# LIST OF DRAWINGS:

CVR TITLE SHEET

# ARCHITECTURAL:

GN GENERAL NOTES
A100 CODE PLAN
A101 FLOOR PLAN
A102 DETAILS/SCHEDULES
A103 REFLECTED CEILING PLAN

# MECHANICAL/ELECTRICAL:

M101 MECHANICAL PLAN E101 LIGHTING PLAN E102 POWER PLAN

# SPECIFICATIONS:

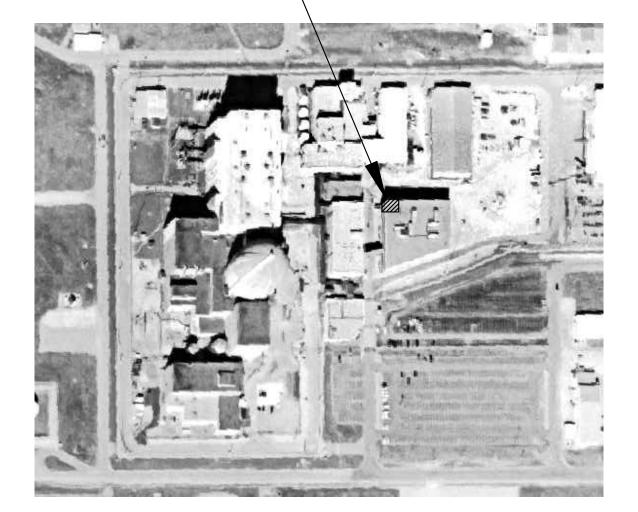
SPECIFICATI	ONS:
1	SECTION 02 41 19
2	SECTION 02 41 19 (cont.)
	SECTION 08 11 13
3	SECTION 08 11 13 (cont.)
	SECTION 09 22 16
4	SECTION 09 22 16(cont.)
	SECTION 09 29 00
5	SECTION 09 29 00 (cont.)
6	SECTION 09 29 00 (cont.)
	SECTION 09 51 13
7	SECTION 09 51 13 (cont.)
	SECTION 09 65 13
8	SECTION 09 65 13 (cont.)
	SECTION 09 91 23
9	SECTION 09 91 23 (cont.)



WOLF CREEK NUCLEAR OPERATION CORPORATION

# CESSNA OFFICE BUILDING (BUILDING STRUCTURE #Z017A) 1550 OXEN LANE NE BURLINGTON, KS 66839

PROJECT LOCATION



LOCATION MAP

(NOT TO SCALE)

, LLC

tecture · Planning

venue
rove, KS 66846
8379

1501 H Avenue Council Grove, KS 785-477-3379







TITLE SHEET
ICNOC CESSNA BUIL
STRUCTURE #Z017

Date: 09/04/14
esigned: DWO
Drawn: KHG

pproved: Proj. No. 2013.0

CVR

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#### **GENERAL NOTES:**

- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED PRIOR TO CONSTRUCTION.
- VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNERS TO ALLOW RELOCATION, REPAIR, MODIFICATION, AND INSTALLATION OF NEW FACILITIES BY THE RESPECTIVE UTILITY AS REQUIRED. THE CONTRACTOR SHALL USE THE FOLLOWING TOLL FREE NUMBER PROVIDED BY DIG-SAFE (1-800-344-7233).
- BY USE OF THE PLANS THE CONTRACTOR AGREES THAT HE SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND THE PUBLIC
- PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE VICINITY 72 HOURS PRIOR TO THE CONSTRUCTION TO BE PERFORMED.
- THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS AND ONE (1) COPY OF THE APPROPRIATE SPECIFICATIONS AT THE JOB SITE AT ALL TIMES.
- ALL SALVAGEABLE ITEMS ARE THE PROPERTY OF THE OWNER. THESE ITEMS SHALL BE STOCKPILED FOR THE OWNER OR DISPOSED OF BY THE CONTRACTOR AFTER PROPER COORDINATION WITH THE OWNER.
- CONTRACTOR SHALL COORDINATE WITH THE OWNER TO VERIEY THAT ALL CONSTRUCTION AND DEMOLITION DEBRIS SHALL BE DEPOSITED IN A KDHE PERMITTED CONSTRUCTION LANDFILL.
- CONTRACTOR SHALL NOT UNREASONABLY ENCUMBER THE SITE WITH EQUIPMENT OR MATERIALS. CONSTRUCTION STAGING AREA SHALL BE LIMITED TO AN AREA APPROVED BY OWNER.
- THE BUILDING SYSTEM SHOWN ON THESE DRAWINGS MUST BE ERECTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS USING STANDARD ERECTION PROCEDURES AND ANY MANUFACTURER'S RECOMMENDATIONS
- ANY DEVIATION FROM THE PLANS (AND SPECIFICATION AS PROVIDED WITHIN THE PLANS) IS SUBJECT TO WRITTEN APPROVAL FROM THE ENGINEER. ANY DEVIATION FROM THE STANDARD ERECTION PROCEDURES AND MANUFACTURER'S RECOMMENDATIONS IS SUBJECT TO WRITTEN APPROVAL FROM THE
- THESE DRAWINGS ARE BASED UP UPON AVAILABLE INFORMATION. BEFORE EXECUTING ANYTHING HEREIN SHOWN, EXAMINE ACTUAL JOB CONDITIONS. REPORT ANY DISCREPANCY, ERROR, OMISSION, OR DIFFICULTY AFFECTING THE WORK TO THE STRUCTURAL ENGINEER FOR REVIEW. COMMENCEMENT OF WORK CONSTITUTES VERIFICATION AND ACCEPTANCE OF EXISTING CONDITIONS.
- ALL DETAILS AND SECTIONS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.
- DO NOT SCALE THE DRAWINGS. CALCULATE REQUIRED DIMENSIONS. ALL DIMENSIONS SHOWN ARE TO 13 THE FINISHED FACE OF MATERIAL UNLESS OTHERWISE INDICATED.
- ANY EXISTING SURFACES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED PRIOR TO COMPLETION

# APPLICABLE CODES:

- GENERAL CONSTRUCTION SHALL EQUAL OR EXCEED THE MINIMUM REQUIREMENTS OF THE FOLLOWING CODES.
  - 2006 INTERNATIONAL BUILDING CODE
  - 2006 INTERNATIONAL MECHANICAL CODE
  - KANSAS FIRE PREVENTION CODE • 2005 NATIONAL ELECTRIC CODE

# **MISCELLANEOUS NOTES:**

- 1. CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL CONTRACT DOCUMENTS AND LATEST ADDENDA FOR THE PROJECT. SAID DOCUMENTATION SHALL BE SUBMITTED TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS, AS NECESSARY, PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF STRUCTURAL MEMBERS, AND FIELD CONSTRUCTION
- 2. DRAWING CONFLICTS. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL COMPARE THE PLAN DOCUMENTATION FOR CONSTRUCTABILITY ANY ERROR, OMISSION, OR DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.
- 3. RESPONSIBILITY OF THE CONTRACTOR FOR STABILITY OF THE STRUCTURE DURING CONSTRUCTION. ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES THAT MAY OCCUR IN THE COMPLETED STRUCTURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE VERTICAL AND LATERAL BRACING THROUGHOUT CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF THE STRUCTURAL ELEMENTS THROUGH AND DURING CONSTRUCTION.
- 4. CONFLICT OF STRUCTURAL REQUIREMENTS. WHERE ANY CONFLICT EXISTS BETWEEN STRUCTURAL COMPONENTS, DOCUMENTS, DRAWINGS, NOTES, OR SPECIFICATIONS, THE STRICTEST OF THE REQUIREMENTS SHALL GOVERN UNLESS SPECIFIED, IN WRITING, OTHERWISE BY THE ENGINEER
- 5. CONTRACTOR SUBSTITUTIONS. ANY SUBSTITUTIONS SUBMITTED BY THE CONTRACTOR WHICH VARY FROM THE PLAN DOCUMENTS OR SPECIFICATIONS WILL BE REVIEWED FOR APPROVAL ONLY IF THE PROPER DOCUMENTATION IS PROVIDED AND ACCEPTABLE TO THE ENGINEER. PROPER DOCUMENTATION SHALL CONSIST OF (A) A COST SAVINGS TO THE OWNER WHICH IS DOCUMENTED AND SUBMITTED WITH THE REQUEST AND (B) THE MATERIAL HAS BEEN APPROVED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO) AND THE ICBO REPORT/DOCUMENTATION IS SUBMITTED WITH THE REQUEST. SUMITTALS NOT INCLUDING THIS DOCUMENTATION WILL NOT BE CONSIDERED FOR REVIEW OR APPROVAL UNTIL SUCH
- 6. SITE OBSERVATION BY THE STRUCTURAL ENGINEER. THE PLAN DOCUMENTATION AND DRAWINGS REPRESENT THE FINISHED CONSTRUCTION AND, UNLESS SPECIFICALLY PROVIDED, DO NOT INDICATE A MEANS OF CONSTRUCTION. THE ENGINEER SHALL NOT HAVE CONTROL OVER OR BE RESPONSIBLE FOR CONSTRUCTION METHODS OR SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK. FOR THE ACTS OF ANY PERSONS PERFORMING THE WORK. FOR THE OMISSION OF THE CONTRACTOR OR SUBCONTRACTORS, OR FOR THE FAILURE OF THE CONSTRUCTION TO BE CARRIED OUT AS SPECIFIED WITHIN THE PLAN DOCUMENTATION. PERIODIC SITE OBSERVATION WILL BE FOR THE PURPOSE OF DETERMINING IF CONSTRUCTION IS PROCEEDING IN ACCORDANCE WITH THE PLAN DOCUMENTATION. THE PERIODIC SITE OBSERVATION BY THE ENGINEER SHALL NOT BE EXHAUSTIVE, CONTINUOUS, OR AS AN IMPLIED INSPECTION OF THE WORK, BUT RATHER TO SAFEGUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

