

GENERAL NOTES AND SPECIFICATIONS

LANGAN CONTACT INFORMATION:

CIVIL ENGINEERING PRINCIPAL
NAME: LEONARDO RODRIGUEZ, PE
PHONE NUMBER: 786-264-7223
EMAIL: LRODRIGUEZ@LANGAN.COM

CIVIL ENGINEERING PROJECT MANAGER
NAME: KELVIN MARTINEZ, PE
PHONE NUMBER: 786-264-7246
EMAIL: KMARTINEZ@LANGAN.COM

GENERAL SITE NOTES:

- EXISTING TOPOGRAPHIC AND CADASTRAL INFORMATION SHOWN ON THESE DRAWINGS ARE BASED ON THE BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY MARVIN BERNING & ASSOCIATES, DATED 07/10/2025.
- ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON ARMY CORP AERIAL TOPOGRAPHY FOR THE TOPOGRAPHIC SURVEY BY MARVIN BERNING & ASSOCIATES UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION. AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
- THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS, CORRELATE CONDITIONS WITH THE DRAWINGS, AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER.
- THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
- INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS AGENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING, IN THE FORMAT OF AN RFI.
- THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
- CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MAINTENANCE OF TRAFFIC MEASURES (INCLUDING DESIGN AND PERMITTING) AS REQUIRED BY THE LOCAL AGENCY HAVING JURISDICTION.
- THE CONTRACTOR IS REQUIRED TO KEEP DETAILED RECORDS OF THE CONSTRUCTION COMPLETED, SPECIFICALLY, ALL UNDERGROUND STRUCTURES, DRAINAGE, WATER, SANITARY, GAS, ELECTRICAL, COMMUNICATIONS PIPING, DUCTS OR APPURTENANCES AT ACCESSIBLE AND SAFE LOCATIONS. RECORDS SHALL INCLUDE, BUT NOT LIMITED TO, FIRE HYDRANTS, WATER VALVES, DRAINAGE AND SEWER CLEANOUTS, LIGHT POLES AND SIGNS SHALL BE RECORDED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE TERRITORY THAT THE WORK IS PERFORMED. ELEVATIONS OF TOP OF WATER PIPING SHALL BE RECORDED AT ALL BENDS, TEES, AND AT ALL VALVES, FIRE HYDRANTS, SANITARY MANHOLES AND DRAINAGE STRUCTURES TOP OF BOTTOM ELEVATIONS SHALL BE RECORDED. ALL PAVEMENT FINISHED GRADE ELEVATIONS AT ALL HIGH AND LOW POINTS, GRADE ELEVATIONS AT ALL WATER VALVES, FIRE HYDRANTS, SANITARY MANHOLES, DRAINAGE STRUCTURES AND CLEANOUT LOCATIONS WILL BE RECORDED. CONCRETE PAVEMENT FINISHED GRADE ELEVATIONS AT ALL INLETS, DRAINAGE FLOW POINTS, ALONG SWALES, CENTERLINES OF ROADS OR DRIVE AISLES, AND IN PARKING AREAS, SHALL BE RECORDED. AS-BUILT SURVEYS OF THESE ITEMS SHALL BE PROVIDED TO THE ENGINEER OF RECORD WITHIN 30 DAYS OF THE COMPLETION OF WORK. THE ENGINEER OF RECORD RESERVES THE RIGHT TO REVIEW THE AS-BUILT SURVEYS AND REQUIRE THE COMPLETED WORK CORRECTED, WHERE DEFICIENCIES WITH RESPECT TO THE CONSTRUCTION DRAWINGS AND THE LOCAL STANDARDS ARE NOT ADHERED TO BY THE CONTRACTOR'S WORK.

I. APPLICABLE CODES:

- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE PUBLIC WORKS DEPARTMENT AND WATER AND POWER AUTHORITY (WAPA), AND ALL OTHER APPLICABLE LOCAL, TERRITORY AND NATIONAL CODES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 OR LATEST EDITION, AND ALL TERRITORY AND LOCAL SAFETY AND HEALTH REGULATIONS.

II. PRECONSTRUCTION RESPONSIBILITIES:

- THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT ANY INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.
- UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER AND THE ENGINEER OF RECORD.
- THE CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND UTILITIES ON-SITE AND OFF-SITE PRIOR TO COMMENCING WORK.
- THE CONTRACTORS SHALL COORDINATE WITH UTILITIES TO ARRANGE FOR RELOCATION AND TEMPORARY SUPPORT OF UTILITY FEATURES, ETC. AS NECESSARY TO COMPLETE THE WORK, IF APPLICABLE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY AND ALL EXISTING UTILITIES ON THIS PROJECT.
- THE CONTRACTOR SHALL SECURE ALL UTILITY EASEMENTS (IF REQUIRED) TO BE SECURED PRIOR TO CONSTRUCTION.
- LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES AS SHOWN ON THE DRAWINGS WERE OBTAINED FROM THE BEST INFORMATION AVAILABLE AT THE TIME PLANS WERE PREPARED BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC., WITHIN THE PROJECT AREA WHICH WERE INSTALLED AND CONSTRUCTED AFTER THE PREPARATION OF THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE FACILITIES SHOWN OR FOR ANY FACILITIES NOT SHOWN. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING FACILITIES, STRUCTURES AND OTHER FEATURES (WHETHER SHOWN ON THE PLANS OR NOT) AFFECTING THE WORK.
- IF, UPON EXCAVATION, EXISTING CONDITIONS ARE FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE PROBLEM.
- ALL ROAD CROSSINGS ARE OPEN CUT UNLESS OTHERWISE NOTED ON THE DRAWINGS.

III. INSPECTION AND TESTING:

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AS WELL AS ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE THE ENGINEER OF RECORD AT LEAST 48 HOURS ADVANCE NOTICE OF, AND THE ENGINEER OF RECORD MUST BE PRESENT TO WITNESS, THE FOLLOWING:
 - PRESSURE TESTING OF THE WATER DISTRIBUTION SYSTEM.
 - EXFILTRATION TEST OF THE SANITARY SEWERAGE SYSTEM.
 - FINAL INSPECTION OF THE WATER, SEWER, PAVING, GRADING AND DRAINAGE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL APPLICABLE REGULATORY AGENCIES FOR INSPECTION REQUIREMENTS.

IV. SHOP DRAWINGS:

- PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE ENGINEER OF RECORD FOR THE FOLLOWING ITEMS: WATER MAIN FITTINGS, VALVES, PIPES, CATCH BASIN, STORM MANHOLES AND ALL OTHER DRAINAGE STRUCTURES, DRAINAGE PIPE, BALLAST ROCK, EXFILTRATION TRENCH FILTER FABRIC, AND TRAFFIC PAINT. IN ADDITION, SOME CITIES, COUNTIES, STATE AND/OR NATIONAL REGULATORY AGENCIES REQUIRE THEIR OWN INDIVIDUAL REVIEW AND APPROVAL. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY SHOP DRAWING APPROVALS IF REQUIRED.

V. TEMPORARY FACILITIES:

- TEMPORARY FACILITIES:
 - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES, AND ELECTRICITY, DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE ACCESS ENTRANCE TO COMMERCIAL PROPERTIES AT ALL TIMES, IF APPLICABLE.
 - THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION, IF APPLICABLE.
- TRAFFIC REGULATION:
 - THE CONTRACTOR SHALL PROVIDE ALL WARNING SIGNALS, SIGNS, LIGHTS AND FLAGPERSONS AS NECESSARY FOR THE MAINTENANCE OF TRAFFIC WITHIN PUBLIC RIGHT-OF-WAYS IN ACCORDANCE WITH THE M.U.T.C.D., AND THE PUBLIC WORKS DEPARTMENT.
 - ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS, DRIVING SURFACES, OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
 - NO TRENCHES OR HOLES NEAR DRIVING SURFACES, WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION FROM THE PUBLIC WORKS DEPARTMENT.

VI. PROJECT CLOSE-OUT:

- CLEANING UP:
 - DURING CONSTRUCTION THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEAN-UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEP BROOM CLEAN.
 - THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT AND/OR EMPLOYEES TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS.
 - THE CONTRACTOR SHALL REPLACE ALL PAVING, STABILIZED EARTH, CURBS, DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS REMOVED DURING CONSTRUCTION WITH THE SAME TYPE OF MATERIAL AND TO THE CONDITION WHICH EXISTED PRIOR TO THE BEGINNING OF OPERATIONS.
 - WHERE MATERIAL OR DEBRIS HAVE WASHED OR FLOWED INTO, OR HAVE BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING THE PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.
- ALL PROPERTY MONUMENTS OR PERMANENT REFERENCES, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY A TERRITORY REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- PROJECT RECORD DOCUMENTS:
 - DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON HIS SET OF CONSTRUCTION DRAWINGS THE EXACT LOCATION, LENGTH AND ELEVATION OF ANY FACILITY NOT BUILT EXACTLY ACCORDING TO PLANS.
 - UPON COMPLETION OF DRAINAGE IMPROVEMENTS AND LIME/ROCK BASE CONSTRUCTION (AND BEFORE PLACING ASPHALT PAVEMENT) THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD "AS-BUILT" PLANS FOR THESE IMPROVEMENTS, SHOWING THE LOCATIONS AND PERTINENT GRADES OF ALL DRAINAGE INSTALLATIONS AND THE FINISHED ROAD GRADES OF THE ROAD CROWN AND EDGES OF PAVEMENT AT 25 FEET INTERVALS.
 - UPON COMPLETION OF CONSTRUCTION, AND PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD ONE COMPLETE SET OF ALL "AS-BUILT" CONTRACT DRAWINGS. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONS, LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS.
 - "AS-BUILT" INFORMATION ON WATER MAINS AND GRAVITY SEWERS MUST BE PROVIDED IN ACCORDANCE WITH THE WATER AND POWER AUTHORITY (WAPA) AND PUBLIC WORKS STANDARD AS-BUILT REQUIREMENTS.
 - ALL "AS-BUILT" INFORMATION SHALL BE CERTIFIED BY A TERRITORY REGISTERED LAND SURVEYOR.

VII. EARTHWORK AND COMPACTION:

- EARTHWORK AND COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC.
- IF UNSTABLE MATERIAL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE EARTHWORK AND COMPACTION WORK.

VIII. STORM DRAINAGE:

- GENERAL:
 - CATCH BASIN GRATES AND RIM ELEVATIONS, AS SHOWN ON PLANS SHALL BE ADJUSTED TO CONFORM TO NEW OR EXISTING GRADES.
 - DISTANCES AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
 - ALL STORM DRAINAGE MATERIALS AND INSTALLATION SHALL CONFORM TO THE APPLICABLE ST. THOMAS PUBLIC WORKS DEPARTMENT SPECIFICATIONS.
- PROVIDE A MINIMUM PROTECTIVE COVER OF 24 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL PROTECT EXISTING AND COMPLETED DRAINAGE STRUCTURES AND PIPES FROM CONTAMINATION OF SILT AND CONSTRUCTION DEBRIS. PLACE FLYWOOD OR FILTER FABRIC BETWEEN THE FRAME AND INLET GRATE UNTIL CONSTRUCTION OPERATIONS ARE FINISHED (SEE STORMWATER POLLUTION PREVENTION PLAN).

IX. PAVING:

- GENERAL:
 - ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF THE BASE.
 - ALL EXISTING PAVEMENT, CUT OR DAMAGED BY CONSTRUCTION SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
 - ALL ROAD CROSSINGS ARE OPEN CUT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - WHERE ANY PROPOSED PAVEMENT IS TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE SAW CUT.
 - PAVEMENT REPAIRS SHALL BE PER THE ST. THOMAS PUBLIC WORKS DEPARTMENT MANUAL.
- MATERIALS AND INSTALLATION:
 - ALL WORK WITHIN THE ST. THOMAS PUBLIC WORKS RIGHT-OF-WAYS SHALL CONFORM TO THE APPLICABLE ST. THOMAS PUBLIC WORKS DEPARTMENT SPECIFICATIONS.
 - SUBGRADE FOR ROADWAY SHALL BE COMPACTED TO A MINIMUM OF 98% OF THE MAXIMUM DENSITY (ASTM D 1557-74), LBR 40.
 - BASE COURSE MATERIAL FOR PAVED AREAS SHALL BE A MINIMUM THICKNESS OF 8" PLACED ON A SINGLE LAYER FOR STREETS UNLESS OTHERWISE NOTED ON THE PLANS.
 - BASE COURSE SHALL BE COMPACTED TO 100% OF THE MAXIMUM DENSITY AS PER ASTM D 1557-74, LBR 100 UNLESS OTHERWISE NOTED ON THE PLANS.

X. TESTING:

- DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY, CERTIFIED BY THE ST. THOMAS TERRITORY. RESULTS OF DENSITY TESTS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE TERRITORY AND PROVIDED TO THE ENGINEER OF RECORD FOR REVIEW.

XI. WATER DISTRIBUTION SYSTEM:

- GENERAL:
 - ALL MATERIALS, INSTALLATION AND TESTING UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF WATER AND POWER AUTHORITY (WAPA) AND THE ST. THOMAS PUBLIC WORKS DEPARTMENT AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH THE DEPARTMENT.
- MATERIALS INSTALLATION AND TESTING:
 - FOLLOW WATER AND POWER AUTHORITY (WAPA) SPECIFICATIONS FOR WATER MAINS.

