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**SPECIFICATIONS** 

A) TEMPERED GLASS: ASTM C1036, TYPE I, CLASS 1(CLEAR), QUALITY Q3 GLAZING SELECT; 1/2 INCH (1) SILICONE SEALANT: COMPATIBLE WITH INSULATING GLASS SEAL; DOW CORNING "795": CLEAR (2) SETTING BLOCKS: COMPATIBLE WITH SILICONE SEALANTS; NEOPRENE; 70-90 SHORE A DUROMETER HARDNESS; 4 INCHES LONG X 1/4 HIGH X WIDTH AS REQUIRED FOR APPLICATION (3) SPACERS: COMPATIBLE WITH SILICONE SEALANT. A) STEEL PAN WITH CONCRETE INFILL; METAL WITH SPECIAL FINISH. B) CONTRASTING STRIPES: CAST IN AS INDICATED ON THE DRAWINGS. 7) RISERS: CLOSED, METAL WITH SPECIAL FINISH. B. FABRICATION: 1) VERIFY DIMENSIONS ON SITE PRIOR TO SHOP FABRICATION. 2) FABRICATE ITEMS WITH JOINTS TIGHTLY FITTED AND SECURED. FIT AND SHOP ASSEMBLE SECTIONS IN LARGEST PRACTICAL SIZES, FOR HANDLING. 4) GRIND EXPOSED WELDS FLUSH AND SMOOTH WITH ADJACENT FINISHED SURFACE. EASE EXPOSED EDGES TO SMALL UNIFORM RADIUS 5) MAKE EXPOSED JOINTS BUTT TIGHT, FLUSH, AND HAIRLINE. 6) ACCURATELY FORM COMPONENTS REQUIRED FOR ANCHORAGE OF FABRICATIONS TO EACH OTHER AND TO BUILDING STRUCTURE. 7) FILL IMPERFECTIONS IN PAINTED STEEL FABRICATIONS WITH PLASTIC AUTO BODY FILLER AS NECESSARY FOR A SMOOTH EVEN FINISH. 8) PROVIDE WELDS AS INDICATED, EXCEPT WHERE NOT INDICATED WELDS SHALL HAVE SUFFICIENT STRENGTH TO WITHSTAND THE LOADS APPLIED. 9) SHOP FINISH: (1) PREPARE SURFACES IN ACCORDANCE WITH THE FINISH COAT MANUFACTURER'S (2) SOLVENT CLEAN IN ACCORDANCE WITH SSPS SP-1; COMMERCIAL BLAST UNGALVANIZED FERROUS METAL SURFACES IN ACCORDANCE WITH SSPC SP6. 10) TEMPERED GLASS FABRICATION: A) TEMPERED GLASS: ASTM C1048, FT; CERTIFIED SAFETY GLASS IN ACCORDANCE WITH ANSI Z97.1. B) FABRICATE TEMPERED GLASS UNITS SO THAT PRINCIPLE DISTORTION WILL BE IN THE HORIZONTAL DIRECTION IN THE FINISHED INSTALLATION. C) UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL, PROVIDE MANUFACTURER'S LABEL ON EACH LIGHT, INDICATING TYPE AND THICKNESS OF GLASS. D) COMPLY WITH CODE REQUIREMENTS FOR IDENTIFICATION AND LABELING OF SAFETY-GLAZING MATERIALS IN HAZARDOUS LOCATIONS SUBJECT TO HUMAN IMPACT LOADS. 3. EXECUTION A. INSTALLATION: 1) ERECT STAIRS LEVEL AND PLUMB, FREE FROM DISTORTION AND DEFECTS DETRIMENTAL TO APPEARANCE OR PERFORMANCE. 2) PROVIDE ANCHORS, PLATES, ANGLES, HANGERS, AND STRUTS REQUIRED FOR CONNECTING STAIRS TO STRUCTURE. 3) VERIFY ALIGNMENT WITH ADJACENT CONSTRUCTION. COORDINATE RELATED WORK. 4) DO NOT FIELD CUT OR ALTER MEMBERS, UNLESS APPROVED OTHERWISE. 5) FIELD BOLT AND WELD TO MATCH STANDARD OF SHOP BOLTING AND WELDING. UNLESS OTHERWISE DETAILED, PLACE FASTENERS IN CONCEALED LOCATIONS WHEREVER POSSIBLE. 6) MECHANICALLY FASTENED JOINTS SHALL BE BUTTED TIGHT, FLUSH, AND HAIRLINE. WHERE FILLET WELDS ARE REQUIRED, FORM NEAT AND UNIFORM; GRIND EXPOSED BUTT FIELD WELDS SMOOTH 7) APPLY FIELD APPLIED FINISHES TO MATCH THE SHOP FINISH. SMOOTH AND REFINISH ALL DAMAGED AREAS DURING INSTALLATION TO MATCH THE SHOP FINISH. 8) FILL TREADS AT METAL PAN ASSEMBLIES WITH 3000 PSI CONCRETE MEETING REQUIREMENTS OF SECTION 033000. PROVIDE STEEL TROWEL FINISH. CAST IN CONTRASTING STRIPES AS INDICATED. 9) HANDRAIL INSTALLATION: A) FIT THE HANDRAIL TIGHTLY TO THE CONSTRUCTION INDICATED. B) JOINTS SHALL BE NEAT, STRAIGHT AND HAIRLINE. C) PROVIDE CONCEALED FASTENING WHENEVER POSSIBLE, EXCEPT WHERE INDICATED OR D) FIELD WELDING: CONFORM TO THE REQUIREMENTS SPECIFIED FOR SHOP WELDING. 10) GLASS INSTALLATION: (1) CLEAN CONTACT SURFACES AND WIPE DRY (2) SEAL FRAME CORNER JOINTS, AND OTHER LEAKAGE POINTS WITH SEALANT. (3) PRIME SURFACES SCHEDULED TO RECEIVE SEALANT, UNLESS OTHERWISE RECOMMENDED BY THE SEALANT MANUFACTURER. (1) UNLESS SPECIFIED OTHERWISE, GLAZE IN ACCORDANCE WITH THE CURRENT EDITION OF GLASS ASSOCIATION OF NORTH AMERICA (GANA): GLAZING MANUAL. (2) SETTING BLOCKS: PLACE SETTING BLOCKS IN FRAMES FOR SUPPORT OF GLASS, PLACE AT QUARTER POINTS UNLESS APPROVED OTHERWISE. (3) SET GLASS TIGHTLY IN POSITION WITH PROPER CLEARANCES IN ACCORDANCE WITH THE FRAME MANUFACTURER'S REQUIREMENTS AND IN ACCORDANCE WITH THE REFERENCED STANDARD. SILICONE IN PLACE. (4) ADJUST GLAZING MATERIALS TO FORM A UNIFORM SIGHT LINE. B. FIELD QUALITY CONTROL: THE STRUCTURAL DESIGN ENGINEER OR AN AUTHORIZED REPRESENTATIVE SHALL VISIT THE SITE TO INSPECT THE WORK. VERITY AND CERTIFY THAT THE INSTALLATION HAS BEEN INSTALLED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS. DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES 061000 - ROUGH CARPENTRY A. SECTION INCLUDES: 1) SHEATHING. BLOCKING AND NAILERS.

