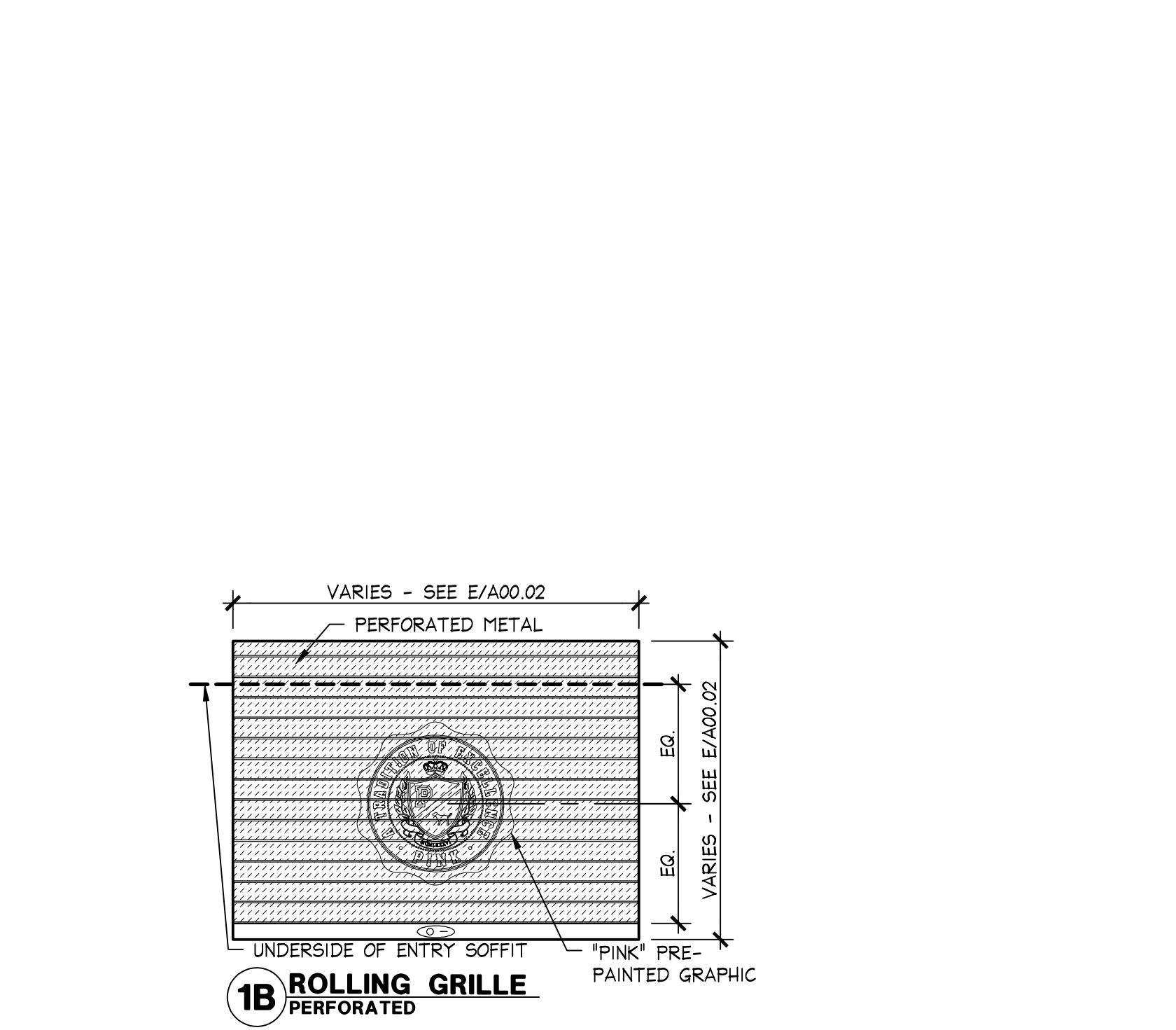
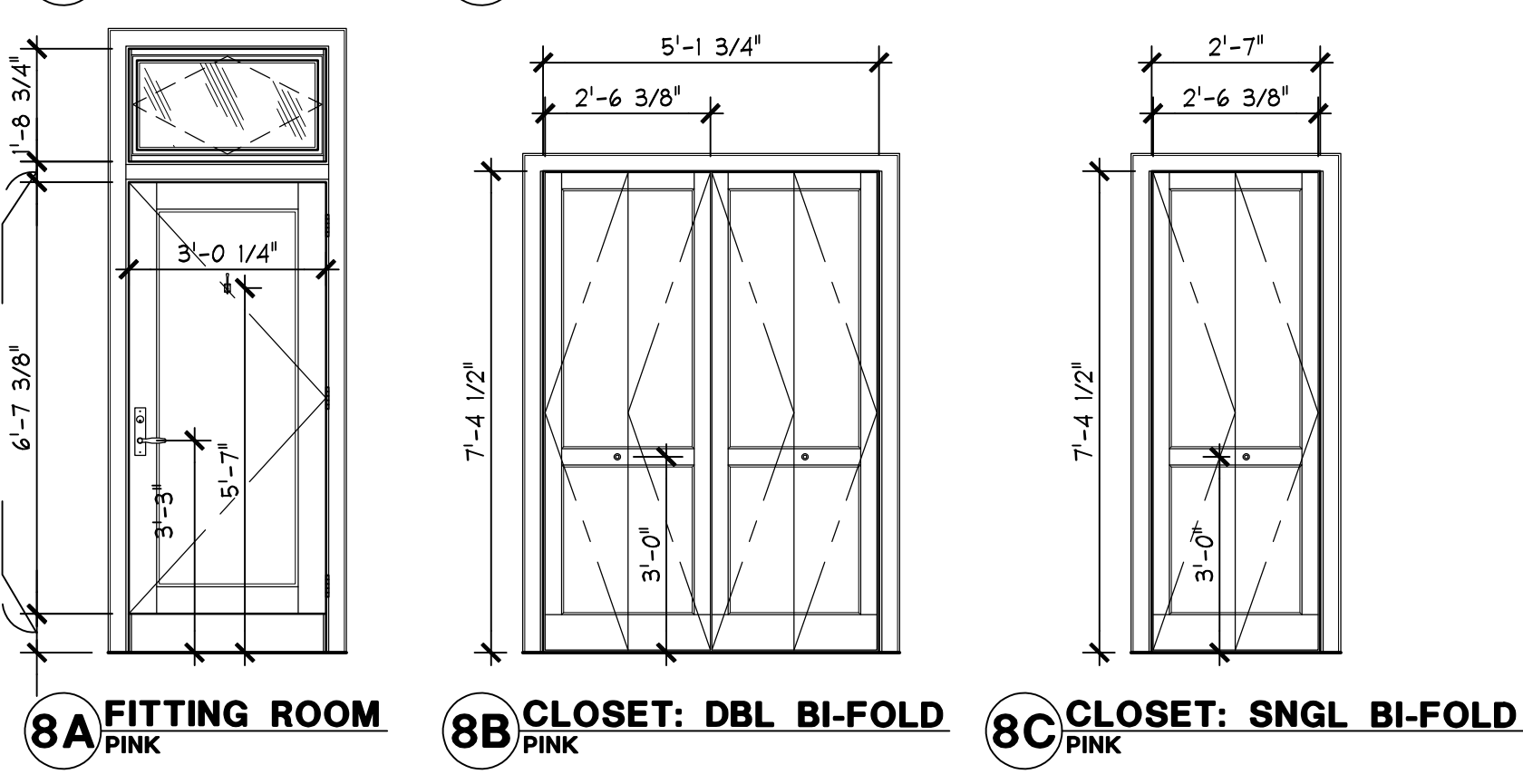
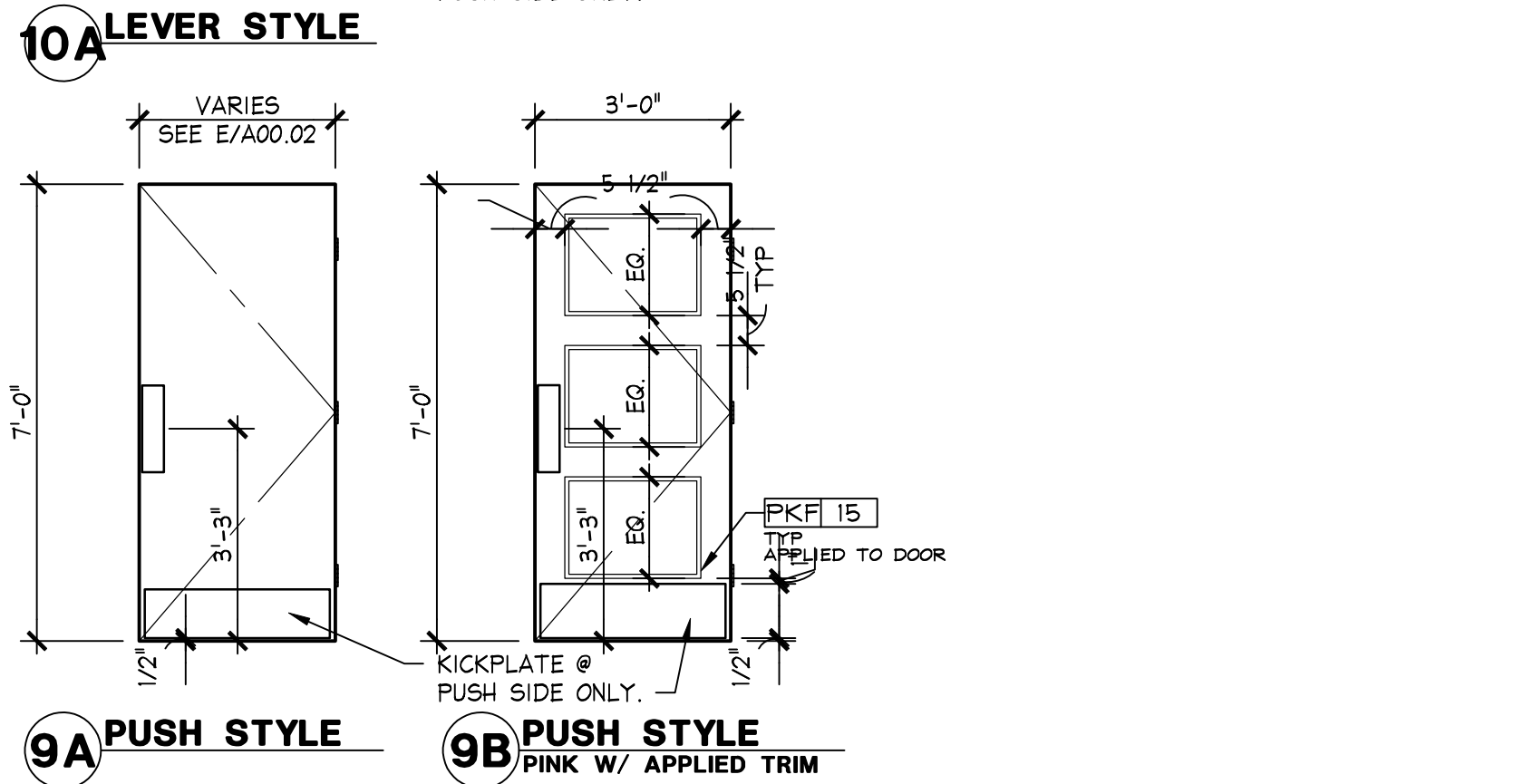
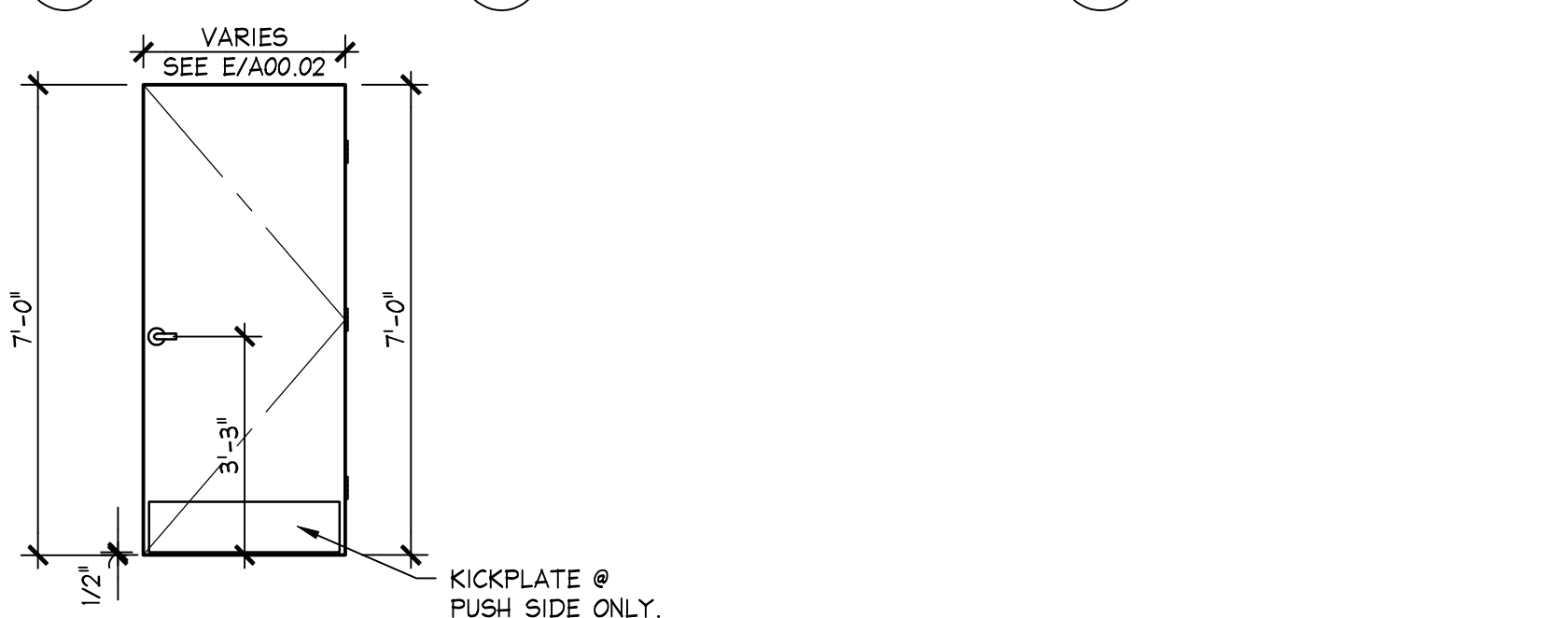
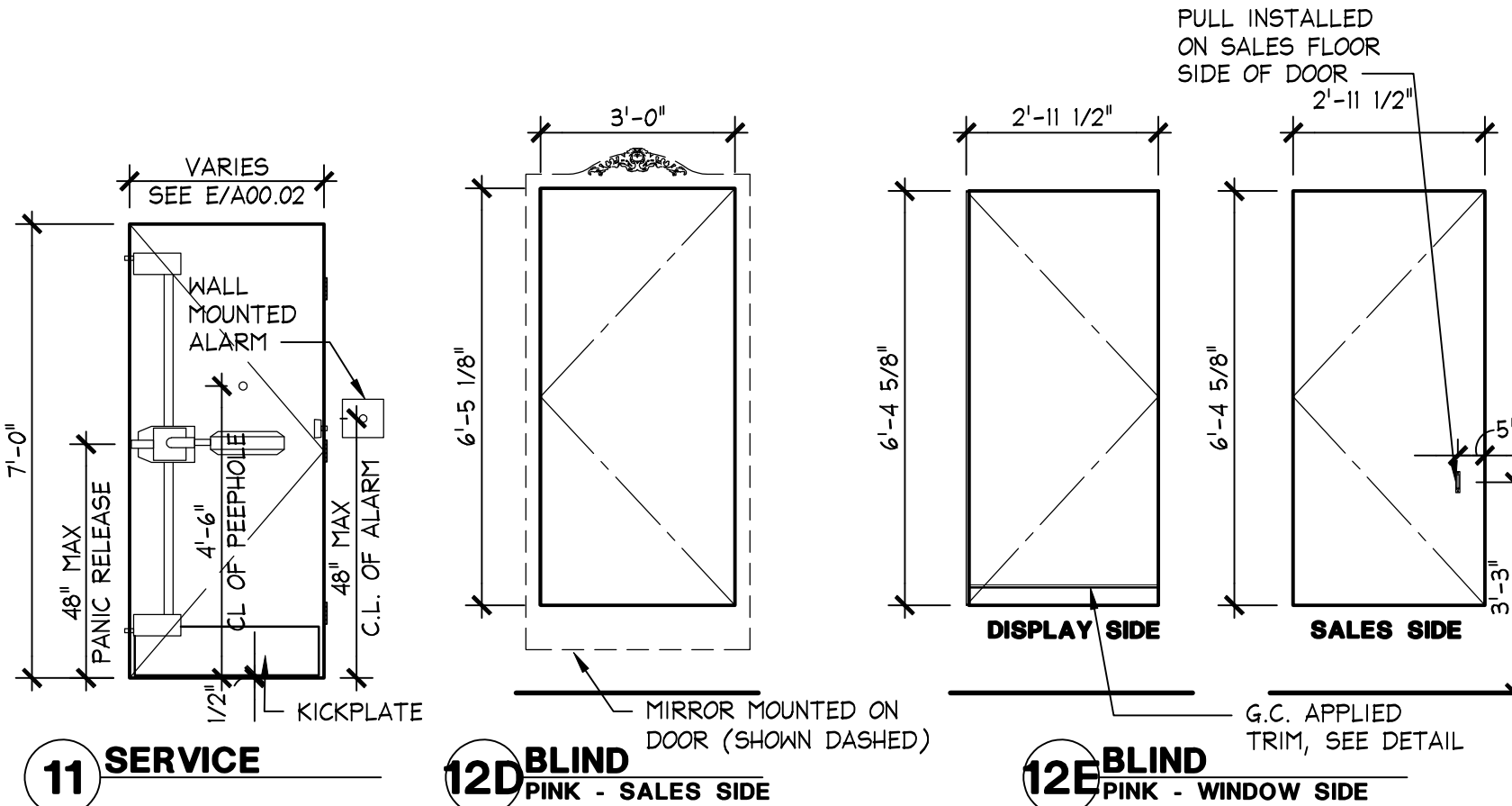


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<h1 style="margin: 0;">GreenbergFarrow</h1> <p style="margin: 0;">1430 West Peachtree Street NW Suite 200 Atlanta, GA 30309 t: 404 601 4000 f: 404 601 3970</p>																																		
<h2 style="font-size: 4em; margin: 0;">Limitedbrands</h2> <p style="margin: 0;">LIMITED STORE PLANNING, INC. d/b/a. STORE DESIGN & CONSTRUCTION</p> <p style="margin: 0;">Three Limited Parkway • Columbus, Ohio 43230 Telephone: 614.415.7000 • Fax: 614.415.7349</p>																																		
<p><small>PROJECTIONS ON SCALE</small></p> <p><small>THESE DRAWINGS AND SPECIFICATIONS WERE PREPARED FOR USE IN A SPECIFIC SET OF CIRCUMSTANCES. THE USER SHALL BE RESPONSIBLE FOR DETERMINING THE APPROPRIATENESS OF THESE DRAWINGS AND SPECIFICATIONS FOR ANY OTHER PROJECT OR AT A LATER DATE. REUSE OF THESE DRAWINGS AND SPECIFICATIONS ON ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF GREENBERGFARROW IS PROHIBITED. ANY SUCH REUSE MAY BE SUBJECT TO LEGAL ACTION. THIS AGREEMENT IS GOVERNED BY THE LAWS OF THE STATE OF GEORGIA. ALL DISPUTES SHALL BE REFERRED TO ARBITRATION IN ACCORDANCE WITH THE RULES OF THE AMERICAN ARBITRATION ASSOCIATION. NO COURT SHALL HAVE JURISDICTION OVER THIS CONTRACT OR ITS PERFORMANCE. THE USER'S SOLE REMEDY SHALL BE LIMITED TO THE OBTAINMENT OF AN ORDER OF SPECIFICATION FROM THE ARBITRATOR. NO DAMAGES SHALL BE AWARDED FOR SPECIAL, CONSEQUENTIAL, PUNITIVE, OR INCIDENTAL DAMAGES. THE USER'S SOLE REMEDY SHALL BE LIMITED TO THE OBTAINMENT OF AN ORDER OF SPECIFICATION FROM THE ARBITRATOR. NO COURT SHALL HAVE JURISDICTION OVER THIS CONTRACT OR ITS PERFORMANCE. THE USER'S SOLE REMEDY SHALL BE LIMITED TO THE OBTAINMENT OF AN ORDER OF SPECIFICATION FROM THE ARBITRATOR.</small></p>	<p><small>THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF GREENBERGFARROW AND SHALL NOT BE COPIED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF GREENBERGFARROW. ANY SUCH REUSE MAY BE SUBJECT TO LEGAL ACTION. THIS AGREEMENT IS GOVERNED BY THE LAWS OF THE STATE OF GEORGIA. ALL DISPUTES SHALL BE REFERRED TO ARBITRATION IN ACCORDANCE WITH THE RULES OF THE AMERICAN ARBITRATION ASSOCIATION. NO COURT SHALL HAVE JURISDICTION OVER THIS CONTRACT OR ITS PERFORMANCE. THE USER'S SOLE REMEDY SHALL BE LIMITED TO THE OBTAINMENT OF AN ORDER OF SPECIFICATION FROM THE ARBITRATOR. NO DAMAGES SHALL BE AWARDED FOR SPECIAL, CONSEQUENTIAL, PUNITIVE, OR INCIDENTAL DAMAGES. THE USER'S SOLE REMEDY SHALL BE LIMITED TO THE OBTAINMENT OF AN ORDER OF SPECIFICATION FROM THE ARBITRATOR.</small></p>																																	
<p>PROJECT INFORMATION:</p> <p>PINK VICTORIA'S SECRET</p> <p>TREASURE COAST SQUARE</p> <p>3174 NW FEDERAL HIGHWAY</p> <p>SPACE # 3036</p> <p>JENSEN BEACH, FL 34957</p>	<p>NEW PACKAGE:</p> <p>PINK GENERATION:</p> <p>00057884 A/E PROJECT #:</p>																																	
<p>REVISIONS:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 85%;">DESCRIPTION</th> <th style="width: 10%;">DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	DESCRIPTION	DATE																														
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<h2 style="margin: 0;">RESPONSIBILITY SCHEDULE</h2>																																		
<p>DRAWING NUMBER:</p> <h1 style="margin: 0;">A00.01</h1>																																		



DOOR ELEVATIONS	3/8" = 1'-0"	N
OSD-A0002-MOD-DET.		01.11.13

QTY	NUMBER	LOCATION	SIZE	LEAF	FRAME	FIRE	HDW	ELEV	DETAIL	NUMBER	NOTES
SEE FLR PLAN			WIDTH X HEIGHT X THICKNESS	MATERIAL	MATERIAL	RATE	GROUP	SEE N/A00.2	HEAD	JAMB	SILL
1	①	PINK ROLLING GRILLE	18'-4 3/8" x 9'-11"	METAL	STEEL POST	--	A	1B	A	A	A
1	②	PINK INTERIOR STOREFRONT	3'-6" x 7'-11" x 1 5/8"	TEMP. GLASS / WOOD	WOOD	--	B-2	3A/B	G	S	E
4	③	PINK FITTING ROOM	3'-0" x 6'-7 3/8" x 1 3/4"	S.C. WOOD	WOOD	--	F-2	8A	K	A	O
1	④	PINK CLOSET: DOUBLE BI-FOLD	5'-1 3/4" x 7'-4 1/2" x 1 3/4"	S.C. WOOD	WOOD	--	F-3	8B	G	A	O
1	⑤	PINK CLOSET: SINGLE BI-FOLD	2'-7" x 7'-4 1/2" x 1 3/4"	S.C. WOOD	WOOD	--	F-4	8C	G	A	O
1	⑥	PINK SALES/NON-SALES WITH CASING TRIM	3'-0" x 7'-0" x 1 3/4"	H.M.	H.M.	--	G-2	9B	E	A	O
1	⑦	TOILET ROOM: FINISH PACKAGE A	3'-0" x 7'-0" x 1 3/4"	H.M.	H.M.	--	J-1	10A	D	A	O
1	⑧	TOILET ROOM: PINK FINISH PACKAGE C	3'-0" x 7'-0" x 1 3/4"	H.M.	H.M.	--	J-4	10B	E	A	O
1	⑨	TOILET ROOM: PINK FINISH PACKAGE D	3'-0" x 7'-0" x 1 3/4"	H.M.	H.M.	--	J-4	10B	E	A	O
1	⑩	NON-SALES	3'-0" x 7'-0" x 1 3/4"	H.M.	H.M.	--	H	10A	D	A	O
1	⑪	HDP CLOSET DOOR	2'-6" x 7'-0" x 1 3/4"	H.M.	H.M.	--	H	10A	D	A	O
1	⑫	OFFICE	3'-0" x 7'-0" x 1 3/4"	H.M.	H.M.	--	K	10A	D	A	O
1	⑬	SERVICE	3'-0" x 7'-0" x 1 3/4"	H.M.	H.M.	--	L	11	H	A	O
1	⑭	PINK STOREFRONT BLIND DOOR (SALES FLOOR SIDE)	3'-0" x 6'-5 1/8" x 1 3/4"	WOOD	WOOD	--	M-1A	12D	B	A	O
1	⑮	PINK STOREFRONT BLIND DOOR (DISPLAY WINDOW SIDE)	2'-11 1/2" x 6'-4 5/8" x 1 3/4"	WOOD	WOOD	--	M-1B	12E	B	A	O
1	⑯	PINK INTERIOR FRONT ACCESS DISPLAY WINDOW	4'-0" x 7'-11" x 1 3/4"	TEMP. GLASS / ALUMINUM	WOOD	--	N-3	13C	C	A	O
1	⑰	GARAGE DOOR	2'-4 3/4" x 8'-0" x 7/8" x 1 3/4"	WOOD	N/A	--	P	14	A	A	O
1	⑱	PINK SIDE FOLDING GRILLE	4'-0" x 7'-11" x 1 5/8"	METAL / LEXAN	STEEL POST	--	D-2	4B	A	A	O
1	⑲	PINK EXTERIOR STOREFRONT	3'-6" x 7'-11" x 1 5/8"	TEMP. GLASS / WOOD	WOOD	--	C-2	3A/B	H	S	E

QTY	ITEM	FURN	INST	E	QTY	ITEM	FURN	INST	E	QTY	ITEM	FURN	INST	E
O	GC	O	GC	O	O	GC	O	GC	O	O	GC	O	GC	O
1	GROUP A-1: ROLLING GRILLE				1	GROUP F-2: PINK FITTING ROOM				1	GROUP J-4: TOILET ROOM - PINK			
1	GRILLE CURTAIN, ENDPLATES, BARREL, BOT. PLATE				1	DOOR LEAF, JAMB, TRANSOM, AND CASING				1	DOOR LEAF AND JAMB			
2	STEEL COLUMN SUPPORTS				3	SPRING LOADED HINGE: HAGER PBB-SPB1 US15 4.5"x4.5"				3	HINGES: STANLEY F179-26D			
2	KEYSWITCHES				2	LEVER: SUN VALLEY BRONZE TS-407ML & L-135 (RIGID EXT, OP INT)				1	DOOR STOP: IVES 402-B26D			
1	INTERLOCK DEVICE				1	LOCKBODY: SCHLAGE L9080 (1283134) STOREROOM LOCK				1	KICKPLATE: IVES 8400-B26D-10"x34"			
1	THUMBTURN				1	SCHLAGE: RH = XL11-820-619, LH = X611-821-619				1	CLOSER: RUSSWIN DC3210-MB2-689			
1	U-CHANGE LOCK CYLINDER 316A01A02 W/ KEY AND CHANGE TOOL				1	SCHLAGE MORTISED CYLINDER W/ KEYS, USB FINISH - CUSTOM				1	DOOR SEAL: PEMKO 588W (AT RATED DOORS ONLY)			
1	CODE SIGNAGE "GRILLE TO REMAIN IN FULL OPEN."				1	WINDOW LOCK: SUN VALLEY BRONZE HSL-500 W/ FINISH (NON-FUNC.)				1	U-CHANGE LOCK CYLINDER W/ KEY & CHANGE TOOL			
1	GROUP B-2: PINK ENTRY DOOR - INTERIOR				1	DOOR TRANSOM PIVOTS W/ LOCK STOPS - W/ FINISH				1	GROUP K: OFFICE			
1	WOOD AND GLASS DOOR LEAF, JAMB, AND HEAD				1	DOOR SLIDE STOP: CUSTOM MFG				1	DOOR LEAF AND JAMB			
1	ADAMS RITE PB-1837 3-POINT, 30W HEAD BOLT				1	FITTING ROOM HOOKS				3	HINGES: STANLEY F179-26D			
1	BOX STRIKE: ADAMS RITE - 400				1	DOOR STOP: DELTANA NBC238U5, CONVEX FLUSH BUMPER 2 3/8" ANTIQUE BRASS US5				1	LOCKSET: U-CHANGE LEVER LOCK 5L1221B502			
1	CUSTOM COVER PLATE				1	DOOR STOP: DELTANA NBC238U5, CONVEX FLUSH BUMPER 2 3/8" ANTIQUE BRASS US5				1	KICKPLATE: IVES 8400-B26D-10"x34"			
1	DUSTPROOF STRIKE: IVES DPS US26D				1	GE MAGNETIC CONTACT SWITCH				1	CLOSER: RUSSWIN DC3210-MB2-689			
1	THUMBTURN: SVB BATON "B" STYLE, US64				1	GROUP F-3: PINK CLOSET - DOUBLE BI-FOLD				1	DOOR SEAL: PEMKO 588W (AT RATED DOORS ONLY)			
1	PULL ACTIVE LEAF: FAIR SUN VALLEY BRONZE TS700WH, FINISH W				1	DOOR LEAFS, JAMB, AND CASING				1	U-CHANGE LOCK CYLINDER W/ KEY & CHANGE TOOL			
1	PULL NON-ACTIVE LEAF: PAIR SVB TS700WHFD, FINISH W				4	PBB 4"x4" NON-SPRING BUTT HINGES, 619 FINISH				1	GROUP L: SERVICE			
1	MANUAL FLUSH BOLTS: SVB DBB-12 W/ MATCHING STRIKE, FINISH W				1	JOHNSON HARDWARE 200FD4B4 BI-FOLD DOOR HARDWARE PACKAGE				1	DOOR LEAF AND JAMB			
1	BUTT HINGE: SVB 4 1/2"x4 1/2" BH-645 W/ BHF BALL FINAL, FINISH W				2	KNOB: CLIFFSIDE #161-RA, 1 3/8" DIA. RUSTIC ANTIQUE KNOB				3	HINGES: IVEB 588WH			
1	KICKPLATE: SVB CUSTOM W/ BEVELED EDGES, FIN W				1	GE MAGNETIC CONTACT SWITCH				1	DOORSTOP: VIKAR: DAYSTAR 55V5 - SILVER (ANTI-ICE 64"x4")			
1	U-CHANGE LOCK CYLINDER 316A01A02 W/ KEY AND CHANGE TOOL				1	GROUP F-4: PINK CLOSET - SINGLE BI-FOLD				1	KICKPLATE: IVES 8400-B26D-10"x34"			
1	SECURITY SYSTEM DOOR CONTACT				1	DOOR LEAF AND JAMB				1	CLOSER: RUSSWIN DC3210-MB2-689			
1	CODE SIGNAGE "DOOR TO REMAIN UNLOCKED."				2	PBB 2"x4" NON-SPRING BUTT HINGES, 619 FINISH				1	PANIC RELEASE / ALARM: TRIDENT TEL-210			
1	GROUP C-2: PINK ENTRY DOOR - EXTERIOR				1	JOHNSON HARDWARE 200FD4B4 BI-FOLD DOOR HARDWARE PACKAGE				1	U-CHANGE LOCK CYLINDER 316A01A02 W/ KEY AND CHANGE TOOL			
1	WOOD AND GLASS DOOR LEAF, JAMB, AND HEAD				1	KNOB: CLIFFSIDE #161-RA, 1 3/8" DIA. RUSTIC ANTIQUE KNOB				1	THRESHOLD (ADJ TO WOOD/TILE): REESE 524EA 9" FULL FINISH			
1	ADAMS RITE PB-1837 3-POINT, 30W HEAD BOLT				1	GE MAGNETIC CONTACT SWITCH				1	THRESHOLD (ADJ TO VCT @ EXT): PEMKO 252V3APG			
1	BOX STRIKE: ADAMS RITE - 400				1	GROUP G-1: PUSH STYLE				1	THRESHOLD (ADJ TO VCT @ INT): PEMKO 270A			
1	CUSTOM COVER PLATE				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	DUSTPROOF STRIKE: IVES DPS US26D				3	HINGES: STANLEY F179-26D				1	DOOR CONTACT			
1	THUMBTURN: SVB BATON "B" STYLE, US64				1	PUSHPLATE: IVES 8200-B26D-4"x16"				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	PULL ACTIVE LEAF: FAIR SUN VALLEY BRONZE TS700WH, FINISH W				1	CLOSER: RUSSWIN DC3210-MB2-689				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	PULL NON-ACTIVE LEAF: PAIR SVB TS700WHFD, FINISH W				1	DOOR STOP: IVES 402-B26D				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	MANUAL FLUSH BOLTS: SVB DBB-12 W/ MATCHING STRIKE, FINISH W				1	DOOR CHIME: EZ-TONE DC-1 (ONLY DOORS ADJ TO SALES FLOOR)				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	BUTT HINGE: SVB 4 1/2"x4 1/2" BH-645 W/ BHF BALL FINAL, FIN W				1	GROUP G-2: PINK SALES/NON-SALES				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	KICKPLATE: SVB CUSTOM W/ BEVELED EDGES, FIN W				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	CONCEALED OVERHEAD CLOSER: DORMA HRTS-B8				3	HINGES: STANLEY F179-26D				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	SEC. CUSTOM FIN				1	PUSHPLATE: IVES 8200-B26D-4"x16"				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	THRESHOLD: REESE 506EA 5"x10", CUSTOM CHAMPAIN ANODIZED				1	PULL PLATE: IVES 8302-B-826D-4"x16"				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	WEATHERSTRIPPING: PEMKO GRAY 588				1	KICKPLATE: IVES 8400-B26D-10"x34"				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	ADVANCED FLEX PILE BRUSH (GRAY) MEETING STYLE FINISH				1	CLOSER: RUSSWIN DC3210-MB2-689				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	U-CHANGE LOCK CYLINDER 316A01A02 W/ KEY AND CHANGE TOOL				1	DOOR HOLDER: IVES 452-B26D				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	SECURITY SYSTEM DOOR CONTACT				1	DOOR CHIME: EZ-TONE DC-1 (ONLY DOORS ADJ TO SALES FLOOR)				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	CODE SIGNAGE "DOOR TO REMAIN UNLOCKED."				1	DOOR SEAL: PEMKO 588W (AT RATED DOORS ONLY)				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	GROUP D-2: PINK SIDE FOLD GRILLE				1	LATCHSET: SCHLAGE ALIOS NEPTUNE 626				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	SLIDING GRILLE BEER & TRACK WITH EGRESS DOOR				1	GROUP H: LEVER STYLE				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	DUST PROOF LOCK STRIKES				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	INTERMEDIATE DROP LOCK				3	HINGES: STANLEY F179-26D				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	BI-PART				1	KICKPLATE: IVES 8400-B26D-10"x34"				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	TOP & BOTTOM LOCK				1	CLOSER: RUSSWIN DC3210-MB2-689				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	THUMBTURN				1	DOOR STOP: IVES 402-B26D				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	U-CHANGE LOCK CYLINDER				1	DOOR SEAL: PEMKO 588W (AT RATED DOORS ONLY)				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	CODE SIGNAGE "GRILLE TO REMAIN IN FULL OPEN."				1	MARBLE THRESHOLD (ONLY IF WATERPROOF MEMBRANE IS REQUIRED)				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	END POST				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	INTERMEDIATE POST				3	HINGES: STANLEY F179-26D				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	REFER TO SHOP DRAWINGS FOR QUANTITY				1	PRIVACY LOCKSET: SCHLAGE ALIOS NEPTUNE 626				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	DOOR LEAF AND JAMB				1	KICKPLATE: IVES 8400-B26D-10"x34"				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	HINGES: STANLEY F179-26D				1	CLOSER: RUSSWIN DC3210-MB2-689				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	DOOR LEAF AND JAMB				1	DOOR STOP: IVES 402-B26D				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	HINGES: STANLEY F179-26D				1	DOOR SEAL: PEMKO 588W (AT RATED DOORS ONLY)				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
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1	HINGES: STANLEY F179-26D				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	PRIVACY LOCKSET: SCHLAGE ALIOS NEPTUNE 626				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	KICKPLATE: IVES 8400-B26D-10"x34"				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	CLOSER: RUSSWIN DC3210-MB2-689				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	DOOR STOP: IVES 402-B26D				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	DOOR SEAL: PEMKO 588W (AT RATED DOORS ONLY)				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			
1	MARBLE THRESHOLD (ONLY IF WATERPROOF MEMBRANE IS REQUIRED)				1	DOOR LEAF AND JAMB				1	DOOR SHOE: PEMKO 316AV (AT EXTERIOR ONLY)			

GENERAL DOOR AND HARDWARE NOTES
1. EXIT DOORS AT STOREFRONT TO HAVE SIGN ON TOP RAIL STATING "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS."
2. DOORS WITHIN THE PATH OF TRAVEL FOR A PERSON USING A WHEELCHAIR SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER, PANIC BAR OR PUSH / PULL HARDWARE AS PER ADA.
3. EXIT DOORS TO BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
4. PROVIDE A MOTOR FOR ROLLING GRILLES MORE THAN 150 SQUARE FEET OR WIDER THAN 12'-0", COORDINATE POWER REQUIREMENTS WITH ELECTRICAL DRAWINGS. PROVIDE ACCESS PANELS AS REQUIRED, COORDINATE LOCATION WITH ARCHITECT.
5. ROLLING GRILLES TO HAVE SIGNAGE ON STORE SIDE OF BOTTOM RAIL OF GRILLE STATING "GRILLE TO REMAIN IN FULL OPEN POSITION DURING STORE HOURS WHEN OCCUPIED BY THE GENERAL PUBLIC."
6. FIRE DOORS SHALL HAVE A MIN. OPEN FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY. THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS: 6.a. INTERIOR HINGED OR FOLDING DOORS: 5 LBS MAX. 6.b. SLIDING OR FOLDING DOORS: 5 LBS MAX.
7. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.
8. DOOR AND GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 90 DEGREES, THE DOOR OR GATE SHALL MOVE TO THE CLOSED POSITION IN 15 SECONDS MINIMUM.
9. THRESHOLDS SHALL NOT EXCEED 1/2" IN HEIGHT. RAISED THRESHOLDS AND FLOOR LEVEL CHANGES AT ACCESSIBLE DOORWAYS SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.
10. ALL WOOD AND H.M. DOORS TO HAVE A MINIMUM OF THREE PAIRS OF HINGES PER LEAF.
11. BOTH SIDES OF DOORS SHALL BE FINISHED THE SAME, UNLESS OTHERWISE NOTED. SEE A05.XX DRAWINGS FOR PAINT CALL OUTS.
12. ALL WOOD DOOR FRAMES AND TRIM SHALL BE A.W.I. OR K.I.C. CUSTOM GRADE U.O.N.
13. ALL LEGAL EXITS SHALL BE PROVIDED WITH SELF-ILLUMINATED EXIT SIGNS HAVING 4" LETTERS WITH 3/4" STROKES IN CONTRASTING COLORS.
14. HARDWARE CONTRACTOR TO COORDINATE ALL HARDWARE WITH DOORS & FRAMES AS SPECIFIED, INCLUDING BACKSETS & STRIKES.
15. ALL MILLWORK IN THIS SCOPE OF WORK SHALL BE DELIVERED ON SITE SHOP-PRIMED AND SANDED.
16. ALL COMPONENTS OF FIRE RATED DOOR ASSEMBLIES SHALL BEAR THE LABEL OF AN APPROVED TESTING AGENCY INCLUDING: DOOR, FRAME, CLOSING DEVICE, LATCHES & HINGES. PROVIDE SMOKE GASKETS AND DRAFT CONTROL IF REQUIRED.
17. HARDWARE FOR ALL ACCESSIBLE DOORS SHALL BE OF THE LEVER OR PUSH TYPE. MOUNTED 30" TO 44" A.F.F.
18. LOCKING HARDWARE AT ENTRY DOORS MUST INCLUDE U-CHANGE CYLINDERS.
19. KEY ALL LOCKS ALIKE.
20. FOR EXISTING SERVICE DOORS, G.C. TO INSTALL TAMPER PROOF HINGES IF NOT EXISTING.
21. FOR ANY ABANDONED SERVICE DOOR, REMOVE OUTSIDE KNOB/LEVER/LOCK AND INSTALL BLANK COVER PLATES TO CONCEAL ALL HOLES.
22. DOOR UNDERCUT FOR AIR TRANSFER SHALL BE 1" REFER TO MECH PLAN TO DETERMINE WHEN THIS IS REQUIRED.
23. G.C. TO MAXIMIZE POSSIBLE DOOR SWING AT ALL DOORS.
24. G.C. TO VERIFY OPERATION OF ROLLING GRILLE BARREL SWITCH (INTERLOCK DEVICE) ENSURING THAT OPERATION PROPERLY SHUTS THE MOTOR OFF WHEN GRILLE IS IN LOCKED POSITION TO AVOID DAMAGE TO MOTOR.
25. G.C. TO VERIFY OPERATION OF EMERGENCY RELEASE DEVICE AT ROLLING GRILLES ENSURING THAT GRILLE OPENS TO A MIN. OF 48" A.F.F. WHEN USED.

[illegible][illegible][illegible]

	NO SCALE	J 01.11.13
	05N-A0003-J00-NOTE	

CODE	LOCATION	MANUFACTURER	DESCRIPTION	FLAME SPREAD	SMOKE DEV
BASE COVERING					
B-1	NON-SALES	ARMSTRONG 877-276-7876	VINYL WALL BASE 4" ARMSTRONG #71 MID GRAY	CLASS A < 25	CLASS A < 450
B-2	STOREFRONT BARRICADES	ARMSTRONG 877-276-7876	VINYL WALL BASE 6" ARMSTRONG #60 JET BLACK	CLASS A < 25	CLASS A < 450
ACOUSTICAL CEILING TILE					
ACT-1	SALED AREA	ARMSTRONG 877-276-7876	STYLE: DUNE, BEVELED REGULAR 24"x24"x5/8" FINE TEXTURE, DESIGN #1775 GRID: ARMSTRONG 9/16" SUPRAPINE	CLASS A < 25	CLASS A < 450
ACT-2	NON-SALES	ARMSTRONG 877-276-7876	STYLE: DUNE, SQUARE LAY-IN 24"x48"x5/8" FINE TEXTURE DESIGN #1773 GRID: ARMSTRONG 15/16" PRELUDE	CLASS A < 25	CLASS A 0
WALL FINISHES					
WC-1	NON-SALES	SEE SPECIFICATIONS 047216	FRP - WHITE, USE MFG SUPPLIED ADHESIVE REFER TO SPECIFICATIONS SECTION 047216	CLASS C 200	CLASS A < 450
WC-17	PINK	APROPOS	WALLCOVERING- "LOVE PINK" DISTRESSED	CLASS A < 25	CLASS A < 450
WC-17C	PINK	APROPOS	WALLCOVERING- "LOVE PINK" DISTRESSED PINK ON A TEXTURED SUBSTRATE	CLASS A < 25	CLASS A < 450
WC-29	PINK	COLOR IMAGE	WALLCOVERING- BLUE TICKING STRIPE	CLASS A < 25	CLASS A < 450
WC-31	PINK	COLOR IMAGE	WALLCOVERING- 8" DISTRESSED PINK DOT ON COW'S MILK BACKGROUND	CLASS A < 25	CLASS A < 450
WC-31C	PINK	COLOR IMAGE	WALLCOVERING- 8" DISTRESSED PINK DOT ON COW'S MILK BACKGROUND (TEXTURED SUBSTRATE)	CLASS A < 25	CLASS A < 450
WC-32	PINK	COLOR IMAGE	WALLCOVERING- 2 1/2" DISTRESSED COW'S MILK DOT ON PINK BACKGROUND	CLASS A < 25	CLASS A < 450
WC-33	PINK	COLOR IMAGE	WALLCOVERING- 1" DISTRESSED COW'S MILK DOT ON PINK BACKGROUND	CLASS A < 25	CLASS A < 450
WC-35	PINK	APROPOS	WALLCOVERING- PINK MONOGRAM WALLCOVERING	CLASS A < 25	CLASS A < 450
WC-36	PINK CASHWRAP ROOM	APROPOS	WALLCOVERING- DISTRESSED PINK BACKGROUND. REFER TO SHEETS 407.W, 410.W, 414.W, 416.W FOR CUSTOM GRAPHICS TAGS AND LOCATIONS	CLASS A < 25	CLASS A < 450
WC-47	PINK FITTING ROOMS	APROPOS	WALLCOVERING- CLOUDY WHITE BACKGROUND REFER TO SHEETS 407.W, 410.W, 414.W, 416.W FOR CUSTOM GRAPHICS TAGS AND LOCATIONS	CLASS A < 25	CLASS A < 450
WC-47C	PINK FITTING ROOMS	APROPOS	WALLCOVERING- CLOUDY WHITE ON A TEXTURED SUBSTRATE (PLAIN W/O GRAPHIC OR BORDER)	CLASS A < 25	CLASS A < 450
WC-48	PINK TOILET ROOMS	HAMILTON PARKER	CERAMIC TILE- US CERAMIC TILE, COLOR COLLECTION 3747 WALL TILE, COLOR RUBIN, ICE WHITE BRIGHT GLOSS, 12"X12" CORE BASE, 1/4"X BULLNOSE CAP (W/ EDGE), GROUT: PAPER ULTRA COLOR PLUS, 950 AVALANCHE (SHAPE)	--	--
WC-49	PINK	APROPOS	WALLCOVERING- DISTRESSED PINK (PLAIN W/O GRAPHIC / BORDER)	CLASS A < 25	CLASS A < 450
WC-49C	PINK CASHWRAP ROOM ALCOVE	APROPOS	WALLCOVERING- DISTRESSED PINK ON A TEXTURED SUBSTRATE (PLAIN W/O GRAPHIC OR BORDER)	CLASS A < 25	CLASS A < 450
WC-50	PINK	APROPOS	WALLCOVERING- 8" DISTRESSED WHITE DOT ON DISTRESSED PINK BACKGROUND	CLASS A < 25	CLASS A < 450

[illegible]

	NO SCALE	A 12.19.12
	05N-A0003-A00-NOTE	

Variable	Mean	Standard Deviation	Minimum	Maximum
Age	34.5	12.5	18	65
Gender	0.5	0.5	0	1
Education	12.5	2.5	9	16
Income	45000	15000	20000	80000
Health	0.8	0.2	0	1
Marital Status	0.6	0.5	0	1
Employment	0.9	0.1	0	1
Home Ownership	0.7	0.4	0	1
Vehicle Ownership	0.6	0.5	0	1
Life Satisfaction	7.5	2.5	4	10
Life Satisfaction (Control)	7.5	2.5	4	10

1. IT IS THE INTENT OF THESE DRAWINGS THAT THE ENTIRE SPACE IS TO BE CLEARED OF ALL PARTITIONS, FIXTURES, FINISHES, AND SIGNAGE. THE REMAINING SPACE SHOULD CONSIST OF EXISTING PERIMETER WALLS, STRIPPED COLUMNS, CONCRETE FLOOR, AND EXPOSED UNDERSIDE OF STRUCTURE (U.O.N.) COORDINATE WITH MECHANICAL DRAWINGS IF ANY EXISTING EQUIPMENT IS TO REMAIN. SPRINKLER MAINS ARE TO REMAIN. ALL BASE BUILDING UTILITIES TO REMAIN, INCLUDING BUT NOT LIMITED TO PLUMBING, DRAINAGE, AND ELECTRICAL SERVICE.
2. CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND NOTIFY LSDAC PROJECT MANAGER AND ARCHITECT OF ALL DISCREPANCIES BEFORE PROCEEDING WITH WORK.
3. PREVENT MOVEMENT OR SETTLEMENT OF STRUCTURE(S). PROVIDE AND PLACE BRACING OR SHORING TO ENSURE SAFETY AND SUPPORT OF STRUCTURE. G.C. TO ASSUME LIABILITY FOR SUCH MOVEMENT, SETTLEMENT, DAMAGE, OR INJURY.
4. CEASE OPERATIONS AND NOTIFY THE LSDAC PROJECT MANAGER IMMEDIATELY IF SAFETY OF STRUCTURE APPEARS TO BE COMPROMISED. TAKE PRECAUTIONS TO PROPERLY SUPPORT STRUCTURE. DO NOT RESUME OPERATIONS UNTIL SAFETY IS RESTORED.
5. PROVIDE, ERECT, AND MAINTAIN BARRICADES, LIGHTING, AND GUARD RAILS AS REQUIRED BY APPLICABLE CODES TO PROTECT OCCUPANTS OF BUILDING, WORKERS, AND PEDESTRIANS.
6. FOR DISCONNECTING, REMOVING, AND CAPPING UTILITY SERVICES WITHIN AREAS OF DEMOLITION, NOTIFY THE LOCAL UTILITY COMPANY AND BUILDING MANAGER IN ADVANCE AND OBTAIN APPROVAL BEFORE STARTING THIS WORK.
7. HVAC SUBCONTRACTOR TO INSPECT EXISTING CONDITIONS PRIOR TO DEMOLITION, AND DETERMINE WHETHER ANY COMPRESSOR REFRIGERANT LINES ARE PRESENT THAT MUST BE PROPERLY DRAINED (TO E.P.A. STANDARDS) PRIOR TO DEMOLITION.
8. PLACE MARKERS TO INDICATE LOCATION OF DISCONNECTED SERVICES. IDENTIFY SERVICE LINES AND CAPPING LOCATIONS ON PROJECT RECORD DOCUMENTS.

9. EXCEPT WHERE NOTED OTHERWISE, MAINTAIN POSSESSION OF MATERIALS BEING DEMOLISHED. IMMEDIATELY REMOVE FROM SITE.
10. DEMOLISH IN AN ORDERLY AND CAREFUL MANNER AS REQUIRED TO ACCOMMODATE NEW WORK, INCLUDING THAT REQUIRED FOR CONNECTION TO THE EXISTING BUILDING. PROTECT EXISTING FOUNDATIONS AND SUPPORTING STRUCTURAL MEMBERS. PHASE DEMOLITION IN ACCORDANCE WITH CONSTRUCTION SCHEDULE.
11. PERFORM DEMOLITION IN ACCORDANCE WITH APPLICABLE AUTHORITIES HAVING JURISDICTION.
12. REPAIR ALL DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED, AT NO COST TO LSDAC.
13. BURNING OF MATERIALS ON SITE IS NOT PERMITTED.
14. REMOVE DEMOLISHED MATERIALS, TOOLS, AND EQUIPMENT FROM SITE UPON COMPLETION OF WORK. LEAVE SITE IN A CONDITION ACCEPTABLE TO LSDAC PROJECT MANAGER.
15. ALL STORE DEMOLITION WORK SHOULD BE COORDINATED WITH THE STORE MANAGER SO AS NOT TO DISRUPT STORE OPERATIONS. AREAS OF NEW CONSTRUCTION SHOULD BE CORDONED OFF TO PREVENT DEBRIS AND DUST FROM ENTERING THE REMAINING SALES FLOOR. ACCESS TO THE STOCKROOM MUST BE MAINTAINED.
16. PRIOR TO BID SUBMISSION, THE G.C. SHALL MAKE A SITE VISIT TO REVIEW THE DEMOLITION REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, THE ENTIRE INTERIOR OF THE EXISTING SPACE OR SPACES (I.E. COMMON DEMISING WALLS, STOREFRONT, EXISTING UTILITIES AND LAVATORIES) REVIEW M.E.P. DRAWINGS FOR DEMOLITION REQUIREMENTS / UTILITY RELOCATIONS. COORDINATE ALL DEMOLITION WITH LSDAC PROJECT MANAGER AND LANDLORD'S FIELD REP.
17. G.C. TO COORDINATE VERTICAL HEIGHTS OF (E) STRUCTURE, DUCTS, PIPES, CONDUITS, ETC. WITH (N) SCOPE OF WORK TO ACHIEVE DESIRED CEILING HEIGHT. G.C. TO NOTIFY LSDAC PROJECT MANAGER DURING DEMOLITION PHASE OF VERTICAL HEIGHT CLEARANCE DISCREPANCIES.

18. REMOVAL INSTRUCTIONS FOR DATAPULT EQUIPMENT:
- A. POWER DOWN AND DISCONNECT 3 PHASE VOLTAGE SOURCE.
- B. CAREFULLY REMOVE ALL SPLIT CURRENT TRANSFORMERS. DO NOT CUT CT LEADS SHORTER THAN 10 FEET OR DAMAGE BECAUSE THE CT'S WILL BE REUSED.
- C. DISCONNECT ANALOG TELEPHONE CIRCUIT AND PHONE LINE SHARING DEVICE WHERE APPLICABLE.
- D. RESTORE STORE'S PHONE LINE(S) TO NORMAL OPERATION AND TEST. CALL ENERWISE AT 888.524.2772 UPON COMPLETION OR IF YOU HAVE QUESTIONS OR CONCERNS DURING REMOVAL.
- F. SHIP EQUIPMENT BACK TO ENERWISE WITH A NOTE STATING THE STORE NUMBER AND THAT IT IS LIMITED BRANDS PROPERTY.
- G. SHIPPING ADDRESS: ENERWISE GLOBAL TECHNOLOGIES, 511 SCHOOLHOUSE ROAD - SUITE 200, KENNETH SQUARE, PA 15848

NOTE:
EXISTING DEMARCATION TELEPHONE COMMUNICATION TERMINAL BLOCK

- DO NOT CUT THE MAIN TELEPHONE WIRES LEADING TO THE TERMINATION STRIP OR PHONE SYSTEM.
- IF THE WALL WITH THE TELEPHONE BLOCK IS TO BE DEMOLISHED, REMOVE THE ENTIRE BACKING PANEL (WITHOUT DISCONNECTING THE WIRES) AND SECURE SAFELY IN THE CEILING UNTIL IT CAN BE RELOCATED TO THE NEW LOCATION. G.C. TO CONTACT LIMITED BRANDS TECHNICAL SERVICES TO HAVE THE PHONE COMPANY RELOCATE THE DEMARCATION BLOCK TO THE NEW LOCATION.

1. REMOVE EXISTING FLOORING TO SUBFLOOR. VERIFY FLOOR SURFACE TO BE SMOOTH AND LEVEL TO ACCEPT NEW FINISH FLOOR MATERIAL. PATCH & REPAIR AS REQUIRED.
2. REMOVE ALL EXISTING GYP. BD. OR ACOUSTICAL TILE CEILINGS, SOFFITS AND ALL RELATED TENANT CEILING ELEMENTS INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, CEILING DIFFUSERS, DUCTWORK, AND ABANDONED CONDUIT.
3. REMOVE EXISTING CEILING FINISHES AND FURRING TO STRUCTURE. ANY EXISTING FIRE PROOFING TO REMAIN IN PLACE.
4. REMOVE EXISTING PARTITION WALLS, DOORS, & FRAMES SHOWN DASHED.
5. REMOVE ALL (E) INTERIOR & ROOFTOP MECHANICAL EQUIPMENT NOT PART OF (N) EQUIPMENT INCLUDING ALL PIPES AND LINES. ALL MALL EQUIPMENT & DUCT WORK TO REMAIN. VERIFY w/ TENANT COORDINATOR PRIOR TO REMOVAL. (E) PENETRATIONS TO BE FILLED & MADE WATERTIGHT BY G.C. REFER TO STRUCTURAL DETAILS FOR INFILL.
6. REMOVE ALL TENANT STOREFRONT MATERIALS TO BOTTOM OF (E) MALL BULKHEAD, PATCH, REPAIR, & REPAINT ANY DAMAGE TO BULKHEAD TO MATCH MALL FINISHES.
7. EXISTING DEMISING WALL TO REMAIN. REMOVE EXISTING FURRING TO FACE OF EXISTING DEMISING WALL GYP. BD. WHERE OCCURS.
8. REMOVE EXISTING DEMISING WALL. COORDINATE EXTENT OF WORK WITH CONSTRUCTION FLOOR PLAN A02.304.
9. EXISTING HVAC/AHU EQUIPMENT TO REMAIN - HEIGHTS NOTED ON PLAN.
10. REMOVE ALL EXISTING PLUMBING FIXTURES, EXHAUST VENTS, FLOOR DRAIN, FLOOR SINK, AND PLUMBING LINES. CAP ALL PLUMBING LINES WITHIN NEAREST DEMISING WALL. IF PIPES ARE IN THE SLAB, CAP LEVEL WITH FLOOR SLAB.
11. EXISTING MALL NEUTRAL PIER TO REMAIN - PATCH AND REPAIR AS REQUIRED TO MATCH MALL FINISHES.
12. EXISTING STRUCTURAL DIAGONAL BRACING TO REMAIN
13. REMOVE EXISTING ELECTRICAL EQUIPMENT
14. EXISTING ELECTRICAL CONDUIT ABOVE TO REMAIN - HEIGHTS AS INDICATED ON PLAN
15. REMOVE EXISTING WALL AS REQUIRED FOR NEW SERVICE DOOR LOCATION. COORDINATE SCOPE OF DEMOLITION WITH CONSTRUCTION FLOOR PLAN A02.304.
16. REMOVE EXISTING MALL NEUTRAL PIER. PATCH, REPAIR, AND REPAINT EXISTING MALL BULKHEAD ABOVE AS REQUIRED. COORDINATE ALL WORK WITH THE MALL MANAGEMENT.
17. EXISTING MALL DUCT TO REMAIN - HEIGHT NOTED ON PLAN.
18. EXISTING SPRINKLER MAIN TO REMAIN - HEIGHT AND SIZES NOTED ON PLAN
19. EXISTING STRUCTURAL BEAMS TO REMAIN - HEIGHTS NOTED ON PLAN
20. EXISTING STRUCTURAL JOISTS TO REMAIN - HEIGHTS NOTED ON PLAN
21. EXISTING ROOF DRAIN TO REMAIN - G.C. TO PROVIDE ACCESS PANELS FOR CLEAN OUTS AS REQUIRED
22. EXISTING MALL DUCT CHASE TO REMAIN
23. EXISTING SERVICE DOOR/FRAME TO REMAIN.
24. EXISTING SERVICE DOOR TO BE WELDED SHUT. COORDINATE ALL WORK WITH THE MALL MANAGEMENT.
25. LEASELINE
26. G.C. TO VERIFY IF STORE HAS A DATAPULT EQUIPMENT AND REMOVE PER DEMOLITION GENERAL NOTES.

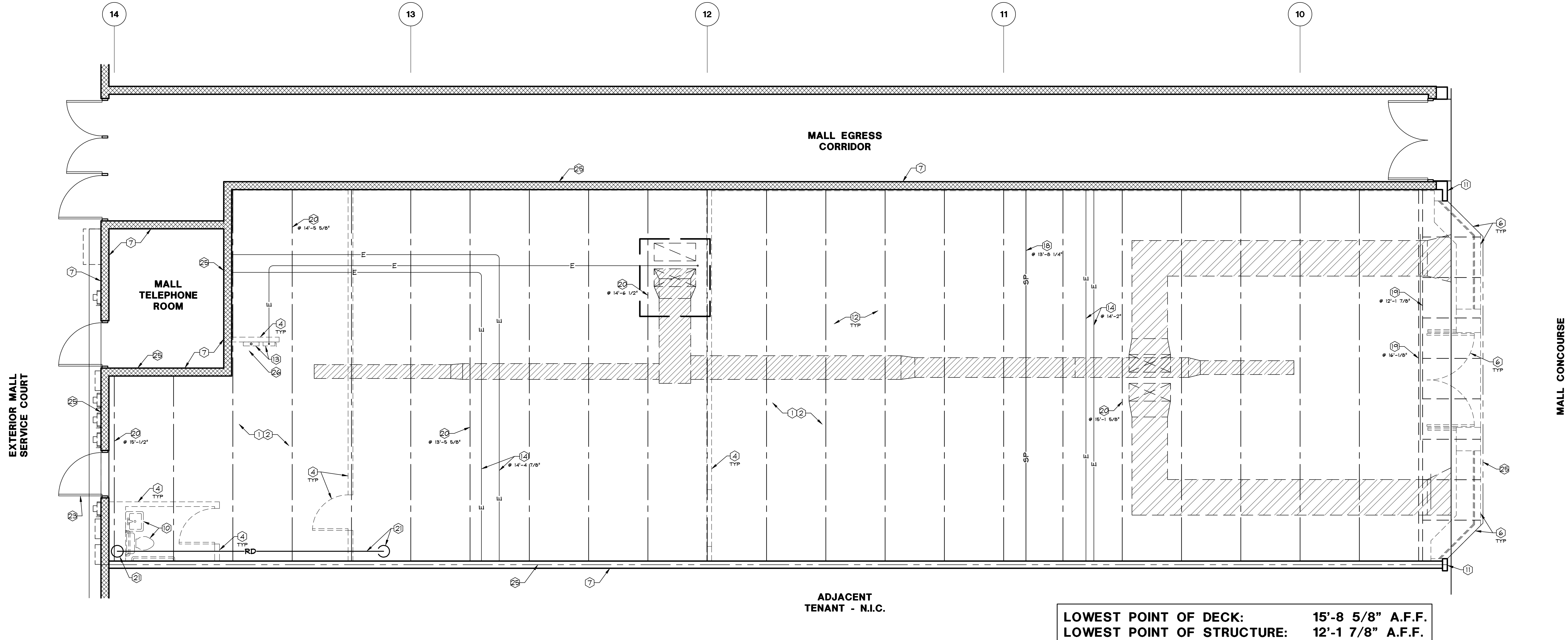
27. EXISTING OVERHEAD PIPE TO REMAIN - HEIGHTS NOTED ON DEMOLITION PLAN
28. SURVEY INDICATES EVIDENCE OF ROOF / PIPE LEAK THIS AREA. G.C. TO INVESTIGATE AND DETERMINE SOURCE AND EXTENTS OF LEAK. COORDINATE REPAIR OF LEAK WITH LSDAC PROJECT MANAGER AND LANDLORD. REPAIR TO MEET LOCAL CODES.
29. G.C. TO RAISE AND/OR RELOCATE (E) DUCT OR PIPE TO BE ABOVE NEW CEILING. COORDINATE WITH REFLECTED CEILING PLAN.
30. EXISTING STORE FIXTURES, EQUIPMENT, AND FURNITURE TO BE REMOVED.

DEMOLITION GENERAL NOTES

M

DEMOLITION PLAN KEYNOTES

D



DEMOLITION PLAN

1/4" = 1'-0"

A

GreenbergFarrow
1430 West Peachtree Street NW
Suite 200
Atlanta, GA 30309
t: 404 601 4000 f: 404 601 3970

Limitedbrands
LIMITED STORE PLANNING, INC.
d/b/a STORE DESIGN & CONSTRUCTION
Three Limited Parkway • Columbus, Ohio 43230
Telephone: 614.415.7000 • Fax: 614.415.7349

THESE DRAWINGS AND SPECIFICATIONS WERE PREPARED FOR USE ON A SPECIFIC SITE. CONSULT THE DRAWINGS AND SPECIFICATIONS FOR THE PROJECT AND THE PROJECT'S LOCATION. THE PROJECT'S LOCATION IS NOT TO BE USED FOR ANY OTHER PROJECT. THE PROJECT'S LOCATION IS NOT TO BE USED FOR ANY OTHER PROJECT. THE PROJECT'S LOCATION IS NOT TO BE USED FOR ANY OTHER PROJECT.

PROJECT INFORMATION: 010501638
PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
JENSEN BEACH, FL 34957
SPACE # 3036
JENSEN BEACH, FL 34957

REVISIONS:

DATE ISSUED: 03.29.13
DESIGNED BY: BS
DRAWN BY: JS
CHECKED BY: WD

DEMOLITION PLAN

DRAWING NUMBER: A01.01

010501638

PINK VICTORIA'S SECRET

TREASURE COAST SQUARE

3174 NW FEDERAL HIGHWAY

JENSEN BEACH, FL 34957

NEW PACKAGE: PINK GENERATION: 00057884 A/E PROJECT #:

MASTER 201206790

PROJECT INFORMATION:

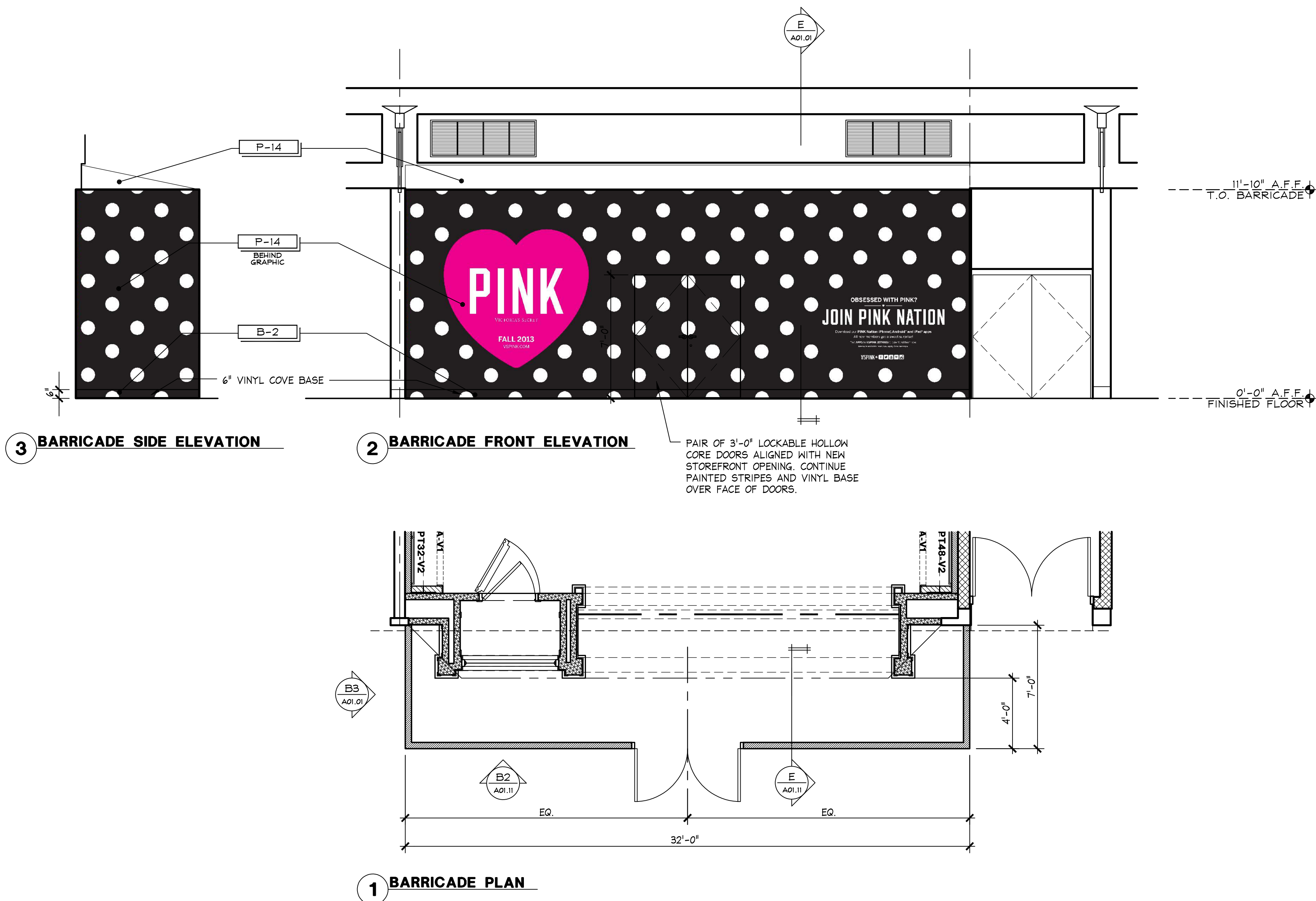
REVISIONS:

DATE ISSUED: 03.29.13
DESIGNED BY: AL
DRAWN BY: JS
CHECKED BY: WD

BARRICADE
PLAN AND
DETAILS

DRAWING NUMBER:

A01.11



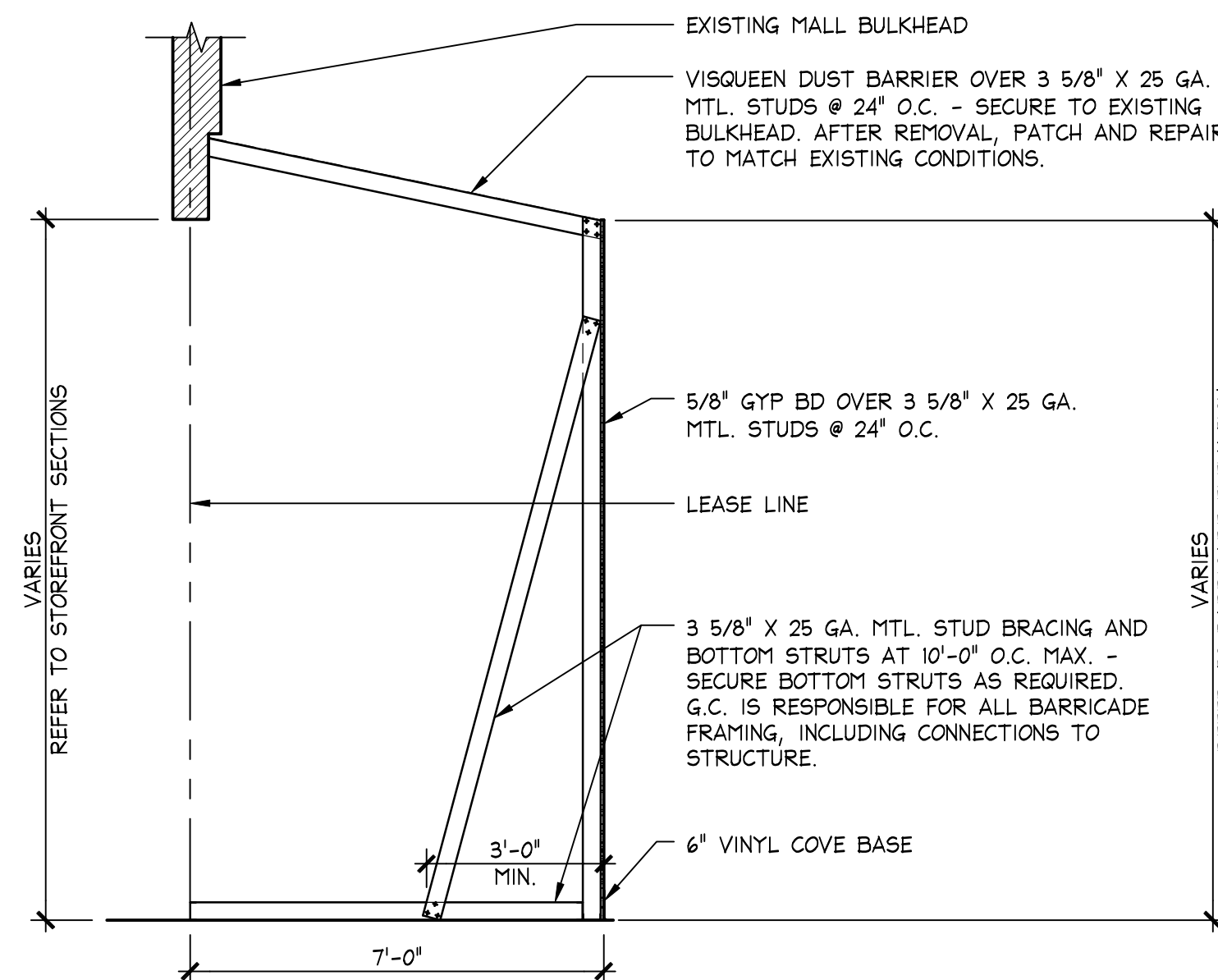
BARRICADE PLAN AND ELEVATION

1/4" = 1'-0"

OSD-A0101-800-DETL

B

08.24.12



SECTION AT INTERIOR BARRICADE

3/8" = 1'-0"

OSD-A0101-800-DETL

E

08.22.12

STOREFRONT BARRICADE NOTES

NO SCALE

OSN-A0101-A00-NOTE

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08.22.12

- GENERAL CONTRACTOR IS TO CONSTRUCT BARRICADE AS SHOWN - IF REQUIREMENTS BY LANDLORD / MALL DIFFER, CONTACT LSDAC PROJECT MANAGER.
- CARE IS TO BE TAKEN WHEN DISASSEMBLING AND REMOVING BARRICADE - GENERAL CONTRACTOR IS TO RESTORE MALL FLOORING/SIDEWALK AND BULKHEAD TO A "LIKE NEW" CONDITION.
- GENERAL CONTRACTOR IS TO CONSULT WITH MALL REPRESENTATIVE REGARDING HOURS DURING WHICH WORK ON BARRICADE MAY OCCUR.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL BARRICADE GRAPHICS AND FINISHES IN "LIKE NEW" CONDITION - GENERAL CONTRACTOR TO REPAIR AND REPAINT ANY DAMAGES AS NECESSARY.
- FOR EXTERIOR LOCATIONS, USE 3/4" CDX - SMOOTH ONE SIDE PLYWOOD OVER WOOD FRAMING, SMOOTH SIDE TO FACE EXTERIOR. PRIME AND PAINT AS NOTED. NOTE: USE CLEAR BOARDS, NO KNOTS OR DEFECTS, FINISH GRADE.
- PROVIDE BATT INSULATION AS NEEDED FOR CLIMATIC CONDITIONS - PROVIDE SOUND INSULATION AS REQUIRED BY MALL MANAGEMENT.
- GENERAL CONTRACTOR TO PROVIDE CONTINUOUS FLOOR PROTECTION AT POINT OF CONTACT WITH FRAMING - IN CASE OF DAMAGE TO MALL FLOORING, TILE SUBCONTRACTOR IS RESPONSIBLE TO PATCH AND REPAIR TO A "LIKE NEW" CONDITION.
- FOR BARRICADE WALLS INTENDED TO RECEIVE FULL BLEED GRAPHICS, GENERAL CONTRACTOR IS TO FILL ALL VOIDS AND SEAMS TO PROVIDE A SMOOTH FINISH FREE OF ANY DEPRESSIONS OR EXPOSED SCREENS PRIOR TO THE INSTALLATION OF GRAPHICS. GENERAL CONTRACTOR IS ALSO RESPONSIBLE FOR PAINTING THE BARRICADE PER THE BARRICADE ELEVATION.
- SIGNAGE INSTALLER IS RESPONSIBLE FOR VERIFYING THAT PAINT IS COMPLETELY DRY PRIOR TO INSTALLATION OF GRAPHICS.
- G.C. TO REMOVE BARRICADE ON THE EVENING PRIOR TO STORE OPENING.

CONSTRUCTION FLOOR PLAN KEYNOTES

- 1 LEASE LINE

2 MALL BULKHEAD ABOVE

3 5'-0" DIAMETER CLEAR TURNING CIRCLE, T-SHAPED TURNING CLEARANCE, OR OTHER MINIMUM REQUIRED FLOOR AREA.

4 FIRE EXTINGUISHER. REFER TO MEP DRAWINGS FOR SPECIFICATIONS.

5 CENTER LINE OF STOREFRONT ENTRY GRILLE

6 LOCATION OF SENSOR/MATIC SYSTEM AND CONCRETE CUTTING / EXCAVATION. REFER TO ELECTRICAL DRAWINGS.

7 MUSIC / VIDEO SYSTEM - REFER TO DETAIL F/A014.01

8 FITTING ROOM PAGING SYSTEM BUTTON - REFER TO ELECTRICAL DRAWINGS FOR SPECIFICATIONS.

9 LEDGE ABOVE - REFER TO DETAIL C/A12.01 AND STRUCTURAL DRAWINGS.

10 TELEPHONE AND ELECTRICAL PANEL - REFER TO ELECTRICAL DRAWINGS.

11 RECEIVING AREA - REFER TO FLOOR AND WALL FINISH PLAN.

12 BRUSHED STAINLESS STEEL SURFACE MOUNTED CORNER GUARDS - REFER TO SHEET A131 AND SPECIFICATIONS SECTION 102613.

13 DRINKING FOUNTAIN - REFER TO DETAIL R/A13.01 AND PLUMBING DRAWINGS.

14 HARDWARE STORAGE BIN - REFER TO DETAIL D/A14.01

15 MARKETING STORAGE BIN - REFER TO DETAIL H/A14.01

16 PLAN TUBE HOLDER - REFER TO DETAIL G/A14.01

17 PROCESSING WORK STATION.

18 MOP SINK - REFER TO SHEET A131 AND PLUMBING DRAWINGS.

19 DOOR CHIME FOR NON-SALES DOOR. G.C. TO MOUNT ON NON-PUBLIC SIDE ONLY.

20 WATER HEATER ABOVE. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT.

21 ALL SYSTEM - REFER TO DETAIL B/A14.02.

22 G.C. TO MAINTAIN MIN. 6' CLEAR AT EACH SIDE OF MOBILE SHELVING UNITS TO ANY OBSTRUCTIONS.

23 N/A

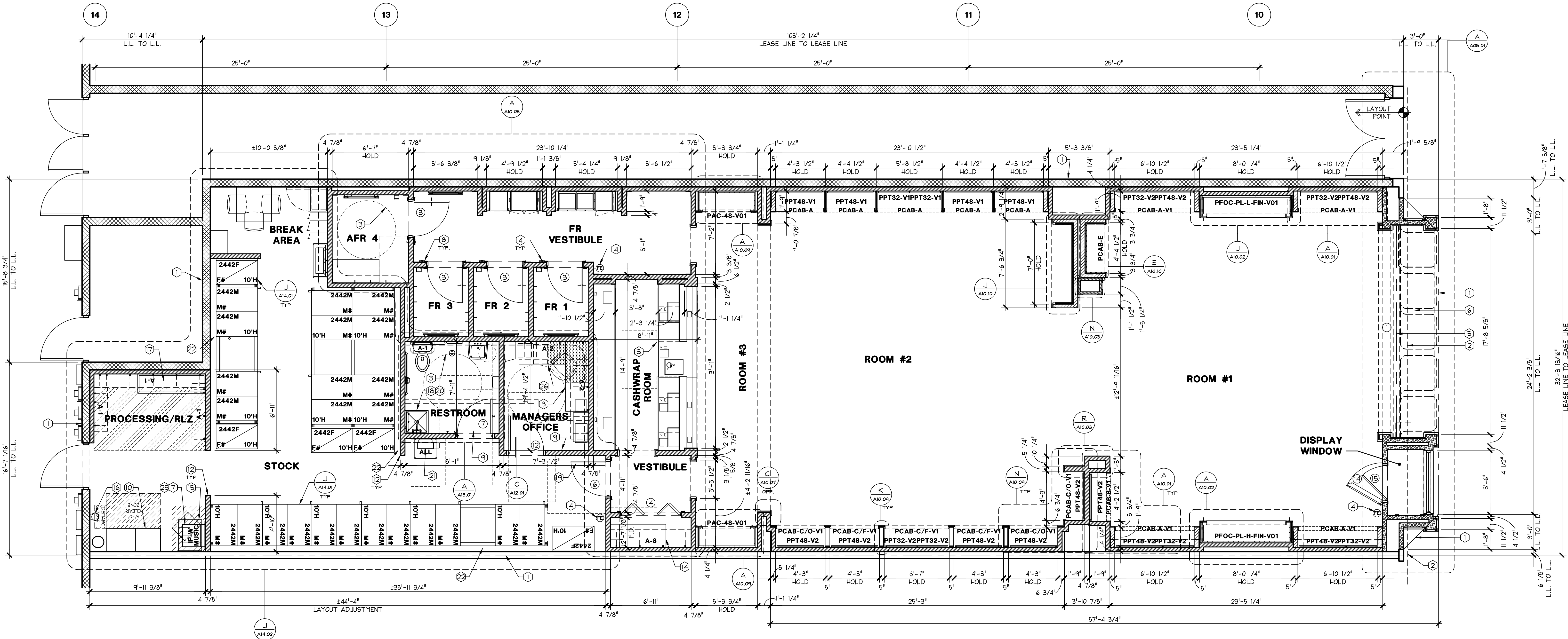
24 N/A

25 IP CAMERA SYSTEM RACK - REFER TO DETAIL F/A14.01

26 IP COMPUTER STATION IN OFFICE. REFER TO ELECTRICAL DRAWINGS FOR REQUIREMENTS.

REFER TO SHEET A004 FOR
GENERAL NOTES AND
PARTITION SCHEDULE
REFER TO SHEET A002
DOOR SCHEDULE

LAY OUT ALL WALLS & CABINETS IN SALES
AREAS FROM CENTERLINE OF ROOMS AND/OR
TRANSITIONS. CORNER DIMENSIONS TO BE
EQUAL U.O.N.



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PROJECT INFORMATION:
010501638
PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
JENSEN BEACH, FL 34957
DATE ISSUED: 03.29.13
DESIGNED BY: AL
DRAWN BY: JS
CHECKED BY: WD
CONSTRUCTION FLOOR PLAN
DRAWING NUMBER:
A02.01

REVISIONS:
REVISION NUMBER
DATE
DESCRIPTION
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- REFER TO SHEET A00.2 FOR
GENERAL NOTES, SHEET
A00.3 FOR FINISH SCHEDULE,
AND SHEET A12.1 FOR
FRAMING DETAILS

D



A

Limited brands

A03.01

430 West Peachtree Street NW
Suite 200
Atlanta, GA 30309
404 601 4000 f: 404 601 3970

d/b/a STORE DESIGN & CONSTRUCTION
 Three Limited Parkway • Columbus, Ohio 43230
 Telephone: 614.415.7000 • Fax: 614.415.7349

MASTER
131Sa
201206790

[illegible]REFLECTED
LIGHTING PLAN

DRAWING NUMBER:
A04.01

REFLECTED LIGHTING PLAN KEYNOTES

D

MALL CORRIDOR - N.I.C.

MALL CONCOURSE - N.I.C.

ADJ. TENANT - N.I.C.

1/4" = 1'-0"

A

- GC TO INFILL MALL FLOORING FROM LEASE LINE TO FACE OF STOREFRONT AS REQUIRED. VERIFY AMOUNT IN FIELD
- GC TO INSTALL LANDLORD-APPROVED WATERPROOF MEMBRANE UNDER FLOOR FINISH. MEMBRANE TO CONTINUE MIN. 4' UP ADJACENT WALLS
- FLOOR FINISH TO CONTINUE UNDERNEATH CASHWRAP AND BACKRUP FIXTURES
- FLOOR FINISH TO TERMINATE AT FACE OF BASE. NOT AT FACE OF GYP. BD.
- WALKOFF MAT. G.C. TO PAINT GUBS BENEATH PRIOR TO INSTALLATION
- ANTI FATIGUE MAT PLACED ON TOP OF FLOOR FINISH.
- PINK HEX TILE ENTRY FLOORING. CENTER PATTERN ON PORTAL OPENING WITH A HALF-TILE ON LEASE LINE
- PLANK WOOD FLOORING TO RUN IN DIRECTION INDICATED IN PLAN. G.C. TO INSTALL VAPOR BARRIER AT ALL LOCATIONS. REFER TO SPECIFICATIONS SECTION 096429 FOR INSTALLATION INSTRUCTIONS.

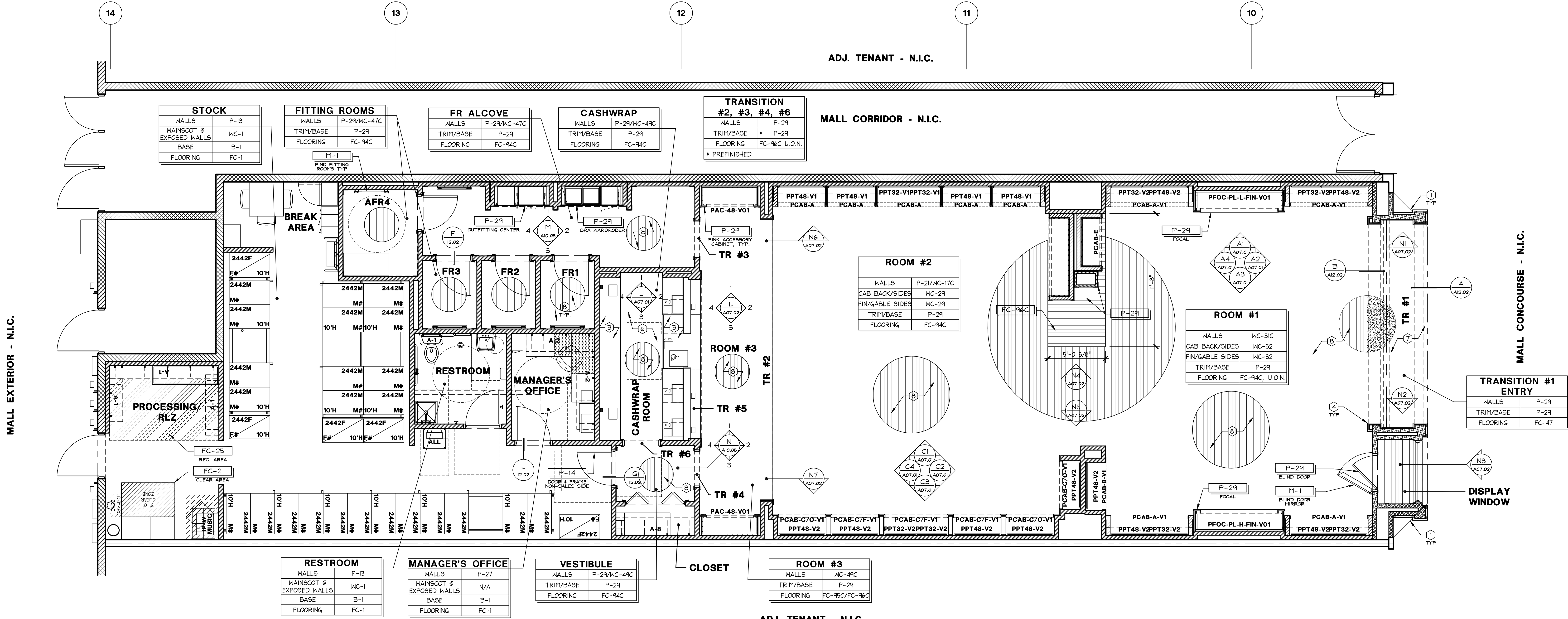
REFER TO SHEET A00.03
FOR FINISH SCHEDULE

NOTE:
FOR PAINTING TRIM, BASE, AND PRIMED MDF PANELS IN THE BRA SALON, FITTING ROOM AREA, PUBLIC HALLWAYS/ VESTIBULES, AND PUBLIC TOILET ROOMS, THE GC SHALL CREATE A LIGHT BRUSH STROKE EFFECT. THIS SHALL MATCH EXACTLY THE BRUSH FINISH THAT IS PROVIDED BY THE VENDOR ON THE BRA SALON TRANSITION PANEL (FAUX DRAWERS), AND THE FITTING ROOM DOOR LEAVES.

NOTE:
FOR ALL PINK SALES AREA WALLS, WAINSCOT, TRIM, AND BASE PAINTING REFER TO SPECIFICATIONS SECTION 099000 SUBSECTION P FOR SPECIAL INSTRUCTIONS TO ACHIEVE THE REQUIRED FINISH

FLOOR AND WALL FINISH PLAN KEYNOTES

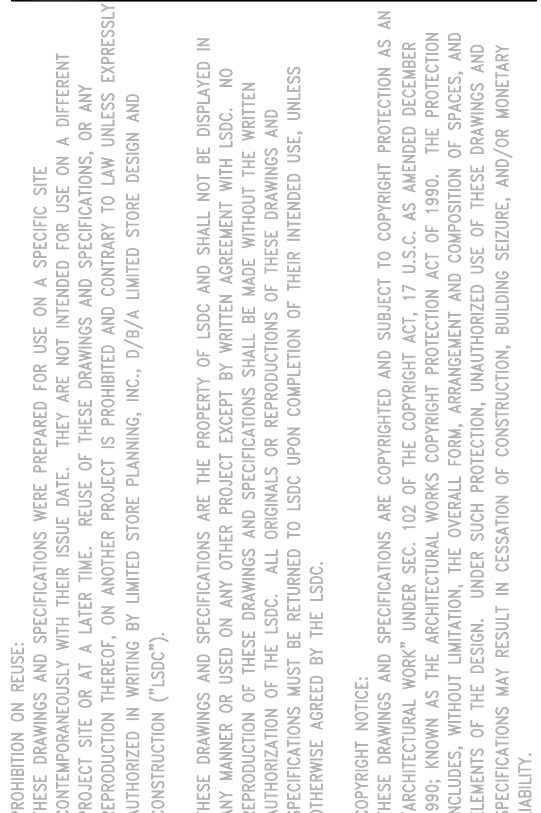
D



NON-SALES / ASSOCIATE AMENITY AREA BREAKDOWN	
1 PERSON MANAGER OFFICE	X
2 PERSON MANAGER OFFICE	
3 PERSON MANAGER OFFICE	
BREAK AREA	X
BREAK ROOM	
MULTIUSE ROOM	
OPS OFFICE	
OPS/CASH OFFICE	
TRAINING ROOM	
DSM OFFICE	
RSM OFFICE	

REFER TO SHEET A00.03
FOR FIXTURE SCHEDULE

D



SCOPE: NEW PACKAGE: DESIGN TYPE: PINK GENERATION: LSD&C PROJECT #: 00057884 A/E PROJECT

DRAWING NUMBER:

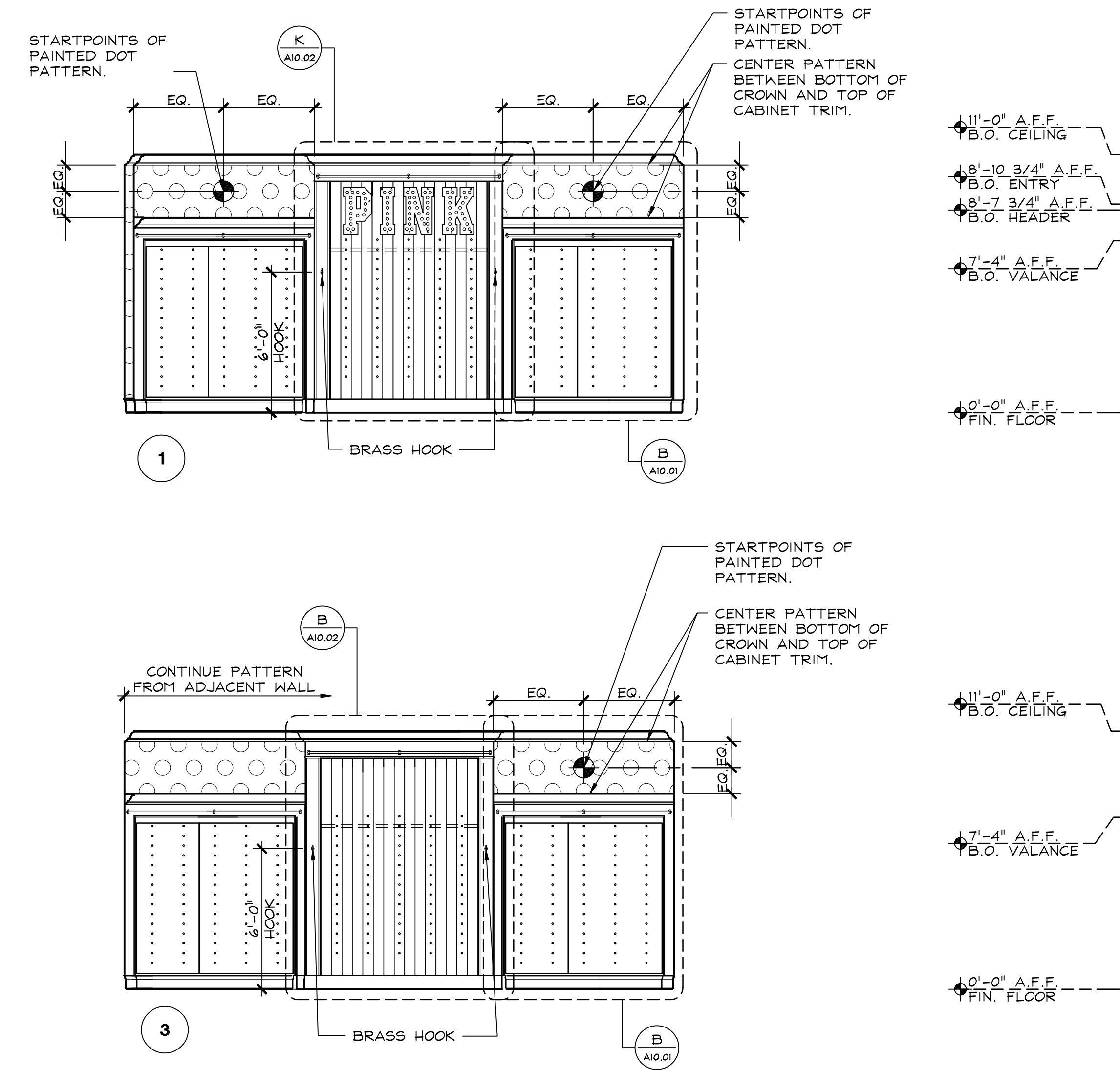
A06.01

A

ROOM #2 - ELEVATIONS

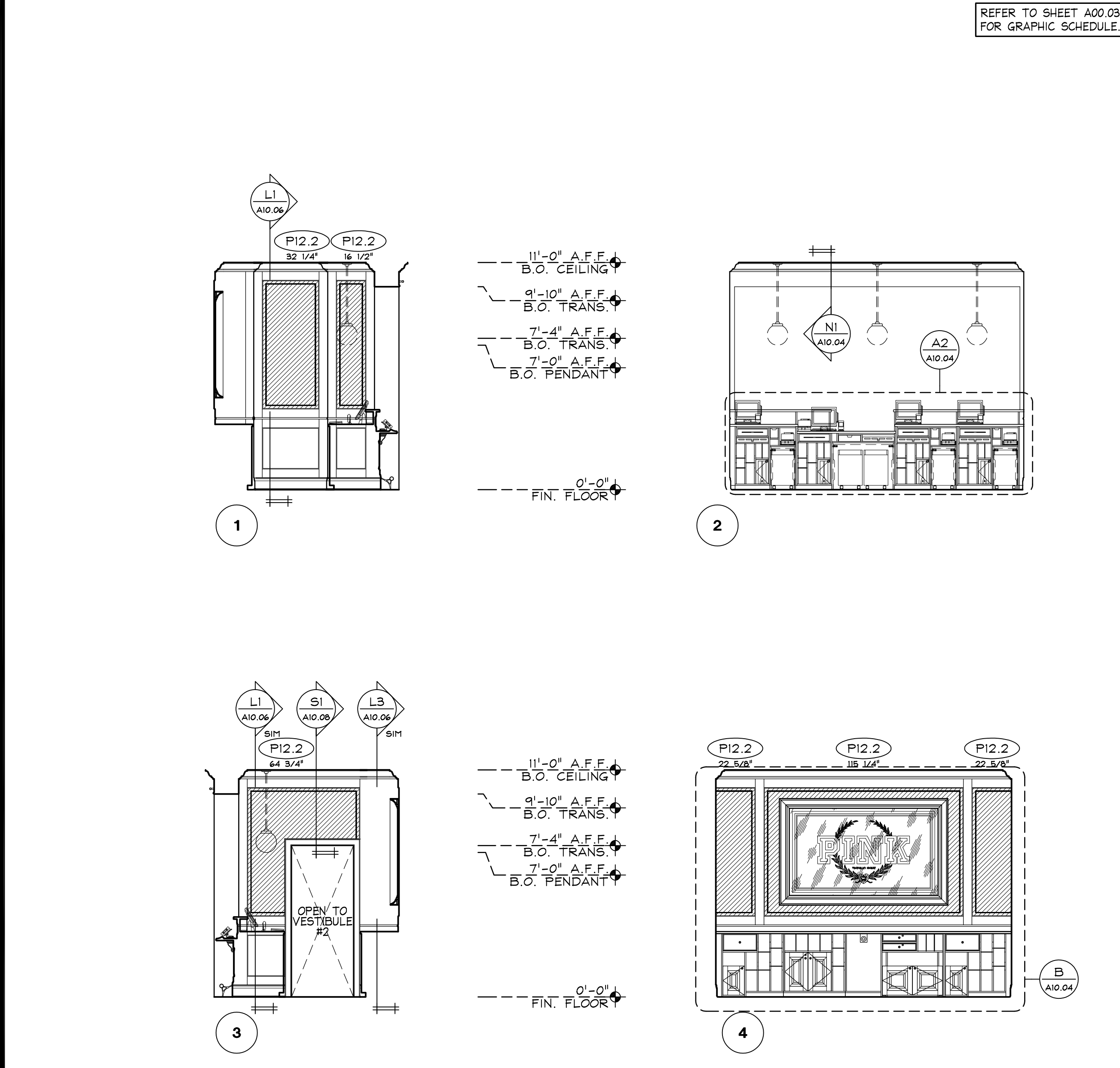
1/4" = 1'-0"

C



REFER TO SHEET A00.03
FOR GRAPHIC SCHEDULE.

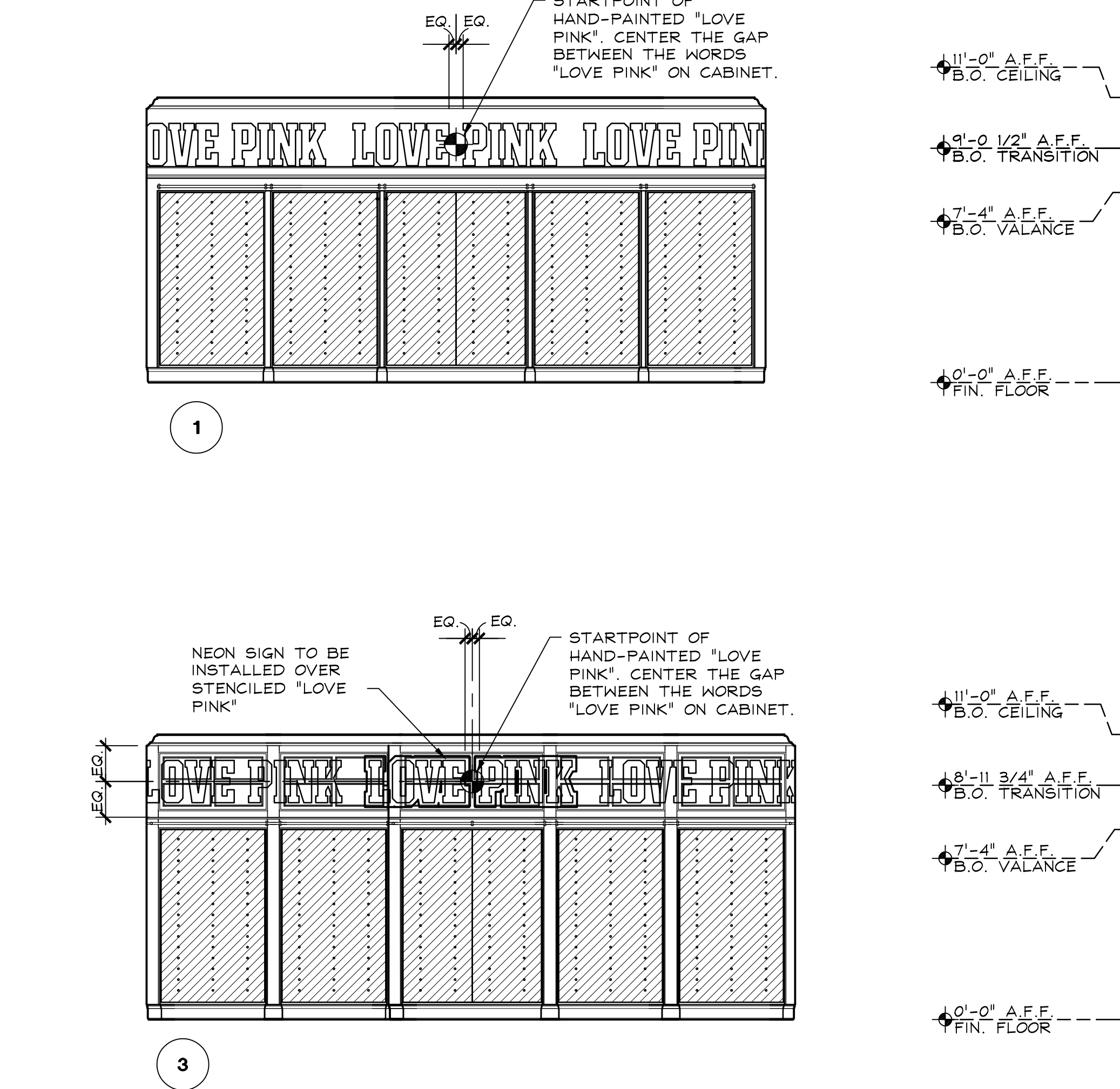
REFER TO DETAIL A/A10.07
FOR INFORMATION ON
WALLCOVERING PATTERNS.



REFER TO SHEET A00.03
FOR GRAPHIC SCHEDULE.

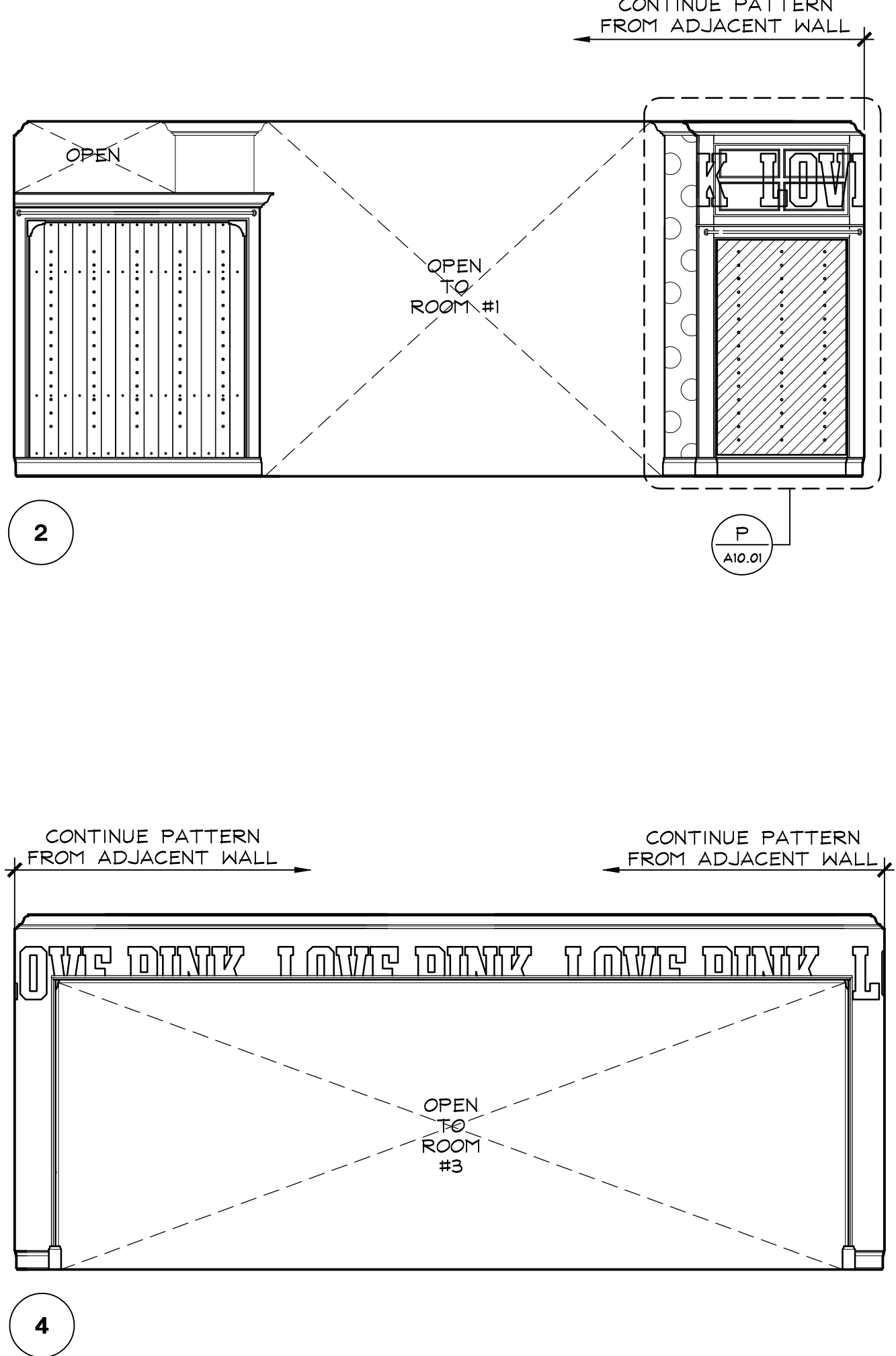
REFER TO SHEET A00.03
FOR GRAPHIC SCHEDULE.

REFER TO DETAIL A/A10.07
FOR INFORMATION ON
WALLCOVERING PATTERNS.



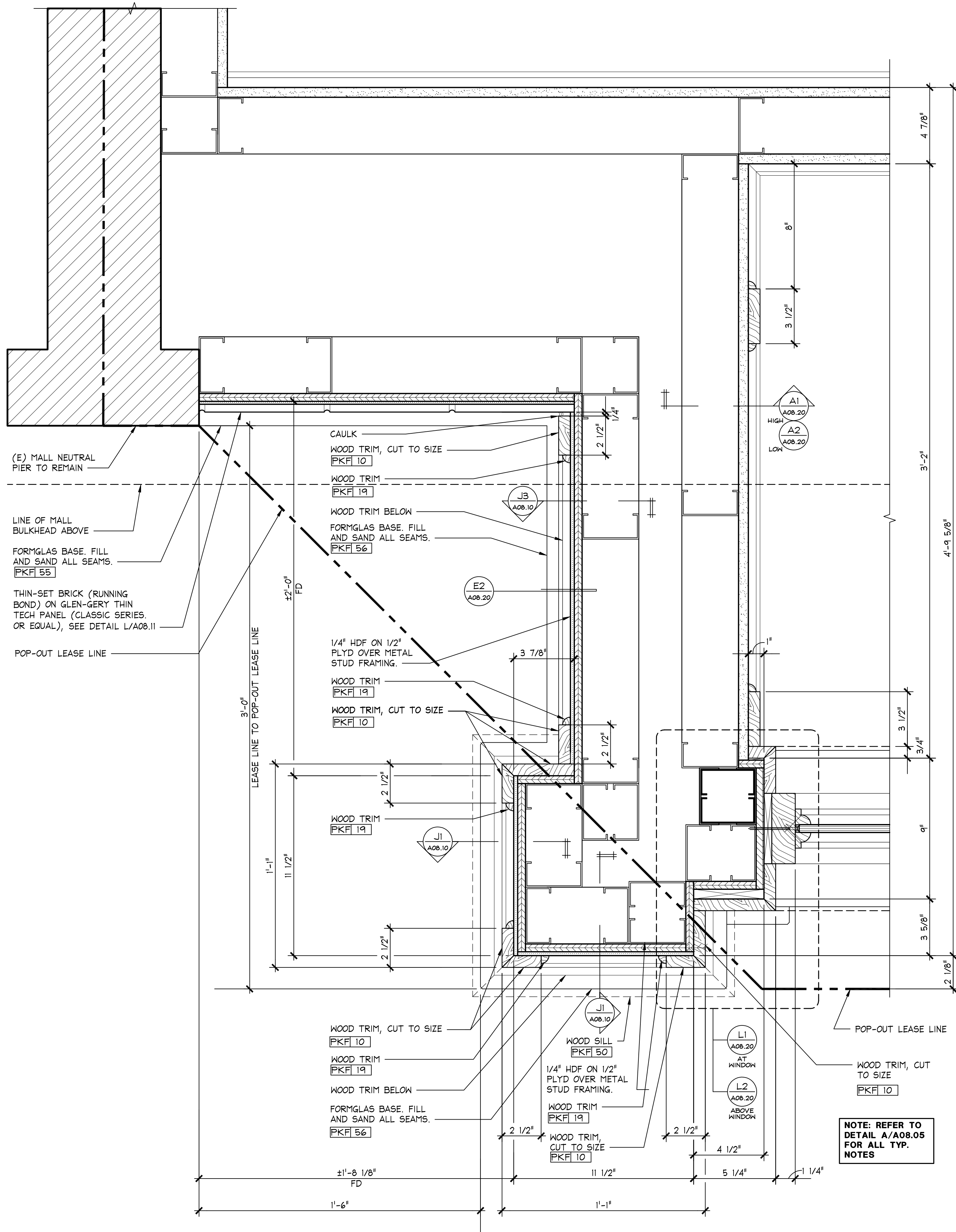
REFER TO SHEET A00.03
FOR GRAPHIC SCHEDULE.

REFER TO DETAIL A/A10.07
FOR INFORMATION ON
WALLCOVERING PATTERNS.



- NOTES:
1. SEE STRUCTURAL DRAWINGS FOR FRAMING SIZE, GAUGE, AND ASSEMBLY OF ALL STOREFRONT FRAMING.
 2. SEE DETAIL J/A10.01 FOR ALL PINK WOOD TRIM PROFILES.
 3. SEE DETAIL A/A00.02 FOR DOOR SCHEDULE.
 4. ALL DIMENSIONS ARE TO FACE OF SHEATHING OR FINISH U.O.N.

G.C. TO PRIME
ALL CUT ENDS

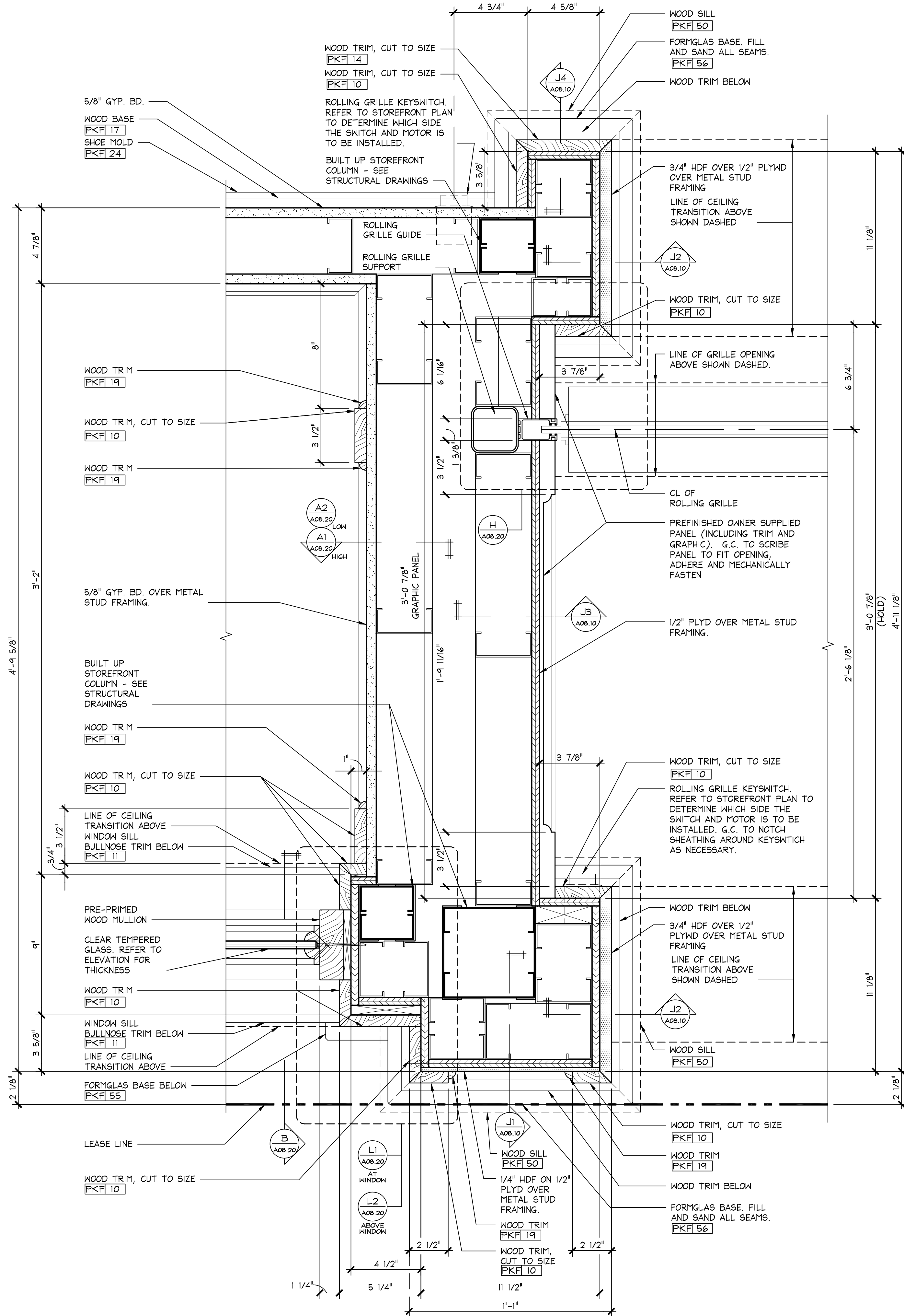


PLAN SECTION AT PORTAL

3" = 1'-0"
OSD-A0805-J00-DETL
01/10/13

- NOTES:
1. SEE STRUCTURAL DRAWINGS FOR FRAMING SIZE, GAUGE, AND ASSEMBLY OF ALL STOREFRONT FRAMING.
 2. SEE DETAIL J/A10.01 FOR ALL PINK WOOD TRIM PROFILES.
 3. SEE DETAIL A/A00.02 FOR DOOR SCHEDULE.
 4. ALL DIMENSIONS ARE TO FACE OF SHEATHING OR FINISH U.O.N.

