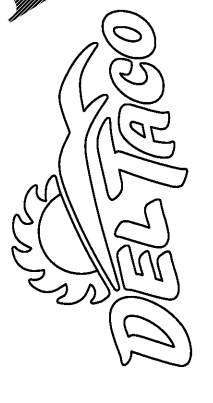




1925 Prospect Ave, Orlando, FL 32814
407-911-9100
www.cpa.com



DO NOT SCALE DRAWINGS CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS-NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO BEGINNING CONSTRUCTION



JULY 5TH, 2018

NO REVISION

DEL TACO STORE # DT2017
4626 JIMMY LEE SMITH PARKWAY
HIRAHAM, GA 30141
COUNTY
1ST PERMIT SUBMITTAL 08-18-18
1ST BID SUBMITTAL 07-06-18

PROJECT NUMBER
2180148
SHEET NAME

SPECIFICATIONS

SHEET NUMBER
G202

DATE OF THIS PRINTING - 7/3/2018

07260.22 WATER RESISTANT BARRIER:
A. Spunbonded olefin. Non woven. Non perforated
B. Performance Characteristics
1. MEETS E1677 Type I Air Retarder. Air leakage at 25 mph (75 Pa) wind pressure of less than 0.6 cfm/ft²
2. Vapor Transmission of greater than 20 perms in accordance with ASTM E-96-90, Method B
3. Water penetration resistance of 200 cm on hydrostatic head in accordance with ASTM C-127.
C. Products
1. Tyvek Stucco Wrap by DuPont

07260.23 SEALING TAPE / FASTENERS:
A. Tape Manufacturer
1. DuPont contractor Tape, by DuPont Company, Wilmington, DE.
B. Recommended Fasteners for Wood, Insulated Sheathing Board, Exterior Gypsum
1. Nails with large heads or plastic washer heads
C. Recommended Fasteners for Steel Frame construction
1. Rust resistant screws with washers
D. Recommended Fastening to Masonry
1. Polyurethane or elastomeric adhesives.

07260.24 FLASHING:
A. Jamb and Head Flashing: Tyvek Straight Flash flashing system
B. Sill Flashing: Tyvek Flexwrap flashing system. Flexwrap shall also be utilized for curbs and custom shaped window heads and jambs.

07260.3 EXECUTION:
07260.3.1 INSTALLATION:
A. Install in accordance with Manufacturer's instructions for exterior sheathing and penetrations through weather resistive barrier with studs and fasteners prior to the installation of the membrane.
B. Air Infiltration Barrier shall be applied and fastened to studs with air infiltration barrier of finish material. Air infiltration barrier shall be applied to studs, joists, teats, and panthers.
C. Interior and door penetrations shall be sealed and sealed per manufacturer instructions.
D. Air Infiltration Barrier Application shall be applied to studs with air infiltration barrier as follows:
1. Cut back air infiltration barrier 1/2" on each side of the stud or joist supporting members at each penetration location.
2. Apply proprietary butyl wrap to studs by manufacturer's written installation instructions.
3. Apply Del Taco membrane cover wrap flashing with 4 inch overlap.
4. Apply window and door flashing system by Air Infiltration Barrier manufacturer per manufacturer's written instructions.

07260.3.2 MANUFACTURER INSPECTION:
A. Contractor shall coordinate with DuPont representative to perform a pre-installation meeting to review procedures and a post-installation inspection of air infiltration barrier and flashing system.
B. Contractor shall contact DuPont Customer Service Group at 800-448-9835 to obtain the local representative's information.

END OF SECTION

SECTION 07525 MODIFIED BITUMEN ROOFING MOP APPLIED (PRIMARY BID)

07525.1 GENERAL:
A. Membrane, and base flashings
B. Coordination of work of other trades
C. Guarantee

07525.1.1 SECTION INCLUDES:
A. General, Membrane, and base flashings
B. Coordination of work of other trades
C. Guarantee

07525.1.2 RELATED SECTIONS:
A. Section 07220 "Roof and Deck Insulation"
B. Section 07600 "Sheet Metal and Roof Accessories"
C. Section 07920 "Sealants and Caulking"

