in the visioning process and informed by national benchmarks, learning suite solutions were created for various grade levels. The following layouts can be applied across modernizations/expansions and new builds.



9-12 Learning suite *Linear orientation*

9-12 Learning Suite Program Key



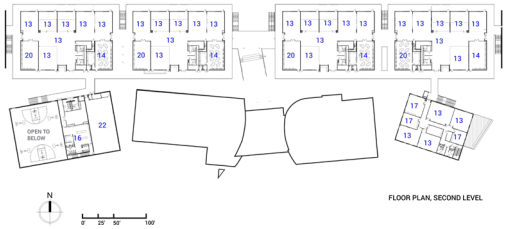


9-12 Advancement Opportunities

Adjacency Strategies/Learning Suites Precedent

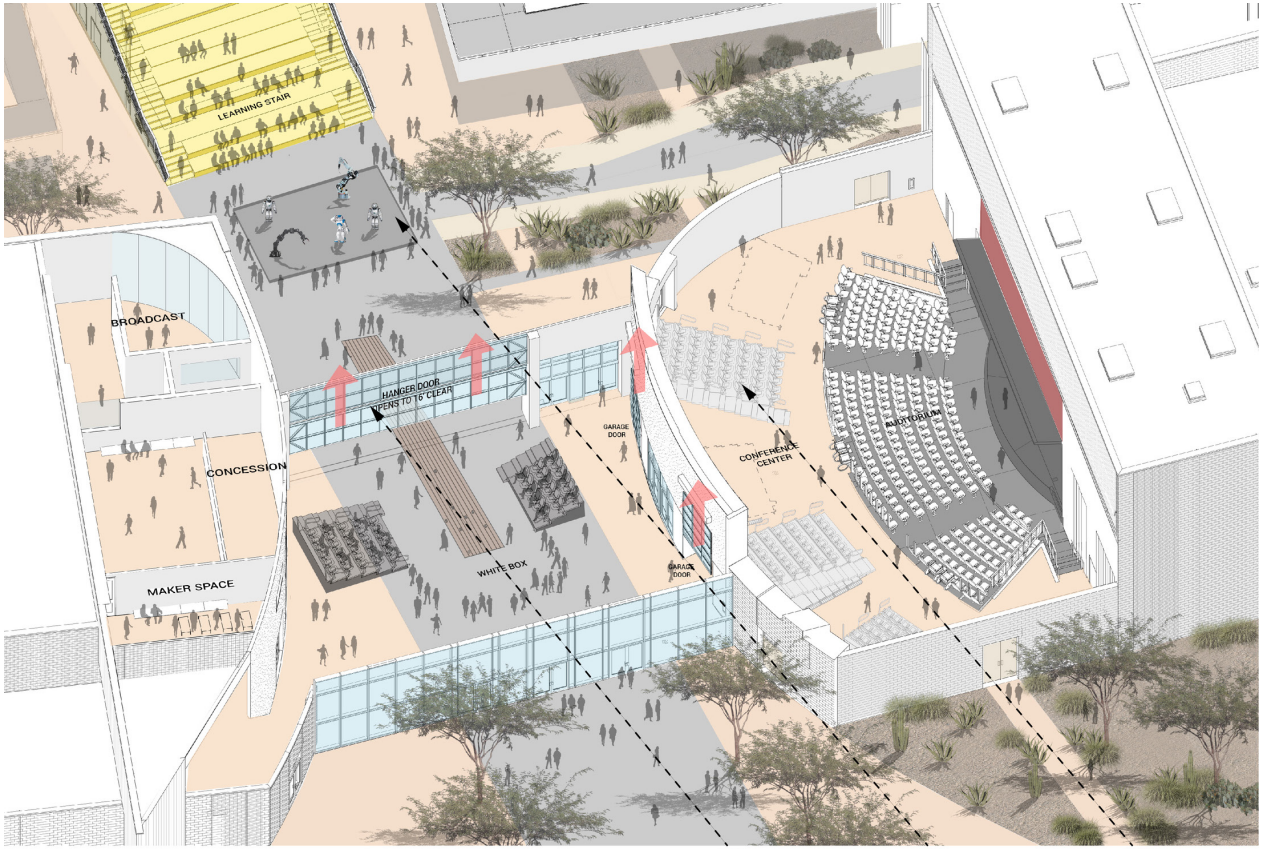
Canyon View High School
Agua Fria Union High School District I Waddell Arizona

1	GYMNASIUM	12	CTE CLASSROOM
2	CAFETERIA	13	FLEX ROOM
3	FOOD SERVICE/CONCESSIONS	14	SCIENCE LAB
4	LOBBY	15	ATHLETIC TRAINING
5	MUSIC & MEDIA	16	LOCKERS
6	LEARNING COMMONS	17	STUDENT/PROFESSIONAL DEVELOPMENT
7	CONFERENCE ROOM	18	LIFE SKILLS
8	FACULTY COLLABORATION/OFFICE	19	ART & GRAPHIC DESIGN
9	PERFORMANCE	20	MULTIUSE CREATIVE LAB
10	ADMINISTRATIVE	21	MAKER SPACE
11	SUPPORT	22	WRESTLING/ STRENGTH TRAINING



Learning fort

Learning fort




Vertical Sliding Door


Student Exhibition


Foldable Bleachers

9-12 Advancement Opportunities

Ivanna Eudora Kean High School - CTE Magnet Program

USVI CTE Magnet High Scool Planning Program		Revised 6/22/2020		600 Target Capacity			
Program Area							
				Max Capacity	**Functional Capacity**	*Utilization Factor*	
1.0	**Administration**		**6,225**				
2.0	**Core Academic**		**29,800**	***540***	***474***	*87.5%*	
3.0	**Elective Spaces**		**33,550**	***332***	***188***	*75%*	*White Box @ 50%*
4.0	**Media Center**		**7,050**				
5.0	**Multi-Purpose Area**		**1,900**	***27***	***14***	*75%*	*Digital Maker Space @ 50%*
6.0	**SPED Services**		**3,400**	***12***	***12***	*100%*	
7.0	**Food Service**		**7,775**				
8.0	**Physical Education**		**25,140**	***108***	***81***	*75%*	*Weight Room @ 50%*
9.0	**Building Support**		**3,145**				
	Total Useable Area (Net Square Feet- NSF):		***117,985***	***1,019***	***768***		
	General Building Area: Walls, Partitions, Mech. Elec., Circulation:	*25% of Net SF*	***29,496***	*(20% of Gross SF)*			
	Total Building Area (Gross Square Feet- GSF):		***147,481***				
	**Additonal Covered Outdoor Learning Spaces*	*5% of Net SF*	*5,899*				
	TOTAL BUILDING AREA WITH OUTDOOR LEARNING		**153,381**				

*Based on Industry standards that include outdoor circulation

*All new buids should be refined and reduced by 10% in order to meet budgetary requirements

		Planning Program			Capacity				
	Description of Department, Program, or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
1.0 Administration									
1.1 Administration Offices									
	Main School Lobby	1	400	400					This includes safe & secure vestibule
	Principal's Secretary Office	1	150	150					
	Principal Office	1	200	200					
	Assistant Principal Office	2	150	300					Inegrated in Learning Suites
	Principal's Conference Room	1	250	250					
	Conference Room	1	250	250					
	Workroom	1	300	300					
	Break Room	1	300	300					
	SRO Office	1	125	125					
	Monitors' Office	1	200	200					Multiple monitors will office out of space
	ISS Room	1	400	400					
	ISS Restroom	1	75	75					
	Toilet	2	75	150					
	Book Room	1	200	200					
	IT Office	1	150	150					
	Mother's Room	1	100	100					
	Parent Center	1	400	400					Workroom/Welcome Center for Parents
	Subtotal			3,950					
1.2 Counselor Suite 1									
	Reception/Waiting	1	200	200					
	Counselors Office	2	150	300					
	Clerk Office	1	150	150					
	Registrar Office	1	150	150					
	Vault/Records	1	300	300					
	Conference Room	1	200	200					
	Storage Room	1	100	100					
	Subtotal			1,400					
1.4 Health Clinic									*Want clinic to serve as clinic for public/community use*
	Waiting	1	200	200					
	Treatment/Cot Area	1	250	250					
	Office	1	150	150					
	Exam Room	1	100	100					
	Storage	1	100	100					
	Toilet	1	75	75					Include shower - ADA
	Subtotal			875					

9-12 Advancement Opportunities

		Planning Program			Capacity				
	Description of Department, Program, or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
2.0 Core Academic									
2.1 Learning Suites									
	Learning Suite 1-- Studios	**3**	**850**	**2,550**	3	27	81	71	
	Learning Suite 1-- Science Lab	**1**	**1,200**	**1,200**	1	27	27	24	1 lab per LS is fume hood/chem equipped
	Chem Prep Room	**1**	**200**	**200**					
	Open Collaboration Space/Maker Space	**1**	**1,400**	**1,400**	1	24	27	24	
	Small Group Instruction	**2**	**200**	**400**					1 combined or 2 separate
	Teacher Planning	**1**	**1,000**	**1,000**					Includes two 50 sf Phone Rooms & 1 RR
	Learning Suite Storage	**1**	**250**	**250**					
	Student Restrooms	**2**	**150**	**300**					
	Staff Restroom	**1**	**75**	**75**					
	Custodial Closet	**1**	**75**	**75**					
	Covered Outdoor Learning Space								How does FEMA treat them?
	Learning Suite 2-- Studios	**3**	**850**	**2,550**	3	27	81	71	
	Learning Suite 2-- Science Lab	**1**	**1,200**	**1,200**	1	27	27	24	1 lab per LS is fume hood/chem equipped
	Chem Prep Room	**1**	**200**	**200**					
	Open Collaboration Space/Maker Space	**1**	**1,400**	**1,400**	1	24	27	24	
	Small Group Instruction	**2**	**200**	**400**					1 combined or 2 separate
	Teacher Planning	**1**	**1,000**	**1,000**					Includes two 50 sf Phone Rooms & 1 RR
	Learning Suite Storage	**1**	**250**	**250**					
	Student Restrooms	**2**	**150**	**300**					
	Staff Restroom	**1**	**75**	**75**					
	Custodial Closet	**1**	**75**	**75**					
	Outdoor Learning Space								
	Learning Suite 3-- Studios	**3**	**850**	**2,550**	3	27	81	71	
	Learning Suite 3-- Science Lab	**1**	**1,200**	**1,200**	1	27	27	24	1 lab per LS is fume hood/chem equipped
	Chem Prep Room	**1**	**200**	**200**					
	Open Collaboration Space/Maker Space	**1**	**1,400**	**1,400**	1	24	27	24	
	Small Group Instruction	**2**	**200**	**400**					1 combined or 2 separate
	Teacher Planning	**1**	**1,000**	**1,000**					Includes two 50 sf Phone Rooms & 1 RR
	Learning Suite Storage	**1**	**250**	**250**					
	Student Restrooms	**2**	**150**	**300**					
	Staff Restroom	**1**	**75**	**75**					
	Custodial Closet	**1**	**75**	**75**					
	Outdoor Learning Space								
	Learning Suite 4-- Studios	**3**	**850**	**2,550**	3	27	81	71	
	Learning Suite 4-- Science Lab	**1**	**1,200**	**1,200**	1	27	27	24	1 lab per LS is fume hood/chem equipped
	Chem Prep Room	**1**	**200**	**200**					
	Open Collaboration Space/Maker Space	**1**	**1,400**	**1,400**	1	24	27	24	
	Small Group Instruction	**2**	**200**	**400**					1 combined or 2 separate
	Teacher Planning	**1**	**1,000**	**1,000**					Includes two 50 sf Phone Rooms & 1 RR
	Learning Suite Storage	**1**	**250**	**250**					
	Student Restrooms	**2**	**150**	**300**					
	Staff Restroom	**1**	**75**	**75**					
	Custodial Closet	**1**	**75**	**75**					
	Outdoor Learning Space								
	Subtotal			**29,800**			**540**	**474**	

		Planning Program			Capacity				
	Description of Department, Program, or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
3.0 Elective Spaces									
3.1 Fine Arts									
	Multi-Purpose Room (White Box)	1	4,000	4,000	1	54	54	27	TO BECOME COMMUNITY GATHERING SPACE AND AUDITORIUM LOBBY
	Outdoor & White Box Storage	1	700	700					
	Broadcast/Media Classroom	1	800	800	1	27	27	20	**CTE PATHWAY**
	Broadcast Studio	1	450	450					
	Broadcast Control Room	1	150	150					
	Choir Room	1	1,600	1,600	1	41	41	30	
	Piano Studio	1	800	800	0	15	0	0	Piano/keyboard classes
	Instrument Storage	1	700	700					
	Band Booster Storage	1	100	100					
	Practice Room	4	100	400					
	Band Office	1	150	150					
	Choir Office	1	150	150					
	Piano Storage	1	100	100					
	Shared Music Library	1	150	150					
	2D Art Room	1	1,600	1,600	1	27	27	20	
	2D Art Storage	1	250	250					
	3D Art Room	1	1,600	1,600	1	27	27	20	
	3D Art Storage	1	200	200					
	Kiln	1	150	150					
	Subtotal			14,050			175.5	71	
3.2 CTE									
	Low Intensity Labs	2	2,500	5,000	2	24	48	36	**3 CTE PATHWAYS**
	High Intensity Labs	2	5,000	10,000	2	24	48	36	**2 CTE PATHWAYS**
	Subtotal			15,000			96	72	
3.3 JROTC									
	JROTC Classroom	2	1,000	2,000	2	30	60	45	2 Classrooms could join to be shooting range
	JROTC Armory	1	200	200					
	JROTC Uniform Storage	1	800	800					
	JROTC Office	1	200	200					
	JROTC Dressing Rooms	2	400	800					
	Student Restrooms	2	250	500					
	Outdoor Drill Space								Could be outdoor shooting range
	Subtotal			4,500			60	45	