# LLC Studio,

Moore

Ben Moore

VG CONSULTANTS, CENTRAL KANSAS ENC

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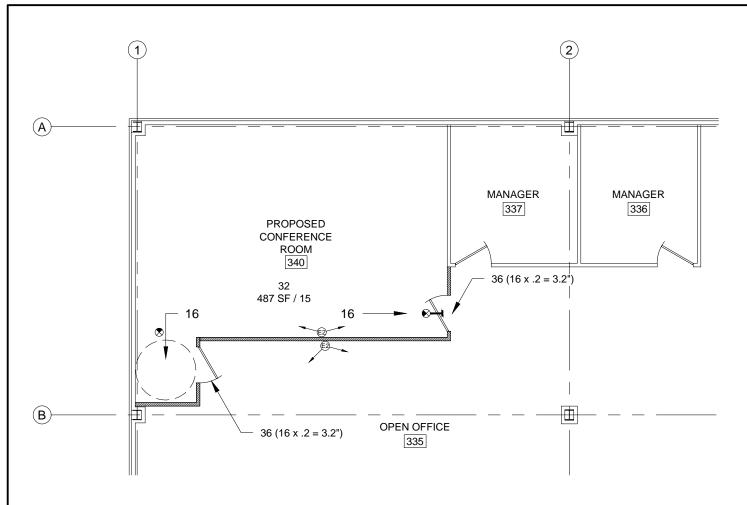
AL NOTES SSNA BUILDING ROOM ADDITION GENERAL WCNOC CESSNA CONFERENCE ROC

Date: 12/05/1 'esigned: DWO Drawn:

Checked: DWO

Sheet No

Proj. No. 2013.03



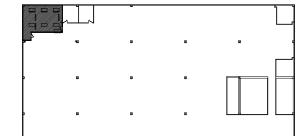
SCALE: 1/8" = 1'-0"

BUILDING LOCATION: WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

CESNA OFFICE BUILDING 1550 OXEN LANE BURLINGTON, KANSAS

LEGENE	)
<b></b>	EMERGENCY LIGHT
€	EXIT SIGN
·	



2 KEY PLAN
SCALE: NTS

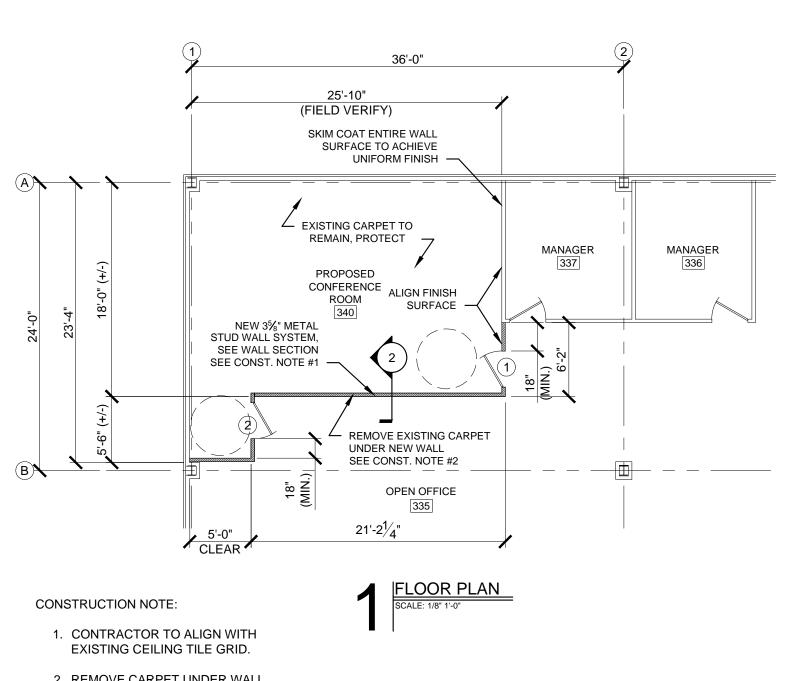


CODE PLAN WCNOC CESSNA BUILDING PROPOSED CONFERENCE ROOM

Date: 12/05/14
Designed: DWO
Drawn: KHG
Cheeked: DWO/BM

Checked: DWO/BM
Approved:

Approved:
Proj. No. 2013.03:
Sheet No:



CENTRAL KANSAS ENGINEERING CONSULTANTS, L. L. C. Ben Moore Studio, Architecture · Planning EXISTING METAL **DECKING** S 1501 H Avenue Council Grove, I 785-477-3379 EXISTING OPEN **WEB JOIST** -FIRE BARRIER 3 %" METAL STUDS KICKERS @ 48" O.C. ALTERNATE (SEE NOTE) 3 %" METAL STUD SLOTTED TRACK EXISTING ACT REMOVE AND REINSTALL AS REQUIRED 16'-11/2" **EXISTING ACT REMOVE** AND SALVAGE FOR OWNER AND INSTALL NEW NEW WALL ANGLE 3 %" x 10'-0" METAL STUDS @ 16" 0.C. ½" GYPSUM BD EACH SIDE FLOOR PLAN WCNOC CESSNA BUILDING PROPOSED CONFERENCE ROOM TAPCON @ 32" O.C. 1  $\frac{1}{2}$ " MIN. PENETRATION -4" RUBBER BASE -EXISTING CARPET (DND)  $-5\frac{1}{4}$ " CONC. FLOOR SYSTEM Date: 12/05/14 Designed: DWO

2. REMOVE CARPET UNDER WALL ONLY, DO NOT DISTURB REMAINING CARPET FLOORING.

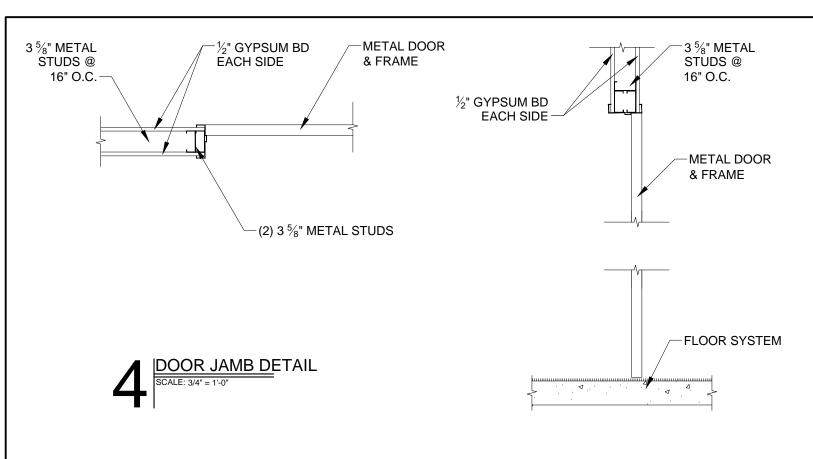
NOTE:

1. ENSURE ACCESS TO FT-301 IS NOT IMPEDED FOR MAINTENANCE PURPOSES.

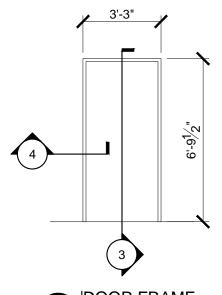
3 5/8" METAL STUD WALL

Checked: DWO/BM

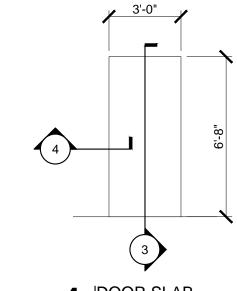
Proj. No. 2013.03 Sheet No:



3 DOOR HEAD DETAIL SCALE: 3/4" = 1'-0"











# CK

# DOOR HARDWARE SCHEDULE

# DOOR - PROVIDE THE FOLLOWING:

 $3\mbox{'-0"}$  X  $6\mbox{'-8"}$  HOLLOW METAL DOOR - METAL RABBET FRAME - PAINTED DOOR - PAINTED FRAME - SEE SPECS AND DETAILS

# DOOR HARDWARE:

STELE SPARTA - (SPA) ND50PD - FINISH 626 - 2  $^3\!\!4$ " BACKSET - OFFICE PEMKO - SMOKE GASKET KIT - HEAD AND JAMBS

WALL BUMPER - IVES WS404CVX - FINISH 626

HINGES - IVES - BUTTS - 5BB1 FIVE KNUCKLE BALL BEARING STANDARD WEIGHT - FINISH 626

					FI	NISH SC	HEDULE									
ROOM NAME	FLOOR		BASE		WALLS								CEILING			
	MATERIAL FINISH	FINICIA	MATERIAL	FINISH	NORTH		SOUTH		EAST		WEST		MATERIAL	FINICIA	LIFICLIT	REMARKS
		TIAL FINISH			MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	HEIGHT	
CONFERENCE ROOM	CARPET	EXISTING	RUBBER	MFR	-	-	GB	PTD	-	-	GB	PTD	ACT	MFR	8'-6"	
OPEN OFFICE	CARPET	EXISTING	RUBBER	MFR	GB	PTD	-	-	-	-	GB	PTD	ACT	MFR	8'-6"	WEST EXISTING
MANAGER	CARPET	EXISTING	RUBBER	MFR	-	-	-	-	-	-	GB	PTD	ACT	MFR	8'-6"	WEST EXISTING

