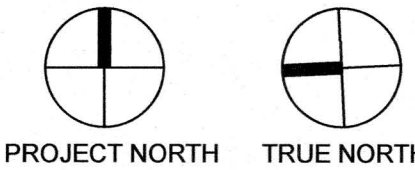
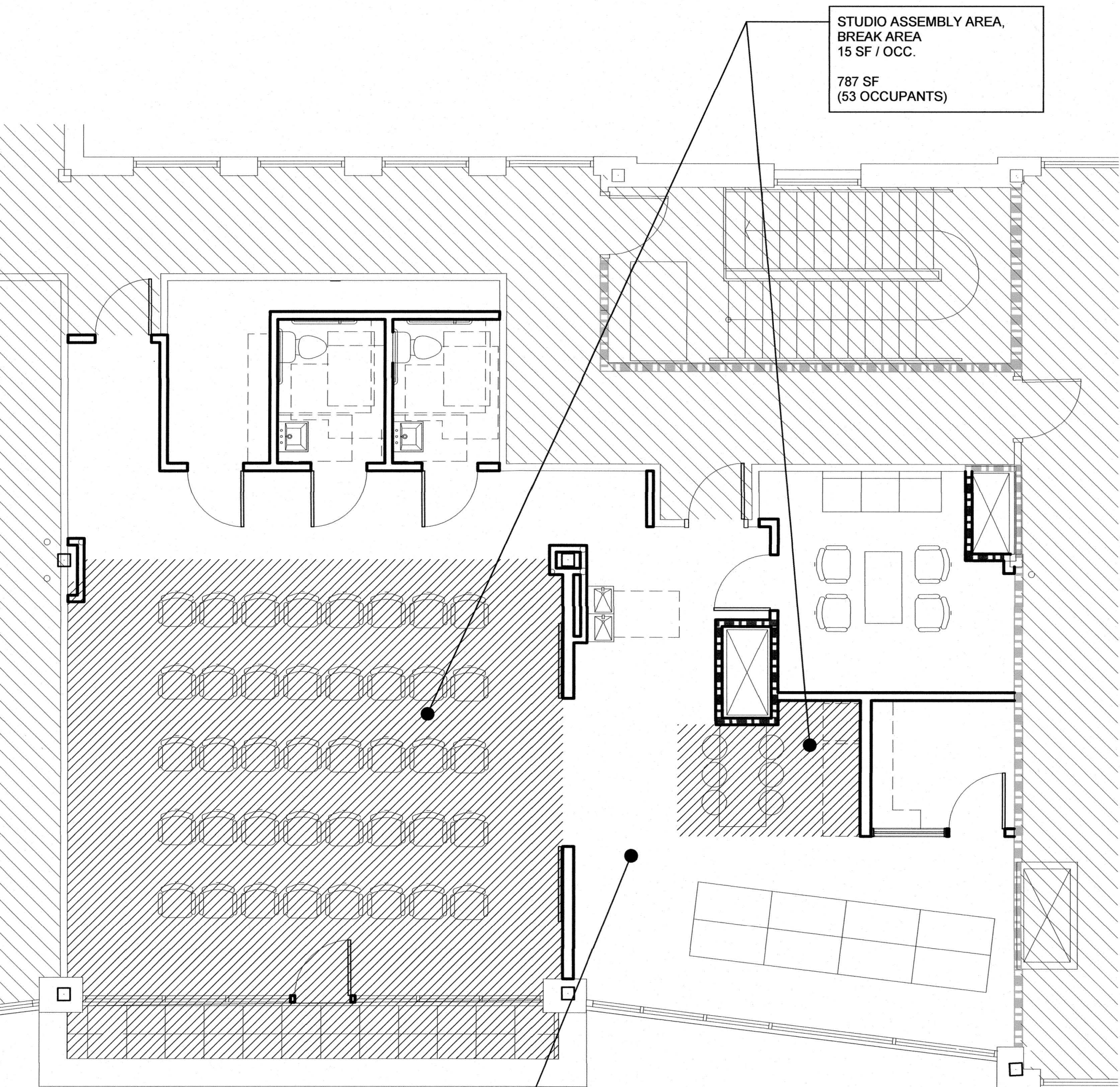
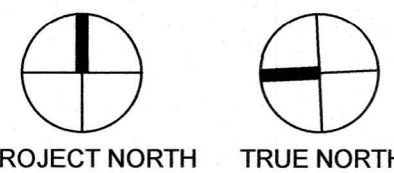
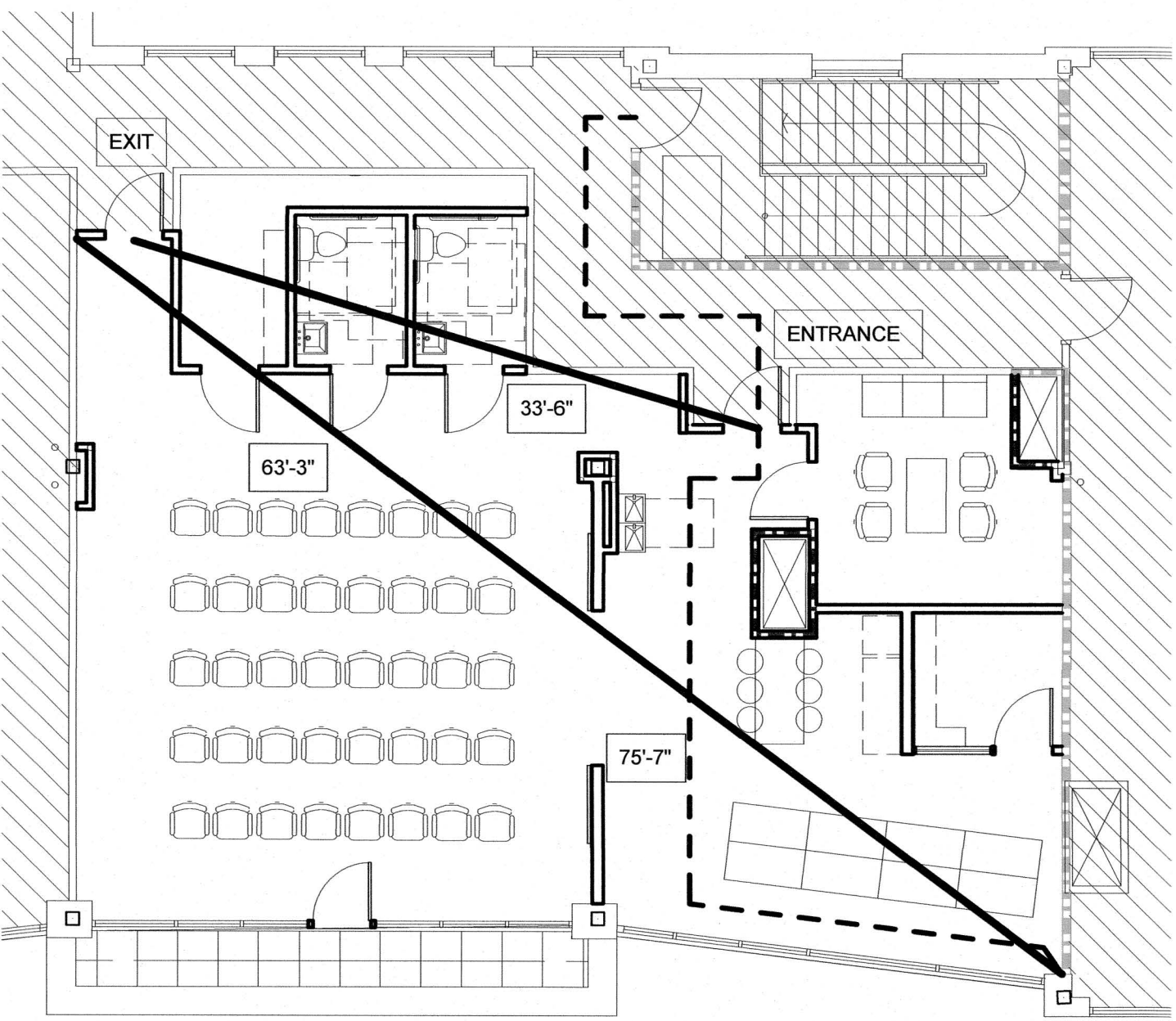


INTERIOR FIT UP FOR
STUDIO 557
THE BLOCK

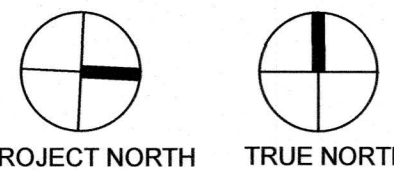
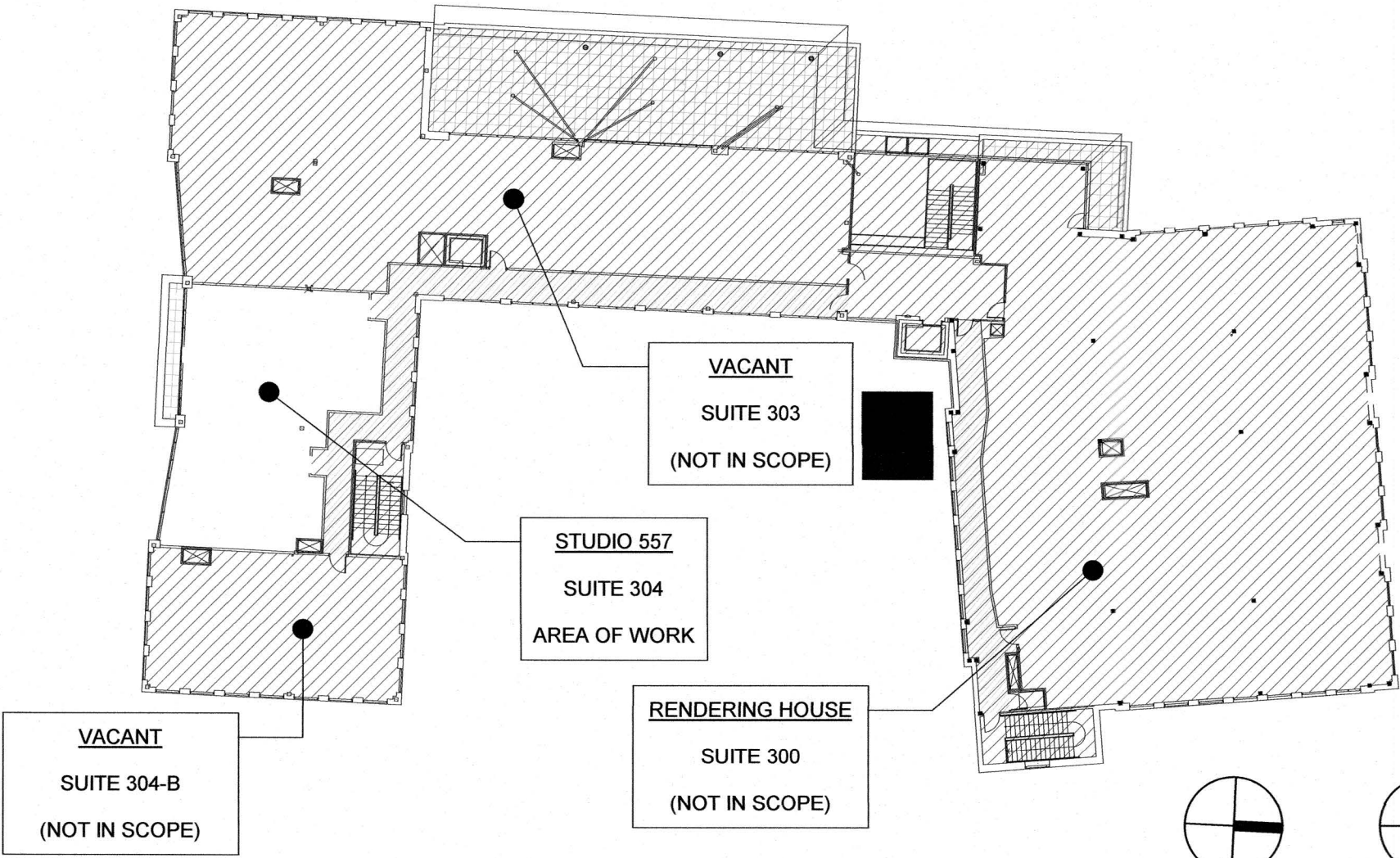
300 SOUTH MAIN STREET, SUITE 304
HOLLY SPRINGS, NC 27540



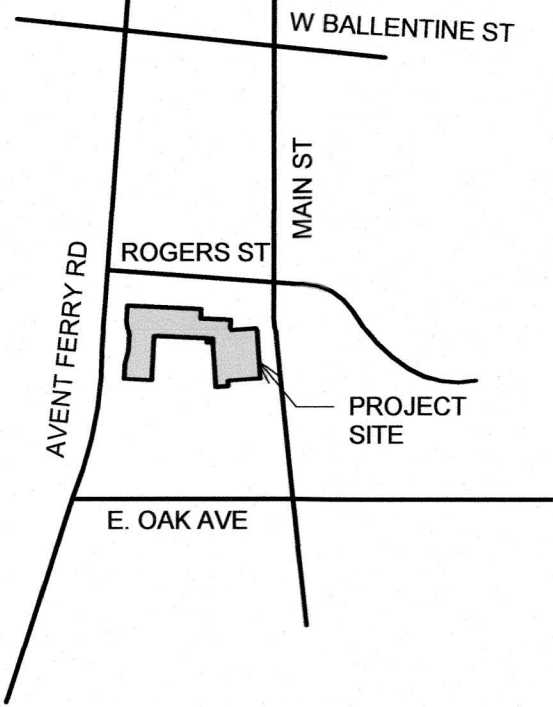
OCCUPANCY PLAN 05
3/16" = 1'-0"



EGRESS PLAN 04
1/8" = 1'-0"



KEY PLAN 03
1" = 30'-0"



VICINITY MAP 01
3" = 1'-0"

INDEX OF DRAWINGS

G1.01	COVER SHEET
G2.01	BUILDING CODE SUMMARY & EGRESS CALC.
G3.01	U.L. DETAILS
G4.01	PARTITION LEGEND & ADA DIAGRAMS
G5.01	SPECIFICATIONS
A2.01	NEW WORK FLR. PLN. & ENLGD. TOILET PLAN
A3.01	NEW WORK CEILING PLAN
A6.01	DOOR SCHEDULE + DETAILS
P1	PLUMBING PLAN
P2	PLUMBING DETAILS
M1	MECHANICAL NOTES & SCHEDULES
M2	MECHANICAL PLAN
E1	ELECTRICAL NOTES & SCHEDULES
E2	ELECTRICAL POWER PLAN
E3	ELECTRICAL LIGHTING PLAN
FA1	FIRE ALARM PLAN

310ai

310 Architecture + Interiors, PA

P.O. BOX 97935
RALEIGH, NC 27624-7935

302 JEFFERSON STREET
SUITE 250
RALEIGH, NC 27605

PHONE: (919) 838-9310

310ai.com

COPYRIGHT © 2020 310 Architecture + Interiors, PA



INTERIOR FIT-UP FOR
STUDIO 557
THE BLOCK
300 SOUTH MAIN STREET, SUITE 304
HOLLY SPRINGS, NC 27540

PROJECT #		20061
DATE:		09. 01. 2020
DRAWN BY:		MAS
CHECKED BY:		ALH / WBS
NO.	REVISION	DATE

COVER SHEET

G1.01

9/1/2020 3:03:11 PM

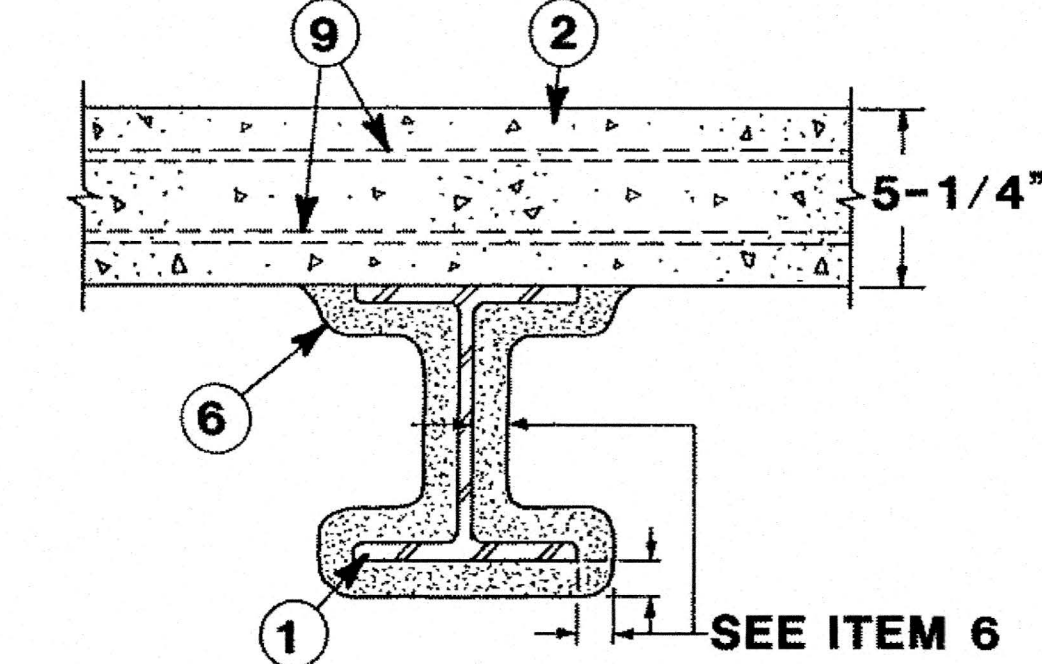
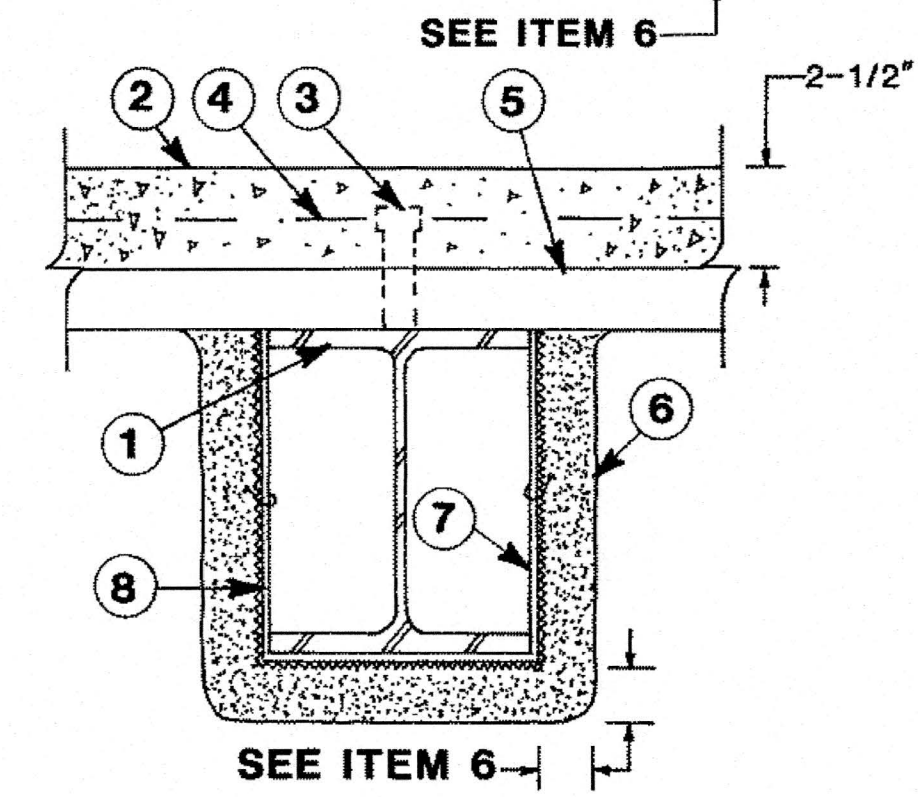
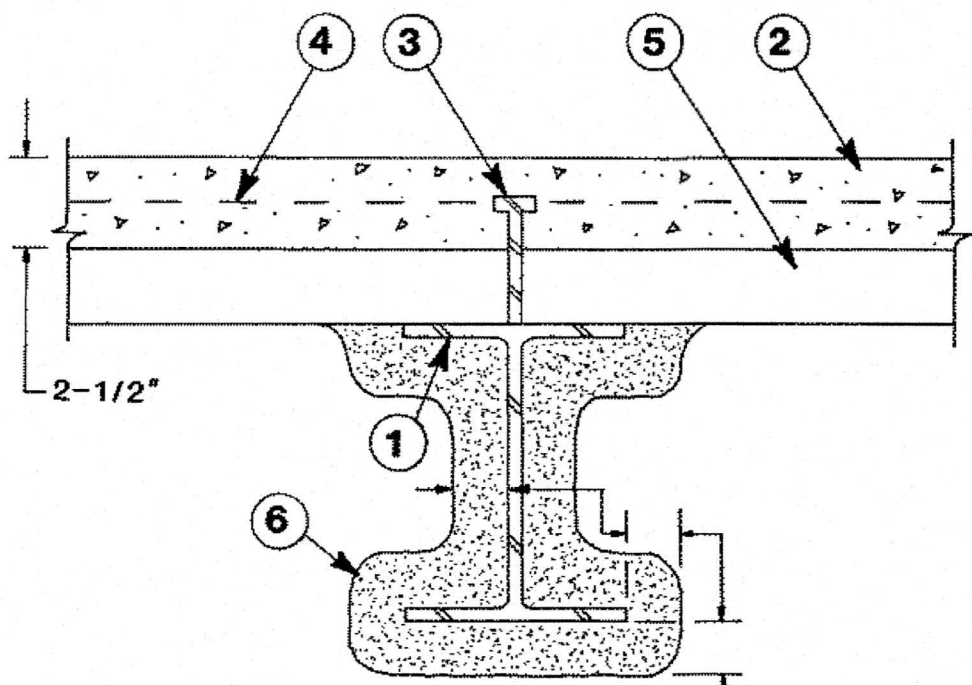
Design No. N764

October 17, 2017

Restrained Beam Ratings — 1, 2, 3 and 4 Hr.
Unrestrained Beam Ratings — 1, 2, 3 and 4 Hr.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Steel Beam — W8x28, min size.

2. Normal Weight or Lightweight Concrete — Compressive strength, 3500 psi. For normal weight concrete, either carbonate or siliceous aggregate may be used. Unit weight: 148 pcf for normal weight concrete, 148 pcf for lightweight concrete.

3. Shear Connector — (Optional) — Studs, 3/4 in. diam headed type or equivalent per AISC specifications. Welded to the top flange of beam through the steel floor units.

4. Welded Wire Fabric — 6W6-10/10 SWG.

5. Steel Floor and Form Units* — 1-1/2 to 3 in. corrugated, fluted or cellular units.

6. Spray-Applied Fire Resistive Materials* — Applied by mixing with water and spraying in more than one coat to the final thickness shown below. When fluted or corrugated steel floor units are used, crest areas above the beam shall be filled with Spray-Applied Fire Resistive Materials. Beam surfaces shall be clean and free of dirt, loose scale and oil. Min avg density of 23 pcf with min ind density of 21 pcf. For method of density determination, see Design Information Section, Sprayed Material.

Restrained Beam		Unrestrained Beam	
Rating Hr	Rating Hr	Rating Hr	Rating Hr
1	1/2	1/2	1/2
2	7/8	1	1
3	1-3/8	1-1/2	1-1/2
4	1-7/8	2	2

CARBOLINE CO — Type 1 MD.

7. Lath Hangers* — (For beam cage only) — No. 6 SWG galv steel wire, spaced 27 in. OC max.

8. Metal Lath* — (For beam cage only) — 3-4 lb per sq yd expanded galv or painted steel, tied to lath hangers with No. 18 SWG galv steel wire, spaced 6 in. OC max.

9. Steel Reinforcement* — As specified in the latest ACI 318 Building Code for reinforced concrete, connected to beam top flange.

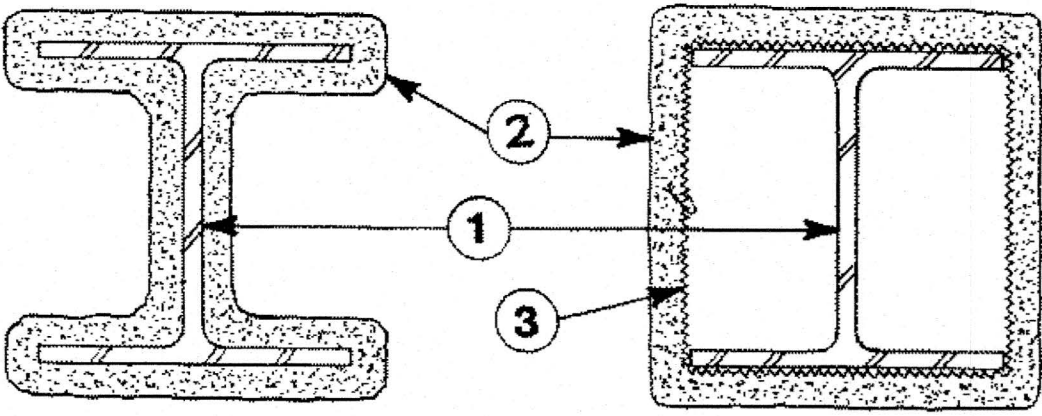
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Design No. X798

April 06, 2011

Ratings — 1, 1-1/2, 2, 3, and 4 Hr.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Steel Column — Wide flange steel column of min sizes as shown in the table below.

2. Spray-Applied Fire Resistive Materials* — Applied by mixing with water and spraying in more than one coat to the thickness shown below, to steel surfaces which are clean and free of dirt, loose scale and oil. Min avg and min ind density of 18/16 pcf for Type CP-2 and 23/21 pcf for Type CP-20, respectively. For method of density determination, see Design Information Section, Sprayed Material.

Min Column Size	Min W/D	1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	0.33	1-1/16	1-3/8	1-11/16	2-1/4	2-7/8
W6x12	0.43	1	1-5/16	1-5/8	2-3/16	2-3/4
W6x16	0.57	1	1-1/4	1-9/16	2-1/8	2-3/4
W8x28	0.67	13/16	1-1/8	1-7/16	2-1/16	2-11/16
W10x49	0.83	5/8	7/8	1-3/16	1-13/16	2-7/16
W12x106	1.46	7/16	11/16	15/16	1-7/16	2
W14x233	2.52	1/4	7/16	5/8	15/16	1-1/4
W14x730	6.62	1/4	1/4	1/4	7/16	9/16

ISOLATE INTERNATIONAL — Types CP-2, P-20.

NEWKEM PRODUCTS CORP — Type CP-2.

