SECTION 09200 - LATH AND PLASTER

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

DESCRIPTION OF WORK:

Types of work includes:

Metal lath and furring.
Portland Cement plastering.

Plaster work is limited to repair of existing plaster surfaces to repair remaining walls and ceilings that are affected by the demolition work.

Related Sections: The following sections contain requirements that relate to this Section:

Portland cement plaster scratch and leveling coats on walls surfaces indicated to receive tile are specified in Division 9 Section "Tile".

SUBMITTALS:

General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

Product data consisting of manufacturer's product specifications and installation instructions for each product, including data showing compliance with the requirements.

Materials Certificates: Submit producer's certificate for each kind of plaster aggregate indicated evidencing that materials comply with requirements.

QUALITY ASSURANCE:

Fire-Resistance Ratings: Where plaster systems with fire-resistance ratings are indicated, provide materials and installations identical to those of applicable assemblies tested per ASTM E 119 by fire testing laboratories acceptable to authorities having jurisdiction.

Provide plaster for fire-resistance-rated systems that has same aggregate as specified for similar nonrated work, unless specified aggregate has not been tested by accepted fire testing laboratories.

Coordination of Work: Coordinate layout and installation of suspension system components for suspended ceilings with other work supported by or penetrating through ceiling.

PROJECT CONDITIONS:

Environmental Requirements, General: Comply with requirements of referenced plaster application standards and recommendations of plaster manufacturer for environmental conditions before, during, and after application of plaster.

Cold Weather Protection: When ambient outdoor temperatures are below 40 deg F (4.4 deg C), maintain continuous uniform temperature of not less than 40 deg F (4.4 deg C) nor more than 80 deg F (26 deg C) for not less than one week prior to beginning plaster application, during its application, and until plaster is dry but for not less than one week after application is complete. Distribute heat evenly; prevent concentrated or uneven heat from contacting plaster near heat source.

Ventilation: Ventilate building spaces as required to remove water in excess of that required for hydration of plaster. Begin ventilation immediately after plaster is applied and continue until it sets.

Protect contiguous work from soiling, spattering, moisture deterioration and other harmful effects that might result from plastering.

PART 2 - PRODUCTS

MANUFACTURERS

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include but are not limited to the following:

Metal Supports:

Allied Structural Industries, Inc.
American Studco, Inc.
Chicago Metallic Corp.
Dale Industries, Inc.
Dietrich Industries, Inc,
Gold Bond Building Products Div., National Gypsum Co.
United States Gypsum Co.

Galvanized Woven and Stainless Steel Woven Wire Cloth:

G. F. Wright Steel and Wire Company
National Standard Company
City Wire Cloth, Incorporated
F. P. Smith Corporation
Greening Donald, Limited-Canada
W.S. Tyler Company-Canada (galvanized only)

Expanded Metal Lath:

Alabama Metal Industries Corp. (AMICO)
Gold Bond Building Products Div., National Gypsum Co.
United States Gypsum Co.

Accessories:

Fry Reglet Corp.
Gold Bond Building Products Div., National Gypsum Co.
Keene Corp.

Plastic Components, Inc.
United States Gypsum Co.

METAL SUPPORTS FOR SUSPENDED AND FURRED CEILINGS:

General: Size metal ceiling supports to comply with the following, unless otherwise indicated.

Portland Cement Plaster Installation: ASTM C 1063.

Wire for Hangers and Ties: ASTM A 641, galvanized coated, soft temper.

Rod Hangers: Mild steel, galvanized coated.

Flat Hangers: Mild steel, galvanized coated.

Channels: Cold-rolled steel, 0.05980-inch minimum thickness of base metal (uncoated), allowable bending stress of 18,000 psi, protected with galvanizing complying with ASTM A 525 for G60 coating designation, and as follows:

Carrying Channels: 1 1/2 inch deep by 7/16 inch wide flanges, 508 lbs. per 1000 feet galvanized.
Furring Channels: 3/4 inch deep by 7/16 inch wide flanges, 316 lbs. per 1000 feet galvanized.
Provide galvanized channels for all installations.

LATH

Expanded Metal Lath: Fabricate expanded metal lath from zinc-coated (galvanized) steel sheet to produce lath complying with ASTM C 847 for type, configuration, and other characteristics indicated below:

Rib Lath: Comply with the following requirements:

Configuration: Flat, rib depth of not over 1/8 inch.

Weight: 2.75 lbs. per sq. yd.

Lath Attachment Devices: Devices of material and type required by referenced standards and recommended by lath manufacturer for secure attachment of lath to framing members and of lath to lath.

PLASTER ACCESSORIES FOR PORTLAND CEMENT PLASTER:

General: Comply with material provisions of ASTM C 1063; coordinate depth of accessories with thicknesses and number of coats required.

Metal Corner Reinforcement: Expanded large mesh diamond mesh lath fabricated from zinc-alloy or welded wire mesh fabricated from 0.0475 inch diameter zinc-coated (galvanized) wire and specially formed to reinforce external corners of portland cement plaster on exterior exposures while allowing full plaster encasement.

Metal Corner Beads: Bull nose corner beads fabricated from zinc alloy (galvanized), with expanded flanges of large-mesh diamond lath to allow full encasement by plaster.

Casing Beads: Square-edged style, with expanded flanges and removable protective tape, of the following material:

Material: Zinc-coated (galvanized) steel.

Control Joints: Prefabricated, of material and type indicated below:

Material: Zinc-coated (galvanized) steel.

PORTLAND CEMENT PLASTER MATERIALS

Base Coat Cements: Type as indicated below:

Portland cement, ASTM C 150, Type I or II.

Finish Coat Cement: Type as indicated below:

Portland cement, ASTM C150, Type I, white.

Lime: Special hydrated lime for finishing purposes, ASTM C 206, Type S.

Sand Aggregate for Base Coats: ASTM C 897.

Aggregate for Finish Coats: ASTM C 897 and as indicated below.

Manufactured or natural white sand.

Fiber for Base Coat: Alkaline-resistant (AR) glass or polypropylene fibers, 1/2 inch long, free of contaminates, manufactured for use in portland cement plaster.

MISCELLANEOUS MATERIALS:

Water for Mixing and Finishing Plaster: Drinkable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.

Bonding Agent for Portland Cement Plaster: ASTM C 932.

Acoustical Sealant: ASTM C 919, nonoxidizing, skinning paintable types for exposed applications; nondrying, nonhardening, nonstaining, nonbleeding, gunnable-type sealant complying with requirement specified in Division 7 Section "Joint Sealer" for concealed applications.

PORTLAND CEMENT PLASTER MIXES AND COMPOSITIONS:

General: Comply with ASTM C 926 for portland cement plaster base and finish coat mixes as applicable to plaster bases, materials, and other requirements indicated.

Portland Cement Plaster Base Coat Mixes and Compositions: Proportion materials for respective base coats in parts by volume for cementitious materials and in parts by volume per sum of cementitious materials for aggregates to comply with the following requirements for each method of application and plaster base indicated. Adjust mix proportions below within limits specified to attain workability.

Fiber Content: Add fiber to following mixes after ingredients have mixed at least 2 minutes. Comply with fiber manufacturer's directions but do not to exceed 2 lbs. per cu. ft. of cemtitious materials. Reduce aggregate quantities accordingly to maintain workability.

Three-Coat Work Over Metal Lath: Base coats as indicated below:

Scratch Coat: 1 part portland cement, 3/4 to 1-1/2 parts lime, 2-1/2 to 4 parts sand.
Brown Coat: 1 part portland cement, 3/4 to 1-1/2 parts lime, 3 to 5 parts sand.

Job-Mixed Portland Cement Plaster Finish Coats: Proportion materials for finish coats in parts by volume for cementitious materials and parts by volume per sum of cementitious materials for aggregates to comply with the following requirements:

1 part portland cement, 3/4 to 1-1/2 parts lime, 3 parts sand.

MIXING

Mechanically mix cemtitious and aggregate materials for plasters to comply with applicable referenced application standard and with recommendations of plaster manufacturer.

PART 3 - EXECUTION:

INSTALLATION OF LATHING AND FURRING, GENERAL

Portland Cement Plaster Lathing and Furring Installation Standard: Install lathing and furring materials indicated for portland cement plaster to comply with ASTM C 1063.

Isolation: Where lathing and metal support system abuts building structure horizontally and where partition/wall work abuts overhead structure, isolate the work from structural movement sufficiently to prevent transfer of loading into the work from the building structure. Install slip or cushion-type joints to absorb deflections but maintain lateral support.

Frame both sides of control and expansion joints independently, and do not bridge joints with furring and lathing or accessories.

INSTALLATION OF CEILING SUSPENSION SYSTEMS:

Preparation and Coordination: Coordinate installation of ceiling suspension system with installation of overhead structural systems to ensure that inserts and other structural anchorage provisions have been installed to receive ceiling hangers in a manner that will develop their full strength and at spacings required to support ceiling.

Furnish concrete inserts, and other devices indicated, to other trades for installations well in advance of time needed for coordination with other work.

Coordinate with precast-prestressed concrete manufacturer for concrete inserts to provide support for suspended plaster ceilings in areas where concrete roof structures are specified. Use of explosive fasteners are prohibited.

Hanger Installation: Attach hangers to structure above ceiling to comply with ML/SFA "Specifications for Metal Lathing and Furring" and with referenced standards.

Do not attach hangers to metal deck tabs.

Use of explosive fasteners in precast-prestressed concrete are prohibited.

Install ceiling suspension system components of sizes and spacings indicated but not in smaller sizes or greater spacings than those required by referenced lathing and furring installation standards.

Wire Hangers: Space 8-gage (0.16 inch diameter) wire hangers not over 1'-6" o.c. parallel with and not over 1'-6" perpendicular to direction of carrying channels, unless otherwise indicated, and within 4 inches of carrying channel ends.

Carrying Channels: Space carrying channels not over 1'-6" o.c. with 1'-6" o.c. hanger spacing.

Furring Channels to Receive Wire Cloth: Space furring channels not over 16 inches o.c. for 3.4 lb. diamond mesh lath, 19 inches o.c. for 3.4 lb. flat rib lath, or 16 inches o.c. for wire cloth lathing.

Furring Channels to Receive Metal Lath: Space furring channels not over 16 inches o.c. for 3.4 lb. diamond mesh lath, 19 inches o.c. for 3.4 lb. flat rib lath, or 24 inches o.c. for 3.4 lb, 3/8 inch rib lath.

Wire cloth lathing on suspended ceilings shall be supported by furring channels spaced 1'-6" maximum to sustain the load and remain rigid. The extra weight of 1-1/2" of cement plaster must be considered in the design of the ceiling furring system. Apply wire cloth to furring channels with 2" overlapping joints, securely wired to the channel every 6" with 2 turns of wire. Metal furring and lath shall follow the contour of the finish plaster surface accurately so that the wire cloth, when attached, shall be no less than 3/4" from finish surface.

METAL LATHING

Install expanded metal lath for the following applications where plaster base coats are required. Provide appropriate type, configuration, and weight of metal lath selected from materials indicated that comply with referenced lathing installation standards.

Suspended and furred ceilings using 2.75 lbs. per sq. yd. minimum weight rib lath.

INSTALLATION OF PLASTERING ACCESSORIES:

General: Comply with referenced lathing and furring installation standards for provision and location of plaster accessories of type indicated. Miter or cope accessories at corners; install with tight joints and in alignment. Attach accessories securely to plaster bases to hold accessories in place and alignment during plastering.

Accessories for Portland Cement Plaster: Provide the following types to comply with requirements indicated for location:

Corner Bead: Install at external corners.

Casing Beads: Install at termination of plaster work unless otherwise indicated.

Control Joints: Install control joints at locations indicated or, if not indicated, at locations complying with the following criteria and approved by Architect.

For Portland Cement Plaster: Where, in surfaces of ceilings and walls, distances between and areas within control joints exceed, respectively, the following measurements:

10 feet in either direction and 100 sq. ft.

Metal frames for lights, grilles, louvers, etc., shall be securely fastened to metal furring and accurately placed to form grounds for flush finished plaster surfaces

PORTLAND CEMENT PLASTER APPLICATION:

Portland Cement Plaster Application Standard: Apply portland cement plaster materials, compositions, and mixes to comply with ASTM C 926.

Number of Coats: Apply portland cement plaster, of composition indicated, to comply with the following requirements:

Use three-coat work over the following plaster bases:

Woven wire cloth (typical).