9-12 Advancement Opportunities

		Planning Program			Capacity				
	Description of Department, Program, or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
4.0 Media Center									
4.1 Media Center									*Media Center should be front & center of campus (Lee Elementary style)*
	Media Center	1	5,100	5,100					1,350 students x 4 sf = 5,400 sf
	Conference Room	1	300	300					
	Production/Publication/Print Space	1	200	200					
	Study Room	2	200	400					Flexibility to be 1 room @ 400 sf or 2 @ 200 sf
	IT Help Desk	1	150	150					
	Book/Supply Storage	1	400	400					
	Office	1	150	150					
	Staff Restroom	1	75	75					
	Student Restroom	1	75	75					
	Workroom (w/ sink)	1	200	200					
	Subtotal			7,050					
5.0 Multi-Purpose Area									
5.1 Multi-Purpose									
	Digital Maker Space	1	800	800	1	27	27	14	ADJACENT TO WHITE BOX
	Digital Maker Space Storage	1	200	200					AJDACENT TO DIGITAL MAKER SPACE
	Audio/Recording Space	1	200	200					AJDACENT TO DIGITAL MAKER SPACE
	Career Center	1	700	700					ADJACENT TO MEDIA CENTER
	Subtotal			1,900			27	14	

		Planning Program			Capacity				
	Description of Department, Program, or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
6.0 Special Education Services									
6.1 Special Education Services									
	Self-Contained Studio	1	950	950	1	12	12	12	
	Shared Kitchenette	1	400	400					
	Kitchenette Pantry	1	100	100					
	Shared Laundry Room	1	75	75					
	Shared Restroom	1	100	100					
	Small SPED Studio	1	600	600					
	Small SPED Studio Storage	1	50	50					
	Small SPED Studio Restroom	1	75	75					
	Subtotal			2,350			12	12	
6.2 Special Education Support Suite									
	SPED Clerk/Itenerant	1	350	350					
	SPED Records Room	1	100	100					
	SPED Chair Office	1	200	200					
	SPED Office	1	150	150					
	Conference Room	1	250	250					
	Subtotal			1,050					
7.0 Food Service									
7.1 Food Service									
	Cafeteria	1	3,000	3,000					1,350 Students / 3 lunch periods = 450 students x 14 sf per student = 6,300 sf
	Outdoor Eating Area								Provide 450 seats outdoors
	Cafeteria Restrooms	2	150	300					
	Serving Area	1	800	800					
	Servery Storage	1	100	100					
	Servery Custodial	1	75	75					
	Grab & Go Serving Area	1	200	200					
	Kitchen	1	3,000	3,000					
	Office (w/ restroom)								Included in kitchen SF
	Dishwashing Room								Included in kitchen SF
	Dry Storage								Included in kitchen SF
	Cooler/Freezer								Included in kitchen SF
	Restroom/Lockers								Included in kitchen SF
	Kitchen Receiving	1	300	300					
	Subtotal			7,775					

9-12 Advancement Opportunities

Description of Department, Program, or Unit	Planning Program			Capacity				NOTES
	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	
8.0 Physical Education								
8.1 Physical Education								
Training Room	1	600	600					
Health Classroom	1	800	800	1	27	27	20	CTE PATHWAY AS NURSING (WITH NURSE)
Training Classroom	1	800	800	1	27	27	20	OR SPORTS MEDICINE (WITH ATHLETICS)
Laundry Room	1	100	100					
Competition Gym	1	13,000	13,000	1	54	54	41	REQUESTED ARENA WOULD BE: 12,400 (2 side-by-side courts) + 8,000 (2,000 Seating Capacity) = 20,400 sf
Concessions	1	200	200					
Spectator Restrooms	2	500	1,000					
Spectator Family Restroom	1	100	100					
PE Storage	1	400	400					
General Athletics Storage	1	700	700					
Womens Locker Room	1	1,200	1,200					
Womens Showers/Restrooms	1	500	500					
Womens Coaches Office	1	150	150					
Womens Coaches Restroom	1	75	75					
Mens Locker Room	1	1,200	1,200					
Mens Showers/Restrooms	1	500	500					
Mens Coaches Office	1	150	150					
Mens Coaches Restroom	1	75	75					
Subtotal			21,550			108	81	
8.2 Concessions & Storage								
Concessions	1	800	800					
Custodial Room	1	60	60					
Tickets/Store	1	150	150					
Pantry	1	60	60					
Storage	1	500	500					
Public Restrooms	2	500	1,000					
Public Family Restroom	2	100	200					
Cooler Wash Area	1	120	120					
Officials Locker Room	1	100	100					
Officials Restroom	1	100	100					
Field Storage	1	500	500					
Subtotal			3,590					

		Planning Program			Capacity				
	Description of Department, Program, or Unit	# of Units	Unit Area (nsf)	Total Area (nsf) Requirement	# of Teacher Stations	# of Students per Teaching Station	Max Capacity	Functional Capacity	NOTES
9.0 Building Support									
9.1 Maintenance & Custodial									
	Maintenance Receiving	1	320	320					
	Equipment Storage	1	480	480					
	Custodial Storage	1	160	160					
	Outsource Custodial Storage	1	160	160					
	Water Heater Room	1	100	100					
	Office	1	150	150					
	Break Room	1	200	200					
	Restroom	1	75	75					
	Maintenance Room	1	1,500	1,500					
	Subtotal			3,145					
10.0 Site									
10.1 Site									
	Parking for XXX								
	Staff & Visitor Parking for XXX								
	Greenhouses	2							
	Field with Track								

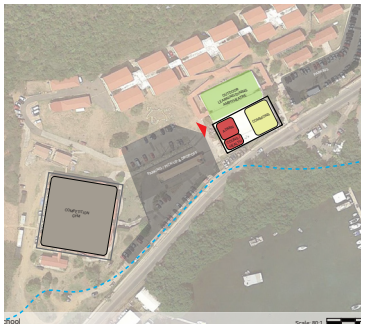
9-12 Case Study

St. Thomas

Ivanna Eudora Kean High School

*All construction shall be per the design guidelines included at the end of this section.

Existing Building Area 134,313 SF
New Building Area ≈ 118,760 SF
Enrollment 686 Students
Actual student enrollment 2019/2020
Functional Capacity 768 Students Δ **-86 Students**



Design Statement

Modernization at Existing:

The modernization of Ivanna Eudora Kean High School requires renovation of existing classrooms space to create small learning communities. The central administration/ commons building will be demolished to make room for a more adequate structure to house those functions.

Program Deviations:

- Small group learning is outside at existing buildings
- Program is scaled to a 600 student magnet school in lieu of a 1350+ comprehensive high school.

Critical Cost Considerations:

- Elevator(s) to meet ADA compliance
- Replacement of jalousie windows
- Renovated outdoor learning/play environments
- Improved site circulation and parking
- HVAC upgrades
- Assume 4000 SF of covered outdoor space
- Assume hip roofs at all locations of new construction
- Communications/IT and security upgrades
- Adding/updating perimeter fence

DISCLAIMER: Proposed modernization is contingent on confirmation that the existing structure either meets or can be modified to meet current structural code requirements.

Level 01

9-12 Case Study

St. Thomas

Ivanna Eudora Kean High School

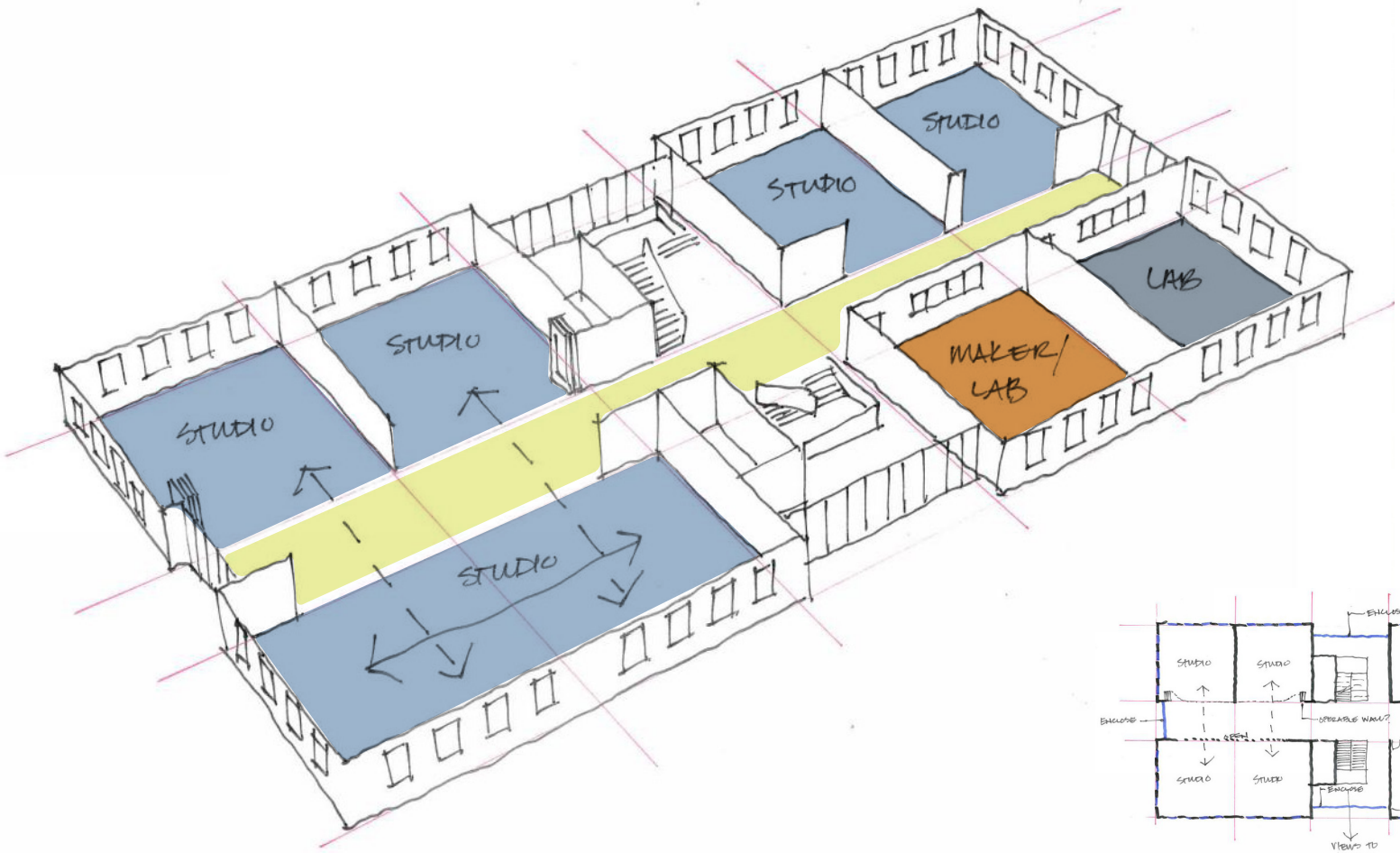
Level 02

Level 03

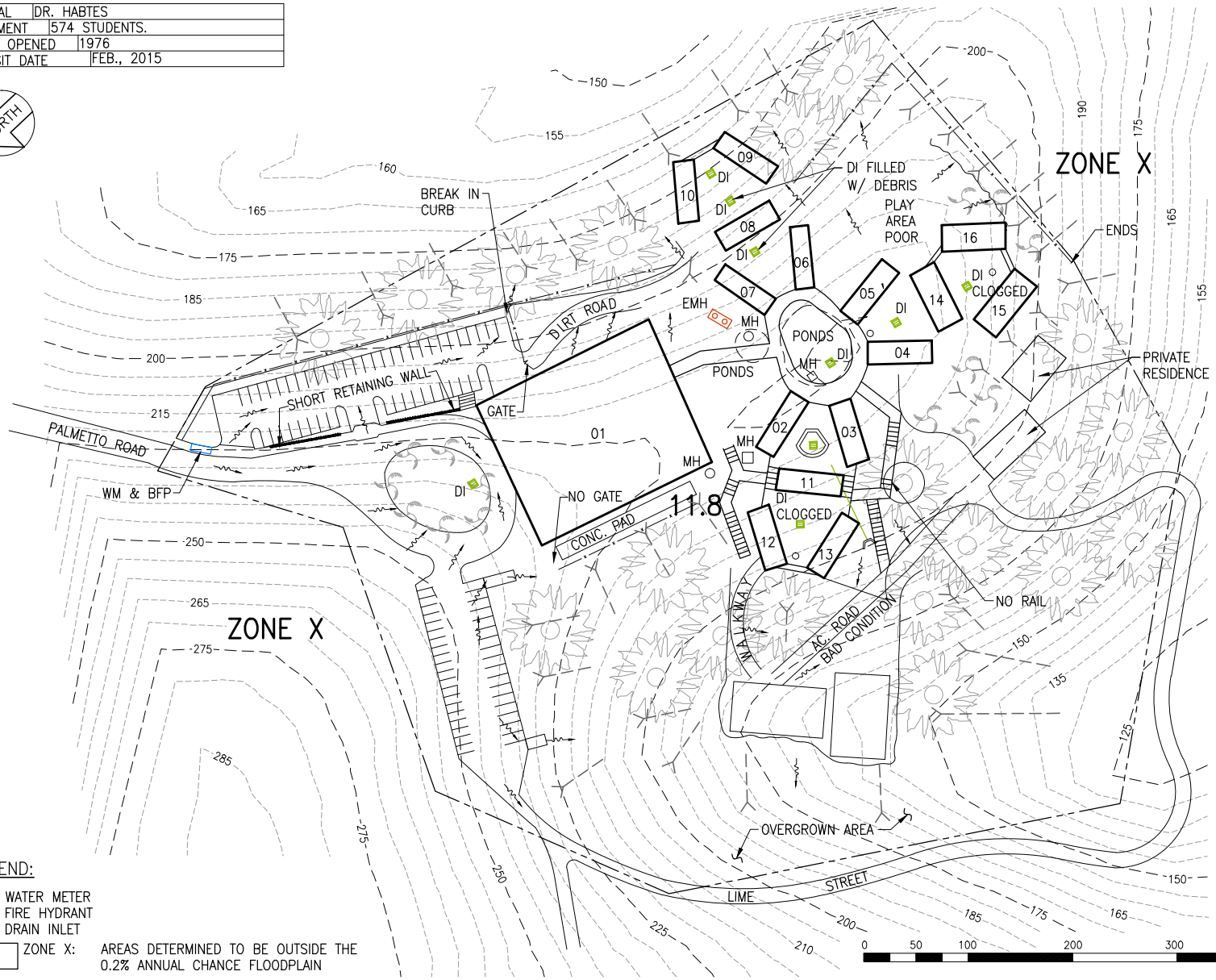
LEGEND

- NEW
- FUTURE PHASE
- EXISTING
- FLOODPLAIN
- MAIN ENTRY
- OUTDOOR
- PARKING
- ADMIN
- COMMONS/COLAB
- LEARNING STUDIO
- KINDER/PRE-K
- SCIENCE
- MEDIA/MAKER
- SPED
- ELECTIVES
- ATHLETICS
- STORAGE
- RESTROOM

