

PART 2 - PRODUCTS

- 2.1 MATERIALS
- A. WOOD FOR TRANSPARENT FINISH:
- 1.SPECIES AND CUT: REFER TO DÉCOR DRAWING.
- B. WOOD FOR OPAQUE FINISH:
- 1.SPECIES: REFER TO DÉCOR DRAWING.
- C. WOOD PRODUCTS:
- 1.HARDBOARD: AHA A135-4.
2. MEDIUM-DENSITY FIBERBOARD: ANSI A208.2, GRADE MD-EXTERIOR GLUE.
3. PARTICLEBOARD: ANSI A208.1, GRADE M-2-EXTERIOR GLUE.
- 4.SOFTWOOD PLYWOOD: DOC PS 1, MEDIUM DENSITY OVERLAY.
5. HARDWOOD PLYWOOD AND FACE VENEERS: HPVA HP-1.
- D. HIGH-PRESSURE DECORATIVE LAMINATE: NEMA LD 3.
1. MANUFACTURERS AND PRODUCTS: PLEASE REFER TO DÉCOR DRAWINGS.
- E. SOLID-SURFACING MATERIAL: HOMOGENEOUS SOLID SHEETS OF FILLED PLASTIC RESIN COMPLYING WITH ANSI Z124.3, FOR TYPE 5 OR TYPE 6 MATERIAL AND PERFORMANCE REQUIREMENTS, WITHOUT A PRECOMPLETED FINISH.
1. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ONE OF THE FOLLOWING:
- a. DU PONT POLYMERS; CORIAN.

- 2.2 INSTALLATION MATERIALS
- A. FURRING, BLOCKING, SHIMS, AND HANGING STRIPS: SOFTWOOD OR HARDWOOD LUMBER, KILN-DRIED TO LESS THAN 15 PERCENT MOISTURE CONTENT.
- 2.3 FABRICATION

- A. GENERAL: COMPLETE FABRICATION TO MAXIMUM EXTENT POSSIBLE BEFORE SHIPMENT TO PROJECT SITE. WHERE NECESSARY FOR FITTING AT SITE, PROVIDE ALLOWANCE FOR SCRIBING, TRIMMING, AND FITTING.
1. INTERIOR WOODWORK GRADE: CUSTOM COMPLYING WITH THE REFERENCED QUALITY STANDARD.
2. SHOP CUT OPENINGS TO MAXIMUM EXTENT POSSIBLE. SAND EDGES OF CUTOUTS TO REMOVE SPLINTERS AND BURRS.
3. FOR TRIM ITEMS WIDER THAN AVAILABLE LUMBER, USE VENEERED CONSTRUCTION. DO NOT GLUE FOR WIDTH.
4. BACKOUT OR GROOVE BACKS OF FLAT TRIM MEMBERS AND KERF BACKS OF OTHER WIDE, FLAT MEMBERS, EXCEPT FOR MEMBERS WITH ENDS EXPOSED IN FINISHED WORK.
- B. SOLID-SURFACING-MATERIAL WINDOW STOOLS:
1. SOLID-SURFACING-MATERIAL THICKNESS: AS INDICATED ON DRAWINGS.
2. COLORS, PATTERNS, AND FINISHES: AS INDICATED ON DRAWINGS.
- C. PLASTIC-LAMINATE WOOD SHELF:
1. SIZE: AS INDICATED ON DRAWINGS.
2. COLOR AND PATTERN: AS INDICATED ON DRAWINGS.
- 2.4 SHOP FINISHING

