

GOVERNMENT OF
THE VIRGIN ISLANDS OF THE UNITED STATES

o

DEPARTMENT OF PROPERTY AND PROCUREMENT

o

INVITATION FOR BIDS

o

Invitation No.: IFB021VITT15(C)

Date: August 5, 2015

Pursuant to Laws of the Government of the Virgin Islands sealed bids in set of **five (5) copies** for the work described herein and will be received until **Tuesday, August 25, 2015 at 10:00 a.m.**

LOCATION OF BID OPENING: Department of Property and Procurement
Division of Procurement
Building #1 3rd Floor, Room 316
Subbase, St. Thomas, VI

And at the time **publicly** opened at **10:15 a.m.** on **Tuesday, August 25, 2015.**

Description of Work and Project Number:

Qualified contractor(s) to furnish all labor, materials and equipment necessary for the Security Fencing Installation at Virgin Islands Territorial Emergency Management Agency (VITEMA) Facility, St. Thomas, Virgin Islands

Pre Bid Conference: A Pre-Bid Conference will be held on **Tuesday, August 18, 2015** at **1:00** o'clock p.m., at the Department of Property and Procurement, Building #1 3rd Floor, Room 316 Subbase, St. Thomas, Virgin Islands

Cost Per Set: \$50.00 NON REFUNDABLE

Information regarding bidding documents

Bidding Documents include the Public Notice, this Invitation to Bid, Instruction to Bidders, Contractor's Qualification Statement, the Contract, Performance and Payment Bonds, General Provisions, Special Provision, Supplemental Specifications, Plan and Specifications. All documents may be obtained from the Department of Property and Procurement.

Each bid must be accompanied by a Bid Guarantee as provided for in Form No. P&P-ITB-CC-16-73 (Instruction to Bidders) which is hereby made a part of this Invitation and by this reference incorporated herein as fully and effectively as if set forth in detail. Bid Guarantee for Preferred Bidders will be as specified in 31 V.I.C. 236a (Act No. 2995 approved April 16, 1971) if Preferred Bidders Act applies. If Preferred Act does not apply, failure to provide a Five (5%) percent bond will render the bid unresponsive. It is the Bidder's responsibility to determine if the Act Applies.

The Bid Guarantee for bidders not claiming or having the status of a preferred bidder will be Five (5%) per cent of the bid price. Bid Guarantee will be in the form of a Bond (Corporate or Individual Surety), Money Order, Certified Check, Irrevocable Letter of Credit or Cash.

No Bidder will be allowed to withdraw his bond within a period of thirty (30) calendar days following the date set for the opening thereof.

Preferred Bidder:

Any bidder claiming eligibility as a "preferred bidder" under the provision of the Preferred Bidder's Act (31 VIC 236a – Act No. 2995, approved April 16, 1971) must request that his name be added to a preferred bidder's list to be maintained by the Commissioner of Property and procurement.

If a bidder has not previously filed a notarized Certificate with the Commissioner of Property and Procurement, copies thereof may be obtained from the Department of Property and Procurement, Division of Procurement, Building No. 1, Submarine Base, Third Floor, St. Thomas, Virgin Islands and/or from 3274 Estate Richmond, Christiansted, St. Croix, Virgin Islands.

Certifies must be fully completed, notarized and filed in the Division of Procurement before the day and hour set for bid opening.

Contractor's Qualification Statement

Each bidder must submit with his bid an executed copy of Contractor's Qualification Statement which is hereby made a part of this Invitation and by this reference incorporated herein as fully and effectively as if set forth in detail.

BONDS:

A Bid Bond, Performance Bond and Payment each are required as follows:

Bid Bond:	5% of the Contract
Performance Bond:	100% of the Contract
Payment Bond:	100% of the Contract

**GOVERNMENT OF
THE VIRGIN ISLANDS OF THE UNITED STATES**
— 0 —
Department of Property and Procurement

BID FOR UNIT PRICE CONSTRUCTION CONTRACT

INVITATION No. IFB021VITT15(C)

Place:

Date:

Proposal of
(hereinafter called "Bidder") a corporation*, partnership or joint venture organized and existing under the laws of
the State of
an individual doing business as

To the Government of the Virgin Islands, Department of Property and Procurement (hereinafter called
the "Government").

GENTLEMEN:

The Bidder, in compliance with your invitation for bids for the construction of:

.....
.....
.....

having examined the plans and specifications with related documents and the site of the proposed work,
and being familiar with all of the conditions surrounding the construction of the proposed project including the
availability of materials and labor, hereby proposes to furnish all labor, materials and supplies, and to construct
the project in accordance with the Contract Documents, within the time set forth therein, and at the prices stated
below. These prices are to cover all expenses incurred in performing the required under the Contract Documents,
of which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in written
"Notice to Proceed" by the Government and to fully complete the project the project within sixty (60) calendars
days thereafter as stipulated in the specifications. Bidder further agrees to pay as liquidated damages, the sum of
\$100.00, as hereinafter provided in Paragraph 19 of the General Conditions.

