DIVISION 5 - METALS

1. STEEL FRAMING
REFERENCE STRUCTURAL DRAWINGS FOR STEEL FRAMING SPECIFICATIONS

2. MISCELLANEOUS METALS
CUSTOM FABRICATE FERROUS METAL ITEMS 16 GAUGE AND HEAVIER. REFER TO DRAWINGS AND DETAILS.

3. METAL STUDS
INSTALL METAL FRAMING SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S PRINTED OR WRITTEN INSTRUCTIONS AND RECOMMENDATIONS, UNLESS OTHERWISE INDICATED. INSTALL CONTINUOUS TRACK - SIZED TO MATCH STUDS. SECURE TRACKS AS RECOMMENDED BY STUD MANUFACTURER FOR TYPE OF CONSTRUCTION INVOLVED.

SET STUDS PLUMB, EXCEPT AS NEEDED FOR DIAGONAL BRACING OR REQUIRED FOR NON-PLUMB WALLS OR WARPED SURFACES.

INSTALL SUPPLEMENTARY FRAMING, BLOCKING AND BRACING IN METAL FRAMING SYSTEM WHENEVER WALL OR PARTITIONS ARE INDICATED TO SUPPORT FIXTURES, EQUIPMENT, SERVICES, CASEWORK, HEAVY TRIM AND FURNISHINGS AND SIMILAR WORK.

SECURE STUDS TO TOP AND BOTTOM RUNNER TRACKS BY EITHER WELDING OR SCREW FASTENING AT BOTH INSIDE AND OUTSIDE FLANGES.

INSTALL HORIZONTAL STIFFENERS IN STUD SYSTEM AS REQUIRED, SPACE (VERTICAL DISTANCE) AT NO MORE THAN 4'-6" O.C.

4. EXTERIOR ALUMINUM AWNINGS

DIVISION 6 - WOOD AND PLASTICS

1. WOOD FRAME AND ROOF TRUSSES
REFERENCE STRUCTURAL DRAWINGS FOR SPECIFICATIONS OF WOOD FRAMING AND TRUSSES

2. FINISH CARPENTRY MATERIALS
QUALITY ASSURANCE:
PERFORM FINISH CARPENTRY WORK IN ACCORDANCE WITH AWI QUALITY STANDARDS, PREMIUM GRADE. USE FULL LENGTH PIECES, MITER ALL JOINTS, SHOULDER JOINT AT DOOR JAMBS. FILL ALL NAIL HOLES AND SAND SMOOTH.

WOOD TRIM INTERIOR: VERTICAL GRAIN, RED OAK SURFACE ALL EXPOSED EDGES.

EXPOSED WOOD AT EXTERIOR: RESAWN DOUGLAS FIR, NO KNOTS, STAIN GRADE.

3. SHEATHING
GENERAL: PROVIDE IN MAXIMUM LENGTHS AND WIDTHS AVAILABLE THAT WILL MINIMIZE JOINTS IN EACH AREA AND CORRESPOND WITH SUPPORT SYSTEM INDICATED.

SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:
A. CEMENTITIOUS BACKER UNITS: ASTM C 1325, TYPE A.
   1. THICKNESS: AS INDICATED ON DRAWINGS.
B. PLYWOOD WALL SHEATHING: REFER TO STRUCTURAL SPECIFICATIONS FOR GRADE AND TYPE.
   1. THICKNESS: AS INDICATED ON DRAWINGS.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

1. ENERGY COMPLIANCE
A. FIXED WINDOWS (GLASS) SHALL BE SEALED TO LIMIT AIR INFILTRATION.

B. HOLLOW METAL OR SOLID CORE WOOD DOORS: PROVIDE VINYL OR SHEET METAL WEATHER SEAL AT HEAD, JAMB AND SILL AT ALL EXTERIOR DOORS.

C. EXTERIOR STORE FONT HINGED DOORS: PROVIDE VINYL SEAL AT SILL AND CONTINUOUS PILE WEATHER-STRIP VERTICALLY AND AT TOP RAILS.

D. OPEN EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF, BETWEEN WALL PANELS, AT PENETRATION OF UTILITIES THROUGH THE ENVELOPE, SHALL BE SEALED CAULKED OR WEATHER-STRIPPED TO LIMIT AIR LEAKAGE.

