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TYPICAL MASONRY DETAILS

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ELECTRICAL DETAILS

ELECTRICAL DETAILS

**ELECTRICAL DETAILS** 

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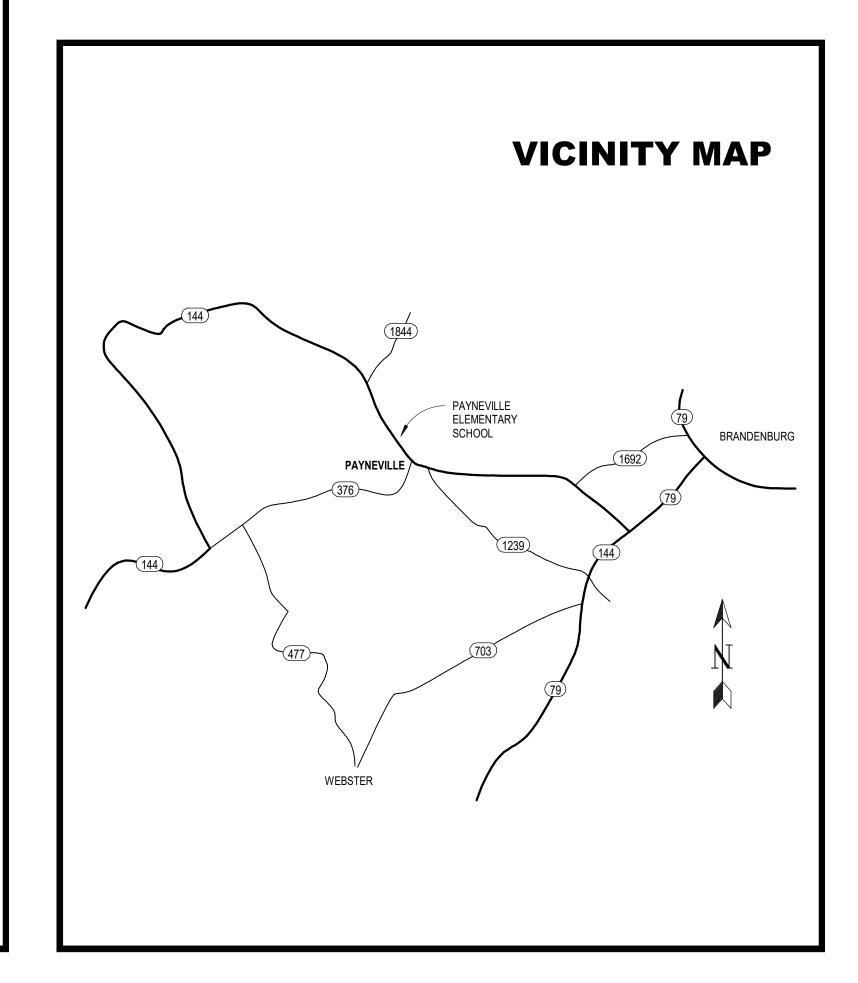
# PAYNEVILLE ELEMENTARY RENOVATION AND ADDITION

BG# 18-283

JULY 10, 2019

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### STRUCTURAL ENGINEER

ARCHITECTS, PLLC

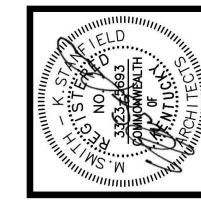
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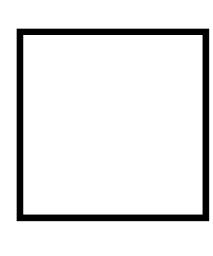
### MECHANICAL/ELECTRICAL ENGINEER

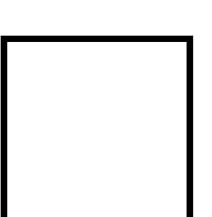
CMTA CONSULTING ENGINEERS 10411 MEETING STREET PROSPECT, KY 40059 P (502) 326-3085 F (502) 326-2691

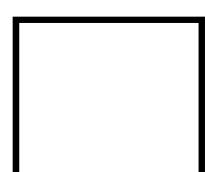
### SEPTIC SYSTEMS

HERITAGE ENGINEERING, LLC 642 SOUTH 4th STREET SUITE 100 LOUISVILLE, KY 40202 P (502) 562-1412 F (502) 562-1413

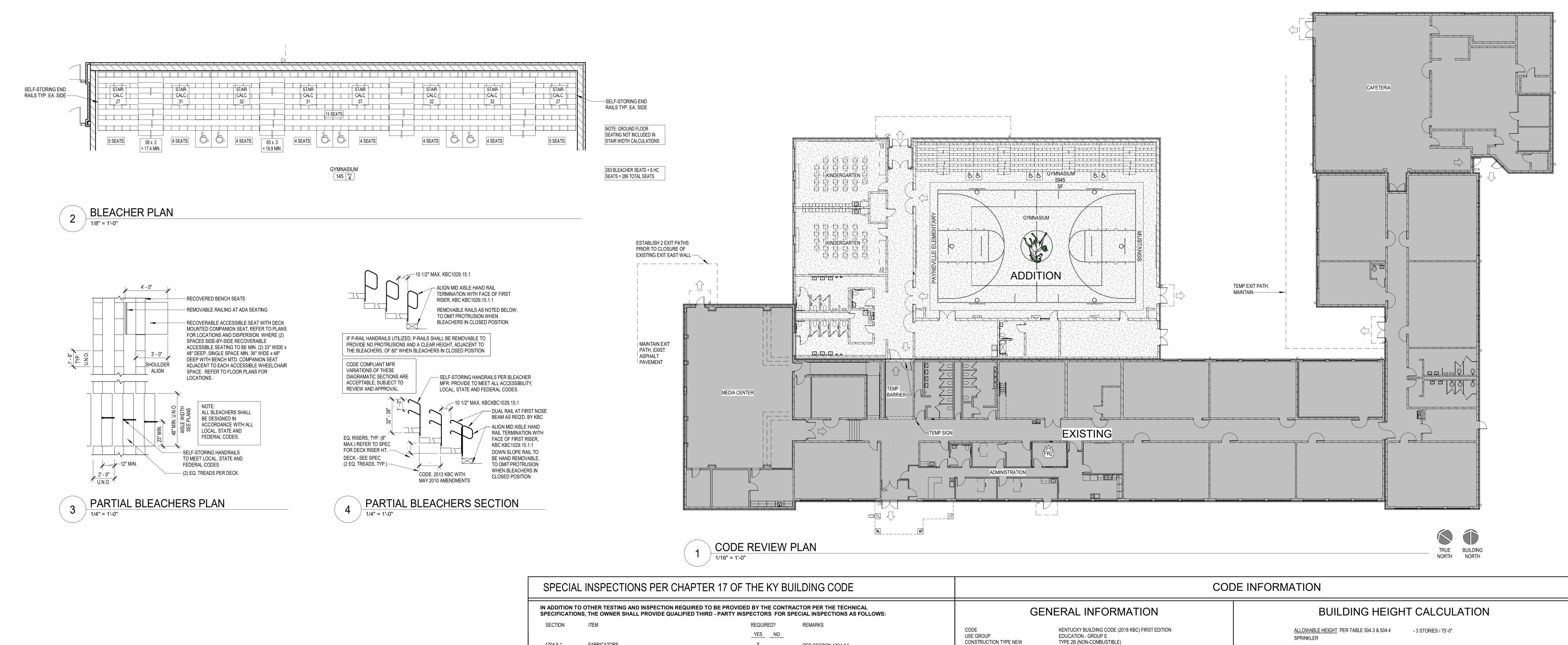


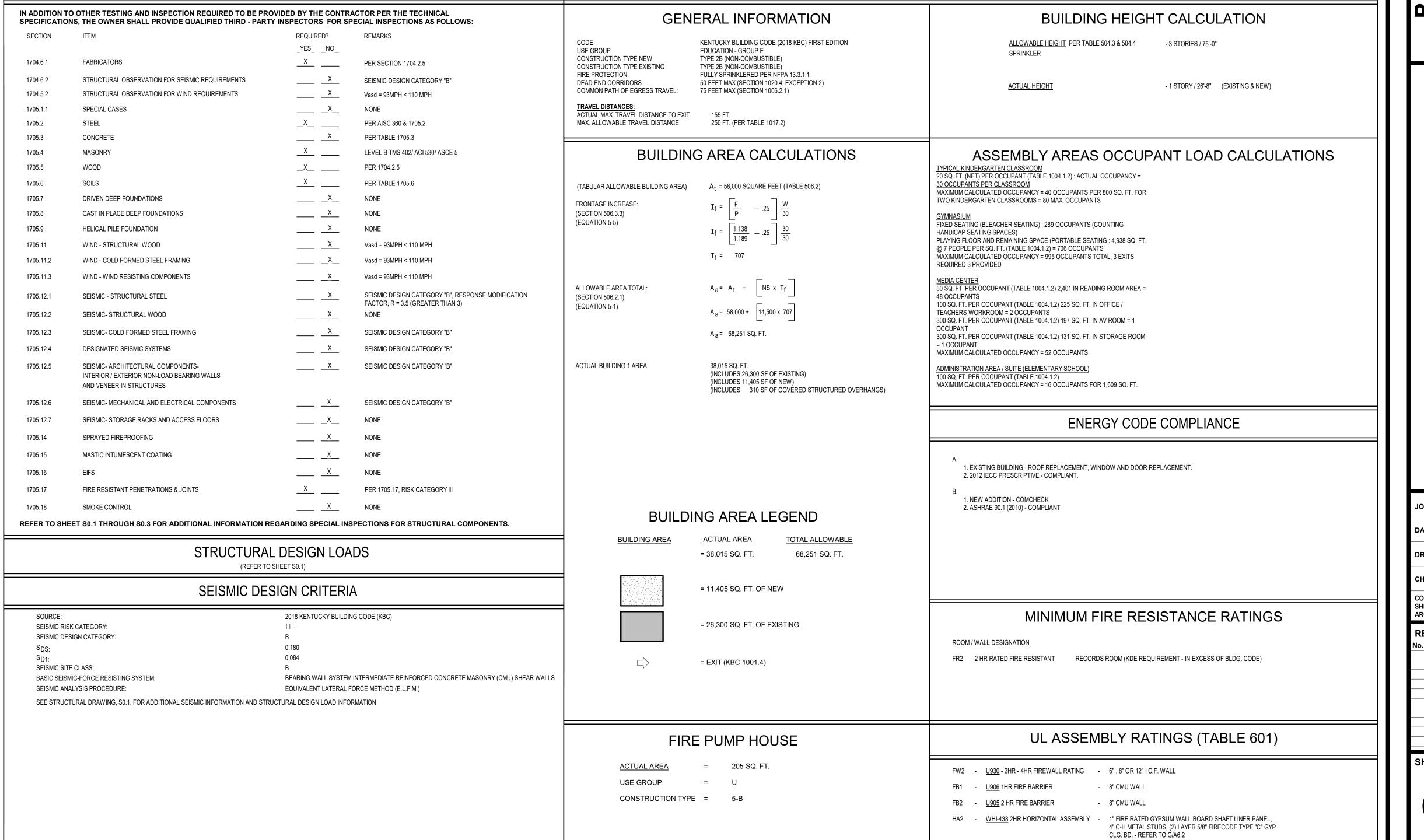






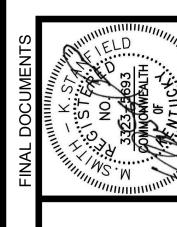






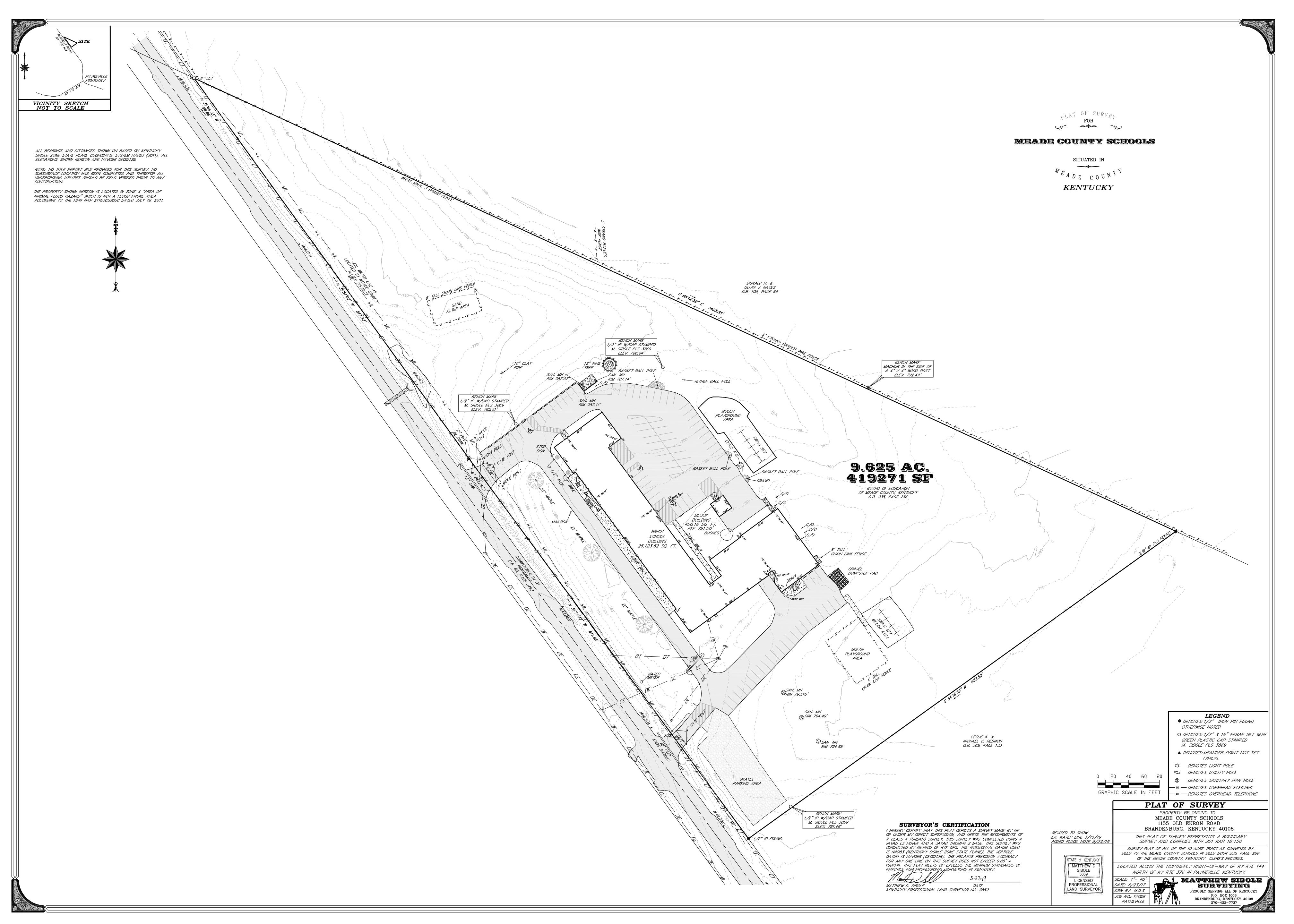
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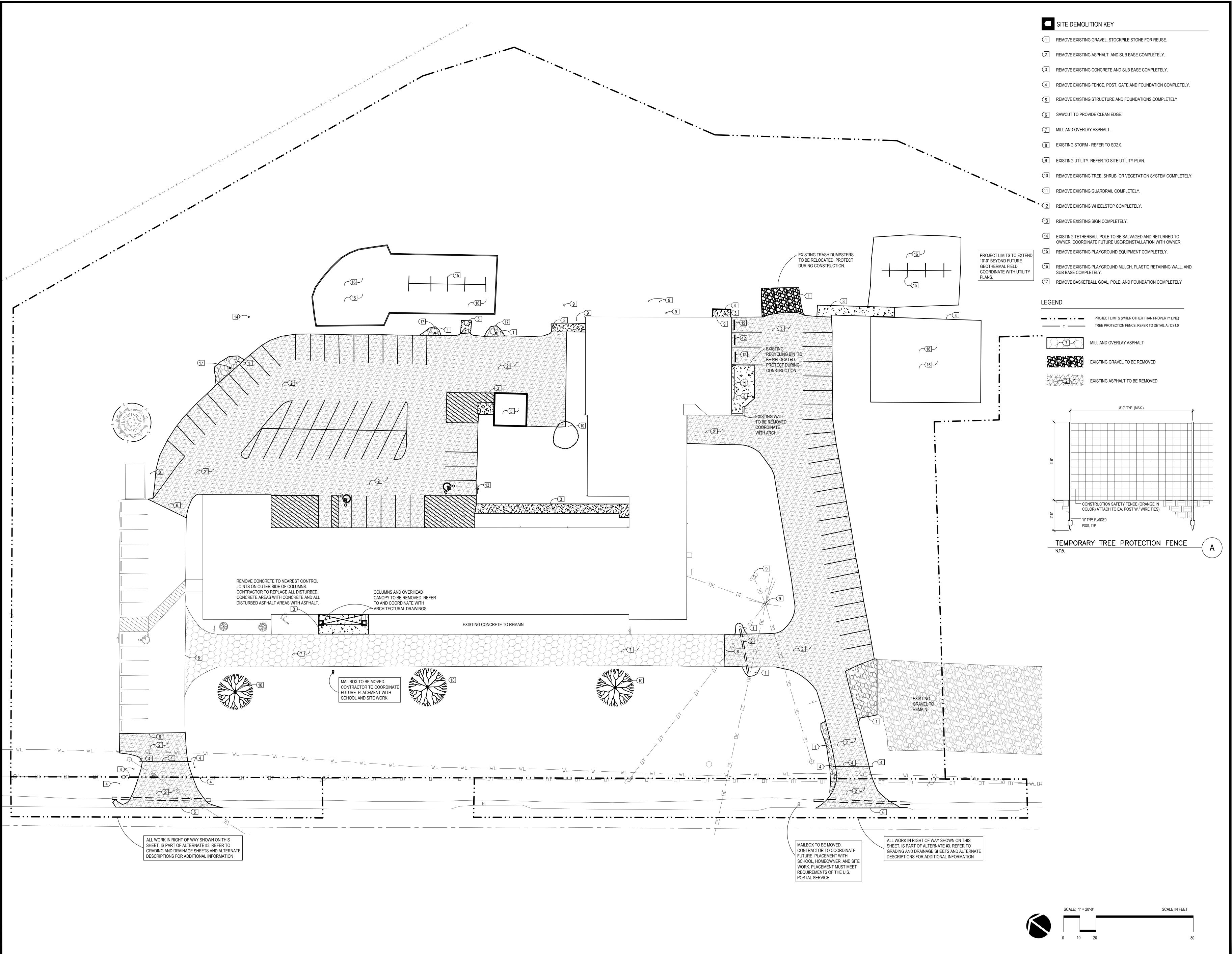




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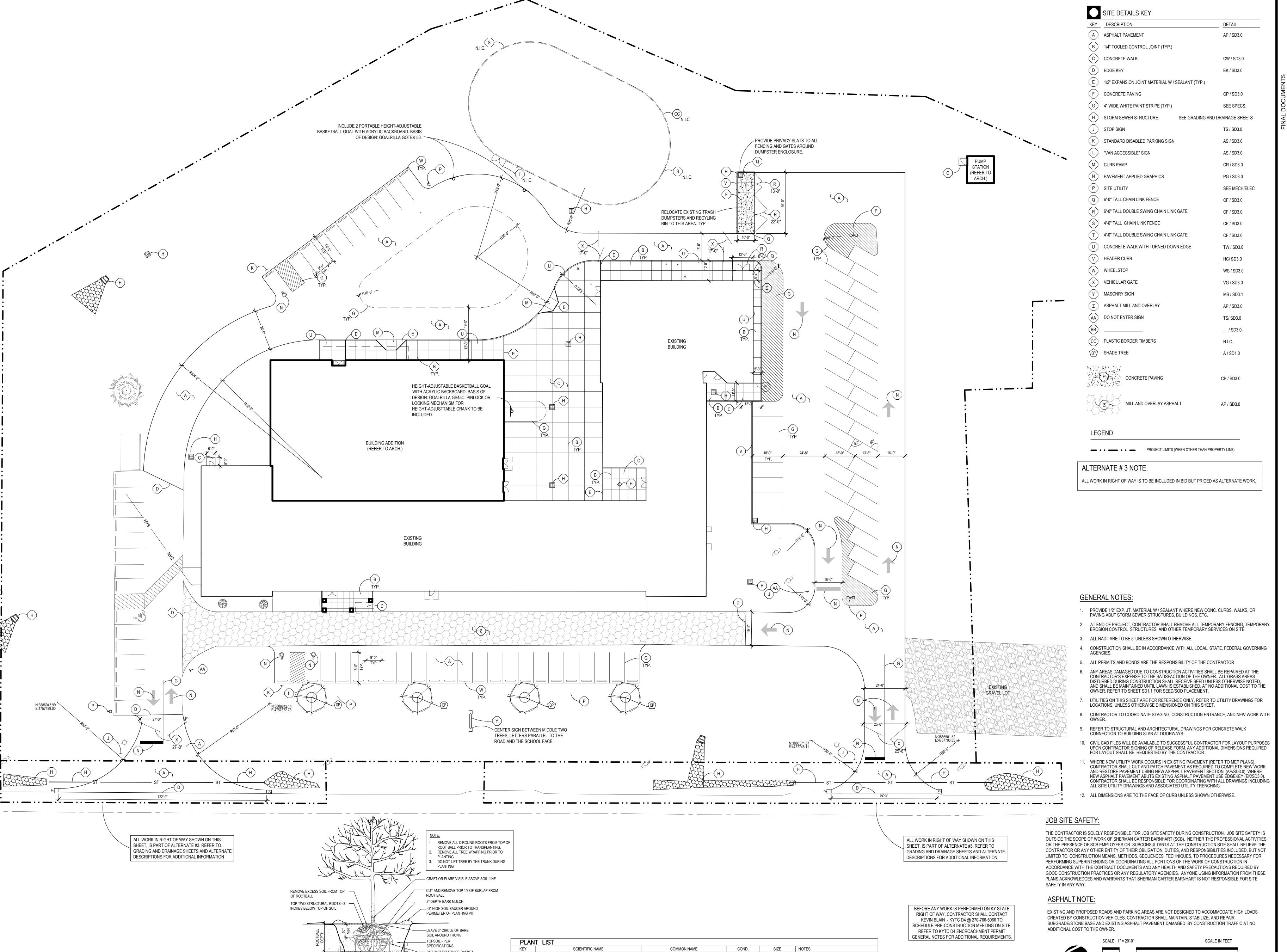




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DRAWN



WILLOW OAK

B & B 3" CAL.

- CUT AND FOLD WIRE BASKET

AWAY FROM ROOT BALL

- BREAK UP BOTTOM 3" OF EXISTING SOIL AT BOTTOM

OF PLANTING PIT

TREE PLANTING DETAIL (TYPICAL)

SHADE TREES

QP QUERCUS PHELLOS

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DESCRIPTION

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SCALE IN FEET

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COMPLY WITH SUGGESTIONS AND REQUIREMENTS SET BY LOCAL FIRE DEPARTMENT. VERIFY WEEKLY THAT SPILL CONTROL CLEAN UP MATERIALS ARE LOCATED NEAR MATERIAL STORAGE, UNLOADING AND USE AREAS. RESTOCK APPROPRIATE CLEAN

23. AFTER COMPLETION OF CONSTRUCTION, THE SITE CONTRACTOR SHALL PERFORM SITE CLEANUP TO REMOVE ALL TRASH, DEBRIS, EXCESS MATERIALS, EQUIPMENT, AND OTHER DELETERIOUS MATERIALS. ASSOCIATED WITH CONSTRUCTION. THE SITE CONTRACTOR IS EXPRESSLY RESPONSIBLE FOR ENSURING THE SITE IS CLEAN AND IN

24. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED AND

25. ALL SLOPES 4:1 AND STEEPER THAN 4:1 SHALL REQUIRE EROSION CONTROL BLANKET S150-NORTH AMERICAN GREEN

UP MATERIALS AFTER A SPILL INCIDENT HAS OCCURRED.

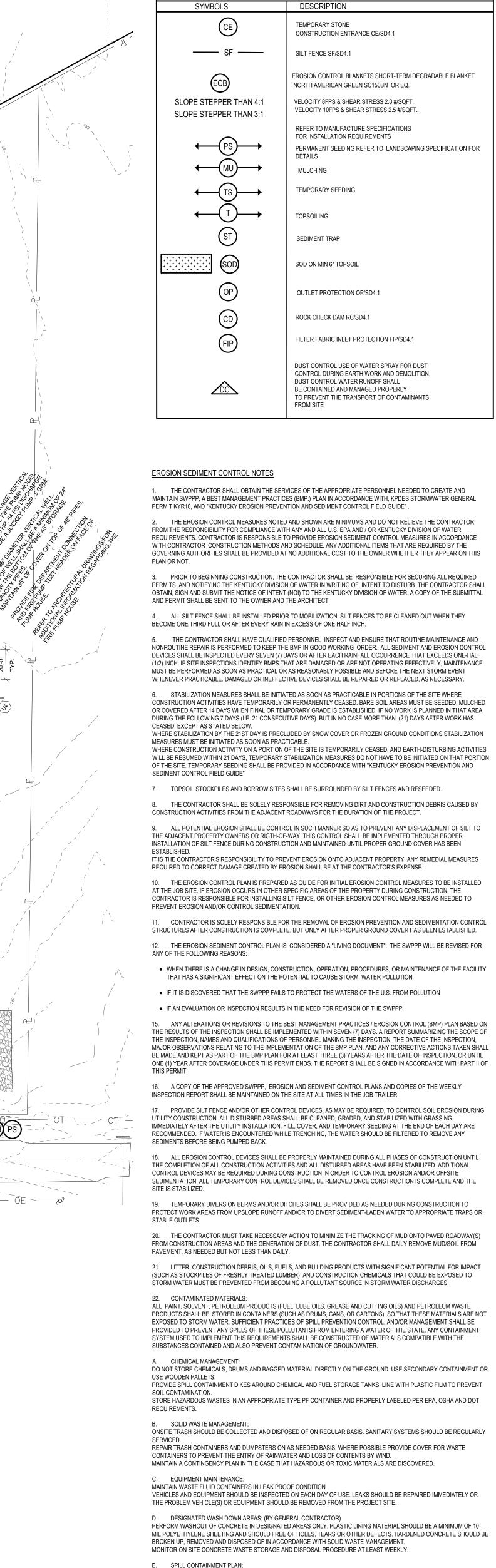
OPERABLE CONDITION AT THE TIME OF FINAL ACCEPTANCE.

TEMPORARY BEST MANAGEMENT PRACTICES (BMPS) ARE NO LONGER NEEDED.

OR EQ. REFER TO MANUFACTURE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

SCALE IN FEET

SCALE: 1" = 40'-0"



**EROSION CONTROL LEGEND** 

DESCRIPTION

TEMPORARY STONE

SILT FENCE SF/SD4.1

DETAILS MULCHING

TOPSOILING

SEDIMENT TRAP

SOD ON MIN 6" TOPSOIL

OUTLET PROTECTION OP/SD4.1

FILTER FABRIC INLET PROTECTION FIP/SD4.1

DUST CONTROL WATER RUNOFF SHALL BE CONTAINED AND MANAGED PROPERLY TO PREVENT THE TRANSPORT OF CONTAMINANTS

DUST CONTROL USE OF WATER SPRAY FOR DUST CONTROL DURING EARTH WORK AND DEMOLITION.

