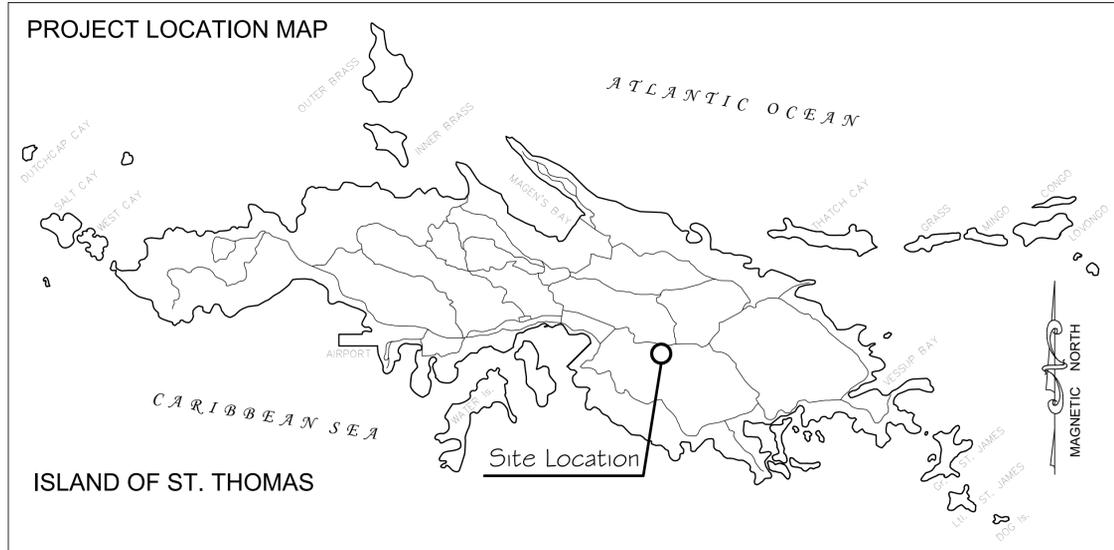
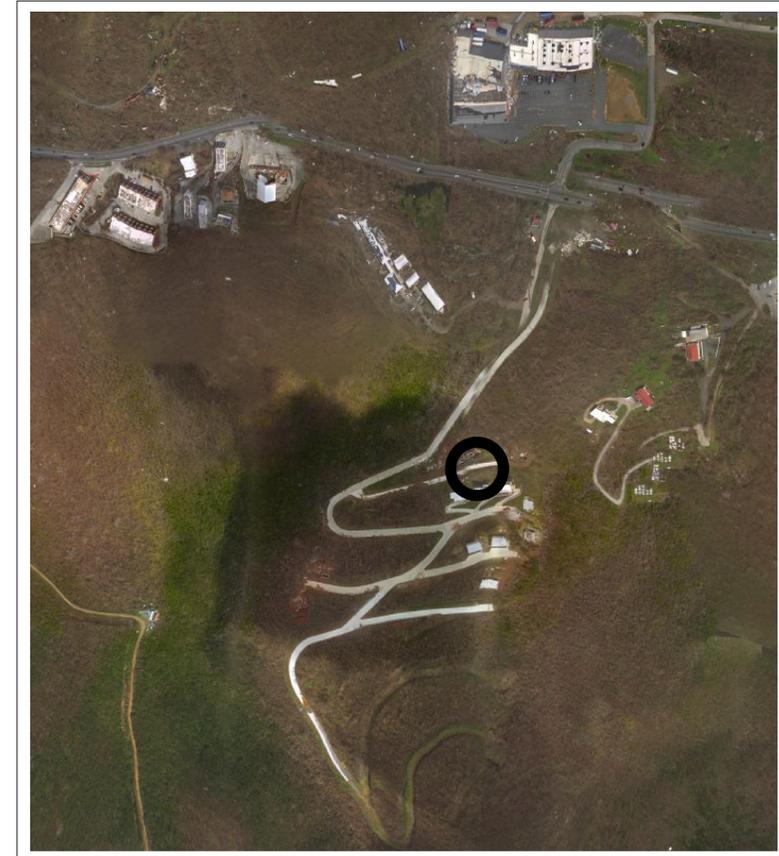