3. Metal Lath (optional for contour application) — 3-4 lb per sq yd expanded galv steel lath. Lath lapped 1 in. and tied together with min No. 18 SWG galv steel wire spaced vertically 6 in. OC.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

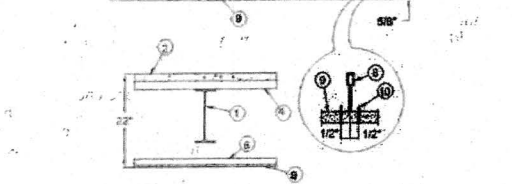
Design No. D503

Restrained Assembly Ratings — 1 or 2 Hr (See Item 2)

Unrestrained Assembly Ratings — 1 or 2 Hr (See Item 3)

Unrestrained Beam Ratings — 2 Hr

Load Restriction for Canadian Application — See Guide BXUV7



1. Beam — W12x19, min size.

2. Normal Weight Concrete — Normal weight concrete, carbonate or siliceous aggregate, 3525 pcf unit weight, 4000 psi compressive strength. Concrete thickness shown top of steel floor units min. 2 in. for 1 hr assembly ratings and 2 hr unrestrained beam rating and 2-1/2 in. for 2 hr assembly ratings.

3. Steel Fiber Reinforcement* — (Not Shown) — Steel fibers added to concrete mix to control shrinkage cracks in concrete. See Fiber Reinforcement (CRQ) Category for rate that fibers are added to concrete mix.

4. Steel Floor Units* — Min. 2 in. deep, min. 20-gauge galv fluted steel floor units welded to supports. Welds spaced 12 in. OC. Supports spaced max. 10 ft OC. See Steel Floor and Form Units (CFMU) Category for names of manufacturers.

5. Hanger Tabs — No. 18 GGG galv steel, 2 in. wide by 3-1/2 in. long, hooked at one end for attachment over main side plate of floor units and other end provided with hole for attachment of hanger wire. Spaced along side joints of floor units as required for hanger wire locations.

6. Hanger Wire — No. 12 SWG galv steel wire. Hanger wires spaced not over 48 in. OC along main runners and located at ends of main runners at walls.

7. Recycled Luminaires Classified for Fire Resistance* — Recycled translucent luminaires having nominal 8 in. diam. Spacing of luminaires not to exceed one luminaire per 25 sq ft of ceiling area with a min. separation of 3 between luminaires. Luminaires installed in accordance with accompanying instructions. Used in accordance with the National Electrical Code. See Luminaires Classified for Fire Resistance (CDHW) Category for names of manufacturers.

8. Steel Framing Members* — Main runners min. 2 in. long spaced 48 in. OC. Cross ties min. 4 ft long installed perpendicular to main runners and spaced 24 in. OC. Additional cross ties located 4 ft. from and on both sides of each wallboard end joint.

9. CHICAGO METALCLIP CORP* — As an alternate to Item 8. Main runners, cross ties, cross channels and wall angle as listed below:

A. Main Runners — Nom 30 or 32 R. long, 15/16 in. or 1-1/2 in. wide, flat, spaced 48 in. OC. Main runners suspended by min. 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runners (see Item 5).

B. Cross Ties — Nom 4 ft. long, 1-1/2 in. wide, flat, installed perpendicular to the main runners, spaced 24 in. OC. Additional cross ties or cross channels used at 8 ft. from each side of hanged wallboard end joints. The cross ties or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.

C. Cross Channels — Nom 4 ft. long installed perpendicular to main runners spaced 24 in. OC.

D. Wall Angle or Channel — Painted or galv steel angle with 1 in. top or channel with 1 in. leg, 1-1/2 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw attachment of the gypsum wallboard.

10. Steel Framing Members* — As an alternate to Item 8. Main runners, cross ties, cross channels and wall angle as listed below:

A. Main Runners — Nom 30 or 32 R. long, 15/16 in. or 1-1/2 in. wide, flat, spaced 48 in. OC. Main runners suspended by min. 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runners (see Item 5).

B. Cross Ties — Nom 4 ft. long, 1-1/2 in. wide, flat, installed perpendicular to the main runners, spaced 24 in. OC. Additional cross ties or cross channels used at 8 ft. from each side of hanged wallboard end joints. The cross ties or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.

C. Cross Channels — Nom 4 ft. long installed perpendicular to main runners spaced 24 in. OC.

D. Wall Angle or Channel — Painted or galv steel angle with 1 in. top or channel with 1 in. leg, 1-1/2 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw attachment of the gypsum wallboard.

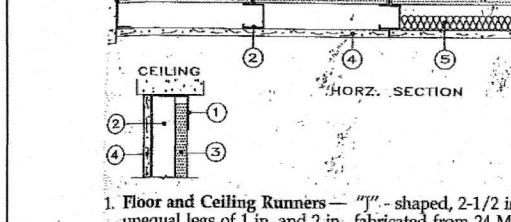
11. Steel Framing Members* — As an alternate to Item 8. Main runners, cross ties, cross channels and wall angle as listed below:

Design No. U469

Assembly Rating — 1 HR

Nonbearing Wall Rating — 2 HR

Load Restriction for Canadian Application — See Guide BXUV7



1. Floor and Ceiling Runners* — "T" shaped, 2-1/2 in. wide with universal top flange and 1 in. thick web. Runners attached to structural supports with steel fasteners not greater than 2 in. from ends and not greater than 24 in. OC.

2. Steel Studs* — "C" shaped, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from min. 20 MSG galv steel (min 20 MSG steel required when Item 4 is used), spaced 24 in. or 16 in. OC. Vertically restrained walls require studs to be cut 3/8 in. less than floor to ceiling height.

3. Gypsum Board* — 1/2 in. thick gypsum wallboard, 5/8 in. thick when Item 4A is used. Spray applied cellulose insulation material, 5/8 in. thick when Item 4A is used. Spray applied cellulose insulation material, 5/8 in. thick when Item 4A is used. Spray applied cellulose insulation material, 5/8 in. thick when Item 4A is used.

4. Gypsum Board* — 1/2 in. thick gypsum wallboard, 5/8 in. thick when Item 4A is used. Spray applied cellulose insulation material, 5/8 in. thick when Item 4A is used. Spray applied cellulose insulation material, 5/8 in. thick when Item 4A is used.

5. Hanger Tabs — No. 18 GGG galv steel, 2 in. wide by 3-1/2 in. long, hooked at one end for attachment over main side plate of floor units and other end provided with hole for attachment of hanger wire. Spaced along side joints of floor units as required for hanger wire locations.

6. Hanger Wire — No. 12 SWG galv steel wire. Hanger wires spaced not over 48 in. OC along main runners and located at ends of main runners at walls.

7. Recycled Luminaires Classified for Fire Resistance* — Recycled translucent luminaires having nominal 8 in. diam. Spacing of luminaires not to exceed one luminaire per 25 sq ft of ceiling area with a min. separation of 3 between luminaires. Luminaires installed in accordance with accompanying instructions. Used in accordance with the National Electrical Code. See Luminaires Classified for Fire Resistance (CDHW) Category for names of manufacturers.

8. Steel Framing Members* — Main runners min. 2 in. long spaced 48 in. OC. Cross ties min. 4 ft long installed perpendicular to main runners and spaced 24 in. OC. Additional cross ties located 4 ft. from and on both sides of each wallboard end joint.

9. CHICAGO METALCLIP CORP* — As an alternate to Item 8. Main runners, cross ties, cross channels and wall angle as listed below:

A. Main Runners — Nom 30 or 32 R. long, 15/16 in. or 1-1/2 in. wide, flat, spaced 48 in. OC. Main runners suspended by min. 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runners (see Item 5).

B. Cross Ties — Nom 4 ft. long, 1-1/2 in. wide, flat, installed perpendicular to the main runners, spaced 24 in. OC. Additional cross ties or cross channels used at 8 ft. from each side of hanged wallboard end joints. The cross ties or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.

C. Cross Channels — Nom 4 ft. long installed perpendicular to main runners spaced 24 in. OC.

D. Wall Angle or Channel — Painted or galv steel angle with 1 in. top or channel with 1 in. leg, 1-1/2 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw attachment of the gypsum wallboard.

10. Steel Framing Members* — As an alternate to Item 8. Main runners, cross ties, cross channels and wall angle as listed below:

A. Main Runners — Nom 30 or 32 R. long, 15/16 in. or 1-1/2 in. wide, flat, spaced 48 in. OC. Main runners suspended by min. 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runners (see Item 5).

B. Cross Ties — Nom 4 ft. long, 1-1/2 in. wide, flat, installed perpendicular to the main runners, spaced 24 in. OC. Additional cross ties or cross channels used at 8 ft. from each side of hanged wallboard end joints. The cross ties or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.

C. Cross Channels — Nom 4 ft. long installed perpendicular to main runners spaced 24 in. OC.

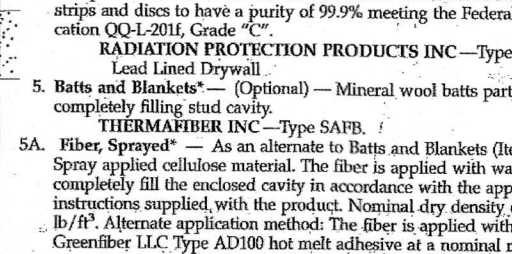
D. Wall Angle or Channel — Painted or galv steel angle with 1 in. top or channel with 1 in. leg, 1-1/2 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw attachment of the gypsum wallboard.

11. Steel Framing Members* — As an alternate to Item 8. Main runners, cross ties, cross channels and wall angle as listed below:

Design No. U419

Nonbearing Wall Rating — 1, 2, 3 or 4 Hr (See Items 3 & 4)

For Number of Layers and Details Ratings See Item 4



1. Floor and Ceiling Runners* — (Not shown) — Channel shaped, fabricated from min. 20 MSG (min 20 MSG when Item 4A is used) corrosion-protected steel, min width to accommodate stud size, with min. 1 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

2. Steel Studs* — Channel shaped, fabricated from min. 20 MSG (min 20 MSG when Item 4A is used) corrosion-protected steel, min width to accommodate stud size, with min. 1-1/4 in. flanges and 1/4 in. return, spaced 24 in. OC. Studs to be cut 3/8 in. less than assembly height.

3. Gypsum Board* — (Required as indicated under Item 4) — Mineral wool batts, fraction filled between studs and runners. Min. min. thickness as indicated under Item 4. See Balts and Blankets (BRV) or RZD Categories for names of Classified companies.

4. Balts and Blankets* — (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Balts and Blankets (BRV) or RZD Categories for names of Classified companies.

5. Gypsum Board* — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered 4 min of 12 in. The thickness and number of layers for the 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 82



INTERIOR FIT-UP FOR
STUDIO 557
THE BLOCK
300 SOUTH MAIN STREET, SUITE 304
HOLLY SPRINGS, NC 27540

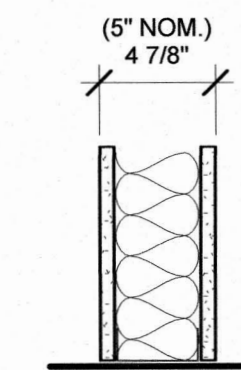
PROJECT #		20061
DATE:		09. 01. 2020
DRAWN BY:		MAS
CHECKED BY:		ALH / WBS
NO.	REVISION	DATE

PARTITION
LEGEND & ADA
DIAGRAMS

G4.01

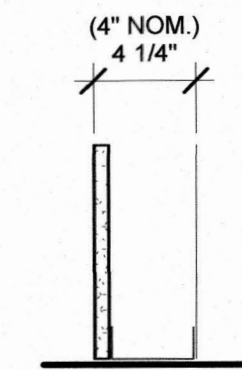
GENERAL PARTITION NOTES:

- AT RATED FIRE WALLS, FIRE BARRIERS, AND FIRE PARTITIONS, PROVIDE STENCILED SIGNAGE "X-HR FIRE AND SMOKE BARRIER - PROTECT ALL OPENINGS" IN 2-IN. HIGH LETTERING 15-FT O.C. ABOVE CEILINGS EACH SIDE OF PARTITION. AT EXIT PASSAGEWAYS (IF ANY), SIGNAGE SHALL READ "2-HR EXIT PASSAGEWAY - DO NOT PENETRATE".
- AT NEW FIRE-RATED WALLS (IF ANY) PROVIDE HEAD-OF-WALL DETAIL PER AN ACCEPTABLE U.L. ASSEMBLY. PROVIDE THRU-WALL PENETRATION DETAILS PER P.M.E. DRAWINGS.
- WHERE PARTITIONS ABUT STRUCTURE ABOVE, PROVIDE VERTICAL SLIP TRACK (OR OTHER APPROVED METHOD) TO AVOID IMPARTING LOADS INTO PARTITIONS.
- WHERE PARTITIONS DO NOT EXTEND TO STRUCTURE ABOVE, BRACE TOPS OF PARTITIONS 8-FT O.C. HORIZONTALLY TO ADJACENT WALLS OR WITH METAL STUD KICKERS TO STRUCTURE ABOVE.
- WHERE CERAMIC TILE IS INDICATED AS THE FINISH MATERIAL, PROVIDE 1/2" CEMENTITIOUS BACKER BOARD IN LIEU OF GWB.
- PROVIDE MOISTURE-RESISTANT GWB WITHIN ALL TOILET ROOMS AND WITHIN 4-FT OF ALL PLUMBING FIXTURES.
- ALL PARTITIONS ARE TO BE TYPE "A1" UNLESS NOTED OTHERWISE ON PLANS.



A1

- 3-5/8" 20 GA. GALV. MTL. STUDS 16" O.C. FROM FLR. TO 6" ABOVE CEILING
- 5/8" F.C. GWB EA. SIDE FULL HT. OF STUDS
- 3-1/2" UNFACED ACOUSTIC INSULATION FULL HT. OF STUDS

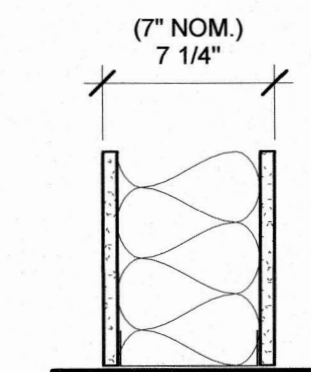


B1

- 3-5/8" 20 GA. GALV. MTL. STUDS 16" O.C. FROM FLR. TO UNDERSIDE OF ROOF DECK ABOVE
- 5/8" F.C. GWB AT ROOM SIDE FULL HT. OF STUDS

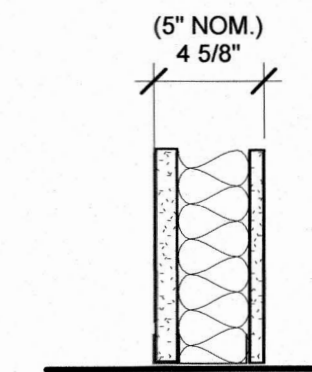
A2

- 3-5/8" 20 GA. GALV. MTL. STUDS 16" O.C. FROM FLR. TO UNDERSIDE OF ROOF DECK ABOVE
- 5/8" F.C. GWB EA. SIDE FULL HT. OF STUDS
- 3-1/2" UNFACED ACOUSTIC INSULATION FULL HT. OF STUDS



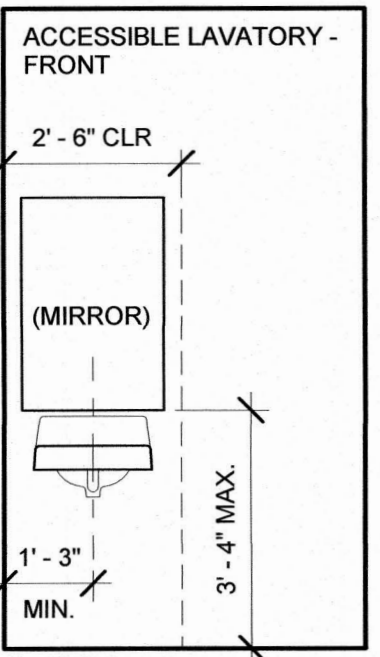
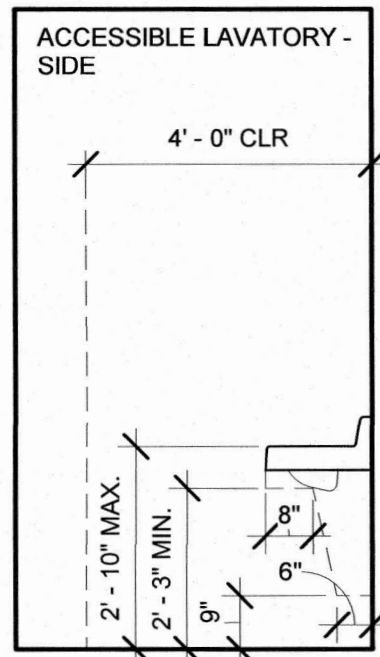
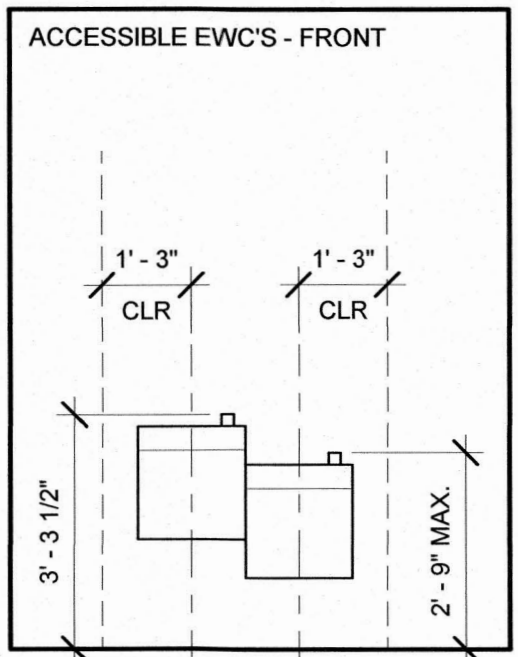
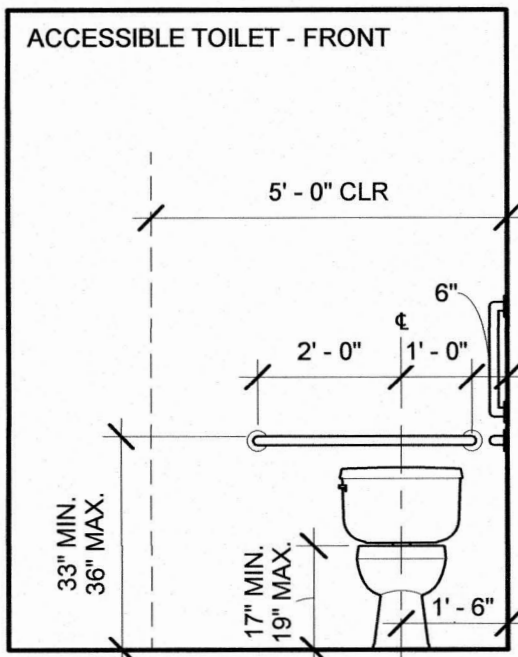
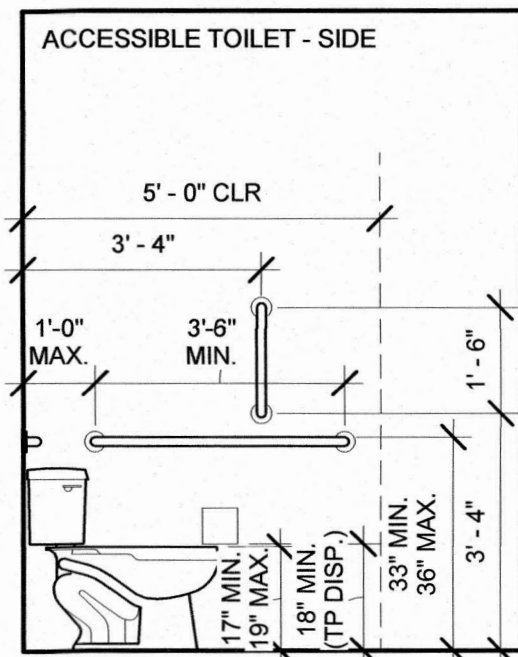
C1

- 6" 20 GA. GALV. MTL. STUDS 16" O.C. FROM FLR. TO UNDERSIDE OF ROOF DECK ABOVE
- 5/8" F.C. GWB EA. SIDE FULL HT. OF STUDS
- 6" UNFACED ACOUSTIC INSULATION FULL HT. OF STUDS



D1

- 4" 20 GA. GALV. MTL. SHAFTWALL STUDS 24" O.C. FROM FLR. TO UNDERSIDE OF ROOF DECK ABOVE
- 5/8" F.C. GWB TENANT SIDE FULL HT. OF STUDS
- 1" F.C. GYP. LINER PANEL SHAFT SIDE FULL HT. OF STUDS
- 3" UNFACED ACOUSTIC INSULATION FULL HT. OF STUDS
- 1-HR FIRE RATING PER U.L. U415