2. BUILDING INSULATION
A. WORK INCLUDED: FURNISH AND INSTALL RIGID, AND THERMAL BATT INSULATION.

B. ROOF INSULATION: REFER TO SECTION 3. "ROOFING SYSTEM" FOR ROOF INSULATION REQUIREMENTS.

C. PERIMETER FOUNDATION AND SLAB INSULATION: EXTRUDED POLYSTYRENE FOAM-PLASTIC BOARD. DOW; STYROFOAM BRAND SM OR EQUAL.

D. EXTERIOR STUD WALL ABOVE ROOF: GLASS-FIBER BLANKET, UNFACED: ASTM C 665, TYPE I; WITH MAXIMUM FLAME-SPREAD AND SMOKE-DEVELOPED INDEXES OF 25 AND 450, RESPECTIVELY, PER ASTM E 84; PASSING ASTM E 136 FOR COMBUSTION CHARACTERISTICS.

E. EXTERIOR STUD WALL - INTERIOR SIDE: KRAFT FACED BATT INSULATION: ASTM C665, TYPE II, CLASS C PREFORMED GLASS FIBER BATT TYPE, KRAFT PAPER FACED ONE SIDE.
   1. PROVIDE SIZE AND THICKNESS TO MATCH STUD WALL CAVITY AND TO ACHIEVE A MINIMUM R-VALUE AS INDICATED ON THE DRAWINGS.
   2. PERM RATING: 1 PERM MAX. PER ASTM E96.
   3. MATERIALS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT BY OWENS CORNING OR EQUAL.

F. INSULATION FOR MISCELLANEOUS VOIDS:
   1. SPRAY POLYURETHANE FOAM INSULATION: ASTM C 1029, TYPE II, CLOSED CELL, WITH MAXIMUM FLAME-SPREAD AND SMOKE - DEVELOPED INDEXES OF 75 AND 450, RESPECTIVELY, PER ASTM E-84.

3. ROOFING SYSTEM
A. WORK INCLUDED: FURNISH AND INSTALL ROOF INSULATION, ROOF MEMBRANE, BASE FLASHINGS, AND AUXILIARY COMPONENT MATERIALS.

B. MECHANICALLY FASTENED SINGLE-PLY MEMBRANE SYSTEM: POLYVINYL-CHLORIDE (PVC) SHEET ROOFING MECHANICALLY FASTENED TO ROOF INSULATION THAT HAS BEEN SECURED TO THE ROOF DECK.

C. PVC SHEET, ASTM D 4434/D 4434M, TYPE IV, FABRIC REINFORCED:
   1. MATERIALS: DURO-LAST (DL40) MEMBRANE AS MANUFACTURED BY DURO-LAST ROOFING, INC.
   2. THICKNESS: 40 MILS, NOMINAL.
   3. EXPOSED FACE COLOR: WHITE.

D. ROOF INSULATION GENERAL: PREFORMED ROOF INSULATION BOARDS MANUFACTURED BY PVC ROOFING MANUFACTURER, SELECTED FROM MANUFACTURER'S STANDARD SIZES SUITABLE FOR APPLICATION, OF THICKNESSES REQUIRED TO ACHIEVE MINIMUM R-VALUE INDICATED.

E. ROOF INSULATION: POLYISOCYANURATE BOARD INSULATION, ASTM C 1289, TYPE II, CLASS 1, GRADE 2, FELT OR GLASS-FIBER MAT FACER ON BOTH MAJOR SURFACES.
   1. PROVIDE MINIMUM R-VALUE AS DETERMINED BY THE LONG TERM THERMAL RESISTANCE (LTTR) METHOD.
   2. ROOF INSULATION: RIGID POLY-ISO INSULATION R-20 MINIMUM.

F. SOURCE LIMITATIONS: OBTAIN COMPONENTS INCLUDING ROOF INSULATION, FASTENERS, BASE FLASHINGS, AND AUXILIARY MATERIALS FOR ROOFING SYSTEM FROM SAME MANUFACTURER AS MEMBRANE ROOFING.

G. MATERIAL COMPATIBILITY: ROOFING MATERIALS SHALL BE COMPATIBLE WITH ONE ANOTHER AND ADJACENT MATERIALS UNDER CONDITIONS OF SERVICE AND APPLICATION REQUIRED.

H. INSTALLATION, GENERAL: INSTALL ROOFING OVER WOOD DECK OR ROOF INSULATION, WHERE APPLICABLE, ACCORDING TO ROOFING SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS.
   1. COMPLETE TERMINATIONS AND BASE FLASHINGS AND PROVIDE TEMPORARY SEALS TO PREVENT WATER FROM ENTERING COMPLETED SECTIONS OF ROOFING SYSTEM AT THE END OF THE WORKDAY OR WHEN RAIN IS FORECAST. REMOVE AND DISCARD TEMPORARY SEALS BEFORE BEGINNING WORK ON ADJOINING ROOFING.
   2. PRIME ALL METAL FLASHING, ETC. THAT SHALL BE IN CONTACT WITH ROOFING MATERIALS.