# VIRGIN ISLANDS HOUSING FINANCE AUTHORITY

## RETAINING WALL, LOTS AUXILIARY ROAD, WHISPERING HILLS ST. THOMAS, U.S.VIRGIN ISLANDS



1 Site Location Map  
Scale: n.t.s.



2 Site Location Map  
Scale: n.t.s.

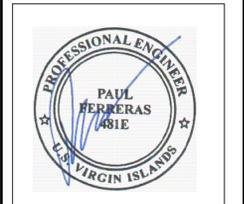
PROPERTY  
VIHFA  
WHISPERING HILLS  
ST. THOMAS  
U.S.VIRGIN ISLANDS

### COVER SHEET & GENERAL NOTES

REVISIONS		
No	DESCRIPTION	DATE
1	Cut Heights	1/10/20

**PAUL FERRERAS, PE**  
STRUCTURAL ENGINEER  
P.O. Box 600122  
St. Thomas, USVI 00801  
Phone (340) 714-5435  
Fax (340) 777-5779  
e-mail: paul@pfpe.pro

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DATE	GI
Mar 10, 2019	
SCALE	
As Shown	1 OF 2

#### GENERAL NOTES

**A. GENERAL :**

- ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT INTERNATIONAL BUILDING CODE UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED IN THE PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL CONDITIONS, ELEVATIONS AND DIMENSIONS BEFORE STARTING WORK. THE ARCHITECT AND STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
- THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS OR OF ANY VARIATIONS NEEDED IN ORDER TO CONFORM TO CODES, RULES AND REGULATIONS. UPON RECEIPT OF SUCH INFORMATION, THE ENGINEER WILL SEND WRITTEN INSTRUCTIONS TO ALL CONCERNED, AND WORK SHALL BE PERFORMED IN A MANNER AS DIRECTED BY THE ENGINEER. ANY SUCH DISCREPANCY, OMISSION, OR VARIATION NOT REPORTED, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACT DOCUMENTS REPRESENT THE FINISH STRUCTURE. THEY DO NOT INDICATE METHOD OF CONSTRUCTION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE TEMPORARY BRACES, SHORES AND GUYS, WHEREVER NECESSARY TO SUPPORT ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED DURING CONSTRUCTION, INCLUDING ERECTION EQUIPMENT AND ITS OPERATION. THIS TEMPORARY SUPPORT SYSTEM SHALL HOLD ALL ELEMENTS AND MEMBERS IN THEIR FINAL POSITION UNTIL TOTALLY AND FINALLY CONNECTED TO THE PERMANENT BRACING ELEMENTS.
- THE TYPICAL NOTES AND DETAILS SHALL APPLY IN ALL CASES UNLESS SPECIFIC DETAILS OCCUR ELSEWHERE. WHERE NO DETAIL IS SHOWN, CONSTRUCTION SHALL BE AS FOR SIMILAR WORK.
- REQUIRED INSPECTIONS BY VIRGIN ISLANDS DEPARTMENT OF PLANNING AND NATURAL RESOURCES (BUILDING DEPARTMENT):
  - FOUNDATIONS
  - CONCRETE
  - MASONRY
  - STRUCTURAL STEEL

