

# PROJECT MANUAL

## Church Of Scientology

Class V Org  
1300 East 8<sup>th</sup> Avenue  
Tampa, Florida 33605

Prepared by

**Gensler**

101 Marietta Street

Suite 3000

Atlanta, Georgia

Phone: 404.507.1000

July 30, 2010

Construction Package

Project Number 13.7042.430



**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

ARCHITECT  
**Gensler**  
101 Marietta Street NW, Suite 3000  
Atlanta, GA 30303  
404.507.1000

STRUCTURAL ENGINEER  
**M-Engineering**  
750 Brooksedge Boulevard  
Westerville, OH 43081  
614.839.4639

MECHANICAL ENGINEER  
**M-Engineering**  
750 Brooksedge Boulevard  
Westerville, OH 43081  
614.839.4639

ELECTRICAL ENGINEER  
**M-Engineering**  
750 Brooksedge Boulevard  
Westerville, OH 43081  
614.839.4639

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## TABLE OF CONTENTS

Division	Section Title	Pages
----------	---------------	-------

### PROCUREMENT AND CONTRACTING DOCUMENTS GROUP

#### DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

00 72 00	GENERAL CONDITIONS	1
00 73 00	SUPPLEMENTARY CONDITIONS FOR AIA DOC A201 CMA	7

### SPECIFICATIONS GROUP

#### *General Requirements Subgroup*

#### DIVISION 01 - GENERAL REQUIREMENTS

01 10 00	SUMMARY	3
01 14 00	WORK RESTRICTIONS	2
01 23 00	ALTERNATES	2
01 25 00	SUBSTITUTION PROCEDURES	3
01 26 00	CONTRACT MODIFICATION PROCEDURES	4
01 26 13	REQUESTS FOR INTERPRETATION (RFI'S)	3
01 29 00	PAYMENT PROCEDURES	10
01 31 00	PROJECT MANAGEMENT AND COORDINATION	2
01 32 00	CONSTRUCTION PROGRESS DOCUMENTATION	4
01 32 33	PHOTOGRAPHIC DOCUMENTATION	3
01 33 00	SUBMITTAL PROCEDURES	8
01 35 91	SPECIAL PROCEDURES FOR HISTORIC TREATMENT	6
01 40 00	QUALITY REQUIREMENTS	6
01 42 00	REFERENCES	6
01 50 00	TEMPORARY FACILITIES AND CONTROLS	4
01 60 00	PRODUCT REQUIREMENTS	5
01 73 00	EXECUTION	3
01 73 20	CUTTING AND PATCHING	4
01 77 00	CLOSEOUT PROCEDURES	6
01 78 23	OPERATION AND MAINTENANCE DATA	8
01 78 39	PROJECT RECORD DOCUMENTS	5
01 79 00	DEMONSTRATION AND TRAINING	4

***Facility Construction Subgroup***

**DIVISION 02 - EXISTING CONDITIONS**

02 41 19	SELECTIVE STRUCTURE DEMOLITION	9
----------	--------------------------------	---

**DIVISION 03 - CONCRETE**

03 30 00	CAST-IN-PLACE CONCRETE	9
03 54 13	GYPSUM CEMENT UNDERLAYMENT	4

**DIVISION 04 - MASONRY**

04 01 20	MAINTENANCE OF UNIT MASONRY	4
04 20 00	UNIT MASONRY	5

**DIVISION 05 - METALS**

05 12 00	STRUCTURAL STEEL FRAMING	6
05 50 00	METAL FABRICATIONS	5
05 75 00	DECORATIVE FORMED METAL	5

**DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES**

06 10 00	ROUGH CARPENTRY	7
06 20 23	INTERIOR FINISH CARPENTRY	10
06 40 23	INTERIOR ARCHITECTURAL WOODWORK	17
06 64 00	PLASTIC PANELING	3

**DIVISION 07 - THERMAL AND MOISTURE PROTECTION**

07 21 00	BUILDING INSULATION	5
078400	FIRESTOPPING SYSTEMS	11
07 92 00	JOINT SEALANTS	3

**DIVISION 08 - OPENINGS**

08 11 13	HOLLOW METAL DOORS AND FRAMES	5
08 12 16	ALUMINUM FRAMES	4
08 14 16	FLUSH WOOD DOORS	7
08 31 13	ACCESS DOORS AND FRAMES	3
08 33 23	OVERHEAD COILING DOORS	6
08 34 73	SOUND CONTROL DOOR ASSEMBLIES	9
08 41 13	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS	8
08 41 26	ALL-GLASS ENTRANCES AND STOREFRONTS	9
08 70 00	DOOR HARDWARE	11
08 80 00	GLAZING	10
08 81 13	DECORATIVE GLASS GLAZING	7
08 87 00	DECORATIVE GLAZING SURFACE FILM	2

**DIVISION 09 - FINISHES**

09 22 16	NON-STRUCTURAL METAL FRAMING	5
----------	------------------------------	---

09 29 00	GYPSUM BOARD	9
09 30 00	TILING	8
09 30 33	STONE TILING	8
09 51 13	ACOUSTICAL PANEL CEILINGS	5
09 51 33	ACOUSTICAL METAL PAN CEILINGS	6
09 61 23	CONCRETE FLOORING TREATMENT	2
09 64 00	WOOD FLOORING	4
09 65 19	RESILIENT FLOOR TILE	5
09 68 13	TILE CARPETING	6
09 68 16	SHEET CARPETING	7
09 77 13	STRETCHED-FABRIC WALL SYSTEMS	5
09 91 13	EXTERIOR PAINTING	9
09 91 23	INTERIOR PAINTING	12
09 93 00	STAINING AND TRANSPARENT FINISHING	11

**DIVISION 10 - SPECIALTIES**

10 11 00	VISUAL DISPLAY SURFACES	5
10 28 00	TOILET, BATH, AND LAUNDRY ACCESSORIES	5
10 44 00	FIRE-PROTECTION SPECIALTIES	3

**DIVISION 11 - EQUIPMENT**

11 31 00	PANTRY APPLIANCES	2
----------	-------------------	---

**DIVISION 12 - FURNISHINGS**

12 36 61	SIMULATED STONE COUNTERTOPS	2
----------	-----------------------------	---

*Facility Services Subgroup*

**DIVISION 21 - FIRE SUPPRESSION**

21 05 00	COMMON WORK RESULTS FOR FIRE SUPPRESSION	12
21 05 23	IDENTIFICATION FOR FIRE SUPPRESSION PIPING & EQUIPMENT	3
21 05 29	SUPPORTS AND ANCHORS FOR FIRE SUPPRESSION PIPING & EQUIPMENT	5
21 10 00	WATER-BASED FIRE-SUPPRESSION SYSTEMS	23

**DIVISION 22 - PLUMBING**

22 05 00	COMMON WORK RESULTS FOR PLUMBING	12
22 05 19	METERS AND GAGES FOR PLUMBING PIPING	3
22 05 23	IDENTIFICATION FOR PLUMBING PIPING & EQUIPMENT	3
22 05 29	HANGERS & SUPPORTS FOR PLUMBING PIPING & EQUIPMENT	5
22 07 00	PLUMBING PIPING INSULATION	6
22 07 03	PLUMBING EQUIPMENT INSULATION	5
22 11 06	PLUMBING PIPING	8
22 11 13	PLUMBING SPECIALTIES	6
22 33 00	ELECTRIC DOMESTIC WATER HEATERS	7

22 40 00	PLUMBING FIXTURES	8
----------	-------------------	---

**DIVISION 23 - HEATING VENTILATING AND AIR CONDITIONING**

23 05 00	COMMON WORK RESULTS FOR HVAC	12
23 05 19	METERS AND GAGES FOR HVAC PIPING	2
23 05 23	IDENTIFICATION FOR HVAC PIPING & EQUIPMENT	3
23 05 29	HANGERS & SUPPORTS FOR HVAC PIPING & EQUIPMENT	5
23 05 48	VIBRATION CONTROLS FOR HVAC PIPING & EQUIPMENT	4
23 05 93	TESTING, ADJUSTING, AND BALANCING	5
23 07 00	HVAC PIPING INSULATION	6
23 07 13	DUCTWORK INSULATION	4
23 09 93	SEQUENCE OF OPERATION FOR HVAC SYSTEMS	4
23 21 13	HYDRONIC PIPING	8
23 21 16	HYDRONIC SPECIALTIES	5
23 21 23	HYDRONIC PUMPS	4
23 23 00	REFRIGERATION PIPING AND SPECIALTIES	6
23 25 00	HVAC (WATER) TREATMENT	4
23 29 23	VARIABLE-FREQUENCY DRIVES (VFD)	8
23 30 00	DUCTWORK ACCESSORIES	8
23 31 13	METAL DUCTS	4
23 34 23	HVAC POWER VENTILATORS	3
23 36 00	AIR TERMINAL UNITS	8
23 37 13	DIFFUSERS, REGISTERS, GRILLES & GRAVITY VENTILATORS	5
23 41 00	PARTICULATE AIR FILTRATION	3
23 73 13	MODULAR INDOOR CENTRAL-STATION AIR-HANDLING UNITS	11
23 74 13	PACKAGED, OUTDOOR, CENTRAL-STATION AIR-HANDLING UNITS	10
23 81 26	SPLIT-SYSTEM AIR-CONDITIONERS	6
23 82 16	AIR COILS	2

**DIVISION 26 - ELECTRICAL**

26 05 00	COMMON WORK RESULTS FOR ELECTRICAL	4
26 05 19	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES	5
26 05 26	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS	5
26 05 29	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS	2
26 05 33	RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS	11
26 05 53	IDENTIFICATION FOR ELECTRICAL SYSTEMS	6
26 05 73	OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY	6
26 09 23	LIGHTING CONTROL DEVICES	7
26 24 16	PANELBOARDS	10
26 27 26	WIRING DEVICES	9
26 28 13	FUSES	4
26 41 13	LIGHTNING PROTECTION FOR STRUCTURES	3
26 51 00	INTERIOR LIGHTING	11
26 56 00	EXTERIOR LIGHTING	4



**DIVISION 28 - ELECTRONIC SAFETY AND SECURITY**

28 31 11 INTELLIGENT/ADDRESSABLE FIRE ALARM SYSTEM

14

END OF TABLE OF CONTENTS



SECTION 00 72 00 – GENERAL CONDITIONS

PART 1 - GENERAL

- 1.1 General Conditions of the Contract for Construction, Gensler Document GCi which incorporates and amends AIA Document A201, 2007 Edition, hereinafter referred to as General Conditions, are hereby made a part of this Specification.
- 1.2 The Contractor is hereby specifically directed, as a condition of the Contract, to acquaint himself with the Articles contained therein, and to notify and apprise all Subcontractors and any other parties to the Contract of, and bind them to, its conditions.
- 1.3 No contractual adjustments shall be due as a result of failure on the part of the Contractor, Subcontractors or other parties to the Contract to fully acquaint themselves with the General Conditions.
- 1.4 The General Conditions of the Contract may be amended by Supplementary Conditions.
- 1.5 The provisions of the General and Supplementary Conditions when included and Division 01, General Requirements, apply to the Work specified in each Section of the Specifications.
- 1.6 Where conflicts occur concerning the Architect's duties and responsibilities between the General Conditions and the Agreement between the Owner and Architect, the Agreement shall take precedence.
- 1.7 If not otherwise included in the Owner Contractor Agreement or specifically included in the bidding documents, the Contractor shall obtain the Owner's insurance requirements prior to submitting a bid.
- 1.8 The Church of Scientology is the owner of the property and shall be referred to as "Owner" throughout the contracts.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)  
END OF SECTION 00 72 00

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

**SECTION 00 73 00 – SUPPLEMENTARY CONDITIONS**

AIA Document A201-2007, in its entirety, shall constitute the General Conditions of the Contract for Construction (the “General Conditions”). These Supplementary Conditions of the Contract for Construction (“Supplementary Conditions”) are attached to and made a part of the Contract Documents and are intended to modify and/or supplement the General Conditions. Capitalized terms used herein but not defined herein shall have the same meanings as in the General Conditions.

**ARTICLE 1 GENERAL PROVISIONS**

1. Subparagraph 1.1.9 – Other Definitions: Add the following new Subparagraph 1.1.9 as follows:

**1.1.9 OTHER DEFINITIONS**

- .1 “As required” shall mean as required by regulatory bodies, by referenced standards, by existing conditions, by generally accepted construction practice, or by the Contract Documents.
  - .2 “By Others” refers to work that is not part of the Contract.
  - .3 “By Owner” refers to work that will be performed by Owner or Owner’s agents at Owner’s cost.
  - .4 “Equal”, “accepted equal”, and “approved equal” shall mean as accepted, in writing, by Architect as being of equivalent quality, utility, and appearance.
  - .5 “Furnish” means supply only, do not install.
  - .6 “Install” means install only, do not furnish.
  - .7 “Provide” means furnish and install.
2. Subparagraph 1.2.2: Add the following new wording to the end of Subparagraph 1.2.2:
- Documents prepared by entities other than Architect or its consultants may be included with documents prepared by Architect or its consultants for convenience in pricing, bidding, permit application, construction or other purposes. The inclusion of such documents not prepared by the Architect or its consultants within the Contract Documents shall not imply that Architect has reviewed, approved or is responsible for the accuracy or completeness of such documents.
3. Paragraph 1.5 – Ownership and Use of Drawings, Specifications and Other Instruments of Service: Add the following new subparagraph 1.5.3:

**§1.5.3** In the event of any unauthorized use, reuse, transfer or modification of the Drawings, Specifications or other documents by Contractor, any lower tier contractor or material supplier, or other person or entity under Contractor's direct or indirect employ, Contractor agrees to indemnify, defend and hold Owner, Architect, their officers, directors, shareholders, employees, agents, and consultants harmless from and against any and all claims, liabilities, suits, demands, losses, damages, costs and expenses, including, but not limited to, reasonable attorneys' fees and all legal expenses and fees incurred through appeal, and all interest thereon, accruing to or resulting from any and all persons, firms, or any other legal entities on account of any damages or losses to property or persons, including, but not limited to, injuries or death or economic losses arising out of such unauthorized use, reuse, transfer or modification, except where Architect is found to be solely liable as between the parties hereto as well as between any other persons, firms or other legal entities for such damages or losses by a court or forum of competent jurisdiction.

4. Subparagraph 1.6 – Transmission of Data in Digital Form: Add the following sentence at the end of Subparagraph 1.6:

Any electronic transfer of Drawings, Specifications or other documents (“Data”) by the Architect to the Contractor shall be subject to the terms of the Architect’s standard Data Transfer Agreement, which shall be executed by the Contractor.

### **ARTICLE 3 CONTRACTOR**

5. Subparagraph 3.2.1: Add the following new sentence to the end of Subparagraph 3.2.1:

Additionally, Contractor acknowledges and agrees that the information contained in the Contract Documents is adequate and sufficient for completion of the Work.

6. Subparagraph 3.2.4: Revise the second sentence of Subparagraph 3.2.4 to read as follows:

If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, or reasonably should have recognized any errors, inconsistencies, omissions or nonconformity and failed to do so, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations.

7. Subparagraph 3.2.5: Add the following new Subparagraph 3.2.5:

**§3.2.5** In the event of conflicts or discrepancies among the Contract Documents, the following order of precedence shall govern: (1) Amendments and revisions (such as change orders), with those of later date taking precedence over those of earlier date; (2) the Agreement; (3) the Supplementary Conditions; (4) the General Conditions; (5) Drawings and Specifications. Drawings shall govern Specifications for quantity and location, and Specifications shall govern Drawings for quality and performance. In case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or greater quantity of Work shall be provided in accordance with the Architect’s interpretation.

8. Subparagraph 3.4.2: Add the following new text to the end of Subparagraph 3.4.2:

Any requests for substitution shall be made in a timely manner and in full compliance with all Contract requirements. By making a request for substitution, Contractor: (1) represents that the Contractor has investigated the proposed substitute product and determined that it is equal to or superior in all respects to that specified; (2) represents that the Contractor will provide the same warranty for the substitution that the Contractor would for that specified; (3) certifies that the cost data presented is complete and includes all related costs under this Contract except for the Architect's redesign costs, and waives all claims for additional costs related to the substitution which subsequently become apparent; and (4) will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.

9. Subparagraph 3.7.3: Modify Subparagraph 3.7.3 as follows:

**§3.7.3** If the Contractor performs Work ~~knowing it to be~~ which Contractor knows or should know is contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

10. Subparagraph 3.9.1: Add the following new text to the end of Subparagraph 3.9.1:

The superintendent shall be approved by Owner and shall not be replaced without Owner's prior approval. The superintendent shall be familiar with the job site, the Contract Documents, and all applicable rules, regulations and requirements of all authorities having jurisdiction over the Work or the site.

11. Subparagraph 3.10.1: Add the following to the end of Subparagraph 3.10.1:

Such schedule shall be a computer generated critical path method (CPM) schedule showing at a minimum: (1) the early and late start time for each major construction activity; (2) all "critical path" activities and their duration; (3) late order dates for all long lead time materials and equipment; and (4) critical Owner decision dates.

12. Subparagraph 3.10.4: Add the following new Subparagraph 3.10.4:

**§3.10.4** Failure of Contractor to submit or keep current the construction schedule and submittals schedule as required by the conditions of the Work, shall be grounds for withholding of payments due Contractor by Owner, until such schedules are provided.

13. Subparagraph 3.12.6: Add the following text to the end of Subparagraph 3.12.6:

Incomplete, uncoordinated or incorrect Shop Drawings and other submittals shall be returned to Contractor who shall be held responsible for all time delays and extra costs of review or handling by Architect or Owner, because of such submittals being incomplete, uncoordinated or incorrect.

14. Subparagraph 3.12.7: Modify Subparagraph 3.12.7 as follows:

**3.12.7** The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been ~~approved~~ reviewed and returned by the Architect.

Subparagraph 3.12.8: Modify Subparagraph 3.12.8 as follows:

**3.12.8** The Work shall be in accordance with ~~approved~~ Architect-reviewed submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's ~~approval~~ review of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's ~~approval~~ review thereof. If more than one submittal review stamp (Architect's and one or more of its consultants' stamp) appears on a submittal, the most stringent action and notations thereon shall apply. Signature on a submittal review stamp by the Architect or a consultant does not imply that it has reviewed Work not within its professional discipline or scope of services.

Subparagraph 3.12.10: Modify the second to last sentence of Subparagraph 3.12.10 as follows:

Pursuant to this Subparagraph 3.12.10, the Architect will review, ~~approve~~ or take ~~other~~ appropriate action on submittals only for the limited purpose of checking for conformance with ~~information given and the visual and aesthetic~~ design concept expressed in the Contract Documents.

Subparagraph 3.18.1: Revise Subparagraph 3.18.1 as follows:

**§3.18.1** To the fullest extent permitted by law the Contractor shall indemnify, defend and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, liabilities, suits, demands, damages, losses, costs and expenses, including, but not limited to reasonable attorneys' fees, and all legal expenses, and fees incurred through appeal, and all interest thereon, arising out of or resulting from the performance of the Work, provided that such claim, damage, loss or expenses is attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Paragraph 3.18.

Paragraph 3.19: Add the following new Paragraph 3.19:

§3.19 DESIGN/BUILD

**§3.19.1** If Contractor provides and/or retains its subcontractors or others to provide Design/Build Work for specified portions of the Project, Contractor shall be responsible directly to Owner for those portions



of the Project, including but not limited to: (1) preparing engineering and other drawings and specifications for all components of the Design/Build portion(s) of the Work, (2) complying with Project requirements and space limitations, (3) coordinating and interfacing with other trades and consultants, and (4) obtaining approvals from authorities having jurisdiction over the Project. Contractor, its subcontractor(s) or their design professional(s) shall be the Professional(s) of Record for their portion(s) of the Design/Build Work.

**§3.19.2** Architect shall have no responsibility for the design, installation or performance of Design/Build portions of the Project including but not limited to reviewing such designs and/or Work and/or certifying the payment applications for the same. Architect's services in connection with any Design/Build work shall be limited to checking such designs for general conformance to major space limitations and the visual and aesthetic design concept as expressed in the Contract Documents. Such checking by Architect of more than two proposals for the same Design/Build portion of the Project shall be compensated as Additional Services.

**§3.19.3** When the Contract Documents or authorities having jurisdiction over the Project require certificates or statements of performance characteristics of materials, systems or equipment, or professional seals, calculations, or other certificates or statements regarding such Design/Build portions of the Project, Owner will require Contractor to provide them, and Owner and Architect will be entitled to rely on them to establish that the designs, materials, systems, equipment and such Work will meet the performance criteria required by the Contract Documents.

#### ARTICLE 4

#### ARCHITECT

Subparagraph 4.2.2: In the first sentence of this Subparagraph 4.2.2, replace the words "appropriate to the stage of the construction, or as otherwise agreed with the Owner" with the words "necessary in the judgment of Architect or as otherwise agreed by Owner and Architect in writing".

Subparagraph 4.2.3: Add the following text to the end of Subparagraph 4.2.3:

Architect's duties shall not extend to the receipt, inspection and acceptance on behalf of Owner or Contractor of materials, furniture, furnishings and equipment at the time of their delivery to the premises or installation. Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of Architect in Architect's administration of the Contract for Construction, or by tests, inspections or approvals required or performed by persons other than Contractor. If Architect recommends procedures, either directly or by reference to standards or manufacturers' recommendations, Contractor shall adopt such recommendations as its own, or inform Architect if exception is taken to such procedures, and may utilize or propose alternative procedures that Contractor will warrant as fulfilling the intent of the Contract Documents.

Subparagraph 4.2.4: Add the following text to the end of Subparagraph 4.2.4:

Should any direct communications become necessary, copies of the communications shall be promptly forwarded to the proper party or parties as set forth in this Subparagraph 4.2.4.

Subparagraph 4.2.5: Modify Subparagraph 4.2.5 as follows:

~~4.2.5~~Based on Architect's on-site evaluations and the data comprising ~~of the Contractor's Applications~~ for Payment, the Architect will review and certify, to the best of its knowledge, information and belief, the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the ~~amounts due the~~ Contractor is entitled to payment of the amount certified and will issue Certificates for Payment in such amounts.

Subparagraph 4.2.7: Modify the first sentence of Subparagraph 4.2.7 as follows:

Architect will review and ~~approve or take other~~ appropriate action upon, the Contractor's submittals required by the Contract Documents, such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the visual and aesthetic design concept expressed in the Contract Documents.

## ARTICLE 8

## TIME

Subparagraph 8.3.1: Starting on the fourth line of Subparagraph 8.3.1, delete the words, "pending mediation and arbitration; or by other causes which the Architect determines may justify delay" and add the following text at the end of Subparagraph 8.3.1: "A time extension shall be Contractor's sole remedy and there shall be no compensation for any such delays other than those resulting from the active interference of Architect, Owner or their employees or agents."

## ARTICLE 9

## PAYMENTS AND COMPLETION

Subparagraph 9.4.2: Add the following text to the end of Subparagraph 9.4.2:

Further, Architect shall not be obligated to issue any Certificate for Payment covering work by Design/Build contractors or subcontractors, work by Owner's separate contractors, or other work for which Architect is not providing full services.

Subparagraph 9.5.1.8: Add the following new Subparagraph 9.5.1.8:

**.8** rejection or non-acceptance of Work by any governmental agency having jurisdiction.

Subparagraph 9.6.4: Add the following text to the end of Subparagraph 9.6.4:

At the Owner's sole discretion, payments may be made by check jointly payable to Contractor, its Subcontractor or supplier, and any applicable labor union trust fund.

Subparagraph 9.8.1: Modify this Subparagraph 9.8.1 as follows:

Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents and all required final inspections and permits have been obtained so that the Owner can occupy or utilize the Work for its intended use, subject only to completion of minor items (punch list).

Subparagraph 9.8.3: Add the following text to the end of Subparagraph 9.8.3:

If upon this subsequent inspection, Contractor has not yet completed the Work, and further field reviews by Architect are required, Contractor shall be responsible to Owner for any additional cost to Owner of further reviews by Architect.

Subparagraph 9.8.4: Add the following text to the end of Subparagraph 9.8.4:

In the absence of such certificate, the date of Substantial Completion shall be in accordance with Subparagraph 9.8.1.

Subparagraph 9.9.3: Add the following text to the end of Subparagraph 9.9.3:

, nor shall it start the guarantee or warranty period.

## ARTICLE 11 INSURANCE AND BONDS

Subparagraph 11.1.5: Add the following new Subparagraph 11.1.5:

**§11.1.5** If Contractor fails to secure and maintain the required insurance, Owner shall have the right (but not the obligation) to secure same in the name and for the account of Contractor, in which event Contractor shall pay the cost thereof and shall furnish upon demand all information that may be required in connection therewith.

Subparagraph 11.3.1.4: Add the following text to the end of this Subparagraph 11.3.1.4:

It shall not, however, cover Contractor's equipment, machinery or tools.

Subparagraph 11.3.3: Add the following text to the end of Subparagraph 11.3.3:

, to the extent Owner's insurance covers such losses.

## ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

Subparagraph 12.1.1: Modify Subparagraph 12.1.1 as follows:

**§12.1.1** If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, or to requirements of any public authority having jurisdiction over the Work, it must, if required in writing by the Architect or Owner, be uncovered for the Architect's or Owner's or public authority's examination and be replaced at the Contractor's expense and without change in the Contract Time.

END OF SECTION 00 73 00

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 01 10 00 – SUMMARY

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section addresses:
  - 1. Work covered by Contract Documents.
  - 2. Special insurance.
  - 3. Codes and Standards.
  - 4. Work by others under other contracts.
  - 5. Owner furnished products.
- B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to all Sections. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all.
- C. Conflicts or discrepancies among the Contract Documents shall be resolved in the following order of priority:
  - 1. Amendments and revisions (such as Change Orders) of later date take precedence over those of earlier date;
  - 2. the Agreement;
  - 3. the Supplementary Conditions;
  - 4. The General Conditions;
  - 5. Drawings and Specifications; Drawings govern Specifications for quantity and location. Specifications govern Drawings for quality and performance. In the event of ambiguity or conflicts, the greater quantity and the better quality shall govern.

#### 1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The complete construction of tenant improvements for The Church of Scientology.
  - 1. Project Location: 1300 East 8<sup>th</sup> Avenue, Tampa, FL 33605.
  - 2. Owner: Laurence Guenat-Stumbke, Scientology Ideal Organizations, 1710 Ivar Avenue, Los Angeles CA 90028.
- B. Contractor: This is an open Bid.
- C. Project Manager: Steve Ball of CB Richard Ellis has been engaged as Project Manager for this Project to serve as an advisor to Owner and to provide assistance in administering the Contract for Construction between Owner and each Contractor, according to a separate contract between Owner and Construction Manager.

1.3 SPECIAL INSURANCE

- A. Contractor's Commercial General Liability insurance shall contain no exclusion that would deny coverage for any claim arising out of or contributed to by any fungus, mildew, mold, or resulting allergens. If such exclusion exists and cannot be removed by endorsement, Contractor shall submit proof of coverage for fungus, mildew, mold, or resulting allergens under a Pollution Legal Liability or Contractor's Pollution Liability policy.

1.4 CODES AND STANDARDS

- A. All references to codes, specifications and standards referred to in the Contract Documents shall mean, and are intended to be, the latest edition, amendment or revision of such reference standard in effect as of the date of these Contract Documents.

1.5 WORK UNDER OTHER CONTRACTS

- A. Separate Contract: Owner will award separate contracts for performance of certain construction operations at Project site. Those operations will be conducted simultaneously with work under this Contract. These contracts will include the following:
  - 1. Audio Visual: A separate contract will be awarded for the design, fabrication, and installation of audio and video systems. Contractor TBD.
  - 2. Security systems (Contractor to furnish and install empty conduits with a junction box where indicated on the Contract Documents).
  - 3. Telephone system (Contractor to furnish and install empty conduits with a junction box where indicated on the Contract Documents).
- B. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, and without interfering with or delaying work under this Contract.
- C. Refer to the "Responsibility Matrix" Sheet A00.11 of the construction drawings for defined responsibilities and role of Owner, Contractor and owner's Vendors.

1.6 OWNER-FURNISHED PRODUCTS

- A. Owner will furnish all items indicated as "Furnished by Owner" in the Project Documents' Responsibility Matrix. The Work includes providing support systems to receive Owner's equipment and making plumbing, mechanical, and electrical connections.
  - 1. Owner will arrange for and deliver Shop Drawings, Product Data, and Samples to Contractor.
  - 2. Owner will arrange and pay for delivery of Owner-furnished items according to Contractor's Construction Schedule.
  - 3. After delivery, Owner will inspect delivered items for damage. Contractor shall be present for and assist in Owner's inspection.
  - 4. If Owner-furnished items are damaged, defective, or missing, Owner will arrange for replacement.

5. Owner will arrange for manufacturer's field services and for delivery of manufacturer's warranties to Contractor.
6. Owner will furnish Contractor the earliest possible delivery date for Owner-furnished products. Using Owner-furnished earliest possible delivery dates, Contractor shall designate delivery dates of Owner-furnished items in Contractor's Construction Schedule.
7. Contractor shall review Shop Drawings, Product Data, and Samples and return them noting discrepancies or anticipated problems in use of product. Examples of discrepancies or problems include, but are not limited to, coordination issues.
8. Contractor is responsible for receiving, unloading, and handling Owner-furnished items at Project site.
9. Contractor is responsible for protecting Owner-furnished items from damage during storage and handling, including damage from exposure to the elements.
10. If Owner-furnished items are damaged as a result of Contractor's operations, Contractor shall repair or replace them.

#### 1.7 PERMITS

- A. Contractor shall secure and pay for all permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required.
- B. If required by governmental authority, Owner will make application for permits and licenses using forms obtained and prepared by the Contractor and with all costs paid by the Contractor.

#### 1.8 TAXES

- A. Contractor shall pay all sales, consumer, use and other similar taxes for the Work or portions thereof provided by the Contractor, that are legally enacted at the time Bids are received, whether or not yet effective.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 10 00  
01100/9-98/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 01 14 00 - WORK RESTRICTIONS

### PART 1 - GENERAL

#### 1.1 USE OF PREMISES

- A. Access: At all times, provide the Architect and the Owner's representatives, easy and safe access to the Work wherever it is in preparation and progress. Provide such access so Architect may perform its functions.
- B. Use of Site: Confine operations at the site to areas permitted by law, ordinances, permits, and the Contract Documents and do not unreasonably encumber the Site with any materials or equipment.
- C. Owner's Rules: Conform at all times to the Owner's requirements for protection of plant, materials, equipment, and noise levels.
- D. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
  - 1. Schedule deliveries to minimize use of driveways and entrances.
  - 2. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

#### 1.2 OCCUPANCY REQUIREMENTS DURING CONSTRUCTION

- A. Full Owner Occupancy: Owner will occupy the site during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations.
  - 1. Schedule use of premises for Work and coordinate construction operations with the Owner to allow for Tenant occupancy.
  - 2. Schedule use of premises for Work and coordinate construction operations with the Owner to allow for use of site and premises by the public.
  - 3. Perform the Work during normal business hours only upon approval of the Owner.
  - 4. Perform demolition work after business hours or at such times as approved by Owner. Demolition work includes, but is not limited to, hammering, nailing, and similar work, which may cause noise, dust, or odors, thereby disturbing occupants.
  - 5. Keep premises orderly, clean and with a minimum of obstruction and inconvenience to the tenants and the public.
  - 6. Limit use of site to areas designated unless otherwise allowed by Owner in writing.
  - 7. Relocate any stored products that interfere with public access, operations of the Owner or separate contractor. If necessary, obtain and pay for additional storage or work areas needed for operations.

1.3 OCCUPANCY REQUIREMENTS PRIOR TO SUBSTANTIAL COMPLETION

- A. Partial Owner Occupancy: Owner reserves the right to occupy and to place and install equipment in completed areas of the site, before Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and partial occupancy shall not constitute acceptance of incomplete portions of the Work, nor shall it relieve the Contractor of its responsibility for completion of the Work in accordance with the Contract Documents.
1. Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied before Owner occupancy.
  2. Obtain a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy.
  3. Before partial Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will provide, operate, and maintain mechanical and electrical systems serving occupied portions of the site.
  4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of the site.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 14 00  
01140/9-98/ttt

## SECTION 01 23 00 – ALTERNATES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

#### 1.2 DEFINITIONS

- A. Alternate: An amount proposed for certain work that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

#### 1.3 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project. Amount of alternate prices shall include cost of coordination, cost of overhead and profit, and cost of modifications or adjustments to adjacent work due to integration of alternate.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A Schedule of Alternates is included in Part 3 below. Specification Sections contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1:

Inspect, patch and repair all roofing and associated components. Roofing repairs as needed to gain a watertight system with a workmanship and material labor installed warranty for one year after substantial completion.

B. Alternate No. 2:

Alternate 2a: Contractor to provide line item unit pricing for millwork and millwork installation in order for the Owner to determine scope of Contractor's work.

Alternate 2b: The Contractor to provide pricing for installation only of millwork provided by Owner.

C. Alternate No. 3:

Provide the following exterior maintenance and repairs. Coordinate with all applicable authorities having jurisdiction. Perform work under a separate permit.

1. At portico at west end of Stemmary building, remove vegetation growing out of masonry and repair masonry and mortar as required.
2. At portico at west end of Stemmary building, patch and repair damaged stucco to match existing.
3. At gate at northwest corner of Stemmary building, repair damaged masonry pier.
4. Paint all exterior guardrails and handrails to match existing.
5. Paint all exterior, free-standing metal canopies to match existing.
6. At both buildings, inspect wood windows and wood infill surrounding windows. Paint as required to match existing.

END OF SECTION 01 23 00  
01230/9-98/ttt

## SECTION 01 25 00 - SUBSTITUTION PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.

#### 1.2 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

#### 1.3 SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use facsimile of form provided in the Project Manual.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
    - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Samples, where applicable or requested.
    - f. Certificates and qualification data, where applicable or requested.
    - g. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and Owners.
    - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
    - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES and local regulations.
    - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall

Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.

- k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

#### 1.4 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

### PART 2 - PRODUCTS

#### 2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
  - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied:
    - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
    - b. Requested substitution will not adversely affect Contractor's construction schedule.
    - c. Requested substitution has received necessary approvals of authorities having jurisdiction.
    - d. Requested substitution is compatible with other portions of the Work.
    - e. Requested substitution has been coordinated with other portions of the Work.
    - f. Requested substitution provides specified warranty.

- g. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Not allowed.

### PART 3 - EXECUTION

#### SUBSTITUTION REQUEST FORM FOLLOWS

END OF SECTION 01 25 00  
012500/11-07/pbb

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa – Class V Org



## SECTION 01 26 00 – CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.

#### 1.2 MINOR CHANGES IN THE WORK

- A. Architect may issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on form included at end of Part 3.

#### 1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Proposal Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
  - 2. Within 5 days unless otherwise provided in the General Conditions after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - b. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Proposals (Change Order Requests): If latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change.
  - 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
  - 2. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  - 3. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times,

and activity relationship. Use available total float before requesting an extension of the Contract Time.

4. Comply with requirements in Division 01 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

- C. Proposal Request Form: Use Gensler "Bulletin," selecting, Architect's Request for Contractor's Proposal."

#### 1.4 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on Gensler "Change Order" form included at end of Part 3.

#### PART 2 - PRODUCTS (Not Used)

#### PART 3 - EXECUTION (Not Used)

END OF SECTION 01 26 00  
01250/9-98/ttt

Bulletin Number

Gensler

<b>Project</b>		<b>Date</b>	
<b>Project Location</b>		<b>Architect's Project Number</b>	
<b>Owner/Client</b>		<b>File</b>	<b>This is page</b>
		6BL	1 of
<b>To</b>		<b>Attention</b>	
<b>Address</b>			
<b>City</b>		<b>State</b>	<b>Zip Code</b>
<b>Delivered via:</b>			
<input type="checkbox"/> Messenger <input type="checkbox"/> Hand carried <input type="checkbox"/> Facsimile			
<input type="checkbox"/> Express <input type="checkbox"/> Pick-up <input type="checkbox"/> E-mail Address			
<input type="checkbox"/> Mail <input type="checkbox"/> UPS <input type="checkbox"/> Website Address			
<b>This Bulletin Conveys to Contractor</b> (Check one of the following five choices.):			
<input type="checkbox"/> <b>Architect's Authorization for Minor Changes</b> Architect recommends modifications to the Work as described below.			
<input type="checkbox"/> <b>Architect's Clarification / Supplemental Instructions</b> (Use this Bulletin form in place of <i>Architect's Supplemental Instructions</i> form.) Contractor shall carry out the Work in accordance with the following supplemental instructions.			
<input type="checkbox"/> <b>Architect's Confirmation of a Field Order</b> (Use this Bulletin form in place of a <i>Field Order</i> form.) This confirms Architect's verbal instructions to (individual's name) _____ on (date) _____, as described below. Note: The above three choices are each subject to the following terms: The change(s), clarification(s) and/or confirmation(s) described below is/are issued in accordance with the Contract Documents, without change in Contract Sum and/or Time.			
<input type="checkbox"/> <b>Architect's Request for Contractor's Proposal</b> (Use this Bulletin form in place of an <i>Estimate Request</i> form.) Please submit an itemized proposal for changes in the Contract Sum and/or Time for proposed modifications to the Contract Documents described herein. Submit proposal within _____ days or notify the Architect in writing of the date on which you anticipate submitting your proposal. This is not a Change Order or a Construction Change Directive or a direction to proceed with the Work described in the proposed modifications.			
<input type="checkbox"/> <b>Other:</b> _____ As described below.			
<b>Attachments</b>			
<b>Requested by</b>			
<input type="checkbox"/> Architect <input type="checkbox"/> Owner <input type="checkbox"/> Contractor <input type="checkbox"/> Other (specify): _____			
<b>Issued by Gensler by</b>		<b>Date Signed</b>	
<b>Issued by Owner by</b>		<b>Date Signed</b>	
<input type="checkbox"/> Required; Please return signed copy to Gensler		<input type="checkbox"/> Not Required	
<b>Accepted by Contractor by</b>		<b>Date Signed</b>	
<input type="checkbox"/> Required; Please return signed copy to Gensler		<input type="checkbox"/> Not Required	
<b>Distribution</b>			
<b>Prepared by Gensler by</b>		<b>Date Signed</b>	
<b>Instructions / Description / References / Dates</b>			

Begin text here . . .

c:\work\forms\specs\bl\_bulletin.dot

BL\_080703

Change Order Number

**Gensler**

<b>Project</b>		<b>Date</b>	
<b>Project Location</b>		<b>Project Number</b>	
<b>Owner/Client</b>		<b>File</b>	<b>This is page</b>
		6CO	1 of
<b>Contractor</b>		<b>Contractor's Request / Quotation Number / Date</b>	
<b>Change to Contract Sum:</b>		<b>Change to Contract Time:</b>	
\$			
<b>Original Contract Amount:</b>		<b>Revised Contract Amount:</b>	
\$		\$	
<input type="checkbox"/> <b>See Change Order Summary for Revised Total Contract Amount and Time</b>			
<b>Reason for Change</b>		<b>Requested by</b>	
<b>Recommended for Approval by Gensler: by</b>		<b>By</b>	<b>Date Signed</b>
<b>Approved for Owner/Client</b>		<b>By</b>	<b>Date Signed</b>
<b>Approved for Contractor</b>		<b>By</b>	<b>Date Signed</b>
<b>Approved for Tenant (If applicable)</b>		<b>By</b>	<b>Date Signed</b>
The above Change Order to the contract shall be effective upon signature by all applicable parties, in accordance with the Conditions of the Contract. The Contract Amount refers to the Contract Sum or guaranteed Maximum Cost in the Contract.			
<b>Distribution</b>			
<b>Description / References / Costs / Dates</b>			

Begin text here . . .

SECTION 01 26 13 – REQUESTS FOR INTERPRETATION (RFI'S)

PART 1 - GENERAL

1.1 REQUEST(S) FOR INTERPRETATION (RFI'S)

- A. General: A Request for Interpretation (RFI) is a Contractor initiated, Architect formatted, written instrument related to the execution of the Work that is addressed to the Architect. The RFI shall be used by the Contractor as the means to ask questions related to the Work; subject to the conditions contained within this article.
1. An RFI which fails to conform to the requirements stated herein, (for example, is incomplete or contains numerous errors) shall be returned to the Contractor for its completion/rectification without benefit of the Architect's response, in addition, no adjustments for Contract Time or Contract Sum shall be granted for an RFI failing to conform to the requirements stated herein.
  2. The Owner reserves the right to assess the Contractor for the cost (based on time and materials) of an RFI response performed by the Architect, and any of its consultants, which is deemed by the Owner and the Architect as being frivolous or unnecessary (for example, the subject of the RFI is addressed in the Contract Documents). Such RFI's shall be removed from the RFI log.
  3. Each RFI shall be submitted with such promptness as to cause no delay in the Contractor's own work and in that of any subcontractor. No adjustments of Contract Time or Contract Sum will be granted because of failure to have an RFI submitted with sufficient time to allow for the orderly processing of a response by the Architect.
- B. Authorship:
1. Prior to the commencement of the RFI process, the Contractor shall designate a full time "RFI Manager" whose duties shall include the responsibility for enforcing the Request for Interpretation provisions of this article, to maintain an up-to-date log of all RFI's, advise the Architect, in writing, of the status and disposition of all RFI's at the progress meetings, and be a member of the Contractor's staff. The RFI Manager shall be experienced in administration and supervision of building construction of the type indicated on the contract documents including mechanical and electrical work.
  2. Each RFI shall originate solely from the Contractor's RFI Manager. An RFI submitted to the Architect by an entity, or individual, other than the RFI Manager shall be returned to the Contractor.
- C. Prohibitions: RFI's shall not be used for the following:
1. To solicit consideration by the Architect of a "substitution."
  2. To request an adjustment of the Contract time. If the Contractor believes that the response received from the Architect to any RFI warrants adjustment to the Contract time it shall immediately advise the Architect, in writing, upon receipt of the Architect's response.
  3. To request an adjustment of the Contract sum. If the Contractor believes that the response received from the Architect to any RFI warrants adjustment of the Contract sum it shall immediately advise the Architect, in writing, upon receipt of the Architect's response.

4. To solicit comment clarification(s) of any required submittal or shop drawing review that was transmitted by the Architect to the Contractor.
5. RFI's shall not be used to transfer coordination responsibility from the Contractor to the Owner or the Architect.

D. Procedure:

1. The Contractor shall submit all RFI's on the form supplied by the Architect.
2. Each blank on the RFI form shall be filled in.
3. Each RFI shall be typewritten and shall be forwarded to the Architect in triplicate. Each RFI shall address one subject.
4. Each RFI shall contain specific reference to the drawing number(s), detail number(s), schedule type(s), bulletin number(s), specification section(s) and paragraph number(s), or other related document(s) which is (are) pertinent to the Contractor's question. The date of each referenced drawing number, bulletin, specification section or other related document shall be identified. In preparing each RFI verify the applicable dimension(s), field conditions, drawing requirements (small through large scale details), and/or specification section requirements pertaining thereto. Prior to submission of the RFI coordinate the nature of the inquiry with the requirements of other sections or trades as related thereto and responses to previous RFI's. Where supplementary sketches are required to clarify an inquiry the Contractor shall attach supplementary sketches, at large scale, illustrative of the inquiry. Sketches shall include sufficient detail, materials, dimensions, thicknesses, assembly, attachments, relation to adjoining work, structural grid references, and all other pertinent data and information for the Architect to make an informed response.
  - a. The Contractor is encouraged to suggest solution(s) to its inquiries, if applicable. Should the Contractor's solution(s) have an impact on Contract Sum or Contract time it shall be so stated within the RFI.
5. Each RFI shall be dated and sequentially numbered.
6. Each RFI shall be reviewed, and signed, by the RFI Manager prior to transmitting to the Architect.
7. Duration of RFI Response Upon Receipt: 5 business days.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 26 13  
01100/9-98/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

REQUEST FOR INTERPRETATION

DATE: \_\_\_\_\_ RFI No.: \_\_\_\_\_

TO: Gensler  
101 Marietta Street NW  
Atlanta, GA 30303

RE: Church of Scientology, Class V Org, Tampa Project No.: 13.7042.430

FROM: \_\_\_\_\_ Project No.: \_\_\_\_\_  
(Contractor) (Contractor Project Number)

\_\_\_\_\_  
(Address) Subcontractor: \_\_\_\_\_

\_\_\_\_\_  
Subcontractor RFI No.: \_\_\_\_\_

\_\_\_\_\_  
Date Received by Contractor: \_\_\_\_\_

---

DESCRIPTION

Subject: \_\_\_\_\_

Drawing and Detail No./Date: \_\_\_\_\_

Schedule Title: \_\_\_\_\_

Contract Change: \_\_\_\_\_ Specification No./Date: \_\_\_\_\_

Bulletin No. Date: \_\_\_\_\_ Paragraph No.: \_\_\_\_\_

Other/Date: \_\_\_\_\_ Enclosures: \_\_\_\_\_

Description of Problem or Requested Information and Proposed Solution (if any):

By: \_\_\_\_\_ Response Requested By: \_\_\_\_\_  
(RFI Manager)

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 01 29 00 – PAYMENT PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

#### 1.2 DEFINITIONS

- A. (Field) Review: Architect's visits to the site at intervals necessary in the judgment of Architect to become generally familiar with the progress and quality of the Work completed and to determine in general if the Work completed is in accordance with the Contract Documents. Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work.

#### 1.3 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.
  - 1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
    - a. Application for Payment forms with Continuation Sheets.
    - b. Submittals Schedule.
    - c. Contractor's Construction Schedule.
  - 2. Submit the Schedule of Values at earliest possible date but before the date scheduled for submittal of initial Applications for Payment.
  - 3. Subschedules: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.
- B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
  - 1. Identification: Include the following Project identification on the Schedule of Values:
    - a. Project name and location.
    - b. Name of Architect.
    - c. Architect's project number.
    - d. Contractor's name and address.
    - e. Date of submittal.
  - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:

- a. Related Specification Section or Division.
  - b. Description of the Work.
  - c. Name of subcontractor.
  - d. Name of manufacturer or fabricator.
  - e. Name of supplier.
  - f. Change Orders (numbers) that affect value.
  - g. Dollar value.
- 1) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.
    - a. Break down principal subcontract amounts into separate labor and materials items. Breakdown of subcontractor's schedule of values must be true and accurate.
  4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
  5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
    - a. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing if required.
  6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
  7. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
    - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.
  8. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders result in a change in the Contract Sum.

#### 1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified and paid for by Owner.
  1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Review:

1. Prior to the 25<sup>th</sup> day of each month, furnish the Architect with a draft (pencil) copy of the Application for Payment.
  2. On the 25<sup>th</sup> day of each month, the Owner, the Architect and the Contractor shall meet to review the draft (pencil) copy of the application and Certificate for payment. Questions resulting from this review shall be answered by the Contractor and clarified prior to receipt of the final copy of the Application and Certificate for Payment that is to be submitted to the Architect on the 1<sup>st</sup> day of the following month.
  3. Upon receipt of the final Application and Certificate for Payment and other documentation as required by the Architect including the updated Schedule of Values and the updated Construction Schedule, the Architect shall review the documents received to determine if they correspond to the agreements reached during the draft (pencil) copy review. Upon completion of the Architect's review, the Architect shall revise and execute the Applications and Certificate for Payment to correspond to the agreements reached and forward the executed copies to the Owner.
  4. In taking action on the contractor's Application and Certificate for Payment, the Architect will rely on the accuracy and completeness of the information furnished by the contractor and will not be deemed to represent that he has made audits of the supporting data.
  5. Payment will not be made for materials and equipment stored off the site, except at the Owner's discretion and prior approval. When the Application and Certificate for Payment includes material or equipment stored off-site, the Application shall be accompanied by a statement certifying:
    - a. Description of the item(s) being stored.
    - b. Location of the bonded warehouse(s) where materials or equipment is being stored.
    - c. Affidavit of Storage.
    - d. Certificate of Insurance.
    - e. Bill of sale made to Owner stating there will be no additional cost for transportation and delivery of the item(s) being stored.
    - f. Statement certifying that item or any part thereof will not be installed in any construction other than work under this Contract.
- C. Payment Application Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment.
- D. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Incomplete applications will be returned without action.
1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.
  2. Include amounts of Change Orders issued before last day of construction period covered by application.
- E. Transmittal: Submit 3 signed and notarized original copies of each Application for Payment by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

- F. Waivers of Mechanic's Lien: With each Application for Payment, submit notarized waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
1. Submit partial waivers on each item for amount requested, before deduction for retainage, on each item.
  2. When an application shows completion of an item, submit final or full waivers.
  3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
  4. Waiver Delays: Submit each Application for Payment with Contractor's waiver of mechanic's lien for construction period covered by the application.
    - a. Submit final Application for Payment with or proceeded by final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
  5. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors, principal suppliers and fabricators.
  2. Schedule of Values.
  3. Contractor's Construction Schedule (preliminary if not final).
  4. Products list.
  5. Submittals Schedule (preliminary if not final).
  6. List of Contractor's staff assignments.
  7. List of Contractor's principal consultants.
  8. Copies of building permits.
  9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
  10. Report of preconstruction conference.
  11. Certificates of insurance and insurance policies.
  12. Data needed to acquire Owner's insurance coverage(s).
  13. Performance and payment bonds.
  14. Data needed to acquire Owner's insurance.
- H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
  2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- I. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements, including, but not limited to:
  - a. Transmittal of required Project Record Documents to Owner.
  - b. Evidence of completion of demonstration and training.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims" and AIA Document G706A, "Contractor's Affidavit of Release of Liens."
5. AIA Document G707, "Consent of Surety to Final Payment."
6. Evidence that claims have been settled.
7. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
8. Final, liquidated damages settlement statement.
9. Occupancy permits and similar approvals or certifications by governing authorities and franchised services, assuring Owner's full access and use of completed work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 29 00  
01290/9-98/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## Application and Certificate for Payment

TO OWNER: PROJECT: Church of Scientology Class V Org APPLICATION NO: 002 DISTRIBUTION TO:

1300 East 8th Avenue OWNER: ARCHITECT: CONTRACTOR: FIELD:

Tampa, Florida 33605

VIA ARCHITECT: PERIOD TO: General Construction CONTRACT FOR: CONTRACT DATE: PROJECT NOS: 13.704 /

FROM CONTRACTOR:

### CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM.....\$0.00
2. NET CHANGE BY CHANGE ORDERS.....\$0.00
3. CONTRACT SUM TO DATE (Line 1 + 2).....\$0.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703).....\$0.00
5. RETAINAGE:

- a. 0 % of Completed Work (Column D + E on G703): \$0.00 = \$0.00
- b. 0 % of Stored Material (Column F on G703): \$0.00 = \$0.00

Total Retainage (Lines 5a + 5b or Total in Column I of G703).....\$0.00

6. TOTAL EARNED LESS RETAINAGE.....\$0.00

(Line 4 Less Line 5 Total)

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT.....\$0.00

(Line 6 from prior Certificate)

8. CURRENT PAYMENT DUE.....\$0.00

9. BALANCE TO FINISH, INCLUDING RETAINAGE

(Line 3 less Line 6)

\$0.00

AMOUNT CERTIFIED.....\$0.00

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$0.00	\$0.00
Total approved this Month	\$0.00	\$0.00
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order		\$0.00

AIA Document G702™ - 1992. Copyright © 1953, 1963, 1965, 1971, 1978, 1983 and 1992 by The American Institute of Architects. All rights reserved. WARNING: This AIA® Document is protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIA® Document, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law. This draft was produced by AIA software at 04:06:29 on 07/27/2010 under Order No. 8083814461\_1 which expires on 11/08/2010, and is not for resale.

User Notes:





AIA Document, G702<sup>TM</sup>-1992, Application and Certification for Payment, or G736<sup>TM</sup>-2009, Project Application and Project Certificate for Payment, Construction Manager as Adviser Edition, containing Contractor's signed certification is attached.

In tabulations below, amounts are in US dollars.

Use Column I on Contracts where variable retainage for line items may apply.

[illegible]

AIAA Document G703-1992. Copyright © 1992. Copyright © 1992 by The American Institute of Architects. All rights reserved. WARNING: This AIAA Document is  
 protected by U.S. Copyright Law and International Treaties. Unauthorized reproduction or distribution of this AIAA Document, or any portion of it, may result in severe civil and  
 criminal penalties, and will be prosecuted to the maximum extent possible under the law. This draft was produced by AIA software at 04:22:12 on 07/27/2010 under Order No. 8003814461.1  
 which expires on 11/08/2010, and is not for resale.

**User Notes:**

{1634692695}



DRAFT

# AIA Document G706™ - 1994

## Contractor's Affidavit of Payment of Debts and Claims

PROJECT: (Name and address)  
Church of Scientology Class V Org  
1300 East 8th Avenue  
Tampa, Florida 33605  
TO OWNER: (Name and address)

ARCHITECT'S PROJECT NUMBER:  
13.7042.430  
CONTRACT FOR: General Construction  
CONTRACT DATED:

OWNER: ☐  
ARCHITECT: ☐  
CONTRACTOR: ☐  
SURETY: ☐  
OTHER: ☐

STATE OF:  
COUNTY OF:

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

### EXCEPTIONS:

### SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose  
Indicate Attachment ☐ Yes ☒ No

The following supporting documents should be attached hereto if required by the Owner:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
3. Contractor's Affidavit of Release of Liens (AIA Document G706A).

CONTRACTOR: (Name and address)

BY:

(Signature of authorized representative)

(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:  
My Commission Expires:



DRAFT

# AIA Document G706A™ - 1994

## Contractor's Affidavit of Release of Liens

PROJECT: *(Name and address)*

Church of Scientology Class V Org  
1300 East 8th Avenue  
Tampa, Florida 33605

TO OWNER: *(Name and address)*

ARCHITECT'S PROJECT

NUMBER:

13.7042.430

CONTRACT FOR: General  
Construction

CONTRACT DATED:

OWNER: ☐

ARCHITECT: ☐

CONTRACTOR: ☐

SURETY: ☐

OTHER: ☐

STATE OF:

COUNTY OF:

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR: *(Name and address)*

BY:

*(Signature of authorized  
representative)*

*(Printed name and title)*

Subscribed and sworn to before me on this date:

Notary Public:

My Commission Expires:



DRAFT

# AIA Document G707™ - 1994

## Consent Of Surety to Final Payment

PROJECT: (Name and address)  
Church of Scientology Class V Org  
1300 East 8th Avenue  
Tampa, Florida 33605

ARCHITECT'S PROJECT NUMBER: 13.7042.430

CONTRACT FOR: General Construction

TO OWNER: (Name and address)

CONTRACT DATED:

OWNER: ☐

ARCHITECT: ☐

CONTRACTOR: ☐

SURETY: ☐

OTHER: ☐

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the  
(Insert name and address of Surety)

on bond of  
(Insert name and address of Contractor)

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the  
Surety of any of its obligations to  
(Insert name and address of Owner)

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:  
(Insert in writing the month followed by the numeric date and year.)

(Surety)

(Signature of authorized representative)

(Printed name and title)

Attest:  
(Seal):





## SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project.

#### 1.2 COORDINATION

- A. Coordination: Coordinate construction operations to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

1. Preparation of Contractor's Construction Schedule.
2. Preparation of the Schedule of Values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Preinstallation conferences.
7. Project closeout activities.

#### 1.3 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.

#### 1.4 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
  1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Record minutes in writing. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within 3 days of the meeting.
  4. Notification: Inform participants 3 days prior to meetings not regularly scheduled.
- B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Architect. Hold the conference at a convenient location. Conduct the meeting to review responsibilities and personnel assignments.

- C. Preinstallation Conferences and Meetings: Conduct a preinstallation conferences and meetings at Project site before each construction activity that requires coordination with other construction.
- D. Progress Meetings: Conduct progress meetings at weekly intervals.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 31 00  
01310/9-98/ttt

## SECTION 01 32 00 – CONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work.

#### 1.2 DEFINITIONS

#### 1.3 SUBMITTALS

- A. Submittals Schedule: Within 30 days after the execution of the Agreement between the Owner and the Contractor submit to the Architect and Owner copies of the submittals schedule. Arrange the following information in a tabular format:
  - 1. Scheduled date for first submittal.
  - 2. Specification Section number and title.
  - 3. Submittal category (action or informational).
  - 4. Name of subcontractor.
  - 5. Description of the Work covered.
  - 6. Scheduled date for Architect's final release or approval.
- B. Contractor's Construction Schedule: Submit, for the Owner's and Architect's information, copies of the Contractor's Construction Schedule, large enough to show entire schedule for entire construction period.
- C. Field Condition Reports: Submit copies at time of discovery of differing conditions.

### PART 2 - PRODUCTS

#### 2.1 SUBMITTALS SCHEDULE

- A. Preparation: Submit, for Architect's approval, concurrently with the Contractor's Construction Schedule a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include the following information:
  - 1. Anticipated date of Architect's receipt of submittal.
  - 2. Number of business days allowed for Architect's review of submittal.
  - 3. Specification Section to which submittal relates.
  - 4. Subcontractor, fabricator or supplier responsible for preparing the submittal.
  - 5. Provide blank columns for actual date of submittal, re-submittal, and final-review status.
  - 6. Systems Submittals: Identify submittals for systems such as fire alarms, and sprinklers, on the transmittal and act upon the system singularly as a combined submittal.

- B. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.

## 2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for the Notice of Award to date of Final Completion.
  - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
  - 1. Activity Duration: Define activities so no activity is longer than 20 days.
  - 2. Procurement Activities: Include procurement process activities for long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
  - 3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Include selection process activities for finishes and products specified by allowances or specified to be selected during the sample review process. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
  - 4. Startup and Testing Time: Include not less than five (5) days for startup and testing.
  - 5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for administrative procedures necessary for certification of Substantial Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
  - 1. Phasing: Arrange list of activities on schedule by phase.
  - 2. Work under More Than One Contract: Include a separate activity for each contract.
  - 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
  - 4. Work Restrictions: Show the effect of the following items on the schedule:
    - a. Coordination with existing construction.
    - b. Limitations of continued occupancies.
    - c. Uninterruptible services.
    - d. Partial occupancy before Substantial Completion.
    - e. Use of premises restrictions.
  - 5. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:

- a. Subcontract awards.
  - b. Submittals.
  - c. Purchases.
  - d. Mockups.
  - e. Fabrication.
  - f. Deliveries.
  - g. Installation.
  - h. Tests and inspections.
  - i. Adjusting.
  - j. Startup and placement into final use and operation.
- E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.
- F. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis to demonstrate the effect of the proposed change on the overall project schedule.

## 2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule: Immediately after being awarded the Contract, prepare and submit, for the Owners and Architect's information, a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule. The schedule shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for the expeditious and practical execution of the Work.
- 1. Allow a minimum of 10 working days for processing (from date Architect receives submittal until date he sends it back) and sufficient time for proper handling, review, fabrication and delivery.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

## 2.4 REPORTS

- A. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare a detailed report. Submit with a request for information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

## PART 3 - EXECUTION

### 3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  3. As the Work progresses, indicate Actual Completion percentage for each activity.
  4. Give Owner and Architect a minimum of one week's notice of all anticipated revisions to the project schedule.
- B. Distribution: Distribute copies of approved schedule to Architect, Owner, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
  2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 32 00  
01320/9-98/ttt

## SECTION 01 32 33 - PHOTOGRAPHIC DOCUMENTATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Preconstruction photographs.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting photographic documentation.
  - 2. Section 013591 "Special Procedures for Historic Treatment" for photographic documentation.
  - 3. Section 017700 "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.
  - 4. Section 024119 "Selective Structure Demolition" for photographic documentation before selective demolition operations commence.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within three days of taking photographs.
  - 1. Digital Camera: Minimum sensor resolution of 8 megapixels.
  - 2. Format: Minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph, accompanied by key plan file.
  - 3. Identification: Provide the following information with each image description in file metadata tag:
    - a. Name of Project.
    - b. Name and contact information for photographer.
    - c. Name of Architect and Construction Manager.
    - d. Name of Contractor.
    - e. Date photograph was taken.
    - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.

- g. Unique sequential identifier keyed to accompanying key plan.

#### 1.4 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

### PART 2 - PRODUCTS

#### 2.1 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of 8 megapixels, and at an image resolution of not less than 3200 by 2400 pixels.

### PART 3 - EXECUTION

#### 3.1 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a qualified photographer to take construction photographs.
- B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
  - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
  - 1. Date and Time: Include date and time in file name for each image.
  - 2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect and Construction Manager.
- D. Preconstruction Photographs: Before commencement of demolition, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.
  - 1. Take 20 photographs to show existing conditions adjacent to property before starting the Work.
  - 2. Take 20 photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
  - 3. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- E. Additional Photographs: Architect or Construction Manager may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.



1. Three days' notice will be given, where feasible.
2. In emergency situations, take additional photographs within 24 hours of request.
3. Circumstances that could require additional photographs include, but are not limited to, the following:
  - a. Special events planned at Project site.
  - b. Immediate follow-up when on-site events result in construction damage or losses.
  - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
  - d. Substantial Completion of a major phase or component of the Work.
  - e. Extra record photographs at time of final acceptance.
  - f. Owner's request for special publicity photographs.

END OF SECTION 01 32 33

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.

#### 1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

#### 1.3 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Submittals Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- C. Processing Time: Promptly submit Shop Drawings Product Data and Samples in accordance with the accepted schedule, as to cause no delay in the Work. Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal.
  - 1. Initial Review: Allow 10 working days for initial submittal review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Architect will advise Contractor when a submittal being processed must be delayed for coordination. Delaying submittals to facilitate coordination between submittals shall not constitute a delay of the Work nor shall it be the basis for an extension of time.
  - 2. Concurrent Review: Concurrent review is a submittal that requires review by more than one design discipline. Where concurrent review of submittals by Architect's consultants,

- Owner, or other parties is required, submittal review schedule shall reflect concurrent review.
3. Number of days for processing each resubmittal shall be the same as the initial review submittal.
  4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
- D. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
  2. Provide a space approximately 5 inches by 6 inches on label or beside title block to record Architect's review markings.
  3. Include the following information on label for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name and address of Architect.
    - d. Name and address of Contractor.
    - e. Name and address of subcontractor.
    - f. Name and address of supplier.
    - g. Name of manufacturer.
    - h. Unique identifier, including revision number. Submittals shall be numbered consecutively and the numbering system shall be retained throughout all revisions.
    - i. Number and title of appropriate Specification Section.
    - j. Drawing number and detail references, as appropriate.
    - k. Other necessary identification.
- E. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.
- F. Resubmission: Unless corrected copies are required for final submittal due to Architect's observance of noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.
1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
  2. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- G. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will discard submittals received from sources other than Contractor.
1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
  2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.

- H. Transmittal Form: Execute the attached form with each submittal.
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating action taken by Architect in connection with construction.
- K. Substitution requests are not allowed in the form of submittals. Substitution requests must be made in accordance with Division 01 Section, "Product Requirements."

## PART 2 - PRODUCTS

### 2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
  - 1. Number of Copies: Submit three copies of each submittal, unless otherwise indicated. Architect will return two copies. Mark up and retain one returned copy as a Project Record Document.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Clearly mark each copy of each submittal to show which products and options are applicable.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
  - 1. Number of Copies:
    - a. Submit three blue- or black-line prints. Architect will retain two prints; remainder will be returned.
- D. Samples: Prepare physical units of materials or products, including the following:
  - 1. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  - 2. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from the same material to be used for the Work, cured and finished in manner specified, and physically identical with the product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.

3. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Architect's sample where so indicated. Attach label on unexposed side that includes the following:
    - a. Generic description of Sample.
    - b. Product name or name of manufacturer.
    - c. Sample source.
  4. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.
    - a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of samples that show the range of variations.
    - b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
  5. Number of Samples for Initial Selection: Submit one full set of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
  6. Number of Samples for Verification: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned.
    - a. Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
  7. Systems Submittals: Identify submittals for systems such as fire alarms, on the transmittal and act upon the system singularly as a combined submittal. If resubmission is required, resubmit entire system submittal.
  8. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
- E. Application for Payment: Comply with requirements in Division 01 Section "Payment Procedures."
- F. Schedule of Values: Comply with requirements in Division 01 Section "Payment Procedures."

## 2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Architect will not return copies.

2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- B. Contractor's Construction Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation."
- C. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.
- D. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.
- E. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
  1. Name of evaluation organization.
  2. Date of evaluation.
  3. Time period when report is in effect.
  4. Product and manufacturers' names.
  5. Description of product.
  6. Test procedures and results.
  7. Limitations of use.
- F. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 01 Section "Closeout Procedures."
- G. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- H. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.
- I. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections.
- J. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, coordinated, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each properly executed submittal, make marks to indicate corrections or modifications required, and return it. Architect will reject and return submittals not complying with requirements. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
  - 1. No exception Taken. No further review of Submittal required.
  - 2. Make Corrections as Noted. Incorporate corrections in Work; resubmittal is not required. If Contractor cannot comply with corrections as noted, revise to respond to exceptions and resubmit.
  - 3. Revise and Resubmit. Revise as noted & resubmit for further review.
  - 4. Resubmit Properly. Submittal not reviewed because it does not contain Contractor's signature indicating its review and approval, and/or is not in proper condition for review. Resubmit.
  - 5. Not Reviewed. Submittal is not required by Contract Documents.
- C. Informational Submittals: Architect may review each submittal and will not return it, or will reject and return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Submittals not required by the Contract Documents will not be reviewed and may be discarded or returned marked "Not Reviewed."

END OF SECTION 01 33 00  
013300/11-07/pbb





Advancement  
of Construction  
Technology

## SUBMITTAL TRANSMITTAL

Project: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_  
A/E Project Number: \_\_\_\_\_

**TRANSMITTAL** To (Contractor): \_\_\_\_\_ Date: \_\_\_\_\_ Submittal No. \_\_\_\_\_  
**A** From (Subcontractor): \_\_\_\_\_ By: \_\_\_\_\_ ☐ Resubmission

Qty.	Reference / Number	Title / Description / Manufacturer	Spec. Section Title and Paragraph / Drawing Detail Reference
------	-----------------------	---------------------------------------	---

- |  |   |
|--|---|
| <input type="checkbox"/> Submitted for review and approval                 | <input type="checkbox"/> Substitution involved - Substitution request attached  |
| <input type="checkbox"/> Resubmitted for review and approval               | <input type="checkbox"/> If substitution involved, submission includes point-by-point comparative data or preliminary details |
| <input type="checkbox"/> Complies with contract requirements               | <input type="checkbox"/> Items included in submission will be ordered immediately upon receipt of approval                    |
| <input type="checkbox"/> Will be available to meet construction schedule   |   |
| <input type="checkbox"/> A/E review time included in construction schedule |   |

Other remarks on above submission: \_\_\_\_\_ ☐ One copy retained by sender

**TRANSMITTAL** To (A/E): \_\_\_\_\_ Attn: \_\_\_\_\_ Date Rec'd by Contractor: \_\_\_\_\_  
**B** From (Contractor): \_\_\_\_\_ By: \_\_\_\_\_ Date Trnsmt'd by Contractor: \_\_\_\_\_

- |  |  |
|--|--|
| <input type="checkbox"/> Approved          | <input type="checkbox"/> Revise / Resubmit   |
| <input type="checkbox"/> Approved as noted | <input type="checkbox"/> Rejected / Resubmit |

Other remarks on above submission: \_\_\_\_\_ ☐ One copy retained by sender

**TRANSMITTAL** To (Contractor): \_\_\_\_\_ Attn: \_\_\_\_\_ Date Rec'd by A/E: \_\_\_\_\_  
**C** From (A/E): \_\_\_\_\_ ☐ Other By: \_\_\_\_\_ Date Trnsmt'd by A/E: \_\_\_\_\_

- |   |  |
|---|--|
| <input type="checkbox"/> Approved                     | <input type="checkbox"/> Provide file copy with corrections identified                         |
| <input type="checkbox"/> Approved as noted            | <input type="checkbox"/> Sepia copies only returned  |
| <input type="checkbox"/> Not subject to review        |  |
| <input type="checkbox"/> No action required           | <input type="checkbox"/> Point-by-point comparative data required to complete approval process |
| <input type="checkbox"/> Revise / Resubmit            | <input type="checkbox"/> Submission Incomplete / Resubmit                                      |
| <input type="checkbox"/> Rejected / Resubmit          |  |
| <input type="checkbox"/> Approved as noted / Resubmit |  |

Other remarks on above submission: \_\_\_\_\_ ☐ One copy retained by sender

**TRANSMITTAL** To (Subcontractor): \_\_\_\_\_ Attn: \_\_\_\_\_ Date Rec'd by Contractor: \_\_\_\_\_  
**D** From (Contractor): \_\_\_\_\_ By: \_\_\_\_\_ Date Trnsmt'd by Contractor: \_\_\_\_\_

Copies: ☐ Owner ☐ Consultants ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ One copy retained by sender

## SUBMITTAL REVIEW

- A NO EXCEPTIONS TAKEN.**  
**B MAKE CORRECTIONS AS NOTED.** Resubmittal not required unless Contractor cannot comply with corrections noted.  
**C REVISE AS NOTED AND RESUBMIT.**  
**D RESUBMIT PROPERLY.** Submittal not reviewed for reasons noted.  
**E NOT REVIEWED.** Submittal not required by Contract Documents.  
**F RECEIVED FOR CLIENT'S RECORD ONLY.** Submittal not reviewed.

Gensler has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Gensler's action on a specific item does not indicate approval of an assembly of which the item is a component, nor of an item as delivered and installed if it does not conform to the Contract Documents.

Contractor is responsible for checking for deviations between this Submittal and differing information or conditions in the Contract Documents and field conditions; for determining or substantiating the accuracy and completeness of other details such as dimensions and quantities; for substantiating instructions for installation or performance of equipment or systems designed by Contractor; for construction means, methods, techniques, schedules, sequences, procedures, and fabrication processes; for errors and omissions in Submittals; for coordination of the Work of the trades, safety precautions and performing the Work in a safe and satisfactory manner and in conformance with the Contract Documents. If more than one submittal review stamp appears on this Submittal, the most stringent action and notations thereon apply. Signature of a submittal review stamp by Gensler or a consultant does not imply that it has reviewed work not within its professional discipline or scope of services.

By \_\_\_\_\_ Date \_\_\_\_\_  
Project No. \_\_\_\_\_ Submittal No. \_\_\_\_\_

## SUBMITTAL REVIEW

- A NO EXCEPTIONS TAKEN.**  
**B MAKE CORRECTIONS AS NOTED.** Resubmittal not required unless Contractor cannot comply with corrections noted.  
**C REVISE AS NOTED AND RESUBMIT.**  
**D RESUBMIT PROPERLY.** Submittal not reviewed for reasons noted.  
**E NOT REVIEWED.** Submittal not required by Contract Documents.  
**F RECEIVED FOR CLIENT'S RECORD ONLY.** Submittal not reviewed.