I. INSTALLER QUALIFICATIONS: A QUALIFIED FIRM THAT IS APPROVED, AUTHORIZED, OR LICENSED BY ROOFING SYSTEM MANUFACTURER TO INSTALL MANUFACTURER'S PRODUCT AND THAT IS ELIGIBLE TO RECEIVE MANUFACTURER'S SPECIAL WARRANTY.

J. WARRANTY: GENERAL CONTRACTOR SHALL FURNISH A FIFTEEN (15) YEAR, NO DOLLAR LIMIT (NDL), WARRANTY FOR THIS INSTALLATION.

4. FLASHING AND SHEET METAL

A. FURNISH AND INSTALL ALL FLASHING, SHEET METAL, PITCH POCKET PANS AND SCUPPERS NOT SPECIFICALLY DESCRIBED IN OTHER SECTIONS OF THESE SPECIFICATIONS, BUT REQUIRED TO PREVENT WATER PENETRATION THROUGH EXTERIOR BUILDING SHELL, INCLUDING FLASHING, CAPS, AND ROOF EQUIPMENT PLATFORM COVERS.

B. COMPLY WITH APPLICABLE RECOMMENDATIONS AND DETAILS OF THE "ARCHITECTURAL SHEET METAL MANUAL", BY SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION (SMACNA).

C. GALVANIZED IRON: SHEET METAL OR IRON SHALL BE A STANDARD BRAND OF OPEN-HEARTH, COPPER-BEARING STEEL, COPPER-MOLYBDENUM IRON, OR PURE IRON SHEETS. USE 24 GAUGE MINIMUM UNLESS OTHERWISE CALLED FOR ON THE DRAWINGS.

D. ZINC COATING: ALL GALVANIZED SHEETS SHALL HAVE A ZINC COATING APPLIED BY HOT-DIP PROCESS TO ALL SURFACES. ZINC COATING SHALL WEIGH NOT LESS THAN 1 1/4 OUNCES PER SQ. FT. NOR MORE THAN 1 1/2 OUNCES PER SQ. FT. OF SURFACES COVERED AND SHALL CONFORM WITH ASTM A-93.

5. ROOF ACCESSORIES

A. THE WORK OF THIS SECTION INCLUDES THE PROVIDING AND INSTALLING OF ACCESSORIES TO BE INSTALLED ON THE ROOF AND FLASHED TO PROVIDE A WATERTIGHT INSTALLATION.

B. ROOF HATCH: BILCO, TYPE "S-20", 2'-6" X 3'-0", GALVANIZED, BONDED FOR PAINTING.

6. CAULKING & SEALANTS

GENERAL BUILDING APPLICATIONS: FOR JOINTS WHERE MOVEMENT IS ANTICIPATED, USE A.C. HORN HORNFLEX (POLYSULFIDE) ONE COMPONENT SYSTEM IN THE COLOR WHICH MOST CLOSELY MATCHES THE ADJACENT SURFACES. SEALANT TO HAVE A SHORE "A" HARDNESS OF 20 TO 30.

FOR DRY JOINTS BETWEEN DISSIMILAR MATERIALS WHERE LITTLE MOVEMENT IS ANTICIPATED, USE A.C. HORN HORNSEAL ELASTOMERIC CAULK (BUTYL RUBBER) ONE COMPONENT SYSTEM IN THE COLOR WHICH MOST CLOSELY MATCHES ADJACENT SURFACES.

FOR GLAZING AND KITCHEN APPLICATIONS:
GENERAL ELECTRIC SILICONE CONSTRUCTION 1200 SEALANT.

FOR SHEET METAL FLASHING AND COPING:
GENERAL ELECTRIC SILPRUF SILICONE WEATHER PROOFING SEALANT.

THE GENERAL CONTRACTOR SHALL INCLUDE IN HIS WORK THE FOLLOWING: AFTER ALL EQUIPMENT AND WALL MATERIALS ARE INSTALLED, ALL JOINTS TO WALLS AND BASES SHALL BE SEALED WITH SILICONE SEALANT.

ALL INSIDE VERTICAL CERAMIC TILE CORNERS SHALL RECEIVE A TOOLED BEAD OF SILICONE SEALANT.