XII. SANITARY SEWER COLLECTION SYSTEM:

- GENERAL:
 - ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE WATER AND POWER AUTHORITY (WAPA) AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH THE DEPARTMENT.
 - MANHOLE RIM ELEVATIONS AS SHOWN ON PLANS SHALL BE ADJUSTED TO CONFORM TO NEW OR EXISTING GRADES.
 - DISTANCES AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
- MATERIALS, INSTALLATION AND TESTING:
 - FOLLOW ST. THOMAS PUBLIC WORKS DEPARTMENT SPECIFICATIONS FOR GRAVITY SANITARY SEWER SYSTEMS.

XIII. WATER MAIN HORIZONTAL SEPARATIONS:

- SEPARATIONS SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE BETWEEN WATER MAINS AND STORM SEWERS, STORMWATER, FORCE MAINS, OR RECLAIMED WATER LINES, SHALL BE 3 FT MINIMUM.
- SEPARATIONS BETWEEN WATER MAINS AND VACUUM TYPE SEWER SHALL BE PREFERABLY 10 FT AND AT LEAST 3 FT MINIMUM.
- SEPARATIONS BETWEEN WATER MAINS AND GRAVITY OR PRESSURE SANITARY SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER SHALL BE PREFERABLY 10 FT AND AT LEAST 6 FT. MAY BE REDUCED TO 3 FT WHERE BOTTOM OF WATER MAINS IS AT LEAST 6 INCHES ABOVE TOP OF SEWER.
- SEPARATIONS BETWEEN WATER MAINS AND ANY PART OF ON-SITE SEWER TREATMENT OR DISPOSAL SYSTEM SHALL BE 10 FT MINIMUM.

XIV. WATER MAIN VERTICAL SEPARATIONS:

- SEPARATIONS BETWEEN WATER MAINS AND GRAVITY SEWER, VACUUM TYPE SEWER, OR STORM SEWERS TO BE PREFERABLY 12 INCHES, OR AT LEAST 6 INCHES IF ABOVE OR AT LEAST 12 INCHES IF BELOW.
 - SEPARATIONS BETWEEN WATER MAINS AND PRESSURE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR RECLAIMED WATER, SHALL BE AT LEAST 12 INCHES ABOVE OR BELOW.
- *NOTE: CENTER 1-FULL LENGTH OF WATER MAIN PIPE AT CROSSINGS; ALTERNATIVELY ARRANGE PIPES SO JOINTS ARE AT LEAST 3 FEET FROM JOINTS IN VACUUM, STORM OR STORM FORCE MAINS. AT LEAST 6 FEET FROM JOINTS IN GRAVITY OR PRESSURE SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER.



Date	Description	No.
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Revisions

Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL)
USV License No.: 0-50150-3B
Registration No.: 1644-E

Date

LANGAN

Langan Engineering and Environmental Services, LLC.
WATERFRONT CENTER, SUITE A
122 KIRKMAN AVENUE, SUITE 200
ST. THOMAS, VI 00802
LICENSE NO: 1-61158-2B
T: 786.264.7200 F: 786.264.7201 www.langan.com

Project

OLIVER PK-8 REPLACEMENT

ST THOMAS, U.S. VIRGIN ISLANDS

ST. THOMAS US VIRGIN ISLANDS

Drawing Title

GENERAL NOTES AND SPECIFICATIONS

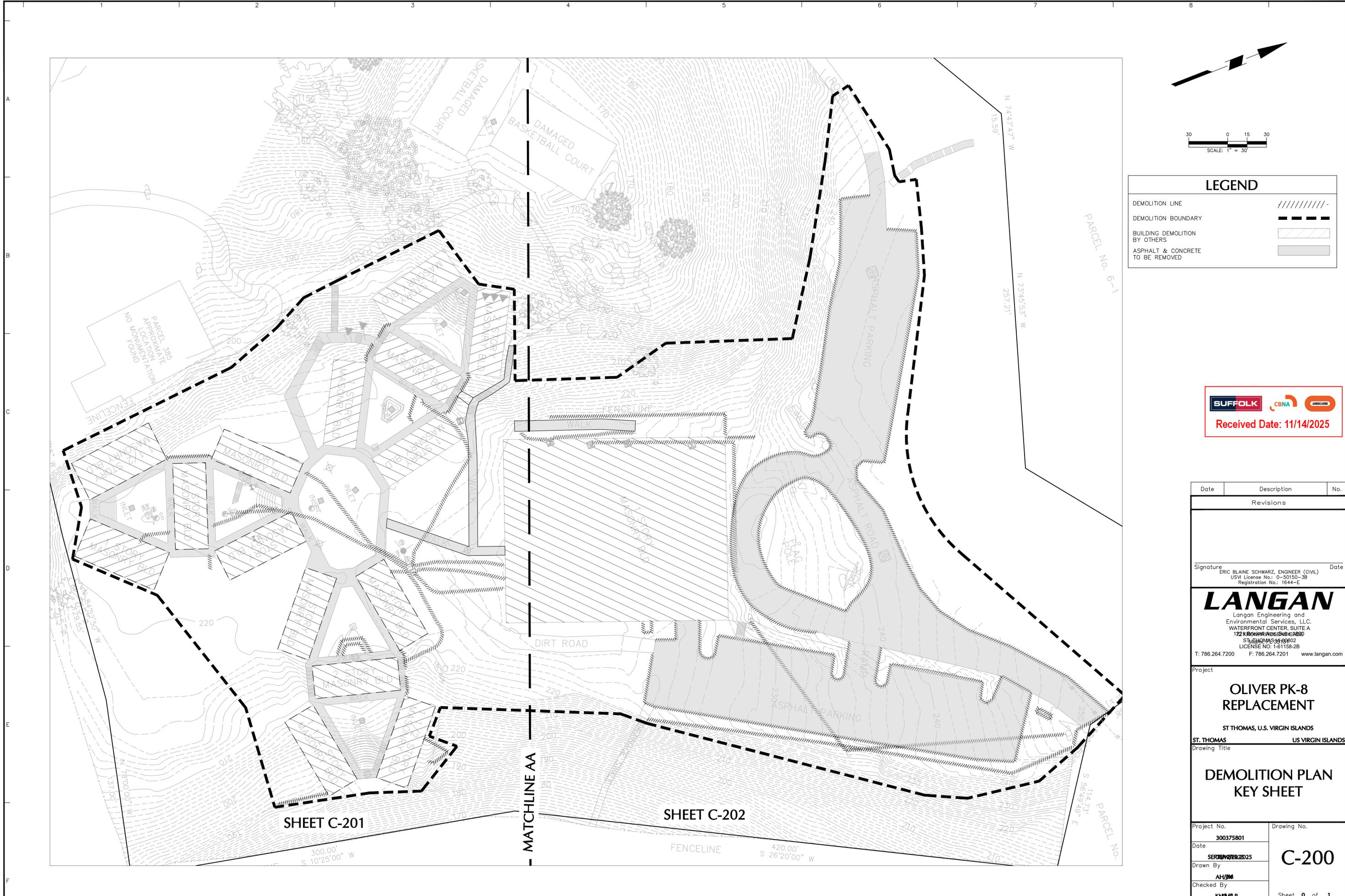
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Date 08/12/2025

Drawn By AH/JM

Checked By KM/LR

Sheet 0 of 1



LEGEND	
DEMOLITION LINE	//////
DEMOLITION BOUNDARY	-----
BUILDING DEMOLITION BY OTHERS	
ASPHALT & CONCRETE TO BE REMOVED	■





Received Date: 11/14/2025

Date	Description	No.
Revisions		

Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL)
 USVI License No.: 0-50150-3B
 Registration No.: 1644-E

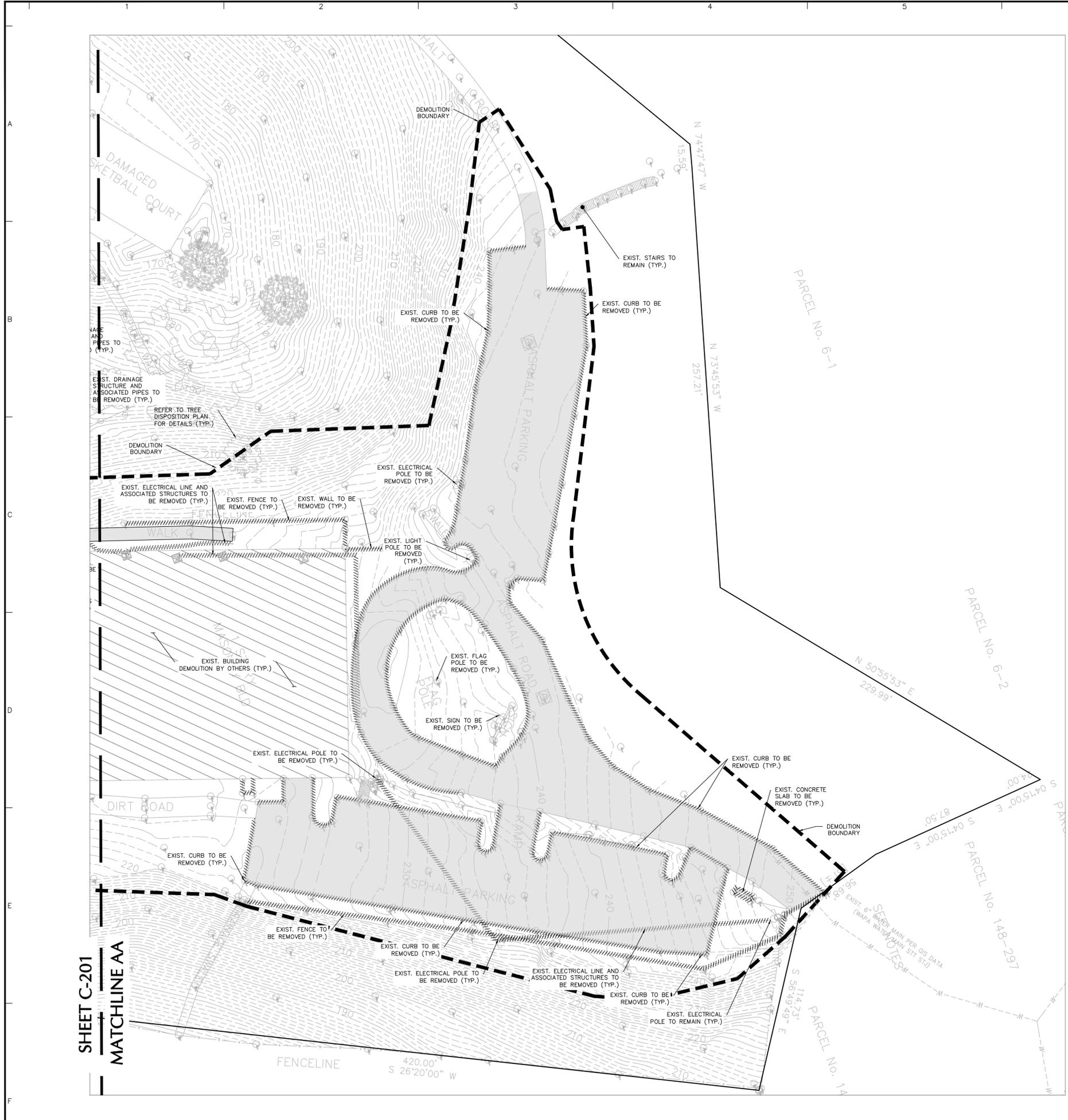


 Langan Engineering and Environmental Services, LLC.
 WATERFRONT CENTER, SUITE A
 122 KROENKEL AVENUE, STE. 200
 ST. THOMAS, VI 00802
 LICENSE NO: 1-61158-2B
 T: 786.264.7200 F: 786.264.7201 www.langan.com

Project: **OLIVER PK-8 REPLACEMENT**
 ST. THOMAS, U.S. VIRGIN ISLANDS
 ST. THOMAS US VIRGIN ISLANDS

DEMOLITION PLAN
KEY SHEET

Project No. 300375801	Drawing No. C-200
Date SEP 10 2025	C-200 Sheet 0 of 1
Drawn By AH/JM	
Checked By KN/MLR	



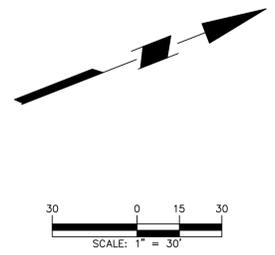
LEGEND

DEMOLITION LINE:

DEMOLITION BOUNDARY:

BUILDING DEMOLITION BY OTHERS:

ASPHALT & CONCRETE TO BE REMOVED:

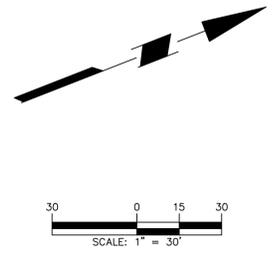
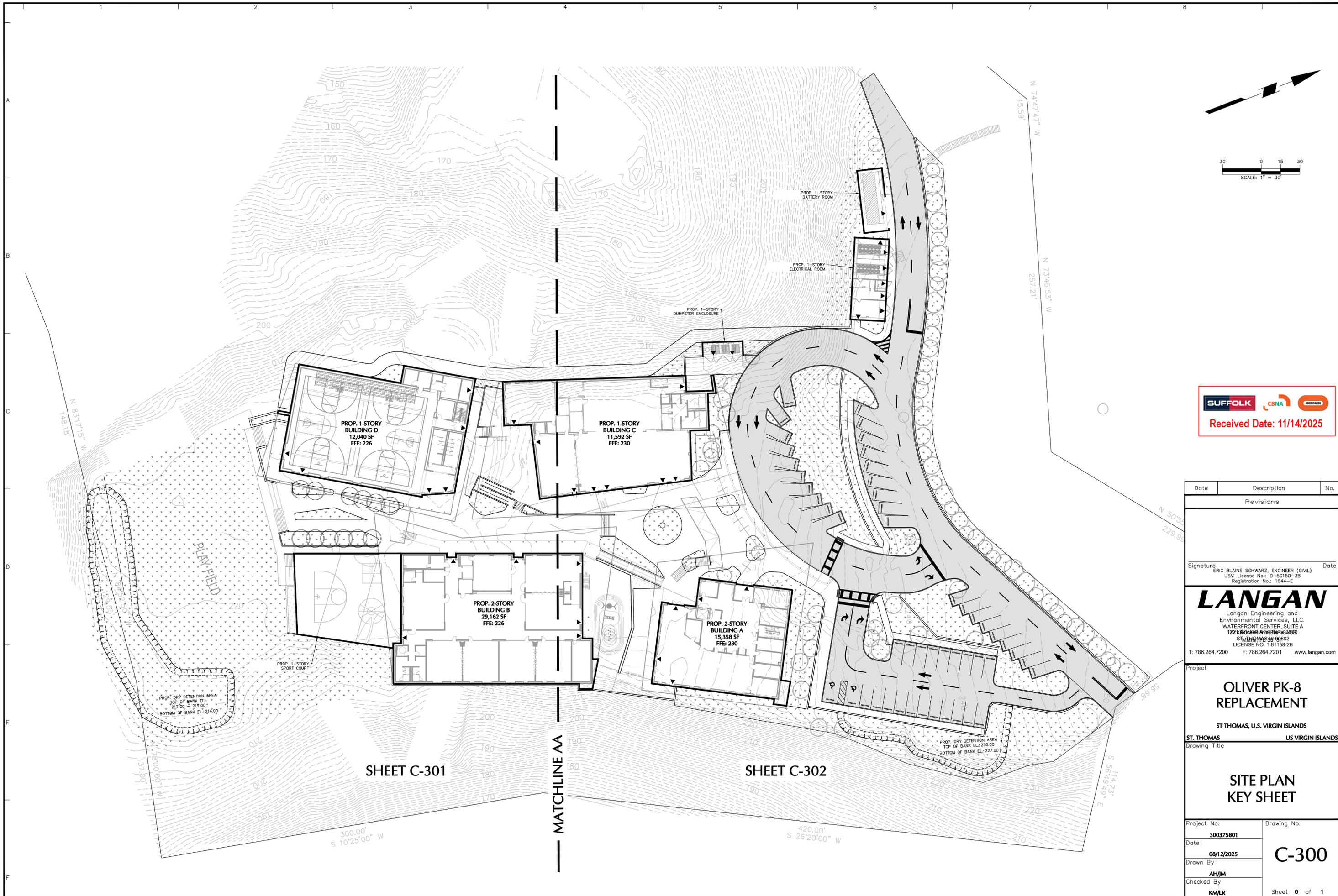


- DEMOLITION NOTES:**
- THESE PLANS ADDRESS THE REMOVAL AND DEMOLITION OF THE EXISTING UTILITIES SERVING THE EXISTING BUILDING AS WELL AS EXISTING DRAINAGE FEATURES WITHIN DEMOLITION BOUNDARY. THIS PLAN IS NOT A BUILDING STRUCTURE DEMOLITION PLAN NOR A TREE DISPOSITION PLAN.
 - VEHICULAR AND PEDESTRIAN ACCESS ALONG PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL PROVIDE THE NECESSARY PROTECTION TO ENSURE THAT ALL VEHICLES AND PEDESTRIANS CAN SAFELY UTILIZE THE PUBLIC RIGHT-OF-WAY ABUTTING THE PROJECT SITE DURING DEMOLITION ACTIVITIES.
 - THE CONTRACTOR SHALL PROTECT ALL PUBLIC AND PRIVATE PROPERTY DURING DEMOLITION ACTIVITIES. ANY PUBLIC OR PRIVATE PROPERTY DAMAGED SHALL BE RESTORED TO ITS ORIGINAL CONDITION.
 - CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN THE VICINITY OF THE PROJECT WHETHER SHOWN ON THE PLANS OR NOT BEFORE INITIATING ANY ACTIVITIES ASSOCIATED WITH THIS PROJECT.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES IN THE VICINITY OF THE PROJECT SITE THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
 - CONTRACTOR SHALL CARRYOUT ALL DEMOLITION ACTIVITIES ASSOCIATED WITH THIS PROJECT WITHOUT INTERRUPTING UTILITY SERVICE TO OTHERS.
 - CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES SERVING THE EXISTING BUILDING PRIOR TO INITIATING DEMOLITION ACTIVITIES OR CUTTING AND CAPPING EXISTING SERVICE LINES.
 - CONTRACTOR SHALL COORDINATE WITH WAPA AND ENSURE THAT ALL EXISTING ELECTRICAL SERVICE LINES THAT SERVE THE EXISTING BUILDING ARE DE-ENERGIZED BEFORE INITIATING DEMOLITION ACTIVITIES.
 - CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY PROVIDER AND COORDINATE THE CUTTING AND CAPPING OF ALL EXISTING COMMUNICATION AND FIBER OPTIC LINES SERVING THE EXISTING BUILDING, IF ANY.
 - CONTRACTOR SHALL IDENTIFY THE LOCATION OF ALL EXISTING GAS MAINS IN THE VICINITY OF THE PROJECT BEFORE INITIATING DEMOLITION ACTIVITIES.
 - CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY PROVIDER AND COORDINATE THE REMOVAL OF ANY EXISTING GAS METERS WITHIN THE PROPERTY BEFORE INITIATING DEMOLITION ACTIVITIES.
 - CONTRACTOR SHALL CONTACT WAPA AND COORDINATE THE TEMPORARY SHUT OFF OF THE EXISTING WATER SERVICE METERS BEFORE INITIATING DEMOLITION ACTIVITIES.
 - CONTRACTOR SHALL CONTACT WAPA AND COORDINATE CUTTING AND CAPPING OF EXISTING POTABLE WATER SERVICE MAINS.
 - CONTRACTOR SHALL CONTACT THE PUBLIC WORKS DEPARTMENT AND COORDINATE CUTTING AND CAPPING OF EXISTING SANITARY SEWER PIPES OWNED BY THE PUBLIC WORKS DEPARTMENT.
 - CONTRACTOR SHALL CONTACT THE PUBLIC WORKS DEPARTMENT AND COORDINATE CUTTING AND CAPPING OF EXISTING SANITARY SEWER PIPES, FORCE MAINS, PUMP STATIONS OWNED BY THE PUBLIC WORKS DEPARTMENT.
 - ALL EXISTING DRAINAGE STRUCTURES AND POLLUTION CONTROL BOXES SHALL BE PUMPED CLEAN AND CONTENTS DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS BEFORE REMOVAL.
 - EXISTING STORMWATER DRAINAGE STRUCTURES WITHIN PUBLIC RIGHT-OF-WAY TO REMAIN.
 - EXISTING SANITARY SEWER MANHOLES WITHIN PUBLIC RIGHT-OF-WAY TO REMAIN.
 - EXISTING CURBS, CONCRETE SIDEWALKS, CONCRETE WALLS, RAMPS, STEPS, PAVERS, PAVEMENT, SIGNS, LIGHT POLES, BIKE RACKS, BENCHES AND SOD AREAS TO BE REMOVED WITHIN DEMOLITION BOUNDARY, UNLESS NOTED OTHERWISE.

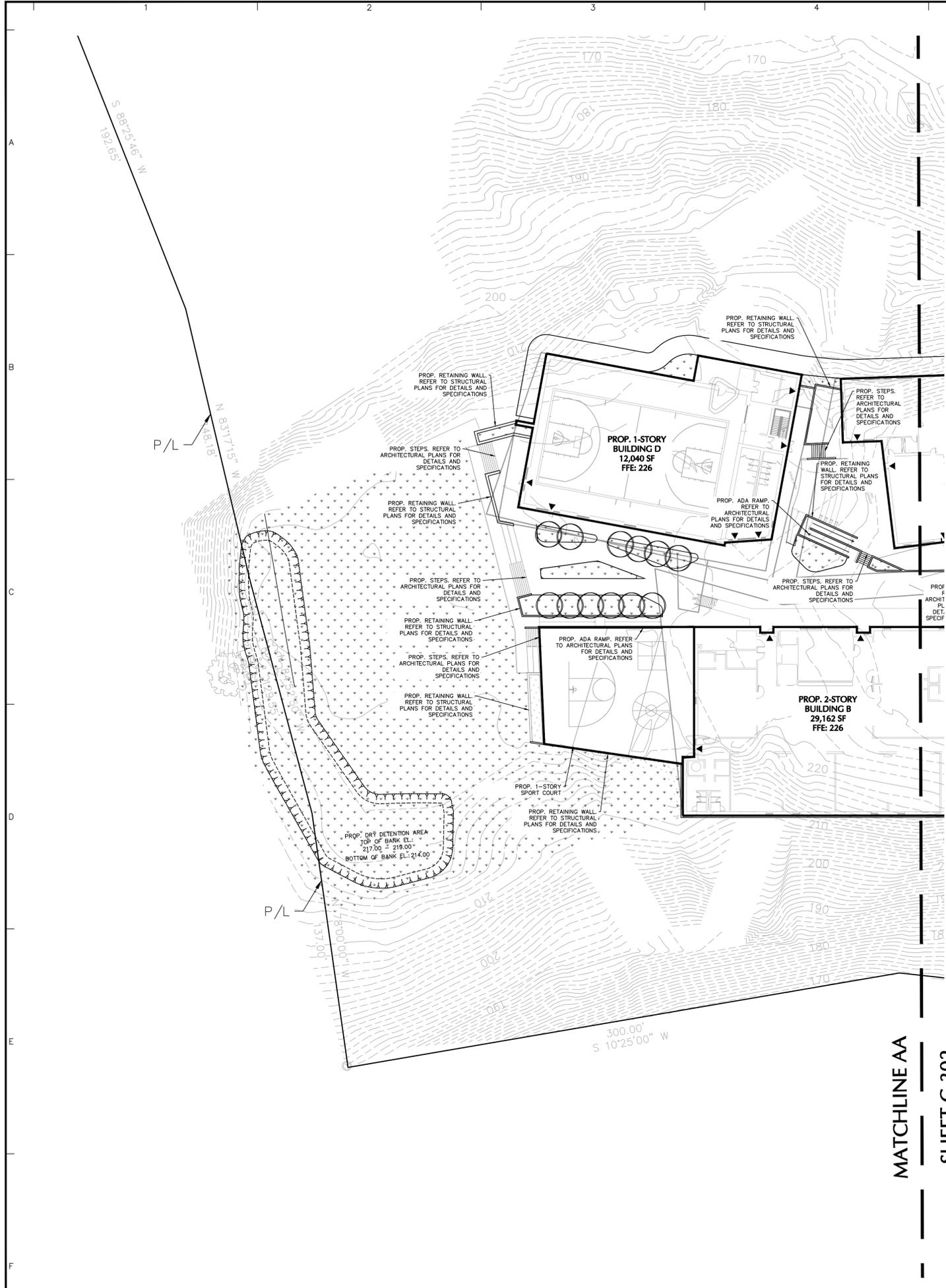
Received Date: 11/14/2025

Date	Description	No.
Revisions		
Signature		Date
ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) USV License No.: 0-50150-3B Registration No.: 1644-E		
Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROEMER AVENUE, STE 200 ST. THOMAS, VI 00802 LICENSE NO: 1-61158-2B T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project		
OLIVER PK-8 REPLACEMENT		
ST. THOMAS, U.S. VIRGIN ISLANDS		
ST. THOMAS US VIRGIN ISLANDS		
Drawing Title		
PARTIAL DEMOLITION PLAN		
Project No.		Drawing No.
300375801		C-200
Date		
SERVED BY 11/14/2025		
Drawn By		
Checked By		Sheet 0 of 1

SHEET C-201
MATCHLINE AA



Date	Description	No.
Revisions		
Signature ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) USVI License No.: 0-50150-3B Registration No.: 1644-E		Date
 Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROEMER WINDSHEIKH RD ST. THOMAS, VI 00802 LICENSE NO: 1-61158-2B T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project		
OLIVER PK-8 REPLACEMENT ST. THOMAS, U.S. VIRGIN ISLANDS ST. THOMAS US VIRGIN ISLANDS		
Drawing Title		
SITE PLAN KEY SHEET		
Project No.	Drawing No.	
300375801	C-300	
Date	08/12/2025	
Drawn By	AH/JM	
Checked By	KMLR	
Sheet 0 of 1		© 2025 Langan

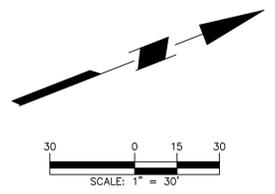


LEGEND	
PROPERTY LINE	
PROPOSED BUILDING	
TOP OF BANK	
BOTTOM OF BANK	
PROPOSED LANDSCAPE	

SIGNAGE LEGEND	
	R1-1 (STOP SIGN)
	R5-1 (DO NOT ENTER SIGN)
	R7-8 (HANDICAP PARKING SIGN)