Kean Learning Suite Modernization Concept



PRINCIPAL	DR. HABTES
ENROLLMENT	574 STUDENTS.
SCHOOL OPENED	1976
SITE VISIT DATE	FEB., 2015



NOTE:

- HAVE TO PAY FOR BAIT TRAPS, RODENT PROBLEMS.
- ASPHALT WEARING AND CRACKING
- FENCE IN POOR SHAPE. NO SECURITY FENCE, GATED.
- SITE IS ROCKY, NOT MUCH GRASS
- SIGNS OF SOIL EROSION, SIDEWALK NOT LEVEL WITH ADJACENT GROUND.
- OUTSIDE SIDEWALK OKAY, SOME CRACKING
- COULD NOT LOCATE GREASE TRAP.
- CAN'T LOCK GATES, HOME ACCESS IS THROUGH SCHOOL.
- PONDING AREAS, NO INFILTRATION
- CISTERN OVERFLOWS INTO ADJACENT PROPERTY.
- WATER IS CONNECTED TO CITY SYSTEM.
- PROBLEMS W/ WATER BEING TURNED OFF, WATER PRESSURE OKAY
- PLAYGROUND IS RUN DOWN, NOT ENOUGH SAND IN PLAY AREA.
- NO FIRE HYDRANT.
- KITCHEN FIRE SYSTEM NEEDS TO BE REPLACED
- GREASE TRAP BY KITCHEN PUMPED EVERY SO OFTEN. DRAIN IN THE KITCHEN.
- MOST KIDS BUSED, NO ISSUES W/ DROP OFF AND PICKUP.
- ENOUGH PARKING FOR DAY TO DAY OPERATIONS.
- SIDEWALK CONNECTION JOINT FILLER DEGRADING AND NEEDS TO BE REPLACED AS WELL AS REMOVE TOP LAYER OF SIDEWALK

LEGEND:

WM: WATER METER
FH: FIRE HYDRANT
DI: DRAIN INLET

ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

OIA – ASSESSMENT OF BUILDINGS AND CLASSROOMS
US VIRGIN ISLANDS – ST. THOMAS

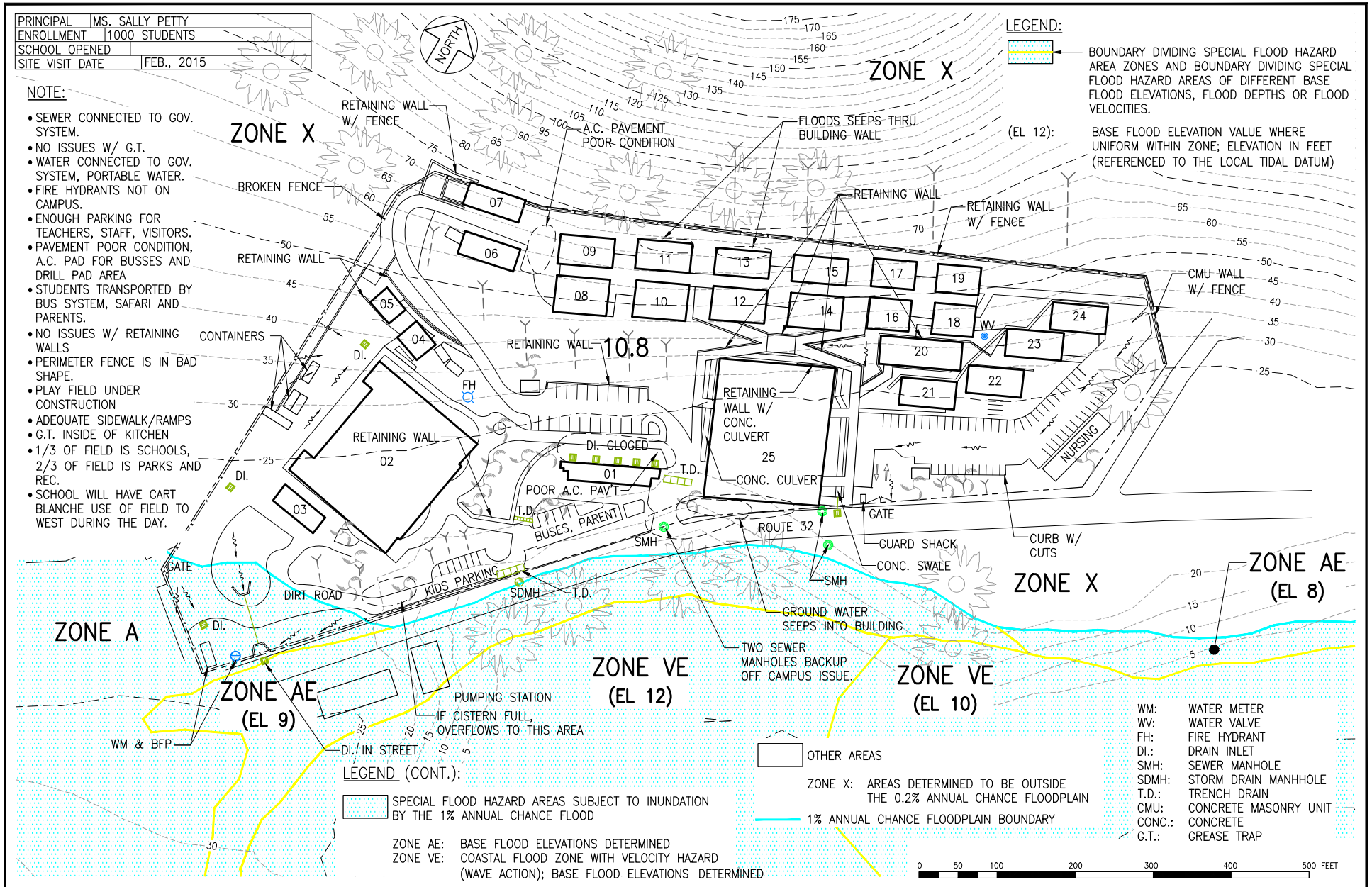
HHF PLANNERS places for people

Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors

E. BENJAMIN OLIVER ELEMENTARY SCHOOL

FIGURE 04

DISCLAIMER: SITE PLAN FEATURES ARE CONCEPTUAL AND NOT INTENDED FOR DESIGN PURPOSES



OIA – ASSESSMENT OF BUILDINGS AND CLASSROOMS
US VIRGIN ISLANDS – ST. THOMAS

HHF PLANNERS places for people

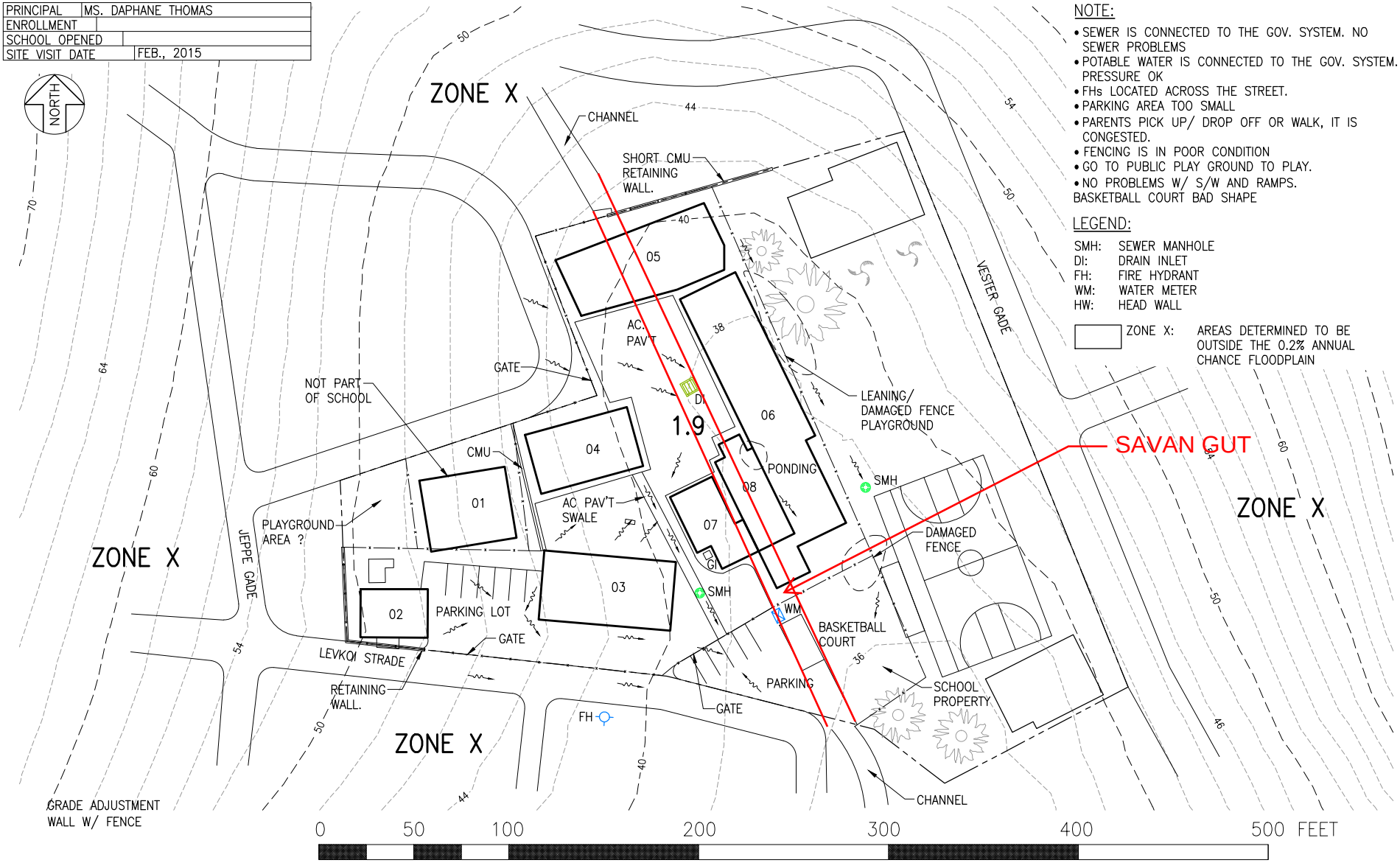
Austin Tsutsumi & Associates, Inc. Engineers & Surveyors

FIGURE 07

IVANNA EUDORA KEAN HIGH SCHOOL

DISCLAIMER: SITE PLAN FEATURES ARE CONCEPTUAL AND NOT INTENDED FOR DESIGN PURPOSES

PRINCIPAL	MS. DAPHANE THOMAS
ENROLLMENT	
SCHOOL OPENED	
SITE VISIT DATE	FEB., 2015



NOTE:

- SEWER IS CONNECTED TO THE GOV. SYSTEM. NO SEWER PROBLEMS
- POTABLE WATER IS CONNECTED TO THE GOV. SYSTEM. PRESSURE OK
- FHs LOCATED ACROSS THE STREET.
- PARKING AREA TOO SMALL
- PARENTS PICK UP/ DROP OFF OR WALK, IT IS CONGESTED.
- FENCING IS IN POOR CONDITION
- GO TO PUBLIC PLAY GROUND TO PLAY.
- NO PROBLEMS W/ S/W AND RAMPS.