07525.1.3 QUALITY ASSURANCE:
A. Qualifications of Applicator: Immediately following approval of a roofing manufacturer, and prior to start of roofing work, submit to Owner a written certificate of endorsement attesting to:
1. Roofing subcontractor is currently approved by manufacturer for the installation of manufacturer's guarantee roof system as required in Part 1, Paragraph 07525.1.2.
2. Proposed manufacturer's materials and systems are proper for use on project in conjunction with the details, roof deck systems, vapor barrier, roof insulation, flashings, and related work.
B. Approval of Roofing Contractor: Submit to Owner, as soon as possible after signing Contract but prior to starting work:
1. Request for approval of roofing subcontractor.
2. Copy of materials manufacturer's endorsement of subcontractor. Roofer must hold US Intec "Platinum" or GAF "Master Select" level certification as published on manufacturer's website www.gaf.com or www.usintec.com.
3. Letter from manufacturer certifying that they have reviewed project Drawings and guarantee requirements. Letter shall include notification to Owner prior to job start of any conditions, limitations, restrictions or other deviations that may result in non-compliance to manufacturer's requirements or exclusions from guarantee coverage.
4. Copy of filed product guarantee registration, "Notice of Award", signed and conditionally accepted by roofing subcontractor.

07525.1.4 CERTIFICATION OF MATERIALS PROPOSED FOR SUBSTITUTIONS:
A. Guarantee: If more than one manufacturer's material is proposed, then the one specified herein is proposed to be used. Contractor, at time of bidding, submit attached to his proposal, full evidence that roofing which he proposes to furnish is substantially equal, or superior to roofing specified in the Contract Documents.
B. Comparison: In case of proposed substitution, Contractor show that materials proposed are equal, or superior to those specified by setting up an itemized tabulated comparison of a technical nature, listing components and properties that are specified, citing comparative standards pertaining to each, clearly showing that materials proposed are equal to or better than those specified, when compared on a basis of ASTM standards as a minimum quality requirement.
C. Guarantee: Submit printed facsimile, in triplicate, of manufacturer's standard twelve year guarantee, with flashing endorsement of proposed roofing manufacturer.

07525.1.5 REFERENCE STANDARDS:
A. American Society for Testing Materials
1. ASTM D 660 - Standard Specification for Asphalt Coated Glass Fiber Base Sheet used in Roofing
2. ASTM D 6164, Type I, Grade G - Standard Specification for SBS Sheet Materials using Polyester Reinforcements
3. ASTM D 5147 - Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Materials
B. U.S. Intec, Inc. and GAF Materials Corporation, "Modified Bitumen Roofing Systems Specification Manual," latest edition.
C. NRCA, National Roofing Contractors Association, "Good Roofing Practice Procedures as outlined within the latest edition Roofing and Waterproofing Manual, (vol. 5).

07525.1.6 COORDINATION:
A. Coordination: Roofing subcontractor shall be responsible for coordination of proper installation, compatibility, and timing of installation of roof deck or insulation, specified herein, which will receive roofing. A properly installed base sheet must be in place prior to surface sheet installation.
B. Flashing and Roof Sheet Metal: Flashing and sheet metal work in conjunction with roofing, specified in SHEET METAL AND ROOF ACCESSORIES, shall be installed by roofing subcontractor who applies roofing or by a subcontractor approved in writing or employed by him. In the latter case, roofing subcontractor shall be responsible for adequate and expeditious performance of sheet metal work and for coordinating its installation with roofing work and other subcontractors.
C. Certification: Contractor shall contact U.S. Intec or GAF Materials Corporation Select Accounts office, (800) 522-9224, Ext. 7452 to secure subcontractor approval as a certified roofing accounts subcontractor. Submit acknowledgment to Owner's construction manager before commencement of work under this section.
D. Notice of Award: Contractor shall submit a "Notice of Award" to U.S. Intec or GAF Materials Corporation at least ten days prior to beginning of roof application. Contractor will provide to Owner a copy of filed Notice of Award signed and conditionally accepted by manufacturer prior to start of work under this section.

07525.1.7 GUARANTEE:
A. Contractor and roofing subcontractor jointly and unconditionally guarantee modified bitumen roofing system, including related sheet metal work and flashings for period of five years from date of Substantial Completion, against defective materials and workmanship, and against leaks (except leaks caused by aging, lightning, hurricane, or other natural causes) and against delamination of the elements. During guarantee period, Contractor and roofing subcontractor jointly agree that within 24 hours of receipt of notice from Owner, defective work in roofing, within meaning of guarantee, will be immediately repaired and replaced at no cost to Owner. Upon receipt of notice to Owner, including labor, materials and other incidental to work.
B. Provide U.S. Intec, Inc. or GAF Materials Corporation, Dolar Limit Twelve Year Roof Guarantee.
C. Provide GAF Materials Corporation, Diamond Plaque Twelve Year Roof Guarantee.