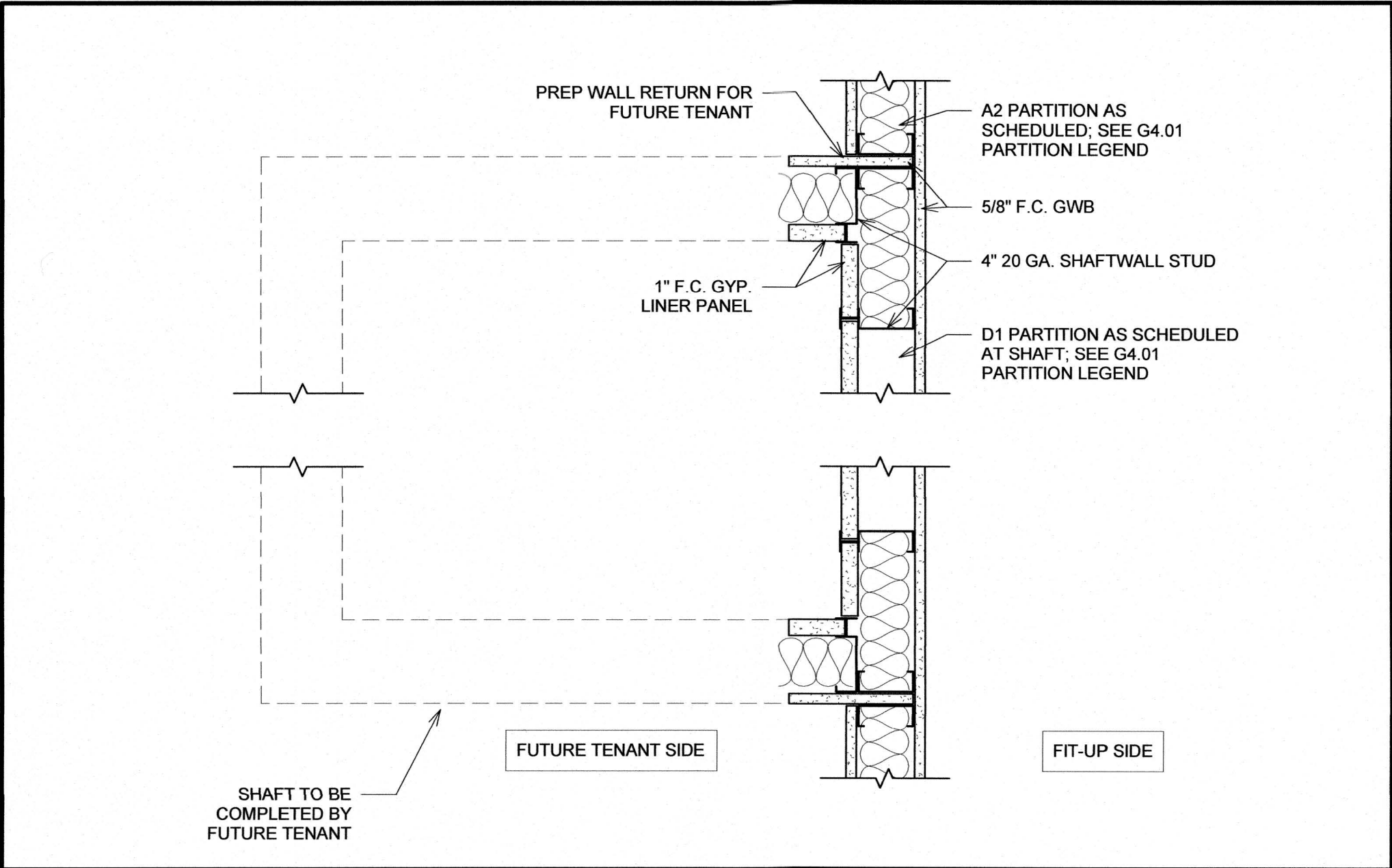


<div>Section 01 10 00 - SUMMARY</div> <div>A. General: The Project shall consist of the first-generation up-fit of an existing shell building. The Work shall include, but not be limited to, interior partitions, interior glazing, aluminum frames, wood doors, acoustic insulation, and electrical, fire alarm, and sprinkler construction.</div> <div>B. The General Conditions for the Contract for Construction, AIA Document A201, current edition, is hereby included by reference in these project documents. The form of agreement shall be AIA Document A101 Standard Form of Agreement between Owner & Contractor - Stipulated Sum.</div> <div>C. Coordinate operations of all subcontractors to maintain agreed-upon schedule.</div> <div>D. Owner-furnished products:</div> <div><div>1. Contractor is responsible for receiving, unloading, and handling Owner-furnished items at project site.</div><div>2. Contractor is responsible for protecting Owner-furnished items from damage during storage and handling, including damage from exposure to elements.</div><div>3. Contractor shall install and incorporate Owner-furnished items into the work.</div></div> <div>Schedule of Owner-furnished products: Light fixtures, plumbing fixtures, millwork, barn door and track, appliances, doors and door hardware.</div> <div>E. Owner Occupancy: Owner reserves the right to occupancy and to place and install equipment in completed areas of building, before substantial completion, provided such occupancy does not interfere with the completion of the work. Such occupancy does not constitute acceptance of the work.</div> <div>F. Permits:</div> <div><div>1. Contractor shall secure and pay for all required permits, fees, licenses, and inspections necessary for the completion of the work.</div><div>2. All work shall be performed in accordance with the NC Building Code, ADA, and all other applicable regulations (current editions).</div></div> <div>G. Contractor shall conduct walk-thru of project with Owner to confirm locations of all power and data receptacles upon placement of junction boxes and prior to wiring.</div> <div>Section 01 26 00 - CONTRACT MODIFICATION PROCEDURES</div> <div>A. Owner-initiated proposal requests: Architect will issue a detailed description of proposed changes in the work that may require adjustment to the contract sum or time. If necessary, the description will include supplemental or revised drawings and specifications.</div> <div><div>1. Proposal requests issued by the architect are for information only, not to stop work in progress or to execute the proposed change.</div><div>2. Within 5 days of proposal request, submit a quotation estimating adjustments to contract sum and time necessary to execute change.</div></div> <div>a. Include listing of quantities of products required or deleted from project scope.</div> <div>b. Include applicable taxes, delivery charges, equipment rental, and trade discounts</div> <div>c. Include costs of labor and supervision directly attributable to the change.</div> <div>d. Include updated construction schedule.</div> <div>B. Contractor-Initiated Proposals: If latent of unforeseen conditions require modifications to the contract, contractor may propose changes by submitting request to Architect.</div> <div><div>1. Include a statement describing reasons for change, and its effect on the cost and schedule required to complete the Work.</div><div>2. Include lists of quantities of products required or eliminated from the work to effect the proposed change.</div><div>3. Indicate labor and supervision related to the change, plus all applicable taxes, delivery charges, equipment rental, and trade discounts.</div><div>4. Include updated construction schedule.</div></div> <div>Section 01 29 00 - PAYMENT PROCEDURES</div> <div>A. Transmittal: Submit Three (3) Signed and notarized copies of each Application for Payment to the Architect. One copy shall include Waivers of Lien and similar attachments if required.</div> <div>B. Coordinate submission date of Application for Payment with Owner prior to start of job.</div> <div>C. Applications for Payment shall be made monthly on AIA Form G702/G703, in accordance with the approved Schedule of Values provided to Owner and Architect prior to start of project.</div> <div>Section 01 31 00 - PROJECT MANAGEMENT AND COORDINATION</div> <div>A. Preconstruction Conference: Schedule Preconstruction conference at a time and location convenient to Owner and Architect, and in conformance with Contractor's approved project schedule. Review personnel assigned to project, schedule, major subcontractors, job-site safety, work restrictions, working hours, status of permits, testing and inspection procedures, parking, and progress cleaning.</div> <div>B. Preinstallation Conferences: Conduct preinstallation conference prior to activities that require significant coordination with other construction. Attendees shall include all those persons involved with installation, coordination, and supervision of these activities. Notify Architect and Owner of scheduled meeting dates.</div> <div>C. Progress Meetings: Conduct regular progress meetings, at intervals appropriate to stage of construction. Notify Architect and Owner of meeting dates.</div> <div>Section 01 32 00 - CONSTRUCTION PROGRESS</div> <div>A. Contractor's Construction Schedule: Submit 2 copies and digital copy of initial schedule, including activities of all subcontractors. Break out schedule by phases if applicable.</div> <div>B. Contractor shall provide adequate personnel on site to supervise construction and maintain progress in accordance with the approved construction schedule.</div>	<div>Section 01 33 00 - SUBMITTALS</div> <div>A. Provide submittals for all products proposed for incorporation into project.Should submittals not be made and approved by Architect, then Owner and GC shall be fully responsible for products installed.</div> <div>B. Processing Time: Allow sufficient time for submittal review and resubmittals. Extensions of time will not be granted for failure to transmit submittals in sufficient time in advance of the work to permit adequate review.</div> <div><div>1. Allow 5 days for initial review of each submittal. Allow additional time if coordination with other submittals is required.</div><div>2. Allow 5 days for each resubmittal review and re-review.</div></div> <div>C. Deviations: Note deviations from contract documents on submittals.</div> <div>C. Contractor Review: Contractor is to review and stamp all submittals prior to submission to Architect.</div> <div>D. Product Data: Submit product data, installation instructions, testing data, fire-performance data, etc., as necessary to indicate compliance with contract documents.</div> <div>E. Samples: Submit 2 copies of each product sample where colors or finishes must be selected. Label all samples, and indicate proposed selection if indicated on drawings or schedules. Provide color samples from manufacturer's full range of colors available.</div> <div>F. Shop Drawings: Include complete product and installation information, including products shown to scale, dimensions, layout, rough-in drawings, coordination with adjacent work, etc.</div> <div>G. Submit 1 electronic pdf copy of each submittal. Architect will return 1 pdf copy with action stamp marked as appropriate.</div> <div>Section 01 50 00 - TEMPORARY FACILITIES AND CONTROLS</div> <div>A. General: Arrange for temporary water and electricity at job site. Verify from Owner if existing services are available.</div> <div>B. Provide temporary portable toilet facilities and drinking water if not otherwise available on site.</div> <div>C. Provide security fencing and overhead protection to separate buildings users from construction activities.</div> <div>Section 01 60 00 - PRODUCT REQUIREMENTS</div> <div>A. General: Provide only new products unless documents specifically allow use of salvaged materials.</div> <div>B. Substitutions: Submit 3 copies of proposed substitutions information to Architect for consideration, including all relevant product information and impact on schedule.</div> <div>C. Delivery and Handling: Schedule delivery to minimize on-site storage. Delivery shall be in undamaged condition. Inspect products upon delivery to ensure products are undamaged and protected.</div> <div>D. Storage: Store products on site in accordance with manufacturer's literature, and with sufficient security to minimize theft.</div> <div>Section 01 73 00 - EXECUTION REQUIREMENTS</div> <div>A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated is not guaranteed. Prior to start of construction, verify underground and concealed utilities and other construction affecting the work.</div> <div>B. Field Measurements: Take field measurements as required to fit the work properly. Verify the dimensions of other construction by field measurements before fabrication of new components.</div> <div>C. Verification: Before proceeding to lay out the Work, verify layout dimensions with information indicated on drawings. Notify Architect of any discrepancies immediately.</div> <div>D. Comply with manufacturer's written storage, installation,and protection instructions and recommendations.</div> <div>E. Protect installed construction, and maintain conditions that ensure installed work will not be subject to damage or deterioration at time of Substantial Completion.</div> <div>F. Repair or replace defective construction. Restore damaged substrates and finishes prior to Substantial Completion.</div> <div>G. Where demolition is indicated, obtain all necessary permits and condition assessments prior to commencement. If hazardous materials are suspected or present (including asbestos and lead), notify architect and owner immediately and do not proceed until abatement measures can be designed by licensed consultant.</div> <div>Section 01 77 00 - CLOSEOUT PROCEDURES</div> <div>A. Warranty Documents: Organize warranty documents into 3-ring, loose-leaf binders, with tabs.</div> <div>B. Contractor is to redmark and maintain one permit set of drawings and specifications with as-built conditions marked. Deliver to Owner upon completion of Work.</div> <div>C. Preliminary Procedures: Prior to requesting inspection for determining date of substantial Completion, complete the following:</div> <div><div>1. Prepare a list of items to be completed (punch list). Punch list items are to be completed within 30 days.</div><div>2. Prepare project Record Documents and O&M manuals.</div><div>3. Provide attic stock: 3% of ACP-1</div><div>4. Terminate and remove temporary facilities from site.</div><div>5. Perform cleaning and touchup painting.</div><div>6. Provide copy of Certificate of Occupancy, and approvals required by other agencies as necessary to occupy the space.</div></div> <div>D. Substantial Completion: Upon Substantial Completion of the Work, submit request to Architect for inspection. After inspection, Architect will prepare the Certificate of Substantial Completion, or notify Contractor of remedial work that must first be performed.</div> <div>E. Final Completion: Prior to requesting payment for Final Completion, complete all punchlist items, and provide all outstanding closeout documents.</div>	<div>Section 03 30 00 - CONCRETE</div> <div>A. Concrete and Demolition: If concrete is required to be demolished, coredrill areas to minimal extent necessary. Fireseal openings provided in conformance with U.L. details.</div> <div>B. Maintain structural integrity of all building components and construction at all times</div> <div>Section 06 10 00 - ROUGH CARPENTRY</div> <div>A. Lumber: Comply with DOC PS 20 and applicable rules of grading agencies. Factory mark each piece of lumber with grade stamp of grading agency.</div> <div>B. Where nominal sizes are indicated, provide actual sizes required by DOC PS20 for moisture content specified. Provide dressed lumber S4S unless otherwise indicated.</div> <div>C. Provide fire-retardant treated lumber in accordance with AWWA C20 (lumber) and AWWA C27 (Plywood).</div> <div>D. Wood in contact with concrete or masonry, or for exterior locations, is to be preservative treated in accordance with AWAP Use Category 4A Copper Azole (CA-B), 0.21 PCF.</div> <div>Section 07 21 00 - INSULATION</div> <div>A. Sound Attenuation Insulation: Unfaced Glass-Fiber Blanket Insulation complying with ASTM C665, Type I, passing ASTM E136. Thickness to fill stud cavity.</div> <div>B. Provide fasteners, sealants, adhesives, joint tapes, and other accessories as required for complete installation.</div> <div>C. Install wall insulation fully and continuously within stud cavities, Cut and fit around penetrations and obstructions.</div> <div>Section 07 84 20 - FIRE-RESISTIVE JOINT SYSTEMS</div> <div>A. Where fire-rated walls, partitions, floors, shafts, etc., are indicated, provide fire-resistive joint systems in compliance with an acceptable UL detail (or other testing agency approved by the AHJ).</div> <div>B. Provide complete system components, including blocking, safing, clips, insulation, and fire sealants, to meet referenced fire-resistive detail. Install all components in conformance with system requirements.</div> <div>C. Provide through-penetration firestop systems similarly in accordance with an approved UL penetration detail for the substrate and penetrant involved (or other testing agency approved by the AHJ).</div> <div>Section 07 92 00 - JOINT SEALANTS</div> <div>A. Compatibility: Provide sealants, backing, and related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.</div> <div>B. Products:</div> <div><div>1. Interior General Use Sealant: Latex sealant, Paintable, ASTM C834. Provide Pecora AC-20+ or approved equal.</div><div>2. Interior joints between plumbing fixtures and adjoining walls, floor and counters: Single-component mildew-resistant neutral-curing silicone sealant. Provide Pecora #898 or approved equal.</div><div>3. Pourable Urethane Sealant: Pecora Dynatrol II-SG or approved equal.</div></div> <div>Section 08 11 13 - HOLLOW METAL FRAMES</div> <div>A. General: Fabricate frames of construction indicated. Close contact edges of corner joints tight with faces mitered and stops butted or mitered. Continuously weld faces and soffits and finish faces smooth. Comply with AS/NAAMM-HMMA 861.</div> <div><div>1. Door and view lite frames less than 48" in width shall be fabricated from .053" thick steel sheet.</div></div> <div>B. General Steel Doors and Frames: Comply with ANSI A250.8</div> <div>C. Interior Frames, General : Fabric from cold-rolled steel sheet, with knock-down or welded construction, 16 gauge minimum. Provide factory primed for field painting. Provide fire-rated frames where indicated.</div> <div>D. Pocket Door Frames: Provide HM pocket door frames where indicated, with split jamb, equal to products by Curries</div> <div>E. Hardware Reinforcement: Fabric according to ANSI/NAAMM-HMMA 861 with reinforcing plates made from same material as frame.</div> <div>F. Provide removable stops with screw fasteners for view lite frames.</div> <div>G. Install doors and frames plumb and square with appropriate anchors. Coordinate installation with adjacent trades.</div> <div>Section 08 31 13 - ACCESS DOORS</div> <div>A. General: Provide flush access doors and frames with concealed trim, .060" thick sheet metal, with cam latch operated by screwdriver, with spring-loaded concealed pin or continuous piano hinges.</div> <div>B. Provide products suitable for GWB walls and ceilings, and as otherwise required by other construction.</div> <div>C. Provide products by J.L. Industries, Milcor, or Babcock-Davis.</div> <div>Section 08 71 00 - DOOR HARDWARE</div> <div>A. Door hardware to be furnished by owner and installed by GC. Specs below represent basis of design. Coordinate hardware rough-in requirements with doors and frames. All hardware must be A.D.A. and NC Building Code compliant.</div> <div>B. Door Hardware: Provide all components necessary for fully functioning doors, including locksets, latchsets, closers, stops, and misc. trim.</div> <div>C. Hinges: BHMA A156.1</div> <div><div>1. Provide 3 hinges for door heights up to 90".</div><div>2. Provide 4 hinges for door heights between 90" and 120".</div><div>3. Provide 4-1/2" x 4-1/2" hinges on doors up to 36" in width.</div><div>4. Provide 5" x 4-1/2" hinges on doors over 36" in width.</div></div> <div>D. Refer to Hardware Schedule on A6.01 for more information.</div>	<div>Section 08 81 00 - GLAZING</div> <div>A. Provide 1/4" clear tempered glazing, where indicated for interior doors and view lites.</div> <div>B. Tempered Glass: Kind FT Fully Tempered, ASTN C 1048, Type I (Transparent flat glass), Quality Q3, clear.</div> <div>C. Tempered glazing products are to be permanently labeled as required by code.</div> <div>Section 09 22 16 - NON-STRUCTURAL STEEL PARTITION FRAMING</div> <div>A. Section includes non-load-bearing steel framing systems for interior gypsum assemblies, and suspension systems for gypsum ceilings and soffits.</div> <div>B. Fire Test Response Characteristics: Provide materials tested to comply with ASTM E119.</div> <div>C. Steel Studs and Runners: ASTM C645. Space studs 16" o.c. unless noted otherwise.</div> <div>D. Sheet steel protective coating: ASTM A653/A 653M, G40(Z120), hot-dip galvanized, unless otherwise noted.</div> <div><div>1. Minimum base metal thickness: 20 ga.</div><div>2. Depth: 3-5/8" (typical), and 6" where indicated.</div></div> <div>E. Cold-rolled channel bridging: 0.0538 bare-steel thickness, with minimum .7047" wide flanges.</div> <div><div>1. Depth: 1-1.2 inches.</div><div>2. Clip Angle: not less than 1-1/2" x 1-1/2" .068" thick galvanized steel.</div></div> <div>F. Shaftwall studs and runners: Provide manufacturer's standard "H" shaped framing components, 20-gauge minimum, to accommodate 1" fire-rated liner panels. Space studs 24" o.c. maximum.</div> <div>G. Installation</div> <div><div>1. Installation Standard: ASTM C754, except comply with framing sizes and spacing indicated on plans and as recommended by manufacturer.</div><div>2. Gypsum Board Assemblies: Also comply with requirements in ASTM C840 that apply to framing installation.</div><div>3. Provide slip-type deflection tracks at tops of all partitions that abut structure above.</div><div>4. Brace partitions that do not extend to structure with kickers 8' o.c., or to adjacent perpendicular walls 8' o.c.</div><div>5. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames. Install runner track section (or cripple studs) at head and secure to jamb studs. Install two studs at each jamb, unless otherwise indicated.</div><div>6. Where framing is indicated to comply with a fire rated assembly, install in conformance with UL assembly indicated.</div></div> <div>Section 09 29 00 - GYPSUM BOARD</div> <div>A. For Fire-Resistance Rated Assemblies, provide materials tested in assemblies according to ASTM E119.</div> <div>B. Gypsum Board: ASTM C1396. Provide products by one of the following:</div> <div><div>1. American Gypsum Company</div><div>2. G-P Gypsum</div><div>3. National Gypsum</div><div>4. US Gypsum</div></div> <div>C. Gypsum Board</div> <div><div>1. Type X typical (Type "C" where required for soffits to achieve fire ratings)</div><div>2. Thickness: .625"</div><div>3. Long Edges Tapered.</div><div>4. Provide Moisture-Resistant (MR) boards within all toilets, labs, and within 4' of all sinks and drinking fountains.</div></div> <div>D. Gypsum Liner Panels: 1" Thick, complying with fire rating requirements indicated.</div> <div>E. Joint Tape: Paper</div> <div>F. Joint Compound:</div> <div><div>1. Prefilling: At open joints, rounded or beveled edges, and damaged surface areas, use setting-type taping compound.</div><div>2. Embedding, fill and finish coats: Drying-type all-purpose compound.</div></div> <div>G. Accessories: ASTM C1047. Provide galvanized or aluminum coated steel sheet or plastic trim components. Provide steel drill screws complying with ASTM C1002.</div> <div>H. Examination: Examine areas and substrate for compliance with requirements and other conditions affecting performance.</div> <div>I. Installation: Install gypsum panels with screws to conform to industry standards and UL fire resistive assemblies. Install trim accessories at corners and other locations as required. Finish gypsum boards per below.</div> <div>J. Gypsum Board Finish Levels:</div> <div><div>1. Level 4 Finish: All exposed gypsum board wall surfaces.</div><div>2. Level 5 Finish: Surfaces to receive high gloss paint, specialty wall coverings.</div></div>	<div>Section 09 51 13 - ACOUSTICAL PANEL CEILINGS</div> <div>A. Acoustical Panels, General: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectance, unless otherwise indicated.</div> <div>B. Metal Suspension System Standard: Provide manufacturer's standard 15/16" Prelude direct-hung metal suspension system of types, structural classifications, and finishes indicated that comply with applicable requirements in ASTM C635.</div> <div>C. ACP-1 Acoustical Panels: 24" x 24" x 5/8" tegular edge panels (Armstrong Dune angled tegular #1774 or approved equal). Color: White</div> <div>D. Installation: Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less than half width panels at borders, and comply with layout on reflected ceiling plan.</div> <div>Section 09 91 00 - PAINTING</div> <div>A. Manufacturer's: Subject to compliance with requirements, provide the following:</div> <div><div>1. PPG Paints</div></div> <div>B. Material Compatibility: Systems could fail if paints used for individual coats are incompatible. MPI's paint systems match primers and topcoats and take compatibility into consideration.</div> <div><div>1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.</div><div>2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.</div></div> <div>C. Colors: Provide colors indicated by Owner and as noted elsewhere.</div> <div>D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and applications workmanship. Provide mock-up area for each color specified. Do not proceed with remaining work until workmanship, color and sheen are approved by Owner. Refinish mock-up are as required to produce acceptable work.</div> <div>E. Interior Paint Systems</div> <div><div>1. Gypsum Board Surfaces: Provide the following finish systems over interior gypsum board surfaces:<div>a. Acrylic Finish: Two finish coats over a primer.</div><div>b. Primer-Zero VOC: PPG: Speedhide zero Interior Zero VOC Latex Primer 6-4900XI</div><div>c. Interior low-luster acrylic enamel finish-Zero VOC: PPG: 6-4310XI Speedhide zero Interior Zero VOC Eggshell Latex.</div></div><div>2. Ferrous Metal: Provide the following finish systems over ferrous metal:<div>a. Acrylic Enamel Finish: Two finish coats over a primer.</div><div>b. Primer: PPG: 90-712 Pitt-Tech Plus Interior/Exterior Primer/Finish DTM Industrial Enamel</div><div>c. Interior Semi-gloss acrylic enamel finish: PPG: 90-1210 Series Pitt-Tech Plus Interior/Exterior Semi-gloss DTM Industrial Enamel.</div></div><div>3. Exposed Steel Deck and Utilities: Provide the following finish systems over exposed roof deck, joists and beams, HVAC units, ductwork, plumbing, etc:<div>a. Primer: PPG: 90-712 Pitt-Tech Plus Interior/Exterior</div><div>b. Primer/Finish DTM Industrial Enamel</div><div>c. Interior Flat Acrylic finish: PPG: 6-723XI (white) Speedhide Super Tech WB Interior Dry-Fog Flat Latex</div></div></div> <div>A. Examine substrates and conditions for compliance with requirements for maximum moisture content and other conditions affecting performance of work. Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.</div> <div>B. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.</div> <div>C. Paint all surfaces in exposed locations, except for items that are otherwise pre-finished, unless noted otherwise.</div> <div>Section 10 52 00 - FIRE-PROTECTION SPECIALTIES</div> <div>A. Where FE is indicated on plans, provide bracket-mounted 4A:60-B:C Fire Extinguisher.</div> <div>B. Where FEC is indicated on plans, provide FE Cabinet equal to Larsen aluminum vertical-duo architectural series cabinet with clear anodized finish, fully-recessed or wall mounted as indicated on drawings, suitable to contain FE specified, along with FE described in paragraph A.</div> <div>C. Installation: Install products in accordance with manufacturer's literature, NC Accessibility Code, ADA, and fire department requirements.</div> <div>Section 10 80 00 - TOILET AND BATH ACCESSORIES</div> <div>A. Provide products specified in Toilet Accessory Schedule.</div> <div>B. Installation: Install products in accordance with manufacturer's literature, and with NC Accessibility Code and ADA requirements.</div>
<div>SPECIFICATIONS</div> <div>SCALE: -</div>				<div>INTERIOR FIT-UP FOR</div> <div>STUDIO 557</div> <div>THE BLOCK</div> <div>300 SOUTH MAIN STREET, SUITE 304</div> <div>HOLLY SPRINGS, NC 27540</div>

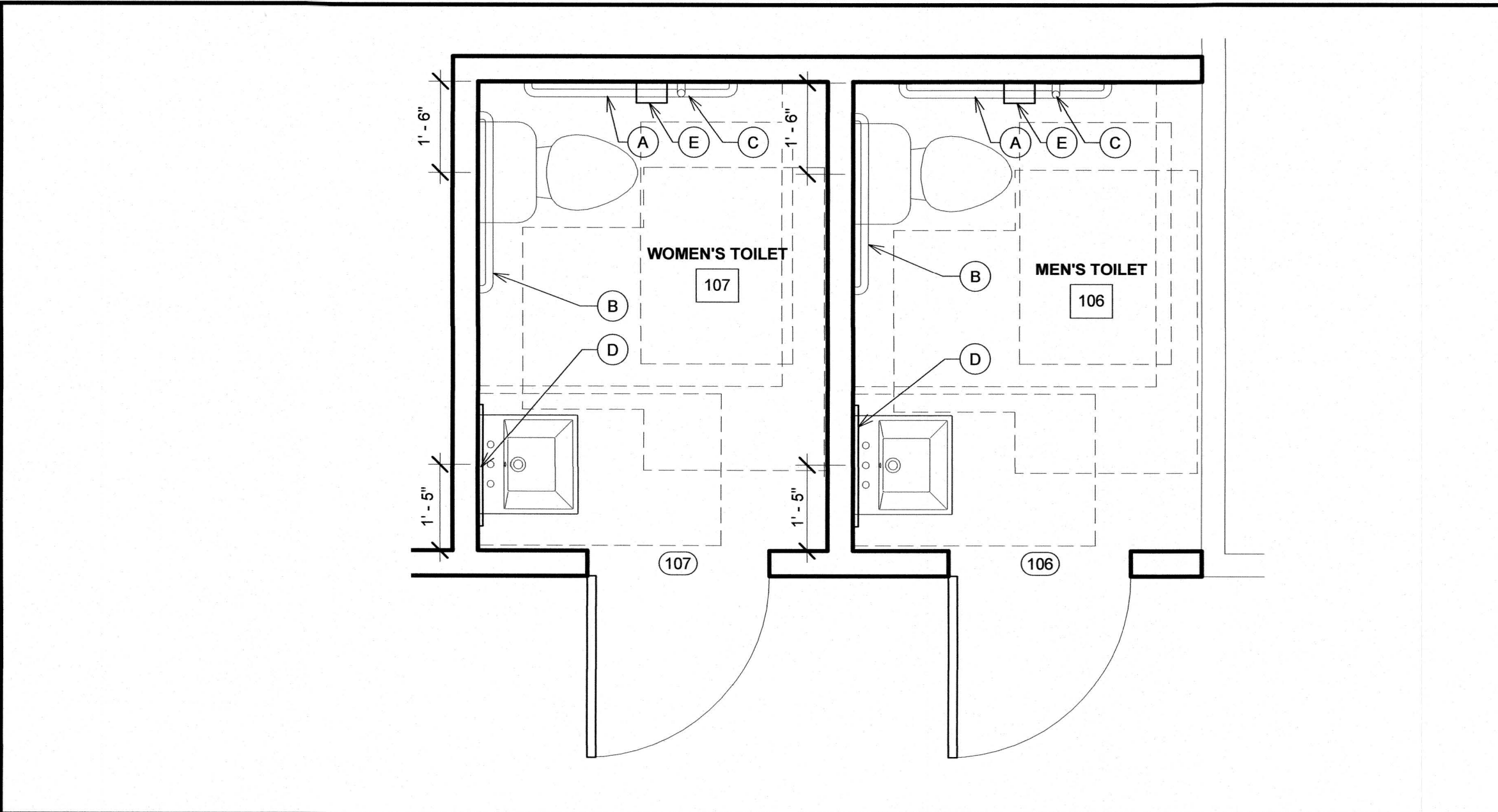


PROJECT #		20061
DATE:		09. 01. 2020
DRAWN BY:		MAS
CHECKED BY:		ALH / WBS
NO.	REVISION	DATE

SPECIFICATIONS



SHAFTWALL DETAIL 05
1 1/2" = 1'-0"

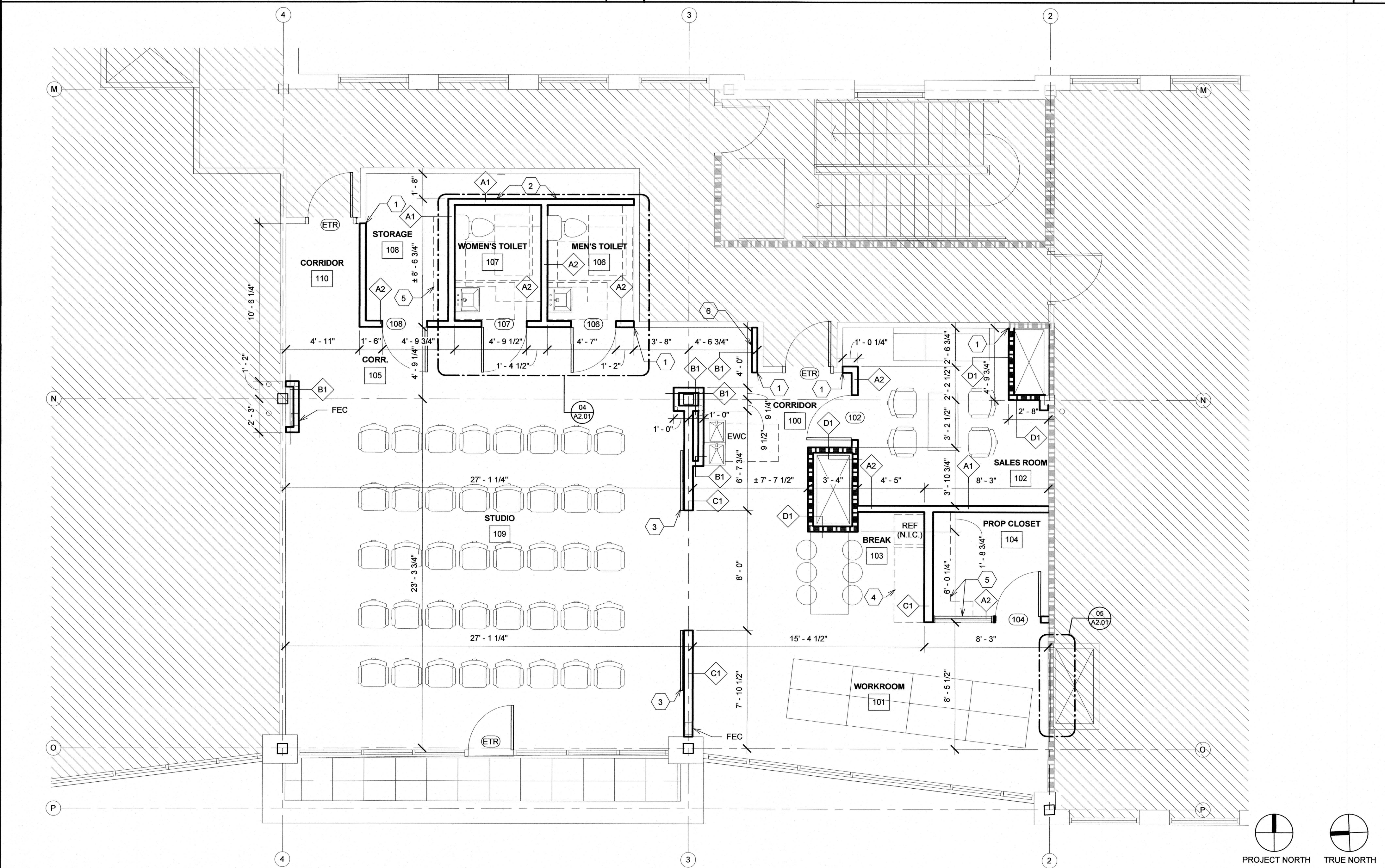


THIRD FLOOR ENLARGED TOILET PLAN 04
1/2" = 1'-0"

- TOILET ACCESSORY NOTES**
- CONTRACTOR IS TO PROVIDE NCX WOOD BLOCKING IN ALL STUD WALLS TO RECEIVE TOILET ACCESSORIES.
 - VERIFY EXACT LOCATION OF ACCESS PANELS, IF REQUIRED, SO AS TO NOT INTERFERE WITH TOILET ACCESSORIES.
 - MOUNT ALL TOILET ACCESSORIES IN COMPLIANCE WITH N.C. ACCESSIBILITY CODE AND A.D.A. REQUIREMENTS
 - FLUSH HANDLES FOR TOILETS ARE TO BE LOCATED ON OPPOSITE SIDE OF TOILET FROM SIDE GRAB BARS, TYPICAL.