BASKETBALL COURT BAD SHAPE

LEGEND:

SMH:	SEWER MANHOLE
DI:	DRAIN INLET
FH:	FIRE HYDRANT
WM:	WATER METER
HW:	HEAD WALL

ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

OIA – ASSESSMENT OF BUILDINGS AND CLASSROOMS
US VIRGIN ISLANDS – ST. THOMAS

HHF PLANNERS places for people

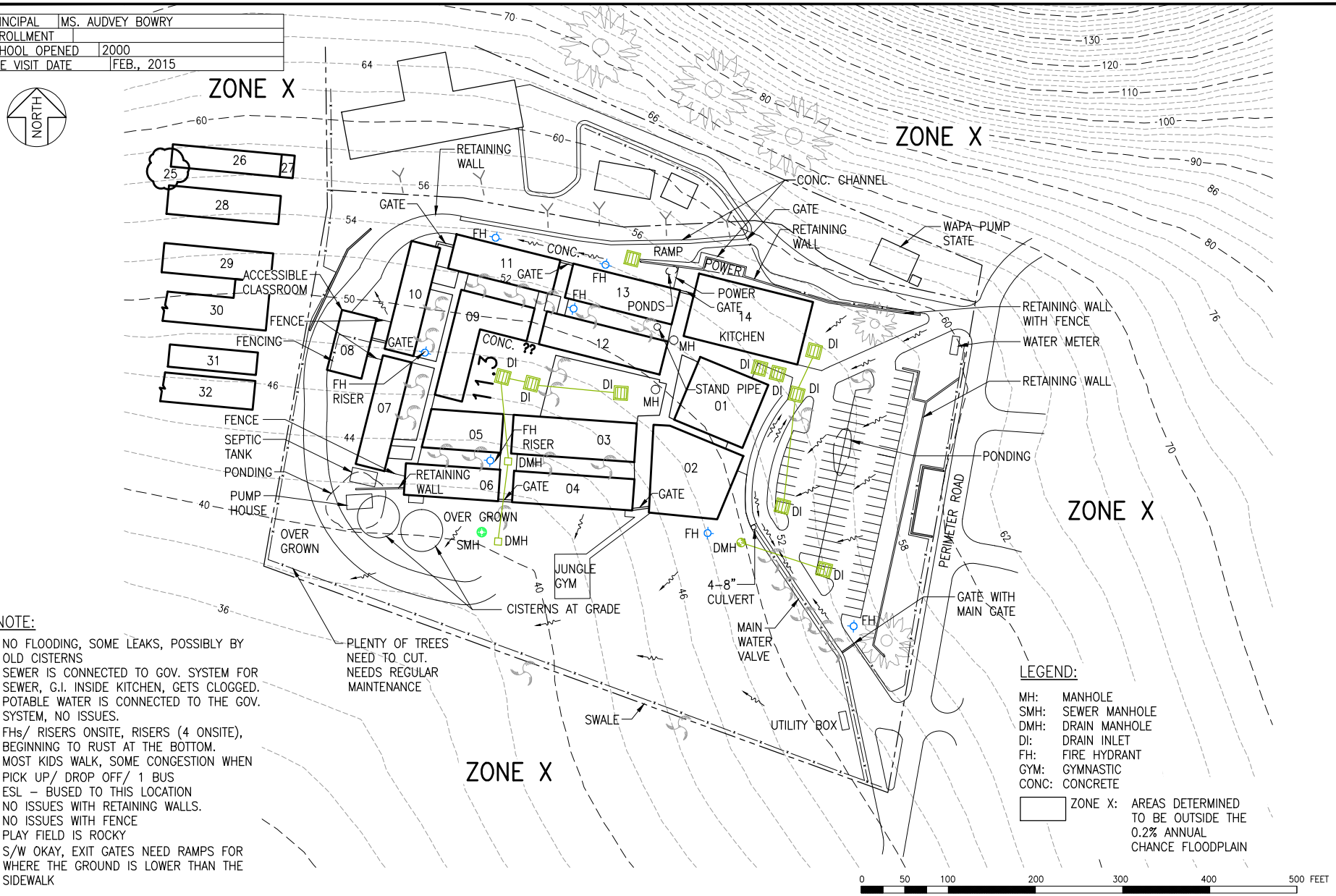
Austin Tsutsumi & ASSOCIATES, INC. Engineers & Surveyors

JANE E. TUITT ELEMENTARY SCHOOL

FIGURE 08

DISCLAIMER: SITE PLAN FEATURES ARE CONCEPTUAL AND NOT INTENDED FOR DESIGN PURPOSES

PRINCIPAL	MS. AUDVEY BOWRY
ENROLLMENT	
SCHOOL OPENED	2000
SITE VISIT DATE	FEB., 2015



NOTE:

- NO FLOODING, SOME LEAKS, POSSIBLY BY OLD CISTERNS
- SEWER IS CONNECTED TO GOV. SYSTEM FOR SEWER, G.I. INSIDE KITCHEN, GETS CLOGGED.
- POTABLE WATER IS CONNECTED TO THE GOV. SYSTEM, NO ISSUES.
- FHs/ RISERS ONSITE, RISERS (4 ONSITE), BEGINNING TO RUST AT THE BOTTOM.
- MOST KIDS WALK, SOME CONGESTION WHEN PICK UP/ DROP OFF/ 1 BUS
- ESL – BUSED TO THIS LOCATION
- NO ISSUES WITH RETAINING WALLS.
- NO ISSUES WITH FENCE
- PLAY FIELD IS ROCKY
- S/W OKAY, EXIT GATES NEED RAMPS FOR WHERE THE GROUND IS LOWER THAN THE SIDEWALK

LEGEND:

MH:	MANHOLE
SMH:	SEWER MANHOLE
DMH:	DRAIN MANHOLE
DI:	DRAIN INLET
FH:	FIRE HYDRANT
GYM:	GYMNASTIC
CONC:	CONCRETE

ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

OIA – ASSESSMENT OF BUILDINGS AND CLASSROOMS
US VIRGIN ISLANDS – ST. THOMAS

HHF PLANNERS places for people

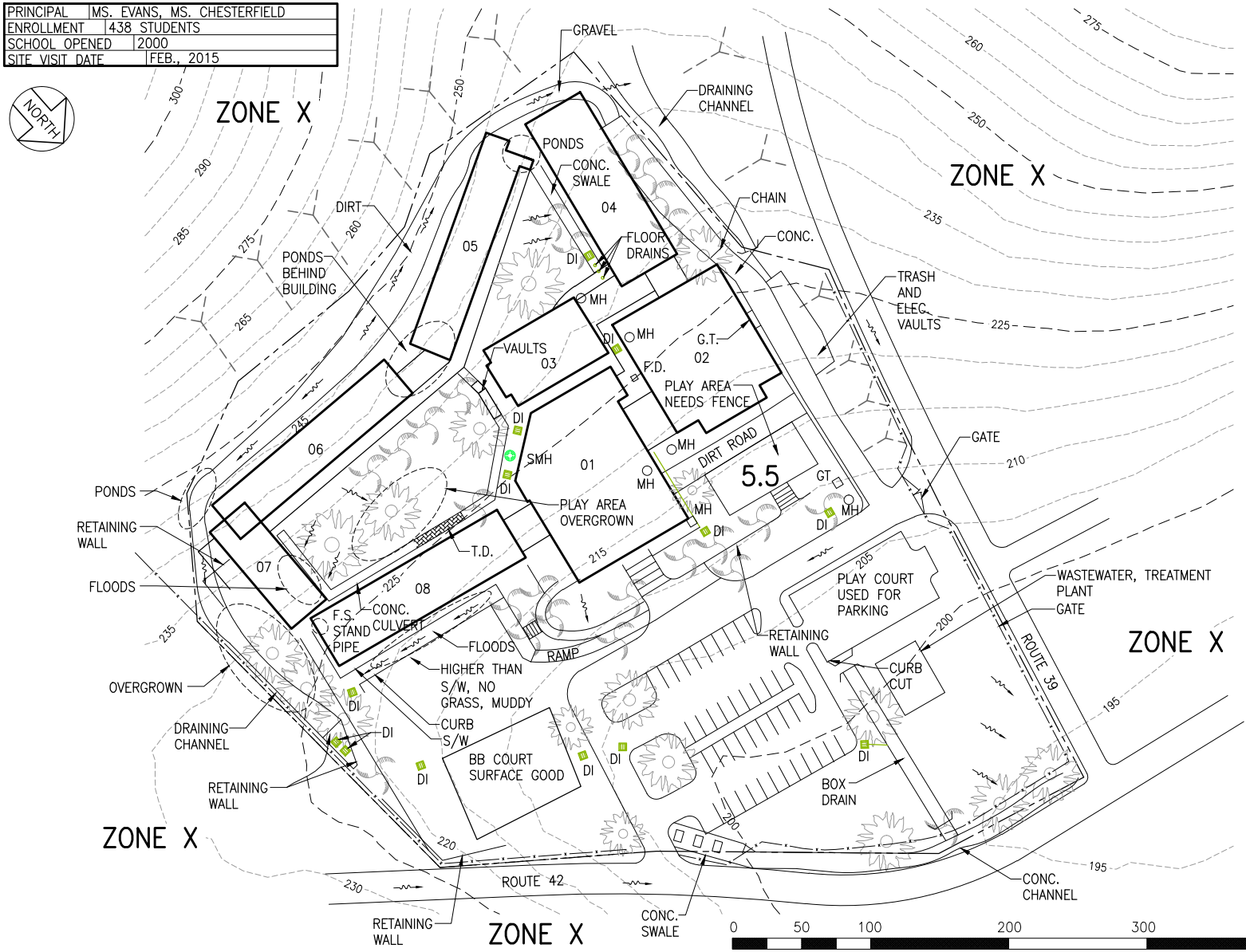
Austin Tsutsumi & Associates, Inc. Engineers & Surveyors

LOCKHART ELEMENTARY SCHOOL

FIGURE 13

DISCLAIMER: SITE PLAN FEATURES ARE CONCEPTUAL AND NOT INTENDED FOR DESIGN PURPOSES

PRINCIPAL	MS. EVANS, MS. CHESTERFIELD
ENROLLMENT	438 STUDENTS
SCHOOL OPENED	2000
SITE VISIT DATE	FEB., 2015



NOTE:

- SOME AREAS OF PONDING.
- ISSUES W/ GREASE TRAP, BACKS UP INSIDE OF KITCHEN.
- POSSIBLE SEWER LINE PROBLEM W/ TREE ROOTS.
- WATER IS TRUCKED IN EVERY TWO DAYS TO CISTERNS 1 AND 2.
- PUMP FOR WATER, WATER IS TEST TOO.
- NO FIRE HYDRANTS.
- ENOUGH PARKING FOR TEACHERS AND VISITORS .
- MOST OF STUDENTS BUSED, NO ISSUE W/ PICKUP AND DROP OFF
- HALF OF SCHOOL HAS FENCES
- FENCING AND GATES NEEDED
- RUBBER MATTING NEEDED FOR PLAYGROUND.
- NO ISSUES W/ RAMPS OR SIDEWALK.
- ONLY ONE AREA TO EVACUATE TO.

LEGEND:

FH: FIRE HYDRANT
DI: DRAIN INLET
SMH: SEWER MANHOLE
MH: MANHOLE
GT: GREASE TRAP

ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN

OIA – ASSESSMENT OF BUILDINGS AND CLASSROOMS
US VIRGIN ISLANDS – ST. THOMAS

HHF PLANNERS places for people

Austin Tsutsumi & Associates, Inc. Engineers & Surveyors

YVONNE E. MILLINER-BOWSKY ELEMENTARY SCHOOL

FIGURE 15

DISCLAIMER: SITE PLAN FEATURES ARE CONCEPTUAL AND NOT INTENDED FOR DESIGN PURPOSES

Virgin Islands Department of Education

Office of Planning, Research and Evaluation

Public Schools Enrollment by Grade

2024-2025

Districts\Schools	PK	KG	01	02	03	04	05	06	07	08	09	10	11	12	Total
St. Thomas-St. John District	**81**	**408**	**364**	**372**	**364**	**393**	**366**	**361**	**415**	**386**	**477**	**499**	**416**	**363**	**5,265**
Jane E. Tuitt Elementary School		30	31	32	32	30	24								179
Joseph Gomez Elementary School	14	97	73	72	80	78	78								492
Joseph Sibilly Elementary School	21	41	37	42	32	37	25								235
Lockhart Elementary School		66	59	72	71	78	66	145	176	171					904
Ulla F. Muller Elementary School	17	71	73	62	72	78	74								447
Yvonne E. Milliner-Bowsky Elementary School	14	64	69	63	58	71	81								420
Julius E. Sprauve School	15	39	22	29	19	21	18	24	27	24					238
Bertha C. Boschulte Middle School								192	212	191					595
Charlotte Amalie High School											254	312	243	209	1,018
Ivanna Eudora Kean High School											223	187	173	154	737
St. Croix District	**72**	**380**	**385**	**375**	**359**	**414**	**374**	**388**	**434**	**335**	**468**	**423**	**366**	**372**	**5,145**
Alfredo Andrews Elementary School	14	66	66	76	60	61	58	83							484
Juanita Gardine	9	32	24	31	29	40	26	34	39	32					296
Claude O. Markoe Elementary School	10	58	60	61	47	63	68	44							411
Eulalie Rivera	7	74	73	66	60	70	72	62	80	67					631
Lew Muckle Elementary School	8	55	60	46	50	58	52	34							363
Pearl B. Larsen	11	46	50	49	47	58	39	58	49	41					448
Ricardo Richards Elementary School	13	49	52	46	66	64	59	73							422
John H. Woodson Junior High School									266	195					461
St. Croix Central High School											195	169	152	181	697
St. Croix Educational Complex High School											273	254	214	191	932
Virgin Islands	**153**	**788**	**749**	**747**	**723**	**807**	**740**	**749**	**849**	**721**	**945**	**922**	**782**	**735**	**10,410**

Virgin Islands Department of Education

Environmental Assessment Draft

Emanuel Benjamin Oliver PreK-8 School
St. Thomas, U.S. Virgin Islands

Prepared by

Bioimpact, Inc.
Suffolk – CBNA JV

Contents

INTRODUCTION

The Virgin Islands Department of Education (VIDE) is undertaking the Renovation and Moderation of Schools throughout the territory. VIDE has been able to secure Federal Emergency Management Grants Administration funding for these projects. VIDE therefore will be requesting a Determination of Federal Consistency through the Department of Planning and Natural Resources, Division of Coastal Zone Management for the FEMA funded project – Emanuel Benjamin Oliver PreK-8 School renovation/modernization as required under the VI Code Section 1, VIR and Regs. Title 12, Subchapter 904, section 904-8.

LOCATION

The Emanuel Benjamin Oliver PreK-8 School is located on Rem 148-235, Estate Annas Retreat, New Quarter, St. Thomas, at Latitude 18.335792°N, Longitude -64.885797° W.

Figure 1. Location of Emanuel Benjamin Oliver PreK-8 School on the island of St. Thomas

Figure 2. Location of Emanuel Benjamin Oliver PreK-8 School relationship to surrounding island features.

