

SECTION 01 7100 - CLEANING

- 1. EXECUTE SITE AND BUILDING CLEANING, DURING PROGRESS OF THE WORK, AND AT COMPLETION OF THE WORK AS REQUIRED BY THE CONTRACT DOCUMENTS. CLEANING ACTIVITIES ARE RESTRICTED TO AREAS DISTURBED OR SOILED AS A RESULT OF CONSTRUCTION ACTIVITIES.
- 2. MAINTAIN PREMISES FREE FROM ACCUMULATIONS OF WASTE, DEBRIS, AND RUBBISH CAUSED BY WORK OPERATIONS.
- 3. AT COMPLETION OF WORK, REMOVE WASTE MATERIALS, RUBBISH, TOOLS, EQUIPMENT, MACHINERY, AND SURPLUS MATERIALS, AND CLEAN ALL SIGHT-EXPOSED SURFACES. LEAVE PROJECT CLEAN AND READY FOR OCCUPANCY.
- 4. HAZARDS CONTROL
  - 4.1. STORE VOLATILE WASTES IN COVERED METAL CONTAINERS AND REMOVE FROM PREMISES DAILY.
  - 4.2. PREVENT ACCUMULATION OF WASTES WHICH CREATE HAZARDOUS CONDITIONS.
  - 4.3. PROVIDE ADEQUATE VENTILATION DURING USE OF VOLATILE OR NOXIOUS SUBSTANCES.
  - 4.4. CONDUCT CLEANING AND DISPOSAL OPERATIONS TO COMPLY WITH STATE AND / OR LOCAL ORDINANCES AND ANTI-POLLUTION LAWS.
  - 4.5. DO NOT BURN OR BURY ANY RUBBISH AND WASTE MATERIALS ON PROJECT SITE.
  - 4.6. DO NOT DISPOSE OF VOLATILE WASTES SUCH AS MINERAL SPIRITS, OIL, OR PAINT THINNER IN STORM OR SANITARY SEWERS.
  - 4.7. DO NOT DISPOSE OF WASTES INTO STREAMS OR WATERWAYS.
- 5. MATERIALS
  - 5.1. USE ONLY CLEANING METHODS AND MATERIALS RECOMMENDED BY MANUFACTURER OF SURFACE TO BE CLEANED.
- 6. CLEANING DURING CONSTRUCTION
  - 6.1. PROVIDE ON-SITE CONTAINERS FOR THE COLLECTION OF WASTE MATERIALS, DEBRIS, AND RUBBISH.
  - 6.2. EXECUTE CLEANING TO INSURE THAT BUILDING AND GROUNDS ARE MAINTAINED FREE
  - 6.3. FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH ON A DAILY BASIS.
  - 6.4. WET DOWN DRY MATERIALS AND RUBBISH TO LAY DUST AND PREVENT BLOWING DUST. AT PERIODIC INTERVALS, CLEAN SITE AND LEGALLY DISPOSE OF WASTE MATERIALS, DEBRIS, AND RUBBISH OFF THE SITE.
  - 6.5. SCHEDULE CLEANING OPERATIONS SO THAT DUST AND OTHER CONTAMINANTS RESULTING FROM CLEANING PROCESS WILL NOT FALL ON WET, NEWLY PAINTED OR FINISHED SURFACES.
  - 6.6. REPAIR, PATCH, AND TOUCH UP MARRED SURFACES TO SPECIFIED FINISH, TO MATCH ADJACENT SURFACES.
- 7. FINAL CLEANING
  - 7.1. EMPLOY SKILLED WORKMEN FOR FINAL CLEANING
  - 7.2. REMOVE GREASE, MASTIC, ADHESIVES, DUST, DIRT, STAINS, FINGERMARKS, LABELS, AND OTHER FOREIGN MATERIALS FROM SIGHT-EXPOSED INTERIOR AND EXTERIOR SURFACES.
  - 7.3. WASH AND SHINE INTERIOR AND EXTERIOR GLAZING AND MIRRORS.
  - 7.4. POLISH GLOSSY SURFACES TO A CLEAR SHINE.
  - 7.5. MOP AND POLISH RESILIENT FLOORING. VACUUM CARPETED AREAS.
  - 7.6. BROOM CLEAN EXTERIOR PAVED SURFACES. RAKE CLEAN OTHER SURFACES OF THE GROUND.
  - 7.7. PRIOR TO FINAL COMPLETION OR OCCUPANCY BY OWNER, CONDUCT AN INSPECTION OF SIGHT-EXPOSED INTERIOR AND EXTERIOR SURFACES, AND ALL WORK AREAS, TO VERIFY THAT THE ENTIRE WORK AREA IS CLEAN.

SECTION 01 7200 - PROJECT RECORD DOCUMENTS

- 1. MAINTAIN AT JOB SITE, ONE COPY OF:
  - 1.1. CONTRACT DRAWINGS
  - 1.2. SPECIFICATIONS
  - 1.3. ADDENDA
  - 1.4. REVIEWED SHOP DRAWINGS
  - 1.5. CHANGE ORDERS
  - 1.6. OTHER MODIFICATIONS TO THE CONTRACT OR CONTRACT DOCUMENTS
  - 1.7. FIELD TEST REPORTS
  - 1.8. REQUEST FOR INFORMATION AND ASSOCIATED RESPONSES
- 2. PROVIDE INFORMATION ON A CONTINUING BASIS TO MAINTAIN RECORD DOCUMENTS CURRENT.
- 3. DO NOT PERMANENTLY CONCEAL ANY WORK UNTIL REQUIRED INFORMATION HAS BEEN RECORDED.
- 4. CONTRACT DRAWINGS
  - 4.1. PROVIDE INFORMATION TO RECORD ACTUAL CONSTRUCTION.
    - 4.1.1. DETAILS OF VARIOUS ELEMENTS OF FOUNDATIONS IN RELATION TO FIRST FLOOR LEVEL
    - 4.1.2. HORIZONTAL AND VERTICAL LOCATION OF UNDERGROUND UTILITIES AND APPURTENANCES REFERENCED TO PERMANENT SURFACE IMPROVEMENTS.
    - 4.1.3. LOCATION OF INTERNAL UTILITIES AND APPURTENANCES CONCEALED IN CONSTRUCTION REFERENCED TO VISIBLE AND ACCESSIBLE FEATURES OF THE STRUCTURE.
    - 4.1.4. FIELD CHANGES OF DIMENSIONS AND DETAILS
    - 4.1.5. DETAILS NOT ON ORIGINAL CONTRACT DRAWINGS.
- 5. SPECIFICATIONS
  - 5.1. PROVIDE INFORMATION TO RECORD:
    - 5.1.1. MANUFACTURER, TRADE NAME, CATALOG NUMBER, AND SUPPLIER OF EACH PRODUCT AND ITEM OF EQUIPMENT ACTUALLY INSTALLED
    - 5.2. CHANGE MADE BY CHANGE ORDER OR FIELD ORDER
    - 5.3. OTHER MATERIALS NOT ORIGINALLY SPECIFIED.
  - 6. SHOP DRAWINGS
    - 6.1. MAINTAIN AS RECORD DOCUMENTS; LEGIBLY MARK DRAWINGS TO RECORD CHANGES MADE AFTER REVIEW