1. GENERAL

055133 - PREFABRICATED LADDER

PREFABRICATED LADDER ASSEMBLY.

D) INDICATE PROVISIONS FOR MATERIAL ISOLATION.
2) PRODUCT DATA. FOR LADDER AND POST.

<u>1000 LB POINT LOADING WITHOUT FAILURE</u>

C) FASTENERS: STAINLESS STEE

HAZARD; FREE OF SHARP EDGES.

4) INSTALL SAFETY POST AT VERTICAL LADDER.

055141 – ARCHITECTURAL STAIRS AND RAILINGS

STRUCTURAL DRAWINGS.

B. SYSTEM REQUIREMENTS:

C. SUBMITTALS:

2) SHOP DRAWINGS:

D. QUALITY ASSURANCE:

2. PRODUCTS

A. MATERIALS:

1) STEEL:

DRAWINGS

<u>CLEAN , SMOOTH, AND FREE OF BURRS</u>

MOUNTING TO ADJACENT CONSTRUCTION.

B) SIDE RAILS: ALUMINUM; MINIMUM .125 INCH THICK.

(1) ALACO LADDER COMPANY (CHINO CA; 909-591-7561)

(2) ACL INDUSTRIES INC. (MANCHESTER NH; 603-668-1281)

A) INDICATE MATERIALS, THICKNESSES, FINISHES, DIMENSIONS, METHODS OF JOINING AND ANCHORING, AND RELATIONSHIP TO ADJACENT CONSTRUCTION.

B) INCLUDE ALL TYPICAL AND SPECIAL DETAILS DRAWN AT FULL SCALE.

C) NOTE ALL CONDITIONS WHICH MAY AFFECT THE APPEARANCE OF THE FINISHED WORK.

REQUIREMENTS. PROVIDE ALL CALCULATIONS, ENGINEERING SERVICES, AND OTHER DOCUMENTATION REQUIRED BY THE CODE AUTHORITIES TO OBTAIN APPROVAL FOR THE LADDER ASSEMBLY.

A) BASIS OF DESIGN: O'KEEFFE'S INC. (SAN FRANCISCO, CA; 800-227-3305).

 B) ACCEPTABLE OPTIONS (SUBJECT TO COMPLIANCE WITH CONTRACT DOCUMENT REQUIREMENTS AND ARCHITECT'S APPROVAL OF CONFORMANCE TO DESIGN INTENT.):

 AND ARCHITECT'S APPROVAL OF CONFORMANCE TO DESIGN INTENT.):

(3) PRECISION LADDERS LLC (MORRISTOWN TN; 423-586-2265).