Finish Coat: Floated finish unless otherwise indicated; match Architect's sample for texture and color.

Moist-cure portland cement plaster base and finish coats to comply with ASTM C 926, including recommendations for time between coats and curing in "Annex A2 Design Considerations."

Mechanically mix plaster materials at the project site; do not hand mix except where small amounts are needed, using less than one bag of plaster.

Sequence plaster installation properly with the installation and protection of other work, so that neither will be damaged by the installation of the other.

CLEANING AND PROTECTION:

Cleaning expansion joints: Expansion joints in cement plaster work may accumulate plaster residue. All expansion joints shall be cleaned out after curing plaster.

Remove temporary protection and enclosure of other work. Promptly remove plaster from door frames, windows, and other surfaces which are not to be plastered. Repair floors, walls and other surfaces which have been stained, marred or otherwise damaged during the plastering work. When plastering work is completed, remove unused materials, containers and equipment and clean floors of plaster debris.

Installer shall advise the Contractor of requirements for the protection of plaster from deterioration and damage during the remainder of the construction period.

END OF SECTION 09200

SECTION 09250 - GYPSUM DRYWALL

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

DESCRIPTION OF WORK:

Types of work include:

Gypsum drywall including screw-type metal support system.
Gypsum drywall applied to metal framing and furring.
Standard 5/8" Type "X" Gypsum drywall
Type "X" 5/8" Tile Backer Board applied to screw type metal support system.
Drywall finishing (joint tape-and-compound treatment).
Sound attenuation blankets or R13 batt insulation.

Steel framing and furring are specified in Division 5.

Other insulation products specified in Division 7.

QUALITY ASSURANCE:

Fire-Resistance Ratings: Where gypsum drywall systems with fire-resistance ratings are indicated, provide materials and installations which are identical with those of applicable assemblies tested per ASTM E ll9 by fire testing laboratories acceptable to authorities having jurisdiction.

Acoustical Ratings: Where sound ratings are indicated, provide materials and application procedures identical to those tested by manufacturer to achieve Sound Transmission (STC) scheduled or indicated in accordance with ASTM E90.

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

Single-Source Responsibility: Obtain gypsum board products from a single manufacturer, or from manufacturers recommended by the prime manufacturer of gypsum boards.

DELIVERY, STORAGE AND HANDLING:

Deliver materials in original packages, containers or bundles bearing brand name and identification of manufacturer or supplier.

Store materials inside under cover and in manner to keep them dry, protected from weather, direct sunlight, surface contamination, corrosion and damage from construction traffic and other causes. Neatly stack gypsum boards flat to prevent sagging.

Handle gypsum boards to prevent damage to edges, ends or surfaces. Protect metal corner beads and trim from being bent or damaged.

PROJECT CONDITIONS:

Environmental Requirements, General: Comply with requirements of referenced gypsum board application standards and recommendations of gypsum board manufacturer, for environmental conditions before, during and after application of gypsum board.

Cold Weather Protection: When ambient outdoor temperatures are below 55 deg. F (13 deg. C) maintain continuous, uniform, comfortable building working temperatures of not less than 55 deg. F (l3 deg. C) for a minimum period of 48 hours prior to, during and following application of gypsum board and joint treatment materials or bonding of adhesives.

Ventilation: Ventilate building spaces as required to remove water in excess of that required for drying of joint treatment material immediately after its application. Avoid drafts during dry, hot weather to prevent too rapid drying.

PART 2 - PRODUCTS

ACCEPTABLE MANUFACTURERS:

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

Metal Support Materials:

Allied Structural Industries.
ClarkDietrich LLC
Dale Industries, Inc.
Gold Bond Building Products Siv., National Gypsum Co.
Milcor Division; Inryco, Inc.
Marino Industries
United States Gypsum Co.

Direct Suspension Systems:

Chicago Metallic Corp.
Donn Corporation.
National Rolling Mills Co.
United States Gypsum Co.

Reglet Trim systems:

Fry Reglet Architectural Metals
Equals By other manufacturer's

Gypsum Board and Related Products:

American Gypsum Co.
CBC Shaft wall systems
Certainteed Gypsum Co.

Georgia-Pacific Corp.
Gold Bond Building Products Div.,
National Gypsum Co.
United States Gypsum Co.

METAL SUPPORT MATERIALS:

Ceiling Support Materials and Systems:

General: Size ceiling support components to comply with ASTM C 754 unless otherwise indicated.

Main Runners: Steel channels with rust inhibitive paint finish, hot or cold-rolled.

Hanger Wire: ASTM A 641, soft, Class 1 galvanized.

Hanger Rods and Flats: Mild steel with zinc or equally rust inhibitive coating for rods and zinc or rust-inhibitive paint finish for flats.

Angle-Type Hangers: Not less than 7/8" x 7/8" x 16-gage galvanized steel formed angles, with bolted connections and 5/16" diameter bolts.

Hanger Anchorage Devices: Screws, clips, bolts, cast-in-place concrete inserts or other devices applicable to the indicated method of structural anchorage for ceiling hangers and whose suitability for use intended has been proven through standard construction practices or by certified test data. Size devices for 3 x calculated load supported except size direct pull-out concrete inserts for 5 x calculated loads.

Furring Members: ASTM C 645; 0.0l79" min. thickness of base metal, hat-shaped.

Where shown as "Resilient", provide manufacturer's special type designed to reduce sound transmission.

Furring Members: ASTM C 645; 0.0l79" min. thickness of base metal, "C"-shaped studs.

Furring Anchorages: 16 gage galvanized wire ties, manufacturer's standard wire-type clips, bolts, nails or screws as recommended by furring manufacturer and complying with C 754.

Direct Suspension Systems: Manufacturer's standard zinc-coated or painted steel system of furring runners, furring tees, and accessories designed for concealed support of gypsum drywall ceilings; of proper type for use intended.

Wall/Bulkhead/Partition Support Materials:

Studs: **(Wall height - 12 foot tall and under):** ASTM C 645; **24 gage** 0.0239" min. thickness of base metal unless otherwise indicated.

Studs: **(Wall height - 13 foot tall and over):** ASTM C 645; **20 gage** 0.0359" min. thickness of base metal unless otherwise indicated.

Depth of Section: 3-5/8" and 6”, except as otherwise indicated.

Runners: **18 gage**; type recommended by stud manufacturer for floor base and ceiling support of studs, and for vertical abutment of drywall work at other work.

Furring Members: ASTM C 645; **26 gage**, 0.0l79" min. thickness of base metal, hat shaped. **(See U.L. Design No. M503 for 2hr Floor Ceiling rated design requirements)**

Fasteners for Furring Members: Type and size recommended by furring manufacturer for substrate and application indicated.

GYPSUM BOARD:

Gypsum Wallboard: ASTM C 36, of types, edge configuration and thickness indicated below; in maximum lengths available to minimize end-to-end butt joints.

Type: Type X (**Typical all wall, ceiling and bulkhead surfaces)**
Edges: Tapered.
Thickness: 5/8", unless otherwise indicated.
Finish: Level 4, Typical.
Required wall and ceiling ratings: 2hrs U.L. M503, ceiling, and UL U411 wall

CEMENTITIOUS BACKER UNITS

Provide cementitious backer units complying with ANSI 118.9, of thickness and width indicated below, and in maximum vertical lengths available to minimize end-to-end butt joints.

Thickness: 5/8", unless otherwise indicated.
Width: 32 inches (813 mm)

Available products: Subject to compliance with requirements, cementitious backer units that may be incorporated in the Work include, but are not limited to, the following:

Products: Subject to compliance with requirements, provide one of the following products:

Wonderboard Multi+Board; Custom Building Products.
DomCrete Cementitious Tile-Backer Board; Domtar Gypsum.
Util-A-Crete Concrete Backer Board; FinPan, Inc.
DUROCK Cement Board; United States Gypsum Co.

See other requirements in Section 06

TRIM ACCESSORIES:

General: Provide manufacturer's standard trim accessories of types indicated for drywall work, formed of galvanized steel unless otherwise indicated, with either knurled and perforated or expanded flanges for nailing or stapling, and beaded for concealment of flanges in joint compound. Provide corner beads, L-type edge trim-beads, U-type edge trim-beads, special L-kerf- type edge trim-beads, and one-piece control joint beads.

JOINT TREATMENT MATERIALS:

General: ASTM C 475; type recommended by the manufacturer for the application indicated, except as otherwise indicated.

Joint Tape: Reinforced tape. (Provide joint tape recommended by the drywall manufacturer for Paperless/Moisture Resistant drywall installation.)

Joint Compound: Ready-mixed vinyl-type for interior use.

Grade: A single multi-purpose grade, for entire application. (Provide compound recommended by the drywall manufacturer for Paperless/Moisture Resistant drywall installation.)

Exterior Joint Compound: Special chemical - hardening - type for exterior application.

Water-Resistant Joint Compound: Special water-resistant type for treatment of joints, fastener heads and cut edges of water-resistant backing board.

Product: Subject to compliance with requirements, provide Sheetrock Brand W/R Compound; United States Gypsum Co.

MISCELLANEOUS MATERIALS:

General: Provide auxiliary materials for gypsum drywall work of the type and grade recommended by the manufacturer of the gypsum board.

Laminating Adhesive: Special adhesive or joint compound specifically recommended for laminating gypsum boards.

Spot Grout: ASTM C 475, setting-type joint compound of type recommended for spot grouting hollow metal door frames.

Gypsum Board Screws: Comply with ASTM C 1002.

Gypsum Board Nails: Comply with ASTM C 514.

Sound Attenuation Blankets: See "fiberglass" Sound Insulation specified in Section 07200.

PART 3 - EXECUTION

PREPARATION FOR METAL SUPPORT SYSTEMS:

Ceiling Anchorages: Coordinate work with structural ceiling work to ensure that inserts and other structural anchorage provisions have been installed to receive ceiling hangers.

Furnish concrete inserts, steel deck hanger clips and similar devices to other trades for installation well in advance of time needed for coordination with other work.

INSTALLATION OF METAL SUPPORT SYSTEMS:

General:

Metal Support Installation Standard: Comply with ASTM C 754.

Do not bridge building expansion joints with support system, frame both sides of joints with furring and other support as indicated.

Screw furring members to metal framing as indicated.

Ceiling Support Suspension Systems:

Secure hangers to structural support by connecting directly to structure where possible, otherwise connect to inserts, clips or other anchorage devices or fasteners as indicated.

Space main runners 4'-0" o.c. and space hangers 4'-0" o.c. along runners, except as otherwise shown.

Level main runners to a tolerance of 1/4" in 12'-0", measured both lengthwise on each runner and transversely between parallel runners.

Wire-tie or clip furring members to main runners and to other structural supports as indicated.

Direct-hung Metal Support System: Attach perimeter wall track or angle wherever support system meets vertical surfaces. Mechanically join support members to each other and butt-cut to fit into wall track.

Space furring member 16" o.c., except as otherwise indicated.

Install auxiliary framing at termination of drywall work, and at openings for light fixtures and similar work, as required for support of both the drywall construction and other work indicated for support thereon.

Wall/Bulkhead/Partition Support Systems:

Install supplementary framing, blocking and bracing at terminations in the work and for support of fixtures, equipment services, heavy trim, and similar work to comply with details indicated or if not otherwise indicated, to comply with applicable published recommendations of gypsum board manufacturer, or if not available, of "Gypsum Construction Handbook" published by United States Gypsum Co.

Isolate stud system from transfer of structural loading to system, both horizontally and vertically. Provide slip or cushioned type joints to attain lateral support and avoid axial loading.

Install runner tracks at ceilings and structural walls and columns where gypsum drywall stud system abuts other work, except as otherwise indicated.

Extend partition stud system through acoustical ceilings and elsewhere as indicated to the structural support or substrate above the ceiling.

Terminate partition stud system at ceilings, except where indicated to be extended to structural support or substrate above.

Space studs 16" o.c., unless otherwise indicated.

Resilient Channels manufactured from 20 gage corrosion resistant galvanized steel. Single leg resilient channels with extra-wide 1½" screw flange for added rigidity and a wider surface for easier installation of sheathing materials.

Frame door openings to comply with details indicated or if not otherwise indicated, to comply with applicable published recommendations of gypsum board manufacturer, or if not available, of "Gypsum Construction Handbook" published by United States Gypsum Co. Attach vertical studs at jambs with screws either directly to frames or to jamb anchor clips on door frames; install runner track section (for jack studs) at head and secure to jamb studs.