G.C. TO PRIME
ALL CUT ENDS



PLAN SECTION AT PORTAL

3" = 1'-0"
OSD-A0805-A00-DETL
01/10/13

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Suite 200
Atlanta, GA 30309
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Telephone: 614.415.7000 • Fax: 614.415.7349

010501638

PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
JENSEN BEACH, FL 34957

PROJECT INFORMATION:

REVISIONS:	REASON:	DATE:

DATE ISSUED: 03.29.13
DESIGNED BY: AL
DRAWN BY: JS
CHECKED BY: WD

**STOREFRONT
DETAILS**

DRAWING NUMBER:
A08.05

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MASTER
13130
201206790

NEW PACKAGE:
PINK GENERATION:
00057884
A/E PROJECT #:

SCOPE:
DESIGN TYPE:
LSRAC PROJECT #:

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MASTER
1315a

**PINK VICTORIA'S
TREASURE COAST SQUARE**

NEW PACKAGE:
PINK GENERATION:

PROJECT INFORMATION:

REVISIONS

DATE ISSUED: 03.29.
DESIGNED BY:
DRAWN BY:
CHECKED BY:

STOREFRONT DETAILS

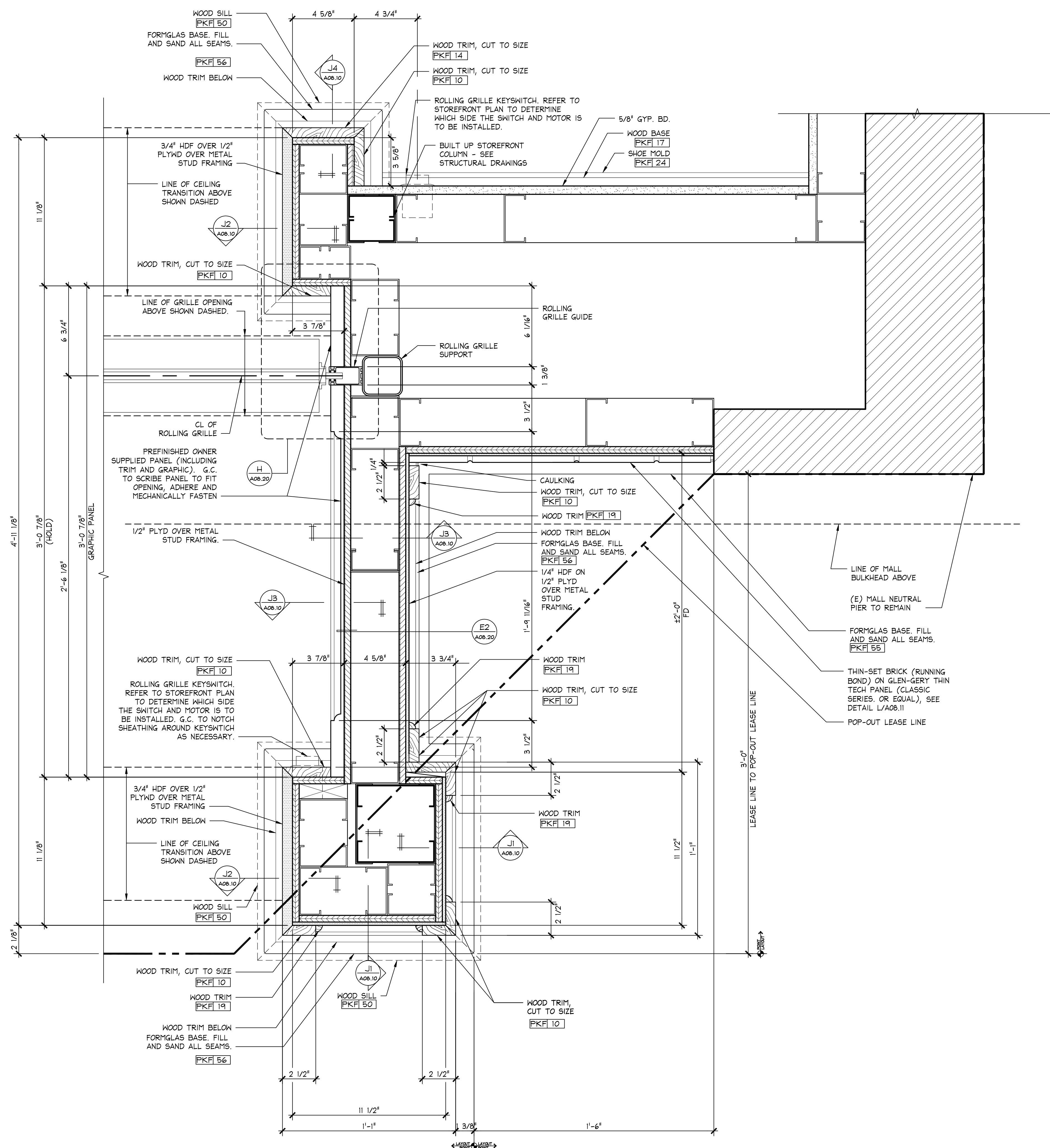
DRAWING NUMBER:

A08.06

NOTES:

1. SEE STRUCTURAL DRAWINGS FOR FRAMING SIZE, GAUGE, AND ASSEMBLY OF ALL STOREFRONT FRAMING.
2. SEE DETAIL J/A10.01 FOR ALL PINK WOOD TRIM PROFILES.
3. SEE DETAIL A/A00.02 FOR DOOR SCHEDULE.
4. ALL DIMENSIONS ARE TO FACE OF SHEATHING OR FINISH U.O.N.

**G.C. TO PRIME
ALL CUT ENDS**



J

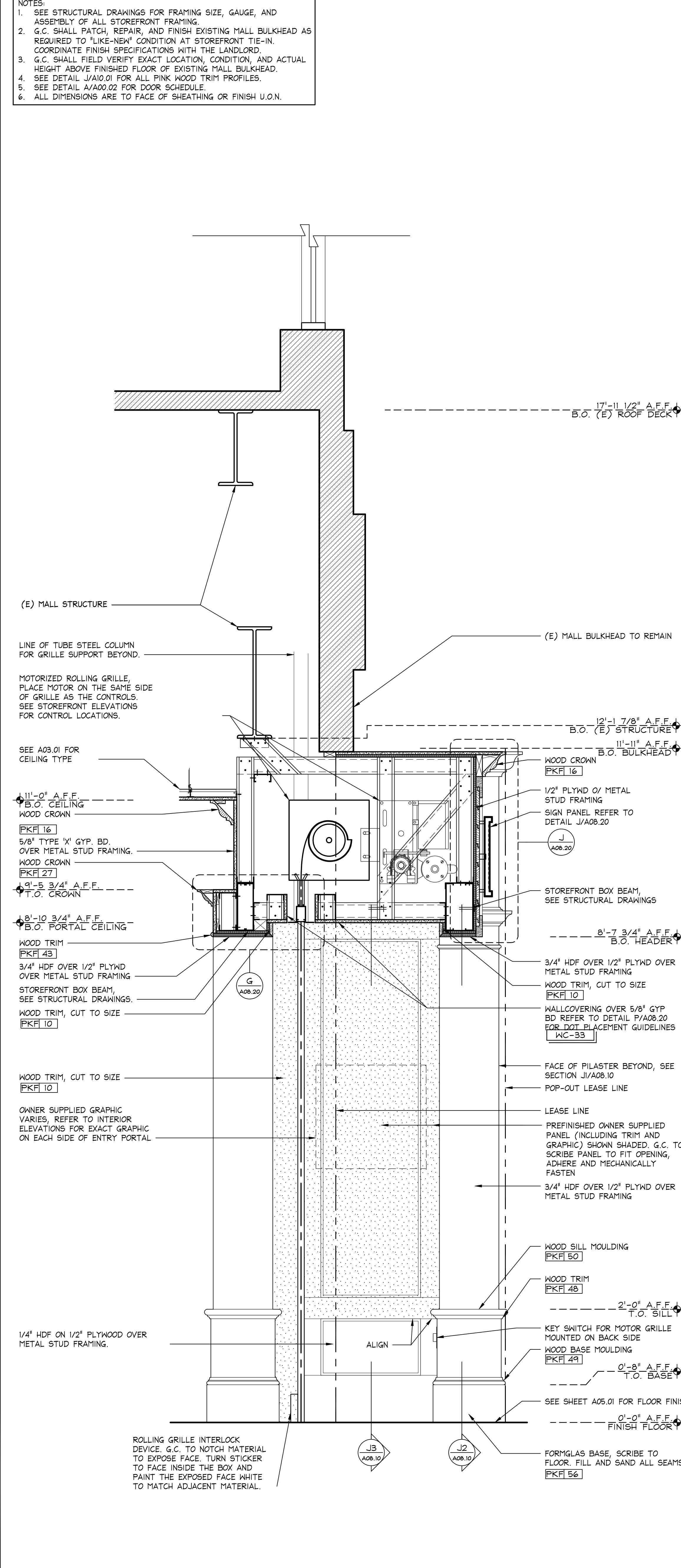
PLAN SECTION AT NEUTRAL PIER W/ DISPLAY WINDOW

3" = 1'-0"

05D-A0806-A00-DETL

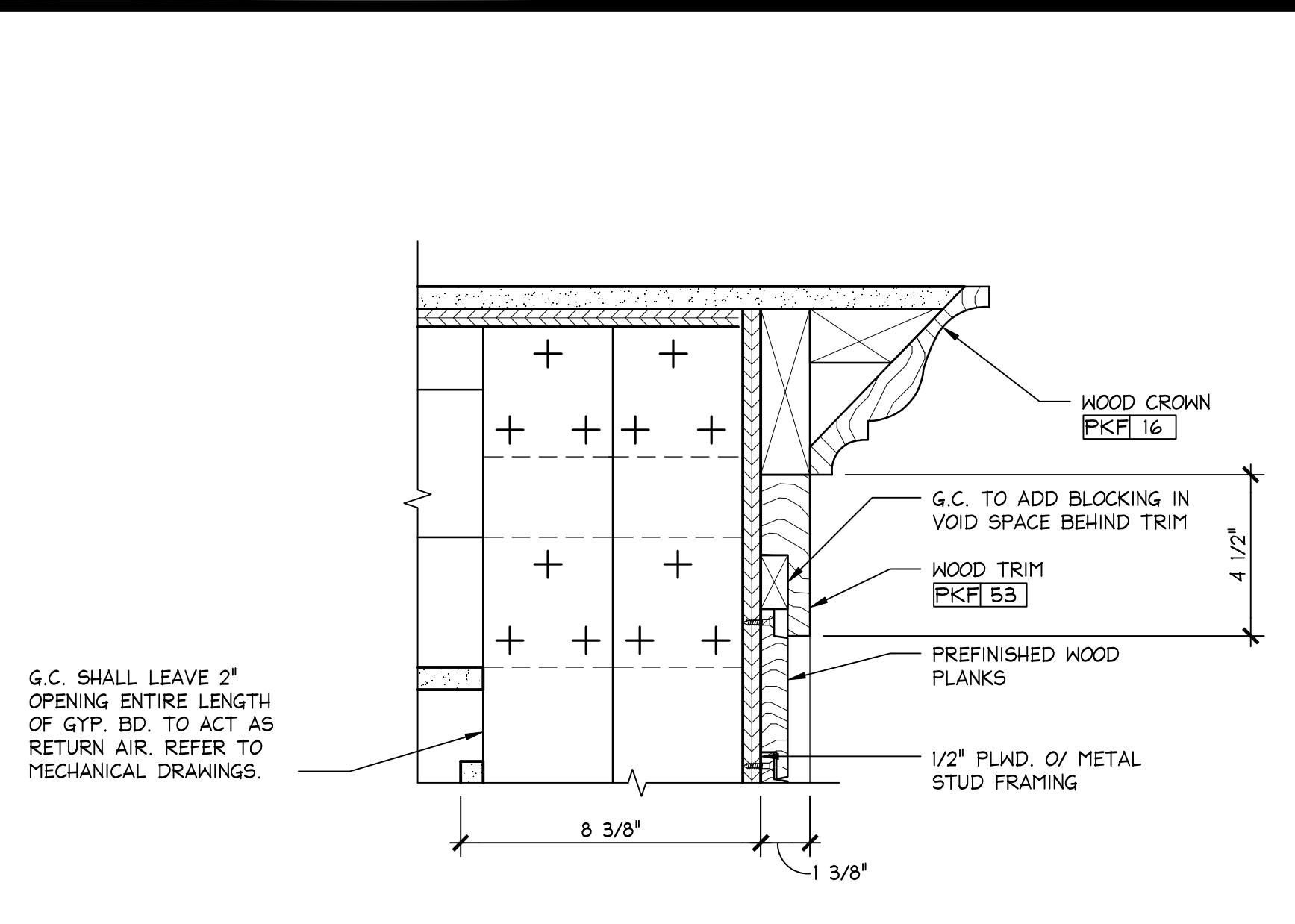
A

NOT USED

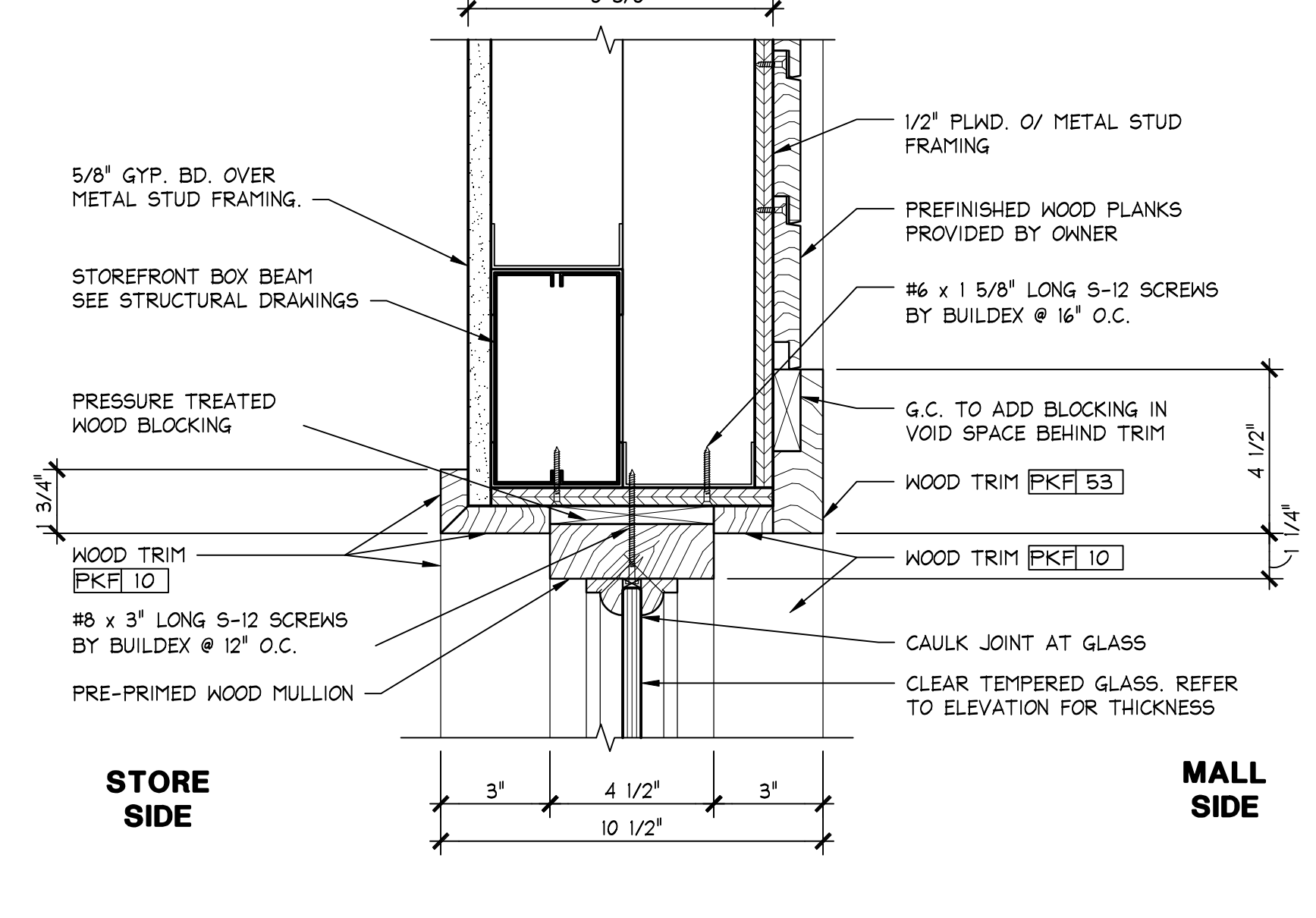


1" = 1'-0"	<div style="text-align: center;"> A 01.07 </div>
05D-A0810-A00-DETL	

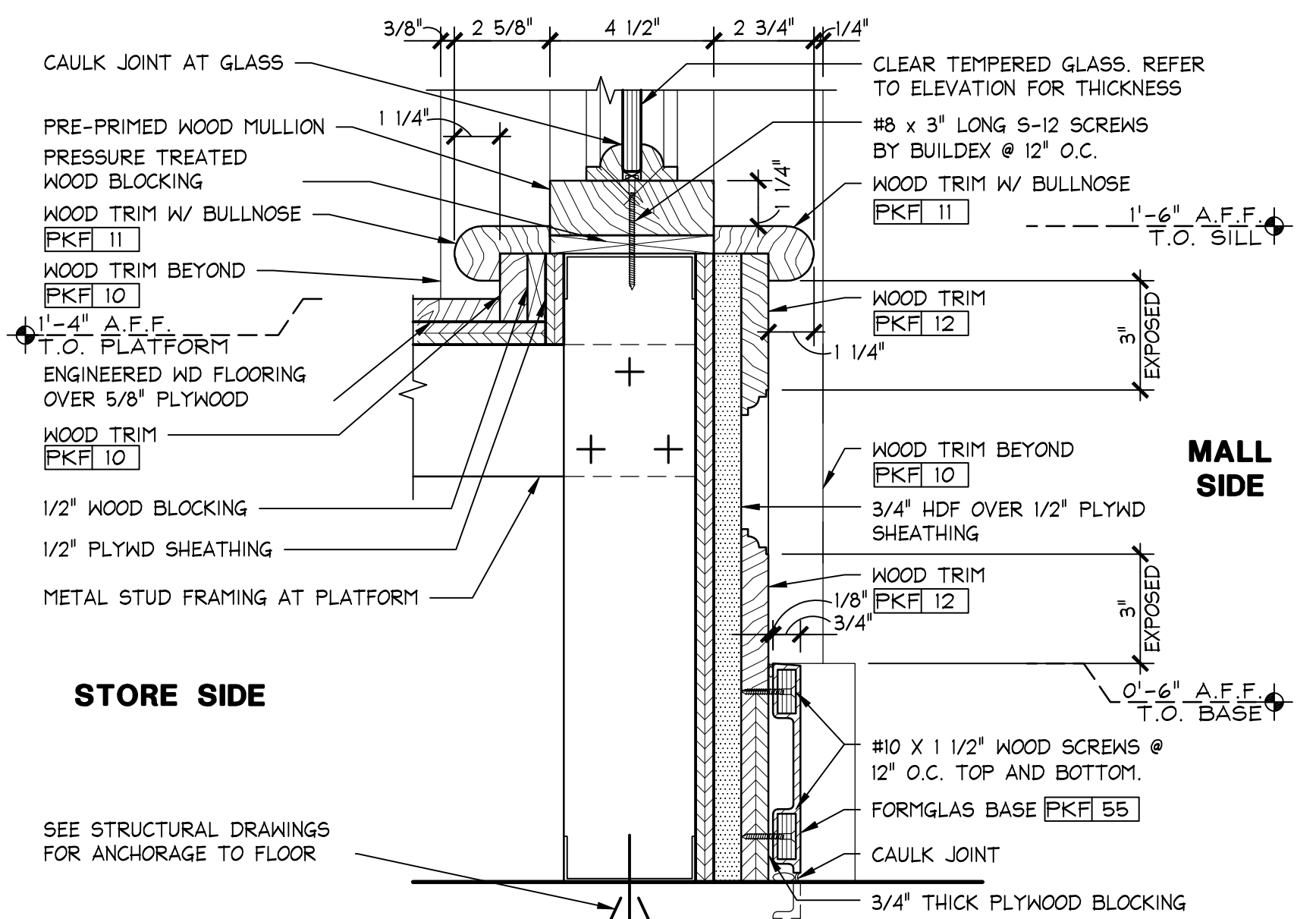
A088.10



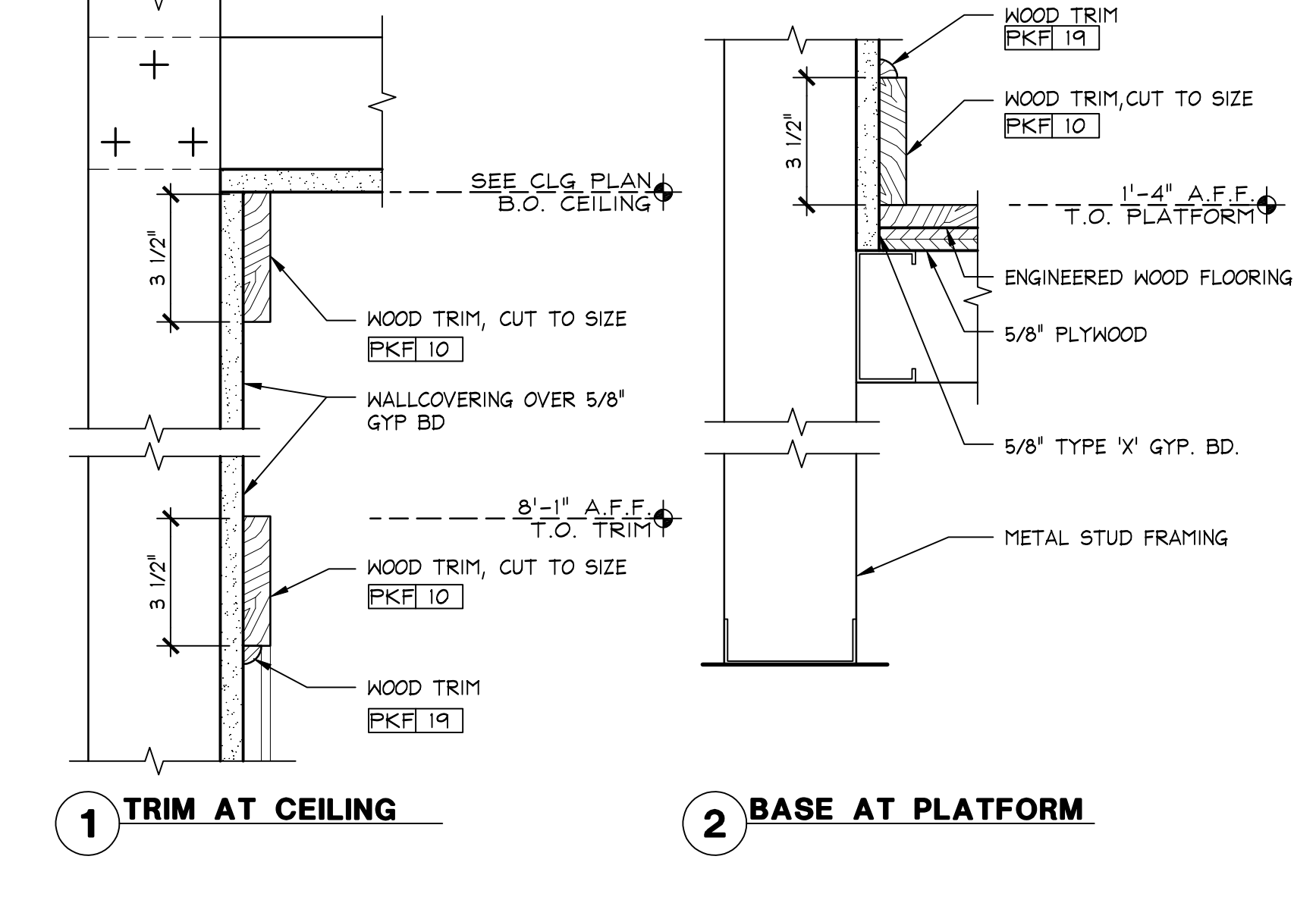
DISPLAY WINDOW BULKHEAD DETAIL



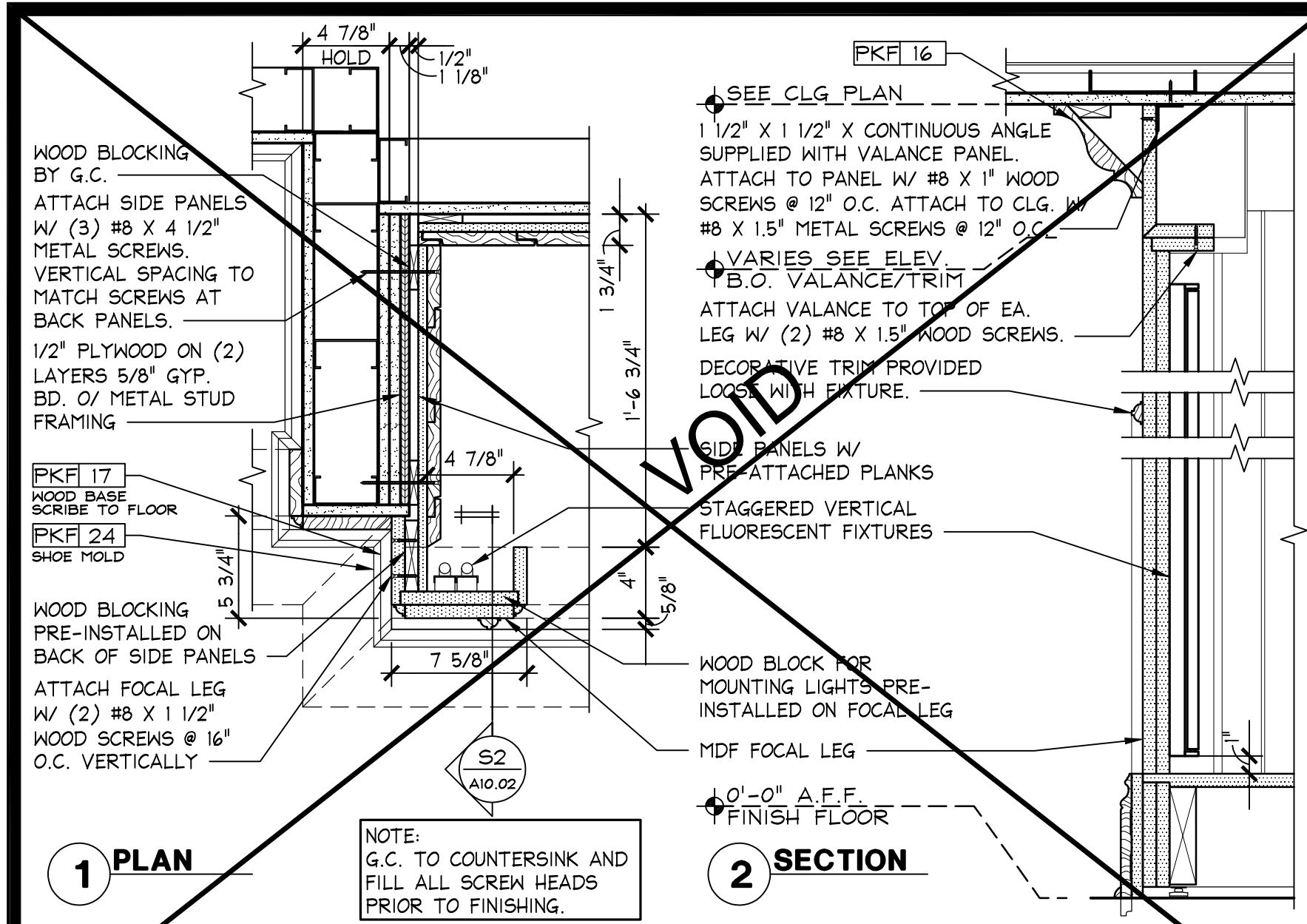
DISPLAY WINDOW HEAD		C 01.09.13
	05D-A0820-C00-DET	



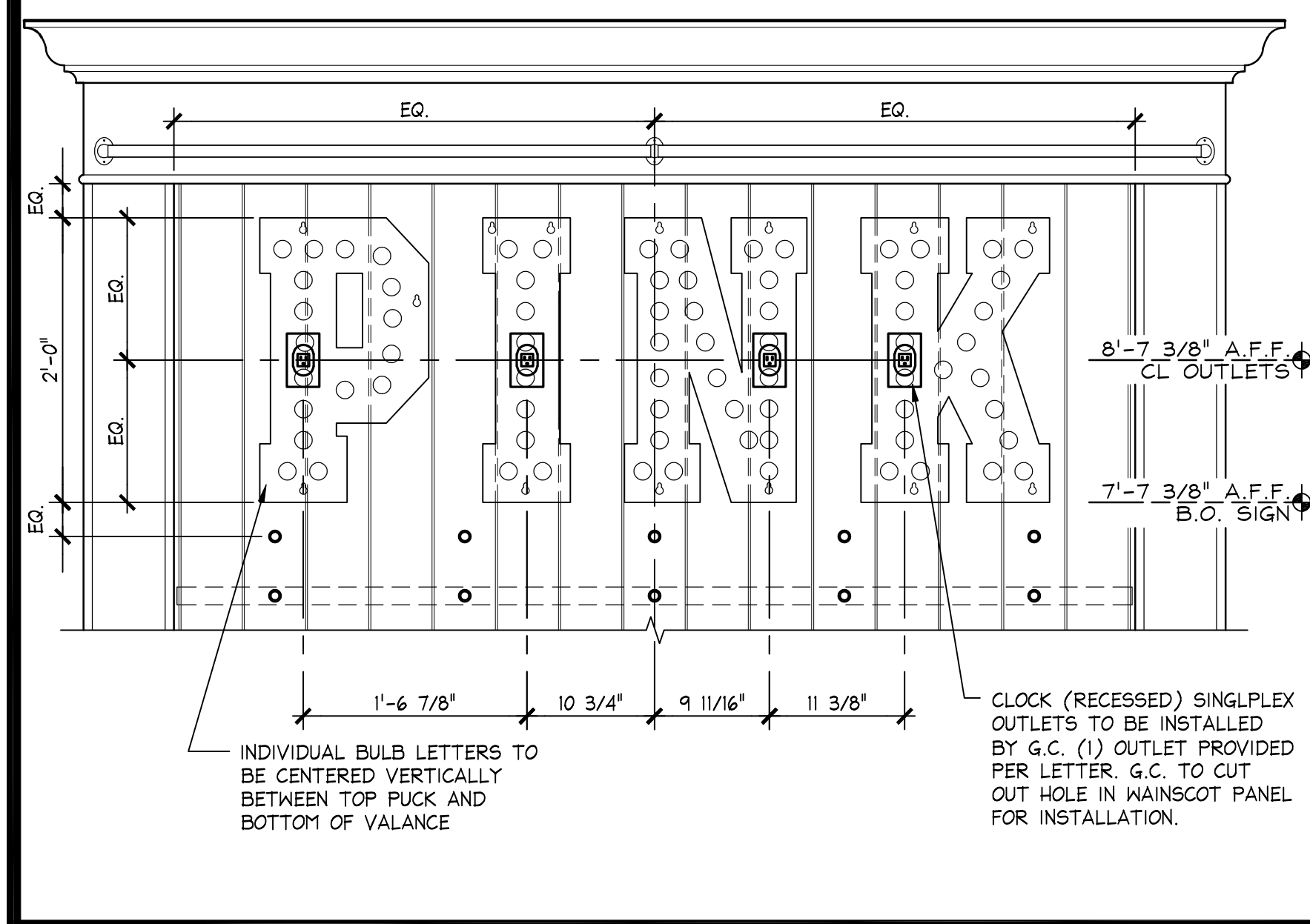
DISPLAY WINDOW SILL	3" = 1'-0"	B 01.08.13
	05D-A0820-B00-DET.L	



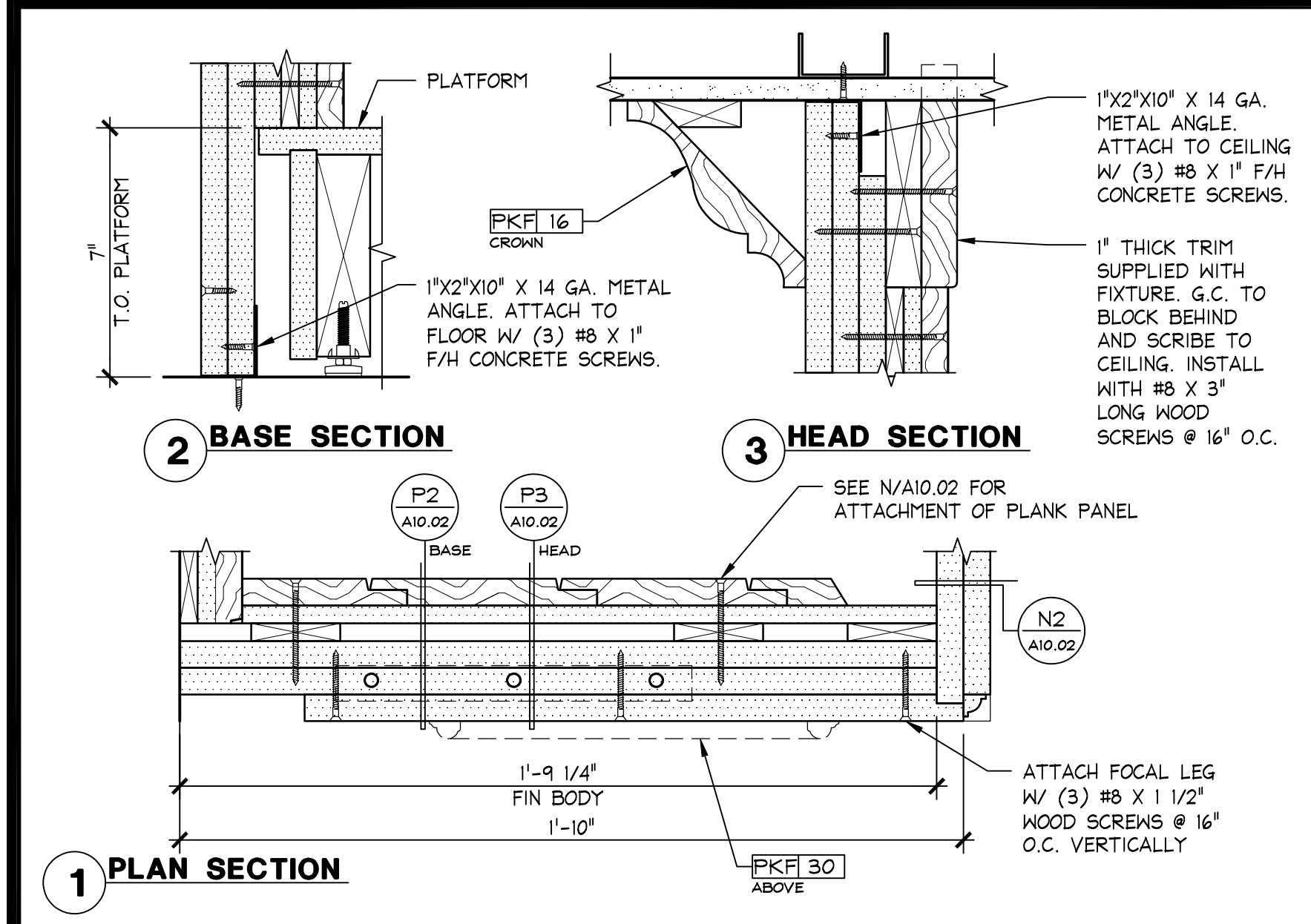
DISPLAY WINDOW DETAILS	3" = 1'-0"	A 01.09.13
	05D-A0820-A00-DETL	



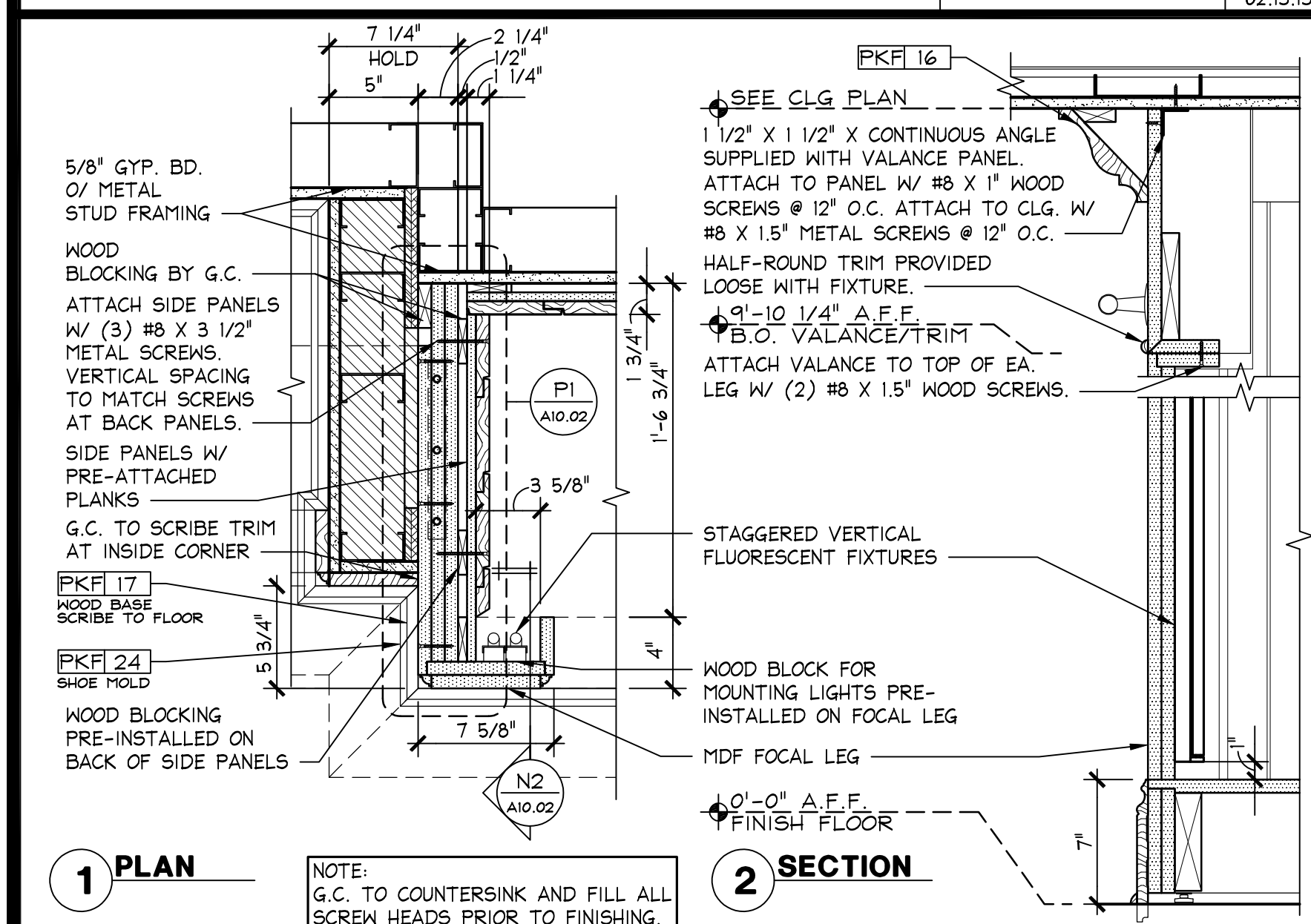
PINK FOCAL CABINET LEG SECTION (ADJ. CABINET TRIM TIGHT TO FOCAL) 1 1/2" = 1'-0" 05D-A1002-900-DETL 12.06.13



PINK BULB LETTER INSTALLATION 1" = 1'-0" CUSTOM 12.27.12

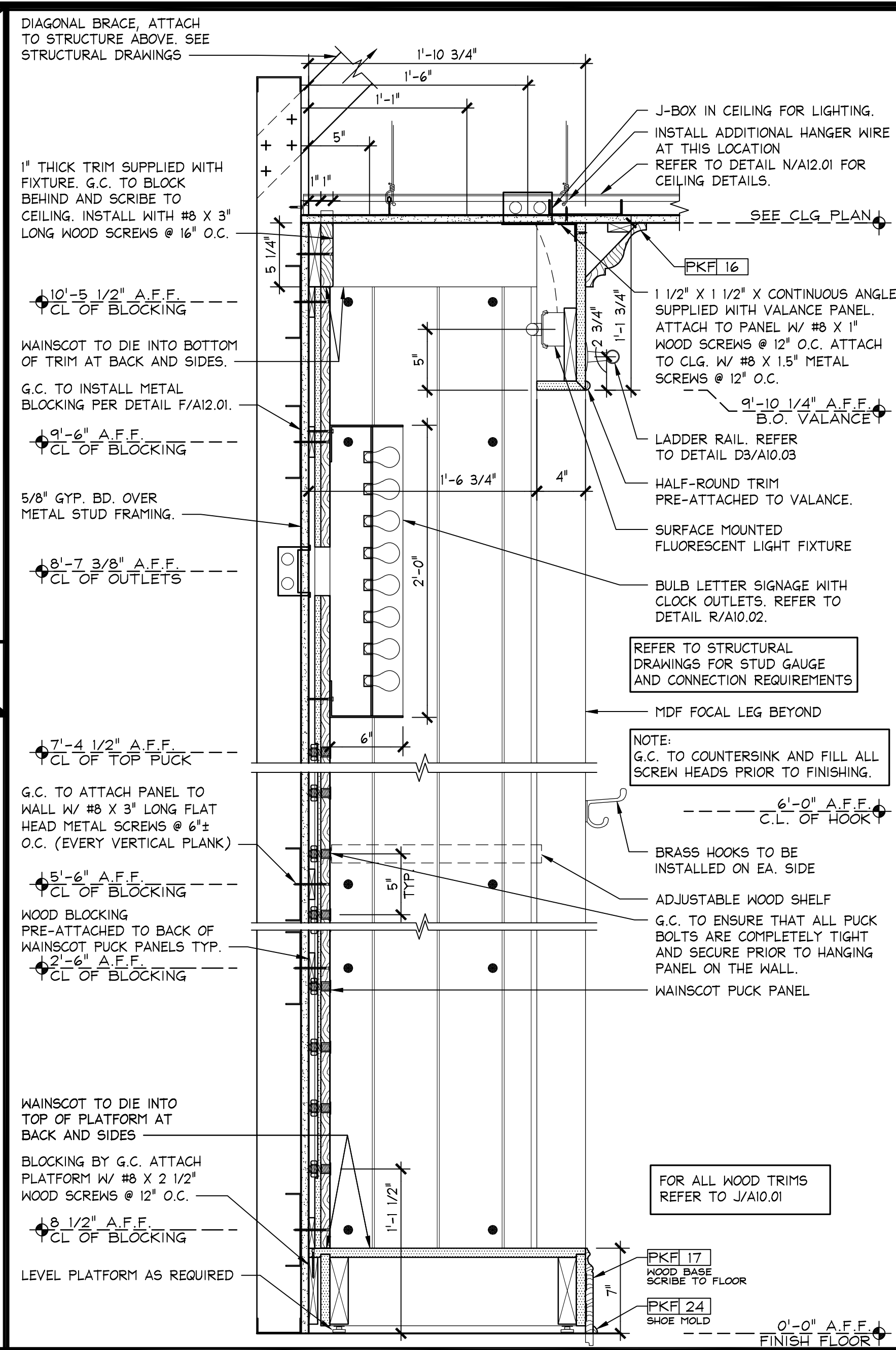


PINK FOC W/ PLATFORM & LOW PUCKS SECTION W/ BULB SIGN (PFOC-PL-L-FIN) 1 1/2" = 1'-0" CUSTOM 02.13.13

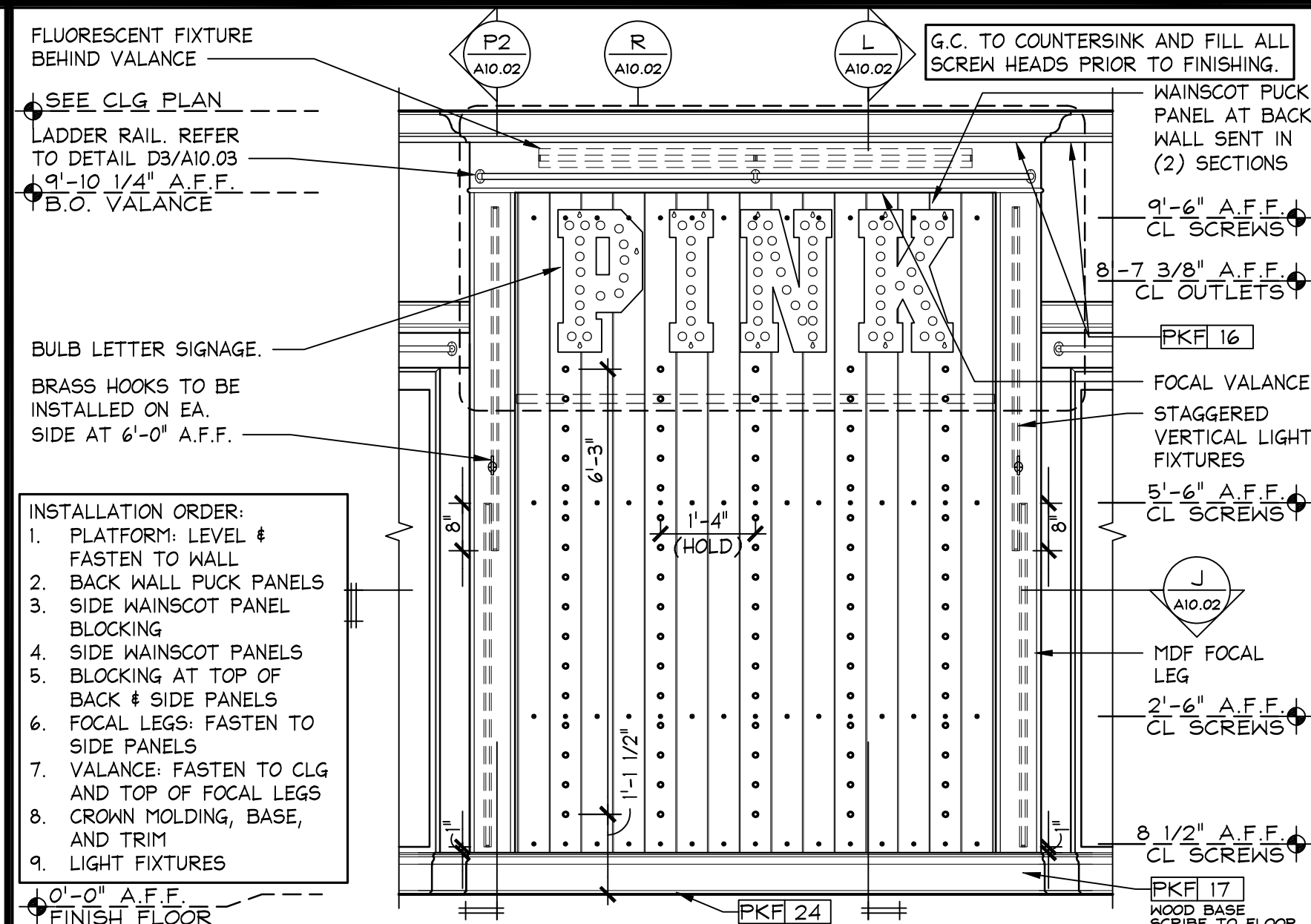


PINK FOCAL SIDE PANEL ATTACHMENT 3" = 1'-0" CUSTOM 02.13.13

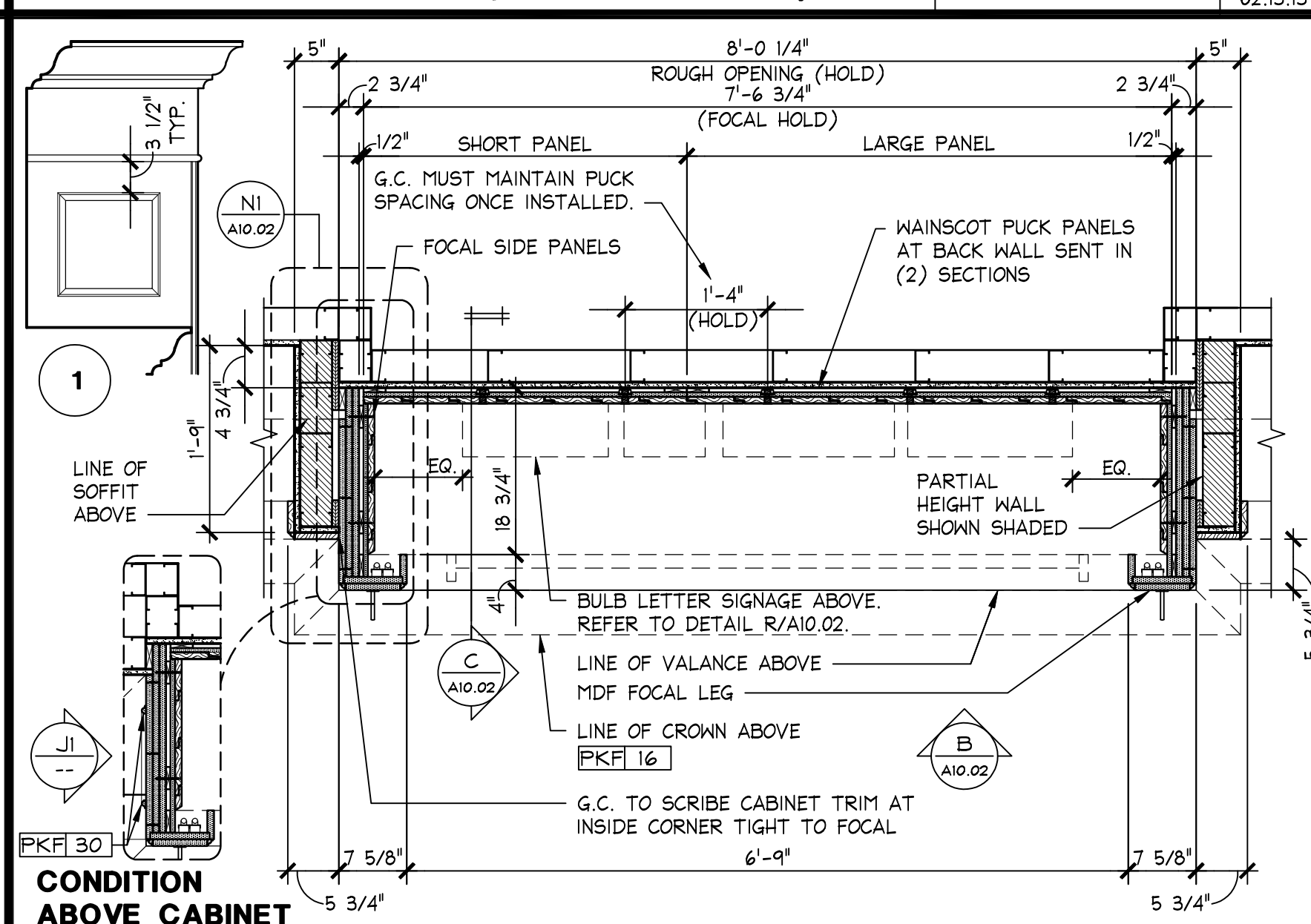
PINK FOCAL CABINET LEG SECTION (ADJ. TRIM TIGHT TO FOCAL/SOFFIT ABOVE) 1 1/2" = 1'-0" CUSTOM 02.13.13



PINK FOC W/ PLATFORM & LOW PUCKS SECTION W/ BULB SIGN (PFOC-PL-L-FIN) 1 1/2" = 1'-0" CUSTOM 02.13.13

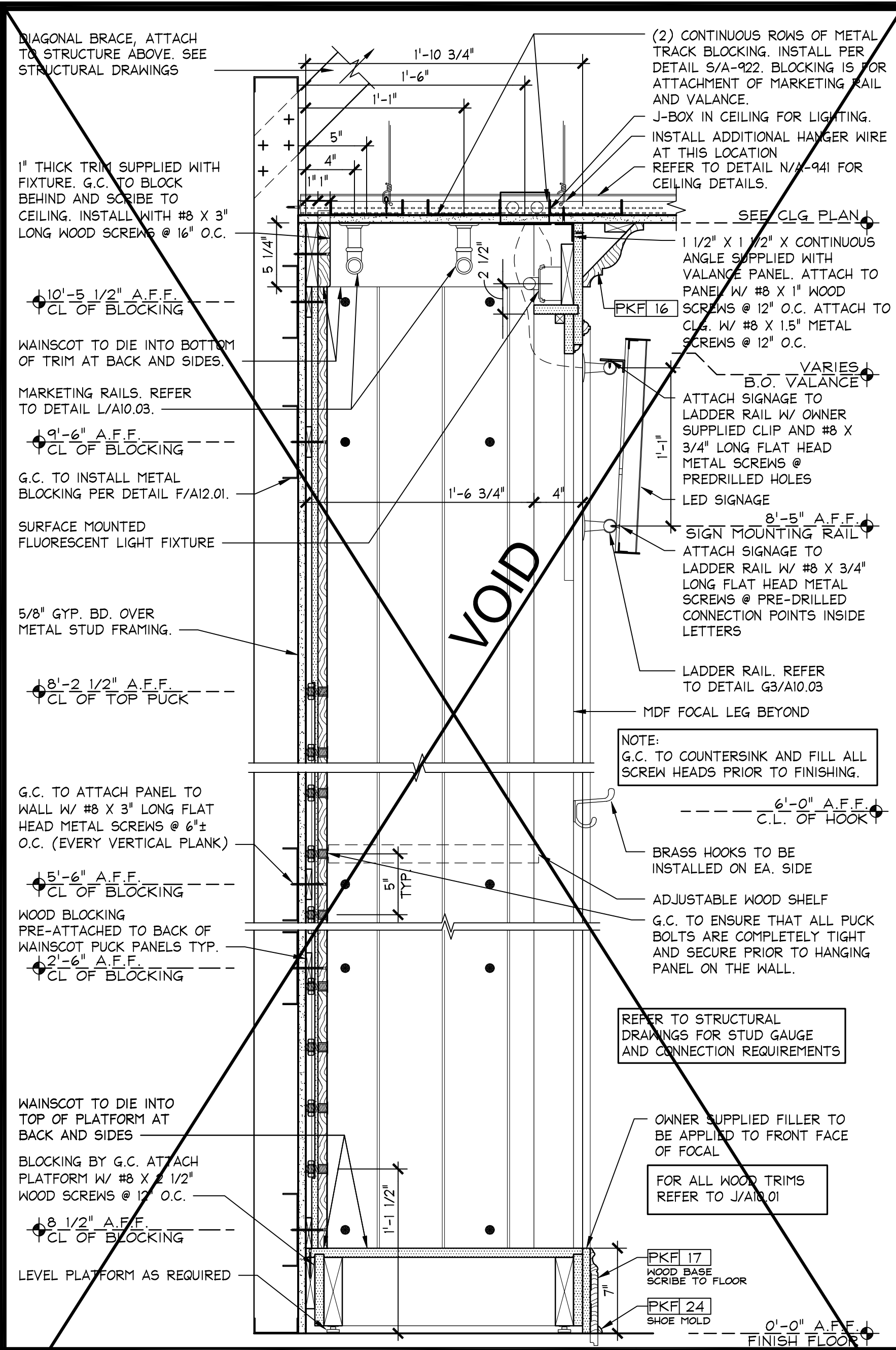


PINK FOC W/ PLATFORM & LOW PUCKS ELEV W/ BULB SIGN (PFOC-PL-L-FIN) 1/2" = 1'-0" CUSTOM 02.13.13

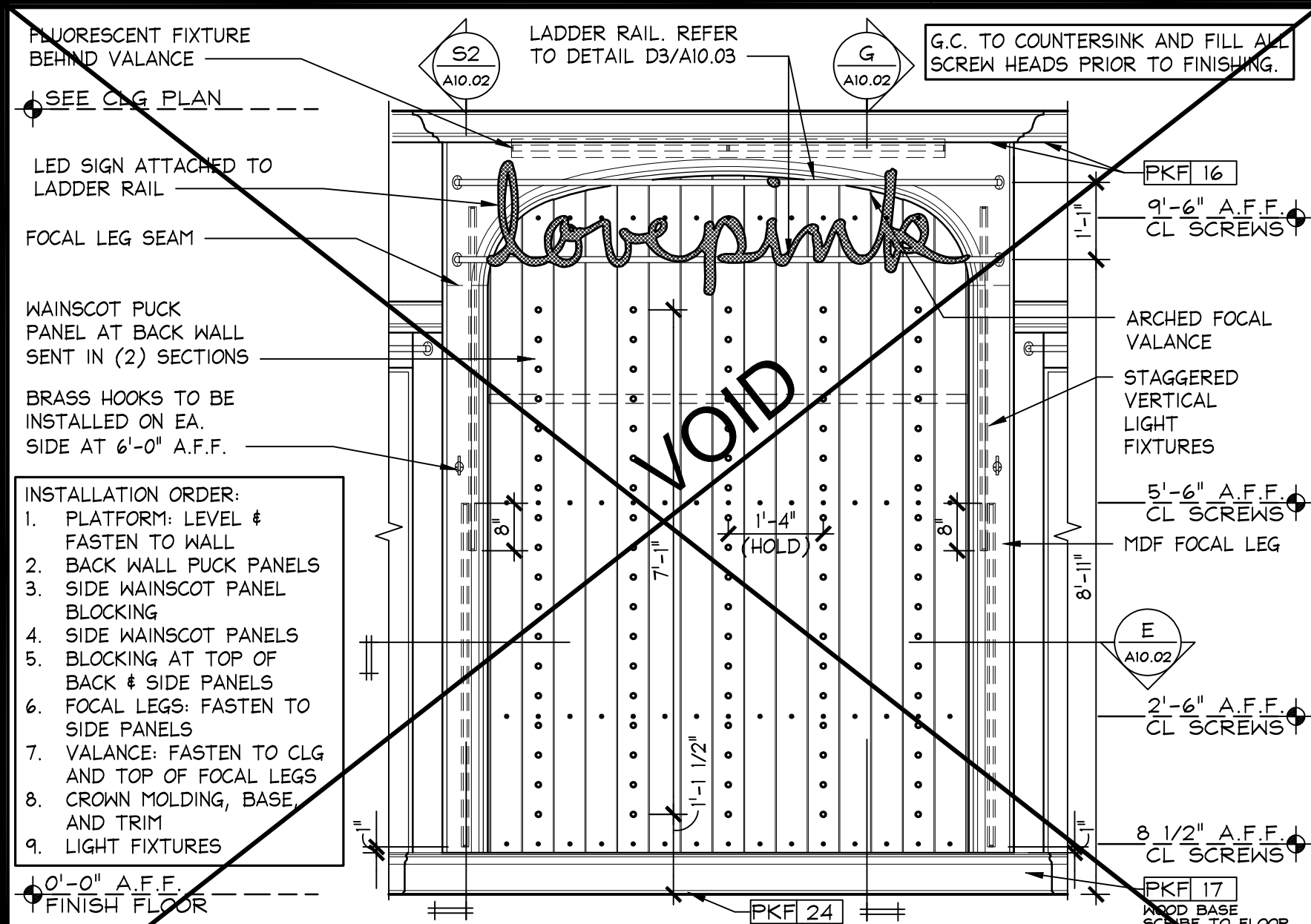


PINK FOC W/ PLATFORM & LOW PUCKS PLAN W/ BULB SIGN (PFOC-PL-L-FIN) 3/4" = 1'-0" CUSTOM 02.13.13

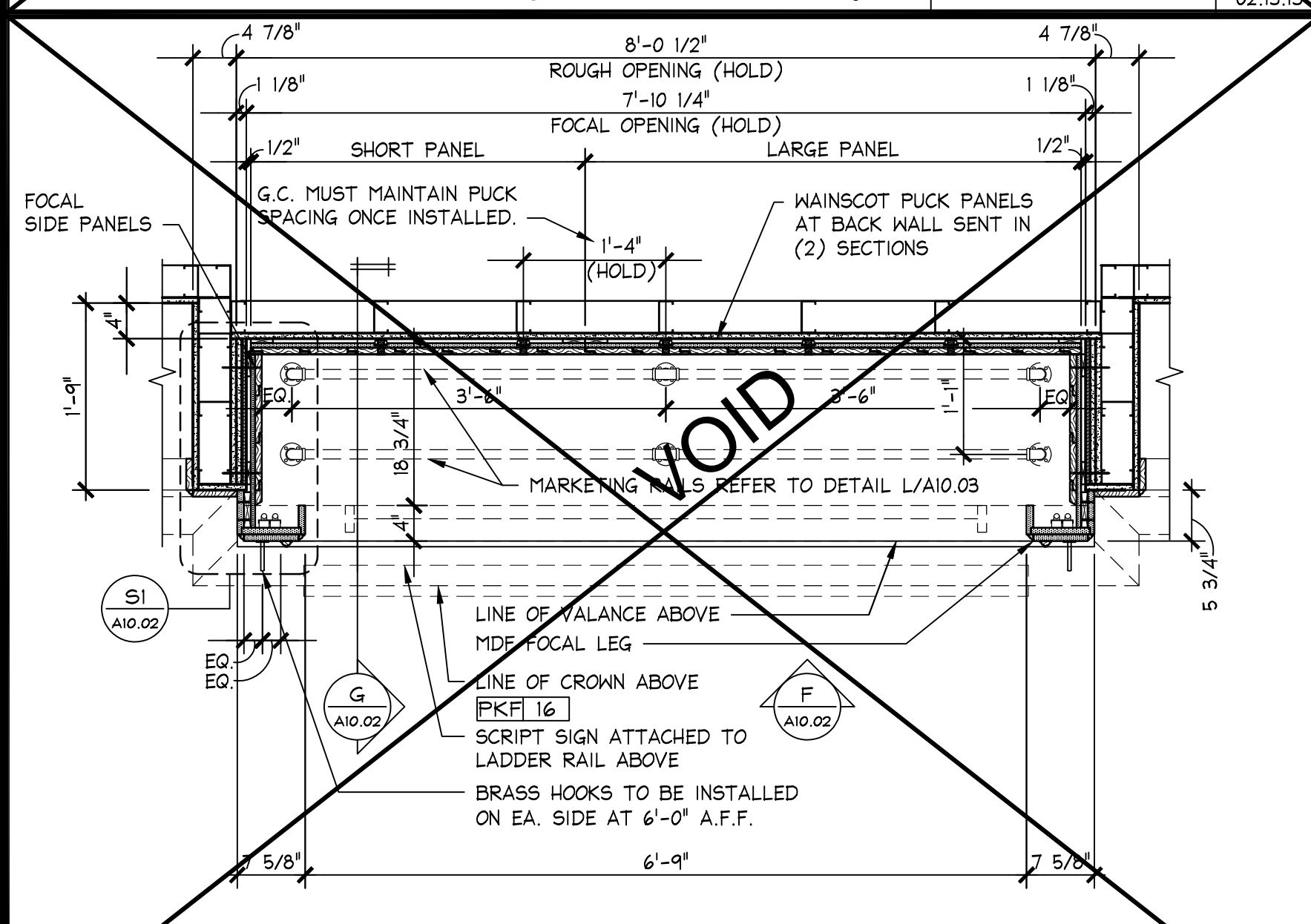
PINK FOC W/ PLATFORM & LOW PUCKS PLAN W/ SCRIPT SIGN (PFOC-AR-L-V01) 3/4" = 1'-0" CUSTOM 02.13.13



PINK FOC W/ PLATFORM & LOW PUCKS SECTION W/ SCRIPT SIGN (PFOC-AR-L-V01) 1 1/2" = 1'-0" CUSTOM 02.13.13

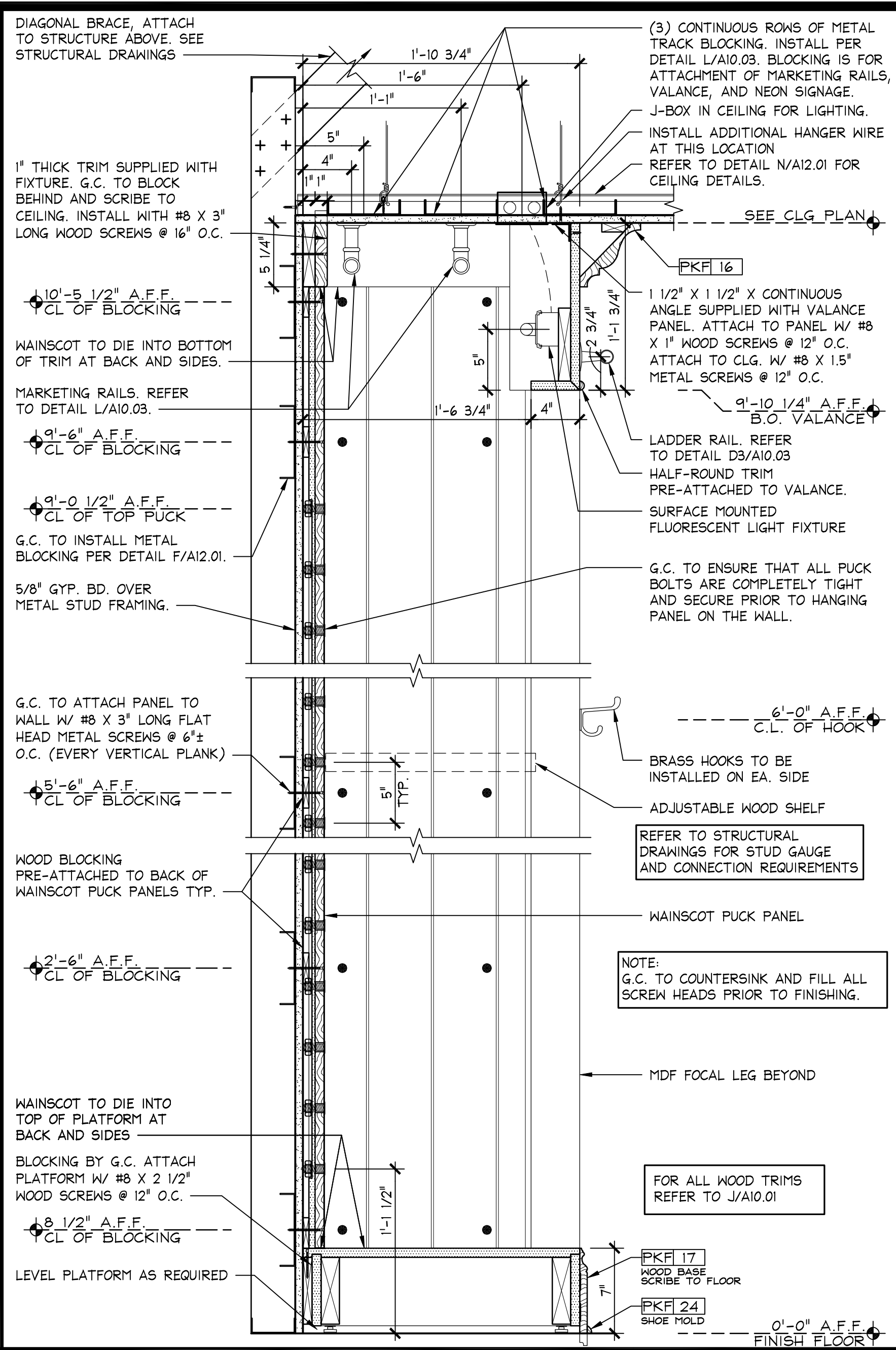


PINK FOC W/ PLATFORM & LOW PUCKS ELEV W/ SCRIPT SIGN (PFOC-AR-L-V01) 1/2" = 1'-0" CUSTOM 02.13.13

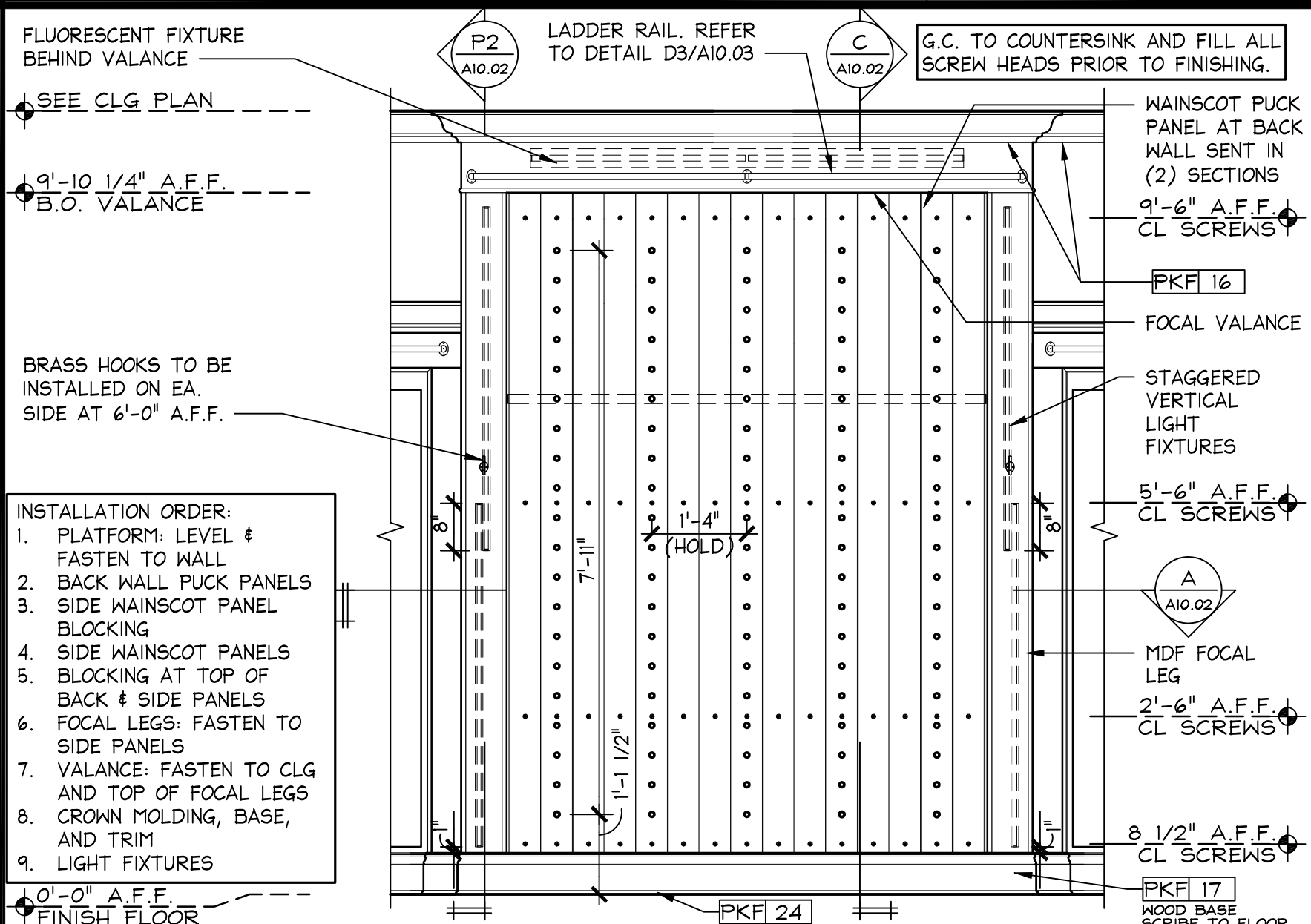


PINK FOC W/ PLATFORM & LOW PUCKS PLAN W/ SCRIPT SIGN (PFOC-AR-L-V01) 3/4" = 1'-0" CUSTOM 02.13.13

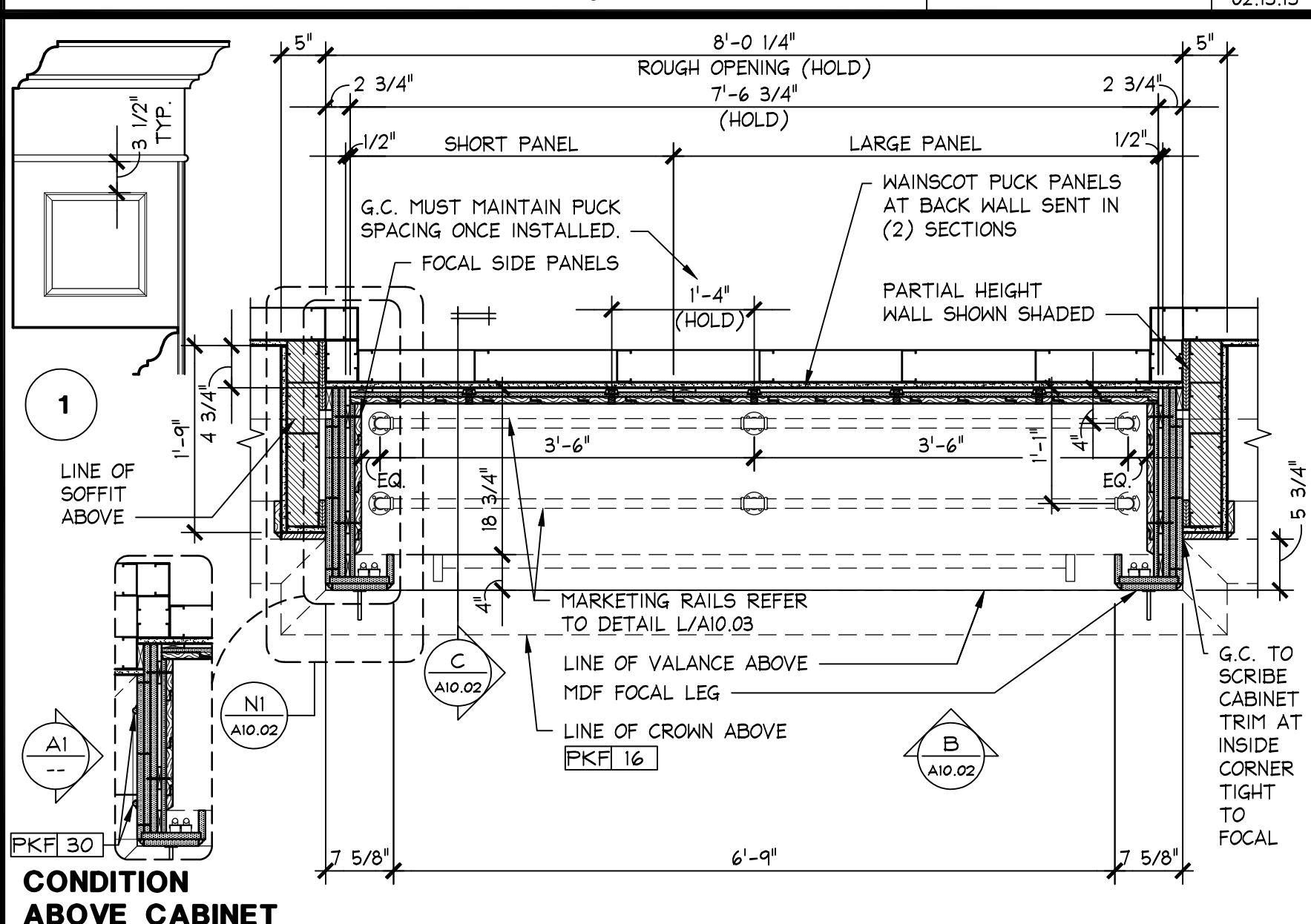
PINK FOC W/ PLATFORM & LOW PUCKS PLAN W/ SCRIPT SIGN (PFOC-AR-L-V01) 3/4" = 1'-0" CUSTOM 02.13.13



PINK FOC W/ PLATFORM & HIGH PUCKS SECTION (PFOC-PL-H-FIN) 1 1/2" = 1'-0" CUSTOM 02.13.13



PINK FOC W/ PLATFORM & HIGH PUCKS ELEVATION (PFOC-PL-H-FIN) 1/2" = 1'-0" CUSTOM 02.13.13



PINK FOC W/ PLATFORM & HIGH PUCKS PLAN (PFOC-PL-H-FIN) 3/4" = 1'-0" CUSTOM 02.13.13

PINK FOC W/ PLATFORM & HIGH PUCKS PLAN (PFOC-PL-H-FIN) 3/4" = 1'-0" CUSTOM 02.13.13

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PINK VICTORIA'S SECRET

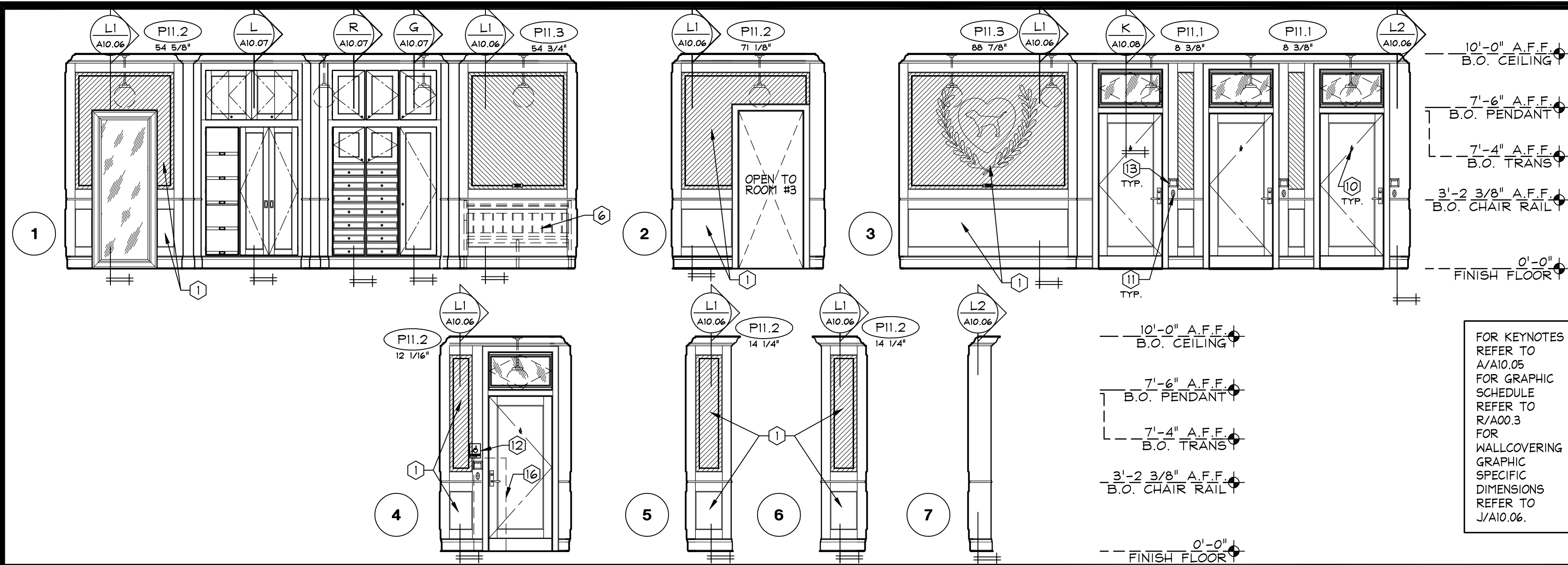
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
JENSEN BEACH, FL 34957

REVISIONS:

DATE ISSUED: 03.29.13
DESIGNED BY: AJ
DRAWN BY: JS
CHECKED BY: WD

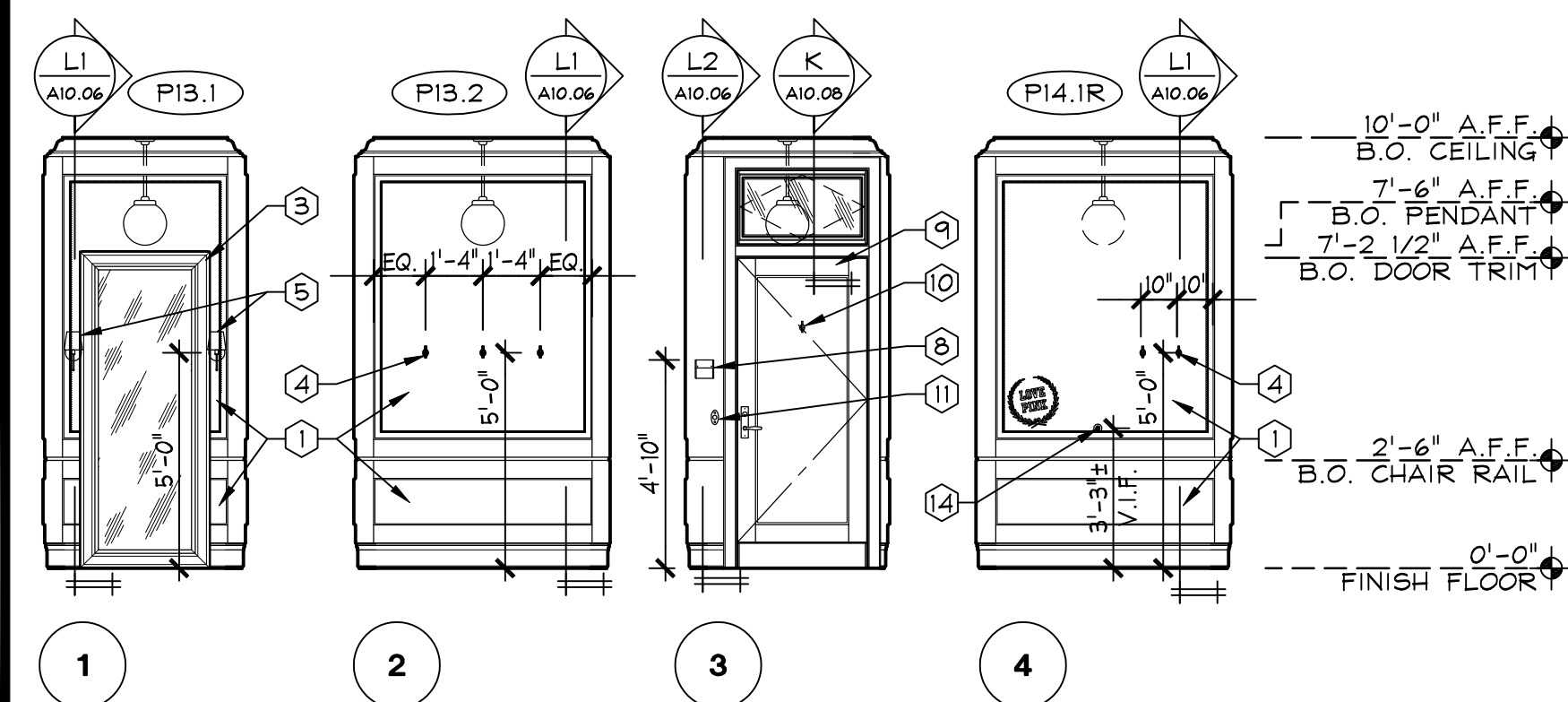
PINK CONSTRUCTION DETAILS

DRAWING NUMBER: **A10.02**



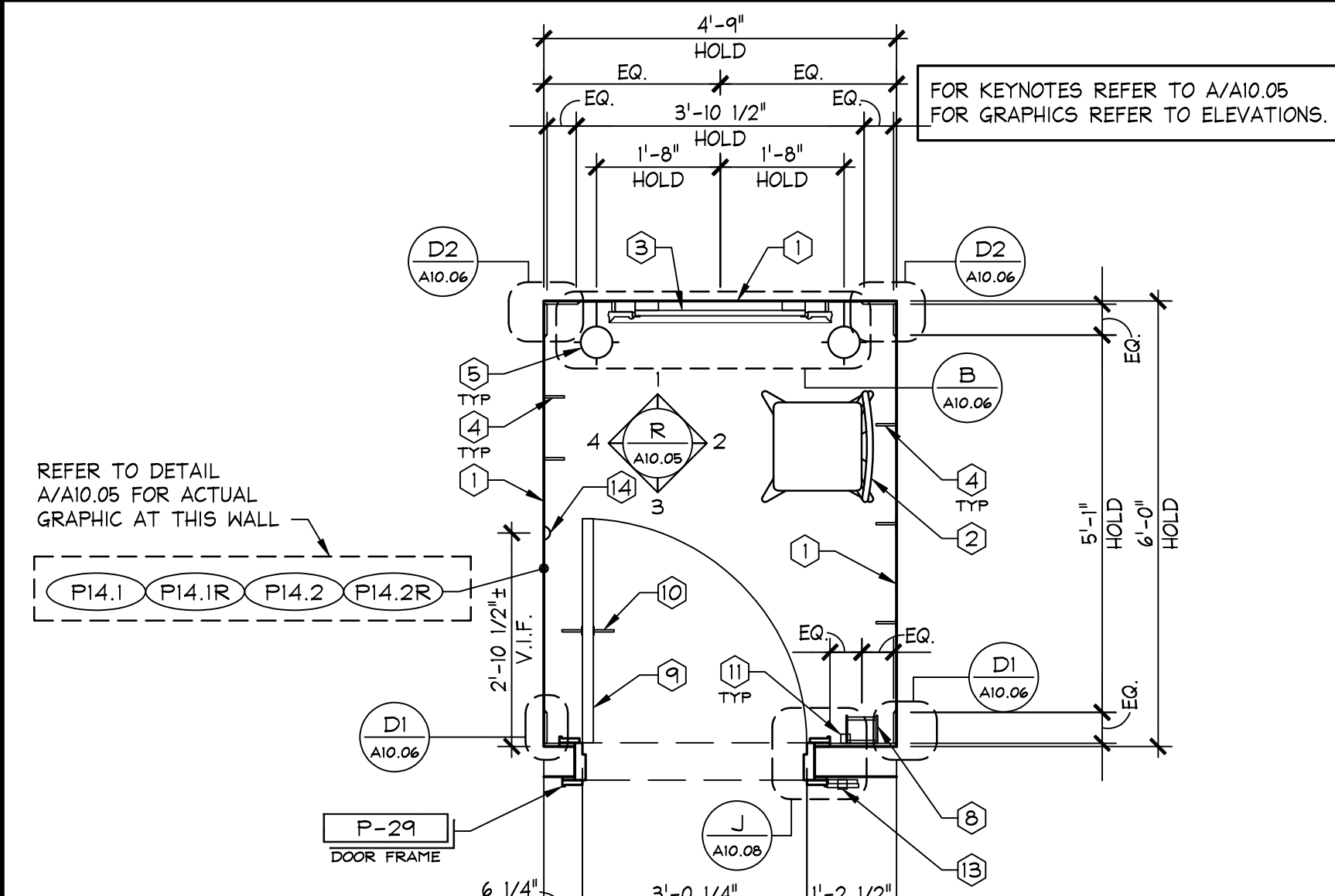
FITTING ROOM VESTIBULE ELEVATIONS

FOR KEYNOTES REFER TO A/A10.05 FOR GRAPHIC SCHEDULE REFER TO R/A00.03 FOR WALLCOVERING GRAPHIC SPECIFIC DIMENSIONS REFER TO J/A10.06.



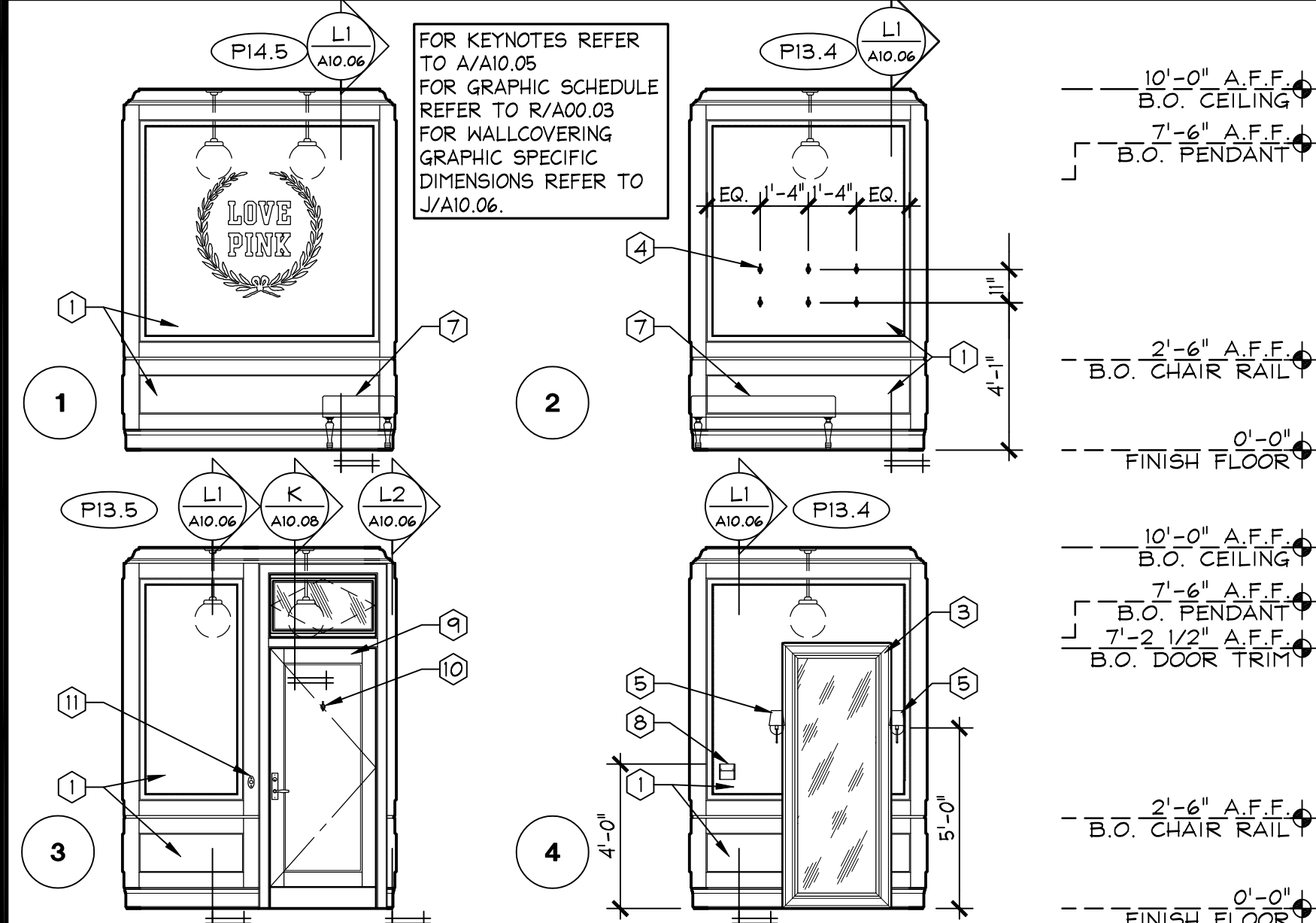
PINK STANDARD FITTING ROOM TYPE A ELEVATIONS

1/4" = 1'-0"
OSD-A1005-R00-DET.L
09/12/12



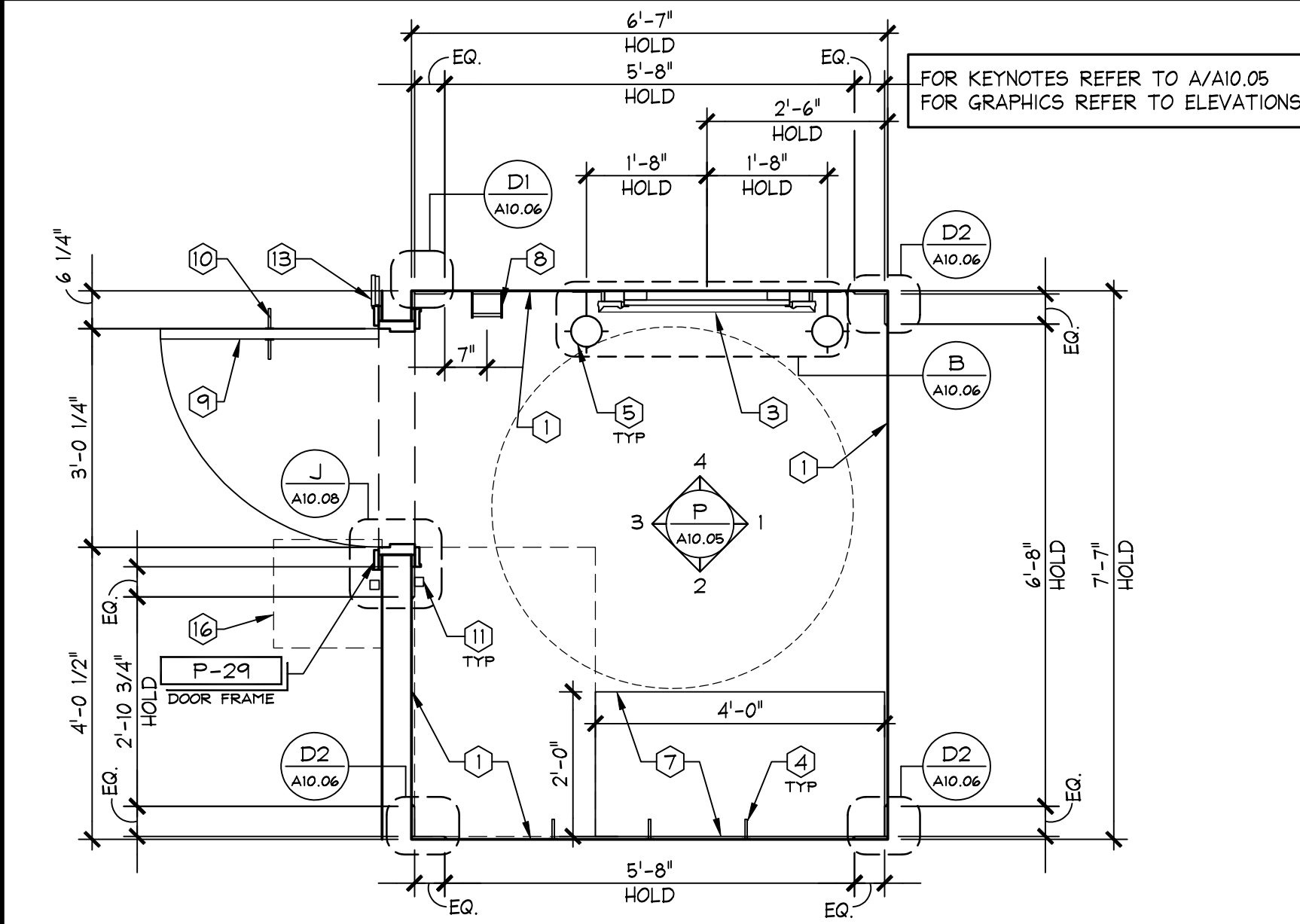
PINK STANDARD FITTING ROOM TYPE A PLAN

1/2" = 1'-0"
OSD-A1005-L00-DET.L
09/12/12



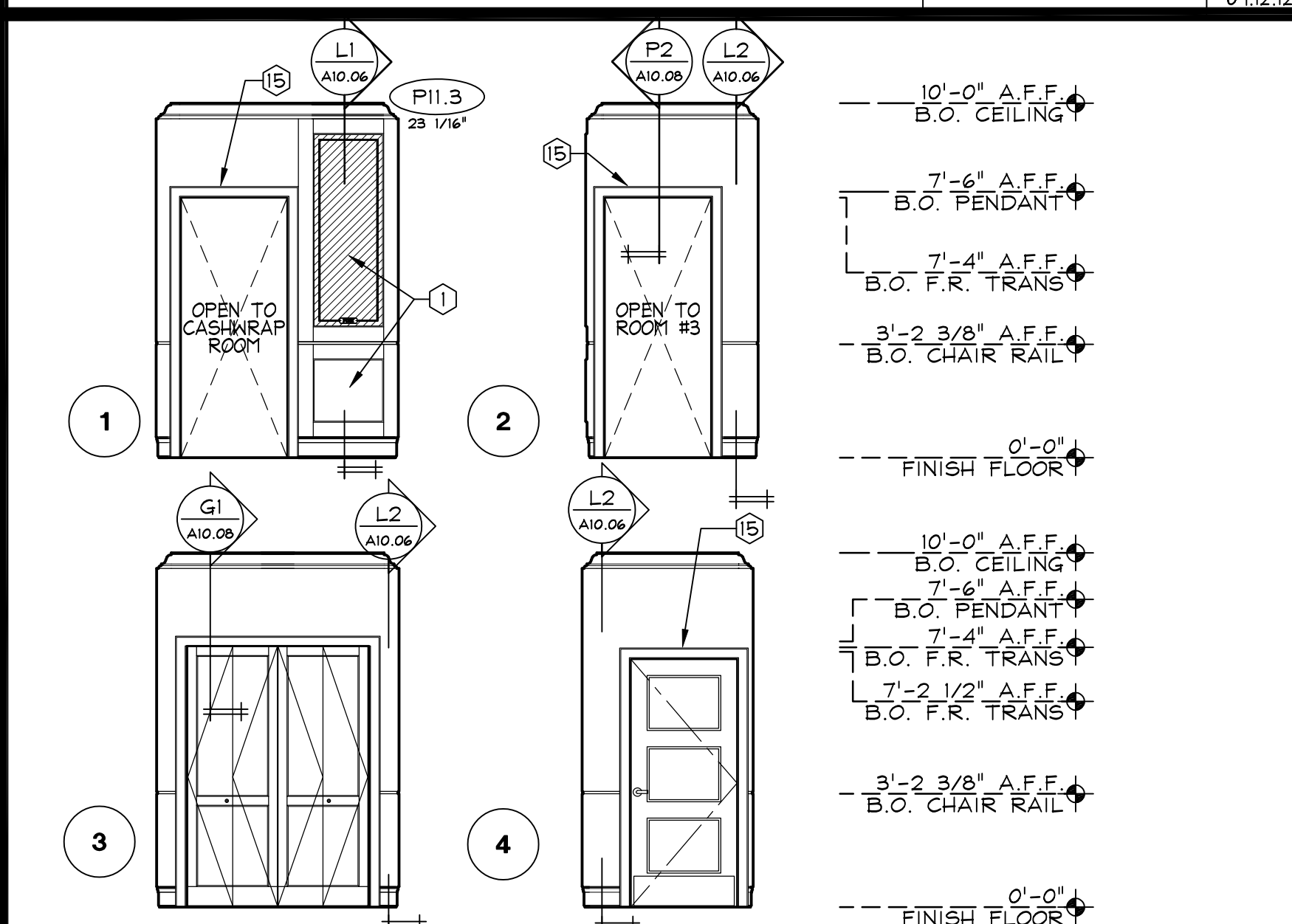
PINK ACCESSIBLE FITTING ROOM TYPE A ELEVATIONS

1/4" = 1'-0"
OSD-A1005-P00-DET.L
09/12/12



PINK ACCESSIBLE FITTING ROOM TYPE A PLAN

1/2" = 1'-0"
OSD-A1005-K00-DET.L
01/10/13

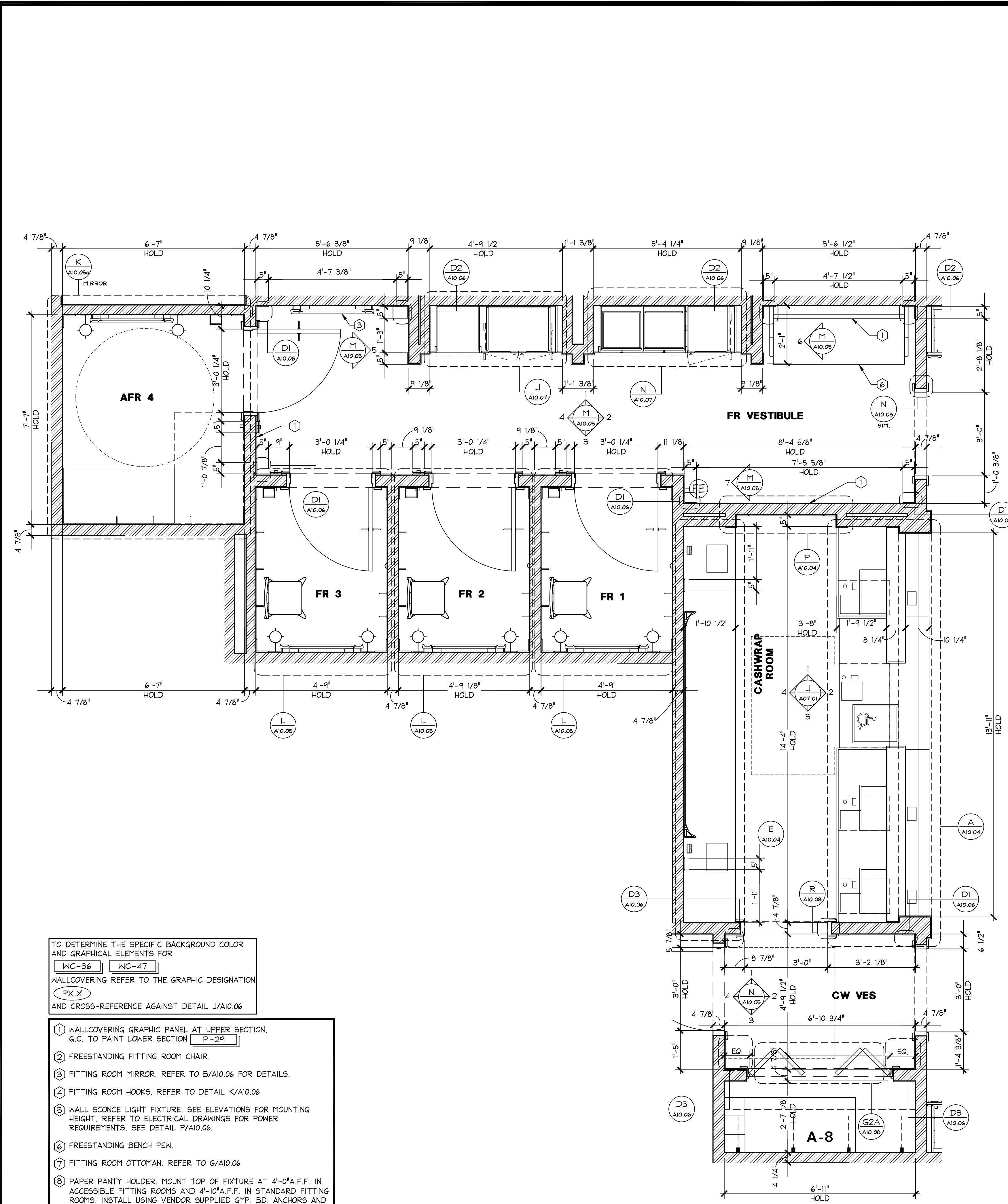


CASH WRAP VESTIBULE ELEVATIONS

1/4" = 1'-0"

NOT USED

J



ENLARGED PINK FITTING ROOM PLAN

1/2" = 1'-0"

A

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PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
JENSEN BEACH, FL 34957

PROJECT INFORMATION:

REVISIONS:	DATE:

DATE ISSUED: 03.29.13
DESIGNED BY: AL
DRAWN BY: JS
CHECKED BY: WD

PINK FITTING ROOM PLAN & DETAILS

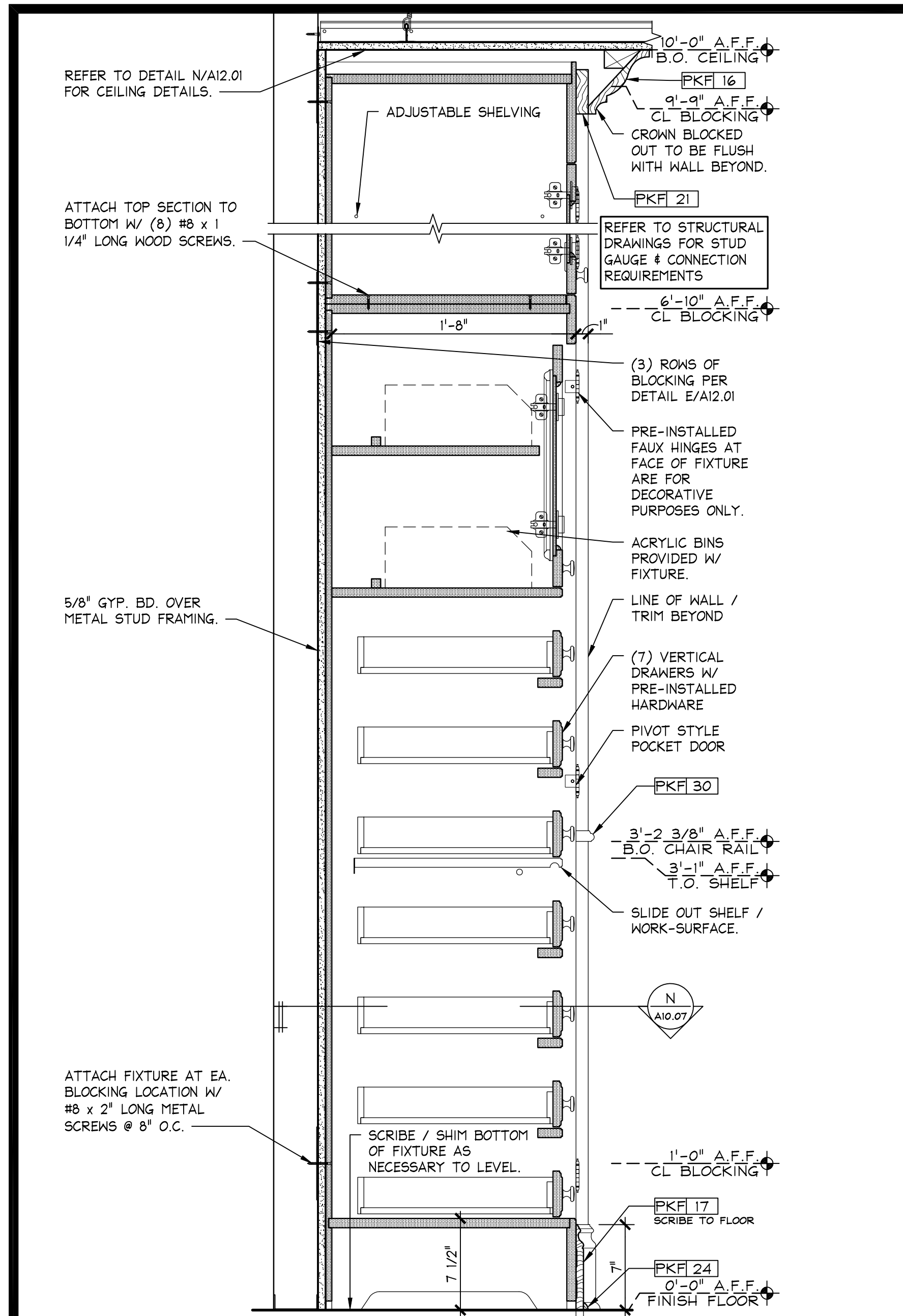
DRAWING NUMBER:

A10.05

MASTER
13150
201206790

NEW PACKAGE:
PINK
GENERATION:
00057884
A/E PROJECT #:

SCOPE:
TYPE:
LSAC PROJECT #:



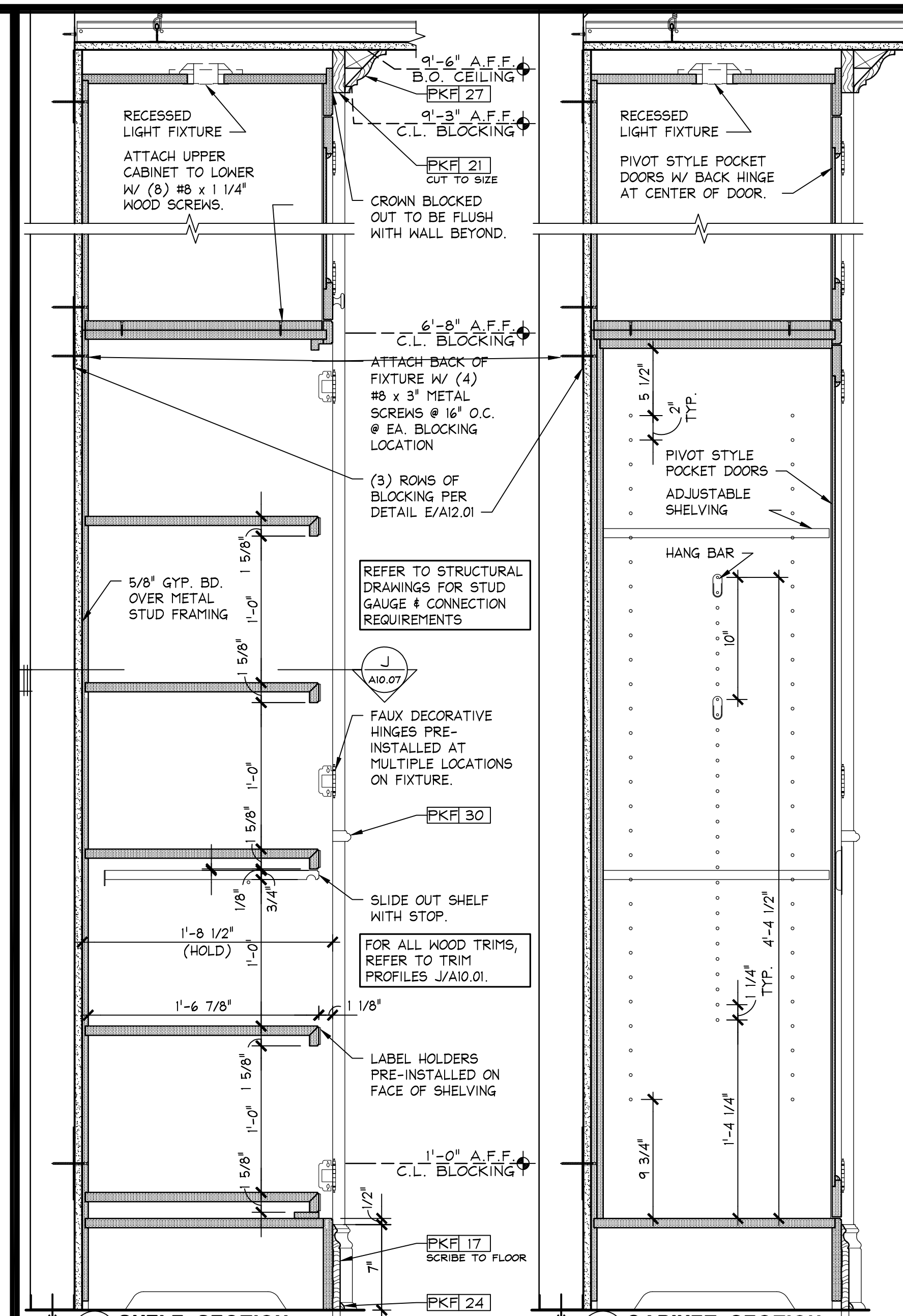
SMALL BUILT-IN BRA WARDROBER VERTICAL SECTION

1 1/2" = 1'-0"

OSD-A1007-R01-DET1

01/12/12

R



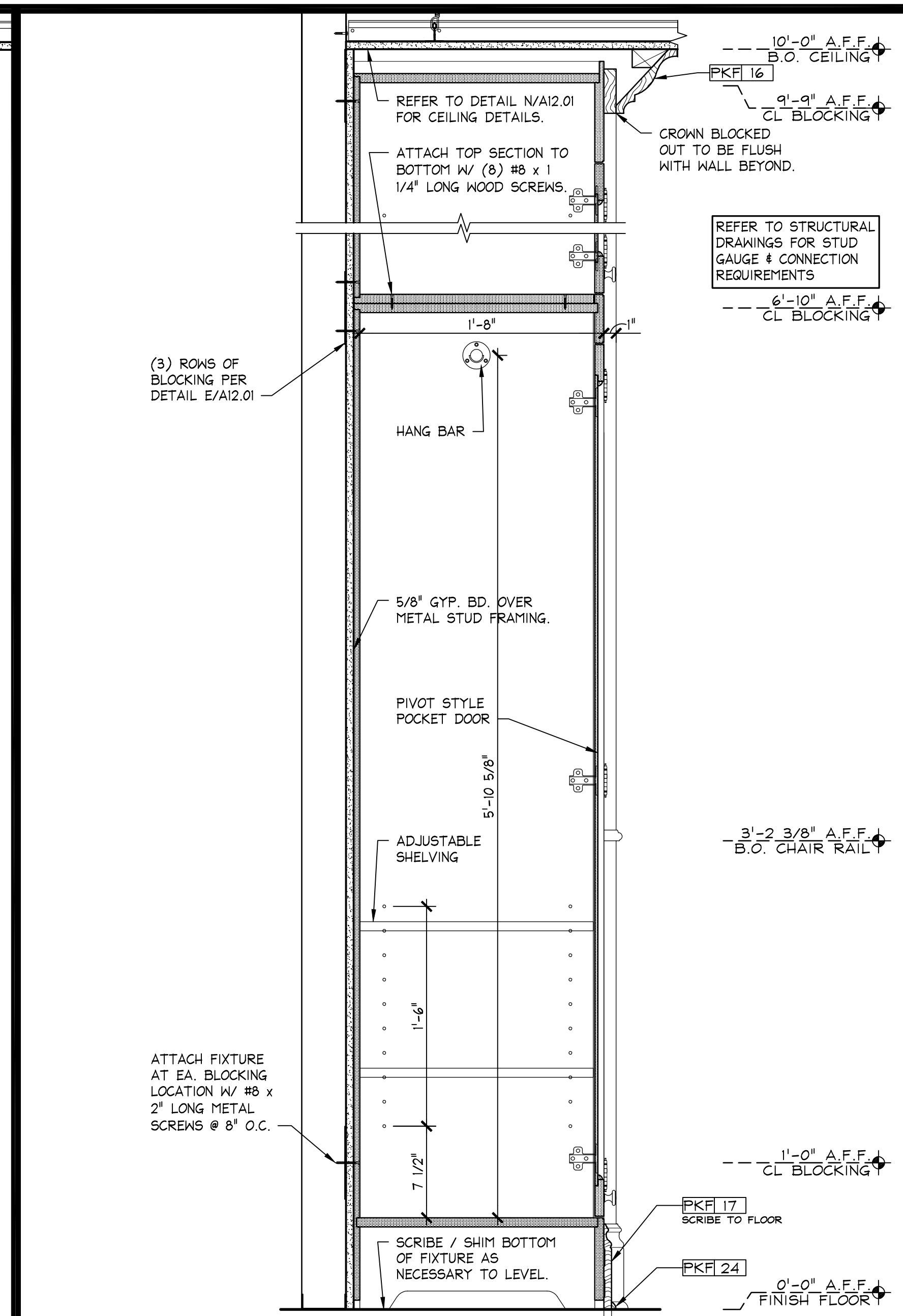
OUTFITTING CENTER VERTICAL SECTION

1 1/2" = 1'-0"

OSD-A1007-K00-DET1

01/12/12

L



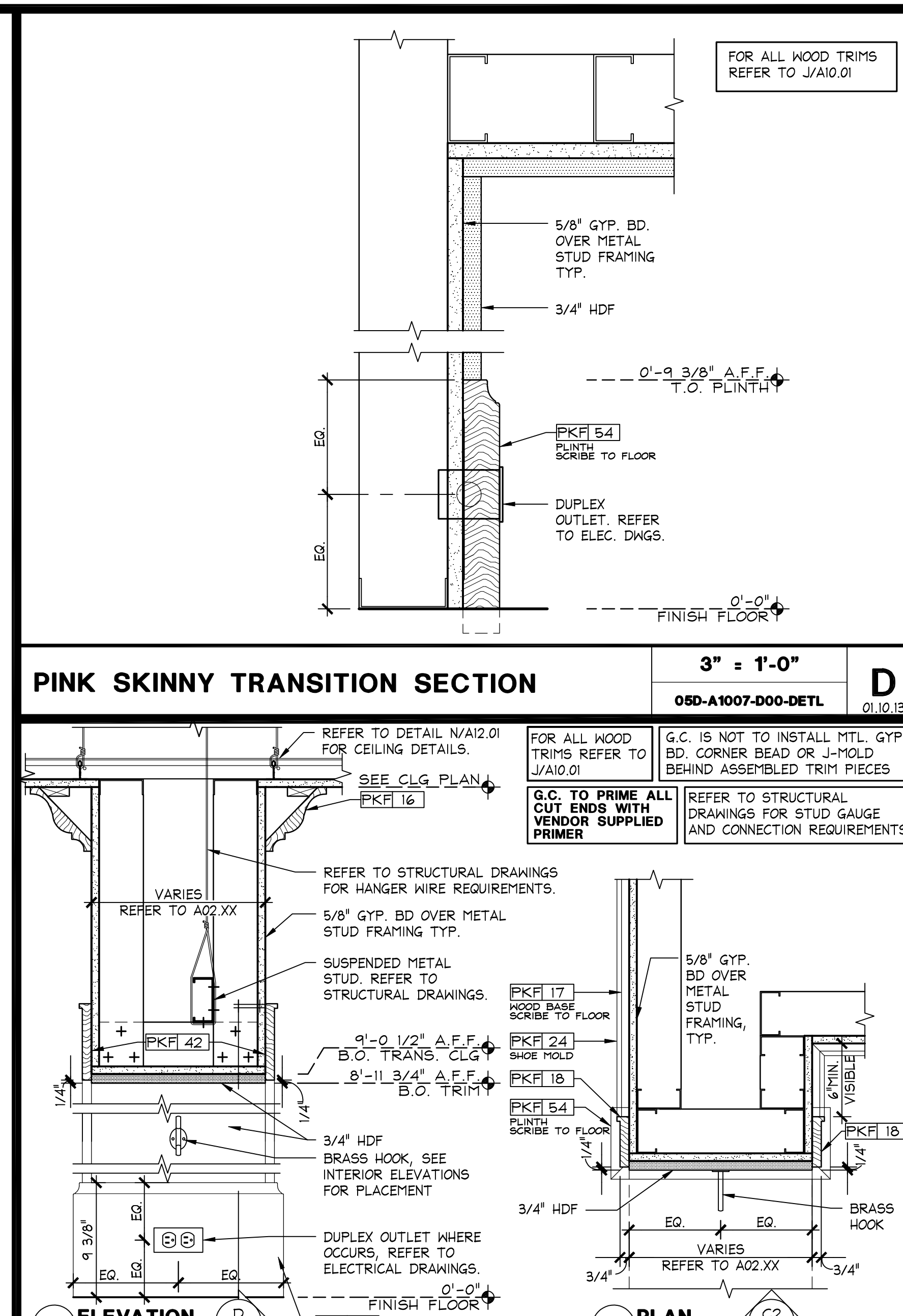
GO BACK CLOSET VERTICAL SECTION

1 1/2" = 1'-0"