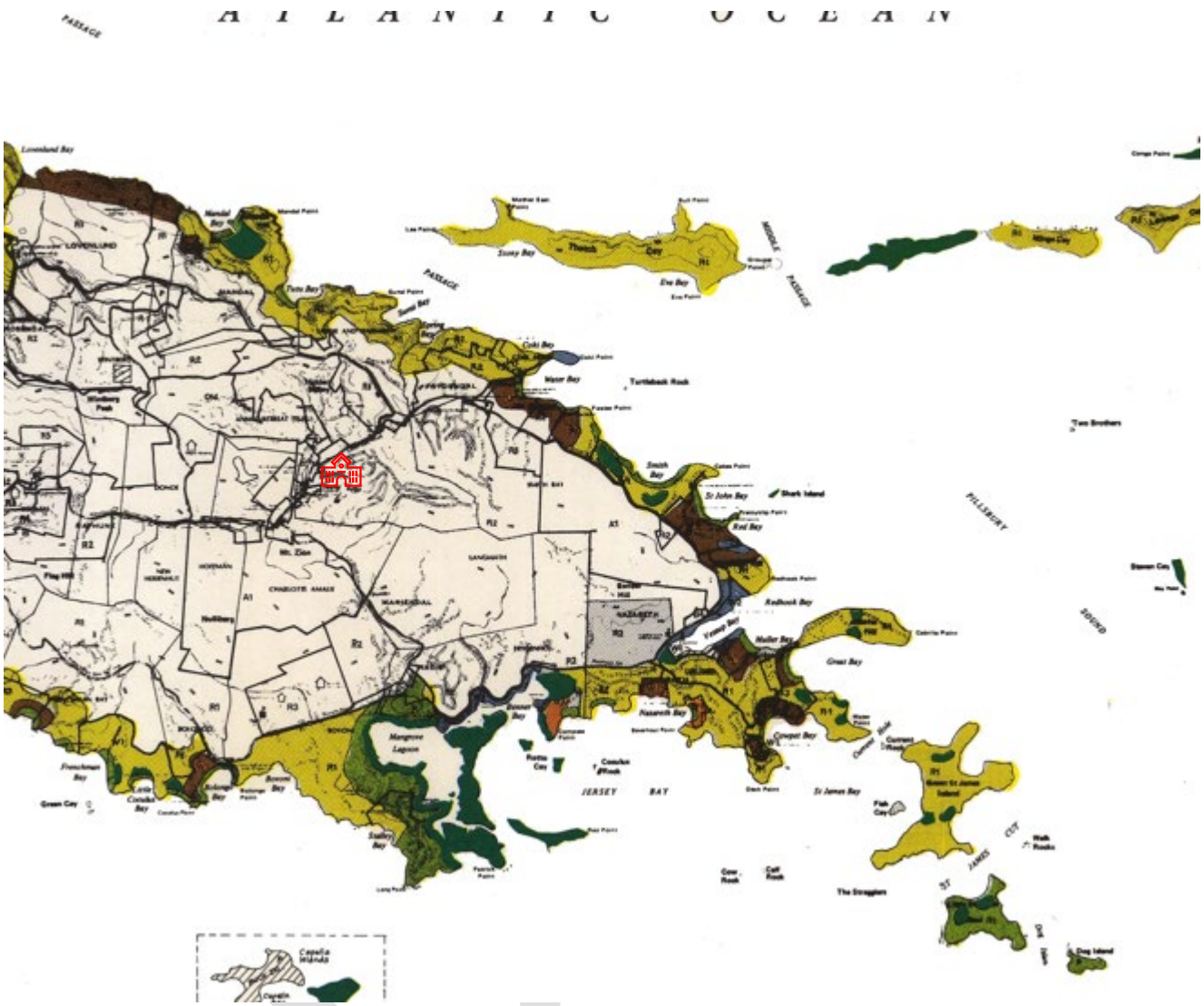


Figure 3. Location of Emanuel Benjamin Oliver PreK-8 School in relationship to the Coastal Zone Management First Tier Jurisdiction Limit

Although the project is outside the first-tier jurisdiction limit of Coastal Zone Management, the project is required to obtain a Federal Consistency Determination. The Coastal Zone Management Act of 1972 requires that federal actions, within and outside the coastal zone, which have reasonably foreseeable effects on any coastal use (land or water), or natural resources of the coastal zone be consistent with the enforceable policies of a state's federally approved coastal management program. The project must be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the U.S. Virgin Islands' CZM Program. This federal consistency determination demonstrates this projects compliance with the U.S. Virgin Islands' CZM Program. The following policies are set forth in the U.S. Virgin Islands Code Title 12, Conservation Chapter 21, Virgin Islands Coastal Zone Management [V.I. Code tit. 12, § 903(b)].

DESCRIPTION OF PROJECT

The Emanuel Benjamin Oliver PreK-8 School was damaged during the 2017 Hurricane Irma and Maria category V storms and was deemed unsafe for students, and faculty and remains closed. Emanuel Benjamin Oliver PreK-8 School has been assessed by FEMA and approved for renovation/modernization and the addition of new buildings.

The purpose of the project is to meet the current and future demand for student space at the Emanuel Benjamin Oliver PreK-8 School.

Reconstructionof Emanuel Benjamin Oliver PreK-8 School encompasses the demolition and reconstruction of the school. The reconstruction will include the administrative offices, library, cafeteria, kitchen, bathrooms, stairways, balconies, theater, hallways and all fixtures and equipment. The project will meet VIDE's vision outlined in the Bridging Documents, under the FEMA Public Assistance (PA) program utilizing the flexibility afforded by the Bipartisan Budget Act (BBA).

All buildings, parking lots, drives and sidewalks within the existing school site will be demolished. The reconstruction includes a new entrance drive and parking along the northern portion of the site. A new utility building will be built on the far west of the site. A one-story gym and dining building will be built in the center of the site, and 4 new building will wrap around the site to the east including a one- and a two-story classroom building, a one-story media building and a two-story administration building. A new playground will be constructed between the gym and the most southern classroom building.

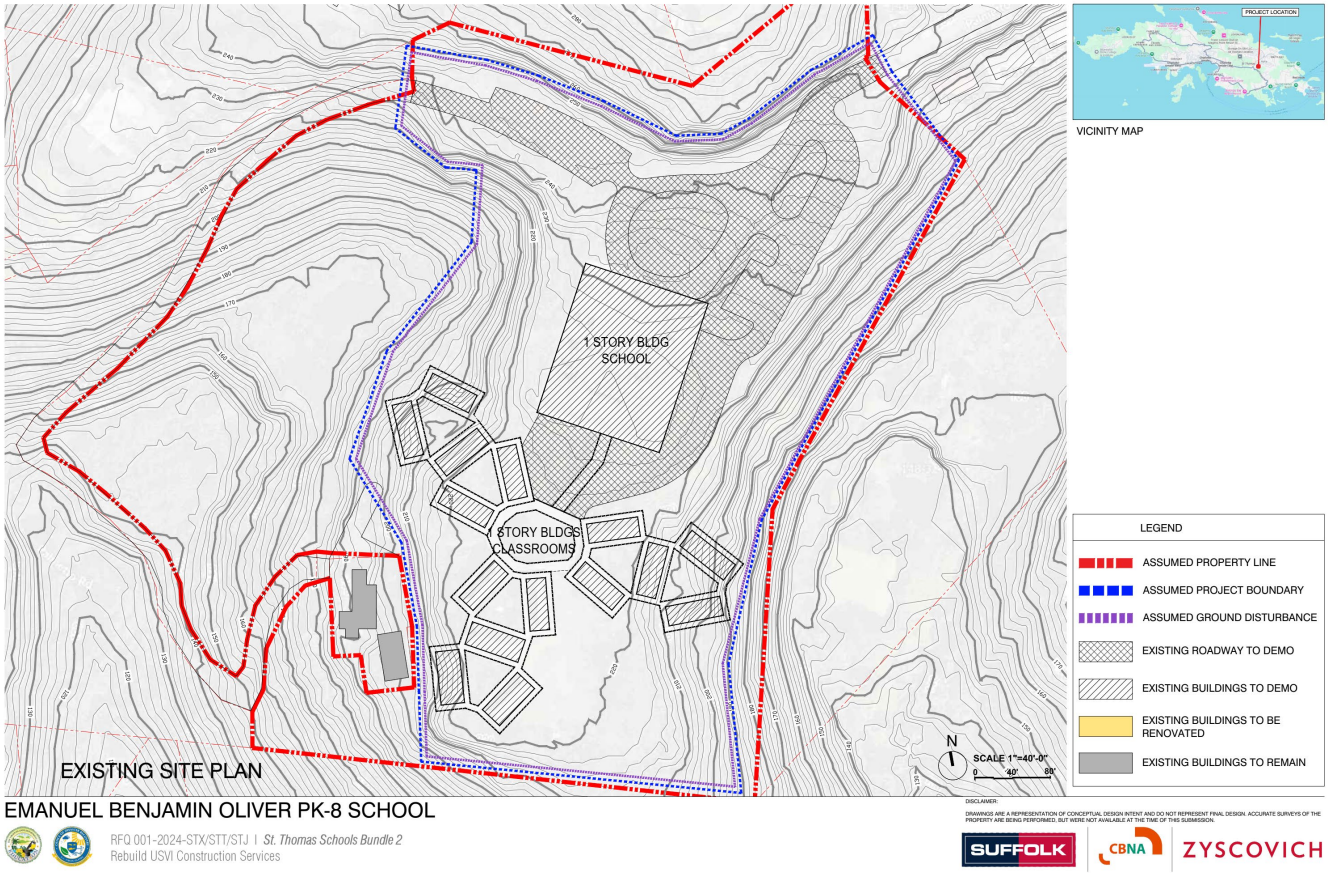


Figure 4. Existing Site Plan for Oliver PreK - 8th

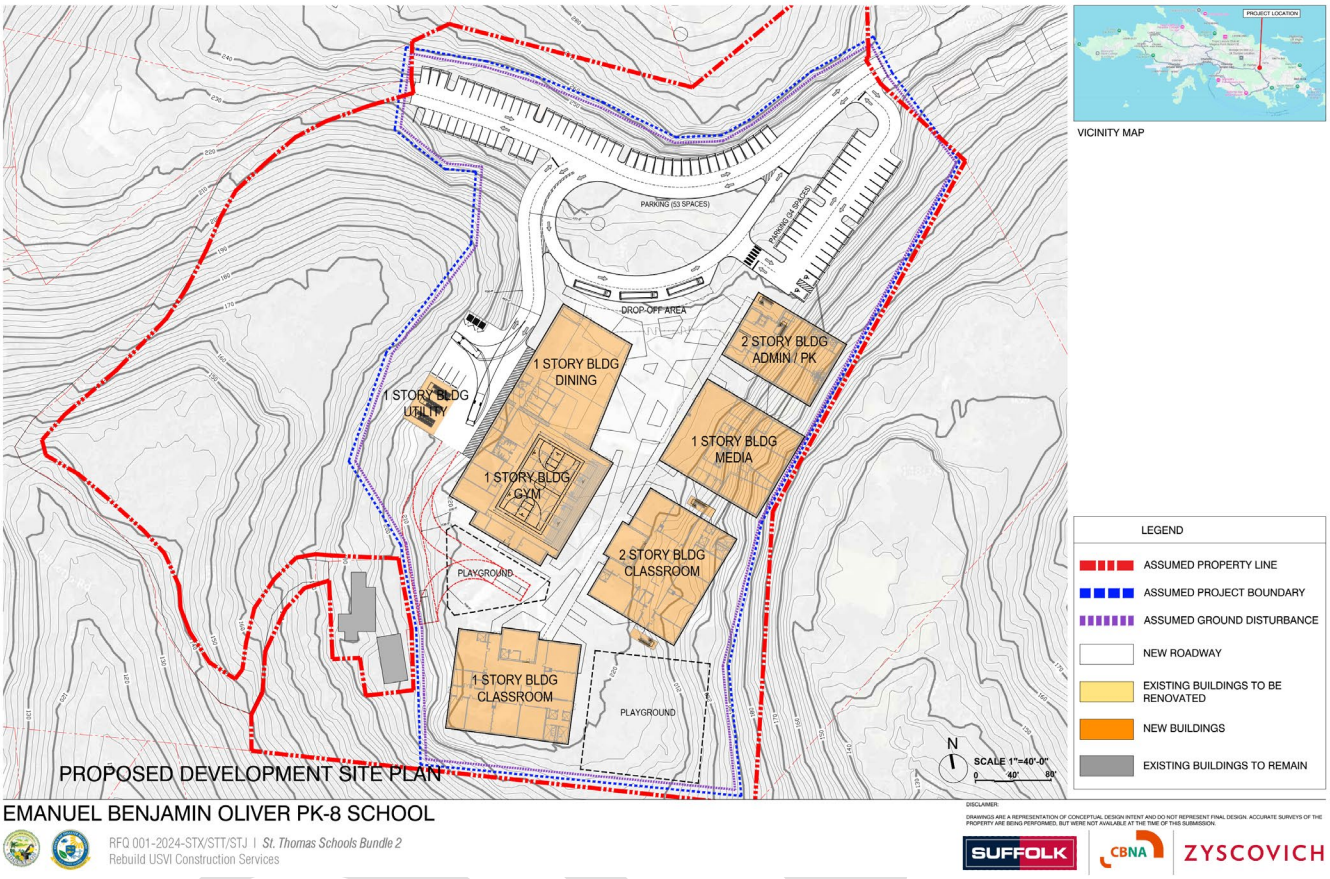


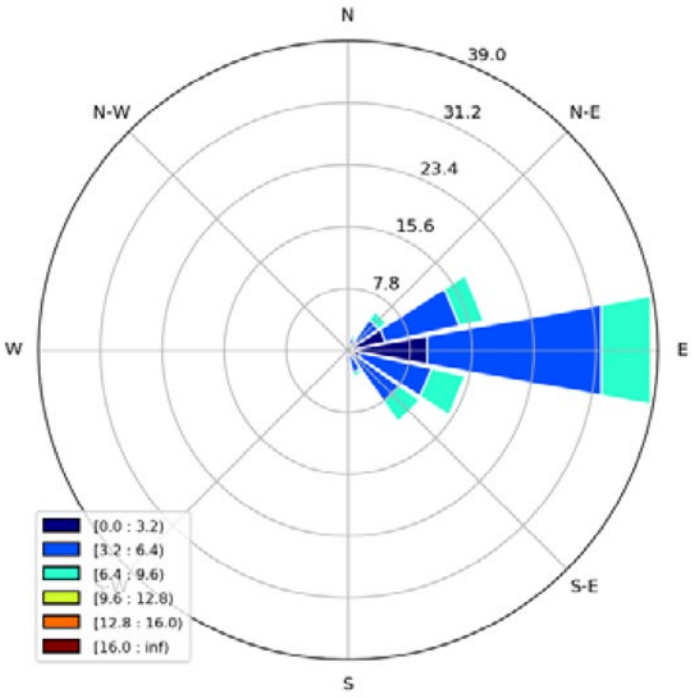
Figure 5. Proposed Development Site Plan for Emanuel Benjamin Oliver PreK- 8th

ENVIRONMENTAL IMPACT

Climate/Weather

The most representative long-term wind records were found to be those from the Cyril E. King Airport station (located approximately 5.7 miles west of the Project Area). The station contains approximately 68 years of wind data records beginning in 1953.