Extend vertical jamb studs through suspended ceilings and attach to underside of floor or roof structure above, unless otherwise indicated.

Frame openings other than door openings to comply with details indicated or if not indicated, in same manner as required for door openings; and install framing below sills of openings to match framing required above door heads.

TILE BACKER BOARD INSTALLATION:

Install Tile Backer board behind ALL tile wall finishes. (See Room Finish Schedule) See installation requirements in section 06100 Rough Carpentry.

GENERAL GYPSUM BOARD INSTALLATION REQUIREMENTS:

Gypsum Board Application and Finishing Standards: ASTM C 840 and GA 2l6.

Install sound attenuation blankets as indicated, prior to gypsum board unless readily installed after board has been installed.

Locate exposed end-butt joints as far from center of walls and ceilings as possible, and stagger not less than 1'-0" in alternate courses of board.

Install ceiling boards in the direction and manner which will minimize the number of end-butt joints, and which will avoid end joints in the central area of each ceiling. Stagger end joints at least 1'-0".

Install wall/bulkhead partition boards vertically to avoid end-butt joints wherever possible.

Install exposed gypsum board with face side out. Do not install imperfect, damaged or damp boards. Butt boards together for a light contact at edges and ends with not more than 1/16" open space between boards. Do not force into place.

Located either edge or end joints over supports, except in horizontal applications or where intermediate supports or gypsum board back-blocking is provided behind end joints. Position boards so that like edges abut, tapered edges against tapered edges and mill-cut or field-cut ends against mill-cut or field cut ends. Do not place tapered edges against cut edges or ends. Stagger vertical joints over different studs on opposite sides of partitions.

Attach gypsum board to supplementary framing and blocking provided for additional support at openings and cutouts.

Spot grout hollow metal door frames for solid core wood doors, hollow metal doors and doors over 32 inches wide. Apply spot grout at each jamb anchor clip just before inserting board into frame.

Form control joints and expansion joints with space between edges of boards, prepared to receive trim accessories.

Cover both faces of steel stud bulkhead framing with gypsum board in concealed spaces (above ceilings, etc.).

Except where concealed application is required for sound, fire, air or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. area, and may be limited to not less than 75% of full coverage.

Isolate perimeter of non-load-bearing drywall installations at structural abutments. Provide l/4" to l/2" space and trim edge with J-type semi-finishing edge trim. Seal joints with acoustical sealant.

Space fasteners in gypsum boards in accordance with referenced standards and manufacturer's recommendations, except as otherwise indicated.

METHODS OF GYPSUM DRYWALL APPLICATION:

Single-layer Application: Install gypsum wallboard.

On ceilings apply gypsum board prior to wall/bulkhead/partition board application to the greatest extent possible.

On partitions/bulkheads/walls apply gypsum board vertically (parallel), unless otherwise indicated, and provide sheet lengths which will minimize end joints.

On partitions/walls 8'-1" or less in height apply gypsum board horizontally (perpendicular); use maximum length sheets possible to minimize end joints.

On Z-furring members apply gypsum board vertically (parallel to framing) with on end joints. Locate edge joints over furring members.

Wall Tile Base: Where drywall is base for thin-set ceramic tile and similar rigid applied wall finishes, install gypsum backing board.

In "dry" areas install gypsum backing board or wallboard with tapered edges taped and finished to produce a flat surface.

At Janitor's mop sinks, and similar "wet" areas, install water-resistant gypsum backing board to comply with ASTM C 840 and recommendations of gypsum board manufacturer.

Double-Layer Application: Install gypsum backing board for base layer and exposed gypsum board for face layer.

On ceilings apply base layer prior to application of base layer on walls/partitions; apply face layers in same sequence. Offset joints between layers at least 10 inches. Apply base layers at right angles to supports unless otherwise indicated.

On partition/walls apply base layer and face layers vertically (parallel) with joints of base layer over supports and face layer joints offset at least 10" with base layer joints.

Single-Layer Fastening Methods: Apply gypsum boards to supports as follows:

Fasten with screws.

Fasten with cadmium-plated screws, or with galvanized or aluminum nails where supports are nailable.

INSTALLATION OF DRYWALL TRIM ACCESSORIES:

General: Where feasible, use the same fasteners to anchor trim accessory flanges as required to fasten gypsum board to the supports. Otherwise, fasten flanges by nailing or stapling in accordance with manufacturer's instructions and recommendations.

Install metal corner beads at external corners of drywall work.

Install metal edge trim whenever edge of gypsum board would otherwise be exposed or semi-exposed, and except where plastic trim is indicated. Provide type with face flange to receive joint compound except where semi-finishing type is indicated. Install L-type trim where work is tightly abutted to other work, and install special kerf-type where other work is kerfed to receive long leg of L-type trim. Install U-type trim where edge is exposed, revealed, gasketed, or sealant-filled (including expansion joints).

Install semi-finishing trim where indicated, and where exterior gypsum board edges are not covered by applied moldings or indicated to receive trim with face flanges covered with joint compound.

FINISHING OF DRYWALL:

General: Apply treatment at gypsum board joints (both directions), flanges of trim accessories, penetrations, fastener heads, surface defects and elsewhere as required to prepare work for decoration. Prefill open joints and rounded or beveled edges, if any, using type of compound recommended by manufacturer.

Apply joint tape at joints between gypsum boards, except where a trim accessory is indicated.

Apply joint compound in 3 coats (not including prefill of openings in base), and sand between last 2 coats and after last coat.

Typical finish shall be Level 4.

Partial Finishing: Omit third coat (if specified) and sanding on concealed drywall work which is indicated for drywall finishing or which requires finishing to achieve fire-resistance rating, sound rating or to act as air or smoke barrier.

Refer to sections on painting, coatings and wall-coverings in Division-9 for decorative finishes to be applied to drywall work.

PROTECTION OF WORK:

Provide final protection and maintain conditions in a manner suitable to Installer, which ensures gypsum drywall work being without damage or deterioration at time of substantial completion.

END OF SECTION 09250

SECTION 09300 - TILE

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

Division 3 Section "Concrete" for monolithic slab finishes specified for tile substrates.

Division 7 Section "Joint Sealers" for sealing of expansion, contraction, control and isolation joints in tile surfaces.

DESCRIPTION OF WORK:

Definitions: Tile includes ceramic surfacing units made from clay or other ceramic materials.

Extent of tile work is indicated on drawings and schedules.

Types of tile work in this section include the following:

Glazed Wall Tile (thin set application)
Floor Tile (thin set application)
Ceramic and Non-Ceramic Trim
Marble thresholds. (Typical at all doors of rooms with hard tile.)

Sealing expansion and other joints in tile work with elastomeric joint sealers is work of this section.

REFERENCES AND PERFORMANCE REQUIREMENTS:

TCA (HB) - Handbook for Ceramic Tile Installation; Tile Council of America, Inc. – Current Edition

ASTM C1028 - Test method for Determining the Static Coefficient of Friction or Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull meter Method.

ANSI A108 1999 - Specifications for Installation of Ceramic Tile

Static Coefficient of Friction: Tile on walkway surfaces shall be provided with the following values as determined by testing in conformance with ASTM C 1028.

Level Surfaces: Minimum of 0.6 (Wet).
Step Treads: Minimum of 0.6 (Wet).
Ramp Surfaces: Minimum of 0.8 (Wet).

QUALITY ASSURANCE:

Maintain one copy each of all Referenced standards and specifications on site. Include the TCA Handbook, ANSI A108 Series, ANSI A118 Series ANSI A136.1 and ANSI A137.1 and others as specified under paragraph References.

Source of Materials: Provide materials obtained from one source for each type and color of tile, grout, and setting materials.

Installer Qualifications: Engage an experienced Installer who has successfully completed tile installations similar in material, design and extent to that indicated for Project.

SUBMITTALS:

Samples for Initial Selection Purposes: Submit manufacturer's color charts consisting of actual tiles or sections of tile showing full range of colors, textures and patterns available for each type of tile indicated. Include samples of grout and accessories involving color selection.

Samples for Verification Purposes: Submit the following:

Samples for each type of tile and for each color and texture required, not less than 12" square, on plywood or hardboard backing and grouted.

Full size samples for each type of trim, accessory and for each color.

PRODUCT HANDLING:

Deliver and store packaged materials and store in original containers with seals unbroken and labels intact until time of use. Prevent damage or contamination to materials by water, freezing, foreign matter or other causes.

PROJECT CONDITIONS:

Maintain environmental conditions and protect work during and after installation to comply with referenced standards and manufacturer's printed recommendations.

PART 2 - PRODUCTS

ACCEPTABLE MANUFACTURERS:

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

Tile:

Dal-Tile Corp.
American Olean Tile Co., Inc.
Mannington Tile Co.
United States Ceramic Tile Co.

Latex-Portland Cement Mortar:

American Olean Tile Co., Inc.
Summitville Tiles, Inc.
Dal-Tile Corp.
Laticrete.

Commercial Portland Cement Grout:

Summitville Tiles, Inc.
Dal-Tile Corp.
Laticrete

Tile Cleaners:

Hillyard Chemical Co.
Laticrete
L & M Surco Mfg. Co., Inc.

PRODUCTS, GENERAL:

ANSI Standard for Ceramic Tile: Comply with ANSI A137.1 "American National Standard Specifications for Ceramic Tile" for types and grades of tile indicated.

Furnish tile complying with "Standard Grade" requirements unless otherwise indicated.

ANSI Standard for Tile Installation Materials: Comply with ANSI standard referenced with installation products and materials indicated.

Colors, Textures and Patterns: For tile and other products requiring selection of colors, surface textures or other appearance characteristics, provide products to match characteristics indicated or, if not otherwise indicated, as selected by Architect from manufacturer's standards.

Provide tile trim and accessories which match color and finish of adjoining flat tile.

Mounting: Where factory-mounted tile is required provide back- or edge-mounted tile assemblies as standard with manufacturer unless another mounting method is indicated.

TILE PRODUCTS:

Glazed Pocelain ART DECO Accent Wall Tile (New Toilets 100 & 102, and a 3 tile inlay feature in Family toilets 109& 110): ANSI A137.1 and as follows:

Product: **"Bowery" and also called "Nolita"** (No Substitutes).
"Bowery" Pattern can be found on Wayfare.com - vendor Ivey Hill Tile.
"Nolita" Pattern (same pattern as above) can be found on Tilebar.com
Tile made in Spain, available online.
Moisture Absorption: Less than 20%
Size and Shape: 24 by 24 inch, nominal typical, 10 mm thickness
Grout line thickness: Minimal.
Edges: straight edged
Surface Finish: Matte glazed
Color & Pattern: **White and Dark Charcoal Grey geometric and vertical strip pattern layed in a stacked bond.**

Trim Units: None

Application: Typical Wall tile over the lavatories and the and the Baby Changing Stands. Align joints horizontally with the white 12" square tiles..

Special Requirement: Order 20% more tiles of this pattern than needed for Architect to use in other locations on the project or for use as extra stock for the Owner

Glazed Pocelain Wall Tile (New Toilets 100 & 102): ANSI A137.1 and as follows:

Product: **DalTile** (or preapproved similar equal product)
Moisture Absorption: Less than 20%
Size and Shape: 12 by 12 inch, nominal typical,
Grout line thickness: Minimal.
Edges: straight edged
Surface Finish: Matte glazed
Color & Pattern: **White (exact "white" shade to be determined for match with the white in the Decorative tile) layed in a stacked bond.**
Trim Units: Matching bullnose and cove base - coordinate with field tile.

Application: Typical Wall tile other than the decorative Art Deco Tile over the lavatories and the and the Baby Changing Stands. Align joints horizontally with the decorative tile which is divided into 12 x 12 square patterns.

Glazed Pocelain Wall Tile (Existing Toilets 109 & 110): ANSI A137.1 and as follows:

Product: **DalTile** (or preapproved similar equal product)
Moisture Absorption: Less than 20%
Size and Shape: 4-1/4 by 4-1/4 inch, nominal typical,
Grout line thickness: Match exisitng .
Edges: straight edged
Surface Finish: Matte or semigloss glazed (match exisitng)
Color & Pattern: **White (exact "white" shade to be determined to match the existing white tile)**
Trim Units: Matching bullnose and cove base - coordinate with field tile.
Grout Color: Match exisitng wall grout color for seamless old to new tile installation.