- A. FINISH ARCHITECTURAL WOODWORK AT FABRICATION SHOP. DEFER ONLY FINAL TOUCHUP, CLEANING, AND POLISHING UNTIL AFTER INSTALLATION.
- B. BACKPRIMING: APPLY ONE COAT OF SEALER OR PRIMER, COMPATIBLE WITH FINISH COATS, TO CONCEALED SURFACES OF WOODWORK. APPLY TWO COATS TO BACK OF PANELING.
- C. TRANSPARENT FINISH: COMPLY WITH REQUIREMENTS INDICATED BELOW FOR GRADE, FINISH SYSTEM, STAINING, AND SHEEN, WITH SHEEN MEASURED ON 60-DEGREE GLOSS METER PER ASTM D 523:
1. GRADE: CUSTOM.
2. AWI FINISH SYSTEM: TR-6, CATALYZED POLYURETHANE.
3. STAINING: AS INDICATED ON DÉCOR DRAWINGS.
4. SHEEN: AS INDICATED ON DÉCOR DRAWINGS.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. CONDITION WOODWORK TO AVERAGE PREVAILING HUMIDITY CONDITIONS IN INSTALLATION AREAS AND EXAMINE AND COMPLETE WORK AS REQUIRED, INCLUDING REMOVAL OF PACKING AND BACKPRIMING BEFORE INSTALLATION.
- B. QUALITY STANDARD: INSTALL WOODWORK TO COMPLY WITH AWI SECTION 1700 FOR THE SAME GRADE SPECIFIED IN THIS SECTION FOR TYPE OF WOODWORK INVOLVED.
- C. INSTALL WOODWORK LEVEL, PLUMB, TRUE, AND STRAIGHT TO A TOLERANCE OF 1/8 INCH IN 96 INCHES (3 MM IN 2400 MM). SHIM AS REQUIRED WITH CONCEALED SHIMS.
- D. SCRIBE AND CUT WOODWORK TO FIT ADJOINING WORK, AND REFINISH CUT SURFACES, AND REPAIR DAMAGED FINISH AT CUTS.
- E. ANCHOR WOODWORK TO ANCHORS OR BLOCKING BUILT IN OR DIRECTLY ATTACHED TO SUBSTRATES. SECURE WITH COUNTERSUNK, CONCEALED FASTENERS AND BLIND NAILING AS REQUIRED FOR COMPLETE INSTALLATION. USE FINE FINISHING NAILS OR FINISHING SCREWS FOR EXPOSED FASTENING, COUNTERSUNK AND FILLED FLUSH WITH WOODWORK AND MATCHING FINAL FINISH IF TRANSPARENT FINISH IS INDICATED.
- F. STANDING AND RUNNING TRIM: INSTALL WITH MINIMUM NUMBER OF JOINTS POSSIBLE, USING FULL-LENGTH PIECES (FROM MAXIMUM LENGTH OF LUMBER AVAILABLE) TO GREATEST EXTENT POSSIBLE. FILL GAPS, IF ANY, BETWEEN TOP OF BASE AND WALL WITH PLASTIC WOOD FILLER, SAND SMOOTH, AND FINISH SAME AS WOOD BASE IF FINISHED.
- G. REPAIR DAMAGED OR DEFECTIVE WOODWORK WHERE POSSIBLE TO ELIMINATE FUNCTIONAL OR VISUAL DEFECTS. WHERE NOT POSSIBLE TO REPAIR, REPLACE WOODWORK. ADJUST JOINERY FOR UNIFORM APPEARANCE.
- H. FINISHING: FELD FINISH INTERIOR ARCHITECTURAL WOODWORK ITEMS AS SPECIFIED IN DIVISION 9 SECTION "PAINTING".

SECTION 066400 - PLASTIC PANELING

PART 1 - GENERAL

- 1.1 SUMMARY
- A. SECTION INCLUDES GLASS-FIBER REINFORCED PLASTIC (FRP) WALL PANELING AND TRIM ACCESSORIES.
- 1.2 SUBMITTALS
- A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
- B. SAMPLES: FOR PLASTIC PANELING AND TRIM ACCESSORIES.
- 1.3 QUALITY ASSURANCE
- A. SURFACE-BURNING CHARACTERISTICS: AS DETERMINED BY TESTING IDENTICAL PRODUCTS ACCORDING TO ASTM E 84 BY A QUALIFIED TESTING AGENCY. IDENTIFY PRODUCTS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.
1. FLAME-SPREAD INDEX: 25 OR LESS.
2. SMOKE-DEVELOPED INDEX: 450 OR LESS.

PART 2 - PRODUCTS

2.1 PLASTIC SHEET PANELING

- A. GENERAL: GELCOAT-FINISHED, GLASS-FIBER REINFORCED PLASTIC PANELS COMPLYING WITH ASTM D 5319.
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
- a. KEMULITE COMPANY INC.
- b. MARLITE.
- c. NUDO PRODUCTS, INC.
2. NOMINAL THICKNESS: NOT LESS THAN 0.075 INCH (1.9 MM).
3. SURFACE FINISH: PEBBLED.
4. COLOR: WHITE.
- 2.2 ACCESSORIES

- A. TRIM ACCESSORIES: MANUFACTURER'S STANDARD ONE-PIECE VINYL EXTRUSIONS DESIGNED TO RETAIN AND COVER EDGES OF PANELS. PROVIDE DIVISION BARS, INSIDE CORNERS, OUTSIDE CORNERS, AND CAPS AS NEEDED TO CONCEAL EDGES.
1. COLOR: WHITE.
- B. ADHESIVE: AS RECOMMENDED BY PLASTIC PANELING MANUFACTURER.
1. VOC CONTENT: 50 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
- C. SEALANT: SINGLE-COMPONENT, MILDEW-RESISTANT, NEUTRAL-CURING SILICONE SEALANT RECOMMENDED BY PLASTIC PANELING MANUFACTURER AND COMPLYING WITH REQUIREMENTS IN DIVISION 07 SECTION "JOINT SEALANTS."
1. VOC CONTENT: 250 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).

PART 3 - EXECUTION

3.1 PREPARATION

- A. CLEAN SUBSTRATES OF SUBSTANCES THAT COULD IMPAIR BOND OF ADHESIVE, INCLUDING OIL, GREASE, DIRT, AND DUST.
- B. CONDITION PANELS BY UNPACKING AND PLACING IN INSTALLATION SPACE BEFORE INSTALLATION ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- C. LAY OUT PANELING BEFORE INSTALLING. LOCATE PANEL JOINTS TO PROVIDE EQUAL PANELS AT ENDS OF WALLS NOT LESS THAN HALF THE WIDTH OF FULL PANELS SO THAT TRIMMED PANELS AT CORNERS ARE NOT LESS THAN 12 INCHES (300 MM) WIDE.
- 3.2 INSTALLATION

- A. INSTALL PLASTIC PANELING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- B. INSTALL PANELS IN A FULL SPREAD OF ADHESIVE.
- C. INSTALL TRIM ACCESSORIES WITH ADHESIVE AND NAILS. DO NOT FASTEN THROUGH PANELS.
- D. FILL GROOVES IN TRIM ACCESSORIES WITH SEALANT BEFORE INSTALLING PANELS AND BED INSIDE CORNER TRIM IN A BEAD OF SEALANT.
- E. MAINTAIN UNIFORM SPACE BETWEEN PANELS AND WALL FIXTURES. FILL SPACE WITH SEALANT.
- F. REMOVE EXCESS SEALANT AND SMEARS AS PANELING IS INSTALLED. CLEAN WITH SOLVENT RECOMMENDED BY SEALANT MANUFACTURER AND THEN WIPE WITH CLEAN DRY CLOTHS UNTIL NO RESIDUE REMAINS.

