



DOCUMENTS IN GOOD ORDER AND IN A CLEAN, DRY, LEGIBLE CONDITION, PROTECTED FROM DETERIORATION AND LOSS. PROVIDE ACCESS TO PROJECT RECORD DOCUMENTS FOR ARCHITECT'S REFERENCE DURING NORMAL WORKING HOURS.

### **DIVISION 3 – CONCRETE**

SEE ALSO NOTES ON STRUCTURAL DRAWINGS

#### **SECTION 03 30 00**

##### **PART 1. GENERAL**

###### **1.01 SUMMARY**

- A. SECTION INCLUDES: CAST-IN-PLACE CONCRETE.  
B. RELATED SECTIONS:  
1. SECTION SEALERS: 07 92 00 - JOINT COLORED SEALANTS FOR JOINTS.

###### **1.2 REFERENCES**

- A. AMERICAN CONCRETE INSTITUTE:  
1. ACI 301 - STRUCTURAL CONCRETE FOR BUILDINGS.  
2. ACI 305 - HOT WEATHER CONCRETING.  
3. ACI 306 - COLD WEATHER CONCRETING.  
B. AMERICAN SOCIETY FOR TESTING AND MATERIALS:  
1. ASTM C309 - LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE.

###### **1.3 SUBMITTALS**

- A. SUBMIT PRODUCT DATA AND MANUFACTURER'S INSTRUCTIONS FOR:  
1. CURING COMPOUNDS.  
2. PROPRIETARY CLEANING AGENTS.

###### **1.4 QUALITY ASSURANCE**

- A. PERFORM WORK IN ACCORDANCE WITH ACI 301, SECTION 6 - ARCHITECTURAL CONCRETE.  
B. CONFORM TO ACI 305 DURING HOT WEATHER.  
C. CONFORM TO ACI 306 DURING COLD WEATHER.  
D. OBTAIN EACH MATERIAL FROM SAME SOURCE AND MAINTAIN HIGH DEGREE OF CONSISTENCY IN WORKMANSHIP THROUGHOUT PROJECT.  
E. INSTALLER QUALIFICATIONS: CONCRETE WORK SHALL BE BY FIRM WITH FIVE (5) YEARS EXPERIENCE WITH WORK OF SIMILAR SCOPE AND QUALITY.

###### **1.6 PROJECT DELIVERIES**

- A. SCHEDULE DELIVERY OF CONCRETE TO PROVIDE CONSISTENT MIX TIMES FROM BATCHING UNTIL DISCHARGE.

##### **PART 2 PRODUCTS**

###### **2.1 CONCRETE MATERIALS**

- A. SELECT AGGREGATE: (ABRASIVE.)  
B. ADMIXTURES: DO NOT USE CALCIUM CHLORIDE ADMIXTURES.

###### **2.2 ACCESSORIES**

- A. CURING COMPOUND FOR CONCRETE: CURING COMPOUND SHALL COMPLY WITH ASTM C309  
B. SEALANTS: JOINT SEALERS SHALL BE TYPE SPECIFIED IN SECTION 07 92 00.  
C. SUPPORTS FOR REINFORCING BARS: USE CORROSION-RESISTANT TYPES AT LOCATIONS IN CONTACT WITH EXPOSED SURFACES.  
D. CLEANING AGENTS: USE PRODUCTS KNOWN TO BE COMPATIBLE WITH EXPOSED CONCRETE.

###### **2.3 MIXES**

- A. DO NOT RE-TEMPER MIX BY ADDING WATER IN FIELD.

###### **2.5 CONCRETE COLORS**

- A. CONCRETE COLOR:  
1. CEMENT: COLOR SHALL BE GRAY.  
2. SAND: COLOR SHALL BE LOCALLY AVAILABLE NATURAL SAND.  
3. AGGREGATE: CONCRETE PRODUCER'S STANDARD AGGREGATE COMPLYING WITH SPECIFICATIONS, STRUCTURAL NOTES ON DRAWINGS, AND GEOTECHNICAL REPORT.

##### **PART 3 EXECUTION**

###### **3.1 FLOOR FINISHES**

- A. TROWEL: USE STEEL TROWEL TO PRODUCE SMOOTH DENSE SURFACE. DO NOT OVER-TROWEL, OR START TROWELING LATE.