7. EIFS (EXTERIOR INSULATION AND FINISH SYSTEM)

A. WORK INCLUDED: ALL MATERIALS AND INSTALLATION OF AN EIFS SYSTEM.

B. DESIGN REQUIREMENTS: CONFORM IN ALL RESPECTS TO MANUFACTURER'S SPECIFICATIONS FOR MATERIALS AND INSTALLATION.
   1. PROVIDE EIFS SYSTEM AND ACCESSORIES FROM SINGLE SOURCE.
   2. BASIS OF DESIGN: STO THERM CI ESSENCE SYSTEM
   3. FINISH: AS INDICATED ON DRAWINGS

C. DRYVIT MAY BE SUBSTITUTED AS AN ALTERNATE EIFS MANUFACTURER IF APPROVED IN WRITING BY PANDA EXPRESS

D. MEET ALL LOCAL BUILDING CODE REQUIREMENTS.

E. MOISTURE CONTROL: PREVENT THE ACCUMULATION OF WATER BEHIND THE EIFS SYSTEM, EITHER BY CONDENSATION OR LEAKAGE THROUGH THE WALL CONSTRUCTION, IN THE DESIGN AND DETAILING OF THE WALL ASSEMBLY. CONFORM WITH ALL DETAILS OF MANUFACTURER'S SPECIFICATIONS.

F. IMPACT RESISTANCE: PROVIDE ULTRA-HIGH IMPACT RESISTANCE TO A MINIMUM OF 6'-0" ABOVE FINISHED GRADE AT ALL AREAS ACCESSIBLE TO PEDESTRIAN TRAFFIC AND OTHER OTHER AREAS EXPOSED TO ABNORMAL STRESS OR IMPACT. INDICATE THE AREAS WITH IMPACT RESISTANCE OTHER THAN "STANDARD" ON CONTRACT DRAWINGS

G. COLOR SELECTION: AS INDICATED ON DRAWINGS

H. JOINTS: PER MANUFACTURER'S SPECIFICATION

I. GRADE CONDITION: DO NOT INSTALL EIFS BELOW GRADE.

J. INSTALLER QUALIFICATIONS: A QUALIFIED FIRM THAT IS APPROVED, AUTHORIZED, OR LICENSED BY ROOFING SYSTEM MANUFACTURER TO INSTALL MANUFACTURER'S PRODUCT AND THAT IS ELIGIBLE TO RECEIVE MANUFACTURER'S SPECIAL WARRANTY.

K. WARRANTY: GENERAL CONTRACTOR SHALL FURNISH A FIFTEEN (15) YEAR, NO DOLLAR LIMIT (NDL), WARRANTY FOR THIS INSTALLATION.

L. PROJECTING ARCHITECTURAL FEATURES AND REVEALS: ALL TRIM AND PROJECTING ARCHITECTURAL FEATURES MUST HAVE A MINIMUM 1:2 SLOPE ALONG THEIR TOP SURFACE ALL HORIZONTAL REVEALS MUST HAVE A MINIMUM 1:2 SLOPE ALONG THEIR BOTTOM SURFACE INCREASE SLOPE FOR NORTHERN CLIMATES TO PREVENT ACCUMULATION OF ICE/SNOW AND WATER ON SURFACE WHERE TRIM FEATURE OR BOTTOM SURFACE OF REVEAL PROJECTS MORE THAN 2 INCHES FROM THE FACE OF THE EIFS WALL PLANE, PROTECT THE TOP SURFACE WITH WATERPROOF BASE COAT. PERIODIC INSPECTIONS AND INCREASED MAINTENANCE MAY BE REQUIRED TO MAINTAIN SURFACE INTEGRITY OF EIFS ON WEATHER EXPOSED SLOPED SURFACES.

M. FIRE PROTECTION: REFER TO MANUFACTURER'S APPLICABLE CODE COMPLIANCE REPORT FOR LIMITATIONS THAT MAY APPLY.

N. QUALITY ASSURANCE:
   1. MANUFACTURER REQUIREMENTS: MEMBER IN GOOD STANDING OF THE EIFS INDUSTRY MEMBERS ASSOCIATION, AND (EIMA). SYSTEM MANUFACTURER FOR A MINIMUM OF TWENTY (25) YEARS, AND MANUFACTURING FACILITIES ISO 9001-2000 CERTIFIED QUALITY SYSTEM.

   2. CONTRACTOR REQUIREMENTS: ENGAGED IN APPLICATION OF EIFS FOR A MINIMUM OF THREE (3) YEARS; AND EMPLOY SKILLED MECHANICS WHO ARE EXPERIENCED AND KNOWLEDGEABLE IN EIFS APPLICATION; AND DEMONSTRATE SUCCESSFUL COMPLETION OF MINIMUM OF THREE (3) PROJECTS OF SIMILAR SIZE AND COMPLEXITY TO THE SPECIFIED PROJECT.

   3. INSULATION BOARD MANUFACTURER REQUIREMENTS: RECOGNIZED BY STO AS CAPABLE OF PRODUCING INSULATION BOARD; AND LISTED BY AN APPROVED AGENCY. LABEL INSULATION BOARD WITH INFORMATION REQUIRED BY STO, THE APPROVED LISTING AGENCY AND THE APPLICABLE BUILDING CODE.