Gensler has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Gensler's action on a specific item does not indicate approval of an assembly of which the item is a component, nor of an item as delivered and installed if it does not conform to the Contract Documents.

Contractor is responsible for checking for deviations between this Submittal and differing information or conditions in the Contract Documents and field conditions; for determining or substantiating the accuracy and completeness of other details such as dimensions and quantities; for substantiating instructions for installation or performance of equipment or systems designed by Contractor; for construction means, methods, techniques, schedules, sequences, procedures, and fabrication processes; for errors and omissions in Submittals; for coordination of the Work of the trades, safety precautions and performing the Work in a safe and satisfactory manner and in conformance with the Contract Documents. If more than one submittal review stamp appears on this Submittal, the most stringent action and notations thereon apply. Signature of a submittal review stamp by Gensler or a consultant does not imply that it has reviewed work not within its professional discipline or scope of services.

By \_\_\_\_\_ Date \_\_\_\_\_  
Project No. \_\_\_\_\_ Submittal No. \_\_\_\_\_

## SUBMITTAL REVIEW

- A NO EXCEPTIONS TAKEN.**  
**B MAKE CORRECTIONS AS NOTED.** Resubmittal not required unless Contractor cannot comply with corrections noted.  
**C REVISE AS NOTED AND RESUBMIT.**  
**D RESUBMIT PROPERLY.** Submittal not reviewed for reasons noted.  
**E NOT REVIEWED.** Submittal not required by Contract Documents.  
**F RECEIVED FOR CLIENT'S RECORD ONLY.** Submittal not reviewed.

Gensler has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Gensler's action on a specific item does not indicate approval of an assembly of which the item is a component, nor of an item as delivered and installed if it does not conform to the Contract Documents.

Contractor is responsible for checking for deviations between this Submittal and differing information or conditions in the Contract Documents and field conditions; for determining or substantiating the accuracy and completeness of other details such as dimensions and quantities; for substantiating instructions for installation or performance of equipment or systems designed by Contractor; for construction means, methods, techniques, schedules, sequences, procedures, and fabrication processes; for errors and omissions in Submittals; for coordination of the Work of the trades, safety precautions and performing the Work in a safe and satisfactory manner and in conformance with the Contract Documents. If more than one submittal review stamp appears on this Submittal, the most stringent action and notations thereon apply. Signature of a submittal review stamp by Gensler or a consultant does not imply that it has reviewed work not within its professional discipline or scope of services.

By \_\_\_\_\_ Date \_\_\_\_\_  
Project No. \_\_\_\_\_ Submittal No. \_\_\_\_\_

## SUBMITTAL REVIEW

- A NO EXCEPTIONS TAKEN.**  
**B MAKE CORRECTIONS AS NOTED.** Resubmittal not required unless Contractor cannot comply with corrections noted.  
**C REVISE AS NOTED AND RESUBMIT.**  
**D RESUBMIT PROPERLY.** Submittal not reviewed for reasons noted.  
**E NOT REVIEWED.** Submittal not required by Contract Documents.  
**F RECEIVED FOR CLIENT'S RECORD ONLY.** Submittal not reviewed.

Gensler has reviewed this Submittal, but only for the purpose of checking for conformance with the design intent expressed in the Contract Documents. Gensler's action on a specific item does not indicate approval of an assembly of which the item is a component, nor of an item as delivered and installed if it does not conform to the Contract Documents.

Contractor is responsible for checking for deviations between this Submittal and differing information or conditions in the Contract Documents and field conditions; for determining or substantiating the accuracy and completeness of other details such as dimensions and quantities; for substantiating instructions for installation or performance of equipment or systems designed by Contractor; for construction means, methods, techniques, schedules, sequences, procedures, and fabrication processes; for errors and omissions in Submittals; for coordination of the Work of the trades, safety precautions and performing the Work in a safe and satisfactory manner and in conformance with the Contract Documents. If more than one submittal review stamp appears on this Submittal, the most stringent action and notations thereon apply. Signature of a submittal review stamp by Gensler or a consultant does not imply that it has reviewed work not within its professional discipline or scope of services.

By \_\_\_\_\_ Date \_\_\_\_\_  
Project No. \_\_\_\_\_ Submittal No. \_\_\_\_\_

## SECTION 01 35 91 – SPECIAL PROCEDURES FOR HISTORIC TREATMENT

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes special procedures for historic treatment on Project including, but not limited to, the following:
  - 1. Storage and protection of existing historic materials.
  - 2. Temporary protection of historic materials during construction.
  - 3. Protection during application of chemicals.
  - 4. Protection during use of heat-generating equipment.
  - 5. Historic treatment procedures.

#### 1.2 DEFINITIONS

- A. "Preservation": To apply measures necessary to sustain the existing form, integrity, and materials of a historic property. Work may include preliminary measures to protect and stabilize the property.
- B. "Rehabilitation": To make possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.
- C. "Restoration": To accurately depict the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and the reconstruction of missing features from the restoration period.
- D. "Reconstruction": To reproduce in the exact form and detail a building, structure, or artifact as it appeared at a specific period in time.
- E. "Stabilize": To apply measures designed to reestablish a weather-resistant enclosure and the structural reinforcement of an item or portion of the building while maintaining the essential form as it exists at present.
- F. "Protect and Maintain": To remove deteriorating corrosion, reapply protective coatings, and install protective measures such as temporary guards; to provide the least degree of intervention.
- G. "Repair": To stabilize, consolidate, or conserve; to retain existing materials and features while employing as little new material as possible. Repair includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials. Within restoration, repair also includes limited replacement in kind, rehabilitation, and reconstruction, with compatible substitute materials for deteriorated or missing parts of features when there are surviving prototypes.
- H. "Replace": To duplicate and replace entire features with new material in kind. Replacement includes the following conditions:

1. Duplication: Includes replacing elements damaged beyond repair or missing. Original material is indicated as the pattern for creating new duplicated elements.
  2. Replacement with New Materials: Includes replacement with new material when original material is not available as patterns for creating new duplicated elements.
  3. Replacement with Substitute Materials: Includes replacement with compatible substitute materials. Substitute materials are not allowed, unless otherwise indicated.
- 
- I. "Remove": To detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
  - J. "Remove and Salvage": To detach items from existing construction and deliver them to Owner.
  - K. "Remove and Reinstall": To detach items from existing construction, repair and clean them for reuse, and reinstall them where indicated.
  - L. "Existing to Remain" or "Retain": Existing items of construction that are not to be removed and that are not otherwise indicated to be removed and salvaged, or removed and reinstalled.
  - M. "Material in Kind": Material that matches existing materials, as much as possible, in species, cut, color, grain, and finish.

### 1.3 SUBMITTALS

- A. Historic Treatment Program: Submit a written plan for each phase or process including protection of surrounding materials during operations. Describe in detail materials, methods, and equipment to be used for each phase of work.
- B. Alternative Methods and Materials: If alternative methods and materials to those indicated are proposed for any phase of work, provide a written description including evidence of successful use on other, comparable projects, and program of testing to demonstrate effectiveness for use on this Project.
- C. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by historic treatment operations. Submit before work begins.
- D. Record Documents: Include modifications to manufacturer's written instructions and procedures, as documented in the historic treatment preconstruction conference and as the Work progresses.

### 1.4 QUALITY ASSURANCE

- A. Historic Treatment Preconstruction Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination."
  1. Review manufacturer's written instructions for precautions and effects of products and procedures on building materials, components, and vegetation.
    - a. Record procedures established as a result of the review and distribute to affected parties.

## 1.5 STORAGE AND PROTECTION OF HISTORIC MATERIALS

### A. Removed and Salvaged Historic Materials:

1. Clean salvaged historic items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.
6. Do not dispose of items removed from existing construction without prior written consent of Owner.

### B. Removed and Reinstalled Historic Materials:

1. Clean and repair historic items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

### C. Existing Historic Materials to Remain: Protect construction indicated to remain against damage and soiling during historic treatment. When permitted by Architect, items may be removed to a suitable, protected storage location during historic treatment and cleaned and reinstalled in their original locations after historic treatment operations are complete.

### D. Storage and Protection: When removed from their existing location, store historic materials within a weathertight enclosure where they are protected from wetting by rain, snow, or ground water, and temperature variations. Secure stored materials to protect from theft.

1. Identify removed items with an inconspicuous mark indicating their original location.

## 1.6 PROJECT-SITE CONDITIONS

### A. Exterior Cleaning and Repairing:

1. Proceed with the work only when forecasted weather conditions are favorable.
  - a. Wet Weather: Do not attempt repairs during rainy or foggy weather. Do not apply primer, paint, putty, or epoxy when the relative humidity is above 80 percent. Do not remove exterior elements of structures when rain is forecast or in progress.
  - b. Do not perform exterior wet work when the air temperature is below 40 deg F (5 deg C).
  - c. Do not begin cleaning, patching, or repairing when there is any likelihood of frost or freezing.
  - d. Do not begin cleaning when either the air or the surface temperature is below 45 deg F (7 deg C) unless approved means are provided for maintaining a 45 deg F (7 deg C) temperature of the air and materials during, and for 48 hours subsequent to, cleaning.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION, GENERAL

- A. Comply with manufacturer's written instructions for precautions and effects of products and procedures on adjacent building materials, components, and vegetation.
- B. Ensure that supervisory personnel are present when work begins and during its progress.
- C. Temporary Protection of Historic Materials during Construction:
  - 1. Protect existing materials during installation of temporary protections and construction. Do not deface or remove existing materials.
  - 2. Attachments of temporary protection to existing construction shall be approved by Architect prior to installation.
- D. Protect landscape work adjacent to or within work areas as follows:
  - 1. Provide barriers to protect tree trunks.
  - 2. Bind spreading shrubs.
  - 3. Use coverings that allow plants to breathe and remove coverings at the end of each day. Do not cover plant material with a waterproof membrane for more than 8 hours at a time.
  - 4. Set scaffolding and ladder legs away from plants.
- E. Existing Drains: Prior to the start of work or any cleaning operations, test drains and other water removal systems to ensure that drains and systems are functioning properly. Notify Architect immediately of drains or systems that are stopped or blocked. Do not begin Work of this Section until the drains are in working order.
  - 1. Provide a method to prevent solids including stone or mortar residue from entering the drains or drain lines. Clean out drains and drain lines that become blocked or filled by sand or any other solids because of work performed under this Contract.
  - 2. Protect storm drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.

3.2 PROTECTION DURING USE OF HEAT-GENERATING EQUIPMENT

- A. Comply with the following procedures while performing work with heat-generating equipment, including welding, cutting, soldering, brazing, paint removal with heat, and other operations where open flames or implements utilizing heat are used:
  - 1. Obtain Owner's approval for operations involving use of open-flame or welding equipment.
    - a. Notification shall be given for each occurrence and location of work with heat-generating equipment.

2. As far as practical, use heat-generating equipment in shop areas or outside the building.
3. Before work with heat-generating equipment commences, furnish personnel to serve as a fire watch (or watches) for location(s) where work is to be performed.
4. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
5. Remove and keep the area free of combustibles, including, rubbish, paper, waste, etc., within area of operations.
  - a. If combustible material cannot be removed, provide fireproof blankets to cover such materials.
6. Where possible, furnish and use baffles of metal or gypsum board to prevent the spraying of sparks or hot slag into surrounding combustible material.
7. Prevent the extension of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
8. Inspect each location of the day's work not sooner than 30 minutes after completion of operations to detect hidden or smoldering fires and to ensure that proper housekeeping is maintained.

### 3.3 HISTORIC TREATMENT PROCEDURES

- A. The principal aim of preservation work is to halt the process of deterioration and stabilize the item's condition, unless otherwise indicated. Repair is required where specifically indicated. The following procedures shall be followed:
  1. Retain as much existing material as possible; repair and consolidate rather than replace.
  2. Use additional material or structure to reinforce, strengthen, prop, tie, and support existing material or structure.
  3. Use reversible processes wherever possible.
  4. Use traditional replacement materials and techniques. New work shall be distinguishable to the trained eye, on close inspection, from old work.
  5. Record the work before the procedure with preconstruction photos and during the work with periodic construction photos. Photographic documentation is specified in Division 1 Section "Construction Progress Documentation."
- B. Prohibit smoking by personnel performing work on or near historic structures.
- C. Obtain Architect's review and written approval in the form of a Constructive Change Directive or Supplemental Instruction before making changes or additions to construction or removing historic materials.
- D. Notify Architect of visible changes in the integrity of material or components whether due to environmental causes including biological attack, UV degradation, freezing, or thawing; or due to structural defects including cracks, movement, or distortion.
  1. Do not proceed with the work in question until directed by Architect.
- E. Where Work requires existing features to be removed, cleaned, and reused, perform these operations without damage to the material itself, to adjacent materials, or to the substrate.

- F. Identify new or replacement materials and features with inconspicuous, permanent marks to distinguish them from original materials. Record the legend of identification marks and the locations of these marks on Record Drawings.
- G. When cleaning, match samples of existing materials that have been cleaned and identified for acceptable cleaning levels. Avoid over-cleaning to prevent damage to existing materials during cleaning.

END OF SECTION 01351



## SECTION 01 40 00 – QUALITY REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-control services required by Architect, Owner, Construction Manager, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
  - 1. Division 01 Section "Construction Progress Documentation" for developing a schedule of required tests and inspections.
  - 2. Division 01 Section "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
  - 3. Divisions 02 through 49 Sections for specific test and inspection requirements.

#### 1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Architect or Construction Manager.
- C. Mockups: Full-size assemblies erected on-site and used to demonstrate qualities of materials and execution; to review construction, coordination, testing or operation; to illustrate finishes and materials; to verify selections made under Sample submittals; and to demonstrate aesthetic effects. Mockups are not Samples. Mockups establish the standard by which Work will be judged.

1. Benchmark Samples: A type of mockup used to illustrate the application and aesthetic effect of finishes and coatings. Benchmark Samples establish the standard by which the Work will be judged.
- D. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

### 1.3 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
  1. Specification Section number and title.
  2. Description of test and inspection.
  3. Identification of applicable standards.
  4. Identification of test and inspection methods.
  5. Number of tests and inspections required.
  6. Time schedule or time span for tests and inspections.
  7. Entity responsible for performing tests and inspections.
  8. Requirements for obtaining samples.
- C. Testing Agency and Inspection Reports: Prepare and submit certified written reports that include the following:
  1. Date of issue.
  2. Project title and number.
  3. Name, address, and telephone number of testing agency.
  4. Dates and locations of samples and tests or inspections.
  5. Names of individuals making tests and inspections.
  6. Description of the Work and test and inspection method.
  7. Identification of product and Specification Section.
  8. Complete test or inspection data.
  9. Test and inspection results and an interpretation of test results.
  10. Ambient conditions at time of sample taking and testing and inspecting.
  11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  12. Name and signature of laboratory inspector.
  13. Recommendations on retesting and reinspecting.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

#### 1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications: A firm experienced and expert in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- B. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- C. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- D. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance.
- E. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.
- F. Preconstruction Testing: Testing agency shall perform preconstruction testing for compliance with specified requirements for performance and test methods.
  - 1. Contractor responsibilities include the following:
    - a. Provide test specimens and assemblies representative of proposed materials and construction. Provide sizes and configurations of assemblies to adequately demonstrate capability of product to comply with performance requirements.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. Fabricate and install test assemblies using installers who will perform the same tasks for Project.
    - d. When testing is complete, remove assemblies; do not reuse materials on Project.
  - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, through Construction Manager, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

#### 1.5 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
  - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.

2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Contractor Responsibilities: Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.
1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
    - a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.
  2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
  3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
  6. Provide quality assurance and control services required due to changes in the Work proposed by or made by the Contractor.
  7. Provide quality control services for Work done contrary to the Contract Documents, without prior notice, when so specified, or without proper supervision.
  8. Overtime expenses and schedule delays accruing as a result of executing quality control services shall be the Contractor's responsibility and shall not be charged to the Owner.
- C. Special Tests and Inspections: Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
1. Testing agency will notify Architect, Construction Manager, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
  2. Testing agency will submit a certified written report of each test, inspection, and similar quality-control service to Architect, through Construction Manager, with copy to Contractor and to authorities having jurisdiction.
  3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
  4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
  5. Testing agency will retest and reinspect corrected work.
- D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.
- E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents. Architect retains the right to require the use of a different testing agency for retesting and reinspecting.

- F. Testing Agency Responsibilities: Cooperate with Architect, Construction Manager, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect, Construction Manager, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.
  5. Do not perform any duties of Contractor.
  6. Attend Project progress meetings as requested by Architect.
- G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field-curing of test samples.
  5. Delivery of samples to testing agencies or arranging for pick-up of test samples after normal business hours..
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule with Contractor's Construction Schedule as specified in Division 01 Section "Construction Progress Documentation."
1. Distribution: Distribute schedule to Owner, Architect, Construction Manager, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

3.1 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Comply with the Contract Document requirements for Division 01 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 40 00  
01400/9-98/bac

## SECTION 01 42 00 – REFERENCES

### PART 1 - GENERAL

#### 1.1 DEFINITIONS

- A. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- B. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "approved," "required," and "permitted" have the same meaning as "directed."
- C. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- D. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- E. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- F. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- G. "Provide": Furnish and install, complete and ready for the intended use.
- H. "Installer": Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations. Installers shall be experienced in the operation they are engaged to perform.
- I. "Experienced": Unless otherwise specified in the technical sections when used with an entity, "experienced" means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- J. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings.
- K. "As Required": As required by regulatory bodies, by referenced standards, by existing conditions, by generally accepted construction practice or by the Contract Documents. In the event of ambiguity or conflicts, the most stringent requirements shall apply.
- L. "By Others" refers to work that is not a part of the Contract.

- M. "N.I.C.": "Not in Contract" means the work or the item indicated is not a part of the Contract and will be provided by the Owner.

## 1.2 STANDARDS, REGULATIONS AND CODES

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
- C. Conflicting Requirements: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum..
- D. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used, they shall mean the recognized name of the standards and regulations in the following list.

ADAAG	Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities Available from Access Board <a href="http://www.access-board.gov">www.access-board.gov</a>	(800) 872-2253 (202) 272-5434
-------	---	----------------------------------

CFR	Code of Federal Regulations Available from Government Printing Office <a href="http://www.gpoaccess.gov/cfr">http://www.gpoaccess.gov/cfr</a>	(888) 293-6498 (202) 512-1530
-----	---	----------------------------------

FS	Federal Specification Available from General Services Administration <a href="http://apps.fas.gsa.gov/pub/fedspecs/">http://apps.fas.gsa.gov/pub/fedspecs/</a>	(202) 619-8925
----	--	----------------

- E. Abbreviations and Acronyms for Industry Standards and Regulations: Where abbreviations and acronyms are used they shall mean the recognized name of the entities in the following list.

AA	Aluminum Association, Inc. (The) <a href="http://www.aluminum.org">www.aluminum.org</a>	(703) 358-2960
----	--	----------------

AABC	Associated Air Balance Council <a href="http://www.aabchq.com">www.aabchq.com</a>	(202) 737-0202
------	--	----------------



AAMA	American Architectural Manufacturers Association <a href="http://www.aamanet.org">www.aamanet.org</a>	(847) 303-5664
ADC	Air Diffusion Council <a href="http://www.flexibleduct.org">www.flexibleduct.org</a>	(847) 706-6750
AGA	American Gas Association <a href="http://www.aga.org">www.aga.org</a>	(202) 824-7000
AHA	American Hardboard Association <a href="http://domensino.com/AHA/">http://domensino.com/AHA/</a>	(847) 934-8800
AIA	American Institute of Architects (The) <a href="http://www.aia.org">www.aia.org</a>	(800) 242-3837 (202) 626-7300
AISC	American Institute of Steel Construction <a href="http://www.aisc.org">www.aisc.org</a>	(800) 644-2400 (312) 670-2400
AISI	American Iron and Steel Institute <a href="http://www.steel.org">www.steel.org</a>	(202) 452-7100
AMCA	Air Movement and Control Association International, Inc. <a href="http://www.amca.org">www.amca.org</a>	(847) 394-0150
ANSI	American National Standards Institute <a href="http://www.ansi.org">www.ansi.org</a>	(202) 293-8020
APA	APA - The Engineered Wood Association <a href="http://www.apawood.org">www.apawood.org</a>	(253) 565-6600
ARI	Air-Conditioning & Refrigeration Institute (now AHRI)	
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers <a href="http://www.ashrae.org">www.ashrae.org</a>	(800) 527-4723 (404) 636-8400
ASME	ASME International (The American Society of Mechanical Engineers International) <a href="http://www.asme.org">www.asme.org</a>	(800) 843-2763 (973) 882-1170
ASPE	American Society of Plumbing Engineers <a href="http://www.aspe.org">www.aspe.org</a>	(773) 693-2773
ASSE	American Society of Sanitary Engineering <a href="http://www.asse-plumbing.org">www.asse-plumbing.org</a>	(440) 835-3040
ASTM	ASTM International (American Society for Testing and Materials International) <a href="http://www.astm.org">www.astm.org</a>	(610) 832-9500

AWCI	Association of the Wall and Ceiling Industries International <a href="http://www.awci.org">www.awci.org</a>	(703) 534-8300
AWI	Architectural Woodwork Institute <a href="http://www.awinet.org">www.awinet.org</a>	(571) 323-3636
AWPA	American Wood Protection Association (formerly American Wood-Preservers' Association) <a href="http://www.awpa.com">www.awpa.com</a>	(205) 733-4077
AWS	American Welding Society <a href="http://www.aws.org">www.aws.org</a>	(800) 443-9353 (305) 443-9353
BHMA	Builders Hardware Manufacturers Association <a href="http://www.buildershardware.com">www.buildershardware.com</a>	(212) 297-2122
CDA	Copper Development Association Inc. <a href="http://www.copper.org">www.copper.org</a>	(212) 251-7200
CISCA	Ceilings & Interior Systems Construction Association <a href="http://www.cisca.org">www.cisca.org</a>	(630) 584-1919
CPA	Composite Panel Association <a href="http://www.pbmdf.com">www.pbmdf.com</a>	(703) 724-1128
CRI	Carpet & Rug Institute (The) <a href="http://www.carpet-rug.com">www.carpet-rug.com</a>	(706) 278-3176
DHI	Door and Hardware Institute <a href="http://www.dhi.org">www.dhi.org</a>	(703) 222-2010
EIA	Electronic Industries Alliance <a href="http://www.eia.org">www.eia.org</a>	(703) 907-7500
GA	Gypsum Association <a href="http://www.gypsum.org">www.gypsum.org</a>	(301) 277.8686
GANA	Glass Association of North America (formerly: FGMA - Flat Glass Marketing Association) <a href="http://www.glasswebsite.com">www.glasswebsite.com</a>	(785) 271-0208
HPVA	Hardwood Plywood & Veneer Association <a href="http://www.hpva.org">www.hpva.org</a>	(703) 435-2900
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The) <a href="http://www.ieee.org">www.ieee.org</a>	(212) 419-7900
IES	Illuminating Engineering Society <a href="http://www.ies.org">www.ies.org</a>	(212) 248-5000

MFMA	Metal Framing Manufacturers Association, Inc. <a href="http://www.metalframingmfg.org">www.metalframingmfg.org</a>	(312) 644-6610
MIA	Marble Institute of America <a href="http://www.marble-institute.com">www.marble-institute.com</a>	(440) 250-9222
NAAMM	National Association of Architectural Metal Manufacturers <a href="http://www.naamm.org">www.naamm.org</a>	(630) 942-6591
NEBB	National Environmental Balancing Bureau <a href="http://www.nebb.org">www.nebb.org</a>	(301) 977-3698
NECA	National Electrical Contractors Association <a href="http://www.necanet.org">www.necanet.org</a>	(301) 657-3110
NeLMA	Northeastern Lumber Manufacturers' Association <a href="http://www.nelma.org">www.nelma.org</a>	(207) 829-6901
NEMA	National Electrical and Medical Imaging Equipment Manufacturers Association <a href="http://www.nema.org">www.nema.org</a>	(703) 841-3200
NFPA	NFPA (National Fire Protection Association) <a href="http://www.nfpa.org">www.nfpa.org</a>	(800) 344-3555 (617) 770-3000
NOFMA	NOFMA: The Wood Flooring Manufacturers Association (formerly National Oak Flooring Manufacturers Association) <a href="http://www.nofma.org">www.nofma.org</a>	(901) 526-5016
NTMA	National Terrazzo and Mosaic Association, Inc. (The) <a href="http://www.ntma.com">www.ntma.com</a>	(800) 323-9736 (540) 751-0930
NWWDA	National Wood Window and Door Association (now WDMA)	
PDCA	Painting and Decorating Contractors of America <a href="http://www.pdca.com">www.pdca.com</a>	(800) 332-7322 (314) 514-7322
SDI	Steel Deck Institute <a href="http://www.sdi.org">www.sdi.org</a>	(847) 462-1930
SGCC	Safety Glazing Certification Council <a href="http://www.sgcc.org">www.sgcc.org</a>	(315) 646-2234
SIGMA	Sealed Insulating Glass Manufacturers Association	(312) 644-6610
SPIB	Southern Pine Inspection Bureau <a href="http://www.spib.org">www.spib.org</a>	(850) 434-2611

SSPC	SSPC: The Society for Protective Coatings <a href="http://www.sspc.org">www.sspc.org</a>	(877) 281-7772 (412) 281-2331
TCNA	Tile Council of North America, Inc. <a href="http://www.tileusa.com">www.tileusa.com</a>	(864) 646-8453
TIA	Telecommunications Industry Association <a href="http://www.tiaonline.org">www.tiaonline.org</a>	(703) 907-7700
UL	Underwriters Laboratories Inc. <a href="http://www.ul.com">www.ul.com</a>	(877) 854-3577 (847) 272-8800
WCLIB	West Coast Lumber Inspection Bureau <a href="http://www.wclib.org">www.wclib.org</a>	(800) 283-1486 (503) 639-0651
WWPA	Western Wood Products Association <a href="http://www.wwpa.org">www.wwpa.org</a>	(503) 224-3930

F. Federal Government Agencies: Where abbreviations and acronyms are used, they shall mean the recognized name of the entities in the following list.

CPSC	Consumer Product Safety Commission <a href="http://www.cpsc.gov">www.cpsc.gov</a>	(800) 638-2772 (301) 504-0990
DOC	Department of Commerce <a href="http://www.doc.gov">www.doc.gov</a>	(202) 482-2000
OSHA	Occupational Safety & Health Administration <a href="http://www.osha.gov">www.osha.gov</a>	(202) 693-1999

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 42 00  
01420/11-00/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes requirements for temporary facilities and controls.
  - 1. Provide and maintain all temporary facilities and controls necessary for the performance of the Work. Locate and install all temporary facilities and controls where acceptable to the local authorities having jurisdiction and utility owner and remove same and terminate, in a manner suitable to the local authorities having jurisdiction and utility owner, at completion of Work or when otherwise directed. Unless otherwise specified, pay all costs associated with the use, provision, and maintenance of, temporary facilities and controls including power, water, and fuel (if any) consumed until Substantial Completion.

#### 1.2 PROJECT CONDITIONS

- A. Use of Permanent Utilities: When each permanent utility is operational, it may be used for construction purposes, if acceptable, in writing, by the Owner. The written request for permission for use of the system from the Owner shall include, as a minimum, the conditions and reasons for use and provisions for and effect on equipment warranties. In the event that the Owner accepts the Contractors use of the permanent utility for the balance of the Work, the Contractor shall be fully responsible for it, and shall pay all costs for operation, power, restoration and maintenance of same.

### PART 2 - PRODUCTS

- A. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
  - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
  - 2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Engage appropriate local utility company to install temporary service or connect to existing service. Where utility company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with utility company recommendations.
  - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
  - 2. Provide adequate capacity at each stage of construction.
- B. Toilet, Water, and Drinking Water Facilities: The Contractor shall make arrangements with the Owner for use of the existing toilet, water, and drinking water facilities.
- C. Ventilation and Humidity Control: Provide adequate ventilation in enclosed areas throughout construction period required to: facilitate progress of Work; to protect Work and products against dampness and heat; to prevent moisture condensation on surfaces; to provide suitable ambient temperatures for installation and curing of finish materials; to provide adequate ventilating; to meet health regulations for safe working environment; and, to prevent hazardous accumulations of dusts, fumes, mists, vapors or gases in areas occupied during construction. Provide local exhaust ventilating to prevent harmful dispersal of hazardous substances into atmosphere of occupied areas. Dispose of exhaust materials in manner that will not result in harmful exposure to persons or property. Provide ventilating operations at all times personnel occupy an area, when subject to hazardous accumulations of harmful elements. Continue operation of ventilating system for as long as required after cessation of Work to assure removal of harmful elements.
  - 1. In the event that the Owner accepts the Contractor's use of the permanent ventilation and air conditioning systems for the balance of the Work, provide and maintain temporary filters to adequately filter air being distributed through the ductwork and air handling units to the supply outlets; disposable filter shall be placed in front of all exhaust registers to keep construction dirt out of exhaust duct work.
- D. Electric Power and Lighting Service:
  - 1. Arrange with local electric utility for temporary electric service to the site. Provide all installation and equipment for temporary lighting and power. The electrical service shall be of adequate capacity for all construction tools and equipment without overloading the temporary facilities.
    - a. Provide power distribution throughout the site as required to facilitate construction operations. Terminations shall be provided for each voltage supply complete with circuit breakers, disconnect switches and other electrical devices as required to protect the power supply system.
    - b. A temporary lighting system shall be furnished, installed and maintained by the Contractor as required to satisfy the minimum requirements of security and safety.



Provide general illumination for the entire project. Provide increased levels of illumination where the work is being installed.

2. All temporary equipment and wiring for power and lighting shall be in accordance with the applicable provisions of the governing codes and regulations, the NEC, NEMA, and OSHA standards. All temporary power and lighting shall be maintained to give safe working conditions, continuous service, and so as not to pose a threat to the Owner's property. Modify and extend temporary power and lighting systems as the Work progress requires.

- E. Telephone Service: Provide temporary telephone service throughout construction period. Long distance calls shall be paid for by the party making the call. A pay phone is not acceptable.

### 3.3 TEMPORARY SUPPORT FACILITIES AND PROTECTION

- A. Project Identification and Temporary Signs: No Project identification, signs or advertisements will be permitted on the project site.
- B. Construction Aids: Provide all items, such as lifting devices, all scaffolding, staging, platforms, runways, ladders; and all temporary flooring, as required by the various trades for the proper execution of the Work. Provide such construction aids with proper guys, bracing, guards, railings and other safety devices as required by the governing authorities and OSHA.
- C. Elevator and Loading Dock Usage: The Contractor shall make all arrangements with the Owner for the use of elevators as required for transporting material and workmen to the work areas and for the disposal of rubbish and waste materials.
- D. Security: Provide and maintain provisions for closing and locking the site to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- E. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
- F. Temporary Fire Protection: Throughout the site, during construction, provide for fire protection and fire prevention in accordance with all applicable Federal, state and local codes and regulations.

### 3.4 TERMINATION AND REMOVAL

- A. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
  1. Remove and dispose of temporary filters and thoroughly clean the interior of the air handling units and ductwork prior to acceptance of the Work. Provide all new filters in heating, ventilation and air conditioning systems.

2. Replace all lamps of the permanent lighting system, to comply with the Contract Documents, at no cost to the Owner.
3. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 01 Section "Closeout Procedures."

END OF SECTION 01 50 00  
01500/9-98/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 01 60 00 – PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following administrative and procedural requirements for the selection of products for use in the Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and product substitutions.

#### 1.2 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents as proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.
- D. Manufacturer's Warranty: A written warranty authored by the manufacturer of its furnished product whose provisions are conveyed by manufacturer directly to Owner.
- E. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

#### 1.3 SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use form provided at end of Section.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified material or product cannot be provided.
    - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.

- c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, product material content, product manufacture, weight, size, durability, service life, maintenance, visual effect, and specific features and requirements indicated.
  - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
  - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
  - i. Cost information, including a proposal of change, if any, in the Contract Sum.
  - j. Time value to be added to, or subtracted from, the Contract time of Completion.
  - k. Benefit(s) to the Owner.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation. Architect will notify Contractor of acceptance or rejection of proposed substitution. Substitution requests, if any, shall be submitted so as to allow a reasonable time for their consideration and shall not be justification for delay of the Work.

#### 1.4 QUALITY ASSURANCE

- A. General: All bids shall be based on the products required in the Contract Documents.
- B. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

#### 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
  1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  5. Store products to allow for inspection and measurement of quantity or counting of units.

6. Store materials in a manner that will not endanger Project structure.
  7. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
  8. Protect stored products from damage.
- B. Storage: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

## PART 2 - PRODUCTS

### 2.1 PRODUCT SUBSTITUTIONS

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: Unless custom products or nonstandard options are specified, provide products of both quality and type that have been used successfully in similar situations on equal quality projects.
  3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Architect will make selection.
  5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
  6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
- B. Product Selection Procedures: Procedures for product selection include the following:
1. Product: Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.
  2. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.
  3. Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
  4. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
  5. Basis of Design Products: Where paragraphs or subparagraphs titled "Basis of Design Product(s)" are included. Provide either the specified product or a comparable product. Drawings and specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named.
  6. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and

matches Architect's sample. Architect's decision will be final on whether a proposed product matches satisfactorily.

- a. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on "substitutions" for selection of a matching product.
7. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.
- C. Substitutions: Substitutions will be considered only under one of the following conditions:
1. That the specified product is not available due to lockout, strike, bankruptcy, product discontinuance, Acts of God, and that the proposed product will match or exceed the quality of the specified product while either providing the Owner with a cost savings or expediting the Work.
  2. When a warranty of performance is specified and, in the judgment of the Contractor, the specified product will not provide the desired performance.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 60 00  
01600/9-98/ttt



## Substitution Request

**Gensler**

<b>Project</b>	<b>Date</b>
<b>Project Location</b>	<b>Project Number</b>
<b>General Contractor</b>	<b>File</b>
<b>Prepared by</b>	<b>This is page</b>
	6S
	1 of

We certify that the following product is equal or superior to the specified product in appearance, durability, performance, and in every other respect, and we hereby submit it for your consideration as a substitute for the specified item for the above-mentioned project:

- Specified Item**
- Proposed Substitution**
- Reason for Substitution**
- Costs** (Provide a complete breakdown of costs, including the cost amount to be DEDUCTED from the Contract Sum if the proposed substitution is accepted. Include documentation for both materials and labor.)
- Schedule** (Describe substitution's affect on construction schedule)
- Supporting Data**
  - Cutsheets:** Attach complete technical data, including laboratory tests, if applicable.
  - Installation:** Include complete information on changes to Drawings and/or Specifications describing the steps that the proposed substitution will require for its proper installation.
  - Samples:** Submit with request all necessary samples and substantiating data clearly marked to prove equal quality and performance to that which is specified.
- List ways in which the substitution affects dimensions shown on Drawings.**
- List affects of proposed substitution on other trades**
- List ways in which proposed substitution will be affected by applicable code requirements and agency approval**
- List differences between proposed substitution and specified item**
- Manufacturer's warranties of the proposed and specified items are:** ☐ Same ☐ Different  
**Explain**
- List information on availability of maintenance service and source of replacement materials**
- Certification of, and Assumption of Liability for, Equivalent Performance**

The undersigned certifies that the function, appearance and quality of the proposed substitution is equivalent or superior to the specified item and is in full compliance with the Contract Documents and applicable regulatory requirements.

<b>Supplier</b>	<b>Signature</b>
<b>Telephone No.</b>	<b>Date</b>
Signature must be by person authorized to legally bind his/her firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.	
<b>General Contractor</b>	<b>Signature</b>
<b>Telephone No.</b>	<b>Date</b>

c:\work\forms\gensler\_substitutionrequest.dot

SR\_080703



## SECTION 01 73 00 – EXECUTION

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work.

### PART 2 - PRODUCTS (Not Used)

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
  - 1. Before construction, verify the location and points of connection of utility services.

#### 3.2 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

#### 3.3 CONSTRUCTION LAYOUT

- A. General: The Work to be performed under the Contract Documents shall be laid out solely by the Contractor. Provide and pay for all construction layout work required for the Project. Under no circumstances will the Architect assume any responsibilities for laying out the Work.
  - 1. Verify all dimensions shown on the drawings. Do not scale Drawings to obtain required dimensions. Notify the Architect in writing of any discrepancies found before proceeding or continuing with the Work.
- B. Construction Layout: During the progress of the Work establish additional bench marks, reference lines and reference points and levels at each floor and as otherwise necessary for the guidance and information of each trade and for the field verification of specified construction

tolerances. Calculate and measure required dimensions within indicated or recognized tolerances.

### 3.4 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.

### 3.5 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

- G. Cutting and Patching: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.
  - 1. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

### 3.6 STARTING AND ADJUSTING

- A. Start and test equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

### 3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

### 3.8 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 Section "Cutting and Patching."
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and or broken glass or reflective surfaces.

END OF SECTION 01 73 00  
01700/9-98/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 01 73 20 – CUTTING AND PATCHING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes: Procedural requirements for cutting and patching.

#### 1.2 DEFINITIONS

- A. Cutting: Removal of existing construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other work.

#### 1.3 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements that change load carrying capacity or load deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components resulting in reduction of capacity to perform as intended or results in increased maintenance or decreased operational life or safety.
  - 1. Primary operational systems and equipment.
  - 2. Air or smoke barriers.
  - 3. Fire protection systems.
  - 4. Control systems.
  - 5. Communication systems.
  - 6. Conveying systems.
  - 7. Electrical wiring systems.
  - 8. Operating systems of special construction.
- C. Miscellaneous Elements: Do not cut and patch elements or related components in a manner that change load carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
  - 1. Water, moisture, or vapor barriers.
  - 2. Membranes and flashings.
  - 3. Exterior curtain wall construction.
  - 4. Equipment supports.
  - 5. Piping, ductwork, vessels, and equipment.
  - 6. Noise and vibration control elements and systems.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's

aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1. If possible, retain original Installer or fabricator to cut and patch exposed work. If impossible to engage original Installer or fabricator, engage a recognized, experienced, and specialized firm.

#### 1.4 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Comply with requirements specified in the individual specification section.
- B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed. Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers. Proceed with installation after unsafe or unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass services before cutting to minimize interruption of services to occupied areas.



### 3.3 PERFORMANCE

- A. Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  - 1. Use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Existing Finished Surfaces: Cut or drill from exposed or finished side into concealed surfaces.
  - 3. Concrete: Cut using a cutting machine, such as an abrasive saw or a diamond core drill.
  - 4. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or foreign matter after cutting.
  - 5. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
  - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
  - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
  - 4. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even plane surface of uniform appearance.
  - 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

END OF SECTION

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 01 77 00 – CLOSEOUT PROCEDURES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout.

#### 1.2 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
  - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  - 2. Submit specific warranties, workmanship bonds, final certifications, and similar documents.
  - 3. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 4. Prepare and submit Project Record Documents, operation and maintenance manuals, and similar final record information.
  - 5. Submit test/adjust/balance records.
  - 6. Complete final cleaning requirements, including touchup painting.
  - 7. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
  - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  - 2. Results of completed inspection will form the basis of requirements for Final Completion.

#### 1.3 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
  - 1. Submit a final Application for Payment.
  - 2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy

of the list shall state that each item has been completed or otherwise resolved for acceptance.

- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
  - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

#### 1.4 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
  - 1. Organize list of spaces in sequential order, proceeding from lowest floor to highest floor.
  - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
  - 3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.

#### 1.5 PROJECT RECORD DOCUMENTS

- A. General: Do not use Project Record Documents for construction purposes. Protect Project Record Documents from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.
- B. Record Drawings: Maintain and submit one set of blue- or black-line white prints of Contract Drawings and Shop Drawings.
  - 1. Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up record prints.
    - a. Give particular attention to information on concealed elements that cannot be readily identified and recorded later, and the locations of those items that need to be located for servicing.
    - b. Accurately record information in a readily understandable drawing technique.
    - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
    - d. Mark record prints completely and accurately.

- e. Mark important additional information that was either shown schematically or omitted from original Drawings.
  - f. Note Change Order numbers, alternate numbers, and similar identification where applicable.
- C. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications. Clearly mark copy to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
  - 3. Note related Change Orders, Record Drawings, and Product Data, where applicable.
- D. Record Product Data: Submit one copy of each Product Data submittal. Mark one set to indicate the actual product installation where installation varies substantially from that indicated in Product Data.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
  - 3. Note related Change Orders, Record Drawings, where applicable.
- E. Miscellaneous Record Submittals: Assemble miscellaneous records required by other Specification Sections such as tests and inspections, and inspections by authorities having jurisdiction. Bind or file miscellaneous records and identify each, ready for continued use and reference.

## 1.6 OPERATION AND MAINTENANCE MANUALS

- A. Assemble a complete set of operation and maintenance data indicating the operation and maintenance of each system, subsystem, and piece of equipment not part of a system. Include operation and maintenance data required in individual Specification Sections and as follows:
  - 1. Operation Data:
    - a. Emergency instructions and procedures.
    - b. System, subsystem, and equipment descriptions, including operating standards.
    - c. Operating procedures, including startup, shutdown, seasonal, and weekend operations.
    - d. Description of controls and sequence of operations.
    - e. Piping diagrams.
    - f. Noise and vibration adjustments.
    - g. Effective energy utilization.
  - 2. Maintenance Data:
    - a. Manufacturer's information, including list of spare parts.

- b. Name, address, and telephone number of Installer or supplier.
  - c. Maintenance procedures.
  - d. Maintenance and service schedules for preventive and routine maintenance.
  - e. Maintenance record forms.
  - f. Sources of spare parts and maintenance materials.
  - g. Copies of maintenance service agreements.
  - h. Copies of warranties and bonds.
  - i. Cleaning.
  - j. Control sequence.
  - k. Fuels, lubricants, tool, and other related items.
  - l. Identification systems.
- B. Organize operation and maintenance manuals into suitable sets of manageable size. Bind and index data in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, with pocket inside the covers to receive folded oversized sheets. Identify each binder on front and spine with the printed title "OPERATION AND MAINTENANCE MANUAL," Project name, and subject matter of contents.

## 1.7 WARRANTIES

- A. Submittal Time: Submit written warranties for designated portions of the Work.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period.

## PART 2 - PRODUCTS

### 2.1 MATERIALS (Not Used)

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
    - a. Remove tools, construction equipment, machinery, and surplus material from Project site.

- b. Clean exposed hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition.
  - c. Remove debris and surface dust from limited access spaces, including plenums, shafts, and similar spaces.
  - d. Sweep concrete floors broom clean in unoccupied spaces.
  - e. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
  - f. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
  - g. Remove labels that are not meant to be permanent.
  - h. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
    - 1) Do not paint over or remove "UL" and similar labels, including mechanical and electrical nameplates.
  - i. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - j. Replace parts subject to unusual operating conditions.
  - k. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - l. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - m. Clean ducts, blowers, and coils if units were operated without filters during construction.
  - n. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in lighting fixtures to comply with requirements for new fixtures.
  - o. Leave Project clean and ready for occupancy.
- C. Comply with safety standards for cleaning. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01 77 00  
01170/9-98/ttt

## Certificate of Substantial Completion

**Gensler**

<b>Project</b>	<b>Project Number</b>
<b>Project Location</b>	<b>Date Issued</b>
<b>Owner / Client</b>	<b>File</b> 6SC
<b>Contractor</b>	<b>This is page</b> 1 of
<b>Contract Date</b>	
<b>Date of Substantial Completion</b>	
<b>Date of Substantial Completion is applicable to</b>	<input type="checkbox"/> <b>Entire Project</b> <input type="checkbox"/> <b>Designated Portion of Project, as described below</b>
<b>Punch List</b>	<input type="checkbox"/> <b>Attached</b> <input type="checkbox"/> <b>Transmitted Separately</b> <input type="checkbox"/> <b>None</b>

The Work performed under the Contract for Construction has been reviewed and found, to Architect's best knowledge, information and belief, to be substantially complete as of the Date of Substantial Completion entered above. The Date of Substantial Completion is the date when the Work, or designated portion thereof, is sufficiently complete in accordance with the Contract Documents (including any approved change Orders) and all required final inspections and permits have been obtained so Owner can occupy or utilize the Work for its intended use, subject only to completion of minor items (Punch List).

The Work, or designated portion thereof shall include:

A list of items to be completed or corrected and the date(s) when such items are to be completed (Punch List) may be attached hereto or transmitted separately. This Certificate of Substantial Completion, or omission of any item from the Punch List shall not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. The Architect shall not be responsible for any omission from, or other discrepancy on, the Punch List. Contractor agrees to complete or correct the items listed on the Punch List within \_\_\_\_\_ days of the above date of Substantial Completion.

Warranties required under the Contract Documents shall commence on the Date of Substantial Completion, except for Punch List items and other incomplete work, warranties for which shall commence on the date such work is satisfactorily completed, unless otherwise agreed in writing by Owner and Contractor.

The Owner and Contractor shall fulfill and transfer responsibilities with regard to insurance, utilities, maintenance, damage, security, surety, and the like, in accordance with the Contract Documents or other written agreement between them.

The Architect has conducted no tests for, and made no determination of the presence or lack of asbestos or other hazardous or toxic substances or pollutants.

The Basic Services of the Architect shall end 30 days after the Date of Substantial Completion, unless otherwise stated in the Owner/Architect Agreement or agreed in writing.

Begin text here . . .

<b>Architect</b>	<b>By</b>	<b>Date Signed</b>
Gensler		
<b>Owner/Client</b>	<b>By</b>	<b>Date Signed</b>
<b>Contractor</b>	<b>By</b>	<b>Date Signed</b>

c:\work\forms\specs\sc\_cerofsubstantialcomp.dot



**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 01 78 23 - OPERATION AND MAINTENANCE DATA

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
  - 1. Operation and maintenance documentation directory.
  - 2. Emergency manuals.
  - 3. Operation manuals for systems, subsystems, and equipment.
  - 4. Product maintenance manuals.
  - 5. Systems and equipment maintenance manuals.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.

#### 1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
  - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
  - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:

1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
    - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
    - b. Enable inserted reviewer comments on draft submittals.
  2. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Architect will return two copies.
- C. Initial Manual Submittal: Submit draft copy of each manual at least 30 days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.
1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.

## PART 2 - PRODUCTS

### 2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information. Include a section in the directory for each of the following:
1. List of documents.
  2. List of systems.
  3. List of equipment.
  4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to

ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

## 2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
1. Title page.
  2. Table of contents.
  3. Manual contents.
- B. Title Page: Include the following information:
1. Subject matter included in manual.
  2. Name and address of Project.
  3. Name and address of Owner.
  4. Date of submittal.
  5. Name and contact information for Contractor.
  6. Name and contact information for Construction Manager.
  7. Name and contact information for Architect.
  8. Name and contact information for Commissioning Authority.
  9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
  10. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
  2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily

navigated file tree. Configure electronic manual to display bookmark panel on opening file.

- F. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
    - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
    - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents. Indicate volume number for multiple-volume sets.
  2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
  3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
  4. Supplementary Text: Prepared on 8-1/2-by-11-inch white bond paper.
  5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
    - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
    - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

## 2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
1. Type of emergency.
  2. Emergency instructions.
  3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
1. Fire.
  2. Flood.
  3. Gas leak.
  4. Water leak.
  5. Power failure.

6. Water outage.
  7. System, subsystem, or equipment failure.
  8. Chemical release or spill.
- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
1. Instructions on stopping.
  2. Shutdown instructions for each type of emergency.
  3. Operating instructions for conditions outside normal operating limits.
  4. Required sequences for electric or electronic systems.
  5. Special operating instructions and procedures.

## 2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
  2. Performance and design criteria if Contractor has delegated design responsibility.
  3. Operating standards.
  4. Operating procedures.
  5. Operating logs.
  6. Wiring diagrams.
  7. Control diagrams.
  8. Piped system diagrams.
  9. Precautions against improper use.
  10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
  2. Manufacturer's name.
  3. Equipment identification with serial number of each component.
  4. Equipment function.
  5. Operating characteristics.
  6. Limiting conditions.
  7. Performance curves.
  8. Engineering data and tests.
  9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
  2. Equipment or system break-in procedures.

3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

## 2.5 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
1. Product name and model number.
  2. Manufacturer's name.
  3. Color, pattern, and texture.
  4. Material and chemical composition.
  5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
1. Inspection procedures.
  2. Types of cleaning agents to be used and methods of cleaning.
  3. List of cleaning agents and methods of cleaning detrimental to product.
  4. Schedule for routine cleaning and maintenance.
  5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.



## 2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
  - 1. Standard maintenance instructions and bulletins.
  - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
  - 3. Identification and nomenclature of parts and components.
  - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
  - 1. Test and inspection instructions.
  - 2. Troubleshooting guide.
  - 3. Precautions against improper maintenance.
  - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  - 5. Aligning, adjusting, and checking instructions.
  - 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
  - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
  - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

## PART 3 - EXECUTION

### 3.1 MANUAL PREPARATION

- A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- B. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- C. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
  1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
  2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- D. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
  1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- E. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
  1. Do not use original project record documents as part of operation and maintenance manuals.
  2. Comply with requirements of newly prepared record Drawings in Section 017839 "Project Record Documents."
- F. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 01 78 23

## SECTION 01 78 39 - PROJECT RECORD DOCUMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
  - 1. Record Drawings.
  - 2. Record Specifications.
  - 3. Record Product Data.
  - 4. Miscellaneous record submittals.
- B. Related Requirements:
  - 1. Section 017300 "Execution" for final property survey.
  - 2. Section 017700 "Closeout Procedures" for general closeout procedures.
  - 3. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

#### 1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
  - 1. Number of Copies: Submit copies of record Drawings as follows:
    - a. Initial Submittal:
      - 1) Submit PDF electronic files of scanned record prints.
      - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
    - b. Final Submittal:
      - 1) Submit two paper-copy set(s) of marked-up record prints.
      - 2) Submit PDF electronic files of scanned record prints.
      - 3) Print each drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.

- C. Record Product Data: Submit annotated PDF electronic files and directories of each submittal.
  - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit one paper copy and annotated PDF electronic files and directories of each submittal.
- E. Reports: Submit written report indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

## PART 2 - PRODUCTS

### 2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
  - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Accurately record information in an acceptable drawing technique.
    - c. Record data as soon as possible after obtaining it.
    - d. Record and check the markup before enclosing concealed installations.
    - e. Cross-reference record prints to corresponding archive photographic documentation.
  - 2. Content: Types of items requiring marking include, but are not limited to, the following:
    - a. Dimensional changes to Drawings.
    - b. Revisions to details shown on Drawings.
    - c. Depths of foundations below first floor.
    - d. Locations and depths of underground utilities.
    - e. Revisions to routing of piping and conduits.
    - f. Revisions to electrical circuitry.
    - g. Actual equipment locations.
    - h. Duct size and routing.
    - i. Locations of concealed internal utilities.
    - j. Changes made by Change Order or [**Construction**] [**Work**] Change Directive.
    - k. Changes made following Architect's written orders.
    - l. Details not on the original Contract Drawings.
    - m. Field records for variable and concealed conditions.
    - n. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
  4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
  5. Mark important additional information that was either shown schematically or omitted from original Drawings.
  6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
  7. Format: Annotated PDF electronic file.
  8. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
  9. Refer instances of uncertainty to Architect for resolution.
  10. Architect will furnish Contractor one set of digital data files of the Contract Drawings for use in recording information.
    - a. See Section 013300 "Submittal Procedures" for requirements related to use of Architect's digital data files.
    - b. Architect will provide data file layer information. Record markups in separate layers.
- B. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
  2. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- C. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
  2. Format: Annotated PDF electronic file.
  3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
  4. Identification: As follows:
    - a. Project name.
    - b. Date.
    - c. Designation "PROJECT RECORD DRAWINGS."
    - d. Name of Architect.
    - e. Name of Contractor.

## 2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file or scanned PDF electronic file(s) of marked-up paper copy of Specifications.

## 2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
  - 3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file or scanned PDF electronic file(s) of marked-up paper copy of Product Data.
  - 1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

## 2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file or scanned PDF electronic file(s) of marked-up miscellaneous record submittals.
  - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 01 78 39

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 01 79 00 - DEMONSTRATION AND TRAINING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
  - 1. Demonstration of operation of systems, subsystems, and equipment.
  - 2. Training in operation and maintenance of systems, subsystems, and equipment.
- B. Allowances: Furnish demonstration and training instruction time under the Demonstration and Training Allowance as specified in Section 012100 "Allowances."
- C. Unit Price for Instruction Time: Length of instruction time will be measured by actual time spent performing demonstration and training in required location. No payment will be made for time spent assembling educational materials, setting up, or cleaning up. See requirements in Section 012200 "Unit Prices."

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
  - 1. Indicate proposed training modules using manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.
- B. Qualification Data: For instructor.
- C. Attendance Record: For each training module, submit list of participants and length of instruction time.
- D. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.

1.4 CLOSEOUT SUBMITTALS

1.5 QUALITY ASSURANCE

- A. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Section 014000 "Quality Requirements," experienced in operation and maintenance procedures and training.

1.6 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data has been reviewed and approved by Architect.

PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
  - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
    - a. System, subsystem, and equipment descriptions.
    - b. Performance and design criteria if Contractor is delegated design responsibility.
    - c. Operating standards.
    - d. Regulatory requirements.
    - e. Equipment function.
    - f. Operating characteristics.
    - g. Limiting conditions.
    - h. Performance curves.
  - 2. Documentation: Review the following items in detail:
    - a. Emergency manuals.
    - b. Operations manuals.

- c. Maintenance manuals.
  - d. Project record documents.
  - e. Identification systems.
  - f. Warranties and bonds.
  - g. Maintenance service agreements and similar continuing commitments.
3. Emergencies: Include the following, as applicable:
- a. Instructions on meaning of warnings, trouble indications, and error messages.
  - b. Instructions on stopping.
  - c. Shutdown instructions for each type of emergency.
  - d. Operating instructions for conditions outside of normal operating limits.
  - e. Sequences for electric or electronic systems.
  - f. Special operating instructions and procedures.
4. Operations: Include the following, as applicable:
- a. Startup procedures.
  - b. Equipment or system break-in procedures.
  - c. Routine and normal operating instructions.
  - d. Regulation and control procedures.
  - e. Control sequences.
  - f. Safety procedures.
  - g. Instructions on stopping.
  - h. Normal shutdown instructions.
  - i. Operating procedures for emergencies.
  - j. Operating procedures for system, subsystem, or equipment failure.
  - k. Seasonal and weekend operating instructions.
  - l. Required sequences for electric or electronic systems.
  - m. Special operating instructions and procedures.
5. Adjustments: Include the following:
- a. Alignments.
  - b. Checking adjustments.
  - c. Noise and vibration adjustments.
  - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
- a. Diagnostic instructions.
  - b. Test and inspection procedures.
7. Maintenance: Include the following:
- a. Inspection procedures.
  - b. Types of cleaning agents to be used and methods of cleaning.
  - c. List of cleaning agents and methods of cleaning detrimental to product.
  - d. Procedures for routine cleaning
  - e. Procedures for preventive maintenance.
  - f. Procedures for routine maintenance.

- g. Instruction on use of special tools.
- 8. Repairs: Include the following:
  - a. Diagnosis instructions.
  - b. Repair instructions.
  - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  - d. Instructions for identifying parts and components.
  - e. Review of spare parts needed for operation and maintenance.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 017823 "Operation and Maintenance Data."
- B. Set up instructional equipment at instruction location.

### 3.2 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
  - 1. Owner will furnish Contractor with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
  - 1. Schedule training with Owner, through Construction Manager, with at least seven days' advance notice.
- D. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- E. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of a demonstration performance-based test.
- F. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

END OF SECTION 01 79 00

## SECTION 02 41 19 – SELECTIVE STRUCTURE DEMOLITION

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Demolition and removal of selected portions of a building or structure.
2. Repair procedures for selective demolition operations.
3. Salvage of existing items to be reused or recycled.

##### B. Related Sections:

1. Division 01 Section "Summary" for use of the premises and Owner occupancy requirements.
2. Division 01 Section "Work Restrictions" for restrictions on use of the premises due to Owner or tenant occupancy.
3. Division 01 Section "Construction Progress Documentation" for preconstruction photographs taken before selective demolition.
4. Division 01 Section "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for selective demolition operations.
5. Division 01 Section "Cutting and Patching" for cutting and patching procedures for selective demolition operations.
6. Division 22 Sections for demolishing, cutting, patching, or relocating plumbing items.
7. Division 23 Sections for demolishing, cutting, patching, or relocating HVAC items.
8. Division 26 Sections for demolishing, cutting, patching, or relocating electrical items.

#### 1.2 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

#### 1.3 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.

- B. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

#### 1.4 SUBMITTALS

- A. Qualification Data: For demolition firm professional engineer refrigerant recovery technician.
  - 1. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- B. Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Identify options if proposed measures are later determined to be inadequate.
- C. Schedule of Selective Demolition Activities: Indicate the following:
  - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
  - 2. Interruption of utility services and duration of interruption.
  - 3. Coordination for shutoff, capping, and continuation of utility services.
  - 4. Use of elevator and stairs.
  - 5. Locations of temporary partitions and means of egress.
  - 6. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
  - 7. Means of protection for items to remain and items in path of waste removal from building.
- D. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.
- E. Predemolition Photographs: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Submit before Work begins.
- F. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

#### 1.5 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Professional Engineer Qualifications: Comply with Division 01 Section "Quality Requirements."

- C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Standards: Comply with ANSI A10.6 and NFPA 241.

#### 1.6 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
  - 1. Comply with requirements specified in Division 01 Section "Summary."
- B. Owner assumes no responsibility for condition of areas to be selectively demolished.
  - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
  - 2. Before selective demolition, Owner will remove the following items:
    - a. All freestanding furniture, reference materials, and records currently stored in the building.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
  - 1. Hazardous materials will be removed by Owner before start of the Work.
  - 2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- D. Storage or sale of removed items or materials on-site will not be permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
  - 1. Maintain fire-protection facilities in service during selective demolition operations.

#### 1.7 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.
  - 1. If possible, retain original Installer or fabricator to patch the exposed Work listed below that is damaged during selective demolition. If it is impossible to engage original Installer or fabricator, engage another recognized experienced and specialized firm.
    - a. Processed concrete finishes.
    - b. Ornamental metal.

- c. Roofing.
- d. Firestopping.
- e. Stucco and ornamental plaster.
- f. Finished wood flooring.
- g. HVAC enclosures, cabinets, or covers.

## PART 2 - PRODUCTS

### 2.1 REPAIR MATERIALS

- A. Use repair materials identical to existing materials.
  - 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
  - 2. Use materials whose installed performance equals or surpasses that of existing materials.
- B. Comply with material and installation requirements specified in individual Specification Sections.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.
- F. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.
  - 1. Comply with requirements specified in Division 01 Section "Photographic Documentation."
  - 2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.



- G. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

### 3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services indicated to remain and protect them against damage during selective demolition operations.
  - 1. Comply with requirements for existing services/systems interruptions specified in Division 01 Section "Summary."
- B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
  - 1. Arrange to shut off indicated utilities with utility companies.
  - 2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
  - 3. Do not interrupt existing utilities serving occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to authorities having jurisdiction.
    - a. Provide at least 72 hours' notice to Owner if shutdown of service is required during changeover.
  - 4. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.
    - a. Where entire wall is to be removed, existing services/systems may be removed with removal of the wall.
- C. Utility Requirements: Refer to Divisions 22 and 26 Sections for shutting off, disconnecting, removing, and sealing or capping utilities. Do not start selective demolition work until utility disconnecting and sealing have been completed and verified in writing.

### 3.3 PREPARATION

- A. Dangerous Materials: Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
  2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
  3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
  4. Cover and protect furniture, furnishings, and equipment that have not been removed.
  5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 01 Section "Temporary Facilities and Controls."
- D. Temporary Enclosures: Provide temporary enclosures for protection of existing building and construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
1. Where heating or cooling is needed and permanent enclosure is not complete, provide insulated temporary enclosures. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions and effects.
- E. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
- F. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, and structural supports to preserve stability and prevent movement, settlement, or collapse of construction indicated to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
1. Strengthen or add new supports when required during progress of selective demolition.

### 3.4 POLLUTION CONTROLS

- A. Dust Control: Use temporary enclosures, and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations.
1. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
  2. Wet mop floors to eliminate trackable dirt and wipe down walls and doors of demolition enclosure. Vacuum carpeted areas.
- B. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

3.5 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
  2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
  3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
  4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
  5. Maintain adequate ventilation when using cutting torches.
  6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
  7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
  8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
  9. Dispose of demolished items and materials promptly.
  10. Return elements of construction and surfaces that are to remain to condition existing before selective demolition operations began.
- B. Existing Facilities: Comply with building manager's requirements for using and protecting elevators, stairs, walkways, loading docks, building entries, and other building facilities during selective demolition operations.
- C. Removed and Salvaged Items: Comply with the following:
1. Clean salvaged items.
  2. Pack or crate items after cleaning. Identify contents of containers.
  3. Store items in a secure area until delivery to Owner.
  4. Transport items to Owner's storage area designated by Owner.
  5. Protect items from damage during transport and storage.
- D. Removed and Reinstalled Items: Comply with the following:
1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
  2. Pack or crate items after cleaning and repairing. Identify contents of containers.
  3. Protect items from damage during transport and storage.

4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

### 3.6 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals, using power-driven saw, then remove concrete between saw cuts.
- B. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.
- C. Resilient Floor Coverings: Remove floor coverings and adhesive according to recommendations in RFCI-WP and its Addendum.
  1. Remove residual adhesive and prepare substrate for new floor coverings by one of the methods recommended by RFCI.
- D. Air-Conditioning Equipment: Remove equipment without releasing refrigerants.

### 3.7 PATCHING AND REPAIRS

- A. General: Promptly repair damage to adjacent construction caused by selective demolition operations.
- B. Patching: Comply with Division 01 Section "Cutting and Patching."
- C. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
  1. Completely fill holes and depressions in existing masonry walls that are to remain with an approved masonry patching material applied according to manufacturer's written recommendations.
- D. Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.
- E. Floors and Walls: Where walls or partitions that are demolished extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

1. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.
  2. Where patching occurs in a painted surface, apply primer and intermediate paint coats over patch and apply final paint coat over entire unbroken surface containing patch. Provide additional coats until patch blends with adjacent surfaces.
  3. Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
- F. Ceilings: Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

### 3.8 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow demolished materials to accumulate on-site.
  2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

### 3.9 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 02 41 19  
024119/5-05/drh

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa – Class V Org

## SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture.
- C. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement.
- D. Material certificates.
- E. Material test reports.

#### 1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
  - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- B. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
- C. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
  - 1. ACI 301, "Specifications for Structural Concrete," Sections 1 through 5.
  - 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

## PART 2 - PRODUCTS

### 2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

### 2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, plain, fabricated from as-drawn steel wire into flat sheets.
- C. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice."

### 2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
  - 1. Portland Cement: ASTM C 150, Type I, Type I/II or Type III. May supplement with the following:
    - a. Fly Ash: ASTM C 618, Class F or C.
- B. Normal-Weight Aggregates: ASTM C 33, graded.
  - 1. Maximum Coarse-Aggregate Size: 3/4 inch (19 mm) nominal or as noted.
  - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Water: ASTM C 94/C 94M and potable.

### 2.4 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.



1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

## 2.5 FIBER REINFORCEMENT

- A. Synthetic Micro-Fiber: Fibrillated polypropylene micro-fibers engineered and designed for use in concrete, complying with ASTM C 1116/C 1116M, Type III, 1 to 2-1/4 inches (25 to 57 mm) long.

## 2.6 VAPOR RETARDERS

- A. Sheet Vapor Retarder: Polyethylene sheet, ASTM D 4397, not less than 10 mils (0.25 mm) thick.

## 2.7 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, nondissipating, certified by curing compound manufacturer to not interfere with bonding of floor covering. Also, obtain and submit certification from floor covering installer that curing compound is acceptable.
- F. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.
- G. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

## 2.8 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.

## 2.9 CONCRETE MIXTURES

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
- B. Cementitious Materials: Use fly ash, as needed to reduce the total amount of portland cement which would otherwise be used, by not more than 25 percent.
- C. Admixtures: Use admixtures according to manufacturer's written instructions.
  - 1. Use water-reducing, high-range water-reducing, and/or plasticizing admixture in concrete, as required, for placement and workability.
  - 2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
  - 3. Use water-reducing admixture in pumped concrete and concrete with a water-cementitious materials ratio below 0.50.
- D. Proportion normal-weight concrete mixture Class I for building footings, piers, and all interior concrete not otherwise noted as follows:
  - 1. Minimum Compressive Strength: 4000 psi (27.6 MPa) at 28 days.
  - 2. Maximum Water-Cementitious Materials Ratio: 0.44.
  - 3. Slump Limit: 8 inches (200 mm) for concrete with verified slump of 2 to 4 inches (50 to 100 mm) before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch (25 mm).
  - 4. Air Content: Do not allow air content of trowel-finished floors to exceed 3 percent.
- E. Proportion normal-weight concrete mixture Class II for all exterior concrete permanently exposed to the weather as follows:
  - 1. Minimum Compressive Strength: 4000 psi (27.6 MPa) at 28 days.
  - 2. Maximum Water-Cementitious Materials Ratio: 0.45.
  - 3. Slump Limit: 8 inches (200 mm) for concrete with verified slump of 2 to 4 inches (50 to 100 mm) before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch (25 mm).
  - 4. Air Content: 4 to 7 percent at point of delivery
- F. Proportion normal-weight concrete mixture Class V for interior slabs-on-grade as follows:
  - 1. Minimum Compressive Strength: 3500 psi (24.1 MPa) at 28 days.
  - 2. Maximum Water-Cementitious Materials Ratio: 0.45.
  - 3. Slump Limit: 8 inches (200 mm) for concrete with verified slump of 2 to 4 inches (50 to 100 mm) before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch (25 mm).
  - 4. Air Content: Do not allow air content of trowel-finished floors to exceed 3 percent.
- G. Proportion normal-weight concrete mixture Class VI for pan stair fill as follows:
  - 1. Minimum Compressive Strength: 3000 psi (20.7 MPa) at 28 days.
  - 2. Maximum Coarse Aggregate Size: 3/8 inch.

3. Slump Limit: 8 inches (200 mm) for concrete with verified slump of 2 to 4 inches (50 to 100 mm) before adding high-range water-reducing admixture or plasticizing admixture, plus or minus 1 inch (25 mm).
4. Air Content: Do not allow air content of trowel-finished floors to exceed 3 percent.

H. Proportion normal-weight concrete mixture Class IV for masonry grout as follows:

1. Minimum Compressive Strength: 3000 psi (20.7 MPa) at 28 days.
2. Maximum Coarse Aggregate Size: 3/8 inch.
3. Slump Limit: 7 inches, plus or minus 1 inch (25 mm).

I. Proportion normal-weight concrete mixture Class III for earth fill as follows:

1. Minimum Compressive Strength: 1500 psi at 28 days.

2.10 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."
- B. Welding of reinforcement shall not be permitted unless specifically shown on Contract Documents or written approval from Architect has been received.

2.11 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
  1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Chamfer exterior corners and edges of permanently exposed concrete.

### 3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

### 3.3 VAPOR RETARDERS

- A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.
  - 1. Lap joints 6 inches (150 mm) and seal with manufacturer's recommended tape.

### 3.4 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
  - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

### 3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
  - 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3.2 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
  - 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- (3.2-mm-) wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.
- D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

### 3.6 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

- B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
  - 1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
- C. Cold-Weather Placement: Comply with ACI 301 and ACI 306.1.
- D. Hot-Weather Placement: Comply with ACI 301 and ACI 305.1.

### 3.7 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
  - 1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
  - 1. Apply to concrete surfaces exposed to public view, to receive a rubbed finish, or to be covered with a coating or covering material applied directly to concrete.
- C. Rubbed Finish: Apply the following to smooth-formed finished as-cast concrete where indicated:
  - 1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.
  - 2. Grout-Cleaned Finish: Wet concrete surfaces and apply grout of a consistency of thick paint to coat surfaces and fill small holes. Mix one part portland cement to one and one-half parts fine sand with a 1:1 mixture of bonding admixture and water. Add white portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces. Scrub grout into voids and remove excess grout. When grout whitens, rub surface with clean burlap and keep surface damp by fog spray for at least 36 hours.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

### 3.8 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraighening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Scratch Finish: While still plastic, texture concrete surface that has been screeded and bull-floated or darbied. Use stiff brushes, brooms, or rakes to produce a profile amplitude of 1/4 inch (6 mm) in one direction.
  - 1. Apply scratch finish to surfaces indicated and to receive mortar setting beds for bonded cementitious floor finishes.
- C. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraighening until surface is left with a uniform, smooth, granular texture.
  - 1. Apply float finish to surfaces indicated to receive trowel finish and to be covered with sand-bed terrazzo.
- D. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
  - 1. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
  - 2. Finish and measure surface so gap at any point between concrete surface and an unveled, freestanding, 10-ft.- (3.05-m-) long straightedge resting on two high spots and placed anywhere on the surface does not exceed 1/4 inch (6 mm).
- E. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces where ceramic or quarry tile is to be installed by either thickset or thin-set method. While concrete is still plastic, slightly scarify surface with a fine broom.
  - 1. Comply with flatness and levelness tolerances for trowel-finished floor surfaces.
- F. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.

### 3.9 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and

during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
  - a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer and flooring installer certify curing compound will not interfere with bonding of floor covering used on Project.
4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

### 3.10 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

### 3.11 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.

END OF SECTION 03 30 00

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 03 54 13 - GYPSUM CEMENT UNDERLAYMENT

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes gypsum-cement-based, self-leveling underlayment for application below interior floor coverings.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Include plans indicating substrates, locations, and average depths of underlayment based on survey of substrate conditions.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Certificates: Signed by manufacturers of underlayment and floor-covering systems certifying that products are compatible.
- C. Minutes of preinstallation conference.

#### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Installer who is approved by manufacturer for application of underlayment products required for this Project.
- B. Product Compatibility: Manufacturers of underlayment and floor-covering systems certify in writing that products are compatible.
- C. Fire-Resistance Ratings: Where indicated, provide gypsum-cement underlayment systems identical to those of assemblies tested for fire resistance per ASTM E 119 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Indicate design designations from UL's "Fire Resistance Directory".