TOILET ACCESSORY SCHEDULE						
MARK	DESCRIPTION	BRAND AND MODEL #	MOUNTING HT.	REMARKS	FURNISHED BY	INSTALLED BY
A	42" GRAB BAR	CSI BAR-SB42-TW-125-XX	TOP @ 36" A.F.F.	SURFACE MTD.	OWNER	GC
B	36" GRAB BAR	CSI BAR-SB36-TW-125-XX	TOP @ 36" A.F.F.	SURFACE MTD.	OWNER	GC
C	18" GRAB BAR	CSI BAR-SB18-TW-125-XX	BTM. @ 40" A.F.F.	SURFACE MTD.	OWNER	GC
D	MIRROR, 22" X 36" PILL	WAYFAIR MF-PL-40X16-B	BTM. @ 40" MAX. A.F.F.	SURFACE MTD.	OWNER	GC
E	TOILET PAPER DISPENSER	GATCO 1420MX	BTM. @ 18" MIN. A.F.F.	SURFACE MTD.	OWNER	GC

TLT. ACCESSORY NOTES AND SCHEDULE 03
SCALE: -



THIRD FLOOR NEW WORK PLAN 02
1/4" = 1'-0"

- FLOOR PLAN NOTES**
- PROVIDE ALL NEW BUILDING COMPONENTS AS INDICATED.
 - DIMENSIONS ARE INDICATED TO FACE OF EX'G WALLS, COLUMN CENTERLINES, FACE OF NOMINAL GWB PARTITIONS & FACE OF GWB BULKHEADS ABOVE INTERIOR GLAZING.
 - SEE G4.01 FOR PARTITION LEGEND.
 - COORDINATE EQUIPMENT AND ITS PLACEMENT WITH DRAWING AND INFORMATION PROVIDED BY OTHERS. MAINTAIN REQ'D EGRESS WIDTHS AROUND ALL FIXED EQUIPMENT.
 - PROVIDE NCX WOOD BLOCKING IN PARTITIONS WHERE REQ'D FOR SUPPORT OF EQUIPMENT, UTILITIES, ETC.
 - PROVIDE BRACKET MOUNTED FIRE EXTINGUISHER (FE) WHERE INDICATED. PROVIDE RECESSED FIRE EXTINGUISHER CABINET (FEC) WHERE INDICATED. MOUNT SUCH THAT BOTTOM IS NOT MORE THAN 27" A.F.F.
 - PROVIDE ACCESS PANELS AS REQ'D FOR ACCESSING CONCEALED UTILITIES OR OTHER ITEMS. RELOCATE EX'G ACCESS PANELS AS REQ'D. COORDINATE LOCATIONS IN FIELD (FOR ACCESS PANELS ARE NOT SPECIFICALLY NOTED ON DRAWINGS).
 - AREAS SHOWN AS HATCHED ARE NOT IN CONTRACT.
 - CUT, PATCH & REPAIR AS REQ'D AND MATCH ADJACENT FINISHES U.O.N. TO PROVIDE COMPLETE AND CONTINUOUS FINISHED SURFACES.
 - VERIFY DIMENSIONS PRIOR TO PROCEEDING WITH ANY WORK. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
 - FURNITURE SHOWN IS FOR INFORMATION ONLY - NOT IN CONTRACT.
 - G.C. TO PROVIDE AND INSTALL PAINT, OWNER TO PROVIDE PAINT COLOR SELECTIONS.

- FLOOR PLAN KEYNOTES**
- ALIGN FACE OF NEW PARTITION W/ FACE OF EX'G PARTITION
 - PROVIDE 3/4" NCX PLYWOOD INSTEAD OF GWB THIS SIDE ONLY
 - DOUBLE BARN DOOR, TRACK AND ACCESSORIES FURNISHED AND INSTALLED BY OWNER, GC TO PROVIDE DOOR HEADER WITH NCX WOOD BLOCKING FULL WIDTH OF DOOR TRACK, COORD. WIDTH WITH OWNER
 - MILLWORK BY OWNER; COORD. PLACEMENT OF OUTLETS WITH OWNER
 - SHELVES BY OWNER (N.I.C.)
 - PROVIDE RECESSED ELECTRICAL PANEL; SEE ENGINEERING DRAWINGS FOR ELECTRICAL REQUIREMENTS

- WALL LEGEND:**
- EXISTING WALL / PARTITION TO REMAIN
 - EXISTING 1-HOUR FIRE BARRIER TO REMAIN
 - WALL / PARTITION
 - 1-HOUR FIRE BARRIER

FLOOR PLAN NOTES 01
SCALE: -

310ai

310 Architecture + Interiors, PA

P.O. BOX 97935
RALEIGH, NC 27624-7935

302 JEFFERSON STREET
SUITE 250
RALEIGH, NC 27605

PHONE (919) 838-9310

310ai.com

COPYRIGHT © 2020 310 Architecture + Interiors, PA

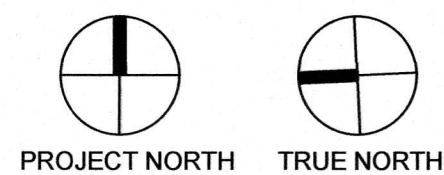
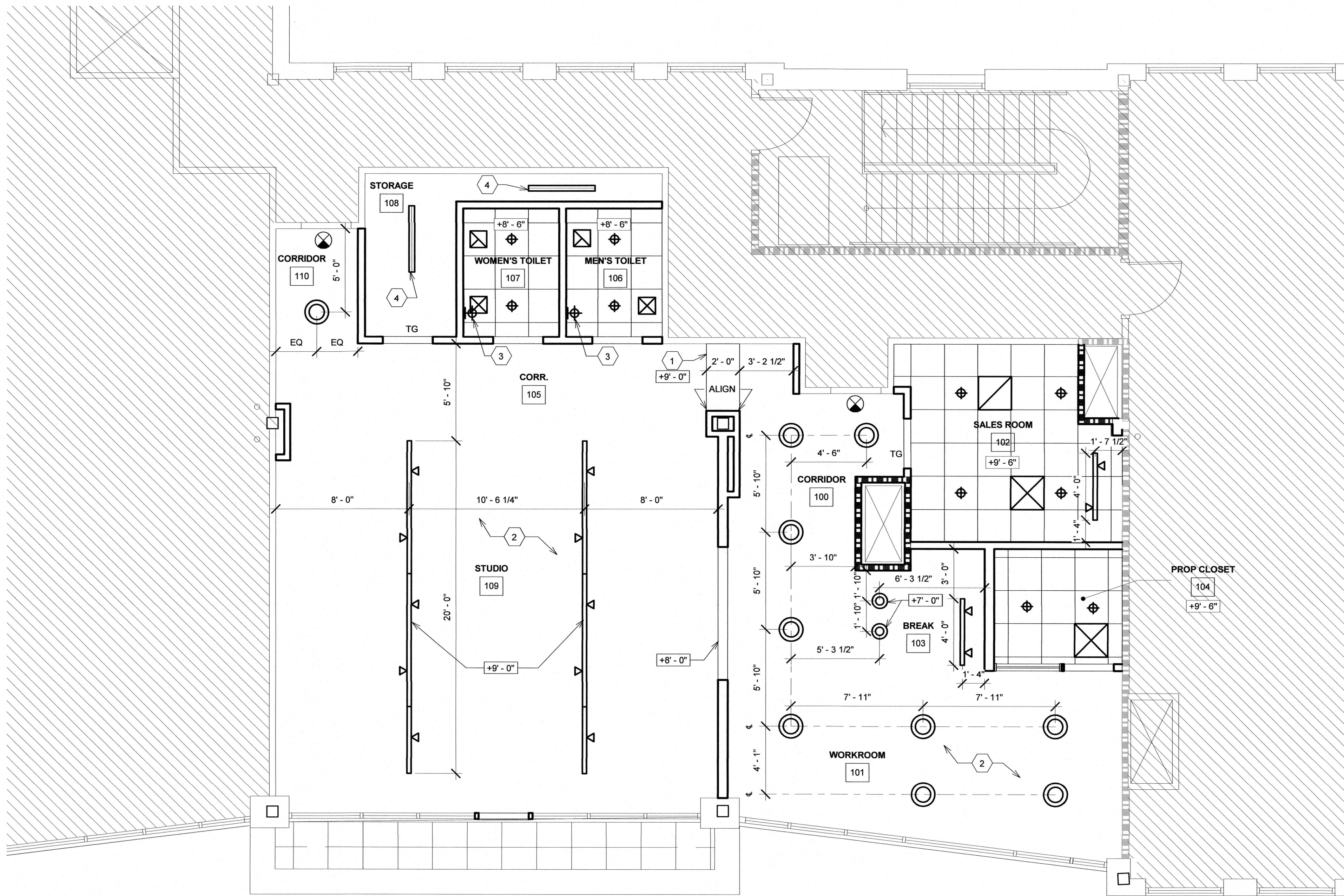


INTERIOR FIT-UP FOR
STUDIO 557
THE BLOCK
300 SOUTH MAIN STREET, SUITE 304
HOLLY SPRINGS, NC 27540

PROJECT #		20061
DATE:		09. 01. 2020
DRAWN BY:		MAS
CHECKED BY:		ALH / WBS
NO.	REVISION	DATE

NEW WORK FLR.
PLN. & ENLGD.
TOILET PLAN

A2.01



THIRD FLOOR NEW WORK REFLECTED CEILING PLAN

REFLECTED CEILING PLAN NOTES

1. REFER TO GENERAL FLOOR PLAN NOTES ON SHEET A2.01 FOR ADDITIONAL REQUIREMENTS.
2. REFER TO PME DRAWINGS FOR MORE DETAILED INFORMATION.
3. ALL CEILING GRID IS TO BE LAID OUT AS SHOWN ON DRAWINGS. CENTER ALL GRIDS IN THE ROOM / SPACE SO AS NOT TO HAVE LESS THAN HALF-WIDTH TILES AT OPPOSITE SIDES OF THE ROOM / SPACE U.O.N.
4. ALL CEILING DEVICES AND FIXTURES ARE TO BE CENTERED IN TILES, ROOMS, AND SOFFITS U.O.N.
5. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ALL DISCIPLINES TO INSURE PROPER CLEARANCES FOR SCHEDULE CEILING HEIGHTS. ANY DEVIATION FROM THE CEILING HEIGHTS INDICATED MUST BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
6. ALL GRILLS, REGISTERS AND DIFFUSERS LOCATED IN GWB CEILINGS / SOFFITS AND WALLS ARE TO BE FIELD PAINTED TO MATCH WALL COLOR.
7. ALL PENDANTS AND TRACK LIGHTS ARE TO BE MOUNTED WITH BOTTOM OF FIXTURE AT 8'-0" AFF U.O.N.
8. HATCHED AREA NOT IN SCOPE

RCP KEYNOTES

1. GWB BULKHEAD AT HEIGHT INDICATED ON PLAN.
2. SPRAY ALL EXPOSED STRUCTURE, UTILITIES, ROOF DECK, ETC. WITH DRYFALL PAINT, EXACT COLOR TO BE SELECTED BY OWNER. CLEAN AND PREPARE ALL SURFACES PER MANUFACTURER REQUIREMENTS.
3. CENTER VANITY LIGHT OVER SINK.
4. COORD. EXACT LOCATION WITH OWNER.

REFL. CLG. PLAN NOTES

SCALE: -

02

LEGEND:

- 16.5" DECORATIVE PENDANT
- 9.5" DECORATIVE PENDANT
- 6" LED RECESSED ROUND CAN FIXTURE
- WALL SCONCE
- 4'-0" LED LINEAR LOW BAY LIGHT
- TRACK LIGHTING
- SUPPLY DIFFUSER
- RETURN GRILLE
- EXHAUST
- EXIT SIGN

310ai

310 Architecture + Interiors, PA

P.O. BOX 97935
RALEIGH, NC 27624-7935

302 JEFFERSON STREET
SUITE 250
RALEIGH, NC 27605

PHON (919) 838-9310

310ai.com

COPYRIGHT © 2020 310 Architecture + Interiors, PA



INTERIOR FIT-UP FOR
STUDIO 557
THE BLOCK
300 SOUTH MAIN STREET, SUITE 304
HOLLY SPRINGS, NC 27540

PROJECT #		20061
DATE:		09. 01. 2020
DRAWN BY:		MAS
CHECKED BY:		ALH / WBS
NO.	REVISION	DATE

NEW WORK
CEILING PLAN

A3.01

RCP LEGEND

1/4" = 1'-0"

01



INTERIOR FIT-UP FOR

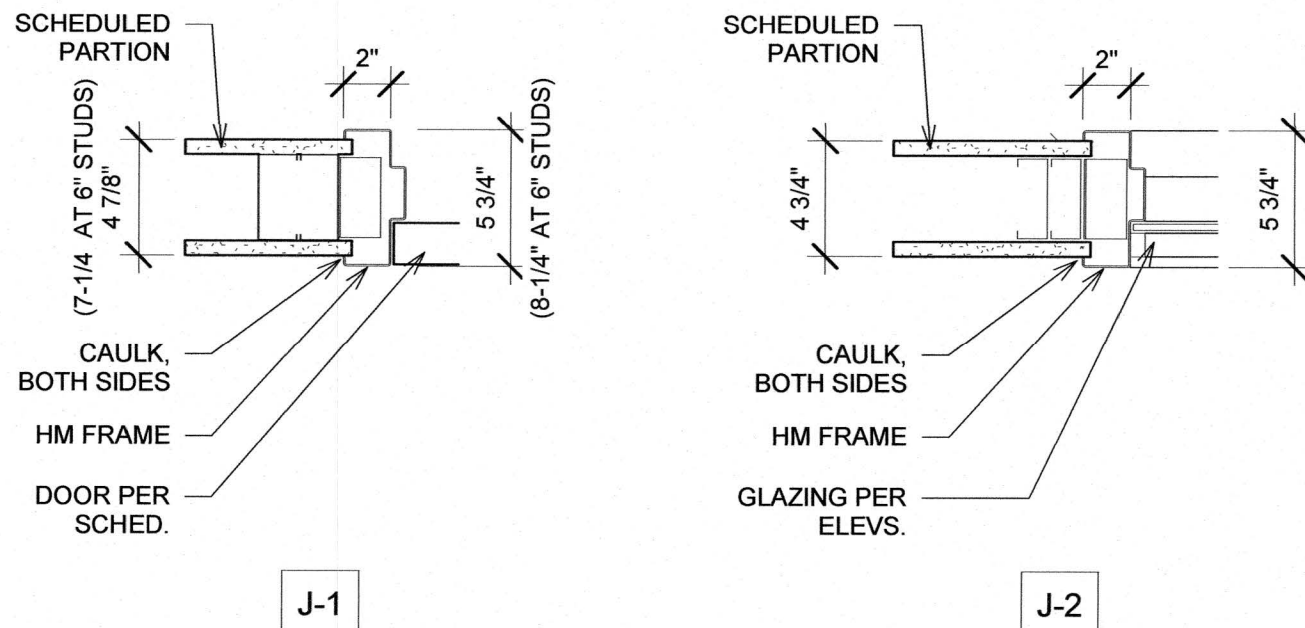
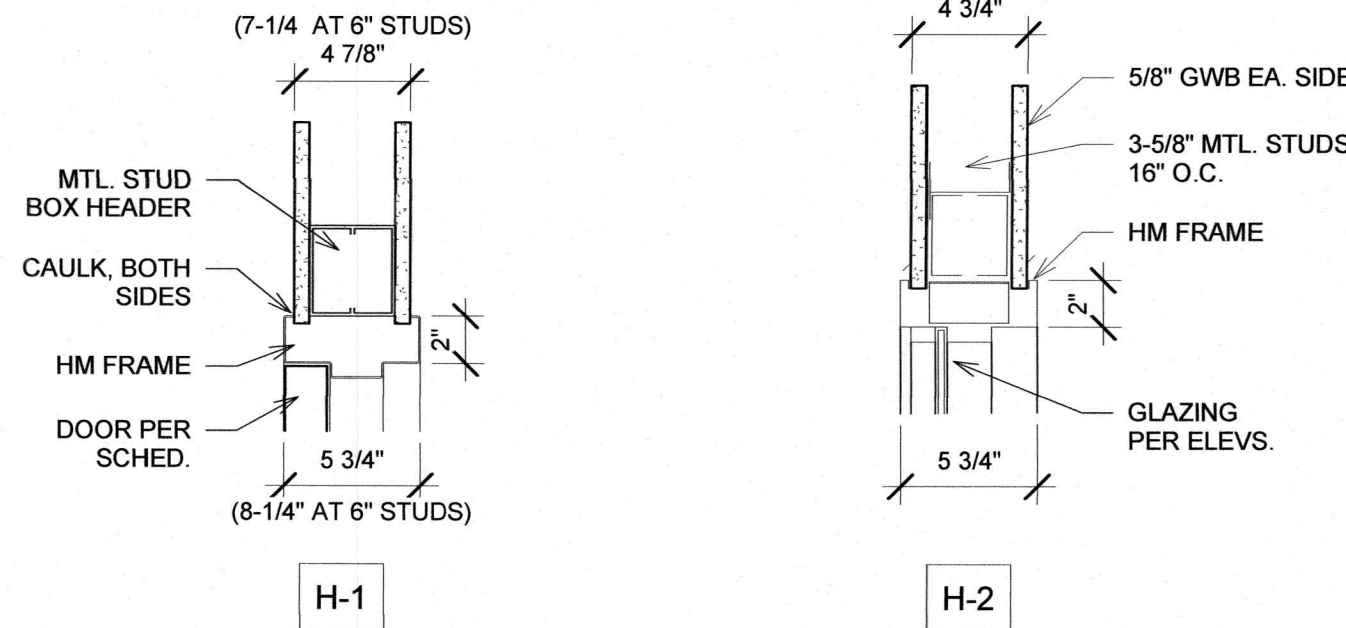
STUDIO 557
THE BLOCK

300 SOUTH MAIN STREET, SUITE 304
HOLLY SPRINGS, NC 27540

PROJECT #		20061
DATE:		09.01.2020
DRAWN BY:		MAS
CHECKED BY:		ALH / WBS
NO.	REVISION	DATE

DOOR
SCHEDULE +
DETAILS

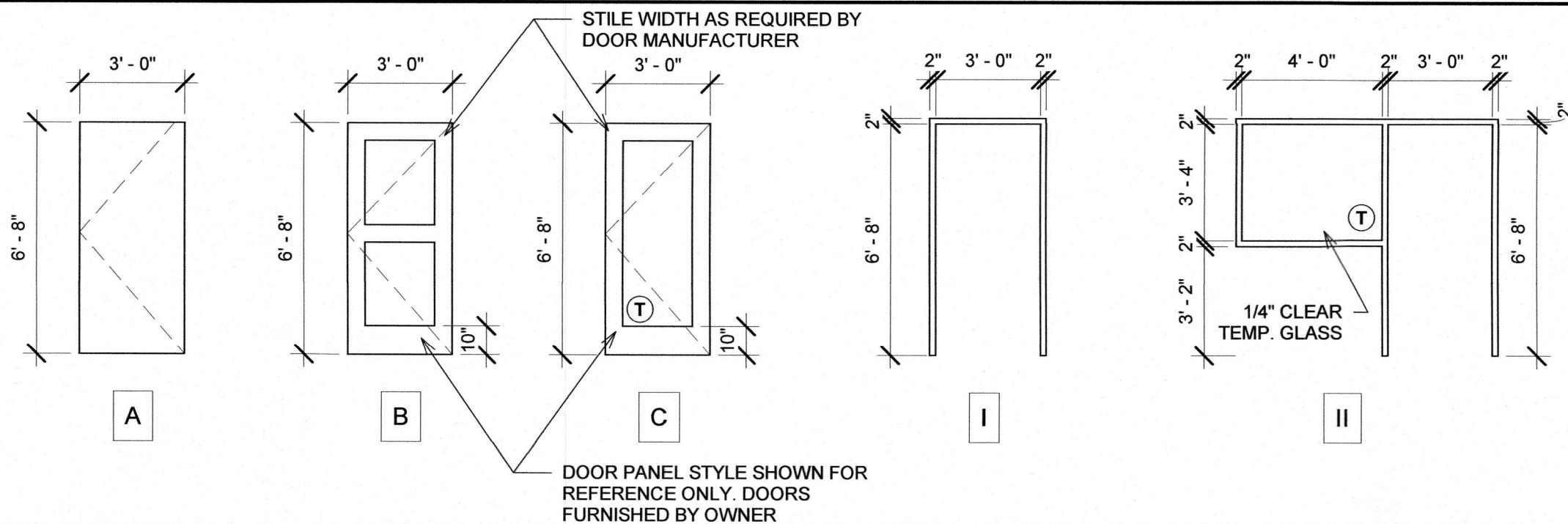
A6.01



HEAD AND JAMB DETAILS

1 1/2" = 1'-0"

03



DOOR AND FRAME ELEVATIONS

1/4" = 1'-0"

02

DOOR SCHEDULE																	
MARK	ROOM NAME	DOOR						GLAZING	FRAME			DETAILS		FIRE RATING	HARDWARE		REMARKS
		WIDTH	SIZE		MATL.	TYPE	FINISH		MATL.	TYPE	FINISH	HEAD	JAMB		SET	KEY SIDE RM #	
			HEIGHT	THICK.													
102	SALES ROOM	3' - 0"	6' - 8"	1 3/4"		C	PBO	1/4" CLR. TEMP.	HM	I	PT	H1	J1	-	1	-	
104	PROP CLOSET	3' - 0"	6' - 8"	1 3/4"		B	PBO		HM	II	PT	H1 / H2	J1 / J2	-	2	101	
106	MEN'S TOILET	3' - 0"	6' - 8"	1 3/4"		A	PBO	-	HM	I	PT	H1	J1	-	3	-	
107	WOMEN'S TOILET	3' - 0"	6' - 8"	1 3/4"		A	PBO	-	HM	I	PT	H1	J1	-	3	-	
108	STORAGE	3' - 0"	6' - 8"	1 3/4"		A	PBO	-	HM	I	PT	H1	J1	-	4	109	
ETR	CORRIDOR 100	3' - 0"	7' - 0"	1 3/4"		-	-	-	-	-	-	-	-	-	(none)	-	
ETR	CORRIDOR 110	3' - 0"	7' - 0"	1 3/4"		-	-	-	-	-	-	-	-	-	(none)	-	
ETR	STUDIO 109	3' - 0"	7' - 0"	1 3/4"		-	-	-	-	-	-	-	-	-	(none)	-	

GENERAL DOOR SCHEDULE NOTES:

- FIELD VERIFY ROUGH OPENINGS AND PARTITION DEPTHS BEFORE FABRICATING DOORS AND FRAMES.
- PROVIDE ALL HW COMPONENTS FOR FULLY FUNCTIONING DOORS.
- ALL DOORS AND DOOR HARDWARE ARE TO BE OWNER FURNISHED, CONTRACTOR INSTALLED.