NOAA Station 9751639 is located closer (2.2 miles) to the project site on the West Indian Company (WICO) Dock but only has wind records dating back to the year 2000. The data indicates that the predominant winds are from the east, with 90% of the winds occurring from the southeast to northeast. Winds from the occur approximately 5% of the data record. A wind rose of the hourly wind speeds for the 1953 – 2020 time period is provided in Figure 6.



DIR	COUNT	PERC
N	4525	1.09
NNE	8187	1.97
NE	25184	6.05
ENE	73441	17.64
E	162368	39.00
ESE	63757	15.31
SE	46147	11.08
SSE	14001	3.36
S	7231	1.74
SSW	2619	0.63
SW	2107	0.51
WSW	1309	0.31
W	1367	0.33
WNW	977	0.23
NW	1331	0.32
NNW	1792	0.43

Figure 6. Hourly Wind Rose for Cyril E. King Airport, 1953-2020 (https://weather.gov/data/obhistory/TIST.html)

Storm and Hurricanes

There are numerous disturbances during the year, especially squalls and thunderstorms. These occur most frequently during the summer, lasting only a few hours and causing no pronounced change in the Trade Winds.

A tropical cyclone who's sustained (1 minute average) winds exceed 74 miles per hour is termed as a hurricane in the northern hemisphere and significantly affects the area. Hurricanes occur most frequently between August and mid-October with their peak activity occurring in September.

St. Thomas was hit by two Category V hurricanes in September of 2017, Irma on September 6th and Maria on September 19-20th. Emanuel Benjamin Oliver PreK-8 School was significantly damaged by these hurricanes and remains closed.

Rainfall

The average annual rainfall on St. Thomas is approximately 40 inches, ranging from 35 inches toward the eastern end of the island to more than 55 inches at the higher elevations.

The Ivanna Endora Kean High School area receives around 45 inches of rainfall per year, on average. The rainfall usually occurs in brief, intense showers of less than a few tenths of an inch. February and March are the driest months, and September is the wettest, with nearly half the annual rainfall occurring between August and November. Over the last several years weather patterns have been shifting, and more intense hurricanes with greater rainfalls have been occurring.

Monthly Total Precipitation for EAST HILL, VI

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2000	2.68	4.82	0.25	0.45	4.98	1.12	5.06	2.53	1.74	2.41	3.34	1.25	30.63
2001	0.89	1.68	0.43	1.32	9.42	0.26	2.36	3.64	1.33	5.22	3.03	6.77	36.35
2002	1.67	1.36	0.53	1.75	0.56	0.97	1.09	2.40	1.94	1.61	1.22	3.90	19.00
2003	1.81	1.30	0.62	3.28	0.69	1.07	3.33	3.12	2.03	4.00	20.19	4.97	46.41
2004	2.44	0.63	3.74	1.81	4.68	1.54	2.55	0.88	12.13	3.66	8.40	1.67	44.13
2005	2.24	0.32	0.10	4.34	5.22	3.88	4.15	2.20	2.64	16.25	M	1.67	M
2006	2.73	0.79	1.60	M	2.39	2.84	5.02	2.26	1.60	16.24	4.81	1.30	M
2007	0.71	1.21	3.50	3.76	1.28	1.80	2.43	2.53	2.01	9.51	2.66	3.48	34.88
2008	1.58	1.70	1.08	3.91	0.26	1.67	0.72	6.07	14.73	8.72	3.45	1.36	45.25
2009	1.03	0.80	1.36	0.24	1.62	2.76	1.05	2.59	8.20	4.13	5.90	2.09	31.77
2010	3.20	0.55	1.72	M	M	M	M	M	M	M	M	1.47	M
2011	0.44	0.43	1.23	2.89	11.49	8.57	5.99	5.51	3.61	1.84	5.96	1.88	49.84
2012	2.87	1.05	3.62	1.38	5.79	0.23	1.96	2.47	2.87	3.45	4.21	1.21	31.11
2013	1.36	0.85	1.73	1.56	10.84	4.22	1.94	2.82	M	2.75	6.62	9.18	M
2014	1.08	M	M	2.98	5.36	0.96	0.72	5.91	2.41	2.35	9.26	1.14	M
2015	0.92	0.58	0.49	1.27	1.64	0.80	0.62	2.97	1.09	4.49	3.47	3.18	M
2016	0.65	2.00	M	2.78	6.52	1.27	3.21	4.12	2.87	3.74	5.39	2.98	M
2017	1.92	0.81	6.81	5.35	1.36	2.29	2.80	6.71	12.06	9.02	4.58	3.04	56.75
2018	1.88	1.53	0.53	2.09	1.70	1.07	1.62	4.74	5.92	2.30	7.31	2.01	32.70
2019	1.33	0.99	0.14	0.79	6.82	0.46	3.01	5.69	4.61	1.08	0.94	2.23	28.09
2020	3.83	1.23	3.35	1.07	1.01	1.14	2.37	3.50	5.30	6.13	4.81	1.95	35.69
2021	1.15	0.82	0.88	3.56	1.47	0.90	1.65	2.39	2.67	6.30	1.58	1.56	24.93
2022	1.25	3.79	2.88	0.57	1.12	1.09	2.96	2.48	10.82	5.66	4.35	0.98	37.95
2023	1.75	1.58	0.38	3.93	0.28	3.06	1.22	2.11	1.15	7.42	4.53	0.71	28.12
2024	1.08	2.41	0.57	7.25	8.83	4.33	2.48	8.23	5.42	5.30	13.48	2.51	61.89
2025	1.14	1.32	2.44	1.67	M	M	M	M	M	M	M	M	M
Mean	1.68	1.38	1.67	2.50	3.97	2.01	2.51	3.66	4.75	5.57	5.63	2.58	37.53
Max	3.83 2020	4.82 2000	6.81 2017	7.25 2024	11.49 2011	8.57 2011	5.99 2011	8.23 2024	14.73 2008	16.25 2005	20.19 2003	9.18 2013	61.89 2024
Min	0.44 2011	0.32 2005	0.10 2005	0.24 2009	0.26 2008	0.23 2012	0.62 2015	0.88 2004	1.09 2015	1.08 2019	0.94 2019	0.71 2023	19.00 2002

Figure 7. Rainfall data from East Hill, St. Thomas

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Summary of Monthly Normals
1991-2020
Generated on 05/10/2025

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Current Location: Elev: 53 ft. Lat: 18.3255° N Lon: 64.8513° W
Station: **ANNA'S RETREAT 2.5 ESE, VI VQ VQ1VIST0001**

Precipitation (in.)								
	Totals	Mean Number of Days				Precipitation Probabilities Probability that precipitation will be equal to or less than the indicated amount		
	Means	Daily Precipitation				Monthly Precipitation vs. Probability Levels		
Month	Mean	>= 0.01	>= 0.10	>= 0.50	>= 1.00	0.25	0.50	0.75
01	2.57							
02	1.59							
03	1.38							
04	1.69							
05	4.17							
06	2.90							
07	2.75							
08	5.23							
09	6.37							
10	5.66							
11	6.27							
12	3.04							
Summary	43.62	0.0	0.0	0.0	0.0	0.00	0.00	0.00

Empty or blank cells indicate data is missing or insufficient occurrences to compute value

Figure 8. Rainfall data Anna's Retreat, VQIVIST0001

Temperature

Annual temperatures average 79 degrees Fahrenheit (F), with the winter low averaging 76 degrees F. and the summer high reaching an average of 84 degrees F. Occasionally, maximum daily temperatures will exceed 90 degrees F. and minimum temperatures will drop below 70 degrees F. (NWS).

Impact of weather on Emanuel Benjamin Oliver PreK-8 School, the existing weather patterns have been considered in the design of the renovations and improvements, and the design and construction will make the school to withstand the weather events which may occur. This resiliency will minimize the disruption that significant weather events will have on the lives of Virgin Islands residents.

Landform Geology, Soils and Historic Land Use

Emanuel Benjamin Oliver PreK-8 School is a developed site and as such the site has been graded and altered. The 1954 aerial service map shown below shows no development in the. The school was built in 1975 and was designed to house 700 students.

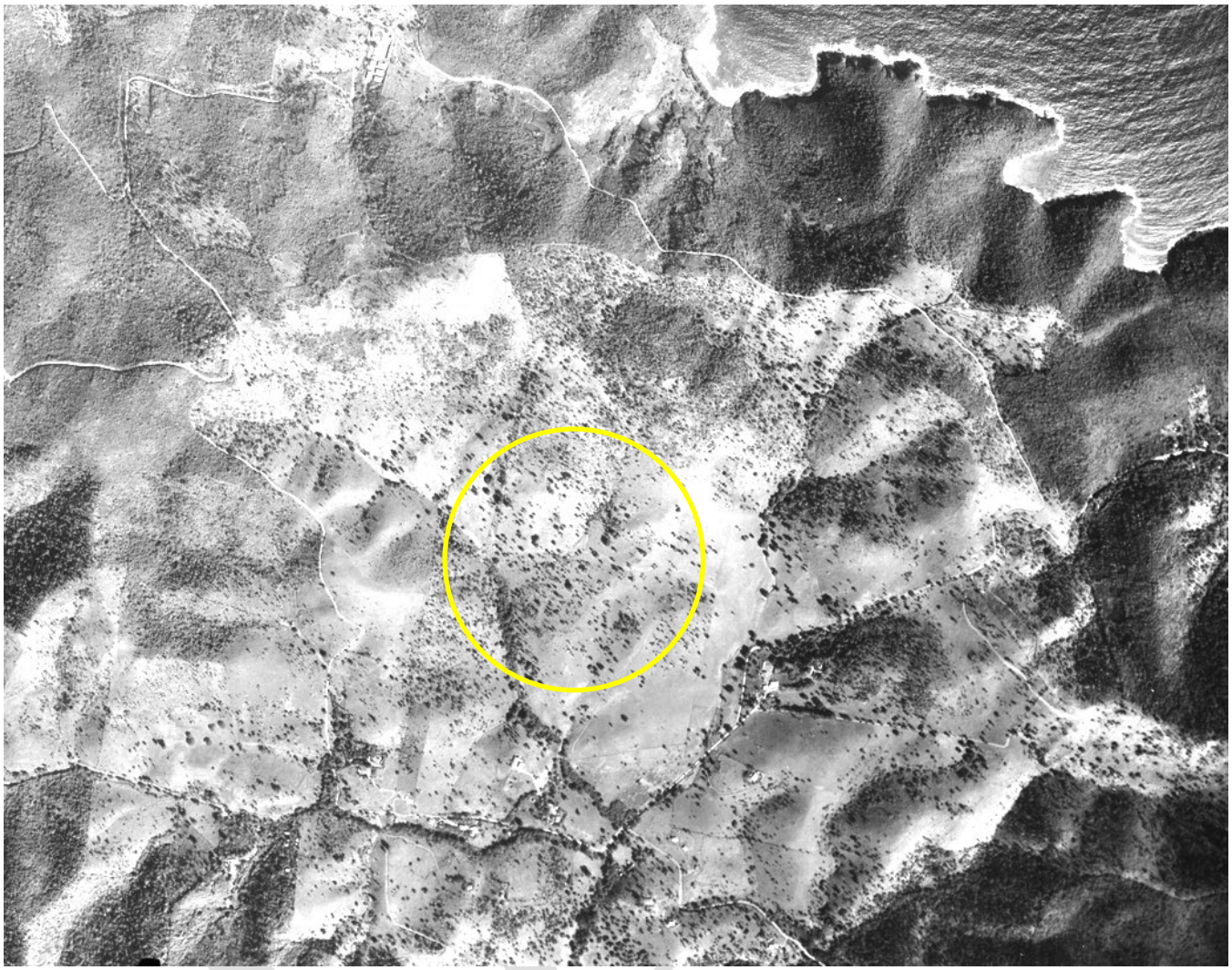


Figure 9. 1954 USGS Aerial Service Photograph

Figure 10. 1974 USGS aerial service the school has not been built

Figure 11. Emanuel Benjamin Oliver PreK-8 School Novemer 29, 1988

Figure 12. November 25, 2017 Google Earth Aerial photograph.

The U.S. Department of Agriculture (USDA) Custom Soil Survey identifies two soil types within the Emanuel Benjamin Oliver PreK-8 School property, Fredriksdal-Susannaberg complex, 20 to 40 percent slopes, extremely stony and Fredriksdal-Susannaberg complex, 40 to 60 percent slopes, extremely stony. These soils are not prime farmland, and they have a weathered parent material. The depth to a restrictive layer is 10 t0 20 inches, where either lithic bedrock or paralithic bedrock is encountered. The depth to water is more than 80 inches in this well drained soil.

Figure 13. USDA Soil Survey Map

Drainage, Erosion Control, and Maintenance

The Emanuel Benjamin Oliver PreK-8 School encompasses approximately xx acres. The highest elevation is found at the entrance, and the center of the school property is level at 220ft of elevation, with some existing class rooms on the edge of the knoll down to 190ft of elevation. There are no well-defined drainage ways within the property, and the property has been extensively graded.