07525.2 PRODUCTS:
07525.2.1 MANUFACTURER:
A. The Drawings were prepared and this Specification written on the basis of using the products and specifications of U.S. Intec, Inc. and GAF Materials Corporation, Port Arthur, Texas, contact National Accounts Sales Administrator at (800) 522-9224 Ext. 7429. It is not the intent to limit competitive bidding. Products with equal characteristics by other manufacturers are acceptable under the conditions of these Specifications.
07525.2.2 ROOFING MATERIALS:
A. System: U.S. Intec specification T-2B R1 or GAF Materials Corporation "SBS Modified Bitumen" attached, with a mop applied SBS Modified Bitumen Cap Sheet, UL Class A rating and installed to meet wind uplift resistance equal to Factory Mutual I-90 wind classification.
B. Sheet Metal: Intec or GAF Materials Corporation, Intec or GAF Materials Corporation FR (formerly FR-190FR), white granular surface, mop applied or by GAF Materials Corporation Rubberoid Roof Granule FR.
C. Flashing: Intec or GAF Materials Corporation, Intec or GAF Materials Corporation.
2. Reinforcement: Non woven polyester, one hundred seventy (170) grams per square Meter
3. Weight: One hundred five (105) pounds per one hundred (100) square feet

3.03 APPLICATION:
A. General: Install waterproofing system in accord with manufacturer's recommendations and instructions as applies to the Work except where more stringent requirements are indicated.
1. Repair or replace damaged and defective finish carpentry work whenever possible to eliminate defects functionally and visually.
B. Clean finish carpentry work on exposed and semi-exposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION
DIVISION 7 THERMAL AND MOISTURE PROTECTION
SECTION 07100 WATERPROOFING

07100.1 RELATED DOCUMENTS:
A. Drawings, Specifications Division 1 and Contract.
07100.1.2 DESCRIPTION OF WORK:
A. Extent of waterproofing work is shown on drawings.
07100.1.3 ENVIRONMENTAL REQUIREMENTS:
A. Concrete surfaces shall be water cured and in place a minimum of 14 days.
B. Surface to receive coating, sealant or liquid applied waterproofing material shall be sound, dry, clean and free of all dirt, dust, oil, grease, wax, tar, asphalt, mldew, mold, paint, sealers, coating, curing agents, loose particles, lath and other contaminants or foreign matter which may interfere with the adhesion.
C. Do not apply sealant or coatings to a frosty, damp or wet surface or when air temperature is below 40 degrees F or the surface temperature is above 110 degrees F.

END OF SECTION
SECTION 07142 WATERPROOFING

PART 1 GENERAL

1.01 SUMMARY
A. Section Includes:
1. Removal and disposal of existing overlayer materials as indicated, repair and preparation of substrates, and installation of a complete polyurethane waterproofing membrane system.
2. Work includes all applicable sealants and elastomeric flashings needed to ensure a complete waterproof system at locations indicated.
B. Related work:
1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.02 SUBMITTALS
A. Comply with pertinent provisions of Section 01330.
B. Product data:
1. Materials list of items proposed to be provided under this Section.
2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
3. Shop Drawings or catalog illustrations in sufficient detail to show installation and interface of the work of this Section with the work of adjacent trades.
4. Manufacturer's current recommended installation procedures, and any deviation from the construction documents, must be reviewed and approved by the Owner/Architect.
5. Membrane system manufacturer's affidavit that manufactured polymer-modified concrete repair materials are verified compatible with membrane system.
6. Written documentation of applicator's qualifications, including reference projects of similar scope and complexity, with current phone contacts of architects and owners for verification.

07200.13 ENVIRONMENTAL REQUIREMENTS:
A. Do not install insulation when temperature conditions are detrimental to successful installation.

07200.14 PRODUCT HANDLING:
Do not allow insulation materials to become wet, or cover with ice or snow. Comply with manufacturer's recommendations for handling, storage and protection during installation.

7200.15 THERMAL INSULATION VALUES:
A. R-11 for interior walls; R-19 for exterior walls; R-38 for insulation as shown on drawings.

