

**NAVFAC
SPECIFICATION**

**P-171, MASS-1 and
Armories, Interim Facilities**

AMENDMENT NO. 0001

IMPORTANT

This amendment should be acknowledged when your bid is submitted. Failure to acknowledge the amendment may constitute grounds for rejection of the bid.

If your bid has been submitted prior to the receipt of this amendment, acknowledgement should be made by telegram, which should state whether the price contained in your sealed bid is to remain unchanged, is to be decreased by an amount, or is to be increased by an amount. The acknowledgement must be received prior to bid opening time.

2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 6/26/08	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
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6. ISSUED BY CG MCAS Cherry Point FACILITIES, ROICC B-163, CURTIS ROAD PSC BOX 8006 CHERRY POINT, NC 28533	Code N62470	7. ADMINISTERED BY (If other than item 6.)	Code
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) AMENDMENT MUST BE ACKNOWLEDGED WITH YOUR BID	<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION P-171
	<input type="checkbox"/>	9B. DATED (SEE ITEM 11) 6/11/08
	<input type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO.
	<input type="checkbox"/>	10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers is extended is not extended . Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning 1 copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

- A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14. ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
- B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATION CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103 (b).
- C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
- D. OTHER: (specify type of modification and authority)

E. IMPORTANT: Contractor is not is required to sign this document and return **original** to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
P-171, MASS-1 AND ARMORIES, INTERIM FACILITIES, MARINE CORPS AIR STATION, CHERRY POINT, NORTH CAROLINA

This amendment is issued to make the following changes to basic solicitation:

See Continuation Pages

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
15B. CONTRACTOR/OFFEROR (Same as Item 8)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		_____ (Signature of Contracting Officer)	

CONTINUATION SHEET

DOCUMENT 00102N LIST OF DRAWINGS

PART 1.2 CONTRACT DRAWINGS

NAVFAC Drawing Nos. 12517922, 12517926, 12517930, 12517933, 12517934, 12517941, 12517943, 12517944, 12517948, 12517958 and 12517959 are revised as of June 26, 2008. These revised sheets accompany this amendment.

On NAVFAC Dwg. No. 12517936 (CS104)

CHANGE New Work Note 27 to read “Pervious Pavers- See Detail on Sheet CS109, revision 1, dated 06/26/08 included with this amendment

On NAVFAC Dwg. No. 12517938 (CS106)

CHANGE New Work Note 14 to read “Pervious Pavers- See Detail on Sheet CS109, revision 1, dated 06/26/08 included with this amendment.

On NAVFAC Dwg. No. 12517940 (CS108)

CHANGE New Work Note 14 to read “Pervious Pavers- See Detail on Sheet CS109, revision 1, dated 06/26/08 included with this amendment

On NAVFAC Dwg. No. 12517942 (CS110)

CHANGE New Work Note 14 to read “Pervious Pavers- See Detail See Detail on Sheet CS109, revision 1, dated 06/26/08 included with this amendment.

On NAVFAC Dwg. No. 12517948 (CG104)

CHANGE NAVFAC Drawing No. to read “12517947” in title block.

PROJECT TABLE OF CONTENTS

ADD Section 07 84 00 “Firestopping” to the Table of Contents.

DIVISION 01 – GENERAL REQUIREMENTS

SECTION 01 45 02 NAVFAC QUALITY CONTROL

1.5.2 LEED Commissioning Authority

DELETE “LEED” from the title of paragraph 1.5.2.

1.5.5 QC Specialists Duties and Qualifications

DELETE the requirements for Pavement Inspectors for Bituminous Paving and Concrete Paving.

SECTION 01 57 13.00 22 EROSION AND SEDIMENT CONTROL

REPLACE this section in its entirety.

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

SECTION 07 84 00 FIRESTOPPING

Add this section in its entirety.

DIVISION 31 - EARTHWORK

SECTION 31 23 00.00 20 EXCAVATION AND FILL

1.2.2 Degree of Compaction

REPLACE ASTM D 698 with “ASTM D 1557”.

2.9 BURIED WARNING AND IDENTIFICATION TAPE

DELETE “and metallic core or metallic-faced, acid- and alkali-resistant, polyethylene plastic”.