SECTION 072100 - THERMAL INSULATION

PART 1 - GENERAL

1.1 SUMMARY

- A. THIS SECTION INCLUDES THE FOLLOWING:
1. PERIMETER INSULATION UNDER SLABS-ON-GRADE.
2. CAVITY-WALL INSULATION.
3. CONCEALED BUILDING INSULATION.
4. VAPOR RETARDERS (BELOW SLAB).
5. SOUND ATTENUATION INSULATION.
- B. FOR BUILT-UP ROOF INSULATION, REFER TO SECTION 075213.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. IN OTHER PART 2 ARTICLES WHERE TITLES BELOW INTRODUCE LISTS, THE FOLLOWING REQUIREMENTS APPLY TO PRODUCT SELECTION:
1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS; PROVIDE PRODUCTS BY ONE OF THE MANUFACTURERS SPECIFIED.
- 2.2 FOAM-PLASTIC BOARD INSULATION
- A. EXTRUDED-POLYSTYRENE BOARD INSULATION: ASTM C 578, TYPE IV, 1.60 LB/CU. FT. (26 KG/CU. M) WITH MAXIMUM FLAME-SPREAD AND SMOKE-DEVELOPED INDEXES OF 75 AND 450, RESPECTIVELY:
1. MANUFACTURERS:
- a.DOW CHEMICAL COMPANY.
- a. OWENS CORNING.

2.3 GLASS-FIBER BLANKET INSULATION

- A. MANUFACTURERS:
1. CERTAINTED CORPORATION.
2. JOHNS MANVILLE.
3. OWENS CORNING.
- B. UNFACED, GLASS-FIBER BLANKET INSULATION: ASTM C 665, TYPE I (BLANKETS WITHOUT MEMBRANE FACING); CONSISTING OF FIBERS, WITH MAXIMUM FLAME-SPREAD AND SMOKE-DEVELOPED INDEXES OF 25 AND 50, RESPECTIVELY; PASSING ASTM E 136 FOR COMBUSTION CHARACTERISTICS.
- C. WHERE GLASS-FIBER BLANKET INSULATION IS INDICATED BY THE FOLLOWING THICKNESSES, PROVIDE BLANKETS IN BATT OR ROLL FORM WITH THERMAL RESISTANCES INDICATED:
1. 3-1/2 INCHES (89 MM) THICK WITH A THERMAL RESISTANCE OF 11 DEG F X H X SQ. FT./BTU AT 75 DEG F (1.9 K X SQ. M/W AT 24 DEG C).
2. 3-5/8 INCHES (92 MM) THICK WITH A THERMAL RESISTANCE OF 11 DEG F X H X SQ. FT./BTU AT 75 DEG F (1.9 K X SQ. M/W AT 24 DEG C).
3. 5-1/2 INCHES (140 MM) THICK WITH A THERMAL RESISTANCE OF 19 DEG F X H X SQ. FT./BTU AT 75 DEG F (3.3 K X SQ. M/W AT 24 DEG C).
4. 6-1/2 INCHES (165 MM) THICK WITH A THERMAL RESISTANCE OF21 DEG F X H X SQ. FT./BTU AT 75 DEG F (3.7 K X SQ. M/W AT 24 DEG C).

2.4 VAPOR RETARDERS & BARRIERS

- A. POLYETHYLENE VAPOR RETARDERS & BARRIERS: ASTM D 4397, 10 MILS THICK, BELOW CONCRETE SLABS.
- B. VAPOR-RETARDER TAPE: PRESSURE-SENSITIVE TAPE OF TYPE RECOMMENDED BY VAPOR-RETARDER MANUFACTURER FOR SEALING JOINTS AND PENETRATIONS IN VAPOR RETARDER.
- C. POLYETHYLENE VAPOR BARRIR: ASTM D 4397, 2 MILS THICK AS VAPOR BARRIER IN WALLS.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. COMPLY WITH INSULATION MANUFACTURER'S WRITTEN INSTRUCTIONS APPLICABLE TO PRODUCTS AND APPLICATION INDICATED.
- B. INSTALL INSULATION THAT IS UNDAMAGED, DRY, AND UNISOLED AND THAT HAS NOT BEEN LEFT EXPOSED AT ANY TIME TO ICE, RAIN, AND SNOW.
- C. EXTEND INSULATION IN THICKNESS INDICATED TO ENVELOP ENTIRE AREA TO BE INSULATED. CUT AND FIT TIGHTLY AROUND OBSTRUCTIONS AND FILL VOIDS WITH INSULATION. REMOVE PROJECTIONS THAT INTERFERE WITH PLACEMENT.
- D. WATER-PIPING COORDINATION: IF WATER PIPING IS LOCATED WITHIN INSULATED EXTERIOR WALLS, COORDINATE LOCATION OF PIPING TO ENSURE THAT IT IS PLACED ON WARM SIDE OF INSULATION AND INSULATION ENCAPSULATES PIPING.
- E. FOR PREFORMED INSULATING UNITS, PROVIDE SIZES TO FIT APPLICATIONS INDICATED AND SELECTED FROM MANUFACTURER'S STANDARD THICKNESSES, WIDTHS, AND LENGTHS. APPLY SINGLE LAYER OF INSULATION UNITS TO PRODUCE THICKNESS INDICATED UNLESS