07200.2 PRODUCTS:
07200.2.1 MATERIALS:
A. Rigid Insulation: Extruded polystyrene plastic board insulation with integral high density skin, minimum 30 p.s.i. compressive strength, k value of 0.23, 0.1% maximum water absorption, minimum 1/2" nominal thickness.
1. Styrofoam SM by Dow Chemical, U.S.A.
2. U-Cell Insulation "Foamular 400"
B. Membrane System: Polyurethane membrane system with synthetic fibers formed into flexible resilient blankets, density as indicated, but 1.0 g/cm³ minimum; k value of 0.27, manufacturer's standard thickness and widths as required to coordinate with spaces to be insulated; Type III, fire spread rating of 25.

07200.2.2 RELATED SECTIONS:
A. Section 07220 "Roof and Deck Insulation"
B. Section 07600 "Sheet Metal and Roof Accessories"
C. Section 07920 "Sealants and Caulking"

07200.2.3 QUALITY ASSURANCE:
A. Qualifications of Applicator: Immediately following approval of a roofing manufacturer, and prior to start of roofing work, submit to Owner a written certificate of endorsement attesting to:
1. Roofing subcontractor is currently approved by manufacturer for the installation of manufacturer's guarantee roof system as required in Part 1, Paragraph 07525.1.2.
2. Proposed manufacturer's materials and systems are proper for use on project in conjunction with the details, roof deck systems, vapor barrier, roof insulation, flashings, and related work.
B. Approval of Roofing Contractor: Submit to Owner, as soon as possible after signing Contract but prior to starting work:
1. Request for approval of roofing subcontractor.
2. Copy of materials manufacturer's endorsement of subcontractor. Roofer must hold US Intec "Platinum" or GAF "Master Select" level certification as published on manufacturer's website www.gaf.com or www.usintec.com.
3. Letter from manufacturer certifying that they have reviewed project Drawings and guarantee requirements. Letter shall include notification to Owner prior to job start of any conditions, limitations, restrictions or other deviations that may result in non-compliance to manufacturer's requirements or exclusions from guarantee coverage.
4. Copy of filed product guarantee registration, "Notice of Award", signed and conditionally accepted by roofing subcontractor.

07200.2.4 CERTIFICATION OF MATERIALS PROPOSED FOR SUBSTITUTIONS:
A. Guarantee: If more than one manufacturer's material is proposed, then the one specified herein is proposed to be used. Contractor, at time of bidding, submit attached to his proposal, full evidence that roofing which he proposes to furnish is substantially equal, or superior to roofing specified in the Contract Documents.
B. Comparison: In case of proposed substitution, Contractor show that materials proposed are equal, or superior to those specified by setting up an itemized tabulated comparison of a technical nature, listing components and properties that are specified, citing comparative standards pertaining to each, clearly showing that materials proposed are equal to or better than those specified, when compared on a basis of ASTM standards as a minimum quality requirement.
C. Guarantee: Submit printed facsimile, in triplicate, of manufacturer's standard twelve year guarantee, with flashing endorsement of proposed roofing manufacturer.

07200.2.5 REFERENCE STANDARDS:
A. American Society for Testing Materials
1. ASTM D 660 - Standard Specification for Asphalt Coated Glass Fiber Base Sheet used in Roofing
2. ASTM D 6164, Type I, Grade G - Standard Specification for SBS Sheet Materials using Polyester Reinforcements
3. ASTM D 5147 - Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Materials
B. U.S. Intec, Inc. and GAF Materials Corporation, "Modified Bitumen Roofing Systems Specification Manual," latest edition.
C. NRCA, National Roofing Contractors Association, "Good Roofing Practice Procedures as outlined within the latest edition Roofing and Waterproofing Manual, (vol. 5).

07200.2.6 COORDINATION:
A. Coordination: Roofing subcontractor shall be responsible for coordination of proper installation, compatibility, and timing of installation of roof deck or insulation, specified herein, which will receive roofing. A properly installed base sheet must be in place prior to surface sheet installation.
B. Flashing and Roof Sheet Metal: Flashing and sheet metal work in conjunction with roofing, specified in SHEET METAL AND ROOF ACCESSORIES, shall be installed by roofing subcontractor who applies roofing or by a subcontractor approved in writing or employed by him. In the latter case, roofing subcontractor shall be responsible for adequate and expeditious performance of sheet metal work and for coordinating its installation with roofing work and other subcontractors.
C. Certification: Contractor shall contact U.S. Intec or GAF Materials Corporation Select Accounts office, (800) 522-9224, Ext. 7452 to secure subcontractor approval as a certified roofing accounts subcontractor. Submit acknowledgment to Owner's construction manager before commencement of work under this section.
D. Notice of Award: Contractor shall submit a "Notice of Award" to U.S. Intec or GAF Materials Corporation at least ten days prior to beginning of roof application. Contractor will provide to Owner a copy of filed Notice of Award signed and conditionally accepted by manufacturer prior to start of work under this section.

