PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Includes: Provide rough carpentry, and installation of items specified in other Sections, normally installed by carpenters.

1.02 RELATED DOCUMENTS

A. Applicable portions of the Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to the execution of the Contract, other documents listed in the Agreement and Modifications issued after the execution of the Contract shall apply to this Section. The general requirements for this work are located in Division 1 of the Specifications.

1.03 SUBMITTALS AND SUBSTITUTIONS

A. In accordance with Section 01 3000.

B. Substitutions will not be considered prior to the award of the General Contract.

1.04 QUALITY ASSURANCE

A. Material Grading: Identify hardboard, particleboard, lumber, and plywood by affixing grademark, stamp, or related identifying marks indicating material grades, rules or standards under which they are produced, and complying with rule or standard under which the material is produced. Use certified inspection agency certified by the Board of Review, American Lumber Standards Committee, to grade lumber species. In lieu of piece grademarking, a certificate of inspection from an agency certified by the Board of Review, American Lumber Standards Committee may be furnished for precut lumber. Applicable grading rules are as follows:

1. Douglas Fir, White Fir, and Cedar: "Standard Grading and Dressing Rules for West Coast Lumber" as published by the West Coast Lumber Inspection Bureau.
2. Ponderosa and Western White Pine: "Grading Rules for Western Lumber", published by the Western Wood Products Association.
3. Southern Yellow Pine: "Standard Grading Rules for Southern Pine Lumber" as published by the Southern Pine Inspection Bureau.

B. Plywood: Conform to U. S. Product Standard PS 1 issued by the National Bureau of Standards. Stamp or brand each standard size panel to show type and grade of panel. When used structurally, plywood to meet performance standards for its type as described in Product Standard PS 1 for Douglas Fir plywood. Furnish material identified as to species, grade, and glue type by an approved agency or independent testing laboratory with appropriate affixed grade-marks on each panel. Provide in addition to above requirements, exterior type plywood for permanently exposed plywood in outdoor applications.

C. Qualifications of Workmen: Provide sufficient skilled workmen and carpenter foreman present at all times during execution of this portion of the Work, thoroughly familiar with type construction involved, materials and techniques specified.

1.05 PRODUCT HANDLING

A. Protection:
1. Store materials to ensure proper ventilation and drainage. Protect against damage and weather.
2. Deliver materials to job site and store, in safe area, out of the way of traffic, and shored off ground surface.
3. Identify framing lumber as to grades and store grades separately.
4. Protect metal products with adequate weatherproof outer wrappings.
5. Use extreme care in off-loading lumber to prevent damage, splitting, and breaking materials.

B. Replacements: In event of damage, immediately make repairs and replacements necessary to approval of Architect at Contractor's expense.

PART 2 - PRODUCTS

2.01 LUMBER

A. Provide lumber for structural carpentry using following species provided grade for each is not lower than minimum shown:
1. Pine, Southern Yellow - SPIB Rules (KD) No. 2 Common
2. Fir, Douglas - WCLIB Rules Standard
3. Fir, White - WCLIB Rules Standard
4. Pine, Western White - WWPA Rules Standard

B. Lumber (except where otherwise noted): Surfaced 4 sides unless, in addition to being dressed, it has been notched, shiplapped, or patterned.

C. Lumber Dimensions: Are nominal.

2.02 PLYWOOD

A. Plywood (not otherwise specified or noted on the Drawings): Comply with DOC PS-1, Exposure 1 (exterior glue), Group 1, Southern pine, C-D grade for concealed applications and B-C grade for exposed “utility” applications.
1. Refer to 06 4000 for exposed “Architectural” applications.

B. Wall Panels at Data/Electrical Rooms: ¾” B-C, Painted Flat White.

2.03 FIRE-RETARDANT AND PRESERVATIVE TREATMENT

A. Wood-Preservative-Treated Lumber And Plywood
   1. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground
   2. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.
   3. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.
   4. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
   5. Application: Treat items indicated on Drawings, and the following:
      a. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
      b. Wood sills, sleepers, blocking, and similar concealed members in contact with masonry or concrete.
      c. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
      d. Wood framing members that are less than 18 inches above the ground in crawlspaces or unexcavated areas.
      e. Wood floor plates that are installed over concrete slabs-on-grade.

B. Fire-Retardant Treated Lumber And Plywood
   1. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.
   2. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.
   3. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D 2898. Use for exterior locations and where indicated.
   4. Interior Type: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.
   5. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.

6. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.
7. Application: Treat items indicated on Drawings

2.04 HARDWARE

A. Provide rough hardware required for proper installation of carpentry work. Furnish hot-dipped galvanized, nails, spikes, screws, bolts, and similar items using proper types and ample sizes to fasten and hold the various members securely in place.

B. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, fire retardant treated, or in area of high relative humidity, provide fasteners **with hot-dip zinc coating complying with ASTM A 153/A 153M or Type 304 stainless steel**.

PART 3 - EXECUTION

3.01 WORKMANSHIP

A. Carpentry: Produce joints true, tight, and well nailed. Lay out, install and fit wood framing, furring, stripping, and blocking as required by conditions encountered.

B. All Work: Plumb, level, and brace with sufficient nails, spikes, and bolts required to ensure secure attachment and rigidity.

C. Any piece of work or carpentry material with defects that prevent it from serving its intended purpose satisfactorily, including crooked, warped, bowed, or otherwise defective material, even if within the limits of grade specified, will be rejected. Replace with an acceptable piece.

END OF SECTION

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. All of the Contract Documents, including General and Supplementary Conditions and Division 1 General Requirements, apply to the work of this Section and are hereby made a part of this Section.

B. Examine all Drawings and other Sections of the Specifications for requirements therein affecting the work of this trade.