MULTIPLE LAYERS ARE OTHERWISE SHOWN OR REQUIRED TO MAKE UP TOTAL THICKNESS.

3.2 INSTALLATION OF PERIMETER AND UNDER-SLAB INSULATION

- A. ON VERTICAL SURFACES, SET INSULATION UNITS IN ADHESIVE APPLIED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. USE ADHESIVE RECOMMENDED BY INSULATION MANUFACTURER.
1. IF NOT OTHERWISE INDICATED, EXTEND INSULATION A MINIMUM OF 24 INCHES (610 MM) BELOW EXTERIOR GRADE LINE.
- B. ON HORIZONTAL SURFACES, LOOSELY LAY INSULATION UNITS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. STAGGER END JOINTS AND TIGHTLY ABUT INSULATION UNITS.
- C. PROTECT BELOW-GRADE INSULATION ON VERTICAL SURFACES FROM DAMAGE DURING BACKFILLING BY APPLYING PROTECTION COURSE WITH JOINTS BUTTED. SET IN ADHESIVE ACCORDING TO INSULATION MANUFACTURER'S WRITTEN INSTRUCTIONS.
- D. PROTECT TOP SURFACE OF HORIZONTAL INSULATION FROM DAMAGE DURING CONCRETE WORK BY APPLYING PROTECTION COURSE WITH JOINTS BUTTED.

3.3 INSTALLATION OF GENERAL BUILDING INSULATION

- A. SET VAPOR-RETARDER-FACED UNITS WITH VAPOR RETARDER BARRIER TO WARM-IN-WINTER SIDE OF CONSTRUCTION, UNLESS OTHERWISE INDICATED.
1. TAPE JOINTS AND RUPTURES IN VAPOR RETARDER BARRIER, AND SEAL EACH CONTINUOUS AREA OF INSULATION TO SURROUNDING CONSTRUCTION TO ENSURE AIRTIGHT INSTALLATION.
- B. INSTALL MINERAL-FIBER INSULATION IN CAVITIES FORMED BY FRAMING MEMBERS ACCORDING TO THE FOLLOWING REQUIREMENTS:
1. USE INSULATION WIDTHS AND LENGTHS THAT FILL THE CAVITIES FORMED BY FRAMING MEMBERS. IF MORE THAN ONE LENGTH IS REQUIRED TO FILL CAVITY, PROVIDE LENGTHS THAT WILL PRODUCE A SNUG FIT BETWEEN ENDS.
2. PLACE INSULATION IN CAVITIES FORMED BY FRAMING MEMBERS TO PRODUCE A FRICTION FIT BETWEEN EDGES OF INSULATION AND ADJOINING FRAMING MEMBERS.
3. MAINTAIN 3-INCH (76-MM) CLEARANCE OF INSULATION AROUND RECESSED LIGHTING FIXTURES.

3.4 INSTALLATION OF INSULATION IN CEILINGS & WALLS FOR SOUND ATTENUATION

- A. INSTALL 3" THICK, UNFACED GLASS-FIBER BLANKET INSULATION OVER CEILINGS SO THAT INSULATION EXTENDS OVER ENTIRE CEILING, AND INTERIOR WALLS AS INDICATED IN THE PLANS.

3.5 INSTALLATION OF VAPOR RETARDERS & VAPOR BARRIERS

- A. GENERAL: EXTEND VAPOR RETARDER TO EXTREMITIES OF AREAS TO BE PROTECTED FROM VAPOR TRANSMISSION. SECURE IN PLACE WITH ADHESIVES OR OTHER ANCHORAGE SYSTEM AS INDICATED. EXTEND VAPOR RETARDER TO COVER MISCELLANEOUS VOIDS IN INSULATED SUBSTRATES.
- B. SEAL VERTICAL JOINTS IN VAPOR RETARDERS OVER FRAMING BY LAPPING NOT LESS THAN TWO WALL STUDS. FASTEN VAPOR RETARDERS TO WOOD FRAMING AT TOP, END, AND, AND BOTTOM EDGES; AT PERIMETER OF WALL OPENINGS; AND AT LAP JOINTS. SPACE FASTENERS 16 INCHES (400 MM) O.C.
- C. SEAL JOINTS CAUSED BY PIPES, CONDUITS, ELECTRICAL BOXES, AND SIMILAR ITEMS PENETRATING VAPOR RETARDERS WITH VAPOR-RETARDER TAPE TO CREATE AN AIRTIGHT SEAL BETWEEN PENETRATING OBJECTS AND VAPOR RETARDER.
- D. REPAIR TEARS OR PUNCTURES IN VAPOR RETARDERS IMMEDIATELY BEFORE CONCEALMENT BY OTHER WORK. COVER WITH VAPOR-RETARDER TAPE OR ANOTHER LAYER OF VAPOR RETARDER.