Figure 14. Topographic Map of the Emanuel Benjamin Oliver PreK-8 School

Drainage Patterns

Runoff flows down slopes and is channeled along drives and walkways.
The hydrology and hydraulics design has two primary objectives: to effectively convey water off of paved surfaces and away from buildings such that their use is not impacted during heavy rains and to attempt to minimize site runoff to no more than the volume generated by the existing site conditions. To support this, we will prepare a drainage layout identifying major features of buried and surface drainage, such as pipes, inlets, utility holes, swales, and culverts. The drainage layout will be used to create a site hydraulic model which will allow us to verify rough sizing for drainage features, as well as estimate the increased volume of runoff for the design storm due to increased impervious surfaces. The TR-55 method will be used for estimating the design storm runoff volumes and flow rates, per the requirements in the TPDES and SWPPP.

Strictly enforced measures to control sedimentation and erosion will be implemented during all phases of construction to ensure that rainfall will not affect the nearby drainageways or result in erosion of soil. Due to the size of the project Suffolk-CBNA JV will be applying for coverage under the General Construction Permit.

Coastal Floodplain

According to the effective (2007) FEMA FIRM Map and the USVI Flood Hazard Advisory Map Emanuel Benjamin Oliver PreK-8 School lies in Flood Zone X where 100-yr coastal flooding is not expected during the 100-year return period flood event.

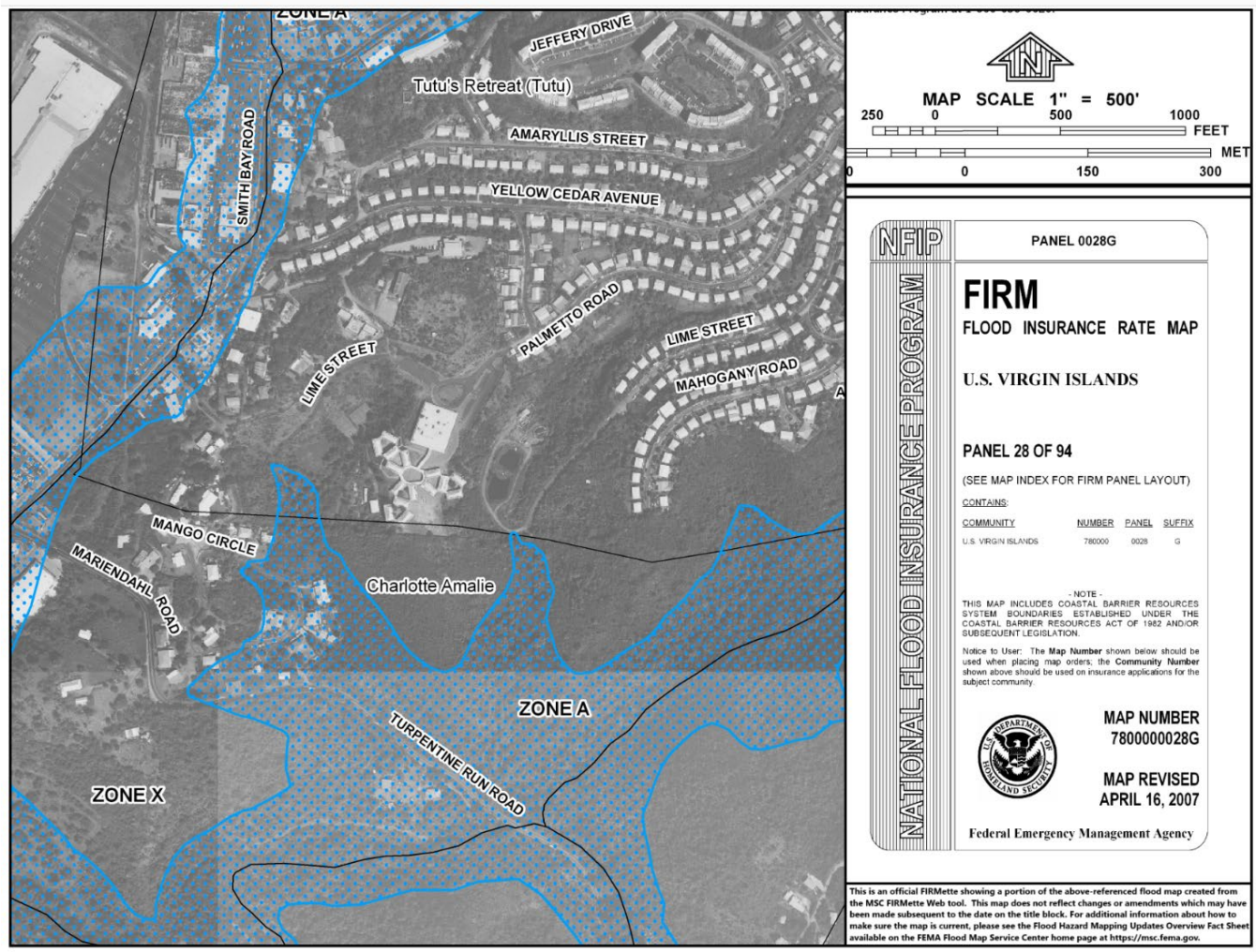


Figure 15. FEMA FIRM 28 of 94 April 16, 2007

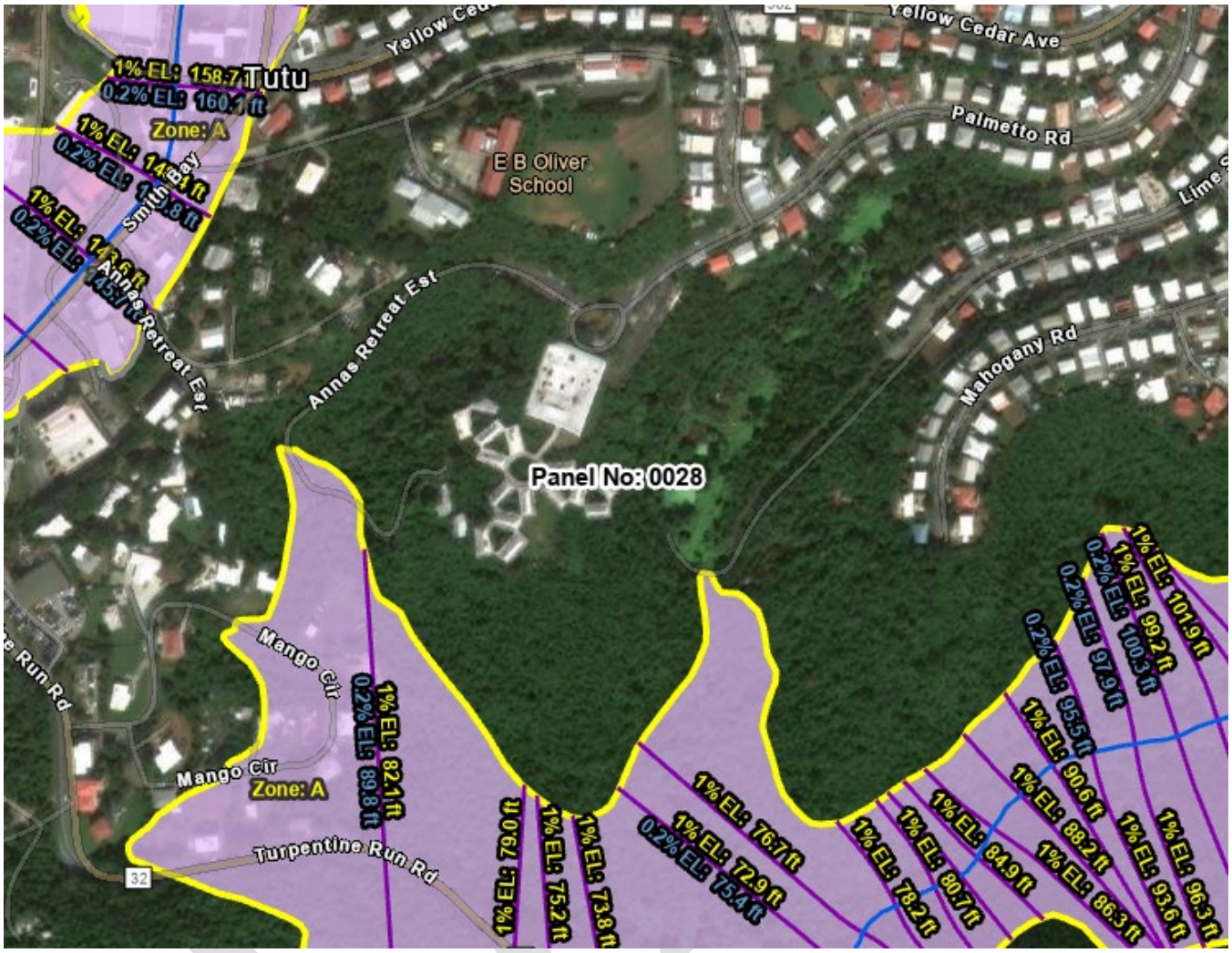


Figure 16. USVI Flood Hazard Advisory Map

Fresh Water Resources

The proposed reconstruction/addition to the Emanuel Benjamin Oliver PreK-8 School will have no impact on freshwater resources. No freshwater ponds or streams occur within the project footprint and groundwater resources within the area are deeper than 80 inches according to the USGS Soil Survey. There are two ponds located down slope to the east of the school.

The USGS St. Thomas Well Survey shows a number of wells in the vicinity of the Yvonne E. Milliner Bowsky Elementary School which are listed as belonging to Mahogany Run (#31, #32), these wells are no longer in use.

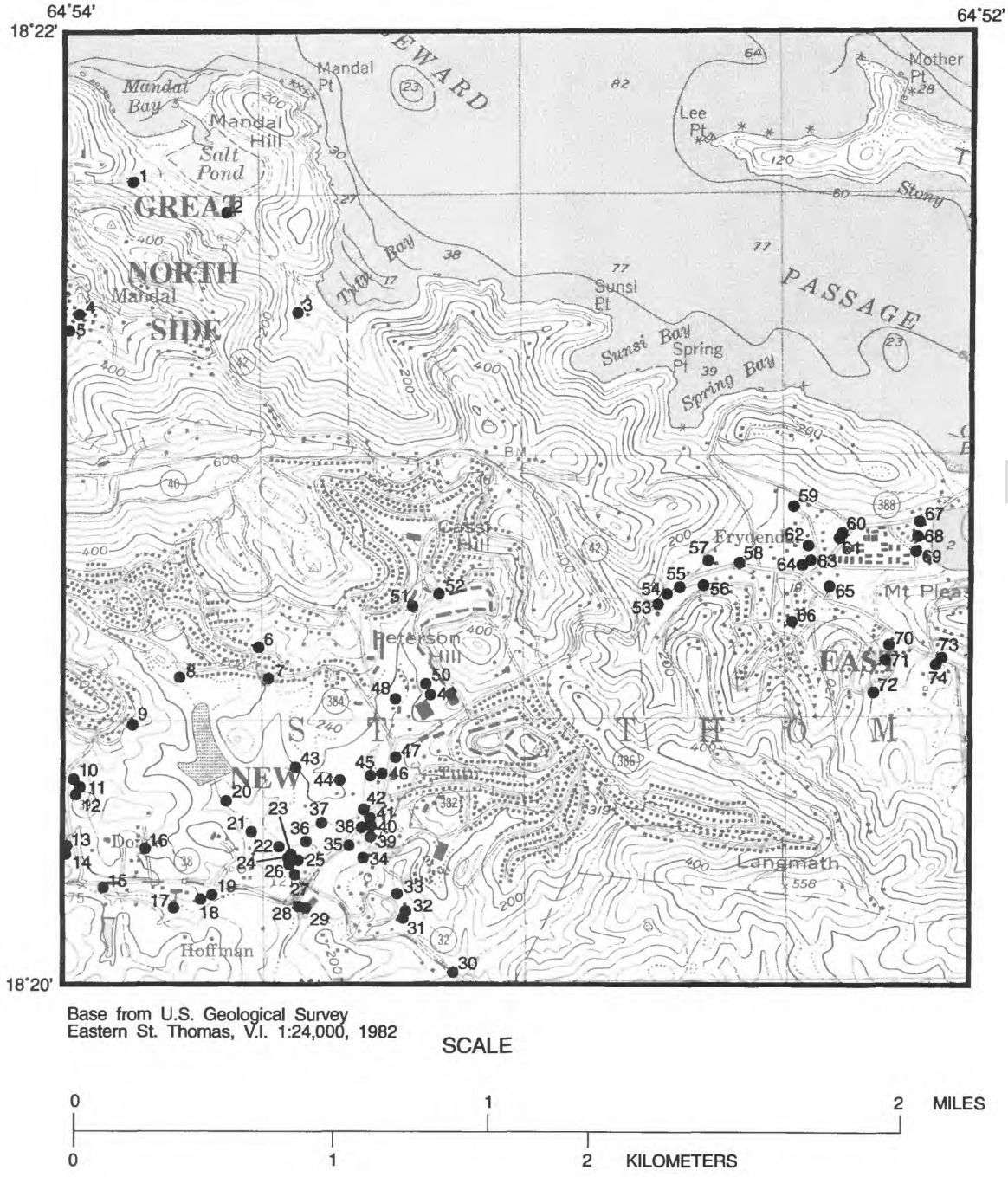


Figure 17. Wells in the vicinity of the Emanuel Benjamin Oliver PreK-8 School

There are not wells on the Emanuel Benjamin Oliver PreK-8 School.

Oceanography

The project location is inland and will not be affected by sea storm events. The project will implement strict stormwater control measures during construction and will apply for coverage under the General Stormwater Permit for construction and the required monitoring of the controls and therefore should not create sediment laden runoff which could affect water quality in the watershed of ponds down slope.

Marine Resources

The property is located inland and will have no direct impact on the marine environment if strict sedimentation and erosion control are implemented and monitored.

Terrestrial Resources

The proposed project will occur within the existing previously developed areas of Emanuel Benjamin Oliver PreK-8 School. No natural terrestrial resources or any native flora or fauna should be impacted during the renovation and modernization to Emanuel Benjamin Oliver PreK-8 School. The school has some larger trees around the property, some of which could be considered specimen trees. These have been planted as part of the landscaping or by the facility of the school. Where possible all larger trees will be preserved.