ROOF HATCH ACCESS: NO. 500 "STANDARD DUTY CHANNEL RAIL FIXED ACCESS LADDER"; MILL FINISH ALUMINUM; "ALTERNATE BOTTOM SUPPORT"; MILL FINISH

A) RUNGS: ALUMINUM; 1-1/4" SQUARE OR 1-1/8" ROUND TUBE; NON-SLIP FINISH; ABLE TO RESIST

D) MOUNTING ANCHORS: MINIMUM 1/2" DIAMETER; TYPE AS APPROPRIATE TO THE INSTALLATION;

A) FABRICATE LADDER ASSEMBLIES TO FIT THE CONDITIONS INDICATED. SURFACES SHALL BE

B) STRUCTURAL JOINTS SHALL BE FULL PENETRATION INERT-GAS HELIARC WELDED.
 C) FABRICATE ASSEMBLIES WITH BRACKETS AND OTHER COMPONENTS AS NECESSARY FOR

THE BILCO COMPANY (NEW HAVEN, CT; 203-934-6363).
 A) SAFETY POST: "LADDERUP" MODEL LU-4; ALUMINUM; MILL FINISH.
 B) POST SHALL INCLUDE TELESCOPING SECTION THAT LOCKS AUTOMATICALLY WHEN FULLY.

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1) INSTALL IN ACCORDANCE WITH SHOP DRAWINGS MANUFACTURER'S INSTRUCTIONS. REFER TO THE

3) SECURE LADDER IN PLACE IN ACCORDANCE WITH THE SHOP DRAWINGS AND THE MANUFACTURER'S

1) ORNAMENTAL QUALITY STEEL STAIRS AND RAILINGS WHERE INDICATED ON THE DRAWINGS.

AT ANY POINT IN ANY DIRECTION WITHOUT DAMAGE OR PERMANENT SET

IN ANY DIRECTION WITHOUT DAMAGE OR PERMANENT SET.

OPENINGS, SIZE AND TYPE OF FASTENERS, AND ACCESSORIES.

LIVE LOADING INDICATED IN THE STRUCTURAL NOTES.

D) INCLUDE STAMP OF DESIGNING STRUCTURAL ENGINEER.

DESIGNED TO MEET THE SPECIFIED REQUIREMENTS.

D) CONFORM TO CODE REQUIREMENTS.

4) QUALITY CONTROL SUBMITTALS:

FABRICATIONS OF ORNAMENTAL QUALITY.

2) USE ONLY WELDERS CERTIFIED BY AWS.

INSTALLATION OF GLAZING MATERIALS.

B) STEEL PLATE, BARS, SHAPES: ASTM A36.

C) TUBES: ASTM A500 OR A501.

5) REGULATORY REQUIREMENTS:

1) PRODUCT DATA: FINISH COATING MATERIALS.

2) STRUCTURAL ENGINEERING FOR ARCHITECTURAL STAIRS AND RAILINGS NOT INDICATED ON THE

1) STAIR SYSTEMS ARE SUBJECT TO THE STRUCTURAL REQUIREMENTS INDICATED AND SPECIFIED. DO

A) RAILING ASSEMBLIES AND ATTACHMENTS SHALL BE CAPABLE OF RESISTING A FORCE OF 200 LBS

B) RAILING ASSEMBLIES AND ATTACHMENTS SHALL BE CAPABLE OF RESISTING A FORCE OF 50 PLF.

C) TREAD, LANDING, AND STRINGER DEFLECTIONS SHALL BE LIMITED TO 1/360 SPAN UNDER DESIGN

A) INDICATE PROFILES, SIZES, CONNECTION ATTACHMENTS, REINFORCING, ANCHORAGE,

C) INDICATE WELDED CONNECTIONS USING STANDARD AWS WELDING SYMBOLS. INDICATE NET

3) SAMPLES: SUBMIT A MINIMUM 12 INCH LENGTH OF PIPE RAILING COMPLETE WITH PROPOSED FINISH.

A) CERTIFICATION: SUBMIT WRITTEN CERTIFICATION THAT THE RAILING SYSTEMS HAVE BEEN

4) QUALIFICATIONS OF GLAZERS: PROVIDE PERSONNEL THOROUGHLY TRAINED AND EXPERIENCED IN

A) STAIR SYSTEM SHALL MEET THE REQUIREMENTS OF THE JURISDICTIONAL CODE AUTHORITIES,

B) FURNISH ALL CALCULATIONS, ENGINEER'S STAMPS, DRAWINGS, AND OTHER ITEMS REQUIRED BY

D) PIPE: ASTM A53, SEAMLESS, TYPE S, PLAIN END; SCHEDULE 40 UNLESS INDICATED OTHERWISE.

4) NON-SHRINK GROUT: MASTER BUILDERS "EMBECO," SONNEBORN "FERROLITH G." OR APPROVED

THE SKILLS REQUIRED, AND AT LEAST ONE PERSON COMPLETELY FAMILIAR WITH THE REFERENCED

1) FABRICATOR QUALIFICATIONS: FABRICATOR SHALL BE EXPERIENCED IN PRODUCING STEEL

STANDARDS AND THE REQUIREMENTS OF THIS WORK, WHO SHALL PERSONALLY DIRECT

A) STEEL STAIR STRINGER AND LANDING MATERIALS: AS INDICATED ON THE STRUCTURAL

E) BOLTS, NUTS, AND WASHERS: ASTM A307, UNLESS ASTM A325 ARE INDICATED.