OSD-A1007-G00-DET1

10/15/12

G



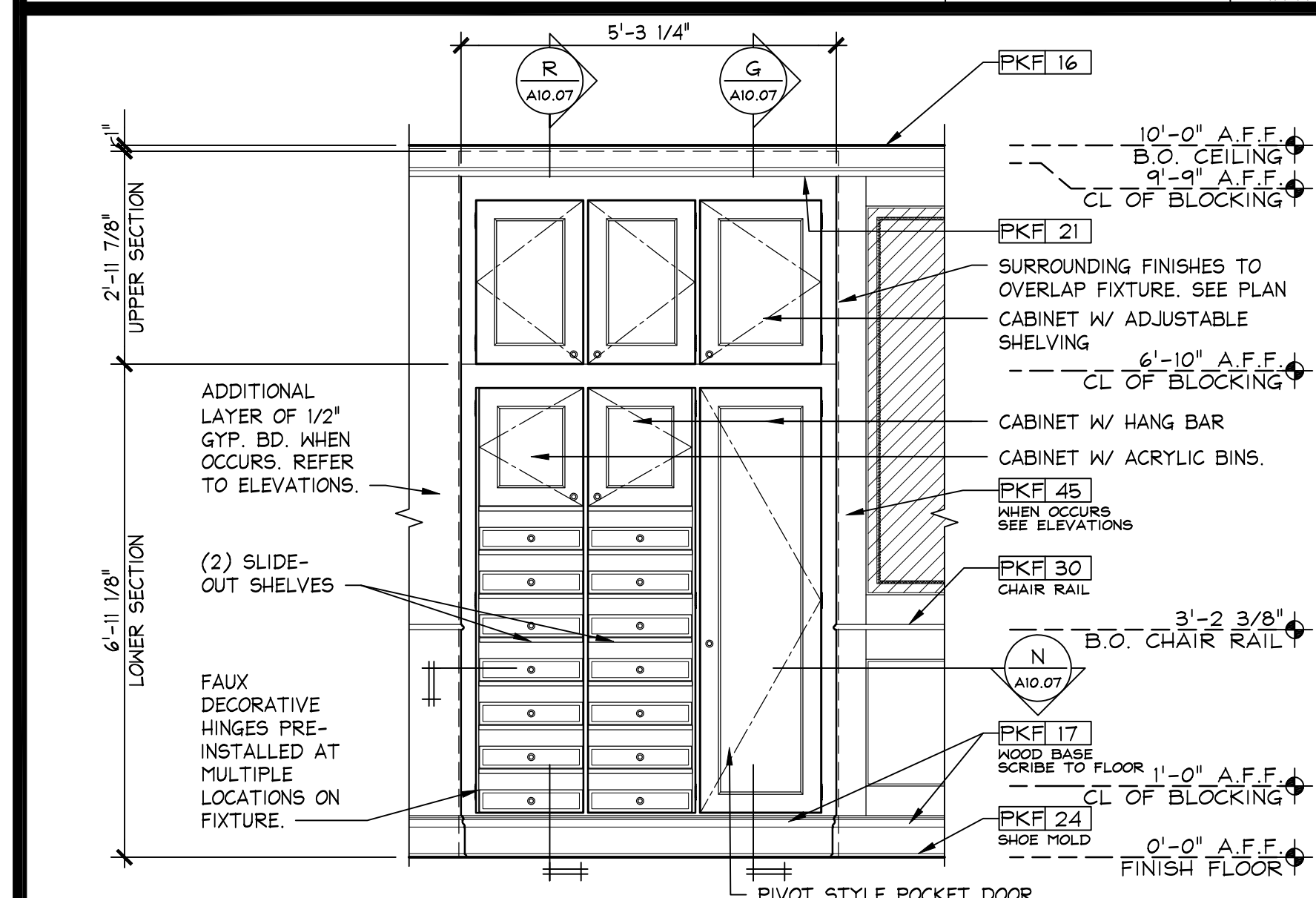
PINK SKINNY TRANSITION

1 1/2" = 1'-0"

OSD-A1007-C00-DET1

01/10/13

C



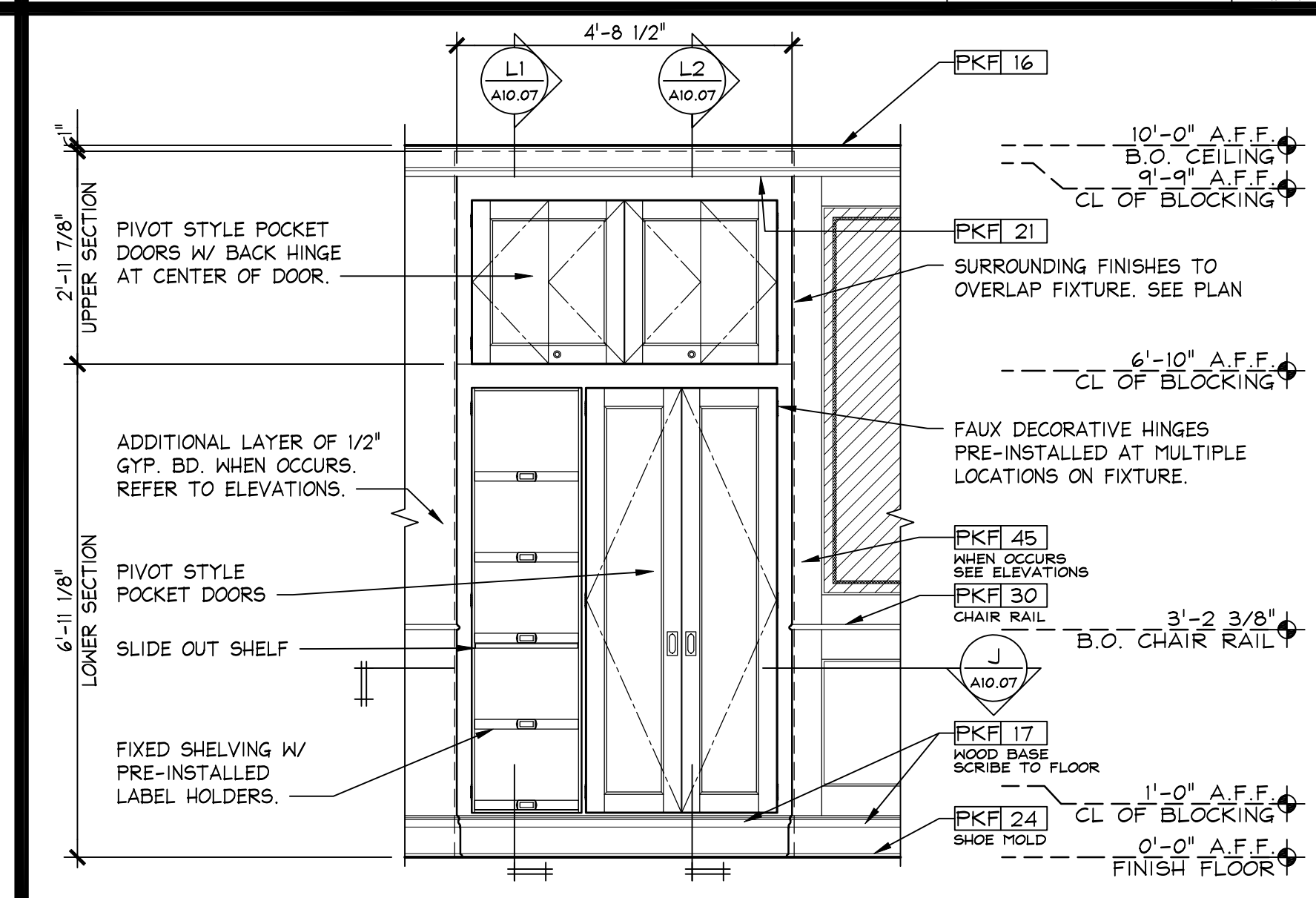
SMALL BUILT-IN BRA WARDROBER WITH GO BACK CLOSET ELEVATION

1/2" = 1'-0"

OSD-A1007-P01-DET1

01/10/13

P



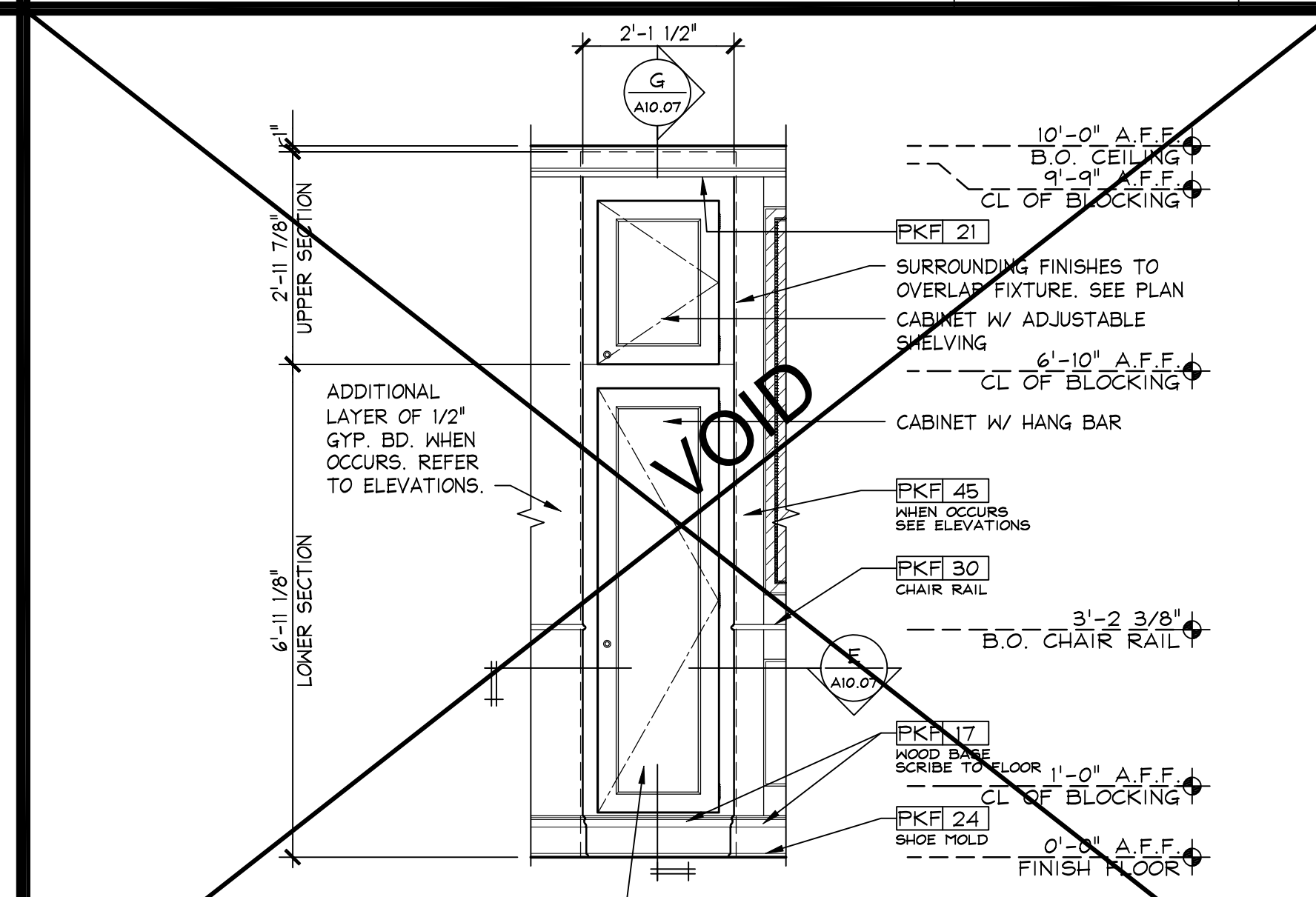
OUTFITTING CENTER ELEVATION DETAIL

1/2" = 1'-0"

OSD-A1007-K00-DET1

01/10/13

K



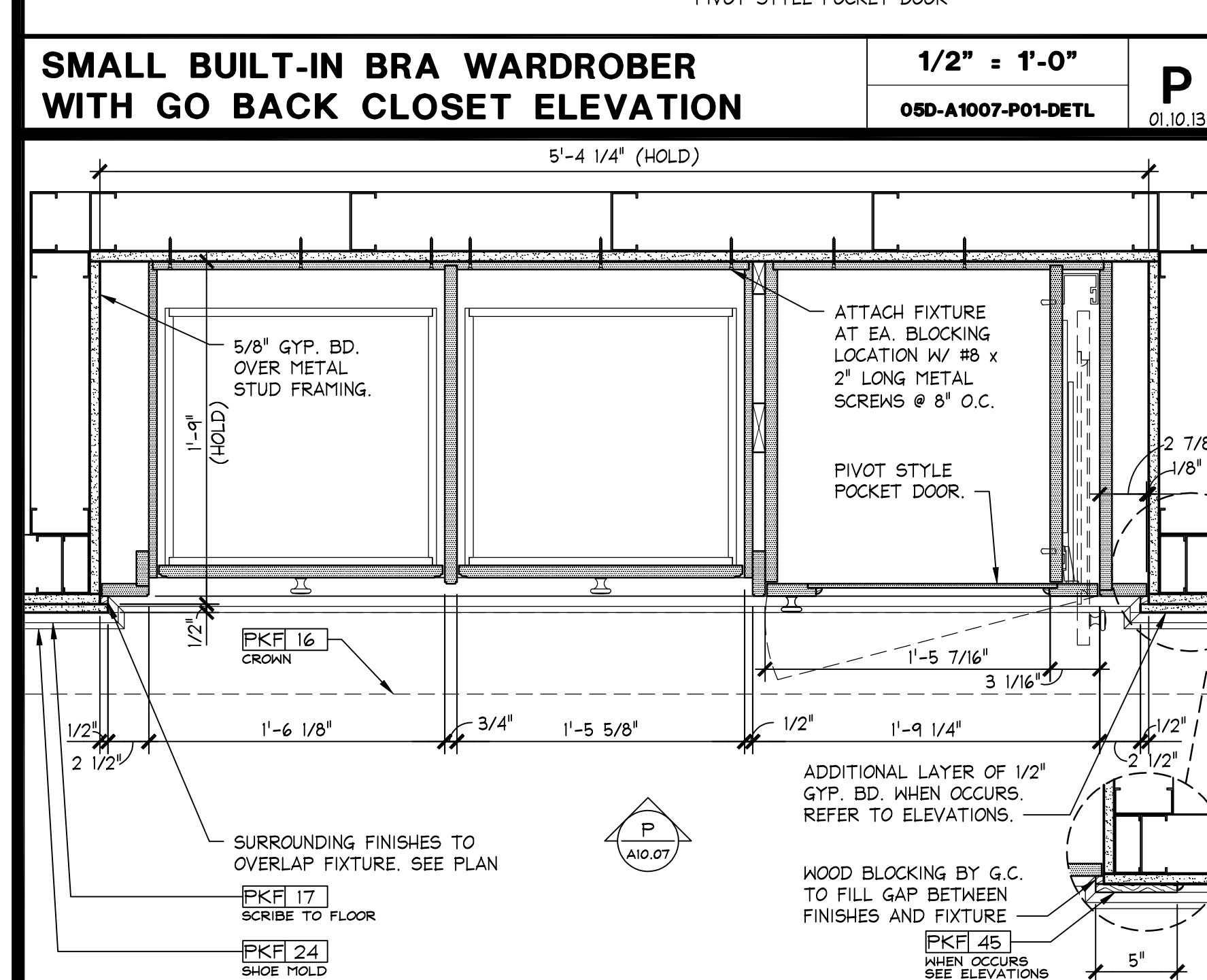
GO BACK CLOSET ELEVATION DETAIL

1/2" = 1'-0"

OSD-A1007-F00-DET1

01/10/13

F



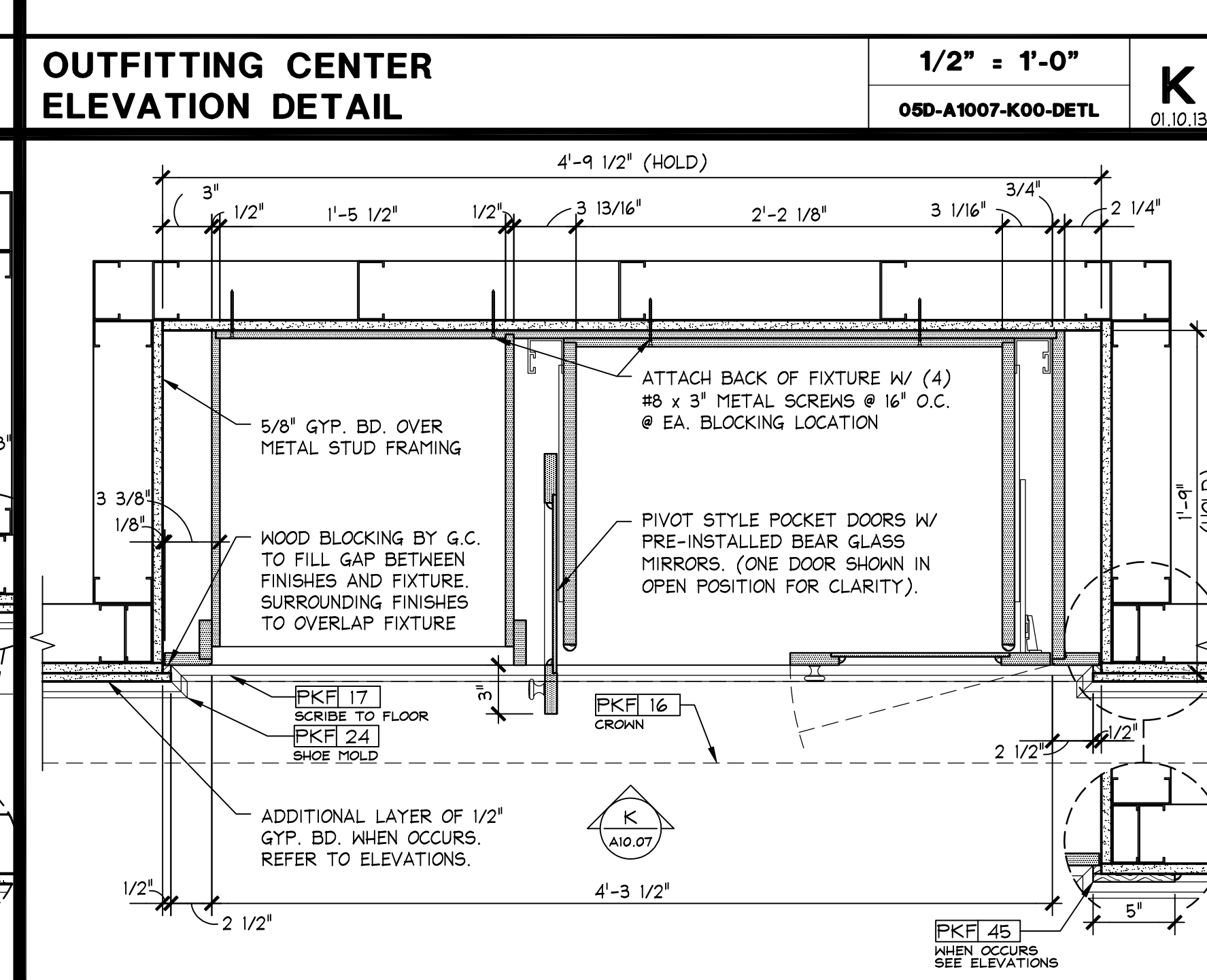
SMALL BUILT-IN BRA WARDROBER WITH GO BACK CLOSET PLAN SECTION

1 1/2" = 1'-0"

OSD-A1007-N01-DET1

01/12/12

N



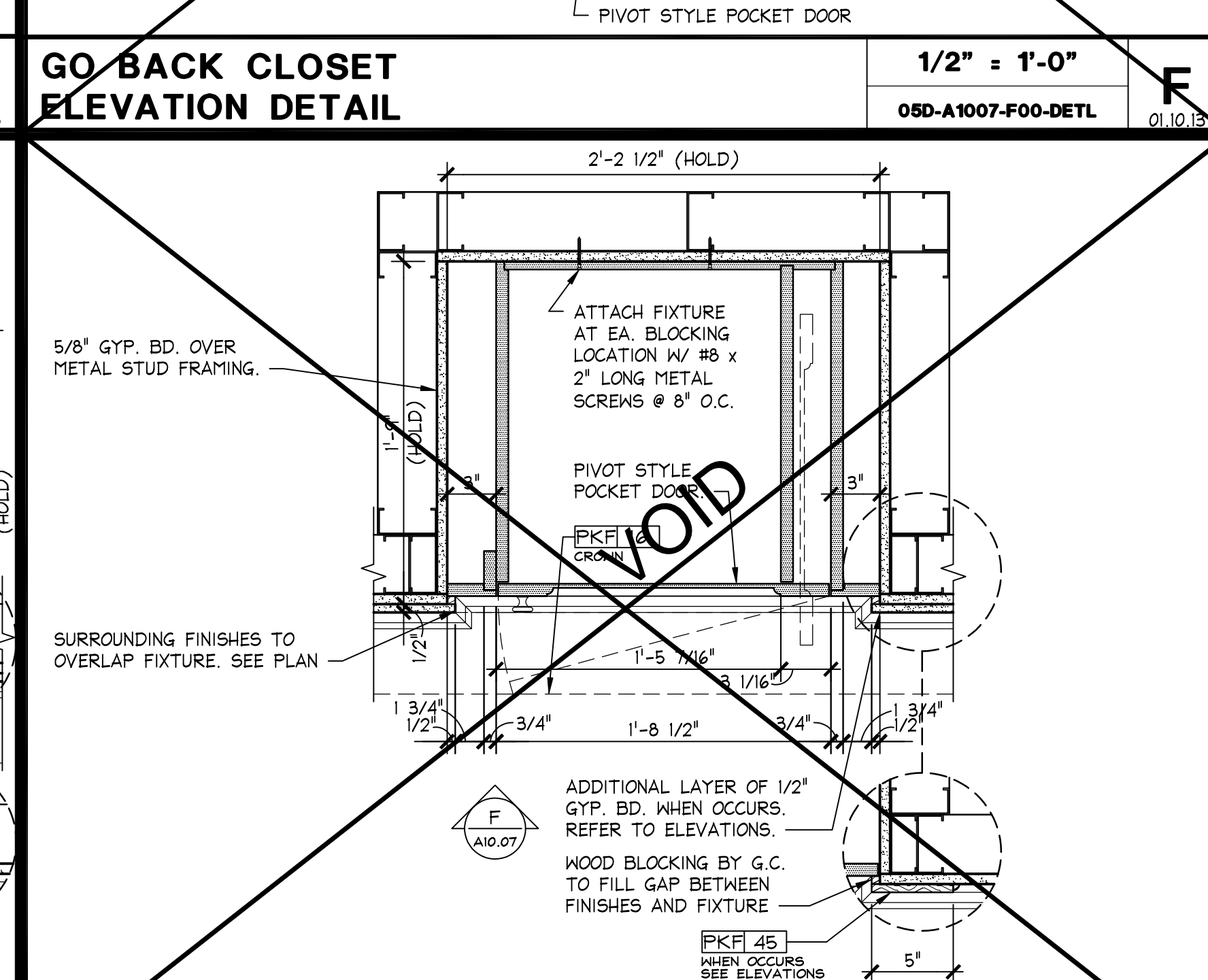
OUTFITTING CENTER PLAN SECTION

1 1/2" = 1'-0"

OSD-A1007-J00-DET1

01/12/12

J



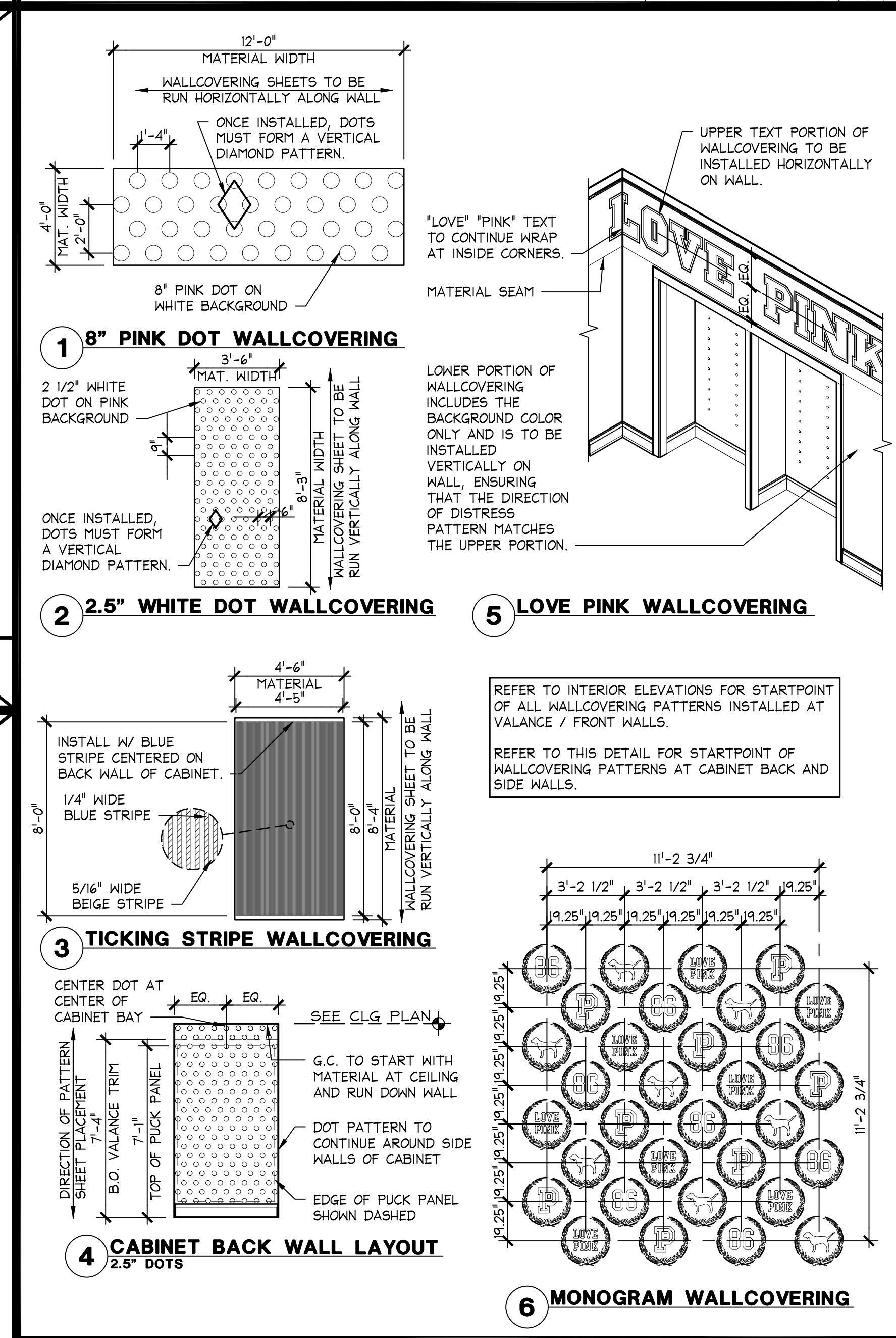
GO BACK CLOSET PLAN SECTION

1 1/2" = 1'-0"

OSD-A1007-E00-DET1

10/15/12

E



PINK WALLCOVERING PATTERN DIAGRAMS

1/4" = 1'-0"

OSD-A1007-A00-DET1

01/10/13

A

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PINK VICTORIA'S SECRET

TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
JENSEN BEACH, FL 34957

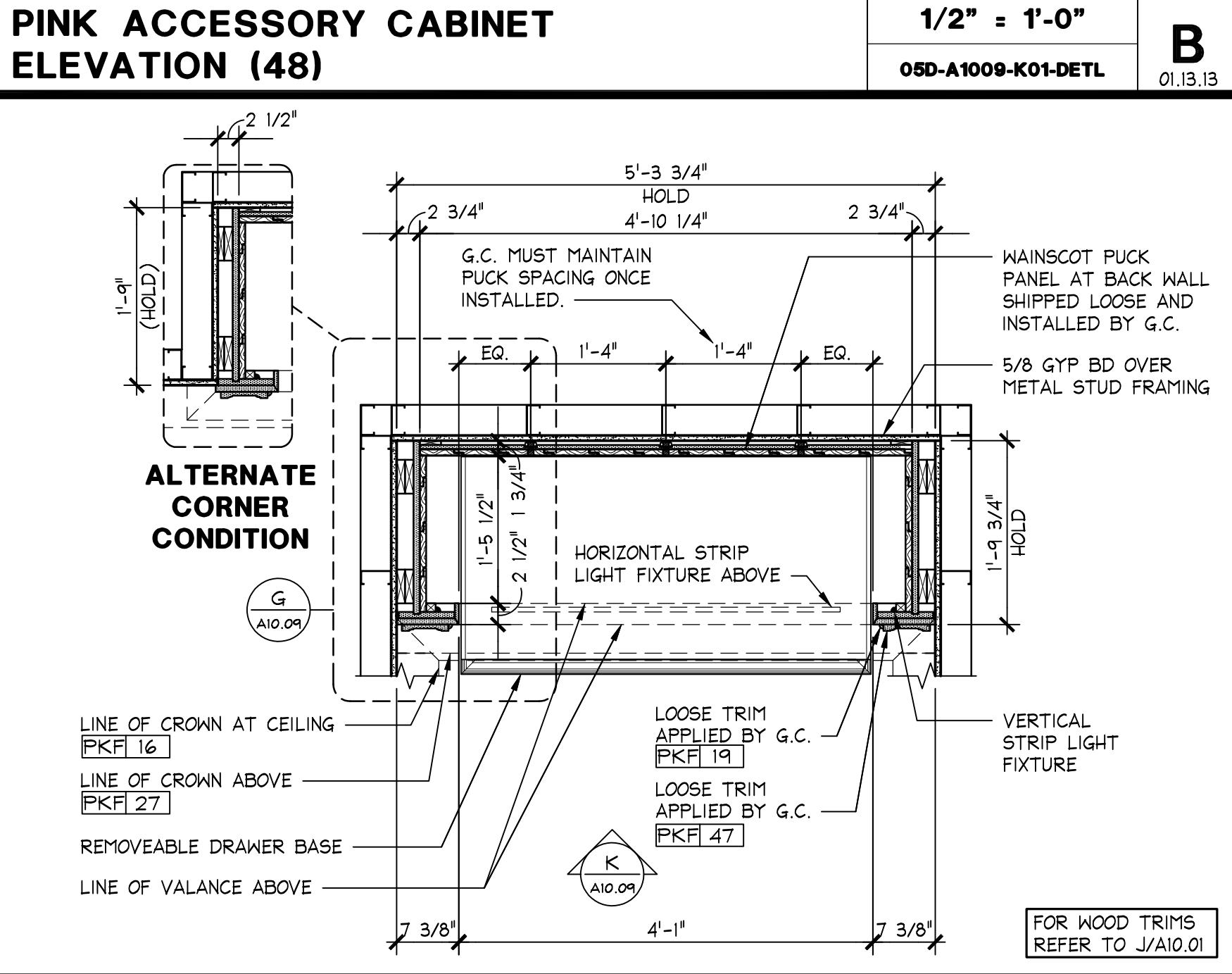
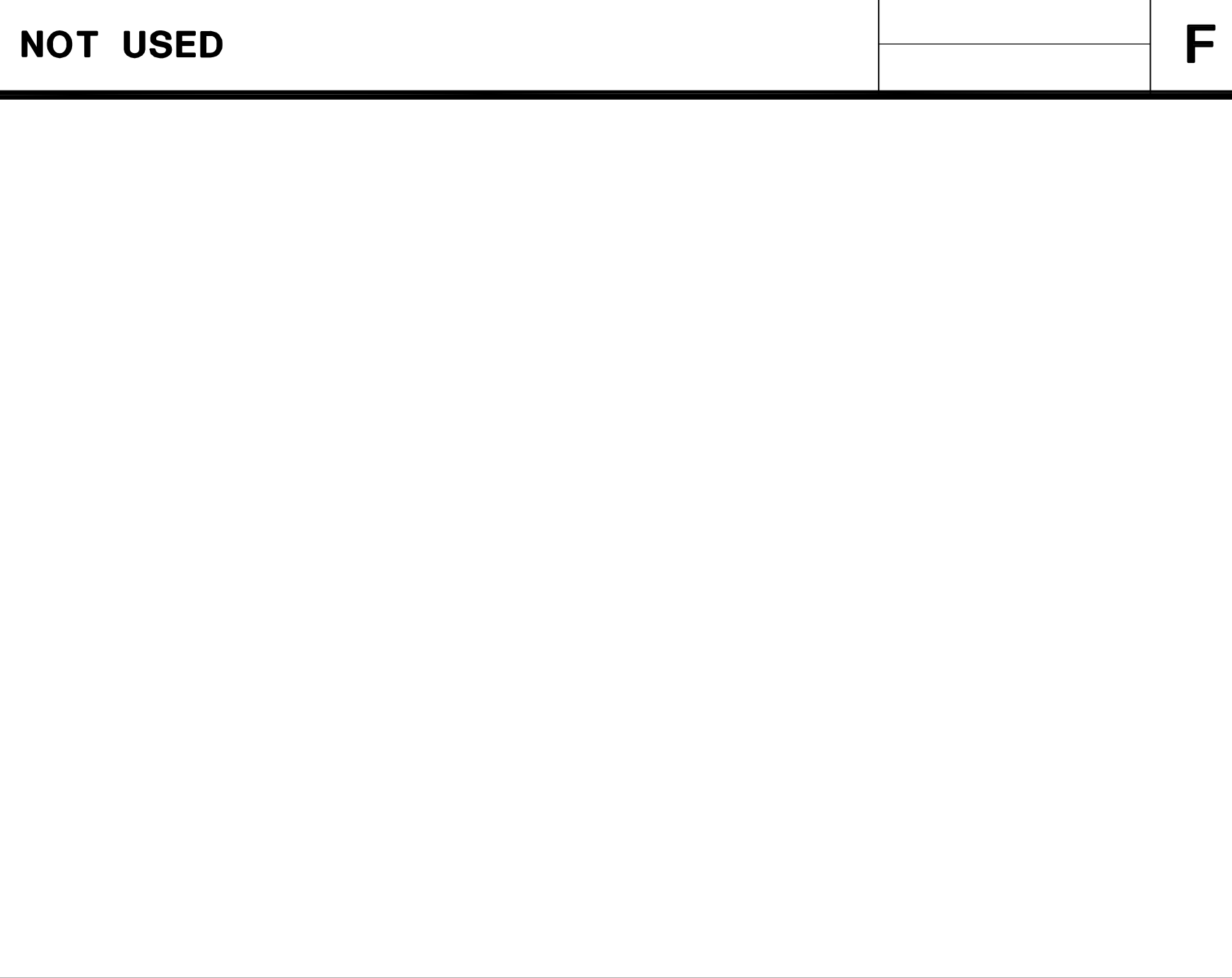
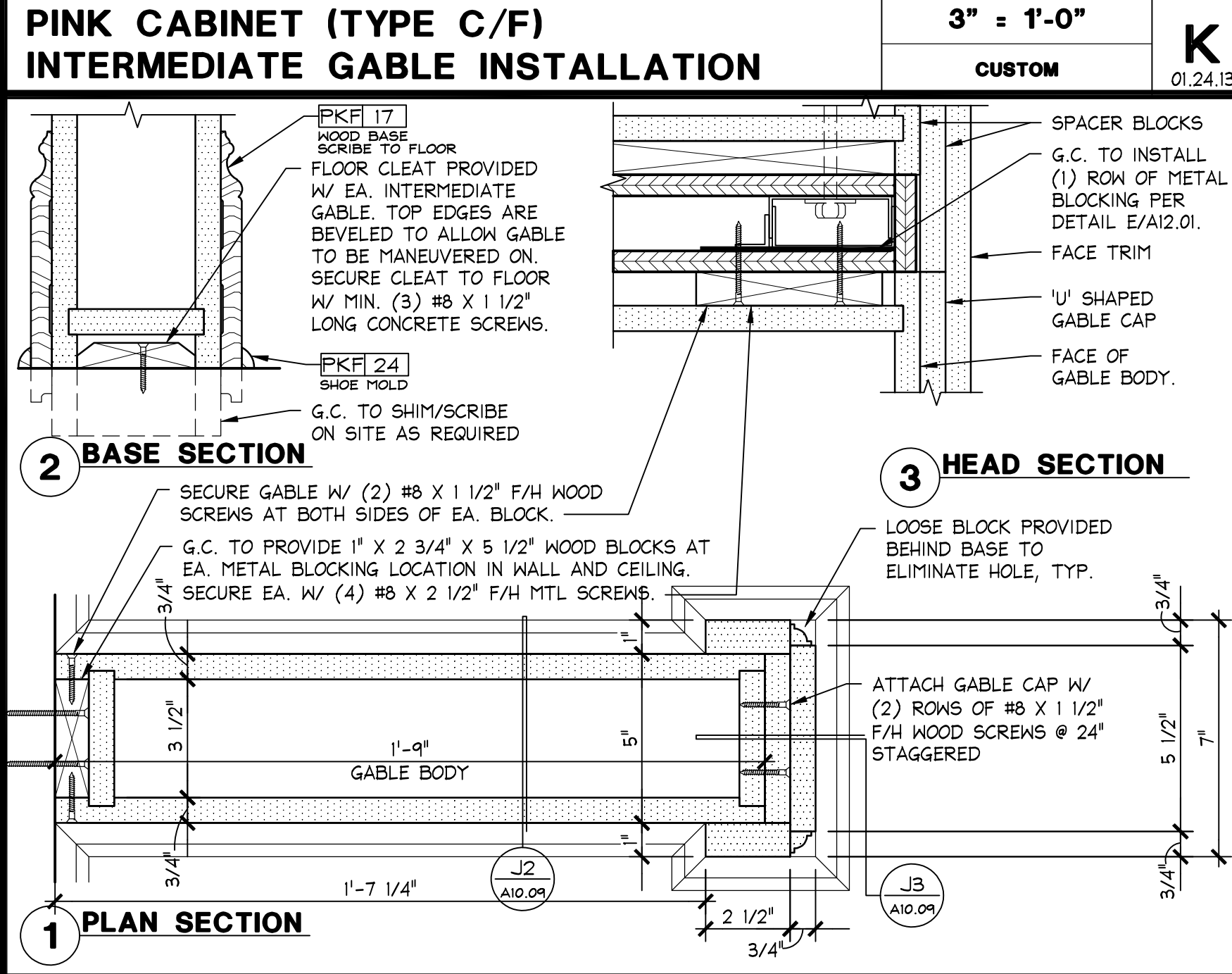
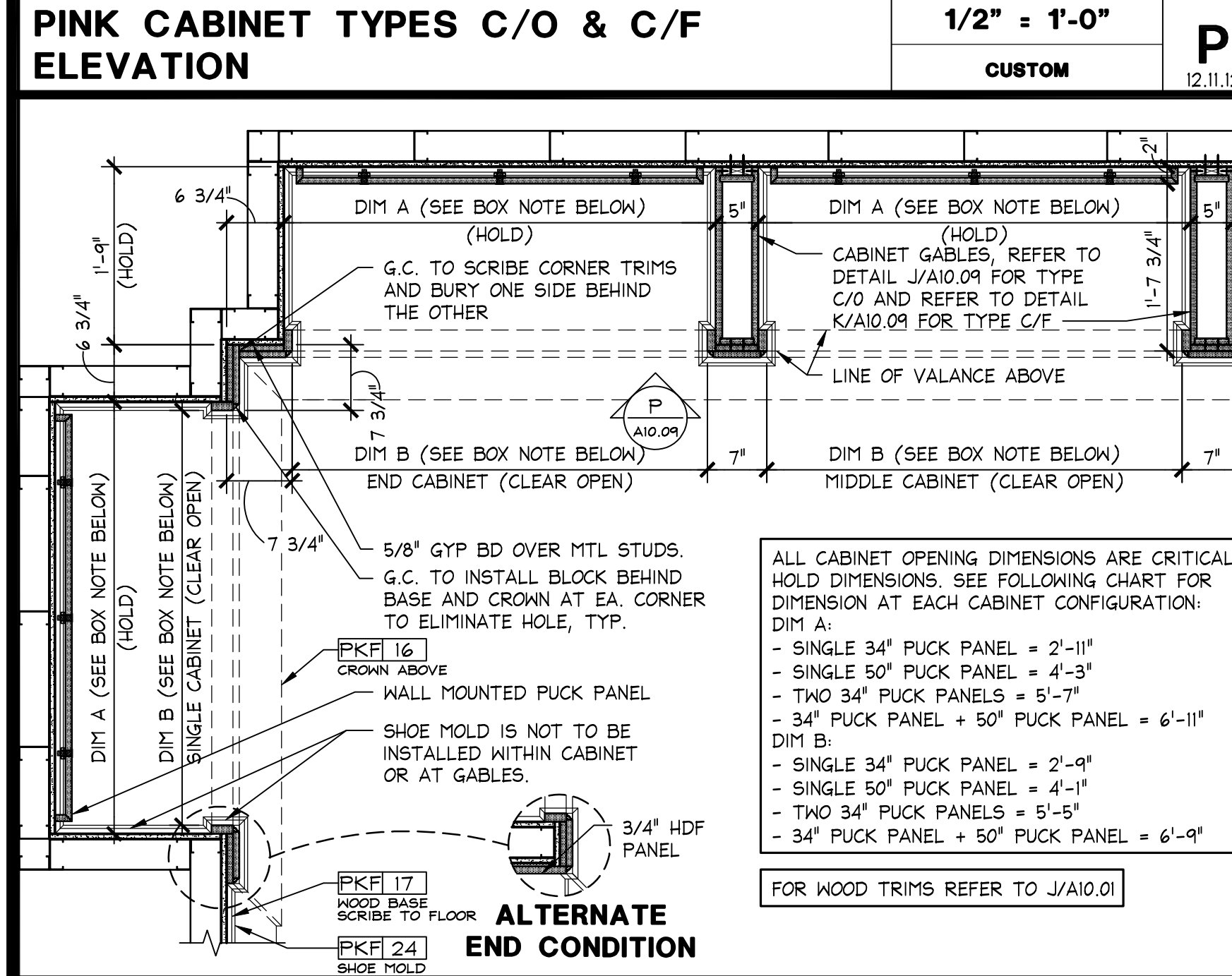
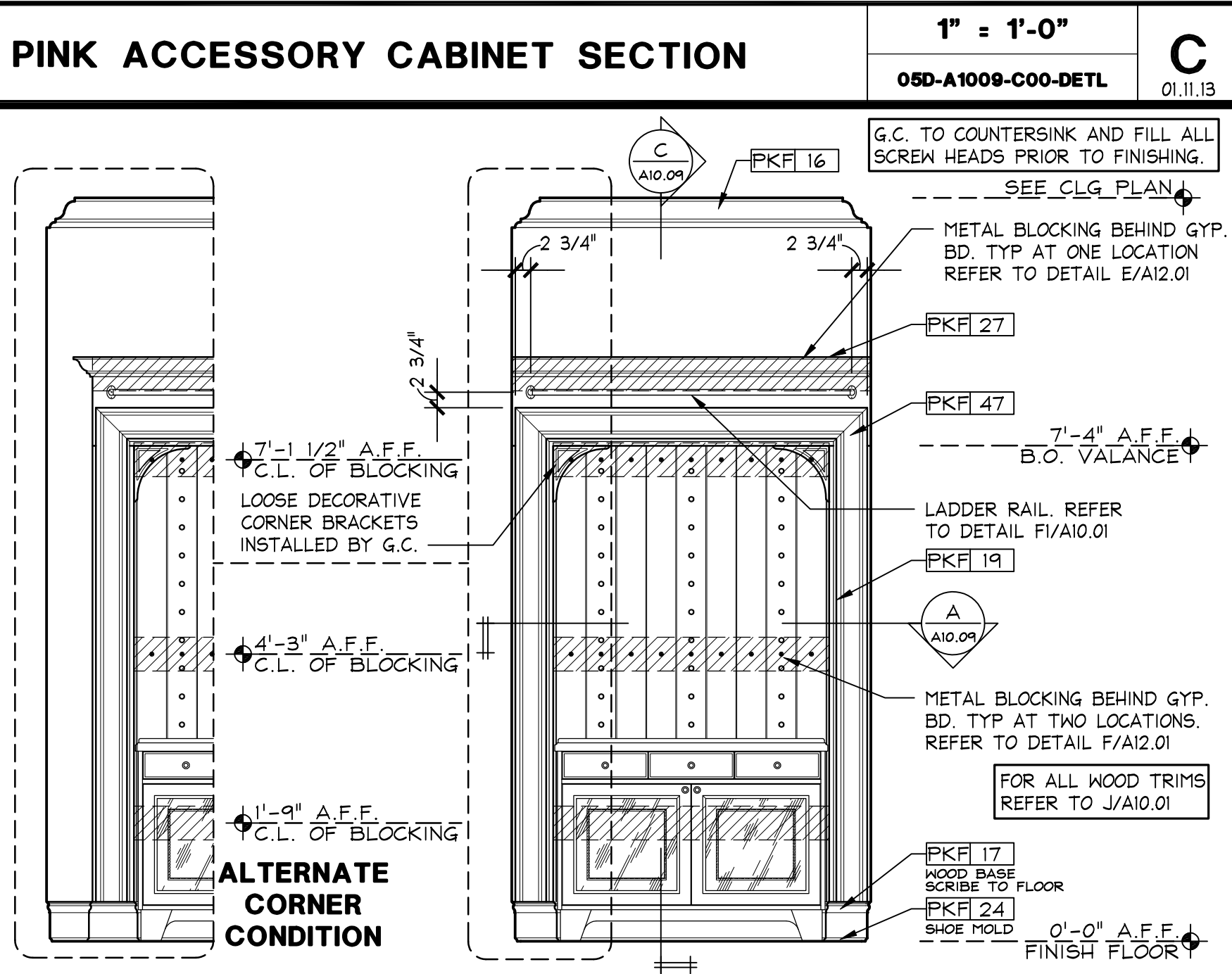
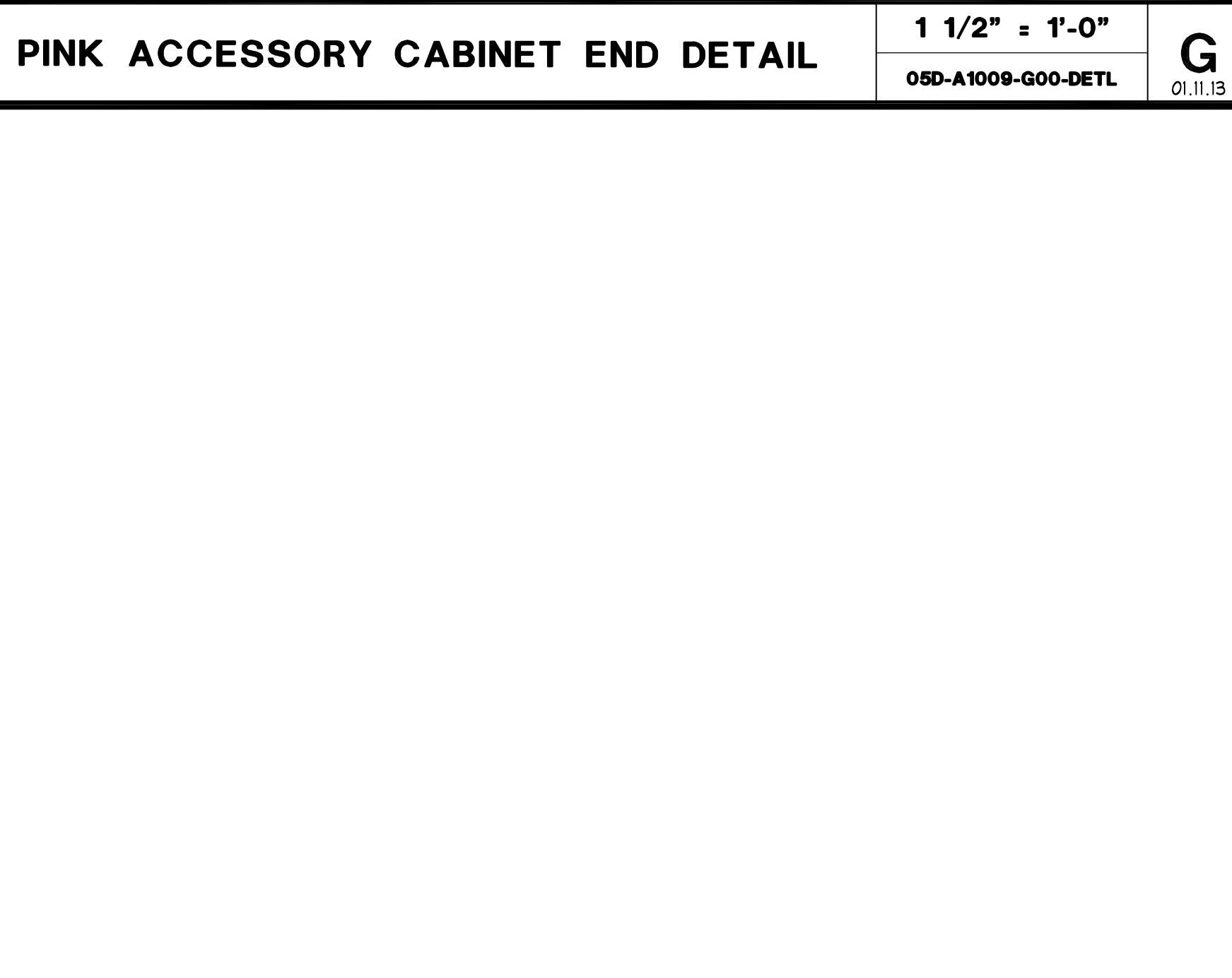
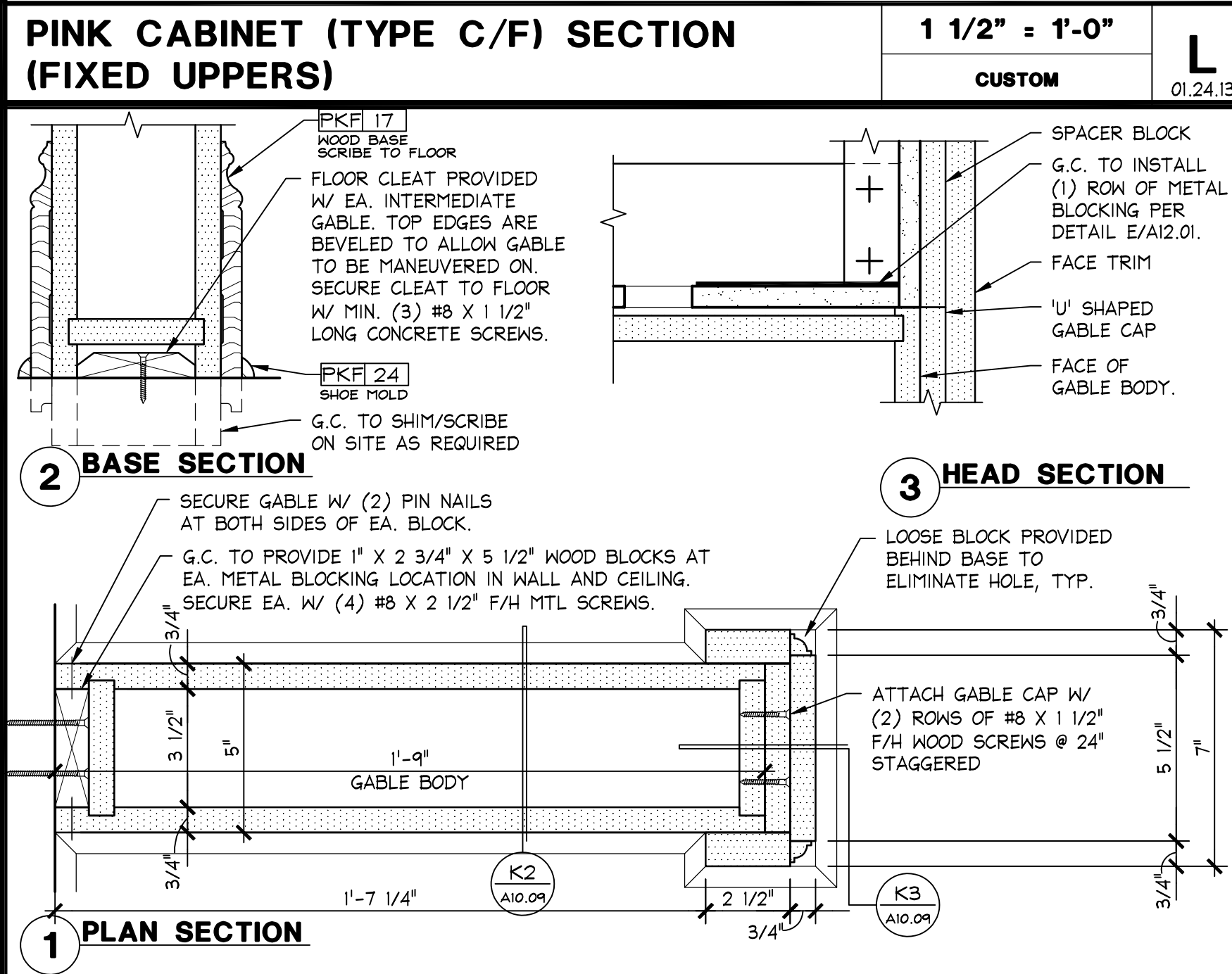
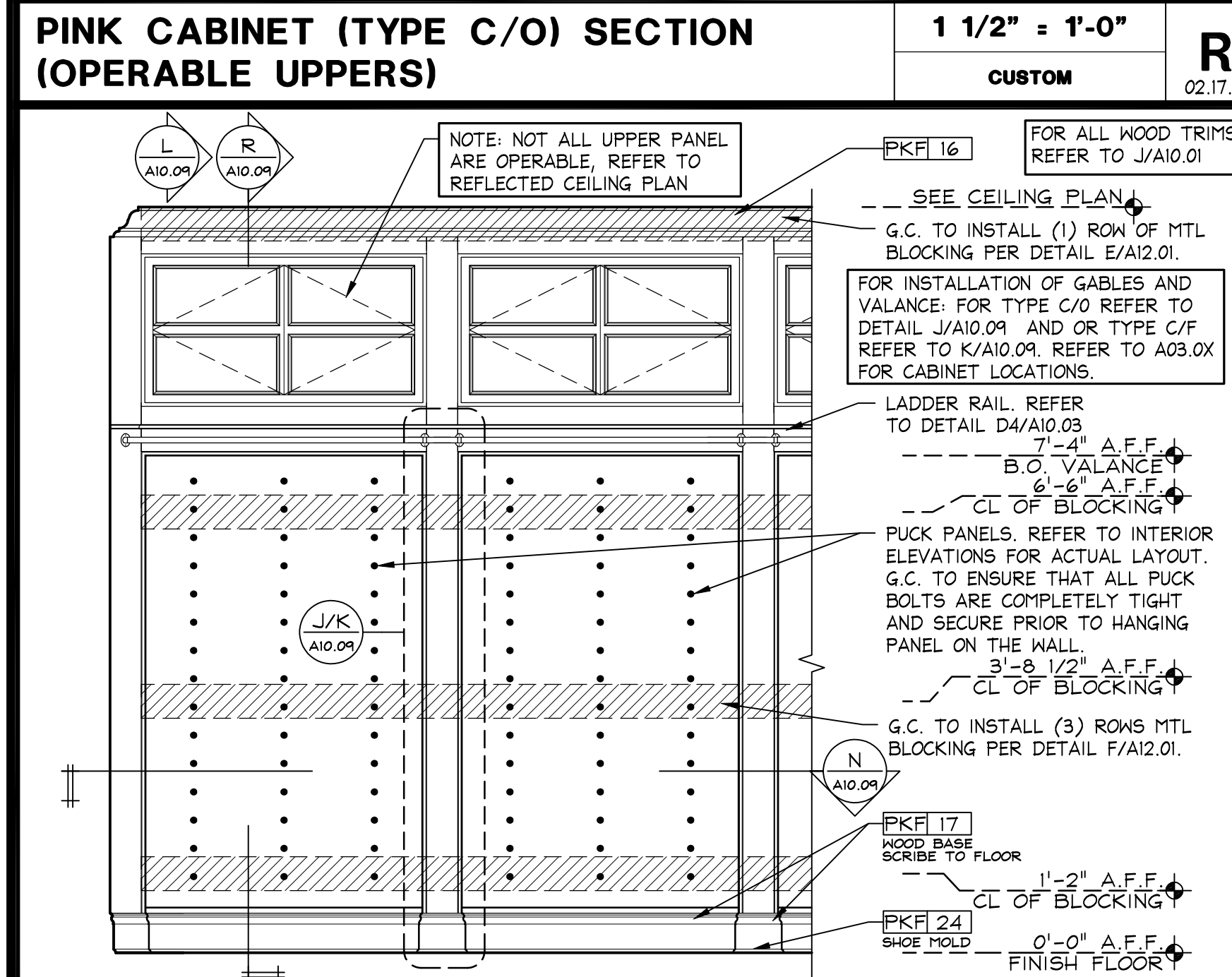
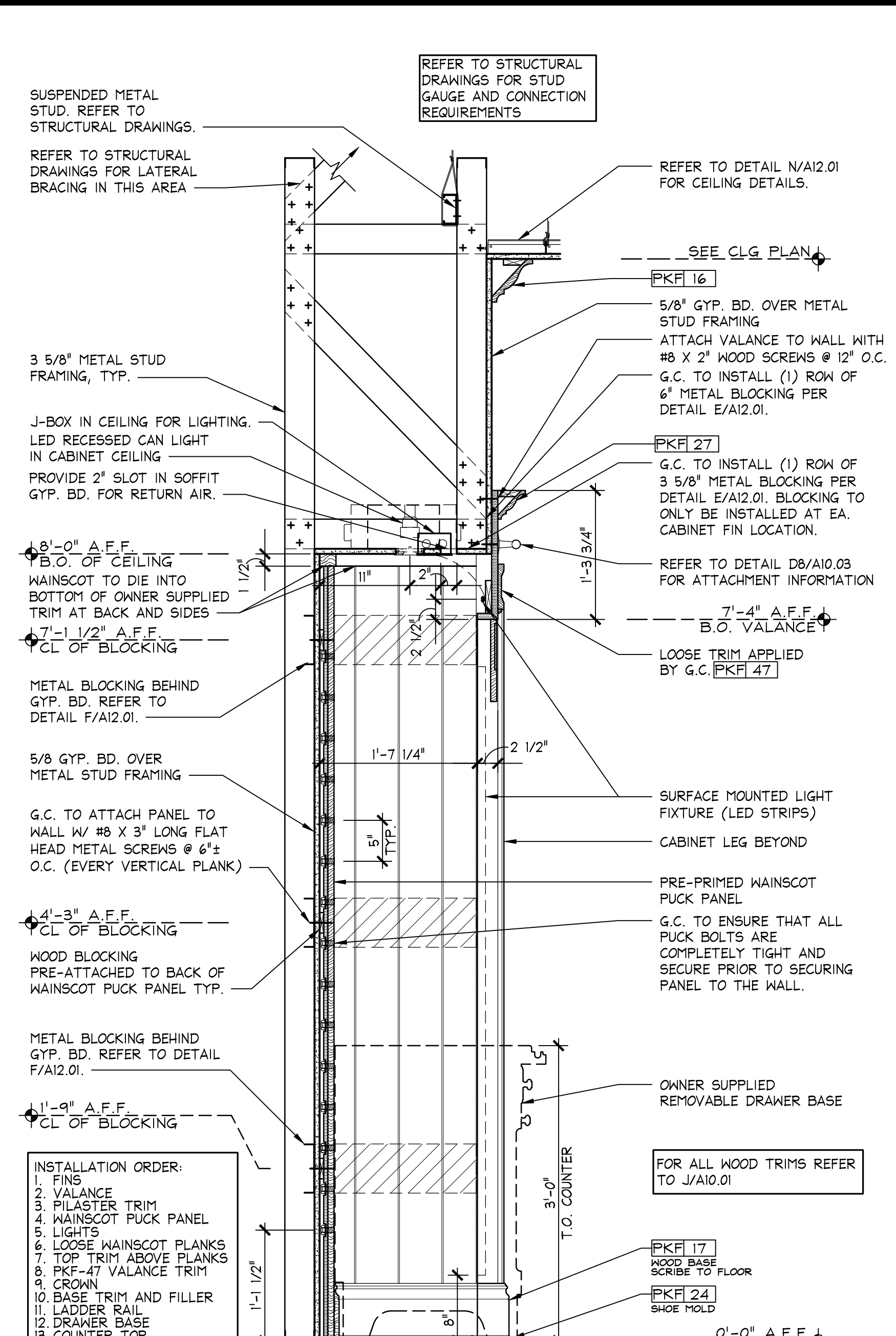
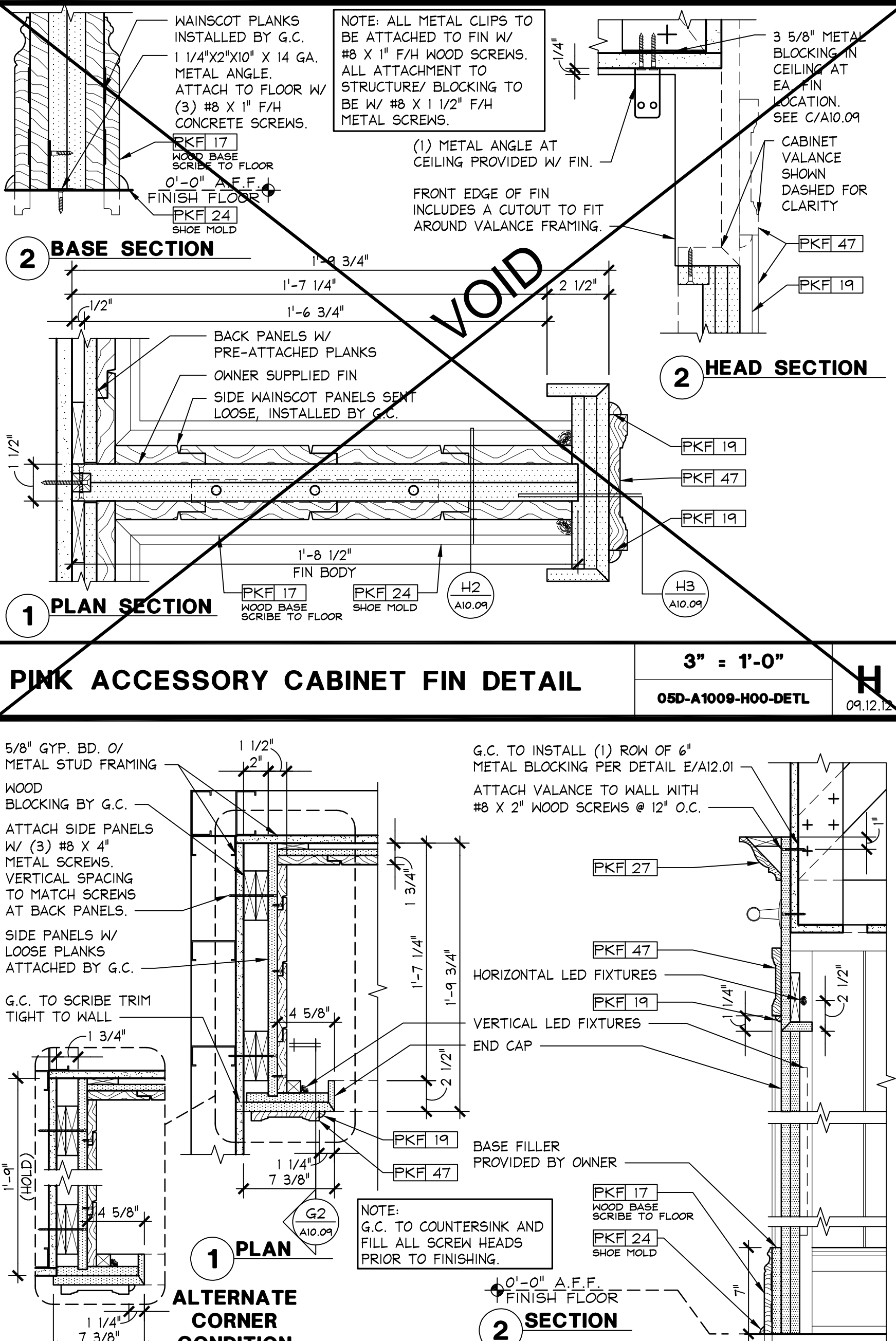
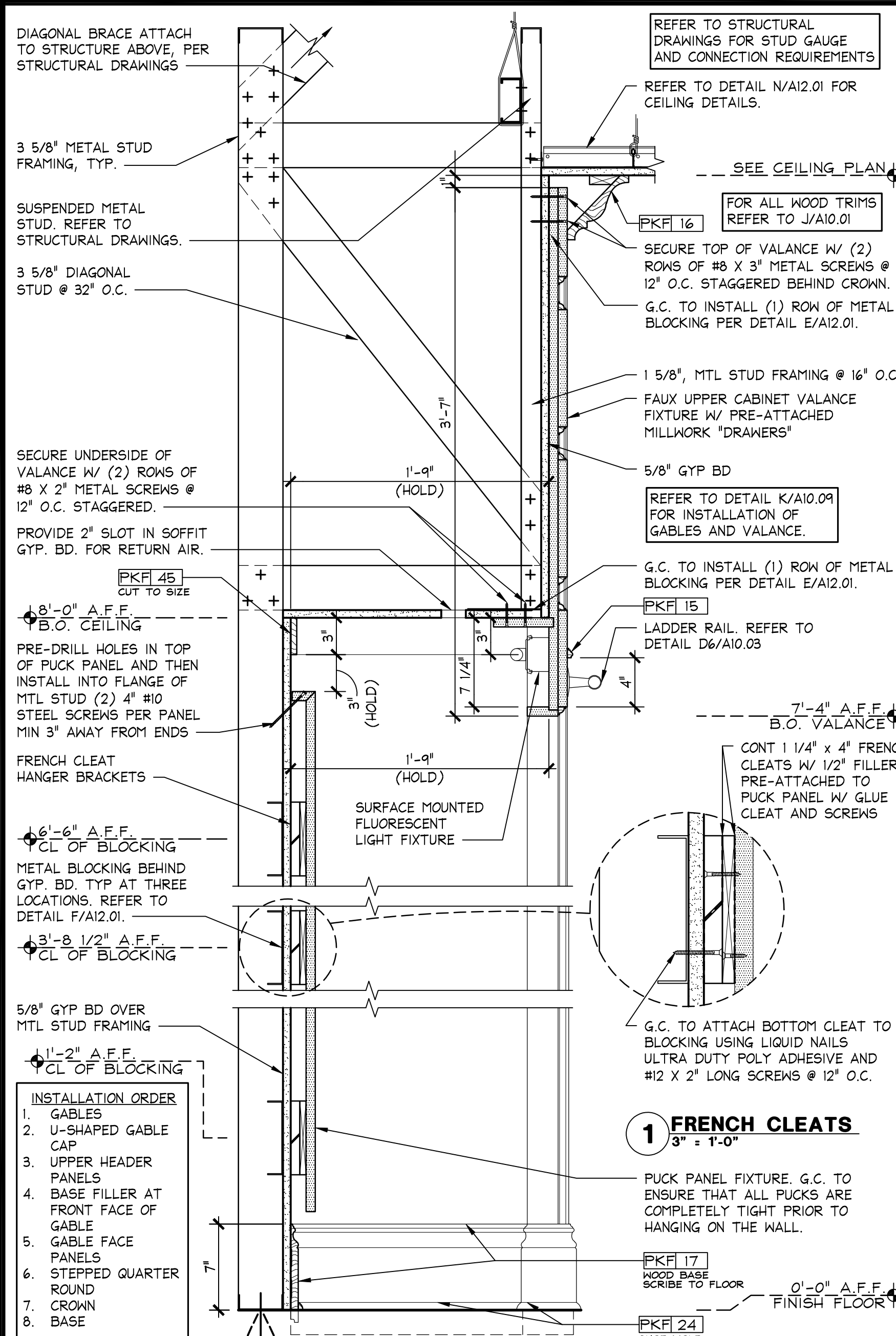
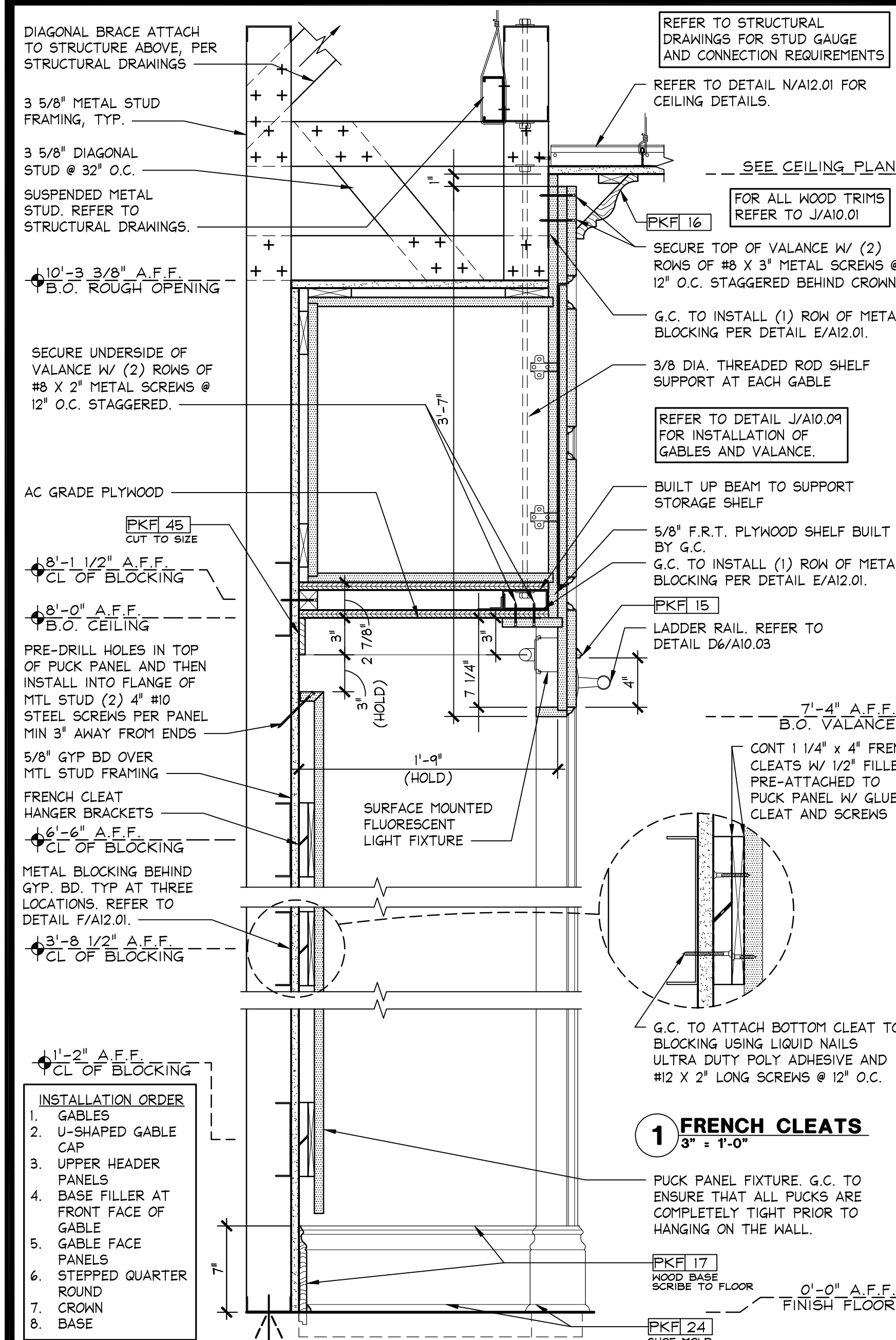
PROJECT INFORMATION:

REVISIONS:

DATE ISSUED: 03.29.13
DESIGNED BY: AL
DRAWN BY: JS
CHECKED BY: WD

PINK FITTING ROOM DETAILS

DRAWING NUMBER:
A10.07

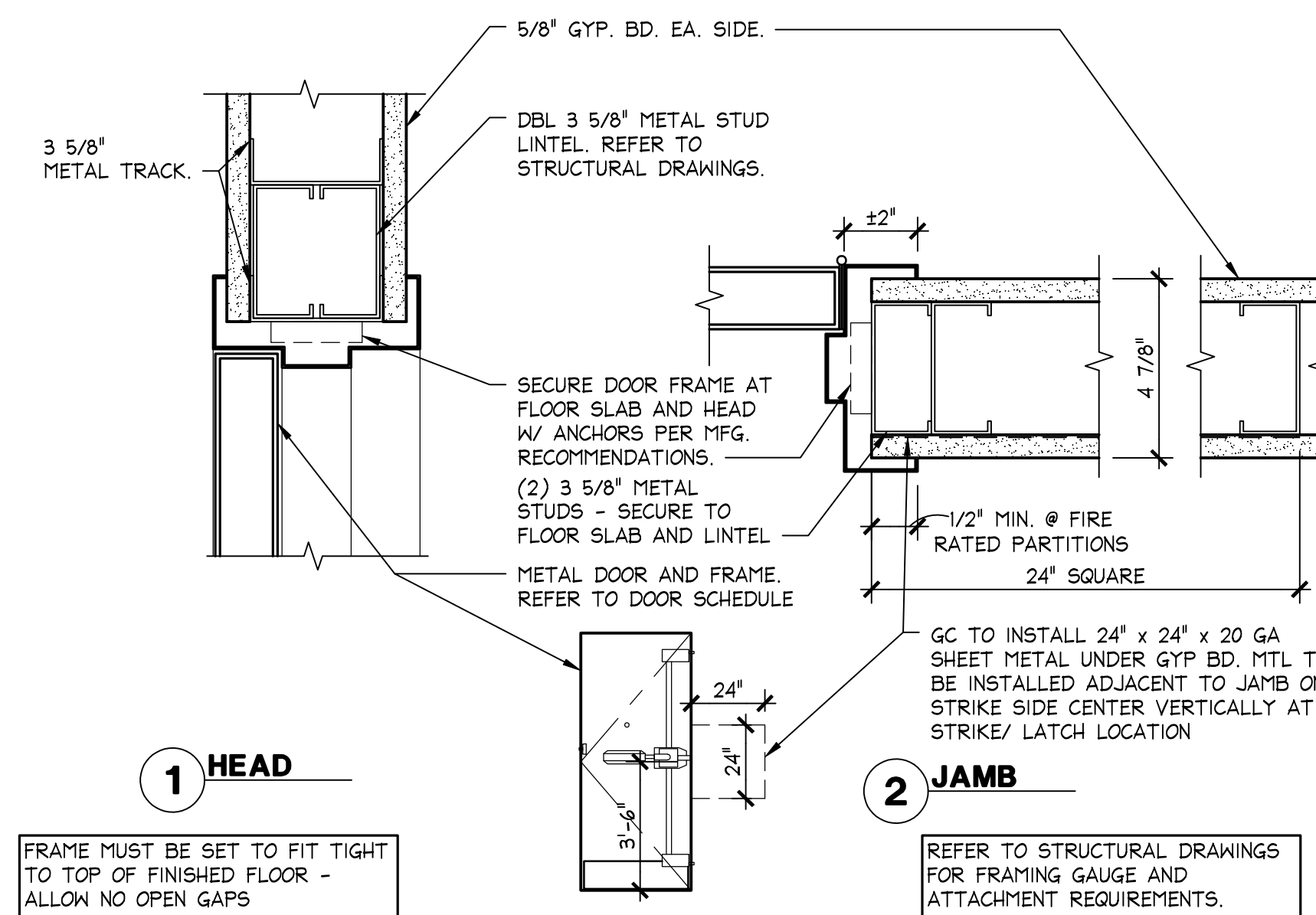


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PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
JENSEN BEACH, FL 34957
NEW PACKAGE: PINK
NEW GENERATION: 00057884
DATE PROJECT: 201206790

PROJECT INFORMATION:
REVISIONS:
DATE ISSUED: 03.29.13
DESIGNED BY: AL
DRAWN BY: JS
CHECKED BY: WD
PINK CONSTRUCTION DETAILS
DRAWING NUMBER: **A10.09**



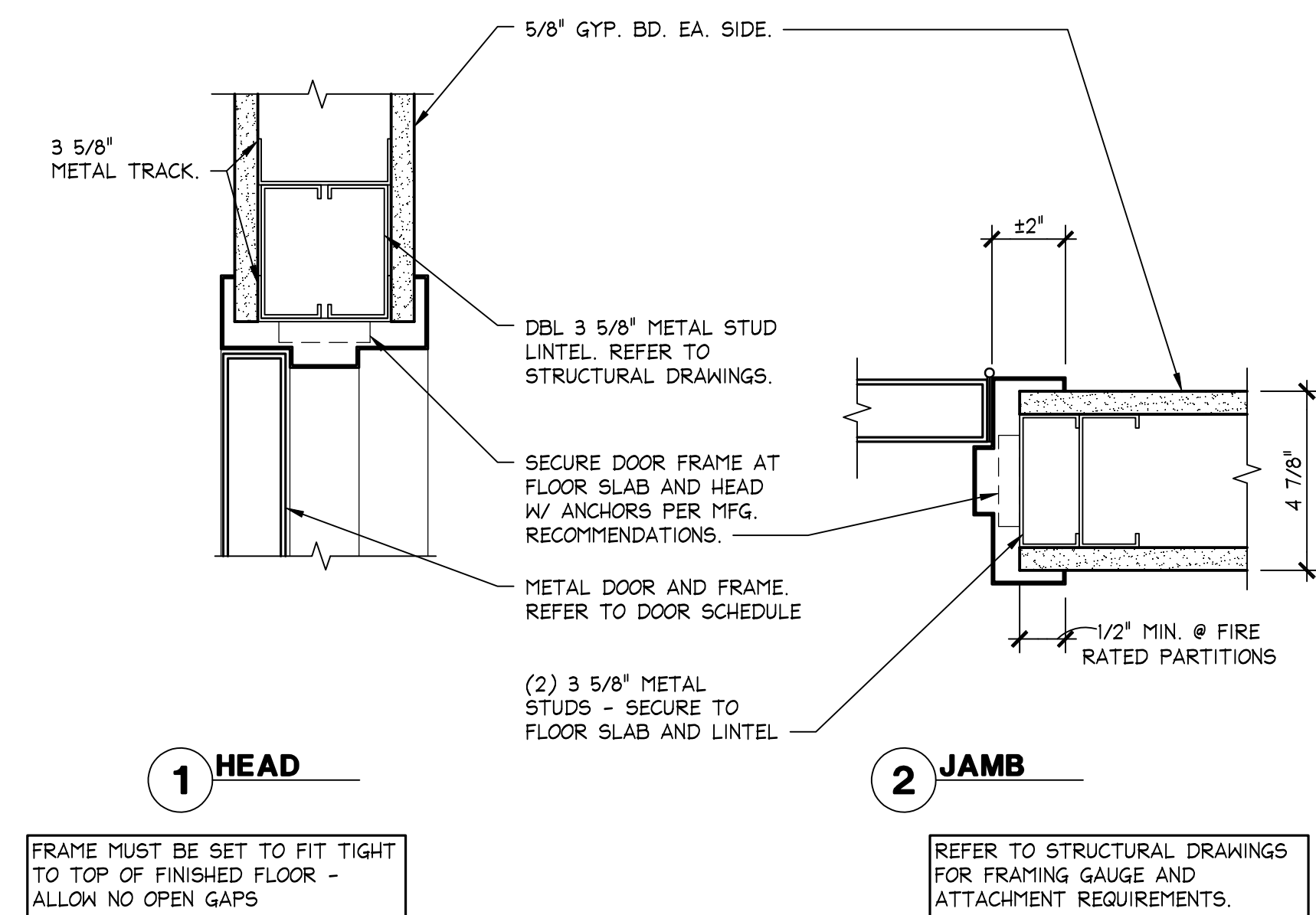
SERVICE DOOR JAMB / HEAD DETAIL

3" = 1'-0"

05D-A1202-H00-DETL

H

08.14.12



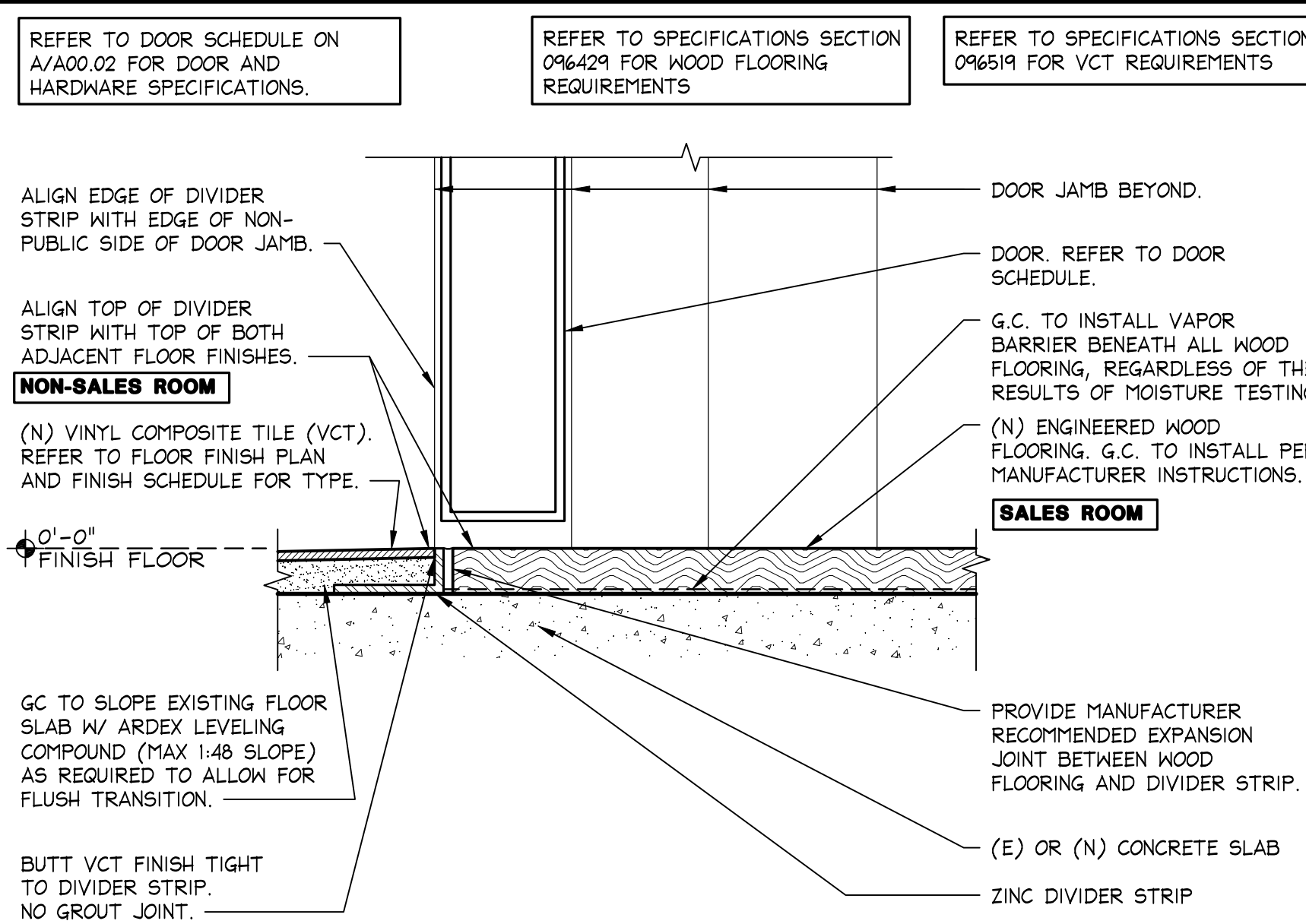
TYPICAL DOOR JAMB / HEAD DETAIL

3" = 1'-0"

05D-A1202-D00-DETL

D

08.14.12



VCT TO WOOD TRANSITION

6" = 1'-0"

05D-A1202-Q00-DETL

G

08.14.12



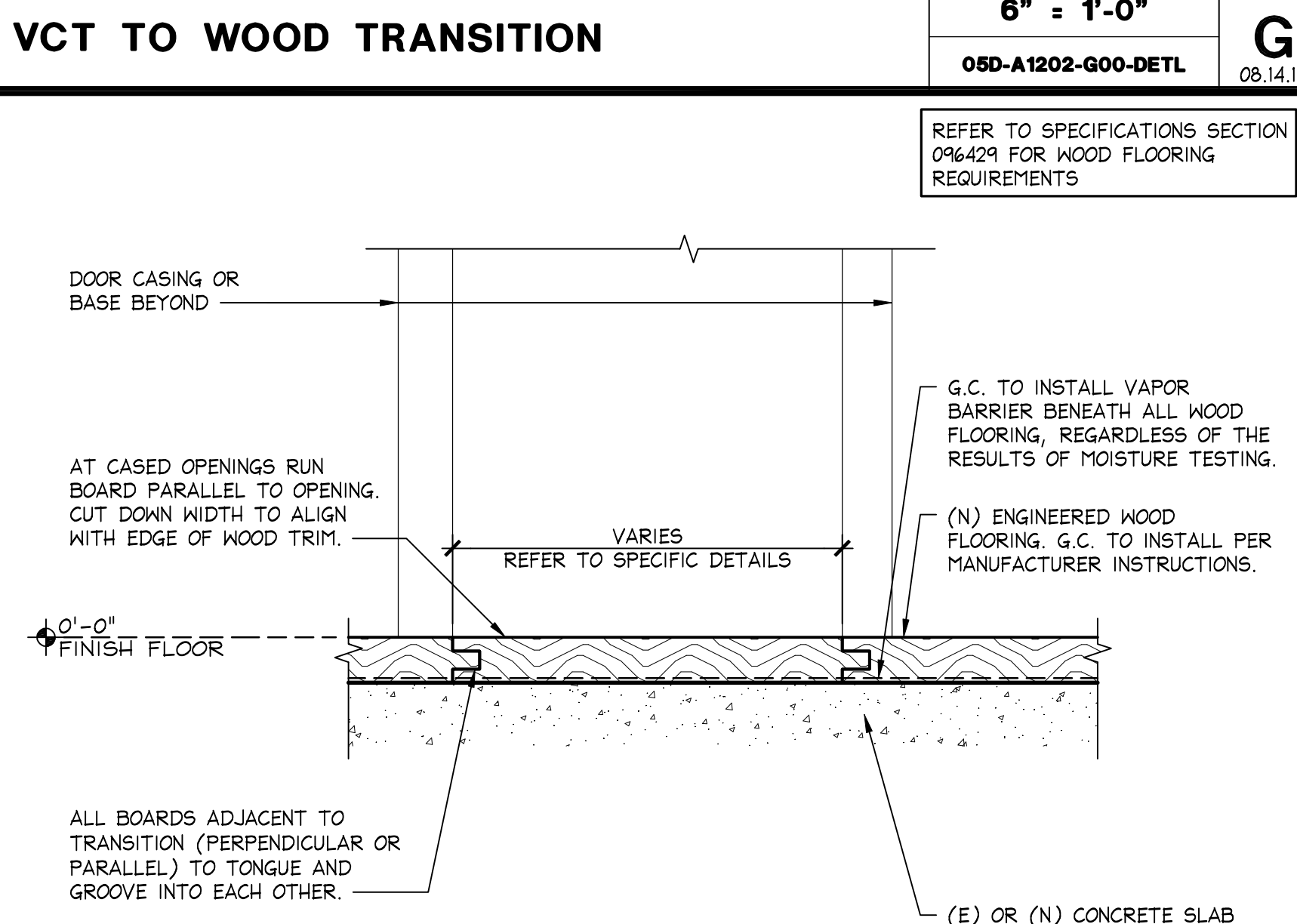
VCT TO CONCRETE TRANSITION

6" = 1'-0"

05D-A1202-K00-DETL

K

08.14.12



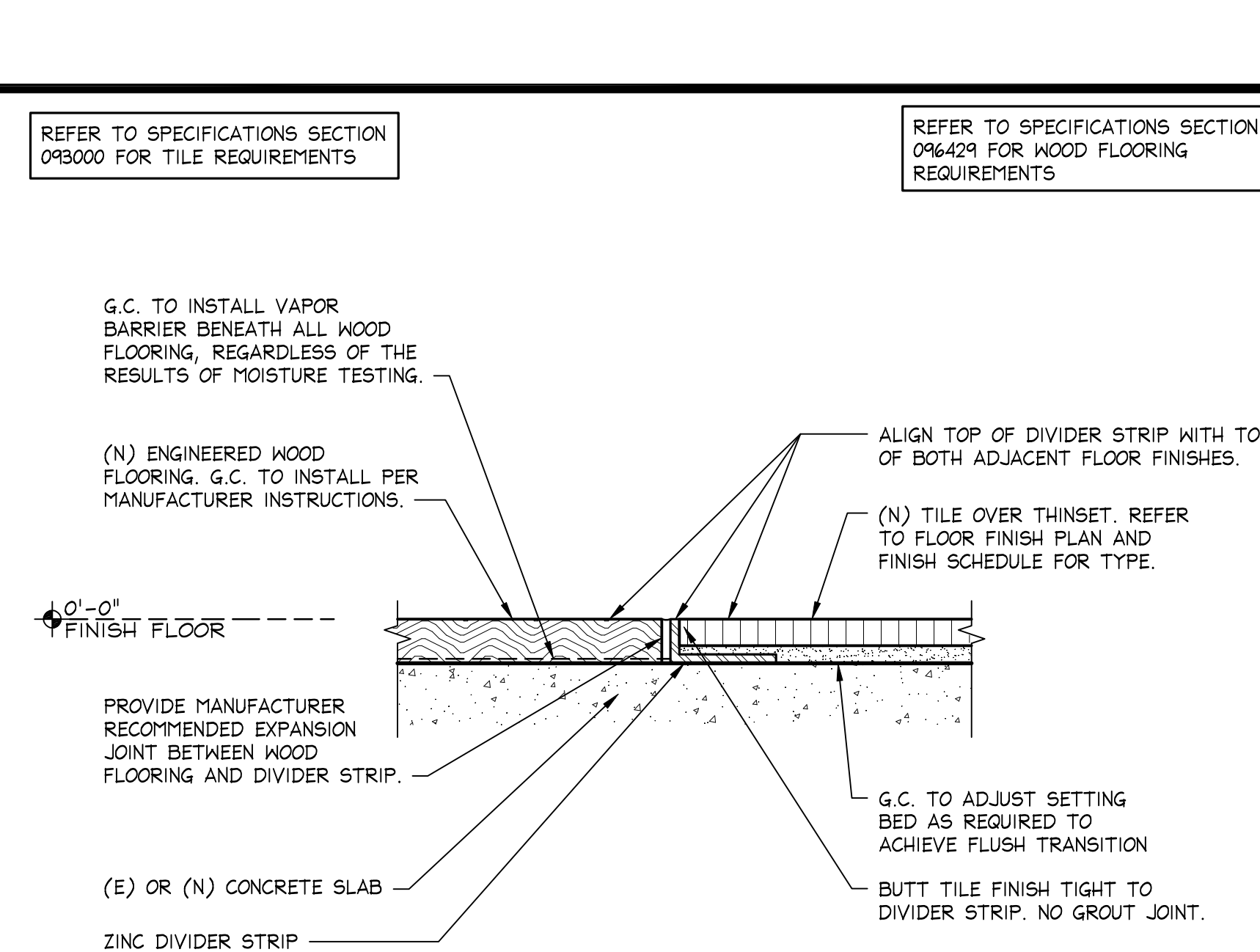
WOOD TO WOOD TRANSITION

6" = 1'-0"

05D-A1202-F00-DETL

F

08.14.12



WOOD TO TILE TRANSITION

6" = 1'-0"

05D-A1202-B00-DETL

B

08.14.12



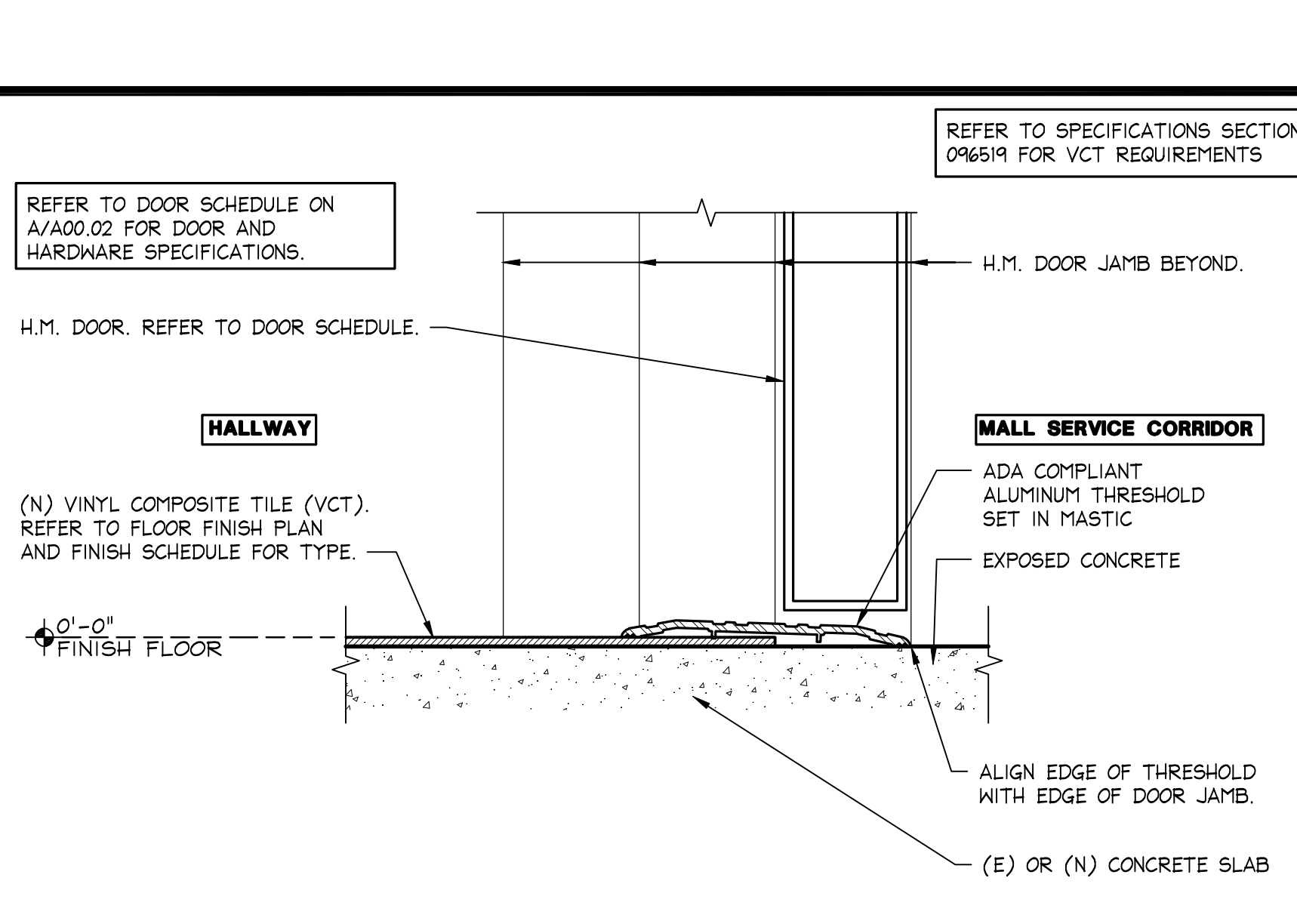
TOILET ROOM TRANSITION

6" = 1'-0"

05D-A1202-N00-DETL

N

08.14.12



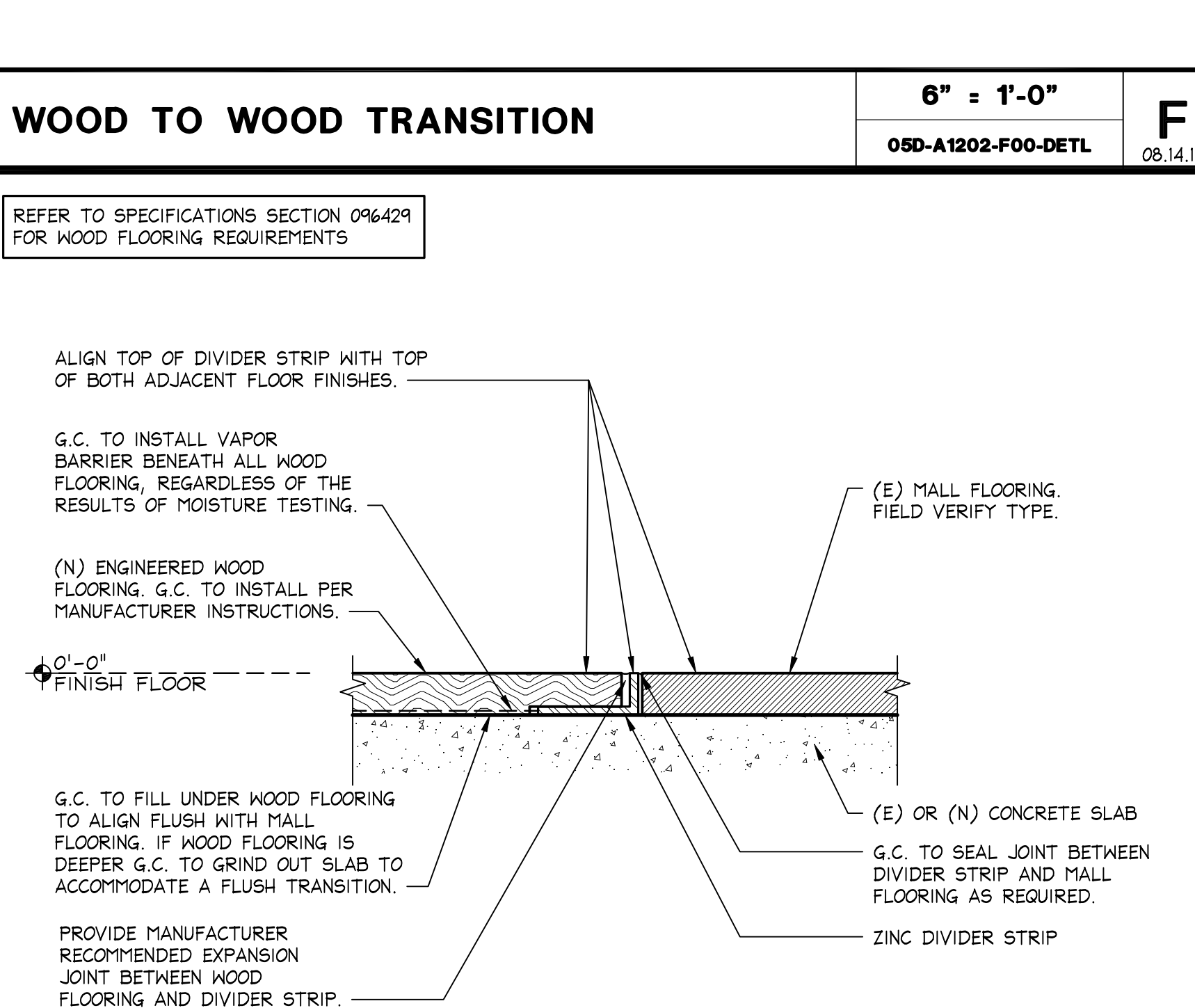
TOILET ROOM TRANSITION

6" = 1'-0"

05D-A1202-J00-DETL

J

08.14.12



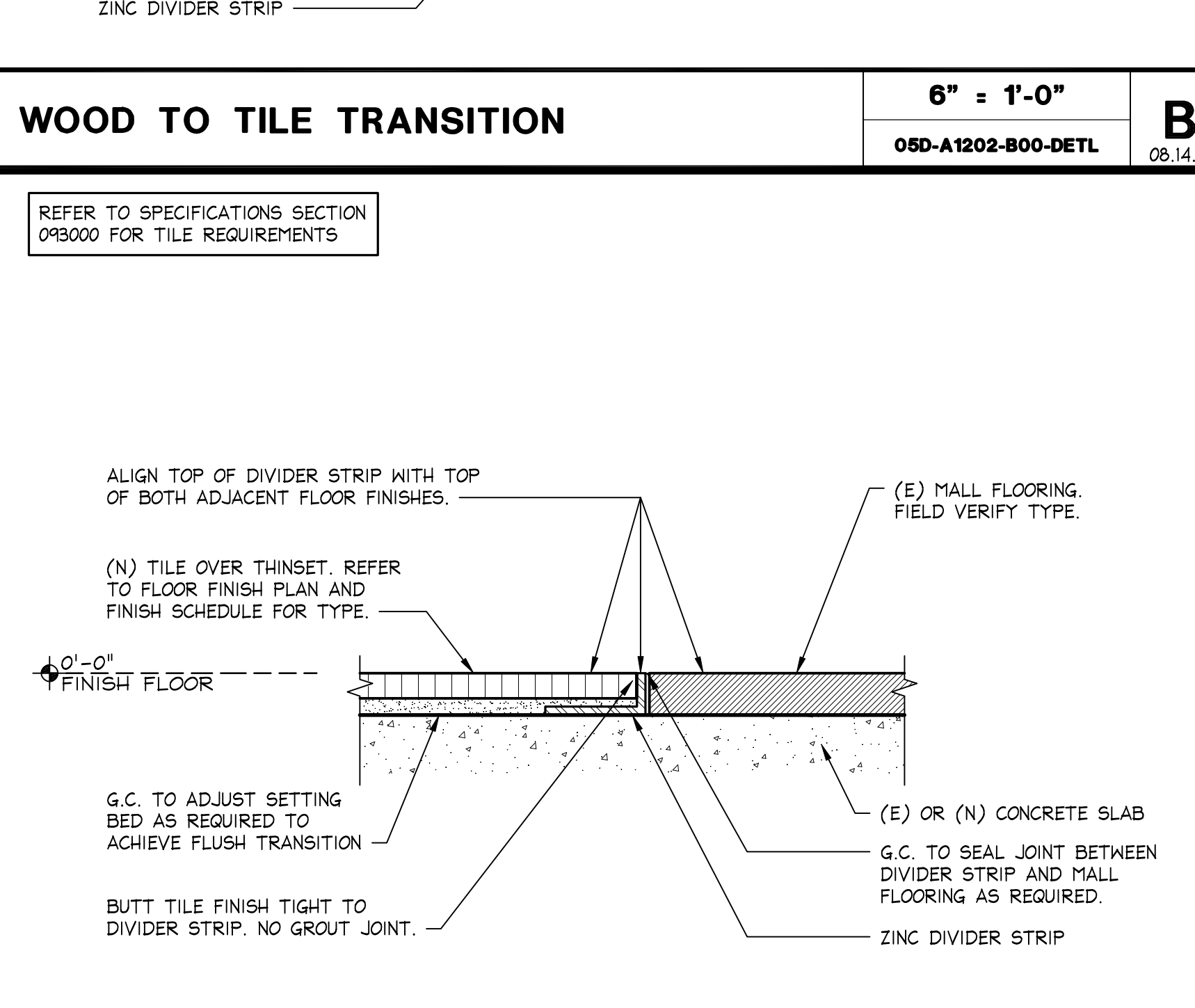
WOOD TO MALL FLOORING TRANSITION

6" = 1'-0"

05D-A1202-E00-DETL

E

08.14.12



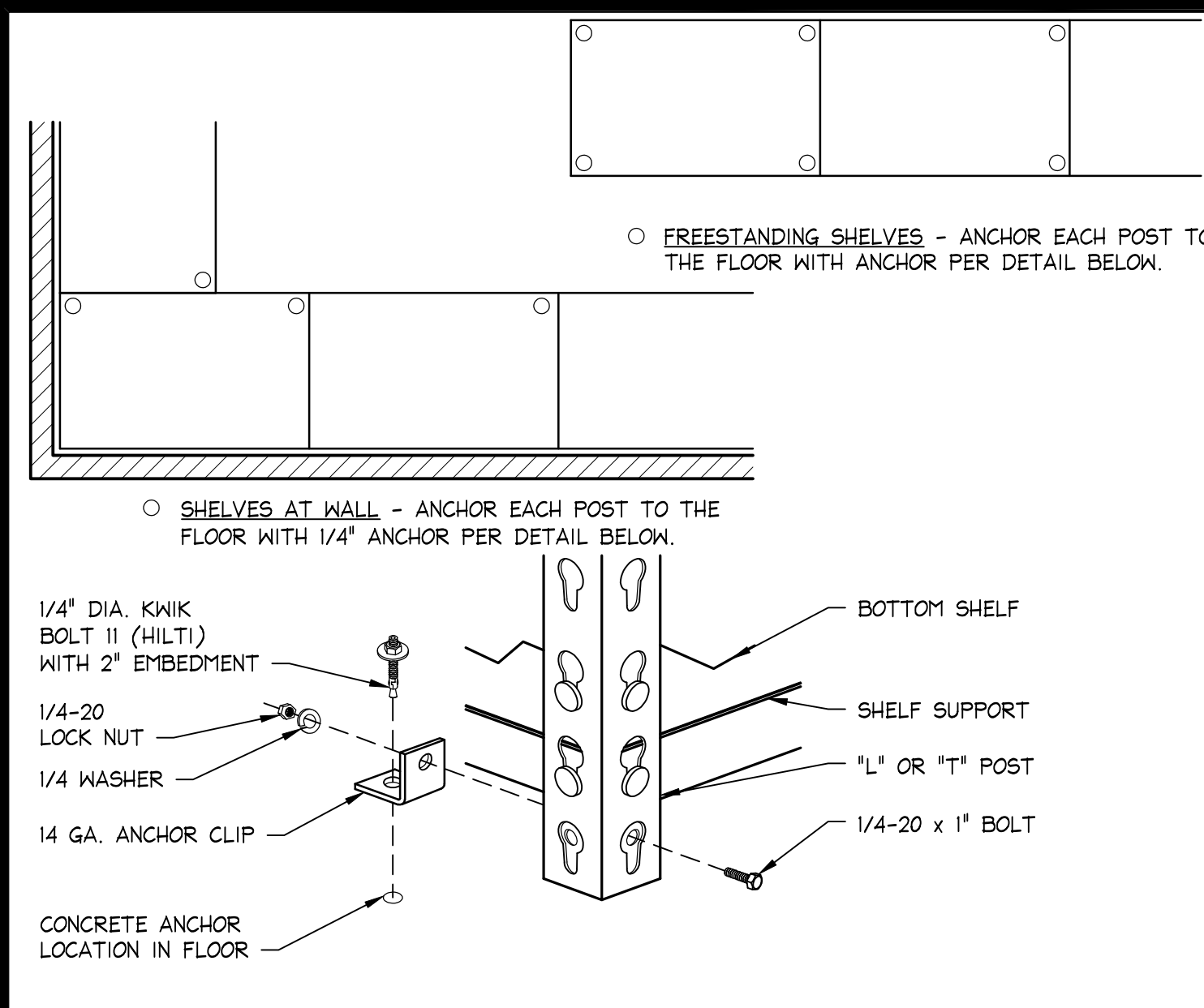
TILE TO MALL FLOORING TRANSITION

6" = 1'-0"

05D-A1202-A00-DETL

A

08.14.12

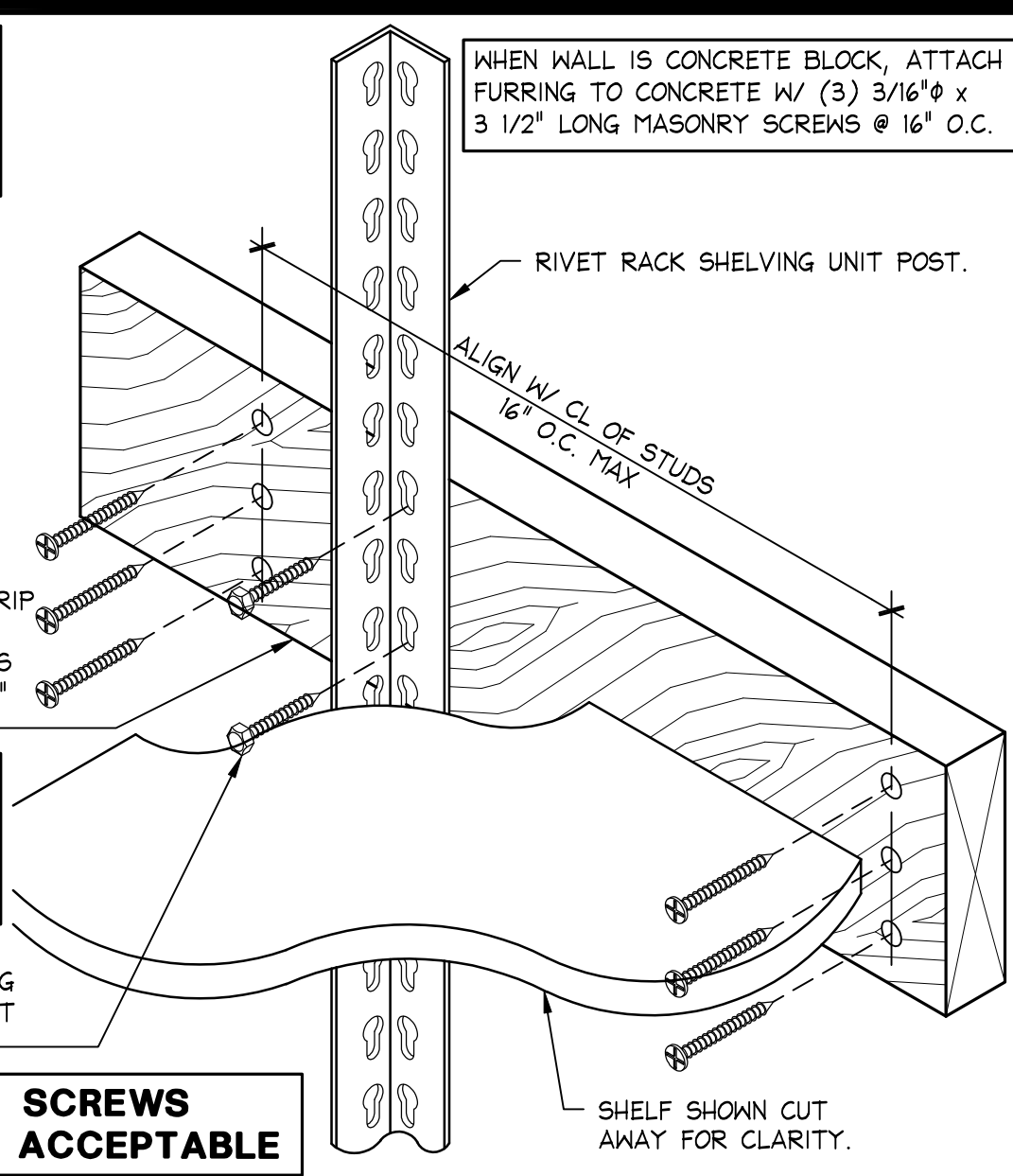


RIVET RACK - ANCHOR DETAIL

3\"/>

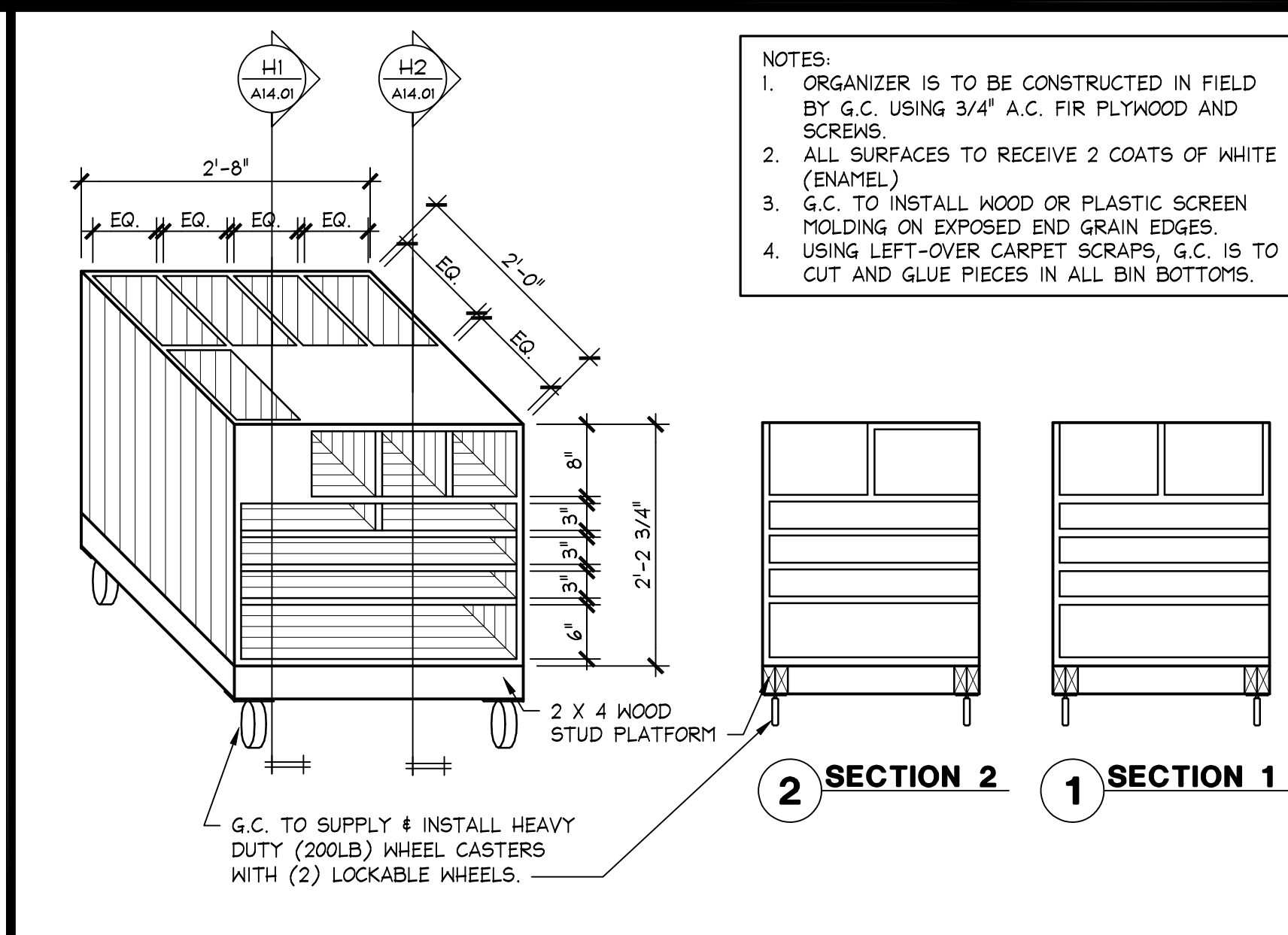
NOTE: G.C. IS TO INSTALL BRACING AND FURRING STRIPS FOR SHELVING UNITS. SHELVING UNITS SHOWN ARE FOR REFERENCE ONLY. ASSEMBLY FOR SHELVING UNITS ARE PER MANUFACTURER'S INSTRUCTIONS.