Application: **Repair the old wall tile where the old radiator, toilet fixtures, pipes, partition anchors and lavatories were removed. Remove individual tiles and replace for seamless renovation of the tiled wall surface. Match existing joint pattern. Note the wingwall that prevents sight into the toilet area was never tiled and requires new tiled finish floor to ceiling.**

Glazed Floor Paver Tile: ANSI A137.1 and as follows:

Product: Daltile "**Avondale" Industrial Park –** Porcelain Body (or preapproved similar equal product)
Moisture Absorption: 0 to 0.5%
Size and Shape: 12 inch x 24 inch, nominal.
Cut a factory edged 6" strip of tile out of the 12"/24" for wall base tile and top course border row in toilets !00 and 102 and water fountain tilewall replacement.

Thickness: 5/16 inch

Grount line thickness: Minimal.
Edges: Straight edged
Coefficeint of Friction: Equal to or exceeding 0.6 wet
Surface Finish: Matte glazed
Color & Pattern: Color: IP09 Charcoal color layed in a ½ lap Running Bond Pattern.

Trim Units: Matching bull nosed top edge base where not wall tile is scheduled- coordinate with field tile.

Application: All Toilet Room Floors, as indicated. Toilets 100 and 102 thinset on new concrete floor.

Application: Family Renovated Toilet Rooms 109 and 110. Install tile directly over the existing floor tile using thinset adhesive mortar as recommended for overlay installation. Repair floors where old tile is removed to level up to new tile setting bed.

Application: Replacement tile for the wall tile wainscot removed from behind the bank of 3 water fountains in Theatre foyer 3- Room 108

THRESHOLDS:

Marble Thresholds: Provide marble thresholds complying with ASTM C 503 requirements for exterior use and abrasion resistance for uses subject to heavy foot traffic, a minimum hardness of 10 per ASTM C 241.

Color/Finish: As selected from the manufacturers standard range.

Size: Fabricate 2 inches (50 mm) wide by full width of wall or frame opening; 1/2 inch (12 mm) thick; beveled one long edge with radiused corners on top side; without holes, cracks, or open seams.

Provide to provide transition between tile surface and adjoining finishes and at doorways where tile terminates.

In the Family toilets the threshold must be installed flush with the new floor height to prevent an ADA threshold height problem along side the exisitng floor. In other areas a maximum of ¼" height above the adjacent floor area is required.

SETTING MATERIALS:

Portland Cement Mortar Installation Materials: Provide materials complying with ANSI A108-1B and as specified below:

Latex Additive: (water emulsion) described below, serving as replacement for part or all of water, of type specifically recommended by latex additive manufacturer for use with job-mixed Portland cement and aggregate mortar bed.

Latex Additive: Manufacturer's standard.

Latex-Portland Cement Mortar: ANSI A118.4, composed as follows:

Prepackaged Dry-Mortar Mix: Factory-prepared mixture of portland cement; dry, redispersible, ehtylene vinyl acetate additive; and other ingredients to which only water needs to be added at Project site.

Mixture of Dry-Mortar Mix and Latex Additive: Mixture of prepackaged dry-mortar mix and liquid-latex additive complying with the following requirements:

Latex Additive: Manufacturer's standard.

GROUTING MATERIALS:

Commercial Portland-Cement Grout: Proprietary preblended compound composed of portland cement and additives formulated for the type of tile installed.

ELASTOMERIC SEALANTS:

Elastomeric Sealant Standard: Provide manufacturer's standard chemically curing, elastomeric sealant of base polymer indicated which complies with ASTM C 920 requirements, including those for Type, Grade, Class and Uses.

Compatibility: Provide sealants, joint fillers and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by testing and field experience.

Colors: Provide colors of exposed sealants to match colors of grout in tile adjoining sealed joints, unless otherwise indicated.

Locations: Provide expansion joints, filled with elastomeric sealant, above expansion joint locations in concrete slab subfloor and as recommended for quality tile installations.

One-Part Mildew Resistant Silicone Sealant: Type S; Grade NS; Class 25; Uses NT, G, A; formulated with fungicide for sealing interior joints in and around ceramic tile, showers, sinks and plumbing fixtures. USDA approved products required for kitchen area sealants.

MISCELLANEOUS MATERIALS:

Tile Cleaner: Product specifically acceptable to manufacturer of tile and grout manufacturer for application indicated and as recommended by National Tile Promotion Federation, 112 North Alfred St., Alexandria, VA 22134 or Ceramic Tile Institute, 700 N. Virgil Ave., Los Angeles, CA 90029.

PART 3 - EXECUTION

INSPECTION:

Examine surfaces to receive tile work and conditions under which tile will be installed. Do not proceed with tile work until surfaces and conditions comply with requirements indicated in referenced tile installation standards.

INSTALLATION:

ANSI Tile Installation Standard: Comply with applicable parts of ANSI 108 series of tile installation standards included under "American National Standard Specifications for the Installation of Ceramic Tile".

TCA Installation Guidelines: TCA "Handbook for Ceramic Tile Installation"; comply with TCA installation methods indicated or, if not otherwise indicated, as applicable to installation conditions shown.

Extend tile work into recesses and under or behind equipment and fixtures, to form a complete covering without interruptions, except as otherwise shown. Terminate work neatly at obstructions, edges and corners without disrupting pattern or joint alignments.

Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures and other penetrations so that plates, collars, or covers overlap tile.

Jointing Pattern: Unless otherwise shown, lay tile in grid pattern. Align joints when adjoining tiles on floor, base, walls and trim are same size. Lay out tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise shown.

For tile mounted in sheets make joints between sheets same width as joints within tile sheets so that extent of each sheet is not apparent in finish work.

Expansion Joints: Locate expansion joints and other sealant filled, including control, contraction and isolation joints at all inside corners.

Prepare joints and apply sealants to comply with requirements of referenced installation standards and sealant manufacturer.

Grout tile to comply with referenced installation standards, using grout materials indicated.

Mix and install proprietary components to comply with grout manufacturer's directions.

TILE INSTALLATION METHODS:

Ceramic Tile: Install tile to comply with requirements indicated below for setting bed methods, TCA installation methods related to subsurface floor conditions, and grout types:

Installation Method (Toilet Area floors – **Thin Set**): F122

Concrete (Slab on Grade)
Apply commercial latex portland cement mortar bond coat.
Install ceramic tile floors.
Grout with commercial portland cement grout recommended for minimal width grout joint

Installation Method (Toilet Area Walls – **Thin Set Full Ht.**): W244

Metal Stud Walls or Metal Furring Walls
Install Cementitious Backer Board
Apply commercial latex-portland cement mortar
Install ceramic wall tile.
Grout with commercial Portland Cement grout recommended for minimal width grout joint.

Marble Thresholds: Install marble thresholds at locations specified; set in same type of setting bed as abutting field tile unless otherwise indicated.

Set thresholds in thinset mortar for locations, where mortar bed would otherwise be exposed above adjacent non-tile floor finish.

CLEANING AND PROTECTION

Cleaning: Upon completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.

Unglazed tile may be cleaned with acid solutions only when permitted by tile and grout manufacturer's printed instructions, but not sooner than 14 days after installation. Protect metal surfaces, cast iron and vitreous plumbing fixtures from effects of acid cleaning. Flush surface with clean water before and after cleaning.

Finished Tile Work: Leave finished installation clean and free of cracked, chipped, broken, unbonded, or otherwise defective tile work.

Protection: When recommended by tile manufacturer, apply a protective coat of neutral protective cleaner to completed tile walls and floors. Protect installed tile work with Kraft paper or other heavy covering during construction period to prevent staining, damage and wear.

Prohibit foot and wheel traffic from using tiled floors for at least 7 days after grouting is completed.

Before final inspection, remove protective coverings and rinse neutral cleaner from tile surfaces.

End of SECTION 09300

SECTION 09400 – TERRAZZO FLOORS AND STAIR TREADS

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

SUMMARY

This Section includes the following: (ALTERNATE #2 WORK)

Epoxy-resin terrazzo 1/2"+ thick ground to no less than 3/8" final thickness. 3 field colors with 3 color aggregate stones each)

Related Sections include the following:

Division 3 Section "Cast-in-Place Concrete" for concrete substrate or underbed requirements.
Division 7 Section "Joint Sealants" for sealants installed in movement joints or joints between precast terrazzo units.

SUBMITTALS

Product Data: For each type of terrazzo, component material, and accessory specified.

Shop Drawings: Show terrazzo fabrication and installation requirements including plans, elevations, sections, component details, and attachments to other work.

Show layout of divider and control- and expansion-joint strips.
Show layout of base and border strips.
Show large-scale details of terrazzo patterns.

Samples for Initial Selection: National Terrazzo and Mosaic Association (NTMA) color plates showing the full range of colors available for each terrazzo type indicated. Provide chest of color chips for selection purposes.

Samples for Verification: Minimum of three 6-inch- square samples of each terrazzo color and type required, showing the full range of color, texture, and pattern variations expected. Prepare samples of the same thickness and from the same material to be used for the Work. Provide minimum 6-inch- long samples of each base unit and exposed strip item required.

Qualification Data: For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

Material Certificates: Certificates signed by suppliers or manufacturers certifying that each material complies with requirements.

Maintenance Data: For each terrazzo type to include in the maintenance manuals specified in Division 1.

QUALITY ASSURANCE

Installer Qualifications: Engage an experienced installer who has completed terrazzo installations similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

Source Limitations for Marble: Obtain each color, grade, type, and variety of marble from one source with resources to provide materials of consistent quality in appearance and physical properties without delaying the Work.

NTMA Standards: Comply with the National Terrazzo and Mosaic Association's (NTMA) Guide Specification and written recommendations for terrazzo type indicated, unless more stringent requirements are specified.

Preinstallation Conference: Conduct conference at Project site to comply with requirements of Division 1 Section "Project Meetings." Review methods and procedures related to installation including, but not limited to, the following:

Inspect and discuss condition of substrate and other preparatory work performed by other trades.
Review structural loading limitations.
Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

DELIVERY, STORAGE, AND HANDLING

Deliver materials to Project site in suppliers' original wrappings and containers, labeled with source's or manufacturer's name, material or product brand name, and lot number, if any.

Store materials in their original, undamaged packages and containers, inside a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.

PROJECT CONDITIONS

Environmental Limitations: Maintain temperature above 50 deg F for 48 hours before and during terrazzo installation.

PART 2 - PRODUCTS

MATERIALS

Marble Chips: Sizes conforming to NTMA gradation standards for mix indicated, with Ha 10 minimum abrasive-hardness value when tested according to ASTM C 241, 0.75 percent maximum 24-hour absorption rate, dust content of less than 1 percent by weight, and containing no deleterious or foreign matter.

Matrix Pigments: Pure mineral or synthetic pigments, alkali resistant, color stable, and compatible with matrix binder.

Epoxy-Resin Matrix: Provide matrix complying with NTMA's "Guide Specification for Epoxy Terrazzo" in color required for mix indicated.

Divider Strips: Angle or T type, 1- 1/4 inch deep (for ½" standard topping, and as follows:

Material: White zinc alloy.

Top Width: 1/8 inch.

Expansion-Joint Strips: Brass with cap-strip top for installing sealant; in width indicated or, if not indicated, minimum for 1/2 inch topping thickness.

Joint sealants are specified in Division 7 Section "Joint Sealants."

Divider-Strip Adhesive: Adhesive recommended by manufacturer for this use.

Terrazzo Primer: Two-component resin or other compound recommended by terrazzo resin manufacturer for priming substrate.

Terrazzo Finishing Grout: Thin-set terrazzo resin manufacturer's resin-based finishing grout.

Sealer: Slip- and stain-resistant, penetrating-type sealer that is chemically neutral with pH factor between 7 and 12, does not affect color or physical properties of terrazzo type indicated, is recommended by sealer manufacturer for this use, and complies with NTMA Guide Specification for terrazzo type indicated.

MIXES

Epoxy-Resin Terrazzo: Comply with NTMA's "Guide Specification for Epoxy Terrazzo" and resin manufacturer's written instructions for component proportions and mixing.

Color and Pattern: Three matrix/aggregate color mixes to be selected. See the drawings for the required floor pattern. Bulletin Drawings to be issued.