ROCK CHECK DAM RC/SD4.1

TEMPORARY SEEDING

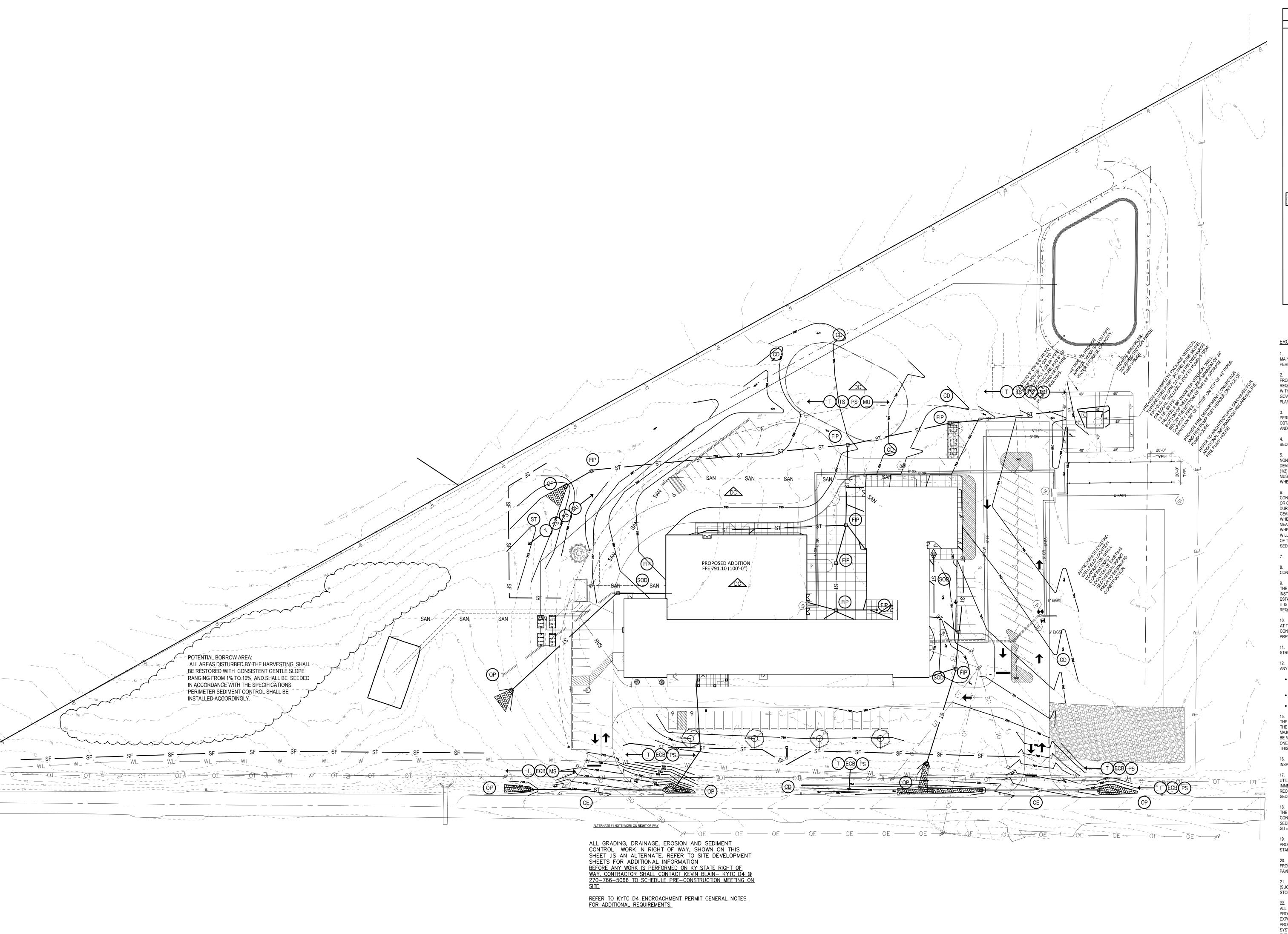
CONSTRUCTION ENTRANCE CE/SD4.1

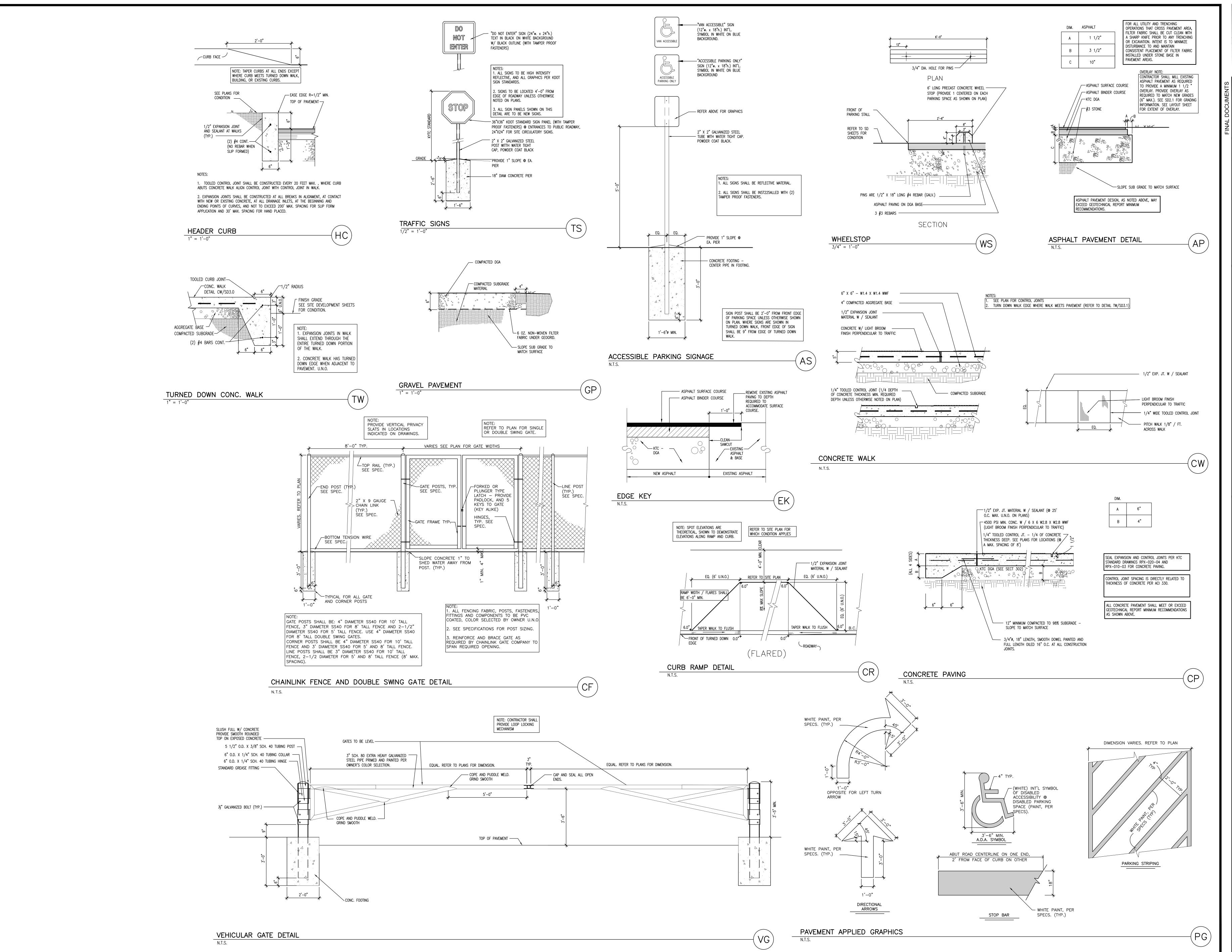
NORTH AMERICAN GREEN SC150BN OR EQ.

VELOCITY 8FPS & SHEAR STRESS 2.0 #/SQFT. VELOCITY 10FPS & SHEAR STRESS 2.5 #/SQFT.

REFER TO MANUFACTURE SPECIFICATIONS FOR INSTALLATION REQUIREMENTS

PERMANENT SEEDING REFER TO LANDSCAPING SPECIFICATION FOR





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ND ADDITION

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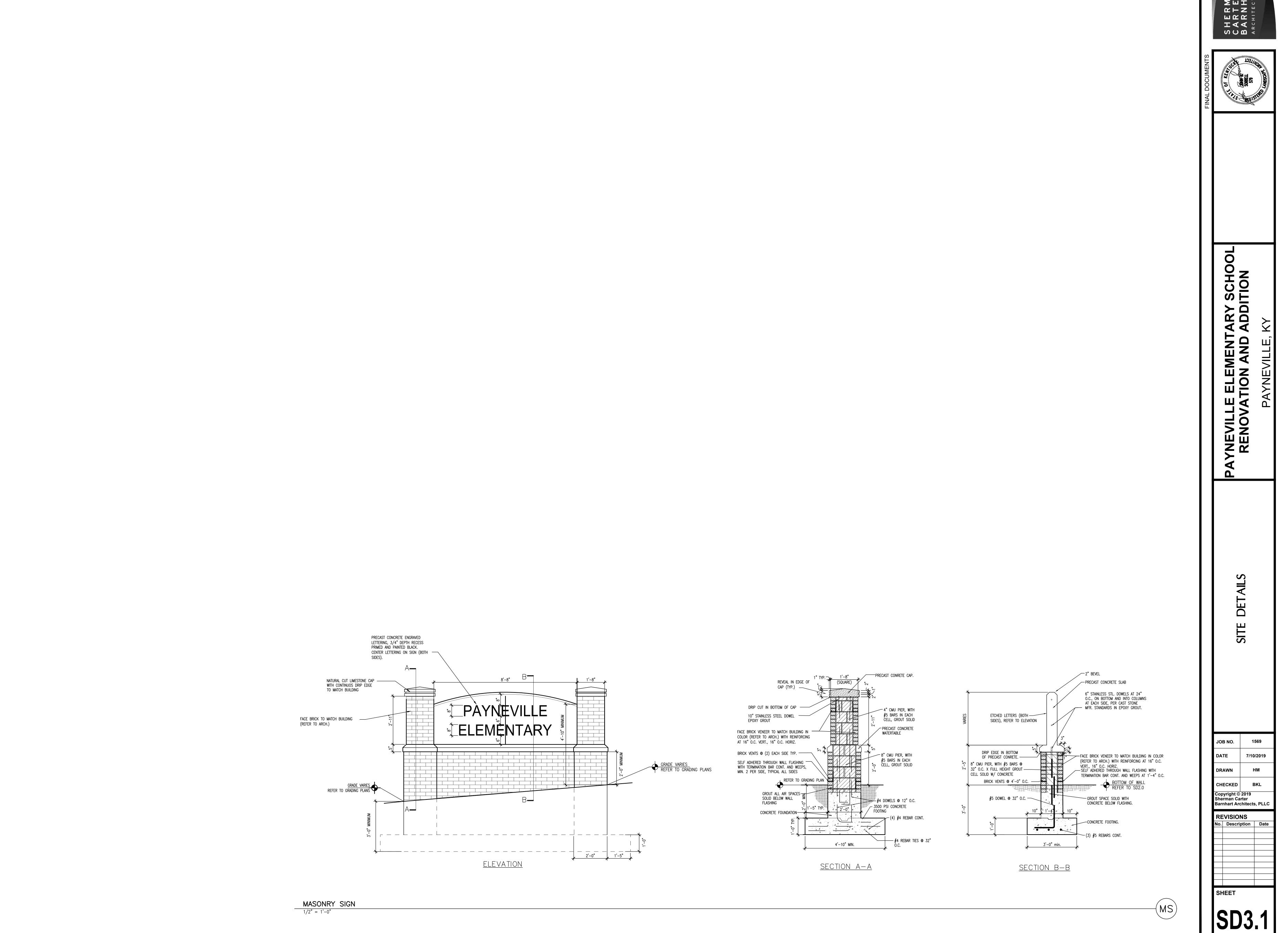
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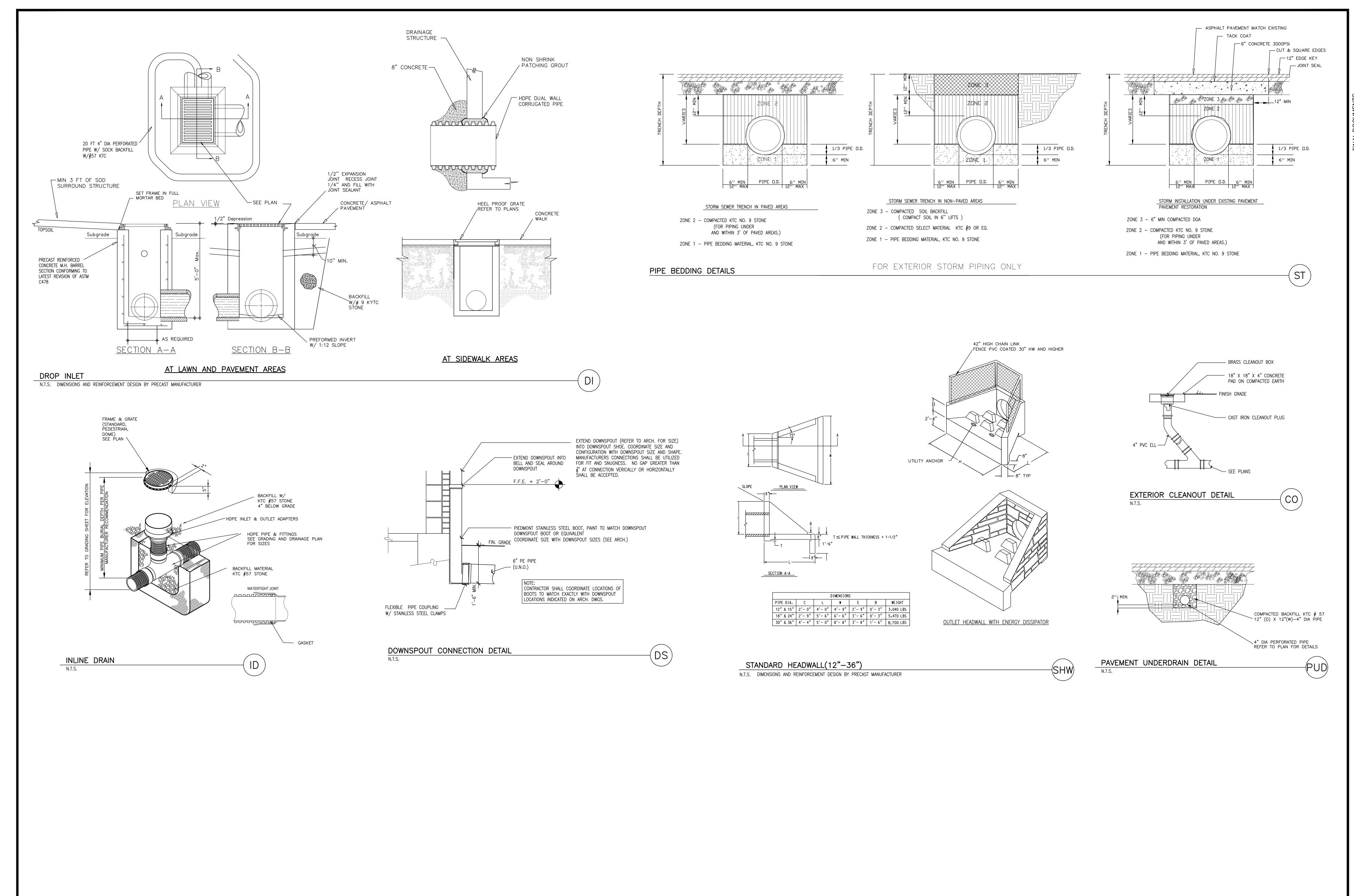
SHEET

SD3.0

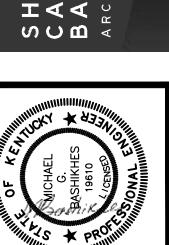


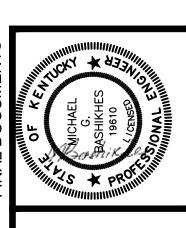
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SHERMAN CARTER BARNHART



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FARY SCHOOL ADDITION YNEVILLE ELI RENOVATIO

> **DETAILS** SITE

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CULVERT RIPRAP OUTLET PROTECTION

LOOSE RIP-RAP

PLAN

VARIES

SECTION B-B

R ---

DIMENSIONS UPSTREAM LINING DEPTH WIDTH 10" 5-7' 2-3' 16" 3-4' 16-18 4-6'

GRADED RIP-RAP HICKNESS | d50 (AVERAGE ROCK | DIAMETER)

THE STANDARD DEPTH SHOULD BE 24 INCHES. THE AVERAGE DEPTH SHOULD NOT BE LESS THAN CHANNEL LINING SHALL BE ESTIMATED ON THE BASIS OF 1.00 TON PER SQ WHEN RUBBLE-STONE RIP-RAP IS CONSTRUCTED IN LAYERS, THE LAYERS SHOULD BE THOROUGHLY TIED TOGETHER WITH LARGE STONES PROTRUDING FROM ONE LAYER INTO THE OTHER. ─ 6 OZ. NON-WOVEN

RUBBLE-STONE RIPRAP SHOULD CONSIST OF AT LEAST 90% OF THE STONE NOT LESS THAN 8 INCHES WIDE BY 12 INCHES LONG BY 12 INCHES DEEP AND SHOULD BE APPROXIMATELY RECTANGULAR IN SHAPE. RUBBLE-STONE SHOULD BE HAND PLACED SO THAT THE STONES ARE CLOSE TOGETHER, ARE STAGGERED AT ALL JOINTS AS FAR AS POSSIBLE, AND ARE PLACED SO AS TO REDUCE THE VOIDS TO A MINIMUM. THE MAIN STONE SHOULD BE THOROUGHLY "CHINKED" OR ANCHORED IN 1 IN. TO 3-IN. STONES BY THROWING THEM OVER THE SURFACE IN ANY MANNER THAT IS PRACTICAL FOR THE SMALLER STONES TO FILL THE VOIDS.

RIPRAP SHOULD NOT BE PLACED UNTIL FINAL SUBGRADE ELEVATION HAS BEEN ACHIEVED GEOTEXTILE SHOULD BE INSTALLED TO MAINTAIN SEPARATION O FROCK MATERIAL FROM THE UNDERLYING SOIL. GEOTEXTILE SHOULD NOT BE SKETCHED OR OTHERWISE COMPROMISED. SECURE FABRIC WITH ANCHOR TRENCHES, STAKES, STAPLES OR ANY OTHER METHOD RECOMMENDED BY THE MANUFACTURER.

WHEN USED AS SLOPE PROTECTION, RIP RAP SHOULD BE KEYED INTO THE SLOPE TOE BY AT LEAST THE GREATER OF 6 INCHES OR ONE HALF RIPRAP DIAMETER.

— 4 OZ. NON-WOVEN GEOTEXTILE FABRIC SECTION A-A RIPRAP PLACEMENT SHOULD BE COMPLETED WITHIN A SHORT TIME PERIOD (LESS THAN A WEEK) TO MINIMIZE POTENTIAL DAMAGE RESULTING FROM STORMWATER RUNOFF.

LENGTH OF APRON

GRADE-0%

TOPSOIL STOCKPILE

N.T.S.

STORAGE VOLUME FOR THE NEXT STORM. TO THE ELEVATION OF THE DROP INLET STRUCTURE CREST. USE APPROPRIATE PERMANENT STABILIZATION METHODS TO STABILIZE

INSPECTIONS SHOULD BE MADE EVERY 7 CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH STORM THAT PRODUCES 1/2-INCHES OR MORE OF RAIN, IF THE FABRIC BECOMES CLOGGED, IT SHOULD BE REPLACED. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY 1/3 THE HEIGHT OF THE FENCE. TAKE CARE NOT TO DAMAGE OR UNDERCUT FABRIC WHEN REMOVING SEDIMENT. IF A SUMP IS USED, SEDIMENT SHOULD BE REMOVED WHEN IT FILLS APPROXIMATELY 1/3 THE DEPTH OF THE HOLE.MAINTAIN THE POOL AREA, ALWAYS PROVIDING ADEQUATE SEDIMENT STORM DRAIN INLET PROTECTION STRUCTURES SHOULD BE REMOVED ONLY AFTER THE DISTURBED AREAS ARE PERMANENTLY STABILIZED, REMOVE ALL CONSTRUCTION MATERIAL AND SEDIMENT, AND DISPOSE OF THEM PROPERLY, GRADE THE DISTURBED AREA

INSPECTION AND MAINTENANCE:

BARE AREAS AROUND THE INLET.

FABRIC INLET PROTECTION

N.T.S.

 $(\mathsf{OP})$ 

ATTACH FABRIC TO STEEL POSTS WITH HEAVY-DUTY PLASTIC TIES. ATTACH AT LEAST FOUR (4) EVENLY SPACED TIES IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN ALL CASES, AFFIX TIES IN NO LESS THAN FOUR (4) PLACES.

EXTEND THE FILTER FABRIC A MINIMUM OF 12-INCHES INTO THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR CRUSHED STONE AND COMPACT OVER THE FILTER FABRIC UNLESS THE FABRIC IS PNEUMATICALLY INSTALLED.

EXCAVATE A TRENCH 6-INCHES WIDE AND 6-INCHES DEEP AROUND THE OUTSIDE PERIMETER OF THE INLET UNLESS THE FABRIC IS INSTALL THE FILTER FABRIC TO A MINIMUM HEIGHT OF 24-INCHES ABOVE GRADE. SPACE THE POSTS AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3-FEET APART AND DRIVE THEM INTO THE GROUND A MINIMUM OF 24-INCHES. CUT THE FILTER FABRIC FROM A CONTINUOUS ROLL TO THE LENGTH OF THE PROTECTED AREA TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, WRAP FILTER FABRIC TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST, WITH A MINIMUM 6-INCH OVERLAP.

USE FILTER FABRIC THAT CONFORMS TO DOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

4 OZ NON-WOVEN ← DROP INLET /GUTTER INLET SET FRAME CASTING IN FULL BED OF MASTIC FILTER FABRIC THIS DETAIL WILL ALSO APPLY TO GUTTER INLET WHEN ROAD PAVEMENT IS NOT COMPLETED REFER TO SIP/SD4.1 FOR APPLICATION AT PAVED CONDITIONS 4" PERFORATED PIPE W/ FILTER FABRIC -INVERT 16"-BELOW GRADE IN LAWN AREAS INVERT 22" BELOW GRADE IN PAVED AREAS COMPLETELY SURROUND STRUCTURE BACKFILL W/#57 KTC FILTER FABRIC UNDER GRATE

ATTACH WITH 1-1/2" IN STAPLES FOR HARDWOOD POSTS USE EITHER FLAT-BOTTOM OR V-BOTTOM TRENCH SHOWN BELOW SILT FENCE INSTALLATION FILTER FABRIC FILTER FABRIC COMPACTED RUNOFF 8-IN.

(MINIMUM)

DO NOT PLACE SILT FENCE ACROSS CHANNELS OR USE IT AS A VELOCITY CONTROL BMP.

YARNS RETAIN DIMENSIONAL STABILITY RELATIVE TO EACH OTHER.

FLAT-BOTTOM TRENCH DETAIL

SILT FENCE DETAIL

WHEN AND WHERE TO USE It

MAINTENANCE AND CLEAN OUT.

GEOTEXTILE FILTER FABRIC

MINIMUM WIDTH OF 36 INCHES.

WITH A SLICING METHOD.

INSPECTION AND MAINTENANCE

CHECK FOR SEDIMENT BUILDUP AND FENCE INTEGRITY.

TRAPPED SEDIMENT FROM THE SITE OR STABILIZE IT ON SITE.

REINFORCED SILT FENCE / SILT FENCE

NEEDED. PERMANENTLY STABILIZE DISTURBED AREAS RESULTING FROM FENCE REMOVAL

SILT FENCE IS APPLICABLE IN AREAS:

1.25 LB./LINEAR FT. STEEL POSTS/ 2 IN X 2 IN HARDWOOD POSTS FILTER FABRIC FOR REINFORCED SILT FENCE 1.33 LB/LINEAR FT STEEL POSTS 6 IN X 6 IN WIRE MESH 14 GA ATTACH WITH WIRE TIE EXTEND WIRE MESH 6 IN INTO THE TRENCH HEAVY DUTY PLASTIC TIE BACKFILL TRENCH WITH FOR STEEL POSTS COMPACTED EARTH 2 IN WIDE LATH

ROCK CHECK DAM

N.T.S.

TYPICAL CHECK DAM SECTION

- 12-INCH D50 RIPRAP TOP OF BANK-1-INCH D50 WASHED STONE-AT CENTER 0.5-FT LENGTH AS REQUIRED IN FIELD TO KEY SEDIMENT IS INTO SIDE OF SLOPES OF DITCH NOTE: ROCK CHECK TO BE REMOVED BY NON-WOVEN GEOTEXTILE FABRIC GRADING CONTRACTOR AFTER CONSTRUCTION IS COMPLETE AND GRASSING IS ESTABLISHED

SPACING BETWEEN CHECK DAMN

INSPECT ROCK DITCH CHECKS EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OR MORE OF PRECIPITATION. INSPECT FOR SEDÍMENT AND DEBRIS ACCUMULATION. INSPECT CHECK DAM EDGES FOR EROSION AND REPAIR PROMPTLY AS REQUIRED. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 1/3 THE ORIGINAL CHECK HEIGHT. IN THE CASE OF GRASS-LINED DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE UNLESS THE SLOPE OF THE SWALE IS GREATER THAN 4%. AFTER CONSTRUCTION IS COMPLETE, ALL STONE SHOULD BE REMOVED BY THE GRADING CONTRACTOR IF VEGETATION WILL BE USED FOR PERMANENT EROSION CONTROL MEASURES. THE AREA BENEATH THE ROCK DITCH CHECKS SHOULD BE SEEDED AND MULCHED IMMEDIATELY

STONE SHOULD BE PLACED OVER THE CHANNEL BANKS TO PREVENT WATER FROM CUTTING AROUND THE CHECK DAM. THE ROCK MUST BE PLACED BY HAND OR MECHANICAL PLACEMENT (NO DUMPING OF ROCK TO FORM DAMN) TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO ENSURE THAT THE CENTER OF THE CHECK IS LOWER THAN THE EDGES. THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM CHECK IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM CHECK. **INSPECTION AND MAINTENANCE:** 

/18-IN.

/(MINIMUM)

FILTER FABRIC

V-SHAPED TRENCH DETAIL

PLACE 12-INCHES OF GEOTEXTILE FABRIC INTO THE 6-INCH DEEP TRENCH, EXTENDING THE REMAINING 6-INCHES TOWARDS THE UPSLOPE SIDE OF THE TRENCH. BACKFILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACT. BURY 12-INCHES OF FABRIC INTO THE GROUND WHEN PNEUMATICALLY INSTALLING SILT FENCE

PURCHASE FABRIC IN CONTINUOUS ROLLS AND CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, WRAPPED THE FABRIC

INSTALL POSTS TO A MINIMUM DEPTH OF 24-INCHES. INSTALL POSTS A MINIMUM OF 1- TO 2- INCHES ABOVE THE FABRIC, WITH NO MORE THAN 3-FEET OF

SPACE POSTS TO MAXIMUM 6-FEET CENTERS. ATTACH FABRIC TO WOOD POSTS USING STAPLES MADE OF HEAVY-DUTY WIRE AT LEAST 1½-INCH LONG, SPACED A MAXIMUM OF 6-INCHES APART. STAPLE A 2-INCH WIDE LATHE OVER THE FILTER FABRIC TO SECURELY FASTEN IT TO THE UPSLOPE SIDE OF WOODEN

ATTACH FABRIC TO THE STEEL POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR

FENCE THE PROPER DISTANCE FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.

INSPECT EVERY SEVEN CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OR MORE OF PRECIPITATION.

FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE SECTION OF FENCE IMMEDIATELY.

CHECK WHERE RUNOFF HAS ERODED A CHANNEL BENEATH THE FENCE, OR WHERE THE FENCE HAS SAGGED OR COLLAPSED BY FENCE OVERTOPPING. IF THE

REMOVE SEDIMENT ACCUMULATED ALONG THE FENCE WHEN IT REACHES 1/3 THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED. REMOVE

REMOVE SILT FENCE WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BEST MANAGEMENT PRACTICES (BMPS) ARE NO LONGER

INSTALL THE FABRIC A MINIMUM OF 24-INCHES ABOVE THE GROUND. WHEN NECESSARY, THE HEIGHT OF THE FENCE ABOVE GROUND MAY BE GREATER THAN

LOCATE SILT FENCE CHECKS EVERY 100 FEET MAXIMUM AND AT LOW POINTS. INSTALL THE FENCE PERPENDICULAR TO THE DIRECTION OF FLOW AND PLACE THE

WHERE THE MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE FENCE IS 100-FEET. WHERE THE MAXIMUM SLOPE STEEPNESS (NORMAL [PERPENDICULAR] TO FENCE LINE) IS 2H:1V. THAT DO NOT RECEIVE CONCENTRATED FLOWS GREATER THAN 0.5 CFS.

THE FENCE SHOULD BE LOCATED AT LEAST 10 -FEET FROM THE TOE OF SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR

FILTER FABRIC IS: COMPOSED OF FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS COMPOSED OF AT LEAST 85% BY WEIGHT OF POLYOLEFINS, POLYESTERS, OR POLYAMIDES. FORMED INTO A NETWORK SUCH THAT THE FILAMENTS OR

FREE OF ANY TREATMENT OR COATING WHICH MIGHT ADVERSELY ALTER ITS PHYSICAL PROPERTIES AFTER INSTALLATION. FREE OF DEFECTS OR FLAWS THAT SIGNIFICANTLY AFFECT ITS PHYSICAL AND/OR FILTERING PROPERTIES. CUT TO A

EXCAVATE A TRENCH APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP WHEN PLACING FABRIC BY HAND.

TOGETHER AT A SUPPORT POST WITH BOTH ENDS FASTENED TO THE POST, WITH A 6-INCH MINIMUM OVERLAP.

TEARING OF THE FABRIC. IN CALL CASES, TIES SHOULD BE AFFIXED IN NO LESS THAN 4 PLACES.

THE FENCE SHOULD BE PLACED ACROSS THE SLOPE ALONG A LINE OF UNIFORM ELEVATION (PERPENDICULAR TO THE DIRECTION OF FLOW).

A NON-WOVEN GEOTEXTILE FABRIC SHALL BE INSTALLED OVER THE SOIL SURFACE WHERE THE CHECK DAM IS TO BE PLACED. THE BODY OF THE CHECK DAM SHALL BE COMPOSED OF 12-INCH D50 RIPRAP. THE UPSTREAM FACE OF THE CHECK DAM MAY BE COMPOSED OF 1-INCH D50 WASHED STONE. CHECK DAMS SHOULD NOT EXCEED A HEIGHT OF 2-FEET AT THE CENTERLINE OF THE CHANNEL. CHECK DAMS SHOULD HAVE A MINIMUM TOP FLOW LENGTH OF 2-FEET.

A ROCK CHECK DAM SHOULD BE INSTALLED IN STEEPLY SLOPED SWALES, OR IN SWALES WHERE ADEQUATE VEGETATION CANNOT BE ESTABLISHED. CHECK DAMNS SHOULD BE USED ONLY IN SMALL OPEN CHANNELS. CHECK DAMNS SHOULD NOT BE PLACED IN WATERS OF THE COMMONWEALTH OR USGS BLUE-LINE STREAMS.

WHEN AND WHERE TO USE IT:

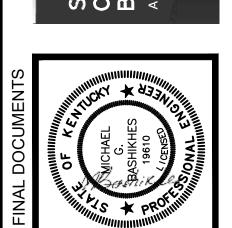
ROCK CHECK DAM

**CROSS SECTION A-A** 

AFTER CHECK DAM REMOVAL.

PLACE STONE

OVER CHANNEL BANKS OVERFLOW AT CENTER GEOTEXTILE FABRIC



7/10/2019

CHECKED

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Description Date

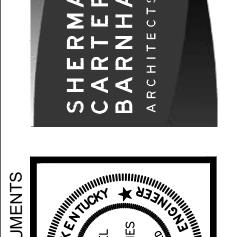
Sherman Carter

REVISIONS

SHEET

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4



BASIN OR OTHER SEDIMENT TRAPPING STRUCTURE. 8" CULVERT #2 KTC STONE WITH A 6-INCH MINIMUM DEPTH UNDERLINING NON-WOVEN GEOTEXTILE FABRIC PER DOT STANDARD HIGHWAY SPECIFICATION STABILIZED CONSTRUCTION ENTRANCE WHEN AND WHERE TO USE IT STABILIZED CONSTRUCTION ENTRANCES SHOULD BE USED AT ALL POINTS WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD. IMPORTANT CONSIDERATIONS IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFFSITE. WASHDOWN FACILITIES SHALL BE REQUIRED AS DIRECTED BY INSPECTOR AS NEEDED. WASHDOWN AREAS IN GENERAL MUST BE ESTABLISHED WITH CRUSHED GRAVEL AND DRAIN INTO A SEDIMENT TRAP OR SEDIMENT BASIN. CONSTRUCTION ENTRANCES SHOULD BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP

REMOVE ALL VEGETATION AND ANY OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.

DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM STONES TO A SEDIMENT TRAP OR BASIN.

INSPECTION AND MAINTENANCE:

EXTEND THE USEFUL LIFE OF STONE.

ABOVE AND ON

A SIDES OF HEADWALL WITH RIP RAP

REPAIR ANY BROKEN PAVEMENT IMMEDIATELY.

