NAVFAC
SPECIFICATION

7192513 Replace Roof, MTAC28, WHSE, BLDG 4413

MCAS Cherry Point, NC
AMENDMENT #0001

IMPORTANT

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

If your proposal 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 proposal 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 proposal opening time.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE	OF PAGES
		1	2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
0001	7/28/2022	7192513	

6. ISSUED BY	Code N40085	7. ADMINISTERED BY (If other than item 6.)	Code
CG MCAS Cherry Point FACILITIES, ROICC B-87, 748 Roosevelt Blvd. PSC BOX 8006 CHERRY POINT, NC 28533			

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	☒	9A. AMENDMENT OF SOLICITATION Replace Roof, MTAC28, WHSE, B4413
		9B. DATED (SEE ITEM 11)
AMENDMENT MUST BE ACKNOWLEDGED WITH YOUR PROPOSAL	☐	10A. MODIFICATION OF CONTRACT/ORDER NO.
		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.)

7192513 Replace Roof, MTAC28, WHSE, BLDG 4413, Marine Corps Air Station Cherry Point, NC

Amendment 0001 is being issued to answer pre-award RFI's.

The deadline to submit pre-award RFI's REMAINS 01 August 2022 at 9:00 AM.

The proposal due date of 10 August 2022 at 12:00 PM local time REMAINS unchanged.

See Attached.

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) (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED

RFI Responses:

1. Spec Section 01 14 00-1.3.4 first sentence states the existing building is not occupied. During the pre-Bid Site Visit on July 25, 2022, it was observed that Building 4413 is occupied is in use as a warehouse and occupants have expectation they are going to remain. Question: Will the building be emptied prior to the work being performed?
   Response:
   Submit Proposals in accordance with RFP, Specifications, Drawings, and all Amendments.

2. Spec Section 01 14 00-1.3.4 third paragraph requires protective dust covers or protective enclosures to protect existing work and Government materials located in the building. Question: Will the Government materials be removed during the construction period (see prior question)? If they are to remain, what is the estimated quantity of Government materials?
   Response:
   Submit Proposals in accordance with RFP, Specifications, Drawings, and all Amendments.

3. During the pre-Bid Site Visit on July 25, 2022, it was observed that Building 4413 has a screwed down roof. Scope of work requires it to be removed and install a new standing seam roof. A PEMB typically uses the screwed down roof panels as diaphragm bracing and reduced the design load the rod bracing must support. A SSR does not provide diaphragm bracing. Question: Was the wind rod bracing to remain in the roof plane evaluated by Facilities Engineering and determined to be adequate for the SSR system?
   Response:
   See Specification 13 49 19 revised 28 July 2022. Submit Proposals in accordance with RFP, Specifications, Drawings, and all Amendments.

4. During the pre-Bid Site Visit on July 25, 2022, it was observed that BLDG 4413 is constructed of multiple PEMB systems joined at the roof and walls. With the ATC ceiling in place the roof purlin arrangement could not be observed. Question(s): Are as-built drawings available?
   Response:
   Submit Proposals in accordance with RFP, Specifications, Drawings, and all Amendments.

5. During the pre-Bid Site Visit on July 25, 2022, it was observed that BLDG 4413 is constructed of multiple PEMB systems joined at the roof and walls. With the ATC ceiling in place the roof purlin arrangement could not be observed. Question(s): Are as-built drawings available?
   Response:
   Submit Proposals in accordance with RFP, Specifications, Drawings, and all Amendments.

6. The required design loading noted in Specification Section 13 34 19-1.6.3.a thru f is not provided in the bid documents. What are the design load requirements?
   Response:

See Specification 13 49 19 revised 28 July 2022. Submit Proposals in accordance with RFP, Specifications, Drawings, and all Amendments.

CONTINUATION SHEET

PROJECT TABLE OF CONTENTS
SECTION 13 49 19, METAL BUILDING SYSTEMS is deleted and 13 49 19, METAL BUILDING SYSTEMS, dated 7/28/2022, as shown in the footer, is added to the Project Table of Contents and accompanies this Amendment.

SECTION 13 34 19

METAL BUILDING SYSTEMS
08/20, CHG 1: 02/21

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.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC 325	(2017) Steel Construction Manual
AISC 360	(2016) Specification for Structural Steel Buildings

AMERICAN IRON AND STEEL INSTITUTE (AISI)

AISC/AISI 121	(2007) Standard Definitions for Use in the Design of Steel Structures
AISI D100	(2017) Cold-Formed Steel Design Manual

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

ASCE 7-16	(2017; Errata 2018; Supp 1 2018) Minimum Design Loads and Associated Criteria for Buildings and Other Structures

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

ASHRAE 90.1 - IP	(2013) Energy Standard for Buildings Except Low-Rise Residential Buildings
ASHRAE 90.1 - SI	(2013) Energy Standard for Buildings Except Low-Rise Residential Buildings

AMERICAN WELDING SOCIETY (AWS)

AWS A5.1/A5.1M	(2012) Specification for Carbon Steel Electrodes for Shielded Metal Arc Welding
AWS D1.1/D1.1M	(2020; Errata 1 2021) Structural Welding Code - Steel
AWS D1.3/D1.3M	(2018) Structural Welding Code - Sheet Steel

ASTM INTERNATIONAL (ASTM)