1.2 SUMMARY

A. Work of this Section includes providing wood construction, as shown and specified by Contract Documents and/or specified herein including, but not limited to, the following:

1. Wood frame, preservative treated, supports for hardwood decking and providing appurtenances including the following:
   (a) Steel support anchoring system for wood frame support structure below wood decking.
   (b) Shims under deck framing stringers and ledgers at bracketed support and bolted points.
2. Finishing and sealing hardwood decking and lumber/timber materials as specified.
3. Fasteners and Hardware.
4. Coordination with other trades.
5. Clean up.

1.3 RELATED SECTIONS

A. The following items of related work are specified and included in other Sections of the Specifications:

1. Section 03 30 05 – Cast-In-Place Concrete - Site.
2. Section 05 50 10 – Miscellaneous Site Metals.

1.4 REFERENCES

A. Standards: The following referenced standards and standard specifications, referred to thereafter by designation only, form a part of this Section:

1. ASTM: American Society for Testing and Materials.
2. ANSI: American National Standards Institute.
3. AITC: American Institute of Timber Construction.
4. AWPA: American Wood Protection Association
   (a) Guidance Document N – Data Requirements for Listing Thermally Modified Wood

(b) Standard U1 - Use Category System: User Specification for Treated Wood

(c) Standard E1- Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites

(d) Standard E7 - Method of Evaluating Wood Preservatives by Field Tests with Stakes

(e) Standard E9 - Field Test for the Evaluation of Wood Preservatives to be Used in Non-Soil Contact

(f) Standard E10 - Method of Testing Wood Preservatives by Laboratory Soil-Block Cultures

(g) Standard E12 - Method of Determining Corrosion of Metal in Contact with Treated Wood

(h) Standard E14 - Method of Evaluating Wood Preservatives in a Soil Bed

(i) Standard E21 - Test Method for the Evaluation of Preservative Treatments for Lumber and Timbers Against Subterranean Termites in Above-Ground, Protected Applications

5. NHLA: National Hardwood Lumber Association.

1.5 SUBMITTALS

A. CRITICAL PATH PROCESSING: The Contractor shall be responsible for recognizing that materials in this Section warrant timely attention, that the testing process to achieve approved materials SHALL BE CONSIDERED A LONG LEAD TIME ITEM, and that under no circumstance shall failure to comply with all specification requirements be a reason for substitution of unacceptable material(s).

B. Submittals shall conform to Division 1.

C. Product Data: Provide manufacturer's data showing installation and limitations in use. Supply Certificates of Compliance for all materials required for fabrication and installation, certifying that each material item complies with, or exceeds, specific requirements. Work includes but is not limited to:

1. Black Locust.
   (a) Date on which timber was felled.
   (b) Include the following kiln drying data:
      i) Kiln type.
      ii) Kiln capacity.
      iii) Density of kiln loading, e.g.: space between timbers.
      iv) Moisture content prior to kiln drying.
      v) Dimensions of timbers prior to kiln drying.
2. Pressure Treated Southern Yellow Pine.
3. End Sealer.
4. Fasteners and Hardware.

D. Material Certificates: Provide copies of materials certificates signed by the material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

1. Material certificates for dimensional lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the National Hardwood Lumber Association.
   (a) A certificate, issued by an accredited laboratory, attesting to minimum design stresses, as obtained from testing of samples taken from the batch to be supplied for this work, shall accompany this statement.
   (b) Include example of identifying mark that will be exhibited on each timber piece as specified in Part 2 "Products" herein.

E. Forest Stewardship Council (FSC) Chain of Custody Certificate with dates of validity, certificate number, and certified product supplied (species).

F. Certificates of Inspection: Issued by lumber grading agency for timber grade.

G. Samples: Prior to ordering the below listed materials, submit representative samples to Landscape Architect for selection and approval as follows. Do not order materials until Landscape Architect's approval has been obtained. Delivered materials shall closely match the approved samples. Submit duplicate samples of each type listed below showing full range of color variation, finish texture and preservative treatment that can be expected in the permanent work:

1. Deck Lumber: Three (3) boards total, 3' length (min.) each.
2. Wood For Framing Components: Three (3) boards total, 3' length (min.) each.
3. All Fasteners and hardware.

H. Shop Drawings: Contractor to submit shop drawings indicating deck size, pattern and deck layout, starting point and finished elevation. Shop Drawings shall show all details including sizes, materials, quantities and manner of assembling and fastening of the various members, properly coordinated with the related work. Shop Drawings shall show true profiles, methods of anchoring hardware, if any, and all other necessary information. Work includes but is not limited to:

1. Wood Boardwalk.

I. Mock-ups: Upon approval of all materials, the Contractor shall construct mock-ups on site in the minimum sizes indicated below. Before installation, build mock-ups for each element required to verify selections made under sample Submittals and to demonstrate aesthetic effects and qualities of materials and execution. Each mock-up shall be large enough to display typical characteristics of each item and type of work. If the original mock-up is not approved, the Contractor shall provide additional samples, as required, at no cost to the Owner until an approved sample is obtained. The approved sample shall become the standard for the entire job. Sample panel may be constructed on a location becoming part of the final work, unless otherwise noted, and shall remain undisturbed until all work is completed. Build mockups to comply with the following requirements, using materials indicated for the completed Work, including same base construction, special features, and contiguous work as indicated:

1. Wood Boardwalk – minimum seventy-two (72) square feet installed complete insitu and approved before progressing work. If approved by Landscape Architect, segment may be used in permanent installation.

1.6 **QUALITY ASSURANCE**

A. Kiln Qualifications: Engage a timber provider with a minimum of five (5) years experience in kiln-drying Black Locust of the type and quantity required for this project and with a successful record of performance.

B. Installer Qualifications: Engage an experienced installer who has completed at least four (4) timber construction projects similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Schedule delivery of timber to avoid extended on-site storage and to avoid delaying the Work.