3.15.2.2 Density Tests

REPLACE subparagraph a. with the following:

“a. Bedding and backfill in trenches: One test per every 500 linear feet in unpaved areas and one test per every 100 linear feet in paved areas, in each lift.

DIVISION 33 - UTILITIES

SECTION 33 30 00 SANITARY SEWERS

3.1.1.1 Location

CHANGE the first sentence to read “The work covered by this section shall terminate at a point approximately 5 feet from the building wall unless otherwise indicated.”

3.2.1 Field Tests and Inspections

REPLACE the first sentence with “The Contracting Officer will conduct field inspections and witness field tests specified in this section and in accordance with the minimum criteria of the North Carolina Department of Natural Resources (NCDENR) for gravity sewer and for pump stations and force mains.”

3.2.2.1 Leakage Tests

ADD the following at the end of the first paragraph, “Note that NCDENR requires that the leakage exfiltration or infiltration not exceed 100 gallons per inch diameter per mile per day for any section of the system. An exfiltration or infiltration test shall be performed with the minimum positive head of 2 feet.

CHANGE the first sentence of subparagraph a with the following: “Perform these tests for sewer lines and manholes made of the specified materials, not only concrete, in accordance with ASTM C 969.”

3.2.3 Tests for Pressure Lines

Replace the paragraph with “Test pressure lines in accordance with the North Carolina Department of Natural Resources (NCDENR) Minimum Criteria for pump stations and force mains in paragraph entitled “Force Main Testing”.”

END OF AMENDMENT

SECTION 01 57 13.00 22

EROSION AND SEDIMENT CONTROL

07/06

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

- | | |
|-------------|---|
| ASTM D 3787 | (2001) Bursting Strength of Textiles - Constant-Rate-of-Traverse (CRT), Ball Burst Test |
| ASTM D 4533 | (1991; R 1996) Trapezoid Tearing Strength of Geotextiles |
| ASTM D 4632 | (1991; R 2003) Grab Breaking Load and Elongation of Geotextiles |

NORTH CAROLINA SEDIMENT CONTROL COMMISSION (NCSCC)

- | | |
|------------|--|
| NCSCC ESCM | (1993; revised 2006) Erosion and Sediment Control Planning and Design Manual |
|------------|--|

1.2 DESCRIPTION OF WORK

The work includes the provision of temporary and permanent erosion control measures to prevent the pollution of air, water, and land within the project limits and in areas outside the project limits where work is accomplished in conjunction with the project.

1.3 SUBMITTALS

Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Sequence Schedule; G

SD-03 Product Data

Sediment/Silt Fence

Dust Suppressors

Erosion Control Matting

Filter Fabric

1.4 CONSTRUCTION SEQUENCE SCHEDULE

Submit a Contractor furnished construction work sequence schedule, a minimum of 10 days prior to start of construction. The work schedule shall coordinate the timing of land disturbing activities with the provision of erosion control measures to reduce on site erosion and off site sedimentation. Installation of temporary erosion control features shall be coordinated with the construction of permanent erosion control features to assure effective and continuous control of erosion and pollution.

1.5 STATE APPROVED PLAN

The erosion control plan indicated has been approved by the State. No additional State review and approval of the erosion control plan is required, unless the Contractor desires to modify the erosion control plan indicated. Should the Contractor desire to modify the State approved plan, a resubmittal to the State, including the State's approval is required prior to the start of construction. The contractor shall be responsible for any additional costs and time incurred as a result of the resubmittal of the previously approved erosion control plan. The contractor shall anticipate a minimum 45 day review period by the State. Provide and maintain erosion control measures in accordance with **NCSCC ESCM**, and as specified herein.

PART 2 PRODUCTS

2.1 SEDIMENT/SILT FENCE

2.1.1 State Standard Sediment/Silt Fence

NCSCC ESCM Standard 6.62, sediment/silt fence (maximum height of 18 inches).

2.2 INLET PROTECTION

2.2.1 State Standard Inlet Protection

NCSCC ESCM Standard 6.51, using hardware cloth and gravel.