SECTION 02 4100 - DEMOLITION

- PART 1 GENERAL**
  - 1. SUBMITTALS
    - 1.1. DEMOLITION PLAN: SUBMIT DEMOLITION PLAN AS SPECIFIED BY OSHA AND LOCAL AUTHORITIES AS REQUIRED FOR EXISTING SITE COMPONENTS AND STRUCTURES.
    - 1.2. PROJECT RECORD DOCUMENTS: ACCURATELY RECORD ACTUAL LOCATIONS OF CAPPED AND ACTIVE UTILITIES AND SUBSURFACE CONSTRUCTION.
    - 1.3. QUALITY ASSURANCE
    - 1.4. DEMOLITION FIRM QUALIFICATIONS: COMPANY SPECIALIZING IN THE TYPE OF WORK REQUIRED.
- PART 2 PRODUCTS**
  - 1. MATERIALS
    - 1.1. FILL MATERIAL: REFER TO CIVIL ENGINEERING DOCUMENT REQUIREMENTS
- PART 3 EXECUTION**
  - 1. GENERAL PROCEDURES AND PROJECT CONDITIONS
    - 1.1. COMPLY WITH APPLICABLE CODES AND REGULATIONS FOR DEMOLITION OPERATIONS AND SAFETY OF ADJACENT STRUCTURES AND THE PUBLIC.
      - 1.1.1. OBTAIN REQUIRED PERMITS.
      - 1.1.2. COMPLY WITH APPLICABLE REQUIREMENTS OF NFPA 241.
      - 1.1.3. USE OF EXPLOSIVES IS NOT PERMITTED.
      - 1.1.4. TAKE PRECAUTIONS TO PREVENT CATASTROPHIC OR UNCONTROLLED COLLAPSE OF STRUCTURES TO BE REMOVED; DO NOT ALLOW WORKER OR PUBLIC ACCESS WITHIN RANGE OF POTENTIAL COLLAPSE OF UNSTABLE STRUCTURES.
      - 1.1.5. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
    - 1.2. DO NOT BEGIN REMOVAL UNTIL BUILT ELEMENTS TO BE SALVAGED OR RELOCATED HAVE BEEN REMOVED.
    - 1.3. MINIMIZE PRODUCTION OF DUST DUE TO DEMOLITION OPERATIONS; DO NOT USE WATER IF THIS WILL RESULT IN FLOODING, SEDIMENTATION OF PUBLIC WATERWAYS OR STORM SEWERS, OR OTHER POLLUTION.
    - 1.4. IF HAZARDOUS MATERIALS ARE DISCOVERED DURING REMOVAL OPERATIONS, STOP WORK AND NOTIFY ARCHITECT AND OWNER; HAZARDOUS MATERIALS INCLUDE REGULATED ASBESTOS CONTAINING MATERIALS, PCB'S, MERCURY, AND LEAD.
    - 1.5. HAZARDOUS MATERIALS: COMPLY WITH 29 CFR 1926 AND LOCAL ORDINANCES.
    - 1.6. PERFORM DEMOLITION IN A MANNER THAT MAXIMIZES REUSE AND RECYCLING OF MATERIALS.
  - 2. EXISTING UTILITIES
    - 2.1. COORDINATE WORK WITH UTILITY COMPANIES; NOTIFY BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS; OBTAIN REQUIRED PERMITS
    - 2.2. PROTECT EXISTING UTILITIES TO REMAIN FROM DAMAGE.
  - 3. SELECTIVE DEMOLITION FOR ALTERATIONS
    - 3.1. DRAWINGS SHOWING EXISTING CONSTRUCTION AND UTILITIES ARE BASED ON CASUAL FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS ONLY. VERIFY ALL CONDITIONS AND DIMENSIONS IN FIELD. REPORT ANY DISCREPANCIES AFFECTING THE SCOPE OF WORK TO THE ARCHITECT IMMEDIATELY.
    - 3.2. MAINTAIN WEATHERPROOF EXTERIOR BUILDING ENCLOSURE EXCEPT FOR INTERRUPTIONS REQUIRED FOR REPLACEMENT OR MODIFICATIONS; TAKE CARE TO PREVENT WATER AND HUMIDITY DAMAGE.
    - 3.3. REMOVE EXISTING WORK AS INDICATED AND AS REQUIRED TO ACCOMPLISH NEW WORK.
    - 3.4. SERVICES (INCLUDING BUT NOT LIMITED TO HVAC, PLUMBING, FIRE PROTECTION, ELECTRICAL, AND TELECOMMUNICATIONS): REMOVE EXISTING SYSTEMS AND EQUIPMENT AS INDICATED.
    - 3.5. PROTECT EXISTING WORK TO REMAIN.
  - 4. DEBRIS AND WASTE REMOVAL
    - 4.1. REMOVE DEBRIS, JUNK, AND TRASH FROM SITE