B. Inspect material after delivery for signs of damage during transit.

C. Keep materials under cover and dry. Store material out of sunlight, protect from weather and contact with damp or wet surfaces. Provide for air circulation within and around stacks and under temporary coverings. Do not allow to be stored tightly wrapped in plastic.

PART 2 PRODUCTS

2.1 TIMBER CONSTRUCTION, GENERAL

A. Provide timber and hardwood deck/slat materials which have been selected for their surface flatness, smoothness and freedom from surface blemishes where exposed to view in the finished unit.

B. All lumber shall be identified by the grade mark of a recognized association or independent inspection agency using the specific grading requirements of an association recognized as covering the species used. The association or independent inspection agency shall be certified by the Board of Review, American Lumber Standards Committee, to grade the species used.

C. Timber and lumber sizes as shown on Contract Drawings are nominal sizes and section properties of Standard Dressed Sawn Lumber (S4S) as defined by ANSI/NfoPA-NDS-1991, National Design Specification for Wood Construction, unless noted otherwise.

1. Wood members noted as (actual) shall have a net section bearing the dimensions noted on Contract Drawings, as opposed to nominal sizes.

D. Timbers to be used in construction of all wood items shall be seasoned in order to minimize the amount of checking after installation. Contractor shall guarantee the wood against checking and splits for the duration of work.

2.2 DECKING LUMBER

A. Timber Species for Slats, Decking, Planking & Edging shall be Thermally modified White Ash (*Fraxinus spp*).

1. General: Timber shall be free of heart center. No timber with splits or checking will be accepted. Timber shall be quarter sawn.

2. Moisture Content: Provide kiln dried timber dried with 6% maximum moisture content at time of dressing.

3. Dimensions: Refer to Drawings.

4. Dressing: Provide planed, dressed timber (S4S), unless otherwise indicated, for all decking and edging.

B. Warranty: Manufacturer shall warranty against defect in materials or workmanship, outlining terms & conditions for minimum period of three years from installation.

C. Suppliers for thermally modified timber and lumber include, but are not limited to:

1. Arbor Wood Co., 1325 59th Avenue West, Duluth, MN 55807 (Phone: 877.970.7877

2. Northland Forest Products, 16 Church Street, PO Box 369, Kingston, NH 03848 PO Box 369 (Phone: 603.642.3665; Fax: 603.642.8670)

3. ThermoryUSA, 1213 Wilmette Avenue, Suite 208, Wilmette, IL 60091 (Phone: 847.256.8828; Fax: 847.256.0509)

4. Or approved equal.

2.3 WOOD FOR FRAMING COMPONENTS

A. Timber Species for Structural Framing Components: Douglas fir-larch, Hem-Fir or approved equal meeting requirements specified herein, Dense Select Structural.

1. Factory mark each piece of lumber with grade stamp of grading agency.

2. Dressed sizes of green lumber are larger than dry lumber in DOC PS 20.

3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are mini-mum dressed sizes for dry lumber.

4. Moisture Content: Provide timber with 13 percent maximum moisture content at time of dressing.

5. Dressing: Provide dressed timber (S4S), unless otherwise indicated.

B. Wood Preservative Treatment: Refer to Article 2.5.

1. Furnish preservative treatment material for applications in field for field cut and field hole drilled conditions and for touch up.

C. All dimensional lumber shall have the following allowable working stress:

1. Bending 3,750 psi

2. Tension 3,450 psi

3. Compression parallel to grain 3,550 psi

4. Compression perpendicular to grain 2,000 psi

5. Shear parallel to grain 425 psi

6. Modulus of Elasticity 2,350,000 psi

7. Max. Unit weight for design purposes 70 psi

2.4 MISCELLANEOUS WOOD FOR BLOCK SPACERS AND SHIMS

A. Grading: Select Structural, or better.

B. Moisture Content: In accordance with American Woodwork Institute (AWI) or Woodwork Institute of California (WIC), moisture content for lumber shall be not greater than 19 percent, air-dry or kiln-dry, unless otherwise noted.

C. Provide of profiles and to suit conditions as shown by Contract Drawings. Spacers and Shims shall be wood or other approved non-corrosive material with durable structural performance capabilities equal or better than the specified performance values. Provide of profiles and to suit conditions as shown by Contract Drawings.

1. All dimensional lumber (Select structural grade or better) shall have the following allowable working stress as a minimum:
   (a) Bending: 2,650 psi.
   (b) Tension: 900 psi.
   (c) Compression parallel to grain: 1,700 psi.
   (d) Compression perpendicular to grain: 480 psi.
   (e) Shear parallel to grain: 100 psi.
   (f) Modulus of Elasticity: 1,600,000 psi.

D. Preservative Treatment: Refer to Article 2.5.

E. Fabrication For Framing Materials:

1. Timber members receiving lag screws shall have predrilled diameter holes ready to accept the lag screws.
2. Provide lumber and timber in longest possible lengths to suit condition of installation based on field measurements.
3. Cut, bevel, and face timbers prior to plant preservative treatment.
4. Cut ends shall be straight, plumb, and smooth surfaced.
5. All timber and lumber shall be delivered sealed at cross ends with an approved sealer or transparent paraffin in order to prevent rapid loss of moisture. Holes for all connectors (bolts, lag screws, etc.) shall be pre-drilled.

2.5 PRESSURE TREATMENT OF WOOD

A. Confirm with Landscape Architect if (and which) wood members are to be treated. Provide wood treatment by or under license from Chemical Specialties, Inc., One Woodlawn Green, Suite 250, 200 E. Woodlawn Road, Charlotte, NC 28217 tel: 800.421.8661, web: www.treatedwood.com.