SECTION 072419 - WATER-DRAINAGE EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

PART 1 - GENERAL

1.1 SUMMARY

- A. SECTION INCLUDES WATER-DRAINAGE EXTERIOR INSULATION AND FINISH SYSTEM (EIFS) APPLIED OVER WATER-RESISTIVE COATING OVER SHEATHING.

1.2 PERFORMANCE REQUIREMENTS

- A. CLASS PB EIFS: PHYSICAL PROPERTIES AND STRUCTURAL PERFORMANCE THAT COMPLY WITH ICC-ES AC208.
1. DRAINAGE: ACCORDING TO ICC-ES AC235.

1.3 SUBMITTALS

- A. PRODUCT DATA: FOR EACH TYPE AND COMPONENT OF EIFS INDICATED.
- B. SAMPLES: FOR EACH EXPOSED PRODUCT AND FOR EACH COLOR AND TEXTURE SPECIFIED.

1.4 QUALITY ASSURANCE

- A. INSTALLER QUALIFICATIONS: AN INSTALLER WHO IS CERTIFIED IN WRITING BY EIFS MANUFACTURER AS QUALIFIED TO INSTALL MANUFACTURER'S SYSTEM USING TRAINED WORKERS.
- B. SOURCE LIMITATIONS: OBTAIN EIFS FROM SINGLE SOURCE FROM SINGLE EIFS MANUFACTURER AND FROM SOURCES APPROVED BY EIFS MANUFACTURER AS COMPATIBLE WITH SYSTEM COMPONENTS.
- C. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT THE PROJECT SITE AT A DATE AND TIME TO BE ESTABLISHED.
- D. WARRANTY: PROVIDE MANUFACTURER'S STANDARD 10 YEAR WARRANTY ON MATERIALS.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE SPECIFIED MANUFACTURER AS FOLLOWS THE FOLLOWING:
1. DRYVIT SYSTEMS, INC.: OUTSULATION PLUS SYSTEM

2.2 MATERIALS

- A. COMPATIBILITY: PROVIDE WATER-RESISTIVE COATING, ADHESIVE, FASTENERS, BOARD INSULATION, REINFORCING MESHES, BASE- AND FINISH-COAT SYSTEMS, SEALANTS, AND ACCESSORIES THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH SUBSTRATES AND APPROVED FOR USE BY EIFS MANUFACTURER FOR PROJECT.
- B. WATER-RESISTIVE COATINGS: EIFS MANUFACTURER'S STANDARD FORMULATION AND ACCESSORIES FOR USE AS WATER/WEATHER-RESISTIVE BARRIERS, COMPATIBLE WITH SUBSTRATE, AND COMPLYING WITH PHYSICAL AND PERFORMANCE CRITERIA OF ICC-ES AC212.
- C. FLEXIBLE-MEMBRANE FLASHING: COLD-APPLIED, FULLY SELF-ADHERING, SELF-HEALING, RUBBERIZED-ASPHALT AND POLYETHYLENE-FILM COMPOSITE SHEET OR TAPE AND PRIMER; EIFS MANUFACTURER'S STANDARD OR PRODUCT RECOMMENDED IN WRITING BY EIFS MANUFACTURER.
- D. INSULATION ADHESIVE: STANDARD FORMULATION.
- E. MOLDED, RIGID CELLULAR POLYSTYRENE BOARD INSULATION: COMPLY WITH ASTM C 578, TYPE I; EIFS MANUFACTURER'S REQUIREMENTS; AND EIMA'S "EIMA GUIDELINE SPECIFICATION FOR EXPANDED POLYSTYRENE (EPS) INSULATION BOARD."
1. CHANNELLED BOARD INSULATION: EIFS MANUFACTURER'S STANDARD FACTORY-FABRICATED PROFILE WITH LINEAR, VERTICAL DRAINAGE CHANNELS, SLOTS, OR WAVES ON THE BACK SIDE OF BOARD.
2. FOAM SHAPES: PROVIDE WITH PROFILES AND DIMENSIONS INDICATED ON DRAWINGS.
- F. REINFORCING MESH: BALANCED, ALKALI-RESISTANT, OPEN-WEAVE, GLASS-FIBER MESH; COMPLYING WITH ASTM D 578 AND THE FOLLOWING:
1. STANDARD-IMPACT REINFORCING MESH: NOT LESS THAN 4.0 OZ./SQ. YD. (136 G./SQ. M).
2. DETAIL REINFORCING MESH: NOT LESS THAN 4.0 OZ./SQ. YD. (136 G./SQ. M).
- G. BASE-COAT MATERIALS: STANDARD FORMULATION.
- H. FINISH-COAT MATERIALS: FACTORY-MIXED, STANDARD ACRYLIC-BASED COATING WITH ENHANCED MILDEW RESISTANCE.
1. COLORS: AS INDICATED ON THE DRAWINGS.
- I. TRIM ACCESSORIES: STARTER TRACK MANUFACTURED FROM UV-STABILIZED PVC AND COMPLYING WITH ASTM D 1784 AND ASTM C 1063.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. COMPLY WITH EIFS MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLATION OF EIFS AS APPLICABLE TO EACH TYPE OF SUBSTRATE INDICATED.
- B. WATER-RESISTIVE COATINGS: APPLY OVER SUBSTRATES TO PROTECT SUBSTRATES FROM DEGRADATION AND TO PROVIDE WATER-/WEATHER-RESISTIVE BARRIER.
- C. FLEXIBLE-MEMBRANE FLASHING: INSTALL OVER WEATHER-RESISTIVE BARRIER, APPLIED AND LAPPED TO SHED WATER; SEAL AT OPENINGS, PENETRATIONS, TERMINATIONS, AND WHERE INDICATED BY EIFS MANUFACTURER'S WRITTEN INSTRUCTIONS TO PROTECT WALL ASSEMBLY FROM DEGRADATION. PRIME SUBSTRATES, IF REQUIRED, AND INSTALL FLASHING TO COMPLY WITH EIFS MANUFACTURER'S WRITTEN INSTRUCTIONS AND DETAILS.
- D. TRIM: APPLY TRIM ACCESSORIES AT LOCATIONS INDICATED ON DRAWINGS.
- E. BOARD INSULATION: ADHESIVELY ATTACH TO SUBSTRATE USING VERTICAL NOTCHED TROWEL CONFIGURATION FOR DRAINAGE.
- F. BASE COAT: APPLY TO EXPOSED SURFACES OF INSULATION AND FOAM SHAPES IN MINIMUM THICKNESS RECOMMENDED IN WRITING BY EIFS MANUFACTURER, BUT NOT LESS THAN 1/16-INCH (1.6-MM) DRY-COAT THICKNESS.
- G. REINFORCING MESH: COMPLETELY EMBED MESH IN WET BASE COAT, APPLYING ADDITIONAL BASE-COAT MATERIAL IF NECESSARY, SO REINFORCING-MESH COLOR AND PATTERN ARE NOT VISIBLE.
1. STANDARD-IMPACT REINFORCING MESH UNLESS OTHERWISE INDICATED.
- H. FINISH COAT: APPLY OVER DRY BASE COAT, MAINTAINING A WET EDGE AT ALL TIMES FOR UNIFORM APPEARANCE, IN THICKNESS REQUIRED BY EIFS MANUFACTURER TO PRODUCE A UNIFORM FINISH OF COLOR AND TEXTURE MATCHING APPROVED SAMPLE AND FREE OF COLD JOINTS, SHADOW LINES, AND TEXTURE VARIATIONS.
1. TEXTURE: AS INDICATED ON THE DRAWINGS.
- 3.2 FIELD QUALITY CONTROL