2.3 CONSTRUCTION ENTRANCE

2.3.1 State Standard Construction Entrance

2.3.1.1 Aggregate

NCSCC ESCM, Standard 6.06.

2.3.1.2 Filter Fabric

A woven or nonwoven polypropylene, nylon, or polyester containing stabilizers and/or inhibitors to make the fabric resistant to deterioration from ultraviolet, and with the following properties:

- a. Minimum grab tensile strength (TF 25 #1/**ASTM D 4632**) 180 pounds
- b. Minimum Puncture (TF 25 #4/**ASTM D 3787**) 75 psi in the weakest direction
- c. Apparent Opening Size 40-80 (U.S. Sieve Size)

- d. Minimum Trapezoidal tear strength (TF 25 #2/[ASTM D 4533](#)) 50 pounds

2.4 DUST SUPPRESSORS

Calcium chloride, or other standard manufacturer's spray on adhesives designed for dust suppression.

2.5 TEMPORARY SEEDING

2.5.1 State Standard Temporary Seeding

Provide seed, lime, fertilizer, and mulch in accordance with [NCSCC ESCM](#), Standards 6.10 and 6.14. Provide straw mulch.

2.6 EROSION CONTROL MATTING

Provide matting in accordance with [NCSCC ESCM](#), Standard 6.14. Jute or excelsior matting that has not been bleached or dyed. Provide matting in minimum 4 feet widths. Staples for anchoring the matting shall be minimum 11 gage wire, formed into a "U" shape with a minimum throat width of one inch and minimum length of 6 inches after forming.

2.6.1 Jute Matting

A uniform open plain weave of single jute yarn providing an average weight of 0.9 pounds per square yard of matting. Yarn shall be of a loosely twisted construction and shall not vary in thickness by more than one-half its normal diameter. Matting shall have openings between strands length wise of 0.45 to 0.75 inch, and between strands crosswise of 0.67 to 1.13 inch.

2.6.2 Excelsior Matting

A machine produced mat of wood excelsior with a minimum of 80 percent of wood fibers 6 inches in length or longer. The matting shall have an average weight of 0.75 to 0.85 pounds per square yard with an even fiber distribution producing a consistent mat thickness, and shall have on one side a woven fabric. The woven fabric shall be twisted paper cord, cotton cord, or an extruded plastic mesh with a minimum mesh size of one by one inch and a maximum mesh size of 1 1/2 by 3 inch.

2.6.3 Straw Matting

A machine produced straw mat with a minimum thickness of 1/2 inch +/- 1/8 inch. The straw shall be evenly distributed throughout the mat to provide a minimum average dry weight of .70 pounds per square yard. The topside of the mat shall be covered with a 3/8 inch biodegradable plastic mesh, with the mesh attached to the straw by a knitting process using biodegradable thread.

PART 3 EXECUTION

3.1 CONSTRUCTION SEQUENCE SCHEDULE

Stabilize areas for construction access immediately with gravel. Install principal sediment basins and traps before any major site grading takes place. Provide additional sediment/silt fences as grading progresses. Provide inlet and outlet protection around existing drainage structures, and inlet and outlet protection at the ends of new drainage systems.

Stabilize graded and disturbed areas immediately after grading. Permanent stabilization shall be provided immediately on areas that have been final graded. Temporary seeding and mulching shall be provided on disturbed areas as specified in the paragraph entitled "Temporary Seeding." Installation of temporary erosion control features shall be coordinated with the construction of permanent erosion control features to assure effective and continuous control of erosion and sediment deposition. **Remove temporary erosion control measures at the end of construction and provide permanent seeding.**

3.2 SEDIMENT/SILT FENCES

Install posts at the spacing indicated, and at an angle between 2 degrees and 20 degrees towards the potential silt load area. Sediment/silt fence height shall be approximately 16 inches. Do not attach filter fabric to existing trees. Secure filter fabric to the post and wire fabric using staples, tie wire, or hog rings. Imbed the filter fabric into the ground as indicated. Splice filter fabric at support pole using a 6 inch overlap and securely seal.