B. Preservative Treatment for Ground Contact and Fresh Water Contact.

1. Product: ACQ Preserve in accordance with AWPA C1 and P5.
2. Rate: 0.25 lb/cu ft pf ACQ Preserve retention in accordance with AWPA C2, C9, C14, C15, C16, C17 or ICBO ER4981.
3. Treat wood in contact with water, masonry, concrete and ground.

2.6 FASTENERS AND ANCHORS

A. General: Provide fasteners and anchors of size and type indicated, to suit application, and as shown on Drawings; that comply with requirements specified in this Article for material and manufacture.

1. All fasteners and anchors for decking, platforms and deck framing installation shall be stainless steel, AISI Type 316.

2. Concealed Joint Fasteners: Threaded stainless steel.

B. Nails, Wire, Brads, and Staples: FS FF-N-105.

C. Power-Driven Fasteners: CABO NER-272.

D. Wood Screws: ASME B18.61.

E. Lag Bolts: ASME B18.2.1. (ASME B 18.2.3.8M)

F. Bolts: Steel bolts complying with ASTM A307, Grade A (ASTM F568, Property Class 4.6); with ASTM A563 / A563M) hex nuts and, where indicated, flat washers.

G. Deck Screws shall be 3 1/2" long square drive stainless steel No. 10 screws.

H. Anchor Bolts, Adhesive Type: ASTM F1554, Grade 36.

I. Plastic Spacers at Playground Platforms: Spacers shall be heavy duty plastic to the profiles and dimensions as shown on the Contract Drawings.

2.7 METAL FRAMING ANCHOR COMPONENTS

A. General: Provide hot-dip galvanized steel framing anchors, bases and straps of structural capacity, type, and size indicated on the Contract Drawings and as follows:

1. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis, and demonstrated by comprehensive testing performed by a qualified independent testing agency.

B. Galvanized Steel Sheet: Hot-dip, zinc coated steel sheet complying with ASTM A 653/A653M, G60 (Z180) coating designation and comply with additional fabrication requirements of Division 5 Section 05500 "Metal Fabrications".

C. Anchor into concrete shall be stainless steel adhesive anchor bolts. Clearly identify type and location on shop drawings submitted.

2.8 END SEALER:

A. Transparent, stable, non-toxic, water and natural polymer emulsion that is effective in retarding the transmission of moisture at cross-grain cuts and is compatible with indicated finish.

1. Acceptable products include Anchorseal 2, by UC Coatings Corporation www.uccoatings.com, or approved equivalent.

2.9 CONCRETE FOUNDATIONS

A. Concrete Walls, Columns, Slabs and Foundations shall conform to Section 033005 – Cast-in-Place Concrete - Site.

PART 3 EXECUTION

3.1 PREPARATION

A. Examination: Examine conditions of work in place before beginning work; report defects.

B. Measurements: Take field measurements; report variance between Contract Drawings and field dimensions.

C. Coordination: Relate to and arrange wood framing and decking installation together with concrete supports.

3.2 INSTALLATION, GENERAL

A. Cut and frame lumber and timber so that joints will fit over contact surface.

B. Boring Holes:

1. Bore holes for drift pins and dowels with a bit 1/16 inch less in diameter than the pin or dowel.
2. Bore holes for bolts with a bit 1/16 inch larger in diameter than rod or bolt.
3. Bore holes for lag screws in two parts. Make lead hole for shank the same diameter as shank. Make lead hole for the threaded portion approximately two thirds of the shank diameter.
4. Bore holes in small timbers for boat or wire spikes with a bit of the same diameter or smallest dimension of the spike to prevent splitting.
5. Counterbore for countersinking wherever smooth faces are indicated or specified.

3.3 WOOD DECK FRAMING

A. Discard units of material with defects that impair quality of rough carpentry and that are too small to use with minimum number of joints or optimum joint arrangement.

B. Set framing to required levels and lines, with members plumb, true to line, cut, and fitted. Provide temporary bracing to maintain lines and levels until permanent supporting members are in place.

C. Fit framing to other construction; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds, and similar supports to allow attachment of other construction.

D. Securely attach framing work to substrate by anchoring and fastening as shown on the approved Shop Drawings.

E. Apply field treatment complying with AWPA M4 to cut surface of preservative treated lumber. Wood preservatives are restricted use pesticides and shall be applied according to applicable standards.

1. Trim cuts and abrasions before field treatment.

2. Coat depressions or openings around bolt holes, joints, or gaps including recesses formed by counterboring, with preservative treatment used for timber; and after bolt or screw is in place.

3.4 WOOD DECKING AND PLATFORMS

A. Prior to installation of decking and platforms, each bay shall be checked for leveling with a straight edge. The Contractor shall do all necessary shimming and trimming of high spots at no additional cost to the Owner.

B. Lay plank with heart side down in the directions shown with spacing between the planks of 1/4” minimum and, except where noted otherwise on the Contract Drawings, 1/2” maximum.

1. Joints of planks shall be staggered so as not to have adjacent joints.

2. Grade planks as to thickness and lay so that adjacent planks vary less than 1/16 inch.

3. Butt ends square.

C. Cutting, Fitting, and Placement: Decking shall be securely fastened to wood framing support with stainless steel countersunk screws with pre-drilled holes for fasteners and as per the approved Shop Drawings.

1. Secure each plank to each joist, sleeper, or nailing strip with at least two screws. Place screws at least 1-1/2 inches from ends of the plank and 3/4" inch from edges of the plank.

2. The hole for screws shall be 1/32” diameter smaller than screw diameter. All screws shall be countersunk 1/16.”

3. Perform cutting, drilling, and fitting required for installing wood decking.

3.5 FIELD TREATMENTS

A. Timberwork: Field treat cuts, bevels, notches, refacing and abrasions made in the field in preservative treated timbers in accordance with AWPA M4, MSDS and CIS. Wood preservatives are restricted use pesticides and shall be applied according to applicable standards.