###### **3.2 PATCHING**

- A. FILL HOLES AND DEFECTS IN CONCRETE SURFACE WITHIN 48 HOURS OF FORM REMOVAL.  
B. USE THE SAME PATCHING MATERIALS AND TECHNIQUES AS THE ORIGINAL CONCRETE.  
C. MAKE PATCHES WITH A STIFF MORTAR MADE WITH MATERIALS FROM THE SAME SOURCES AS THE CONCRETE. ADJUST MORTAR MIX PROPORTIONS SO DRY PATCH MATCHES DRY ADJACENT CONCRETE. ADD WHITE CEMENT TO MORTAR MIX IF NECESSARY TO LIGHTEN IT, (WITH EXPOSED AGGREGATE FINISHES, ADD AGGREGATE TO MORTAR MIX SO PATCHES WILL HAVE THE SAME TEXTURE AND APPEARANCE AS ADJACENT CONCRETE.)

###### **3.3 CURING**

- A. MAINTAIN CONCRETE BETWEEN 65° AND 85°F (18° TO 29°C) DURING CURING.  
B. CONCRETE: APPLY CURING COMPOUND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.  
C. APPLY CURING COMPOUND AT CONSISTENT TIME FOR EACH PLY TO MAINTAIN CONSISTENCY.

###### **3.4 CLEANING**

- A. EFFLORESCENCE: REMOVE EFFLORESCENCE AS SOON AS PRACTICAL AFTER IT APPEARS. USE LEAST AGGRESSIVE CLEANING TECHNIQUES POSSIBLE

- B. WEAR PROTECTIVE EYE WEAR, GLOVES, AND CLOTHING SUITABLE TO WORK AND AS REQUIRED BY CLEANER MANUFACTURER.  
C. IF PROPRIETARY CLEANING AGENTS ARE USED, PRE-WET WALL, TEST CLEANING AGENT ON A SMALL INCONSPICUOUS AREA, AND CHECK EFFECTS PRIOR TO PROCEEDING. BEGIN CLEANING AT THE TOP AND WORK DOWN. THOROUGHLY RINSE WALL AFTERWARDS WITH CLEAN WATER. FOLLOW CLEANER MANUFACTURER'S INSTRUCTIONS.  
D. DO NOT USE MURIATIC (HYDROCHLORIC) ACID ON CONCRETE.

##### **DIVISION 4 – MASONRY**

#### **SECTION 04 22 00 – CONCRETE UNIT MASONRY**

##### **PART 1. GENERAL**

###### **1.01 SUMMARY**

- A. SECTION INCLUDES: PROVIDE ALL CONCRETE UNIT MASONRY WORK.

###### **1.02 SUBMITTALS**

- A. PROVIDE SAMPLES FOR THE OWNER'S REVIEW, OF AT LEAST THREE (3) LOCALLY PRODUCED TYPES OF BRICKS FOR REVIEW AND ACCEPTANCE BY THE OWNER'S PROJECT MANAGER.

###### **1.03 DELIVERY, STORAGE AND HANDLING**

- A. DELIVER UNIT MASONRY AND ACCESSORIES TO PROJECT IN UNDAMAGED CONDITION. TRANSPORT AND HANDLE ALL UNIT MASONRY IN SUCH A MANNER AS TO PREVENT CHIPPING AND BREAKAGE.  
B. LOCATE STORAGE PILES AND STACKS TO AVOID UNNECESSARY TRAFFIC.

###### **2.00 PRODUCTS**

###### **2.01 MATERIALS**

- A. UNIT MASONRY, CONCRETE SHALL BE MANUFACTURED TO MEET ASTM C90, GRADE N-1 REQUIREMENTS FOR HOLLOW LOAD BEARING CONCRETE MASONRY UNITS, USING LIGHT WEIGHT AGGREGATE CONFORMING TO ASTM C331.  
1. EXPOSED MASONRY UNITS SHALL BE 8 X 8 X 16 COMMON CONCRETE MASONRY UNITS.