3) WELDING MATERIALS: AWS D1.1: TYPE REQUIRED FOR MATERIALS BEING WELDED.

SPECIAL FINISH: SCHEDULED AS M-1; BLACKENED STEEL TO MATCH OWNERS SAMPLE.

INCLUDING APPLICABLE ADA CODE REQUIREMENTS FOR THE HANDICAPPED.

THE CODE AUTHORITIES TO OBTAIN APPROVAL OF THE INSTALLATION.

3) COMPLY WITH PERTINENT RECOMMENDATIONS IN THE GANA "MANUAL OF GLAZING."

B) INCLUDE ERECTION DRAWINGS, ELEVATIONS, AND DETAILS WHERE APPLICABLE.

NOT MODIFY DESIGN DETAILS INDICATED, UNLESS APPROVED OTHERWISE BY THE ARCHITECT

C) INCLUDE STAINLESS STEEL SPRING COUNTERBALANCING MECHANISM.

STRUCTURAL DRAWINGS FOR BLOCKING REQUIREMENTS:
2) ERECT SQUARE AND LEVEL, FREE FROM DISTORTION OR DEFECTS DETRIMENTAL TO

GALVANIZED OR STAINLESS STEEL; LOW PROFILE TO PREVENT TRIPPING, INJURY OR OTHER

C. QUALITY ASSURANCE: LADDER SHALL CONFORM TO ALL APPLICABLE CODE AND SAFETY

A. <u>SECTION INCLUDES</u>

B. <u>SUBMITTALS:</u>

A. LADDER ASSEMBLY

1) MANUFACTURE

COMPONENTS

3. EXECUTION

A. <u>INSTALLATION:</u>

3) PLYWOOD TERMINAL BACK BOARDS.

B. SUBMITTALS:

1) PRODUCT DATA: SUBMIT COMPLETE TECHNICAL AND PRODUCT DATA ON THE FOLLOWING: A) FIRE RETARDANT WOOD TREATMENTS.

C. QUALITY ASSURANCE:

1) REGULATORY REQUIREMENTS: WORK SHALL CONFORM TO/ MEET OR EXCEED THE REQUIREMENTS: OF ALL APPLICABLE CODES, ORDINANCES, LAWS, REGULATIONS, SAFETY ORDERS, AND DIRECTIVES FROM AUTHORITIES HAVING JURISDICTION OVER THE WORK.

2. PRODUCTS

A. DIMENSION LUMBER: 1) LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH PS 20, AND SHALL BE STAMPED AND GRADED IN ACCORDANCE WITH WWPA, WCLIB, NLGA, OR SPIB GRADING RULES, AS APPLICABLE TO

2) MOISTURE CONTENT: KILN DRIED TO 19% MAXIMUM MOISTURE CONTENT, EXCEPT FOR MATERIAL WHOSE LEAST DIMENSION IS 4 INCHES THICK OR GREATER.

3) SPECIES: HEM-FIR, SPRUCE-PINE-FIR (SPF), OR DOUGLAS FIR LARCH, UNLESS INDICATED OR SPECIFIED OTHERWISE. 4) LUMBER GRADES:

ARCHITECTURAL DRAWINGS SHALL BE GRADED AS FOLLOWS: (1) 2" TO 4" THICK, 2" TO 4" WIDE): "NO 2 - STRUCTURAL LIGHT FRAMING." OR BETTER. (2) 2" TO 4" THICK, 5" AND WIDER: "NO. 2 - STRUCTURAL JOISTS AND PLANKS," OR BETTER. B. PANEL MATERIALS:

A) UNEXPOSED NON-STRUCTURAL WOOD FRAMING AND BLOCKING INDICATED ON THE

1) SHEATHING: APA RATED SHEATHING; CD GRADE, UNLESS REQUIRED OTHERWISE ON THE DRAWINGS; EXTERIOR GRADE; PLYWOOD, UNLESS APPROVED OTHERWISE; THICKNESSES AS INDICATED.

2) WOOD FLOOR UNDERLAYMENT: REFER TO SECTION 096429. ) TERMINAL BACKBOARDS: APA AC GRADE EXTERIOR; FIRE RETARDANT TREATED.

1) FASTENERS: HOT-DIPPED GALVANIZED STEEL FOR EXTERIOR, HIGH HUMIDITY, AND TREATED WOOD 2) CONSTRUCTION ADHESIVE: ONE OF THE FOLLOWING, OR OTHER PRODUCT MEETING THE

REQUIREMENTS OF AFG-01, OR ASTM D3498: A) LIQUID NAILS ADHESIVE (STRONGSVILLE, OH; 800-634-0015) "LIQUID NAILS LN-950 POLYURETHANE CONSTRUCTION ADHESIVE."