**B. CONCRETE:**

- CONCRETE WORK SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) - BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318- LATEST REVISION).
- CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AFTER 28 DAYS EQUAL TO OR GREATER THAN 3,500 PSI.
- CONTINUOUS INSPECTION REQUIRED FOR ALL CONCRETE. INSPECTION BY BUILDING INSPECTOR REQUIRED FOR PLACEMENT OF REINFORCING STEEL PRIOR TO PLACING CONCRETE. CONTINUOUS INSPECTION IS NOT REQUIRED DURING PLACING CONCRETE OF THE REINFORCING.
- ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF) UNLESS NOTED AS LIGHTWEIGHT CONCRETE.
- PORTLAND CEMENT: ASTM C150, TYPE I OR TYPE II, LOW ALKALI.
- CONCRETE AGGREGATE SHALL CONFORM TO ASTM C33 WITH THE FOLLOWING NOMINAL LIMITATIONS:
  - FOOTINGS AND SLABS ON GRADE, 1 TO 1-1/4 INCH MAXIMUM.
  - WALLS AND STRUCTURAL SLABS, 3/4 INCH MAXIMUM.
- CONCRETE STRENGTH MIX DESIGN SHALL BE DOCUMENTED BY NEW OR EXISTING TEST REPORTS FROM APPROVED LICENSED TESTING LABORATORIES PRIOR TO BATCHING.
- EXPOSED CONCRETE FORMING AND FINISH SHALL BE AS NOTED ON ARCHITECTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
- PROJECTING CORNERS OF BEAMS, COLUMNS, ECT. SHALL BE FORMED WITH 3/4 INCH CHAMFER, UNLESS OTHERWISE DETAILED.
- FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS SHOWN ON THE DRAWINGS.
  - SHORING OF STRUCTURAL SLABS:
    - ALL SHORING AND RESHORING SHALL BE DONE IN ACCORDANCE WITH ACI STANDARD RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI - 347).
    - ONE HUNDRED PERCENT SHORING AND FORMS SHALL REMAIN IN PLACE FOR 14 DAYS MINIMUM. SHORING MAY BE REDUCED TO 50 PERCENT AFTER 14 DAYS, PROVIDED CONCRETE STRENGTH EQUALS AT LEAST 75 PERCENT OF DESIGN STRENGTH.
    - RESHORES SHALL NOT BE REMOVED IF CONCRETE STRENGTH DOES NOT MEET SPECIFIED STRENGTH AT 28 DAYS.
    - NEWLY PLACED SLABS SHALL NOT BE USED TO SUPPORT SLAB ABOVE UNTIL THE LOWER SLAB HAS CURED FOR 5 DAYS, MINIMUM. SHORING TO SUPPORT UPPER LEVEL SLAB MAY BE PLACED WITHIN THE 5 DAY CURING PERIOD.

**D. REINFORCING STEEL FOR CONCRETE AND MASONRY:**

- REINFORCING BARS: ASTM A615, GRADE 60. ALL REINFORCING STEEL THAT IS TO BE WELDED SHALL CONFORM TO ASTM A706, UNLESS OTHERWISE NOTED ON PLANS.
- WELDED WIRE FABRIC: ASTM A185.
- WELDING ELECTRODES: AWS D1.4, CLASS E90, LOW HYDROGEN.
- MINIMUM SPLICE LENGTHS, UNLESS DETAILED OTHERWISE:
  - CONCRETE SEE SCHEDULE ON DRAWING.
  - MASONRY SEE SCHEDULE ON DRAWING.
  - WELDED WIRE FABRIC SHALL BE SPLICED WITH A MINIMUM LAP OF 12 INCHES.
- MINIMUM CLEARANCE BETWEEN REINFORCING AND FACE OF CONCRETE SHALL BE AS FOLLOWS (UNLESS SHOWN OTHERWISE):
  - CONCRETE BELOW GRADE (CAST AGAINST SOIL) = 3"
  - CONCRETE BELOW GRADE (FORMED) = 2"
  - CONCRETE WALLS EXPOSED TO WEATHER = 1-1/2"
  - CONCRETE WALLS, INTERIOR WALLS = 3/4"
  - CONCRETE SLAB (STRUCTURAL) = 3/4"
  - CONCRETE BEAMS AND COLUMNS = 1-1/2"
- SPLICES IN COLUMNS AND BEAMS SHALL OCCUR ONLY WHERE DETAILED. SPLICES IN CONTINUOUS GRADE BEAMS SHALL OCCUR AT 1/3 SPAN. CONTACT STRUCTURAL ENGINEER IF CLARIFICATION IS NEEDED.
- SPLICES IN HORIZONTAL WALL REINFORCEMENT SHALL BE STAGGERED 3'-0" MINIMUM FROM SPLICE CENTERLINE. WHERE WALLS HAVE TWO LAYERS OF REINFORCING, SPLICES SHALL NOT OCCUR IN THE SAME LOCATION.
- ALL REINFORCING SHALL BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED AND SHALL BE SECURED AGAINST DISPLACEMENT WITHIN PERMITTED TOLERANCE. CLEARANCE FOR REBAR SHALL BE SHOWN IN DETAIL OR CALLED IN NOTES. TOLERANCE SHALL BE AS PER ACI 318.
- PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN THE CONCRETE MEMBERS BEFORE PLACING CONCRETE. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED EXCEPT WHERE SHOWN ON DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.