3.3 INLET PROTECTION

Provide stakes evenly spaced around the perimeter of the inlet, a maximum of 3 feet apart. Stakes shall be driven immediately adjacent to the drainage structure, a minimum of 18 inches into the ground. The fabric shall be securely fastened to the outside of the stakes, with the bottom of the fabric placed into a trench and backfilled.

3.4 CONSTRUCTION ENTRANCE

Provide as indicated, a minimum of 6 inches thick, at points of vehicular ingress and egress on the construction site. Construction entrances shall be cleared and grubbed, and then excavated a minimum of 3 inches prior to placement of the filter fabric and aggregate. The aggregate shall be placed in a manner that will prevent damage and movement of the fabric. Place fabric in one piece, where possible. Overlap fabric joints a minimum of 12 inches.

3.5 DUST SUPPRESSORS

Immediately dampen the surface before calcium chloride application. Apply dust suppressors on unsurfaced base, subbase and other unsurfaced travel ways. Apply calcium chloride at the rate of 1.0 to 1.25 pounds per square yard of surface for pellets for the initial application. For subsequent applications of calcium chloride, application rates may be approximately 75 percent of initial application rates. Do not apply when raining or the moisture conditions exceed that required for proper application. Apply other dust suppressors in accordance with manufacturers instructions. Protect treated surfaces from traffic for a minimum of 2 hours after treatment. Repeat application of dust suppressors as required to control dust emissions.

3.6 TEMPORARY SEEDING

3.6.1 Time Restrictions

Within 48 hours after attaining the grading increment specified herein, provide seed, fertilizer, mulch and water on graded areas when any of the following conditions occur:

- a. Grading operations stop for an anticipated duration of 30 days or more.
- b. When it is impossible or impractical to bring an area to finish grade so that permanent seeding operations can be performed without serious disturbance from additional grading.
- c. Grading operations for a specific area are completed and the seeding seasons specified for permanent seeding is more than 30 days away.
- d. When an immediate cover is required to minimize erosion, or when erosion has occurred.
- e. Provide on erosion control devices constructed using soil materials.

3.6.2 Seeding Requirements

3.6.2.1 State Standard Seeding Requirements

Provide seed, lime, fertilizer, and mulch in accordance with **NCSCC ESCM**, Standards 6.10 and 6.14. Provide straw mulch in an air dried condition, and secure mulch in place.

3.6.2.2 Permanent Seeding

Temporary seeding shall be removed, and permanent seeding shall be provided during the specified planting season. Provide seed, lime, fertilizer and mulch in accordance with **NCSCC ESCM**, Standards 6.10 and 6.14.

3.7 EROSION CONTROL MATTING

Place matting in the direction of the flow of water. The up channel matting end shall be toed in a narrow trench a minimum of **5 inches** deep. Where one roll of matting ends and a second roll begins, the end of the upper roll shall be brought over the buried end of the second roll, to provide a **6 inch** overlap. Where matting widths are laid side by side, the overlap between matting shall be **4 inches**. Provide check slots every **50 feet** longitudinally in the matting. Construct check slots by providing a narrow trench **5 inches** deep and folding the matting down in to the trench, across the bottom of the trench, and then back up the trench to the existing ground. Backfill and compact the trench using the excavated material from the trench. Staple matting ends, junctions, and check slots at **10 inches** on center. Staple matting outer edges and overlaps and the center of each matting strip at **3 feet** on center. Install excelsior matting with the woven fabric on top.

3.8 MAINTENANCE AND INSPECTION

Inspect erosion control devices after each rainfall and daily during prolonged rainfall. Remove sediment deposits after each rainfall or when sediment reaches approximately one-half the barrier height. Immediately repair damaged erosion control devices and damaged areas around and underneath the devices. Maintain erosion control devices to assure continued performance of their intended function. Modify the erosion control plan as required to control problem areas noticed after each inspection. Modifications shall be approved by the Contracting Officer.

3.9 CLEAN UP

At the completion of the job, or when directed or approved by the Contracting Officer, temporary erosion control devices shall be removed. Erosion control devices and areas immediately adjacent to the device shall be filled (where applicable), shaped to drain and to blend into the surrounding contours, and provided with permanent seeding. Erosion control devices may remain in place after job completion when approved by the Contracting Officer.