1. Trim cuts and abrasions before field treatment.

2. Coat depressions or openings around bolt holes, joints, sleepers, or gaps including recesses formed by counterboring with preservative treatment used for timber.

B. Galvanized Surfaces: Repair and recoat zinc coating which has been field or shop cut, burned by welding, abraded, or otherwise damaged to such an extent as to expose the base metal.

1. Thoroughly clean the damaged area by wire brushing and remove traces of welding flux and loose or cracked zinc coating prior to painting.

2. Compound paint with a suitable vehicle in a ratio of one (1) part zinc oxide to four (4) parts zinc dust by weight.

3. Paint cleaned area with two (2) coats of zinc oxide zinc dust paint conforming to MIL P 21035. Allow each coat to correctly dry between coats.

3.6 ADJUSTING

A. Restore finishes damaged during installation and construction period so no evidence remains of corrective work. Return items to the shop that cannot be refinished in the field; make required alterations and refinish entire unit, or provide new units. Replace damaged decking if the Landscape Architect does not approve repairs.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. Extent of gypsum sheathing is shown on the drawings and described in this section.

1.02 RELATED DOCUMENTS

A. Applicable portions of the Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to the execution of the Contract, other documents listed in the Agreement and Modifications issued after the execution of the Contract shall apply to this Section. The general requirements for this work are located in Division 1 of the Specifications.

1.03 SUBMITTALS AND SUBSTITUTIONS

A. In accordance with Section 01 3000.

B. Substitutions will not be considered prior to the award of the General Contract.

1.04 QUALITY ASSURANCE

A. Gypsum Board Terminology Standard: GA-505 by Gypsum Association.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver gypsum sheathing with factory identification of brand and grade. Protect from damage and direct exposure to severe weather. Store on leveled supports off the ground.

PART 2-PRODUCTS

2.01 MATERIALS

A. Gypsum Sheathing:
   1. Manufacturer:
      a. "Dens-Glass Gold" by Georgia Pacific Corporation.
      b. "GlasRoc" by Certainteed
      c. "Green Glass" by Temple-Inland
      d. "Secur Rock" by USG
   2. Provide 4'-0" x 8'-0" x thickness shown. Fabricate sheathing with fiberglass mat facing on both sides and conforming to ASTM C-1177 for core requirements. Provide sheathing classed as noncombustible when tested by ASTM E136 with Flame Spread and Smoke Developed rating of 0 when tested by ASTM E84.
   3. Seal all joints by applying 3M Venture Tape Polypropylene Sheathing Tape 1585CW.

B. Fasteners: Except as otherwise indicated, provide 1", Type S-12, bugle-head cadmium plated steel or stainless steel gypsum board screws for machine installation.

PART 3 - EXECUTION

3.01 INSTALLATION

A. General: Except as otherwise indicated, comply with manufacturer's instructions and industry standards for the installation of gypsum sheathing.

B. Horizontal Installation: Install wide panels horizontally with end joints on supports and staggered 2 support spacings where possible, but not less than one support spacing or 12". Fasten at each support with screws (spaced approximately 8" o.c.) set back 3/8" minimum from edges.

C. Cut boards at penetrations, edges and other obstructions of the work; fit tight against abutting work, except provide 3/8" setback where non-loadbearing work abuts structural elements at head and jambs.

D. Do not bridge building expansion joints with gypsum sheathing; cut and space edges to match spacing of structural support elements.

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Included: Furnish and install millwork, shelving, ornamental wood items, hardware and accessories specified.

1.02 RELATED DOCUMENTS

A. Applicable portions of the Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to the execution of the Contract, other documents listed in the Agreement and Modifications issued after the execution of the Contract shall apply to this Section. The general requirements for this work are located in Division 1 of the Specifications.

1.03 SUBMITTALS AND SUBSTITUTIONS

A. In accordance with Section 01 3000.
   1. Shop Drawings: Submit newly prepared architectural woodwork Shop Drawings for review by Architect prior to start of fabrication. Do not duplicate Architect's construction drawings. Indicate on shop drawings, dimensions, species, matching of panels, profiles of moldings, assembly details, applied finish, surfacing, built-in hardware, and necessary connections to other trades.
      a. Contract Document electronic files (including all drawings, specifications, addenda and supplemental information) will not be made available to Bidders or Sub-bidders before the award of a Contract. After the award of the Contract, the General Contractor may make request for release of electronic document files.
   2. Brochures: Submit manufacturer's descriptive literature on specialty items not manufactured by the architectural woodworker, as requested by Architect.
   3. Samples to be Submitted:
      a. Finished pieces of each wood species to receive transparent finish.
      b. Each plastic laminate and melamine laminate.
      c. Each type of edge band material.
      d. Each solid surface material.

B. Substitutions will not be considered prior to the award of the General Contract.

1.04 QUALITY ASSURANCE

A. Standards:
   1. Architectural Woodwork Standards of the Architectural Woodwork Institute (AWI) are referenced in this specification, however, where more stringent requirements are specified, the more stringent shall govern. Any reference to Premium, Custom or Economy in this specification is as defined in latest edition of the AWI "Architectural Woodwork Standards " and as modified in this specification.

2. Provide Custom grade for any item not given a specific quality grade as defined in latest edition of the AWI "Architectural Woodwork Standards"

B. Competence: Approved woodwork manufacturer, regularly engaged and well experienced in manufacture of fixtures and wood trim and finish of monumental building type, having reputation for doing satisfactory work on time and successfully completing comparable work. Architect reserves the right to approve woodwork manufacturer selected to furnish woodwork.