ASTM A653/A653M	(2020) Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by

	the Hot-Dip Process
ASTM A780/A780M	(2020) Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
ASTM A792/A792M	(2021a) Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process
ASTM B117	(2019) Standard Practice for Operating Salt Spray (Fog) Apparatus
ASTM B209	(2014) Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
ASTM C518	(2021) Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
ASTM C665	(2017) Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing
ASTM C920	(2018) Standard Specification for Elastomeric Joint Sealants
ASTM C1363	(2019) Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus
ASTM D522/D522M	(2017) Mandrel Bend Test of Attached Organic Coatings
ASTM D523	(2014; R 2018) Standard Test Method for Specular Gloss
ASTM D714	(2002; R 2017) Standard Test Method for Evaluating Degree of Blistering of Paints
ASTM D822	(2013; R 2018) Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings
ASTM D968	(2017) Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
ASTM D1056	(2020) Standard Specification for Flexible Cellular Materials - Sponge or Expanded Rubber
ASTM D1308	(2002; R 2013) Effect of Household Chemicals on Clear and Pigmented Organic Finishes

ASTM D1667	(2017) Standard Specification for Flexible Cellular Materials - Poly (Vinyl Chloride) Foam (Closed-Cell)
ASTM D2244	(2016) Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
ASTM D2247	(2015) Testing Water Resistance of Coatings in 100% Relative Humidity
ASTM D2794	(1993; R 2019) Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
ASTM D3363	(2005; E 2011; R 2011; E 2012) Film Hardness by Pencil Test
ASTM D4214	(2007; R 2015) Standard Test Method for Evaluating the Degree of Chalking of Exterior Paint Films
ASTM D5359	(2015) Standard Specification for Glass Cullet Recovered from Waste for Use in Manufacture of Glass Fiber
ASTM DEFONLINE	(2008) ASTM Online Dictionary of Engineering Science and Technology
ASTM E84	(2020) Standard Test Method for Surface Burning Characteristics of Building Materials
ASTM E119	(2020) Standard Test Methods for Fire Tests of Building Construction and Materials
ASTM E136	(2019a) Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750 Degrees C
ASTM E1592	(2017) Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference
ASTM E1646	(1995; R 2018) Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Air Pressure Difference
ASTM E1680	(2016) Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems
ASTM G152	(2013; R 2021) Standard Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic

	Materials
ASTM G153	(2013; R 2021) Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials

METAL BUILDING MANUFACTURERS ASSOCIATION (MBMA)

MBMA MBSM	(2018) Metal Building Systems Manual

NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)

NAAMM AMP 500	(2006) Metal Finishes Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80	(2022) Standard for Fire Doors and Other Opening Protectives
NFPA 252	(2022) Standard Methods of Fire Tests of Door Assemblies

NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)

NRCA RoofMan	(2020) The NRCA Roofing Manual

SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)

SMACNA 1793	(2012) Architectural Sheet Metal Manual, 7th Edition

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2014) Safety -- Safety and Health Requirements Manual

U.S. DEPARTMENT OF DEFENSE (DOD)

UFC 3-301-01	(2019) Structural Engineering

UNDERWRITERS LABORATORIES (UL)

UL Bld Mat Dir	(updated continuously online) Building Materials Directory

1.2 GENERAL REQUIREMENTS

1.2.1 Design Parameters

Design and construct pre-engineered metal buildings of size, shape, height, fenestration, siting, and configuration indicated. Coordinate site utility services, accessibility requirements, vehicular and pedestrian access, mechanical, electrical, plumbing and fire protection requirements, interior construction and finishes, and such other items as may be necessary for a complete, functional building.

1.2.2 Structural Performance

Provide metal building systems capable of withstanding the effects of gravity loads and the following loads and stresses within the limits and conditions indicated.

1.2.2.1 Engineering

Design metal building systems conforming to procedures described in MBMA MBSM.

1.2.2.2 Design Loads

Design and construct to the requirements of UFC 3-301-01, Structural Engineering.

1.2.3 Thermal Performance

Provide insulated metal panel assemblies with the following maximum U-factors when assemblies are tested or calculated according to ASHRAE 90.1 - SI ASHRAE 90.1 - IP Appendix A, and minimum R-values for opaque elements when tested according to ASTM C1363 or ASTM C518.

1.2.3.1 Metal Roof Panel Assemblies

a. U-Factor: 0.079

b. R-Value: R-19

1.2.4 Air Infiltration for Metal Roof Panels

Air leakage through assembly must not exceed 0.04 cfm/sq.ft. of roof area when lab tested according to ASTM E1680 at negative test-pressure difference of 1.57 lb/sq.ft..

1.2.5 Water Penetration for Metal Roof Panels

No water penetration when tested according to ASTM E1646 at test-pressure difference of 2.86 lbf/sq.ft..

1.2.6 Specular Gloss

Finished roof surfaces to have a specular gloss value of 30 plus or minus 5 at an angle of 60 degrees when measured in accordance with ASTM D523.

1.2.7 Wind-Uplift Resistance

Design for wind-uplift resistance in accordance with UFC 3-301-01.

1.2.8 Erection Plan

Provide plans and a written erection/lifting procedure with required plans clearly showing the intended sequence and method of erection in accordance with EM 385-1-1 "Safety - Safety and Health Requirements". Indicate required crane lifting requirements, temporary support structures, member size and locations of braced or guyed temporary supports, and locations of bracing or guys anchor points. Clearly define the required framing sequence and conditions necessary to ensure the structure is maintained in a properly braced and stable condition throughout the complete erection

process.

1.3 DEFINITIONS

a. Bay: Dimension between main frames measured normal to frame (at centerline of frame) for interior bays, and dimension from centerline of first interior main frame measured normal to end wall (outside face of end-wall girt) for end bays.

b. Clear Span: Distance between supports of beams, girders, or trusses (measured from lowest level of connecting area of a column and a rafter frame or knee).

c. Eave Height: Vertical dimension from finished floor to eave (the line along the sidewall formed by intersection of the planes of the roof and wall).

d. Terminology Standard: Refer to MBMA "Metal Building Systems Manual" for definitions of terms for metal building system construction not otherwise defined in this Section or in referenced standards.