CONSTRUCTION ENTRANCE

INSTALL A NON-WOVEN GEOTEXTILE FABRIC PRIOR TO PLACING ANY STONE. INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED

THE EDGES OF THE ENTRANCE SHALL BE TAPERED OUT TOWARDS THE ROAD TO PREVENT TRACKING OF MUD AT THE EDGE OF THE ENTRANCE.

INSPECT CONSTRUCTION ENTRANCES EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS AFTER EACH RAINFALL EVENT THAT

WASH OR REPLACE STONES AS NEEDED AND AS DIRECTED BY THE INSPECTOR. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES. FREQUENT WASHING WILL

PRODUCES ½-INCHES OR MORE OF PRECIPITATION, OR AFTER HEAVY USE. CHECK FOR MUD AND SEDIMENT BUILDUP AND PAD

IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. FLUSHING

INTEGRITY. MAKE DAILY INSPECTIONS DURING PERIODS OF WET WEATHER. MAINTENANCE IS REQUIRED MORE FREQUENTLY IN WET

THE ENTRANCE SHALL CONSIST OF #2 KTC STONE PLACED AT A MINIMUM DEPTH OF 6-INCHES. MINIMUM DIMENSIONS OF THE ENTRANCE

SHALL BE 24-FEET WIDE BY 100-FEET LONG, AND MAY BE MODIFIED AS NECESSARY TO ACCOMMODATE SITE CONSTRAINTS.

WEATHER CONDITIONS. RESHAPE THE STONE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.

SHOULD ONLY BE USED WHEN THE WATER CAN BE DISCHARGED TO A SEDIMENT TRAP OR BASIN.

EDGES SHALL BE TAPERED OUT TOWARDS ROAD TO

ON THE EDGES

PREVENT TRACKING OF MUD

INSTALL A CULVERT PIPE ACROSS THE ENTRANCE WHEN NEEDED TO PROVIDE POSITIVE DRAINAGE.

DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE

PAD TO A SEDIMENT TRAP OR

ABOVE AND ON

HEADWALL WITH

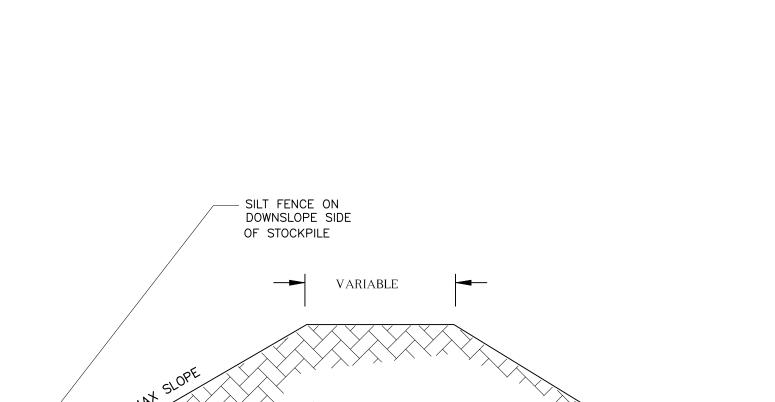
RUBBLE-STONE RIPRAP (PLAIN)

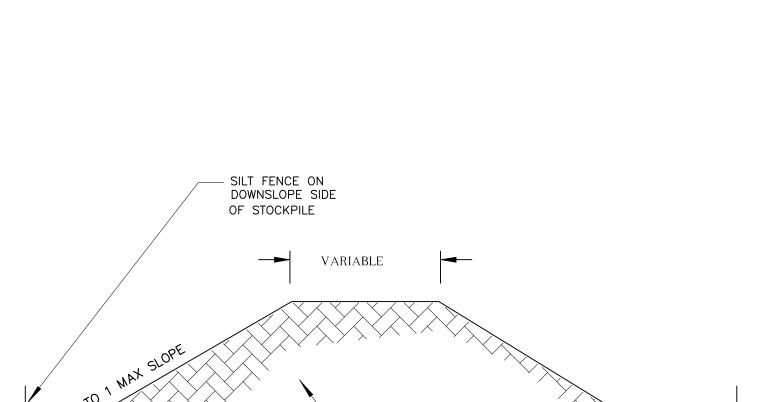
RIP RAP.....

GEOTEXTILE FABRIC

LOOSE RIP-RAP (12")

SILT FENCE ON DOWNSLOPE SIDE OF STOCKPILE

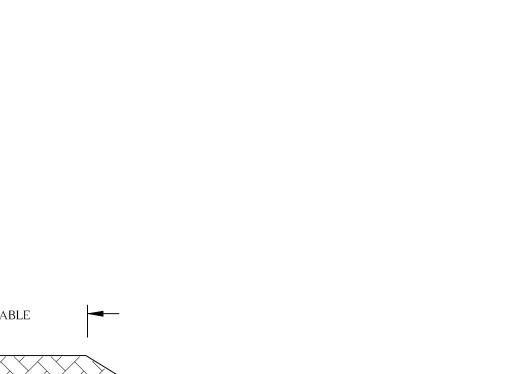


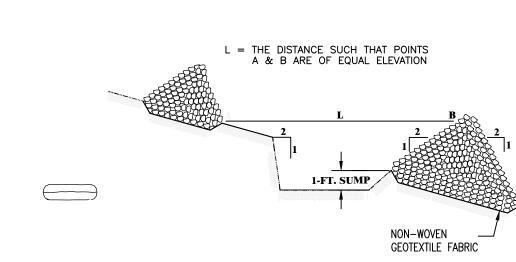


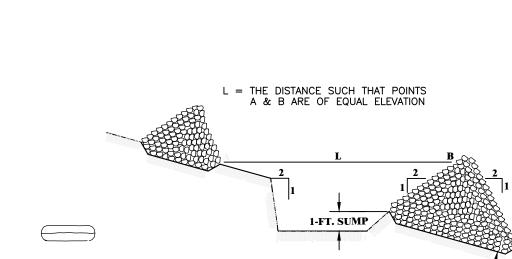
STOCKPILE TOP AND SIDES TO

BE STABILIZED IMMEDIATELY WITH TEMPORARY SEED,

FERTILIZER, AND LIME, ETC.,

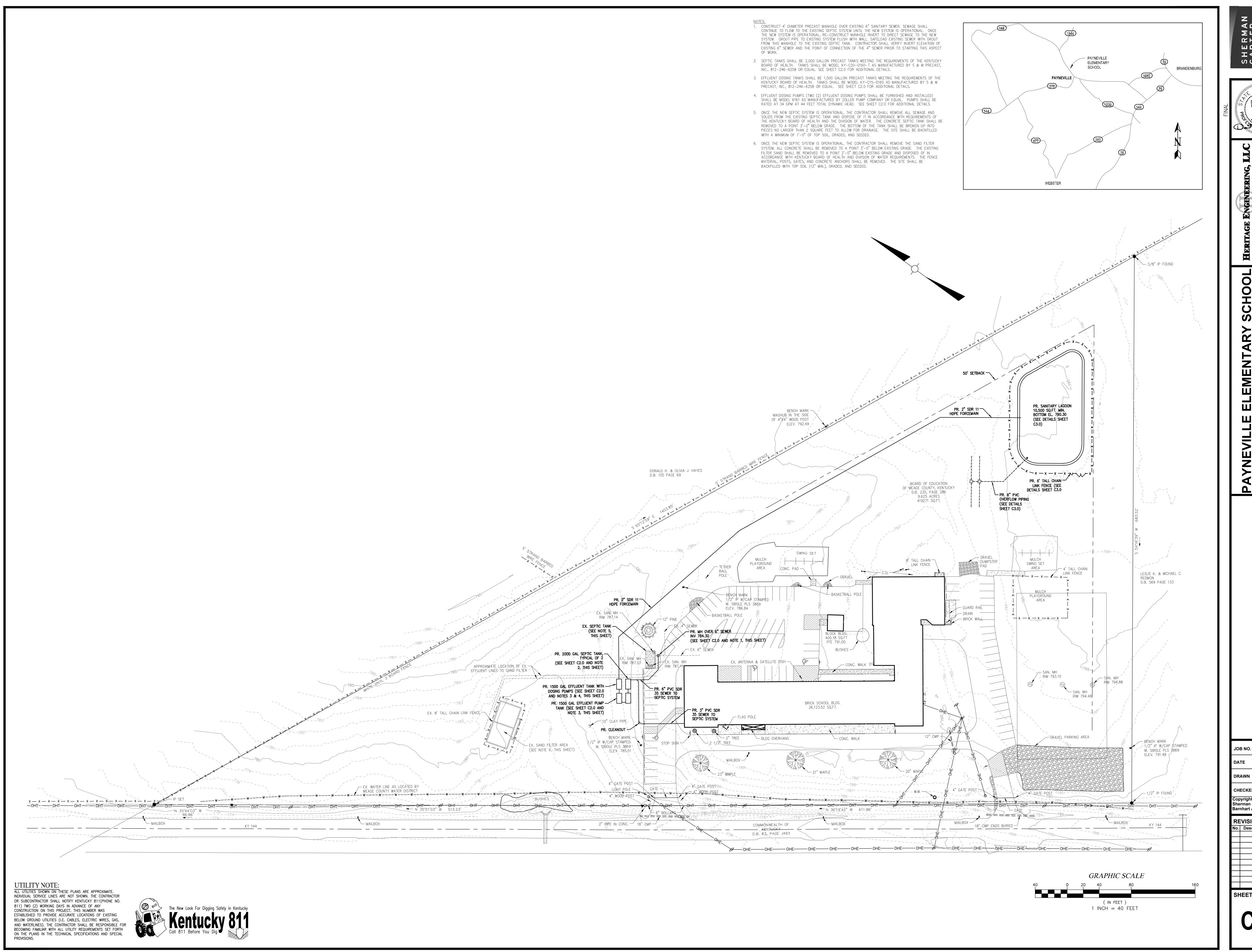












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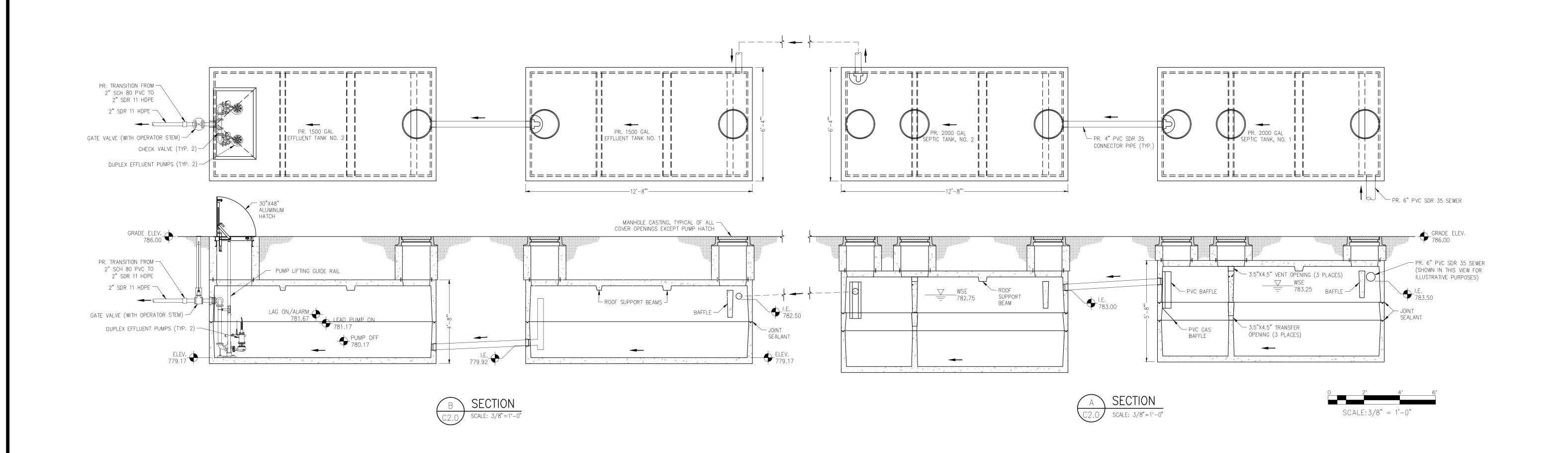
07/10/2019

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**REVISIONS** No. Description Date





MANUFACTURED BY S & M PRECAST, INC., 812-246-6258 OR EQUAL.

3. EFFLUENT DOSING TANKS SHALL BE 1,500 GALLON PRECAST TANKS MEETING THE

REQUIREMENTS OF THE KENTUCKY BOARD OF HEALTH. TANKS SHALL BE MODEL KY-C15-0160 AS MANUFACTURED BY S & M PRECAST, INC., 812-246-6258 OR

4. EFFLUENT DOSING PUMPS (TWO (2) EFFLUENT DOSING PUMPS SHALL BE FURNISHED AND

5. ONCE THE NEW SEPTIC SYSTEM IS OPERATIONAL, THE CONTRACTOR SHALL REMOVE ALL

SEWAGE AND SOLIDS FROM THE EXISTING SEPTIC TANK AND DISPOSE OF IT IN ACCORDANCE WITH REQUIREMENTS OF THE KENTUCKY BOARD OF HEALTH AND THE DIVISION OF WATER. THE CONCRETE SEPTIC TANK SHALL BE REMOVED TO A POINT 3'-0" BELOW GRADE. THE BOTTOM OF THE TANK SHALL BE BROKEN UP INTO PIECES NO LARGER THAN 2 SQUARE FEET TO ALLOW FOR DRAINAGE. THE SITE SHALL BE BACKFILLED WITH A MINIMUM OF 1'-0" OF TOP SOIL, GRADED, AND SEEDED.

6. VERIFY LOCATION OF EXISTING SEPTIC TANK EFFLUENT LINES PRIOR TO STARTING THIS

GRAPHIC SCALE

( IN FEET ) 1 INCH = 10 FEET

ASPECT OF THE WORK.

7. ABANDON EXISTING EFFLUENT PUMP AND POWER SUPPLY.

INSTALLED) SHALL BE MODEL 6161 AS MANUFACTURED BY ZOLLER PUMP COMPANY OR EQUAL. PUMPS SHALL BE RATED AT 34 GPM AT 44 FEET TOTAL DYNAMIC HEAD.

ADDITION

SYSTEM SECTIONS

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RE	VISIO	NS				
ο.	Descri	ption	Date			

UTILITY NOTE:

ALL UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. INDIVIDUAL SERVICE LINES ARE NOT SHOWN. THE CONTRACTOR OR SUBCONTRACTOR SHALL NOTIFY KENTUCKY 811(PHONE NO.

ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF EXISTING BELOW GROUND UTILITIES (I.E. CABLES, ELECTRIC WIRES, GAS, AND WATERLINES). THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL UTILITY REQUIREMENTS SET FORTH ON THE PLANS IN THE TECHNICAL SPECIFICATIONS AND SPECIAL

811) TWO (2) WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. THIS NUMBER WAS

2" SDR 11 HDPE TO — PR. SANITARY/LAGOON

PR. TRANSITION FROM —

2" SDR 11 HDPE (

PR. 1500 GAL EFFLUENT

PR. 1500 GAL EFFLUENT TANK NO. 1

(SEE NOTE 3, THIS SHEET)

(SEE NOTE 3, THIS SHEET)

TANK NO. 2

DUPLEX EFFLUENT PUMPS

2" SCH 80 PVC TO

APPROXIMATE LOCATION — OF EX. EFFLUENT LINES

(SEE NOTE 6, THIS SHEET)

PR. CLEANOUT —

(SEE NOTE 2, THIS

PLAN
SCALE: 1"=10"

35 SEWER TO

SEPTIC SYSTEM © 1.00% SLOPE

PR. 3" PVC SDR — 35 SEWER TO SEPTIC SYSTEM @

1.00% SLOPE

CONNECT PR. 3" PVC SDR 35 TO PR. BUILDING SEWER -APPROX. 5' OUTSIDE OF THE EX. BUILDING LINE. INVERT ELEV. 784.75. FIELD VERIFY PRIOR TO CONSTRUCTION.

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BRANDENBURG

JOB NO.

**REVISIONS** No. Description Date

3" WIDE STAINLESS STEEL. STRAP ANCHORED TO CONCRETE POST AS REQUIRED — WATER LEVEL 

ELEVATION 794.80 

□ 6" PVC TEE ∕ 36" x 42" x 12" CONCRETE PAD ELEVATION 790.30 6" OVERFLOW PIPE CONCRETE POST 3'-0" #5 BARS @ 12" O.C. E.W. (TYP.)-COMPACTED GROUP 4 CLAY SEE SPECIFICATIONS SCALE: N.T.S. 6'-0" HIGH CHAIN LINK FENCE Z DRAINAGE SWALE ELEVATION 796.50 ELEVATION 790.30 NEW COMPACTED GROUP 4 CLAY
SEE SPECIFICATIONS LESLIE K. & MICHAEL C. 7 3" WIDE STAINLESS STEEL STRAP ANCHORED TO CONCRETE PAD AS REQUIRED D.B. 569 PAGE 133 ∠ 2" SDR 11 HDPE 36" x 36" x 4" CONCRETE PAD W/ 6X6 WI.4 X WI.4 W.W.F. SANITARY LAGOON 10,500 SQ.FT. MN. 2" SDR 11 HDPE FORCEMAIN — BÓTTOM EL. 790.30 23.0 SCALE: N.T.S. - DRAINAGE SWALE + 796.50 6' TALL CHAINLINK FENCE ---NO. 4 COARSE AGGREGATE (SEE DETAIL BELOW) 4" PERFORATED LATERAL ─ 6" OVERFLOW PIPING - 3' MAN GATE ─ 50' SETBACK — \_\_ "LUMP" BACKFILL MATERIAL ON TOP OF TRENCH (CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOR SETTLING, THEN RESTORE GROUND PER SPECS.) — ORIGINAL GROUND LINE COMPACT TO 95% STANDARD PROCTOR UNDISTURBED EARTH (TYP.) — GRAPHIC SCALE PLAN
SCALE: 1"=20' SLOPE OF TRENCH WALL PER IOSHA STANDARDS LOCATING TAPE FOR FORCE MAIN PER SPECIFICATIONS 1'— BELOW SURFACE. 6" MIN (ABOVE THE BELL) ( IN FEET ) 10 GAUGE COPPER LOCATING WIRE -TAPED TO SIDE OF FORCE MAINS. 1 INCH = 20 FEET4" MIN (BELOW THE BELL) (TURN UP AT BOTH ENDS) EXCAVATE BELL HOLE PRIOR \_\_ — #8 CRUSHED STONE CONSOLIDATED WITH PLATE COMPACTOR FORCEMAIN BACKFILL DETAIL SCALE: N.T.S. 3 STRANDS BARBED WIRE — 2" O.D. @ 2.72 -2 1/2" O.D. @ 3.65

GRADING NOTES

(144)

(144)

1) TOPSOIL IS TO BE STRIPPED FROM ALL CUT AND FILL AREAS, STOCKPILED AND REDISTRIBUTED OVER GRADED AREAS TO A MINIMUM DEPTH OF 6".

PAYNEVILLE

376

PAYNEVILLE

ELEMENTARY SCHOOL

2) ALL GRADED AREAS INCLUDING SLOPES ARE TO BE MULCHED AND SEEDED AS SOON AS POSSIBLE AFTER GRADING IS COMPLETED. CONSTRUCT SILT BARRIERS AS DETAILED IN THE EPSC PRIOR TO BEGINNING GRADING OPERATIONS. 3) ALL DIMENSIONS AND LOCATIONS OF TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES SHALL BE SUBJECT TO ADJUSTMENT AS DESIGNATED BY THE OWNER'S REPRESENTATIVE. 4) REPLACE SILT BARRIERS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

5) THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.

6) THE CONTRACTOR SHALL CHECK ALL FINISHED GRADES, EXISTING GRADES AND DIMENSIONS IN THE FIELD AND REPORT ANY DÍSCREPANCIES TO THE OWNER'S REPRESENTATIVE. 7) THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES AND RECEIVE APPROVAL WHERE NECESSARY BEFORE CONSTRUCTION.

8) LAGOON AND ALL ASSOCIATED PIPING SHALL BE CONSTRUCTED BY AN INSTALLER CERTIFIED BY THE STATE OF KENTUCKY. ALL WORK ASSOCIATED WITH THE SEPTIC SYSTEM SHALL CONFORM TO THE REQUIREMENTS OF 902 KAR 10:085 LATEST VERSION. THE CERTIFIED INSTALLER SHALL BE RESPONSIBLE FOR THE PERMIT FEE ASSOCIATED WITH THIS CONSTRUCTION. 9) BASED ON SOILS INVESTIGATION CONDUCTED TO DATE THERE IS NOT SUFFICIENT GROUP IV SOIL ON SITE TO CONSTRUCT THE PROPOSED

LÁGOON. EXCESS EXCAVATED MATERIALS MAY BE DISPOSED OF ON SITE, HAULED OFF SITE, AND/OR USED AS FILL ON THIS PROJECT, PROVIDED THEY MEET PROJECT REQUIREMENTS.

### **EPSC NOTES**

ACTIVITY ON THE CONSTRUCTION SITE. ANY MODIFICATIONS TO THE APPROVED EPSC PLAN MUST BE REVIEWED AND APPROVED BY LOCAL GOVERNING AGENCY'S DEVELOPMENT REVIEW OFFICE. EPSC BMP'S SHALL BE INSTALLED PER THE PLAN AND MSD STANDARDS. 2) ACTIONS SHALL BE TAKEN TO MINIMIZE THE TRACKING OF MUD AND SOIL FROM CONSTRUCTION AREAS ONTO PUBLIC ROADWAYS. SOIL TRACKED ONTO THE ROADWAY SHALL BE REMOVED DAILY. 3) SOIL STOCKPILES SHALL BE LOCATED AWAY FROM STREAMS, PONDS, SWALES AND CATCH BASINS. STOCKPILES SHALL BE SEEDED, MULCHED, AND ADEQUATELY CONTAINED THROUGH THE USE OF SILT FENCE. 4) WHERE CONSTRUCTION OR LAND DISTURBANCE ACTIVITY WILL OR HAS TEMPORARILY CEASED ON ANY PORTION OF A SITE, TEMPORARY SITE STABILIZATION MEASURES SHALL BE REQUIRED AS SOON AS PRACTICAL, BUT NO LATER THAN 14 CALENDAR DAYS AFTER THE ACTIVITY 5) SEDIMENT-LADEN GROUNDWATER ENCOUNTERED DURING TRENCHING, BORING OR OTHER EXCAVATION ACTIVITIES SHALL BE PUMPED TO A SEDIMENT TRAPPING DEVICE PRIOR TO BEING DISCHARGED INTO A STREAM, POND, OR CATCH BASIN. 6) CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT EDGE OF EXISTING PAVEMENT. CONTRACTOR SHALL WASH DOWN TRACKS AS NECESSARY IN EXISTING PAVED AREA.

1) THE APPROVED EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLAN SHALL BE IMPLEMENTED PRIOR TO ANY LAND-DISTURBING

VEHICULAR ENTRANCE GATE DETAIL UTILITY NOTE: ALL UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. INDIVIDUAL SERVICE LINES ARE NOT SHOWN. THE CONTRACTOR OR SUBCONTRACTOR SHALL NOTIFY KENTUCKY 811(PHONE NO. 811) TWO (2) WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. THIS NUMBER WAS ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF EXISTING BELOW GROUND UTILITIES (I.E. CABLES, ELECTRIC WIRES, GAS, AND WATERLINES). THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL UTILITY REQUIREMENTS SET FORTH ON THE PLANS IN THE TECHNICAL SPECIFICATIONS AND SPECIAL

BARBED WIRE ARMS-

4" O.D. @ 9.1 #/L.F. GATE POSTS

3/16"x3/4" FLAT — STRETCHER

BRACE BAND &

CLASS "B" CONCRETE (TYPICAL)

DONALD H. & OLIVIA J. HAYES

BOARD OF EDUCATION

OF MEADE COUNTY, KENTUCKY
D.B. 235, PAGE 286
9.625 ACRES
419271 SQ.FT.

30 L.F. 4" PERFORATED —

DISTRIBUTION BOXES —

₁ ∕ 1 5/8 O.D. 2.27 #/L.F.

LATERAL FIELD PIPE (TYP.)

50' SETBACK —

D.B. 105 PAGE 69

LOCKING DEVICE CATCH

1 5/8" BRACE -@ 2.27 #/L.F.

BRACE BAND AND TENSION BAND

ROD & TIGHTENER

CLASS 'B' CONCRETE (TYPICAL)

CHAIN LINK FENCE DETAIL

B. ALL REFERENCES TO CODES AND STANDARDS CONTAINED WITHIN THE CONTRACT DOCUMENTS ARE TO THE MOST RECENT ISSUE IN EFFECT AS OF THE DATE OF THESE DOCUMENTS UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS OR ON THE PLANS.

C. THESE DRAWINGS REPRESENT STRUCTURAL COMPONENTS OF THIS BUILDING IN THEIR FINAL AND COMPLETED STATE. CONSTRUCTION PROCEDURES, METHODS and MEANS (INCLUDING, BUT NOT LIMITED TO, TEMPORARY SHORING AND BRACING), SAFETY PRECAUTIONS AND / OR MECHANICAL REQUIREMENTS TO ERECT THE ELEMENTS OF THIS BUILDING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND / OR SUB-CONTRACTORS DOING THE WORK. THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH OSHA REGULATIONS.

D. THIS PROJECT INVOLVES RENOVATION AND ADDITIONS TO AN EXISTING FACILITY. THERE MAY BE UNDERGROUND UTLITIES PRESENT WITHIN THE FOOTPRINT OF THIS BUILDING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, IDENTIFY, AND PROTECT ALL EXISTING UNDERGROUND UTILITIES FROM DAMAGE DURING CONSTRUCTION. ADDITIONALLY, THE CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING FACILITIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE DONE TO THE EXISTING FACILITIES OR EXISTING UNDERGROUND UTILITIES DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER, AT NO ADDITIONAL COST.

E. THE USE OF REPRODUCTIONS OF THE STRUCTURAL DRAWINGS BY THE CONTRACTOR OR ANY SUB-CONTRACTOR, DETAILER, FABRICATOR, ERECTOR, MATERIAL SUPPLIER, ET. AL. IN LIEU OF OR TO FACILITATE THE PREPARATION OF SHOP OR ERECTION DRAWINGS WILL NOT BE PERMITTED. ELECTRONIC DRAWING FILES WILL NOT BE PROVIDED TO THE CONTRACTOR.

F. THE CONTRACTOR SHALL COORDINATE THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL DRAWINGS. NOTIFY THE ARCHITECT IMMEDIATELY IF ANY DISCREPANCIES, CONFLICTING INFORMATION AND / OR OMISSIONS ARE DISCOVERED. THE CONTRACTOR SHALL AWAIT CLARIFICATION / RESOLUTION OF SUCH CONFLICTS PRIOR TO PROCEEDING WITH CONSTRUCTION.

G. THE CONTRACTOR SHALL VERIFY EXISTING DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK. NOTIFY THE ARCHITECT IMMEDIATELY ANY DISCREPANCIES, CONFLICTING INFORMATION AND / OR OMISSIONS ARE DISCOVERED. THE CONTRACTOR SHALL AWAIT CLARIFICATION / RESOLUTION OF SUCH CONFLICTS PRIOR TO PROCEEDING WITH CONSTRUCTION.

H. THE CONTRACTOR SHALL CHECK AND APPROVE ALL SHOP DRAWINGS AND MATERIAL SUBMITTALS PRIOR TO SUBMITTING SAME TO THE ARCHITECT FOR REVIEW. FAILURE TO COMPLETELY CHECK THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PROBLEMS THAT MAY ARISE FROM COORDINATION, DETAILING, FABRICATION, AND / OR ERECTION ERRORS. DELAYS IN THE PROJECT RESULTING FROM THE REJECTION OF INCOMPLETE OR INADEQUATE SUBMITTALS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

J. THE CONTRACTOR SHALL COORDINATE THE SUPPORT REQUIREMENTS FOR MECHANICAL EQUIPMENT, PARTITIONS, AND OTHER SUCH ITEMS AND VERIFY THAT THE MISCELLANEOUS FRAMING SHOWN ON STRUCTURAL DRAWINGS TO SUPPORT THOSE ITEMS IS CONSISTENT WITH THE MANUFACTURER'S REQUIREMENTS.

K. PROPRIETARY PRODUCTS OF INDIVIDUAL MANUFACTURERS AND / OR TRADEMARKED PRODUCTS ARE SPECIFIED HEREIN ON AS THE "BASIS OF DESIGN". SUBJECT TO THE SUBSTITUTION PROVISIONS OUTLINED IN THE SPECIFICATIONS, MANUFACTURER'S DATA ON ALTERNATE PRODUCTS OF A QUALITY EQUAL TO OR BETTER THAN THOSE SPECIFIED MAY BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL UPON APPROVAL OF ARCHITECT, THESE ALTERNATE PRODUCTS MAY BE USED IN LIEU OF THE SPECIFIED PRODUCT.