SECTION 03 3000 - CAST IN PLACE CONCRETE

- PART 1 GENERAL**
  - 1. REQUIREMENTS OF STRUCTURAL DOCUMENTS SHALL SUPERCEDE REQUIREMENTS LISTED BELOW WHEREVER A CONFLICT OCCURS
- PART 2 PRODUCTS**
  - 1. FORMWORK
    - 1.1. FORMWORK DESIGN AND CONSTRUCTION: COMPLY WITH GUIDELINES OF ACI 347 TO PROVIDE FORMWORK THAT WILL PRODUCE CONCRETE COMPLYING WITH TOLERANCES OF ACI 117.
    - 1.2. FORM MATERIALS: CONTRACTOR'S CHOICE OF STANDARD PRODUCTS WITH SUFFICIENT STRENGTH TO WITHSTAND HYDROSTATIC HEAD WITHOUT DISTORTION IN EXCESS OF PERMITTED TOLERANCES.
  - 2. REINFORCEMENT
    - 2.1. STEEL WELDED WIRE REINFORCEMENT: ASTM A 185/A 185M, PLAIN TYPE.
  - 3. CONCRETE MATERIALS
    - 3.1. CEMENT: ASTM C 150, TYPE I - NORMAL PORTLAND TYPE.
    - 3.2. FINE AND COARSE AGGREGATES: ASTM C 33.
    - 3.3. LIGHTWEIGHT AGGREGATE: ASTM C 330.
    - 3.4. WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE.
    - 3.5. FIBER REINFORCEMENT: SYNTHETIC FIBER SHOWN TO HAVE LONG-TERM RESISTANCE TO DEGRADATION WHEN EXPOSED TO MOISTURE AND ALKALIS; 1/2 INCH (12 MM) LENGTH.
  - 4. ACCESSORY MATERIALS
    - 4.1. UNDERSLAB VAPOR RETARDER: CLASS 'A' VAPOR RETARDER, 10 MIL MIN. THICKNESS, "STEGO" OR EQUAL. TAPED SEAMS WITH MANUFACTURER APPROVED PRODUCT. SUITABLE FOR INSTALLATION IN CONTACT WITH SOIL OR GRANULAR FILL UNDER CONCRETE SLABS.
    - 4.2. NON-SHRINK CEMENTITIOUS GROUT: ASTM C 1107/C 1107M; PREMIXED COMPOUND CONSISTING OF NON-METALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING AGENTS.
    - 4.3. PROVIDE CONCRETE FINISHING SEALER / DENSIFIER: REFER TO SECTION 03 3500 CONCRETE FINISHING AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
  - 5. CONCRETE MIX DESIGN
    - 5.1. PROPORTIONING NORMAL WEIGHT CONCRETE: COMPLY WITH ACI 211.1 RECOMMENDATIONS.
      - 5.1.1. REPLACE AS MUCH PORTLAND CEMENT AS POSSIBLE WITH FLY ASH, GROUND GRANULATED BLAST FURNACE SLAG, SILICA FUME, OR RICE HULL ASH AS IS CONSISTENT WITH ACI RECOMMENDATIONS.
    - 5.2. PROPORTIONING STRUCTURAL LIGHTWEIGHT CONCRETE: COMPLY WITH ACI 211.2 RECOMMENDATIONS.
      - 5.2.1. REPLACE AS MUCH PORTLAND CEMENT AS POSSIBLE WITH FLY ASH, GROUND GRANULATED BLAST FURNACE SLAG, SILICA FUME, OR RICE HULL ASH AS IS CONSISTENT WITH ACI RECOMMENDATIONS.
    - 5.3. CONCRETE STRENGTH: ESTABLISH REQUIRED AVERAGE STRENGTH FOR EACH TYPE OF CONCRETE ON THE BASIS OF FIELD EXPERIENCE OR TRIAL MIXTURES, AS SPECIFIED IN ACI 301.
    - 5.4. NORMAL WEIGHT CONCRETE:
      - 5.4.1. COMPRESSIVE STRENGTH, WHEN TESTED IN ACCORDANCE WITH ASTM C 39/C 39M AT 28 DAYS: REFER TO STRUCTURAL DRAWINGS
    - 5.5. STRUCTURAL LIGHTWEIGHT CONCRETE:
      - 5.5.1. COMPRESSIVE STRENGTH, WHEN TESTED IN ACCORDANCE WITH ASTM C 39/C 39M AT 28 DAYS: REFER TO STRUCTURAL DRAWINGS
- PART 3 EXECUTION**
  - 1. PLACING CONCRETE
    - 1.1. PLACE CONCRETE IN ACCORDANCE WITH ACI 304R.
    - 1.2. PLACE CONCRETE FOR FLOOR SLABS IN ACCORDANCE WITH ACI 302.1R.