###### **2.02 MIXING**

- A. GROUT: PROVIDE TYPE "S" GROUT, MINIMUM 2000 PSI AT 28 DAYS WITH A MAXIMUM 8" SLUMP, PER ASTM C476 IN 1:1/10:2:3 PROPORTIONS OF PORTLAND CEMENT TO LIME TO PEA GRAVEL TO SAND.  
1. ADD SUFFICIENT WATER TO FORM PUMPING CONSISTENCY AND DEVELOP MAXIMUM SLUMP.  
2. USE GROUT WITHIN ONE (1) HOUR OF MIXING. DO NOT RETEMP  
B. MORTAR: PROVIDE TYPE "S" MORTAR, 1800 PSI AT 28 DAYS WITH A MAXIMUM 3" SLUMP, PER ASTM C270 IN 1:1/2:3 PROPORTIONS OF PORTLAND CEMENT TO LIME TO SAND. ADD SUFFICIENT WATER TO FORM DESIRED CONSISTENCY AND ACHIEVE MAXIMUM SLUMP.  
1. USE MORTAR WITHIN 3/4 HOUR OF MIXING.  
2. DO NOT RETEMPER MORTAR ALLOWED TO STAND MORE THAN 1/2 HOUR.  
3. MORTAR COLOR TO BE SELECTED BY ARCHITECT.

###### **2.03 REINFORCING**

- A. JOINT REINFORCEMENT FOR CONCRETE MASONRY UNITS SHALL BE FABRICATED IN UNIT WIDTHS OF APPROXIMATELY 2" LESS THAN WIDTH OF WALL TO PROVIDE NOT LESS THAN 5/8" MORTAR COVERAGE ON JOINT FACE.  
1. HORIZONTAL REINFORCEMENT SHALL BE LADDER OR TRUSS DESIGN WITH CONTINUOUS CROSS OR DIAGONAL RODS SPACED NOT MORE THAN 16" O.C. FOR DEFORMED STEEL BARS, ASTM A615, GRADE 60, SIZE AND SPACING AS INDICATED.  
B. VERTICAL REINFORCEMENT SHALL BE DEFORMED STEEL BARS, ASTM A615, GRADE 60, SIZE AS INDICATED.

###### **2.04 ACCESSORIES**

- A. CONTROL JOINT FILLER:  
1. DUR-O-WAL, WIDE FLANGE CONTROL JOINT.  
2. AA PRODUCTS CO., BLOK-TITE CONTROL JOINT.  
B. BRICK TIES SHALL BE CORRUGATED "VENEER ANCHORS", 16 GAUGE MILL OR HOT DIPPED GALVANIZED. WIDTH SHALL BE 1-1/4" X 3-1/2" WITH A 2" BEND FOR ATTACHMENT TO THE SUBSTRATE.

###### **3.00 EXECUTION**

###### **3.01 PREPARATION**

- A. MORTAR AND GROUT PROPORTIONS:  
1. MORTAR SHALL BE FRESHLY PREPARED AND UNIFORMLY MIXED IN RATIO AS SPECIFIED.  
2. GROUT SHALL BE SUFFICIENTLY FLUID TO INSURE COMPLETE FILLING OF ALL SECTIONS OF MASONRY REQUIRING GROUT.  
B. MASONRY UNIT CONCRETE:  
1. MASONRY UNITS SHALL BE CLEAN AND FREE FROM DIRT WHEN LAID IN THE WALL.  
C. DO NOT "WET" MASONRY UNIT BEFORE LAYING.  
D. DO NOT LAY CHIPPED, CRACKED OR OTHERWISE DEFECTIVE UNITS IN THE WALL WHERE EXPOSED TO VIEW.  
1. PROVIDE PROPER MASONRY UNITS AS REQUIRED BY JOB CONDITIONS FOR ALL WINDOWS, DOORS, BOND BEAMS, LINTELS, PILASTERS, CAPS, ETC.

###### **3.02 INSTALLATION, APPLICATION AND ERECTION**

- A. LAY ALL MASONRY UNITS IN UNIFORM AND TRUE COURSED, LEVEL AND PLUMB. USE FULL MORTAR BEDDING FOR EACH COURSE ON THE FOUNDATION. USE FACE SHELL BEDDING EXCEPT WHERE FULL MORTAR BEDDING IS REQUIRED.  
B. BUTTER VERTICAL HEAD JOINTS WELL FOR A THICKNESS EQUAL TO THE FACE SHELL OF THE UNIT AND SHOVE THESE JOINTS TIGHT SO THAT THE MORTAR BONDS WELL TO BOTH UNITS.  
C. MORTAR JOINTS SHALL BE STRAIGHT, CLEAN AND UNIFORM IN THICKNESS. TOOL ALL JOINTS AS INDICATED BELOW:

1. ALL BED AND HEAD JOINTS SHALL BE TOOLED USING A ROUND JOINER SLIGHTLY LARGER THAN JOINT WIDTH SO THAT A COMPLETE CONTACT IS MADE ALONG THE EDGES OF THE UNITS, COMPRESSING ND SEALING THE SURFACE OF THE JOINT, UNLESS OTHERWISE INDICATED.  
2. WHERE MASONRY UNITS ARE SCHEDULED TO RECEIVE STUCCO, PLASTER, ETC., STRIKE JOINTS FLUSH.  
D. CONCRETE UNIT REINFORCEMENT:  
1. PLACE HORIZONTAL REINFORCING IN FIRST AND SECOND BED JOINTS ABOVE AND BELOW OPENING AND EVERY 16" VERTICALLY THROUGHOUT THE REMAINDER OF THE STRUCTURE.  
2. PROVIDE REINFORCED BOND BEAMS AS INDICATED.  
E. LOCATE AND INSTALL MISCELLANEOUS METALS WITHIN MASONRY WORK AS REQUIRED. ANCHOR BOLTS, EMBEDS, BEAM SEATS, BRICK TIES SHALL BE SET TRUE AND GROUTED IN PLACE. BRICK TIES SHALL BE INSTALLED PER MANF. RECOMMENDATIONS AND PLACED NOT MORE THAN 24 INCHES ON CENTER HORIZONTALLY AND VERTICALLY AND SHALL NOT SUPPORT MORE THAN 2.67 SQUARE FEET OF WALL AREA.  
F. REINFORCING STEEL SHALL BE IN PLACE AND INSPECTED BEFORE GROUTING STARTS. ROUGHEN IN VERTICAL SPACES IMMEDIATELY AFTER CASTING AND AGAIN ABOUT FIVE MINUTES LATER. GROUT BEAMS OVER OPENINGS, AND BOND BEAMS IN A CONTINUOUS OPERATION. SOLIDLY GROUT IN PLACE ALL BOLTS, ANCHORS, ETC.

###### **3.03 ADJUSTING AND CLEANING**

- A. POINT AND FILL HOLES AND CRACKS IN EXPOSED MORTAR JOINTS. CUT OUT DEFECTIVE MORTAR JOINTS, REFILL SOLIDLY WITH MORTAR AND TOOL AS SPECIFIED.  
B. POINTING MORTARS SHALL BE IDENTICAL AND ADJACENT MORTAR IN SIMILAR JOINTS AND FINISH RESULTS SHALL MATCH AND BE INDISTINGUISHABLE FROM ORIGINAL MORTAR USED.  
C. UPON COMPLETION OF THE BRICK MASONRY WORK, CLEAN ALL EXPOSED WORK WITH ACID SOLUTION, "ACID WASH", TO REMOVE ALL STAINS ON THE SURFACE IN A MANNER APPROVED BY THE BRICK UNIT MANUFACTURER.

#### **04 73 00 MANUFACTURED STONE MASONRY**

##### **PART 1 GENERAL**

###### **1.1 SUMMARY**

- A. SECTION INCLUDES: VENEER PRECAST STONE AND BRICK VENEER.

###### **1.2 REFERENCES**

- A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):  
1. ASTM C33/C33M-13, SPECIFICATION FOR CONCRETE AGGREGATES.  
2. ASTM C39/C39M-15a, TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS.  
3. ASTM C67-14, TEST METHOD FOR SAMPLING AND TESTING BRICK AND STRUCTURAL CLAY TILE.  
4. ASTM C1144-11, SPECIFICATIONS FOR AGGREGATE FOR MASONRY MORTAR.  
5. ASTM C150/C150M-15, SPECIFICATION FOR PORTLAND CEMENT.  
6. ASTM C330/C330M-14, SPECIFICATION FOR LIGHTWEIGHT AGGREGATES FOR STRUCTURAL CONCRETE.  
7. ASTM C348-14, TEST METHOD FOR FLEXURAL STRENGTH OF HYDRAULIC CEMENT MORTARS.  
8. ASTM C482-02(2014), TEST METHOD FOR BOND STRENGTH OF CERAMIC TILE TO PORTLAND CEMENT.  
9. ASTM C567/C567M-14, TEST METHOD FOR UNIT WEIGHT OF STRUCTURAL LIGHTWEIGHT CONCRETE.  
10. ASTM E119-15, TEST METHODS FOR FIRE TESTS OF BUILDING CONSTRUCTION AND MATERIALS.