PAVEMENT MARKINGS LEGEND	
S1	24" THERMOPLASTIC WHITE STOP BAR
S2	6" THERMOPLASTIC DOUBLE YELLOW
S3	6" THERMOPLASTIC SINGLE WHITE
S4	12" THERMOPLASTIC WHITE
S5	18" THERMOPLASTIC WHITE 10' O.C.
S6	6" THERMOPLASTIC YELLOW 10'-30' SKIP MARKINGS
S7	6" THERMOPLASTIC WHITE 10'-30' SKIP MARKINGS
S8	SPECIAL EMPHASIS CROSSWALK MARKING
S9	TURN LANE ARROW PER FDOT 711-001
S10	THROUGH LANE-USE ARROW PER FDOT 711-001

KEY NOTES	
	FDOT TYPE D CURB PER FDOT INDEX 520-001
	FLUSH CURB
	PROPOSED CR-C CURB RAMP PER FDOT STANDARD PLANS NO. 522-002

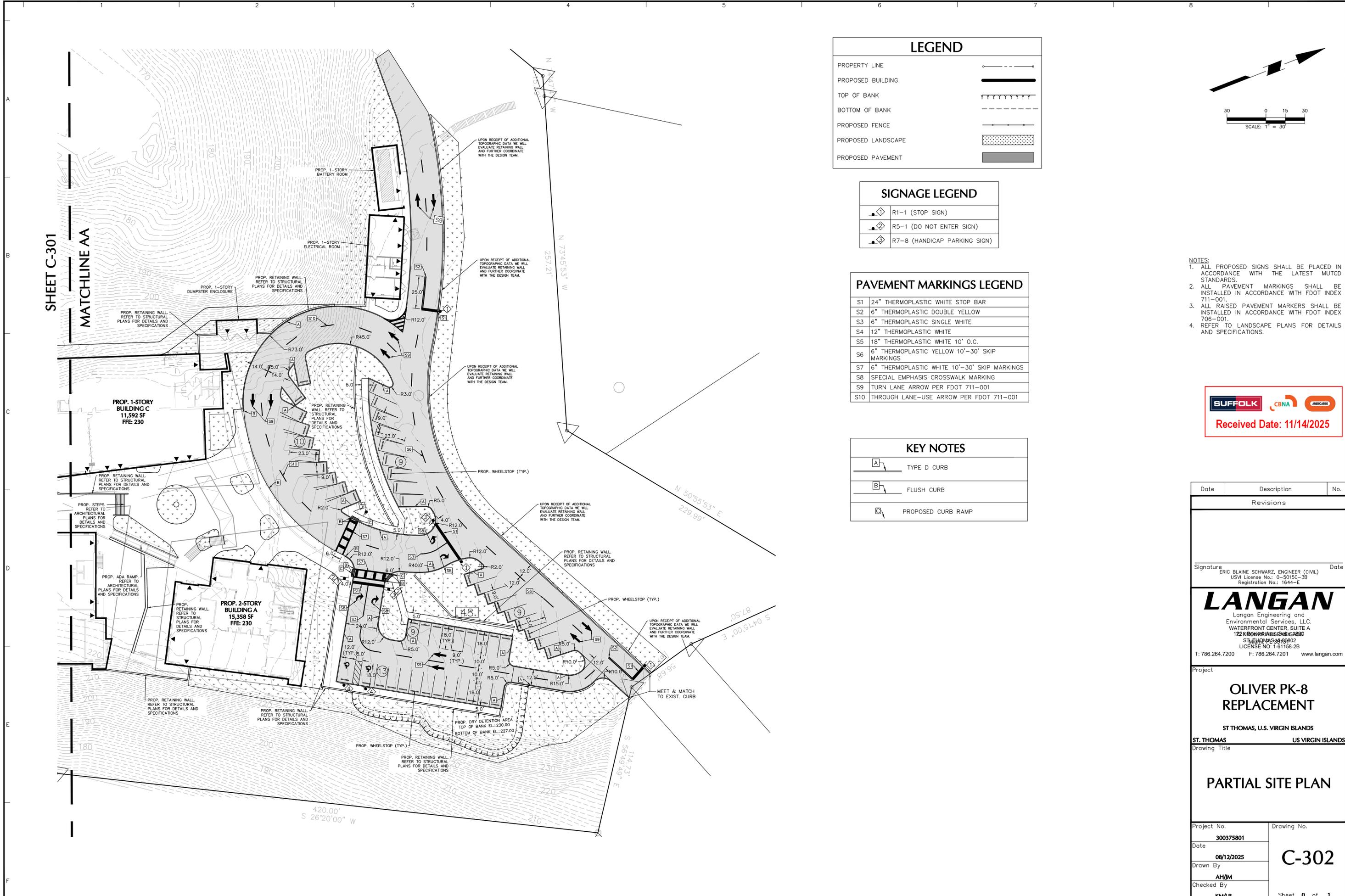


- NOTES:**
- ALL PROPOSED SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST MUTCD STANDARDS.
 - ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX 711-001.
 - ALL RAISED PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX 706-001.
 - REFER TO LANDSCAPE PLANS FOR DETAILS AND SPECIFICATIONS.



Date	Description	No.
Revisions		
Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) USV License No.: 0-50150-3B Registration No.: 1644-E		
 Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROHN AVENUE, SUITE 300 ST. THOMAS, VI 00802 LICENSE NO: 1-61158-2B T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project OLIVER PK-8 REPLACEMENT ST THOMAS, U.S. VIRGIN ISLANDS ST. THOMAS US VIRGIN ISLANDS Drawing Title		
Project No.	300375801	C-301 Sheet 0 of 1
Date	08/12/2025	
Drawn By	AH/JM	
Checked By	KMLR	

MATCHLINE AA
SHEET C-302



LEGEND

PROPERTY LINE	
PROPOSED BUILDING	
TOP OF BANK	
BOTTOM OF BANK	
PROPOSED FENCE	
PROPOSED LANDSCAPE	
PROPOSED PAVEMENT	

SIGNAGE LEGEND

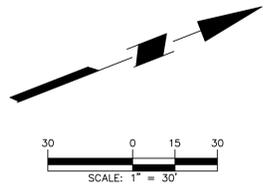
	R1-1 (STOP SIGN)
	R5-1 (DO NOT ENTER SIGN)
	R7-8 (HANDICAP PARKING SIGN)

PAVEMENT MARKINGS LEGEND

S1	24" THERMOPLASTIC WHITE STOP BAR
S2	6" THERMOPLASTIC DOUBLE YELLOW
S3	6" THERMOPLASTIC SINGLE WHITE
S4	12" THERMOPLASTIC WHITE
S5	18" THERMOPLASTIC WHITE 10' O.C.
S6	6" THERMOPLASTIC YELLOW 10'-30' SKIP MARKINGS
S7	6" THERMOPLASTIC WHITE 10'-30' SKIP MARKINGS
S8	SPECIAL EMPHASIS CROSSWALK MARKING
S9	TURN LANE ARROW PER FDOT 711-001
S10	THROUGH LANE-USE ARROW PER FDOT 711-001

KEY NOTES

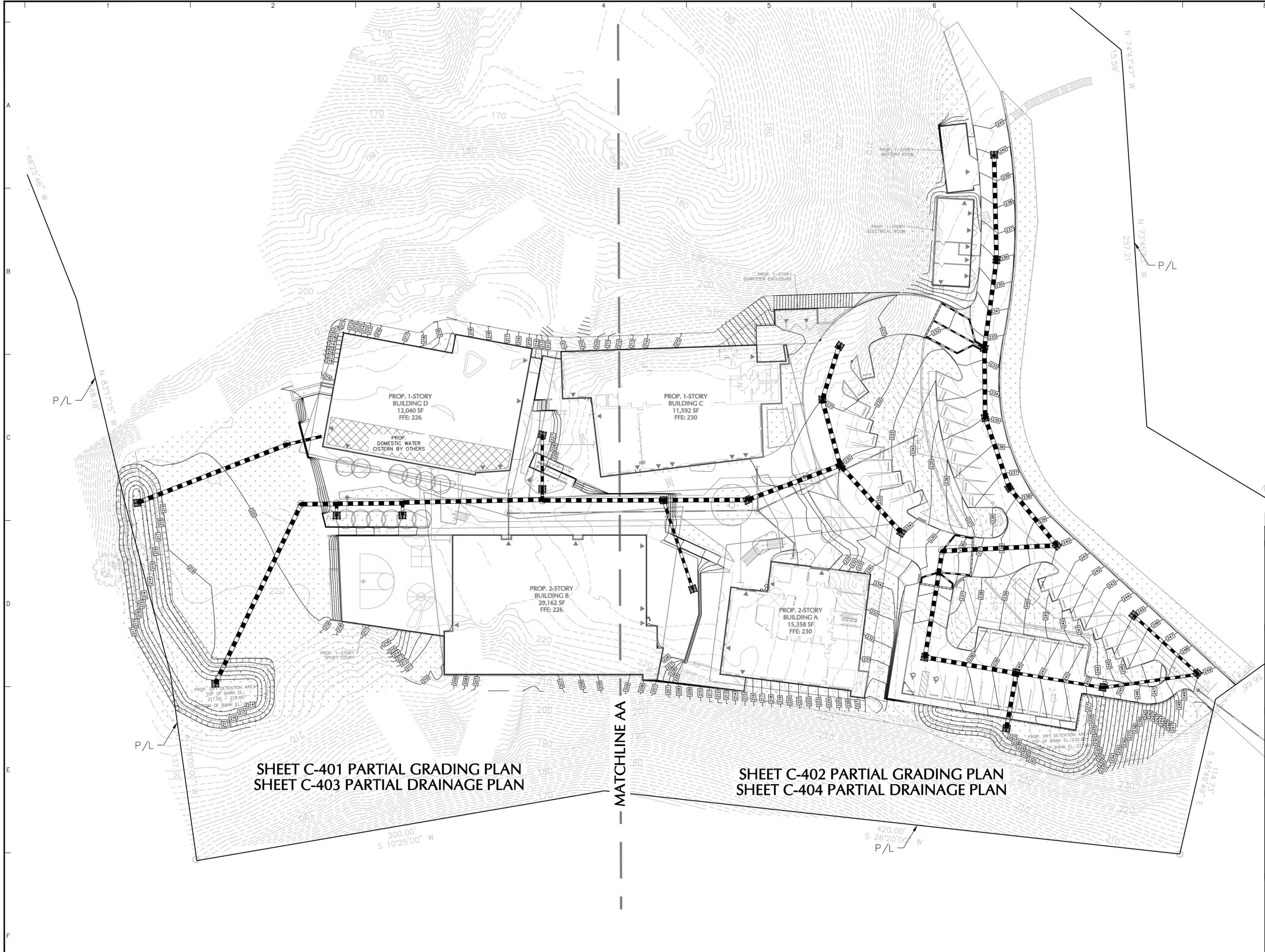
	TYPE D CURB
	FLUSH CURB
	PROPOSED CURB RAMP



- NOTES:**
- ALL PROPOSED SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST MUTCD STANDARDS.
 - ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX 711-001.
 - ALL RAISED PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX 706-001.
 - REFER TO LANDSCAPE PLANS FOR DETAILS AND SPECIFICATIONS.



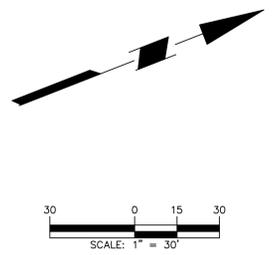
Date	Description	No.
Revisions		
Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) Date: 08/12/2025 USV License No.: 0-50150-3B Registration No.: 1644-E		
LANGAN Langan Engineering and Environmental Services, LLC WATERFRONT CENTER, SUITE A 122 KROEMER AVENUE, STE 300 ST. THOMAS, VI 00802 LICENSE NO: 1-61158-2B T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project: OLIVER PK-8 REPLACEMENT ST. THOMAS, U.S. VIRGIN ISLANDS		
ST. THOMAS US VIRGIN ISLANDS Drawing Title: PARTIAL SITE PLAN		
Project No.	Drawing No.	
300375801	C-302	
Date	08/12/2025	
Drawn By	AH/JM	
Checked By	KM/LR	
Sheet 0 of 1		



SHEET C-401 PARTIAL GRADING PLAN
SHEET C-403 PARTIAL DRAINAGE PLAN

SHEET C-402 PARTIAL GRADING PLAN
SHEET C-404 PARTIAL DRAINAGE PLAN

MATCHLINE AA






 Received Date: 11/14/2025

Date	Description	No.
Revisions		

Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) Date: _____
 USVI License No.: 0-50150-3B
 Registration No.: 1644-E

LANGAN
 Langan Engineering and Environmental Services, LLC
 WATERFRONT CENTER, SUITE A
 122 KROEMER AVENUE, SUITE 200
 ST. THOMAS, VI 00802
 LICENSE NO: 1-61158-2B
 T: 786.264.7200 F: 786.264.7201 www.langan.com

Project: **OLIVER PK-8 REPLACEMENT**
 ST THOMAS, U.S. VIRGIN ISLANDS
 ST. THOMAS US VIRGIN ISLANDS
 Drawing Title

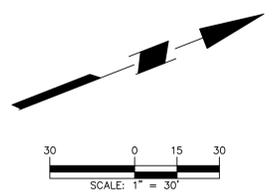
**GRADING AND DRAINAGE PLAN
KEY SHEET**

Project No. 300375801	Drawing No. C-400
Date 08/12/2025	Sheet 0 of 1
Drawn By AH/JM	
Checked By KMLR	