DOOR SCHEDULE											
DOOR	DIMENSIONS		С	OOR		FRAME			DETAILS	REMARKS	
NO.	DIMENSIONS	SWING	MATERIAL	ELEVATION	FINISH	MATERIAL	ELEVATION	FINISH	DETAILS	REWARKS	
1	3'-0" X 6'-8"	LH	НМ	1/A102	PTD	HM	2/A102	PTD			
2	3'-0" X 6'-8"	LH	HM	1/A102	PTD	HM	2/A102	PTD			

Drawing Path: E:\CKEC\Projects\2013.034\_WCNOC\_Cessna Off Bldg Conference Room\DWG\Planset.d

DETAILS & SCHEDULES WCNOC CESSNA BUILDING PROPOSED CONFERENCE ROOM

Date: 12/05/14
Designed: DWO
Drawn: KHG
Checked: DWO/BM
Approved:
Proj. No. 2013.034
Sheet No:

REFLECTIVE CEILING
SCALE: 1/8" = 1'-0"

NOTE:

NEW TILE TO BE INSTALLED IN CONFERENCE ROOM, MATCH EXISTING TILE AS CLOSE AS POSSIBLE. SALVAGE EXISTING TILE FOR FUTURE USE BY OWNER. Ben Moore Studio, LLC Architecture · Planning

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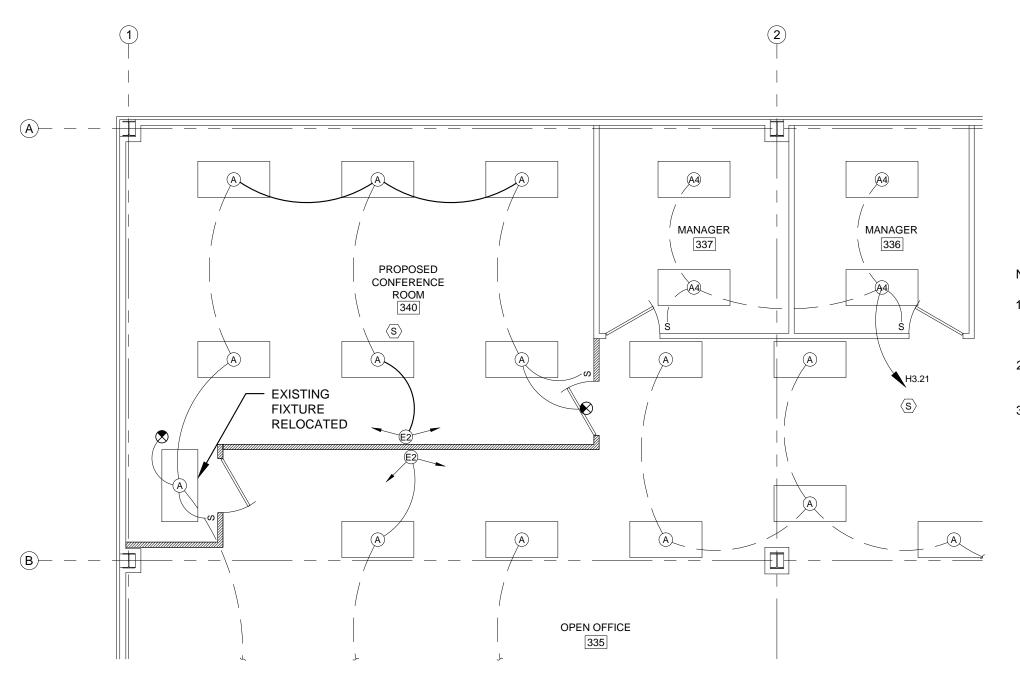
CENTRAL KANSAS ENGINEERING CONSULTANTS, L. L. C.

REFLECTIVE CEILING WCNOC CESSNA BUILDING PROPOSED CONFERENCE ROOM

Date: 12/05/14 Designed: DWO Drawn: KHG

Checked: DWO/BM

Proj. No. 2013.03 Sheet No:



Ben Moore Studio, LLC Architecture · Planning

1501 H Avenue Council Grove, KS 66846 785-477-3379

# TO MAD

CENTRAL KANSAS ENGINEERING CONSULTANTS, L. L. C.

# NOTES:

- 1. NO NEW FLUORESCENT FIXTURE SHALL BE REQUIRED, CONFERENCE ROOM LIGHTS ARE POWERED FROM EXISTING CIRCUIT H3.5.
- 2. SEE SHEET E1-5 AS BUILT DRAWINGS BY SKC ELECTRIC, INC DATED 10-6-94 FOR L3 PANEL SCHEDULE.
- 3. SEE SHEET E1-1 AS BUILT DRAWINGS BY SKC ELECTRIC, INC DATED 10-6-94 FOR FIXTURE SCHEDULE.

SCALE: 3/16" = 1'-0"

LEGEND							
SYMBOL	DESCRIPTION	MOUNTING					
	FLUORESCENT FIXTURE & FIXTURE LETTER	CEILING					
⊗	EXIT LIGHT (SHADING DENOTES EXIT FACE SIDE)	CEILING					
<b>₹</b> 2-	EMERGENCY BATTERY LIGHT FIXTURE	CEILING					
₽	ISOLATED GROUND RECEPTACLE	1'-6" AFF					
$\Rightarrow$	DUPLEX GROUNDED RECEPTACLE	1'-6" AFF					
S	SWITCHES (1-POLE, 3-WAY, 4-WAY)	4'-0" AFF					
S	P.A. SPEAKER	CEILING					
· — \	CONDUIT RUN 2#12 & 1#12 GRD 1/2" C.	CEIL/WALL					
	CONDUIT RUN 2#12 & 1#12 GRD ½" C.	CEIL/WALL					
4	DATA JACK	1'-6" AFF					
	PHONE JACK	1'-6" AFF					