1.4 SYSTEM DESCRIPTION

General: Provide a complete, integrated set of metal building system manufacturer's standard mutually dependent components and assemblies that form a metal building system capable of withstanding structural and other loads, thermally induced movement, and exposure to weather without failure or infiltration of water into building interior. Include metal roof panels and accessories complying with requirements indicated.

Provide metal building system of size and with spacing, slopes, and spans indicated.

1.4.1 Roof System

Provide manufacturer's standard vertical-rib, standing-seam metal roof panels with insulation.

1.5 SUBMITTALS

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

SD-01 Preconstruction Submittals

Manufacturer's Qualifications

SD-02 Shop Drawings

Detail Drawings

Erection Plan

SD-03 Product Data

Manufacturer's Catalog Data

Recycled Content for Steel Sheet Materials

Recycled Content for Insulation Materials

SD-04 Samples

Coil Stock, 12 inches long by the actual panel width

Roof Panels, 12 inches long by actual panel width

Fasteners

Metal Closure Strips 10 inches long of each type

Insulation, approximately 8 by 11 inches

Vapor Barrier

Manufacturer's Color Charts and Chips, 4 by 4 inches

SD-05 Design Data

Manufacturer's Descriptive and Technical Literature

Manufacturer's Building Design Analysis

Lateral Force Calculations

SD-06 Test Reports

Test Reports

Coatings and Base Metals

Factory Color Finish Performance Requirements

SD-07 Certificates

System Components

Enamel Repair Paint

Qualification of Manufacturer

Qualification of Erector

SD-08 Manufacturer's Instructions

Installation of Roof panels

Shipping, Handling, and Storage

SD-11 Closeout Submittals

Manufacturer's Warranty

Contractor's Warranty for Installation

1.6 QUALITY ASSURANCE

1.6.1 Pre-Erection Conference

After submittals are received and approved but before metal building system work, including associated work, is performed, the Contracting Officer will hold a pre-erection conference to review the following:

a. The detail drawings, specifications, and manufacturer's descriptive and technical literature.

b. Finalize construction schedule and verify availability of materials, erector's personnel, equipment, and facilities needed to make progress and avoid delays.

c. Methods and procedures related to metal building system erection, including, but not limited to: qualification of manufacturer, qualification of erector, manufacturer's catalog data, manufacturer's building design analysis,lateral force calculations, written instructions and test reports. Lateral force calculations must include all analysis and confirmation of system components required to transfer lateral forces to the foundation.

d. Support conditions for compliance with requirements, including alignment between and erection of structural members.

e. Flashing, special roofing and siding details, roof and wall penetrations, openings, and condition of other construction that will affect the metal building system, including coatings and base metals, factory color finish performance requirements, system components, and coil stock certificates.

f. Governing regulations and requirements for, certificates, insurance, tests and inspections if applicable.

g. Temporary protection requirements for metal panel assembly during and after installation.

h. Samples of roof panels and enamel repair paint.

1.6.1.1 Pre-Roofing and Siding Installation Conference

After structural framing system erection and approval but before roofing, siding, insulation and vapor barrier work, including associated work, is performed; the Contracting Officer will hold a pre-roofing and siding conference to review the following:

a. Examine purlins, sub-girts and formed shapes conditions for compliance with requirements, including flatness and attachment to structural members.

b. Review structural limitations of purlins, sub-girts and formed shapes during construction and after roofing and siding.

c. Review flashings, special roof and wall details, roof drainage, roof and wall penetrations, roof equipment curbs, and condition of other construction that will affect the metal building system.

d. Review temporary protection requirements for metal roof and wall

panels' assembly during and after installation.

e. Review roof and wall observation and repair procedures after metal building system erection.

1.6.2 Manufacturer's Technical Representative

The representative must have authorization from manufacturer to approve field changes and be thoroughly familiar with the products, erection of structural framing and installation of roof and wall panels in the geographical area where construction will take place.

1.6.3 Manufacturer's Qualifications

Metal building system manufacturer must have a minimum of five years experience as a qualified manufacturer and a member of MBMA of metal building systems and accessory products.

Delegated Design

Submit a DELEGATED DESIGN with sealed calculations and shop drawings prepared by a North Carolina registered professional engineer, having a minimum of four years experience as an engineer knowledgeable in building design analysis, protocols and procedures for the "Metal Building Systems Manual" (MBMA MBSM); ASCE 7-16, the building code in the geographic area where the construction will take place and ASTM E1592. Furnish metal roof system that resist uplift, gravitational, and lateral loads. Assembly design responsibility is delegated to the Contractor and incorporates specific properties and structural capabilities of selected products and manufacturers. Provide certified engineering calculations using the products submitted for:

a. Roof and Wall Wind Loads with basic wind speed, exposure category, co-efficient, importance factor, designate type of facility, negative pressures for each zone, methods and requirements of attachment.

b. Roof Dead and Live Loads

c. Roof Snow Load

d. Seismic Loads

1.6.4 Qualification of Erection Contractor

An experienced erector who has specialized in erecting and installing work similar in material, design, and extent to that indicated for this Project and must be approved and certified by the metal building system manufacturer.

1.6.5 Single Source

Obtain primary and secondary components and structural framing members, each type of metal roof, wall and liner panel assemblies, clips, closures and other accessories from the standard products of the single source from a single manufacturer to operate as a complete system for the intended use.

1.6.6 Welding

Qualify procedures and personnel according to AWS A5.1/A5.1M, AWS D1.1/D1.1M,

and AWS D1.3/D1.3M.

1.6.7 Structural Steel

Comply with AISC 325, AISC 360, for design requirements and allowable stresses.