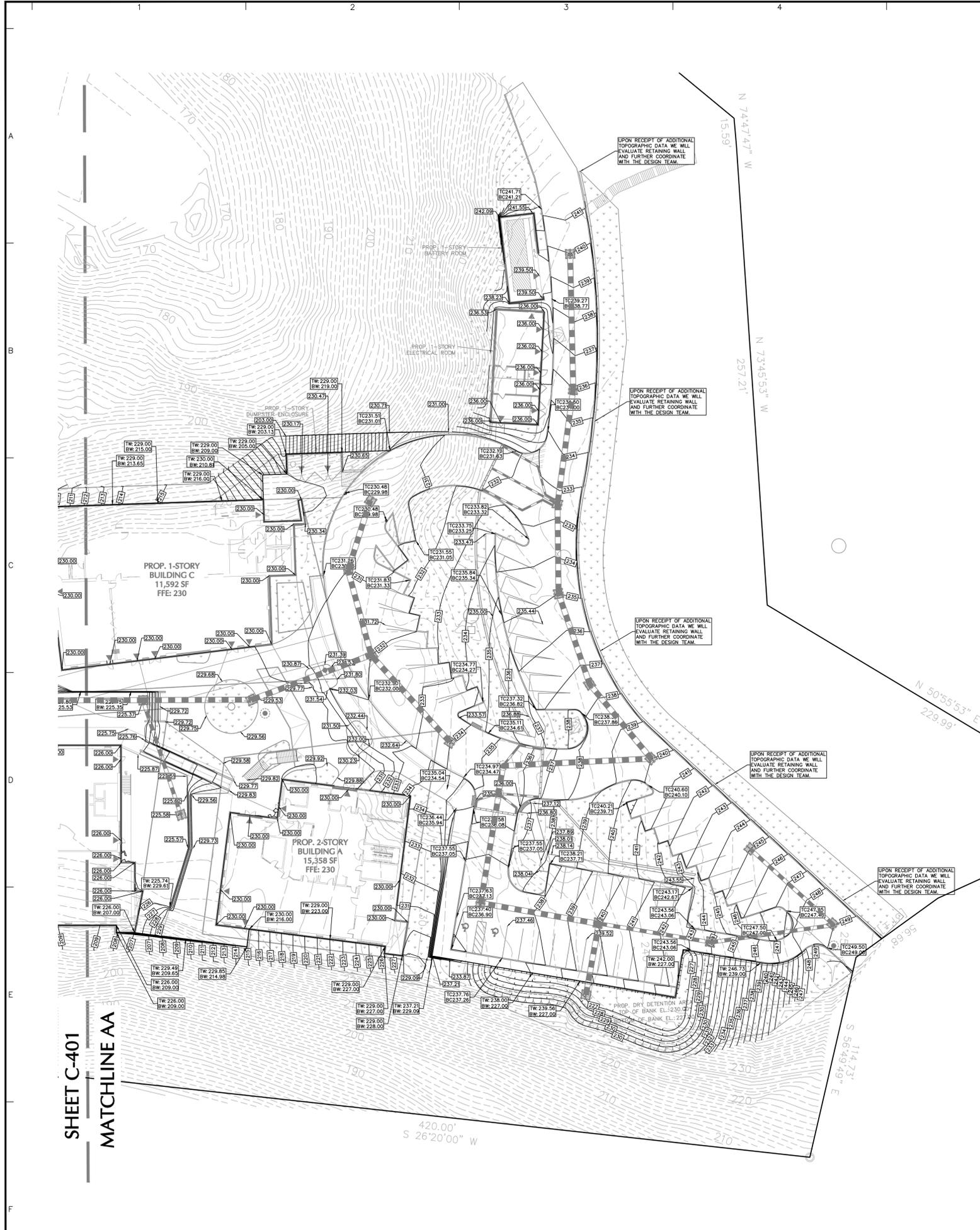


LEGEND		
DESCRIPTION	PROPOSED	EXISTING
WATER LINE		
STORM DRAINAGE PIPE		
SANITARY SEWER PIPE		
ELECTRICAL LINE		
COMMUNICATIONS LINE		
TOP OF BANK		
BOTTOM OF BANK		
MANHOLES		
CLEANOUT		
CATCH BASIN		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
BACKFLOW PREVENTER		
TAPPING SLEEVE		
UTILITY POLE		
ELECTRICAL JUNCTION		
COMMUNICATION JUNCTION		
PROPERTY LINE		

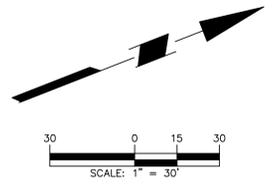
- NOTES:
1. ALL SWALES SHALL BE STABILIZED WITH SOD, REFER TO LANDSCAPE PLANS FOR SODDING DETAILS.
 2. PRIOR TO SODDING SWALES, THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL FROM THE SWALES AND GRADE THE SWALE BOTTOM TO THE PROPOSED ELEVATION



Date	Description	No.
Revisions		
Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) Date: _____ USVI License No.: 0-50150-3B Registration No.: 1644-E		
 Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROEMER AVENUE, STE. 300 ST. THOMAS, VI 00802 LICENSE NO: 1-61158-2B T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project OLIVER PK-8 REPLACEMENT ST. THOMAS, U.S. VIRGIN ISLANDS ST. THOMAS US VIRGIN ISLANDS		
Drawing Title PARTIAL GRADING PLAN		
Project No.	Drawing No.	
300375801	<div style="font-size: 2em; font-weight: bold;">C-401</div>	
Date		
08/12/2025		
Drawn By		
AH/JM	Sheet 0 of 1	
Checked By	KMLR	



LEGEND		
DESCRIPTION	PROPOSED	EXISTING
WATER LINE		
STORM DRAINAGE PIPE		
SANITARY SEWER PIPE		
ELECTRICAL LINE		
COMMUNICATIONS LINE		
TOP OF BANK		
BOTTOM OF BANK		
MANHOLES		
CLEANOUT		
CATCH BASIN		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
BACKFLOW PREVENTER		
TAPPING SLEEVE		
UTILITY POLE		
ELECTRICAL JUNCTION		
COMMUNICATION JUNCTION		
PROPERTY LINE		



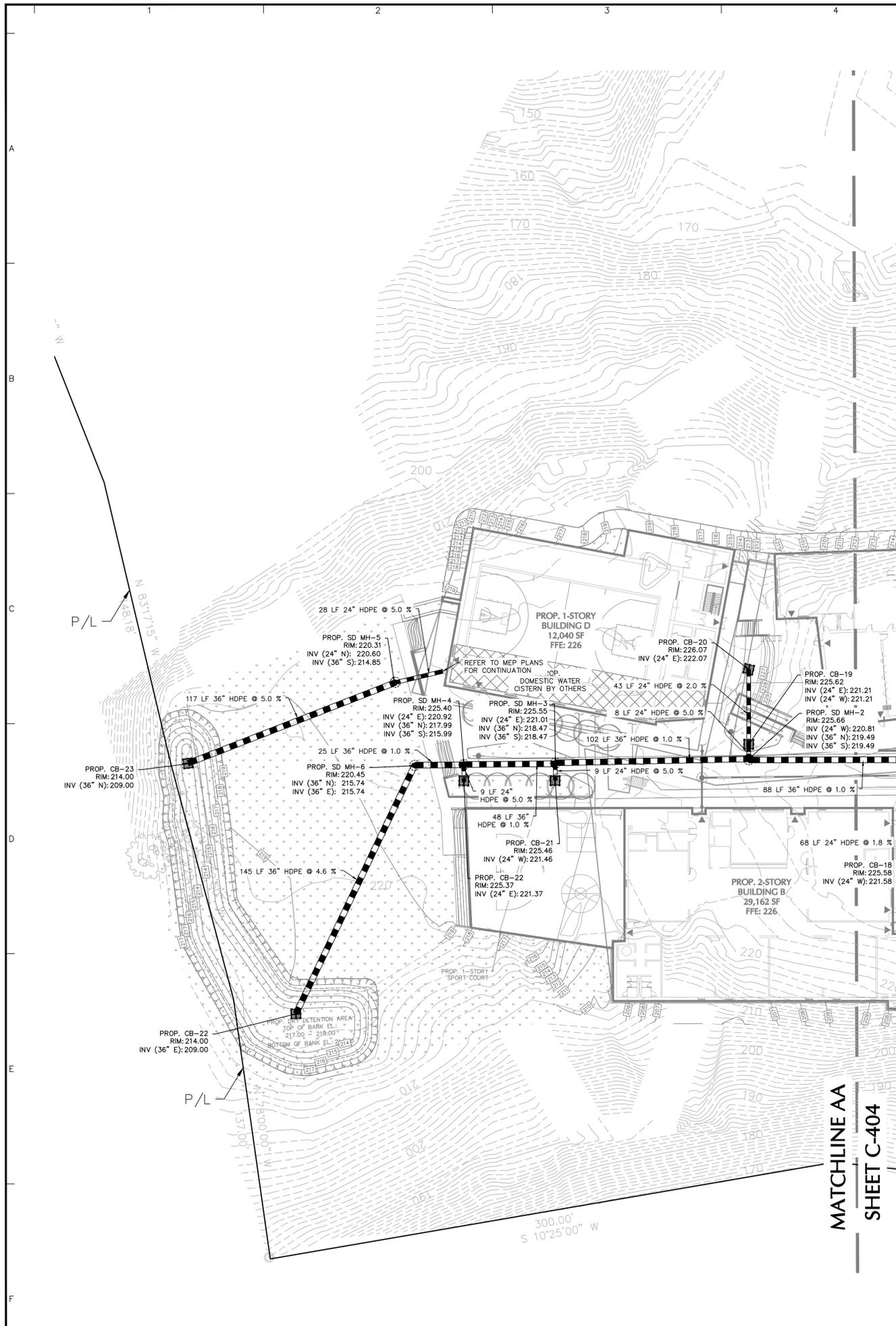
- NOTES:
- ALL SWALES SHALL BE STABILIZED WITH SOD, REFER TO LANDSCAPE PLANS FOR SODDING DETAILS.
 - PRIOR TO SODDING SWALES, THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL FROM THE SWALES AND GRADE THE SWALE BOTTOM TO THE PROPOSED ELEVATION



Date	Description	No.
Revisions		
Signature		Date
ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) US License No.: 0-50150-3B Registration No.: 1644-E		
LANGAN		
Langan Engineering and Environmental Services, LLC WATERFRONT CENTER, SUITE A 122 KROONHUIS DRIVE, STE 200 ST. THOMAS, VI 00802 LICENSE NO: 1-61158-2B T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project		
OLIVER PK-8 REPLACEMENT		
ST THOMAS, U.S. VIRGIN ISLANDS		
ST. THOMAS US VIRGIN ISLANDS		
Drawing Title		
PARTIAL GRADING PLAN		
Project No.	Drawing No.	
300375801	C-402	
Date		
08/12/2025		
Drawn By		
AH/JM	Checked By	
KMLR	Sheet 0 of 1	

SHEET C-401
MATCHLINE AA

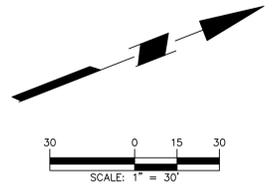
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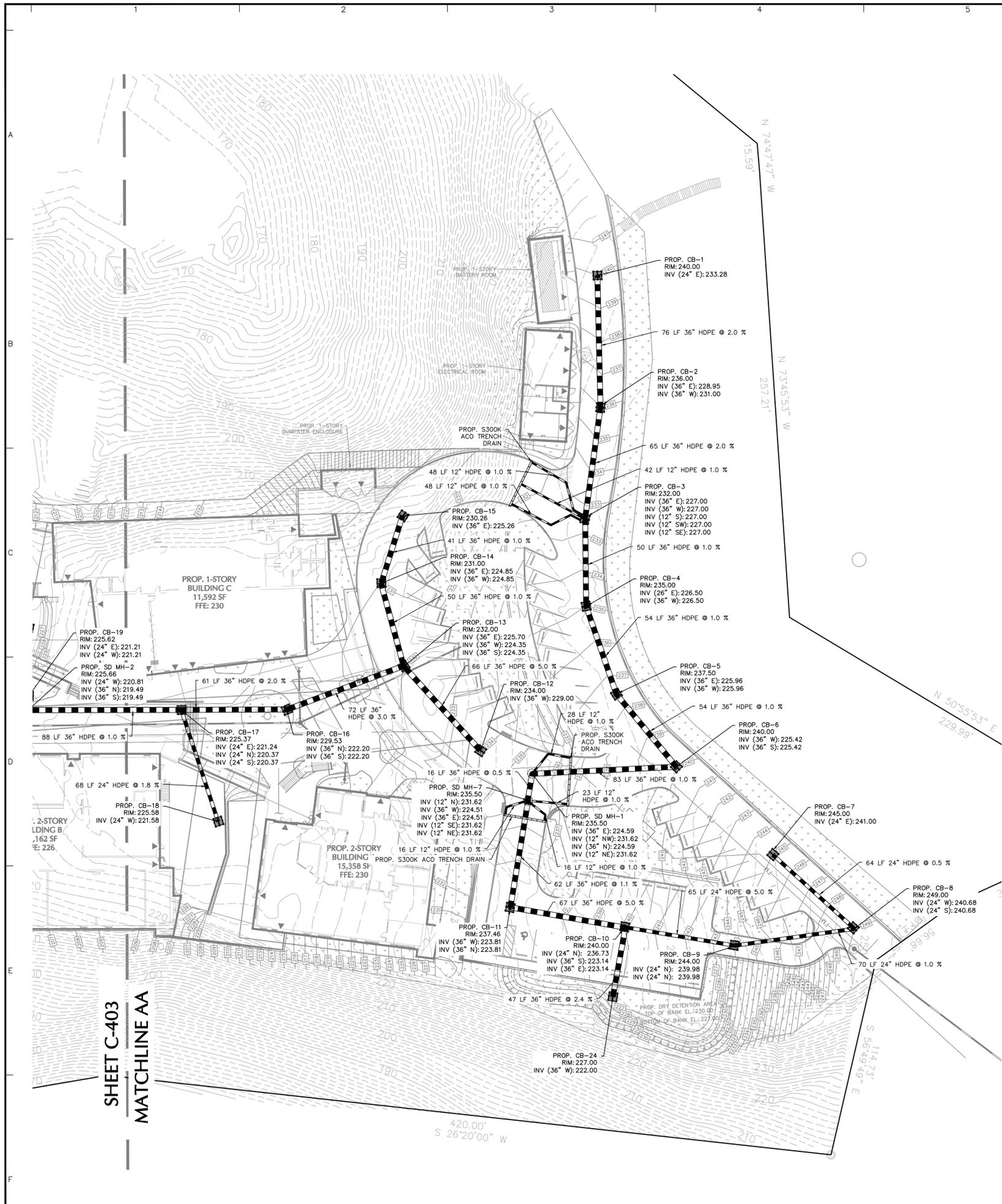
MATCHLINE AA
SHEET C-404