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to comply with manufacturer's written instructions to prevent deterioration from moisture or other detrimental effects.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Comply with manufacturer's written instructions for substrate temperature, ventilation, ambient temperature and humidity, and other conditions affecting underlayment performance.
  - 1. Place gypsum-cement-based underlayments only when ambient temperature and temperature of substrates are between **50 and 80 deg F**.

1.8 COORDINATION

- A. Coordinate application of underlayment with requirements of floor-covering products and adhesives, to ensure compatibility of products.

PART 2 - PRODUCTS

2.1 GYPSUM-CEMENT-BASED UNDERLAYMENTS

- A. Underlayment: Gypsum-cement-based, self-leveling product that can be applied in minimum uniform thickness of **1/8 inch** and that can be feathered at edges to match adjacent floor elevations.
  - 1. Products: Subject to compliance with requirements, provide one of the following:
    - a. Hacker Industries, Inc.; Firm-Fill 2010 Floor Underlayment.
    - b. Maxxon Corporation; Gyp-Crete, Gyp-Crete 2000.
    - c. USG Corporation; Levelrock 2500, Levelrock RH.
  - 2. Compressive Strength: Not less than 1100 psi at 28 days when tested according to ASTM C 109/C 109M.
  - 3. Underlayment Additive: Resilient-emulsion product of underlayment manufacturer, formulated for use with underlayment when applied to substrate and conditions indicated.
- B. Water: Potable and at a temperature of not more than **70 deg F**.
- C. Reinforcement: For underlayment applied to wood substrates, provide galvanized metal lath or other corrosion-resistant reinforcement recommended in writing by underlayment manufacturer.
- D. Primer: Product of underlayment manufacturer recommended in writing for substrate, conditions, and application indicated.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, with Installer present, for conditions affecting performance.
  - 1. Proceed with application only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. General: Prepare and clean substrate according to manufacturer's written instructions.
  - 1. Treat nonmoving substrate cracks according to manufacturer's written instructions to prevent cracks from telegraphing (reflecting) through underlayment.
  - 2. Fill substrate voids to prevent underlayment from leaking.
- B. Wood Substrates: Mechanically fasten loose boards and panels to eliminate substrate movement and squeaks. Sand to remove coatings that might impair underlayment bond and remove sanding dust.
  - 1. Install underlayment reinforcement recommended in writing by manufacturer.
- C. Adhesion Tests: After substrate preparation, test substrate for adhesion with underlayment according to manufacturer's written instructions.

### 3.3 APPLICATION

- A. General: Mix and apply underlayment components according to manufacturer's written instructions.
  - 1. Close areas to traffic during underlayment application and for time period after application recommended in writing by manufacturer.
  - 2. Coordinate application of components to provide optimum underlayment-to-substrate and intercoat adhesion.
  - 3. At substrate expansion, isolation, and other moving joints, allow joint of same width to continue through underlayment.
- B. Apply primer over prepared substrate at manufacturer's recommended spreading rate.
- C. Apply underlayment to produce uniform, level surface.
  - 1. Feather edges to match adjacent floor elevations.
- D. Cure underlayment according to manufacturer's written instructions. Prevent contamination during application and curing processes.
- E. Do not install floor coverings over underlayment until after time period recommended in writing by underlayment manufacturer.

- F. Remove and replace underlayment areas that evidence lack of bond with substrate, including areas that emit a "hollow" sound when tapped.

3.4 PROTECTION

- A. Protect underlayment from concentrated and rolling loads for remainder of construction period.

END OF SECTION 03 54 13

## SECTION 04 01 20 - MAINTENANCE OF UNIT MASONRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes maintenance of unit masonry consisting of brick and terra cotta clay masonry restoration and cleaning. Retain first paragraph below if salvaged brick is available from Owner for reuse.

#### 1.2 DEFINITIONS

- A. Very Low-Pressure Spray: Under 100 psi.
- B. Low-Pressure Spray: 100 to 400 psi; 4 to 6 gpm.
- C. Medium-Pressure Spray: 400 to 800 psi; 4 to 6 gpm.
- D. High-Pressure Spray: 800 to 1200 psi ; 4 to 6 gpm.
- E. Saturation Coefficient: Ratio of the weight of water absorbed during immersion in cold water to weight absorbed during immersion in boiling water; used as an indication of resistance of masonry units to freezing and thawing.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include recommendations for application and use. Include test data substantiating that products comply with requirements.
- B. Cleaning Program: Indicate the following:
  - 1. Cleaning process, including protection of surrounding materials on building and site.
  - 2. Control of runoff during operations.
  - 3. Detailed description of materials, methods and equipment to be used.
  - 4. Provisions for expansion joints or other sealant joints.
  - 5. Provisions for flashing, lighting fixtures, conduits, and weep holes as required.
  - 6. Replacement and repair anchors. Include details of anchors within individual masonry units, with locations of anchors and dimensions of holes and recesses in units required for anchors.
- C. Qualification Data: For restoration specialists [including chemical-cleaner manufacturer.
- D. Restoration Program.
- E. Cleaning Program.

#### 1.4 QUALITY ASSURANCE

- A. **Manufacturer Qualifications:** A firm regularly engaged in producing masonry cleaning compounds, which have been used on similar projects with successful results, and that retains factory-trained representatives who are available for consultation and jobsite inspection and assistance at no additional cost.
- B. **Cleaning Program:** Prepare a written cleaning program that describes cleaning process in detail, including materials, methods, and equipment to be used, protection of surrounding materials, and control of runoff during operations.
- C. **Cleaning and Repair Appearance Standard:** Cleaned and repaired surfaces are to have a uniform appearance as viewed from 50 feet away by Architect. Perform additional paint and stain removal, general cleaning, and spot cleaning of small areas that are noticeably different, so that surface blends smoothly into surrounding areas.
  - 1. Test cleaners and methods on samples of adjacent non-masonry materials for possible reaction where cleaners and methods are known to have a deleterious effect.
  - 2. Allow a waiting period of the duration indicated, but not less than 7 calendar days, after completion of sample cleaning to permit a study of sample panels for negative reactions.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original and unopened containers, labeled with manufacturer's name and type of products.
- B. Comply with manufacturer's recommendations for minimum and maximum temperature requirements for storage..
- C. Store hydrated lime in manufacturer's original and unopened containers. Discard lime if containers have been damaged or have been opened for more than two days.

#### 1.6 PROJECT CONDITIONS

- A. **Hot-Weather Requirements:** Protect masonry repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials. Provide artificial shade and wind breaks and use cooled materials as required to minimize evaporation. Do not apply mortar to substrates with temperatures of 90 deg F and above unless otherwise indicated.
- B. For manufactured repair materials, perform work within the environmental limits set by each manufacturer.

### PART 2 - PRODUCTS

#### 2.1 CLEANING MATERIALS

- A. Water for Cleaning: Clean, potable, free of oils, acids, alkalis, salts, and organic matter.

- B. Brushes: Soft fiber bristle only. Bristles may be natural or synthetic but not metallic. Bristles shall not be capable of causing surface abrasion of brick masonry whether applied manually or mechanically.
- C. Job-Mixed Detergent Solution: Solution prepared by mixing 3 oz. of trisodium phosphate (TSP), 1 oz. of laundry detergent (Tide, All, etc.), 1 quart of 5 percent sodium hypochlorite (bleach), and 3 quarts of water for each gallon of solution required
- D. Job-Mixed Mold, Mildew, and Algae Remover: Solution prepared by mixing 2 cups of tetrasodium polyphosphate, 5 quarts of 5 percent sodium hypochlorite (bleach), and 15 quarts of hot water for every 5 gal. of solution required.
- E. Chemical Paint Remover: Manufacturer's standard formulations for removing paint coatings from masonry.
- F. Liquid Strippable Masking Agent: Manufacturer's standard liquid, film-forming, strippable masking material for protecting glass and metal surfaces from the damaging effects of acidic and alkaline masonry cleaners
- G. Mortar Remover: Manufacturer's standard new brick construction cleaner formulated to remove excess grout smear and mortar residue on the face of previously installed used brick. Subject to compliance with requirements, provide the following or approved equal.
- H. Soot Remover: Manufacturer's standard alkaline cleaner formulated to remove smoke stains and soot encrustation from masonry surfaces. Subject to compliance with requirements, provide the following or approved equal
- I. Nonacidic Liquid Cleaner: Manufacturer's standard mildly alkaline liquid cleaner formulated for removing mold, mildew, and other organic soiling from ordinary building materials, including polished stone, brick, aluminum, plastics, and wood.

## PART 3 - EXECUTION

### 3.1 PRELIMINARY CLEANING

- A. Preliminary Cleaning: Before beginning general cleaning, remove extraneous substances that are resistant to cleaning methods being used. Extraneous substances include paint, calking, asphalt, and tar.
  - 1. Carefully remove heavy accumulations of material from surface of masonry with a sharp chisel. Do not scratch or chip masonry surface.
  - 2. Remove paint and calking with alkaline paint remover.
    - a. Comply with requirements in "Paint Removal" Article.
    - b. Repeat application up to two times if needed.
  - 3. Remove asphalt and tar with solvent-type paint remover.
    - a. Comply with requirements in "Paint Removal" Article.
    - b. Apply paint remover only to asphalt and tar by brush without prewetting.

- c. Allow paint remover to remain on surface for 10 to 30 minutes.
- d. Repeat application if needed.

B. Water and Chemical Spray Application Methods: Where application methods are indicated, comply with the following:

- 1. Spray Applications: Spray-apply water to masonry surfaces to comply with requirements indicated for location, purpose, water temperature, pressure, volume, and equipment. Unless otherwise indicated, hold spray nozzle no less than twelve (12) inches from surface of masonry and apply water from side to side in overlapping bands to produce uniform coverage and an even effect. Attach a twelve (12) inch long spacer bar to the nozzle, parallel with the direction of the spray, gauge the minimum distance between the spray and the surface to be cleaned.
  - a. Spray: No more than 200 psi, visibly measurable by a pressure gauge at the nozzle.
- 2. Reapplying Chemical Cleaners: Do not apply chemical cleaners to same masonry surfaces more than twice

C. Mold, Mildew, and Algae Removal:

- 1. Wet masonry with cold water applied by low-pressure spray.
- 2. Apply mold, mildew, and algae remover by brush or low-pressure spray.
- 3. Scrub masonry with medium-soft brushes until mold, mildew, and algae are thoroughly dislodged and can be removed by rinsing. Use small brushes for mortar joints and crevices. Dip brush in mold, mildew, and algae remover often to ensure that adequate fresh cleaner is used and that masonry surface remains wet.
- 4. Rinse with coldwater applied by medium pressure spray to remove mold, mildew, and algae remover and soil.

D. Nonacidic Gel Chemical Cleaning:

- 1. Wet masonry with cold water applied by low-pressure spray.
- 2. Apply nonacidic gel cleaner in 1/8-inch (3-mm) thickness by brush, working into joints and crevices. Apply quickly and do not brush out excessively so area will be uniformly covered with fresh cleaner and dwell time will be uniform throughout area being cleaned.
- 3. Let cleaner remain on surface for period indicated below:
  - a. As recommended by chemical-cleaner manufacturer.
- 4. Remove bulk of nonacidic gel cleaner by squeegeeing into containers for disposal.
- 5. Rinse with cold water applied by medium pressure spray to remove chemicals and soil.

END OF SECTION 04 01 20



## SECTION 04 20 00 – UNIT MASONRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes unit masonry assemblies consisting of the following:
  - 1. Concrete masonry units.
- B. Related Sections:
  - 1. Division 05 Section "Structural Steel Framing" for installing anchor sections of adjustable masonry anchors for connecting to structural frame.
  - 2. Division 05 Section "Metal Fabrications" for furnishing steel lintels and shelf angles installed in unit masonry assemblies.
  - 3. Division 07 Section "Sheet Metal Flashing and Trim" for furnishing manufactured reglets installed in masonry joints for metal flashing.

#### 1.2 SUBMITTALS

- A. Product Data: For each masonry unit, accessory, and other manufactured product indicated.
- B. Shop Drawings: For masonry reinforcing bars; comply with ACI 315, "Details and Detailing of Concrete Reinforcement".
- C. Samples: Showing the full range of colors and textures available for exposed masonry units and colored mortars.
- D. Material Test Reports: For each type of masonry unit, mortar, and grout required.
- E. Material Certificates: For each type of masonry unit required.

#### 1.3 PROJECT CONDITIONS

- A. Cold-Weather Requirements: Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements in ACI 530.1/ASCE 6/TMS 602.
- B. Hot-Weather Requirements: When ambient temperature exceeds 100 deg F, or 90 deg F with a wind velocity greater than 8 mph, do not spread mortar beds more than 48 inches ahead of masonry. Set masonry units within one minute of spreading mortar.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. In other Part 2 Articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
  - 1. Products: Subject to compliance with requirements, provide one of the products specified.

### 2.2 COLORS AND TEXTURES

- A. Exposed Masonry Units: Match existing size and thickness.

### 2.3 CONCRETE MASONRY UNITS

- A. Concrete Masonry Units: ASTM C 90
  - 1. Unit Compressive Strength: 2800 psi minimum, average net-area compressive strength.
  - 2. Weight Classification: Normal weight.
  - 3. Type: II, nonmoisture-controlled units.
  - 4. Special Shapes: Provide for corners, jambs, bonding, and other special conditions.

### 2.4 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C 150, Type I or II.
- B. Hydrated Lime: ASTM C 207 Type S.
- C. Mortar Cement: ASTM C 1329
- D. Aggregate for Mortar: ASTM C 144.
- E. Aggregate for Grout: ASTM C 404.
- F. Cold-Weather Admixture: Not allowed.
- G. Water: Potable.

### 2.5 REINFORCING

- A. Uncoated Steel Reinforcing Bars: ASTM A 617/A 617M, Grade 60.
- B. Masonry Joint Reinforcement: ASTM A 951; mill galvanized, carbon-steel wire for interior walls and hot-dip galvanized, carbon-steel wire for exterior walls.
  - 1. Wire Size for Side Rods: W2.8 or 0.188 inch diameter for 3/8 to 1/2 inch joints.

2. Wire Size for Cross Rods: W2.8 or 0.188 inch diameter for 3/8 to 1/2 inch joints.

## 2.6 MISCELLANEOUS MASONRY ACCESSORIES

- A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; formulated from PVC.

## 2.7 MASONRY CLEANERS

- A. Job-Mixed Detergent Solution: Solution of 1/2 cup dry measure tetrasodium polyphosphate and 1/2 cup dry measure laundry detergent dissolved in 1 gal. of water.
- B. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

## 2.8 MORTAR AND GROUT MIXES

- A. Mortar for Unit Masonry: Comply with ASTM C 270 ,Proportion Specification.
  1. For masonry below grade, in contact with earth, and where indicated, use Type S
  2. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for exterior veneer walls; for interior load-bearing walls; for interior non-load-bearing partitions; and for other applications where another type is not indicated, use Type N.
- B. Grout for Unit Masonry: Comply with ASTM C 476.
  1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 5 of ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.
  2. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Cut masonry units with motor-driven saws. Allow units cut with water-cooled saws to dry before placing, unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- B. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.

### 3.2 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Lay exposed masonry in bond pattern indicated; do not use units with less than nominal 4 inch horizontal face dimensions at corners or jambs.
- C. Built-in Work: As construction progresses, build in items specified under this and other Sections of the Specifications. Fill in solidly with masonry around built-in items.
- D. Fill cores in hollow concrete masonry units with grout 24 inches under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.

### 3.3 MORTAR BEDDING AND JOINTING

- A. Lay hollow masonry units as follows:
  - 1. With full mortar coverage on horizontal and vertical face shells.
  - 2. Bed webs in mortar in starting course on footings and in all courses of piers, columns, and pilasters, and where adjacent to cells or cavities to be filled with grout.
  - 3. For starting course on footings where cells are not grouted, spread out full mortar bed, including areas under cells.
- B. Lay solid brick-size masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
  - 1. At cavity walls, bevel beds away from cavity, to minimize mortar protrusions into cavity.
- C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than the joint thickness, unless otherwise indicated.

### 3.4 CAVITIES

- A. Keep cavities clean of mortar droppings and other materials during construction.
  - 1. Use wood strips temporarily placed in cavity to collect mortar droppings. As work progresses, remove strips, clean off mortar droppings, and replace in cavity.

### 3.5 MASONRY JOINT REINFORCEMENT

- A. Provide continuous masonry joint reinforcement as indicated. Install with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.
- B. Provide continuity at corners and wall intersections by using prefabricated "L" and "T" sections.

3.6 ANCHORING MASONRY

- A. Anchor masonry to structural members where masonry abuts or faces structural members to comply with the following:
  - 1. Provide an open space not less than 1 inch in width between masonry and structural member, unless otherwise indicated.
  - 2. Anchor masonry to structural members by welding anchor to structure and embedding wire tie in masonry joints.

3.7 FLASHING, WEEP HOLES, AND VENTS

- A. General: Install embedded flashing and weep holes in masonry at shelf angles, other obstructions to downward flow of water in wall.
  - 1. Extend flashing 4 inches at ends and turn flashing up not less than 2 inches to form an end dam.

3.8 CLEANING

- A. Clean unit masonry by dry brushing to remove mortar fins and smears before tooling joints, as work progresses.
- B. After mortar is thoroughly set and cured, clean exposed masonry as follows:
  - 1. Protect adjacent surfaces from contact with cleaner.
  - 2. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.

END OF SECTION 04 20 00  
04810/11-99/bac

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 05 12 00 - STRUCTURAL STEEL FRAMING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes structural steel **and grout**.
- B. Related Sections:
  - 1. Division 01 Section "Quality Requirements" for independent testing agency procedures and administrative requirements.
  - 2. Division 05 Section "Steel Decking" for field installation of shear connectors through deck.
  - 3. Division 05 Section "Metal Fabrications" for steel lintels and shelf angles not attached to structural-steel frame, miscellaneous steel fabrications and other metal items not defined as structural steel.
  - 4. Division 05 Section "Metal Stairs."

#### 1.2 DEFINITIONS

- A. Structural Steel: Elements of structural-steel frame, as classified by AISC 303, "Code of Standard Practice for Steel Buildings and Bridges."

#### 1.3 PERFORMANCE REQUIREMENTS

- A. Connections: Provide details of simple shear connections required by the Contract Documents to be selected or completed by structural-steel fabricator to withstand loads indicated and comply with other information and restrictions indicated.
  - 1. Select and complete connections using **schematic details indicated and AISC 360**.
  - 2. Use **ASD; data are given at service-load level**.
- B. Moment Connections: Type **FR, fully** restrained.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication of structural-steel components.
  - 1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.
  - 2. Include embedment drawings.

3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld. Show backing bars that are to be removed and supplemental fillet welds where backing bars are to remain.
4. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical high-strength bolted connections.
5. Identify members and connections of the seismic-load-resisting system.
6. Indicate locations and dimensions of protected zones.
7. Identify demand critical welds.
8. For structural-steel connections indicated to comply with design loads, include structural design data.

- C. Qualification Data: For qualified **Installer, fabricator, and testing agency**.
- D. Welding certificates.
- E. Mill test reports for structural steel, including chemical and physical properties.
- F. Source quality-control reports.

## 1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category STD.
- B. Installer Qualifications: A qualified installer who participates in the AISC Quality Certification Program and is designated an AISC-Certified Erector, Category CSE.
- C. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- D. Comply with applicable provisions of the following specifications and documents:
1. AISC 303.
  2. AISC 360.
  3. RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."

## PART 2 - PRODUCTS

### 2.1 STRUCTURAL-STEEL MATERIALS

- A. W-Shapes: **ASTM A 992/A 992M, Grade 50 (345)**.
- B. Channels, Angles, **M**, S-Shapes: **ASTM A 36/A 36M**.
- C. Plate and Bar: **ASTM A 36/A 36M unless otherwise noted**.
- D. Cold-Formed Hollow Structural Sections: ASTM A 500, Grade **B**, structural tubing.



- E. Steel Pipe: ASTM A 53/A 53M, Type E or S, Grade B.
- F. Welding Electrodes: Comply with AWS requirements.

## 2.2 BOLTS, CONNECTORS, AND ANCHORS

- A. High-Strength Bolts, Nuts, and Washers: **ASTM A 325** (**ASTM A 325M**), Type 1, heavy-hex steel structural bolts; **ASTM A 563, Grade C**, (**ASTM A 563M, Class 8S**) heavy-hex carbon-steel nuts; and **ASTM F 436** (**ASTM F 436M**), Type 1, hardened carbon-steel washers; all with plain finish.
- B. Zinc-Coated High-Strength Bolts, Nuts, and Washers: **ASTM A 325** (**ASTM A 325M**), Type 1, heavy-hex steel structural bolts; **ASTM A 563, Grade DH** (**ASTM A 563M, Class 10S**) heavy-hex carbon-steel nuts; and **ASTM F 436** (**ASTM F 436M**), Type 1, hardened carbon-steel washers.
  - 1. Finish: **Hot-dip zinc coating**.
- C. Tension-Control, High-Strength Bolt-Nut-Washer Assemblies: ASTM F 1852, Type 1, **heavy-hex** or **round** head assemblies consisting of steel structural bolts with splined ends, heavy-hex carbon-steel nuts, and hardened carbon-steel washers.
  - 1. Finish: **Plain for interior exposures and hot-dip galvanized for exterior exposures**.
- D. Unheaded Anchor Rods: **ASTM F 1554, Grade 36**.
  - 1. Configuration: as noted.
- E. Threaded Rods: **ASTM A 36/A 36M**.
  - 1. Finish: **Hot-dip zinc coating, ASTM A 153/A 153M, Class C**.

## 2.3 PRIMER

- A. Primer: Fabricator's standard lead- and chromate-free, nonasphaltic, rust-inhibiting primer complying with MPI#79 and compatible with topcoat.

## 2.4 GROUT

- A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C 1107, factory-packaged, nonmetallic aggregate grout, noncorrosive and nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

## 2.5 FABRICATION

- A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate according to AISC's "Code of Standard Practice for Steel Buildings and Bridges" and AISC 360.

## 2.6 SHOP CONNECTIONS

- A. High-Strength Bolts: Shop install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
  - 1. Joint Type: **Snug tightened** unless otherwise noted.
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.

## 2.7 SHOP PRIMING

- A. Shop prime steel surfaces except the following:
  - 1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of **2 inches (50 mm)**.
  - 2. Surfaces to be field welded.
  - 3. Surfaces to be high-strength bolted with slip-critical connections.
  - 4. Surfaces to receive sprayed fire-resistive materials (applied fireproofing).
  - 5. Galvanized surfaces.
- B. Surface Preparation: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards:
  - 1. SSPC-SP 2, "Hand Tool Cleaning."
- C. Priming: Immediately after surface preparation, apply primer according to manufacturer's written instructions and at rate recommended by SSPC to provide a minimum dry film thickness of **1.5 mils (0.038 mm)**. Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.

## 2.8 SOURCE QUALITY CONTROL

- A. Testing Agency: Owner will engage an independent testing and inspecting agency to perform shop tests and inspections and prepare test reports.
  - 1. Provide testing agency with access to places where structural-steel work is being fabricated or produced to perform tests and inspections.

- B. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.
- C. Bolted Connections: Shop-bolted connections will be **tested and** inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- D. Welded Connections: In addition to visual inspection, shop-welded connections will be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
  - 1. Liquid Penetrant Inspection: ASTM E 165.
  - 2. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
  - 3. Ultrasonic Inspection: ASTM E 164.
  - 4. Radiographic Inspection: ASTM E 94.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify, with steel Erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 ERECTION

- A. Set structural steel accurately in locations and to elevations indicated and according to AISC 303 and AISC 360.
- B. Base, **Bearing, and Leveling** Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
  - 1. Set plates for structural members on wedges, shims, or setting nuts as required.
  - 2. Weld plate washers to top of baseplate.
  - 3. **Snug-tighten** anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
  - 4. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. **Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.**
- C. Maintain erection tolerances of structural steel within AISC's "Code of Standard Practice for Steel Buildings and Bridges."

### 3.3 FIELD CONNECTIONS

- A. High-Strength Bolts: Install high-strength bolts according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for type of bolt and type of joint specified.
  - 1. Joint Type: **Snug tightened** unless otherwise noted.
- B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.
  - 1. Comply with AISC 303 and AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.

### 3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to visually inspect **field welds and high-strength bolted connections**.
- B. Bolted Connections: Bolted connections will be[ **tested and**] inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- C. Welded Connections: Field welds will be visually inspected according to AWS D1.1/D1.1M.
  - 1. In addition to visual inspection, full and partial penetration field welds will be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
    - a. Liquid Penetrant Inspection: ASTM E 165.
    - b. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
    - c. Ultrasonic Inspection: ASTM E 164.
    - d. Radiographic Inspection: ASTM E 94.
- D. Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents.

END OF SECTION 05 12 00

## SECTION 055000 - METAL FABRICATIONS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes metal fabrications.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance:

1. Countertop and Vanity Framing: Provide countertop and vanity framing capable of withstanding the following structural loads without exceeding the allowable design working stress of the materials involved, including anchors and connections, or of exhibiting excessive deflections in any of the components making up the countertops and vanities:
  - a. All deadloads.
  - b. 500 pound live load placed on the countertop and vanity.
  - c. Deflection at Midspan:  $L/1000$  times span or 1/8-inch- whichever is less.
2. Tube Framing for Partial Height Walls: Provide tube framing for partial height walls capable of withstanding a deflection not to exceed  $H/720$  and a maximum 3/8" limit when subjected to a positive and negative pressure of 5 psf.
3. Sliding Woodwork Door Framing: Fabricate and install framing so that, when installed, it is capable of supporting all deadloads and withstanding the live loads imposed on it from the operation of the door.
4. Overhead Coiling Grille, All-Glass Entrances and Storefront, Framing: Fabricate and install overhead coiling grille, all-glass entrances and storefront, overhead coiling grille, framing so that when installed, it is capable of supporting all deadloads and withstanding the live loads imposed on it from all-glass entrance doors, and the overhead coiling grilles.

#### 1.3 SUBMITTALS

- A. Shop Drawings: Submit shop drawings including plans, elevations, sections, details of installation, and attachments to other Work.
1. For installed products indicated to comply with performance requirements, include structural analysis data, for information only, signed and sealed by the qualified professional engineer responsible for their preparation.
  2. Include plans and elevations at not less than 1" to 1'-0" scale, and include details of sections and connections at not less than 3" to 1'-0" scale.

#### 1.4 QUALITY ASSURANCE

- A. Fabricator/Installer Qualifications: A firm experienced in producing metal fabrications similar to those indicated for this Project for a minimum of 5 years, with a record of successful in-service performance, with sufficient production capacity to produce required units without causing delay in the work.
- B. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of metal fabrications that are similar to those indicated for this Project in material, design, and extent.
- C. Welding: Qualify procedures and personnel according to AWS D1.1, "Structural Welding Code--Steel."
- D. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.

#### 1.5 PROJECT CONDITIONS

- A. Field Measurements: Where metal fabrications are indicated to fit walls and other construction, verify dimensions by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

### PART 2 - PRODUCTS

#### 2.1 METALS

- A. Metal Surfaces, General: For metal fabrications exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.
- B. Ferrous Metals:
  - 1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
  - 2. Steel Tubing: Cold-formed steel tubing complying with ASTM A 500, or hot formed steel tubing complying with ASTM A 501.
  - 3. Slotted Channel Framing: Cold-formed metal channels with continuous slot and with flanged edges returned toward web complying with MFMA-3 and fabricated from steel complying with ASTM A 1008/A 1008M. Width, depth, and metal thickness as required to suit performance requirements.
  - 4. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.

2.2 PAINT

- A. Shop Primer for Ferrous Metal: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with performance requirements in FS TT-P-664 and compatible with finish paint systems indicated.

2.3 MISCELLANEOUS MATERIALS

- A. Fasteners: Zinc-plated fasteners with coating complying with ASTM B 633, Class Fe/Zn 5, of type, grade, and class required by application indicated.
- B. Nonshrink, Nonmetallic Grout: ASTM C 1107, factory-packaged, nonstaining, noncorrosive, nongaseous grout.

2.4 FABRICATION

- A. Shop Assembly: Preassemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
  - 1. Welded connections may be used where bolted connections are shown.
- B. Shear and punch metals cleanly and accurately. Remove burrs.
- C. Weld corners and seams continuously along entire line of contact. Use materials and methods that minimize distortion and develop strength of base metals. Obtain fusion without undercut or overlap. Remove welding flux immediately. Finish exposed welds smooth and blended.
- D. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Use exposed fasteners of type indicated or, if not indicated, Phillips flat-head (countersunk) screws or bolts. Locate joints where least conspicuous. Make up threaded connections tight so that threads are entirely concealed.
- E. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space anchoring devices and fasteners to secure metal fabrications rigidly in place and to support indicated loads.
- F. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.
- G. Miscellaneous Framing and Supports: Provide steel framing and supports indicated and as necessary to complete the Work and which are not a part of the structural framework, including but not limited to framing and supports for vertically folding operable partitions, overhead lobby door frames, accordion folding partitions, operable panel partitions, overhead rolling doors and grilles, sliding doors, countertop and vanities, ceiling hung toilet compartments, projection screens, ceiling hung televisions and cameras, tube framing for partial height walls, CMU partition head supports, mechanical and electrical equipment.
  - 1. Fabricate units from structural-steel shapes, plates, and bars of welded construction, unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as

- necessary to receive adjacent construction retained by framing and supports. Cut, drill, and tap units to receive hardware, hangers, and similar items.
2. Fabricate supports for operable partitions by providing continuous steel shapes with attached bearing plates, anchors, and braces as required to sustain imposed loads. Drill bottom flanges of beams to receive partition track hanger rods; locate holes where indicated on operable partition Shop Drawings.
  3. Fabricate supports for sliding woodwork doors by providing continuous steel shapes with attached bearing plates, anchors, and braces as required to sustain imposed loads. Drill bottom flanges of beams to receive track hanger rods; locate holes where indicated on sliding woodwork door Shop Drawings.
  4. Framing for Ceiling Hung Toilet Compartments: Provide framing for ceiling hung toilet compartments, coordinated with the partitions and including provisions for partition anchorage as required to sustain imposed loads and to limit deflections to L/360 between hangers, fabricated from the following.
    - a. Structural Steel Shapes, Plates and Bars: ASTM A36/A36M.
    - b. Modular Structural Framing System: Modular, structural quality steel pre-formed "U" channel framing system with continuous open slot prepared to receive attachment nuts, bolts, straps, threaded rods, beam clamps, hanger rods support brackets and other accessories. Provide manufacturers standard corrosion resistant finish.
    - c. Provide steel rods, 1/2-inch- (13-mm) diameter, spaced not more than 36 inch- (914-mm) o.c. Thread rods to receive anchor and stop nuts. Fit hangers with wedge shape washers for full bearing on sloping flanges of support beam.
    - d. Coordinate installation with toilet compartment manufacturer's written instructions and recommendations.
  5. Countertop and Vanity Framing: Custom fabricate countertop and vanity framing, using steel shapes and plates, and cold finished mild steel bars at exposed conditions, for support framing and plywood, to the thicknesses, sizes and shapes shown, and as required to produce work of adequate strength and durability, without objectionable deflections. Use proven details of fabrication, as required, to achieve proper assembly and alignment of the various components of the work.

## 2.5 FINISHES

- A. Finish metal fabrications after assembly. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Shop prime ferrous-metal items.
  1. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces by removing oil, grease, and similar contaminants in accordance with SSPC -SP 1 "Solvent Cleaning," followed with SSPC-SP 3, "Power Tool Cleaning."
  2. Apply a minimum of one coat of shop primer to uncoated surfaces of metal fabrications, except those to be field welded, and those to be embedded in sprayed-on fireproofing, or masonry, unless otherwise indicated. Comply with SSPC-PA 1, "Paint Application Specification No. 1," for shop painting.



## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: Provide anchorage devices and fasteners for securing metal fabrications to in-place construction. Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, with edges and surfaces level, plumb, and true. Drill holes for bolts to the exact diameter of the bolt. Provide screws threaded full length to the screw head.
- B. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations.
- C. Field Welding: Comply with the following requirements:
  - 1. Use materials and methods that minimize distortion and develop strength of base metals.
  - 2. Obtain fusion without undercut or overlap.
  - 3. Remove welding flux immediately.
  - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- D. Touch up surfaces and finishes after erection. Clean field welds, bolted connections, and abraded areas and touch up paint with the same material as used for shop painting.

END OF SECTION 055000

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 05 75 00 - DECORATIVE FORMED METAL

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Decorative-metal.
  - 2. Miscellaneous fabrications.
  - 3. Accessories necessary for complete installation.
- B. Related Sections:
  - 1. Section 055000 "Metal Fabrications" for non-decorative metal fabrications.

#### 1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Decorative formed metal items, including anchors and connections, shall withstand the effects of gravity loads.
- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.
- C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include finishing materials.
- B. Shop Drawings: Show fabrication and installation details for decorative formed metal.
  - 1. Include plans, elevations, component details, and attachments to other work.
  - 2. Indicate materials and profiles of each decorative formed metal member, fittings, joinery, finishes, fasteners, anchorages, and accessory items.
- C. Samples for Verification: For each type of exposed finish required, prepared on **6-inch** square Samples of metal of same thickness and material indicated for the Work.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: A firm experienced in producing decorative formed metal similar to that indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- B. Anodic Finisher Qualifications: A firm experienced in successfully applying anodic finishes of type indicated and that employs competent control personnel to conduct continuing, effective quality-control program to ensure compliance with requirements.
- C. Installer Qualifications: Fabricator of products.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver decorative formed metal products wrapped in protective coverings and strapped together in suitable packs or in heavy-duty cartons. Remove protective coverings before they stain or bond to finished surfaces.
- B. Store products on elevated platforms in a dry location.

1.7 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of walls, columns, beams, and other construction contiguous with decorative formed metal by field measurements before fabrication and indicate measurements on Shop Drawings.

1.8 COORDINATION

- A. Coordinate installation of anchorages for decorative formed metal items. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- B. Coordinate installation of decorative formed metal with adjacent construction to ensure that wall assemblies, trim, and joint sealants, are protected against damage.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Provide Metal without pitting, seam marks, roller marks, stains, discolorations, or other imperfections where exposed to view on finished units.
- B. Aluminum Sheet: Flat sheet complying with **ASTM B 209**, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than strength and durability properties of Alloy 5005-H32.

- C. Stainless-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304, stretcher-leveled standard of flatness.

## 2.2 MISCELLANEOUS MATERIALS

- A. Sealants, Interior: Nonsag, paintable, nonstaining, latex sealant complying with ASTM C 834; of type and grade required to seal joints in decorative formed metal; and as recommended in writing by decorative formed metal manufacturer.
- B. Fasteners: Fabricated from same basic metal and alloy as fastened metal unless otherwise indicated. Do not use metals that are incompatible with materials joined.
  - 1. Provide concealed fasteners for interconnecting decorative formed metal items and for attaching them to other work.
- C. Backing Materials: Provided or recommended by decorative formed metal manufacturer.
- D. Laminating Adhesive: Adhesive recommended by metal fabricator that will fully bond metal to metal and that will prevent telegraphing and oil canning and is compatible with substrate and noncombustible after curing.
  - 1. Contact Adhesive: VOC content of not more than 80 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
  - 2. Metal-to-Metal Adhesive: VOC content of not more than 30 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
  - 3. Multipurpose Construction Adhesive: VOC content of not more than 70 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

## 2.3 FABRICATION, GENERAL

- A. Shop Assembly: Preassemble decorative formed metal items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
- B. Coordinate dimensions and attachment methods of decorative formed metal items with those of adjoining construction to produce integrated assemblies with closely fitting joints and with edges and surfaces aligned unless otherwise indicated.
- C. Increase metal thickness or reinforce with concealed stiffeners, backing materials, or both, as needed to provide surface flatness equivalent to stretcher-leveled standard of flatness and sufficient strength for indicated use.
  - 1. Support joints with concealed stiffeners as needed to hold exposed faces of adjoining sheets in flush alignment.
- D. Build in straps, plates, and brackets as needed to support and anchor fabricated items to adjoining construction. Reinforce decorative formed metal items as needed to attach and support other construction.

- E. Provide support framing, mounting and attachment clips, splice sleeves, fasteners, and accessories needed to install decorative formed metal items.

## 2.4 DECORATIVE-METAL:

- A. Manufacturers: Subject to compliance with requirements, provide products by available manufacturers offering products that may be incorporated into the Work.
- B. Laminate metal sheets to the face of an identical primary backing metal sheet of type and indicated.
- C. Conceal fasteners; locate where they are as inconspicuous. Size fasteners to support decorative metal work, with fasteners spaced to prevent buckling or waviness in finished surfaces.
- D. Drill and tap holes needed for securing closures and trim to other surfaces.
- E. Miter or cope trim members at corners and reinforce with bent metal splice plates to form tight joints.

## 2.5 ALUMINUM FINISHES

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Basis of Design: Creative Metals Industries, Stainless Steel, Blacken Finish.
- C. Color Anodic Finish: AAMA 611, AA-M12C22A32/A34, Class II, or thicker.
  - 1. Color: see basis of design.

## 2.6 STAINLESS-STEEL FINISHES

- A. Stainless Steel, 18 gauge 304, Creative Metal Industries
- B. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.
  - 1. Grind all edges.
  - 2. Run grain of directional finishes with long dimension of each piece.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of decorative formed metal.

- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Locate and place decorative formed metal items level and plumb and in alignment with adjacent construction. Perform cutting, drilling, and fitting required to install decorative formed metal.
  - 1. Do not cut or abrade finishes that cannot be completely restored in the field. Return items with such finishes to the shop for required alterations, followed by complete refinishing, or provide new units as required.
- B. Use concealed anchorages.
- C. Form tight joints with connections accurately fitted together. Provide reveals and openings for sealants and joint fillers as indicated.
- D. Install concealed gaskets, joint fillers, sealants, and insulation, as the Work progresses, to make interior decorative formed metal items lightproof as applicable to type of fabrication indicated.
- E. Corrosion Protection: Apply bituminous paint or other permanent separation materials on concealed surfaces where metals would otherwise be in direct contact with substrate materials that are incompatible or could result in corrosion or deterioration of either material or finish.
- F. Apply joint treatment at joints of spackled-seam-type metal column covers. Comply with requirements in Section 092900 "Gypsum Board."

### 3.3 ADJUSTING AND CLEANING

- A. Unless otherwise indicated, clean metals by washing thoroughly with clean water and soap, rinsing with clean water, and drying with soft cloths.
- B. Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit or provide new units.

### 3.4 PROTECTION

- A. Protect finishes of decorative formed metal items from damage during construction period. Remove temporary protective coverings at time of Substantial Completion.

END OF SECTION 05 75 00

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes interior architectural woodwork:
  - 1. Interior standing and running trim
  - 2. Plastic laminate countertops
  - 3. Ceiling slats
  - 4. Solid surface material
  - 5. Shelving
  - 6. Closet and utility shelving
  - 7. Accessories for a complete installation
- B. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips, unless concealed within other construction before woodwork installation.
- C. Related work: 092900 Gypsum Board Assemblies

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data for each material and product specified and incorporated into items of architectural woodwork during fabrication, finishing, and installation.
  - 1. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.
- B. Shop Drawings: Submit shop drawings showing locations of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components. Elevations shall be drawn at a scale of not less than 1/2" = 1'-0". Details shall be drawn at a scale of not less than 3" = 1'-0".
  - 1. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
  - 2. Show locations and sizes of cutouts and holes for plumbing, electrical, computer and telephone equipment and other items installed in architectural woodwork.
  - 3. Show veneer leaves with dimensions, grain direction, exposed face, and identification numbers indicating the flitch and sequence within the flitch for each leaf.
- C. Samples: Submit samples of the following:
  - 1. Five (5) veneer leaves representative of and selected from each flitch to be used for transparent-finished woodwork.
  - 2. Three 12" x 12" sample sets containing a minimum of 2 or more samples of transparent finished wood-veneer and plastic laminate veneered panel products, fabricated from each core product, for each veneer specified and demonstrating the proposed full range of

- appearance characteristics to be expected in completed work. Include at least one face-veneer seam in each sample.
3. Fabric Wrapped Panels: 12" x 12" of each fabric wrapped panel product, fabricated from each core product, for each fabric specified and demonstrating the proposed full range of appearance characteristics to be expected in the completed work.
  4. Lumber and panel products for transparent finish, for each species and cut, finished on one side and one edge. Furnish lumber in 12" lengths, furnish panel samples in 12" squares.
  5. Lumber and panel products with shop-applied opaque finish, for each finish system and color, with exposed surface finished. Furnish lumber in 12" lengths, furnish panel samples in 12" squares.
  6. Thermoset decorative-overlay surfaced panel products, for each type, color, pattern, and surface finish.
  7. Solid-surfacing materials, 6 inches (150 mm) square.
  8. Cabinet Locks: Three samples of each type.
  9. Submit samples of each type of door specified showing construction and finishes selected. Samples shall be 12" x 12" corner section.
  10. Glass and Acrylic Panels: 12" x 12" of each type specified.

### 1.3 QUALITY ASSURANCE

- A. Single-Source Manufacturing and Installation Responsibility: Engage a qualified Manufacturer - acceptable to the Architect - to assume undivided responsibility for woodwork specified in this section, including fabrication, finishing, and installation. The manufacturer shall have had a minimum of 15 years successful experience in the custom fabrication and installation of architectural woodwork comparable to that shown and specified, be a member of the AWI, maintain an organized quality control program, perform its own in-house veneer lay-up work, and who retains facilities with sufficient capacity and quality to produce the required architectural woodwork without causing delay to the project.
- B. Quality Standard: Fabricate and install all architectural woodwork in accordance with the applicable requirements of AWI's "Architectural Woodwork Quality Standards" 8<sup>th</sup> Edition Version 1.0 unless more stringent requirements are specified or shown.
- C. Fire Performance Characteristics: Provide materials identical to those tested for the following fire performance characteristics per ASTM test methods indicated by UL or other testing and inspecting organizations acceptable to authorities having jurisdiction. Identify treated lumber with classification marking of inspecting and testing organization in the form of separable paper label or, where required by authorities having jurisdiction, of imprint on lumber surfaces that will be concealed from view after installation. Surface Burning Characteristics: Not exceeding a flame spread of 25, and smoke developed of 50 when tested per ASTM E84 for 30 minutes.

### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect woodwork during transit, delivery, storage, and handling to prevent damage, soilage, and deterioration. Do not deliver woodwork until painting, wet work, grinding, and similar operations that could damage, soil, or deteriorate woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas whose environmental conditions meet requirements specified in "Project Conditions" Article.

## 1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install woodwork until HVAC system is operating and maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.
- B. Field Measurements: Where woodwork is indicated to fit to other construction, verify actual dimensions of other construction by accurate field measurements before fabrication of woodwork; and indicate measurements on final Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
  - 1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed and indicate measurements on Shop Drawings.

## 1.6 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Provide materials that comply with requirements of the AWI quality standard for each type of woodwork and quality grade specified.
- B. Lumber Standards: Comply with applicable provisions for grading and workmanship of AWI Quality Standards, Sections 100-T-1, 100-T-4, 100-T-5, Grade I and the requirements shown and specified, where standards conflict the more stringent shall apply. Provide lumber surfaced 4 sides (S4S) and fabricated to profiles shown. All lumber shall be kiln dried to the moisture content indicated in AWI Section 100-T-11.
  - 1. Furring, Blocking, Shims: No. 1 Common; Southern Pine.
- C. Wood Veneers:
  - 1. Species, Matching, and Cut for Transparent Finish: Complying with AWI 1500 and the following:
    - a. Specie and figuring as indicated on the finish schedule, complying with HPVA HP-1, Grade AA, matching Architect's sample.
- D. Wood Panel Products:
  - 1. Medium-Density Fiberboard: Comply with ANSI A208.2, Density Classification Interior MD minimum made with binder containing no urea formaldehyde 45 pcf density except that minimums for screw holding capacity on face and edge shall be 225 pounds and 300 pounds respectively; minimum  $\frac{3}{4}$ " thick, edged and faced as specified.

1. Medium Density Particleboard: Comply with ANSI A208.1, Grade M-2-Exterior Glue composed of phenolic resins and waxes, with a minimum 45 pcf density; minimum 3/4" thick, internal bond of 170 psi, edge screw pull out of 250 pounds, face screw pull out of 350 pounds, Class 3 or C flammability per ASTM E84, edged and faced as specified.
- E. Glass: Clear tempered float glass, complying with ASTM C1036, Type I, Class 1, Quality q3, and ASTM C1048 Kind FT, thickness as indicated.
1. Prior to tempering, cut glass to required sizes and profiles as determined by accurate measurement of supporting standoff hole locations.
  2. Hole Cutting: Unless otherwise recommended by the glass manufacturer, comply with the requirements of ASTM C1048, Article 7.8 for hole placement, minimum hole diameter, and dimensional tolerances of holes and this specification. Unless otherwise recommended by the glass manufacturer locate holes not less than 4" from glass edges, hole diameter shall be at least 1/8" larger than the shank of the screw fastener and screw sleeve spacers used for the rosette assemblies. Chips and flakes at hole edges shall not be permitted, and the inner surfaces of holes shall be smooth polished to match glass panel edges.
  3. Edge Treatment: All glass edges shall have an arrised edge profile (small bevel of width not exceeding 1/16" at an angle of approximately 45 degrees to the surface of the glass) with a polished (surface is reflective in appearance similar to the major surface of glass) surface.
- F. Fabric Wrapped Panels and Tackboards: Overall 3/4" thick, fabric wrapped assembly composed of 1/4" thick hardboard backing which can be either laminated, or fastened, to a mineral fiber tackboard fabricated from industrial board having a minimum 23 pcf density similar to US Gypsum Company, Micore.
1. Fabric: Types as indicated on the drawings.
  2. Assembly: Form backing and tack board fill materials to sizes shown with edges eased to a 1/16" radius. Fabrics shall be shop cut, stitched together (where required), squared and trimmed to appropriate sizes. All sewing (where required) shall be perfectly straight, seams pressed flat and glued into an open position. Provide an appropriate lining on fabrics as required for applications shown. Prestretch designated fabric at room temperature for at least 4 days, immediately prior to installation. Stretch fabric around all four edges of panel board with uncut corners and unfrayed edges, taking care not to distort the weave, and creating a smooth surface free of sags and wrinkles. Fasten fabric to the panel back by securing with staples, or other suitable fasteners, 3" maximum on center without rolling board panel edges.
- G. Solid-Surfacing Material: Provide material that meets or exceeds ISSFA-2-01 performance standards, consisting of reacted monomers and resins, mineral fillers and pigments and manufactured in sheets of specific thicknesses. Solid surfacing material shall be solid, non-porous, homogeneous, hygienic, renewable, and, when applicable, may feature inconspicuous hygienic seams. Solid surfacing material shall be free from conspicuous internal strengthening fibers.
1. Types: As indicated in the Finish Schedule on the drawings.

- H. Solid Laminate: Solid composite panels fabricated of material specifically designed for casework. All panel surfaces shall be electron beam cured to prevent damage from cleansing agents such as graffiti removers. Surfaces shall offer protection against 10% hydrochloric acid, 10% phosphoric acid, 30% hydrogen peroxide, 25% caustic soda, 100% paint thinner and 100% methyl ethyl ketone without functional or aesthetic damage to the surface. All surfaces and edges shall be non-porous.
1. Core: Solid black.
  2. Physical Properties:
    - a. Modulus of elasticity: 1,500,000-psi minimum.
    - b. Shear strength: 2000-psi minimum.
    - c. Compressive strength: 24,000-psi minimum.
    - d. Weight: 93 lbs. per cubic foot maximum.
    - e. Tensile strength: 13,000-PSI, minimum.
    - f. Flexural strength: 16,000-PSI minimum.
    - g. Surface Impact Resistance: 9 lb.
    - h. Scratch Resistance: 0.8 lb.
    - i. Specific Gravity: 87 lbs. per cubic foot, minimum.
    - j. Dimensional Stability: 0.03 in/ft, maximum.
    - k. Water Absorption: 3% by weight, maximum.
  3. Thickness, Products and Manufacturer: Trespa Virtuon, thickness, colors and surface texture as indicated in the Finish Schedule on the drawings.

## 2.2 FIRE-RETARDANT-TREATED MATERIALS

- A. General: Where indicated, use materials impregnated with fire-retardant chemical formulations indicated by a pressure process or other means acceptable to authorities having jurisdiction to produce products with fire-test-response characteristics specified.
1. Do not use treated material that does not comply with requirements of referenced woodworking standard. Do not use twisted, warped, bowed, discolored, or otherwise damaged or defective lumber or panel products.
  2. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants in solution to distinguish treated material from untreated material.
- B. Fire-Retardant-Treated Lumber and Plywood: Materials impregnated with fire-retardant chemical formulations to comply with AWPA C20 (lumber) and AWPA C27 (plywood), Interior Type A. Kiln-dry material after treatment to levels required for untreated woodwork.
- C. Fire-Retardant Particleboard: Panels made from softwood particles and fire-retardant chemicals mixed together at time of panel manufacture with flame-spread index of 25 or less and smoke-developed index of 25 or less per ASTM E 84.
- D. Fire-Retardant Fiberboard: ANSI A208.2 medium-density fiberboard panels made from softwood fibers, synthetic resins, and fire-retardant chemicals mixed together at time of panel manufacture with flame-spread index of 25 or less and smoke-developed index of 200 or less per ASTM E 84.

## 2.3 ACCESSORY MATERIALS

- A. Frameless Concealed Hinges For Cabinet Doors (European Type): Concealed all-metal furniture hinges similar to Grass 3000 Series or equal with free swing only at cabinet doors that are provided with magnetic latches, adaptable or engineered for 35 mm hinge cup boring pattern, with minimum 165 degree opening angle, 3 dimensional hinge having adjustments located in the steel hinge arm, steel or die-cast zinc hinge cups, and plastic insertion dowels to receive hinge screws. Automatic closing shall engage only in the last 10 degrees of swing. All hinge pins and linkages shall be hardened. Complying with BHMA A156.9, B01602. Bright nickel finish (US15).
1. Hinge Quantity: Provide hinge quantity as recommended by hinge manufacturer based on cabinet door width, weight, thickness, door material, and hinge cup selection.
- B. Piano Hinges for Library Gate: Continuous type, satin finished stainless steel and complying with BHMA A156.9, B51491.
- C. Wire Pulls: Back mounted, 4 inches (100 mm) long, 5/16 inches (8 mm) in diameter fabricated from satin finished stainless steel (US32D), complying with BHMA A156.9, B52011, unless otherwise indicated.
- D. Knob Pulls: 7/8" by 7/8". Traditional knob machined from brass with undercut fingergrip; satin finished chrome (US26D).
1. DP2; Doug Mockett and Co., Inc.
- E. Edge Pulls: Full mortised, solid, bronze or brass door edge pull, with 1/2 inch (13-mm) finger clearance, 1/4" diameter roll diameter, having nominal overall roll length dimension of 3 inches long, with backbend drilled and countersunk to receive 3 screw fasteners; form for full mortise application; satin finished chrome (US26D); one of the following:
1. SR Style Edge Pull; Tydix. [www.tydix.com](http://www.tydix.com).
  2. DP3A Tab Drawer Pull; Doug Mockett and Co., Inc.
- F. Catches: Magnetic, complying with BHMA A156.9, B03141 for single doors and B03161 for double doors.
1. For Single Doors:
    - a. CD41 Single Magnetic Cabinet Catch; Stanley Commercial Hardware.
  2. For Double Doors:
    - a. 901; Rockwood Manufacturing Company.
    - b. CD45 Double Magnetic Cabinet Catch; Stanley Commercial Hardware.
- G. Cabinet Shelf Rests: Nickel plated 7 mm diameter shelf support pegs in brass sockets, complying with BHMA A156.9, B04013. (Hafele 282.01.701 x 282.50.704).
- H. Closet Rods and Flanges: 1-1/2" diameter, satin finishedchrome plated steel or satin finished stainless steel with matching end flanges.

- I. Adjustable Shelf Standards and Brackets for Wall-Hung Open-Shelving:
  - 1. Standards: Model No. 87ANO Extra Heavy Duty 87-187 Series; lengths as indicated, by Knappe and Vogt.
  - 2. Brackets: Model No. 186 LL ANO for 8- and 10-inch (200- to 250-mm), Model No. 187 LL ANO for 12- to 24-inch (300- to 600-mm)] deep shelves by Knappe and Vogt.
  - 3. Shelf Rests: Model No. 210 ANO End Rest and Model No. 211 ANO Center Rest with Model No. 129 RUB Rubber Cushions.
- J. Drawer Slides:
  - 1. Pencil Drawer Slides: Similar to Accuride 2006 having 3/4 extension carburized steel ball bearing, side mounting, 45 lbs. capacity medium duty load rating, cold rolled steel slide members and ball retainers, bright electro zinc plate finish.
  - 2. Drawers less than 4" deep: Similar to Accuride 7432 having full extension carburized steel ball bearing, side mounting, 100 lb. capacity medium duty load rating, cold rolled steel slide members and ball retainers, cushioned in and outstops, detent-in, progressive action, positive stop, bright electro zinc plate finish.
  - 3. Drawers greater than 4" but less than 8" deep: Similar to Accuride 7432 having full extension carburized steel ball bearing, side mounting, 100 lb. capacity medium duty load rating, cold rolled steel slide members and ball retainers, cushioned in and outstops, detent-in, progressive action, positive stop, bright electro zinc plate finish.
  - 4. Drawers greater than 8" deep: Similar to Accuride 4032 having full extension carburized steel ball bearing, rail mounting, 150 lb. capacity heavy duty load rating, cold rolled steel slide members and ball retainers, cushioned in and outstops, detent-in, progressive action, positive stop, bright electro zinc plate finish.
  - 5. Refuse Cabinets: Similar to Accuride 3600-201 having full extension carburized steel ball bearing, bottom mounting, 175 lb. capacity heavy duty load rating, cold rolled steel slide members and ball retainers, cushioned in and outstops, progressive action, positive stop, bright electro zinc plate finish.
- K. Flipper Door Slides: For vertically mounted retracting cabinet doors up to 75 pounds (34 kg) and 72 inches (1800 mm) tall, Model No. 1432, black color, with hinge carrier strip by Accuride, Inc.
- L. Silencers: Provide rubber silencers on jamb and/or head and sill strike areas of all cabinet doors and drawers, 2 for paired doors, and 3 for single doors. Silencers shall be approximately 1/4-inch (6.4-mm) diameter, color compatible with adjacent finish.
- M. Aluminum Slides for Sliding Glass Doors: Heavy duty track assembly consisting of upper guide, shoe-H bar, lower track and rollers; clear anodized finish:
  - 1. No. D123A by C. R. Laurence Company, Inc.
- N. Door and Drawer Locks: All cabinet doors and drawers shall be furnished with locks. Finish exposed portions of locks to match cabinet pull finish. Furnish 2 keys with each lock and key all locks inside one room alike and provide masterkey for all locks in project.
  - 1. Drawers: Provide one of the following lock assemblies:

- a. Cam lock similar to Hafele 235.12.261, chrome plated, with Offset Cam 219.13.9xx, sized to fit opening.
  - b. Cam lock similar to Hafele 235.12.221, chrome plated, with surface-mounted strike 251.60.703.
2. Single Doors: Provide one of the following lock assemblies:
  - a. Cam lock similar to Hafele 235.12.261, chrome plated, with Offset Cam 219.13.9xx, sized to fit opening.
  - b. Cam lock similar to Hafele 235.12.221, chrome plated, with surface-mounted strike 251.60.703.
3. Pairs of Doors: Provide the following:
  - a. At inactive leaf, Furniture bolt similar to Hafele 252.02.644, polished chrome, with strike 251.60.703.
  - b. At active leaf, provide Single Door lock assembly.
- O. Grommets for Cable Passage through Countertops: size and color as indicated, metal grommets and matching plastic caps with slot for wire passage.
  1. Product: Subject to compliance with requirements, provide "PS-2B series" by Doug Mockett and Co., Inc.
- P. Exposed Hardware Finishes: Unless otherwise specified above, or on the drawings, all exposed portions of the woodwork hardware shall comply with BHMA A156.18 for BHMA finish number indicated.
  1. Dark, Oxidized, Satin Bronze, Oil Rubbed: BHMA 613 for bronze base; BHMA 640 for steel base.
  2. Bright Brass, Clear Coated: BHMA 605 for brass base; BHMA 632 for steel base.
  3. Satin Chromium Plated: BHMA 626 for brass or bronze base; BHMA 652 for steel base.
  4. Bright Chromium Plated: BHMA 625 for brass or bronze base; BHMA 651 for steel base.
- Q. Stainless Steel Trim: Custom fabricate stainless steel trim shapes to the sizes, shapes and profiles shown from the following materials. Provide in standard commercial tempers and hardness, as required for fabrication, strength and durability from Type 304 alloy. Form exposed work true to line and level, with flush surfaces and accurate angles. Ease exposed edges to a radius of approximately 1/32" radius, unless otherwise shown. Miter exposed corner joints and machine fit to a hairline joint. All sheet goods shall be provided finished one side only. Finish designation shown on the drawings are NAAMM nomenclature.
  1. Sheet and Plate: ASTM A666.
  2. Bar Stock: ASTM A276.
  3. Pipe: ASTM 312, Grade TP 304.
  4. Tubing: ASTM A 554, Grade MT 304.
  5. Rosettes for Capping Brushed Stainless Steel Standoffs at Glass Tops: Custom fabricate rosettes from satin finished stainless steel materials. All fasteners shall be concealed. Fastener for joining rosette assemblies shall be of a type, design, and size as



recommended by the glazier for the application shown and specified. Isolate glass from stainless steel using clear plastic cushions sized to fit under the rosettes.

- R. Stainless Steel Trim Finish: Provide the following mechanical finish to the exposed surfaces of the fabricated work to the extent indicated (NAAMM nomenclature), with texture and reflectivity as required to match the Architect's sample.
  - 1. No. 4 (bright directional polish).
  - 2. No. 8 (non-directional mirror polish)
- S. Steel Reinforcing: Carbon steel shapes, tubes and plates complying with ASTM A36 (shapes and plates), and ASTM A500 or A501 (for tubes).
  - 1. Shop Primer for Concealed Steel Reinforcing: Provide fast curing, lead and chromate free, universal modified alkyd primer complying with performance requirements in FS TT-P-664.
  - 2. Plate: Alloy 5005 and ASTM B 209 (ASTM B 209M).
  - 3. Bar Stock: ASTM B 211 (ASTM B 211M).
  - 4. Extrusions: Alloy 6063 and ASTM B 221 (ASTM B 221M).
  - 5. Aluminum Trim Finishes: Provide the following finishes to the exposed surfaces of the fabricated work to the extent indicated (NAAMM nomenclature), with texture and reflectivity as required to match the Architect's sample.
    - a. Class II, Clear Anodic Finish: Complying with AA-M10M32A31 for an Architectural Class II, medium satin, clear natural anodized finish.
- T. Screws: Select material, type, size, and finish required for each use. Comply with FS FF-S-111 for applicable requirements.
- U. Nails: Select material, type, size, and finish required for each use. Comply with FS FF-N-105 for applicable requirements.
- V. Anchors: Select material, type, size, and finish required by each substrate for secure anchorage. Provide toothed steel or lead expansion bolt devices for drilled-in-place anchors.
- W. Blind Splines: Specialty devices, as required for tight butt joining, types and size as recommended by woodwork fabricator.
- X. Covercaps: Where mortises of fastener heads, or draw downs are exposed (blind holes) in finished work, provide black plastic covercaps.

## 2.4 FABRICATION, GENERAL

- A. General: Complete fabrication, including assembly, finishing, and hardware application, before shipment to Project site to the maximum extent possible. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide allowance for scribing, trimming, and fitting. The width of scribe and filler panels shall not exceed ½", or ½" clear dimension from adjacent wall to outside face of cabinet door in a 90 degree position, which ever is greater.

1. Interior Woodwork Grade: Premium complying with the referenced quality standard.
- B. Fabricate woodwork to dimensions, profiles, and details indicated.
  1. Reinforcing shown is minimum. Provide additional steel and lumber reinforcing as required to sustain imposed loads and to ensure a rigid assembly.
  2. Exposed surfaces shall be free from dents, tool marks, warpage, buckle, glue and open joints, or other defects affecting serviceability or appearance. Accurately fit all joints, corners and miters. Conceal all fasteners. Make threaded connections up tight so that threads are entirely concealed.
- C. Shop cut openings to maximum extent possible, to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
  1. Seal edges of openings in countertops with a coat of varnish.
  2. Install glass to comply with applicable requirements in Division 8 Section "Glazing" and in GANA's "Glazing Manual." For glass in wood frames, secure glass with removable stops.

## 2.5 WOOD CABINETS FOR TRANSPARENT FINISH

- A. AWI Type of Cabinet Construction: Flush overlay .
- B. Wood Veneered Surfaces:
  1. Wood Veneered Species and Matching:
    - a. Wood Veneer Species: As indicated on the drawings and in the Finish Schedule.
    - b. Matching:
      - 1) Grain Matching: Run and match grain vertically for drawer fronts, doors, and fixed panels unless otherwise indicated on the drawings..
      - 2) Matching of Veneer Leaves: Book match unless otherwise indicated.
      - 3) Veneer Matching within Panel Face: Center match unless otherwise indicated.
      - 4) Veneer Matching within Room: Provide cabinet veneers in each room and space from a single flitch with doors, drawer fronts, and other surfaces matched in a sequenced set with continuous match where veneers are interrupted perpendicular to the grain.
- C. Semiexposed Surfaces Other Than Drawer Bodies: Compatible species to that indicated for exposed surfaces, stained to match.
  1. Drawer Sides and Backs: Solid-hardwood lumber, stained to match species indicated for exposed surfaces.
  2. Drawer Bottoms: Hardwood plywood.

- D. Provide dust panels of 1/4-inch (6.4-mm) plywood or tempered hardboard above compartments and drawers, unless located directly under tops.
- E. Cabinet Locks: Provide door and drawer locks.
- F. Fabric Wrapped Panels: Refer to Paragraph 'Fabric Wrapped Panels.'

## 2.6 PLASTIC LAMINATE COUNTERTOPS

- A. High-Pressure Decorative Laminate Grade: HGS.
- B. Colors, Patterns, and Finishes: As indicated on the drawings and in the Finish Schedule.
- C. Edge Treatment: Same as laminate cladding on horizontal surfaces unless otherwise indicated.
- D. Core Material at Sinks: Particleboard, or medium density fiberboard made with exterior glue, or exterior-grade plywood.

## 2.7 SOLID SURFACING COUNTERTOPS

- A. Solid-Surfacing-Material Thickness: 3/4 inch (19 mm).
- B. Colors, Patterns, and Finishes: As indicated on the drawings and in the Finish Schedule.
- C. Factory fabricate components to achieve required shapes, sizes, and profiles shown, without cracks, spalling, pits, surface porosity, chipped areas, or blisters.
  - 1. Form all tops in one piece lengths. Provide adhesively bonded backsplashes and aprons in heights indicated. Form edges to profiles shown. If required, use 2 sheets of countertop sheet material laminated together using manufacturer's standard adhesive to form edges. Laminated sections shall be in close contact throughout. Adhesive stains will not be permitted.
  - 2. Provide separate 6" high end splashes.
  - 3. Countertops shall be factory cored for plumbing fittings provided under Division 15000 MECHANICAL.
- D. Radius corners and edges.
- E. Finish exposed surfaces by trimming and grinding smooth.

## 2.8 FLUSH WOOD PANELING

- A. Core Material:
  - 1. Opaque Finished Paneling: Medium density fiberboard.
  - 2. Transparent Finished Paneling: Medium density particleboard or medium density fiberboard.
- B. Veneered Surfaces:

1. Veneer Types:
  - a. Opaque Finished Paneling: Exposed MDF.
  - b. Transparent Finished Paneling: As indicated on the drawings and in the Finish Schedule.
2. Transparent Finished Panel Matching:
  - a. Matching of Adjacent Veneer Leaves: Book matched, unless otherwise indicated.
  - b. Veneer Matching With Panel Face: Center balance match, unless otherwise indicated.
  - c. Panel Matching Method: Match panels to one another within each separate area by the following method:
    - 1) Blueprint sequenced matched panels and components.
- C. Edge Detail: Edge veneer banded with continuous hardwood strips matching face veneer. Panel joints to be flush type unless otherwise shown.

## 2.9 WOOD DOOR FRAMES FOR OPAQUE FINISH

- A. Frames shall be constructed in accordance with AWI requirements for interior Grade I standards, provided in sizes as shown. In addition, comply with the following:
  1. Construct in accordance with AWI Sections 100, 300, 700 and 900.
  2. Frames shall be provided in single piece lengths of solid stock hardwood lumber. Form frames with dadoes or rabbeted joints, plant assembled for paint finish.
  3. Subframing shall be fabricated from solid lumber stock as hereinbefore specified; fire retardant treated.

## 2.10 INTERIOR STANDING AND RUNNING TRIM FOR OPAQUE AND TRANSPARENT FINISHES

- A. General: Complying with AWI 300, fabricated from solid hardwood with scarfed joints, profiles as indicated, finishes as indicated.
- B. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
- C. Wood Species: Poplar for opaque finishes; solid hardwood plant finished with transparent finished wood veneer in veneer cut as indicated on the drawings to match adjacent transparent finished veneered items.

## 2.11 CLOSET & UTILITY SHELVING

- A. Shelf Material: Medium density fiberboard where indicated to be painted; medium density particle board where indicated for plastic laminate or melamine veneer.

- B. Cleats: 3/4-inch (19-mm) solid lumber or thermoset decorative panel.
- C. Finishes: As shown and scheduled on the drawings.

## 2.12 FLUSH WOOD DOORS FOR TRANSPARENT FINISH

- A. Construction: PC-5 ME particleboard core doors with minimum 1/16" thick, properly dried low density hardwood or high density hardboard crossbanding and transparent finished wood face veneers of the specie and cut indicated.
  - 1. Vertical Edges: Same species as face, lumber or veneer, sanded eased edges, without visible joints in lock or hinge edges and free of knife and saw marks.
  - 2. Core: Single thickness slab of particleboard complying with ANSI A208.1, 1-LD-2, hot pressed with synthetic resin glue.
  - 3. Bonding: Stiles and rails bonded to core, then entire unit abrasive planed before veneering. Glue lines between the stiles and rails shall be minimum Type II complying with the performance requirements of WDMA TM-6.
  - 4. Crossbanding materials shall extend full width of door with grain running horizontally, tapeless spliced without voids or show through (telegraphing), and directly glued to core and blocking. Sand crossbanding before application of face veneer. Face veneer shall extend full height of door with grain running vertically, tapeless spliced without voids or show through (telegraphing), and directly glued to crossband. Glue lines between the face veneer, crossbanding and blocking shall be of a type to comply with specified warranty using the hot plate process.
- B. Prefitting: Fit wood doors to suit frame opening sizes indicated. Comply with the following:
  - 1. Jamb and Head Clearance: 1/8".
  - 2. Paired Door Openings Meeting Edge: 3/16" less than nominal door size for each leaf.
  - 3. Sill Clearance: 1/4" from finished floor.
- C. Machining: Machine wood doors, paneling and frames, for hardware. Comply with final hardware schedules, shop drawings, and hardware templates.
  - 1. Hardware Location: +/- 1/32".
  - 2. Pulls and Pivots: +1/32", - 0".
- D. Door Thickness: 1-3/4".

## 2.13 SHOP FINISHING

- A. Production finish architectural woodwork at fabrication shop. Defer only final touchup, cleaning, and polishing until after installation.
- B. Priming of interior architectural woodwork with field applied opaque finish required to be performed at fabrication shop are specified in this Section. Refer to Section 099123 "Interior Painting" for finishing opaque finished architectural woodwork.
- C. Preparations for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural woodwork, as applicable to each unit of work.

1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to back of paneling and to end grain surfaces. Concealed surfaces of plastic-laminate-clad woodwork do not require backpriming when surfaced with plastic laminate, backing paper, or thermoset decorative overlay.
2. Gluing of face veneers shall, where possible, be by the hot plate method; glued surfaces shall be in close contact throughout. Glue stains will not be permitted.
3. Grain of all transparent finished wood shall run in the direction shown, or if not shown, as accepted on the shop drawings.

D. Exposed Surfaces:

1. Transparent Finish:
  - a. Grade: Premium.
  - b. AWI Finish System: Catalyzed Vinyl exceeding the performance requirements of AWI Finish System TR-5 for closed grain woods.
  - c. Staining: Natural to match Architect's sample.
  - d. Sheen: Match Architect's samples.
2. Opaque Finish:
  - a. Grade: Custom.
  - b. Color: Match Architect's paint samples.
3. Plastic Laminate Finish: Gluing of plastic laminate surfacing materials shall be by the hot plate method, glued surfaces shall be in close contact throughout. Glue stains shall not be permitted.
4. Solid Surfacing Finish: As scheduled.

E. Unexposed Wood Finish: Alkyd type primer-sealer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Condition woodwork to average prevailing humidity conditions in installation areas.
- B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming before installation.

3.2 INSTALLATION

- A. Quality Standard: Install woodwork to comply with AWI Section 1700 for the same grade specified in this Section for type of woodwork involved.
  1. Install woodwork level, plumb, true, with no distortions, and with no variations in flushness of adjoining surfaces. Shim as required with concealed shims.
  2. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces and repair damaged finish at cuts.

- B. Anchor woodwork to blocking built in or directly attached to substrates. Secure to blocking with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.
- C. Standing and Running Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Do not use pieces less than 96 inches long, except where shorter single-length pieces are necessary. Scarf running joints and stagger in adjacent and related members.
  - 1. Fill gaps, if any, between top of base and wall with plastic wood filler, sand smooth, and finish same as wood base, if finished.
- D. Cabinets: Install without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
  - 1. Install cabinets without sag, bow, or other variation from a straight line.
  - 2. Maintain veneer sequence matching of cabinets with transparent finish.
  - 3. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches (400 mm) o.c. with No. 10 wafer-head screws sized for 1-inch (25-mm) penetration into wood blocking, or hanging strips or with No. 10 wafer-head sheet metal screws through metal backing or metal framing behind wall finish.
- E. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
  - 1. Calk space between backsplash and wall with silicone sanitary sealant specified in Division 7 Section "Joint Sealants."
  - 2. Align adjacent solid-surfacing-material countertops and form seams to comply with manufacturer's written recommendations using adhesive in color to match countertop. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
  - 3. Secure backsplashes to tops with concealed metal brackets at 16 inches o.c. and to walls with adhesive.
  - 4. Natural Stone Tops: Refer to Section 096000, INTERIOR STONEWORK.
  - 5. Man-Made Stone Tops: Dry fit the fire slate. A minimum of 10% of the area to be covered should be in direct contact with the fireslate with particular emphasis of eliminating gaps on the contact perimeter greater than .25 inches in span and depth. Adjustment of the fire slate material shall be in accordance with the written instructions of the fireslate manufacturer. Field apply sealer to the fire slate in accordance with the sealer manufactures instructions.
- F. Paneling: Anchor paneling to supporting substrate with concealed panel-hanger clips, by blind nailing on backup strips, splined connection strips, and associated trim and framing. Do not use face fastening, unless otherwise indicated. Space panels so that reveals are parallel and of widths indicated.