1.6.8 Cold-Formed Steel

Comply with AISC/AISI 121 and AISI D100 for design requirements and allowable stresses.

1.6.9 Fire-Resistance Ratings

Where indicated, provide metal panels identical to those of assemblies tested for fire resistance in accordance with ASTM E119, as certified by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

Indicate design designations from UL Bld Mat Dir or from the listings of another qualified testing agency. Combustion Characteristics must conform to ASTM E136.

1.6.10 Surface-Burning Characteristics

Provide metal panels having insulation and vapor barrier material with the following surface-burning characteristics as determined by testing identical products according to ASTM E84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency showing:

a. Flame-Spread Index: 25 or less.

b. Smoke-Developed Index: 450 or less.

1.6.11 Fabrication

Fabricate and finish metal panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes and as necessary to fulfill indicated performance requirements. Comply with indicated profiles with dimensional and structural requirements. Provide metal panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel. Aluminum and aluminum-alloy sheet and plate must conform to ASTM B209. Fabricate metal panel side laps with factory-installed captive gaskets or separator strips that provide a tight seal and prevent metal-to-metal contact, in a manner that will seal weather-tight and minimize noise from movements within panel assembly.

Sheet Metal Accessories: Fabricate flashing and trim to comply with recommendations in SMACNA 1793 that apply to the design, dimensions, metal, and other characteristics of item indicated:

a. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.

b. End Seams: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.

c. Sealed Joints: Form non-expansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA standards.

d. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.

e. Fabricate cleats and attachment devices of size and metal thickness recommended by SMACNA or by metal building system manufacturer for application, but not less than thickness of metal being secured.

1.6.12 Finishes

Comply with NAAMM AMP 500 for recommendations for applying and designating finishes.

Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

1.7 SHIPPING, HANDLING AND STORAGE

1.7.1 Delivery

Package and deliver components, sheets, metal panels, and other manufactured items so as not to be damaged or deformed and protected during transportation and handling.

1.7.2 Storage

Stack and store metal panels horizontally on platforms or pallets, covered with suitable weather-tight and ventilated covering to ensure dryness, with positive slope for drainage of water. Store in a manner to prevent bending, warping, twisting, and surface damage. Do not store metal wall panels in contact with other materials that might cause staining, denting, or other surface damage. Retain strippable protective covering on metal panel for entire period up to metal panel installation.

1.7.3 Protection of Materials

Protect foam-plastic insulation as follows:

a. Do not expose to sunlight, except to extent necessary for period of installation and concealment.

b. Protect against ignition at all times. Do not deliver foam-plastic insulation materials to project site before installation time.

Complete installation and concealment of plastic materials as rapidly as possible in each area of construction to minimize ultraviolet exposure.

1.8 PROJECT CONDITIONS

1.8.1 Weather Limitations

Proceed with installation preparation only when existing and forecasted weather conditions permit Work to proceed without water entering into existing panel system or building.

1.8.2 Field Measurements

1.8.2.1 Established Dimensions for Foundations

Comply with established dimensions on approved anchor-bolt plans, established foundation dimensions, and proceed with fabricating structural framing. Do not proceed without verifying field measurements. Coordinate anchor-bolt installation to ensure that actual anchorage dimensions correspond to established dimensions.

1.8.2.2 Established Dimensions for Metal Panels

Where field measurements cannot be made without delaying the Work, either establish framing and opening dimensions and proceed with fabricating metal panels without field measurements, or allow for field trimming metal panels. Coordinate construction to ensure that actual building dimensions, locations of structural members, and openings correspond to established dimensions.

1.8.2.3 Verification Record

Verify locations of all framing and opening dimensions by field measurements before metal panel fabrication and indicate measurements on Shop Drawings.

1.9 COORDINATION

Coordinate final design and placement of foundation between structural engineer of record, geotechnical engineer, MBMA and Contractor. Coordinate size and location of concrete foundations and casting of anchor-bolt inserts into foundation walls and footings. Concrete, reinforcement, and formwork requirements are specified in section on CAST-IN-PLACE CONCRETE.

Coordinate installation of roof penetrations, which are specified in Division 07 - THERMAL AND MOISTURE PROTECTION.

Coordinate metal panel assemblies with rain drainage work, flashing, trim, and construction of supports and other adjoining work to provide a leak-proof, secure, and non-corrosive installation.

1.10 WARRANTY

1.10.1 Roof System Weather-Tightness Warranty

Furnish manufacturer's no-dollar-limit warranty for the metal panel system. The warranty period is to be no less than 20 years from the date of acceptance of the work and be issued directly to the Government.

The warranty is to provide that if within the warranty period the roof panel system shows evidence of corrosion, perforation, rupture, lost of weather-tightness or excess weathering due to deterioration of the panel system resulting from defective materials and correction of the defective workmanship is to be the responsibility of the metal building system manufacturer.

Repairs that become necessary because of defective materials and workmanship while roof panel system is under warranty are to be performed within 24 hours after notification, unless additional time is approved by

the Contracting Officer. Failure to perform repairs within 24 hours of notification will constitute grounds for having emergency repairs performed by others and not void the warranty. Immediate follow-up and completion of permanent repairs must be performed within 5 days from date of notification.

1.10.2 Roof and Wall Panel Finish Warranty

Furnish manufacturer's no-dollar-limit warranty for the metal panel system. The warranty period is to be no less than 20 years from the date of acceptance of the work and be issued directly to the Government.

The warranty is to provide that if within the warranty period the metal panel system shows evidence of checking, delaminating cracking, peeling, chalk in excess of a numerical rating of eight, as determined by ASTM D4214 test procedures; or change colors in excess of five CIE or Hunter units in accordance with ASTM D2244 or excess weathering due to deterioration of the panel system resulting from defective materials and finish or correction of the defective workmanship is to be the responsibility of the metal building system manufacturer.