LEGEND		
DESCRIPTION	PROPOSED	EXISTING
WATER LINE		
STORM DRAINAGE PIPE		
SANITARY SEWER PIPE		
ELECTRICAL LINE		
COMMUNICATIONS LINE		
TOP OF BANK		
BOTTOM OF BANK		
MANHOLES		
CLEANOUT		
CATCH BASIN		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
BACKFLOW PREVENTER		
TAPPING SLEEVE		
UTILITY POLE		
ELECTRICAL JUNCTION		
COMMUNICATION JUNCTION		
PROPERTY LINE		

- NOTES:
- ALL SWALES SHALL BE STABILIZED WITH SOD, REFER TO LANDSCAPE PLANS FOR SODDING DETAILS.
 - PRIOR TO SODDING SWALES, THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL FROM THE SWALES AND GRADE THE SWALE BOTTOM TO THE PROPOSED ELEVATION

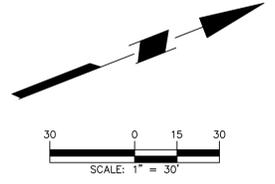


Date	Description	No.
Revisions		
Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) USVI License No.: 0-50150-3B Registration No.: 1644-E		
 Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROEMER AVENUE, STE. 200 ST. THOMAS, VI 00802 T: 786.264.7200 F: 786.264.7201 www.langan.com		
OLIVER PK-8 REPLACEMENT ST. THOMAS, U.S. VIRGIN ISLANDS		
PARTIAL DRAINAGE PLAN		
Project No.	300375801	C-403 Sheet 0 of 1
Date	08/12/2025	
Drawn By	AH/JM	
Checked By	KMLR	



SHEET C-403
MATCHLINE AA

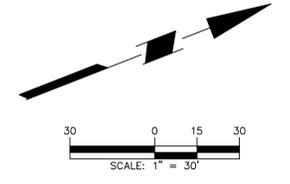
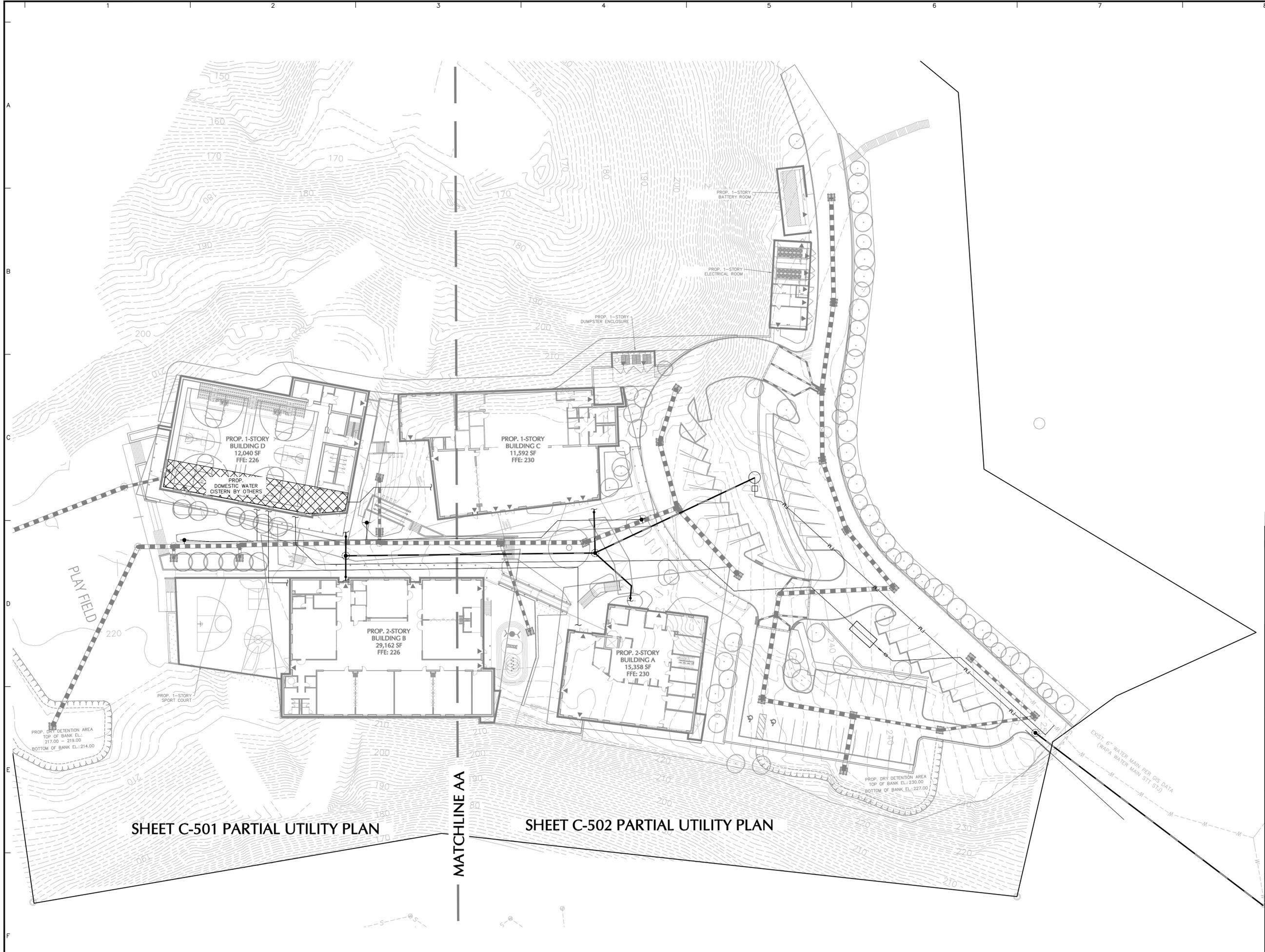
LEGEND		
DESCRIPTION	PROPOSED	EXISTING
WATER LINE		
STORM DRAINAGE PIPE		
SANITARY SEWER PIPE		
ELECTRICAL LINE		
COMMUNICATIONS LINE		
TOP OF BANK		
BOTTOM OF BANK		
MANHOLES		
CLEANOUT		
CATCH BASIN		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
BACKFLOW PREVENTER		
TAPPING SLEEVE		
UTILITY POLE		
ELECTRICAL JUNCTION		
COMMUNICATION JUNCTION		
PROPERTY LINE		



- NOTES:
- ALL SWALES SHALL BE STABILIZED WITH SOD, REFER TO LANDSCAPE PLANS FOR SODDING DETAILS.
 - PRIOR TO SODDING SWALES, THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL FROM THE SWALES AND GRADE THE SWALE BOTTOM TO THE PROPOSED ELEVATION



Date	Description	No.
Revisions		
Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) USW License No.: 0-50150-3B Registration No.: 1644-E		
 Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROEMER AVENUE, STE 200 ST. THOMAS, VI 00802 LICENSE NO: 1-61158-2B T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project OLIVER PK-8 REPLACEMENT ST THOMAS, U.S. VIRGIN ISLANDS ST. THOMAS US VIRGIN ISLANDS		
Drawing Title PARTIAL DRAINAGE PLAN		
Project No.	Drawing No.	
300375801	C-404	
Date	08/12/2025	
Drawn By	AH/JM	
Checked By	KM/LR	
		Sheet 0 of 1

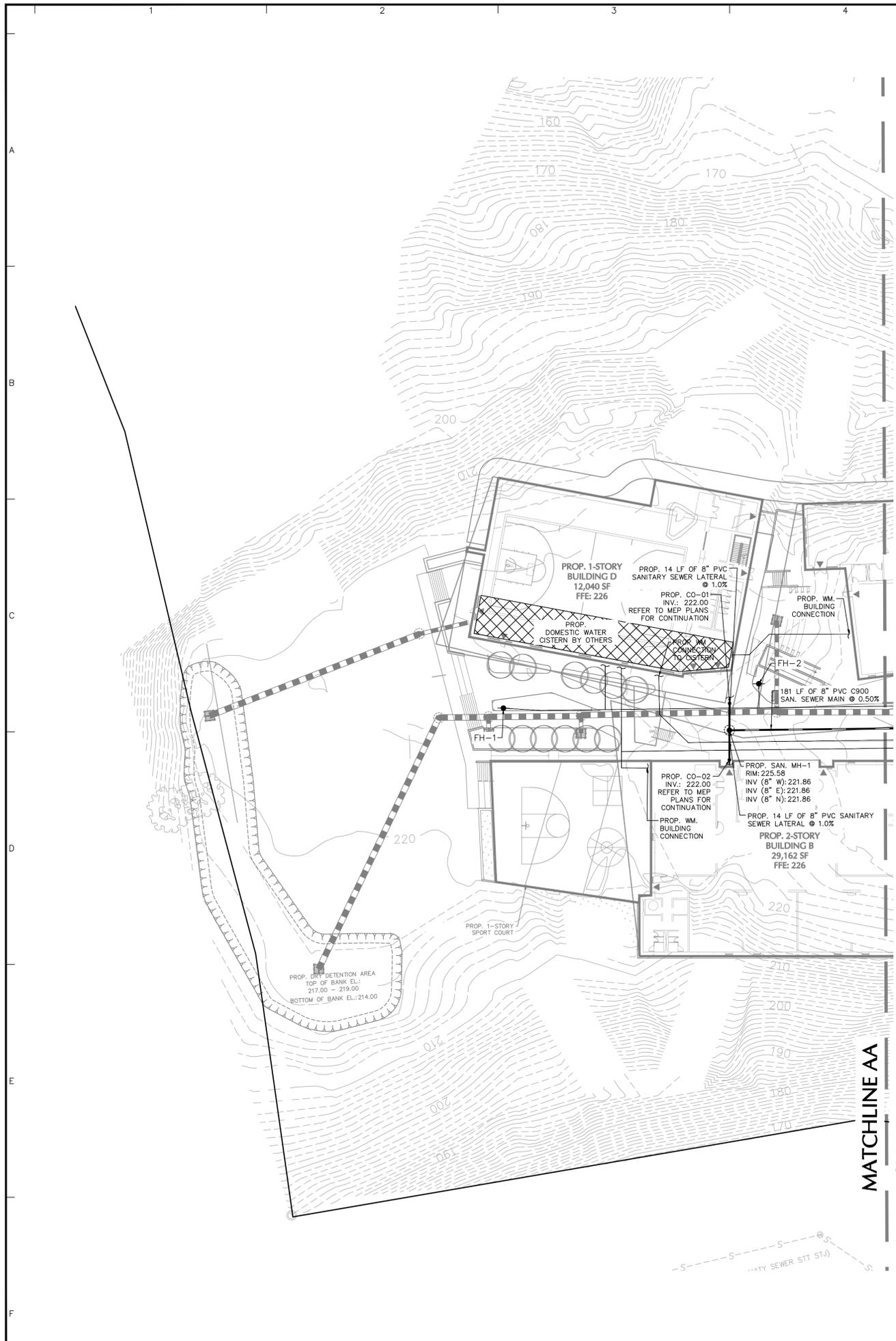


Date	Description	No.
Revisions		
Signature ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) USVI License No.: 0-50150-3B Registration No.: 1644-E		Date
 Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROEMER AVENUE, STE. 200 ST. THOMAS, VI 01082 T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project		
OLIVER PK-8 REPLACEMENT ST THOMAS, U.S. VIRGIN ISLANDS ST. THOMAS US VIRGIN ISLANDS		
Drawing Title		
UTILITY PLAN KEY SHEET		
Project No.	Drawing No.	
300375801	C-500	
Date	08/12/2025	
Drawn By	AHM	
Checked By	KMLR	
Sheet 0 of 1		© 2025 Langan