Bidder acknowledges receipt of the following addendum:

.....
.....
.....

BASE PROPOSAL: Bidder agrees to perform all of the work described in the specifications and shown
on the plans for the sum of
..... (\$ **(Amount shall be shown in
both words and figures. In case of discrepancy, the amount shown in words will govern.)**)

Bidder understands that the Government reserves the right to reject any or all bids and to waive any
informalities in bidding.

.....
Insert corporation, partnership or individual as applicable.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute a formal contract within 10 calendar days and deliver a Surety Bond or Bonds as required by the Invitation to Bid.

The Bidder agrees that if awarded a Contract hereunder he will, within such time as determined by the Contracting Officer, before or after the date of commencement of work, prepare and submit to the Contracting Officer for approval a practicable schedule, showing the order in which he proposes to carry on the work; the date on which he will start several salient features (including procurement of materials and equipment) and the contemplated dates for completing the same. The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion at any time. The Contractor shall enter on the chart the actual progress at the end of each week or at such intervals as directed by the Contracting Officer, and shall immediately deliver to the Contracting Officer three (3) copies thereof.

If, in the opinion of the Contracting Officer, the Contractor falls behind the progress schedule, the Contractor shall take such steps as may be necessary to improve his progress and the Contracting Officer may, **inter alia**, require him to increase the number of shifts, and/ or overtime operations or days of work and to submit for approval such supplementary schedule or schedules in chart form as may be deemed necessary to demonstrate the manner in which the agreed rate of progress will be regained, all without additional cost to the Government.

Failure of the Contractor to comply with the requirements of the Contracting Officer under the provisions thereof shall be grounds for determination by the Contracting Officer that the Contractor is not prosecuting the work with such diligence as will ensure completion within the time specified. Upon such determination the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part thereof, in accordance with the delays-damages article of the contract.

The bid security attached in the sum of
..... (\$.....) is to become the property of the Government in the event the contract and bond are not executed within the time set forth, as liquidated damages for the delay and additional expense to the Government caused thereby.

Respectfully submitted:

.....
(Signature)

.....
(Official Designation)

.....
(Business Address)

[SEAL – if bid is by a corporation]

=====

**ACCEPTANCE AND NOTIFICATION
THE GOVERNMENT OF THE VIRGIN ISLANDS**

The above proposal by Bidder is hereby accepted and he is so notified.

Date:

.....
Commissioner of Property and Procurement
and Contracting Officer

**VIRGIN ISLANDS TERRITORIAL
EMERGENCY MANAGEMENT
AGENCY (VITEMA) SECURITY
FENCE INSTALLATION PROJECT**

**SCOPE OF WORK
AND
SPECIFICATIONS**

SCOPE OF WORK

This Scope of Work is for the Virgin Islands Territorial Emergency Management Agency (VITEMA) Security Fence Installation at 8221 Nisky, St. Thomas, VI 00802. All work shall be done in accordance with the Plans, Manufactures Specifications, Bid Schedule and Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-03), the Virgin Island Building Codes and the direction of the Project Engineer in writing.

1. Prior to the commencement of Work by Contractor, contractor will have all applicable bonds, licenses, sureties and permits in place prior to the commencement of work.
2. Contractor shall be exclusively responsible for the safety, security, and condition of all of materials and equipment and personal stored/working on the construction site, and no such stored or loose materials shall be deemed a part of the Project until after the same have been properly installed by the Contractor in the Project, accepted and paid for by the Contractor. Contractor shall exclusively bear the risk of loss of such stored materials prior to proper installation even if the stored material has been paid for by the contractor.
3. Further, Contractor shall be responsible for any damages done to material, equipment or property by its workforce, subcontractors, or vendors.
4. Unless otherwise authorized in writing in advance by the Contractor, Contractor states that the Work performed under this Agreement will be performed by the Contractor and his regularly employed employees.
5. Not later than the time of delivery of materials to the job site, Contractor shall provide all "materials safety data sheets" pertaining to materials being brought onto the site. Contractor further agrees that it shall comply with all local, federal laws, ordinances and regulations in connection with the Contractor's Work including, but -not limited to OSHA Standards, Rules and Regulations.
6. During the term of this Agreement, Contractor shall pay particular attention to the daily clean up and removal of all trash and rubbish generated on the job site by the Contractor or its vendors. Contractor shall be responsible for the removal of all rubbish and trash it has generated, from its work area on a daily basis and place all such rubbish and trash in waste containers located throughout the Project. In the event Contractor fails to perform this daily cleaning and trash removal agreement, Contractor may assess a portion of the cost of daily clean up of the job site including, but not limited to, the cost of the maintenance of said trash and rubbish receptacles against the Contractor in the form of a negative change order after fair and prior notice has been given.
7. Upon the completion of the Contractor's Work, and when practical, the Contractor shall furnish the User Agency with a warranty acceptable in all respects to the User Agency to repair and/or -replace at the Contractor's sole expense all defects in materials and labor in the Contractor's Work appearing or occurring within one (1) year after the issuance of the certificate of occupancy of the premises upon which Subcontractor's Work is performed. Additionally, in the event the manufacturer of any material supplied by the Contractor to the Project exceeds the term of the Subcontractor's letter of credit or warranty, The Contractor shall further assign and deliver to the User Agency said manufacturer's warranty. Performance of warranty repair work and replacement of materials for defects occurring within the warranty period shall be the Contractor's sole and exclusive

responsibility at the Contractor's sole and exclusive expense.