Liability under this warranty is exclusively limited to replacing the defective coated materials.

Repairs that become necessary because of defective materials and workmanship while roof and wall panel system is under warranty are to be performed within 32 hours after notification, unless additional time is approved by the Contracting Officer. Failure to perform repairs within 32 hours of notification will constitute grounds for having emergency repairs performed by others and not void the warranty.

PART 2 PRODUCTS

2.1 PANEL MATERIALS

2.1.1 Steel Sheet

Roll-form steel roof panels to the specified profile, with fy = 20 gauge and depth as indicated. Steel sheets must contain a minimum recycled content of 25 percent. Provide data identifying percentage of recycled content for steel sheet materials. Material must be plumb and true, and within the tolerances listed:

b. Aluminum-Zinc Alloy-coated Steel Sheet conforming to ASTM A792/A792M and AISI D100.

c. Individual panels to have continuous length to cover the entire length of any unbroken roof slope with no joints or seams and formed without warping, waviness, or ripples that are not part of the panel profile and free of damage to the finish coating system.

d. Provide panels with thermal expansion and contraction consistent with the type of system specified;

profile and coverage to be a minimum height and width from manufacturer's standard for the indicated roof slope.

2.1.2 Finish

All panels are to receive a factory-applied polyvinylidene fluoride of

Kynar 500/Hylar 5000 finish consisting of a baked-on top-coat with a manufacturer's recommended prime coat conforming to the following:

a. Metal Preparation: All metal is to have the surfaces carefully prepared for painting on a continuous process coil coating line by alkali cleaning, hot water rinsing, application of chemical conversion coating, cold water rinsing, sealing with acid rinse, and thorough drying.

b. Prime Coating: A base coat of epoxy paint, specifically formulated to interact with the top-coat, is to be applied to the prepared surfaces by roll coating to a dry film thickness of 0.20 plus 0.05 mils. This prime coat must be oven cured prior to application of finish coat.

c. Exterior Finish Coating: Apply the finish coating over the primer by roll coating to dry film thickness of 0.80 plus 0.05 mils for a total dry film thickness of 1.00 plus 0.10 mils. This finish coat must be oven-cured.

d. Interior Finish Coating: Apply a wash-coat on the reverse side over the primer by roll coating to a dry film thickness of 0.30 plus 0.05 mils for a total dry film thickness of 0.50 plus 0.10 mils. The wash-coat must be oven-cured.

e. Color: The exterior finish chosen from the manufacturer's color charts and chips.

f. Physical Properties: Coating must conform to the industry and manufacturer's standard performance criteria as listed by the following certified test reports:

Chalking: ASTM DEFONLINE
Color Change and Conformity: ASTM D2244
Weatherometer: ASTM G152, ASTM G153 and ASTM D822
Humidity: ASTM D2247 and ASTM D714
Salt Spray: ASTM B117
Chemical Pollution: ASTM D1308
Gloss at 60 degrees: ASTM D523
Pencil Hardness: ASTM D3363
Reverse Impact: ASTM D2794
Flexibility: ASTM D522/D522M
Abrasion: ASTM D968
Flame Spread: ASTM E84

2.1.3 Repair Of Finish Protection

Repair paint for enameled metal panel must be compatible paint of the same formula and color as the specified finish furnished by the metal panel manufacturer, conforming to ASTM A780/A780M.

2.2 FASTENERS

2.2.1 General

Type, material, corrosion resistance, size and sufficient length to penetrate the supporting member a minimum of 1 inch with other properties required to fasten miscellaneous metal framing members to substrates in accordance with the metal panel manufacturer's and ASCE 7-16 requirements.

2.2.2 Exposed Fasteners

Fasteners for metal panels to be corrosion resistant coated steel, aluminum, stainless steel, or nylon capped steel compatible with the sheet panel or flashing and of a type and size recommended by the manufacturer to meet the performance requirements and design loads. Fasteners for accessories to be the manufacturer's standard. Provide an integral metal washer matching the color of attached material with compressible sealing EPDM gasket approximately 3/32 inch thick.

2.2.3 Screws

Screws to be corrosion resistant coated steel, aluminum or stainless steel being the type and size recommended by the manufacturer to meet the performance requirements.

2.2.4 Rivets

Rivets to be closed-end type, corrosion resistant coated steel, aluminum or stainless steel where watertight connections are required.

2.2.5 Attachment Clips

Fabricate clips from steel hot-dipped galvanized in accordance with ASTM A653/A653M or Series 300 stainless steel. Size, shape, thickness and capacity as required meeting the insulation thickness and design load criteria specified.

2.3 FRAMES AND MATERIALS FOR OPENINGS

2.3.1 Doors

Fire-Rated and Non-Fire-Rated Door Assemblies conforming with NFPA 80 and based on testing according to NFPA 252 as specified in Division 08 - OPENINGS unless otherwise indicated.

2.4 ACCESSORIES

2.4.1 General

All accessories to be compatible with the metal panels; sheet metal flashing, trim, metal closure strips, caps and similar metal accessories must not be less than the minimum thickness specified for the metal panels. Exposed metal accessories/finishes to match the panels, except as otherwise indicated. Molded foam rib, ridge and other closure strips to be non-absorbent closed-cell or solid-cell synthetic rubber or pre-molded neoprene to match configuration of the panels.