07200.2.7 GUARANTEE:
A. Contractor and roofing subcontractor jointly and unconditionally guarantee modified bitumen roofing system, including related sheet metal work and flashings for period of five years from date of Substantial Completion, against defective materials and workmanship, and against leaks (except leaks caused by aging, lightning, hurricane, or other natural causes) and against delamination of the elements. During guarantee period, Contractor and roofing subcontractor jointly agree that within 24 hours of receipt of notice from Owner, defective work in roofing, within meaning of guarantee, will be immediately repaired and replaced at no cost to Owner. Upon receipt of notice to Owner, including labor, materials and other incidental to work.
B. Provide U.S. Intec, Inc. or GAF Materials Corporation, Dolar Limit Twelve Year Roof Guarantee.
C. Provide GAF Materials Corporation, Diamond Plaque Twelve Year Roof Guarantee.

07200.2.8 PRODUCTS:
07200.2.1 MANUFACTURER:
A. The Drawings were prepared and this Specification written on the basis of using the products and specifications of Johns Manville, Building Insulation Division, Plano, Texas. It is not the intent to limit competitive bidding. Products with equal characteristics by other manufacturers will be considered under the conditions of these specifications.

07211.2 OTHER MATERIALS:
A. Provide materials, not specifically described but required for a complete and proper installation of the work in this section:
1. Mechanical fasteners as recommended by insulation manufacturer.

07211.2.3 EXTERIOR WALL INSULATION:
A. Thermal Shield: Kraft faced ASTM C-665, Type II, Class C, 6 inch thick (R-19) for 2x4 walls and 2-1/2 inches thick (R-13) for 2x4 walls, fiberglass with bonding flanges, Perm for walls of 1.0, H-1.521F. R-Value designations in accordance with ASTM C518.
B. Sealant:
1. Dymec 240 FC
2. Dymec 240
3. Vulkem 227
or prior approved equal

07211.3 GENERAL:
A. Insulate in framing spaces, including areas behind electrical outlets, around structural members, jacks, sills, etc. Provide complete insulation envelope for entire building, wherever specifically shown or not.

07211.3.1 DELIVERY AND STORAGE:
A. Deliver in original unopened packages and store in enclosed shelter, protect from damage and exposure to elements. Comply with manufacturer's recommendations for handling, storage and protection during installation. Remove damaged or deteriorated materials from premises.
B. Label packages to include material name, production date and product code.

07211.3.2 INSTALLATION:
A. Exterior Walls: Install between framing members, Kraft facing placed inward and recessed from faces of framing. Flanges stapled to sides of framing members at each end of blanket and along length of flanges. Staple flanges 6 inches o.c. maximum; 9/16 inch staples. If required by local code, staple flanges on vapor barrier side of faces of framing members; flat, without laps, bulges or folds.
1. Verify conformance with manufacturer's requirements;
2. If any unsatisfactory conditions in writing to the General Contractor;
3. Do not proceed until unsatisfactory conditions are corrected.

3.02 PREPARATION:
A. Surface preparation and detailing procedures to be in accord with waterproofing membrane system manufacturer's instructions and recommendations except where more stringent requirements are indicated.
B. Remove to sound concrete all spalled, delaminated, deteriorated or otherwise deficient concrete from structural concrete surfaces to receive polymer modified cementitious repair mortar, vacuum clean or blow clean with oil free compressed air to assure all loose particles have been removed.
C. Clean all surfaces to receive membrane system in accord with manufacturer's instructions; vacuum clean or blow clean with oil free compressed air to assure all loose particles, detailing materials or membrane immediately prior to installation.
D. Rout, clean, prepare and detail surface cracks in accord with manufacturer's instructions; cuts.
E. Clean metal surfaces to bright metal by wire brushing or mechanical etching; scuff sand lead flashing and plastic surfaces.
F. Prime surfaces in accord with manufacturer's instructions.
G. Install 1/4" diameter barrier rod into corner of all horizontal-to-vertical junctures subject to movement and cover with 1" detail cant of approved sealant. Install 1" detail cant at corners and filled flush with finish coat and other horizontal-to-vertical junctures.
H. Install detail coats, joint and crack treatments, and liquid flashings in accord with manufacturer's instructions.
I. Allow detail applications to cure in accord with manufacturer's instructions prior to general application of membrane.