B) ITW TACC (ROCKLAND MA; 800-503-6991) "LUMBER LOCK G SUBFLOOR ADHESIVE." 3) WOOD PRESERVATIVE (PRESSURE TREATMENT): A) PRESSURE TREAT LUMBER IN ACCORDANCE WITH AWPA C-20 AND PLYWOOD IN ACCORDANCE

(1) FOR ABOVE GROUND USE, USE AWPA CERTIFIED AMMONIUM COPPER QUATERNIUM (ACQ) OR COPPER HYDROXIDE SODIUM DIMETHYLDITHIOCARBAMATE (CDDC) WATERBORNE

PRESERVATIVE WITH 0.25 POUNDS PER CUBIC FOOT OF WOOD RETENTION. (2) APPROVED PRODUCT: ARCH WOOD PROTECTION, INC. (SMYRNA, GA; 770-801-6600) "WOLMANIZED NATURAL SELECT"; COPPER AZOLE (CA) FUNGICIDE. 4) FIRE RETARDANT TREATMENT:

A) FIRE RETARDANT TREAT ALL INTERIOR CONCEALED LUMBER AND PLYWOOD, AND OTHER WOOD AS INDICATED OR SPECIFIED. B): ALL FIRE RETARDANT TREATED WOOD SHALL BEAR A UL "FR-S" LABEL, OR A LABEL FROM AN APPROVED INSPECTION AGENCY CERTIFYING THAT THE MATERIAL HAS A FLAME SPREAD RATING NO HIGHER THAN 25 WITH NO EVIDENCE OF SIGNIFICANT PROGRESSIVE COMBUSTION WHEN TESTED IN ACCORDANCE WITH ASTM E84. EXTERIOR FIRE RETARDANT TREATED WOOD SHALL BE TREATED BY MEANS OF A SYSTEM WHICH HAS BEEN DEMONSTRATED TO EXHIBIT NO

INCREASE IN FIRE HAZARD CLASSIFICATION IN ACCORDANCE WITH ASTM E84 TEST AFTER HAVING BEEN SUBJECTED TO ACCELERATED WEATHER CONDITIONING IN ACCORDANCE WITH C) APPROVED PRODUCTS:

"DRICON", HOOVER TREATED WOOD PRODUCTS "PYRO-GUARD," OSMOSE WOOD PRESERVING CO. OF AMERICA, INC. "FLAME PROOF LHC," OR APPROVED.

(1) INTERIOR FIREPROOFING PRODUCTS: CLEAR FINISH PRODUCT, HICKSON CORPORATION

5) ON-SITE FIRE RETARDANT TREATMENT: SITE TREAT SAWN ENDS WITH APPROVED FIRE RETARDANT TREATMENT.

1) SECURE SHEATHING WITH EDGES ON FIRM BEARING, PROVIDE SOLID EDGE BLOCKING BETWEEN

2) FASTENING SHALL BE IN ACCORDANCE WITH CODE REQUIREMENTS, UNLESS INDICATED OTHERWISE. USE SCREWS WHEN FASTENING INTO METAL LIGHTGAGE METAL FRAMING 3) ALLOW 1/8 INCH SPACING AT ENDS AND EDGES BETWEEN PANELS, UNLESS OTHERWISE

RECOMMENDED BY PANEL MANUFACTURER B. BLOCKING, NAILERS, AND CURBS: 1) PROVIDE BLOCKING, NAILERS, AND CURBS FOR ALL SHEATHING, ROOF CONSTRUCTION, METAL FLASHING, AND OTHER CONSTRUCTION AS INDICATED.

2) WOOD BLOCKING: INSTALL WOOD BLOCKING TO RECEIVE MECHANICAL FASTENERS FOR SUPPORT OF PLUMBING AND ELECTRICAL FIXTURES AND EQUIPMENT, CABINETS, DOOR STOP PLATES, WOOD BASE, WAINSCOTS, COAT HOOKS, TOILET AND BATH ACCESSORIES, AND ALL OTHER WALL AND CEILING MOUNTED COMPONENTS.

C. PLYWOOD TERMINAL BACKBOARDS: 1) PROVIDE A FIRE RETARDANT TREATED PLYWOOD TERMINAL BACKBOARD FOR TELEPHONE SYSTEMS WHERE INDICATED ON THE DRAWINGS

2) MECHANICALLY APPLY DIRECTLY OVER GYPSUM BACKING BOARD.

062000 - FINISH CARPENTRY

A. SUMMARY:

1) STANDING AND RUNNING TRIM, NOT INCLUDED WITH DISPLAY CASEWORK. 2) RECLAIMED WOOD CEILING.

3) ALL OTHER FINISHED WOOD ITEMS INDICATED ON THE DRAWINGS OR OTHERWISE REQUIRED FOR A COMPLETE ASSEMBLY. B. REFERENCES:

1) AMERICAN PLYWOOD ASSOCIATION (APA)

2) ARCHITECTURAL WOODWORK INSTITUTE / ARCHITECTURAL WOODWORK MANUFACTURERS ASSOCIATION OF CANADA / WOODWORK INSTITUTE: ARCHITECTURAL WOODWORK STANDARDS (AWS), EDITION 1.