   4. INSPECTIONS: PROVIDE INDEPENDENT THIRD PARTY INSPECTION WHERE REQUIRED BY CODE OR CONTRACT DOCUMENTS CONDUCT INSPECTIONS IN ACCORDANCE WITH CODE REQUIREMENTS AND CONTRACT DOCUMENTS.

O. DELIVERY STORAGE AND HANDLING: AS SPECIFIED BY MANUFACTURER.

P. COORDINATION: THE WORK IN THIS SECTION REQUIRES CLOSE COORDINATION WITH RELATED SECTIONS AND TRADES.
   1. PROVIDE SITE GRADING SUCH THAT EIFS TERMINATES ABOVE FINISHED GRADE A MINIMUM OF 6 INCHES (152MM) OR AS REQUIRED BY CODE.

   2. PROVIDE PROTECTION OF ROUGH OPENINGS BEFORE INSTALLING WINDOWS, DOORS AND OTHER PENETRATIONS THROUGH THE WALL AND PROVIDE SILL FLASHING.

   3. INSTALL WINDOW AND DOOR HEAD FLASHING IMMEDIATELY AFTER WINDOWS AND DOORS ARE INSTALLED.

   4. INSTALL DIVERTER FLASHING WHEREVER WATER CAN ENTER THE WALL ASSEMBLY TO DIRECT WATER TO THE EXTERIOR.

   5. INSTALL COPINGS AND SEALANT IMMEDIATELY AFTER INSTALLATION OF THE EIFS SYSTEM AND WHEN EIFS COATINGS ARE DRY.

   6. ATTACH PENETRATIONS THROUGH EIFS TO STRUCTURAL SUPPORT AND PROVIDE WATER TIGHT SEAL AT PENETRATIONS.

Q. EXECUTION:
   1. INSTALLATION: INSTALL EIFS IN COMPLIANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
   2. PROTECTION: PROVIDE PROTECTION OF INSTALLED MATERIALS FROM WATER INFILTRATION INTO OR BEHIND THEM. PROVIDE PROTECTION OF INSTALLED MATERIALS FROM DUST, DIRT, PRECIPITATION, FREEZING AND CONTINUOUS HIGH HUMIDITY UNTIL THEY ARE FULLY DRY.

BASF
We create chemistry

Technical Data Guide

7 | 07 14 00 **Fluid-Applied Waterproofing**

MasterSeal® HLM 5000

Liquid, cold-applied elastomeric waterproofing membrane system

FORMERLY SONOSHIELD® HLM 5000

YIELD
25–30 ft²/gal at 55–65 wet mils (0.61–0.74 m²/L at 1.4–1.7 mm wet thickness)

25–30 ft²/gal at 45–55 dry mils (0.61–0.74 m²/L at 1.1–1.4 mm dry thickness)

Coverage may vary with the application technique used. Actual coverage rate and mil thickness depend on finish and porosity of the substrate.

STORAGE
Store in unopened containers in clean, dry conditions at 40 to 80°F (4 to 27°C). During storage, an easily removed skin of HLM 5000 may form, which does not affect performance of the product.

SHELF LIFE
– 1 Year Pails
– 6 Months Drums

VOC CONTENT
– MasterSeal HLM 5000 SL: 183 g/L
– MasterSeal HLM 5000 S: 190 g/L
– MasterSeal HLM 5000 R: 180 g/L
– MasterSeal HLM 5000 T: 132 g/L

DESCRIPTION
MasterSeal HLM 5000 is a one-component, moisture-curing, bitumen-modified polyurethane elastomeric waterproofing membrane for exterior below-grade or between-slab applications. It is available in four grades:
MasterSeal HLM 5000 SL (self-leveling/squeegee) MasterSeal HLM 5000 S (spray)
MasterSeal HLM 5000 T (trowel) MasterSeal HLM 5000 R (roller)

PRODUCT HIGHLIGHTS
- Available in standard and high-build systems
- Waterproofing membrane to prevent water penetration
- Elastomeric accommodates expansion and contraction
- Wide service-temperature range, making MasterSeal HLM 5000 suitable for all climates
- Chemical resistance to bacterial attack, select acids, alkalis and salts
- Seamless cold-applied membrane eliminates lapping, seaming and precutting
- Does not require hot-melt equipment

PACKAGING
- MasterSeal HLM 5000 SL, HLM 5000 S, and HLM 5000 R: 5 gal (18.95 L) pails, 55 gal (208 L) drums; available special order
- MasterSeal HLM 5000 T: 5 gal (18.95 L) pails
- MasterSeal 995: 300 ft by 37½" (91 by 0.9 m) rolls, yielding 937 ft² (87 m²)
- MasterSeal 977:
  - 50 mil by 40" by 48" (1.3 mm by 1 m by 1.2 m) sheets, 500 per pallet, yielding 13⅓ ft² (1.2 m²) per sheet or 6,665 ft² (619 m²) per pallet.
  - 120 mil (⅛") by 40" by 48" (3 mm by 1 m by 1.2 m) sheets, 500 per pallet, yielding 13⅓ ft² (1.2 m²) per sheet or 6,665 ft² (619 m²) per pallet.