**E. NON-SHRINK GROUT OR DRYPACK:**

- NON-SHRINK GROUT OR DRYPACK SHALL CONSIST OF A PREMIXED NON-METALLIC FORMULA.
- MINIMUM FORMULA REQUIREMENTS:
  - NO SHRINKAGE AFTER PLACEMENT.
  - NO EXPANSION AFTER SET (ASTM C-827).
  - INITIAL SET UP TIME NOT LESS THAN 45 MINUTES (ASTM C-191.1).
  - ONE DAY COMPRESSIVE STRENGTH = 3000 PSI (ASTM C-109).
  - f<sub>c</sub> AT 28 DAYS = 5000 PSI.
- LUMBER:
  - ALL LUMBER SHALL BE SOUTHERN YELLOW PINE, GRADE #1 - PRESSURE TREATED, UNLESS OTHERWISE NOTED.
  - ALL FRAMING LUMBER SHALL BE S4S. LUMBER DESIGN BASED ON ANS/INFORMA NDS - 2005 - NATIONAL DESIGN STANDARDS.
  - PLYWOOD SHEATHING - PRESSURE TREATED (U.S. PS1-83) WITH EXTERIOR GLUE AND APA RATED.
  - ALL NAILING SHALL BE IN ACCORDANCE WITH IBC REQUIREMENTS UNLESS NOTED OTHERWISE ON THE DRAWINGS. USE COMMON WIRE NAILS. NAILING OF ROOF, FLOOR AND SHEARWALL SHEATHING SHALL BE INSPECTED AND APPROVED BY THE BUILDING DEPARTMENT BEFORE COVERING. ALL CONNECTORS TO BE ACQ APPROVED.
  - BOLTS SHALL COMPLY WITH ASTM A-307. BOLT HOLES IN WOOD SHALL BE 1/16 INCH MAXIMUM OVERSIZE. ALL BOLT HEAD AND NUTS BEARING ON WOOD SHALL HAVE STEEL WASHERS.
  - NO LENGTH OF SPLIT IN MEMBER SHALL EXCEED THE WIDTH OF THE MINOR FACE.
  - CONNECTOR DESIGNATIONS REFER TO STRONG-TIE CONNECTORS BY SIMPSON COMPANY. ALL CONNECTORS TO BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
  - ANY HOLE THROUGH STRUCTURAL MEMBERS FOR PIPES OR CONDUIT SHALL BE VERIFIED WITH THE STRUCTURAL ENGINEER.
  - NAIL ALL 2X DOUBLE JOIST WITH 16d NAILS AT 9 INCH ON CENTER, STAGGERED.
  - PROVIDE DOUBLE JOIST UNDER ALL PARALLEL PARTITIONS.
  - FOR SIZE AND LOCATION OF ROOF, FLOOR AND WALL OPENINGS, SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. FRAME ALL FOUR SIDES OF OPENING WITH ADEQUATE MEMBERS AND CONNECTORS.
  - PROVIDE DOUBLE STUDS UNDER ALL BEAM ENDS UNLESS NOTED OTHERWISE AND CARRY STUDS DOWN TO FOUNDATION.