LIGHTING PLAN WCNOC CESSNA BUILDING PROPOSED CONFERENCE ROOM

 Date:
 12/05/14

 Designed:
 DWO

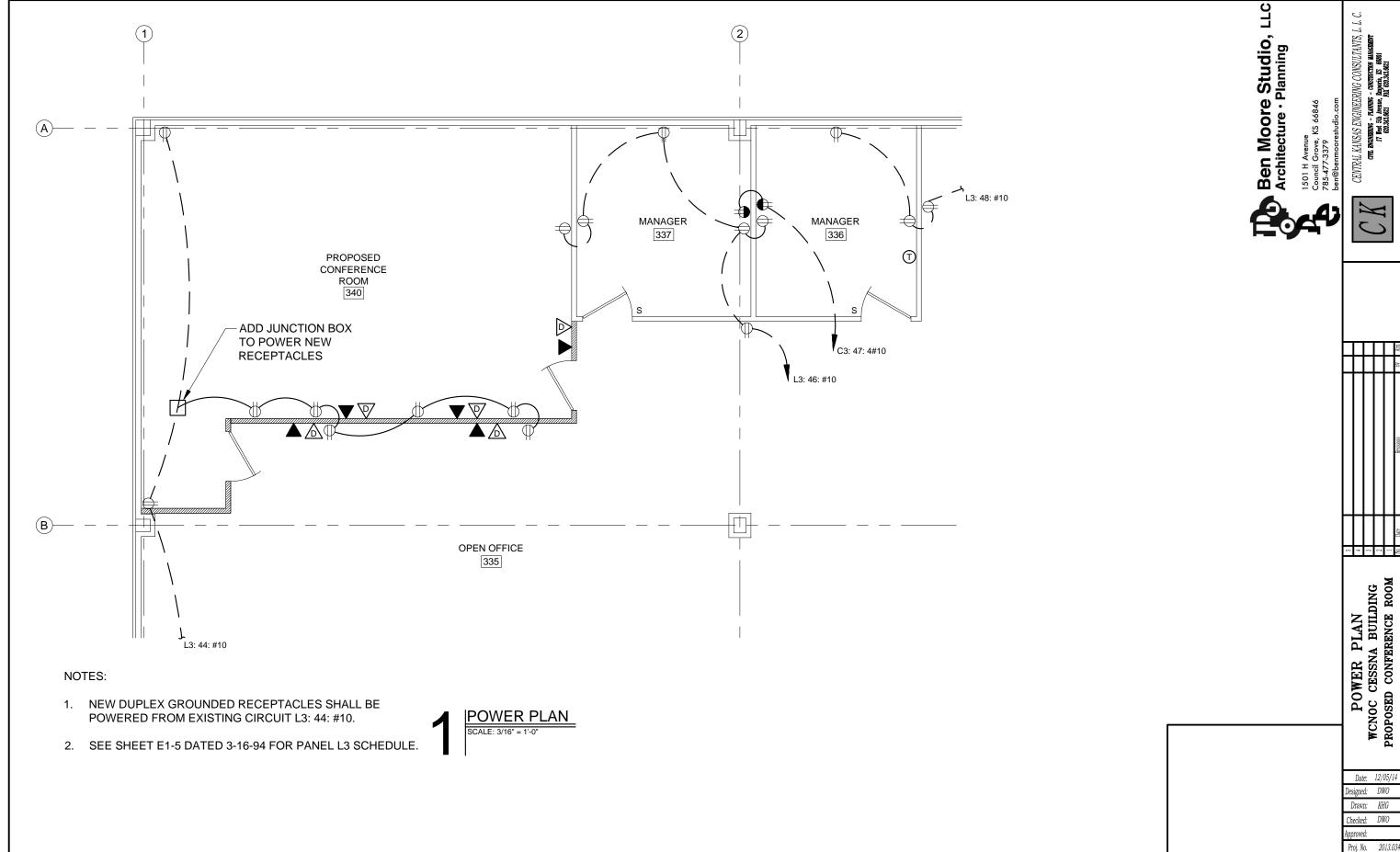
 Drawn:
 KHG

 Checked:
 DWO

 Approved:
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 2013.034

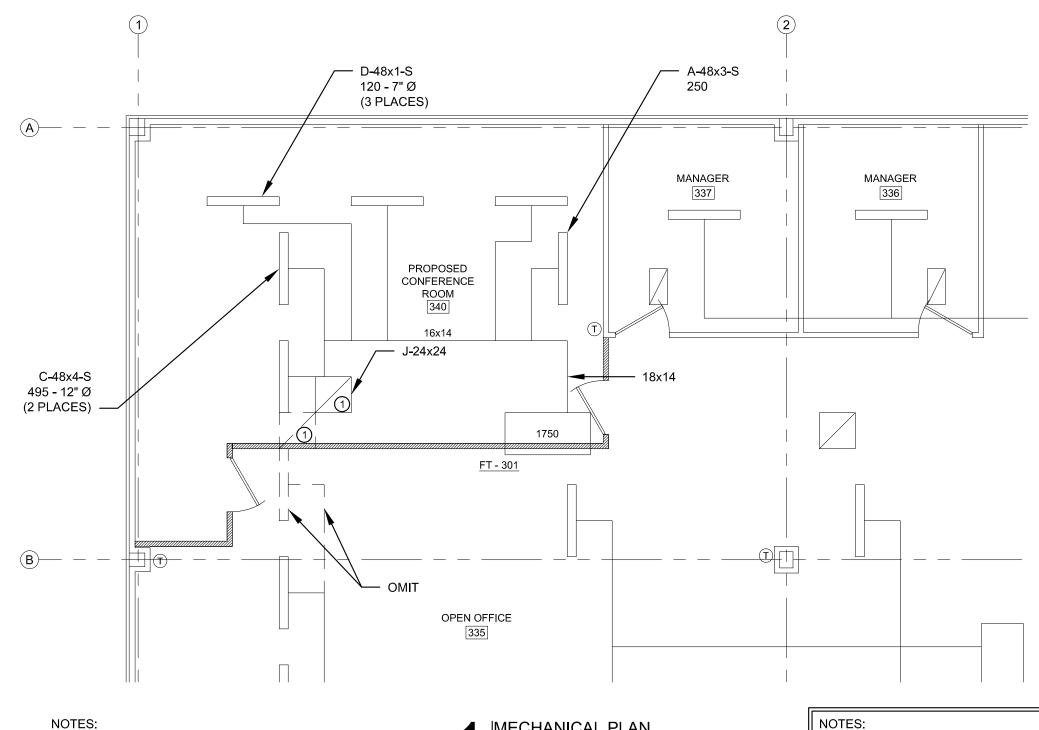
 Sheet No:
 Proj. No.
 2013.034

<sup>t No:</sup> **E101** 



Sheet No:

E102



1. EXISTING SYSTEM FT - 301 SERVES THE CURRENT AREA THAT SHALL BE ENCLOSED FOR THE PROPOSED CONFERENCE ROOM.

# CONSTRUCTION NOTES:

1. RELOCATE RETURN AIR GRILLE

|MECHANICAL PLAN

- EXISTING SPRINKLER SHALL BE MODIFED AS REQUIRED TO BE IN COMPLIANCE WITH THE KANSAS FIRE PREVENTION CODE.
- COORDINATE AND VERIFY ANY MODIFICATIONS WITH SIMPLEX GRINNEL, OVERLAND PARK, KANSAS (PH 913.894.0010)
- MODIFICATIONS IF NECESSARY SHALL BE SUBMITTED TO ENGINEER FOR AS BUILT DRAWINGS.

Ben Moore Studio, Architecture · Planning





EERING CONSULTANTS, L. L. C.

MECHANICAL PLAN WCNOC CESSNA BUILDING PROPOSED CONFERENCE ROOM

Designed: DWO Checked: DWO

proved: Proj. No. 2013.03 Sheet No:

M101

#### 1. 1 SUMMARY

- A. Section Includes:
- 1. Demolition and removal of selected portions of building or structure.
- 2. Salvage of existing items to be reused.

#### 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: Carefully detach from existing construction, in a manner to prevent damage, and deliver to
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

#### 1. 3 MATERIALS DWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Dwner that may be uncovered during demolition remain the property of Owner.
  - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

#### 1. 4 PREDEMOLITION CONFERENCES

- A. Predemolition Conferences: Conduct conferences at Project
- 1. Conduct separate conferences prior to beginning work on new addition; prior to beginning work on 1951 & 1983 additions; prior to beginning work on first floor original building renovation; and prior to beginning work on second floor original building renovation.
- 2. Inspect and discuss condition of construction to be selectively demolished.
- 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and
- 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
- 5. Review areas where existing construction is to remain and requires protection.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Proposed Protection Measures: Submit plan listing measures proposed for protecting individuals and property, dust control, and noise control. Indicate proposed locations and construction of barriers.
- B. 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.
- Interruption of utility services. Indicate how long utility services will be interrupted.
- 3. Coordination for shutoff, capping, and continuation of utility services.
- 4. Use of stairs.
- 5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- C. Inventory: Submit a list of items to be removed and salvaged and deliver to Dwner prior to start of demolition.
- D. Predemolition Photographs or Video: At Contractor's option as a means to define damage prior to construction activities, provide predemolition photographs or video indicating construction area conditions. Submit before Work beains
- E. Warranties: Documentation indicating that existing roof warranty is still in effect after completion of selective demolition.

#### 1. 6 QUALITY ASSURANCE

A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

#### 1. 7 FIELD CONDITIONS

- A. Dwner will occupy portions of building immediately adjacent to selective demolition areas. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: Hazardous materials are present in buildings and structures to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
- 1. Do not disturb hazardous materials, items suspected of containing hazardous materials, or items which will dislodge hazardous or suspected hazardous materials.
- 2. Hazardous material remediation will be provided by the Owner under a separate contract. Coordinate and cooperate with the Owner's scheduling for removal of hazardous materials and items which will dislodge hazardous
- 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.

#### PART 2 - PRODUCTS

#### 2. 1 PEFORMANCE REQUIREMENTS

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

# PART 3 - EXECUTION

#### 3. 1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. 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.

#### 3. 2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
- 1. Coordinate with Dwner to arrange to shut off
- services/systems when necessary for selective demolition. 2. Arrange to shut off indicated utilities with utility companies.
- 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain
- continuity of services/systems to other parts of building. 4. Disconnect, demolish, and remove plumbing, HVAC systems, equipment, and components indicated to be removed.
- C. Refrigerant: Remove refrigerant from mechanical equipment to be selectively demolished according to 40 CFR 82 and regulations of authorities having jurisdiction.

#### 3. 3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, street's, walks, walkways, and other adjacent occupied and used facilities.

- B. 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.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes 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 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. 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.
- 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
- 3. Do not use cutting torches without securing #Hot Work Permit. + 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 fire watch and portable fire-suppression devices during flame-cutting operations. Maintain adequate ventilation when using cutting torches.
- 4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
- Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.

  6. Locate selective demolition equipment and remove debris
- and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- 7. Dispose of demolished items and materials promptly.
- B. Removed and Reinstalled Items:
- 1. Pack or crate items. Identify contents of containers.
- 2. Protect items from damage during transport and storage. 3. 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 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

# 3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Acoustic Ceiling Tile & Grid work: Remove area of ceiling tile and store safely shore remaining ceiling tile as required. After new wall installation, install new ceiling grid and cut existing ceiling tile into new grid layout.

#### 3. 6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Dwner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved
- 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.

LLC Studio, Planning

Ben Moore Sarchitecture P 66846  $\infty$ Avenue Grove, 7-3379

CENTRAL KANSAS ENGINEERING CONSULTANTS, 1501 H Council (785-477





SPECIFICATIONS
WCNOC CESSNA BUILDING
CONFERENCE ROOM ADDITION

Date: 12/05/1 Designed: DWO Drawn: Checked: DWO proved:

Proj. No. 2013.0

#### 3. 7 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

SECTION 08 11 13 - HOLLOW METAL DOORS AND FRAMES

#### PART 1 - GENERAL

#### 1. 1 SUMMARY

- A. Section Includes:
  - 1. Standard hollow metal doors and frames.

#### 1. 2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, core fire-resistance rating, descriptions, temperature-rise ratings, and finishes.
- B. Shop Drawings: Include the following:
  - 1. Elevations of each door design.
  - 2. Details of doors, including vertical and horizontal edge details and metal thicknesses.
  - 3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
  - 4. Locations of reinforcement and preparations for hardware.
  - 5. Details of each different wall opening condition.
  - 6. Details of anchorages, joints, field splices, and connections.
  - 7. Details of accessories.
  - 8. Details of removable stops, and glazing.
  - 9. Details of conduit and preparations for power, signal, and control systems.
- C. Schedule: Provide a schedule of hollow metal work prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings. Coordinate with door hardware schedule.