- A. TESTING AGENCY: OWNER MAY ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.
- B. EIFS TESTS AND INSPECTIONS: FOR THE FOLLOWING:
1. ACCORDING TO ICC-ES AC235.
- C. REMOVE AND REPLACE EIFS WHERE TEST RESULTS INDICATE THAT EIFS DO NOT COMPLY WITH SPECIFIED REQUIREMENTS.
- D. PREPARE TEST AND INSPECTION REPORTS.

SECTION 075213 - ATACTIC-POLYPROPYLENE (APP) MODIFIED BITUMINOUS MEMBRANE ROOFING (APPROVED ALTERNATE ROOFING. G.C. IS TO CONFIRM WITH OWNER/FRANCHISEE IF G.C. IS TO PROVIDE A BID WITH THIS OPTION. THE STANDARD ROOFING IS TO BE THE THERMOPLASTIC MEMBRANE ROOFING SPECIFIED IN SECTION 075400.)

PART 1 - GENERAL

1.1 SUMMARY

- A. THIS SECTION INCLUDES APP-MODIFIED BITUMINOUS MEMBRANE ROOFING.

1.2 DEFINITIONS

- A. HOT ROOFING: ASPHALT: ROOFING ASPHALT HEATED TO ITS EQUIVISCIOUS TEMPERATURE, THE TEMPERATURE AT WHICH ITS VISCOSITY IS 125 CENTIPOISE FOR MOP-APPLIED ROOFING ASPHALT AND 75 CENTIPOISE FOR MECHANICAL SPREADER-APPLIED ROOFING ASPHALT, WITHIN A RANGE OF PLUS OR MINUS 25 DEG F (14 DEG C), MEASURED AT THE MOP CART OR MECHANICAL SPREADER IMMEDIATELY BEFORE APPLICATION.

1.3 SUBMITTALS

- A. SUBMITTAL DATA: FOR EACH PRODUCT INDICATED.
- B. SHOP DRAWINGS: INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK.
- C. SAMPLES: FOR EACH PRODUCT INCLUDED IN ROOFING SYSTEM.

1.4 QUALITY ASSURANCE

- A. INSTALLER QUALIFICATIONS: A QUALIFIED INSTALLER, APPROVED BY MANUFACTURER TO INSTALL MANUFACTURER'S PRODUCTS.
- B. SOURCE LIMITATIONS: OBTAIN COMPONENTS FOR ROOFING SYSTEM FROM ROOFING SYSTEM MANUFACTURER.
- C. FIRE-TEST-RESPONSE CHARACTERISTICS: PROVIDE ROOFING MATERIALS WITH THE FIRE-TEST-RESPONSE CHARACTERISTICS INDICATED AS DETERMINED BY TESTING IDENTICAL PRODUCTS PER TEST METHOD BELOW BY UL, FMG, OR ANOTHER TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
1. EXTERIOR FIRE-TEST EXPOSURE: CLASS A, ASTM E 108, FOR APPLICATION AND ROOF SLOPES INDICATED.
- D. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT THE PROJECT SITE AT A DATE AND TIME TO BE ESTABLISHED.