### ABBREVIATIONS:

ADDINEVIATIONS.	
"AISC"" "SJI"" "SDI"" "ASTM"" "AWS""	REFERS TO THE "AMERICAN CONCRETE INSTITUTE" REFERS TO THE "AMERICAN INSTITUTE OF STEEL CONSTRUCTION" REFERS TO THE "STEEL JOIST INSTITUTE" REFERS TO THE "STEEL DECK INSTITUTE" REFERS TO THE "AMERICAN SOCIETY FOR TESTING AND MATERIALS" REFERS TO THE "AMERICAN WELDING SOCIETY" DENOTES A DIMENSION OR CONDITION THAT MUST BE "VERIFIED IN THE FIELD"
	MEANS "UNLESS NOTED OTHERWISE" THIS NOTATION ON SECTIONS, DIMENSIONS AND DETAILS INDICATES THAT THE IDENTIFIED CONTITION IS "TYPICAL" AT SEVERAL LOCATIONS.
"SIM."	THIS NOTATION ON SECTIONS & DETAILS INDICATES THAT THE IDENTIFIED CONDITION IS "SIMILAR" TO THE REFERENCED SECTION OR DETAIL.
"E.W."" "EL." or "ELEV."" "T.O.S. ELEV."" "T/STL. ELEV."" "T/C ELEV."" "T/CONC. ELEV.""	MEANS "ELEVATION"  DENOTES "TOP OF STEEL ELEVATION"  DENOTES "TOP OF SLAB"  DENOTES "TOP OF CONCRETE ELEVATION"  DENOTES "TOP OF CONCRETE ELEVATION"  DENOTES "BOTTOM OF FOOTING ELEVATION"
"CENTERS" or "CTRS."" "C.J."	DENOTES A "CENTER TO CENTER" DIMENSION DENOTES A "CONTROL JOINT" OR A "CONSTRUCTION JOINT" IN THE CONCRETE SLAB OR FOUNDATION WALLS — SEE SECTIONS AND DETAILS ON SHEET S2.0 FOR ADDITIONAL INFORMATION
"WWF" "TCX" "J.B.E." or "JBE" "T.B.E." or "TBE" "DIA." or "Ø" "L.F.". "Thk." "Sq." "La."	DENOTES A "REQUIRED CONSTRUCTION JOINT" DENOTES "WELDED WIRE FABRIC" CONCRETE SLAB REINFORCING DENOTES "WELDED WIRE REINFORCEMENT" CONCRETE SLAB REINFORCING DENOTES A STEEL BAR JOIST "TOP CHORD EXTENSION" DENOTES "JOIST BEARING ELEVATION" DENOTES "TRUSS BEARING ELEVATION" MEANS "DIAMETER" MEANS "LINEAR FEET" MEANS "THICK" or "THICKNESS" MEANS "SQUARE" MEANS "SQUARE" MEANS "LONG" or "LENGTH" DENOTES A "STANDARD ACI HOOK" IN REINFORCING STEEL, BENT TO THE ANGLE SPECIFIEC, THAT IS DETAILED AND FABRICATED IN ACCORDANCE WITH THE APPLICABLE ACI SPECIFICATIONS
"XX FS" "INT.". "EXT." "E.F.". "N.F.". "I.F.". "O.F.". "LW". "NW".	MEANS "EXTERIOR"  MEANS "EACH FACE"  MEANS "NEAR FACE"  MEANS "FAR FACE"

M. SPECIAL IDENTIFICATION: 🖈 INDICATES CONTRACT AND CONSTRUCTION REQUIREMENTS THAT, IN THE EXPERIENCE OF THE DESIGNER. ARE (1) ESPECIALLY CRITICAL TO SAFE OR SATISFACTORY PERFORMANCE: ARE (2) FREQUENTLY NOT GIVEN ADEQUATE CONSTRUCTION QUALITY CONTROL BY THE CONTRACTOR OR SUB-CONTRACTORS: OR. ARE (3) ARE NOT "STANDARD" OR COMMON CONSTRUCTION REQUIREMENTS AND THEREFORE MAY BE SUBJECT TO CONTRACTOR OVERSIGHT IN COSTING AND / OR CONSTRUCTION.

MEANS "REFER TO" THE SECTION OR DETAIL LISTED FOR ADDITIONAL

INFORMATION. - e.g. "RE: A/S2.2" MEANS "REFER TO SECTION /

DETAIL A ON SHEET \$2.2 FOR ADDITIONAL INFORMATION"

MEANS "TOP"

### 2. DESIGN CRITERIA:

A. THE APPLICABLE BUILDING CODE FOR THIS PROJECT IS THE KENTUCKY BUILDING CODE (KBC), CURRENT EDITION (2018). LOADS HAVE BEEN CALCULATED IN ACCORDANCE WITH ASCE 7-10.

### B. PROJECT LOCATION:

LOUISVILLE, MEADE COUNTY, KENTUCKY 37.996100°N LONGITUDE: 86.318856°W

C. RISK CATEGORY = III (SCHOOL) - RE: ASCE 7-10. TABLE 1.5-1

### D. SUPERIMPOSED DESIGN LOADS:

GRAVITY LOADS:		
DEAD LOADS:		
ROOF DEAD LOAD	=	30 psf
LIVE LOADS:		,
ROOF LIVE LOAD	=	20 psf
FLOOR LIVE LOADS - SCHOOLS		'
CLASSROOMS	=	40 psf
OFFICES	=	50 psf
CORRIDORS @ FIRST FLOOR	=	100 psf
ASSEMBLY AREAS	=	100 psf
STORAGE	=	125 psf
LOBBIES	=	100 psf
MECHANICAL ROOMS	=	125 psf
WIND LOAD CRITERIA:		
BASIC WIND SPEED V (3—sec GUST)	_	120 mph

= 120 mph (ULTIMATE) BASIC WIND SPEED, V (3-sec GUSI) EXPOSURE CATEGORY MEAN ROOF HEIGHT. h = 25.0 feet HEIGHT and EXPOSURE = 1.35 ADJUSTMENT COEFFICIENT

### COMPONENTS & CLADDING DESIGN WIND PRESSURE:

ROOF MEMBERS (NEGATIVE INDICATES UPLIFT):		
ZONĖ 1	=	-32.0 psf
ZONE 2	=	-37.9 psf
ZONE 3	=	-46.7 psf
WALL MEMBERS:		
ZONE 4	=	-29.2 psf
ZONE 5	=	-34.3 psf

SEISMIC DESIGN CRITERA:

© SHORT PERIODS, Ss © 1—sec PERIODS, S1	= 0.270g (USGS Map = 0.126g (USGS Map
RISK CATEGORY	= III (SCHOOL)
SEISMIC IMPORTANCE FACTOR, IE	= 1.25
SEISMIC DESIGN CATEGORY,	= B
SITE SEISMIC CLASSIFICATION (PER GEOTECHNICAL REPORT)	= B
DESIGN SPECTRAL RESPONSE ACCELERATION -	
@ SHORT PERIODS, SDS	= 0.180g
@ 1-sec. PERIODS, SD1	= 0.084g

ANALYSIS METHOD: EQUIVALENT LATERAL FORCE METHOD (ELFM) BASIC SEISMIC FORCE RESISTING SYSTEM CRITERIA: INTERMEDIATE REINFORCED CONCRETE MASONRY SHEAR WALLS

	RESPONSE MODIFICATION FACTOR, R DEFLECTION AMPLIFICATION FACTOR, Cd SYSTEM OVERSTRENGTH FACTOR, o APPROXIMATE FUNDAMENTAL PERIOD, Ta	=	3.5 2.25 2.5 0.256 sec
	DESIGN BASE SHEAR:  SEISMIC RESPONSE COEFFICIENT, Cs  TOTAL BASE SHEAR (ULTIMATE STATE)  TOTAL BASE SHEAR (ALLOWABLE STRESS)	=	0.064286 80 kips 56 kips
4.	SNOW LOAD CRITERIA: GROUND SNOW LOAD SNOW IMPORTANCE FACTOR, Is THERMAL FACTOR, Ct SNOW EXPOSURE FACTOR, Ce SNOWDRIFTS ACCOUNTED FOR IN ACCORDANCE WITH ASCE 7-16	= = =	15 psf 1.1 1.0 1.1

E. FOUNDATIONS:

FOUNDATION AND CONCRETE FLOOR SLAB ON GRADE DESIGNS AS WELL AS OTHER ASPECTS OF EARTHWORK AND SITE WORK FOR THIS PROJECT HAVE BEEN BASED ON GEOTECHNICAL REPORT NUMBER 218-487 PREPARED FOR THIS PROJECT BY AMERICAN ENGINEERS, INC. AND DATED MARCH 28 2019. A COPY OF THIS REPORT IS AVAILABLE FROM THE ARCHITECT FOR CONTRACTOR'S USE. THE CONTRACTOR SHALL OBTAIN A COPY OF THIS REPORT AND BECOME FAMILIAR WITH AND FOLLOW ALL INFORMATION AND RECOMMENDATIONS SET FORTH THEREIN. THE CONTRACTOR MUST UNDERSTAND THAT THE ACCURACY OF THE REPORT IS LIMITED TO THOSE AREAS SPECIFICALLY ADDRESSED ALL INFORMATION AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT MUST BE VERIFIED IN THE FIELD DURING CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. SEE EARTHWORK, SLABS ON GRADE AND FOUNDATIONS NOTES BELOW FOR MORE INFORMATION.

2. FOUNDATION DESIGN CRITERIA: FOUNDATION SYSTEM - SHALLOW SPREAD FOOTINGS BEARING ON COMPETENT ROCK (SANDSTONE) OR ON LEAN CONCRETE FILL TO ROCK

ALLOWABLE BEARING PRESSURES:	
CONTINUOUS WALL FOOTINGS	= 5,000 psf
ISOLATED COLUMN FOOTINGS	= 5,000 psf

4. BLASTING:

BLASTING IS NOT PERMITTED ON THIS PROJECT.

### 3. EARTHWORK, SLABS ON GRADE AND FOUNDATIONS:

A. THE OWNER WILL ENGAGE AN INDEPENDENT GEOTECHNICAL ENGINEERING, TESTING AND INSPECTION FIRM (HEREINAFTER REFERED TO AS THE "INSPECTOR" OR "GEOTECHNICAL ENGINEER" TO MONITOR AND (WHEN APPROPRIATE) DIRECT EARTHWORK OPERATIONS AND FOUNDATION CONSTRUCTION ON THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH THE SELECTED FIRM AND COORDINATE REQUIRED TESTING AND INSPECTIONS WITH THE GEOTECHNICAL ENGINEER TO ENSURE THAT ALL EARTHWORK IS CARRIED OUT IN ACCORDANCE WITH CONTRACT DOCUMENTS AND GEOTECHNICAL REPORT, AND THAT ALL TESTING AND INSPECTIONS SPECIFIED IN THE CONTRACT DOCUMENTS ARE COMPLETED AND DOCUMENTED CONTRACTOR SHALL PROVIDE TWENTY-FOUR (24) HOURS (MINIMUM) NOTICE TO GEOTECHNICAL ENGINEER WHEN EARTHWORK IS TO BE PERFORMED AND / OR WHEN EARTHWORK TESTING AND INSPECTIONS ARE REQUIRED. DUTIES OF THE GEOTECHNICAL ENGINEER ARE OUTLINED IN THE <u>SPECIAL INSPECTIONS</u> NOTES ON SHEET SO.3.

B. AFTER SUB-GRADE PROOF-ROLLING OPERATIONS (RE: CIVIL DRAWINGS AND SPECIFICATIONS) HAVE BEEN COMPLETED AND ACCEPTED BY THE GEOTECHNICAL ENGINEER, THE SLAB BASE SHALL BE PLACED AND COMPACTED. SLAB BASE SHALL CONSIST OF FOUR-INCHES (4") OF PROPERLY PLACED AND COMPACTED, WELL GRADED CRUSHED STONE (e.g. DENSE GRADED AGGREGATE (DGA) OR APPROVED EQUAL). THE STONE BASE SHALL BE COMPACTED TO 98% OF THE STANDARD PROCTOR DENSITY AT A MOISTURE CONTENT WITHIN 2% OF OPTIMUM. STONE SLAB BASE SHALL BE PLACED AND COMPACTED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER.

C. UNLESS NOTED OTHERWISE, ALL FOUNDATIONS FOR THIS PROJECT SHALL BE CONSTRUCTED AT TOP OF FOOTING ELEVATIONS AS FOLLOWS: 24" (MIN.) BELOW ADJACENT INTERIOR FLOOR SLAB ON GRADE OR 18" (MIN.) BELOW ADJACENT EXTERIOR FINISH GRADE, WHICHEVER IS LOWER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE TOP OF FOOTING ELEVATION WITH FINISH FLOOR AND FINISH GRADE. THE CONTRACTOR SHALL PROVIDE FOOTING STEPS AS NECESSARY WHEN TOP OF FOOTING ELEVATION CHANGES DUE TO THESE CRITERIA - RE: G/S2.0

### 3. EARTHWORK, SLABS ON GRADE AND FOUNDATIONS: (CONTINUED)

The stallow rock (weathered sandstone) was identified in the geotechnical report BORING LOGS. FOUNDATIONS HAVE BEEN DESIGNED AS "ROCK BEARING" SHALLOW FOOTINGS. IF ROCK IS NOT ENCOUNTERED AT BOTTOM OF FOOTING ELEVATION DURING FOUNDATION EXCAVATION. THE EXCAVATION SHALL BE CARRIED DEEPER TO COMPETENT BEDROCK (AS FIELD DETERMINED BY GEOTECHNICAL ENGINEER). AFTER THE EXCAVATION IS APPROVED BY THE GEOTECHNICAL ENGINEER, THE EXCAVATION SHALL BE BROUGHT TO THE SPECIFIED BEARING ELEVATION WITH LEAN CONCRETE FILL — RE: D/S2.2 — GEOTECHNCAL ENGINEER SHALL DIRECT AND DOCUMENT ALL UNDERCUTTING AND BACKFILLING ACTIVITIES. (RE: CIVIL DRAWINGS AND SPECIFICATIONS FOR FILL MATERIAL CRITERIA AS WELL AS FILL PLACEMENT AND COMPACTION REQUIREMENTS.)

E. "XX FS" DENOTES A FOOTING STEP THAT A FOOTING STEP IS REQUIRED WHERE THE BOTTOM OF FOOTING ELEVATION CHANGES. "XX" DENOTES THE DEPTH OF THE FOOTING STEP. SEE DETAIL G/S2.0 FOR ADDITIONAL INFORMATION. THE FOOTING STEPS SHALL BE FIELD-LOCATED BY THE CONTRACTOR BASED ON THE ACTUAL CONDITIONS ENCOUNTERED. FOOTING STEP LOCATIONS AND DETAILS SHALL BE PROVIDED ON THE REINFORCING STEEL SHOP DRAWINGS.

ELEVATIONS SHOWN ON THE PLANS ARE REFERENCED TO FINISH FLOOR ELEVATION 100'-0" (V.I.F. TO MATCH EXISTING) — COORDINATE WITH CIVIL DRAWINGS.

### 4. CAST-IN-PLACE REINFORCED CONCRETE:

A. CONCRETE MIX DESIGN, PLACING, FINISHING AND TESTING SHALL CONFORMANCE TO THE REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" BY THE AMERICAN CONCRETE INSTITUTE (ACI), LATEST EDITION.

B. DETAILING, FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ACI 315, "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "REINFORCING BAR DETAILING MANUAL OF STANDARD PRACTICE", LATEST EDITION OF EACH.

C. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE ACI "FIELD REFERENCE MANUAL": ACI PUBLICATION SP-15 (LATEST EDITION) AT THE JOB SITE AT ALL TIMES.

D. THE OWNER WILL ENGAGE AN INDEPENDENT TESTING AND INSPECTION FIRM (HEREINAFTER REFERED TO AS THE "INSPECTOR") TO MONITOR AND INSPECT CONCRETE CONSTRUCTION. AND TEST CONCRETE MATERIALS ON THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH THE INSPECTOR AND COORDINATE WITH INSPECTOR TO ENSURE THAT ALL TESTING AND INSPECTIONS SPECIFIED IN THE CONTRACT DOCUMENTS ARE COMPLETED AND DOCUMENTED. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWENTY-FOUR (24) HOURS NOTICE TO THE INSPECTOR WHEN CONCRETE TESTING OR INSPECTIONS ARE REQUIRED. THE DUTIES OF THE TESTING AND INSPECTION FIRM ARE OUTLINED IN THE SPECIAL INSPECTIONS NOTES ON SHEET SO.3

E. ALL CONCRETE USED ON THIS PROJECT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 4,000 psi AT TWENTY-EIGHT (28) DAYS (UNLESS NOTED OTHERWISE). CONCRETE USED IN CONSTRUCTION CONCRETE FLOOR SLABS ON GRADE & ELEVATED SLABS ON METAL FORM DECK SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 4,500 psi AT TWENTY-EIGHT (28) DAYS.

F. THE MAXIMUM WATER-CEMENT RATIO (W/C) FOR CONCRETE USED IN CONCRETE FLOOR SLAB CONSTRUCTION SHALL BE 0.45. ALL OTHER CONCRETE SHALL HAVE A MAXIMUM W/C OF 0.50 (UNLESS NOTED OTHERWISE).

G. ALL CONCRETE EXPOSED TO THE ELEMENTS SHALL BE AIR ENTRAINED WITH AN AIR CONTENT OF 6% (+/-1.5%).

> ENTRAINED AIR MAY BE OMITTED FROM THE CONCRETE MIX FOR FLOOR SLABS <u>ONLY</u> WHEN OUTSIDE AIR-TEMPERATURE IS PREDICTED TO REMAIN ABOVE 40° FOR A PERIOD OF AT LEAST FORTY-EIGHT (48) HOURS BEGINNING WITH CONCRETE PLACEMENT.

H. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO THE REQUIREMENTS OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) SPECIFICATION A615 GRADE 60. (U.N.O.). REINFORCING STEEL THAT IS TO BE WELDED SHALL CONFORM TO ASTM A706, GR 60.

I. REINFORCING FOR CONCRETE FLOOR SLABS ON GRADE SHALL BE WELDED WIRE REINFORCEMENT, WWR 6x6-W2.9xW2.9 LOCATED AT  $1\frac{1}{2}$ " BELOW THE TOP OF SLAB SURFACE (UNLESS NOTED OTHERWISE). WELDED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185. WELDED WIRE REINFORCEMENT SHALL BE PROPERLY LOCATED AND SUPPORTED USING CHAIRS, BOLSTERS OR BAR SUPPORTS. "HOOKING" THE WWR AND ATTEMPTING TO PULL THE MESH INTO POSITION AFTER CONCRETE IS PLACED IS NOT ACCEPTABLE. AT EDGES AND ENDS OF WWR SHEETS AND / OR ROLLS, THE WELDED WIRE REINFORCEMENT SHALL BE LAPPED ONE (1) WIRE SQUARE SPACE PLUS TWO-INCHES (2") MINIMUM.

WELDING OF REINFORCING STEEL IS PERMITTED ONLY WITH THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. WHERE PERMITTED, WELDING SHALL BE PERFORMED IN ACCORDANCE WITH ACI 301, SECTION 5.3. INSPECTION OF WELDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH TABLE 1704.3 OF THE KBC.

K. ALL CONCRETE REINFORCING STEEL SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES (UNLESS NOTED OTHERWISE). SPLICE LENGTH SHALL BE CALCULATED IN ACCORDANCE WITH CHAPTER 5 OF THE CRSI "DESIGN HANDBOOK" (LATEST EDITION). LAP SPLICES FOR REINFORCING STEEL USED IN MASONRY CONSTRUCTION SHALL BE EQUAL TO 48 BAR DIAMETERS (MINIMUM).

### MINIMUM CONCRETE PROTECTION FOR REINFORCING STEEL (CLEAR COVER):

FORM FORM	RMED SURFACE CAST AGAINST EARTH  ED SURFACE IN CONTACT WITH EARTH  ED SURFACE EXPOSED TO WEATHER  ED SURFACE NOT EXPOSED TO WEATHER OR IN CONCTACT	3" 2½" 2½" WITH
GRO	UND:	
a.	SLABS	3/4"
b.	WALLS AND JOISTS	1½"
c.	BEAMS, GIRDERS AND COLUMNS	2½"

5. IN NO CASE SHALL THE CLEAR COVER BE LESS THAN THE BAR DIAMETER.

M. ALL HOOKS SHOWN ON THE DRAWINGS FOR REINFORCING STEEL SHALL BE ACI STANDARD 90° OR ACI STANDARD 180° HOOKS AS INDICATED. 1. BAR LENGTHS SHOWN ARE "OUT-TO-OUT" AND DO NOT INCLUDE

> HOOK LENGTH. 2. PROVIDE HOOKS FOR ALL TOP BARS IN SLABS AND BEAMS AT DISCONTINUOUS ENDS

N. PROVIDE CORNER BARS TO MATCH ALL LONGITUDINAL REINFORCING STEEL AT CORNERS AND INTERSECTIONS OF ALL CONCRETE WALLS, BEAMS, GRADE BEAMS, THICKENED SLABS, etc. CORNER BAR SIZE AND SPACING SHALL MATCH THE SIZE AND SPACING OF LONGITUDINAL BARS BEING LAPPED. PROVIDE 24" LAP FOR ALL CORNER BARS #7 AND SMALLER. PROVIDE 30" LAP FOR ALL CORNER BARS #8 AND LARGER. SEE DETAIL D/S2.0 FOR ADDITIONAL INFORMATION.

WHERE DOWELS ARE REQUIRED OUT OF FOUNDATION WALLS AND FOOTINGS TO MATCH VERTICAL BARS IN MASONRY WALLS. THE REBAR DETAILER FOR THE REINFORCING STEEL SUPPLIER SHALL LOCATE EACH SUCH DOWEL ON REINFORCING STEEL PLACEMENT DRAWINGS. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL RESULT IN THE REJECTION OF THE REINFORCING STEEL SHOP DRAWING SUBMITTAL.

P. NOT USED.

### 4. CAST-IN-PLACE REINFORCED CONCRETE: (CONTINUED)

Q. "C.J." DENOTES A SLAB CONSTRUCTION JOINT OR SLAB CONTROL JOINT AT THE CONTRACTOR'S OPTION. CONTROL JOINTS SHALL BE SAW-CUT TO A DEPTH EQUAL TO ONE-QUARTER (4) OF THE SLAB THICKNESS. SEE DETAIL A/S2.0 FOR ADDITIONAL INFORMATION REGARDING SLAB CONTROL / CONSTRUCTION

> 1. THE C.J. LAYOUT SHOWN ON THE PLAN IS FOR CONCEPTUAL PURPOSES ONLY. THE CONTRACTOR SHALL LAY OUT C.J.'S AT A MAXIMUM SPACING

a. CONTRACTOR SHALL SHOW PROPOSED C.J. LAYOUT ON REINFORCING STEEL SHOP DRAWINGS SUBMITAL.

CONFERENCE AT THE JOB SITE TO RESOLVE ANY QUESTIONS THAT THE

b. CONSTRUCTION JOINTS SHALL BE LOCATED BY THE CONTRACTOR TO FACILITATE CONCRETE PLACEMENT (UNLESS NOTED OTHERWISE) NO LATER THAN ONE-WEEK AFTER SUBMITTING THE C.J. LAYOUT PLAN TO THE ARCHITECT, THE CONTRACTOR SHALL CONVENE A PRE-CONCRETE

ARCHITECT, ENGINEER AND / OR CONTRACTOR MAY HAVE. CONTROL JOINTS MUST BE SAW-CUT A WITHIN A MAXIMUM OF TWELVE (12) HOURS AFTER CONCRETE PLACEMENT.

R. SPECIAL ATTENTION IS DIRECTED TO SECTION 03300 OF THE SPECIFICATIONS FOR CONCRETE TESTING REQUIREMENTS AND THE DISTRIBUTION OF TEST REPORTS. ADDITIONAL INFORMATION REGARDING CONCRETE TESTING IS CONTAINED IN <u>SPECIAL INSPECTIONS</u> NOTES ON SHEET SO.3.

S. WHERE NEW REINFORCING STEEL IS REQUIRED OUT OF IN-PLACE CONCRETE OR CONCRETE MASONRY (CMU), DEFORMED BARS OF THE SIZE SPECIFIED ON THE DRAWINGS SHALL BE SET INTO THE HARDENED CONCRETE / CMU USING AN ACRYLIC BASED, ALL-TEMPERATURE ADHESIVE ANCHORING SYSTEM SUCH AS "ACRYLIC TIE (AT)" HIGH STRENGTH, ALL-TEMPERATURE ADHESIVE SYSTEM MANUFACTURED BY THE "SIMPSON STRONG-TIE COMPANY, INC.; 2600 INTERNATIONAL STREET; COLUMBUS, OH 43228" OR USING AN EPOXY BASED ADHESIVE ANCHORING SYSTEM SUCH AS "HILTI HIT-RE 500 V3" FOR CONCRETE AND "HILTI HIT-HY70" FOR CMU. THESE PRODUCTS ARE PRODUCED BY "HILTI; P. O. BOX 21148; TULSA, OK 74121" (OR APPROVED EQUAL). THE DEPTH OF EMBEDMENT SHALL BE AS INDICATED ON THE PLANS. WHERE NO DEPTH IS SPECIFIED, EMBEDMENT SHALL BE AS SPECIFIED BY THE ADHESIVE MANUFACTURER TO DEVELOP THE FULL YIELD STRENGTH OF THE BAR. INSTALLATION SHALL BE IN ACCORDANCE WITH NOTE 4.W (BELOW).

T. WHERE NEW ANCHOR BOLTS ARE REQUIRED OUT OF IN-PLACE CONCRETE OR CONCRETE MASONRY (CMU), THREADED RODS OF THE SIZE SPECIFIED ON THE DRAWINGS SHALL BE SET INTO THE HARDENED CONCRETE / CMU USING AN ACRYLIC BASED, ALL—TEMPERATURE ADHESIVE ANCHORING SYSTEM SUCH AS "ACRYLIC TIE (AT)" HIGH STRENGTH, ALL-TEMPERATURE ADHESIVE SYSTEM MANUFACTURED BY THE "SIMPSON STRONG-TIE COMPANY, INC.; 2600 INTERNATIONAL STREET; COLUMBUS, OH 43228" OR USING AN EPOXY BASED ADHESIVE ANCHORING SYSTEM SUCH AS "HILTI HIT-HY 200" FOR CONCRETE AND "HILTI HIT-HY70" FOR CMU. "HILTI HIT-Z" OR "HIT-Z-R" ANCHOR RODS SHALL BE USED WITH HILTI EPOXIES THESE PRODUCTS ARE PRODUCED BY "HILTI; P. O. BOX 21148; TULSA, OK 74121" (OR APPROVED EQUAL). THE DEPTH OF EMBEDMENT SHALL BE AS INDICATED ON THE PLANS. WHERE NO DEPTH IS SPECIFIED. EMBEDMENT SHALL BE AS SPECIFIED BY THE ADHESIVE MANUFACTURER TO DEVELOP THE FULL YIELD STRENGTH OF THE BAR. INSTALLATION SHALL BE IN ACCORDANCE WITH NOTE 4.W (BELOW).

U. WHERE "KWIK BOLTS" (BASIS OF DESIGN) ARE INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL INSTALL EXPANSION ANCHORS OF THE SIZE AND QUANTITY SPECIFIED. USE "KWIK BOLT TZ" EXPANSION ANCHORS FOR CONCRETE APPLICATIONS AND "KWIK BOLT 3" EXPANSION ANCHORS FOR CONCRETE MASONRY (CMU) APPLICATIONS. "KWIK BOLTS" SHALL BE MANUFACTURED BY "HILTI, CORP; P.O. BOX 21148; TULSA, OKLAHOMA 74146" OR USE "STRONG-BOLTS" (FOR CONCRETE & CMU) PRODUCED BY "SIMPSON STRONG-TIE COMPANY, INC.; 2600 INTERNATIONAL STREET; COLUMBUS, OH 43228" (OR APPROVED EQUAL). EXPANSION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH NOTE 4.W (BELOW). WHERE NO EMBEDMENT DEPTH FOR ANCHORS IS SPECIFIED ON THE DRAWINGS, EXPANSION ANCHORS SHALL BE INSTALLED INTO CONCRETE OR MASONRY (CMU) AS SPECIFIED IN THE FOLLOWING SCHEDULE:

1	⅓" ø ANCHOR	31/2"	(CONCRETE)	41/4"	(СМІ
2.	%" ø ANCHOR	_	(CONCRETE)	•	(CML
	•	_	,		`
3.	3/4" Ø ANCHOR		(CONCRETE)		(CML
4.	1" ø ANCHOR	6"	(CONCRETE)	7½"	(CMU

AT CONTRACTOR'S OPTION, EXPANSION ANCHORS MAY BE REPLACED WITH ADHESIVE ANCHORS SIMILAR TO THOSE DEFINED IN NOTE No. T (ABOVE). DEPTH OF EMBEDMENT SHALL BE AS SPECIFIED HEREIN.

V. WHERE CONCRETE SCREWS ARE INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL INSTALL CONCRETE SCREWS OF THE SIZE AND QUANTITY SPECIFIED. USE "KWIK HUS-EZ (KH-EZ)" CONCRETE SCREWS MANUFACTURED BY "HILTI, CORP; P.O. BOX 21148; TULSA, OKLAHOMA 74146" OR USE "TITEN HD" HEAVY-DUTY SCREW ANCHORS PRODUCED BY "SIMPSON STRONG-TIE COMPANY, INC.; 2600 INTERNATIONAL STREET; COLUMBUS, OH 43228" (OR APPROVED EQUAL). CONCRETE SCREWS SHALL BE INSTALLED IN ACCORDANCE WITH NOTE 4.W (BELOW). WHERE NO EMBEDMENT DEPTH IS SPECIFIED FOR ANCHORS ON THE DRAWINGS, SCREW ANCHORS SHALL BE INSTALLED INTO CONCRETE OR MASONRY (CMU) AS SPECIFIED IN THE FOLLOWING SCHEDULE:

1.	½" ø ANCHOR	41/4"	(CONCRETE)	41/4"	(CMU)
2.	5⁄8" Ø ANCHOR	5"	(CONCRETE)	5"	(CMU)
3.	¾" Ø ANCHOR	61/4"	(CONCRETE)	61/4"	(CMU)

AT CONTRACTOR'S OPTION, CONCRETE SCREWS MAY BE REPLACED WITH KWIK BOLTS OR ADHESIVE ANCHORS SIMILAR TO THOSE DEFINED IN NOTE No. T (ABOVE). DEPTH OF EMBEDMENT SHALL BE AS SPECIFIED HEREIN.

\*\* W. THE CONTRACTOR SHALL OBTAIN AN ICC EVALUATION SERVICE REPORT FOR EACH TYPE OF ACRYLIC / EPOXY ADHESIVE OR POST-INSTALLED ANCHOR USED ON THIS PROJECT. POST-INSTALLED ANCHOR BOLTS AND REINFORCING STEEL SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR / ADHESIVE MANUFACTURER'S SPECIFICATIONS. INSTALLERS SHALL BE TRAINED IN PROPER INSTALLATION PROCEDURES BY A REPRESENTATIVE OF THE MANUFACTURER. THE INSTALLATION SHALL BE VERIFIED AND DOCUMENTED IN ACCORDANCE WITH THE APPROPRIATE ICC ES REPORT BY THE SPECIAL INSPECTOR IN ACCORDANCE WITH NOTES ON SHEET SO.3.