- B. ACI 530-02/ASCE 5-02/TMS 402-02, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, AMERICAN CONCRETE INSTITUTE, STRUCTURAL ENGINEERING INSTITUTE OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, THE MASONRY SOCIETY.  
C. ACI 530.1-02/ASCE 6-02/TMS 602-02, SPECIFICATION FOR MASONRY STRUCTURES, AMERICAN CONCRETE INSTITUTE, STRUCTURAL ENGINEERING INSTITUTE OF AMERICAN SOCIETY OF CIVIL ENGINEERS, THE MASONRY SOCIETY.

- D. ICC-ES, IBC AND IRC TESTING METHODS: 0 ICC-ES EVALUATION (INTERNATIONAL CODE COUNCIL – EVALUATION SERVICES) REPORT #ESR-1593.  
1. 2012 INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL CODE COUNCIL.  
2. 2012 INTERNATIONAL RESIDENTIAL CODE (IRC), INTERNATIONAL CODE COUNCIL.

###### **1.3 SYSTEM DESCRIPTION**

- A. PERFORMANCE REQUIREMENTS: PROVIDE PRECAST STONE VENEER, ACCESSORIES AND RELATED MATERIALS AND COMPONENTS WHICH HAVE BEEN MANUFACTURED, TESTED, FABRICATED AND INSTALLED TO COMPLY WITH THE FOLLOWING CRITERIA:  
1. ASTM C67-14.  
2. ASTM C348-14.  
3. ASTM C482-02(2014).  
4. ASTM C567/C567M-14.  
5. ASTM E119-12.  
6. ASTM C192/C192M-15  
8. ASTM C39/C39M-15a

###### **1.4 SUBMITTALS**

- A. GENERAL: SUBMIT LISTED SUBMITTALS IN ACCORDANCE WITH CONDITIONS OF THE CONTRACT AND DIVISION 1 SUBMITTAL PROCEDURES SECTION.  
B. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS.  
C. SAMPLES: SUBMIT SELECTION AND VERIFICATION SAMPLES.  
D. CLOSEOUT SUBMITTALS: SUBMIT THE FOLLOWING:  
1. WARRANTY DOCUMENTS SPECIFIED HEREIN.

###### **1.5 QUALITY ASSURANCE**

- A. QUALIFICATIONS: UTILIZE AN INSTALLER WITH DEMONSTRATED EXPERIENCE IN PROJECTS OF SIMILAR SIZE AND COMPLEXITY.  
B. REGULATORY REQUIREMENTS AND APPROVALS: COMPLY WITH THE FOLLOWING  
1. IBC 2012

###### **1.6 DELIVERY, STORAGE & HANDLING**

- A. GENERAL: COMPLY WITH DIVISION 1 PRODUCT REQUIREMENT SECTION.  
B. DELIVERY: DELIVER MATERIALS IN MANUFACTURER'S ORIGINAL, UNOPENED, UNDAMAGED CONTAINERS WITH IDENTIFICATION LABELS INTACT.  
C. STORAGE AND PROTECTION: STORE MATERIALS PROTECTED FROM EXPOSURE TO HARMFUL ENVIRONMENTAL CONDITIONS AND AT TEMPERATURE AND HUMIDITY CONDITIONS RECOMMENDED BY THE MANUFACTURER.

###### **1.7 PROJECT/SITE CONDITIONS**

- A. ENVIRONMENTAL REQUIREMENTS: DO NOT INSTALL VENEER SYSTEM WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES F (4 DEGREES C).

###### **1.8 WARRANTY**

- A. PROJECT WARRANTY: REFER TO CONDITIONS OF THE CONTRACT FOR PROJECT WARRANTY PROVISIONS.  
B. MANUFACTURER'S WARRANTY: SUBMIT, FOR OWNER'S ACCEPTANCE, MANUFACTURER'S STANDARD WARRANTY DOCUMENT EXECUTED BY AUTHORIZED COMPANY OFFICIAL. MANUFACTURER'S WARRANTY IS IN ADDITION TO, AND NOT A LIMITATION OF, OTHER RIGHTS OWNER MAY HAVE UNDER CONTRACT DOCUMENTS.  
WARRANTY PERIOD: 50 YEARS.