#### D. Samples:

1. Fabricated joint for borrow light member intersection.

#### 1. 3 QUALITY ASSURANCE

- A. Source Limitations: Obtain hollow metal work from single source from single manufacturer.
- B. Smoke-Control Door Assemblies: Comply with NFPA 105 and

#### 1. 4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project-site storage. Do not use nonvented plastic.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow metal work under cover at Project site.
  - 1. Place in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4-inch- high wood blocking.
  - 2. Do not store in a manner that traps excess humidity.
  - 3. Provide minimum 1/4-inch space between each stacked door to permit air circulation.

# 1.5 PROJECT CONDITIONS

A. Field Measurements: Verify actual dimensions of existing openings by field measurements before fabrication.

# 1.6 COORDINATION

A. Coordinate installation of anchorages for hollow metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

#### 2.2 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- C. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B; with minimum A60 metallic coating.
- D. Frame Anchors: ASTM A 591/A 591M, Commercial Steel (CS), 40Z coating designation; mill phosphatized.
  - 1. For anchors built into exterior walls, steel sheet with ASTM A 1008/A 1008M ASTM A 1011/A 1011M, hot-dip galvanized according to ASTM A 153/A 153M, Class B.
- E. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.
- F. Grout: ASTM C 476, except with a maximum slump of 4 inches, as measured according to ASTM C 143/C 143M.

#### 2.3 STANDARD HOLLOW METAL DOORS

- A. General: Provide doors of design indicated, not less than thickness indicated; fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8.
- 1. Design: Flush panel.
- 2. Core Construction: Manufacturer's polyisocyanurate or mineral-board core.
  - a. Thermal-Rated (Insulated) Doors: Except at fire-rated provide doors fabricated thermal-resistance value (R-value) of not less than R-10 when tested according to ASTM C 1363.
- 3. Vertical Edges for Single-Acting Doors: Beveled edge.
  - a. Beveled Edge: 1/8 inch in 2 inches.
- 4. Vertical Edges for Double-Acting Doors: Round vertical edges with 2-1/8-inch radius.
- 5. Top and Bottom Edges: Closed flush with 0.042-inchthick closures.
- Comply with SDI 117, "Manufacturing 6. Tolerances: Tolerances for Standard Steel Doors and Frames. \*
- B. Interior Doors: Face sheets fabricated from cold-rolled steel sheet. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model and ANSI/SDI A250. 4 for physical performance level
  - 1. Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 2 (Seamless).
- C. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.
- D. Fabricate concealed stiffeners and hardware reinforcement from either cold- or hot-rolled steel sheet.

### 2. 4 STANDARD HOLLOW METAL FRAMES

- A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile.
- B. Exterior Frames: Fabricated from metallic-coated steel sheet.
  - 1. Fabricate frames with mitered or coped corners.
  - 2. Fabricate frames as full profile welded unless otherwise indicated.
  - 3. Frames for Level 3 Steel Doors: 0.067-inch- thick steel
- C. Interior Frames: Fabricated from metallic-coated sheet.
  - 1. Fabricate frames with mitered or coped corners.
  - 2. Fabricate frames as full profile welded at all new openings.
  - 3. At existing concrete, masonry, or masonry/plaster openings provide one of the following:
  - a. Fabricate frames as full profile welded
  - b. Fabricate frames as knocked down with full profile weld after frame installation.
  - 4. Frames for Level 3 Steel Doors: 0.053-inch- thick steel
  - 5. Frames for Level 4 Steel Doors: 0.067-inch- thick steel sheet.
  - 6. Frames for Wood Doors: 0.053-inch-thick steel sheet.
  - 7. Frames for Borrowed Lights: 0.053-inch- thick steel

D. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 with reinforcement plates from same material as frames.

#### 2.5 FRAME ANCHORS

#### A. Jamb Anchorsi

- 1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0,177 inch thick.
- 2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch thick.
- 3. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch- diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.

#### 2. 6 STOPS AND MOLDINGS

- A. Moldings for Glazed Lites in Doors: Minimum 0.032 inch thick, fabricated from same material as door face sheet in which they are installed.
- B. Fixed Frame Moldings: Formed integral with hollow metal frames, a minimum of 5/8 inch high unless otherwise indicated.
- C. Loose Stops for Glazed Lites in Frames: Minimum 0.032 inch thick, fabricated from same material as frames in which they are installed.

# 2.7 ACCESSORIES

- A. Ceiling Struts: Minimum 1/4-inch-thick by 1-inch- wide stee I.
- B. Grout Guards: Formed from same material as frames, not less than 0.016 inch thick.

#### 2.8 FABRICATION

- A. Fabricate hollow metal work 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.
- B. Tolerances: Fabricate hollow metal work to tolerances indicated in SDI 117.
- C. Hollow Metal Doors:
- 1. Exterior Doors: Provide weep-hole openings in bottom of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.
- 2. Glazed Lites: Factory cut openings in doors.
- D. Hollow Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
  - 1. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.
  - a. Fabricate frames with no visible curl, cup, warp, or twist at intersecting members.
  - 2. Sidelight Frames: Provide closed tubular members with no visible face seams or joints, fabricated from same material as door frame. Fasten members at crossings and to jambs by butt welding.
  - 3. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
  - 4. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted. 5. Jamb Anchors: Provide number and spacing of anchors as
  - a. Masonry Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more
    - 1) Two anchors per jamb up to 60 inches high.

than 32 inches o. c. and as follows:

- 2) Three anchors per jamb from 60 to 90 inches high.
- 3) Four anchors per jamb from 90 to 120 inches high.

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SPECIFICATIONS
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CONFERENCE ROOM ADDITION

Date: 12/05/1 Designed: DWO Drawn: KHG Checked: DWO

pproved: Proj. No. 2013.03 Sheet No:

- 1) Three anchors per jamb up to 60 inches high.
- 2) Four anchors per jamb from 60 to 90 inches high.
- 3) Five anchors per jamb from 90 to 96 inches high.
- 4) Two anchors per head for frames above 42 inches wide and mounted in metal-stud partitions.
- c. Postinstalled Expansion Type: Locate anchors not more than 6 inches from top and bottom of frame. Space anchors not more than 26 inches o.c.
- 6. Door Silencers: Except on weather-stripped doors, drill stops to receive door silencers as follows. Keep holes clear during construction.
  - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
  - b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.
- E. Fabricate concealed stiffeners, edge channels, and hardware reinforcement from either cold- or hot-rolled steel sheet.
- F. Hardware Preparation: Factory prepare hollow metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to the Door Hardware Schedule and templates furnished as specified in Division 08 Section "Door Hardware."
- 1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
- 2. Reinforce doors and frames to receive non-templated, mortised and surface-mounted door hardware.
- 3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.
- 4. Coordinate locations of conduit and wiring boxes for electrical connections.
- G. Stops and Moldings: Provide stops and moldings around glazed lites where indicated. Form corners of stops and moldings with butted or mitered hairline joints.
  - 1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow metal work.
  - 2. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
  - 3. Provide loose stops and moldings on inside of hollow
  - 4. Coordinate rabbet width between fixed and removable stops with type of glazing and type of installation indicated.

# 2. 9 STEEL FINISHES

- A. Prime Finish: Apply manufacturer's standard primer immediately after cleaning and pretreating.
  - 1. Shop Primer: Manufacturer's standard, fast-curing, leadand chromate-free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

#### PART 3 - EXECUTION

#### 3. 1 FXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the
- B. Examine roughing-in for embedded and built-in anchors to verify actual locations before frame installation.
- C. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work
- D. 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. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware. Do not use self-tapping fasteners.

#### 3.3 INSTALLATION

- A. General: Install hollow metal work plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.
- B. Hollow Metal Frames: Install hollow metal frames of size and profile indicated. Comply with ANSI/SDI A250.11.
  - 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. At fire-protection-rated openings, install frames according to NFPA 80.
  - b. Where frames are knock-down, weld profile joint continuously after installation; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
  - c. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding profile joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
  - d. Install frames with removable glazing stops located on secure side of opening.
  - e. Install door silencers in frames before grouting.
  - f. Remove temporary braces necessary for installation only after frames have been properly set and secured.
  - g. Check plumbness, squareness, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
  - h. Do not distort frame faces by bending frames to fit over existing construction.
  - 2. Metal-Stud Partitions: Solidly pack mineral-fiber insulation behind frames.
  - 3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
  - 4. Ceiling Struts: Extend struts vertically from top of frame at each jamb to overhead structural supports or substrates above frame 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. Provide adjustable wedged or bolted anchorage to frame jamb members.
  - 5. Installation Tolerances: Adjust hollow metal door frames for squareness, alignment, twist, and plumb 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
  - 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
- C. Hollow Metal Doors: Fit hollow metal doors accurately in frames, within clearances specified below.
  - 1. Non-Fire-Rated Standard Steel Doors:
  - a. Jambs and Head: 1/8 inch plus or minus 1/16 inch.
  - b. Between Edges of Pairs of Doors: 1/8 inch plus or minus 1/16 inch.
  - c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch.
  - d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch.
  - 2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
  - 3. Smoke-Control Doors: Install doors according to NFPA 105.

- D. Glazing: Comply with installation requirements in Division 08 Section "Glazing" and with hollow metal manufacturer's written instructions.
  - 1. Secure stops with countersunk oval-head machine screws spaced uniformly not more than 9 inches o.c. and not more than 2 inches o.c. from each corner.