### X. CONCRETE FINISHES:

1.	FORMED SURFACES:	
	a. PAINTED OR EXPOSED TO VIEW	- RUBBED FINISH (U.N.O.)
	b. COVERED	- AS CAST
2.	FLAT WORK SURFACES:	
	a. INTERIOR, EXPOSED TO VIEW	<ul><li>TROWELED</li></ul>
	b. INTERIOR, CARPETED OR TILED	<ul><li>TROWELED</li></ul>
	c. EXTERIOR, SIDEWALKS OR DRIVEWAYS	<ul><li>BROOMED</li></ul>
	d. EXTERIOR, STAIRS OR RAMPS	<ul><li>BROOMED</li></ul>

Y. PIPE OR CONDUIT EMBEDDED IN CONCRETE WALLS AND SLABS:

MAXIMUM DIAMETER =  $\frac{1}{3}$  TIMES (SLAB OR WALL) THICKNESS MINIMUM SPACING = 3 TIMES (CONDUIT OR PIPE) DIAMETER ON CENTER

". CONCRETE FOUNDATIONS HAVE NOT BEEN DESIGNED TO RESIST LATERAL EARTH PRESSURE. FILL ON BOTH SIDES OF FOUNDATION WALL SHALL BE PLACED AND COMPACTED IN EQUAL LIFTS AT THE SAME TIME TO ENSURE THE STABILITY OF THE WALL.

AA. WHERE INDICATED ON THE PLANS, PROVIDE CONTINUOUS PVC WATERSTOPS IN CONCRETE CONSTRUCTION JOINTS. THE CONTRACTOR SHALL HAVE RESPONSIBILITY FOR ENSURING THAT WATERSTOPS ARE CONTINUOUS AND MEET THE INTENT OF CREATING WATER-TIGHT CONSTRUCTION JOINTS. ALL PVC WATERSTOP SPLICES, CORNERS AND INTERSECTIONS SHALL BE TREATED IN ACCORDANCE WITH WATERSTOP MANUFACTURER'S SPECIFICATION. ALL WATERSTOPS SHALL BE 6" FLAT, DUMBBELL PVC WITH CENTER BULB. SUBJECT TO APPROVAL, WATERSTOPS ON THIS PROJECT SHALL BE PROFILE No. 705 AS MANUFACTURED BY "GREENSTREAK PLASTIC PRODUCTS COMPANY, INC.; 3400 TREE COURT INDUSTRIAL BLVD.; ST. LOUIS, MISSOURI 63122" OR APPROVED EQUAL.

BB. ALL KEYWAYS INDICATED ON THE DRAWINGS ARE NOMINAL 2x4 AND SHALL BE CONTINUOUS. SEE DETAIL E/S2.0 FOR ADDITIONAL INFORMATION.

CC. RUSTICATION STRIPS. CHAMFERS. DRIPS. MISCELLANEOUS EMBEDMENTS. ETC. SHALL BE PROVIDED IN ACCORDANCE WITH THE PLANS. REFERENCE THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. UNLESS INDICATED OTHERWISE ALL EXPOSED CONCRETE EDGES SHALL HAVE A  $\frac{3}{4}$ " CHAMFER.

DD. HOLES AND OPENINGS IN CONCRETE WALLS AND SLAB (GREATER THAN 10"Ø FOR ROUND HOLES AND GREATER THAN 1'-0" ON ANY SIDE FOR SQUARE AND RECTANGULAR HOLES) FOR MECHANICAL, ELECTRICAL AND PLUMBING TRADES THAT ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. SUCH HOLES AND OPENINGS ARE TO FORMED AND NOT CUT. STRENGTHENING OR ADDITIONAL REINFORCING REQUIRED BY THE STRUCTURAL ENGINEER SHALL BE FURNISHED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER - RE: B/S2.0 ZC **444** % **ZWT** 5 CHZ " шссп I 4 4 5 လပဏ ₹

WILLIAM E. GRIGSBY, JR. 16114

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EVIL BOT BOT BOT

VICE PAYIN

JOB NO. 07/10/2019 DRAWN CHECKED | WEG/BKL COPYRIGHT © 2019 SHERMAN CARTER BARNHART ARCHITECTS, PLLC REVISIONS No. Description Date C. ALL CONCRETE MASONRY UNITS (CMU) SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 psi BASED ON THE NET AREA AND SHALL CONFORM TO ASTM C90. THE CMU SUPPLIER SHALL SUBMIT CERTIFIED TEST REPORTS TO DOCUMENT THAT THE SPECIFIED VALUE HAS BEEN MET. ALL MORTAR FOR CMU CONSTRUCTION SHALL BE TYPE "S" AND SHALL CONFORM TO ASTM C270.

D. GROUT USED FOR CMU CONSTRUCTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'g) OF 2,500 psi AND SHALL CONFORM TO ASTM C476. THE USE OF MORTAR FOR GROUTING BOND BEAMS AND CMU CELLS IS NOT ACCEPTABLE. ANY MASONRY CONSTRUCTION FOUND TO HAVE MORTAR INSTEAD OF GROUT IN CMU CELLS, BOND BEAMS AND / OR LINTELS WILL BE DEMOSLISHED, REMOVED AND RE-BUILT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AT THE CONTRACTOR'S EXPENSE.

- E. A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BETWEEN GROUT POURS FOR CMU CELLS BY STOPPING THE CMU WALL AT A CONTSTANT ELEVATION THROUGHOUT AND THEN HOLDING THE GROUT A MINIMUM OF 1½" AND A MAXIMUM OF 4½" BELOW THE MORTAR JOINT (EXCEPT AT TOP OF WALL). FOR CMU CELL GROUT POURS OVER FIVE—FEET (5') IN HEIGHT, A CLEANOUT SHALL BE PROVIDED IN THE BOTTOM CMU COURSE AT EVERY CELL TO BE GROUTED.
- F. THE MASON SHALL MECHANICALLY CONSOLIDATE AND RE-CONSOLIDATE THE GROUT IN ACCORDANCE WITH THE REQUIREMENTS OF ALL APPLICABLE CODES AND STANDARDS.

G. PROVIDE ADDITIONAL VERTICAL REINFORCEMENT FOR CMU WALLS CONSISTING OF #5 BARS (FOR 8" CMU) or #7 BARS (FOR 12" CMU) IN GROUTED SOLID CMU CELLS AT EACH SIDE OF ALL WALL OPENINGS AS WELL AS AT ENDS AND CORNERS OF ALL WALLS. SEE DETAIL E/S4.0 FOR ADDITIONAL INFORMATION. PROVIDE AN ADDITIONAL #5 or #7 BAR IN GROUTED SOLID CMU CELLS ON EITHER SIDE OF ALL MASONRY CONTROL JOINTS AND EXPANSION JOINT. SEE DETAIL D/S4.0 FOR MORE INFORMATION.

H. PROVIDE A GROUTED SOLID MASONRY COLUMN (MC) UNDER STEEL BEAM BEARING PLATES IN ACCORDANCE WITH SECTIONS 1/S4.1. MINIMUM MASONRY COLUMN UNDER STEEL BEAM BEARING SHALL BE MC816 FOR 8" CMU WALLS & MC1224 FOR 12" CMU WALLS. SEE DETAIL B/S4.1 FOR ADDITIONAL INFORMATION ON MASONRY COLUMN CONSTRUCTION.

J. ALL VERTICAL REINFORCING BARS IN MASONRY WALLS SHALL BE PROPERLY LOCATED WITHIN THE CMU CELLS USING PREFABRICATED, (GALVANIZED STEEL or PLASTIC) REBAR POSITIONERS SUCH AS THOSE MANUFACTURED BY "DUR-0-WALL" (OR APPROVED EQUAL). REBAR POSITIONERS SHALL BE LOCATED AT 48" CENTERS ON EACH VERTICAL BAR.

K. ALL VERTICAL REINFORCING BARS FOR CMU WALLS SHALL BE FULLY DEVELOPED WITH MATCHING DOWELS OUT OF THE FOUNDATION WALL.

L. THE DETAILER FOR THE REINFORCING STEEL FABRICATOR SHALL INDICATE ALL DOWELS OUT OF FOUNDATION REQUIRED FOR MATCHING MASONRY WALL VERTICAL REINFORCING ON THE FABRICATOR'S REBAR PLACEMENT DRAWINGS FOR THE CONCRETE FOUNDATION WALLS.

M. PROVIDE REINFORCED MASONRY LINTEL BEAM PER DETAILS ACROSS THE TOP OF ALL CMU WALL OPENINGS. PROVIDE 8" Dp. CMU BOND BEAM ACROSS THE BOTTOM OF ALL CMU WALL OPENINGS (EXCEPT DOOR OPENINGS). SEE DETAILS A/S4.0 & B/S4.0 FOR ADDITIONAL INFORMATION.

N. SEE <u>CAST-IN-PLACE REINFORCED CONCRETE</u> NOTES ON SHEET SO.1 AND SPECIFICATION SECTION 033000 FOR ADDITIONAL INFORMATION REGARDING REINFORCING STEEL SPECIFICATIONS.

O. GROUTED SOLID CMU BOND BEAMS SHOWN ON THE PLANS SHALL BE CONSTRUCTED USING "KNOCK-OUT-WEB" BOND BEAM UNITS EXCEPT AT THE HEAD OF WALL OPENINGS WHERE BOND BEAM LINTEL BLOCKS SHALL BE USED AS INDICATED.

P. PROVIDE HORIZONTAL JOINT REINFORCEMENT FOR ALL CMU WALLS (INCLUDING WALLS NOT SHOWN ON STRUCTURAL DRAWINGS) CONSISTING OF PREFABRICATED "LADDER TYPE" REINFORCEMENT SUCH AS "DUR-O-WALL SEISMIC LADUR" OR APPROVED EQUAL AT 16" CENTERS (EVERY OTHER MORTAR JOINT) UNLESS NOTED OTHERWISE. PROVIDE PREFABRICATED "L's" and "T's" AT ALL WALL CORNERS AND INTERSECTIONS. SEE DETAIL E/S4.0 FOR ADDITIONAL INFORMATION.

Q. PROVIDE CORNER BARS (C.B.) TO MATCH HORIZONTAL BOND BEAM REINFORCING IN ALL CMU BOND BEAMS AT ALL MASONRY WALL CORNERS AND INTERSECTIONS. SEE DETAIL C/S4.0 FOR ADDITIONAL INFORMATION.

R. PROVIDE MASONRY CONTROL JOINTS IN ALL CMU WALLS WHERE INDICATED ON THE PLANS. IF NO CONTROL JOINTS ARE SHOWN ON THE PLANS, THE MASON SHALL PROVIDE MASONRY CONTROL JOINTS AT A MAXIMUM SPACING OF 24'-0" OR THREE (3) TIMES THE WALL HEIGHT (WHICHEVER IS LESS) FOR ALL INTERIOR AND EXTERIOR CMU WALLS. A MASONRY CONTROL JOINT SHALL ALSO BE PROVIDED WITHIN A MAXIMUM OF 12'-0" FROM ALL CORNERS FOR ALL INTERIOR AND EXTERIOR CMU WALLS. THE MASON SHALL COORDINATE THE LOCATIONS OF ALL CONTROL JOINTS WITH THE ARCHITECT. SEE DETAILS A/S4.0 & D/S4.0 FOR ADDITIONAL INFORMATION.

S. THE CONTRACTOR SHALL CONVENE A MEETING TO DISCUSS MASONRY DETAILS PRIOR TO THE START OF MASONRY CONSTRUCTION. MEETING ATTENDEES SHALL INCLUDE THE CONTRACTOR, THE MASON, THE ARCHITECT, THE INSPECTOR AND THE STRUCTURAL ENGINEER. THE OWNER SHALL BE INVITED TO THIS MEETING, HOWEVER, THE OWNER'S ATTENDANCE OF THIS MEETING IS NOT REQUIRED.

T. WHERE SHRINKAGE CRACKS DEVELOP IN THE MASONRY WALLS, THE CONTRACTOR SHALL TREAT THOSE CRACKS WITH A LIQUID CRACK SEALER PRIOR TO APPLICATION OF FINAL FINISH COATING. THE LIQUID CRACK SEALER SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. SUBJECT TO APPROVAL, THE CRACK SEALER SHALL BE "CRACK—PAC INJECTION EPOXY" MANUFACTURERED BY THE "SIMPSON STRONG—TIE COMPANY, INC.; 2600 INTERNATIONAL STREET; COLUMBUS, OH 43228" (BASIS OF DESIGN — RE: NOTE No. 1.K ON SHEET SO.1 FOR ADDITIONAL INFORMATION). THESE REPAIRS SHALL BE MADE AT NO COST TO THE OWNER.

### 6. STRUCTURAL STEEL:

A. DESIGN, DETAILING, FABRICATION AND ERECTION OF ALL STRUCTURAL STEEL ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), ALLOWABLE STRESS DESIGN (ASD) NINTH EDITION. DESIGN SHALL BE IN ACCORDANCE WITH THE AISC "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS — ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN" (JUNE 1, 1989). DETAILING, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (MARCH 7, 2000).

B. THE OWNER WILL ENGAGE AN INDEPENDENT TESTING AND INSPECTION FIRM (HEREINAFTER REFERED TO AS THE "INSPECTOR") TO MONITOR STEEL ERECTION ON THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH THE SELECTED FIRM AND COORDINATE BETWEEN THE STEEL ERECTOR AND THE INSPECTOR TO INSURE THAT ALL REQUIRED TESTING AND INSPECTIONS SPECIFIED IN THE CONTRACT DOCUMENTS ARE COMPLETED AND DOCUMENTED. CONTRACTOR SHALL PROVIDE A MINIMUM OF TWENTY—FOUR (24) HOURS NOTICE TO THE INSPECTOR WHEN STRUCTURAL STEEL INSPECTIONS ARE REQUIRED. DUTIES OF THE TESTING AND INSPECTION FIRM ARE OUTLINED IN THE <u>SPECIAL INSPECTIONS</u> NOTES ON SHEET SO.3.

C. THE "TYPE OF CONSTRUCTION" FOR THIS PROJECT AS DEFINED BY AISC IS: TYPE 2 - SIMPLE FRAMING.

D. STRUCTURAL STEEL SHAPES (EXCLUDING WIDE FLANGES) AND PLATES SHALL CONFORM TO ASTM A36 EXCEPT AS NOTED OTHERWISE. ALL SQUARE AND RECTANGULAR HOLLOW STEEL (HSS) / TUBE STEEL (HSS) SECTIONS SHALL CONFORM TO ASTM A500, GRADE C. ALL ROUND HOLLOW STEEL SECTIONS (PIPE COLUMNS) SHALL CONFORM TO ASTM A500, GRADE B OR ASTM A53, GRADE B

E. ALL WIDE FLANGE (W) SHAPES SHALL BE FABRICATED FROM MATERIAL CONFORMING TO ASTM A992, GRADE 50 (Fy = 50 ksi) UNLESS NOTED OTHERWISE.

F. WHERE REQUIRED ON THE PLANS, ALL HIGH STRENGTH STEEL PLATES SHALL CONFORM TO ASTM A572, GRADE 50 (Fy = 50 ksi).

6. STRUCTURAL STEEL: (CONTINUED)

G. ALL STRUCTURAL BOLTS SHALL CONFORM TO ASTM A325X. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GR 36 (FOR ANCHOR BOLTS LESS THAN 1" IN DIAMETER) OR ASTM F1554, GRADE 105 (FOR ANCHOR BOLTS EQUAL TO OR GREATER THAN 1" IN DIAMETER). THREADED ROD SHALL CONFORM TO ASTM A36 (FOR RODS LESS THAN 1" IN DIAMETER) OR ASTM A572, GRADE 50 (FOR RODS EQUAL TO OR GREATER THAN 1" IN DIAMETER). PROVIDED A SUFFICIENT QUANTITY OF COMPATIBLE NUTS AND FLAT WASHERS FOR ALL CONNECTIONS.

H. ALL SHOP CONNECTIONS SHALL BE WELDED CONNECTION UNLESS OTHERWISE INDICATED ON THE CONTRACT DOCUMENTS. ALL FIELD CONNECTIONS SHALL BE BOLTED CONNECTIONS UNLESS OTHERWISE INDICATED ON THE CONTRACT DOCUMENTS. BOLTED CONNECTIONS SHALL BE BEARING TYPE MADE USING ASTM A325X BOLTS IN CONFORMANCE WITH THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". BEAM FRAMING CONNECTIONS MAY BE "SINGLE—PLATE SHEAR CONNECTIONS DETAILED IN ACCORDANCE WITH TABLE X OF THE AISC MANUAL. "USUAL GAGE" DIMENSIONS SHALL BE USED FOR LOCATING HOLES FOR BOLTS, EXPANSION ANCHORS, ETC. IN ALL ANGLE LEGS, BEAM FLANGES, ETC.

J. ALL WELDING SHALL BE IN CONFORMANCE WITH THE AMERICAN WELDING SOCIETY (AWS) CODES, STANDARDS AND SPECIFICATIONS. ALL WELDS SHALL BE MADE USING E70XX ELECTRODES UNLESS NOTED OTHERWISE.

K. WHERE HEADED WELDING STUDS OR HEADED ANCHORS ARE SPECIFIED ON THE DRAWINGS, "NELSON STUDS" OF THE SIZE INDICATED SHALL BE AUTOMATICALLY WELDED TO THE BASE MATERIAL IN ACCORDANCE WITH THE STUD MANUFACTURER'S SPECIFICATIONS. STUD LENGTH DENOTED WITH "AW" OR "A.W." ON THE DRAWINGS SHALL BE THE LENGTH OF STUD "AFTER WELDING". HEADED STUDS SHALL BE MADE FROM COLD—DRAWIN STEEL CONFORMING TO ASTM A108. SUBJECT TO APPROVAL, THE HEADED WELDING STUDS USED ON THIS PROJECT SHALL BE THE PRODUCTS OF "TRW, INC.; NELSON STUD WELDING DIVISION; 7900 WEST RIDGE ROAD; P. O. BOX 4019; ELYRIA, OHIO; 44036" (OR APPROVED EQUAL).

L. PROVIDE POSITIVE CAMBER AS NOTED ON THE PLANS. WHERE NO CAMBER IS SPECIFIED, THE RESIDUAL MILL CAMBER SHALL BE UPWARDS.

M. ALL EXPOSED ANGLE AND PLATE LINTELS FOR MASONRY CONSTRUCTION (BRICK VENEER) SHALL BE HOT-DIPPED GALVANIZED.

N. THE STRUCTURAL STEEL "FAB SHOP" THAT PROVIDES THE STEEL ON THIS PROJECT MUST BE AISC OR AWS CERTIFIED. SEE SPECIFICATION SECTION 05120 FOR EXCEPTIONS.

### 7. OPEN-WEB STEEL BAR JOISTS:

A. DESIGN, DETAILING, FABRICATION AND ERECTION OF ALL STEEL BAR JOISTS ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI), LATEST EDITION.

B. SUBJECT TO APPROVAL, THE BAR JOISTS ON THIS PROJECT SHALL BE THE PRODUCTS OF "VULCRAFT, A DIVISION OF NUCOR CORP.; P. O. BOX 169; FORT PAYNE, ALABAMA 35967" (OR APPROVED EQUAL).

C. WHERE OSHA AND / OR THE STEEL JOIST INSTITUE SPECIFICATIONS REQUIRE ERECTION BOLTS FOR BAR JOISTS AND JOIST GIRDERS, THE BAR JOIST DETAILER SHALL INDICATE ERECTION BOLTS ON THE SHOP / ERECTION DRAWINGS. THE BAR JOIST DETAILER SHALL COORDINATE ERECTION BOLT LOCATIONS WITH THE STRUCTURAL STEEL DETAILER SO THAT BOLT HOLES ARE PROVIDED IN THE SUPPORTING STEEL STRUCTURE WHERE NECESSARY.

D. ALL BAR JOISTS SHALL BE WELDED TO THE SUPPORTING STRUCTURE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WELDING SHALL BE IN ADDITION TO ANY ERECTION BOLTS REQUIRED BY OSHA AND / OR INDICATED ON THE SHOP DRAWINGS. SEE DETAIL B/S5.1 FOR ADDITIONAL INFORMATION.

E. ALL JOIST SHALL RECEIVE ONE SHOP COAT OF PRIMER EQUIVALENT TO SSPC 15-68T.

F. THE JOIST FABRICATOR SHALL DESIGN ANY AND ALL JOIST TOP CHORD EXTENSIONS (TCX) INDICATED ON THE PLANS FOR THE DEAD AND LIVE LOAD CAPACITIES OF THE JOIST.

G. WHERE CONCENTRATED LOADS ARE TO BE SUPPORTED DIRECTLY FROM THE CHORDS OF BAR JOISTS, THE ATTACHMENT SHALL BE MADE IN SUCH A MANNER AND AT SUCH A LOCATION THAT LOCAL BENDING IS NOT INDUCED INTO JOIST CHORDS. WHEN THIS IS NOT POSSIBLE, THE JOISTS SHALL BE REINFORCED IN ACCORDANCE WITH SJI DETAILS. WHENEVER POSSIBLE, THE CONTRACTOR SHALL LOCATE CONCENTRATED LOADS ON THE JOIST SHOP DRAWINGS AND THE JOIST FABRICATOR SHALL REINFORCE THE JOISTS IN THE SHOP. SEE DETAIL E/S5.1 FOR ADDITIONAL INFORMATION.

H. THE CONTRACTOR SHALL FURNISH AND INSTALL BRIDGING FOR ALL STEEL BAR JOISTS. JOIST BRIDGING SIZE, CONFIGURATION, SPACIING AND INSTALLATION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF THE STEEL JOIST INSTITUTE. ENDS OF JOISTS BRIDGING LINES THAT TERMINATE AT WALLS OR BEAMS SHALL BE EXTENDED AND ANCHORED THERETO BY AN APPROVED METHOD. THE STEEL JOIST DETAILER SHALL COORDINATE ATTACHMENT DETAILS WITH THE STRUCTURAL STEEL DETAILER. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ANGLES, PLATES, CONCRETE EXPANSION ANCHORS, ETC. REQUIRED TO ATTACH JOIST BRIDGING TO WALLS AND / OR STRUCTURAL STEEL FRAMING AS SPECIFIED HEREIN AND DETAILED BY THE BAR JOIST FABRICATOR'S DETAILER. SEE DETAIL F/S5.1 FOR ADDITIONAL INFORMATION.

J. THE CONTRACTOR SHALL NOT ALLOW DUCKWORK, CONDUIT OR CEILINGS TO BE HUNG FROM JOIST BRIDGING.

K. ALL ROOF JOISTS SHALL BE DESIGNED FOR A NET UPLIFT OF 20 psf. THE JOIST FABRICATOR SHALL SUBMIT UPLIFT DESIGN CALCULATIONS WITH THE JOIST SHOP DRAWINGS.

### 8. METAL ROOF DECK:

A. DESIGN, DETAILING, FABRICATOIN AND INSTALLATION OF ALL METAL ROOF DECK ON THIS PROJECT SHALL CONFORM TO THE SPECIFICATIONS OF THE STEEL DECK INSTITUTE (SDI). PARTICULAR ATTENTION IS DIRECTED TO THE SDI DIAPHRAGM DESIGN MANUAL (DDMD2), THE SDI MANUAL OF CONSTRUCTION WITH STEEL DECK (MOC1), THE SDI STANDARD PRACTICE DETAILS AND THE SDI DECK DAMAGE AND PENETRATION, LATEST EDITION OF EACH.

B. METAL ROOF DECK ON THE LIGHT-GAUGE METAL TRUSSES 1.5B20 "WIDE RIB" METAL DECK (U.N.O.) ATTACH THE 1.5B20 METAL ROOF DECK TO THE CANOPY SUPPORTING STRUCTURE USING No. 12 SELF-DRILLING, SELF-TAPPING SCREWS IN A 36/5 FASTENER LAYOUT. SIDELAP FASTENERS SHALL BE No. 10 SELF-DRILLING, SELF-TAPPING SCREWS AT 12" CENTERS. RE: A/S5.1

C. THE ANCHORAGE OF THE METAL ROOF DECK TO THE SUPPORTING STEEL STRUCTURE SHALL BE CAPABLE OF RESISTING A 45 psf NET UPLIFT (60 psf NET UPLIFT AT EAVES, OVERHANGS AND CANOPIES). IF THE FASTENER PATTERN SPECIFIED HEREIN IS NOT ADEQUATE TO RESIST THESE UPLIFT VALUES, THE METAL DECK SUPPLIER SHALL INDICATE A FASTENER PATTERN ON THE SHOP DRAWINGS THAT WILL MEET THIS REQUIREMENT. METAL ROOF DECK SUPPLIER SHALL SUBMIT UPLIFT CALCULATIONS ALONG WITH DECK SHOP DRAWINGS.

D. WELDING METAL DECK TO THE SUPPORTING STEEL STRUCTURE AND / OR WELDING SIDELAP ATTACHMENTS IS PROHIBITED ON THIS PROJECT.

E. ALL METAL DECK ON THIS PROJECT SHALL BE COLD-FORMED FROM SHEET STEEL CONFORMING TO ASTM A653 (MINIMUM TENSILE YIELD STRENGTH, Fy = 33 ksi).

F. ALL METAL DECK SHALL BE GALVANIZED PER ASTM A924 WITH A MINIMUM COATING CLASS OF G90 (Z275).

G. SUBJECT TO APPROVAL, THE METAL ROOF DECK ON THIS PROJECT SHALL BE THE PRODUCTS OF "VULCRAFT, A DIVISION OF NUCOR CORP.; P. O. BOX 1000; ST. JOE, INDIANA 46785" (BASIS OF DESIGN RE: NOTE No. 1.K ON SHEET SO.1 FOR ADDITIONAL INFORMATION)

H. SUBJECT TO APPROVAL, SELF-DRILLING, SELF-TAPPING FASTENERS USED TO ATTACH METAL DECK TO SUPPORTING STEEL STRUCTURE ON THIS PROJECT SHALL BE "HILTI KWIK-FLEX" SELF-DRILLING SCREWS OF THE SIZE SPECIFIED, MANUFACTURERED BY "HILTI; P. O. BOX 21148; TULSA, OKLAHOMA 74121" (BASIS OF DESIGN).

J. WHERE POSSIBLE, THE METAL DECK SHALL BE CONTINUOUS OVER THREE (3) OR MORE SUPPORTS.

K. THE CONTRACTOR SHALL FURNISH AND INSTALL THE METAL ROOF DECK MANUFACTURER'S STANDARD METAL ROOF DECK ACCESSORIES (e.g. VALLEY PLATES, RIDGE PLATES, FILLER PLATES, FLAT PLATES, CLOSURE STRIPS, ETC. ) WHERE APPLICABLE.

### 9. LIGHT GAUGE METAL FRAMING:

A. ALL LIGHT-GAUGE STRUCTURAL METAL FRAMING (METAL STUDS, JOISTS AND ACCESSORIES)
SHALL BE OF THE TYPE, SIZE, GAUGE AND SPACING SHOWN ON THE DRAWINGS. LIGHT-GAUGE METAL
FRAMING SHALL BE CONSTRUCTED USING THE PRODUCTS OF "DEITRICH METAL FRAMING (A WORTHINGTON
INDUSTRIES COMPANY); 500 GRANT STREET. SUITE 2226; PITTSBURGH, PA 15219" (OR APPROVED EQUAL).

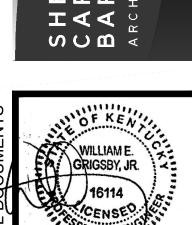
B. ALL LIGHT-GAUGE METAL FRAMING SHALL BE DESIGNED, DETAILED, FABRICATED AND INSTALLED IN ACCORDANCE WITH THE "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STRUCTURAL MEMBERS" BY THE AMERICAN IRON AND STEEL INSTITUTE (AISI), LATEST EDITION.

C. ALL LIGHT-GAUGE METAL FRAMING SHALL BE COLD-FORMED FROM CORROSION-RESISTANT STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM1003. STRUCTURAL STUDS AND JOISTS SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 ksi. TRACK RUNNERS AND OTHER ACCESSORIES SHALL HAVE A MINIMUM YIELD STRENGTH OF 33 ksi.

D. ALL LIGHT-GAUGE METAL FRAMING SHALL BE ZINC COATED (GALVANIZED) IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A1003 - G60.

E. THE LIGHT-GAUGE METAL FRAMING DETAILS SHOWN ON THE CONTRACT DOCUMENTS ARE FOR CONCEPTUAL PURPOSES ONLY. THE ACTUAL DETAILS OF CONSTRUCTION FOR THE LIGHT-GAUGE METAL FRAMING SYSTEM SHALL BE THE RESPONSIBILITY OF THE LIGHT-GAUGE METAL COMPONENT SUPPLIER. THE LIGHT-GAUGE METAL COMPONENT SUPPLIER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR ALL LIGHT-GAUGE METAL FRAMING (INCLUDING METAL STUDS, METAL JOISTS, AS WELL AS ALL OTHER MISCELLANEOUS ITEMS AND ACCESSORIES, ETC. NECESSARY TO COMPLETE THE LIGHT-GAUGE METAL FRAMING SYSTEM INDICATED ON THE CONTRACT DOCUMENTS) TO THE ARCHITECT FOR REVIEW. DRAWINGS AND CALCULATIONS SHALL BE CERTIFIED, STAMPED AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER, REGISTERED IN THE COMMONWEALTH OF KENTUCKY AND EXPERIENCED IN STRUCTURAL ENGINEERING.

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### <u>GENERAL</u>

THIS STRUCTURAL QUALITY ASSURANCE PLAN IDENTIFIES THE RESPONSIBILITIES OF THE CONTRACTOR AND THE SPECIAL INSPECTOR IN PERFORMING THE TESTING AND INSPECTION OF WORK REQUIRED BY CHAPTER 17 OF THE BUILDING CODE THAT IS WITHIN THE SCOPE OF THE STRUCTURAL ENGINEERING SERVICES FOR THIS PROJECT. REFER TO OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS FOR TESTING AND INSPECTIONS REQUIRED OF ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR OTHER BUILDING COMPONENTS.

### CONTRACTOR RESPONSIBILITIES

THE CONTRACTOR SHALL SUBMIT TO THE BUILDING OFFICIAL AND THE ARCHITECT A WRITTEN STATEMENT OF RESPONSIBILITY THAT CONTAINS THE FOLLOWING:

- 1. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED WITHIN THIS STRUCTURAL QUALITY ASSURANCE PLAN.
- ACKNOWLEDGMENT THAT CONTROL SHALL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
- PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING, AND THE DISTRIBUTION OF REPORTS.
- 4. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

THE STRUCTURAL TESTING/INSPECTION AGENCY THAT IS TO ACT AS THE SPECIAL INSPECTOR SHALL BE HIRED BY THE OWNER AND SHALL BE APPROVED BY THE BUILDING OFFICIAL. THE STRUCTURAL TESTING/INSPECTION AGENCY SHALL SUBMIT THE NAME AND QUALIFICATIONS OF ITS PERSONNEL THAT WILL ACT AS THE SPECIAL INSPECTOR. IF MULTIPLE STRUCTURAL TESTING/INSPECTION AGENCIES ARE USED. SUBMIT THE INFORMATION STATED ABOVE FOR EACH FIRM ALONG WITH A STATEMENT OF THE SPECIAL INSPECTION RESPONSIBILITIES FOR EACH FIRM.