##### **PART 2 PRODUCTS**

###### **2.1 VENEER PRECAST STONE & BRICK VENEER**

- A. MANUFACTURER: G. S. HARRIS CO., INC. O CONTACT: 2810 PENNSYLVANIA AVENUE, OGDEN, UT 84401; TELEPHONE: (888) 878-6631, (801) 621-1380; FAX: (801) 621-8252; E-MAIL: INFO@HARRISTONE.COM; WEBSITE: WWW.HARRISTONE.COM.  
B. PROPRIETARY PRODUCTS/SYSTEMS, VENEER PRECAST STONE, INCLUDING THE FOLLOWING:  
1. HARRISTONE VENEER PRECAST STONE & BRICK VENEER:  
- MATERIALS: TYPE III PORTLAND CEMENT, FINE AND COARSE EXPANDED SHALE AGGREGATES, PIGMENT, ADMIXTURE AND WATER AS REQUIRED FOR CASTING.  
- SIZE: APPROXIMATELY 5/8" - 2 5/8" (16 - 67 MM) THICK, AND A MAXIMUM OF 720 IN2 (464,515 MM2) IN AREA WITH A MAXIMUM DIMENSION OF 36" (914 MM).  
- WEIGHT: MAXIMUM VENEER WEIGHT OF 15 LBS PSF (73 KG/M2).

###### **2.3 MANUFACTURED UNITS**

- A. PROVIDE VENEER PRECAST STONE COMPONENTS AS FOLLOWS:  
1. CHIEF JOSEPH STONE: CAPE COD CHIEF JOSEPH

###### **2.4 ACCESSORIES**

- A. MORTAR:  
1. TYPE – S (OR EQUIVALENT)  
B. METAL LATH:  
1. TYPE: [3.4 LB (1.5 KG) SELF-FURRING, DIAMOND METAL LATH] OR [NO. 17 GAUGE 1 1/2" (38 MM) WOVEN-WIRE STUCCO MESH].  
C. NAILS, STAPLES, SCREWS:  
1. MATERIAL: GALVANIZED NAILS OR NO.16 GAGE GALVANIZED STAPLES, FOR STEEL STUDS, FASTENERS SHALL BE NO. 8 WAFER HEAD SCREWS.  
2. LENGTH: SUFFICIENT TO COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS STATED IN ICC-ES REPORT # ESR-1593. O BUILDING PAPER.  
3. TYPE: TWO PLY GRADE D.  
C. PROVIDE CEMENT MORTAR TO BE USED FOR SCRATCH COAT, SETTING BED AND JOINT FILLER WHICH COMPLIES WITH TYPE S REQUIREMENTS.

##### **SECTION 3 EXECUTION**

###### **3.1 MANUFACTURER'S INSTRUCTIONS**

- A. COMPLY WITH THE INSTRUCTIONS AND RECOMMENDATIONS OF THE VENEER PRECAST STONE MANUFACTURER STATED IN ICC-ES REPORT # ESR- 1593.

###### **3.2 EXAMINATION**

- A. SITE VERIFICATION OF CONDITIONS:  
1. VERIFY THAT SITE CONDITIONS ARE ACCEPTABLE FOR INSTALLATION OF VENEER PRECAST STONE.  
2. DO NOT PROCEED WITH INSTALLATION OF VENEER PRECAST STONE UNTIL UNACCEPTABLE CONDITIONS ARE CORRECTED.

###### **3.3 INSTALLATION**

- A. APPLICATION TO WOOD SUBSTRATE:  
1. COVER STRUCTURALLY SOUND WOOD SUBSTRATE (PLYWOOD OR OTHER SHEATHING OVER FRAMING MEMBERS) WITH 2 LAYERS OF GRADE D BUILDING PAPER.  
2. APPLY 3.4 LB/YD2 (1.8 K/M2) SELF-FURRING METAL LATH OR #17 GAUGE, 1 1/2" (38 MM) WOVEN-WIRE STUCCO MESH TO WOOD STUDS SPACED 16" (406 MM) ON CENTER. NAILS MUST BE SPACED 6" (152 MM) ON CENTER ON THE STUDS AND MUST BE OF SUFFICIENT LENGTH TO PENETRATE THE STUDS A MINIMUM OF 1" (25.4 MM).  
3. APPLY 1/2" (12.7 MM) THICK SCRATCH COAT OF TYPE S MORTAR OR EQUIVALENT AND ALLOW TO CURE AT LEAST 48 HOURS BEFORE THE MORTAR BED IS APPLIED.  
4. MOISTEN SCRATCH COAT IMMEDIATELY BEFORE INSTALLING STONE.  
5. APPLY 3/4" (19.1 MM) THICK TYPE S MORTAR OR EQUIVALENT TO THE BACK OF EACH HARRISTONE AND PRESS THE STONE INTO PLACE ON THE SCRATCH COAT. THE MORTAR BED CONSISTENCY MUST ALLOW MORTAR TO BE SQUEEZED OUT AROUND ALL EDGES OF THE VENEER UNIT TO ENSURE FULL BOND.  
6. APPLY TYPE S MORTAR OR EQUIVALENT INTO JOINTS BETWEEN STONES, THEN RAKE JOINTS.  
7. ON CLEAN, UNFINISHED MASONRY SURFACES, HARRISTONE VENEER MAY BE APPLIED DIRECTLY WITHOUT MESH.  
- CLEAN AND SAND BLAST EXISTING PAINTED OR WATERPROOFED MASONRY SURFACES TO PROVIDE ADEQUATE BOND.  
8. APPLY MINIMUM 1/2" (12.7 MM) THICK SETTING BED OF TYPE S MORTAR OR EQUIVALENT TO THE BACK OF EACH HARRISTONE COMPONENT AND PRESS THE STONE INTO PLACE ON THE MASONRY SURFACE. ALLOW TO SET.  
9. APPLY TYPE S MORTAR OR EQUIVALENT INTO JOINTS BETWEEN STONES, THEN RAKE JOINTS

