



307B SW Market St., Lee's Summit, Missouri 64063 | 816.249.2270 | www.collinsandwebb.com

# REUNION AT BLACKWELL

SE SHENANDOAH DRIVE  
LEE'S SUMMIT, MO 64063

## PERMIT DOCUMENTS

24 AUGUST 2023

COLLINS WEBB #: 21075



**OWNER**

GRIFFIN RILEY PROPERTY GROUP  
21 SE 29TH TERRACE  
LEE'S SUMMIT, MO 64082  
P: 816.366.7900  
www.griffinriley.com

**ARCHITECT**

COLLINS | WEBB ARCHITECTURE  
307B SW MARKET STREET  
LEE'S SUMMIT, MISSOURI 64063  
P: 816.249.2270  
www.collinsandwebb.com

**ELECTRICAL ENGINEER**

JSC ENGINEERS  
1925 CENTRAL ST  
KANSAS CITY, MO 64108  
P: 816.272.5289  
JSCENGINEERS.COM

**STRUCTURAL ENGINEER**

STAND STRUCTURAL ENGINEERING INC.  
8234 ROBINSON STREET  
OVERLAND PARK, KS 662074  
P: 913.214.2169  
www.stand-sei.com

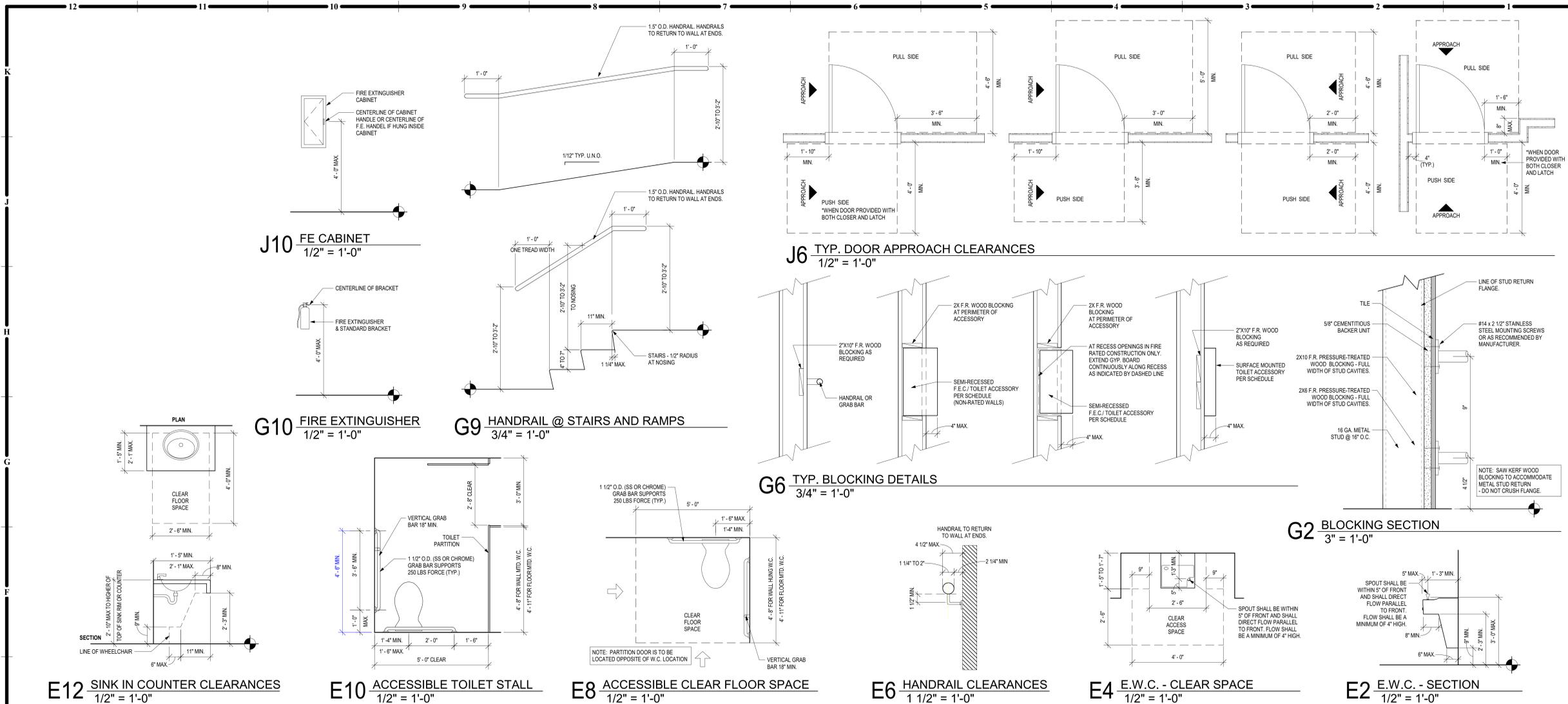
**CIVIL ENGINEER**

SCHLAGEL ASSOCIATES  
14920 W. 107TH STREET  
LENEXA KS, 66215  
P: 913.492.5158  
www.Schlagelassociates.com





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- GENERAL NOTES:  
ACCESSIBILITY GUIDELINES**
1. NOTE: ALL DIMENSIONS ARE MEASURED FROM FLOOR, UNLESS NOTED OR SHOWN OTHERWISE.
  2. ADA UNOBSTRUCTED REACH RANGES: ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
  3. ELEVATORS STANDARD CALL BUTTONS: 36" TO 48" TO C.L. & PROTRUDE 1" MAX. ADA CALL BUTTONS: 42" TO C.L. (TYP.) & 48" MAX. (3/4" SMALLEST DIM.) ADA VISIBLE SIGNALS: 72" MIN. TO C.L. @ 12" SMALLEST DIM. TACTILE SIGNAL ON HOISTWAY: 60" TO BASE OF CHARACTERS W/ TACTILE STAR & 2" HIGH CHARACTERS.
  4. DOOR HARDWARE (TO CENTER OF HARDWARE): STANDARD MOUNTING HEIGHTS: PUSH PLATES = 42", PULL HANDLES = 42", KNOBS/LEVERS = 40". PANIC EXIT = 42" CENTERLINE OF BAR. KICKPLATES: WIDTH = DOOR WIDTH MINUS 2". CENTER HEIGHT = 16" FROM B.O. DOOR. THRESHOLDS: STANDARD = 1/2" MAX. AT EXT. SLIDING DOORS = 3/4" MAX. ADA HARDWARE = 34" MIN. TO 48" MAX.
  5. DRINKING FOUNTAINS & EVCS (TO SPOUT): STANDARD = 40" TYP. 42" MAX. ADA = 36" MAX. (27" MIN. CLEAR KNEE SPACE)
  6. COUNTERTOPS (TO SINK RIM COUNTERTOP): ADA = 28" MIN. TO 34" MAX.
  7. WATER CLOSETS (TO TOP OF SEAT): STANDARD = 44" TO 15". ADA (TO TOP OF SEAT) = 17" TO 19". ADA FLUSH CONTROLS = 44" MAX.
  8. URINALS (TO RIM): STANDARD = 24" MAX. ADA = 17" MAX. ADA FLUSH CONTROL = 44" MAX.
  9. LAVATORIES (TO SINK RIM COUNTERTOP): STANDARD = 36" MAX. ADA = 34" MAX. (29" MIN. CLEAR KNEE SPACE)
  10. MIRRORS (TO B.O. REFLECTIVE SURFACE): STANDARD = VARIES. ADA = 40" MAX.
  11. GRAB BARS - ADA (TO TOP OF BAR): WATER CLOSETS = 33" MIN. TO 36" MAX. SHOWERS = 33" MIN. TO 36" MAX. FROM B.O. SHOWER). BATHUBS: TOP BAR = 33" MIN. TO 36" MAX. BOT. BAR = 9" ABOVE T.O. TUB.
  12. SHOWER HEADS (FROM FLOOR TO HEAD): STANDARD = 72" TO 84". ADA = SPRAY UNIT W/ HOSE 60" LONG MIN. ADA = FIXED SHOWER HEAD = 48" AFF.
  13. SHOWER CONTROLS (TO CONTROL AREA): STANDARD = 48" MAX. (TO TOP). ADA = 38" MIN. TO 48" MAX.
  14. SHOWER ROD (FROM FLOOR TO C.L.): STANDARD = 78" MAX. ADA = 72" MIN. TO 78" MAX. (TO TOP). URINALS = 18" TO BOT. & 60" TO TOP.
  15. TOILET ROOM PARTITIONS: TOILETS = 12" TO 20" TO TOP. URINALS = 18" TO BOT. & 60" TO TOP.
  16. TOILET PAPER DISPENSERS (TO C.L. OF OUTLET): STANDARD = 24" ADA = 18" MIN. TO 24" MAX.
  17. WALL MOUNTED SOAP DISPENSERS (TO C.L. OF PUSH BUTTON): STANDARD = 40". ADA = VARIES. RE OBSTRUCTED AND UNOBSTRUCTED REACH RANGES: ADA SIDE REACH = 48" MAX. ABOVE SINK IN COUNTER.
  18. PAPER TOWEL DISPENSER/WASTE RECEPTACLE (TO TOWEL SLOT): STANDARD = 40" MAX. ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
  19. WARM AIR HAND DRYER (TO PUSH SWITCH): STANDARD = 44" MAX. ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
  20. SANITARY NAPKIN DISPENSER (TO C.L. OF COIN SLOT): STANDARD = 40" MAX. ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
  21. SANITARY NAPKIN DISPOSAL (TO TOP OF UNIT): STANDARD = 28" MAX. ADA = 19" MIN. TO 28" MAX. (TO DRNG.)
  22. TOILET SEAT COVER DISPENSERS (TO DRNG.): STANDARD = 40" MAX. ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
  23. SHELVES: ADA = 48" MAX.
  24. COAT HOOKS: STANDARD = 68". ADA = 48" MAX.
  25. CHALKBOARDS, TACKBOARDS & MARKERBOARDS: STANDARD = 32" TO 36" (TO B.O. BOARD OR CHALKTRAY). STANDARD = 60" (RECOMMENDED) (TO T.O. BOARD)
  26. THERMOSTATS & CONTROL DEVICES (TO TOP): ADA FORWARD REACH = 48" MAX. ADA SIDE REACH = 48" MAX.
  27. LIGHT SWITCHES & CARD READERS (TO C.L.): LOCATE 6" FROM DOOR JAMB. ADA = 48" MAX.
  28. CONVENIENCE RECEPTACLES - ELECTRICAL/ TELEPHONE/ DATA (TO C.L.): STANDARD = 18". ADA = 15" MIN.
  29. EXIT LIGHTS: WALL MOUNTED: 2" MIN. BELOW CEILING. 2" MIN. ABOVE DOOR FRAME. EQUAL SPACE FROM CEILING TO TOP OF FRAME.
  30. FIRE EXTINGUISHERS (TO TOP, U.N.O.): GROSS WT. 40 LBS. OR LESS = 60" MAX. GROSS WT. MORE THAN 40 LBS. = 42" MAX. ADA = 40" MAX. (B.O. CABINET)
  31. FIRE ALARM FULL STATIONS (TO LEVER): STANDARD = 48" MAX. ADA FORWARD REACH = 48" MAX. ADA SIDE REACH = 48" MAX. HEIGHT
  32. SMOKE AND/OR HEAT DETECTORS: STANDARD = CEILING HEIGHT
  33. HORN/ SPEAKER/ VISUAL SIGNALS: STANDARD = 80" AFF. OR 6' BELOW CEILING - WHICHEVER IS LOWER.
  34. ROOM SENSORS (TO C.L.): STANDARD = 60" HIGH AFF. & WITHIN 18" OF LATCH SIDE OF DOOR

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COLLINS WEBB ARCHITECTURE  
PERMIT DOCUMENTS

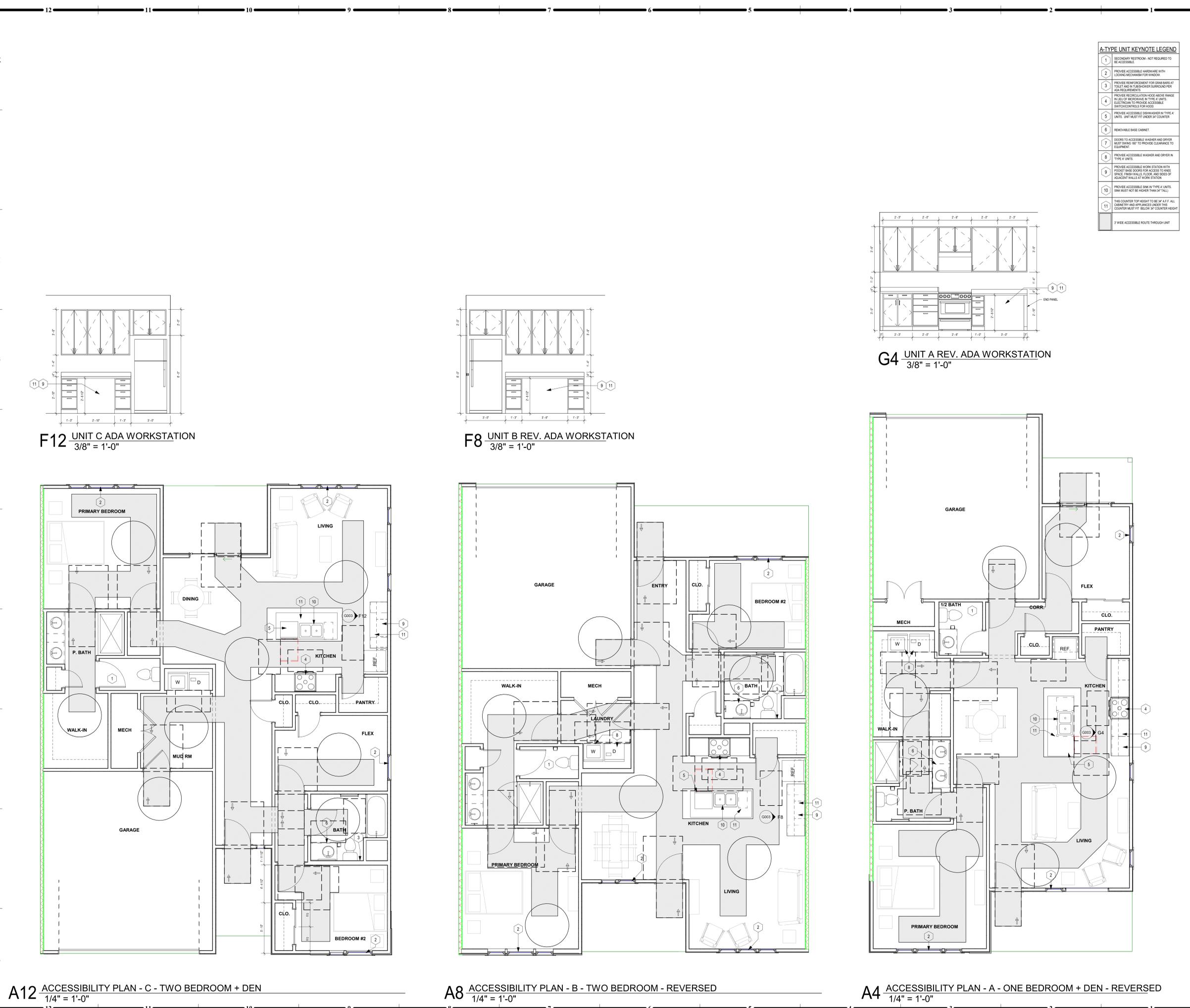
REGISTERED ARCHITECT  
ROGER L. WEBB  
NUMBER A-2016000008  
ARCHITECTURE MISSOURI

PROFESSIONAL SEAL

**G002**  
ISSUE DATE: 24 AUGUST 2023  
COLLINS WEBB #: 21075

MISCELLANEOUS ACCESSORY TYPICAL MOUNTING HEIGHTS												TOILET ACCESSORY TYPICAL MOUNTING HEIGHTS											
GRAB BAR TYPICAL MOUNTING HEIGHTS & TOILET ACCESSORY PLANS					PLUMBING FIXTURE TYPICAL MOUNTING HEIGHTS																		
<p><b>A11 TYP. MOUNTING HEIGHTS</b> 1/4" = 1'-0"</p>					<p><b>PLUMBING FIXTURE TYPICAL MOUNTING HEIGHTS</b></p>																		

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A-TYPE UNIT KEYNOTE LEGEND	
1	SECONDARY RESTROOM. NOT REQUIRED TO BE ACCESSIBLE.
2	PROVIDE ACCESSIBLE HARDWARE WITH LOCKING MECHANISM FOR WINDOW.
3	PROVIDE REINFORCEMENT FOR GRAB BARS AT TOILET AND IN RIBS/DRAWER SURROUND PER ADA REQUIREMENTS.
4	PROVIDE RECIRCULATION HOOD ABOVE RANGE IN LEVER MOUNTED B-TYPE UNIT. ELECTRICITY TO PROVIDE ACCESSIBLE SWITCH/CONTROL FOR HOOD.
5	PROVIDE ACCESSIBLE DISHWASHER IN TYPE A UNIT. UNIT MUST FIT UNDER 34" COUNTER.
6	REMOVABLE BASE CABINET.
7	DOORS TO ACCESSIBLE WASHER AND DRYER MUST SWING 90° TO PROVIDE CLEARANCE TO EQUIPMENT.
8	PROVIDE ACCESSIBLE WASHER AND DRYER IN TYPE A UNIT.
9	PROVIDE ACCESSIBLE WORK STATION WITH POCKET BASE DOORS FOR ACCESS TO TOILET SPACE. FINISH WALLS, FLOOR, AND SIDES OF ADJACENT WALLS TO WORK STATION.
10	PROVIDE ACCESSIBLE SINK IN TYPE A UNIT. SINK MUST NOT BE HIGHER THAN 34" TALL.
11	THE COUNTER TOP HEIGHT TO BE 34" A.F.F. ALL CABINETS AND APPLIANCES UNDER THE COUNTER MUST BE BELOW 34" COUNTER HEIGHT.
3/8" WIDE ACCESSIBLE ROUTE THROUGH UNIT	

**TYPE A REQUIREMENTS**

PRIMARY ENTRANCE SHALL BE ON AN ACCESSIBLE ROUTE FROM PUBLIC AND COMMON AREAS. PRIMARY ENTRANCE SHALL NOT BE TO A REAR UNLESS IT IS THE ONLY ENTRANCE.

THRESHOLDS SHALL COMPLY WITH ICC A117.303. THRESHOLDS AT EXTERIOR SIDING DOORS SHALL BE PERMITTED TO BE 3/4" HIGH MAX. IN HEIGHT, PROVIDED THEY ARE BEVELLED WITH A SLOPE NOT STEEPER THAN 1:2.

ACCESSIBLE ROUTE MUST HAVE A CLR. WIDTH MIN. OF 30". THE CLR. WIDTH SHALL BE PERMITTED TO BE REDUCED TO 28" FOR A LENGTH OF 24" MAX. PROVIDED THE REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 50" MIN. IN LENGTH AND 30" MIN. IN WIDTH.

ACCESSIBLE ROUTES MUST CONNECT ALL SPACES AND ELEMENTS THAT ARE A PART OF THE UNIT.

ACCESSIBLE ROUTES SHALL CONCOIDE WITH OR BE LOCATED IN THE SAME AREA AS A GENERAL CIRCULATION PATH.

ALL ROOMS SERVED BY AN ACCESSIBLE ROUTE MUST PROVIDE A TURNING RADIUS. A TURNING SPACE IS NOT REQUIRED WITHIN CLOSETS OR PANTRIES THAT ARE 48" MAX IN DEPTH.

ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING ELEMENTS: WALKING SURFACES WITH A SLOPE NOT STEEPER THAN 1:20; DOORS AND DOORWAYS, RAMPS, ELEVATORS, AND PLATFORM LIFTS.

RE: ICC A117.403.5.2 FOR CLR. WIDTH AT 180-DEGREE TURNS

RE: ICC A117.403.5.3 FOR CLR. WIDTH AT 90-DEGREE TURNS

DOORWAYS SHALL HAVE A CLR. OPENING WIDTH OF 32" MIN. CLR. OPENING WIDTH OF SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF DOOR AND STOP, WITH THE DOOR OPEN 90 DEGREES.

RE: ICC A117.404.2.2 FOR REQUIRED MANEUVERING CLEARANCES AT SWINGING DOORS

FOR WASHER AND DRYER APPLIANCES A CLR. FLOOR SPACE POSITION FOR A PARALLEL APPROACH SHALL BE PROVIDED. FOR TOP LOADING MACHINES, THE CLR. FLOOR SPACE SHALL BE CENTERED ON THE APPLIANCE. FOR FRONT LOADING MACHINES, THE CENTERLINE OF THE CLR. FLOOR SPACE SHALL BE OFFSET 24" MAX FROM THE CENTERLINE OF THE DOOR OPENING.

REINFORCEMENT SHALL BE PROVIDED FOR THE FUTURE INSTALLATION OF GRAB BARS AND SHOWER SEATS AT WATER CLOSETS, BATHS, AND SHOWER COMPARTMENTS.

AT LEAST ONE TOILET AND BATHING FACILITY MUST COMPLY WITH A117.110.11.2. AT LEAST ONE LAVATORY, ONE WATER CLOSET AND EITHER BATH TUB OR SHOWER WITH THE UNIT SHALL COMPLY WITH A117.110.11.2. THESE TOILET AND BATHING FIXTURES SHALL BE A SINGLE TOILET/BATHING AREA, SUCH THAT TRAVEL BETWEEN FIXTURES DOES NOT REQUIRE TRAVEL THROUGH OTHER PARTS OF THE UNIT.

DOORSWINGS CAN NOT SWING INTO THE CLR. FLOOR SPACE OR CLEARANCE OF ANY RESTROOM FIXTURE.

LAVATORIES SHALL COMPLY WITH A117.110.12.2. CABINETRY SHALL BE PERMITTED UNDER THE LAVATORY PROVIDED THE CABINETRY CAN BE REMOVED WITHOUT REMOVAL OR REPLACEMENT OF THE LAVATORY. THE FLOOR FINISH EXTENDS UNDER THE CABINETRY, AND THE WALLS BEHIND AND SURROUNDING THE CABINETRY ARE FINISHED.

MIRRORS MUST COMPLY WITH A117.110.12.2. SHALL HAVE THE BOTTOM EDGE OF THE REFLECTING SURFACE 40" MAX ABOVE THE FLOOR.

CLEARANCE AROUND THE WATER CLOSET SHALL BE 60" MIN. IN WIDTH, MEASURED PERPENDICULAR FROM THE SIDE WALL.

CLEARANCE AROUND THE WATER CLOSET SHALL BE 60" MIN. IN DEPTH, MEASURED PERPENDICULAR FROM THE REAR WALL.

THE WATER CLOSET MUST BE POSITIONED WITH A WALL TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 10" MIN AND 18" MAX FROM THE SIDEWALL.

THE REQUIRED CLEARANCE AROUND THE WATER CLOSET IS ALLOWED TO OVERLAP THE WATERCLOSET. ASSOCIATED GRAB BARS, PAPER DISPENSERS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTE, AND WHEELCHAIR TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE. AN EXCEPTION: A LAVATORY MEASURING 24" MAX IN DEPTH AND COMPLY WITH A117.110.12.2 SHALL BE PERMITTED ON THE REAR WALL 18" MIN. FROM THE CENTERLINE OF THE WATER CLOSET TO THE SIDE EDGE OF THE LAVATORY WHERE THE CLEARANCE AT THE WATER CLOSET IS 60" MIN. MEASURED PERPENDICULAR FROM THE REAR WALL.

RE: ICC A117.110.12.5 FOR BATHING FIXTURE REQUIREMENTS

RE: ICC A117.12 FOR KITCHEN REQUIREMENTS

AT LEAST ONE SECTION OF COUNTER SHALL PROVIDE AN ACCESSIBLE WORK SURFACE 30" MINIMUM IN LENGTH AND 34" MAX IN HEIGHT COMPLYING WITH ICC A117.110.12.3

KITCHEN SINKS MUST COMPLY WITH ICC A117.110.12.4 AND BE 30" MIN IN CLR. WIDTH AND 34" MAX IN HEIGHT

A CLR. FLOOR SPACE, POSITIONED FOR A FORWARD APPROACH TO THE SINK SHALL BE PROVIDED. THE CLEARANCE SHALL COMPLY WITH ICC A117.306. CABINETRY SHALL BE PERMITTED TO BE ADDED UNDER THE SINK PROVIDED THE CABINETRY BE REMOVED WITHOUT REMOVAL OR REPLACEMENT OF THE SINK. THE FLOOR FINISH EXTENDS UNDER THE CABINETRY, AND THE WALLS BEHIND AND SURROUNDING THE CABINETRY ARE FINISHED.

A CLR. FLOOR SPACE, POSITIONED FOR A PARALLEL APPROACH TO THE SINK SHALL BE PROVIDED. THE CLEARANCE SHALL COMPLY WITH ICC A117.306. CABINETRY SHALL BE PERMITTED TO BE ADDED UNDER THE SINK PROVIDED THE CABINETRY BE REMOVED WITHOUT REMOVAL OR REPLACEMENT OF THE SINK. THE FLOOR FINISH EXTENDS UNDER THE CABINETRY, AND THE WALLS BEHIND AND SURROUNDING THE CABINETRY ARE FINISHED.

COMBINATION REFRIGERATORS AND FREEZERS SHALL HAVE AT LEAST 30" OF THE FREEZER COMPARTMENT SINK INCLUDING THE BOTTOM OF THE FREEZER 34" MAX. ABOVE THE FLOOR WHEN THE SHELVES ARE INSTALLED AT THE MAXIMUM HEIGHT.

A CLR. FLOOR SPACE, POSITIONED FOR A PARALLEL APPROACH TO THE REFRIGERATOR/FREEZER, SHALL BE PROVIDED. THE CENTERLINE OF THE CLR. FLOOR SPACE SHALL BE OFFSET 24" MAX. FROM THE CENTERLINE OF THE APPLIANCE.

RE: IRC CHAPTER 11 AND RE: IC A117 FOR FULL TYPE UNIT REQUIREMENTS

**TYPE B REQUIREMENTS**

PRIMARY ENTRANCE SHALL BE ON AN ACCESSIBLE ROUTE FROM PUBLIC AND COMMON AREAS. PRIMARY ENTRANCE SHALL NOT BE TO A REAR UNLESS IT IS THE ONLY ENTRANCE.

THRESHOLDS SHALL COMPLY WITH ICC A117.303. THRESHOLDS AT EXTERIOR SIDING DOORS SHALL BE PERMITTED TO BE 3/4" HIGH MAX. IN HEIGHT, PROVIDED THEY ARE BEVELLED WITH A SLOPE NOT STEEPER THAN 1:2.

FOR TYPE B UNITS, CLR. FLOOR SPACE SHALL BE 48" MIN. IN LENGTH AND 30" MIN. IN WIDTH.

AT LEAST ONE ACCESSIBLE ROUTE MUST CONNECT ALL SPACES AND ELEMENTS THAT ARE A PART OF THE UNIT.

ACCESSIBLE ROUTES SHALL CONCOIDE WITH OR BE LOCATED IN THE SAME AREA AS A GENERAL CIRCULATION PATH.

ACCESSIBLE ROUTE MUST HAVE A CLR. WIDTH MIN. OF 30". THE CLR. WIDTH SHALL BE PERMITTED TO BE REDUCED TO 28" FOR A LENGTH OF 24" MAX. PROVIDED THE REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48" MIN. IN LENGTH AND 30" MIN. IN WIDTH.

ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING ELEMENTS: WALKING SURFACES WITH A SLOPE NOT STEEPER THAN 1:20; DOORS AND DOORWAYS, RAMPS, ELEVATORS, AND PLATFORM LIFTS.

DOORWAYS SHALL HAVE A CLR. OPENING WIDTH OF 32" MIN. CLR. OPENING WIDTH OF SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF DOOR AND STOP, WITH THE DOOR OPEN 90 DEGREES.

RE: ICC A117.404.2.2 FOR REQUIRED MANEUVERING CLEARANCES AT SWINGING DOORS

FOR WASHER AND DRYER APPLIANCES A CLR. FLOOR SPACE POSITION FOR A PARALLEL APPROACH SHALL BE PROVIDED. FOR TOP LOADING MACHINES, THE CLR. FLOOR SPACE SHALL BE CENTERED ON THE APPLIANCE. FOR FRONT LOADING MACHINES, THE CENTERLINE OF THE CLR. FLOOR SPACE SHALL BE OFFSET 24" MAX FROM THE CENTERLINE OF THE DOOR OPENING.

REINFORCEMENT SHALL BE PROVIDED FOR THE FUTURE INSTALLATION OF GRAB BARS AND SHOWER SEATS AT WATER CLOSETS, BATHS, AND SHOWER COMPARTMENTS.

AT LEAST ONE TOILET AND BATHING FACILITY MUST COMPLY WITH A117.110.11.1. AT LEAST ONE LAVATORY, ONE WATER CLOSET AND EITHER BATH TUB OR SHOWER WITH THE UNIT SHALL COMPLY WITH A117.110.11.1.

DOORSWINGS CAN NOT SWING INTO THE CLR. FLOOR SPACE OR CLEARANCE OF ANY RESTROOM FIXTURE.

A CLR. FLOOR SPACE POSITIONED FOR A PARALLEL APPROACH SHALL BE PROVIDED AT LAVATORY. THE CLR. FLOOR SPACE SHALL BE CENTERED ON THE LAVATORY. CABINETRY SHALL BE PERMITTED UNDER THE LAVATORY PROVIDED THE CABINETRY CAN BE REMOVED WITHOUT REMOVAL OR REPLACEMENT OF THE LAVATORY. THE FLOOR FINISH EXTENDS UNDER THE CABINETRY, AND THE WALLS BEHIND AND SURROUNDING THE CABINETRY ARE FINISHED.

CLEARANCE AROUND THE WATER CLOSET SHALL BE 60" MIN. IN WIDTH, MEASURED PERPENDICULAR FROM THE SIDE WALL.

CLEARANCE AROUND THE WATER CLOSET SHALL BE 60" MIN. IN DEPTH, MEASURED PERPENDICULAR FROM THE REAR WALL.

THE WATER CLOSET MUST BE POSITIONED WITH A WALL TO THE REAR AND TO ONE SIDE. THE CENTERLINE OF THE WATER CLOSET SHALL BE 10" MIN AND 18" MAX FROM THE SIDEWALL.

THE REQUIRED CLEARANCE AROUND THE WATER CLOSET IS ALLOWED TO OVERLAP THE WATERCLOSET. ASSOCIATED GRAB BARS, PAPER DISPENSERS, COAT HOOKS, SHELVES, ACCESSIBLE ROUTE, AND WHEELCHAIR TURNING SPACE. NO OTHER FIXTURES OR OBSTRUCTIONS SHALL BE LOCATED WITHIN THE REQUIRED WATER CLOSET CLEARANCE. AN EXCEPTION: A LAVATORY MEASURING 24" MAX IN DEPTH AND COMPLY WITH A117.110.12.2 SHALL BE PERMITTED ON THE REAR WALL 18" MIN. FROM THE CENTERLINE OF THE WATER CLOSET TO THE SIDE EDGE OF THE LAVATORY WHERE THE CLEARANCE AT THE WATER CLOSET IS 60" MIN. MEASURED PERPENDICULAR FROM THE REAR WALL.

RE: ICC A117.110.12.3 FOR BATHING FIXTURE REQUIREMENTS

RE: ICC A117.110.12.4 FOR KITCHEN REQUIREMENTS

CLEARANCE BETWEEN ALL OPPOSING BASE CABINETS, COUNTERTOPS, APPLIANCES, OR WALLS WITHIN KITCHEN WORK AREAS SHALL BE 40" MIN.

KITCHEN SINKS MUST COMPLY WITH ICC A117.110.12.4. A CLR. FLOOR SPACE, POSITIONED FOR A PARALLEL APPROACH TO THE SINK, SHALL BE PROVIDED. THE CLR. FLOOR SPACE SHALL BE CENTERED ON THE SINK BOCK.

A PARALLEL OR FORWARD APPROACH IS REQUIRED AT ALL KITCHEN APPLIANCES. RE: ICC A117.110.12

A CLR. FLOOR SPACE, POSITIONED FOR A PARALLEL OR FORWARD APPROACH SHALL BE PROVIDED AT EACH KITCHEN APPLIANCE.

RE: IRC CHAPTER 11 AND RE: IC A117 FOR FULL TYPE B UNIT REQUIREMENTS

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PROJECT: 8/23/2023 2:30:44 PM

ISSUE DATE: 24 AUGUST 2023  
COLLINS WEBB #: 21075

PROFESSIONAL SEAL

**G003**

ACCESSIBILITY PLANS AND DETAILS

**BUILDING A - GENERAL INFORMATION:**

OCCUPANCY CLASSIFICATION: R-2  
NO. OF STORIES = 1  
BUILDING HT. = 18'-3"  
BASEMENT = NO  
LIVING AREA = 5,320 SF  
USE = MULTI-FAMILY  
NO. OF UNITS = 4  
STANDPIPE/SPRINKLER = NOT REQUIRED  
SMOKE DETECTORS = REQ'D PER 2018 IRC SECTION R314.1

**BUILDING B1 - GENERAL INFORMATION:**

OCCUPANCY CLASSIFICATION: R-2  
NO. OF STORIES = 1  
BUILDING HT. = 18'-4"  
BASEMENT = NO  
LIVING AREA = 5,377 SF  
USE = MULTI-FAMILY  
NO. OF UNITS = 4  
STANDPIPE/SPRINKLER = NOT REQUIRED  
SMOKE DETECTORS = REQ'D PER 2018 IRC SECTION R314.1

**BUILDING B2 - GENERAL INFORMATION:**

OCCUPANCY CLASSIFICATION: R-2  
NO. OF STORIES = 1  
BUILDING HT. = 18'-8"  
BASEMENT = NO  
LIVING AREA = 2,439 SF  
USE = MULTI-FAMILY  
NO. OF UNITS = 2  
STANDPIPE/SPRINKLER = NOT REQUIRED  
SMOKE DETECTORS = REQ'D PER 2018 IRC SECTION R314.1

**BUILDING C - GENERAL INFORMATION:**

OCCUPANCY CLASSIFICATION: R-2  
NO. OF STORIES = 1  
BUILDING HT. = 19'-0"  
BASEMENT = NO  
LIVING AREA = 6,086 SF  
USE = MULTI-FAMILY  
NO. OF UNITS = 4  
STANDPIPE/SPRINKLER = NOT REQUIRED  
SMOKE DETECTORS = REQ'D PER 2018 IRC SECTION R314.1

**BUILDING D - GENERAL INFORMATION:**

OCCUPANCY CLASSIFICATION: R-2  
NO. OF STORIES = 1  
BUILDING HT. = 19'-0"  
BASEMENT = NO  
LIVING AREA = 6,005 SF  
USE = MULTI-FAMILY  
NO. OF UNITS = 4  
STANDPIPE/SPRINKLER = NOT REQUIRED  
SMOKE DETECTORS = REQ'D PER 2018 IRC SECTION R314.1

**CLUBHOUSE - GENERAL INFORMATION:**

CONSTRUCTION TYPE: VB  
OCCUPANCY CLASSIFICATION: A-3  
USE = COMMUNITY HALL  
OCCUPANT LOAD = 97  
ALLOWABLE NO. OF STORIES = 1  
ALLOWABLE BUILDING HT. = 40'-0"  
ALLOWABLE LIVING AREA = 6,000 SF  
NO. OF EXITS REQ'D = 2  
EGRESS WIDTH REQ'D = 32"  
STANDPIPE/SPRINKLER = NOT REQUIRED  
SMOKE DETECTORS = REQ'D PER 2018 IBC SECTION 907.2.9

**WALL PRIORITY LEGEND**  
NOTE: THIS LEGEND IS FOR GRAPHIC REPRESENTATION ONLY.  
FOUR HOUR FIRE WALL (4FW)  
THREE HOUR FIRE WALL (3FW)  
TWO HOUR FIRE WALL (2FW)  
FOUR HOUR FIRE BARRIER (4FB)  
THREE HOUR FIRE BARRIER (3FB)  
TWO HOUR FIRE BARRIER (2FB) (INCLUDES THE FOLLOWING)  
• TWO HOUR SHAFT ENCLOSURE (2SE)  
ONE HOUR FIRE BARRIER (1FB) (INCLUDES THE FOLLOWING)  
• ONE HOUR SHAFT ENCLOSURE (1SE)  
SMOKE TIGHT PARTITION (X) (INCLUDES THE FOLLOWING)  
• SMOKE TIGHT PARTITION TO SMOKE TIGHT CEILING (XC)  
• SMOKE TIGHT PARTITION WITHIN PLENUM ABOVE CEILING (XP)  
• SMOKE TIGHT PARTITION SEPARATION OF INTERSTITIAL SPACES (XI)  
DETAIL ABUTMENT OF DISSIMILAR WALL  
INTERSECTION OF RATED WALLS  
NOTES:  
1. REFER TO WALL TYPES ON SHEET G121-T1 FOR WALL COMPONENTS, NUMBER OF GYPSUM BOARD LAYERS, TYPE OF GYPSUM BOARD, AND OTHER SIMILAR INFO.  
2. THE HIGHER PRIORITY WALL SHALL PASS THROUGH THE LOWER PRIORITY WALL.  
3. TAPING AND SEALING OF HIGHER PRIORITY WALLS SHALL BE CONTINUOUS.  
4. ALTERNATE LAYERS OF GYPSUM BOARD SHALL OVERLAP AT CORNER INTERSECTIONS OF MULTILAYERED RATED GYPSUM BOARD PARTITIONS.

**FIRE & SMOKE RESISTIVE LEGEND DEFINITIONS**

**FIRE WALLS (FW)**

DEFINITION  
A FIRE RATED WALL THAT IS CONTINUOUS VERTICALLY FROM FOUNDATION TO ROOF TO SEPARATE CONSTRUCTION INTO SEPARATE BUILDINGS.  
USE  
FIRE WALLS SERVE TO CREATE SEPARATE BUILDINGS FOR THE FOLLOWING REASONS:  
• CONSTRUCTION TYPE VARIES FROM ONE BUILDING TO ANOTHER.  
• COMPLIANCE WITH MAXIMUM ALLOWABLE AREA REQUIREMENTS.  
• TO SEPARATE BUILDINGS WITH DIFFERENT LEVELS OF FIRE PROTECTION.  
• TO ADDRESS A PROPERTY LINE DEFINING DIFFERENT OWNERSHIP.  
SPECIAL CONSIDERATIONS  
• THE FIRE WALL REQUIRES SUFFICIENT STRUCTURAL STABILITY UNDER FIRE CONDITIONS TO ALLOW THE COLLAPSE OF CONSTRUCTION ON EITHER SIDE WITHOUT COLLAPSE OF THE WALL.  
• OPENINGS ARE REQUIRED TO BE PROTECTED.  
• OPENINGS ARE LIMITED BASED ON A PERCENTAGE OF WALL LENGTH.  
• EXTENDING THE FIRE WALL THROUGH THE ROOF WITH A PARAPET IS REQUIRED FOR SOME CONSTRUCTION CLASSIFICATIONS.  
• THE REQUIRED FIRE RATING OF A FIRE WALL IS BASED ON OCCUPANCY GROUPS AND CLASS OF CONSTRUCTION.  
• HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH AND CLOSER.

**FIRE BARRIERS (FB)**

DEFINITION  
A FIRE RATED WALL CONSTRUCTED TO RESTRICT THE SPREAD OF FIRE. CONTINUITY SHALL BE MAINTAINED FROM TOP OF FLOOR TO UNDERSIDE OF THE FLOOR OR ROOF DECK ABOVE.  
USE  
FIRE BARRIERS HAVE THE FOLLOWING APPLICATIONS:  
• TO CREATE HORIZONTAL EXITS.  
• TO SEPARATE EXIT PASSAGEWAYS.  
• OCCUPANCY SEPARATIONS.  
• TO SEPARATE INCIDENTAL USE AREAS.  
• ISOLATION OF HAZARDS.  
• TO SEPARATE ROOMS WITH DIFFERENT LEVELS OF FIRE PROTECTION.  
• SMOKE BARRIERS AND SHAFT ENCLOSURES ARE FIRE BARRIERS. SEE ADDITIONAL REQUIREMENTS.  
SPECIAL CONSIDERATIONS  
• WITHIN SOME CONSTRUCTION CLASSIFICATIONS, CONSTRUCTION THAT PROVIDES STRUCTURAL SUPPORT OF A FIRE BARRIER IS REQUIRED TO BE OF THE SAME HOURLY FIRE RATING AS THE FIRE BARRIER, OR BETTER.  
• OPENINGS ARE REQUIRED TO BE PROTECTED.  
• HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH AND CLOSER.

**SHAFT ENCLOSURES (SE)**

DEFINITION  
A SHAFT ENCLOSURE IS A FIRE BARRIER FORMING THE BOUNDARY OF A VERTICAL SHAFT.  
USE  
PROTECT OPENINGS IN FIRE RATED FLOOR/CEILING ASSEMBLIES.  
SPECIAL CONSIDERATIONS  
• PENETRATIONS IN SHAFT ENCLOSURES ARE PROHIBITED UNLESS NECESSARY FOR THE FUNCTION OF THE SHAFT. WHERE ALLOWED, OPENINGS ARE REQUIRED TO BE PROTECTED.  
• DUCT PENETRATIONS REQUIRE COMBINATION SMOKE AND FIRE DAMPERS EXCEPT FOR EXISTING CONDITIONS THAT ARE GRANDFATHERED.  
• HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH, CLOSER, AND PERIMETER SMOKE SEALS.

**FIRE PARTITIONS (FP)**

DEFINITION  
A FIRE RATED PARTITION THAT IS USED FOR THE APPLICATIONS LISTED BELOW. IT SHALL BE CONTINUOUS FROM TOP OF FLOOR TO UNDERSIDE OF A FIRE-RATED FLOOR/CEILING OR ROOF/CEILING ASSEMBLY, WHERE ALLOWED BY CODE. EXCEPTION: A FIRE PARTITION SHALL BE ALLOWED TO TERMINATE AT THE UPPER MEMBRANE OF A FIRE RATED CEILING.  
USE  
FIRE PARTITIONS ARE USED IN CERTAIN OCCUPANCIES TO DO THE FOLLOWING:  
• SEPARATE DWELLING UNITS.  
• SEPARATE SLEEPING SPACES.  
• SEPARATE CORRIDORS FROM ADJACENT SPACES.  
• SEPARATE ELEVATOR LOBBIES.  
• SEPARATE TENANT SPACES IN COVERED MALL BUILDINGS.  
SPECIAL CONSIDERATIONS  
• OPENINGS ARE REQUIRED TO BE PROTECTED.  
• HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH AND CLOSER.

**BEARING WALLS (BW)**

DEFINITION  
AN INTERIOR OR EXTERIOR WALL DESIGNED TO SUPPORT FLOOR OR ROOF LOADS. A BEARING WALL IS FIRE-RATED ONLY TO MAINTAIN THE INTEGRITY OF ITSELF AS A FIRE RATED STRUCTURAL ELEMENT. THE WALL DOES NOT SERVE AS A FIRE SEPARATION FROM ONE SIDE TO THE OTHER SIDE.  
USE  
A VERTICAL LOAD BEARING STRUCTURAL ELEMENT.  
SPECIAL CONSIDERATIONS  
• DOORS AND WINDOWS ARE NOT REQUIRED TO BE RATED.  
• HVAC DUCT PENETRATIONS ARE NOT REQUIRED TO BE FIRE-DAMPED.  
• PLUMBING, ELECTRICAL, SPRINKLER SYSTEM, AND CABLE PENETRATIONS ARE REQUIRED TO BE FIRE-STOPPED WITH FIRE SEALANT AT BOTH SIDERS. FOR WALLS CONSTRUCTED OF HOLLOW CMU OR STUD FRAMING.

**GENERAL NOTES**

- THE FOLLOWING INFORMATION SERVES TO PROVIDE BUILDING OWNERS WITH CONCISE DEFINITIONS OF WALL TYPES RELATED TO LIFE SAFETY ISSUES. THIS INFORMATION IS NOT MEANT TO BE A SUBSTITUTE FOR APPLICABLE BUILDING CODES.
- WHEN A WALL HAS MORE THAN ONE CLASSIFICATION, THE MOST RESTRICTIVE REQUIREMENTS FOR EACH CLASSIFICATION SHALL APPLY.
- FOR NEW CONSTRUCTION, PERIMETER SMOKE-SEALS MAY BE REQUIRED AT FIRE RATED DOORS IN CERTAIN OCCUPANCIES.

**GENERAL DESCRIPTION**

PROJECT NAME: REUNION AT BLACKWELL  
PROJECT LOCATION: LEE'S SUMMIT, MISSOURI  
COUNTY: JACKSON  
COLLINS WEBB ARCHITECTURE  
3078 SW MARKET STREET  
LEE'S SUMMIT, MISSOURI 64063  
APPLICABLE CODES:  
2018 INTERNATIONAL RESIDENTIAL CODE (TOWNHOMES)  
2018 INTERNATIONAL BUILDING CODE (CLUBHOUSE)  
2018 INTERNATIONAL PLUMBING CODE  
2018 INTERNATIONAL MECHANICAL CODE  
2018 INTERNATIONAL FUEL GAS CODE  
2018 INTERNATIONAL FIRE CODE  
2017 NATIONAL ELECTRICAL CODE  
ICC ANS I 117.1-2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

**FIRE EXTINGUISHERS**

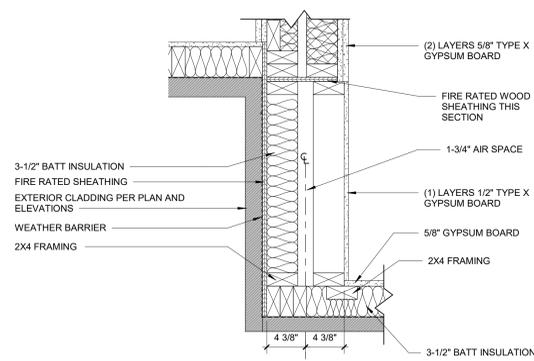
- PROVIDE PORTABLE FIRE EXTINGUISHERS IN OCCUPANCIES AND LOCATIONS AS REQUIRED BY THE FIRE PREVENTION CODE.
- PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS.

**CEILING HEIGHT NOTES: (IBC 1208)**

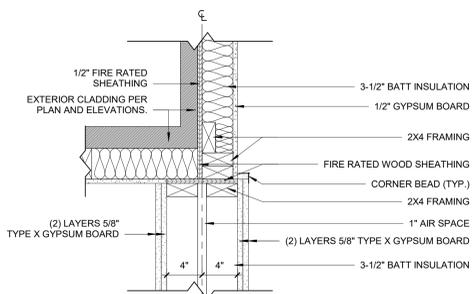
- OCCUPABLE SPACE, HABITABLE SPACES, AND CORRIDORS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0" A.F.F.
  - BATHROOMS, TOILET ROOMS, KITCHENS, STORAGE ROOMS, AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0" A.F.F.
- EXCEPTION 2: IF ANY ROOM IN A BUILDING HAS A SLOPED CEILING, THE PRESCRIBED CEILING HEIGHT FOR THE ROOM IS REQUIRED IN ONE-HALF THE AREA THEREOF. ANY PORTION OF THE ROOM MEASURED LESS THAN 5'-0" FROM THE FLOOR TO THE CEILING SHALL NOT BE INCLUDED IN ANY COMPUTATION OF THE MINIMUM AREA THEREOF.