8. Any Work that is in addition to the work required by this Subcontract shall be construed as extra work ("EXTRA WORK"). Extra Work will be subject to prior written approval by the Department of Public Works and shall be granted or denied prior to the execution of any such Extra Work. Approved Extra Work shall be subject to the execution of a change order signed by an authorized representative of the Contractor and the Owner or Contractor which shall be executed prior to the furnishing of such materials or performance of such labor or both. Any Extra Work not so authorized in advance shall be performed or furnished at the sole expense of the Contractor, and neither the Contractor nor the Owner shall be liable or responsible to the Contractor for the payment of any such Extra Work. Extra work must be approved before it is done.
9. All materials supplied or used by the Contractor in the performance of its Work shall be as specified and approved by the Department of Public Works. Contractor shall submit all such materials to the Department of Public Works for approval prior to the installation thereof on the premises unless otherwise agreed or waived by the Department of Public Works in writing. All work and materials will be per the plans and specifications provided unless authorized in writing prior to starting the work.
10. If job is subject to inclement weather it is the responsibility of the Contractor to keep track of these days and present to the Department of Public Works on a weekly basis to compare against their daily log. Days that are in agreement will be placed in a change order format and will be presented with scheduled monthly payment.
11. The Contractor is contracted to provide complete construction, including code requirements, and workmanship of equal or better finishes based on the VI Building Code and to the intent of the contract documents. It is common and known that items of importance are sometimes overlooked in drawings and in specifications. If missing items would normally be included in a particular scope of work, or required for the completion of a particular trades work, then it is included in this contract and not an opportunity for change order.
12. Contractor agrees to perform all work in a good and workmanlike manner and in accordance with the highest standards of the industry in their trades, and as a minimum, the work shall be in accordance with all local, national codes, laws, ordinance and regulations, whichever governs, whether or not so indicated in the plans and specifications. It is the intent that the work be completed in all respects for the use intended as a part of this general scope.
13. Contractor agrees to furnish all labor, supervision, fasteners, tools, taxes, equipment, fuel fees, licenses, insurance and all other costs as required to perform all work covered in the construction scope of the applicable division that this Contractor represents itself as having expert knowledge in and regular engagement with.
14. Contractor shall call and cause all required inspections for his own work and convey all inspection results to the DPW Inspector/Engineer. If unsatisfactory results are discovered, this Contractor will immediately suspend its construction activities until such work is corrected and inspections are passed.

15. Upon award of this contract, Contractor shall perform due diligence and shall prepare all necessary basic diagrams or layouts outlining his/her concerns. If value engineering or alterations to the plans/specifications is involved, such shall be presented to the Department of Public Works prior to the execution of the contract.
16. Contractor shall commence the work to be performed per the contract documents in accordance to the terms of this agreement commencing on the date specified and provided by the User Agency and shall complete all work by the finish date specified on the Construction Schedule or as adjusted from time to time by the Department of Public Works.
17. Under **NO CIRCUMSTANCES** will there be additional money granted for extra work without previous written authorization and executed change order from the User Agency.
18. Contractor shall be completely responsible and provide equipment for receiving, unloading, taking inventory, storing, protecting and signing for all materials installed under this agreement.
19. This Contractor will verify all detail and dimensions for fit of work in all regards.
20. Contractor acknowledges that he will provide the necessary manpower, required to maintain the project schedule in all phases of his work to include any required overtime.
21. Hard Hats are a requirement of this contract.
22. Provide Material Safety Data Sheets (MSDS) for all materials being provided or utilized under this Contract agreement. And its written OSHA policy and written Hazardous Materials Policy before work commences.
23. Contractor will keep onsite material stockpiles and building workspace stockpiles to a minimum, organized and out of the way so as not to impede any other trades, and as directed by the Construction Manager.
24. Contractor is responsible for loss, theft and damage of all materials installed or otherwise until such material has been installed, approved and paid for by Contractor.
25. Contractor reserves the right, to supplement work after proper notification of non-performance has been given.
26. Contractor will furnish the names of the Subcontractors it introduces to the project.
27. Contractor will disclose the amounts of money owed to each subcontractor and submit proper lien waivers.
28. Contractor shall make himself/herself available for either weekly or biweekly meetings (as mutually agreed upon with the Department of Public Works) to discuss project progress/concerns. Any problems deemed an emergency shall be **IMMEDIATELY** made known to the Department of Public Works.

The undersigned Contractor shall furnish all labor, equipment, machinery, material and miscellaneous items for the completion of the Project as outlined in the Contact Drawings, Specifications and Bid Schedule.