2 Primary Field Colors: (Match Existing)“Light” and “Brownish Taupe” matrix with white, light grey, medium grey & dark charcoal grey aggregate. (70%)

Border/Accent color: (Match Existing)“Medium/Dark Gray/Charcoal” matrix with white, light grey, light tan and black aggregate. (20% of Floor)

PART 3 - EXECUTION

EXAMINATION

Examine substrates and areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of terrazzo. Do not proceed with installation until unsatisfactory conditions, including levelness tolerances, have been corrected.

PREPARATION

Remove any remaining flooring adhesive to expose original 1947 concrete floor.

Clean substrates of substances that impair terrazzo's or underbed's bond, including oil, grease, and curing compounds.

Roughen concrete substrates before installing terrazzo or underbed according to NTMA's written recommendations (including bead blasting.)

Prepare-terrazzo substrates according to monolithic/resin manufacturer's written instructions. Terrazzo contractor to layout and provide adequate expansion and provide saw cut joints as needed or recommended for pattern shown on drawings to keep terrazzo from cracking. Terrazzo contractor shall provide one year warranty against terrazzo cracking. During which time if terrazzo cracks, the terrazzo contractor shall remove the cracked tile section and install new section to match previous terrazzo color and texture at no additional cost to owner. **Coordination of such an event shall be during non operational hours not to disrupt normal business operations**.

INSTALLATION

General: Comply with NTMA Guide Specification for terrazzo type indicated and NTMA's written recommendations for substrate preparation and terrazzo installation.

Prime terrazzo substrates according to resin manufacturer's written instructions.

Indicate requirements for strip spacing and locations on Drawings or revise below.
Install divider and accessory strips according to NTMA's written recommendations.

Install angle- or T-type strips and similar accessories in adhesive setting bed without voids below strips. Provide mechanical anchorage of strips as required for adequate attachment of strips to substrate.

Terrazzo: Place, cure, grind, grout, and finish terrazzo according to resin manufacturer's written instructions and NTMA Guide Specification for thin-set terrazzo type indicated. Ensure fluids from grinding operations do not react with divider and control-joint strips and stain marble chips. Delay fine grinding until heavy trade work is complete and construction traffic through area is restricted.

Install Precast Terrazzo Stair Tread units using method recommended by NTMA and manufacturer, unless otherwise indicated. Set units in full bed of ¼" to 3/8" Thinset Epoxy mortar over steel pans with alignment level and true to dimensions, varying 1/8 inch maximum in length, height, or width.

Seal joints between units with cement grout matching precast terrazzo matrix.

Cut out and replace terrazzo areas that evidence lack of bond with substrate or underbed, including areas that emit a "hollow" sound when tapped. Cut out terrazzo areas in panels defined by strips and replace to match adjacent terrazzo, or repair panels according to NTMA's written recommendations, as approved by Architect.

Construction Tolerances: Limit terrazzo surfaces' variation from level to 1/8 inch in 10 feet. In no case shall the new terrazzo that abuts the existing terrazzo create a nonflush trip hazard.

CLEANING AND PROTECTING

Seal surfaces according to NTMA's written recommendations. Apply sealer according to sealer manufacturer's written instructions.

Provide final protection and maintain conditions, in a manner acceptable to Installer, that ensure terrazzo is without damage or deterioration at the time of Substantial Completion.

END OF SECTION 09400

SECTION 09510 - ACOUSTICAL CEILINGS

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

SUMMARY:

Extent of each type of acoustical ceiling is shown and scheduled on drawings.

Types of acoustical ceilings specified in this section include the following: See Reflected Ceiling Plan on Electrical Lighting plans for locations of each type.

Acoustical panel ceilings, exposed suspensionApplications using 2'x2' non rated grid.
Applications using a 2’x2’ non rated white and “spray painted” grid
Acoustical 2’x2’ tegular edge tiles.
Faux Metal panel ceilings 2’ x2’ non rated tiles.

QUALITY ASSURANCE:

Installer Qualifications: Firm with not less than three years of successful experience in installation of acoustical ceilings similar to requirements for this project and which is acceptable to manufacturer of acoustical units, as shown by current written statement from manufacturer.

Fire Performance Characteristics: Provide acoustical ceiling components that are identical to those tested for the following fire performance characteristics, according to ASTM test method indicated, by UL or other testing and inspecting agency acceptable to authorities having jurisdiction. Identify acoustical ceiling components with appropriate marking of applicable testing and inspecting agency.

Surface Burning Characteristics: As follows, tested per ASTM E 84.

Flame Spread: 25 or less.
Smoke Developed: 50 or less.

Fire Resistance Ratings: As indicated by reference to design designation in UL "Fire Resistance Directory" or "FM Approval Guide", for assemblies in which acoustical ceilings function as a fire protective membrane; tested per ASTM E 119.

Coordination of Work: Coordinate layout and installation of acoustical ceiling units and suspension system components with other work supported by, or penetrating through, ceilings, including light fixtures, HVAC equipment, fire-suppression system components (if any), and partition system (if any).

SUBMITTALS:

Product Data: Manufacturer's product specifications and installation instructions for each acoustical ceiling material required, and for each suspension system, including certified laboratory test reports and other data as required to show compliance with these specifications.

Include manufacturer's recommendations for cleaning and refinishing acoustical units, including precautions against materials and methods which may be detrimental to finishes and acoustical performances.

Samples: Set of 6" x 4" square samples for each acoustical unit required, showing full range of exposed color and texture to be expected in completed work.

DELIVERY, STORAGE, AND HANDLING:

Deliver acoustical ceiling units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination or other causes.

Before installing acoustical ceiling units, permit them to reach room temperature and a stabilized moisture content.

Handle acoustical ceiling units carefully to avoid chipping edges or damaging units in any way.

PROJECT CONDITIONS:

Space Enclosure: Do not install interior acoustical ceilings until space is enclosed and weatherproof, wet-work in space is completed and nominally dry, work above ceilings is complete, and ambient conditions of temperature and humidity will be continuously maintained at values near those indicated for final occupancy.

PART 2 - PRODUCTS

ACOUSTICAL CEILING UNITS, GENERAL:

Standard for Acoustical Ceiling Units: Provide manufacturer's standard units of configuration indicated which are prepared for mounting method designated and which comply with FS SS-S-118 requirements, including those indicated by reference to type, form, pattern, grade (NRC or NIC' as applicable), light reflectance coefficient (LR), edge detail, and joint detail (if any).

Colors, Textures, and Patterns: Provide products to match appearance characteristics indicated or, if not otherwise indicated, as selected by Architect from manufacturer's standard colors, surface textures, and patterns available for acoustical ceiling units and exposed metal suspension system members of quality designated.

ACOUSTICAL PANELS:

Typical Acoustical Panels 2' x 2':

Typical "Toilet Room" Ceiling Tiles:

Type III, Form 1:
Pattern E, G Fine Textured Panel, NRC .70, CAC 35/45, Panel Size 24" x 24" x ¾"

Use: **A**coustical suspended ceiling tiles where shown on for Toilet Rooms 100. 102, and the door alcoves 100A, 101A, and 102A.

Color: White.

Surface Burn (ASTM E84): Class A

Millennia *ClimaPlus*, Item #76705, Shadowline Tapered (SLT) with Grid Option "D"
United States Gypsum Co.
or
Ultima *HumiGuard Plus*, Beveled Tegular Edge
Armstrong Commercial Ceilings, or equal.

Typical Acoustical Tiles layed ABOVE Decorative Gold Metal Ceiling Tiles:

Type III, Form 2 Pattern C,D, E Panels – Water-Felted Mineral Fiber with Standard Washable Painted Finish: Class A, **Radar**, **Square Edge**; United States Gypsum Co. #2110, or Armstrong "Cortega" or equal. NRC .55, CAC 33, LR .85, white, 24" x 24" x 5/8."

Use: Typical sound barrier tile seated just above gold decorative metal tiles.

Color: White.

Decorative "Faux Metal" Lay-in Tiles:

Faux metal, pattern tiles, designed to be installed in a standard 24" x 24" Acoustical Ceiling tile grid. Product distributed by Decorative Ceiling Tiles. Painted, cast, PVC tiles to have a Class "A" flame spread rating.

Use: Ceiling tile used in Salon 101 and Retail Space 105.

Color: Antique Gold or Aged Gold (TBD).

Pattern: Cambridge DCT 06

Size: 23-3/4" x 23-3/4"

Weight: 6-12 ounces

NOTE: Faux Metal Tiles to be installed in a SPRAY PAINTED GRID (matching gold color) and be overlayed with a 24" x 24" acoustical tile to dampen noise above the ceiling from HVAC units located in the ceiling plenum.

METAL SUSPENSION SYSTEMS, GENERAL:

Standard for Metal Suspension Systems: Provide metal suspension systems of type, structural classification and finish indicated which comply with applicable ASTM C 635 requirements.

Finishes and Colors: Provide manufacturer's standard finish for type of system indicated, unless otherwise required. For exposed suspension members and accessories with painted finish, provide color indicated or white if not otherwise indicated.

Attachment Devices: Size for 5 times design load indicated in ASTM C 635, Table 1, Direct Hung.

Concrete Inserts: Inserts formed from hot-dipped galvanized sheet steel and designed for attachment to concrete forms and for embedment in concrete, with holes or loops for attachment at hanger wires.

Hanger Wire: Galvanized carbon steel wire, ASTM A 641, soft temper, prestretched, Class 1 coating, sized so that stress at 3-times hanger design loan (ASTM C 635, Table 1, Direct Hung), will be less than yield stress of wire, but provide not less than 12 gage.

Edge Moldings and Trim: Metal or extruded plastic of types and profiles indicated or, if not indicated, provide manufacturer's standard molding for edges and penetrations of ceiling which fits with type of edge detail and suspension system indicated.

Available Manufacturers: Subject to compliance with requirements, manufacturers offering suspension systems which may be incorporated in the work include, but ar not limited to, the following:

Manufacturer: Subject to compliance with requirements, provide suspension systems of one of the following:

Manufacturers of Steel Exposed Suspension Systems:

Same as acoustical unit manufacturer.
Chicago Metallic Corp.
Donn Corp.
National Rolling Mills, Inc.
Roper Eastern.

Manufacturers of Aluminum Exposed Suspension Systems:

Same as acoustical unit manufacturer.
Chicago Metallic Corp.
Donn Corp.
National Rolling Mills, Inc.
Roper Eastern.

Note: Use ALUMINUM grid with white finish for Suspended Ceiling in toilet areas .

EXPOSED METAL DIRECT-HUNG SUSPENSION SYSTEMS:

Non-Fire-Rated Single Web Steel Suspension System:

Structural Classification: As required per for rated systems.

Finish: Prefinished, “White” in Toilets
Painted “Gold” in Salon and Retail Space

Uses: Typical suspension system unless noted otherwise.

MISCELLANEOUS MATERIALS:

Tile Adhesive: Comply with ASTM D 1779 or FS MMM-A-00150, type recommended by tile manufacturer, bearing UL label for Class 0 - 25 flame spread.

Tile Fasteners: Cadmium plated, type recommended by tile manufacturer, but for not less than 1/2" penetration of substrate.

PART 3 - EXECUTION

PREPARATION:

Coordination: Furnish layouts for inserts, clips, or other supports required to be installed by other trades for support of acoustical ceilings.

Furnish concrete inserts and similar devices to other trades for installation well in advance of time needed for coordination of other work.

Provide and install fasteners in wood joists, rafters, and/or trusses to support hanging loads in shear and not in tension (i.e. attach to sides of supporting structure, not bottoms of supporting structure).

Measure each ceiling area and establish layout of acoustical units to balance border widths at opposite edges of each ceiling. Avoid use of less-than-half width units at borders, and comply with reflected ceiling plans wherever possible.

INSTALLATION:

General: Install materials in accordance with manufacturer's printed instructions, and to comply with governing regulations, fire resistance rating requirements as indicated, and CISCA standards applicable to work.

Prepaint ceiling grid “Gold” before installing Faux gold Panels and acoustical tile back-up. Match gold tile finish.

Arrange acoustical units and orient directionally-patterned units (if any) in manner shown by reflected ceiling plans.

Install tile with pattern running in alternating directions to form "checkerboard" layout.

Install suspension systems to comply with ASTM C 636, with hangers supported only from building structural members. Locate hangers not less than 6" from each end and spaced 4'-0" along each carrying channel or direct-hung runner, unless otherwise indicated, leveling to tolerance of 1/8" in 12'-0".

Secure wire hangers by looping and wire-tying, either directly to structures or to inserts, eye-screws, or other devices which are secure and appropriate for substrate, and which will not deteriorate or fail with age or elevated temperatures.