SECTION 03 3500 - CONCRETE FINISHING

- PART 1 GENERAL**
  - 1. SUMMARY
    - 1.1. SECTION INCLUDES:
      - 1.2. SINGLE-CURE CURE-SEAL-HARDENER FOR NEW CONCRETE FLOORS
      - 1.2.1. PRECAUTIONS FOR AVOIDING STAINING CONCRETE BEFORE AND AFTER APPLICATION.
    - 1.3. RELATED SECTION:
      - 1.3.1. CAST-IN-PLACE CONCRETE: DIVISION 03 CAST-IN-PLACE CONCRETE SECTIONS.
    - 1.4. SUBMITTALS
      - 1.4.1. PRODUCT DATA: SUBMIT PRODUCT DATA, INCLUDING MANUFACTURER'S SPEC-DATA\* SHEET, INSTALLATION INSTRUCTIONS AND TECHNICAL BULLETINS FOR SPECIFIED PRODUCTS.
      - 1.4.2. CERTIFICATES: MANUFACTURER'S CERTIFICATION THAT THE INSTALLER IS ACCEPTABLE.
      - 1.4.3. MAINTENANCE DATA: MAINTENANCE INSTRUCTIONS, INCLUDING PRECAUTIONS FOR
      - 1.4.4. AVOIDING STAINING AFTER APPLICATION.
    - 1.5. QUALITY ASSURANCE
      - 1.5.1. INSTALLER QUALIFICATIONS: ACCEPTABLE TO THE MANUFACTURER.
- PART 2 PRODUCTS**
  - 1. MATERIAL
    - 1.1. CURE-SEAL-HARDENER: ASHFORD FORMULA, A WATER-BASED CHEMICALLY REACTIVE PENETRATING SEALER AND HARDENER THAT SEALS BY DENSIFYING CONCRETE SO THAT WATER MOLECULES CANNOT PASS THROUGH BUT AIR AND WATER VAPOR CAN AND ALLOWS CONCRETE TO ACHIEVE FULL COMPRESSIVE STRENGTH, MINIMIZING SURFACE CRAZING AND ELIMINATING DUSTING.
      - 1.1.1. ABRASION RESISTANCE TO REVOLVING DISKS: AT LEAST A 32.5% IMPROVEMENT OVER UNTREATED SAMPLES WHEN TESTED IN ACCORDANCE WITH ASTM C 779.
      - 1.1.2. SURFACE ADHESION: AT LEAST A 22% INCREASE IN ADHESION FOR EPOXY WHEN TESTED IN ACCORDANCE WITH ASTM D 3359.
      - 1.1.3. HARDENING: AS FOLLOWS WHEN TESTED IN ACCORDANCE WITH ASTM C 39:
        - 1.1.3.1. AFTER 7 DAYS: AN INCREASE OF AT LEAST 40% OVER UNTREATED SAMPLES.
        - 1.1.3.2. AFTER 28 DAYS: AN INCREASE OF AT LEAST 38% OVER UNTREATED SAMPLES.
      - 1.1.4. COEFFICIENT OF FRICTION: 0.86 DRY, 0.69 WET WHEN TESTED IN ACCORDANCE WITH ASTM C 1029.
      - 1.1.5. RESOUND NUMBER: AN INCREASE OF AT LEAST 13.3% OVER UNTREATED SAMPLES WHEN TESTED IN ACCORDANCE WITH ASTM C 805.
      - 1.1.6. LIGHT EXPOSURE DEGRADATION: NO EVIDENCE OF ADVERSE EFFECTS OF TREATED SAMPLES WHEN TESTED IN ACCORDANCE WITH ASTM G 23.
- PART 3 EXECUTION**
  - 1. MANUFACTURER'S INSTRUCTIONS
    - 1.1. COMPLIANCE: COMPLY WITH MANUFACTURER'S PRODUCT DATA, INCLUDING PRODUCT TECHNICAL BULLETIN, PRODUCT CATALOG, INSTALLATION INSTRUCTIONS AND PRODUCT CARE INSTRUCTIONS FOR INSTALLATION.
  - 2. EXAMINATION
    - 2.1. DO NOT BEGIN INSTALLATION UNTIL SUBSTRATES HAVE BEEN PROPERLY PREPARED AND SUFFICIENT FOR APPLICATION OF PRODUCT.
    - 2.2. IF SUBSTRATE PREPARATION IS THE RESPONSIBILITY OF ANOTHER TRADER, NOTIFY ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING.
  - 3. PREPARATION
    - 3.1. CLEAN SURFACES THOROUGHLY BEFORE INSTALLATION.
    - 3.2. PREPARE SURFACES USING PROVEN METHODS IMMEDIATELY BEFORE THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE UNDER THE PROJECT CONDITIONS.
    - 3.3. DO NOT USE FRESH MATERIALS AND MIXES PRIOR TO USE.
    - 3.4. BEFORE APPLICATION OF EQUIPMENT, MUST USE PROPER APPLICATION, DIAPER ALL COMPONENTS THAT MIGHT DRIP OIL, HYDRAULIC FLUID, OR GREASE.
    - 3.5. ALL WORK MUST BE PERFORMED BY AN APPLICATIONER CERTIFIED BY THE MANUFACTURER. CERTIFICATION CREDENTIALS ARE AVAILABLE UPON REQUEST.
    - 4. APPLICATION
      - 4.1. CURE-SEAL-CONCRETE: APPLY CURE-SEAL-HARDENER TO NEW CONCRETE AS SOON AS THE CONCRETE IS FIRM ENOUGH TO WORK ON (NO TROWELING; WITH COLORED CONCRETE, WAIT A MINIMUM OF 30 DAYS BEFORE APPLICATION).
      - 4.2. SPRAY ON AT RATE OF 200 FT<sup>2</sup>/GAL (5 M<sup>2</sup>/L).
      - 4.2.1. SURFACE WET WITH CURE-SEAL-HARDENER FOR A MINIMUM SOAK-IN PERIOD OF 30 MINUTES WITHOUT ALLOWING IT TO DRY OUT OR BECOME SLIPPERY. IN HOT WEATHER, SLIPPERINESS MAY APPEAR BEFORE THE 30 MINUTE TIME PERIOD HAS ELAPSED. IF THAT OCCURS, APPLY ADDITIONAL CURE-SEAL-HARDENER AS NEEDED TO KEEP THE ENTIRE SURFACE IN A NON-SLIPPERY STATE FOR THE FIRST 15 MINUTES. FOR THE REMAINING 15 MINUTES, MIST THE SURFACE AS NEEDED WITH WATER TO KEEP THE MATERIAL IN A NON-SLIPPERY STATE. IN HOT WEATHER CONDITIONS, FOLLOW MANUFACTURER'S SPECIAL APPLICATION PROCEDURES.
      - 4.2.3. WHEN THE TREATED SURFACE BECOMES SLIPPERY AFTER THIS PERIOD, LIGHTLY MIST WITH WATER UNTIL SLIPPERINESS DISAPPEARS.
      - 4.2.4. WAIT FOR SURFACE TO BECOME SLIPPERY AGAIN, AND THEN FLUSH ENTIRE SURFACE WITH WATER TO REMOVE ALL CURE-SEAL-HARDENER RESIDUE.
      - 4.2.5. SOLVEGEE SURFACE COMPLETELY DRY. FLUSHING ANY REMAINING SLIPPERY AREAS UNTIL NO RESIDUE REMAINS.
      - 4.2.6. WET VACUUM OR SCRUBBING MACHINES CAN BE USED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO REMOVE RESIDUE.

- 5. PROTECTION
  - 5.1. PROTECT INSTALLED FLOORS FOR AT LEAST 3 MONTHS UNTIL CHEMICAL REACTION
  - 5.2. PROCESS IS COMPLETE.
    - 5.2.1. DO NOT ALLOW TRAFFIC ON FLOORS FOR 3 HOURS AFTER APPLICATION.
    - 5.2.2. DO NOT ALLOW PARKING OF VEHICLES ON CONCRETE SLAB.
    - 5.2.3. IF VEHICLES MUST BE TEMPORARILY PARKED ON SLAB, PLACE DROP CLOTHS UNDER VEHICLES DURING ENTIRE TIME PARKED.
    - 5.2.4. DO NOT ALLOW PIPE CUTTING USING PIPE CUTTING MACHINERY ON CONCRETE SLAB.
    - 5.2.5. DO NOT ALLOW TEMPORARY PLACEMENT AND STORAGE OF STEEL MEMBERS ON CONCRETE SLABS.
    - 5.2.6. CLEAN UP SPILLS IMMEDIATELY AND SPOT-TREAT STAINS WITH DEGREASE OR OIL EMULSIFIER.
    - 5.2.7. CLEAN FLOOR REGULARLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