END OF SECTION
SECTION 07260 BUILDING WRAP

07260.1 GENERAL:
07260.1.1 SECTION INCLUDES:
A. Weather resistive barriers on exterior side of exterior wall sheathing

07260.1.2 REFERENCES:
A. ASTM S-96-90 "Standard Test Method for Water Transmission of Materials"
B. ASTM E-1677-95 "Standard Specification for an air retarder (AR) Material or System for Framed Building Walls"
C. AATCC-27 "Hydrostatic Head Test"

07260.2 PRODUCTS:
07260.2.1 MANUFACTURER:
A. DuPont Company, Wilmington, DE

G. Anchor counterjoists securely to base units and other support systems using concealed screws.
Seal joint between backslashes and vertical/horizontal surfaces with continuous silicone rubber sealant.
06200.32 ADJUSTMENT, CLEANING, FINISHING AND PROTECTION:
A. Repair or replace damaged and defective finish carpentry work whenever possible to eliminate defects functionally and visually.
B. Clean finish carpentry work on exposed and semi-exposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION
DIVISION 7 THERMAL AND MOISTURE PROTECTION
SECTION 07100 WATERPROOFING

07100.1 RELATED DOCUMENTS:
A. Drawings, Specifications Division 1 and Contract.
07100.1.2 DESCRIPTION OF WORK:
A. Extent of waterproofing work is shown on drawings.
07100.1.3 ENVIRONMENTAL REQUIREMENTS:
A. Concrete surfaces shall be water cured and in place a minimum of 14 days.
B. Surface to receive coating, sealant or liquid applied waterproofing material shall be sound, dry, clean and free of all dirt, dust, oil, grease, wax, tar, asphalt, mldew, mold, paint, sealers, coating, curing agents, loose particles, lath and other contaminants or foreign matter which may interfere with the adhesion.
C. Do not apply sealant or coatings to a frosty, damp or wet surface or when air temperature is below 40 degrees F or the surface temperature is above 110 degrees F.

END OF SECTION
SECTION 07142 WATERPROOFING

PART 1 GENERAL

1.01 SUMMARY
A. Section Includes:
1. Removal and disposal of existing overlayer materials as indicated, repair and preparation of substrates, and installation of a complete polyurethane waterproofing membrane system.
2. Work includes all applicable sealants and elastomeric flashings needed to ensure a complete waterproof system at locations indicated.
B. Related work:
1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

1.02 SUBMITTALS
A. Comply with pertinent provisions of Section 01330.
B. Product data:
1. Materials list of items proposed to be provided under this Section.
2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
3. Shop Drawings or catalog illustrations in sufficient detail to show installation and interface of the work of this Section with the work of adjacent trades.
4. Manufacturer's current recommended installation procedures, and any deviation from the construction documents, must be reviewed and approved by the Owner/Architect.
5. Membrane system manufacturer's affidavit that manufactured polymer-modified concrete repair materials are verified compatible with membrane system.
6. Written documentation of applicator's qualifications, including reference projects of similar scope and complexity, with current phone contacts of architects and owners for verification.

07200.13 ENVIRONMENTAL REQUIREMENTS:
A. Do not install insulation when temperature conditions are detrimental to successful installation.

07200.14 PRODUCT HANDLING:
Do not allow insulation materials to become wet, or cover with ice or snow. Comply with manufacturer's recommendations for handling, storage and protection during installation.

7200.15 THERMAL INSULATION VALUES:
A. R-11 for interior walls; R-19 for exterior walls; R-38 for insulation as shown on drawings.

07200.2 PRODUCTS:
07200.2.1 MATERIALS:
A. Rigid Insulation: Extruded polystyrene plastic board insulation with integral high density skin, minimum 30 p.s.i. compressive strength, k value of 0.23, 0.1% maximum water absorption, minimum 1/2" nominal thickness.
1. Styrofoam SM by Dow Chemical, U.S.A.
2. U-Cell Insulation "Foamular 400"
B. Membrane System: Polyurethane membrane system with synthetic fibers formed into flexible resilient blankets, density as indicated, but 1.0 g/cm³ minimum; k value of 0.27, manufacturer's standard thickness and widths as required to coordinate with spaces to be insulated; Type III, fire spread rating of 25.