1.5 WARRANTY

- A. SPECIAL WARRANTY: US INTEC'S "NO DOLLAR LIMIT (NDL) GUARANTEE" - NEW INTEC NDL GUARANTEE: 12. A FULL REPAIR OR REPLACEMENT, NO LIMITS GUARANTEE, FOR 12 YEARS FROM DATE OF SUBSTANTIAL COMPLETION AGAINST FAILURE OF MATERIALS OR WORKMANSHIP.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
1. APP-MODIFIED BITUMINOUS MEMBRANE ROOFING:
- a. GAP MATERIALS CORP., APP TORCH APPLIED 6B-2B-N (2) PLY WITH NAILABLE DECK (B-SP-400-N).

2.2 APP-MODIFIED ASPHALT-SHEET MATERIALS

- A. ROOFING MEMBRANE SHEET: ASTM D 6222, GRADE S, TYPE I OR II, POLYESTER-REINFORCED, APP-MODIFIED ASPHALT SHEET; SMOOTH SURFACED; SUITABLE FOR APPLICATION METHOD SPECIFIED.
- B. ROOFING MEMBRANE CAP SHEET: ASTM D 6222, GRADE G, TYPE I OR II, POLYESTER-REINFORCED, APP-MODIFIED ASPHALT SHEET; GRANULAR SURFACED; SUITABLE FOR APPLICATION METHOD SPECIFIED, AND AS FOLLOWS:
1. GRANULE COLOR: WHITE.

2.3 BASE-SHEET MATERIALS

- A. SHEATHING PAPER: RED-ROBIN TYPE, MINIMUM 3 LB/100 SQ. FT. (0.16 KG/SQ. M).
- B. BASE SHEET: ASTM D 4897, TYPE II, VENTING, NONPERFORATED, HEAVYWEIGHT, ASPHALT-IMPREGNATED AND -COATED, GLASS-FIBER BASE SHEET WITH COARSE GRANULAR SURFACING OR EMBOSSED VENTING CHANNELS ON BOTTOM SURFACE.

2.4 BASE FLASHING SHEET MATERIALS

- A. BACKER SHEET: ASTM D 6222, GRADE S, TYPE I OR II, POLYESTER-REINFORCED, APP-MODIFIED ASPHALT SHEET; SMOOTH SURFACED; SUITABLE FOR APPLICATION METHOD SPECIFIED.
- B. FLASHING SHEET: ASTM D 6222, GRADE G, TYPE I OR II, POLYESTER-REINFORCED, APP-MODIFIED ASPHALT SHEET; GRANULAR SURFACED; SUITABLE FOR APPLICATION METHOD SPECIFIED, AND AS FOLLOWS:
1. GRANULE COLOR: WHITE.

2.5 AUXILIARY ROOFING MEMBRANE MATERIALS

- A. GENERAL: AUXILIARY MATERIALS RECOMMENDED BY ROOFING SYSTEM MANUFACTURER FOR INTENDED USE AND COMPATIBLE WITH ROOFING MEMBRANE.
- B. ASPHALT PRIMER: ASTM D 41.
- C. ROOFING ASPHALT: ASTM D 312, TYPE III OR IV AS RECOMMENDED BY ROOFING SYSTEM MANUFACTURER FOR APPLICATION.
- D. ASPHALT ROOFING CEMENT: ASTM D 4586, ASBESTOS FREE, OF CONSISTENCY REQUIRED BY ROOFING SYSTEM MANUFACTURER FOR APPLICATION.
- E. FASTENERS: FACTORY-COATED STEEL FASTENERS AND METAL OR PLASTIC PLATES MEETING CORROSION-RESISTANCE PROVISIONS IN FMG 4470, DESIGNED FOR FASTENING ROOFING MEMBRANE COMPONENTS TO SUBSTRATE, TESTED BY MANUFACTURER FOR REQUIRED PULLOUT STRENGTH, AND ACCEPTABLE TO ROOFING SYSTEM MANUFACTURER.

2.6 ROOF INSULATION

- A. POLYISOCYANURATE BOARD INSULATION: ASTM C 1289, TYPE II, FELT OR GLASS-FIBER MAT FACER ON BOTH MAJOR SURFACES.
- B. TAPERED INSULATION: PROVIDE FACTORY-TAPERED INSULATION BOARDS FABRICATED TO SLOPE OF 1/4 INCH PER 12 INCHES (1:48), UNLESS OTHERWISE INDICATED.
- C. PROVIDE PREFORMED SADDLES, CRICKETS, TAPERED EDGE STRIPS, AND OTHER INSULATION SHAPES WHERE INDICATED FOR SLOPING TO DRAIN. FABRICATE TO SLOPES INDICATED.