1.05 FIELD DIMENSIONS

A. Woodwork manufacturer is responsible for details and dimensions not controlled by job conditions. Show on Shop Drawings all required field measurements beyond his control. General Contractor and the woodwork manufacturer shall cooperate to establish and maintain these field dimensions.

1.06 PRODUCT HANDLING

A. Protect architectural woodwork before, during, and after installation. Protect installed work and materials of other trades. In event of damage, immediately make repairs and replacements necessary to approval of Architect and at Contractor's expense.

PART 2 - PRODUCTS

2.01 MATERIALS FOR ARCHITECTURAL WOODWORK

A. Stain Finish:

1. SWV: Stained Wood Veneer
   Description: Veneer on ¾" fire-resistant plywood with hardwood edges, veneer over hardwood edge (to match face veneer species and quality of veneer)
   Veneer Selection: Rift Cut White Oak, Grade A, Slip & Swing Layup, In sequence
   Stain: Custom Dye and Stain, multi-step process; to match PSW control sample
   Finish: Matte/Satin
   Notes: Tommy Farrell to serve as consultant for layup and stain, tommyfarrell.com, 501.247.5456
2. SWC: Stained Wood Cabinetry
   Description: Veneer Cabinetry, AWI Premium Grade
   Species: Rift Cut White Oak, Grade A
   Stain: Custom Dye and Stain, multi-step process; to match PSW control sample
   Finish: Matte/Satin
   Pull Hardware: Hafele/Edge Pull Handle/100 MM #155.02.350/Brass colored/Matt
   Notes: Tommy Farrell to serve as consultant for layup and stain, tommyfarrell.com, 501.247.5456
3. SWF: Solid Hardwood Floor
   Description: 1x8 tongue and groove Solid Hardwood
   Species: Rift Cut White Oak, Grade A
   Finish: Matt/Satin
   Underlayment: Shaw Contract Silent Step Ultra Acoustic Underlayment
   Notes: brass anti-slip inlay; refer to drawings for details

B. Paint Finish:
   1. WB: Painted wood base
      Paint-Grade Poplar
      Profile: 1x6, chamfered edge
      Color: Match adjacent wall paint color
      Installation method: applied
   2. PWD: Painted Wood
      Species: Poplar, Paint grade
      Color: Epoxy Paint/Sherwin Williams, Oyster White SW7637
   3. PWC: Painted Wood Cabinets
      Description: Painted Wood Cabinetry, AWI Premium Grade
      Substrate: MDF with hardwood edge
      Paint/Finish: Epoxy Paint/Sherwin Williams, Oyster White SW7637
      Pull Hardware: Hafele/Edge Pull Handle/100 MM #155.02.350/Brass colored/Matt

C. Substrate for High Pressure Laminated Plastic Finish:
   1. Typical: ANSI A208 Grade 155 Medium Density Fiberboard (MDF).
   2. At Sinks and Lavatories: All Hardwood veneer core plywood with each veneer layer bonded with exterior glue.

   3. PL1: Plastic Laminate
      Manufacturer: Formica Laminate
      Pattern: Formal Walnut 05782-NG
      Texture: Natural Grain
      Pull Hardware: Hafele/Edge Pull Handle/100 MM #155.02.350/Brass colored/Matt
      Notes: vertical direction only, AWI custom grade, white melamine interiors

   4. PL2: Plastic Laminate
      Manufacturer: Formica Laminate
      Pattern: Pearl 934-58
      Texture: Matte Finish

D. Substrate for Thermally Fused "Melamine" Laminate Finish:
   1. ANSI A208 Grade 155 Medium Density Fiberboard (MDF) with factory laminated "Melamine" finish on both sides.
   2. Melamine at Cabinet Interiors to be White.

E. Solid Surface Material:
   1. QZS: Quartz Solid Surface Counter
      Manufacturer: Wilsonart
      Product: Desert View Q4043
      Thickness: 2cm
      Notes: miter all corners unless otherwise noted
   2. ACS: Acrylic Solid Surface Counter
      Manufacturer: Corian
      Product: Neutral Aggregate
      Thickness: 2cm
      Notes: miter all corners unless otherwise noted

3. ASP: Acrylic Shower Wall Panel
   Manufacturer: Corian
   Product: Bisque
   Size: refer to drawings
   Thickness: ½”

F. UPH: Upholstered cushion on millwork bench
   Construction: cold molded foam cushion (high density) with a top layer of batting, 3” minimum thickness across cushion, rolled edge, concealed attachment method
   Fabric: Designtex/Plush Grid/Fern/54”W, subject to change

2.02 FACTORY FINISH

A. Shop finish architectural woodwork in accordance with requirements of AWI Architectural Woodwork Standards for Premium Finish.
   1. Finish System: AWI Architectural Woodwork Standards, Chapter 5, System 11 Catalyzed Polyurethane with custom stain color to be selected by architect.
      a. Close Grain Woods:
         Washcoat
         Custom Stain
         Sealer
         Sand
         Top Coat
         Top Coat
      b. Open Grain Woods:
         Custom Stain
         Sealer
         Sand
         Top Coat
         Top Coat
   2. Apply finish to all faces and edges that receive stain finish.

2.03 MILLWORK

A. Typical: Fabricate according to AWI Quality Standards for "Custom" Grade, Flush Overlay type.

B. At Public Gallery & Café, fabricate according to AWI Quality Standards for “Premium” Grade, Flush Overlay type.

C. Hardware: Install cabinet hardware furnished under this Section of these Specifications.

D. Edge Banding:
   1. At painted and stained millwork, provide either solid wood or pressure applied tape as shown on drawings. **IRONED ON TAPE EDGE BANDING WILL NOT BE ACCEPTED.**
   2. At HP Laminate and Melamine Laminate millwork, provide 3mm PVC at cabinet top edges and 1mm PVC at door and drawer edges in color to be selected by Architect.