Install hangers plumb and free from contact with insulation or other objects within ceiling plenum which are not part of supporting structural or ceiling suspension system. Splay hangers only where required to miss obstructions and offset resulting horizontal force by bracing, countersplaying or other equally effective means.

Install edge moldings of type indicated at perimeter of acoustical ceiling area and at locations where necessary to conceal edges of acoustical units.

Install hold-down clips in areas indicated, and in areas where required by governing regulations or for fire-resistance ratings; space as recommended by panel manufacturer, unless otherwise indicated or required.

ADJUST AND CLEAN:

Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members; comply with manufacturer's instructions for cleaning and touch-up of minor finish damage. Remove and replace work which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

EXTRA STOCK:

Deliver stock to maintenance material to Owner. Furnish maintenance material matching products installed, packaged with protective covering for storage and identified with appropriate labels.

Acoustical Ceiling Units: Furnish quantity of full size units equal to 2.0% of the amount of each type installed.

Exposed Suspension-Components: Furnish quantity of each exposed component required for actual installation equal to 2.0% of amount installed, but no less than 2 full boxes of each tile type specified.

END OF SECTION 09510

SECTION 09650 - RESILIENT FLOORING

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work of this section.

DESCRIPTION OF WORK:

Extent of resilient flooring and accessories is shown on drawings and in schedules.

Luxury Vinyl Tile (LVT-Planks)
Luxury Vinyl Tile (LVT-Terrazzo Squares)

QUALITY ASSURANCE:

Manufacturer: Provide each type of resilient flooring and accessories as produced by a single manufacturer, including recommended primers, adhesives, sealants, and leveling compounds.

Fire Test Performance: Provide resilient flooring which complies with the following fire test performance criteria as determined by an independent testing laboratory acceptable to authorities having jurisdiction.

Flame Spread: Not more than 75 per ASTM E 84.
Smoke Developed: Not more than 450 per ASTM E 84.
Critical Radiant Flux: 0.45 watts per sq. cm. or more per ASTM E 648.
Smoke Density: Less than 450 per ASTM E 662.

SUBMITTALS:

Product Data: Submit manufacturer's technical data for each type of resilient flooring and accessory.

Samples required for approval if not those specified in Color Schedule: Submit manufacturer's standard color charts in form of actual sections of resilient flooring, including accessories, showing full range of colors and patterns available, for each type of resilient flooring required.

PROJECT CONDITIONS:

Maintain minimum temperature of 70 degrees F (21 degrees C) in spaces to receive resilient flooring for at least 48 hours prior to installation, during installation, and for not less than 48 hours after installation. Store resilient flooring materials in spaces where they will be installed for at least 48 hours before beginning installation. Subsequently, maintain minimum temperature of 55 degrees F (13 degrees C) in areas where work is completed.

Install resilient flooring and accessories after other finishing operations, including painting, have been completed. Do not install resilient flooring over concrete slabs until the latter have been cured and are sufficiently dry to achieve bond with adhesive as determined by manufacturer's recommended bond and moisture test.

PART 2 - PRODUCTS

ACCEPTABLE MANUFACTURERS:

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

Manufacturer: Subject to compliance with requirements, provide products of one of the following:

Manufacturers of Luxury Vinyl Tile Planks:

Shaw Contract (Basis of Design)
Armstrong World Industries, Inc. Floors, Inc.
Patcraft

LUXURY VINYL TILE- PLANK FLOORING:

Solid Vinyl Tile: A layered construction consisting of a tough, clear, vinyl wear layer protecting a high-fidelity print layer on a solid vinyl backing. Protected by a UV-cured polyurethane finish, the wear surface is embossed with different textures to enhance each of the printed visuals. Colors are insoluble in water and resistant to cleaning agents and light.

Luxury Solid Vinyl Tile Planks shall conform to the requirements of ASTM F 1700, 'Standard Specification for Solid Vinyl Tile", Class III, Type B - Embossed Surface.

Thickness:	5 mm
Wear Layer Thickness:	20 mil
Finish:	Exoguard
Size:	6 in. by 48 in.

Product/Manufacturer: Basis of Design: " **Solitude" Style 0648V** by Shaw Industries Group
Color: "Mink" 48720 or "Cocoa" 48103.

Recommended adhesive: Shaw 4100 or S150 or recommendation of equal manufacturer's products.

LUXURY VINYL TILE - SQUARES:

Vinyl Composition Tile (Terrazzo Squares): Products complying with ASTM F 1700, Comercial grade with EXO Guard Wear finish (nonasbestos formulated), and with requirements specified below:

Thickness: .097 inch. / 5mm
Wear thickness Layer: 0.02 in. /20 mils.
Size: 24 by 24 inches.

Manufacturer: Shaw Contract or preapproved product by others equal.

Style:: Shaw Contract Simulated Terrazzo Pattern **"Cast" 4098V.**

Colors: Light Terrazzo pattern: **"Melded" #98111**
Darker Terrazzo pattern: **"Allure" #98530**

Pattern: **T**ile to be laid in monolithic pattern with 2 Colors in a field and border pattern. See the Floor plan for the preliminary pattern layout. A finalized layout will be provided during construction.

Application: Theatre Foyer 2 and Salon 101 and door alcoves 100A and 102A.

Recommended adhesive: Shaw 4100 or S150 or recommendation of equal manufacturer's products.

ACCESSORIES:

Rubber Transition: VC Tile/LVT to Carpet.

Manufacturer: Roppe
Height: ADA compliant.
Thickness: ADA compliant.
Finish: Matte.

Color: as selected and approved by Architect from manufacturer's standard, premium and custom colors. (Match Wall Base)

Adhesives (Cement): Waterproof, stabilized type as recommended by flooring manufacturer to suit material and substrate conditions.

Concrete Slab Primer: Non-staining type as recommended by flooring manufacturer.

Leveling Compound: Latex type as recommended by flooring manufacturer.

PART 3 - EXECUTION

EXAMINATION:

General: Require Installer to inspect subtler surfaces to determine that they are satisfactory. A satisfactory subfloor surface is defined as one that is smooth and free from cracks, holes, ridges, coatings preventing adhesive bond, and other defects impairing performance or appearance.

Concrete Subfloors: Verify that concrete slabs comply with ASTM F 710 and the following:

Slab substrates are dry and free of curing compounds, sealers, hardeners and other materials whose presence would interfere with bonding of adhesive. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by tile manufacturer.

Finishes of subfloors comply with tolerances and other requirements specified in Division 3 Section "Cast -In-Place Concrete" for slabs receiving resilient flooring.

Subfloors are free of cracks, ridges, depressions, scales and foreign deposits of any kind. **Buffer grind floors to eliminate possible telegraphing dimples in subbase concrete floor.**

Do not allow resilient flooring work to proceed until subfloor surfaces are clean, dry, and free of all particles which could translate through tile.

PREPARATION:

Prepare subfloor surfaces as follows:

Use leveling and patching compounds as recommended by resilient flooring manufacturer for filling small cracks, holes and depressions in subfloors.

Remove coatings from subfloor surfaces that would prevent adhesive bond, including curing compounds incompatible with resilient flooring adhesives, paint, oils, waxes and sealers.

Broom clean, vacuum, wet mop, and dry surfaces to be covered. Inspect subfloor for small particles which would translate through tile. Repeat preparation of subfloor until all particles are removed.

Apply concrete slab primer, if recommended by flooring manufacturer, prior to application of adhesive. Apply in compliance with manufacturer's directions.

Provide cement based filler to areas that need to be raised (ramped) at doorways to spaces with different floor materials that won't met the ADA threshold requirements for a maximum of ¼" change in floor surface.

Existing floor threshold issues occur at Doors 105 Retail Space, and at the existing 2 pairs of doors at the Ballroom off the Theatre Foyer. Provide Ardex concrete based infill to raise floor entrance as required.

INSTALLATION:

GENERAL:

Install resilient flooring using method indicated in strict compliance with manufacturer's printed instructions. Extend flooring into toe spaces, door reveals, and into closets and similar openings.

Scribe, cut, and fit resilient flooring to permanent fixtures, built-in furniture and cabinets, pipes, outlets and permanent columns, walls and partitions.

Maintain reference markers, holes, or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on subfloor. Use chalk or other non-permanent marking device.

Tightly cement resilient flooring to subbase without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, or other surface imperfections. Hand roll resilient flooring at perimeter of each covered area to assure adhesion.

INSTALLATION OF LVT SQUARE TILE FLOORS:

Lay tile from center marks established with principal walls, discounting minor offsets, so that tile at opposite edges of room are of equal width. Adjust as necessary to avoid use of cut widths less than 1/2 tile at room perimeters. Lay tile square to room axis, unless otherwise shown.

Match tiles for color and pattern by using tile from cartons in same sequence as manufactured and packaged if so numbered. Cut tile neatly around all fixtures. Broken, cracked, chipped, or deformed tiles are not acceptable.

Lay tile in pattern with respect to location of colors, patterns and sizes as indicated on Drawings.

Double cut tiles to create inlaid patterns with "tight fit" joints at color changes.

Tightly cut edge tiles leaving no gaps, smiles or other irregularities up against abutting wall bases. No quarter round moulding is planned.

Install wall base after the installation of the flooring.

Adhere tile flooring to substrates using full spread of adhesive applied in compliance with flooring manufacturer's directions.

INSTALLATION OF LVT PLANK FLOORS:

Color and Patterns: Manufacturer's standard colors as selected and approved by Architect.

Consult with Architect regarding direction of plank flooring and location of joints/pattern turns.

Lay tile from center marks established with principal walls, discounting minor offsets, so that tile at opposite edges of room are of equal width. Adjust as necessary to avoid use of cut widths less than 1/2 tile at room perimeters. Lay tiles square to room axis, unless otherwise shown.

Adhere tile flooring to substrates using full spread of adhesive applied in compliance with flooring manufacturer's directions.

Tightly cut edge tiles leaving no gaps, smiles or other irregularities up against abutting wall bases. No quarter round moulding is planned.

Install wall base after the installation of the flooring.

INSTALLATION OF ACCESSORIES:

Place resilient edge strips tightly butted to flooring and secure with adhesive. Install edging strips at edges of flooring which would otherwise be exposed.

CLEANING AND PROTECTION:

Perform following operations immediately upon completion of resilient flooring:

Sweep or vacuum floor thoroughly.

Do not wash floor until time period recommended by resilient flooring manufacturer has elapsed to allow resilient flooring to become well-sealed in adhesive.

Damp mop floor being careful to remove black marks and excessive soil.

Remove any excess adhesive or other surface blemishes, using appropriate cleaner recommended by resilient flooring manufacturers.

Protect flooring against damage during construction period to comply with resilient flooring manufacturer's directions.

Cover resilient flooring with undyed, untreated building paper until inspection for substantial completion.

Clean resilient flooring not more than 4 days prior to date scheduled for inspections intended to establish date of substantial completion in each area of project. Clean resilient flooring by method recommended by resilient flooring manufacturer.

EXTRA STOCK:

Deliver stock of maintenance materials to Owner. Furnish maintenance materials from same manufactured lot as materials installed and enclosed in protective packaging with appropriate identifying labels.

Tile Flooring: Furnish not less than one box for each 50 boxes or fraction thereof, for each type, color, pattern and size installed. (No less than two boxes)

END OF SECTION 09650

SECTION 09680: CARPETING

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

DESCRIPTION OF WORK:

Extent of carpeting is indicated on the drawings, finish schedule and by specifications, and is defined to include carpet and accessories.

See Room Finish Schedule on Drawings

Remove all existing carpeting in the LobbyFoyer area. (Lobby Foyer 2/Rm 107 & Lobby Foyer 3/Rm 108)

Install Carpet Tiles (9” x 36”) (in rear section of the Theatre Lobby – Lobby Foyer 3 , Room 108)

Each type of required carpet is specified by data sheets, included as last page(s) of this section.

QUALITY ASSURANCE:

Installer Qualifications: Firm with not less than 5 years of experience in installation of commercial carpeting of type, quantity and installation methods similar to work of this section.

Manufacturer Qualifications: Firm (carpet mill) with not less than 5 years of production experience with carpet similar to types specified in this section; and whose published product literature clearly indicates compliance of products with requirements of this section.

General Terminology/Information Standard: Refer to current edition of "Carpet Specifier's Handbook" by The Carpet and Rug Institute; for definitions of terminology not otherwise defined herein, and for general recommendations and information.