2.7 INSULATION ACCESSORIES

- A. FASTENERS: FACTORY-COATED STEEL FASTENERS AND METAL OR PLASTIC PLATES MEETING CORROSION-RESISTANCE PROVISIONS IN FMG 4470, DESIGNED FOR FASTENING ROOF INSULATION TO SUBSTRATE, AND ACCEPTABLE TO ROOFING SYSTEM MANUFACTURER.
- B. INSULATION CANT STRIPS: ASTM C 208, TYPE II, GRADE 1, CELLULOSIC-FIBER INSULATION BOARD.
- C. WOOD NAILER STRIPS: COMPLY WITH REQUIREMENTS IN DIVISION 06 "ROUGH CARPENTRY."
- D. TAPERED EDGE STRIPS: ASTM C 208, TYPE II, GRADE 1, CELLULOSIC-FIBER INSULATION BOARD.
- E. COVER BOARD: ASTM C 208, TYPE II, GRADE 1, CELLULOSIC-FIBER INSULATION BOARD, 1/2 INCH (13 MM) THICK.

PART 3 - EXECUTION

3.1 SUBSTRATE BOARD INSTALLATION

- A. INSTALL SUBSTRATE BOARDS WITH LONG JOINTS IN CONTINUOUS STRAIGHT LINES, PERPENDICULAR TO ROOF SLOPES WITH END JOINTS STAGGERED BETWEEN ROWS. BUTT SUBSTRATE BOARDS TOGETHER.
1. FASTEN SUBSTRATE BOARD TO TOP FLANGES OF STEEL DECK ACCORDING TO ROOFING SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS.

3.2 INSULATION INSTALLATION

- A. COMPLY WITH ROOFING SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLING ROOF INSULATION.
- B. INSULATION CANT STRIPS: INSTALL AND SECURE PREFORMED 45-DEGREE INSULATION CANT STRIPS AT JUNCTURES OF ROOFING MEMBRANE SYSTEM WITH VERTICAL SURFACES OR ANGLE CHANGES GREATER THAN 45 DEGREES.
- C. INSTALL TAPERED INSULATION UNDER AREA OF ROOFING TO CONFORM TO SLOPES INDICATED.
- D. INSTALL ONE OR MORE LAYERS OF INSULATION UNDER AREA OF ROOFING TO ACHIEVE REQUIRED THICKNESS. WHERE OVERALL INSULATION THICKNESS IS 2 INCHES (50 MM) OR GREATER, INSTALL 2 OR MORE LAYERS WITH JOINTS OF EACH SUCCEEDING LAYER STAGGERED FROM JOINTS OF PREVIOUS LAYER A MINIMUM OF 6 INCHES (150 MM) IN EACH DIRECTION.
- E. INSTALL TAPERED EDGE STRIPS AT PERIMETER EDGES OF ROOF THAT DO NOT TERMINATE AT VERTICAL SURFACES.
- F. MECHANICALLY FASTENED AND ADHERED INSULATION: INSTALL EACH LAYER OF INSULATION AND SECURE FIRST LAYER OF INSULATION TO DECK USING MECHANICAL FASTENERS SPECIFICALLY DESIGNED AND SIZED FOR FASTENING SPECIFIED BOARD-TYPE ROOF INSULATION TO DECK TYPE.
1. INSTALL SUBSEQUENT LAYERS OF INSULATION IN A SOLID MOPPING OF HOT ROOFING ASPHALT.
- G. INSTALL COVER BOARDS OVER INSULATION WITH LONG JOINTS IN CONTINUOUS STRAIGHT LINES WITH END JOINTS STAGGERED BETWEEN ROWS. LOOSELY BUTT COVER BOARDS TOGETHER AND FASTEN TO ROOF DECK.

3.3 ROOFING MEMBRANE INSTALLATION

- A. INSTALL ROOFING MEMBRANE SYSTEM ACCORDING TO ROOFING SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS AND APPLICABLE RECOMMENDATIONS OF ARMA/NRCA'S "QUALITY CONTROL GUIDELINES FOR THE APPLICATION OF POLYMER MODIFIED BITUMEN ROOFING."
- B. WHERE ROOF SLOPE EXCEEDS 1/2 INCH PER 12 INCHES (1:24), INSTALL ROOFING MEMBRANE SHEETS PARALLEL WITH SLOPE.
1. BACKNAIL ROOFING MEMBRANE SHEETS TO NAILER STRIPS. SUBSTRATE ACCORDING TO ROOFING SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS.
- C. COORDINATE INSTALLING ROOFING SYSTEM SO INSULATION AND OTHER COMPONENTS OF THE ROOFING MEMBRANE SYSTEM NOT PERMANENTLY EXPOSED ARE NOT SUBJECTED TO PRECIPITATION OR LEFT UNCOVERED AT THE END OF THE WORKDAY OR WHEN RAIN IS FORECAST.
- D. SUBSTRATE-JOINT PENETRATIONS: PREVENT ROOFING ASPHALT FROM PENETRATING SUBSTRATE JOINTS, ENTERING BUILDING, OR DAMAGING ROOFING SYSTEM COMPONENTS OR ADJACENT BUILDING CONSTRUCTION.
- E. LOOSELY LAY ONE COURSE OF SHEATHING PAPER, LAPPING EDGES AND ENDS A MINIMUM OF 2 INCHES (50 MM) AND 6 INCHES (150 MM), RESPECTIVELY.
- F. INSTALL ONE LAPPED COURSE OF BASE SHEET, EXTENDING SHEET OVER AND TERMINATING BEYOND C