The school has become heavy overgrown since it is not in use.

There are several yellow flame trees (Peltophorum pterocarpum) on the property.

Secondary growth vegetation has taken over much of the school.

There are large trees scattered about the site by buildings, in the parking lot, near the playing court, many of which are probably remnants from the original forest. These include mahoganies (*Swietenia mahagoni, Swietenia macrophylla*), tamarinds (*Tamarindus indica*), hog plums (*Spondias mombin*), genips (*Melicoccus bijugatus*), and

African tulip trees (Spathodea campanulata).

Wetlands

The U.S. Army Corps of Engineers defines wetlands as "those areas that are periodically inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, bogs, marshes and similar areas." (U.S. Army Corps of Engineers, 1986). The Emanuel Benjamin Oliver PreK-8 School renovations will have no impact on wetlands.

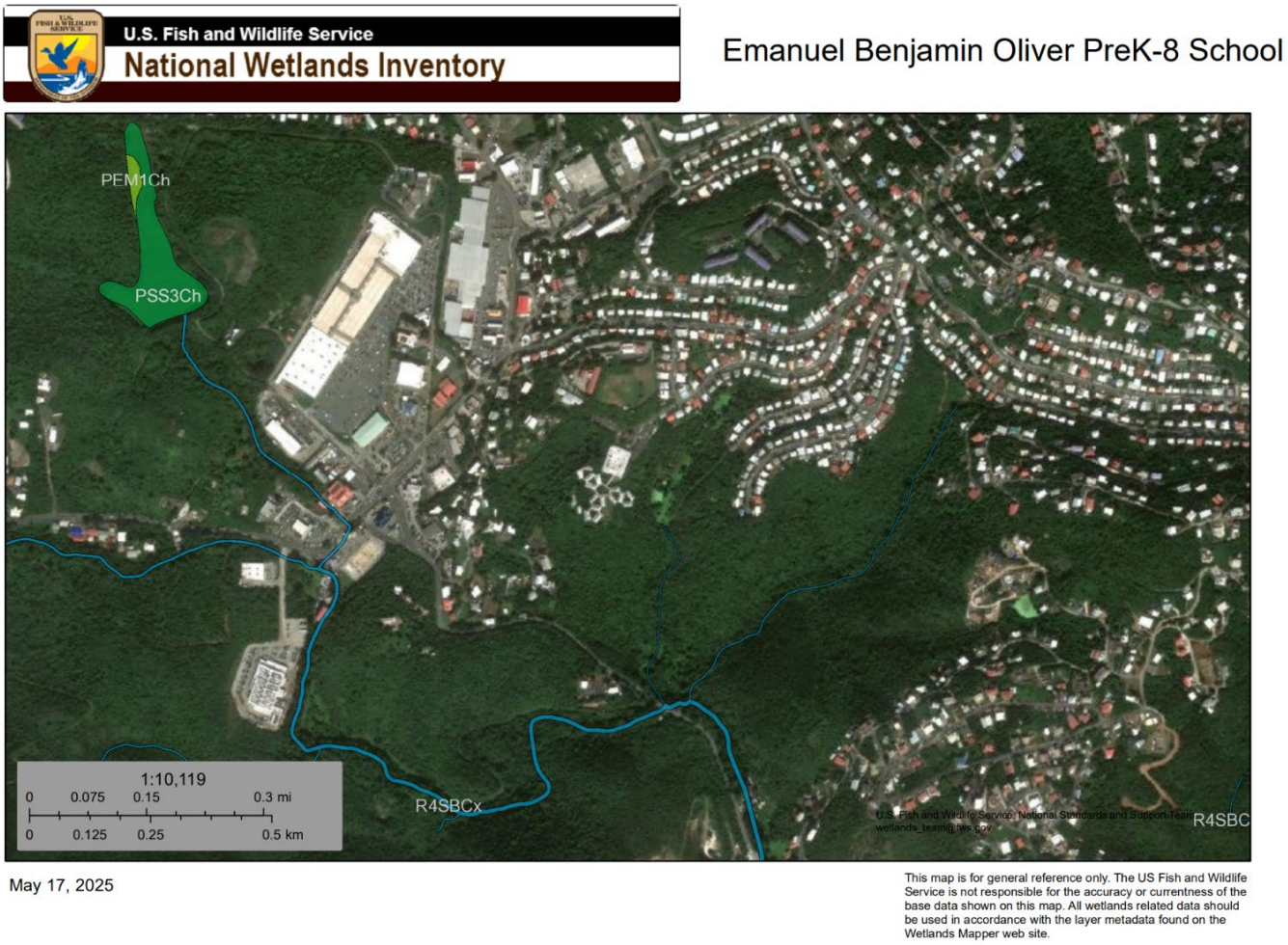


Figure 18. FWS National Wetland Inventory

Rare and Endangered Species

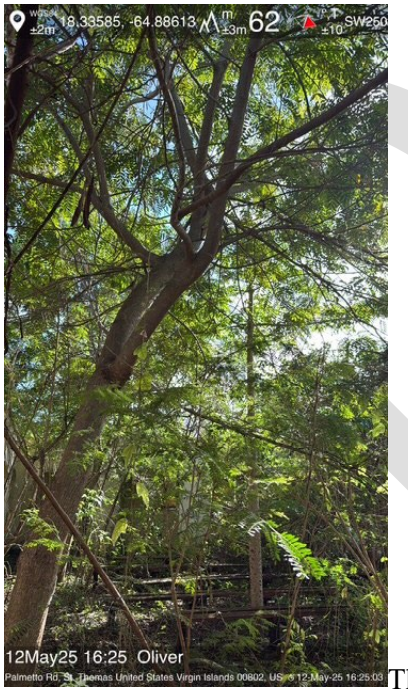
Endangered or threatened species or endangered species could occur near the Emanuel Benjamin Oliver PreK-8 School. According to the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) project tool, endangered species, are expected to be found within the area of the proposed project site. The Virgin Islands Tree Boa, *Chilabothrus granti*, is listed as potentially occurring on the site. A terrestrial

survey was done throughout the property, and no ESA species were noted within the developed portion of the school, but the surrounding forest could provide habitat for the Virgin Islands Tree Boa, and it is possible that a tree boa could be found on the site in the trees which are scattered about the site. Reptiles were abundant and tree anoles (*Anolis cristatellus*), grass anoles (*Anolis pulchellus*), barred anoles (*Anolis stratulus*), dwarf geckos (*Thecadactylus sp*), and common ground lizards (*Sphaerodactylus macrolepis*) were seen around the buildings and in the forested areas surrounding the site. The Virgin Islands tree boa could be present but was not seen during the survey. There is sufficient interdigitation in the surrounding forested areas and there is an adequate prey base.

Prior to any construction activity, including removal of vegetation and earth movement, the boundaries of the project area must be delineated so that areas not slated for construction are not impacted. A training session should be held with the Division of Fish and Wildlife prior to the start of work and then again at the start of construction so workers can be informed about the boas and what to do if they are encountered.

Figure 19. Virgin Islands Tree Boa, Chilabothrus granti (FWS website)

There is adequate refugia around and on the property.



There is good interdigitation within the school property for the tree boa.

Air Quality

There will be minor increases in emissions during the project due to the use of heavy construction equipment that

will create combustion engine exhaust. Upon project completion, air quality will return to pre-construction conditions.

IMPACT ON MAN'S ENVIRONMENT

Land and Water Use Plans

The project site is zoned R-2 Residential Low Density. Secondary schools are a permit use by right in the R-2 zoning. The proposed reconstruction/modernization/expansion of the Emanuel Benjamin Oliver PreK-8 School will not alter the existing use and is in accordance with the laws and regulations of the U.S. Virgin Islands.

Visual Impacts

The proposed reconstruction/modernization project will improve the visual appearance of the school and will be a positive impact on the viewshed.

Social and Economic Impacts

Providing the best possible schools for Virgin Islands children is a positive social impact. Schools that are modern and provide children with safe environments and adequate space where they can thrive will help advance the Virgin Islands socially and economically.

Historical and Archaeological Resources

The proposed reconstruction/modernization/expansion of the Emanuel Benjamin Oliver PreK-8 School project will only result in alterations to previously disturbed areas within the project footprint. No undisturbed area will be affected. A clearance letter will be requested from the State Historic Preservation Office.

Waste Disposal and Accidental Spills

The Virgin Islands Waste Management Authority has specific guidelines and criteria for accepting construction debris. Any excess excavated material spoils and construction debris will be collected, taken off-site, and disposed of in accordance with all governing laws and regulations.

The high school is connected to the public sewage treatment system.

COASTAL CONSISTENCY

The reconstruction and modernization of Emanuel Benjamin Oliver PreK-8 School will have a negligible potential of impacting environmental resources, or ambient water quality during construction. A General Stormwater Permit for construction will be obtained by Suffolk-CBNA JV) and sedimentation and erosion control measures will be implemented during all construction to ensure that no environmental impacts occur. The proposed project will occur only within previously altered areas and if required, archeological monitoring will be conducted to minimize impact on historical or cultural resources Project activities stop if historic remains or resources are encountered, and SHPO will be contacted to determine the best course of action.

The Coastal Zone Management Act of 1972 requires that federal actions, within and outside the coastal

zone, which have reasonably foreseeable effects on any coastal use (land or water), or natural resource of the coastal zone be consistent with the enforceable policies of a state's federally approved coastal management program. Emanuel Benjamin Oliver PreK-8 School renovations, modernization and addition, as proposed, will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the U.S. Virgin Islands' CZM Program. The future federal consistency determination will demonstrate that the Emanuel Benjamin Oliver PreK-8 School renovations, modernization and addition project's compliance with the U.S. Virgin Islands' CZM Program. The following policies are set forth in the U.S. Virgin Islands Code Title 12, Conservation Chapter 21, Virgin Islands Coastal Zone Management [V.I. Code tit. 12, § 903(b)]. The proposed Emanuel Benjamin Oliver PreK-8 School project meets each of the basic goals of the USVI for its coastal zone. Additional
details are as follows:

USVI Code Title Twelve Conservation, Chapter 21 § 903 (b)
(1) Protect, maintain, preserve and, where feasible, enhance and restore, the overall quality of the environment in the coastal zone, the natural and man-made resources therein, and the scenic and historic resources of the coastal zone for the benefit of residents of and visitors of the United States Virgin Islands.
- The proposed Emanuel Benjamin Oliver PreK-8 School project is entirely within previously disturbed and developed areas within the project footprint. The project will not impact any natural resources and will improve the visual landscape.

(2) Promote economic development and growth in the coastal zone and consider the need for development of greater than territorial concern by managing: (1) the impacts of human activity and (2) the use and development of renewable and nonrenewable resources so as to maintain and enhance the long-term productivity of the coastal environment.
- Emanuel Benjamin Oliver PreK-8 School is located mid inland and is the redevelopment of an existing school, the redevelopment of a brownfield site rather than a greenfield side protects the Virgin Islands' non renewable resources.

(3) Assure priority for coastal-dependent development over other development in the coastal zone by reserving areas suitable for commercial uses including hotels and related facilities, industrial uses including port and marine facilities, and recreation uses.
- Emanuel Benjamin Oliver PreK-8 School is outside the coastal area, and is redevelopment does not affect potential commercial uses in the coastal zone and is therefore consistent with this policy.

(4) Assure the orderly, balanced utilization and conservation of the resources of the coastal zone, taking into account the social and economic needs of the residents of the United States Virgin Islands.
- The school reconstruction will only occur in areas that have been previously altered. Safe modern schools are essential for a community to thrive, and the renovation and modernization of the school will help meet that goal.

5) Preserve, protect and maintain the trust lands and other submerged and filled lands of the United States Virgin Islands so as to promote the general welfare of the people of the United States Virgin Islands.
- The proposed school reconstruction and expansion will not impact trust lands or other submerged or filled lands of the U.S. Virgin Islands.

(6) Preserve what has been a tradition and protect what has become a right of the public by

insuring that the public, individually and collectively, has and shall continue to have the right to use and enjoy the shorelines and to maximize public access to and along the shoreline consistent with constitutionally protected rights of private property owners.
- The school reconstruction and expansion project will in no way affect public access to, or use of, the shoreline. The property has no waterfront and is located mid island.

(7) Promote and provide affordable and diverse public recreational opportunities in the coastal zone for all residents of the United States Virgin Islands through acquisition, development and restoration of areas consistent with sound resource conservation principles.
- The proposed school reconstruction and expansion will not affect public recreational opportunities in the coastal zone.

(8) Conserve ecologically significant resource areas for their contribution to marine productivity and value as wildlife habitats, and preserve the function and integrity of reefs, marine meadows, salt ponds, mangroves and other significant natural areas.
- The proposed school reconstruction and expansion is designed so that it impacts only previously disturbed areas. The project will have no impact on natural resources and will utilize best management practices (BMPs) to minimize areas of disturbance, thereby protecting adjacent properties.

(9) Maintain or increase coastal water quality through control of erosion, sedimentation, runoff, siltation, and sewage discharge.
- The school is tied into the public WWTP. The project will implement sedimentation and erosion control BMPs to prevent loss of sediment from the project site.

- The proposed Emanuel Benjamin Oliver PreK-8 School reconstruction, modernization and addition project, as designed, will maintain coastal water quality through control of erosion, sedimentation, runoff, and siltation and therefore is consistent with the policy set forth in the USVI Code Title 12, Conservation Chapter 21, Virgin Islands Coastal Zone Management [V.I. Code tit. 12, § 903 (b)].

- The proposed Emanuel Benjamin Oliver PreK-8 School reconstruction. modernization and expansion project, as designed, protects, maintains, preserves, and enhances the overall quality of the environment in the coastal zone, the natural and man-made resources therein, and the scenic and historic resources of the coastal zone for the benefit of residents of and visitors of the USVI. It is therefore consistent with the policy V.I. Code tit. 12, § 903 (b).