##### **3.4 CLEANING**

- A. REMOVE MORTAR FROM ALL SURFACES NOT SPECIFICALLY A PART OF THE VENEER PRECAST STONE INSTALLATION WORK.

##### **3.5 PROTECTION**

- A. PROTECT THE WORK FROM DAMAGE AS A RESULT OF SUBSEQUENT CONSTRUCTION.

##### **DIVISION 5 – STEEL** **SEE ALSO NOTES ON STRUCTURAL DRAWINGS**

##### **DIVISION 6 – WOOD** **SEE ALSO NOTES ON STRUCTURAL DRAWINGS**

#### **SECTION 06 17 53 – SHOP FABRICATED WOOD TRUSSES**

##### **PART 1. GENERAL**

###### **1.01 SECTION INCLUDES**

- A. WOOD CHORD, AND METAL OR PLYWOOD WEB TRUSSES FOR ROOF FRAMING.  
B. SHOP DRAWINGS: INDICATE TRUSS FRAMING SYSTEM, SIZES AND SPACING OF TRUSSES, LOADS AND CONNECTION DETAILS. SUBMIT DESIGN CALCULATIONS.  
C. BRIDGING, BRACING, AND ANCHORAGE.

###### **1.02 RELATED SECTIONS:**

- A. SECTION 06 10 00 - ROUGH CARPENTRY.  
B. SECTION 06 18 00 - GLUED LAMINATED STRUCTURAL UNITS.

###### **1.03 SYSTEM DESCRIPTION**

- A. DESIGN LOADS ARE AS INDICATED ON DRAWINGS.

###### **1.04 SUBMITTALS**

- A. SUBMIT UNDER PROVISIONS OF SECTION 01 33 00.  
B. SHOP DRAWINGS: INDICATE TRUSS FRAMING SYSTEM, SIZES AND SPACING OF TRUSSES, LOADS AND CONNECTION DETAILS. SUBMIT DESIGN CALCULATIONS.

###### **1.05 QUALIFICATIONS**

- A. DESIGN JOISTS UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER EXPERIENCED IN DESIGN OF THIS WORK AND LICENSED IN THE STATE

###### **1.06 REGULATORY REQUIREMENTS**

- A. CONFORM TO APPLICABLE INTERNATIONAL CODES FOR LOADS, SEISMIC ZONING, OTHER LOCAL, CITY, COUNTY, STATE, AND FEDERAL GOVERNING LOCAL CRITERIA.

###### **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. DELIVER, STORE, PROTECT, AND HANDLE PRODUCTS TO SITE UNDER PROVISIONS OF SECTION 01 60 00.  
B. PROTECT JOISTS FROM WARPING OR OTHER DISTORTION BY STACKING IN VERTICAL POSITION, BRACED TO RESIST MOVEMENT.

###### **1.08 FIELD MEASUREMENTS**

- A. VERIFY THAT FIELD MEASUREMENTS ARE AS INDICATED ON SHOP DRAWINGS.