#### 3. 4 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable when fully finished including painting.
- B. Remove grout and other bonding material from hollow metal work immediately after installation.
- C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.
- D. Metallic-Coated Surfaces: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

END OF SECTION 08 11 13

SECTION 09 22 16 - NON-STRUCTURAL METAL FRAMING

#### 1. 1 SUMMARY

- A. Section Includes:
  - 1. Non-load-bearing steel framing systems for interior gypsum board assemblies
  - 2. Suspension systems for interior gypsum ceilings and soffits.

#### 1. 2 ACTION SUBMITTALS

A. Product Data: For each type of product.

#### 1. 3 INFORMATION SUBMITTALS

A. Evaluation Reports: For dimpled steel studs, dimpled steel runners, and firestop tracks, from ICC-ES.

#### PART 2 - PRODUCTS

#### 2. 1 DESCRIPTION

- A. Fire-Test-Response Characteristics fire-resistance-rated that assemblies Incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.

# 2. 2 FRAMING SYSTEMS

- 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: Coating with equivalent corrosion resistance of ASTM A 653, G40, hot-dip galvanized.
- B. Studs and Runners: ASTM C 645. Use either steel studs and runners or dimpled steel studs and runners.
- 1. Steel Studs and Runners:
- a. Minimum Base-Metal Thickness: 0.033 inch.
- b. Depth: 3 5/8 inches.

#### 2. 3 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards.
- 1. Fasteners for Metal Framing: Of type, material, size corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

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SPECIFICATIONS
WCNOC CESSNA BUILDING
CONFERENCE ROOM ADDITION

Date: 12/05/1 Designed: DWO Drawn: KHG Checked: DWO

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#### 3. 1 EXAMINATION

- A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3. 2 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.
- B. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.
- C. Install bracing at terminations in assemblies
- D. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

# 3. 3 INSTALLING FRAMED ASSEMBLIES

- A. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.
- B. Install studs so flanges within framing system point in same
  - 1. Space studs at 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 stude 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.
  - b. Install cripple studs at head adjacent to one jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
  - 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 identical to firestop track to comply with sound-rated assembly indicated
- D. 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.
- E. Install bridging at mid-height of all partitions over 5 feet in height.

#### 3. 4 INSTALLING SUSPENSION SYSTEMS

- A. Install suspension system components in sizes and spacings required by referenced installation standards for assembly types and other assembly components indicated.
- B. Isolate suspension systems from building structure where they abut or are penetrated by building structure to prevent transfer of loading imposed by structural movement.

- C. 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
- a. Size supplemental suspension members and hangers to support ceiling loads.
- 3. Wire Hangers: Secure by looping and wire tying, either directly to structures or to inserts, eye screws, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause hangers to deteriorate or otherwise fail.
- 4. Flat Hangers: Secure to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices and fasteners that are secure and appropriate for structure and hanger, and in a manner that will not cause hangers to deteriorate or otherwise fail.
- 5. Do not attach hangers to steel roof deck
- 6. Do not attach hangers to rolled-in hanger tabs of composite steel floor deck.
- 7. Do not connect or suspend steel framing from ducts, pipes, or conduit.
- D. Seismic Bracing: Sway-brace suspension systems with hangers used for support.
- E. Grid Suspension Systems: Attach perimeter wall track or angle where grid suspension systems meet vertical surfaces. Mechanically join main beam and cross-furring members to each other and butt-cut to fit into wall track.
- F. Installation Tolerances: Install suspension systems that are level to within 1/8 inch in 12 feet measured lengthwise on each member that will receive finishes and transversely between parallel members that will receive finishes.

### END OF SECTION 09 22 16

SECTION 09 29 00 - GYPSUM BOARD

#### PART 1 - GENERAL

# 1. 1 RELATED DOCUMENTS

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

#### 1. 2 SUMMARY

- A. Section Includes:
- 1. Interior avpsum board.

#### 1. 3 ACTION SUBMITTALS

A. Product Data: For each type of product.

#### 1. 4 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

#### 1.5 FIFLD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install paper-faced avpsum panels until installation areas are enclosed and conditioned
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
- 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
- 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

#### PART 2 - PRODUCTS

#### 2. 1 PERFORMANCE REQUIREMENTS

A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.

#### 2. 2 GYPSUM BOARD, GENERAL

A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

#### 2. 3 INTERIOR GYPSUM BOARD

- A. Manufacturers: Subject to compliance with requirements, [provide available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- 1. American Gypsum.
- 2. CertainTeed Corp.
- 3. Georgia-Pacific Gypsum LLC.
- 4. Lafarge North America Inc.
- 5. National Gypsum Company,
- 6. PABCO Gypsum.
- 7. <u>Temple-Inland</u>.
- 8. USG Corporation.
- B. Gypsum Wallboard: ASTM C 1396/C 1396M.
- 1. Thickness: 1/2 inch (12.7 mm).
- 2. Long Edges: Tapered
- C. Gypsum Board, Type X: ASTM C 1396/C 1396M.
- 1. Thickness: 5/8 inch (15.9 mm).
- 2. Long Edges: Tapered.
- D. Gypsum Ceiling Board: Type X: ASTM C 1396/C 1396M.
- 1. Thickness: 5/8 inch (15.9 mm).
- 2. Long Edges: Tapered.
- E. Moistureand Mold-Resistant Gypsum Board ASTM C 1396/C 1396M. With moisture- and mold-resistant core and paper surfaces.
- 1. Core: 1/2 inch (12.7 mm), regular type & 5/8 inch (15.9 mm), Type X.
- 2. Long Edges: Tapered.
- 3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

# 2. 4 TRIM ACCESSORIES

- A. Interior Trim: ASTM C 1047.
  - 1. Material: Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized steel cheet
- 2. Shapes:
- a. Cornerbead.
- b. Bullnose bead.
- c. LC-Bead: J-shaped; exposed long flange receives joint compound.
- d. L-Bead: L-shaped; exposed long flange receives joint compound.
- e. U-Bead: J-shaped; exposed short flange does not receive ioint compound
- g. Curved-Edge Cornerbead: With notched or flexible flanges.

#### 2. 5 JOINT TREATMENT MATERIALS

A. General: Comply with ASTM C 475/C 475M.

f. Expansion (control) joint.

- B. Joint Tape:
- 1. Interior Gypsum Board: Paper.
- 2. Exterior Gypsum Soffit Board: Paper.
- 3. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
- 4. Tile Backing Panels: As recommended by panel manufacturer.

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SPECIFICATIONS
WCNOC CESSNA BUILDING
CONFERENCE ROOM ADDITION

Date: 12/05/1 Designed: DWO Drawn: KHG Checked: DWO

proved: Proj. No. 2013.03

- 1. Prefilling: At open joints rounded or beveled panel edges and damaged surface areas, use setting-type taping
- 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping, or drying-type, all-purpose compound.
- a. Use setting-type compound for installing paper-faced metal trim accessories.
- 3. Fill Coat: For second coat, use drying-type, all-purpose compound
- 4. Finish Coat: For third coat, use drying-type, all-purpose
- 5. Skim Coat: For final coat of Level 5 finish, use drying-type, all-purpose compound.
- D. Joint Compound for Tile Backing Panels:
- 1. Cementitious Backer Units: As recommended by backer unit manufacturer.

#### 2. 6 AUXII IARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written
- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
- C. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
- 1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch (0.84 to 2.84 mm)
- 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- D. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.
- 1. Fire-Resistance-Rated Assemblies mineral-fiber requirements of assembly.
- E. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing testing representative assemblies according to ASTM E 90.
- 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
- a. Accumetric LLC; BOSS 824 Acoustical Sound Sealant.
- b. Grabber Construction Products; Acoustical Sealant GSC.
- c. Pecora Corporation
- d. <u>Specified Technologies</u>, <u>Inc.; Smoke N Sound Acoustical</u>
- e. <u>USG Corporation; SHEETROCK Acoustical Sealant</u>,
- 2. Acoustical joint sealant 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."

# PART 3 - EXECUTION

#### 3. 1 FXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

# 3. 2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.

- C. Install panels with face side out. 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.
- D. 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. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
- 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. (0.7 sq. m) in area
- 2. Fit gypsum panels around ducts, pipes, and conduits.
- 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- (6.4- to 9.5-mm-) wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing 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 edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- I. Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members or provide control joints to counteract wood
- J. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, 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 with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- K. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

#### 3. 3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
- 1. Type X: Vertical surfaces unless otherwise indicated
- 2. Ceiling Type: Type X unless indicated otherwise.
- 3. Moisture- and Mold-Resistant Type: At all wet locations excluding tile ceiling and walls

#### B. Single-Laver Applications

- 1. In ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
- 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.
- a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
- b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
- 3. In Z-furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
- 4. Fastening Methods: Apply gypsum panels to supports with

#### C. Multilayer Application:

- 1. In ceilings, apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints one framing member, 16 inches (400 mm) minimum, from parallel base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly.
- 2. In 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 opposité sides of partitions.
- 3. On Z-furring members, apply base layer vertically (parallel to framing) and face layer either vertically (parallel to framing) or horizontally (perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring
- 4. Fastening Methods: Fasten base layers and face layers separately to supports with screws.

#### 3. 4 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
- 1. Cornerbead: Use at outside corners.
- 2. LC-Bead: Use at exposed panel edges
- 3. L-Bead: Use where indicated
- 4. U-Bead: Use at exposed panel edges

# 3.5 FINISHING GYPSUM BOARD

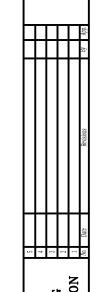
- A General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
- 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
- 2. Level 2: Panels that are substrate for acoustical tile.
- 3. Level 3: N/A
- 4. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.
- a. Primer and its application to surfaces are specified in Section 099123 'Interior Painting.'
- 5. Level 5: Sloped ceilings
- a. Primer and its application to surfaces are specified in Section 099123 'Interior Painting.'