2.4.2 Roof and Wall Accessories and Specialties

Galvanized Steel roof curbs, equipment supports, roof hatches, dropout-type heat and smoke vents, hatch-type heat and smoke vents, gravity and roof ridge ventilators, wall louvers and other miscellaneous roof and wall equipment or penetrations conforming to AAMA, ASTM, and UL as specified in Division 07 unless otherwise indicated.

2.4.3 Insulation

Faced, Glass-Fiber Blanket Insulation: ASTM C665, Type II, blankets with

non-reflecting coverings; Class A, membrane-faced surface with a flame spread of 25 or less and a smoke developed rating of 150 or less when tested in accordance with ASTM E84. Provide insulation materials containing the following minimum percentage of recycled content by weight: 20 percent glass cullet complying with ASTM D5359. Provide data identifying percentage of recycled content for insulation materials.

2.4.3.1 Polyethylene Vapor Retarder

Install polyethylene vapor retarder membrane over entire roof surface. Use fully compatible polyethylene tape to seal the edges of the sheets to provide a vapor tight membrane. Lap sheets not less than 6 inch. Provide sufficient material to avoid inducing stresses in sheets due to stretching or binding. All tears or punctures visible in the finished surface, at any time during the construction process, must be sealed with polyethylene tape.

2.4.4 Rubber Closure Strips

Closed-cell, expanded cellular rubber conforming to ASTM D1056 and ASTM D1667; extruded or molded to the configuration of the specified metal panel and in lengths supplied by the metal panel manufacturer.

2.4.5 Metal Closure Strips

Factory fabricated closure strips to be the same material, thickness, color, finish and profile of the specified roof panel.

2.4.6 2.6.6 Joint Sealants

2.4.6.1 Sealants

Sealants are to be an approved gun type for use in hand or air-pressure caulking guns at temperatures above 40 degrees F(or frost-free application at temperatures above 10 degrees F with minimum solid content of 85 percent of the total volume. Sealant is to dry with a tough, durable surface skin which permits it to remain soft and pliable underneath, providing a weather-tight joint. No migratory staining is permitted on painted or unpainted metal, stone, glass, vinyl, or wood.

Prime all joints to receive sealants with a compatible one-component or two-component primer as recommended by the metal panel manufacturer.

2.4.6.2 Shop-Applied

Sealant for shop-applied caulking must be an approved gun grade, non-sag one component polysulfide or silicone conforming to ASTM C920, Type II, and with a curing time to ensure the sealant's plasticity at the time of field erection.

2.4.6.3 Field-Applied

See Section 07 92 00 JOINT SEALANTS for sealant requirements.

2.4.6.4 Tape Sealant

Pressure sensitive, 100 percent solid with a release paper backing; permanently elastic, non-sagging, non-toxic and non-staining as approved by the metal panel manufacturer.

2.5 SHEET METAL FLASHING AND TRIM

2.5.1 Fabrication

Shop fabricate sheet metal flashing and trim where practicable to comply with recommendations in SMACNA 1793 that apply to design, dimensions, metal, and other characteristics of item indicated. Obtain field measurements for accurate fit before shop fabrication.

Fabricate sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.

2.6 FINISHES

2.6.1 General

Comply with NAAMM AMP 500 for recommendations for applying and designating finishes.

2.6.2 Appearance of Finished Work

Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 EXECUTION

3.1 EXAMINATION

Before erection proceeds, examine with the erector present, the concrete foundation dimensions, concrete and masonry bearing surfaces, anchor bolt size and placement, survey slab elevation, locations of bearing plates, and other embedments to receive structural framing with the metal building manufacturer's templates and drawings before erecting any steel components for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

Examine primary and secondary framing to verify that rafters, purlins, angles, channels, and other structural and metal panel support members and anchorages have been installed within alignment tolerances required by metal building manufacturer, UL, ASTM, ASCE 7-16 and as required by the building code for the geographical area where construction will take place.

Examine roughing-in for components and systems penetrating metal roof or wall panels to verify actual locations of penetrations relative to seam locations of metal panels before metal roof or wall panel installation.

Submit to the Contracting Officer a written report, endorsed by Erector, listing conditions detrimental to performance of the Work.

Proceed with erection only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

Provide temporary shoring, guys, braces, and other supports during erection

to keep the structural framing secure, plumb, and in alignment against temporary construction loading or loads equal in intensity of the building design loads. Remove temporary support systems when permanent structural framing, connections, and bracing are in place, unless otherwise indicated.

Clean substrates of substances harmful to insulation, including removing projections capable of interfering with insulation attachment and performance.

Miscellaneous Framing: Install sub-purlins, girts, angles, furring, and other miscellaneous support members or anchorage for the metal roof or wall panels, doors, windows, roof curbs, ventilators and louvers according to metal building manufacturer's written instructions.

3.3 ROOF PANEL INSTALLATION

Provide metal roof panels of full length from eave to ridge or eave to wall as indicated, unless otherwise indicated or restricted by shipping limitations. Anchor metal roof panels and other components of the Work securely in place in accordance with NRCA RoofMan and MBMA MBSM.

Erect roofing system in accordance with the approved erection drawings, the printed instructions and safety precautions of the metal building manufacturer.

Sheets are not to be subjected to overloading, abuse, or undue impact. Do not install bent, chipped, or defective sheets.

Sheets must be erected true and plumb and in exact alignment with the horizontal and vertical edges of the building, securely anchored, and with the indicated rake and eave overhang.

Work must allow for thermal movement of the roofing, movement of the building structure, and provide permanent freedom from noise due to wind pressure.

Field cutting metal roof panels by torch is not permitted.

Roofing sheets must be laid with corrugations in the direction of the roof slope. End laps of exterior roofing must not be less than 8 inches; the side laps of standard exterior corrugated sheets must be not less than 2-1/2 corrugations.