C. QUALITY ASSURANCE 1) QUALIFICATIONS OF WORKMEN: CUTTING AND FITTING OF TRIM AND FINISH MATERIAL, SHALL BE PERFORMED BY FINISH CARPENTERS THOROUGHLY TRAINED AND EXPERIENCED IN THE SKILLS REQUIRED, COMPLETELY FAMILIAR WITH THE MATERIALS INVOLVED AND THE MANUFACTURER'S RECOMMENDED METHODS OF INSTALLATION, AND THOROUGHLY FAMILIAR WITH THE REQUIREMENTS OF THIS WORK

2) SPECIAL COORDINATION REQUIREMENTS: A) WHEN FINISH CARPENTRY ELEMENTS ARE ADJACENT TO DISPLAY CASEWORK, COORDINATE DETAILING AND LUMBER SELECTION TO MATCH THE DISPLAY CASEWORK.

D. DELIVERY. STORAGE AND HANDLING: 1) DELIVERY: DO NOT DELIVER MILLWORK TO BUILDING UNTIL "WET WORK" SUCH AS CONCRETE, PLASTER AND GYPSUM WALLBOARD WORK HAS BEEN COMPLETED AND CURED TO A CONDITION OF EQUILIBRIUM.

2) STORAGE: STORE IN A DRY PLACE WITH ADEQUATE AIR CIRCULATION. STORE WOOD MATERIALS IN THE GENERAL AREAS WITHIN THE BUILDING WHERE THEY ARE TO BE INSTALLED. STACK USING SPACERS, STICKERS, OR OTHER DEVICES TO PERMIT AIR CIRCULATION. ALLOW TO STABILIZE FOR A MINIMUM OF 48 HOURS PRIOR TO INSTALLATION.

3) HANDLING: PROTECT MILLWORK FROM EXCESSIVE MOISTURE IN SHIPMENT, STORAGE, AND

4) SITE CONDITIONS: MAINTAIN TEMPERATURE BETWEEN 65°F AND 80°F, AND HUMIDITY WITHIN OPERATIONAL DESIGN RANGE, FROM TIME OF DELIVERY OF MILLWORK TO AREA OF BUILDING IN WHICH IT IS TO BE INSTALLED.

2. PRODUCTS

A. LUMBER: 1) MOISTURE CONTENT: IN ACCORDANCE WITH AWI RECOMMENDATIONS 2) TRIM FOR OPAQUE FINISH:

A) DEFECTS: LIMIT IN ACCORDANCE WITH AWS CONSTRUCTION GRADE. B) SPECIES: NATURAL BIRCH, MAPLE, YELLOW POPLAR, OR OTHER APPROVED CLOSED GRAIN HARDWOOD.

3) RECLAIMED WOOD FOR CEILING INSTALLATION: FURNISHED BY THE OWNER. B. SHEET PANELS:

1) PLYWOOD FOR INTERIOR APPLICATIONS (CONCEALED): SOFTWOOD VENEER PLYWOOD, APA GRADE STAMPED; B-C EXT, OR BETTER FOR OTHER APPLICATIONS, UNLESS OTHERWISE NOTED. C. FABRICATION AND ASSEMBLY: 1) FABRICATE ALL FINISH CARPENTRY ITEMS IN ACCORDANCE WITH APPLICABLE AWS STANDARDS.

PREMIUM GRADE IN SALES (PUBLIC) AREAS; CUSTOM GRADE IN ALL OTHER AREAS. 2) FABRICATE ITEMS TO DETAIL, IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. SHOP ASSEMBLE TO THE GREATEST PRACTICAL EXTENT. 3) ALL CUTS SHALL BE SMOOTH AND EXACT, WITH JOINTS ACCURATELY MATCHED. TIGHTLY FITTED.

AND SECURELY ATTACHED. ALL SURFACES SHALL BE SANDED, FREE OF SPLINTERS AND ROUGH 4) GLUING: ALL EXPOSED GLUE LINES SHALL BE FREE OF SQUEEZE-OUT; WHERE INDICATED FOR PIECES TO RECEIVE TRANSPARENT FINISH, REJECT ALL PIECES FROM WHICH GLUE CANNOT BE

REMOVED WITHOUT AFFECTING PENETRATION OF FINISH. 5) SANDING: UNLESS OTHERWISE INDICATED, EASE ALL EXPOSED EDGES OF WOOD TRIM TO A UNIFORM 1/16 INCH RADIUS. SAND ALL FABRICATED COMPONENTS WITH 120 GRIT OR FINER PAPER. FREE OF SPLINTERS AND CROSS GRAIN SCRATCHES. SAND JOINTS SMOOTH; CUT AND SAND PLUGS

6) WALL BASE: SOLID OPAQUE FINISH LUMBER; KERFED ON BACK SIDE TO MINIMUM DEPTH OF 1/4".

3) SEE SECTION 099000 FOR FINISHING OF WOODWORK NOT FINISHED UNDER THIS SECTION. 1) MAINTAIN THE PREMISES IN A NEAT, SAFE, AND ORDERLY CONDITION AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK, FREE FROM ACCUMULATION OF SAWDUST, CUT-ENDS,

A. INSTALLATION OF STANDING AND RUNNING TRIM:

BLOCKING IN A TIMELY MANNER.

PATTERNS WILL BE ACCEPTED.

SECURELY ANCHORED.

WITH GOOD TRADE PRACTICE, APPROVED SHOP DRAWINGS.

GRAIN AND COLOR MATCH BETWEEN ADJACENT PIECES.