- G. Built-in Desks and Credenzas: Install without distortion so that doors, and drawers, fit openings properly and are accurately aligned. Adjust hardware to center doors, and drawers, in openings and to provide unencumbered operation. Complete the installation of hardware and accessory items as indicated.
1. Anchor glass tops securely to supporting framing as indicated on the shop drawings.
- H. Doors:
1. Coordinate installation with the work of other trades to ensure exact fit and perfect alignment. Verify dimensions before proceeding and obtain measurements at job site for work required to be accurately fitted to other construction.
  2. Do not install wood doors until interior wet work, such as tile, terrazzo, and wallboard work are complete and dried in the areas to receive the wood doors.
  3. Do not subject wood doors to abnormal humidity, dryness or heat. Do not expose doors to sudden changes in temperature such as forced heat.
  4. Hang wood doors within frames. Align in frames for uniform clearance at each edge matching clearances specified for factory prefitting.
  5. Field cutting, fitting or trimming, if required, shall be executed in a workmanlike manner. Cuts made at the job site shall be sealed immediately after cutting, using a clear varnish or sealer. Restore finish before installation, if fitting or machining is required at the job site for factory finished doors.
  6. Hardware Installation: Install hardware in accordance with the instructions of the door hardware manufacturer; refer to Section 087100 DOOR HARDWARE.
- I. Stainless Steel Cased Openings at Elevator Door Jambs: Install stainless steel cased opening work in locations shown, plumb, level and in alignment with previously completed work. Provide concealed fastening as accepted on the shop drawings, and as necessary for a rigid, secure, and permanent installation. Form tight joints with exposed connections accurately and uniformly fitted together. Do not cut or abrade finishes which cannot be completely restored in the field.
- J. Complete the finishing work specified in this Section to extent not completed at shop or before installation of woodwork.

### 3.3 ADJUSTING AND CLEANING

- A. Repair damaged and defective woodwork to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean woodwork on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.
1. Anodized aluminum surfaces shall be cleaned with warm water and mild soaps such as those used for hands or dishes. Do NOT use cleaners that contain abrasives, acids or alkalis, as they will mar the surface. Do NOT clean metal face with solvents, paint thinner or adhesive remover. After washing, always wipe the surface completely dry with a soft, clean cloth. Stubborn stains may be removed with a thin, clean oil and dry cloth.



2. Manmade stone top surfaces shall be cleaned with soap and water followed with a clean water rinse.

3.4 PROTECTION

- A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer, that ensures that woodwork will be without damage or deterioration at time of Substantial Completion.

END OF SECTION 064023



## SECTION 06 10 00 - ROUGH CARPENTRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Framing with dimension lumber.
2. Framing with engineered wood products.
3. Rooftop equipment bases and support curbs.
4. Wood blocking, **cants**, and nailers.
5. Wood furring **and grounds**.
6. Wood sleepers.
7. Plywood backing panels.

#### 1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements
2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.

#### 1.3 INFORMATIONAL SUBMITTALS

A. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.

B. Evaluation Reports: For the following, from ICC-ES:

1. Wood-preservative-treated wood.
2. Fire-retardant-treated wood.
3. Engineered wood products.
4. Power-driven fasteners.
5. Powder-actuated fasteners.
6. Expansion anchors.
7. Metal framing anchors.

## PART 2 - PRODUCTS

### 2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
  - 1. Factory mark each piece of lumber with grade stamp of grading agency.
  - 2. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: **15 percent for 2-inch nominal (38-mm actual) thickness or less, 19 percent for more than 2-inch nominal (38-mm actual) thickness** unless otherwise indicated.
- C. Engineered Wood Products: Provide engineered wood products acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.
  - 1. Allowable Design Stresses: Provide engineered wood products with allowable design stresses, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

### 2.2 WOOD-PRESERVATIVE-TREATED LUMBER

- A. Preservative Treatment by Pressure Process: AWP A U1; Use Category UC2.
  - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat **items indicated on Drawings, and the following:**
  - 1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
  - 2. Wood sills, sleepers, blocking, **furring, stripping**, and similar concealed members in contact with masonry or concrete.
  - 3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.

4. Wood framing members that are less than **18 inches (460 mm)** above the ground in crawlspaces or unexcavated areas.
5. Wood floor plates that are installed over concrete slabs-on-grade.

## 2.3 FIRE-RETARDANT-TREATED MATERIALS

- A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article, that are acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.
- B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than **10.5 feet (3.2 m)** beyond the centerline of the burners at any time during the test.
  1. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D 2898. Use for exterior locations and where indicated.
  2. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.
- C. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. **Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.**
- D. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency.
- E. Application: Treat **items indicated on Drawings, and the following:**
  1. Framing for raised platforms.
  2. Framing for stages.
  3. Concealed blocking.
  4. Plywood backing panels.

## 2.4 DIMENSION LUMBER FRAMING

- A. Non-Load-Bearing Interior Partitions: **Construction or No. 2** grade.
  1. Application: **Interior partitions not indicated as load-bearing.**
  2. Species:
    - a. Mixed southern pine; SPIB.
    - b. Northern species; NLGA.
    - c. Eastern softwoods; NeLMA.

- d. Western woods; WCLIB or WWP.

B. Framing Other Than Non-Load-Bearing Interior Partitions: **No. 2** grade.

1. Application: Framing other than **interior partitions not indicated as load-bearing**.
2. Species:
  - a. Hem-fir (north); NLGA.
  - b. Southern pine; SPIB.
  - c. Douglas fir-larch; WCLIB or WWP.
  - d. Mixed southern pine; SPIB.
  - e. Douglas fir-south; WWP.
  - f. Hem-fir; WCLIB or WWP.
  - g. Douglas fir-larch (north); NLGA.

C. Exposed Framing: Provide material hand-selected for uniformity of appearance and freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot-holes, shake, splits, torn grain, and wane.

1. Application: Exposed **exterior and interior** framing **indicated to receive a stained or natural finish**.
2. Species and Grade: **As indicated above for load-bearing construction of same type**.

## 2.5 ENGINEERED WOOD PRODUCTS

A. Laminated-Veneer Lumber: Structural composite lumber made from wood veneers with grain primarily parallel to member lengths, evaluated and monitored according to ASTM D 5456 and manufactured with an exterior-type adhesive complying with ASTM D 2559.

1. Extreme Fiber Stress in Bending, Edgewise: **2600 psi (17.9 MPa)** for **12-inch nominal-(286-mm actual-)** depth members.
2. Modulus of Elasticity, Edgewise: **1,900,000 psi**.

## 2.6 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.
3. Rooftop equipment bases and support curbs.
4. Cants.
5. Furring.
6. Grounds.

B. For items of dimension lumber size, provide **Construction or No. 2** grade lumber of any species.

- C. For concealed boards, provide lumber with **15** percent maximum moisture content.

## 2.7 PLYWOOD BACKING PANELS

- A. Equipment Backing Panels: DOC PS 1, **Exterior, AC, fire-retardant treated**, in thickness indicated or, if not indicated, not less than **3/4-inch (19-mm)** nominal thickness.
1. Plywood shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

## 2.8 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners **with hot-dip zinc coating complying with ASTM A 153/A 153M or of Type 304 stainless steel**.
- B. Power-Driven Fasteners: NES NER-272.
- C. Bolts: Steel bolts complying with **ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6)**; with **ASTM A 563 (ASTM A 563M)** hex nuts and, where indicated, flat washers.

## 2.9 METAL FRAMING ANCHORS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide **product indicated on Drawings by Simpson Strong-Tie Co., Inc.** or comparable product by one of the following:
1. Cleveland Steel Specialty Co.  
2. KC Metals Products, Inc.  
3. USP Structural Connectors.
- B. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those of **basis-of-design products**. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.
- C. Galvanized-Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653/A 653M, **G60 (Z180)** coating designation.
1. Use for interior locations unless otherwise indicated.
- D. Hot-Dip, Heavy-Galvanized Steel Sheet: ASTM A 653/A 653M; structural steel (SS), high-strength low-alloy steel Type A (HSLAS Type A), or high-strength low-alloy steel Type B

(HSLAS Type B); **G185 (Z550)** coating designation; and not less than **0.036 inch (0.9 mm)** thick.

1. Use for wood-preservative-treated lumber and where indicated.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate **furring**, nailers, blocking, **grounds**, and similar supports to comply with requirements for attaching other construction.
- B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- C. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
- D. Install fire-retardant treated plywood backing panels with classification marking of testing agency exposed to view.
- E. Metal Framing Anchors: Install metal framing anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.
- F. Do not splice structural members between supports unless otherwise indicated.
- G. Comply with AWP A M4 for applying field treatment to cut surfaces of preservative-treated lumber.
- H. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.
- I. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
  1. NES NER-272 for power-driven fasteners.
  2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
  3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.



3.2 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Protect rough carpentry from weather.

END OF SECTION 06 10 00

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 06 20 23 - INTERIOR FINISH CARPENTRY

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. This Section includes the following:

1. Interior standing and running trim.
2. Plywood Hardboard paneling.
3. Shelving and clothes rods.

B. Related Sections include the following:

1. Division 06 Section "Miscellaneous Rough Carpentry" for furring, blocking, and other carpentry work not exposed to view.
2. Division 06 Section "Interior Architectural Woodwork" for shop-fabricated interior woodwork not specified in this Section.
3. Division 06 Section "Interior Architectural Woodwork" for architectural paneling.
4. Division 09 Section "Interior Painting" for priming and backpriming of interior finish carpentry.

#### 1.2 DEFINITIONS

A. Lumber grading agencies, and the abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NHLA: National Hardwood Lumber Association.
3. NLGA: National Lumber Grades Authority.
4. SPIB: The Southern Pine Inspection Bureau.
5. WCLIB: West Coast Lumber Inspection Bureau.
6. WWPA: Western Wood Products Association.

B. MDF: Medium-density fiberboard.

C. MDO Plywood: Plywood with a medium-density overlay on the face.

#### 1.3 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials, dimensions, profiles, textures, and colors and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained. Include chemical treatment manufacturer's written instructions for finishing treated material.

2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
  3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.
- B. Samples for Initial Selection: For each type of paneling indicated.
- C. Samples for Verification:
1. For each species and cut of lumber and panel products with non-factory-applied finish, with 1/2 of exposed surface finished, 50 sq. in. (300 sq. cm) for lumber and 8 by 10 inches (200 by 250 mm) for panels.
  2. For each finish system and color of lumber and panel products with factory-applied finish, 50 sq. in. (300 sq. cm) for lumber and 8 by 10 inches (200 by 250 mm) for panels.
- D. Research/Evaluation Reports: Showing that fire-retardant-treated wood complies with building code in effect for Project.
- E. Warranty: Special warranty specified in this Section.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials against weather and contact with damp or wet surfaces. Stack lumber, plywood, and other panels flat with spacers between each bundle to provide air circulation. Provide for air circulation within and around stacks and under temporary coverings.
- B. Deliver interior finish carpentry materials only when environmental conditions meet requirements specified for installation areas. If interior finish carpentry materials must be stored in other than installation areas, store only where environmental conditions meet requirements specified for installation areas.

#### 1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install interior finish carpentry materials until wet work in space is completed and nominally dry, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Do not install finish carpentry materials that are wet, moisture damaged, or mold damaged.
1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  2. Indications that materials are mold damaged include, but are not limited to, fuzzy or blotchy surface contamination and discoloration.

## PART 2 - PRODUCTS

### 2.1 MATERIALS, GENERAL

- A. Lumber: DOC PS 20 and applicable grading rules of inspection agencies certified by ALSC's Board of Review.
  - 1. Factory mark each piece of lumber with grade stamp of inspection agency indicating grade, species, moisture content at time of surfacing, and mill.
  - 2. For exposed lumber, mark grade stamp on end or back of each piece, or omit grade stamp and provide certificates of grade compliance issued by inspection agency.
- B. Softwood Plywood: DOC PS 1.
- C. Hardboard: AHA A135.4.
- D. MDF: ANSI A208.2, Grade 130.
- E. Particleboard: ANSI A208.1, Grade M-2.
- F. Melamine-Faced Particleboard: Particleboard complying with ANSI A208.1, Grade M-2, finished on both faces with thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.
  - 1. Color: See drawings.

### 2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Lumber: AWWA C2. Kiln dry after treatment to a maximum moisture content of 19 percent.
- B. Plywood: AWWA C9. Kiln dry after treatment to a maximum moisture content of 18 percent.
- C. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- D. For exposed items indicated to receive transparent finish, do not use chemical formulations that contain colorants or that bleed through or otherwise adversely affect finishes.
- E. Do not use material that is warped or does not comply with requirements for untreated material.
- F. Mark lumber with treatment quality mark of an inspection agency approved by ALSC's Board of Review.
  - 1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece or omit marking and provide certificates of treatment compliance issued by inspection agency.
- G. Mark plywood with appropriate classification marking of an inspection agency acceptable to authorities having jurisdiction.

1. For exposed plywood indicated to receive a stained or natural finish, mark back of each piece.

## 2.3 STANDING AND RUNNING TRIM

### A. Softwood Lumber Trim for Transparent Finish (Stain or Clear Finish):

1. Species and Grade: Eastern white pine, C Select; NeLMA or NLGA.
2. Species and Grade: Idaho white, lodgepole, ponderosa, radiata, or sugar pine; C Select (Choice); NLGA or WWP.
3. Species and Grade: Eastern white, Idaho white, lodgepole, ponderosa, radiata, or sugar pine; C Select (Choice); NeLMA, NLGA, or WWP.
4. Species and Grade: White woods, C Select; WWP.
5. Species and Grade: Douglas fir-larch or Douglas fir south, Superior or C & Btr finish; NLGA, WCLIB, or WWP.
6. Species and Grade: Southern pine, B & B finish; SPIB.
7. Species and Grade: Western red cedar, Clear Heart; NLGA, WCLIB, or WWP.
8. Maximum Moisture Content: 19 percent.
9. Finger Jointing: Not allowed.
10. Face Surface: Surfaced (smooth).

### B. Hardwood Lumber Trim for Transparent Finish (Stain or Clear Finish):

1. Species and Grade: White maple; A finish; NHLA.
2. Finger Jointing: Not allowed.
3. Gluing for Width: Allowed Not allowed Use for lumber trim wider than 6 inches (150 mm).
4. Veneered Material: Allowed Use for lumber trim wider than 6 inches (150 mm).
5. Face Surface: Surfaced (smooth).
6. Matching: Selected for compatible grain and color.

### C. Lumber Trim for Opaque Finish (Painted):

1. Species and Grade: Eastern white pine, Finish or 1 Common; NeLMA or NLGA.
2. Species and Grade: Idaho white, lodgepole, ponderosa, radiata, or sugar pine; 1 Common (Colonial); NLGA or WWP.
3. Species and Grade: Eastern white, Idaho white, lodgepole, ponderosa, radiata, or sugar pine; Finish or 1 Common (Colonial); NeLMA, NLGA, or WWP.
4. Species and Grade: White woods, 1 Common; WWP.
5. Species and Grade: Douglas fir-larch or Douglas fir south, Superior or C & Btr finish; NLGA, WCLIB, or WWP.
6. Species and Grade: Spruce-pine-fir, 1 Common; NeLMA, NLGA, WCLIB, or WWP.
7. Species and Grade: Alder, aspen, basswood, cottonwood, gum, magnolia, soft maple, sycamore, tupelo, or yellow poplar; A finish; NHLA.
8. Maximum Moisture Content: 19 percent for soft wood.
9. Maximum Moisture Content: 13 percent for hard wood.
10. Finger Jointing: Allowed.
11. Face Surface: Surfaced (smooth).
12. Optional Material: Primed MDF of same actual dimensions as lumber indicated may be used in lieu of lumber.

- D. Softwood Moldings for Transparent Finish (Stain or Clear Finish): WMMPA WM 4, N-grade wood moldings. Made to patterns included in WMMPA WM 12.
  - 1. Species: Southern pine.
  - 2. Maximum Moisture Content: 15 percent with at least 85 percent of shipment at 12 percent or less.
  - 3. Finger Jointing: Not allowed.
  - 4. Matching: Selected for compatible grain and color.
- E. Hardwood Moldings for Transparent Finish (Stain or Clear Finish): WMMPA HWM 2, N-grade wood moldings made to patterns included in WMMPA HWM 1.
  - 1. Species: White maple.
  - 2. Kiln-dried softwood or MDF, with exposed surfaces veneered with species indicated, may be used in lieu of solid wood.
  - 3. Maximum Moisture Content: 9 percent.
  - 4. Finger Jointing: Not allowed.
  - 5. Matching: Selected for compatible grain and color.
- F. Moldings for Opaque Finish (Painted): Made to patterns included in WMMPA WM 12.
  - 1. Softwood Moldings: WMMPA WM 4, P-grade.
    - a. Species: Eastern white, Idaho white, lodgepole, ponderosa, radiata, or sugar pine.
    - b. Maximum Moisture Content: 15 percent with at least 85 percent of shipment at 12 percent or less.
  - 2. Hardwood Moldings: WMMPA HWM 2, P-grade.
    - a. Species: Aspen, basswood, cottonwood, gum, magnolia, soft maple, tupelo, or yellow poplar.
    - b. Maximum Moisture Content: 9 percent.
  - 3. Optional Material: Primed MDF.
  - 4. Finger Jointing: Allowed.

## 2.4 PANELING

- A. Hardwood Veneer Plywood Paneling: Manufacturer's stock hardwood plywood panels complying with HPVA HP-1, made without urea-formaldehyde adhesive.
  - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Chesapeake Hardwood Products, Inc.
    - b. Davidson Plywood; a division of Do+Able Products, Inc.
    - c. Georgia-Pacific Corp.

3. Face Veneer Species and Cut: Rift-cut oak.
4. Veneer Matching: Selected for similar color and grain.
5. Backing Veneer Species: Same species as face veneer.
6. Construction: Veneer core.
7. Thickness: 1/8 inch (3.2 mm).
8. Panel Size: See drawings.
9. Glue Bond: Type II (interior).
10. Face Pattern: Match Architect's sample.
11. Finish: As selected by Architect from manufacturer's full range.

## 2.5 SHELVING AND CLOTHES RODS

- A. Closet Utility Shelving: Made from one of the following materials, 3/4 inch (19 mm) thick. Do not use particleboard or MDF that contains urea formaldehyde.
1. Particleboard with or solid-wood front edge.
  2. MDF with solid-wood front edge.
  3. MDO softwood plywood with solid-wood edge.
  4. Melamine-faced particleboard with radiused and filled applied PVC front edge.
  5. Wood boards as specified above for lumber trim for opaque finish.
  6. Softwood Boards: Eastern white, Idaho white, lodgepole, ponderosa, radiata, or sugar pine; C Select (Choice); NeLMA, NLGA, or WWPA; kiln dried.
  7. Softwood Boards: Douglas fir-larch, Douglas fir south, or hem-fir; Superior or C & Btr finish; NLGA, WCLIB, or WWPA; or southern pine, finish; SPIB; kiln dried.
- B. Shelf Cleats: 3/4-by-3-1/2-inch (19-by-89-mm) boards 3/4-by-5-1/2-inch (19-by-140-mm) boards with hole and notch to receive clothes rods, as specified above for shelving.
- C. Shelf Brackets with Rod Support: BHMA A156.16, B04051; prime-painted formed steel.
- D. Shelf Brackets without Rod Support: BHMA A156.16, B04041; prime-painted formed steel.
- E. Standards for Adjustable Shelf Brackets: BHMA A156.9, B04102; powder-coat finished brass-finished zinc-plated steel.
- F. Adjustable Shelf Brackets: BHMA A156.9, B04112; powder-coat finished steel.
- G. Standards for Adjustable Shelf Supports: BHMA A156.9, B04071; powder-coat finished steel.
- H. Adjustable Shelf Supports: BHMA A156.9, B04081 or B04091; powder-coat finished steel.
- I. Clothes Rods: 1-1/2-inch- (38-mm-) diameter, clear, kiln-dried hardwood.
- J. Clothes Rods: 1-5/16-inch- (33-mm-) diameter,.
- K. Rod Flanges: Clear, kiln-dried, Douglas fir or southern pine eastern white, Idaho white, lodgepole, ponderosa, radiata, or sugar pine red oak white maple aspen, basswood, cottonwood, sap gum, white maple, or yellow poplar turnings.



## 2.6 MISCELLANEOUS MATERIALS

- A. Fasteners for Interior Finish Carpentry: Nails, screws, and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.
  - 1. Where galvanized finish is indicated, provide fasteners and anchorages with hot-dip galvanized coating complying with ASTM A 153/A 153M.
- B. Glue: Aliphatic-resin, polyurethane, or resorcinol wood glue recommended by manufacturer for general carpentry use.
- C. Paneling Adhesive: Comply with paneling manufacturer's written recommendations for adhesives.
- D. Multipurpose Construction Adhesive: Formulation complying with ASTM D 3498 that is recommended for indicated use by adhesive manufacturer.

## 2.7 FABRICATION

- A. Back out or kerf backs of the following members except those with ends exposed in finished work:
  - 1. Interior standing and running trim except shoe and crown molds.
  - 2. Wood board paneling.
- B. Ease edges of lumber less than 1 inch (25 mm) in nominal thickness to 1/16-inch (1.5-mm) radius and edges of lumber 1 inch (25 mm) or more in nominal thickness to 1/8-inch (3-mm) radius.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Examine finish carpentry materials before installation. Reject materials that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.

- B. Before installing interior finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours unless longer conditioning is recommended by manufacturer.

### 3.3 INSTALLATION, GENERAL

- A. Do not use materials that are unsound, warped, improperly treated or finished, inadequately seasoned, or too small to fabricate with proper jointing arrangements.
  - 1. Do not use manufactured units with defective surfaces, sizes, or patterns.
- B. Install interior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
  - 1. Scribe and cut interior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
  - 2. Countersink fasteners, fill surface flush, and sand where face fastening is unavoidable.
  - 3. Install to tolerance of 1/8 inch in 96 inches (3 mm in 2438 mm) for level and plumb. Install adjoining interior finish carpentry with 1/32-inch (0.8-mm) maximum offset for flush installation and 1/16-inch (1.5-mm) maximum offset for reveal installation.
  - 4. Coordinate interior finish carpentry with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate interior finish carpentry.

### 3.4 STANDING AND RUNNING TRIM INSTALLATION

- A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches (610 mm) long, except where necessary. Stagger joints in adjacent and related standing and running trim. Cope at returns and miter at corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints. Plane backs of casings to provide uniform thickness across joints where necessary for alignment.
  - 1. Match color and grain pattern of trim for transparent finish (stain or clear finish) across joints.
  - 2. Install trim after gypsum board joint finishing operations are completed.
  - 3. Drill pilot holes in hardwood before fastening to prevent splitting. Fasten to prevent movement or warping. Countersink fastener heads on exposed carpentry work and fill holes.

### 3.5 PANELING INSTALLATION

- A. Plywood Paneling: Select and arrange panels on each wall to minimize noticeable variations in grain character and color between adjacent panels. Leave 1/4-inch (6-mm) gap to be covered with trim at top, bottom, and openings. Install with uniform tight joints between panels.
  - 1. Attach panels to supports with manufacturer's recommended panel adhesive and fasteners. Space fasteners as recommended by panel manufacturer.

2. Conceal fasteners to greatest practical extent.
3. Arrange panels with grooves and joints over supports. Fasten to supports with nails of type and at spacing recommended by panel manufacturer. Use fasteners with prefinished heads matching groove color.

### 3.6 SHELVING AND CLOTHES ROD INSTALLATION

- A. Cut shelf cleats at ends of shelves about 1/2 inch (13 mm) less than width of shelves and sand exposed ends smooth.
- B. Install shelf cleats by fastening to framing or backing with finish nails or trim screws, set below face and filled. Space fasteners not more than 16 inches (400 mm) o.c. Use 2 fasteners at each framing member or fastener location for cleats 4 inches nominal (89 mm actual) in width and wider.
  1. Apply a bead of multipurpose construction adhesive to back of shelf cleats right before installing. Remove adhesive that is squeezed out immediately after fastening shelf cleats in place.
- C. Install shelf brackets according to manufacturer's written instructions, spaced not more than 36 inches (900 mm) o.c. Fasten to framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors.
- D. Install standards for adjustable shelf supports according to manufacturer's written instructions. Fasten to framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors. Space fasteners not more than 12 inches (300 mm) o.c.
- E. Install standards for adjustable shelf brackets according to manufacturer's written instructions, spaced not more than 36 inches (900 mm) o.c. and within 6 inches (150 mm) of end of shelves. Fasten to framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors.
- F. Cut shelves to neatly fit openings with only enough gap to allow shelves to be removed and reinstalled. Install shelves, fully seated on cleats, brackets, and supports.
  1. Fasten shelves to brackets to comply with bracket manufacturer's written instructions.
- G. Install rod flanges for rods as indicated. Fasten to shelf cleats, framing members, blocking, or metal backing, or use toggle bolts or hollow wall anchors. Install rods in rod flanges.

### 3.7 ADJUSTING

- A. Replace interior finish carpentry that is damaged or does not comply with requirements. Interior finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing. Adjust joinery for uniform appearance.

3.8 CLEANING

- A. Clean interior finish carpentry on exposed and semiexposed surfaces. Touch up factory-applied finishes to restore damaged or soiled areas.

3.9 PROTECTION

- A. Protect installed products from damage from weather and other causes during remainder of the construction period.
- B. Remove and replace finish carpentry materials that are wet, moisture damaged, and mold damaged.
  - 1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 06 20 23

## SECTION 06 64 00 - PLASTIC PANELING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes:
  - 1. Glass-fiber reinforced plastic (FRP) wall paneling and trim accessories.
  - 2. Resin paneling.
- B. Related Sections:
  - 1. Section 061000 "Rough Carpentry" for wood furring for installing plastic paneling.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For plastic paneling and trim accessories.
- C. Samples for Verification: For plastic paneling and trim accessories, in manufacturer's standard sizes.

#### 1.3 QUALITY ASSURANCE

- A. Source Limitations: Obtain plastic paneling and trim accessories from single manufacturer.
- B. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Flame-Spread Index: 25 or less.
  - 2. Smoke-Developed Index: 450 or less.

#### 1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install plastic paneling until and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

## PART 2 - PRODUCTS

### 2.1 PLASTIC SHEET PANELING

- A. General: Gelcoat-finished, glass-fiber reinforced plastic panels complying with ASTM D 5319.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Kemlite Company Inc.
    - b. Marlite.
    - c. Nudo Products, Inc.
  - 2. Nominal Thickness: Not less than 0.09 inch.
  - 3. Surface Finish: As selected by Architect from manufacturer's full range.
  - 4. Color: As selected by Architect from manufacturer's full range.

### 2.2 RESIN PANELING

- A. General: Engineered polyester resin panel.
  - 1. Manufacturer: 3form, Inc.
  - 2. Sheet Size: Maximum 4' x 10'
  - 3. Thickness: Minimum 1/16"
  - 4. Basis of Design Product: The design of Plastic Fabrications is based on Varia™ produced with ecoresin™ as provided by 3form, Inc.

### 2.3 ACCESSORIES

- A. Trim Accessories: Manufacturer's standard one-piece vinyl extrusions designed to retain and cover edges of panels. Provide division bars, inside corners, outside corners, and caps as needed to conceal edges.
  - 1. Color: Match panels.
- B. Adhesive: As recommended by plastic paneling manufacturer.
- C. Sealant: Single-component, mildew-resistant, neutral-curing silicone sealant recommended by plastic paneling manufacturer and complying with requirements in Section 079200 "Joint Sealants."

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Remove wallpaper, vinyl wall covering, loose or soluble paint, and other materials that might interfere with adhesive bond.
- B. Prepare substrate by sanding high spots and filling low spots as needed to provide flat, even surface for panel installation.
- C. Clean substrates of substances that could impair bond of adhesive, including oil, grease, dirt, and dust.
- D. Condition panels by unpacking and placing in installation space before installation according to manufacturer's written recommendations.
- E. Lay out paneling before installing. Locate panel joints so that trimmed panels at corners are not less than 12 inches wide.
  - 1. Mark plumb lines on substrate at trim accessory locations for accurate installation.
  - 2. Locate trim accessories to allow clearance at panel edges according to manufacturer's written instructions.

### 3.3 INSTALLATION

- A. Install plastic paneling according to manufacturer's written instructions.
- B. Install panels in a full spread of adhesive.
- C. Install trim accessories with adhesive.
- D. Fill grooves in trim accessories with sealant before installing panels and bed inside corner trim in a bead of sealant.
- E. Maintain uniform space between panels and wall fixtures. Fill space with sealant.
- F. Remove excess sealant and smears as paneling is installed. Clean with solvent recommended by sealant manufacturer and then wipe with clean dry cloths until no residue remains.

END OF SECTION 06 64 00

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 07 21 00 - BUILDING INSULATION

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes: Requirements including but not limited to:

1. Concealed building insulation.
2. Cavity wall insulation.
3. Vapor retarders.
4. Accessories necessary for a complete installation.

B. Related Work:

1. Section 092900 - Gypsum Board Assemblies.

#### 1.2 SUBMITTALS

A. Product Data: Technical data for each type of product indicated.

#### 1.3 QUALITY ASSURANCE

A. Fire Test Response Characteristics: Provide insulation and related materials with fire test response characteristics indicated as determined by testing identical products per test method indicated by ULI. Identify materials with appropriate markings of applicable testing and inspecting agency.

1. Surface Burning Characteristics: ASTM E 84.
2. Fire Resistance Ratings: ASTM E 119.
3. Combustion Characteristics: ASTM E 136.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

A. Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

A. Natural cotton-fiber insulation consisting of fibers manufactured from natural cotton fibers, typical at all partition and ceiling assemblies unless otherwise required by UL assembly:

1. Manufacturers: Subject to compliance with requirements, provide Ultra Touch Insulation products by Bonded Logic. [www.bondedlogic.com](http://www.bondedlogic.com)
  2. Surface Burning Characteristics: Flame Spread 5 (Class 1) Smoke developed 35 (Class 1). Test method ASTM E-84 (UL-723).
  3. Corrosion Resistance: Passed per ASTM C-739.
  4. Fungi Resistance: Passed – No Growth per ASTM C-739.
  5. Bacteria Resistance- Passed – No Growth per ASTM C-739.
  6. Moisture Absorption – Passed – Less than 15% per ASTM C-739.
  7. Fire Test of Building Material- Passed- 1 hour rating per ASTM E-119/UL-263.
- B. Unfaced, Mineral Wool Blanket Insulation, substitute for natural cotton-fiber insulation where required by UL assembly: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers; with maximum flame spread and smoke developed indexes of 25 and 50, respectively, per ASTM E 84; passing ASTM E 136 for combustion characteristics.
1. Manufacturers: Provide products complying with requirements of one of the following:
    - a. Fibrex Insulations Inc.
    - b. Owens Corning.
    - c. Thermafiber.
- C. Reinforced Polyethylene Vapor Retarders: ASTM D 4397, 6 mils (0.15 mm) thick; 2 outer layers of polyethylene film laminated to an inner reinforcing layer consisting of either nylon cord or polyester scrim and weighing not less than 25 lb/1000 sq. ft. (12 kg/100 sq. m), with maximum permeance rating of 0.0507 perm (2.9 ng/Pa x s x sq. m).
1. Vapor Retarder Tape: Pressure sensitive tape of type recommended by vapor retarder manufacturer for sealing joints and penetrations in vapor retarder.
  2. Vapor Retarder Fasteners: Pancake head, self tapping steel drill screws; with fender washers.
  3. Single Component Nonsag Urethane Sealant: ASTM C 920, Type I, Grade NS, Class 25, Use NT related to exposure, and Use O related to vapor barrier related substrates.
  4. Adhesive for Vapor Retarders: Product recommended by vapor retarder manufacturer and with demonstrated capability to bond vapor retarders securely to substrates indicated.
  5. Products: Provide one of the following products complying with requirements:
    - a. Raven Industries Inc.; DURA-SKRIM 6WW.
    - b. Reef Industries, Inc.; Griffolyn T-65.
- D. Accessories:
1. Adhesive for Bonding Insulation: Product with demonstrated capability to bond insulation securely to substrates indicated without damaging insulation and substrates.
  2. Eave Ventilation Troughs: Preformed, rigid fiberboard or plastic sheets designed and sized to fit between roof framing members and to provide cross ventilation between insulated attic spaces and vented eaves.
- E. Adhesively Attached, Spindle Type Anchors: Plate welded to projecting spindle; capable of holding insulation of thickness indicated securely in position indicated with self locking washer in place:

1. Plate: Perforated galvanized carbon-steel sheet, 0.030 inch (0.762 mm) thick by 2 inches (50 mm) square.
  2. Spindle: Copper coated, low carbon steel; fully annealed; 0.105 inch (2.67 mm) in diameter; length to suit depth of insulation indicated.
- F. Insulation Retaining Washers: Self locking washers formed from 0.016 inch (0.41mm) thick galvanized steel sheet, with beveled edge for increased stiffness, sized as required to hold insulation securely in place, but not less than 1-1/2 inches (38 mm) square or in diameter. Protect ends with capped self locking washers incorporating a spring steel insert to ensure permanent retention of cap.
- G. Insulation Standoff: Spacer fabricated from galvanized mild steel sheet for fitting over spindle of insulation anchor to maintain air space of 1 inch (25 mm) between face of insulation and substrate to which anchor is attached.
- H. Anchor Adhesive: Product with demonstrated capability to bond insulation anchors securely to substrates indicated without damaging insulation, fasteners, and substrates.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates and conditions for compliance with requirements for other conditions affecting performance. Proceed with installation after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Clean substrates of substances harmful to insulation or vapor retarders, including removing projections capable of puncturing vapor retarders or of interfering with insulation attachment.

#### 3.3 INSTALLATION

- A. Comply with insulation manufacturer's written instructions applicable to products and application indicated. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed at any time to ice, rain, and snow. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections interfering with placement.
- B. Building Insulation: Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.
1. Seal joints between foam plastic insulation units by applying adhesive, mastic, or sealant to edges of each unit to form a tight seal as units are shoved into place. Fill voids in

completed installation with adhesive, mastic, or sealant as recommended by insulation manufacturer.

2. Install insulation in cavities formed by framing members according to the requirements:
  - a. Use insulation widths and lengths that fill cavities formed by framing members. If more than one length is required to fill cavity, provide lengths that produce snug fit between ends.
  - b. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
  - c. For metal framed wall cavities where cavity heights exceed 96 inches, support unfaced blankets mechanically and support faced blankets by taping stapling flanges to flanges of metal studs.
- C. Natural Cotton-Fiber or Mineral Wool Blanket Insulation: Install in cavities formed by framing members according to requirements:
  1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.
  2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
  3. Maintain 3 inch (76 mm) clearance of insulation around recessed lighting fixtures not rated for or protected from contact with insulation.
  4. For metal framed wall cavities where cavity heights exceed 96 inches (2438 mm), support unfaced blankets mechanically and support faced blankets by taping flanges of insulation to flanges of metal studs.
- D. Vapor Retarder: Extend vapor retarder to extremities of areas to be protected from vapor transmission. Secure in place with adhesives or anchorage system as indicated. Extend vapor retarder to cover miscellaneous voids in insulated substrates.
  1. Seal vertical joints in vapor retarders over framing by lapping minimum two wall studs. Fasten vapor retarders to wood framing at top, end, and bottom edges; at perimeter of wall openings; and at lap joints. Space fasteners 16 inches (400 mm) o.c.
  2. Before installing vapor retarders, apply urethane sealant to flanges of metal framing including runner tracks, metal studs, and framing around door and window openings. Seal overlapping joints in vapor retarders with vapor retarder tape according to vapor retarder manufacturer's written instructions. Seal butt joints with vapor retarder tape. Locate all joints over framing members or other solid substrates.
  3. Firmly attach vapor retarders to metal framing and solid substrates with vapor retarder fasteners recommended by vapor retarder manufacturer.
  4. Seal joints caused by pipes, conduits, electrical boxes, and similar items penetrating vapor retarders with vapor-retarder tape to create an airtight seal between penetrating objects and vapor retarder.
  5. Repair tears or punctures in vapor retarders immediately before concealment by work. Cover with vapor retarder tape or additional layer of vapor retarder.

3.4 PROTECTION

- A. Protect installed insulation and vapor retarders from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION



## SECTION 07 84 00 - FIRESTOPPING SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes: Requirements including but not limited to:

1. Through penetration firestop systems for penetrations through fire resistance-rated constructions, including both empty openings and openings containing penetrating items.
2. Fire resistive joint systems.
3. Accessories necessary for a complete installation.

B. Related Work:

1. Section 079200 - Sealants.

#### 1.2 PERFORMANCE REQUIREMENTS

A. Through Penetration Fire Resistance System:

1. For penetrations through fire resistance rated constructions, including both empty openings and openings containing penetrating items, provide through penetration firestop systems produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and gases, and maintain original fire resistance rating of construction penetrated.
  - a. Fire resistance rated walls including firewalls, fire partitions, fire barriers, and smoke barriers.
  - b. Fire resistance rated horizontal assemblies including ceiling membranes of roof/ceiling assemblies.
2. Rated Systems: Provide through penetration firestop systems with ratings determined in accordance with UL 1479 for C-AJ, C-BJ, C-BK, F-A, F-B, F-C, W-J, W-K, and W-L classified systems:
  - a. F Rated Systems: Provide through penetration firestop systems with F ratings indicated, but not less than that equaling or exceeding fire resistance rating of constructions penetrated.
  - b. T Rated Systems: For specified conditions, provide through penetration firestop systems with T ratings indicated, as well as F ratings, where systems protect penetrating items exposed to potential contact with adjacent materials in occupiable floor areas:
    - 1) Penetrations located outside wall cavities.
    - 2) Penetrations located outside fire resistance rated shaft enclosures.

- c. L Rated Systems: Where through penetration firestop systems are indicated in smoke barriers, provide through penetration firestop systems with L ratings of not more than 3.0 cfm/sq. ft (0.01524cu. m/s x sq. m) at both ambient temperatures and 400 degrees F (204 degrees C).
  - d. For through penetration firestop systems exposed to view, traffic, moisture, and physical damage, provide products that, after curing, do not deteriorate when exposed to conditions both during and after construction.
  - e. For piping penetrations for plumbing and wet pipe sprinkler systems, provide moisture resistant through penetration firestop systems.
  - f. For penetrations involving insulated piping, provide through penetration firestop systems not requiring removal of insulation.
- 3. For through penetration firestop systems exposed to view, provide products with flame spread and smoke developed indexes of less than 25 and 450, respectively, determined in accordance with ASTM E 84.
- B. Fire Resistive Joint Systems: System produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and gases, and maintain original fire resistance rating of assembly in which fire resistive joint systems are installed.
  - 1. Joint Systems in and between Fire Resistance Rated Constructions: Provide systems with assembly ratings equaling or exceeding fire resistance ratings of construction that are join, with movement capabilities and L ratings] indicated determined by UL 2079.
  - 2. Perimeter Fire Resistive Joint Systems: For joints between edges of fire resistance rated floor assemblies and exterior curtain walls, provide systems of type and with ratings indicated determined by NFPA 285 and UL 2079.
  - 3. For fire resistive systems exposed to view, provide products with flame spread and smoke developed indexes of less than 25 and 450, respectively determined in accordance with ASTM E 84.

### 1.3 SUBMITTALS

- A. Product Data: Technical data and fire resistive rating for each type of product indicated.
- B. Shop Drawings: For each through penetration firestop or fire resistive joint system, show each type of construction condition penetrated, relationships to adjoining construction, and type of penetration. Include firestop design designation of qualified testing and inspecting agency that evidences compliance with requirements for each condition indicated.
  - 1. Submit documentation, including illustrations, from qualified testing and inspecting agency, applicable to each firestop system configuration for construction and penetrating items.
- C. Product Schedule: For each firestopping system, submit location and design designation of qualified testing and inspecting agency. Where conditions require modification to a qualified testing and inspecting agency's illustration for a particular firestopping condition, submit illustration, with modifications marked, approved by firestopping manufacturer fire protection engineer as an engineering judgment or equivalent fire resistance rated assembly.



D. Certificates and Test Reports:

1. Certificate: For each through penetration firestopping system products signed by product manufacturer.
2. Test Reports: From a qualified testing agency indicating through penetration firestopping system complies with requirements, based on comprehensive testing of current products.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Building Code: Comply with applicable requirements of the 2007 FBCC.
2. Fire Test Response Characteristics: Provide through penetration firestop systems complying with requirements:
  - a. Through penetration firestop systems are identical to those tested in accordance with UL. Provide rated systems complying with requirements.
    - 1) Through penetration firestop system products bear classification marking of qualified testing and inspecting agency.
    - 2) Through penetration firestop systems correspond to those indicated by reference to through penetration firestop system designations listed by ULI in its *Fire Resistance Directory*.
  - b. Fire Resistive Joint Systems: Perform fire resistance tests by UL with follow up inspection services for fire resistive joint systems acceptable to authorities having jurisdiction.
    - 1) Fire resistive joint system products bear classification marking of qualified testing and inspecting agency.
    - 2) Fire resistive joint systems correspond to those indicated by referencing system designations listed by ULI in its *Fire Resistance Directory*.

B. Installer Qualifications: Firm approved by FM Global in accordance with FM Global 4991 *Approval of Firestop Contractors* or evaluated by UL and found to comply with its *Qualified Firestop Contractor Program Requirements*. Manufacturer's willingness to sell its firestop system products to Contractor or to Installer engaged by Contractor does not confer qualification on buyer.

C. Installation Responsibility: Assign installation of through penetration firestop systems and fire resistive joint systems to a single qualified installer.

D. Source Limitations: Obtain firestop systems, for each kind of penetration and construction condition indicated, through one source from a single manufacturer.

E. Environmental Performance:

1. VOC Content of Interior Firestopping Sealants: Sealants and sealant primers complying with limits for VOC content for SCAQMD when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
  - a. Sealants: 250 g/L.
  - b. Sealant Primers for Nonporous Substrates: 250 g/L.
  - c. Sealant Primers for Porous Substrates: 775 g/L.
2. Sealants containing aromatic solvents, fibrous talc, formaldehyde, halogenated solvents, mercury, lead, cadmium, chromium and their compounds, are not permitted.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver firestop system products to site in original, unopened containers or packages with intact and legible manufacturer labels identifying product and manufacturer, date of manufacture, lot number, shelf life if applicable, qualified testing and inspecting agency's classification marking, curing time, and mixing instructions for multicomponent materials.
- B. Store and handle materials for through penetration firestop systems to prevent their deterioration or damage due to moisture, temperature changes, contaminants, or other causes.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install firestop systems when ambient or substrate temperatures are outside limits permitted by firestop system manufacturer or when substrates are wet due to rain, frost, condensation, or causes.
- B. Install and cure penetration firestopping per manufacturer's written instructions using natural means of ventilations or, where this is inadequate, forced-air circulation.
- C. Ventilate firestop systems in accordance with manufacturer's written instructions by natural means or, where inadequate, forced air circulation.

1.7 COORDINATION

- A. Coordinate construction of openings and penetrating items to ensure that firestop systems are installed according to specified requirements.
- B. Coordinate sizing of sleeves, openings, core drilled holes, or cut openings to accommodate through penetration firestop systems.
- C. Joint System: Coordinate sizing of joints to accommodate fire resistive joint systems.
- D. Do not cover up through penetration firestop system or fire resistive joint system installations that will become concealed behind other construction until building inspector of authorities having jurisdiction have examined each installation.

- E. Notify Owner's testing agency minimum 7 days in advance of penetration firestopping installations; confirm dates and times on day preceding each series of installations.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Manufacturer: Subject to compliance with requirements, provide products of one of the following systems indicated for each application:
  - 1. Penetrating Firestop:
    - a. Hilti, Inc.
    - b. Nelson Firestop Products.
    - c. RectorSeal Corporation (The).
    - d. Specified Technologies Inc.
    - e. 3M; Fire Protection Products Division.
    - f. USG Corporation.
  - 2. Fire Resistive Joint Firestop:
    - a. Hilti, Inc.
    - b. Nelson Firestop Products.
    - c. RectorSeal Corporation.
    - d. Specified Technologies Inc.
    - e. 3M Fire Protection Products.
- B. Compatibility: Provide firestop systems compatible with each other with the substrates forming openings, and items penetrating through penetration firestop systems, under conditions of service and application, demonstrated by through penetration firestop system manufacturer based on testing and field experience.
- C. Penetration Firestop System: Penetration firestopping produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire resistance rating of construction penetrated. Penetration firestopping systems shall be compatible with one another, with the substrates forming openings, and with penetrating items if any.
  - 1. Penetrations in Fire Resistance-Rated Walls: Penetration firestopping with ratings determined in accordance with ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01 inch wg (2.49 Pa).
    - a. Fire resistance rated walls include fire walls, fire barrier walls, smoke barrier walls, and fire partitions.
    - b. F Rating: Minimum fire-resistance rating of constructions penetrated.
  - 2. Penetrations in Horizontal Assemblies: Provide penetration firestopping with ratings determined accordance with ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg (2.49 Pa).

- a. Horizontal assemblies include floors, floor/ceiling assemblies, and ceiling membranes of roof/ceiling assemblies.
    - b. F Rating: Minimum 1 hour but not less than the fire resistance rating of constructions penetrated.
    - c. T Rating: Minimum 1 hour but not less than the fire resistance rating of constructions penetrated except for floor penetrations within the cavity of a wall.
  3. Penetrations in Smoke Barriers: Penetration firestopping with ratings determined accordance with UL 1479.
    - a. L Rating: Maximum 5.0 cfm/sq. ft. (0.025 cu. m/s per sq. m) of penetration opening at 0.30 inch wg (74.7 Pa) at both ambient and elevated temperatures.
  4. W Rating: Penetration firestopping showing no evidence of water leakage when tested according to UL 1479.
  5. Exposed Penetration Firestopping: Flame spread and smoke developed indexes of less than 25 and 450, respectively, determined in accordance with ASTM E 84.
- D. Fire Resistive Joint System: Where required, provide fire resistive joint systems produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and gases, and maintain original fire-resistance rating of assemblies in or between which fire-resistive joint systems are installed. Fire resistive joint systems shall accommodate building movements without impairing their ability to resist the passage of fire and hot gases.
1. Joints in or between Fire Resistance Rated Construction: Fire resistive joint systems with ratings determined in accordance with ASTM E 1966 or UL 2079:
    - a. Joints include those installed in or between fire resistance rated walls, floor or floor/ceiling assemblies, and [roofs or roof/ceiling assemblies.
    - b. Fire Resistance Rating: Equal to or exceeding the fire resistance rating of construction joined.
  2. Joints at Exterior Wall/Floor Intersections: Fire resistive joint systems with rating determined by ASTM E 119 based on testing at positive pressure differential of 0.01 inch wg (2.49 Pa) or ASTM E 2307.
    - a. Fire Resistance Rating: Equal to or exceeding fire resistance rating of the floor assembly.
  3. Joints in Smoke Barriers: Fire resistive joint systems with ratings determined in accordance with UL 2079.
    - a. L Rating: Maximum 5.0 cfm/ft (0.00775 cu. m/s x m) of joint at 0.30 inch wg (74.7 Pa) at both ambient and elevated temperatures.
  4. Exposed Fire Resistive Joint Systems: Products with flame spread and smoke developed indexes of less than 25 and 450, respectively, determined per ASTM E 84.
- E. Accessories: Provide components for each firestop system necessary to install fill materials. Use components specified by through penetration firestop or fire resistive joint system manufacturer and UL. Accessories include, but are not limited to:

1. Through Penetration Firestop Systems:
    - a. Permanent forming/damming/backing materials, including:
      - 1) Slag/rock wool fiber insulation.
      - 2) Sealants used in combination with forming/damming/backing materials to prevent leakage of fill materials in liquid state.
      - 3) Fire rated form board.
      - 4) Fillers for sealants.
    - b. Substrate primers.
    - c. Collars.
    - d. Steel sleeves.
  2. Fire Resistive Joint Systems: Sealants complying with UL 1479 including F, T, and L ratings.
- F. Fill Materials: Through penetration firestop systems containing the types of fill materials indicated. Fill materials are those referred to in directories of referenced testing and inspecting agencies as *fill*, *void*, or *cavity* materials.
1. Cast in Place Firestop Devices: Factory assembled devices for use in cast in place concrete floors and consisting of an outer metallic sleeve lined with an intumescent strip, radial extended flange attached to one end of the sleeve for fastening to concrete formwork, and neoprene gasket.
  2. Latex Sealants: Single component latex formulations that after cure do not reemulsify during exposure to moisture.
  3. Firestop Devices: Factory-assembled collars formed from galvanized steel and lined with intumescent material sized to fit specific diameter of penetrant.
  4. Intumescent Composite Sheets: Rigid panels consisting of aluminum-foil-faced elastomeric sheet bonded to galvanized steel sheet.
  5. Intumescent Putties: Nonhardening dielectric, water-resistant putties containing no solvents, inorganic fibers, or silicone compounds.
  6. Intumescent Wrap Strips: Single component intumescent elastomeric sheets with aluminum foil on one side.
  7. Mortars: Prepackaged dry mixes consisting of a blend of inorganic binders, hydraulic cement, fillers, and lightweight aggregate formulated for mixing with water at Project site to form a nonshrinking, homogeneous mortar.
  8. Pillows/Bags: Reusable heat expanding pillows/bags consisting of glass fiber cloth cases filled with a combination of mineral fiber, water insoluble expansion agents, and fire retardant additives.
  9. Silicone Foams: Multicomponent, silicone based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.
  10. Silicone Sealants: Single component, silicone based, neutral curing elastomeric sealants of grade indicated:
    - a. Grade: Pourable (self leveling) formulation for openings in floors and horizontal surfaces, and nonsag formulation for openings in vertical and surfaces requiring nonslumping, gunnable sealant, unless indicated firestop system limits use to nonsag grade for both opening conditions.

- b. Grade for Horizontal Surfaces: Pourable (self leveling) formulation for openings in floors and horizontal surfaces.
  - c. Grade for Vertical Surfaces: Nonsag formulation for openings in vertical and surfaces.
11. Fire Safing Insulation:
- a. Semirefractory Blanket: Semirigid blankets designed for use as fire stops at openings between edge of slab and exterior wall panels, glass mat faced, low density; having nominal density of 4 lb/cu. ft. (64 kg/cu. m); complying with ASTM C 612, Type 1A and 1B and ASTM E 136 for combustion characteristics; thermal resistivity of 4 degrees F x h x sq. ft./Btu x in. at 75 degrees F (27.7 K x m/W at 24 degrees C).; with maximum flame spread and smoke developed values of 10 and 5. Use for floor perimeter fire and smoke containment. Install blanket with 20 gauge impaling clips recommended by manufacturer.
  - b. Caulking Compound: Material approved by manufacturer of safing insulation for sealing joint between foil backing of safing insulation and edge of concrete floor slab against penetration of smoke.
  - c. Safing Clips: Galvanized steel safing clips approved by manufacturer of safing insulation for holding safing insulation in place.
12. Duct Wrap for Ducts: Provide materials listed in the UL Fire Resistance Directory under File R8418, Category CAJ7009, File R14229 Categories CAJ 7013, CAJ 7015, CAJ 7020, CAJ 7022, YYET, and Grease Duct Enclosures and having minimum 2 hour fire resistive rating for grease or air duct enclosure materials.
13. Sprayed Coating for Head of Wall Conditions: Water based coating complying with UL 2079 Movement Class II and ASTM E 119 sprayed applied to conditions indicated under ULI Fire Resistance Directory for HW (dynamic and static) systems to provide flexible seal. Provide materials complying with ULI 2079. Provide L rating of less than 2cfm/ft<sup>2</sup> in accordance with ULI 2079.
14. Composition Edge Banding: materials listed in UL Fire Resistance Directory UL 10C standards.

## 2.2 MIXING

- A. For products requiring mixing before application, comply with through penetration firestop system manufacturer's written instructions for accurate proportioning of materials, water (if required), type of mixing equipment, selection of mixer speeds, mixing containers, mixing time, and items or procedures needed to produce products of uniform quality with optimum performance characteristics for application indicated.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for opening configurations, penetrating items, substrates, and other conditions affecting

performance of work. Proceed with installation after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Surface Cleaning: Clean out openings immediately before installing through penetration firestop systems complying with firestop system manufacturer's written instructions and with the following requirements:
  - 1. Remove from surfaces of opening substrates and from penetrating items foreign materials that could interfere with adhesion of through penetration firestop systems.
  - 2. Clean opening substrates and penetrating items to produce clean, sound surfaces capable of developing optimum bond with through penetration firestop systems. Remove loose particles remaining from cleaning operation.
  - 3. Remove laitance and form-release agents from concrete.
- B. Priming: Prime substrates where recommended in writing by through penetration firestop system manufacturer using manufacturer's recommended products and methods. Confine primers to areas of bond; do not allow spillage and migration onto exposed surfaces.
- C. Masking Tape: Use masking tape to prevent through penetration firestop systems from contacting adjoining surfaces that will remain exposed on completion of work and that would be permanently stained or damaged by contact or by cleaning methods used to remove smears from firestop system materials. Remove tape as soon as possible without disturbing firestop system's seal with substrates.

### 3.3 INSTALLATION

- A. Through Penetration Firestop System: Install through penetration firestop systems to comply with requirements and with firestop system manufacturer written installation instructions and published drawings for products and applications indicated.
  - 1. Install forming/damming/backing materials and accessories of types required to support fill materials during application and in the position needed to produce cross sectional shapes and depths required to achieve fire ratings indicated. After installing fill materials and allowing them to fully cure, remove combustible forming materials and accessories not indicated as permanent components of firestop systems.
  - 2. Install fill materials for firestop systems by proven techniques to produce results:
    - a. Fill voids and cavities formed by openings, forming materials, accessories, and penetrating items required to achieve fire resistance ratings indicated.
    - b. Apply materials for full contact and adhere to substrates formed by openings and penetrating items.
    - c. For fill materials that remain exposed after completing work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.
- B. Fire Resistive Joint System: Install fire resistive joint systems to comply requirements and fire resistive joint system manufacturer's written installation instructions for products and applications indicated.

1. Install forming/packing/backing materials and other accessories of types required to support fill materials during their application and in position needed to produce cross sectional shapes and depths required to achieve fire ratings indicated.
2. Install fill materials for fire resistive joint systems by proven techniques to produce the following results:
  - a. Fill voids and cavities formed by openings and forming/packing/backing materials as required to achieve fire-resistance ratings indicated.
  - b. Apply fill materials so they contact and adhere to substrates formed by joints.
  - c. For fill materials that will remain exposed after completing Work, finish to produce smooth, uniform surfaces that are flush with adjoining finishes.

### 3.4 IDENTIFICATION

- A. Identify firestop systems with preprinted metal or plastic labels. Attach labels permanently to surfaces adjacent to and within 6 inches (150 mm) of edge of the firestop systems so labels are visible to anyone seeking to remove penetrating items or firestop systems.
  1. Use mechanical fasteners for metal labels. For plastic labels, use self adhering type with adhesives capable of permanently bonding labels to surfaces on which labels are placed and, in combination with label material, resulting in partial destruction of label if removal is attempted. Include the following information on labels:
    - a. The words *Warning - Through-Penetration Firestop System - Do Not Disturb. Notify Building Management of Any Damage.*
    - b. Contractor's name, address, and phone number.
    - c. Through penetration firestop system designation of applicable testing and inspecting agency.
    - d. Date of installation.
    - e. Through penetration firestop system manufacturer's name.
    - f. Installer's name.

### 3.5 CUTTING AND PATCHING

- A. Cut, patch, and repair firestopping to accommodate other work. Repair cracks and indented surfaces. Repair surfaces around items built into or penetrate surfaces. Repair and replace work to eliminate blister, buckles, dry outs, and similar imperfections. Repair and replace work required to comply fire resistance ratings.
- B. After completion of other work in and around the areas of firestopping, repair and replace damaged firestopping.

### 3.6 FIELD QUALITY CONTROL

- A. Inspecting Agency: Owner will engage a qualified testing agency to perform tests and inspections.



- B. Where deficiencies are found or firestop systems are damaged or removed due to testing, repair or replace to comply with requirements.
- C. Proceed with enclosing firestop systems with construction after inspection reports are issued and installations comply with requirements.

### 3.7 CLEANING AND PROTECTING

- A. Clean excess fill materials adjacent to openings as work progresses by methods and with cleaning materials that are approved in writing by through penetration firestop system manufacturers and that do not damage materials in which openings occur.
- B. Provide final protection and maintain conditions during and after installation ensuring through penetration firestop systems are without damage or deterioration at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated through penetration firestop systems immediately and install new materials to produce systems complying with specified requirements.

END OF SECTION

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 079200 - JOINT SEALANTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes joint sealants.

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data for each joint sealant product indicated.
- B. Samples: Submit samples for each exposed joint sealant product indicated.

#### 1.3 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original unopened containers. Store and handle materials in compliance with manufacturer's written instructions.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS, GENERAL

- A. Colors: For fully concealed joints, provide the manufacturer's standard color of sealant which has the best overall performance characteristics for the application shown. For exposed joints, the Architect will select colors from the manufacturer's standard colors.
- B. VOC Content of Interior Sealants: Provide sealants and sealant primers for use inside the weatherproofing system that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
  - 1. Architectural Sealants: Not more than 250 g/L.
  - 2. Nonmembrane Roof Sealants: 300 g/L.
  - 3. Sealant Primers for Nonporous Substrates: Not more than 250 g/L.
  - 4. Sealant Primers for Porous Substrates: Not more than 775 g/L.

#### 2.2 JOINT SEALANTS

- A. Butt Glazing Sealant: Comply with ASTM C920, Type S, Grade NS, Class 50; use NT, G, and A, black color unless otherwise indicated.
  - 1. Products and Manufacturers: Provide one of the following:
    - a. 795; Dow Corning.

- b. Spectrem 2; Tremco, an RPM Co.
- B. Sealants for Contact with Food: Comply with 21 CFR 177.2600, NSF Standard 51, and ASTM C920 for Type S, Grade NS, Class 25, Use NT.
  - 1. Dow Corning; 786 Mildew Resistant Silicone Sealant.
- C. Mildew-Resistant Silicone Sealant (use for joints at plumbing fixtures, toilet room countertops and vanities): Complying with ASTM C920, Type S (single component), Grade NS (non-sag), class 25, Use NT (non-traffic), Substrate uses G, A, and O; and containing a fungicide for mildew resistance; white color.
  - 1. Products: Provide one of the following:
    - a. Dow Corning; 786 Mildew Resistant Silicone Sealant.
    - b. GE Advanced Materials - Silicones; Sanitary SCS 1700.
    - c. Tremco, an RPM Co.; Tremsil 200 Sanitary.
- D. Latex Sealant: Complying with ASTM C 834, Type OP (opaque sealants):
  - 1. Products: Provide one of the following:
    - a. BASF; Sonneborn Systems, Sonolastic Sonolac.
    - b. Tremco, an RPM Co.; Tremflex 834.

## 2.3 MISCELLANEOUS MATERIALS

- A. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants with joint substrates.
- B. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and which will not stain nor mar the finish of surfaces adjacent to joints to which it is applied.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with the recommendations of joint sealant manufacturer and the following requirements:
  - 1. Remove foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), existing joint sealants, oil, grease, water, and surface dirt.
  - 2. Clean concrete, masonry, unglazed surfaces of tile, and similar porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of

these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.

3. Remove laitance and form-release agents from concrete.
  4. Clean metal, glass, porcelain enamel, glazed surfaces of tile, and other nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.
- C. Installation of Sealants: Install sealants so they directly contact and fully wet joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths that allow optimum sealant movement capability.
- D. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants to form smooth, uniform, concave shaped beads, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint.
- E. Cleaning: Clean excess sealants or sealant smears adjacent to joints as installation progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

### 3.2 JOINT SEALANT SCHEDULE

- A. Interior joints in the following vertical surfaces and horizontal nontraffic surfaces:
1. Control and Expansion Joints on Exposed Interior Surfaces of Exterior Walls: Latex sealant.
  2. Perimeter Joints of Exterior Openings Where Indicated: Latex sealant.
  3. Tile Control and Expansion Joints: Latex sealant.
  4. Vertical Control Joints on Exposed Surfaces of Interior Unit Masonry and Concrete Walls and Partitions: Latex sealant.
  5. Perimeter Joints between Interior Wall Surfaces and Frames of Interior Doors, Windows, and Elevator Entrances: Latex sealant.
  6. Joints between Plumbing Fixtures and Adjoining Walls, Floors, and Counters: Mildew resistant silicone sealant.
  7. Joints between Glass, and between Glass and Adjacent Substrates: Butt glazing sealant.

END OF SECTION 079200

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 08 11 13- HOLLOW METAL DOORS AND FRAMES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes steel doors and frames.

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data for each product indicated. Include door and frame designation, type, level and model, material description, label compliance, fire-resistance ratings, finishes, and installation instructions.
- B. Door and Frame Schedule. Submit door and frame schedule using same reference designations indicated on Drawings. Include opening size(s), handing of doors, frame throat dimensions, details of each frame type, elevations of door design types, details of construction, location and installation requirements of door hardware and reinforcements, hardware group numbers, details of joints and connections, fire label requirements including fire rating time duration, maximum temperature rise requirements, and smoke label requirements.
- C. Certificate of Compliance for Fire Rated Doors: Provide copies of testing agency's Certificate of Compliance for all fire rated door assemblies, all smoke and draft control door assemblies, and all temperature rise rated door assemblies.

#### 1.3 QUALITY ASSURANCE

- A. Steel Door and Frame Standard: Comply with ANSI A 250.8, unless more stringent requirements are indicated.
- B. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 252, 1997, 2007 FBC Chapter 7 and UL 10C "Standard for Positive Pressure Fire Tests of Door Assemblies". Fire classification labels at all doors with fire ratings greater than 20 minutes shall indicate the temperature rise developed on the unexposed surface of the door after the first 30 minutes of fire exposure.
  - 1. Provide metal labels permanently fastened on each door which is within the size limitations established by the labeling authority having jurisdiction.
  - 2. Temperature-Rise Rating: Where indicated, provide doors that have a temperature-rise rating of 450 deg F (250 deg C) maximum in 30 minutes of fire exposure.
  - 3. Provide fire rated door assemblies in compliance with 2007 FBC Chapter 7 for positive pressure. Sizes and configurations as shown on the drawings. Installed door assemblies shall be in accordance with door manufacturer's certified assemblies.
  - 4. Provide fire rated door assemblies with smoke and draft control rating in compliance with 2007 FBC Chapter 7 at corridors, stairwells, and where required by applicable codes.

Sizes and configurations as shown on the drawings. Installed door assemblies shall be in accordance with door manufacturer's certified assemblies.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect doors and frames from damage during transit, job storage, and installation.
- B. Inspect doors and frames on delivery for damage. Tool marks, rust, blemishes and any other damage on exposed surfaces will not be acceptable. Remove and replace damaged items that cannot be repaired as directed by Architect. Store doors and frames at building site in a dry location, off the ground, and in such a manner as to prevent deterioration.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Timely Steel Door Frames
  - 2. Acme Steel Door and Hardware.
  - 3. Ceco Door Products; a United Dominion Company.
  - 4. Curries Company.
  - 5. Steelcraft; a division of Ingersoll-Rand.

#### 2.2 MATERIALS

- A. Cold-Rolled Steel Sheets: ASTM A 366/A 366M, Commercial Steel (CS), and ASTM A 568/A 568M, free from scale, pitting, or other defects, spangle free finish, and stretcher-leveled standard of flatness.

#### 2.3 DOORS

- A. Interior Doors: Fabricate doors to a thickness of 1-3/4 inches unless otherwise shown or scheduled. Comply with ANSI 250.8 for level and model and ANSI A250.4 for physical-endurance level indicated.
  - 1. Level 3 and Physical Performance Level A, Model 1 (Full Flush).

#### 2.4 FRAMES

- A. General: Fabricate frames with a face dimension of 2-1/2 inches unless otherwise shown or scheduled. ANSI A250.8; conceal fastenings, unless otherwise indicated.
- B. Frame Steel Sheet Thickness:



1. 0.053-inch- for wood doors.
2. 0.067-inch- for openings wider than 48 inches level 3 steel doors.
3. 0.093-inch- for where indicated.

- C. Door Silencers: Three silencers on single-door frames and two silencers on double-door frames.
- D. Plaster Guards: 0.016-inch- thick, steel sheet plaster guards or mortar boxes to close off interior of openings.
- E. Supports and Anchors: Not less than 0.053-inch- thick zinc-coated steel sheet.
- F. Inserts, Bolts, and Fasteners: Manufacturer's standard units fabricated from galvanized or cadmium plated steel.

## 2.5 FABRICATION

- A. General: Fabricate steel door and frame units to comply with ANSI A250.8 free from defects including warp and buckle. Where practical, fit and assemble units in manufacturer's plant.
- B. Interior Door Faces: Fabricate exposed faces of doors and panels, including stiles and rails of nonflush units, from cold-rolled steel sheet.
- C. Core Construction: Manufacturer's standard core construction that produces a door complying with SDI standards and the specified fire label requirements.
- D. Clearances for Non-Fire-Rated Doors: Not more than 1/8 inch at jambs and heads, except not more than 1/8 inch between pairs of doors. Not more than 3/4 inch at bottom.
- E. Clearances for Fire-Rated Doors: As required by fire label requirements.
1. Place rating labels where visible when door assemblies are in the installed, open position.
- F. Door-Lock and Hinge Edge Profiles: Provide bevel 1/8 inch in 2 inches at all lock and hinge edges.
- G. Tolerances: Comply with SDI 117.
- H. Prepare doors and frames to receive mortised and concealed hardware according to final door hardware schedule and templates provided by hardware supplier. Comply with applicable requirements in ANSI A250.6 and ANSI A115 Series specifications for door and frame preparation for hardware.
- I. Frame Construction:
1. Fabricate frames with mitered or coped and continuously welded corners and seamless face joints that are in true alignment. Dress welded joints on exposed surfaces smooth so welds are invisible after painting. Provide temporary spreader bars.
- J. Reinforce doors and frames to receive surface-applied, and mortised, hardware. Drilling and tapping for surface-applied hardware may be done at Project site.

- K. Locate hardware as indicated or, if not indicated, according to ANSI A250.8.
- L. Glazing Stops: Manufacturer's standard, formed from 0.032-inch- thick steel sheet.
  - 1. Provide non-removable stops on secure side of doors for glass, and other panels in doors.
  - 2. Provide screw-applied, removable, glazing stops on non-secure side of glass, and other panels in doors.
- M. Astragals: As required to comply with fire label requirements to provide fire ratings indicated.

## 2.6 FINISHES

- A. Prime Finish: Manufacturer's standard, factory-applied, baked on, coat of rust-inhibiting primer complying with ANSI A250.10 for acceptance criteria and compatible with finish paint.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Placing Frames: Comply with provisions in SDI 105, the requirements of this section, and with the manufacturer's recommendations and installation instructions.
  - 1. Welded Frames: Set frames in perfect alignment and elevation, plumb, level, straight and true, free from rack, and braced securely until permanent anchors are set. After frames have been properly set, and anchored to floor and wall construction, remove temporary braces and spreaders, leaving surfaces smooth and undamaged.
  - 2. Fire-Rated Frames: Install according to fire label requirements.
  - 3. Existing Frames (Salvaged from Alteration Work): Install salvaged existing frames in locations indicated.
- B. Door Installation: Comply with ANSI A250.8, the requirements of this section, and with the manufacturer's recommendations and installation instructions. Shim as necessary to comply with SDI 122 and ANSI/DHI A115.1G.
  - 1. Fire-Rated Doors: Install within clearances, using steel shimming materials if required, according to fire label requirements.
  - 2. Smoke Control Doors: Install to comply with fire label requirements.
  - 3. Existing Doors (Salvaged from Alteration Work): Install salvaged existing doors in locations indicated.
- C. Door Installation: Refer to Division 08 Section "Flush Wood Doors."
- D. Hardware Installation: Apply hardware in accordance with hardware manufacturer's instructions and Division 08 Section "Door Hardware." Drill and tap for machine screws as required. Do not use self-tapping sheet metal screws. Adjust door installation to provide uniform clearance at head and jambs, and to contact stops uniformly. Adjust hardware items just prior to final inspection. Leave work in complete and proper operating condition.

- E. After installation, sand smooth any rusted or damaged areas of prime coat and apply touch up prime coat with compatible air-drying primer.
- F. Finish Painting: Refer to Division 09 Section "Interior Painting."
- G. Remove and replace defective work, including doors or frames that are warped, bowed, or otherwise defective.
- H. Institute protective measures required throughout the remainder of the construction period to ensure that steel doors and frames will be without any damage or deterioration, at time of substantial completion.

END OF SECTION 08 11 13  
081101/11-99/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 08 12 16 - ALUMINUM FRAMES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes interior aluminum frames for doors and glazing installed in gypsum board partitions.
- B. Related Sections:
  - 1. Section 081416 "Flush Wood Doors" for wood doors installed in interior aluminum frames.
  - 2. Section 084113 "Aluminum-Framed Entrances and Storefronts" for aluminum-framed glass doors installed in interior aluminum frames.
  - 3. Section 088000 "Glazing" for glass installed in interior aluminum frames.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles and finishes.
- B. Shop Drawings: Include the following:
  - 1. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
  - 2. Locations of reinforcements and preparations for hardware.
  - 3. Details of each different wall-opening condition.
  - 4. Details of anchorages, joints, field splices, and connections.
  - 5. Details of accessories.
  - 6. Details of moldings, removable stops, and glazing.
  - 7. Details of conduits and preparations for power, signal, and control systems.
- C. Samples for Verification: For interior aluminum frames, prepared on Samples of size indicated below:
  - 1. Framing Member: 12 inches long.
  - 2. Corner Fabrication: 12-by-12-inch long, full-size window corner, including full-size sections of extrusions with factory-applied color finish.
- D. Schedule: For interior aluminum frames use same designations indicated on Drawings. Coordinate with door hardware schedule and glazing.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each type of interior aluminum frame.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For interior aluminum frames to include in maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Source Limitations: Obtain interior aluminum frames from single source from single manufacturer.
- B. Preinstallation Conference: Conduct conference at Project site

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver interior aluminum frames palletized, wrapped, or crated to provide protection during transit and Project-site storage. Do not use non-vented plastic. Store interior aluminum frames under cover at Project site.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide Custom Components, AL Tech System or comparable product by one of the following:
  - 1. RACO Interior Products, Inc.
  - 2. Wilson Partitions.