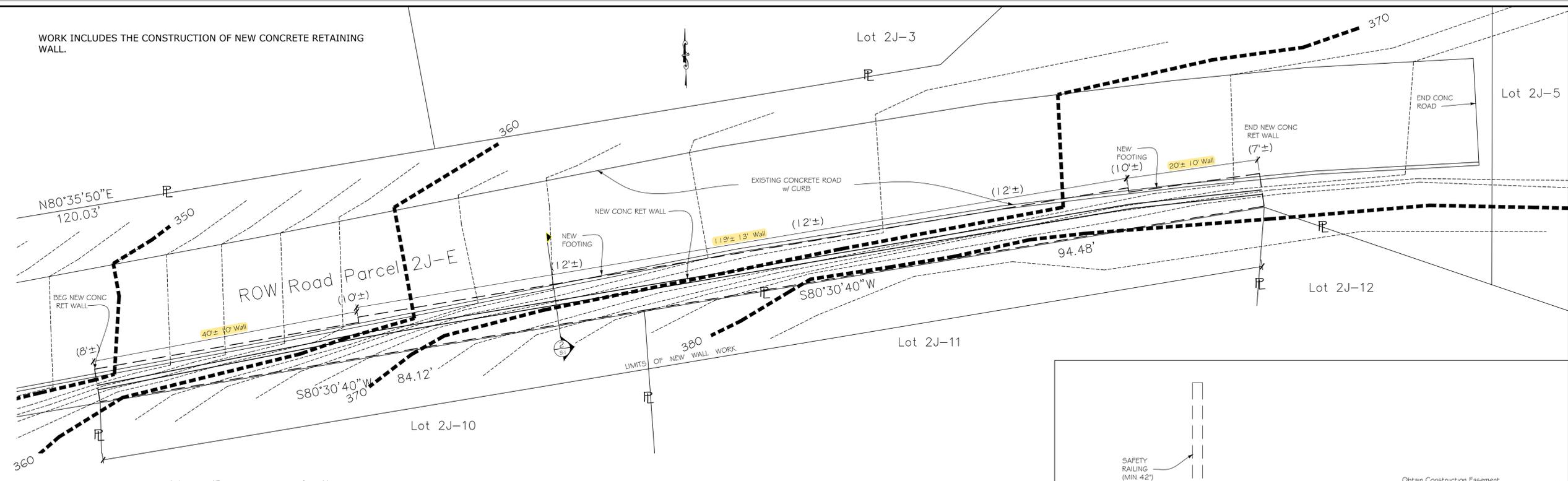
**LIST OF PROJECT DRAWINGS:**  
G1- COVER SHEET, GENERAL NOTES  
S1- SITE PLAN & WALL

**SCOPE OF WORK:**  
WORK INCLUDES THE CONSTRUCTION OF NEW CONCRETE RETAINING WALL.

Written dimensions have precedence over scaled dimensions. Contractor shall verify and be responsible for all dimensions and conditions shown on the plans. Field verify all conditions prior to laying out or fabricating work. Bring to the Engineer's attention any deviation from designed conditions and field conditions prior to proceeding with any work and cooperate with Engineer to modify such conditions at no additional cost to the owner. Engineer or consultants. Shop drawings must be submitted to the Engineer and reviewed by the Engineer prior to ordering materials, fabrication and delivery to the site, unless otherwise provided for under the specific contractual agreement between the Engineer and Client. Paul Ferreras, PE expressly reserves its common law copyright and other property rights in these documents. These documents are not to be reproduced, changed or copied in any form or manner whatsoever nor are they to be assigned to a third party without first obtaining the written permission and/or consent of Paul Ferreras, PE. In the event of unauthorized use of these documents by a third party, the third party shall hold Paul Ferreras, PE harmless and agrees to remunerate Paul Ferreras, PE for such use in an amount equal to the original fee for the original documents, plus legal fees, court costs, collection fees and other costs.