**FIRE SPRINKLER NOTE: (IRC R302)**

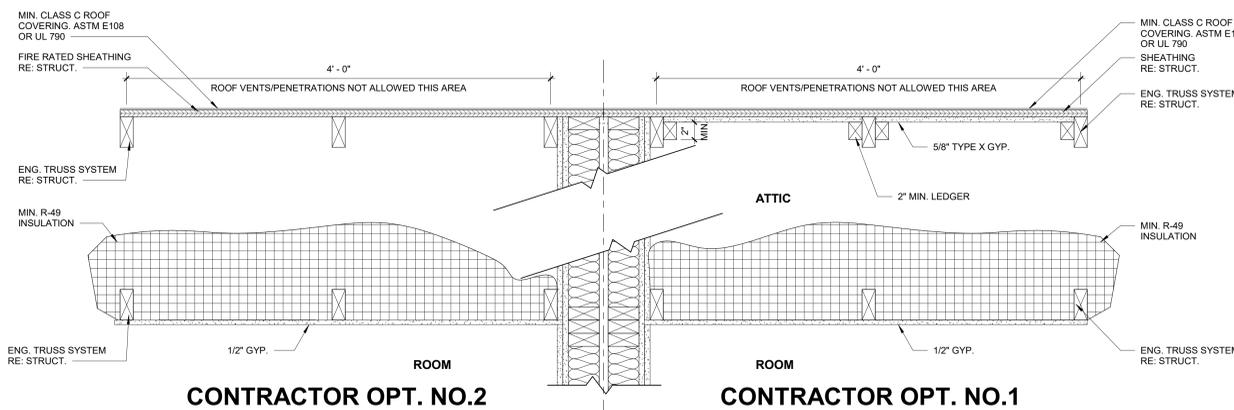
- FIRE SPRINKLER NOT REQUIRED IF EXTERIOR WALLS OF DWELLINGS ARE SEPERATED BY FIVE FEET OR MORE IF WALL IS UNRATED. IF WALL IS RATED (1 HR) NO SEPERATION IS REQUIRED.



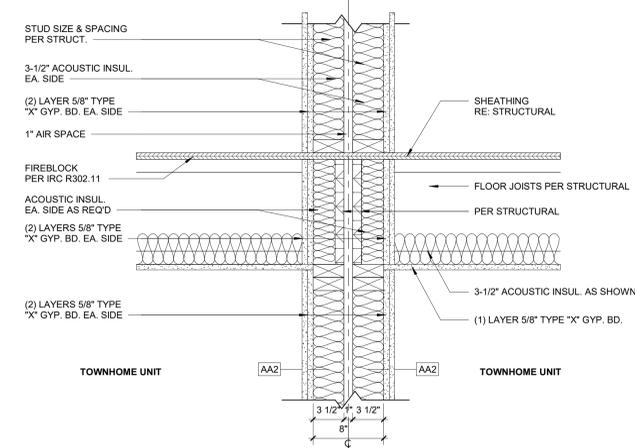
**H9 CORNER DETAIL AT UNIT SEPERATION WALL**  
1 1/2" = 1'-0"



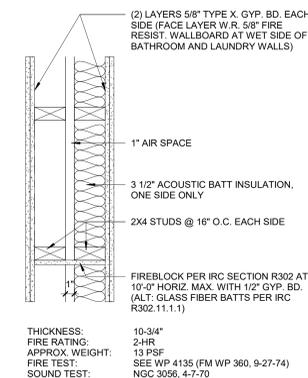
**F9 CORNER DETAIL AT UNIT SEPERATION WALL**  
1 1/2" = 1'-0"



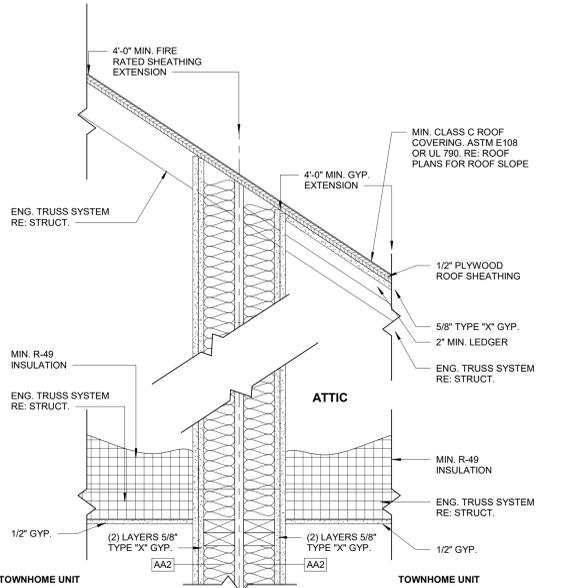
**C10 ROOF AND UNIT SEPERATION WALL CONTINUITY DETAIL**  
1 1/2" = 1'-0"



**A9 2-HR FLOOR/UNIT SEPERATION WALL DETAIL**  
1 1/2" = 1'-0"



**D3 2-HR UNIT SEPERATION WALL - (TYPE AA2)**  
1 1/2" = 1'-0"



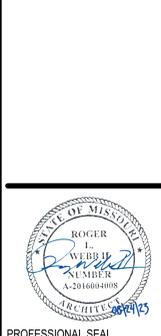
**A4 ROOF AT 2-HR UNIT SEPERATION WALL**  
1 1/2" = 1'-0"



PERMIT DOCUMENTS

REUNION AT BLACKWELL  
SE SHENANDOAH DRIVE  
LEE'S SUMMIT, MO 64063

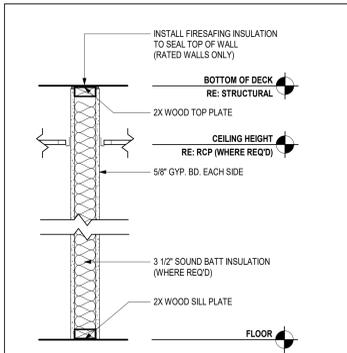
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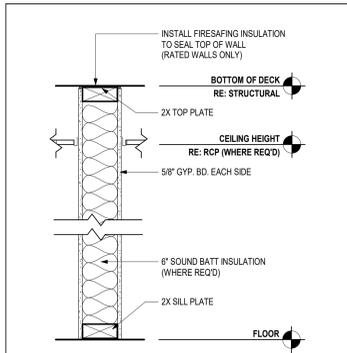
**G111**  
ISSUE DATE: 24 AUGUST 2023  
COLLINS WEBB #: 21075

LIFE SAFETY INFORMATION - APARTMENTS

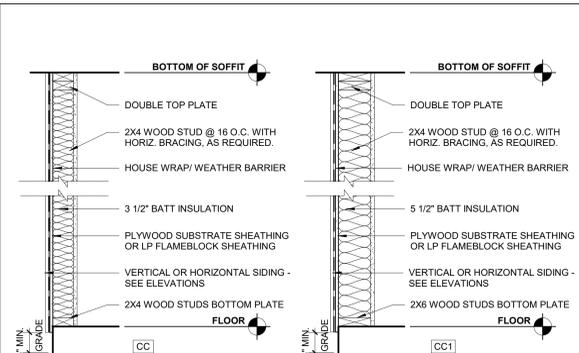
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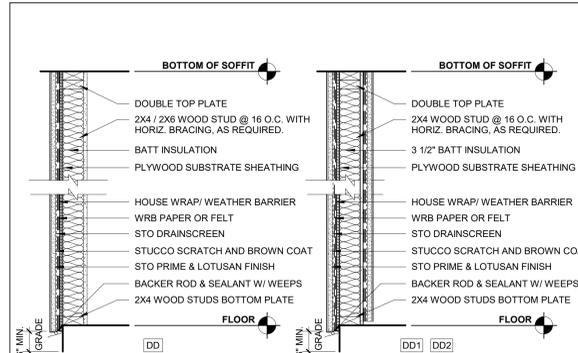
WALL TYPE AA	
TYPE	WALL DESCRIPTION
AA	<ul style="list-style-type: none"> <li>2x4 WOOD STUD @ 16" O.C. TO DECK ABOVE</li> <li>5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE</li> <li>NO SOUND BATT INSUL.</li> <li>NON RATED</li> </ul>
AA1	<ul style="list-style-type: none"> <li>2x4 WOOD STUD @ 16" O.C. TO DECK ABOVE</li> <li>5/8" TYPE "X" GYP. BD. ONE SIDE</li> <li>NO SOUND BATT INSUL.</li> <li>NON RATED</li> </ul>
AA2	<ul style="list-style-type: none"> <li>2x4 WOOD STUD @ 16" O.C. TO DECK ABOVE</li> <li>1" AIR GAP BETWEEN</li> <li>2 LAYERS 5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE</li> <li>SOUND BATT INSUL. ONE SIDE</li> <li>2 HOUR RATED RE: WP8320 (SEE D03G111 FOR ILLUSTRATION OF ASSEMBLY)</li> </ul>



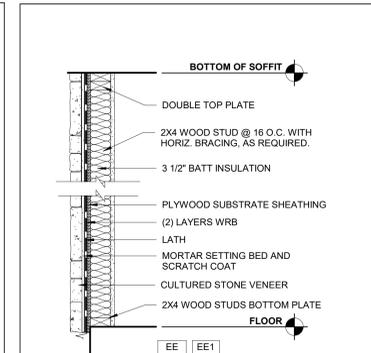
WALL TYPE BB	
TYPE	WALL DESCRIPTION
BB	<ul style="list-style-type: none"> <li>2x8 WOOD STUD @ 16" O.C. TO DECK ABOVE</li> <li>5/8" TYPE "X" GYP. BD. EACH SIDE TO DECK ABOVE</li> <li>BATT INSUL.</li> <li>NON RATED</li> </ul>



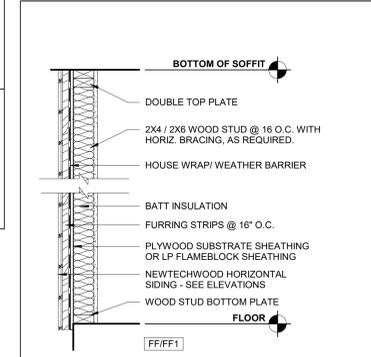
WALL TYPE CC	
TYPE	WALL DESCRIPTION
CC	<ul style="list-style-type: none"> <li>2x4 STUD @ 16" O.C.</li> <li>5/8" TYPE "X" GYP. BD. ONE SIDE</li> <li>3-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>HOUSE WRAP/ WEATHER BARRIER</li> <li>EXT. VERTICAL SIDING WITH SUBSTRATE SHEATHING. INSTALL PER MFR DETAILS</li> <li>NON RATED</li> </ul>
CC1	<ul style="list-style-type: none"> <li>2x8 STUD @ 16" O.C.</li> <li>5/8" TYPE "X" GYP. BD. ONE SIDE</li> <li>5-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>HOUSE WRAP/ WEATHER BARRIER</li> <li>EXT. VERTICAL OR HORIZONTAL SIDING WITH SUBSTRATE SHEATHING. INSTALL PER MFR DETAILS. - SEE ELEVATIONS</li> <li>NON RATED</li> </ul>



WALL TYPE DD	
TYPE	WALL DESCRIPTION
DD	<ul style="list-style-type: none"> <li>2x4 STUD @ 16" O.C.</li> <li>1/2" TYPE "X" GYP. BD. ONE SIDE</li> <li>3-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>1-SIDED SUBSTRATE SHEATHING</li> <li>HOUSE WRAP/ WEATHER BARRIER</li> <li>CODE COMPLIANT WRB PAPER OR FELT</li> <li>DRAINAGE MAT - STO DRAINSCREEN</li> <li>CODE COMPLIANT SELF-FURRED GALVANIZED DIAMOND MESH METAL LATHE</li> <li>STUCCO SCRATCH COAT - STOPPOWERWALLS STUCCO</li> <li>STUCCO BROWN COAT - STOPPOWERWALLS STUCCO</li> <li>PRIMER COATING - STOPPRIME</li> <li>FINISH - STOLIT8 LOTUSAN - COLOR 37203</li> <li>NON RATED</li> </ul>
DD1	<ul style="list-style-type: none"> <li>2x6 STUD @ 16" O.C.</li> <li>5-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>1-SIDED SUBSTRATE SHEATHING - BOTH SIDES</li> <li>HOUSE WRAP/ WEATHER BARRIER - BOTH SIDES</li> <li>CODE COMPLIANT WRB PAPER OR FELT - BOTH SIDES</li> <li>DRAINAGE MAT - STO DRAINSCREEN - BOTH SIDES</li> <li>CODE COMPLIANT SELF-FURRED GALVANIZED DIAMOND MESH METAL LATHE - BOTH SIDES</li> <li>STUCCO SCRATCH COAT - STOPPOWERWALLS STUCCO - BOTH SIDES</li> <li>STUCCO BROWN COAT - STOPPOWERWALLS STUCCO - BOTH SIDES</li> <li>PRIMER COATING - STOPPRIME - BOTH SIDES</li> <li>FINISH - STOLIT8 LOTUSAN - COLOR 37203 - BOTH SIDES</li> <li>NON RATED</li> </ul>
DD2	<ul style="list-style-type: none"> <li>2x4 STUD @ 16" O.C.</li> <li>3-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>1-SIDED SUBSTRATE SHEATHING - BOTH SIDES</li> <li>HOUSE WRAP/ WEATHER BARRIER - BOTH SIDES</li> <li>CODE COMPLIANT WRB PAPER OR FELT - BOTH SIDES</li> <li>DRAINAGE MAT - STO DRAINSCREEN - BOTH SIDES</li> <li>CODE COMPLIANT SELF-FURRED GALVANIZED DIAMOND MESH METAL LATHE - BOTH SIDES</li> <li>STUCCO SCRATCH COAT - STOPPOWERWALLS STUCCO - BOTH SIDES</li> <li>STUCCO BROWN COAT - STOPPOWERWALLS STUCCO - BOTH SIDES</li> <li>PRIMER COATING - STOPPRIME - BOTH SIDES</li> <li>FINISH - STOLIT8 LOTUSAN - COLOR 37203 - BOTH SIDES</li> <li>NON RATED</li> </ul>



WALL TYPE EE	
TYPE	WALL DESCRIPTION
EE	<ul style="list-style-type: none"> <li>2x4 STUD @ 16" O.C.</li> <li>1/2" TYPE "X" GYP. BD. ONE SIDE</li> <li>3-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>HOUSE WRAP/ WEATHER BARRIER</li> <li>MORTAR SETTING BED AND SCRATCH COAT</li> <li>CULTURED STONE VENEER - ELDRORADO STONE - CUT COARSE STONE - SEASHELL. INSTALL PER MFR DETAILS</li> <li>NON RATED</li> </ul>
EE1	<ul style="list-style-type: none"> <li>2x8 STUD @ 16" O.C.</li> <li>1/2" TYPE "X" GYP. BD. ONE SIDE</li> <li>3-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>HOUSE WRAP/ WEATHER BARRIER</li> <li>MORTAR SETTING BED AND SCRATCH COAT</li> <li>CULTURED STONE VENEER - ELDRORADO STONE - CUT COARSE STONE - SEASHELL. INSTALL PER MFR DETAILS</li> <li>NON RATED</li> </ul>



WALL TYPE FF	
TYPE	WALL DESCRIPTION
FF	<ul style="list-style-type: none"> <li>2x4 STUD @ 16" O.C.</li> <li>1/2" TYPE "X" GYP. BD. ONE SIDE</li> <li>3-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>HOUSE WRAP/ WEATHER BARRIER</li> <li>EXT. NEWTECHWOOD HORIZONTAL SIDING WITH SUBSTRATE SHEATHING. INSTALL PER MFR DETAILS</li> <li>NON RATED</li> </ul>
FF1	<ul style="list-style-type: none"> <li>2x6 STUD @ 16" O.C.</li> <li>1/2" TYPE "X" GYP. BD. ONE SIDE</li> <li>5-1/2" BATT INSUL. TO FULL HEIGHT OF WALL</li> <li>HOUSE WRAP/ WEATHER BARRIER</li> <li>EXT. NEWTECHWOOD HORIZONTAL SIDING WITH SUBSTRATE SHEATHING. INSTALL PER MFR DETAILS</li> <li>NON RATED</li> </ul>

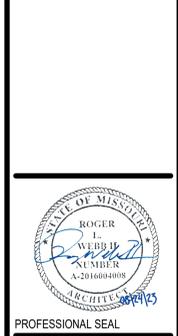
- WALL TYPE NOTES:**
- DRYWALL PARTITIONS SHOULD BE CONSTRUCTED IN ACCORDANCE WITH ASTM E667 - STANDARD PRACTICE FOR INSTALLING SOUND ISOLATING GYPSUM BOARD PARTITIONS, AND ASTM C919 - STANDARD PRACTICE FOR USE OF SEALANTS IN ACOUSTICAL APPLICATIONS. ALL SOUND BARRIER PARTITIONS SHOULD EXTEND FROM FLOOR TO STRUCTURE UNLESS STATED OTHERWISE. METAL STUDS SHALL BE RIGIDLY ATTACHED ONLY AT HEAD AND FOOT. STRUCTURAL CROSS BRACING MUST NOT RIGIDLY CONNECT TO BOTH METAL STUD WALLS.
  - RE: LIFE SAFETY PLAN(S) FOR RATED WALL LOCATIONS.
  - RE: WALL TYPE DETAIL SHEET FOR TYPICAL WALL DETAILS AND ADDITIONAL WALL TYPE INFORMATION.
  - FOR TYPICAL TOP OF WALL CONDITIONS AT JOISTS AND BEAMS, REFER TO THE CLOSURE DETAILS ON THE WALL TYPE DETAILS SHEET.
  - WHERE FIRE-RATED SEALANT IS INDICATED ON WALL TYPES, PROVIDE FIRE-RATED SEALANT ABOVE TOP TRACK, UNDER BOTTOM TRACK, AT ALL PENETRATIONS (BOTH SIDES), AND AS REQUIRED BY FIRE RATING UL NUMBER.
  - EXTEND FIRE-RATED WALL CONSTRUCTION BEHIND RECESSED OR BUILT-IN EQUIPMENT, SUCH AS FIRE EXTINGUISHER CABINETS (FEC), ELECTRICAL WATER COOLERS (EWC), ELECTRICAL PANELS, ETC., UNLESS NOTED OTHERWISE.
  - PROVIDE AND INSTALL ALL STIFFENERS, BRACING, BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF ALL CASEWORK AND OF ALL FLOOR MOUNTED OR SUSPENDED MECHANICAL, ELECTRICAL OR LABORATORY EQUIPMENT.
  - WHERE HVAC OR OTHER MECHANICAL, ELECTRICAL AND PLUMBING TEMS PENETRATE PARTITIONS, STUDS SHALL BE BRACED AND FRAMED TO STRUCTURE AS REQUIRED TO PROVIDE ADEQUATE SUPPORT. ALL PENETRATIONS THROUGH ACOUSTICAL AND FIRE RATED WALLS SHALL BE SEALED TO PROVIDE FIRE, SMOKE, AND/OR ACOUSTICAL ISOLATION OF SPACES WITH APPROPRIATE ACOUSTICAL/ FIRESTOP MATERIAL.
  - THERE SHALL BE NO BACK-TO-BACK ELECTRICAL, TELEPHONE, OR OTHER OUTLETS, EXCEPT WHERE SPECIFICALLY SHOWN.
  - WALL BASE IS NOT SHOWN ON ALL WALL TYPES FOR CLARITY. REFER TO FINISH SCHEDULE.
  - PROVIDE GLASS-MAT, WATER RESISTANT BACKING BOARD AT ALL WET LOCATIONS.
  - EXCEPT AT FIRE-RATED PARTITIONS, ALL WALL AND COLUMN GYPSUM BOARD FACING SHALL BE HELD AT 5/8 INCH BELOW STRUCTURE, UNLESS NOTED OR SHOWN OTHERWISE.
  - PROVIDE AND INSTALL BLOCKING REQUIRED FOR ALL A.V. EQUIPMENT. G.C. TO COORDINATE WITH TI CONSULTANT FOR FINAL LOCATIONS AND SIZE REQUIREMENTS.
  - COMPRESSIBLE FILLER - ACCEPTABLE MATERIALS WOULD BE FIBERGLASS INSULATION OR FIRESTOPPING. VOIDS TO BE COMPLETELY FILLED AND A FIRESTOP SEALANT OVER ANY ENDS. THIS IS TYPICAL FOR ALL ACOUSTICAL WALL ASSEMBLIES WHERE "COMPRESSIBLE FILLER" IS CALLED FOR. THERE CAN BE NO VOIDS IN THE INSTALLATION.
  - MUD AND TAPE ALL 1ST AND 2ND LAYER GYP. BOARD JOINTS. PROVIDE 3RD LAYER FINISH PER GENERAL NOTES: FLOOR PLAN.
  - PROVIDE HORIZONTAL LATERAL BRACING WIRE WELDED TO STUD FOR ALL WALLS, AT APPROPRIATE GAGE AND SPACING SPECIFIED BY SUPPLIER.



PERMIT DOCUMENTS

**REUNION AT BLACKWELL**  
 SE SHENANDOAH DRIVE  
 LEE'S SUMMIT, MO 64063

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 REVISION DATES:



**G121**  
 ISSUE DATE: 24 AUGUST 2023  
 COLLINS WEBB #: 21075  
**WALL TYPES**

**SPECIFICATIONS - PRODUCT & INSTALLATION GENERAL REQUIREMENTS**

**GENERAL REQUIREMENTS APPLICABLE TO ALL MATERIALS FOR THE PROJECT:**

- 1. NO SUBSTITUTIONS OF MATERIALS WITHOUT COMPLETION OF A SUBSTITUTION REQUEST FORM & APPROVAL OF SUBSTITUTIONS BY BOTH ARCHITECT & OWNER PROJECT MANAGER. FORM CAN BE REQUESTED FROM ARCHITECT.
2. A CONDENSED SET PROVIDED FOR THE PROJECT. STRICT ADHERENCE TO MANUFACTURER REQUIREMENTS AND INSTALLATION ARE REQUIRED TO BE FOLLOWED WITH SECTIONS PROVIDED WITHIN. IF REQUIRED THE ARCHITECT WILL ISSUE ADDITIONAL SECTIONS TO PROVIDE CLARITY TO PRODUCTS OR INSTALLATION REQUIREMENTS.

**DIVISION 1 - GENERAL REQUIREMENTS**

- 1. SEE ADMINISTRATIVE SPECIFICATION FOR GENERAL REQUIREMENTS RELATED TO ADMINISTRATION OF THIS CONTRACT.
A. CONTRACTOR LICENSES
1. THE CONTRACTOR AND ALL SUBCONTRACTORS INVOLVED IN THE PROJECT SHALL BE REQUIRED TO OBTAIN AND PAY FOR ALL NECESSARY LICENSES AS REQUIRED BY ANY LAW OR AGENCIES HAVING JURISDICTION (AHJ) OVER THE PROJECT.

**B. BUILDING PERMITS**

- 1. THE GENERAL CONTRACTOR WILL PAY FOR ALL PERMITS REQUIRED BY ANY AGENCY HAVING JURISDICTION (AHJ) OVER THE PROJECT FOR ALL WORK TO BE PERFORMED BY THE GENERAL CONTRACTOR.

**C. UTILITY FEES**

- 1. THE CONTRACTOR SHALL PAY THE NECESSARY FEES TO CONNECT TO EXISTING UTILITIES AT THE PROPERTY LINE OR ADJACENT STREETS AND RIGHT OF WAY AS SPECIFIED, NECESSARY AND/OR INCLUDED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL PAY ALL UTILITY COSTS (BILLS) DURING CONSTRUCTION UNTIL OWNER TAKES POSSESSION OF THE FACILITY OR THE FACILITY IS CERTIFIED AS SUBSTANTIALLY COMPLETE.

**D. PROTECTION OF FINISHED WORK**

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT FINISHED SURFACES. PROTECTION FOR FINISHES SUCH AS DOORS, WALLS AND FLOORS SHOULD BE PROVIDED AS REQUIRED. ANY DAMAGES TO THESE AREAS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR OR REPLACE.

**E. GENERAL CONDITIONS**

- 1. ANY DISCREPANCY OR CONFLICT WITHIN OR BETWEEN DRAWINGS AND ANY DISCREPANCY OR CONFLICT BETWEEN ANY DRAWING AND ANY SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
2. THE GENERAL CONTRACTOR SHALL MAINTAIN AND PROTECT THE PROJECTS EXISTING UTILITIES AND OWNERS ATTENTION AND CLARIFIED DURING THE BIDDING OF THE PROJECT WILL BE DEEMED TO HAVE BEEN BID OR PROPOSED IN THE MORE COSTLY OR DIFFICULT MANNER, AND THE BETTER QUALITY OR GREATER QUANTITY OF THE WORK SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH ARCHITECT'S INTERPRETATION.
3. THE GENERAL CONTRACTOR SHALL KEEP A COMPLETE SET OF DOCUMENTS ON THE PROJECT SITE AT ALL TIMES FOR REFERENCE DURING CONSTRUCTION.
4. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE CONTRACTOR'S BEST SKILLS AND ATTENTION. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER CONSTRUCTION MEANS AND METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK.
5. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER ALL JOB SITE SAFETY PROCEDURES AND POLICIES. THE GENERAL CONTRACTOR SHALL HAVE A SAFETY COORDINATOR AND BE RESPONSIBLE FOR ALL SAFETY TRAINING WITH ALL JOB SITE PERSONNEL, INCLUDING ALL SUB CONTRACTOR PERSONNEL.
6. WHETHER THE ARCHITECTS OR THE OWNERS INSPECTION NOR FAILURE TO INSPECT SHALL RELIEVE THE CONTRACTOR OF ANY OBLIGATION HEREUNDER. IF ANY WORK FAILS TO CONFORM TO THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY REMEDY AND/OR REPLACE THE SAME AT THE CONTRACTOR'S EXPENSE. NO ACCEPTANCE OR PAYMENT BY THE OWNER OR ARCHITECT SHALL CONSTITUTE A WAIVER OF THE FOREGOING AND NOTHING HEREIN SHALL EXCLUDE OR LIMIT ANY WARRANTIES IMPLIED BY LAW.
7. THE GENERAL CONTRACTOR SHALL NOT CONDUCT ITS OPERATIONS AS TO NOT UNREASONABLY INTERFERE WITH TRAFFIC ON PUBLIC HIGHWAYS ADJACENT OR NEAR TO THE PROJECT SITE.
8. DO NOT SCALE DRAWINGS.

**F. PROJECT REQUIREMENTS**

- 1. THE GENERAL CONTRACTOR REPRESENTS THAT IT POSSESSES THE SKILLS REQUIRED FOR THE WORK, ASSUMES THE RESPONSIBILITIES OF AN EMPLOYER FOR PERFORMANCE OF THE WORK, AND ACTS AS AN EMPLOYER OF ONE OR MORE EMPLOYEES BY PAYING WAGES, DIRECTING ACTIVITIES AND PERFORMING OTHER BASIC FUNCTIONS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK OF EACH TRADE IN THE MANNER IN WHICH THE WORK IS PERFORMED.
2. THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN IN GOOD WORKING ORDER, THE FOLLOWING ITEMS FOR USE BY THE PROJECT SUPERINTENDENT DAILY DURING THE ENTIRE DURATION OF THE PROJECT:
A. LAPTOP WITH INTERNET ACCESS.
B. DIGITAL CAMERA WITH DATE STAMP CAPABILITY AND WITH PROPER CABLES TO ATTACH TO LAPTOP.
C. EMAIL ACCESS THROUGH LAPTOP.
D. A PRINTER/SCANNER/FAX MACHINE WITH PROPER CABLES TO ATTACH TO LAPTOP.
E. CELL PHONE.
F. PROJECT INTERNET CLOUD BASED SITE FOR MANAGEMENT OF PROJECT INFORMATION. SITE WILL BE USED FOR SUBMITTAL OF SHOP DRAWINGS, RFPS & PHOTOS. THERE SHALL BE PROCURE OR EQUAL FUNCTIONALITY.
3. THE GENERAL CONTRACTOR SUPERINTENDENT ASSIGNED TO THIS PROJECT, AND THIS SUPERINTENDENT SHALL BE ON SITE EVERY DAY THERE IS ANY CONSTRUCTION ON THIS PROJECT. THE SUPERINTENDENT SHALL BE REACHABLE BY PHONE DURING NORMAL BUSINESS HOURS. ONCE ASSIGNED, THE SUPERINTENDENT SHALL BE RESPONSIBLE FOR MONITORING THE WORK OF EACH TRADE IN THE MANNER IN WHICH THE WORK IS PERFORMED, AND BE SPECIFICALLY REQUESTED TO BE REPLACED BY OWNER.
4. THE SUPERINTENDENT WILL BE REQUIRED TO PROVIDE PHOTOGRAPHS (VIA EMAIL USING A DIGITAL CAMERA) TO THE OWNER & ARCHITECT EACH WEEK SHOWING THE PROGRESS OF CONSTRUCTION. THE GENERAL CONTRACTOR IS ENCOURAGED TO TAKE PHOTOS SEVERAL TIMES EACH WEEK TO HELP MAINTAIN WARMTH OF CONSTRUCTION PROGRESS. RECORD UNCOVERED CONDITIONS, RECORD CONDITION AND AMOUNTS OF VENDOR GOODS UPON RECEIPT, RECORD PROTECTION THAT VARIES FROM THE CDS (AS PART OF THE AS-BUILTS), AND PHOTOS WILL HAVE A DATE STAMP.

**G. INSPECTIONS/OBSERVATIONS**

- 1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OVERSEE CONSTRUCTION OF THE PROJECT, CONTINUALLY CHECKING THE WORK, MATERIALS, AND WORKMANSHIP PROVIDED BY ALL OF HIS TRADESMEN, SUBCONTRACTORS AND SUPPLIERS. EXCELLENCE IN QUALITY OF CONSTRUCTION CAN ONLY BE ACHIEVED IF THE CONTRACTOR ENFORCES HIGH STANDARDS OF RESPONSIBILITY. THE GENERAL CONTRACTOR CANNOT DELEGATE HIS RESPONSIBILITY TO THE SUBCONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE WORK OF EACH TRADE IN THE MANNER IN WHICH THE WORK IS PERFORMED.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE AND SCHEDULE ALL AGENCIES HAVING JURISDICTION (AHJ) INSPECTIONS NECESSARY TO OBTAIN THE CERTIFICATE OF OCCUPANCY (CERTIFICATE OF COMPLIANCE). PRIOR TO THE DATE OF THE AGENCY INSPECTION THE CONTRACTOR SHALL INSPECT THE PROJECT TO INSURE THE CONSTRUCTION COMPLETES WITH THE AGENCY REQUIREMENTS. SCHEDULING FINAL INSPECTIONS WITH AGENCY REPRESENTATIVES WHEN THE PROJECT IS NOT COMPLETE MUST BE AVOIDED. COPIES OF FINAL INSPECTIONS MUST BE PROVIDED TO OWNER & AVAILABLE TO ARCHITECT.
3. PRIOR TO REQUESTING THE SUBSTANTIAL COMPLETION INSPECTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT HIS OWN PRE-SUBSTANTIAL COMPLETION INSPECTION OF THE CONSTRUCTION FOR QUALITY OF CONSTRUCTION AND THE RESULTS. THE AS-BUILTS MUST BE MAINTAINED ON-SITE IN THE GENERAL CONTRACTOR'S OFFICE AND WILL NOT BE USED FOR ANY OTHER PURPOSE. SINCE THE OWNER WILL OWN AND OPERATE THE FACILITY, IT IS IMPERATIVE THAT ALL PARTIES MAINTAIN ACCURATE INFORMATION REGARDING THE ACTUAL CONSTRUCTION OF THE PROJECT.
4. ALL DEVIATIONS FROM THE CONTRACT SET OF DRAWINGS MUST BE NOTED ON THE AS-BUILTS IN RED WITH CLOUDS FOR CLEAR IDENTIFICATION. THE OWNER WILL REVIEW THE AS-BUILTS FOR ACCURACY AND COMPLETENESS MONTHLY. DURING THE PAYMENT APPLICATION REVIEW PROCESS, FAILURE TO POST CHANGES TO THE PROJECT ON THE AS-BUILTS AS IDENTIFIED DURING THE ON-SITE MONTHLY REVIEW WILL BE CAUSE TO SUSPEND PAYMENT UNTIL RECTIFIED. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENFORCE THE TIMELY POSTING OF AS-BUILT CHANGES WITH THE SUBCONTRACTORS.
5. THE GENERAL CONTRACTOR SUPERINTENDENT
A. MECHANICAL CONTRACTOR
D. ELECTRICAL CONTRACTOR
E. PLUMBING CONTRACTOR
F. PAINTING CONTRACTOR
H. FLOORING CONTRACTOR
6. ITEMS TO BE SUBMITTED AS PRE-REQUISITE TO THE REQUEST FOR THE CERTIFICATE OF SUBSTANTIAL COMPLETION AND OWNER / ARCHITECT OBSERVATION OF ITEMS TO BE COMPLETED AND CORRECTED.
A. GENERAL CONTRACTOR'S PUNCH LISTS
B. HAVAC TEST AND BALANCE REPORT
C. SPRINKLER SYSTEM ACCEPTANCE INSPECTION REPORT
D. COPY OF VIDEO OF COMPLETED SEWER SYSTEM
7. THE REVIEW AND ORGANIZED MANNER THROUGHOUT THE BUILDING INSPECTING EACH SPACE OR ROOM. THE PUNCH LIST GENERATED BY THE SUBSTANTIAL COMPLETION INSPECTOR TOUR IS TO BE PREPARED BY THE CONTRACTOR, ALONG WITH THE PUNCH LIST, THE ARCHITECT SHALL PREPARE THE CERTIFICATE OF SUBSTANTIAL COMPLETION.
7. IMMEDIATELY AFTER RECEIPT OF THE PUNCH LIST, THE GENERAL CONTRACTOR AND SUBCONTRACTORS ARE EXPECTED TO BEGIN CORRECTION OF THE OUTSTANDING ITEMS AFTER COMPLETION OF PUNCHLIST. THE CONTRACTOR SHALL NOTIFY OWNER & ARCHITECT IN WRITING THAT FULL LIST OF ITEMS TO BE COMPLETED AND OR CORRECT IS FINALIZED.

**H. RECORD CLOSE-OUT DOCUMENTS**

- 1. THE OWNER REQUIRES THE GENERAL CONTRACTOR AND SUBCONTRACTORS TO MAINTAIN AN ACCURATE, CURRENT SET OF RECORD DOCUMENTS (AS-BUILTS) AS CONSTRUCTION PROGRESSES. ALL PERTINENT INFORMATION RELATING TO THE PROJECT MUST BE TIMELY MAINTAINED ON THE AS-BUILTS. THE AS-BUILTS MUST BE MAINTAINED ON-SITE IN THE GENERAL CONTRACTOR'S OFFICE AND WILL NOT BE USED FOR ANY OTHER PURPOSE. SINCE THE OWNER WILL OWN AND OPERATE THE FACILITY, IT IS IMPERATIVE THAT ALL PARTIES MAINTAIN ACCURATE INFORMATION REGARDING THE ACTUAL CONSTRUCTION OF THE PROJECT.
2. ALL DEVIATIONS FROM THE CONTRACT SET OF DRAWINGS MUST BE NOTED ON THE AS-BUILTS IN RED WITH CLOUDS FOR CLEAR IDENTIFICATION. THE OWNER WILL REVIEW THE AS-BUILTS FOR ACCURACY AND COMPLETENESS MONTHLY. DURING THE PAYMENT APPLICATION REVIEW PROCESS, FAILURE TO POST CHANGES TO THE PROJECT ON THE AS-BUILTS AS IDENTIFIED DURING THE ON-SITE MONTHLY REVIEW WILL BE CAUSE TO SUSPEND PAYMENT UNTIL RECTIFIED. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENFORCE THE TIMELY POSTING OF AS-BUILT CHANGES WITH THE SUBCONTRACTORS.
3. WITHIN THIRTY (30) DAYS AFTER THE FINAL PROJECT SUBSTANTIAL COMPLETION, THE GENERAL CONTRACTOR SHALL COMPLETE ALL CLOSE-OUT DOCUMENTS AND SUBMIT THEM TO THE OWNER FOR REVIEW. IF THE CONTRACTOR FAILS TO COMPLETE ITS REQUIREMENTS WITHIN THIS TIMELINE NOTED ABOVE THE CONTRACTOR MAY BE SUBJECT TO ADDITIONAL ADMINISITRATIVE FEES.

**I. AS-BUILT DOCUMENTS**

- 1. THE CATEGORIES LISTED BELOW SHOULD BE SUBMITTED AT THE SAME TIME:
A. A GLOSS WITH ALL PHOTOS TAKEN DURING CONSTRUCTION.
B. CHANGE ORDERS AND ALL ADDENDA ATTACHED AND POSTED TO THE AS-BUILT DRAWINGS.
C. AS-BUILT DRAWINGS: ONE HARD COPY TO REMAIN ON SITE AND IN-PLANT TUBE, ONE ELECTRONIC COPY TO BE SENT WITH CLOSE-OUT PAPERWORK.
D. MATERIALS SELECTION DATA - PROVIDE ALL APPROVED SUBMITTALS.
E. OPERATION AND MAINTENANCE MANUALS: PROVIDE MANUALS BOXED AND BOUND. THIS ITEM IS OF SIGNIFICANT IMPORTANCE TO MS5 FUTURE MAINTENANCE ACTIVITIES.
F. ALL HAVAC TEST AND BALANCE REPORTS.
G. RELEASE OF LIEN (FORM 708), PAYMENT OF DEBT (AA FORM 708).
H. WARRANTIES, CERTIFICATES, AFFIDAVITS.
I. ALL INFORMATION INCLUDED IN THIS CATEGORY WILL BE FURNISHED IN ONE (1) COPY AND BOUND TO A STUDY THREE-RING BINDER WITHIN THE OUTSIDE READING GENERAL CLOSE-OUT DOCUMENTS TO INCLUDE AN INDEX OF THE CONTENTS. ALL AA DOCUMENTS WILL BE ORIGINAL, (WITH RED LETTERING ON THE BOTTOM OF THE FORM) AND NOTARIZED. IF THE ELECTRONIC VERSION IS USED A COPY WITH ORIGINAL SIGNATURES WILL BE SUBMITTED. THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR WILL HAVE SEPARATE TABS IDENTIFYING EACH BY NAME. THE GENERAL CONTRACTOR WILL LIST EACH SUBCONTRACTOR ALPHABETICALLY AND WILL CHECK TO INSURE THAT A RELEASE OF LIEN - AA FORM 708A AND A PAYMENT OF DEBT - AA FORM 708B IS INCLUDED FOR HIMSELF AND EACH SUBCONTRACTOR. THE GENERAL CONTRACTOR WILL INCLUDE A CONSENT OF SURETY - AA FORM G07. IN ADDITION, THE GENERAL CONTRACTOR WILL INCLUDE BEHIND TAB THE FOLLOWING INFORMATION:
A. A LIST OF NAMES, BUSINESS ADDRESSES, PHONE NUMBERS AND EMAIL ADDRESSES FOR THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR.
B. AN ANNOTATED COPY OF THE SUBSTANTIAL COMPLETION PUNCH LIST INDICATING ACTION TAKEN ON EACH ITEM.
C. WARRANTIES, CERTIFICATES AND AFFIDAVITS SHALL BE INCLUDED FOR ANY EQUIPMENT, MATERIALS OR SYSTEMS COMBINED WITH ALL OF THE ABOVE INFORMATION AND PLACED BEHIND THE TAB OF THE CONTRACTOR THAT ISSUED IT.

**J. FINAL CLOSE-OUT OF THE PROJECT**

- 1. WITHIN THIRTY (30) DAYS AFTER THE FINAL PROJECT SUBSTANTIAL COMPLETION, THE GENERAL CONTRACTOR SHALL COMPLETE ALL CLOSE-OUT DOCUMENTS AND SUBMIT THEM TO THE OWNER FOR REVIEW. IF THE CONTRACTOR FAILS TO COMPLETE ITS REQUIREMENTS WITHIN THIS TIMELINE NOTED ABOVE THE CONTRACTOR MAY BE SUBJECT TO ADDITIONAL ADMINISITRATIVE FEES.
2. THE CATEGORIES LISTED BELOW SHOULD BE SUBMITTED AT THE SAME TIME:
A. A GLOSS WITH ALL PHOTOS TAKEN DURING CONSTRUCTION.
B. CHANGE ORDERS AND ALL ADDENDA ATTACHED AND POSTED TO THE AS-BUILT DRAWINGS.
C. AS-BUILT DRAWINGS: ONE HARD COPY TO REMAIN ON SITE AND IN-PLANT TUBE, ONE ELECTRONIC COPY TO BE SENT WITH CLOSE-OUT PAPERWORK.
D. MATERIALS SELECTION DATA - PROVIDE ALL APPROVED SUBMITTALS.
E. OPERATION AND MAINTENANCE MANUALS: PROVIDE MANUALS BOXED AND BOUND. THIS ITEM IS OF SIGNIFICANT IMPORTANCE TO MS5 FUTURE MAINTENANCE ACTIVITIES.
F. ALL HAVAC TEST AND BALANCE REPORTS.
G. RELEASE OF LIEN (FORM 708), PAYMENT OF DEBT (AA FORM 708).
H. WARRANTIES, CERTIFICATES, AFFIDAVITS.
I. ALL INFORMATION INCLUDED IN THIS CATEGORY WILL BE FURNISHED IN ONE (1) COPY AND BOUND TO A STUDY THREE-RING BINDER WITHIN THE OUTSIDE READING GENERAL CLOSE-OUT DOCUMENTS TO INCLUDE AN INDEX OF THE CONTENTS. ALL AA DOCUMENTS WILL BE ORIGINAL, (WITH RED LETTERING ON THE BOTTOM OF THE FORM) AND NOTARIZED. IF THE ELECTRONIC VERSION IS USED A COPY WITH ORIGINAL SIGNATURES WILL BE SUBMITTED. THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR WILL HAVE SEPARATE TABS IDENTIFYING EACH BY NAME. THE GENERAL CONTRACTOR WILL LIST EACH SUBCONTRACTOR ALPHABETICALLY AND WILL CHECK TO INSURE THAT A RELEASE OF LIEN - AA FORM 708A AND A PAYMENT OF DEBT - AA FORM 708B IS INCLUDED FOR HIMSELF AND EACH SUBCONTRACTOR. THE GENERAL CONTRACTOR WILL INCLUDE A CONSENT OF SURETY - AA FORM G07. IN ADDITION, THE GENERAL CONTRACTOR WILL INCLUDE BEHIND TAB THE FOLLOWING INFORMATION:
A. A LIST OF NAMES, BUSINESS ADDRESSES, PHONE NUMBERS AND EMAIL ADDRESSES FOR THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR.
B. AN ANNOTATED COPY OF THE SUBSTANTIAL COMPLETION PUNCH LIST INDICATING ACTION TAKEN ON EACH ITEM.
C. WARRANTIES, CERTIFICATES AND AFFIDAVITS SHALL BE INCLUDED FOR ANY EQUIPMENT, MATERIALS OR SYSTEMS COMBINED WITH ALL OF THE ABOVE INFORMATION AND PLACED BEHIND THE TAB OF THE CONTRACTOR THAT ISSUED IT.

**DIVISION 4 - MASONRY**

**04 0500 - MASONRY VENEERS & SIMULATED STONES**

- A. SUBMITTALS: SHOP DRAWINGS AND CALCULATIONS INDICATING PRODUCTS TYPES AND LAYOUT, VERTICAL AND HORIZONTAL DIMENSIONS, EDGE CONDITIONS, AND CONNECTION DETAILS TO SUBSTRATES. PROVIDE GROUT TYPES AND COLOR SAMPLES.
B. BASIS OF DESIGN: CANYON LEDGE PROFILE AS MANUFACTURED BY CANYON STONE INC. MATCH THE MODULAR CONFIGURATIONS INDICATED IN THE CONSTRUCTION DOCUMENTS.
C. MATERIALS
1. MORTAR: TYPE "N" TINTED TO A COLOR SELECTED BY THE ARCHITECT.
2. METAL LATH SHALL BE MINIMUM 25 LB. PAPER BACKED GALVANIZED METAL LATH (DIAMOND MESH) ATTACHED WITH 1/4" X 12" GALVANIZED NAILS. GALVANIZED FLASHING MAY ALSO BE USED.
3. IN WALL AND CAP FLASHING SHALL BE CARUSLE® PRE-LEACHED EPDM OR COMPARABLE PRODUCTS, MANUFACTURED BY W.R. GRACE OR ALCO.
4. BUILDING FELT TO BE 15# ASPHALT IMPREGNATED BUILDING FELT OVER WEATHER BARRIER OVER WALL SHEATHING.
D. FABRICATIONS: FABRICATE ITEMS IN LARGEST PRACTICAL SECTIONS FOR DELIVERY TO SITE.
E. BASIS OF DESIGN:
1. CONTRACTOR SHALL PROVIDE THEM TO PREPARE SURFACE AND TO FASTENERS & RASTERS & MORTARS TROWEL AND LAY SIMULATED STONE UNITS LEVEL AND TRUE TO LINE IN FULL BEDS OF MORTAR. ALL JOINTS MUST BE COMPLETELY FILLED. APPLY ONLY ENOUGH MORTAR TO ALLOW STONES TO BE SET BEFORE MORTAR BEGINS TO HARDEN.
3. ALL JOINTS IN SIMULATED STONE WORK SHALL NOT EXCEED AN AVERAGE OF 1/2" IN WIDTH.
4. RETURN 1/2" DEEP X 1/4" WIDE SEALANT JOINTS AT PERIMETER OF EXTERIOR DOORS, WINDOW FRAMES AND OTHER WALL OPENINGS.
5. DO NOT ALLOW MORTAR DROPPINGS TO HARDEN ON EXPOSED SURFACES.
6. WALLS SHALL BE COVERED WITH 15 LB BUILDING FELT AND GALVANIZED METAL LATH SHALL BE INSTALLED PRIOR TO APPLICATION OF THE MORTAR BASE. MORTAR BASE MAY BE APPLIED DIRECTLY TO MASONRY BACK-UP.