2.2 COMPONENTS

- A. Aluminum Framing: ASTM B 221 Alloy 6063-T5 or alloy and temper required to suit structural and finish requirements, not less than 0.062 inch thick.
- B. Door Frames: Extruded aluminum, reinforced for hinges, strikes, and closers.
- C. Glazing Frames: Extruded aluminum, for glazing thickness indicated.
- D. Ceiling Tracks: Extruded aluminum.

- E. Trim: Extruded aluminum, not less than 0.062 inch thick, with removable snap-in casing trim glazing stops and door stops without exposed fasteners.

## 2.3 ACCESSORIES

- A. Fasteners: Aluminum, nonmagnetic, stainless-steel or other noncorrosive metal fasteners compatible with frames, stops, panels, reinforcement plates, hardware, anchors, and other items being fastened.
- B. Door Silencers: Manufacturer's standard continuous mohair, wool pile, or vinyl seals, black.
- C. Glazing Gaskets: Manufacturer's standard extruded or molded plastic, to accommodate glazing thickness indicated, black.
- D. Glazing: Comply with requirements in Section 088000 "Glazing."
- E. Hardware: Comply with requirements in Section 087100 "Door Hardware".

## 2.4 FABRICATION

- A. Provide concealed corner reinforcements and alignment clips for accurately fitted hairline joints at butted or mitered connections.
- B. Factory prepare interior aluminum frames to receive templated mortised hardware; include cutouts, reinforcements, mortising, drilling, and tapping, according to the Door Hardware Schedule and templates furnished as specified in Section 087100 "Door Hardware."
- C. Fabricate frames for glazing with removable stops to allow glazing replacement without dismantling frame.
  - 1. Locate removable stops on the inside of spaces accessed by keyed doors.
- D. Fabricate components to allow secure installation without exposed fasteners.

## 2.5 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## 2.6 ALUMINUM FINISHES

- A. Color Anodic Finish: AAMA 611, AA-M12C22A32/A34, Class II, 0.010 mm or thicker.
  - 1. Color: Medium bronze.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine walls, floors, and ceilings, with Installer present, for conditions affecting performance of the Work.
- B. Verify that wall thickness does not exceed standard tolerances allowed by throat size indicated.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. General: Install interior aluminum frames plumb, rigid, properly aligned, and securely fastened in place; comply with manufacturer's written instructions.
- B. Set frames accurately in position and plumbed, aligned, and securely anchored to substrates.
- C. Install frame components in the longest possible lengths; components up to 96 inches long must be one piece.
  - 1. Fasten to suspended ceiling grid on maximum 48-inch centers, using sheet metal screws or other fasteners approved by frame manufacturer.
  - 2. Use concealed installation clips to produce tightly fitted and aligned splices and connections.
  - 3. Secure clips to extruded main-frame components and not to snap-in or trim members.
  - 4. Do not leave screws or other fasteners exposed to view when installation is complete.

### 3.3 CLEANING

- A. Clean exposed frame surfaces promptly after installation, using cleaning methods recommended by frame manufacturer and according to AAMA 609 & 610.
- B. Touch up marred frame surfaces so touchup is not visible from a distance of 48 inches. Remove and replace frames with damaged finish that cannot be satisfactorily repaired.

END OF SECTION 08 12 16



## SECTION 08 14 16 - FLUSH WOOD DOORS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes solid core flush wood doors.
  - 1. The integration of a security system into the flush wood door work is required. The Contractor shall be responsible for the total and complete coordination of the security system components into the Work.
- B. Related Sections:
  - 1. Division 08 Section "Hollow Metal Doors and Frames".
  - 2. Division 08 Section "Glazing" for glass view panels in flush wood doors.
  - 3. Division 09 Sections "Interior Painting" for field finishing doors.

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data for each type of door required. Include factory-finishing specifications.
  - 1. Submit laboratory test report results of hinge loading, cycle/slam, stile edge screw withdrawals, and stile edge split resistance for fire rated doors.
  - 2. Include adhesive manufacturer's product data indicating urea-formaldehyde content.
- B. Shop Drawings: Submit shop drawings indicating location, size, thickness, and hand of each door; elevation of each kind of door; construction details; location and extent of hardware blocking; mortises, holes, and cutouts for factory machined doors; requirements for veneer matching; factory finishing; fire label requirements including fire rating time duration, maximum temperature rise requirements, and smoke label requirements; undercuts, special beveling, and other pertinent data.
  - 1. Indicate dimensions and locations of mortises and holes for hardware of factory machined doors.
  - 2. Indicate dimensions and locations of cutouts.
  - 3. Indicate fire label requirements including fire rating time duration, maximum temperature rise requirements, and smoke label requirements.
  - 4. Indicate routing of electrical conduit and dimensions and locations of cutouts in wood doors to accept electric hardware devices.
- C. Samples: Cut away corner section of each door type approximately 8 by 10 inches demonstrating door construction, face veneer and finish.
- D. Certificate of Compliance for Fire Rated Doors: Provide copies of testing agency's Certificate of Compliance for all fire rated door assemblies, all smoke and draft control door assemblies, and all temperature rise rated door assemblies.

### 1.3 QUALITY ASSURANCE

- A. Quality Standard: Comply with AWI's "Architectural Woodwork Quality Standards Illustrated, 8<sup>th</sup> Edition, Version 1.0, Section 1300."
- B. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 252, 2007 FBC Chapter 7, and UL 10C "Standard for Positive Pressure Fire Tests of Door Assemblies". Fire classification labels at all doors with fire ratings greater than 20 minutes shall indicate the temperature rise developed on the unexposed surface of the door after the first 30 minutes of fire exposure.
  - 1. Provide metal labels permanently fastened on each door which is within the size limitations established by the labeling authority having jurisdiction.
  - 2. Temperature-Rise Rating: Where indicated, provide doors that have a temperature-rise rating of 450 deg F (250 deg C) maximum in 30 minutes of fire exposure.
  - 3. Provide fire rated door assemblies in compliance with 2007 FBC Chapter 7 for positive pressure. Sizes and configurations as shown on the drawings. Installed door assemblies shall be in accordance with door manufacturers certified assemblies.
    - a. Test Pressure: After 5 minutes into the test, neutral pressure level in furnace shall be established at 40 inches or less above the sill.
  - 4. Provide fire rated door assemblies with smoke and draft control rating in compliance with 2007 FBC Chapter 7 at corridors, stairwells, and where required by applicable codes. Sizes and configurations as shown on the drawings. Installed door assemblies shall be in accordance with door manufacturers certified assemblies.
- C. Forest Certification: Provide doors made from wood products obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria."

### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect wood doors during transit, storage, and handling to prevent damage, soiling, and deterioration. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Package doors individually in heavy duty cardboard cartons.
- C. Handle wood doors with clean gloves. Lift and carry wood doors when moving them around the site, do not drag wood doors across one another.

### 1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install doors until wet work , such as masonry, concrete, stone, tile, terrazzo, plastering, wallboard joint treatment, is complete and dried, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period. Do not expose doors to sudden changes in temperature such as forced heat used to dry out the site.

1.6 WARRANTY

- A. Special Warranty: Manufacturer's standard form, signed by manufacturer, Installer, and Contractor, in which manufacturer agrees to repair or replace doors that are defective in materials or workmanship for the life of the original installation of the door. A representative of the door manufacturer shall inspect the installed doors and shall note on the warranty that no provisions of the warranty have been nullified in the manufacture and/or installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Algoma Hardwoods Inc.
  - 2. Eggers Industries; Architectural Door Division.
  - 3. Marshfield Door (formally Weyerhaeuser Company).

2.2 DOOR CONSTRUCTION

- A. Low-Emitting Materials: Provide doors made with adhesives and composite wood products that do not contain added urea-formaldehyde resins.
- B. Doors for Opaque Finish:
  - 1. Grade: Custom.
  - 2. Face Veneer: Medium-density overlay.
  - 3. Thickness: 1-3/4 inch unless otherwise indicated.
  - 4. Materials:
    - a. Particleboard Core Material: Complying with ANSI A208.1, Grade 1-LD-2.
    - b. Blocking: 5-1/2 inch wide minimum top-rail blocking at doors with closers and bottom rail blocking at doors with kickplates consisting of minimum 1/2 inch wide single length mill option hardwood outer band and single length mill option hardwood or structural composite lumber inner band.
    - c. Vertical Edges: 1-3/8 inch wide minimum prior to fitting, 2 ply laminated wood construction consisting of a single piece hardwood outer band, without fingerjoints, and an inner band of mill option hardwood. Trim non-rated door width equally on both jamb edges.
    - d. Crossbanding: Minimum 1/16 inch thick, low density hardwood, composite, or high density hardboard.
  - 5. Construction: AWI Section 1300, PC-5 CE. Stiles, rails, and blocking bonded to core then entire unit abrasive planed before veneering. Crossbanding materials shall extend full width of door with grain running horizontally, tapeless spliced without voids or show through (telegraphing), and directly glued to core and blocking. Sand cross banding before application of face veneer. Face veneer shall extend full height of door with grain

running vertically, tapeless spliced without voids or show through (telegraphing), and directly glued to cross band. Glue lines between face veneer, crossbanding, and blocking shall be of a type to comply with the specified warranty using the hot plate process.

C. Fire Rated Door Construction:

1. Construction: AWI Section 1300, FD-5, with particleboard or mineral core as required to provide fire rating indicated, and faced to match non-rated fire doors. Provide required label(s) on each door.
2. Blocking: For mineral-core doors, provide composite blocking, of same thickness as core, approved for use in doors of fire ratings indicated, and as follows:
  - a. 5-1/2 inch wide minimum top-rail blocking consisting of minimum 1/2 inch wide single length mill option hardwood outer band and single length lumber inner band fabricated of same materials as vertical edges.
  - b. Provide either two 4-1/2 inch by 18 inch minimum sized lock blocks on each door stile or a single 10 inch high continuous lock rail located on lockcase body centerlines.
3. Vertical Edge Construction: Provide manufacturer's standard laminated-edge construction meeting label requirements, with intumescent seals concealed by outer stile matching face veneer, and meeting or exceeding the specified direct screw withdrawal, split resistance, cycle slam, and hinge loading criteria. Finish outer bands to match door faces without joints.
  - a. Split Resistance: Not less than 696 pounds when tested in accordance with WDMA TM-5; or, not less than 1305 pounds when tested in accordance with ASTM D143.
  - b. Cycle/Slam: Not less than 200,000 cycles with no loosening of hinge screws or other visible signs of failure when tested in accordance with the requirements of WDMA TM-7; or, not less than 502,000 cycles when tested in accordance with ANSI A151.1
  - c. Direct Screw Withdrawal: Not less than 700 pounds when tested in accordance with WDMA TM-10; or, not less than 877 pounds when tested in accordance with ASTM D1037 using #12 x 1-1/4 steel screws, threaded to the head with either A or AB wood threads.
  - d. Hinge Loading: Not less than 684 pounds average when tested in accordance with WDMA TM-8.
4. Pairs: Provide fire-rated pairs with fire-retardant stiles matching face veneer that are labeled and listed for kinds of applications indicated without formed-steel edges and astragals. Provide stiles with concealed intumescent seals.
5. Thickness: 1-3/4 inch unless otherwise indicated.

- D. Wood Beads for Light Openings in Wood Doors: Manufacturer's standard flush designed, solid wood, rectangular shaped, back beveled or quirked, beads matching veneer species of door faces. Include glazing compounds or tapes sized for back bevel or quirk provided. Include finish nails for removable stops sized in accordance with wood door manufacturers recommendations.

- E. Wood-Veneered Beads for Light Openings in Fire Doors: Manufacturer's standard wood-veneered noncombustible beads matching veneer species of door faces and approved for use in doors of fire rating indicated. Include glazing compounds or tapes and concealed metal glazing clips for opening size and fire rating indicated. Include finish nails for removable stops sized as required for fire rating indicated.

## 2.3 FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated.
  - 1. Comply with clearance requirements of referenced quality standard for fitting. Comply with requirements in NFPA 80 for fire-rated doors.
- B. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3 unless otherwise indicated to match existing frame hardware preparations. Comply with final hardware schedules, door frame Shop Drawings, AWI Section 1300-G-20, DHI A115-W series standards, and hardware templates.
  - 1. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.
  - 2. Locate lock and latchsets in doors to match existing strike locations on existing door frames; locate hinges in doors to match hinge locations on existing door frames.
  - 3. Metal Astragals: Premachine astragals and formed-steel edges for hardware for pairs of fire-rated doors.
- C. Openings: Cut and trim openings through doors to comply with applicable requirements of referenced standards for kind(s) of door(s) required. Install light beads with fasteners spaced for opening size and fire rating indicated. Install wood bead moldings with finish nails and countersink without striking bead. Fill countersunk heads with putty matching wood bead color.

## 2.4 SHOP PRIMING

- A. Doors for Opaque Finish: Shop prime faces and edges of doors, including cutouts, with one coat of wood primer/sealer as standard with door manufacturer. Surfaces shall be clean and dry before priming. Apply primer/sealer uniformly without bare spots, runs, or sags.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine doors and installed door frames before hanging doors.
  - 1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
  - 2. Reject doors with defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Hardware: Apply hardware to new doors in accordance with hardware manufacturers instructions and Division 08 Section "Door Hardware." For particleboard core doors drill pilot holes of proper size for installing hinge screws. Adjust hardware items just prior to final inspection. Leave work in complete and proper operating condition.
  - 1. Factory wrapping shall be maintained on new doors during construction period, and all hardware shall be installed by cutting the factory wrapping at the mounting location of the hardware item.
- B. General Door Installation Standards: Install doors in locations indicated to comply with manufacturer's written instructions, referenced quality standard, and as indicated. Where standards conflict the more stringent shall apply.
  - 1. Install fire-rated doors in corresponding fire-rated frames according to fire label requirements.
- C. Job-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels; and to contact stops uniformly, do not trim stiles and rails in excess of limits set by manufacturer or permitted for fire-rated doors. Field cutting, fitting or trimming, shall be executed in a workmanlike manner. Machine doors for hardware. Seal cut and trimmed surfaces immediately after fitting and machining using clear varnish or sealer.
  - 1. Clearances: Provide 1/8 inch at heads, jambs, and between pairs of doors. Provide 1/8 inch from bottom of door to top of decorative floor finish or covering. Where threshold is shown or scheduled, provide 1/4 inch from bottom of door to top of threshold.
  - 2. Comply with fire label requirements for fire-rated doors.
- D. Factory-Fitted Doors: Align in frames for uniform clearance at each edge, matching clearances specified for factory prefitting, and to contact stops uniformly. Field cutting, fitting or trimming, if required, shall be executed in a workmanlike manner.
  - 1. Clearances: Provide 1/8 inch at heads, jambs, and between pairs of doors. Provide 1/8 inch from bottom of door to top of decorative floor finish or covering. Where threshold is shown or scheduled, provide 1/4 inch from bottom of door to top of threshold.
- E. Field-Finished Doors: Refer to the following for finishing requirements:
  - 1. Division 09 Section "Interior Painting."

### 3.3 ADJUSTING AND PROTECTION

- A. Rehang or replace doors that do not swing or operate freely.
- B. Protection: Protect wood doors to ensure that the wood door work will be without damage or deterioration at the time of Substantial Completion.

1. Refinish or replace wood doors damaged during installation. Replace any new wood doors that are warped, twisted, demonstrate core show through, are not true in plane, or cannot be refinished to the satisfaction of the Architect.

END OF SECTION 08 14 16  
08211/11-99/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 08 31 13 – ACCESS DOORS AND FRAMES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Access doors and frames.
  - 2. Fire-rated access doors and frames.
- B. See Division 08 Section "Door Hardware" for mortise or rim cylinder locks and master keying.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of access door indicated.
- B. Coordination Drawings: Drawn to scale and coordinating access door and frame installation with ceiling support, ceiling-mounted items, and concealed Work above ceiling.
- C. Samples: For each exposed finish.
- D. Schedule: Door and frame schedule, including types, general locations, sizes, construction details, latching or locking provisions, and other data pertinent to installation.

#### 1.3 QUALITY ASSURANCE

- A. Fire-Rated Access Doors and Frames: Units complying with NFPA 80 and that are labeled and listed by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction per test method indicated.
  - 1. Vertical Access Doors: NFPA 252 or UL 10B.
  - 2. Horizontal Access Doors and Frames: ASTM E 119, 2007 FBC Chapter 7, or UL 263.
- B. Size and Location Verification: Determine specific locations and sizes for access doors needed to gain access to concealed equipment, and indicate on schedule.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
  - 1. Hot-Dip Galvanized Steel: Coat to comply with ASTM A 123/A 123M for steel and iron products and ASTM A 153/A 153M for steel and iron hardware.

B. Steel Sheet:

1. Hot-Rolled: ASTM A 569/A 569M, Commercial Steel (CS), Type B; free of scale, pitting, and surface defects; pickled and oiled.
2. Cold-Rolled: ASTM A 366/A 366M, Commercial Steel (CS), or ASTM A 620/A 620M, Drawing Steel (DS), Type B; stretcher-leveled standard of flatness.
  - a. Electrolytic zinc-coated steel sheet, complying with ASTM A 591/A 591M, Class C coating, may be substituted at fabricator's option.
3. Electrolytic Zinc Coated: ASTM A 591/A 591M, Commercial Steel (CS), with Class C coating and phosphate treatment to prepare surface for painting.
4. Metallic Coated: ASTM A 653/A 653M, Commercial Steel (CS), Type B, with A60 (ZF180) zinc-iron-alloy (galvannealed) coating or G60 (Z180) mill-phosphatized zinc coating; stretcher-leveled standard of flatness.

C. Drywall Beads: Edge trim formed from 0.0299-inch zinc-coated steel sheet formed to receive joint compound and in size to suit thickness of gypsum panels indicated.

D. Plaster Bead: Casing bead formed from 0.0299-inch zinc-coated steel sheet with flange formed out of expanded metal lath and in size to suit thickness of plaster.

E. Paint:

1. Shop Primer for Ferrous Metal: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with performance requirements in FS TT-P-664; selected for good resistance to normal atmospheric corrosion, compatibility with finish paint systems indicated, and capability to provide sound foundation for field-applied topcoats despite prolonged exposure.
2. Shop Primer for Metallic-Coated Steel: Organic zinc-rich primer complying with SSPC-Paint 20 and compatible with topcoat.
3. Galvanizing Repair Paint: High-zinc-dust-content paint for regalvanizing welds in steel, complying with SSPC-Paint 20.

## 2.2 ACCESS DOORS AND FRAMES

A. Manufacturers: Subject to compliance with requirements, provide the following products:

1. Intex Forms, Inc. 888 Elder Creek Rd. Sacramento, CA 95828. Tel 916.388.9933.

B. Flush, Insulated, Fire-Rated Access Doors and Trimless Frames:

1. Material: Prime-painted steel sheet.
2. Surface Type: Gypsum board.
3. Locations: Walls and ceilings.
4. Fire-Resistance Rating: 1 hour
5. Temperature-Rise Rating: 250 deg F (139 deg C) at the end of 30 minutes.
6. Door: Flush panel with core of mineral-fiber insulation enclosed in sheet metal with a minimum thickness of 0.036 inch.
7. Frame: Minimum 0.060-inch- thick sheet metal with drywall bead.

8. Hinges: Continuous piano hinge.
9. Automatic Closer: Spring type.
10. Lock: Key-operated lock with mortise cylinder, specified in Division 08 Section "Door Hardware," with interior release.

C. Flush Access Doors and Trimless Frames:

1. Material: Prime-painted steel sheet.
2. Surface Type: Gypsum board.
3. Locations: Walls and ceilings.
4. Door: Minimum 0.060-inch- thick sheet metal, set flush with surrounding finish surfaces.
5. Frame: Minimum 0.060-inch- thick sheet metal with bead for type of surface indicated.
6. Hinges: Continuous piano hinge.
7. Lock: Key-operated lock with mortise cylinder, specified in Division 08 Section "Door Hardware."

2.3 FABRICATION

- A. Latching Mechanisms: Furnish number required to hold doors in flush, smooth plane when closed.
1. For cylinder lock, furnish two keys per lock and key all locks alike.
  2. For recessed panel doors, provide access sleeves for each locking device. Furnish plastic grommets and install in holes cut through finish.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Advise installers of other work about specific requirements relating to access door and floor door installation, including sizes of openings to receive access door and frame, as well as locations of supports, inserts, and anchoring devices.
- B. Set frames accurately in position and attach securely to supports with plane of face panels aligned with adjacent finish surfaces.
- C. Install access doors flush with adjacent finish surfaces or recessed to receive finish material.
- D. Adjust doors and hardware after installation for proper operation.

END OF SECTION 08 31 13  
08311/11-99/dub

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 08 33 23 – OVERHEAD COILING DOORS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes the following types of overhead coiling doors:
  - 1. Manual counter doors.
  - 2. Automatic fire-rated service doors.
- B. Related Sections:
  - 1. 05 50 00 Metal Fabrications. Door opening jamb and head members.
  - 2. 06 10 00 Rough Carpentry. Door opening jamb and head members.
  - 3. 08 31 00 Access Doors and Panels. Access doors.
  - 4. 08 70 00 Hardware. Padlocks. Masterkeyed cylinder.
  - 5. 09 91 00 Painting. Field painting.

#### 1.2 SUBMITTALS

- A. Reference Section 01 33 00 Submittal Procedures; submit the following items:
  - 1. Product Data for each product indicated.
  - 2. Shop Drawings: Include special conditions not detailed in Product Data. Show interface with adjacent work.
  - 3. Quality Assurance/control Submittals:
    - a. Provide proof of manufacturer and installer qualifications.
    - b. Provide manufacturer's installation instructions.
  - 4. Closeout Submittals:
    - a. Operation and Maintenance Manual.
    - b. Certificate stating that installed materials comply with this specification.

#### 1.3 QUALITY ASSURANCE

- A. Fire-Rated Door Assemblies: Complying with NFPA 80, identical to assemblies tested per UL 10b, and labeled and listed for fire ratings indicated by UL, FM, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Provide overhead coiling doors subject to the design and performance requirements of this specification. Overhead coiling door manufacturers may include but are not limited to one of the following:
1. Alpine Overhead Doors, Inc.
  2. Atlas Door Corp.; Div. of Clopay Building Products Co.
  3. Cookson Company (The).
  4. Cornell Iron Works Inc.
  5. Overhead Door Corporation.
- B. Basis of Design:
1. Counter door – Cornell Iron Works, Model ESC10
  2. Rated Area Separation door – Cornell Iron Works, Model ERD11

### 2.2 PERFORMANCE REQUIREMENTS

- A. Operational Life: Design components to operate for not less than 10,000 cycles.
1. Operation Cycle: One complete cycle begins with door in closed position. Door is then moved to open position and back to closed position.
  2. Include tamperproof cycle counter.

### 2.3 MATERIALS

- A. Manual Counter Door:
1. Curtain:
    - a. Slats: No. 1F, interlocked flat-faced slats, 1-1/2 inches high by 1/2 inch deep, 22 gauge AISI type 304 series stainless steel with stainless steel angle bottom bar with lift handles and vinyl astragal.
    - b. Fabricate interlocking slat sections with high strength molded nylon endlocks riveted to ends of alternate slats.
    - c. Slat Finish:
      - 1) GalvaNex™ Coating System and phosphate treatment followed by baked-on polyester powder coat, custom color to match door trim; minimum 2.5 mils cured film thickness; ASTM D-3363 pencil hardness: H or better.
  2. Guides:
    - a. Aluminum: Heavy duty extruded aluminum sections with snap-on cover to conceal fasteners. Provide polypropylene pile runners on both sides of curtain to eliminate metal to metal contact between guides and curtain.

3. Counterbalance Shaft Assembly:
  - a. Barrel: Steel pipe capable of supporting curtain load with maximum deflection of 0.03 inches per foot of width.
  - b. Spring Balance: Oil-tempered, heat-treated steel helical torsion spring assembly designed for proper balance of door to ensure that maximum effort to operate will not exceed 25 lbs. Provide wheel for applying and adjusting spring torque.
4. Brackets: Fabricate from reinforced steel plate with bearings at rotating support points to support counterbalance shaft assembly and form and closures.
  - a. Finish:
    - 1) Phosphate treatment followed by a light gray baked-on polyester powder coat; minimum 2.5 mils cured film thickness.
5. Hood: 24 gauge galvanized steel with reinforced top and bottom edges. Provide minimum ¼ inch steel intermediate support brackets as required to prevent excessive sag.
  - a. Finish:
    - 1) GalvaNex™ Coating System and phosphate treatment followed by baked-on polyester powder coat, custom color to match door trim; minimum 205 mils cured film thickness; ASTM D-3363 pencil hardness: H or better.
6. Locking:
  - a. Masterkeyable cylinder operable from coil side of bottom bar.
7. Operator Cover: Provide 24 gauge galvanized steel sheet metal cover at coil area of unit. Finish to match door hood.
8. Operation:
  - a. Manual Push-Up: Manual lift or pole with hook.

## 2.4 DOOR CURTAIN AND CONSTRUCTION

- A. Automatic Fire Rated Service Door, rated per door schedule
- B. Door Curtain: Interlocking slats in continuous length for width of door. Unless otherwise indicated, slats of material thickness recommended by door manufacturer for performance, size, and type of door indicated.
  1. Steel Door Curtain Slats: Structural-quality, cold-rolled galvanized steel sheets, ASTM A 653/A 653M, with G90 zinc coating.
  2. Slat Type: Flat Faced, No. 5F.
- C. Endlocks, General: Locate locks on every other curtain slat for curtain alignment and resistance against lateral movement.
- D. Bottom Bar: 2 angles, minimum 2 by 2 by 1/8 inch thick, in material matching curtain slats.

1. Motor-Operated Doors: With combination bottom astragal and sensor edge.
- E. Curtain Jamb Guides: Steel angles, or channels and angles, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading.
  1. Build up units with not less than 3/16 inch thick, galvanized steel sections complying with ASTM A 36/A 36M, and ASTM A 123. Slot bolt holes for guide adjustment. Prevent overtravel of curtain with removable stops on guides and hold windlocks with continuous bar.

## 2.5 HOODS AND ACCESSORIES

- A. Hood: Form to enclose coiled curtain and operating mechanism at opening head and act as weatherseal. Contour to suit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Provide closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting projecting beyond wall face. Provide intermediate support brackets as required to prevent sag.
  1. Steel-Door Hoods: Fabricate from not less than **0.028 inch** thick, hot-dip galvanized steel sheet that matches slat material.
  2. Fire-Rated Assemblies: Include automatic drop baffle to guard against passage of smoke or flame.
  3. Shape: Round.
- B. Smoke Seals: UL-listed and -tested, smoke-seal perimeter gaskets.
- C. Push/Pull Handles: For push-up-operated or emergency-operated doors, provide galvanized steel lifting handles on each side of door.
- D. Power-Operated Doors: With safety interlock switch to disengage power supply when door is locked.
- E. Fire-Rated Assemblies: With automatic-closing device inoperative during normal door operations, with governor unit complying with requirements in NFPA 80, with easily tested and reset release mechanism, and designed to be activated by the following:
  1. Governor: Oscillating type.
  2. Temperature rise and melting point of 165 deg F replaceable fusible links, interconnected and on both sides of wall of door opening.
  3. UL-labeled smoke detector and door-holder-release devices.
  4. UL-labeled heat detector and door-holder-release devices.
  5. Building fire alarm and detection system and door-holder-release devices.
- F. Counterbalancing Mechanism: Adjustable, oil-tempered, heat-treated steel helical torsion springs mounted around structural carbon-steel pipe, and contained in barrel of sufficient diameter and wall thickness to support rolled-up curtain without distortion of slats and to limit barrel deflection to not more than 0.03 in./ft. of span under full load; with grease-sealed bearings or self-lubricating graphite bearings.



1. Mounting Brackets: Cast-iron or cold-rolled steel plate with bell-mouth guide groove for curtain.
- G. Electric Door Operator: Type, size, and capacity recommended and provided by door manufacturer for door and operational life specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, remote-control stations, control devices, integral gearing for locking door, disconnect device, emergency auxiliary operator, and accessories required for proper operation.
  1. Comply with NFPA 70. Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency auxiliary operator.
  2. Electric Motors: Polyphase, medium-induction type with high-starting torque, reversible, continuous-duty, Class A insulated, electric motors, complying with NEMA MG 1; with overload protection, sized to start, accelerate, and operate door in either direction, from any position, at not less than 2/3 fps (0.2 m/s) or more than 1 fps (0.3 m/s), without exceeding nameplate ratings or considering service factor. Coordinate wiring requirements and electric characteristics of motors with building electrical system.
    - a. Provide open dripproof-type motor, and controller with NEMA ICS 6, Type 1 enclosure.
  3. Control Equipment: NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24-V ac or dc. Provide momentary-contact, three-button control station.
    - a. Interior Units: Full-guarded, surface-mounted, heavy-duty type, with general-purpose NEMA ICS 6, Type 1 enclosure.
  4. Obstruction Detection Device: Provide each motorized door with self-monitoring, four-wire-configured-type, electrically actuated, external automatic safety sensor able to protect full width of door opening. Activation of sensor immediately stops and reverses downward door travel.
  5. Adjustable Limit Switches: Interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.

## 2.6 FINISHES

- A. Aluminum Finish: Manufacturer's standard powder coating.
  1. Color and Gloss: As selected from manufacturer's full range.
- B. Steel Finish: Manufacturer's standard powder coating.
  1. Color and Gloss: As selected from manufacturer's full range.
- C. Galvanized-Steel Finish: Manufacturer's standard powder coating.
  1. Color and Gloss: As selected from manufacturer's full range.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install door and operating equipment complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports.
  - 1. Fire-Rated Doors: Install to comply with NFPA 80.
- B. Lubricate bearings and sliding parts; adjust doors to operate easily, free from warp, twist, or distortion for entire perimeter.

END OF SECTION 08 33 23  
08331/08-96/ttt

## SECTION 08 34 73 - SOUND CONTROL DOOR ASSEMBLIES

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Wood sound-control doors.

#### 1.2 SUBMITTALS

A. Product Data: For each type of product indicated. Include sound ratings, construction details, material descriptions, core descriptions and finishes.

B. Shop Drawings: Include the following:

1. Elevations of each door design.
2. Details of sound-control seals, door bottoms, and thresholds.
3. Details of doors, including vertical and horizontal edge details and metal thicknesses.
4. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
5. Locations of reinforcement and preparations for hardware.
6. Details of each different wall opening condition.
7. Details of anchorages, joints, field splices, and connections.
8. Details of accessories.
9. Details of moldings, removable stops, and glazing.
10. Details of conduit and preparations for power, signal, and control systems.

C. Samples for Verification:

1. Finishes: For each type of exposed finish required, prepared on Samples of not less than 3 by 5 inches.

D. Schedule: Provide a schedule of sound-control door assemblies prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with the Door Hardware Schedule.

E. Qualification Data: For qualified Installer and manufacturer.

F. Product Certificates: For each type of sound-control door assembly, from manufacturer.

G. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each type of sound-control door assembly.

H. Maintenance Data: For sound-control door assemblies to include in maintenance manuals.

I. Warranty: Samples of special warranty.

### 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain sound-control door assemblies, including doors, frames, sound-control seals, hinges (when integral for sound control), thresholds, and other items essential for sound control, from single source from single manufacturer.
- C. Sound Rating: Provide sound-control door assemblies identical to those of assemblies tested as sound-retardant units by an acoustical testing agency, and have the following minimum rating:
  - 1. STC Rating: Minimum 56 as determined by ASTM E 413 when tested in an operable condition according to ASTM E 90 and ASTM E 1408.

### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver doors and frames palletized, wrapped, or crated to provide protection during transit and Project-site storage. Do not use non-vented plastic.
  - 1. Provide additional protection to prevent damage to finish of factory-finished wood doors.
- B. Shipping Spreaders: Deliver welded frames with two removable spreader bars across bottom of frames, tack welded or mechanically attached to jambs and mullions.
- C. Store doors and frames under cover at Project site. Place units in a vertical position with heads up, spaced by blocking, on minimum 4-inch- high, wood blocking. Avoid using nonvented plastic or canvas shelters that could create a humidity chamber.
  - 1. If wrappers on doors become wet, remove cartons immediately. Provide a minimum of 1/4-inch space between each stacked door to permit air circulation.

### 1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install wood sound-control wood doors until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

### 1.6 COORDINATION

- A. Coordinate installation of anchorages for sound-control door assemblies. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of sound-control door assemblies that fail in materials or workmanship within specified warranty period.
1. Failures include, but are not limited to, the following:
    - a. Failure to meet sound rating requirements.
    - b. Faulty operation of sound seals.
    - c. Deterioration of metals, metal finishes, and other materials beyond normal use or weathering.
    - d. Wood doors that are warped (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section, or show telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span.
  2. Warranty Period for Steel Doors: Five years from date of Substantial Completion.
  3. Warranty Period for Wood Doors: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 STEEL SOUND-CONTROL DOORS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. AMBICO Limited.
  2. Amweld Building Products, LLC.
  3. Ceco Door; an ASSA ABLOY Group company.
  4. CURRIES Company; an ASSA ABLOY Group company.
  5. Firedoor Corporation.
  6. Fleming Steel Doors & Frames; an ASSA ABLOY Group company.
  7. Krieger Specialty Products Company.
  8. Overly Door Company.
  9. Pioneer Industries, Inc.
  10. Security Acoustics; a division of Security Metal Products Corp.
- B. Description: Provide flush-design sound-control doors, 1-3/4 inches thick, of seamless construction; with manufacturer's standard sound-retardant core as required to provide STC rating indicated. Construct doors with smooth, flush surfaces without visible joints or seams on exposed faces or stile edges. Fabricate according to ANSI/NAAMM-HMMA 865.
1. Interior Doors: Fabricate from cold-rolled steel sheet unless otherwise indicated, 0.048-inch nominal thickness, or thicker as required to achieve STC rating indicated.
  2. Top and Bottom Channels: Closed with continuous channels of same material as face sheets, spot welded to face sheets not more than 6 inches o.c.
  3. Hardware Reinforcement: Same material as face sheets.
- C. Materials:

1. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B, suitable for exposed applications.
2. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
3. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B, with G60 (Z180) zinc (galvanized) or A40 (ZF120) zinc-iron-alloy (galvannealed) coating designation.

D. Finishes:

1. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pretreating.
  - a. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

2.2 SOUND-CONTROL FRAMES

- A. Description: Fabricate sound-control door frames with corners mitered, reinforced, and continuously welded full depth and width of frame. Fabricate according to ANSI/NAAMM-HMMA 865.
1. Weld frames according to NAAMM-HMMA 820.
  2. Exterior Frames: Fabricate from metallic-coated steel sheet 0.079-inch nominal thickness, or thicker as required to provide STC rating indicated.
  3. Interior Frames: Fabricate from cold-rolled steel sheet unless otherwise indicated, 0.075-inch nominal thickness, or thicker as required to provide STC rating indicated.
  4. Hardware Reinforcement: Fabricate according to ANSI/NAAMM-HMMA 865 of same material as face sheets.
  5. Jamb Anchors:
    - a. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.048-inch nominal thickness uncoated steel unless otherwise indicated.
  6. Floor Anchors: Not less than 0.079-inch nominal thickness metallic-coated steel, and as follows:
    - a. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.
    - b. Separate Topping Concrete Slabs: Adjustable-type anchors with extension clips, allowing not less than 2-inch height adjustment. Terminate bottom of frames at finish floor surface.
- B. Materials:
1. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B, suitable for exposed applications.
  2. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.

3. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B, with G60 (Z180) zinc (galvanized) or A40 (ZF120) zinc-iron-alloy (galvannealed) coating designation.
4. Supports and Anchors: After fabricating, galvanize units to be built into exterior walls according to ASTM A 153/A 153M, Class B.
5. Inserts, Bolts, and Fasteners: Provide items to be built into exterior walls, hot-dip galvanized according to ASTM A 153/A 153M or ASTM F 2329.
6. Powder-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching sound-control door frames of type indicated.
7. Solidly fill frames with grout, eliminating all voids. The flanking path normally found behind the frame must be packed or grout filled to assure minimum sound transmission.

C. Finishes:

1. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pretreating.
  - a. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

2.3 SOUND-CONTROL HARDWARE

A. Description: Provide manufacturer's standard sound-control system, including head and jamb seals, door bottoms, cam-lift hinges, and thresholds, as required by testing to achieve STC rating indicated.

1. Compression Seals: One-piece units; consisting of closed-cell sponge neoprene seal held in place by metal retainer; with retainer cover of same material as door frame; attached to door frame with concealed screws.
2. Automatic Door Bottoms: Neoprene or silicone gasket, held in place by metal housing, that automatically drops to form seal when door is closed; mounted to bottom edge of door with screws.
  - a. Mounting: as required by testing to achieve STC rating indicated.
3. Door Bottoms: Neoprene or silicone gasket held in place by metal housing; mortised into bottom edge of door.
4. Cam-Lift Hinges: Full-mortise template type that raises door 1/2 inch when door is fully open; with hardened pin; fabricated from stainless steel.
5. Thresholds: Flat, smooth, unfluted type as recommended by manufacturer; fabricated from stainless steel.

B. Other Hardware: Comply with requirements in Drawings 'Door Schedule.'

## 2.4 SOUND-CONTROL ACCESSORIES

- A. Grout: Comply with ASTM C 476, with a slump of not more than 4 inches as measured according to ASTM C 143/C 143M.
- B. Corrosion-Resistant Coating: Cold-applied asphalt mastic, compounded for 15-mil dry film thickness per coat. Provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

## 2.5 FABRICATION

- A. Sound-Control Steel Door Fabrication: Sound-control doors to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal.
  - 1. Seamless Edge Construction: Fabricate doors with faces joined at vertical edges by welding; welds shall be ground, filled, and dressed to make them invisible and to provide a smooth, flush surface.
  - 2. Hardware Preparation: Factory prepare sound-control doors to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping, according to the Door Hardware Schedule and templates furnished as specified.
    - a. Reinforce doors to receive nontemplated mortised and surface-mounted door hardware.
    - b. Locate door hardware as indicated, or if not indicated, according to NAAMM-HMMA 831, "Recommended Hardware Locations for Custom Hollow Metal Doors and Frames."
  - 3. Tolerances: Fabricate doors to tolerances indicated in ANSI/NAAMM-HMMA 865.
- B. Sound-Control Frame Fabrication: Fabricate sound-control frames to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.
  - 1. Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible. Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated from same thickness metal as frames.
  - 2. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
  - 3. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
  - 4. Jamb Anchors: Provide number and spacing of anchors as follows:
    - a. Stud Wall Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
      - 1) Three anchors per jamb up to 60 inches in height.



- 2) Four anchors per jamb from 60 to 90 inches in height.
  - 3) Five anchors per jamb from 90 to 96 inches in height.
  - 4) Five anchors per jamb plus one additional anchor per jamb for each 24 inches or fraction thereof more than 96 inches in height.
  - 5) Two anchors per head for frames more than 42 inches wide and mounted in metal stud partitions.
5. Head Reinforcement: For frames more than 48 inches wide, provide continuous head reinforcement for full width of opening, welded to back of frame at head.
  6. Plaster Guards: Weld guards to frame at back of hardware cutouts and glazing-stop screw and sound-control seal preparations to close off interior of openings in frames to be grouted.
  7. Tolerances: Fabricate frames to tolerances indicated in ANSI/NAAMM-HMMA 865.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of sound-control door assemblies.
- B. Examine roughing-in for embedded and built-in anchors to verify actual locations of sound-control door frame connections before frame installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- B. Prior to installation and with installation spreaders in place, adjust and securely brace sound-control door frames to the following tolerances:
  1. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
  2. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
  3. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
  4. Plumbness: Plus or minus 1/16 inch, measured at jambs on a perpendicular line from head to floor.
- C. Drill and tap doors and frames to receive nontemplated mortised and surface-mounted door hardware.

### 3.3 INSTALLATION

- A. General: Install sound-control door assemblies plumb, rigid, properly aligned, and securely fastened in place; comply with manufacturer's written instructions.
- B. Frames: Install sound-control door frames in sizes and profiles indicated.
  - 1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.
    - a. Remove temporary braces only after frames or bucks have been properly set and secured.
    - b. Check squareness, twist, and plumbness of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
    - c. Apply corrosion-resistant coatings coating to backs of frames to be filled with mortar, grout, and plaster containing antifreezing agents.
  - 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor and secure with postinstalled expansion anchors.
  - 3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation behind frames.
  - 4. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
  - 5. Ceiling Struts: Extend struts vertically from top of frame at each jamb to supporting construction above, unless frame is anchored to masonry or to other structural support at each jamb. Bend top of struts to provide flush contact for securing to supporting construction above. Provide adjustable wedged or bolted anchorage to frame jamb members.
  - 6. Installation Tolerances: Adjust sound-control door frames for squareness, alignment, twist, and plumbness to the following tolerances:
    - a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
    - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
    - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
    - d. Plumbness: Plus or minus 1/16 inch, measured at jambs on a perpendicular line from head to floor.
- C. Doors: Fit sound-control doors accurately in frames, within clearances indicated below. Shim as necessary.
  - 1. Non-Fire-Rated Doors: Fit non-fire-rated doors accurately in frames with the following clearances:
    - a. Jambs: 1/8 inch.
    - b. Head with Butt Hinges: 1/8 inch.
    - c. Head with Cam-Lift Hinges: As required by manufacturer, but not more than 3/8 inch.

- d. Sill: Manufacturer's standard.
- e. Between Edges of Pairs of Doors: 1/8 inch.

### 3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Testing Services: Acoustical testing and inspecting agency shall select one sound-control door(s) at random from sound-control door assemblies that are completely installed and perform testing for verification that assembly complies with STC rating requirements.
  - 1. Field tests shall be conducted according to ASTM E 336, with results calculated according to ASTM E 413. Acceptable field STC values shall be within 5 dB of laboratory STC values.
  - 2. Inspection Report: Acoustical testing agency shall submit report in writing to Architect and Contractor within 24 hours after testing.
  - 3. If tested door fails, replace or rework all sound-control door assemblies to bring them into compliance at Contractor's expense.
    - a. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- C. Prepare test and inspection reports.

### 3.5 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and adjust seals, door bottoms, and other sound-control hardware items right before final inspection. Leave work in complete and proper operating condition.
- B. Remove and replace defective work, including defective or damaged sound seals and doors and frames that are warped, bowed, or otherwise unacceptable.
  - 1. Adjust gaskets, gasket retainers, and retainer covers to provide contact required to achieve STC rating.
- C. Clean grout off sound-control door frames immediately after installation.
- D. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying primer.
- E. Metallic-Coated Surfaces: Clean abraded areas of doors and repair with galvanizing repair paint according to manufacturer's written instructions.

END OF SECTION 08 34 73

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 08 41 13 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Interior manual-swing entrance door.
- B. Related Sections:
  - 1. Section 08 12 16 "Aluminum Frames" for entrance doors installed in interior aluminum frames.
  - 2. Section 08 80 00 "Glazing" for glass installation in entrance doors.

#### 1.3 DEFINITIONS

- A. ADA/ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disability Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities."

#### 1.4 PERFORMANCE REQUIREMENTS

- A. General Performance: Aluminum-framed systems shall withstand the effects of the following performance requirements without exceeding performance criteria or failure due to defective manufacture, fabrication, installation, or other defects in construction:
  - 1. Movements of supporting structure indicated on Drawings including, but not limited to deflection from uniformly distributed and concentrated live loads.
  - 2. Dimensional tolerances of building frame and other adjacent construction.
  - 3. Failure includes the following:
    - a. Deflection exceeding specified limits.
    - b. Thermal stresses transferring to building structure.
    - c. Framing members transferring stresses, including those caused by thermal and structural movements to glazing.
- B. Delegated Design: Design aluminum-framed systems, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

- C. Thermal Movements: Provide aluminum-framed systems that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

- 1. Interior Ambient-Air Temperature: **75 deg F.**

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for aluminum-framed systems.
- B. Shop Drawings: For aluminum-framed systems. Include plans, elevations, sections, details, and attachments to other work.
  - 1. For entrance doors, include hardware schedule and indicate operating hardware types, functions, quantities, and locations.
- C. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.
- D. Other Action Submittals:
  - 1. Entrance Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of entrance door hardware, as well as procedures and diagrams. Coordinate final entrance door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of entrance door hardware.
- E. Delegated-Design Submittal: For aluminum-framed systems indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
  - 1. Detail fabrication and assembly of aluminum-framed systems.
  - 2. Include design calculations.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for aluminum-framed systems, indicating compliance with performance requirements.
- C. Source quality-control reports.
- D. Warranties: Sample of special warranties.

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For aluminum-framed systems to include in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Testing Agency Qualifications: Qualified according to ASTM E 699 for testing indicated.
- C. Product Options: Information on Drawings and in Specifications establishes requirements for systems' aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including preconstruction testing, field testing, and in-service performance.
  - 1. Do not revise intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If revisions are proposed, submit comprehensive explanatory data to Architect for review.
- D. Accessible Entrances: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.
- E. Source Limitations for Aluminum-Framed Systems: Obtain from single source from single manufacturer.
- F. Preinstallation Conference: Conduct conference at Project site.

1.9 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of structural supports for aluminum-framed systems by field measurements before fabrication and indicate measurements on Shop Drawings.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of aluminum-framed systems that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures including, but not limited to, excessive deflection.
    - b. Deterioration of metal finishes..
    - c. Failure of operating components.

2. Warranty Period: 10 years from date of Substantial Completion.
- B. Special Finish Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components on which finishes do not comply with requirements or that fail in materials or workmanship within specified warranty period. Warranty does not include normal weathering.

1. Warranty Period: 10 years from date of Substantial Completion.

#### 1.11 MAINTENANCE SERVICE

- A. Entrance Door Hardware:
  1. Initial Maintenance Service: Beginning at Substantial Completion, provide six months' full maintenance by skilled employees of entrance door hardware Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper entrance door hardware operation at rated speed and capacity. Provide parts and supplies the same as those used in the manufacture and installation of original equipment.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following available manufacturers offering products that may be incorporated into the Work but are not limited to, the following:
  1. [Arcadia, Inc.](#)
  2. [EFCO Corporation.](#)
  3. [Kawneer North America; an Alcoa company.](#)
  4. [TRACO.](#)
  5. [YKK AP America Inc.](#)

#### 2.2 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
  1. Sheet and Plate: **ASTM B 209**
  2. Extruded Bars, Rods, Profiles, and Tubes: **ASTM B 221.**
  3. Extruded Structural Pipe and Tubes: ASTM B 429.
  4. Structural Profiles: ASTM B 308/B 308M.
- B. Steel Reinforcement: Manufacturer's standard zinc-rich, corrosion-resistant primer, complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods according to recommendations in SSPC-SP COM and prepare surfaces according to applicable SSPC standard.



1. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.
2. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.
3. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.

## 2.3 GLAZING SYSTEMS

- A. Glazing: As specified in Section 088000 "Glazing."
- B. Glazing Gaskets: Manufacturer's standard compression types; replaceable, molded or extruded, of profile and hardness required to maintain watertight seal.
- C. Spacers and Setting Blocks: Manufacturer's standard elastomeric type.

## 2.4 ENTRANCE DOOR SYSTEMS

- A. Entrance Doors: Manufacturer's standard glazed entrance doors for manual-swing operation.
  1. Door Construction: **1-3/4-inch** overall thickness, with minimum **0.125-inch** thick, extruded-aluminum tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deeply penetrated and fillet welded or that incorporate concealed tie rods.
  2. Door Design: Medium stile; **3-1/2-inch** nominal width.
    - a. Accessible Doors: Smooth surfaced for width of door in area within **10 inches** above floor or ground plane.
  3. Glazing Stops and Gaskets: Square snap-on, extruded-aluminum stops and preformed gaskets.
    - a. Provide non-removable glazing stops on outside of door.
- B. Entrance Door Hardware: As specified in Section 087100 "Door Hardware."

## 2.5 ACCESSORY MATERIALS

- A. Joint Sealants: For installation at perimeter of aluminum-framed systems, as specified in Section 079200 "Joint Sealants."

## 2.6 FABRICATION

- A. Form or extrude aluminum shapes before finishing.
- B. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
  1. Profiles that are sharp, straight, and free of defects or deformations.
  2. Accurately fitted joints with ends coped or mitered.

3. Physical and thermal isolation of glazing from framing members.
  4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
  5. Provisions for field replacement of glazing from interior for vision glass.
  6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- C. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.
- D. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.
1. At interior doors, provide silencers at stops to prevent metal-to-metal contact. Install three silencers on strike jamb of single-door frames and two silencers on head of frames for pairs of doors.
- E. Entrance Doors: Reinforce doors as required for installing entrance door hardware.
- F. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.
- G. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

## 2.7 ALUMINUM FINISHES

- A. Color Anodic Finish: AAMA 611, AA-M12C22A32/A34, Class II, 0.010 mm or thicker.
1. Color: Medium bronze

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. General:
1. Comply with manufacturer's written instructions.
  2. Do not install damaged components.
  3. Fit joints to produce hairline joints free of burrs and distortion.

4. Rigidly secure non-movement joints.
  5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration.
  6. Seal joints watertight unless otherwise indicated.
- B. Metal Protection:
1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer or applying sealant or tape, or by installing nonconductive spacers as recommended by manufacturer for this purpose.
  2. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
- C. Install components to drain water passing joints, condensation occurring within framing members, and moisture migrating within the system to exterior.
- D. Install components plumb and true in alignment with established lines and grades, and without warp or rack.
- E. Install glazing as specified in Section 088000 "Glazing."
- F. Entrance Doors: Install doors to produce smooth operation and tight fit at contact points.
- G. Install perimeter joint sealants as specified in Section 079200 "Joint Sealants" to produce weathertight installation.

### 3.3 ERECTION TOLERANCES

- A. Install aluminum-framed systems to comply with the following maximum erection tolerances:
1. Location and Plane: Limit variation from true location and plane to **1/8 inch in 12 feet; 1/4 inch** over total length.
  2. Alignment:
    - a. Where surfaces abut in line, limit offset from true alignment to **1/16 inch**.
    - b. Where surfaces meet at corners, limit offset from true alignment to **1/32 inch**.
- B. Diagonal Measurements: Limit difference between diagonal measurements to **1/8 inch**.

### 3.4 FIELD QUALITY CONTROL

- A. Repair or remove work if test results and inspections indicate that it does not comply with specified requirements.
- B. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- C. Aluminum-framed assemblies will be considered defective if they do not pass tests and inspections.

- D. Prepare test and inspection reports.

3.5 ADJUSTING

- A. Adjust operating entrance door hardware to function smoothly as recommended by manufacturer.
  - 1. For entrance doors accessible to people with disabilities, adjust closers to provide a 3-second closer sweep period for doors to move from a 70-degree open position to **3 inches** from the latch, measured to the leading door edge.
  - 2. END OF SECTION 08 41 13

## SECTION 08 41 26 - ALL-GLASS ENTRANCES AND STOREFRONTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes all-glass entrance and storefront systems. The all glass entrance and storefront work includes the following:
1. All-glass swing entrance doors and framing, including hardware.
  2. All glass side lights.
  3. Metal trim, and similar items in conjunction with all glass entrance and storefronts.
  4. Sealants, joint fillers, and gasketing systems for all glass entrances and storefronts.
  5. Anchors, shims, fasteners, inserts, expansion devices, accessories, support brackets and attachments for all-glass entrances and storefronts.
  6. Glass and glazing for all-glass entrances and storefronts.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. General: Provide all-glass entrance and storefront systems meeting or exceeding the following performance requirements:
1. Structural Properties:
    - a. Lateral Loads: The all-glass entrance and storefront work, including glass, shall be designed, fabricated and installed to withstand a maximum inward and outward lateral pressure of 5 lbf/sq. ft. for sidelights and 20 lbf/sq. ft. for the active door panels.
    - b. Deflection Limitations:
      - 1) Deflections: Base calculations for the following deflections upon the combination of maximum direct lateral pressures, building deflections, and erection tolerances.
        - a) The deflection of any framing member in a direction normal to the plane of the wall when subjected to the full lateral pressures specified above shall not exceed 1/175 of its clear span or 3/4 inch whichever is less, except limit deflection of glass to 1/2 inch.
        - b) Glass, sealants and interior finishes shall not be included to contribute to framing member strength, stiffness or lateral stability.
    - c. Dead Loads:
      - 1) Limit deflections of metal members spanning door openings to 1/300. The clearance between the member and an operable door shall be no less than 1/16 inch.
      - 2) Twisting (rotation) of the horizontals due to the weight of the glass shall not exceed 1 degree, measured between ends and center of each span.

- d. Operational (Traffic) Loads: Design and fabricate all-glass entrances to withstand the operating loads which result from heavy traffic conditions using the specified hardware, without measurable permanent deflection. Limit elastic deflections so as to provide the normal degree of rigidity required to avoid glass breakage, and other objectionable results of excessive flexibility.
- B. Building Frame Movement: Design, fabricate and install all-glass entrances and storefronts to withstand building movements including loading deflections, shrinkage, creep and similar movements.
- C. Design Modifications:
  - 1. Submit design modifications necessary to meet the performance requirements and field coordination.
  - 2. Variations in details or materials shall not adversely affect the appearance, durability or strength of components.
  - 3. Maintain the general design concept without altering size of members, profiles and alignment.

### 1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's specifications and installation instructions for each all-glass entrance and storefront product specified.
- B. Shop Drawings: Submit shop drawings showing scaled elevations, plans, and sections of the all-glass entrance and storefront work. Full scale sections shall be prepared and submitted for details of the assemblies that cannot be shown in the elevations or sections. Include with shop drawings metal thickness of all metal components, glass thicknesses, metal finishes, details of fittings, and all other pertinent information as necessary or requested by the Architect to indicate compliance with the Contract Documents. Details of field connections, anchorage, and their relationship to the work of others shall be clearly indicated for the coordination of the work by other building trades. Details of fastening and sealing methods and product joinery shall be shown to ensure proper performance of the field installation. No work shall be fabricated until shop drawings for that work have been approved by Architect for fabrication.
- C. Samples: Submit samples of the following before any work is fabricated:
  - 1. 3 paired sets of samples for each exposed metal finish required. Sample finishes shall be on the specified alloy, temper, and thickness of metal required for the work. Where finishes involve color and texture variations, include sample sets showing the full range of variations expected. Furnish samples in either 12-inch- lengths of patch fittings, rails, or 12-inch- squares of sheet.
  - 2. Glass: 12 inches square, showing exposed-edge finish.
- D. Structural Calculations: Submit, for information only, copies of structural calculations indicating complete compliance with the specified performance requirements. Calculations shall be prepared, signed and sealed by a Professional Engineer registered in the state wherein the work is to be erected. Clearly indicate loads that will be transferred to adjacent supporting cladding and framing elements.

- E. Maintenance Instructions: Submit copies of manufacturer's written instructions for adjustment, operation and maintenance of operable doors.

#### 1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: The all glass entrance and storefront drawings and specifications are based on the Dorma-Glas systems using Viracon heat soaked clear tempered glass products. Award the fabrication of all-glass entrance and storefront door and frame components to a single firm specializing in the fabrication of all-glass entrance and storefront components who has successfully produced work similar in design and extent to that required for the project, in not less than three projects of similar scope to the satisfaction of the Architect, and whose work has resulted in construction with a record of successful in-service performance for a period of 5 years. The fabricator shall have sufficient production capacity, have organized quality control and testing procedures, and published written and illustrated installation manuals, to produce and properly install the entrance assemblies required without causing delay in progress of the Work.
- B. Installer Qualifications: Subcontract the all-glass entrance and storefront work to a firm which is specialized in the erection of all-glass entrances and storefronts and who has successfully produced work similar in design and extent to that required for the project, in not less than three projects of similar scope to the satisfaction of the Architect, and whose work has resulted in construction with a record of successful in-service performance for a period of 10 years.
- C. Standards: Comply with the applicable provisions and recommendations of the following standards below, where standards conflict the more stringent shall apply:
  - 1. American Architectural Manufacturers Association (AAMA): "Aluminum Store Front and Entrance Design Guide Manual."
  - 2. American Institute of Steel Construction (AISC), "Steel Construction Manual," Current Edition.
  - 3. Federal Standard 16 CFR 1201, Consumer Product Safety Commission (CPSC): "Safety Standard for Architectural Glazing Materials," as published in the Code of Federal Regulations (CFR). Comply with the applicable requirements of the laws, codes, ordinances and regulations of Federal and Municipal authorities having jurisdiction, wherever requirements conflict the more stringent shall be required. Obtain approvals from all such authorities. As a minimum provide safety glazing complying with ANSI Z97.1 and testing requirements of 16 CFR Part 1201 for Category II materials.
  - 4. Welding Standards: Welding shall be performed by skilled and qualified mechanics. Welding shall be performed in accordance with the applicable provisions of AWS D1.1 "Structural Welding Code – Steel."
  - 5. Glass Association of North America (GANA): "Fully Tempered Heavy Glass Door and Entrance Systems Design Guide."
- D. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Meetings." Prior to the start of the all-glass entrance and storefront work, and at the Contractor's direction, meet at the site and review the installation procedures and coordination with other work. Meeting shall include Contractor, all-glass entrance and storefront installer, sealant installer, as well as any other subcontractors or material technical service representatives whose work, or products, must be coordinated with the all-glass entrance and storefront work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Packaging of components shall be so selected to protect the components from damage during shipping and handling.
- B. Storage on Site: Store all-glass entrance and storefront components in a location and in a manner to avoid damage to the components. Keep handling on site to a minimum. Exercise particular care to avoid damage to finishes of metals.

1.6 PROJECT CONDITIONS

- A. Field Measurements: Verify dimensions of supporting structure by field measurements before fabrication so that the all-glass entrance and storefront work will be accurately designed, fabricated and fitted to the structure. Indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work. Use Contractor's lines and benchmarks as a basis for measurements.

1.7 WARRANTY

- A. Special Warranty: Submit a 2 year written warranty, beginning from date of substantial completion, and executed by the Contractor, manufacturer and the all-glass entrance and storefront installer agreeing to repair or replace components of the all-glass entrance and storefront systems that develop defects in materials or workmanship within the specified warranty period. Defects include, structural failures, sealant failures, deterioration of metals, metal finishes, failure of operating components to function properly, and any other evidence of failure or deterioration of the all-glass entrance and storefront work to meet performance requirements.
- B. Heat Soaked Tempered Glass Warranty: Submit a 5 year written warranty, beginning from date of substantial completion, and executed by the Contractor, manufacturer and the all-glass entrance and storefront installer agreeing to replace glass components of the all-glass entrance and storefront systems that spontaneously break as a result of Nickel Sulfide (NiS) inclusions within the specified warranty period without material or labor charges to the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Glass: ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated surfaces), Type I (transparent), tested for surface and edge compression per ASTM C 1048 and for impact strength per 16 CFR 1201 for Category II materials. All glass shall be 100% heat soaked in accordance with Viracon's heat soaking procedures to obtain the specified warranty.
  - 1. Class 1: Clear.
    - a. Thickness: 1/2 inch, unless greater thickness is required to suit the performance requirements.
  - 2. Exposed Edges: Flat edge (cut edge of glass is flat and surface edges are slightly arrised) with polished finish.



3. Butt Edges: Flat edge (cut edge of glass is flat and surface edges are slightly arrised) with polished finish.
4. Tempered and Heat Soaked Glass Fabricator: Viracon, Inc., 800 Park Drive, Owatonna, MN (800) 533-2080.

- B. Aluminum: AA Alloy 6063 and ASTM B 221 ‘Anodizing Quality’, with tempering as required to suit performance requirements and finishes specified.

## 2.2 COMPONENTS

- A. Glass Entrances and Sidelights: Provide and extruded aluminum retained, glass and metal frame and door system fabricated and finished to suit the conditions indicated and specified. System shall be complete with all aluminum framing members, fasteners, anchors, gaskets, washers, glass and glazing, and hardware components. All aluminum members shall be clad with metal cladding specified under paragraph 2.1.B and finished as specified under Article 2.5. Glass door and sidelight framing system shall be similar to the following:

1. Manufacturers and Systems: One of the following:

- a. Glassier Door Series 1301; Blumcraft of Pittsburgh.
- b. Total Vision Concept (TVC) Entrances; Oldcastle Glass, Rosemont, IL.
- c. Dorma-Glas Entrance Systems; Dorma-Glas, Inc., Upper Marlboro, MD.

2. Sidelight Rails: Exposed metal clad aluminum rails for exposed side light support. Rails shall be fabricated with continuous bosses, or serrated edges, to receive dry gaskets to secure the glass in the rails in lieu of wet glazing materials. Provide end caps to close off channel ends fabricated from stainless steel.

- B. Anchors and Fastenings:

1. Material: Steel.
2. Anchor and Fastener Metal Alloy Types, Designations and Standards: Alloys as recommended by fabricator for the application(s) indicated.

- C. Spacers, Setting Blocks, Gaskets: Permanent, nonmigrating types of material and in hardness recommended by all-glass storefront and entrance manufacturer and complying with the performance requirements.

- D. Slip and Separator Gaskets:

1. Bolted slip-joints: Non-metallic, low friction material bearing temperature and moisture resistances and low abrasion properties as required to suit performance criteria.
2. Non-bolted slip-joints: Non-corrosive, non-toxic impregnated felt, or butyl, tape with a pressure sensitive adhesive on one surface which is formulated for proper adhesion to metals shown; gasket shall bear temperature and moisture resistance properties as required to suit performance criteria; thickness and width as required.

- E. Adhesives and Epoxies: As required for laminating cladding to base components.

## 2.3 HARDWARE

- A. General: Heavy-duty hardware units in sizes, quantities, and types recommended by manufacturer for all-glass entrances indicated. For exposed parts, match cladding metal finish.
- B. Concealed Floor Closers and Pivots: Provide one concealed floor closer and one pivot set per door leaf. Closers and pivots shall comply with BHMA A156.4, Grade 1. Properly detail closers to meet application and installation requirements as indicated. Comply with manufacturers recommendations for size of door closer depending on size and weight of door, stack pressure conditions, and anticipated frequency of use. Provide manufacturers standard cover (dress) plate finished to match cladding. Provide each pivot set with extended spindles.
  - 1. Maximum Opening Force: 5 lbf.
- C. Push-Pull Set: Rockwood RM7230, 1 1/4" diameter, NeoCylinder with GripZone – 16" c.o.
- D. Floor Bumper: Provide one floor bumper per door leaf. Cast half dome design with rubber bumper. Provide manufacturer's standard riser heights as required for carpeted areas in conjunction with the floor bumpers scheduled. One of the following:
  - 1. 3320X; Door Controls International (DCI).
  - 2. FS438; H.B. Ives (IVS).
  - 3. 1212; Triangle Brass Manufacturing Company, Inc. (TBM).
  - 4. 443; Rockwood Manufacturing Company (RM).

## 2.4 FABRICATION

- A. General: Fabricate the all-glass entrances and storefronts to the designs, shapes, and sizes shown using the materials, and components, specified and shown to produce assemblies which meet or exceed the performance requirements. To the greatest extent possible complete fabrication, assembly, finishing, hardware applications and other work before shipment to Project site.
- B. Provide holes and cutouts in glass to receive hardware, fittings, rails, and accessories before tempering glass. Drill, countersink, and chamfer holes using tooling, materials and methods which are selected and applied to prevent spalling of the cut glass surfaces at holes and cutouts. The internal surface of holes and cutouts shall be smooth with minimal roughness from drilling operations. Do not cut, drill, or make other alterations to glass after tempering.
  - 1. Fully temper glass using horizontal (roller-hearth) process and fabricate so, when installed, roll-wave distortion is parallel with bottom edge of door or lite.
  - 2. Heat Soaking: After tempering, expose 100% of all fabricated glass units to Viracon's heat soaking process, which is based on European Union heat soaking standards, to eliminate inclusion related glass breakage.
  - 3. Factory assemble components and factory install hardware to greatest extent possible.
- C. Fabricate all entrances to accommodate the swing direction shown.
- D. Metal components of all-glass entrances and storefronts shall be cut, reinforced, drilled and tapped in strict accordance with the printed door hardware manufacturers templates and

instructions. Provide solid carbon steel hardware reinforcements, securely fastened to doors and frames where door hardware is to be attached.

- E. Joints in Metal Work: All exposed metal work shall be carefully fitted and matched to produce continuity of line and design, with all joints, being accurately fitted for hairline contact and rigidly secured. Where additional rigidity or strength is required to satisfy the performance requirements reinforce entrance components with aluminum or carbon steel shapes, bars, and plates.
- F. Shop Assembly: As far as practicable, all fitting and assembly work shall be done in a fabrication shop.
- G. Exposed Fasteners: Not permitted.

## 2.5 ALUMINUM FINISHES

- A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish Application:
  - 1. Apply anodized coatings to all exposed surfaces of storefront and entrance components.
- C. Appearance of Finished Work: During production, maintain large size color range samples for use in comparing against production material. Variations in appearance of abutting or adjacent pieces are acceptable if they are within the range of approved samples. Noticeable variations in the same piece are not acceptable.
- D. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- E. Color Anodic Finish: AAMA 611, AA-M12C22A32/A34, Class II, 0.010 mm or thicker.
  - 1. Color: Medium bronze

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Coordinate all-glass entrance and storefront work with the work of other Sections and provide items to be placed during the installation of other work at the proper time to avoid delays in the work.
- B. Place such items, including concealed overhead framing, accurately in relation to the final location of all-glass entrance and storefront components.

### 3.2 EXAMINATION

- A. Examine the substrates, adjoining construction, and conditions under which the Work is to be installed. Do not proceed with the Work until unsatisfactory conditions have been corrected.

### 3.3 INSTALLATION

- A. General: Comply with manufacturer's written instructions for protecting, handling, and installing all-glass entrance and storefront systems. Do not install damaged components. Fit frame joints to produce hairline joints free of burrs and distortion. Rigidly secure nonmovement joints.
1. Cut and trim component parts of the all-glass entrance and storefront work during erection only with the approval of the manufacturer or fabricator, and in accordance with his recommendations. Restore finish completely to protect material and remove all evidence of cutting and trimming. Remove and replace members where cutting and trimming has impaired strength or appearance, as directed by Architect.
  2. Set components within the erection tolerances with uniform joints where shown. Place components on aluminum or stainless steel shims and fasten to supporting substrates using bolts and similar fasteners.
  3. Do not erect components which are warped, deformed, bowed, defaced or otherwise damaged as to impair strength. Remove and replace members damaged in the process of erection.
  4. No holes or slots shall be burned, cut into, or field drilled in any building framing member without the written acceptance of the structural engineer.
- B. Entrance Doors and Sidelights: Doors and Sidelights shall be securely anchored in place to a straight, plumb and level condition, without distortion. Adjust doors to operate smoothly, without binding, with hardware functioning properly. Hardware movement, shall be field tested and final adjustment, and lubrication, made for proper operation and performance of doors.
1. Install surface-mounted hardware according to manufacturer's written instructions using concealed fasteners to greatest extent possible.
  2. Set, seal, and grout floor closer cases as required to suit hardware and substrate indicated.
- C. Maintain uniform clearances between adjacent components.
- D. Install silicone glazing sealant to comply with requirements of Division 8 Section "Glazing," unless otherwise indicated.

### 3.4 ERECTION TOLERANCES

- A. The all-glass entrance and storefront systems shall be fabricated and erected to accommodate the dimensional tolerances of the structural frame and surrounding cladding, while providing the following as installed tolerances.
1. Variation from theoretical calculated position as located in plan or elevation in relation to established floors lines, column lines and other fixed elements of the structure, including variations from plumb, level, straight and member size: +/- **1/4 inch** max. in any **20 foot** run, column-to-column bay, or floor-to-floor height.
  2. Alignment: Where surfaces abut in line, limit offset from true alignment to **1/16 inch** . Where surfaces meet at corners, limit offset from true alignment to **1/16 inch**.
  3. Variation from angle, or plumb, shown: +/- **1/8 inch** max. in **10 foot** run or story height, non-cumulative.
  4. Variation from slope, or level, shown: +/- **1/8 inch** max. in any **20 foot** run or column-to-column bay, non-cumulative.

3.5 ANCHORAGE

- A. Anchorage of the all-glass entrance and storefront work to the structure shall be in accordance with the accepted shop drawings.

3.6 WELDING

- A. Weld with electrodes and by methods recommended by manufacturer of material being welded, and in accordance with AWS D1.1 for concealed steel members. Use only methods which will avoid distortion, and discoloration, of exposed faces.

3.7 REMOVAL OF DEBRIS

- A. All debris caused by, or incidental to, the erection of the all-glass entrance and storefront work shall be removed from the site and disposed of legally.

3.8 CLEANING

- A. Clean metal surfaces promptly after installation, exercising care to avoid damage to factory finished exposed surfaces.
- B. Wash glass on both faces not more than 4 days prior to date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended by glass manufacturer. Remove excess glazing and sealant compounds, dirt, and other substances.
- C. Immediately remove any deleterious material from exposed metal surfaces.

3.9 PROTECTION

- A. Institute protective measures required throughout the remainder of the construction period to ensure that all-glass entrance and storefront work will be without damage or deterioration, at time of acceptance.

END OF SECTION 08 41 26  
08450/08-00/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 087000 - DOOR HARDWARE

### PART I - GENERAL

#### 1.01 WORK INCLUDED

- A. The work in this section shall include furnishing of all items of finish hardware as hereinafter specified or obviously necessary to complete the building, except those items that are specifically excluded from this section of the specification.