NOTE: (1) ROW OF FURRING IS TO BE INSTALLED 24\"/>



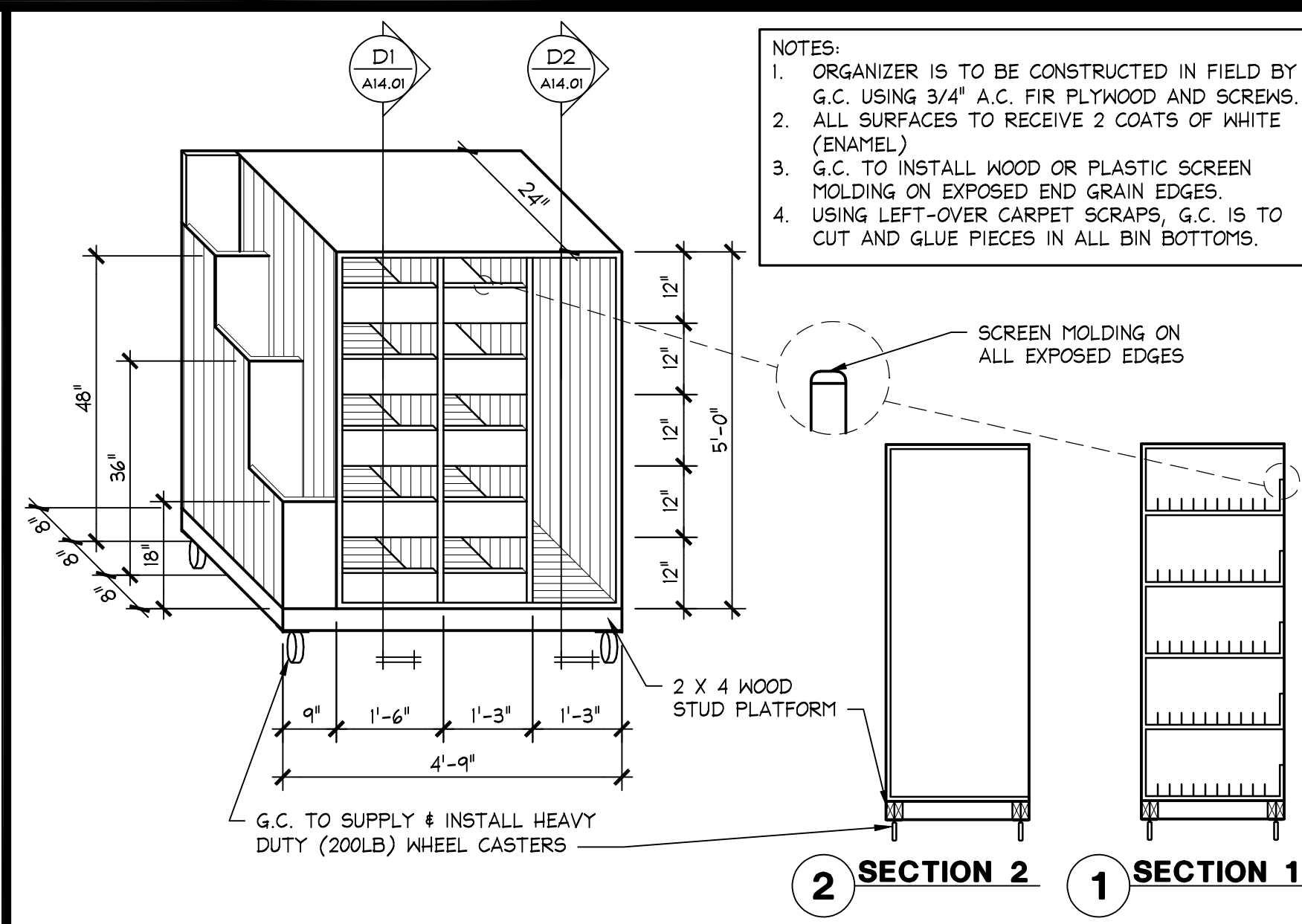
RIVET RACK - FURRING ATTACHMENT

3\"/>



MARKETING STORAGE BIN - PINK

3/4\"/>



HARDWARE STORAGE BIN

1/2\"/>

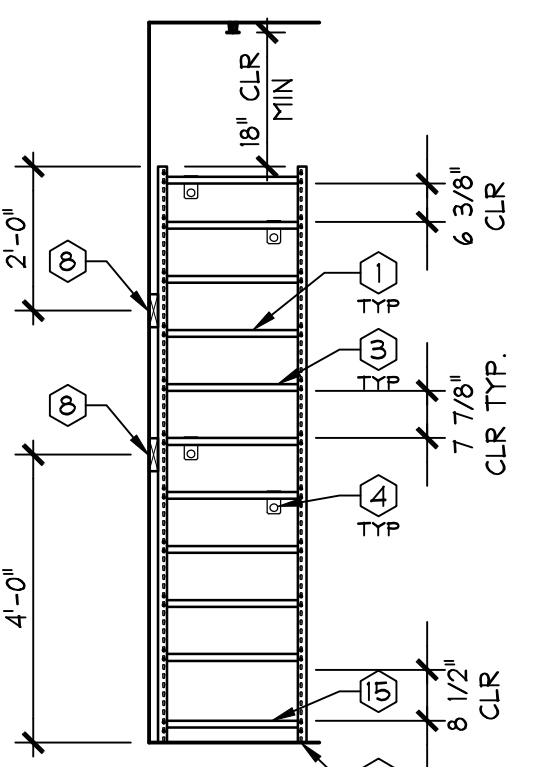
NOTE:
DETAILS SHOWN ARE FOR REFERENCE ONLY AND NOT FOR CONSTRUCTION. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.

NOTE: SHELF SUPPORTS TO BE INSTALLED "UPSIDE-DOWN" SO THAT THE WIRE SHELVES SIT ON TOP OF SUPPORT AND DO NOT CREATE A LIP WHICH PREVENTS SLIDING BOXES OFF OF THE SHELF.

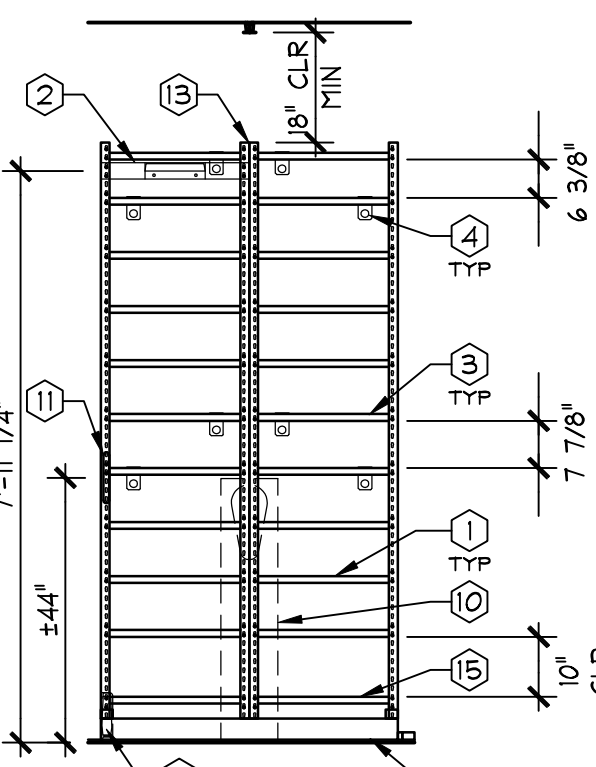
THE BOTTOM SHELF SUPPORTS FOR PARTICLE BOARD SHELVES SHALL BE INSTALLED "RIGHT-SIDE-UP" TO BETTER SUPPORT THE SHELF, AND SO AS NOT TO REDUCE THE GAP BETWEEN THE SHELVES.

NOTE: REFER TO THE FLOOR FIXTURE PLAN ON A06-XX FOR THE ACTUAL LAYOUT OF THE SHELVING.

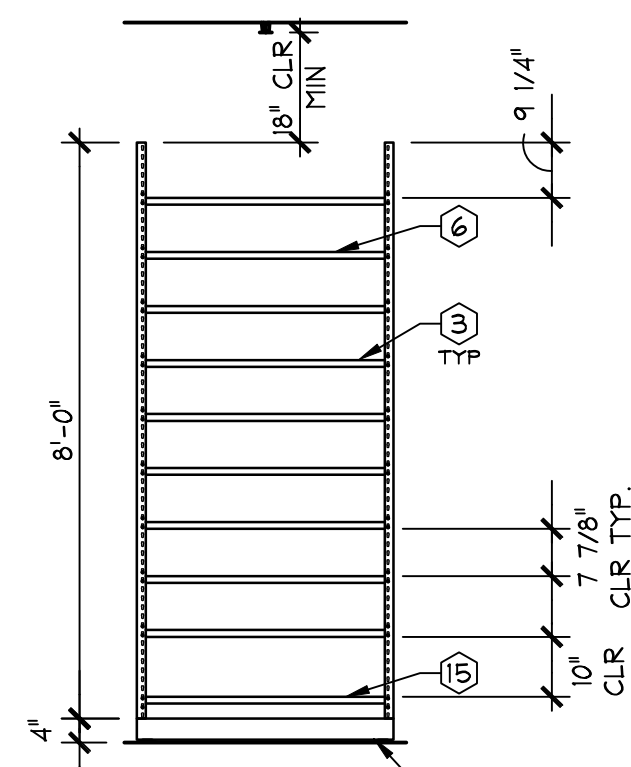
THE STORE WILL BE SENT A 5% OVERAGE OF SHELVES, SHELF SUPPORTS, HANGBARS, AND BRACKETS.



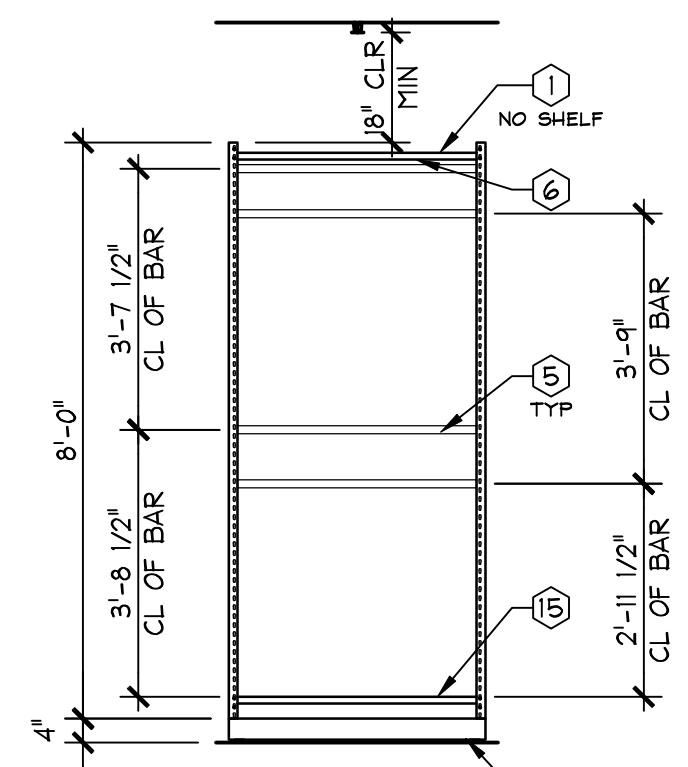
SHELVING - SIDE ELEV
(BACK ELEVATION SIMILAR)



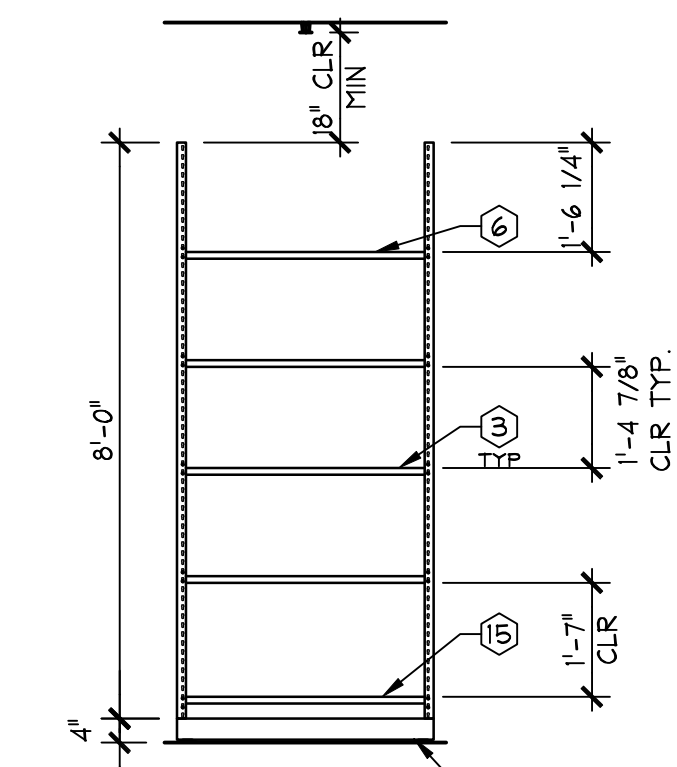
SHELVING - SIDE ELEV
(BACK ELEVATION SIMILAR)



SHELVING - FRONT ELEV
(9) WIRE SHELVES
(1) MDF SHELF

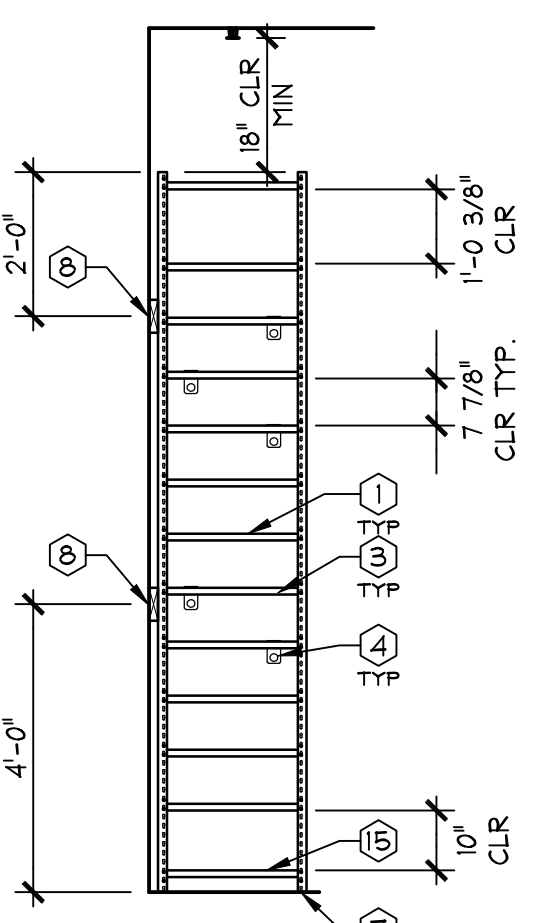


SHELVING - FRONT ELEV
(4) HANGBARS
(1) MDF SHELF

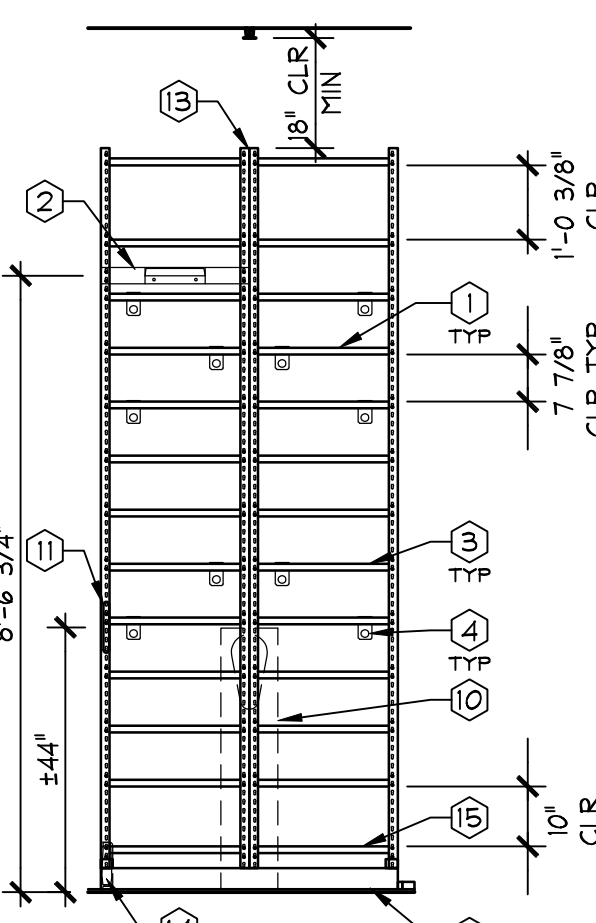


SHELVING - FRONT ELEV
(4) WIRE SHELVES
(1) MDF SHELF

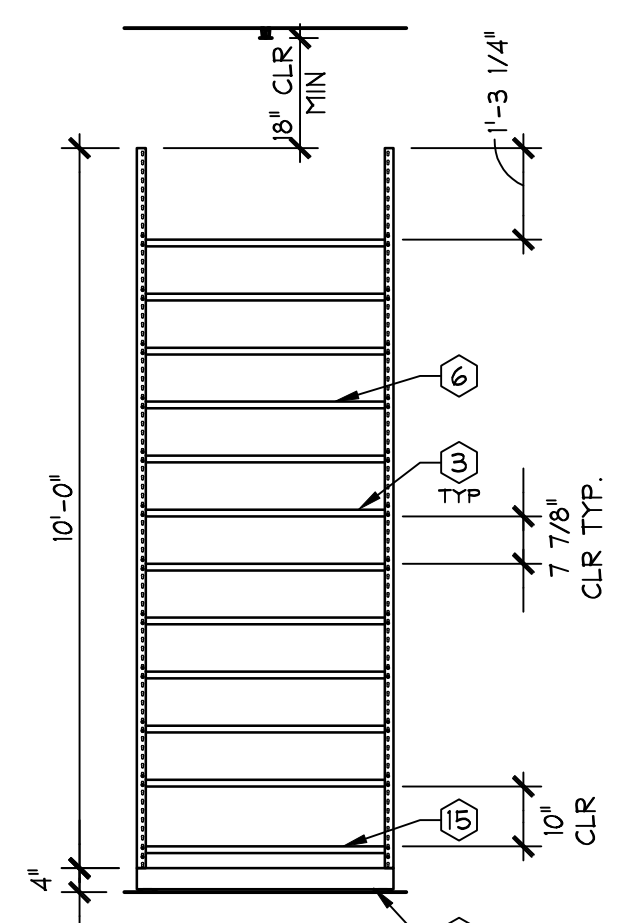
8' HIGH SHELVING FOR 10'-0\"/>



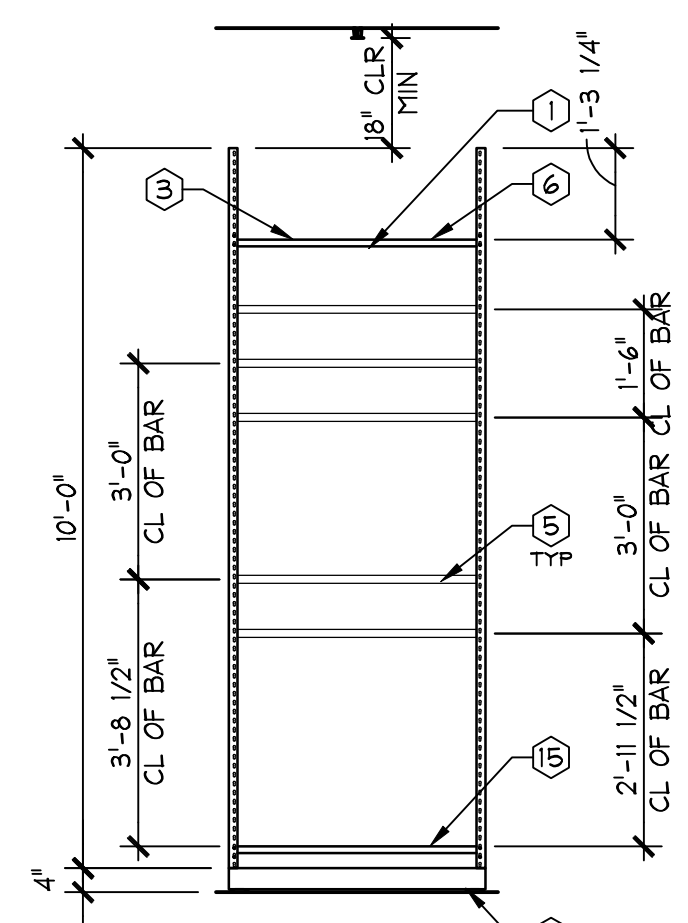
SHELVING - SIDE ELEV
(BACK ELEVATION SIMILAR)



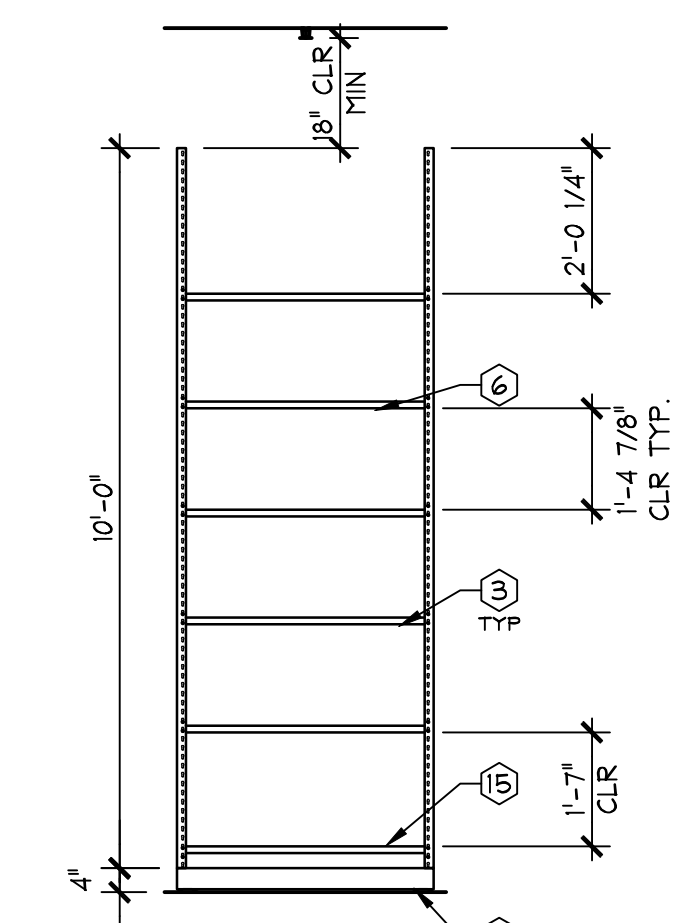
SHELVING - SIDE ELEV
(BACK ELEVATION SIMILAR)



SHELVING - FRONT ELEV
(11) WIRE SHELVES
(1) MDF SHELF



SHELVING - FRONT ELEV
(5) HANGBARS
(1) WIRE SHELF
(1) MDF SHELF



SHELVING - FRONT ELEV
(5) WIRE SHELVES
(1) MDF SHELF

10' HIGH SHELVING FOR 12'-0\"/>

FIXED AND MOBILE SHELVING KEYNOTES		FIXED AND MOBILE GENERAL NOTES	
①	DOUBLE RIVET SHELF SUPPORT. ALL SUPPORTS TO BE INSTALLED AT SIDES AND BACKS OF UNITS AS SHOWN REGARDLESS OF ACTUAL SHELF OR HANGBAR LAYOUT.	④	MOBILE UNIT CARRIAGE ON FLAT TRACK SYSTEM W/ ANTI-TIP.
②	LADDER HOOK TO BE INSTALLED AT END OF EVERY OTHER MOBILE UNIT OR RUN OF FIXED SHELVING.	⑩	MOBILE UNIT CRANK SYSTEM WHERE OCCURS. REFER TO CONSTRUCTION FLOOR PLAN.
③	WIRE SHELF (2'X4' GRID).	⑪	MOBILE UNIT PULL HANDLE. INSTALL ONE PER EACH MOBILE RUN WITH OR WITHOUT CRANK SYSTEM.
④	HANGBAR SUPPORT. LOCATION SHOWN FOR REFERENCE, PROVIDE ONLY FOR HANGING TYPE SHELVING (F-4, PT-4).	⑫	NOT USED
⑤	1 1/4" DIAMETER HANGBAR, STAGGER PLACEMENT PER EXAMPLE IN SIDE ELEVATION.	⑬	BACK-TO-BACK SHELVING UNITS (MOBILE OR FIXED) ARE TO BE FASTENED TO EACH OTHER PER MANUFACTURER INSTRUCTIONS.
⑥	*DO NOT CLIMB ON SHELVING* DECAL PROVIDED BY VENDOR. PLACE ONE ON THE FACE OF EACH SHELVING UNIT ON A SHELF SUPPORT AT ± 80" A.F.F. U.O.N.	⑭	MOBILE UNIT FOOTBRACE ASSEMBLY TO BE INSTALLED (1) PER MOBILE UNIT WITHOUT CRANK SYSTEM ONLY.
⑦	FLOOR ANCHORS - REFER TO DETAIL S/A14.01 FOR QUANTITY AND INSTALLATION.	⑮	PARTICLE BOARD BOTTOM SHELF AT ALL UNITS
⑧	ATTACH SHELVING UNIT TO MOOD FURRING AT WALL PER DETAIL M/A14.01. G.C. TO PAINT FURRING STRIPS TO MATCH WALL FINISH.	⑯	CLEAR SHELVING DIMENSIONS ARE TAKEN FROM TOP OF SHELF SUPPORT TO BOTTOM OF NEXT SHELF SUPPORT. THIS DIMENSION IS REQUIRED TO REMAIN CLEAR IN ORDER TO FIT THE NECESSARY BOX SIZE.
		1.	THESE DETAILS ARE FOR GENERAL INFORMATION ONLY. G.C. TO INSTALL SHELVING UNITS PER MANUFACTURER'S GUIDELINES.
		2.	ALL FRONT SHELVING ELEVATIONS ARE SHOWN AS MOBILE UNITS. SHELF/ HANGBAR LAYOUT IS IDENTICAL FOR FIXED UNITS, MINUS THE CARRIAGE UNIT.
		3.	THE TOPS OF ALL SHELVING UNITS SHALL BE MIN. 18" CLEAR OF BOTTOM OF SPRINKLER HEADS. NOTE: THIS DOES NOT NECESSARILY MEAN FROM BOTTOM OF CEILING.
		4.	ALL SHELF FRAMES, MOUNTING HARDWARE, BRACKETS, HANGRODS, ACCESSORIES, ETC. ARE SUPPLIED BY L5DKC AND INSTALLED BY G.C.
		5.	G.C. TO SURVEY AND EVALUATE CONDITION AND LEVEL OF STOCKROOM FLOOR FOR TRACK ATTACHMENT. CONSULT WITH MANUFACTURER FOR FLOOR TOLERANCE.
		6.	G.C. TO PLAN SEQUENCE OF EVENTS AND INSTALLATION PER MANUFACTURER'S INSTRUCTIONS TO ENSURE A FUNCTIONAL SYSTEM.
		7.	ASSEMBLE ALL UPRIGHT ASSEMBLIES PRIOR TO INSTALLING TRACK AND STATIONARY UNITS.

FIXED AND MOBILE SHELVING DETAILS

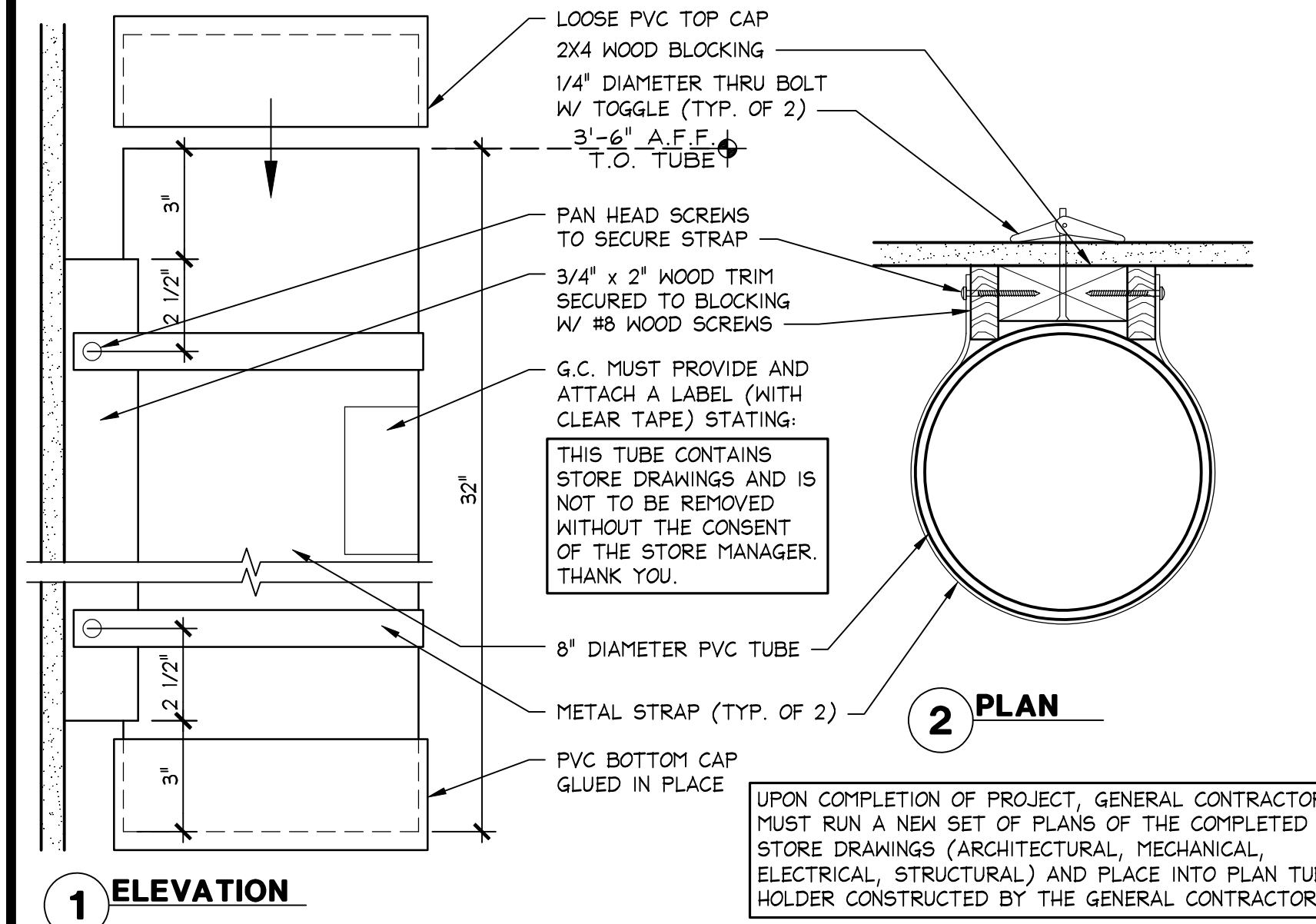
3/8\"/>

WALL MOUNTED SHELVING FURRING ATTACHMENT DETAIL

1 1/2\"/>

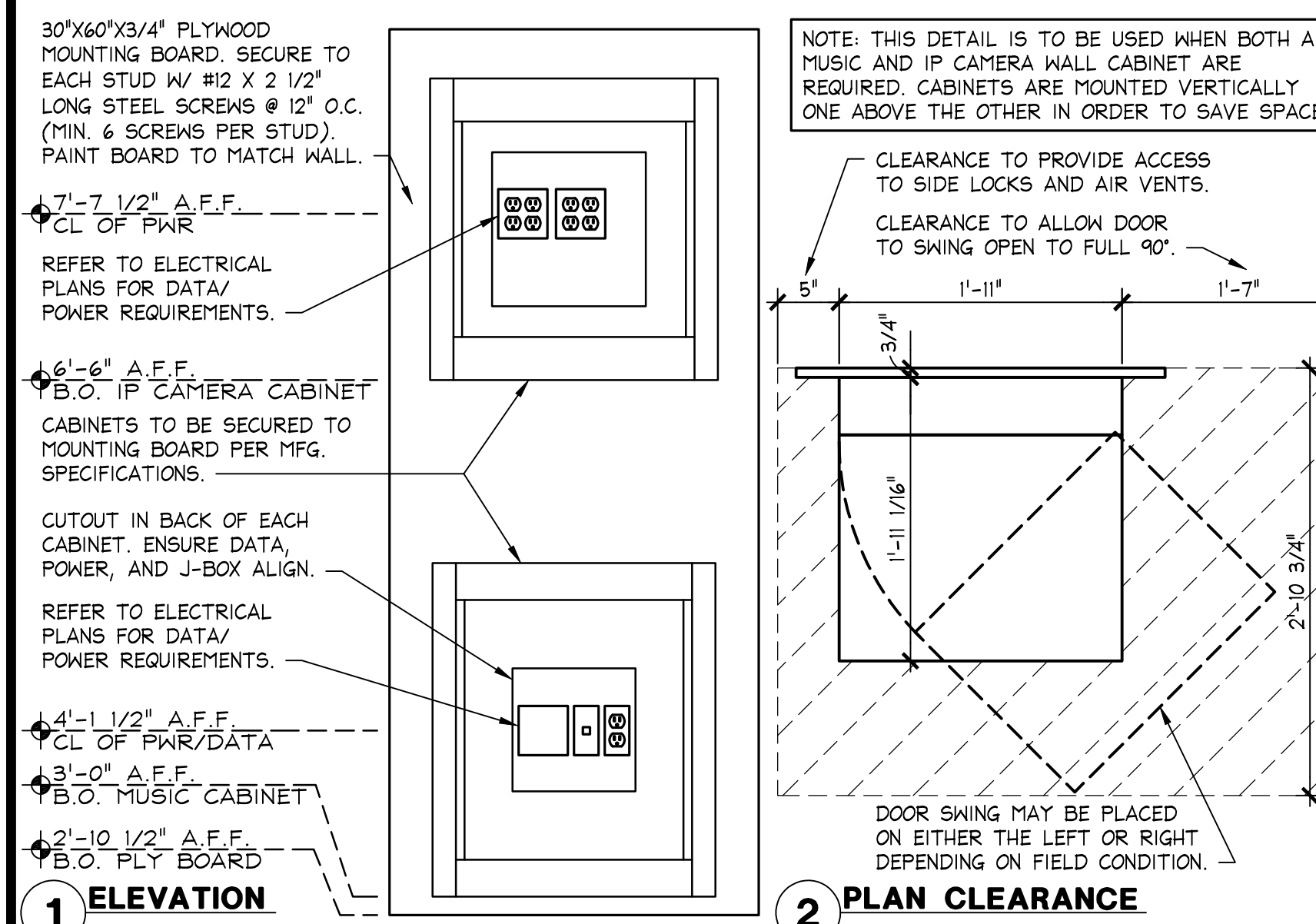
WALL MOUNTED SHELVING DETAIL

3/8\"/>



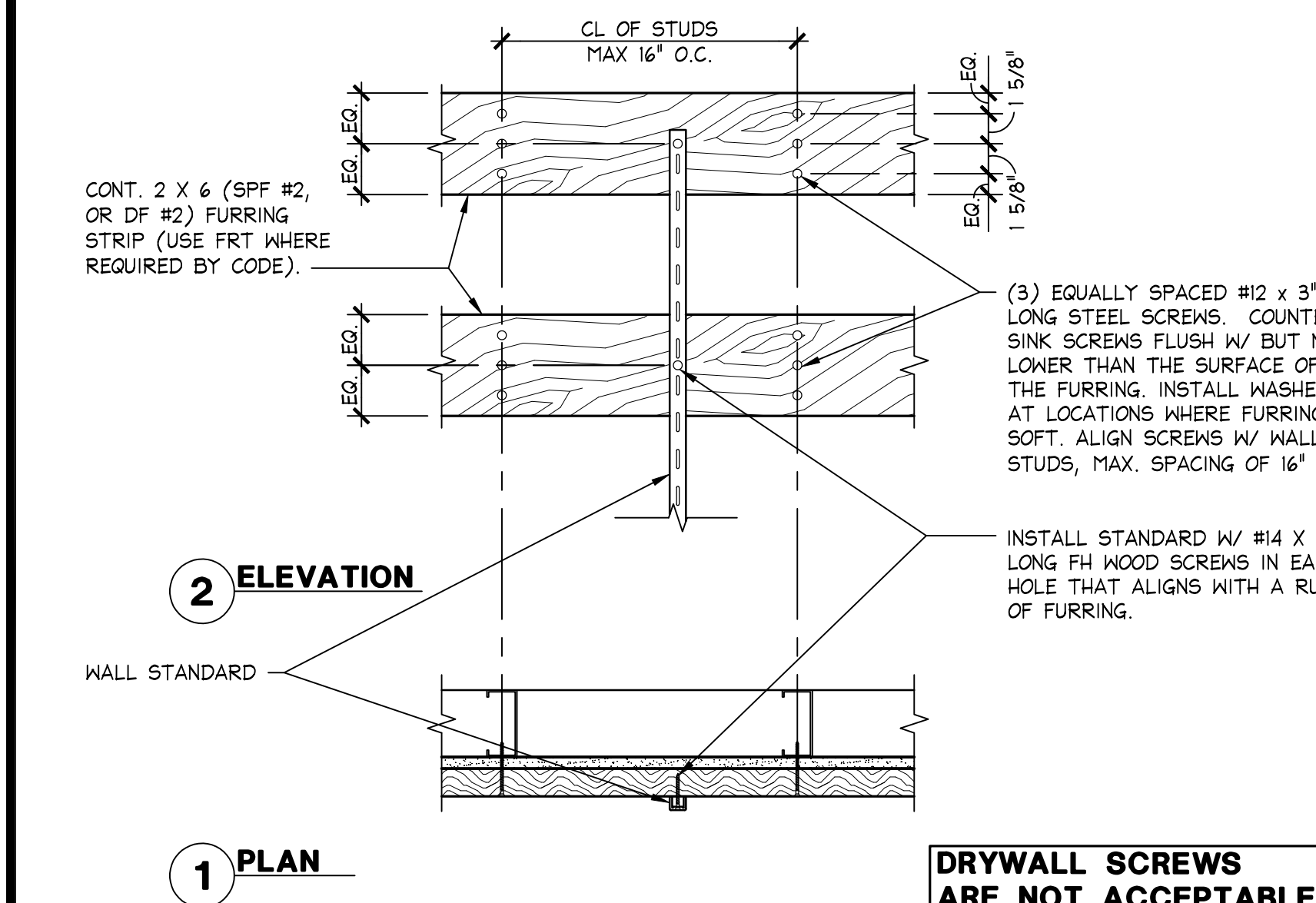
PLAN TUBE HOLDER

3\"/>



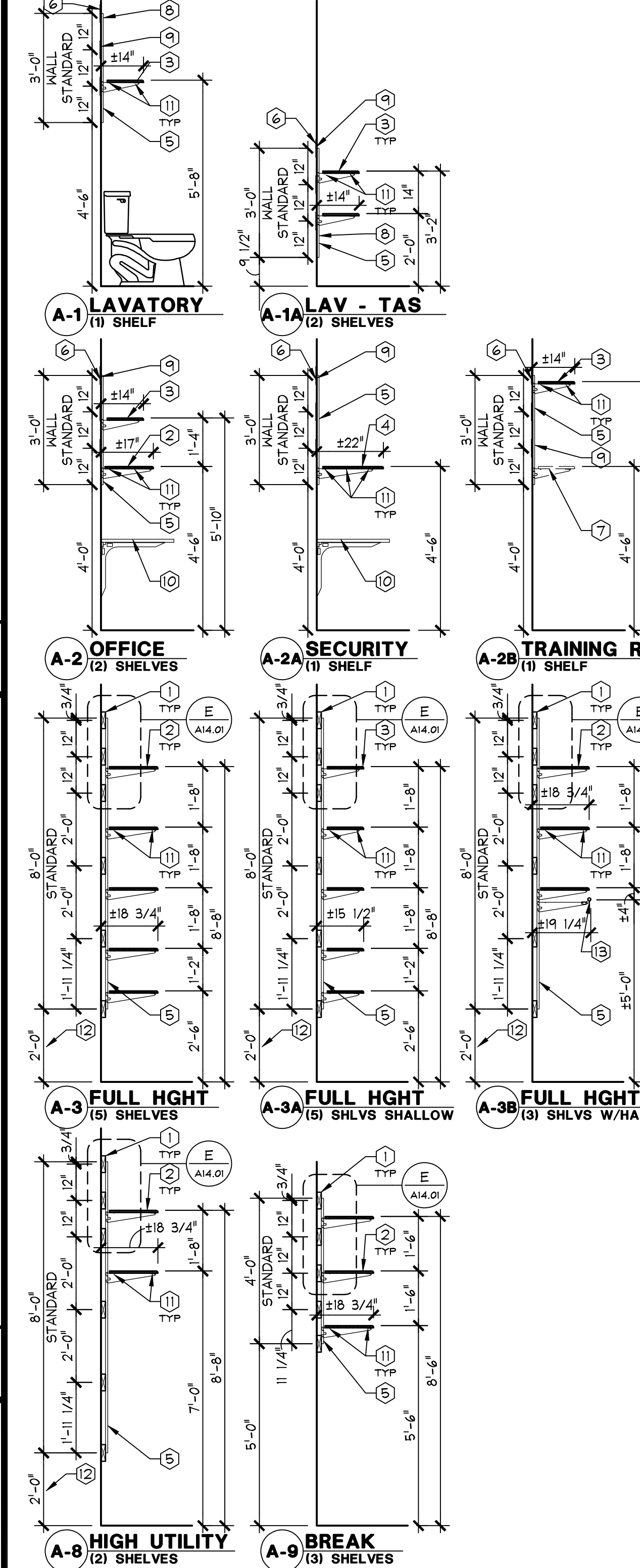
MUSIC AND IP CAMERA WALL CABINET MOUNTING DETAIL

1\"/>



WALL MOUNTED SHELVING FURRING ATTACHMENT DETAIL

1 1/2\"/>



WALL ATTACHED SHELVING KEYNOTES	
1 2\"/>	6 STANDARDS IN TOILET ROOM TO BE INSTALLED AT 18\"/>
2 16\"/>	7 WHERE MOUNTED TO METAL BLOCKING ATTACH STANDARDS W/ #12 X 2\"/>
3 12\"/>	8 MANAGER'S OFFICE DESK
4 20\"/>	9 (2) SHELF CLIPS TO BE INSTALLED PER 12\"/>
5 WALL STANDARDS - G.C. TO CUT TO LENGTH.	10 (3) CLIPS FOR 18\"/>
6 G.C. TO INSTALL IN-WALL METAL BLOCKING PER DETAIL A/E12.01. SPACE BLOCKING AS INDICATED.	11 IF INSTALLED AT CEILING LOWER THAN 10'-0\"/>
7 24\"/>	12 1 1/8\"/>
GENERAL NOTES	
1. ACCEPTABLE SUBSTITUTE FOR PARTICLE BOARD IS 3/4\"/>	
2. G.C. TO FURNISH AND INSTALL ALL SHELVES WITH SANDED SURFACES TO PREVENT SNAGGING. DO NOT PAINT.	
3. NO SUBSTITUTIONS WILL BE PERMITTED ON ANY OF THE MATERIALS OR HARDWARE SPECIFIED IN THESE DETAILS.	
4. G.C. TO PROVIDE WOOD SUPPORT SPLICES AT ALL SEAMS AND INSIDE CORNERS.	
5. WALL STANDARDS TO BE INSTALLED AT 24\"/>	

WALL MOUNTED SHELVING DETAIL

3/8\"/>

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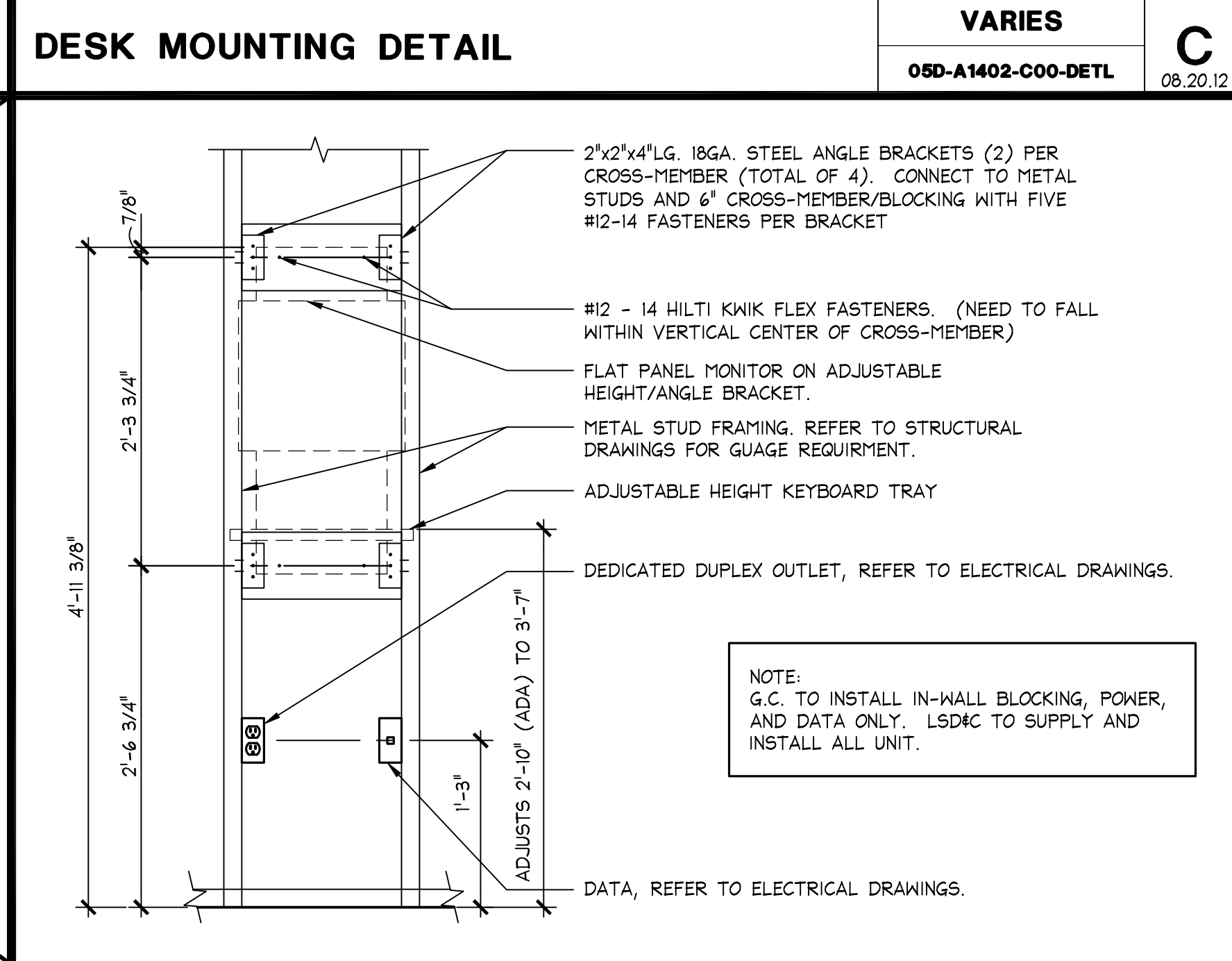
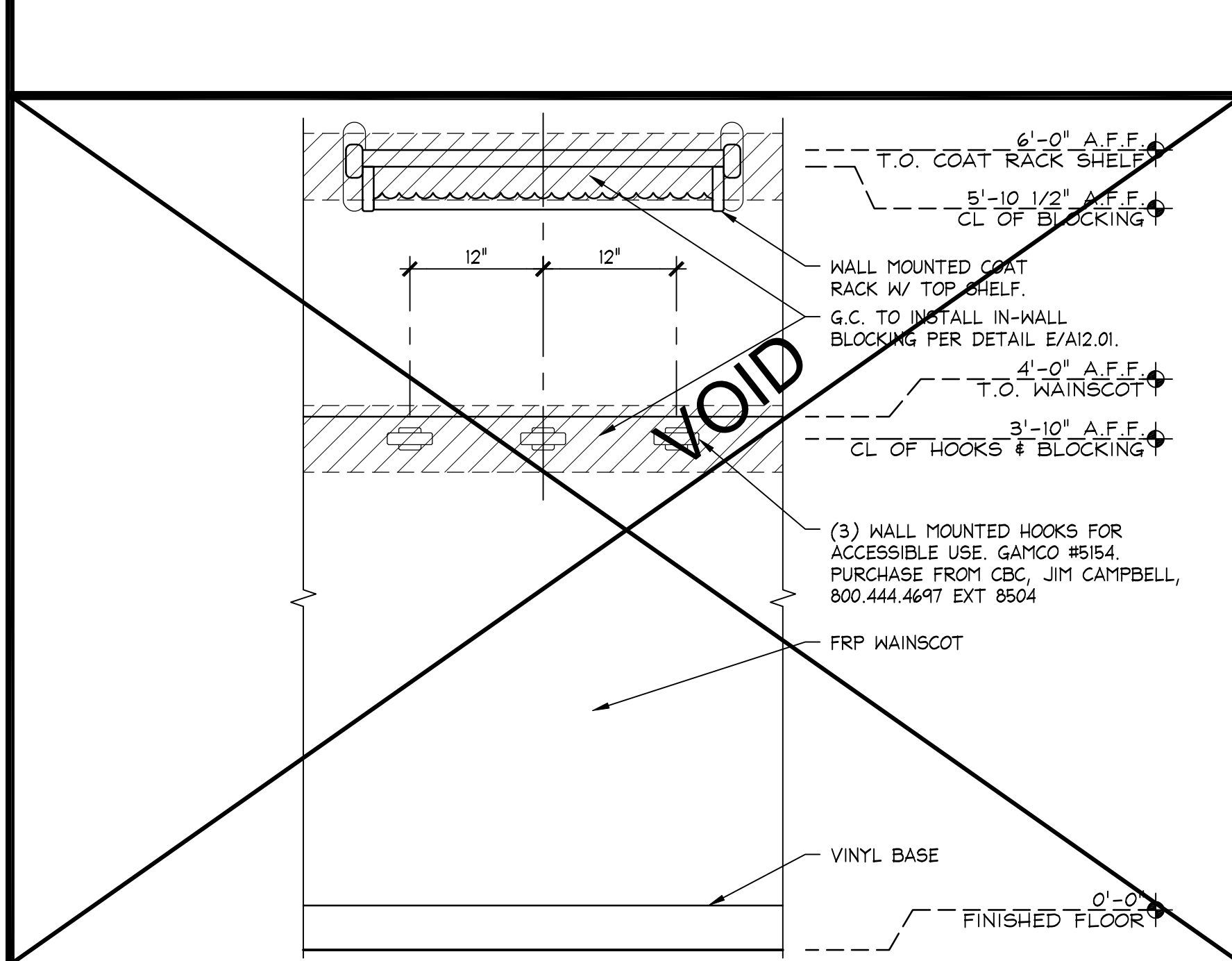
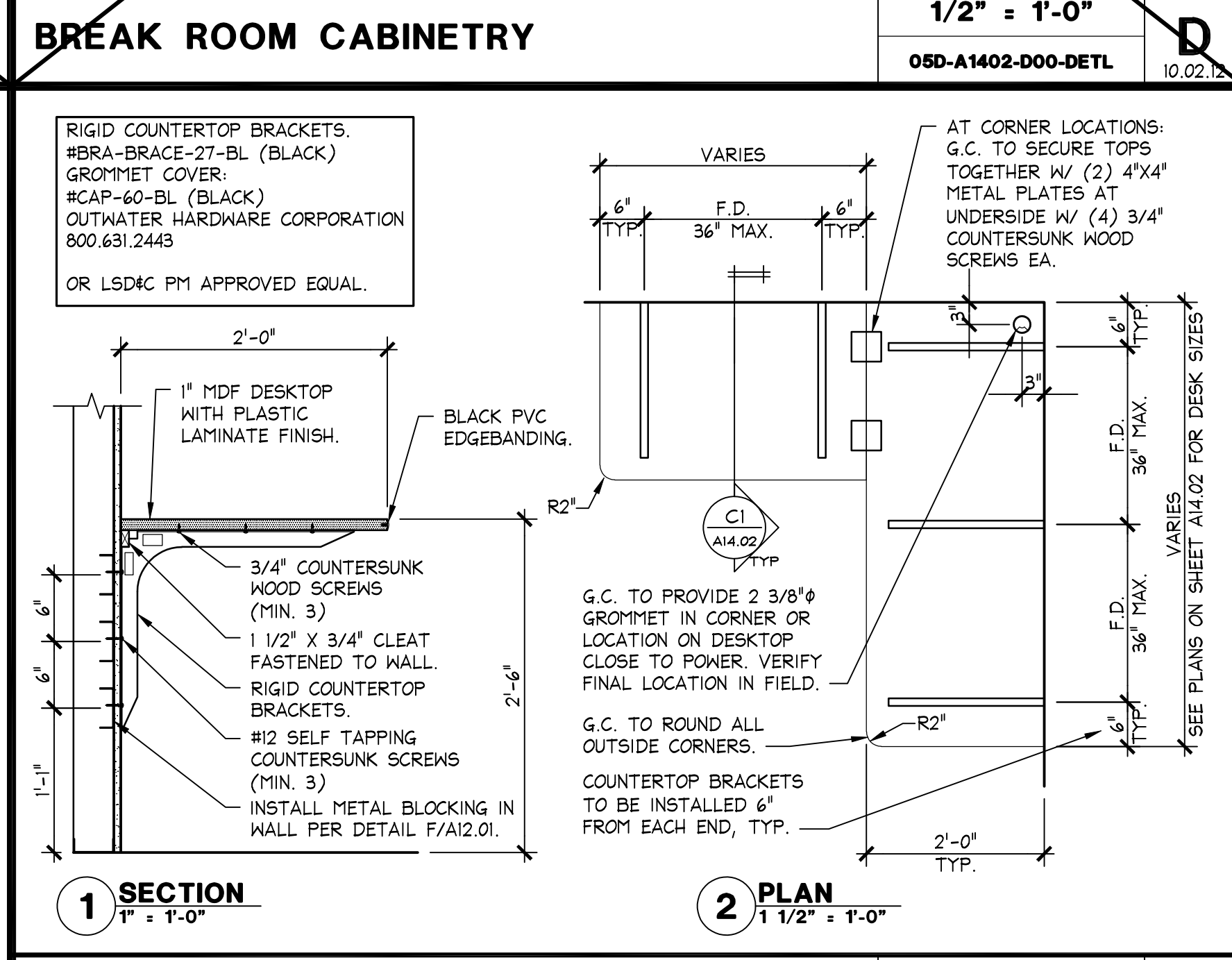
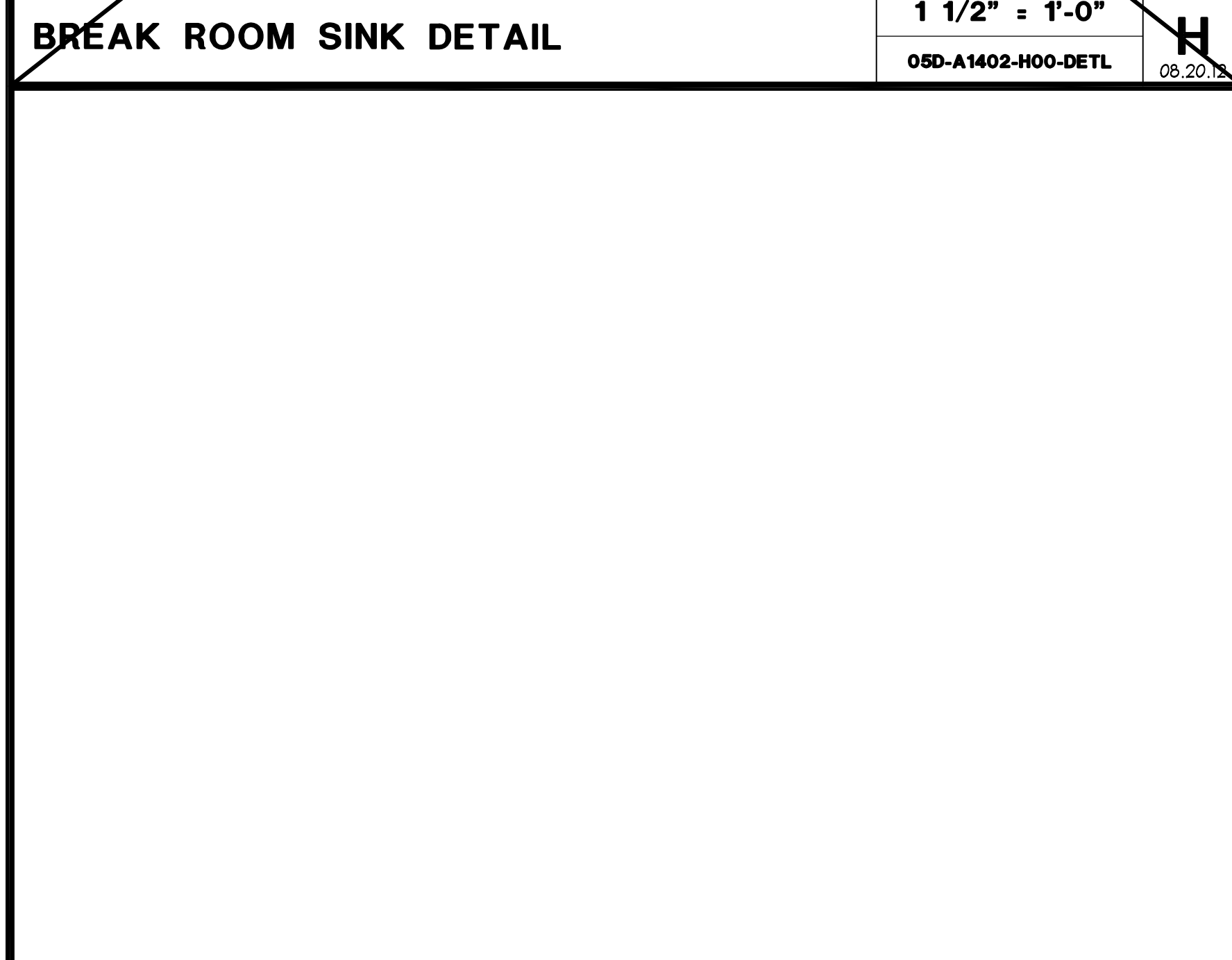
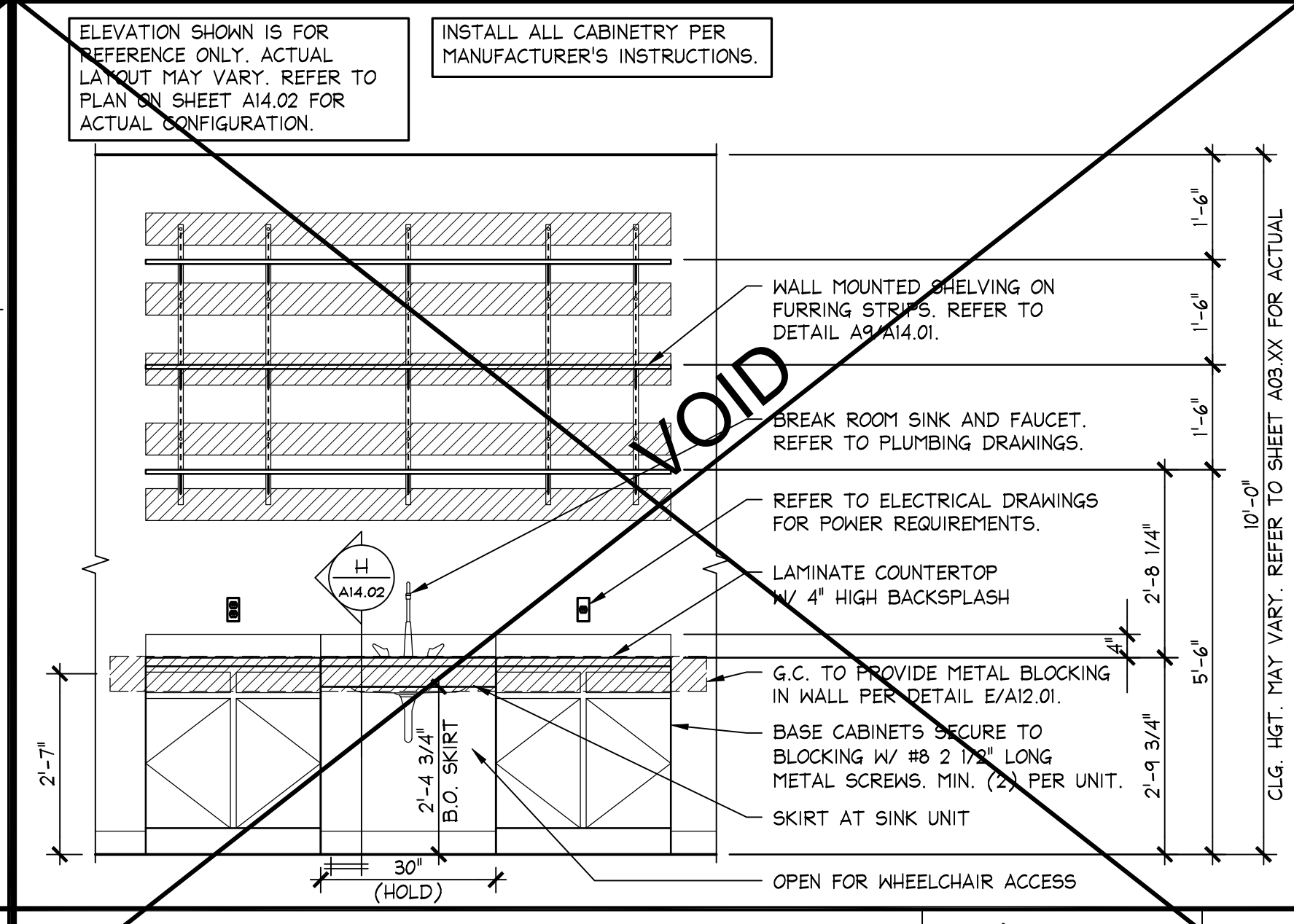
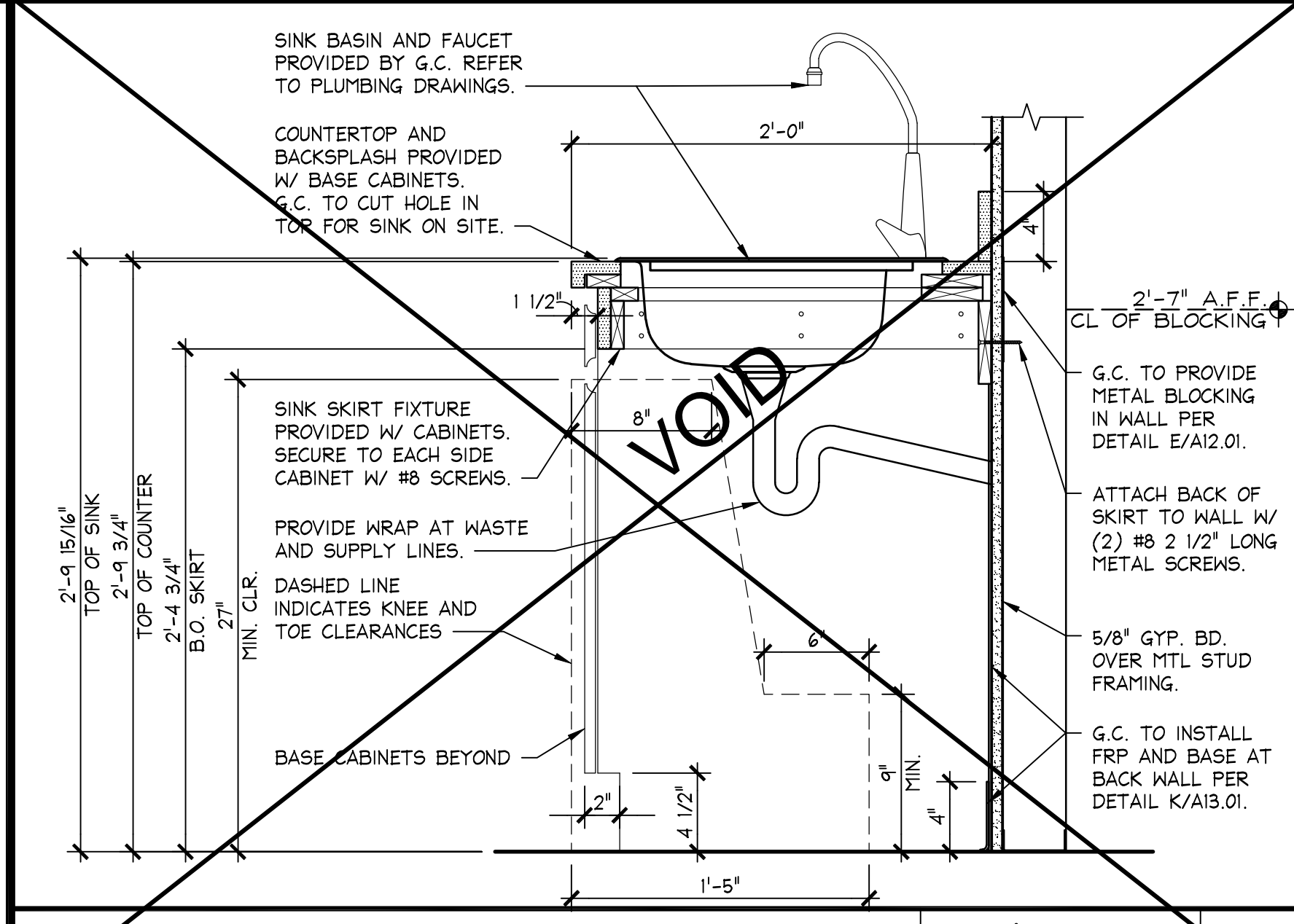
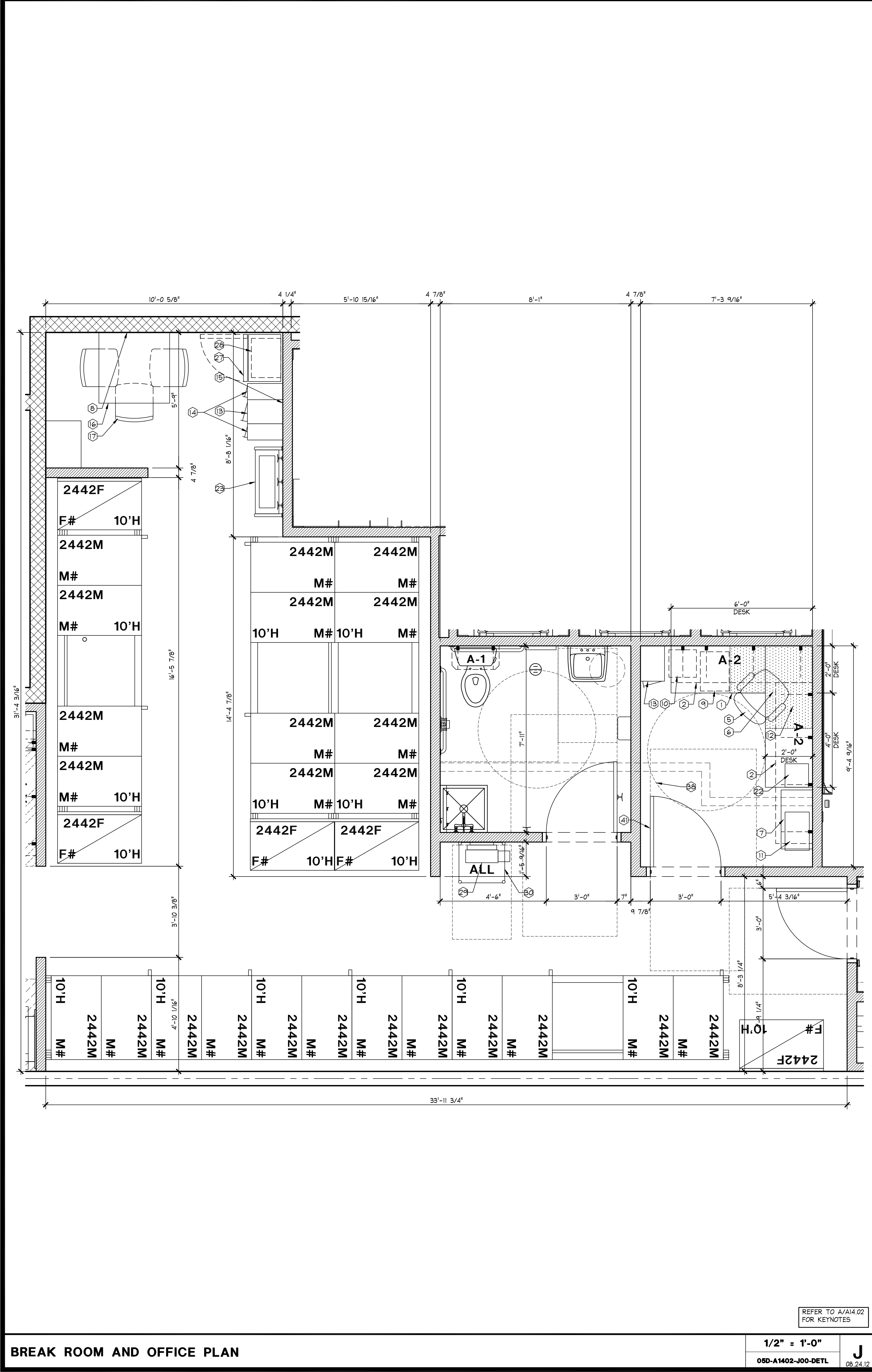
PROJECT INFORMATION:
010501638
PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
SPACE # 3036
JENSEN BEACH, FL 34957

REVISIONS:

DATE ISSUED: 03.29.13
DESIGNED BY: AL JS
DRAWN BY: JS WD
CHECKED BY: WD

NON-SALES DETAILS

DRAWING NUMBER:
A14.01



- COAT RACK MOUNTING DETAIL**
- 1" = 1'-0"
- OSD-A1402-F00-DETL
- 08.20.12
1. MANAGER'S OFFICE DESK. REFER TO PLAN FOR DESK SIZE. G.C. TO MOUNT TO WALL PER DETAIL C/A14.02.
2. WALL MOUNTED SHELVE, 3 SHELVE HIGH. REFER TO DETAIL A-2/A14.01.
3. WALL MOUNTED SHELVE, 1 SHELVE HIGH. REFER TO DETAIL A-2/A14.01.
4. WALL MOUNTED SHELVE, 1 SHELVE HIGH FOR SUPPORT OF CCTV SECURITY EQUIPMENT. SEE DETAIL A-2/A14.01.
5. TASK CHAIR.
6. HATCHED AREA OF DESKTOP INDICATES THE LOCATION OF A COMPUTER STATION.
7. LATERAL FILE CABINET. 4 DRAWER HIGH.
8. BREAK ROOM SIGN.
9. MOBILE PEDESTAL FILE CABINET.
10. SMALL SAFE. G.C. TO FASTEN TO FLOOR PER MFG. SPECIFICATIONS.
11. MAILBOX SYSTEM ON WALL MOUNTED SHELVE.
12. HATCHED AREA OF DESKTOP INDICATES THE LOCATION OF IP CAMERA COMPUTER STATION.
13. FULL SIZE LOCKER BANK - 6 UNITS HIGH. G.C. TO SECURE TO WALL THROUGH BACK.
14. PERSONAL LOCKER BANK - 8 UNITS HIGH. G.C. TO SECURE TO WALL THROUGH BACK.
15. LOCKER USAGE SIGN.
16. 36" X 36" TABLE.
17. STACKING CHAIRS.
18. MOBILE TELEVISION CART.
19. 36" X 24" WRITE-ON / Wipe-OFF BOARD. MOUNT TOP & BOTTOM A.F.F.
20. 36" X 16" WRITE-ON / Wipe-OFF CALENDAR BOARD. MOUNT TO OUTSIDE OF DOOR & 3'-0" A.F.F.
21. LARGE SAFE. G.C. TO SECURE IN PLACE PER MFG. INSTRUCTIONS.
22. INFORMATION LOCK BOX ON WALL MOUNTED SHELVE.
23. COAT RACK WITH TOP SHELVE AND (3) WALL MOUNTED HOOKS. REFER TO DETAIL F/A14.02.
24. BREAK ROOM CABINETRY. REFER TO DETAIL B/A14.02.
25. BREAK ROOM SINK AND FAUCET. REFER TO PLUMBING DRAWINGS.
26. 60" CU. FT. REFRIGERATOR W/ TOP FREEZER.
27. MINI-REFRIGERATOR.
28. MICROWAVE.
29. ALL SYSTEM. REFER TO DETAIL B/A14.02 FOR MOUNTING. REFER TO ELECTRICAL DRAWINGS FOR POWER/DATA REQUIREMENTS.
30. HEADSET STORAGE CART.

- ALL UNIT MOUNTING DETAIL**
- 1" = 1'-0"
- OSD-A1402-800-DETL
- 08.20.12
31. NOT USED
32. NOT USED
33. 48" X 36" ASSOCIATE RESOURCE CENTER COMMUNICATION BOARD. G.C. TO MOUNT TOP & BOTTOM A.F.F.
34. 48" X 36" COMMUNICATION RESOURCE CENTER COMMUNICATION BOARD. G.C. TO MOUNT TOP & BOTTOM A.F.F.
35. 48" X 36" GET READY CENTER COMMUNICATION BOARD. G.C. TO MOUNT TOP & BOTTOM A.F.F.
36. VENDING MACHINE
37. 24" X 18" ADJUSTABLE SHELF FOR TELEPHONE. MOUNT ON STANDARDS & 2'-0" A.F.F.
38. 5'-0" DIAMETER ADA TURNAROUND
39. 30" X 18" WHEELCHAIR CLEARANCE
40. WALL MOUNTED SHELVE, 3 SHELVE HIGH. REFER TO DETAIL A-2/A14.01.
41. THE G.C. SHALL FURNISH THE CERTIFICATE OF OCCUPANCY AND A LIST OF THE NAMES, ADDRESSES AND TELEPHONE NUMBERS OF ALL SUBCONTRACTORS INCLUDING ALL LSCDC PROVIDED SUBCONTRACTORS. BOTH OF THESE ITEMS SHALL BE MOUNTED IN SEPARATE 8 1/2" X 11" PICTURE FRAMES, AT FACE HEIGHT, ON THE OFFICE SIDE OF THE MANAGER'S OFFICE DOOR.

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010501638

PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
SPACE # 3036
JENSEN BEACH, FL 34957

NEW / PACKAGE:
PINK / 13150
DESIGN TYPE:
LSCDC PROJECT #:
00057884 / E PROJECT #:

MASTER
13150
201206790

PROJECT INFORMATION:

REVISIONS:

DATE ISSUED: 03.29.13
DESIGNED BY: AL
DRAWN BY: JS
CHECKED BY: WD

NON-SALES ROOM DETAILS

DRAWING NUMBER:
A14.02

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DIVISION 40 THRU 49: PROCESS EQUIPMENT (INDUSTRIAL) (NOT USED)	
DIVISION 00: PROCUREMENT AND CONTRACTING REQUIREMENTS	
SECTION 007200 - GENERAL CONDITIONS	
A. GENERAL CONDITIONS: THE OWNER'S STANDARD GENERAL CONDITIONS FOR CONSTRUCTION IS INCORPORATED INTO THE CONTROLLING CONTRACT FOR CONSTRUCTION.	
1. A COPY WILL BE MADE AVAILABLE BY OWNER UPON REQUEST.	
SECTION 007300 - SUPPLEMENTARY CONDITIONS	
A. CONDITIONS AND REQUIREMENTS: GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS AND DIVISION 1 - GENERAL REQUIREMENTS CONTAIN INFORMATION NECESSARY FOR COMPLETION OF EVERY PART OF PROJECT.	
B. DIVISION 1: WHERE PROVISIONS OF GENERAL CONDITIONS RELATE TO PROJECT ADMINISTRATION OR WORK-RELATED REQUIREMENTS OF THE CONTRACT, THOSE PARAGRAPHS ARE EXPANDED IN DIVISION 1.	
C. MISCELLANEOUS DEFINITIONS:	
1. APPROVED: REQUIRES WRITTEN ACTION BY OWNER'S PROJECT MANAGER AS DOES TERMS SUCH AS DIRECTED, SELECTED, REQUIRED, ORDERED, DESIGNATED, ACCEPTED, ACCEPTABLE, AND SATISFACTORY.	
2. FURNISH: SUPPLY AND DELIVER TO PROJECT, UNLESS OTHERWISE STATED IN GREATER DETAIL.	
3. INSTALL: OPERATIONS AT PROJECT, FROM INSPECTING AND UNLOADING, TO COMPLETION IN PLACE, READY FOR INTENDED USE.	
4. PROVIDE: FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE, UNLESS OTHERWISE STATED IN GREATER DETAIL.	
DIVISION 01 - GENERAL REQUIREMENTS	
SECTION 01000 - SUPPLY	
A. PROJECT CONSISTS OF CONSTRUCTION OF THE LIMITED BRANDS STORE AS INDICATED IN CONTRACT DOCUMENTS.	
1. ITEMS NOTED "NC" (NOT IN CONTRACT) WILL BE FURNISHED AND INSTALLED BY OWNER OR UNDER SEPARATE CONTRACT.	
2. HAZARDOUS MATERIALS: NOT IN CONTRACT, OWNER WILL PROVIDE FOR HANDLING OF HAZARDOUS MATERIALS UNDER SEPARATE CONTRACT PRIOR TO THIS PROJECT. IF HAZARDOUS MATERIALS ARE SUSPECTED, NOTIFY OWNER IMMEDIATELY.	
B. WORK SEQUENCE: COORDINATE CONSTRUCTION SCHEDULE, OPERATIONS AND USE OF PREMISES WITH BUILDING MANAGEMENT.	
C. CONTRACTOR USE OF PREMISES: LIMIT TO AREAS INDICATED ON DRAWINGS AND AS SPECIFIED; LIMIT ACCESS AS DIRECTED BY OWNER.	
D. LINES AND LEVELS ENGINEERING: ESTABLISH LINES AND LEVELS BY USE OF RECOGNIZED ENGINEERING PRACTICES. LOCATE AND PROTECT CONTROL AND REFERENCE POINTS.	
E. REGULATORY REQUIREMENTS: PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH APPLICABLE CODES. COMPLY WITH CODE REQUIREMENTS FOR CONSTRUCTION. INFORM OWNER'S PROJECT MANAGER OF DISCREPANCIES OBSERVED OR NOTED BY OTHERS.	
F. STANDARDS: COMPLY WITH STANDARDS REFERENCED EXCEPT WHERE MORE RIGID REQUIREMENTS ARE REQUIRED BY CODE. DATE OF STANDARD IS THAT IN EFFECT AS OF DATE DOCUMENTS ARE ISSUED, EXCEPT WHEN SPECIFIC DATE IS SPECIFIED.	
G. OWNER FURNISHED CONTRACTOR INSTALLED ITEMS: OWNER WILL ARRANGE AND PAY FOR PRODUCT AS INDICATED ON DWGS TO BE DELIVERED TO PROJECT SITE FOR CONTRACTOR INSTALLATION.	
1. CONTRACTOR SHALL INSPECT, RECEIVE, UNLOAD, STORE, INSTALL AND FINISH.	
SECTION 03000 - ADMINISTRATIVE REQUIREMENTS	
A. PROCEDURES: CONTRACTOR SHALL REVIEW AND APPROVE SUBMITTALS PRIOR TO SUBMITTING TO OWNER'S PROJECT MANAGER. INFORM OWNER'S PM IN WRITING AT TIME OF SUBMISSION OF ANY PROPOSED DEVIATION FROM CONTRACT DOCUMENTS.	
1. REVIEW OF SUBMITTALS BY OWNER'S PROJECT MANAGER SHALL BE FOR DESIGN CONCEPT ONLY AND SHALL NOT BE CONSTRUED AS APPROVING DEPARTURES FROM CONTRACT DOCUMENTS.	
B. CONSTRUCTION PROGRESS SCHEDULE: BAR CHARTS OR CONTRACTOR'S STANDARD COMPUTERIZED SCHEDULES, UPDATED REGULARLY, NO LESS THAN MONTHLY.	
C. SCHEDULE OF VALUES: AIA FORM 6708 OR APPROVED FORMAT.	
D. SHOP DRAWINGS: SUBMIT ONE REPRODUCIBLE AND TWO PRINTS; PROVIDE FOR CUSTOM PRODUCTS AND PRODUCTS NOT FULLY IDENTIFIABLE BY PRODUCT DATA.	

E. PRODUCT DATA: SUBMIT NUMBER REQUIRED BY CONTRACTOR PLUS TWO FOR OWNER'S PROJECT MANAGER; INDICATE ITEM TO BE USED WHERE MORE THAN ONE PRODUCT OR OPTION IS INCLUDED. PROVIDE FOR EACH STOCK MANUFACTURED ITEM.	
F. SAMPLES: PROVIDE SAMPLES FOR EACH TYPE OF EXPOSED FINISH, COLOR, AND TEXTURE; MINIMUM SIZE 6", MAXIMUM SIZE 12" UNLESS OTHERWISE SPECIFIED; SUBMIT ONE SAMPLE FOR OWNER'S PROJECT MANAGER TO RETAIN, ONE SAMPLE FOR FIELD OFFICE, AND NUMBER REQUIRED BY CONTRACTOR.	
G. MANUFACTURER'S CERTIFICATES: PROVIDE TWO.	
H. COORDINATE SPACE REQUIREMENTS AND INSTALLATION OF MECHANICAL AND ELECTRICAL WORK; CONCEAL PIPES, DUCTS, AND WIRING IN FINISHED AREAS; COORDINATE LOCATIONS OF FIXTURES AND OUTLETS WITH FINISHES.	
1. MAKE PROVISIONS FOR OWNER INSTALLED ITEMS AND FOR SEPARATE CONTRACTS.	
2. VERIFY CHARACTERISTICS OF INTERRELATED OPERATING EQUIPMENT ARE COMPATIBLE.	
3. COORDINATE WORK HAVING INTERDEPENDENT RESPONSIBILITIES FOR INSTALLING, CONNECTION TO, AND PLACING OF SUCH EQUIPMENT IN SERVICE.	
I. PROJECT MEETINGS: SCHEDULE AND ADMINISTER MEETINGS; MAKE PHYSICAL ARRANGEMENT, PREPARE AGENDA, PRESIDE AT MEETINGS AND RECORD MINUTES.	
SECTION 04000 - QUALITY REQUIREMENTS	
A. GENERAL QUALITY CONTROL: MAINTAIN QUALITY CONTROL OVER SUPPLIERS, MANUFACTURERS, PRODUCTS, SERVICES, SITE CONDITIONS, AND WORKMANSHIP, TO PRODUCE WORK OF SPECIFIED QUALITY.	
B. MANUFACTURER'S FIELD SERVICES: WHEN SPECIFIED IN RESPECTIVE SPECIFICATION SECTIONS, REQUIRE MANUFACTURER OR SUPPLIER TO HAVE QUALIFIED PERSONNEL PROVIDE ON-SITE OBSERVATIONS AND RECOMMENDATIONS.	
1. REPRESENTATIVE SHALL:	
a. OBSERVE FIELD CONDITIONS, INCLUDING CONDITIONS OF SURFACES. OBSERVE QUALITY OF WORKMANSHIP AND METHODS OF INSTALLATION.	
b. PROVIDE RECOMMENDATIONS FOR INSTALLATION AND WORKMANSHIP.	
c. WHERE REQUIRED, START, TEST, AND ADJUST EQUIPMENT AS APPLICABLE.	
d. SUBMIT WRITTEN REPORT TO OWNER'S PM OF OBSERVATIONS.	
C. MOCK-UP: CONSTRUCT FIELD SAMPLES AND MOCK-UPS OF QUOTE AS REQUIRED.	
D. TESTING LABORATORY SERVICES: TESTING SHALL BE BY AN APPROVED TESTING LABORATORY, AS REQUIRED BY SPECIFICATIONS AND BY APPLICABLE CODES.	
1. TESTING REQUIRED WILL BE PAID FOR BY OWNER EXCEPT RETESTING WILL BE PAID FOR BY CONTRACTOR WHERE REQUIRED BY FAILURE ANALYSIS TESTS.	
2. CONTRACTOR SHALL FURNISH MATERIALS AND SAMPLES FOR TESTS AND SHALL ASSIST TESTING LABORATORY AS REQUESTED.	
SECTION 05000 - TEMPORARY FACILITIES AND CONTROLS	
A. GENERAL: PROVIDE TEMPORARY CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS AS REQUIRED TO COMPLETE PROJECT IN ACCORDANCE WITH CONTRACT DOCUMENTS AND TO CONFORM TO REQUIREMENTS OF APPLICABLE AUTHORITIES.	
1. CONTRACT GOVERNING AUTHORITIES TO ESTABLISH EXTENT OF TEMPORARY FACILITIES AND TEMPORARY CONTROLS REQUIRED TO MEET ORIGINAL TESTS.	
B. TEMPORARY POWER: PROVIDE POWER SERVICE AND LIGHTING REQUIRED FOR OPERATIONS, WITH BRANCH WIRING AND DISTRIBUTION BOXES LOCATED TO ALLOW SERVICE AND LIGHTING BY MEANS OF CONSTRUCTION-TYPE POWER CORDS.	
C. TEMPORARY WATER AND SANITARY SERVICES: PROVIDE AND MAINTAIN REQUIRED DRINKING WATER AND SANITARY FACILITIES WITH ENCLOSURES.	
D. NOISE, DUST, AND POLLUTION CONTROL: PROVIDE MATERIALS AND EQUIPMENT NECESSARY TO COMPLY WITH LOCAL REQUIREMENTS FOR NOISE, DUST, AND POLLUTION CONTROL.	
E. BARRIERS: PROVIDE AS REQUIRED TO PROTECT ADJACENT PROPERTIES FROM DAMAGE FROM OPERATIONS, AND AS REQUIRED BY GOVERNING AUTHORITIES.	
1. SOLID WOOD CONSTRUCTION FENCE, EQUIP WITH GATES WITH LOCKS.	
2. SECURITY: MAINTAIN SITE AND PROVIDE SECURITY DURING CONSTRUCTION PERIOD.	
F. CLEANING: CONTROL ACCUMULATION OF WASTE MATERIALS AND RUBBISH; DISPOSE OF OFF-SITE AT INTERVALS APPROVED BY OWNER'S PROJECT MANAGER AND ACCEPTABLE TO APPLICABLE AUTHORITIES.	
G. FIELD OFFICE: PROVIDE WEATHER-TIGHT FIELD OFFICE, WITH LIGHTING, ELECTRICAL OUTLETS, HEATING, AND VENTILATING EQUIPMENT, AND EQUIPPED WITH FURNITURE.	
1. TELEPHONE SERVICE: PROVIDE TELEPHONE SERVICE AND FAX SERVICE TO SITE DURING ON-SITE CONSTRUCTION OPERATIONS.	
2. TELEPHONE SERVICE: PROVIDE CELLULAR PHONE WITH ON-SITE PERSON IN CHARGE; PROVIDE PHONE NUMBER TO OWNER'S PROJECT MANAGER.	
H. STORAGE: LIMIT ON-SITE STORAGE TO AREAS DESIGNATED FOR CONSTRUCTION OPERATIONS AND APPROVED BY OWNER'S PROJECT MANAGER. PROVIDE ADDITIONAL WEATHER-TIGHT, SECURED OFF-SITE STORAGE AS REQUIRED.	
I. REMOVAL AND CLEANING: REMOVE CONSTRUCTION FACILITIES, CLEAN AND REPAIR DAMAGE IN EXCESS OF CONTRACT REQUIREMENTS, CAUSED BY OPERATIONS OR USE OF TEMPORARY FACILITIES.	
SECTION 06000 - PRODUCT REQUIREMENTS	
A. CONTRACT AMOUNT: BASE ON MATERIALS AND PRODUCTS IN CONTRACT DOCUMENTS; WHERE LISTED IN CONTRACT DOCUMENTS, MATERIALS AND PRODUCTS BY MANUFACTURERS NOT LISTED SHALL NOT BE USED WITHOUT WRITTEN APPROVAL.	
B. PRODUCTS: COMPONENTS SUPPLIED IN QUANTITY SHALL BE INTERCHANGEABLE; PROVIDE NEW MATERIALS UNLESS OTHERWISE DIRECTED IN CONTRACT DOCUMENTS.	
C. INSTALLATION: INSTALL ITEMS PLUMB, LEVEL AND SECURE, AND IN CORRECT RELATION TO ADJACENT PRODUCTS; SECURE IN PLACE WITH POSITIVE ANCHORAGE DEVICES DESIGNED AND SIZED TO WITHSTAND STRESSES, VIBRATION, AND RACKING.	
1. COMPLY WITH MANUFACTURER RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE SPECIFIED.	
D. TRANSPORTATION: TRANSPORT PRODUCTS TO AVOID DAMAGE, DELIVER IN UNDAMAGED CONDITION IN MANUFACTURER'S UNPNEUMED CONTAINERS OR PACKAGING.	
E. HANDLING: PROVIDE EQUIPMENT AND PERSONNEL TO HANDLE PRODUCTS BY METHODS TO PREVENT SOILING AND DAMAGE; PROMPTLY REPORT TO ASSURE PRODUCTS ARE CORRECT, COMPLETE, AND UNDAMAGED, AND QUANTITIES ARE CORRECT.	
F. STORAGE: STORE MATERIAL IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS, WITH SEALS AND LABELS INTACT AND LEGIBLE.	
G. PROTECTION: PROVIDE COVERINGS TO PROTECT PRODUCTS FROM DAMAGE FROM TRAFFIC AND CONSTRUCTION OPERATIONS, REMOVE WHEN NO LONGER NEEDED.	
H. SPECIFIED PRODUCTS: FOR PRODUCTS SPECIFIED BY NAMING ONE OR MORE PRODUCTS OR MANUFACTURERS, SELECT PRODUCTS OF ANY NAMED MANUFACTURER MEETING SPECIFICATIONS.	
SECTION 06200 - PRODUCT OPTIONS	
A. SUBSTITUTIONS AND PRODUCT OPTIONS: PROVIDE PRODUCTS INDICATED OR APPROVED, REQUESTS FOR SUBSTITUTIONS OF OTHER PRODUCTS WILL BE CONSIDERED IF SUBMITTED IN WRITING.	
1. CONTRACTOR OPTIONS: PROVIDE PRODUCTS AND MANUFACTURERS NAMED IN SPECIFICATIONS; SUBMIT REQUEST FOR SUBSTITUTION FOR PRODUCTS AND MANUFACTURERS NOT SPECIFICALLY NAMED; WHERE NAMES ARE LISTED:	
2. SUBSTITUTIONS: CONTRACTOR SHALL INVESTIGATE PROPOSED SUBSTITUTIONS AND DETERMINE IF EQUIVALENT TO PRODUCTS SPECIFIED. SUBMITTALS SHALL INCLUDE COST OR TIME BENEFITS FOR SUBSTITUTIONS; FAILURE TO INDICATE COST OR TIME BENEFIT IS JUSTIFICATION FOR REJECTION.	
3. CONTRACTOR'S REPRESENTATION: REQUESTS CONSTITUTE THAT CONTRACTOR HAS INVESTIGATED PROPOSED PRODUCTS AND DETERMINES IT MEETS OR EXCEEDS SPECIFIED PRODUCTS AND MAKES CLAIMS FOR ADDITIONAL COSTS THAT SUBSEQUENTLY BECOME APPARENT.	
4. APPROVALS: OWNER'S PROJECT MANAGER SHALL BE JUDGE OF ACCEPTABILITY AND RESERVES RIGHT TO REJECT PROPOSED SUBSTITUTION BASED ON INSUFFICIENT INFORMATION. USE ONLY SUBSTITUTIONS APPROVED IN WRITING.	
SECTION 07000 - EXECUTION AND CLOSEOUT REQUIREMENTS	
A. INSTALLER QUALIFICATIONS: INSTALLERS TO HAVE MINIMUM FIVE YEARS SUCCESSFUL EXPERIENCE INSTALLING ITEMS SIMILAR TO THOSE REQUIRED FOR PROJECT, EXCEPT FOR INDIVIDUALS IN TRAINING UNDER DIRECT SUPERVISION OF EXPERIENCED INSTALLER.	
B. EXAMINATION: BEGINNING INSTALLATION OF A PRODUCT SIGNIFIES INSTALLER HAS EXAMINED SUBSTRATES, AREAS, AND CONDITIONS FOR COMPLIANCE WITH MANUFACTURER REQUIREMENTS FOR TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE.	
C. MANUFACTURER'S INSTRUCTIONS: WHEN WORK IS SPECIFIED TO COMPLY WITH MANUFACTURER'S RECOMMENDATIONS OR INSTRUCTIONS, DISTRIBUTE COPIES TO PERSONS INVOLVED, AND MAINTAIN ONE SET IN FIELD OFFICE.	
D. INSTALLATION: COMPLY WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS UNLESS MORE RESTRICTIVE REQUIREMENTS ARE SPECIFIED.	
E. PROTECTION: COVER PRODUCTS SUBJECT TO DETEIORATION WITH IMPERVIOUS SHEET, PROVIDE VENTILATION TO AVOID CONDENSATION AND TRAPPING WATER.	
F. CUTTING AND PATCHING: CUT AND FIT COMPONENTS AS REQUIRED; PATCH DISTURBED AREAS TO MATCH ADJACENT MATERIALS AND FINISHES.	
1. REFINISHING: REFINISH EXISTING SURFACES AS NECESSARY TO PROVIDE EVEN FINISH TO MATCH ADJACENT FINISHES; FOR CONTINUOUS SURFACES REFINISH TO NEAREST INTERSECTION, FOR AN ASSEMBLY REFINISH TO NEAREST CORNER.	
G. FINAL CLEANING: CLEAN INTERIOR AND EXTERIOR SURFACES EXPOSED TO VIEW, REMOVE TEMPORARY LABELS, STAINS, AND FOREIGN SUBSTANCES; POLISH TRANSPARENT AND GLOSSY SURFACES; VACUUM CARPETED AND SOFT SURFACES; CLEAN DUCTS; CLEAN SITE.	
H. SUBSTANTIAL COMPLETION: PROVIDE DOCUMENTATION STATING WORK HAS BEEN SUBSTANTIALLY COMPLETED, WHERE OWNER REQUIRES USE OF SPACE PRIOR TO FINAL COMPLETION, PROVIDE LIST OF ITEMS TO BE COMPLETED.	
1. OWNER'S PROJECT MANAGER WILL REVIEW LIST OF ANY ITEMS TO BE COMPLETED AND ONE OFFICIAL LIST WITH ITEMS CONSIDERED TO BE INCOMPLETE OR UNACCEPTABLE.	
I. FINAL COMPLETION: PROVIDE WRITTEN CERTIFICATION INDICATING WORK IS IN COMPLIANCE WITH CONTRACT DOCUMENTS; SYSTEMS HAVE BEEN TESTED AND ARE OPERATIONAL, AND WORK IS READY FOR FINAL ACCEPTANCE.	
J. PROJECT RECORD DOCUMENTS: MAINTAIN COMPLETE AND UP-TO-DATE RECORD DOCUMENTS; KEEP SEPARATE FROM FIELD DOCUMENTS. SUBMIT PROJECT RECORD DOCUMENTS, MATERIAL AND FINISH DATA, OPERATION AND INSTRUCTION MANUALS, WARRANTIES AND BONDS AT COMPLETION.	
1. SUBMIT BOUND IN 8-1/2" X 11" THREE RING BINDERS WITH DURABLE PLASTIC COVERS. ARRANGE IN FORMAT SIMILAR TO SPECIFICATIONS.	
K. WARRANTIES: PROVIDE WARRANTIES AS INDICATED, SIGNED BY CONTRACTOR AND MANUFACTURER, FORM AS APPROVED BY AUTHORITY TO BE PROVIDED TO OWNER.	
1. WARRANTIES SHALL BE IN ADDITION TO AND NOT A LIMITATION OF OTHER RIGHTS OWNER MAY HAVE AGAINST CONTRACTOR UNDER CONTRACT DOCUMENTS AND AS PRESCRIBED BY LAW, REGARDLESS OF WORDING OF WARRANTY.	
SECTION 07300 - EXECUTION	
A. SELECTIVE DEMOLITION: REMOVE FROM SITE EXISTING MATERIALS, CONSTRUCTION AND UTILITIES AS NEEDED TO COMPLETE PROJECT. REMOVE EXISTING ELEMENTS INDICATED AND ENCOUNTERED DURING CONSTRUCTION, AS NEEDED TO COMPLETE WORK.	
1. REMOVE ONLY THOSE ELEMENTS NECESSARY FOR COMPLETION OF PROJECT, REPLACE OR REPAIR ELEMENTS UNNECESSARILY REMOVED OR DAMAGED DURING CONSTRUCTION.	
2. CAREFULLY REMOVE AND STORE ITEMS INDICATED FOR REUSE IN PROJECT AND COORDINATE WITH OTHER TRADES FOR MODIFICATIONS AND REINSTALLATION.	
3. PROTECTION: PREVENT MOVEMENT AND SETTLEMENT OF ADJACENT STRUCTURE, PROVIDE BRACING, SHORING, AND UNDERPINNING AS NEEDED AND BE RESPONSIBLE FOR SAFETY AND SUPPORT OF STRUCTURES. ASSUME LIABILITY FOR SUCH MOVEMENT AND SETTLEMENT.	
4. UTILITIES: CONTACT APPLICABLE UTILITY COMPANIES PRIOR TO DISCONNECTING UTILITIES; DISCONTINUE WORK IF UNEXPECTED UTILITY LINES ARE ENCOUNTERED. DETERMINE LINE SOURCE AND USE PRIOR TO REMOVAL. CAP AND IDENTIFY EXISTING UTILITY LINES.	

SECTION 07400 - DEMONSTRATION AND TRAINING

A. SUMMARY: PROJECT INCLUDES SPECIAL FACILITY START-UP PROCESS TO BRING FACILITY TO FULLY OPERATIONAL STATE, FREE OF DEFICIENCIES, IN MOST EFFICIENT AND TIMELY MANNER ACHIEVABLE.

DIVISION 02 - EXISTING CONDITIONS (NOT USED)

DIVISION 03 - CONCRETE

SECTION 03300 - CAST-IN-PLACE CONCRETE

A. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3600 PSI AT 28 DAYS, WITH A WATER CEMENT RATIO + .50 (MAXIMUM). CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED WITH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.

B. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.

C. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 DELIVERED IN FLAT SHEETS.

D. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE¹ ACI 318-05.

E. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI 315-94, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.

F. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS, ETC., AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED.

G. CONTRACTOR SHALL PROVIDE SADDLES, CHAIRS, BOLSTERS, ETC., NECESSARY TO SUPPORT REINFORCING STEEL. CHAIRS WHICH BEAR ON EXPOSED CONCRETE SURFACES SHALL HAVE ENDS WHICH ARE PLASTIC TIPPED OR STAINLESS STEEL. CHAIRS WHICH BEAR ON EXPOSED CONCRETE SURFACES TO RECEIVE SANDBLAST FINISH SHALL BE STAINLESS STEEL.

H. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT: (REFER TO THE STRUCTURAL DRAWINGS SPECIFICATIONS).

SECTION 034900 - GLASS FIBER REINFORCED CEMENT

A. GENERAL: POLYMER GLASS FIBER REINFORCED GRAY CEMENT - FORGILAS EP (FOR EXTERIOR AND HIGH TRAFFIC APPLICATION)

1. WORK INCLUDED:

a. SUPPLY OF FORGILAS EP UNITS.

b. ERECTION PER ARCHITECT'S DRAWINGS, MANUFACTURERS' INSTRUCTIONS AND IN COMPLIANCE WITH LOCAL CODES.

c. SUPPLY OF CONNECTION HARDWARE.

2. RELATED WORK EXCLUDED:

a. PRE-CAST CONCRETE.

b. STRUCTURAL FRAMING AND BACK UP.

c. FINISHES - NOTE: FORGILAS EP IS AVAILABLE IN NATURAL (CEMENT) GREY COLOR ONLY AND REQUIRES FIELD FINISHING.

d. CAULKING.

3. DESIGN RESPONSIBILITY: FORGILAS EP IS TO BE CONSIDERED A DECORATIVE MATERIAL ONLY. FORGILAS CANNOT TAKE RESPONSIBILITY FOR STRUCTURAL LOAD (LIVE OR WIND) OR SEISMIC CONSIDERATIONS.

4. MANUFACTURER: FORGILAS INC., 2 CHAMPAGNE DRIVE, TORONTO, ONTARIO CANADA M3J 3G5. TEL: (416) 636-8029 FAX: (416) 636-6588 INTERNET: WWW.FORGILAS.COM

5. SAMPLES AND SUBMITTALS:

a. SUBMIT A MINIMUM OF 3 - 8" X 8" FORGILAS EP FLAT SAMPLES TO THE FINISHING CONTRACTOR FOR COATING SELECTION.

b. MATERIALS SUBMITTALS: PROVIDE APPROVAL SHOPPING PLANS, SECTIONS, DETAILS, JOINT-TREATMENT, REINFORCING, FASTENING DEVICES AND THE RELATION OF THE FORGILAS EP TO THE SURROUNDING CONSTRUCTION.

6. SUBSTITUTIONS: NO SUBSTITUTIONS.

B. PRODUCTS:

1. MATERIALS:

a. FORGILAS EP UNITS SHALL BE PREFABRICATED WITH POLYMER GLASSFIBRE ON-SITE CURED CEMENT (P.G.C.) SUITABLY REINFORCED.

b. FORGILAS EP SHALL BE READY TO RECEIVE FINISH COATINGS AS SPECIFIED ELSEWHERE. THESE COATINGS SHALL BE APPLIED AFTER UNITS ARE INSTALLED.

c. ALL FASTENERS OR CONNECTORS SHALL BE GALVANIZED OR PLATED.

d. NOTE: FORGILAS EP IS SUPPLIED IN NATURAL (CEMENT) GREY COLOR ONLY AND REQUIRES FIELD FINISHING BY OTHERS.

2. TOLERANCES (FABRICATION):

a. DIMENSIONAL ALL DIRECTIONS +/- .1/8"

b. THICKNESS SKIN +/- .1/8" - 1/16"

c. THICKNESS - TOTAL UNIT +/- 1/4" - 1/8"

d. WARPAGE OR BOWING +/- 1/16" PER FOOT

3. PHYSICAL PROPERTIES:

a. SHELL THICKNESS 3/16" TO 3/8"

b. WEIGHT (DEPENDENT ON REINFORCING) 2 1/2 TO 6 LBS / SQ.FT.

c. DENSITY APPROX. 125 LBS/CU.FT.

d. ULTIMATE TENSILE STRENGTH 1500 P.S.I.

e. BENDING STRENGTH 2600 P.S.I.

f. COMPRESSIVE STRENGTH 8000 P.S.I.

g. SHEAR STRENGTH (INTERLAMINAR) 650 P.S.I.

h. FUEL CONTRIBUTED (A.S.T.M. E84-80) 0

i. FLAME AND SMOKE SPREAD (A.S.T.M. E84-80) 0

C. EXECUTION:

1. DELIVERY, STORAGE AND HANDLING: TRANSPORT AND HANDLE UNITS IN A MANNER THAT AVOIDS EXCESSIVE STRESSES OR DAMAGE AND STORE ON A LEVEL AND CLEAN SURFACE.

2. PRE-INSTALLATION RESPONSIBILITIES:

a. PRIOR TO MANUFACTURING, DIMENSIONS AND CONDITIONS NOT SHOWN ON THE DRAWINGS WILL BE CHECKED BY THE ERECTOR FOR INCLUSION BY THE MANUFACTURER.

b. PRIOR TO INSTALLATION, THE ERECTOR SHALL CHECK JOBSITE DIMENSIONS, ANY DISCREPANCIES BETWEEN DESIGN AND FIELD DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR. WORK SHALL NOT PROCEED UNTIL THESE DISCREPANCIES ARE CORRECTED.

3. ERECTION:

a. UNITS SHALL BE LIFTED WITH SUITABLE DEVICES AT POINTS INDICATED BY THE MANUFACTURER.

b. INSTALLATION OF UNITS SHALL BE PLUMB AND LEVEL.

c. THE ERECTOR SHALL PROVIDE TEMPORARY SUPPORTS TO MAINTAIN POSITION AS UNITS ARE BEING CONNECTED.

d. FASTEN UNITS WITH SCREWS (THROUGH THE FACE OR FROM THE BACK).

4. TOLERANCES - ERECTED UNITS:

a. WIDTH OF CAULKED JOINT +/- 3/16"

b. OUT OF PLANE (UNIT TO UNIT) +/- 1/4"

c. WARPAGE OR BOWING +/- 1/16" PER FOOT

5. JOINT TREATMENT & PATCHING:

a. APPLY BONDO AT ALL JOINTS. NOTE: IN AREAS NOT SUBJECT TO FREEZE/THAW CONDITIONS IT IS POSSIBLE TO TAPE COLUM COVER JOINTS WITH AUTO BODY FILLER AND FIBERGLASS TAPE, CONTACT FORGILAS FOR FURTHER INFORMATION.

b. TO PATCH CHIPS, BREAKS, COUNTERSUNK FASTENERS, ETC., USE AUTO BODY FILLER OR CEMENT PATCHING COMPOUND AS RECOMMENDED BY FORGILAS.

6. CLEANING & FINISHING:

a. CLEAN SOLED UNITS WITH DETERGENT AND WATER. FORGILAS EP IS AVAILABLE ONLY IN NATURAL (CEMENT) GREY COLOR AND REQUIRES FIELD FINISHING. FINISHES USED, SHALL BE THE SAME AS FOR CONCRETE TILT-UP MATERIALS AND ARE SHOWN UNDER THE PAINTING SECTION OF THE SPECIFICATIONS.

D. WARRANTY: FORGILAS EP IS WARRANTED FOR ONE (1) YEAR FROM THE DATE OF ACCEPTANCE TO REMAIN FREE FROM CRACKS, CHIPS, SPLITS AND MARKS CAUSED BY DEFECTIVE MATERIAL OR WORKMANSHIP.

SECTION 039200 - CONCRETE RESURFACING AND REHABILITATION

A. GENERAL: CONCRETE SURFACE SHALL BE IMPROVED AND/OR REPAIRED TO PROVIDE A SUITABLE SURFACE FOR INSTALLATION OF ALL FLOOR FINISH MATERIALS AND TO COMPLY WITH ALL PROJECT AND/OR FUTURE REQUIREMENTS.

B. SUBMITTALS:

1. NO SUBMITTALS SHALL BE REQUIRED.

2. NO SUBSTITUTIONS WILL BE ALLOWED.

C. INSTALLER: FIRM WITH MINIMUM 5 YEARS SUCCESSFUL EXPERIENCE, REGULARLY ENGAGED IN INSTALLATION OF SPECIFIED MATERIALS, PROPERLY EQUIPPED AND ACCEPTABLE TO MANUFACTURER.

D. NATIONAL ACCOUNTS:

1. THE MAPEI PRODUCTS LISTED THROUGHOUT THIS SPECIFICATION SHALL BE PURCHASED BY THE GC THROUGH THE FOLLOWING NATIONAL ACCOUNT, UNLESS OTHERWISE NOTED:

a. PRO TILE, 97145-041, PLACE ORDER AS A VICTORIA'S SECRET OR PINK STORE. MATERIAL WILL BE PROVIDED FROM THE NEAREST MAPEI DISTRIBUTION CENTER.

2. ALL OTHER PRODUCTS LISTED WHICH ARE THE RESPONSIBILITY OF THE GC SHALL BE PURCHASED THROUGH LOCAL RESOURCES.

E. EXISTING STATIC SUBSTRATE CRACKS:

1. SELF-LEVELING POLYUREA JOINT FILLER COMPLYING WITH ASTM C920.

a. ACCEPTABLE PRODUCT: MAPEI PLANIBOND JF JOINT FILLER

F. PATCHING, RAPPING, AND SHALL FILL AREAS:

1. PRE-BLENDED POLYUREA-MODIFIED CEMENTITIOUS FAST SETTING HIGH FLOW PATCHING MORTAR, SUITABLE FROM FEATHER EDGE TO 3 INCH (76MM) APPLICATION IN CONFINED AREAS AND AS A NEAR SURFACE.

a. ACCEPTABLE PRODUCT: MAPEI MAPECEM QUICKPATCH.

G. LARGE FILL AREAS AND LEVELING:

1. POURABLE CEMENTITIOUS, HIGH-STRENGTH, FAST-SETTING, NON-SHRINK, SELF-LEVELING UNDERLAYMENT ACHIEVING A MINIMUM OF 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, COMPLYING WITH ASTM C848 AND SUITABLE FROM 1/8 INCH TO 1 INCH (3.2MM TO 25.4MM) T.

a. ACCEPTABLE PRODUCT: MAPEI ULTRAFILAN I PLUS IN CONJUNCTION WITH PRIMER T (SELF-LEVELING PRIMER)

2. SUBSTRATE MUST BE PREPARED BY SHOT-BLASTING TO ACHIEVE A SURFACE PROFILE BETWEEN FORM 1 AND FORM 2.

H. INSTALLATION: COMPLY WITH ALL MANUFACTURER RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.

1. INCLUDE ACCESSORIES AND EQUIPMENT AS REQUIRED FOR COMPLETE INSTALLATION.

DIVISION 04 - MASONRY	
SECTION 042200 - CONCRETE UNIT MASONRY	
A. MASONRY CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF ASCE 5-05 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND ASCE 5-05 "SPECIFICATIONS FOR MASONRY STRUCTURES".	
B. HOLLOW LOAD BEARING UNITS SHALL BE NORMAL HEIGHT, TYPE N, CONFORMING TO ASTM C90, WITH A MINIMUM NET COMPRESSIVE STRENGTH OF 2500 PSI (Fm = 1900 PSI).	
C. MORTAR SHALL BE TYPE M OR S, CONFORMING TO ASTM C270.	
D. COURSE GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.	
E. VERTICAL REINFORCEMENT SHALL BE AS NOTED ON THE STRUCTURAL DRAWINGS WITH CELLS FILLED WITH COARSE GROUT.	
F. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION AT THE TOP AND BOTTOM AND AT A MAXIMUM SPACING OF 8'-0". REINFORCEMENT SHALL BE PLACED IN THE CENTER OF THE MASONRY CELL, TYPICAL UNLESS OTHERWISE NOTED.	
G. REINFORCING STEEL SHALL BE LAPPED MINIMUM 48 BAR DIAMETERS WHERE SPLICED UNLESS NOTED OTHERWISE ON DRAWINGS.	
H. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICALS. DOWELS SHALL BE GROUTED INTO A CORE IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN THE CELL ADJACENT TO THE VERTICAL WALL. REINFORCEMENT HORIZONTAL WALL REINFORCEMENT SHALL BE STANDARD TRUSS TYPE DWR-O-NAL AT 16" C/C, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.	
I. SPLICED WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AND CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT WITHIN THE 6 INCHES. LAP WITH STANDARD "I" AND "L" SHAPED PIECES AT INTERSECTIONS AND CORNERS.	
J. PROVIDE A MINIMUM OF 3 COURSES HIGH BY 2 COURSES WIDE GROUTED SOLID MASONRY AT BEAM BEARING POINTS.	
K. PROVIDE PRECAST CONCRETE LINTELS OVER ALL OPENINGS UNLESS NOTED OTHERWISE ON DRAWINGS. LINTELS SHALL BE OF SUFFICIENT SIZE AND REINFORCEMENT FOR THE GIVEN SPANS AND LOADING CONDITIONS. SUBMIT SHOP DRAWINGS WITH LOAD CAPACITIES TO THE ARCHITECT FOR REVIEW.	
L. PROVIDE A KNOCK-OUT BLOCK OR U-BLOCK REINFORCED WITH (1)-#5 CONTINUOUS AT THE SILL OF ALL WINDOW OPENINGS. EXTEND 16" BEYOND EACH SIDE OF THE OPENING TYPICALLY.	
M. BOND PLASTER TO ADJOINING MASONRY WALLS WITH INTERLOCKING UNITS.	
N. PROVIDE 2 COURSES BY 16" WIDE SOLID OR GROUTED SOLID MASONRY AT JOIST AND LINTEL BEARING POINTS.	
SECTION 044000 - STONE ASSEMBLIES	
A. GENERAL: PROVIDE STONE FABRICATIONS FOR CLADDING ON CURBS AS INDICATED, INCLUDING ANCHORS, MORTAR, GROUT, AND ACCESSORIES AS REQUIRED FOR COMPLETE, FINISHED INSTALLATION.	
B. DESIGN REQUIREMENTS: OBTAIN EACH STONE FROM SINGLE QUARRY SOURCE, WITH CONSISTENT COLOR RANGE AND TEXTURE THROUGHOUT WORK; DO NOT CHANGE SOURCES OR KINDS OF MATERIALS DURING COURSE OF WORK.	
C. QUALITY CONTROL: OBSERVE STONE DURING FABRICATION AND ENSURE CONSISTENCY OF APPEARANCE; DO NOT USE PIECES WITH DEFECTS AND BLEMISHES BEYOND NORMAL CHARACTERISTICS:	
1. DEFECTS AND BLEMISHES TO BE OBSERVED: SPOTS, FOREIGN ELEMENTS, IRREGULAR COLOR VARIATIONS, AND IRREGULARITIES IN TYPICAL CHARACTERISTICS SHALL BE CONSIDERED DEFECTS AND BLEMISHES.	
D. AS INDICATED ON DRAWINGS; EACH TYPE OF STONE SHALL COME FROM A SINGLE QUARRY TO ENSURE CONSISTENT COLOR.	
E. MORTAR AND GROUT MATERIALS: ASTM C150, TYPE 1 PORTLAND CEMENT, ASTM C207, TYPE 5 HYDRATED LIME, AND ASTM C144 SAND, CLEAN, FREE OF HARMFUL SUBSTANCES, USE WHITE CEMENT AT COLORED MORTAR AND GROUT, COLOR TO MATCH STONE UNLESS OTHERWISE INDICATED.	
F. ACCESSORIES: PROVIDE ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION.	
G. FABRICATION: FABRICATE AS SHOWN AND AS DETAILED ON FINAL SHOP DRAWINGS WITH EXPOSED SURFACES SMOOTH, TRUE, AND FLAT.	
1. CUT ACCURATELY TO SHAPE AND DIMENSIONS SHOWN ON FINAL SHOP DRAWINGS; COMPLY WITH FABRICATION TOLERANCES OF STONE ASSOCIATION FOR SPECIFIED FINISHES. ZERO TOLERANCE WHERE HAIRLINE JOINTS ARE REQUIRED.	
2.	

SECTION 06100 - SHEATHING

1. PART 1 - GENERAL
- A. SUMMARY
1. SECTION INCLUDES WALL SHEATHING AND SHEATHING JOINT AND PENETRATION TREATMENT.
2. PART 2 - PRODUCTS
- A. PERFORMANCE REQUIREMENTS
1. FIRE-TEST-RESPONSE CHARACTERISTICS: FOR ASSEMBLIES WITH FIRE-RESISTANCE RATINGS, PROVIDE MATERIALS AND CONSTRUCTION IDENTICAL TO THOSE OF ASSEMBLIES TESTED FOR FIRE RESISTANCE PER ASTM E 119 BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO THE AUTHORITIES HAVING JURISDICTION. FIRE-RESISTANCE RATINGS ARE INDICATED BY DESIGN DESIGNATIONS FROM UL'S "FIRE RESISTANCE DIRECTORY."

- 2.02 WOOD PANEL PRODUCTS
- A. EMISSIONS: PRODUCTS SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES "STANDARD PRACTICE FOR THE TESTING OF VOLATILE ORGANIC EMISSIONS FROM VARIOUS SOURCES USING SMALL-SCALE ENVIRONMENTAL CHAMBERS."