**04 0510 - METALS**

**04 5000 - METAL RAILINGS**

- A. SUBMITTALS: PROJECT DATA AND SHOP DRAWINGS WITH PLANS ELEVATIONS AND SECTIONS INDICATING MEMBER SIZES AND LAYOUT, VERTICAL AND HORIZONTAL DIMENSIONS, EDGE CONDITIONS, AND CONNECTION DETAILS. INCLUDE DETAILS OF EQUIPMENT ASSEMBLIES, INDICATE DIMENSIONS, WEIGHTS, LOADS, REQUIRED CLEARANCES, METHOD OF FIELD CONNECTIONS, LOCATION AND SIZE OF EACH FIELD CONNECTION, SAMPLES FOR INITIAL SELECTION FOR EACH TYPE OF EXPOSED FINISH.
1. DELEGATED DESIGN SUBMITTAL: FOR HANDRAIL AND GUARDRAIL SYSTEMS, INCLUDING ANALYSIS DATA SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
B. DESIGN: METAL RAILINGS SHALL BE DESIGNED BY FABRICATOR TO SUPPORT CODE REQUIRED LOADING AND TO MATCH THE CONFIGURATIONS INDICATED IN THE CONSTRUCTION DOCUMENTS. SEE DRAWINGS FOR REQUIRED RAILING ELEVATIONS.
C. WARRANTY: MANUFACTURER'S WARRANTY: MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF HANDRAIL AND GUARD RAIL SYSTEM THAT FAIL IN MATERIALS OR WORKMANSHIP WITH SPECIFIED WARRANTY PERIOD. WARRANTY PERIOD OF 30 YEARS.
D. BASIS OF DESIGN: DIGGER SPECIALTIES, INC., WESTBURY® ALUMINUM RAILING, TUSCANY SERIES, STYLE C10
E. ACCESSORIES:
1. GENERAL: PROVIDE MANUFACTURER'S STANDARD ACCESSORIES AS REQUIRED FOR COMPLETE RAILING SYSTEM AS INDICATED ON THE DRAWINGS AND AS REQUIRED TO COMPLY WITH PERFORMANCE REQUIREMENTS.
F. FASTENERS:
1. GENERAL: TYPE 304 STAINLESS-STEEL FASTENERS. USE EXPANDED FASTENERS WITH FINISH MATCHING APPEARANCE, INCLUDING COLOR AND TEXTURE, OF RAILINGS.
G. FABRICATION:
1. GENERAL: FABRICATE RAILINGS TO COMPLY WITH REQUIREMENTS INDICATED FOR DESIGN, DIMENSIONS, MEMBER SIZES AND SPACING, DETAILS, FINISH AND ANCHORAGE, BUT NOT LESS THAN THAT REQUIRED TO SUPPORT STRUCTURAL LOADS.
2. CUT, DRILL, AND PUNCH ALUMINUM CLEANLY AND ACCURATELY. REMOVE BURRS AND EASE EDGES TO A RADIUS OF APPROXIMATELY 1/32 INCH (1 MM) UNLESS OTHERWISE INDICATED. REMOVE SHARP OR ROUGH AREAS ON EXPOSED SURFACES.
3. FABRICATE CONNECTIONS THAT ARE EXPOSED TO WEATHER IN A MANNER THAT EXCLUDES WATER. PROVIDE WEEP HOLES WHERE WATER MAY ACCUMULATE.
H. FINISH:
1. POWDER-COAT FINISH: AAMA 2605 EXCEPT WITH A MINIMUM DRY FILM THICKNESS OF 1.5 MILS (0.04 MM). COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CLEANING, CONVERSION COATING, AND APPLYING AND BAKING FINISH.
I. INSTALLATION:
1. SUPPLY COMPONENTS REQUIRED FOR ANCHORAGE FABRICATED FROM SAME MATERIAL AND FINISH AS FABRICATION UNLESS NOTED OTHERWISE. SHIM AND LEVEL FABRICATIONS AS NECESSARY. COAT CONCEALED SURFACES OF ALUMINUM FABRICATIONS IN CONTACT WITH CONCRETE, GROUT, MASONRY, WOOD, OR DISSIMILAR METALS WITH BITUMINOUS PAINT.
2. FIT EXPOSED CONNECTIONS TOGETHER TO FORM TIGHT, HAIRLINE JOINTS.
3. PERFORM CUTTING, DRILLING, AND FITTING REQUIRED FOR INSTALLING RAILINGS. SET RAILINGS ACCURATELY IN LOCATION, ALIGNMENT, AND ELEVATION, MEASURED FROM ESTABLISHED UNITS AND LEVELS AND FREE OF RACK.
4. DO NOT WELD, CUT, OR ABRASE SURFACES OF RAILING COMPONENTS THAT ARE COATED OR FINISHED AFTER FABRICATION AND THAT ARE INTENDED FOR FIELD CONNECTION BY MECHANICAL OR OTHER MEANS WITHOUT FURTHER CUTTING OR FITTING.
5. SET POSTS PLUMB WITHIN A TOLERANCE OF 1/16 INCH IN 3 FEET.
6. CONTROL OF CORROSION: PREVENT GALVANIC ACTION AND OTHER FORMS OF CORROSION BY INSULATING METALS AND OTHER MATERIALS FROM DIRECT CONTACT WITH INCOMPATIBLE MATERIALS.
7. ADJUST RAILINGS BEFORE ANCHORING TO ENSURE MATCHING ALIGNMENT AT ABUTTING JOINTS.
8. FASTENING TO IN-PLACE CONSTRUCTION: USE ANCHORING DEVICES AND FASTENERS WHERE NECESSARY FOR SECURING RAILINGS AND FOR PROPERLY TRANSFERRING LOADS TO IN-PLACE CONSTRUCTION.
9. PROTECT FINISHES OF RAILINGS FROM DAMAGE DURING CONSTRUCTION PERIOD WITH TEMPORARY PROTECTIVE COVERINGS APPROVED BY RAILING MANUFACTURER. REMOVE PROTECTIVE COVERINGS AT TIME OF SUBSTANTIAL COMPLETION.

**04 5100 - ARCHITECTURAL WOOD CASEWORK**

- A. SUBMITTALS: SAMPLES OF FINISH MATERIALS, CATALOG CUTS OF HARDWARE, AND SHOP DRAWINGS INCLUDING GROUT, 1/32 INCH (1 MM) UNLESS OTHERWISE INDICATED. PROVIDE FINISHES, FASTENING METHODS, JOINTING DETAILS, AND ACCESSORIES.
1. SCALE OF DRAWINGS: 1/4" = 1'-0" FOOT, MINIMUM.
2. PROVIDE THE INFORMATION REQUIRED BY ANIWAHMACWI (AHS) OR AHMACWI (NAWS).
3. SUBMITTAL: SUBMIT ACTUAL SAMPLES OF ARCHITECTURAL CABINET CONSTRUCTION, MINIMUM 12 INCHES SQUARE, ILLUSTRATING PROPOSED CABINET, COUNTERTOP, AND SELF LIFT SUBSTRATE AND FINISH.
B. QUALITY STANDARD: ARCHITECTURAL WOODWORK INSTITUTES' ARCHITECTURAL WOODWORK QUALITY STANDARDS
C. QUALITY ASSURANCE:
1. FABRICATOR QUALIFICATIONS: COMPANY SPECIALIZING IN FABRICATING THE PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM FIVE YEARS OF DOCUMENTED EXPERIENCE.
D. CABINETS:
1. FINISH: STANDARD: CUSTOM GRADE, IN ACCORDANCE WITH ANIWAHMACWI (AHS) OR AHMACWI (NAWS), UNLESS NOTED OTHERWISE.
2. WOOD VENEER FACED CABINETS: CONCEALED SURFACES, MANUFACTURER'S OPTION.
3. PLASTIC LAMINATE FACED CABINETS: CUSTOM GRADE.
E. MATERIALS / ACCESSORIES / HARDWARE:
1. LAMINATES AS INDICATED IN SCHEDULES. COMPLY WITH MANUFACTURER INSTRUCTIONS.
2. ADHESIVE: TYPE RECOMMENDED BY FABRICATOR TO SUIT APPLICATION.
3. FASTENERS: SIZE AND TYPE TO SUIT APPLICATION.
4. FASTENING TO IN-PLACE CONSTRUCTION: USE ANCHORING DEVICES AND FASTENERS WHERE NECESSARY FOR CHROME-PLATED FINISH IN CONCEALED LOCATIONS AND STAINLESS STEEL OR CHROME-PLATED FINISH IN EXPOSED LOCATIONS.
5. GROMMETS: STANDARD PLASTIC, PATTERNED METAL OR RUBBER GROMMETS FOR CUT-OUTS, IN COLOR TO MATCH ADJACENT SURFACE.
6. HARDWARE: BRIMMA 4000 SERIES AS RECOMMENDED BY FABRICATOR FOR QUALITY GRADE SPECIFIED.
7. ADJUSTABLE SHELF SUPPORTS: STANDARD SIDE-MOUNTED SYSTEM USING RECESSED METAL SHELF STANDARDS OR MULTIPLE HOLES FOR PINS SUPPORTS AND COORDINATED SELF RESTS, POLISHED CHROME FINISH FOR MINIMAL 1 INCH SPRING ADJUSTMENTS.
8. DRAWER SLIDES: TYPE - EXTENSION TYPES AS INDICATED.
9. HINGES: EUROPEAN STYLE CONCEALED SELF-CLOSING TYPE (S) WITH POLISHED FINISH.
10. ADJUSTABLE JOINT FASTENERS TO ALIGN AND SECURE ADJOINING CABINET UNITS.
11. FINISH WORK IN ACCORDANCE WITH ANIWAHMACWI (AHS) OR AHMACWI (NAWS).
F. INSTALLATION:
1. INSTALL NO INTERIOR FINISH CARPENTRY OR MILLWORK UNTIL SPACES ARE ENCLOSED, DRY, AND CAPABLE OF BEING HEATED. MAINTAIN TEMPERATURE BETWEEN 55°F AND 75°F FOR 72 HOURS BEFORE BEGINNING INSTALLATION AND FOR DURATION OF PROJECT.
2. VERIFY ADEQUACY OF BACKING AND SUPPORT FRAMING.
3. VERIFY LOCATION AND SIZES OF UTILITY ROUGH-IN ASSOCIATED WITH WORK OF THIS SECTION.
4. SET AND SECURE CUSTOM CABINETS IN PLACE, ASSURING THAT THEY ARE RIGID, PLUMB, AND LEVEL.
5. USE FIXTURE ATTACHMENTS IN CONCEALED LOCATIONS FOR WALL MOUNTED COMPONENTS.
6. USE CONCEALED JOINT FASTENERS TO ALIGN AND SECURE ADJOINING CABINET UNITS.
7. CAREFULLY SCRIBE CASEWORK ABUTTING OTHER COMPONENTS, WITH MAXIMUM GAUGES OF 1/32 INCH. DO NOT USE ADDITIONAL OVERLAY TRIM FOR THIS PURPOSE.
8. SECURE CABINETS TO FLOOR USING APPROPRIATE ANGLING AND ANCHORAGES.
9. CLEAN CASEWORK, COUNTERS, SHELVES, HARDWARE, FITTINGS, AND FIXTURES.

**DIVISION 5 - METALS**

**05 5213 - PIPE AND TUBE RAILINGS**

- A. SUBMITTALS: PROJECT DATA AND SHOP DRAWINGS WITH PLANS ELEVATIONS AND SECTIONS INDICATING MEMBER SIZES AND LAYOUT, VERTICAL AND HORIZONTAL DIMENSIONS, EDGE CONDITIONS, AND CONNECTION DETAILS. INCLUDE DETAILS OF EQUIPMENT ASSEMBLIES, INDICATE DIMENSIONS, WEIGHTS, LOADS, REQUIRED CLEARANCES, METHOD OF FIELD CONNECTIONS, LOCATION AND SIZE OF EACH FIELD CONNECTION, SAMPLES FOR INITIAL SELECTION FOR EACH TYPE OF EXPOSED FINISH.
1. DELEGATED DESIGN SUBMITTAL: FOR HANDRAIL AND GUARDRAIL SYSTEMS, INCLUDING ANALYSIS DATA SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
B. DESIGN: METAL TUBE RAILINGS SHALL BE DESIGNED BY FABRICATOR TO SUPPORT CODE REQUIRED LOADING AND TO MATCH THE CONFIGURATIONS INDICATED IN THE CONSTRUCTION DOCUMENTS. SEE DRAWINGS FOR REQUIRED RAILING ELEVATIONS.
C. FIELD CONDITIONS:
1. FIELD MEASUREMENTS: VERIFY ACTUAL LOCATIONS OF WALLS AND OTHER CONSTRUCTION CONTIGUOUS WITH METAL FABRICATIONS BY FIELD MEASUREMENTS BEFORE FABRICATION.
D. PERFORMANCE REQUIREMENTS:
1. DELEGATED DESIGN: ENGINEER A QUALIFIED PROFESSIONAL ENGINEER TO DESIGN RAILINGS, INCLUDING ATTACHMENT TO BUILDING CONSTRUCTION.
2. STRUCTURAL PERFORMANCE: RAILINGS, INCLUDING ATTACHMENT TO BUILDING CONSTRUCTION, SHALL WITHSTAND THE EFFECTS OF GRAVITY LOADS AND THE FOLLOWING LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED:
A. HANDRAILS AND TOP RAILS OF GUARDS.
B. UNIFORM AND POINT LOADS (1.75 KIP) APPLIED IN ANY DIRECTION.
C. CONCENTRATED LOAD OF 200 LBS (89 KN) APPLIED IN ANY DIRECTION.
C. UNIFORM AND CONCENTRATED LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.
E. FASTENERS:
1. FASTENERS FOR ANCHORING RAILINGS TO OTHER CONSTRUCTION: SELECT FASTENERS OF TYPE, GRADE, AND CLASS REQUIRED TO PROVIDE CONNECTIONS TO CONSTRUCTION. PROVIDE RAILINGS AND RAILINGS TO OTHER TYPES OF CONSTRUCTION INDICATED AND CAPABLE OF WITHSTANDING DESIGN LOADS.
F. MISCELLANEOUS MATERIALS:
1. METAL SURFACES: GENERAL: PROVIDE MATERIALS WITH SMOOTH SURFACES, WITHOUT SEAM MARKS, ROLLER MARKS, ROLLED TRADE NAMES, STAINS, DISCOLORATIONS, OR BLEMISHES.
2. BRACKETS, FLANGES, AND ANCHORS: CAST OR FORMED METAL OF SAME TYPE OF MATERIAL AND FINISH AS SUPPORTED RAILS UNLESS OTHERWISE INDICATED.
3. PIPE: ASTM A 53A 53M, TYPE F OR TYPE 3, GRADE A, STANDARD WEIGHT (SCHEDULE 40), UNLESS ANOTHER GRADE AND WEIGHT ARE REQUIRED BY STRUCTURAL LOADS.
G. FABRICATION:
1. GENERAL: FABRICATE RAILINGS TO COMPLY WITH REQUIREMENTS INDICATED FOR DESIGN, DIMENSIONS, MEMBER SIZES AND SPACING, DETAILS, FINISH, AND ANCHORAGE, BUT NOT LESS THAN THAT REQUIRED TO SUPPORT STRUCTURAL LOADS.
2. CUT, DRILL, AND PUNCH ALUMINUM CLEANLY AND ACCURATELY. REMOVE BURRS AND EASE EDGES TO A RADIUS OF APPROXIMATELY 1/32 INCH (1 MM) UNLESS OTHERWISE INDICATED. REMOVE SHARP OR ROUGH AREAS ON EXPOSED SURFACES.
3. FABRICATE CONNECTIONS THAT ARE EXPOSED TO WEATHER IN A MANNER THAT EXCLUDES WATER. PROVIDE WEEP HOLES WHERE WATER MAY ACCUMULATE.
4. WELDED CONNECTIONS: USE FULLY WELDED JOINTS FOR PERMANENTLY CONNECTING RAILING COMPONENTS. PROVIDE REQUIREMENTS FOR WELDED CONNECTIONS IN FABRICATION ARTICLE WHETHER WELDING IS PERFORMED IN THE SHOP OR IN THE FIELD.
H. FINISH:
1. FOR NONGALVANIZED STEEL RAILINGS, PROVIDE NONGALVANIZED FERROUS-METAL FINISHES, BRACKETS, FASTENERS, AND SLEEVES, HOWEVER, GALVANIZE ANCHORS TO BE EMBEDDED IN EXTERIOR CONC OR MASONRY.
2. ADHESIVES: AS RECOMMENDED BY MEMBRANE MANUFACTURER.
3. POWER TOOL CLEANING.
I. PRIMER APPLICATION: APPLY SHOP PRIMER TO PREPARED SURFACES OF RAILINGS UNLESS OTHERWISE NOTED. COMPLY WITH REQUIREMENTS IN SSPC-PA 1 "SHOP PRIMER" AND MAINTENANCE PAINTING OF STEEL," FOR SHOP PAINTING. PRIMER NEED NOT BE APPLIED TO SURFACES TO BE EMBEDDED IN CONC OR MAS.

**DIVISION 7 - THERMAL AND MOISTURE PROTECTION**

**07 1300 - SHEET WATERPROOFING**

- A. SUBMITTALS: PRODUCT DATA, PROVIDE DATA FOR MEMBRANE.
1. PROVIDE SHOP DRAWINGS INDICATING SFEQUAL JOINT OR TERMINATION CONDITIONS AND CONDITIONS OF INTERFACE WITH OTHER MATERIALS.
2. CERTIFICATE: CERTIFY THAT PRODUCTS MEET OR EXCEED SPECIFIED REQUIREMENTS.
B. SURFACE BURNING CHARACTERISTICS:
1. FLAME SPREAD INDEX (FSI): 50 OR LESS IN EXPOSED AREAS AND PLENUMS; 450 OR LESS WHERE CONCEALED.
2. SMOKE DEVELOPED INDEX (SDI): 450 OR LESS, WHEN TESTED IN ACCORDANCE WITH ASTM E84.
C. FIELD CONDITIONS:
1. MANTAIN AMBIENT TEMPERATURES ABOVE 40 DEGREES F FOR 24 HOURS BEFORE AND DURING APPLICATION AND UNTIL LIQUID OR SOLID ACCESSORIES HAVE CURED.
D. WARRANTY:
1. CONTRACTOR SHALL CORRECT DEFECTIVE WORK WITHIN A FIVE YEAR PERIOD AFTER DATE OF SUBSTANTIAL COMPLETION. REMOVE AND REPLACE MATERIALS CONCEALING WATERPROOFING ON A NO EXTRA COST TO OWNER.
E. BASIS OF DESIGN:
1. W.R. MEADOWS, INC. MEL-ROL: WWW.WRMEADOWS.COM
F. MATERIALS:
1. SELF-ADHERING MEMBRANE: AS RECOMMENDED BY MANUFACTURER.
2. TERMINATION BARS: ALUMINUM, COMPATIBLE WITH MEMBRANE AND ADHESIVES.
3. SURFACE CONDITIONER: COMPATIBLE WITH MEMBRANE.
4. ADHESIVES: AS RECOMMENDED BY MEMBRANE MANUFACTURER.
5. THINNER AND CLEANER: AS RECOMMENDED BY ADHESIVE MANUFACTURER, COMPATIBLE WITH MEMBRANE.
G. ACCESSORIES:
1. SEALANT FOR CRACKS AND JOINTS IN SUBSTRATES: RESILIENT ELASTOMERIC JOINT SEALANT COMPATIBLE WITH SUBSTRATES AND WATERPROOFING MATERIALS.
2. PROTECTION BOARD: PROVIDE TYPE CAPABLE OF PREVENTING DAMAGE TO WATERPROOFING DUE TO BACKFILLING AND CONSTRUCTION TRAFFIC.
H. INSTALLATION:
1. DO NOT INSTALL INSULATION ADHESIVES WHEN TEMPERATURE OR WEATHER CONDITIONS ARE DETRIMENTAL TO SUCCESSFUL INSTALLATION.
2. INSTALL INSULATION IN AREAS AND IN THICKNESSES INDICATED OR REQUIRED TO PRODUCE R-VALUES WHERE INDICATED. CUT AND FIT TIGHTLY AROUND OBSTRUCTIONS AND FILL VOIDS WITH INSULATION.
3. INSTALL IN EXTERIOR WALL AND CEILING SPACES WITHOUT GAPS OR VOIDS. DO NOT COMPRESS INSULATION.
4. TRIM AND FIT SPLICERS TO FIT SPLICER. INSULATE MANTAINING MINIMUM 1/2" OVERLAP.
5. EXTEND VAPOR BARRIER TO EXTERIMTES OR FROM VAPOR TRANSMISSION SECURE IN PLACE WITH ADHESIVES OR OTHER ANCHORAGE AS RECOMMENDED BY MANUFACTURER. LOCATE SEAMING AT FRAMING MEMBERS, OVER LAP AND SEAL WITH SUITABLE TAPE (DUCT TAPE IS NOT SUITABLE).
6. DO NOT PERMIT INSTALLED INSULATION TO BE DAMAGED PRIOR TO COMPLETION.

**DIVISION 7 - THERMAL AND MOISTURE PROTECTION (CONTINUED)**

- 07 1300 - SHEET WATERPROOFING (CONTINUED)
A. WEATHER LAP JOINTS ON SLOPED SUBSTRATE IN DIRECTION OF DRAINAGE, AND SEAL JOINTS AND SEAMS WITH FLEXIBLE FLASHINGS.
B. FLEXIBLE FLASHINGS: SEAL ITEMS TIGHTLY THAT PENETRATE THROUGH WATERPROOFING MEMBRANE WITH FLEXIBLE FLASHINGS.
C. PRESERVATIVE TREATED LUMBER IS REQUIRED FOR ALL ITEMS TO REMAIN IN CONTACT WITH CONCRETE OR MASONRY TO CONFORM TO AIAA STANDARD 5.
D. RLYWOOD SHALL BE CD GRADE APA PR OR YELLOW PINE. ALL PLY-WOOD TO BE FIRE RATED WHERE WALLS ARE INDICATED AS RATED CONSTRUCTION.
E. BLOCKING SHALL BE CLOSELY FITTED, ACCURATELY SET TO REQUIRED LINES & LEVELS, SECURELY CONNECTED & RIGIDLY FIRED IN PLACE. UNITS, SCREWS, AND BOLTS AS INDICATED OR REQUIRED BY GOOD PRACTICE AND MANUFACTURER'S RECOMMENDATIONS.
07 1400 - FLUID-APPLIED WATERPROOFING
A. SUBMITTALS:
1. PRODUCT DATA: PROVIDE DATA FOR MEMBRANE, SURFACE CONDITIONER, FLEXIBLE FLASHINGS, JOINT COVER SHEET, AND JOINT AND CRACK SEALANTS.
2. WARRANTY:
1. MANUFACTURER WARRANTY AND ENSURE THAT FORMS HAVE BEEN COMPLETED IN OWNER'S NAME AND REGISTERED WITH MANUFACTURER.
B. REFERENCE STANDARDS:
1. ASTM E1545/1548: STANDARD TEST METHODS FOR WATER VAPOR RETARDERS USED IN CONTACT WITH EARTH UNDER CONCRETE SLABS, ON WALLS, OR AS GROUND COVER 2008A, WITH EDITORIAL REVISION (2013).
2. NRCA (WV) - THE NRCA WATERPROOFING MANUAL 2021.
C. QUALITY ASSURANCE:
1. MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION, WITH NOT LESS THAN THREE YEARS DOCUMENTED EXPERIENCE.
2. INSURE QUALIFICATIONS COMPANY WITH NOT LESS THAN THREE YEARS WORK OF THE TYPE SPECIFIED AND WITH AT LEAST THREE YEARS OF DOCUMENTED EXPERIENCE.
D. MOCK-UP:
1. CONSTRUCT MOCK-UP CONSISTING OF 100 SQ FT OF HORIZONTAL WATERPROOFED PANEL; TO REPRESENT FINISH INCLUDING INTERNAL AND EXTERNAL CORNERS, DRAINAGE PANEL, BASE FLASHINGS, CONTROL JOINTS, EXPANSION JOINTS, COUNTERFLASHINGS.
E. FIELD CONDITIONS:
1. MANTAIN AMBIENT TEMPERATURES ABOVE 40 DEGREES F FOR 24 HOURS BEFORE AND DURING APPLICATION AND UNTIL CURED.
F. PRODUCTS:
1. COLD-APPLIED RUBBERIZED ASPHALT WATERPROOFING:
A. AIAA INDUSTRIES, INC. AIAA SYSTEM 500 (AUSSE MEMBRANE)
B. POSSIBLE STAGGER JOINTS IN ADJACENT AND RELATED MEMBERS.
C. EPPO WATERPROOFING SYSTEMS; ECOLINE-S; WWW.EPPOSERV.COM/US/LE.
COLD-APPLIED RUBBERIZED ASPHALT WATERPROOFING, RUBBERIZED ASPHALTIC COMPOUND, SUITABLE FOR INSTALLATION ON CONCRETE AND CONCRETE MASONRY.
1. COMPLY WITH ICC-ES E-2029. EVIDENCE OF COMPLIANCE INCLUDES CURRENT ICC-ES EVALUATION REPORT CTRM ICC-ES 4028.
2. HYDROSTATIC PRESSURE RESISTANCE: WHEN TESTED IN ACCORDANCE WITH ASTM C1308/C1308M, AT LEAST 30 POUNDS PER SQUARE INCH BY THE LONG TEST AND AT LEAST 35 POUNDS PER SQUARE INCH BY THE SHORT TEST.
3. LOW TEMPERATURE RESISTANCE: NO CRACKING, LOSS OF ADHESION, SPLITTING OR PINHOLES WHEN TESTED AT MINUS 15 DEGREES F IN ACCORDANCE WITH ASTM C826/C826M.
4. ADHESION TO SUBSTRATE WHEN TESTED IN ACCORDANCE WITH ASTM C826/C826M.
5. DECAY RESISTANCE: 10 DEGREES F WHEN TESTED IN ACCORDANCE WITH ASTM E1645/E1644.
6. WET FUL SAG RESISTANCE: NO SAG OR SAG WITH PLUS MINUS 5 MILS WHEN TESTED IN ACCORDANCE WITH ASTM C836/C836M.
2. WATER-BASED ASPHALT EMULSION WATERPROOFING:
A. MAR-FLEX WATERPROOFING & BUILDING PRODUCTS, ARMORMEMBRANE 363 WATER-BASED: WWW.MAR-FLEX.COM/US/LE.
B. DIMENSIONAL COMPLIANCE: A WATERPROOFING, TREMPROOF 260: WWW.TREMCOSEALANTS.COM/US/LE.
C. W. R. MEADOWS, INC. MEL-ROL: WWW.WRMEADOWS.COM/US/LE.
D. CURING TIMES: 8 HOURS.
E. ADHESION TO SUBSTRATE:
1. SUITABLE FOR INSTALLATION OVER CONCRETE SUBSTRATES.
2. ELONGATION: 100% PERCENT MEASURED IN ACCORDANCE WITH ASTM D412 WITH COATING MATERIALS.
3. ADHESION: GREATER THAN 150 PSI, MEASURED IN ACCORDANCE WITH ASTM D4541.
G. ACCESSORIES:
1. SEALANT FOR JOINTS AND CRACKS IN SUBSTRATE: TYPE COMPATIBLE WITH WATERPROOFING MATERIAL AND AS RECOMMENDED BY WATERPROOFING MANUFACTURER.
H. EXAMINATION:
1. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK.
2. CLEAN AND PREPARE SURFACES TO RECEIVE WATERPROOFING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. VACUUM SUBSTRATE CLEAN.
3. DO NOT APPLY WATERPROOFING TO SURFACES UNACCEPTABLE TO WATERPROOFING MANUFACTURER.
4. SEAL MOVING CRACKS WITH SEALANT AND NON-RIGID FILLER, USING PROCEDURES RECOMMENDED BY SEALANT AND WATERPROOFING MANUFACTURERS.
5. SEAL JOINTS AND CRACKS WITH A FILLER COMPATIBLE WITH WATERPROOFING MATERIALS.
6. INSTALL CANT STRIPS AT INSIDE CORNERS.
I. PREPARATION:
1. PROTECT ADJACENT SURFACES FROM DAMAGE NOT DESIGNATED TO RECEIVE WATERPROOFING.
2. CLEAN AND PREPARE SURFACES TO RECEIVE WATERPROOFING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. VACUUM SUBSTRATE CLEAN.
3. DO NOT APPLY WATERPROOFING TO SURFACES UNACCEPTABLE TO WATERPROOFING MANUFACTURER.
4. SEAL MOVING CRACKS WITH SEALANT AND NON-RIGID FILLER, USING PROCEDURES RECOMMENDED BY SEALANT AND WATERPROOFING MANUFACTURERS.
5. SEAL JOINTS AND CRACKS WITH A FILLER COMPATIBLE WITH WATERPROOFING MATERIALS.
6. INSTALL CANT STRIPS AT INSIDE CORNERS.
J. INSTALLATION:
1. INSTALL WATERPROOFING TO SPECIFIED MINIMUM THICKNESS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND NRCA (WV) APPLICABLE REQUIREMENTS.
2. PROTECT SURFACE CONDITIONER AT A RATE RECOMMENDED BY MANUFACTURER, AND PROTECT CONDITIONER FROM AIR OR FROST UNTIL DRY.
3. AT JOINTS AND CRACKS LESS THAN 1/2 INCH IN WIDTH INCLUDING JOINTS BETWEEN HORIZONTAL AND VERTICAL SURFACES, APPLY TO THICK STRIP OF JOINT COVER SHEET.
4. APPLY EXTRA THICKNESS OF WATERPROOFING MATERIAL AT CORNERS, INTERSECTIONS, AND ANGLES.
5. SEAL MEMBRANE AND FLASHINGS TO ADJOINING SURFACES.

**07 2000 - WEATHER BARRIERS**

- A. SUBMITTALS: PRODUCT DATA, PROVIDE DATA ON MATERIAL CHARACTERISTICS, SHOP DRAWINGS, PROVIDE DRAWINGS OF SPECIAL JOINT CONDITIONS.
B. WARRANTY: STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE ASPHALT SHINGLES THAT FAIL IN MATERIALS OR WORKMANSHIP WITH SPECIFIED WARRANTY PERIOD.
1. MATERIAL WARRANTY PERIOD: 30 YEARS FROM DATE OF SUBSTANTIAL COMPLETION, PRORATED, WITH FIRST FIVE YEARS NONPRORATED.
2. ALGAE-DISCOLORATION WARRANTY PERIOD: ASPHALT SHINGLES WILL NOT DISCOLOR 10 YEARS FROM DATE OF SUBSTANTIAL COMPLETION.
C. BASIS OF DESIGN: SUITABLE TO COMPLIANCE WITH REQUIREMENTS, PROVIDE TIMBERLINE 30 SHINGLES AS MANUFACTURED BY GAF ROOFING PRODUCTS OR APPROVED EQUAL WITH GRANULES TREATED TO RESIST ALGAE-DISCOLORATION. COLOR SHALL BE SELECTED BY THE ARCHITECT.
D. MATERIALS:
1. ASPHALT SHINGLE: ASPHALT SHINGLES: ASTM D 3462, LAMINATED, MULTILAYER OVERLAY CONSTRUCTION, GLASS-FIBER REINFORCED, MINERAL-GRANULE SURFACED, AND SELF-SEALING.
2. FEL

**SPECIFICATIONS - PRODUCT & INSTALLATION GENERAL REQUIREMENTS**

**DIVISION 7 - THERMAL AND MOISTURE PROTECTION (CONTINUED)**

**07 8200 - SHEET METAL FLASHING AND TRIM (CONTINUED)**

**E. PRODUCTS**  
PRE-FINISHED ALUMINUM: ASTM B209 (ASTM B209M), 20 GAUGE, (0.032 INCH) THICK, FLAIN FINISH  
SHOP PRE-COATED WITH MODIFIED SILICONE COATING  
1. FLUOROPOLYMER FINISH: SUPERIOR PERFORMANCE ORGANIC FINISH, AAMA 2604, MULTIPLE COAT, THERMALLY CURED FLUOROPOLYMER FINISH SYSTEM  
2. COLOR AS SELECTED BY ARCHITECT FROM MANUFACTURERS STANDARD COLORS.

**F. FABRICATION**  
1. FORM SECTIONS TRUE TO SHAPE, ACCURATE IN SIZE, SQUARE, AND FREE FROM DISTORTION OR DEFECTS.  
2. FORM PIECES IN LOWEST POSSIBLE LENGTHS.  
3. HEM EXPOSED EDGES ON UNDERSIDE 1/2 INCH, MITER AND SEAM CORNERS.  
4. FORM MATERIAL WITH FLAT LOCK SEAMS, EXCEPT WHERE OTHERWISE INDICATED; AT MOVING JOINTS, USE SEALED LAP JOINTS, BAYONET TYPE OR INTERLACED HOOKED SEAMS.  
5. FABRICATE FLASHINGS TO ALLOW TIE TO EXTEND 2 INCHES OVER ROOFING GRAVEL, RETURN AND BRAKE EDGES.

**G. ACCESSORIES**  
1. FASTENERS: GALVANIZED STEEL, WITH SOFT NEOPRENE WASHERS.  
2. PRIMERS: ZINC CHROMATE TYPE.  
3. CONCEALED SEALANTS: NON-CURING BUTYL SEALANT, WITH MINIMUM MOVEMENT CAPABILITY AS APPROVED.  
4. SEALED SEALANTS: ASTM D202, ELASTOMERIC SEALANT, WITH MINIMUM MOVEMENT CAPABILITY AS APPROVED BY MANUFACTURER FOR SUBSTRATES TO BE SEALED; COLOR TO MATCH ADJACENT MATERIAL.

**H. INSTALLATION**  
1. SECURE FLASHINGS IN PLACE USING CONCEALED FASTENERS, AND USE EXPANDED FASTENERS ONLY WHERE PERMITTED.  
2. APPLY PLASTIC CEMENT COMPOUND BETWEEN METAL FLASHING AND FELT FLASHINGS.  
3. FIT FLASHINGS TIGHT PLATE, MAKE CORNERS SQUARE, SURFACES TRUE AND STRAIGHT IN PLANES, AND LINES ACCURATE TO PROFILES.  
4. SEAL METAL JOINTS WATER-TIGHT.

**07 8100 - APPLIED FIREPROOFING**

**A. SUBMITTALS**: PRODUCT DATA, PROVIDE DATA INDICATING PRODUCT CHARACTERISTICS  
1. TEST REPORTS: REPORTS FROM REPUTABLE INDEPENDENT TESTING AGENCIES FOR PROPOSED PRODUCTS, INDICATING COMPLIANCE WITH SPECIFIED CRITERIA, CONDUCTED UNDER CONDITIONS SIMILAR TO THOSE ON PROJECT, AS FOLLOWS:  
A. BOND STRENGTH  
B. BOND IMPACT  
C. COMPRESSIVE STRENGTH  
D. FIRE TESTING USING SUBSTRATE MATERIALS SIMILAR THOSE ON PROJECT.

2. MANUFACTURER'S INSTALLATION INSTRUCTIONS: INDICATE SPECIAL PROCEDURES.  
3. MANUFACTURER'S QUALIFICATION STATEMENT.

**B. FIELD CONDITIONS**  
1. DO NOT APPLY FIREPROOFING WHEN TEMPERATURE OF SUBSTRATE MATERIAL AND SURROUNDING AIR IS BELOW 40 DEGREES F OR WHEN TEMPERATURE IS PREDICTED TO BE BELOW SAID TEMPERATURE FOR 24 HOURS AFTER APPLICATION.  
2. PROVIDE PROTECTIVE ENCLOSURE TO RECEIVE FIREPROOFING DURING APPLICATION AND 24 HOURS AFTERWARD, TO DRY APPLIED MATERIAL.  
3. PROVIDE TEMPORARY ENCLOSURE TO PREVENT SPRAY FROM CONTAMINATING AIR.

**C. WARRANTY**  
1. CORRECT DEFECTIVE WORK WITHIN A TWO YEAR PERIOD AFTER DATE OF SUBSTANTIAL COMPLETION.  
2. INCLUDE COVERAGE FOR DAMAGE TO REMAIN FREE FROM CRACKING, CHECKING, DUSTING, FLAKING, SPALLING, SEPARATION, AND BLISTERING.  
3. REINSTALL OR REPAIR FAILURES THAT OCCUR WITHIN WARRANTY PERIOD.

**D. MANUFACTURERS**  
1. GCP APPLIED TECHNOLOGIES - WWW.GCPAT.COM/COMP-FIREPROOFING  
2. SOLATEX INTERNATIONAL CORP - WWW.SOLATEX.COM  
3. SOUTHWEST FIREPROOFING PRODUCTS COMPANY - WWW.SWFPM.COM

**E. MATERIALS**  
1. PROVIDE ASSEMBLIES AS INDICATED ON DRAWINGS.  
2. PROVIDE FIRE RESISTANCE RATINGS FOR FOLLOWING BUILDING ELEMENTS AS REQUIRED BY LOCAL BUILDING CODE:  
A. PRIMARY STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, AND TRUSSES (1 HOUR)  
B. BEARING WALLS, INTERIOR (1 HOUR)  
C. FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS (1 HOUR)  
D. ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS (1 HOUR)

**F. MATERIALS**: APPLIED FIREPROOFING MATERIAL FOR INTERIOR APPLICATIONS, CONCEALED, MANUFACTURER'S STANDARD FACTORY MIXED MATERIAL, WHICH WHEN COMBINED WITH WATER IS CAPABLE OF PROVIDING INDICATED FIRE RESISTANCE, AND COMPLYING WITH FOLLOWING REQUIREMENTS:  
1. COMPOSITION: GYPSUM-BASED, 100% ANHYDRITE, TYPE A.  
2. BOND STRENGTH: 150 POUNDS PER SQUARE FOOT, MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM E763/826M WHEN SET AND DRY.  
3. DRY DENSITY: AS REQUIRED BY FIRE RESISTANCE DESIGN.  
4. COMPRESSIVE STRENGTH: 8.33 POUNDS PER SQUARE INCH, MINIMUM.  
5. EFFECT OF IMPACT ON BONDING: NO CRACKING, SPALLING OR DELAMINATION, WHEN TESTED IN ACCORDANCE WITH ASTM E763/826M.  
6. CORROSION: V. NO EVIDENCE OF CORROSION, WHEN TESTED IN ACCORDANCE WITH ASTM E937/937M.  
7. SURFACE BURNING CHARACTERISTICS: MAXIMUM FLAME SPREAD INDEX OF 0 (ZERO) AND MAXIMUM SMOKE DEVELOPED INDEX OF 0 (ZERO), WHEN TESTED IN ACCORDANCE WITH ASTM E84.

**G. ACCESSORIES**  
1. PRIMER: ADHESIVE OF TYPE RECOMMENDED BY APPLIED FIREPROOFING MANUFACTURER.  
2. OVERCOAT: AS RECOMMENDED BY MANUFACTURER OF APPLIED FIREPROOFING MATERIAL.  
3. METAL LATH: EXPANDED METAL LATH; MINIMUM WEIGHT OF 17 PSF; GALVANIZED FINISH.  
4. WATER-CURABLE, POTABLE.

**H. INSTALLATION**  
1. VERIFY THAT SURFACES ARE READY TO RECEIVE FIREPROOFING.  
2. VERIFY THAT CUTS, PIPING, EQUIPMENT, OR OTHER ITEMS THAT WOULD INTERFERE WITH APPLICATION OF FIREPROOFING HAVE NOT BEEN IDENTIFIED.  
3. VERIFY THAT VOIDS AND CRACKS IN SUBSTRATE HAVE BEEN FILLED.  
4. VERIFY THAT PROJECTIONS HAVE BEEN REMOVED WHERE FIREPROOFING WILL BE EXPOSED TO VIEW AS A FINISH MATERIAL.  
5. PERFORM TESTS AS RECOMMENDED BY FIREPROOFING MANUFACTURER IN APPLICATIONS WHERE ADHESION OF FIREPROOFING TO SUBSTRATE IS IN QUESTION.  
6. REMOVE INCOMPATIBLE MATERIALS THAT COULD EFFECT BOND BY SCRAPING, BRUSHING, SCRUBBING, OR SANDBLASTING.  
7. PREPARE SUBSTRATES TO RECEIVE FIREPROOFING IN STRICT ACCORDANCE WITH INSTRUCTIONS OF FIREPROOFING MANUFACTURER.  
8. APPLY FIREPROOFING MANUFACTURER'S RECOMMENDED BONDING AGENT ON PRIMED STEEL.  
9. INSTALL METAL LATH OVER STRUCTURAL MEMBERS AS INDICATED OR AS REQUIRED BY UL ASSEMBLY DESIGN NUMBERS.  
10. APPLY FIREPROOFING IN UNIFORM THICKNESS AND DENSITY AS NECESSARY TO ACHIEVE REQUIRED RATINGS.  
11. INSPECT INSTALLED FIREPROOFING AFTER APPLICATION AND CURING FOR INTEGRITY, PRIOR TO ITS CONCEALMENT.  
12. ENSURE THAT ACTUAL THICKNESSES, DENSITIES, AND BOND STRENGTHS MEET REQUIREMENTS FOR SPECIFIED RATINGS AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION (A/HJ).  
13. REMOVE EXCESS MATERIAL, OVERSPRAY, DROPPINGS, AND DEBRIS.  
14. REMOVE FIREPROOFING FROM MATERIALS AND SURFACES NOT REQUIRED TO BE FIREPROOFED.

**07 4110 - ROOFING MATERIALS & ACCESSORIES**

**A. SUBMITTALS**: PROVIDE DATA ON SHAPE OF COMPONENTS, MATERIALS AND FINISHES, ANCHOR TYPES AND LOCATIONS.  
**B. SHOP DRAWINGS**: INDICATE CONFIGURATION AND DIMENSION OF COMPONENTS, ADJACENT CONSTRUCTION, REQUIRED CLEARANCES AND TOLERANCES, AND OTHER AFFECTED WORK.  
**C. WARRANTY**: SPECIAL WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF SYSTEMS THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.  
1. WARRANTY PERIOD: TWO YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

**D. PRODUCTS**  
A. ROOF EDGES FLASHINGS: FACTORY FABRICATED TO SIZES REQUIRED; CORNERS MITERED; CONCEALED FASTENERS.  
1. CONFIGURATION: FASCIA, CANT, AND EDGE SECUREMENT FOR ROOF MEMBRANE.  
2. PULL-OFF RESISTANCE: TESTED IN ACCORDANCE WITH ANSHP/SPM A453ES-1 USING TEST METHOD RE-1 AND RE-2 TO POSITIVE AND NEGATIVE DESIGN WIND PRESSURE AS DEFINED BY APPLICABLE LOCAL BUILDING CODE.  
3. CORNINGS: FACTORY FABRICATED TO SIZES REQUIRED; CORNERS MITERED; CONCEALED FASTENERS.  
4. CONFIGURATION: HOLD-DOWN BOLTS, ANCHORS, DROPPINGS, AND DEBRIS.  
5. PULL-OFF RESISTANCE: TESTED IN ACCORDANCE WITH ANSHP/SPM A453ES-1 USING TEST METHOD RE-3 TO POSITIVE AND NEGATIVE DESIGN WIND PRESSURE AS DEFINED BY APPLICABLE LOCAL BUILDING CODE.  
6. 24 GA. GALVALUME: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF SYSTEMS THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.  
1. WARRANTY PERIOD: TWO YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

**E. FINISHES**  
A. PVDF (POLYVINYLIDENE FLUORIDE) COATING: SUPERIOR PERFORMANCE ORGANIC FINISH, AAMA 2605, MULTIPLE COAT, THERMALLY CURED FLUOROPOLYMER FINISH SYSTEM; COLOR AS INDICATED.

**F. INSTALLATION**  
A. INSTALL COMPONENTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND NRCA (RM) APPLICABLE REQUIREMENTS.  
B. SEAL JOINTS WITH COMPONENTS WHEN REQUIRED BY COMPONENT MANUFACTURER.  
C. COORDINATE INSTALLATION OF COMPONENTS OF THIS SECTION WITH INSTALLATION OF ROOFING MEMBRANE AND BASE FLASHINGS.

**07 8400 - FIRESTOPPING**

**A. SUBMITTALS**: PRODUCT DATA, PROVIDE DATA ON PRODUCT CHARACTERISTICS, PERFORMANCE RATINGS, AND LIMITATIONS.  
**B. MANUFACTURERS**  
1. 3M FIRE PROTECTION PRODUCTS: HTTPS://WWW.3M.COM/3MEN\_US/0/BUILIDING-MATERIALS/FIRE-PROTECTION/2  
2. HILTI, INC.: HTTPS://WWW.HILTI.COM/CNCLS\_FIRESTOP\_PROTECTION\_7131  
**C. MATERIALS**  
1. FIRESTOPPING MATERIALS: ANY MATERIALS MEETING REQUIREMENTS.  
2. PREPARED SLEEVES, FORMS, INSULATION PACKING, AND ACCESSORIES: PROVIDE TYPE OF MATERIALS AS REQUIRED FOR TESTED FIREPROOFING ASSEMBLY.  
3. FIRE RATINGS: REFER TO DRAWINGS FOR REQUIRED SYSTEMS AND RATINGS.

**D. ASSEMBLY REQUIREMENTS**  
1. HEAD-OF-WALL JOINT SYSTEM FIRESTOPPING AT JOINTS BETWEEN FIRE-RATED WALL ASSEMBLIES AND NON-RATED HORIZONTAL ASSEMBLIES: USE SYSTEM THAT HAS BEEN TESTED ACCORDING TO ASTM E813 TO HAVE FIRE RESISTANCE F RATING EQUAL TO REQUIRED FIRE RATING OF FLOOR OR WALL, WHICHEVER IS GREATER.  
2. FLOOR-TO-WALL, WALL-TO-WALL, AND WALL-TO-FLOOR JOINTS, EXCEPT PERIMETER, WHERE BOTH ARE FIRE-RATED: USE SYSTEM THAT HAS BEEN TESTED ACCORDING TO ASTM E1986 OR UL 2073 TO HAVE FIRE RESISTANCE F RATING EQUAL TO REQUIRED FIRE RATING OF THE ASSEMBLY IN WHICH THE JOINT OCCURS.  
3. THROUGH PENETRATION FIRESTOPPING: USE SYSTEM THAT HAS BEEN TESTED ACCORDING TO ASTM E814 TO HAVE FIRE RESISTANCE F RATING EQUAL TO REQUIRED FIRE RATING OF PENETRATED ASSEMBLY.

**E. INSTALLATION**  
1. INSTALLATIONS SHALL CONFORM TO UL REQUIREMENTS OF THE ASSEMBLY WHICH FIRESTOPPING IS TO BECOME PART OF THE BUILT ASSEMBLY.

**07 8200 - JOINT SEALANTS**

**A. SUBMITTALS**: PRODUCT DATA, AND SCHEDULE OF LOCATIONS FOR EACH TYPE OF SEALANT SUBMITTED.  
**B. JOINT-SEALANT SCHEDULE**: INCLUDE THE FOLLOWING INFORMATION:  
1. JOINT-SEALANT APPLICATION, JOINTS, JOINTS AND/OR DEMONSTRATION.  
2. JOINT-SEALANT MANUFACTURER AND PRODUCT NAME.  
3. JOINT-SEALANT FORMULATION.  
4. JOINT-SEALANT COLOR.

**C. ENVIRONMENTAL LIMITATIONS**: DO NOT PROCEED WITH INSTALLATION OF JOINT SEALANTS WHEN AMBIENT AND SUBSTRATE TEMPERATURES AND HUMIDITIES ARE OUTSIDE LIMITS PERMITTED BY JOINT SEALANT MANUFACTURER OR ARE BELOW 40 deg F (4.4 deg C).  
**D. COMPATIBILITY**: PROVIDE JOINT SEALANTS, JOINT FILLS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER SERVICE AND APPLICATION CONDITIONS.