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B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.

C. Remove and replace panels that are wet, moisture damaged, and mold damaged.

1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 09 29 00

SECTION 09 51 13 - ACCUSTICAL PANEL CEILINGS

PART 1 - GENERAL

#### 1. 1 SUMMARY

A. Section includes acoustical panels and exposed suspension systems for ceilings.

# 1. 2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project

B. Coordinate existing light fixtures and supports to meet this specification

#### 1. 3 ACTION SUBMITTALS

A. Product Data: For each type of product.

#### 1. 4 INFORMATIONAL SUBMITTALS

A. 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. Suspended ceiling components

2. Structural members to which suspension systems will be attached.

3. Size and location of initial access modules for acoustical pane ls.

4. Items penetrating finished ceiling including the following: a Lighting fixtures

b. Air outlets and inlets.

c. Access panels.

5. Perimeter moldings.

B. Evaluation Reports: For each acoustical panel ceiling suspension system and anchor and fastener type, from ICC-ES.

C. Field quality-control reports.

#### 1. 5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For finishes to include in maintenance manuals.

#### 1.6 MAINTENANCE MATERIAL SUBMITTALS

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 Ceiling Panels: 20 Full-size panels.

2. Suspension-System Components: Quantity of each exposed

component equal to 2 percent of quantity installed.

#### 1. 7 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to NVLAP for testing indicated.

#### 1. 8 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.

#### 1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, 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. Pressurized Plenums: Operate ventilation system for not less than 48 hours before beginning acoustical panel ceiling installation.

#### PART 2 - PRODUCTS

#### 2. 1 ACOUSTICAL PANELS, GENERAL

A. Source Limitations:

1. Acoustical Ceiling Panel: | Dbtain each type from single

source from single manufacturer.

2. Suspension System: Dotain each type from single source from single manufacturer.

B. Source Limitations: Obtain each type of acoustical ceiling panel and supporting suspension system from single source from single manufacturer.

C. Glass-Fiber-Based Panels: Made with binder containing no urea formaldehyde.

D. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, 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 (400 mm) away from test surface according to ASTM E 795.

E. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.

1. Where appearance characteristics of acoustical panels are indicated by referencing pattern designations in ASTM E 1264 and not manufacturers' proprietary product designations, provide products selected by Architect from each manufacturer's full range that comply with requirements indicated for type, pattern, color, light reflectance, acoustical performance, edge detail, and size.

### 2. 2 ACTUSTICAL PANELS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Fissured 755 as manufactured by Armstrong World Industries, Inc. or comparable product by one of the following:

Armstrong World Industries, Inc.

CertainTeed Corp.

Chicago Metallic Corporation.

Tectum Inc.

5. USG Interiors, Inc.; Subsidiary of USG Corporation.

B. Classification: Provide panels complying with ASTM E 1264 for type, form, and pattern as follows:

1. Composition Mineral Fiber Surface Texture: Medium

3. Pattern: Fissured

C. Color: White

D. IR: Not less than 0.80 E. NRC: Not less than 0.55.

F. CAC: Not less than 30

G. Edge/Joint Detail: Square.

H. Flame Spread: ASTM E 1264; Class A (UL)

I. Emissions Testing: Section 01350 Protocol, < 13.5 ppb of formaldehyde when used under typical conditions required by ASHRAE Standard 62.1-2004, "Ventilation for Acceptable Indoor Air Quality

J. Thickness: 5/8 inch (15 mm)

K. Modular Size: 24 by 48 inches (610 by 1220 mm)

#### 2. 3 METAL SUSPENSION SYSTEMS, GENERAL

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/C 635M.

B. Attachment Devices: Size for five times the design load indicated in ASTM C 635/C 635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.

C. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:

1. Zinc-Coated, Carbon-Steel Wire: ASTM A 641, Class 1 zinc coating, soft temper.

2. Stainless-Steel Wire: ASTM A 580/A 580M, Type 304,

nonmagnetic.

3. Nickel-Copper-Alloy Wire: ASTM B 164, nickel-copper-alloy UNS No. NO4400.

4. Size: Select wire diameter so its stress at three times hanger design load (ASTM C 635/C 635M, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 12 gauge diameter wire.

#### 2. 4 METAL SUSPENSION SYSTEM

A. Basis-of-Design Product: Subject to compliance with requirements, provide Prelude ML 15/16+ Exposed Tee or comparable product by one of the following:

1. Armstrong World Industries, Inc.

2. CertainTeed Corp.

3. Chicago Metallic Corporation.

4. USG Interiors, Inc.; Subsidiary of USG Corporation.

B. Wide-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet; prepainted, electrolytically zinc coated, or hot-dip galvanized according to ASTM A 653; with prefinished 15/16-inch- (24-mm-) wide metal caps on flanges.

1. Structural Classification: Heavy duty system, ASTM C 635

2. Cap Finish Color: White and match the actual color of the selected ceiling tile, unless noted otherwise. 3. Attachment Devices: Size for five times design load

indicated in ASTM C 635, Table 1, Direct Hung unless otherwise indicated.

4. End Condition of Cross Runners: Override stepped or butt-edge type.

5. Face Design: Flat, flush.

6. Cap Material: Steel or aluminum cold-rolled sheet.

#### 2.5 METAL EDGE MOLDINGS AND TRIM

A. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong World Industries, Inc. standard moldings and trim profile or comparable product by one of the following:

1. Armstrong World Industries, Inc.

2. CertainTeed Corp.

3. Chicago Metallic Corporation.

4. Fry Reglet Corporation.

5. Gordon, Inc.

6. USG Interiors, Inc.; Subsidiary of USG Corporation.

B. Edge Moldings and Trim: Metal or extruded aluminum of types and profiles matching, manufacturer's standard moldings for edges and penetrations, including light fixtures, that fit type of edge detail and suspension system indicated. See Metal Suspension System above. Provide moldings with exposed flange of the same width as exposed runner.

#### 2. 6 ACDUSTICAL SEALANT

A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

1. Acoustical Sealant for Exposed and Concealed Joints:

a. Pecora Corporation; AC-20 FTR Acoustical and Insulation Sealant.

b. USG Corporation; SHEETROCK Acoustical Sealant.

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- b. Pecora Corporation; AIS-919.
- c. Tremco, Inc.: Tremco Acoustical Sealant.
- B. Acoustical Sealant: Manufacturer's standard sealant complying with ASTM C 834 and effective in reducing airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
- 1. Exposed and Concealed Joints: Nonsag, paintable,
- nonstaining latex sealant.
  2. Concealed Joints: Nondrying, nonhardening, nonskinning, nonstaining, gunnable, synthetic-rubber sealant.

#### 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 and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.
- B. Examine acoustical panels before installation. Reject acoustical panels that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
- D. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer's printed recommendations.

#### 3. 2 PREPARATION

A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

#### 3. 3 INSTALLATION

- A. General: Install acoustical panel ceilings to comply with ASTM C 636 and seismic design requirements indicated, according to manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
- B. Suspend ceiling hangers from building's structural members and as fallows:
- 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 four 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. Secure flat, anale, channel, and rod hangers to structure. including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
- 6. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
- 7. Do not attach hangers to roof deck. Attach hangers to structural members.
- 8. Space hangers not more than 48 inches (1200 mm) o. c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches (200 mm) from ends of each member.

- 9. 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
- Screw attach moldings to substrate at intervals not more than 16 inches (400 mm) o.c. and not more than 3 inches (75 mm) from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet (3.2 mm in 3.6 m). Miter corners accurately and connect securely.
- D. Install suspension-system runners so they are square and securely interlocked with one another. 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. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
- 1. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension-system runners and moldings.
- 2. For reveal-edged panels on suspension-system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
- 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.
- 4. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.

#### 3. 4 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections of completed installations of acoustical panel ceiling hangers and anchors and fasteners in successive stages. Do not proceed with installations of acoustical panel ceiling hangers for the next area until test results for previously completed installations show compliance with requirements.
- 1. Extent of Each Test Area: When installation of ceiling suspension systems on each floor has reached 20 percent completion but no panels have been installed.
- a. Within each test area, testing agency will select one of every 10 fasteners used to attach hangers to structure and will test them for 200 lbf of tension; it will also select one of every two postinstalled anchors used to attach bracing wires will test them for 440 lbf (1957 N) of tension.
- b. When testing discovers fasteners and anchors that do not comply with requirements, testing agency will test those anchors not previously tested until 20 pass consecutively and then will resume initial testing frequency.
- B. Acoustical panel ceiling hangers and anchors and fasteners will be considered defective if they do not pass tests and
- C. Confirm existing light fixtures, ducts and other fixtures and devices above the ceiling are properly secured with wire ties, braces and ties. Confirm all light fixtures have a minimum of 3 corners supported by wire ties, braces and ties from the structure meeting this specification.
- D. Prepare test and inspection reports.

# 3. 5 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

SECTION 09 65 13 - RESILIENT BASE AND ACCESSORIES

#### PART 1 - GENERAL

#### 1. 1 RELATED DOCUMENTS

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

#### 1. 2 SUMMARY

- A. Section Includes:
- 1. Resilient base.
- 2. Resilient molding accessories.

#### 1. 3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified, not less than 12 inches long.
- C. Samples for Verification: For each type of product indicated and for each color, texture, and pattern required in manufacturer's standard-size Samples, but not less than 12 inches long.