SECTION 04 2000 - UNIT MASONRY

- PART 1 GENERAL**
  - \*CONTRACTOR SHALL PROVIDE SINGLE SOURCE RESPONSIBILITY FOR ALL BUILDING WATERPROOFING COMPONENTS. ONE CONTRACT SHALL BE RESPONSIBLE FOR COORDINATION / INSTALLATION OF ALL COMPONENTS AFFECTING BUILDING WATER / AIR BARRIER.
- PART 2 PRODUCTS**
  - 1. CONCRETE MASONRY VENEER UNITS
    - 1.1. CONCRETE BLOCK: COMPLY WITH REFERENCED STANDARDS AND AS FOLLOWS:
      - 1.1.1. SIZE: STANDARD UNITS WITH NOMINAL FACE DIMENSIONS OF 16 X 8 INCHES (400 X 200 MM) AND NOMINAL DEPTHS AS INDICATED ON THE DRAWINGS FOR SPECIFIC LOCATIONS.
      - 1.1.2. SPECIAL SHAPES: PROVIDE NON-STANDARD BLOCKS CONFIGURED FOR CORNERS. PROVIDE CHAMFERED WATER TABLE / SILL BLOCKS AS INDICATED IN CONTRACT DRAWINGS AT TRANSITION TO EIFS VENEER ABOVE BLOCK.
      - 1.1.3. FINISH: PROVIDE SPLIT FACE TEXTURE FINISH.
      - 1.1.4. COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S AVAILABLE STANDARD COLORS
      - 1.1.5. LOAD-BEARING UNITS: ASTM C 90, NORMAL WEIGHT.
      - 1.1.6. NON-LOADBEARING UNITS: ASTM C 129.
      - 1.1.7. PROVIDE UNITS WITH INTEGRAL WATER REPELLENT: CONCRETE BLOCK UNITS AS SPECIFIED IN THIS SECTION WITH POLYMERIC LIQUID ADMIXTURE ADDED TO CONCRETE MASONRY UNITS AT THE TIME OF MANUFACTURE.
  - 2. MORTAR AND GROUT MATERIALS
    - 2.1. MASONRY CEMENT: ASTM C 91, TYPE N.
    - 2.2. PORTLAND CEMENT: ASTM C 150, TYPE I, COLOR AS REQUIRED TO PROVIDE APPROVED COLOR SAMPLE.
    - 2.3. MORTAR AGGREGATE: ASTM C 144.
    - 2.4. GROUT AGGREGATE: ASTM C 404.
    - 2.5. PIGMENTS FOR COLORED MORTAR: PURE, CONCENTRATED MINERAL PIGMENTS SPECIFICALLY INTENDED FOR MIXING INTO MORTAR AND COMPLYING WITH ASTM C 379.
    - 2.6. WATER: CLEAN AND POTABLE.
  - 3. REINFORCEMENT AND ANCHORAGE
    - 3.1. REINFORCING STEEL: ASTM A 615/A 615M GRADE 40 (280) DEFORMED BILLET BARS; GALVANIZED.
    - 3.2. FLEXIBLE ANCHORS: 2-PIECE ANCHORS THAT PERMIT DIFFERENTIAL MOVEMENT BETWEEN MASONRY VENEER AND STRUCTURAL BACKUP, HOT DIP GALVANIZED TO ASTM A 153/A 153M, CLASS B. BASIS OF DESIGN: 3.5 CMKMAN POS-I-TION EQUIPMENT IF U-SHAPED ANCHORS ARE USED IN LIEU OF POS-I-TIE SYSTEM PROVIDE STAP ADHERING MEMBERS TO FLASHING BETWEEN TIES.
    - 3.3. MASONRY VENEER ANCHORS: 2-PIECE ANCHORS THAT PERMIT DIFFERENTIAL MOVEMENT BETWEEN MASONRY VENEER AND STRUCTURAL BACKUP, HOT DIP GALVANIZED TO ASTM A 153/A 153M, CLASS B. BASIS OF DESIGN: 3.5 CMKMAN POS-I-TION EQUIPMENT IF U-SHAPED ANCHORS ARE USED IN LIEU OF POS-I-TIE SYSTEM PROVIDE STAP ADHERING MEMBERS TO FLASHING BETWEEN TIES.
  - 4. FLASHINGS
    - 4.1. METAL FLASHING MATERIALS: AS SPECIFIED IN SECTION 07 620.
    - 4.2. COPPER FLASHING: ASTM B 370, 060 SOFT ANNEALED, 20 OZ/SQ FT (0.7 MM) THICK; NATURAL FINISH.
    - 4.3. PRE-COATED GALVANIZED STEEL FLASHING: ASTM A 653/A 653M, WITH 60% MINIMUM ZINC COATING (0.61 MM) TOTAL THICKNESS; SHOP PRECATED WITH FLUOROPOLYMER BRATING IN COLOR MATCHING MORTAR.
    - 4.4. RUBBERIZED ASPHALT FLASHINGS: SELF-ADHERING POLYESTER-MODIFIED ASPHALT, 20 MIL TOTAL THICKNESS; WITH CROSS-LINKED POLYETHYLENE TOP AND BOTTOM SURFACES; SELF ADHERING.
    - 4.5. STAINLESS STEEL FLASHING (EDGE EXPOSURE MINIMUM): ASTM A 304, SOFT TEMPER; 26 GAUGE (0.45 MM) THICK; FINISH 2B TO 2D.
  - 5. ACCESSORIES
    - 5.1. PREFORMED CONTROL JOINTS: RUBBER GASKET, PROVIDE WITH CORNER AND TEE ACCESSORIES, FUSED JOINTS.
    - 5.2. CAVITY MORTAR CONTROL: SEMI-RIGID POLYETHYLENE OR POLYESTER MESH PANELS, SIZED TO THICKNESS OF WALL CAVITY, AND DESIGN TO PREVENT MORTAR DROPPINGS FROM CLOGGING WEEPS AND CAVITY VENTS AND ALLOW PROPER CAVITY DRAINAGE.
    - 5.3. POLYETHYLENE SHEETING.
    - 5.4. CAVITY DRAINAGE POLYESTER MESH, MORTAR AND GROUT MIXES
    - 6.1. MORTAR FOR UNIT MASONRY: ASTM C 270, USING THE PROPORTION SPECIFICATION.
    - 6.2. COLORED MORTAR: PROPORTION SELECTED PIGMENTS AND OTHER INGREDIENTS TO MATCH ARCHITECT'S SAMPLE, WITHOUT EXCEEDING MANUFACTURER'S RECOMMENDED PIGMENT-TO-CEMENT RATIO.
    - 6.3. GROUT: ASTM C 476. CONSISTENCY REQUIRED TO FILL COMPLETELY VOLUMES INDICATED FOR GROUTING; FINE GROUT FOR SPACES WITH SMALLEST HORIZONTAL DIMENSION OF 2 INCHES (50 MM) OR LESS; COARSE GROUT FOR SPACES WITH SMALLEST HORIZONTAL DIMENSION GREATER THAN 2 INCHES (50 MM).