APPLICATIONS
- Concrete
- Plywood (exterior)
- Exterior below grade (on masonry, concrete, and incidental metal)
- Above grade (between two-course concrete and within cavity walls)
- Parking garages and concrete tanks
- Plaza decks and malls
- Fountains and pools
- Balconies and planters
- Below-grade slabs
- Walls and culverts
- Sea walls, dams and reservoirs

HOW TO APPLY MASTERSEAL HLM 5000
SURFACE PREPARATION
1. For best results, all concrete deck surfaces should be lightly steel troweled to a flat, uniform surface. A light broom finish is acceptable. New concrete must be properly water cured at least 14 days. Membrane curing compounds must be mechanically removed.

Master Builders Solutions by BASF
www.master-builders-solutions.basf.us

MASTER® BUILDERS SOLUTIONS

8. WEATHER BARRIERS
A. ALL EXTERIOR SHEATHING SHOWN IN DRAWINGS CALLED OUT TO RECEIVE "WRB" (WATER RESISTIVE BARRIER) OR VAPOR BARRIER SHALL RECEIVE THE FOLLOWING:

MANUFACTURER: STO CORPORATION (www.stocorp.com)

SPECIFICATION: STO GUARD WTH GOLD COAT A1000G

SUBSTITUTIONS: NOT ALLOWED

INSTALLATION: INSTALL PER MANUFACTURER'S INSTRUCTIONS/SPECIFICATIONS

9. WATER PROOFING MEMBRANE BEHIND COMPOSITE DECKING

ALL EXTERIOR SHEATHING SHOWN IN DRAWINGS CALLED OUT TO RECEIVE "WATER PROOFING" LOCATED SPECIFICALLY BEHIND ALL COMPOSITE WOOD DECKING SIDING SHALL RECEIVE THE FOLLOWING:

MANUFACTURER: BASF
(www.master-builders-solutions.basf.us/en-us/products/masterseal/1991)

SPECIFICATION: MASTERSEAL HLM 5000

SUBSTITUTIONS: NOT ALLOWED

INSTALLATION: INSTALL PER MANUFACTURER'S INSTRUCTIONS/SPECIFICATIONS - REF. TO CUT SHEET BELOW

DIVISION 7 - CONTINUOUS INSULATION

11. CONTINUOUS INSULATION FOR WALLS
INCLUDES CONTINUOUS INSULATION FOR WALLS: ECOBASECI.
REFERENCES:
A. AAMA 2605 - ANSI/SBCA FS 100-2012 STANDARD REQUIREMENTS FOR WIND PRESSURE RESISTANCE OF FOAM PLASTIC INSULATING SHEATHING USED IN EXTERIOR WALL COVERING ASSEMBLIES.
B. ASTM INTERNATIONAL (ASTM):
   1. ASTM C209 - STANDARD TEST METHODS FOR CELLULOSIC FIBER INSULATING BOARD.
   2. ASTM D1621 - STANDARD TEST METHOD FOR COMPRESSIVE PROPERTIES OF RIGID CELLULAR PLASTICS.
   3. ASTM D1622 - STANDARD TEST METHOD FOR APPARENT DENSITY OF RIGID CELLULAR PLASTICS.
   4. ASTM D2126 - STANDARD TEST METHOD FOR RESPONSE OF RIGID CELLULAR PLASTICS TO THERMAL AND HUMID AGING.
   5. ASTM E 72 - STANDARD TEST METHODS OF CONDUCTING STRENGTH TESTS OF PANELS FOR BUILDING CONSTRUCTION.
   6. ASTM E 84 - STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS.
   7. ASTM E 96 - STANDARD TEST METHODS FOR WATER VAPOR TRANSMISSION OF MATERIALS.
   8. ASTM E 331 - STANDARD TEST METHOD FOR WATER PENETRATION OF EXTERIOR WINDOWS, SKYLIGHTS, DOORS, AND CURTAIN WALLS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE.
   9. ASTM E 564 - STANDARD PRACTICE FOR STATIC LOAD TEST FOR SHEAR RESISTANCE OF FRAMED WALLS FOR BUILDINGS.
   10. ASTM E 2126 - STANDARD TEST METHODS FOR CYCLIC (REVERSED) LOAD TEST FOR SHEAR RESISTANCE OF VERTICAL ELEMENTS OF THE LATERAL FORCE RESISTING SYSTEMS FOR BUILDINGS.
   11. ASTM E 2178 - STANDARD TEST METHOD FOR AIR PERMEANCE OF BUILDING MATERIALS.
   12. ASTM E 2357 - STANDARD TEST METHOD FOR DETERMINING AIR LEAKAGE OF AIR BARRIER ASSEMBLIES.
C. NFPA 285 - STANDARD FIRE TEST METHOD FOR EVALUATION OF FIRE PROPAGATION CHARACTERISTICS OF EXTERIOR NON-LOAD-BEARING WALL ASSEMBLIES CONTAINING COMBUSTIBLE COMPONENTS.