Bid Schedule
VITEMA Security Fence Installation
St. Thomas, Virgin Islands

The undersigned contractor proposes to furnish all labor, equipment, machinery, materials and contingencies for the completion of the VITEMA Security Fence Installation at 8221 Nisky as outlined on the contract specifications and Scope of Work. All works shall meet the conditions and regulations of the IBC, VI Building, and FP 03 Codes.

<u>No.</u>	<u>DESCRIPTION</u>	<u>UNITS</u>	<u>QTY.</u>	<u>UNIT PRICE</u>	<u>UNIT PRICE IN WORDS</u>	<u>TOTAL</u>
1	Mobilization	LS	1			
	Site Preparation - Clearing and Grubbing, Grading and					
2	miscellaneous disposals within construction limits per Division 200 of FP 03.	LS	1			
	Install new 6 FT. PermaCoat PC-20 Black Chain Link Framework - Commercial Weight with					
3	concrete footings per manufacturers specifications VI building Code, the Plans and Specifications 32 31 13.	LF	470			
4	Gate 4 ft. Pedestrian Installed	EA	1			
TOTAL (NUMBERS):		<hr/>				
TOTAL (WORDS):		<hr/>				
CONTRACTOR'S NAME:		<hr/>				
CONTRACTOR'S SIGNATURE:		<hr/>				

GOVERNMENT OF THE VIRGIN ISLANDS

OF THE UNITED STATES

DEPARTMENT OF PUBLIC WORKS

VIRGIN ISLANDS TERRITORIAL EMERGENCY MANAGEMENT AGENCY (VITEMA) SECURITY FENCE AND LIGHTING INSTALLATION PROJECT

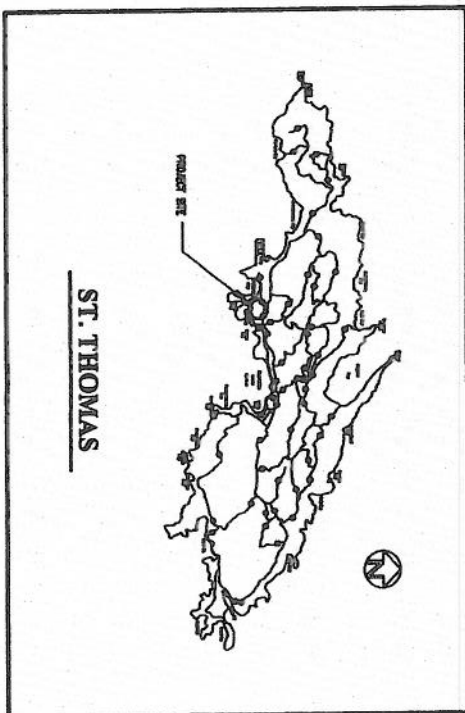
DESCRIPTION OF PROJECT:
NEW SECURITY FENCE INSTALLATION ON THE PROPERTY
BOUNDARY

PROJECT LENGTHS:
-600 Linear Feet


SHEET INDEX

1 = GROUND PLAN
2 = GROUND PLAN
3 = GROUND PLAN
4 = GROUND PLAN

1:6250



TECHNICAL NOTE:
Technical Specifications for Construction of Roads and Bridges on
the Virgin Islands Project, Project U.S. Category 1 and
VI Safety Code