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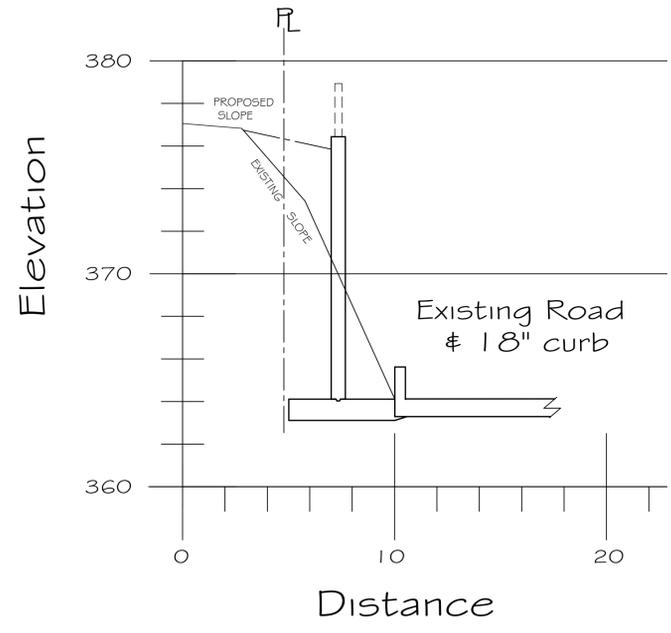
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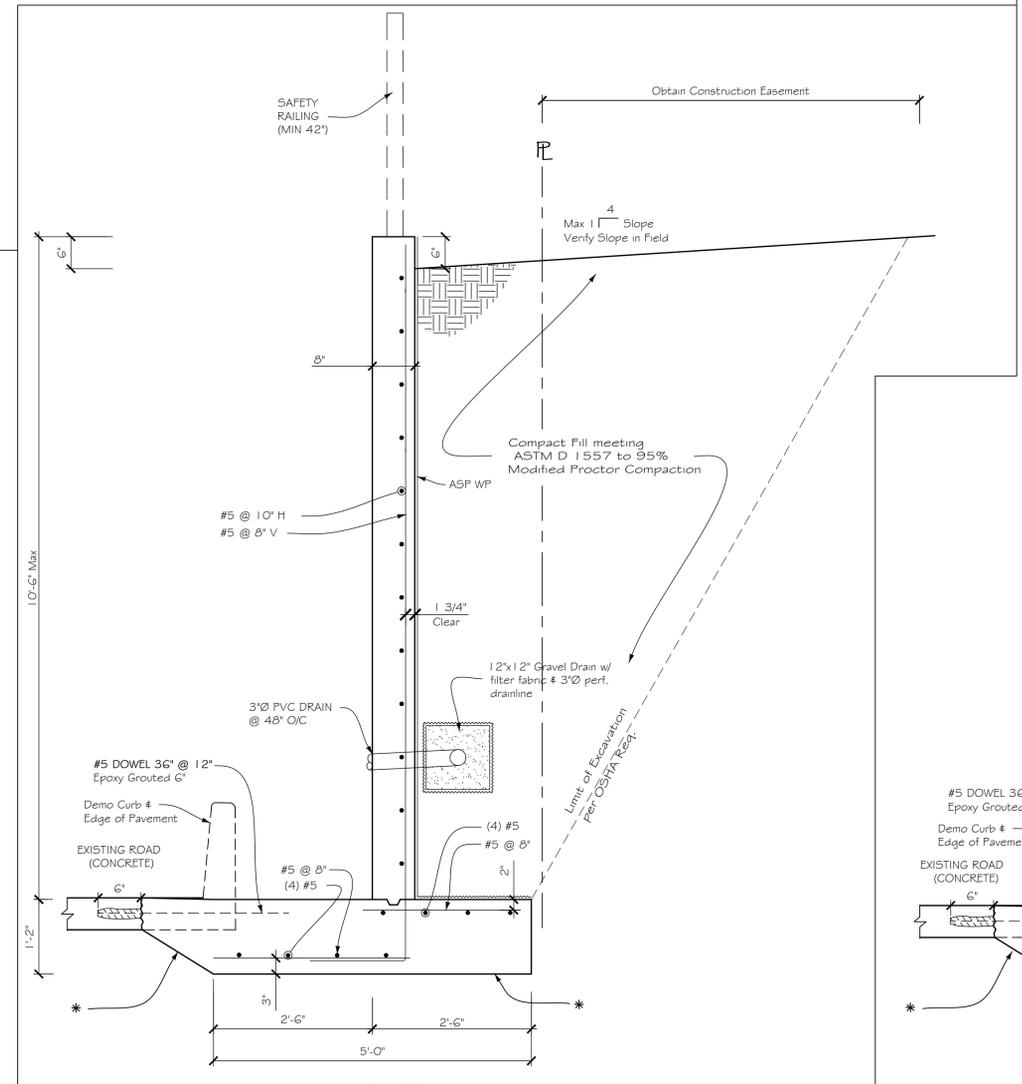
1 New Retaining Wall  
Scale: 1/8" = 1'-0"

NOTE:  
ALL PROPERTY LINES ARE APPROXIMATE AND NEED TO BE VERIFIED IN THE FIELD BEFORE CONSTRUCTION BEGINS.