**E. JOINT SEALANTS**  
1. COLORS OF EXPOSED JOINT SEALANTS AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.  
2. INTERIOR JOINTS IN CERAMIC TILE AND OTHER HARD SURFACES IN KITCHENS, TOILET ROOMS, AND AROUND PLUMBING FIXTURES, SINGLE COMPONENT, MILDEW/RESISTANT SILICONE SEALANT, ASTM C 820, TYPE S, GRADE NS, CLASS 25; USES NT, G, A, AND D, FORMULATED WITH FLUOROCURE.  
3. INTERIOR JOINTS AROUND PERIMETERS OF DOORS AND FRAMES: LATEX SEALANT, SINGLE COMPONENT, NONSAG, MILDEW-RESISTANT, PAINTABLE, ACRYLIC EMULSION SEALANT COMPLYING WITH ASTM C 834.  
4. ACQUACUL SEALANT FOR EXPOSED INTERIOR JOINTS: NONSAG, PAINTABLE, NONSTAINING, LATEX CRYSTAL.  
5. ACQUACUL SEALANT FOR CONCEALED JOINTS: NONDORING, NONHARDENING, NONSKINKING, NONSTAINING, GUNNABLE, SYNTHETIC-RUBBER SEALANT RECOMMENDED FOR SEALING INTERIOR CONCEALED JOINTS TO REDUCE TRANSMISSION OF AIRBORNE SOUND.  
6. EXTERIOR CONCRETE PANELS, NATURAL STONES, MASONRY, ALUMINUM CURTAINWALLS, METAL PANELS AND WINDOW PERIMETERS.  
**BASES OF DESIGN PRODUCTS**  
A. TREMCO INCORPORATED, SPECTREM 1.  
B. DOW CORNING CORPORATION, 790.  
C. TRECOA CORPORATION, BRIDGE.  
D. EXTERIOR JOINTS IN HORIZONTAL TRAFFIC SURFACES: ISOLATION AND CONTRACTION JOINTS IN CAST-IN-PLACE CONCRETE SLABS: URETHANE JOINT SEALANT, MULTICOMPONENT, NONSAG, TRAFFIC GRADE, CLASS 25.  
E. FIRE STOP SEALANTS: INSTALL AT FIRE ASSEMBLIES AND AS DIRECTED WITH UL REFERENCES.  
F. BASIS OF DESIGN PRODUCTS:  
A. HILTI  
B. 3M

**E. JOINT SEALANT BACKING**  
1. GENERAL: PROVIDE SEALANT BACKINGS OF MATERIAL THAT ARE NONSTAINING; ARE COMPATIBLE WITH JOINT SUBSTRATES, SEALANTS, PRIMERS, AND OTHER JOINT FILLERS; AND ARE APPROVED FOR APPLICATIONS INDICATED BY SEALANT MANUFACTURER BASED ON FIELD EXPERIENCE AND LABORATORY TESTING.  
2. CYLINDRICAL SEALANT BACKINGS: ASTM C 1330, TYPE C, CLOSED-CELL MATERIAL WITH A SURFACE SKIN, AND OF SIZE AND DENSITY TO CONTROL SEALANT DEPTH AND OTHERWISE CONTRIBUTE TO PRODUCING OPTIMUM SEALANT PERFORMANCE.  
3. BOND-BREAKER TAPE: POLYETHYLENE TAPE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MANUFACTURER FOR PREVENTING SEALANT FROM ADHERING TO RIGID, INFLEXIBLE JOINT-FILLER MATERIALS OR JOINT SURFACES AT BACK OF JOINT. PROVIDE SELF-ADHESIVE TAPE WHERE APPLICABLE.

**F. MISCELLANEOUS MATERIALS**  
1. PRIMER: MATERIAL RECOMMENDED BY JOINT-SEALANT MANUFACTURER WHERE REQUIRED FOR ADHESION OF SEALANT TO JOINT SUBSTRATES INDICATED, AS DETERMINED FROM PRECONSTRUCTION JOINT-SEALANT SUBSTRATE TESTS AND FIELD TESTS.  
2. CLEANERS FOR NONPOROUS SURFACES: CHEMICAL CLEANERS ACCEPTABLE TO MANUFACTURERS OF SEALANTS AND SEALANT BACKING MATERIALS, FREE OF OILY RESIDUES OR OTHER SUBSTANCES CAPABLE OF STAINING OR HARMING JOINT SUBSTRATES.  
3. FORMULATED TO PROMOTE OPTIMUM ADHESION OF SEALANTS TO JOINT SUBSTRATES.  
4. BOND-BREAKER TAPE: POLYETHYLENE TAPE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MANUFACTURER FOR PREVENTING SEALANT FROM ADHERING TO RIGID, INFLEXIBLE JOINT-FILLER MATERIALS OR JOINT SURFACES AT BACK OF JOINT.  
5. MASKING TAPE: NONSTAINING, NONABSORBENT MATERIAL COMPATIBLE WITH JOINT SEALANTS AND SURFACES ADJACENT TO JOINTS.

**G. INSTALLATION**: COMPLY WITH ASTM C 1193, ASTM C 919 FOR ACQUACUL JOINTS, AND AS FOLLOWS:  
1. REMOVE ALL LOOSE MATERIALS, CLEAN AND REPAIR JOINTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, AND ADJACENT ADJACENT SURFACES.  
2. INSTALL BOND-BREAKER TAPE WHERE JOINT BACKINGS ARE NOT USED.  
3. INSTALL SEALANT TOOD CONCISE, FREE OF AIR POCKETS, FOREIGN EMBEDDED MATTER, RIDGES, AND SAGS, AND PROTECT UNTIL FULLY CURED. SEALANT WITH DUST AND DEBRIS EMPLOYED TO BE REMOVED PRIOR TO REJECTION.  
**07 8100 - DOOR HARDWARE**  
**A. SUBMITTALS**: PRODUCT DATA AND HARDWARE SCHEDULE INDICATING HARDWARE ITEM, FINISH, AND QUANTITY.  
1. REMOVE ALL LOOSE MATERIALS, CLEAN AND REPAIR JOINTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, AND ADJACENT ADJACENT SURFACES.  
2. INTERIOR DOOR FRAMES, NON-FIRE RATED: FACE WELDED TYPE; FRAME FINISH: FACTORY FINISHED.  
3. FULL LENGTH STOPS: FRAME METAL THICKNESS: 18 GAUGE, 0.042 INCH, MINIMUM.  
4. DOOR FRAMES, FIRE-RATED: FACE WELDED TYPE; FIRE RATING: SAME AS DOOR, LABELED.  
5. FULL LENGTH STOPS: FRAME METAL THICKNESS: 18 GAUGE, 0.042 INCH, MINIMUM.  
6. SOUND-RATED DOOR FRAMES: FULL PROFILE/CONTINUOUSLY WELDED TYPE.  
7. FRAME METAL THICKNESS: 18 GAUGE, 0.042 INCH, MINIMUM.  
8. INTERIOR DOOR FRAMES: COMPLY WITH FRAME REQUIREMENTS IN ACCORDANCE WITH CORRESPONDING DOOR.  
9. BORROWED LITES GLAZING FRAMES: CONSTRUCTION AND FACE DIMENSIONS TO MATCH DOOR FRAMES, AND AS INDICATED ON DRAWINGS.  
10. FRAMES IN MASONRY WALLS: SIZE TO SUIT MASONRY COURSING WITH HEAD MEMBER 4 INCH HIGH TO FILL OPENING WITHOUT CUTTING MASONRY MATERIALS.  
11. FRAMES WIDER THAN 4 INCH NOMINAL: REINFORCE WITH STEEL CHANNEL FITTED TIGHTLY INTO FRAME HEAD, FLUSH WITH TOP SURFACE.  
12. IN GENERAL, HARDWARE FINISH SHALL BE US15 (SATN NIKEL), UNLESS SPECIFIED DIFFERENTLY ON HARDWARE SCHEDULE.  
13. SUPPLY CAL. ROVAL HDPS3 FLEXIBLE DOOR STOPS IN THE APARTMENT DWELLING UNITS. USE 2 WHP-23 HINGE STOPS WHERE FLEXIBLE STOPS CANNOT BE USED.  
14. SUPPLY OUT SWINGING EXTERIOR DOORS WITH NON REMOVABLE PINS.  
**H. ACCESSORIES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**I. INSTALLATION**  
1. INSTALL DOORS AND FRAMES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RELATED REQUIREMENTS OF SPECIFIED DOOR AND FRAME STANDARDS OR CUSTOM GUIDELINES INDICATED.  
2. INSTALL PREFINISHED FRAMES AFTER PAINTING AND WALL FINISHES ARE COMPLETE.  
3. INSTALL FIRE RATED UNITS IN ACCORDANCE WITH NFPA 80.  
4. COORDINATE FRAME ANCHOR PLACEMENT WITH WALL CONSTRUCTION.  
**J. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**K. MATERIALS**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**L. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**M. MATERIALS**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**N. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**O. MATERIALS**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**P. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**Q. MATERIALS**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**R. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**S. MATERIALS**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**T. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**U. MATERIALS**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**V. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**W. MATERIALS**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**X. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**Y. MATERIALS**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.  
**Z. FINISHES**  
1. GLAZING AS INDICATED IN DRAWINGS OR AS SPECIFIED.  
2. REMOVABLE STOPS: FORMED STEEL SHEET, SHAPE AS INDICATED ON DRAWINGS, MITERED OR BUTTED CORNERS, PREPARED FOR COLLECTING STYLE 1 TAPE'S PROOF SCREWS.  
3. SILENCERS: RESILIENT RUBBER, FITTED INTO DRILLED HOLE, PROVIDE THREE ON STRIKE SIDE OF SINGLE DOOR, THREE ON CENTER MULLION OF PARTS, AND TWO ON HEAD OF PARTS WITHOUT CENTER MULLIONS.  
4. TEMPORARY FRAME SPREADERS: PROVIDE FOR FACTORY-OR SHOP-ASSEMBLED FRAMES.

**DIVISION 8 - OPENINGS (CONTINUED)**

**08 0670 - DOOR HARDWARE (CONTINUED)**

**C. HARDWARE SCHEDULE (CONTINUED)**

SET #A: GARAGE	
1 EACH HINGE	8B81 4-12X 4-12
1 EACH STOREROOM LOCK	SD115 MEM
1 EACH CLOSER	7101 PA
1 EACH SMOKE GASKET	5200
1 EACH THRESHOLD	425E
1 EACH WALL STOP	WB26

**SET #Y: CLOSET BFD/LD DOORS**

BULK HARDWARE TO BE PROVIDED BY MANUFACTURER	
1 EACH DUMMY TRIM	

**SET #B: CLOSET BYPASS SLIDING DOORS**

BULK HARDWARE TO BE PROVIDED BY MANUFACTURER	
1 EACH DUMMY TRIM	

**08 1110 - HOLLOW METAL DOORS AND FRAMES**

**A. SUBMITTALS**: PRODUCT DATA AND SHOP DRAWINGS WITH DETAILS OF EACH OPENING, SHOWING ELEVATIONS, GLAZING, FRAME PROFILES, AND ANY INDICATED FINISH REQUIREMENTS.

**B. HOLLOW METAL DOOR AND FRAME MANUFACTURERS**

- 1. CECO DOOR, AN ASSA ABLOY GROUP COMPANY: WWW.ASSAABLOYSS.COM
- 2. LEA FONTAINE INC.: WWW.LEAFONTAINE.COM
- 3. REBLIC DOORS, AN ALLEGION BRAND: WWW.REPUBLICDOOR.COM
- 4. STEELCRAPT, AN ALLEGION BRAND: WWW.ALLEGION.COM

**C. SOUND-RATED HOLLOW METAL DOORS AND FRAMES**

- 1. OVERLY DOOR COMPANY: WWW.OVERLY.COM

**D. DESIGN CRITERIA**

- 1. STEEL USED FOR FABRICATION OF DOORS AND FRAMES SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING SUBSTRATE TEMPERATURES AND HUMIDITIES ARE OUTSIDE LIMITS PERMITTED BY JOINT SEALANT MANUFACTURER OR ARE BELOW 40 deg F (4.4 deg C).
- 2. TYPICAL DOOR FACE SHEETS: FLUSH
- 3. GLAZED LITES: NON-REMOVABLE STOPS ON NON-SECURE SIDE; SIZES AND CONFIGURATIONS AS INDICATED ON DRAWINGS; STYLE: MANUFACTURER'S STANDARD
- 4. HARDWARE PREPARATIONS, SELECTIONS AND LOCATIONS: COMPLY WITH MAMMI/HMMA 630 AND MAMMI/HMMA 831 OR BMA 415.115 AND ANSISD A250.8 (SD-100) IN ACCORDANCE WITH SPECIFIED REQUIREMENTS.
- 5. ZINC COATING FOR TYPICAL INTERIOR AND/OR EXTERIOR LOCATIONS: PROVIDE METAL COMPONENTS ZINC-COATED (GALVANIZED) AND/OR ZINC-IRON ALLOY-COATED (GALVANNEAL) BY THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A593/A593M, WITH MANUFACTURER'S STANDARD COATING THICKNESS, UNLESS NOTED OTHERWISE FOR SPECIFIC HOLLOW METAL DOORS AND FRAMES.
- 6. HOLLOW METAL PANELS: SAME CONSTRUCTION PERFORMANCE, AND FINISH AS DOORS.
- 7. COMBINED REQUIREMENTS: IF A PARTICULAR DOOR AND FRAME UNIT IS INDICATED TO COMPLY WITH MORE THAN ONE TYPE OF REQUIREMENT, COMPLY WITH THE SPECIFIED REQUIREMENTS FOR EACH TYPE. FOR INSTANCE, AN EXTERIOR DOOR THAT IS ALSO INDICATED AS BEING SOUND-RATED MUST COMPLY WITH THE REQUIREMENTS SPECIFIED FOR EXTERIOR DOORS AND FOR SOUND-RATED DOORS, WHERE TWO REQUIREMENTS CONTRADICT, COMPLY WITH THE MOST STRINGENT.

**E. HOLLOW METAL DOOR**

- 1. EXTERIOR DOORS: THERMALLY INSULATED
- 2. BASED ON SDI STANDARDS: ANSISD A250.8 (SD-100)
- 3. LEVEL 1 - STANDARD-QUALITY
- 4. PHYSICAL PERFORMANCE LEVEL C, 250.00 CYCLES, IN ACCORDANCE WITH ANSISD A250.4
- 5. MODEL 1 - FULL FLUSH
- 6. DOOR FACE METAL THICKNESS: 20 GAUGE, 0.032 INCH, MINIMUM
- 7. DOOR CORE MATERIAL: MANUFACTURER'S STANDARD CORE MATERIAL CONSTRUCTION AND IN COMPLIANCE WITH REQUIREMENTS
- 8. DOOR THICKNESS: 1-3/4 INCH, NOMINAL
- 9. TOP CLOSURES FOR OUTSWINGING DOORS: FLUSH WITH TOP OF FACES AND EDGES
- 10. WEATHERSTRIPPING: REFER TO DRAWINGS FOR WEATHERSTRIPPING AND WEATHERSTRIPPING
- 11. J DOOR FINISH: FACTORY PRIMED AND FIELD FINISHED

**2. INTERIOR DOORS, NON-FIRE RATED**

- 1. BASED ON SDI STANDARDS: ANSISD A250.8 (SD-100)
- 2. LEVEL 1 - STANDARD-QUALITY
- 3. PHYSICAL PERFORMANCE LEVEL C, 250.00 CYCLES, IN ACCORDANCE WITH ANSISD A250.4
- 4. MODEL 1 - FULL FLUSH
- 5. DOOR FACE METAL THICKNESS: 20 GAUGE, 0.032 INCH, MINIMUM
- 6. DOOR THICKNESS: 1-3/4 INCH, NOMINAL
- 7. DOOR FINISH: FACTORY PRIMED AND FIELD FINISHED

**3. FIRE-RATED DOORS**

- 1. BASED ON SDI STANDARDS: ANSISD A250.8 (SD-100)
- 2. LEVEL 1 - STANDARD-QUALITY
- 3. PHYSICAL PERFORMANCE LEVEL C, 250.00 CYCLES, IN ACCORDANCE WITH ANSISD A250.4
- 4. MODEL 1 - FULL FLUSH
- 5. DOOR FACE METAL THICKNESS: 20 GAUGE, 0.032 INCH, MINIMUM
- 6. DOOR THICKNESS: 1-3/4 INCH, NOMINAL
- 7. DOOR FINISH: FACTORY PRIMED AND FIELD FINISHED

**F. HOLLOW METAL FRAMES**

- 1. COMPLY WITH STANDARDS AND/OR CUSTOM GUIDELINES AS INDICATED FOR CORRESPONDING DOOR IN ACCORDANCE WITH APPLICABLE DOOR FRAME REQUIREMENTS
- 2. INTERIOR DOOR FRAMES, NON-FIRE RATED: FACE WELDED TYPE; FRAME FINISH: FACTORY FINISHED
- 3. FULL LENGTH STOPS: FRAME METAL THICKNESS: 18 GAUGE, 0.042 INCH, MINIMUM
- 4. DOOR FRAMES, FIRE-RATED: FACE WELDED TYPE; FIRE RATING: SAME AS DOOR, LABELED
- 5. FULL LENGTH STOPS: FRAME METAL THICKNESS: 18 GAUGE, 0.042 INCH, MINIMUM
- 6. SOUND-RATED DOOR FRAMES: FULL PROFILE/CONTINUOUSLY WELDED TYPE
- 7. FRAME METAL THICKNESS: 18 GAUGE, 0.042 INCH, MINIMUM
- 8. INTERIOR DOOR FRAMES: COMPLY WITH FRAME REQUIREMENTS IN ACCORDANCE WITH CORRESPONDING

**SPECIFICATIONS - PRODUCT & INSTALLATION GENERAL REQUIREMENTS**

**09 600 - RESILIENT FLOORING AND WALL BASE**

**A. SUBMITTALS:** PRODUCT DATA AND (1) SAMPLES OF EACH TILE AND BASE SPECIFIED FOR VERIFICATION PURPOSES.

**B. BASIS OF DESIGN:**  
1. METROFLOR/KONECTO PLANK, PROJECT 54012 OR APPROVED EQUAL.

**C. ATTIC STOCK:** FURNISH ONE (1) BOX FOR EACH 50 BOXES OR FRACTION THEREOF OF EACH TYPE OF FLOOR TILE AND 20' OF EACH COLOR AND TYPE OF WALL BASE PACKAGED WITH PROTECTIVE COVERING AND LABELED FOR STORAGE.

**D. RESILIENT TILE PRODUCTS:** PROVIDE FLOOR TILE IN TYPE AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS COMPLYING WITH THE FOLLOWING:

**E. RESILIENT WALL BASE:** ASTM TYPE TS (RUBBER, VULCANIZED THERMOSET) 1/8" THICK FURNISHED IN COLES IN STYLES AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS WITH JOB-FORMED INSIDE AND OUTSIDE CORNERS.

**F. INSTALLATION ACCESSORIES:**  
1. LEVELING AND PATCHING COMPOUNDS: LATEX/MODIFIED, PORTLAND CEMENT, OR BLENDED HYDRAULIC CEMENT-BASED FORMULATION PROVIDED OR APPROVED BY FLOORING MANUFACTURER TO SUIT RESILIENT PRODUCTS AND SUBSTRATE CONDITIONS.  
2. ADHESIVES: WATER-RESISTANT TYPE RECOMMENDED BY MANUFACTURER TO SUIT RESILIENT PRODUCTS AND SUBSTRATE CONDITIONS. SPREAD UNO ENOUGH ADHESIVE TO PERMIT INSTALLATION OF MATERIALS BEFORE INITIAL SET.  
3. MOLDINGS, TRANSITION AND EDGE STRIPS: SAME MATERIAL AS FLOORING.

**G. INSTALLATION:**  
1. PREPARE CONCRETE SUBSTRATES PER ASTM F 710. VERIFY THAT SUBSTRATES ARE DRY AND FREE OF CURING COMPOUNDS, SEALERS AND HARDENERS.  
2. LAY OUT TILES 50 WIDTHS AT OPPOSITE EDGES OF ROOM ARE EQUAL AND NOT LESS THAN HALF-WIDTH.  
3. LAY TILES IN PATTERNS INDICATED WITH GRAIN DIRECTION ALTERNATING IN ADJACENT TILES, UNLESS NOTED OTHERWISE.  
4. CLEAN, SEAL, AND WAX RESILIENT FLOORING IN ACCORDANCE WITH MANUFACTURERS' INSTRUCTIONS.

**H. WALL BASE AND ACCESSORY INSTALLATION:**  
1. CONFIRM THAT SOLID BACKING IS PROVIDED BEHIND ALL WALL BASE. AREAS WHERE GYPSUM BOARD IS NEEDED MORE THAN 1/2" ABOVE SLAB SHALL BE FILLED IN PRIOR TO BASE INSTALLATION.  
2. INSTALL WALL BASE WITH MANUFACTURER'S RECOMMENDED ADHESIVE IN MAXIMUM LENGTHS POSSIBLE. APPLY TO WALLS, COLUMNS, PLASTERS, CASEWORK, AND OTHER PERMANENT FIXTURES.  
3. INSTALL TRANSITION STRIPS WHERE FLOORING MATERIALS MEET OR WHERE EDGE OF TILE IS EXPOSED AS NOTED IN THE FINISH SCHEDULE.

**09 813 - TILE CARPETING**

**A. SUBMITTALS:** PRODUCT DATA AND SAMPLES OF EACH CARPET PRODUCT INDICATED. SUBMIT ACTUAL TILE SAMPLES OF EACH CARPET REQUIRED.  
**B. WARRANTY:** PROVIDE SPECIAL PROJECT WARRANTY, SIGNED BY CONTRACTOR, INSTALLER AND MANUFACTURER (CARPET MILL), AGREEING TO REPAIR OR REPLACE DEFECTIVE MATERIALS AND WORKSMANSHIP OF CARPETING WORK DURING 1-YEAR WARRANTY PERIOD FOLLOWING SUBSTANTIAL COMPLETION. ATTACH COPIES OF PRODUCT WARRANTIES.

**C. ATTIC STOCK:** FURNISH FULL-WIDTH CARPET EQUAL TO 5% OF EACH TYPE AND COLOR CARPET INSTALLED, PACKAGED WITH PROTECTIVE COVERING AND LABELED FOR STORAGE.

**D. PRODUCTS:** PROVIDE CARPET IN PATTERNS AND COLORS AND WITH BACKINGS AS INDICATED IN THE CONSTRUCTION DOCUMENTS WITH CRITICAL RADIANT FLUX CLASSIFICATION CLASS 1, NOT LESS THAN 45 W/50, CM PER ASTM E 648. ORDER ALL MATERIALS FROM THE SAME FACTORY DYE LOT.

**E. INSTALLATION ACCESSORIES:**  
1. TROUBLEABLE LEVELING AND PATCHING COMPOUNDS: LATEX/MODIFIED, HYDRAULIC-CEMENT-BASED FORMULATION PROVIDED OR RECOMMENDED BY CARPET MANUFACTURER.  
2. ADHESIVES: WATER-RESISTANT, MILDEW-RESISTANT, NONSTAINING TYPE TO SUIT PRODUCTS AND SUBFLOOR CONDITIONS INDICATED, THAT COMPLIES WITH FLAMMABILITY REQUIREMENTS FOR INSTALLED CARPET AND IS RECOMMENDED OR PROVIDED BY CARPET MANUFACTURER.  
**F. INSTALLATION:** FOR CARPET TILE COMPLY WITH CR1 104, SECTION 13 "CARPET MODULES (TILES)".  
1. GENERAL: COMPLY WITH CR15 "CR CARPET INSTALLATION STANDARD" AND WITH CARPET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PREPARING SUBSTRATES.  
2. USE TROUBLEABLE LEVELING AND PATCHING COMPOUNDS, ACCORDING TO MANUFACTURERS' WRITTEN INSTRUCTIONS, TO FILL CRACKS, HOLES, DEPRESSIONS, AND PROTRUSIONS IN SUBSTRATES. FILL OR LEVEL CRACKS, HOLES AND DEPRESSIONS 1/8 INCH WIDE OR WIDER, AND PROTRUSIONS MORE THAN 1/32 INCH, UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED BY MANUFACTURER'S WRITTEN INSTRUCTIONS.  
3. BROOM AND VACUUM CLEAN SUBSTRATES TO BE COVERED IMMEDIATELY BEFORE INSTALLING CARPET.  
4. LAY CARPET TILE IN PATTERN AS INDICATED IN CONSTRUCTION DOCUMENTS AND 50 WIDTHS AT OPPOSITE EDGES OF ROOM ARE EQUAL AND NOT LESS THAN HALF-WIDTH.  
5. TRIM CARPET NEATLY AND TIGHT TO WALLS AND AROUND INTERFERTIONS.  
6. INSTALL PATTERN PARALLELS TO WALLS AND BORDERS UNLESS OTHERWISE INDICATED.  
7. DO NOT BRIDGE BUILDING EXPANSION JOINTS WITH CARPET.  
8. CUT AND FIT CARPET TO BUTT TIGHTLY TO VERTICAL SURFACES, PERMANENT FIXTURES, AND BUILT-IN FURNITURE INCLUDING CABINETS, PIPES, OUTLETS, EDGES, THRESHOLDS, AND NOSINGS. BIND OR SEAL CUT EDGES AS RECOMMENDED BY CARPET MANUFACTURER.  
9. EXTEND CARPET INTO TOE SPACES, DOOR REVEALS, CLOSETS, OPEN-BOTTOMED OBSTRUCTIONS, REMOVABLE FLANGES, ALCOVES, AND SIMILAR OPENINGS.  
10. MAINTAIN REFERENCE MARKERS, HOLES, AND OPENINGS THAT ARE IN PLACE OR MARKED FOR FUTURE CUTTING BY REPEATING ON CARPET AS MARKED ON SUBFLOOR, USE NONPERMANENT, NONSTAINING MARKING DEVICE.  
11. PROTECT CARPET AGAINST DAMAGE FROM CONSTRUCTION OPERATIONS AND PLACEMENT OF EQUIPMENT AND FIXTURES DURING THE REMAINDER OF CONSTRUCTION PERIOD. USE PROTECTION METHODS RECOMMENDED IN WRITING BY CARPET MANUFACTURER.

**12. INSTALL TRANSITION STRIPS AT CARPET TERMINATIONS AS SPECIFIED ON THE CONSTRUCTION DOCUMENTS.**

**09 816 - SHEET CARPETING**

**A. SUBMITTALS:** PRODUCT DATA AND SAMPLES OF EACH CARPET PRODUCT INDICATED. SUBMIT 18" X 27" SAMPLES OF EACH CARPET REQUIRED, AND 6" LENGTHS OF EXPOSED EDGE STRIPPING.  
**B. WARRANTY:** PROVIDE SPECIAL PROJECT WARRANTY, SIGNED BY CONTRACTOR, INSTALLER AND MANUFACTURER (CARPET MILL), AGREEING TO REPAIR OR REPLACE DEFECTIVE MATERIALS AND WORKSMANSHIP OF CARPETING WORK DURING 1-YEAR WARRANTY PERIOD FOLLOWING SUBSTANTIAL COMPLETION. ATTACH COPIES OF PRODUCT WARRANTIES.

**C. ATTIC STOCK:** FULL-SIZE UNITS EQUAL TO 5 PERCENT OF AMOUNT INSTALLED FOR EACH TYPE INDICATED, BUT NOT LESS THAN 10 SQ. YD.

**D. PRODUCTS:**  
A. APARTMENT UNIT CARPET SHALL BE SUPPLIED AND INSTALLED UNDER AN ALLOWANCES OF \$8.00/SQUARE YARD FOR THE PURCHASE AND DELIVERY OF THE CARPET MATERIAL ONLY.  
1. COSTS FOR THE PAD ACCESSORIES, TAXES, LABOR, ETC. ARE NOT INCLUDED IN THE ALLOWANCES STATED ABOVE BUT SHALL BE INCLUDED IN THE BID PRICE FOR A COMPLETE INSTALLATION.  
B. CARPET PAD SHALL BE 1/2" - 3/4" DENSITY REBOND PAD AS REQUIRED FOR A COMPLETE INSTALLATION.

**E. INSTALLATION ACCESSORIES:**  
1. TROUBLEABLE LEVELING AND PATCHING COMPOUNDS: LATEX/MODIFIED, HYDRAULIC-CEMENT-BASED FORMULATION PROVIDED OR RECOMMENDED BY CARPET MANUFACTURER.  
2. ADHESIVES: WATER-RESISTANT, MILDEW-RESISTANT, NONSTAINING TYPE TO SUIT PRODUCTS AND SUBFLOOR CONDITIONS INDICATED, THAT COMPLIES WITH FLAMMABILITY REQUIREMENTS FOR INSTALLED CARPET AND IS RECOMMENDED OR PROVIDED BY CARPET MANUFACTURER.  
3. SEAM ADHESIVE: HOT MELT ADHESIVE TAPE OR SIMILAR PRODUCT RECOMMENDED BY CARPET MANUFACTURER FOR SEALING AND TAPING SEAMS AND BUTTING CUT EDGES AT BACKING TO FORM SECURE SEAMS AND TO PREVENT PILE LOSS AT SEAMS.  
4. TACKLESS CARPET STRIPPING: WATER RESISTANT PLUVOG STRIPS, 3/8" THICK WITH ANGULAR PINS PROTRUDING FROM TOP DESIGNED TO GRIP AND HOLD STRETCHED CARPET AT THE BACKING. PROVIDE STRIPPING WITH 2 ROWS OF PINS.  
5. CARPET EDGE GUARD: EXTRUDED ALUMINUM BEND-DOWN TYPE EDGE GUARD, WITH CONCEALED GRIPPER TEETH AND MINIMUM 1-1/2" WIDE PUNCHED ANCHORAGE FLANGE AND MINIMUM 5/8" WIDE FACE.  
**F. INSTALLATION:**  
1. GENERAL: COMPLY WITH CR15 "CR CARPET INSTALLATION STANDARD" AND WITH CARPET MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PREPARING SUBSTRATES.  
2. USE TROUBLEABLE LEVELING AND PATCHING COMPOUNDS, ACCORDING TO MANUFACTURERS' WRITTEN INSTRUCTIONS, TO FILL CRACKS, HOLES, DEPRESSIONS, AND PROTRUSIONS IN SUBSTRATES. FILL OR LEVEL CRACKS, HOLES AND DEPRESSIONS 1/8 INCH WIDE OR WIDER, AND PROTRUSIONS MORE THAN 1/32 INCH, UNLESS MORE STRINGENT REQUIREMENTS ARE REQUIRED BY MANUFACTURERS' WRITTEN INSTRUCTIONS.  
3. BROOM AND VACUUM CLEAN SUBSTRATES TO BE COVERED IMMEDIATELY BEFORE INSTALLING CARPET.  
4. UNIT INSTALLATION, STRETCH-IN INSTALLATION WITH PAD.  
5. COMPLY WITH CARPET MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHOP DRAWINGS FOR SEAM LOCATIONS AND DIRECTION OF CARPET; MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE AT DOORWAYS, CENTER SEAMS UNDER THE DOOR IN CLOSED POSITION.  
6. INSTALL PATTERN PARALLELS TO WALLS AND BORDERS UNLESS OTHERWISE INDICATED.  
7. DO NOT BRIDGE BUILDING EXPANSION JOINTS WITH CARPET.  
8. CUT AND FIT CARPET TO BUTT TIGHTLY TO VERTICAL SURFACES, PERMANENT FIXTURES, AND BUILT-IN FURNITURE INCLUDING CABINETS, PIPES, OUTLETS, EDGES, THRESHOLDS, AND NOSINGS. BIND OR SEAL CUT EDGES AS RECOMMENDED BY CARPET MANUFACTURER.  
9. EXTEND CARPET INTO TOE SPACES, DOOR REVEALS, CLOSETS, OPEN-BOTTOMED OBSTRUCTIONS, REMOVABLE FLANGES, ALCOVES, AND SIMILAR OPENINGS.  
10. MAINTAIN REFERENCE MARKERS, HOLES, AND OPENINGS THAT ARE IN PLACE OR MARKED FOR FUTURE CUTTING BY REPEATING ON CARPET AS MARKED ON SUBFLOOR, USE NONPERMANENT, NONSTAINING MARKING DEVICE.  
11. PROTECT CARPET AGAINST DAMAGE FROM CONSTRUCTION OPERATIONS AND PLACEMENT OF EQUIPMENT AND FIXTURES DURING THE REMAINDER OF CONSTRUCTION PERIOD. USE PROTECTION METHODS RECOMMENDED IN WRITING BY CARPET MANUFACTURER.

**09 900 - PAINTING AND COATING**

**A. SUBMITTALS:** PRODUCT DATA AND THREE (3) DRAW-DOWN SAMPLES OF EACH COLOR AND SHEEN SPECIFIED.  
**B. ATTIC STOCK:** FURNISH ONE (1) GALLON OF EACH PAINT COLOR AND SHEEN, IN CONTAINERS, PROPERLY LABELED AND SEALED.

**C. PRODUCTS:** PROVIDE MANUFACTURER'S BEST QUALITY PAINTS OF COLOR AND SHEEN AS INDICATED IN THE CONSTRUCTION DOCUMENTS THAT ARE FORMULATED AND RECOMMENDED BY MANUFACTURER FOR APPLICATION INDICATED. PROVIDE MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH SUBSTRATES.  
**D. PAINT SYSTEMS:**  
1. ALL PAINT, STAIN, AND VARNISH SHALL BE PRODUCTS OF DEVOE, KVAL, SHERWIN WILLIAMS, PPG INDUSTRIES, PRATT & LAMBERT OR APPROVED EQUAL.  
2. ALL MATERIAL SHALL BE OF THE STANDARD RESIDENTIAL GRADE OF THE TYPES DESIGNATED.  
3. ALL MATERIAL SHALL BE DELIVERED TO THE JOB SITE IN THE ORIGINAL, UNOPENED, LABELED CONTAINERS. COLORS NOT SPECIFICALLY CALLED FOR IN THE PAINT SCHEDULE WILL BE SELECTED BY THE ARCHITECT.

**09 900 - PAINTING AND COATING (CONTINUED)**

**E. APPLICATION / INSTALLATION:**

1. EQUIPMENT: APPLY COATINGS BY BRUSH, ROLLER, SPRAY, OR OTHER APPLICATORS ACCORDING TO COATING MANUFACTURER'S WRITTEN INSTRUCTIONS. WHEN SPRAYED, EXTERIOR COATINGS SHALL BE BACK-ROLLED FOLLOWING SPRAY APPLICATION. USE ROLLERS FOR FINISH COAT ON INTERIOR WALLS AND CEILING.  
2. PIGMENTED (OPAQUE) FINISHES: COMPLETELY COVER SURFACES TO PROVIDE A SMOOTH, OPAQUE SURFACE OF UNIFORM APPEARANCE. PROVIDE A FINISH FREE OF CLOUSTHS, SPOTTING, HOLIDAYS, LAPS, BRUSH MARKS, RUNS, SAGS, ROPEINESS, OR OTHER SURFACE IMPERFECTIONS.  
3. APPLY PRODUCTS PER MANUFACTURER RECOMMENDED GUIDELINES. PROTECT COVERAGE MINIMUM ONE COAT OF PRIMER AND TWO FINAL COATS ON MATERIALS APPLY PRODUCTS TO MATERIALS APPROVED BY MANUFACTURER PRODUCT DATA SHEETS.

Table with 2 columns: Exterior Work and Interior Work. Lists materials like galvanized metal, exposed steel, and millwork with corresponding coating requirements.

**B. INTERIOR WORK:**

Table with 2 columns: Gypsum Board Walls and Ceilings, and Miscellaneous Ferrous Metal. Lists materials like gypsum board, millwork, and grilles with corresponding coating requirements.

**09 3000 - TILING**

**A. SUBMITTALS:** PRODUCT DATA FOR SETTING AND GROUTING MATERIALS AND THREE (3) SAMPLES OF EACH TILE SPECIFIED FOR VERIFICATION PURPOSES.

**B. ATTIC STOCK:** FURNISH 2% OF EACH TYPE OF CERAMIC TILE PACKAGED WITH PROTECTIVE COVERING AND LABELED FOR STORAGE.

**C. BASIS OF DESIGN:** SEE DRAWING SCHEDULES.

**D. TILE:** COMPLY WITH STANDARD GRADE REQUIREMENTS IN ANSI A137.1 "SPECIFICATIONS FOR CERAMIC TILE FOR PRODUCTS AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS".

**E. INSTALLATION MATERIALS:**

1. THINSET MORTAR  
A. TYPICAL INTERIOR INSTALLATIONS: LATEX/POLYMER MODIFIED PORTLAND CEMENT COMPLYING WITH ANSI A108.1 AND ANSI 118.4.  
B. GROUT: UNSANDED FOR JOINTS 1/16" WIDTH OR LESS, SANDED FOR JOINTS GREATER THAN 1/16" IN COLOR INDICATED IN SCHEDULE OR TO BE SELECTED BY ARCHITECT AND OWNER.  
C. A TYPICAL INTERIOR INSTALLATIONS: STANDARD CEMENT GROUT WITH INTEGRAL STAIN INHIBITORS (TIC ACCOLOR CR, OR EQUAL).  
3. SETTING BED ACCESSORIES: ANSI 108.1A

**F. INSTALLATION METHODS:** COMPLY WITH TILE INSTALLATION STANDARDS IN ANSI'S "SPECIFICATIONS FOR THE INSTALLATIONS OF CERAMIC TILE" AND TCA'S "HANDBOOK FOR CERAMIC TILE INSTALLATION" THAT APPLY TO THE MATERIALS AND METHODS INDICATED BELOW.

**G. TERMINATIONS:**  
1. WHERE CUT TILE IS SPECIFIED AS THE TOP COURSE ON WALL HANGING OVER WALL BASE WITH AN EXPOSED TOP EDGE, THE FACTORY EDGE SHALL BE USED AS THE EXPOSED EDGE.

**H. CONDITIONS:** IF NOT ADDRESSED ON DRAWINGS, WHERE ELECTRICAL, DEVICES OR TOILET ACCESSORIES STRADDLE THE TRANSITION FROM THE TOP EDGE OF WAINSCOT WALL TILE TO GYPSUM BOARD SUBSTRATE, CONTACT ARCHITECT FOR RESOLUTION.

**I. GROUT JOINTS:**

1. JOINT SIZE: SET TILE WITH THE SMALLEST GROUT JOINT ACHIEVABLE AND AS RECOMMENDED BY THE MFR. BASED ON THE TILE PRODUCT AND SUBSTRATE CONDITIONS, UNLESS NOTED OTHERWISE.  
2. TILE PATTERN: LAY TILE IN PATTERNS AS INDICATED IN THE CONSTRUCTION DOCUMENTS. ALIGN JOINTS WHERE ADJOINING TILES ON FLOOR, BASE, WALLS, AND TRIM ARE THE SAME SIZE, UNLESS INDICATED OTHERWISE.  
3. INSTALLATION: INSTALL GROUT PER MANUFACTURERS' INSTRUCTIONS, EXERCISING CARE TO AVOID REMOVAL OF GROUT COLOR BY USE OF EXCESS WATER DURING INSTALLATION. FACED OR CHALKY GROUT SHALL BE CAUSE FOR REJECTION.  
4. SEALER: AFTER FULLY CURED, GROUT SHALL BE SEALED WITH TWO (2) COATS OF COMMERCIAL QUALITY PENETRATING SILICONE SEALER.

**09 910 - ACOUSTICAL CEILING**

**A. SUBMITTALS:** PRODUCT DATA ONLY

**B. ATTIC STOCK:** FURNISH 2% OF EACH TYPE OF CEILING TILE PACKAGED WITH PROTECTIVE COVERING AND LABELED FOR STORAGE.

**C. ACOUSTICAL TILE PRODUCTS:** PROVIDE CEILING TILE IN TYPE AND SIZES INDICATED IN THE CONSTRUCTION DOCUMENTS COMPLYING WITH ANSI E 1264, CLASS A MATERIALS, TESTED PER ASTM E 84.  
**D. SUSPENSION SYSTEM:** PROVIDE HEAVY DUTY, DIRECT-HUNG, SUSPENSION SYSTEMS AS INDICATED IN THE CONSTRUCTION DOCUMENTS COMPLY WITH ASTM C 636, TYPE I, DIRECT HUNG UNLESS OTHERWISE INDICATED.  
1. ATTACHMENT DEVICES: SIZE FOR FIVE (5) TIMES THE DESIGN LOAD INDICATED IN ASTM C 636, TABLE 1, DIRECT HUNG UNLESS OTHERWISE INDICATED.  
2. WIRE HANGERS, BRACES, AND TIES: ZINC-COATED CARBON-STEEL WIRE, ASTM A 641 (A 641 M), CLASS 1 ZINC COATING, 50% TEMPER WITH A YIELD STRENGTH AT LEAST THREE (3) TIMES THE HANGER DESIGN LOAD (ASTM C 636, TABLE 1, DIRECT HUNG), BUT NOT MORE THAN 1/32" DIAMETER WIRE.  
3. HELMIC STRUTS: MANUFACTURER'S STANDARD PRODUCT DESIGNED TO ACCOMMODATE SEISMIC FORCES.  
4. HOLD-DOWN CLIPS: PROVIDE HOLD-DOWN CLIPS ON CEILING TILE IN ENTRANCE VESTIBULES, COMPUTER ROOMS EMPLOYING DRY-CHEMICAL FIRE-SUPPRESSION SYSTEMS, AND OTHER AREAS AS INDICATED.

**F. INSTALLATION:** COMPLY WITH ASTM C 636 AND CISCAS' "CEILING SYSTEMS HANDBOOK".  
1. SEQUENCE WORK TO ENSURE ACOUSTICAL CEILING ARE NOT INSTALLED UNTIL BUILDING IS ENCLOSED, SUFFICIENT HEAT IS PROVIDED, DUST GENERATION ACTIVITIES HAVE TERMINATED, AND OVERHEAD WORK IS COMPLETED, TESTED, AND APPROVED.  
2. INSTALL CEILING GRID AS INDICATED TO BE SYMMETRICAL ABOUT BOTH AXES OF EACH ROOM USING NOT LESS THAN HALF-SIZE TILE UNLESS INDICATED OTHERWISE ON THE REFLECTED CEILING PLAN.  
3. SUPPORT SUSPENSION SYSTEM INDEPENDENTLY OF DUCTS, PIPES, AND CONDUITS.  
4. SUPPORT FIXTURE LOADS USING SUPPLEMENTARY HANGERS LOCATED WITHIN 6" OF EACH CORNER OR SUPPORT FIXTURES INDEPENDENTLY.  
5. PROVIDE MATCHING PERIMETER MOLDING INSTALLED IN BEAD OF ACOUSTICAL SHEET AT ALL LOCATIONS WHERE CEILING INTERSECTS VERTICAL SURFACES. USE MATCHING PRE-FORMED CLOSURES AT ROUND, OR CURVED OBSTRUCTIONS.  
6. FIELD-CUT TILES SHALL MATCH PROFILE OF FACTORY EDGES.

**DIVISION 10 - SPECIALTIES**

**10 2000 TOILET AND BATH ACCESSORIES**

**A. REFERENCE:** CONSTRUCTION DRAWINGS & SCHEDULES FOR TYPE, QUANTITY, AND LOCATIONS OF TOILET AND BATH ACCESSORIES.

**B. SUBMITTALS:**

1. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:  
2. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.  
3. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.  
4. INSTALLATION METHODS.

**C. INSTALLATION:**

1. INSTALLER MUST EXAMINE SUBSTRATES, PREVIOUSLY INSTALLED INSERTS AND ANCHORAGES NECESSARY FOR MOUNTING OF TOILET ACCESSORIES, AND OTHER CONDITIONS UNDER WHICH INSTALLATION IS TO OCCUR, AND MUST NOTIFY CONTRACTOR IN WRITING OF CONDITIONS DETERMINAL TO PROPER AND TIMELY COMPLETION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED IN MANNER ACCEPTABLE TO INSTALLER.  
2. INSTALL ACCESSORIES ACCORDING TO RESPECTIVE MANUFACTURER'S WRITTEN INSTRUCTIONS, USING FASTENERS APPROPRIATE TO SUBSTRATE INDICATED AND RECOMMENDED BY UNIT MANUFACTURER.  
3. INSTALL UNITS LEVEL, PLUMB, AND FIRMLY ANCHORED IN LOCATIONS AND AT HEIGHTS INDICATED. ADHESIVE JOINTS TO SUBSTRATE ARE NOT PERMITTED.  
3. MOUNTING HEIGHTS SHALL BE AS RECOMMENDED BY THE ACCESSORY MANUFACTURER AND AT HEIGHTS RECOMMENDED BY USER FOR PHYSICALLY HANDICAPPED TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT.  
4. GRAB BARS: INSTALL TO WITHSTAND A DOWNWARD LOAD OF AT LEAST 250 LBS. WHEN TESTED ACCORDING TO ASTM F 446.  
5. ADJUST ACCESSORIES FOR PROPER OPERATION AND VERIFY THAT MECHANISMS FUNCTION SMOOTHLY.  
6. CLEAN AND POLISH ALL EXPOSED SURFACES AFTER REMOVING PROTECTIVE COATINGS.

**10 3000 SOLID PLASTIC TOILET COMPARTMENTS**

**A. REFERENCE:** CONSTRUCTION DRAWINGS & SCHEDULES FOR TYPE, QUANTITY, AND LOCATIONS OF TOILET AND BATH ACCESSORIES.

**B. PRODUCTS:** BASIS OF DESIGN: ECLIPSE TOILET PARTITIONS AS MANUFACTURED BY AND SUPPLIED BY SCRANTON 1. STYLE: FLOOR MOUNTED OVERHEAD-BRACED TOILET COMPARTMENTS.  
2. DOORS AND PANELS: HIGH DENSITY POLYETHYLENE (HDPE), FABRICATED FROM SEQ CHAPTER 1: EXTRUDED POLYMER RESINS, FORMING SINGLE THICKNESS PANEL.  
A. WATERPROOF AND NONABSORBENT, WITH SELF-LUBRICATING SURFACE, RESISTANT TO MARKS BY FINGERS, PENCILS, MARKERS, AND OTHER WRITING INSTRUMENTS.  
B. THICKNESS: 1/2" INCH (25 MM).  
C. EDGES: SHMP/LAP.  
3. PANEL COLOR: TRADITIONAL SERIES 1: SHALU - ORANGE PEEL.  
4. DOORS AND PANELS: HIGH PRIVACY: HEIGHT: 62 INCHES (1575 MM) HIGH AND MOUNTED AT 8 TO 14 INCHES (203 TO 356 MM) ABOVE THE FINISHED FLOOR.