DEPARTMENT OF PUBLIC WORKS
ST. THOMAS

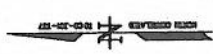
APPROVED BY: _____
DATE: _____

APPROVED BY: _____
DATE: _____

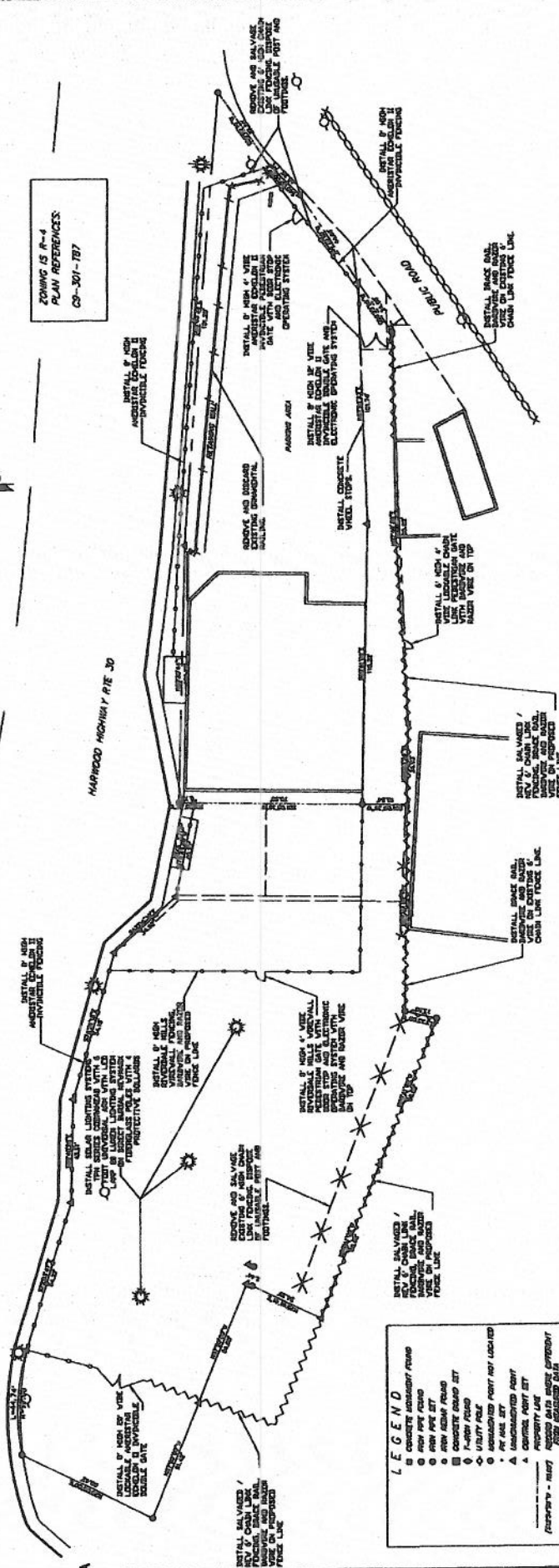
APPROVED BY: _____
DATE: _____

DATE	BY	NO.	REV.
1/1/77	1	1	1

ESTATE CONTANT



ZONING IS R-4
PLAN REFERENCES:
CP-301-787



NOTE:
PROJECT IS NOT TO BE CONSIDERED FOR
REVISION.

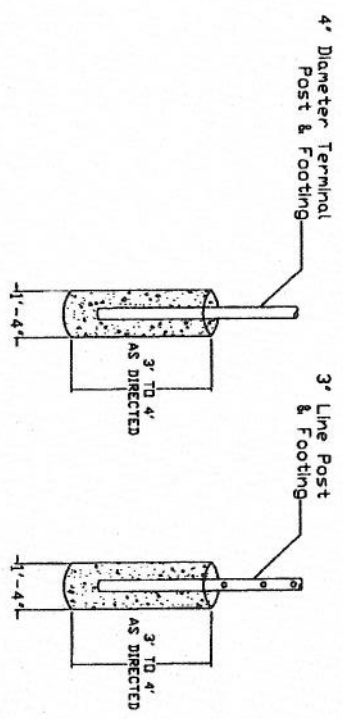
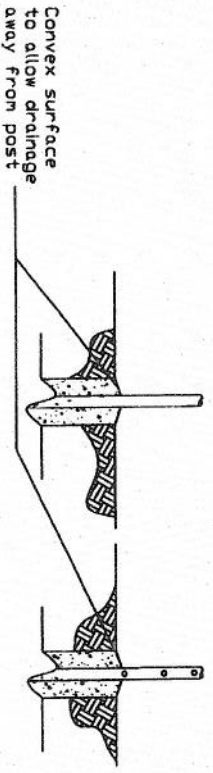
LEGEND

- CONCRETE MONUMENT FOUND
- 6\"/>

	DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING ST. THOMAS, U.S. VIRGIN ISLANDS	VIRGIN ISLANDS Territorial Emergency Management Agency (VITEMA) Security Fence and Lighting Installation Project	CONSULTING ENGINEER PROJECT DESIGNER	DRAWN BY: J.A. SCALE: 1"=40' DATE:	PROJECT NO. SHEET NO.
			DIVISION OF ENGINEERING 2 of 3		

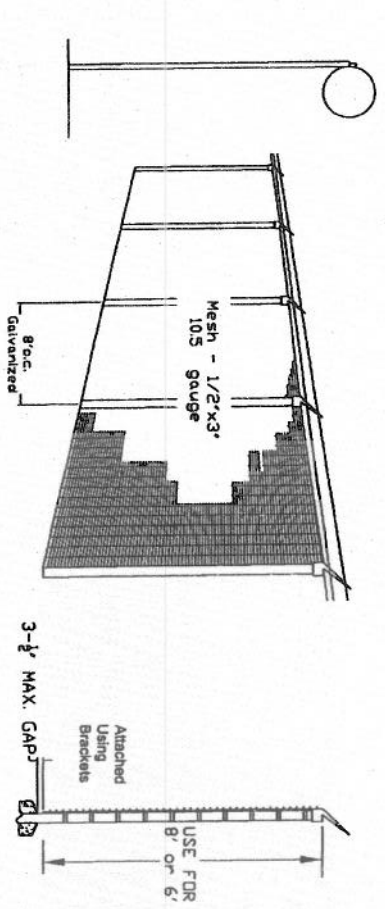
POST FOOTING

N.T.S.



RAZOR & BARB WIRE ELEVATION

N.T.S.