Do not permit storage, walking, wheeling, or trucking directly on applied roofing materials. Provide temporary walkways, runways, and platforms of smooth clean boards or planks as necessary to avoid damage to the installed roofing materials, and to distribute weight to conform to the indicated live load limits of roof construction.

3.4 METAL PANEL FASTENER INSTALLATION

Anchor metal panels and other components of the Work securely in place, using manufacturer's approved fasteners according to manufacturers' written instructions.

3.5 FLASHING, TRIM AND CLOSURE INSTALLATION

a. Comply with performance requirements, manufacturer's written installation instructions, and SMACNA 1793. Provide concealed

fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

b. Sheet metalwork is to be accomplished to form weather-tight construction without waves, warps, buckles, fastening stresses or distortion, and allow for expansion and contraction. Cutting, fitting, drilling, and other operations in connection with sheet metal required to accommodate the work of other trades is to be performed by sheet metal mechanics.

3.6 ACCESSORY INSTALLATION

3.6.1 General

Install accessories with positive anchorage to building and weather-tight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.

3.6.2 Dissimilar Metals

Where dissimilar metals contact one another or corrosive substrates are present, protect against galvanic action by painting dissimilar metal surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each surface, or by other permanent separation techniques as recommended by the metal building manufacturer.

3.6.3 Gutters and Downspouts

Comply with performance requirements, manufacturer's written installation instructions, and install sheet metal roof drainage items to produce complete roof drainage system according to SMACNA 1793 recommendations and as indicated. Coordinate installation of roof perimeter flashing with installation of roof drainage system.

3.6.4 Insulation

Comply with performance requirements and manufacturer's written installation instructions. Install insulation concurrently with metal panel installation, in thickness indicated to cover entire roof and wall area, as specified in Division 07 - THERMAL AND MOISTURE PROTECTION.

3.6.5 Roof and Wall Accessories and Specialties

Install roof and wall accessories and specialties complete with necessary hardware, anchors, dampers, weather guards, rain caps, and equipment supports as specified in Division 07 - THERMAL AND MOISTURE PROTECTION, unless otherwise indicated.

3.7 CLEAN-UP AND PROTECTION

3.7.1 Structural Framing

Clean all exposed structural framing at completion of installation. Remove metal shavings, filings, bolts, and wires from work area. Remove grease and oil films, excess sealants, handling marks, contamination from steel wool, fittings and drilling debris and scrub the work clean. Exposed metal surfaces to be free of dents, creases, waves, scratch marks, solder or weld marks, and damage to the finish coating.

3.7.2 Metal Panels

Clean all exposed sheet metal work at completion of installation. Remove metal shavings, filings, nails, bolts, and wires from work area. Remove protective coverings/films, grease and oil films, excess sealants, handling marks, contamination from steel wool, fittings and drilling debris and scrub the work clean. Exposed metal surfaces to be free of dents, creases, waves, scratch marks, solder or weld marks, and damage to the finish coating.

3.7.3 Touch-Up Painting

After erection, promptly clean, prepare, and prime or re-prime field connections, rust spots, and abraded surfaces of prime-painted structural framing and accessories. Clean and touch-up paint with manufacturer's touch-up paint.

3.8 WARRANTY

3.8.1 Manufacturer's Warranty

Submit all manufacturers' signed warranties to Contracting Officer prior to final commissioning and acceptance.

3.8.2 Contractor's Warranty For Installation

Submit warranty for installation to the Contracting Officer prior to final commissioning and acceptance.

3.8.3 Contractor's Five Year No Penal Sum Warranty

CONTRACTOR'S FIVE YEAR NO PENAL SUM WARRANTY
FOR
METAL BUILDING SYSTEM

FACILITY DESCRIPTION:_____

BUILDING NUMBER:_____

CORPS OF ENGINEERS CONTRACT NUMBER:_____

CONTRACTOR

CONTRACTOR:_____
ADDRESS:_____

POINT OF CONTACT:_____

TELEPHONE NUMBER:_____

OWNER

OWNER:_____
ADDRESS:_____

POINT OF CONTACT:_____

TELEPHONE NUMBER:_____

CONSTRUCTION AGENT

CONSTRUCTION AGENT:_____
ADDRESS:_____

POINT OF CONTACT:_____

_
TELEPHONE NUMBER:_____

CONTRACTOR'S FIVE YEAR NO PENAL SUM WARRANTY
FOR
METAL BUILDING SYSTEM
(continued)

THE METAL BUILDING SYSTEM INSTALLED ON THE ABOVE NAMED BUILDING IS WARRANTED BY [_____] FOR A PERIOD OF 20 YEARS AGAINST WORKMANSHIP AND MATERIAL DEFICIENCIES, WIND DAMAGE AND STRUCTURAL FAILURE WITHIN PROJECT SPECIFIED DESIGN LOADS, AND LEAKAGE. THE METAL BUILDING SYSTEM COVERED UNDER THIS WARRANTY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

FRAMING AND STRUCTURAL MEMBERS, ROOFING AND SIDING PANELS AND SEAMS, INTERIOR OR EXTERIOR GUTTERS AND DOWNSPOUTS, ACCESSORIES, TRIM, FLASHINGS AND MISCELLANEOUS BUILDING CLOSURE ITEMS SUCH AS DOORS AND WINDOWS (WHEN FURNISHED BY THE MANUFACTURER), CONNECTORS, COMPONENTS, AND FASTENERS, AND OTHER SYSTEM COMPONENTS AND ASSEMBLIES INSTALLED TO PROVIDE A WEATHERTIGHT SYSTEM; AND ITEMS SPECIFIED IN OTHER SECTIONS OF THESE SPECIFICATIONS THAT BECOME PART OF THE METAL BUILDING SYSTEM.