###### **2.00 PRODUCTS**

###### **2.01 MANUFACTURERS**

- A. TRUS-JOIST CORPORATION.  
B. OTHER MANUFACTURERS MAY BE CONSIDERED PROVIDED THEY COMPLY WITH THE DRAWINGS, SPECIFICATIONS, AND COMPENSATION (DELETION OF FUNDS FROM CONTRACTORS CONTRACT) TO THE OWNER.

###### **2.02 FABRICATION**

- A. FABRICATE ROOF TRUSSES TO ACHIEVE STRUCTURAL REQUIREMENTS SPECIFIED.

###### **PART 3 EXECUTION**

###### **3.01 EXAMINATION**

- A. VERIFY THAT SUPPORTS AND OPENINGS ARE READY TO RECEIVE TRUSSES.

###### **3.02 PREPARATION**

- A. COORDINATE PLACEMENT OF BEARING AND SUPPORT ITEMS.

###### **3.03 ERECTION**

- A. INSTALL TRUSSES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.  
B. SET MEMBERS LEVEL AND PLUMB, IN CORRECT POSITION.  
C. MAKE PROVISIONS FOR ERECTION LOADS, AND FOR SUFFICIENT TEMPORARY BRACING TO MAINTAIN STRUCTURE PLUMB AND IN TRUE ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRACING.  
D. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS UNLESS OTHERWISE INDICATED ON DRAWINGS, WITHOUT APPROVAL OF ARCHITECT/ENGINEER.

- E. PLACE HEADERS AND SUPPORTS TO FRAME OPENINGS REQUIRED.

- F. COORDINATE PLACEMENT OF ROOF SHEATHING WITH WORK OF THIS SECTION.  
G. AFTER ERECTION, TOUCH-UP GALVANIZED SURFACES WITH PRIMER CONSISTENT WITH SHOP COAT.

#### **SECTION 06 41 16 PLASTIC LAMINATE – FACED ARCHITECTURAL CABINETS**

##### **PART 1 – GENERAL**

##### **1.01 SUMMARY**

- A. SECTION INCLUDES:  
1. PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS.  
2. WOOD FURRING, BLOCKING, SHIMS, AND HANGING STRIPS FOR INSTALLING PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS UNLESS CONCEALED WITHIN OTHER CONSTRUCTION BEFORE CABINET INSTALLATION.  
B. RELATED REQUIREMENTS:  
1. SECTION 123623.13 "PLASTIC-LAMINATE-CLAD COUNTERTOPS."

##### **1.2 ACTION SUBMITTALS**

- A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT, INCLUDING PANEL PRODUCTS, HIGH-PRESSURE DECORATIVE LAMINATE, ADHESIVE FOR BONDING PLASTIC LAMINATE, FIRE-RETARDANT-TREATED MATERIALS, AND CABINET HARDWARE AND ACCESSORIES.  
B. SHOP DRAWINGS: SHOW LOCATION OF EACH ITEM, DIMENSIONED PLANS AND ELEVATIONS, LARGE-SCALE DETAILS, ATTACHMENT DEVICES, AND OTHER COMPONENTS.  
C. SAMPLES:  
1. PLASTIC LAMINATES, FOR EACH COLOR, PATTERN, AND SURFACE FINISH.  
2. THERMOSET DECORATIVE PANELS, FOR EACH COLOR, PATTERN, AND SURFACE FINISH.

##### **1.3 QUALITY ASSURANCE**

- A. FABRICATOR QUALIFICATIONS: CERTIFIED PARTICIPANT IN AWT'S QUALITY CERTIFICATION PROGRAM.  
B. INSTALLER QUALIFICATIONS: FABRICATOR OF PRODUCTS, CERTIFIED PARTICIPANT IN AWT'S QUALITY CERTIFICATION PROGRAM.

##### **1.4 FIELD CONDITIONS**

- A. ENVIRONMENTAL LIMITATIONS: DO NOT DELIVER OR INSTALL CABINETS UNTIL BUILDING IS ENCLOSED, WET WORK IS COMPLETE, AND HVAC SYSTEM IS OPERATING AND MAINTAINING TEMPERATURE AND RELATIVE HUMIDITY AT OCCUPANCY LEVELS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

##### **PART 2 – PRODUCTS**

- 2.1 PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS  
A. QUALITY STANDARD: UNLESS OTHERWISE INDICATED, COMPLY WITH THE "ARCHITECTURAL WOODWORK STANDARDS" FOR GRADES OF ARCHITECTURAL PLASTIC-LAMINATE CABINETS INDICATED FOR CONSTRUCTION, FINISH