#### 1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Hollow Metal Doors and Frames
- B. Aluminum Doors and Frames
- C. Wood Doors and Frames

#### 1.03 DESCRIPTION OF WORK

- A. Furnish labor and material to complete hardware work indicated, as specified herein, or as may be required by actual conditions at building.
- B. Include all necessary screws, bolts, expansion shields, other devices, if necessary, as required for proper hardware application. The hardware supplier shall assume all responsibility for correct quantities.
- C. All hardware shall meet the requirements of Federal, State and Local codes having jurisdiction over this project, notwithstanding any real or apparent conflict therewith in these specifications.
- D. Fire-Rated Openings:
  - 1. Provide hardware for fire-rated openings in compliance with A.I.A. (NBFU) Pamphlet No. 80, NFPA Standards NO. 101, UBC 702 (1997) and UL10C. This requirement takes precedence over other requirements for such hardware. Provide only hardware that has been tested and listed by UL for the types and sizes of doors required, and complies with the requirements of the door and door frame labels.
  - 2. Where panic exit devices are required on fire-rated doors, provide supplementary marking on door UL label indicating Fire Door to be equipped with fire exit hardware and provide UL label on exit device indicating "Fire Exit Hardware".
- E. Fasteners:
  - 1. Hardware as furnished shall conform to published templates generally prepared for machine screw installation.
  - 2. Furnish each item complete with all screws required for installation. Typically, all exposed screws installation.
  - 3. Insofar as practical, furnished concealed type fasteners for hardware units which have exposed screws shall be furnished with Phillips flat heads screws, finished to match adjacent hardware.
  - 4. Door closers and exit devices to be installed on wood or composite fire doors shall be attached with closed head through bolts (sex bolts).
- F. Florida Building Code (Latest edition)
  - 1. Provide Miami-Dade Notice of Authorization (NOA) if required by authority having jurisdiction require.
  - 2. Engineering Reports that opening meet requirement for wind load, water infiltration and impact as required in FBC

**1.04 QUALITY ASSURANCE**

- A. The supplier to be a directly franchised distributor of the products to be furnished and have in their employ an AHC (Architectural Hardware Consultant). This person is to be available for consultation to the architect, owner and the general contractor at reasonable times during the course of work.
- B. The finish hardware supplier shall prepare and submit to the architect six (6) copies of a complete schedule identifying each door and each set number, following the numbering system and not creating any separate system himself. He shall submit the schedule for review, make corrections as directed and resubmit the corrected schedule for final approval. Approval of schedule will not relieve Contractor of the responsibility for furnishing all necessary hardware, including the responsibility for furnishing correct quantities.
- C. No manufacturing orders shall be placed until detailed schedule has been submitted to the architect and written approval received.
- D. After hardware schedule has been approved, furnish templates required by manufacturing contractors for making proper provisions in their work for accurate fitting, finishing hardware setting. Furnish templates in ample time to facilitate progress of work.
- E. Hardware supplier shall have an office and warehouse facilities to accommodate the materials used on this project. The supplier must be an authorized distributor of the products specified.
- F. The hardware manufacturers are to supply both a pre-installation class as well as a post-installation walk-thru. This is to insure proper installation and provide for any adjustments or replacements of hardware as required.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Wrap, protect finishing hardware items for shipment. Deliver to manufacturing contractors hardware items required by them for their application; deliver balance of hardware to job; store in designated location. Each item shall be clearly marked with its intended location.

**1.06 WARRANTY**

- A. The material furnished shall be warranted for one year after installation or longer as the individual manufacturer's warranty permits.
- B. Overhead door closers shall be warranted in writing, by the manufacturer, against failure due to defective materials and workmanship for a period of ten (10) years commencing on the Date of Final Completion and Acceptance, and in the event of failure, the manufacture is to promptly repair or replace the defective with no additional cost to the Owner.



## PART II - PRODUCTS

### 2.01 ACCEPTABLE MANUFACTURERS

- A. To the greatest extent possible, obtain each kind of hardware from one manufacturer only.
- B. All numbers and symbols used herein have been taken from the current catalogues of the following manufacturers.

PRODUCT	ACCEPTABLE MANUFACTURER	ACCEPTABLE SUBSTITUTE
1) Hinges	Ives	Hager, Stanley
2) Locks & Latches	Schlage Lock	Falcon Lock
3) Cylinders, Keys, Keying	Schlage Lock	Falcon Lock
4) Exit Devices	Von Duprin	Falcon
5) Door Closers	LCN	Falcon Closers
6) OH Stops/Holders	Glynn Johnson	Rixson
7) Wall Stops/Floor Stops, Flushbolts	Ives	Rockwood, Hager
8) Kick Plates	Ives	Rockwood, Hager
9) Threshold/ Weather-strip	Zero	National Guard, Pemko
10) Silencers	Ives	Rockwood, Hager
11) Key Cabinet	Lund	Key Control

- C. If material manufactured by other than that specified or listed herewith as an equal, is to be bid upon, permission must be requested from the architect seven (7) days prior to bidding. If substitution is allowed, it will be so noted by addendum.

### 2.02 FINISH OF HARDWARE:

- A. Exterior Hinges to be Stainless Steel (32D) and Interior hinges to be Satin Chrome (26D) Door Closers to be Aluminum, Locks to be Satin Chrome (26D). Exit Devices to be Satin Chrome (26D). Overhead Holders to be Satin Chrome (26D), Stainless Steel (32D) and the Thresholds to be Mill Finish Aluminum.

### 2.03 HINGES AND PIVOTS:

- A. Exterior butts shall be Stainless Steel. Butts on all out swinging doors shall be furnished with non-removable pins (NRP).
- B. Interior butts shall be as listed.
- C. Doors 5' or less in height shall have two (2) butts. Furnish one (1) additional butt for each 2'6" in height or fraction thereof. Dutch door shall have two (2) butts per leaf.

### 2.04 KEYING:

- A. Locks and cylinders shall be Schlage Lock Company. All bittings shall be issued by lock manufacturer in order to create a grand master key system.

- B. Locks and cylinders to be construction master keyed in a manner that does not require the cylinders to be removed.
- C. Provide Two (2) each change keys per lock and Six (6) each construction master keys.

**2.05 LOCKSETS:**

- A. Locksets shall be Heavy Duty Mortise type, unless specified otherwise, in "L" series, lever design as manufactured by Schlage Lock.
  - 1. Acceptable substitutions:
    - A. Falcon Lock Company MA series

**2.06 EXIT DEVICES:**

- A. All devices shall be Von Duprin 98 Series in types and functions specified. All devices must be listed under "Panic Hardware" in accident equipment list of Underwriters Laboratories. All labeled doors with "Fire Exit Hardware" must have labels attached and be in strict accordance with Underwriters Laboratories.
- B. All exit devices shall be tested to ANSI/BHMA A156.3 test requirements by a BHMA certified testing laboratory.
- C. All surface strikes shall be roller type and come complete with a plate underneath to prevent movement. And shall be provided with a dead-latching feature to prevent latchbolt tampering.
  - 1. Acceptable Substitutions:
    - A. Falcon 25 Series

**2.07 DOOR CLOSERS:**

- A. All closers shall be LCN 4000 series with slim cover having non-ferrous covers, steel arms separate valves for adjusting backcheck, closing and latching cycles and adjustable spring to provide up to 50% increase in spring power. Closers shall be furnished with parallel arm mounted on all doors opening into corridors or other public spaces and shall be mounted to permit 180 degrees door swing wherever wall conditions permit. Furnish with non-hold open arms unless otherwise indicated.
- B. Door closer cylinders shall be of high strength cast construction to provide low wear operating capabilities of internal parts throughout the life of the installation. All door closers shall be tested to ANSI/BHMA A156.4 test requirements by a BHMA certified testing laboratory.
- C. Door closers shall utilize temperature stable fluid capable of withstanding temperature ranges of 120 degrees Fahrenheit to -30 degrees Fahrenheit, without requiring seasonal adjustment of closer speed to properly close the door. Closers for fire-rated doors shall be provided with temperature stabilizing fluid that complies with the standards UBC 7-2 (1997) and UL 10C.
- D. Door closers shall incorporate tamper resistant non-critical screw valves of V-slot design to reduce possible clogging from particles within the closer. Closers shall have separate and independent screw valve adjustments for latch speed, general speed, and hydraulic backcheck. Backcheck shall be properly located so as to effectively slow the swing of the door at a minimum of 10 degrees in advance of the dead stop location to protect the door frame and hardware from damage. Pressure relief valves (PRV) are not acceptable.

1. Acceptable Substitutions:
  - A. Falcon SC60

2.08 TRIM AND PLATES:

- A. Kick plates, mop plates, and armor plates, shall be .050 gauge with 32D finish. Kick plates to be 10" high, mop plates to be 4" high. All plates shall be two (2) inches less full width of door.
- B. Push plates, pull plates, door pulls, and miscellaneous door trim shall be shown in the hardware schedule.

2.09 DOOR STOPS:

- A. Door stops shall be furnished for all door to prevent damage to doors or hardware from striking adjacent walls or fixtures. Wall bumpers equal to Ives WS407 Series are preferred, but where not practical furnish floor stops equal to Ives FS436 or FS438 series. Where conditions prohibit the use of either wall or floor type stops, furnish surface mounted overhead stops equal to Glynn Johnson, 450 Series.

2.10 THRESHOLDS AND WEATHERSTRIP:

- A. Thresholds and weatherstrip shall be as listed in the hardware schedule.

2.11 DOOR SILENCERS:

- A. Furnish rubber door silencers equal to Ives SR64 for all new interior hollow metal frames, (2) per pair and (3) per single door frame.

PART III - EXECUTION

3.01 INSTALLATION:

- A. All hardware shall be applied and installed in accordance with the Finish Hardware schedule. Care shall be exercised not to mar or damage adjacent work.
- B. Contractor to provide a secure lock-up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items that are not immediately replaceable, so that the completion of the work will not be delayed by hardware losses both before and after installation.
- C. No hardware is to be installed until the hardware manufacturers have provided a pre-installation class. This is to insure proper installation of the specified products.

3.02 ADJUSTING AND CLEANING:

- A. Contractor shall adjust all hardware in strict compliance with manufacturer's instructions. Prior to turning project to owner, contractor shall clean and make any final adjustments to the finish hardware.

3.03 PROTECTION:

- A. Contractor shall protect hardware as it is stored on construction site in a covered and dry place.
- B. Contractor shall protect exposed hardware installed on doors during the construction phase.

3.04 KEY CABINET:

- A. Set up and index one (1) Key Cabinet that allows room for expansion for 150% of the number of keys for the project.

3.05 HARDWARE SCHEDULE:

- A. The following schedule is furnished for whatever assistance it may afford the contractor; do not consider it as entirely inclusive. Should any particular door or item be omitted in any scheduled hardware group, provide door or item with hardware same as required for similar purposes. Quantities listed are for each pair of doors; or for each single door.
- B. This hardware schedule prepared by.

IR – Security Technology  
3451 Technological Ave, Suite 7  
Orlando FL 32817  
Ph: 407-571-2000  
Fax 407-571-2006

END OF SECTION 087000

Hardware Group No. 01

Provide each SGL door(s) with the following:

Quantity	Description	Model Number	Finish	Mfr
4	EA HINGE	3CB1HW 4.5 X 4.5 NRP	630	IVE
1	EA CLASSROOM LOCK	ND70PD RHO	626	SCH
1	EA SURFACE CLOSER	4031	689	LCN
1	EA KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA WALL STOP	WS407CCV	630	IVE
1	SET SEALS	188S	BLK	ZER
1	EA THRESHOLD	64A	AL	ZER

Hardware Group No. 02

Provide each SGL door(s) with the following:

Quantity	Description	Model Number	Finish	Mfr
3	EA HINGE	3CB1HW 4.5 X 4.5 NRP	630	IVE
1	EA STOREROOM LOCK	ND80PD RHO	626	SCH
1	EA SURFACE CLOSER	4031	689	LCN
1	EA KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA WALL STOP	WS407CCV	630	IVE
1	SET SEALS	188S	BLK	ZER
1	EA THRESHOLD	64A	AL	ZER

Hardware Group No. 03

Provide each SGL door(s) with the following:

Quantity	Description	Model Number	Finish	Mfr
3	EA HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA PULL/PUSHBAR	9190-0	630	IVE
1	EA SURFACE CLOSER	4031	689	LCN
1	EA WALL STOP	WS407CCV	630	IVE
1	EA BALANCE	FURNISHED UNDER SECTION 08400		B/O

Hardware Group No. 04

Provide each PR door(s) with the following:

Quantity	Description	Model Number	Finish	Mfr
6	EA HINGE	3CB1 4.5 X 4.5	652	IVE
2	EA FIRE EXIT HARDWARE	9827L-F-LBR 996L	626	VON
2	EA RIM CYLINDER	20-057-ICX	626	SCH
2	EA CORE ONLY	23-030	626	SCH
2	EA SURFACE CLOSER	4031	689	LCN
2	EA KICK PLATE	8400 10" X 1" LDW	630	IVE
2	EA WALL STOP	WS407CCV	630	IVE
1	SET SEALS	188S	BLK	ZER

Hardware Group No. 05

Provide each PR door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
6	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	STOREROOM LOCK	ND80PD RHO	626	SCH
2	EA	SURFACE CLOSER	4031	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW	630	IVE
2	EA	WALL STOP	WS407CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 06

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	FIRE EXIT HARDWARE	98L-F 996L	626	VON
1	EA	RIM CYLINDER	20-057-ICX	626	SCH
1	EA	CORE ONLY	23-030	626	SCH
1	EA	SURFACE CLOSER	4031	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	WALL STOP	WS407CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 07

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	ND80PD RHO	626	SCH
1	EA	SURFACE CLOSER	4031	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	WALL STOP	WS407CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 08

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	DEADBOLT	B660P	626	SCH
1	EA	STOREROOM LOCK	ND80PD RHO	626	SCH
1	EA	SURFACE CLOSER	4031	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	WALL STOP	WS407CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 09

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	ENTRANCE LOCK	ND53PD RHO	626	SCH
1	EA	SURFACE CLOSER	4031	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	WALL STOP	WS407CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 10

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY SET	ND40S RHO	626	SCH
1	EA	SURFACE CLOSER	4031	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	WALL STOP	WS407CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 11

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
1	EA	PASSAGE SET	ND10S RHO	626	SCH
1	EA	SURFACE CLOSER	4031	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW	630	IVE
1	EA	WALL STOP	WS407CCV	630	IVE
1	SET	SEALS	188S	BLK	ZER

Hardware Group No. 12

Provide each PR door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
6	EA	HINGE	3CB1 4.5 X 4.5	652	IVE
2	EA	DOOR PULL	8103-0	630	IVE
2	EA	PUSH PLATE	8200 4" X 16"	630	IVE
2	EA	SURFACE CLOSER	4031	689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW	630	IVE
2	EA	WALL STOP	WS407CCV	630	IVE
2	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 13

Provide each PR door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
6	EA	HINGE	3PB1 4.5 X 4.5	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	ENTRANCE LOCK	ND53PD RHO	626	SCH
2	EA	WALL STOP	WS407CCV	630	IVE
2	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 14

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3PB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	ND80PD RHO	626	SCH
1	EA	WALL STOP	WS407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 15

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3PB1 4.5 X 4.5	652	IVE
1	EA	ENTRANCE LOCK	ND53PD RHO	626	SCH
1	EA	WALL STOP	WS407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 16

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3PB1 4.5 X 4.5	652	IVE
1	EA	DEADBOLT	B660P	626	SCH
1	EA	ENTRANCE LOCK	ND53PD RHO	626	SCH
1	EA	WALL STOP	WS407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 17

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3PB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY SET	ND40S RHO	626	SCH
1	EA	WALL STOP	WS407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 18

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
3	EA	HINGE	3PB1 4.5 X 4.5	652	IVE
1	EA	PASSAGE SET	ND10S RHO	626	SCH



1	EA	WALL STOP	WS407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 19

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
1	EA	RIM CYLINDER	20-057-ICX	626	SCH
1	EA	CORE ONLY	23-030	626	SCH
1	EA	BALANCE	EXISTING TO REMAIN		B/O

VERIFY EXISTING HARDWARE

Hardware Group No. 20

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
1	EA	STOREROOM LOCK	ND80PD RHO	626	SCH
1	EA	BALANCE	EXISTING TO REMAIN		B/O

Hardware Group No. 21

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
1	EA	ENTRANCE LOCK	ND53PD RHO	626	SCH
1	EA	BALANCE	EXISTING TO REMAIN		B/O

Hardware Group No. 22

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
1	EA	PRIVACY SET	ND40S RHO	626	SCH
1	EA	BALANCE	EXISTING TO REMAIN		B/O

Hardware Group No. 23

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
1	EA	PASSAGE SET	ND10S RHO	626	SCH
1	EA	BALANCE	EXISTING TO REMAIN		B/O

Hardware Group No. 24

Provide each SGL door(s) with the following:

Quantity		Description	Model Number	Finish	Mfr
1	EA	BALANCE	EXISTING TO REMAIN		B/O

**Gensler**  
**13.7042.430**

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa- Class V Org

## SECTION 08 80 00 - GLAZING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes glazing for the following products and applications, including those specified in other Sections where glazing requirements are specified by reference to this Section:
  - 1. Windows.
  - 2. Doors.
  - 3. Aluminum Entrance Doors.
  - 4. Aluminum Framing.
  - 5. All-Glass Entrance and Storefront.
- B. Related Sections:
  - 1. Section 08 12 16 "Aluminum Frames".
  - 2. Section 08 46 13 "Aluminum Entrance and Storefronts".
  - 3. Section 08 41 26 "All-Glass Entrances and Storefronts."
  - 4. Section 08 81 13 "Decorative Glass Glazing."

#### 1.3 DEFINITIONS

- A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.
- B. Glass Thicknesses: Indicated by thickness designations in millimeters according to ASTM C 1036.

#### 1.4 PERFORMANCE REQUIREMENTS

- A. General: Provide and install glazing systems capable of withstanding impact loads without failure of any kind, including loss or breakage of glass, failure of seal or gaskets, exudation of glazing sealants, and excessive deterioration of glazing materials.
- B. Glass Design: Glass thicknesses and heat treatments indicated are minimum requirements. Glazing details shown are for convenience of detailing only and are to be confirmed by the Contractor relative to cited standards and final framing details. Confirm glass thicknesses and heat treatments, as required to meet the performance and testing requirements specified in

Division 8 Section, "Aluminum Entrances and Storefronts", "All-Glass Entrances and Storefronts" and "Aluminum Framing".

#### 1.5 SUBMITTALS

- A. Product Data: For each glass product and glazing material indicated.
- B. Glass Samples: For each type of glass product other than clear monolithic vision glass; 12 inches square.
  - 1. Wired glass.
  - 2. Fire-resistive glazing products.
- C. Glazing Accessory Samples: For gaskets and sealants in 12-inch lengths.
- D. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.
- E. Delegated-Design Submittal: For glass indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For installers, glass testing agency and sealant testing agency.
- B. Product Certificates: For glass and glazing products, from manufacturer.
- C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for wired glass and Fire-resistive glazing products.
  - 1. For glazing sealants, provide test reports based on testing current sealant formulations within previous 36-month period.
- D. Preconstruction adhesion and compatibility test report.
- E. Warranties: Sample of special warranties.

#### 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs glass installers for this Project who are certified under the National Glass Association's Certified Glass Installer Program.
- B. Glass Testing Agency Qualifications: A qualified independent testing agency accredited according to the NFRC CAP 1 Certification Agency Program.
- C. Sealant Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

- D. Source Limitations for Glass: Obtain glass from single source from single manufacturer for each glass type.
- E. Source Limitations for Glazing Accessories: Obtain from single source from single manufacturer for each product and installation method.
- F. Glazing Publications: Comply with published recommendations of glass product manufacturers unless more stringent requirements are indicated.
- G. Safety Glazing Labeling: Where safety glazing labeling is indicated, permanently mark glazing with certification label of or another certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.
- H. Fire-Protection-Rated Glazing Labeling: Permanently mark fire-protection-rated glazing with certification label of a testing agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, test standard, whether glazing is for use in fire doors or other openings, whether or not glazing passes hose-stream test, whether or not glazing has a temperature rise rating of 450 deg F, and the fire-resistance rating in minutes.
- I. Pre-installation Conference: Conduct conference at Project site.
  - 1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 2. Review temporary protection requirements for glazing during and after installation.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.
- B. Comply with insulating-glass manufacturer's written recommendations for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

#### 1.9 PROJECT CONDITIONS

- A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.
  - 1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or below 40 deg F.

## PART 2 - PRODUCTS

### 2.1 GLASS PRODUCTS, GENERAL

- A. Refer to the finish schedules on the drawings for the extent of glass types and locations. The Contractor shall confirm the levels of heat treatment required for each glass type scheduled as contained in Articles Performance Requirements, Submittals and Quality Assurance.
- B. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass lites in thicknesses as needed to comply with requirements indicated.
  - 1. Minimum Glass Thickness for Exterior Lites: Not less than 3/8"
- C. Strength: Where float glass is indicated, provide annealed float glass, Kind HS heat-treated float glass, or Kind FT heat-treated float glass as needed to comply with "Performance Requirements" Article. Where heat-strengthened glass is indicated, provide Kind HS heat-treated float glass or Kind FT heat-treated float glass as needed to comply with "Performance Requirements" Article. Where fully tempered glass is indicated, provide Kind FT heat-treated float glass.
- D. Windborne-Debris-Impact Resistance: Provide exterior glazing that passes established specific wind-speed/ wind borne debris established by the local authority having jurisdiction when tested according to ASTM E 1886. Test specimens shall be no smaller in width and length than glazing indicated for use on the Project and shall be installed in same manner as glazing indicated for use on the Project.
  - 1. Large-Missile Test: For glazing located within 30 feet of grade.

### 2.2 GLASS PRODUCTS

- A. Float Glass: ASTM C 1036, Type I, Quality-Q3, Class I (clear) unless otherwise indicated.
- B Heat-Treated Float Glass General: Heat treat glass where required to meet safety glazing requirements.
  - 1. Sizes and Cutting: Prior to heat treatment, cut glass to required sizes as determined by accurate measurement of openings to be glazed, making allowance for required edge clearances. Cut and process edges in accordance with glass manufacturer's recommendations. Do not cut or treat edges in the field.
  - 2. Fully Tempered Glass: Provide glass complying with ASTM C1048 Kind FT and meeting the requirements of ANSI Z97.1. Surface compression shall be equal to or greater than 10,000 psi (69 MPa).

## 2.3 FIRE-PROTECTION-RATED GLAZING

- A. Fire-Protection-Rated Glazing, General: Listed and labeled by a testing agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 257 for window assemblies.
- B. Monolithic Ceramic Glazing: Clear, ceramic flat glass; 3/16-inch nominal thickness.
  - 1. Products: Subject to compliance with requirements, provide one of the following available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Nippon Electric Glass Co., Ltd. (distributed by Technical Glass Products); Obscure FireLite, Premium FireLite, Standard FireLite.
    - b. Safty First; SuperLite C/P.
    - c. Schott North America, Inc.; Pyran Star, Pyran Crystal].

## 2.4 GLAZING GASKETS

- A. Dense Compression Gaskets: Molded or extruded gaskets of profile and hardness required to maintain watertight seal, made from[ one of] the following:
  - 1. Neoprene complying with ASTM C 864.
  - 2. EPDM complying with ASTM C 864.
  - 3. Silicone complying with ASTM C 1115.
  - 4. Thermoplastic polyolefin rubber complying with ASTM C 1115.
- B. Soft Compression Gaskets: Extruded or molded, closed-cell, integral-skinned neoprene, EPDM, silicone or thermoplastic polyolefin rubber gaskets complying with ASTM C 509, Type II, black; of profile and hardness required to maintain watertight seal.
  - 1. Application: Use where soft compression gaskets will be compressed by inserting dense compression gaskets on opposite side of glazing or pressure applied by means of pressure-glazing stops on opposite side of glazing.
- C. Lock-Strip Gaskets: Neoprene extrusions in size and shape indicated, fabricated into frames with molded corner units and zipper lock-strips, complying with ASTM C 542, black.

## 2.5 GLAZING SEALANTS

- A. General:
  - 1. Compatibility: Provide glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
  - 2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.

3. Sealants used inside the weatherproofing system, shall have a VOC content of not more than 250 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
  4. Sealants used inside the weatherproofing system shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- B. Glazing Sealant: Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 100/50, Use NT.
1. Products: Subject to compliance with requirements, provide one of the following available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Dow Corning Corporation; 790.
    - b. Pecora Corporation; 890.
    - c. Sika Corporation, Construction Products Division; SikaSil-C990.
    - d. Tremco Incorporated; Spectrem 1.
- C. Glazing Sealants for Fire-Rated Glazing Products: Products that are approved by testing agencies that listed and labeled fire-resistant glazing products with which they are used for applications and fire-protection ratings indicated.

## 2.6 GLAZING TAPES

- A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; and complying with ASTM C 1281 and AAMA 800 for products indicated below:
1. AAMA 804.3 tape, where indicated.
  2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
  3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

## 2.7 MISCELLANEOUS GLAZING MATERIALS

- A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
- B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
- C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.
- D. Spacers: Elastomeric blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.



- E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).
- F. Cylindrical Glazing Sealant Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.
- G. Perimeter Insulation for Fire-Resistive Glazing: Product that is approved by testing agency that listed and labeled fire-resistant glazing product with which it is used for application and fire-protection rating indicated.

## 2.8 FABRICATION OF GLAZING UNITS

- A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.
- B. Clean-cut or flat-grind vertical edges of butt-glazed monolithic lites to produce square edges with slight chamfers at junctions of edges and faces.
- C. Grind smooth and polish exposed glass edges and corners.
  - 1. Provide safety glazing labeling.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
  - 1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
  - 2. Presence and functioning of weep systems.
  - 3. Minimum required face and edge clearances.
  - 4. Effective sealing between joints of glass-framing members.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.
- B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that will leave visible marks in the completed work.

3.3 GLAZING, GENERAL

- A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.
- B. Adjust glazing channel dimensions as required by Project conditions during installation to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.
- C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.
- D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.
- E. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.
- F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.
- G. Provide spacers for glass lites where length plus width is larger than 50 inches.
  - 1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
  - 2. Provide 1/8-inch minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.
- H. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.
- I. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.
- J. Set glass lites with proper orientation so that coatings face exterior or interior as specified.
- K. Where wedge-shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage so gasket cannot walk out when installation is subjected to movement.
- L. Square cut wedge-shaped gaskets at corners and install gaskets in a manner recommended by gasket manufacturer to prevent corners from pulling away; seal corner joints and butt joints with sealant recommended by gasket manufacturer.

### 3.4 TAPE GLAZING

- A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.
- B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.
- C. Cover vertical framing joints by applying tapes to heads and sills first and then to jambs. Cover horizontal framing joints by applying tapes to jambs and then to heads and sills.
- D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.
- E. Do not remove release paper from tape until right before each glazing unit is installed.
- F. Apply heel bead of elastomeric sealant.
- G. Center glass lites in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.
- H. Apply cap bead of elastomeric sealant over exposed edge of tape.

### 3.5 GASKET GLAZING (DRY)

- A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.
- B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.
- C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
- D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocks and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended by gasket manufacturer.
- E. Install gaskets so they protrude past face of glazing stops.

3.6 SEALANT GLAZING (WET)

- A. Install continuous spacers, or spacers combined with cylindrical sealant backing, between glass lites and glazing stops to maintain glass face clearances and to prevent sealant from extruding into glass channel and blocking weep systems until sealants cure. Secure spacers or spacers and backings in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.
- B. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.
- C. Tool exposed surfaces of sealants to provide a substantial wash away from glass.

3.7 LOCK-STRIP GASKET GLAZING

- A. Comply with ASTM C 716 and gasket manufacturer's written instructions. Provide supplementary wet seal and weep system unless otherwise indicated.

3.8 CLEANING AND PROTECTION

- A. Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer.
- C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains; remove as recommended in writing by glass manufacturer.
- D. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.
- E. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

END OF SECTION 08 80 00

## SECTION 08 81 13 - DECORATIVE GLASS GLAZING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes back-painted glass, and sandblasted glass for interior locations.
- B. Related Sections:
  - 1. See Division 08 Section "Glazing" for monolithic and insulating-glass products and glazing requirements.
  - 2. See Division 08 Section "Mirrors" for mirrored glass and glazing requirements.
  - 3. See Division 08 Section "Plastic Glazing" for acrylic and polycarbonate sheet products and their glazing requirements.

#### 1.2 DEFINITIONS

- A. Manufacturer is used in this Section to refer to a firm that produces primary glass or fabricated glass as defined in the referenced glazing standard.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each product specified.
- B. Shop Drawings: Include plans, elevations, sections, details details of installation. Include size and location of penetrations and glazing method.
- C. Samples: For each type of decorative glass and in each color and texture required.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Product certificates signed by manufacturers of decorative glass certifying that their products comply with specified requirements.
  - 1. Separate certifications are not required for glazing materials bearing manufacturer's permanent labels designating type and thickness of glass, provided labels represent a quality-control program of a recognized certification agency or an independent testing agency acceptable to authorities having jurisdiction.
- B. Product test reports for each type of glazing sealant indicated, evidencing compliance with requirements specified.
- C. Warranty: Special warranty specified in this Section.

1.5 QUALITY ASSURANCE

- A. Glazing Publications: Comply with published recommendations of product manufacturers and organizations below, except where more stringent requirements are indicated.
  - 1. FGMA Publication: "FGMA Glazing Manual."
  - 2. FGMA Publication: "FGMA Sealant Manual."
- B. Safety Glass: Products complying with testing requirements of CPSC 16 CFR, Part 1201 for Category I and II materials.

1.6 WARRANTY

- A. Special Warranty: Written warranty, executed by manufacturer agreeing to repair or replace decorative glass units that fail in materials and workmanship or deteriorate within five years from date of Substantial Completion. Warranty covers only deterioration due to normal conditions of use and not to handling, installing, and cleaning practices contrary to decorative glass manufacturer's published instructions.
- B. Back-Painted Glass Warranty: Provide a minimum 10 year manufacturer's limited warranty to cover color-coating against peeling, cracking, delamination or discoloration.

1.7 EXTRA MATERIALS

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Provide decorative glass subject to compliance with the design and performance requirements of this specification. Manufacturers may include but are not limited to one of the following below:
  - 1. Sandblasted Glass: Basis of design Benheim, GEN-257
    - a. Architectural Glass Art Inc.
    - b. Beveled Glass Designs.
    - c. Circle Redmont Corp.
    - d. Creative Central.
    - e. Dlubak Studios.
    - f. Milguard Tempering Ind.
    - g. Tempglass Group Inc.
    - h. Virginia Glass Products Corp.
  - 2. Back-Painted Glass: Basis of design, Benheim, GEN-387
    - a. Manufacturer of Color Coating: GlassKote USA, LLC.
    - b. Applicator of Glass Color Coating: Manhattan Shade & Glass Co., Inc.

## 2.2 SYSTEM PERFORMANCE REQUIREMENTS

- A. General: Provide glazing systems that are produced, fabricated, and installed to withstand normal thermal movement and impact loading (where applicable), without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, and installation; deterioration of glazing materials; or other defects in construction.
- B. Glass Design: Glass thicknesses indicated on Drawings are for detailing only. Confirm glass thicknesses by analyzing in-service conditions.
- C. Back-Painted Glass:
  - 1. Chemical Makeup: Color coating must be free of chemical isocyanates (e.g., traditional isocyanate based two-part urethanes are prohibited).
  - 2. Chemical Resistance: Coating must be tested using ASTM D 1308 to withstand 24-hour contact testing with the following chemicals: ethyl alcohol, mineral spirits, 5 percent sodium hydroxide solution, 5 percent hydrochloric acid solution, household glass cleaner (e.g., Windex), household surface cleaner (e.g., Fantastic), cold water immersion. Coating must show no visible degradation when viewed through the glass including blistering, cracking, peeling, or discoloration after such tests.
  - 3. Coating Adhesion: Coating must be tested for adhesion using ASTM D 3359 Method A and B and show a 4A/4B rating or better. In addition, coating must be tested to show pull-off adhesion strength (ASTM D 4541) of at least 2,000 psi.
  - 4. Coating Hardness: Coating must be tested using ASTM D 3363 and yield a pencil hardness result of at least 2H.

## 2.3 PRIMARY FLOAT-GLASS PRODUCTS

- A. Float Glass: ASTM C 1036, Type I (transparent glass, flat), Class 1 (clear), unless otherwise indicated, and Quality q3 (glazing select).

## 2.4 HEAT-TREATED FLOAT GLASS

- A. Uncoated, Clear, Heat-Treated Float Glass: ASTM C 1048, Condition A (uncoated surfaces), Type I (transparent glass, flat), Class 1 (clear), unless otherwise indicated, Quality q3 (glazing select), Kind FT (fully tempered) where indicated.

## 2.5 SANDBLASTED GLASS

- A. Refer to primary and heat-treated glass requirements relating to properties of glass comprising sandblasted-glass products.
- B. Textures and Patterns: As indicated.
- C. Textures and Patterns: Where manufacturer's standard products are indicated, provide sandblasted glass to match textures and patterns indicated by reference to manufacturer's standard designations.

- D. Finish: Acid etch glass with hydrofluoric and hydrochloric acid, maintaining detail of sandblasted pattern.

## 2.6 BACK-PAINTED GLASS

- A. Monolithic wall cladding glass shall be 1/4 inch thick, low-iron float glass with the color coating on the number two (inboard) surface. Glass shall be annealed with vinyl safety backing and be of the sizes shown in the project drawings including holes, cutouts and edge treatment as specified.
- B. Refer to primary and heat-treated glass requirements relating to properties of glass comprising back-painted glass products.
- C. Glass: Low-iron as specified in Division 08 Section "Glazing."
- D. Coating: Isocyanate-free two-part urethane specifically recommended and warranted for glass application, and meeting all performance requirements specified in "Performance Requirements" Article The coating shall have a minimum dry-film thickness of 1.5 mils.

## 2.7 GLAZING SEALANTS

- A. General: Provide manufacturer's standard sealant of formulation indicated that is recommended for exposed interior applications, complying with the following requirements:
  - 1. Compatibility: Select glazing sealants of proven compatibility with other materials they will contact, including glass products and glazing channel substrates, under conditions of installation and service, as demonstrated by testing and field experience.
  - 2. Suitability: Comply with sealant and glass manufacturer's recommendations for selecting glazing sealants that are suitable for applications indicated and conditions existing at time of installation.
  - 3. Colors: Provide color of exposed joint sealants as selected by Architect from manufacturer's full range of standard colors.
- B. Silicone Sealant: One-Part, Medium Modulus, Neutral-Curing Silicone: ASTM C 920; Type S; Grade NS; Class 25, Use NT, translucent color. Provide one of the following:
  - 1. 756 H.P.; Dow Corning.
  - 2. Silglaze II; GE Silicones.
  - 3. 898; Pecora Corporation.
- C. Silicone Adhesive for Back-Painted Glass: Decorative color-coated glass may be mounted using an alxocy neutral cure silicone adhesive. Acetoxy cure silicones must not be utilized. Approved products are:
  - 1. Dow Corning 995.
  - 2. Dow Corning 795.
  - 3. GE Siliglaze II.
  - 4. GE Silpruf.



- D. Silicone Seam Sealant for Back-Painted Glass: Decorative color-coated glass may be mounted using an alcoxy neutral cure silicone adhesive. Acetoxycure silicones must not be utilized. Approved products are:

1. CRL 408RTV (Neutral Cure Silicone).
2. Somaca 55NC.
3. Boss 399.

## 2.8 MISCELLANEOUS GLAZING MATERIALS

- A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials involved for glazing application indicated, and with a proven record of compatibility with surfaces contacted in installation.
- B. Cleaners, Primers, and Sealers: Type recommended by sealant or gasket manufacturer.
- C. Setting Blocks: Elastomeric material complying with ASTM C 864 with a Shore A durometer hardness of 85 plus or minus 5.
- D. Spacers: Elastomeric blocks or continuous extrusions complying with ASTM C 864 with a Shore A durometer hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
- E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement.
- F. Plastic-Foam Joint Fillers: Preformed, compressible, resilient, nonstaining, nonextruding, nonoutgassing strips of closed-cell plastic foam of density, size, and shape to control sealant depth and otherwise contribute to produce optimum sealant performance.

## 2.9 FABRICATION OF GLASS AND OTHER GLAZING PRODUCTS

- A. Fabricate decorative glass and other glazing products in sizes required to glaze openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with recommendations of product manufacturer and referenced glazing standard.
- B. Clean cut or flat grind vertical edges of butt-glazed lites in a manner that produces square edges with slight kerfs.

## PART 3 - EXECUTION

### 3.1 GLAZING, GENERAL

- A. Examine glass framing, with glazier present, for compliance with the following:
1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
  2. Minimum required face or edge clearances.

- B. Do not proceed with glazing until unsatisfactory conditions have been corrected.
- C. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings that are not firmly bonded to substrates.
- D. Comply with combined recommendations of manufacturers of glass, sealants, and other glazing materials, except where more stringent requirements are indicated, including those in referenced glazing publications.
- E. Glazing channel dimensions as indicated on Drawings provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances. Adjust as required by Project conditions during installation.
- F. Protect glass from edge damage during handling and installation as follows:
  - 1. Use a rolling block in rotating glass units to prevent damage to glass corners. Do not impact glass with metal framing. Use suction cups to shift glass units within openings; do not raise or drift glass with a pry bar.
  - 2. Remove damaged glass from Project site and legally dispose of off-site. Damaged glass is glass with edge damage or other imperfections that, when installed, weaken glass and impair performance and appearance.
- G. Provide spacers as follows:
  - 1. Locate spacers inside, outside, and directly opposite each other. Install correct size and spacing to preserve required face clearances.
  - 2. Provide not less than **1/8 inch** bite of spacers on glass and use thickness equal to sealant width.
- H. Set decorative glass lites in each series with uniform pattern, draw, bow, and similar characteristics.
- I. Refer to Division 08 Section "Mirrors" for installation of back-painted glass.

### 3.2 SEALANT GLAZING

- A. Install continuous spacers between glass lites and glazing stops to maintain glass-face clearance. Secure spacers in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.
- B. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.
- C. Tool exposed surfaces smooth.

### 3.3 CLEANING AND PROTECTION

- A. Protect glass from breakage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels, and clean surfaces.

- B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove them immediately as recommended by glass manufacturer.
- C. Remove and replace glass that is broken, chipped, cracked, abraded, or damaged in any way, including by natural causes, accidents, and vandalism, during construction period.
- D. Wash glass as recommended by glass manufacturer in each area of Project not more than 4 days prior to date scheduled for inspections that establish date of Substantial Completion.

END OF SECTION 08 81 13  
08825/2-95/DuB

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 088700 – DECORATIVE GLAZING SURFACE FILM

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes decorative window films designed to be applied to interior window surfaces.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product, provide system description including performance requirements, and film attributes.
- B. Samples: For each exposed product and for each color and texture specified.

#### 1.3 QUALITY ASSURANCE

- A. Qualifications: Dealer and Applicator Qualifications: Provide documentation that dealer and applicator are authorized by manufacturer of window film to install window films.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide one of the following:
  - 1. 3M Building & Commercial Services Division (B&CSD).
  - 2. Or equal.

#### 2.2 MATERIALS

- A. Film Material: Film material consists of micro-layered, polyester film laminated to different clear multi-layered polyester film containing at least 220 layers with an acrylic pressure sensitive adhesive on 1 side and durable acrylic abrasion resistant coating on the other side.
  - 1. Film Color: See drawings.
  - 2. Provide uniform film, without noticeable pin holes, streaks, thin spots, scratches, banding, or other optical defects. Variation in total transmission across width, at any portion along length, shall not exceed 2 percent over average. Provide film with no evidence of coating voids.
  - 3. Film thickness: Nominal thickness of 6.0 mils (0.006 inches).
- B. Acceptable Products: Scotchcal Window Film.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine glass surfaces to receive film and verify that they are free from defects and imperfections, which will affect final appearance. Correct and note such deficiencies to Architect prior to commencing film application.

### 3.2 PREPARATION

- A. Use protective tarps and drop cloths to cover interior finishes near window.
- B. Clean window and window framing thoroughly with neutral cleaning solution. Blade inside surface of window glass with industrial razors to insure removal of foreign contaminants.
- C. Place towel or other absorbent material on window sill or sash to absorb moisture accumulation generated by film application.

### 3.3 INSTALLATION

- A. Install window films per manufacturer's written instructions.
  - 1. Cut film edges neatly and square at a uniform distance of 1/8 inch (3mm) to 1/16 inch (1.5 mm) of window sealant.
  - 2. Edge Seal (to protect from edge corrosion) - None required. 3M Ultra Prestige Window Films do not contain metals.
  - 3. Use water and film slip solution on window glass and adhesive to facilitate proper positioning of film.
  - 4. Use polyplastic bladed squeegees to insure efficient removal of excess water from underside of film and to maximize bonding of pressure sensitive adhesive.
  - 5. Upon completion of film application, allow 30 days for moisture from film installation to dry thoroughly, and to allow film to dry flat with no moisture dimples when viewed under normal viewing conditions.

### 3.4 CLEANING

- A. After application of film, wash film using common window cleaning solutions, including ammonia solutions, 30 days after application. Do not use abrasive type cleaning agents and bristle brushes to avoid scratching film. Use synthetic sponges or soft cloths.
- B. After installation, remove leftover material and debris from Work area. Use necessary means to protect film before, during, and after installation.

END OF SECTION 088700

## PART 1 - SECTION 09 22 16 – NON-STRUCTURAL METAL FRAMING

### PART 2 - GENERAL

#### 2.1 SUMMARY

- A. Section includes non-load-bearing steel framing members for the following applications:
  - 1. Interior framing systems (e.g., supports for partition walls, framed soffits, furring, etc.).
  - 2. Interior suspension systems (e.g., supports for ceilings, suspended soffits, etc.).

#### 2.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

#### 2.3 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: Provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by a testing and inspection agency.
- B. Sound Transmission Characteristics: Provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by a testing and inspection agency.

### PART 3 - PRODUCTS

#### 3.1 NON-LOAD-BEARING STEEL FRAMING, GENERAL

- A. Framing Members, General: Comply with ASTM C 754 for conditions indicated.
  - 1. Steel Sheet Components: Comply with ASTM C 645 requirements for metal, unless otherwise indicated.
  - 2. Protective Coating: ASTM A 653/A 653M, G40 (Z120) or ASTM A 653/A 653M, G60 (Z180), hot-dip galvanized, as indicated in drawings.

#### 3.2 SUSPENSION SYSTEM COMPONENTS

- A. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.0625 inch diameter wire, or double strand of 0.0475 inch diameter wire.
- B. Wire Hangers: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.162 inch (4.12 mm) diameter.

- C. Carrying Channels: Cold-rolled, commercial-steel sheet with a base-metal thickness of **0.0538 inch** and minimum **1/2 inch** wide flanges.
  - 1. Depth: As indicated on Drawings.
- D. Furring Channels (Furring Members):
  - 1. Cold-Rolled Channels: **0.0538 inch** bare-steel thickness, with minimum **1/2 inch** wide flanges, **3/4 inch** deep.
  - 2. Steel Studs: ASTM C 645.
    - a. Minimum Base-Metal Thickness: As indicated on Drawings.
    - b. Depth: As indicated on Drawings.
  - 3. Hat-Shaped, Rigid Furring Channels: ASTM C 645, **7/8 inch** deep.
    - a. Minimum Base Metal Thickness: As indicated on Drawings.
  - 4. Resilient Furring Channels: **1/2 inch (12.7 mm)** deep members designed to reduce sound transmission.
    - a. Configuration: Hat shaped.

### 3.3 STEEL FRAMING FOR FRAMED ASSEMBLIES

- A. Steel Studs and Runners: ASTM C 645.
  - 1. Minimum Base-Metal Thickness: As indicated on Drawings.
  - 2. Depth: As indicated on Drawings.
- B. Slip-Type Head Joints: Where indicated, provide[ **one of**] the following:
  - 1. Single Long-Leg Runner System: ASTM C 645 top runner with **2 inch** deep flanges in thickness not less than indicated for studs, installed with studs friction fit into top runner and with continuous bridging located within **12 inches** of the top of studs to provide lateral bracing.
  - 2. Double-Runner System: ASTM C 645 top runners, inside runner with **2 inch** deep flanges in thickness not less than indicated for studs and fastened to studs, and outer runner sized to friction fit inside runner.
  - 3. Deflection Track: Steel sheet top runner manufactured to prevent cracking of finishes applied to interior partition framing resulting from deflection of structure above; in thickness not less than indicated for studs and in width to accommodate depth of studs.
    - a. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
    - b. Products: Subject to compliance with requirements, provide one of the following:
      - 1) Steel Network Inc. (The); [**VertiClip SLD**] [**VertiTrack VTD**] Series.
      - 2) Superior Metal Trim; Superior Flex Track System (SFT).
- C. Firestop Tracks: Top runner manufactured to allow partition heads to expand and contract with movement of the structure while maintaining continuity of fire-resistance-rated assembly



indicated; in thickness not less than indicated for studs and in width to accommodate depth of studs.

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Fire Trak Corp.; Fire Trak attached to studs with Fire Trak Slip Clip.
  - b. Metal-Lite, Inc.; The System.
- D. Flat Strap and Backing Plate: Steel sheet for blocking and bracing in length and width indicated.
  1. Minimum Base-Metal Thickness: As indicated on Drawings.
- E. Cold-Rolled Channel Bridging: **0.0538 inch** bare-steel thickness, with minimum **1/2 inch** wide flanges.
  1. Depth: As indicated on Drawings.
  2. Clip Angle: Not less than **1-1/2 by 1-1/2 inches**, **0.068 inch** thick, galvanized steel.
- F. Hat-Shaped, Rigid Furring Channels: ASTM C 645.
  1. Minimum Base Metal Thickness: As indicated on Drawings.
  2. Depth: As indicated on Drawings.
- G. Resilient Furring Channels: **1/2 inch** deep, steel sheet members designed to reduce sound transmission.
  1. Configuration: Hat shaped.
- H. Cold-Rolled Furring Channels: **0.0538 inch** bare-steel thickness, with minimum **1/2 inch** wide flanges.
  1. Depth: As indicated on Drawings.
  2. Furring Brackets: Adjustable, corrugated-edge type of steel sheet with minimum bare-steel thickness of **0.0312 inch**.
  3. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, **0.0625 inch** diameter wire, or double strand of **0.0475 inch** diameter wire.
- I. Z-Shaped Furring: With slotted or non-slotted web, face flange of **1-1/4 inches**, wall attachment flange of **7/8 inch**, minimum bare-metal thickness of **0.0179 inch**, and depth required to fit insulation thickness indicated.

### 3.4 AUXILIARY MATERIALS

- A. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

## PART 4 - EXECUTION

### 4.1 INSTALLATION, GENERAL

- A. Installation Standard: ASTM C 754, except comply with framing sizes and spacing indicated.
  - 1. Gypsum Board Assemblies: Also comply with requirements in ASTM C 840 that apply to framing installation.

### 4.2 INSTALLING SUSPENSION SYSTEMS

- A. Isolate suspension systems from building structure where they abut or are penetrated by building structure to prevent transfer of loading imposed by structural movement.
- B. Suspend hangers from building structure as follows:
  - 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or suspension system.
    - a. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
  - 2. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with locations of hangers required to support standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices.
    - a. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced installation standards.
  - 3. Do not connect or suspend steel framing from ducts, pipes, or conduit.
- C. Fire-Resistance-Rated Assemblies: Wire tie furring channels to supports.

### 4.3 INSTALLING FRAMED ASSEMBLIES

- A. Where studs are installed directly against exterior masonry walls or exterior walls, install isolation strip between studs and exterior wall.
- B. Install studs so flanges within framing system point in same direction.
  - 1. Space studs as follows:
    - a. Single-Layer Application: 16 inches o.c., unless otherwise indicated.
    - b. Multilayer Application: 16 inches o.c., unless otherwise indicated.
    - c. Tile backing panels: 16 inches o.c., unless otherwise indicated.
- C. Install tracks (runners) at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings, except where partitions are indicated to

terminate at suspended ceilings. Continue framing around ducts penetrating partitions above ceiling.

1. Slip-Type Head Joints: Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.
2. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install runner track section (for cripple studs) at head and secure to jamb studs.
  - a. Install two studs at each jamb, unless otherwise indicated.
3. Other Framed Openings: Frame openings other than door openings the same as required for door openings, unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
4. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.
  - a. Firestop Track: Where indicated, install to maintain continuity of fire-resistance-rated assembly indicated.
5. Sound-Rated Partitions: Install framing to comply with sound-rated assembly indicated.

D. Direct Furring:

1. Screw to wood framing.
2. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced **24 inches** o.c.

E. Z-Furring Members:

1. Erect insulation (specified in Division 07 Section "Thermal Insulation") vertically and hold in place with Z-furring members spaced [**24 inches (610 mm)**] [**600 mm**] o.c.
2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced **24 inches** o.c.
3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw-attach short flange of furring channel to web of attached channel. At interior corners, space second member no more than **12 inches** from corner and cut insulation to fit.

- F. Installation Tolerance: Install each framing member so fastening surfaces vary not more than **1/8 inch** from the plane formed by faces of adjacent framing.

END OF SECTION 09 22 16  
09111/11/04/dub

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 092900 - GYPSUM BOARD

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes gypsum board assemblies.

#### 1.2 ASSEMBLY PERFORMANCE REQUIREMENTS

- A. Gypsum Board Assembly Deflections:

1. Typical Walls: Wall assemblies shall be constructed for deflection not to exceed 1/240 of the wall height when subjected to a positive and negative pressure of 5 psf.
2. Walls with Tile Finish: Wall assemblies to receive tile finishes shall be constructed for deflection not to exceed 1/360 of the wall height when subjected to a positive and negative pressure of 5 psf.
3. Ceilings, bulkheads, soffits, ceiling transitions, ledges, and coves shall be constructed for a deflection not to exceed 1/360 of the distance between supports.

#### 1.3 SUBMITTALS

- A. Product Data: Submit product data for each product indicated.
- B. Samples: Submit full size samples in 12-inch- (300-mm-) long lengths for each exposed trim accessory indicated.

#### 1.4 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: For gypsum board assemblies with fire-resistance ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
  1. Fire-Resistance-Rated Assemblies: Indicated by design designations from UL's "Fire Resistance Directory", and from the Gypsum Association "Fire Resistance Design Manual."
- B. Sound Transmission Characteristics: For gypsum board assemblies with STC ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by a qualified independent testing agency.
- C. STC-Rated Assemblies: Indicated by design designations from GA-600, "Fire Resistance Design Manual."
- D. Single-Source Responsibility for Panel Products: Obtain each type of gypsum board and other panel products from a single manufacturer.

- E. Single-Source Responsibility for Finishing Materials: Obtain finishing materials from either the same manufacturer that supplies gypsum board and other panel products or from a manufacturer acceptable to gypsum board manufacturer.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.
- B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Stack gypsum panels flat to prevent sagging.
- C. Handle gypsum board to prevent damage to edges, ends, and surfaces. Do not bend or otherwise damage metal corner beads and trim.

#### 1.6 PRE-INSTALLATION MEETING

- A. Prior to start of each type of gypsum wallboard system, and at the Contractors direction, meet at the site and review the installation procedures and coordination with other work. Meeting shall include Contractor, Architect and major material manufacturer as well as the Installer and other subcontractors whose work must be coordinated with the gypsum wallboard work.

#### 1.7 PROJECT CONDITIONS

- A. Comply with ASTM C840 requirements or wallboard material manufacturer's written recommendations, whichever are more stringent.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS, GENERAL

- A. General: For fire rated assemblies, provide materials, including accessories and fasteners produced by one manufacturer, or, when products of more than one manufacturer are used in a rated system, they shall be acceptable to authorities having jurisdiction.

#### 2.2 STEEL SUSPENDED CEILING FRAMING

- A. Components, General: Provide steel framing members sized and spaced as indicated but not less than that required to comply with ASTM C 754 under the maximum deflection conditions specified under Article 'Assembly Performance Requirements'.
- B. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.0625-inch- (1.59-mm-) diameter wire, or double strand of 0.0475-inch- (1.21-mm-) diameter wire.
- C. Hanger Attachments to Overhead Decks: Suitable for application indicated, fabricated from corrosion-resistant materials, with eyepins, clips or other devices for attaching hangers and capable of sustaining, without failure, a load equal to 10 times that imposed by the complete ceiling system.
- D. Hangers: As follows:

1. Wire Hangers: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.162-inch (4.12-mm) diameter.
2. Rod Hangers: ASTM A 510 (ASTM A 510M), mild carbon steel.
  - a. Diameter: 1/4-inch (6.34-mm).
  - b. Protective Coating: ASTM A 153/A 153M, hot-dip galvanized.
3. Flat Hangers: Commercial-steel sheet, ASTM A 653/A 653M, G60 (Z180), hot-dip galvanized.
  - a. Size: 1 by 3/16 inch (25.4 by 4.76 mm) by length indicated.
- E. Carrying Channels: Cold-rolled, commercial-steel sheet with a base metal thickness of 0.0538 inch (1.37 mm), a minimum 1/2-inch- (12.7-mm-) wide flange, with manufacturer's standard corrosion-resistant zinc coating.
- F. Furring Channels (Furring Members): Commercial-steel sheet with ASTM A 653/A 653M, G40 (Z120), hot-dip galvanized zinc coating.
  1. Cold Rolled Channels: 0.0538-inch (1.37-mm) bare steel thickness, with minimum 1/2-inch- (12.7-mm-) wide flange, 3/4 inch (19.1 mm) deep.
  2. Steel Studs: ASTM C 645, 0.0312 inch (0.79 mm) minimum base metal thickness and minimum depth as required to suit deflection criteria.
  3. Hat-Shaped, Rigid Furring Channels: ASTM C 645, 7/8 inch (22.2 mm) deep.
    - a. Minimum Base Metal Thickness: 0.0312 inch (0.79 mm).
  4. Resilient Furring Channels: 1/2-inch- (12.7-mm-) deep members designed to reduce sound transmission.
- G. Grid Suspension System for Interior Ceilings: ASTM C 645, direct-hung system composed of main beams and cross-furring members that interlock.

## 2.3 STEEL PARTITION AND SOFFIT FRAMING

- A. General: Provide steel framing members sized and spaced as indicated but not less than that required to comply with ASTM C 754 under the maximum deflection conditions specified under Article 'Assembly Performance Requirements'.
  1. In areas where top of partitions are dependent on ceiling system for lateral support, coordinate design and installation to comply with the above deflection limitation.
  2. Steel Sheet Components: Complying with ASTM C 645 requirements for metal and with ASTM A 653/A 653M, G40, hot-dip galvanized zinc coating.

## 2.4 INTERIOR GYPSUM WALLBOARD

- A. Panel Size: Provide in maximum lengths and widths available that will minimize joints in each area and correspond with support system indicated.

B. Gypsum Wallboard: ASTM C 36 or ASTM C1396/C1396M.

1. Regular Type:

- a. Thickness: 5/8 inch (15.9 mm), unless otherwise indicated.
- b. Long Edges: Tapered.
- c. Location: Vertical surfaces, unless otherwise indicated.

2. Type X:

- a. Thickness: 5/8 inch (15.9 mm).
- b. Long Edges: Tapered.
- c. Location: Where required for fire-resistance-rated assembly.

C. Sag-Resistant Gypsum Wallboard for Interior Ceilings: ASTM C 36 or ASTM C1396/C1396M, manufactured to have more sag resistance than regular-type gypsum board.

- 1. Thickness: 1/2 inch (12.7 mm).
- 2. Long Edges: Tapered.
- 3. Location: Ceiling surfaces.

2.5 TILE BACKING PANELS

A. Panel Size: Provide in maximum lengths and widths available that will minimize joints in each area and correspond with support system indicated.

B. Water-Resistant Gypsum Backing Board: ASTM C 630/C 630M or ASTM C1396/C1396M.

- 1. Core: 5/8 inch (15.9 mm).

C. Cementitious Backer Units: ANSI A118.9, in thickness indicated.

- 1. Thickness: 1/2 inch (12.7 mm).

2.6 TRIM ACCESSORIES

A. Interior Steel Trim Accessories: ASTM C 1047; formed metal sheet steel zinc coated by hot dipped process. Shapes indicated below by reference to Fig. 1 designations in ASTM C1047.

- 1. Cornerbead: Use at outside corners.
- 2. LC-Bead with both face and back flanges to receive joint compound; use at exposed panel edges.
- 3. U-Bead with face and back flanges; face flange formed to be left without application of joint compound: Use where indicated.
- 4. Curved-Edge Cornerbead: With notched or flexible flanges; use at curved openings.

B. Aluminum Trim Accessories: Extruded aluminum trim with 1/4" diameter holes in fins for attachment to wallboard or studs; longest lengths available in profiles indicated; primed for finish painting; sized for scheduled wallboard thickness shown.



## 2.7 JOINT TREATMENT MATERIALS

- A. General: Provide joint treatment materials complying with ASTM C 475 and the recommendations of both the manufacturers of the wallboard products and joint treatment materials for each application indicated.
- B. Joint Tape:
  - 1. Interior Gypsum Wallboard over Metal Studs: Paper.
  - 2. Tile Backing Panels: As recommended by panel manufacturer.
- C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
  - 1. Prefilling: At open joints and damaged surface areas, use setting-type taping compound.
  - 2. Embedding and First Coat: For embedding tape and first coat on joints, flanges of trim accessories, and fasteners, use setting-type taping compound.
  - 3. Second coat: For filling over tape, beads and fasteners. Use setting-type, sandable topping compound.
  - 4. Third coat: For finishing over tape, beads and fasteners. Use drying-type, all-purpose compound.
- D. Joint Compound for Tile Backing Panels:
  - 1. Water-Resistant Gypsum Backing Board: Use setting-type taping and setting-type, sandable topping compounds.
  - 2. Cementitious Backer Units: As recommended by manufacturer.

## 2.8 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
- B. Acoustical Sealant for Exposed and Concealed Joints: Nonsag, paintable, nonstaining, latex sealant complying with ASTM C 834 that effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
- C. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
  - 1. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- D. Isolation Strip at Exterior Walls: Adhesive-backed, closed-cell, compressible, non-extruding, sound transmission reducing, vinyl foam tape strips with approximately 13 Shore 00 hardness that allow fastener penetration without foam displacement, 1 inch thick, in width 1/2" less than window mullion width.
  - 1. V730 Norton Sealant Tape; gray color.
- E. Window Mullion Fillers: Refer to Division 5 Section, 'Decorative Formed Metal.'

- F. Sound Attenuation Blankets, and Fire Resistive Insulation for Installation Within Gypsum Wallboard Partitions: Refer to Section 072100, THERMAL INSULATION..
- G. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
- H. Wood Blocking and Trim Not Concealed in Partition Construction: Refer to Section 064023, INTERIOR ARCHITECTURAL WOODWORK.
- I. Wood Blocking and Plywood Concealed in Partition Construction: Fire retardant treated, refer to Section 061053, MISCELLANEOUS ROUGH CARPENTRY.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates to which gypsum board assemblies attach or abut, installed door frames and structural framing with Installer present for compliance with requirements for installation tolerances and other conditions affecting performance of assemblies specified in this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

#### 3.2 APPLYING AND FINISHING PANELS

- A. Gypsum Board Application and Finishing Standards: Install and finish gypsum panels to comply with ASTM C 840, GA-216, and the gypsum wallboard manufacturer's recommendations, where standards conflict, the more stringent shall apply.
- B. Install sound attenuation blankets before installing gypsum panels, unless blankets are readily installed after panels have been installed on one side.
- C. Single-Layer Application:
  - 1. On ceilings, apply gypsum panels before wall/partition board application to the greatest extent possible and at right angles to framing, unless otherwise indicated. Install ceiling board panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in the central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
  - 2. On partitions/walls, apply gypsum panels vertically (parallel to framing), unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints or avoid them entirely.
    - a. Stagger abutting end joints not less than one framing member in alternate courses of board.
    - b. At high walls, install panels horizontally, unless otherwise indicated or required by fire-resistance-rated assembly.
- D. Multilayer Application:
  - 1. On Partitions/Walls: Apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring

member and face-layer joints offset at least one stud or furring member with base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.

2. On Ceilings: Apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply base layers in same sequence. Apply base layers at right angles to framing members and offset face layer joints 1 framing member, 16 inches minimum, from parallel base joints, unless otherwise indicated or required by fire-resistance-rated assembly.
- E. Single-Layer Fastening Methods: Apply gypsum panels to supports with steel drill screws.
- F. Multilayer Fastening Methods: Fasten base layers and face layers separately to supports with screws.
- G. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, furring members, or base layer of gypsum board), comply with gypsum board manufacturer's written recommendations and temporarily brace or fasten gypsum panels until fastening adhesive has set.
- H. Tile Backing Panels:
1. Water-Resistant Gypsum Backing Board: For substrates indicated to receive thin-set tile, install water-resistant gypsum backing board panels, unless otherwise indicated. Where tile backing panels abut other types of panels in the same plane, shim surfaces to produce a uniform plane across panel surfaces.
  2. Cementitious Backer Unit Application: ANSI A108.11 at showers and where otherwise indicated.
- I. Install gypsum panels with face side out. Do not install imperfect, damaged, or damp panels. Butt panels together for a light contact at edges and ends with not more than 1/16 inch (1.5 mm) of open space between panels. Do not force into place.
- J. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions.
- K. Attach gypsum panels to steel studs so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- L. Attach gypsum panels to framing provided at openings and cutouts.
- M. Cover both faces of steel stud partition framing with gypsum panels in concealed spaces (above ceilings, etc.).
1. Fit gypsum panels around ducts, pipes, and conduits.
  2. Where partitions intersect exterior and interior wall kickers, and other structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by joists, and other structural members; allow 1/4- to 3/8-inch- wide joints to install sealant.

- N. Isolate perimeter of non-load-bearing gypsum board partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch- (6.4- to 12.7-mm-) wide spaces at these locations, and trim edges with U-bead edge trim where edges of gypsum panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- O. STC-Rated Assemblies: Seal construction at perimeters, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through gypsum board assemblies, including sealing partitions above acoustical ceilings.
- P. Cut openings in wallboard for electrical outlets, piping and other penetrations. Maintain close tolerances so that edges will be covered by plates and escutcheons. Cut both face and back paper. Do not install electrical outlets back to back on opposing sides of partitions.
- Q. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's written recommendations.
  - 1. Space screws a maximum of 12 inches (304.8 mm) o.c. for vertical applications.
  - 2. Space fasteners in panels that are tile substrates a maximum of 8 inches (203.2 mm) o.c.
  - 3. Install fasteners not less than 3/8" from ends or edges of wallboard sheets, spacing fasteners opposite each other on adjacent ends or edges.
  - 4. Begin fastening from center of wallboard and proceed toward edges and corners.
  - 5. Apply pressure on surface of wallboard adjacent to fasteners being driven to ensure that wallboard will be secured tightly to supporting members.
    - a. Drive fastener with shank perpendicular to face of board.
    - b. Drive screws with a power screwdriver as recommended by wallboard manufacturer. Set heads of screws slightly below surface of paper without cutting paper.

### 3.3 INSTALLING TRIM ACCESSORIES

- A. General: Fasten trim accessories according to manufacturer's written instructions for type, length, and spacing of fasteners.
- B. Install corner beads at external corners.
- C. Install interior trim accessories where edge of gypsum panels would otherwise be exposed or semiexposed. Provide interior trim accessories with face flange formed to receive joint compound.
- D. Install aluminum trim accessories where indicated.

### 3.4 FINISHING GYPSUM BOARD ASSEMBLIES

- A. General: Apply joint treatment at gypsum board joints, flanges of interior trim and aluminum trim accessories, interior angles, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration and levels of gypsum board finish indicated. Produce surfaces free of tool marks and ridges ready for decoration of type indicated. Promptly remove residual joint compound from adjacent surfaces.

- B. Prefill open joints and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.
- D. Cementitious Backer Units: Finish according to manufacturer's written instructions.
- E. Gypsum Board Finish Levels: Finish panels to levels indicated below, according to ASTM C 840, for locations indicated:
  - 1. Level 1: Embed tape at joints in ceiling plenum areas, concealed areas, and where indicated, unless a higher level of finish is required for fire-resistance-rated assemblies and sound-rated assemblies.
  - 2. Level 2: Embed tape and apply separate first coat of joint compound to tape, fasteners, and trim flanges where panels are substrate for tile and where indicated.
  - 3. Level 4: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges at panel surfaces that will be exposed to view, unless otherwise indicated.

### 3.5 CLEANING AND PROTECTION

- A. Clean floors of all wallboard debris and leave broom clean. Excess material, scaffolding, tools and other equipment are to be removed upon completion of the work.
- B. Provide final protection and maintain conditions that ensures gypsum board assemblies remain without damage or deterioration at time of Substantial Completion.

END OF SECTION 092900

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 093000 - TILING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes ceramic, porcelain, quarry, and glass tile.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Static Coefficient of Friction: For tile installed on walkway surfaces, provide products with the following values as determined by testing identical products per ASTM C 1028:

- 1. Level Surfaces: Minimum 0.6.

#### 1.3 SUBMITTALS

- A. Product Data: Submit product data for each product indicated.
- B. Samples: Submit samples showing full range of color and texture variations expected.
  - 1. Full size units of each type, composition, color, and finish of tile.
  - 2. Assembled samples with grouted joints for each color grout and for each type, composition, color, and finish of tile.
  - 3. Thresholds in 6-inch lengths, each type.
- C. Test Reports: Submit test reports from qualified independent testing laboratory indicating and interpreting test results relative to compliance of tile products with requirements specified for slip resistance.
- D. Maintenance instructions: Submit maintenance instructions for each type of product specified.

#### 1.4 QUALITY ASSURANCE

- A. Installer: Engage an installer, with a minimum of 5 years of successful commercial tile installations similar in material, design, and scope to that indicated.
- B. Source Limitations for Tile: Obtain tile from one source or producer, and from same production run and of consistent quality in appearance and physical properties for each contiguous area.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirement in ANSI A137.1 for labeling sealed tile packages.
- B. Prevent damage or contamination to materials by water, freezing, foreign matter, and other causes.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.
- B. Maintain temperatures at 50°F or more in tiled areas during installation and for 7 days after completion, unless higher temperatures are required by referenced installation standard or manufacturer's instructions.

1.7 EXTRA MATERIALS

- A. Provide attic stock equal to the following for each type, color, pattern, and size (or fraction thereof) of tile provided for the project. Supply in manufacturers unopened containers, identified with name, brand type, grade, class and all other qualifying information, to a location where directed by the Owner.
  - 1. 2% of amount installed but not less than one box.

PART 2 - PRODUCTS

2.1 TILE PRODUCTS, GENERAL (CT-\_)

- A. ANSI Ceramic Tile Standard: Provide Standard grade tile that complies with ANSI A137.1, "Specifications for Ceramic Tile," for types, compositions, and other characteristics indicated.
  - 1. Products and Manufacturers: Provide tile matching the Architect's samples which have been selected from the product lines and manufacturers indicated in the Finish Schedules on the Drawings.
- B. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer, unless otherwise indicated.
- C. Tile Trim Units: Matching characteristics of adjoining flat tile and coordinated with sizes and coursing where applicable.

2.2 ACCESSORY MATERIALS

- A. Thresholds: Fabricate to provide transition between adjacent floor finishes. Bevel edges at 1:2 slope, limit height of bevel to 1/2 inch or less, and finish bevel to match face of threshold.
  - 1. Marble Thresholds: ASTM C 503 with a minimum abrasion resistance of 12 per ASTM C 1353 or ASTM C 241 and with honed finish.
    - a. Description: Uniform, fine- to medium-grained white stone with gray veining.
- B. Waterproofing for Toilet Room and Kitchen Tile Installations:
  - 1. Fabric-Reinforced, Fluid-Applied Product: System consisting of liquid-latex rubber, and fabric reinforcement which are compatible with mortar bed specified and complying with ANSI A118.10; one of the following:



- a. Custom Building Products; Trowel & Seal Waterproofing and Anti-Fracture Membrane.
- b. LATICRETE International Inc.; Laticrete 9235 Waterproof Membrane.
- c. MAPEI Corporation; PRP M19.

## 2.3 SETTING AND GROUTING MATERIALS

- A. Manufacturers:
  1. Custom Building Products.
  2. LATICRETE International Inc.
  3. MAPEI Corporation.
- B. Source Limitations: For each tile installation, obtain compatible formulations of setting and grouting materials containing latex or latex additives from a single manufacturer.
- C. Water-Cleanable, Tile-Setting Epoxy Adhesive: ANSI A118.3, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- D. Organic Adhesive: ANSI A136.1, Type I, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- E. Chemical-Resistant, Water-Cleanable, Tile-Setting and -Grouting Epoxy: ANSI A118.3, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- F. Medium-Bed, Latex-Portland Cement Mortar: ANSI A118.4:
  1. Prepackaged dry-mortar mix combined with liquid-latex additive.
- G. Polymer-Modified Tile Grout: ANSI A118.7.
  1. Polymer Type: Dry, redispersible form, prepackaged with other dry ingredients.
  2. Colors: As selected by Architect from manufacturers standards to match tile being grouted.

## 2.4 MISCELLANEOUS MATERIALS

- A. Sealants: 'Silicone sanitary sealant', as specified in Section 079200, JOINT SEALANTS.
- B. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.

## 2.5 MIXING MORTARS AND GROUT

- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions. Add materials and liquid latex additives in accurate proportions. Obtain and use type of mixing equipment, mixer speeds, mixing containers,

mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

### PART 3 - EXECUTION

#### 3.1 PREINSTALLATION MEETING

- A. Prior to the installation of tile, and at the Contractor's direction, meet at the project site to review the material selections, substrate preparations, installation procedures, coordination with other trades, special details and conditions, standard of workmanship, and other pertinent topics related to the Work. The meeting shall include the Owner, Architect, the Contractor, tile installer, tile and setting material manufacturer's representatives, and representatives of other trades or subcontractors affected by the installation.

#### 3.2 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present.
  - 1. Verify that substrates for setting tile are firm; dry; clean; free of oil, waxy films, and curing compounds. Grind concrete substrates to remove existing floor adhesive and mortar residues, films, sealing and curing compounds if they are determined to be present on the substrate.
  - 2. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed before installing tile.
  - 3. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.3 PREPARATION

- A. Remove paint, coatings, including curing compounds and other substances that are incompatible with tile-setting materials.
- B. Blending: Color blend tiles at Project site before installing.
  - 1. Furnish the same lots, batches, etc. within the same contiguous areas of the site (i.e. corridors on the same floors, common rooms which adjoin each other, etc.).

#### 3.4 INSTALLATION, GENERAL

- A. ANSI Tile Installation Standards: Comply with parts of ANSI A108 Series "Specifications for Installation of Ceramic Tile" that apply to types of setting and grouting materials and to methods indicated in ceramic tile installation schedules.
- B. TCA Installation Guidelines: TCA's "Handbook for Ceramic Tile Installation." Comply with TCA installation methods indicated in ceramic tile installation schedules.