**C. SUBMITTALS:**

1. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED, INCLUDING:  
2. PREPARATION INSTRUCTIONS AND RECOMMENDATIONS.  
3. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.  
4. INSTALLATION METHODS.  
5. SHOP DRAWINGS: PROVIDE LAYOUT DRAWINGS AND INSTALLATION DETAILS WITH LOCATION AND TYPE OF HARDWARE REQUIRED.  
6. SELECTION SAMPLES: FOR EACH FINISH PRODUCT SPECIFIED, TWO COMPLETE SETS OF COLOR CHIPS REPRESENTING MANUFACTURER'S FULL RANGE OF AVAILABLE COLORS AND PATTERNS.  
**D. POSTS, RAILS AND HARDWARE:**  
1. METAL POSTS: 3/16 INCHES (202 MM) HIGH, HEAVY DUTY EXTRUDED ALUMINUM, CLEAR ANODIZED FINISH, FASTENED TO FOOT WITH STAINLESS STEEL TAMPER RESISTANT SCREW.  
2. HIDDEN SHOE FOOT: ONE-PIECE MOLDED POLYETHYLENE INVISIBLE SHOE INSERTED INTO METAL POST AND SECURED TO METAL POST WITH STAINLESS STEEL TAMPER RESISTANT SCREW.  
3. HEADRAL CAP AND CORNER CAP: ONE-PIECE MOLDED POLYETHYLENE SECURED TO METAL POST WITH STAINLESS STEEL TAMPER RESISTANT SCREW. ADJUSTABLE TO LEVEL, HEADRAL, TO FINISHED FLOOR.  
4. WALL BRACKETS: CONTAIN HEAVY DUTY EXTRUDED ALUMINUM, CLEAR ANODIZED FINISH, INSERTED INTO SLOTTED PANEL AND FASTENED TO WALL WITH STAINLESS STEEL TAMPER RESISTANT SCREWS.  
5. HEADRAL: HEAVY DUTY EXTRUDED ALUMINUM, CLEAR ANODIZED FINISH, SECURED TO WALL WITH STAINLESS STEEL TAMPER SCREWS.  
6. DOOR HARDWARE:  
A. HINGES: EDGE-MOUNTED HELIX STYLE STAINLESS STEEL CONTINUOUS HINGE. CLOSING DEGREE: 5 DEGREES. COMES TO A FULL CLOSE ON ITS OWN HEIGHT.  
B. OCCUPANCY INDICATOR LATCH AND HOUSING: MATERIAL: SATIN STAINLESS STEEL. OCCUPANCY INDICATORS: GREEN FOR OCCUPIED AND RED NOT OCCUPIED. SLIDE BOLT AND BUTTION. LOCATE HOOR AND ANCHOR POINTS OF DOORS SHALL BE UNIFORM TOP TO BOTTOM AND SHALL NOT EXCEED 38 INCH (95 MM).  
C. DOOR PULL: CHROME PLATED ZAMAK.

**E. INSTALLATION:**  
1. CLEAN SURFACES THOROUGHLY PRIOR TO INSTALLATION.  
2. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SHOP DRAWINGS.  
3. INSTALL PARTITIONS RIGID, STRAIGHT, PLUMB, AND LEVEL.  
4. LOCATE BOTTOM EDGE OF DOORS AND PANELS - INCHES ABOVE FINISHED FLOOR.  
5. CLEARANCE AT VERTICAL EDGES OF DOORS SHALL BE UNIFORM TOP TO BOTTOM AND SHALL NOT EXCEED 38 INCH (95 MM).  
6. NO EVIDENCE OF CUTTING, DRILLING, AND/OR PATCHING SHALL BE VISIBLE ON THE FINISHED WORK.  
7. FINISHED SURFACES SHALL BE CLEANED AFTER INSTALLATION AND BE LEFT FREE OF IMPERFECTIONS.  
8. ADJUST DOORS AND LATCHES TO OPERATE CORRECTLY.  
9. PROTECT INSTALLED PRODUCTS UNTIL COMPLETION OF PROJECT.  
10. TOUCH-UP, REPAIR OR REPLACE DAMAGED PRODUCTS BEFORE SUBSTANTIAL COMPLETION.

**10 4000 - FIRE PROTECTION SPECIALTIES**

**A. REFERENCE:** CONSTRUCTION DRAWINGS FOR TYPE, SIZE AND LOCATIONS OF FIRE EXTINGUISHERS AND CABINETS.

**DIVISION 11 - EQUIPMENT**

**11 3000 - APPLIANCES**

**A. REFERENCE:** CONSTRUCTION DRAWINGS FOR QUANTITY, AND LOCATION OF APPLIANCES TO BE FURNISHED BY OWNER.

**12 3601 STONE COUNTERTOPS**

**A. REFERENCE:** CONSTRUCTION DRAWINGS & SCHEDULES FOR TYPE, QUANTITY, AND LOCATIONS OF TOILET AND BATH ACCESSORIES.

**B. SUBMITTALS:** INCLUDE PLANS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK:  
1. PRODUCT DATA: FOR EACH STONE, STONE ACCESSORY, AND MANUFACTURED PRODUCT.  
2. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.  
3. SAMPLES: FOR EACH STONE TYPE INDICATED.

**C. FIELD CONDITIONS:**  
1. FIELD MEASUREMENTS: VERIFY DIMENSIONS OF CONSTRUCTION TO RECEIVE STONE COUNTERTOPS BY FIELD MEASUREMENTS BEFORE FABRICATION.

**D. PRODUCTS:**

1. SOURCE LIMITATIONS FOR STONE: OBTAIN STONE FROM A SINGLE QUARRY WITH RESOURCES TO PROVIDE MATERIALS OF CONSISTENT QUALITY IN APPEARANCE AND PHYSICAL PROPERTIES.  
2. QUARTZ: MATERIAL STANDARD: COMPLY WITH ASTM C 615.  
3. ALL COUNTERTOPS SHALL BE GRANITE AS SELECTED BY THE OWNER WITH SQUARE EDGES AND MATCHING SIZE AND BACK SPLASHES, TOP AND BOTTOM EXPOSED EDGES SHALL BE SLIGHTLY EASED.  
4. FINISH: POLISHED.  
5. WATER-CLEANABLE EPOXY ADHESIVE: ANSI A118.3. WATER-CLEANABLE EPOXY GROUT: ANSI A118.3. CHEMICAL RESISTANT: WATER-CLEANABLE, TILE SETTING AND GROUTING EPOXY.  
6. SEALANT FOR COUNTERTOPS: MILDEW-RESISTANT JOINT SEALANT. MILDEW RESISTANT, SINGLE COMPONENT, NONSAG, NEUTRAL CURING, SILICONE, COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.  
7. GROMMETS: 2 INCH ROUND GROMMETS BY DOUG MCGUKET & COMPANY, INC. OR APPROVED EQUAL.

**E. STONE FABRICATION:**  
1. SELECT MATERIAL FOR INTENDED USE TO PREVENT FABRICATED UNITS FROM CONTAINING CRACKS, SEAMS, AND STARTS THAT COULD IMPAIR STRUCTURAL INTEGRITY OR FUNCTION.  
2. FABRICATE STONE COUNTERTOPS IN SIZES AND SHAPES REQUIRED TO COMPLY WITH REQUIREMENTS INDICATED.  
3. GENERAL: COMPLY WITH RECOMMENDATIONS IN MMS' DIMENSION STONE DESIGN MANUAL, V. 1.  
4. NOMINAL THICKNESS: PROVIDE THICKNESS INDICATED, BUT NOT LESS THAN 3/4" (EXCEPT APARTMENT UNIT BATHROOM COUNTERTOPS SHALL BE NOT LESS THAN 2CM). GAGE BACKS TO PROVIDE UNITS OF IDENTICAL THICKNESS.  
5. SPLASHES: PROVIDE 3/4" INCH THICK BACK SPLASHES AND END SPLASHES UNLESS OTHERWISE INDICATED.  
6. JOINTS: FABRICATE COUNTERTOPS WITHOUT JOINTS WHEREVER POSSIBLE.  
7. CUTOUTS: A HOLES/UNDERCOUNTER FIXTURES: MAKE CUTOUTS FOR UNDERCOUNTER FIXTURES IN SHOP USING TEMPLATE OR PATTERN FURNISHED BY FUTURE MANUFACTURER. FORM CUTOUTS TO SMOOTH, EVEN CURVES.  
8. HOLE/MOUNTED FIXTURES: PREPARE COUNTERTOPS IN SHOP FOR FIELD CUTTING OPENINGS FOR COUNTER MOUNTED FIXTURES. MARK TOP FOR CUTOUTS AND DRILL HOLES AT CORNERS OF CUTOUT LOCATIONS. MAKE CORNER HOLES OF LARGEST RADIUS PRACTICAL.  
9. FITTINGS: DRILL COUNTERTOPS IN SHOP FOR PLUMBING FITTINGS, UNDERCOUNTER SINK DISPENSERS, AND SIMILAR ITEMS.

**F. INSTALLATION:**

1. GENERAL: INSTALL COUNTERTOPS OVER PLYWOOD SUBTOPS WITH FULL SPREAD OF WATER-CLEANABLE EPOXY ADHESIVE.  
2. GENERAL: INSTALL COUNTERTOPS BY ADHERING TO SUPPORTS WITH FULL-CLEANABLE EPOXY ADHESIVE.  
3. SET STONE TO COMPLY WITH REQUIREMENTS INDICATED. SHIM AND ADJUST STONE TO LOCATIONS INDICATED, WITH UNIFORM JOINTS OF WIDTHS INDICATED AND WITH EDGES AND FACES ALIGNED ACCORDING TO ESTABLISHED RELATIONSHIPS.  
4. SPACE JOINTS WITH 1/16" INCH GAP FOR FILLING WITH SEALANT. USE TEMPORARY SHIMS TO ENSURE UNIFORM SPACING. CLAMP UNITS TO TEMPORARY BRACING, SUPPORTS, OR EACH OTHER TO ENSURE THAT COUNTERTOPS ARE PROPERLY ALIGNED AND JOINTS ARE OF SPECIFIED WIDTH.  
5. COMPLETE CUTOUTS NOT FINISHED IN SHOP: MASK AREAS OF COUNTERTOPS ADJACENT TO CUTOUTS TO PREVENT DAMAGE WHILE CUTTING. USE POWER SAWS WITH DIAMOND BLADES TO CUT STONE. MAKE CUTOUTS TO ACCURATELY FIT ITEMS TO BE INSTALLED, AND AT RIGHT ANGLES TO FINISHED SURFACES. UNLESS BEVELING IS REQUIRED FOR CLEARANCE. EASE EDGES SLIGHTLY TO PREVENT SHIPPING.  
6. INSTALL BACK SPLASHES AND END SPLASHES BY ADHERING TO WALL WITH WATER-CLEANABLE EPOXY ADHESIVE. LEAVE 1/16" INCH GAP BETWEEN COUNTERTOP AND SPLASHES FOR FILLING WITH SEALANT.  
7. GROUT JOINTS TO COMPLY WITH ANSI A108.10. REMOVE TEMPORARY SHIMS BEFORE GROUTING. TOOL GROUT UNIFORMLY AND SMOOTHLY WITH PLASTIC TOOL.  
8. APPLY SEALANT TO JOINTS AND GAPS SPECIFIED FOR FILLING WITH SEALANT. COMPLY WITH SECTION 070200 "JOINT SEALANTS": REMOVE TEMPORARY SHIMS BEFORE APPLYING SEALANT.  
9. ASSURE THAT SEAMS ARE SMOOTH LEVEL AND TIGHT. SEAMS SHALL BE FILLED ENTIRELY SO FLUSH WITH COUNTERTOP. POLISH SURFACE AT SEAM. ASSURE THAT FILLER IS NON-YELLOWING.  
10. CLEANING: CLEAN COUNTERTOPS AS WORK PROGRESSES. REMOVE ADHESIVE, GROUT, MORTAR, AND SEALANT SMears IMMEDIATELY. CLEAN STONE COUNTERTOPS NO FOWER THAN SIX DAYS AFTER COMPLETION OF INSTALLATION, USING CLEAN WATER AND SOFT RAGS. DO NOT USE WIRE BRUSHES, AOD TYPE CLEANING AGENTS, CLEANING COMPOUNDS WITH CAUSTIC OR HARSH FILTERS, OR OTHER MATERIALS OR METHODS THAT COULD DAMAGE STONE.  
11. SEALER APPLICATION: APPLY STONE SEALER TO COMPLY WITH STONE PRODUCERS AND SEALER MANUFACTURER'S WRITTEN INSTRUCTIONS.

**12 3601 COUNTERTOPS**

**A. REFERENCE:** CONSTRUCTION DRAWINGS & SCHEDULES FOR TYPE, QUANTITY, AND LOCATIONS OF TOILET AND BATH ACCESSORIES.

**B. SUBMITTALS:** INCLUDE PLANS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK:  
1. PRODUCT DATA: FOR EACH STONE, STONE ACCESSORY, AND MANUFACTURED PRODUCT.  
2. STORAGE AND HANDLING REQUIREMENTS AND RECOMMENDATIONS.  
3. SAMPLES: FOR EACH STONE TYPE INDICATED.

**C. FIELD CONDITIONS:**

1. FIELD MEASUREMENTS: VERIFY DIMENSIONS OF CONSTRUCTION TO RECEIVE STONE COUNTERTOPS BY FIELD MEASUREMENTS BEFORE FABRICATION.

**D. PRODUCTS:**

1. SOURCE LIMITATIONS FOR STONE: OBTAIN FROM A SINGLE SOURCE TO PROVIDE MATERIALS OF CONSISTENT QUALITY IN APPEARANCE AND PHYSICAL PROPERTIES.  
**E. COUNTERTOPS:**  
1. QUALITY STANDARD: PREMIUM GRADE, IN ACCORDANCE WITH ANIA/AMACOWI (AWIS) OR ANIA/MSA (NAWS), UNLESS NOTED OTHERWISE.  
2. QUALITY STANDARD: SEFA 3 FOR LABORATORY WORKSURFACES.  
3. PLASTIC LAMINATE COUNTERTOPS: HIGH-PRESSURE DECORATIVE LAMINATE (HPDL) SHEET BONDED TO SUBSTRATE.  
4. LAMINATE SHEET: MEMA LD 3 GRADE HGS, 0.048 INCH NOMINAL THICKNESS.  
5. EXPOSED EDGE TREATMENT: AS NOTED. SUBSTRATE BUILT UP TO MINIMUM 1-1/4 INCH THICK, COVERED WITH MATCHING LAMINA AND GATE INSTALLATION INDICATED AND AT RIGHT ANGLES TO FINISHED SURFACES UNLESS OTHERWISE INDICATED.  
6. BACK AND END SPLASHES: SAME MATERIAL, SAME CONSTRUCTION.  
7. FABRICATE IN ACCORDANCE WITH ANIA/AMACOWI (AWIS) OR ANIA/MSA (NAWS), SECTION 11 - COUNTERTOPS, CUSTOM GRADE.

**MANUFACTURERS:**

1. REFER TO FINISH LEGEND.  
4. NATURAL QUARTZ AND RESIN COMPOSITE COUNTERTOPS: SHEET OR SLAB OF NATURAL QUARTZ AND PLASTIC RESIN OVER CONTINUOUS SUBSTRATE.  
A. FLAT SHEET THICKNESS: 1-1/4 INCH, MINIMUM.  
B. NATURAL QUARTZ AND RESIN COMPOSITE SHEETS, SLABS AND CASTINGS: COMPLY WITH SEFA 347 AND MEMA LD 3. ORTHOPHTHALIC POLYESTER RESIN, MINERAL FILLER, AND PIGMENTS; HOMOGENOUS, NON-POROUS AND CAPABLE OF BEING WORKED AND REPAIRED USING STANDARD WOODWORKING TOOLS; NO SURFACE COATING; COLOR AND PATTERN CONSISTENT THROUGHOUT THICKNESS.

**MANUFACTURERS:**  
1. REFER TO FINISH LEGEND FOR SOLID SURFACE AND CORIAN QUARTZ DESCRIPTIONS, MANUFACTURERS, PRODUCT NUMBERS, COLORS, SIZES AND CONTACT INFORMATION.  
**C. FACTORY FABRICATE COMPONENTS TO THE GREATEST EXTENT PRACTICAL IN SIZES AND SHAPES INDICATED. COMPLY WITH THE MIA DIMENSION STONE DESIGN MANUAL.**  
D. FINISH ON EXPOSED SURFACES: POLISHED.  
E. COLOR AND PATTERN: AS INDICATED ON DRAWINGS.

**F. INSTALLATION:**

1. SECURELY ATTACH COUNTERTOPS TO CABINETS OR SUPPORTS USING CONCEALED FASTENERS. MAKE FLAT SURFACES LEVEL, SHIM WHERE REQUIRED.  
2. ATTACH COUNTERTOP LAMINATE TO CABINETS OR SUPPORTS USING SCREWS WITH MINIMUM PENETRATION INTO SUBSTRATE BOARD OF 5/8 INCH.  
3. SEAL JOINT BETWEEN BACKEND SPLASHES AND VERTICAL SURFACES.  
4. GENERAL: INSTALL COUNTERTOPS OVER PLYWOOD SUBTOPS WITH FULL SPREAD OF WATER-CLEANABLE EPOXY ADHESIVE.  
5. GENERAL: INSTALL COUNTERTOPS BY ADHERING TO SUPPORTS WITH WATER-CLEANABLE EPOXY ADHESIVE.

Abbreviation	Abbreviation Name
+	PLUS OR MINUS
ADJL	ADDITIONAL
ADJ	ADJACENT
AE	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
AR	ANCHOR ROD
ARCH	ARCHITECT OR ARCHITECTURAL
BI	BOTTOM OF
BT	BETWEEN
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BTM	BOTTOM
BRG	BEARING
BWP	BRACED WALL PANEL
CFS	COLD FORMED STEEL
CHKD	CHECKED
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CTR	CENTER
db	DIA OF REIN BAR, DIA OF BOLT
DBA	DEFORMED BAR ANCHOR
DA or D	DIAMETER
DIAG	DIAGONAL
DIR	DIRECTION
DWL	DOWEL
EA	EACH
EE	EXTENDED END
EJ	EXPANSION JOINT
ELEV	ELEVATION
EN	EDGE NAILING
ENGR	ENGINEER
EO	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
EW	EACH WAY
EXIST	EXISTING
EXT	EXTERIOR
FDN	FOUNDATION
FLG	FLANGE
FLR	FLOOR
FS	FAR SIDE
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SECTION
I	INSIDE FACE
INT	INTERIOR
JST	JOIST
K	KIPS (1000 LBS)
LCE	COMPRESSION EMBEDMENT LENGTH
LCS	COMPRESSION LAP SPLICE LENGTH
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SLOTTED HOLE
LTE	TENSION EMBEDMENT LENGTH
LTS	TENSION LAP SPLICE LENGTH
LW	LIGHTWEIGHT
MFR	MANUFACTURER
MTL	METAL
NIC	NOT IN CONTRACT
NS	NEAR SIDE
NIS	NOT TO SCALE
OC	ON CENTER
OF	OUTSIDE FACE
OPP	OPPOSITE
OVS	OVERSIZED
PC	PRECAST
PAF	POWDER ACTUATED FASTENER
PAR	PARALLEL
PEMB	PRE-ENGINEERED METAL BUILDING
REN	REINFORCING
PERP	PERPENDICULAR
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PRFAB	PREFABRICATED
PRELIM	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
RC	REINFORCED CONCRETE
RE	REFER TO
REIN	REINFORCING
REQD	REQUIRED
RF	RIGID FRAME
SC	SLIP CRITICAL
SOS	SELF DRILLING SCREW
SM	SIMILAR
SLV	SHORT LEG VERTICAL
SO	SLAB ON GRADE
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STR	STIRRUPS
STL	STEEL
SW	SHEAR WALL
SYM	SYMMETRIC
T&B	TOP AND BOTTOM
TI	TOP OF
TRANS	TRANSVERSE
TY	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
WI	WITH
WO	WITHOUT
WF	WIDE FLANGE
WP	WORK POINT
WWR	WELDED WIRE REINFORCEMENT

**STRUCTURAL DESIGN CRITERIA (2018 IBC AND ASCE 7-16):**

- BUILDING OCCUPANCY RISK CATEGORY II.
- LIVE LOADS (UNIFORM (PSF) / POINT LOADS (KIPS)):
  - ROOF.....20 PSF / 30K
  - GROUND LEVEL SLAB.....100 PSF / 2.0 K
- ROOF SNOW LOAD:
  - GROUND SNOW LOAD (Ps):.....20 PSF
  - FLAT ROOF SNOW LOAD (P):.....15.4 PSF
  - MIN UNIFORM ROOF SNOW LOAD (Pm):.....20 PSF (NO DRIFT OR RAIN)
  - RAIN ON SNOW SURCHARGE (Pr):.....5.0 PSF
  - SNOW EXPOSURE FACTOR (Ce):.....1.0, EXPOSURE B
  - SNOW LOAD IMPORTANCE FACTOR (I):.....1.0
  - THERMAL FACTOR (T):.....1.1 (last above freezing)
  - SLOPE FACTOR (Cs):.....1.0 (for 1/4 per foot roof)
- WIND DESIGN DATA:
  - BASIC WIND SPEED (3 SEC GUST):.....115 MPH
  - WIND EXPOSURE.....B
  - GROUND ELEVATION ABOVE SEA LEVEL.....1,009 FT
  - DIRECTIONALITY FACTOR (Kd).....0.85
  - INTERNAL PRESSURE COEFF.....+/- 0.18
  - COMPONENTS AND CLADDING WIND ULM (MATE 1.7PW) PRESSURES (BASED ON TRIB 10 S.F., EXP. B, MAY BE REDUCED FOR COMPONENTS WITH LARGER TRIB PER BLDG CODE)
  - WALLS AT CORNERS & EDGES.....-20 / -26 PSF
  - ALL OTHER MAIN WALL CONDITIONS.....-20 / -21 PSF
  - ROOF AREA 1:.....+16 / -36 PSF
  - ROOF AREA 2a:.....+16 / -36 PSF
  - ROOF AREA 2b:.....+16 / -33 PSF
  - ROOF AREA 2c:.....+16 / -33 PSF
  - ROOF AREA 3a:.....+16 / -33 PSF
  - ROOF AREA 3b:.....+16 / -33 PSF
  - ROOF AREA 3c:.....+16 / -33 PSF
  - REFERENCE ASCE 7-16 FIG 30.3-2B FOR AREA LOCATIONS

**5. EARTHQUAKE DESIGN DATA:**

- SEISMIC IMPORTANCE FACTOR (I<sub>e</sub>).....1.0
- MAPPED SPECTRAL RESP ACCEL (S<sub>s</sub> (S1)).....0.1 / 0.068
- SITE CLASS.....D
- SPECTRAL RESPONSE COEFF (S<sub>s</sub> / S<sub>1</sub>).....0.106 / 0.109
- SEISMIC DESIGN CATEGORY.....B
- SEISMIC FORCE RESISTING SYSTEM.....R=6, LIGHT FRAMING
- DESIGN BASE SHEAR.....3.5 K (ASD)
- SEISMIC RESPONSE COEFF (C<sub>s</sub>).....0.0184
- ANALYSIS PROCEDURE.....ELF

**6. RAIN LOAD DATA:**

- 15-MIN RAIN INTENSITY.....7.49 INHR
- 60-MIN RAIN INTENSITY.....3.52 INHR

DESIGN ASSUMES APPROPRIATE ROOF SLOPE AND DRAINAGE (INCLUDING OVERFLOWS) ARE PROVIDED. ROOF IS DESIGNED FOR LIVE LOAD INDICATED ABOVE.

**7. GUARD RAILS:**.....50 PLF, AND/OR 20# CONCENTRATED LOAD APPLIED IN ANY DIRECTION.

**STRUCTURAL GENERAL NOTES:**

- DESIGN AND CONSTRUCTION SHALL CONFORM TO THE "INTERNATIONAL BUILDING CODE, 2018 EDITION" AS AMENDED BY THE CITY OF LEE SUMMIT, MO. REFER TO THE SPECIAL STRUCTURAL INSPECTION NOTES FOR ADDITIONAL REQUIREMENTS.
  - CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO COMMENCING WORK.
  - IF DISCREPANCIES EXIST BETWEEN STRUCTURAL PLANS, ARCHITECTURAL PLANS, OTHER PLANS, OR SPECIFICATIONS, THE CONTRACTOR OR SUBCONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR CLARIFICATION FROM THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
  - THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO EXECUTE AND DETERMINE FINAL ERECTION PROCEDURES, SEQUENCING AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYING OR TIE DOWNS WHICH MIGHT BE NECESSARY.
  - THE STRUCTURE AND FOUNDATIONS ARE NOT DESIGNED FOR FUTURE EXPANSION.
  - FABRICATORS AND SUPPLIERS SHALL CLEARLY NOTE AND HIGHLIGHT CHANGES MADE IN SHOP DRAWINGS, WHICH DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.
  - COLUMNS, BEAMS, JOISTS, OR TRUSSES SHALL NOT BE FIELD CUT OR TRIMMED FOR ANY REASON WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
  - HOLES, PIPES, SLEEVES, ETC. NOT SHOWN ON THE DRAWINGS MUST BE REVIEWED BY THE ARCHITECT/ENGINEER BEFORE PLACEMENT THROUGH STRUCTURAL MEMBERS.
  - IF MECHANICAL AND ELECTRICAL EQUIPMENT SIZES, WEIGHTS, OR LOCATIONS DO NOT CONCORD WITH EQUIPMENT SHOWN ON THE PLANS, COORDINATE ADJUSTMENTS WITH THE ARCHITECT.
  - NO AREA OF THE STRUCTURE SHALL BE LOADED WITH CONSTRUCTION MATERIALS OR EQUIPMENT THAT EXCEEDS FINAL DESIGN CRITERIA.
  - BEAMS, COLUMNS, WALLS AND FOOTING CENTERS SHALL BE CENTERED UNDER SUPPORTING MEMBERS (TYPICAL UNLESS NOTED OTHERWISE).
  - DELEGATED DESIGN - DEFERRED SUBMITTALS SHALL BE SIGNED/ SEALED PRIOR TO SUBMITTAL FOR REVIEW. THESE INCLUDE:
    - PRE-ENGINEERED CANOPIES
    - PRE-ENGINEERED ROOF TRUSSES
 SUBMIT THESE SHOP DRAWINGS AND CALCULATIONS SEALED BY A STRUCTURAL ENGINEER LICENSED TO PRACTICE IN THE JURISDICTION OF THE PROJECT SHALL BE FURNISHED TO THE ENGINEER OF RECORD FOR REVIEW. CONTRACTOR SHALL SUBMIT COPIES OF DEFERRED SUBMITTALS TO THE BUILDING DEPARTMENT AFTER ARCHIVING REVIEW.
  - TYPICAL DETAILS ARE SHOWN ON SHEETS DESIGNATED "SDXX". THE INCLUDED TYPICAL DETAILS MAY OR MAY NOT BE CUT / REFERENCED ON PLANS OR SECTIONS BUT ARE TO BE USED AS APPLICABLE.
- SUBMITTALS:**
- GENERAL CONTRACTOR TO PROVIDE A SHOP DRAWING SUBMITTAL LOG ITEMIZING ALL PROPOSED SUBMITTALS FOR APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.
  - ALL SHOP DRAWINGS SHALL BE CHECKED BY THE FABRICATOR AND APPROVED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD. SHOP DRAWING REVIEW BY ENGINEER IS LIMITED TO VERIFYING GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES FROM THE CONTRACT DOCUMENTS, DIMENSIONAL ERRORS, COORDINATION ERRORS, OR OMISSIONS IN SHOP DRAWINGS.
  - SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION REGARDING ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING:
    - CONCRETE MIX DESIGNS (5 DAYS BEFORE POUR, MIN.)
    - CONCRETE REINFORCEMENT
    - PRE-ENGINEERED ROOF TRUSSES
4. SHOP DRAWINGS SHALL INCLUDE CONNECTIONS AS WELL AS SIZE, SPACING, AND GRADE OF ALL MEMBERS, PLANS AND ANY DETAILING NECESSARY FOR DETERMINING FIT AND PLACEMENT SHALL ALSO BE INCLUDED.
5. IF THE SHOP DRAWINGS DIFFER FROM OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF AN ENGINEER REGISTERED IN THE APPROPRIATE STATE. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
6. ITEMS THAT ARE DESIGNED BY THE CONTRACTOR SHALL BE DESIGNED TO RESIST THE LIVE LOADS INDICATED IN STRUCTURAL NOTES. DEAD LOAD, SELF WEIGHT, ANY ADDITIONAL LOADING INDICATED ON PLANS AND DETAILS, SNOW DRIFT, AND A NET WIND UPLIFT.
7. ITEMS THAT ARE DESIGNED BY THE CONTRACTOR SHALL INCLUDE ANY RELEVANT TECHNICAL LITERATURE FROM THE MANUFACTURER. ALSO PROVIDE A CERTIFICATION FROM THE MANUFACTURER SHOWING THE PRODUCT IS IN COMPLIANCE WITH ALL APPLICABLE CODES AND STANDARDS.
8. THE CONTRACTOR SHALL COORDINATE SEISMIC RESTRAINTS OF MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING WITH THE STRUCTURE. ANY CONNECTIONS TO STRUCTURE SHALL CONFORM TO ASCE 7, CHAPTER 13 AND SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE APPROPRIATE STATE AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION.

- FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF AN ENGINEER REGISTERED IN THE APPROPRIATE STATE AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.
- SPECIAL INSPECTIONS:**
- PROVIDE SPECIAL STRUCTURAL INSPECTIONS AND VERIFICATIONS BY A THIRD PARTY MEETING THE REQUIREMENTS OF CHAPTER 17 OF THE BUILDING CODE AND THE BUILDING OFFICIAL.
  - SPECIAL INSPECTORS SHALL BE QUALIFIED AND FURNISH THEIR REPORTS IN A TIMELY MANNER TO THE CONTRACTOR, BUILDING OFFICIALS, ARCHITECT, AND/OR ENGINEER.
  - SHOULD INSPECTOR IDENTIFY ANY DISCREPANCY, THEY SHALL NOTIFY CONTRACTOR FIRST, AND THEN ARCHT/ENGINEER IMMEDIATELY THEREAFTER IF CORRECTIVE ACTION IS NEEDED.
  - SPECIAL INSPECTIONS AS REQUIRED BY CODE:
    - CONCRETE: SECTION 1705.3 AND TABLE 1705.3 CONCRETE MATERIAL SAMPLING AND TESTING, REBAR OBSERVATIONS. TAKE SET OF (3) CYLINDERS FOR EVERY 50 C.Y., BUT NOT LESS THAN ONE SET OF SAMPLES PER DAYS WORK AND PER MIX.
    - SOILS: SECTION 1705.6 FOUNDATION BEARING, EXCAVATION, FILL PLACEMENT.
    - WOOD CONSTRUCTION: SECTION 1705.5.
- EARTHWORK AND FOUNDATIONS:**
- PERIMETER AND EXTERIOR FOOTINGS SHALL BEAR AT A MINIMUM OF 3'-0" BELOW ADJACENT GRADE.
  - ALL FOOTINGS SHALL BEAR ON FIRM NATIVE MATERIALS, COMPACTED OR ENGINEERED FILL CAPABLE OF SUPPORTING AN ALLOWABLE BEARING CAPACITY OF 1,500 PSF PER THE IBC. DEEPEN FOOTINGS, AND REMOVE AND REPLACE UNACCEPTABLE SOILS WITH ENGINEERING FILL AS REQUIRED TO PROVIDE THIS MINIMUM DEPTH AND SUITABLE BEARING.
  - UNDERCUT THE PAD TO A DEPTH OF 24-INCHES BELOW BOTTOM OF FLOOR SLAB ELEVATION AND REPLACE WITH LOW-VOLUME-CHANGE MATERIALS PER THE GEOTECHNICAL REPORT.
  - FILL PLACEMENT, COMPACTION, AND SOIL BEARING TESTS SHALL BE PERFORMED BY A GEOTECHNICAL ENGINEER PRIOR TO INSTALLING FOOTINGS TO ENSURE DESIGN ALLOWABLE BEARING VALUES AND SLAB SUBGRADE REQUIREMENTS ARE SATISFIED. IF ACTUAL SITE CONDITIONS DO NOT SATISFY THESE REQUIREMENTS, COORDINATE ADJUSTMENTS WITH ARCHITECT/ENGINEER/GEOTECHNICAL ENGINEER.
  - SURFACE WATER SHALL NOT BE ALLOWED TO STAND ADJACENT TO OR DRAIN TOWARDS THE FOUNDATION AND SLAB SUBGRADES UNDER ANY CIRCUMSTANCES. PAVEMENTS OR GRADED SOILS AT THE PERIMETER OF THE BUILDING, EXCEPT AS REQUIRED AT EXITS OR AS NOTED, SHALL BE SLOPED AWAY AT 5% OR 1" MIN FOR THE FIRST TEN FEET AND AS REQUIRED TO PROVIDE POSITIVE DRAINAGE.
  - FOOTINGS MAY BE POURED TO NEAT LINES OF EXCAVATIONS PROVIDING VERTICAL LINES OF EXCAVATIONS CAN BE MAINTAINED DURING CONCRETE PLACEMENT.
  - FOUNDATION WALL BACKFILL SHALL NOT BE UNBALANCED BY MORE THAN TWO FEET ON EITHER SIDE AT ANY TIME. BASEMENT WALL AND RESTRAINED RETAINING WALL BACKFILL SHALL NOT BE PLACED UNLESS THE WALL IS ADEQUATELY BRACED. RETAINING WALL AND BASEMENT WALL BACKFILL SHALL BE FREE DRAINING GRANULAR BACKFILL ACCEPTABLE TO THE GEOTECHNICAL ENGINEER.
- CONCRETE AND MASONRY REINFORCING STEEL:**
- SUBMIT SHOP DRAWINGS FOR REBAR. ALL REINFORCING BARS SHALL MEET ASTM A615 GRADE 60.
  - ALL MESH SHALL MEET ASTM A-185 (AP A MINIMUM OF 6" OR ONE FULL MESH, WHICHEVER IS GREATER).
  - REINFORCING BAR QUANTITIES SHOWN ARE FOR ESTIMATING PURPOSES ONLY.
  - CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE 1/2" CLEAR FOR SLABS, 2" CLEAR FOR FORMED SURFACES AND 3" CLEAR FOR FOOTINGS (TYPICAL UNLESS NOTED).
  - CONTRACTOR SHALL VERIFY THAT ALL REINFORCEMENT, SLAB DOWELS, INSERTS, SLEEVES AND EMBEDDED ITEMS ARE PROPERLY LOCATED AND RIGIDLY SECURED PRIOR TO CONCRETE PLACEMENT. "WET STICKING" DOWELS WILL NOT BE ALLOWED.
  - REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST A.C.I. DETAILING MANUAL BY A QUALIFIED AND EXPERIENCED FIRM AND PERSON. PLATE AND SUPPORT REINFORCEMENT WITH ACCESSORIES: MAXIMUM SPACING - 48" CENTERS PLASTIC-TIPPED LEGS FOR EXPOSED SURFACES). USE 3" SPP SUPPORTS AT ALL FOOTINGS.
  - ALL STRUCTURAL ADHESIVE SHALL BE SIMPSON SET 3G OR HILTI HY-200 R OR EQUIVALENT. ALL STRUCTURAL ADHESIVE SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS. SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL WITH APPROPRIATE ICBO EVALUATION REPORTS.
- CAST IN PLACE CONCRETE:**
- SUBMIT PROPOSED MIXED DESIGNS OF EACH TYPE FOR REVIEW. REQUIRED MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS:
    - FOOTING AND GRADE BEAM CONCRETE.....4000 PSI
    - FOUNDATION WALL CONCRETE.....4000 PSI
    - SLAB ON GRADE.....4000 PSI
  - ALL CONCRETE MIX DESIGNS SHALL HAVE WATER TO CEMENT RATIOS LESS THAN 0.45 FOR MOISTURE SENSITIVE (FLOORING), WITH A MAXIMUM 60# FINE TO COARSE AGGREGATE RATIO. CONCRETE MIX DESIGNS THAT DO NOT CONFORM TO THE ABOVE STANDARD AND/OR CONTAIN WATER REDUCING ADMIXTURES SHALL BE SUBMITTED WITH APPROPRIATE TEST DATA PER A.C.I. ALL CONCRETE SHALL BE IN CONFORMANCE WITH THE A.C.I. 301 STANDARD THAT IS REFERENCED IN THE BUILDING CODE AT THE TIME OF PERMITTING THE PROJECT.
  - EXTERIOR CONCRETE (FLOOR SLABS, WALLS, ETC) SHALL HAVE 6.5% (PLUS/MINUS 1.5%) ENTRAINED AIR.
  - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" (VERIFY WITH ARCHITECT).
  - NO ALUMINUM SHALL BE EMBEDDED IN ANY CONCRETE.
  - NO CALCIUM CHLORIDE SHALL BE USED IN CONCRETE.
  - THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - ALL CONCRETE IS REINFORCED UNLESS SPECIFICALLY NOTED AS UNREINFORCED. REINFORCE ALL CONCRETE NOT OTHERWISE SHOWN WITH THE SAME REINFORCING AS SIMILAR SECTIONS OR AREAS.
  - CONSTRUCTION JOINTS IN GRADE BEAMS, CONTINUOUS FOOTINGS, AND WALLS THAT DO NOT CHANGE DIRECTION SHALL BE SPACED NO GREATER THAN 80'-0". INTERMEDIATE CONTROL JOINTS SHALL BE SPACED AT 25'-0" MAX FOR WALLS. CONTROL JOINTS IN WALLS SHALL ALSO BE LOCATED 15'-0" FROM CORNERS AND AT CHANGES IN WALL THICKNESS.
  - WHERE FRESH CONCRETE IS DEPOSITED AGAINST HARDENED CONCRETE (GREATER THAN 8 HRS OLD), CLEAN EXISTING SURFACE OF LAITANCE AND FOREIGN MATERIAL, AND DAMPEN THE EXISTING SURFACE. IF REQUIRED, ROUGHEN EXISTING CONCRETE TO 1/4" AMPLITUDE.
  - SLABS ON GRADE SHALL BE 4" THICK MINIMUM ON 4" OF GRANULAR FILL. REINF SLAB WITH 6 X 6-W2 1-WWR OR #3 BARS @ 18" OC EA WAY. PLACE REIN IN UPPER 1/3 OF SLAB THICKNESS. AT INTERIOR SLABS, A 10 MIL VAPOR BARRIER SHALL BE PLACED BETWEEN THE CONCRETE AND GRANULAR BASE AND CARE SHOULD BE TAKEN DURING CURING TO PREVENT SLAB CURLING. THIS NOTE SHALL BE TYPICAL UNLESS NOTED OTHERWISE.
  - SAW CUT JOINTS OR KEVED CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL BE SPACED TO DIVIDE THE SLAB INTO PANELS NOT TO EXCEED 225 SQUARE FEET. THE LONGER DIMENSION OF EACH PANEL SHALL NOT EXCEED THE SHORTER DIMENSION BY MORE THAN 40%. JOINTS SHALL BE LOCATED AT COLUMN CENTERLINES WHERE POSSIBLE. SPACING BETWEEN JOINTS SHALL NOT EXCEED 15 FEET. CONTRACTOR SHALL SUBMIT JOINT LAYOUT TO ARCHITECT FOR APPROVAL. REFER TO TYPICAL DETAILS.
  - REINFORCEMENT SHALL BE CONTINUOUS AND LAPPED 53 BAR DIAMETERS (2'-0" MIN), EXCEPT AS NOTED AND PROVIDE CORNER BARS OF SAME SIZE AND SPACING.
  - MINIMUM CONCRETE WALL REINFORCING (WALL 10" OR GREATER) SHALL BE #5 AT 10" CENTERS EACH WAY, EACH FACE.
  - MINIMUM REINFORCING AROUND CONCRETE WALL OPENINGS 2'-0" OR GREATER (TYPICAL UNLESS NOTED); 2-#5, EXTEND REIN 2'-0" PAST OPENINGS. PROVIDE 2-#5 x 4'-0" DIAGONAL BARS AT CORNERS.
  - CONTRACTOR SHALL COORDINATE ALL CURING COMPOUNDS WITH FLOOR FINISH REQUIREMENTS TO ENSURE COMPATIBILITY.
  - FOUNDATION CONTRACTOR TO ENSURE PROPER ANCHOR ROD PROJECTION AND THAT ANCHOR RODS ARE HELD SECURELY IN POSITION PRIOR TO CONCRETE PLACEMENT. INSTALL ANCHOR RODS TO THE STRICT DIMENSIONAL TOLERANCES PER AISC REQUIREMENTS. STRUCTURAL STEEL COLUMN ANCHOR RODS SHALL BE SET WITH A RIGID TEMPLATE.

- AGGREGATES AND/OR CONCRETE MIXES SHALL BE CERTIFIED TO BE FREE OF AND ELIMINATE DAMAGE OF CONCRETE DUE TO ALKALI-SILICA REACTION OR ALKALI-AGGREGATE REACTIONS WHEN EXPOSED TO SOILS AND/OR AN EXTERIOR ENVIRONMENT.
- WOOD:**
- FRAMING MATERIAL: ALL WOOD FRAMING SHALL MEET OR EXCEED THE FOLLOWING:
    - NOMINAL STRUCTURAL LUMBER: DOUG. FIR - NO 2 OR BETTER, KILN-DRIED, MIN Fb = 900 PSI, MIN E = 1400 KSI.
    - EXPOSED TO WEATHER: NOMINAL STRUCT LUMBER - PRESS TREATED NO 2 OR BETTER, MIN Fb = 1000 PSI, MIN E = 1300 KSI.
    - MICROLLAM LVL (LAMINATED VENEER LUMBER) BEAMS SHALL MEET TRUS JOIST SPECIFICATIONS: MINIMUM Fb = 2600 PSI AND MINIMUM E = 1900 KSI.
    - TIMBERSTRAND (LAMINATED STRAND LUMBER) BEAMS SHALL MEET TRUS JOIST SPECIFICATIONS: MINIMUM Fb = 2600 PSI AND MINIMUM E = 1550 KSI.
    - GLULAM FRAMING: 24F-V4 DOUGLAS FIR, ARCHITECTURAL FINISH (COORDINATE WITH ARCH).
  - LUMBER IN DIRECT CONTACT WITH CONCRETE OR MASONRY, SUCH AS SILL PLATES AND BEARING PLATES BELOW BEAMS POKETED IN CMU, SHALL BE TREATED LUMBER.
  - WOOD SHEATHING:
    - ROOF SHEATHING SHALL BE 15/32" OR 1/2" WITH AN APA SPAN RATING OF 32'16. EXPOSURE 1, MINIMUM 2 SPAN. FASTEN WITH 10# COMMON NAILS AT 6" CENTERS AT ALL PANEL EDGES AND 12" CENTERS MAXIMUM AT INTERMEDIATE FRAMING MEMBERS (IN THE FIELD). USE PLYCLIPS AT MIDSPAN.
    - FLOOR SHEATHING SHALL BE TONGUE AND GROOVE SHEATHING, EXPOSURE 1, MINIMUM 2 SPAN, FASTEN WITH APA APPROVED ADHESIVE AND 10# RING SHANKED NAILS AT 6" ON CENTERS AT ALL PANEL EDGES AND AT 10" ON CENTERS MAXIMUM AT INTERMEDIATE FRAMING MEMBERS (IN THE FIELD).
    - WHEN CLEAR DISTANCE BETWEEN FLOOR JOISTS OR FLOOR TRUSSES IS 16" OR LESS USE 3/4" SHEATHING WITH AN APA SPAN RATING OF 48'24.
    - WHEN CLEAR DISTANCE BETWEEN FLOOR JOISTS OR FLOOR TRUSSES IS GREATER THAN 16" USE 7/8" SHEATHING WITH AN APA SPAN RATING OF 60'32.
    - WALL SHEATHING FOR EXTERIOR WALLS SHALL BE 7/16" WITH AN APA SPAN RATING OF 24'6, UNLESS NOTED OTHERWISE. ALL PANEL EDGES SHALL BE BACKED WITH 2 INCH NOMINAL OR WIDER FRAMING, FASTEN WITH 8# COMMON NAILS AT 6" OC MAXIMUM AT ALL TOP PLATES, BLOCKING, BOUNDARIES AND 10" OC MAXIMUM IN THE FIELD.
  - WOOD SHEATHING TO BE STAGGERED 4X8'S, ORIENTED PERPENDICULAR TO SUPPORTING MEMBERS.
  - PROVIDE 1/8" GAP AT ALL SHEATHING PANEL EDGES AND END JOINTS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DUE TO CONSTRUCTION CONDITIONS, TEMPORARY EXPANSION JOINTS MAY BE REQUIRED IN FLOOR/ROOF SHEATHING.
  - ALL HEADERS IN EXTERIOR OR INTERIOR BEARING WALLS SPANNING MORE THAN 3'-8" SHALL BE SUPPORTED ON DOUBLE STUDS UNLESS NOTED.
  - MINIMUM NAILING SHALL CONFORM TO IBC TABLE 2304.10.1. USE COMMON NAILS EXCEPT WHERE NOTED. ALL FASTENERS (BOLTS, SCREWS, NAILS, ETC) IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED.
  - LIGHT GAUGE WOOD FRAMING CONNECTORS AS NOTED ON THE PLANS FOR WOOD JOISTS, COLUMNS, BEAMS AND TRUSSES SHALL BE STRONG-TIE CONNECTORS BY THE SIMPSON CO. OR REVIEWED EQUIVALENT. CONNECTORS IN DIRECT CONTACT WITH PRESSURE TREATED LUMBER SHALL HAVE "ZMAX" G185 HOT DIP GALVANIZED COATING OR REVIEWED EQUIVALENT.
  - CONNECTORS IN DIRECT CONTACT WITH PRESSURE TREATED LUMBER SHALL HAVE "ZMAX" G185 HOT DIP GALVANIZED COATING OR REVIEWED EQUIVALENT.
  - STAINLESS STEEL FASTENERS, ANCHOR BOLTS, LIGHT GAUGE CONNECTORS, ETC. MAY BE SUBSTITUTED FOR HOT DIP GALVANIZED MATERIALS AT THE CONTRACTORS OPTION.
  - PROVIDE UPLIFT CONNECTORS AT EACH ROOF TRUSS TO WALL CONNECTIONS PER IBC.
  - STUDS SHALL BE CONTINUOUS THROUGH EACH DIAPHRAGM LEVEL. EXTERIOR WALL STUDS AT GROUND FLOOR SHALL BE BRACED BY KICKERS AND/OR STRUCTURAL CEILING FRAMING.
  - TYPICAL SILL ANCHOR RODS SHALL BE GALVANIZED 5/8" DIAMETER EMBEDDED 6" MIN INTO CONCRETE, SPACED NO FURTHER THAN 3'-0" OC, AND SHALL OCCUR WITHIN 12" OF THE ENDS OF A SILL PLATE. SPACE ANCHOR RODS MORE CLOSELY TOGETHER AT SHEAR WALLS AS SHOWN ON THE DRAWINGS. EACH SILL PLATE SHALL HAVE A MINIMUM OF 2 ANCHOR RODS. PROVIDE 2" SQUARE PLATE WASHERS AND NUTS.
  - SUBSTITUTIONS OF SPECIFIED WOOD MEMBERS SHALL NOT BE MADE WITHOUT REVIEW OF THE ARCHITECT/ENGINEER.
  - CUT ENDS OF EXTERIOR WOOD POSTS SHALL BE FIELD TREATED WITH AN APPROVED PRESERVATIVE (SUCH AS COPPER NAPHTHENATE). ATTACHMENT OF THE BEAM TO THE SIDE OF THE POST WITHOUT NOTCHING IS PROHIBITED. ALL 3-PLY BEAMS SHALL BE CONNECTED TO THE POST BY A POST CAP PLATE.