- PART 3 EXECUTION**
  - 1. COLD AND HOT WEATHER REQUIREMENTS
    - 1.1. COMPLY WITH REQUIREMENTS OF ACI 530/530.1/EFTA OR APPLICABLE BUILDING CODE, WHICHEVER IS MORE STRINGENT.
  - 2. COURSING
    - 2.1. ESTABLISH LINES, LEVELS, AND COURSING INDICATED. PROTECT FROM DISPLACEMENT.
    - 2.2. MAINTAIN MASONRY COURSES TO UNIFORM DIMENSION. FORM VERTICAL AND HORIZONTAL JOINTS OF UNIFORM THICKNESS.
  - 2.3. CONCRETE MASONRY UNITS:
    - 2.3.1. BOND: RUNNING.
    - 2.3.2. COURSING: ONE UNIT AND ONE MORTAR JOINT TO EQUAL 8 INCHES (200 MM).
    - 2.3.3. MORTAR JOINTS: CONCAVE.
  - 3. PLACING AND BONDING
    - 3.1. LAY SOLID MASONRY UNITS IN FULL BED OF MORTAR, WITH FULL HEAD JOINTS, UNIFORMLY JOINTED WITH OTHER WORK.
    - 3.2. LAY HOLLOW MASONRY UNITS WITH FACE SHELL BEDDING ON HEAD AND BED JOINTS.
    - 4. CAVITY MORTAR CONTROL
      - 4.1. DO NOT PERMIT MORTAR TO DROP OR ACCUMULATE INTO CAVITY AIR SPACE OR TO PLUG WEEP/CAVITY VENTS.
      - 4.2. UTILIZE CAVITY MORTAR CONTROL PRODUCTS (MESH) AT ALL WEEP AND THROUGH WALL FLASHING LOCATIONS; MINIMUM OF 24" ABOVE WEEPS
  - 5. REINFORCEMENT AND ANCHORAGE - GENERAL
    - 5.1. UNLESS OTHERWISE INDICATED ON DRAWINGS OR SPECIFIED UNDER SPECIFIC WALL TYPE, INSTALL HORIZONTAL JOINT REINFORCEMENT 16 INCHES (400 MM) ON CENTER.
    - 5.2. PLACE MASONRY JOINT REINFORCEMENT IN FIRST AND SECOND HORIZONTAL JOINTS ABOVE AND BELOW OPENINGS. EXTEND MINIMUM 16 INCHES (400 MM) EACH SIDE OF OPENING.
    - 5.3. PLACE CONTINUOUS JOINT REINFORCEMENT IN FIRST AND SECOND JOINT BELOW TOP OF WALLS.
    - 5.4. LAP JOINT REINFORCEMENT ENDS MINIMUM 6 INCHES (150 MM).
    - 5.5. REINFORCE STACK BONDED JOINT UNIT CORNERS AND INTERSECTIONS WITH STRAP ANCHORS 16 INCHES (400 MM) ON CENTER.
    - 5.6. FASTEN ANCHORS TO STRUCTURAL FRAMING AND EMBED IN MASONRY JOINTS AS MASONRY IS LAID. UNLESS OTHERWISE INDICATED ON DRAWINGS OR CLOSER SPACING IS INDICATED UNDER SPECIFIC WALL TYPE, SPACE ANCHORS AT MAXIMUM OF 36 INCHES (900 MM) HORIZONTALLY AND 24 INCHES (600 MM) VERTICALLY.
  - 6. MASONRY FLASHINGS
    - 6.1. WHETHER OR NOT SPECIFICALLY INDICATED, INSTALL MASONRY FLASHING TO DIVERT WATER TO EXTERIOR AT ALL LOCATIONS WHERE DOWNWARD FLOW OF WATER WILL BE INTERRUPTED.
    - 6.2. EXTEND METAL FLASHINGS THROUGH EXTERIOR FACE OF MASONRY AND TURN DOWN TO FORM DRIP. INSTALL JOINT SEALER BELOW DRIP EDGE TO PREVENT MOISTURE MIGRATION UNDER FLASHING.
    - 6.3. EXTEND METAL FLASHINGS TO WITHIN 1/4 INCH (6 MM) OF EXTERIOR FACE OF MASONRY.
    - 6.4. EXTEND RUBBERIZED ASPHALT FLASHINGS TO WITHIN 1/4 INCH (6 MM) OF EXTERIOR FACE OF MASONRY. PROVIDE SEPARATE, EXPOSED METAL DRIP FLASHINGS AS SPECIFIED.
    - 6.5. LAP END JOINTS OF FLASHINGS AT LEAST 4 INCHES (100 MM) AND SEAL WATERTIGHT WITH MASTIC OR ELASTIC SEALANT.
  - 7. GROUTED COMPONENTS
    - 7.1. PLACE AND CONSOLIDATE GROUT FILL WITHOUT DISPLACING REINFORCING.
    - 7.2. AT BEARING LOCATIONS, FILL MASONRY CORES WITH GROUT FOR A MINIMUM 12 INCHES (300 MM) EITHER SIDE OF OPENING.