- 2.03 FIRE-RETARDANT-TREATED PLYWOOD
- A. GENERAL: WHERE FIRE-RETARDANT-TREATED MATERIALS ARE INDICATED, USE MATERIALS COMPLYING WITH REQUIREMENTS IN THIS ARTICLE THAT ARE ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND WITH FIRETEST + RESPONSE CHARACTERISTICS SPECIFIED AS DETERMINED BY TESTING IDENTICAL PRODUCTS PER TEST METHOD INDICATED BY A QUALIFIED TESTING AGENCY.
- B. FIRE-RETARDANT-TREATED PLYWOOD BY PRESSURE PROCESS: PRODUCTS WITH A FLAME-SPREAD INDEX OF 25 OR LESS WHEN TESTED ACCORDING TO ASTM E 84, AND WITH NO EVIDENCE OF SIGNIFICANT PROGRESSIVE COMBUSTION WHEN THE TEST IS EXTENDED AN ADDITIONAL 20 MINUTES, AND WITH THE FLAME FRONT NOT EXTENDING MORE THAN 10.5 FEET (3.2 M) BEYOND THE CENTERLINE OF THE BURNERS AT ANY TIME DURING THE TEST.

1. EXTERIOR TYPE: TREATED MATERIALS SHALL COMPLY WITH REQUIREMENTS SPECIFIED ABOVE FOR FIRE-RETARDANT-TREATED PLYWOOD BY PRESSURE PROCESS AFTER BEING SUBJECTED TO ACCELERATED HEATHERING ACCORDING TO ASTM D 2898. USE FOR EXTERIOR LOCATIONS AND WHERE INDICATED.
2. INTERIOR TYPE A: TREATED MATERIALS SHALL HAVE A MOISTURE CONTENT OF 28 PERCENT OR LESS WHEN TESTED ACCORDING TO ASTM D 5201 AT 92 PERCENT RELATIVE HUMIDITY. USE WHERE EXTERIOR LOCATIONS ARE NOT INDICATED.
3. DESIGN VALUE ADJUSTMENT FACTORS: TREATED LUMBER PLYWOOD SHALL BE TESTED ACCORDING TO ASTM D 596 AND DESIGN VALUE ADJUSTMENT FACTORS SHALL BE CALCULATED ACCORDING TO ASTM D 6305. SPAN RATINGS AFTER TREATMENT SHALL BE NOT LESS THAN SPAN 40766 (SPRINK) FOR WHERE HIGH-TEMPERATURE FIRE-RETARDANT TREATMENT IS INDICATED, SPAN RATINGS FOR TEMPERATURES UP TO 170 DEG F (76 DEG C) SHALL BE NOT LESS THAN SPAN RATINGS SPECIFIED.

- C. KILN-DRY MATERIAL AFTER TREATMENT TO A MAXIMUM MOISTURE CONTENT OF 15 PERCENT.
- D. IDENTIFY FIRE-RETARDANT-TREATED PLYWOOD WITH APPROPRIATE CLASSIFICATION MARKING OF QUALIFIED TESTING AGENCY.
- E. APPLICATION: TREAT ALL PLYWOOD UNLESS OTHERWISE INDICATED ON DRAWINGS.

- 2.04 WALL SHEATHING
- A. PLYWOOD WALL SHEATHING: EXTERIOR, STRUCTURAL I, EXPOSURE I, THICKNESS AS INDICATED ON DRAWINGS.
- B. PAPER-SURFACED GYPSUM WALL SHEATHING: ASTM C 1396/C 1396M, GYPSUM SHEATHING, WITH WATER-RESISTANT-TREATED CORE AND WITH WATER-REPELLENT PAPER BONDED TO CORE'S FACE, BACK, AND LONG EDGES. THICKNESS AS INDICATED ON DRAWINGS.
- C. GLASS-MAT GYPSUM WALL SHEATHING: ASTM C 1077/1077M, THICKNESS AS INDICATED ON DRAWINGS.
- D. CELLULOSE FIBER-REINFORCED GYPSUM SHEATHING: ASTM C 1278/C 1278M, GYPSUM SHEATHING, THICKNESS AS INDICATED ON DRAWINGS.
- E. CEMENTITIOUS BACKER UNITS: ASTM C 1325, TYPE A, THICKNESS AS INDICATED ON DRAWINGS.

- 2.05 CEMENT BONDED PARTICLE BOARD
- A. MATERIALS: ALL CEMENT BOARD WALL PANELS SHALL COMPLY WITH EN 634-2 FOR CEMENT BONDED PARTICLE BOARD AND SHALL BE INSTALLED TO THE MANUFACTURER'S MOST CURRENT PUBLISHED INSTRUCTIONS. WALL PANEL THICKNESS AS INDICATED ON DRAWINGS.
- B. FIRE RESISTANCE PROPERTIES: ALL CEMENT BOARD WALL PANELS SHALL BE RATED FOR "0" FLAME SPREAD AND "0" SMOKE DEVELOPMENT PER ASTM E84 AND SHALL HAVE PASSED A MODIFIED ASTM E136 TEST FOR A MINIMUM DURATION OF TEN (10) MINUTES.
- C. DELIVERY AND STORAGE:
1. DELIVER, STORE AND HANDLE MATERIALS TO PREVENT BREAKAGE, WARPING OR DAMAGE BY WATER.
2. ACCLIMATE MATERIALS BY STORING ON SITE NOT LESS THAN THREE (3) DAYS BEFORE INSTALLATION.
3. MATERIALS TO BE STORED INDOORS ON LEVELLED DUNNAGE NOT EXCEEDING 32" ON CENTERS. IF TEMPORARILY STORED OUTDOORS, BOARDS MUST BE ELEVATED ABOVE GROUND, AND PROTECTED FROM THE WEATHER WITH WATERPROOF COVERING.
4. PANELS TO BE STORED FLAT AND NOT ON EDGES.
- D. SURFACE TREATMENTS: VERIFY CEMENT BOARD WILL ACCEPT PAINT AS INDICATED ON DRAWINGS - REFER TO THE PAINT MANUFACTURER IN ALL INSTANCES. FOR SURFACE TREATMENTS THAT ARE NOT VAPOR OR MOISTURE PERMEABLE, THE REVERSE AND ALL EDGES OF THE PANEL SHOULD ALSO BE TREATED IN THE SAME WAY TO AVOID THE PANEL BEING UNBALANCED AND EXHIBITING WARPING UNDER EXTREME CONDITIONS OF HUMIDITY VARIANCE.

- 2.06 FASTENERS
- A. GENERAL: PROVIDE FASTENERS OF SIZE AND TYPE INDICATED THAT COMPLY WITH REQUIREMENTS SPECIFIED IN THIS ARTICLE FOR MATERIAL AND MANUFACTURER. FOR WALL SHEATHING, PROVIDE FASTENERS AS INDICATED ON DRAWINGS.

- 2.07 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS
- A. SEALANT FOR PAPER-SURFACED GYPSUM SHEATHING: ELASTOMERIC, MEDIUM-MODULUS, NEUTRAL-CURING SILICONE JOINT SEALANT COMPATIBLE WITH JOINT SUBSTRATES FORMED BY GYPSUM SHEATHING AND OTHER MATERIALS, RECOMMENDED BY SHEATHING MANUFACTURER FOR APPLICATION INDICATING AND COMPLYING WITH THE REQUIREMENTS FOR ELASTOMERIC SEALANTS SPECIFIED IN DIVISION 07 SECTION "JOINT SEALANTS".
- B. SEALANT FOR GLASS-MAT GYPSUM SHEATHING: SILICONE EMULSION SEALANT COMPLYING WITH ASTM C 834, COMPATIBLE WITH SHEATHING TAPE AND SHEATHING AND RECOMMENDED BY TAPE AND EMULSION SEALANT MANUFACTURERS FOR USE WITH GLASS-FIBER SHEATHING TAPE AND FOR COVERING EXPOSED FASTENERS.
1. SHEATHING TAPE: SELF-ADHERING GLASS-FIBER TAPE, MINIMUM 2 INCHES (50 MM) WIDE, 10 BY 10 OR 10 BY 20 THREDS/INCH (300 BY 300 OR 300 BY 780 THREDS/M), OF TYPE RECOMMENDED BY SHEATHING AND TAPE MANUFACTURERS FOR USE WITH SILICONE EMULSION SEALANT IN SEALING JOINTS IN GLASS-MAT GYPSUM SHEATHING AND WITH A HISTORY OF SUCCESSFUL IN-SERVICE USE.
- C. SEALANT FOR CEMENT BONDED PARTICLE BOARD:

1. EXTERIOR APPLICATIONS: USE PREMIXED ELASTOMERIC JOINT CAULKING OR SEALANT AS APPROVED BY THE SYNTHETIC COATINGS MANUFACTURER'S FINISH SYSTEM. USE ONLY FULLY ELASTOMERIC SYNTHETIC COATINGS.
2. INTERIOR APPLICATIONS: DESIGN REAR VISIBLE PANEL JOINTS OR USE METAL OR PLASTIC BATTEN COVER STRIPS AT PANEL JOINTS.
- 2.08 MISCELLANEOUS MATERIALS
- A. ADHESIVES FOR FIELD GLUING PANELS TO FRAMING: FORMULATION COMPLYING WITH ASTM D 3498 THAT IS APPROVED FOR USE WITH TYPE OF CONSTRUCTION PANEL INDICATED BY MANUFACTURERS OF BOTH ADHESIVES AND PANELS.

- PART 3 - EXECUTION
- 3.01 INSTALLATION, GENERAL
- A. DO NOT USE MATERIALS WITH DEFECTS THAT IMPAIR QUALITY OF SHEATHING OR PIECES THAT ARE TOO SMALL TO USE WITH MINIMUM NUMBER OF JOINTS OR OPTIMUM JOINT ARRANGEMENT. ARRANGE JOINTS SO THAT PIECES DO NOT SPAN BETWEEN FEWER THAN THREE SUPPORT MEMBERS.
- B. CUT PANELS AT PENETRATIONS, EDGES, AND OTHER OBSTRUCTIONS OF WORK: FIT TIGHTLY AGAINST BUTTING CONSTRUCTION UNLESS OTHERWISE INDICATED.
- C. SECURELY ATTACH TO SUBSTRATE BY FASTENING AS INDICATED, COMPLYING WITH THE FOLLOWING:
1. NES NER-272 FOR POWER-DRIVEN FASTENERS.
2. TABLE 2304.9.1, "FASTENING SCHEDULE," IN ICCS "INTERNATIONAL BUILDING CODE."
- D. COORDINATE WALL SHEATHING INSTALLATION WITH FLASHING AND JOINT-SEALANT INSTALLATION SO THESE MATERIALS ARE INSTALLED IN SEQUENCE AND MANNER THAT PREVENT EXTERIOR MOISTURE FROM PASSING THROUGH COMPLETED ASSEMBLY.
- E. DO NOT BRIDGE BUILDING EXPANSION JOINTS; CUT AND SPACE EDGES OF PANELS TO MATCH SPACING OF STRUCTURAL SUPPORT ELEMENTS.

- 3.02 WOOD STRUCTURAL PANEL INSTALLATION
- A. GENERAL: COMPLY WITH APPLICABLE RECOMMENDATIONS IN APA FORM NO. E30, "ENGINEERED WOOD CONSTRUCTION GUIDE," FOR TYPES OF STRUCTURAL USE PANELS AND APPLICATIONS INDICATED.
- B. FASTEN PANELS AS INDICATED BELOW FOR WALL SHEATHING:
1. NAIL OR STAPLE TO WOOD FRAMING. APPLY A CONTINUOUS BEAD OF GLUE TO FRAMING MEMBERS AT EDGES OF WALL SHEATHING PANELS.
2. SCREW TO COLD-FORMED METAL FRAMING.
3. SPACE PANELS 1/8 INCH (3 MM) APART AT EDGES AND ENDS.

- 3.03 GYPSUM SHEATHING INSTALLATION
- A. COMPLY WITH GA-265 AND WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
1. FASTEN GYPSUM SHEATHING TO WOOD FRAMING WITH NAILS OR SCREWS.
2. FASTEN GYPSUM SHEATHING TO COLD-FORMED METAL FRAMING WITH SCREWS.
- B. SEAL SHEATHING JOINTS ACCORDING TO SHEATHING MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 3.04 CEMENT BONDED PARTICLE BOARD INSTALLATION
- A. A SUPPORT FRAMING MEMBER MUST ALWAYS OCCUR BEHIND FASTENER LOCATION.
- B. DO NOT NAIL OR SCREW ANY COLLATERAL BUILDING MATERIALS TO PANELS WITHOUT A SECURE BACKING SURFACE BEHIND THE PANEL TO RECEIVE THE FASTENER. TOGGLE BOLTING IS REQUIRED WHERE NO SECURE BACKING SURFACE IS PROVIDED.
- C. DEFLECTION OF PANELS SHALL BE LIMITED TO L/240.
- D. IN EXTERIOR APPLICATIONS, CONTROL JOINTS (WHERE APPLICABLE) SHALL BE DESIGNED TO PREVENT TRANSFER OF ANY MOVEMENT OF THE SYSTEM TO THE SUBSTRATE THROUGH WALL CONTROL JOINTS SHALL BE DESIGNED TO ISOLATE A MAXIMUM OF 250 SQ. FT. OF WALL AREA. PROVIDE SEPARATE FRAMING MEMBER AT EACH SIDE OF CONTROL JOINT.
- E. COMPLY WITH APPLICABLE BUILDING CODES FOR WIND, SEISMIC AND OTHER LOAD REQUIREMENTS.
- F. INSTALL PANELS WITH LONG DIMENSIONS VERTICAL. ALL PANEL JOINTS MUST OCCUR OVER A FRAMING MEMBER. ALL PANEL EDGES ARE TO BE SUPPORTED BY A FRAMING MEMBER.
- G. PROVIDE 1/8" VERTICAL AND HORIZONTAL JOINTS BETWEEN PANELS.
- H. USE PANEL THICKNESS AS INDICATED ON DRAWINGS.

1. USE 2" MINIMUM FLANGE WIDTH STUD FRAMING FOR SINGLE STUD BACK-UP AT PANEL JOINTS. IF STUD FRAMING AT PANEL JOINTS USES LESS THAN 2" FLANGE WIDTH, USE DOUBLE STUDS AT PANEL JOINT LOCATIONS. OPPOSITE SIDE OF STUD WALL TO BE RESTRAINED AGAINST STUD ROTATION.
- J. NEVER INSTALL PANELS WHILE WET OR DAMP.
- K. INSTALL BOARDS WITH A 3/8-INCH GAP BETWEEN NON-LOAD-BEARING CONSTRUCTION ABUTS STRUCTURAL ELEMENTS.
- L. INSTALL BOARDS WITH A 1/4-INCH GAP WHERE THEY ABUT MASONRY OR SIMILAR MATERIALS THAT MUST RETAIN MOISTURE, TO PREVENT WICKING.
- 3.05 CEMENTITIOUS BACKER UNIT INSTALLATION
- D. INSTALL PANELS AND TREAT JOINTS ACCORDING TO ANSI A108.11 AND MANUFACTURER'S WRITTEN INSTRUCTIONS FOR TYPE OF APPLICATION INDICATED.

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

SECTION 07146 - WATERPROOF MEMBRANE

- A. GENERAL: INTEGRAL WATERPROOFING: LIQUID RUBBER INTEGRAL TILE SETTING WATERPROOFING SYSTEM WITH NO STURMIOUS EXTENDERS, DESIGNED FOR APPLICATION UNDER TILE, EXTEND 6" UP WALL.
- B. SUBMITTALS:
1. NO SUBMITTALS SHALL BE REQUIRED.
2. NO SUBSTITUTIONS WILL BE ALLOWED.
- C. INSTALLER: FIRM WITH MINIMUM 5 YEARS SUCCESSFUL EXPERIENCE, REGULARLY ENGAGED IN INSTALLATION OF SPECIFIED MATERIALS, PROPERLY EQUIPPED AND ACCEPTABLE TO MANUFACTURER.
- D. PROVIDE A WATERPROOF MEMBRANE WHEN REQUIRED BY THE FOLLOWING:
1. THE BUILDING OWNER (LANDLORD) OR LOCAL BUILDING OFFICIAL.
2. ABOVE GRADE TOILET ROOT INSTALLATIONS.
- E. ALLOWABLE PRODUCTS
1. MAPEI CORP: MAPELASTIC AQUADEPENSE
- F. INSTALLATION:
1. FOLLOW ALL MANUFACTURER INSTRUCTIONS FOR INSTALLATION.
2. PROVIDE ALL ACCESSORIES AND EQUIPMENT NECESSARY FOR A COMPLETE INSTALLATION.
3. WHEN USING FIBER REINFORCEMENT LAP AT LEAST 8 INCHES AT JOINTS.
4. REPAIR CRACKS, PLACES AND SETTING MATERIALS OVER WATERPROOFING SO PROTECTION MATERIALS ARE NOT DISPLACED AND WATERPROOFING IS NOT PUNCTURED OR OTHERWISE DAMAGED. REPLACE PROTECTION MATERIALS THAT BECOME DISPLACED AND ARRANGE FOR REPAIR OF DAMAGED WATERPROOFING BEFORE COVERING WITH TILE.
5. PROVIDE CORK JOINT FILLER, WHERE INDICATED, AT WATERPROOFING THAT IS TURNED UP ON VERTICAL SURFACES OR, IF NOT INDICATED, PROVIDE TEMPORARY FILLER OR PROTECTION UNTIL TILE INSTALLATION IS COMPLETE.

SECTION 07200 - THERMAL INSULATION

- A. GENERAL: PROVIDE THERMAL INSULATION WITH ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION.
1. INSULATION INTEGRAL WITH ROOFING REPAIRS IS PROVIDED WITH ROOFING, AND ACoustICAL INSULATION IS PROVIDED WITH GYPSUM BOARD ASSEMBLIES.
- B. THERMAL BATT INSULATION: OMENS CORNING/F9-25 (1,800-438-7465), THERMAFIBER F625 (1,888-534-2371), OR JOHNS MANVILLE/F6K-25 (1,800-654-3103). FOIL FACED VAPOR RETARDER FACED, VAPOR RETARDER TOWARD INSIDE.
1. THICKNESS/R-VALUE: R-15 (WALLS), OTHERS, AS INDICATED ON DRAWINGS.
- C. ACCESSORIES: PROVIDE TAPE OR PENETRATION ANCHORS WHERE REQUIRED TO ENSURE PERMANENT INSTALLATION.
- D. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS.

SECTION 07240 - EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS)

- PART 1 - GENERAL
- 1.01 SECTION INCLUDES
- A. MATERIALS AND INSTALLATION OF EIFS
- 1.02 RELATED SECTIONS
- A. SECTION 06100: SHEATHING
- B. SECTION 07200: THERMAL INSULATION
- C. SECTION 07500: ROOF REPAIRS
- D. SECTION 07600: FLASHING AND SHEET METAL
- E. SECTION 07920: JOINT SEALANTS
- F. SECTION 08413: ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
- G. SECTION 08420: GLAZING
- 1.03 DESIGN REQUIREMENTS
- A. SUBSTRATE SYSTEMS SHOULD BE DESIGNED TO WITHSTAND APPLICABLE LOADS, INCLUDING LIVE, DEAD, POSITIVE AND NEGATIVE WIND, SEISMIC, ETC. BOND STRENGTH, FASTENER STRENGTH AND CONNECTION STRENGTH SHALL BE ANALYZED AND ENGINEERED, AND APPROPRIATE FACTORS OF SAFETY SHALL BE USED. MAXIMUM DEFLECTION OF SUBSTRATE SYSTEMS SHALL NOT EXCEED L/240 OF THE SPAN.
- B. DIMENSIONAL TOLERANCES:
1. STRUCTURAL STEEL FRAMING USED TO SUPPORT THE EIFS SYSTEM SHALL MEET THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
2. BRICK, MASONRY AND CONCRETE SUBSTRATES AND EXTERIOR GRADE SHEATHING SHALL BE FLAT WITHIN 1/4" DEPTH WITHIN ANY 4' RADIUS.
- C. LIGHT GAUGE STEEL FRAMING:
1. THICKNESS SHALL BE DETERMINED BY LOADS USING ACCEPTED ENGINEERING PRACTICES APPLICATION INDICATED AND COMPLYING WITH THE REQUIREMENTS FOR ELASTOMERIC SEALANTS SPECIFIED IN DIVISION 07 SECTION "JOINT SEALANTS".
2. MIN. SLOPE OF INCLINED SURFACES SHALL BE NOT LESS THAN 6" OF RISE IN 12" OF HORIZONTAL GLASS-FIBER-REINFORCED MESH, AS DEFINED AS ROOF SHALL NOT USE THE PRECOR SYSTEM.
3. WALL LOAD DESIGN: PREVENT MAXIMUM ALLOWABLE SYSTEM DEFLECTION, NORMAL TO THE PLANE OF THE WALL, OF L/240. DESIGN FOR WIND LOADS IN CONFORMANCE WITH CODE REQUIREMENTS.
- G. MOISTURE CONTROL: PREVENT THE ACCUMULATION OF WATER BEHIND THE EIFS SYSTEM, EITHER BY CONDENSATION OR LEAKAGE THROUGH THE WALL CONSTRUCTION, IN THE DESIGN AND DETAILING OF THE SYSTEM.
1. PROVIDE FLASHING TO DIRECT WATER TO THE EXTERIOR WHERE IT IS LIKELY TO PENETRATE COMPONENTS IN THE WALL ASSEMBLY, INCLUDING ABOVE WINDOW AND DOOR HEADS, BENEATH WINDOW AND DOOR SILLS, AT ROOF/WALL INTERSECTIONS, DECKS, ABUTMENTS OF LOWER WALLS WITH HIGHER WALLS, ABOVE PROJECTING FEATURES, AND AT THE BASE OF THE WALL.
2. VAPOR DIFFUSION AND CONDENSATION: PERFORM A DEW POINT ANALYSIS OF THE WALL ASSEMBLY TO DETERMINE THE POTENTIAL FOR ACCUMULATION OF MOISTURE IN THE WALL ASSEMBLY AS A RESULT OF WATER VAPOR DIFFUSION AND CONDENSATION. ADJUST INSULATION THICKNESS AND/OR VAPOR BARRIER COMPONENTS ACCORDINGLY TO MINIMIZE THE RISK OF CONDENSATION. AVOID THE USE OF VAPOR RETARDERS ON THE INTERIOR SIDE OF THE WALL IN WARM, HUMID CLIMATES.
- H. IMPACT RESISTANCE PER 2.06 REINFORCING MESHES, PROVIDE ULTRA-HIGH IMPACT RESISTANCE TO A HEIGHT OF 6'-0" (1.8 M) ABOVE FINISHED GRADE AT ALL AREAS ACCESSIBLE TO PEDESTRIAN TRAFFIC AND OTHER AREAS EXPOSED TO ADJACENT STRESS OR IMPACT.
- I. JOINTS:
1. DESIGN MINIMUM 3/4" WIDE EXPANSION JOINTS IN THE EIFS WHERE THEY EXIST IN THE SUBSTRATE OR SUPPORTING CONSTRUCTION, WHERE THE EIFS ADJOINS DISSIMILAR CONSTRUCTION OR MATERIALS, AT CHANGES IN BUILDING HEIGHT, AND AT FLOOR LINES IN MULTI-LEVEL WOOD FRAME CONSTRUCTION.
2. MINIMUM 1/2" WIDE SEALANT JOINTS AT ALL PENETRATIONS THROUGH THE EIFS (WINDOWS, DOORS, ETC.)
3. INSTALL BACKER ROD AND SEALANT THAT HAS BEEN EVALUATED IN ACCORDANCE WITH ASTM C 1382, "TEST METHOD FOR DETERMINING TENSILE ADHESION PROPERTIES OF SEALANTS WHEN USED IN EXTERIOR INSULATION AND FINISH SYSTEM (EIFS) JOINTS", AND THAT MEETS THE FOLLOWING REQUIREMENTS:
4. DESIGN JOINTS WITH SECONDARY MOISTURE PROTECTION AND DRAIN JOINTS TO THE EXTERIOR. REFER TO STOREFRONT DETAILS FOR LOCATIONS IF REQUIRED.
- J. TRIM, PROJECTING ARCHITECTURAL FEATURES AND REVEALS: ALL TRIM AND PROJECTING ARCHITECTURAL FEATURES MUST HAVE A MINIMUM 1/2 (127) SLOPE ALONG THEIR TOP SURFACE. ALL HORIZONTAL REVEALS MUST HAVE A MINIMUM 1/2 (127) SLOPE ALONG THEIR BOTTOM SURFACE.
- K. TERMINATIONS
1. WHERE WINDOW AND DOOR HEADS AND JAMBS AND OTHER ELEMENTS PENETRATE THE SUBSTRATE, A MINIMUM 1/2" WILL BE LEFT BETWEEN THE EIFS AND THAT ELEMENT, IN ORDER TO ACCOMMODATE THE INSTALLATION OF BACKER ROD AND SEALANT. THE SINGLE ELEMENT MUST BE EXPOSED TO THE EXTERIOR. WHEN THE ELEMENT IS INSTALLED PERPENDICULAR TO THE VERTICAL PLANE OF THE PRECOR-SB SYSTEM, OTHER EXCEPTIONS SHALL BE ONLY AS APPROVED BY COREV AMERICA.
2. WINDOWS MUST BE DESIGNED WITH THE PROPER SILL PAN, END DAMS, OR OTHER DESIGN ELEMENTS TO ENSURE THAT ANY WATER PENETRATING THE WINDOW ASSEMBLY IS DIVERTED TO THE EXTERIOR OF THE BUILDING.
3. THE EIFS SHALL TERMINATE AT LEAST 6" ABOVE GRADE.
4. AT ROOFLINES, BALCONIES AND OTHER TERMINATIONS, ADEQUATE FLASHING, INCLUDING DIVERTER FLASHING, SHALL BE DESIGNED AND INSTALLED TO PREVENT WATER INFILTRATION INTO THE WALL ASSEMBLY.
- L. SEALANTS: SEALANT SHALL BE INSTALLED PER THE SEALANT MANUFACTURER'S SPECIFICATIONS, USING ACCESSORIES AND COMPONENTS APPROVED BY THAT MANUFACTURER. BACKER RODS SHALL BE CLOSED CELL.
- M. DETAILS: FOLLOW COREV AMERICA'S LATEST PUBLISHED INFORMATION FOR STANDARD DETAIL TREATMENTS, UTILIZING PRECOR-SB SYSTEM.

- 04 PERFORMANCE REQUIREMENTS
1. WALL COPY WITH REQUIREMENTS AS SPECIFIED BY MANUFACTURER'S PUBLISHED INSTRUCTIONS.
2. SUBMITTALS
- A. SAMPLES:
1. G.C. SHALL PROVIDE ONE 12" X 12" SAMPLE OF THE PRECOR-SB SYSTEM, REPRESENTATIVE OF THE PROPER FINISH COATING, TEXTURE AND COLOR, SHALL BE PREPARED USING THE SAME TOOL AND TECHNIQUE AS REQUIRED BY THE JOB.
2. ONE SAMPLE SHALL REMAIN AT THE JOBSITE FOR COMPARISON OF TEXTURE AND COLOR.
- 1.06 QUALITY ASSURANCE
- A. INSTALLATION COMPANY:
1. SUB-AGENCY ACCEPTABLE TO THE SUB-AGENCY SPECIALIZING IN THE WORK OF THIS SECTION AND APPROVED BY COREV AMERICA.
2. SHALL HAVE A MINIMUM FIVE YEARS EXPERIENCE IN THE INSTALLATION OF EIFS, WITH EXPERIENCE WITH PROJECTS OF THE SCOPE AND COMPLEXITY OF THE SPECIFIED PROJECT.
3. SHALL EMPLOY INSTALLATION PERSONNEL QUALIFIED IN THE TROWEL TRADES AND MANUFACTURER'S SPECIFICATIONS.
- B. INSULATION BOARD MANUFACTURER:
1. SHALL BE APPROVED IN WRITING BY COREV AMERICA AND BE COMPETENT IN THE MANUFACTURE OF EXPANDED POLYSTYRENE INSULATION BOARD.
2. SHALL MANUFACTURE THE INSULATION BOARD ACCORDING TO COREV AMERICA'S SPECS.
- C. SEALANT CONTRACTOR:
1. THE GENERAL CONTRACTOR OR OWNER SHALL ENSURE THAT THE SEALANT CONTRACTOR IS QUALIFIED TO PERFORM THE SEALANT WORK IN ACCORDANCE WITH THE SEALANT MANUFACTURER'S SPECIFICATIONS.
2. THE APPLICATOR SHALL BE PROPERLY TRAINED SO THAT A COMPETENT INSTALLATION OF THE SPECIFIED SEALANT SYSTEM IS ACHIEVED.
- 1.07 DELIVERY, STORAGE AND HANDLING
- A. DELIVER MATERIALS TO THE JOBSITE IN COREV AMERICA'S ORIGINAL UNOPENED PACKAGING WITH LABELS INTACT.
- B. PROTECT MATERIALS FROM DAMAGE BY STORING IN A COOL, DRY SPACE, PROTECTED FROM DIRECT SUN AND FREEZING TIPS. BUCKETS SHALL NOT BE STACKED MORE THAN THREE HIGH.
- 1.08 JOB CONDITIONS, ENVIRONMENTAL REQUIREMENTS
- A. MATERIALS SHALL NOT BE APPLIED TO A SUBSTRATE WITH A TEMPERATURE LOWER THAN 40° F OR HIGHER THAN 100° F.
- B. THE AMBIENT AIR TEMPERATURE WILL BE A MINIMUM OF 40° F AND RISING AT THE TIME OF INSTALLATION AND REMAIN SO FOR TWENTY-FOUR (24) HOURS THEREAFTER.
- C. FOR EIFS INSTALLATION, AMBIENT TEMPERATURES LOWER THAN 40° F, ENCLOSE THE AREA AND APPLY SUPPLEMENTARY HEAT DURING INSTALLATION AND FOR A MINIMUM OF TWENTY-FOUR (24) HOURS AFTER THE INSTALLATION OF MATERIALS IS COMPLETE.
- D. DO NOT INSTALL EIFS MATERIALS DURING RAIN OR OTHER INCLEMENT WEATHER, AND AFTER SUCH WEATHER, WAIT UNTIL SURFACES ARE COMPLETELY DRY BEFORE RESUMING WORK.
- E. ADJACENT AREAS AND MATERIALS SHALL BE PROTECTED TO PRECLUDE DAMAGE DURING MATERIALS INSTALLATION.
- F. THE EIFS ASSEMBLY SHALL BE PROTECTED FROM WEATHER IMMEDIATELY AFTER INSTALLATION THROUGH USE OF FLASHING. PLASTIC SHOULD BE USED TO COVER AREAS THAT MAY BE EXPOSED TO MOISTURE PRIOR TO DRYING.
- G. PROPER SCHEDULING OF THE INSTALLATION WILL BE COORDINATED WITH THE GENERAL CONTRACTOR AND THE JOB WILL BE STAFFED TO MAINTAIN THE SCHEDULE ESTABLISHED.
- H. THE GENERAL CONTRACTOR SHALL PROVIDE ACCESS TO ELECTRIC POWER AND CLEAN WATER WHERE THE EIFS SYSTEM IS TO BE INSTALLED.
- 1.09 WARRANTY
- A. COREV AMERICA WILL PROVIDE A WRITTEN 10-YEAR LIMITED WARRANTY AGAINST DEFECTIVE MATERIALS. COREV AMERICA DOES NOT WARRANT AGAINST DEFECTS OR IMPULSIVE DAMAGE. COREV AMERICA DOES NOT WARRANT WORKMANSHIP ASSOCIATED WITH INSTALLATION OF EIFS SYSTEM.

- PART 2 - PRODUCTS
- 2.01 MANUFACTURERS
- A. PROVIDE EIFS SYSTEM AND ACCESSORIES FROM SINGLE SOURCE MANUFACTURER OR APPROVED SUPPLIER. THE FOLLOWING ARE ACCEPTABLE MANUFACTURERS:
1. COREV AMERICA - PRECOR-SB EIFS SYSTEM (800.537.3487)
2. PLASTIC COMPONENTS, INC.-ACCESSORIES (1.800.537.7077)

- 2.02 SURFACE PREPARATION
- A. COREV AMERICA APPROVED PRODUCT FOR SURFACE PREPARATION, COMPATIBLE WITH PRECOR-SB SYSTEM COMPONENTS.
- 2.03 WATERPROOFING MEMBRANE:
- A. IMPERECORE ACRYLIC POLYMER ELASTOMERIC WATERPROOFING MEMBRANE
- 2.04 ADHESIVE
- A. UNIBASE ADHESIVE: ACRYLIC POLYMER CEMENT MODIFIER MIXED AT JOBSITE WITH PORTLAND CEMENT, USED TO ADHERE THE EPS TO APPROVED SUBSTRATE.
- 2.05 INSULATE SYSTEM BOARD:
- A. NOMINAL 1.0LB/CUBIC FOOT EXPANDED POLYSTYRENE (EPS) INSULATION BOARD COMPLYING WITH ASTM C 578 TYPE I REQUIREMENTS AND EIMA GUIDELINE SPECIFICATION FOR EXPANDED POLYSTYRENE INSULATION BOARD. SUCH INSULATION BOARD SHALL BE PRODUCED FOR COREV AMERICA BY MANUFACTURERS APPROVED BY COREV AMERICA. MINIMUM THICKNESS OF EPS FOR THE PRECOR SYSTEM SHALL BE 2 INCHES. IF RASPING IS COMPLETE, INCLUDING ANY POINT WHERE IT HAS BEEN ROUTERED OR GROOVED, MAXIMUM THICKNESS OF EPS SHALL BE 1" U.O.N.
- 2.06 BASE COAT
- A. UNIBASE-WP: AN ACRYLIC POLYMER CEMENT MODIFIER WITH A HIGH RESISTANCE TO MOISTURE, AN ELEMENT OF THE BASE COAT MIXTURE.
1. UNIBASE-WP BASECOAT: A COMBINATION OF UNIBASE-WP ACRYLIC POLYMER CEMENT MODIFIER AND PORTLAND CEMENT, MIXED AT THE JOBSITE.

- 2.07 REINFORCING MESHES
- A. COREVNET-DTA REINFORCING MESH (ADHESIVE-BACKED DETAIL): USED WITH PRECOR-SB SYSTEM TO TAPE SHEATHING JOINTS, AS AN ELEMENT OF THE SECONDARY WATER-RESISTIVE BARRIER.
- B. COREVNET-DT REINFORCING MESH (DETAIL): A COREV-SUPPLIED TREATED GLASS-FIBER REINFORCING MESH IN THE UNIBASE LAMINA USED IN DETAILED WORK AND FOR BACKRUP AT ALL PAINTED WITH EXTERIOR FINISHES.
- C. COREVNET-ST REINFORCING MESH (STANDARD): A COREV-SUPPLIED TREATED GLASS-FIBER REINFORCING MESH IN THE UNIBASE LAMINA USED TO STRENGTHEN THE SURFACE OF THE EPS INSULATION BOARD. 4.0 OZ./YSI
- D. COREVNET-RF REINFORCING MESH (REINFORCED): A COREV-SUPPLIED TREATED GLASS-FIBER REINFORCING MESH IN THE UNIBASE LAMINA USED IN HIGH-TRAFFIC AREAS TO STRENGTHEN THE SURFACE OF THE EPS INSULATION BOARD. 10.6 OZ./YSI
- E. COREVNET-HD REINFORCING MESH (HEAVY DUTY): A COREV-SUPPLIED TREATED GLASS-FIBER REINFORCING MESH IN THE UNIBASE LAMINA USED IN HIGH-TRAFFIC AREAS TO STRENGTHEN THE SURFACE OF THE EPS INSULATION BOARD. 14.0 OZ./YSI
- F. COREVNET-SHD REINFORCING MESH (SUPER HEAVY DUTY): A COREV-SUPPLIED TREATED GLASS-FIBER REINFORCING MESH IN THE UNIBASE LAMINA USED IN HIGH-TRAFFIC AREAS TO STRENGTHEN THE SURFACE OF THE EPS INSULATION BOARD. 20.0 OZ./YSI
- G. COREV-CORNER: A COREV-SUPPLIED TREATED GLASS-FIBER REINFORCING MESH TO ADD INCREASED IMPACT RESISTANCE TO CORNERS. 7.0 OZ./YSI
- 2.08 PRIMER
- A. PRIMER/PRIME (VAPOR PERMEABLE, ACRYLIC PRIMER)
- 2.09 FINISH COAT
- A. QUARRY, FACTORY-MIXED, ACRYLIC POLYMER BASED FINISH COATING CONTAINING INTEGRAL COLOR. COLOR: 070707, TEXTURE: SMOOTH.
- 2.10 PENETRATING SEALER
- A. VITROCREW (CLEAR, ACRYLIC SEALER)
- 2.11 JOB MIXED INGREDIENTS
- A. WATER: CLEAN AND CLEAR, FREE OF FOREIGN MATTER, AND POTABLE.
- B. PORTLAND CEMENT: ASTM C 150 TYPE I OR II PORTLAND CEMENT, GRAY COLOR, WITH FINE POWDER CONSISTENCY AND FREE OF LUMPS.
- 2.12 MIXING
- A. MIX IN COMPLIANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
- B. MIX ONLY AS MUCH MATERIAL AS CAN READILY BE USED.
- C. DO NOT USE ANTI-FREEZE COMPOUNDS OR OTHER ADDITIVES.

- PART 3 - EXECUTION
- 3.01 ACCEPTABLE INSTALLERS
- A. PREQUALIFY UNDER QUALITY ASSURANCE REQUIREMENTS OF THIS SPECIFICATION (SECTION 1.05.B).
- 3.02 EXAMINATION
- A. VERIFY THE SUBSTRATE IS APPROPRIATE FOR USE WITH THE COREV PRECOR SYSTEM.
- B. INSPECT SUBSTRATE SURFACES FOR:
1. CONTAMINATION: ALGAE, CHALKINESS, DIRT, DUST, EFFLORESCENCE, FOYIL, FUNGUS, GREASE, LATENCE, MILDEW OR OTHER FOREIGN SUBSTANCES.
2. SURFACE ABSORPTION AND CHALKINESS.
3. CRACKS: MEASURE CRACK WIDTH AND RECORD LOCATION OF CRACKS.
4. DAMAGE AND DETEIORATION.
5. MOISTURE CONTENT AND MOISTURE DAMAGE: USE A MOISTURE METER TO DETERMINE IF THE SURFACE IS DRY ENOUGH TO RECEIVE THE EIFS AND RECORD ANY AREAS OF MOISTURE DAMAGE.
6. COMPLIANCE WITH SPECIFICATION TOLERANCES: RECORD AREAS THAT ARE OUT OF TOLERANCE (GREATER THAN 1/4 INCH IN 8'-0 FEET DEVIATION IN PLANE).
- C. REPORT DEVIATIONS FROM THE REQUIREMENTS OF PROJECT SPECIFICATIONS OR OTHER CONDITIONS THAT COULD ADVERSELY AFFECT THE EIFS INSTALLATION TO THE GENERAL CONTRACTOR. DO NOT START WORK UNTIL DEVIATIONS ARE CORRECTED.
- 3.03 SURFACE PREPARATION
- A. REMOVE SURFACE CONTAMINANTS ON CONCRETE AND CONCRETE MASONRY SURFACES (REFER TO ASTM D 4258 AND D 4261).
- B. APPLY CONDITIONER BY TO CHALKING OR EXCESSIVELY ABSORPTIVE SURFACES.
- C. REPLACE WEATHER-DAMAGED SHEATHING AND REPAIR DAMAGED OR CRACKED SURFACES.
- D. LEVEL SURFACES TO COMPLY WITH REQUIRED TOLERANCES.
- 3.04 INSTALLATION: INSTALL IN COMPLIANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
- 3.05 PROTECTION
1. PROVIDE PROTECTION OF INSTALLED MATERIALS FROM WATER INFILTRATION INTO OR BEHIND THEM. PROVIDE PROTECTION OF INSTALLED MATERIALS FROM DUST, DIRT, PRECIPITATION, FREEZING AND CONTINUOUS HIGH HUMIDITY UNTIL THEY ARE FULLY DRY.

SECTION 07500 - ROOF REPAIRS

- A. GENERAL: REPAIR EXISTING ROOFING SYSTEM AS REQUIRED FOR NEW CONSTRUCTION, WITH COMPONENTS AND ACCESSORIES AS REQUIRED FOR COMPLETE WEATHERTIGHT INSTALLATION.
- B. STANDARDS: CONFORM TO NATIONAL ROOFING CONTRACTORS ASSOCIATION ROOFING AND WATERPROOFING MANUAL, 4TH OR 5TH EDITION.
- C. WARRANTY: PROVIDE FOR CORRECTING FAILURE OF ROOF REPAIRS TO RESIST PENETRATION OF WATER AND DAMAGE FROM WIND; WARRANTY PERIOD OF TWO YEARS.
- D. ROOFING SYSTEM: MATCH EXISTING ROOFING, NO SUBSTITUTIONS PERMITTED. PROVIDE MATERIALS CAPABLE OF MAINTAINING EXISTING WARRANTIES; CONFORM TO REQUIREMENTS OF NRCA ROOFING MANUAL. PROVIDE COMPLETE SYSTEM WITH ACCESSORIES AS REQUIRED FOR REPAIRS, INCLUDING INSULATION WHERE EXISTING ROOFING IS INSULATED.
- E. ROOF SYSTEM: MATCH EXISTING ROOFING, NO SUBSTITUTIONS PERMITTED. PROVIDE MATERIALS AND NRCA RECOMMENDATIONS FOR ROOF TYPE SPECIFIED.
1. REMOVE EXISTING ROOFING AS REQUIRED FOR PROJECT; REMOVE ONLY AS MUCH ROOFING AS CAN BE REPLACED IN SAME DAY UNLESS OTHERWISE APPROVED IN ADVANCE BY OWNER'S PROJECT MANAGER.
2. INSPECT SUBSTRATES AND ROOF DECK TO ENSURE SUBSTRATES AND DECK ARE CLEAN AND SMOOTH, FREE OF DEPRESSIONS, WAVES OR PROJECTIONS, AND ARE PROPERLY SLOPED TO DRAINS, VALLEY, OR EAVES.
3. INSULATION APPLICATION: ATTACH INSULATION IN ACCORDANCE WITH INSULATION MANUFACTURER'S INSTRUCTIONS AND NRCA RECOMMENDATIONS FOR INSTALLATION OF INSULATION ON DECK INVOLVED.
4. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION OF COMPOSITION TYPE BASE, WALL AND FIELD FLASHINGS.
5. COORDINATE METAL FLASHINGS AND COUNTERFLASHING.
6. COORDINATE INSTALLATION OF ROOF DRAINS AND COUNTERFLASHING.
7. MOP IN AND SEAL FLASHINGS AND FLANGES OF ITEMS PROJECTING THROUGH MEMBRANE.

SECTION 07600 - FLASHING AND SHEET METAL

- A. GENERAL: PROVIDE FLASHING AND SHEET METAL, REGLETS, AND ACCESSORIES AS REQUIRED FOR ROOF REPAIRS AS REQUIRED FOR COMPLETE, WEATHERTIGHT INSTALLATION.
- B. FLASHING/SHEET METAL AT STOREFRONT IS PREFINISHED.
- C. STANDARDS: CONFORM TO S'MAQA "ARCHITECTURAL SHEET METAL MANUAL" REQUIREMENTS FOR FLASHING AND SHEET METAL.
- D. DESIGN REQUIREMENTS: ALLOW FOR MOVEMENT OF COMPONENTS WITHOUT CAUSING BUCKLING, FOR EIFS INSTALLATION, AMBIENT TEMPERATURES LOWER THAN 40° F, ENCLOSE THE AREA AND APPLY SUPPLEMENTARY HEAT DURING INSTALLATION AND FOR A MINIMUM OF TWENTY-FOUR (24) HOURS AFTER THE INSTALLATION OF MATERIALS IS COMPLETE.
- E. SUBMITTALS: FURNISH PRODUCT DATA FOR MANUFACTURED PRODUCTS.
- F. WARRANTY: CORRECT FAILURE OF METAL FLASHING SYSTEM TO RESIST PENETRATION OF WATER AND DAMAGE FROM WIND; WARRANTY PERIOD TWO YEARS.
1. FLASHING AND SHEET METAL: MATCH EXISTING, BUT NOT LESS THAN FOLLOWING: GALVANIZED METAL FLASHING: ASTM A924 AND A953 G90 GALVANIZED STEEL, MINIMUM 24 GAGE.
2. PREFINISHED METAL FLASHING: 24 GAGE GALVANIZED STEEL WITH FACTORY FINISHED KYNAR 500 TYPE FLUOROPOLYMER COATING AND STRIPPABLE PROTECTIVE FILM, COLOR AS SPECIFIED FROM MANUFACTURER'S FULL RANGE OF COLORS.
3. ALUMINUM FLASHING: ASTM B209, ALLOY AS REQUIRED TO MATCH FINISH SPECIFIED FOR OTHER ALUMINUM COMPONENTS; THICKNESS MINIMUM 0.050" AT FLASHINGS.
4. STAINLESS STEEL SHEET METAL: ASTM A666, 2D ANNEALED FINISH, SOFT TEMPER EXCEPT WHERE HARDER TEMPER IS REQUIRED FOR FORMING OR PERFORMANCE; 0.015" (28 GAGE) TYPICAL.
5. CORNER SHEET METAL: ASTM B370, COLD ROLLED 16 OZ. (0.0216") THICK; SOFT TEMPER WHERE REQUIRED FOR FORMING.
- G. REGLETS: FRY/SPRINGLOK OR IM SYSTEMS/ENAP-TITE REGLETS; FABRICATE OF SAME METAL AS ADJACENT FLASHING AND SHEET METAL.
- H. METAL TO METAL SEALANT: BUTYL, TYPE, NON-STAINING, NON-CORROSIVE, NON-SHRINKING, NON-SAGGING, ULTRA-VIOLET AND OZONE RESISTANT.

SECTION 07800 - APPLIED FIREPROOFING

- A. GENERAL: PATCH EXISTING FIREPROOFING AS REQUIRED BY APPLICABLE CODES FOR CONSTRUCTION TYPE; NO ASBESTOS PERMITTED.
- B. CONFORM TO APPLICABLE CODE REQUIREMENTS FOR BOTH F AND T RATINGS.
- C. STANDARDS: PASS ASTM E814 THROUGH PENETRATION FIRE STOPS, ASTM E119 FIRE TESTS AND ASTM E84 FLAME SPREAD/SMOKE CONTRIBUTION MAXIMUM 25/25.
1. FIRE RESISTANCE RATINGS: COMPLY WITH REQUIRED RATINGS BASED ON DOUBLE DOOR FRAME HEADS.
2. SURFACE BURNING CHARACTERISTICS: MAXIMUM 25 FLAME SPREAD AND 25 SMOKE DENSITY WHEN TESTED IN ACCORDANCE WITH ASTM E84.
- D. CERTIFICATE: SUBMIT MANUFACTURER CERTIFICATION INDICATING APPLICATOR ACCEPTABILITY AND MATERIAL COMPLIANCE WITH APPLICABLE CODES AND CONTRACT DOCUMENTS.
1. CERTIFICATION SHALL INDICATE NEW MATERIALS USED TO PATCH EXISTING FIREPROOFED FAILURE SYSTEMS AT EXTERIOR LOCATIONS ARE COMPATIBLE WITH EXISTING FIREPROOFING MATERIALS AND MEET ALL PERFORMANCE REQUIREMENTS.
- E. QUALIFICATION OF APPLICATOR: FIRM ACCEPTABLE TO MANUFACTURER OF FIREPROOFING MATERIALS, WITH MINIMUM FIVE YEARS SUCCESSFUL EXPERIENCE ON PROJECTS OF SIMILAR SCALE. MANUFACTURERS/PRODUCTS: MATCH EXISTING BUT NOT LESS THAN W.R. GRACE/MONOKOTE OR ALBI MANUFACTURING DIVISION STANCHION/KURAPRAY.
- F. INSTALLATION: INSTALL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND FIRE TEST RESULTS AS REQUIRED TO PROVIDE REQUIRED FIRE RATINGS.
1. PROTECT ADJACENT SURFACES AND EQUIPMENT FROM DAMAGE BY OVERSPRAY, FALLOUT, AND DUSTING; MASK ADJACENT WORK AS REQUIRED. GLOSS OFF AND SEAL DUCT WORK IN AREAS WHERE OVERSPRAY IS BEING APPLIED.
2. CLEAN SUBSTRATE OF DIRT, DUST, GREASE, OIL, LOOSE MATERIAL, PAINTS, PRIMERS, AND OTHER MATTER WHICH AFFECTS BOND OF SPRAYED FIREPROOFING.
3. APPLY FIREPROOFING IN SUFFICIENT THICKNESS AND DENSITY TO ACHIEVE REQUIRED FIRE RATINGS.
4. APPLY FIREPROOFING OVER SUBSTRATE, BUILDING TO REQUIRED THICKNESS WITH AS MANY PASSAGES AS REQUIRED TO PROVIDE REQUIRED FIRE RATINGS.

SECTION 07800 - FIRESTOPPING

- A. GENERAL: PROVIDE EXTERIOR AND INTERIOR FIRESTOPPING NOT PROVIDED ELSEWHERE; TYPE SPECIFIED FOR APPLICATION INDICATED WITH ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION.
- B. CODES: CONFORM TO APPLICABLE CODE REQUIREMENTS FOR BOTH F AND T RATINGS.
- C. STANDARDS: PASS ASTM E814 THROUGH-PENETRATION FIRE STOPS, ASTM E119 FIRE TESTS AND ASTM E84 FLAME SPREAD/SMOKE CONTRIBUTION MAXIMUM 25/25.
- D. SUBMITTALS: FURNISH SHOP DRAWINGS, PRODUCT DATA, AND CERTIFICATES OF COMPLIANCE WITH CONTRACT DOCUMENTS AND APPLICABLE CODES.
- E. MANUFACTURERS: 3M/FIRE BARRIER, ST/SP/SCS/AL OR PENSLI, OR HULTR/FIRESTOP SYSTEMS.
- F. GENERAL: CHOOSE PRODUCTS AND METHODS MEETING APPLICABLE CODES AND SPECIFICATION REQUIREMENTS FOR EACH FIRESTOPPING APPLICATION, SUBJECT TO ARCHITECT'S ACCEPTANCE.
- G. FIRESTOPPING MATERIALS: FURNISH MATERIALS FOR PENETRATIONS IN TIME-RATED FLOOR, WALL, AND PARTITION ASSEMBLIES CAPABLE OF PREVENTING PASSAGE OF FLAME, SMOKE, AND HOT GASES.
1. PENETRATION TEST: FURNISH MATERIALS PASSING ASTM E814 FOR PENETRATION FIRE STOPPING INDICATING MAINTENANCE OF TIME-RATED ADJACENT ASSEMBLIES.
2. FIRESTOPPING: MAINTAIN FIRE RATING OF ASSEMBLY IN WHICH FIRESTOPPING IS INSTALLED, SUCH AS FLOOR, PARTITION, OR WALL, IN ACCORDANCE WITH ASTM E119 TESTS.
- H. INSTALLATION: INSTALL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND FIRE TEST RESULTS AS REQUIRED TO PROVIDE REQUIRED FIRE RATINGS.
1. FIELD INSPECTIONS: MAINTAIN COPY OF MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS AT EACH WORK AREA.

SECTION 07920 - JOINT SEALANT

- A. GENERAL: PROVIDE EXTERIOR AND INTERIOR JOINT SEALERS NOT PROVIDED ELSEWHERE; TYPE SPECIFIED FOR APPLICATION INDICATED WITH ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION.
- B. INSTALLER QUALIFICATIONS: FIRM WITH MINIMUM FIVE YEAR'S SUCCESSFUL EXPERIENCE ON PROJECTS OF SIMILAR TYPE AND SIZE, USING SPECIFIED PRODUCTS.
- C. SUBMITTALS: FURNISH PRODUCT DATA AND SAMPLES OF EXPOSED JOINT SEALERS IN REQUIRED CASE.
- D. WARRANTY: REPAIR OR REPLACE JOINT SEAL

SECTION 08300 - ACCESS DOORS AND PANELS

- A. GENERAL: PROVIDE ACCESS DOORS AS REQUIRED FOR ACCESS TO VALVES AND CONTROLS. LOCATED BEHIND FINISHED WALLS AND CEILINGS NOT OTHERWISE ACCESSIBLE, WITH ACCESSORIES FOR COMPLETE INSTALLATION.
- COORDINATE WITH VARIOUS TRADES FOR CONTROLS AND VALVES WHICH MAY BE CONCEALED.
- B. SUBMITTALS: FURNISH PRODUCT DATA FOR EACH TYPE OF ACCESS DOOR AND PANEL.
- C. MANUFACTURERS: KARP ACCESSORIES INC., MASPEHY, N.Y. (716-784-2105); INTEX FORMS, INC., 8880 ELDER CREEK ROAD, SACRAMENTO, CA 95826 (916-388-9933)
- SALES AREA (NON-RATED): INTEX FORMS "LIFT & SHIFT" ACCESS PANEL W/ RADIUS DOOR CORNERS. SEE CEILING PLAN FOR SIZES AND LOCATIONS.
 - SALES AREA (RATED): KARP MODEL #KATR PRIME COATED STEEL WITH STAINLESS STEEL CAM LATCH ON RECESSED DOOR. SEE CEILING PLAN FOR SIZES AND LOCATIONS.
 - NON-SALES AREA (NON-RATED): KARP MODEL #HSC-24IN. PRIME COATED STEEL WITH STUD LATCH. SEE CEILING PLAN FOR SIZES AND LOCATIONS.
 - NON-SALES AREA (RATED): KARP MODEL #KRP-ISOFR PRIME COATED STEEL WITH RING TURN LATCH. SEE CEILING PLAN FOR SIZES AND LOCATIONS.
- D. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS AND APPLICABLE REQUIREMENTS FOR FIRE RATINGS.
- SET FRAMES ACCURATELY IN POSITION AND SECURELY ATTACH TO SUPPORTS WITH FACE PANELS PLUMB OR LEVEL IN RELATION TO ADJACENT FINISH SURFACES.
 - ADJUST HARDWARE AND DOORS AFTER INSTALLATION FOR PROPER OPERATION.
 - REMOVE AND REPLACE DOORS OR FRAMES WHICH ARE WARPED, BONED OR OTHERWISE DAMAGED.

SECTION 08336 - OVERHEAD COILING GRILLES

- PART 1 - GENERAL
- 1.01 SECTION INCLUDES
- ALUMINUM OVERHEAD COILING GRILLES.
- 1.02 SUBMITTALS: SEE SECTION 03000
- 1.03 SUMMARY
- A. ROLLING GRILLE PROVIDED AND INSTALLED BY LSP&C. GENERAL CONTRACTOR TO VERIFY GRILLE IS TRUE, PLUMB, AND OPERATING PROPERLY, BEFORE INSTALLER LEAVES PREMISES.

- PART 2 - PRODUCTS
- 2.01 MANUFACTURER
- A. PROVIDED GRILLES MANUFACTURED BY METRO DOOR INC., 3500 SUNRISE HIGHWAY, BUILDING 100, SUITE 210, GREAT RIVER, NY 11739, 800-664-3667
- 2.02 MODELS AND MATERIALS
- A. MODELS: PROVIDED OVERHEAD COILING GRILLE MODEL AS FOLLOWS:
- PERFORATED METAL
 - LEXAN GLAZED
- B. MATERIALS:
- ALUMINUM: BARS, RODS AND EXTRUSIONS TO BE 6063 ALLOY, T5 TEMPERED.
 - STEEL: BAR, PIPE AND PLATE(S) TO MEET MANUFACTURER'S SPECIFICATIONS.
- 2.03 COMPONENTS
- LOCKING: STANDARD LOCKING MECHANISM TO CONSIST OF TWO-POINT LOCK TO THROW AT BOTH JAMBES, WITH A KEYS TO CYLINDER ON THE OUTSIDE AND THUMB-TURN ON THE INSIDE.
- 2.04 FABRICATION
- A. PERFORATED METAL CURTAIN:
- HORIZONTAL RODS TO CONSIST OF EXTRUDED ALUMINUM, 7/8"x1/2" HORIZONTAL HINGE SYSTEM SPACED AT 4" ON CENTER.
 - PERFORATED PANELS TO CONSIST OF 1/8" ALUMINUM EXTRUSION, WITH SLOTTED HOLES AT 45 ANGLES, SPACED 1/8" ON CENTER, TO ALLOW 60 PERCENT TRANSPARENCY.
 - WINDOWS TO CONSIST OF 3/32" CLEAR POLYCARBONATE PANELS EVERY 32" TO HORIZONTAL "1" FOR MAXIMUM STRENGTH. WINDOWS TO BE ENCLOSED IN HORIZONTAL ALUMINUM FRAME WITH PVC "H" FOR QUITE OPERATION.

- C. CURTAIN GUIDE STRIPS
- B. GUIDES: EXTRUDED ALUMINUM WITH MOHAI STRIPS TO PREVENT METAL TO METAL CONTACT.
- C. STRUCTURAL SUPPORTS: 3/4" OR 4X4 STEEL SUPPORTS.
- D. BOTTOM BAR: HEAVY DUTY EXTRUDED ALUMINUM WITH THUMB-TURN INTERIOR AND KEYS CYLINDER EXTERIOR.
- E. COUNTERBALANCE: TEMPERED HELICAL TORSION HIGH CYCLE SPRING MOUNTED ON CAST ANCHORS AND CONTINUOUS SLOW TORSION RODS PERMANENTLY LUBRICATED AND ENCLOSED WITHIN A 8" STEEL PIPE SHAFT.
- F. BRACKET PLATES: STEEL PLATES 1/4" THICK BOLTED TO STRUCTURAL SUPPORT TUBES.
- G. OPERATION: MANUAL UP TO 120 SQUARE FEET. FOR ROLLING GRILLES 120 SQUARE FEET AND LARGER OR WIDER THAN 12', PROVIDE A MOTOR TO OPERATE. COORDINATE POWER REQUIREMENTS WITH MEP DRAWINGS.

- 2.05 FINISHES
- A. ALUMINUM BOTTOM BAR, GUIDES AND CURTAIN TO BE CLEAR BRONZE OR BLACK ANODIZED.
- PART 3 - EXECUTION
- 3.01 PREPARATION
- PREPARE OPENING(S) TO RECEIVE GRILLE(S) AS REQUIRED BY MANUFACTURER.
- B. GENERAL CONTRACTOR TO SUPPLY GRILLE INSTALLERS WITH FINISH FLOOR ELEVATION FOR PROPER INSTALLATION OF GRILLE LOCK AS WELL AS PRECISE GRILLE LOCATION ON FLOOR LAYOUT.
- 3.02 INSTALLATION
- INSTALL AS SHOWN ON DRAWINGS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ADJUST FOR SMOOTH AND EASY OPERATION.
 - CAREFULLY COORDINATE INSTALLATION AND HOOR-UP OF ROLLING GRILLE WITH ALL AFFECTED TRADES. REFER TO DOOR SCHEDULE.

- SECTION 08356 - FOLDING GRILLES
- PART 1 - GENERAL
- 1.01 SECTION INCLUDES
- MANUALLY- OPERATED FOLDING SECURITY GRILLES.
- B. RELATED SECTIONS
- SECTION 05000-METAL FABRICATIONS - FOR MISCELLANEOUS STEEL SUPPORT BRACKETS AND GUIDES.
- 1.02 REFERENCES
- A. AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION. (AAMA).
- B. ASTM INTERNATIONAL: VOLUNTARY SPECIFICATION FOR ANODIZED ARCHITECTURAL ALUMINUM.
- ASTM B 221. STANDARD SPECIFICATION FOR ALUMINUM AND ALUMINUM ALLOY EXTRUDED BARS, BOLD, WIRE, PROFILES, AND TUBES.
- 1.03 SUBMITTALS
- A. PRODUCT DATA: MANUFACTURER'S PRINTED PRODUCT INFORMATION IDENTIFYING ALL COMPONENTS, FINISHES, AND OPTIONS.
- B. SHOP DRAWINGS: SHOW EACH INSTALLATION INCLUDING COMPONENTS NOT DIMENSIONED OR DETAILED IN PRODUCT DATA INCLUDING ELEVATIONS, PLANS, SECTIONS, DETAILS, AND ATTACHMENT TO OTHER WORK.
- C. SAMPLES: FOR EACH TYPE OF EXPOSED FINISH REQUIRE
- 1.04 QUALITY ASSURANCE
- A. SOURCE LIMITATIONS: OBTAIN FOLDING METAL GRILLES SPECIFIED IN THIS SECTION THROUGH ONE SOURCE FROM A SINGLE MANUFACTURER.
- 1.05 DELIVERY, STORAGE, AND HANDLING.
- A. DELIVER FOLDING METAL GRILLES IN MANUFACTURER'S ORIGINAL, UNMOUNTED, AND UNOPENED CONTAINERS. PROVIDE IDENTIFICATION LABELS ON EACH CONTAINER.
- B. STORE FOLDING GRILLES IN LOCATIONS PROTECTED FROM WEATHER AND DAMAGE FROM CONSTRUCTION OPERATIONS.
- 1.06 PROJECT CONDITIONS
- A. FIELD MEASUREMENTS: VERIFY DIMENSIONS OF OPENINGS WHERE FOLDING GRILLES ARE INDICATED TO BE INSTALLED. INDICATE MEASUREMENTS ON SHOP DRAWINGS.
- 1.07 WARRANTY
- A. WARRANTY: MANUFACTURER'S STANDARD WARRANTY IN WHICH MANUFACTURER AGREES TO REPLACE HINGED PANEL SECTIONS THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.

- PART 2 - PRODUCTS
- 2.01 MANUFACTURERS
- B. METRO DOOR, INC., 3500 SUNRISE HIGHWAY, BUILDING 100 SUITE 30, GREAT RIVER, NY 11739 (800) 664-3667. WWW.METRODOOR.COM
- SECTION 08415 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
- A. GENERAL: PROVIDE EXTRUDED ALUMINUM ENTRANCE SYSTEM WITH DOORS, FRAMES, HARDWARE, AND ACCESSORIES AS REQUIRED FOR COMPLETE WEATHERTIGHT INSTALLATION AT EXTERIOR LOCATIONS. SEE DOOR SCHEDULE.
- B. STANDARDS: COMPLY WITH ARCHITECTURAL ALUMINUM MANUFACTURERS ASSOCIATION (AAMA) 'ALUMINUM STORE FRONT AND ENTRANCE MANUAL'.
- C. CODES AND REGULATIONS: COMPLY WITH APPLICABLE CODES AND REGULATIONS.
- D. SUBMITTALS: FURNISH MANUFACTURER'S LITERATURE, SHOP DRAWINGS, AND SAMPLES.
- E. STRUCTURAL CERTIFICATES: PROVIDE CERTIFICATION BY STATE REGISTERED ENGINEER INDICATING SYSTEM COMPLIES WITH CONTRACT DOCUMENTS AND APPLICABLE CODES.
- F. SPECIAL PROJECT WARRANTY: PROVIDE FOR CORRECTING FAILURES INCLUDING WIND DAMAGE AND WATER PENETRATION TO INTERIOR SURFACES, EXCESSIVE DEFLECTIONS, AND DETERIORATION OF FINISHES, WEATHERSTRIPPING AND ACCESSORIES. SPECIAL WARRANTY PERIOD TWO YEARS.
- G. MANUFACTURER: OLD CASTLE ENGINEERED PRODUCTS, 101 SAGE ST., SUITE A, TERRELL, TX 76060, CONTACT: P(972)561-7714, F(972)561-7720
- H. STOREFRONT: EXTRUDED ALUMINUM ENTRANCE SYSTEM AS INDICATED ON DRAWINGS.

1. ALUMINUM TYPE: AS RECOMMENDED BY MANUFACTURER FOR APPLICATION INDICATED, BUT NOT LESS THAN EXTRUDED ALUMINUM, ASTM B221, 6061 OR 6063 ALLOY AND T5 OR T6 TEMPER.
2. PROVIDE FACTORY FORMULATED POLYESTER TGIC POWDER COATING MATERIALS IN UNDED PIG POWDER COATING APPLICATION CUSTOM COLOR AS DIRECTED BY ARCHITECT.
3. INTERIOR STOREFRONT FINISH: MANUFACTURER'S STANDARD CLEAR ANODIZED FINISH AS INDICATED ON DRAWINGS.
- J. GLAZING: SEE SECTION 08800
- J. GLAZING ACCESSORIES: SEE SECTION 08800.
- K. MISCELLANEOUS MATERIALS:
- STEEL REINFORCEMENT AND BRACKETS: MANUFACTURER'S STANDARD WITH MINIMUM 2" OZ. HOT-DIP ZINC COATING, ASTM A123, APPLIED AFTER FABRICATION.
 - BUTYUMINUM: PAINT: COLO-APPLIED MASTIC, 65PF, PAINT, IN COMPOUNDED FOR 30 MIL THICKNESS PER COAT.
 - FLASHING: SEE SECTION 08800.
 - ANCHORING DEVICES: CORROSION RESISTANT, CAPABLE OF SUPPORTING ENTRANCE SYSTEM AND SUPERIMPOSED DESIGN LOADS, DESIGN TO ALLOW ADJUSTMENTS OF SYSTEM PRIOR TO BEING PERMANENTLY FASTENED IN PLACE.
 - JOINT SEALANTS: SEE SECTION 07420

- L. FABRICATION: FABRICATE ALUMINUM ENTRANCE AND STOREFRONT SYSTEM TO ALLOW FOR CLEARANCES AND SHUT SPACING AROUND PERIMETER OF ASSEMBLIES TO ENABLE INSTALLATION, PROVIDE FOR THERMAL MOVEMENT.
- ACCURATELY FIT TOGETHER JOINTS AND CORNERS; MATCH COMPONENTS ENSURING CONTINUITY OF LINE AND DESIGN; ENSURE JOINTS AND CONNECTIONS ARE FLUSH, HAIRLINE AND WEATHERPROOF.
 - SEPARATE DISSIMILAR MATERIALS WITH BUTYUMINUM PAINT OR PREFORMED SEPARATORS WHICH WILL PREVENT CORROSION.
- M. INSTALLATION: INSTALL ALUMINUM FRAMED STOREFRONT ASSEMBLIES, INCLUDING ENTRANCES, IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND TO MEET DESIGN REQUIREMENTS INDICATED, FOR WEATHERTIGHT INSTALLATION.
- ENSURE ASSEMBLIES ARE PLUMB, LEVEL AND FREE OF WARP OR TWIST; MAINTAIN DIMENSIONAL TOLERANCES AND ALIGNMENT WITHIN ADJACENT WORK.
 - USE SUFFICIENT ANCHORAGE DEVICES TO SECURELY AND RIGIDLY FASTEN ASSEMBLIES TO BUILDING.
 - INSTALL HARDWARE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, USING PROPER TEMPLATES. COORDINATE INSTALLATION OF CYLINDERS WITH SECTION 08700.
 - INSTALL BILL MEMBERS AND THRESHOLDS IN BED OF COMPOUND, JOINT FILLERS OR BRACKETS TO PREVENT WEATHERTIGHT CONSTRUCTION.
 - GLASS INSTALLATION: COMPLY WITH GANA GLAZING MANUAL AND GLAZING MANUFACTURER'S INSTRUCTIONS. DO NOT ALLOW GLASS TO TOUCH METAL SURFACES.

SECTION 08520 - WOOD WINDOWS

- A. SUMMARY: PROVIDE PRIMED WOOD FRAMING WINDOW COMPONENTS AS REQUIRED FOR COMPLETE INSTALLATION. GLAZING TO BE INSTALLED AT SITE.
- B. PERFORMANCE REQUIREMENTS
- ENGINEERING DESIGN OF WOOD WINDOWS BY CONTRACTOR.
 - BASIC WIND SPEED: PER STORE LOCATION AND LOCAL CODES.
- C. QUALITY ASSURANCE
- QUALITY STANDARD: IAA/MIA/MPIA 1/1.5/2.5/NASFS
 - MOCKUPS FOR EACH FORM OF CONSTRUCTION.
- D. WARRANTY
- WINDOWS: ONE YEAR
 - GLAZING: SEE SECTION 08800
- E. WINDOWS
- TYPE: WOOD FIXED
 - PERFORMANCE GRADE: PREMIUM
 - GLAZING:TYPE: GLAZED: SEE SECTION 08800 - GLASS GLAZING
 - WOOD FINISHES: FINISH TO BE WHITE LATEX PRIMER (FLUOR PAINTING BY G.C.)

SECTION 08700 - DOOR HARDWARE

- A. GENERAL: PROVIDE DOOR HARDWARE FOR HOLLOW METAL DOORS AND FOR WOOD DOORS, AND PROVIDE CYLINDERS FOR DOORS PROVIDED WITH HARDWARE, WITH ACCESSORIES AS REQUIRED FOR COMPLETE OPERATIONAL DOOR INSTALLATIONS.
- B. STANDARDS: COMPLY WITH BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA) AND/OR BIA SERIES STANDARDS.
- C. CODES AND REGULATIONS: COMPLY WITH STATE AND FEDERAL REQUIREMENTS FOR ENSURING ACCESS FOR PERSONS WITH DISABILITIES.
- FIRE RATED DOORS: COMPLY WITH REQUIREMENTS OF NFPA 80 AND APPLICABLE CODES FOR FIRE RATED DOOR HARDWARE; PROVIDE HARDWARE BEARING UNDERWRITERS LABORATORY (UL) LABELS.
- D. SUBMITTALS: FURNISH SHOP DRAWINGS, PRODUCT DATA INCLUDING KEYING SCHEDULE, AND SAMPLES OF EACH REQUIRED STYLE AND FINISH.
- SUPPLY TEMPLATES TO DOOR AND FRAME MANUFACTURERS FOR PROPER AND ACCURATE SIZING AND LOCATIONS OF CUT-OUTS FOR HARDWARE.
- E. GENERAL MATERIALS: PROVIDE COMPLETE HARDWARE WITH ACCESSORIES AS REQUIRED FOR DOORS AND APPLICATIONS INDICATED AND NOT PROVIDED UNDER OTHER SECTIONS.
- F. KINGS: HAGER (1.800.256.3590), LAWRENCE (1.800.435.9568), MCKINNEY (1.800.346.7707), STANLEY (1.800.387.4393) OR BALDWIN (1.800.566.1986); FULL, HORTISED BUT HINGES; SIZE AND NUMBER AS RECOMMENDED BY MANUFACTURER; NON-REMOVABLE PINS AT EXTERIOR OUT SWINGING DOORS, BALL-BEARING HINGES AT FIRE RATED DOORS AND DOORS WITH CLOSERS.
- G. LOCKSETS/LATCHES: PROVIDE AS INDICATED, AS SPECIFIED IN HARDWARE SCHEDULE (SHEET 04022), AND AS REQUIRED FOR COMPLETE INSTALLATION. KEYING AS DIRECTED BY LSP&C. PROVIDE U-CHANGE CYLINDERS FOR DOORS FURNISHED WITH LOCKS. U-CHANGE CUSTOMER SERVICE: 1-800-253-5625.
- H. ACCESSORIES: PROVIDE DOOR STOPS, THRESHOLDS, WEATHERSTRIPPING, TRIM, COORDINATORS, AND ACCESSORIES AS REQUIRED FOR COMPLETE OPERATIONAL DOOR INSTALLATION.
- THRESHOLDS, STOPS, TRIM, AND MISCELLANEOUS HARDWARE: PROVIDE AS INDICATED, AS SPECIFIED, AS INCLUDED IN HARDWARE SCHEDULE, AND AS REQUIRED FOR COMPLETE INSTALLATION.
 - WEATHERSTRIPPING: PROVIDE CONTINUOUS WEATHERSTRIPPING AT TOP AND SIDES OF EXTERIOR DOORS.
 - FIRE RATED GASKETS: PROVIDE CONTINUOUS FIRE RATED GASKETS AT TOP AND SIDES OF FIRE RATED DOORS.
 - THROUGH BOLTS: THROUGH BOLTS AND GROMMET NUTS SHALL BE AVOIDED ON DOOR FACES IN HIGHLY VISIBLE AREAS, UNLESS NO ALTERNATIVE IS POSSIBLE, AS DIRECTED AND APPROVED, AND SHALL NOT BE USED FOR SOLID WOOD DOOR DOORS.
 - KICK PLATES: MINIMUM 0.060" THICK, 10" TALL, WIDTH TO BE DETERMINED BY SUBTRACTING 1" FROM DOOR LEAF WIDTH.

- I. FINISH: BHMA 626 (USAD), SATIN FINISHED CHROMIUM PLATED UNLESS OTHERWISE INDICATED.
- J. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS, BHMA, AND APPLICABLE FOR ACCESS AND FOR FIRE RATINGS.
- FIT HARDWARE PRIOR TO PAINTING, THEN REMOVE FOR PAINTING OF DOORS AND FRAMES BEFORE FINAL INSTALLATION OF HARDWARE.
 - HEIGHTS TO COMPLY WITH APPLICABLE CODES AND BHMA RECOMMENDATIONS.
 - HARDWARE GROUPS: REFER TO DRAWINGS A002.

SECTION 08800 - GLASS GLAZING

- A. GENERAL: INSTALL GLASS AND FILM ON GLASS; PROVIDE GLAZING ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION.
- B. STANDARDS: COMPLY WITH GLASS ASSOCIATION OF NORTH AMERICA (GANA) "GLAZING MANUAL".
- C. CODES:SAFETY GLAZING SHALL COMPLY WITH CONSUMER PRODUCT STANDARD 16 CFR 1201, AND SHALL HAVE PASSED ANSI Z97.1.
- D. SUBMITTALS: FURNISH PRODUCT DATA AND SAMPLES OF EXPOSED GLAZING MATERIALS.
- E. MANUFACTURERS: PILKINGTON (1.419.2473731), GUARDIAN (1.248.340.1800), OR PPG (1.888.774.4332) OR APPROVED.
- F. GLAZING: ASTM C048, KIND FT, FULLY TEMPERED SEALING GLAZING QUALITY CLEAR FLAT GLASS; NOMINAL 1/2" SAFETY GLASS UNLESS OTHERWISE INDICATED.
- INTERIOR: 1/2" OR 5/8" OR 3/4" THICK TEMPERED GLAZING, AS INDICATED ON DRAWINGS.
 - EXTERIOR: 1" TEMPERED INSULATED WITH DUAL SEAL (MAKEUP: 1/4" CLEAR TEMPERED, 1/2" SPACER, 1/4" CLEAR TEMPERED)
 - EXPOSED AND BUTT EDGES: EASED POLISHED EDGE
 - CORNER EDGES: LAP-JOINT CORNERS WITH EXPOSED EDGES POLISHED
- G. GLAZING ACCESSORIES: OF TYPE RECOMMENDED BY MANUFACTURER TO SUIT SECURITY LOCATIONS AND APPLICATIONS INCLUDING: GLAZING INSULATION.
- HORIZONTAL GLASS BOLT ASSEMBLY: WITH COUNTERSUNK BOLT ASSEMBLY WITH POLYACETAL GASKET AND ALUMINUM BUSHING BY EPCC OR EQUAL.
 - MINI MALL CLAMP: 1-1/2" WIDE ALUMINUM CLAMP INSTALLED IN 1/4" GLAZING JOINGS WITH EXTENDED THREADED STUD FOR A 1" THICK GLAZING APPLICATION.

- H. WINDBORNE-DEBRIS-IMPACT RESISTANCE: PROVIDE EXTERIOR GLAZING THAT PASSES BASIC PROTECTION TESTING REQUIREMENTS IN ASTM E 1966 FOR APPROPRIATE WIND ZONE WHEN TESTED ACCORDING TO ASTM E 1966. TEST SPECIMENS SHALL BE NO SMALLER IN WIDTH AND LENGTH THAN GLAZING INDICATED FOR USE ON THE PROJECT AND SHALL BE INSTALLED IN SAME MANNER AS GLAZING INDICATED FOR USE ON THE PROJECT.
- LARGE-MISSILE TEST: FOR GLAZING LOCATED WITHIN 30 FEET (9.1m) OF GRADE.
 - SMALL-MISSILE TEST: FOR GLAZING LOCATED MORE THAN 30 FEET (9.1m) ABOVE GRADE.
 - LARGE-MISSILE TEST: FOR ALL GLAZING,REGARDLESS OF HEIGHT ABOVE GRADE.
- I. WINDBORNE-DEBRIS-IMPACT-RESISTANT LAMINATED GLASS: ASTM C 1072, AND COMPLYING WITH TESTING REQUIREMENTS IN 16 CFR 1201 FOR CATEGORY 1 MATERIALS WITH "WINDBORNE-DEBRIS-IMPACT RESISTANCE" PARAGRAPH ABOVE, AND WITH OTHER REQUIREMENTS SPECIFIED. USE MATERIALS THAT HAVE A PROVEN RECORD OF NO TENDENCY TO BUBBLE, DISCOLOR, OR LOSE PHYSICAL AND MECHANICAL PROPERTIES AFTER FABRICATION AND INSTALLATION.
- CONSTRUCTION: LAMINATE GLASS WITH THE FOLLOWING TO COMPLY WITH INTERLAYER MANUFACTURER'S WRITTEN RECOMMENDATIONS:
 - POLYVINYL BUTYRAL INTERLAYER.
 - INTERLAYER THICKNESS: PROVIDE THICKNESS NOT LESS THAN THAT INDICATED AND AS NEEDED TO COMPLY WITH REQUIREMENTS.
 - INTERLAYER COLOR: CLEAR UNLESS OTHERWISE INDICATED.
- J. GLAZING FILM: PROVIDE TRANSLUCENT AND/OR OPAQUE GLAZING FILMS BY 3M IF INDICATED ON DRAWINGS.
- UV PROTECTION FILM: (FOR EXTERIOR LOCATIONS ONLY) PROVIDE MAC6000 SOLAR FILM BY MADICO, UNLESS OTHERWISE INDICATED ON DRAWINGS. (1.800.225.1926)
- K. GLAZING SEALANT: ONE COMPONENT SILICONE GLAZING SEALANT BY DOW, GE, OR TREMCO.
- L. SETTING BLOCKS AND SPACERS: NEOPRENE OR EPDM, SILICONE COMPATIBLE WHERE IN CONTACT WITH SILICONE SEALANT.
- M. PREPARATION: CLEAN GLAZING CHANNELS AND FRAMING MEMBERS TO RECEIVE GLASS IMMEDIATELY BEFORE GLAZING. REMOVE COATINGS NOT FIRMLY BONDED TO SUBSTRATE.
- N. INSTALLATION: COMPLY WITH GANA GLAZING MANUAL AND SEALANT MANUAL AND GLAZING MANUFACTURER INSTRUCTIONS.
- DO NOT ALLOW GLASS TO TOUCH METAL SURFACES.
 - COMPLY WITH NFPA 80 FOR GLASS IN FIRE RATED OPENINGS.
 - PLACE SETTING BLOCKS AT QUARTER POINTS IN THIN COURSE OF SEALANT.
 - INSTALL REMOVABLE STOPS WITH GLASS CENTERED IN SPACE WITH SPACER SHIMS AT 2'-0" INTERVALS ON BOTH SIDES OF GLASS, 1/4" BELOW SIGHTLINE.
 - SEALANT GLAZING: FILL GAP BETWEEN GLASS AND STOPS WITH SEALANT TO DEPTH EQUAL TO BITE OF FRAME ON GLASS BUT NOT MORE THAN 3/8" BELOW SIGHTLINE.

SECTION 08930 - MIRRORS

- PART 1 - GENERAL
- 1.1 SUMMARY
- A. THIS SECTION INCLUDES NEW WALL MOUNTED GLASS MIRRORS.
- 1.2 QUALITY ASSURANCE
- A. INSTALLER QUALIFICATIONS: AN EXPERIENCED INSTALLER WHO HAS COMPLETED MIRROR GLAZING DESIGN AND EXTERIOR TO THAT INDICATED ON THE TOP CHARGESHEET. THIS HAS RESULTED IN MIRROR INSTALLATIONS WITH A RECORD OF NOT LESS THAN 5 YEARS OF SUCCESSFUL IN-SERVICE PERFORMANCE. SOURCE LIMITATIONS FOR MIRRORS: OBTAIN MIRRORS FROM ONE SUPPLIER/MANUFACTURER FOR EACH TYPE OF MIRROR INDICATED.
- B. SOURCE LIMITATIONS FOR GLAZING ACCESSORIES: OBTAIN GLAZING ACCESSORIES FROM ONE SOURCE FOR EACH TYPE OF ACCESSORY INDICATED.
- C. GLAZING PUBLICATIONS: COMPLY WITH THE APPLICABLE RECOMMENDATIONS OF THE FOLLOWING, WHERE RECOMMENDATIONS CONFLICT THE MORE STRINGENT SHALL APPLY.
- GLASS ASSOCIATION OF NORTH AMERICA (GANA) "GLAZING MANUAL" AND THE MIRROR DIVISION'S "MIRRORS, HANDLE WITH EXTREME CARE. TIPS FOR THE PROFESSIONAL ON THE CARE AND HANDLING OF MIRRORS."
 - NATIONAL GLASS ASSOCIATION (NGA). "CUSTOM MIRRORS, FABRICATION AND INSTALLATION."
- 1.3 DELIVERY, STORAGE, AND HANDLING
- A. PROTECT MIRRORS ACCORDING TO MIRROR MANUFACTURER'S WRITTEN INSTRUCTIONS AND AS NEEDED TO PREVENT DAMAGE TO MIRRORS FROM CONDENSATION, TEMPERATURE CHANGES, DIRECT EXPOSURE TO SUN, OR OTHER CAUSES.
- B. COMPLY WITH MIRROR MANUFACTURER'S WRITTEN INSTRUCTIONS FOR SHIPPING, STORING, AND HANDLING MIRRORS AS NEEDED TO PREVENT DETERIORATION OF SILVERING, DAMAGE TO EDGES, AND ABRASION OF GLASS SURFACES AND APPLIED COATINGS. STORE INDOORS, PROTECTED FROM MOISTURE INCLUDING CONDENSATION.
- 1.4 PROJECT CONDITIONS
- A. ENVIRONMENTAL LIMITATIONS: DO NOT INSTALL MIRRORRED GLASS UNTIL AMBIENT TEMPERATURE AND HUMIDITY CONDITIONS ARE MAINTAINED AT LEVELS INDICATED FOR FINAL OCCUPANCY.
- PART 2 - PRODUCTS
- 2.1 SILVERED FLAT GLASS MIRROR MATERIALS
- A. CLEAR GLASS MIRRORS: 6.0 MM THICK AND COMPLYING WITH ASTM C 1503, MIRROR SELECT QUALITY FOR USE IN VISUALLY DEMANDING APPLICATIONS REQUIRING MINIMAL DISTORTIONS AND BLEMISHES.REFLECTIVITY IS SIMILAR IN APPEARANCE TO THE MAJOR SURFACE OF THE GLASS.
- 2.2 FABRICATION
- A. CUTOUTS: FABRICATE CUTOUTS FOR NOTCHES AND HOLES IN MIRRORS WITHOUT MARRING VISIBLE SURFACES. LOCATE AND SIZE CUTOUTS SO THEY FIT CLOSELY AROUND PENETRATIONS IN MIRRORS.
- B. MIRROR EDGE TREATMENT:
- CUTTING AND POLISHING:
 - TYPICAL MIRRORS: FLAT EDGES WHERE THE CLEAN CUT "SQUARE" EDGE OF THE GLASS IS FLAT AND SURFACE EDGES ARE SLIGHTLY ARRISSED. AFTER GRINDING THE ARRISSES, EDGES SHALL BE POLISHED TO A HIGH GLOSS SURFACE WHERE THE SURFACE REFLECTIVITY IS SIMILAR IN APPEARANCE TO THE MAJOR SURFACE OF THE GLASS.
 - BEVELED EDGED MIRRORS: PROVIDE BEVELED EDGED MIRRORS WHERE THE SURFACE EDGE OF THE GLASS IS BEVELED TO WIDTH INDICATED ON THE OWNER FURNISHED DRAWINGS. THE ANGLE FORMED BY THE INTERSECTION OF THE PLANE OF THE BEVEL WITH THE MAJOR SURFACE FACE OF THE GLASS SHALL BE BETWEEN 3 TO 10 DEGREES. THE BEVELED SURFACE AND THE NOSE OF THE BEVEL SHALL BE POLISHED TO A HIGH GLOSS SURFACE WHERE THE SURFACE REFLECTIVITY IS SIMILAR IN APPEARANCE TO THE MAJOR SURFACE OF THE GLASS.
 - EDGE SEALING: IMMEDIATELY AFTER CUTTING TO FINAL SIZES, AND APPLYING EDGE TREATMENT, FACTORY SEAL EDGES OF MIRRORS WITH EDGE SEALER TO PREVENT CHEMICAL OR ATMOSPHERIC PENETRATION OF GLASS COATING.
- 2.3 MISCELLANEOUS MATERIALS
- A. MIRROR SAFETY BACKING: CLIP 24" CATEGORY II SHATTERPROOF SAFETY TAPE #2HT24, G.R. LAURENCE CO., INC, 2503 E. VERNON AVE., LOS ANGELES, CA 90058, (800-421-6144). APPLY SAFETY BACKING ONLY WHEN REQUIRED.
- B. SETTING BLOCKS: NON-RUBBER OR NON NEOPRENE BASED ELASTOMERIC MATERIAL MANUFACTURED FOR SETTING SILVERED FLAT GLASS MIRRORS, COMPATIBLE WITH ADHESIVE USED FOR PLACEMENT, WITH A TYPE A SHORE DURETOMETER HARDNESS OF 85, PLUS OR MINUS 5. 1/8" WIDE X 1/4" HIGH X 4" LONG.
- C. EDGE SEALER: COATING COMPATIBLE WITH GLASS COATING AND APPROVED BY MIRROR MANUFACTURER FOR USE IN PROTECTING AGAINST SILVER DETERIORATION AT MIRROR EDGES.
- D. MIRROR MASTIC: PALMER "QWIKSET MIRROR-MASTIC", PALMER PRODUCTS CORP. (502) 893-3648, (800)431-6151 / FAX (502) 895-9253.
- E. DRYWALL AND PLYWOOD PRIMER: KILZ ORIGINAL (OL BASED PRIMER); MASTERCHERK INDUSTRIES, INC. (866)774-6371. OR APPROVED EQUAL.
- F. TOP AND BOTTOM ALUMINUM CHANNELS: ALUMINUM EXTRUSIONS WITH A RETURN DEEP ENOUGH TO PRODUCE A GLAZING CHANNEL TO ACCOMMODATE 6 MM THICK MIRRORS AND HEAVY BODIED MIRROR MASTIC SPECIFIED AND IN LENGTHS REQUIRED TO COVER BOTTOM AND TOP EDGES OF EACH MIRROR IN A SINGLE PIECE. THE ENDS OF THE BACK LIPS OF ALL CHANNELS SHALL BE FACTORY SHAVED AND FILED TO 50 DEGREE TO FACILITATE INSTALLATION.
- BOTTOM TRIM: J-CHANNELS FORMED WITH FRONT LEG AND BACK LEG NOT LESS THAN 3/8" AND 7/8" IN HEIGHT, RESPECTIVELY. CRL POLISHED FINISH 1/4" STANDARD "J"CHANNEL (PART NUMBER D636P); C. R. LAURENCE CO., INC. (800) 421-6144/ FAX (800) 262-3299.
 - TOP TRIM: J-CHANNELS FORMED WITH FRONT LEG AND BACK LEG NOT LESS THAN 5/8"AND 1-3/16" IN HEIGHT, RESPECTIVELY. CRL POLISHED FINISH 1/4" DEEP NOSE "J" CHANNEL (PART NUMBER D464P); C. R. LAURENCE CO., INC. (800) 421-6144/ FAX (800) 262-3299.

- G. STUD FASTENERS: PROVIDE #6 GAGE DIAMETER, 1-5/8" LONG, PHILLIPS BUGLE HEAD, SELF-DRILLING TYPE, FINE THREADED STEEL. SCREW FASTENERS IN QUANTITY AS REQUIRED FOR SUPPORT AND FASTENING OF WOOD TRIMS AND MIRROR CHANNELS TO DRYWALL STUDS. FRAMING AND SHEET METAL BACKER PLATES: HILTI KNIX-PRO SELF DRILL DRYWALL SCREWS, MODEL NUMBER 6X 1-5/8 PBM SD; HILTI, CORPORATION (800) 879-8000 VOICE.
- H. PLASTIC WOOD FILLER: COMMERCIAL QUALITY WOOD FILLER SPECIFICALLY MANUFACTURED TO ADVANCE THE FINAL BUILD AND SMOOTHNESS OF THE INSTALLED WOOD TRIM SURFACE BY FILLING DENTS, SCRATCHES, MITEr JOINTS, AND VOIDS ABOVE COUNTERSUNK FASTENER THE SELECTED FILLER SHALL BE TINTED TO MATCH THE COLOR OF THE WOOD TRIM.
- I. PLYWOOD FASTENERS: PROVIDE MINIMUM #6 GAGE DIAMETER, PHILLIPS FLAT HEAD, SHARP POINTED, COARSE THREADED, STEEL WOOD SCREW FASTENERS IN QUANTITY AS REQUIRED. FURNISH PLYWOOD FASTENERS IN LENGTH AS REQUIRED TO SPAN THROUGH WOOD MIRROR TRIM, AND MIRROR CHANNELS, PLUS 3/4".
- J. WOOD MIRROR TRIM.

- PART 3 - EXECUTION
- 3.1 EXAMINATION
- A. EXAMINE SUBSTRATES, OVER WHICH MIRRORS ARE TO BE MOUNTED, WITH INSTALLER PRESENT, FOR CONTAMINANTS, SURFACE TOLERANCES, SUBSTRATE PREPARATION, AND OTHER CONDITIONS AFFECTING PERFORMANCE.
- VERIFY COMPATIBILITY WITH AND SUITABILITY OF SUBSTRATES, INCLUDING COMPATIBILITY OF MIRROR MASTIC WITH EXISTING FINISHES OR PRIMERS. PROCEED WITH MIRRORRED GLASS INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED AND SURFACES ARE DRY.
- 3.2 PREPARATION
- A. COMPLY WITH MASTIC MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PREPARATION OF SUBSTRATES.
- MIRROR, DRYWALL AND PLYWOOD SUBSTRATES SHALL BE FREE OF DUST, BE CLEAN, AND DRY PRIOR TO APPLICATION OF MIRROR MASTIC AND DRYWALL AND PLYWOOD PAINT.
 - IF PLYWOOD OR DRYWALL SURFACES HAVE BEEN PAINTED PRIOR TO APPLICATION OF THE MIRROR MASTIC, THE EXISTING PAINT SHALL BE Sanded THOROUGHLY TO MATCH THE COLOR OF THE ORIGINAL SURFACE AND THE SUBSTRATE CLEANED PRIOR TO THE APPLICATION OF DRYWALL AND PLYWOOD PAINT.
- 3.3 GLAZING
- A. GENERAL: INSTALL MIRRORS WITH MIRROR GLAZING CHANNELS TO COMPLY WITH WRITTEN INSTRUCTIONS OF MIRROR AND MIRROR GLAZING CHANNEL MANUFACTURERS, WITH REFERENCED GANA AND NGA PUBLICATIONS, OWNER FURNISHED DRAWINGS, AND AS SPECIFIED. MOUNT MIRRORS PLUMB, IN LINE AND IN A MANNER THAT AVOIDS DISTORTING REFLECTED IMAGES.
- B. COMPLY WITH MASTIC MANUFACTURER'S PRINTED DIRECTIONS FOR PREPARATION AND SEALING OF MOUNTING SURFACES BY SEALING DRYWALL AND PLYWOOD, SUBSTRATES WITH DRYWALL AND PLYWOOD PAINT. ALLOW PAINT TO DRY BEFORE APPLYING MIRROR MASTIC.
- C. MIRROR CHANNEL INSTALLATION
- SAFETY TAPE APPLICATION: TAPE SHOULD BE APPLIED WITH A PRESSURE ROLLER. SURFACE SHOULD BE CLEAN AND FREE OF OIL AND MOISTURE. APPLY AT TEMPERATURES BETWEEN 60°F AND 100°F (16°C AND 38°C).
 - MASTIC APPLICATION: PER MANUFACTURER'S RECOMMENDATIONS, USE ONLY REGULAR PALMER MIRROR-MASTIC. (PALMER "QWIKSET MIRROR-MASTIC" NOT TO BE USED WITH "ELASTIC SAFETY FILM") SAFETY TAPE MUST BE WASHED (TWO-CLOTH METHOD) WITH A 70% ISOPROPYL ALCOHOL (IPA) SOLUTION PRIOR TO MASTIC APPLICATION.
- D. MIRROR CHANNEL INSTALLATION:
- TO PLYWOOD: DRILL, DO NOT DIMPLE, BACK LIP OF CHANNEL TO RECEIVE FASTENERS WITH HOLES PROPERLY SIZED AND SPACED TO RECEIVE FASTENERS. ATTACH MIRROR CHANNELS BY SCREW ATTACHING MIRROR CHANNEL THROUGH THE BACK LIP OF THE CHANNEL TO PLYWOOD SUBSTRATE IN ACCORDANCE WITH THE FASTENER MANUFACTURER'S WRITTEN INSTRUCTIONS. INSTALL THE WEB OF THE TOP CHANNEL 1/4" HIGHER THAN THE HEIGHT OF THE MIRROR TO ALLOW THE RAISING OF THE MIRROR INTO THE TOP CHANNEL AND ITS SUBSEQUENT LOWERING ONTO THE BOTTOM CHANNEL. AFTER INSTALLING FASTENERS PLACE MASKING TAPE OVER THE ENTIRE LENGTH OF THE BACK LIP OF THE CHANNEL COMPLETELY COVERING THE FASTENER HEADS TO PROTECT THE MIRROR FROM BEING CHIPPED IN SETTING. ADHERE SETTING BLOCKS AT QUARTER POINTS FOR BOTTOM MIRROR CHANNELS USING 2 SETTING BLOCKS PER MIRROR CHANNEL.
 - TO DRYWALL: MARK THE LOCATION OF THE STUD FASTENERS ON THE BACK LIP OF EACH MIRROR CHANNEL AT EQUAL INTERVALS NOT OVER 8" ON CENTER, AND NOT MORE THAN 3" FROM ENDS PRIOR TO DRILLING THE CHANNEL. DRILL AND COUNTERSINK, DO NOT DIMPLE, BACK LIP OF CHANNELS TO RECEIVE STUD FASTENERS AT MARKED LOCATIONS WITH HOLES PROPERLY SIZED AND SPACED TO RECEIVE FASTENERS. ATTACH MIRROR CHANNELS BY SCREW ATTACHING MIRROR CHANNEL THOUGH THE BACK LIP OF THE CHANNEL THROUGH DRYWALL, STUD FRAMING, AND SHEET METAL BACKER PLATE SUBSTRATES IN ACCORDANCE WITH THE FASTENER MANUFACTURERS WRITTEN INSTRUCTIONS.
 - INSTALL THE WEB OF THE TOP CHANNEL 1/4" HIGHER THAN THE HEIGHT OF THE MIRROR TO ALLOW THE RAISING OF THE MIRROR INTO THE TOP CHANNEL AND ITS SUBSEQUENT LOWERING ONTO THE BOTTOM CHANNEL. AFTER INSTALLING FASTENERS PLACE MASKING TAPE OVER THE ENTIRE LENGTH OF THE BACK LIP OF THE CHANNEL COMPLETELY COVERING THE FASTENER HEADS TO PROTECT THE MIRROR FROM BEING CHIPPED IN SETTING. ADHERE SETTING BLOCKS TO THE WEB OF THE BOTTOM MIRROR CHANNELS, LOCATED AT QUARTER POINTS, USING 2 SETTING BLOCKS PER MIRROR CHANNEL.

- E. WOOD TRIM INSTALLATION:
- BEFORE INSTALLING MIRROR WOOD TRIM, EXAMINE SHOP-FABRICATED WORK FOR COMPLETION AND COMPLETE WORK AS REQUIRED. PRIME TO ALL EXPOSED EDGES IN SURFACES OF THE MIRROR WOOD TRIM WHICH WILL BE IN CONTACT WITH THE MIRROR BACKING TO ELIMINATE INTERACTIONS BETWEEN THE RESINS IN THE WOOD AND THE MIRROR BACKING.
 - INSTALL MIRROR WOOD TRIM PLUMB, LEVEL, TRUE, AND STRAIGHT WITH NO DISTORTIONS. SCRIBE AND CUT MIRROR WOOD TRIM TO FIT ADJOINING WORK, AND REFINISH CUT SURFACES AND REPAIR DAMAGED FINISH AT CUTS. INSTALL WITH MINIMUM NUMBER OF JOINTS POSSIBLE, USING FULL-LENGTH PIECES (FROM MAXIMUM LENGTH OF WOOD TRIM AVAILABLE) TO GREATEST EXTENT POSSIBLE. DO NOT USE PIECES LESS THAN 6" LONG, EXCEPT WHERE SHORTER SINGLE-LENGTH PIECES ARE NECESSARY. SCARF RUNNING JOINTS. MITERS OVER 4" LONG SHALL BE SPUNED AND GLUED.
 - FASTEN MIRROR WOOD TRIM THROUGH FIELD DRILLED AND COUNTER SUNK HOLES TO PLYWOOD, STUD FRAMING, AND SHEET METAL BACKER PLATES PREVIOUSLY BUILT INTO PARTITION SUBSTRATES. SECURE WITH COUNTER SUNK CONCEALED STAPLES IN ACCORDANCE WITH THE FASTENER MANUFACTURERS WRITTEN INSTRUCTIONS. USING PLASTIC WOOD FILLER FILL VOID ABOVE HEADS OF COUNTER SUNK FASTENERS FULL AND STRIKE FLUSH WITH FACE OF THE WOOD TRIM, SAND SMOOTH WITH 220 GRIT OR FINER SANDPAPER. FILL GAPS, IF ANY, AT MITERS WITH PLASTIC WOOD FILLER, SAND SMOOTH.
 - ADHERE SETTING BLOCKS TO MIRROR GLASS BEARING SURFACE OF THE MIRROR WOOD TRIM GLAZING CHANNEL (DARK), LOCATED AT QUARTER POINTS, USING 2 SETTING BLOCKS PER MIRROR PANEL.
- F. MIRROR INSTALLATION: APPLY MASTIC IN PING PONG BALL SIZED SPOTS TO THE WALL, NOT TO THE MIRROR BEAD. APPLY MASTIC IN THE MIRROR BEAD TO THE TOP CHARGESHEET IN COMPLIANCE WITH MASTIC MANUFACTURER'S WRITTEN INSTRUCTIONS FOR COVERAGE OF NOT LESS THAN ONE SPOT FOR EVERY SQUARE FOOT OF MIRROR AND TO ALLOW AIR CIRCULATION BETWEEN BACK OF MIRRORS AND FACE OF MOUNTING SURFACE. DO NOT APPLY MASTIC WITHIN 6" OF THE MIRROR EDGES TO PREVENT SQUEEZE OUT. PLACE SPOTS 30 SPACE WILL BE LEFT BETWEEN THEM WHEN THE MIRROR IS INSTALLED. AFTER MASTIC IS APPLIED, ALIGN MIRRORS AND PRESS INTO PLACE WHILE MAINTAINING A MINIMUM AIR SPACE OF 1/8" BETWEEN BACK OF MIRRORRED GLASS AND MOUNTING SURFACE. MASTIC SHALL SPREAD TO A PAT APPROXIMATELY 4-1/2" IN DIAMETER AFTER PRESSING MIRROR INTO PLACE.
- 3.4 PROTECTION AND CLEANUP
- A. PROTECT MIRRORS FROM BREAKAGE AND CONTAMINATING SUBSTANCES RESULTING FROM CONSTRUCTION OPERATIONS. USING CLEAN WARM WATER, CLEAN MIRRORS BY METHODS RECOMMENDED IN REFERENCED GLAZING STANDARDS.

DIVISION 09 - FINISHES

SECTION 09200 - GYPSUM BOARD

- A. GENERAL: PROVIDE GYPSUM BOARD SYSTEMS INCLUDING METAL FRAMING ACCESSORIES, GYPSUM BOARD, JOINT TREATMENT, ACOUSTICAL INSULATION, ACOUSTICAL SEALANT AND ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION STANDARDS: COMPLY WITH ASTM C754 AND ASTM C840, AND REQUIREMENTS FOR FIRE RATINGS.
- B. STANDARDS: COMPLY WITH ASTM C754 AND ASTM C840, AND REQUIREMENTS FOR FIRE RATINGS.
- DEFLECTIONS: MAXIMUM 1/240 TYPICAL, 1/360 AT LOCATIONS INDICATED TO RECEIVE TILE.
- C. FIRE-RATED ASSEMBLIES: LATCHED BY UNDERWRITER'S LABORATORY, GYPSUM ASSOCIATION (GA) FILE NO'S IN GA-600 FIRE RESISTANCE DESIGN MANUAL, OR OTHER LISTING APPROVED BY APPLICABLE AUTHORITIES AND APPLICABLE CODE REQUIREMENTS.
- D. SYSTEMS RESPONSIBILITY: PROVIDE PRODUCTS MANUFACTURED BY OR RECOMMENDED BY MANUFACTURER OF GYPSUM BOARD TO MAINTAIN SINGLE-SOURCE RESPONSIBILITY FOR SYSTEM.
- E. SUBMITTALS: SEE SECTION 03000
- F. MANUFACTURERS: USG (1.800.980.3839), GEORGIA PACIFIC (1.800.225.6191), NATIONAL GYPSUM (1.740.365.7300), OR APPROVED EQUAL.
- G. METAL FRAMING: CONFORM TO ASTM C754; COMPLETE 16 GAGE AND LIGHTER STEEL FRAMING AND SUSPENSION SYSTEM FOR GYPSUM BOARD SYSTEMS; PROVIDE ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION.
- INSTALL OWNER FURNISHED RECESSED STUDS AND STANDARDS; PROVIDE ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION
 - MANUFACTURED SUSPENSION SYSTEM SUCH AS CHICAGO METALLIC/DRYWALL SYSTEM IS ACCEPTABLE.
- H. GYPSUM BOARD: CONFORM TO C840; UL LISTED FIRE RESISTANT GYPSUM BOARD THROUGHOUT.
- STANDARD: ASTM C36, 5/8" THICK. CORE BOARD: ASTM C442, 1" THICK.
- I. FIRE RATED CONSTRUCTION: COMPLY WITH UNDERWRITER'S LABORATORIES CERTIFIED FIRE TESTS AND APPLICABLE CODE REQUIREMENTS.
- PROVIDE PROTECTIVE REINFORCED STEEL CORNER BEADS AND EDGE TRIM, TYPE DESIGNED TO BE CONCEALED IN FINISHED CONSTRUCTION BY TAPE AND JOINT COMPOUND.
 - CORNER BEADS: MANUFACTURER'S STANDARD METAL BEADS.
 - REINFORCING TAPE, JOINT COMPOUND, ADHESIVE, WATER, FASTENERS: TYPES RECOMMENDED BY SYSTEM MANUFACTURER AND CONFORMING WITH ASTM C475.

- J. SHAFT WALL SYSTEM: PROVIDE AT SHAFTS AND WHERE INDICATED.
- K. ACOUSTICAL ACCESSORIES: SEE SECTION 09800
- L. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS, REFERENCED STANDARDS, AND APPLICABLE REQUIREMENTS FOR FIRE RATINGS AND ACOUSTICAL RATINGS.
- SPECIAL METAL STUD AND GYPSUM DOOR: PROVIDE SPECIAL CONFIGURATION AS INDICATED ON DRAWINGS
- M. METAL FRAMING ERECTION: ERECT METAL FRAMING IN ACCORDANCE WITH ASTM C754 AND MANUFACTURER'S RECOMMENDATIONS.
- INSTALL MEMBERS TRUE TO LINES AND LEVELS TO PROVIDE SURFACE FLATNESS WITH MAXIMUM VARIATION OF 1/8" IN 10'-0" IN ANY DIRECTION.
 - DOOR OPENING FRAMING: INSTALL DOUBLE STUDS AT DOOR FRAME JAMBS; INSTALL RUNNERS ON EACH SIDE OF OPENING AT FRAME HEAD HEIGHT BETWEEN JAMB STUDS AND ADJACENT STUDS.
 - INSTALL METAL FRAMING BACKING WHERE REQUIRED FOR SUPPORT OF FIXTURES, CABINETS, ACCESSORIES AND HARDWARE.
 - COORDINATE INSTALLATION OF BUCKS, ANCHORS, BLOCKING, ELECTRICAL AND MECHANICAL WORK WHICH IS TO BE PLACED IN OR BEHIND PARTITION FRAMING; ALLOW ITEMS TO BE INSTALLED AFTER FRAMING IS COMPLETE.

PART 3 - EXECUTION

- 3.1 INSTALLATION - GENERAL
- A. INSTALL SUSPENSION SYSTEM AND PANELS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, IN COMPLIANCE WITH ASTM INSTALLATION STANDARD, AND WITH APPLICABLE CODES AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.
- B. THE ARMSTRONG DRYWALL GRID SYSTEM CAN BE INSTALLED IN INTERIOR OR EXTERIOR APPLICATIONS.
- C. TO SECURE TO METAL CLIPS, CONCRETE INSERTS, STEEL BAR JOIST OR STEEL DECK, USE POWER ACTUATED FASTENER, OR INSERT COORDINATE PLACEMENT FOR HANGER WIRE SPACED AS REQUIRED FOR EXPECTED CEILING LOADS AND LAYOUT.
- D. INSTALL HANGER WIRE AS REQUIRED WITH NECESSARY ON CENTER SPACING TO SUPPORT EXPECTED CEILING LOAD REQUIREMENTS, FOLLOWING LOCAL PRACTICES, CODES AND REGULATIONS. PROVIDE ADDITIONAL WIRES AT LIGHT FIXTURES, GRILLES, AND ACCESS DOORS WHERE NECESSARY. A PITGAL KNOT SHALL BE USED WITH THREE TIGHT WRAPS AT TOP AND BOTTOM FASTENING LOCATIONS.
- E. ADD ADDITIONAL WIRE AS NEEDED WHEN USING COMPATIBLE CLIPS AND ACCESSORIES.
- F. CONTROL JOINTS: ROLL FORMED ZINC ALLOY, ALUMINUM, OR PLASTIC AS REQUIRED FOR EXPANSION AND CONTRACTION AS SHOWN ON DRAWINGS.
- G. EXPANSION JOINTS: ROLL FORMED ZINC ALLOY, ALUMINUM, OR PLASTIC AS REQUIRED FOR EXPANSION AND CONTRACTION AS SHOWN ON DRAWINGS.
- H. MAIN BEAMS SHALL BE SUSPENDED FROM THE OVERHEAD CONSTRUCTION WITH HANGER WIRE, SPACED AS REQUIRED FOR EXPECTED CEILING LOADS, ALONG THE LENGTH OF THE MAIN BEAMS.
- I. INSTALL CROSS TEES AT ON CENTER SPACING AS SPECIFIED BY THE DRYWALL MANUFACTURER. TYPICAL DRYWALL CROSS TEE SPACING:
 1. 24 INCHES ON CENTERS WITH 5/8" INCH GYPSUM BOARD
- J. OTHER ITEMS SUCH AS WOOD, SHEET METAL, OR PLASTIC PANELS SHOULD BE SCREENED TO COMPLY WITH DEFLECTION LIMIT EQUIVALENT TO THAT OF THE CEILING INSTALLATION.
- K. FOR LIGHT FIXTURES (TYPE G, TYPE F) USE SECONDARY FRAMING CROSS TEES AS REQUIRED TO FRAME OPENING.

3.2 INSTALLATION - INTERIOR APPLICATIONS

- A. INSTALL MAIN BEAMS AND CROSS TEES AT THE ON CENTER SPACING REQUIRED FOR CEILING LOADING, AND LOCATION OF IN-CEILING SERVICES.
- B. ADDITIONAL BRACING AS REQUIRED BY CODE.

SECTION 09000 - TILING

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
- A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION/ SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
- 1.2 SUMMARY
- A. SECTION INCLUDES APPLICATION OF AGGLOMERATE TILE, NATURAL STONE TILE, AND CERAMIC / PORCELAIN TILE IN INTERIOR CONDITIONS FOR WALLS AND FLOORS
- 1.3 SUBMITTALS
- A. NO SUBMITTALS SHALL BE REQUIRED
- B. NO SUBSTITUTIONS WILL BE ALLOWED
- 1.4 QUALITY ASSURANCE
- A. INSTALLER QUALIFICATIONS: TILE FABRICATOR, SPECIALIZING IN INSTALLATION OF TILE, MOSAICS, PAVERS, TRIM UNITS AND THRESHOLDS WITH FIVE (5) YEARS DOCUMENTED EXPERIENCE WITH INSTALLATIONS OF SIMILAR SCOPE, MATERIALS AND DESIGN
1. INSTALLER TO HAVE COMPLETED A CERTIFIED TILE INSTALLATION PROGRAM SIMILAR TO TCAA "TROWEL OF EXCELLENCE", TONA "FIVE STAR" OR OTHER EQUIVALENT RECOGNIZED INSTALLATION PROGRAM
- B. INSTALLATION SYSTEM/MANUFACTURER: COMPANY SPECIALIZING IN ADHESIVES, MORTARS, GROUTS AND/OR OTHER INSTALLATION MATERIALS WITH TEN (10) YEARS MINIMUM EXPERIENCE AND ISO 9001 CERTIFICATION.
1. ALL SETTING MATERIALS SHALL BE FROM A SINGLE SOURCE
2. MANUFACTURER OF SETTING MATERIALS SHALL PROVIDE A 15-YEAR SYSTEMS WARRANTY. SEE SPECIFIC WARRANTY INFORMATION AS PROVIDED BY MANUFACTURER.
- 1.5 DELIVERY, STORAGE, AND HANDLING: REFER TO SECTION 01000
- 1.6 SEQUENCING AND SCHEDULING
- A. COORDINATE INSTALLATION OF TILE WORK WITH RELATED WORK.
- B. PROCEED WITH TILE WORK AFTER CURBS, VENTS, DRAINS, PIPING, AND OTHER PROJECTIONS THROUGH SUBSTRATE HAVE BEEN INSTALLED AND WHEN SUBSTRATE CONSTRUCTION AND FRAMING OF OPENINGS HAVE BEEN COMPLETED.
- 1.7 PROTECT CONDITIONS

- A. TEMPERATURE REQUIREMENTS FOR INTERIOR TILE:
 1. DO NOT SET WHEN AIR, AMBIENT, MATERIAL, AND/OR SUBSTRATE TEMPERATURE IS BELOW 40°F OR ABOVE 95°F (4°C - 35°C)
 2. MAINTAIN TEMPERATURE AT 40°F OR ABOVE BUT LESS THAN 95°F (4°C - 35°C) IN INSTALLATION AREAS DURING INSTALLATION AND FOR 7 DAYS AFTER COMPLETION UNLESS HIGHER TEMPERATURES ARE REQUIRED BY FABRICATOR'S OR SUPPLIER'S INSTRUCTIONS.
 3. PROTECT PORTLAND CEMENT BASED MORTARS AND GROUTS FROM DIRECT SUNLIGHT, RADIANT HEAT, OR DIRECT HEAT (E.G. HOT WATER RADIANT HEAT) UNTIL CURED TO PREVENT PREMATURE EVAPORATION OF MOISTURE
 4. EPOXY MORTARS AND GROUTS REQUIRE SURFACE TEMPERATURES BETWEEN 60°F AND 90°F (16°C AND 32°C) AT TIME OF INSTALLATION.
 5. PREVENT CARBON DIOXIDE DAMAGE TO TILE, MOSAICS, PAVERS, TRIM, AND THRESHOLDS, AS WELL AS ADHESIVES, MORTARS, GROUTS AND OTHER INSTALLATION MATERIALS, BY VENTING TEMPORARY HEATERS TO THE EXTERIOR.
 6. PROVIDE VENTILATION AND PROTECTION OF ENVIRONMENT AS RECOMMENDED BY MFG.
- B. MOISTURE REQUIREMENTS FOR INTERIOR TILE:
 1. AT LEAST ONE OF THE FOLLOWING TESTS SHALL BE PERFORMED TO DETERMINE MOISTURE LEVEL OF SUBSTRATE. THE TEST RESULTS SHALL BE PROVIDED TO THE LDDC PM PRIOR TO SUB FLOOR PREPARATION.
 - a. TEST SLAB FOR RELATIVE HUMIDITY WITH A PROBE TEST COMPLYING WITH ASTM F-2170. IF THE VALUE IS ABOVE THE NEAREST 1% DISTRIBUTION CENTER.
 - b. TEST SLAB FOR MOISTURE VAPOR EMISSION RATE (MVER) USING A TRAXEM1 INDICATOR OR SIMILAR METER IF READING VALUE OF TRAXEM1 IS ABOVE 18, THEN CONDUCT A CALCIUM CHLORIDE TEST PER ASHFI A7-1848. IF THE VALUE FROM THE CALCIUM CHLORIDE TEST IS 5LBS OF WATER PER 1000 S.F. PER 24 HRS OR HIGHER, THEN MOISTURE MITIGATION IS REQUIRED.