07200.2.2 RELATED SECTIONS:
A. Section 07220 "Roof and Deck Insulation"
B. Section 07600 "Sheet Metal and Roof Accessories"
C. Section 07920 "Sealants and Caulking"

07200.2.3 QUALITY ASSURANCE:
A. Qualifications of Applicator: Immediately following approval of a roofing manufacturer, and prior to start of roofing work, submit to Owner a written certificate of endorsement attesting to:
1. Roofing subcontractor is currently approved by manufacturer for the installation of manufacturer's guarantee roof system as required in Part 1, Paragraph 07525.1.2.
2. Proposed manufacturer's materials and systems are proper for use on project in conjunction with the details, roof deck systems, vapor barrier, roof insulation, flashings, and related work.
B. Approval of Roofing Contractor: Submit to Owner, as soon as possible after signing Contract but prior to starting work:
1. Request for approval of roofing subcontractor.
2. Copy of materials manufacturer's endorsement of subcontractor. Roofer must hold US Intec "Platinum" or GAF "Master Select" level certification as published on manufacturer's website www.gaf.com or www.usintec.com.
3. Letter from manufacturer certifying that they have reviewed project Drawings and guarantee requirements. Letter shall include notification to Owner prior to job start of any conditions, limitations, restrictions or other deviations that may result in non-compliance to manufacturer's requirements or exclusions from guarantee coverage.
4. Copy of filed product guarantee registration, "Notice of Award", signed and conditionally accepted by roofing subcontractor.

07200.2.4 CERTIFICATION OF MATERIALS PROPOSED FOR SUBSTITUTIONS:
A. Guarantee: If more than one manufacturer's material is proposed, then the one specified herein is proposed to be used. Contractor, at time of bidding, submit attached to his proposal, full evidence that roofing which he proposes to furnish is substantially equal, or superior to roofing specified in the Contract Documents.
B. Comparison: In case of proposed substitution, Contractor show that materials proposed are equal, or superior to those specified by setting up an itemized tabulated comparison of a technical nature, listing components and properties that are specified, citing comparative standards pertaining to each, clearly showing that materials proposed are equal to or better than those specified, when compared on a basis of ASTM standards as a minimum quality requirement.
C. Guarantee: Submit printed facsimile, in triplicate, of manufacturer's standard twelve year guarantee, with flashing endorsement of proposed roofing manufacturer.

07200.2.5 REFERENCE STANDARDS:
A. American Society for Testing Materials
1. ASTM D 660 - Standard Specification for Asphalt Coated Glass Fiber Base Sheet used in Roofing
2. ASTM D 6164, Type I, Grade G - Standard Specification for SBS Sheet Materials using Polyester Reinforcements
3. ASTM D 5147 - Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Materials
B. U.S. Intec, Inc. and GAF Materials Corporation, "Modified Bitumen Roofing Systems Specification Manual," latest edition.
C. NRCA, National Roofing Contractors Association, "Good Roofing Practice Procedures as outlined within the latest edition Roofing and Waterproofing Manual, (vol. 5).

07200.2.6 COORDINATION:
A. Coordination: Roofing subcontractor shall be responsible for coordination of proper installation, compatibility, and timing of installation of roof deck or insulation, specified herein, which will receive roofing. A properly installed base sheet must be in place prior to surface sheet installation.
B. Flashing and Roof Sheet Metal: Flashing and sheet metal work in conjunction with roofing, specified in SHEET METAL AND ROOF ACCESSORIES, shall be installed by roofing subcontractor who applies roofing or by a subcontractor approved in writing or employed by him. In the latter case, roofing subcontractor shall be responsible for adequate and expeditious performance of sheet metal work and for coordinating its installation with roofing work and other subcontractors.
C. Certification: Contractor shall contact U.S. Intec or GAF Materials Corporation Select Accounts office, (800) 522-9224, Ext. 7452 to secure subcontractor approval as a certified roofing accounts subcontractor. Submit acknowledgment to Owner's construction manager before commencement of work under this section.
D. Notice of Award: Contractor shall submit a "Notice of Award" to U.S. Intec or GAF Materials Corporation at least ten days prior to beginning of roof application. Contractor will provide to Owner a copy of filed Notice of Award signed and conditionally accepted by manufacturer prior to start of work under this section.