-- End of Section --

SECTION 07 84 00

FIRESTOPPING
04/06

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

- ASTM E 119 (2000a) Fire Tests of Building Construction and Materials
- ASTM E 1399 (1997; R 2000) Cyclic Movement and Measuring the Minimum and Maximum Joint Widths of Architectural Joint Systems
- ASTM E 1966 (2001) Fire-Resistive Joint Systems
- ASTM E 814 (2002) Fire Tests of Through-Penetration Fire Stops
- ASTM E 84 (2006a) Standard Test Method for Surface Burning Characteristics of Building Materials

FM GLOBAL (FM)

- FM AS 4991 (2001) Approval of Firestop Contractors
- FM P7825a (2005) Approval Guide Fire Protection

UNDERWRITERS LABORATORIES (UL)

- UL 1479 (2003) Fire Tests of Through-Penetration Firestops
- UL 2079 (2004) Tests for Fire Resistance of Building Joint Systems
- UL 723 (2003) Test for Surface Burning Characteristics of Building Materials
- UL Fire Resist Dir (2006) Fire Resistance Directory

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Firestopping Materials.

Detail drawings including manufacturer's descriptive data, typical details conforming to **UL Fire Resist Dir** or other details certified by another nationally recognized testing laboratory, installation instructions or UL listing details for a firestopping assembly in lieu of fire-test data or report. For those firestop applications for which no UL tested system is available through a manufacturer, a manufacturer's engineering judgement, derived from similar UL system designs or other tests, shall be submitted for review and approval prior to installation. Submittal shall indicate the firestopping material to be provided for each type of application. When more than a total of 5 penetrations and/or construction joints are to receive firestopping, provide drawings that indicate location, "F" and "T" ratings, and type of application.

SD-07 Certificates

Firestopping Materials.

Certificates attesting that firestopping material complies with the specified requirements. In lieu of certificates, drawings showing UL classified materials as part of a tested assembly may be provided. Drawings showing evidence of testing by an alternate nationally recognized independent laboratory may be substituted.

Installer Qualifications.

Documentation of training and experience.

Inspection.

Manufacturer's representative certification stating that firestopping work has been inspected and found to be applied according to the manufacturer's recommendations and the specified requirements.

1.3 GENERAL REQUIREMENTS

Firestopping shall consist of furnishing and installing tested and listed firestop systems, combination of materials, or devices to form an effective barrier against the spread of flame, smoke and gases, and maintain the integrity of fire resistance rated walls **and** partitions, assemblies, including through-penetrations and construction joints and gaps. Through-penetrations include the annular space around pipes, tubes, conduit, wires, cables and vents. Construction joints include those used to accommodate expansion, contraction, wind, or seismic movement; firestopping material shall not interfere with the required movement of the joint. Gaps requiring firestopping include gaps between the curtain wall and the floor slab and between the top of the fire-rated walls and the roof above.

1.4 DELIVERY AND STORAGE

Materials shall be delivered in the original unopened packages or containers showing name of the manufacturer and the brand name. Materials

shall be stored off the ground and shall be protected from damage and exposure to elements. Damaged or deteriorated materials shall be removed from the site.

1.5 INSTALLER QUALIFICATIONS

The Contractor shall engage an experienced Installer who is:

- a. FM Research approved in accordance with FM AS 4991, or
- b. Certified, licensed, or otherwise qualified by the firestopping manufacturer as having the necessary staff, training, and a minimum of 3 years experience in the installation of manufacturer's products per specified requirements. A manufacturer's willingness to sell its firestopping products to the Contractor or to an installer engaged by the Contractor does not in itself confer qualification on the buyer. The Installer shall have been trained by a direct representative of the manufacturer (not distributor or agent) in the proper selection and installation procedures.

1.6 COORDINATION

The specified work shall be coordinated with other trades. Firestopping materials, at penetrations of pipes and ducts, shall be applied prior to insulating, unless insulation meets requirements specified for firestopping. Firestopping materials at building joints and construction gaps shall be applied prior to completion of enclosing walls or assemblies.