Flame/Smoke Resistance Standards: Where ratings are indicated for carpet or for carpet-plus-pad installations, provide materials complying with ratings as indicated for the following test standards:

Floor Radiant Panel Test: Test for burning under varying radiant energy levels; ASTM E 648, with minimum average radiant flux ratings not less than the following:

FRPT Rating: 0.45 watts/sq. cm.

Smoke Density Test: Test in radiant heat chamber, with and without flame, for density of smoke generated; ASTM E 662, or NFPA No. 258, also known as NBS Smoke Density Chamber Test.

Sound Absorption Standard: Where a noise reduction coefficient (NRC) rating is indicated for installed carpet and cushion (if any), provide materials complying with ratings as indicated, which have been tested in accordance with ASTM C 423.

Static Resistance: Provide yarn or yarn blend as indicated in carpet construction, and include provisions to comply with static resistance ratings as indicated, either by selection of yarns known to be effective or by inclusion of small percentages of special anti-static yarn known to be effective in achieving indicated static resistance. Where rating is not otherwise indicated, provide 3.5 KV resistance for 20% R.H. at 70 degrees F (21 degrees C), AATCC 134.

SUBMITTALS:

Product Data: Submit manufacturer's complete technical product data for each type of carpet, cushion and accessory item required.

Colors, Textures and Patterens: For Carpet and other products requiring colors, surface textures or other appearance characteristics**, provide product characteristics indicated by color/pattern selections listed on Carpet Data Sheet.**

For approval of Alternate Product: Submit three (3) sets of manufacturer's color selections samples for distribution to the Architect and the Owner. Submittals considered will be only those of very similar color, texture and pattern to those used as the Basis for Design as well as equivalence of carpet materials, tile size and construction.

Shop Drawings: Submit carpet tile layout drawings, clearly indicating carpet directions, locations and methods of adhering tiles, and locations and types of edge strips. Indicate columns, doorways, enclosing walls/partitions, built-in cabinets and locations where cut-outs are required in carpet.

Samples: Submit 24" x 24" samples of each carpet required, 6" long samples of each type exposed edge stripping, and 6" square samples of separate cushions.

Maintenance Data: Submit manufacturer's printed maintenance recommendations, including methods and frequency recommended for maintaining carpet in optimum conditions under anticipated traffic and use conditions for inclusion in Master Maintenance Manual.

EXTRA STOCK:

Overrun Tile: Produce and deliver to project at least 5 percent (5%) overrun on calculated yardage (equal amounts of each color chosen). Provide required overrun exclusive of carpet needed for proper installation, waste and usable scraps.

PRODUCT DELIVERY AND STORAGE:

Deliver carpeting materials in original mill protective wrapping with mill register numbers and tags attached. Store inside, in well ventilated area, protected from weather, moisture and soiling.

PART 2 - PRODUCTS

CARPET:

Data Sheets/Schedule: Detailed carpet construction and performance requirements for each required type of carpet are specified by carpet data sheet at end of this section.

Carpet Fiber Used in Yarn:

General: Refer to carpet data sheet/schedules for fiber (filament) or fiber blend required for each type of carpet.

Carpet Color, Pattern, Texture:

General: Unless otherwise indicated or shown on data sheets, match Architect's sample(s) or match manufacturers' stock carpet(s) as designated for control/selection of color, pattern and texture.

NOTE: NO "EXTRAS" WILL BE CONSIDERED FOR CARPET COST INCREASES WHILE ARCHITECT/OWNER ARE SELECTING COLORS UNLESS COLOR SELECTION IS DELAYED BY THE ARCHITECT OR OWNER BEYOND SIX WEEKS FROM PROJECT COMPLETION DATE AND THEN ONLY IF "FACTORY INCREASES" OCCUR.

Dying Method: Where synthetic fiber is indicated for carpet face yarn, provide solution, skein or stock dyed material, as recommended by Mill to comply with requirements including appearance and best possible appearance retention.

Pile Thickness (Height): Average height above backing, ASTM D 418; provide thicknesses indicated.

Pile Face Weight: Oz. per sq. yd. above backing; provide weights indicated.

Stitches or Rows (Wires): Number of rows of tufts per in. of carpet length; provide rows indicated.

Gage or Pitch: Gage (spacing of tufts) and pitch (number of tufts in 27") measured at each row of tufts in width of carpet; provide gages or pitches indicated.

Manufacturer and Make: Products listed hereinafter by manufacturer style numbers are related to specific products. It is not the intention of this specification to limit consideration to the Basis of Design listed; however, the Basis of Design listed establishes the following standards for each item. Deviation from these standards shall be reviewed by the Architect 10 days prior to scheduled bid opening and acknowledged in writing in the addendum. The standards for evaluation of items shall, as applicable, be as follows:

Size, Function, Standard Accessories, Appearance, Color and Quality:

Manufacturer:

Shaw Contract Group (specified as Basis of Design)
Cambridge Commercial Carpets(subject to compliance with named product)
Collin and Aikman (subject to compliance with named product)
Patcraft (subject to compliance with named product)

OR similar Cradle to Cradle ecofriendly carpet tile equal in quality and appearance as judged by the Architect.

CARPET ACCESSORIES:

Carpet Edge Guard, Nonmetallic: Extruded or molded heavy-duty vinyl or rubber carpet edge guard of size and profile indicated and with minimum 2" wide anchorage flange; colors selected by Architect from among standard colors available within the industry (any manufacturer).

Installation Adhesive: Water-resistant non-staining type as recommended by carpet or cushion manufacturer, and which complies with flammability requirements for installed carpet.

Seaming Cement: Hot-melt seaming adhesive or similar product recommended by carpet manufacturer, for taping seams and buttering cut edges at backing to form secure seams and prevent pile loss at seams.

PART 3 - EXECUTION

PRE-INSTALLATION REQUIREMENTS:

Examine substrates for moisture content and other conditions under which carpeting is to be installed. Repair minor holes, cracks, depressions or rough areas using material recommended by carpet or adhesive manufacturer. Notify Contractor in writing of major conditions detrimental to proper completion of the work. Do not proceed until unsatisfactory conditions have been corrected.

Calcium Chloride and PH and Moisture Tests are to be performed per manufacturers recommendations. Test results shall be provided to architect prior to installation.

Clear away debris and scrape up cementitious deposits from surfaces to receive carpeting; vacuum clean immediately before installation. Check concrete surfaces to ensure no "dusting" through installed carpet; apply sealer where required to prevent dusting.

Sequence carpeting with other work so as to minimize possibility of damage and soiling of carpet during remainder of construction period.

Special installation procedures must be taken in the installation of carpet tiles. Obtain installation guidelines from carpet tile manufacturer and install exactly as instructed. Diaviations from manufacturer instructions will result in poorly installed carpet that will require replacing.

INSTALLATION:

General:

Carpet Tiles:

Comply with manufacturer's instructions and recomendations for installing carpet tile flooring.

Tile squares shall be layed in directions as instructed by the Architect in the field. Installation shall be performed when the following jobsite conditions exist:

HVAC system is operational and provides the minimum temperature of 65 degrees F and maximum temperature of 95 degrees F for 24 hours proceeding the installation;relative humidity shall not exceed 65% and anhydrous calcium chloride results do not exceed 10lbs/1000 sf per 24 hours and ph readings are between 5.0 and 12.0.

Lay out carpet tiles from the center marks established with principal walls, discounting minor offsets, so that tile at the opposite edges of the room are of equal width. Adjust as necessary to avoid use of cut widths less than ½ tile at room perimeters. Lay tile square to room axis, unless otherwise shown.

Tiles will be installed using Shaw carpets “Lok*Dots carpeting installation. Lok*Dots adhesive system must be installed in accordance with Shaw carpeting recommendations for a warranted installation.

Extend carpet under open-bottomed obstructions and under removable flanges and furnishings, and into alcoves and closetsof each space.

Provide cut-outs where required, and bind cut edges properly where not concealed by protective edge guards or overlapping flanges.

Install carpet edge guard where edge of carpet is exposed; anchor guards to substrate.

Expansion Joints: Do not bridge building expansion joints with continuous carpeting, provide for movement.

Avoid location of seams in areas of high, concentrated traffic such as step treads, landings, ramps, aisles, at areas immediately at entrances and doorways, and immediately in front and parallel to cabinets.

CLEANING AND PROTECTION:

Remove and dispose of debris and unusable scraps.

Remove debris, sorting pieces to be saved from scraps to be disposed of.

Vacuum carpet using commercial machine with face-beater element. Remove spots and replace carpet where spots cannot be removed. Remove any protruding face yarn using sharp scissors.

Advise Contractor of protection methods and materials needed to ensure that carpeting will be without deterioration or damage at time of sustantial completion.

Maintenance Materials: Deliver specified overrun and usable scraps of carpet to Owner's designated storage space, properly packaged (paper wrapped) and identified. Usable scraps are defined to include roll ends of less than 9'-0" length, and pieces of more than 3 sq. ft. area and more than 8" wide. Dispose of smaller pieces as "construction waste".

MODULAR CARPET TILES DATA SHEET:

SEE DRAWINGS FOR LOCATION AND LAYOUT OF CARPET TILE PATTERNS.

Note: The carpet tile specified below is the Basis for Design and is **Shaw Contract Group Tile, "Interlude" 5T343, Color "Pause" 27720 (Note**. The following data is intended to establish style and minimum manufacturing specifications. Equal products by other manufacturers are subject to approval prior to receiving bids. Final acceptance will be based on proposed product meeting or exceeding data listed below and the similarity of the pattern and colors inherent to the patterned carpet chosen

Application: Replacement carpet for the rear section of the Theatre Lobby – Theatre Foyer 3 Room 108. Provide flexible "curved" edge stripping between carpet and LVT flooring.

Carpet 1 Designation: Typical Carpet Tile.

Product size: ---------- 9" x 36" Tiles

Carpet Tile: ---------- Shaw Interlude # 5T343

Colors: ---------- Pause # 27720.

Construction: ---------- Multi Level Pattern cut/Loop.

Fiber Content: ---------- 100% Eco*Solution Q premium branded nylon

Dye Method: ---------- 100% Solution Dyed

Pattern Repeat ----------

Tufted Weight ---------- 18.0 oz./sq. yd.

Gauge: ---------- 1/10

Stitches per Inch: ---------- 10

Finished Pile Thickness: ---------- 0.104 in.

Total Thickness----------

Average Density: ----------

Backing: ---------- Eco-Worx 100% Recycled Content

Soil/Stain Protection: ---------- S.S.P. Shaw soil protection

Flooring Radient Panel: ---------- Class 1

Smoke Density:---------- Less than 450

Electrostatic Propensity: ---------- 3.5 KV or lower

Warranty:---------- Limited Lifetime Commercial Warranty.

Installation: ---------- Ashlar Pattern

Antimicrobial Protection "FlorSept" system passes AATCC 174
Cradle to Cradle Certification - Silver
Low VOC's meeting CRI Green Label and Green Label Plus requirements

End of SECTION 09680

SECTION 09900 - PAINTING

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

DESCRIPTION OF WORK:

Extent of painting work is indicated on drawings and schedules, and as herein specified.

Work includes painting and finishing of interior and exterior exposed items and surfaces throughout Project, except as otherwise indicated.

Surface preparation, priming and coats of paint specified are in addition to shop-priming and surface treatment specified under other sections of work.

Work includes field painting of exposed bare and covered pipes and ducts (including color coding), and of hangers, exposed steel and iron work, and primed metal surfaces of equipment installed under mechanical and electrical work, except as otherwise indicated.

"Paint" as used herein means all coating systems materials, including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.

Surfaces to be Painted: Except where natural finish of material is specifically noted as a surface not to be painted, paint exposed surfaces whether or not colors are designated. Where items or surfaces are not specifically mentioned, paint the same as similar adjacent materials or areas. If color or finish is not designated, Architect will select these from standard colors or finishes available.

Following categories of work are not included as part of field-applied finish work.

Pre-Finished Items: Unless otherwise indicated, do not include painting when factory-finishing or installer-finishing is specified for such items as (but not limited to) metal toilet enclosures, prefinished partition systems, acoustic materials, architectural woodwork and casework and finished mechanical and electrical equipment, including light fixtures, switchgear and distribution cabinets.