07200.2.7 GUARANTEE:
A. Contractor and roofing subcontractor jointly and unconditionally guarantee modified bitumen roofing system, including related sheet metal work and flashings for period of five years from date of Substantial Completion, against defective materials and workmanship, and against leaks (except leaks caused by aging, lightning, hurricane, or other natural causes) and against delamination of the elements. During guarantee period, Contractor and roofing subcontractor jointly agree that within 24 hours of receipt of notice from Owner, defective work in roofing, within meaning of guarantee, will be immediately repaired and replaced at no cost to Owner. Upon receipt of notice to Owner, including labor, materials and other incidental to work.
B. Provide U.S. Intec, Inc. or GAF Materials Corporation, Dolar Limit Twelve Year Roof Guarantee.
C. Provide GAF Materials Corporation, Diamond Plaque Twelve Year Roof Guarantee.

07200.2.8 PRODUCTS:
07200.2.1 MANUFACTURER:
A. The Drawings were prepared and this Specification written on the basis of using the products and specifications of Johns Manville, Building Insulation Division, Plano, Texas. It is not the intent to limit competitive bidding. Products with equal characteristics by other manufacturers will be considered under the conditions of these specifications.

07211.2 OTHER MATERIALS:
A. Provide materials, not specifically described but required for a complete and proper installation of the work in this section:
1. Mechanical fasteners as recommended by insulation manufacturer.

07211.2.3 EXTERIOR WALL INSULATION:
A. Thermal Shield: Kraft faced ASTM C-665, Type II, Class C, 6 inch thick (R-19) for 2x4 walls and 2-1/2 inches thick (R-13) for 2x4 walls, fiberglass with bonding flanges, Perm for walls of 1.0, H-1.521F. R-Value designations in accordance with ASTM C518.
B. Sealant:
1. Dymec 240 FC
2. Dymec 240
3. Vulkem 227
or prior approved equal

07211.3 GENERAL:
A. Insulate in framing spaces, including areas behind electrical outlets, around structural members, jacks, sills, etc. Provide complete insulation envelope for entire building, wherever specifically shown or not.

07211.3.1 DELIVERY AND STORAGE:
A. Deliver in original unopened packages and store in enclosed shelter, protect from damage and exposure to elements. Comply with manufacturer's recommendations for handling, storage and protection during installation. Remove damaged or deteriorated materials from premises.
B. Label packages to include material name, production date and product code.

07211.3.2 INSTALLATION:
A. Exterior Walls: Install between framing members, Kraft facing placed inward and recessed from faces of framing. Flanges stapled to sides of framing members at each end of blanket and along length of flanges. Staple flanges 6 inches o.c. maximum; 9/16 inch staples. If required by local code, staple flanges on vapor barrier side of faces of framing members; flat, without laps, bulges or folds.
1. Verify conformance with manufacturer's requirements;
2. If any unsatisfactory conditions in writing to the General Contractor;
3. Do not proceed until unsatisfactory conditions are corrected.

3.02 PREPARATION:
A. Surface preparation and detailing procedures to be in accord with waterproofing membrane system manufacturer's instructions and recommendations except where more stringent requirements are indicated.
B. Remove to sound concrete all spalled, delaminated, deteriorated or otherwise deficient concrete from structural concrete surfaces to receive polymer modified cementitious repair mortar, vacuum clean or blow clean with oil free compressed air to assure all loose particles have been removed.
C. Clean all surfaces to receive membrane system in accord with manufacturer's instructions; vacuum clean or blow clean with oil free compressed air to assure all loose particles, detailing materials or membrane immediately prior to installation.
D. Rout, clean, prepare and detail surface cracks in accord with manufacturer's instructions; cuts.
E. Clean metal surfaces to bright metal by wire brushing or mechanical etching; scuff sand lead flashing and plastic surfaces.
F. Prime surfaces in accord with manufacturer's instructions.
G. Install 1/4" diameter barrier rod into corner of all horizontal-to-vertical junctures subject to movement and cover with 1" detail cant of approved sealant. Install 1" detail cant at corners and filled flush with finish coat and other horizontal-to-vertical junctures.
H. Install detail coats, joint and crack treatments, and liquid flashings in accord with manufacturer's instructions.
I. Allow detail applications to cure in accord with manufacturer's instructions prior to general application of membrane.

END OF SECTION
SECTION 07260 BUILDING WRAP

07260.1 GENERAL:
07260.1.1 SECTION INCLUDES:
A. Weather resistive barriers on exterior side of exterior wall sheathing

07260.1.2 REFERENCES:
A. ASTM S-96-90 "Standard Test Method for Water Transmission of Materials"
B. ASTM E-1677-95 "Standard Specification for an air retarder (AR) Material or System for Framed Building Walls"
C. AATCC-27 "Hydrostatic Head Test"