THE CONTRACTOR SHALL PAY FOR ANY ADDITIONAL STRUCTURAL TESTING/INSPECTION REQUIRED FOR WORK OR MATERIALS NOT COMPLYING WITH THE CONSTRUCTION DOCUMENTS DUE TO NEGLIGENCE OR NONCONFOMANCE AND SHALL PAY FOR ANY ADDITIONAL STRUCTURAL TESTING/INSPECTION REQUIRED FOR HIS CONVENIENCE.

CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SPECIAL INSPECTOR IS PRESENT FOR ALL WORK REQUIRING SPECIAL INSPECTION. ANY WORK THAT REQUIRES SPECIAL INSPECTION AND IS PERFORMED WITHOUT THE SPECIAL INSPECTOR BEING PRESENT IS SUBJECT TO BEING DEMOLISHED, RE-CONSTRUCTED AND RE-INSPECTED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR HAS THE FOLLOWING RESPONSIBILITIES TO THE SPECIAL INSPECTOR:

- 1. PROVIDE A COPY OF THE CONSTRUCTION DOCUMENTS TO THE SPECIAL INSPECTOR.
- NOTIFY THE SPECIAL INSPECTOR SUFFICIENTLY IN ADVANCE OF OPERATIONS TO ALLOW ASSIGNMENT OF PERSONNEL AND SCHEDULING OF TESTS.
- 3. COOPERATE WITH SPECIAL INSPECTOR AND PROVIDE ACCESS TO WORK.
- PROVIDE SAMPLES OF MATERIALS TO BE TESTED IN REQUIRED QUANTITIES.
- PROVIDE STORAGE SPACE FOR THE SPECIAL INSPECTOR'S EXCLUSIVE USE, SUCH AS FOR STORING AND CURING CONCRETE TESTING SAMPLES.
- 6. PROVIDE LABOR TO ASSIST THE SPECIAL INSPECTOR IN PERFORMING TESTS/INSPECTIONS.
- \* WHEN THE CONTRACTOR CALLS FOR SPECIAL INSPECTIONS AND IS NOT READY WHEN THE INSPECTOR ARRIVES ON SITE, THE CONTRACTOR SHALL BE RESPONSIBLE TO PAY FOR THE INSPECTOR'S WASTED TIME.

### SPECIAL INSPECTOR RESPONSIBILITIES

SPECIAL INSPECTOR SHALL MAINTAIN RECORDS OF INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE BUILDING CODE AND SHALL DISTRIBUTE THESE RECORDS TO THE BUILDING OFFICIAL, ARCHITECT, AND STRUCTURAL ENGINEER ON A WEEKLY BASIS. AT THE CONCLUSION OF THE PROJECT THE SPECIAL INSPECTOR SHALL SUBMIT A WRITTEN STATEMENT THAT THE SPECIAL INSPECTIONS DURING CONSTRUCTION HAVE COMPLIED WITH THIS STRUCTURAL QUALITY ASSURANCE PLAN AND THAT ANY DISCREPENCIES NOTED DURING CONSTRUCTION HAVE BEEN CORRECTED. ANY AND ALL DISCREPENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR, THE CONSTRUCTION MANAGER AND THE ARCHITECT IMMEDIATELY.

THE SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

- 1. VERIFY THAT THE STRUCTURAL FILL COMPLIES WITH SPECIFICATIONS AND THE PROJECT GEOTECHNICAL
- 2. OBSERVE PROOFROLLING
- 3. PERFORM FIELD DENSITY TESTS TO VERIFY COMPACTION OF STRUCTURAL FILL. AS A MINIMUM, PERFORM ONE TEST PER LIFT FOR EVERY 2500 SQUARE FEET OF FILL PLACED.
- 4. VERIFY FOUNDATION BEARING CAPACITY.
- 5. PERFORM ANY AND ALL OTHER TESTS THAT MAY BE REQUIRED BY THE KENTUCKY BUILDING CODE.

### <u>CAST IN PLACE CONCRETE</u>

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

- 1. SUBMIT MILL TEST REPORTS.
- SUBMIT MANUFACTURER'S DATA FOR TENSILE AND COMPRESSIVE SPLICERS.
- ESTABLISH CONCRETE MIX DESIGN PROPORTIONS PER ACI 318, CHAPTER 5. SUBMIT THREE COPIES OF EACH CONCRETE MIX DESIGN. PROVIDE COPIES OF EACH CONCRETE MIX DESIGN TO THE SPECIAL INSPECTOR. NCLUDE THE FOLLOWING:
- TYPE AND QUANTITIES OF MATERIALS
- AIR CONTENT
- FRESH UNIT WEIGHT
- AGGREGATES SIEVE ANALYSIS DESIGN COMPRESSIVE STRENGTH
- LOCATION OF PLACEMENT IN STRUCTURE
- METHOD OF PLACEMENT
- METHOD OF CURING SEVEN-DAY AND 28-DAY COMPRESSIVE STRENGTHS
- SUBMIT A CERTIFICATION FROM EACH MANUFACTURER OR SUPPLIER STATING THAT THE MATERIALS MEET THE REQUIRMENTS OF THE SPECIFIED ASTM AND ACI STANDARDS.
- 5. SUBMIT CERTIFICATION THAT THE READY-MIXED CONCRETE PLANT COMPLIES WITH THE REQUIREMENTS OF THE NATIONAL READY MIX CONCRETE ASSOCIATION.

### SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

- 1. VERIFY GRADE, QUANTITY, LOCATION, AND PLACEMENT OF REINFORCING STEEL PRIOR TO CONCRETE PLACEMENT.
- EXAMINE CONCRETE IN TRUCK TO VERIFY THAT CONCRETE APPEARS PROPERLY MIXED.
- 3. PERFORM A SLUMP TEST AS DEEMED NECESSARY FOR EACH CONCRETE LOAD. RECORD IF WATER OR ADMIXTURES ARE ADDED TO THE CONCRETE AT THE JOB SITES. PERFORM ADDITIONAL SLUMP TESTS AFTER JOB SITE ADJUSTMENTS.
- MOLD FOUR SPECIMENS PER SET FOR COMPRESSIVE STRENGTH TESTING; ONE SET FOR EACH 75 CUBIC YARDS OF EACH MIX DESIGN PLACED IN ANY ONE DAY. FOR EACH SET MOLDED, RECORD:
- AIR CONTENT UNIT WEIGHT
- TEMPERATURE, AMBIENT AND CONCRETE
- LOCATION OF PLACEMENT
- F. ANY PERTINENT INFORMATION, SUCH AS ADDITION OF WATER, ADDITION OF ADMIXTURERS, ETC.

PERFORM ONE 7-DAY AND TWO 28-DAY COMPRESSIVE STRENGTH TESTS. (USE ONE AS A SPARE TO BE BROKEN AS DIRECTED BY THE STRUCTURAL ENGINEER IF COMPRESSIVE STRENGTH'S DO NOT

- APPEAR ADEQUATE.) REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE AND CONCRETE PLACEMENT, NAME OF THE CONCRETE TESTING AGENCY, CONCRETE DESIGN COMPRESSIVE STRENGTH, LOCATION OF CONCRETE PLACEMENT IN STRUCTURE, CONCRETE MIX
- 6. MONITOR PLACEMENT OF STRUCTURAL LIGHTWEIGHT CONCRETE PLACED BY PUMPING.

PROPORTIONS AND MATERIALS. COMPRESSIVE BREAKING STRENGTH AND TYPE OF BREAK.

7. PERFORM ANY AND ALL OTHER TESTS THAT MAY BE REQUIRED BY THE KENTUCKY BUILDING CODE.

### \*\* POST-INSTALLED ANCHOR BOLTS & REINFORCING STEEL IN CONCRETE & CONCRETE MASONRY

- THE CONTRACTOR SHALL PERFORM THE FOLLOWING:
- 1. SUBMIT MANUFACTURER'S DATA FOR CONCRETE EXPANSION ANCHORS.
- SUBMIT MANUFACTURER'S DATA FOR ADHESIVE ANCHORING EPOXY.
- 3. SUBMIT MANUFACTURER'S DATA FOR MECHANICAL CONCRETE ANCHORS (CONCRETE SCREWS)
- PROVIDE ICC EVALUATION SERVICE REPORT TO SPECIAL INSPECTOR FOR EACH TYPE OF POST INSTALLED ANCHOR USED ON THIS PROJECT.
- 5. NOTIFY THE INSPECTOR 24-HOURS IN ADVANCE THAT POST INSTALLED ANCHORS AND / OR REINFORCING STEEL ARE SCHEDULED TO BE INSTALLED AND REQUIRE INSPECTION.

### SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

- VERIFY THAT INSTALLERS HAVE BEEN TRAINED BY A REPRESENTATIVE OF THE ANCHOR MANUFACTURER.
- 2. INSPECT ALL POST—INSTALLED ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ICC EVALUATION SERVICE REPORT FOR THAT INDIVIDUAL ANCHOR.
- PERFORM ANY AND ALL OTHER TESTS THAT MAY BE REQUIRED BY THE MANUFACTURER AND / OR KENTUCKY BUILDING CODE.

### NON-SHRINK GROUT UNDER STEEL BASE PLATES

### THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

- 1. SUBMIT MILL TEST REPORTS.
- 2. SUBMIT GROUT MANUFACTURER'S DATA FOR TENSILE AND COMPRESSIVE SPLICERS.
- 3. SUBMIT A CERTIFICATION THE GROUT EACH MANUFACTURER OR SUPPLIER STATING THAT THE MATERIALS MEET THE REQUIRMENTS OF THE SPECIFIED ASTM AND ACI STANDARDS.

### SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

- 1. COMPRESSIVE STRENGTHS TEST PER ASTM C109.
- 2. NUMBER OF TESTS: ONE TEST FOR EACH TEN BAGS OF GROUT USED OR MINIMUM OF ONE TEST FOR EACH DAY OF GROUTING. (NOTE: SEVEN GROUT CUBES ARE REQUIRED FOR ONE TEST — ONE CUBE TO BE USED AS A SPARE TO BE BROKEN AS DIRECTED BY THE STRUCTURAL ENGINEER IF COMPRESSIVE STRENGTH'S DO NOT APPEAR ADEQUATE.)
- 3. CUBE SIZES: 2-INCH x 2-INCH
- 4. TEST SCHEDULE: ONE CUBE AT 3 DAYS, TWO CUBES AT 7 DAYS, THREE CUBES AT 28 DAYS.
- 5. PERFORM ANY AND ALL OTHER TESTS THAT MAY BE REQUIRED BY THE KENTUCKY BUILDING CODE.

### CONCRETE MASONRY

- THE CONTRACTOR SHALL PERFORM THE FOLLOWING:
- 1. SUBMIT A CERTIFICATION FROM EACH MANUFACTURER OR SUPPLIER STATING THAT THE FOLLOWING MATERIALS COMPLY WITH THE SPECIFIED ASTM OR ACI STANDARDS.

  - CONCRETE MASONRY UNITS
  - MORTAR MATERIALS, PORTLAND CEMENT, HYDRATED LIME, AND AGGREGATES GROUT MATERIALS: PORTLAND CEMENT AND AGGREGATES
  - JOINT REINFORCEMENT STEEL
  - REINFORCING STEEL
- 2. SUBMIT SHOP DRAWINGS FOR REINFORCING STEEL USED IN CONCRETE MASONRY WALLS.

### THE SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

- 1. VERIFY COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS, MORTAR, AND COARSE GROUT FOR EVERY 5,000 SQ. FT. OF SURFACE AREA AS FOLLOWS:
  - THREE (3) CONCRETE MASONRY UNITS SHALL BE TESTED IN ACCORDANCE WITH ASTM C140. SIX (6) MORTAR CUBE SPECIMENS SHALL BE TESTED, THREE (3) AT 7-DAYS AND THREE (3)
  - AT 28-DAYS, IN ACCORDANCE WITH ASTM C109 C. FOUR (4) COARSE GROUT SPECIMENS SHALL BE TESTED, TWO (2) AT 7-DAYS AND TWO (2)
  - AT 28-DAYS, IN ACCORDANCE WITH ASTM C1019 D. IN LIEU OF INDIVIDUAL TESTS OF MASONRY UNITS, MORTAR, AND GROUT, PERFORM ONE (1)
- PRISM TEST (WHICH CONSISTS OF THREE PRISMS) IN ACCORDANCE WITH ASTM E447
- 1. PROVIDE CONTINUOUS INSPECTION TO VERIFY COMPLIANCE OF THE FOLLOWING:
- CLEANLINESS OF GROUT SPACE PRIOR TO GROUTING PLACEMENT OF GROUT IN REINFORCED CELLS
- CONSOLIDATION AND RE-CONSOLIDATION OF GROUT
- PREPARATION OF REQUIRED GROUT AND MORTAR SPECIMENS WELDING OF REINFORCING BARS
- PROVIDE PERIODIC INSPECTION TO VERIFY COMPLIANCE OF THE FOLLOWING:
- PROPORTIONS OF SITE-PREPARED MORTAR AND GROUT
- CONSTRUCTION OF MORTAR JOINTS QUANTITY, SIZE, LOCATION, AND SUPPORT OF REINFORCING STEEL
- QUANTITY, SIZE, AND PLACEMENT OF HORIZONTAL JOINT REINFORCEMENT TYPE, SIZE AND LOCATION OF ANCHORS
- PROTECTION OF MASONRY DURING COLD OR HOT WEATHER.
- 4. PERFORM ANY AND ALL OTHER TESTS THAT MAY BE REQUIRED BY THE KENTUCKY BUILDING CODE.

### STRUCTURAL STEEL

### THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

- 1. SUBMIT CERTIFICATION THAT THE FABRICATOR IS REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM REQUIRED WORK WITHIN SPECIAL INSPECTIONS.
- 2. IF THE FABRICATOR IS NOT REGISTERED AND APPROVED, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED. SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.
- 3. SUBMIT CERTIFIED MILL TEST REPORTS FOR STRUCTURAL STEEL.
- 4. SUBMIT MANUFACTURER'S CERTIFICATE OF COMPLIANCE FOR HIGH-STRENGTH BOLTING AND WELD FILLER MATERIALS.

### SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING

- 1. PROVIDE CONTINUOUS INSPECTION TO VERIFY COMPLIANCE OF THE FOLLOWING:
  - A. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS. ULTRASONICALLY INSPECT 100% OF
  - THE COMPLETE PENETRATION WELDS. B. MULTI-PASS FILLET WELDS AND SINGLE-PASS FILLET WELDS GREATER THAN  $\frac{5}{6}$ "
- 2. PROVIDE PERIODIC INSPECTION TO VERIFY COMPLIANCE OF THE FOLLOWING:
  - MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS
  - MATERIAL VERIFICATION OF WELD FILLER MATERIAL VERIFICATION OF ANCHOR ROD SIZE, CONFIGURATION, AND EMBEDMENT PRIOR TO PLACEMENT
  - VISUALLY INSPECT ALL BOLTED CONNECTIONS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRIOR TO VISUAL AND PHYSICAL TESTING, TENSION TESTING USING A CALIBRATION DEVICE (SKIDMORE-WILHELM) MUST INDICATE TENSIONS AT LEAST 0.5% IN EXCESS OF THE AISC MINIMUM. STRUCTURAL STEEL ERECTOR SHALL SUPPLY THE TENSION CALIBRATION DEVICE. TEST A MINIMUM OF 10% OF THE BOLTED
  - VISUALLY INSPECT ALL FIELD-WELDED CONNECTIONS. VISUAL INSPECTION OF WELDED JOINTS
  - INCLUDES PERIODIC EXAMINATION OF FITUP F. VERIFY STUD SHEAR CONNECTOR SPACING AND LOCATION. VISUALL INSPECT WELDING OF STUD SHEAR CONNECTORS.

### 3. WELD INSPECTIONS TO INCLUDE THE FOLLOWING

- WELD INSPECTIONS SHALL BE IN ACCORDANCE WITH AWS D1.1 REVIEW AND VERIFY COMPLIANCE OF WRITTEN WELDING PROCEDURES WITH AWS REQUIREMENTS

USE GAMMA RAY, MAGNAFLUX, TREPANNING, SONICS OR ANY OTHER AID TO VISUAL INSPECTION

- VERIFY THAT WELDING PROCEDURES ARE BEING ADHERED TO DURING FIELD WELDING. VERIFY WELDER QUALIFICATIONS USE ALL MEANS NECESSARY TO DETERMINE THE QUALITY OF WELDS. THE INSPECTOR MAY
- THAT THE SPECIAL INSPECTOR MAY DEEM NECESSARY TO BE ASSURED OF THE ADEQUACY OF F. KEEP A SYSTEMATIC RECORD OF ALL WELDS THAT INCLUDES, IN ADDITION TO OTHER REQUIRED RECORDS, THE IDENTIFICATION MARKS OF WELDERS, A LIST OF DEFECTIVE WELDS, AND THE
- MANNER OF CORRECTING DEFECTS. 4. PERFORM ANY AND ALL OTHER TESTS THAT MAY BE REQUIRED BY THE KENTUCKY BUILDING CODE.

### STEEL JOIST

### THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

- 1. SUBMIT MILL CERTIFICATION THAT THE SUPPLIED STEEL COMPLIES WITH THE SPECIFICATIONS.
- 2. SUBMIT CERTIFICATION THAT THE FABRICATOR IS REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM REQUIRED WORK WITHIN SPECIAL INSPECTIONS.
- 3. IF THE FABRICATOR IS NOT REGISTERED AND APPROVED, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED. SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.

### THE SPECIAL INSPECTOR SHALL PERFORM PERIODIC INSPECTIONS OF THE FOLLOWING:

VISUAL INSPECTION OF BOLTED AND WELDED CONNECTIONS.

3. VERIFY CONNECTIONS FOR TOP AND BOTTOM CHORDS.

- 2. VERIFY INSTALLATION OF BRIDGING BRACES.
- 4. VERIFY REINFORCEMENT OF MEMBERS FOR CONCENTRATED LOADS.
- 5. VERIFY PROPER BEARING.
- 6. PERFORM ANY AND ALL OTHER TESTS THAT MAY BE REQUIRED BY THE KENTUCKY BUILDING CODE.

### STEEL DECK

### THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

- 1. SUBMIT MILL CERTIFICATION THAT THE SUPPLIED STEEL COMPLIES WITH THE SPECIFICATIONS.
- 2. SUBMIT CERTIFICATION THAT THE FABRICATOR IS REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM REQUIRED WORK WITHIN SPECIAL INSPECTIONS.
- IF THE FABRICATOR IS NOT REGISTERED AND APPROVED, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED. SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.

### THE SPECIAL INSPECTOR SHALL PERFORM PERIODIC INSPECTIONS OF THE FOLLOWING:

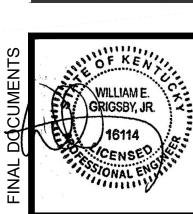
- 1. VERIFY GENERAL ALIGNMENT AND DECK LAP.
- 2. VERIFY WELDS FOR SIZE AND PATTERN.
- 3. VERIFY SPACING AND TYPE OF SIDELAP ATTACHMENTS.
- 4. VERIFY INSTALLATION OF DECK CLOSURES

### COLD FORMED (LIGHT-GAUGE) FRAMING

- THE CONTRACTOR SHALL PERFORM THE FOLLOWING:
- 1. SUBMIT MILL CERTIFICATION THAT THE SUPPLIED STEEL COMPLIES WITH THE SPECIFICATIONS.
- THE SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING
- 1. VERIFY THAT GENERAL ARRANGEMENT AND INSTALLATION OF LIGHT-GAUGE STEEL FRAMING IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 2. VERIFY THAT FRAMING MEMBERS AND CONNECTIONS ARE NOT DAMAGED.

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AR VILI PAYI

STRUCTURAL NOTES
SPECIAL INSPECTIONS

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**REVISIONS** 

SHERMAN CARTER BARNHAI

ARCHITECTS, PLLC

REVISIONS **Description** Date

SHEET

OVERALL FOUNDATION PLAN

SEE SHEET S0.1 FOR GENERAL STRUCTURAL NOTES AND DEFINITIONS OF

2. SEE SHEET S0.1 FOR STRUCTURAL DESIGN CRITERIA.

ABBREVIATIONS USED THROUGHOUT THESE DRAWINGS.

- 3. SEE SHEET S0.1 FOR GEOTECHNICAL DATA AND REQUIREMENTS ALONG WITH STRUCTURAL NOTES PERTAINING TO THE TESTING AND PREPARATION OF THE SUBGRADE FOR CONCRETE FLOOR SLABS ON GRADE AND BEARING STRATA FOR CONTINUOUS WALL FOOTINGS AND ISOLATED COLUMN FOOTINGS.
- 4. SEE SHEET S0.1 FOR STRUCTURAL NOTES PERTAINING TO CONCRETE MIX DESIGN, REINFORCING STEEL, AND REINFORCED CONCRETE CONSTRUCTION.
- SEE SHEET S0.2 FOR STRUCTURAL NOTES PERTAINING TO STRUCTURAL STEEL CONSTRUCTION, AS WELL AS CONSTRUCTION UTILIZING OPEN-WEB BAR JOIST AND METAL
- 6. SEE SHEET S0.3 FOR NOTES PERTAINING TO THE SPECIAL INSPECTIONS REQUIRED ON THIS PROJECT BY CHAPTER 17 OF THE 2018 KENTUCKY BUILDING CODE (KBC).
- 7. "F#" DENOTES COLUMN FOOTING. SEE SHEET S2.0 FOR THE "ISOLATED COLUMN FOOTING SCHEDULE".
- 8. "W#" DENOTES WALL FOOTING. SEE SHEET S2.0 FOR THE "CONTINUOUS WALL FOOTING
- 10. "C.J." DENOTES A SLAB "CONTROL JOINT" OR "CONSTRUCTION JOINT" RE: "A/S2.0".

9. "P#" DENOTES A REINFORCED CONCRETE PIER - RE "C/S2.2".

11. "F.S." DENOTES A FOOTING STEP - RE: "G/S2.0" - THE CONTRACTOR SHALL FIELD LOCATE AND FIELD DETERMINE REQUIRED DEPTH OF FOOTING STEPS BASED ON CONDITIONS ENCOUNTERED IN THE FIELD.

12. "MCXXXZ" DENOTES A MASONRY COLUMN OF "XXX" SIZE AND "Z" TYPE - RE: "B/S4.1".

FINISH FLOOR ELEVATION TO MATCH EXISTING. RE: CIVIL DRAWINGS.

CONTRACTOR SHALL TAKE REMEDIAL STEPS OUTLINED IN DETAIL "D/S2.2".

- 13. PROVIDED ADDITIONAL REINFORCING AROUND OPENINGS IN ALL STRUCTURAL (REINFORCED) CONCRETE WALLS AND SLABS - RE: "B/S2.0".
- 14. PROVIDE ADDITIONAL REINFORCING REQUIRED AT ALL RE-ENTRANT CORNERS IN CONCRETE FLOOR SLABS ON GRADE - RE: "C/S2.0".
- 15. PROVIDE CORNER BARS IN CONCRETE WALLS AT ALL CORNERS AND WALL INTERSECTIONS RE: "D/S2.0". INDICATE STEP LOCATIONS ON THE FOUNDATION REINFORCING STEEL SHOP DRAWINGS.
- 17. ALL KEYWAYS INDICATED IN THE SECTIONS AND DETAILS SHALL BE 2x4 UNLESS NOTED OTHERWISE
- 18. THE FIRST FLOOR CONCRETE FLOOR SLAB ON GRADE FOR THIS PROJECT SHALL BE CONSTRUCTED AT
- 19. ALL FOOTING ELEMENTS SHALL BEAR ON COMPOTENT ROCK OR LIEN CONCRETE FILL TO ROCK. IF SUITABLE ROCK IS NOT ENCOUNTERED ATHE SPECIFIED BOTTOM OF FOOTING ELEVATION, THE
- 20. ALL FOUNDATIONS FOR THIS PROJECT SHALL BE CONSTRUCTED AT THE TOP OF FOOTING ELEVATIONS INDICATED ON THE PLANS - "T/FTG. EL." SHOWN ON PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL COORDINATE W/SITE DRAWINGS AND INFORM ENGINEER OF ANY DISCREPANCIES PRIOR TO START OF CONSTRUCTION.
- 21. EXTERIOR WALL AND COLUMN FOUNDATIONS FOR THIS PROJECT SHALL BE CONSTRUCTED SUCH THAT THE TOP OF FOOTING ELEVATION IS 24" (MIN.) BELOW FINISH FLOOR ELEVATION OR 18" (MIN.) BELOW ADJACENT FINISH GRADE ELEVATIONS, WHICHEVER IS LOWER.

- 22. WHERE TOP OF FOOTING ELEVATION IS NOT PROVIDED, INTERIOR WALL FOUNDATIONS SHALL BE CONSTRUCTED SUCH THAT THE TOP OF FOOTING ELEVATION IS 8" (MIN.) BELOW FINISH FLOOR ELEVATION. INTERIOR WALL FOUNDATIONS THAT TIE INTO EXTERIOR WALL FOUNDATIONS SHALL BE CONSTRUCTED AT THE SAME TOP OF FOOTING ELEVATION AS THE EXTERIOR FOOTINGS. A FOOTING STEP (F.S.) SHALL BE PROVIDED TO TIE INTERIOR TO EXTERIOR FOOTING. AT CONTRACTOR'S OPTION, INTERIOR WALL FOUNDATIONS SHALL BE PROVIDED AS REQUIRED TO TIE EXTERIOR FOUNDATIONS AS WELL AS OTHER FOOTINGS BEARING AT DIFFERENT DEPTHS - RE: "G/S2.0". THE CONTRACTOR SHALL FIELD LOCATE ALL FOOTING STEPS AND
- 16. PROVIDE CORNER BARS IN CMU BOND BEAMS AT ALL CORNERS AND WALL INTERSECTIONS RE: "C/S4.0". 23. THE CONCRETE FLOOR SLAB ON GRADE FOR THIS PROJECT SHALL BE 4" Thick OVER 4" (MIN.) LOCATED AND SUPPORTED USING CHAIRS, BAR SUPPORTS OR BOLSTERS. EDGES AND ENDS OF THE WELDED WIRE REINFORCEMENT SHEETS SHALL BE LAPPED ONE (1) WIRE SPACING + 2".
  - 25. THE CONTRACTOR SHALL COORDINATE UNDERGROUND UTILITIES WITH FOOTINGS AND FOUNDATION WALLS AND ENSURE THAT ADEQUATE CLEARANCE IS PROVIDED BETWEEN UTILITIES AND FOUNDATION ELEMENTS - RE" "J/S2.0" FOR ADDITIONAL INFORMATION WHERE PIPES, CONDUITS INTERFERE
  - 27. SEE DETAIL "E/S3.1" FOR COLUMN BASE PLATE DETAILS.
  - SEE THE FOUNDATION PLAN FOR COLUMN SIZES.

- COMPACTED GRANULAR BASE AND VAPOR BARRIER (RE: SPECIFICATIONS) REINFORCING FOR THE CONCRETE FLOOR SLAB ON GRADE SHALL BE WWR 6x6-W2.9xW2.9 LOCATED AT 1 1/2" BELOW SLAB SURFACE. THE WELDED WIRE REINFORCEMENT (WWR) SHALL BE SUPPLIED IN SHEETS ONLY (NO ROLLS). WWR SHALL BE PROPERLY
- 24. PROVIDE BOND BREAKER CONSISTING OF TWO (2) LAYERS OF 15# CONSTRUCTION FELT OR SELF-ADHERED MEMBRANE BOND BREAKER BETWEEN CONCRETE FLOOR SLABS ON GRADE AND ALL CONCRETE AND CMU FOUNDATION WALLS - "A/S2.0".
- 26. SEE DETAIL "B/S3.1" FOR ANCHOR BOLT DETAILS.

WITH FOUNDATION WALLS/FOOTINGS OR COLUMN FOUNDATIONS.

**BUILDING NORTH** 

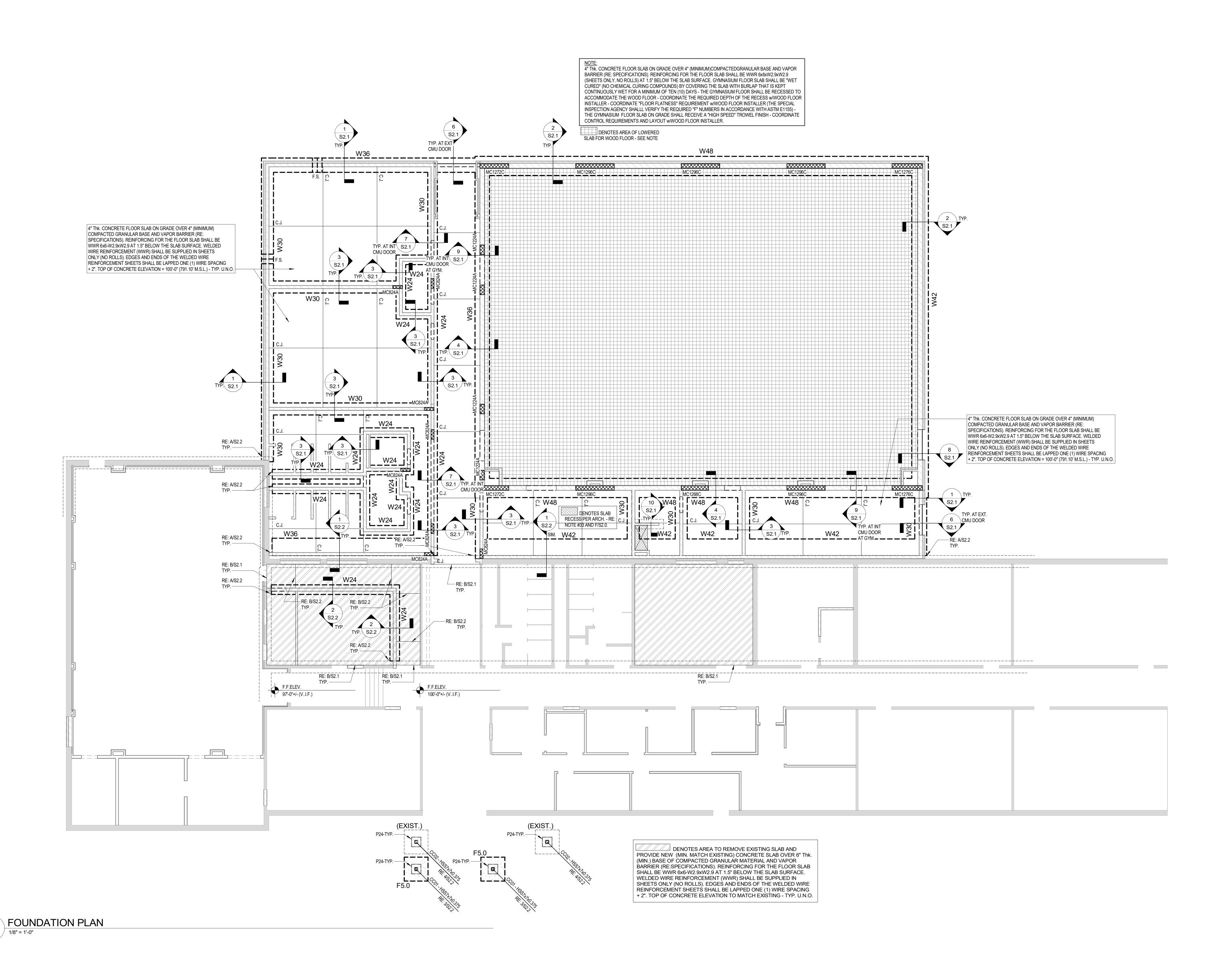
TRUE NORTH

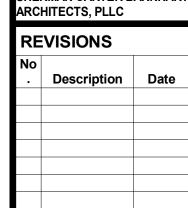
- 28. TUBE STEEL (HSS) COLUMNS FOR THIS PROJECT SHALL CONFORM TO ASTM A500 GRADE C.