THE ARCHITECT/ENGINEER DOES NOT DEFINE THE SCOPE OF INDIVIDUAL TRADES, SUBCONTRACTORS, MATERIAL SUPPLIER OR VENDOR'S RESPONSIBILITIES. ANY SHEET NUMBERING SYSTEM USED WHICH IDENTIFIES DISCIPLINES IS SOLELY TO SEPARATE ARCHITECT'S AND ENGINEER'S SCOPE. IT DOES NOT DEFINE A SUBCONTRACTOR'S SCOPE OF WORK, ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, CODES OR CONSTRUCTION SEQUENCING SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING. NO CONSIDERATION WILL BE GIVEN TO REQUESTS FOR CHANGE ORDERS FOR FAILURE TO OBTAIN AND REVIEW THE COMPLETE SET OF CONSTRUCTION DOCUMENTS, OR FOR FAILURE TO SEEK INTERPRETATION FROM ARCHITECT FOR DISCREPANCIES.

SECTION 05 5000 - METAL FABRICATIONS

- PART 1 GENERAL**
- PART 2 PRODUCTS**
  - 1. MATERIALS - STEEL
    - 1.1. STEEL SECTIONS: ASTM A 36/A 36M.
    - 1.2. STEEL TUBING: ASTM A 500, GRADE B COLD-FORMED STRUCTURAL TUBING.
    - 1.3. PLATES: ASTM A 283.
    - 1.4. PIPE: ASTM A 53/A 53M, GRADE B SCHEDULE 40, BLACK FINISH.
    - 1.5. BOLTS, NUTS, AND WASHERS: ASTM A 325 (ASTM A 325M), TYPE 1, GALVANIZED TO ASTM A 153/A 153M WHERE CONNECTING GALVANIZED COMPONENTS.
    - 1.6. WELDING MATERIALS: AWS D1.1/D1.1M; TYPE REQUIRED FOR MATERIALS BEING WELDED.
    - 1.7. SHOP AND TOUCH-UP PRIMER: SSPC-PAINT 15, COMPLYING WITH VOC LIMITATIONS OF AUTHORITIES HAVING JURISDICTION.
    - 1.8. TOUCH-UP PRIMER FOR GALVANIZED SURFACES: SSPC-PAINT 20, TYPE I - INDOOR, COMPLYING WITH VOC LIMITATIONS OF AUTHORITIES HAVING JURISDICTION.
  - 2. MATERIALS - ALUMINUM
    - 2.1. EXTRUDED ALUMINUM: ASTM B 221 (ASTM B 221M), 6063 ALUMINUM TEMPER T3.
    - 2.2. SHEET ALUMINUM: ASTM B 209 (ASTM B 209M), 5052 ALLOY, H32 OR T2.
    - 2.3. ALUMINUM-ALLOY DRAWN SEAMLESS TUBES: ASTM B 211/A 211M, 6061 ALLOY, T6 TEMPER.
    - 2.4. FORMED ALUMINUM: ITEMS NOTED IN CONTRACT DRAWINGS AS FORMED ALUMINUM SHALL BE OF SUFFICIENT GAUGE TO HOLD INDICATED FORMS AND DIMENSIONS WITHOUT OIL CANNING OR DEFORMATIONS. ALL REQUIRED DETAILS SHALL BE CONCEALED FROM VIEW.
    - 2.5. BOLTS, NUTS, AND WASHERS: STAINLESS STEEL TYPE 304 FOR MATERIALS BEING WELDED.
    - 2.6. WELDING MATERIALS: AWS D12.1/D12.2M; TYPE 309 FOR MATERIALS BEING WELDED.
  - 3. FABRICATION
    - 3.1. FIT AND SHOP ASSEMBLE ITEMS IN LARGE PRACTICAL SECTIONS, FOR DELIVERY TO SITE.
    - 3.2. FABRICATE ALL WELD JOINTS THOROUGHLY FITTED AND SECURED.
    - 4. FINISH
      - 4.1. PRIME PAINT ALL EXPOSED ITEMS.
      - 4.2. FINISHES - ALUMINUM
        - 5. EXTERIOR ALUMINUM SURFACES: AS INDICATED ON CONTRACT DRAWINGS.
        - 5.2. FORMED ALUMINUM SURFACES: CLASS I NATURAL ANODIZED.
        - 5.3. EXTRUDED ALUMINUM SURFACES: HIGH PERFORMANCE ORGANIC COATING FOR EXPOSURE TO THE ELEMENTS, COLOR AS SELECTED BY THE ARCHITECT.
- SECTION 05 5100 - METAL STAIRS**
- PART 1 GENERAL**
- 1. WARRANTY
  - 1.1. ALACO LADDERS CARRY A LIMITED WARRANTY OF 5 YEARS.
- PART 2 PRODUCTS**
  - BASIS OF DESIGN PRODUCT: ALACO SHIPS LADDERS - MODEL H1000-65 (775H-65)
    - 1. HEIGHT - UP TO 20' (6.1 M) / WIDTH - 24" (610 MM) STANDARD, 48" (1220 MM) MAXIMUM
    - ANGLES - 75 STANDARD; 70, 65, 60 DEGREES AVAILABLE
  - 2. MODEL H1000-65 (775H-65) LADDER IS DESIGNED FOR USE WITH ROOF HATCHES. IT CAN BE ORDERED WITH OR WITHOUT HANDRAILS.
  - 3. FINISHES & COATINGS
    - 3.1. MILL FINISH IS STANDARD ON ALUMINUM LADDERS.
    - 3.2. FACTORY APPLIED PAINT COATINGS AND CHEM-FILM TREATMENT FOR FIELD APPLIED PRIMERS ARE AVAILABLE UPON REQUEST.
    - 3.3. CUSTOM COATINGS AND SURFACE TREATMENTS ARE ALSO OFFERED. 2.01
  - 4. LADDER CONSTRUCTION:
    - 4.1. ALACO ALUMINUM LADDERS AND THEIR COMPONENTS ARE FABRICATED FROM 6061-T6 ALUMINUM ALLOY FOR ADDED SAFETY, STRENGTH AND LONG SERVICE DURABILITY, WITH NO PAINTING REQUIRED.
    - 4.2. MODEL H1000-65 (775H-65) SHIPS LADDERS FEATURE EXTRA HEAVY-DUTY CAPACITY OF 1000 LB. TOTAL. 500 LB. PER STEP. 6" (153 MM) WIDE STEPS WITH NON-SLIP RIDGES MOUNTED ON 12" (305 MM) CENTERS. THESE 24" (610 MM) WIDE LADDERS ARE EQUIPPED WITH 4 MOUNTING BRACKETS. FLUSH HANDRAILS CONSIST OF 1-1/4" SCHEDULE 40 (42 MM OD) ROUND ALUMINUM PIPE WITH CAST ALUMINUM FITTINGS.
- PART 3 EXECUTION**
  - 1. PREPARATION
    - 1.1. HANDLE AND STORE PRODUCT ACCORDING TO ALACO RECOMMENDATIONS.
  - 2. INSTALLATION
    - 2.1. MODEL H1000-65 (775H-65) ALUMINUM SHIPS LADDER STANDARD ASSEMBLY
    - 2.2. ESTABLISH DISTANCE FROM THE FLOOR TO THE UNDERSIDE OF THE ROOF HATCH COVER. LOCATE THE MOUNTING BRACKET CENTERLINE 17" (432 MM) BELOW THE UNDERSIDE OF THE ROOF HATCH. CHECK CLEAR FLOOR SPACE REQUIRED IN INSTALLED POSITION, THEN INSTALL THE LADDER TO 85 ANGLAR DEGREES. FLUSH HANDRAILS ARE STANDARD AND CAN BE INSTALLED SINGULARLY OR ON BOTH SIDES OF THE LADDER SIDE RAILS.
    - 2.3. COMPLETE INSTALLATION RECOMMENDATIONS FOR ALL PRODUCT MODELS ARE AVAILABLE FROM THE MANUFACTURER.