AMERISTAR FENCE PRODUCTS
PermaCoat® PC-20™ Color Chain Link Framework – Commercial Weight
CONSTRUCTION SPECIFICATION – 32 31 13

PART 1 – GENERAL

1.01 WORK INCLUDED

The contractor shall provide all labor, materials and appurtenances necessary for installation of the color chain link fencing system defined herein at Virgin Islands Territorial Emergency Management Agency (VITEMA) 8221 Nisky, St. Thomas.

1.02 RELATED WORK

Section 02500 – Paving and Surfacing
Section 03300 – Case-In-Place Concrete
Section 04200 – Unit Masonry

1.03 SYSTEM DESCRIPTION

The contractor shall supply a total color chain link fencing system of the design, style and strength defined herein. The system shall include all components (i.e., framework, chain link fabric, gates and fittings) required.

1.04 QUALITY ASSURANCE

The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.05 REFERENCES

A. American Society for Testing and Materials (ASTM) Standards: A90/A90M - Test Method for Weight (Mass) of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings. A653/A653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process. A924/A924M - Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process. B6 - Specification for Zinc. B117 - Practice for Operating Salt Spray (Fog) Apparatus. D1499 - Practice for Operating Light- and Water-Exposure Apparatus (Carbon-Arc Type) for Exposure of Plastics. D3359 - Test Methods for Measuring Adhesion by Tape Test. E8/E8M - Test Methods for Tension Testing of Metallic Materials. F567 - Practice for Installation of Chain-Link Fence. F626 - Specification for Fence Fittings. F668 - Specification for Poly (Vinyl Chloride) (PVC)-Coated Steel Chain-Link Fence Fabric. F900 - Specification for Industrial and Commercial Swing Gates. F934 - Specification for Standard Colors for Polymer-Coated Chain Link Fence Materials. F969 - Practice for Construction of Chain-Link Tennis Court Fence. F1043 - Specification for Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework. F1184 - Specification for Industrial and Commercial Horizontal Slide Gates.

B. American Association of State Highway and Transportation Officials (AASHTO) Standards: M181 - Standard Specification for Chain-Link Fence.

C. United States Federal Supply Service General Services Administration Specifications: RR-F-191/3 - Federal Specification Sheet for Fencing, Wire and Post, Metal (Chain-Link Fence Posts, Top Rails and Braces) - Detail Specification.

1.06 SUBMITTAL

The manufacturer's literature shall be submitted prior to installation.

1.07 PRODUCT HANDLING AND STORAGE

Upon receipt at the job site, all materials shall be checked to ensure that no damages occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage and to protect against damage, weather, vandalism and theft.

PART 2 - MATERIALS

2.01 MANUFACTURER

Framework for color chain link fence systems shall conform to Ameristar® PermaCoat® PC-20™ (commercial weight), as manufactured by Ameristar® Fence Products in Tulsa, Oklahoma.

2.02 MATERIAL – STEEL FRAMEWORK

- A. The steel material used to manufacture Ameristar® PermaCoat® PC-20™ shall be zinc-coated steel strip, galvanized by the hot-dip process conforming to the criteria of ASTM A653/A653M and the general requirements of ASTM A924/A924M.
- B. The zinc used in the galvanizing process shall conform to ASTM B6. Weight of zinc shall be determined using the test method described in ASTM A90 and shall conform to the weight range allowance for ASTM A653, Designation G-90.
- C. The framework shall be manufactured in accordance with commercial standards to meet the strength (50,000 psi minimum yield strength) and coating requirements of ASTM F1043, Group IC, Electrical Resistance Welded Round Steel Pipe, light industrial weight.
- D. The exterior surface of the electrical resistance weld shall be recoated with the same type of material and thickness as the basic zinc coating.
- E. The manufactured framework shall be subjected to the PermaCoat® process, a complete thermal stratification coating process (multi-stage, high-temperature, multi-layer) including, as a minimum, a six-stage pretreatment/wash (with zinc phosphate), an electrostatic spray application of an epoxy base, and a separate electrostatic spray application of a polyester finish.
- F. The material used for the base coat shall be a (gray color) thermosetting epoxy; the minimum thickness of the base coat shall be two (2) mils. The material used for the finish coat shall be a thermosetting "no-mar" TGIC polyester powder; the minimum thickness of the finish coat shall be two (2) mils. The stratification coated pipe shall demonstrate the ability to endure a salt-spray resistance test in accordance with ASTM B117 without loss of adhesion for a minimum exposure time of 3,500 hours. Additionally, the coated pipe shall demonstrate the ability to withstand exposure in a weather-ometer apparatus for 1,000 hours without failure in accordance with ASTM D1499 and to show satisfactory adhesion when subjected to the cross-hatch test, Method B, in ASTM D3359. The polyester finish coat shall not crack, blister or split under normal use.
- G. The color of all framework shall be **Black** in accordance with ASTM F934.
- H. The strength of Ameristar® PermaCoat® PC-20™ shall conform to the requirements of ASTM F1043; the minimum weight shall not be less than 90% of the nominal weight (see Table 1). The strength of line, end, corner and pull posts shall be determined by the use of 4' or 6' cantilevered beam test. The top rail shall be determined by a 10' free-supported beam test (see Table 1). An alternative method of determining pipe strength is by the calculation of bending moment (see Table 1). Conformance with this specification can be demonstrated by measuring the yield strength of a randomly selected piece of pipe from each lot and calculating the section modulus. The yield strength shall be determined according to the methods described in ASTM E8. For materials under this specification, the 0.2 offset method shall be used in determining yield strength. Terminal posts, line posts and top/bottom rails shall be precut to specified lengths.