- 29. THE MASON SHALL PROVIDE MASONRY CONTROL JOINTS (M.C.J.) IN ALL CMU WALLS. MASONRY CONTROL JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NOTE No. 5-R ON SHEET S0.2 AS WELL AS DETAILS "A/S4.0" AND "D/S4.0". CONTRACTOR SHALL COORDINATE MCJ LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- 30. ALL CMU WALLS (INCLUDING THOSE NOT SHOWN ON STRUCTURAL DRAWINGS) SHALL BE REINFORCED WITH HORIZONTAL JOINT REINFORCING AS SPECIFIED IN NOTE No. 5.P ON SHEET S0.2.
- 31. ALL VERTICAL REINFORCING BARS FOR MASONRY (CMU) CONSTRUCTION (CMU WALLS AND COLUMNS) SHALL BE CONTINUOUS FROM TOP OF FOUNDATION TO TOP OF WALL AND SHALL BE FULLY DEVELOPED WITH MATCHING DOWELS OUT OF THE FOUNDATION (U.N.O.). BAR SPLICES FOR CMU CONSTRUCTION SHALL BE FORTY-EIGHT (48) DIAMETERS.
- 32. PROVIDE ADDITIONAL VERTICAL REINFORCING IN GROUTED SOLID CMU CELLS AT ALL MASONRY WALL CORNERS AND INTERSECTIONS AS WELL AS AT THE END OF ALL WALLS AND AT ALL WALL OPENING JAMBS RE: "D/S4.1" - PROVIDE ADDITIONAL DOWELS OUT OF FOUNDATION TO MATCH EXTRA BARS.
- 33. FLOOR DRAINS SHALL BE LOCATED PER ARCHITECTURAL DRAWINGS AND INSTALLED PER M.E.P. DRAWINGS. SLOPE SLABS AS INDICATED WHERE SHOWN ON THE ARCHITECTURAL DRAWINGS. PROVIDE SLAB RECESS PER DETAIL "F/S2.0" AS INDICATED ON THE ARCHITECTURAL DRAWINGS.
- 34. THE CONTRACTOR SHALL COORDINATE ALL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS. DIMENSIONAL DISCREPANCIES SHALL BE RECTIFIED PRIOR TO STARTING CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL

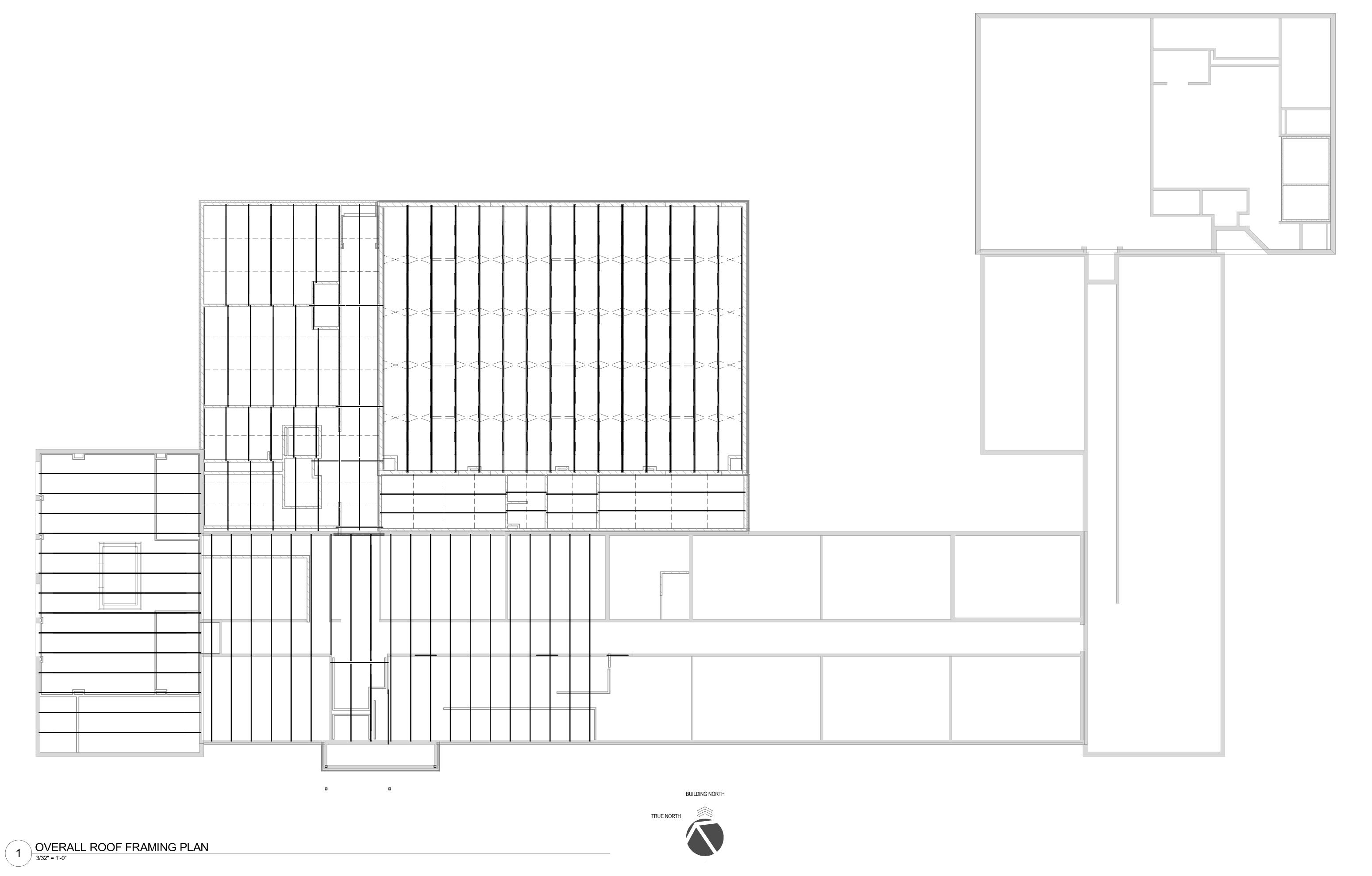
SHEET

**S1.2** 





SHEET



1. SEE SHEET S0.1 FOR GENERAL STRUCTURAL NOTES AND FOR ABBREVIATIONS USED

2. SEE SHEET S0.1 FOR STRUCTURAL DESIGN CRITERIA.

CHAPTER 17 OF THE 2018 KENTUCKY BUILDING CODE (KBC).

THROUGHOUT THESE DRAWINGS.

3. SEE SHEET S0.1 FOR GEOTECHNICAL DATA AND REQUIREMENTS ALONG WITH STRUCTURAL NOTES PERTAINING TO THE TESTING AND PREPARATION OF THE SUBGRADE FOR CONCRETE FLOOR SLABS ON

4. SEE SHEET S0.1 FOR STRUCTURAL NOTES PERTAINING TO CONCRETE MIX DESIGN, REINFORCING STEEL, 14. SEE DETAIL C/S3.1 FOR MORE INFORMATION REGARDING BRICK LINTEL ANGLES. AND REINFORCED CONCRETE CONSTRUCTION.

5. SEE SHEET S0.2 FOR STRUCTURAL NOTES PERTAINING TO REINFORCED CONCRETE MASONRY (CMU) CONSTRUCTION.

6. SEE SHEET S0.2 FOR STRUCTURAL NOTES PERTAINING TO STRUCTURAL STEEL CONSTRUCTION AS WELL AS CONSTRUCTION UTILIZING OPEN-WEB, STEEL BAR JOIST, METAL ROOF DECK.

7. SEE SHEET S0.3 FOR NOTES PERTAINING TO THE SPECIAL INSPECTIONS REQUIRED ON THIS PROJECT BY

8. SEE DETAIL A/S3.0 FOR ADDITIONAL INFORMATION REGARDING SUPPORTING CONCENTRATED LOADS ON OPEN-WEB STEEL BAR JOIST.

9. THE CONTRACTOR SHALL COORDINATE RTU WEIGHTS AND LOCATIONS BETWEEN BAR JOIST SUPPLIER AND ALL M.E.P. SUB-CONTRACTORS.

10. SEE DETAIL B/S3.0 FOR ADDITIONAL INFORMATION REGARDING SUPPORTING ROOF TOP MECHANICAL UNITS (RTU) ON OPEN-WEB STEEL BAR JOISTS.

NOTES: CONTINUED

11. SEE DETAIL C/S3.0 FOR ADDITIONAL INFORMATION REGARDING ANGLE FRAMES REQUIRED FOR OPENINGS 20. LETTERS IN HEXAGONS (A) DENOTE GROUTED SOLID, REINFORCED MASONRY (CMU) HEADER BEAMS IN THE METAL ROOF DECK.

12. SEE DETAIL D/S3.0 FOR ADDITIONAL INFORMATION REGARDING HORIZONTAL BRIDGING FOR OPEN-WEB STEEL BAR JOISTS.

13. SEE DETAIL G/S3.0 FOR ADDITIONAL INFORMATION REGARDING ATTACHMENT OF OPEN-WEB STEEL BAR

15. SEE SHEETS S3.0 FOR STEEL BEAM SCHEDULE.

16. SEE DETAIL K/S3.1 AND ACCOMPANYING SCHEDULE FOR CONNECTION DETAILS WHERE STEEL BEAMS FRAME INTO STEEL COLUMNS AND/OR OTHER STEEL BEAMS.

17. TUBE STEEL COLUMNS (HSS) FOR THIS PROJECT SHALL CONFORM TO ASTM A500, GRADE C - SEE FOUNDATION PLAN FOR COLUMN SIZES.

18. SEE DETAIL A/S3.1 FOR BEAM TO COLUMN CONNECTION WHERE STEEL BEAM IS INDICATED TO BE CONTINUOUS OVER TOP OF TUBE STEEL COLUMN.

19. THE MASON SHALL PROVIDE MASONRY CONTROL JOINTS (M.C.J.) SPACED AT 24'-0" (MAXIMUM) CENTERS. MASONRY CONTROL JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAIL D/S4.0 AND NOTE No. 5-R ON SHEET S0.2. SEE DETAIL A/S4.0 FOR MORE INFORMATION REGARDING MASONRY CONTROL JOINT (M.C.J.) LAYOUT. THE CONTRACTOR SHALL COORDINATE MCJ LOCATIONS WARCHITECTURAL DRAWINGS.

### NOTES: CONTINUED

OVER WALL OPENINGS IN THE MASONRY (CMU) WALLS. SEE DETAILS A/S4.0 AND B/S4.0 FOR ADDITIONAL INFORMATION. THE REINFORCING STEEL DETAILER SHALL DETAIL ALL MASONRY HEADER BEAMS ON THE REINFORCING STEEL SHOP DRAWINGS. SEE SCHEDULE ON \$4.0 FOR MASONRY HEADER REINFORCING.

21. NUMEROUS HVAC AND MECHANICAL WALL OPENINGS AND PENETRATIONS ARE REQUIRED THROUGH CONCRETE MASONRY (CMU) WALLS ON THIS PROJECT. THE CONTRACTOR SHALL COORDINATE THE EXACT SIZE AND LOCATION OF ALL WALL OPENINGS BETWEEN THE MASON AND ALL OTHER TRADES REQUIRING WALL PENETRATIONS. MASON CONTRACTOR SHALL CONSTRUCT THE REQUIRED HEADERS IN CMU WALLS OVER OPENINGS PER DETAILS A/S4.0 AND THE HEADER SCHEDULES ON SHEET S4.0.

22. WHERE OPENINGS IN MASONRY WALLS ARE INDICATED ON THE ARCHITECTURAL DRAWINGS AND NOT SHOWN ON THE STRUCTURAL DRAWINGS, PROVIDE A REINFORCED MASONRY HEADER PER THE APPLICABLE DETAILS REFERENCED HEREIN. HEADER BEAM REINFORCING DETAILS SHALL BE FOR THE OPENING IN THE SCHEDULE THAT IS MOST SIMILAR TO THE OPENING IN QUESTION.

23. PROVIDE STEEL BEARING PLATES PER DETAIL C/S4.1 UNDER ALL OPEN-WEB STEEL BAR JOISTS BEARING ON MASONRY WALLS.

24. PROVIDE BEARING PLATES PER DETAIL A/S4.1 AND SECTION 1/S4.1 FOR ALL STEEL BEAMS INDICATED TO BE SUPPORTED BY MASONRY WALLS OR MASONRY COLUMNS (MC) - RE: B/S4.1 FOR DETAILS REGARDING MASONRY COLUMNS (MC) UNDER STEEL BEAM - RE: BEAMS SCHEDULE FOR BEARING PLATE SIZE.

25. SEE SECTION 2/S4.1 FOR ADDITIONAL INFORMATION WHERE MASONRY (CMU) WALLS ARE INDICATED TO BE SUPPORTED ON STEEL BEAMS.

### NOTES: CONTINUED

26. SEE SECTION 3/S4.1 FOR ADDITIONAL INFORMATION WHERE STEEL BEAM IS INDICATED TO BE CONTINUOUS OVER TOP OF A MASONRY COLUMN (MC) OR MASONRY WALL.

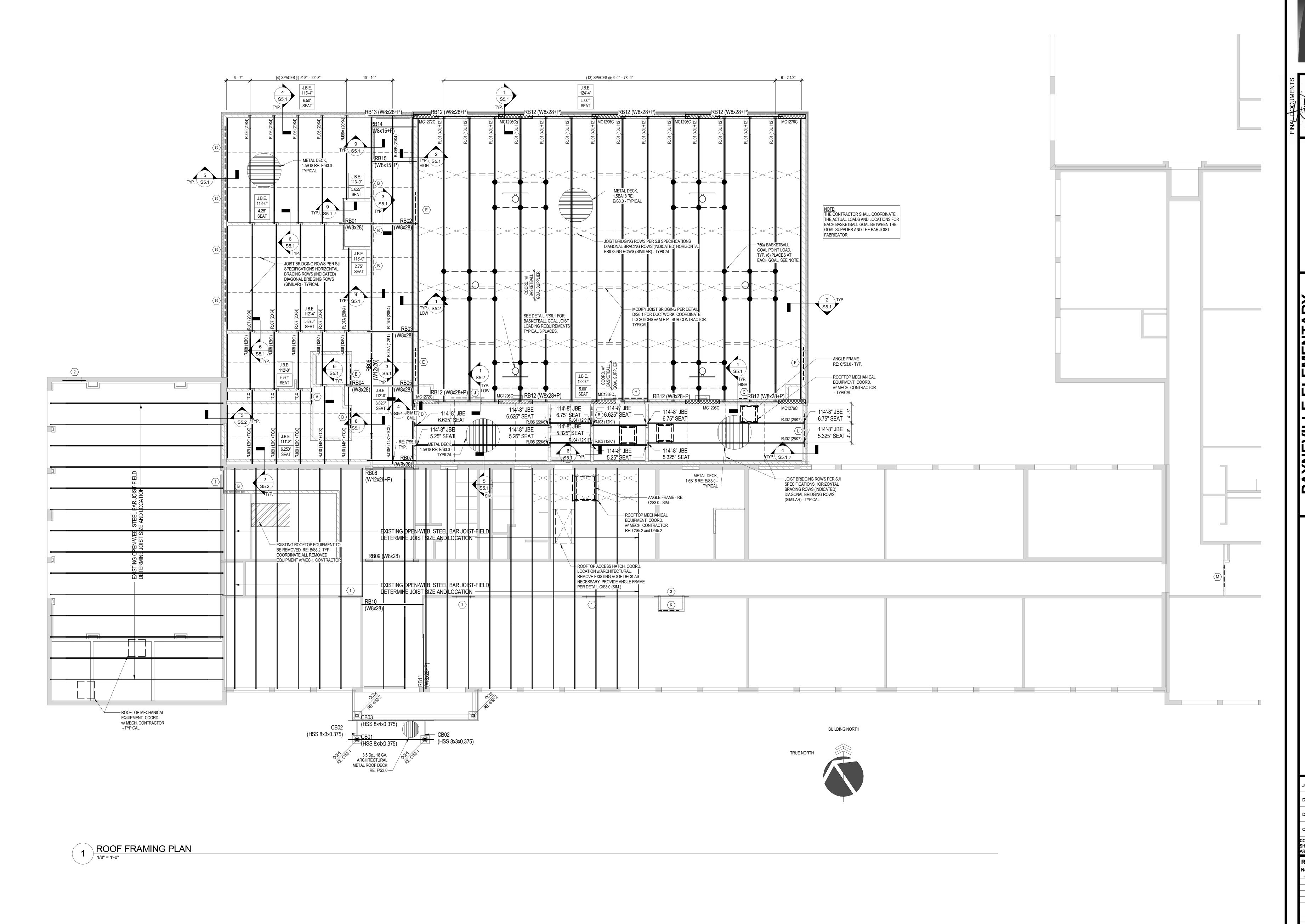
27. ALL CMU WALLS (INCLUDING THOSE NOT SHOWN ON STRUCTURAL DRAWINGS) SHALL BE REINFORCED WITH HORIZONTAL JOINT REINFORCING AS SPECIFIED IN NOTE 5-P ON SHEET S0.2

28. PROVIDE ADDITIONAL VERTICAL REINFORCING IN GROUTED CMU CELLS AT ALL MASONRY WALL CORNERS AND INTERSECTIONS AS WELL AS AT THE END OF ALL WALLS AND ALL WALL OPENING JAMBS PER DETAIL D/S4.1. PROVIDE ADDITIONAL DOWELS OUT OF FOUNDATION TO MATCH EXTRA BARS.

29. PROVIDE BOND BREAKER CONSISTING OF TWO (2) LAYERS 0F 15# CONSTRUCTION FELT OR SELF-ADHERED MEMBRANE BOND BREAKER BETWEEN CONCRETE FLOOR SLABS ON GRADE AND CMU WALLS.

30. THE CONTRACTOR SHALL COORDINATE ALL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS. DIMENSIONAL DISCREPANCIES SHALL BE RECTIFIED PRIOR TO STARTING CONSTRUCTION.

31. NUMBERS IN HEXAGONS (1) DENOTE NEW STEEL BEAM HEADER IN EXISTING CMU WALL - SEE DETAIL A/S4.2, SECTION 1/S4.2 AND ACCOMPANYING SCHEDULE FOR ADDITIONAL INFORMATION.



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ROOF FRAMING PLAN

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**S1.4** 

RE-ENTRANT CORNER IN CONCRETE SLAB

TYPICAL DETAIL

REINFORCING FOR RE-ENTRANT CORNERS IN SLABS

- PROVIDE MATCHING CORNER BARS OR ACI STD. 90° HOOK @ END OF EACH HORIZONTAL BAR IN INTERSECTING WALL AS INDICATED CONCRETE WALL INTERSECTION

- WALL REINFORCING - RE: DETAILS

TYPICAL DETAIL - CORNER BARS

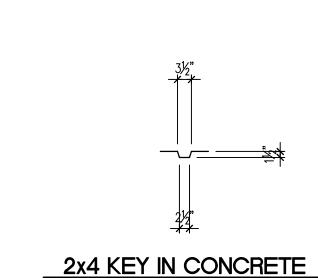
CONCRETE WALL CORNER

— WALL REINFORCING - RE: DETAILS

- PROVIDE MATCHING CORNER BARS OR ACI

STD. 90° HOOK @ END OF EACH HORIZONTAL

BAR IN INTERSECTING WALL AS INDICATED



— ON EACH SIDE OF OPENING, PROVIDE QUANTITY AND SIZE OF BARS

PROVIDE (2) #4 BARS x 4'-0" Long (T & B) AT 45°

TO MAIN REINFORCING STEEL - TYPICAL (4) PLACES SPACED AT 90° AROUND OPENING AS INDICATED

- OPENING IN STRUCTURAL CONCRETE - SEE PLAN

(TOP & BOTTOM) EQUAL TO THOSE CUT BY THE OPENING. EXTEND

BARS PAST LIMITS OF OPENING AT EACH END UNTIL FULLY DEVELOPED

USE THIS DETAIL FOR PROVIDING ADDITIONAL REINFORCING AROUND ALL

OPENINGS IN CONCRETE WALLS AND SLABS GREATER THAN 12" SQUARE. USE SIMILAR DETAILS FOR ADDITIONAL REINFORCING AROUND CIRCULAR

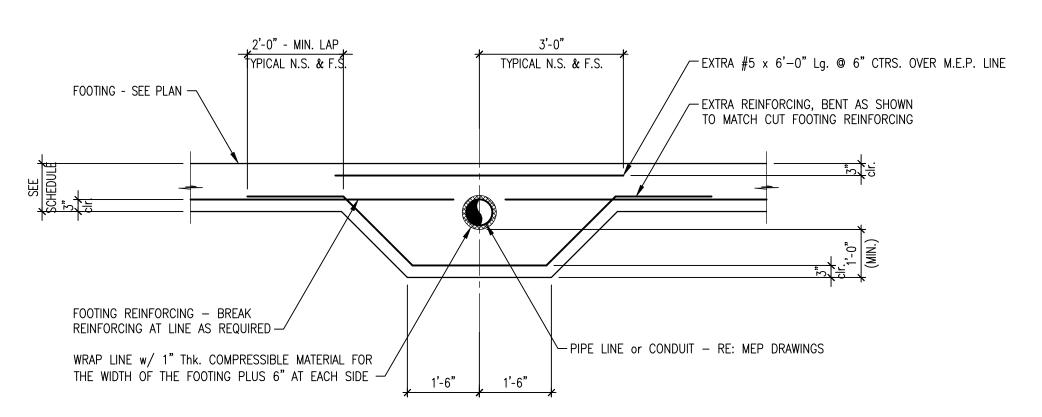
OPENINGS IN WALLS AND SLABS GREATER THAN 1'-0" IN DIAMETER.

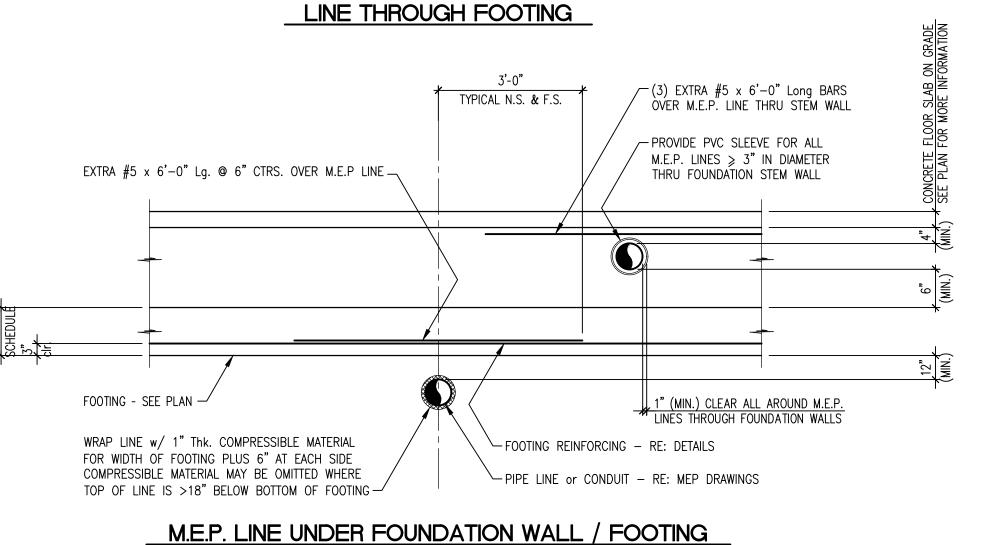
TYPICAL DETAIL

 $\overline{\text{SCALE}}$ : 1/2" = 1'-0"

"H" = DEPTH OF FOOTING STEP

### #4 BARS @ 12" CTRS. - PROVIDE AN ACI STD. 90° HOOK @ EACH END AS INDICATED TYP. AROUND PERIMETER OF SLAB RECESS -CONT. #5 BAR - TYPICAL EACH SIDE OF SLAB RECESS - EXTEND BAR 18" PAST THE RECESS AT EACH END OF EACH BAR CONT. #5 BAR - TYPICAL EACH SIDE OF SLAB RECESS - EXTEND BAR 18" PAST THE RECESS AT EACH END OF EACH BAR $\mathbin{\smallfrown}$ ─ WWR - RE: A/S2.0 - TYPICAL \_\_x\_\_x\_\_x\_\_x\_\_x\_\_x\_\_ PROVIDE RE-ENTRANT CORNER BARS AT EACH CORNER OF SLAB RECESS - RE: C/S2.0 1'-6" SLAB BASE - RE: A/S2.0 TYPICAL DETAIL - SLAB RECESS





SCALE: 1/2" = 1'-0"

"Z" BARS w/ STD. ACI 90° HOOKS @ EACH END - MATCH SIZE, "Z" BARS SHALL EXTEND FROM THE BOTTOM OF THE LOWER NUMBER AND SPACING OF LONGITUDINAL BOTTOM FOOTING BARS FOOTING TO THE TOP OF THE UPPER FOOTING AS INDICATED FOOTING TOP REINFORCING (WHERE INDICATED) - SEE APPROPRIATE FOUNDATION SECTIONS FOR SIZE, QUANTITY AND SPACING OF BARS <del>\_\_\_\_</del>.\_\_\_ FOOTING STEPS SHALL BE FIELD LOCATED BY CONTRACTOR FOOTING STEP LOCATIONS AND DEPTHS SHALL BE DETAILED ON THE FOUNDATION REINFORCING STEEL SHOP DRAWINGS SEE FOUNDATION DETAILS FOR FOOTING THICKNESS, " • / (0) • • • • • • BOTTOM FOOTING REINFORCING SEE APPROPRIATE DETAILS FOR 2 x "H" (MINIMUM) (MIN.) BAR SIZE, QUANTITY & SPACING -

TYPICAL 1" Dp. BEVELED JOINT - TYPICAL @ N.S. & F.S. N.S. & F.S. OF WALL AS AS INDICATED — "X" = 24" FOR #7 BARS & SMALLER "X" = 30" FOR #8 BARS & LARGER PROVIDE DOWELS ACROSS CONSTRUCTION JOINT - DOWEL SIZE AND SPACING SHALL MATCH HORIZONTAL WALL BARS ─ WALL REINFORCING - RE: DETAILS

TYPICAL DETAIL - FOOTING STEP

CONSTRUCTION JOINT 1" Dp. BEVELED JOINT - TYPICAL @ N.S. & F.S. OF WALL AS AS INDICATED BREAK ALTERNATE HORIZONTAL BARS AT ALL CONTROL JOINTS — ► WALL REINFORCING - RE: DETAILS CONTROL JOINT

TYPICAL DETAIL - CONCRETE WALL JOINTS

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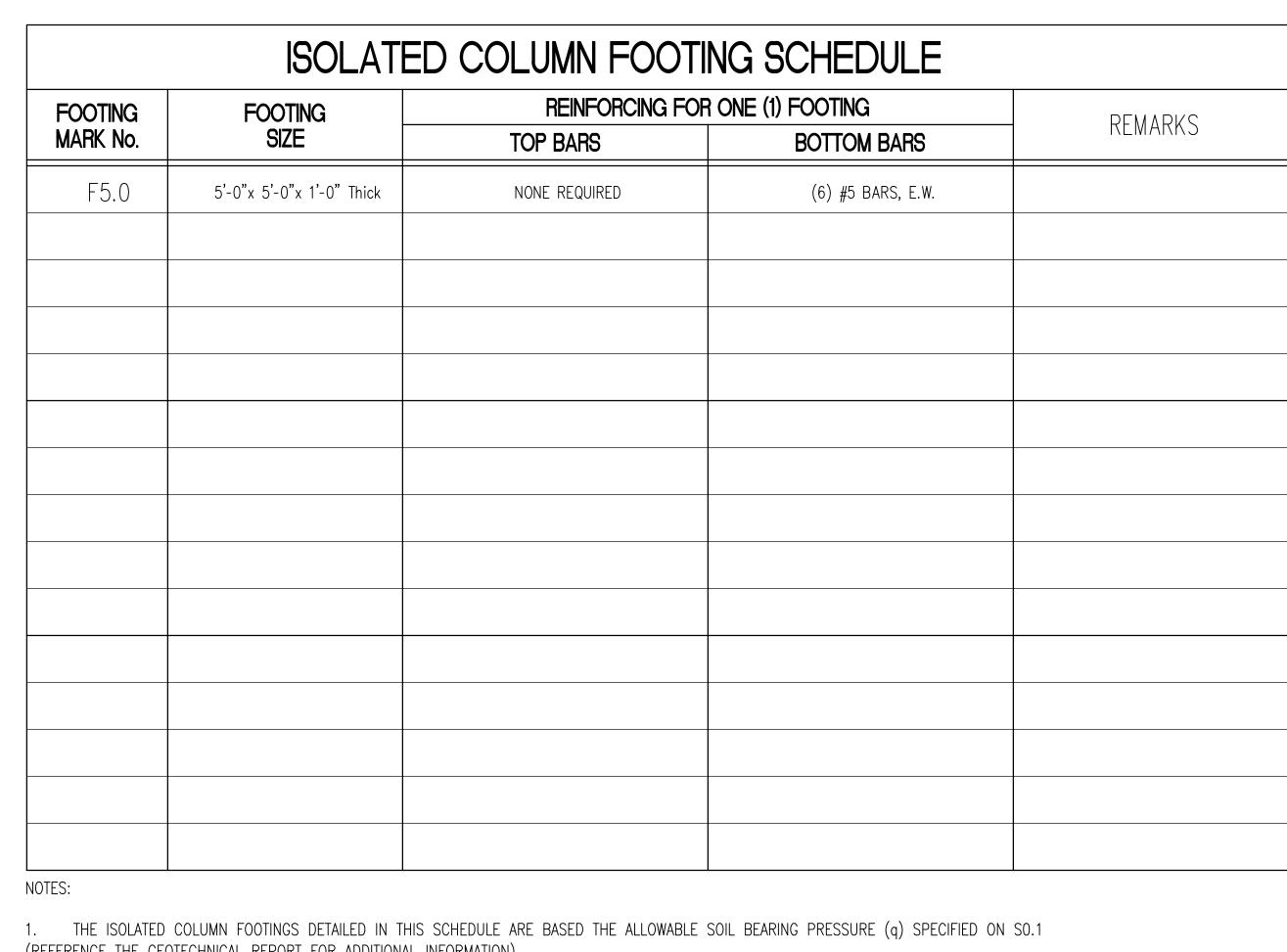
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- (REFERENCE THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION).
- 2. "E.W." DENOTES THAT THE SIZE AND QUANTITY OF BARS SPECIFIED ARE TO BE PROVIDE "EACH WAY" IN THE FOOTING.
- 3. THE "Long" DESIGNATION DENOTES THE THE SIZE AND QUANTITY OF BARS SPECIFIED ARE TO BE PROVIDE IN THE "LONG" DIMENSION OF A RECTANGULAR FOOTING.
- 4 THE "Short" DESIGNATION DENOTES THE THE SIZE AND QUANTITY OF BARS SPECIFIED ARE TO BE PROVIDE IN THE "SHORT" DIMENSION OF A

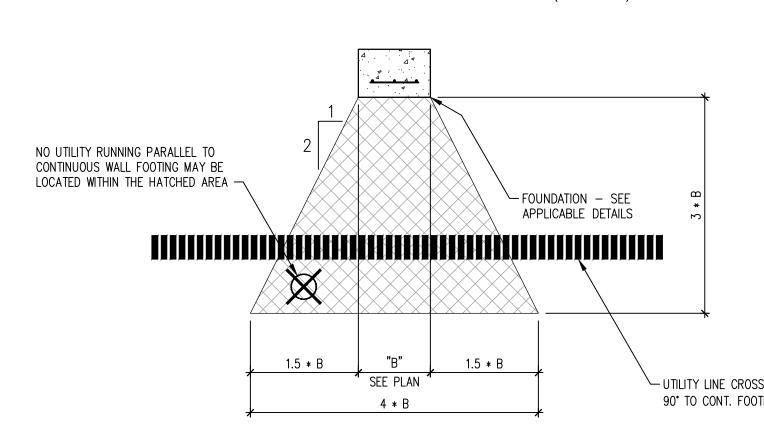
FOOTING	FOOTING	REINFORCING FOR ONE (1) FOOTING		DEMADI/C
MARK No.	SIZE	TOP BARS	BOTTOM BARS	REMARKS
W24	CONT. 2'-0" Wide x 1'-0" Thick	NONE REQUIRED	(3) CONT. #4 BARS, Longit. #5 BARS @ 12" CTRS., Trans.	
W30	CONT. 2'-6" Wide x 1'-0" Thick	NONE REQUIRED	(3) CONT. #4 BARS, Longit. #5 BARS @ 12" CTRS., Trans.	
W36	CONT. 3'-0" Wide x 1'-0" Thick	NONE REQUIRED	(4) CONT. #5 BARS, Longit. #5 BARS @ 12" CTRS., Trans.	
W42	CONT. 3'-6" Wide x 1'-0" Thick	NONE REQUIRED	(4) CONT. #5 BARS, Longit. #5 BARS @ 12" CTRS., Trans.	
W48	CONT. 4'-0" Wide x 1'-0" Thick	NONE REQUIRED	(5) CONT. #6 BARS, Longit. #5 BARS @ 12" CTRS., Trans.	