E. Drawer Construction: Drawers are to be four sided, drawer box type. Head screw from the inside of the drawer box and install pulls through the drawer box.
   1. Solid wood construction at painted or stained finish millwork
   2. ANSI A208 Grade 155 Medium Density Fiberboard (MDF) with factory laminated "Melamine" finish on both sides at HPL or melamine finish millwork.

2.04 HARDWARE

A. Cabinet Doors:
   1. 1 Pair Hinges: Blum # BH73B3550, Soft Close, 110+ Degree Clip Top Hinge, Full Overlay Style, US26D.
   2. 1 Camlock NCL-C8053-C413A-Y21 – Matte Black Cylinder Cam Lock By Compx National, where required, masterkeyed and keyed alike in groups as directed by Architect.
   3. Provide self-adhesive rubber silencers at each corner of the leading edge of cabinet doors.

B. Cabinet Drawers:
   1. 1 Pair Drawer Slides: KV1805 (Length as required), roller bearing, 3/4 extension lift-out, hold in/out, lock open, self closing.
      a. Provide medium duty model 8417, full extension drawer slides at file drawers and all drawers over 7" deep.
      b. Heavy-Duty, Soft-Close, Undermount Waste & Recycling Bin Hardware to be KV USCxx-2-xx with optional QTxxPB-PT Bins (2) included.
         1) Provide Vinyl film applique of trash and/or recycling symbols (to be provided by architect) at all trash drawers in millwork, applique to be 2”H in a standard vinyl film color.

   2. 1 Camlock NCL-C8053-C413A-Y21 – Matte Black Cylinder Cam Lock By Compx National, where required, masterkeyed and keyed alike in groups as directed by Architect.

C. Adjustable Shelf Support:
   1. Wood Shelves: Millwork subcontractor to install recessed standards and clips.

D. Concealed Counter Support Bracket: A&M Hardware Inc., Model EC12, EC18, or EC24 as required with upper extension “EC”. Finish color to be selected by Architect.

E. Grommets: Doug Mockett & Co., 1-800-523-1269
   1. “XG” 3” plastic where shown on millwork drawings. Color to be White. Exact locations to be verified with Architect before installation.
   2. Paper Slot Grommet: Doug Mockett, CP2 12” Paper Slot Grommet, color: Black

PART 3 - EXECUTION

3.01 FABRICATION

A. Fabricate millwork, ornamental wood, and countertops to comply with reviewed Shop Drawings and referenced standards.

3.02 UNDER-COUNTER AND BUILT-IN ITEMS COORDINATION

A. Prior to fabrication, verify exact location of specified and Owner Furnished under-counter and built-in items. Verify dimensions of appliances and equipment to be installed within the millwork. Notify Architect immediately of any dimensional discrepancies that would interfere with installation of under-counter or built-in items.

3.03 CABINET INSTALLATION

A. Grade: Install cabinets to comply with same grade as item to be installed.

B. Assemble cabinets and complete fabrication at Project site to the extent that it was not completed in the shop.

C. Install cabinets level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches.

D. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.

E. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork.
   1. For shop finished items use filler matching finish of items being installed.

F. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
   1. Install cabinets with no more than 1/8 inch in 96-inch sag, bow, or other variation from a straight line.
   2. Maintain veneer sequence matching of cabinets with transparent finish.
   3. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches o.c. with No. 10 wafer-head screws sized for not less than 1-1/2-inch penetration into wood framing, blocking, or hanging strips

G. Touch up finishing work specified in this Section after installation of woodwork. Fill nail holes with matching filler where exposed.

3.04 STANDING AND RUNNING TRIM INSTALLATION

A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches (610 mm) long, except where necessary. Stagger joints in adjacent and related standing and running trim. [Cope] [Miter] at returns, miter at outside corners, and cope at inside corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints. Plane backs of casings to provide uniform thickness across joints where necessary for alignment.
   1. Match color and grain pattern of trim for transparent finish (stain or clear finish) across joints.

2. Install trim after gypsum-board joint finishing operations are completed.
3. Install without splitting; drill pilot holes before fastening where necessary to prevent splitting. Fasten to prevent movement or warping. Countersink fastener heads on exposed carpentry work and fill holes.

3.05 SHELVING AND CLOTHES ROD INSTALLATION

A. Cut shelf cleats at ends of shelves about 1/2 inch less than width of shelves and sand exposed ends smooth.

B. Install shelf cleats by fastening to framing or backing with finish nails or trim screws, set below face and filled. Space fasteners not more than 16 inches o.c. Use 2 fasteners at each framing member or fastener location for cleats 4 inches nominal in width and wider.
1. Apply a bead of multipurpose construction adhesive to back of shelf cleats before installing. Remove adhesive that is squeezed out after fastening shelf cleats in place.

C. Install shelf brackets according to manufacturer's written instructions, spaced not more than [32 inches o.c. Fasten to framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors.

D. Install standards for adjustable shelf supports according to manufacturer's written instructions. Fasten to framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors. Space fasteners not more than 12 inches o.c.

E. Install standards for adjustable shelf brackets according to manufacturer's written instructions, spaced not more than 36 inches o.c. and within 6 inches of end of shelves. Fasten to framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors.

F. Cut shelves to neatly fit openings with only enough gap to allow shelves to be removed and reinstalled. Install shelves, fully seated on cleats, brackets, and supports.
1. Fasten shelves to cleats with finish nails or trim screws, set flush.
2. Fasten shelves to brackets to comply with bracket manufacturer's written instructions.

G. Install rod flanges for rods as indicated. Fasten to shelf cleats, framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors. Install rods in rod flanges.