DOOR SCHEDULE ABBREVIATIONS:

ETR EXISTING TO REMAIN
HM HOLLOW METAL
PBO PAINTED BY OWNER
TEMP TEMPERED

DOOR SCHEDULE REMARKS:

N/A

HARDWARE SCHEDULE									
SET	HINGES	FUNCTION	CLOSER	PLATES	HOLD-OPEN	STOP	SEAL	MISC.	NOTES
1	BUTT	PASSAGE	-	-	-	WALL	-	(3) MUTES	-
2	BUTT	STOREROOM	-	-	-	WALL	-	(3) MUTES	-
3	BUTT	PRIVACY	-	-	-	O.H.	-	(3) MUTES	-
4	BUTT	STOREROOM	-	-	-	O.H.	-	(3) MUTES	-

DOOR & HARDWARE SCHEDULES

SCALE: -


01

NOT USED

SCALE: -

04

GENERAL ELECTRICAL NOTES:			CONDUCTORS SHALL BE SPLICED BY APPROVED MECHANICAL CONNECTORS AND GUM RUBBER TAPE OR FRICTION TAPE. SOLDERLESS MECHANICAL CONNECTORS FOR SPLICES AND TAPS, PROVIDED WITH UL APPROVED INSULATING COVERS, MAY BE USED INSTEAD OF MECHANICAL CONNECTORS PLUS TAPE. IN ALL CASES, CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND NO SPLICING SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES, TROUSERS, OR GUTTERS. WHERE CONCENTRIC, "PROVIDED" MEANS TO FURNISH AND INSTALL THE ELECTRICAL CONTRACTOR SHALL ALSO INSTALL MATERIALS AND EQUIPMENT FURNISHED BY OTHERS AND THE GENERAL CONTRACTOR AS REQUIRED.			FLOORS SHALL BE RATED FOR THE APPLICATION. MOUNT JUNCTION AND OUTLET BOXES FLUSH WITH FINISH SURFACES UNLESS OTHERWISE NOTED. WHERE MOUNTING HEIGHTS ARE GIVEN, THEY SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTER OF THE BOX. ALL BOXES SHALL BE SIZED PER NEC ARTICLE 314. ALL OUTLET AND JUNCTION BOXES SHALL HAVE A COVER PLATE, PROVIDED BY THE ELECTRICAL CONTRACTOR. OUTLET BOXES IN RATED WALLS SHALL BE INSTALLED IN ACCORDANCE WITH NORTH CAROLINA BUILDING CODE 712.3.2 (MAXIMUM BOX SIZE IS 16 SQUARE IN. AND MAXIMUM OF SIX (6) BOXES PER 100 SQUARE FEET). INSTALL OUTLET BOXES IN RATED WALLS SUCH THAT OPENINGS OCCUR IN ONE SIDE ONLY WITHIN ANY GIVEN STUD SPACE. ALL CLEARANCES BETWEEN THE OUTLET BOX AND THE GYPSUM BOARD SHALL BE FILLED WITH JOINT COMPOUND OR OTHER APPROVED FIRE STOP MATERIAL. FLUSH MOUNTED JUNCTION BOXES IN ADJACENT ROOMS SHALL NOT BE MOUNTED BACK-TO-BACK. SURFACE MOUNTED FIXTURES SHALL BE FED THROUGH FLUSH MOUNTED 4X4 OCTAGONAL OR SQUARE BOXES.		
ADMINISTRATIVE:			1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS: PC – PLUMBING CONTRACTOR, EC – ELECTRICAL CONTRACTOR, MC – MECHANICAL CONTRACTOR, GC – GENERAL CONTRACTOR, FASO – FIRE ALARM SYSTEM CONTRACTOR.			2. "PROVIDED" MEANS TO FURNISH AND INSTALL THE ELECTRICAL CONTRACTOR SHALL ALSO INSTALL MATERIALS AND EQUIPMENT FURNISHED BY OTHERS AND THE GENERAL CONTRACTOR AS REQUIRED.		
3. EC SHALL PROVIDE LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY AND REASONABLY INCIDENTAL TO INSURE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. MINOR ITEMS, ACCESSORIES, AND DEVICES REASONABLY NECESSARY AS NECESSARY FOR THE COMPLETION AND PROPER OPERATION OF ANY ELECTRICAL SYSTEM SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.			4. WORKMANSHIP SHALL BE IN ACCORDANCE WITH NECA 1 "STANDARD PRACTICE FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING."			5. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLADDED BY THE ELECTRICAL CONTRACTOR AT AN APPROVED LOCATION. THE ELECTRICAL CONTRACTOR SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE ELECTRICAL CONTRACTOR UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.		
6. THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.			7. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.			8. TRADE NAMES AND MANUFACTURERS ARE SPECIFIED TO ESTABLISH A QUALITY STANDARD. SUBSTITUTIONS SHALL BE PERMITTED IF APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL LISTED MODEL NUMBERS SHALL BE VERIFIED WITH THE MANUFACTURER FOR PROPER APPLICATION OF EQUIPMENT.		
9. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.			10. GROUNDING AND BONDING SHALL BE PER NEC ARTICLE 250. THE RACEWAY SYSTEM SHALL NOT BE RELIED UPON FOR GROUNDING CONTINUITY. A GREEN EQUIPMENT GROUNDING CONDUCTOR, SIZED PER NEC TABLE 250-122, SHALL BE RUN IN ALL POWER RACEWAYS. FOR NON-ISOLATED GROUND CIRCUITS PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CONDUIT RUN. FOR ISOLATED GROUND CIRCUITS, PROVIDE ONE NEUTRAL AND ONE ISOLATED GROUND WIRE FOR EACH CIRCUIT; IN ADDITION, PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CONDUIT RUN. MAIN BONDING JUMPERS AND SYSTEM BONDING JUMPERS SHALL BE INSTALLED IN ACCORDANCE WITH 250.28 OF THE NEC. FOR BUILDINGS OR STRUCTURES SUPPLIED BY FEEDERS OR BRANCH CIRCUITS, GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH 250.32. SEPARATELY DERIVED AC SYSTEMS SHALL BE GROUNDING IN ACCORDANCE WITH 250.30. RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS; ADDITIONAL NEUTRAL ELECTRODES SHALL BE INSTALLED PER 250.56 AS NECESSARY.			11. ALL MATERIALS AND EQUIPMENT SHALL COMPLY WITH THE UNDERWRITERS' LABORATORIES, INC. STANDARDS OR HAVE UL APPROVAL, OR BEAR UL RE-EXAMINATION LISTING WHERE SUCH APPROVAL HAS BEEN ESTABLISHED FOR THE TYPE OF DEVICE IN QUESTION.		
12. CONDUCTORS, FUSES, CIRCUIT BREAKERS, AND DISCONNECT SWITCHES SHOWN ON THESE PLANS HAVE BEEN SIZED FOR THE SPECIFIED EQUIPMENT. BEFORE ORDERING ELECTRICAL EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON THE SITE AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES SHOULD CONDUCTOR, CIRCUIT BREAKER, OR FUSE SIZES REQUIRE CHANGE.			13. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE THE FOLLOWING MATERIALS ARE RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT: LIGHT FIXTURES, INCLUDING PROPER DISPOSAL OF BALLASTS, FLUORESCENT LIGHT BULBS, AND TRANSFORMERS, WIRING AND ELECTRICAL EQUIPMENT, AND INSULATION. WASTE MATERIALS CONTAINING LEAD, ASBESTOS, PCBs (FLUORESCENT LAMP BALLASTS), OR OTHER HARMFUL SUBSTANCES SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL AND STATE LAWS AND REQUIREMENTS CONCERNING HAZARDOUS WASTE.			14. ALL WORK SHALL CONFORM TO 2017 NATIONAL ELECTRIC CODE, 2018 STATE BUILDING CODE, AND ALL APPLICABLE LOCAL CODES.		
MATERIALS:			1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, RECEPTACLES, TERMINALS, ETC. UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS AND CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES.			2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SERVICE ENTRANCE EQUIPMENT, SUB PANELS, AND OTHER ELECTRICAL DISTRIBUTION EQUIPMENT AS NECESSARY FOR A COMPLETE INSTALLATION. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH UTILITY RECORDING SERVICE AND METERING DETAILS. PRIOR TO ORDERING EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE AVAILABLE FAULT CURRENT OR TRANSFORMER SIZE AND IMPEDANCE FROM THE UTILITY AND CONTACT THE ENGINEER IF THE VALUE EXCEEDS THE EQUIPMENT SPECIFIED. PANEL BOARDS AND SWITCH BOARDS SHALL BE SQUARE D, CUTLER-HAMMER, SEIMENS, OR GE. BUSES SHALL BE COPPER UNLESS OTHERWISE APPROVED BY THE ENGINEER. RECESSED PANEL BOARDS SHALL BE INSTALLED FLUSH WITH THE WALL FINISH. METER BASES SHALL COMPLY WITH THE UTILITY'S SPECIFICATIONS AND SHALL BE MOUNTED AT A HEIGHT APPROVED BY THE UTILITY. ALL EQUIPMENT IDENTIFIED FOR SERVICE ENTRANCE USE SHALL BE SO LABELED AND UL LISTED FOR SUCH USE. ELECTRICAL CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT WITH CLEARANCES PER NEC 110.26. ELECTRICIAN SHALL PERMANENTLY LABEL EQUIPMENT PER NEC 110.24.		
3. ENCLOSED SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE BY SQUARE D, EATON, OR GE. ENCLOSED SWITCHES SHALL HAVE A HANDLE LOCKABLE IN THE OFF POSITION AND SHALL HAVE A HANDLE INTERLOCKED TO PREVENT OPENING THE FRONT COVER WHILE IN THE ON POSITION. ENCLOSED SWITCHES OF THE FUSIBLE TYPE SHALL BE FUSED IN ACCORDANCE WITH MANIPULATE DATA WITH DUAL ELEMENT TYPE FUSES BY BUSSMAN, LITTELFUSE, OR WEGERS.			4. OCCUPANCY SENSORS SHALL BE BY WAITSTOPPER, LUTRON, LEVITON, SENSOR SWITCH, HUBBELL, OR APPROVED EQUAL.			5. CIRCUIT BREAKERS SHALL BE MOLDED-CASE, THERMAL MAGNETIC TYPE WITH QUICK-MAKE, QUICK-BREAK MECHANISM, COMMON TRIP ON MULTI-POLE BREAKERS, AND UL LISTED FOR BOTH COPPER AND ALUMINUM CONDUCTORS. CIRCUIT BREAKERS IN PANELS SHALL BE SERIES RATED WITH THE MAIN BREAKER, FULLY RATED FOR THE SYSTEM, OR SERIES RATED WITH THE BREAKER FEEDING THE PANEL FROM THE FACTORY.		
6. ALL WIRE, CONNECTORS, TERMINALS, AND LUGS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. WHERE CONDUCTORS ARE RUN IN PARALLEL, LUGS SHALL BE LISTED FOR PARALLEL CONDUCTORS. PUSH WIRE CONNECTORS ARE ONLY ALLOWED, WHEN APPROVED, AS PART OF MANUFACTURED LISTED PRODUCTS. ALL WIRE SHALL BE INSTALLED IN CONDUIT UNLESS SPECIFICALLY NOTED OTHERWISE.			7. THE INSULATION TYPE FOR INTERIOR WIRING SHALL BE DUAL RATED THIN/THIN OR RHH. ALL WIRING INSTALLED BELOW GRADE OR IN MOIST OR WET LOCATIONS SHALL HAVE TYPE THIN OR XHHW INSULATION. INSULATION VOLTAGE RATING SHALL BE 600 VOLTS AND A MINIMUM TEMPERATURE RATING OF 75°C. CONDUCTORS SHALL BE SOLID OR STRANDED COPPER FOR #10 AWG AND #12 AWG, AND STRANDED COPPER FOR #8 AWG AND LARGER SIZES. ALL WIRING AND CABLE SHALL BE UL LISTED. ALL TERMINATIONS AND DEVICES SHALL BE RATED FOR USE WITH 75°C CONDUCTORS. FINAL CONNECTIONS TO ALL MOTORS AND EQUIPMENT SUBJECT TO VIBRATION OR MOVEMENT SHALL BE MADE WITH STRANDED COPPER CONDUCTORS. CONDUCTORS SHALL BE BY CERRO WIRE, INC., INDUSTRIAL WIRE & CABLE, INC., OR SOUTHWIRE COMPANY.			8. JOINTS IN SOLID CONDUCTORS SHALL BE SPLICED USING IDEAL "WIRE NUTS", 3M "SCOTCH LOCK", OR TAB "PIGGY" CONNECTORS IN JUNCTION BOXES, OUTLET BOXES, AND LIGHTING FIXTURES. JOINTS IN STRANDED		
1. EC SHALL REVIEW THE MECHANICAL PLANS TO ESTABLISH POINTS OF CONNECTION AND THE EXTENT OF THE ELECTRICAL WORK TO BE PROVIDED IN THE CONTRACT.			2. ALL CIRCUIT BREAKERS FEEDING HVAC EQUIPMENT SHALL BE HACR BREAKERS. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE MINIMUM #12 AWG IN 3/4" CONDUIT. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE SOURCE PER NEC 210.4(B). GROUP ALL CONDUCTORS OF EACH MULTI-WIRE BRANCH CIRCUIT PER 210.4(D) WITH WIRE TIES OR SIMILAR MEANS. DO NOT EXCEED THREE HOMERUNS PER CONDUIT. DO NOT INSTALL ISOLATED GROUND AND NON-ISOLATED GROUND CIRCUITS IN THE SAME CONDUIT. INSTALL CONDUCTORS OF DIFFERENT VOLTAGES IN SEPARATE CONDUITS.			3. COLOR CODE CONDUCTORS PER NEC. FEEDERS SHALL BE IDENTIFIED IN ACCORDANCE WITH NEC 215.12. USE BLACK, RED, AND BLUE FOR PHASES A, B, AND C RESPECTIVELY ON 208Y/120 VOLT THREE-PHASE Y SYSTEMS AND WHITE FOR THE NEUTRAL. ISOLATED GROUND WIRES SHALL BE GREEN WITH YELLOW BANDS OR STRIPES. COLORS SHALL BE FACTORY APPLIED FOR CONDUCTORS #6 AWG AND SMALLER. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN IN COLOR AND MINIMUM #12 AWG. THE EC SHALL PROVIDE PLENUM RATED CABLE FOR ANY ELECTRICAL, TELEPHONE, COMMUNICATION, OR OTHER CABLE THAT ENTERS CEILING RETURN PLENUMS.		
4. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING. COORDINATE LIGHTING LAYOUT WITH CEILING GRID, MECHANICAL EQUIPMENT, DUCTWORK AND SPRINKLER HEADS AS NECESSARY. SEE REFLECTED CEILING PLAN FOR DETAILS. FLUORESCENT FIXTURES UTILIZING DOUBLE-ENDED LAMPS MUST HAVE A DISCONNECTING MEANS COMPLYING WITH NEC 410.130(c).			5. MOUNT LIGHT SWITCHES AT 48 IN AFF. MULTIPLE SWITCHES AT SAME LOCATION SHALL BE UNDER ONE WALL PLATE. VERIFY WALL PLATE COLOR AND MATERIAL WITH THE ARCHITECT/OWNER. INSTALL SWITCHES WITH OFF POSITION DOWN. ALL SWITCHES SHALL BE HEAVY DUTY, IVORY PLASTIC WITH TOGGLE HANDLE, RATED 120-277V AC, AND COMPLYING WITH NEMA WD 6 AND WD 1. SWITCHES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SEYMOUR, OR HUBBELL. PROVIDE BOX DEVE PARTITION/DIVIDERS FOR MULTI-GANG BOXES FOR COMPLIANCE WITH NEC 404.8(b).			6. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE-STOPPING AT ALL ELECTRICAL PENETRATIONS OF RATED FLOORS AND WALLS TO PRESERVE OR RESTORE THE FIRE-RESISTANCE RATING. SEAL PENETRATIONS USING A UL LISTED SYSTEM FOUND IN THE UL DIRECTORY SPECIFIC TO THE UL LISTING OF THE ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR UL RATED ASSEMBLIES SPECIFIC TO THIS PROJECT.		
7. ELECTRICAL CONTRACTOR SHALL PROVIDE GFI RECEPTACLES IN KITCHENS, RESTROOMS, OUTDOORS, AND IN SHOP AREAS AS REQUIRED BY NEC. REFRIGERATORS AND WATER COOLERS MUST HAVE A DEDICATED GFI BREAKER. EACH OUTDOOR HVAC UNIT MUST HAVE A GFI RECEPTACLE WITHIN 25 FEET FOR SERVICING. GFI RECEPTACLES SHALL CONFORM TO UL 943 CLASS A AND UL 498 STANDARDS. RECEPTACLES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SEYMOUR, OR HUBBELL. ALL RECEPTACLES SHALL BE 125V RATED, HEAVY DUTY, AND COMPLY WITH NEMA WD 6 AND WD 1.			8. LOCATIONS AND HEIGHTS OF ALL WALL-MOUNTED DEVICES SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION. CONCEAL ALL CONDUIT EXCEPT IN MECHANICAL ROOMS OR UNFINISHED AREAS AS NOTED. USE EMT CONDUIT FOR ALL BRANCH CIRCUITS AND FEEDERS INSIDE THE BUILDING. TYPE MC CABLE AND TYPE AC CABLE MAY BE INSTALLED WITHIN WALLS IF ALL NEUTRAL WIRES, ISOLATED GROUND WIRES, AND EQUIPMENT GROUND WIRES AS LISTED ABOVE ARE CONTAINED IN THE CABLE. FLEXIBLE CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SHALL BE MADE USING WEATHERPROOF FLEXIBLE CONDUIT. FOR LAY-IN LIGHT FIXTURES, USE MAXIMUM OF SIX (6) FEET OF FLEXIBLE MC CABLE (OR THE FLEXIBLE CONDUIT PROVIDED BY THE FIXTURE MANUFACTURER). SCHEDULE 40 PVC CONDUIT MAY BE USED FOR THE SECONDARY UNDERGROUND SERVICE, UNDERGROUND TELEPHONE SERVICE, AND BRANCH AND FEEDER CIRCUITS UNDER SLAB OR EXTERIOR TO THE BUILDING. EXPOSED EXTERIOR CONDUIT SHALL BE SCHEDULE 40 PVC. ALL UNDERGROUND RACEWAYS SHALL BE IDENTIFIED WITH UNDERGROUND LINE MARKING TAPE 6-8 IN BELOW GRADE DIRECTLY ABOVE THE RACEWAY. PROVIDE PULL WIRE IN EMPTY CONDUITS. UPSIZE CONDUIT FROM MINIMUM SIZE AS NECESSARY FOR LONGER PULLS. UNDERGROUND RACEWAYS THAT SINK INTO THE BOTTOM OF SWITCHBOARDS, OUTDOOR TRANSFORMERS, GENERATORS, ETC., SHALL RISE AT LEAST 2 IN ABOVE THE FINISHED SLAB TO PREVENT WATER FROM DRAINING INTO THE RACEWAYS. RACEWAYS THAT PENETRATE EXTERIOR WALLS OR INTERIOR PARTITIONS SEPARATING SPACES THAT WILL BE AT SIGNIFICANTLY DIFFERENT TEMPERATURES SHALL BE SEALED IN ACCORDANCE WITH 300.5(c), 300.7(A), AND 300.50(c) OF THE NEC. ROUTE CONDUIT IN AND UNDER SLAB FROM POINT-TO-POINT. ROUTE EXPOSED CONDUIT AND CONDUIT INSTALLED ABOVE ACCESSIBLE CEILINGS PARALLEL AND PERPENDICULAR TO WALLS, COMPLETELY AND THOROUGHLY SWAB ALL RACEWAYS BEFORE INSTALLING WIRE. PULL ALL CONDUCTORS INTO EACH RACEWAY AT ONE TIME. USE A SUITABLE WIRE PULLING LUBRICANT FOR BUILDING WIRE #4 AWG AND LARGER.			9. CABLES, RACEWAYS, OR BOXES, INSTALLED IN EXPOSED OR CONCEALED LOCATIONS UNDER METAL-CORRUGATED SHEET ROOF DECKING, SHALL BE INSTALLED AND SUPPORTED SO THERE IS NOT LESS THAN 1-1/2 IN MEASURED FROM THE LOWEST SURFACE OF THE ROOF DECKING TO THE TOP OF THE CABLE, RACEWAY, OR BOX. A CABLE, RACEWAY, OR BOX SHALL NOT BE INSTALLED IN CONCEALED LOCATIONS IN METAL-CORRUGATED SHEET DECKING-TYPE ROOF. SEE NEC 300.4(e).		
10. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL OUTLET, JUNCTION, PULL BOXES, FITTINGS, AND SUPPORTS. ALL OUTLET AND JUNCTION BOXES SHALL BE GALVANIZED STEEL TYPE BY APPLETON, STEEL CITY, OR RACO. EXTERIOR BOXES SHALL BE TYPE FS. VAPORITE BOXES SHALL BE TYPE GS. WHERE SURFACE MOUNTED BOXES ARE USED, THOSE BOXES AND THEIR FACEPLATES SHALL HAVE ROUNDED CORNERS. BOXES INSTALLED IN			1. FIXTURE SHALL HAVE BATTERY BACKUP FOR 90 MINUTE ILLUMINATION.			2. OR EQUAL BY COOPER, PHILIPS OR DAY-BRITE LIGHTING		
			3. CONFIRM ALL SELECTIONS WITH OWNER					

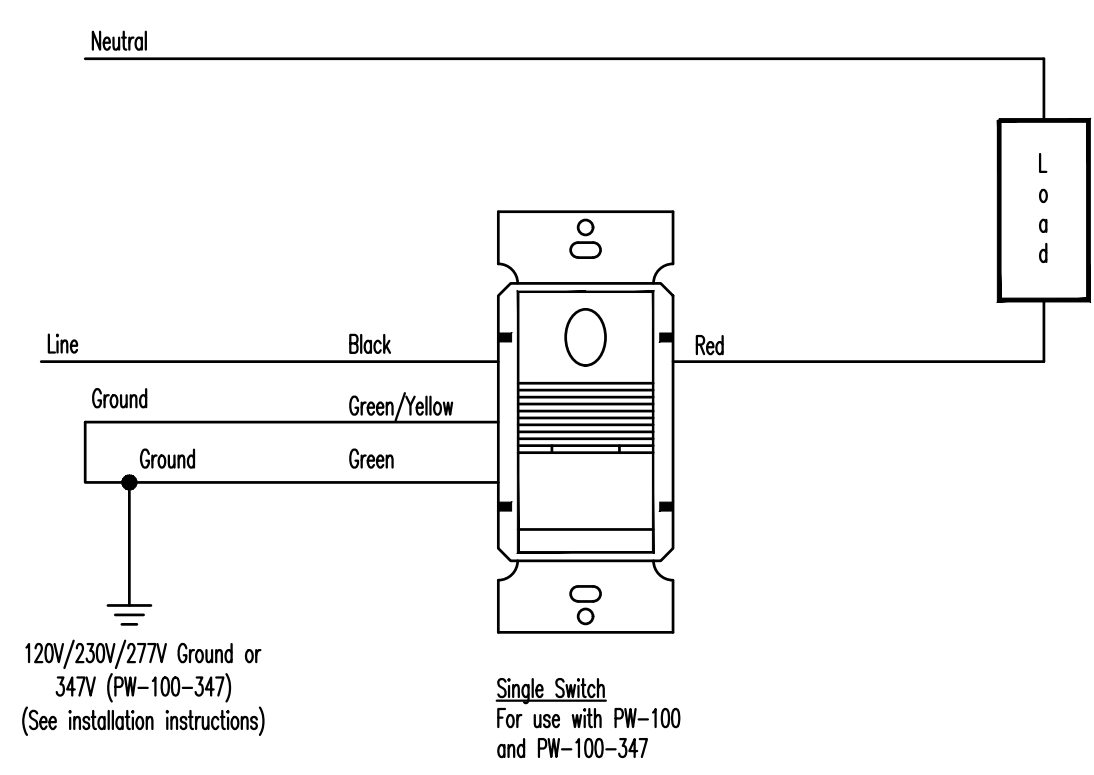
 POWER PLAN HEX NOTES

1. RETURN AIR PLENUM ABOVE CEILING IN THIS LOCATION. ALL MATERIALS TO BE PLENUM RATED. COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, AND FIRE ALARM CONTRACTORS.
2. POWER + DATA FOR WALL-MOUNTED TV. CONFIRM HEIGHT WITH OWNER.
3. RECEPTACLE ABOVE COUNTERTOP MOUNTED HORIZONTALLY.
4. EC TO PROVIDE POWER AS REQUIRED BY TRACK LIGHTING CONTROL SYSTEM. CONFIRM PLUG TYPE WITH DISTRIBUTOR.
5. CONDUITS FROM GROUND LEVEL MDP STUB UP HERE. PROVIDE PULL BOX AND CONDUIT TO NEW PANEL A LOCATION IN TENANT SUITE.
6. HEAT PUMP LOCATION ON ROOF. PROVIDE NEMA 3R FUSIBLE DISCONNECT. EC TO COORDINATE LOCATION AND PROVISIONS ON SITE.

PLAN GENERAL NOTES:

1. SEE DETAIL ON P211 FOR FIRE WALL PENETRATION PROTECTION REQUIREMENTS.

PANEL A									
CKT	LOAD	BKR	LOAD kVA	PH	LOAD kVA	BKR	LOAD	CKT	
1	HP-1 (SUITE304)	20/2	1.47	A	2.04	35/2	HP-2 (SUITE304)	2	
3			1.47	B	2.04			4	
5	AHU-1 (SUITE304)	40/2	4.05	C	4.25	45/2	AHU-2 (SUITE304)	6	
7			4.05	A	4.25			8	
9	WATER FOUNTAIN (SUITE304-CORRIDOR)	20/1	1.20	B	2.81	30/2	EWH-1 (SUITE304)	10	
11	FRIDGE (SUITE304-BREAK)	20/1	1.50	C	2.81			12	
13	RECEPTACLES (SUITE304-WORKROOM)	20/1	1.26	A	3.00	30/1	TANKLESS WATER HEATER (SUITE304)	14	
15	RECEPTACLES (SUITE304-BREAK)	20/1	1.08	B	0.72	20/1	RECEPTACLE (SUITE304-STUDIO)	16	
17	RECEPTACLES (SUITE304-CLOSET)	20/1	0.90	C	0.72	20/1	RECEPTACLE (SUITE304-STUDIO)	18	
19	RECEPTACLES (SUITE304-SALES)	20/1	0.90	A	1.26	20/1	RECEPTACLE (SUITE304-STUDIO)	20	
21	LIGHTING (SUITE304-WORKROOM/BREAK)	20/1	1.62	B	0.36	20/1	RECEPTACLE (SUITE304-STUDIO)	22	
23	LIGHTING (SUITE304-OTHERS)	20/1	0.81	C	1.20	20/1	TRACK LIGHTING	24	
25	TRACK LIGHTING CONTROLLER POWER	30/1	2.88	A	0.00	20/1	SPARE	26	
27	SPACE		0.00	B	0.00		SPACE	28	
29	SPACE		0.00	C	0.00		SPACE	30	
31	SPACE		0.00	A	0.00		SPACE	32	
33	SPACE		0.00	B	0.00		SPACE	34	
35	SPACE		0.00	C	0.00		SPACE	36	
37	SPACE		0.00	A	0.00		SPACE	38	
39	SPACE		0.00	B	0.00		SPACE	40	
41	SPACE		0.00	C	0.00		SPACE	42	
			kVA	PH	AMPS				
			21.1	A	176				
			11.3	B	94				
			16.3	C	135				
VOLTAGE/PHASE						208Y/120V, 3P, 4W			
BUS RATING						200A			
MAIN CIRCUIT BREAKER RATING						200A			
AIC RATING						22K			
SERVICE ENTRANCE RATED						NO			
ENCLOSURE						NEMA 1			
MOUNTING						SURFACE			



WALL OCCUPANCY SENSOR WIRING-NO SCALE 1

LIGHTING PLAN HEX NOTES

1. RETURN AIR PLENUM ABOVE CEILING IN THIS LOCATION. ALL MATERIALS TO BE PLENUM RATED. COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, AND FIRE ALARM CONTRACTORS.
 2. CONTROLLED BY QSWS-SBRL-NI SWITCH. ORDER SYSTEM WITH ATHENA CLEAR CONNECT GATEWAY TYPE X (PROVIDES COMMUNICATION TO EACH KETRA LAMP) LUTRON SYSTEM MOUNT RECESSED WALL MOUNT NEAR ATHENA LIGHT MANAGEMENT HUB OPS. SOME POE WIRING IS REQUIRED. COORDINATE PRE-MEETING ONSITE WITH LUTRON REP FOR SYSTEM INSTALL AND SYSTEM COMMISSIONING PLANNING. FINALIZE CONTROL LOCATION WITH OWNER PRIOR TO INSTALL.
 3. CONDUITS FROM GROUND LEVEL MDP STUB UP HERE. PROVIDE PULL BOX AND CONDUIT TO NEW PANEL A LOCATION IN TENANT SUITE.
 4. COORDINATE HUN LIGHT LOCATION WITH OWNER AFTER MECHANICAL EQUIPMENT / DUCTWORK INSTALL.
- PLAN GENERAL NOTES:
1. CONFIRM ALL LIGHTING SELECTION AND COLORS WITH OWNER PRIOR TO PROJECT BUDGETING / INSTALL.
 2. SWITCHING CONNECTS TO LIGHTING FIXTURES AND EXHAUST FANS IN ROOM IT IS CONTAINED WITHIN UNLESS OTHERWISE INDICATED.
 3. EMERGENCY FIXTURES CONNECT TO NEAREST CIRCUIT AHEAD OF SWITCHING.
 4. SEE DETAIL ON P211 FOR FIRE WALL PENETRATION PROTECTION REQUIREMENTS.
 5. PROVIDE TIME SWITCH CONTROLS PER NEC 2018 C405.2.2 FOR AUTOMATIC TIME SWITCH SHUTOFF. ALL AREAS NOT COVERED WITH OCCUPANCY SENSORS SHALL BE WIRED THROUGH THIS SWITCH.