SECTION 06 1000 - ROUGH CARPENTRY

- PART 1 GENERAL**
- PART 2 PRODUCTS**
  - 1. GENERAL REQUIREMENTS
    - 1.1. DIMENSION LUMBER: COMPLY WITH PS 20 AND REQUIREMENTS OF SPECIFIED GRADING AGENCIES.
    - 1.2. IF NO SPECIES IS SPECIFIED, PROVIDE ANY SPECIES GRADED BY THE AGENCY SPECIFIED; IF NO GRADING AGENCY IS SPECIFIED, PROVIDE LUMBER GRADED BY ANY GRADING AGENCY MEETING THE SPECIFIED REQUIREMENTS.
    - 1.3. GRADING AGENCY: ANY GRADING AGENCY WHOSE RULES ARE APPROVED BY THE BOARD OF REVIEW, AMERICAN LUMBER STANDARD COMMITTEE (AWPA ALC), OR WHO PROVIDES GRADING SERVICE FOR THE SPECIES AND GRADE SPECIFIED; PROVIDE LUMBER STAMPED WITH GRADE MARK UNLESS OTHERWISE INDICATED.
    - 1.4. LUMBER OF OTHER SPECIES OR GRADES IS ACCEPTABLE PROVIDED STRUCTURAL AND APPEARANCE CHARACTERISTICS ARE EQUIVALENT TO OR BETTER THAN PRODUCTS SPECIFIED.
  - 2. DIMENSION LUMBER FOR CONCEALED APPLICATIONS
    - 2.1. SIZES: NOMINAL SIZES AS INDICATED ON DRAWINGS, S4S.
    - 2.2. MOISTURE CONTENT: S-DRY OR MC19.
    - 2.3. STUD FRAMING (2 BY 2 THROUGH 2 BY 6 (50 BY 50 MM THROUGH 50 BY 150 MM)):
      - 2.3.1. SPECIES: ANY ALLOWED UNDER REFERENCED GRADING RULES.
      - 2.3.2. GRADE: NO. 2.
      - 2.4. JOIST, RAFTER, AND SMALL BEAM FRAMING (2 BY 6 THROUGH 4 BY 16 (50 BY 150 MM THROUGH 100 BY 400 MM)):
        - 2.4.1. MACHINE STRESS-RATED (MSR) AS FOLLOWS:
          - 2.4.1.1. FB-SIGN (MINIMUM EXTREME FIBER STRESS IN BENDING): 1350 PSI (9,300 KPA).
          - 2.4.1.2. E (MINIMUM MODULUS OF ELASTICITY): 1,300,000 PSI (8960 MPa).
        - 2.4.2. SPECIES: ANY ALLOWED UNDER GRADING RULES.
        - 2.4.3. GRADE: NO. 1 & BTR.
      - 2.5. MISCELLANEOUS FRAMING, BLOCKING, NAILERS, GROUNDS, AND FURRING:
        - 2.5.1. LUMBER: S4S, NO. 2 OR STANDARD GRADE.
        - 2.5.2. BOARDS: STANDARD OR NO. 3.
    - 3. CONSTRUCTION PANELS
      - 3.1. ROOF SHEATHING: APA PP-108, STRUCTURAL I RATED SHEATHING, EXTERIOR EXPOSURE CLASS, AND AS FOLLOWS:
        - 3.1.1. SPAN RATING: 24/0 (610/0).
        - 3.1.2. THICKNESS: 1/2 INCH (13 MM), NOMINAL
      - 3.2. WALL SHEATHING: APA PP-108, STRUCTURAL I RATED SHEATHING, EXTERIOR EXPOSURE CLASS, AND AS FOLLOWS: 1/2" PLYWOOD OR OSB, AS INDICATED ON STRUCTURAL DRAWINGS.
      - 3.3. COMMUNICATIONS AND ELECTRICAL ROOM MOUNTING BOARDS: PS 1 A-D PLYWOOD, OR MEDIUM DENSITY FIBERBOARD; 3/4 INCH (19 MM) THICK; FLAME SPREAD INDEX OF 25 OR LESS, SMOKE DEVELOPED INDEX OF 450 OR LESS, WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
    - 4. FACTORY WOOD TREATMENT
      - 4.1. TREATED LUMBER AND PLYWOOD: COMPLY WITH REQUIREMENTS OF AWPA U1 - USE CATEGORY SYSTEM FOR WOOD TREATMENTS AS DETERMINED BY USE CATEGORIES, EXPECTED SERVICE CONDITIONS, AND SPECIFIC APPLICATIONS.
  - PART 3 EXECUTION**
    - 1. FRAMING INSTALLATION
      - 1.1. SET STRUCTURAL MEMBERS LEVEL, PLUMB, AND TRUE TO LINE. DISCARD PIECES WITH DEFECTS THAT WOULD LOWER REQUIRED STRENGTH OR RESULT IN UNACCEPTABLE APPEARANCE OF EXPOSED MEMBERS.
      - 1.2. INSTALL STRUCTURAL MEMBERS FULL LENGTH WITHOUT SPLICES UNLESS OTHERWISE SPECIFICALLY DETAILED.

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