- C. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions, unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- D. 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 plates, collars, or covers overlap tile.
  - 1. Glass Tile Cutting: Use a blade suitable for cutting glass which must be constantly kept wet with water. Cut tiles with the colored surface turned upwards. Cutting shall not be carried out near the edges of the individual tiles. Smooth off any sharp edges with sandpaper. Holes can be made with a drill bit specifically recommended for drilling glass with a diameter up to 5/16". Apply water continually while drilling.
- E. Jointing Pattern: Lay tile in grid pattern, unless otherwise indicated. 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 beginning at thresholds. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise indicated.
  - 1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
- F. Movement (Expansion) Joints: Locate sealant filled expansion joints where recommended by the manufacturers of mortar and tile materials but not less than the requirements of TCA EJ171, and as accepted by the Architect. Form movement joints and other sealant-filled joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.
  - 1. Locate joints in tile surfaces directly above joints in concrete substrates.
  - 2. Prepare joints and apply sealants to comply with requirements in Division 7 Section "Joint Sealants."

### 3.5 WATERPROOFING INSTALLATION

- A. Install waterproofing to comply with ANSI A108.13 and waterproofing manufacturer's written instructions to produce waterproof membrane of uniform thickness bonded securely to substrate.
  - 1. Do not install tile over waterproofing until waterproofing has cured and been tested to determine that it is watertight.
- B. Do not install tile over waterproofing until waterproofing has cured and been tested to determine that it is watertight.

### 3.6 FLOOR TILE INSTALLATION

- A. Thinset Tile over Concrete Slabs (Typical): Install in accordance with the mortar manufacturer's recommendations and requirements indicated below for ANSI setting bed methods, TCA installation methods related to types of subfloor construction, and grout ANSI installation

methods and grout types. Where recommendations and methods conflict, the manufacturer's recommendations shall apply.

1. Mortar: Latex-Portland Cement Mortar: ANSI A108.5.
  2. Concrete Subfloors, Interior: TCA F113.
    - a. With a trowel, having notches sized as recommended by the mortar manufacturer, comb the surface of the mortar with the notched side of the trowel removing excess mortar. Spread only as much mortar as can be covered in the time limits established by the mortar manufacturers recommendations.
    - b. Wipe the back of each tile, with a damp sponge, to remove all dust or dirt immediately before applying mortar to tiles.
    - c. Immediately after wiping tile backs, but prior to placing tile, the mortar shall be troweled to back of tile for 100% coverage to thickness of not less than 1/16".
    - d. Place tiles onto mortar bed, maintaining 1/8" wide joints, and true accurate pattern as shown. Exercise care to quickly remove spillage from faces of tile using water. Rake out joints to depth required to receive grout as tile units are set.
    - e. Prohibit foot and wheel traffic on tiled floors for period of time as recommended by the mortar manufacturer.
  3. Grout Installation, Latex-portland cement: ANSI A108.10.
- B. Thinset Tile over Waterproof Membrane (Toilet Rooms): Install in accordance with the mortar manufacturer's recommendations and requirements indicated below for ANSI setting bed methods, TCA installation methods related to types of subfloor construction, and grout ANSI installation methods and grout types. Where recommendations and methods conflict, the manufacturer's recommendations shall apply.
1. Mortar: Latex-Portland Cement Mortar: ANSI A108.5.
  2. Concrete Subfloors, Interior: TCA F122.
    - a. Apply the mortar to waterproofed slab with the flat side of the trowel.
    - b. With a trowel, having notches sized as recommended by the mortar manufacturer, comb the surface of the mortar with the notched side of the trowel removing excess mortar. Spread only as much mortar as can be covered in the time limits established by the mortar manufacturers recommendations.
    - c. Wipe the back of each tile, with a damp sponge, to remove all dust or dirt immediately before applying mortar to tiles.
    - d. Immediately after wiping tile backs, but prior to placing tile, the mortar shall be troweled to back of tile for 100% coverage to thickness of not less than 1/16".
    - e. Place tiles onto mortar bed, maintaining 1/8" wide joints, and true accurate pattern as shown. Exercise care to quickly remove spillage from faces of tile using water. Rake out joints to depth required to receive grout as tile units are set.
    - f. Prohibit foot and wheel traffic on tiled floors for period of time as recommended by the mortar manufacturer.
  3. Grout Installation, Latex-portland cement: ANSI A108.10.

- C. Mediumset Tile (Only where indicated): Install in accordance with the mortar manufacturer's recommendations and requirements indicated below for ANSI setting bed methods, TCA installation methods related to types of subfloor construction, and grout ANSI installation methods and grout types. Where recommendations and methods conflict, the manufacturer's recommendations shall apply.
1. Mortar: Latex-Portland Cement Mortar: ANSI A108.5.
  2. Concrete Subfloors, Interior: TCA F113 except apply medium set bed thickness.
    - a. With a trowel, having notches sized as recommended by the mortar manufacturer, comb the surface of the mortar with the notched side of the trowel removing excess mortar. Spread only as much mortar as can be covered in the time limits established by the mortar manufacturers recommendations.
    - b. Wipe the back of each tile, with a damp sponge, to remove all dust or dirt immediately before applying mortar to tiles.
    - c. Immediately after wiping tile backs, but prior to placing tile, the mortar shall be troweled to back of tile for 100% coverage to thickness of not less than 1/16".
    - d. Place tiles onto mortar bed, maintaining 1/8" wide joints, and true accurate pattern as shown. Exercise care to quickly remove spillage from faces of tile using water. Rake out joints to depth required to receive grout as tile units are set.
    - e. Prohibit foot and wheel traffic on tiled floors for period of time as recommended by the mortar manufacturer.
  3. Grout Installation: Latex-portland cement: ANSI A108.10.
- D. Stone Thresholds: Install stone thresholds in one piece, notched to fit neatly at door jambs; set in same type of setting bed as abutting field tile in accordance with TCA Method TR611.

### 3.7 WALL TILE INSTALLATION

- A. Install in accordance with the mortar manufacturer's recommendations and requirements indicated below for ANSI setting bed methods, TCA installation methods related to types of construction, and grout ANSI installation methods and grout types. Where recommendations and methods conflict, the manufacturer's recommendations shall apply.
1. Latex Portland Cement Mortar Installation (using specified latex portland cement mortar material): ANSI A108.5.
  2. Gypsum Wallboard, Interior (Latex Portland Cement Mortar) Method: TCA W243, place tiles maintaining 1/8" wide joints, and true accurate pattern as shown.
  3. Cementitious Backerboard (Latex Portland Cement Mortar) Method: TCA W244, place tiles maintaining 1/8" wide joints, and true accurate pattern as shown.
  4. Grout Installation: Latex-portland cement: ANSI A108.10.

### 3.8 CLEANING AND PROTECTING

- A. Cleaning: On completion of placement and grouting, clean all tile surfaces so they are free of foreign matter.

1. Remove grout residue from tile as soon as possible.
  2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions, but no sooner than 10 days after installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.
- B. Finished Tile Work: Leave finished installation clean and free of cracked, chipped, broken, unbonded, and otherwise defective tile work.
- C. When recommended by tile manufacturer, apply 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.
- D. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.

END OF SECTION 093000

## SECTION 093033 - STONE TILING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes dimension stone tile.

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data for each type of stone, setting and grouting material.
  - 1. Include submittal of stone sealer manufacturer's recommended methods for application of impregnator and surface protection coatings based on testing of project specific stone flooring materials.
- B. Shop Drawings: Submit shop drawings indicating plans, elevations, and details showing stone tile sizes, dimensions of tiled areas, joint patterns, and tile patterns.
- C. Samples:
  - 1. Submit sets of samples for each color, grade, finish, type and specie of stone consisting of units not less than full face size indicated for each stone thickness. Include 3 or more units in each set of samples showing the full range of appearance characteristics to be expected in completed work.
  - 2. Submit one 12-inch long sample of each stone divider and transition strip.
  - 3. Submit 12-inch long grout Samples for each color grout and for each type, composition, color, and finish of stone.
- D. Floor Stone Testing Results: Submit test reports from qualified independent testing laboratory indicating and interpreting test results relative to compliance of stone flooring with requirements specified for slip resistance
- E. Maintenance Data: Submit maintenance instructions for each type of product specified.

#### 1.3 QUALITY ASSURANCE

- A. Single Source Responsibility for Stone: Obtain each stone from a single source with resources to provide materials of consistent quality in appearance and physical properties, including the capacity to cut and finish material without delaying the progress of the Work.
- B. Installer Qualifications:
  - 1. Subcontract the stone work to a single firm with a minimum of 10 years successful experience in conventional set stonework comparable to that shown and specified, in not less than 3 projects of similar scope to the satisfaction of the Architect. The stone work includes, but is not necessarily limited to, the following:

- a. All preparation for stone work, including but not limited to, submittals, site erection, and sample installations as specified herein.
  - b. Interior direct cladding to architectural woodwork and partitions.
  - c. All anchors, supports, inserts and fasteners for the above, fabrication and installation of same.
  - d. All sealants and joint fillers in conjunction with the above.
2. The connection system as shown is suggested for the stone installation. Final connection design is the sole responsibility of the Contractor.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to project in undamaged condition.
- B. Store and handle stone and related materials to prevent their deterioration or damage due to moisture, temperature changes, contaminants, corrosion, breakage, chipping, or other causes.
  1. Do not use pinch or wrecking bars.
  2. Lift with wide-belt type slings where possible; do not use wire rope or ropes containing tar or other substances which might cause staining.
  3. Store stones on wood skids or pallets, covered with non-staining, waterproof membrane. Place and stack skids and stones to distribute weight evenly and to prevent breakage or cracking of stones.
  4. Protect stone on wood skids or pallets, covered with non-staining, waterproof membrane, but allow air to circulate around stones.
  5. Store cementitious materials off the ground, under cover and in dry location.

#### 1.5 PRE-INSTALLATION COORDINATION

- A. Pre-Installation Meeting: Prior to the start of interior stonework, a meeting shall be held at the project site to review installation procedures and coordination with other work. The meeting shall include the interior stone subcontractor, Contractor, Architect, Owner and representatives of other trades affected by the work.
- B. Coordinate all aspects of the stone work with contiguous work and provide components at the proper time and sequence to avoid delays in the work.

### PART 2 - PRODUCTS

#### 2.1 STONE, GENERAL

- A. Comply with referenced standards and other requirements indicated applicable to each type of material required.



- B. Provide matched blocks from a single quarry for each type, specie, color and quality of stone required. Extract blocks from a single bed of quarry stratum, especially reserved for Project, unless stones from randomly selected blocks are acceptable to Architect for aesthetic effect.
- C. Visual Performance Criteria: All portions of stonework shall be furnished complying with the following criteria, all as reviewed and accepted by the Architect through sample submissions, sample installations, and thereafter on-site observations:
  - 1. Color Range: Matching Architect's samples; uniform with no discernable variations between pieces in any contiguous area.
  - 2. Finishing Technique:
    - a. Polished Finish: Uniform highly reflective mirror gloss finish with the full color and crystal structure of the stone visible through the finish. Evidence of swirl shall not be permitted.
    - b. Honed Finish: Uniform throughout. Evidence of swirl shall not be permitted.
    - c. Thermal (Flamed) Finish: Uniform textured finish produced by the application of a high temperature flame to the stone surface with all panels processed horizontally (parallel) to grade unless otherwise accepted by the Architect on the shop drawings. Evidence of channeling shall not be permitted.

## 2.2 STONE TYPES (ST- )

- A. General: Comply with ASTM C503 for marble, ASTM C615 for granite, ASTM C568 for limestone, ASTM C616 for sandstone and quartzite, ASTM C629 for slate, ASTM C1526 for serpentine, ASTM C1527 for travertine and as follows. Stone shall be sound, durable, and free of imperfections such as spalls, cracks, starts, seams, pits, stain producing minerals, and other defects that will impair its strength, durability and appearance. All material shall be subject to culling as required to match Architect's preselected control samples prior to acquisition and thereafter through all stages of fabrication prior to delivery.
- B. Association Standard for Quality and Fabrication:
  - 1. "Design Manual IV" of Marble Institute of America (MIA).
  - 2. "Specifications for Architectural Granite" as published by the National Building Granite Quarriers Association (NBGQA).
  - 3. "Indiana Limestone Handbook" as published by the Indiana Limestone Institute (ILI).
- C. Species, Finishes, and Suppliers: Provide stone matching the Architect's samples which have been selected from the product lines, suppliers, and quarriers, indicated in the Finish Schedules on the Drawings.

## 2.3 SETTING AND GROUTING MATERIALS

- A. Manufacturers: Provide products by one of the following:
  - 1. Custom Building Products.

2. Laticrete International, Inc.
  3. Mapei Corporation.
- B. Water-Cleanable Epoxy Grout: ANSI A118.3, chemical-resistant, water-cleanable, tile-setting and -grouting epoxy.
- C. Source Limitations: For each type of stone installation, obtain compatible formulations of setting and grouting materials containing latex or latex additives from a single manufacturer.
- D. Latex-Portland Cement Mortar (Thin-Set) Mortar: ANSI A118.4 consisting of the following:
1. Prepackaged dry-mortar mix combined with liquid-latex additive.
  2. For wall applications, provide nonsagging mortar.
- E. Polymer-Modified Tile Grout: ANSI A118.7.
1. Polymer Type: Dry, redispersible form, prepackaged with other dry ingredients.
  2. Colors: As selected by Architect from manufacturers standards to match stone being grouted. .

## 2.4 ACCESSORIES

- A. General: Use only adhesives formulated for stone and recommended by their manufacturer for the application indicated.
- B. Organic Adhesive For Adhering Stone Base to Gypsum Board Partitions: ANSI A136.1, Type I.
- C. Sealants: 'Silicone sanitary sealant', as specified in Section 079200, JOINT SEALANTS.
1. VOC Content: Not more than 250 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- D. Floor Cleaner: Provide stone cleaners of proper formulation for stone types, finishes, and applications indicated, as recommended by stone supplier and, if a sealer is specified, by sealer manufacturer. Use cleaning agents which do not contain caustic or harsh fillers that will damage stone or stone finishes.
- E. Floor Sealer: Provide stone sealing materials as manufactured by HMK Stone Care System, San Francisco, CA. (800) 424-2HMK.
1. Impregnator: Slip resistant, low viscosity, UV resistant, water vapor permeable, silicone based impregnator specifically formulated to penetrate stone and grout pore structures without changing the color or sheen of the stone to which it is applied and which provides an invisible barrier of protection from water, dirt, oil, grease, and alkali infiltration.
    - a. S34 Silicone Impregnator.
  2. Surface Protection Coating: Slip and scuff resistant, no-rinse type, 100% natural vegetable soap cleanser, which is pH neutral (pH 7), vapor permeable and compatible with impregnator, and which emulsifies dirt and debris on the stone surface while repelling liquids. Will not change the color or sheen of the stone to which it is applied.

a. P24 Liquid Stone Soap "No Rinse".

- F. Setting Buttons: Resilient plastic buttons, non-staining to stone, sized to suit joint thicknesses and bed depths of stonework involved.
- G. Divider and Transition Strips: Stainless steel shapes and flat bar trims fabricated from ASTM A666 (for flat bar) and ASTM A276 (for shapes) Type 304 stainless steel, 1/4" wide at top edge unless otherwise indicated, depth as required to suit conditions shown and having an integral provision for anchorage to mortar bed or substrate, unless otherwise indicated. Provide NAAMM #4 satin finish at exposed top edge in the long direction, furnish in longest lengths available.

2.5 STONE TILE FABRICATION

- A. General: Fabricate dimension stone tile in sizes and shapes required to comply with requirements indicated, including details on Drawings and Shop Drawings.
- B. Accurately cut, dress, drill, fit and finish stone work to shapes, profiles and dimensions shown on Drawings and/or final shop and setting drawings. Make exposed surfaces straight, sharp, true and continuous at joints within the tolerances specified.
  - 1. Stone Sizes: As indicated.
  - 2. Stone Thickness: 3/8", unless otherwise shown.
  - 3. Fabrication Tolerances:
    - a. Size and Squareness:
      - 1) Unit Thickness of 3/8": +/- 1/64 inch in 12" for tiles with polished or honed faces; or plus or minus 1/32 inch for tiles with sand-rubbed, natural-cleft, or thermal-finished faces
    - b. Thickness:
      - 1) 3/8" Stone Tiles with Smooth Finish: Vary from specified thickness by not more than plus or minus 1/32 inch.
      - 2) 3/8" Stone Tiles with Natural-Cleft or Thermal Finish: Vary average thickness of each tile from specified thickness by not more than plus 1/16 inch, minus 0 inches.
  - 4. Cut all joints and edges square and at right angles to face, and with backs parallel to face. Make arrises straight, sharp, true, and continuous at joints.
  - 5. Clean sawn stones to remove rust stains and free iron particles.
- C. Finish exposed faces of stones to comply with requirements indicated for finish under each type and application of stone required and to match approved samples and field constructed sample installations.

- D. Fabricate stone thresholds in sizes and profiles as indicated or required to provide transition between adjacent floor finishes.
- E. Carefully inspect finished stones at fabrication plant for compliance with requirements relative to qualities of appearance, material and fabrication; replace defective stones with stones that do comply.

## 2.6 MORTAR AND GROUT MIXES

- A. Mix mortars and grouts to comply with the requirements of referenced standards and with manufacturers' written instructions including those for accurate proportioning of materials and liquid latex additive content; mix materials with type of equipment, selection of speeds, in proper containers, for time periods, and other procedure needed to produce mortars and grouts of uniform quality and with optimum performance characteristics for application specified or indicated.

## PART 3 - EXECUTION

### 3.1 PREINSTALLATION MEETING

- A. Prior to the installation of stone, and at the Contractor's direction, meet at the project site to review the material selections, substrate preparations, installation procedures, coordination with other trades, special details and conditions, standard of workmanship, and other pertinent topics related to the Work. The meeting shall include the Owner, Architect, the Contractor, stone installer, stone and setting material manufacturer's representatives, and representatives of other trades or subcontractors affected by the installation.

### 3.2 EXAMINATION

- A. Examine substrates and areas where the stonework will be installed, with Installer present.
  - 1. Verify that substrates for setting stone floor tile are firm; dry; clean; free of oil, waxy films, and curing compounds. Grind concrete substrates to remove existing floor adhesive and mortar residues, films, sealing and curing compounds if they are determined to be present on the substrate.
  - 2. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind stone tile has been completed before installing stone tile.
- B. Do not proceed with installation until unsatisfactory conditions have been corrected.

### 3.3 PREPARATION

- A. Grind concrete substrates to remove existing floor adhesive and mortar residues, films, sealing and curing compounds if they are determined to be present on the substrate.
- B. Blending: Color blend tiles at Project site before installing.
  - 1. Furnish the same lots, batches, etc. within the same contiguous areas of the site (i.e. corridors on the same floors, common rooms which adjoin each other, etc.).

### 3.4 INSTALLATION, GENERAL

- A. Installation Methods and Standards: Stone setting shall be in accordance with the applicable requirements and recommendations of the Marble Institute of America (MIA), unless otherwise specified or shown.
- B. Stonework shall be installed by skilled mechanics. Employ skilled stone fitters at the site to do necessary field cutting as stones are set.
  - 1. Use power saws with diamond tipped blades to cut stone. Cut lines straight and true, with edges eased slightly to prevent snipping.
- C. Set stone to comply with requirements indicated on Drawings and Shop Drawings. Set stone accurately in locations indicated, with uniform joints of 1/8", unless greater widths are indicated, and with edges and faces aligned. Do not install stone units which are warped, curled, cracked, chipped, or broken, discolored or not properly finished.
- D. Extend stone work into recesses and under or behind equipment and fixtures to form a complete covering without interruptions, unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- E. Accurately form intersections and returns. Perform cutting and drilling of stone without marring visible surfaces. Fit stone closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap stone. Where cut edges will be visible after installation, finish to match factory-fabricated edges.
- F. Lay stone in grid pattern, unless otherwise indicated. Align joints when adjoining stone units on floor, base, walls, and trim are the same size. Lay out stone work and center stone fields in both directions in each space beginning at thresholds. Lay out stone work and center stone fields in both directions on each wall area. Adjust to minimize cutting.
- G. Divider and Transition Strips: Install divider and transition strips at locations indicated.

### 3.5 STONE TILE WALL INSTALLATION

- A. Install in accordance with the mortar manufacturer's recommendations and requirements indicated below for ANSI setting bed methods, TCA installation methods related to types of construction, and grout ANSI installation methods and grout types. Where recommendations and methods conflict, the manufacturer's recommendations shall apply.
  - 1. Latex Portland Cement Mortar Installation (using specified latex portland cement mortar material): ANSI A108.5.
  - 2. Gypsum Wallboard, Interior (Latex Portland Cement Mortar) Method: TCA W243, place tiles maintaining 1/8" wide joints, and true accurate pattern as shown.
  - 3. Grout Installation: Latex-portland cement: ANSI A108.10.

### 3.6 INSTALLATION TOLERANCES

- A. Tolerances: Set stone to comply with the following tolerances:

1. Variation from Plumb: +/- 1/8 inch in 10 feet, non-cumulative.
2. Variation in Level: +/- 1/8" in 10 feet, non-cumulative.
3. Variation in Plane between Adjacent Units (Lipping): +/- 1/32 inch difference between planes of adjacent units.
4. Variation in Joint Width: +/- 1/32 inch.

### 3.7 CLEANING, SEALING AND PROTECTION

#### A. Cleaning:

1. General: Upon completion of placement and grouting remove latex-portland cement grout residue and haze from stone as soon as possible.

#### B. Sealing:

1. Impregnator Application: Allow floor to thoroughly dry for 24 to 72 hours after floor preparation. Using brush, or roller, applicators apply two thin, even, wet on wet coats of impregnator allowing 5 to 10 minutes between each coat for proper penetration unless otherwise recommended by the impregnator manufacturer. 10 to 15 minutes after final coat is placed, but prior to its surface drying, remove all excess "puddled" impregnator using a white cloth to avoid splotchy/dull areas. Allow 72 hours for impregnator to cure.
2. Surface Protection Coating: Not more than 4 days before occupancy by Owner apply no-rinse stone surface protection coating to stone using dilution rates as recommended by the surface protection coating manufacturer. Apply surface protection coating by using either mop and bucket or auto-scrub brushing techniques in accordance with the surface protection coating manufacturer's recommendations. If scrub brushing, thoroughly scrub stone flooring using soft medium bristle brush heads, instead of nylon pads, to deep clean textured surfaces and grout joints of polished and honed finished surfaces. Test brushes, to ensure that they will not harm each of the finishes, and types, of stone flooring prior to cleaning operations. During auto-scrubbing operations monitor the quality and cleanliness of the brushes, to assure that they do not become worn or contaminated and scratch the finish of the stone flooring. Do not rinse with water as rinsing will remove the stone surface protection coating.

#### C. Leave finished installation clean and free of warped, curled, cracked, chipped, broken, unbonded, discolored and otherwise defective stone units.

1. Replace warped, curled, cracked, chipped, broken, unbonded, discolored and otherwise defective stone in manner which results in stonework matching approved samples and field-constructed sample installations, showing no evidence of replacement.

#### D. Provide final protection and maintain conditions in a manner acceptable to manufacturer and installer that ensures that stone is without damage or deterioration at time of Substantial Completion.

END OF SECTION 093033

## SECTION 09 51 13 - ACOUSTICAL PANEL CEILINGS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes acoustical panels and exposed suspension systems for ceilings.

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data for each type of product indicated.
- B. Shop Drawings: Submit shop drawings of reflected ceiling plans drawn accurately to large scale and coordinating penetrations and ceiling-mounted items. Show the following:
  - 1. Patterns of ceiling suspension assembly members with setting out/work points.
  - 2. Method of attaching hangers to building structure.
  - 3. Ceiling-mounted items including lighting fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings at walls, column penetrations, and other junctures of acoustical ceilings with adjoining construction.
- C. Samples: Submit samples for each acoustical panel, for each exposed suspension system member, for each exposed molding and trim, and for each color and texture required, prepared on Samples of size indicated below. Samples shall show the full range of color and texture variations to be expected in the final installation.
  - 1. Acoustical Panel: Set of 6-inch square Samples of each type, color, pattern, and texture.
  - 2. Exposed Suspension System Members, Moldings, and Trim: Set of 12-inch- long Samples of each type, finish, and color.

#### 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an Installer, with not less than 5 years experience in the installation of materials specified, and who has completed acoustical panel ceilings similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance.
- B. Source Limitations: Obtain each type of acoustical ceiling panel and supporting suspension system through one source from a single manufacturer.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.

- C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

## 1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install acoustical panel ceilings until wet work (painting, drywall, interior tilework, and concrete leveling) in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

## 1.6 COORDINATION

- A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

## 1.7 EXTRA MATERIALS

- A. Furnish and store at the site where directed, 2% of each type of acoustic panel installed in the Project, packaged in manufacturer's unopened cartons and identified as to contents.

# PART 2 - PRODUCTS

## 2.1 METAL SUSPENSION SYSTEMS

- A. Metal Suspension System Standard: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable requirements in ASTM C 635.
- B. Overhead Deck Hanger Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, "Direct Hung," unless otherwise indicated.
  - 1. Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with eyepins, clips or other accessory devices for attaching hangers of type indicated, and with capability to sustain, without failure, a load equal to 10 times that imposed by ceiling assembly.
- C. Hangers: As follows:
  - 1. Wire Hangers, Braces, and Ties: Zinc-coated carbon-steel wire; ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
    - a. Size: Select wire diameter so its stress at three times hanger design load (ASTM C 635, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 12 ga. (0.106-inch)- diameter wire.
  - 2. Rod Hangers: ASTM A 510 (ASTM A 510M), mild carbon steel.
    - a. Diameter: 1/4-inch.
    - b. Protective Coating: ASTM A 153/A 153M, hot-dip galvanized.



3. Flat Hangers: Commercial-sheet steel, ASTM A653/A653M, G60, hot dip galvanized.
  - a. Size: 1 by 3/16 inch by length indicated.
- D. Carrying Channels: ASTM C754, cold rolled steel channels, 1-1/2-inch, 475 pounds Per 1000 feet.
- E. Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations that fit acoustical panel edge details and suspension systems indicated; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension system runners; provide in longest standard single piece lengths.
  1. Shadow (Stepped Moldings): Stepped edge molding that forms reveal of same depth and width as that formed between edge of panel and flange at exposed suspension member. Form from sheet metal of same material and finish as that used for exposed flanges of suspension system runners.
  2. F Moldings: Provide F moldings at ceiling breaks, soffits, bulkheads, and changes in elevation other than vertical walls and columns to the extent indicated. Form from sheet metal of same material and finish as that used for exposed flanges of suspension system runners.
  3. Metal Perimeter Channel Trim: Shapes and profiles to suit conditions indicated; fabricated from extruded aluminum; finished to match exposed flanges of suspension system runners. Provide manufacturers recommended tee-bar connection clips, and hanging clips, which lock into specially designed bosses on the channel trim and are screw attached to the web of the intersecting suspension system members. Join sections of trim together with manufacturers standard splice plates and alignment clips.
  4. Perimeter Wing Trim: Shapes and profiles to suit conditions indicated; fabricated from and finished to match exposed panel. Provide manufacturers recommended connect wing cantilevers, connect splines, connect hooks, connect multi-connection, and installation screws suitable for installation indicated.
- F. Clips: Provide support clips, clamps, fasteners, splines, and other attachment devices as required to align components and to connect components and transfer imposed loads of suspension system.
  1. Provide attachment clips for runner to angle molding to avoid use of pop rivets.
  2. Provide grid converter accessories as required to change main tee direction 90 degrees from adjacent main tee.
  3. Provide light fixture clips.
  4. Provide hold down clips at entryways to reduce flutter as required.
  5. Provide miter closure clips.
- G. Manufacturers and Products: Refer to drawings and schedules for extent and types of each metal suspension system required.

## 2.2 ACOUSTICAL PANELS

- A. Manufacturers and Products: Refer to drawings and schedules for extent and types of each acoustical panel required.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation, anchorage, with requirements for installation tolerances, and other conditions affecting performance of acoustical panel ceilings.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Layout the Work to center board pattern both directions around Work points shown in each major space or room as shown on the drawings or directed and, where possible, adjust pattern so that edge pieces will be not less than 1/2 unit in width.

### 3.3 INSTALLATION

- A. General: Install acoustical panel ceilings to comply with ASTM C 636 requirements indicated, per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook," and as required to match the accepted sample installation.
- B. Suspend ceiling hangers as follows:
  - 1. Fasten hangers to anchors that extend into decks. Space hangers not more than 48" o.c. along each member supported directly from hangers; and provide hangers not more than 6" from ends of each member. Provide additional hangers for support of fixtures and other items including but not limited to light fixtures and diffusers, as required to prevent overloading of deck attachment, eccentric deflection or rotation of supporting runners.
  - 2. Hangers:
    - a. Secure wire hangers to ceiling suspension members and to supports above with a minimum of 3 tight turns. Connect hangers directly to drilled in anchors (eye screws), or other devices that are secure, and are appropriate for substrate.
    - b. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to drilled in anchors, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved.
  - 3. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
  - 4. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of the supporting structure or of the ceiling suspension system.

5. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
- C. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels. Align moldings accurately and screw attach securely to substrate with concealed fasteners at intervals not more than 16 inches o.c. and not more than 3 inches from ends, leveling with ceiling suspension system.. Miter corners accurately and connect securely.
  1. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- D. Install suspension system runners so they are square and securely interlocked with one another. Clip runners to angle moldings do not use exposed fasteners. Finish to lines and levels shown, with maximum deflection not to exceed 1/360 of the span between supports. Laser level accurately in all directions, leveling to a tolerance of 1/8 -inch noncumulative. Remove and replace dented, bent, or kinked members.
- E. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Run grain of units in one direction as accepted on shop drawings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
  1. For reveal-edged panels on suspension system members with box-shaped flanges, install panels with reveal surfaces in firm contact with suspension system surfaces and panel faces flush with bottom face of runners.

### 3.4 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 09 51 13  
09511/5-00/ttt

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 09 51 33 - ACOUSTICAL METAL PAN CEILINGS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes lay-in acoustical metal pans and the following suspension system for ceilings:
  - 1. Direct hung, exposed tee grid.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For components with factory-applied color and other decorative finishes.
- C. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below:
  - 1. Metal Pans: Full-size sample of each type, finish, color, pattern, and texture. Show pan edge profile.
  - 2. Exposed Suspension System Members, Moldings and Trim: Set of 12-inch- long Samples of each type, finish, and color.
- D. Performance Data: For installed products indicated to comply with design loads and other criteria, include structural analysis and other analytical data signed and sealed by the qualified professional engineer responsible for their preparation.
- E. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from Installers of the items involved:
  - 1. Ceiling suspension members.
  - 2. Method of attaching hangers to building structure.
  - 3. Ceiling-mounted items including lighting fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings.
  - 4. Ceiling perimeter and penetrations through the ceiling; and trim and moldings.
  - 5. Minimum Drawing Scale: 1/8 inch = 1 foot (1:96)
- F. Qualification Data: For testing agency.
- G. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each acoustical metal pan ceiling.
- H. Evaluation Reports: For each acoustical metal pan ceiling and components.
- I. Maintenance Data: For finishes to include in maintenance manuals.

1.3 QUALITY ASSURANCE

A. Source Limitations:

1. Acoustical Ceiling Pans: Obtain each type from single source from single manufacturer.
2. Suspension Systems: Obtain each type from single source from single manufacturer.

B. Surface-Burning Characteristics: Complying with ASTM E 1264 for Class A materials as determined by testing identical products according to ASTM E 84 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver acoustical metal pans, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.

B. Handle acoustical metal pans, suspension system components, and accessories carefully to avoid damaging units and finishes in any way.

1.5 PROJECT CONDITIONS

A. Environmental Limitations: Do not install acoustical metal pan ceilings until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.6 COORDINATION

A. Coordinate layout and installation of acoustical metal pans and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

1.7 EXTRA MATERIALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Acoustical Metal Pans: Full-size units equal to 1 percent of quantity installed.
2. Suspension System Components: Quantity of each grid and exposed molding and trim equal to 1] percent of quantity installed.
3. Hold-Down Clips: Equal to 2 percent of quantity installed.

## PART 2 - PRODUCTS

### 2.1 ACOUSTICAL METAL CEILING PANS

- A. Acoustical Metal Pan Standard: Provide manufacturer's standard acoustical metal pans of configuration indicated that comply with ASTM E 1264 classifications as designated by types, acoustical ratings, and light reflectances unless otherwise indicated.
  - 1. Mounting Method for Measuring NRC: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches away from test surface per ASTM E 795.
  - 2. Basis-of-Design Product: See drawings.
- B. Sheet Metal Characteristics: For metal components exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, roughness, stains, or discolorations.
  - 1. Steel Sheet: Commercial-quality, cold-rolled, carbon-steel sheet; stretcher leveled; with protective coating complying with ASTM C 635.
    - a. Chemical/Mechanical Finishes: Uncoated steel sheet complying with ASTM A 1008/A 1008M with luster or bright finish as required by finisher for applying electroplating or other metallic-finishing processes.

### 2.2 METAL SUSPENSION SYSTEMS

- A. Metal Suspension System Standard: Provide manufacturer's standard metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable ASTM C 635 requirements.
- B. Suspension Systems: Provide systems complete with carriers, runners, splice sections, connector clips, alignment clips, leveling clips, hangers, molding, trim, retention clips, load-resisting struts, and other suspension components required to support ceiling units and other ceiling-supported construction.
- C. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, "Direct Hung," unless otherwise indicated.
- D. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
  - 1. Zinc-Coated, Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
  - 2. Size: Select wire diameter so its stress at 3 times the hanger design load indicated in ASTM C 635, Table 1, Direct Hung will be less than yield stress of wire, but provide not less than 0.106-inch- diameter wire.
- E. Angle Hangers: Angles with legs not less than 7/8 inch wide; formed with 0.04-inch- thick, galvanized-steel sheet complying with ASTM A 653/A 653M, G90 (Z275) coating designation; with bolted connections and 5/16-inch- diameter bolts.

- F. Hold-Down Clips: Manufacturer's standard hold-down clips spaced to secure acoustical metal pans in place to molding and trim at perimeter.
- G. Exposed Metal Edge Moldings and Trim: Provide exposed members as indicated or as required to comply with seismic requirements of authorities having jurisdiction, to conceal edges of and penetrations through ceiling, to conceal edges of pans and runners, for fixture trim and adapters, for fasciae at changes in ceiling height, and for other conditions; of metal and finish matching acoustical metal pan ceiling units, unless otherwise indicated.

## 2.3 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical metal pan ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical metal pan ceilings.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical metal pans to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width pans at borders, and comply with layout shown on reflected ceiling plans and Coordination Drawings.

### 3.3 INSTALLATION

- A. Install acoustical metal pan ceilings to comply with ASTM C 636 per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
- B. Suspend ceiling hangers from building's structural members and as follows:



1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
  2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
  3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
  4. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
  5. Space hangers not more than 48 inches o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
  6. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
- C. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical metal pans.
1. Screw attach moldings to substrate at intervals not more than 16 inches o.c. and not more than 3 inches from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet. Miter corners accurately and connect securely.
  2. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- D. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- E. Cut acoustical metal pan units for accurate fit at borders and at interruptions and penetrations by other work through ceilings. Stiffen edges of cut units as required to eliminate evidence of buckling or variations in flatness exceeding referenced standards for stretcher-leveled metal sheet.
- F. Install acoustical metal pans in coordination with suspension system and exposed moldings and trim.
1. For lay-in square-edge pans, install pans with edges fully hidden from view by flanges of suspension system runners and moldings.
  2. Align joints in adjacent courses to form uniform, straight joints parallel to room axis in both directions unless otherwise indicated.
  3. Fit adjoining units to form flush, tight joints.
- G. Install hold-down clips where indicated.

### 3.4 CLEANING

- A. Clean exposed surfaces of acoustical metal pan ceilings, including trim and edge moldings after removing strippable, temporary protective covering, if any. Comply with manufacturer's written instructions for stripping of temporary protective covering, cleaning, and touchup of

minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage, including dented and bent units.

END OF SECTION 09 51 33

SECTION 09 61 23 - CONCRETE FLOORING TREATMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes a sealing compound applied to concrete floor surfaces directly beneath access flooring.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's specifications, application instructions, and general recommendations. Include data substantiating that products to be furnished comply with requirements of the contract documents.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels.
- B. Store materials in a clean, dry location protected from exposure to direct sunlight. In storage areas, maintain environmental conditions within range recommended in writing by manufacturer.

1.4 PROJECT CONDITIONS

- A. Environmental Requirements: Do not proceed with installation until areas to receive the work have been enclosed and until temperature and relative humidity have been stabilized and will be maintained within values established by the manufacturer for optimum quality control.
- B. Ventilation: Provide adequate ventilation to prevent accumulation of hazardous fumes, if any, during application of concrete floor sealer in enclosed spaces, and maintain ventilation until sealer has cured.

PART 2 - PRODUCTS

2.1 SEALING COMPOUND

- A. High solids, now-yellowing, sealing compound with a VOC content of 200 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
  - 1. The basis of design is "Diamond Clear VOX"; manufactured by The Euclid Chemical Company. Subject to compliance with the requirements, products of other manufacturers will also be considered.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Inspect substrates and conditions under which the work of this section will be performed, and verify that installation properly may commence. Do not proceed with the work until unsatisfactory conditions have been resolved fully.

3.2 PREPARATION

- A. Clean substrate, removing projections and substances detrimental to the work; comply with recommendations of manufacturer of products to be installed for proper preparation procedures.
- B. Mask off or otherwise protect adjacent surfaces not scheduled to receive products of this section.

3.3 APPLICATION

- A. General: Comply with manufacturer's instructions, except where more stringent requirements are shown or specified, and except where project conditions require extra precautions or provisions to ensure satisfactory performance of the work.

3.4 PROTECTION

- A. General: Institute protective procedures and install protective materials as required to ensure that work of this section will be without damage or deterioration at substantial completion.

END OF SECTION 09 61 23  
Custom/05-02/ttt

## SECTION 09 64 00 - WOOD FLOORING

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Factory-finished wood flooring.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For each type of floor assembly and accessory. Include plans, elevations, sections, details, and attachments to other work. Include expansion provisions and trim details.
- C. Samples for Verification: For each type of wood flooring and accessory, with stain color and finish required, approximately 12 inches (300 mm) long and of same thickness and material indicated for the Work and showing the full range of normal color and texture variations expected.

#### 1.3 DELIVERY, STORAGE, AND HANDLING

- A. Deliver wood flooring materials in unopened cartons or bundles.
- B. Protect wood flooring from exposure to moisture. Do not deliver wood flooring until after concrete, masonry, plaster, ceramic tile, and similar wet work is complete and dry.
- C. Store wood flooring materials in a dry, warm, ventilated, weathertight location.

#### 1.4 PROJECT CONDITIONS

- A. Conditioning period begins not less than seven days before wood flooring installation, is continuous through installation, and continues not less than seven days after wood flooring installation.
1. Environmental Conditioning: Maintain an ambient temperature between 65 and 75 deg F (18 and 24 deg C) and relative humidity planned for building occupants in spaces to receive wood flooring during the conditioning period.
  2. Wood Flooring Conditioning: Move wood flooring into spaces where it will be installed, no later than the beginning of the conditioning period.
    - a. Do not install flooring until it adjusts to relative humidity of, and is at same temperature as, space where it is to be installed.

- b. Open sealed packages to allow wood flooring to acclimatize immediately on moving flooring into spaces in which it will be installed.
- B. After conditioning period, maintain relative humidity and ambient temperature planned for building occupants.
- C. Install factory-finished wood flooring after other finishing operations, including painting, have been completed.

## 1.5 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Wood Flooring: Equal to 1percent of amount installed for each type of wood flooring indicated.

## PART 2 - PRODUCTS

### 2.1 FACTORY-FINISHED WOOD FLOORING

- A. Engineered-Wood Flooring: HPVA EF.
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
    - a. Anderson Hardwood Floors.
    - b. Armstrong World Industries, Inc.
    - c. Boen Hardwood Flooring Inc.
    - d. EcoTimber.
    - e. Gammapar.
    - f. Mannington Mills, Inc.
    - g. Oregon Lumber Company.
    - h. Tarkett.
    - i. Wood Flooring International.
    - j. WD Flooring, LLC.
  - 2. Species: Walnut
  - 3. Thickness: 3/8 inch
  - 4. Construction: Five ply.
  - 5. Face Width: See drawings.
  - 6. Length: Manufacturer's standard.
  - 7. Edge Style: Square.
  - 8. Finish: Acrylic impregnated.
    - a. Color: As selected by Architect in manufacturer's full range

## 2.2 ACCESSORY MATERIALS

- A. Wood Underlayment: As specified in Division 06 Section "Rough Carpentry."
- B. Vapor Retarder: ASTM D 4397, polyethylene sheet not less than 6.0 mils
- C. Asphalt-Saturated Felt: ASTM D 4869, Type II.
- D. Wood Flooring Adhesive: Mastic recommended by flooring and adhesive manufacturers for application indicated.
  - 1. Use adhesives that have a VOC content of not more than 100 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- E. Trowelable Leveling and Patching Compound: Latex-modified, hydraulic-cement-based formulation approved by wood flooring manufacturer.
- F. Fasteners: As recommended by manufacturer, but not less than that recommended in NWFA's "Installation Guidelines: Wood Flooring."
- G. Thresholds and Saddles: To match wood flooring. Tapered on each side.
- H. Reducer Strips: To match wood flooring. 2 inches wide, tapered, and in thickness required to match height of flooring.
- I. Cork Expansion Strip: Composition cork strip.
- J. Feature Strips: 2-inch- wide, square-edged walnut strips, furnished in lengths as long as practical and in thickness to match wood flooring.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas and conditions, with Installer present, for compliance with requirements for maximum moisture content, installation tolerances, and other conditions affecting performance of wood flooring.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Concrete Slabs: Verify that concrete substrates are dry and moisture-vapor emissions are within acceptable levels according to manufacturer's written instructions.

### 3.2 PREPARATION

- A. Concrete Slabs: Grind high spots and fill low spots to produce a maximum 1/8-inch deviation in any direction when checked with a 10-foot straight edge.

1. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, and depressions in substrates.
- B. Remove coatings, including curing compounds, and other substances on substrates that are incompatible with installation adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
- C. Broom or vacuum clean substrates to be covered immediately before product installation. After cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.3 INSTALLATION

- A. Comply with flooring manufacturer's written installation instructions, but not less than applicable recommendations in NWFA's "Installation Guidelines: Wood Flooring."
- B. Wood Underlayment: Install according to requirements in Division 06 Section "Rough Carpentry."
- C. Provide expansion space at walls and other obstructions and terminations of flooring of not less than 3/4 inch (19 mm)
- D. Vapor Retarder: Comply with NOFMA's "Installing Hardwood Flooring" for vapor retarder installation and the following:
  1. Wood Flooring Nailed to Wood Subfloor: Install flooring over a layer of asphalt-saturated felt.
  2. Wood Flooring Installed Directly on Concrete: Install a layer of polyethylene sheet according to flooring manufacturer's written instructions.
- E. Engineered-Wood Flooring: Install floating floor.

### 3.4 PROTECTION

- A. Protect installed wood flooring during remainder of construction period with covering of heavy kraft paper or other suitable material. Do not use plastic sheet or film that might cause condensation.
  1. Do not move heavy and sharp objects directly over kraft-paper-covered wood flooring. Protect flooring with plywood or hardboard panels to prevent damage from storing or moving objects over flooring.

END OF SECTION 09 64 00



## SECTION 096519 - RESILIENT TILE FLOORING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes resilient floor tile.

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data for each type of product indicated.
- B. Samples: Submit full-size units of each color and pattern of resilient floor tile required.
- C. Maintenance Data: Submit maintenance data for resilient floor tile and floor finish products.

#### 1.3 PROJECT CONDITIONS

- A. Maintain temperatures within range recommended by manufacturer, but not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C), in spaces to receive floor tile during the following time periods:
  - 1. 48 hours before installation.
  - 2. During installation.
  - 3. 48 hours after installation.
- B. After postinstallation period, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).
- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 48 hours after floor covering installation.
- E. Install resilient products after other finishing operations, including painting, have been completed.

#### 1.4 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Floor Tile: Furnish 1 box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

## PART 2 - PRODUCTS

### 2.1 RESILIENT FLOOR TILE

- A. Products and Manufacturers: Refer to the drawings and the Finish Schedule. Nominal thickness not less than 1/8" unless greater thickness is scheduled.

### 2.2 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based formulation provided or approved by resilient product manufacture for applications indicated.
- B. Adhesives:
  - 1. Typical Resilient Floor Tile: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.
  - 2. Static-Control Adhesive: Adhesive product of floor covering manufacturer that produces conductive continuity of floor covering system.
    - a. RT-2 Static Dissipative Floor Tile: Armstrong; S-202 Adhesive.
- C. Grounding Strips: One 2" x 24" x 0.003" thick copper strap installed every 1,000 s.f. that is provided and approved by floor covering manufacturer and that produces conductive continuity of the flooring system to ground connection.
- D. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edges of tiles, and in maximum available lengths to minimize running joints.
- E. Vinyl Composition Tile Protective Floor Polish:
  - 1. Typical VCT Flooring: Product recommended by manufacturer to suit resilient products indicated.
  - 2. Static Control Resilient Floor Tile: Armstrong; S-392 Static Dissipative Tile Polish.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances, moisture content, and other conditions affecting performance.
  - 1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Prepare concrete substrates according to manufacturer's written recommendations to ensure adhesion of resilient products.
- B. Concrete Substrates: Prepare concrete substrates as follows:
  - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
  - 2. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
    - a. Concrete floors shall be tested for alkalinity. The allowable readings for the installation of Armstrong flooring are 5 to 9 on the pH scale.
  - 3. Moisture Testing:
    - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m) in 24 hours.
    - b. Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
- C. Remove paint, sealers, substrate coatings, existing floor covering adhesive residues (if any), and other substances that are incompatible with adhesives using mechanical methods recommended by manufacturer. Do not use solvents.
- D. Use trowelable leveling and patching compound to fill cracks, holes, and depressions in substrates.
- E. Apply primer to concrete slabs, if recommended by the flooring manufacturer, prior to application of adhesive.
- F. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
  - 1. Do not install resilient products until they are same temperature as space where they are to be installed.
- G. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

### 3.3 INSTALLATION

- A. Lay out tiles so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
  - 1. Lay tiles square with room axis unless otherwise indicated.

- B. Match tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
- C. In the copper grounding strip locations, place 18" of the copper grounding strip over the dry-to-the-touch S-202 Adhesive on the subfloor. The remaining 6" of the strip should continue up the wall. Apply additional S-202 Adhesive over the 18" section of copper grounding strip on the floor. Allow this adhesive to dry to the touch and install the tile over the strip.
- D. Scribe, cut, and fit tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, edgings, door frames, thresholds, and nosings. Extend unexposed edges of flooring under set on bases and similar trim work.
- E. Extend tiles into toe spaces, door reveals, closets, and similar openings.
- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent, nonstaining marking device.
- G. Install tiles on covers for telephone and electrical ducts and similar items in finished floor areas. Maintain overall continuity of color and pattern with pieces of tile installed on covers. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.
- H. Adhere tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation which is smooth, clean and free from imperfections such as open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

### 3.4 FIELD QUALITY CONTROL

- A. Testing: Test electrical resistance of static-control resilient floor covering for compliance with requirements.
  - 1. Arrange for testing after installation adhesives have fully cured and floor coverings have stabilized to ambient conditions.
  - 2. Arrange for testing of floor coverings after performing polish procedures.
- B. Remove and replace static-control floor covering where test results indicate that they do not comply with specified requirements.

### 3.5 CLEANING AND PROTECTION

- A. Perform the following operations immediately after completing resilient product installation:
  - 1. Remove adhesive and other blemishes from exposed surfaces.
  - 2. Sweep and vacuum surfaces thoroughly.
  - 3. Damp-mop surfaces to remove marks and soil.
  - 4. Do not wash or apply floor polishes until flooring adhesives have cured unless otherwise recommended by the flooring manufacturer.

- B. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods recommended in writing by manufacturer.
1. Floor Polishing:
    - a. Typical VCT Flooring: Apply protective floor polish to horizontal surfaces that are free from soil, visible adhesive, and surface blemishes using methods as recommended in writing by the floor polish manufacturer. Apply no fewer than 2 coats of floor polish unless additional coats are recommended by the floor polish manufacturer for the application indicated.
      - 1) Use commercially available product acceptable to manufacturer.
    - b. Static Control Resilient Floor Tile: Apply protective floor polish to horizontal surfaces that are free from soil, visible adhesives, and surface blemishes using methods as recommended in writing by the floor polish manufacturer. Apply no fewer than 2 coats of floor polish unless additional coats are recommended by the floor polish manufacturer for the application indicated.
  2. Cover products installed on horizontal surfaces with undyed, untreated building paper until Substantial Completion.
  3. Do not move heavy and sharp objects directly over surfaces. Place hardboard or plywood panels over flooring and under objects while they are being moved. Slide or roll objects over panels without moving panels.

END OF SECTION 096519

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 096813 – TILE CARPETING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes carpet tile.

#### 1.2 STANDARDS

- A. Except as modified by governing codes and by the Contract Documents, comply with the applicable provisions and recommendations of the following:
  - 1. The Carpet and Rug Institute "The Carpet Specifiers' Handbook."
  - 2. The Carpet and Rug Institute "CRI 104 Commercial Carpet Installation Standard."

#### 1.3 SUBMITTALS

- A. Product Data: Submit product data, specifications, installation instructions for materials specified herein and other data as may be required to show compliance with the Contract Documents. Include installation recommendations for each type of substrate required.
- B. Shop Drawings: Submit shop drawings showing the following:
  - 1. Existing floor materials to be removed.
  - 2. Existing floor materials to remain.
  - 3. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
  - 4. Carpet tile type, color, and dye lot.
  - 5. Type of subfloor.
  - 6. Type of installation.
  - 7. Pattern of installation, carpet locations, direction, and starting points per floor.
  - 8. Type, color, and location of insets and borders.
  - 9. Type, color, and location of edge, transition, and other accessory strips.
  - 10. Pile direction.
  - 11. Transition and other accessory strips.
  - 12. Transition details to other flooring materials.
- C. Samples: Submit samples showing full range of color, texture, and pattern variations expected. Prepare samples from same material to be used for the Work. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules. Submit the following:
  - 1. Carpet Tile: Full-size Samples.
  - 2. Exposed Edge Stripping and Accessory: 12-inch- (300-mm-) long Samples.
- D. Maintenance Data: Submit copies of instructions for care, cleaning, maintenance and repair of carpeting.

1. Each carpet manufacturer shall meet with the authorized Building Services personnel in the presence of the Owner, to review the characteristics of his product and to recommend appropriate maintenance procedures, prior to occupancy of the finished spaces.

E. Warranty: Submit special warranties specified in this Section.

#### 1.4 QUALITY ASSURANCE

A. Installer Qualifications: Engage a carpet installer, who has completed a minimum of three (3) projects over the last 10 years which were similar in material, design and extent to that indicated for the project - as determined by the Architect – and which have resulted in construction with a record of successful in service performance.

1. In the case where the Installer is actually a Dealer, it is understood that the terms Installer, Dealer, Carpeting Contractor and Contractor shall be one and the same for purposes of this Contract. He shall assume responsibility for all of the work, including acquisition of the materials from the manufacturers herein specified.

B. Mill Inspection: The carpeting may be inspected to determine compliance with the Contract Documents with respect to manufacture, materials, pattern and colors. Inspection may be made at the mill by a representative of the Architect and/or Owner at any time during the process of manufacture.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver carpeting in original mill protective wrapping with mill register numbers and tags attached.
- B. Deliver other materials in manufacturers unopened containers identified with name, brand, type, grade, class, and other qualifying information.
- C. Store materials in a dry location, in such a manner as to prevent damage.

#### 1.6 PROJECT CONDITIONS

A. Environmental Limitations: Do not install carpet tile until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

#### 1.7 WARRANTY

A. Special Carpet Manufacturer's Warranty: Written warranty, signed by carpet tile manufacturer agreeing to replace carpet tile that does not comply with requirements or that fails within specified warranty period. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse. Failures include, but are not limited to, more than 10 percent loss of face fiber, wear, static buildup in excess of 3.0 kV when tested under the Standard Shuffle Test at 70 degrees F. and 20% RH, edge raveling without seam sealers, tuft bind loss, zippering (wet or dry), shrinkage, curling, doming, snags, runs, and delamination. Warranties shall be full term, not pro-rated for the specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.



- B. Special Carpet Tile Installer's Warranty: Written warranty, signed by carpet tile installer agreeing to fix, repair or replace carpet tile that does not comply with requirements or that fails within specified warranty period. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse. Failures include, but are not limited to, more than edge raveling, shrinkage, curling, doming, and delamination.

- 1. Warranty Period: 2 years from date of Substantial Completion.

## 1.8 EXTRA MATERIALS AND ATTIC STOCK

- A. Extra Materials: Furnish extra materials described below before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Carpet Tile: Full-size units equal to 5 percent of amount installed for each type indicated, but not less than 10 sq. yd. (8.3 sq. m).
- B. Attic Stock: Package and deliver usable remnants of carpet to the Owner's storage room as directed by the Owner at the conclusion of the job. Include any uncut carpet tiles.

## PART 2 - PRODUCTS

### 2.1 CARPET TILE

- A. Carpet Tile Types: Provide manufacturers commercial grade carpet tile for 100% glue down installation as scheduled on the drawings.

### 2.2 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Portland cement-based formulation provided by or recommended by carpet tile manufacturer. Do not use gypsum based compounds.
- B. Carpet Adhesives: Water-resistant, mildew resistant, and nonstaining, high solids, low VOC emitting formulations that are specifically recommended by the carpet manufacturer, as verified through compatibility and adhesion testing for the intended substrate and application, and that comply with flammability requirements for installed carpet.
  - 1. VOC Content: Provide adhesives with VOC content not more than 50 g/L when calculated according to 40 CFR 59, Subpart D (EPA method 24).
- C. Carpet Edging: Provide homogenous vinyl or rubber composition carpet edging in single lengths wherever possible, keeping the number of joints or splices to a minimum. Provide in quantities and locations as job required based upon the recommended good practice of the industry; include in every location where carpet terminates and other flooring continues. Color to match adjacent carpet types.
- D. Floor Sealer: Type as recommended and manufactured by the carpet tile manufacturer for the applications indicated.

## PART 3 - EXECUTION

### 3.1 PRE-INSTALLATION MEETING

- A. Prior to the installation, and at the Contractor's direction, meet at the project site to review the material selections, substrate preparations, installation procedures, coordination with other trades, special details and conditions, standard of workmanship, and other pertinent topics related to the Work. The meeting shall include the Owner, Architect, the Contractor, the installer, material manufacturer's representatives, and representatives of other trades or subcontractors affected by the installation.

### 3.2 PREPARATION

- A. Coordinate the installation of carpet so as not to delay the occupancy of the site or interfere with the completion of construction.
- B. Examine the substrates, adjoining construction and the conditions under which the Work is to be installed. Verify recommended limits for moisture content and alkalinity of concrete substrates with carpet manufacturer.
  - 1. Moisture Content: Verify moisture content using a standard calcium chloride crystal test or a 1 yd. x 1 yd. clear plastic test. Perform testing at a frequency as recommended by the carpet manufacturer. Perform testing at a frequency of not less than once every 1,000 square feet.
  - 2. Alkalinity Test: Verify alkalinity of concrete substrates by drilling a 3/8" diameter hole approximately 1/4" deep, remove all residue; fill with distilled water, allow water to stand 3 minutes and test with a calibrated electronic meter or Ph paper. Perform testing at a frequency of not less than once every 1,000 square feet.
  - 3. Alternative test procedures for moisture content and alkalinity may be acceptable subject to the carpet manufacturer's review and written acceptance.
- C. Concrete Subfloors: Verify that concrete slabs comply with the following:
  - 1. Provide one of the following:
    - a. Remove coatings, including curing compounds, existing floor covering adhesive residues, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by the carpet manufacturer.
    - b. In lieu of mechanical substrate preparation methods the Contractor may utilize floor sealer materials and methods of the types and methods as recommended, in writing, by the carpet tile manufacturer. Apply sealer in number of coats, and at the spread rate, as required by the carpet tile manufacturer.
  - 2. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by the carpet manufacturer.

3. Use leveling and patching compounds recommended by flooring manufacturer for filling cracks, holes and depressions in the substrate. Surface shall be smooth, level and at proper elevation. Remove ridges, roughness and protrusions from concrete surfaces by grinding.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet.
- E. Carpet installation shall not commence until painting and finishing work are complete and ceiling and overhead work is tested, approved, and completed.
- F. Proceed with installation only after unsatisfactory conditions have been corrected

### 3.3 INSTALLATION

- A. General: Comply with the manufacturer's instructions, specified industry standards and recommendations, and as required to match the accepted sample installations. Apply adhesive in accordance with adhesive manufacturer's directions.
- B. Adhere all full size, perimeter tiles, and cut tiles, with a full spread of adhesive. Dry fit cut tiles and apply adhesive to tile back after tile has been cut. Use full uncut tiles down the center of corridors and, where necessary, cut perimeter tiles to butt walls.
  1. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
  2. Cut openings in carpet for electrical outlets, piping and other penetrations. Maintain close tolerances so that edges of carpet will be covered by plates and escutcheons.
  3. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- C. Butt carpet tile tightly together to form seams without gaps or entrapped pile yarns and aligned with adjoining tiles.
- D. Edge Strip Installation: Install edge strip at every location where edge of carpet is exposed to traffic, unless otherwise indicated. Unless otherwise directed by Architect install in single lengths and secure in accordance with manufacturer's directions.
- E. Traffic over adhesive installations shall be restricted until adhesive has properly cured in accordance with the adhesive manufacturers recommendations.

### 3.4 CLEANING AND PROTECTION

- A. Cleaning: As the carpeting is installed, remove and dispose of all trimmings, excess pieces of carpeting and laying materials from each area as it is completed. Vacuum carpeting with a commercial vacuum, having a cylindrical brush or beater bar and high suction. Remove adhesives, stains, and soil spots in accordance with the carpet manufacturers recommendations.
- B. Protection: Protect carpeting against damage of every kind as damaged carpeting shall be rejected. Use non-staining cover material for protection. Tape joints of protective covering.

1. Plastic and polyethylene sheet protective coverings shall not be permitted.
2. Remove and replace rejected carpeting with new carpeting. At the completion of the work and when directed by the Architect, remove covering, vacuum clean carpeting and remove soiling and stains (if any) to the satisfaction of the Architect.

END OF SECTION 096813

## SECTION 096816 – SHEET CARPETING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes broadloom carpet.

#### 1.2 STANDARDS

- A. Except as modified by governing codes and by the Contract Documents, comply with the applicable provisions and recommendations of the following:
  - 1. The Carpet and Rug Institute "The Carpet Specifiers' Handbook."
  - 2. The Carpet and Rug Institute "CRI 104 Commercial Carpet Installation Standard."

#### 1.3 SUBMITTALS

- A. Product Data: Submit product data, specifications, installation instructions for materials specified herein and other data as may be required to show compliance with the Contract Documents. Include installation recommendations for each type of substrate required.
- B. Shop Drawings: Submit shop drawings showing the following:
  - 1. Existing floor materials to remain.
  - 2. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet.
  - 3. Dye lots, pattern types, repeats, locations, pile direction, and starting points per floor.
  - 4. Seam locations, types, and methods.
  - 5. Type of installation.
  - 6. Type, color, and location of insets and borders.
  - 7. Type, color, and location of edge, transition, and other accessory strips.
  - 8. Show details of cutouts.
  - 9. Type of cushion.
  - 10. Include on shop drawings dimensions which verify field conditions.
  - 11. Transition, and other accessory strips.
  - 12. Transition details to other flooring materials.
- C. Samples: Submit samples showing full range of color, texture, and pattern variations expected. Prepare samples from same material to be used for the Work. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules. Submit the following:
  - 1. Carpet: 24-inch- square Samples of each carpet required.
  - 2. Exposed Edge Stripping and Accessory: 12-inch- long Samples.
  - 3. Carpet Cushion: 6-inch- square Sample.
  - 4. Mitered Carpet Border Seam: 12-inch- square Sample. Show carpet pattern alignment.

- D. Maintenance Data: Submit copies of instructions for care, cleaning, maintenance and repair of carpeting.

1. Each carpet manufacturer shall meet with the authorized Building Services personnel in the presence of the Owner, to review the characteristics of his product and to recommend appropriate maintenance procedures, prior to occupancy of the finished spaces.

- E. Warranties: Submit special warranties specified in this Section.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Engage a carpet installer, who has completed a minimum of three (3) projects over the last 10 years which were similar in material, design and extent to that indicated for the project - as determined by the Architect – and which have resulted in construction with a record of successful in service performance.

1. In the case where the Installer is actually a Dealer, it is understood that the terms Installer, Dealer, Carpeting Contractor and Contractor shall be one and the same for purposes of this Contract. He shall assume responsibility for all of the work, including acquisition of the materials from the manufacturers herein specified.

- B. Mill Inspection: The carpeting may be inspected to determine compliance with the Contract Documents with respect to manufacture, materials, pattern and colors. Inspection may be made at the mill by a representative of the Architect and/or Owner at any time during the process of manufacture.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver carpeting in original mill protective wrapping with mill register numbers and tags attached.
- B. Deliver other materials in manufacturers unopened containers identified with name, brand, type, grade, class, and other qualifying information.
- C. Store materials in a dry location, in such a manner as to prevent damage.

#### 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install carpet until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use. Stack rolls horizontally no higher than two high on a flat surface.

#### 1.7 WARRANTY

- A. Special Carpet Manufacturer's Warranty: Written warranty, signed by carpet manufacturer agreeing to replace carpet that does not comply with requirements or that fails within specified warranty period. Warranty does not include deterioration or failure of carpet due to unusual traffic, failure of substrate, vandalism, or abuse. Failures include, but are not limited to, more than 10 percent loss of face fiber, wear, static buildup in excess of 3.0 kV when tested under the Standard Shuffle Test at 70 degrees F. and 20% RH, edge raveling, tuft bind loss, shrinkage,

zippering (wet or dry), and delamination. Warrantees shall be full term, not pro-rated for the specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

- B. Special Carpet Cushion Warranty: Written warranty, signed by carpet cushion manufacturer agreeing to replace carpet cushion that does not comply with requirements or that fails within 10 years from date of Substantial Completion. Warranty does not include deterioration or failure of carpet cushion from unusual traffic, failure of substrate, vandalism, or abuse. Failure includes, but is not limited to, permanent indentation or compression.
- C. Installation Warranty: Submit copies of written warranty signed by the carpet installer and Contractor, warranting the carpet installation, for a period of 2 years, that the carpeting will not tear, crack, separate, deteriorate or pull loose from substrate, or experience seam failure, ripples, scallops, pilling or puckering.

#### 1.8 EXTRA MATERIALS AND ATTIC STOCK

- A. Extra Materials: Furnish extra materials described below before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Carpet: Full-width rolls equal to 5 percent of amount installed for each type indicated, but not less than 10 sq. yd. (8.3 sq. m).
- B. Attic Stock: Package and deliver usable remnants of carpet to the Owner's storage room as directed by the Owner at the conclusion of the job. Include pieces of broadloom 20 square feet in area or greater.

### PART 2 - PRODUCTS

#### 2.1 CARPET (CP- )

- A. Carpet Types: Provide manufacturers commercial grade broadloom carpet for 100% glue down installation. Refer to drawings and schedules for extent of each carpet type required.

#### 2.2 CARPET CUSHION

- A. Product as recommended in writing by the carpet manufacturer for the application indicated and which will not void the specified warranties.

#### 2.3 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Portland cement based formulation provided by or recommended by the following. Do not use gypsum based compounds.
  - 1. Carpet manufacturer.
  - 2. Carpet cushion manufacturer.
- B. Carpet Adhesives: Water-resistant, mildew resistant, and nonstaining, high solids, low VOC emitting formulations that are specifically recommended by the carpet manufacturer, as verified

through compatibility and adhesion testing for the intended substrate and application, and that comply with flammability requirements for installed carpet:

1. VOC Limits: Provide adhesives with VOC content not more than 50g/L when calculated according to 40 CFR 59, Subpart D (EPA method 24).
- C. Seaming Tape: Hot melt adhesive tape, 6" wide, recommended by the carpet mill as suitable for backing specified.
- D. Seaming Cement: Water-resistant and flame-resistant carpet adhesive for sealing raw edges, seaming, reinforcing seams and patching. Provide fast drying, easy spreading carpet seaming adhesive having excellent aging characteristics recommended by the carpet manufacturer.
- E. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edge of carpet, and of maximum lengths to minimize running joints.
- F. Carpet Edging: Provide homogenous vinyl or rubber composition carpet edging in single lengths wherever possible, keeping the number of joints or splices to a minimum. Provide in quantities and locations as job required based upon the recommended good practice of the industry; include in every location where carpet terminates and other flooring continues. Color to match adjacent carpet types.
- G. Floor Sealer: Type as recommended and manufactured by the carpet manufacturer for the applications indicated.

### PART 3 - EXECUTION

#### 3.1 PRE-INSTALLATION MEETING

- A. Prior to the installation, and at the Contractor's direction, meet at the project site to review the material selections, substrate preparations, installation procedures, coordination with other trades, special details and conditions, standard of workmanship, and other pertinent topics related to the Work. The meeting shall include the Owner, Architect, the Contractor, the installer, material manufacturer's representatives, and representatives of other trades or subcontractors affected by the installation.

#### 3.2 PREPARATION

- A. Coordinate the installation of carpet so as not to delay the occupancy of the site or interfere with the completion of construction.
- B. Examine the substrates, adjoining construction and the conditions under which the Work is to be installed. Verify recommended limits for moisture content and alkalinity of concrete substrates with carpet manufacturer.
  1. Moisture Content: Verify moisture content using a standard calcium chloride crystal test or a 1 yd. x 1 yd. clear plastic test. Perform testing at a frequency of not less than once every 1,000 square feet.
  2. Alkalinity Test: Verify alkalinity of concrete substrates by drilling a 3/8" diameter hole approximately 1/4" deep, remove all residue; fill with distilled water, allow water to stand



3 minutes and test with a calibrated electronic meter or Ph paper. Perform testing at a frequency of not less than once every 1,000 square feet.

3. Alternative test procedures for moisture content and alkalinity may be acceptable subject to the carpet manufacturer's review and written acceptance.

C. Concrete Subfloors: Verify that concrete slabs comply with the following:

1. Provide one of the following:
  - a. Remove coatings, including curing compounds, existing floor covering adhesive residues, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by the carpet manufacturer.
  - b. In lieu of mechanical substrate preparation methods the Contractor may utilize floor sealer materials and methods of the types and methods as recommended, in writing, by the carpet manufacturer. Apply sealer in number of coats, and at the spread rate, as required by the carpet manufacturer.
2. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by the carpet manufacturer.
3. Use leveling and patching compounds recommended by flooring manufacturer for filling cracks, holes and depressions in the substrate. Surface shall be smooth, level and at proper elevation. Remove ridges, roughness and protrusions from concrete surfaces by grinding.

D. Broom and vacuum clean substrates to be covered immediately before installing carpet.

E. Carpet installation shall not commence until painting and finishing work are complete and ceiling and overhead work is tested, approved, and completed.

F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 INSTALLATION

A. 100% Direct Glue Down of Broadloom Carpet: Comply with the manufacturer's instructions, specified industry standards and recommendations, and as required to match the accepted sample installations.

1. Carpet Layout, Cutting and Edge Trim Seaming: Prior to applying adhesives, place seams at locations indicated on accepted shop drawings. All carpet rolls shall be installed in the exact roll number sequence as listed on the carpet rolls. Maintain direction of pattern, texture and lay of pile. Side to end seaming shall not be allowed. All edges of all rolls of carpet shall be finish trimmed prior to laying to assure a perfect seam condition and carpet match. All trimmed edges shall then be treated with latex seaming adhesive to assure that loose and cut yarns are not left to ravel or pull out.

- a. Cut and fit carpet to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet manufacturer.
  - b. Extend carpet into closets and offsets, and under movable equipment of the rooms and spaces shown or scheduled to receive carpet, including recessed covers within those spaces.
  - c. Provide cutouts as required for removable access covers in substrates except do not cutout for floor closer cover plates. Bind edges neatly and secure to substrate. Cut only 3 sides wherever it is feasible to provide carpet flap in lieu of fully removable cutout.
  - d. At doorways, center seams under door in closed position; do not place seams perpendicular to door frame in direction of traffic through doorway.
  - e. Cut openings in carpet for electrical outlets, piping and other penetrations. Maintain close tolerances so that edges of carpet will be covered by plates and escutcheons.
  - f. Seams shall be located away from areas subject to pivoting traffic.
2. Apply adhesive in accordance with adhesive manufacturer's directions.
  3. Adhere carpet with a full spread of adhesive. Ensure uniform bond over the entire area.
    - a. Butt carpet tightly together to form seams without gaps or entrapped pile yarns and aligned with adjoining rolls of carpet. Seams shall be pressed by hand and/or suitable tool to produce the best possible even top pile width-to-width. Adjacent widths of carpet must be installed to finish at exactly the same elevation.
    - b. Roll carpet uniformly, removing air pockets and bubbles.
    - c. If the pile of the carpet has been compressed while laying in storage, so that there appears to be a difference in color in adjacent widths of material, the Contractor shall neutralize the pile with a steam machine and obtain a uniform pile direction throughout by brushing the carpet while it is still damp, at no additional cost to the Owner.
  4. Edge Strip Installation: Install edge strip at every location where edge of carpet is exposed to traffic, unless otherwise indicated. Unless otherwise directed by Architect install in single lengths and secure in accordance with manufacturer's directions.
  5. Traffic over adhesive installations shall be restricted until adhesive has properly cured in accordance with the adhesive manufacturers recommendations.
- B. Attached Cushion Installation: Comply with CRI 104, Section 10, "Attached Cushion Installation" and the carpet manufacturers recommendations.
  - C. Stair Carpeting: Comply with the manufacturer's instructions, specified industry standards and recommendations, and as follows:

1. Glue Down Installation: Tightly secure carpet to treads and risers using carpet adhesive. Stairs with a return nosing shall be cut and installed with the tread and risers being separate pieces.