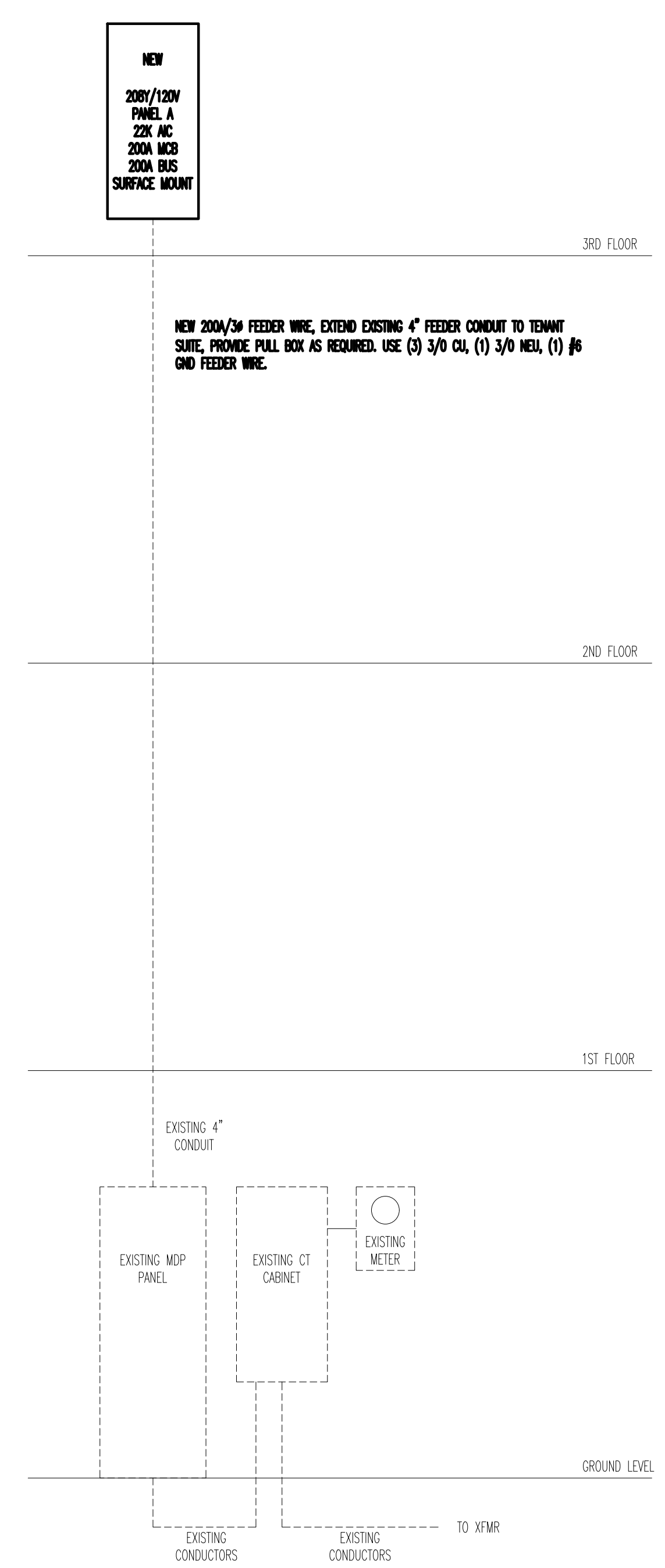
LED LIGHT FIXTURE SCHEDULE							
MARK	DESCRIPTION	LAMPS - SYLVANIA TYPE CCT	VOLTAGE	INPUT WATTAGE	MOUNTING	MFG	MODEL
H1	LED TRACK HED	LED 4000K	120	13	TRACK	WAC LIGHTING	WTK-6022U-827-BK
H2	LED TRACK HED	LED 4000K	120	18	TRACK	KETRA	CM-TAS3809HG1VFL11G24HWSNTSS

TRACK LIGHT SCHEDULE										
TRACK #	FIXTURE	LINEAR FT	TRACK MFG	TRACK P/N	TRACK PCS	CURRENT LIMITER MFG	CURRENT LIMITER P/N	MAX HEADS	MAX WATTS	MAX AMPS
T1	H1	4'	WAC US	HT4	1	WAC LIGHTING	THL-HLES-1A-BK	10	120	1.0
T2	H2	8'	WAC US	HT8	3	WAC LIGHTING	THL-HLE-10A-BK	40	1200	10.0

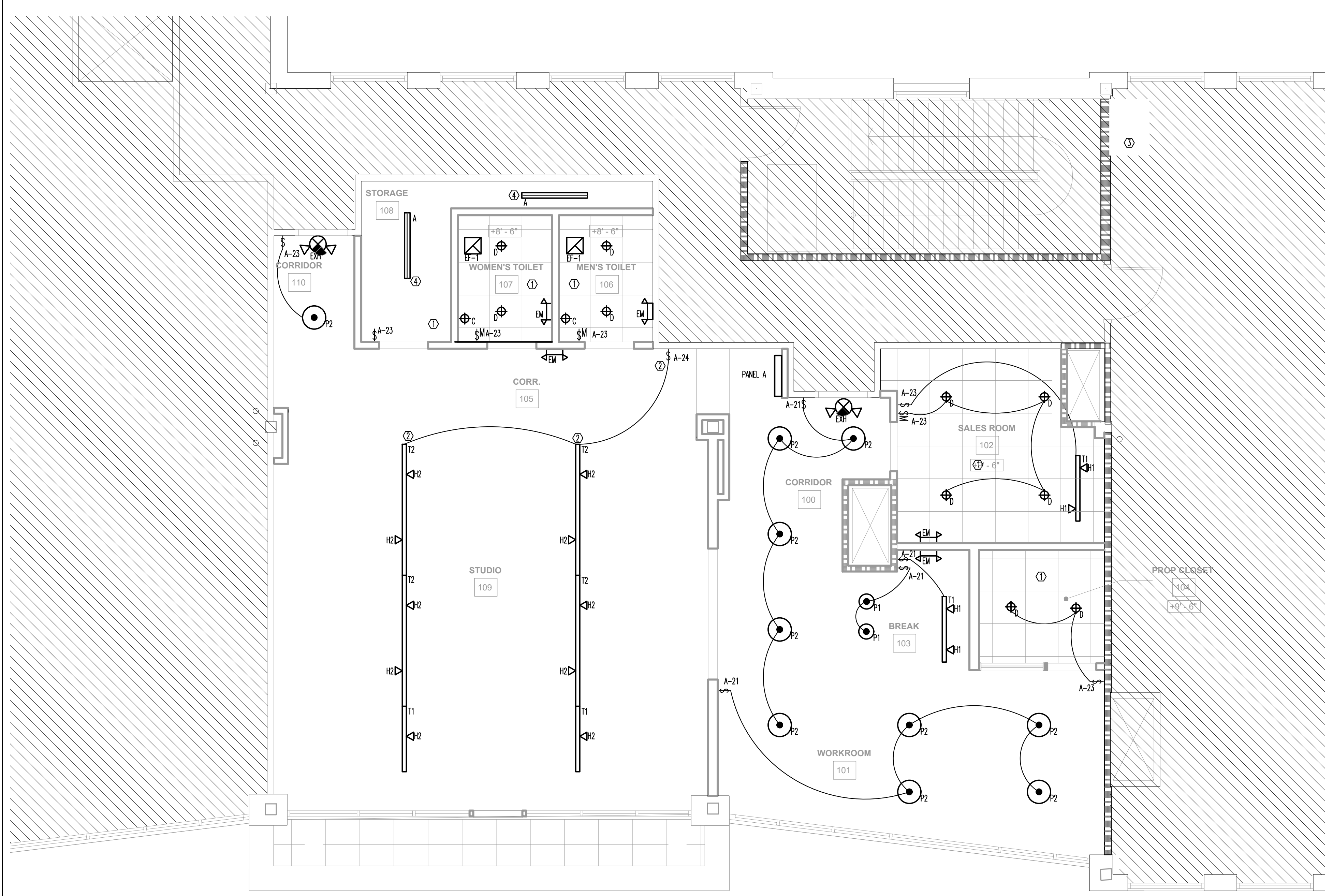
TRACK LIGHT SCHEDULE 2

LIGHTING DEVICE LEGEND		
SYMBOL	DESCRIPTION	REMARKS
\$	SINGLE POLE WALL SWITCH	HEAVY DUTY, AC ONLY, COMMERCIAL GRADE GENERAL USE SNAP SWITCH COMPLYING WITH NEMA WD 6 AND WD 1. IVORY PLASTIC BODY WITH TOGGLE HANDLE. 120-277V, 20A. MEET FEDERAL SPECIFICATION W-5-896.
\$2	DIMMER SWITCH	COMMERCIAL GRADE, 120V, 1500W
\$3	WALL MOUNTED OCCUPANCY SENSOR	WATTSTOPPER IW-100 LINE VOLTAGE OCCUPANCY SENSOR. ULTRA SONIC AND INFRARED.
⊠	EXHAUST FAN	VENT FAN, 120V, CFM AS NOTED MC TO PROVIDE AND VENT, EC TO WIRE.
\$3	3 WAY SWITCH	3-WAY TYPE SWITCH WITH SAME CHARACTERISTICS AS SINGLE POLE SWITCH ABOVE.

LIGHTING DEVICE LEGEND 3



ELECTRICAL RISER - NTS 1



ELECTRICAL LIGHTING PLAN - SCALE 1/4" = 1'-0" 4

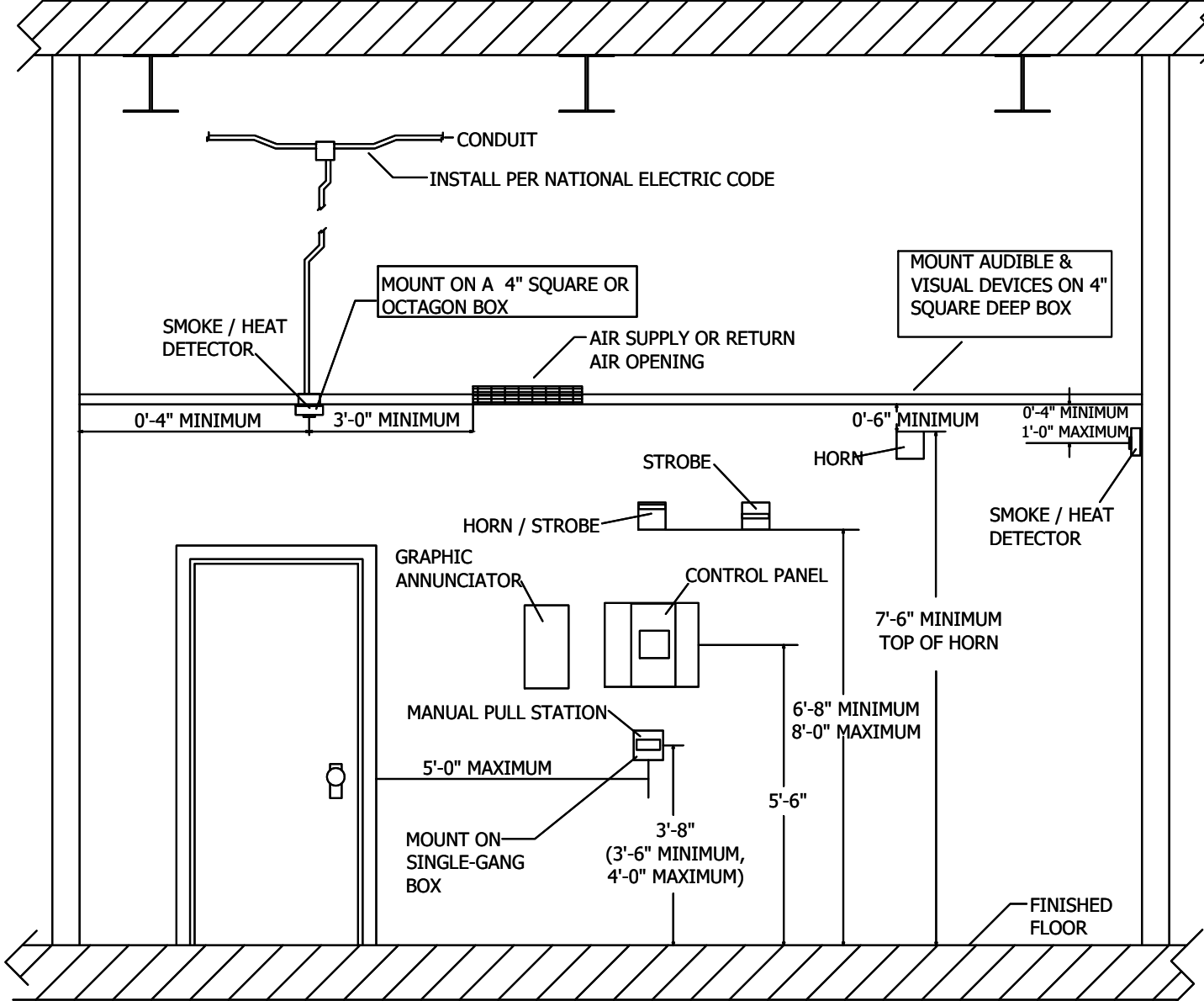
NFPA 170 SYMBOL GUIDE	
SYMBOL	DESCRIPTION
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUNCIATOR
	WATER FLOW SWITCH
	VALVE SUPERVISORY SWITCH (TAMPER SWITCH)
	HEAT DETECTOR/SENSOR (RATE OF RISE)
	PULL STATION / FIRE ALARM
	SMOKE DETECTOR/SENSOR (DEFAULT PHOTOELECTRIC TYPE)
	SMOKE ALARM (SINGLE STATION/RESIDENCE)
	DUCT SMOKE DETECTOR (NFPA 72, SECTION 17.7.5.5)
	AUDIBLE ONLY APPLIANCE (WALL MOUNTED) (BEL. LOUISIDE SPRINK. RM.)
	VISUAL ONLY APPLIANCE (WALL MOUNTED)
	AUDIBLE/VISUAL APPLIANCE (WALL MOUNTED)
	VISUAL ONLY APPLIANCE (CEILING MOUNTED)
	AUDIBLE ONLY APPLIANCE (CEILING MOUNTED)
	AUDIBLE/VISUAL APPLIANCE (CEILING MOUNTED)
	END OF LINE RESISTOR

OVERALL MATRIX

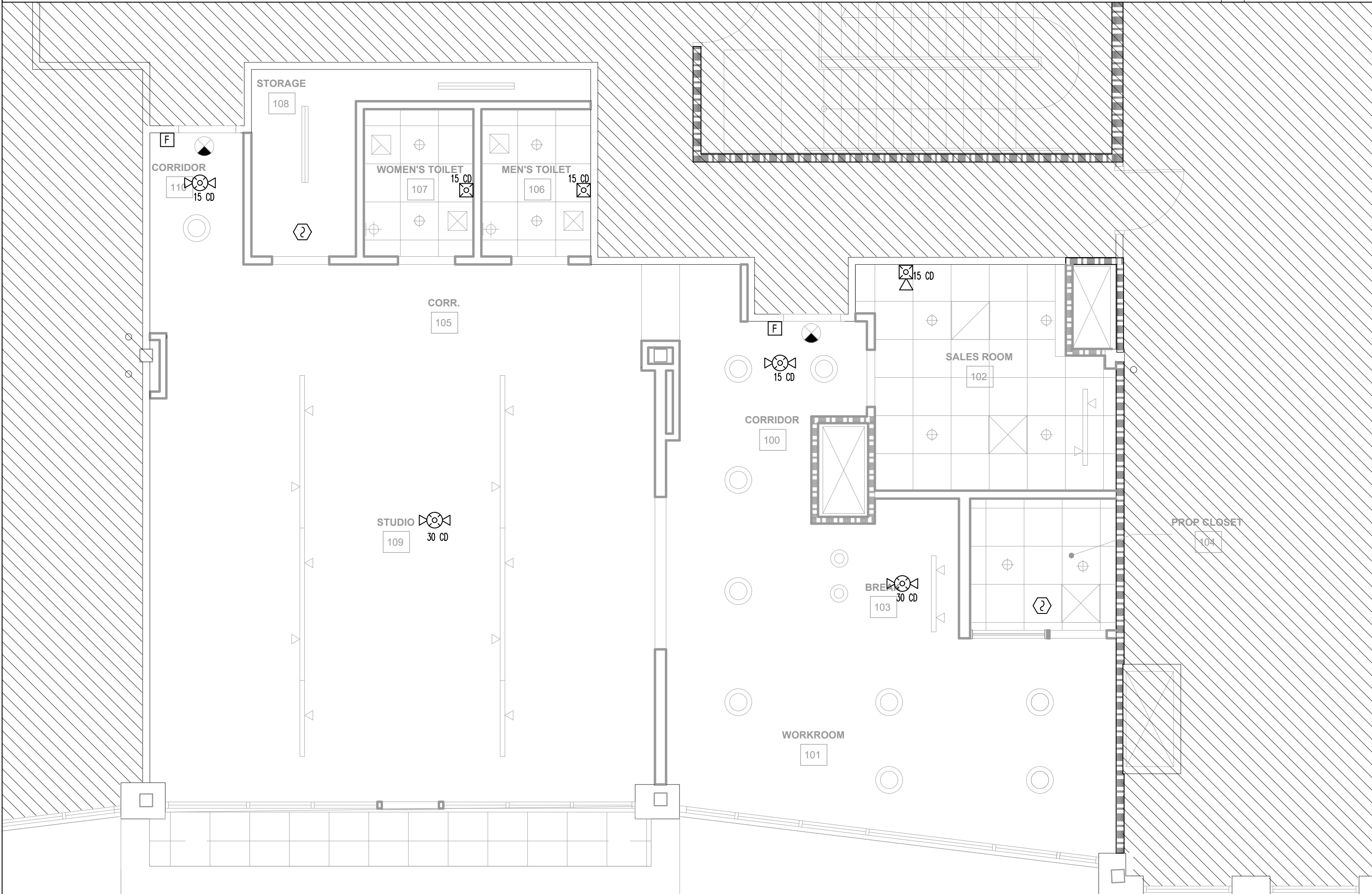
FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX	SYSTEM OUTPUTS																										
	FACP ANNUNCIATION													NOTIFICATION													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	FIRE ALARM SYSTEM AC POWER FAILURE																										
2	FIRE ALARM SYSTEM LOW BATTERY																										
3	OPEN CIRCUIT																										
4	GROUND FAULT																										
5	NOTIFICATION APPLIANCE CIRCUIT SHORT																										
6	BUILDING MANUAL PULL STATIONS																										
7	CORRIDOR SMOKE DETECTORS																										
8	AREA SMOKE DETECTORS																										
9	HVAC AIR DUCT SMOKE DETECTORS																										
10	AREA HEAT DETECTORS																										
11	HOOD OR ROOM FIRE SUPPRESSION SYSTEM ALARM																										
12	SPRINKLER TAMPER SWITCH																										
13	SPRINKLER WATER FLOW IN BUILDING																										
14	SPRINKLER WATER FLOW IN ELEV. EQUIP. RM. OR SHAFT																										
15	ELEV. EQUIP. RM. AREA SMOKE DETECTOR																										
16	ELEV. SHAFT AND ELEV. EQUIP. RM. HEAT DETECTORS																										
17	ELEV. LOBBY SMOKE DETECTORS - UPPER FLOORS																										
18	ELEV. LOBBY SMOKE DETECTOR - RECALL FLOOR																										
19	ELEV. CONTROLLER POWER SHUNT TRIP STATUS																										
20	FIRE PUMP POWER FAILURE/PHASE REVERSAL																										
21	FIRE PUMP RUNNING																										
22	FIRE PUMP SYSTEM NOT IN AUTOMATIC																										
23	LEGALLY REQUIRED GENERATOR SYSTEM LOW FUEL																										
24	LEGALLY REQUIRED GENERATOR NOT IN AUTOMATIC																										
25	AREA OF REFUGE TWO-WAY COMMUNICATIONS STATUS																										
26	-																										
27	-																										

WIRE REQUIREMENTS
NAC CIRCUITS - 16/2, SOLID, FPLP WIRE
DATA CIRCUITS - 18/2, SOLID, FPLP WIRE

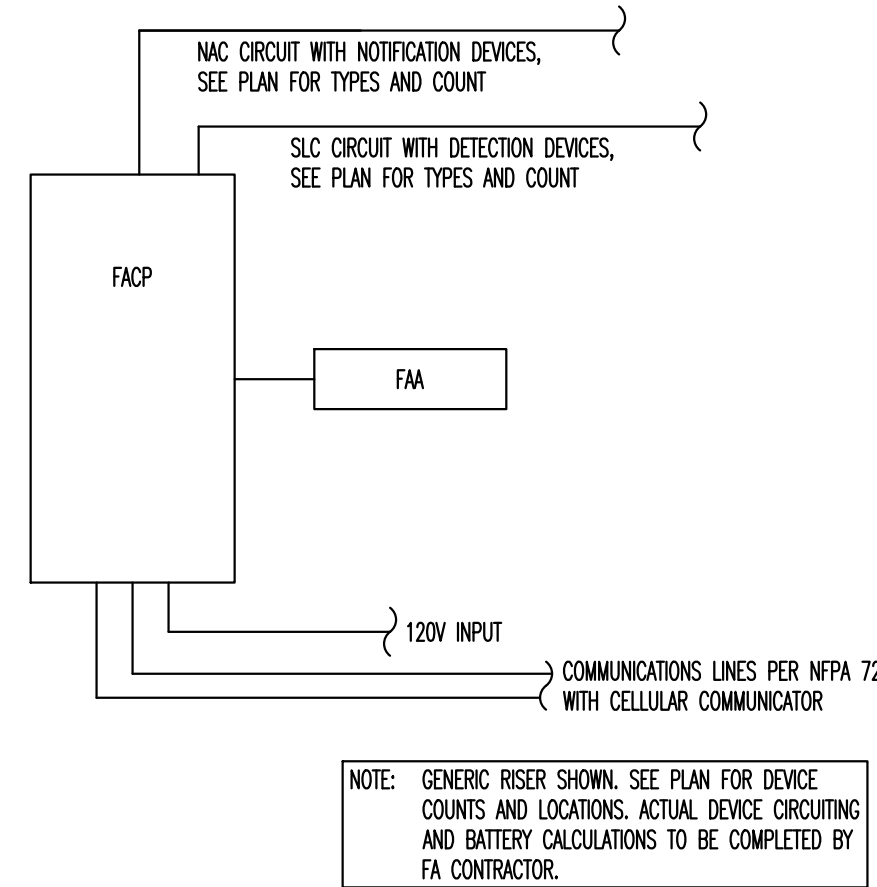
NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS



FIRE ALARM LEGEND, MATRIX, AND WIRING REQUIREMENTS 1



FIRE ALARM DEVICE DETAIL - NO SCALE 2



PLUMBING SUPPLY & SEWER PLAN SCALE 1/4" = 1'-0" 3

FIRE ALARM RISER - NO SCALE 4

FIRE ALARM NOTES 5

FIRE ALARM GENERAL NOTES

- THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS:
PC - PLUMBING CONTRACTOR, EC - ELECTRICAL CONTRACTOR,
MC - MECHANICAL CONTRACTOR, GC - GENERAL CONTRACTOR,
FASC - FIRE ALARM SYSTEM CONTRACTOR.
- "PROVIDE" MEANS TO FURNISH AND INSTALL.
- THE FIRE ALARM SYSTEM CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, ETC., AS NECESSARY FOR A COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM.
- THESE DRAWINGS ARE DIAGNOSTIC AND DO NOT SHOW ALL MINOR DETAILS AND EXACT LOCATIONS. THE FASC SHALL ALLOW FOR ADJUSTMENTS TO ACCOMMODATE INTERFERENCES BOTH PLANNED AND ENCOUNTERED AND SHALL INCLUDE SUCH CONTINGENCIES IN THEIR BID.
- THE SUCCESSFUL FIRE ALARM BIDDER SHALL PROVIDE CONSTRUCTION DOCUMENTS TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL INCLUDING ALARM CONTROLS AND TROUBLE SIGNALING EQUIPMENT, ANNUNCIATION, POWER CONNECTIONS, BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, CONDUCTOR TYPES AND SIZES, LOCATIONS OF INITIATING AND NOTIFICATION APPLIANCES, AND MANUFACTURERS, MODEL NUMBERS, AND LISTING INFORMATION FOR ALL EQUIPMENT, DEVICES AND MATERIALS.
- ALL WORK SHALL BE IN ACCORDANCE WITH NFPA 72 AND APPLICABLE SECTIONS OF NFPA 70 AND 13.
- CONDUIT, CONDUCTORS, BOXES, AND HANGERS SHALL BE THE SAME AS THOSE SPECIFIED IN THE ELECTRICAL SYSTEM.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR UL LABEL OR EQUIVALENT WHERE APPLICABLE.
- THE FIRE ALARM SYSTEM SHALL BE OF THE ADDRESSABLE TYPE WITH EACH INITIATING DEVICE REPORTING INDIVIDUALLY TO THE FIRE ALARM CONTROL PANEL. ONLY THE MANUFACTURER OR AN AUTHORIZED DISTRIBUTOR WHO STOCKS SPARE COMPONENTS FOR THE ENTIRE SYSTEM SHALL CONNECT, PROGRAM, OR TEST THE ADDRESSABLE FIRE ALARM SYSTEM. ALL TECHNICIANS PERFORMING SUCH WORK SHALL BE TRAINED AND INDIVIDUALLY CERTIFIED BY THE MANUFACTURER FOR THE MODEL OF SYSTEM BEING INSTALLED. COPIES OF THEIR CERTIFICATION SHALL BE AVAILABLE UPON REQUEST. THE MANUFACTURER OR AUTHORIZED DISTRIBUTOR SHALL STORE THE COMPLETE PROGRAMMING FOR THE ADDRESSABLE SYSTEM ON A COMPUTER DISK OR DISKETTE OR OTHER MEDIA AND ARCHIVE APPROPRIATELY. A COPY OF THE PROGRAM SHALL BE MADE AVAILABLE TO THE OWNER WHEN THE SYSTEM IS COMMISSIONED. THE MANUFACTURER OR AUTHORIZED DISTRIBUTOR SHALL MAINTAIN SOFTWARE VERSION RECORDS ON THE SYSTEM INSTALLED AND PROVIDE FREE UPGRADES IF THE MANUFACTURER RELEASES A NEW VERSION OF THE SOFTWARE DURING THE WARRANTY PERIOD. PROVIDE A SYSTEM FUNCTION MATRIX THAT GIVES THE FIRE ALARM CONTROL PANEL RESPONSE FOR EACH INITIATING DEVICE.
- THE SYSTEM SHALL BE NOMINAL 24VDC, NON-CODED, AND SUPERVISED (INCLUDING CONTROL CIRCUITS). ALL EQUIPMENT SUPPLIED MUST BE LISTED FOR ITS PARTICULAR USE AND INSTALLED IN ACCORDANCE WITH ANY INSTRUCTIONS APPLICABLE TO ITS LISTING.
- THE SYSTEM SHALL BE ELECTRICALLY SUPERVISED FOR OPEN OR GROUND FAULT CONDITIONS IN DETECTION, ALARM, AND CONTROL CIRCUITS. THE REMOVAL OF ANY DETECTION DEVICE, ALARM APPLIANCE, PLUG-IN RELAY, SYSTEM MODULE, OR STANDBY BATTERY CONNECTION SHALL ALSO ACTIVATE A TROUBLE SIGNAL. THE FIRE ALARM SIGNAL SHALL OVERRIDE TROUBLE SIGNALS, BUT THE PRE-ALARM TROUBLE SIGNAL SHALL REAPPEAR WHEN THE PANEL IS RESET.
- PROVIDE EACH SIGNALING LINE CIRCUIT WITH A MINIMUM OF 20 PERCENT SPARE ADDRESSES FOR FUTURE USE.
- THE CONNECTIONS BETWEEN INDIVIDUAL ADDRESSABLE MODULES AND THEIR CONTACT TYPE INITIATING DEVICES MUST BE SUPERVISED.
- THE FIRE ALARM CONTROL PANEL (FACP) POWER SUPPLY MUST HAVE A CONTINUOUS RATING ADEQUATE TO POWER ALL DEVICES AND FUNCTIONS IN FULL ALARM CONTINUOUSLY. BATTERIES MUST MEET THE APPROPRIATE NFPA CAPACITY REQUIREMENTS. THE FACP SHALL INCLUDE AN ALARM SILENCE SWITCH AND SHALL BE EQUIPPED WITH THE SUBSEQUENT ALARM RESOUND FEATURE. THE ALARM SILENCING AND RESET FEATURE SHALL NOT REVERSE AIR HANDLING UNITS SHUTDOWN. A SUPERVISED "HVAC SYSTEM SHUTDOWN" SWITCH MUST BE PROVIDED IN THE FACP WITH ITS "NORMAL" POSITION INDICATED.
- ALL CONNECTIONS MADE AT THE FACP MUST BE BY THE MANUFACTURER'S AUTHORIZED FACTORY TRAINED PERSONNEL (NOT THE ELECTRICAL CONTRACTOR).
- PERMANENT WIRE MARKERS SHALL BE USED TO IDENTIFY ALL CONNECTIONS AND TERMINATIONS FOR EACH CIRCUIT. ALL FIRE ALARM JUNCTION BOXES SHALL BE SPRINKLED RED AND LABELED "FIRE ALARM." TERMINAL BLOCKS SHALL BE PROVIDED IN ALL JUNCTION BOXES WHERE CONNECTIONS ARE MADE. IDENTIFICATION AT SPLICES SHALL INDICATE WHICH CONDUCTOR LEADS TO THE FACP.
- THE FOLLOWING COLOR SCHEME SHALL BE USED FOR SYSTEM CONDUCTORS:
17.1. INITIATING CIRCUITS (OTHER THAN SMOKE) RED & WHITE
17.2. INITIATING CIRCUITS (SMOKE DETECTION) VIOLET & GRAY
17.3. NOTIFICATION APPLIANCE CIRCUITS BLUE & BLACK
17.4. AIR HANDLING SHUT DOWN CIRCUITS YELLOW
17.5. DOOR CONTROL CIRCUITS ORANGE
17.6. ELEVATOR CIRCUITS BROWN
- LOW VOLTAGE WIRING SHALL NOT BE INSTALLED IN ANY RACEWAY CONTAINING POWER OR LINE VOLTAGE CONTROL WIRING. WITHIN THE FACP, ANY AC CONTROL WIRING SHALL BE PROPERLY SEPARATED FROM OTHER CIRCUITS AND THE ENCLOSURE SHALL BE LABELED TO ALERT SERVICE PERSONNEL TO THE HAZARD.
- DEVICES SHALL BE INSTALLED AS INDICATED ON THE PLANS AND AS DETAILED. WHENEVER POSSIBLE, DEVICES SHOULD BE CENTERED ON SPACES OR LOCATED ABOVE OTHER OUTLETS. SMOKE DETECTORS SHALL NOT BE LOCATED WITHIN THREE (3) FEET OF AN HVAC SUPPLY OR RETURN. INSTALL WALL MOUNTED SMOKE DETECTORS A MAXIMUM OF TWELVE (12) INCHES FROM CEILING.
- PROVIDE A PERMANENT MARKER ON EACH DEVICE INSTALLED INDICATING THE DEVICE NUMBER AND ADDRESSABLE LOOP NUMBER. PROVIDE THE SAME INFORMATION INSIDE THE BOX FOR EACH DEVICE.
- ALL HVAC EQUIPMENT SHALL SHUTDOWN UPON ACTIVATION OF ANY FIRE ALARM DEVICE.
- WATER FLOW SWITCHES, VALVE TAMPER SWITCHES, AND PRESSURE SWITCHES SHALL BE PROVIDED AND INSTALLED BY THE SPRINKLER CONTRACTOR, CONNECTED BY THE ELECTRICAL CONTRACTOR, AND SUPERVISED BY THE FACP.
- TESTING SHALL INCLUDE ALL TESTS REQUIRED FOR THE ELECTRICAL SYSTEMS IN ADDITION TO TESTING AND CERTIFICATION BY THE FIRE ALARM SYSTEM SUPPLIER. PROVIDE INSTRUCTION MANUALS TO OWNER PERSONNEL.
- FASC SHALL VERIFY THAT ALL VISIBLE NOTIFICATION DEVICES ARE SYNCHRONIZED PER NFPA 72.
- VERIFY DECIBEL LEVELS ARE MINIMUM 60 DBA AND MAXIMUM 120 DBA THROUGHOUT THE ZONE; ADJUST DEVICES AS NECESSARY. MAINTAIN MINIMUM 100 DBA IN EQUIPMENT AND MECHANICAL ROOMS. DEVICES MUST MEET SURVIVABILITY REQUIREMENTS OF THE NFPA AS APPLICABLE.
- THE AUDIBLE ALARM NOTIFICATION APPLIANCES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPABLE SPACE WITHIN THE BUILDING.

310ai

310 Architecture + Interiors, PC

P. O. BOX 97935
RALEIGH, NC 27624-7935

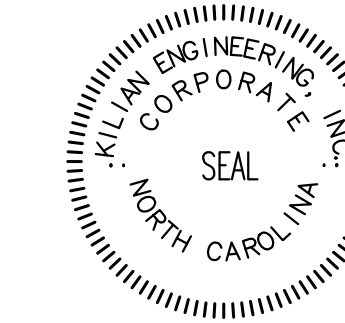
302 JEFFERSON STREET
SUITE 250
RALEIGH, NC 27605

PHONE (919) 838-9310
FAX (919) 838-9311

310ai.com

COPYRIGHT 2020 310 Architecture + Interiors, PA

Kilian
Engineering,
Inc.



STUDIO 557
"THE BLOCK" TOWN HALL COMMONS/MALBEC
300 SOUTH MAIN STREET SUITE 304
HOLLY SPRINGS, NC 27540

KILIAN	P/N	20369
CLIENT	P/N	20061
DATE:	09/01/2020	
DRAWN BY:	JAM	
CHECKED BY:	MWK/JAB	
NO.	REVISION	DATE

FIRE ALARM PLAN

FA1

MECHANICAL NOTES:

ADMINISTRATIVE:
1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS:
PC – PLUMBING CONTRACTOR, EC – ELECTRICAL CONTRACTOR, MC – MECHANICAL CONTRACTOR, GC – GENERAL CONTRACTOR, FASC – FIRE ALARM SYSTEM CONTRACTOR.
"PROVIDE" MEANS TO FURNISH AND INSTALL. MC SHALL ALSO INSTALL MATERIALS FURNISHED BY OTHERS AND GENERAL CONTRACTOR AS SHOWN ON THE PLANS OR NECESSARY FOR A COMPLETE INSTALLATION.
3. THE MC SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
4. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED BY THE CONTRACTOR AT AN APPROVED LOCATION. THE MC SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE MC UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.
5. THE MC SHALL INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE 2018 NORTH CAROLINA MECHANICAL AND BUILDING CODES AND ANY APPLICABLE LOCAL CODES, WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE MC SHALL OBTAIN CLARIFICATION FROM THE ENGINEER OR IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE REQUIREMENTS.
6. THE MC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
7. DO NOT SCALE THESE DRAWINGS-REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
8. THE MC SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE MC SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE MC SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
9. ALL MECHANICAL MATERIALS SHALL BE NEW AND FREE OF DEFECT AND LISTED AND LABELED BY UL OR AN APPROVED THIRD PARTY AGENCY. ANY MATERIALS FOUND TO BE DEFECTIVE SHALL BE REPLACED BY THE MC WITHOUT ADDITIONAL COST TO THE OWNER. WHERE A MANUFACTURER AND MODEL NUMBER IS GIVEN, THE CITED EXAMPLE IS INTENDED TO ESTABLISH A STANDARD OF QUALITY AND NOT TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. SUCH EXAMPLES ARE USED TO CONVEY A GENERAL STYLE, TYPE, CHARACTER, AND QUALITY OF THE PRODUCT DESIRED; PRODUCTS DETERMINED TO BE EQUAL BY THE ENGINEER WILL BE ACCEPTED.
10. THESE PLANS ARE DIAGRAMMATIC. THE MC SHALL ADJUST THE LOCATIONS OF EQUIPMENT, DUCTS, REGISTERES, GRILLES, ETC., TO ACCOMMODATE PLANNED AND UNOCCUPIED INTERFERENCE DURING CONSTRUCTION. THE MC SHALL CORRECT, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE MC SHALL MAKE ALLOWANCES FOR SUCH DEVIATIONS AND CONTINGENCIES IN BID TO IMPLEMENT THEM WITHOUT ADDITIONAL COST TO THE OWNER.
11. THE MC SHALL VERIFY THE FUNCTIONALITY AND OPERATION OF ALL EXISTING MECHANICAL EQUIPMENT IN THE AREA OF WORK. REPLACE FILTERS, LEAK TEST AND RECHARGE REFRIGERANT LINES, REPLACE OR LUBRICATE BEARINGS, CHECK LINKAGES AND ACTUATORS, AND PERFORM OTHER MAINTENANCE SERVICE AS NECESSARY TO GET THE EQUIPMENT IN PROPER ORDER.
12. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING.
13. IT IS THE MC'S RESPONSIBILITY TO VERIFY THAT ITEMS FURNISHED FOR THIS CONTRACT WILL FIT IN THE SPACE AVAILABLE. THE MC SHALL MAKE FIELD MEASUREMENTS AS NECESSARY TO DETERMINE SPACE REQUIREMENTS. IF THE MC MUST ALTER EQUIPMENT DUE TO SPACE CONSIDERATIONS, THE MC SHALL PROVIDE SIZES AND SHAPES THAT FIT THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS.
14. MC SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR REGARDING THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT BEING PROVIDED.
15. MAINTAIN CLEARANCES FOR ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS FOR SERVICEABILITY. ALL ROOFTOP EQUIPMENT MUST BE A MINIMUM OF 10 FEET FROM ROOF EDGE.
16. MC SHALL FURNISH A BOUND SET OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF THE PROJECT. MC SHALL PROVIDE ALL DOCUMENTATION TO THE OWNER AS NECESSARY TO SUBMIT FOR FACTORY WARRANTIES.
17. CONTRACTOR SHALL PROTECT ALL HVAC EQUIPMENT FROM CONSTRUCTION AND SHEET ROCK DUST DURING CONSTRUCTION. ALL FILTERS SHALL BE REPLACED WITH NEW AT THE COMPLETION OF THE PROJECT.
18. ALL EQUIPMENT INSTALLED ON ROOF MUST BE WITHIN THE ROOF SCHEDULE.
19. IF A ROOF PENETRATION IS REQUIRED AND THE ROOF IS UNDER WARRANTY, USE THE AUTHORIZED ROOFER. PROVIDE DOCUMENTATION.
20. ALL PIPING, WIRING, CONDUIT, INSULATION, EQUIPMENT, SUPPORTS, ETC. SHALL BE SUITABLE FOR INSTALLATION IN A RETURN PLENUM AS NECESSARY. COORDINATE WITH OTHER TRADES ON LOCATIONS OF ALL PLENUMS.
21. MC SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE ALL APPLICABLE CONSTRUCTION WASTE IS RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT.

MATERIALS:
1. THE MC SHALL PROVIDE ALL DX UNITARY HEATING AND COOLING EQUIPMENT AS SCHEDULED ON THE DRAWINGS. AIR-COOLED SPLIT SYSTEM HEAT PUMPS AND AIR-CONDITIONERS SHALL BE BY TRANE, CARRIER, OR YORK. AIR-COOLED ROOFTOP PACKAGE HEAT PUMPS, GAS-ELECTRIC UNITS, AND AIR-CONDITIONERS SHALL BE BY TRANE, CARRIER, OR YORK. GAS FURNACES SHALL BE BY TRANE, CARRIER, OR YORK. THE MC SHALL PROVIDE FACTORY AND FIELD INSTALLED ACCESSORIES AS SCHEDULED OR AS NECESSARY FOR A COMPLETE AND OPERATIONAL HVAC SYSTEM.
2. THE MC SHALL PROVIDE ALL EXHAUST AND SUPPLY FANS AS SCHEDULED. FANS SHALL BE BY GREENECK, LOREN COOK, TWIN CITY, OR PENNBARRY.
3. DUCTWORK IS SHOWN WITH FREE AREA DIMENSIONS. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT STANDARD, 7 INCH 5.2.
4. EXTERNAL DUCT INSULATION AND FACTORY-INSULATED FLEXIBLE DUCT SHALL BE LEGIBLY PRINTED OR IDENTIFIED AT INTERVALS NOT GREATER THAN 36 INCHES WITH THE NAME OF THE MANUFACTURER, THE THERMAL RESISTANCE R-VALUE AT THE SPECIFIED INSTALLED THICKNESS AND THE FLAME SPREAD AND SMOKE-DEVELOPED INDEXES OF THE COMPOSITE MATERIALS. ALL DUCT INSULATION PRODUCT R-VALUES SHALL BE BASED ON INSULATION ONLY, EXCLUDING AIR FLUX, VAPOR RETARDERS OR OTHER DUCT COMPONENTS, AND SHALL BE BASED ON TESTED C-VALUES AT 75°F MEAN TEMPERATURE AT THE INSTALLED THICKNESS, IN ACCORDANCE WITH RECOGNIZED INDUSTRY PROCEDURES. THE INSTALLED THICKNESS OF DUCT INSULATION USED TO DETERMINE ITS R-VALUES SHALL BE DETERMINED AS FOLLOWS:
4.1. FOR DUCT BOARD, DUCT LINER AND FACTORY-MADE RIGID DUCTS NOT NORMALLY SUBJECTED TO COMPRESSION, THE NOMINAL INSULATION THICKNESS SHALL BE USED.
4.2. FOR DUCT WRAP, THE INSTALLED THICKNESS SHALL BE ASSUMED TO BE 75 PERCENT (25-PERCENT COMPRESSION) OF NOMINAL THICKNESS.
4.3. FOR FACTORY-MADE FLEXIBLE AIR DUCTS, THE INSTALLED THICKNESS SHALL BE DETERMINED BY DIVIDING THE DIFFERENCE BETWEEN THE ACTUAL OUTSIDE DIAMETER AND NOMINAL INSIDE DIAMETER BY TWO.
5. DUCT LINER MAY BE SUBSTITUTED FOR EXTERIOR DUCT WRAP. DUCT LINER INSULATION MATERIALS SHALL MEET THE REQUIREMENTS OF ASTM C 1071, AND ASTM C 21. EXTERIOR DUCT R-VALUE SHALL BE R-8 AND INTERIOR R-VALUE SHALL BE R-6 IN ACCORDANCE WITH THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE. NOMINAL DUCT SIZES SHALL BE ADJUSTED AS NECESSARY SO THAT FREE AREA DIMENSIONS ARE PRESERVED AS SHOWN ON THE PLANS. FABRICATION AND INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND TO THE REQUIREMENTS OF THE LATEST EDITION OF THE NORTH AMERICAN INSULATION MANUFACTURERS ASSOCIATION FIBROUS GLASS DUCT LINER STANDARDS AND/OR SMACNA HVAC DUCT CONSTRUCTION STANDARDS. DUCT LINER SHALL HAVE A BLACK PIGMENTED MAT ON THE AIRSTREAM SIDE TO RESIST DAMAGE DURING INSTALLATION AND SERVICE. EXCES SHALL BE FACTORY COATED WITH BLACK PIGMENTED COATING TO COMPLY WITH SMACNA DCS REQUIREMENTS. ALL PORTIONS OF DUCT DESIGNATED TO RECEIVE DUCT LINER SHALL BE COMPLETELY COVERED WITH DUCT LINER. TRANSVERSE JOINTS SHALL BE NEATLY BUTTED AND THERE SHALL BE NO INTERRUPTIONS OR GAPS. THE BLACK PIGMENTED OR MAT FACED SURFACES SHALL FACE THE AIRSTREAM. DUCT LINER SHALL BE ADHERED TO THE SHEET METAL WITH 90 PERCENT COVERAGE OF ADHESIVE COMPLYING WITH REQUIREMENTS OF ASTM C 916. ALL EXPOSED LEADING EDGES AND TRANSVERSE JOINTS SHALL

BE FACTORY COATED OR COATED WITH ADHESIVE DURING FABRICATION. DUCT LINER SHALL BE ADDITIONALLY SECURED WITH MECHANICAL FASTENERS. EITHER WELD-SECURED OR IMPACT DRIVEN, WHICH SHALL COMPRESS THE DUCT LINER SUFFICIENTLY TO HOLD IT FIRMLY IN PLACE. ADHESIVE BONDED PINS ARE NOT PERMITTED DUE TO LONG-TERM ADHESIVE AGING CHARACTERISTICS. LININGS SHALL BE INTERRUPTED AT THE AREA OF OPERATION OF A FIRE DAMPER AND AT A MINIMUM OF 6 INCHES UPSTREAM AND 6 INCHES DOWNSTREAM OF ELECTRIC RESISTANCE AND FUEL-BURNING HEATERS. IN A DUCT SYSTEM METAL JOINTS OR SLEEVES SHALL BE INSTALLED OVER EXPOSED DUCT LINER THAT FACE OPPOSITE THE DIRECTION OF AIRFLOW. UPON COMPLETION OF INSTALLATION OF DUCT LINER AND BEFORE OPERATION IS TO COMMENCE, VISUALLY INSPECT SYSTEM AND VERIFY THAT THE DUCT LINER IS PROPERLY INSTALLED. OPEN ALL SYSTEM DAMPERS AND TURN ON FANS TO BLOW ALL SCRAPS AND OTHER LOOSE PIECES OF MATERIAL OUT OF THE DUCT SYSTEM. ALLOW FOR A WEARS OF REMOVAL OF SUCH MATERIAL.
6. ALL INSULATION CONTAINING FIBROUS MATERIALS EXPOSED TO AIRFLOW SHALL BE RATED FOR THAT EXPOSURE OR SHALL BE ENCAPSULATED. INSULATING PROPERTIES FOR ALL MATERIALS SHALL MEET OR EXCEED INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578. ALL INSULATION SHALL HAVE FORMALDEHYDE EMISSIONS NOT GREATER THAN 0.05 PPM. THE MINIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION IN WHICH THE BUILDING IS LOCATED.
7. MASTIC USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A-95 OR UL 181B-98. MANTAIN ADEQUATE TEMPERATURES AND CONDITIONS REQUIRED BY MANUFACTURER OF ADHESIVES, MASTICS, AND INSULATION CEMENTS. DO NOT INSTALL DUCT SEALANT WHEN TEMPERATURES ARE LESS THAN THOSE RECOMMENDED BY THE SEALANT MANUFACTURER.
8. ALL ADHESIVES AND SEALANTS SHALL HAVE VOC CONTENT BELOW 20 GRAMS PER LITER AND WHICH MEET THE REQUIREMENTS OF THE MANUFACTURER OF THE PRODUCTS BEING ADHESED OR INVOLVED. ADHESIVES AND SEALANTS SHALL CONTAIN NO HEAVY METALS OR FORMALDEHYDE.
9. FACTORY-MADE AIR DUCTS AND CONNECTORS SHALL COMPLY WITH UL 181-96. FLEXIBLE DUCT SHALL BE UL LISTED CLASS 0 OR CLASS 1, INSULATED, AND COMPLY WITH UL 181. FLEXIBLE DUCT SHALL BE FACTORY FORMED, COMPOSED OF SPIRAL WOUND CORROSION RESISTANT WIRE BONDED TO AN INNER FABRIC. LINER DUCT SHALL BE FACTORY INSULATED WITH A FOIL VAPOR BARRIER JACKET. CONNECT TO RIGID DUCT WITH SPW-IN FITTING AND DAMPER. FLEXIBLE DUCTS AND AIR CONNECTORS SHALL NOT PASS THROUGH ANY FIRE RESISTANCE RATED ASSEMBLY.
11. THE MC SHALL PROVIDE ALL DIFFUSERS GRILLES, LOUVERS, AND OTHER AIR DISTRIBUTION OUTLETS AND INLETS. LOUVERS, GRILLES, AND DIFFUSERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. FOR LAY-IN CEILINGS, INSTALL SUPPORT FROM THE STRUCTURE FOR EACH DIFFUSER OR DAMPER. AIR DISTRIBUTION OUTLETS AND INLETS SHALL BE BY HART & COOLEY, PRICE, METAL-ARE, NALOR, OR CARNES.
12. AIR FILTERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 605 OF THE 2018 NC MECHANICAL CODE.
13. THE MC SHALL PROVIDE ALL REFRIGERATION PIPING. ALL PIPE AND FITTINGS SHALL BE TYPE ACP HARD COPPER TUBING WITH SWEAT FITTINGS. REFRIGERATION LINES SHALL BE RUN NEATLY. WHERE A GROUP OF LINES ARE RUN, TRAPEZE HANGERS MAY BE USED. DO NOT USE CHAIN OR WIRE HANGERS. WRAP TUBING WITH RUBBER TAPE AT EACH CLAMP OR HANGER. FOR COVERED PIPES, HANGERS SHALL FIT AROUND THE OUTSIDE OF THE COVERING WITH 12 GAUGE GALVANIZED STEEL SHIELDS OF A LENGTH EQUAL TO THE OUTSIDE DIAMETER OF THE INSULATION AND COVERING 3/4 OF THE CIRCUMFERENCE OF THE INSULATION. SAGS SHALL NOT BE PERMISSIBLE. HORIZONTAL LINES SHALL PITCH DOWN NOT LESS THAN 1 INCH IN 40 FEET. INSULATE WITH 1 INCH CLOSED CELL ARMAFLEX TYPE INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 50. ALL JOINTS AND SPLICES IN INSULATION SHALL BE TAPED AND AIR TIGHT. SOLDER REFRIGERATION LINES USING 15 PERCENT SILVER SOLDER AND EVACUATE LINES TO 300 MICRONS. PROVIDE MOISTURE INDICATING SIGHT GLASS AND FILTER DRYER IN LIQUID LINE. PROVIDE OIL TRAPS AND DOUBLE RISERS IN REFRIGERANT SUCTION AND HOT GAS LINES WHERE REQUIRED TO PREVENT OIL SLUGGING AT THE COMPRESSOR AND INSURE PROPER LUBRICATION. MC SHALL BE RESPONSIBLE FOR SEALING LINE SET PENETRATIONS OF ANY RATED ASSEMBLIES IN ACCORDANCE WITH A SYSTEM LISTED IN THE UL DIRECTORY FOR THE SPECIFIC ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR A LIST OF ALL UL FIRE RATED ASSEMBLIES.