PART 2 PRODUCTS

2.1 FIRESTOPPING MATERIALS

Firestopping materials shall consist of commercially manufactured, asbestos-free, noncombustible products FM P7825a approved, or UL listed, for use with applicable construction and penetrating items, complying with the following minimum requirements:

2.1.1 Fire Hazard Classification

Material shall have a flame spread of 25 or less, and a smoke developed rating of 50 or less, when tested in accordance with ASTM E 84 or UL 723. Material shall be an approved firestopping material as listed in UL Fire Resist Dir or by a nationally recognized testing laboratory.

2.1.2 Toxicity

Material shall be nontoxic to humans at all stages of application or during fire conditions.

2.1.3 Fire Resistance Rating

Firestop systems shall be UL Fire Resist Dir listed or FM P7825a approved with "F" rating at least equal to fire-rating of fire wall in which penetrated openings are to be protected. Firestop systems shall also have "T" rating where required.

2.1.3.1 Through-Penetrations

Firestopping materials for through-penetrations, as described in paragraph

GENERAL REQUIREMENTS, shall provide "F" and "T" fire resistance ratings in accordance with ASTM E 814 or UL 1479. Fire resistance ratings shall be as follows:

- a. Penetrations of Fire Resistance Rated Walls and Partitions: F Rating = Rating of wall or partition being penetrated.

2.1.3.2 Construction Joints and Gaps

Fire resistance ratings of construction joints, as described in paragraph GENERAL REQUIREMENTS, and gaps such as those between floor slabs or roof decks shall be the same as the construction in which they occur. Construction joints and gaps shall be provided with firestopping materials and systems that have been tested per ASTM E 119, ASTM E 1966 or UL 2079 to meet the required fire resistance rating. Systems installed at construction joints shall meet the cycling requirements of ASTM E 1399 or UL 2079.

PART 3 EXECUTION

3.1 PREPARATION

Areas to receive firestopping shall be free of dirt, grease, oil, or loose materials which may affect the fitting or fire resistance of the firestopping system. Surfaces shall be prepared as recommended by the manufacturer.

3.2 INSTALLATION

Firestopping material shall completely fill void spaces regardless of geometric configuration, subject to tolerance established by the manufacturer. Firestopping shall be installed in accordance with manufacturer's written instructions. Tested and listed firestop systems shall be provided in the following locations, except in floor slabs on grade:

- a. Penetrations of duct, conduit, tubing, cable and pipe through fire-resistance rated walls and partitions.
- b. Gaps at perimeter of fire-resistance rated walls and partitions, such as between the top of the walls and the bottom of roof decks.
- c. Construction joints in fire rated walls and partitions.
- d. Other locations where required to maintain fire resistance rating of the construction.

3.2.1 Insulated Pipes and Ducts

Thermal insulation shall be cut and removed where pipes or ducts pass through firestopping, unless insulation meets requirements specified for firestopping. Thermal insulation shall be replaced with a material having equal thermal insulating and firestopping characteristics.

3.2.2 Data and Communication Cabling

Cabling for data and communication applications shall be sealed with

re-enterable firestopping products that do not cure over time. Firestopping shall be modular devices, containing built-in self-sealing intumescent inserts. Firestopping devices shall allow for cable moves, adds or changes without the need to remove or replace any firestop materials.

3.3 INSPECTION

For Navy projects, install one of each type of penetration and have it inspected and accepted by the MIDLANT Division, Naval Facilities Engineering Command, Fire Protection Engineer prior to the installation of the remainder of the penetrations. At this inspection, the manufacturer's technical representative of the firestopping material shall be present. For all projects, the remainder of the firestopped areas shall not be covered or enclosed until inspection is complete and approved by the manufacturer's technical representative. The manufacturer's representative shall inspect the applications initially to ensure adequate preparations (clean surfaces suitable for application, etc.) and periodically during the work to assure that the completed work has been accomplished according to the manufacturer's written instructions and the specified requirements. The Contractor shall submit written reports indicating locations of and types of penetrations and types of firestopping used at each location; type shall be recorded by UL listed printed numbers.

-- End of Section --