**PRE-FABRICATED WOOD TRUSS NOTES:**

- THE WOOD TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR ENGINEER'S REVIEW. THE SHOP DRAWINGS SHALL INCLUDE PLACING PLANS OF ALL TRUSSES CLEARLY LABELED, DETAILS OF TRUSS CONNECTIONS AND ANCHORAGES, DETAILS OF METAL CONNECTORS USED AT JOINTS, AND ENGINEERING DESIGN DATA. THE ENGINEERING DESIGN FOR EACH TYPE OF TRUSS SHALL INCLUDE: TRUSS LOCATION IDENTIFICATION, ALL LOADINGS AND REACTIONS, WOOD SPECIES AND STRESS GRADES, MEMBER STRESSES, JOINT CONNECTIONS, CONFIGURATION, TRUSS HANGERS, TRUSS TO TRUSS CONNECTIONS, BRACING FOR LATERAL STABILITY OF THE COMPLETED FRAMING SYSTEM AND OF THE TEMPORARY CONSTRUCTION CONDITION IN ACCORDANCE WITH THE TPI RECOMMENDATIONS, AND THE PROFESSIONAL ENGINEERS SEAL OF THE PERSON RESPONSIBLE FOR THE DESIGN OF THE TRUSSES/TRUSS SYSTEM.
- PREFABRICATED WOOD TRUSS DESIGN SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: ANSI/TPI NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION (TPI H19) COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING OF METAL PLATE CONNECTED TRUSSES (TPI S20) RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES; SHOP DRAWINGS SHALL INDICATE VERIFICATION OF PARTICIPATION IN THE TPI INSPECTION PROGRAM.
- THE CONTRACTOR SHALL FURNISH A COPY OF THE APPROVED PRE-FABRICATED TRUSS SHOP DRAWINGS TO BUILDING OFFICIAL FOR THEIR RECORDS.
- TRUSS MEMBERS AND COMPONENTS SHALL NOT BE FIELD CUT, NOTCHED, DRILLED, OR ALTERED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER RESPONSIBLE FOR THE TRUSS DESIGN.
- PRE-FABRICATED WOOD ROOF TRUSS DESIGN CRITERIA:
  - TOP CHORD DEAD LOAD.....10 PSF
  - TOP CHORD LIVE LOAD.....20 PSF
  - TOP CHORD SNOW LOAD.....PER DESIGN CRITERIA
  - TOP CHORD WIND LOAD.....PER CAL WIND DESIGN CRITERIA (S01)
  - UPLIFT VALUES MAY BE REDUCED BY 12 PSF (0.6D)
  - BOTT. CHORD DEAD LOAD.....10 PSF
  - BOTT. CHORD LIVE LOAD.....10 PSF
  - LIVE LOAD DEFLECTION CRITERIA.....L/360
  - TOTAL LOAD DEFLECTION CRITERIA.....L/240
 \*MUST INCLUDE ALL LONG-TERM DEFLECTION EFFECTS
- ALL SCISSOR AND/OR VAULTED TRUSSES ARE NOT RESTRAINED AT WALLS. CONSIDER HORIZONTAL DEFLECTION IN TRUSS DESIGN. LIMIT HORIZONTAL DEFLECTION TO 0.5" TOTAL OR 0.25" EA SIDE.
- TRUSS SUPPLIER SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO TRUSS FABRICATION.



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STRUCTURAL GENERAL NOTES  
IBC

Abbreviation	Abbreviation Name
PLUS OR MINUS	
ADJ	ADJACENT
AE	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
AR	ANCHOR ROD
ARCH	ARCHITECT OR ARCHITECTURAL
B	BOTTOM OF
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BTM	BOTTOM
BRG	BEARING
BWP	BRACED WALL PANEL
CFS	COLD FORMED STEEL
CHKD	CHECKED
CP	CAST IN PLACE
CJ	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CTR	CENTER
db	DIA OF REIN BAR, DIA OF BOLT
DBA	DEFORMED BAR ANCHOR
DA or Ø	DIAMETER
DIAG	DIAGONAL
DIR	DIRECTION
DWL	DOWEL
EA	EACH
EE	EXTENDED END
EJ	EXPANSION JOINT
ELEV	ELEVATION
EN	EDGE NAILING
ENGR	ENGINEER
EO	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
EW	EACH WAY
EXIST	EXISTING
EXT	EXTERIOR
FDN	FOUNDATION
FLG	FLANGE
FLR	FLOOR
FS	FAR SIDE
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SECTION
I	INSIDE FACE
INT	INTERIOR
JST	JOIST
K	KIPS (1000 LBS)
LCE	COMPRESSION EMBEDMENT LENGTH
LCS	COMPRESSION LAP SPOLE LENGTH
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SLOTTED HOLE
LTE	TENSION EMBEDMENT LENGTH
LTS	TENSION LAP SPOLE LENGTH
LW	LIGHTWEIGHT
MFCR	MANUFACTURER
MTL	METAL
NIC	NOT IN CONTACT
NS	NEAR SIDE
NIS	NOT TO SCALE
OC	ON CENTER
OF	OUTSIDE FACE
OPP	OPPOSITE
OVS	OVERSIZED
PC	PRECAST
PAF	POWDER ACTUATED FASTENER
PAR	PARALLEL
PEMB	PRE-ENGINEERED METAL BUILDING
PER	PERPENDICULAR
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
RC	REINFORCED CONCRETE
RE	REFER TO
REIN	REINFORCING
REQD	REQUIRED
RF	RIGID FRAME
SC	SLIP CRITICAL
SJS	SELF DRILLING SCREW
SS	SIMILAR
SLV	SHORT LEG VERTICAL
SO	SLAB ON GRADE
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STR	STIRRUPS
STL	STEEL
SW	SHEAR WALL
SYM	SYMMETRIC
T&B	TOP AND BOTTOM
T	TOP OF
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WP	WORK POINT
WWR	WELDED WIRE REINFORCEMENT

**STRUCTURAL GENERAL NOTES**

**DESIGN CRITERIA:**

- LIVE LOADS (UNIFORM (PSF) / POINT LOADS (KIPS)):
  - ROOF: 20 PSF / 1.0 K
  - ELEVATED FLOORS: 40 PSF / 1.0 K
- GROUND SNOW LOAD (Pg): 20 PSF
- BASIC WIND SPEED (3 SEC GUST): 115 MPH (ULT) 90 MPH (ASD)
- DECK GUARD RAIL LOAD: 200# CONCENTRATED LOAD APPLIED IN ANY DIRECTION

AREA	MIN DEAD LOAD	MIN LIVE LOAD
BALCONIES (EXTERIOR) AND DECKS	10	40
CEILING JOISTS W/ STORAGE (SCUTTLE ACCESS ONLY)	10	10
CEILING JOISTS - ATTICS W/ STORAGE (DOOR OR PULL DOWN LADDER ACCESS)	10	20
ROOMS - NON SLEEPING	15	40
SLEEPING ROOMS	15	30
ROOF - LIGHT ROOF COVERING	15	20
ROOF - HEAVY ROOF COVERING (CONCRETE/TILE/SLATE)	20	20

**STRUCTURAL GENERAL NOTES:**

- DESIGN AND CONSTRUCTION SHALL CONFORM TO THE "INTERNATIONAL RESIDENTIAL CODE 2018 EDITION". CONSULT WITH THE LOCAL JURISDICTION FOR JURISDICTION REQUIREMENTS
- CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
- IF DISCREPANCIES EXIST BETWEEN STRUCTURAL PLANS, ARCHITECTURAL PLANS, OTHER PLANS, OR SPECIFICATIONS, THE CONTRACTOR OR SUBCONTRACTOR SHALL PROVIDE A WRITTEN REQUEST FOR CLARIFICATION FROM THE ARCHITECT AND/OR ENGINEER PRIOR TO PROCEEDING WITH THE WORK
- THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO EXECUTE AND DETERMINE FINAL ERECTION PROCEDURES, SEQUENCING AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION.
- FABRICATORS AND SUPPLIERS SHALL CLEARLY NOTE AND HIGHLIGHT CHANGES MADE IN SHOP DRAWINGS, WHICH DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.
- BEAMS, COLUMNS, WALLS, AND FOOTING CENTERS SHALL BE CENTERED UNDER SUPPORTING MEMBERS (TYPICAL UNLESS NOTED OTHERWISE).

**EARTHWORK AND FOUNDATIONS:**

- PRESUMPTIVE ALLOWABLE BEARING PRESSURE = 1,500 PSF (PER THE IRC). ALL FOOTINGS AND FOUNDATIONS SHALL BEAR ON NATIVE UNDISTURBED SOIL. NOTIFY ENGINEER IF FILL IS ENCOUNTERED BELOW FOOTING BEARING LOCATIONS.
- ALL PERIMETER AND EXTERIOR FOOTINGS SHALL EXTEND AT LEAST 3'-0" BELOW FINAL ADJACENT GRADE. DEEPEN FOOTINGS AS REQUIRED TO PROVIDE THIS MINIMUM BOTTOM OF FOOTING.
- SURFACE WATER SHALL NOT BE ALLOWED TO STAND ADJACENT TO OR DRAIN TOWARDS THE FOUNDATION UNDER ANY CIRCUMSTANCES. PAVEMENTS OR GRADED SOILS AT THE PERIMETER OF THE BUILDING, EXCEPT AS REQUIRED AT EXITS OR AS NOTED, SHALL BE SLOPED AWAY AT 5% OR 1" MIN FOR THE FIRST TEN FEET.
- FOOTINGS MAY BE POURED TO NEAT LINES OF EXCAVATIONS PROVIDING VERTICAL LINES OF EXCAVATIONS CAN BE MAINTAINED DURING CONCRETE PLACEMENT.
- FOUNDATION CONTRACTOR TO ENSURE PROPER ANCHOR ROD PROJECTION AND THAT ANCHOR RODS ARE HELD SECURELY IN POSITION PRIOR TO CONCRETE PLACEMENT. STRUCTURAL STEEL COLUMN ANCHOR RODS SHALL BE SET WITH A TEMPLATE.
- FOUNDATION WALL BACKFILL SHALL NOT BE UNBALANCED BY MORE THAN TWO FEET ON EITHER SIDE AT ANY TIME. BASEMENT WALL AND RESTRAINED RETAINING WALL BACKFILL SHALL NOT BE PLACED, UNLESS THE WALL IS ADEQUATELY BRACED. RETAINING WALL AND BASEMENT WALL BACKFILL SHALL BE FREE DRAINING GRANULAR BACKFILL.
- SOIL CONDITIONS AT THE TIME OF CONSTRUCTION SHOULD BE EVALUATED BY THE CONTRACTOR. SOIL THAT IS TOO DRY OR TOO WET MAY BE SUBJECT TO EXCESSIVE SHRINKING OR SWELLING. IN ADDITION, SOME ON-SITE SOILS MAY BE UNSUITABLE FOR BACK FILL. CONSULT WITH A GEOTECHNICAL ENGINEER AS NEEDED FOR SITE PREP REQUIREMENTS.

**PREFABRICATED WOOD FLOOR TRUSS NOTES:**

- THE WOOD FLOOR TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER'S REVIEW. THE SHOP DRAWINGS SHALL INCLUDE PLACING PLANS OF ALL TRUSSES CLEARLY LABELED, DETAILS OF TRUSS CONNECTIONS AND ANCHORAGES, DETAILS OF METAL CONNECTORS USED AT JOINTS, AND ENGINEERING DESIGN DATA. THE ENGINEERING DESIGN FOR EACH TYPE OF TRUSS SHALL INCLUDE: TRUSS LOCATION IDENTIFICATION, ALL LOADINGS AND REACTIONS, WOOD SPECIES AND STRESS GRADES, MEMBER STRESSES, JOINT CONNECTIONS, CONFIGURATION, TRUSS TO TRUSS CONNECTIONS, BRACING FOR LATERAL STABILITY OF THE COMPLETED FRAMING SYSTEM, AND THE PROFESSIONAL ENGINEERS SEAL OF THE PERSON RESPONSIBLE FOR THE DESIGN OF THE TRUSSES/TRUSS SYSTEM.
- THE CONTRACTOR SHALL FURNISH A COPY OF THE PREFAB TRUSS SHOP DRAWINGS TO BUILDING OFFICIAL FOR THEIR RECORDS.
- TRUSS MEMBERS AND COMPONENTS SHALL NOT BE FIELD CUT, NOTCHED, DRILLED, OR ALTERED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER RESPONSIBLE FOR THE TRUSS DESIGN.
- ALL SCISSOR AND/OR VAULTED TRUSSES ARE NOT RESTRAINED AT WALLS. CONSIDER HORIZONTAL DEFLECTION IN TRUSS DESIGN. LIMIT HORIZONTAL DEFLECTION TO 0.5" TOTAL OR 0.25" EA SIDE.
- PREFABRICATED WOOD ROOF TRUSS DESIGN CRITERIA:
  - TOP CHORD DEAD LOAD: 10 PSF
  - TOP CHORD FLOOR LIVE LOAD: 20 PSF
  - BOT CHORD DEAD LOAD: 10 PSF
  - BOT CHORD LIVE LOAD: 10 PSF
  - LIVE LOAD DEFLECTION CRITERIA: L/360
  - TOTAL LOAD DEFLECTION CRITERIA: L/240
- TRUSS SUPPLIER SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO TRUSS FABRICATION.

**CONCRETE AND MASONRY REINFORCING STEEL:**

- ALL REINFORCING BARS SHALL MEET ASTM A615 GRADE 40.
- ALL MESH SHALL MEET ASTM A-185. LAP A MINIMUM OF 8" OR ONE FULL MESH, WHICHEVER IS GREATER.
- CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE 3/4" CLEAR FOR SLABS, 2" CLEAR FOR FORMED SURFACES AND 3" CLEAR FOR FOOTINGS (TYPICAL UNLESS NOTED OTHERWISE).
- CONTRACTOR SHALL VERIFY THAT ALL REINFORCEMENT, SLAB DOWELS, INSERTS, SLEEVES AND EMBEDDED ITEMS ARE PROPERLY LOCATED AND RIDGIDLY SECURED PRIOR TO CONCRETE PLACEMENT. "WET STICKING" DOWELS WILL NOT BE ALLOWED.

**CAST IN PLACE CONCRETE:**

- CONCRETE CONSTRUCTION SHALL ADHERE TO THE RECOMMENDATIONS AND REQUIREMENTS OF ACI 332 - "REQUIREMENTS FOR RESIDENTIAL CONCRETE CONSTRUCTION" (UNLESS NOTED OTHERWISE)
- REQUIRED MINIMUM CONCRETE COMPRESSIVE STRENGTHS AT 28 DAYS:
  - a. FOOTING CONCRETE: 4,000 PSI
  - b. FOUNDATION WALL CONCRETE: 4,000 PSI
  - c. INTERIOR SOG: 4,000 PSI
  - d. EXTERIOR SLAB ON GRADE AND GARAGE FLOOR SLABS: 4,000 PSI
- EXTERIOR CONCRETE (FLOOR SLABS, WALLS, ETC) INCLUDING GARAGE FLOORS SHALL HAVE 6% (PLUS/MINUS 1%) ENTRAINED AIR.
- CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" (VERIFY WITH ARCHITECT).
- NO ALUMINUM SHALL BE EMBEDDED IN ANY CONCRETE.
- NO CALCIUM CHLORIDE SHALL BE USED IN CONCRETE.

- THE DESIGN, CONSTRUCTION, AND SAFETY OF ALL FORMWORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL CONCRETE IS REINFORCED UNLESS SPECIFICALLY NOTED AS UNREINFORCED. REINFORCE ALL CONCRETE NOT OTHERWISE SHOWN WITH THE SAME REINFORCING AS SIMILAR SECTIONS OR AREAS.
- CONSTRUCTION JOINTS IN GRADE BEAMS, CONTINUOUS FOOTINGS, AND WALLS THAT DO NOT CHANGE DIRECTION SHALL BE SPACED NO GREATER THAN 6'-0" INTERMEDIATE CONTROL JOINTS SHALL BE SPACED AT 25'-0" MAX FOR WALLS. CONTROL JOINTS IN WALLS SHALL ALSO BE LOCATED 15'-0" FROM CORNERS AND AT CHANGES IN WALL THICKNESS.
- WHERE FRESH CONCRETE IS DEPOSITED AGAINST HARDENED CONCRETE (GREATER THAN 8 HRS OLD), CLEAN EXISTING SURFACE OF LAITCHES AND FOREIGN MATERIAL AND DAMPEN THE EXISTING SURFACE. IF REQUIRED, ROUGHEN EXISTING CONCRETE TO 1/2" AMPLITUDE.

- SLABS ON GRADE SHALL BE 4" THICK MIN ON 6" OF GRANULAR FILL. REIN FLOOR WITH 6 # 4 - W21 x W21 WWR, #3 BARS AT 18" OC, OR #4 BARS AT 24" OC UNLESS NOTED OTHERWISE. ALL REIN SHALL BE PLACED IN UPPER 1/3 OF SLAB THICKNESS. AT INTERIOR SLABS, AN 8 MIL VAPOR BARRIER SHALL BE PLACED BETWEEN THE CONCRETE AND GRANULAR BASE AND CARE SHOULD BE TAKEN DURING CURING TO PREVENT SLAB CURLING. THIS NOTE SHALL BE TYPICAL UNLESS NOTED OTHERWISE.
- SAW CUT JOINTS OR KEVED CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL BE SPACED TO DIVIDE THE SLAB INTO PANELS NOT TO EXCEED 225 SQUARE FEET. THE LONGER DIMENSION OF EACH PANEL SHALL NOT EXCEED THE SHORTER DIMENSIONS BY MORE THAN 40%. JOINTS SHALL BE LOCATED AT COLUMN CENTERLINES WHERE POSSIBLE. SPACING BETWEEN JOINTS SHALL NOT EXCEED 15 FEET. CONTRACTOR SHALL SUBMIT JOINT LAYOUT TO ARCHITECT FOR APPROVAL.
- REINFORCEMENT SHALL BE CONTINUOUS AND LAPPED 53 BAR DIAMETERS (2'-6" MIN) EXCEPT AS NOTED AND PROVIDE CORNER BARS OF SAME SIZE AND SPACING.
- MINIMUM REINFORCING AROUND CONCRETE WALL OPENINGS 2'-0" OR GREATER (TYPICAL UNLESS NOTED OTHERWISE): (2) #5, EXTEND REIN F 2'-0" PAST OPENINGS. PROVIDE (2) #1 4" DIAGONAL BARS AT CORNERS.
- MINIMUM REINFORCING IN PERIMETER STEM WALL SHALL BE #4 VERTS @ 16" OC WITH 5TD HOOKS INTO FOOTING AND #4 HORIZ @ 16" OC MAX. IN FOOTING PROVIDE (2) #4 CONTINUOUS W/ #4 TRANSVERSE @ 16" OC MAX.

**STRUCTURAL STEEL:**

- STRUCTURAL STEEL SHAPES AND PLATE MATERIAL REQUIREMENTS (TYPICAL UNLESS NOTED OTHERWISE):
  - a. WIDE FLANGE SHAPES - ASTM A992 (FY = 50 KSI MIN)
  - b. CHANNELS, ANGLES, AND PLATES - ASTM A36 (FY = 36 KSI MIN)
  - c. RECTANGULAR HSS - ASTM A500, GR B (FY = 46 KSI)
  - d. ANCHOR RODS - ASTM F1554 (FY = 36 KSI MIN)
  - e. ROUND PIPE - ASTM A53, GRB (FY=35 KSI MIN)
- STRUCTURAL STEEL SHALL BE NEW AND MEET THE 15TH EDITION AISC "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS AND BRIDGES" AND THE "CODE OF STANDARD PRACTICES FOR STEEL BUILDINGS AND BRIDGES", EXCLUDING SECTION 4.4.1.B.
- WELDING SHALL CONFORM TO THE CURRENT AND APPLICABLE AWS STANDARDS AND BE COMPLETED BY AN AWS CERTIFIED WELDER.
  - a. AWS D1.1 - STRUCTURAL WELDING CODE - STEEL
  - b. AWS D1.3 - STRUCTURAL WELDING CODE - SHEET STEEL
  - c. AWS D1.6 - STRUCTURAL WELDING CODE - STAINLESS STEEL
- WELD SIZES SHALL BE INCREASED TO MEET THE REQUIRED EFFECTIVE THROAT WIDTH IF GAPS EXIST AT THE FAYING SURFACE.
- NO COLUMN OR BEAM SPLICES, UNLESS CLEARLY INDICATED ON THE STRUCTURAL DRAWINGS, WILL BE ALLOWED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
- GROUT WHERE INDICATED ON PLANS AT BASE PLATES SHALL BE NON-METALLIC NON-SHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI AT 28 DAYS CONFORMING TO ASTM C1107.
- ALL POST INSTALLED ANCHORS WHERE NOTED SHALL BE MANUFACTURED BY HILTI, INC. OR SIMPSON STRONG TIE AND BE INSTALLED PER THE MANUFACTURERS SPECIFICATIONS. SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL WITH APPROPRIATE ICBO EVALUATION REPORTS.

**GARAGE**

- THE GARAGE FLOOR SHALL SLOPE TOWARD THE GARAGE DOOR.
- NEW GARAGE DOOR SHALL BE A 20 MINUTE OR 1-3/8" SOLID WOOD DOOR BETWEEN THE HOUSE AND GARAGE.
- 1/2" GYP BOARD SHALL BE USED ON WALLS BETWEEN GARAGE AND HOUSE. 5/8" TYPE-X GYP BOARD SHALL BE USED ON THE GARAGE CEILING.

**WOOD:**

- FRAMING MATERIAL:
  - a. NOMINAL STRUCTURAL LUMBER - NO 2 OR BETTER, KD D, FIR, MIN Fb = 900 PSI, MIN E = 1,400 KSI
  - b. EXPOSED NOMINAL STRUCT LUMBER - PRESS TREATED NO 2 OR BETTER, MIN Fb = 1,000 PSI, MIN E = 1,300 KSI
  - c. MICROSLAM LVL (LAMINATED VENEER LUMBER) BEAMS SHALL MEET TRUS JOIST SPECIFICATIONS. MINIMUM Fb = 2,600 PSI AND MINIMUM E = 1,900 KSI
  - d. TIMBERSTRAND LSL (LAMINATED STRAND LUMBER) BEAMS SHALL MEET TRUS JOIST SPECIFICATIONS. MINIMUM Fb = 2,600 PSI AND MINIMUM E = 1,700 KSI
  - e. GULLAM FRAMING: 24"-14 DOUGLAS FIR, ARCHITECTURAL FINISH (COORD W/ ARCH).
- SUBSTITUTIONS OF SPECIFIED WOOD MEMBERS SHALL NOT BE MADE WITHOUT REVIEW OF THE ARCHITECT/ENGINEER.
- WOOD SHEATHING:
  - a. ROOF SHEATHING SHALL BE 5/8" WITH AN APA SPAN RATING OF 4020. EXPOSURE 1, MINIMUM 2 SPAN, FASTEN WITH #4 COMMON (2.5" x 0.131") NAILS AT 6" OC MAXIMUM AT ALL EDGE CONDITIONS AND 12" OC AT INTERMEDIATE SUPPORTS. AT ALL LOCATIONS WITHIN 48" FROM GABLE END WALLS AND RIDGES (BOTH SIDES), ALL FASTENING SHALL BE AT 6" OC BOTH EDGES AND INTERMEDIATE SUPPORTS. IF ROOF RAFTER SPACING IS 24" OR GREATER THEN USE PLYCLIPS AT MIDSPAN.
  - b. FLOOR SHEATHING SHALL BE TONGUE AND GROOVE, EXPOSURE 1, MINIMUM 2 SPAN, FASTENED WITH APA APPROVED ADHESIVE AND PER THE CHART ON THIS PAGE:
    - WHEN CLEAR DISTANCE BETWEEN FLOOR JOISTS OR FLOOR TRUSSES IS 16" OR LESS USE 3/4" SHEATHING WITH AN APA SPAN RATING OF 4824.
    - WHEN CLEAR DISTANCE BETWEEN FLOOR JOISTS OR FLOOR TRUSSES IS GREATER THAN 16" USE 7/8" SHEATHING WITH AN APA SPAN RATING OF 6032.

- WALL SHEATHING FOR EXTERIOR WALLS SHALL BE 7/16" WITH AN APA SPAN RATING OF 2416, UNLESS NOTED OTHERWISE. ALL PANEL EDGES SHALL BE BACKED WITH 2 INCH NOMINAL OR WIDER FRAMING, FASTEN WITH #4 COMMON (2.5" x 0.131") NAILS AT 6" OC MAXIMUM AT ALL TOP PLATES, BLOCKING, BOUNDARIES AND 17" OC MAXIMUM IN THE FIELD. AT BRACED WALL LOCATIONS NOTED ON WALL FRAMING PLAN REFERENCE S062 FOR ADDITIONAL FASTENING REQUIREMENTS.
- WOOD SHEATHING TO BE STAGGERED 4'-8" SHEETS ORIENTED PERPENDICULAR TO SUPPORTING MEMBERS.
- PROVIDE 1/8" GAP AT ALL SHEATHING PANEL EDGES AND END JOINTS UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. DUE TO CONSTRUCTION CONDITIONS, TEMPORARY EXPANSION JOINTS MAY BE REQUIRED IN FLOOR/ROOF SHEATHING.
- ALL HEADERS IN EXTERIOR OR INTERIOR BEARING WALLS SPANNING MORE THAN 3'-6" SHALL BE SUPPORTED ON DOUBLE STUDS UNLESS NOTED OTHERWISE.

- LIGHT GAUGE WOOD FRAMING CONNECTORS AS NOTED ON THE PLANS FOR WOOD JOISTS, COLUMNS, BEAMS AND TRUSSES SHALL BE "STRONG-TIE" CONNECTORS BY THE SIMPSON CO. OR REVIEWED EQUIVALENT. CONNECTORS IN DIRECT CONTACT WITH PRESSURE TREATED LUMBER SHALL HAVE "ZMAX" G185 HOT DIP GALVANIZED COATING OR REVIEWED EQUIVALENT.
- STAINLESS STEEL FASTENERS, ANCHOR BOLTS, LIGHT GAUGE CONNECTORS, ETC. MAY BE SUBSTITUTED FOR HOT DIP GALVANIZED MATERIALS AT THE CONTRACTOR'S OPTION.
- ALL RAFTER AND CEILING JOIST CONNECTIONS SHALL COMPLY WITH IRC SECTION 802.3. PROVIDE LURUF CONNECTORS AT ROOF TO WALL CONNECTIONS PER IRC SECTION 802.11.
- STUDS SHALL BE CONTINUOUS FROM FLOOR TO ROOF DIAPHRAGM PER IRC SECTION 602.3. WALL STUDS SHOULD NOT BE INTERRUPTED AT GABLE WALLS UNLESS BRACED BY A CEILING. WALLS EXTENDING HIGHER THAN TYPICAL SINGLE FLOOR PLATFORM FRAMING SHALL BE CONTINUOUS (NOT INTERRUPTED) TO NEXT FLOOR ELEVATION OR ROOF.
- SILL ANCHOR RODS SHALL BE 1/2" DIAMETER EMBEDDED 7" MIN INTO CONCRETE, SPACED NO FURTHER THAN 3'-0" OC, AND SHALL OCCUR WITHIN 12" OF THE ENDS OF A SILL PLATE. EACH SILL PLATE SHALL HAVE A MINIMUM OF 2 ANCHOR RODS. PROVIDE 2" SO PLATE WASHERS AND NUTS.
- PROVIDE FULL DEPTH 2X BLOCKING BETWEEN JOISTS OVER ALL INTERIOR LOAD BEARING WALLS AND AT DOWNSET GIRDERS.
- PROVIDE SOLID BLOCKING IN FLOOR FRAMING BELOW LOAD BEARING WALLS AND POINT LOADS ABOVE. BELOW POINT LOADS BLOCKING AREA SHOULD MATCH SIZE OF POST ABOVE.

**GENERAL NOTES:**

- THE DRAWING SET IS CONSIDERED TO BE "BUILDERS PLANS" WHEREBY SOME ASPECTS OF THE PROJECT'S REQUIREMENTS ARE LEFT TO THE CONTRACTOR TO UNDERSTAND AND IMPLEMENT. AS SUCH, IT IS A REQUIREMENT THAT THE CONTRACTOR (BUILDER) BE COMPETENT IN RESIDENTIAL CONSTRUCTION AND HAVE A THOROUGH UNDERSTANDING OF THE APPLICABLE INTERNATIONAL RESIDENTIAL CODES (IRC). THE CONTRACTOR IS RESPONSIBLE FOR MEETING THE REQUIREMENTS OF THE BUILDING CODE WHETHER EXPLICITLY STATED OR NOT. IF ADDITIONAL DETAIL OR GUIDANCE IS NEEDED BY THE CONTRACTOR OR HOMEOWNER, A WRITTEN REQUEST FOR SUCH GUIDANCE MAY BE SUBMITTED TO THE ENGINEER.
- REFER TO THE IRC FOR ALL REQUIREMENTS NOT SPECIFICALLY STATED IN THE PLANS. THIS INCLUDES FIRE RATINGS, LIGHTING AND VENTILATION, SANITATION, GLAZING, GARAGES, SMOKE ALARMS AND CARBON MONOXIDE ALARMS, MEANS OF EGRESS, AND PROTECTION AGAINST DECAY AND TERMITES.
- CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL, ELECTRICAL, AND PLUMBING IS DESIGNED AND INSTALLED TO MEET THE REQUIREMENTS OF THE APPLICABLE IRC.
- EGRESS WINDOWS SHALL COMPLY WITH SECTION 310 OF THE IRC.
- WALL COVERINGS SHALL BE WATER-RESISTANT AND COMPLY WITH SECTION 703.2 OF THE IRC.
- WINDOWS SHALL HAVE FALL PROTECTION PER IRC SECTION 312.2.
- PROVIDE CARBON MONOXIDE DETECTORS PER IRC SECTION R315.
- ALL NEW CONSTRUCTION SHALL COMPLY WITH THE ENERGY CONSERVATION CODE AS LISTED IN CHAPTER 11 OF THE IRC. THIS INCLUDES:
  - WALLS - INSULATE WITH R-13 MIN
  - ATTICS - INSULATE WITH R-49 MIN (EXCEPTION: R-38 FOR VAULTED CEILINGS); USE 8" OF RIGID INSULATION (R40) IN VAULTED CEILINGS
  - FLOORS OVER UNCONDITIONED SPACE - INSULATE WITH R-19 MIN
  - CRAWL SPACE WALLS - INSULATE WITH R-10 MIN
  - BASEMENT WALLS - R-13 CAVITY OR R-10 CONTINUOUS
  - SLABS SHALL BE R-10 FOR A DEPTH OF 2'-0"
  - DUCTWORK OUTSIDE OF CONDITIONED SPACES - R-8 MIN
  - WINDOWS SHALL HAVE A U-VALUE OF 0.35 OR BETTER
- ALL EXTERIOR DOORS INCLUDING THE DOOR LEADING FROM THE GARAGE TO THE DWELLING UNIT SHALL INCORPORATE THE PHYSICAL SECURITY REQUIREMENTS OF THE LOCAL JURISDICTION AS REQUIRED.
- THE THERMAL ENVELOPE OF THE BUILDING IS REQUIRED TO BE SEALED PER IRC SECTION N1102.4.1 AND TABLE N1102.4.1.1.
- ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING CAVITIES USED AS DUCTS SHALL BE SEALED PER IRC SECTION N1103.2.2

**GLAZING**

- GLAZING IN HAZARDOUS LOCATIONS SHALL BE APPROVED SAFETY GLAZING MATERIALS PER IRC SECTION R308.



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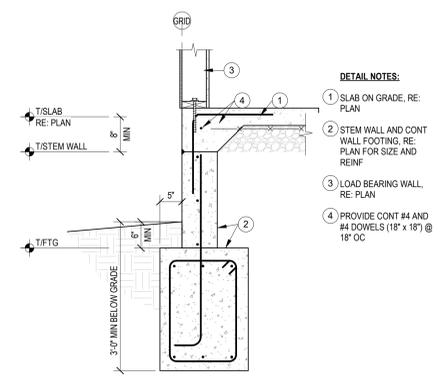
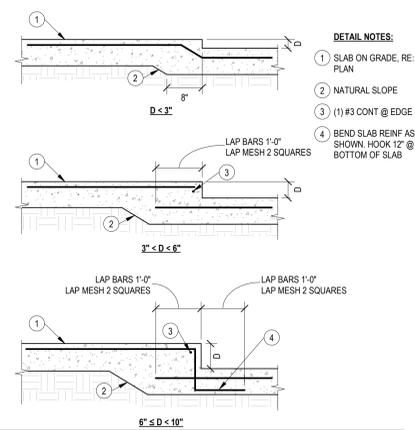
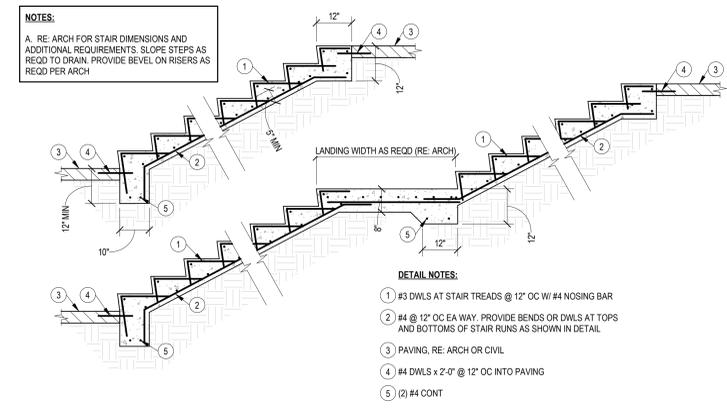
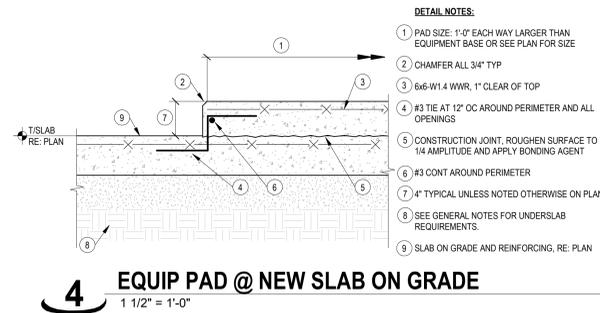


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PROFESSIONAL SEAL

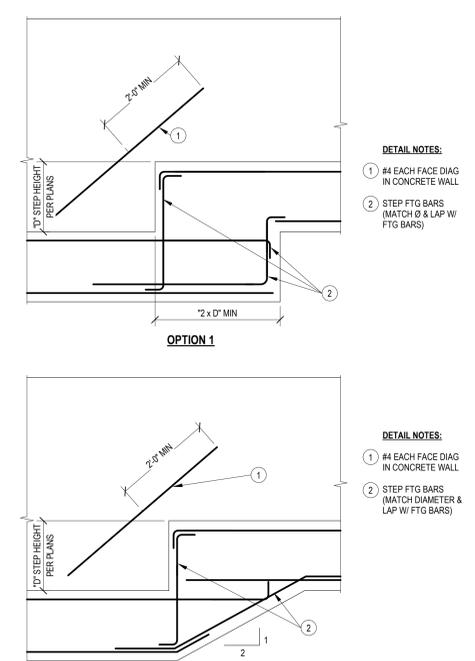
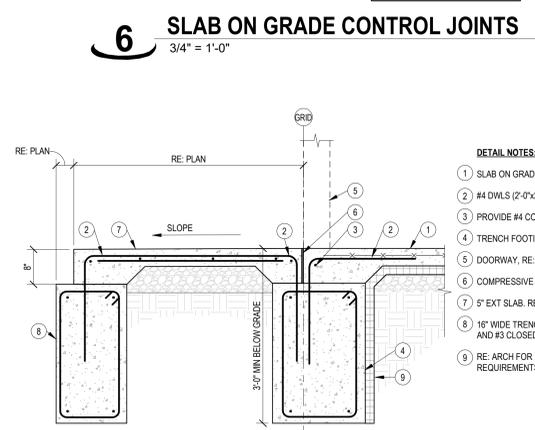
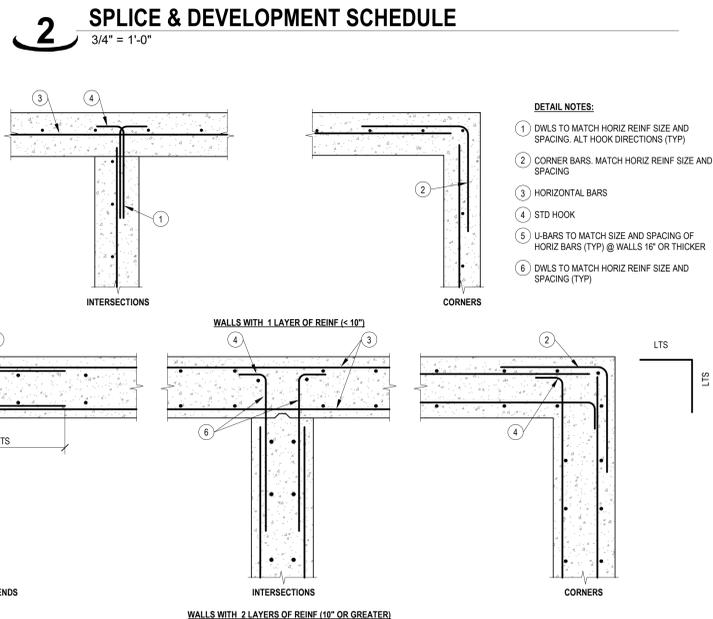
S002  
ISSUE DATE: 24 AUGUST 2023  
STAND SEI#: 23090

STRUCTURAL GENERAL NOTES  
IRC



BAR	DEVELOPMENT AND LAP SPICE SCHEDULE													
	F <sub>c</sub> =3000 psi					F <sub>c</sub> =4000 psi								
	EMBEDMENT		LAP SPICE			EMBEDMENT		LAP SPICE						
(LCE)	TENSION (LTE)	COMPRESSION (LCS)	TENSION (LTS)	HOOK (LDH)	COMPRESSION (LCE)	TENSION (LTE)	COMPRESSION (LCS)	TENSION (LTS)	HOOK (LDH)					
#3	8	13	12	12	28	21	6	8	12	12	12	16	16	7
#4	11	21	16	15	37	28	8	9	18	14	15	24	18	9
#5	14	31	24	19	46	36	10	12	27	21	19	35	27	12
#6	16	43	33	23	56	43	12	14	37	28	23	48	37	14
#7	19	69	53	26	81	62	13	17	60	46	26	78	60	17
#8	22	85	66	30	93	71	15	19	74	57	30	96	74	19
#9	25	103	80	34	105	80	17	21	90	69	34	116	90	21
#10	28	124	96	38	118	90	19	24	108	83	38	140	108	24
#11	31	146	112	42	131	100	22	27	126	97	42	164	126	27

**NOTES (PERTAINING TO TABLE):**  
A. TOP BARS ARE HORIZONTAL BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE CAST BELOW THEM.  
B. ALL BARS THAT ARE NOT "TOP BARS" ARE "OTHER" BARS.  
C. ABBREVIATIONS:  
- LCE - COMPRESSION EMBEDMENT LENGTH  
- LTE - TENSION EMBEDMENT LENGTH  
- LCS - COMPRESSION LAP SPICE LENGTH  
- LTS - TENSION LAP SPICE LENGTH  
- LDH - HOOKED BAR TENSION EMBEDMENT LENGTH  
**NOTES (GENERAL):**  
A. STAGGER ALL SPLICES 12" MIN, BUT NOT LESS THAN 12"  
B. ALL DIMENSIONS INDICATED IN TABLE ARE IN INCHES  
C. BARS GREATER THAN #11 SHALL BE MECHANICALLY SPLICED  
D. ALL SPLICES SHALL BE WIRED IN CONTACT STACKED VERTICAL  
**MULTIPLIERS:**  
ALL EMBEDMENT AND LAP SPICE LENGTHS SHALL BE INCREASED AS REQ'D BY THE MULTIPLIERS BELOW. APPLY MULTIPLE MULTIPLIERS IF APPLICABLE.  
1.3 - IF CONG CONTAINS LIGHT WEIGHT AGGREGATES  
1.3 - IF EPOXY COATED REBAR USED



**9** FDN SECTION @ STEM WALL  
3/4" = 1'-0"

**7** SLAB ON GRADE FLOOR DEPRESSION  
3/4" = 1'-0"

**3** CONCRETE STAIRS ON GRADE  
1/2" = 1'-0"

**2** SPLICE & DEVELOPMENT SCHEDULE  
3/4" = 1'-0"

**6** SLAB ON GRADE CONTROL JOINTS  
3/4" = 1'-0"

**5** STOOP DETAIL  
3/4" = 1'-0"

**8** FOOTING STEP  
1/2" = 1'-0"

**1** CONC WALL CORNERS  
3/4" = 1'-0"

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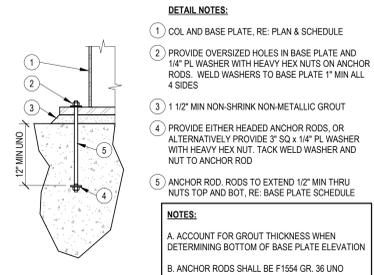


PROFESSIONAL SEAL

**S050**

ISSUE DATE: 24 AUGUST 2023  
STAND SEI#: 23090

TYPICAL DETAILS - STEEL

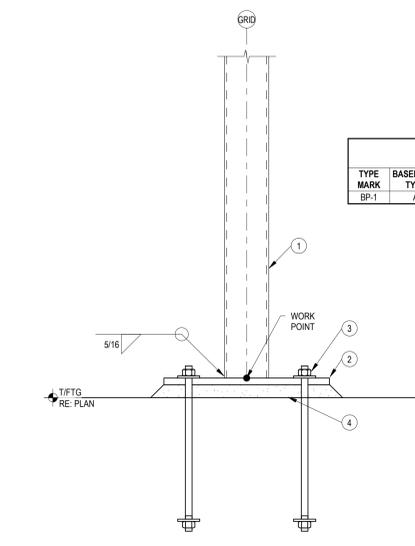
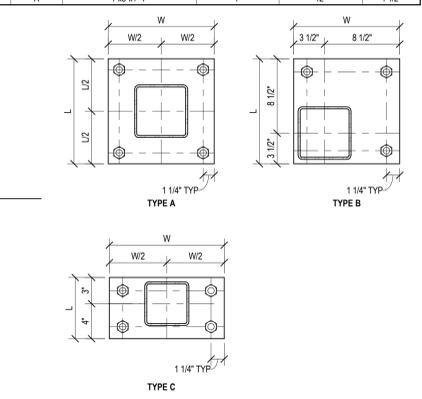


**2 ANCHOR ROD**  
3/4" = 1'-0"

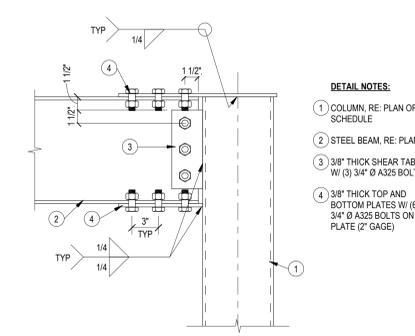


**SCHEDULE - BASEPLATE**

TYPE MARK	BASEPLATE TYPE	BASEPLATE DIMENSIONS (TxBxL)	ANCHOR ROD DIA.	ANCHOR ROD EMBEDMENT	GROUT THICKNESS
BP-1	A	1'x6"x1'-4"	1"	12"	1 1/2"



**1 COLUMN - BASE PLATE**  
1 1/2" = 1'-0"



**3 BEAM TO COLUMN MOMENT CONN**  
1 1/2" = 1'-0"

WOOD HEADER SCHEDULE				
MARK	MEMBERS	MAX SPAN	JAMB MEMBERS	NOTES
HD206	(2) 2x6	6'-0"	1 KING, 1 TRIMMER*	NON-STRUCT HDR
HDN08	(N) 2x8	SEE PLAN	1 KING, 2 TRIMMER*	
HDN10	(N) 2x10	SEE PLAN	2 KING, 2 TRIMMER	
HDN12	(N) 2x12	SEE PLAN	2 KING, 2 TRIMMER	
HDNLVL	(N) 1 3/4"x11 7/8" LVL	SEE PLAN	3 KING, 2 TRIMMER	

\*PROVIDE MIN (2) KING STUDS FOR ALL EXTERIOR WALL OPENINGS

**LEGEND**  
HD 2 5/8"  
HEADER  
"N" PLYS  
DEPTH / DESIGNATION

**DETAIL NOTES:**  
1 WOOD HEADER, RE. SCHEDULE. ALL HEADERS SHALL BE NAILED TOGETHER AT 16" OC MAX. PROVIDE PLYWOOD FILLER AS REQD TO MATCH STUD THICKNESS  
2 TRIMMER STUDS, RE. SCHEDULE  
3 KING STUDS, RE. SCHEDULE  
4 PROVIDE STUD UNDER SILL END OR SIMPSON A35 CLIP ANGLE

**3 HEADER SCHEDULE**  
3/4" = 1'-0"

FASTENER OPTIONS			
FASTENER	BM DEPTH	2-PLY	3-PLY
10d (0.128"x3") NAILS	7.25" TO 14"	3 @ 12" OC EA SIDE	NOT ALLOWED
10d (0.128"x3") NAILS	14" OR GREATER	4 @ 12" OC EA SIDE	NOT ALLOWED
1/2" DIA THRU BOLTS	7.25" OR GREATER	2 @ 24" OC	2 @ 16" OC
STRUCTURAL SCREW	7.25" OR GREATER	2 @ 24" OC EA SIDE	2 @ 16" OC EA SIDE

**DETAIL NOTES:**  
1 MULTI-PLY LVL, LSL, OR PSL GIRDER MEMBER. FOR 2-PLY MEMBERS, FASTENERS MAY BE INSTALLED FROM ONE SIDE. FOR 3-PLY MEMBERS, FASTENERS SHOWN SHALL BE INSTALLED ON EA SIDE (2 ROWS @ 24" = 4 TOTAL SCREWS, TWO EA SIDE). REFER TO TABLE FOR FASTENER REQUIREMENTS  
2 FLOOR JOISTS, RE: PLAN. TOP LOADED CONDITION. PROVIDE FACE MOUNTED OR TOP FLANGE MOUNTED HANGERS ATTACHED TO GIRDER PER MFCR REQUIREMENTS  
3 FLOOR JOISTS, RE: PLAN. SIDE LOADED CONDITION. PROVIDE FACE MOUNTED OR TOP FLANGE MOUNTED HANGERS ATTACHED TO GIRDER PER MFCR REQUIREMENTS  
4 AT HEAVY LOADED BEAM HANGER LOCATIONS, PROVIDE (4) STRUCTURAL SCREWS EA SIDE OF HANGER. SCREWS SHALL PENETRATE ALL PLYS (3.25" MIN FOR 2 PLY, 5" MIN FOR 3 PLY). THIS SHALL BE TYP UNO  
5 WHEN BEAM IS DOWNSET PROVIDE 2x FULL HEIGHT BLOCKING BTWN FLOOR JOISTS