New wall is designed to be 1'0" from Beginning (0+00) to 0+40', 1'3" from 0+40' to 1+59±, 0+1+59- End of wall 1'0". The Beginning and End of Wall heights may be reduced using the 10' wall design if deemed appropriate. Cut Heights are shown on site plan. (1'0"±)

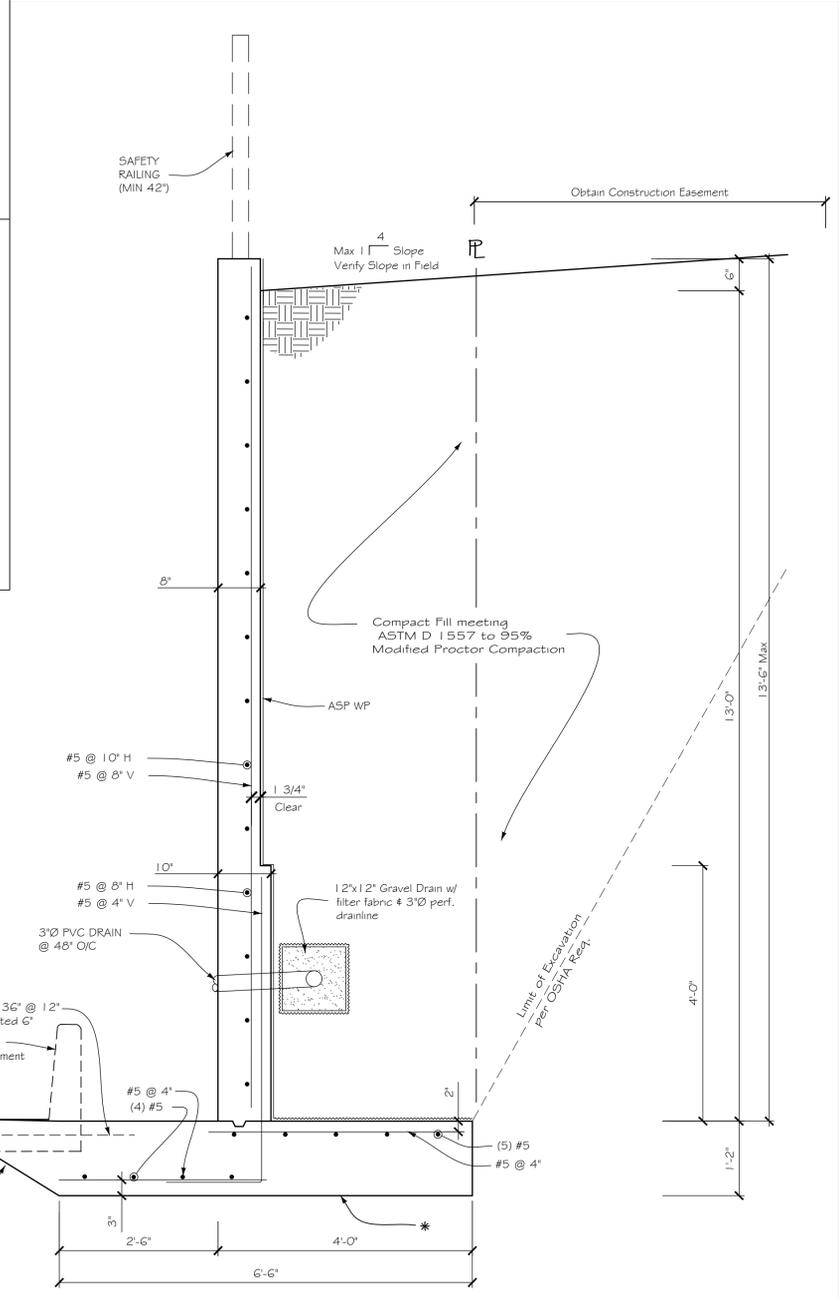


2 Cross Section  
Scale: 1/4" = 1'-0"



3 10'-0" Retaining Wall  
Scale: 3/4" = 1'-0"

\* GEOTECHNICAL NOTE:  
Subgrade = Firm Undisturbed Soil-  
Min 2TSF Bearing Capacity, V.I.I.F.



4 13'-0" Retaining Wall  
Scale: 3/4" = 1'-0"

PROPERTY  
VIHFA  
WHISPERING HILLS  
ST. THOMAS  
U.S. VIRGIN ISLANDS

# AUXILIARY ROAD, RETAINING WALL DESIGN & DETAILS

REVISIONS		
No	DESCRIPTION	DATE
1	Cut Heights	1/10/20

**PAUL FERRERAS, PE**  
STRUCTURAL ENGINEER  
P.O. Box 600122  
St. Thomas, USVI 00801  
Phone (340) 714-5435  
Fax (340) 777-5779  
e-mail: paul@pfpe.pro

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DATE  
March 10, 2019  
SCALE  
AS SHOWN  
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2 OF 2