2.03 MATERIAL – FENCE FABRIC

- A. The material for chain link fence fabric shall be manufactured from galvanized steel wire. The weight of zinc shall meet the requirements of ASTM F668, Table 4. Galvanized wire shall be PVC-coated to meet the requirements of ASTM F668. The class of the fence fabric shall be **Class 2A - Extruded and Bonded**.
- B. **Selvage:** Top edge **knuckled** and bottom edge **knuckled**.
- C. **Color:** The coating color for the fence fabric shall be **Black**. Reference ASTM F668 and ASTM F934.
- D. **Wire Size:** The size of the steel wire core shall be **8 gauge**. (See Table 2); the finished size of the coated wire shall be **8 gauge** (See Table 2).

E. Height and Mesh Size: The fabric height shall be 6 (Six) feet high with a mesh size of 2 inches. (See Table 2).

2.04 MATERIAL – FENCE FITTINGS

The material for fence fittings shall be manufactured to meet the requirements of ASTM F626. The coating for all fittings shall be the same PermaCoat® color coating system required for the framework (see 2.02); the color of all fittings and fasteners shall be Black in accordance with ASTM F934. All fasteners shall be stainless steel.

2.05 MATERIAL – GATES

Swing gates shall be manufactured and coated to meet the requirements of ASTM F900. Slide gates shall be manufactured to meet the requirements of ASTM F1184. The color of all gates shall be Black in accordance with ASTM F934.

PART 3 – EXECUTION

3.01 PREPARATION

All new installation shall be laid out by the contractor in accordance with the construction plan.

3.02 INSTALLATION

Install chain link fence in accordance with ASTM F567. For chain link tennis court fences, install in accordance with ASTM F969. Fence posts shall be set at spacings of a maximum of 10' o.c. Gate posts shall be spaced according to the gate openings specified in the construction plans. The "Paving and Surfacing," "Cast-In-Place Concrete" and "Unit Masonry" sections of this specification shall govern post base placement and material requirements. Install fabric on security side and attach with wire ties or clip to line posts at 15 inches o.c. and to rails, braces and tension wire at 24 inches o.c.

3.03 CLEANING

The contractor shall clean the jobsite of excess materials. Post hole excavations shall be scattered uniformly away from posts.

TABLE 1

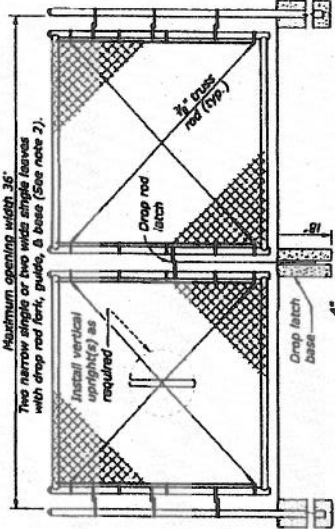
Fence Industry	Decimal O.D. Equivalent		Pipe Wall Thickness		Weight		Section Modulus Inches	x	Min. Yield Strength psi	=	Max. Bending Moment lb. in.	Calculated Load (lbs.)		
	O.D. Inches	(mm)	Inches	(mm)	B./ft.	(kg/m)						10' Free Supported	Centerline	
												4'	6'	
1-3/8"	1.315	33.40	.080	2.03	1.06	1.57	.0800	x	50,000	=	4,500	150	N/A	N/A
1-5/8"	1.680	42.18	.085	2.16	1.43	2.13	.1574	x	50,000	=	7,870	262	164	109
2"	1.900	48.26	.090	2.29	1.74	2.59	.2208	x	50,000	=	11,040	N/A	230	154
2-1/2"	2.375	60.33	.095	2.41	2.32	3.45	.3734	x	50,000	=	18,670	N/A	369	259
3"	2.875	73.03	.111	2.82	3.26	4.85	.6365	x	50,000	=	31,825	N/A	663	442

TABLE 2

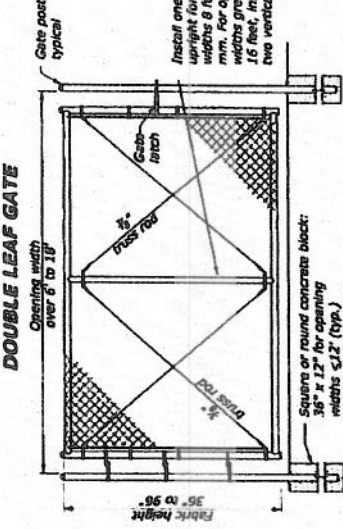
Finished Gauge	Finished OD (MOA)	Core Diameter (MOA)	PVC Coating Thickness	Mesh Sizes Available	Fabric Extrusion Type	Minimum Breaking Strength
8	162 (4 11 mm)	120 (3 05 mm)	015 - 025 (0 38 - 0 34 mm)	2 (50 mm); 1-3/4 (44 mm); 1 (25 mm)	CLASS 1, 2A	650#
9	148 (3 78 mm)	097 (2 46 mm)	015 - 025 (0 38 - 0 34 mm)	2 (50 mm); 1-3/4 (44 mm); 1-1/4 (32 mm); 1 (25 mm)	CLASS 1, 2A	650#