**NOTES:**  
A. ALL GIRDER MEMBERS SHALL BE FULL LENGTH BTWN SUPPORTS UNO  
B. SCREWS INSTALLED IN OPPOSITE FACE SHALL BE STAGGERED FROM NEAR FACE SCREWS BY 2" (-/+ 1")  
C. EXCESSIVELY WARPED OR CURVED LVL SHOULD NEVER BE FORCED INTO ALIGNMENT BY USE OF CLAMPS, SCREWS OR BOLTS AS SPLITTING MAY OCCUR  
D. IF COUNTERSINKING SCREWS OR BOLTS IS REQUIRED, USE A SPADE BIT TO CREATE THE COUNTERSINK PRIOR TO INSTALLING THE FASTENER  
E. BOLTS SHALL MEET OR EXCEED ASTM A307  
F. STRUCTURAL SCREWS MAY BE ONE OF THE FOLLOWING PRODUCTS: 14" & SIMPSON STRONG-TIE SWS SCREWS BY USF; OR TRUSSLOK SCREWS BY FASTENMASTER

**2 BUILT-UP ENGR LUMBER BEAM**  
3/4" = 1'-0"

**BEAM PARALLEL TO WALL - DOWN SET**

**BEAM PERP TO WALL - DOWN SET**

**BEAM PARALLEL TO WALL - UP SET**

**BEAM PERP TO WALL - UP SET**

**DETAIL NOTES:**  
1 WOOD BEAM, PER PLAN  
2 WALL STUDS  
3 IF TOP PLATE IS INTERRUPTED USE SIMPSON LSTA9 STRAP OR EQUIVALENT  
4 WOOD JOISTS, RE. PLAN  
5 DOUBLE 2x TOP PLATE  
6 MIN 3 STUDS TO SUPPORT BEAM UNO ON PLAN  
7 FACE MOUNT JOIST HANGER  
8 COORD BOT OF BEAM ELEV W/ ARCH REQUIREMENTS  
9 1/2" OSB SPACERS AS REQD  
10 SIMPSON LSTA9 STRAP EA SIDE  
11 WHEN BEAM IS DOWNSET PROVIDE 2x FULL HT BLOCKING BTWN FLOOR JOISTS

**1 BEAM BEARING CONDITIONS**  
3/4" = 1'-0"

**DETAIL NOTES:**  
1 STUD DEPTH  
2 MAX DIAMETER OF BORED HOLE = STUD DEPTH / 2 1/2  
3 IF BORED HOLE IS GREATER THAN STUD DEPTH / 2 1/2 & LESS THAN 3" STUD DEPTH / 5, THEN STUD MUST BE DOUBLED & NO MORE THAN TWO SUCCESSIVE STUDS ARE DOUBLED & BORED  
4 5/8" MIN TO EDGE  
5 BORED HOLES SHALL NOT BE LOCATED IN THE SAME CROSS SECTION OF CUT OR NOTCH IN STUD  
6 MAX NOTCH = STUD DEPTH / 4

**6 BORED HOLE & NOTCHES - VERT FRAMING**  
3/4" = 1'-0"

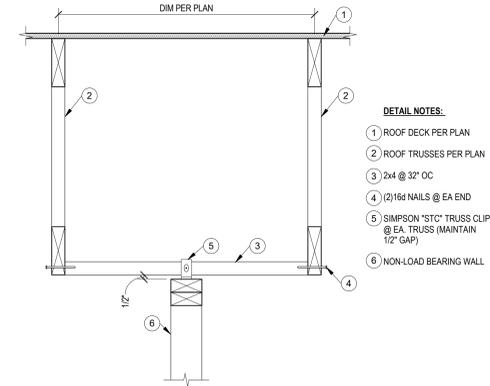
**DETAIL NOTES:**  
1 WALL STUDS  
2 DOUBLE TOP PLATE  
3 8 ROWS OF (2) 16d NAILS AT SPLICE  
4 JOINT IN LOWER PLATE MEMBERS SHALL OCCUR OVER A STUD

**5 TOP PLATE SPLICE**  
3/4" = 1'-0"

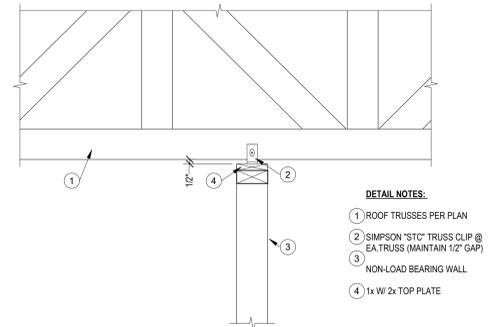
**DETAIL NOTES:**  
1 MAX DIMENSION = JOIST DEPTH / 4  
2 MAX DIMENSION = JOIST DEPTH / 3  
3 MAX DIMENSION = JOIST DEPTH / 6  
4 JOIST DEPTH  
5 MAX DIMENSION = JOIST DEPTH / 3  
6 SQUARE HOLES AND NOTCHES NOT RECOMMENDED  
7 HOLES MAY BE ANYWHERE ALONG THE LENGTH OF THE SPAN MINUS 1'-0" ON EA END. HOLE EDGES SHALL BE 2" FROM TOP OF JOIST OR BOTTOM OF JOIST. THEY SHALL ALSO BE 2" FROM ANY OTHER HOLE OR NOTCH

NOTE: DETAIL IS FOR DIMENSIONAL LUMBER ONLY. FOR I-JOISTS AND LVL FOLLOW MANUFACTURERS REQUIREMENTS

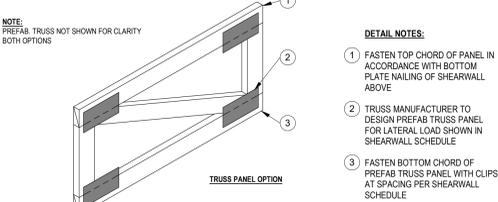
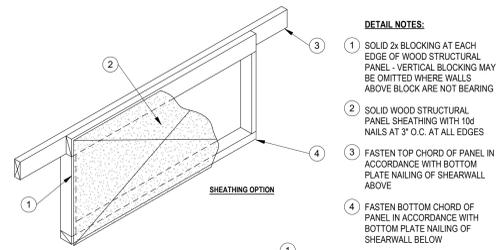
**4 BORED HOLE & NOTCHES - HORIZ FRAMING**  
3/4" = 1'-0"



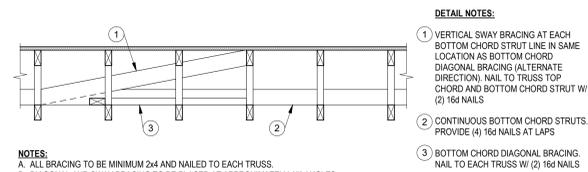
**7** TYP - NON-LOAD BRG WALL - TRUSS  
1 1/2" = 1'-0"



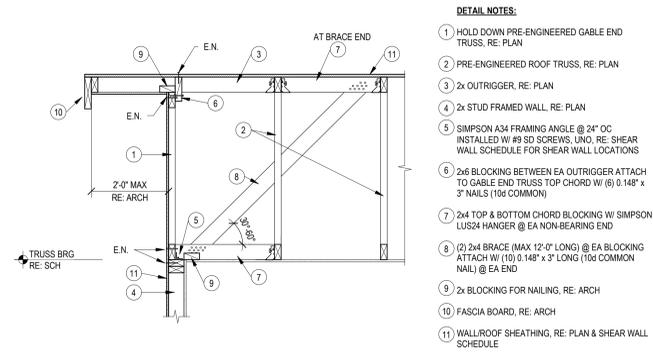
**5** TYP - NON-LOAD BRG WALL - ROOF TRUSS  
1 1/2" = 1'-0"



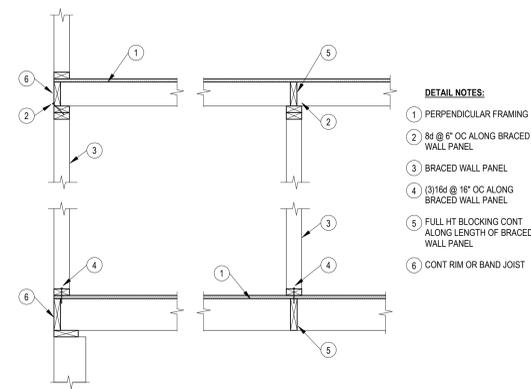
**6** TYPICAL FLOOR/ROOF TRUSS BLOCKING  
3/4" = 1'-0"



**8** TYPICAL TRUSS BRACING DETAIL  
3/4" = 1'-0"



**1** GABLE END TRUSS PARALLEL  
3/4" = 1'-0"



**3** BWP CONN PERP TO FRAMING  
3/4" = 1'-0"

**BRACED WALL PANEL LEGEND:**

WSP: WOOD STRUCTURAL PANEL. PANEL THICKNESS AND NAILING REQUIREMENTS IN GENERAL NOTES MEET BRACED WALL REQUIREMENTS.  
GB: GYP BOARD. 1/2" GYP BOARD EA SIDE OF WALL. NAILS OR SCREWS PER GENERAL NOTES MAY BE USED. MAX FASTENER SPACING = 7" FOR BOTH EDGE AND FIELD FASTENERS.  
PFG: PORTAL FRAME GARAGE. RE: TYP DETAIL RZ-206A FOR REQUIREMENTS.  
CS-PF: CONTINUOUSLY SHEATHED PORTAL FRAME. CONSTRUCT SIMILAR TO TYP DETAIL RZ-206A EXCEPT THAT ALL SURFACES SHALL BE CONTINUOUSLY SHEATHED.  
CS-WSP: CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANEL.  
EC-4: END CONDITION FOR CONTINUOUSLY SHEATH WALL PANEL.

**END CONDITIONS (CONTINUOUSLY SHEATHED)**

EC1: PROVIDE RETURN PANEL AT THE END OF THE WALL. MIN RETURN PANEL LENGTH = 24".  
EC2: PROVIDE SIMPSON DTT22 HOLDDOWN AT CORNER. FASTEN TO STUDS W/ (8) SIMPSON SDS SCREWS AND ANCHOR TO CONCRETE W/ 1/2" DIA SIMPSON TITEN HD SCREW ANCHOR x 4" MIN EMBED (6" OVERALL LENGTH). WHERE HOLDDOWN IS REQUIRED BETWEEN FLOORS, PROVIDE DTT22 ABOVE AND BELOW FLOOR AND FASTEN TO WALL STUDS. CONNECT TOGETHER WITH 1/2" DIAMETER THREADED ROD.  
EC3: 48" WIDE BRACED WALL PANEL AT THE END OF THE WALL. NO RETURN PANEL IS REQUIRED.  
EC5: SIMILAR TO EC2, EXCEPT HOLDDOWN DOES NOT OCCUR AT CORNER, BUT MAY BE UP TO 10'-0" AWAY FROM A CORNER.

END CONDITION IDENTIFIER, REQUIRED ON CONTINUOUS BRACED WALL LINES.

BRACED WALL IDENTIFIER

BRACED WALL LINE IS EITHER CONTINUOUSLY SHEATHED (CONT) OR INTERMITTENTLY SHEATHED (INT)

PRIMARY TYPE OF WALL PANEL IN THE BRACED WALL LINE (UNLESS NOTED OTHERWISE)

BW "X" CONT CS-WSP (UNO)

EC1

EC2

EC3

EC5

LOCATION OF BRACED WALL LINE

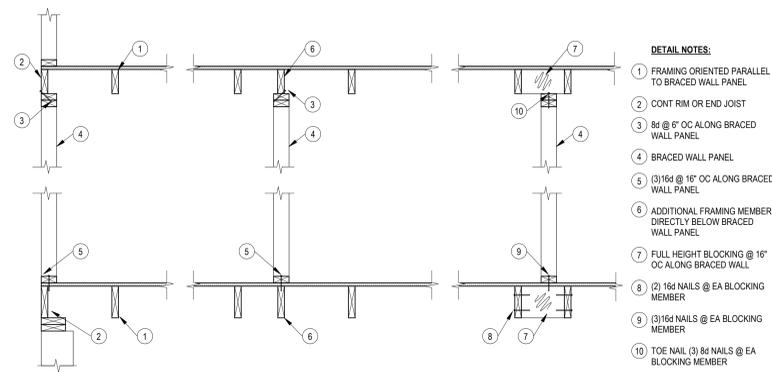
4'-0" MAX

1'-9"

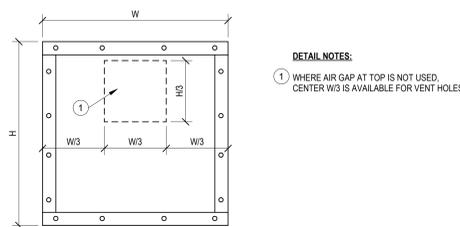
4'-0"

4'-0" MAX

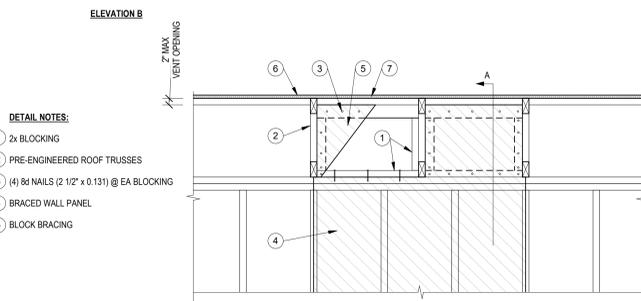
**2** BRACED WALL PANEL LEGEND  
1/4" = 1'-0"



**1** BWP CONN PAR TO FRAMING  
3/4" = 1'-0"

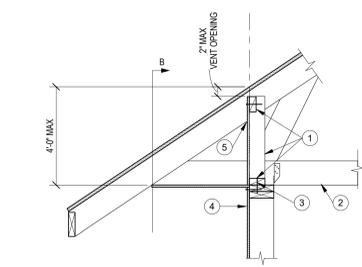


**DETAIL NOTES:**  
1) WHERE AIR GAP AT TOP IS NOT USED, CENTER W/3 IS AVAILABLE FOR VENT HOLES



**DETAIL NOTES:**  
1) 2x BLOCKING  
2) PRE-ENGINEERED ROOF TRUSSES  
3) EDGE NAILING RE: GENERAL NOTES  
4) BRACED WALL PANEL  
5) BRACING  
6) ROOF SHEATHING  
7) VENTING

FIGURE R602.10.8.2(3)  
BRACED WALL PANEL CONNECTION OPTION TO PERPENDICULAR RAFTERS OR ROOF TRUSSES



**DETAIL NOTES:**  
1) 2x BLOCKING  
2) PRE-ENGINEERED ROOF TRUSSES  
3) (4) 8d NAILS (2 1/2" x 0.131) @ EA BLOCKING  
4) BRACED WALL PANEL  
5) BLOCK BRACING

**5** BRACED WALL CONN  
3/4" = 1'-0"

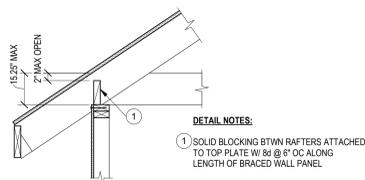
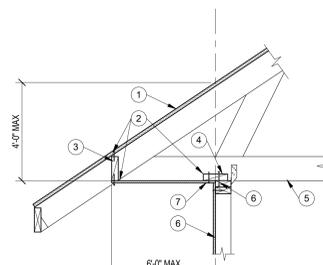


FIGURE R602.10.8.2(1)  
BRACED WALL PANEL CONNECTION TO PERPENDICULAR RAFTERS

**4** BRACED WALL CONN  
3/4" = 1'-0"

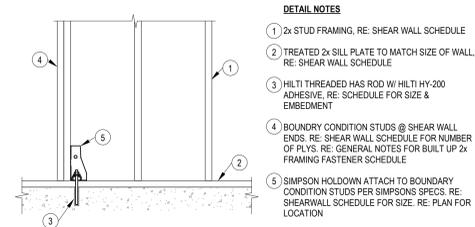


**DETAIL NOTES:**  
1) ROOF SHEATHING  
2) EDGE NAILING PER TABLE R602.31(1) TYP  
3) BLOCKING  
4) 2x BLOCKING  
5) PRE-ENGINEERED ROOF TRUSSES  
6) (4) 8d NAILS (2 1/2" x 0.131) @ EA BLOCKING  
7) BRACED WALL PANEL  
8) BRACING. METHODS OF BRACING SHALL BE AS DESCRIBED IN SECTION R602.10.4

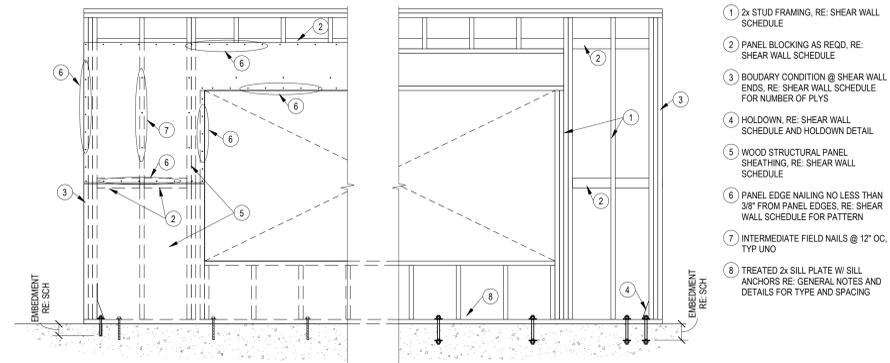
NOTE: PROVIDE VENTING PER SECTION R606 (NOT SHOWN)

FIGURE R602.10.8.2(2)  
BRACED WALL PANEL CONNECTION OPTION TO PERPENDICULAR RAFTERS OR ROOF TRUSSES

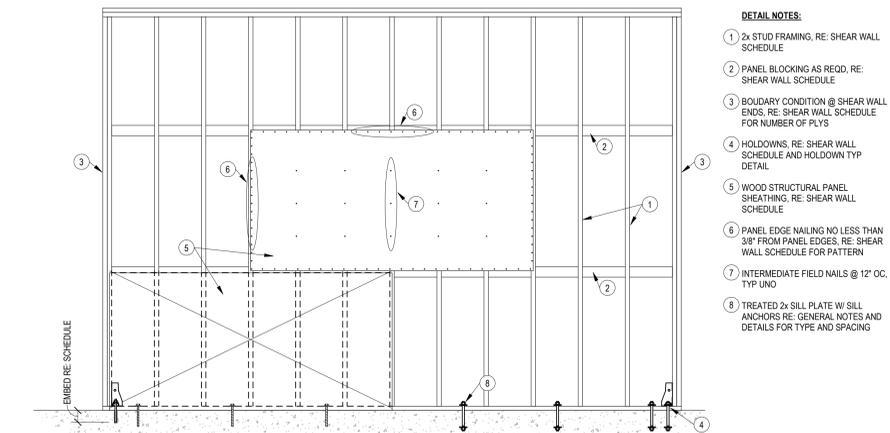
**3** BWP CONN PERP TO FRAMING  
3/4" = 1'-0"



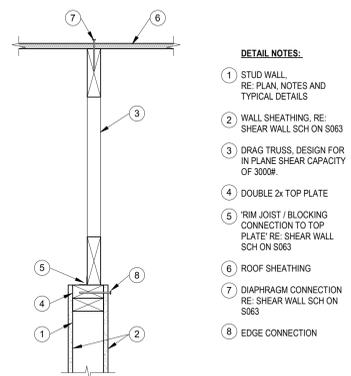
**3 SHEAR WALL - BASE HOLDOWN**  
3/4" = 1'-0"



**2 PERFORATED SHEAR WALL - ELEVATION**  
1/2" = 1'-0"

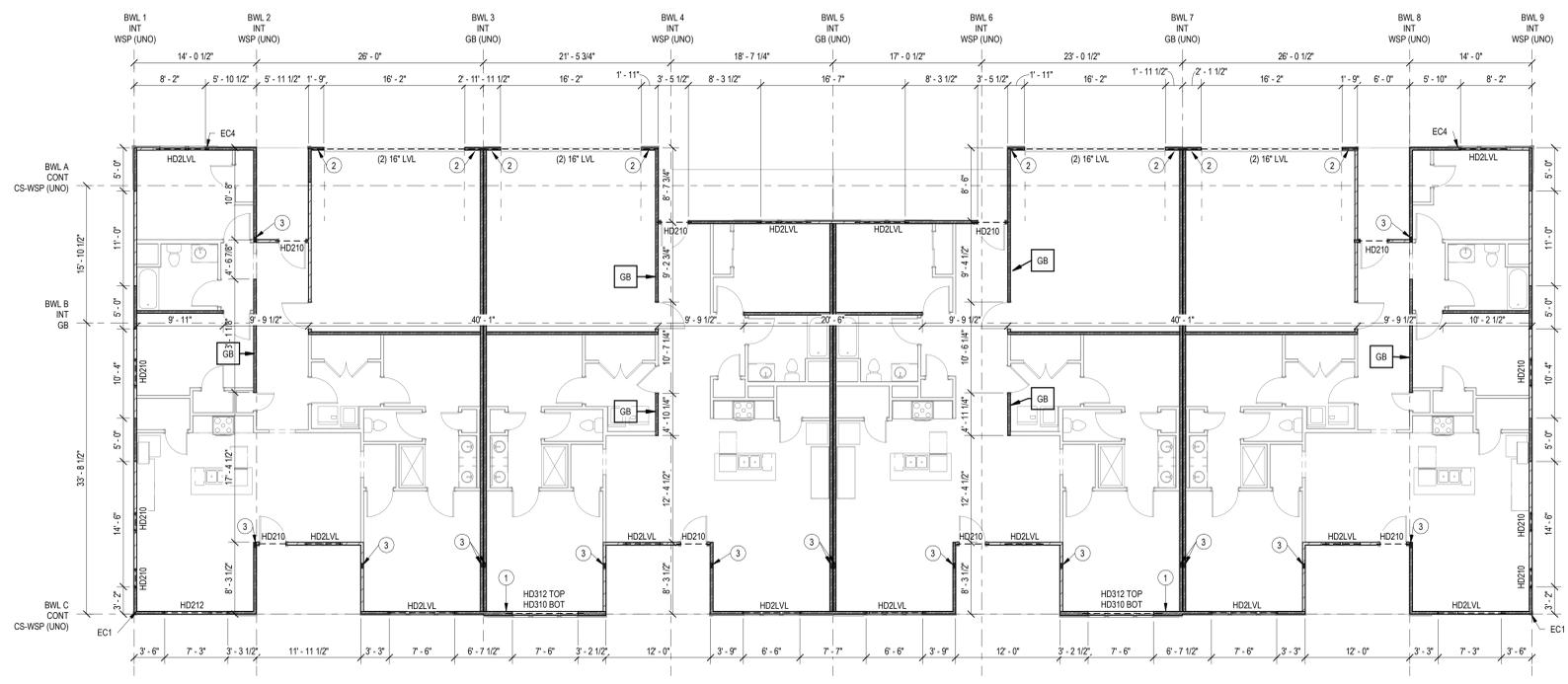


**1 SEGMENTED SHEAR WALL - ELEVATION**  
1/2" = 1'-0"



**4 ROOF DRAG TRUSS @ SHEAR WALL**  
1 1/2" = 1'-0"

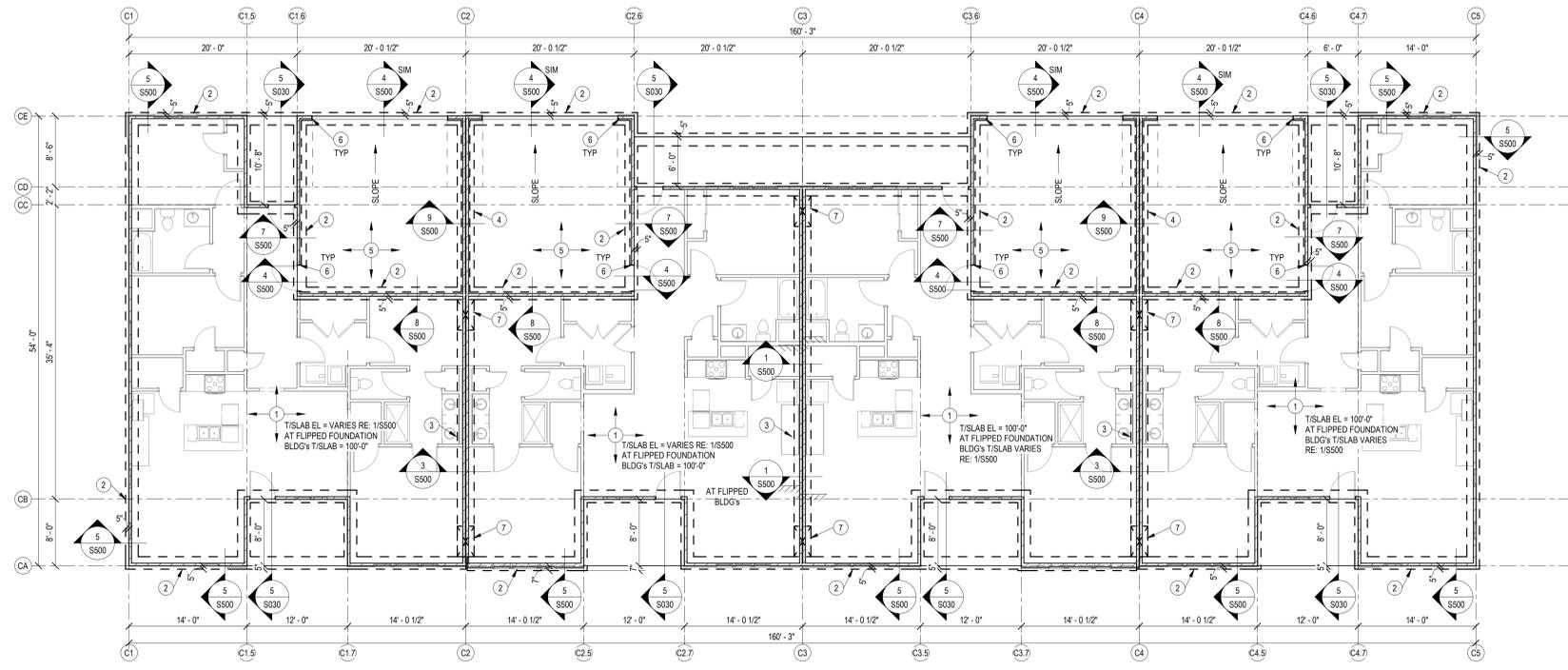
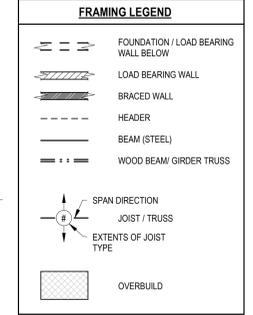
SCHEDULE - SHEAR WALL							
SW MARK	SW TYPE	SHEATHING	FASTENERS (EDGE / FIELD)	BOUNDARY MEMBERS	CONNECTION TO TOP PLATE	SILL ANCHORS	'SIMPSON' HOLDOWN
SW-A	SEGMENTED	7/16" OSB	8d @ 4"12" (BLOCKED)	3 PLY	A34 FRAMING ANGLE @ 12" OC W/ (8) #9 x 1 1/2" SD SCREW	1 1/2" Ø SCREW ANCHOR @ 32" OC	HDLUS-SD32.5 W/ (14) 1/4 x 2 1/2 SDS
SW-B	SEGMENTED	7/16" OSB	8d @ 3"12" (BLOCKED)	3 PLY	A34 FRAMING ANGLE @ 12" OC W/ (8) #9 x 1 1/2" SD SCREW	1 1/2" Ø SCREW ANCHOR @ 32" OC	HDLUS-SD32.5 W/ (14) 1/4 x 2 1/2 SDS



**2 FIRST FLOOR WALL PLAN - BUILDING C**  
1/8" = 1'-0"

- WALL FRAMING PLAN NOTES:**
- 2x6 LOAD BEARING STUD FRAMED WALL @ 16" OC
  - EXTEND HDR CONTINUOUS TO THE CORNER FOR BRACED WALL CONNECTION
  - (6) 2x4 STUD PACK BELOW LOAD BEARING ELEMENT ABOVE
  - 4x4 TREATED WOOD POST CONNECT TO FOUNDATION W/ SIMPSON ABL44Z POST BASE INSTALLED W/ 5/8 S SIMPSON TITEN HD
  - 6x6 TREATED WOOD POST CONNECT TO FOUNDATION W/ SIMPSON ABL66Z POST BASE INSTALLED W/ 5/8 S SIMPSON TITEN HD
  - SIMPSON ECCL POST CAP
  - SIMPSON ECCO POST CAP

- SHEET NOTES:**
- REFERENCE SHEET S001 FOR STRUCTURAL GENERAL NOTES AND SHOW FOR TYPICAL STRUCTURAL DETAILS. REVIEW NOTES & DETAILS OR APPLICABILITY.
  - SEE ARCHITECTURAL DRAWING FOR DETAILS & DIMENSIONS NOT SHOWN.
  - ALL STRUCTURAL WALLS ARE 2x4 @ 16" OC UNO. AT LOCATIONS WHERE STONEMASONRY IS TO BE INSTALLED ON EXTERIOR WALLS STUD FRAMING SHALL BE (2) 2x4 @ 16" OC UNO.
  - DIMENSIONS TO EXTERIOR WALLS ARE TO EXTERIOR FACE OF STUD. EDGE OF SLAB DIMENSIONS TO INTERIOR WALLS ARE TO CENTERLINE OF INTERIOR WALL.
  - FOLLOW TRUSS MFCOR RECOMMENDED DETAILING. INSTALL BACKING, BLOCKING, BRIDGING, ETC AS REQD. TRUSSES SHALL BEAR WITHIN 5"
  - HEADERS IN STRUCTURAL WALLS ARE CALLED OUT ON PLANS AS "HDXXX". RE: TYP DTL. ALL HEADERS IN STRUCTURAL WALLS WHERE OPENING IS LESS THAN 4'-0" ARE (2) 2x4. HEADERS IN NON-STRUCTURAL WALLS ARE (2) 2x6 (MAXIMUM 10FT OPENING).
  - REFER TO SHEET S062 FOR BRACED WALL REQUIREMENTS.
  - TOP OF SLAB ELEVATION = 100'-0" UNO. BOTTOM OF SOFFIT ELEVATION = 109'-1 1/8" RE: ARCH AND CIVIL FOR DATUM ELEVATION.
  - PROVIDE 2x BLOCKING @ MIDHEIGHT (4'-0" MAX) AT ALL STUD WALLS NOT SHEATHED ON BOTH SIDES WITH EITHER GYP OR OSB.
  - ROOF TRUSS BEARING ELEVATION = 9'-1 1/8" ABOVE TOP OF SLAB UNO. RE: ARCH ELEVATIONS.
  - TOP OF TRENCH FOOTING ELEVATION = 99'-4" UNO. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 3'-0" MIN BELOW GRADE. DEEPEN FOOTINGS AS REQUIRED. GRADE IS GENERALLY 6" BELOW FINISH FLOOR ELEVATION (COORDINATE WITH CIVIL). IF GRADE IS MORE THAN 6" BELOW TOP OF SLAB ELEVATION PROVIDE STEM WALL AS REQUIRED PER TYPICAL DETAIL SHEET.
  - PLANS SHOWN ARE FOR PROTOTYPE BUILDING. RE: ARCH AND SITE PLAN FOR LOCATIONS, VARIATIONS, GRADING CONDITIONS, ETC.
  - PROVIDE (6) STUDS MIN BELOW ALL BEAMS AND GIRDER TRUSSES UNO.
  - ALL HORIZONTAL REINF. SHALL BE CONTINUOUS THROUGH FOUNDATION STEPS.
  - ALL MULTI-PLY ENGINEERING LUMBER BEAMS ARE DESIGNATED BY NUMBER PLYS AND DEPTH (EX: (3) 14" LVL). THE PLYS SHALL BE 1 7/8" WIDTH UNO AND STRENGTH SHALL BE PER THE GENERAL NOTES. BEAMS SHALL BE FASTENED TOGETHER PER THE TYPICAL DETAILS.
  - HANGERS ARE DENOTED ON PLAN AS "hxx" REFER TO SCHEDULE ON S060 FOR RECS. WHERE NOT CALLED OUT, CONTACT ENGINEER OR USE HEAVIEST HANGER FOR NUMBER OF PLYS IN BEAM BEING SUPPORTED. WHERE BEAMS ARE BEING SUPPORTED BY TRUSSES, TRUSS MFCOR TO PROVIDE BLOCKING AS REQD FOR CONNECTION. TRUSS TO TRUSS HANGERS ARE BY TRUSS MFCOR.



**1 FOUNDATION PLAN - BUILDING C**  
1/8" = 1'-0"

- FOUNDATION PLAN NOTES:**
- 4" CONCRETE SLAB ON GRADE. RE GENERAL NOTES FOR REINFORCING, GRANULAR FILL, VAPOR BARRIER AND JOINTING REQUIREMENTS
  - 18" WIDE x 2'-10" DEEP TRENCH FOOTING. REINF W/ (2) #5 CONT TOP AND BOT BARS AND #3 CLOSED TIES @ 24" OC
  - 24" WIDE x 12" DEEP THICKENED SLAB. REINF W/ (3) #4 CONT AND #3 TRANS @ 24" OC
  - 24" WIDE x 2'-10" DEEP TRENCH FOOTING. REINF W/ (3) #5 CONT TOP AND BOT BARS AND #3 CLOSED TIES @ 24" OC
  - 5" CONCRETE GARAGE SLAB ON GRADE. RE: GENERAL NOTES FOR REINFORCING, GRANULAR FILL, VAPOR BARRIER AND JOINTING REQUIREMENTS
  - RECESS/STOP CONC CURB @ DOOR OPENINGS
  - STEP FOOTING. RE: TYPICAL DETAILS
  - 36" WIDE x 2'-10" DEEP TRENCH FOOTING. REINF W/ (4) #5 CONT TOP AND BOT BARS AND #3 CLOSED TIES @ 24" OC
  - 18" WIDE x 12" DEEP THICKENED SLAB. REINF W/ (2) #4 CONT AND #3 TRANS @ 24" OC
  - 3'-0" x 3'-0" x 1'-2" THICK SPREAD FTG. REINF. W/ (6) #4 OC EA WAY. LOCATE BELOW STUD PACK
  - POUR TRENCH FOOTING OVER TOP OF FOOTING TO FULLY ENCAPSULATE COLUMN BASEPLATE BEND REINF. AROUND COLUMN AS REQD.

**CONTRACTOR NOTE FOR FLIPPED FOUNDATION BLDG'S:**  
AT BLDG'S 1, 5, 6, 8, 9, 11, 14, 16, 17, 18, 26, 27, 28, AND 29 THE FOUNDATION STEPS IN THE OPPOSITE DIRECTION. COORDINATE AND REFERENCE CIVIL DRAWINGS FOR BUILDING AND TISLAB ELEVATIONS PRIOR TO WORK COMMENCING.

**REUNION AT BLACKWELL**  
SE SHENANDOAH DRIVE  
LEE'S SUMMIT, MO 64063

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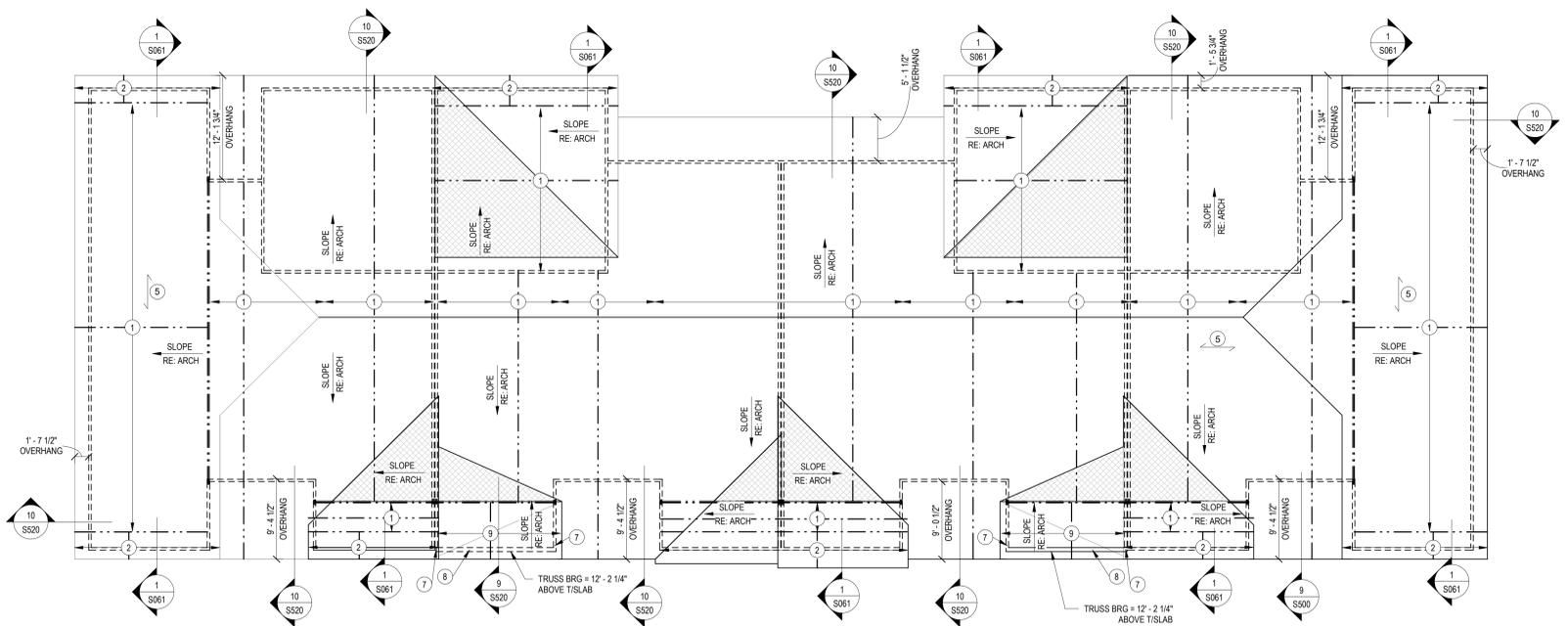


**S101C**  
ISSUE DATE: 24 AUGUST 2023  
STAND SE#: 23090

**FOUNDATION & WALL PLANS - BUILDING C**



PERMIT DOCUMENTS



**1 ROOF FRAMING PLAN - BUILDING C**  
1/8" = 1'-0"

- SHEET NOTES:**
- A. REFERENCE SHEET S001 FOR STRUCTURAL GENERAL NOTES AND SHOW FOR TYPICAL STRUCTURAL DETAILS. REVIEW NOTES & DETAILS OR APPLICABILITY.
  - B. SEE ARCHITECTURAL DRAWING FOR DETAILS & DIMENSIONS NOT SHOWN.
  - C. ALL STRUCTURAL WALLS ARE 2x4 @ 16" OC UNO. AT LOCATIONS WHERE STONEMASONRY IS TO BE INSTALLED ON EXTERIOR WALLS STUD FRAMING SHALL BE (2) 2x4 @ 16" OC UNO.
  - D. DIMENSIONS TO EXTERIOR WALLS ARE TO EXTERIOR FACE OF STUD. EDGE OF SLAB DIMENSIONS TO INTERIOR WALLS ARE TO CENTERLINE OF INTERIOR WALL.
  - E. FOLLOW TRUSS MFCR FOR RECOMMENDED DETAILING. INSTALL BACKING, BLOCKING, BRIDGING, ETC AS REQD. TRUSSES SHALL BEAR WITHIN 5"
  - F. HEADERS IN STRUCTURAL WALLS ARE CALLED OUT ON PLANS AS "HDXXX". RE: TYP DTL. ALL HEADERS IN STRUCTURAL WALLS WHERE OPENING IS LESS THAN 4'-0" ARE (2) 2x10 HEADERS. IN NON-STRUCTURAL WALLS ARE (2) 2x6 (MAXIMUM 10FT OPENING).
  - G. REFER TO SHEET S062 FOR BRACED WALL REQUIREMENTS.
  - H. TOP OF SLAB ELEVATION = 100'-0" UNO. BOTTOM OF SOFFIT ELEVATION = 109'-1 1/8" RE: ARCH AND CIVIL FOR DATUM ELEVATION.
  - J. PROVIDE 2x BLOCKING @ MIDHEIGHT (4'-0" MAX) AT ALL STUD WALLS NOT SHEATHED ON BOTH SIDES WITH EITHER GYP OR OSB.
  - K. ROOF TRUSS BEARING ELEVATION = 9'-1 1/8" ABOVE TOP OF SLAB UNO. RE: ARCH ELEVATIONS
  - L. TOP OF TRENCH FOOTING ELEVATION = 99'-4" UNO. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 3'-0" MIN BELOW GRADE. DEEPEN FOOTINGS AS REQUIRED. GRADE IS GENERALLY 6" BELOW FINISH FLOOR ELEVATION (COORDINATE WITH CIVIL). IF GRADE IS MORE THAN 6" BELOW TOP OF SLAB ELEVATION PROVIDE STEM WALL AS REQUIRED PER TYPICAL DETAIL SHEET.
  - M. PLANS SHOWN ARE FOR PROTOTYPE BUILDING. RE: ARCH AND SITE PLAN FOR LOCATIONS, VARIATIONS, GRADING CONDITIONS, ETC.
  - N. PROVIDE (6) STUDS MIN BELOW ALL BEAMS AND GIRDER TRUSSES UNO.
  - O. ALL HORIZONTAL REINF. SHALL BE CONTINUOUS THROUGH FOUNDATION STEPS.
  - P. ALL MULTI-PLY ENGINEERING LUMBER BEAMS ARE DESIGNATED BY NUMBER PLYS AND DEPTH (EX: (3) 14" LVJ). THE PLYS SHALL BE 1 7/8" WIDTH UNO AND STRENGTH SHALL BE PER THE GENERAL NOTES. BEAMS SHALL BE FASTENED TOGETHER PER THE TYPICAL DETAILS.
  - Q. HANGERS ARE DENOTED ON PLAN AS "Hxx" REFER TO SCHEDULE ON S060 FOR REQ'S. WHERE NOT CALLED OUT, CONTACT ENGINEER OR USE HEAVIEST HANGER FOR NUMBER OF PLYS IN BEAM BEING SUPPORTED. WHERE BEAMS ARE BEING SUPPORTED BY TRUSSES, TRUSS MFCR TO PROVIDE BLOCKING AS REQD FOR CONNECTION. TRUSS TO TRUSS HANGERS ARE BY TRUSS MFCR.