SUBMITTALS: SUBMIT TO PANDA THE FOLLOWING:
A. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:
   1. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.
   2. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.
   3. INSTALLATION METHODS.
B. SHOP DRAWINGS: SHOW FABRICATION AND INSTALLATION LAYOUTS OF METAL WALL PANELS; DETAILS OF EDGE CONDITIONS, JOINTS, PANEL PROFILES, CORNERS, ANCHORAGES, ATTACHMENT SYSTEM, TRIM, FLASHINGS, CLOSURES, AND ACCESSORIES; AND SPECIAL DETAILS.
   1. ACCESSORIES: INCLUDE DETAILS OF ALL INTEGRAL PANEL COMPONENTS AND THEIR INTERFACE WITH ADJACENT MATERIALS.
   2. FOR INSTALLED PRODUCTS INDICATED TO COMPLY WITH DESIGN LOADS, INCLUDE STRUCTURAL ANALYSIS DATA SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
C. VERIFICATION SAMPLES: FOR EACH FINISH PRODUCT SPECIFIED, TWO SAMPLES, MINIMUM SIZE 4 INCHES BY 6 INCHES (102MM X 150 MM).

QUALITY ASSURANCE:
A. MANUFACTURER QUALIFICATIONS: ALL PRIMARY PRODUCTS SPECIFIED IN THIS SECTION WILL BE SUPPLIED BY A SINGLE MANUFACTURER WITH A MINIMUM OF TEN YEARS EXPERIENCE.
B. INSTALLER QUALIFICATIONS: ALL PRODUCTS LISTED IN THIS SECTION ARE TO BE INSTALLED BY A SINGLE INSTALLER WITH A MINIMUM OF FIVE (5) YEARS DEMONSTRATED EXPERIENCE IN INSTALLING PRODUCTS OF THE SAME TYPE AND SCOPE AS SPECIFIED.

DELIVERY, STORAGE, AND HANDLING:
A. STORE AND HANDLE PRODUCTS PER MANUFACTURER'S INSTRUCTIONS UNTIL READY FOR INSTALLATION.

SEQUENCING:
A. ENSURE THAT LOCATING TEMPLATES AND OTHER INFORMATION REQUIRED FOR INSTALLATION OF PRODUCTS OF THIS SECTION ARE FURNISHED TO AFFECTED TRADES IN TIME TO PREVENT INTERRUPTION OF CONSTRUCTION PROGRESS.
B. ENSURE THAT PRODUCTS OF THIS SECTION ARE SUPPLIED TO AFFECTED TRADES IN TIME TO PREVENT INTERRUPTION OF CONSTRUCTION PROGRESS.

PROJECT CONDITIONS:
A. MAINTAIN ENVIRONMENTAL CONDITIONS (TEMPERATURE, HUMIDITY, AND VENTILATION) WITHIN LIMITS RECOMMENDED BY MANUFACTURER FOR OPTIMUM RESULTS. DO NOT INSTALL PRODUCTS UNDER ENVIRONMENTAL CONDITIONS OUTSIDE MANUFACTURER'S RECOMMENDED LIMITS.

WARRANTY:
A. INSULATION WARRANTY: AT PROJECT CLOSEOUT, PROVIDE TO OWNER AN EXECUTED COPY OF THE MANUFACTURER'S STANDARD LIMITED WARRANTY AGAINST MANUFACTURING DEFECT, OUTLINING ITS TERMS, CONDITIONS, AND EXCLUSIONS FROM COVERAGE.