ARE SPECIFIED AS PART OF THE DIFFUSER OR REGISTER ASSEMBLY. ADJUST AIR HANDLING AND DISTRIBUTION SYSTEMS TO PROVIDE DESIGN SUPPLY, RETURN, AND EXHAUST AIR QUANTITIES AT SITE ALTITUDE.
MC SHALL INSTALL FIRE DAMPERS AT EACH PENETRATION OF A RATED WALL AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. FIRE DAMPERS SHALL BE UL LABELED (UL 555), CURTAIN TYPE, WITH INTEGRAL FACTORY SLEEVE AND BLADES LOCATED OUTSIDE THE AIR STREAM. INSTALLATION OF ALL FIRE DAMPERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SECTION 607 OF THE 2018 NC MECHANICAL CODE. PROVIDE ACCESS PANELS FOR TESTING AND SERVICE AS NECESSARY. MC SHALL PROVIDE RADIATION DAMPERS AND THERMAL BLANKETS FOR ALL PENETRATIONS OF RATED CEILING ASSEMBLIES. RADIATION DAMPERS SHALL BE UL LABELED (UL 555C) AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC INSTALLATION INSTRUCTIONS. FIRE DAMPERS, COMBINATION FIRE/SMOKE DAMPERS, AND CEILING RADIATION DAMPERS SHALL BE BY RUSKIN, NALOR, OR LLOYD INDUSTRIES.
MC SHALL INSTALL A SMOKE DETECTOR-UL LISTED FOR DUCT INSTALLATION (UL 288A) IN EACH UNIT'S RETURN UPSTREAM OF ANY FILTERS, OUTSIDE AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT. DUCT SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72. DUCT SMOKE DETECTOR SUPERVISION SHALL COMPLY WITH 606.4.1 OF THE 2018 NC MECHANICAL CODE. IF THE BUILDING IS (TO BE) EQUIPPED WITH A FIRE ALARM SYSTEM, THE FIRE ALARM SYSTEM CONTRACTOR SHALL FURNISH AND WIRE ALL DUCT SMOKE DETECTORS. IF THE BUILDING IS NOT PROVIDED WITH A FIRE ALARM SYSTEM, THE MC SHALL FURNISH AND WIRE THE DUCT SMOKE DETECTORS AND A/V DEVICE. IT SHALL BE THE RESPONSIBILITY OF THE MC TO INSTALL ALL SMOKE DUCT DETECTORS PER NFPA AND MFG'S INSTALLATION INSTRUCTIONS REGARDLESS OF WHO FURNISHES THE DEVICES.
MC SHALL INSTALL PROGRAMMABLE THERMOSTATS AS SHOWN ON THE PLANS. THERMOSTAT SHALL BE MOUNTED AT 48 INCHES AFF. THERMOSTATS SHALL MEET THE REQUIREMENTS OF SECTION C403.2.4 OF THE 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.
FRESH AIR INTAKES SHALL BE INSTALLED ON ALL UNITS AS SHOWN ON DRAWINGS. MAINTAIN 10 FEET OF DISTANCE BETWEEN FRESH AIR INTAKES AND ALL EXHAUST TERMINATIONS AND PLUMBING VENT THRU ROOFS.
UNITS PROVIDED WITH ECONOMIZERS SHALL ALSO BE PROVIDED WITH POWERED EXHAUST AND COMPARTMENT EXHAUST CONTROLS.
MC SHALL INSTALL ALL EXHAUST FANS AND VENT TO THE BUILDING'S EXTERIOR. EC SHALL SWITCH FANS WITH LIGHTS OR ON SEPARATE SWITCH AS SHOWN.
P-TRAPS MUST BE INSTALLED ON ALL UNITS. MC SHALL INSTALL AUXILIARY DRAIN PANS UNDER OVERHEAD AIR HANDLERS AND AN AUTOMATIC CUT-OFF FLOAT SWITCH FOR EACH P-TRAP AND CONDENSATE LINES SHALL BE 1 INCH. P-TRAPS AND CONDENSATE LINES MAY BE PVC WHERE NOT LOCATED IN PLENUMS; OTHERWISE, THEY SHALL BE TYPE M COPPER.
INSTALL BACKDRAFT DAMPERS ON FRESH AIR AND EXHAUST DUCTS WHERE THEY PENETRATE THE THERMAL ENVELOPE PER NORTH CAROLINA ENERGY CONSERVATION CODE C402.5.5

EXHAUST FAN SCHEDULE

SPLIT SYSTEM HEAT PUMP SCHEDULE

SPLIT SYSTEM AIR HANDLER SCHEDULE

1. PROVIDE CONCRETE PAD FOR UNIT TO SIT ON.
2. PROVIDE HEAT STRIP OUTDOOR TEMPERATURE LOCKOUT TO PREVENT SUPPLEMENTAL HEAT OPERATION IN RESPONSE TO THE THERMOSTAT BEING CHANGED TO A WARMER SETTING. SET NO LOWER THAN 35°F AND NO HIGHER THAN 40°F
3. PROVIDE HINGED ACCESS DOORS
4. PROVIDE HAIL GUARDS FOR COIL
5. REPLACE ALL FILTERS AT PROJECT'S COMPLETION
6. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH NIGHT-TIME SET BACK
7. CONSULT MANUFACTURER ON LINE SET LENGTHS EXCEEDING 60FT
8. PROVIDE HARD START KIT
9. HEATER RATED AT 208VOR EQUAL BY CARRIER, LENNIX, OR YORK
10. ANY EQUIPMENT SUBSTITUTIONS MUST EQUAL OR EXCEED EFFICIENCIES LISTED (RATINGS PER ARI)
11. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES
12. PROVIDE WITH FILTER RACK FOR RETURN AIR PLENUM APPLICATION
13. SUPPLY FAN SIZE DISCHARGE REQUIRED
14. ANY EQUIPMENT SUBSTITUTIONS NOT TO EXCEED LISTED MCA.

MECHANICAL SCHEDULES

2

MECHANICAL SYSTEM, SERVICE SYSTEMS, AND EQUIPMENT

METHOD OF COMPLIANCE
THERMAL ZONE

EXTERIOR DESIGN CONDITIONS
HEATING DESIGN DRY BULB
COOLING DESIGN DRY BULB
COOLING DESIGN WET BULB

INTERIOR DESIGN CONDITIONS
HEATING DESIGN DRY BULB
COOLING DESIGN DRY BULB
COOLING RELATIVE HUMIDITY

HEATING LOAD
LATENT COOLING LOAD

SENSIBLE COOLING LOAD
LATENT COOLING LOAD

MECHANICAL SPACING/CONDITIONING SYSTEM
UNITARY
DESCRIPTION OF UNIT(S)
BOILER
TOTAL BOILER OUTPUT
CHILLER
TOTAL CHILLER CAPACITY

EQUIPMENT EFFICIENCIES:

EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS):

DESIGNER STATEMENT:
TO THE BEST OF MY KNOWLEDGE, THE MECHANICAL DESIGN FOR THIS BUILDING COMPLEIES WITH MECHANICAL AND EQUIPMENT REQUIREMENTS OF THE 2018 NORTH CAROLINA STATE BUILDING CODE AND 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.

Ventilation Calculation (For AHU-1)

Ventilation Calculation (For AHU-2)

K-12 School?

Uncorrected Intake

Outdoor Air Intake

Percent of Unit Air

K-12 School?

Uncorrected Intake

Outdoor Air Intake

Percent of Unit Air

MECHANICAL NOTES

1

VENTILATION CALCULATIONS

3

MECHANICAL DESIGNER STATEMENT

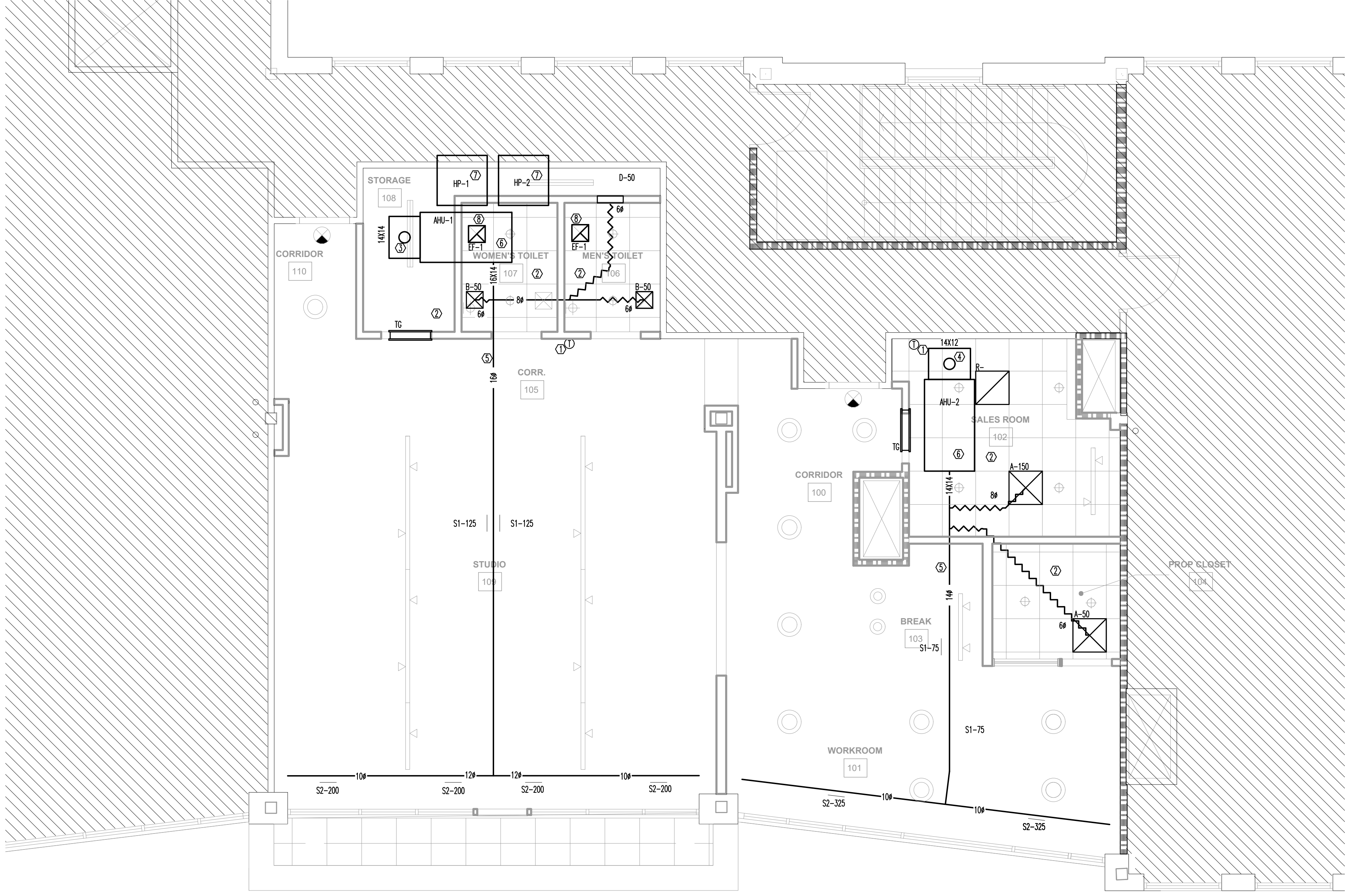
4

REGISTER & GRILLE SCHEDULE						
MARK	MFG	MODEL #	SIZE	MOUNTING	DESCRIPTION	NOTES
A	PRICE	SCD	24X24	LAY-IN	4-WAY DIFFUSER, 8" NECK	1, 3
B	PRICE	SCD	12X12	LAY-IN	4-WAY DIFFUSER, 6" NECK	1, 3
C	PRICE	SCD	24X24	LAY-IN	4-WAY DIFFUSER, 6" NECK	1, 3
D	HART & COOLEY	92WH	12X6	WALL	BRIGHT WHITE	1
TG	PRICE	ATG1C	20X12	WALL	ALUMINUM CONSTRUCTION. CONCEALED BORDER.	1
S1	PRICE	SDG	14X4	SPIRAL	MOUNT AT 0-DEGREES	2, 5, 7
S2	PRICE	SDG	16X6	SPIRAL	MOUNT AT 45-DEGREES TO WASH WINDOW	2, 5, 7
R	PRICE	S30L	24X24	LAY-IN	STEEL, FULLY LOUVERED 45 DEG, 3/4" SPACING	1, 4, 8

- EQUAL BY PRICE, METAL-AIRE, CARNES, TITUS OR NAILOR.
- COORDINATE COLOR PRIOR TO ORDERING.
- PROVIDE WITH FOIL LINED, MOLDED INSULATION BLANKET.
- PROVIDE WITH INSULATED SHEET METAL PLENUM.
- PROVIDE WITH AIR SCOOP.
- PROVIDE WITH MODEL SDB1 INSULATED PLENUM.
- PROVIDE WITH MODEL VORREC CABLE OPERATOR.
- PROVIDE WITH RETURN AIR CANOPY.

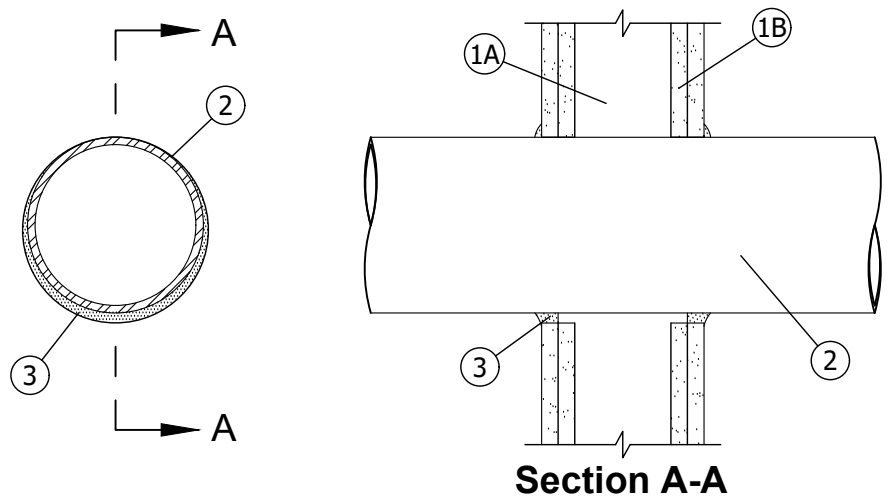
- HEX PLAN NOTES
- CONFIRM T-STAT LOCATION WITH OWNER. INSTALL NEAR RETURN AIR GRILLE AND AWAY FROM SUPPLY DIFFUSER.
 - RETURN AIR PLENUM ABOVE CEILING IN THIS LOCATION. ALL MATERIALS TO BE PLENUM RATED. COORDINATE WITH PLUMBING, MECHANICAL, ELECTRICAL, AND FIRE ALARM CONTRACTORS.
 - PROVIDE 8" OUTDOOR AIR DUCT AND BALANCING DAMPER SET TO 197 CFM. PROVIDE HOODED ROOF CAP AT EXTERIOR PENETRATION. AIR INTAKE LOCATION MUST BE 10' FROM ALL EXHAUST LOCATIONS.
 - PROVIDE 8" OUTDOOR AIR DUCT AND BALANCING DAMPER SET TO 152 CFM. PROVIDE HOODED ROOF CAP AT EXTERIOR PENETRATION. AIR INTAKE LOCATION MUST BE 10' FROM ALL EXHAUST LOCATIONS.
 - TRANSITION FROM SQUARE TO SPIRAL DUCT WHERE OPEN TO STRUCTURE. CONFIRM SINGLE WALL SPIRAL DUCT COLOR WITH OWNER IN OPEN TO STRUCTURE AREAS.
 - ROUTE CONDENSATE TO HUB DRAIN. SEE PLUMBING PLANS.
 - HEAT PUMP LOCATED ON ROOF ABOVE BUILDING CORRIDOR. MC TO COORDINATE EXACT LOCATION AND EXISTING MOUNTING CONDITIONS ON SITE.
 - 6" EXHAUST DUCT THROUGH ROOF. PROVIDE BIRD SCREEN AND BACKFLOW DAMPER.

① THERMOSTAT LOCATION MOUNT AT 48" A.F.F.



System No. W-L-1088

F Ratings - 1 & 2 Hr. (See Item 1)
T Rating - 0 Hr.



- Wall Assembly** - The 1 or 2 hr. fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
 - Studs** - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) O.C. with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min. 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) O.C.
 - Gypsum Board** - 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400 or V400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 6-3/4 in. (171 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
- Through Penetrant** - One metallic pipe, tubing or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between pipes, tubing or conduits and periphery of opening shall be min 0 in. (point contact) to max 5/8 in. (16 mm). Pipe, tubing or conduit to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, tubing or conduits may be used:
 - Steel Pipe** - Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - Iron Pipe** - Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
 - Copper Tubing** - Nom 6 in. (152 mm) diam (or smaller) Type M (or heavier) copper tubing.
 - Copper Pipe** - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - Conduit** - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing, nom 4 in. (102 mm) diam (or smaller) galv steel conduit or nom 1 in. (25 mm) diam (or smaller) flexible steel conduit.
- Fill, Void or Cavity Material** - **Sealant** - Min 5/8 in. (16 mm) thickness of fill material within annulus, flush with both surfaces of wall. Additional fill material installed such that a min 1/4 in. (6 mm) thick crown is formed around the penetrating item lapping 1/2 in. (13 mm) beyond the periphery of the opening.

SPECIFIED TECHNOLOGIES INC - SpecSeal LC 150 Sealant, SpecSeal LE600 Sealant

*Bearing the UL Classification Mark



Specified Technologies Inc. 200 Evans Way Somerville, NJ 08876

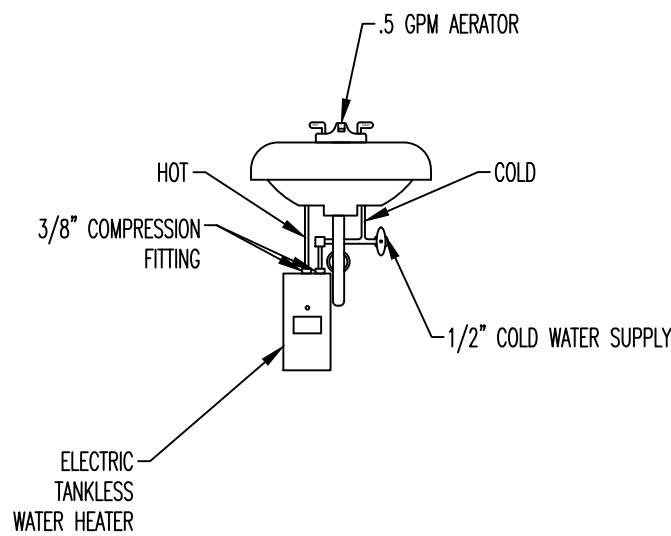
Reproduced courtesy of Underwriters Laboratories, Inc.
Created or Revised: June 08, 2007

(800)992-1180 • (908)526-8000 • FAX (908)231-8415 • E-Mail:techserv@stifirestop.com • Website:www.stifirestop.com

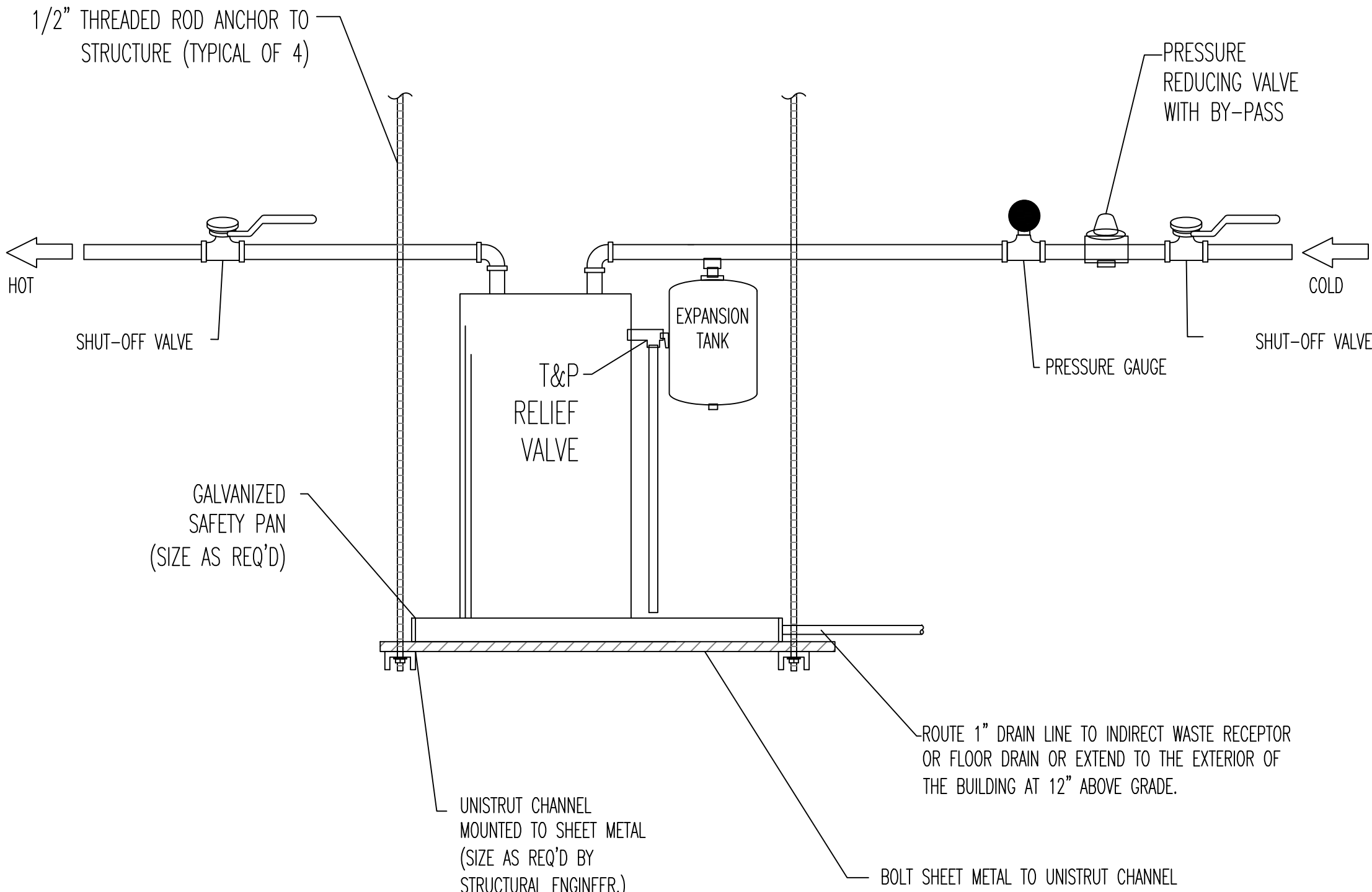


W-L-1088
PAGE 1 OF 1

THERMOSTATIC MIXING VALVE DETAIL - NO SCALE 2

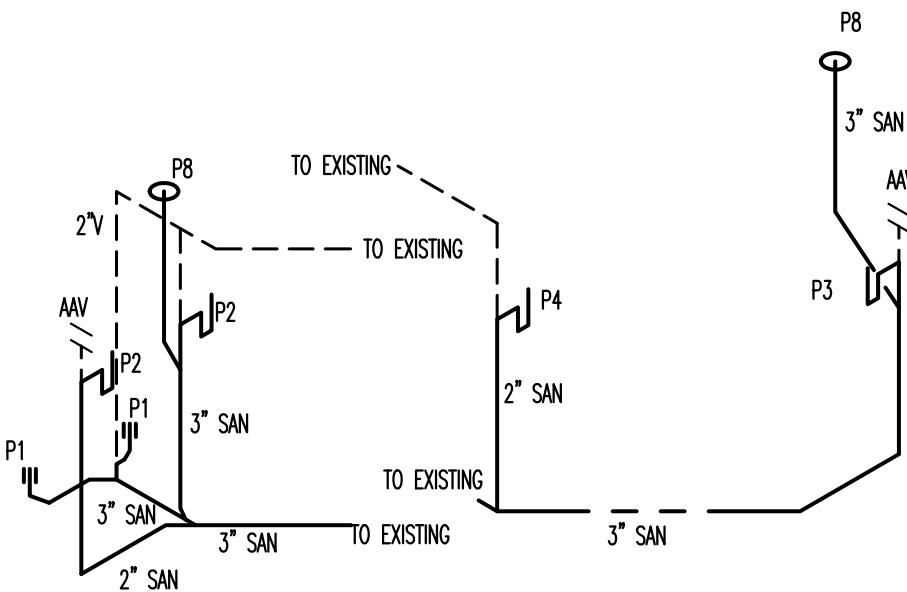


TANKLESS WATER HEATER DETAIL 3

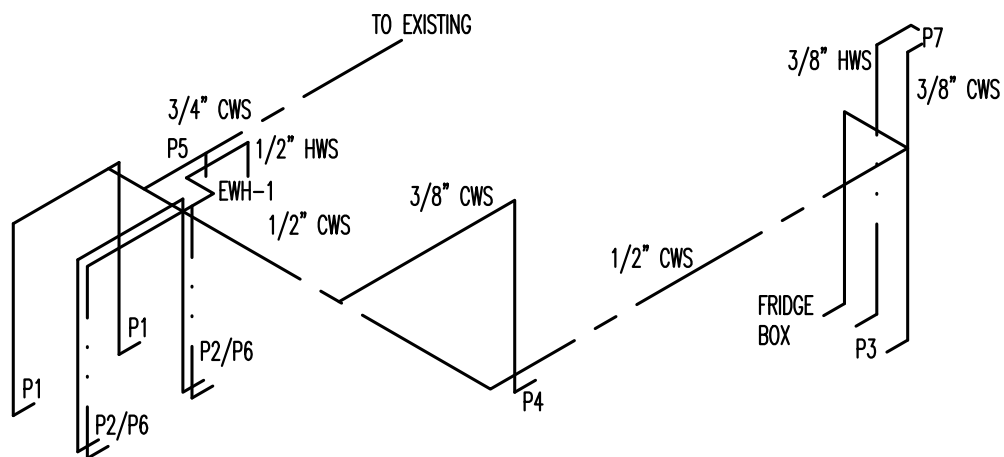


ELECTRIC WATER HEATER ABOVE CEILING DETAIL - NO SCALE 4

PENETRATION DETAIL NO SCALE 1



SEWER RISER - NTS 5



SUPPLY RISER - NTS 6

310ai

310 Architecture + Interiors, PA

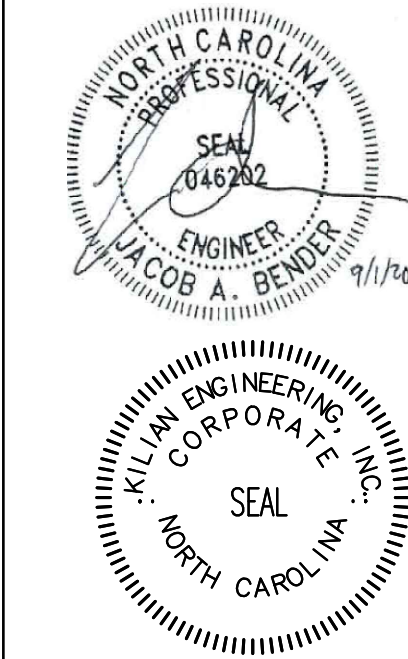
P. O. BOX 97935
RALEIGH, NC 27624-7935

302 JEFFERSON STREET
SUITE 250
RALEIGH, NC 27605

PHONE (919) 838-9310
FAX (919) 838-9311

310ai.com

COPYRIGHT 2020 310 Architecture + Interiors, PA



STUDIO 557
"THE BLOCK" TOWN HALL COMMONS/MALBEC
300 SOUTH MAIN STREET SUITE 304
HOLLY SPRINGS, NC 27540

KILIAN	P/N	20369
CLIENT	P/N	20061
DATE:	09/01/2020	
DRAWN BY:	JAM	
CHECKED BY:	MWK/JAB	
NO.	REVISION	DATE

PLUMBING DETAILS

P2