#### 1. 4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, of each type, color, pattern, and size of resilient product installed.

#### 1. 5 DELIVERY, STORAGE, AND HANDLING

A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32

#### 1.6 FIELD CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F in spaces to receive resilient products during the following time periods:
- 1. 48 hours before installation.
- 2. During installation
- 3. 48 hours after installation
- B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg or more than 95 deg i
- C. Install resilient products after other finishing operations, including painting, have been completed.

#### PART 2 - PRODUCTS

# 2. 1 THERMOPLASTIC-RUBBER BASE

- 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. AB; American Biltrite.
- 2. Allstate Rubber Corp.
- 3. Armstrong World Industries, Inc.
- 4. <u>Burke Mercer Flooring Products</u>, <u>Division of Burke</u> <u>Industries</u> <u>Inc.</u>
- 5. Flexco.
- 6. Johnsonite; A Tarkett Company.
- 7. Mondo Rubber International, Inc.
- 8. Nora Systems, Inc.
- 9. Roppe Corporation, USA.
- 10. VPI, LLC, Floor Products Division.

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- 1. Group: I solid, homogeneous
- 2. Style and Location:
- a. Style A, Straight: Provide in areas with carpet
- b. Style B, Cove: Provide in areas with resilient flooring
- C. Thickness: 0.125 inch
- D. Height: 4 inches.
- E. Lengths: Cut lengths 48 inches (1219 mm) long or coils in manufacturer's standard length.
- F. Dutside Corners: Preformed
- G. Inside Corners: Preformed
- H. Colors: As selected by Owner from full range of industry

#### 2. 2 RUBBER MOLDING ACCESSORY

- 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. Roppe Corporation, USA.
- 2. VPI, LLC, Floor Products Division.
- B. Description: Rubber cap for cove carpet, cap for cove resilient flooring, carpet bar for tackless installations, carpet edge for glue-down applications, nosing for carpet, nosing for resilient flooring, reducer strip for resilient flooring, transition strips.
- C. Profile and Dimensions: As indicated
- D. Locations: Provide rubber molding accessories in areas
- E. Colors and Patterns: As selected by Architect from full range of industry colors.

#### 2. 3 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by resilient-product manufacturer for applications indicated.
- B. Adhesives Water-resistant type recommended resilient-product manufacturer for resilient products and substrate conditions indicated.
- C. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edges of flooring, and in maximum available lengths to minimize running joints.
- D. Floor Polish: Provide protective, liquid floor-polish products recommended by resilient stair-tread manufacturer.

#### PART 3 - EXECUTION

# 3. 1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
  - 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.
- 1. Installation of resilient products indicates acceptance of surfaces and conditions.

#### 3. 2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
- C. Do not install resilient products until they are the same temperature as the space where they are to be installed.
- 1. At least 48 hours in advance of installation, move resilient products and installation materials into spaces where they will be installed.

D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient products.

#### 3. 3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
- G. Preformed Corners: Install preformed corners before installing straight pieces.

#### 3. 4 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.
- B. Resilient Stair Accessories:
- 1. Use stair-tread-nose filler to fill nosing substrates that do not conform to tread contours.
- 2. Tightly adhere to substrates throughout length of each
- 3. For treads installed as separate, equal-length units, install to produce a flush joint between units.
- C. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of floor covering that would otherwise be exposed.

#### 3.5 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting resilient products.
- B. Perform the following operations immediately after completing resilient-product installation:
- 1. Remove adhesive and other blemishes from exposed surfaces.
- 2. Sweep and vacuum horizontal surfaces thoroughly.
- 3. Damp-mop horizontal surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction
- D. Cover resilient products subject to wear and foot traffic until Substantial Completion.

#### END OF SECTION 09 65 13

SECTION 09 91 23 - INTERIOR PAINTING

#### PART 1 - GENERAL

#### 1. 1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on the following interior substrates:
- 1. Gypsum board.
- 2. Metal.

# 1. 2 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Verification: For each type of paint system and in each color and aloss of topcoat.
- 1. Submit Samples on rigid backing, 8 inches (200 mm) square.
- 2. Step coats on Samples to show each coat required for
- 3. Label each coat of each Sample.
- 4. Label each Sample for location and application area.

- C. 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.
- 3. VOC content.

#### 1. 3 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Paint: Furnish not less than 1 gal. (3.8 L) of each material and color applied.
  - a. (One color required wall color)

#### 1, 4 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
- 1. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

#### 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 FIFLD 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 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.

# PART 2 - PRODUCTS

#### 2. 1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- 1. Behr Process Corporation.
- 2. Benjamin Moore & Co.
- 3. Dunn-Edwards Corporation.
- 4. PPG Architectural Finishes, Inc. 5. Sherwin-Williams Company (The).
- B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products (Sherwin Williams = S-W).
- 1. Drywall (Walls All Gypsum Board)
- a. Latex Systems
  - 1) Semi-Gloss Finish
  - a) 1st Coat: S-W ProMar 200 Zero VOC Latex Primer, B28W2600 (4 mils wet, 1.5 mils dry)
  - b) 2nd Coat: S-W ProMar 200 Zero VOC Latex Semi-Gloss, B31-2600 Series
  - c) 3rd Coat: S-W ProMar 200 Zero VDC Latex Semi-Gloss, B31-2600 Series(4 mils wet, 1.6 mils dry per coat)
  - 2) Eg-Shel Finish
  - a) 1st Coat: S-W ProMar 200 Zero VOC Latex Primer B28W2600(4 mils wet, 1.5 mils dry)
  - b) 2nd Coat: S-W ProMar 200 Zero VOC Latex Eg-Shell B20-2600 Series
  - c) 3rd Coat: S-W ProMar 200 Zero VDC Latex Eg-Shel B20-2600 Series(4 mils wet, 1.7 mils dry per coat)
- 2. METAL Ferrous (Doors and Door Frames)
- a. Latex Systems
  - 1) Semi-Gloss Finish
  - 2) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer B66-310 Series (5-10 mils wet. 2-4 mils dry)
  - 3) 2nd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss Enamel, B31 Series
  - 4) 3rd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss Enamel, B31 Series (4 mils wet, 1.3 mils dry per coat)

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RING CONSULTANTS, CENTRAL KANSAS ENGINEE S Avenue Grove, 7-3379 1501 Counc 785-4





SPECIFICATIONS
WCNOC CESSNA BUILDING
CONFERENCE ROOM ADDITION

Date: 12/05/1 Designed: DWO Drawn: KHG Checked: DWO

proved: Proj. No. 2013.03

- 1) Semi-Gloss Finish
- a) 1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series (5-10 mils wet, 2.0 - 4.0 mils dry)
- S-W ProMar 200 Waterbased b) 2nd Coat: Acrylic-Alkyd Semi-Gloss, B34-8200 Series
- c) 3rd Coat: S-W ProMar 200 Waterbased Acrylic-Alkyd Semi-Gloss, B34-8200 Series (4 mils wet, 1.7 mils dry per coat)

#### 2. 2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List.
- B. 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.
- C. Colors: Match existing walls of facility.

#### 2. 3 SOURCE QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
  - 1. Dwner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
- 2. Owner may direct Contractor to stop applying coatings 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.

#### 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 the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
- 1. Wood: 15 percent.
- 2. Gypsum Board: 12 percent.
- C. Gypsum Board Substrates: Verify that finishing compound is
- D. Plaster Substrates: Verify that plaster is fully cured.
- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
- 1. Application of coating indicates acceptance of surfaces and conditions.

# G. WARNING

1. Previously Painted Surfaces: Verify that existing painted surfaces do not contain lead based paints, notify the Owner immediately if lead based paints are encountered.

- 2. Removal of old paint by sanding, scraping or other means may generate dust
- or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority. Removal must be done in accordance with EPA Renovation, Repair and Painting Rule and all related state and local regulations. Care should be taken to follow all state and local regulations which may be more strict than those set under the federal RRP Rule.
- 3. Verify the existence of lead based paints on the project. Buildings constructed after 1978 are less likely contain lead based paints. If lead based paints are suspected on the project, all removal must be done in accordance with the EPA Renovation, Repair and Painting rule and all applicable state and local regulations. State and local regulations may be more strict than those set under the federal regulations.

#### 3. 2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. 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.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
- 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer:
- 1. SSPC-SP 2, "Hand Tool Cleaning."
- 2. SSPC-SP 3, "Power Tool Cleaning."

# E. 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.

#### 3. 3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
- 1. Use applicators and techniques suited for paint and substrate indicated.
- 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
- 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
- 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- 6. Protect existing finish materials in the project.
- 7. Regardless of number of coats specified, apply as many coats as necessary for complete hide, and uniform appearance.
- 8. Apply coatings at spreading rate required to achieve the manufacturers recommended dry film thickness.

- B. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- C. 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.
- D. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:

#### 3. 4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
  - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
  - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry thickness that complies with paint manufacturer's written recommendations.

#### 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 INTERIOR PAINTING SCHEDULE (See 2.1, B this specification)

END OF SECTION 09 91 23

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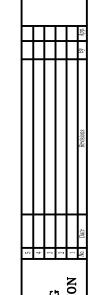
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CENTRAL KANSAS ENGINEERING CONSULTANTS,



SPECIFICATIONS
WCNOC CESSNA BUILDING
CONFERENCE ROOM ADDITION

Date: 12/05/1 esigned: DWO Drawn: KHG Checked: DWO

proved: Proj. No. 2013.03