PART 2 - PRODUCTS

2.1 NATIONAL ACCOUNTS

- A. THE MAPEI PRODUCTS LISTED THROUGHOUT THIS SPECIFICATION SHALL BE PURCHASED BY THE GC THROUGH THE FOLLOWING NATIONAL ACCOUNT, UNLESS OTHERWISE NOTED.
 1. PKT FILE #17465.0664, PLACE ORDER AS A VICTORIA'S SECRET OR PINK STORE. MATERIAL WILL BE PROVIDED FROM THE NEAREST MAPEI DISTRIBUTION CENTER.
- B. ALL OTHER PRODUCTS LISTED WHICH ARE THE RESPONSIBILITY OF THE GC SHALL BE PURCHASED THROUGH LOCAL RESOURCES.
- 2.2 TILE
- A. TILE SUPPLIED BY LDDC VENDOR AS SPECIFIED IN THE FINISH SCHEDULE AND PLANS.
- 2.3 SURFACE PREPARATION
- A. MOISTURE MITIGATION
 1. A MOISTURE MITIGATION BARRIER SHALL BE PROVIDED WHEN THE SUBSTRATE RELATIVE HUMIDITY OR MOISTURE VAPOR EMISSION RATE (MVER) FALL OUTSIDE OF THE ALLOWABLE LIMITS PER SECTION 1.7.B OF THIS SPECIFICATION.
 2. SUBSTRATE MUST BE PREPARED BY SHOT-BLASTING TO ACHIEVE A SURFACE PROFILE BETWEEN CSP-3 AND CSP-4 AS PER ICRI STANDARDS PRIOR TO INSTALLATION OF MOISTURE MITIGATION.
3. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE FOLLOWING PRODUCT:
 - a. MAPEI CORP. PLANISEAL VS FAST
- B. BONDING AGENT
 1. BONDING AGENT SHALL BE PROVIDED ONLY WHEN A MOISTURE MITIGATION BARRIER IS REQUIRED.
 2. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, FOLLOWING FOLLOWING PRODUCT:
 - a. MAPEI CORP. ECO PRIM GRIP (APPLIED OVER PLANISEAL VS FAST)
- C. LARGE FILL AREAS AND LEVELING
 1. REFER TO SECTION 09260
- D. PATCHING, RAMPING, AND SMALL FILL AREAS
 1. REFER TO SECTION 09260

2.4 THIN-SET MORTAR MATERIALS

- A. AGGLOMERATE TILE: SUPPLIER TO SUPPLY DATA TO THE OWNER ON THE MOISTURE SENSITIVITY OF THE TILE. THE APPROPRIATE CLASSIFICATION SHALL BE DETERMINED AND LABELED WITHIN THE FINISH SCHEDULE. THIS CLASSIFICATION SHALL BE USED TO DETERMINE THE PROPER SETTING MATERIALS.
 1. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE FOLLOWING PRODUCT
 - a. FOR CLASS 'A' AND CLASS 'B' MATERIAL: TWO-PART POLYMER MODIFIED RAPID-SETTING FLEXIBLE TILE MORTAR COMPLYING WITH ANSI A118.4 AND ISO 13007 C2F92FPI. MAPEI CORP. GRANI RAPID SYSTEM
 - b. FOR CLASS 'C' RATED MATERIAL: USE 100% SOLID EPOXY MORTAR COMPLYING WITH ANSI A118.3 AND ISO 13007 R07. MAPEI CORP. KERAPoxy 40
 2. NATURAL STONE TILE: SUPPLIER SHALL PROVIDE DATA TO THE OWNER ON THE WATER SENSITIVITY OF THE STONE. THE APPROPRIATE CLASSIFICATION SHALL BE DETERMINED AND LABELED WITHIN THE FINISH SCHEDULE. THIS CLASSIFICATION SHALL BE USED TO DETERMINE THE PROPER SETTING MATERIALS.
 1. FOR CLASS 'A' STONE: PROVIDE FOLLOWING PRODUCT THAT MEETS OR EXCEEDS REQUIREMENTS OF ANSI A118.4 AND ISO 13007 C2F92FPI
 - a. PREMIUM POLYMER MODIFIED THIN SET MORTAR FOR INSTALLATION OF LARGE FORMAT TILE: MAPEI CORP. ULTRA FLEX FLT
 - b. 100% SOLID EPOXY MORTAR: MAPEI CORP. KERAPoxy 40
 2. FOR CLASS 'B' STONE: PROVIDE FOLLOWING PRODUCT THAT MEETS OR EXCEEDS REQUIREMENTS OF ANSI A118.4 AND ISO 13007 C2F92FPI
 - a. TWO-PART POLYMER MODIFIED RAPID-SETTING FLEXIBLE TILE MORTAR: MAPEI CORP. GRANI RAPID SYSTEM
 - b. FOR CLASS 'C' STONE: PROVIDE FOLLOWING PRODUCT THAT MEETS OR EXCEEDS REQUIREMENTS OF ANSI A118.3 AND ISO 13007 R21
 - a. 100% SOLID EPOXY MORTAR: MAPEI CORP. KERAPoxy 40
 - C. CERAMIC / PORCELAIN TILE:
 1. FOR TILE UP TO 15" X 15" USE PROFESSIONAL GRADE POLYMER MODIFIED THIN SET MORTAR COMPLYING WITH ANSI A118.4 AND ISO 13007 C2FPI. MAPEI CORP. ULTRA FLEX 2
 2. FOR FAST TRACK INSTALLATIONS OF TILE UP TO 15" X 15" PROFESSIONAL GRADE POLYMER MODIFIED RAPID SETTING THIN SET MORTAR: MAPEI CORP. ULTRA FLEX 2 BS
 3. FOR TILE LARGER THAN 15" X 15" USE PREMIUM POLYMER MODIFIED THIN SET MORTAR FOR INSTALLATION OF LARGE FORMAT TILE COMPLYING WITH ANSI A118.4 AND ISO 13007 C2F92FPI. MAPEI CORP. ULTRA FLEX FLT
 4. FOR FAST TRACK INSTALLATIONS OF TILE LARGER THAN15" X 15" PREMIUM POLYMER MODIFIED RAPID SETTING THIN SET MORTAR FOR INSTALLATION OF LARGE FORMAT TILE: MAPEI CORP. ULTRA FLEX FLT

2.5 GROUT

- A. HIGH-HYDRATED CEMENT GROUT THAT IS FAST SETTING, COLOR CONSISTENT, NON-SHRINKING, AND EFFLORESCENCE FREE CONFORMING TO ANSI A118.7 AND ISO 13007 G22NA, FOR JOINTS OF 1/4"-1" WIDE.
 1. INTERIOR HORIZONTAL AND VERTICAL LOCATIONS, CONFORM TO ANSI A118.6 AND ISO 13007 G22NA. REFER TO FINISH SCHEDULE FOR ACTUAL MANUFACTURER AND COLOR REQUIRED FOR EACH TILE TYPE.
 - a. MAPEI CORP. ULTRA COLOR PLUS, SANDED.
 1. CUSTOM GROUT COLORS WILL BE SUPPLIED BY OWNER.
 2. CUSTOM BUILDING PRODUCTS: FRISY, SANDED.
 - b. LATIQUETE
 - c. BOSTIK
 2. INSTALL ALL GROUT IN COMPLIANCE WITH ANSI A108.6.
 3. ALL GROUT TO BE UN-SANDED UNLESS OTHERWISE NOTED.
 4. ALL GROUT JOINTS TO BE 1/16" UNLESS OTHERWISE NOTED.
- 2.6 ACCESSORIES
- A. EXPANSION JOINT COVER ASSEMBLIES: REFER TO SECTION 079613
- B. TRANSITION STRIPS: ALUMINUM OR ZINC STRIPS AS SPECIFIED IN DRAWINGS AND DETAILS.
- C. CLEANER: TILE CLEANER SPECIFICALLY FORMULATED FOR SPECIFIED TILE AS RECOMMENDED BY THE MANUFACTURER. DO NOT USE ANY CLEANING COMPOUNDS THAT ARE NOT RECOMMENDED BY THE MANUFACTURER.
- D. GROUT SEALER: COLORLESS, SLIP AND STAIN RESISTANT SEALER THAT DOES NOT AFFECT COLOR OR FINI SEAL PROPERTIES OF TILE SURFACES AND AS RECOMMENDED BY GROUT MANUFACTURER FOR APPLICATION INDICATED. USE A WATER-BASED SEALER, NO SOLVENTS.
- 2.7 FLOOR SEALER
- A. PROVIDE FLOOR SEALER FOR TILE AS FOLLOWS:
 1. FLOOR SEALER IS REQUIRED FOR ALL NATURAL STONE.
 2. AGGLOMERATE TILE, FLOOR SEALER IS ONLY REQUIRED WHEN SPECIFICALLY INSTRUCTED WITHIN THE SUPPLIER'S DOCUMENTATION
 3. CERAMIC AND PORCELAIN TILE SHALL NOT REQUIRE A SEALER.
- B. COLORLESS, SLIP AND STAIN RESISTANT SEALER THAT DOES NOT ALTER COLOR OR PHYSICAL PROPERTIES OF STONE SURFACES, AS RECOMMENDED BY STONE PRODUCER FOR APPLICATION INDICATED.
- C. ACCEPTABLE PRODUCTS: BOSTIK, CUSTOM BUILDING PRODUCTS, HILLIARD FLOOR TREATMENTS, HKM STONE CARE PRODUCTS, STONE CARE INTERNATIONAL, SUPPLYVILLE TILES INC.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. EXAMINE SURFACES INDICATED TO RECEIVE TILE, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS AND OTHER CONDITIONS AFFECTING PERFORMANCE. VERIFY THAT SURFACES TO BE COVERED ARE:
 1. SOUND, RIGID AND CONFORM TO GOOD DESIGN/ENGINEERING PRACTICES.
 2. WITH MAXIMUM DEFLECTION UNDER ALL LIVE, DEAD AND IMPACT LOADS, INCLUDING CONCENTRATED LOADS, OF L/720
 3. CLEAN AND FREE OF DUST, DIKT, OIL, GREASE, SEALERS, CURING COMPOUNDS, LATIQUETE, EFFLORESCENCE, FORM OIL OR LOOSE PLASTER, PAINT AND SCALE.
 4. LEVEL AND TRUE TO WITHIN 1/8" IN 10' (6MM IN 3M), AND NO MORE THAN 1/16" IN 1' (1.5MM IN 0.3M) VARIATION FROM SUBSTRATE HIGH POINTS.
 5. NOT LEVELLED WITH GYPSUM OR ASPHALT BASED COMPOUNDS.
 6. DRY AS PER AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) D4363.
 7. TEST SLAB FOR MOISTURE LIMITATIONS AS PER SECTION 1.7.B OF THIS SPECIFICATION.
- B. CONCRETE SURFACES SHALL BE:
 1. CURED MIN. OF 28 DAYS AT 70°F (21°C), INCLUDING INITIAL (7) DAY PERIOD OF HOT CURING.
 2. MOOD FLOAT FINISHED, OR BETTER CONFORMING TO CSP-3 AS PER ICRI STANDARDS.
 3. ADVISE LDDC PROJECT MANAGER OF ANY SURFACE OR SUBSTRATE CONDITIONS REQUIRING CORRECTION BEFORE TILE WORK COMMENCES. BEGINNING OF WORK CONSTITUTES ACCEPTANCE OF SUBSTRATE OR SURFACE CONDITIONS.
- C. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- 3.2 PREPARATION
- A. VACUUM CLEAN OR SHEEP SUBSTRATES TO REMOVE DIRT, DUST, DEBRIS, AND LOOSE PARTICLES.
- B. REMOVE SUBSTANCES FROM CONCRETE SUBSTRATES THAT COULD IMPAIR SETTING BOND, INCLUDING CURING AND SEALING COMPOUNDS, FORM OIL, GREASE, AND OTHER SUBSTANCES.
- C. SHOT-BLAST SUBSTRATES WHEN REQUIRED PER SECTION 2.3 OF THIS SPECIFICATION.
- D. PROFILE SUBSTRATE PER MANUFACTURER'S RECOMMENDATION AS NOTATED IN APPLICABLE DATASHEETS AND WARRANTIES.
- E. CLEAN ANY DIRTY OR STAINED SURFACES ON THE TILE SCHEDULED TO BE INSTALLED BY REMOVING SOIL, STAINS, AND OTHER SUBSTANCES.
 1. CLEAN BY THOROUGHLY SCRUBBING WITH FIBER BRUSHES AND THEN DRENCHING WITH CLEAR WATER. USE ONLY MILD CLEANING COMPOUNDS THAT CONTAIN NO CAUSTIC OR HARSH MATERIALS OR ABRASIVES.

3.3 INSTALLATION

- A. COMPLY WITH TILE COUNCIL OF AMERICA (TCA) HANDBOOK AND MANUFACTURER'S INSTRUCTIONS.
- B. SUBSTRATE REQUIREMENTS
 1. FLOOR SURFACES: CONCRETE
 2. PLATFORM SURFACES: CEMENT BONDED PARTICLE BOARD
 3. WALL SURFACES: CEMENT BACKER BOARD
 4. CEILINGS AND SOFFITS: GLASS FESH MORTAR UNITS
- C. PLACE TILE IN ACCORDANCE WITH PATTERNS INDICATED ON DRAWINGS; CAREFULLY PLAN LAYOUTS, ENSURE PATTERN IS UNINTERRUPTED FROM ONE SURFACE TO THE NEXT AND THROUGH DOORWAYS UNLESS OTHERWISE NOTED.
- 3.4 MOVE/VENT JOINTS
- A. 1/4" TO 3/8" GAPS SHALL BE MAINTAINED AT ALL PERIMETER WALLS AND AT ALL COLUMN ENCLOSURES. THIS GAP MUST BE OBTAINED COMPLETELY BY THE WALL BASE MATERIAL.
- 3.5 WATERPROOF MEMBRANE: REFER TO SECTION 07146
- 3.6 ADJUSTING AND CLEANING
- A. TILE TO BE REPLACED IF INSTALLED IMPROPERLY AND NOT IN ACCORDANCE WITH THESE SPECIFICATIONS AND MANUFACTURERS INSTRUCTIONS.
- B. IN-PROGRESS CLEANING: CLEAN TILE AS WORK PROGRESSES. REMOVE MORTAR FINS AND SMEARS PER MANUFACTURER'S RECOMMENDATIONS.
- C. CLEAN TILE AFTER SETTING AND GROUTING ARE COMPLETE PER MFGS RECOMMENDATIONS.
- 3.7 PROTECTION
- A. PROHIBIT TRAFFIC FROM INSTALLED TILE PER THE MFGS INSTRUCTIONS FOR SETTING ADHESIVE.

SECTION 09123 - ACOUSTICAL TILE CEILINGS

PART 1 - GENERAL

- 1.1 SUMMARY
- A. THIS SECTION INCLUDES ACOUSTICAL TILES AND CONCEALED SUSPENSION SYSTEMS FOR CEILINGS.
- 1.2 SUBMITTALS: SEE SECTION 03000
- 1.3 QUALITY ASSURANCE
- A. ACOUSTICAL TESTING AGENCY QUALIFICATIONS: AN INDEPENDENT TESTING LABORATORY, OR AN NVLAP-ACCREDITED LABORATORY.
- B. FIRE-TEST-RESPONSE CHARACTERISTICS:
 1. FIRE-RESISTANCE CHARACTERISTICS: WHERE INDICATED, PROVIDE ACOUSTICAL TILE CEILINGS IDENTICAL TO THOSE OF ASSEMBLIES TESTED FOR FIRE RESISTANCE PER ASTM E119 BY UL OR ANOTHER TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
 2. IDENTIFY MATERIALS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AND INSPECTING AGENCY.
2. SURFACE-BURNING CHARACTERISTICS: ACOUSTICAL TILES COMPLYING WITH ASTM E1264 FOR CLASS (A) MATERIALS, WHEN TESTED PER ASTM E84.
3. SPOKE-DEVELOPED INDEX: 450 OR LESS.
- C. SEISMIC STANDARD: COMPLY WITH THE FOLLOWING:
 1. STANDARD FOR CEILING SUSPENSION SYSTEMS REQUIRING SEISMIC RESTRAINT: COMPLY WITH ASTM E580.
 2. CISCA'S RECOMMENDATIONS FOR ACOUSTICAL CEILINGS: COMPLY WITH CISCA'S "RECOMMENDATIONS FOR DIRECT-HUNG ACOUSTICAL TILE AND LAY-IN PANEL CEILINGS--SEISMIC ZONES 0-2."
 3. CISCA'S GUIDELINES FOR SYSTEMS REQUIRING SEISMIC RESTRAINT: COMPLY WITH CISCA'S "GUIDELINES FOR SEISMIC RESTRAINT OF DIRECT-HUNG SUSPENDED CEILING ASSEMBLIES--SEISMIC ZONES 3/4-1"
 4. UBC-STDANR2005-2, "METAL SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND FOR LAY-IN PANEL CEILINGS."
 5. ASCET, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES". SECTION 9, "EARTHQUAKE LOADS."
- D. MOCKUPS: SEE SECTION 01400.
1. APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT END OF SUBSTANTIAL COMPLETION.
- E. PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.
- 1.4 EXTRA MATERIALS
- A. FURNISH EXTRA MATERIALS DESCRIBED BELOW THAT MATCH PRODUCTS INSTALLED AND THAT ARE PACKAGED WITH PROTECTIVE COVERING FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS.
 1. ACOUSTICAL CEILING UNITS: QUANTITY OF 10 FULL-SIZE TILES.

PART 2 - PRODUCTS

- 2.1 ACOUSTICAL TILE CEILINGS, GENERAL
- A. ACOUSTICAL TILE STANDARD: COMPLY WITH ASTM E1264.
- B. METAL SUSPENSION SYSTEM STANDARD: COMPLY WITH ASTM C635.
- C. ATTACHMENT DEVICES: SIZE FOR FIVE TIMES THE DESIGN LOAD INDICATED IN ASTM C635, TABLE1, "DIRECT HUNG," UNLESS OTHERWISE INDICATED. COMPLY WITH SEISMIC DESIGN REQUIREMENTS.
1. ANCHORS IN CONCRETE: EXPANSION ANCHORS FABRICATED FROM CORROSION-RESISTANT MATERIALS, WITH HOLES OR LOOPS FOR ATTACHING HANGERS OF TYPE INDICATED AND WITH CAPABILITY TO SUSTAIN, WITHOUT FAILURE, A LOAD EQUAL TO FIVE TIMES THAT IMPOSED BY CEILING CONSTRUCTION, AS DETERMINED BY TESTING PER ASTM E488 OR ASTM E1812 AS APPLICABLE, CONDUCTED BY A QUALIFIED TESTING AND INSPECTING AGENCY.
2. POWER-ACTUATED FASTENERS IN CONCRETE: FASTENER SYSTEM OF TYPE SUITABLE FOR APPLICATION INDICATED, FABRICATED FROM CORROSION-RESISTANT MATERIALS, WITH CLIPS OR OTHER ACCESSORY DEVICES FOR ATTACHING HANGERS OF TYPE INDICATED, AND WITH CAPABILITY TO SUSTAIN, WITHOUT FAILURE, A LOAD EQUAL TO 10 TIMES THAT IMPOSED BY CEILING CONSTRUCTION, AS DETERMINED BY TESTING PER ASTM E1190, CONDUCTED BY A QUALIFIED TESTING AND INSPECTING AGENCY.

- D. WIRE HANGERS, BRACES, AND TIES: ZINC-COATED CARBON-STEEL WIRE, ASTM A 641/A 641M, CLASS 1 ZINC COATING, SOFT TEMPER.
 1. SIZE: SELECT WIRE DIAMETER SO ITS STRESS AT 3 TIMES HANGER DESIGN LOAD (ASTM C635, TABLE1, "DIRECT HUNG") WILL BE LESS THAN YIELD STRESS OF WIRE, BUT PROVIDE NOT LESS THAN 0.106-INCH- (2.64-31M)- DIAMETER WIRE.
- E. SEISMIC STRUTS AND SEISMIC CLIPS.
- F. METAL EDGE MOLDINGS AND TRIM: TYPE AND PROFILE INDICATED OR, IF NOT INDICATED, MANUFACTURER'S STANDARD MOLDINGS FOR EDGES AND PENETRATIONS THAT COMPLY WITH SEISMIC DESIGN REQUIREMENTS, FORMED FROM SHEET METAL OF SAME MATERIAL, FINISH, AND COLOR AS THAT USED FOR EXPOSED FLANGES OF SUSPENSION SYSTEM RUNNERS.
- 2.2 ACOUSTICAL TILES FOR ACOUSTICAL TILE CEILING
- A. AVAILABLE PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - B. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING:
 1. SALES AREA (NON-RATED & RATED): ARMSTRONG DUNE #1175 (BEVELED REGULAR EDGE)
 2. NON-SALES AREA (NON-RATED & RATED): ARMSTRONG DUNE #1173 (SQUARE LAY-IN)
- C. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE PRODUCT INDICATED ON DRAWINGS.
- D. CLASSIFICATION: PROVIDE TILES (OR FIRE-RESISTANCE RATED TILES AS REQUIRED) COMPLYING WITH ASTM E1264 FOR TYPE AND FORM AS INDICATED.
- E. COLOR: AS INDICATED ON DRAWINGS.
- F. LIGHT REFLECTANCE: ASTM E 1477; WHITE PANEL: LIGHT REFLECTANCE=0.83
- G. NOISE REDUCTION COEFFICIENT: ASTM C 423; CLASSIFIED W/ UL LABEL ON PRODUCT CARTON, 0.50
- H. COILING ATTENUATION CLASS: ASTM C 1414; CLASSIFIED WITH UL LABEL ON PRODUCT CARTON, 30
- J. ARTICULATED CLASS: ASTM C 1111; CLASSIFIED WITH UL LABEL ON PRODUCT CARTON N/A
- K. THICKNESS: AS INDICATED ON DRAWINGS.
- L. MODULAR SIZE: AS INDICATED ON DRAWINGS.
- 2.3 METAL SUSPENSION SYSTEM FOR ACOUSTICAL TILE CEILING
- A. AVAILABLE PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - B. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE FOLLOWING:
 1. SALES AREA (NON-RATED): ARMSTRONG SUPRAPHINE 9/16" EXPOSED TEE
 2. SALES AREA (RATED): ARMSTRONG SUPRAPHINE XL FIRE GUARD 9/16" EXPOSED TEE
 3. NON- SALES AREA (NON-RATED): ARMSTRONG PRELUDE 15/16" EXPOSED TEE
 4. NON-SALES AREA (RATED): ARMSTRONG PRELUDE XL FIREGUARD 15/16" EXPOSED TEE
- C. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE PRODUCT INDICATED ON DRAWINGS.
- D. DIRECT HUNG (RATED OR UNRATED) SUSPENSION SYSTEM: INTERMEDIATE OR HEAVY-DUTY STRUCTURAL CLASSIFICATION AS REQUIRED.
- E. ACCESS: DOWNWARD, WITH EACH ACCESS UNIT IDENTIFIED BY MANUFACTURER'S STANDARD UNOBTRUSIVE MARKERS.

PART 3 - EXECUTION

- 3.1 INSTALLATION
- A. COMPLY WITH ASTM C636, UBC-STDANR25-2 AND SEISMIC DESIGN REQUIREMENTS INDICATED, PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND CISCA'S "CEILING SYSTEMS HANDBOOK".
- B. MEASURE EACH CEILING AREA AND ESTABLISH LAYOUT OF ACOUSTICAL TILES TO BALANCE BORDER WIDTHS AT OPPOSITE EDGES OF EACH CEILING. AVOID USING LESS-THAN-HALF-WIDTH TILES AT BORDERS.
- C. SUSPEND CEILING HANGERS FROM BUILDING'S STRUCTURAL MEMBERS, PLUMB AND FREE FROM CONTACT WITH INSULATION OR OTHER OBJECTS WITHIN CEILING PLENUM. SPLAY HANGERS ONLY WHERE REQUIRED AND, IF PERMITTED WITH FIRE-RESISTANCE-RATED CEILING, MISS OBSTRUCTIONS; OFFSET RESULTING HORIZONTAL FORCES BY BRACING, COUNTERSPLAYING, OR OTHER EQUALLY EFFECTIVE MEANS. WHERE WIDTH OF DUCTS AND OTHER CONSTRUCTION WITHIN CEILING PLENUM PRODUCES HANGER SPACINGS THAT INTERFERE WITH LOCATION OF HANGERS, USE TRAPEZES OR EQUIVALENT DEVICES. WHEN STEEL FRAMING DOES NOT PERMIT INSTALLATION OF HANGER WIRES AT SPACING REQUIRED, INSTALL CARRYING CHANNELS OR OTHER SUPPLEMENTAL SUPPORT FOR ATTACHMENT OF HANGER WIRES.
 1. DO NOT SUPPORT CEILINGS DIRECTLY FROM PERMANENT METAL FORMS OR FLOOR DECK; ANCHOR INTO CONCRETE SLAB OR GIRDS.
 2. DO NOT ATTACH HANGERS TO STEEL DECK TABS OR TO STEEL ROOF DECK.
- D. INSTALL EDGE MOLDINGS AND TRIM OF TYPE INDICATED AT PERIMETER OF ACOUSTICAL TILE CEILING AREA AND WHERE NECESSARY TO CONCEAL EDGES OF ACOUSTICAL TILES. SCREEN ATTACH MOLDINGS TO SUBSTRATE AT INTERVALS NOT MORE THAN 16 INCHES (400 MM) O.C. AND NOT MORE THAN 3 INCHES (75 MM) FROM ENDS, LEVELING WITH CEILING SUSPENSION SYSTEM TO A TOLERANCE OF 1/8" IN 10' IN 12 FEET (3.2 MM IN 3.6M). MITER CORNERS ACCURATELY AND CONNECT SECURELY.
- E. INSTALL SUSPENSION SYSTEM RUNNERS SO THEY ARE SQUARE AND SECURELY INTERLOCKED WITH ONE ANOTHER. REMOVE AND REPLACE DENTED, BENT, OR KINKED MEMBERS.
- F. INSTALL ACOUSTICAL TILES IN COORDINATION WITH SUSPENSION SYSTEM AND EXPOSED MOLDINGS AND TRIM. REMOVE DUCTS AND SERVICES FROM CEILING LEVEL. FINISH LEVEL OF FLOORING TO TILE-TO-TILE JOINTS ARE CLOSED BY DOUBLE LAP OF MATERIAL.
- 3.2 ADJUSTING AND CLEANING
- A. REPLACE DAMAGED AND BROKEN PANELS.
- B. CLEAN EXPOSED SURFACES OF ACOUSTICAL CEILINGS, INCLUDING TRIM, EDGE MOLDINGS, AND SUSPENSION MEMBERS. COMPLY WITH MANUFACTURERS INSTRUCTIONS FOR CLEANING AND TOUCH-UP OF MINOR FINISH DAMAGE. REMOVE DAMAGE, REPAIR AND REPLACE MARK THAT CANNOT BE SUCCESSFULLY CLEANED AND REPAIRED TO PERMANENTLY ELIMINATE EVIDENCE OF DAMAGE.

SECTION 09633 - STEEL SUSPENDED CEILING AND SOFFIT FRAMING

1.01 COMPONENTS, GENERAL

- A. COMPLY WITH ASTM C 754 FOR CONDITIONS INDICATED.
- B. TIE WIRE: ASTM A 641/A 641M, CLASS 1 ZINC COATING, SOFT TEMPER, 0.0625 INCH DIAMETER WIRE OR DOUBLE STRAND OF 0.041 INCH DIAMETER WIRE.
- C. HANGER ATTACHMENTS TO CONCRETE: AS FOLLOWS:
 1. ANCHORS: FABRICATED FROM CORROSION-RESISTANT MATERIALS WITH HOLES OR LOOPS FOR ATTACHING HANGER WIRES AND CAPABLE OF SUSTAINING, WITHOUT FAILURE, A LOAD EQUAL TO 5 TIMES THAT IMPOSED BY CONSTRUCTION AS DETERMINED BY TESTING ACCORDING TO ASTM E 488 BY A QUALIFIED TESTING INDEPENDENT TESTING AGENCY.
- D. HANGERS: AS FOLLOWS:
 1. WIRE HANGERS: ASTM A 641/A 641M, CLASS 1 ZINC COATING, SOFT TEMPER, 0.162 INCH DIAMETER
 2. ROD HANGERS: ASTM A 510, MILD CARBON STEEL.
 - a. DIAMETER: 1/4 INCH.
 - b. PROTECTIVE COATING: ASTM A 153/A 153M, HOT-DIP GALVANIZED.
 3. FLAT HANGERS: COMMERCIAL-STEEL SHEET, ASTM A 653/A 653M, G40, HOT-DIP GALVANIZED ZINC COATING.
 - a. SIZE: 1 BY 3/16 INCH BY LENGTH INDICATED.
 4. ANGLE HANGERS: ASTM A 653/A 653M, G60, HOT-DIP GALVANIZED COMMERCIAL-STEEL SHEET.
- E. CARRYING CHANNELS: COLD-ROLLED, COMMERCIAL-STEEL SHEET WITH A BASE METAL THICKNESS OF 0.0538 INCH, A MINIMUM 1/2 INCH WIDE FLANGE, WITH ASTM A653/A 653M, G40, HOT-DIP GALVANIZED ZINC COATING.
- F. FURRING CHANNELS (FURRING MEMBERS): COMMERCIAL-STEEL SHEET WITH ASTM A 653/A 653M, G40, HO-DIP GALVANIZED ZINC COATING.
 1. HAT-SHAPED, RIGID FURRING CHANNELS: ASTM A 645, 7/8 INCH DEEP, WITH MINIMUM BASE METAL THICKNESS OF 0.0179 INCH.

1.02 INSTALLATION

- A. SUSPEND CEILING HANGERS FROM BUILDING STRUCTURE AS FOLLOWS:
 1. INSTALL HANGERS PLUMB AND FREE FROM CONTACT WITH INSULATION OR OTHER OBJECTS WITHIN THE CEILING PLENUM THAT ARE NOT PART OF SUPPORTING STRUCTURAL OR CEILING SUSPENSION SYSTEM. SPLAY HANGERS ONLY WHERE REQUIRED TO MISS OBSTRUCTIONS AND OFFSET RESULTING HORIZONTAL FORCES BY BRACING, COUNTERSPLAYING, OR OTHER EQUALLY EFFECTIVE METHODS.
 2. WHERE WIDTH OF DUCTS AND OTHER CONSTRUCTION WITHIN CEILING PLENUM PRODUCES HANGER SPACINGS THAT INTERFERE WITH THE LOCATION OF HANGERS REQUIRED TO SUPPORT STANDARD SUSPENSION SYSTEM MEMBERS, INSTALL SUPPLEMENTAL SUSPENSION MEMBERS AND HANGERS IN FORM OF TRAPEZES OR EQUIVALENT DEVICES. SIZE SUPPLEMENTAL SUSPENSION MEMBERS AND HANGERS TO SUPPORT CEILING LOADS WITHIN PERFORMANCE LIMITS ESTABLISHED BY REFERENCED STANDARDS.
 3. SECURE WIRE HANGERS BY LOOPING AND WIRE-TYING, EITHER DIRECTLY TO STRUCTURES OR TO INSERTS, EYECREWS, OR OTHER DEVICES AND FASTENERS THAT ARE SECURE AND APPROPRIATE FOR SUBSTRATE, AND IN A MANNER THAT WILL NOT CAUSE THEM TO DETERIORATE OR OTHERWISE FAIL.
 4. SECURE ROD OR FLAT HANGERS TO STRUCTURE, INCLUDING INTERMEDIATE FRAMING MEMBERS, BY ATTACHING TO INSERTS, EYECREWS, OR OTHER DEVICES AND FASTENERS THAT ARE SECURE AND APPROPRIATE FOR STRUCTURE AND HANGER, AND IN A MANNER THAT WILL NOT CAUSE HANGERS TO DETERIORATE OR OTHERWISE FAIL.
 5. DO NOT SUPPORT CEILINGS DIRECTLY FROM PERMANENT METAL FORMS. FURNISH CAST-IN-PLACE HANGER INSERTS THAT EXTEND THROUGH FORMS.
 6. DO NOT ATTACH HANGERS TO STEEL DECK TABS.
 7. DO NOT ATTACH HANGERS TO STEEL ROOF DECK. ATTACH HANGERS TO STRUCTURAL MEMBERS.
 8. DO NOT CONNECT OR SUSPEND STEEL FRAMING FROM DUCTS, PIPES OR CONDUIT.
- B. INSTALLATION TOLERANCES:
 1. INSTALL TIE FRAMING COMPONENTS FOR SUSPENDED CEILINGS SO MEMBERS FOR PANEL ATTACHMENT ARE LEVEL TO WITH 1/8" IN 12 FEET MEASURED LENGTHWISE ON EACH MEMBER AND TRANSVERSELY BETWEEN PARALLEL MEMBERS.
- C. SWAY-BRACE SUSPENDED STEEL FRAMING WITH HANGERS USED FOR SUPPORT.
- D. WIRE-TIE FURRING CHANNELS TO SUPPORTS.
- E. INSTALL SUSPENDED STEEL FRAMING COMPONENTS IN SIZES AND SPACES INDICATED, BUT NOT LESS THAN THOSE INDICATED IN THE REFERENCED STEEL FRAMING AND INSTALLATION STANDARDS.
1. WIRE HANGERS: 48 INCHES O.C.
2. CARRYING CHANNELS ("MAIN RUNNERS"): 48 INCHES O.C.
3. FURRING CHANNELS (FURRING MEMBERS): 16 INCHES O.C.

SECTION 09649 - WOOD STRIP AND PLANK FLOORING

- A. GENERAL: PROVIDE SHOP FINISHED PRE-ENGINEERED WOOD STRIP FLOORING SYSTEM WITH ACCESSORIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION.
- B. SUBMITTALS: SEE SECTION 03000.
- C. PROJECT CONDITIONS: PRIOR TO INSTALLATION OF ANY FLOORING, GC MUST ENSURE THAT THE JOBSITE AND SUB-FLOOR MEET THE REQUIREMENTS OF THE FOLLOWING INSTRUCTION.
 1. G.C. TO PERFORM MOISTURE TEST ON ALL CONCRETE FLOORS AS DIRECTED BY NAWFA. MOISTURE TESTS ON CONCRETE OR NEAR SUB-FLOOR MUST NOT EXCEED 12% AND CONCRETE MOISTURE CONTENT MUST NOT EXCEED 3LB'S.
 2. G.C. TO INSTALL VAPOR BARRIER IN EVERY CONDITION REGARDLESS OF TEST RESULTS.
 3. G.C. TO PROVIDE MOISTURE TEST REPORT TO LDDC PM IMMEDIATELY AFTER DEMOLITION AND/OR 1 WEEK PRIOR TO FLOOR INSTALLATION. IF THE G.C. FAILS TO PROVIDE REPORT, THE MANUFACTURER'S FLOOR FINISH ATTRIBUTED TO MOISTURE, IT WILL BE THE RESPONSIBILITY OF THE G.C. TO REPLACE (LABOR AND MATERIAL).
 4. ALL WORK INVOLVING WATER OR MOISTURE SHOULD BE COMPLETED BEFORE FLOOR INSTALLATION.
5. ROOM TEMPERATURE AND HUMIDITY OF INSTALLATION AREA SHOULD BE CONSISTENT WITH NORMAL, YEAR-ROUND LIVING CONDITIONS FOR AT LEAST A WEEK BEFORE INSTALLATION. ROOM TEMPERATURE OF 60 TO 70 DEGREE F AND HUMIDITY RANGE OF 40 TO 60% IS RECOMMENDED.
6. G.C. TO STORE FLOORING AT INSTALLATION SITE FOR 72 HOURS BEFORE INSTALLATION TO ALLOW FLOORING TO ADJUST TO ROOM TEMPERATURE AND HUMIDITY. DO NOT STORE FLOORING DIRECTLY ON CONCRETE OR NEAR OUTSIDE WALLS. THIS FLOORING MAY NOT BE ACCEPTABLE FOR FULL BATHROOM INSTALLATIONS BECAUSE OF MOISTURE ASSOCIATED WITH SUCH LOCATIONS.
7. COMMENCEMENT OF WORK IS ACCEPTANCE OF CONDITIONS.
- D. MANUFACTURERS: LDDC APPROVED VENDORS ONLY.
- E. WOOD: ENGINEERED WOOD PLANK FLOORING.
- F. ADHESIVE: BOSTIK BEST APPLY WITH 1/4" X 1/4" SQUARE NOTCH TROWEL. IS PART-2.
- G. MOISTURE VAPOR PROTECTION: BOSTIK HVY4 MOISTURE BARRIER, ONE COMPOUND, ELASTOMERIC, MOISTURE CURE URETHANE MEMBRANE. APPLY WITH 3/16" X 5/32" V-NOTCH TROWEL IS RECOMMENDED.
- H. SUBFLOOR FILLER: PREMIX LATEX REQUIRING WATER ONLY TO PRODUCE CEMENTITIOUS PASTE.
- I. DIVIDER STRIPS: TYPE AS INDICATED, AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF EDGE STRIPS WHERE NOT OTHERWISE INDICATED.
- J. PREPARATION: BROOF CHISEL THROUGHOUGHLY WITH LACQUER THINNER.
 1. GRIND CONCRETE WHERE RIDGES AND IRREGULARITIES PROVIDE UNSATISFACTORY SUBSTRATE FOR WOOD STRIP FLOORING. BUFF CONCRETE WITH AN 80 GRIT SCREEN, THEN VACUUM AREA THOROUGHLY WITH LACQUER THINNER.
- K. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS AND INSTALLATION INSTRUCTION FOR DIRECT APPLICATION OF WOOD STRIP FLOORING OVER CONCRETE.
 1. INSPECT FLOORING MATERIAL FOR CORRECT TYPE, QUANTITY AND DAMAGE.
 2. PROVIDE AT LEAST 1/2" EXPANSION SPACE BETWEEN FLOORING AND ALL WALLS AND VERTICAL OBJECTS.
 3. ENSURE JOINTS OF WOOD FLOORING ARE IN LINE; ENSURE FULL ADHESIVE CONTACT FOR PERMANENT BOND TO SUBSTRATE.
 4. LAY FLOORING SYMMETRICAL ABOUT ROOM CENTER LINE, FIT NEATLY TO VERTICAL INTERRUPTIONS.
 5. STAGGER RANDOM LENGTH FURRING SUCH THAT BOARD ENDS ARE A MIN. 8" FROM ENDS OF ADJACENT PLANKS. MAXIMIZE LONG BOARDS IN CENTER OF SALES AREA. USE SHORT BOARDS UNDER CLOSET DOORS AND AT OTHER TRANSITION LOCATIONS. IF BOARD AS IT IS BEING STAG

SECTION 098100 - ACOUSTICAL INSULATION

- PART 1 - GENERAL
- 1.01 SUMMARY
- A. GLASS FIBER ACOUSTICAL INSULATION FOR INTERIOR WALLS, FLOORS AND CEILINGS.
- 1.02 REFERENCES
- A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
1. E84 TEST METHOD FOR SURFACE BURNING CHARACTERISTICS
2. E90 LABORATORY MEASUREMNET OF AIRBORNE SOUND TRANSMISSION LOSS OF BUILDING PARTITIONS AND ELEMENTS
3. E96 TEST METHOD FOR WATER VAPOR TRANSMISSION OF MATERIALS
4. E186 TEST METHOD FOR BEHAVIOR OF MATERIALS IN A VERTICAL TUBE FURNACE AT 750 DEGREES F. (UNFACED)
5. C423 TEST METHOD FOR SOUND ABSORPTION AND THE SOUND ABSORPTION COEFFICIENT BY THE REVERBERATION ROOM METHOD
6. C665 STANDARD SPECIFICATION FOR MINERAL FIBER BLANKET INSULATION FOR LIGHT FRAME CONSTRUCTION AND MANUFACTURED HOUSING.
- 1.03 SUBMITTALS: SEE SECTION 03000
- 1.04 DELIVERY, STORAGE AND HANDLING: SEE SECTION 016000
- 1.05 LIMITATIONS
- A. DO NOT USE UNFACED INSULATION IN EXPOSED APPLICATIONS WHERE THERE IS POTENTIAL FOR SKIN CONTACT AND IRRITATION.
- B. KRAFT FACINGS WILL BURN AND MUST NOT BE LEFT EXPOSED. THE FACING MUST BE IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, WALL OR FLOOR FINISH.
- PART 2 - PRODUCTS
- 2.01 MANUFACTURER
- A. OWNERS CORNING
- 2.02 QUIETZONE ACOUSTIC BATT INSULATION
- A. TYPE I: UNFACED GLASS FIBER INSULATION COMPLYING WITH ASTM C 665 AND ASTM E 136.
- B. TYPE II: KRAFT FACED GLASS FIBER INSULATION COMPLYING WITH ASTM C 665.
- C. SURFACE BURNING CHARACTERISTICS
1. UNFACED INSULATION
- a. MAXIMUM FLAME SPREAD: 10
- b. MAXIMUM SMOKE DEVELOPED:10
2. KRAFT FACED INSULATION
- a. MAXIMUM FLAME SPREAD: NOT RATED
3. MAXIMUM SMOKE DEVELOPED: NOT RATED
- D. COMBUSTION CHARACTERISTICS: UNFACED INSULATION PASSES ASTM E 136 TEST.
- E. DIMENSIONAL STABILITY: LINEAR STABILITY LESS THAN 0.1%.
- PART 3 - EXECUTION
- 3.01 INSPECTION
- A. EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE INSTALLED. VERIFY THAT ADJACENT MATERIALS ARE DRY AND READY. VERIFY THAT ELECTRICAL AND MECHANICAL SERVICES WITHIN WALLS HAVE BEEN INSPECTED AND TESTED. VERIFY THAT PROJECT DRAWINGS COMPLY WITH INSTALLATION REQUIREMENTS.
- B. PROVIDE WRITTEN REPORTS LISTING CONDITIONS DETRIMENTAL TO THE PERFORMANCE OF WORK IN THIS SECTION. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN RESOLVED.
- 3.02 INSTALLATION
- A. COMPLY WITH MANUFACTURER'S INSTRUCTIONS FOR PARTICULAR CONDITIONS OF INSTALLATION IN EACH CASE.
- B. BETWEEN METAL STUDS: FRICTION-FIT UNFACED INSULATION COMPLYING WITH STUDS AFTER COVER MATERIAL HAS BEEN INSTALLED ON ONE SIDE OF THE CAVITY. WHEN FACED INSULATION IS USED, ATTACH FLANGES TO FACE OR SIDE (PREFERRED) OF STUD EVERY 8 TO 12 INCHES TO HOLD IN PLACE.
1. PLACE ACOUSTICAL INSULATION TIGHT WITHIN SPACES, AROUND CUT OPENINGS, BEHIND AND AROUND ELECTRICAL AND MECHANICAL ITEMS WITHIN PARTITIONS, AND TIGHT TO ITEMS PASSING THROUGH PARTITIONS.
- C. ACOUSTICAL ACCESSORIES:
1. PLACE ACOUSTICAL SEALANT WITHIN PARTITIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS; INSTALL ACOUSTICAL SEALANT AT GYPSUM BOARD PERIMETER, AT BASE LAYER AND FACE LAYER OF GYPSUM BOARD, AND PENETRATION OF PARTITIONS.
2. TOLERANCE: MAXIMUM 1/4" SPACE BETWEEN GYPSUM BOARD AT FLOOR, CEILING AND PENETRATIONS.
3. INSTALL ELECTRICAL BOX PADS WITH PADS MOLDED AND PRESSED ON BACK SIDE OF BOX, CLOSING OPENINGS, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, FOR COMPLETE ACOUSTICAL BARRIER.
- 3.03 INSTALLATION: VAPOR RETARDER
- A. THIS INSULATION IS FOR INTERIOR WALL USE ONLY.
- B. THE KRAFT PAPER FOR THIS PRODUCT IS NOT A VAPOR RETARDER.
- C. NOT RECOMMENDED FOR EXTERIOR WALLS.
- 3.04 MATERIAL STORAGE AND PROTECTION
- A. PROTECT INSULATION FROM DAMAGE AND GETTING WET BEFORE, DURING AND AFTER INSTALLATION

SECTION 099000 - PAINTING AND COATING

- A. GENERAL: PROVIDE PAINTING OF EXPOSED ITEMS AND SURFACES NOT PREFINISHED, AS REQUIRED FOR COMPLETE FINISHED INSTALLATION.
- B. SURFACES NOT TO BE PAINTED: PREFINISHED ITEMS; CONCEALED AND INACCESSIBLE AREAS; CODE-REQUIRED LABELS.
- C. STANDARDS: PROVIDE MATERIALS APPROVED FOR USE BY APPLICABLE AIR QUALITY MANAGEMENT DISTRICT FOR LIMITATIONS OF VOLATILE ORGANIC COMPOUNDS FOR ARCHITECTURAL COATINGS
- D. SUBMITTALS: SEE SECTION 03000.
1. DUPLICATE PAINTED FINISHES OF APPROVED SAMPLES ON ACTUAL WALL SURFACES AND COMPONENTS FOR APPROVAL PRIOR TO COMMENCING WORK.
- E. DELIVERY: SEE SECTION 016000.
- F. MANUFACTURERS: BENJAMIN MOORE (330-353-3850), PPG (614-207-1105), OR SHERWIN-WILLIAMS (614-472-2520).
- G. MATERIAL QUALITY: PROVIDE TOP LINE QUALITY COMMERCIAL GRADE (PROFESSIONAL PAINTER) PAINTS; MATERIALS NOT BEARING MANUFACTURER'S IDENTIFICATION AS A BEST-GRADE PRODUCT SHALL NOT BE ACCEPTABLE. MANUFACTURER SUBSTITUTIONS OF ANY PAINT FINISH WILL NOT BE PERMITTED.
1. PRIMERS: PROVIDE PREMIUM GRADE PRIMERS RECOMMENDED BY PAINT MANUFACTURER FOR SUBSTRATES INDICATED AND FOR FINISH SYSTEMS SPECIFIED.
2. UNDERCOATS AND BARRIER COATS: PROVIDE UNDERCOAT PAINTS PRODUCED BY SAME MANUFACTURER AS FINISH COATS; USE ONLY THINNERS APPROVED BY PAINT MANUFACTURER, AND USE ONLY WITHIN RECOMMENDED LIMITS.
3. FINISH COAT COORDINATION: PROVIDE FINISH COATS WHICH ARE COMPATIBLE WITH PRIME PAINTS, UNDERCOATS, AND BARRIER COATS USED.
4. VOLATILE ORGANIC COMPOUNDS: PROVIDE MATERIALS WITH MINIMAL VOLATILE ORGANIC COMPOUNDS (VOC), COMPLY WITH APPLICABLE REGULATIONS.
- H. COLORS AND FINISHES: PURE, NON-FADING, APPLICABLE TYPES TO SUIT SERVICE INDICATED; NO LEAD CONTENT PERMITTED.
- I. SCHEDULING PAINTING: APPLY FIRST COAT TO SURFACES THAT HAVE BEEN CLEANED, PRETREATED OR PREPARED FOR PAINTING AS SOON AS PRACTICABLE AFTER PREPARATION.
1. ALLOW TIME BETWEEN SUCCESSIVE COATINGS TO PERMIT PROPER DRYING. DO NOT RECOAT UNTIL PAINT FEELS FIRM AND DOES NOT DEFORM OR FEEL STICKY UNDER MODERATE THUMB PRESSURE.
- J. PREPARATION: PERFORM PREPARATION AND CLEANING PROCEDURES IN ACCORDANCE WITH PAINT MANUFACTURER'S INSTRUCTIONS AND AS SPECIFIED FOR SUBSTRATE CONDITION.
1. EXAMINE AREAS AND CONDITIONS UNDER WHICH PAINTING WORK IS TO BE APPLIED. START OF PAINTING WORK INDICATES ACCEPTANCE OF SURFACES AND CONDITIONS OF SURFACES AND CONDITIONS WITHIN ANY PARTICULAR AREA.
2. REMOVE HARDWARE, ACCESSORIES, AND ITEMS IN PLACE AND NOT TO BE PAINTED, OR PROVIDE PROTECTION PRIOR TO SURFACE PREPARATION AND PAINTING; AFTER PAINTING REINSTALL REMOVED ITEMS.
- K. PRIME COATS: APPLY TO ITEMS NOT PREVIOUSLY PRIMED; RECOAT PRIMED AND SEALED SURFACES WHERE THERE IS EVIDENCE OF SUCTION SPOTS OR UNSEALED AREAS IN FIRST COAT.
- L. APPLICATION: APPLY PAINT IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS; USE APPLICATORS AND TECHNIQUES BEST SUITED FOR SUBSTRATE AND TYPE OF MATERIAL BEING APPLIED
1. APPLY ADDITIONAL COATS WHEN STAINS OR BLEMISHES SHOW THROUGH FINAL COAT, UNTIL PAINT IS A UNIFORM FINISH, COLOR AND APPEARANCE.
2. FINISH DOORS ON TOPS, BOTTOMS AND SIDE EDGES SAME AS FACES.
3. PROVIDE EXTRA ATTENTION TO ASSURE DRY FILM THICKNESS AT CORNERS AND CREVICES IS EQUIVALENT TO THAT OF FLAT SURFACES
4. PAINT SURFACES BEHIND MOVABLE EQUIPMENT AND FURNITURE SAME AS SIMILAR EXPOSED SURFACES; PAINT SURFACES BEHIND PERMANENTLY-FIXED EQUIPMENT AND FURNITURE WITH PRIME COAT ONLY.
5. PAINT INTERIOR SURFACES OF DUCTS, WHERE VISIBLE THROUGH REGISTERS OR GRILLES, WITH A FLAT, NON-SPECULAR BLACK PAINT.
6. PAINT BACK SIDES OF ACCESS PANELS AND REMOVABLE OR HINGED COVERS TO MATCH EXPOSED SURFACES.
7. SAND LIGHTLY BETWEEN EACH SUCCEEDING ENAMEL AND EACH VARNISH COAT
- M. MINIMUM COATING THICKNESS: APPLY MATERIALS AT NOT LESS THAN MANUFACTURER'S RECOMMENDED SPREADING RATE, TO ESTABLISH A TOTAL DRY FILM THICKNESS AS RECOMMENDED BY COATING MANUFACTURER.
- N. FINISH COATS: PROVIDE EVEN TEXTURE, LEAVE NO LAPS, IRREGULARITY IN TEXTURE, SKID MARKS, OR OTHER SURFACE IMPERFECTIONS.
- O. PAINT SYSTEMS: PROVIDE MINIMUM TWO COAT PLUS PRIMER SYSTEMS.
1. MATERIAL AND SHEEN AS INDICATED IN FINISH SCHEDULE.
- P. PINK MAINSCOTING, TRIMS, WALLS, & STOREFRONT.
1. GENERAL
- a. REVIEW OWNER SUPPLIED SAMPLE.
- b. GC TO PROVIDE A COUNTER SAMPLE BASED ON THESE SPECIFICATIONS TO OWNERS PM BY THE END OF WEEK 3 OF CONSTRUCTION FOR APPROVAL PRIOR TO PROCEEDING.
- c. NO SUBSTITUTIONS OF MATERIALS OR DEVIATION FROM THE PROCESS WILL BE ACCEPTED UNLESS IT IS APPROVED IN WRITING BY THE OWNER'S PM.

- d. IT IS THE GC'S RESPONSIBILITY TO MAINTAIN APPROVED SAMPLE AND THE ORIGINAL OWNER'S CONTROL SAMPLE ON SITE THROUGH THE OPENING OF THE STORE.
2. RAISED BRUSH STROKES (P-28).
- a. APPLY ONE COAT OF BENJAMIN MOORE AURA #526 SATIN TINTED TO MATCH COW'S MILK. CAN BE DONE WITH A 1/2" NAP ROLLER - IT JUST NEEDS TO BE THICK.
1. BENJAMIN MOORE FORMULA: COW'S MILK; 526-IX (QUART) W/ 28.12, Y2.75, 523.25, 01.1875
- b. ALLOW TO DRY APPROXIMATELY TWO MINUTES.
- c. DRY BRUSH (OR COMB THROUGH) WITH STIFF BRISTLE BRUSH (RECOMMEND AN INEXPENSIVE BRUSH) TO RAISE BRUSHSTROKES AS MUCH AS POSSIBLE.
- d. REPEAT STEPS 1a THROUGH 1c WITH A SECOND COAT.
3. TEXTURED SAND PLASTER (SP-20).
- a. APPLY ONE COAT OF PRIMER
- b. ROLL ONE THIN COAT OF PITTSBURGH PAINT PERMA-CRETE 100% ACRYLIC TEXTURE COATING (4-50 FINE) TINTED COW'S MILK. ROLL IN RANDOM DIRECTIONS TO ENSURE THAT TEXTURE IS EVENLY SPREAD.
- c. LET DRY COMPLETELY.
- d. APPLY TWO COATS BENJAMIN MOORE AURA - COW'S MILK - EGGSHELL FINISH.
1. BENJAMIN MOORE FORMULA: COW'S MILK; 526-IX (QUART) W/ 28.12, Y2.75, 523.25, 01.1875
4. DISTRESSED FINISH ON TRIMS, MILLWORK, GYP BOARD AND MDF (P-29).
- a. APPLY ONE COAT OF 1:1 MIX OF BENJAMIN MOORE LATEX CLEAR GLAZE #405 AND BENJAMIN MOORE AURA #522 WHITE FINISH TINTED TO MATCH 146 CREAMY CUSTARD. BRUSH IN DIRECTION OF WOOD GRAIN TO RESEMBLE WOOD STAIN. BRUSH IN THE LONG DIRECTION OF TRIMS, AND VERTICALLY FOR ALL GYP BD AND PANEL FACES. ALLOW TO DRY TWO HOURS.
- b. APPLY TWO COATS OF 2:1 MIX OF BENJAMIN MOORE LATEX CLEAR GLAZE #405 AND AURA #526 SATIN FINISH TINTED TO MATCH 'NOT QUITE WHITE' (FORMULA BELOW). BRUSH IN DIRECTION OF WOOD GRAIN. BRUSH IN LONG DIRECTION OF TRIMS, AND VERTICALLY FOR ALL GYP BD AND PANEL FACES. ALLOW TO DRY TWO HOURS. SHOULD MATCH SAMPLES PROVIDED BY OWNER. IF IT DOES NOT MATCH PROVIDED SAMPLE CONSULT OWNERS PM.
1. BENJAMIN MOORE FORMULA: NOT QUITE WHITE; 526-IX (QUART) W/ 28.1250, Y2 1, 52 3.25, 01.1875, Y3 50
- c. SAND EDGES ONLY USING 80 GRIT PAPER ONLY TO EXPOSE 30%-40% OF THE PRIMER BENEATH. SAND EDGES OF WOOD TRIMS AND MILLWORK, NOT GYP BD. NOTE: SANDING TO BE DONE WITH LISTED BRANDS PM ON SITE.
- Q. PROTECTION: PROTECT WORK OF OTHER TRADES, WHETHER TO BE PAINTED OR NOT; CORRECT DAMAGE BY CLEANING, REPAIRING OR REPLACING, AND REPAINTING, AS ACCEPTABLE TO LSCMC PROJECT MANAGER.
1. PROVIDE 'WET PAINT' SIGNS TO PROTECT NEWLY-PAINTED FINISHES.
2. REMOVE TEMPORARY PROTECTIVE WRAPPINGS PROVIDED BY OTHERS FOR PROTECTION OF THEIR WORK, AFTER COMPLETION OF PAINTING OPERATIONS.
- R. CLEAN-UP: DURING PROGRESS OF WORK, REMOVE DISCARDED PAINT MATERIALS, RUBBISH, CANS AND RAGS FROM SITE AT END OF EACH WORK DAY.
1. CLEAN GLASS AND PAINT-SPATTERED SURFACES IMMEDIATELY BY PROPER METHODS OF WASHING AND SCRAPPING, USING CARE NOT TO SCRATCH OR DAMAGE FINISHED SURFACES.
- S. AT COMPLETION OF WORK OF OTHER TRADES, TOUCH-UP AND RESTORE DAMAGED SURFACES OR DEFACED PAINTED SURFACES.

DIVISION 10 - SPECIALTIES

SECTION 10215 - TOILET COMPARTMENTS

- A. GENERAL: PROVIDE FLOOR MOUNTED METAL TOILET COMPARTMENTS AND WALL MOUNTED URINAL SCREENS WITH ACCESSORIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION; COORDINATE WITH TOILET ACCESSORIES.
- B. CODES AND REGULATIONS: COMPLY WITH STATE AND FEDERAL REQUIREMENTS FOR ENSURING ACCESS FOR PERSONS WITH DISABILITIES.
- C. SUBMITTALS: SEE SECTION 03000.
- D. MANUFACTURERS: BANYMETAL, GLOBAL, OR FLUSH METAL.
- E. TYPE: FLOOR MOUNTED TOILET PARTITIONS AND WALL MOUNTED URINAL SCREENS.
1. FINISH: STANDARD BAKED ENAMEL FINISH COLOR AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL LINE OF COLORS.
- F. PLASTER SHOES: 3" HIGH; ASTM A466, TYPE 302/304, NO. 4 POLISHED; STAINLESS STEEL.
- G. ATTACHMENTS, SCREENS AND BOLTS: STAINLESS STEEL; TAMPER PROOF TYPE; HEAVY DUTY EXTRUDED ALUMINUM BRACKETS.
- H. HARDWARE: MANUFACTURER'S STANDARD CHROME PLATED OR SIMILAR FINISH.
1. NON-FERROUS CAST PIVOT HINGES, GRAVITY TYPE, ADJUSTABLE FOR DOOR POSITIONING.
2. SLIDE LATCH, DOOR STRIKE AND KEEPER WITH RUBBER BUMPER.
3. COAT HOOK/BUMPER, CAST ALLOY CHROME PLATED COMBINATION UNIT.
4. WALL BUMPER, CAST ALLOY WALL MOUNTED RUBBER BUMPER FOR OUTSHINGING DOORS.
5. PULLS: COMPLY WITH REQUIREMENTS FOR ACCESSIBILITY FOR PERSONS WITH DISABILITIES.
- I. INTERNAL REINFORCEMENT: PROVIDE INTERNAL REINFORCEMENT IN AREAS OF ATTACHED HARDWARE AND FITTINGS; MARK LOCATIONS OF REINFORCEMENT FOR PARTITION MOUNTED WASHROOM ACCESSORIES.
- J. PREPARATION: EXAMINE SITE CONDITIONS TO WHICH WORK IS TO BE APPLIED; TAKE SITE DIMENSIONS AFFECTING THIS WORK.
1. ENSURE CORRECT SPACING AND SIZE OF PLUMBING FIXTURES; TAKE SPECIAL NOTE OF FIXTURES IN COMPARTMENTS INDICATED TO BE DESIGNED FOR PERSONS WITH DISABILITIES TO ASSURE CLEARANCES COMPLYING WITH ACCESS REGULATIONS.
- K. INSTALLATION: INSTALL UNITS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS; SECURE, PLUMB, LEVEL, AND SQUARE; LEAVE 1/2" SPACE BETWEEN WALL, PANELS AND END PLASTERS.
1. ADJUST HINGES TO LOCATE DOORS IN PARTIAL OPEN POSITION WHEN UNLATCHED, EXCEPT ADJUST HINGES TO RETURN DOORS TO CLOSED POSITION AT STALLS DESIGNED FOR USE BY PERSONS WITH DISABILITIES.
2. ANCHOR URINAL SCREEN PANELS TO WALLS WITH TWO PANEL BRACKETS.
- L. CLEANING: FIELD TOUCH-UP OF SCRATCHES AND DEFACED FINISHES WILL NOT BE PERMITTED; REPLACE DAMAGED, SCRATCHED AND MARRED DEFECTIVE MATERIALS WITH NEW, UNDAAMAGED MATERIALS; REMOVE PROTECTIVE MASKINGS; CLEAN SURFACES FREE OF OIL AND IMPERFECTIONS.

SECTION 102615 - CORNER GUARDS

- A. GENERAL: INSTALL STAINLESS STEEL & CLEAR CORNER GUARDS WITH ATTACHMENT DEVICES AND ACCESSORIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION.
- B. MANUFACTURERS:
1. STAINLESS STEEL GUARD: SEE SHEET A13.1.
2. CLEAR CORNER GUARD: OUTWATER PLASTIC INDUSTRIES INC. #CG-17-B (1.800.631.8375)
- C. STAINLESS STEEL UNITS WITH SATIN FINISH, 1-1/2" X 1-1/2" X 48" HIGH CORNER GUARDS; MINIMUM 18 GAGE. PAINT GRIP FINISH AT SALES FLOOR.
- D. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS.

SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

- A. GENERAL: PROVIDE TOILET ACCESSORIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION.
- B. CODES AND REGULATIONS: COMPLY WITH STATE AND FEDERAL REQUIREMENTS FOR ENSURING ACCESS FOR PERSONS WITH DISABILITIES.
- C. MANUFACTURERS: AS INDICATED ON DRAWING A13.1
- D. ACCESSORIES AS INDICATED ON DRAWING A13.1; PROVIDE GRAB BARS WITH CONCEALED MOUNTING, SIZES AND SHAPES AS INDICATED AND AS REQUIRED BY APPLICABLE CODES AND REGULATIONS.
- E. MATERIALS: STAINLESS STEEL, ASTM A466, COMMERCIAL GRADE, TYPE 302/304, NUMBER 4 SATIN FINISH, SATIN CHROME ACCEPTABLE WHERE STAINLESS STEEL IS NOT AVAILABLE FOR ACCESSORY ITEM SCHEDULED; GAGES AS STANDARD WITH MANUFACTURER OF SPECIFIED ITEMS
1. FASTENERS, SCREENS, AND BOLTS: HOT DIP GALVANIZED; AS RECOMMENDED BY ACCESSORY MANUFACTURER FOR COMPONENT AND SUBSTRATE.
2. CONCEALED SURFACES: PRETREAT AND CLEAN, SPRAY APPLY ONE COAT PRIMER AND BAKED ENAMEL FINISH.
- F. EQUIPMENT: AS INDICATED ON DRAWING A13.1
1. GRAB BARS: STAINLESS STEEL TYPE 304 TO MEET REQUIREMENTS OF ASTM #F446-85.
- G. FABRICATION: WELD AND GRIND SMOOTH JOINTS OF FABRICATED COMPONENTS; FORM EXPOSED SURFACES FROM ONE SHEET OF STOCK, FREE OF JOINTS.
1. FABRICATE UNITS WITH TIGHT SEAMS AND JOINTS; EXPOSED EDGES ROLLED, HANG DOORS AND ACCESS PANELS WITH CONTINUOUS PIANO HINGES; PROVIDE CONCEALED ANCHORAGE WHERE POSSIBLE.
2. PROVIDE STEEL ANCHOR PLATES AND ANCHOR COMPONENTS FOR INSTALLATION.
3. FORM SURFACES FLAT WITHOUT DISTORTION; MAINTAIN FLAT SURFACES WITHOUT SCRATCHES AND WITHOUT DENTS; FINISH EXPOSED EDGES EASED, FREE OF SHARP EDGES WHERE POTENTIAL EXISTS FOR PHYSICAL CONTACT.
4. HOT DIP GALVANIZE FERROUS METAL ANCHORS AND FASTENING DEVICES.
5. SHOP ASSEMBLE COMPONENTS; PACKAGE COMPLETE WITH ANCHORS AND FITTINGS.
- H. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS AND APPLICABLE CODES AND REGULATIONS.

SECTION 105100 - LOCKERS

- A. GENERAL: INSTALL OWNER FURNISHED METAL LOCKERS; PROVIDE ACCESSORIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION
- B. INSTALLATION: INSTALL LOCKERS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS; SECURE, PLUMB, LEVEL, SQUARE, AND IN LINE.
1. BOLT ADJOINING LOCKER UNITS TOGETHER AND ATTACH TO THE WALL W/ 1/4" X 1" TEK SCREWS (TOP AND BOTTOM) WITH TIGHT SEAMS AND JOINTS.
2. INSTALL METAL BASES, END PANELS, AND FILLER PANELS TO CLOSE OFF OPENINGS AND AS REQUIRED FOR COMPLETE INSTALLATION.

SECTION 105626 - MOBILE / FIXED STORAGE SHELVING

- A. GENERAL: INSTALL OWNER FURNISHED MOVABLE AND FIXED COMPACT STORAGE SYSTEM; PROVIDE ACCESSORIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION.
- B. EXAMINATION: EXAMINE SUBSTRATES AND CONDITIONS UNDER WHICH COMPACTED STORAGE SYSTEM IS TO BE INSTALLED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- C. MANUFACTURER: PIPP MOBILE STORAGE SYSTEMS, INC. 2946 WILSON DRIVE NW, WALKER, MI(1.800.234.PIPP)
- D. INSTALL UNITS AND ACCESSORIES AT LOCATIONS SHOWN IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS, LEVEL, PLUMB, SECURE AND AT PROPER HEIGHT.
- E. CLEANING: CLEAN UNITS AND REPAIR OR REPLACE DAMAGED UNITS AS DIRECTED BY LSCMC PROJECT MANAGER. TOUCH-UP MARRED FINISHES OR REPLACE COMPONENT PARTS AS NECESSARY TO ELIMINATE EVIDENCE OF DAMAGE OR DETERIORATION.
- F. PROTECTION: PROVIDE PROTECTION FOR INSTALLED SYSTEM TO ENSURE PERFECT OPERATING CONDITION WITHOUT DAMAGE AT COMPLETION OF PROJECT.

SECTION 107315 - AWNINGS

- A. GENERAL: PROVIDE AWNINGS AND FRAMES WITH ACCESSORIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION.
- B. DESIGN REQUIREMENTS: FABRICATE AND INSTALL FRAME STRUCTURE CAPABLE OF WITHSTANDING MINIMUM 18 PSF WIND LOAD ACTING INWARD OR OUTWARD UPON FABRIC SURFACE WITH FRAME MEMBERS DEFLECTING NOT GREATER THAN L/80.
- C. SUBMITTALS: FINISH SHOP DRAWINGS, MANUFACTURER'S LITERATURE, AND SAMPLES OF FABRIC AND OF FRAME FINISH.
- D. FABRIC: PROVIDE 1.5 MIL RAVEN MILLS/SUNBRELLA (1336-227-6211) "FIBRESIST" 915 0Z./YD2 PIGMENTED MODACRYLIC FIBER, MILDEW RESISTANT, FIRE RETARDANT TREATED.
1. GRAPHICS: PROVIDE SILKSCREENED GRAPHICS AS SHOWN CALLED ON DRAWINGS.
2. FABRICATE FABRIC COVER TO FIT TIGHTLY TO AWNING, MINIMIZE NUMBER OF SEAMS ON FACE OF AWNINGS; SEAMS SHALL BE STITCHED TO FACE LOCATED RELATIVE TO FACE OF AWNINGS. PROVIDE LOCK-TITE SEAMS AND STITCH TOP AND SIDE SEAMS AS REQUIRED.
- E. FRAME STRUCTURE: G.C. TO COORDINATE WITH AWNING MANUFACTURER FOR FRAMES TO BE BUILT BY THE MANUFACTURER OR FABRICATED AND DELIVERED FOR FIELD INSTALLATION. FRAME MAY BE JOINED BY INTERNAL SLEEVING AND EXTERNAL FASTENING, PROVIDED FASTENER DOES NOT TELEGRAPH THROUGH FABRIC.
- F. ACCESSORIES: PROVIDE AS REQUIRED FOR COMPLETE SECURE AWNING INSTALLATION.
- G. INSTALLATION: COMPLY WITH MANUFACTURER RECOMMENDATIONS AND INSTRUCTIONS.
1. INSTALL FRAME STRUCTURE PLUMB, LEVEL, AND SECURELY ANCHORED TO CONSTRUCTION.
2. INSTALL FABRIC COVER OVER FRAME STRUCTURE, AND SECURELY FASTEN TO STRUCTURE. ADJUST FABRIC COVER TO ENSURE STRAIGHTNESS OF SEAM AND TIGHTNESS AROUND FRAME; WRINKLES AND SAG SHALL NOT BE ACCEPTABLE.
- H. CLEANING:
1. BRUSH OFF LOOSE DIRT AND HOSE DOWN.
2. PREPARE A CLEANING MIXTURE OF WATER AND MILD NATURAL SOAP (NO DETERGENTS) AND USE A SOFT BRISTLE BRUSH TO CLEAN.
3. ALLOW SOAP TO SOAK IN AND RINSE THOROUGHLY.
4. RINSE-DRY
5. IF A MORE THOROUGH CLEANING IS REQUIRED USE A DILUTED CHLORINE BLEACH SOAP MIXTURE FOR SPOT CLEANING OF MILDEW, ROOF RUN-OFF AND OTHER SIMILAR STAINING.
6. 303 HIGH TECH FABRIC GUARD SHOULD BE APPLIED AFTER EACH THOROUGH CLEANING TO MAINTAIN FABRICS WATER REPELLENCY.

DIVISION II - EQUIPMENT (NOT USED)

DIVISION 12 - FURNISHINGS

SECTION 124315 - WALK OFF MATS AND FRAMES

- A. GENERAL: PROVIDE ENTRY CARPET TYPE FLOOR WALK OFF MATS WITH ACCESSORIES AND SUBASSEMBLIES AS REQUIRED FOR COMPLETE FINISHED INSTALLATION. G.C. TO PROVIDE TRANSITION STRIPS FOR FLUSH MOUNTING OF MAT WITH ADJACENT FLOOR FINISH.
- B. CODES AND REGULATIONS: COMPLY WITH STATE AND FEDERAL REQUIREMENTS FOR ENSURING ACCESS FOR PERSONS WITH DISABILITIES.
- C. MANUFACTURERS: THE MATWORKS COMPANY LLC, 11900 OLD BALTIMORE PIKE, BELTSVILLE, MD 20705, (301-837-1272); OR GRAND ENTRANCE (888-424-6287).
1. VS ENTRY: MATWORKS - REFER TO FINISH SCHEDULE.
2. PINK ENTRY: GRAND ENTRANCE - REFER TO FINISH SCHEDULE.
3. EXTERIOR ACCESSIBLE SERVICE DOORS: MATWORKS - REFER TO FINISH SCHEDULE
- D. INSTALLATION: COMPLY WITH ALL APPLICABLE CODES AND STANDARDS. GC INSTALL PER MANUFACTURER'S INSTRUCTIONS, INCLUDING INSTALLATION OF ALL SLAB ANCHORS. FAILURE TO FOLLOW MANUFACTURER'S INSTRUCTIONS WILL RESULT IN RE-INSTALLATION AT GC EXPENSE FOR PARTS AND LABOR.
1. FOR MATWORKS MATS, SUBSTRATE TO BE PAINTED; ONCE DRY, CLEAN SURFACE PRIOR TO INSTALLING GRID.

GreenbergFarrow

1430 West Peachtree Street NW
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Atlanta, GA 30309
t: 404 601 4000 f: 404 601 3970

Limited brands

LIMITED STORE PLANNING, INC.
d/b/a STORE DESIGN & CONSTRUCTION

Three Limited Parkway • Columbus, Ohio 43230
Telephone: 614.415.7000 • Fax: 614.415.7349

010501638

PINK VICTORIA'S SECRET

TREASURE COAST SQUARE

3174 NW FEDERAL HIGHWAY

SPACE # 3036

JENSEN BEACH, FL 34957

PROJECT INFORMATION:

REVISIONS:

REVISIONS:

REVISIONS:

REVISIONS:

REVISIONS:

DATE ISSUED: 03.29.13
DESIGNED BY: AL
DRAWN BY: JS
CHECKED BY: WD

SPECIFICATIONS

DRAWING NUMBER:

A15.05

DIVISION 28 - ELECTRICAL
SECTION 28.00.00 - BASIC ELECTRICAL REQUIREMENTS

A. NOTE

1. THE ABBREVIATION LSO&C WHEREVER IT APPEARS IN THESE ELECTRICAL DRAWINGS AND/OR SPECIFICATIONS SHALL REFER TO "LIMITED STORE DESIGN AND CONSTRUCTION", ANY REFERENCE TO TENANT'S PROJECT MANAGER OR FURNISHED BY ANY OF THE ABOVE REFERS TO LSO&C.
2. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND ALL OTHER SPECIFICATION SECTIONS, APPLY TO THIS AND THE OTHER SECTIONS OF DIVISION 28.
3. THE CONTRACTOR FOR THIS DIVISION OF WORK IS REQUIRED TO READ THE SPECIFICATIONS AND REVIEW DRAWINGS FOR ALL DIVISIONS OF WORK AND IS RESPONSIBLE FOR THE COORDINATION OF THIS WORK AND THE WORK OF HIS OR HER SUBCONTRACTORS WITH ALL DIVISIONS OF WORK. IT IS THIS CONTRACTORS RESPONSIBILITY TO PROVIDE HIS OR HER SUBCONTRACTORS WITH A COMPLETE SET OF BID DOCUMENTS.
4. THIS ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE COMPLETION AND INSPECTION OF THIS WORK TO COMPLY WITH THE LSO&C SCHEDULE AND THE PROJECT COMPLETION DATE.
5. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF HIS OR HER WORK.
6. REFER TO RESPONSIBILITY SCHEDULE ON SHEET E01.2 OF THIS SET FOR INFORMATION IN REGARD TO RESPONSIBILITY OF WORK OR ITEMS WHICH MAY AFFECT BID.

B. GENERAL REQUIREMENTS

1. THIS CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION, INCIDENTALS AND DETAILS NECESSARY TO PROVIDE A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE LANDLORD OR LSO&C SHALL BE PROVIDED BY THIS CONTRACTOR. CLOSELY COORDINATE THE ENTIRE INSTALLATION WITH THE LANDLORD AND THE LSO&C PROJECT MANAGER, AS REQUIRED.
2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE FURNISHED AND INSTALLED EVEN THOUGH NOT SPECIFICALLY MENTIONED IN BOTH. ANY MATERIAL OR LABOR WHICH IS NEITHER SHOWN ON THE DRAWINGS NOR CALLED FOR IN THE SPECIFICATIONS, BUT WHICH IS OBVIOUSLY NECESSARY TO COMPLETE THE WORK, AND WHICH IS USUALLY INCLUDED IN WORK OF SIMILAR CHARACTER, SHALL BE FURNISHED AND INSTALLED AS PART OF CONTRACT.
3. WHERE THE DRAWINGS OR SPECIFICATIONS CALL FOR ITEMS WHICH EXCEED CODES OR THE LANDLORD'S TENANT CRITERIA, THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE SYSTEM WITH THE MORE STRINGENT REQUIREMENTS AS DESIGNED AND DESCRIBED ON THESE DRAWINGS, UNLESS SPECIFICALLY NOTED OTHERWISE.
4. ALL WORK IN THIS SECTION SHALL BE INSTALLED SO AS TO BE READY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING, AND REPAIRING. THIS CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT SERVICE ACCESS TO ALL EQUIPMENT.
5. ALL WORK SHALL BE PERFORMED IN A NEAT PROFESSIONAL MANNER USING GOOD CONSTRUCTION PRACTICES.
6. UNLESS SPECIFICALLY NOTED OTHERWISE, MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW, UNDERWRITERS LABORATORIES LISTED AND LABELED AND SIZED IN CONFORMITY WITH REQUIREMENTS OF STATE AND LOCAL CODES, WHICHEVER IS MORE STRINGENT.
7. THIS CONTRACTOR SHALL DO ALL CUTTING, CHASING AND CHANNELING REQUIRED FOR ANY WORK UNDER THIS DIVISION. CUTTING SHALL HAVE PRIOR APPROVAL BY LSO&C PROJECT MANAGER AND THE LANDLORD. ALL PATCHING SHALL BE BY G.C. AND SHALL MATCH THE SURROUNDING SURFACES.
8. THE ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

C. TEMPORARY LIGHT AND POWER

1. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY WIRING AND RELATED GROUND FAULT INTERRUPTION PROTECTION FOR LIGHT AND POWER FOR ALL CONTRACTORS AND IS RESPONSIBLE FOR IT'S REMOVAL.
2. ALL TEMPORARY LIGHTING WILL CONFORM WITH OSHA STANDARDS.
3. THE GENERAL CONTRACTOR SETS UP ALL ELECTRICAL UTILITIES IN THE NAME OF LIMITED BRANDS. LIMITED BRANDS PAYS FOR ALL UTILITIES THROUGHOUT CONSTRUCTION.

D. CODES

1. ALL WORK SHALL CONFORM TO THE LANDLORDS' CRITERIA, THE STATE'S, COUNTY'S, CITY'S AND LOCAL CODES AND ORDINANCES, SAFETY AND HEALTH CODES, NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. THIS CONTRACTOR SHALL INQUIRE INTO AND COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. THIS CONTRACTOR SHALL INCLUDE ANY CHANGES REQUIRED BY CODES IN THE BID AND IF THESE HANGERS ARE NOT INCLUDED IN THE BID, THEY SHALL BE QUALIFIED S A SEPARATE LINE ITEM IN THE BID. AFTER CONTRACT IS AWARDED, CHANGE ORDERS FOR INCREASED COSTS DUE TO CODE ISSUES WILL NOT BE ACCEPTED BY LSO&C, UNLESS ALLOWANCES HAVE PREVIOUSLY BEEN AGREED UPON.

E. LICENSES, PERMITS, INSPECTIONS & FEES

1. THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS, AND FEES REQUIRED OR RELATED TO HIS OR HER WORK.
2. FURNISH TO THE LSO&C'S PROJECT MANAGER ALL CERTIFICATES OF INSPECTION AND FINAL INSPECTION APPROVAL AT COMPLETION OF PROJECT.

F. TRADE NAMES, MANUFACTURERS AND SHOP DRAWINGS

1. WHERE TRADE NAMES AND MANUFACTURERS ARE USED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE EXACT EQUIPMENT SHALL BE USED AS A MINIMUM FOR THE SAME. MANUFACTURER'S SPECIFICATIONS CONSIDERED AS EQUAL OR BETTER TO THE SPECIFICATIONS WILL BE SUBJECT TO APPROVAL IN WRITING BY LSO&C'S PROJECT MANAGER THROUGH SHOP DRAWING SUBMITTAL PROCESS FOR ACCEPTANCE PRIOR TO INSTALLATIONS. THE USE OF ANY UNAUTHORIZED EQUIPMENT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
2. GENERAL CONTRACTOR SHALL SUBMIT ONLY SUBSTITUTION REQUESTS TO LSO&C PROJECT MANAGER FOR APPROVAL. SUBMISSIONS SHALL BE MADE EARLY ENOUGH IN PROJECT TO ALLOW FOUR (4) WORKING DAYS FOR LSO&C PROJECT MANAGER'S REVIEW WITHOUT CAUSING DELAYS OR CONFLICTS TO THE JOB'S PROGRESS. SUBMITTALS SHALL BEAR THE STAMP OF THE GENERAL CONTRACTOR AND THE SUBCONTRACTOR SHOWING THAT HE HAS REVIEWED AND CONFIRMED THAT THE SUBMITTALS ARE IN CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS OR INDICATE WHERE EXCEPTIONS HAVE BEEN TAKEN.

G. GUARANTEE

1. THIS CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORK PROVIDED UNDER HIS OR HER CONTRACT AND SHALL MAKE GOOD, REPAIR OR REPLACE AT HIS OR HER OWN EXPENSE, ANY DEFECTIVE WORK, MATERIAL, OR EQUIPMENT WHICH MAY BE DISCOVERED WITHIN A PERIOD OF 12 MONTHS FROM THE DATE OF ACCEPTANCE OF THE INSTALLATION BY LSO&C'S PROJECT MANAGER (IN WRITING). EXTENDED WARRANTIES ARE AS SPECIFIED WITH INDIVIDUAL EQUIPMENT.
2. THE EQUIPMENT MANUFACTURER SHALL GUARANTEE AND PROVIDE A 12 MONTH GUARANTEE TO LSO&C FROM THE DATE OF ACCEPTANCE. THE CONTRACTOR SHALL WARRANT THE INSTALLATION AND WILL BE RESPONSIBLE FOR ANY DAMAGE AND/OR MALFUNCTION CAUSED BY THE INSTALLATION. THIS CONTRACTOR SHALL NOT BEAR ADDITIONAL WARRANTIES BEYOND A COMPLETE WORKING SYSTEM.

H. RECORD DRAWINGS

1. THIS CONTRACTOR SHALL MAINTAIN ONE SET OF DRAWINGS ON THE JOB SITE UPDATED WEEKLY TO RECORD ALL DEVIATIONS FROM CONTRACT DRAWINGS, SUCH AS:
 - a. LOCATION OF CONCEALED PULLBOXES.
 - b. REVISIONS, ADDITIONS, AND CHANGE ORDERS.
 - c. SIGNIFICANT DEVIATIONS MADE NECESSARY BY FIELD CONDITIONS, APPROVED EQUIPMENT SUBSTITUTIONS, AND CONTRACTOR'S COORDINATION WITH OTHER TRADES.
2. AT COMPLETION OF THE PROJECT AND BEFORE FINAL APPROVAL, THIS CONTRACTOR SHALL MAKE ANY FINAL CORRECTIONS TO DRAWINGS AND CERTIFY THE ACCURACY OF EACH PRINT BY SIGNATURE THEREON. FAILURE TO KEEP THESE RECORDS WILL ALLOW LSO&C TO DIRECT THE GENERAL CONTRACTOR TO PROVIDE THESE RECORDS AT HIS OR HER EXPENSE PRIOR TO FINAL PAYMENT.

I. DISCREPANCIES IN DOCUMENTS

1. DRAWINGS (PLANS, SPECIFICATIONS, AND DETAILS) ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION AND INTENT OF THE MECHANICAL SYSTEMS, WHERE DRAWINGS, EXISTING SITE CONDITIONS, SPECIFICATIONS OR OTHER TRADES CONFLICT OR ARE UNCLEAR, ADVISE THE GENERAL CONTRACTOR IN WRITING, PRIOR TO SUBMITTAL OF BID. THE GENERAL CONTRACTOR IS RESPONSIBLE TO ADVISE LSO&C'S PROJECT MANAGER, IN WRITING, OF VARIATIONS TO CONTRACT DOCUMENTS PRIOR TO SUBMISSION OF BID. OTHERWISE, LSO&C PROJECT MANAGER'S INTERPRETATION OF CONTRACT DOCUMENTS OR CONDITIONS SHALL BE FINAL WITH NO ADDITIONAL COMPENSATION PERMITTED.

J. PHASING REQUIREMENTS

1. THIS CONTRACTOR IS TO INCLUDE IN HIS OR HER BID ALL NECESSARY SERVICE REQUIRED TO KEEP THE OPERATING PHASE OF THE STORE'S HVAC, ELECTRICAL, PLUMBING AND SPRINKLER SERVICE IN OPERATION. CONTRACTOR SHALL SCHEDULE IN WRITING WITH LSO&C'S PROJECT MANAGER AND THE LANDLORD ONE WEEK PRIOR TO ANY SHUT DOWN OF THE HVAC, PLUMBING OR ELECTRICAL SYSTEMS.

K. DEMOLITION

1. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE DEMOLITION OF EXISTING WORK AND THE DEMOLITION PROVIDED BY THE GENERAL CONTRACTOR. COORDINATE WITH THE GENERAL CONTRACTOR ANY EXISTING EQUIPMENT REQUIRED TO BE LEFT INTACT.
2. THIS CONTRACTOR SHALL INCLUDE, AND WILL BE HELD RESPONSIBLE FOR, THE REMOVAL OF ALL EXISTING CONDUIT, FIRE ALARM SYSTEM, SWITCH GEAR, PITCH POCKETS AND EQUIPMENT ETC. UNLESS SPECIFICALLY NOTED OTHERWISE. CONTRACTOR SHALL VERIFY WITH THE LANDLORD ALL PRESUMED ABANDONED EQUIPMENT, CONDUIT AND SWITCH GEAR PRIOR TO REMOVAL. PITCH POCKETS SHALL BE REMOVED AND THE ROOF PATCHED, AS REQUIRED BY THE LANDLORD. ALL EXTRANEIOUS ITEMS IN THE SPACE OR ON THE ROOF NOT APPLICABLE TO THE NEW WORK SHALL BE REMOVED AND ROOF/WALL/FLOOR PATCHED/REPAIRED TO LIKE NEW CONDITION. EXISTING ABANDONED CONDUIT OR EQUIPMENT IN THE FLOOR, EMBEDDED IN CONCRETE, OR OTHERWISE INACCESSIBLE, ARE TO BE CUT OFF AND SEALED BELOW OR WITHIN FLOOR OR WALL LEVEL WHEN THEY ARE NOT TO BE REUSED IN THIS PROJECT. IF REQUIRED BY LANDLORD OR CODES, ABANDONED CONDUIT SHALL BE REMOVED TO POINT OF ORIGINATION. CONFIRM EXTENT OF DEMOLITION PRIOR TO BID AND INCLUDE IN PROPOSAL.
3. ALL UNUSED COMMUNICATION, DATA, AND LOW VOLTAGE CABLING IS TO BE REMOVED IN ACCORDANCE WITH N.E.C. 725.3(B) AND 760.3(A).

L. SLEEVES

1. THIS CONTRACTOR SHALL PROVIDE SLEEVES TO PROTECT EQUIPMENT OR FACILITIES IN THE INSTALLATION. EACH SLEEVE SHALL EXTEND THROUGH IT'S RESPECTIVE FLOOR, WALL OR PARTITION AND SHALL BE CUT FLUSH WITH EACH SURFACE EXCEPT SLEEVES THAT PENETRATE THE FLOOR, WHICH SHALL EXTEND 2" ABOVE THE FLOOR. CONTRACTOR SHALL COORDINATE THROUGH THE LANDLORD ANY CORE DRILLING OR CUTTING OF OPENINGS IN MASONRY FLOORS OR WALLS.
2. ALL SLEEVES AND OPENINGS THROUGH FIRE RATED WALLS AND/OR FLOORS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M" FIRE RATED SEALANTS OR EQUAL, SO AS TO RETAIN THEIR FIRE RATING.
3. SLEEVES IN BEARING AND MASONRY WALLS, FLOORS, AND PARTITIONS SHALL BE STANDARD WEIGHT STEEL PIPE FINISHED WITH SMOOTH EDGES. FOR OTHER THAN MASONRY PARTITIONS, THROUGH SUSPENDED CEILINGS, OR FOR CONCEALED VERTICAL PIPING, SLEEVES SHALL BE NO. 22 U.S.G. GALVANIZED STEEL MINIMUM.

M. HANGERS

1. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS ANGLE IRON, BANDS, C-CLAMPS WITH RETAINING CLIPS, CHANNELS, HANGER RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK.
2. HANGERS SHALL BE FASTENED TO BUILDING STEEL, CONCRETE, OR MASONRY, BUT NOT TO PIPING. HANGING FROM METAL DECK IS NOT PERMITTED. HANGERS SHALL BE ATTACHED TO UPPER CHORD OF BAY JOIST, WHERE INTERFERES WITH STRUCTURE, OR TO SUPPORT DUTYWORK OR PIPING, THE CONTRACTOR SHALL INSTALL TRAPEZE TYPE HANGERS OR SUPPORTS WHICH SHALL BE LOCATED WHERE THEY DO NOT INTERFERE WITH ACCESS TO FIRE DAMPERS, VALVES, AND OTHER EQUIPMENT. HANGER TYPES AND INSTALLATION METHODS ARE ALSO SUBJECT TO LANDLORD CRITERIA.
3. HANGERS FOR ALL INSULATED PIPING SHALL BE SIZED AND INSTALLED FOR THE OUTER DIAMETER OF INSULATION. INSTALL 6" LONG SPLIT CIRCLE GALVANIZED SADDLE BETWEEN THE HANGER AND THE PIPE INSULATION.
4. HANGERS AND PIPING OF DISSIMILAR METALS SHALL BE DI-ELECTRICALLY SEPARATED.

N. FINAL ELECTRICAL INSPECTION

1. ASIDE FROM NORMAL INSPECTIONS OF WORK IN PLACE, LSO&C MAY HAVE AN INDEPENDENT ELECTRICAL CONTRACTOR INSPECT THE FINISHED ELECTRICAL INSTALLATION UPON COMPLETION FOR COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND CODES. THE INSTALLING CONTRACTOR WILL BE RESPONSIBLE TO BRING ALL ITEMS REPORTED BY THE INDEPENDENT ELECTRICAL CONTRACTOR UP TO PLANS AND SPECIFICATIONS REQUIREMENTS.

O. SCOPE OF WORK

1. THIS CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION, AND FACILITIES NECESSARY FOR, AND IS RESPONSIBLE FOR THE COORDINATION OF, THE FURNISHING, INSTALLATION, COMPLETION AND TESTING OF ALL THE WORK FOR THE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS, TO INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - a. A COMPLETE ELECTRICAL DISTRIBUTION SYSTEM INCLUDING THE INSTALLATION OF LSO&C FURNISHED POWER DISTRIBUTION SYSTEM UNIT, SAFETY SWITCHES, DISCONNECT SWITCHES AND MOTOR STARTERS (SOMETIMES FURNISHED AND INSTALLED BY CONTRACTOR), AND LIGHTING. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO OBTAIN IN HIS OR HER BID FOR PROVIDING SERVICE EQUIPMENT NECESSARY FOR THE IN TO LANDLORD'S DISTRIBUTION EQUIPMENT OR TO OBTAIN SERVICE FROM LOCAL UTILITY COMPANY. REFER TO ELECTRICAL RESPONSIBILITY SCHEDULE AND ELECTRICAL POWER RISER DIAGRAM FOR ADDITIONAL INFORMATION.
 - b. CONTRACTOR SHALL INCLUDE IN BID ALL NECESSARY MATERIALS REQUIRED TO COMPLETE THE SYSTEM INCLUDING, BUT NOT LIMITED TO, FEEDERS, BRANCH CIRCUITS, JUNCTION BOXES, OUTLET BOXES, WIRING DEVICES, COVERPLATES, CONDUITS, MOTOR STARTERS, DISCONNECTS, ETC.
 - c. METERING AND CURRENT TRANSFORMERS AS REQUIRED BY DRAWINGS, LSO&C, UTILITY COMPANY, AND/OR LANDLORD.
 - d. THE WIRING OF MECHANICAL EQUIPMENT AS OUTLINED ON THE BID SET DRAWINGS AND IN THE SPECIFICATIONS. WORK SHALL INCLUDE WIRING OF ALL STARTERS, DISCONNECTS, AND POWER WIRING OF MECHANICAL EQUIPMENT EXCEPT AS SPECIFICALLY NOTED OTHERWISE. ALL LOW VOLTAGE (24 VOLT) EMS TEMPERATURE CONTROL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR UNLESS NOTED SPECIFICALLY ON DRAWING.
 - e. INSTALLATION OF LIGHT FIXTURES AND LAMPS AS SHOWN ON THE DRAWINGS INCLUDING ALL DEVICES, EQUIPMENT, ETC. REQUIRED FOR MOUNTING.
 - f. A COMPLETE CONDUIT SYSTEM FOR TELEPHONE/DATA AND TRAFFIC COUNTER INCLUDING BRANCH CONDUITS, OUTLET BOXES, PULL WIRES, GROUND CONDUCTORS, COVER PLATES, ETC. OR AS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
 - g. A COMPLETE EMERGENCY AND EXIT LIGHTING SYSTEM AS SHOWN ON THE DRAWINGS.
 - h. TEMPORARY SERVICE AS INDICATED IN THE SPECIFICATIONS, INCLUDING IT'S REMOVAL.
 - i. FINAL CONNECTIONS TO ALL SIGNS, CORNICE LIGHTING, CASE LIGHTING, ETC. AS SHOWN ON DRAWINGS.
 - j. INSTALLATION AND WIRING OF SPEAKERS, AMPLIFIERS, CONDUIT AND FINAL CONNECTIONS FOR SOUND SYSTEM AS SHOWN.
 - k. SMOKE/FIRE ALARM WIRING, DEVICES AND CONDUIT, AS SHOWN OR DESCRIBED ON DRAWINGS OR AS NECESSARY TO MEET LANDLORD, STATE, LOCAL, INSURANCE AND FIRE DEPARTMENT REQUIREMENTS.
 - l. INSTALLATION OF CONDUITS SUBMITTED TO ABOVE CEILING FOR HVAC. ALSO, ANY ADDITIONAL CONDUIT FOR HVAC CONTROL EQUIPMENT WHERE PLENUM RATED CABLES ARE NOT PERMITTED.
 - m. BALANCING LOADS.
 - n. AS-BUILTS, PANEL DESCRIPTION AND CIRCUIT BREAKER SPECIFIC LABELING.
2. WORK NOT INCLUDED

- THE FOLLOWING ITEMS OF ELECTRICAL CONSTRUCTION ARE NOT INCLUDED IN THIS CONTRACT:
- a. TELEPHONE INSTRUMENTS AND WIRING UNLESS NOTED OTHERWISE.
 - b. DATA CABLE WIRING UNLESS NOTED OTHERWISE.

3. BEFORE STARTING WORK, THIS CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, STRUCTURAL, FIRE PROTECTION, MECHANICAL AND PLUMBING PLANS, SHOP DRAWINGS AND SPECIFICATIONS TO SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF THE ELECTRICAL SYSTEM, MATERIALS AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID INTERFERENCES AND CONFRONTATIONS.

P. CLEANING

1. AT THE END OF THE PROJECT, THIS CONTRACTOR SHALL CLEAN ALL EQUIPMENT, INCLUDING LIGHT FIXTURES, TO THE SATISFACTION OF LSO&C. ALL DUST, DIRT, DEBRIS, AND FOREIGN MATTER SHALL BE REMOVED FROM ALL EQUIPMENT.

END OF SECTION 280000

SECTION 280126- MAINTENANCE TESTING OF ELECTRICAL SYSTEMS

1. ALL CONNECTIONS AT PANELS, LIGHTING CONTRACTORS AND SWITCHES ARE TO BE MADE, ALL SPLICES COMPLETE, ALL FUSES IN PLACE, AND ALL CIRCUITS CONTINUOUS FROM POINT OF SERVICE CONNECTION TO ITS FINAL DESTINATION, AND ALL COVERS AND PLATES INSTALLED PRIOR TO THE TIME OF FINAL INSPECTION BY LSO&C'S PROJECT MANAGER.
2. UPON COMPLETION OF THE WORK, ALL PARTS OF THE ELECTRICAL INSTALLATION SHALL BE TESTED AND PROVED FREE OF UNWANTED GROUNDS AND OTHER DEFECTS.
3. ALL OVERLOAD DEVICES, INCLUDING EQUIPMENT FURNISHED UNDER OTHER CONTRACTS, SHALL BE SET AND ADJUSTED TO SUIT THE LOAD CONDITIONS.
4. TEST AND MAKE CORRECTIONS/ADJUSTMENTS FOR PHASE BALANCING.
5. THIS CONTRACTOR IS TO BALANCE THE VOLTAGE LEAVING THE STEP-DOWN TRANSFORMER TO PROVIDE A SECONDARY VOLTAGE OF 120 MINIMUM TO 125 VOLTS MAXIMUM BY ADJUSTING THE TRANSFORMER TAPS ONCE ALL THE FINAL CONNECTIONS HAVE BEEN MADE TO THE LOW VOLTAGE PANELBOARD. INCLUDE FINAL BALANCE REPORT WITH AS-BUILT DRAWINGS.

END OF SECTION 260126

SECTION 260518- ELECTRICAL POWER CONDUCTORS AND CABLES

1. CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS SHALL BE COPPER AND THE AWG SIZE AND TYPE AS SHOWN ON DRAWINGS. MINIMUM WIRE SIZE SHALL BE #12 AND THE CONDUCTORS SHALL BE 600 VOLT INSULATION TYPE THW, THWN OR THHN.
2. MINIMUM WIRE SIZE - 20 AMP BRANCH CIRCUIT SHALL BE AWG LISTED SIZE PER DISTANCE SHOWN BELOW. DISTANCE SHALL BE MEASURED FROM THE PANELBOARD CIRCUIT BREAKER TO THE FARTHEST OUTLET.
 - a. #12 LESS THAN 100 FEET
 - b. #10 BETWEEN 100 - 150 FEET
 - c. #8 BETWEEN 150 - 250 FEET
 - d. #6 OVER 250 FEET
3. ON ALL 20 AMP BRANCH CIRCUITS, CONDUCTORS LARGER THAN #10 AWG SHALL BE REDUCED TO #10 AWG WITHIN 10 FEET OF PANELBOARD AND DEVICE IN JUNCTION BOXES ON RATED TERMINAL STRIPS.
4. CONDUCTORS MAY BE STRANDED FOR SIZES #10 AWG AND LARGER. CONDUCTORS SIZE #12 SHALL BE SOLID.
5. ALUMINUM CONDUCTORS ARE NOT PERMITTED, EXCEPT AT SERVICE ENTRANCE, WHERE REQUIRED BY LANDLORD. CONDUCTOR CONNECTION SHALL BE PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM GENERAL CONTRACTOR AND LSO&C'S PROJECT MANAGER WHEN USED.
6. ALL WIRING SHALL BE IN CONDUIT, UNLESS SPECIFICALLY NOTED OTHERWISE (IE. LOW VOLTAGE PLENUM RATED WIRE).
7. THE USE OF ROMEX OR BX CABLE IS NOT PERMITTED. THE USE OF MC CABLE IS NOT PERMITTED IN CANAL.
8. WIRE CONNECTORS SHALL BE EQUAL TO "SCOTCH LOCK" FOR #8 AWG WIRE AND SMALLER AND EQUAL TO T & B "LOCKTIGHT" FOR #6 AWG AND LARGER.
9. NO OTHER CIRCUITS ARE TO BE RUN IN SAME CONDUIT FEEDING ISOLATED GROUND RECEPTABLES.

END OF SECTION 260519

SECTION 260823- CONTROL VOLTAGE ELECTRICAL POWER CABLES

1. FURNISH AND INSTALL A SYSTEM OF CONDUIT RACEWAYS, OUTLET BOXES AND PULL WIRES AS SHOWN ON THE DRAWINGS UNLESS OTHERWISE NOTED ON PLANS. TELEPHONE SWITCHING APPARATUS, CONDUCTORS, INSTRUMENTS, MISCELLANEOUS EQUIPMENT AND APPURTENANCES ARE NOT PART OF THIS CONTRACT AND WILL BE PROVIDED AND INSTALLED BY LSO&C.
2. OUTLET BOXES TO BE 4" SQUARE MINIMUM WITH SINGLE DEVICE COVER AND TELEPHONE PLATE.
3. CONDUIT RUNS FROM IT'S ENCLOSURE OR MANAGER'S OFFICE FOR TELEPHONE AND DATA LINES TO CASHWRAPS ARE TO BE CONTINUOUS WITH NO JUNCTION BOXES EXCEPT AS NOTED OTHERWISE ON DRAWINGS.
4. ALL PULL WIRES ARE TO BE LABELED FOR PURPOSE DESIGNATED.
5. NO OTHER CIRCUITS ARE TO BE RUN IN SAME CONDUIT FEEDING ISOLATED GROUND RECEPTABLES.
6. ELECTRICAL CONTRACTOR SHALL REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL ELECTRICAL WORK TO BE INCLUDED IN HIS OR HER BID.
7. ELECTRICAL CONTRACTOR SHALL DO ALL POWER WIRINGS, LINE VOLTAGE WIRINGS, AND LINE VOLTAGE CONDUIT WIRING INDICATED UNDER THE HEATING, VENTILATION AND AIR CONDITIONING, PLUMBING AND FIRE PROTECTION SPECIFICATIONS AND DRAWINGS. THIS CONTRACTOR SHALL ALSO DO ALL INTERCONNECTING LINE VOLTAGE WIRINGS BETWEEN RELAYS AND SWITCHES AS REQUIRED.
8. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING CONDUIT FOR HVAC CONTROL WIRING WHERE REQUIRED BY CODE OR SHOWN ON PRINTS TO BE IN CONDUIT. REFER TO PLANS FOR REQUIREMENTS AND SIZE.
9. FIRE AND/OR SMOKE DAMPERS SHALL BE WIRED BY ELECTRICAL CONTRACTOR. COORDINATE WITH HVAC CONTRACTOR FOR POWER REQUIREMENTS.
10. REFER TO MECHANICAL DRAWINGS FOR AVAILABLE SCHEMATIC WIRING DIAGRAMS OF EQUIPMENT.

CANADA

1. ALL CTV CABLES TO BE CAT5E TYPE AND WHITE IN COLOR. 5'-0" LOOP OF CABLE TO BE LEFT AT DVR AND 10'-0" LOOP OF CABLE TO BE LEFT AT EQUIPMENT LOCATION END COILED UP IN CEILING.
2. ALL SECURITY/ADDT CABLEING TO BE #27-4 NON-SHIELDED FT6 TYPE. NO CONDUIT REQUIRED IF RUN WITHIN THE PLENUM. 5'-0" LOOP OF CABLE TO BE LEFT AT THE CONTROL PANEL END AND 5'-0" TO BE LEFT AT THE EQUIPMENT LOCATION COILED IN CEILING.

END OF SECTION 260523

SECTION 260526- GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

1. FURNISH AND INSTALL COMPLETE WIRED GROUNDING CONDUCTION SYSTEM, #12 AWG MINIMUM, SIZED AND INSTALLED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES, THE LANDLORD'S TENANT CRITERIA, AS NOTED IN THE SPECIFICATIONS, AND AS INDICATED ON THE DRAWINGS.
2. ALL CONDUITS, INCLUDING FLEXIBLE METAL CONDUIT, SHALL BE GROUNDED WITH A GREEN GROUNDING CONDUCTOR.
3. GROUNDING CONNECTIONS MADE TO THE WATER PIPING SYSTEM SHALL BE COORDINATED WITH THE PLUMBING CONTRACTOR AND A BONDING JUMPER INSTALLED AROUND WATER METER PER CODES AND AS INDICATED ON DRAWINGS.
4. ALL DEVICES SHALL BE BONDED TO THE CONDUIT SYSTEM. USE A BONDING JUMPER BETWEEN THE OUTLET BOX AND THE DEVICE GROUNDING TERMINAL. METAL CONTACT BETWEEN THE DEVICE YONE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES OR FLUSH TYPE BOXES. ALL JUNCTION BOXES, OUTLET BOXES, AND PULL BOXES SHALL BE BONDED TO THE CONDUIT SYSTEM.
5. RUN A SEPARATE ISOLATED GROUNDING CONDUCTOR, #12 AWG MINIMUM, IN EACH CONDUIT FEEDING THE CASHWRAP, THE SENSORMATIC AND OTHER COMPUTORIZED EQUIPMENT AS SHOWN ON DRAWINGS.
6. ALL ENCLOSURES AND NON-CURRENT CARRYING METAL PARTS ARE TO BE GROUNDED. CONDUIT SYSTEM IS TO BE ELECTRICALLY CONTINUOUS. ALL LOCKNUTS SHALL CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METAL PARTS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS. ALL GROUND CLAMPS SHALL BE "PENN-LINION" OR EQUAL, SIMILAR TO "GPT" TYPE.

END OF SECTION 260526

SECTION 260533-RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

1. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS SERVING ALL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, LIGHTING, RECEPTABLES, HEATING, AIR CONDITIONING, PLUMBING EQUIPMENT, TELEPHONE, DATA, SPEAKERS, SECURITY, PAGER, TRAFFIC COUNTING SYSTEM AND ELECTRICAL EQUIPMENT.
2. ALL CONDUITS SHALL BE GALVANIZED IMC OR EMT UNLESS OTHERWISE SPECIFIED IN SPECIFICATIONS OR ON DRAWINGS. ALL CONDUIT IS TO BE UL LABELED. EMT CONNECTORS SHALL BE STEEL COMPRESSION OR SET SCREW TYPE. CONDUIT UNDER SLAB ON GRADE SHALL BE RIGID STEEL, OR SCHEDULE 40 PVC WITH RIGID STEEL ELLS WHERE PERMITTED BY LANDLORD OR CODE.
3. MINIMUM SIZE OF CONDUIT SHALL BE:
 - a. MAIN FEEDER CONDUIT TO 2" OR LARGER FOR ALL APPLICATIONS.
 - b. 1/2" MINIMUM FOR ALL LOCATIONS (IF ACCEPTABLE BY THE LANDLORD AND LOCAL CODE OFFICIALS), UNLESS NOTED OTHERWISE IN PLANS, SPECIFICATIONS, OR DRAWINGS.
 - c. IF HVAC CONTROL WIRING IS REQUIRED TO BE RUN IN CONDUIT, IT SHALL BE A MINIMUM OF 3/4", UNLESS NOTED OTHERWISE ON DRAWINGS.
 - d. ALL IN/UNDER FLOOR CONDUIT SHALL BE OF MINIMUM 3/4" SIZE.
 - e. ALL FIRE ALARM CONDUIT SHALL BE OF MINIMUM 3/4" SIZE.
4. SUPPORT ALL CONDUIT, INCLUDING SEISMIC AND SWAY BRACING, IN ACCORDANCE WITH THE NEC AND LOCAL CODES.
5. GENERALLY, ALL CONDUIT SHALL BE CONCEALED EXCEPT FOR UNFINISHED AREAS, SUCH AS EQUIPMENT ROOMS. EXPOSED CONDUIT SHALL BE ALLOWED ONLY AS NOTED ON PLAN AND AS APPROVED BY LSO&C'S PROJECT MANAGER. PAINTING OF CONDUITS, NOTED ON DRAWINGS OR SPECIFICATIONS WILL BE BY GENERAL CONTRACTOR.
6. FLEXIBLE METAL CONDUIT, MC TYPE CABLE OR AC90(CANADA)
 - i. FLEXIBLE METAL CONDUIT, MC TYPE CABLE OR AC90(CANADA) SHALL BE USED FOR THE FOLLOWING APPLICATIONS ONLY:
 - I. FINAL CONNECTIONS TO MOTORS.
 - II. FINAL CONNECTIONS INTO AND OUT OF THE TRANSFORMER.
 - III. FINAL CONNECTIONS TO VIBRATING EQUIPMENT.
 - IV. INTER-CONNECTIONS BETWEEN ALL RECESSED LIGHT FIXTURES AND JUNCTION BOXES.
 - V. FINAL CONNECTIONS WHERE RIGID CONDUIT IS NOT PRACTICAL.
 - VI. IN WALLS FOR LIGHT SWITCHES AND 120 VOLT POWER RECEPTABLES AND HVAC CONTROL EQUIPMENT).
 - b. FLEXIBLE METAL CONDUIT OR AC90(CANADA) SHALL BE THE SAME SIZE AS THE IMC OR EMT CONDUIT TO WHICH IT IS CONNECTED. BOTH THE FLEXIBLE METAL CONDUIT OR AC90(CANADA) AND IT'S FITTINGS ARE TO BE LISTED FOR GROUNDING. A GREEN GROUNDING CONDUCTOR SHALL BE INSTALLED. ALL CONNECTORS ARE TO BE OF A NEMA APPROVED TYPE.
 - c. LENGTH OF FLEXIBLE METAL CONDUIT, MC TYPE CABLE, OR AC90(CANADA) IS NOT TO EXCEED 6'-0".
 - d. THE USE OF ROMEX OR BX CABLE IS NOT PERMITTED.
 - e. CONNECTION TO ANY OUTDOOR EQUIPMENT SHALL BE MADE WITH LIQUDTIGHT FLEXIBLE METAL CONDUIT OR AC90(CANADA).
7. PROVIDE PULL-WIRE IN ALL EMPTY CONDUITS EXCEPT AS NOTED OTHERWISE ON DRAWINGS.
8. HOME RUNS AND MAIN CONDUIT RUNS ARE TO BE HELD TIGHT TO STRUCTURE ABOVE OR AS REQUIRED TO ALLOW PROPER SERVICE ACCESS AND OTHER TRADES WORK. CONDUIT SHALL BE TRAPPED TO ALLOW 3 FEET MINIMUM CLEARANCE ABOVE CEILING.
9. ALL CONDUITS SHALL BE SIZED PER NEC AND LOCAL CODES.
10. ALL SENSORMATIC WIRING SHALL BE PLACED IN EMT, IMC, OR RMC CONDUIT. PVC IS NOT ALLOWED.
11. ALL OUTLET BOXES SHALL BE GALVANIZED PRESSED STEEL OF THE STANDARD KNOCKOUT TYPE. NO ROUND OUTLET BOXES SHALL BE PERMITTED UNLESS INDICATED AND FOR LIGHTING THAT REQUIRE SUCH CONFIGURATION. CONCEALED BOXES SHALL NOT BE LESS THAN SINGLE GANG AND 1-1/2" DEEP, WITH PLASTER RINGS.
12. ALL KNOCKOUT BOXES, UPON WHICH LIGHTING FIXTURES ARE TO BE INSTALLED, SHALL BE EQUIPPED WITH 3/8" FIXTURE STUDS.
13. EXTERIOR BOXES SHALL BE CAST RUST-RESISTING METAL WITH GASKETED COVERS.
14. INSTALL BOXES RIGIDLY FROM BUILDING STRUCTURE AND SUPPORT INDEPENDENTLY OF THE CONDUIT SYSTEM. ALSO PROVIDE SUITABLE BOX EXTENSIONS TO EXTEND BOXES TO FINISHED FACES OF FLOORS, CEILINGS, WALLS ETC. ALL OUTLET BOXES TO BE PROVIDED WITH CADDY "QUICK-MOUNT BOX SUPPORT" TO MINIMIZE THE DEFLECTION THAT OCCURS WHEN PLUGGING/UNPLUGGING INTO THESE DEVICES.
15. UNLESS OTHERWISE NOTED ON DRAWINGS OR OTHERWISE REQUIRED BY THE NATIONAL ELECTRICAL CODE, ACCESSIBILITY CODES OR LOCAL CODES, OUTLET HEIGHTS SHALL BE AS FOLLOWS:
 - a. SWITCH HEIGHT 42" FROM FINISHED FLOOR TO CENTERLINE OF OUTLET.
 - b. CONVENIENCE OUTLETS:
 - I. SALES AREAS: MOUNTED ON THE WALL 15" AFF UNLESS INDICATED OR HORIZONTALLY MOUNTED IN BASEBOARD BENEATH CABINETS, AS SHOWN ON DRAWINGS, OR AS REQUIRED BY LOCAL CODES. SEE DRAWINGS.
 - II. NON-SALES AREA: 15" FROM FINISHED FLOOR TO CENTERLINE OF OUTLET.
 - c. TELEPHONE OUTLETS SHALL BE LOCATED AS NOTED ON DRAWINGS.
16. THE PLANS INDICATE ONLY SCHEMATIC ROUTINGS FOR CONDUIT RUNS. THIS CONTRACTOR SHALL FURNISH AND INSTALL ADDITIONAL BOXES WHERE REQUIRED BY FIELD CONDITIONS OR BY CODE.
17. BOXES AND COVERS SHALL BE GALVANIZED STEEL OF CODE GAUGE SIZE
18. ARRANGE CIRCUITS TO AVOID THE USE OF JUNCTION BOXES IN INACCESSIBLE LOCATIONS. THE USE OF JUNCTION BOXES ABOVE DRYWALL CEILINGS SHOULD BE LIMITED TO LOCATIONS NEAR ACCESS FRAMES USED FOR DIFFUSERS AND RETURN AIR GRILLES OR ACCESS PANELS AS LOCATED ON PLANS.

END OF SECTION 260533

SECTION 260533-IDENTIFICATION FOR ELECTRICAL SYSTEMS

1. ALL WIRING SHALL BE COLOR-CODED AS FOLLOWS:

120/208 VOLT SYSTEM	277/480 VOLT SYSTEM
NEUTRAL - WHITE	NEUTRAL - GRAY
PHASE A OR L1 - BLACK	PHASE A OR L1 - BROWN
PHASE B OR L2 - RED	PHASE B OR L2 - ORANGE
PHASE C OR L3 - BLUE	PHASE C OR L3 - YELLOW
GROUND - GREEN	GROUND - GREEN
ISOLATED GROUND - GREEN WITH YELLOW TRACER	

2. JUNCTION AND PULL BOXES SHALL BE LABELED WITH CIRCUIT NUMBER IDENTIFICATION AND SYSTEM TYPE ON COVER.

END OF SECTION 260533

SECTION 260823-LIGHTING CONTROL EQUIPMENT

1. LIGHTING CONTROL PANEL WILL BE PROVIDED BY LSO&C THROUGH CONTROL MANUFACTURER, MOUNTED IN IT'S PANEL WITH CONDUIT, INSTALLED BY THE ELECTRICAL CONTRACTOR. THE CONTROL PANEL SHALL BE PROGRAMMED AND COMPLETE WHEN SHIPPED TO THE JOB SITE. THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE TO PULL ALL WIRES AS DETAILED ON THESE DRAWINGS AND CIRCUITED EXACTLY AS DIAGRAMMED ON THE ELECTRICAL PLAN DRAWINGS. NO VARIATIONS TO THE CIRCUITING ARE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY LSO&C'S PROJECT MANAGER.

END OF SECTION 260923

SECTION 262219-DRY TYPE TRANSFORMERS

1. TRANSFORMERS ARE GENERALLY INCLUDED IN THE IT'S SWITCHGEAR. IF NOT, TRANSFORMER SHALL BE PAD MOUNTED OR SHALL BE SECURELY MOUNTED FROM THE BUILDING STRUCTURE, REINFORCED WALLS OR AS NOTED ON DRAWINGS. USE ADDITIONAL VIBRATION ISOLATORS AT POINTS OF MOUNTING TO CUT VIBRATION-NOISES. USE FLEXIBLE METALLIC CONDUIT WITH GROUNDING BUSHING-FOR PRIMARY AND SECONDARY CONNECTIONS TO TRANSFORMER. TRANSFORMERS SHALL BE LOCATED, SET, MOUNTED AND CONNECTED IN SUCH A MANNER AS TO KEEP NOISE LEVELS WITHIN THE SURROUNDING AMBIENT NOISE-LEVELS AND MAINTAIN ALL CODE REQUIRED CLEARANCES.
2. TRANSFORMER SHALL BE QUIET TYPE CONSTRUCTION AND HAVE SIX (6) 2-1/2X TAPS, TWO (2) TAPS ABOVE AND FOUR (4) TAPS BELOW NORMAL PRIMARY RATING.
3. TRANSFORMER TO BE CLASS 1 EFFICIENCY LEVEL FOR DISTRIBUTION TRANSFORMERS AS SPECIFIED IN TABLE 4-2 OF THE "GUIDE FOR DISTRIBUTION TRANSFORMERS" AS PUBLISHED BY NATIONAL ELECTRICAL MANUFACTURER ASSOC. (NEMA TP-1 2009).

END OF SECTION 262213

SECTION 262416-PANELBOARDS

1. ALL PANELBOARDS SHALL BE FACTORY ASSEMBLED OF THE BOLTED CIRCUIT BREAKER TYPE WITH SOLID COPPER BUSSING, FULL SIZED COPPER NEUTRAL, 100% GROUND BUSHING, AND OVERALL RINGED/LOCKABLE DOOR. ALL CIRCUIT BREAKERS SHALL BE OF THE QUICK-MAKE AND QUICK-BREAK DESIGN, THERMAL-MAGNETIC TYPE, TRIP FREE AND TRIP-INDICATING. ALL PANELS SHALL BE DEAD FRONT AND FLUSH OR SURFACE MOUNTED AS SHOWN.
2. CONTRACTOR SHALL FURNISH AND INSTALL A TYPEWRITTEN DIRECTORY CARD OF THE CIRCUITS AND PLACE IN PANEL DOOR. THE DIRECTORY SHALL IDENTIFY THE SPECIFIC ROOM LOCATION FOR EACH CIRCUIT.
3. ALL PANELBOARDS PHASE AMPERAGE SHALL BE BALANCED TO WITHIN 7 PERCENT MAX. TO MIN. REARRANGE NON-LIGHTING BRANCH CIRCUITS AS REQUIRED AND NOTE CHANGES ON RECORD DRAWINGS. LIGHTING PANEL CIRCUIT BREAKERS SHALL BE INSTALLED AND WIRED EXACTLY AS SHOWN ON DRAWINGS.
4. IF LOOSE PANELBOARDS ARE USED, PANELBOARDS SHALL BE MOUNTED ON MINIMUM 3/4" A/D PLYWOOD AND PAINTED IN A COLOR TO MATCH THE SURROUNDING WALLS OR A COLOR AS REQUIRED BY LOCAL CODE. PLYWOOD SHALL EXTEND 1 FOOT MINIMUM BEYOND EDGE OF EQUIPMENT.
5. PANELBOARDS SHALL HAVE A MINIMUM SHORT CIRCUIT CURRENT RATING AND LVG CONNECTIONS AS FOLLOWS:
120/208 VOLT PANELBOARDS: 10,000 A.I.C.
277/480-VOLT-PANELBOARDS: 14,000 A.I.C.
VERIFY ACTUAL A.I.C. SHORT CIRCUIT CURRENT REQUIREMENTS WITH THE LANDLORD OR UTILITY COMPANY AND VERIFY SWITCHGEAR COMPLIANCE PRIOR TO INSTALLING EQUIPMENT. ALL LVG CONNECTIONS TO BE 75% RATED.
6. IF'S ENCLOSURE FURNISHED BY LSO&C AND INSTALLED BY ELECTRICAL CONTRACTOR IS HEREIN DESCRIBED:
 - a. UNIT WILL BE SHIPPED TO THE PROJECT IN MULTIPLE SECTIONS AND THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR OFF-LOADING OF EQUIPMENT, INSPECTION OF EQUIPMENT FOR DAMAGES, VERIFICATION OF EQUIPMENT RECEIVED, ENSURING THAT THE EQUIPMENT RECEIVED IS COMPLETE AND MEETS THE SCHEDULED PANELS FOR THE PROJECT, MOVING AND MOUNTING OF SECTIONS AS WELL AS REASSEMBLING OF SAME INTO ONE COMPLETE UNIT PER MANUFACTURER'S REQUIREMENTS.
 - b. ELECTRICAL CONTRACTOR IS TO CONNECT ALL PROVIDED INTERCONNECTING CABLES BETWEEN SECTIONS AND TORQUE CONNECTIONS PER MANUFACTURER'S REQUIREMENTS. CONTRACTOR IS TO ANCHOR PANEL SYSTEM IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND LOCAL CODES IN SEISMIC ZONES.