PRODUCTS:
MANUFACTURERS
A. ACCEPTABLE MANUFACTURER: RMAX OPERATING, LLC, WHICH IS LOCATED AT: 13524 WELCH RD.; DALLAS, TX 75244-5227; TOLL FREE TEL: 800-527-0890; TEL: 972-387-4500; FAX: 972-387-4673; EMAIL:MATHEW STEVENS (MSTEVENS@RMAX.COM); WEB:WWW.RMAX.COM
   1. RMAX OPERATING, LLC; 13524 WELCH RD., DALLAS, TX 75244. TOLL FREE TEL: 800-527-0890. TEL: 972-387-4500. FAX: 972-387-4673. EMAIL: SPECS@RMAX.COM. WEB:WWW.RMAX.COM.
   2. RMAX OPERATING, LLC; 210 LYON DR., FERNLEY, NV 89408. TOLL FREE TEL: 800-762-9462. TEL: 775-575-4849. FAX: 775-575-5035. EMAIL: SPECS@RMAX.COM. WEB:WWW.RMAX.COM.
   3. RMAX OPERATING, LLC; 1649 S. BATESVILLE RD., GREER, SC 29650. TOLL FREE TEL: 800-845-4455. TEL: 864-297-1382. FAX: 864-234-7548. EMAIL: SPECS@RMAX.COM. WEB:WWW.RMAX.COM.
A. SUBSTITUTIONS: NOT PERMITTED.

CONTINUOUS INSULATION FOR WALLS
A. **ECOBASECI**: CLOSED-CELL POLYISOCYANURATE (POLYISO) FOAM INSULATION WITH INORGANIC, POLYMER COATED GLASS FIBER MAT FACERS BONDED TO FIRE RETARDANT TREATED PLYWOOD (FRTP)
   1. COMPLIANCE:
      a. ASTM C1289 TYPE V.
      b. ASHRAE 90.1.
      c. DRJ TER 1504-04
      d. INTERNATIONAL ENERGY CONSERVATION CODE (IECC).
      e. IBC SECTION 2603.
      f. NFPA 285 SECTION 2603.5.5 OF THE IBC.
      g. CALIFORNIA CODE OF REGULATIONS, TITLE 24
      h. 1, 2, 3 OR 4 HOUR FIRE RATED ASSEMBLIES AS SHOWN IN THE UL FIRE RESISTANCE DIRECTORY DESIGN NO.: U026, U326, U330, U354, U424, U460,U902, U904, U905, U906, U907, V454, V499
   2. DENSITY (NOMINAL) IN ACCORDANCE WITH ASTM D1622: 2.0 PCF.
   3. COMPRESSIVE STRENGTH IN ACCORDANCE WITH ASTM D1621: 20 PSI.
   4. FLAME SPREAD, CORE IN ACCORDANCE WITH ASTM E84: 75 OR LESS.
   5. SMOKE DEVELOPED, CORE IN ACCORDANCE WITH ASTM E84: 450 OR LESS.
   6. WATER VAPOR TRANSMISSION IN ACCORDANCE WITH ASTM E96: LESS THAN 1.5 PERMS.
   7. WATER ABSORPTION IN ACCORDANCE WITH ASTM C209: LESS THAN 1 PERCENT BY VOLUME.
   8. DIMENSIONAL STABILITY IN ACCORDANCE WITH ASTM D2126: LESS THAN 2 PERCENT LINEAR CHANGE.
   9. SERVICE TEMPERATURE: -40 DEGREE F TO +250 DEGREE F (-38 DEGREE C TO 121 DEGREE C).
   10. PLYWOOD THICKNESS: 5/8 INCH (15.875 MM).
   11. INSULATION THICKNESS: 1.5 INCHES (38.1 MM).
      a. OVERALL THICKNESS: 2-1/8 INCHES (53.975 MM).
      b. THERMAL RESISTANCE (R): 9.7.

EXECUTION:
EXAMINATION
A. DO NOT BEGIN INSTALLATION UNTIL SUBSTRATES HAVE BEEN PROPERLY PREPARED.
B. IF SUBSTRATE PREPARATION IS THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.

PREPARATION
A. CLEAN SURFACES THOROUGHLY PRIOR TO INSTALLATION.
B. PREPARE SURFACES USING THE METHODS RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE UNDER THE PROJECT CONDITIONS.

INSTALLATION, GENERAL
A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND IN PROPER RELATIONSHIP WITH ADJACENT CONSTRUCTION.

PROTECTION
A. PROTECT INSTALLED PRODUCTS UNTIL COMPLETION OF PROJECT.
B. TOUCH-UP, REPAIR OR REPLACE DAMAGED PRODUCTS BEFORE SUBSTANTIAL COMPLETION.

PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

REVISIONS:

ISSUE DATE:

	STATE PERMIT SET	02/10/2021

DRAWN BY: AF

PANDA PROJECT #: D8059
ARCH PROJECT #: JCDT20-0255

AMY LYNN CONTI
REGISTERED
No. AR12000032
STATE OF
INDIANA
ARCHITECT
2/10/21

NORR
ARCHITECTS ENGINEERS PLANNERS

PANDA EXPRESS
TRUE WARM & WELCOME
1395 N. GREEN STREET
BROWNSBURG, IN 46112

G-003

SPECIFICATIONS

TRUE WARM & WELCOME 2300 R4