2) AT THE END OF EACH WORKING DAY, OR MORE OFTEN IF NECESSARY, THOROUGHLY SWEEP AND/OR VACUUM ALL SURFACES WHERE REFUSE FROM THIS PORTION OF THE WORK HAS SETTLED.

1) INSTALL TRIM STRAIGHT, TRUE, LEVEL, PLUMB, AND FIRMLY ANCHORED IN PLACE IN ACCORDANCE

2) JOINTING: MAKE ALL JOINTS TO CONCEAL SHRINKAGE; MITER ALL CORNERS EXCEPT THAT INSIDE

INSTALL ALL TRIM PIECES AS LONG AS POSSIBLE, JOINTING ONLY WHERE SOLID SUPPORT IS

3) SELECT RECLAIMED WOOD FOR TRANSPARENT FINISH FOR UNIFORMITY OF APPEARANCE AND

4) USE RANDOM LENGTHS, MINIMUM 8'-0" LONG, FOR CONTINUOUS RUNS OF RUNNING TRIM.

D) ON EXPOSED FINISH WORK, SET ALL NAILS AND TRIM HEAD SCREWS FOR PUTTY.

A) INSTALL ALL ITEMS STRAIGHT, TRUE, LEVEL, PLUMB, AND FIRMLY ANCHORED IN PLACE.

LOCATE BUTT JOINTS NO LESS THAN 4'-0" FROM CORNERS OR ENDS OF TRIM.

THE MEMBER FIRMLY IN PLACE WITHOUT SPLITTING THE WOOD.

CORNERS OF WALL BASE SHALL BE COPED; SCARF ALL END-TO-END JOINTS AT A 45 DEGREE ANGLE;

OBTAINED. MAKE EACH CONTINUOUS RUN OF 8'-0" OR LESS FROM SINGLE PIECE WITHOUT JOINTS

COORDINATE WITH OTHER TRADES TO ENSURE PLACEMENT OF ALL REQUIRED BACKING AND

B) USE TRIM HEAD SCREWS OR NAIL TRIM WITH FINISHING NAILS OF PROPER DIMENSION TO HOLD

C) ANCHOR SOLID PANELS AND WIDE PIECES WITH PROVISIONS FOR MOVEMENT PERPENDICULAR

E) SCREW, DO NOT HAMMER-DRIVE, ALL WOOD SCREWS. PREDRILL IF NECESSARY TO PREVENT

F) ALIGN AND SPACE FASTENERS FOR UNIFORM PATTERN WHERE POSSIBLE, NO "SHOTGUN"

INSTALLATION OF MISCELLANEOUS ITEMS: INSTALL ALL OTHER ITEMS IN STRICT ACCORDANCE WITH

THE DRAWINGS, AND THE PUBLISHED RECOMMENDATIONS OF THE MANUFACTURER OF THE ITEM.

1) SAND ALL EXPOSED OPAQUE FINISH WOOD SURFACES TO AWS "CUSTOM" GRADE STANDARDS.

SMOOTH SURFACE, ALWAYS SANDING IN THE DIRECTION OF THE GRAIN, NO COARSE GRAINED

2) SANDPAPER ALL WOOD SURFACES THOROUGHLY AS REQUIRED TO PRODUCE A UNIFORMLY

SANDPAPER MARKS, HAMMER MARKS, OR OTHER IMPERFECTIONS WILL BE ACCEPTED.

ANCHORING FIRMLY IN PLACE AT THE PRESCRIBED LOCATION, STRAIGHT, PLUMB, LEVEL, AND

3) REPAIR OR REPLACE OR OTHERWISE RESTORE TO NEW CONDITION ALL ITEMS DAMAGED BY WORK

**DIVISION 07 - THERMAL AND MOISTURE PROTECTION** 

A. SECTION INCLUDES: FIRESTOPPING SYSTEMS FOR SEALING PENETRATIONS THROUGH FIRE-RATED CONSTRUCTION.

B. PERFORMANCE REQUIREMENTS

1) EACH FIRESTOPPING SYSTEM SHALL BE SELECTED TO MAINTAIN FIRE RATING OF THE ASSEMBLY IN

2) WHERE PENETRATION FIRESTOPPING IS USED TO SEAL PENETRATIONS THROUGH FLOORS WITH WATERPROOF MEMBRANES, SYSTEM SHALL BE SELECTED FOR COMPATIBILITY WITH MEMBRANE

3) PROVIDE PRODUCTS THAT UPON CURING, DO NOT RE-EMULSIFY, DISSOLVE, LEACH, BREAKDOWN OR OTHERWISE DETERIORATE OVER TIME FROM EXPOSURE TO ATMOSPHERIC MOISTURE, SWEATING PIPES, PONDING WATER OR OTHER FORMS OF MOISTURE CHARACTERISTIC DURING AND AFTER

4) PROVIDE FIRESTOP SEALANTS SUFFICIENTLY FLEXIBLE TO ACCOMMODATE MOTION SUCH AS PIPE VIBRATION, WATER HAMMER, THERMAL EXPANSION AND OTHER NORMAL BUILDING MOVEMENT WITHOUT DAMAGE TO THE SEAL.