NOTE:

1. Reinforce the gate frame corners with a malleable iron or pressed steel fitting designed for the purpose or shop weld the corners. Grind smooth all welds and paint each gate with the necessary lugs, latch, and drop rod locking device designed for the type of gate posts and gate used on the project. Provide the type of locking device with provisions for adjustment at all gates. Provide leasers to retain the gate in the open position.
2. Approved alternate gate frames constructed of steel sections, other than pipe, may be used.
3. The design of the chain link hardware may vary from the details shown, however, all hardware and materials used in a single installation shall be uniform and compatible.



DOUBLE LEAF GATE



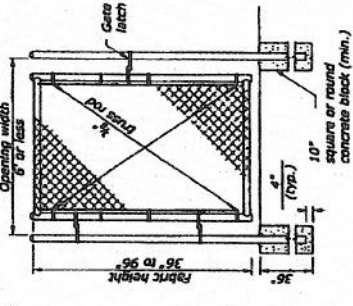
WIDE SINGLE LEAF GATE



POST AND FRAME SIZE AND WEIGHT TABLE	ROUND PIPE		Steel	Aluminum	Steel			
	dia.	lb/ft				dia.	lb/ft	dia.
GATE LEAF WIDTHS	6 feet or less	Gate post	2.875	4.64	2.875	1.94	2.875	4.64
	Over 6 feet to 12 feet	Gate post	4.000	6.65	4.000	2.99	4.000	6.55
Over 12 feet to 18 feet	Gate post	6.625	18.12	---	---	---	---	---
Over 18 feet to 24 feet	Gate post	1.900	2.28	1.900	0.91	1.900	2.28	---
Over 24 feet to 30 feet	Gate post	1.660	1.83	1.660	0.91	1.660	1.84	---

HARDWARE ITEM DESCRIPTION	STANDARD REQUIREMENTS
Brace rail and top rail	See table on Detail E619-09, Sheet 1
Line post	See table on Detail E619-09, Sheet 1
Corner, end and pull posts	See table on Detail E619-09, Sheet 1
Post cap	Cast non-ferrous alloy or galvanized pressed steel cap must fit snugly on post and gate top
Line post cap	Galvanized pressed steel minimum .010" thickness or galvanized malleable ferrous alloy
Tension band	Minimum 1/8" x 1/4" galvanized steel
Brace band	Minimum 1/2" x 1/2" galvanized steel
Band bolt	Minimum 3/4" x 1 1/2" galvanized carriage bolt, (Lock washer & flat washer for each band)
Rail end	Galvanized pressed steel or galvanized malleable ferrous alloy minimum .010" thickness on back bolting appendage
Brace rail end	Galvanized pressed steel or galvanized malleable ferrous alloy minimum .010" thickness on back bolting appendage
Truss rod tightener	Minimum 1/2" formed galvanized steel
Truss rod	1/2" galvanized, ne threaded rod, lock washer, & flat washer with two 90° bends opposite of threaded end
Top rail sleeve	Galvanized steel 0.051" minimum thickness by 6" minimum length
Tension bar	Minimum 3/8" x 1/2" galvanized steel
Fence fabric	2" diamond mesh fabric. See note no. 7 on Detail E619-09, Sheet 1
Tie wires	Minimum 9 gauge aluminum with one hooked end
Coil tension wire	0.177" minimum diameter metallic coated wire
Gate latch	Minimum 1/2" galvanized pressed steel or malleable ferrous alloy, 1 latch per each single gate with bent minimum 1/2" attachment bolt, washer & nut.
Frame hinges	Minimum 1/2" galvanized pressed steel with 2 1/2" U-bolts, lock washer & nuts per hinge. Use 2 hinges per gate leaf up to 6' in width and 3 hinges per gate leaf widths greater than 6'.
Drop rod latch & guide	Minimum 1/2" galvanized pressed steel. Drop rod guide includes 1/2" x 3" carriage bolt with lock washer & nut. Weld drop rod fork to rod & paint with an approved zinc rich paint.

NARROW SINGLE LEAF GATE



U.S. DEPARTMENT OF TRANSPORTATION
EASTERN REGIONAL LABORATORY DIVISION
U.S. CUSTOMARY DETAIL
**CHAIN LINK
HARDWARE AND GATE**
Sheet 1 of 7
DETAIL: GATED VEHICLE
E619-09

NO. SCALE