**FRAMING LEGEND**

	FOUNDATION / LOAD BEARING WALL BELOW
	LOAD BEARING WALL
	BRACED WALL
	HEADER
	BEAM (STEEL)
	WOOD BEAM GIRDER TRUSS
	SPAN DIRECTION
	JOIST / TRUSS EXTENTS OF JOIST TYPE
	OVERBUILD

- ROOF FRAMING PLAN NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSSES @ 24" OC, TOP CHORD TO MATCH ROOF PROFILE. RE: ARCH
  - 2 2x4 OUTRIGGERS @ 24" OC, HOLD GABLE END TRUSS DOWN & PROVIDE FULL DEPTH BLOCKING BTWN OUTRIGGERS
  - 3 2x10 ROOF RAFTERS @ 16" OC ATTACH TO LEDGER W/ SIMPSON LUS210 SLOPED HANGER
  - 4 2x10 LEDGER ATTACHED W/ (2) 1/4" SIMPSON SDS WOOD SCREW @ 16" OC (2" MIN EDGE DISTANCE)
  - 5 5/8" THICK ROOF SHEATHING RE: GENERAL NOTES ADDITIONAL FASTENING REQD
  - 6 2x8 ROOF RAFTERS @ 16" OC
  - 7 STEP IN TOP PLATE OF WALL. RE: TYPICAL DETAILS
  - 8 TOP PLATE INTERRUPTED BY HEADER. RE: TYPICAL DETAIL T/SR0 FOR STRAP REFS & REQ
  - 9 PRE-ENGINEERED MONO SLOPED ROOF TRUSS @ 24" OC CEILING WALL TED BELOW. RE: PLAN FOR TRUSS BEARING ELEVATION



PERMIT DOCUMENTS

**REUNION AT BLACKWELL**  
SE SHENANDOAH DRIVE  
LEE'S SUMMIT, MO 64063

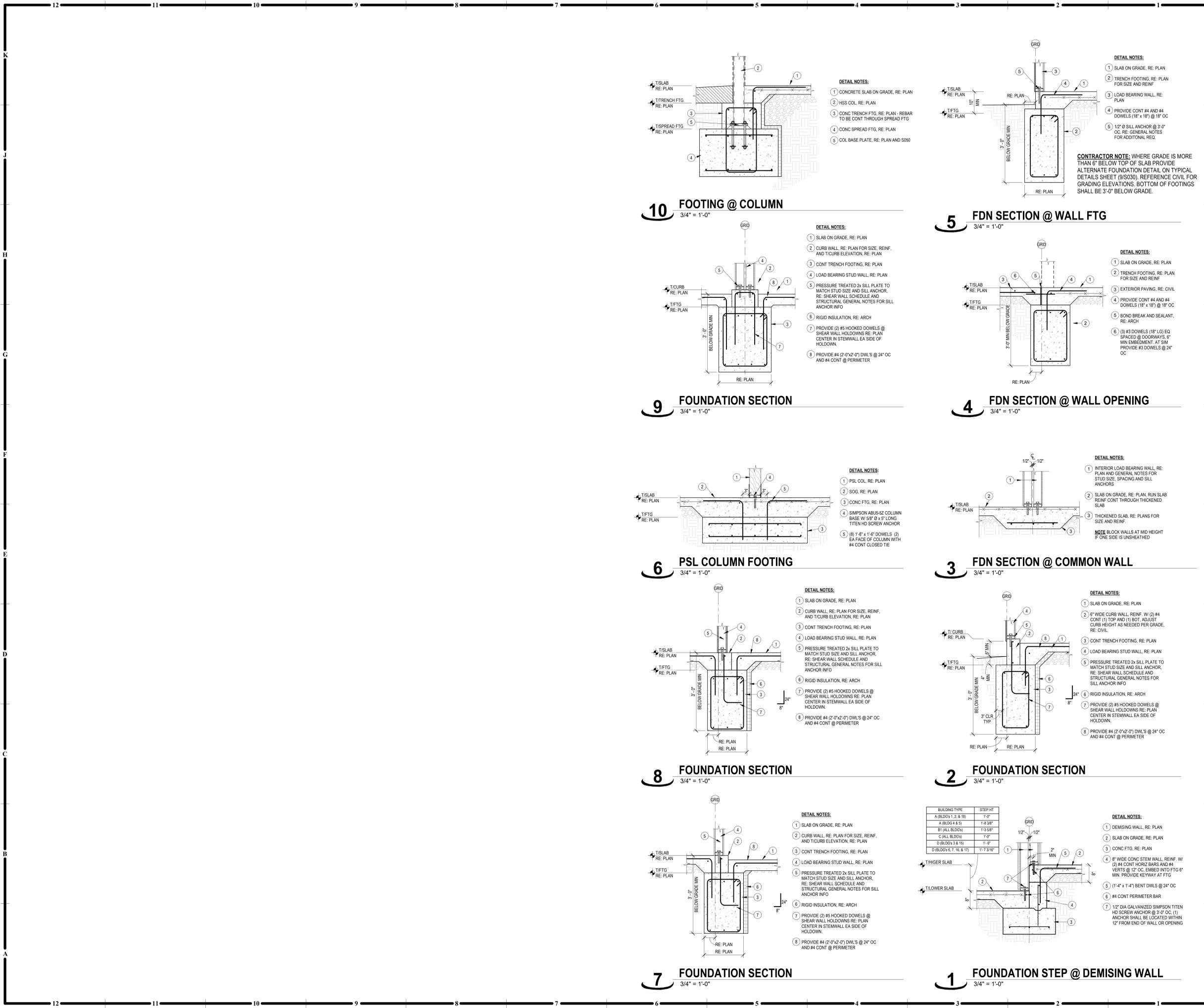
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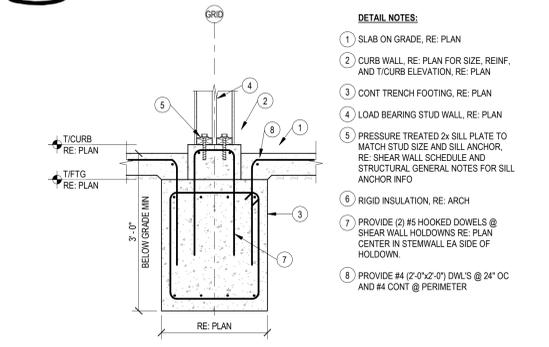


**S101 C-1**  
ISSUE DATE: 24 AUGUST 2023  
STAND SET#: 23090

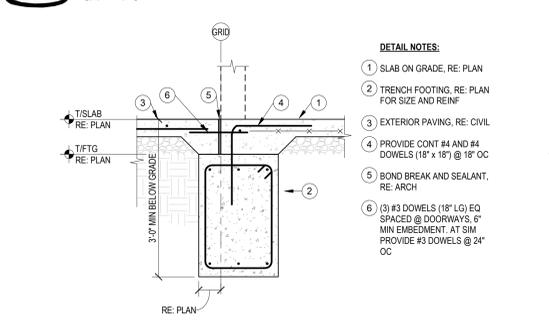
**ROOF FRAMING PLAN - BUILDING C**



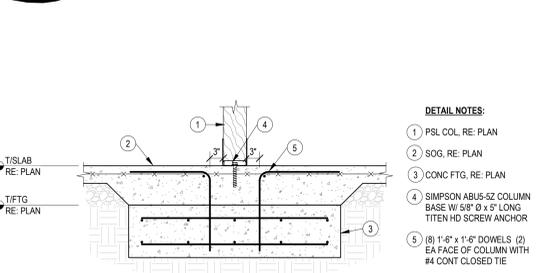
**10 FOOTING @ COLUMN**  
3/4" = 1'-0"



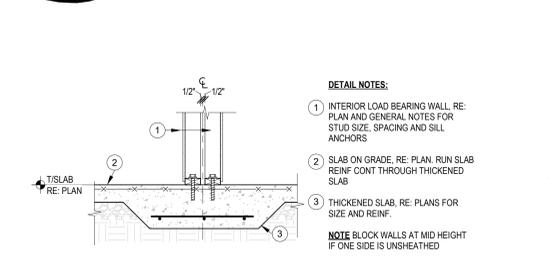
**5 FDN SECTION @ WALL FTG**  
3/4" = 1'-0"



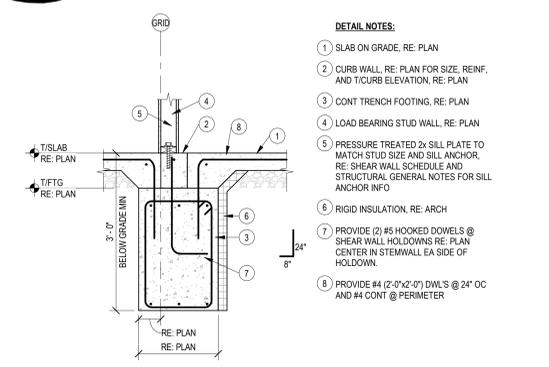
**9 FOUNDATION SECTION**  
3/4" = 1'-0"



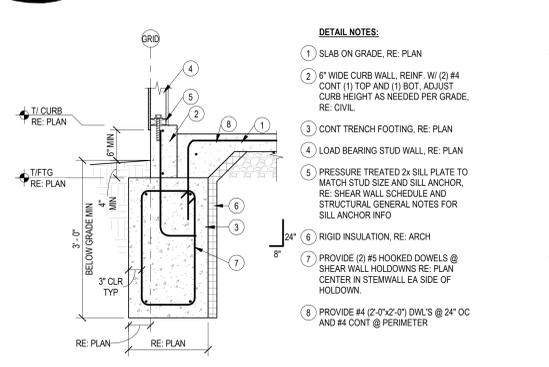
**4 FDN SECTION @ WALL OPENING**  
3/4" = 1'-0"



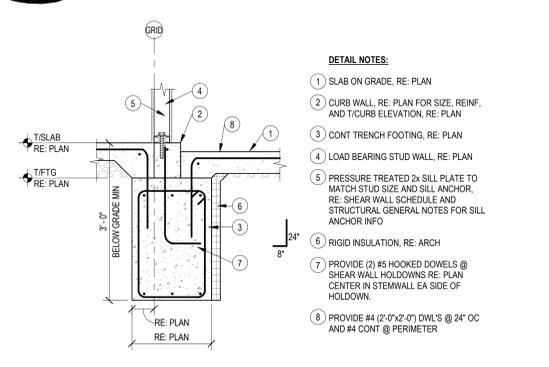
**6 PSL COLUMN FOOTING**  
3/4" = 1'-0"



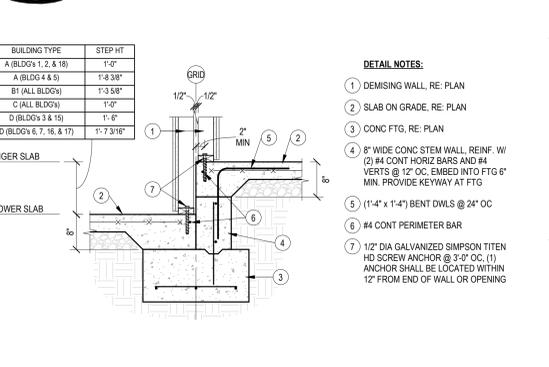
**3 FDN SECTION @ COMMON WALL**  
3/4" = 1'-0"



**8 FOUNDATION SECTION**  
3/4" = 1'-0"



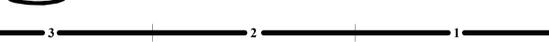
**2 FOUNDATION SECTION**  
3/4" = 1'-0"

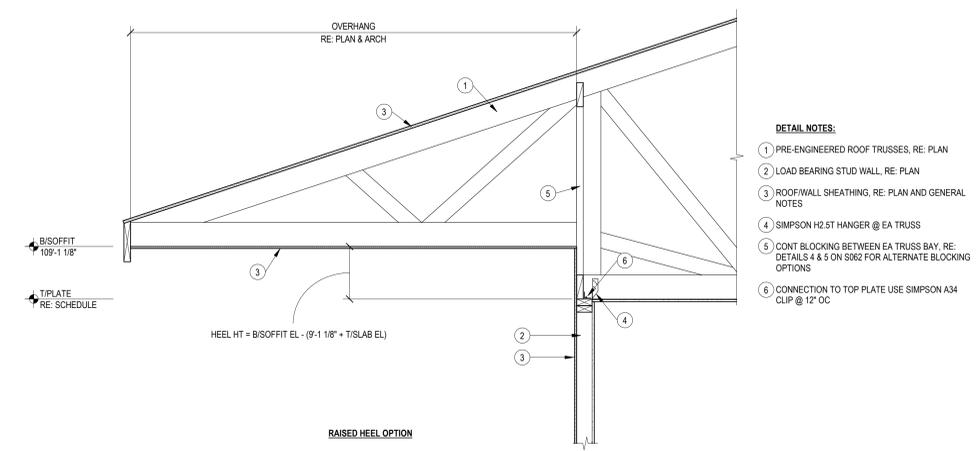


**7 FOUNDATION SECTION**  
3/4" = 1'-0"

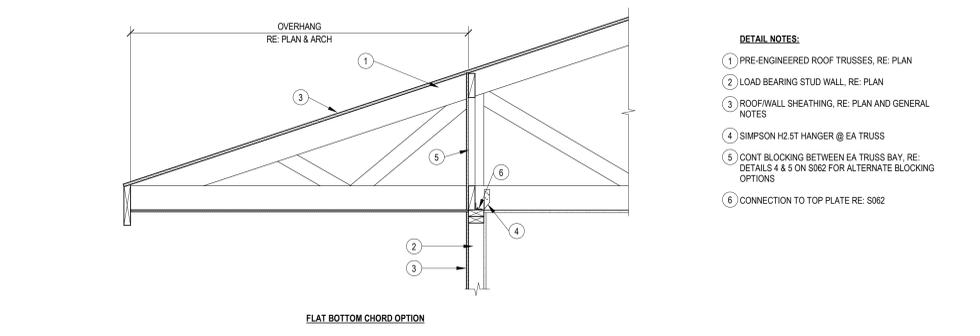


**1 FOUNDATION STEP @ DEMISING WALL**  
3/4" = 1'-0"



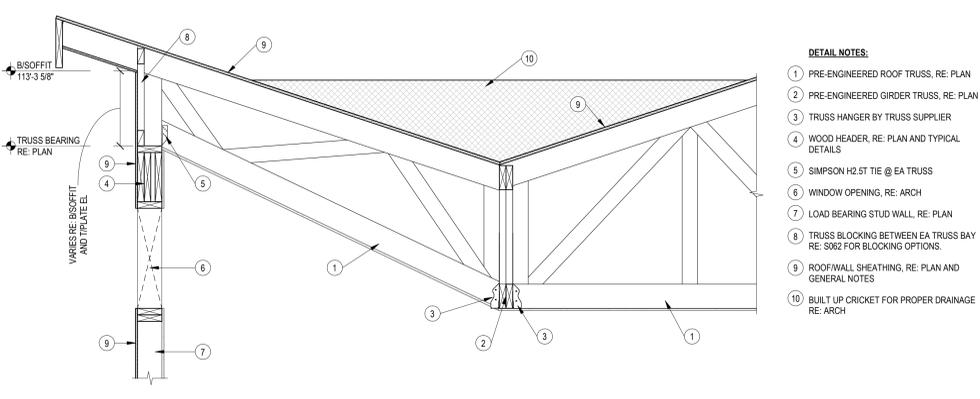


- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSSES, RE: PLAN
  - 2 LOAD BEARING STUD WALL, RE: PLAN
  - 3 ROOF/WALL SHEATHING, RE: PLAN AND GENERAL NOTES
  - 4 SIMPSON H2.5T HANGER @ EA TRUSS
  - 5 CONT BLOCKING BETWEEN EA TRUSS BAY, RE: DETAILS 4 & 5 ON S062 FOR ALTERNATE BLOCKING OPTIONS
  - 6 CONNECTION TO TOP PLATE USE SIMPSON A34 CLIP @ 12" OC



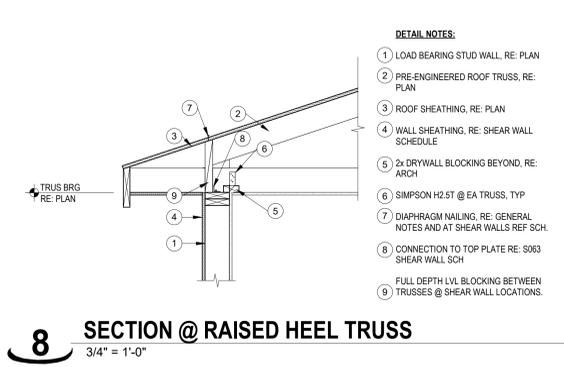
- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSSES, RE: PLAN
  - 2 LOAD BEARING STUD WALL, RE: PLAN
  - 3 ROOF/WALL SHEATHING, RE: PLAN AND GENERAL NOTES
  - 4 SIMPSON H2.5T HANGER @ EA TRUSS
  - 5 CONT BLOCKING BETWEEN EA TRUSS BAY, RE: DETAILS 4 & 5 ON S062 FOR ALTERNATE BLOCKING OPTIONS
  - 6 CONNECTION TO TOP PLATE RE: S062

**10 TRUSS OVERHANG**  
3/4" = 1'-0"



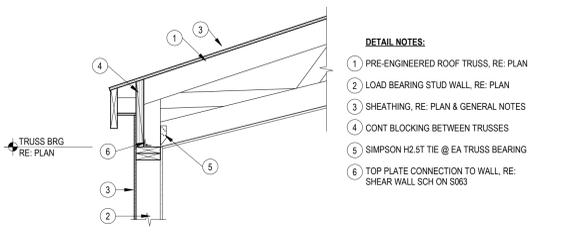
- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSS, RE: PLAN
  - 2 PRE-ENGINEERED GIRDER TRUSS, RE: PLAN
  - 3 TRUSS HANGER BY TRUSS SUPPLIER
  - 4 WOOD HEADER, RE: PLAN AND TYPICAL DETAILS
  - 5 SIMPSON H2.5T TIE @ EA TRUSS
  - 6 WINDOW OPENING, RE: ARCH
  - 7 LOAD BEARING STUD WALL, RE: PLAN
  - 8 TRUSS BLOCKING BETWEEN EA TRUSS BAY RE: S062 FOR BLOCKING OPTIONS.
  - 9 ROOF/WALL SHEATHING, RE: PLAN AND GENERAL NOTES
  - 10 BUILT UP CRICKET FOR PROPER DRAINAGE RE: ARCH

**9 VAULTED CEILING TRUSS**  
3/4" = 1'-0"



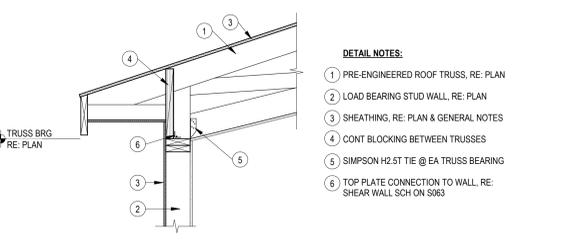
- DETAIL NOTES:**
- 1 LOAD BEARING STUD WALL, RE: PLAN
  - 2 PRE-ENGINEERED ROOF TRUSS, RE: PLAN
  - 3 ROOF SHEATHING, RE: PLAN
  - 4 WALL SHEATHING, RE: SHEAR WALL SCHEDULE
  - 5 2x DRYWALL BLOCKING BEYOND, RE: ARCH
  - 6 SIMPSON H2.5T @ EA TRUSS, TYP
  - 7 DIAPHRAGM NAILING, RE: GENERAL NOTES AND AT SHEAR WALLS REF SCH.
  - 8 CONNECTION TO TOP PLATE RE: S063 SHEAR WALL SCH
  - 9 FULL DEPTH LVL BLOCKING BETWEEN TRUSSES @ SHEAR WALL LOCATIONS.

**8 SECTION @ RAISED HEEL TRUSS**  
3/4" = 1'-0"



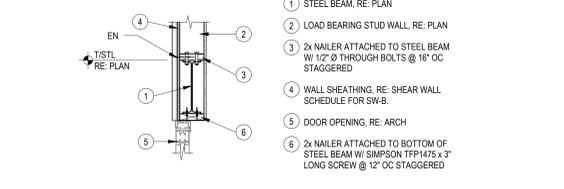
- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSS, RE: PLAN
  - 2 LOAD BEARING STUD WALL, RE: PLAN
  - 3 SHEATHING, RE: PLAN & GENERAL NOTES
  - 4 CONT BLOCKING BETWEEN TRUSSES
  - 5 SIMPSON H2.5T TIE @ EA TRUSS BEARING
  - 6 TOP PLATE CONNECTION TO WALL, RE: SHEAR WALL SCH ON S063

**7 SECTION @ FIREPLACE BUMP OUT**  
3/4" = 1'-0"



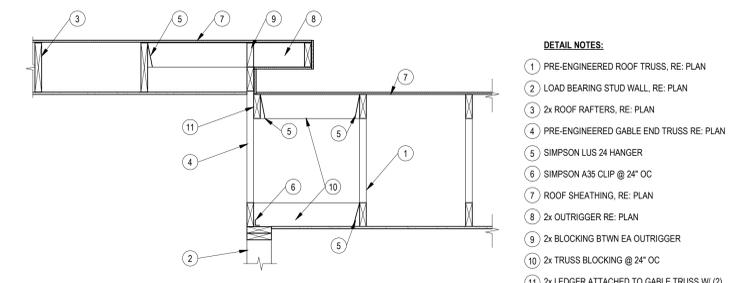
- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSS, RE: PLAN
  - 2 LOAD BEARING STUD WALL, RE: PLAN
  - 3 SHEATHING, RE: PLAN & GENERAL NOTES
  - 4 CONT BLOCKING BETWEEN TRUSSES
  - 5 SIMPSON H2.5T TIE @ EA TRUSS BEARING
  - 6 TOP PLATE CONNECTION TO WALL, RE: SHEAR WALL SCH ON S063

**6 SECTION @ CLUBHOUSE**  
3/4" = 1'-0"



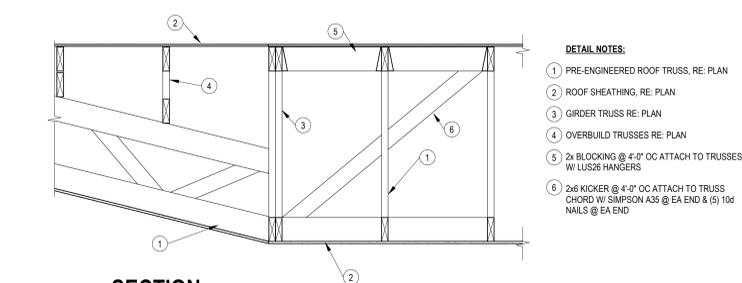
- DETAIL NOTES:**
- 1 STEEL BEAM, RE: PLAN
  - 2 LOAD BEARING STUD WALL, RE: PLAN
  - 3 2x NAILER ATTACHED TO STEEL BEAM W/ 1/2" Ø THROUGH BOLTS @ 18" OC STAGGERED
  - 4 WALL SHEATHING, RE: SHEAR WALL SCHEDULE FOR SW-B.
  - 5 DOOR OPENING, RE: ARCH
  - 6 2x NAILER ATTACHED TO BOTTOM OF STEEL BEAM W/ SIMPSON TFP1475 3" LONG SCREW @ 12" OC STAGGERED

**5 STEEL BEAM @ CLUBHOUSE DOOR**  
3/4" = 1'-0"



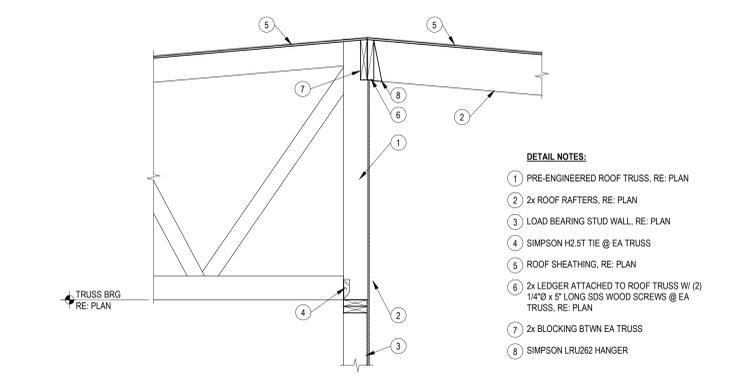
- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSS, RE: PLAN
  - 2 LOAD BEARING STUD WALL, RE: PLAN
  - 3 2x ROOF RAFTERS, RE: PLAN
  - 4 PRE-ENGINEERED GABLE END TRUSS RE: PLAN
  - 5 SIMPSON LUS 24 HANGER
  - 6 SIMPSON A35 CLIP @ 24" OC
  - 7 ROOF SHEATHING, RE: PLAN
  - 8 2x OUTRIGGER RE: PLAN
  - 9 2x BLOCKING BTWN EA OUTRIGGER
  - 10 2x TRUSS BLOCKING @ 24" OC
  - 11 2x LEDGER ATTACHED TO GABLE TRUSS W/ (2) 1/4" Ø x 5" LONG SDS WOOD SCREWS @ EA VERT (24" OC MAX)

**4 SECTION**  
3/4" = 1'-0"



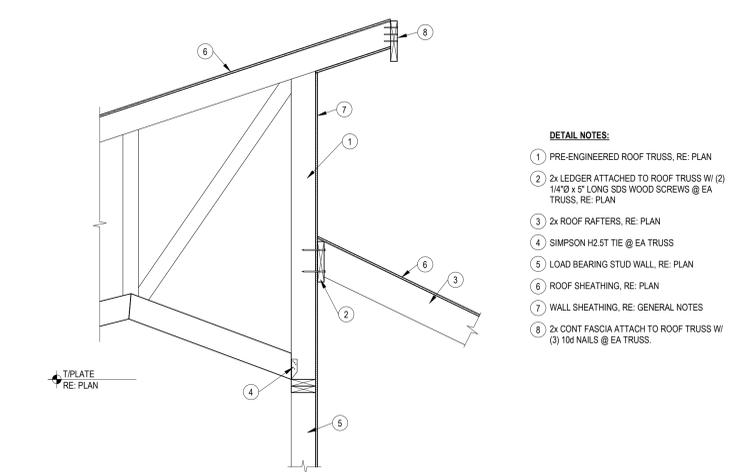
- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSS, RE: PLAN
  - 2 ROOF SHEATHING, RE: PLAN
  - 3 GIRDER TRUSS RE: PLAN
  - 4 OVERBUILD TRUSSES RE: PLAN
  - 5 2x BLOCKING @ 4'-0" OC ATTACH TO TRUSSES W/ LUS26 HANGERS
  - 6 2x KICKER @ 4'-0" OC ATTACH TO TRUSS CHORD W/ SIMPSON A35 @ EA END & (5) 10d NAILS @ EA END

**3 SECTION**  
3/4" = 1'-0"



- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSS, RE: PLAN
  - 2 2x ROOF RAFTERS, RE: PLAN
  - 3 LOAD BEARING STUD WALL, RE: PLAN
  - 4 SIMPSON H2.5T TIE @ EA TRUSS
  - 5 ROOF SHEATHING, RE: PLAN
  - 6 2x LEDGER ATTACHED TO ROOF TRUSS W/ (2) 1/4" Ø x 5" LONG SDS WOOD SCREWS @ EA TRUSS, RE: PLAN
  - 7 2x BLOCKING BTWN EA TRUSS
  - 8 SIMPSON LRU262 HANGER

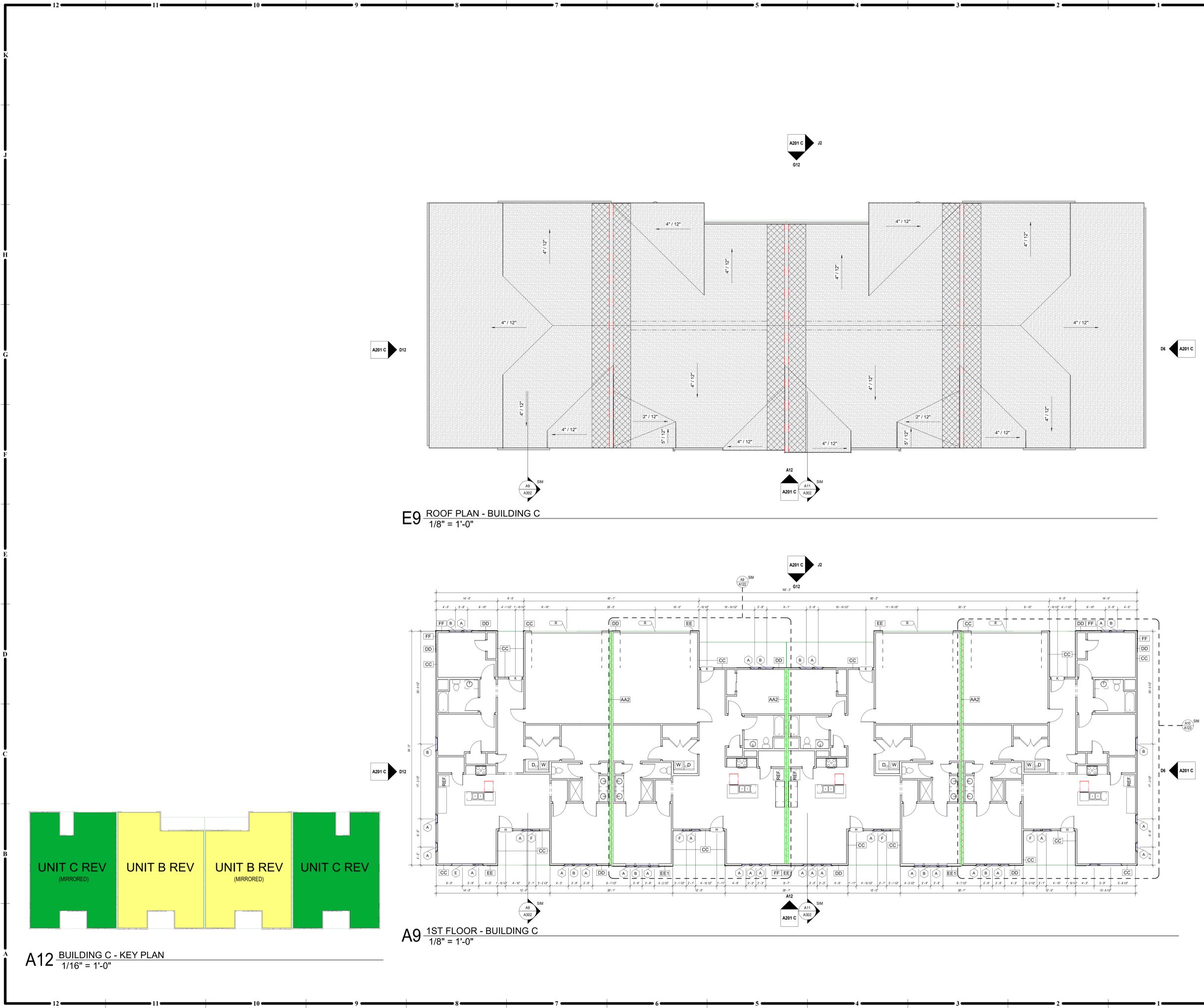
**2 SECTION**  
3/4" = 1'-0"



- DETAIL NOTES:**
- 1 PRE-ENGINEERED ROOF TRUSS, RE: PLAN
  - 2 2x LEDGER ATTACHED TO ROOF TRUSS W/ (2) 1/4" Ø x 5" LONG SDS WOOD SCREWS @ EA TRUSS, RE: PLAN
  - 3 2x ROOF RAFTERS, RE: PLAN
  - 4 SIMPSON H2.5T TIE @ EA TRUSS
  - 5 LOAD BEARING STUD WALL, RE: PLAN
  - 6 ROOF SHEATHING, RE: PLAN
  - 7 WALL SHEATHING, RE: GENERAL NOTES
  - 8 2x CONT FASCIA ATTACH TO ROOF TRUSS W/ (3) 10d NAILS @ EA TRUSS.

**1 TRUSS BEARING @ CLUBHOUSE ENTRY**  
3/4" = 1'-0"

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**GENERAL NOTES:  
FLOOR PLANS**

1. SEE GENERAL ARCHITECTURAL SHEETS FOR ADDITIONAL NOTES AND DETAILS THAT ARE APPLICABLE.
2. ARCHITECTURAL ELEVATION 100'-0"
3. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF STUD (FOS), FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FCO), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. NOTE: WALL THICKNESSES ARE ACTUAL DIMENSIONS AND PER WALL TYPES. SEE GENERAL SHEETS.
5. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO HINGE SIDE OF THE DOOR, ALWAYS ALLOWING A MINIMUM OF 18" FROM THE PULL SIDE (STRIKE SIDE OF THE DOOR TO THE INTERSECTING WALL, OR OTHER PROTRUDING OBJECTS).
6. ALL ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FINISHES AS THE ADJOINING SPACES.
7. RE: FINISH LEGEND, FINISH SCHEDULE AND SPECIFICATIONS FOR DOOR AND DOOR FRAME FINISHES.
8. STAIR ENCLOSURES, SHAFT WALLS, EXIT PASSAGE WAYS AND EXTERIOR WALLS TO BE COORDINATED FOR PHASE OF WORK PER MATRIX AND PROJECT SCOPING.

**GENERAL NOTES:  
ROOF PLANS**

1. RE: SHEET G001 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. DIMENSIONS SHOWN ON THE ROOF PLAN ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FCO), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
3. PROVIDE 1/2" TAPERED INSULATION AT ALL ROOF CURBS AND AT EQUIPMENT WHICH EXCEEDS 18 INCHES IN WIDTH.

**ROOF PLAN LEGEND**

- ← SLOPE DIRECTION
- ▨ AREA WHERE ROOF PENETRATIONS ARE NOT ALLOWED PER IRC 2018, R302.2.4 EXCEPTION
- - - LEVEL OF COMMON WALLS TO UNDERSIDE OF SHEATHING PER DETAIL A11G003
- - - EXTENTS OF RIDGE VENTS ALLOWED BETWEEN COMMON WALLS
- - - EXTENTS OF CONTINUOUS SOFFIT VENTS ALLOWED BETWEEN COMMON WALLS =
- ▨ SINGLE ROOF
- ▨ STANDING SEAM METAL ROOF



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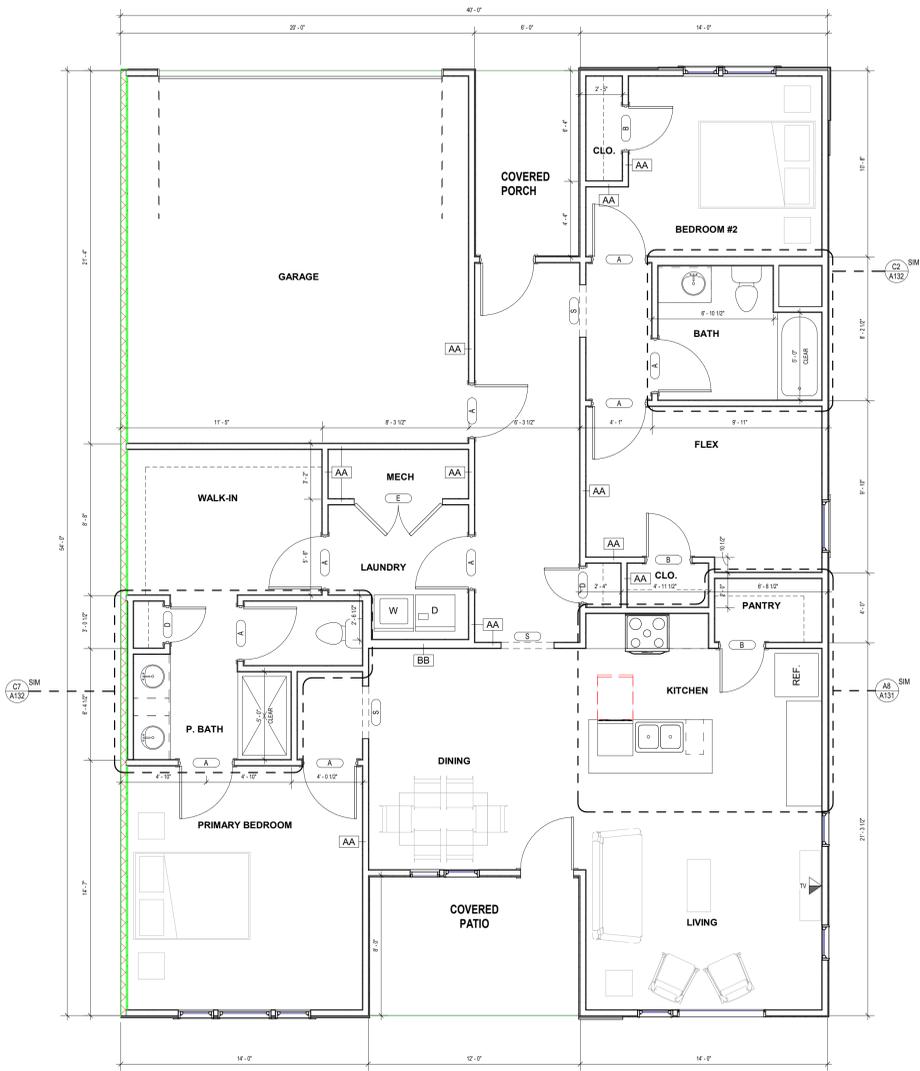
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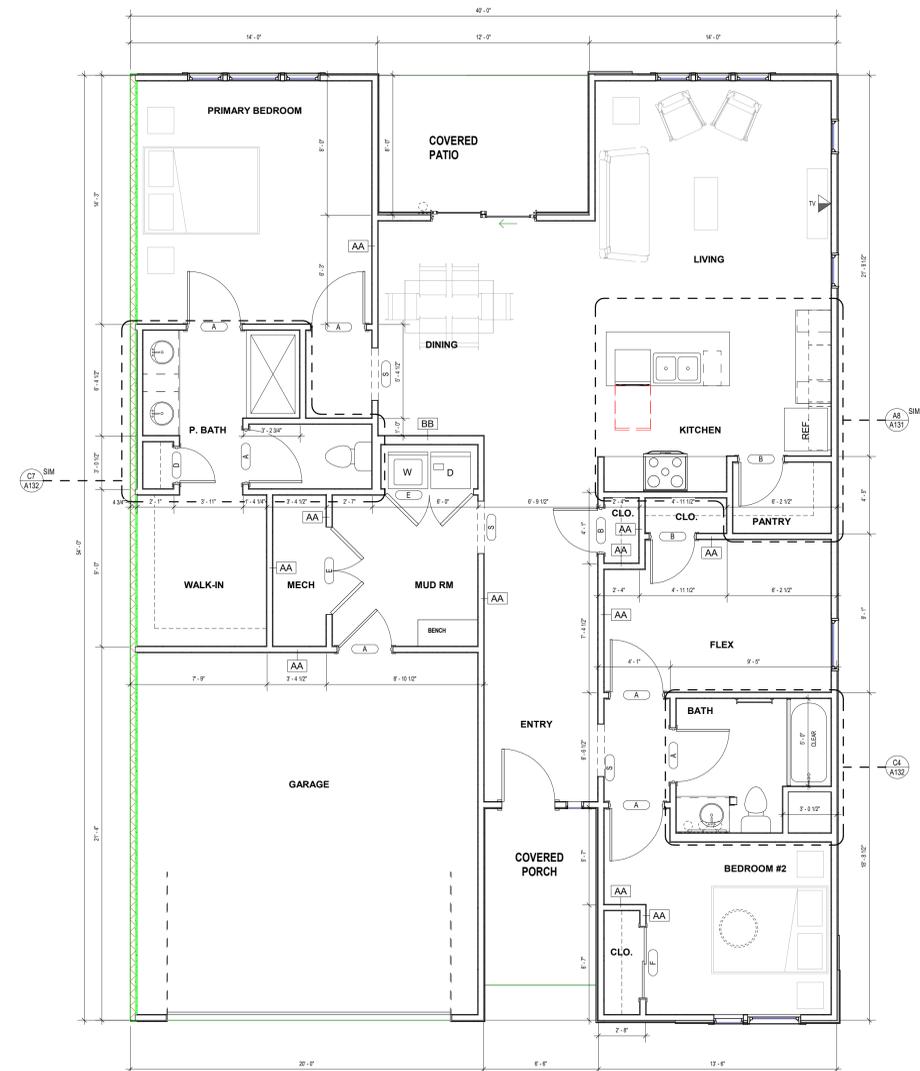
**A101 C**  
ISSUE DATE: 24 AUGUST 2023  
COLLINS WEBB #: 21075

FLOOR PLANS - BUILDING C

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**A10** UNIT PLAN - C - TWO BEDROOM + DEN - REVERSED  
1/4" = 1'-0"



**A5** UNIT PLAN - C - TWO BEDROOM + DEN  
1/4" = 1'-0"

**GENERAL NOTES:  
FLOOR PLANS**

1. SEE GENERAL ARCHITECTURAL SHEETS FOR ADDITIONAL NOTES AND DETAILS THAT ARE APPLICABLE.
2. ARCHITECTURAL ELEVATION 100'-0"
3. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF STUD (FOS), FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. NOTE: WALL THICKNESSES ARE ACTUAL DIMENSIONS AND PER WALL TYPES. SEE GENERAL SHEETS.
5. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL, SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO HINGE SIDE OF THE DOOR, ALWAYS ALLOWING A MINIMUM OF 18" FROM THE PULL SIDE (STRIKE SIDE) OF THE DOOR TO THE INTERSECTING WALL, OR OTHER PROTRUDING OBJECTS.
6. ALL ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FINISHES AS THE ADJOINING SPACES.
7. RE: FINISH LEGEND, FINISH SCHEDULE AND SPECIFICATIONS FOR DOOR AND DOOR FRAME FINISHES.
8. STAIR ENCLOSURES, SHAFT WALLS, EXIT PASSAGE WAYS AND EXTERIOR WALLS TO BE COORDINATED FOR PHASE OF WORK PER MATRIX AND PROJECT SCOPING.

**REUNION AT BLACKWELL**

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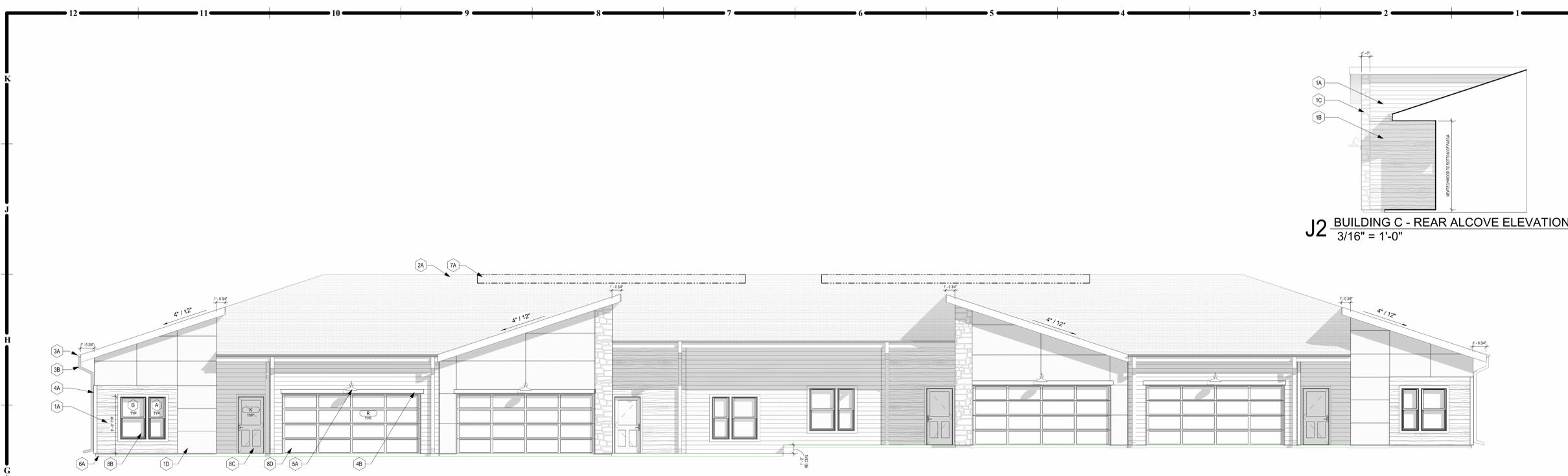
**A123**  
ISSUE DATE: 24 AUGUST 2023  
COLLINS WEBB #: 21075

UNIT PLAN - C AND C REVERSED

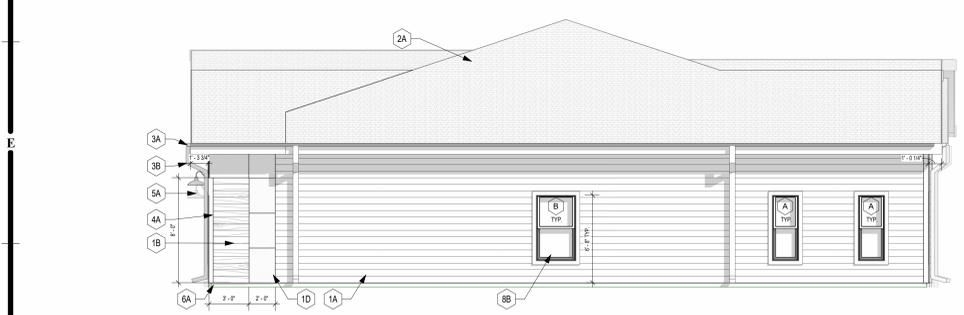


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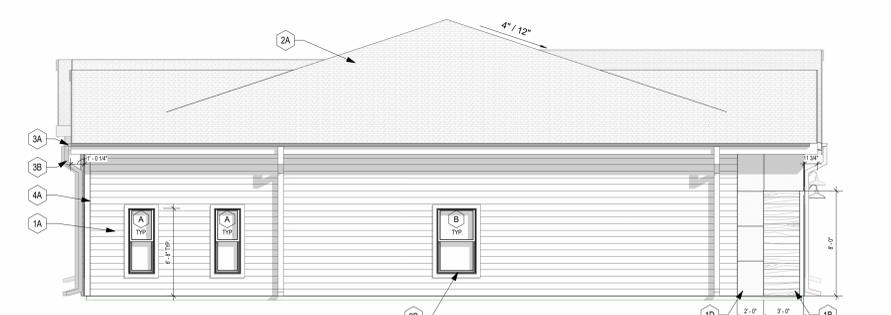
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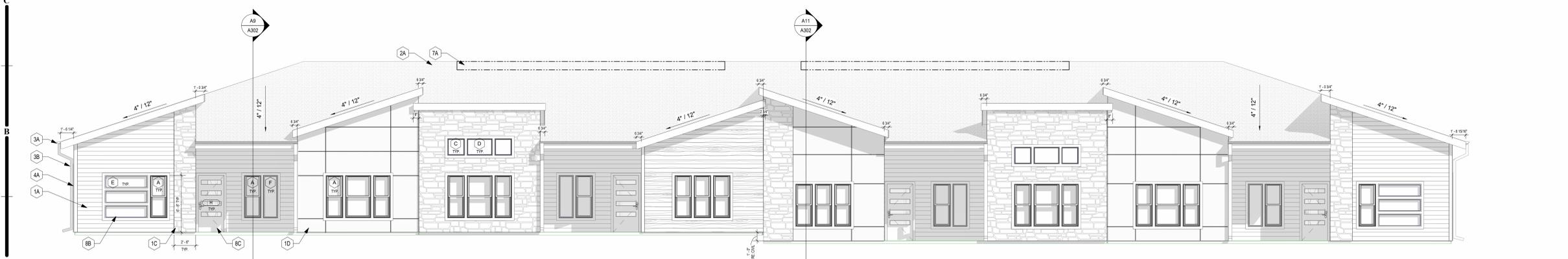
**G12 BUILDING C - REAR ELEVATION**  
3/16" = 1'-0"



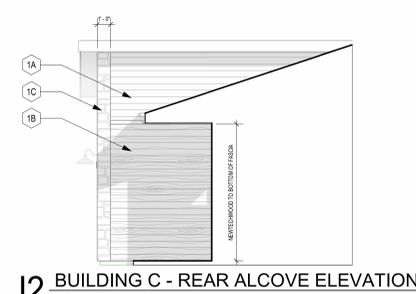
**D12 BUILDING C - LEFT ELEVATION**  
3/16" = 1'-0"



**D6 BUILDING C - RIGHT ELEVATION**  
3/16" = 1'-0"



**A12 BUILDING C - FRONT ELEVATION**  
3/16" = 1'-0"



**J2 BUILDING C - REAR ALCOVE ELEVATION**  
3/16" = 1'-0"

**GENERAL NOTES  
EXTERIOR ELEVATIONS:**

1. RE SHEET G001 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. DIMENSIONS SHOWN ON THE EXTERIOR ELEVATIONS ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOW), FACE OF CONCRETE WALLS (FCO), FACE OF STUD, AND COLUMN GRID LINES, UNLESS OTHERWISE NOTED OR INDICATED.
3. RE THE WINDOW TYPES SHEET FOR ALL EXTERIOR WINDOW TYPES AND GLASS TYPES.
4. PROVIDE ALL BLOCKING AND POWER AS REQUIRED FOR EXTERIOR SIGNAGE.

**KEY NOTES  
EXTERIOR ELEVATIONS:**

MARK	DESCRIPTION
1A	6" LAP SIDING - WHITE - SEE EXTERIOR MATERIAL LEGEND BELOW.
1B	6" LAP SIDING - BROWN - SEE EXTERIOR MATERIAL LEGEND BELOW.
1C	CULTURED STONE VENEER - SEE EXTERIOR MATERIAL LEGEND BELOW.
1D	EXTERIOR STUCCO SYSTEM. SEE EXTERIOR MATERIAL LEGEND BELOW.
1E	6" BATT SIDING - WHITE - SEE EXTERIOR MATERIAL LEGEND BELOW.
2A	ARCHITECTURAL ASPHALT SHINGLES.
2B	ARCHITECTURAL STANDING SEAM METAL ROOF.
3A	PREFINISHED ALUMINUM GUTTER. RE: EXT. FINISH LEGEND.
3B	PREFINISHED ALUMINUM DOWNSPUT WITH SPASH BLOCKS. RE: EXT. FINISH LEGEND.
4A	1X4 TRIM BOARD.
4B	1X6 TRIM BOARD.
5A	LIGHT FIXTURE. RE: ELECTRICAL.
6A	CONCRETE FOUNDATION. PAINT WITH EXTERIOR CONCRETE PAINT. RE: EXT. FINISH LEGEND.
7A	ROOF VENT.
7B	POST FOR ROOF STRUCTURE. RE: STRUCT.
8A	ALUMINUM DOOR. RE: DOOR SCHEDULE.
8B	VINYL WINDOW SYSTEM. BASIS OF DESIGN: MI 3500 SERIES.
8C	VINYL DOOR. RE: DOOR SCHEDULE.
8D	GARAGE OVERHEAD DOOR. RE: DOOR SCHEDULE.

**EXTERIOR ELEVATION MATERIALS**

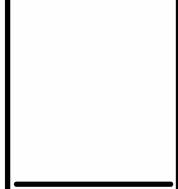
	STO CRACK DEFENSE STUCCO SYSTEM - TEXTURE: FINE - GRAY DAWN
	NEW TECH WOOD - ALL WEATHER SIDING - BRAZILIAN PE (IP)
	LP SMARTSIDE LAP SIDING - SMOOTH FINISH - SNOWSCAPE WHITE
	EL DORADO STONE (SIMULATED)- CUT COARSE STONE VENEER - SEASHELL
	LP SMARTSIDE VERTICAL SIDING- CEDAR TEXTURE PANEL - SNOWSCAPE WHITE



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EXTERIOR ELEVATIONS - BUILDING C