- c. ELECTRICAL CONTRACTOR IS TO CONNECT LIGHTING BRANCH CIRCUITS TO APPROPRIATE LOAD TERMINALS OR PRC LIMITER PANEL PROVIDED WITHIN IT'S ENCLOSURE PER LIGHTING ZONES INDICATED IN THE PANEL SCHEDULE (I.E. ZONE A, B, C, OR D)AND CURRENT LIMITING BREAKER SCHEDULE. LINE SIDE WIRING AND LIGHTING CONTROL WIRING WILL BE PROVIDED BY MANUFACTURER AT FACTORY. COORDINATE EXACT TERMINAL NUMBER FOR EACH CIRCUIT CONNECTION WITH MANUFACTURER'S DRAWINGS.
- d. ALL LIGHTING, RECEPTACLE AND MISCELLANEOUS BRANCH CIRCUITS NOT SPECIFIED AS BEING CONTROLLED, ARE TO BE WIRED DIRECTLY TO THE CORRESPONDING BRANCH BREAKER IN THE DESIGNATED PANEL

SYMBOL	ITEM	DESCRIPTION
	RECESSED DOWNLIGHT	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	RECESSED DIRECTIONAL	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	TRACK LIGHT	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	FLUORESCENT STRIP	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	EMERGENCY FLOOR STRIP	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	FLUORESCENT TROFFER	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	SCONCE	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	DECORATIVE PENDANTS	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	DECORATIVE LAMP	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	EXIT SIGN W/ DIRECTIONAL ARROWS	ARROWS OPTIONAL PER PLAN. REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION.
	EMERGENCY LIGHT	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	EMERGENCY LIGHT, RECESSED	REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION
	SWITCH	
	SWITCH - MOTION SENSOR	HUBBELL WS1277W2 PASSIVE INFRARED, DOUBLE POLE, SINGLE THROW WALL SWITCH SENSOR WITH TWO SEPARATE RELAYS. WHITE COLOR FINISH.
	SWITCH - DIMMER	HUBBELL S61W, SINGLE POLE, SINGLE THROW WALL DIMMER SWITCH. WHITE COLOR FINISH.
	KEY - SWITCH	HUBBELL HBL1223RKL, SINGLE POLE, THREE-WAY BARRAL KEY WALL SWITCH FOR STOREFRONT ROLLING GRILLE. WHITE COLOR FINISH.
	NIGHT LIGHT	
	EMERGENCY LIGHTING FIXTURE	
	CEILING EXHAUST FAN	REFER TO MECHANICAL SCHEDULE FOR INFORMATION.
	TRAFFIC COUNTER	
	RADIO FREQUENCY ANTENNA	
	ENHANCED FR PAGING SYSTEM CEILING SENSOR	
	SPEAKER/SUBWOOFER	REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION.
	ANALOG CAMERA/DOME	REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION.
	IP CAMERA	REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION.
	SECURITY VIEW MONITOR	REFER TO ARCHITECTURAL DRAWINGS FOR INFORMATION.
	SINGLE RECEPT. W/ COVERPLATE	20 AMP, 120 VOLT
	DUPLEX RECEPT. W/ COVERPLATE	20 AMP, 120 VOLT, SHALL BE WHITE UNLESS NOTED OTHERWISE
	QUAD RECEPT. W/ COVERPLATE	20 AMP, 120 VOLT
	DUPLEX RECEPT. W/ COVERPLATE	DEDICATED DUPLEX RECEPTACLE ON ISOLATED GROUND, 20 AMP, 120 VOLT
	QUAD RECEPT. W/ COVERPLATE	DEDICATED QUAD RECEPTACLE ON ISOLATED GROUND, 20 AMP, 120 VOLT
	DUPLEX FLUSH FLOOR RECEPT.	20 AMP, 120 VOLT FLOOR BOX
	QUAD FLUSH FLOOR RECEPT.	20 AMP, 120 VOLT FLOOR BOX
	DUPLEX FLUSH FLOOR RECEPT. W/DATA	DEDICATED DUPLEX FLOORBOX ON ISOLATED GROUND, 20 AMP, 120 VOLT
	QUAD FLUSH FLOOR RECEPT.	DEDICATED QUAD FLOORBOX ON ISOLATED GROUND, 20 AMP, 120 VOLT
	TELEPHONE OUTLET	WHITE COLOR RJ14C TELE. JACK IN SALES AND NON-SALES AREA.
	DATA/TELEPHONE OUTLET	WHITE COLOR PLATE IN SALES AND IN NON-SALES AREA.
	JUNCTION BOX	JUNCTION BOX, 4" X 4" X 2 1/8" DEEP MINIMUM
	MAGNETIC STARTER	FULL VOLTAGE STARTER IN A NEMA 1 ENCLOSURE, SIZE 1 MINIMUM
	DISCONNECT SWITCH	HEAVY DUTY, FUSIBLE AND NON-FUSIBLE PROVIDED BY EC
	DISCONNECT SWITCH	HEAVY DUTY, FUSIBLE AND NON-FUSIBLE PREINSTALLED WITH EQUIPMENT
	DELIVERY BUZZER TRANSFORMER	TRANSFORMER AT 8"-0" AFF
	DELIVERY BUZZER	REFER TO POWER PLAN FOR MOUNTING INFORMATION
	PUSHBUTTON	PUSH BUTTON UNIT
	CEILING SMOKE DETECTOR	SYSTEM CONNECTED CEILING MOUNTED PHOTOELECTRIC TYPE SMOKE DETECTOR
	DUCT SMOKE DETECTOR	SYSTEM CONNECTED DUCT MOUNTED PHOTOELECTRIC TYPE SMOKE DETECTOR COMPLETE WITH SAMPLING TUBES
	Twist-Lock RECEPTACLE	DREAMSTEAMER - (FURNISHED BY LS&C)
	DOOR CONTACT	FOR SECURITY SYSTEM
	MOTION DETECTOR	CEILING MOUNTED
	MOTION DETECTOR	WALL MOUNTED
	KEYPAD	KEYPAD SEE FLOOR PLAN FOR LOCATION
	CEILING MOUNTED OCC. SENSOR	
	SENSOR	SINGLE GANG BOX (2"x4") FOR SENSOR WITH FACE FLUSH TO DRYWALL.
	THERMOSTAT	SINGLE GANG BOX (2"x4") FOR THERMOSTAT WITH FACE FLUSH TO DRYWALL.
	ELECTRONICALLY OPERATED DAMPER W/ TOGGLE DISCONNECT	REFER TO MECHANICAL DRAWINGS FOR SPECIFICATIONS.
	FIRE ALARM CONTROL PANEL	INCLUDES BATTERY BACK-UP FURNISHED AND INSTALLED BY FIRE ALARM CONTRACTOR. COORDINATE WITH LANDLORD ALL FINAL SEQUENCES OF OPERATION.
	FIRE ALARM REMOTE ANNUNCIATOR	
	FIRE ALARM MANUAL PULL STATION	MOUNT CENTER OF DEVICE AT 48" AFF
	FIRE ALARM HORN/STROBE	DEVICE SHALL BE WALL MOUNTED. MOUNT BOTTOM OF DEVICE AT 80" AFF CANDELA RATING BY FIRE ALARM CONTRACTOR.
	FIRE ALARM STROBE	DEVICE SHALL BE WALL MOUNTED. MOUNT BOTTOM OF DEVICE AT 80" AFF CANDELA RATING BY FIRE ALARM CONTRACTOR.
	FIRE ALARM STROBE	DEVICE SHALL BE CEILING MOUNTED. CANDELA RATING BY FIRE ALARM CONTRACTOR.
	FIRE ALARM BELL	DEVICE SHALL BE MOUNTED ABOVE THE CEILING. RATING BY FIRE ALARM CONTRACTOR.
	HEAT DETECTOR	
	END OF LINE RESISTOR	
	FAN SHUT DOWN RELAY	
	FIRE ALARM WATER FLOW SWITCH	
	EVACUATION SPEAKER	WHITE FOR LIGHT COLOR CEILINGS. BLACK FOR DARK COLOR CEILINGS.
	DIMMING CONTROL	LUTRON GRAFIK EYE DIMMING SYSTEM. SEE SHEET E05.1 FOR MORE INFORMATION.

ELECTRICAL SYMBOLS LEGEND

NTS
00N-E012-N00-LGND
04/24/12

ELECTRICAL SERVICE / DISTRIBUTION									
ITEM	FURNISHED BY		INSTALLED OR PERFORMED BY			RE-USE EXISTING	N/A	REMARKS	
	LANDLORD	CONTR.	LS VENDOR	LANDLORD	CONTR.				OTHER
MAIN OVER CURRENT DEVICE IN LANDLORD'S ELECTRICAL EQUIPMENT			EC			EC		FIELD VERIFY PRIOR TO BID	
METER IN LANDLORD'S OR TENANT'S SPACE (VERIFY W/ POWER PLANS, RISER)						EC		FIELD VERIFY PRIOR TO BID	
C/T'S AND CABINET IN LANDLORD'S OR TENANT'S SPACE (VERIFY W/ POWER PLANS, RISER)			EC			EC		FIELD VERIFY PRIOR TO BID	
SERVICE ENTRANCE CONDUIT(S) TO LEASE SPACE			EC			EC		FIELD VERIFY PRIOR TO BID	
SERVICE ENTRANCE FEEDER(S) TO LEASE SPACE			EC			EC		FIELD VERIFY PRIOR TO BID	
L.F.'S. ENCLOSURE (SWITCHGEAR ASSEMBLY)				IF		EC			
277/480 VOLT PANEL							●		
STEP DOWN LINE TRANSFORMER & MOUNTING ACCESSORIES							●		
120/208 VOLT PANEL(S)				IF				INSTALLED IN FACTORY	
SMART BREAKER SYSTEM FOR LIGHTING CONTROL				IF		IF		INSTALLED IN FACTORY	
LIGHTING CONTROLLER WITH POWER SUPPLY AND OVERRIDE STATION				EMS				INSTALLED IN FACTORY	
BREAKER LOCKS				IF		EC		AS REQUIRED BY ENGINEER	
MECHANICAL / PLUMBING EQUIPMENT COORDINATION									
ITEM	FURNISHED BY		INSTALLED OR PERFORMED BY			RE-USE EXISTING	N/A	REMARKS	
	LANDLORD	CONTR.	LS VENDOR	LANDLORD	CONTR.				OTHER
POWER WIRING AND CONDUIT / PULL STRING TO ALL HVAC EQUIPMENT			EC			EC			
ROOF TOP UNIT - DISCONNECT SWITCH				AC		AC			
ROOF TOP UNIT - WEATHERPROOF GFI SERVICE REC.				AC		AC		WIRED BY EC	
AIR HANDLING UNIT (CW AND/OR HW, CW WITH ELECTRIC HEAT-DISCONNECT SWITCH/FAN CONTACTS							●		
AIR HANDLING UNIT (DX SPLIT) - DISCONNECT SWITCH / FAN CONTACTS							●		
CONDENSING UNIT (DX SPLIT) - DISCONNECT SWITCH							●		
CONDENSING UNIT (DX SPLIT) - WEATHERPROOF GFI SERVICE REC.							●		
FAN POWERED VAV / VAV SYSTEM (WITH OR WITHOUT ELECTRIC HEAT) - DISCONNECT SWITCH				AC		AC			
WATER SOURCE HEAT PUMP - DISCONNECT SWITCH							●		
TOILET EXHAUST FANS (FRACTIONAL HP) WITH DISCONNECT SWITCH				LD		MC			
ELECTRONIC CONTROL DAMPERS - DISCONNECT SWITCH							●		
DUCT HEATERS							●		
HVAC SENSOR JUNCTION BOX AND CONDUIT WITH PULL STRING							●		
LOW VOLTAGE SYSTEMS									
ITEM	FURNISHED BY		INSTALLED OR PERFORMED BY			RE-USE EXISTING	N/A	REMARKS	
	LANDLORD	CONTR.	LS VENDOR	LANDLORD	CONTR.				OTHER
PAGING SYSTEM - HARDWARE				PS		PS			
PAGING SYSTEM - WIRE				PS		EC		WIRED BY EC, FINAL CONNECT, BY PS.	
PAGING SYSTEM - CONDUIT / PULL STRING				EC		EC		IF REQUIRED BY AHJ	
BURGLAR / SECURITY SYSTEM - HARDWARE							●		
BURGLAR / SECURITY SYSTEM - WIRE							●		
BURGLAR / SECURITY SYSTEM - CONDUIT / PULL STRING							●		
RF TECHNOLOGY SYSTEM - HARDWARE				RF		RC			
RF TECHNOLOGY SYSTEM - WIRE				RF		RC			
RF TECHNOLOGY SYSTEM - CONDUIT / PULL STRING				EC		EC			
CCTV / ALARM SYSTEM - HARDWARE				SSV		SC			
CCTV / ALARM SYSTEM - WIRE				SSV		SC			
CCTV / ALARM SYSTEM - CONDUIT / PULL STRING				EC		EC		IF REQUIRED BY AHJ	
MUSIC / VIDEO SYSTEM - HARDWARE (SPEAKERS/MONITORS/CONTROLLERS)				MS		EC			
MUSIC / VIDEO SYSTEM - WIRE				MS		EC			
MUSIC / VIDEO SYSTEM - CONDUIT / PULL STRING				EC		EC		IF REQUIRED BY AHJ	
DELIVERY BUZZER SYSTEM - HARDWARE				LD		EC			
DELIVERY BUZZER SYSTEM - WIRE				EC		EC			
DELIVERY BUZZER SYSTEM - CONDUIT / PULL STRING				EC		EC		IF REQUIRED BY AHJ	
TRAFFIC COUNTER - CONDUIT / PULL STRING				EC		EC			
TRAFFIC COUNTER - COUNTER / WIRE				LS&C		LS&C			
MISCELLANEOUS ELECTRICAL ITEMS									
ITEM	FURNISHED BY		INSTALLED OR PERFORMED BY			RE-USE EXISTING	N/A	REMARKS	
	LANDLORD	CONTR.	LS VENDOR	LANDLORD	CONTR.				OTHER
LIGHTING FIXTURES AND LAMPS DIMMING CONTROL SYSTEM				LD		EC			
RECEPTACLES, COVERPLATES AND MOTION SENSOR LIGHT SWITCHES				LD		EC			
FLOOR BOXES, COVERS AND FLOOR BOXES DATA				LD		EC	●	UNLESS OTHERWISE NOTED ON PLANS	
JUNCTION BOXES				EC		EC			
SENSORMATIC SYSTEM - HARDWARE				SV		EC			
SENSORMATIC SYSTEM - POWER WIRING AND CONDUIT / PULL STRING				EC		EC			
DATA AND TELEPHONE SYSTEMS - CABLE AND JACKS				TEL		TEL			
DATA AND TELEPHONE SYSTEMS - CONDUITS / PULL STRING				EC		EC			
TELEPHONE DEMARC PANEL - PROTECTION OF DURING CONSTRUCTION / RELOCATION / DEMOLITION				GC		GC		CALL LS&C TO RELOCATE, DO NOT CUT WIRES.	
DUCT SMOKE DETECTOR				AC		AC			
MECHANICAL EQUIPMENT SHUT-DOWN RELAY				MC		MC			
FIRE ALARM SYSTEM							●		
CASHWRAP - POWER WIRING AND CONDUIT / PULL STRING				EC		EC			
ROLLING GRILLE - POWER WIRING AND CONDUIT / PULL STRING				EC		EC			
ROLLING GRILLE - INTERLOCK AND BARREL SWITCH				LS&C		EC			
ROLLING GRILLE - DOOR AND MOTOR							●		
DREAMTEAMER - POWER WIRING AND CONDUIT / PULL STRING							●	RECEPTACLE BY LD	
AS-BUILT DRAWINGS				EC		EC			
ABBREVIATIONS:									
AC	HVAC EQUIPMENT SUPPLIER					MC	MECHANICAL CONTRACTOR		
AHJ	AUTHORITY HAVING JURISDICTION					MS	MUSIC SYSTEM VENDOR		
EC	ELECTRICAL CONTRACTOR					PC	PLUMBING CONTRACTOR		
EMS	ENERGY MANAGEMENT SYSTEM VENDOR					PS	PAGING SYSTEM VENDOR		
FAC	FIRE ALARM CONTRACTOR					RC	RF TECHNOLOGY CONTRACTOR		
GC	GENERAL CONTRACTOR					RF	RF TECHNOLOGY SYSTEM VENDOR		
IF	IFS SUPPLIER					SC	SECURITY CONTRACTOR		
LD	LIGHTING PACKAGE DISTRIBUTOR					SSV	SECURITY SYSTEM VENDOR		
LL	LANDLORD					SV	SENSORMATIC VENDOR		
LS&C	LIMITED STORE DESIGN AND CONSTRUCTION					TEL	TELEPHONE CONTRACTOR		
ANY ITEM NOT SHOWN IS THE RESPONSIBILITY OF CONTRACTOR.									
ELECTRICAL RESPONSIBILITY SCHEDULE							NTS		
							00M-E012-J00-8CHD		

ELECTRICAL RESPONSIBILITY SCHEDULE

NTS
00N-E012-J00-SCHD
04/24/12

FIRE RATED PENETRATION SCHEDULE						
TYPE OF PENETRATION	CONCRETE OR MASONRY		GYPSUM BOARD/FRAME		"SPECSEAL FIRESTOP" PRODUCTS	
	FLOORS UL SYSTEM #	WALLS UL SYSTEM #	FLOORS UL SYSTEM #	WALLS UL SYSTEM #		
METAL CONDUITS MAX. 4"	CAJ1080	CAJ1080	FC1010	WL1049	SSS100 SEALANT	
	CAJ1213	WJ1030		WL1088	LC150 SEALANT	
	CAJ1198	CAJ1198		WL1062	PEN300 SILICONE	
PVC CONDUIT 2" AND SMALLER	CAJ2031	WJ2018	FC2032	WL2093	SSS100 SEALANT	
	CAJ2038	CAJ2038		WL2029	FIRESTOP COLLAR	
PVC CONDUITS 2" THRU 4"	CAJ2045	CAJ2045			FIRESTOP COLLAR	
	CAJ2124	CAJ2124	FC2033	WL2059	WRAP STRIPS	
	CAJ4029	WJ4021		WL4008	FIRESTOP PILLOWS	
CABLE TRAY STEEL OR ALUMINUM	CAJ4020	CAJ4020			FIRESTOP MORTAR	
	CAJ6003	WJ4009		WL4005	SSS100 SEALANT	
	CAJ6003	CAJ6003			PEN300 SILICONE	
ELECTRICAL BUS DUCT	CAJ6008	CAJ6008		WL6001	SSS100 SEALANT	
	CAJ3154	WJ5022		WL3076	SSS100 SEALANT	
CABLE BUNDLES MAX. 3"						
NOTES:						
1. ALL U.L. LISTED SYSTEMS SHOWN ABOVE ARE BASED ON PROVIDING A 1 & 2 HOUR RATED FIRESTOP. WHERE 3 HOUR RATING IS REQUIRED, CONTACT FIRESTOP PRODUCT MANUFACTURER FOR DESIGN MODIFICATIONS.						
2. ALL U.L. LISTED SYSTEMS SHOWN ABOVE ARE BASED ON "SpecSeal Firestop" PRODUCTS FROM SPECIFIED TECHNOLOGIES, INC. OR APPROVED EQUAL PRODUCTS FROM "3-W" OR HILTI, INC.						

FIRE PENETRATION SCHEDULE		NTS	H
		00N-E012-H00-8CHD	08/12/11

1. FIRE ALARM SYSTEM SHALL BE UL LISTED AND APPROVED BY LOCAL FIRE OFFICIAL AND FIRE DEPARTMENT.

2. FIRE ALARM SYSTEM TO SHUT-DOWN HVAC UNITS IN CASE OF ANY ZONE ALARM.

3. FIRE ALARM CONTRACTOR SHALL FURNISH AND INSTALL RELAYS AND DRY CONTACTS FOR HVAC UNITS AS REQUIRED. RELAYS SHALL SHUT-DOWN HVAC UNITS UPON ANY ZONE ALARM.

4. TENANT'S FIRE ALARM SYSTEM SHALL BE PRETESTED PER LANDLORD'S CRITERIA AND LOCAL AUTHORITY. TENANT'S FIRE ALARM SYSTEM SHALL BE FINAL TESTED BY THE LOCAL BUILDING AND FIRE MARSHALL AND WITNESSED BY LANDLORD'S ON-SITE REPRESENTATIVE.

5. LANDLORD'S FIRE ALARM CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO LANDLORD'S FIRE ALARM SYSTEM AT THE TENANT'S SOLE COST AND EXPENSE.

6. THESE PLANS MAY BE USED FOR CONSTRUCTION ONLY AFTER APPROVAL IS OBTAINED FROM THE BUILDING DEPARTMENT-FIRE ALARM PLAN CHECK DIVISION AND THAT DIVISION'S STAMPED APPROVAL AND AUTHORIZED SIGNATURE APPEAR ON THE PLANS.

7. COORDINATE ALL WORK WITH ALL TRADES INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, AND STRUCTURAL CONTRACTORS. INSTALL ALL WORK TO CLEAR NEW AND EXISTING ARCHITECTURAL AND STRUCTURAL MEMBERS. NO ITEM SUCH AS PIPE, DUCT, ETC. IS TO BE IN CONTACT WITH ANY EQUIPMENT.

8. REFER TO ARCHITECTURAL DRAWINGS FOR DEMOLITION WORK AND EXISTING FIRE ALARM LOCATIONS.

9. CONTRACTOR SHALL PROVIDE CUT SHEETS TO LS&C FOR ALL EQUIPMENT AND DEVICES FURNISHED BY THE CONTRACTOR THAT DEVIATE FROM SPECIFIED ITEM FOR REVIEW AND APPROVAL PRIOR TO THE PURCHASE OF ANY SUCH EQUIPMENT OR DEVICES.

10. THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY THE CORRECT INSTALLATION OF SMOKE DETECTORS AND FIRE ALARM INTERFACE PANEL IN TENANT'S DENISED PREMISES PRIOR TO SUBMITTING HIS OR HER BID. NO ADDITIONAL COMPENSATION WILL BE MADE FOR ANY EXTRAS DUE TO CONTRACTOR'S FAILURE TO VISIT THE JOB SITE AND/OR FAILURE TO PREDETERMINE ALL EXISTING CONDITIONS BEFORE SUBMITTING HIS OR HER BID.

11. ACCESS TO ALL COMPONENTS AND EQUIPMENT MUST BE PROVIDED TO MEET CODE AND SERVICE/MAINTENANCE EASE.

12. THE CONTRACTOR SHALL VERIFY WITH LOCAL CODES AS TO THE REQUIREMENT/INSTALLATION OF THE FIRE ALARM SYSTEM.

13. UPON COMPLETION OF THE WORK, CONTRACTOR SHALL ENSURE THE PROPER WORKING ORDER OF THE SYSTEM(S) AND MAKE ANY ADJUSTMENTS AS REQUIRED.

14. FIRE ALARM CONTRACTOR SHALL PROVIDE UL LISTED FIRE STOPPING SYSTEMS AROUND ALL CONDUIT PENETRATIONS THROUGH RATED WALLS.

15. FIRE ALARM CONTRACTOR RESPONSIBLE FOR PULLING LOW VOLTAGE PERMIT.

FIRE ALARM GENERAL NOTES		NTS	G
		00N-E012-G00-0NOTE	08/12/11

1. FIRE ALARM SYSTEM SHALL BE FURNISHED, INSTALLED AND WIRED BY THE FIRE ALARM CONTRACTOR. THIS CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM (LANDLORD APPROVED) EQUAL TO NOTIFIER SYSTEM 500 OR EQUAL OF PHOTOELECTRIC, EDWARDS SYSTEMS TECHNOLOGIES OR SIMPLEX/GRINWALL. CONTROL PANEL SHALL BE A MICROPROCESSOR BASED SYSTEM CONTAINING 8 FIRE ALARM ZONES, INITIATING ALARM POWER MODULES FOR HORNS & STROBES, CONTROL RELAY MODULE FOR CONTROL OF H.V.A.C. EQUIPMENT, AND ALL OTHER MISCELLANEOUS ITEMS FOR A COMPLETE AND OPERATING FIRE ALARM SYSTEM. CONTROL PANEL TO BE PROGRAMMED SO THAT IF ANY ONE ZONE GOES INTO ALARM, ALL H.V.A.C. UNITS ARE TO BE SHUT DOWN.

ZONE #1 = SMOKE DETECTORS IN NON-SALES AREA
ZONE #2 = SMOKE DETECTOR IN SALES AREA
ZONE #3 = MANUAL PULL STATIONS
ZONE #4 = DUCT DETECTORS FOR H.V.A.C. UNITS
ZONE #5 = WATER FLOW SWITCH
ZONE #6 = SPARE

2. THE FOLLOWING PERIPHERAL DEVICES TO BE INSTALLED AS A PART OF THE FIRE ALARM SYSTEM:
2.1. MANUAL PULL STATION, NON-CODED, DUAL-ACTION, UNIT, 4-8" A.F.F., JUNG-10.
2.2. DUCT MOUNTED SMOKE DETECTORS, PHOTOELECTRIC TYPE WITH REQUIRED SAMPLING TUBES.
2.3. AREA SMOKE DETECTOR, PHOTOELECTRIC TYPE #2451-8402B.
2.4. HORN/STROBE UNIT, MINIMUM 75db, MOUNT DEVICE ON WALL SUCH THAT THE ENTIRE STROBE LENS IS NOT LESS THAN 80" A.F.F., AND NOT GREATER THAN 96" A.F.F., OR PER NFPA 72, ADA, OR LOCAL JURISDICTION, WHICHEVER IS STRICTER. #A552475ADA.
2.5. STROBE UNIT, MINIMUM 75db, MOUNT DEVICE ON WALL SUCH THAT THE ENTIRE STROBE LENS IS NOT LESS THAN 80" A.F.F., AND NOT GREATER THAN 96" A.F.F., OR PER NFPA 72, ADA, OR LOCAL JURISDICTION, WHICHEVER IS STRICTER. #A552475ADA.

3. OWNER TO PROVIDE WIRING AND CONNECTION TO "LOCAL ENERGY SERVICE" OR "UTILITY". ALL FIRE ALARM CONDUCTORS TO BE AS RECOMMENDED BY MANUFACTURER.

4. ALL FIRE ALARM MATERIALS AND INSTALLATION TO BE IN CONFORMANCE WITH NFPA 72 (AMERICANS WITH DISABILITIES ACT). IN AREAS AND CORRIDORS WHERE TWO OR MORE VISUAL STROBE UNITS ARE INSTALLED, PROVIDE SYNCHRONIZED STROBE UNITS TO PROVIDE A FLASH RATE MINIMUM OF 1 Hz AND A MAXIMUM OF 3 Hz.

5. FIRE ALARM SYSTEM: ELECTRICAL CONTRACTOR SHALL VERIFY ALL NECESSARY SPRINKLER LINE POWER AND SIGNAL CONNECTIONS, I.E. FLOW SWITCH, TAMPER SWITCH, SPRINKLER BELL, ETC. SPRINKLER BELL SHOULD BE WALL MOUNTED IN DIRECT PROXIMITY TO THE SPRINKLER LINE ENTERING THE BUILDING AT APPROXIMATELY 8'-0" ABOVE FINISHED GRADE.

6. AFTER INSTALLATION, WIRING, AND CHECK-OUT OF ALL FIRE ALARM HORNS, CONTRACTOR SHALL PERFORM A SOUND LEVEL CHECK OF ALL AREAS. IN CONFORMANCE WITH NFPA 72 AND THE LOCAL AUTHORITY HAVING JURISDICTION, SOUND LEVELS PRODUCED BY FIRE ALARM HORNS TO BE 15-20DBA ABOVE THE EQUIVALENT SOUND LEVEL OR 5 DBA ABOVE THE MAXIMUM SOUND LEVEL, HAVING A DURATION OF AT LEAST 60 SECONDS (WHICHEVER IS GREATER) MEASURED 5 FEET ABOVE THE FLOOR IN THE OCCUPABLE AREA. AREAS THAT ARE DETERMINED TO BE DEFICIENT TO HAVE ADDITIONAL FIRE ALARM HORNS AFFIXEDS ADDEDS TO THE TOTAL SYSTEM, AT NO ADDITIONAL COST TO THE OWNER.

7. INSTALLATION ALSO TO COMPLY WITH ALL "AMERICANS WITH DISABILITIES ACT" (ADA) REGULATIONS FOR AUDIBLE AND VISUAL ALARM DEVICES. THE FIRE ALARM SYSTEM DESIGN BEEN PROVIDED IN AN EFFORT TO COMPLY WITH ALL SOUND REGULATIONS. ANY AREAS FOUND TO BE DEFICIENT OF AUDIBLE AND/OR VISUAL ALARM DEVICES ARE TO HAVE ADDITIONAL DEVICES ADDED SO AS TO COMPLY, WITH NO ADDITIONAL COSTS TO THE OWNER.

FIRE ALARM SPECIFICATION		NTS	F
		00N-E012-F00-SPEC	08/12/11

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ON ROOF

RELAY

RTU 2

ON ROOF

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- ① EXTEND 1" TELEPHONE CONDUIT FROM SERVICE ENTRANCE AT DEMISING WALL TO TELEPHONE/DATA SECTION OF IFS ENCLOSURE.
- ② FURNISH AND INSTALL 3/4" CONDUIT WITH PULLWIRE FROM HVAC SECTION OF IFS ENCLOSURE TO ABOVE CEILING. COORDINATE EXACT REQUIREMENT WITH MECHANICAL CONTRACTOR.
- ③ IFS ENCLOSURE. CONDUITS STUBBED INTO IFS ENCLOSURE SHALL BE INSTALLED IN A CLEAN AND NEAT MANNER. ANCHOR IFS ENCLOSURE ACCORDING TO MANUFACTURERS SPECIFICATIONS AND LOCAL CODES IN SEISMIC AREAS. REFER TO SPECIFICATIONS AND RISER DIAGRAM FOR MORE INFORMATION. MAINTAIN MINIMUM WORKING CLEARANCE IN THE DIRECTION OF ACCESS TO LIVE PARTS OF ELECTRICAL EQUIPMENT PER NEC TABLE 110.26(A).
- ④ TELEPHONE OUTLET IN WALL. INSTALL EMPTY 3/4" CONDUIT, WITH PULLWIRE, BACK TO TELCO SECTION OF IFS ENCLOSURE. TELEPHONE WIRE AND #RJ14C JACK FOR TWO LINE TELEPHONE BY OTHERS. MOUNT AT 52" AFF, EXCEPT AS NOTED ON PLANS.
- ⑤ INSTALL DELIVERY BUZZER SYSTEM AS SHOWN ON DRAWINGS. LSD&C SHALL FURNISH COMPLETE EDWARDS DELIVERY BUZZER SYSTEM COMPLETE WITH TRANSFORMER, BUZZERS, LOUVERED COVERPLATES, AND PUSHBUTTON (WEATHERPROOF FOR OUTSIDE LOCATIONS). ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL NECESSARY JUNCTION BOXES, CONDUIT, AND WIRE TO COMPLETELY INSTALL DELIVERY BUZZER SYSTEM. JUNCTION BOXES SHALL BE MOUNTED VERTICALLY.
- ⑥ PROVIDE DEDICATED ISOLATED GROUND DUPLEX RECEPTACLE AND DATA BOX AT 15" AFF FOR A.L.L. SYSTEM.
- ⑦ 20 AMP MICROWAVE RECEPTACLE @ 42" AFF WHEN COUNTER IS PRESENT, 18" FOR ALL OTHER CASES. IF PLAN LOCATION IS NOT ACCEPTABLE, IMMEDIATELY CONTACT LSD&C PROJECT MANAGER FOR DIRECTION.
- ⑧ 20 AMP RECEPTACLE @ 18" AFF FOR REFRIGERATOR OR VENDING MACHINE. IF PLAN LOCATION IS NOT ACCEPTABLE, IMMEDIATELY CONTACT LSD&C PROJECT MANAGER FOR DIRECTION.
- ⑨ JUNCTION BOX FOR WATER HEATER ELECTRICAL CONNECTION. FURNISH AND INSTALL CODE REQUIRED DISCONNECT SWITCH. COORDINATE EXACT LOCATION AND RELATED REQUIREMENTS WITH PLUMBING CONTRACTOR PRIOR TO WORK COMMENCEMENT.
- ⑩ ELECTRICAL WHIP TYPE CONNECTION FOR HAND DRYER TO BE MOUNTED AT 42" AFF. COORDINATE EXACT LOCATION WITH ARCHITECT AND LSD&C PROJECT MANAGER PRIOR TO WORK COMMENCEMENT.
- ⑪ GFI DUPLEX RECEPTACLE AND COVERPLATE SHALL MATCH WALL COLOR. MOUNT AT 42" AFF.
- ⑫ JUNCTION BOX AND 1/2" CONDUIT FOR ELECTRONIC ACCESS LOCK. VERIFY CONDUIT SIZE AND PATH WITH

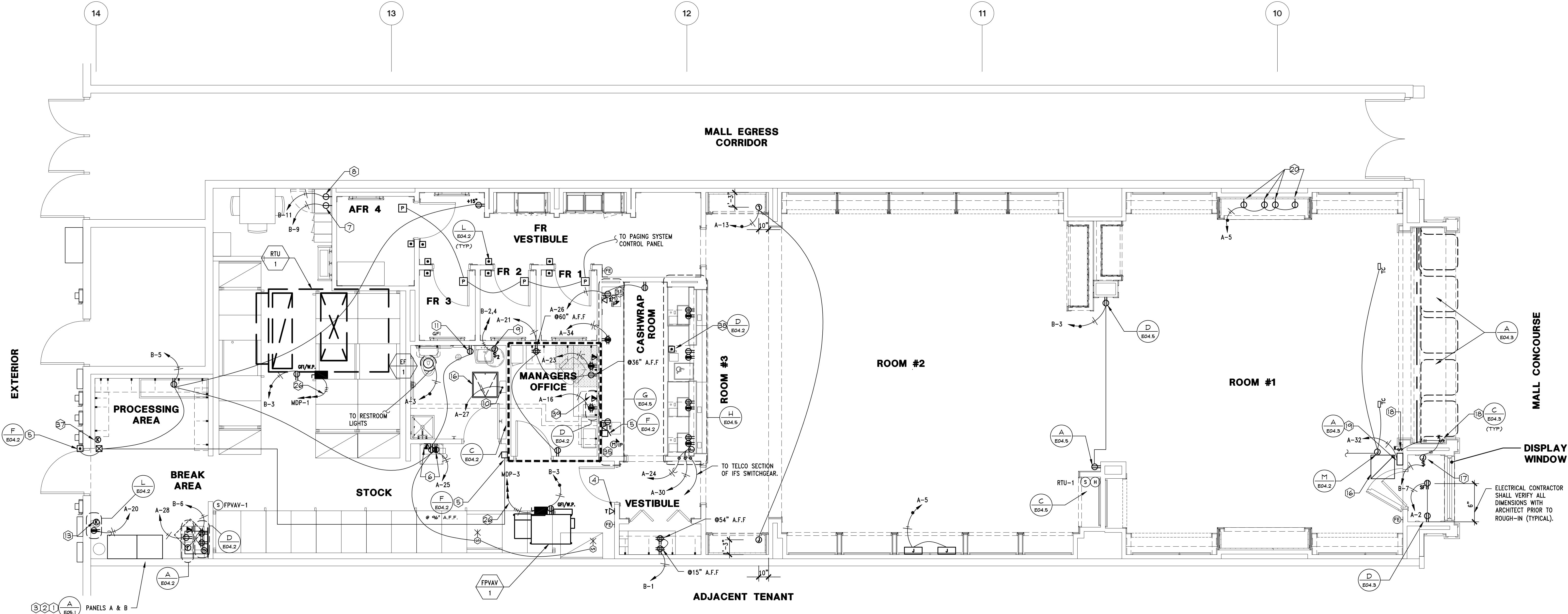
- SECURITY CONTRACTOR.
- ⑬ KEYPAD FOR PAGING SYSTEM, MOUNTED AT 48" AFF, ON WALL AND CONNECTED TO MODEM PANEL. REFER TO RESPONSIBILITY SCHEDULE FOR INSTALLATION.
- ⑭ SAW-OUT/GORE-DRILL-AND-PATCH FLOOR SLAB AS REQUIRED FOR UNDERSLAB CONDUIT.
- ⑮ NOT USED.
- ⑯ AIR DEVICE OR ACCESS PANEL BY GENERAL CONTRACTOR TO BE USED AS ACCESS TO EQUIPMENT LOCATED ABOVE CEILING AND/OR FOR TRANSMISSION OF ALARM SOUND. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT A MINIMUM UNOBSTRUCTED FREE AREA OF 3' VERTICALLY AND 3' HORIZONTALLY IN ALL DIRECTIONS AROUND EQUIPMENT IS MAINTAINED TO ALLOW FOR INSTALLATION AND MAINTENANCE OF EQUIPMENT. IF THIS FREE AREA CANNOT BE OBTAINED, IMMEDIATELY CONTACT LSD&C'S PROJECT MANAGER FOR DIRECTION.
- ⑰ JUNCTION BOX AND CODE REQUIRED DISCONNECT SWITCH FOR MOTORIZED ROLL-UP GRILLE ELECTRICAL CONNECTION. COORDINATE EXACT LOCATION AND RELATED REQUIREMENTS WITH LSD&C PROJECT MANAGER PRIOR TO WORK COMMENCEMENT.
- ⑱ ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF BARREL KEY SWITCHES BEFORE WORK COMMENCEMENT. ELECTRICAL CONTRACTOR SHALL CONNECT KEY SWITCH TO CONTROL BOARD AND DOOR LOCK INTERLOCK.
- ⑲ ENCLOSURE WITH SENSORMATIC POWER PACK AND ISOLATED GROUND TYPE DUPLEX RECEPTACLE MOUNTED ON VERTICAL FACE OF SOFFIT ABOVE CEILING. ALARM SHALL BE POSITIONED SO IT CAN NOT BE SEEN THROUGH RETURN GRILL. COORDINATE SENSORMATIC FREQUENCY WITH ADJACENT TENANT SENSORMATIC SYSTEMS.
- ⑳ CLOCK RECESSED SIMPLEX RECEPTACLES FOR EACH ILLUMINATED LETTER OF PINK SIGN. PROVIDED BY OWNER INSTALLED BY ELECTRICAL CONTRACTOR. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
- ㉑ NOT USED.
- ㉒ NOT USED.
- ㉓ NOT USED.
- ㉔ NOT USED.
- ㉕ NOT USED.

- ㉖ REFER TO ELECTRICAL EQUIPMENT DATA ON SHEET E05.1 FOR CONDUIT AND WIRE SIZE.
- ㉗ 4"x4" JUNCTION BOX MOUNTED AT 60" AFF WITH 1-1/4" CONDUIT (WITH BUSHING) TO CEILING FOR BURGLAR ALARM. VERIFY EXACT LOCATION WITH LSD&C PRIOR TO WORK COMMENCEMENT.
- ㉘ INSTALL WALL MOUNTED MOTION DETECTOR AT REAR EXIT AND NEXT TO BURGLAR ALARM AT 7" AFF. VERIFY EXACT LOCATIONS WITH LSD&C PROJECT MANAGER PRIOR TO WORK COMMENCEMENT.
- ㉙ KEYPAD FOR SECURITY SYSTEM, MOUNTED AT 54" AFF, ON WALL, ON HANDLE SIDE OF NON-SALES DOOR LEADING TO SALES AREA, AND 3/4" CONDUIT FROM JUNCTION BOX TO ABOVE CEILING.
- ㉚ INSTALL CEILING MOUNTED MOTION DETECTOR IN EACH STOREFRONT ROOM WITH AN ENTRANCE AND IN FRONT OF EVERY CASHWRAP. VERIFY EXACT COLOR AND LOCATIONS WITH LSD&C PROJECT MANAGER PRIOR TO WORK COMMENCEMENT.
- ㉛ DOOR CONTACT. GENERAL CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION BOX AND 3/4" CONDUIT FROM ABOVE CEILING TO 6" FROM DOOR, ALIGNED WITH TOP OF DOOR FOR SWING DOORS.
- ㉜ INSTALL CURTAIN WALL MOUNTED MOTION DETECTOR AT EACH ENTRY/ROLLING GRILLE. VERIFY EXACT LOCATIONS WITH LSD&C PROJECT MANAGER PRIOR TO WORK COMMENCEMENT.
- ㉝ FIRE ALARM CONTROL PANEL WITH BATTERY BACK-UP AND MINIMUM OF 6 ZONES FURNISHED AND INSTALLED BY FIRE ALARM CONTRACTOR. FIRE ALARM CONTROL PANEL SHALL BE TIED-IN WITH EXISTING WALL-CENTRAL FIRE ALARM SYSTEM. CONTRACTOR SHALL COORDINATE FINAL SEQUENCES OF OPERATION WITH LANDLORD ENGINEER.
- ㉞ FIRE ALARM DEVICE. SEE BY FIRE ALARM CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR MOUNTING HEIGHTS.
- ㉟ HOME RUN TO IP CABINET LOCATED IN NON SALES AREA.
- ㊱ HOME RUN TO DVR LOCATED IN MANAGER'S OFFICE.
- ㊲ KEYPAD FOR SECURITY SYSTEM, MOUNTED WITH TOP AT 48" AFF AT LATCH-SIDE OF BACK EXIT DOOR, AND WITH 1/2" CONDUIT UP WALL TO JUNCTION BOX ABOVE CEILING.
- ㊳ PANIC BUTTON FOR SECURITY SYSTEM. COORDINATE EXACT LOCATION WITH LSD&C'S PROJECT MANAGER.
- ㊴ ROUTE 1/2" CONDUIT BACK TO IP CABINET.

ELECTRICAL POWER AND FIRE ALARM PLAN KEYNOTES

NTS

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09/02/11



"VERIFY ALL FIELD CONDITIONS PRIOR TO BID"

ELECTRICAL POWER AND FIRE ALARM PLAN

1/4" = 1'-0"

A

010501638

PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
SPACE # 3036
JENSEN BEACH, FL 34957

PROJECT INFORMATION:
REVISIONS:
DATE ISSUED: 03.29.13
DESIGNED BY: MTH
DRAWN BY: MTH
CHECKED BY: JCC
NEW PACKAGE: 00057884
PINK GENERATION: A/E PROJECT #:
MASTER: 13156
201206730

DATE ISSUED: 03.29.13
DESIGNED BY: MTH
DRAWN BY: MTH
CHECKED BY: JCC

ELECTRICAL
POWER & FIRE
ALARM PLAN

DRAWING NUMBER:

E02.1

Limited brands

LIMITED STORE PLANNING, INC.

d/b/a STORE DESIGN & CONSTRUCTION
Three Limited Parkway • Columbus, Ohio 43230
Telephone: 614.415.7000 • Fax: 614.415.7349



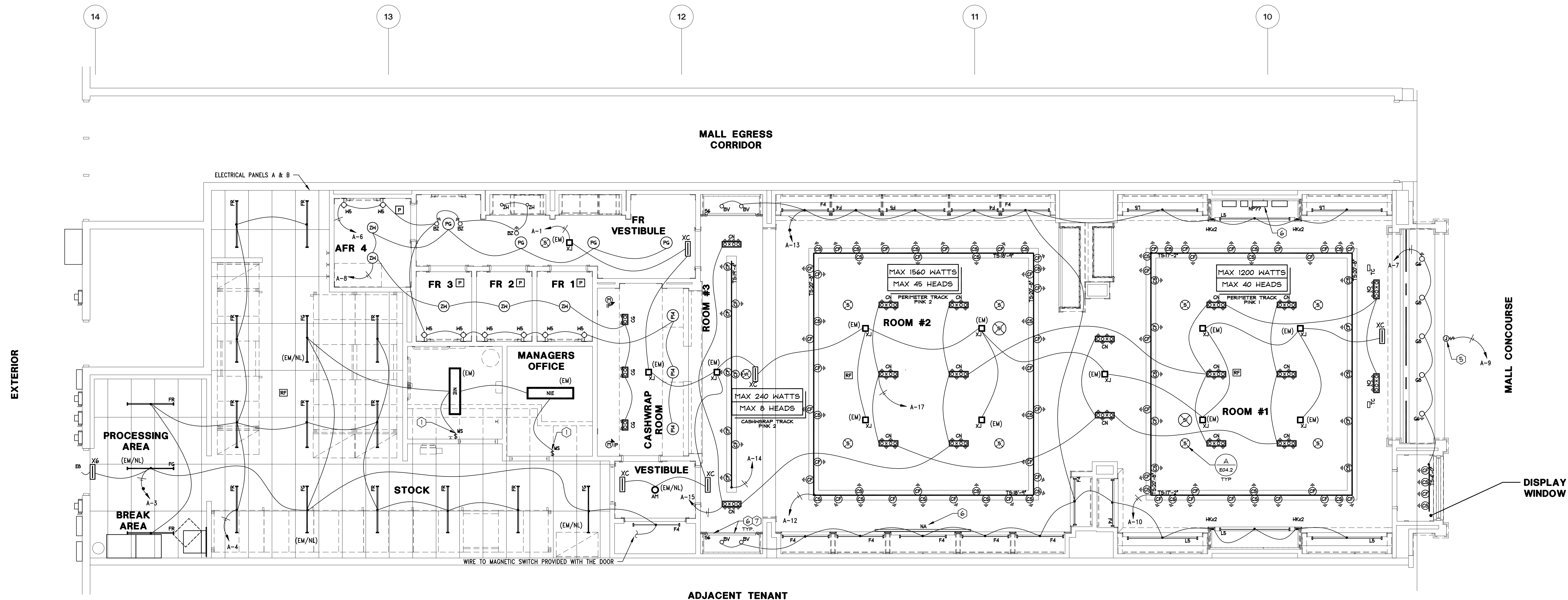
Larson Binkley, Inc.
310 W. 20th Street, Suite 200
Kansas City, Missouri 64108
Florida Certificate of
Authorization Number F880004499
lorsonbinkley.com

Christopher R. Larson, PE0043082

<p>NOTE: LENGTH OF FLEXIBLE METAL CONDUIT, MC TYPE CABLE, OR AC90(CANADA) NOT TO EXCEED 6'-0".</p>
<p>REFER TO SHEET E04.1 FOR PANEL SCHEDULE, LIGHT DESCRIPTIONS, AND CONSTRUCTION NOTES.</p>
<p>NOTE: REFER TO SHEET E05.1 FOR PANEL SCHEDULE AND LIGHTING ZONE DESIGNATIONS.</p>
<p>NOTE: ELECTRICAL CONTRACTOR SHALL REFER TO ARCHITECTURAL SHEETS FOR MOUNTING HEIGHTS AND INSTALLATION DETAILS FOR SUSPENDED LIGHTING IN NON-SALES AREA.</p>
<p>NOTE: GENERAL CONTRACTOR SHALL VERIFY CEILING FIRE RATING WITH ARCHITECT, AND BOX OR TENT ALL RECESSED LIGHT FIXTURES, IF REQUIRED, TO MAINTAIN CEILING FIRE RATING.</p>

- ① ELECTRICAL CONTRACTOR SHALL INSTALL OCCUPANCY MOTION SENSOR SWITCH FOR CONTROL OF LIGHTS AS SHOWN. ELECTRICAL CONTRACTOR SHALL SET SWITCH FOR 15 MINUTES. MOUNT AT 44" AFF.
 - ② BREAK-OFF CIRCUIT.
 - ③ JUNCTION BOX INSTALLED AT THE CENTERLINE OF MOUNTING PLATE OF WALL SCONCE. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.
 - ④ ELECTRICAL WHIP CONNECTION AT THE CENTER POINT OF WALL SCONCE. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.
 - ⑤ FURNISH AND INSTALL JUNCTION BOX, TOGGLE DISCONNECT SWITCH IN NON-VISIBLE LOCATION, FINAL CONNECTION FOR 120 VOLT SIGN AND CONDUIT PER DETAIL. SIGN IS FURNISHED WITH INTERNAL GROUND FAULT PROTECTION BY SIGN MANUFACTURER PER N.E.C. ARTICLE 600-235. VERIFY EXACT LOCATION OF JUNCTION BOX WITH SIGN MANUFACTURER. (REUSE EXISTING JUNCTION BOX AND CONDUIT INTO SPACE IF ALREADY INSTALLED. VERIFY IN FIELD EXACT LOCATION ON CANOPY).
- NOTE:
THE CIRCUIT FOR SIGNAGE MUST BE A DEDICATED ISOLATED 3-LINE CIRCUIT CONSISTING OF HOT, NEUTRAL, AND GROUND WIRES LEADING DIRECTLY TO THE PANEL.
- ⑥ REFER TO SHEET E02.1 FOR POWER REQUIREMENTS.
 - ⑦ LIGHT FIXTURES TO BE INSTALLED IN MILLWORK FIXTURE, NOT IN CEILING. VERIFY WITH LSD&C.
 - ⑧ SEE ARCHITECTURAL PLANS FOR EXACT LOCATION OF NEON SIGN RECEPTACLE. PROVIDE WITH A DEDICATED HOT, NEUTRAL AND GROUND CONDUCTORS. DO NOT SHARE NEUTRAL OR GROUND WITH OTHER BRANCH CIRCUITS.

ELECTRICAL LIGHTING PLAN KEYNOTES	NTS	D 11/18/11
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"VERIFY ALL FIELD CONDITIONS PRIOR TO BID"

ELECTRICAL LIGHTING PLAN

1/4" = 1'-0"

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PROJECT INFORMATION:

010501638

PINK VICTORIA'S SECRET

TREASURE COAST SQUARE

3174 NW FEDERAL HIGHWAY

SPACE # 3036

JENSEN BEACH, FL 34957

MASTER
1315d
201206790

SCOPE:

NEW PACKAGE:

PINK GENERATION:

00057884 A/E PROJECT #:

SCOPE TYPE: L5DC

PROJECT #:

REVISIONS:

RECORDED BY	DATE

DATE ISSUED: 03.29.13

DESIGNED BY: MTH

DRAWN BY: MTH

CHECKED BY: JCC

ELECTRICAL LIGHTING PLAN

DRAWING NUMBER:

E03.1

[illegible]

Limited brands

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d/b/a STORE DESIGN & CONSTRUCTION
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00057884e031.dwg 03-13-13 15:20 Tim.Boeshaar

ELECTRICAL LOAD SUMMARY						
DESCRIPTION	ACTUAL CONNECTED (KW/VA)	POWER FACTOR	ACTUAL DEMAND (KW)	NEC CONNECTED (KW/VA)	NEC DEMAND FACTOR	NEC DEMAND (KW)
LIGHTING	6.890	1.0	6.890	6.890	1.25	8.613
TRACK LIGHTING	2.742	1.0	2.742	2.742	180 FT 150VA/2FT ***	13.500
SHOW WINDOW	0.297	1.0	0.297	0.297	8 FT 200VA/FT **	1.600
RECEPTACLES	6.360	1.0	6.360	6.360	1.0x10kw 0.5 REMAINING	6.360
MOTORS	5.126	1.0	5.126	5.126	1.25	6.408
AIR CONDITIONING *	16.128	1.0	0.000	16.128	1.0****	0.000
ELECTRIC HEATING *	31.980	1.0	31.980	31.980	1.0	31.980
WATER HEATER	3.000	1.0	3.000	3.000	1.0	3.000
MISCELLANEOUS	11.080	1.0	11.080	11.080	1.0	11.080
TOTAL	83.603		67.475	83.603		82.540
NOTES:						
* USE GREATER LOAD OF THE TWO CATAGORIES						
** NEC ARTICLE 220-43 REQUIREMENT (200VA PER FOOT OR ACTUAL CONNECTED)						
*** NEC ARTICLE 220-43 REQUIREMENT (150VA/2FT OR ACTUAL CONNECTED)						
**** 125% OF THE LARGEST MOTOR OR COMPRESSOR IN SYSTEM						
NEC DEMAND KW *1000 SYSTEM VOLTAGE * 1.732						
82.540 *1000 208 *1.732						
= 229 A						
NEW 300A SERVICE						

CURRENT LIMITING BREAKERS	
CIRCUIT NUMBER	BREAKER SIZE
A-10	1 10A
A-12	2 13A
A-14	3 2A
SPACE	4 SPACE
SPACE	5 SPACE
SPACE	6 SPACE
SPACE	7 SPACE
SPACE	8 SPACE
SPACE	9 SPACE
SPACE	10 SPACE
NOTE: PROVIDE EATON PRC LMTER PANEL WITH BREAKERS SHOWN. ROUTE CIRCUITS THROUGH CURRENT LIMITING BREAKER PRIOR TO LANDING ON BRANCH CIRCUIT BREAKER.	

PANELBOARD B														
VOLTAGE 120/208V, 3PH, 4W MOUNTING SURFACE BUS RATING 100A							100A M.L.O. A.I.C.: 10,000A							
LCL	LTG ZONE	CCT NO	LOAD DESCRIPTION	CB AMP	POLE	A	B	C	AMP	POLE	LOAD DESCRIPTION	CCT NO	LTG ZONE	
		1	CW CLOSET QUAD	20	1	720	1,500		20	2	WATER HEATER	2		
		3	HVAC/SALES RCPT	20	1		1,500					4		
		5	RR/INON SALES RCPT	20	1			760	20	1	IP SYSTEM	6		
		7	ROLLING GRILLE	20	1	1,440	0		20	1	SPARE	8		
		9	MICROWAVE	20	1		1,200	0	20	1	SPARE	10		
		11	REFRIGERATOR	20	1			1,200	0	20	1	SPARE	12	
		13	SPARE	20	1	0	0		20	1	SPARE	14		
		15	SPARE	20	1		0		20	1	SPARE	16		
		17	SPARE	20	1			0	0	20	1	SPARE	18	
		19	SPACE	1	0		0			1	SPACE	20		
		21	SPACE	1			0			1	SPACE	22		
		23	SPACE	1				0	0	1	SPACE	24		
		25	SPACE	1	0		0			1	SPACE	26		
		27	SPACE	1			0			1	SPACE	28		
		29	SPACE	1				0	0	1	SPACE	30		
		31	SPACE	1	0					1	SPACE	32		
		33	SPACE	1			0			1	SPACE	34		
		35	SPACE	1				0	0	1	SPACE	36		
		37	SPACE	1	0		0			1	SPACE	38		
		39	SPACE	1			0			1	SPACE	40		
		41	SPACE	1				0	0	1	SPACE	42		
LOAD/PH: (NEC CONNECTED)				3,660	#####	2,680	TOTAL VA: #VALUE!							
LCL @ 25% PER PHASE				0	0	0	TOTAL AMPS: #VALUE!							
TOTAL LOAD/PH: (NEC DEMAND)				3,660	#####	2,680								
NOTES:														
ALL CIRCUITS BREAKERS TO BE 20 AMP, 1-POLE UNLESS OTHERWISE NOTED.														
BREAKER OPTIONS:														
ACTUAL LOAD				A 3,660 kW		NEC CONNECTED TOTALS		A 3,660 kW		BARR - SOLENOID OPERATED BARR		LO - HANDLE LOCK-OFF DEVICE		
				B #VALUE!				B #VALUE!		ST - SHUNT TRIP				
				C 2,680 kW				C 2,680 kW		AUX - AUXILIARY CONTACTS				
TOTAL #VALUE!								TOTAL #VALUE!		PA - HANDLE PADLOCK ATTACHMENT				
(ALL PHASES SHALL BE BALANCED WITH 7% USING ACTUAL LOAD TOTALS)														
GFCI - GROUND FAULT INTERRUPT														
HACR - HEATING, AC & REFRIGERATION														
LCL - CONTINUOUS LOAD														

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LIGHTING TIME CONTROL LEGEND:

A1 - EXTERIOR SIGNAGE BLADE SIGN INTERNALLY ILLUMINATED
STUB-UP (IF EXISTING) PRIOR TO BEGINNING OF CONSTRUCTION INCLUDING OTHER RELATED WORKS. REFER TO FIELD SURVEY OR DESIGN CRITERIA.

A - MARKETING LEVEL LIGHTING SHOW WINDOW LIGHTS SHOW WINDOW RECEPTACLES

B - STOCKING STOCKROOM (NON-SALES) LIGHTING

C - TASK LEVEL 1/2 SALES FLOOR LIGHTING EVENLY DISTRIBUTED (BRW, PINK & BEN) - INCLUDING CABINET LIGHTING GENERAL SALES FLOOR RECEPTACLES DISPLAY CABINET LIGHTING RECEPTACLES

D - SALES LEVEL LIGHTING BALANCE OF SALES FLOOR LIGHTING INTERIOR DISPLAY LIGHTING (CHANDELIERS, NEON, ETC)

NOTE:
ALL LIGHTING CIRCUITS CONNECTED TO LIGHTING ZONES ARE CONNECTED AND CONTROLLED AUTOMATICALLY THROUGH THE H.V.A.C BUILDING CONTROL TIME CLOCK. REFER TO ELECTRICAL POWER GENERAL NOTE #13 ON THIS SHEET.

ELECTRICAL EQUIPMENT DATA												
SYM.	ITEM	VOLTAGE	HP.	KW.	F.L.A.	FEEDERS		TYPE OF CONN.	BRANCH BREAKER	DISC. SW.	BUS/ FUSES	REMARKS
						WIRE	COND.					
①	WATER HEATER	208V, 1ø	--	3.0	--	2#12 THHN 1#12 G	1/2"	'AC' TOGGLE SWITCH	20A-2P	---	---	SEE NOTE NO. 1 BELOW
②	FPVAV-1 (WITH HEATING)	120/208V, 3ø	--	5.00 ELEC. HEAT	--	4#10 THHN 1#10 G	3/4"	THRU UNIT DISC. SW.	25A-3P	---	---	SEE NOTE NO. 2 BELOW
③	RTU-1	208V, 3ø	--	27.00 ELEC. HEAT	86.00	3#2 THHN 1#6 G	1-1/4"	THRU UNIT DISC. SW.	110A-3P	---	---	SEE NOTE NO. 2 BELOW
NOTE: 1. 'AC' TOGGLE SWITCH TO BE FURNISHED BY LSO&C AND INSTALLED BY ELECTRICAL CONTRACTOR. 2. DISCONNECT SWITCH TO BE FURNISHED AND INSTALLED BY MECHANICAL SUPPLIER.												

ELECTRICAL POWER GENERAL NOTES	
1. HVAC CIRCUIT BREAKERS SHALL BE "HACR" TYPE WHEN REQUIRED BY EQUIPMENT NAME/PLATE PER N.E.C.	11. SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, AND CONTACTORS ARE TO BE "LISTED" AND "IDENTIFIED" AS RATED FOR A MINIMUM OF 75°C CONDUCTOR TERMINATION.
2. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT K.A.I.C. RATING (BUILDING SERVICE AVAILABLE FAULT CURRENT) OF LANDLORDS DISTRIBUTION EQUIPMENT PRIOR TO BID AND WORK COMMENCEMENT. IF FOUND TO BE HIGHER THAN PANEL RATING, NOTIFY YOUR LSO&C PROJECT MANAGER IMMEDIATELY.	12. IF'S ENCLOSURE LIGHTING CONTROLS: SOLENOID OPERATED BAR BREAKERS ARE PROVIDED WITH IF'S PANELS FOR STORE LIGHTING CONTROLS AND STOREFRONT SIGNS. SEE PANEL SCHEDULES FOR LIGHTING ZONE DESIGNATIONS (ie: ZONE A, B, C, D)
3. ELECTRICAL CONTRACTOR SHALL BALANCE ALL PANELS AND ELECTRICAL EQUIPMENT TO 7% (+/-) BETWEEN PHASES: A/B, B/C, A/C, REGARDLESS OF CIRCUITING INDICATED.	13. IF'S ENCLOSURE FURNISHED BY OWNER AND INSTALLED BY ELECTRICAL CONTRACTOR IS HEREIN DESCRIBED: A. UNIT WILL BE SHIPPED TO PROJECT IN MULTIPLE SECTIONS AND THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR OFF-LOADING OF EQUIPMENT, INSPECTION OF EQUIPMENT FOR DAMAGE, VERIFICATION OF EQUIPMENT RECEIVED FOR PROPER STORAGE, SETTING AND MOVING OF EQUIPMENT INTO SPACE AS WELL AS REASSEMBLING SECTIONS INTO ONE COMPLETE UNIT PER MANUFACTURER'S DOCUMENTATION.
4. PROPER CLEARANCE MUST BE MAINTAINED ABOUT ELECTRICAL EQUIPMENT PER N.E.C. FIELD VERIFY EXACT MOUNTING SPACE AVAILABLE IN ELECTRICAL ROOM/AREA PRIOR TO INSTALLATION OF ELECTRICAL EQUIPMENT.	B. ELECTRICAL CONTRACTOR SHALL CONNECT ALL PROVIDED INTERCONNECTING CABLES BETWEEN SECTIONS AND TORQUE CONNECTIONS PER MANUFACTURER'S REQUIREMENTS.
5. ALL PANEL BRANCH CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE.	C. ALL CONNECTIONS WITHIN THE TELEPHONE/DATA SECTION AND HVAC CONTROL SECTION OF THE IF'S ENCLOSURE WILL BE DONE BY OTHERS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION OF LOW VOLTAGE CONDUIT SYSTEM (IF REQUIRED BY CODE OR LANDLORD) INTO THESE SECTIONS ONLY.
6. ALL PANEL BUS BARS SHALL BE COPPER.	D. SWITCHBOARD WILL BE SHIPPED ON AN ENCLOSED SEMI-TRAILER. ELECTRICAL CONTRACTOR MUST ARRANGE FOR A FORKLEIT TO OFF-LOAD AT JOB SITE. ELECTRICAL CONTRACTOR WILL RECEIVE 24 NOTICE PRIOR TO DELIVERY.
7. MOUNT A TYPEWRITTEN DIRECTORY BEHIND GLASS OR PLASTIC ON THE INSIDE OF EACH PANEL DOOR AND, ON THE DIRECTORY, SHOW THE CIRCUIT NUMBER AND COMPLETE DESCRIPTION OF ALL OUTLETS ON EACH CIRCUIT.	14. ELECTRICAL CONTRACTOR SHALL INCLUDE ALL COSTS TO FURNISH AND INSTALL ALL LOW VOLTAGE WIRING IN CONDUIT, AS PART OF BASE BID.
8. ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS FOR A COMPLETE AND OPERABLE ELECTRICAL DISTRIBUTION SYSTEM.	
9. ALL PANELBOARDS, SWITCHBOARDS AND LINE VOLTAGE CONTROL EQUIPMENT SHALL BE FACTORY MARKED TO WARN QUALIFIED PERSONS OF A POTENTIAL ELECTRIC ARC FLASH HAZARD. MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTING, SERVICING OR MAINTENANCE OF EQUIPMENT.	
10. ELECTRICAL CONTRACTOR SHALL MAKE SURE ENTIRE INSTALLATION CONFORMS TO N.E.C. 110.3 - EXAMINATION, IDENTIFICATION, INSTALLATION, AND USE OF EQUIPMENT.	

DEMARC DEMOLITION NOTES	
1. THE GC SHALL NOT CUT THE MAIN TELEPHONE WIRES LEADING TO THE TERMINATION STRIP (DEMARC BLOCK) OR PHONE SYSTEM.	1. IF THE DEMARC IS TO BE RELOCATED, IT SHALL BE COORDINATED WITH LIMITED TECHNICAL SERVICES (LTS). FOR BSW CALL 1-877-415-7911 AND SELECT OPTION 2. FOR BSW CANADIAN STORE CALL LASENZA 1-877-211-5151 THEN 877/8, 3. FOR VSC CALL 1-864-415-1011.
2. IF THE DEMARC IS TO BE RELOCATED, IT SHALL BE COORDINATED WITH LIMITED TECHNICAL SERVICES (LTS). FOR BSW CALL 1-877-415-7911 AND SELECT OPTION 2. FOR BSW CANADIAN STORE CALL LASENZA 1-877-211-5151 THEN 877/8, 3. FOR VSC CALL 1-864-415-1011.	3. THE GC SHALL ALLOW ADEQUATE TIME FOR RELOCATION IN THE CONSTRUCTION SCHEDULE.
3. THE GC SHALL ALLOW ADEQUATE TIME FOR RELOCATION IN THE CONSTRUCTION SCHEDULE.	4. IF THE WALL WITH THE TELEPHONE BLOCK IS SCHEDULED FOR DEMOLITION, THE ENTIRE BACKING PANEL SHALL BE REMOVED FROM THE WALL (WITHOUT DISCONNECTING THE WIRING) AND IT SHALL BE SAFELY SECURED IN THE CEILING UNTIL IT CAN BE RELOCATED TO THE NEW AREA OR REINSTALLED ON WALL.
	SERIES RATED NOTES
1. MAIN CIRCUIT BREAKER IN "PANEL IF'S" SHALL BE FULLY RATED TO PROVIDE AN INTERRUPTING RATING OF 65,000 AMPS RMS.	2. MAIN CIRCUIT BREAKER SHALL BE "SERIES" RATED WITH ALL OTHER FEEDER BREAKERS. "SERIES" RATED BREAKERS PROVIDE AN INTERRUPTING RATING OF 65,000 AMPS RMS.
2. MAIN CIRCUIT BREAKER SHALL BE "SERIES" RATED WITH ALL OTHER FEEDER BREAKERS. "SERIES" RATED BREAKERS PROVIDE AN INTERRUPTING RATING OF 65,000 AMPS RMS.	3. PANELBOARDS OR OTHER EQUIPMENT THAT IS PROTECTED BY "SERIES" RATED OVERCURRENT PROTECTED DEVICES UPSTREAM SHALL BE MARKED WITH A PERMANENT LABEL THAT INDICATES THE SHORT-CIRCUIT RATING OF THE SERIES COMBINATION AND CALLS OUT THE SPECIFIC REPLACEMENT OVERCURRENT DEVICE(S) THAT CAN BE UTILIZED.

SECTION 230000
BASIC MECHANICAL REQUIREMENTS

A. NOTE

1. THE ABBREVIATION L5DAC WHEREVER IT APPEARS IN THESE MECHANICAL DRAWINGS AND/OR SPECIFICATIONS SHALL REFER TO "LIMITED STORE DESIGN AND CONSTRUCTION". ANY REFERENCE TO TENANT'S PROJECT MANAGER OR FURNISHED BY ANY OF THE ABOVE REFERS TO L5DAC.
2. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND ALL OTHER SPECIFICATION SECTIONS, APPLY TO THIS AND THE OTHER SECTIONS OF DIVISION 15.
3. THE CONTRACTOR FOR THIS DIVISION OF WORK IS REQUIRED TO READ THE SPECIFICATIONS AND REVIEW DRAWINGS FOR ALL DIVISIONS OF WORK AND BE RESPONSIBLE FOR THE INFORMATION OF THIS WORK AND THE WORK OF HIS SUBCONTRACTORS WITH ALL DIVISIONS OF WORK. IT IS THIS CONTRACTORS RESPONSIBILITY TO PROVIDE HIS SUBCONTRACTORS WITH A COMPLETE SET OF BID DOCUMENTS.
4. THIS CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE COMPLETION AND INSPECTION OF THIS WORK TO COMPLY WITH THE L5DAC SCHEDULE AND THE PROJECT COMPLETION DATE.
5. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK. ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTORS BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF HIS WORK.
6. REFER TO RESPONSIBILITY SCHEDULE ON SHEET M04-1 OF THIS SET FOR INFORMATION IN REGARD TO RESPONSIBILITY OF WORK OR ITEMS WHICH MAY AFFECT THE BID.

B. GENERAL REQUIREMENTS

1. THIS CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION, INCIDENTALS AND DETAILS NECESSARY TO PROVIDE A COMPLETE MECHANICAL SYSTEM AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE LANDLORD OR L5DAC SHALL BE PROVIDED BY THIS CONTRACTOR. CLOSELY COORDINATE THE ENTIRE INSTALLATION WITH THE LANDLORD AND THE L5DAC PROJECT MANAGER, AS REQUIRED.
2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE DRAWINGS AND INSTALLED EVEN THOUGH NOT SPECIFICALLY MENTIONED IN BOTH. ANY MATERIAL OR LABOR WHICH IS NEITHER SHOWN ON THE DRAWINGS NOR CALLED FOR IN THE SPECIFICATIONS, BUT WHICH IS OBVIOUSLY NECESSARY TO COMPLETE THE WORK, AND WHICH IS USUALLY INCLUDED IN WORK OF SIMILAR CHARACTER, SHALL BE FURNISHED AND INSTALLED AS PART OF CONTRACT.
3. WHERE THE DRAWINGS OR SPECIFICATIONS CALL FOR ITEMS WHICH EXCEED CODES OR THE LANDLORD'S TENANT CRITERIA, THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE SYSTEM WITH THE MORE STRINGENT REQUIREMENTS AS DESIGNED AND DESCRIBED ON THESE DRAWINGS, UNLESS SPECIFICALLY NOTED OTHERWISE.
4. ALL WORK IN THIS SECTION SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING, AND REPAIRING. THIS CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT SERVICE ACCESS TO ALL EQUIPMENT.
5. ALL WORK SHALL BE PERFORMED IN A NEAT PROFESSIONAL MANNER USING GOOD CONSTRUCTION PRACTICES.
6. UNLESS SPECIFICALLY NOTED OTHERWISE, MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW, UNDERWRITER'S LABORATORIES LISTED AND LABELED AND SIZED IN CONFORMITY WITH REQUIREMENTS OF STATE AND LOCAL CODES, WHICHEVER IS MORE STRINGENT.
7. THIS CONTRACTOR SHALL DO ALL CUTTING, CHASING AND CHANNELING REQUIRED FOR ANY WORK UNDER THIS DIVISION. CUTTING SHALL HAVE PRIOR APPROVAL BY L5DAC PROJECT MANAGER AND THE LANDLORD. ALL PATCHING SHALL BE BY G.C. AND SHALL MATCH THE SURROUNDING SURFACES.
8. THE MECHANICAL CONTRACTOR SHALL MAKE ALL FINAL MECHANICAL CONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

- A. THE MECHANICAL CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR TO CONTACT L5DAC'S DESIGNATED COMPANY (EMS) FOR START-UP. (REFER TO SHEET M01.2).

C. CODES

1. ALL WORK SHALL CONFORM TO THE LANDLORD'S CRITERIA, THE STATE'S, COUNTY'S, CITY'S AND LOCAL CODES AND ORDINANCES, SAFETY AND HEALTH CODES, NFPA CODES, ENERGY CODES AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. THIS CONTRACTOR SHALL INQUIRE INTO AND COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. THIS CONTRACTOR SHALL INCLUDE ANY CHANGES REQUIRED BY CODES IN THE BID AND IF THESE CHANGES ARE NOT INCLUDED IN THE BID, THEY MUST BE QUALIFIED AS A SEPARATE LINE ITEM IN THE BID. AFTER CONTRACT IS AWARDED, CHANGE ORDERS FOR INCREASED COSTS DUE TO CODE ISSUES WILL NOT BE ACCEPTED BY L5DAC.

D. LICENSES, PERMITS, INSPECTIONS & FEES

1. THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS, AND FEES REQUIRED OR RELATED TO HIS WORK.
2. FURNISH TO THE L5DAC'S PROJECT MANAGER ALL CERTIFICATES OF INSPECTION AND FINAL INSPECTION APPROVAL AT COMPLETION OF PROJECT.

E. TRADE NAMES, MANUFACTURERS AND SHOP DRAWINGS

1. WHERE TRADE NAMES AND MANUFACTURERS ARE USED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE EXACT EQUIPMENT SHALL BE USED AS A MINIMUM FOR THE BASE BID. MANUFACTURERS CONSIDERED AS AN EQUAL OR BETTER IN ALL ASPECTS TO THAT SPECIFIED WILL BE SUBJECT TO APPROVAL IN WRITING BY L5DAC'S PROJECT MANAGER THROUGH SHOP DRAWING SUBMITTAL PROCESS FOR ACCEPTANCE PRIOR TO INSTALLATION. THE USE OF ANY UNAUTHORIZED EQUIPMENT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
2. GENERAL CONTRACTOR SHALL SUBMIT ONLY SUBSTITUTION REQUESTS TO L5DAC PROJECT MANAGER FOR APPROVAL. SUBMISSIONS SHALL BE MADE EARLY ENOUGH IN PROJECT TO ALLOW FOUR (4) WORKING DAYS FOR L5DAC PROJECT MANAGER'S REVIEW WITHOUT CAUSING DELAYS OR CONFLICTS TO THE WORK'S PROGRESS. THE REVIEWER'S SIGNATURE AND/OR SIGNATURE OF THE GENERAL CONTRACTOR AND THE SUBCONTRACTOR SHOWING THAT HE HAS REVIEWED AND CONFIRMED THAT THE SUBMITTALS ARE IN CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS OR INDICATE WHERE EXCEPTIONS HAVE BEEN TAKEN.

F. GUARANTEE

1. THIS CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORK PROVIDED UNDER HIS CONTRACT AND SHALL MAKE GOOD, REPAIR OR REPLACE AT HIS OWN EXPENSE ANY DEFECTIVE WORK MATERIALS WHICH MAY BE DISCOVERED WITHIN A PERIOD OF 12 MONTHS FROM THE DATE OF ACCEPTANCE (IN WRITING) OF THE INSTALLATION BY L5DAC'S PROJECT MANAGER. EXTENDED WARRANTIES ARE AS SPECIFIED WITH INDIVIDUAL EQUIPMENT.
2. THE EQUIPMENT MANUFACTURER SHALL GUARANTEE AND PROVIDE A 12 MONTH GUARANTEE TO L5DAC FROM THE DATE OF ACCEPTANCE. THIS CONTRACTOR SHALL WARRANTY THE INSTALLATION OF THIS EQUIPMENT AND WILL BE RESPONSIBLE FOR ANY DAMAGE AND/OR MALFUNCTION CAUSED BY THE INSTALLATION. THIS CONTRACTOR SHALL NOT BEAR ADDITIONAL WARRANTIES BEYOND A COMPLETE WORKING SYSTEM.

G. RECORD DRAWINGS

1. THIS CONTRACTOR SHALL MAINTAIN ONE SET OF DRAWINGS ON THE JOB SITE UPDATED WEEKLY TO RECORD ALL DEVIATIONS FROM CONTRACT DRAWINGS, SUCH AS:
 - A. LOCATION OF CONCEALED PIPING VALVES AND DUCTS.
 - B. REVISIONS, ADDENDUM, AND CHANGE ORDERS.
 - C. SIGNIFICANT DEVIATIONS MADE NECESSARY BY FIELD CONDITIONS, APPROVED EQUIPMENT SUBSTITUTIONS, AND CONTRACTOR'S COORDINATION WITH OTHER TRADES.
2. AT COMPLETION OF THE PROJECT AND BEFORE FINAL APPROVAL, THIS CONTRACTOR SHALL MAKE ANY FINAL CORRECTIONS TO DRAWINGS AND CERTIFY THE ACCURACY OF EACH PRINT BY SIGNATURE THEREON. FAILURE TO KEEP THESE RECORDS WILL ALLOW L5DAC TO DIRECT THE GENERAL CONTRACTOR TO PROVIDE THESE RECORDS AT HIS EXPENSE PRIOR TO FINAL PAYMENT.

H. DISCREPANCIES IN DOCUMENTS

1. DRAWINGS (PLANS, SPECIFICATIONS, AND DETAILS) ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION AND INTENT OF THE MECHANICAL SYSTEMS. WHERE DRAWINGS, EXISTING SITE CONDITIONS, SPECIFICATIONS OR OTHER TRADES CONFLICT OR ARE UNCLEAR, ADVISE THE GENERAL CONTRACTOR IN WRITING. PRIOR TO SUBMITTAL OF BID, THE GENERAL CONTRACTOR IS RESPONSIBLE TO ADVISE L5DAC'S PROJECT MANAGER, IN WRITING, OF VARIATIONS TO CONTRACT DOCUMENTS PRIOR TO SUBMISSION OF BID. OTHERWISE, L5DAC PROJECT MANAGER'S INTERPRETATION OF CONTRACT DOCUMENTS OR CONDITIONS SHALL BE FINAL WITH NO ADDITIONAL COMPENSATION PERMITTED.
1. THIS CONTRACTOR IS TO INCLUDE IN HIS BID ALL NECESSARY SERVICE REQUIRED TO KEEP THE OPERATING PHASE OF THE STORE'S HVAC, PLUMBING AND SPRINKLER SYSTEM IN OPERATION. CONTRACTOR MUST SCHEDULE IN WRITING WITH L5DAC'S PROJECT MANAGER AND THE LANDLORD ONE WEEK PRIOR TO ANY SHUT DOWN OF THE HVAC, PLUMBING OR FIRE PROTECTION SYSTEMS.

I. PHASING REQUIREMENTS

1. THIS CONTRACTOR IS TO INCLUDE IN HIS BID ALL NECESSARY SERVICE REQUIRED TO KEEP THE OPERATING PHASE OF THE STORE'S HVAC, PLUMBING AND SPRINKLER SYSTEM IN OPERATION. CONTRACTOR MUST SCHEDULE IN WRITING WITH L5DAC'S PROJECT MANAGER AND THE LANDLORD ONE WEEK PRIOR TO ANY SHUT DOWN OF THE HVAC, PLUMBING OR FIRE PROTECTION SYSTEMS.

J. DEMOLITION

1. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE DEMOLITION OF EXISTING WORK AND THE DEMOLITION PROVIDED BY THE GENERAL CONTRACTOR. COORDINATE WITH THE GENERAL CONTRACTOR ANY EXISTING EQUIPMENT REQUIRED TO BE LEFT INTACT.
2. THIS CONTRACTOR SHALL INCLUDE, AND WILL BE HELD RESPONSIBLE FOR, THE REMOVAL OF ALL EXISTING HVAC UNITS, HYDRONIC PIPING, REFRIGERANT RECAPTURE, EXHAUST FANS, ETC. AND ASSOCIATED ROOF CURBS NOT TO BE REUSED ON THIS PROJECT, UNLESS SPECIFICALLY NOTED OTHERWISE. CONTRACTOR MUST VERIFY WITH THE LANDLORD ALL PRESUMED ABANDONED EQUIPMENT, PIPES, AND DUCTWORK PRIOR TO REMOVAL. ROOF CURBS SHALL BE REMOVED AND THE ROOF PATCHED. ALL EXTRANEIOUS ITEMS IN THE SPACE OR ON THE ROOF NOT APPLICABLE TO THE NEW WORK MUST BE REMOVED AND ROOF/WALL/FLOOR PATCHED/REPAIRED TO MATCH EXISTING STRUCTURE. EXISTING ABANDONED PIPES, DUCTS, OR EQUIPMENT IN THE FLOOR, EMBEDDED IN CONCRETE OR OTHERWISE INACCESSIBLE ARE TO BE CUT OFF AND SEALED BELOW OR WITHIN FLOOR OR WALL LEVEL WHEN THEY ARE NOT TO BE REUSED IN THIS PROJECT. IF REQUIRED BY LANDLORD OR CODES, ABANDONED PIPING AND/OR DUCTWORK MUST BE REMOVED TO POINT OF ORIGIN, CONFIRM THE EXTENT OF DEMOLITION PRIOR TO BID AND INCLUDE IN BID PROPOSAL.

K. SLEEVES

1. THIS CONTRACTOR SHALL PROVIDE SLEEVES TO PROTECT EQUIPMENT OR FACILITIES IN THE INSTALLATION. EACH SLEEVE SHALL EXTEND THROUGH ITS RESPECTIVE FLOOR, WALL OR PARTITION AND SHALL BE CUT FLUSH WITH EACH SURFACE EXCEPT SLEEVES THAT PENETRATE THE FLOOR, WHICH SHALL EXTEND 2" ABOVE THE FLOOR. CONTRACTOR MUST COORDINATE THROUGH THE LANDLORD ANY CORE DRILLING OR CUTTING OF OPENINGS IN MASONRY FLOORS OR WALLS.
2. ALL SLEEVES AND OPENINGS THROUGH FIRE RATED WALLS AND/OR FLOORS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "SM" FIRE RATED SEALANTS OR EQUAL, SO AS TO RETAIN THEIR FIRE RATING.
3. SLEEVES IN BEARING AND MASONRY WALLS, FLOORS, AND PARTITIONS SHALL BE STANDARD WEIGHT STEEL PIPE FINISHED WITH SMOOTH EDGES. FOR OTHER THAN MASONRY PARTITIONS, THROUGH SUSPENDED CEILINGS, OR FOR CONCEALED VERTICAL PIPING, SLEEVES SHALL BE NO. 22 U.S.G. GALVANIZED STEEL MINIMUM.
1. THIS CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION AND FACILITIES NECESSARY FOR, REASONABLY IMPLIED AND INCIDENTAL TO, THE FURNISHING, INSTALLATION, COMPLETION AND TESTING OF ALL THE WORK FOR THE HVAC SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS, TO INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - A. HVAC UNITS, ALL RELATED EQUIPMENT AND ACCESSORIES (UNLESS NOTED OTHERWISE).
 - B. DUCTWORK, FITTINGS, DAMPERS, AND INSULATION.
 - C. HYDRONIC PIPING (AS APPLICABLE, REFER TO PLANS).
 - D. REFRIGERANT PIPING (AS APPLICABLE, REFER TO PLANS).
 - E. CURBS, ROOFING, AND STEEL FRAMING FOR SUPPORT (AS APPLICABLE, REFER TO PLANS).
 - F. TESTING, ADJUSTING, AND BALANCING.
 - G. KEEPING A RECORD SET AND PREPARE AS-BUILTS DRAWINGS.
2. BEFORE STARTING WORK, THIS CONTRACTOR SHALL VISIT THE JOB SITE AND EXAMINE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICATIONS TO SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF THE HVAC SYSTEM, MATERIALS, AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID INTERFERENCES AND CONFRONTATIONS.
3. RELOCATION OF EXISTING DUCT MAINS OR BRANCHES TO MEET STORE DESIGN CRITERIA MUST BE INCLUDED IN BID PROPOSAL.

M. HVAC EQUIPMENT

1. PRIMARY HEATING AND AIR CONDITIONING UNITS ARE TO BE FURNISHED BY L5DAC AS SCHEDULED UNLESS NOTED OTHERWISE. REFER TO PLANS FOR REQUIREMENTS. ALL EQUIPMENT SHALL INCLUDE A FIVE (5) YEAR COMPRESSOR AND TEN (10) YEAR HEAT EXCHANGER WARRANTY.
2. ALL EQUIPMENT SHALL BE COMPLIED IN EVERY RESPECT WITH ALL DEVICES AND ACCESSORIES PROVIDED TO MEET THE DESIGN INTENT AND OPERATION OF THE SYSTEMS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.
3. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. OPERATIONS MANUAL SHALL BE PROVIDED TO OWNER UPON COMPLETION OF CONSTRUCTION.

N. EQUIPMENT FURNISHED BY LIMITED STORE DESIGN AND CONSTRUCTION

1. THE FOLLOWING EQUIPMENT IS FURNISHED BY L5DAC AND INSTALLED BY THIS CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. REFER TO RESPONSIBILITY SCHEDULE AND PLANS FOR APPLICABILITY.
 - A. HVAC UNITS.
 - B. TOILET EXHAUST FANS.
 - C. DIFFUSERS, GRILLES AND REGISTERS.
 - D. TEMPERATURE CONTROLS.
2. ALL DUCTWORK, ROOF OPENINGS AND CAPS NECESSARY TO PROVIDE A COMPLETE TOILET EXHAUST SYSTEM SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR.

O. CURBS FOR SUPPORT

1. THIS CONTRACTOR SHALL FURNISH AND INSTALL CURB ADAPTORS ON EXISTING CURBS WHERE ALLOWED BY LANDLORD. CURB ADAPTORS MUST BE MANUFACTURED BY THYBAR, MICROMETIL, OR L5DAC APPROVED EQUAL.
2. WHERE EXISTING CURBS ARE NOT AVAILABLE OR WHERE CURB ADAPTORS ARE NOT ALLOWED THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY CURBS REQUIRED TO INSTALL ALL HVAC EQUIPMENT AS DESCRIBED ON THE DRAWINGS. CURBS SHALL BE A MINIMUM OF 14" HIGH (SEE M04-1 "LOCAL AREA REQUIREMENTS" ITEM # 5), OF THE SAME MANUFACTURER OF THE EQUIPMENT UNLESS NOTED OTHERWISE.
3. ALL CURBS AND CURB ADAPTORS SHALL BE INSTALLED SUCH THAT TOP OF CURBS ARE LEVEL. ALL PENETRATIONS OF EXISTING STRUCTURE SHALL BE DONE IN ACCORDANCE WITH THE LANDLORD'S GUIDELINES AT THE CONTRACTOR'S EXPENSE. THIS CONTRACTOR SHALL RECEIVE L5DAC PROJECT MANAGER'S WRITTEN APPROVAL BEFORE ANY WORK TAKES PLACE. THIS CONTRACTOR IS ALSO RESPONSIBLE FOR ALL SEISMIC, HURRICANE AND OTHER SECURING DEVICES REQUIRED BY LOCAL OR OTHER CODES.

P. LABELS/PIPE MARKERS

1. FURNISH AND INSTALL PIPE IDENTIFICATION MARKERS ON ALL PIPES INSTALLED UNDER THIS CONTRACT. MARKERS SHALL BE A MINIMUM OF 1-1/2" X 8" AND IDENTIFIED IN ACCORDANCE WITH THE BACKGROUND AND LETTER COLORS ISSUED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
2. PIPING SHALL BE IDENTIFIED AS FOLLOWS: CHILLED WATER RETURN, CHILLED WATER SUPPLY, CONDENSATE, HOT WATER RETURN, HOT WATER SUPPLY, CONDENSATE, WATER RETURN, CONDENSER WATER SUPPLY, REFRIGERANT LIQUID, REFRIGERANT SUCTION, AND DIRECTIONAL ARROWS. ALL IDENTIFICATIONS MUST BE VISIBLE AT EQUIPMENT.

Q. FINAL HVAC INSPECTIONS

1. ASIDE FROM NORMAL INTERIM INSPECTIONS OF WORK IN PLACE, L5DAC SHALL HAVE AN INDEPENDENT HVAC CONTRACTOR INSPECT THE FINISHED HVAC INSTALLATION UPON COMPLETION FOR COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND CODES. THE INSTALLING CONTRACTOR WILL BE RESPONSIBLE TO BRING ALL ITEMS REPORTED BY THE INDEPENDENT HVAC CONTRACTOR UP TO PLANS AND SPECIFICATION REQUIREMENTS.

END OF SECTION 230000

SECTION 230500
COMMON WORK RESULTS FOR HVAC

A. HANGERS

1. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS ANGLE IRON, BANDS, C-CLAMPS WITH RETAINING CLIPS, CHANNELS, HANGER RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK.
2. HANGERS SHALL BE FASTENED TO BUILDING STEEL, CONCRETE, OR MASONRY, BUT NOT TO PIPING. HANGING FROM METAL DECK IS NOT PERMITTED. HANGERS MUST BE ATTACHED TO UPPER CHORD OF BAR JOIST, WHERE INTERFERENCES OCCUR, AND IN ORDER TO SUPPORT DUCTWORK OR PIPING, THE CONTRACTOR MUST INSTALL TRAPEZE TYPE HANGERS OR SUPPORTS WHICH SHALL BE LOCATED WHERE THEY DO NOT INTERFERE WITH ACCESS TO FIRE DAMPERS, VALVES, AND OTHER EQUIPMENT. HANGER TYPES AND INSTALLATION METHODS ARE ALSO SUBJECT TO LANDLORD CRITERIA.
3. HANGERS FOR ALL INSULATED PIPING SHALL BE SIZED AND INSTALLED FOR THE OUTER DIAMETER OF INSULATION. INSTALL 6" LONG SPLIT CIRCLE GALVANIZED SADDLE BETWEEN THE HANGER AND THE PIPE INSULATION.
4. HANGERS AND PIPING OF DISSIMILAR METALS SHALL BE DI-ELECTRICALLY SEPARATED.

B. VIBRATION ISOLATION DEVICES

1. SPRING VIBRATION ISOLATION DEVICES SHALL BE FURNISHED AND INSTALLED IN ALL SUPPORTS BETWEEN VIBRATING EQUIPMENT (FANS, AIR HANDLERS, ETC.) AND STRUCTURE. ISOLATORS TO BE SIZED ACCORDING TO LOAD WITH A MIN. 1" DEFLECTION. VIBRATING EQUIPMENT HUNG FROM STRUCTURE SHALL BE ISOLATED WITH RUBBER AND SPRING DEVICES. VIBRATING EQUIPMENT SUPPORTED FROM FLOOR OR DECK SHALL BE ISOLATED WITH HOUSED SPRING MOUNT DEVICES.
2. EXAMINE DEAD LOAD AND OPERATING LOAD CONDITIONS WHEN SELECTING DEVICES. ADJUST FOR PROPER ALIGNMENT AND LOADING. AVOID "GROUNDING" THE ISOLATOR.
3. CHECK HANGER ROD SIZE FOR ALLOWABLE LOADS AT THE ISOLATING DEVICE AND AT THE UPPER AND LOWER ATTACHMENTS TO STRUCTURES, DUCTS, EQUIPMENT, ETC.
4. CONSULT MANUFACTURER FOR APPLICATION DATA.

C. TESTING, ADJUSTING, AND BALANCING

1. TESTING, ADJUSTING AND BALANCING OF ALL WORK SHALL BE MADE BY AN INDEPENDENT CONTRACTOR WHO IS A CURRENTLY LICENSED ASSOCIATED AIR BALANCING COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) BALANCING CONTRACTOR, NO OTHER BALANCE REPORTS WILL BE ACCEPTED. ALL BALANCING WORK MUST BE COMPLETE AND DONE IN ACCORDANCE WITH THE MOST RECENT STANDARDS OF THEIR SOCIETY AND AS A MINIMUM SHALL INCLUDE THE INFORMATION AS SHOWN IN THE AIR BALANCE REVIEW CHECKLIST IN THE GC PROJECT MANUAL. PAYMENT OF ALL COSTS FOR TESTING AND BALANCING SHALL BE INCLUDED IN THE BID. HOWEVER, IT WILL BE THE GC THAT WILL CONTRACT DIRECTLY WITH THE AIR BALANCING COMPANY.
2. FINAL TESTING, ADJUSTING AND BALANCING REPORT MUST BE COMPLETE AND SUBMITTED WITH FINAL CLOSE-OUT DOCUMENTS TO L5DAC 1 WEEK PRIOR TO MERCHANDISING DATE.
3. THE HVAC CONTRACTOR SHALL BE PRESENT FOR AIR BALANCE TO VERIFY ACCESSIBILITY TO ALL DEVICES, VERIFY ALL OPERATING SEQUENCES AND INSTALL NEW FILTERS IN ALL UNITS JUST PRIOR TO THE AIR BALANCE. THE COMPLETE AIR BALANCE SHALL TAKE PLACE WITH OUTSIDE AIR DAMPERS IN MINIMUM POSITION, EXCEPT AS NOTED OTHERWISE. HVAC CONTRACTOR SHALL ALSO INSTALL A NEW SET OF FILTERS ONE DAY PRIOR TO MERCHANDISING.
4. BALANCE LANDLORD MEDIA QUANTITIES TO WITHIN 5% OF THAT INDICATED ON THE DRAWINGS. ANY REQUIRED CHANGES IN SHEAVES, BELTS OR PULLEYS NEEDED TO ACHIEVE SPECIFIED FLOW RATES SHALL BE PERFORMED BY THE HVAC CONTRACTOR WITH NO ADDITIONAL COST TO L5DAC.
5. ALL CONTROL SEQUENCES SHALL BE TESTED (INTERLOCKED EQUIPMENT, SMOKE DETECTORS, SMOKE EVACUATION, ECONOMIZER, ETC.) AND OPERATING STATUS RECORDED IN THE BALANCE REPORT.
6. AIR BALANCING CONTRACTOR IS TO CONFIRM OVERRIDE OF MINIMUM OUTSIDE AIR INTAKE UPON CO2 MONITORING CONFIRMATION. FOR CO2 MONITORING CONTACT, SEE CONTACT INFORMATION ON SHEET M01.2.
7. THREE COPIES OF THE BALANCE REPORT SHALL BE SUBMITTED THROUGH THE GENERAL CONTRACTOR TO L5DAC FOR APPROVAL. THE GENERAL CONTRACTOR SHALL VERIFY THE COMPLETENESS OF THE REPORTS PRIOR TO SUBMITTING TO L5DAC. SUBMIT ONE COPY OF FINAL APPROVED AIR BALANCE REPORT TO MALL GENERAL MANAGER.
8. THE BALANCING CONTRACTOR SHALL PERFORM ALL APPLICABLE TESTING AND BALANCING FUNCTIONS REQUIRED FOR THE SYSTEM DESIGNED ON THESE DRAWINGS. ALL SYSTEMS UNABLE TO BE COMPLETELY BALANCED AT THE TIME OF ORIGINAL BALANCE WILL BE BALANCED IN FUTURE AT NO ADDITIONAL EXPENSE TO L5DAC. THE BALANCING CONTRACTOR SHALL CHECK ANY ITEMS THAT L5DAC DEEMS NECESSARY AT NO ADDITIONAL COST TO L5DAC.

D. VALVES

1. GATE VALVES, 2-INCH AND SMALLER: CLASS 150, BODY AND UNION BONNET OF ASTM B 62 CAST BRONZE WITH THREADED OR SOLDER ENDS, INTERNAL SEAT, RENEWABLE SOLID BRONZE WEDGE DISC, RISING STEM, SCREWED BONNET AND RE-PACKABLE UNDER PRESSURE. BALL VALVES ARE ACCEPTED AS AN EQUAL SUBSTITUTION.
2. GATE VALVES, 2-1/2 INCH AND LARGER: CLASS 150, CAST IRON BODY, RENEWABLE BRONZE SEATS AND SOLID WEDGE DISC, RISING STEM, FLANGED ENDS, AND RE-PACKABLE UNDER PRESSURE.
3. SWING CHECK VALVES, 2-INCH AND SMALLER: CLASS 150, CAST BRONZE BODY AND CAP CONFORMING TO ASTM B 62 WITH HORIZONTAL SWING, Y-PATTERN, RENEWABLE BRONZE DISC, AND HAVING THREADED OR SOLDERED ENDS.
4. SWING CHECK VALVE, 2-1/2 INCH AND LARGER: CLASS 125 CAST IRON BODY AND BOLTED CAP, HORIZONTAL SWING, RENEWABLE BRONZE DISC, FLANGED ENDS AND CAPABLE OF BEING RETITTED WHEN THE VALVE REMAINS IN THE LINE.
5. COMBINATION-BALANCING AND SHUTOFF VALVES: BELL & GOSSET CIRCUIT SETTER WITH LOCKING SET POINT. A CIRCUIT SETTER, BALANCE WHEEL MUST BE INCLUDED WITH O & M MANUAL. TACO OR ORISWOLD ARE CONSIDERED AS EQUAL.

END OF SECTION 230500

SECTION 230700
HVAC INSULATION

A. DUCTWORK INSULATION

1. FURNISH AND INSTALL INSULATION PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES. INSULATION MUST COMPLY WITH NFPA 90A.
2. DUCT SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. ALL RECTANGULAR DUCTWORK (SUPPLY AND RETURN) SHALL BE INTERNALLY INSULATED WITH 1" THICK LINER (CONDUCTIVITY $\leq 0.28 \text{ @ } 75^\circ\text{F}$; R-3.5). WHEN A COMPLETE DUCTED RETURN AIR SYSTEM IS INDICATED ON THE DRAWINGS, ONLY THE 15"-0" OF THE RETURN AIR DUCT CLOSEST TO THE AIR HANDLING UNIT IS TO BE INSULATED. LINER IS TO HAVE A COATED SURFACE EXPOSED TO AIRSTREAM TO PREVENT EROSION. APPLY ADHESIVES AND MECHANICAL FASTENERS AS RECOMMENDED BY SMACNA AND THE MANUFACTURER TO PREVENT LINER SEPARATION FROM THE DUCT. ALL TRANSVERSE EDGES TO BE COATED WITH ADHESIVE.
3. ALL OUTDOOR AIR (ROUND, OVAL, AND RECTANGULAR) AND ROUND/OVAL SUPPLY AIR DUCTWORK SHALL BE EXTERNALLY INSULATED WITH A MINIMUM OF 1 1/2" THICK, 1.0 PCF DENSITY (R=5.6) DUCT WRAP WITH VAPOR BARRIER. VAPOR BARRIER IS TO BE MAINTAINED THROUGHOUT DUCT SYSTEM, EXCEPT LINED DUCTWORK SPECIFIED ELSEWHERE AND EXHAUST DUCTWORK. ALL JOINTS MUST BE OVERLAPPED AND TUCKED SO THAT NO INSULATION FIBER IS VISIBLE. EXTEND DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS AND OTHER PENETRATIONS.
4. ALL INSULATION SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM F 84-95, OR AS REQUIRED BY LOCAL CODES.

B. HYDRONIC PIPING INSULATION

1. ALL HYDRONIC PIPING FOR CHILLED WATER AND/OR HOT WATER (NOT INCLUDING CONDENSER WATER UNLESS SPECIFICALLY NOTED OTHERWISE), VALVES, FITTINGS, AND ACCESSORIES SHALL BE INSULATED WITH 1-INCH THICK FIBERGLASS INSULATION WITH ALL SERVICE JACKET AND VAPOR BARRIER. INSULATION SHALL HAVE A CONDUCTIVITY NOT TO EXCEED $0.28 \text{ BTU/IN/H/FT}^2 \text{ @ } 75^\circ\text{F}$ WHEN TESTED IN ACCORDANCE WITH ASTM C547.

2. INSULATION AT ALL HANGERS FOR PIPING 2 1/2 INCHES AND LARGER SHALL BE HARD AND NON-COMPRESSIBLE.

1. ALL INSULATION SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAN 50 TO CONFORM WITH THE REQUIREMENTS OF THE NFPA.

4. PROVIDE ZESTON OR EQUAL INSULATION-FITTINGS FOR ALL TEES, ELLS OR SPECIALTY FITTINGS.

C. REFRIGERANT PIPING INSULATION

1. INSULATE THE REFRIGERANT SUCTION LINES AND CONDENSATE LINES WITH 1-1/2" PIPE INSULATION SIMILAR TO FLEXTHANE SEAM-SEAL OR INSUL-LOCK. INSULATION SHALL BE A CLOSED CELL FIBER FREE ELASTOMERIC FOAM IN ACCORDANCE WITH ASTM C534, TYPE 1 - TUBULAR, GRADE 1; SHALL HAVE A CONDUCTIVITY NOT TO EXCEED $0.26 \text{ BTU/IN/H/FT}^2 \text{ @ } 75^\circ\text{F}$ WHEN TESTED IN ACCORDANCE WITH ASTM C177 OR C516; SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84; AND SHALL HAVE A MAXIMUM WATER ABSORPTION % OF 0.2 BY VOLUME WHEN TESTED IN ACCORDANCE WITH ASTM C209. DO NOT INSULATE THE HOT GAS (LIQUID) LINES OR ANY HOT GAS BYPASS.

END OF SECTION 230700

SECTION 230900
INSTRUMENTATION AND CONTROL FOR HVAC

A. WORK RESPONSIBILITY

1. L5DAC HVAC SUPPLIER WILL FURNISH NECESSARY CONTROL DEVICES TO THE FIELD. FOR ALL DEVICES NOT FACTORY INSTALLED, IT WILL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO INSTALL.

END OF SECTION 230900

SECTION 232100
HYDRONIC PIPING AND PUMPS

A. HYDRONIC PIPING

1. FURNISH AND INSTALL A COMPLETE HYDRONIC PIPING SYSTEM IF APPLICABLE. REFER TO PLANS TO DETERMINE IF A HYDRONIC SYSTEM IS REQUIRED, UNLESS OTHERWISE NOTED THE WORKING PRESSURE FOR SYSTEM PIPING AND COMPONENTS SHALL BE AT MINIMUM 150 PSIG.
2. PIPING:
 - A. HYDRONIC PIPING FOR CHILLED WATER, CONDENSER WATER AND/OR HEATING WATER SHALL BE ASTM A-53, SCHEDULE 40, ERW, BLACK STEEL PIPE WITH PLAN ENDS, INSTALL STEEL PIPE WITH WELDED JOINTS WHERE PIPE IS 2-1/2 INCH AND LARGER. INSTALL STEEL PIPE WITH THREADED JOINTS AND FITTINGS. INSTALL TYPE "K" COPPER PIPE FOR 2 INCH AND SMALLER PIPE. PROVIDE DIELECTRIC UNIONS BETWEEN DISSIMILAR METALS. ALL PIPING SHALL BE IN STRICT CONFORMANCE WITH ASTM A54, AND LANDLORD'S REQUIREMENTS, WHICHEVER IS MOST STRINGENT. UNIONS OR FLANGES MUST BE USED AT EQUIPMENT CONNECTIONS WHERE SERVICE OR REMOVAL MAY BE REQUIRED.
 - F. ALL PIPING AND EQUIPMENT SHALL BE PRESSURE TESTED WITHOUT LEAKAGE AT A MINIMUM PRESSURE OF 125 PSI.
 - G. ALL HYDRONIC PIPING AND EQUIPMENT CONNECTED TO THE HVAC PIPING SYSTEM SHALL BE CLEANED AND FLUSHED. REMOVE, CLEAN, AND REPLACE STRAINER SCREENS. FILL TENANT'S SYSTEM WITH DOMESTIC WATER AND VENT ALL PIPING AND EQUIPMENT PRIOR TO CONNECTION TO THE LANDLORD'S SYSTEM. CONTRACTOR SHALL NOT FILL TENANT'S SYSTEM WITH WATER FROM THE LANDLORD'S SYSTEM UNLESS SPECIFICALLY INSTRUCTED TO DO SO FROM THE LANDLORD'S FIELD REPRESENTATIVE. ANY RUNS THRU A CHASE OR SHAFT WILL BE DONE WITH FEWEST JOINTS POSSIBLE USING THE LONGEST LENGTH OF HARD COPPER PIPE AVAILABLE. SHOULD A JOINT BE REQUIRED, CONTRACTOR SHALL MAKE ALL EFFORTS TO KEEP THE JOINTS IN ACCESSIBLE AREAS.
 - H. PRIOR TO CONNECTION TO THE LANDLORD'S SYSTEM, CONTRACTOR SHALL OBTAIN WRITTEN CONFIRMATION FROM THE LANDLORD'S FIELD REPRESENTATIVE, THAT ALL TESTING, FLUSHING, AND PROPER FILLING OF THE TENANT'S SYSTEM HAS BEEN COMPLETED IN ACCORDANCE TO THE LANDLORD'S REQUIREMENTS AND THAT THE TENANT'S SYSTEM IS READY TO BE CONNECTED TO THE LANDLORD'S SYSTEM.

PIPING SPECIALTIES

- A. PRESSURE/TEMPERATURE TEST PLUGS (PETE'S PLUG) - 1/4 INCH NPT FITTINGS TO RECEIVE EITHER A TEMPERATURE OR PRESSURE PROBE, 1/8 INCH O.D. FITTING AND CAPS SHALL BE BRASS WITH VALVE CORE OF NORDAL, RATED AT 400 PSIG, 0 TO 200 DEGREES F.
 - B. STRAINERS - "Y" PATTERN STRAINERS, 125 PSIG, CAST IRON BODY WITH PERFORATED STAINLESS STEEL SCREEN, THREADED FOR 2 INCHES AND SMALLER, FLANGED FOR 2-1/2 INCHES AND LARGER. SCREEN OPENING SIZE AT 0.035 INCH FOR HEATING AND 1/8 INCH FOR CHILLED OR CONDENSER WATER. PIPING WITH BLOWDOWN VALVE WITH HOSE END FITTING.
 - C. FLEXIBLE HOSE: PIPE SIZE 1/2 INCH TO 1-1/4 INCH - PROVIDE PLENUM RATED STAINLESS STEEL BRAIDED HOSE WITH EPDM CORE. END CONNECTIONS SHALL BE COMPATIBLE WITH PIPES TO BE JOINED. PROVIDE DIELECTRIC UNIONS BETWEEN DISSIMILAR METALS. PIPE SIZE 1-1/2 INCH AND LARGER - PROVIDE STAINLESS STEEL BRAIDED HOSE OVER A CORRUGATED STAINLESS STEEL TUBE WITH CARBON STEEL END FITTINGS. END FITTINGS SHALL BE COMPATIBLE WITH PIPES TO BE JOINED. PROVIDE DIELECTRIC UNIONS BETWEEN DISSIMILAR METALS.
 - D. DIELECTRIC UNIONS: WHEN JOINING TWO SEPARATE METALS PROVIDE A CONNECTOR ASSEMBLY OF COPPER ALLOY AND FERROUS MATERIALS WITH SEPARATING NONCONDUCTIVE INSULATING MATERIAL. INCLUDE END CONNECTIONS COMPATIBLE WITH PIPES TO BE JOINED.
4. GENERAL INSTALLATION
 - A. INSTALL WATER MAINS WITHOUT PITCH. USE ECCENTRIC REDUCING COUPLINGS AT CHANGES IN SIZE WITH THE TOP OF PIPES AT SAME ELEVATION.
 - B. BRANCHES TO UNITS BELOW MAINS TO BE TAKEN FROM BOTTOM OF MAINS AT A 45 DEGREE ANGLE, PITCH DOWNWARD TOWARD UNITS. BRANCHES TO UNITS ABOVE MAINS TO BE TAKEN FROM TOP OF MAINS AT A 45 DEGREE ANGLE PITCHED UPWARD TOWARDS UNITS. PITCH NOT LESS THAN 1" TO 10 FEET.
 - C. SEE MECHANICAL DETAIL DRAWINGS FOR APPLICABLE DETAILS.
 - D. PROVIDE UL LISTED FIRE STOPPING SYSTEM AROUND ALL PIPING PENETRATIONS THROUGH RATED WALLS. PENETRATIONS SHALL MEET THE REQUIREMENTS OF UL DETAILS W1001 (UNINSULATED WALL) AND W5039 (INSULATED WALL).

END OF SECTION 232100

SECTION 232300
REFRIGERANT PIPING

A. REFRIGERANT PIPING:

1. THIS CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE REFRIGERANT PIPING SYSTEM BETWEEN THE INDOOR FAN UNITS AND OUTDOOR CONDENSING UNITS. REFER TO PLANS TO DETERMINE IF A REFRIGERANT SYSTEM IS REQUIRED. NEW PIPING IS REQUIRED. REUSE OF EXISTING PIPING IS NOT ALLOWED.
2. PIPING:
 - A. REFRIGERANT PIPING SHALL BE TYPE AOR COPPER TUBING. TUBING SHALL BE CLEAN AND CLEAR OF DEBRIS, AND EVACUATED WITH A DEEP VACUUM PRIOR TO REFRIGERANT CHARGE. THE CONTRACTOR SHALL CONFIRM THE DIAMETER OF THE REFRIGERANT PIPING RUNS IN EXCESS OF 50 EQUIVALENT FEET WITH THE ARCHITECT, ENGINEER, AND MANUFACTURER FOR ALL SPLIT SYSTEMS. NO REFRIGERANT PIPING RUNS EXCEEDING 100 EQUIVALENT FEET ARE TO BE INSTALLED WITHOUT L5DAC P.W.'S PERMISSION. THE MANUFACTURER SHALL PROVIDE ALL FINAL PIPE SIZING AND COIL SELECTIONS FOR ALL REFRIGERANT PIPING SYSTEMS.
 - B. ALL FITTINGS AND JOINTS SHALL BE WROUGHT COPPER OR CAST BRONZE (ANSI B16.22). ALL COPPER TO COPPER JOINTS SHALL BE BRAZED WITH A COPPER-PHOSPHORUS ALLOY AND ALL OTHER JOINTS SHALL BE BRAZED WITH SILUOS-5 ALLOY.
 - C. ALL ELBOWS ARE TO BE LONG RADIUS TYPE.
3. INSTALLATION
 - A. REFRIGERANT PIPE SIZING SHALL BE THE RESPONSIBILITY OF THE HVAC SUPPLIER. CONTRACTOR WILL PROVIDE A SCHEMATIC PROPOSED LAYOUT OF THE SYSTEM INCLUDING ALL ELBOWS, RISERS, RUNS, ETC., WITH DIMENSIONS. THE HVAC SUPPLIER WILL THEN PROVIDE WRITTEN DOCUMENTATION OF PIPE SIZES AND ADDITIONAL REQUIRED SYSTEM COMPONENTS TO THE FIELD.
 - B. SUCTION LINES SHALL HAVE ADEQUATE ULT TRAPS AND/OR DOUBLE SUCTION RISERS TO MEET THE REQUIREMENTS OF FIELD CONDITIONS AND EQUIPMENT/MANUFACTURER'S RECOMMENDATIONS.
 - C. BRAZE ALL JOINTS WITH SILUOS-5 STARTING AT THE INDOOR UNIT AND WORKING TOWARD THE OUTDOOR UNIT. THE SEALS ON THE OUTDOOR UNIT SHALL BE BROKEN LAST. A NITROGEN BLEED SHALL BE USED DURING ALL BRAZING AND ANY TIME THE SYSTEM IS OPEN. ALL OPEN JAMES SHALL BE CAPPED AND SEALED BEFORE LEAVING THE SITE DURING CONSTRUCTION. PRESSURE TEST FOR LEAKS WITH AN INERT GAS UP TO 245 PSIG. REDO LEAKING JOINTS AND RETEST UNTIL SYSTEM IS TIGHT. EVACUATE ENTIRE SYSTEM TO 200 MICRONS OF MERCURY/CHARGE SYSTEM WITH 5 PSI OF R-410A AND A INERT GAS TO 245 PSI AND RETEST SYSTEM. ENERGIZE DRAIN CASE HEATERS 24 HOURS PRIOR TO STARTING COMPRESSOR TO ENSURE THAT ALL REFRIGERANT LIQUID IS OUT OF THE COMPRESSOR.
 - D. UPON COMPLETION OF TESTS, BUT BEFORE THE REFRIGERANT PIPING INSULATION IS APPLIED, THE PIPING MUST BE INSPECTED BY A REPRESENTATIVE OF THE LOCAL GOVERNING AUTHORITY AS NECESSARY.
 - E. INSULATE THE REFRIGERANT SUCTION LINES AND CONDENSATE LINES AS SPECIFIED HEREIN.
 - F. PROVIDE UL LISTED FIRE STOPPING SYSTEM AROUND ALL PIPING PENETRATIONS THROUGH RATED WALLS. PENETRATIONS SHALL MEET THE REQUIREMENTS OF UL DETAILS W1001 (UNINSULATED WALL) AND W5039 (INSULATED WALL).
4. INSPECTION
 - A. CONTRACTOR MUST PREPARE AND SUBMIT A COMPLETE PIPING SCHEMATIC TO THE LOCAL MANUFACTURER REPRESENTATIVE FOR APPROVAL PRIOR TO BEGINNING INSTALLATION. UPON COMPLETION OF PIPING, THIS CONTRACTOR MUST CALL THE LOCAL REPRESENTATIVE FOR FIELD INSPECTION OF WORK PERFORMED. ALL ITEMS FOUND TO BE INADEQUATE FOR PROPER PERFORMANCE BY MANUFACTURER REPRESENTATIVE MUST BE CORRECTED. THIS INSPECTION IS PERFORMED AT L5DAC EXPENSE.