Concealed Surfaces: Unless otherwise indicated, painting is not required on surfaces such as walls or ceilings in concealed areas and generally inaccessible areas, foundation spaces, furred areas, utility tunnels, pipe spaces, duct shafts and elevator shafts.

Finished Metal Surfaces: Unless otherwise indicated, metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze and similar finished materials will not require finish painting.

Operating Parts: Unless otherwise indicated, moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sinkages, sensing devices, motor and fan shafts will not require finish painting.

Following categories of work are included under other sections of these specifications.

Shop Primers: Unless otherwise specified, shop priming of ferrous metal items is included under various sections for structural steel, metal fabrications, hollow metal work and similar items.

Do not paint over any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name, or nomenclature plates.

QUALITY ASSURANCE:

Single Source Responsibility: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer, and use only within recommended limits.

Coordination of Work: Review other sections of these specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates. Upon request from other trades, furnish information or characteristics of finish materials provided for use, to ensure compatible prime coats are used.

SUBMITTALS:

Product Data: Submit manufacturer's technical information including Paint label analysis and application instructions for each material proposed for use.

Samples: Prior to beginning work, Architect will furnish color chips for surfaces to be painted. Use representative colors when preparing samples for review. Submit samples for Architect's review of color and texture only. Provide a listing of material and application for each coat of each finish sample.

On 12" x 12" hardboard, provide two samples of each color and material, with texture to simulate actual conditions. Resubmit samples as requested by Architect until acceptable sheen, color, and texture is achieved.

On actual wood surfaces, provide two 4" x 8" samples of natural and stained wood finish. Label and identify each as to location and application.

DELIVERY AND STORAGE:

Deliver materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label.

Store materials not in actual use in tightly covered containers. Maintain containers used in storage of paint in a clean condition, free of foreign materials and residue.

Protect from freezing where necessary. Keep storage area neat and orderly. Remove oily rags and waste daily. Take all precautions to ensure that workmen and work areas are adequately protected from fire hazards and health hazards resulting from handling, mixing and application of paints.

JOB CONDITIONS:

Apply water-base paints only when temperature of surfaces to be painted and surrounding air temperatures are between 50 degrees F. and 90 degrees F., unless otherwise permitted by paint manufacturer's printed instructions.

Apply solvent-thinned paints only when temperature of surfaces to be painted and surrounding air temperatures are between 45 degrees F. and 95 degrees F., unless otherwise permitted by paint manufacturer's printed instructions.

Do not paint in snow, rain, fog or mist, or when relative humidity exceeds 85%, or to damp or wet surfaces, unless otherwise permitted by paint manufacturer's printed instructions.

Painting may be continued during inclement weather if areas and surfaces to be painted are enclosed and heated within temperature limits specified by paint manufacturer during application and drying periods.

PART 2 - PRODUCTS

ACCEPTABLE MANUFACTURERS:

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

Benjamin Moore and Co. (Moore).
PPG Industries, Pittsburgh Paints (Pittsburgh).& ICI/Glidden Coatings and Resins,(ICI).
The Sherwin-Williams Company (S-W) & Duron Inc.

MATERIALS:

Material Quality: Provide best quality grade of various types of coatings as regularly manufactured by acceptable paint materials manufacturers. Materials not displaying manufacturer's identification as a standard, best-grade product will not be acceptable.

Proprietary names used to designate color or materials are not intended to imply that products of named manufacturers are required to exclusion of equivalent products of other manufacturers.

Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated.

Lead content in pigment, if any, is limited to contain not more than 0.06% lead, as lead metal based on the total non-volatile (dry-film) of paint by weight.

This limitation is extended to interior surfaces and those exterior surfaces, such as stairs, decks, porches, railings, windows, and doors which are readily accessible to children under seven years of age.

PART 3 - EXECUTION

INSPECTION:

Applicator must examine areas and conditions under which painting work is to be applied and notify Contractor in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been correct in a manner acceptable to Applicator.

Starting of painting work will be construed as Applicator's acceptance of surfaces and conditions within any particular area.

Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint film.

SURFACE PREPARATION:

General: Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions and as herein specified, for each particular substrate condition.

Provide barrier coats over incompatible primers or remove and reprime as required. Notify Architect in writing of any anticipated problems in using the specified coating systems with substrates primed by others.

Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be finish-painted, or provide surface-applied protection prior to surface preparation and painting operations. Remove, if necessary, for complete painting of items and adjacent surfaces. Following completion of painting of each space or area, reinstall removed items.

Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces.

Cementitious Materials: Prepare cementitious surfaces of concrete, concrete block, cement plaster and cement-asbestos board to be painted by removing efflorescence, chalk, dust, dirt, grease, oils, and by roughening as required to remove glaze.

Determine alkalinity and moisture content of surfaces to be painted by performing appropriate tests. If surfaces are found to be sufficiently alkaline to cause blistering and burning of finish paint, correct this condition before application of paint. Do not paint over surfaces where moisture content exceeds that permitted in manufacturer's printed directions.

Wood: Clean wood surfaces to be painted of dirt, oil, or other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view, and dust off. Scrape and clean small, dry, seasoned knots any apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.

Prime, stain, or seal wood required to be job-painted immediately upon delivery to job. Prime edges, ends, faces, undersides, and backsides of such wood, including cabinets, counters, cases, paneling.

When transparent finish is required, use spar varnish for backpriming.

Backprime paneling on interior partitions only where masonry, plaster, or other wet wall construction occurs on backside.

Seal tops, bottoms, and cut-outs of unprimed wood doors with a heavy coat of varnish or equivalent sealer immediately upon delivery to job.

Ferrous Metals: Clean ferrous surfaces, which are not galvanized or shop-coated, of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.

Touch-up shop-applied prime coats wherever damaged or bare, where required by other sections of these specifications. Clean and touch-up with same type shop primer.

Galvanized Surfaces: Clean free of oil and surface contaminants with non-petroleum based solvent.

MATERIALS PREPARATION:

Mix and prepare painting materials in accordance with manufacturer's directions.

Maintain containers used in mixing and application of paint in a clean condition, free of foreign materials and residue.

Stir materials before application to produce a mixture of uniform density, and stir as required during application. Do not stir surface film into material. Remove film and, if necessary, strain material before using.

APPLICATION:

General: Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.

Paint colors, surface treatments, and finishes, are indicated in "schedules" of the contract documents.

Provide finish coats which are compatible with prime paints used.

Apply additional coats when undercoats, stains or other conditions show through final coat of paint, until paint film is of uniform finish, color and appearance. Give special attention to insure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.

Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently- fixed equipment or furniture with prime coat only before final installation of equipment.

Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint.

Paint back sides of access panels, and removable or hinged covers to match exposed surfaces.

Finish exterior doors on tops, bottoms and side edges same as exterior faces, unless otherwise indicated.

Sand lightly between each succeeding enamel or varnish coat.

Omit first coat (primer) on metal surfaces which have been shop-primed and touch-up painted, unless otherwise indicated.

Scheduling Painting: Apply first-coat material to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firms, does not deform or feel sticky under moderate thumb pressure, and application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to those items exposed to mechanical equipment rooms and in occupied spaces.

Mechanical items to be painted include, but are not limited to, the following:

Piping, pipe hangers, and supports.
Accessory items.

Electrical items to be painted include, but are not limited to, the following:

Conduit and fittings.

Prime Coats: Apply prime coat of material which is required to be painted or finished, and which has not been prime coated by others.

Recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.

Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.

Transparent (Clear) Finish: Use multiple coats to produce glass-smooth surface film of even luster. Provide a finish free of laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, or other surface imperfections.

Provide satin finish for final coats, unless otherwise indicated.

Completed Work: Match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements.

The right is reserved by the Owner to invoke any testing procedure at any time, and any number of times, to verify quality and quantity of field paint. The cost of test(s) shall be paid by owner, unless test(s) indicates sub-specified conditions. Cost will be shared for this pro-rated on the amount of sub-par paint application.

CLEAN-UP AND PROTECTION:

Clean-Up: During progress of work, remove from site discarded paint materials, rubbish, cans and rags at end of each work day.

Upon completion of painting work, clean window glass and other paint spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using car not to scratch or otherwise damage finished surfaces.

Protection: Protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct any damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.

Provide "Wet Paint" signs as required to protect newly-painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.

At completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.

INTERIOR COATING SYSTEMS:

WHEN INSTALLING NEW PAINT OVER EXISTING PAINTED SURFACES, REVISE THIS SPECIFICATION FOR COMPATABLE ALKYD OR LATEX PAINT AS EXISTING CONDITION REQUIRES.

General: Provide the following paint systems for the various substrates, as indicated.

Gypsum Drywall and Plaster Systems:

Eggshell Latex Enamel Finish: Two finished coats over 2 coats of drywall base primer. (Verify smoothness of drywall finishing prior to applying paint finishes)

NOTE: Provide semi gloss finish in the Bar and Family toilet areas.

Note: Striped finish in Foyer 1, Salon, and Toilet Alcoves that are alternating sections of eggshell and semi-gloss paint in the same color.

Primer Coat: White, interior,-latex primer. (Use dark tint base for dark colors)

PPG : 6-2 Speedhide Interior Primer Sealer.
S-W: Pro-Mar 200 Latex Wall Primer B28W2600. Zero VOC primer.
Equals by Benjamin Moore are acceptable.

Finish Coats: Interior, Eggshell, Latex enamel-based paint.

PPG: 6-500 Speedhide Interior Eggshell Enamel Paint.
S-W: B31W4651 Pro Mar 400 Eggshell Enamel paint.
Equals by Benjamin Moore are acceptable.

Ferrous Metal:

Full-Gloss Enamel Finish: 2 Finish coats over primer. Primer is not required on items delivered shop primed.

Prime Coat: Synthetic, rust-inhibiting primer.

PPG: 6-208 Speedhide Interior Rust Inhibitive Metal Primer.
S-W: Kem Kromik Metal Red Oxide Primer B50NZ6.
Equals by Benjamin Moore are acceptable.

Finish Coats: Exterior, semigloss, alkyd enamel.

PPG: 6-111OXJ Speedhide Interior Alkyd Gloss Enamel.
S-W: Pro-Mar 200 Alkyd Enamel B34W2251.
Equals by Benjamin Moore are acceptable.

Woodwork:

Semigloss Enamel Finish: 3 coats.

Undercoat: Interior latex enamel undercoat.

Primer (Bare Wood).

PPG: 17-941 NF Seal Grip Int/Ext Alkyd Universal Primer/Sealer.
S-W: Y24W890 Fast DryOil Based Primer
Equals by Benjamin Moore are acceptable.

Primer (Previously Coated Surfaces)

PPG: 6-14 Speedhide Interior Quick Dry Stain Kill Primer/Sealer.
S-W: Pro-Mar 200 Alkyd Enamel Undercoater B49W200.
Equals by Benjamin Moore are acceptable.

First and Second Coats: Interior, semigloss, oderless, latex enamel.

PPG: 6-500 Speedhide Interior Latex Semigloss Enamel.
S-W: B31 W4651 Pro Mar 400 Semi-gloss Enamel.
Equals by Benjamin Moore are acceptable.Stained Woodwork and Flooring:

Stained - Varnish Rubbed Finish: 3 Finish Coats over stain plus filler on open grain wood.

Stain Coat: Interior Oil Stain (FS TT-S-711). **If needed, stains shall be applied in different staining strengths to minimize differing grain colors. The objective is to finish the woodwork with a uniform stain color .**

Moore: 241 Moore's Interior Wood Finishes Penetrating Stain.
PPG: Olympic 44500 Interior Oil Base Wood Stain.
S-W: Interior Oil Stain A-49W801 Wood Classics 250.

First Coat: Bleached Shellac (FS TT-S-300).

Moore: Moore's Benwood Quick-Dry Sanding Sealer.
PPG: Olympic 41060 Interior Oil Based Sanding Sealer
S-W: B26V3 Wood Classics Fast Drying Sanding Sealer

Filler Coat on Open Grain Wood: Paste Wood Filler (FS TT-F-336). Wipe before first varnish coat.

Moore: Benwood Paste Wood Filler # 238.
S-W: Sher-Wood Fast-Dry Filler.

Second and Third Coats: Oil Rubbing Varnish (FS TT-V-86).

Moore: Benwood Satin Finish Varnish # 404.
PPG: Olympic 43887 Satin Interior Fast Dry Oil Varnish .
S-W: A66V390 Wood Classics Fast Dry Oil Base Varnish, Satin

END OF SECTION 09900