5) PIPE INSULATION SHALL NOT BE REMOVED, CUT AWAY OR OTHERWISE INTERRUPTED THROUGH WALL OR FLOOR OPENINGS. PROVIDE PRODUCTS APPROPRIATELY TESTED FOR THE THICKNESS AND TYPE OF INSULATION UTILIZED. 6) OPENINGS WITHIN WALLS AND FLOORS DESIGNED TO ACCOMMODATE VOICE, DATA AND VIDEO

CABLING SHALL BE PROVIDED WITH RE-ENTERABLE PRODUCTS SPECIFICALLY DESIGNED FOR RETROFIT 7) PENETRATIONS THROUGH FIRE-RESISTANCE RATED FLOOR-CEILING ASSEMBLIES CONTAINED

WITHIN CHASE WALL ASSEMBLIES SHALL BE PROTECTED WITH PRODUCTS TESTED BY BEING FULLY EXPOSED TO THE FIRE OUTSIDE OF THE CHASE WALL.

C. QUALITY ASSURANCE 1) CODE VERIFICATION: PRIOR TO INSTALLATION OF FIRE STOPPING SYSTEMS OBTAIN APPROVAL FROM THE JURISDICTIONAL CODE AUTHORITIES FOR THE FIRE STOPPING SYSTEMS AND APPLICATIONS PROPOSED.

2) FIRESTOPPING: TESTED IN ACCORDANCE WITH ASTM E119, OR UL 1479 TO MEET THE HOURLY FIRE RATINGS OF THE CONSTRUCTION BEING SEALED. PROVIDE F RATED ASSEMBLIES. EXCEPT WHERE T RATED ASSEMBLIES ARE REQUIRED BY THE CODE AUTHORITY. 3) FIRESTOPPING SYSTEMS SHALL BE ULLISTED ASSEMBLIES.

2. PRODUCTS

A. SYSTEMS MEETING THE REQUIREMENTS SPECIFIED AND SUITABLE FOR THE CONDITIONS INDICATED AS MANUFACTURED BY ONE OR MORE OF THE FOLLOWING. 1) METACAULK

2) TREMCO INC. 3) HILTI USA. 4) GRACE CONSTRUCTION PRODUCTS.

5) SPECIFIED TECHNOLOGIES, INC. 6) 3M

B. ELECTRICAL BOX INSERTS:

 MANUFACTURER: RECTORSEAL (HOUSTON TX; 713-263-8001; 800-231-3345). 2) FIRE RATED PADS: "BIOFIRESHIELD LECTRA-STOP"; 1/4 INCH THICK INTUMESCENT PADS; SIZED TO FIT ELECTRICAL BOXES; CLASSIFIED BY UL; MINIMUM 2 HOUR RATING.

EXECUTION A. PROVIDE FIRESTOPPING AT MECHANICAL, ELECTRICAL, AND PLUMBING PENETRATIONS THROUGH FIRE

RATED FLOORS, WALLS, AND CEILINGS. B. INSTALL FIRESTOPPING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS NECESSARY TO MEET THE SPECIFIED FIRE RATING REQUIREMENTS.

C. WHERE FIRESTOPPING IS USED TO SEAL AROUND PENETRATIONS THROUGH WATERPROOF

MEMBRANES, INSTALL TO MAINTAIN INTEGRITY OF WATERPROOF BARRIER. D. FOR SEALING ELECTRICAL BOXES, COORDINATE INSTALLATION WITH DIVISION 26, COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR PREPARATION AND INSTALLATION. INSTALL IN LOCATIONS AS REQUIRED BY CODE FOR PROTECTION OF OPENINGS THROUGH FIRE RATED PARTITIONS.

E. PATCHING OF HOLES IN EXISTING CONSTRUCTION: 1) FILL OPEN HOLES WHICH REMAIN AFTER REMOVAL OF EXISTING MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS, PATCH AND REPAIR HOLES AS NECESSARY TO MATCH THE ADJACENT CONSTRUCTION AND TO MAINTAIN THE FIRE RATING OF THE ASSEMBLIES, FIRESTOPPING SYSTEMS MAY BE USED TO FILL HOLES WHICH WILL BE CONCEALED IN THE FINISH CONSTRUCTION.

2) WHERE FIRESTOPPING SYSTEMS ARE USED TO FILL FLOOR OPENINGS IN OCCUPIED AREAS. PROVIDE MINIMUM 16 GAGE SHEET METAL COVERS AS NECESSARY TO SUPPORT FLOOR LOADS AND TO PREVENT DAMAGE TO THE FIRE STOPPING ASSEMBLIES. SECURE SHEET METAL AS NECESSARY TO PREVENT IRREGULARITIES FROM TELEGRAPHING THROUGH THE FLOOR FINISHES OVER THE SHEET METAL

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ISSUED / REVISED DATE PRELIMINARY SET L COORDINATION SET 11/08/16 L/PERMIT SET HP REVIEW SET PERMIT CORRECTIONS 03/22/17 PERMIT CORRECTIONS-2 04/06/17 PERMIT ADDENDUM 05/05/17 /4 HP REVIEW 05/24/17 /5 PERMIT ADDENDUM 2 06/15/17