END OF SECTION 232300

SECTION 233100
HVAC DUCTS AND CASINGS

A. METAL DUCTWORK - NO FIBERGLASS DUCT ALLOWED

1. NO DUCTWORK SHALL BE FABRICATED PRIOR TO JOB SITE VISIT AND APPROVAL BY THE GENERAL CONTRACTOR. A SKETCH MUST BE SUBMITTED INDICATING DEVIATIONS FROM DESIGN AND MUST BE APPROVED BY L5DAC'S PROJECT MANAGER PRIOR TO FABRICATION OR INSTALLATION.
2. EXCEPT AS OTHERWISE INDICATED, FABRICATE AND INSTALL RECTANGULAR AND ROUND DUCTWORK WITH GALVANIZED STEEL, IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" OF THE LATEST EDITION, WHERE OTHER CODES ARE ENFORCED, (I.E. UMC, BOCA, ETC.) USE THE MOST STRINGENT CODE FOR DUCT CONSTRUCTION STAND

GENERAL NOTES		
ALL NOTES INCLUDED HEREIN ARE MADE PART OF EACH AND ALL MECHANICAL, ELECTRICAL AND PLUMBING SECTIONS OF WORK.		
1.	REFER TO LANDLORD'S SPECIFICATIONS AND TENANT DESIGN CRITERIA FOR NECESSARY INFORMATION AND COORDINATION WITH OTHER TRADES.	
2.	THE ABBREVIATION L&Dc WHEREVER IT APPEARS IN THE DRAWINGS, SHALL REFER TO "LIMITED STORE DESIGN AND CONSTRUCTION". ANY REFERENCE TO TENANT, BRAND SPECIFIC (EXPRESS, ETC.) OR FURNISHED BY ANY OF THE ABOVE REFERS TO L&Dc.	
3.	ANY DISCREPANCY BETWEEN L&Dc DRAWINGS AND TENANT CRITERIA, L&Dc DRAWINGS SHALL TAKE PRECEDENCE.	
4.	THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC TO THE EXTENT THAT ALL INSTALLED ITEMS AND LOCATIONS ARE NOT EXACTLY PLACED AND ARE NOT TO BE SCALED.	
5.	EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED PERMITS AND INSPECTION FEES.	
6.	BEFORE COMMENCING ANY WORK, CONTRACTORS SHALL REVIEW THE LATEST NATIONAL, STATE AND LOCAL CODE REQUIREMENTS INCLUDING LANDLORD CRITERIA AND PERFORM THE WORK IN STRICT ACCORDANCE WITH THESE. IN CASE OF CONFLICT THE STRICTER REQUIREMENTS WILL PREVAIL.	
7.	NO ADDITIONAL COMPENSATION SHALL BE MADE FOR ANY CHANGE ORDERS DUE TO CONTRACTOR'S FAILURE TO VISIT THE JOBSITE AND/OR PREDETERMINE ALL EXISTING CONDITIONS BEFORE SUBMITTING HIS BID.	
	A. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. FOR THE PURPOSE OF SURVEYING EXISTING CONDITIONS, WHICH MAY AFFECT THE WORK TO BE DONE UNDER THIS SECTION, ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE GENERAL CONTRACTOR, L&Dc OR THE LANDLORD'S FIELD REPRESENTATIVE FOR CLARIFICATION.	
	B. AFTER BID, ANY QUESTIONS RELATING TO SPECIFIC M, E, R, P ISSUES ARE TO BE DIRECTED AS RFT'S THROUGH THE L&Dc PROJECT MANAGER.	
	C. SHOULD THE SPACE HAVE BEEN INACCESSIBLE FOR INSPECTION CONTRACTOR MUST INDICATE SO ON HIS BID.	
8.	THE GENERAL CONTRACTOR'S FIRE SPRINKLER SUBCONTRACTOR SHALL DESIGN AND INSTALL FIRE SPRINKLER SYSTEM CONFORMING TO LANDLORD'S CRITERIA, TENANT'S REQUIREMENTS AND PER LOCAL CODES AND NFPA STANDARDS.	
9.	THE CONTRACTOR, WITHIN FIFTEEN (15) DAYS OF THE AWARD OF THE CONTRACT, SHALL SUBMIT TO THE OWNER, SIX (6) COPIES OF A COMPLETE LIST OF MATERIALS AND EQUIPMENT PROPOSED FOR THE JOB INCLUDING ALL DATA, PART NUMBERS, RATING CAPACITY, SIZE, DIMENSIONS, ELECTRICAL DATA, GRADE, MANUFACTURER, AND ANY OTHER DESCRIPTIVE DATA FOR ALL EQUIPMENT OR SYSTEMS THAT DEVIATE FROM SPECIFIED ITEMS. ANY DELAYS OR COSTS DUE TO THESE DEVIATIONS, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.	
10.	CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL UNUSED OR ABANDONED MATERIALS AND EQUIPMENT, AND ITS REMOVAL OFF THE LANDLORD'S PREMISES.	
11.	OWNER RESERVES THE RIGHT TO HAVE CONSTRUCTION REVIEWED BY AN OUTSIDE CONSULTANT PRIOR TO ACCEPTANCE OF THE PROJECT.	
12.	EACH CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP RELATED TO HIS WORK FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE WHICH THE OWNER ACCEPTS THE PROJECT. THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER OR TENANT SHALL CORRECT ANY DEFECTS IN MATERIALS OR WORKMANSHIP DURING THIS GUARANTEE PERIOD.	
13.	EACH CONTRACTOR SHALL BE RESPONSIBLE AND ENSURE A CLEAN INSTALLATION ESPECIALLY IN EXPOSED CEILING AREAS. THE FINAL APPROVAL OF THIS WORK WILL BE ISSUED BY L&Dc PROJECT MANAGER.	
14.	PROVIDE ONE SETS OF "AS-BUILT" DRAWINGS INTO PLAN TUBE AND ONE BOUND SETS OF ALL OPERATIONS MANUALS, DIAGRAMS, SERVICE CONTRACTS AND GUARANTEES IN BINDER TO STORE MANAGER. A REPORT PREPARED IN ACCORDANCE WITH MECHANICAL SPECIFICATIONS BY AN INDEPENDENT AIR BALANCE CONTRACTOR, HIRED BY GC, MUST BE INCLUDED IN THE CLOSE-OUT PACKAGE.	
HVAC GENERAL NOTES		
1.	THESE PLANS MAY BE USED FOR CONSTRUCTION ONLY AFTER APPROVAL IS OBTAINED FROM THE BUILDING DEPARTMENT MECHANICAL PLAN CHECK DIVISION AND THAT DIVISION'S STAMPED APPROVAL AND AUTHORIZED SIGNATURE APPEAR ON THE PLANS.	
2.	COORDINATE ALL WORK WITH ALL TRADES INCLUDED BUT NOT LIMITED TO ELECTRICAL, PLUMBING, FIRE PROTECTION AND STRUCTURAL CONTRACTORS. INSTALL ALL WORK TO CLEAR NEW AND EXISTING ARCHITECTURAL AND STRUCTURAL MEMBERS. NO ITEM SUCH AS PIPE, DUCT, ETC. IS TO COME IN CONTACT WITH ANY EQUIPMENT.	
3.	REFER TO ARCHITECTURAL DRAWINGS FOR DEMOLITION WORK.	
4.	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT FIXTURE LOCATION.	
5.	CONTRACTOR SHALL PROVIDE CUT SHEETS TO L&Dc FOR ALL EQUIPMENT AND DEVICES FURNISHED BY THE CONTRACTOR THAT DEVIATE FROM SPECIFIED ITEM FOR REVIEW AND APPROVAL PRIOR TO THE PURCHASE OF ANY SUCH EQUIPMENT OR DEVICES.	
6.	HVAC CONTRACTOR IS RESPONSIBLE TO INQUIRE WITH THE LANDLORD'S REPRESENTATIVE ON ANY SMOKE EVACUATION SYSTEM IN USE AT THE MALL AT THE TIME OF THE BID, IF THE SAID SYSTEM IS NOT ADEQUATELY DESCRIBED ON THE DRAWINGS, THE MECHANICAL CONTRACTOR IS RESPONSIBLE TO INFORM THE GENERAL CONTRACTOR AND INCLUDE THE COST AS A SEPARATE LINE ITEM IN THE BID. NO ADDITIONAL MONEYS SHALL BE AWARDED FOR THE IN-REQUIREMENTS TO A LANDLORD'S SMOKE EVACUATION SYSTEM THAT IS IN EXISTENCE AT THE TIME OF THE BID, WITHOUT HAVING IDENTIFIED A SEPARATE LINE ITEM FOR THE SMOKE EVACUATION SYSTEM AT THE TIME OF THE BID.	
7.	ACCESS TO ALL COMPONENTS AND EQUIPMENT MUST BE PROVIDED TO MEET CODE AND SERVICE/MAINTENANCE EASE.	
8.	PRIOR TO STARTUP OF HVAC EQUIPMENT, MECHANICAL CONTRACTOR WILL CONFIRM WITH ONE OF THE LISTED HVAC MANUFACTURER REPRESENTATIVES THAT CORRECT POWER FOR EQUIPMENT HAS BEEN PROVIDED TO L&Dc PROVIDED HVAC UNITS AND HAS BEEN TURNED ON FOR A MINIMUM OF 24 HOURS. L&Dc RESERVES THE RIGHT TO CHECK CONSTRUCTION COMPLIANCE WITH PLANS AND SPECIFICATIONS. SHOULD THE OWNER FIND CORRECTIVE WORK TO BE NECESSARY, HE WILL NOTIFY CONTRACTOR OF SUCH WORK IN WRITING AND EXPECT COMPLIANCE PERFORMED WITH DUE DILIGENCE. IF ANY CORRECTIVE WORK IS DEEMED TO BE NECESSARY, THE COST OF REINSPECTIONS WILL BE BORNE BY THE CONTRACTOR. THE MECHANICAL CONTRACTOR WILL THEN ENSURE THAT THE EQUIPMENT IS POWERED FOR A MINIMUM OF 24 HRS BEFORE START-UP.	
9.	IF WORK IS REQUIRED BY L&Dc IN ORDER TO IMPROVE, CHANGE OR CORRECT AIR CONDITIONING OPERATIONAL CONDITIONS DUE TO: PART MALFUNCTION, WARRANTY OR OTHER INABILITY TO PROVIDE THE COMFORT CONDITIONS REQUIRED BY THE STORE, CONTRACTOR SHALL BE DIRECTED BY L&Dc TO ADDRESS THIS WORK IN A TIMELY MANNER. IF IT BECOMES EVIDENT THAT THE CONTRACTOR CANNOT ACCOMPLISH THE TASK, THEN AFTER 72 HOURS OF WRITTEN NOTICE THE OWNER MAY, AT HIS DISCRETION, TAKE OVER SUCH WORK AND BACK CHARGE THE CONTRACTOR FOR ANY CORRECTIVE WORK THAT WAS REQUIRED DUE TO LACK OF PERFORMANCE, WORKMANSHIP, AND/OR ADHERENCE TO PLANS AND SPECIFICATIONS.	
10.	UPON COMPLETION OF THE WORK, CONTRACTOR SHALL VERIFY THE PROPER WORKING ORDER OF THE SYSTEM(S) AND MAKE ANY ADJUSTMENTS AS REQUIRED.	
11.	PROVIDE FILTER CHANGES THROUGHOUT CONSTRUCTION AS REQUIRED FOR ALL HVAC EQUIPMENT. PROVIDE FILTER CHANGES AT LEAST TWICE MONTHLY ONCE STARTED, PRIOR TO TEST AND BALANCE, AND LASTLY, PRIOR TO MERCHANDISING. ANY EQUIPMENT OR DUCTWORK THAT BECOMES SOILED DUE TO A LACK OF FILTER CHANGES, AS DETERMINED SOLELY BY THE L&Dc PROJECT MANAGER, SHALL BE CORRECTED ON BEHALF OF THE CONTRACTOR AND CHARGES BILLED TO THE CONTRACTOR.	
12.	NOTES TO EQUIPMENT SCHEDULES USE THE WORDS "FURNISH" AND "PROVIDE", WHERE THE WORD "FURNISH" IS USED, SOME FIELD INSTALLATION IS REQUIRED BY THE CONTRACTOR. WHERE THE WORD "PROVIDE" IS USED, NO FIELD INSTALLATION IS REQUIRED AS THE DEVICES OR ACCESSORIES ARE FURNISHED AND INSTALLED BY THE MANUFACTURER AS PART OF THE EQUIPMENT WHEN SHIPPED.	
13.	UNLESS OTHERWISE SPECIFIED, CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIAL, LABOR AND SUPERVISION NECESSARY TO COMPLETE THE HEATING, VENTILATING AND AIR CONDITIONING WORK IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARDS AS OUTLINED HEREIN. SEE RESPONSIBILITY SCHEDULE ON SHEET M04.1.	
14.	MECHANICAL CONTRACTOR SHALL FIELD MEASURE EXISTING ROOF CURB(S) FOR CURB ADAPTER(S), WHERE APPLICABLE, AND SHALL SUPPLY DIMENSIONS TO L&Dc HVAC SUPPLIER PRIOR TO START OF CONSTRUCTION.	
15.	ALL HEATING VENTILATING AND AIR CONDITIONING EQUIPMENT SHALL BE CLEARLY IDENTIFIED WITH TENANT'S NAME, SPACE NUMBER AND UNIT DESIGNATION AND SHALL BE STENCILED IN 4" HIGH BLACK LETTERS.	
16.	FURNISH AND INSTALL ALL NEW DUCTWORK INCLUDING INSTALLATION OF OWNER SUPPLIED PLENUM BOOTS, SUPPLY AIR DIFFUSERS, AND RETURN AIR GRILLES. (SEE AIR DEVICE SCHEDULE ON THIS SHEET).	
	A. ALL MATERIAL SHALL BE NEW AND OF COMMERCIAL GRADE AND BEAR UNDERWRITER'S LABORATORY AND UNION LABELS WHERE SUCH LABELING APPLIES.	
	B. ALL PLENUMS SHALL BE FABRICATED FROM GALVANIZED SHEET METAL OF THE APPROPRIATE GAUGE AND BE INSULATED WITH A MINIMUM OF 1" THICK, 0.75 LB./CU.FT. DENSITY FIBERGLASS INSULATION WITH ALUMINUM FOIL BACKED VAPOR BARRIER.	
	C. WHERE DESIGNATED, BRANCHES FROM MAIN LOW VELOCITY TRUNK DUCTWORK SHALL BE FURNISHED WITH SPLITTERS, DAMPERS OR SIMILAR BALANCING DEVICES IN ACCORDANCE WITH THE STANDARDS OF SMACNA.	
	D. ALL DUCTS FOR FINAL CONNECTION TO DIFFUSERS SHALL BE CLASS 1, UL LISTED (SL 181) FLEXIBLE AIR DUCT NOT TO EXCEED 4'-0" IN LENGTH (THERMAFLEX, GLASFLEX, OR APPROVED EQUAL).	
	E. SUPPLY AND RETURN DUCTWORK SHALL BE LINED AND WITH CODE COMPLYING BLANKET INSULATION. ACOUSTICAL LINER MAY BE PROVIDED. ALL MATERIALS SHALL COMPLY WITH N.F.P.A. 90A AND 90B. SEE SPECIFICATIONS ON SHEET M01.1.	
	F. HANGER WIRES, DUCT STRAPS, FASTENING DEVICES, ETC. SHALL BE FASTENED TO THE STEEL JOISTS AND/OR BEAMS ABOVE. DO NOT ATTACH ANY SUCH ITEMS DIRECTLY TO FLOOR SLABS, PIPING, OTHER DUCTWORK, ELECTRICAL CONDUITS OR THE ROOF DECK ABOVE.	
	G. ADDITIONAL FIRE DAMPERS SHOULD BE INSTALLED AS REQUIRED BY ANY APPLICABLE CODES AND/OR JURISDICTIONAL AUTHORITIES.	
16.	SEAL AROUND PIPES AND DUCTS PENETRATING FIRE SEPARATIONS WITH LISTED AND APPROVED FIRE SEAL MATERIAL. ONLY LISTED AND APPROVED SEALANTS AND METHODS FOR THE SPECIFIC USE WILL BE PERMITTED.	
17.	MECHANICAL CONTRACTOR SHALL INSTALL TEMPERATURE SENSORS AND AS SHOWN ON THE PLAN (VERIFY LOCAL CODES. IF PLAN LOCATION IS NOT ACCEPTABLE, IMMEDIATELY CONTACT L&Dc PROJECT MANAGER FOR DIRECTION.)	
18.	UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL FULLY PRESSURE CHECK AND CHARGE ALL REFRIGERANT SYSTEMS (IF REQUIRED).	
19.	THE CONTRACTOR SHALL ENGAGE THE SERVICES OF AN INDEPENDENT, AIR/WATER BALANCING COMPANY THAT IS A NEBB CERTIFIED CONTRACTOR OR HAS AN AABC CERTIFIED TEST & BALANCE ENGINEER. THIS COMPANY SHALL PERFORM THE BALANCING OF AIR/WATER SYSTEM(S) AND MAKE ANY REQUIRED ADJUSTMENTS TO ENSURE PROPER WORKING ORDER. UPON COMPLETION, THE BALANCING COMPANY SHALL PROVIDE A COMPLETE SYSTEM REPORT. INCLUDED AS A COVER TO THIS REPORT SHALL BE A COMPLETED LIMITED BRANDS HVAC BALANCE CERTIFICATION FORM.	
MECHANICAL NOTES AND SPECIFICATIONS		
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HVAC EQUIPMENT COMMISSIONING		
DETAILED HVAC COMMISSIONING INFORMATION IS INCLUDED IN THE L&D&C SITE MANUAL PROVIDED TO THE CONTRACTOR AT THE START OF THE PROJECT.		
MANUFACTURER WILL CONTACT THE CONTRACTOR EARLY IN THE PROJECT TO SET PRELIMINARY DATES FOR HVAC INSPECTION, COMMISSIONING AND HVAC CONTROLS COMMISSIONING.		
PRIOR TO HVAC INSPECTION / COMMISSIONING (TO BE COMPLETED BY MECHANICAL SUBCONTRACTOR)		
1.	CONNECT AND BLEED CONDENSATE, DUCTWORK, NATURAL GAS, CHILLED WATER PIPING, AND/OR CONDENSER WATER PIPING.	
2.	CHARGE HVAC SYSTEMS WITH REFRIGERANT FOLLOWING MANUFACTURERS' GUIDELINES AND INSTRUCTIONS. COLD WEATHER CONDITIONS REQUIRE SPECIFIC PROCESSES, CONTACT MANUFACTURER FOR TECHNICAL SUPPORT.	
3.	CONNECT POWER TO THE HVAC EQUIPMENT FOR A MINIMUM OF 24 HOURS. NOTE: IN COLD WEATHER SITUATIONS, DO NOT OPERATE THE UNITS PRIOR TO COMMISSIONING!	
HVAC EQUIPMENT SHOULD BE STARTED UP EARLY IN THE PROJECT. COORDINATE EARLY START UP OF EQUIPMENT WITH MANUFACTURER.		
NOTE: THE GC MAY BE BACK CHARGED FOR ADDITIONAL AC SITE VISITS BEYOND THE FIRST THREE (3) NECESSARY TO DOCUMENT THE RESOLUTION OF THE HVAC PUNCHLIST ITEMS.		
HVAC COMMISSIONING PROCESS		
VISIT 1: HVAC EQUIPMENT START UP		
1.	CONTRACTOR SHALL HAVE THE MECHANICAL AND ELECTRICAL SUBCONTRACTOR ON SITE DURING THE HVAC INSPECTION AND COMMISSIONING. BUDGET 5 HOURS FOR THE HVAC INSPECTION AND COMMISSIONING. (NOTE: THESE HOURS ARE TO BE USED FOR THE COMPLETION OF THE COMMISSIONING PROCESS ONLY. ADDITIONAL HOURS WILL NOT BE APPROVED FOR WORK THAT WAS IN SCOPE AND NOT COMPLETED PRIOR TO THE COMMISSIONING PROCESS.)	
2.	CONTRACTOR TO COMPLETE AND EMAIL, OR FAX, THE HVAC EQUIPMENT START UP SURVEY TO MANUFACTURER PRIOR TO THE HVAC STARTUP. NECESSARY, UTILIZE SITE FAX LINE TO CONNECT TO THE CONTROLS MODEM IN THE IF'S PANEL.	
3.	MANUFACTURER COORDINATES THE HVAC EQUIPMENT COMMISSIONING. CONTRACTOR IS RESPONSIBLE FOR COMMUNICATING SCHEDULE DATE CHANGES TO MANUFACTURER AND SUBCONTRACTORS.	
4.	PROVIDED THERE ARE NO HVAC INSTALLATION ISSUES, SYSTEMS SHALL BE STARTED FOR TEMPORARY OPERATION ON LOCAL CONTROL.	
5.	IF THERE ARE HVAC INSTALLATION PUNCHLIST ITEMS, THE GC MUST CORRECT THEM AND RESCHEDULE COMMISSIONING WITH MANUFACTURER.	
VISIT 2: HVAC CONTROLS COMMISSIONING		
THE CONTROLS COMMISSIONING IS PERFORMED BY THE MANUFACTURER IN CONJUNCTION WITH THE GENERAL CONTRACTOR AND THE MECHANICAL AND ELECTRICAL SUBCONTRACTORS. ALLOW FOR 4 HOURS TO COMPLETE THE CONTROLS COMMISSIONING. (NOTE: THESE HOURS ARE TO BE USED FOR THE COMPLETION OF THE COMMISSIONING PROCESS ONLY. ADDITIONAL HOURS WILL NOT BE APPROVED FOR WORK THAT WAS IN SCOPE AND NOT COMPLETED PRIOR TO THE COMMISSIONING PROCESS.)		
FOLLOW THE CONSTRUCTION DRAWINGS AND MANUFACTURER'S DETAILS AND DRAWINGS DURING THE INSTALLATION OF THE HVAC CONTROL EQUIPMENT.		
1.	CONTRACTOR TO COMPLETE AND EMAIL, OR FAX, THE CONTROLS COMMISSIONING SURVEY TO MANUFACTURER PRIOR TO THE CONTROL COMMISSIONING.	
2.	CONNECT THE HVAC CONTROLS TO AN OPERATIONAL ANALOG PHONE LINE OR ETHERNET CONNECTION TO ALLOW COMMUNICATION. IF NECESSARY, UTILIZE SITE FAX LINE TO CONNECT TO THE CONTROLS MODEM IN THE IF'S PANEL.	
3.	CONTACT MANUFACTURER AT THE SCHEDULED TIME FOR THE CONTROLS COMMISSIONING.	
4.	PROVIDED THERE ARE NO OPEN ISSUES, VISIT 2 IS COMPLETE. IN THE EVENT THERE ARE OPEN ITEMS, THE GC MUST CORRECT THEM AND RESCHEDULE THE CONTROLS COMMISSIONING.	
VISIT 3: FINAL HVAC INSPECTION		
THIS VISIT IS TO DO A FINAL INSPECTION OF THE HVAC EQUIPMENT AND CONTROL INSTALLATION. THIS VISIT MUST TAKE PLACE PRIOR TO CONSTRUCTION COMPLETION.		
THE FOLLOWING ITEMS MUST BE COMPLETED PRIOR TO THE INSPECTION:		
1.	HVAC SYSTEM INSTALLATION IS COMPLETE -- NO OPEN PUNCHLIST ITEMS EXCEPT FOR POSSIBLY THE PERMANENT PHONE LINE.	
2.	AIR BALANCE IS COMPLETE. NOTE: AIR BALANCE IS IN THE CONTRACTOR'S SCOPE OF WORK.	
THE GC MUST COMPLETE TRANE'S SITE VISIT #3 SURVEY PRIOR TO THE VISIT BEING SCHEDULED.		
THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE MECHANICAL SUBCONTRACTOR AND THE ELECTRICAL SUBCONTRACTOR ON SITE DURING THE FINAL INSPECTION. BUDGET 4 HOURS FOR THE FINAL INSPECTION.		
1.	THE CONTRACTOR IS RESPONSIBLE FOR COMMUNICATING SCHEDULE DATE CHANGES FOR THE FINAL INSPECTION	
2.	FILTERS ARE TO BE REPLACED DURING THIS VISIT. FILTERS ARE TO BE PROVIDED BY THE CONTRACTOR AND SHALL BE ON SITE WHEN THE TRANE TECHNICIAN ARRIVES.	
3.	WHEN COMPLETE AND ALL OPEN CONTRACTOR HVAC ISSUES ARE RESOLVED A CONTROL NUMBER IS ISSUED BY THE MANUFACTURER. IT IS RECORDED INSIDE THE CONTROL PANEL DOOR IN THE IF'S ELECTRICAL PANEL AND ON THE FINAL VISIT CHECK LIST.	
4.	IN THE EVENT THERE ARE OPEN ITEMS, THE CONTRACTOR MUST CORRECT THEM AND RESCHEDULE THE FINAL INSPECTION WITH MANUFACTURER. GC IS RESPONSIBLE FOR REPLACEMENT OF SHEAVES, PULLEYS, AND BELTS, IF NEEDED.	
5.	THE HVAC CONTROL NUMBER WILL BE ISSUED AT THE END OF THE VISIT PROVIDED THERE ARE NO UNRESOLVED HVAC PUNCHLIST ITEMS.	
THE TRANE TECHNICIAN WILL WRITE THE HVAC CONTROL NUMBER ON THE STICKER INSIDE THE WR CONTROLS PANEL (IF'S PANEL) AND ON THE FINAL VISIT CHECK LIST.		

NATIONAL ACCOUNTS HVAC SUPPLIER GENERAL NOTES		
HVAC EQUIPMENT NOTED HAS BEEN PREPURCHASED BY LIMITED STORE DESIGN & CONSTRUCTION. WITHIN THE FIRST WEEK OF CONSTRUCTION, THE GENERAL CONTRACTOR OR THEIR MECHANICAL SUBCONTRACTOR SHALL NOTIFY SUPPLIER VIA EMAIL.		
THE EMAIL SHALL STATE THE PHONE NUMBER, EMAIL ADDRESS AND DELIVERY ADDRESS OF THE CONTACT PERSON RESPONSIBLE FOR SCHEDULING AND RECEIVING THE HVAC EQUIPMENT AND ACCESSORIES. EQUIPMENT AND ACCESSORIES ARE TO BE SHIPPED BY ANY SPECIAL SHIPPING INSTRUCTIONS REQUIRED OR REQUESTED. ALLOW A MINIMUM OF TWO WEEKS AFTER CONSTRUCTION STARTS FOR DELIVERY UNLESS SPECIAL ARRANGEMENTS ARE MADE PRIOR TO THE START OF CONSTRUCTION.		
GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL SHIPPING COST INCURRED IF DELIVERY IS REQUIRED PRIOR TO THE STANDARD TWO WEEKS SCHEDULED.		
IF THIS INFORMATION IS NOT SENT TO NATIONAL ACCOUNT SUPPLIER, THEN THE EQUIPMENT AND ACCESSORIES WILL BE SHIPPED IN ACCORDANCE WITH THE PURCHASE ORDER DATE AND INSTRUCTIONS ISSUED BY L&D&C AND THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR UNLOADING AND STORAGE OF EQUIPMENT UNTIL SUCH TIME AS REQUIRED FOR INSTALLATION ON PROJECT.		
IF OWNER'S REPRESENTATIVE IS PERFORMING START UP, THEN GC AND/OR MECHANICAL CONTRACTOR MUST COORDINATE WITH MANUFACTURER REP. 2 WEEKS PRIOR TO CONSTRUCTION END DATE.		
CONTACT INFORMATION		
JODY SOWERS TRANE TECHNICAL SUPPORT, PRIMARY EMAIL: JSOWERS@TRANE.COM PHONE NO: 866.415.2499	SARAH SCHEST HVAC COMMISSIONING EMAIL: SARAHSCHEST@TRANE.COM PHONE NO: 866.415.2499	
JOHN D'AGOSTINO PROJECT MANAGER (OR TECHNICAL SUPPORT, SECONDARY) EMAIL: JOHN.DAGOSTINO@TRANE.COM PHONE NO: 866.415.2499		

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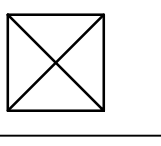
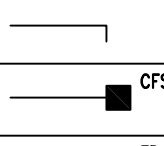
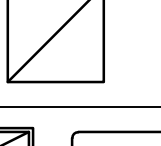
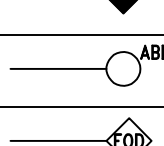
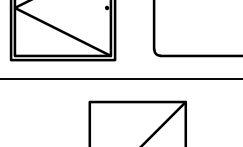
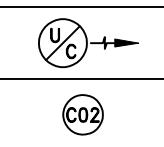
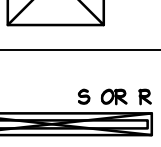
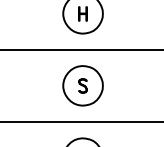
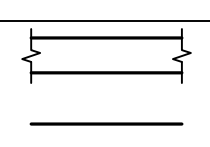
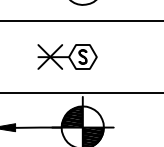
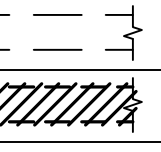
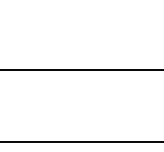
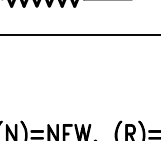



ROOFTOP UNIT SCHEDULE (ELECTRIC HEAT)				
MARK (RTU-#)	1			
TRANE PACKAGE NUMBER	NS			
MODEL / EER	TC0150 / 12.1			
AIR FLOW (CFM)	4,300			
OA FLOW	850			
AMBIENT OAT (F)	95			
EXT. S.P. (IN. W.C.)	0.8			
DX COOLING COIL				
EAT (TDB/WB)	81.8 / 68.4			
TOTAL (BTU/ HR)	148,920			
SENSIBLE (BTU/ HR)	105,810			
ELECTRIC HEAT				
INPUT (WATTS)	27,000			
OUTPUT (BTU/ HR)	92,150			
STAGES	2			
ELECTRICAL				
VOLTS/0/HZ	208/3/60			
MOTOR (HP)	5.0			
MCA (AMPS)	108			
MOC (AMPS)	110			
APPROX. WEIGHT (LBS)	2,600			
ACCESSORIES	1-4,5,7-10			
NOTES	1-2			
ACCESSORIES ("S" INDICATES STANDARD; "O" INDICATES OPTIONAL):				
1. S-FACTORY PROVIDED DISCONNECT SWITCH.				
2. S-FACTORY PROVIDED DUCT SMOKE DETECTOR IN SUPPLY AND RETURN AIR AND REMOTE TEST STATION, (MODEL SSK451).				
3. S-FACTORY PROVIDED SUPPLY AIR SENSOR.				
4. S-FACTORY PROVIDED TWO POSITION OUTSIDE AIR DAMPER WITH WEATHERHOOD. DAMPER TO CLOSE ON UNIT SHUT DOWN.				
5. S-FACTORY PROVIDED NON-POWERED GFI CONVENIENCE OUTLET.				
6. O-FACTORY PROVIDED POWER EXHAUST FOR RELIEF AIR. SOME FIELD ASSEMBLY REQUIRED.				
7. O-FACTORY FURNISHED WITH DEHUMIDIFICATION (HOT GAS REHEAT) OPTION.				
8. O-COASTAL CONDENSER COIL COATING.				
9. O-HALL GUARD.				
10. O-FURNISHED WITH 14" HIGH FACTORY FABRICATED ROOF CURB.				
11. O-CURB ADAPTER PROVIDED BY MECHANICAL CONTRACTOR.				
12. O-SINGLE ZONE YAV				
NOTES:				
1. REFER TO CONTROL WIRING SCHEMATICS FOR ANY FIELD INSTALLED CONTROL DEVICES NOT FACTORY INSTALLED.				
2. FIELD SET MINIMUM OUTSIDE AIR AS SPECIFIED ABOVE. OUTSIDE AIR DAMPER SHALL FULLY CLOSE ON UNIT SHUTDOWN.				
* MINIMUM OA FLOW IS THE AREA COMPONENT OF THE MINIMUM VENTILATION RATE BASED ON ASHRAE STANDARD 62.1-2007 FOR RETAIL SALES SPACE (0.12 CFM/SQFT), TABLE6-1.				

FAN TERMINAL UNIT SCHEDULE				
MARK (FPVAV-#)	1			
TRANE PACKAGE NUMBER	NS			
MODEL	VSEF			
FAN SIZE	06SQ			
INLET SIZE	10" DIA.			
MAXIMUM PRIMARY AIR FLOW (CFM)	850			
MINIMUM AIR FLOW (CFM)	165			
FAN PERFORMANCE				
MAXIMUM AIR FLOW (CFM)	850			
EXTERNAL STATIC (IN W.C.)	0.5			
FAN MOTOR HP	1/2			
ELECTRIC HEAT				
POWER INPUT (WATTS)	5000			
HEAT OUTPUT (BTU/HR)	17065			
STAGES	2			
ELECTRICAL				
FAN VOLTS/0/HZ	208/1/60			
FAN MOTOR AMPS	4.6			
HEATER VOLTS/0/HZ	208/5/60			
ELECTRIC HEATER AMPS	13.88			
MCA (AMPS)	23.1			
MOC (AMPS)	25			
APPROX. WEIGHT (LBS)	147			
ACCESSORIES	1-2			
NOTES	1			
ACCESSORIES ("S" INDICATES STANDARD; "O" INDICATES OPTIONAL):				
1. S-FACTORY PROVIDED DISCONNECT SWITCH.				
2. S-FACTORY PROVIDED CONTROL TRANSFORMER.				
NOTES:				
1. REFER TO CONTROL WIRING SCHEMATICS FOR ANY FIELD INSTALLED CONTROL DEVICES NOT FACTORY INSTALLED.				

EXHAUST AND VENTILATION FAN SCHEDULE				
MARK (EF-#)	1			
MANUFACTURER	COOK			
MODEL	GC144			
TYPE	CEILING			
DRIVE TYPE	DIRECT			
PERFORMANCE				
AIR FLOW (CFM)	100			
EXT. STATIC (IN W.C.)	0.3			
FAN SPEED (RPM)	1800			
ELECTRICAL				
VOLTS/0/HZ	120/1/60			
FAN MOTOR WATTS	73			
APPROX. WEIGHT (LBS)	15			
SERVES	RESTROOMS			
ACCESSORIES	1			
NOTES	1			
ACCESSORIES ("S" INDICATES STANDARD; "O" INDICATES OPTIONAL):				
1. S-BACKDRAFT DAMPER, S-DISCONNECT SWITCH.				
NOTES:				
1. INTERLOCK WITH LIGHTS.				

MECHANICAL EQUIPMENT SCHEDULES		NTS
		00N-M012-F00-SCHD

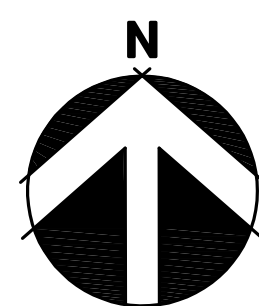
GRILLE, REGISTER, AND DIFFUSER SCHEDULE									
MARK	SD-1	SD-2	SD-3	SD-4	SD-5				
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	ACUTHERM				
MODEL	OWNI	OWNI	TMSA	TMSA	TK-HC				
NECK SIZE (L"xW")	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	6"				
FRAME SIZE (L"xW")	24"x24"	24"x24"	24"x24"	12"x12"	13"x13"				
FRAME TYPE	LAY-IN	LAY-IN	LAY-IN	LAY-IN	LAY-IN				
FINISH*	TITUS #26	TITUS #26	TITUS #26	TITUS #26	WHITE				
NOISE CRITERIA LEVEL	<30	<30	<30	<30	<30				
ACCESSORIES	2	2,6	2	4,6	7				
NOTES	1	1	1	1	4,5				
MARK	SD-6	SD-7	SD-8	SD-9	SD-10				
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS				
MODEL	350RS	OWNI	TMSA	TOC	OWNI				
NECK SIZE (L"xW")	9"x9"	SEE PLAN	SEE PLAN	9"x9"	SEE PLAN				
FRAME SIZE (L"xW")	10"x10"	12"x12"	24"x24"	12"x12"	24"x24"				
FRAME TYPE	SURFACE	LAY-IN	LAY-IN	TYPE 3 / 62	LAY-IN				
FINISH*	TITUS #26	TITUS #26	TITUS #26	TITUS #26	TITUS #64				
NOISE CRITERIA LEVEL	<30	<30	<30	<30	<30				
ACCESSORIES	1	4,6	2,6	4,6	2,6				
NOTES	3	1	1	7,8	1				
MARK	SD-11	SD-12	LD-1	LD-2	LD-3				
MANUFACTURER	TITUS	TITUS	PRICE	PRICE	PRICE				
MODEL	OWNI	TOC	AS210	AS210	AS220				
NECK SIZE (L"xW")	SEE PLAN	9"x9"	SEE PLAN	SEE PLAN	SEE PLAN				
FRAME SIZE (L"xW")	12"x12"	12"x12"	4' X (2), 3' SLOTS	4' X (2), 3' SLOTS	4' X (1), 2' SLOT				
FRAME TYPE	LAY-IN	TYPE A3	TYPE 21P	TYPE 21P	TYPE 21P				
FINISH*	TITUS #64	TITUS #26	PRICE #B17	PRICE #B12	PRICE #B17				
NOISE CRITERIA LEVEL	<30	<30	<30	<30	<30				
ACCESSORIES	4,6	4,6	2,6	4,5,8	9				
NOTES	1	1,7,8							
MARK	RG-1	RG-2	RG-3/EAG-1	RG-4	RG-5				
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS				
MODEL	355RL	355RL	355RL	50F	355RL				
NECK SIZE (L"xW")	26" X10"	26" X10"	10" X10"	22" X22"	22" X10"				
FRAME SIZE (L"xW")	24" X24"	24" X24"	12" X12"	24" X24"	24" X12"				
FRAME TYPE	LAY-IN	LAY-IN	LAY-IN	LAY-IN	SURFACE				
FINISH*	TITUS #26	TITUS #26	TITUS #26	TITUS #26	TITUS #26				
NOISE CRITERIA LEVEL	<30	<30	<30	<30	<30				
ACCESSORIES	1	2	SEE NOTES	6	2				
NOTES	2	2	2,6						
MARK	RG-6	RG-7	RG-8	RG-9	RG-10				
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS				
MODEL	PAR	355RL	355RL	355RL	355RL				
NECK SIZE (L"xW")	20" X22"	22" X22"	10" X10"	26" X10"	22" X22"				
FRAME SIZE (L"xW")	24" X24"	24" X24"	12" X12"	24" X22"	24" X24"				
FRAME TYPE	LAY-IN	LAY-IN	LAY-IN	LAY-IN	LAY-IN				
FINISH*	TITUS #26	TITUS #26	TITUS #64	TITUS #64	TITUS #64				
NOISE CRITERIA LEVEL	<30	<30	<30	<30	<30				
ACCESSORIES	1	6	6	2,6	6				
NOTES		2	2	2	2				
ACCESSORIES: 1. OBO-OPPOSED BLADE DAMPER. 2. LOO-LOGGED QUADRANT VOLUME DAMPER (PROVIDED BY MECHANICAL CONTRACTOR). SEE MECHANICAL SPECIFICATIONS SECTION 233300.D.1, SHEET M01.1. 3. CTO-RUSIN MODEL C70 OR CFDR FIRE DAMPER WITH VOLUME CONTROL. 4. YRD-YOUNG'S REGULATOR REMOTE DAMPER WITH CABLE CONTROL SYSTEM (MODEL 5020-CC) (PROVIDED BY MECHANICAL CONTRACTOR). 5. ASP1-INSULATED ENGINEERED LINEAR SLOT PLENUM FOR CONCEALED MOUNTING PROVIDED BY FACTORY. 6. TRM-TRAP MOUNT FRAME FOR GYPSUM CEILINGS. 7. FURNISH WITH ACUTHERM ADJUSTER-D DIGITAL WALL ADJUSTER AND REMOTE MASTER OPTION FOR MASTER DIFFUSERS OR REMOTE OPTION FOR SLAVE DIFFUSERS. ONE MASTER DIFFUSER CONTROLS UP TO 4 SLAVE DIFFUSERS. ORDER REMOTE MASTER OPTION FOR SINGLE DIFFUSERS. 8. FURNISH WITH TYPE WW ENCAPS AND PATTERN CONTROLLERS. 9. FURNISH WITH TYPE WW ENCAPS AND RB220 SIGHT BAFFLE.									
NOTES: 1. 4-WAY DIFFUSER (UNLESS 1-WAY, 2-WAY OR 3-WAY AS INDICATED ON PLAN). 2. INSTALL BLADES FACING THE BACK OF STORE, CABINET, OR WALL. 3. GO TO FIELD PAINT DIFFUSERS TO MATCH CEILING OR WALL WITH ENAMEL FINISH. 4. PROVIDE WITH GYP BOARD FRAME. 5. WC TO PROVIDE 24V POWER TO DIFFUSER FROM FPAV-1 CONTROL TRANSFORMER AND FROM DIFFUSER TO WALL ADJUSTER. 6. PROVIDE ACCESSORY 1 FOR GRILLES LABELED EAG-1. 7. WC SHALL PROVIDE SQUARE TO ROUND ADAPTOR. 8. BORDER TYPE 3 IS LAY-IN STYLE. PATTERN TYPE G2 IS 2-WAY ADJACENT THROW PATTERN FOR SQUARE DIFFUSERS. PATTERN A3 IS A 3-WAY THROW PATTERN. INSTALL DIFFUSERS SO THROW IS AWAY FROM NEARS WALLS.									
* FINISH REFERENCE: TITUS #26 IS WHITE; TITUS #64 IS BLACK; PRICE #B12 IS WHITE; PRICE #B17 IS BLACK									

AIR DEVICE SCHEDULE		NTS	B
		00N-M012-B00-SCHD	10/18/12
	SUPPLY AIR DIFFUSER		MANUAL VOLUME DAMPER
	RETURN AIR GRILLE		COMBINATION FIRE/SMOKE DAMPER
	ACCESS PANEL		FIRE DAMPER
	EXHAUST AIR REGISTER		AUTOMATIC BACKDRAFT DAMPER
	LINEAR DIFFUSER S=SUPPLY, R=RETURN		ELECTRICALLY OPERATED DAMPER
	NEW DUCTWORK		UNDERCUT DOOR
	EXISTING DUCTWORK TO REMAIN		CARBON DIOXIDE SENSOR
	EXISTING DUCTWORK TO BE REMOVED		HUMIDISTAT
	FLEXIBLE AIR DUCT 4'-0" MAX.		TEMPERATURE SENSOR
			THERMOSTAT
			DUCT SMOKE DETECTOR
			POINT OF CONNECTION

NOTE: (N)=NEW, (R)=RELOCATED, (E)=EXISTING		NTS	A
LEGEND & SYMBOLS		00N-M012-A00-LGND	06/18/12

- NOTE:**
SEE ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS

D
11/18/11

[illegible]

A

MO2.1

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Limited**brands**

LIMITED STORE PLANNING, INC.
d/b/a STORE DESIGN & CONSTRUCTION
Three Limited Parkway • Columbus, Ohio 43230
Telephone: 614.415.7000 • Fax: 614.415.7349

010501638

PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
SPACE # 3036
JENSEN BEACH, FL 34957

NEW PACKAGE:
PINK GENERATION:
00057884 A/E PROJECT #:

MASTER
1315
201206790

PROJECT INFORMATION:

REVISIONS:

DATE ISSUED: 03.29.13

DESIGNED BY: BTK

DRAWN BY: BTK

CHECKED BY: JMC

MECHANICAL DETAILS

DRAWING NUMBER:
M03.1

DESIGN WEATHER PARAMETERS

Design Parameters:

City Name	JENSEN BEACH
Location	FLORIDA
Latitude	26.7 Deg.
Longitude	80.3 Deg.
Elevation	20.0 ft
Summer Design Dry-Bulb	91.0 °F
Summer Coincident Wet-Bulb	78.0 °F
Summer Daily Range	13.1 °F
Winter Design Dry-Bulb	43.0 °F
Winter Design Wet-Bulb	36.1 °F
Atmospheric Clearness Number	0.90
Average Ground Reflectance	0.20
Soil Conductivity	0.800 BTU/(hr-ft²-F)
Local Time Zone (GMT +/- N hours)	5.0 hours
Consider Daylight Savings Time	No
Simulation Weather Data	noneN/A
Current Data Is	2001 ASHRAE Handbook
Design Cooling Months	January to December

HVAC LOAD CALCULATIONS

Air System Information

Air System Name	RTU-1	Number of zones	1
Equipment Class	PKG ROOF	Floor Area	3329.0
Air System Type	SZCAV		

Sizing Calculation Information

Zone and Space Sizing Method:

Zone CFM	Sum of space airflow rates	Calculation Months	Jan to Dec
Space CFM	Individual peak space loads	Sizing Date	Calculated

Central Cooling Coil Sizing Data

Total coil load	12.9	Tons	Load occurs at	Jul 1400
Total coil load	154.3	MBH	OA DB / WB	90.6 / 77.9 °F
Sensible coil load	109.6	MBH	Entering DB / WB	81.8 / 68.5 °F
Coil CFM at Aug 1500	4300	CFM	Leaving DB / WB	58.2 / 57.0 °F
Max block CFM	4300	CFM	Coil ADP	55.6 °F
Sum of peak zone CFM	4300	CFM	Bypass Factor	0.100
Sensible heat ratio	0.710		Resulting RH	60 %
Sf/Ton	258.9		Design supply temp.	57.0 °F
BTU/(hr-sf)	46.4		Zone T-stat Check	1 of 1
Water flow @ 10.0 °F rise	N/A	gpm	Max zone temperature deviation	0.0 °F

Central Heating Coil System

Max coil load	56.4	CFM	Load occurs at	Des Htg
Coil CFM at Des Htg	4300	CFM	BTU/(hr-sf)	16.9
Max coil at CFM	4300	CFM/SF	Ent. DB / Lvg DB	64.5 / 76.6 °F
Water flow @ 20.0 °F drop	N/A	CFM/SF		

Supply Fan Sizing Data

Actual max CFM	4300	CFM	Fan motor BHP	1.77	BHP
Standard CFM	4297	CFM	Fan motor kW	1.40	kW
Actual max CFM/SF	1.29	CFM/SF	Fan static	1.50	in wg

Outdoor Ventilation Air Data

Design airflow CFM	850	CFM	CFM/person	11.49	CFM/person
CFM/SF	0.26	CFM/SF			

DESIGN COOLING

COOLING DATA AT Jul 1400

COOLING OA DB / WB 90.6 °F / 77.9 °F

ZONE LOADS	Details	Sensible (BTU/hr)	Latent (BTU/hr)	Details	Sensible (BTU/hr)	Latent (BTU/hr)
Window & Skylight Solar Loads	0 SF	0	0	0 SF	0	0
Wall Transmission	251 SF	505	0	251 SF	737	0
Roof Transmission	3329 SF	11863	0	3329 SF	18638	0
Window Transmission	0 SF	0	0	0 SF	0	0
Skylight Transmission	0 SF	0	0	0 SF	0	0
Door Loads	0 SF	0	0	0 SF	0	0
Floor Transmission	3329 SF	0	0	3329 SF	223	0
Partitions	1976 SF	2477	0	1976 SF	7904	0
Ceiling	0 SF	0	0	0 SF	0	0
Overhead Lighting	3050 W	6147	0	0	0	0
Task Lighting	5046 W	14615	0	0	0	0
Electric Equipment	1980 W	6300	0	0	0	0
People	74	14241	15164	0	0	0
Infiltration	0	0	0	1457	0	0
Miscellaneous	0	665	0	0	0	0
Safety Factor	0X / 0X	0	0	0X	7240	0
>> Total Zone Loads	0	56840	15164	0	36199	0
Zone Conditioning	0	0	15164	0	36609	0
Plenum Wall Load	0X	0	0	0	0	0
Plenum Roof Load	70X	27681	0	0	0	0
Plenum Lighting Load	30X	3122	0	0	0	0
Return Fan Load	4300 CFM	0	0	4300 CFM	0	0
Ventilation Load	850 CFM	10050	29548	4300 CFM	24537	0
Supply Fan Load	4300 CFM	4781	0	4300 CFM	~4781	0
Space Fan Coil Fans	0	0	0	0	0	0
Duct Heat Gain / Loss	0X	0	0	0X	0	0
>> Total System Loads	0	109589	44712	0	56365	0
Central Cooling Coil	0	109589	44720	0	0	0
Central Heating Coil	0	0	0	0	56365	0
>> Total Conditioning	0	109589	44720	0	56365	0

Key:

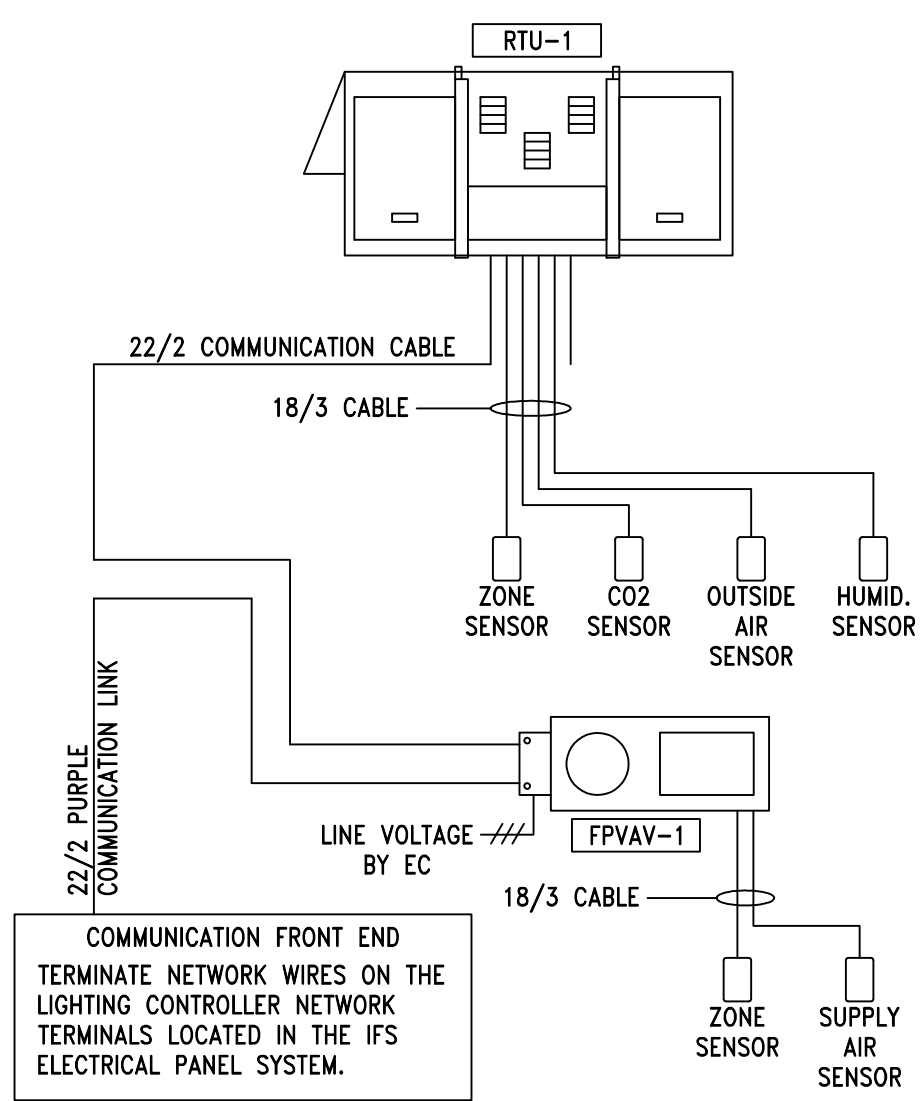
Positive values are ckg loads
Negative values are htg loads

Positive values are htg loads
Negative values are ckg loads

HVAC LOAD CALCULATIONS

NTS
00D-M041-J00-LOAD
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08/11/11

ELECTRIC/ELECTRIC ROOFTOP UNIT
NETWORK WIRING AND SEQUENCE



NOTES:

- (1) ALL WIRE SHALL BE 18/3 UNLESS OTHERWISE INDICATED.
- (2) NUMBER OF CABLES FURNISHED BY HVAC MANUFACTURER IS INDICATED BY NUMBER OF TICK MARKS ACROSS THE LINE.
- (3) PURPLE 22/2 WIRE IS FURNISHED BY HVAC SUPPLIER AND IS PLENUM RATED.
- (4) SCHEMATIC IS FOR REFERENCE ONLY. AT TIME OF CONSTRUCTION, THE HVAC SUPPLIER WILL PROVIDE A COMPLETE DIAGRAM FOR INSTALLATION. SEE RESPONSIBILITY SCHEDULES, THIS SHEET, FOR A LIST OF ALL COMPONENTS AND SENSORS REQUIRING FIELD INSTALLATION.

ROOFTOP UNIT (RTU) SEQUENCE OF OPERATIONS

MANUFACTURER SHALL FURNISH AND/OR INSTALL ALL NECESSARY CONTROL DEVICES TO ACCOMPLISH THE FOLLOWING SEQUENCE OF OPERATION (REFER TO RESPONSIBILITY SCHEDULE FOR FIELD INSTALLATION REQUIREMENTS):

DURING OCCUPIED HOURS THE SUPPLY FANS SHALL OPERATE CONTINUOUSLY, AND THE OUTSIDE AIR DAMPER SHALL OPEN TO THE MINIMUM SCHEDULED POSITION (ADJUSTABLE). WHEN THE SPACE TEMPERATURE IS 1°F ABOVE COOLING SETPOINT, COOLING SHALL BE ENERGIZED IN STAGES (WHERE APPLICABLE) UNTIL 1°F BELOW SETPOINT IS ACHIEVED. IF THE SPACE TEMPERATURE FALLS 1°F BELOW THE HEATING SETPOINT, AND THE OUTDOOR DAMPER IS AT THE MINIMUM POSITION, ELECTRIC HEAT SHALL BE ENERGIZED IN STAGES (WHERE APPLICABLE) UNTIL 1°F ABOVE SETPOINT IS ACHIEVED.

DURING UNOCCUPIED HOURS, THE SUPPLY FANS SHALL BE DEENERGIZED. IF THE SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT, THE FANS SHALL ENERGIZE, AND THE OUTSIDE AIR DAMPERS SHALL REMAIN CLOSED. COOLING SHALL BE ENERGIZED. WHEN THE SPACE TEMPERATURE FALLS 1°F BELOW THE COOLING SETPOINT, COOLING AND FANS SHALL BE DEENERGIZED. IF THE SPACE TEMPERATURE FALLS 1°F BELOW THE HEATING SETPOINT, THE FANS SHALL OPERATE, AND THE OUTSIDE AIR DAMPERS SHALL REMAIN CLOSED. ELECTRIC HEAT SHALL BE ENERGIZED. WHEN THE SPACE TEMPERATURE RISES 1°F ABOVE THE HEATING SETPOINT, ELECTRIC HEAT AND FANS SHALL BE DEENERGIZED.

A FIELD INSTALLED HUMIDITY SENSOR SHALL ENERGIZE THE COOLING IN STAGES (WHERE APPLICABLE) WHEN THE CONDITIONED SPACE RISES ABOVE 55% RH. THE UNIT WILL OPERATE IN THE DEHUMIDIFICATION MODE UNTIL THE RELATIVE HUMIDITY OF THE CONDITIONED SPACE IS 5% BELOW THE RH SETPOINT. REHEAT OPERATION WILL INITIATE ON A DEHUMIDIFICATION DEMAND AND DOES NOT REQUIRE A COOLING DEMAND.

A DUCT MOUNTED SMOKE DETECTORS SHALL DEENERGIZE THE SUPPLY, AND CLOSE THE OUTDOOR AIR DAMPER WHEN ACTIVATED.

SETPOINTS:

OCCUPIED HEATING: 70°F COOLING: 74°F
UNOCCUPIED HEATING: 60°F COOLING: 59°F
HUMIDITY SETPOINT: 55% RH

FAN POWERED VAV (FPVAV) SEQUENCE OF OPERATIONS

MANUFACTURER SHALL FURNISH AND/OR INSTALL ALL NECESSARY CONTROL DEVICES TO ACCOMPLISH THE FOLLOWING SEQUENCE OF OPERATION (REFER TO RESPONSIBILITY SCHEDULE FOR FIELD INSTALLATION REQUIREMENTS):

DURING OCCUPIED HOURS THE VARIABLE AIR VOLUME TERMINAL UNIT FAN SHALL BE ENERGIZED AND DAMPER SHALL MODULATE TO MAINTAIN THE SPACE TEMPERATURE.

IF THE SPACE TEMPERATURE DROPS ONE DEGREE BELOW SETPOINT AND THE DAMPER IS AT MINIMUM POSITION, THE UNIT'S ELECTRIC HEAT SHALL ENERGIZE. THE HEAT WILL REMAIN ON UNTIL THE SPACE TEMPERATURE IS SATISFIED.

THE TERMINAL UNIT DAMPER SHALL FULLY CLOSE AND THE FAN SHALL DEENERGIZE UPON A SIGNAL FROM THE DUCT MOUNTED SMOKE DETECTORS.

DURING THE UNOCCUPIED SCHEDULE, THE DAMPER SHALL CLOSE AND FAN/HEATER WILL DEENERGIZE. THE DAMPER SHALL OPEN AND THE FAN SHALL ENERGIZE IF UNOCCUPIED COOLING SETPOINT IS REACHED. THE FAN AND HEATER SHALL ENABLE IF UNOCCUPIED TEMPERATURE IS 2°F BELOW UNOCCUPIED SETPOINT. FAN AND HEATER SHALL STOP WHEN SETPOINT IS REACHED.

ROOFTOP UNIT RESPONSIBILITY SCHEDULE

ITEM	FURNISHED BY	INSTALLED OR PERFORMED BY	RE-USE	N/A	REMARKS
	LSD&C LANDLORD CONTR.	LANDLORD CONTR. OTHER	EXISTING		
ROOFTOP UNITS	AC		MC		
ROOFCURB	AC		MC		
STRUCTURAL SUPPORTS FOR RTU AS REQUIRED		MC	MC		
ECONOMIZER PACKAGE				●	
TWO POSITION OUTSIDE AIR DAMPER WITH WEATHERHOOD	AC		AC		
ECONOMIZER ACTUATOR				●	
POWER EXHAUST				●	
NON-POWERED GROUND FAULT SERVICE RECEPTACLE	AC		AC		WIRED BY EC
SMOKE DETECTORS	AC		AC		UNIT MOUNTED
NON-FUSED ELECTRICAL DISCONNECT	AC		AC		
BAS CONTROLLER	AC		AC		
SUPPLY AIR TEMPERATURE SENSOR	AC		AC		
SPACE TEMPERATURE SENSOR	AC		MC		
OUTSIDE AIR TEMPERATURE SENSOR	AC		MC		ONE PER PROJECT
CARBON DIOXIDE SENSOR				●	ONE PER UNIT
HUMIDITY SENSOR	AC		MC		ONE PER EACH UNIT WITH DEHUMIDIFICATION
SINGLE ZONE VAV CONTROLS	AC		AC	●	UNITS WITH CAPACITY GREATER THAN 110 MBH AT AHR CONDITIONS
ROOFTOP UNIT COMMISSIONING	AC		AC		CALL HVAC SUPPLIER

NETWORK WIRING AND SEQUENCE

NTS
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08/02/12

NOTE TO CONTRACTOR

ITEM(S) NOT SHOWN ON ANY OF THE RESPONSIBILITY SCHEDULES
ARE THE RESPONSIBILITY OF THE CONTRACTOR.

LOCAL AREA REQUIREMENTS

YES	NO	1. SMOKE EVACUATION	YES	NO	5. SPECIAL CURB HEIGHT REQUIREMENTS
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. CARBON DIOXIDE MONITORING	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. FIVE MILE COASTAL PROXIMITY
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. HURRICANE ZONE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. OTHERS, I.E. METHANE, CARBON MONOXIDE, SOUND SENSITIVE, ETC. DESCRIPTION: . .
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. SEISMIC ZONE			

ABBREVIATIONS, RESPONSIBILITY SCHEDULES

AC	HVAC EQUIPMENT SUPPLIER	GC	GENERAL CONTRACTOR
AHJ	AUTHORITY HAVING JURISDICTION	LC	LANDLORD CONTRACTOR
BAS	BUILDING AUTOMATION SYSTEM	LD	LIGHTING PACKAGE DISTRIBUTOR
EC	ELECTRICAL CONTRACTOR	LL	LANDLORD
FAC	FIRE ALARM CONTRACTOR	LSD&C	LIMITED STORE DESIGN & CONSTRUCTION
		MC	MECHANICAL CONTRACTOR

FAN POWERED VARIABLE AIR VOLUME (FPVAV) & VARIABLE AIR VOLUME (VAV)
BOX RESPONSIBILITY SCHEDULE

ITEM	FURNISHED BY	INSTALLED OR PERFORMED BY	RE-USE	N/A	REMARKS
	LSD&C LANDLORD CONTR.	LANDLORD CONTR. OTHER	EXISTING		
SERIES ARRANGEMENT FAN POWERED VAV BOX (WITH HEAT AND NO HEAT OPTIONS)	AC		MC		
NON-FAN POWERED VAV BOX				●	
FAN POWERED BOX ELECTRICAL DISCONNECT	AC		AC		
NON-FAN POWERED BOX ELECTRICAL DISCONNECT				●	
BAS CONTROLLER WITH INTEGRATED ACTUATOR	AC		AC		
SUPPLY AIR TEMPERATURE SENSOR	AC		MC		
SPACE TEMPERATURE SENSORS	AC		MC		
TERMINAL UNIT COMMISSIONING	AC		AC		CALL HVAC SUPPLIER
LANDLORD UNIT CONTROLLER				●	
LANDLORD SPACE TEMPERATURE SENSOR/THERMOSTAT				●	
ADDITIONAL LANDLORD CONTROL SYSTEM COMPONENTS				●	

HVAC RESPONSIBILITY SCHEDULE

ITEM	FURNISHED BY	INSTALLED OR PERFORMED BY	RE-USE	N/A	REMARKS
	LSD&C LANDLORD CONTR.	LANDLORD CONTR. OTHER	EXISTING		
ROOFING CUT & PATCH, INSULATED TOE KICK & CURB LEVELING.		MC	MC		HIRE LANDLORD APPROVED ROOFING CONTRACTOR
FPVAV DUCT SMOKE DETECTORS		MC	MC		FURNISHED BY MC ON FPVAV, EC TO WIRE.
SMOKE SYSTEM ACCESSORIES, ETC.				●	
DIFFUSERS AND GRILLES	LD		MC		
DIFFUSERS/GRILLES FIRE DAMPERS				●	
WALL FIRE DAMPERS				●	
COMBINATION FIRE/SMOKE DAMPERS				●	
LOW PRESSURE DUCTWORK		MC	MC		
RECTANGULAR TO ROUND DUCT ADAPTER		MC	MC		
HIGH/MEDIUM PRESSURE DUCTWORK				●	
DUCT SUPPORTS		MC	MC		
HURRICANE BRACING		MC	MC		
DUCT HEATER(S)				●	
UNIT HEATER(S)				●	
TOILET EXHAUST FAN(S) WITH TOGGLE DISCONNECT SWITCH	LD		MC		
TOILET EXHAUST DUCTWORK WALL OR ROOF CAP		MC	MC		
PIPING AND PIPING APPURTENANCES (CIRCUIT SETTERS, ETC.)				●	
BALANCE CONTRACTOR REPORT		GC			AABC OR NEBB CERTIFIED
AS-BUILT DRAWINGS		MC			
TEMPERATURE CONTROL SYSTEM COMPONENTS	AC		MC		
TEMPERATURE CONTROL SYSTEM WIRE	AC		MC		FINAL CONN. BY MC
YOUNG REGULATOR W/ BOWDEN CABLE		MC	MC		
LOCKING QUADRANT VOLUME DAMPER		MC	MC		
PNEUMATIC TUBING				●	
FIRE ALARM SHUTDOWN RELAY				●	WHERE APPLICABLE FOR FIRE ALARM SYSTEMS
RELIEF AIR DAMPER AND ACTUATOR				●	
RELIEF AIR FAN OR RETURN AIR FAN				●	
SMOKE EVACUATION				●	
OUTSIDE AIR INTAKE HOOD/LOUVER WITH DAMPER				●	
OUTSIDE AIR INTAKE DAMPER ACTUATOR				●	
RELIEF AIR HOOD OR LOUVER WITH COUNTER-BALANCED BACKDRIFT DAMPER				●	
ECONOMIZER DAMPER				●	
ECONOMIZER DAMPER ACTUATOR				●	
OUTSIDE AIR DAMPER				●	
OUTSIDE AIR DAMPER ACTUATOR				●	

HVAC RESPONSIBILITY SCHEDULES

NTS
00D-M041-A00-SCHD
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08/11/11

Christopher R. Larson, PE0043082

DRAWING NUMBER:
P01.1

① CONNECT (N) 4" SANITARY SEWER BELOW SLAB TO (E) SANITARY SEWER LINE. (FIELD VERIFY EXACT SIZE AND LOCATION - MIN. 4")

② CONNECT (N) 3/4" COLD WATER TO (E) COLD WATER LINE. (FIELD VERIFY EXACT SIZE AND LOCATION - MIN. 3/4")

③ P.O.C. OF (N) VENT TO (E) VENT LINE. (FIELD VERIFY EXACT SIZE AND LOCATION - MIN. 2")

④ 1" CONDENSATE DRAIN FROM EQUIPMENT TO DISCHARGE AT LAVATORY. REFER TO DETAILS F & K ON SHEET P03.1.

⑤ PLUMBING CONTRACTOR TO PROVIDE WATER METER - HERSEY MODEL NO. 3/4" MVR - AT MINIMUM OF 16 GPM. - VERIFY LOCATION - MOUNT 48" ABOVE FINISHED FLOOR. - MAKE NECESSARY CONNECTIONS AS REQUIRED. - METER TO READ IN GALLONS.

⑥ INSTALL CONCEALED SPRINKLER HEAD IN PRE-DRILLED GLASS PANEL. - FIRE PROTECTION CONTRACTOR SHALL ENSURE THAT CONCEALED HEAD COVER COMPLETELY COVERS 2-5/8" PRE-DRILLED HOLE.

⑦ ROUTE TO APPROVED GAS METER LOCATION WITH REGULATOR. TOTAL GAS LOAD = 700 CFH AND A TOTAL DEVELOPED LENGTH = 100 FEET. FIELD VERIFY EXACT LOCATION OF METER AND GAS COMPANY REQUIREMENTS.

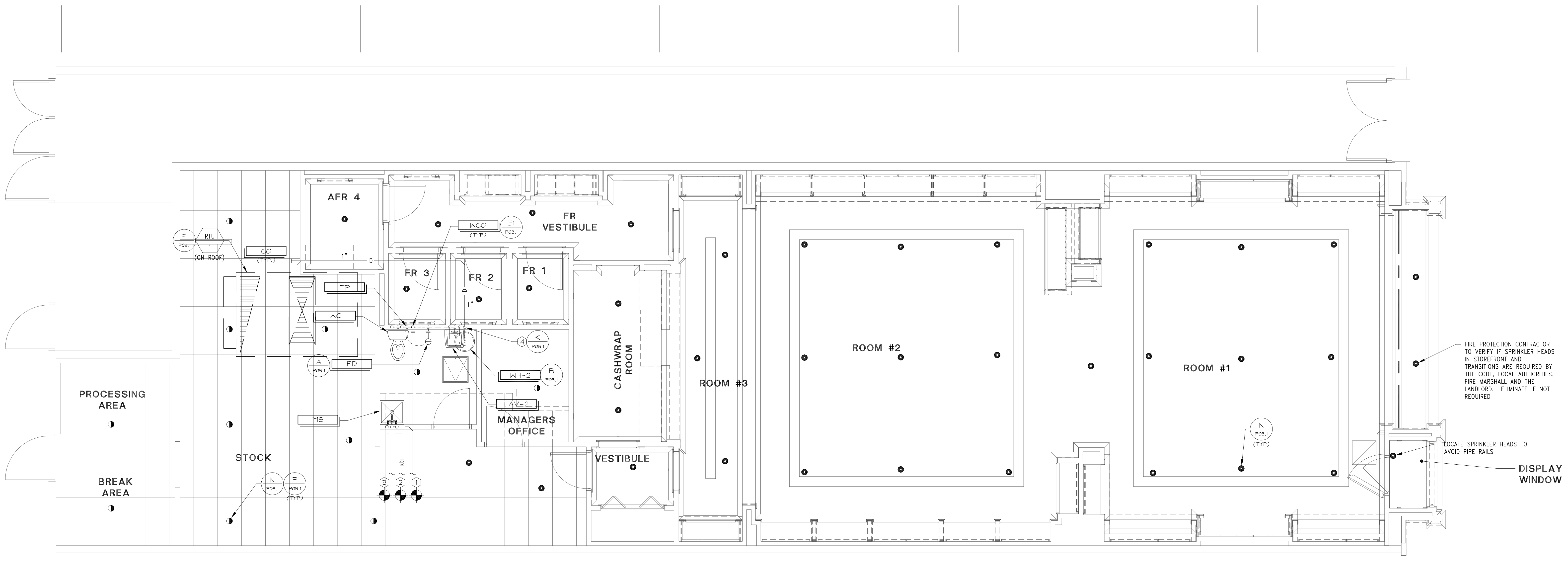
GC TO PROVIDE WRITTEN REPORT TO LSD&C PM ON CONDITION OF EXISTING SEWER TIE-IN REGARDING SLOPE AND FLOW.

- SCOPE WITH CAMERA PRIOR TO CONNECTION
- DO NOT CONNECT WITHOUT LSD&C PM AUTHORIZATION IF SPECS NOT MET

PLUMBING AND FIRE SPRINKLER HEAD
PLAN KEYNOTES

NTS

D
11/18/11



"VERIFY ALL FIELD CONDITIONS PRIOR TO BID"



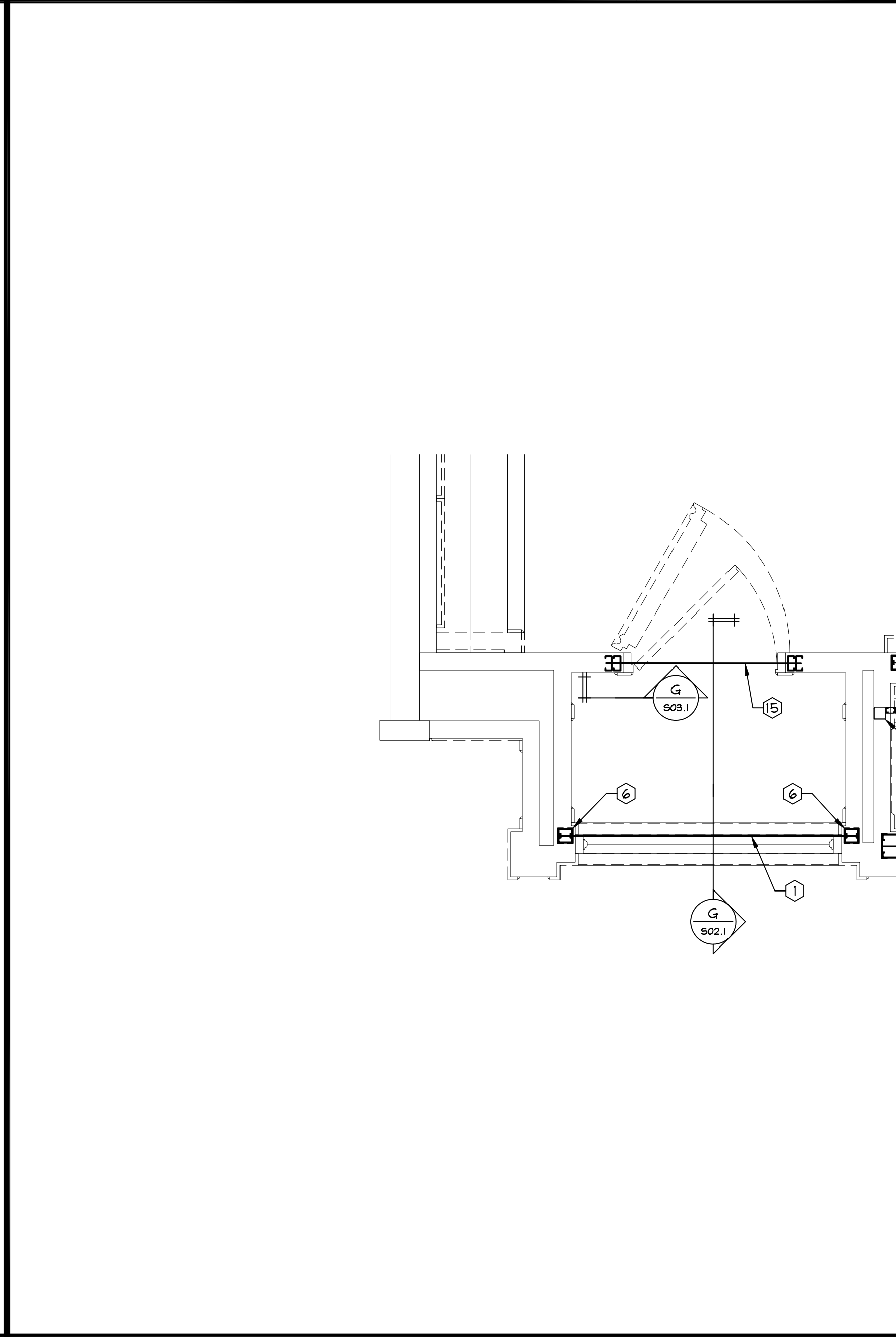
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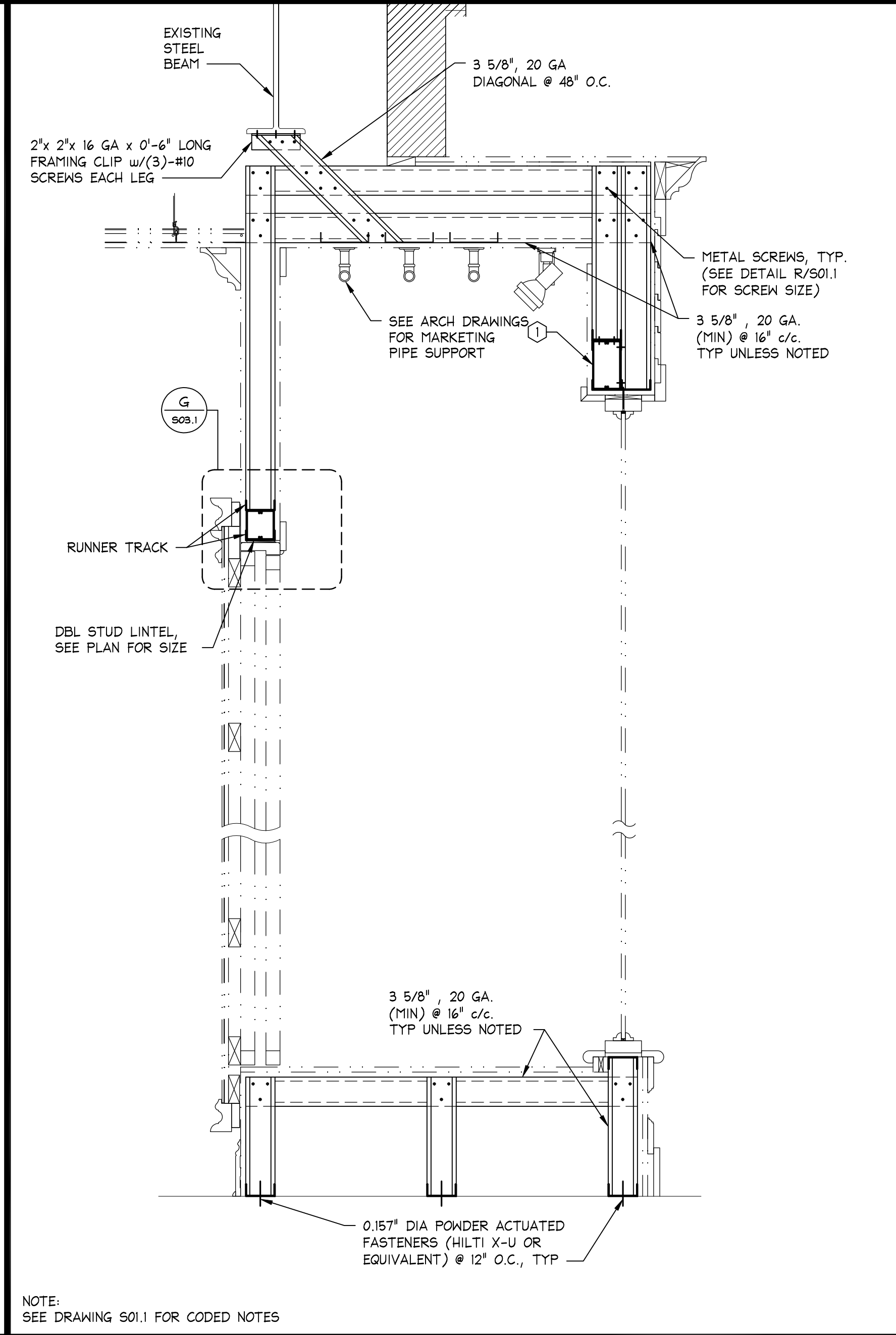
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NOT USED



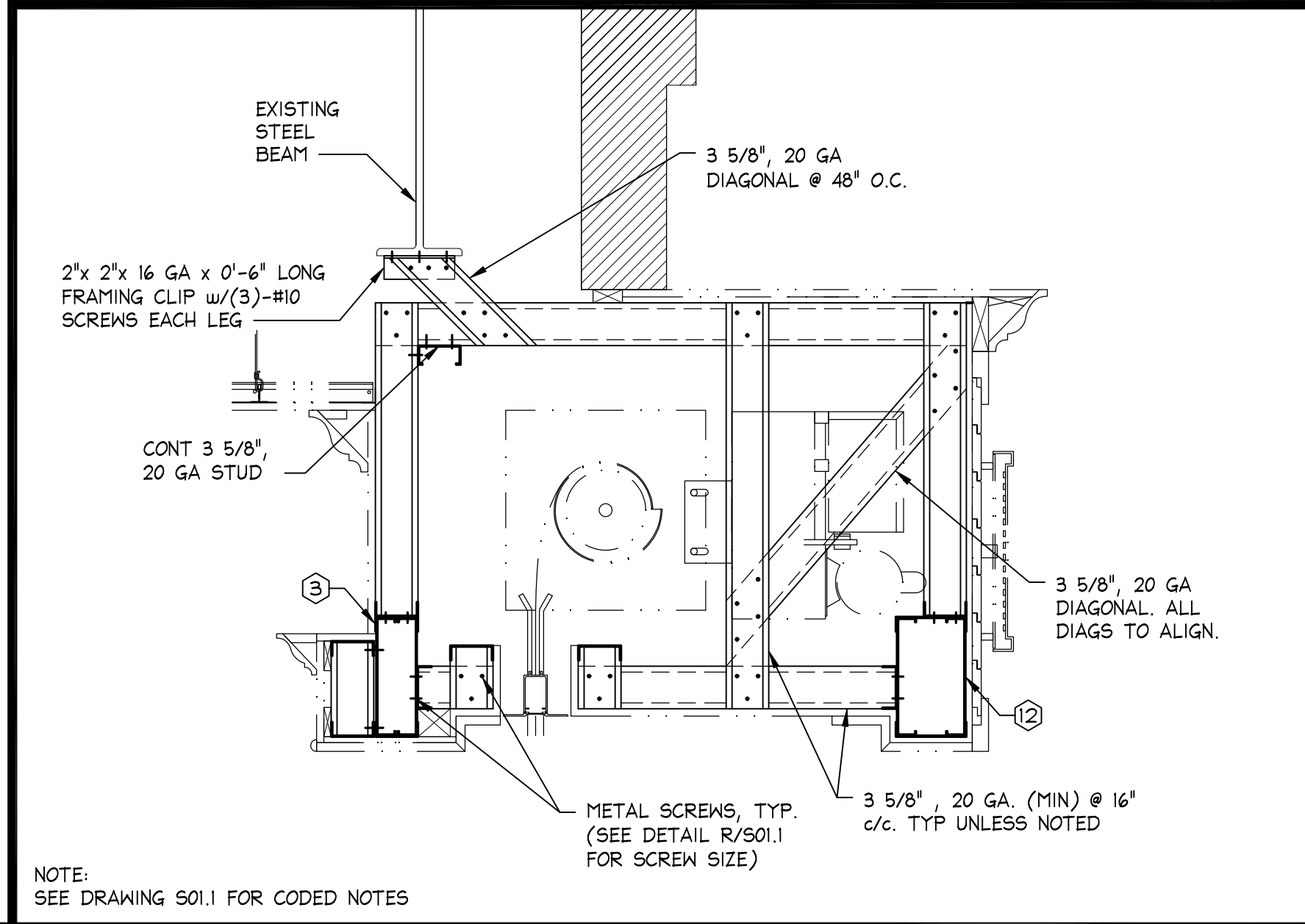
NOT USED



STOREFRONT SECTION- PINK



NOT USED



STOREFRONT SECTION- PINK

PAUL J FORD AND COMPANY
250 EAST BROAD STREET
SUITE 1500
COLUMBUS, OHIO 43215
614-221-6679
A65713-0015

KEVIN P. BAUMAN
REG. No. 49756
CORPORATE REG No. EB0002848

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Three Limited Parkway · Columbus, Ohio 43230
Telephone: 614.415.7000 · Fax: 614.415.7349

010501638

PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
5174 NW FEDERAL HIGHWAY
SPACE 3036
JENSEN BEACH, FL 34957

NEW PACKAGE:
PINK GENERATION:
00057884 A/E PROJECT #:

MASTER
13150
201206790

PROJECT INFORMATION:

REVISIONS:

DATE ISSUED: 03.29.13
DESIGNED BY: SLH
DRAWN BY: SMA
CHECKED BY: GDK

STOREFRONT
FRAMING PLAN
& SECTIONS

DRAWING NUMBER:
S02.1

[illegible]

SPACE # 3036
JENSEN BEACH, FL 34957

REVISIONS:

REQUIRED BY:

DATE

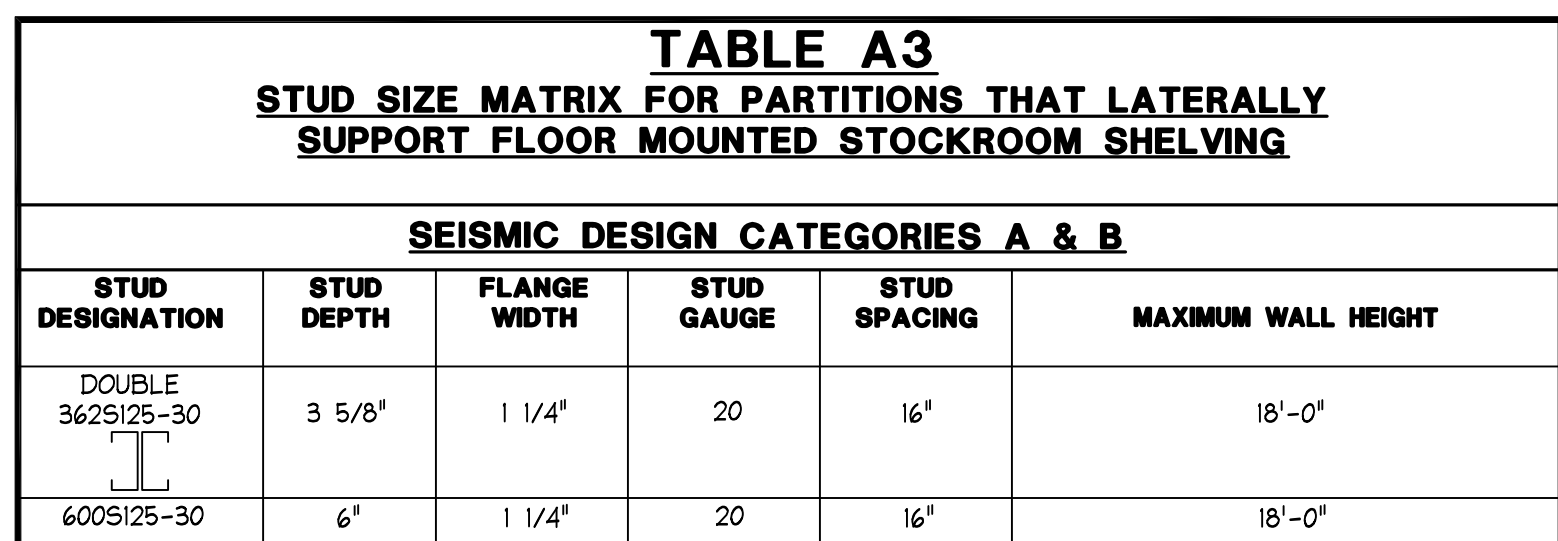
WALL FRAMING AT NON-SALES SHELVING

DRAWING NUMBER:

S03.2

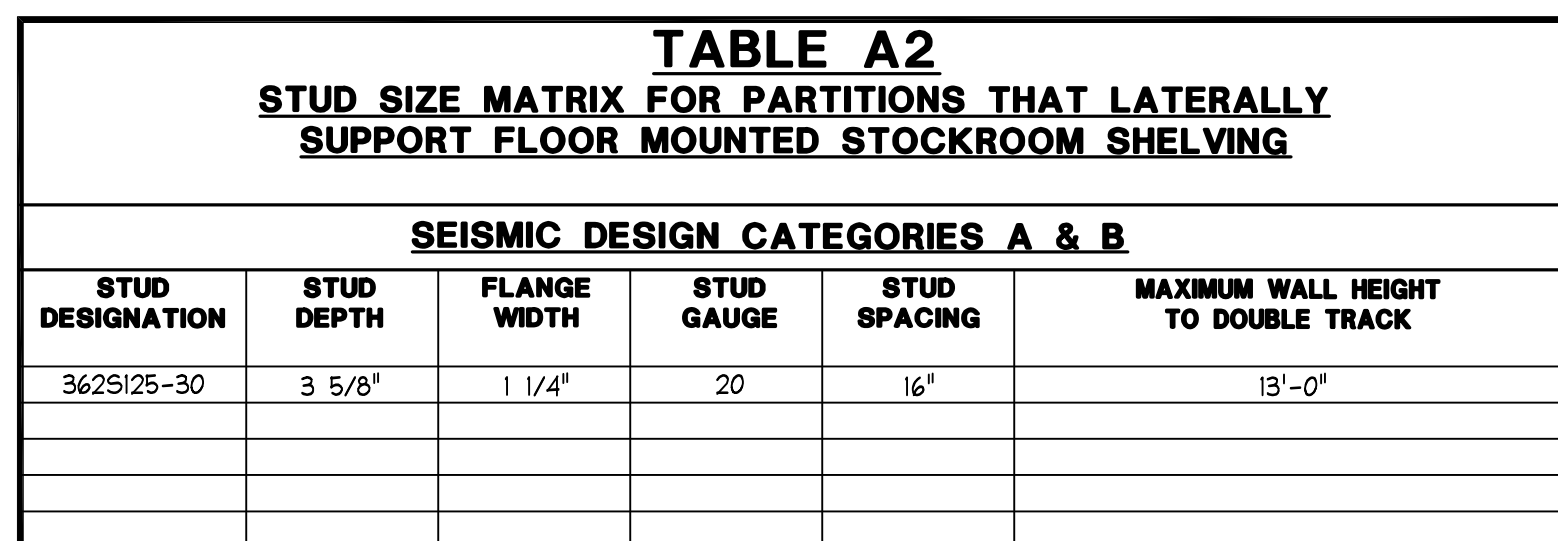
NOT USED

D
08.15.11



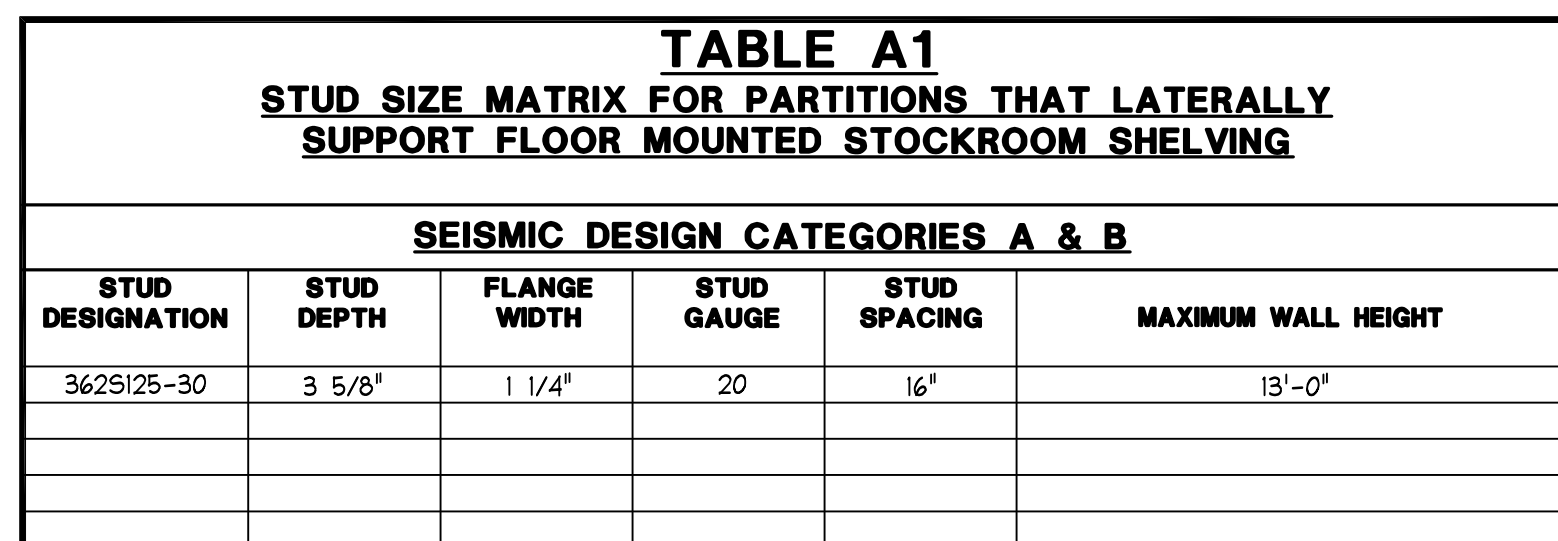
NOTES:
REFER TO NOTES ON N/SOI.1

FULL HEIGHT STUD WITHOUT DIAGONAL BRACING



NOTES:
REFER TO NOTES ON N/S01.1

FULL HEIGHT STUD WITH DIAGONAL BRACING



NOTES:
REFER TO NOTES ON N/S01.1

PARTIAL HEIGHT STUD WITH DIAGONAL BRACING

NOT USED

N
08.15.11

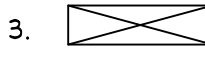
WALL SECTIONS AT NON-SALES SHELVING SEISMIC DESIGN CATEGORIES A & B

1" = 1'-0"

A
08.15.11

<div>STRUCTURAL NOTES</div> <div><div>1. SEE SHEET S01.1 FOR STRUCTURAL NOTES.</div><div>2. DESIGN LEDGE INCIDENTAL LIVE LOAD = 40 PSF</div><div>3. CONNECT FRT PLYWOOD DECKING TO SUPPORTS W/#8 SCREWS @ 8" C/C AROUND PERIMETER OF DECK, AT PANEL EDGES AND AT INTERIOR SUPPORTS.</div></div> <div>IF 3/4" FRT PLYWOOD IS NOT ALLOWED BY MALL OR BUILDING OFFICIAL, THEN REPLACE PLYWOOD WITH 3/4" VERSAROC STRUCTURAL CEMENT BONDED PARTICAL BOARD BY U.S. ARCHITECTURAL PRODUCTS, INC., OR EQUAL.</div>						<div><div><div><div><div>2x2x 1/2 GA x 0'-6" LONG FRAMING CLIP w/(-)#8 SCREWS EACH LEG.</div><div>3/4" FRT PLYWOOD</div><div>MTL JOISTS, SEE PLAN FOR SIZE & SPACING</div><div>SALES WALL WITH STANDARDS OR FULL HEIGHT WALL. (SEE ARCH DWGS)</div></div><div>CONT 6" DP, 1/2 GA. TRACK w/(-)#8 SCREWS AT EACH VERT STUD.</div></div></div></div>			<div><div><div><div><div>(2) SCREWS @ 16"/C, THROUGH FINISH INTO DEMISING WALL STUDS</div><div>3/4" FRT PLYWOOD</div><div>MTL JOISTS, SEE PLAN FOR SIZE & SPACING</div><div>(2) SCREWS AT EACH JOIST</div><div>EXIST DEMISING WALL</div><div>MTL WALL STUDS, SEE PLAN FOR SIZE & SPACING</div></div><div>1 SECTION</div><div>1 1/2"-1'-0"</div></div><div><div><div><div>(2) SCREWS @ 16"/C, THROUGH FINISH INTO DEMISING WALL STUDS</div><div>MTL BLOCKING, SEE PLAN FOR SIZE & SPACING</div><div>(1) SCREW AT BLOCKING</div><div>(1) SCREW AT 16"/c</div><div>EXIST DEMISING WALL</div><div>MTL WALL STUDS, SEE PLAN FOR SIZE & SPACING</div></div><div>2 SECTION</div><div>1 1/2"-1'-0"</div></div><div><div><div><div>SALES WALL WITH STANDARDS OR FULL HEIGHT WALL. (SEE ARCH DWGS)</div><div>(3) SCREWS @ 16"/C, THROUGH FINISH INTO WALL STUDS</div><div>MTL BLOCKING, SEE PLAN FOR SIZE & SPACING</div></div><div>3 SECTION</div><div>1 1/2"-1'-0"</div></div></div></div></div></div>			<div>PAUL J FORD AND COMPANY 250 EAST BROAD STREET SUITE 1500 COLUMBUS, OHIO 43215 614-221-6679 A65713-0015</div> <div>KEVIN P. BAUMAN REG. No. 49756 CORPORATE REG No. EB0002848</div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
<div>STRUCTURAL AND CODED NOTES</div>			<div>N.T.S.</div> <div>001-S041-S00-NOTE</div>			<div>S</div> <div>08.15.11</div>			<div>NOT USED</div>			<div>-</div> <div>-</div>			<div>M</div>			<div>SALES WALL WITH STANDARDS OR FULL HEIGHT WALL</div>			<div>1 1/2" = 1'-0"</div> <div>008-S041-H00-SECT</div>			<div>H</div> <div>08.15.11</div>			<div>LEDGE SECTION</div>			<div>1 1/2" = 1'-0"</div> <div>008-S041-D00-SECT</div>			<div>D</div> <div>08.15.11</div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
						<div>NOTE: PROVIDE STANDARD 24" SQ ACCESS PANEL IN WALL IF WATER HEATER IS LOCATED BEHIND WALL</div> <div><div>20 GA CONT TRACK</div><div>CONT. 3 5/8" DP, 20 GA STUD</div><div>3 5/8" DP, 20 GA STUD BRACE @ 48" c/c</div><div>CLIP FLANGE, BEND WEB AND ATTACH DIAGONAL TO SHEATHING w/(3)-#8 WOOD SCREWS</div><div>8'-0" (MAX) HIGH WALL (OR TO BOTTOM OF EXIST DECK)</div><div>MTL JOISTS, SEE PLAN FOR SIZE & SPACING</div><div>3/4" FRT PLYWOOD</div><div>CONT 16 GA CLOSURE TRACK PROVIDE (1) SCREW EA FLANGE OF EA JOIST</div><div>SEE ARCH DWGS FOR CEILING ELEV</div><div>(2) SCREWS AT EACH JOIST</div><div>MTL WALL STUDS, SEE PLAN FOR SIZE & SPACING</div><div>PROVIDE BRIDGING PER R/S03.1, TYP.</div></div> <div>DO NOT ATTACH SHELVEING TO THIS WALL</div>						<div>3/4" FRT PLYWOOD</div> <div>6" DP BLOCKING @ 24"/c, MAX. AT EACH END, CLIP FLANGES, BEND WEB AND CONNECT TO JOIST W/(2) SCREWS</div> <div>INSTALL JOIST DIRECTLY ABOVE WALL</div> <div>MTL JOISTS, SEE PLAN FOR SIZE & SPACING</div> <div>(2) SCREWS AT EACH PIECE OF BLOCKING</div> <div>MTL WALL STUDS, SEE PLAN FOR SIZE & SPACING</div> <div>NOTCH JOIST ABOVE WALL AS REQ'D FOR PLUMBING RUN</div> <div>PROVIDE BRIDGING PER R/S03.1</div> <div>TYPICAL ALL WALLS: 0.157" DIA POWDER ACTUATED FASTENERS (HILTI X-U OR EQUIVALENT) @ 12" O.C. MAX, AND 2" FROM EACH END OF TRACK</div>						<div>SECTION OF 3 5/8", 20 GA TRACK FOR ATTACHMENT OF HEADER TO FULL HEIGHT STUD</div> <div>SCREW (TYP)</div> <div>3/4" FRT PLYWOOD</div> <div>MTL JOIST, SEE PLAN FOR SIZE & SPACING</div> <div>CONT CLOSURE TRACK. PROVIDE (1) SCREW EA FLANGE OF EA JOIST</div> <div>DOOR LINTEL, SEE PLAN FOR SIZE & SPACING</div> <div>SCREWS @ 12"/c</div> <div>(1) SCREW AT BLOCKING</div> <div>HOLD LINTEL BOTTOM TRACK SHORT OF "CONNECTOR" TRACK</div> <div>INSTALL PIECE OF TRACK AT TOP OF STUD AND CONNECT TRACK TO STUD AND LINTEL.</div> <div>DBL STUD @ EDGE OF EACH OPNG</div> <div>OPENING</div> <div>C1 VIEW</div> <div>1 1/2"-1'-0"</div> <div>C2 VIEW</div> <div>1 1/2"-1'-0"</div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
<div>NOT USED</div>			<div>-</div> <div>-</div>			<div>R</div> <div>-</div>			<div>LEDGE SECTION</div>			<div>1 1/2" = 1'-0"</div> <div>008-S041-L00-SECT</div>			<div>L</div> <div>08.15.11</div>			<div>LEDGE SECTION</div>			<div>1 1/2" = 1'-0"</div> <div>008-S041-G00-SECT</div>			<div>G</div> <div>08.15.11</div>			<div>LEDGE SECTION</div>			<div>1 1/2" = 1'-0"</div> <div>008-S041-C00-SECT</div>			<div>C</div> <div>08.15.11</div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

ROOF FRAMING NOTES:

1. CONTROLLING BUILDING CODE: 2010 FLORIDA BUILDING CODE
ROOF DESIGN LIVE LOAD = 25 PSF
DESIGN WIND SPEED = 165 MPH (3 SEC GUST) (ULTIMATE) EXP C
2. EXISTING ROOF CONSTRUCTION: METAL DECK ON STEEL BEAMS AND BAR JOISTS
3.  INDICATES ROOF OPENING. DETERMINE EXACT SIZE AND LOCATION FROM MECHANICAL DRAWINGS
4. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
5. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION. MECH. UNIT DIMENSIONS SHALL BE COORDINATED WITH APPROVED MECH. UNIT MANUFACTURER DRAWINGS.
6. SUPPORT FRAMING SHOWN IS FOR THE MECH. UNIT SPECIFIED ON MECHANICAL DRAWINGS. IF DIFFERENT UNIT IS TO BE USED, CONTACT STRUCTURAL ENGINEER BEFORE PROCEEDING.
7. ALL STEEL SHALL BE ASTM A36.
8. STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL OF BUILDINGS". (LATEST EDITION)
9. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH "AMERICAN WELDING SOCIETY" SPECIFICATIONS (LATEST EDITION).
10. WELDING ELECTRODES SHALL BE E70XX, LOW HYDROGEN.

NO STRUCTURAL DRAWINGS WERE AVAILABLE AT TIME OF DESIGN. BEFORE FABRICATION OF MECH EQUIPMENT SUPPORT STEEL AND BEFORE INSTALLATION OF HVAC DUCTWORK, CONTRACTOR SHALL LOCATE EXISTING BUILDING DRAWINGS AND FORWARD TO STRUCTURAL ENGINEER FOR REVIEW/ANALYSIS & WRITTEN APPROVAL.

IF NO STRUCTURAL DRAWINGS ARE AVAILABLE, CONTRACTOR SHALL FIELD MEASURE THE FOLLOWING MEMBERS, AND FORWARD INFORMATION TO STRUCTURAL ENGINEER FOR REVIEW/ANALYSIS & WRITTEN APPROVAL BEFORE FABRICATION OF MECH EQUIPMENT SUPPORT STEEL AND BEFORE INSTALLATION OF HVAC DUCTWORK:

1. COLUMN SIZE & SPACING.
2. STEEL BEAM SIZE & SPACING (DEPTH, FLANGE WIDTH & THICKNESS).
3. BAR JOIST SIZE & SPACING (DEPTH, CHORD/WEB SIZES, SPACING & THICKNESSES).
NOTE: IF BAR JOISTS ARE TAGGED SHOWING JOIST SIZE, THEN FIELD MEASUREMENT IS NOT REQUIRED.

4. ROOF SLAB CROSS-SECTION, INCLUDING ROOFING MATERIAL & INSULATION.

FIELD MEASUREMENTS OF STEEL MEMBERS MUST BE EXACT DIMENSIONS AND NOT "NOMINAL" DIMENSIONS, TAKING INTO CONSIDERATION THE THICKNESS OF PAINT OR OTHER COATINGS. FORWARD INFORMATION TO: IF CONTRACTOR DOES NOT PROVIDE THIS INFORMATION, THEN CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY AND LIABILITY FOR INSTALLATION AND STRUCTURAL SUPPORT OF MECHANICAL EQUIPMENT.

FORWARD INFORMATION TO:
PAUL J. FORD & COMPANY STRUCTURAL ENGINEERS
250 E. BROAD ST, SUITE 1500
COLUMBUS, OH 43215
ATTN: GREG KLAPHEKE
PHONE NO. (614) 221-6679
E-MAIL: gregk@pjfweb.com

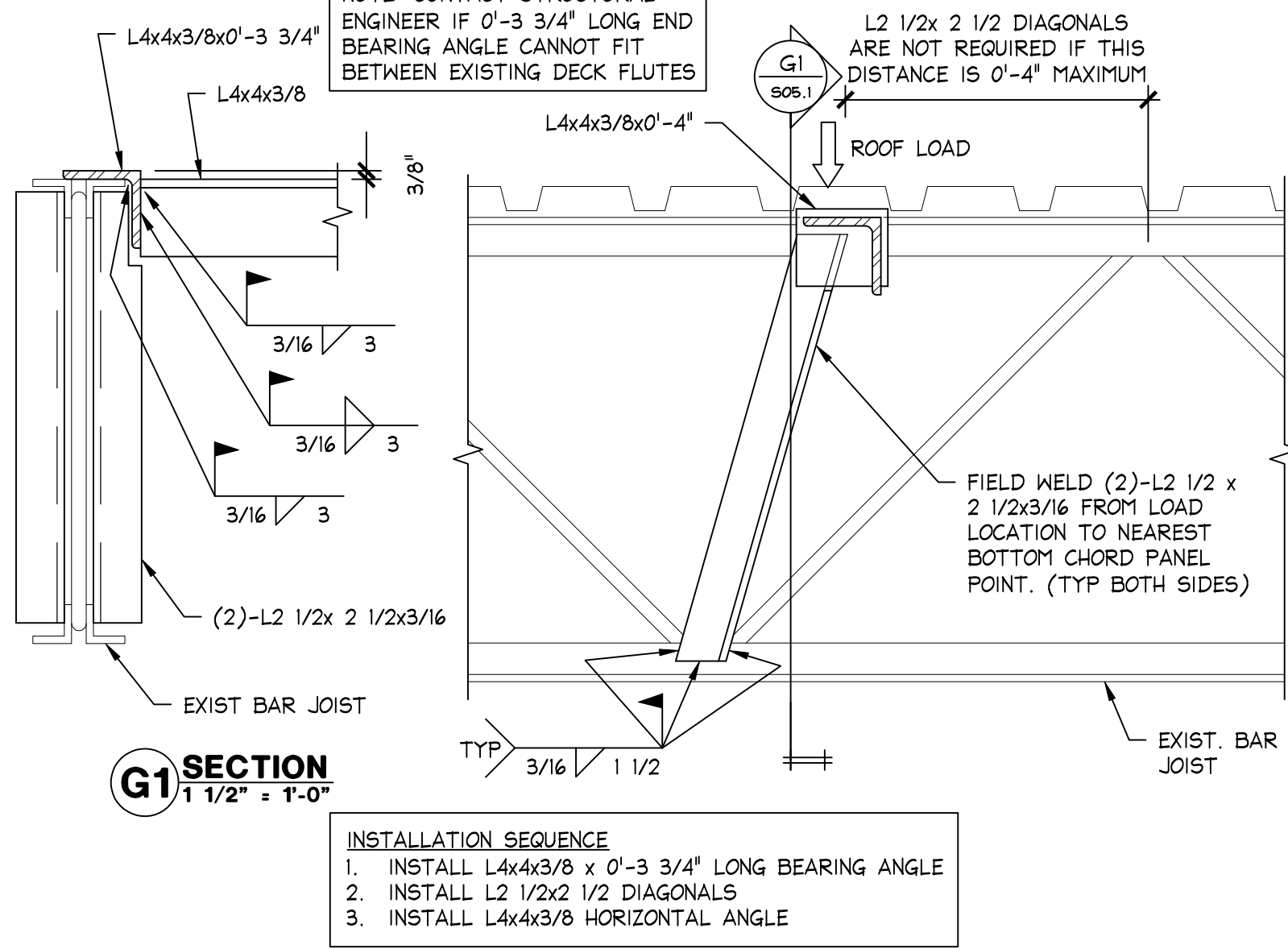
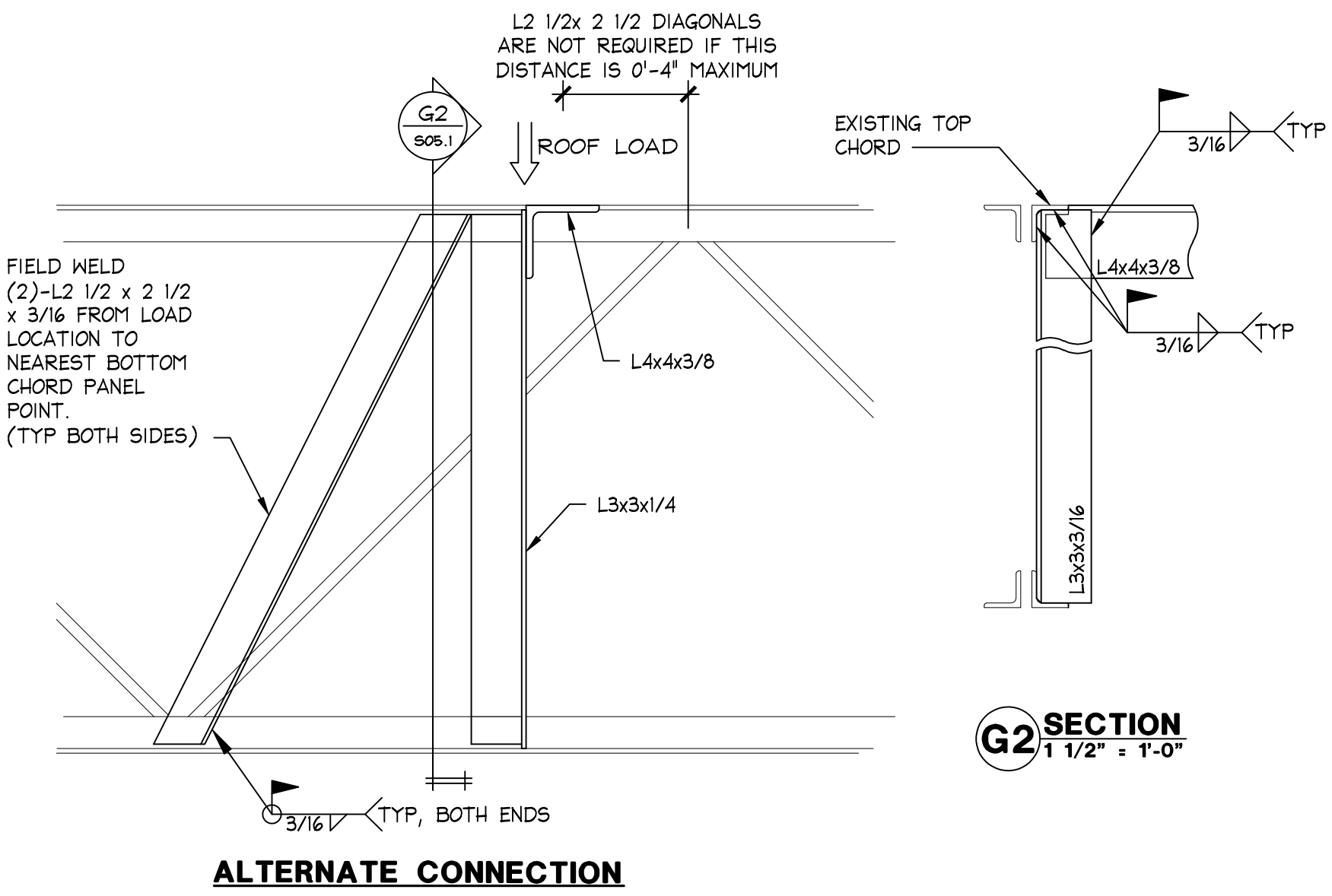
STRUCTURAL NOTES

N.T.S.

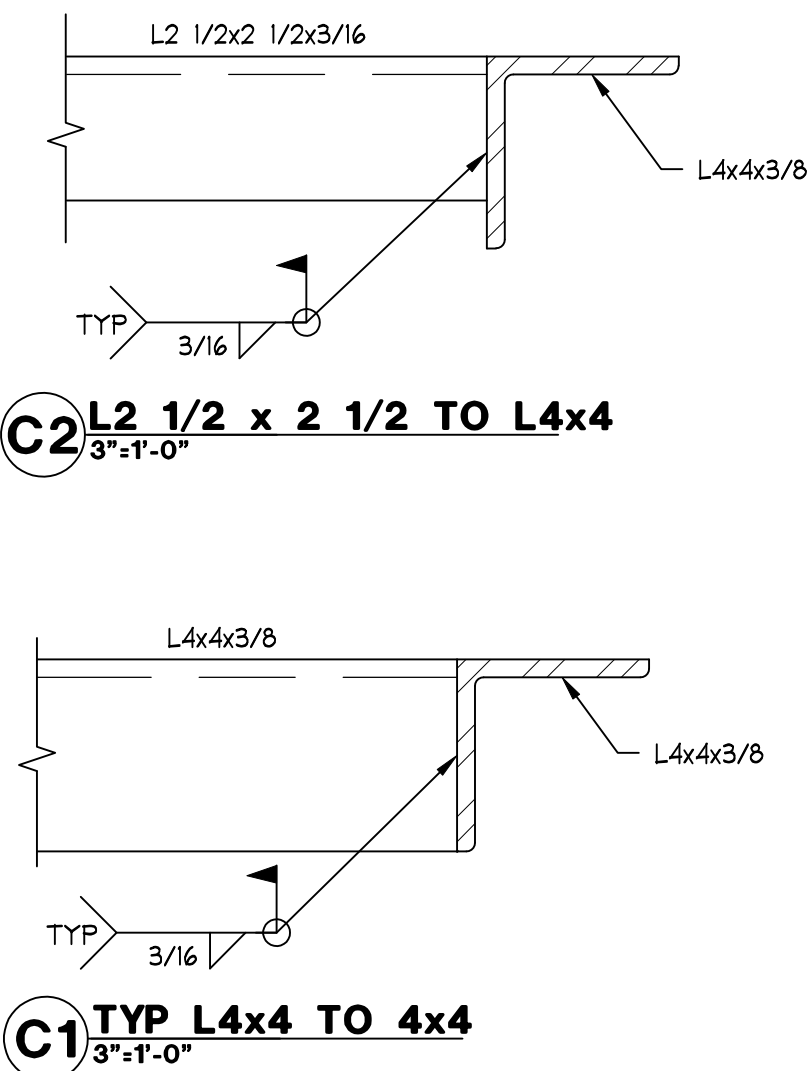
000-8081-800-NOTE

S
08.15.11

NOTE



NOT USED



NOT USED

R
10.15.12

CONNECTION OF MECH UNIT SUPPORT L4x4 TO EXISTING BAR JOIST

1 1/2" = 1'-0"

000-8081-000-RTU

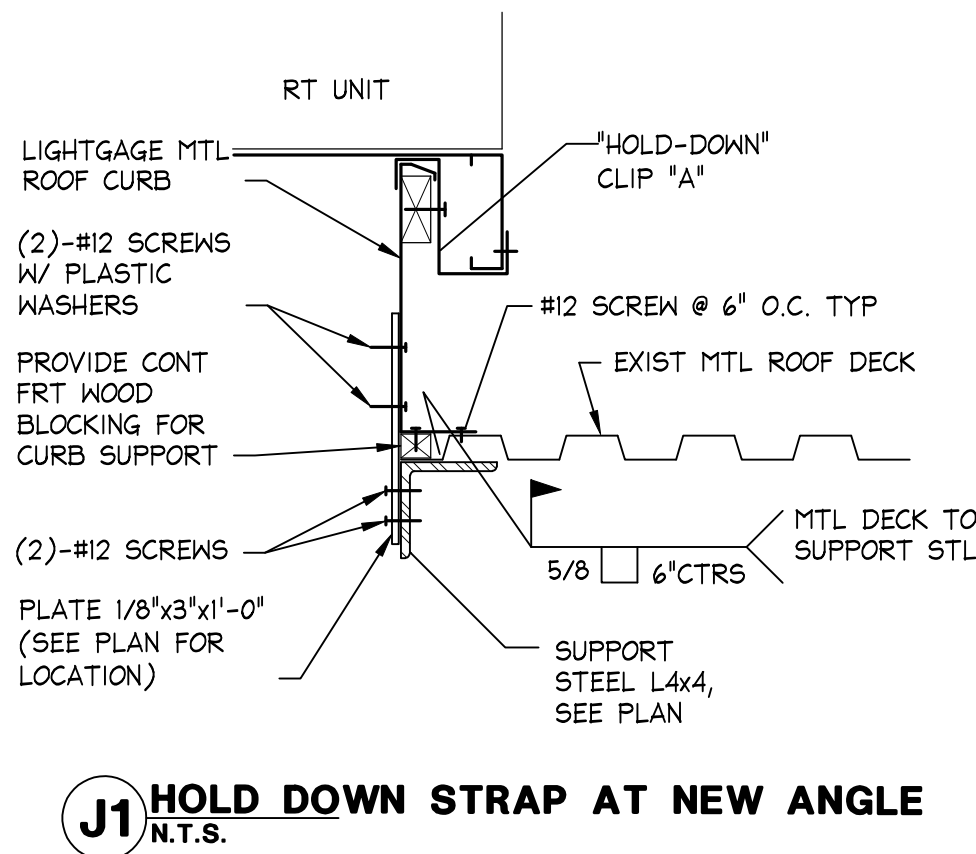
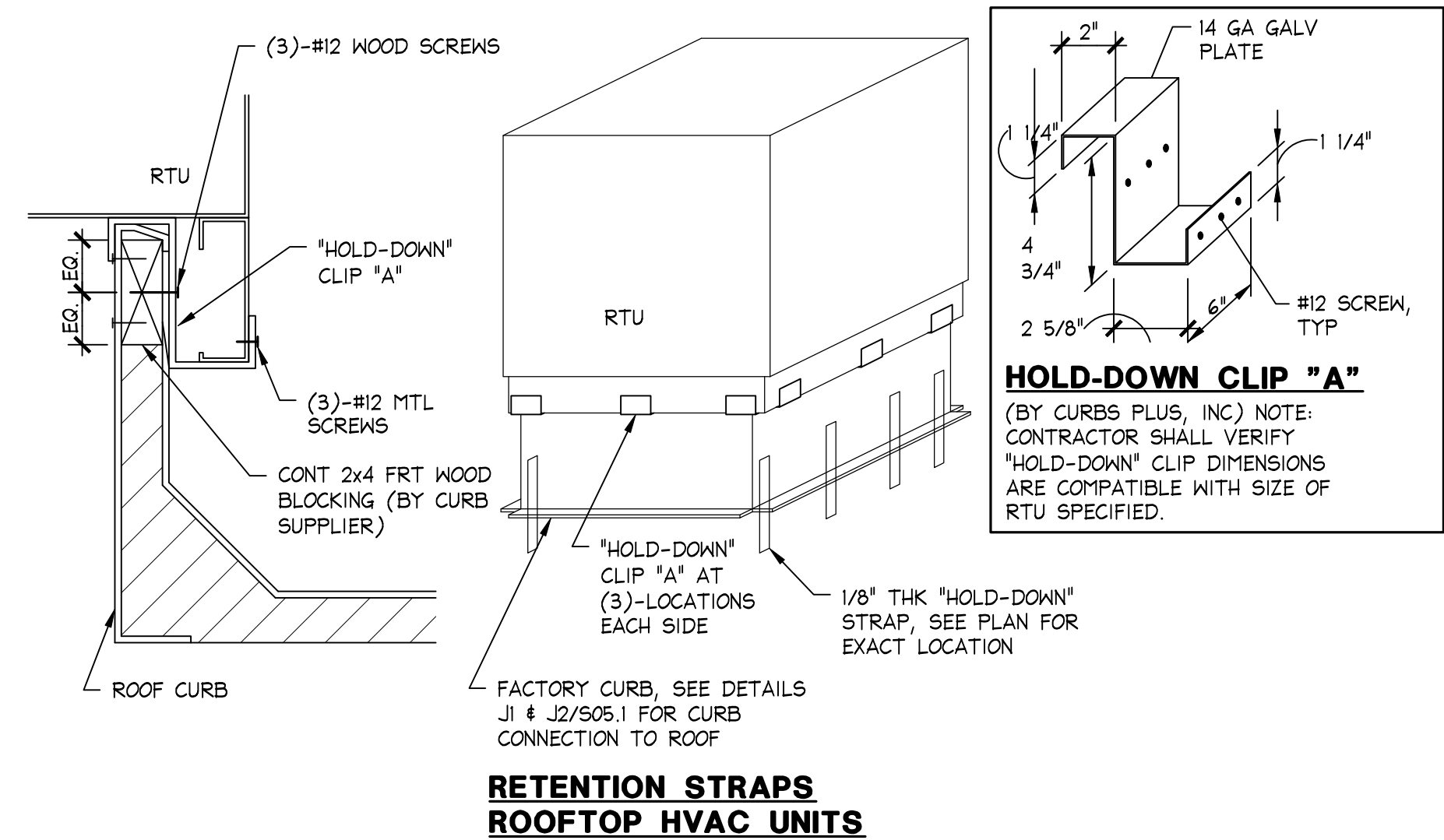
G
10.15.12

MECH SUPPORT FRAME CONNECTION DETAILS

3" = 1'-0"

000-8081-000-RTU

10.15.12



CLEAN AND PREPARE WELDS, AND PAINT WITH ZRC GOLD GALVANIZING COMPOUND PER MANUFACTURER'S RECOMMENDATIONS.

J2 SECTION
N.T.S.

CLEAN AND PREPARE WELDS, AND PAINT WITH ZRC GOLD GALVANIZING COMPOUND PER MANUFACTURER'S RECOMMENDATIONS.

TYPICAL HIGH SEISMIC/ HIGH WIND HOLD-DOWN DETAILS

N.T.S.

000-8081-J00-RTU

J
08.15.11

PARTIAL ROOF FRAMING PLAN

1/4" = 1'-0"

--

A
10.15.12

PAUL J. FORD AND COMPANY
250 EAST BROAD STREET
SUITE 1500
COLUMBUS, OHIO 43215
614-221-6679
A65713-0015

KEVIN P. BAUMAN
REG. No. 49756
CORPORATE REG No. EB0002848

Limited brands
LIMITED STORE PLANNING, INC.
d/b/a STORE DESIGN & CONSTRUCTION
Three Limited Parkway - Columbus, Ohio 43230
Telephone: 614.415.7000 • Fax: 614.415.7349

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PROJECT INFORMATION:
010501638
PINK VICTORIA'S SECRET
TREASURE COAST SQUARE
3174 NW FEDERAL HIGHWAY
SPRINGFIELD, FL 32086
JENSEN BEACH, FL 34957
NEW PACKAGE: 00057884
PINK GENERATION: 1315a
J/A/E PROJECT #: 201206790
MASTER 1315a
SCOPE: DESIGN TYPE: LS04C
DATE ISSUED: 03.29.13
DESIGNED BY: SLH
DRAWN BY: SMA
CHECKED BY: GDK

REVISIONS:	
REQUIRED BY:	DATE:

DATE ISSUED: 03.29.13
DESIGNED BY: SLH
DRAWN BY: SMA
CHECKED BY: GDK

MECH SUPPORT FRAMING PLAN AND DETAILS

DRAWING NUMBER:

S05.1