SHEET C-501 PARTIAL UTILITY PLAN

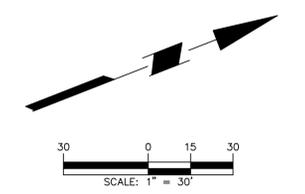
SHEET C-502 PARTIAL UTILITY PLAN

MATCHLINE AA



MATCHLINE AA
SHEET C-502

LEGEND		
DESCRIPTION	PROPOSED	EXISTING
WATER LINE		
STORM DRAINAGE PIPE		
EXFILTRATION TRENCH		
SANITARY SEWER PIPE		
ELECTRIC DUCT BANK		
COMMUNICATION LINE		
OVERHEAD LINE		
GAS LINE		
DRAINAGE BASIN		
TRENCH DRAIN		
PROPERTY LINE		

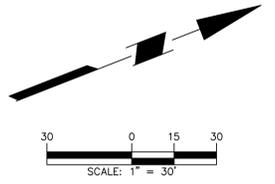


- NOTES:
1. ALL DEFLECTIONS SHALL BE 2.5" MAX.
 2. ALL PROPOSED CLEANOUTS (C.O.) SHALL HAVE THE SAME MATERIAL AS PROPOSED SEWER LATERAL



Date	Description	No.	
Revisions			
Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) Date: _____ <small>USV License No.: 0-50150-3B Registration No.: 1644-E</small>			
 Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROENKEL AVENUE, ST. THOMAS, VI 00802 ST. THOMAS, VI 00802 LICENSE NO: 1-61158-2B T: 786.264.7200 F: 786.264.7201 www.langan.com			
Project OLIVER PK-8 REPLACEMENT ST. THOMAS, U.S. VIRGIN ISLANDS ST. THOMAS US VIRGIN ISLANDS			
Drawing Title PARTIAL UTILITY PLAN			
Project No.	Drawing No.		
300375801	C-501		
Date			08/12/2025
Drawn By			AH/JM
Checked By			KMLR
Sheet 0 of 1			

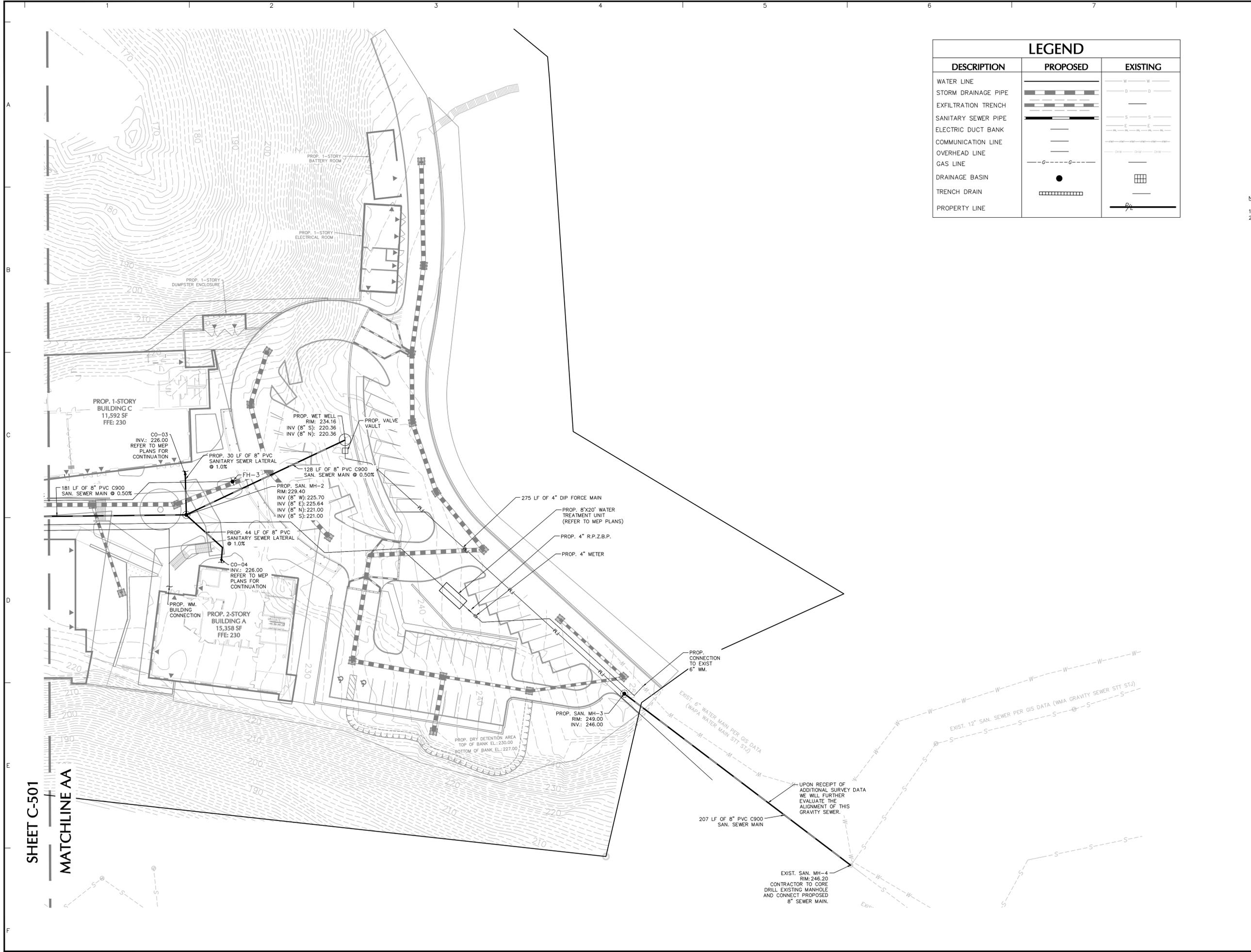
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EXFILTRATION TRENCH		
SANITARY SEWER PIPE		
ELECTRIC DUCT BANK		
COMMUNICATION LINE		
OVERHEAD LINE		
GAS LINE		
DRAINAGE BASIN		
TRENCH DRAIN		
PROPERTY LINE		



- NOTES:
1. ALL DEFLECTIONS SHALL BE 2.5" MAX.
 2. ALL PROPOSED CLEANOUTS (C.O) SHALL HAVE THE SAME MATERIAL AS PROPOSED SEWER LATERAL



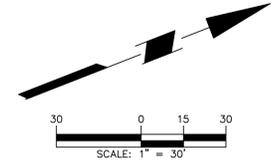
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Signature		Date
ERIC BLAINE SCHWARZ, ENGINEER (CIVIL)		
USV License No.: 0-50150-3B		
Registration No.: 1644-E		
LANGAN		
Langan Engineering and Environmental Services, LLC.		
WATERFRONT CENTER, SUITE A		
122 KROENKES DRIVE, STE 300		
ST. THOMAS, VI 00802		
LICENSE NO: 1-61158-2B		
T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project		
OLIVER PK-8 REPLACEMENT		
ST. THOMAS, U.S. VIRGIN ISLANDS		
ST. THOMAS US VIRGIN ISLANDS		
Drawing Title		
PARTIAL UTILITY PLAN		
Project No.		Drawing No.
300375801		C-502
Date	08/12/2025	
Drawn By	AH/JM	
Checked By	KM/LR	
Sheet 0 of 1		



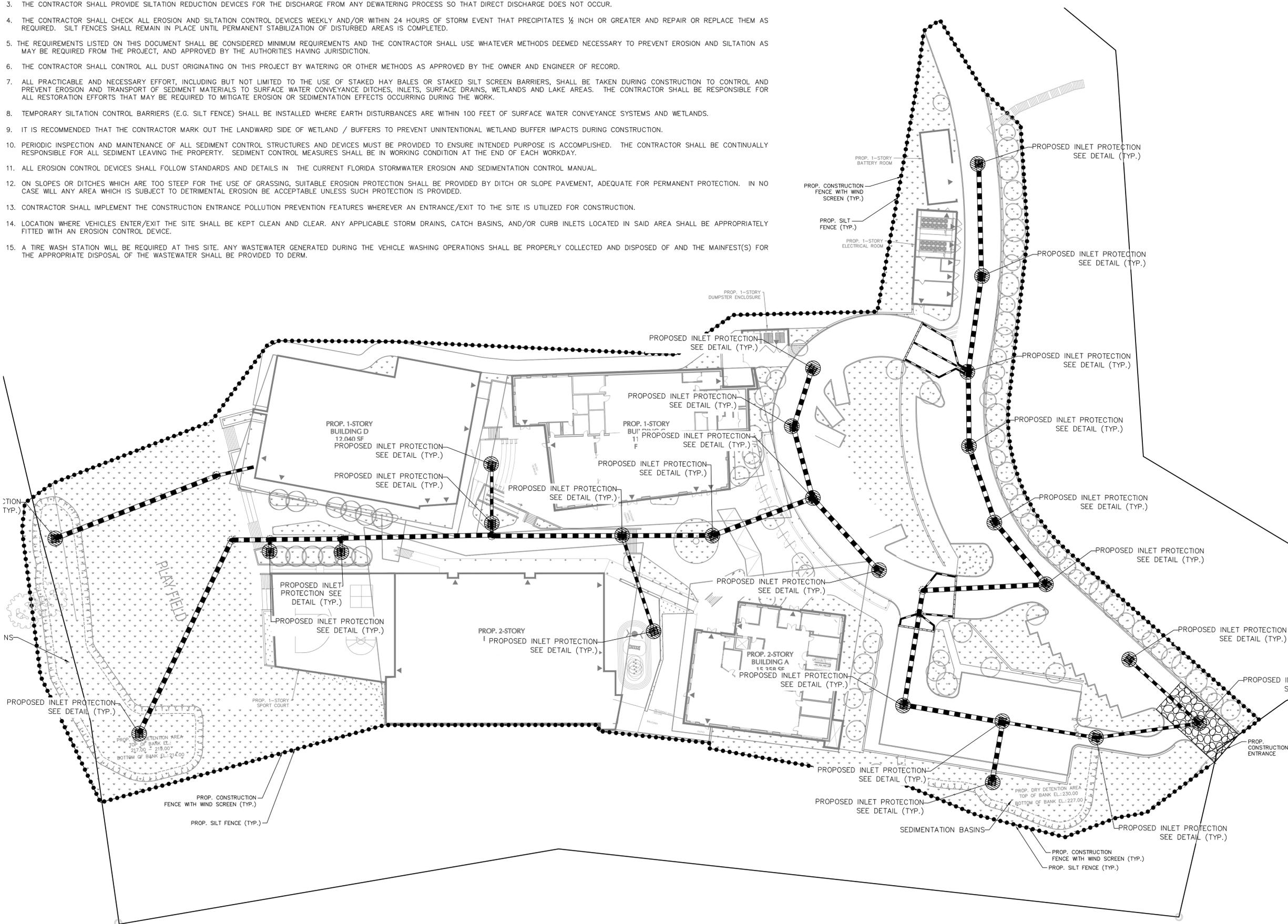
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MATCHLINE AA

EROSION AND SEDIMENT CONTROL NOTES:

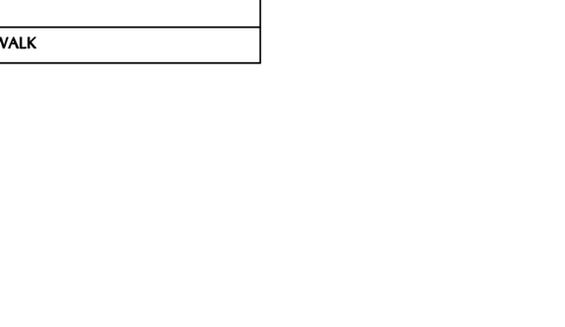
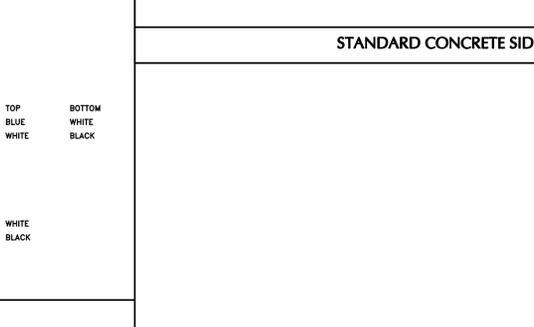
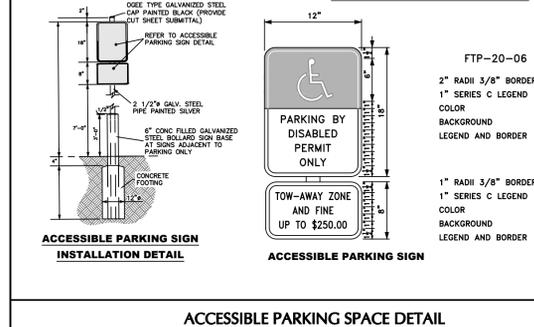
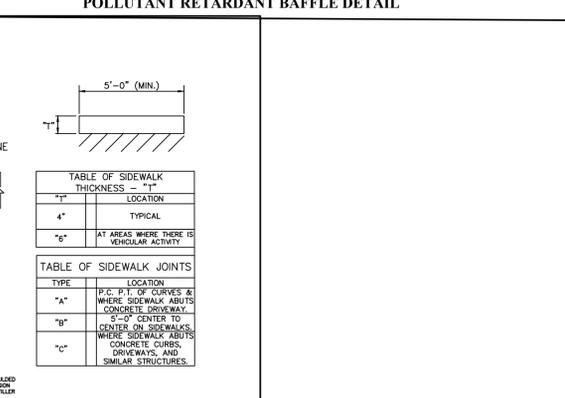
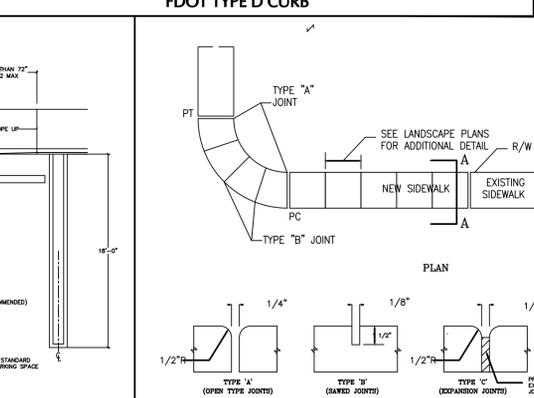
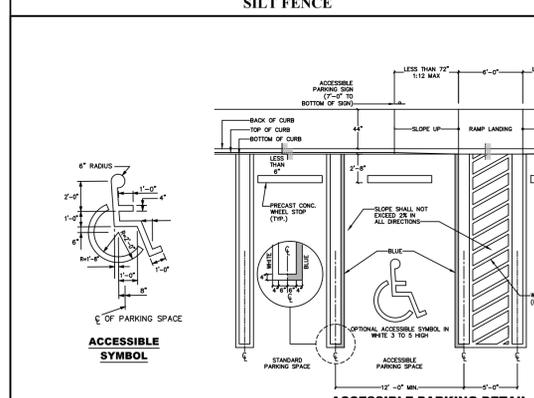
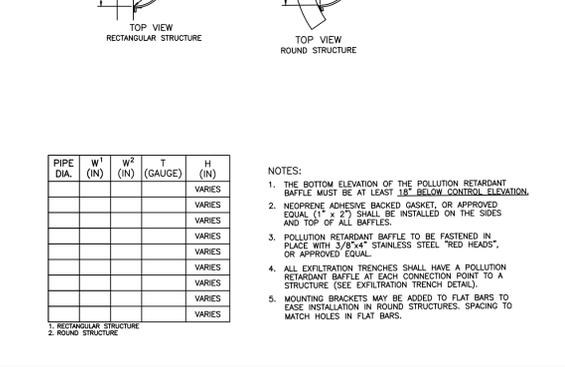
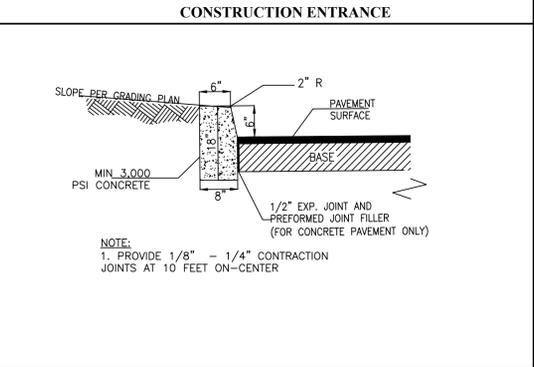
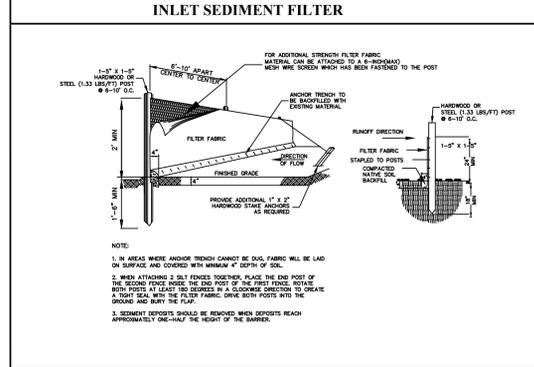
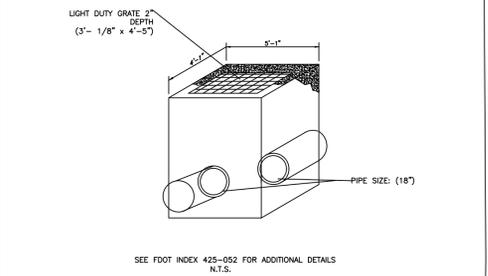
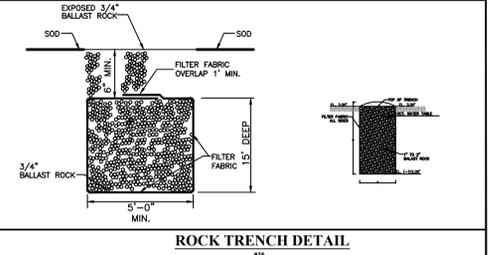
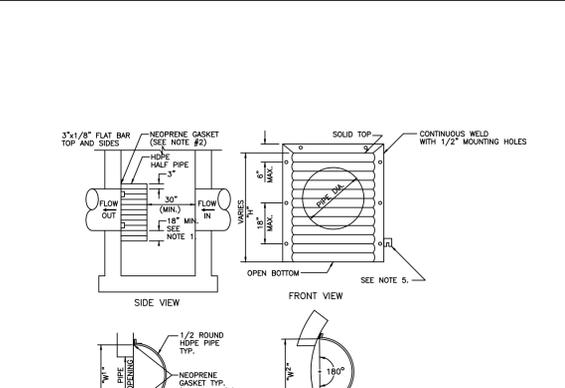
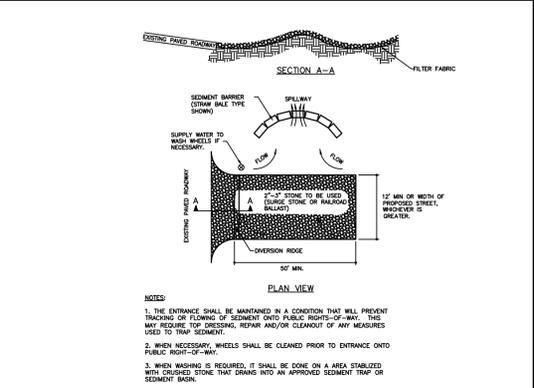
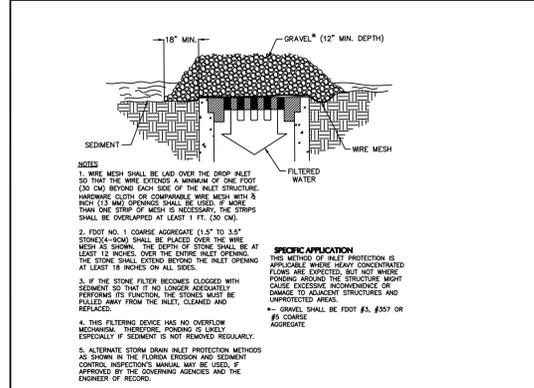
1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCE, IN ACCORDANCE WITH THE USVI DEPARTMENT OF PLANNING AND NATURAL RESOURCES ENVIRONMENTAL PROTECTION HANDBOOK STANDARDS FOR TEMPORARY EROSION AND SEDIMENT CONTROL, AROUND THE PERIMETER OF ALL EARTH DISTURBANCES. SILT FENCES SHALL REMAIN IN PLACE UNTIL PERMANENT STABILIZATION OF DISTURBED AREAS IS COMPLETED.
2. THE CONTRACTOR SHALL SEED AND MULCH OR SOD SWALES, PONDS, AND/OR GREEN AREAS IMMEDIATELY AFTER CONSTRUCTION OF THESE AREAS ARE COMPLETED.
3. THE CONTRACTOR SHALL PROVIDE SILTATION REDUCTION DEVICES FOR THE DISCHARGE FROM ANY DEWATERING PROCESS SO THAT DIRECT DISCHARGE DOES NOT OCCUR.
4. THE CONTRACTOR SHALL CHECK ALL EROSION AND SILTATION CONTROL DEVICES WEEKLY AND/OR WITHIN 24 HOURS OF STORM EVENT THAT PRECIPITATES 1/2 INCH OR GREATER AND REPAIR OR REPLACE THEM AS REQUIRED. SILT FENCES SHALL REMAIN IN PLACE UNTIL PERMANENT STABILIZATION OF DISTURBED AREAS IS COMPLETED.
5. THE REQUIREMENTS LISTED ON THIS DOCUMENT SHALL BE CONSIDERED MINIMUM REQUIREMENTS AND THE CONTRACTOR SHALL USE WHATEVER METHODS DEEMED NECESSARY TO PREVENT EROSION AND SILTATION AS MAY BE REQUIRED FROM THE PROJECT, AND APPROVED BY THE AUTHORITIES HAVING JURISDICTION.
6. THE CONTRACTOR SHALL CONTROL ALL DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS APPROVED BY THE OWNER AND ENGINEER OF RECORD.
7. ALL PRACTICABLE AND NECESSARY EFFORT, INCLUDING BUT NOT LIMITED TO THE USE OF STAKED HAY BALES OR STAKED SILT SCREEN BARRIERS, SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIALS TO SURFACE WATER CONVEYANCE DITCHES, INLETS, SURFACE DRAINS, WETLANDS AND LAKE AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED TO MITIGATE EROSION OR SEDIMENTATION EFFECTS OCCURRING DURING THE WORK.
8. TEMPORARY SILTATION CONTROL BARRIERS (E.G. SILT FENCE) SHALL BE INSTALLED WHERE EARTH DISTURBANCES ARE WITHIN 100 FEET OF SURFACE WATER CONVEYANCE SYSTEMS AND WETLANDS.
9. IT IS RECOMMENDED THAT THE CONTRACTOR MARK OUT THE LANDWARD SIDE OF WETLAND / BUFFERS TO PREVENT UNINTENTIONAL WETLAND BUFFER IMPACTS DURING CONSTRUCTION.
10. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES AND DEVICES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKDAY.
11. ALL EROSION CONTROL DEVICES SHALL FOLLOW STANDARDS AND DETAILS IN THE CURRENT FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL MANUAL.
12. ON SLOPES OR DITCHES WHICH ARE TOO STEEP FOR THE USE OF GRASSING, SUITABLE EROSION PROTECTION SHALL BE PROVIDED BY DITCH OR SLOPE PAVEMENT, ADEQUATE FOR PERMANENT PROTECTION. IN NO CASE WILL ANY AREA WHICH IS SUBJECT TO DETRIMENTAL EROSION BE ACCEPTABLE UNLESS SUCH PROTECTION IS PROVIDED.
13. CONTRACTOR SHALL IMPLEMENT THE CONSTRUCTION ENTRANCE POLLUTION PREVENTION FEATURES WHEREVER AN ENTRANCE/EXIT TO THE SITE IS UTILIZED FOR CONSTRUCTION.
14. LOCATION WHERE VEHICLES ENTER/EXIT THE SITE SHALL BE KEPT CLEAN AND CLEAR. ANY APPLICABLE STORM DRAINS, CATCH BASINS, AND/OR CURB INLETS LOCATED IN SAID AREA SHALL BE APPROPRIATELY FITTED WITH AN EROSION CONTROL DEVICE.
15. A TIRE WASH STATION WILL BE REQUIRED AT THIS SITE. ANY WASTEWATER GENERATED DURING THE VEHICLE WASHING OPERATIONS SHALL BE PROPERLY COLLECTED AND DISPOSED OF AND THE MAINFEST(S) FOR THE APPROPRIATE DISPOSAL OF THE WASTEWATER SHALL BE PROVIDED TO DERM.



LEGEND	
DESCRIPTION	PROPOSED
SILT FENCE	●●●●●
INLET PROTECTION	○
CONSTRUCTION ENTRANCE	⊞



Date	Description	No.
Revisions		
Signature	ERIC BLAINE SCHWARZ, ENGINEER (CIVIL) USVI License No.: 0-50150-3B Registration No.: 1644-E	Date
LANGAN Langan Engineering and Environmental Services, LLC. WATERFRONT CENTER, SUITE A 122 KROONHUIS DRIVE, STE. 200 ST. THOMAS, VI 00802 T: 786.264.7200 F: 786.264.7201 www.langan.com		
Project OLIVER PK-8 REPLACEMENT ST. THOMAS, U.S. VIRGIN ISLANDS		
ST. THOMAS US VIRGIN ISLANDS Drawing Title SOIL EROSION & SEDIMENT CONTROL PLAN		
Project No.	300375801	Drawing No.
Date	08/12/2025	C-700
Drawn By	AH/JM	
Checked By	KMLR	
Sheet 0 of 1		



Date	Description	No.
Revisions		

Signature: ERIC BLAINE SCHWARZ, ENGINEER (CIVIL)
Date: USV License No.: 0-50150-3B
Registration No.: 1644-E

LANGAN
Langan Engineering and Environmental Services, LLC.
WATERFRONT CENTER, SUITE A
122 KROHN AVENUE, ST. THOMAS, VI
ST. THOMAS, VI 00802
LICENSE NO: 1-61158-2B
T: 786.264.7200 F: 786.264.7201 www.langan.com

Project: **OLIVER PK-8 REPLACEMENT**
ST. THOMAS, U.S. VIRGIN ISLANDS
ST. THOMAS US VIRGIN ISLANDS
Drawing Title: **DETAIL**

Project No. 300375801	Drawing Figure C-800
Date 08/12/2025	
Drawn By AH/JM	
Checked By KMLR	Sheet of 1