ALL MATERIAL AND WORKMANSHIP DEFICIENCIES, SYSTEM DETERIORATION CAUSED BY EXPOSURE TO THE ELEMENTS OR INADEQUATE RESISTANCE TO SPECIFIED SERVICE DESIGN LOADS, WATER LEAKS AND WIND UPLIFT DAMAGE MUST BE REPAIRED AS APPROVED BY THE CONTRACTING OFFICER.

ALL MATERIAL DEFICIENCIES, WIND DAMAGE, STRUCTURAL FAILURE AND LEAKAGE ASSOCIATED WITH THE METAL BUILDING SYSTEM COVERED UNDER THIS WARRANTY MUST BE REPAIRED AS APPROVED BY THE CONTRACTING OFFICER.

THIS WARRANTY COVERS THE ENTIRE COST OF REPAIR OR REPLACEMENT, INCLUDING ALL MATERIAL, LABOR, AND RELATED MARKUPS. THE ABOVE REFERENCED WARRANTY COMMENCED ON THE DATE OF FINAL ACCEPTANCE ON [_____] AND WILL REMAIN IN EFFECT FOR STATED DURATION FROM THIS DATE.

SIGNED, DATED, AND NOTARIZED (BY COMPANY PRESIDENT)

_____

(Company President) (Date)

CONTRACTOR'S FIVE YEAR NO PENAL SUM WARRANTY
FOR
METAL BUILDING SYSTEM
(continued)

THE CONTRACTOR HEREBY SUPPLEMENTS THIS WARRANTY WITH WRITTEN WARRANTIES FROM THE MANUFACTURER AND/OR INSTALLER OF THE METAL BUILDING SYSTEM, WHICH IS SUBMITTED ALONG WITH THE CONTRACTOR'S WARRANTY. HOWEVER, THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THIS WARRANTY AS OUTLINED IN THE SPECIFICATIONS AND AS INDICATED IN THIS WARRANTY.

EXCLUSIONS FROM COVERAGE

1. NATURAL DISASTERS, ACTS OF GOD (LIGHTNING, FIRE, EXPLOSIONS, SUSTAINED WIND FORCES IN EXCESS OF THE DESIGN CRITERIA, EARTHQUAKES, AND HAIL).

2. ACTS OF NEGLIGENCE OR ABUSE OR MISUSE BY GOVERNMENT OR OTHER PERSONNEL,INCLUDING ACCIDENTS, VANDALISM, CIVIL DISOBEDIENCE, WAR, OR DAMAGE CAUSED BY FALLING OBJECTS.

3. DAMAGE BY STRUCTURAL FAILURE, SETTLEMENT, MOVEMENT, DISTORTION, WARPAGE, OR DISPLACEMENT OF THE BUILDING STRUCTURE OR ALTERATIONS MADE TO THE BUILDING.

4. CORROSION CAUSED BY EXPOSURE TO CORROSIVE CHEMICALS, ASH OR FUMES GENERATED OR RELEASED INSIDE OR OUTSIDE THE BUILDING FROM CHEMICAL PLANTS, FOUNDRIES, PLATING WORKS, KILNS, FERTILIZER FACTORIES, PAPER PLANTS, AND THE LIKE.

5. FAILURE OF ANY PART OF THE BUILDING SYSTEM DUE TO ACTIONS BY THE OWNER WHICH INHIBIT FREE DRAINAGE FROM THE ROOF, GUTTERS AND DOWNSPOUTS; OR CONDITIONS WHICH CREATE PONDING WATER ON THE ROOF OR AGAINST THE BUILDING SIDING.

6. THIS WARRANTY APPLIES TO THE METAL BUILDING SYSTEM. IT DOES NOT INCLUDE ANY CONSEQUENTIAL DAMAGE TO THE BUILDING INTERIOR OR CONTENTS WHICH IS COVERED BY THE WARRANTY OF CONSTRUCTION CLAUSE INCLUDED IN THIS CONTRACT.

7. THIS WARRANTY CANNOT BE TRANSFERRED TO ANOTHER OWNER WITHOUT WRITTEN CONSENT OF THE CONTRACTOR AND THIS WARRANTY AND THE CONTRACT PROVISIONS TAKE PRECEDENCE OVER ANY CONFLICTS WITH STATE STATUTES. REPORTS OF LEAKS AND BUILDING SYSTEM DEFICIENCIES MUST BE RESPONDED TO WITHIN 48 HOURS OF RECEIPT OF NOTICE BY TELEPHONE OR IN WRITING FROM EITHER THE OWNER, OR CONTRACTING OFFICER. EMERGENCY REPAIRS, TO PREVENT FURTHER ROOF LEAKS, MUST BE INITIATED IMMEDIATELY; A WRITTEN PLAN MUST BE SUBMITTED FOR APPROVAL TO REPAIR OR REPLACE THIS SSSMR SYSTEM WITHIN SEVEN CALENDAR DAYS. ACTUAL WORK FOR PERMANENT REPAIRS OR REPLACEMENT MUST BE STARTED WITHIN 30 DAYS AFTER RECEIPT OF NOTICE, AND COMPLETED WITHIN A REASONABLE TIME FRAME. IF THE CONTRACTOR FAILS TO ADEQUATELY RESPOND TO THE WARRANTY PROVISIONS, AS STATED

CONTRACTOR'S FIVE YEAR NO PENAL SUM WARRANTY
FOR
METAL BUILDING SYSTEM
(Exclusions from Coverage Continued)

POST A FRAMED COPY OF THIS WARRANTY IN THE MECHANICAL ROOM OR OTHER APPROVED LOCATION DURING THE ENTIRE WARRANTY PERIOD.

-- End of Section --