3.06 FINAL INSPECTION

A. General: Prior to final inspection and acceptance by Architect, completely check each installed item and adjust for proper operation.

B. Compliance:
1. Owner reserves right to request and pay for inspection by representative of the Architectural Woodwork Institute to determine that work of this Section has been performed to comply with referenced standards.

2. In event above inspection determines architectural woodwork, or any part of it does not comply with referenced standards, contractor pays all costs for initial inspection and all subsequently required reinspections. Immediately remove non-complying items, and immediately replace them with items complying to referenced standards of these specifications, at Contractor's expense.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. The extent of translucent panels products is shown on the drawings.

1.02 RELATED DOCUMENTS

A. Applicable portions of the Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to the execution of the Contract, other documents listed in the Agreement and Modifications issued after the execution of the Contract shall apply to this Section. The general requirements for this work are located in Division 1 of the Specifications.

1.03 SUBMITTALS AND SUBSTITUTIONS

A. In accordance with Section 01 3000.

B. Product Data: Indicate product description, fabrication information, compliance with specified performance requirements.

C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

D. Samples for Initial Selection:
1. Submit minimum 2 inch by 2 inch samples. Indicate full color and pattern variation.

E. Samples for Verification:
1. Submit minimum 6 inch by 6 inch sample for each type, texture, pattern and color of solid polymer.

F. Maintenance Data: Submit manufacturer=s care and maintenance data, including care, repair and cleaning instructions. Include in Project close-out documents.

G. Substitutions will not be considered prior to the award of the General Contract.

1.04 QUALITY ASSURANCE

A. Impact Resistance: Provide Solid Polymer Fabrications that comply with the following requirements:
1. Impact Strength, Un-notched (23°), ASTM D4812: No breakage
2. Impact Strength, Notched (23°), ASTM D526: 88J/m (1/16)

B. Allowable Tolerances:
1. Maximum deflection: 1/16@ over 12@

1.05 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver Solid Polymer Fabrications, system components and accessories to Project site until areas are ready for installation

B. Handle materials to prevent damage to finished surfaces. Provide protective coverings to prevent damage or staining following installation for duration of project.

C. Before installing Solid Polymer Fabrications, permit them to reach room temperature.

1.06 PROJECT CONDITIONS

A. Environmental Limitations: Do not install Solid Polymer Fabrications until spaces are enclosed and weatherproof, and ambient temperatures and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.07 WARRANTY

A. Manufacturer=s Special Warranty on Solid Polymer Fabrications: Manufacturer=s standard form agreeing to repair or replace units that fail in material or workmanship within the specified warranty period.

B. Warranty Period: 1 year after the date of substantial completion.

C. The warranty shall not deprive the owner of other rights or remedies the Owner may have under other provisions of the Contract Documents, and is in addition to and runs concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Provided product by 3-Form, Inc., 1-800-726-0126, or approved equal.

2.02 MATERIALS

A. Basis of Design Product: The design of Plastic Fabrications is based on Chroma as provided by 3form, Inc.

B. RPS1: Resin Panel System, Type 1
Manufacturer: 3form
Product: Chroma
Thickness: ½", refer to drawings
Color: Syrup (Y26) + Ghost (W03)
Finish: Vellum F04
Notes: LED lighting provided by 3form; 3form certified installer only
RPS2: Resin Panel System, Type 2

C. Manufacturer: 3form
Product: Chroma
Thickness: ½", refer to drawings
Color: Helium (N48) + Powder (D03)
Finish: Vellum F04
Notes: LED lighting provided by 3form; 3form certified installer only

2.03 FABRICATION

A. General: Fabricate Plastic Fabrications to designs, sizes and thicknesses indicated and to comply with indicated standards. Sizes, profiles and other characteristics are indicated on the drawings, additional fabrication and installation details can be found on the 3form Partner Preliminary Project Review, if applicable.

B. Comply with manufacturer's written recommendations for fabrication.

C. Machining: Acceptable means of machining are listed below. Ensure that material is not chipped or warped by machining operations.
1. Sawing: Select equipment and blades suitable for type of cut required.
2. Drilling: Drills specifically designed for use with plastic products.
3. Routing
4. Tapping

D. Forming: Form products to shapes indicated using the appropriate method listed below.
1. Comply with manufacturer's written instructions.
2. Cold Bending
3. Hot Bending

E. Thermoforming: Acceptable only on uncoated material.
1. Drape Forming
2. Matched Mold Forming
3. Mechanical Forming

F. Laminating: Laminate to substrates indicated using adhesives and techniques recommended by manufacturer.

2.04 MISCELLANEOUS MATERIALS

A. General: Provide products of material, size, and shape required for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Cleaner: Type recommended by manufacturer.

C. Fasteners: Use screws designed specifically for plastics. Provide threaded metal inserts for applications requiring frequent disassembly such as light fixtures.

D. Bonding Cements: May be achieved with solvents or adhesives, suitable for use with product and application.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates, areas, and conditions where installation of Solid Polymer Fabrications will occur, with Installer present, for compliance with manufacturer=s requirements. Verify that substrates and conditions are satisfactory for installation and comply with requirements specified.

3.02 INSTALLATION

A. General: Comply with manufacturer=s written instructions for the installation of Solid Polymer Fabrications.

B. Shop fabricate items to the greatest degree possible.

C. Utilize fasteners, adhesives and bonding agents recommended by manufacturer for type of installation indicated. Material that is chipped, warped, hazed or discolored as a result of installation or fabrication methods will be rejected.

D. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.

E. Form field joints using manufacturer=s recommended procedures. Locate seams in panels so that they are not directly in line with seams in substrates.

3.03 CLEANING AND PROTECTION

A. Protect surfaces from damage until date of substantial completion. Repair work or replace damaged work which cannot be repaired to Architect=s satisfaction.

END OF SECTION