#### 3.4 CLEANING AND PROTECTION

- A. Cleaning: As the carpeting is installed, remove and dispose of all trimmings, excess pieces of carpeting and laying materials from each area as it is completed. Vacuum carpeting with a commercial vacuum, having a cylindrical brush or beater bar and high suction. Remove adhesives, stains, and soil spots in accordance with the carpet manufacturers recommendations.
- B. Protection: Protect carpeting against damage of every kind as damaged carpeting shall be rejected. Use non-staining cover material for protection. Tape joints of protective covering.
  1. Plastic and polyethylene sheet protective coverings shall not be permitted over glue down installations.
  2. Remove and replace rejected carpeting with new carpeting. At the completion of the work and when directed by the Architect, remove covering, vacuum clean carpeting and remove soiling and stains (if any) to the satisfaction of the Architect.

END OF SECTION 096816

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 097713 - STRETCHED-FABRIC WALL SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes: Site-fabricated, stretched fabric acoustical wall system built with rigid polymer stretching system to secure fabric over the wall surface and core material.
- B. Related Sections:
  - 1. Division 9 Section: 09510 Acoustical Ceilings
  - 2. Division 9 Section: 09700 Wall Finishes

#### 1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
  - 1. ASTM C423 – Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - 2. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. National Fire Protection Association (NFPA):
  - 1. NFPA 265 – Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls.

#### 1.3 SYSTEM DESCRIPTION

- A. Design Requirements:
  - 1. Site-fabricated polymer stretching system members engineered specifically for perimeter, midwall, insider corner and outside corner room conditions. The stretching system shall create a cavity on the wall in the depth required by this specification.
  - 2. Core material shall be securely mounted to the substrate and completely fill the cavity created by the stretching system. Gaps in the core material are not acceptable.
  - 3. Fabric shall be stretched over the core material and inserted into the stretching system and be free from wrinkles or sagging. Adhesives, nails and tape should not be used to secure fabric.
  - 4. Stretching system shall be engineered to allow the removal and replacement of fabric as needed leaving adjacent panels undisturbed.
  - 5. Reveal stretching systems must be designed with a base piece and a separate “snap-in” reveal insert piece that is finished as specified by the Architect.
  - 6. Fabric wall panels manufactured off-site do not meet the intent of this specification.
- B. Performance Requirements:
  - 1. Complete stretched fabric wall system assembly shall be tested to provide surface burning characteristics as follows:
    - a. ASTM E84: Flame Spread of 10

Smoke Developed Index of 5

- b. NFPA 265 Method B: Must pass
- 2. Complete stretched fabric wall system assembly shall be tested by ASTM C423 Type A Mounting to provide Noise Reduction Coefficient (NRC) rating as follows:
  - a. 1/2" system thickness – .55

#### 1.4 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 submittal Procedures.
- B. Product Data: Submit manufacturer's product data and literature.
  - 1. Recommended cleaning procedures for fabric.
- C. Samples: Submit selection and verification samples as follows:
  - 1. 6" piece of each polymer stretching system required.
  - 2. 6" x 6" piece of each core material required.
  - 3. 8" x 10" memo sample of each fabric required.
  - 4. Submit two (2) samples 12" x 12" mounted on wood substrate showing the required system characteristics.
- D. Shop Drawings:
  - 1. Submit shop drawings of panel layout, system thickness, edge conditions, core configuration and fabric direction.
- E. Quality Assurance / Control Submittals: Submit the following:
  - 1. Test Reports: Upon request, submit certified test reports from independent, recognized testing agencies which demonstrate full compliance with required acoustical and fire protection performance characteristics.
- F. Certificates:
  - 1. Installation Company must provide documentation they are licensed and trained by the manufacturer.

#### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Use licensed and trained installation technicians with experience installing stretched fabric wall systems on projects of similar size and complexity.
- B. All polymer stretching system members must be manufactured by Whisper Walls including all perimeter, midwall, inside and outside corner pieces.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. General: Abide by requirements in Division 1 Product Requirements Section.

B. Storage and Protection:

1. Protect system components from moisture, dust and damage during shipment.
2. Deliver system components in unopened bundles and store in dry area with adequate air circulation.
3. Fabric on bolts should not be stored under other material or upright on end.

1.7 PROJECT / SITE CONDITIONS

A. Environmental Requirements:

1. Building must be closed in and climate controlled before installation of fabric facing.
2. Maintain constant humidity and temperature conditions using the buildings mechanical systems from 24 hours before installation through to acceptance by the Owner.
3. Adequate lighting conditions must be provided for before installation can start.

1.8 SEQUENCING AND SCHEDULING

- A. Installation of stretched fabric wall system shall begin only after all adjoining work is complete.
- B. All wet work must be completed.

1.9 WARRANTY

- A. Provide a one year installation warranty.
- B. Provide a special manufacturer warranty up to five years against polymer stretching system and core material defects.

1.10 MAINTENANCE

- A. Extra Material: Provide 5% (five percent) of extra stock for each fabric specified of same dye lot for use by owner for maintenance and repair.

**PART 2 – PRODUCTS**

2.1 MANUFACTURERS:

- A. Whisper Walls  
10957 East Bethany Drive  
Aurora, CO 80014
- Phone: 800-527-7817  
Fax: 303-671-0606  
E-mail: sales@whisperwalls.com  
Website: www.whisperwalls.com
- B. Substitution: No substitutions permitted

2.2 MATERIALS

A. Stretched Fabric Wall System:

1. Panel Size: As indicated on drawings.
2. Panel Thickness: As indicated on drawings.
3. Stretching System: Polymer extrusions
  - a. Perimeter edge condition:
    - i. Square
  - b. Midwall edge condition:
    - i. Square
  - c. Outside Corner edge condition:
    - i. Square –Fabric wrapped without seam
4. Core Material:
  - a. Acoustical: Semi-rigid fiberglass board
    - i. Density: Acoustitherm 600.
    - ii. Thickness: As shown in details on Contract Documents.
5. Fabric: See Finish Schedule in Contract Documents.

**PART 3 – EXECUTION**

3.1 MANUFACTURER’S INSTRUCTIONS

- A. Install all materials in accordance with on site regulations, performance requirements and industry standards.

3.2 EXAMINATION

A. Site Verification of Conditions:

1. Examine the condition of the substrate in areas where work is to be performed.
2. Installation to begin only after the following:
  - a. Building is closed in and climate controlled.
  - b. All related work is complete including electrical, hvac, millwork, paint, ceilings, base board and floor coverings.
3. Contractor is to be notified in writing of any unsatisfactory conditions.



4. Work will not proceed until unsatisfactory conditions have been corrected or completed in a manner satisfactory to the installer.

### 3.3 INSTALLATION

- A. Install materials in accordance with the manufacturer's instructions and complying with governing regulations, fire resistance rating requirements indicated and industry standards applicable to the work.
- B. Fasten the rigid polymer stretching system to the surfaces receiving the treatment. Secure with Whisper Walls mechanical diverging stapler using 1 inch 18 gage staples spaced on 2 inch centers.
- C. Install rigid polymer stretching system plumb and straight, flush, and in proper alignment.
- D. Install the core material required, continuous and flush, to the shoulder of the stretching system and secure in place with recommended fasteners.
- E. Cut the fabric from each roll maintaining sequence of drops and matching direction of weave for sequential and uniform installation.
- F. Stretch the fabric and secure into the locking jaws of the stretching system so that it will be smooth, free of wrinkles and the weave straight and parallel to perimeter anchors, plumb, and aligned horizontally and vertically. Gluing or stapling of fabric will not be acceptable for this work.
- G. Examine fabric as it is installed for damage, imperfections, poor color match, or other deficiencies. Replace with acceptable material as directed by the Architect.

### 3.4 CLEANING

- A. Clean exposed surfaces of acoustical wall system, comply with manufacturer's instructions for cleaning and repair of minor finish damage. Remove and replace work which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.
- B. Upon completion of work, remove all remaining material including trash and debris. All areas are to be left in an orderly and clean condition.

### 3.5 PROTECTION

- A. The Installer shall advise the Contractor of required protection for the Whisper Walls including temperature, humidity limitations, and dust control so the work will be without damage and deterioration at the time of acceptance by the Owner.

END OF SECTION 097713

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 09 91 13 - EXTERIOR PAINTING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes surface preparation and the application of paint systems on the following exterior substrates:
  - 1. Steel.
  - 2. Galvanized metal.
  - 3. Aluminum (not anodized or otherwise coated).
  - 4. Wood.
  - 5. Exterior portland cement (stucco).
- B. Related Sections include the following:
  - 1. Division 09 Section "Interior Painting" for surface preparation and the application of paint systems on interior substrates.
  - 2. Division 09 Section "Staining and Transparent Finishing" for surface preparation and the application of wood stains and transparent finishes on exterior wood substrates.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of topcoat product indicated.
- C. Samples for Verification: For each type of paint system and each color and gloss of topcoat indicated.
  - 1. Submit Samples on rigid backing, 8 inches square.
  - 2. Step coats on Samples to show each coat required for system.
  - 3. Label each coat of each Sample.
  - 4. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
  - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
  - 2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

1.4 QUALITY ASSURANCE

A. MPI Standards:

1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.6 PROJECT CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).

B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

1.7 EXTRA MATERIALS

A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.

1. Quantity: Furnish an additional 5 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

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

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Benjamin Moore & Co.
2. Bennette Paint Mfg. Co., Inc.
3. BLP Mobile Paint Manufacturing.

4. California Paints.
5. ChemRex.
6. Cloverdale Paint.
7. Color Wheel Paints & Coatings.
8. Columbia Paint & Coatings.
9. Coronado Paint.
10. Davis Paint Company.
11. Del Technical Coatings.
12. Diamond Vogel Paints.
13. Dunn-Edwards Corporation.
14. Durant Paints Inc.
15. Duron, Inc.
16. Envirocoat Technologies Inc.
17. Farrell-Calhoun.
18. Flex Bon Paints.
19. Frazee Paint.
20. General Paint.
21. Griggs Paint.
22. Hallman Lindsay Quality Paints.
23. Hirshfield's, Inc.
24. ICI Paints.
25. Insl-x.
26. Iowa Paint Manufacturing Company, Inc.
27. Kelly-Moore Paints.
28. Kwal-Howells Paint.
29. M.A.B. Paints.
30. McCormick Paints.
31. Miller Paint.
32. Mills Paint.
33. NCP Coatings.
34. Northern Paint.
35. PARA Paints.
36. Parker Paint Mfg. Co. Inc.
37. Porter Paints.
38. PPG Architectural Finishes, Inc.
39. Rodda Paint Co.
40. Sherwin-Williams Company (The).
41. Sico, Inc.
42. Sigma Coatings.
43. Smiland Paint Company.
44. Spectra-Tone.
45. Tamms Industries, Inc.
46. Tower Paint.
47. Vista Paint.

## 2.2 PAINT, GENERAL

### A. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. Colors: As indicated in the documents finish schedule.

## 2.3 BLOCK FILLERS

A. Interior/Exterior Latex Block Filler: MPI #4.

## 2.4 PRIMERS/SEALERS

A. Alkali-Resistant Primer: MPI #3.

B. Bonding Primer (Water Based): MPI #17.

C. Bonding Primer (Solvent Based): MPI #69.

D. Wood-Knot Sealer: Sealer recommended in writing by topcoat manufacturer for use in paint system indicated.

## 2.5 METAL PRIMERS

A. Alkyd Anticorrosive Metal Primer: MPI #79.

B. Quick-Drying Alkyd Metal Primer: MPI #76.

C. Cementitious Galvanized-Metal Primer: MPI #26.

D. Waterborne Galvanized-Metal Primer: MPI #134.

E. Quick-Drying Primer for Aluminum: MPI #95.

## 2.6 WOOD PRIMERS

A. Exterior Latex Wood Primer: MPI #6.

B. Exterior Alkyd Wood Primer: MPI #5.

C. Exterior Oil Wood Primer: MPI #7.

## 2.7 EXTERIOR LATEX PAINTS

A. Exterior Latex (Flat): MPI #10 (Gloss Level 1).

- B. Exterior Latex (Semigloss): MPI #11 (Gloss Level 5).
- C. Exterior Latex (Gloss): MPI #119 (Gloss Level 6, except minimum gloss of 65 units at 60 deg).

## 2.8 EXTERIOR ALKYD PAINTS

- A. Exterior Alkyd Enamel (Flat): MPI #8 (Gloss Level 1).
- B. Exterior Alkyd Enamel (Semigloss): MPI #94 (Gloss Level 5).
- C. Exterior Alkyd Enamel (Gloss): MPI #9 (Gloss Level 6).

## 2.9 QUICK-DRYING ENAMELS

- A. Quick-Drying Enamel (Semigloss): MPI #81 (Gloss Level 5).
- B. Quick-Drying Enamel (High Gloss): MPI #96 (Gloss Level 7).

## 2.10 TEXTURED AND HIGH-BUILD COATINGS

- A. Latex Stucco and Masonry Textured Coating: MPI #42.
- B. High-Build Latex (Exterior): MPI #40.

## 2.11 ALUMINUM PAINT

- A. Aluminum Paint: MPI #1.

# PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
  - 1. Wood: 15 percent.
  - 2. Plaster: 12 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.

1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Remove plates, machined surfaces, and similar items already in place that are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
  1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
  2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- C. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
  1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- D. Steel Substrates: Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.
- E. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- F. Aluminum Substrates: Remove surface oxidation.
- G. Wood Substrates:
  1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
  2. Sand surfaces that will be exposed to view, and dust off.
  3. Prime edges, ends, faces, undersides, and backsides of wood.
  4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
- H. Plaster Substrates: Do not begin paint application until plaster is fully cured and dry.

### 3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
  1. Use applicators and techniques suited for paint and substrate indicated.
  2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.



- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

### 3.4 FIELD QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure at any time and as often as Owner deems necessary during the period when paints are being applied:
  - 1. Owner will engage the services of a qualified testing agency to sample paint materials being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
  - 2. Testing agency will perform tests for compliance of paint materials with product requirements.
  - 3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying-paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

### 3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

### 3.6 EXTERIOR PAINTING SCHEDULE

- A. Galvanized-Metal Substrates:
  - 1. Latex System: MPI EXT 5.3A.

- a. Prime Coat: Cementitious galvanized-metal primer.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex see finish schedule for finish callout.
  2. Latex Over Water-Based Primer System: MPI EXT 5.3H.
    - a. Prime Coat: Waterborne galvanized-metal primer.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex see finish schedule for finish callout.
  3. Alkyd System: MPI EXT 5.3B.
    - a. Prime Coat: Cementitious galvanized-metal primer.
    - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
    - c. Topcoat: Exterior alkyd enamel see finish schedule for finish callout.
- B. Aluminum Substrates:
1. Latex System: MPI EXT 5.4H.
    - a. Prime Coat: Quick-drying primer for aluminum.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex see finish schedule for finish callout
  2. Alkyd System: MPI EXT 5.4F.
    - a. Prime Coat: Quick-drying primer for aluminum.
    - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
    - c. Topcoat: Exterior alkyd enamel see finish schedule for finish callout.
- C. Dressed Lumber Substrates: Including architectural woodwork and doors.
1. Latex System: MPI EXT 6.3L.
    - a. Prime Coat: Exterior latex wood primer.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex see finish schedule for finish callout.
  2. Latex Over Alkyd Primer System: MPI EXT 6.3A.
    - a. Prime Coat: Exterior alkyd wood primer.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex see finish schedule for finish callout.
  3. Alkyd System: MPI EXT 6.3B.
    - a. Prime Coat: Exterior alkyd wood primer.
    - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
    - c. Topcoat: Exterior alkyd enamel see finish schedule for finish callout.
- D. Wood Panel Substrates: Including fascias.

1. Latex System: MPI EXT 6.4K.
    - a. Prime Coat: Exterior latex wood primer.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex see finish schedule for finish callout.
  2. Latex Over Alkyd Primer System: MPI EXT 6.4G.
    - a. Prime Coat: Exterior alkyd wood primer.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex see finish schedule for finish callout.
  3. Alkyd System: MPI EXT 6.4B.
    - a. Prime Coat: Exterior alkyd wood primer.
    - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
    - c. Topcoat: Exterior alkyd enamel see finish schedule for finish callout.
- E. Stucco Substrates:
1. Latex System: MPI EXT 9.1A.
    - a. Prime Coat: Exterior latex matching topcoat.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex flat.
  2. Latex Over Alkali-Resistant Primer System: MPI EXT 9.1J.
    - a. Prime Coat: Alkali-resistant primer.
    - b. Intermediate Coat: Exterior latex matching topcoat.
    - c. Topcoat: Exterior latex flat.
  3. High-Build Latex System: MPI EXT 9.1H, applied to form dry film thickness of not less than 10 mils (0.25 mm).
    - a. Prime Coat: As recommended in writing by topcoat manufacturer.
    - b. Intermediate Coat: As recommended in writing by topcoat manufacturer.
    - c. Topcoat: High-build latex (exterior).

END OF SECTION 09 91 13

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 099123 - INTERIOR PAINTING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes surface preparation and field painting of exposed interior items and surfaces.
- B. Paint exposed surfaces. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. Painting includes field painting of exposed bare and covered pipes and ducts (including color coding), hangers, exposed steel and iron supports, and surfaces of mechanical and electrical equipment that do not have a factory-applied final finish.
- C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.

#### 1.2 DEFINITIONS

- A. General: Standard coating terms defined in ASTM D 16 apply to this Section.
  - 1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85-degree meter.
  - 2. Semigloss refers to medium-sheen finish with a gloss range between 35 and 70 when measured at a 60-degree meter.

#### 1.3 SUBMITTALS

- A. Product Data: Submit product data for each paint system indicated. Include block fillers and primers.
  - 1. Include VOC content expressed in grams per liter.
- B. Samples: Submit samples for each color and material to be applied, with texture to simulate actual conditions.
  - 1. Provide stepped Samples, defining each separate coat, including primers. Use representative colors when preparing Samples for review. Resubmit until required sheen, color, and texture are achieved.
  - 2. Provide a list of materials and applications for each coat of each Sample. Label each Sample for location and application.
  - 3. Submit paint samples on 12" square of hardboard for the Architect's review of each color and texture required.

4.

#### 1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
- B. Source Limitations: Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide products of one of the following:
  - 1. Benjamin Moore & Co. (Benjamin Moore). [www.benjaminmoore.com](http://www.benjaminmoore.com)
  - 2. Duron Paints & Wallcoverings (Duron). [www.duron.com](http://www.duron.com)
  - 3. M. A. Bruder & Sons, Inc. (M. A. B. Paint). [www.mabpaints.com](http://www.mabpaints.com)
  - 4. PPG Industries, Inc. (Pittsburgh Paints). [www.ppgaf.com](http://www.ppgaf.com)
  - 5. Sherwin-Williams Co. (Sherwin-Williams). [www.sherwinwilliams.com](http://www.sherwinwilliams.com)
  - 6. ICI Paints (ICI). [www.ici.com](http://www.ici.com).

#### 2.2 PAINT MATERIALS, GENERAL

- A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. VOC Classification: Provide materials, including primers, undercoats, and finish-coat materials, that meet the following criteria for VOC classification:
  - 1. 100 grams/liter or less for flat coatings.
  - 2. 150 grams/liter or less for non-flat coatings.
  - 3. 250 grams/liter or less for non-flat, high gloss coatings.
  - 4. 200 grams/liter or less for primers, sealers, and undercoaters.
- C. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
  - 1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.

- D. VOC Content of Field-Applied Interior Paints and Coatings: Provide products that comply with the following limits for VOC content, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24); these requirements do not apply to paints and coatings that are applied in a fabrication or finishing shop:
1. Flat Topcoat Paints: VOC content of not more than 50 g/L.
  2. Nonflat Topcoat Paints: VOC content of not more than 150 g/L.
  3. Anti-Corrosive and Anti-Rust Paints Applied to Ferrous Metals: VOC content not more than 250 g/L.
  4. Floor Coatings: VOC content not more than 100 g/L.
  5. Shellacs, Clear: VOC content not more than 730 g/L.
  6. Shellacs, Pigmented: VOC content not more than 550 g/L.
  7. Primers, Sealers, and Undercoaters: VOC content of not more than 200 g/L.
- E. Chemical Components of Field-Applied Interior Paints and Coatings: Provide topcoat paints and anti-corrosive and anti-rust paints applied to ferrous metals that comply with the following chemical restrictions; these requirements do not apply to paints and coatings that are applied in a fabrication or finishing shop:
1. Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).
  2. Restricted Components: Paints and coatings shall not contain any of the following:
    - a. Acrolein.
    - b. Acrylonitrile.
    - c. Antimony.
    - d. Benzene.
    - e. Butyl benzyl phthalate.
    - f. Cadmium.
    - g. Di (2-ethylhexyl) phthalate.
    - h. Di-n-butyl phthalate.
    - i. Di-n-octyl phthalate.
    - j. 1,2-dichlorobenzene.
    - k. Diethyl phthalate.
    - l. Dimethyl phthalate.
    - m. Ethylbenzene.
    - n. Formaldehyde.
    - o. Hexavalent chromium.
    - p. Isophorone.
    - q. Lead.
    - r. Mercury.
    - s. Methyl ethyl ketone.
    - t. Methyl isobutyl ketone.
    - u. Methylene chloride.
    - v. Naphthalene.
    - w. Toluene (methylbenzene).
    - x. 1,1,1-trichloroethane.
    - y. Vinyl chloride.
- F. Colors: Provide custom colors of the finished paint systems to match Architect's samples.

## 2.3 COLOR SCHEDULE

- A. Reference to a particular manufacturer's number or color name is used only as a convenience for the Architect in order to establish the Project color requirements. These references are not intended to describe the required generic paint systems. For generic paint systems requirements, refer to the "Schedule of Interior Painting" as applicable to the respective conditions of use.
- B. The selection of paint colors are indicated on the drawings by manufacturer and color type; designated as "PT- " for interior paint finishes.
  - 1. Furnish the same lots, batches, etc. within the same contiguous areas of the building (i.e. corridors on the same floors, common rooms which adjoin each other, etc.).
- C. Color Schedule: The color schedule shall be considered as a guide only to color requirements; subject to Architect's modification or acceptance. For color schedule, refer to Finish Schedules on Drawings.

## 2.4 PREPARATORY COATS

- A. Interior Primers: Interior latex-based primer of finish coat manufacturer and recommended in writing by manufacturer for use with finish coat and on substrate indicated.
  - 1. Ferrous-Metal Primer: Quick drying, rust-inhibitive metal primer.
  - 2. Zinc-Coated Metal Primer: Galvanized metal primer.
  - 3. Interior Concrete Primer: Factory-formulated alkali-resistant acrylic-latex interior primer for interior application.
  - 4. Interior Gypsum Board Primer: Factory-formulated latex-based primer for interior application.
  - 5. Interior Wood Primer: Factory-formulated acrylic-latex-based interior wood primer.
  - 6. Where manufacturer does not recommend a separate primer formulation on substrate indicated, use paint specified for finish coat.

## 2.5 INTERIOR FINISH COATS

- A. Interior Flat Acrylic Paint: Factory-formulated flat acrylic-emulsion latex paint for interior application.
  - 1. Benjamin Moore; Pristine Eco Spec Interior Latex Flat Finish: Applied at a dry film thickness of not less than 1.3 mils.
  - 2. Duron; Genesis Interior Latex 60-101: Applied at a dry film thickness of not less than 1.5 mils.
  - 3. M. A. B. Paint; Enviro-Pure Latex Flat 040 Line: Applied at a dry film thickness of not less than 1.2 mils.
  - 4. Pittsburgh Paints; Pure Performance Interior Wall Flat Latex 9-100: Applied at a dry film thickness of not less than 1.6 mil.
  - 5. Sherwin-Williams; Harmony Latex Flat B5 Series: Applied at a dry film thickness of not less than 1.5 mils.



6. ICI paints (ICI); Dulux Lifemaster Flat, LM 9100: Applied at a dry film thickness of not less than 1.0 mils
- B. Interior Flat Latex-Emulsion Size: Factory-formulated flat latex-based interior paint.
1. Benjamin Moore; Pristine Eco Spec Interior Latex Flat Finish: Applied at a dry film thickness of not less than 1.3 mils.
  2. Duron; Genesis Interior Latex Flat 60-101: Applied at a dry film thickness of not less than 1.5 mils.
  3. M. A. B. Paint; Enviro-Pure Latex Flat 040 Line: Applied at a dry film thickness of not less than 1.2 mils.
  4. Pittsburgh Paints; Pure Performance Interior Wall Flat Latex 9-100: Applied at a dry film thickness of not less than 1.6 mil.
  5. Sherwin-Williams; Harmony Latex Flat B5 Series: Applied at a dry film thickness of not less than 1.5 mils.
  6. ICI Paints (ICI); Dulux Lifemaster Flat, LM 9100: Applied at a dry film thickness of not less than 1.0 mils.
- C. Interior Semigloss Acrylic Enamel: Factory-formulated semigloss acrylic-latex enamel for interior application.
1. Benjamin Moore; Eco Spec Interior Latex Semi-Gloss Enamel No. 224: Applied at a dry film thickness of not less than 1.4 mils.
  2. Duron; Genesis Interior Latex Semi-Gloss Enamel 83-101: Applied at a dry film thickness of not less than 1.5 mils.
  3. M. A. B. Paint; Enviro-Pure Semi-Gloss 047 Line: Applied at a dry film thickness of not less than 1.2 mils.
  4. Pittsburgh Paints; Pure Performance Interior Enamel Wall & Trim Semi-Gloss Latex 9-500: Applied at a dry film thickness of not less than 1.5 mils.
  5. Sherwin-Williams; Harmony Interior Latex Semi-Gloss Enamel: Applied at a dry film thickness of not less than 1.6 mils.
  6. ICI Paints (ICI); Dulux Lifemaster Semi-Gloss, LM 9200: Applied at a dry film thickness of not less than 2.0 mils.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for paint application. Comply with procedures specified in PDCA P4.
1. Proceed with paint application only after unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.

#### 3.2 PREPARATION

- A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted or provide surface-applied

protection before surface preparation and painting. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

- B. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.
  - 1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified. Provide barrier coats over incompatible primers or remove and reprime.
  - 1. Cementitious Materials: Prepare concrete, surfaces to be painted. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
    - a. Use abrasive blast-cleaning methods if recommended by paint manufacturer.
    - b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
  - 2. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed to view smooth and dust off.
    - a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
    - b. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.
  - 3. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances in accordance with SSPC SP 1 "Solvent Cleaning". After solvent cleaning prepare any bare metal surfaces by removing all stratified rust (rust scale), all loose mill scale, all loose or non-adherent rust and detrimental welding deposits by methods specified in SSPC SP-3 "Power Tool Cleaning".
    - a. Touch up bare areas, heads of bolts, welded surfaces which are unpainted, and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by paint manufacturer, and touch up with same primer as the shop coat.
  - 4. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents in accordance with SSPC SP-1 "Solvent Cleaning", and pretreat in accordance with the recommendations of SSPC "Good Painting Practice", Vol. 1, Chapter 22.
  - 5. Gypsum Wallboard: Repair all surfaces in gypsum wallboard with wallboard joint finishing compound or spackling compound, filled out flush and sanded smooth. Clean

all surfaces and taped joints of dust, dirt and other contaminants and be sure they are thoroughly dry before applying paint.

- D. Material Preparation: Mix and prepare paint materials according to manufacturer's written instructions.
  - 1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
  - 2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.
  - 3. Use only thinners approved by paint manufacturer and only within recommended limits.
- E. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

### 3.3 APPLICATION

- A. General Application: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
  - 1. Paint colors, surface treatments, and finishes are indicated in the paint schedules.
  - 2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
  - 3. Provide finish coats that are compatible with primers used.
  - 4. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, grilles, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.
  - 5. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before final installation of equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
  - 6. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
  - 7. Paint back sides of access panels and removable or hinged covers to match exposed surfaces. Access panels, electrical panels, air diffusing outlets, supply and exhaust grilles, louvers, exposed conduit, primed hardware items, primed outlet covers, primed wall and ceiling plates and other items in painted areas shall be painted to match the areas in which they occur unless otherwise directed by the Architect.
  - 8. Sand lightly between each succeeding enamel or varnish coat.
- B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pretreated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
  - 1. The number of coats and film thickness required are the same regardless of application method. Do not apply succeeding coats until previous coat has cured as recommended by manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
  - 2. Omit primer over metal surfaces that have been shop primed and touchup painted.

3. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure that edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
  4. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, and does not deform or feel sticky under moderate thumb pressure, and until application of another coat of paint does not cause undercoat to lift or lose adhesion.
- C. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
1. Brushes: Use brushes best suited for type of material applied. Use brush of appropriate size for surface or item being painted.
  2. Rollers: Use rollers of carpet, velvet-back, or high-pile sheep's wool as recommended by manufacturer for material and texture required.
  3. Spray Equipment: Use airless spray equipment with orifice size as recommended by manufacturer for material and texture required.
- D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate to achieve dry film thickness indicated. Provide total dry film thickness of the entire system as recommended by manufacturer.
- E. Mechanical and Electrical Work: Painting of mechanical and electrical work is limited to items exposed in equipment rooms and occupied spaces.
1. Mechanical items to be painted include, but are not limited to, the following:
    - a. Uninsulated metal piping.
    - b. Uninsulated plastic piping.
    - c. Pipe hangers and supports.
    - d. Tanks that do not have factory-applied final finishes.
    - e. Visible portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets.
    - f. Duct, equipment, and pipe insulation having "all-service jacket" or other paintable jacket material.
    - g. Mechanical equipment that is indicated to have a factory-primed finish for field painting.
  2. Electrical items to be painted include, but are not limited to, the following:
    - a. Conduits and fittings.
    - b. Switchgear.
    - c. Panelboards.
    - d. Electrical equipment that is indicated to have a factory-primed finish for field painting.
- F. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.

- G. Prime Coats: Before applying finish coats, apply a prime coat, as recommended by manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.
- H. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque 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.
- I. Stipple Enamel Finish: Roll and redistribute paint to an even and fine texture. Leave no evidence of rolling, such as laps, irregularity in texture, skid marks, or other surface imperfections.
- J. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

### 3.4 CLEANING

- A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from Project site.
  - 1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

### 3.5 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
- B. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

### 3.6 INTERIOR PAINT SCHEDULE

- A. Concrete and Masonry (Other Than Concrete Unit Masonry): Provide the following paint systems over interior concrete and brick masonry substrates:
  - 1. Flat Acrylic Finish: Two finish coats over a primer.
    - a. Primer: Interior concrete and masonry primer.
    - b. Finish Coats: Interior flat acrylic paint.
  - 2. Low-Luster Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior concrete and masonry primer.

- b. Finish Coats: Interior low-luster acrylic enamel.
  - 3. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior concrete and masonry primer.
    - b. Finish Coats: Interior semigloss acrylic enamel.
- B. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:
  - 1. Flat Acrylic Finish: Two finish coats over a primer.
    - a. Primer: Interior gypsum board primer.
    - b. Finish Coats: Interior flat acrylic paint.
  - 2. Low-Luster Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior gypsum board primer.
    - b. Finish Coats: Interior low-luster acrylic enamel.
  - 3. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior gypsum board primer.
    - b. Finish Coats: Interior semigloss acrylic enamel.
  - 4. Full-Gloss Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior gypsum board primer.
    - b. Finish Coats: Interior full-gloss acrylic enamel.
- C. Plaster: Provide the following finish systems over new interior plaster surfaces:
  - 1. Flat Acrylic Finish: Two finish coats over a primer.
    - a. Primer: Interior plaster primer.
    - b. Finish Coats: Interior flat acrylic paint.
  - 2. Low-Luster Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior plaster primer.
    - b. Finish Coats: Interior low-luster acrylic enamel.
  - 3. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior plaster primer.
    - b. Finish Coats: Interior semigloss acrylic enamel.
  - 4. Full-Gloss Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior plaster primer.
    - b. Finish Coats: Interior full-gloss acrylic enamel.

- D. Wood and Hardboard: Provide the following paint finish systems over new interior wood surfaces:
1. Low-Luster Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior wood primer for acrylic-enamel finishes.
    - b. Finish Coats: Interior low-luster acrylic enamel.
  2. Semigloss Acrylic-Enamel Finish: Two finish coats over a wood undercoater.
    - a. Primer: Interior wood primer for acrylic-enamel finishes.
    - b. Finish Coats: Interior semigloss acrylic enamel.
  3. Full-Gloss Acrylic-Enamel Finish: Two finish coats over a wood primer.
    - a. Primer: Interior wood primer for acrylic-enamel finishes.
    - b. Finish Coats: Interior full-gloss acrylic enamel.
- E. Ferrous Metal: Provide the following finish systems over ferrous metal:
1. Flat Acrylic Finish: Two finish coats over a primer.
    - a. Primer: Interior ferrous-metal primer.
    - b. Finish Coats: Interior flat acrylic paint.
  2. Low-Luster Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior ferrous-metal primer.
    - b. Finish Coats: Interior low-luster acrylic enamel.
  3. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior ferrous-metal primer.
    - b. Finish Coats: Interior semigloss acrylic enamel.
  4. Full-Gloss Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior ferrous-metal primer.
    - b. Finish Coats: Interior full-gloss acrylic enamel.
- F. Zinc-Coated Metal: Provide the following finish systems over interior zinc-coated metal surfaces:
1. Flat Acrylic Finish: Two finish coats over a primer.
    - a. Primer: Interior zinc-coated metal primer.
    - b. Finish Coats: Interior flat acrylic paint.
  2. Low-Luster Acrylic-Enamel Finish: Two finish coats over a primer.
    - a. Primer: Interior zinc-coated metal primer.
    - b. Finish Coats: Interior low-luster acrylic enamel.

3. Semigloss Acrylic-Enamel Finish: Two finish coats over a primer.
  - a. Primer: Interior zinc-coated metal primer.
  - b. Finish Coats: Interior semigloss acrylic enamel.
4. Full-Gloss Acrylic-Enamel Finish: Two finish coats over a primer.
  - a. Primer: Interior zinc-coated metal primer.
  - b. Finish Coats: Interior full-gloss acrylic enamel.
- G. All-Service Jacket over Insulation: Provide the following finish system on cotton or canvas insulation covering:
  1. Flat Acrylic Finish: Two finish coats. Add fungicidal agent to render fabric mildew proof.
    - a. Finish Coats: Interior flat latex-emulsion size.

END OF SECTION 099123



## SECTION 09 93 00 - STAINING AND TRANSPARENT FINISHING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes surface preparation and the application of wood finishes on interior exposed wood panel products and dressed lumber finish carpentry:
- B. Related Sections include the following:
  - 1. Division 09 wood flooring Sections for stains and transparent finishes applied to wood flooring.
  - 2. Division 09 Section "Interior Painting" for surface preparation and application of standard paint systems on interior substrates.

#### 1.2 SUBMITTALS

- A. Samples for Verification: For each type of finish system and in each color and gloss of finish indicated.
  - 1. Submit Samples on representative samples of actual wood substrates, 8 inches square.
  - 2. Label each Sample for location and application area.
- B. Product List: For each product indicated, include the following:
  - 1. Cross-reference to finish system and locations of application areas. Use same designations indicated on Drawings and in schedules.
  - 2. Printout of MPI's current "MPI Approved Products List" for each product category specified in Part 2, with the product proposed for use highlighted.

#### 1.3 QUALITY ASSURANCE

- A. MPI Standards:
  - 1. Products: Complying with MPI standards indicated and listed in its "MPI Approved Products List."
  - 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and finish systems indicated.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).
  - 1. Maintain containers in clean condition, free of foreign materials and residue.

2. Remove rags and waste from storage areas daily.

## 1.5 PROJECT CONDITIONS

- A. Apply finishes only when temperature of surfaces to be finished and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Benjamin Moore & Co.
2. Bennette Paint Mfg. Co., Inc.
3. BLP Mobile Paint Manufacturing.
4. Cabot Incorporated, Samuel.
5. California Paints.
6. Cloverdale Paint.
7. Color Wheel Paints & Coatings.
8. Columbia Paint & Coatings.
9. Coronado Paint.
10. Diamond Vogel Paints.
11. Dunn-Edwards Corporation.
12. Durant Paints Inc.
13. Duron, Inc.
14. Farrell-Calhoun.
15. Flex Bon Paints.
16. Frazee Paint.
17. General Paint.
18. Griggs Paint.
19. Hallman Lindsay Quality Paints.
20. Hirshfield's, Inc.
21. ICI Paints.
22. Insl-x.
23. Iowa Paint Manufacturing Company, Inc.
24. Kelly-Moore Paints.
25. Kwal-Howells Paint.
26. M.A.B. Paints.
27. McCormick Paints.
28. Miller Paint.
29. Mills Paint.
30. Northern Paint.
31. PARA Paints.
32. Parker Paint Mfg. Co. Inc.
33. Porter Paints.
34. PPG Architectural Finishes, Inc.

35. Rodda Paint Co.
36. Sherwin-Williams Company (The)
37. Sico, Inc.
38. Sigma Coatings.
39. Spectra-Tone.
40. Tamms Industries, Inc.
41. Tower Paint.
42. Vista Paint.

## 2.2 MATERIALS, GENERAL

### A. Material Compatibility:

1. Provide materials for use within each finish system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a finish system, provide products recommended in writing by manufacturers of topcoat for use in finish system and on substrate indicated.

### B. VOC Content of Field-Applied Interior Primers, Stains, and Transparent Finishes: Provide products that comply with the following limits for VOC content, exclusive of colorants added to a tint base, when calculated according to 40 CFR 59, Subpart D (EPA Method 24); these requirements do not apply to primers, stains, and transparent finishes that are applied in a fabrication or finishing shop:

1. Primers, Sealers, and Undercoaters: VOC content of not more than 200 g/L.
2. Clear Wood Finishes, Varnishes: VOC not more than 350 g/L.
3. Clear Wood Finishes, Lacquers: VOC not more than 550 g/L.
4. Floor Coatings: VOC not more than 100 g/L.
5. Shellacs, Clear: VOC not more than 730 g/L.
6. Stains: VOC not more than 250 g/L.

## 2.3 WOOD FILLERS

### A. Wood Filler Paste: MPI #91.

1. VOC Content: E Range of **E3**

## 2.4 PRIMERS AND SEALERS

### A. Wood Preservative: MPI #37.

1. VOC Content: E Range of **E3**.

### B. Alkyd Sanding Sealer: MPI #102.

1. VOC Content: E Range of **E3**.

### C. Lacquer Sanding Sealer: MPI #84.

1. VOC Content: E Range of **E3**.

D. Shellac: MPI #88.

1. VOC Content: E Range of **E3**.

2.5 STAINS

A. Interior Wood Stain (Semitransparent): MPI #90.

1. VOC Content: E Range of **E2**.

2.6 VARNISHES

A. Interior Varnish (Flat): MPI #73, Gloss Level 1, alkyd type.

1. VOC Content: E Range of **E3**.

B. Interior Varnish (Semigloss): MPI #74, Gloss Level 5, alkyd type.

1. VOC Content: E Range of **E3**.

C. Interior Varnish (Gloss): MPI #75, Gloss Level 6, alkyd type.

1. VOC Content: E Range of **E3**.

2.7 POLYURETHANE FINISHES

A. Two-Component Aliphatic Polyurethane (Clear): MPI #78.

1. VOC Content: E Range of **E3**.

B. Interior, Oil-Modified, Clear Urethane (Satin): MPI #57, Gloss Level 4.

1. VOC Content: E Range of **E2**.

C. Interior, Oil-Modified, Clear Urethane (Gloss): MPI #56, Gloss Level 6.

1. VOC Content: E Range of **E3**.

D. Moisture-Cured Clear Polyurethane (Flat): MPI #71, Gloss Level 1.

1. VOC Content: E Range of **E2**.

E. Moisture-Cured Clear Polyurethane (Gloss): MPI #31.

1. VOC Content: E Range of **E3**.

## 2.8 WATERBORNE ACRYLIC FINISHES

- A. Waterborne Clear Acrylic (Satin): MPI #128, Gloss Level 4.
  - 1. VOC Content: E Range of **E3**.
  - 2. Environmental Performance Rating: **EPR 3**.
- B. Waterborne Clear Acrylic (Semigloss): MPI #129, Gloss Level 5.
  - 1. VOC Content: E Range of **E3**.
  - 2. Environmental Performance Rating: **EPR 3**.
- C. Waterborne Clear Acrylic (Gloss): MPI #130, Gloss Level 6.
  - 1. VOC Content: E Range of **E3**.
  - 2. Environmental Performance Rating: **EPR 3**.

## 2.9 LACQUERS

- A. Lacquer (Clear Flat): MPI #87, Gloss Level 1.
  - 1. VOC Content: E Range of **E3**.
- B. Lacquer (Clear Satin): MPI #85, Gloss Level 4.
  - 1. VOC Content: E Range of **E3**.
- C. Lacquer (Clear Gloss): MPI #86, Gloss Level 6.
  - 1. VOC Content: E Range of **E3**.

## 2.10 OIL FINISH

- A. Danish Oil: MPI #92.
  - 1. VOC Content: E Range of **E3**.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
  - 1. Maximum Moisture Content of Wood Substrates: 15 percent when measured with an electronic moisture meter.
  - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes.

3. Begin finish application only after unsatisfactory conditions have been corrected and surfaces are dry.
4. Beginning application of finish system constitutes Contractor's acceptance of substrate and conditions.

### 3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Remove plates, machined surfaces, and similar items already in place that are not to be finished. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and finishing.
  1. After completing finishing operations, reinstall items that were removed; use workers skilled in the trades involved. Remove surface-applied protection if any.
- C. Clean and prepare surfaces to be finished according to manufacturer's written instructions for each particular substrate condition and as specified.
  1. Remove surface dirt, oil, or grease by washing with a detergent solution; rinse thoroughly with clean water and allow to dry. Remove grade stamps and pencil marks by sanding lightly. Remove loose wood fibers by brushing.
  2. Remove mildew by scrubbing with a commercial wash formulated for mildew removal and as recommended by stain manufacturer.
  3. Countersink steel nails, if used, and fill with putty tinted to final color to eliminate rust leach stains.
- D. Apply wood filler paste to open-grain woods, as defined in "MPI Architectural Painting Specification Manual," to produce smooth, glasslike finish.

### 3.3 APPLICATION

- A. Apply finishes according to manufacturer's written instructions.
  1. Use applicators and techniques suited for finish and substrate indicated.
  2. Finish surfaces behind movable equipment and furniture same as similar exposed surfaces.
- B. Apply finishes to produce surface films without cloudiness, holidays, lap marks, brush marks, runs, ropiness, or other surface imperfections.

### 3.4 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing finish application, clean spattered surfaces. Remove spattered materials by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

- C. Protect work of other trades against damage from finish application. Correct damage by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced finished wood surfaces.

### 3.5 INTERIOR WOOD-FINISH-SYSTEM SCHEDULE

- A. Exposed Glue-Laminated Beam and Column Substrates:
  - 1. Alkyd Varnish Over Stain System: MPI INT 6.1K.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Interior varnish **semigloss**
  - 2. Alkyd Varnish Over Stain and Sealer System: MPI INT 6.1P.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. Seal Coat: Alkyd sanding sealer.
    - c. **Two Finish Coats** Interior varnish **semigloss**
  - 3. Alkyd Varnish Over Sealer System: MPI INT 6.1C.
    - a. Seal Coat: Alkyd sanding sealer.
    - b. **Two Finish Coats**: Interior varnish **semigloss**.
  - 4. Polyurethane Varnish Over Stain System: MPI INT 6.1J.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Interior, oil-modified, clear urethane **gloss**.
  - 5. Polyurethane Varnish System: MPI INT 6.1D.
    - a. One Factory-Applied Finish Coat: Matching field-applied finish coats.
    - b. **Two Field-Applied Finish Coats**: Interior, oil-modified, clear urethane **gloss**.
  - 6. Moisture-Cured Clear Polyurethane Over Stain System: MPI INT 6.1S.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Moisture-cured clear polyurethane **gloss**).
  - 7. Waterborne Clear Acrylic Over Stain System: MPI INT 6.1R.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Waterborne clear acrylic **semigloss**.
  - 8. Waterborne Clear Acrylic System: MPI INT 6.F.
    - a. **Three** Finish Coats: Waterborne clear acrylic **semigloss**.

9. Solid-Color Latex Stain System: MPI INT 6.1T.
    - a. Prime Coat: Exterior **alkyd** wood primer.
    - b. **Two Stain Coats:** Exterior, solid-color latex stain.
  10. Solid-Color, Solvent-Based Stain System: MPI INT 6.1H.
    - a. Two Stain Coats: Exterior solid-color stain (solvent based).
  11. Semitransparent Stain System: MPI INT 6.1G.
    - a. Two Stain Coats: Exterior semitransparent stain (solvent based).
- B. Exposed Rough Carpentry Substrates:
1. Alkyd Varnish Over Stain and Sealer System: MPI INT 6.2K.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. Seal Coat: Alkyd sanding sealer.
    - c. **Two Finish Coats:** Interior varnish **semigloss**.
  2. Alkyd Varnish Over Sealer System: MPI INT 6.2P.
    - a. Seal Coat: Alkyd sanding sealer.
    - b. **Two Finish Coats:** Interior varnish **semigloss**.
  3. Polyurethane Varnish Over Stain System: MPI INT 6.2J.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Interior, oil-modified, clear urethane (**gloss**).
  4. Polyurethane Varnish System: MPI INT 6.2H.
    - a. **Three** Finish Coats: Interior, oil-modified, clear urethane **gloss**.
  5. Moisture-Cured Clear Polyurethane Over Stain System: MPI INT 6.2N.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Moisture-cured clear polyurethane **gloss**.
  6. Waterborne Clear Acrylic Over Stain System: MPI INT 6.2M.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Waterborne clear acrylic **semigloss**.
- C. Finish Carpentry Substrates:
1. Alkyd Varnish Over Stain and Sealer System: MPI INT 6.3D.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. Seal Coat: **Alkyd sanding sealer**.
    - c. **Two Finish Coats:** Interior varnish **semigloss**.



2. Alkyd Varnish Over Sealer System: MPI INT 6.3J.
  - a. Seal Coat: **Alkyd sanding sealer.**
  - b. **Two Finish Coats:** Interior varnish.
3. Polyurethane Varnish Over Stain System: MPI INT 6.3E.
  - a. Stain Coat: Interior wood stain (semitransparent).
  - b. **Three** Finish Coats: Interior, oil-modified, clear urethane **gloss.**
4. Polyurethane Varnish System: MPI INT 6.3K.
  - a. One Factory-Applied Finish Coat: Matching field-applied finish coats.
  - b. Two Field-Applied Finish Coats: Interior, oil-modified, clear urethane **gloss.**
5. Moisture-Cured Clear Polyurethane Over Stain System: MPI INT 6.3Y.
  - a. Stain Coat: Interior wood stain (semitransparent).
  - b. **Three** Finish Coats: Moisture-cured clear polyurethane **gloss.**
6. Moisture-Cured Clear Polyurethane System: MPI INT 6.3X.
  - a. **Three** Finish Coats: Moisture-cured clear polyurethane **gloss.**
7. Clear, Two-Component Polyurethane System: MPI INT 6.3Z.
  - a. **Three** Finish Coats: Two-component aliphatic polyurethane (clear).
8. Waterborne Clear Acrylic Over Stain System: MPI INT 6.3W.
  - a. Stain Coat: Interior wood stain (semitransparent).
  - b. **Three** Finish Coats: Waterborne clear acrylic **semigloss.**
9. Waterborne Clear Acrylic System: MPI INT 6.3Q.
  - a. Three Finish Coats: Waterborne clear acrylic **semigloss.**
10. Lacquer Over Stain and Sealer System: MPI INT 6.3F.
  - a. Stain Coat: Interior wood stain (semitransparent).
  - b. Seal Coat: Lacquer sanding sealer.
  - c. **Two Finish Coats** Lacquer (clear **satin**).
11. Lacquer Over Sealer System: MPI INT 6.3H.
  - a. Seal Coat: Lacquer sanding sealer.
  - b. **Two Finish Coats:** Lacquer (clear satin).
12. Semitransparent Stain System: MPI INT 6.3C.
  - a. Two Stain Coats: Exterior semitransparent stain (solvent based).

13. Danish Oil System: MPI INT 6.3M.
  - a. Two Finish Coats: Danish oil.
- D. Exposed Wood Panel-Product Substrates:
  1. Alkyd Varnish Over Sealer and Stain System: MPI INT 6.4D.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. Seal Coat: **Alkyd sanding sealer.**
    - c. **Two Finish Coats:** Interior varnish **semigloss.**
  2. Alkyd Varnish Over Sealer System: MPI INT 6.4G.
    - a. Seal Coat: **Alkyd sanding sealer.**
    - b. **Two Finish Coat:** Interior varnish **semigloss.**
  3. Polyurethane Varnish Over Stain System: MPI INT 6.4E.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Interior, oil-modified, clear urethane **gloss.**
  4. Polyurethane Varnish System: MPI INT 6.4J.
    - a. One Factory-Applied Finish Coat: Matching field-applied finish coats.
    - b. Two Field-Applied Finish Coats: Interior, oil-modified, clear urethane **gloss.**
  5. Moisture-Cured Clear Polyurethane Over Stain System: MPI INT 6.4V.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Moisture-cured clear polyurethane **gloss.**
  6. Waterborne Clear Acrylic Over Stain System: MPI INT 6.4U.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. **Three** Finish Coats: Waterborne clear acrylic **gloss.**
  7. Lacquer Over Stain and Sealer System: MPI INT 6.4F.
    - a. Stain Coat: Interior wood stain (semitransparent).
    - b. Seal Coat: Lacquer sanding sealer.
    - c. **Two Finish Coats:** Lacquer (clear **satín**).
  8. Lacquer Over Sealer System: MPI INT 6.4Y.
    - a. Seal Coat: Lacquer sanding sealer.
    - b. **Three** Finish Coats: Lacquer clear **satín**
  9. Semitransparent Stain System: MPI INT 6.4C.
    - a. Two Stain Coats: Exterior semitransparent stain (solvent based).

10. Danish Oil System: MPI INT 6.4K.
  - a. Two Finish Coats: Danish oil.

END OF SECTION 09 93 00

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org

## SECTION 10 11 00 - VISUAL DISPLAY SURFACES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Markerboards.

#### 1.3 DEFINITIONS

- A. Visual Display Board Assembly: Visual display surface that is factory fabricated into composite panel form, either with or without a perimeter frame; includes chalkboards, markerboards, and tackboards.
- B. Visual Display Surface: Surfaces that are used to convey information visually, including surfaces of chalkboards, markerboards, tackboards, and surfacing materials that are either fabricated into a composite panel form or are applied directly to walls.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for visual display surfaces.
- B. Shop Drawings: For visual display surfaces. Include plans, elevations, sections, details, and attachments to other work.
  - 1. Show locations of panel joints.
  - 2. Show locations of special-purpose graphics for visual display surfaces.
  - 3. Include sections of typical trim members.
- C. Samples for Verification: For each type of visual display surface indicated.
  - 1. Visual Display Surface: Not less than 8-1/2 by 11 inches, mounted on substrate indicated for final Work. Include one panel for each type, color, and texture required.
  - 2. Trim: 6-inch- long sections of each trim profile.
  - 3. Display Rail: 6-inch- long sections.
  - 4. Rail Support System: 6-inch- long sections.
  - 5. Accessories: Full-size Sample of each type of accessory.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for surface-burning characteristics of fabrics.
- C. Warranties: Sample of special warranties.

1.6 QUALITY ASSURANCE

- A. Source Limitations: Obtain visual display surfaces from single source from single manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver factory-built visual display surfaces, including factory-applied trim where indicated, completely assembled in one piece without joints, where possible. If dimensions exceed maximum manufactured panel size, provide two or more pieces of equal length as acceptable to Architect. When overall dimensions require delivery in separate units, prefit components at the factory, disassemble for delivery, and make final joints at the site.
- B. Store visual display surfaces vertically with packing materials between each unit.

1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install visual display surfaces until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

1.9 WARRANTY

- A. Special Warranty for Porcelain-Enamel Face Sheets: Manufacturer's standard form in which manufacturer agrees to repair or replace porcelain-enamel face sheets that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Surfaces lose original writing and erasing qualities.
    - b. Surfaces exhibit crazing, cracking, or flaking.
  - 2. Warranty Period: Life of the building.

## PART 2 - PRODUCTS

### 2.1 MATERIALS, GENERAL

- A. Porcelain-Enamel Face Sheet: Manufacturer's standard steel sheet with porcelain-enamel coating fused to steel; uncoated thickness indicated.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Claridge Products and Equipment, Inc.
    - b. PolyVision Corporation; a Steelcase company.
    - c. Marsh Industries.
  - 2. Gloss Finish: Gloss as indicated; dry-erase markers wipe clean with dry cloth or standard eraser.
- B. Melamine: Thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.
- C. High-Pressure Plastic Laminate: NEMA LD 3.
- D. Hardboard: ANSI A135.4, tempered.
- E. Fiberboard: ASTM C 208.
- F. Extruded Aluminum: ASTM B 221 (ASTM B 221M), Alloy 6063.

### 2.2 MARKERBOARD ASSEMBLIES

- A. Porcelain-Enamel Markerboards: Balanced, high-pressure, factory-laminated markerboard assembly of three-ply construction consisting of backing sheet, core material, and 0.021-inch-thick, porcelain-enamel face sheet with high-gloss finish.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Claridge Products and Equipment, Inc.
    - b. PolyVision Corporation
    - c. Marsh Industries, Inc.; Visual Products Group.
  - 2. Manufacturer's Standard Core: Minimum 1/4 inch thick, with manufacturer's standard moisture-barrier backing.
  - 3. Laminating Adhesive: Manufacturer's standard, moisture-resistant thermoplastic type.

## 2.3 FABRICATION

- A. Porcelain-Enamel Visual Display Assemblies: Laminate porcelain-enamel face sheet and backing sheet to core material under heat and pressure with manufacturer's standard flexible, waterproof adhesive.
- B. Aluminum Frames and Trim: Fabricate units straight and of single lengths, keeping joints to a minimum. Miter corners to a neat, hairline closure.
  - 1. Where factory-applied trim is indicated, trim shall be assembled and attached to visual display units at manufacturer's factory before shipment.

## 2.4 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## 2.5 ALUMINUM FINISHES

- A. Clear Anodic Finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.
- B. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

## 2.6 VISUAL DISPLAY SURFACE SCHEDULE

- A. Visual Display Board:
  - 1. Markerboard: Porcelain-enamel markerboard assembly.
    - a. Color: White.
  - 2. Corners: Square.
  - 3. Width: As indicated on Drawings.
  - 4. Height: As indicated on Drawings.
  - 5. Mounting: Wall.
  - 6. Mounting Height: As indicated on Drawings.
  - 7. Factory-Applied Aluminum Trim: Manufacturer's standard with clear anodic finish.



## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, surface conditions of wall, and other conditions affecting performance of the Work.
- B. Examine walls and partitions for proper preparation and backing for visual display surfaces.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION, GENERAL

- A. General: Install visual display in locations and at mounting heights indicated on Drawings, or if not indicated. Keep perimeter lines straight, level, and plumb. Provide clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.

### 3.3 INSTALLATION OF FACTORY-FABRICATED VISUAL DISPLAY BOARDS AND ASSEMBLIES

- A. Visual Display Boards: Attach concealed clips, hangers, and grounds to wall surfaces and to visual display boards with fasteners at not more than 16 inches o.c. Secure both top and bottom of boards to walls.
  - 1. Field-Applied Aluminum Trim: Attach trim over edges of visual display boards and conceal grounds and clips. Attach trim to boards with fasteners at not more than 24 inches o.c.

### 3.4 CLEANING AND PROTECTION

- A. Clean visual display surfaces according to manufacturer's written instructions. Attach one cleaning label to visual display surface in each room.
- B. Touch up factory-applied finishes to restore damaged or soiled areas.
- C. Cover and protect visual display surfaces after installation and cleaning.

END OF SECTION 10 11 00



## SECTION 10 28 00 - TOILET, BATH, AND LAUNDRY ACCESSORIES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Public-use washroom accessories.
  - 2. Public-use shower room accessories.
  - 3. Childcare accessories.
  - 4. Underlavatory guards.
  - 5. Custodial accessories.
- B. Owner-Furnished Material: Scales
- C. Related Sections:
  - 1. Division 09 Section "Tiling" for ceramic toilet and bath accessories.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include the following:
  - 1. Construction details and dimensions.
  - 2. Anchoring and mounting requirements, including requirements for cutouts in other work and substrate preparation.
  - 3. Material and finish descriptions.
  - 4. Features that will be included for Project.
  - 5. Manufacturer's warranty.
- B. Maintenance Data: For toilet and bath accessories to include in maintenance manuals.
- C. Warranty: Sample of special warranty.

#### 1.4 QUALITY ASSURANCE

- A. Source Limitations: For products listed together in the same Part 2 articles, obtain products from single source from single manufacturer.

1.5 COORDINATION

- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
- B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.

1.6 WARRANTY

- A. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Stainless Steel: ASTM A 666, Type 304, 0.031-inch minimum nominal thickness unless otherwise indicated.
- B. Steel Sheet: ASTM A 1008/A 1008M, Designation CS (cold rolled, commercial steel), 0.036-inch (0.9-mm) minimum nominal thickness.
- C. Galvanized-Steel Sheet: ASTM A 653/A 653M, with G60 (Z180) hot-dip zinc coating.
- D. Galvanized-Steel Mounting Devices: ASTM A 153/A 153M, hot-dip galvanized after fabrication.
- E. Fasteners: Screws, bolts, and other devices of same material as accessory unit and tamper-and-theft resistant where exposed, and of galvanized steel where concealed.
- F. Chrome Plating: ASTM B 456, Service Condition Number SC 2 (moderate service).

2.2 PUBLIC-USE WASHROOM ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
  - 1. American Specialties, Inc.
  - 2. Bobrick Washroom Equipment, Inc.
  - 3. Bradley Corporation.
- C. Toilet Tissue (Roll) Dispenser
  - 1. Basis-of-Design Product: as indicated on Restroom Accessories Schedule.

2. Description: Double-roll dispenser.
3. Mounting: Recessed.
4. Capacity: Designed for 5-inch- diameter tissue rolls.
5. Material and Finish: 0.8mm Stainless steel, No. 4 finish (satin).

D. Combination Towel (Folded) Dispenser/Waste Receptacle:

1. Basis-of-Design Product: As indicated on Restroom Accessory Schedule.
2. Description: Combination unit for dispensing C-fold or multifold towels, with removable waste receptacle.
3. Mounting: Recessed
  - a. Designed for nominal 4-inch wall depth.
4. Minimum Towel-Dispenser Capacity: 300 C-fold or 400 multifold paper towels
5. Minimum Waste-Receptacle Capacity: 1.6 gal.
6. Material and Finish: Stainless steel, No. 4 finish (satin).
7. Liner: Reusable, vinyl waste-receptacle liner.

E. Liquid-Soap Dispenser

1. Basis-of-Design Product: As indicated on Restroom Accessory Schedule
2. Description: Designed for dispensing soap in liquid form.
3. Mounting: Deck mounted on lavatory.
4. Capacity: 800mL.
5. Materials: Bright Polished chrome, battery pack, 800ml lotion soap refill.
6. Lockset: Tumbler type.

F. Grab Bar:

1. Basis-of-Design Product: As indicated on Restroom Accessory Schedule.
2. Mounting: Flanges with concealed fasteners.
3. Material: Stainless steel, 0.05 inch thick.
  - a. Finish: Smooth, No. 4 finish (satin).
4. Outside Diameter: 1-1/2 inches.
5. Configuration and Length: As indicated on Drawings

G. Seat-Cover Dispenser

1. Basis-of-Design Product: As indicated on Restroom Accessory Schedule
2. Mounting: Recessed.
3. Minimum Capacity: 500 seat covers.
4. Exposed Material and Finish: Stainless steel, No. 4 finish (satin).
5. Lockset: Tumbler type.

## 2.3 PUBLIC-USE SHOWER ROOM ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
  - 1. American Specialties, Inc.
  - 2. Bobrick Washroom Equipment, Inc.
  - 3. Bradley Corporation.
  - 4. Description: 1-inch OD; fabricated from dent-proof, rustproof aircraft aluminum.
  - 5. Mounting Flanges: non-moving machine-tooled zinc alloy mounts.
  - 6. Finish: chrome
- C. Surface-Mounted Double Robe Hook
  - 1. Basis-of-Design Product: As indicated on Restroom Accessory Schedule.
  - 2. Description: Surface mounted double robe hook secured to concealed, 19-gauge all wall plate and 18-gauge mounting bracket with a stainless steel setscrew.
  - 3. Materials: Flange and support arm, concealed wall plate, cap.
  - 4. Finish: Satin-finish stainless steel.

## 2.4 CHILDCARE ACCESSORIES

- A. Manufacturers: Subject to compliance with requirements, [provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
  - 1. American Specialties, Inc.
  - 2. Brocar Products, Inc.
  - 3. Koala Kare Products; a division of Bobrick Washroom Equipment, Inc.
- C. Diaper-Changing Station:
  - 1. Basis-of-Design Product: As indicated on Restroom Accessory Schedule.
  - 2. Description: Horizontal unit that opens by folding down from stored position and with child-protection strap.
    - a. Engineered to support a minimum of 250-lb (113-kg) static load when opened.
  - 3. Mounting: Surface mounted, with unit projecting not more than 4 inches from wall when closed.
  - 4. Operation: By pneumatic shock-absorbing mechanism.
  - 5. Material and Finish: HDPE in manufacturer's standard color
  - 6. Liner Dispenser: Built in.

## 2.5 UNDERLAVATORY GUARDS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
  - 1. Plumberex Specialty Products, Inc.
  - 2. Truebro by IPS Corporation.
- B. Underlavatory Guard
  - 1. Description: Insulating pipe covering for supply and drain piping assemblies that prevent direct contact with and burns from piping; allow service access without removing coverings.
  - 2. Material and Finish: Antimicrobial, molded plastic, white.

## 2.6 FABRICATION

- A. General: Fabricate units with tight seams and joints, and exposed edges rolled. Hang doors and access panels with full-length, continuous hinges. Equip units for concealed anchorage and with corrosion-resistant backing plates.
- B. Keys: Provide universal keys for internal access to accessories for servicing and resupplying. Provide minimum of six keys to Owner's representative.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated.
- B. Grab Bars: Install to withstand a downward load of at least 250 lbf (1112 N), when tested according to ASTM F 446.

### 3.2 ADJUSTING AND CLEANING

- A. Adjust accessories for unencumbered, smooth operation. Replace damaged or defective items.
- B. Remove temporary labels and protective coatings.
- C. Clean and polish exposed surfaces according to manufacturer's written recommendations.

END OF SECTION 10 28 00

**Gensler**  
13.7042.430

July 30, 2010  
Issued for Permit & Construction

Church of Scientology  
Tampa - Class V Org



## SECTION 10 44 00 - FIRE-PROTECTION SPECIALTIES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes fire protection specialties.

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data including construction details, material descriptions, dimensions of individual components and profiles, and finishes for fire-protection specialties.
  - 1. Fire Extinguishers: Include rating and classification.
  - 2. Cabinets: Include roughing-in dimensions, details showing mounting methods, relationships of box and trim to surrounding construction, door hardware, cabinet type, trim style, panel style.

#### 1.3 QUALITY ASSURANCE

- A. Source Limitations: Obtain fire extinguishers and fire-protection cabinets through one source from a single manufacturer.
- B. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Standard for Portable Fire Extinguishers."
- C. Listing: Fire extinguishers shall be UL listed with UL Listing Mark for type, rating, and classification of extinguisher.

#### 1.4 COORDINATION

- A. Coordinate size of fire-extinguisher cabinets to ensure that type and capacity of fire extinguishers indicated are accommodated.

#### 1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of portable fire extinguishers that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Failure of hydrostatic test according to NFPA 10.
    - b. Faulty operation of valves or release levers.
  - 2. Warranty Period: Six years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 FIRE EXTINGUISHERS

- A. General: Provide fire extinguishers for each fire extinguisher cabinet and at other locations indicated.
- B. Multipurpose Dry-Chemical Type: UL-rated 4-A:60-B:C, 10-lb (4.5-kg) nominal capacity, in enameled-steel container.

### 2.2 FIRE-EXTINGUISHER CABINETS

- A. General: Provide fire extinguisher cabinets of suitable size for housing fire extinguishers of types and capacities specified.
- B. Cabinet Construction: Provide manufacturer's standard box (tub), with trim, frame, door, and hardware to suit cabinet type, trim style, and door style indicated. Weld joints and grind smooth. Miter and weld perimeter door frames.
  - 1. Cabinet Metal: Enameled-steel sheet.
  - 2. Cabinet Mounting: Recessed unless otherwise indicated.
  - 3. Cabinet Trim Style: Trimless with hidden flange of same metal and finish as box that overlaps surrounding wall finish and that is concealed from view by an overlapping door.
  - 4. Cabinet Trim Material: Manufacturer's standard steel sheet.
  - 5. Door Material: Manufacturer's standard steel sheet.
  - 6. Door Glazing: Manufacturer's standard, as follows:
    - a. 1/4" Tempered Float Glass: ASTM C 1048, Kind FT, Condition A, Type I, Quality q3, Class 1 (clear).
    - b. 1/8" Clear acrylic.
  - 7. Door Style: Manufacturer's standard design vertical duo panel with frame with glazing.
  - 8. Door Construction: Fabricate doors according to manufacturer's standards, of materials indicated, and coordinated with cabinet types and trim styles selected.
  - 9. Door Hardware: Provide manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated. Provide exposed door pull and friction latch. Provide concealed or continuous-type hinge permitting door to open 180 degrees.
- C. Products and Manufacturers: One of the following:
  - 1. Larsens Manufacturing Company: Occult Series Fire Extinguisher Cabinets, Model O-2409 with vertical duo door.
  - 2. Potter Roemer: Dana Series Fire Extinguisher Cabinets, 7220-DV.
  - 3. JL Industries, Inc.: Embassy Series Fire Extinguisher Cabinets, Model FX-5614 Contemporary V door.

2.3 FINISHES

- A. General: Apply finishes in factory after products are assembled. Protect cabinets with plastic or paper covering, prior to shipment.
- B. Painted Finishes: Provide painted finish to comply with requirements indicated below for extent, preparation and type:
  - 1. Color: Provide color as selected by Architect from manufacturer's standard colors.
  - 2. Preparation: Clean surfaces of dirt, grease, and loose rust or mill scale.
  - 3. Field-Paintable Factory Finish: Immediately after cleaning and pretreatment, apply to surfaces indicated below, manufacturer's standard factory-applied paint system which is suitable, after deglossing, as an undercoat for field-applied paint system specified in Division 9 Section 'Interior Painting'.
    - a. Interior of cabinet.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare recesses for recessed fire-protection cabinets as required by type and size of cabinet and trim style.

3.2 INSTALLATION

- A. General: Follow manufacturer's printed instructions for installation.
- B. Install fire-protection specialties in locations and at mounting heights indicated or, if not indicated, at heights acceptable to authorities having jurisdiction.
  - 1. Fasten cabinets to structure, square and plumb.

3.3 ADJUSTING AND CLEANING

- A. Adjust cabinet doors to operate freely without binding. Examine fire extinguishers for proper charging and tagging.
  - 1. Remove and replace damaged, defective, or undercharged units.
- B. On completion of fire-protection cabinet installation, clean interior and exterior surfaces as recommended by manufacturer.

END OF SECTION 10 44 00  
10520/11-99/ttt



## SECTION 11 31 00 - PANTRY APPLIANCES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes pantry appliances.
  - 1. The extent of pantry appliance work is indicated on the drawings and in the Equipment Schedules.

#### 1.2 SUBMITTALS

- A. Product Data: Submit product data and roughing in diagrams for each type of appliance required indicating compliance with requirements. Include complete operating characteristics, dimensions of individual appliances, finishes for each appliance, and maintenance instructions for each appliance.

#### 1.3 QUALITY ASSURANCE

- A. UL and NEMA Compliance: Provide electrical appliances that are listed and labeled by UL and that comply with applicable NEMA standards.
- B. Energy Ratings: Provide appliances that carry labels indicating energy-cost analysis (estimated annual operating costs) and efficiency information as required by the FTC Appliance Labeling Rule.

#### 1.4 WARRANTY

- A. Submit written warranties, executed by manufacturer of each appliance required agreeing to repair or replace appliances or components that fail in materials or workmanship within the manufacturers standard warranty period.

### PART 2 - PRODUCTS

#### 2.1 PANTRY APPLIANCES

- A. Provide product listed in Equipment Schedules and on the Drawings.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine roughing-in for plumbing, mechanical, and electrical services, to verify actual locations of services before equipment installation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. General: Comply with manufacturer's written instructions.
- B. Built-in Appliances: Securely anchor to supporting cabinetry or countertops with concealed fasteners. Verify that clearances are adequate for proper functioning and rough openings are completely concealed.
- C. Freestanding Appliances: Place in final locations after finishes have been completed in each area. Verify that clearances are adequate to properly operate equipment.
- D. Utilities: Refer to the Drawings and Divisions 22 and 26 for plumbing and electrical requirements.

### 3.3 ADJUSTING AND CLEANING

- A. Test each item of appliances to verify proper operation. Make necessary adjustments.
- B. Verify that accessories required have been furnished and installed.
- C. Remove packing material from appliances and leave units in clean condition, ready for operation.

END OF SECTION 11 31 00  
11451/11-99/ttt

## SECTION 12 36 61 - SIMULATED STONE COUNTERTOPS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Solid-surface-material countertops.

#### 1.3 SUBMITTALS

- A. Product Data: For countertop materials.
- B. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining, and cutouts for plumbing fixtures.
- C. Samples for Verification: For the following products:
  - 1. Countertop material, 6 inches square.
  - 2. Wood trim, 8 inches long.
  - 3. One full-size solid-surface-material countertop, with front edge, 8 by 10 inches, of construction and in configuration specified.

#### 1.4 PROJECT CONDITIONS

- A. Field Measurements: Verify dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete.

#### 1.5 COORDINATION

- A. Coordinate locations of utilities that will penetrate countertops or backsplashes.

## PART 2 - PRODUCTS

### 2.1 SOLID-SURFACE-MATERIAL COUNTERTOPS

- A. Fabrication: Fabricate tops in one piece with shop-applied edges unless otherwise indicated. Comply with solid-surface-material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

### 2.2 COUNTERTOP MATERIALS

- A. Particleboard: ANSI A208.1, made with binder containing no urea formaldehyde.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install countertops level to a tolerance of 1/8 inch in 8 feet.
- B. Fasten countertops by screwing through corner blocks of base units into underside of countertop. Pre-drill holes for screws as recommended by manufacturer. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.
  - 1. Seal edges of cutouts in particleboard subtops by saturating with varnish.

END OF SECTION 12 36 61