### NOTES:

SCALE: 1/2" = 1'-0"

THE CONTINUOUS WALL FOOTINGS DETAILED IN THIS SCHEDULE ARE BASED ON THE ALLOWABLE SOIL BEARING PRESSURE (q) SPECIFIED ON SO.1 (REFERENCE THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION).

1. FOOTINGS w/ "WXX-\*" MARK NUMBERS HAVE BEEN WIDENED TO ACCOMMODATE WALL GEOMETRY (SEE PLAN).



M.E.P. LINE UNDER FOUNDATION WALL / FOOTING

UTILITY LINE CROSSING @ 60° TO 90° TO CONT. FOOTING - RE: J/S2.0

TYPICAL DETAIL - FOUNDATION AT M.E.P. LINES

THE CONTRACTOR SHALL COORDINATE BETWEEN THE CONCRETE

INSTALLER AND THE M.E.P. SUB-CONTRACTOR AND LOWER WALL

FOOTINGS AS NECESSARY TO ALLOW UNDERGROUND UTILITIES TO ENTER / EXIT THE BUILDING WITH 6" (MIN.) CLEARANCE BETWEEN

THE TOP OF FOOTING AND BOTTOM OF UNDERGROUND UTILITY.

ALTERNATIVELY, THE UNDERGROUND UTILITY MAY BE LOWERED

(IF ACCEPTABLE TO THE M.E.P. ENGINEER) SUCH THAT THE TOP

OF CONDUIT / PIPE IS 12" (MIN.) BELOW BOTTOM OF FOOTING.

DETAILS J/S2.0 & H/S2.0 PROVIDE INFORMATION FOR DEALING

WITH INTERFERENCES BETWEEN UNDERGROUND M.E.P. LINES AND

<u>WALL FOOTINGS</u> - M.E.P. LINES <u>MAY NOT</u> RUN UNDER COLUMN

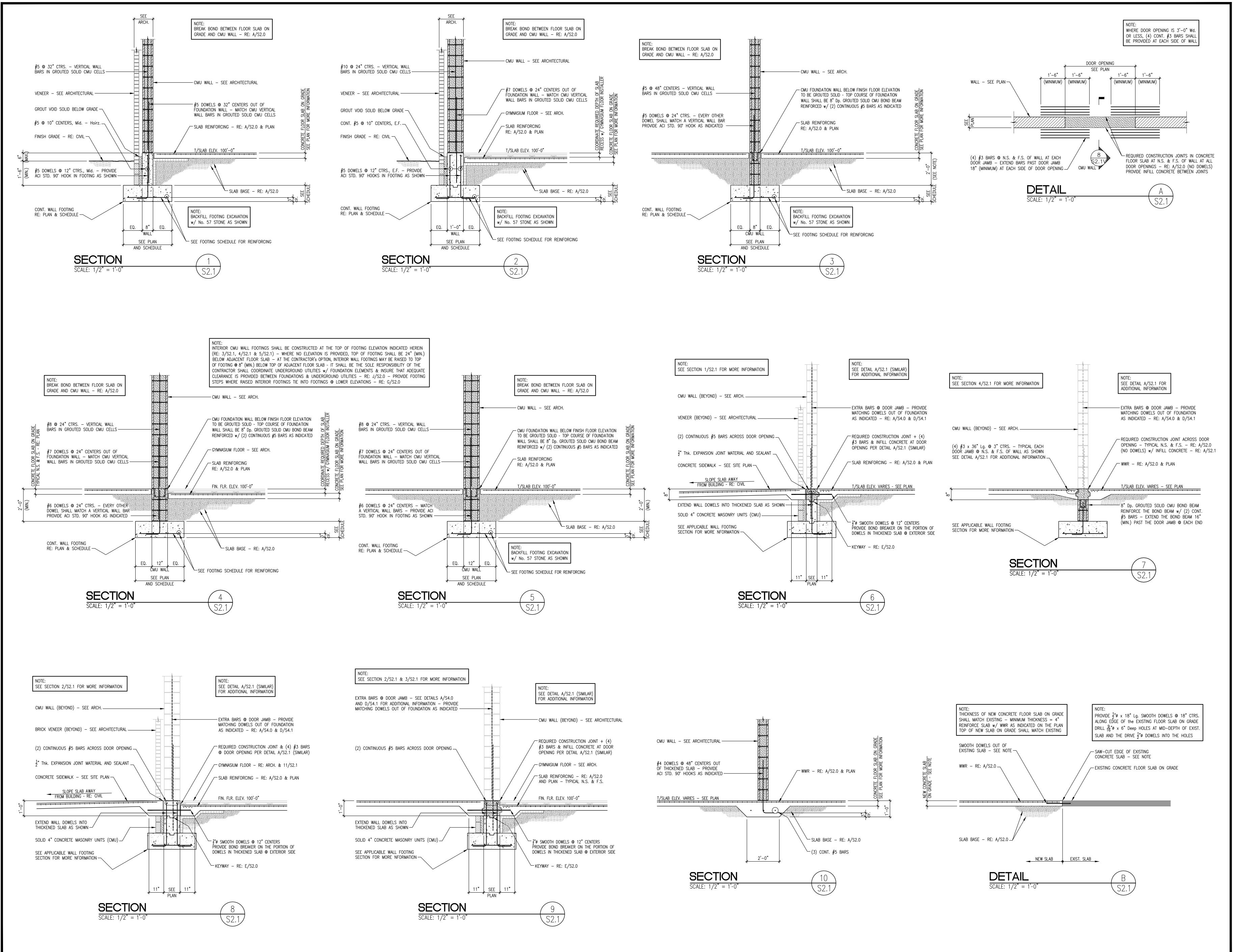
FOOTINGS - WHERE INTERFERENCES BETWEEN COLUMN FOOTINGS

AND M.E.P. LINES OCCUR, RE-ROUTE UTILITY OR LOWER COLUMN FOOTING TO ALLOW M.E.P. LINE TO PASS OVER TOP OF FOOTING

SEE FOUNDATION DETAILS FOR MORE INFORMATION REGARDING

LOWER COLUMN FOOTINGS PER THIS NOTE.

TYPICAL DETAIL - FOUNDATION AT M.E.P. LINES SCALE: 1/2" = 1'-0"



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FOUNDATION SECTIONS + DETAIL

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EQUAL EQUAL

SECTION

SCALE: 1/2" = 1'-0"

EXISTING WALL - CMU + BRICK (V.I.F.)

#6 DOWELS @ 24" CENTERS - PROVIDE ACI STD. 90° HOOKS IN FOOTING AS SHOWN - MATCH CMU

PROVIDE CUT CMU COURSE AS NECESSARY TO ACHIEVE CORRECT MORTAR JOINT COURSING —

GROUT VOID BETWEEN EXISTING FOUNDATION

PROVIDE ACI STD. 90° HOOK @ END OF TRANSVERSE FOOTING BARS AS INDICATED —

EXIST. FINISH FLOOR ELEV. 100'-0" (V.I.F.)

FIELD DETERMINE EXISTING B/FTG. ELEV.

NEW B/FTG. ELEV. = EXIST. B/FTG. ELEV.

1" Thick COMPRESSIBLE JOINT FILLER MATERIAL —

1" COMPRESSIBLE MATERIAL

SECTION

SCALE: 1/2" = 1'-0"

FIELD DETERMINE

FIELD

COLUMN FOOTING

\_ EQUAL | EQUAL

CONCRETE PIER SEE PLAN

SEE PLAN

SECTION

WALL & NEW CMU WALL SOLID AS INDICATED —

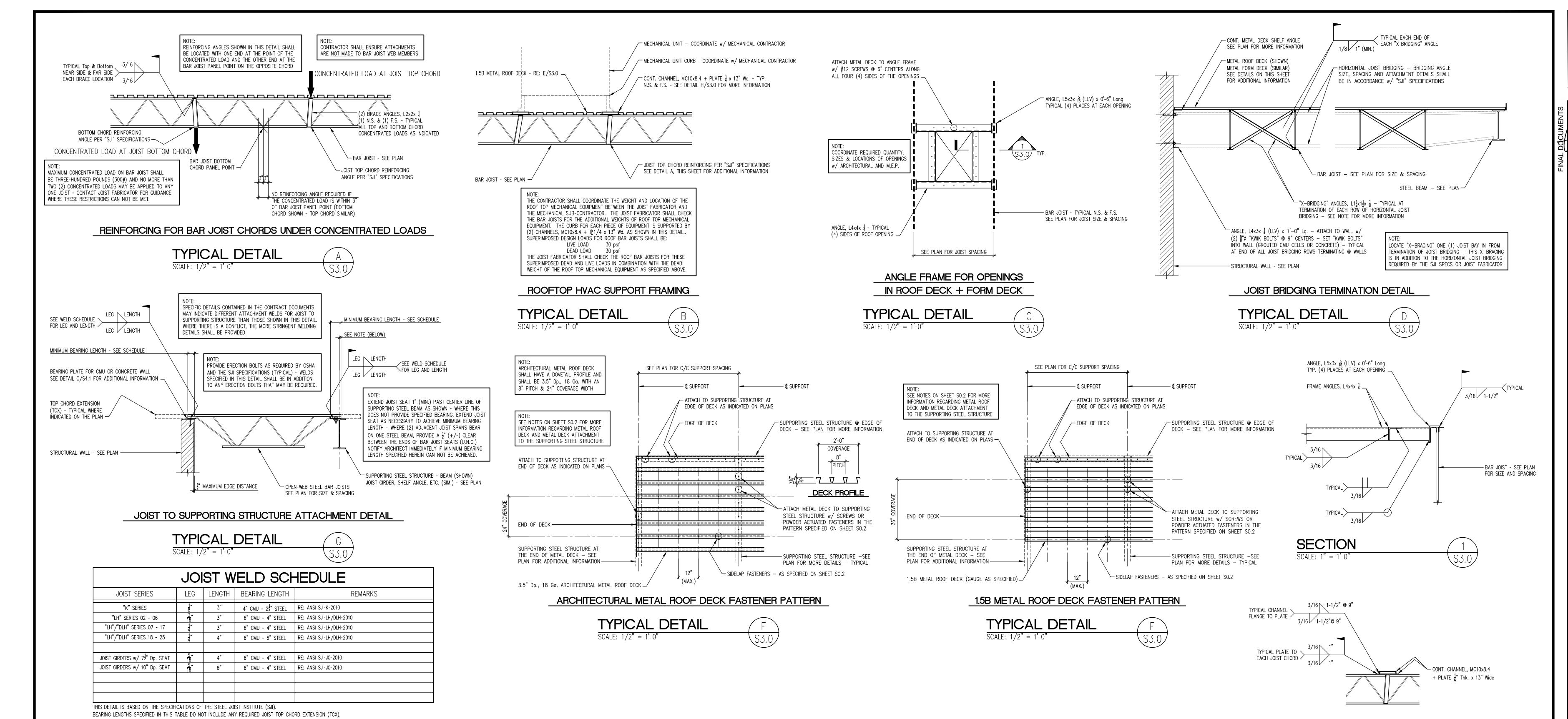
VERTICAL WALL BARS IN GROUTED SOLID CMU CELLS —

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STEEL BEAM SCHEDULE BEAM CONNECTION DETAIL BEAM BEARING PLATE BEAM ELEVATION BEAM DESIGN REMARKS SECTION SIZE **MATERIAL** REACTION MARK No. MARK No. TAG END OPPOSITE END OPPOSITE END TAG END ).3750"x7"x1'-0"Lg.|0.5000"x7"x1'-0"La W8x28 1/S4.1 3/S4.1 113'-0" 113'-0" RE: 3/S5.1 A992, Gr. 50 6.0 kips ).3750"x11"x1'-0"Lg. 113'-0" 113-0" W8x28 A992, Gr. 50 1/S4.1 3/S4.1 RE: 3/S5.1 7.9 kips 0.3750"x7"x1'-0"Lg.|0.3750"x11"x1'-0"Lg 112'-4" W8x28 A992, Gr. 50 1/S4.1 1/S4.1 112'-4" RE: 3/S5.1 6.3 kips 112'-0" K/S3.1 ).3750"x7"x1'-0"La 112'-0" W8x28 A992, Gr. 50 1/S4.1 N/A RE: 3/S5.1 6.0 kips 1/S4.1 K/S3.1 ).3750"x11"x1'-0"Lg.| 112'-0" 112'-0" W8x28 A992, Gr. 50 N/A RE: 3/S5.1 6.0 kips W12x26 A992, Gr. 50 1/S4.1 1/S4.1 0.3750"x7"x1'-0"Lg.| 0.3750"x7"x1'-0"La 112'-8.25" 112'-3.875" RE: 8/S5.1 6.9 kips 1/S4.1 ).3750"x11"x1'-0"Lg.| 0.3750"x7"x1'-0"La 111'-8" W8x28 A992, Gr. 50 1/S4.1 111'-8" RE: 7/S5.1 6.0 kips 107'-4"(B) 107'-4'(B) RB08 1/S4.2 W12x26+P A992, Gr. 50 1/S4.2 ).3750"x7"x1'-3"Lg.|0.3750"x7"x1'-3"La RE: A/S4.2 6.2 kips 109'-4"(B) 109'-4"(B) 1/S4.2 ).3750"x7"x1'-0"Lg.|0.3750"x7"x1'-0"La W8x28 A992, Gr. 50 1/S4.2 RE: A/S4.2 6.0 kips 1/S4.2 ).3750"x7"x1'-0"Lg.| 0.3750"x7"x1'-0"L W8x28 A992, Gr. 50 1/S4.2 FIELD DETERMINE FIELD DETERMINE RE: A/S4.2 6.9 kips 0.3750"x7"x1'-0"Lg.| 0.3750"x7"x1'-0"La A992, Gr. 50 1/S4.2 1/S4.2 FIELD DETERMINE FIELD DETERMINE RE: A/S4.2 W8x28+P 6.0 kips 121'-8"(B) 121'-8"(B) **RB12 RB12** ).3750"x7"x1'-0"Lg.|0.3750"x7"x1'-0"La W8x28+P A992, Gr. 50 12.0 kips 1/S4.1 1/S4.1 RE: 2/S4.1 109'-0"(B) 0.3750"x7"x1'-0"Lg.| 0.3750"x7"x1'-0"La 109'-0"(B) 1/S4.1 1/S4.1 W8x28+F A992, Gr. 50 12.0 kips RE: 2/S4.1 RE: 6/A5.2 109'-0"(B) 109'-0"(B) 1/S4.1 ).3750"x7"x1'-0"Lg.|0.3750"x7"x1'-0"La W8x15+P A992, Gr. 50 1/S4.1 RE: 6/A5.2 6.0 kips 109'-0"(B) 109'-0"(B) **RB15** 1/S4.1 0.3750"x7"x1'-0"Lg.| 0.3750"x7"x1'-0"Lg. W8x15+P A992, Gr. 50 1/S4.1 RE: 6/A5.2 (SIM) 6.0 kips COORDINATE w/ARCH HSS 8x4x0.37 A/S3.1 (NO SPLICE) A/S3.1 (NO SPLICE) COORDINATE w/ARCH RE: C/S6.1 A992, Gr. 50 6.0 kips N/A CB02 COORDINATE w/ARCH COORDINATE w/ARCH K/S3.1 K/S3.1 RE: C/S6.1 ISS 8x3x0.37 A992, Gr. 50 N/A COORDINATE w/ARCH COORDINATE w/ARCH E/S6.1 E/S6.1 RE: 4/S5.2 HSS 8x4x0.37: A992, Gr. 50 6.0 kips N/A

DRAWINGS IF THIS OPTION IS EXERCISED.

DETAIL

### BEAM SCHEDULE NOTES:

- 1. "TAG END" REFERS TO THE END OF THE BEAM WITH THE BEAM MARK NUMBER ON THE PLAN. BEAMS MAY BE FABRICATED USING MATERIAL CONFORMING TO ASTM SPECIFICATION A992, GRADE 50 IN LIEU OF THE MATERIAL SPECIFIED AT THE FABRICATOR'S OPTION. IT SHALL BE NOTED ON THE SHOP
- 3. THE DETAILER SHALL INDICATE THE APPROPRIATE BEAM MARK NUMBERS FROM THESE DRAWINGS ON EACH BEAM DETAIL IN THE SHOP DRAWINGS. FAILURE TO COMPLY WITH REQUIREMENT WILL RESULT IN REJECTION OF THE SHOP DRAWING SUBMITTAL.
- THE ELEVATIONS SHOWN HEREIN ARE THE TOP OF STEEL ELEVATIONS (U.N.O.) AT THE INTERSECTION OF CENTER LINES OF THE BEAM UNDER CONSIDERATION AND THE BEAM OR COLUMN INTO WHICH THAT BEAM FRAMES. WHERE BEAM ELEVATION IS MARKED WITH A (B), THE SPECIFIED ELEVATION IS THE BOTTOM OF STEEL ELEVATION.
- THE COLUMN IN THE SCHEDULE IDENTIFIED AS "SECTION" REFERENCES (RE:) APPLICABLE SECTIONS AND DETAILS THROUGH THE BEAM.
- WHERE STEEL BEAMS SUPPORT CONCRETE MASONRY UNITS (CMU) AND / OR BRICK, THE STEEL FABRICATOR SHALL PROVIDE PLATES INDICATED IN SECTION 2/S4.1. THE CONTRACTOR SHALL COORDINATE THE NEED FOR BOTTOM PLATES SHOWN IN THESE SECTIONS BETWEEN THE MASON AND STEEL FABRICATOR. WHERE BEAM MARK NUMBERS INCLUDE "+P" [e.g. B-15 (W16x45+P)], TOP AND / OR BOTTOM FLANGE PLATES PER SECTION 2/S4.1 ARE A STRUCTURAL REQUIREMENT. AN EFFORT HAS BEEN MADE TO IDENTIFY BEAMS w/ "+P" WHERE PLATES MAY REQUIRED BY THE ARCHITECTURAL DRAWINGS. HOWEVER, ALL SUCH BEAMS MAY NOT BE TAGGED w/ "+P". THE CONTRACTOR IS RESPONSIBLE TO FURNISH PLATES WELDED TO BEAM FLANGES PER THE REFERENCED SECTIONS WHERE REQUIRED BY THE ARCHITECTURAL DRAWINGS WHETHER SUCH BEAMS ARE IDENTIFIED w/ "+P" ON THE STRUCTURAL PLANS OR NOT.
- WHERE STEEL BEAMS ARE SUPPORTED ON MASONRY (CMU), A BEAM BEARING PLATE SHALL BE PROVIDED PER DETAIL A/S4.1 (RE: 1/S4.1 & 3/S4.1). ALL BEAMS INDICATED ON THE PLAN TO BE SUPPORTED ON CMU SHALL BE PROVIDED WITH A BEAM BEARING PLATE PER THE BEAM SCHEDULE. WHERE NO BEARING PLATE IS INDICATED IN THE BEAM SCHEDULE, THE PLATE SIZE SHALL BE BASED ON THE BEAM IN THAT SCHEDULE THAT IS MOST SIMILAR TO THE BEAM UNDER CONSIDERATION

INFORMATION AND DETAILS CONTAINED ON THIS SHEET ARE OFFICE STANDARDS - ALL MAY NOT APPLY TO THIS PROJECT

ALL JOIST SERIES SHOWN IN THIS CHART MAY NOT APPLY TO THIS PROJECT. SEE PLANS FOR SPECIFIC JOISTS REQUIRED.

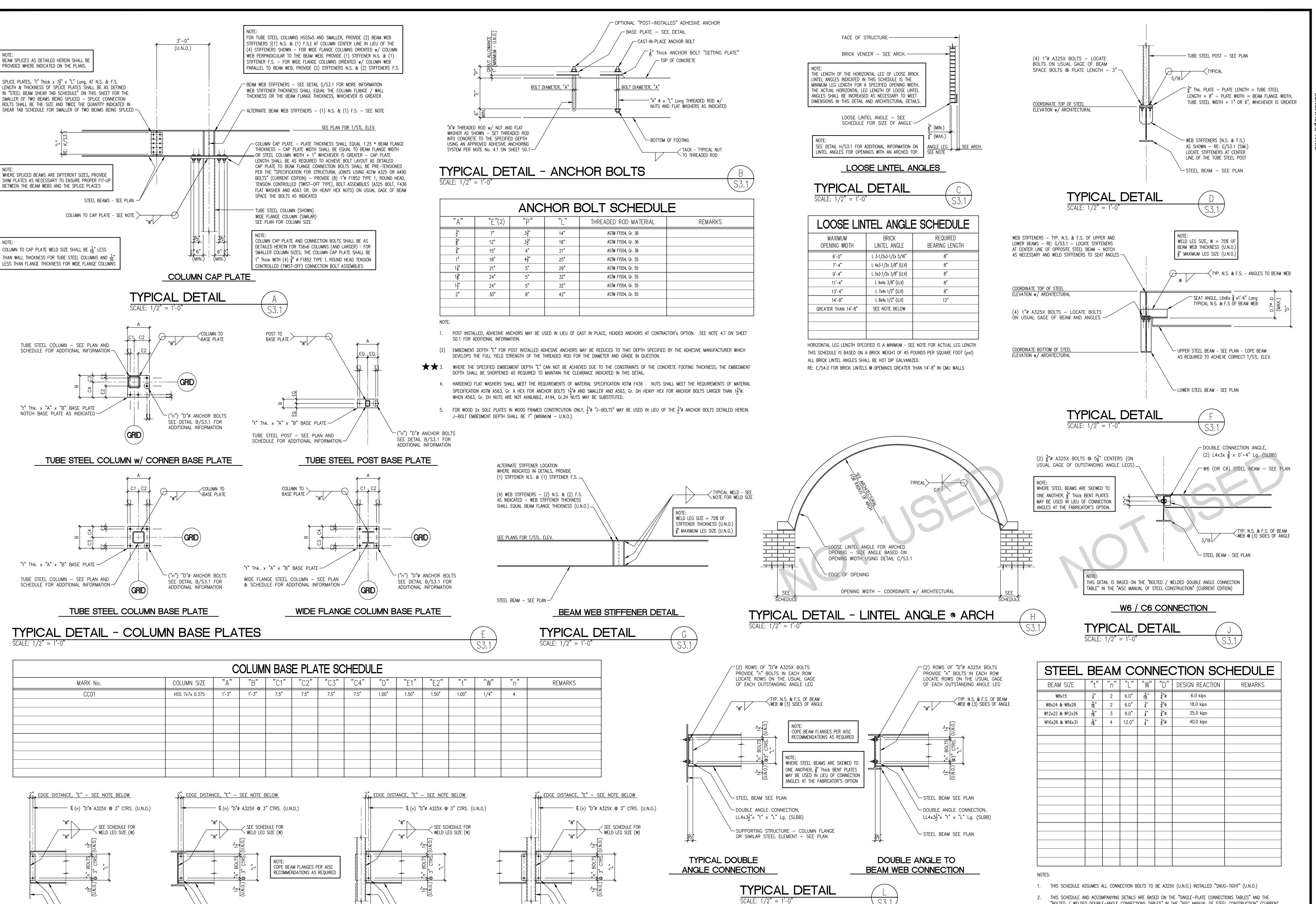
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FOR SINGLE-PLATE (SHEAR TAB) CONNECTIONS AND SECTIONS L/S3.1 FOR DOUBLE- ANGLE CONNECTIONS. DOUBLE ANGLE CONNECTIONS SHALL BE DETAILED USING "WELD A" PER AISC TABLE. 3. CAPACITIES ASSUME BEAMS ARE NOT COPED. CAPACITIES MUST BE REDUCED PER AISC SPECIFICATIONS FOR BEAMS WITH COPED FLANGES. 4. FOR SINGLE-PLATE CONNECTIONS ON SKEWED BEAMS WHERE THE SKEW OF THE SHEAR TAB RESTRICTS INSTALLATION OF CONNECTION BOLTS, THE 2" DIMENSION MAY BE INCREASED TO  $3\frac{1}{2}$ " (MAX.) TO ALLOW BOLT INSTALLATION.

"BOLTED / WELDED DOUBLE-ANGLE CONNECTIONS TABLES" IN THE "AISC MANUAL OF STEEL CONSTRUCTION" (CURRENT

EDITION). FOR DEFINITION OF DIMENSIONS AND OTHER TERMS CONTAINED IN THIS SCHEDULE - SEE SECTION K/S3.1

5. TO ACCOMMODATE ERECTION TOLERANCES, THE BOLT HOLES MAY BE HORIZONTAL "SHORT SLOTTED HOLES".

ANY BEAM SHOWN ON PLAN FRAMING INTO ANOTHER STEEL ELEMENT (BEAM OR COLUMN) THAT IS NOT SHOWN IN THIS SCHEDULE SHALL HAVE A CONNECTION DETAILED IN ACCORDANCE WITH THIS SCHEDULE. SHEAR TAB SHALL BE SIZED FOR A BEAM SHOWN IN THIS SCHEDULE THAT IS FROM THE SAME "BEAM FAMILY" AS THE BEAM IN QUESTION.

TYPICAL DETAIL - SINGLE-PLATE BEAM CONNECTION SCALE: 1/2" = 1'-0"

─STEEL BEAM - SEE PLAN

── STEEL BEAM - SEE PLAN

SHEAR TAB TO BEAM WEB

►PLATE "t" x WIDTH AS REQUIRED x "L" Lg.

─STEEL BEAM - SEE PLAN

TYPICAL SHEAR TAB

─PLATE "t" x WIDTH AS REQUIRED x "L" Lg.

SUPPORTING STEEL STRUCTURE - SEE PLAN

THE HORIZONTAL EDGE DISTANCE, "E" SHALL

BE TWO (2) TIMES THE BOLT DIAMETER, "D"



STEEL BEAM - SEE PLAN

"X" | "X" = TUBE STEEL WIDTH + 4" + (2 \* "E")

SHEAR TAB TO T.S. COLUMN

(BEAMS @ BOTH SIDES)

PLATE "t" x WIDTH AS REQUIRED x "L" Lg.

TUBE STEEL COLUMN - SEE PLAN

-STEEL BEAM - SEE PLAN

X'' X'' = TUBE STEEL WIDTH + 3'' + E''

SHEAR TAB TO T.S. COLUMN

(BEAM @ ONE SIDE ONLY)

←PLATE "t" x WIDTH AS REQUIRED x "L" Lg.

TUBE STEEL COLUMN - SEE PLAN

INFORMATION AND DETAILS CONTAINED ON THIS SHEET ARE OFFICE STANDARDS - ALL MAY NOT APPLY TO THIS PROJECT

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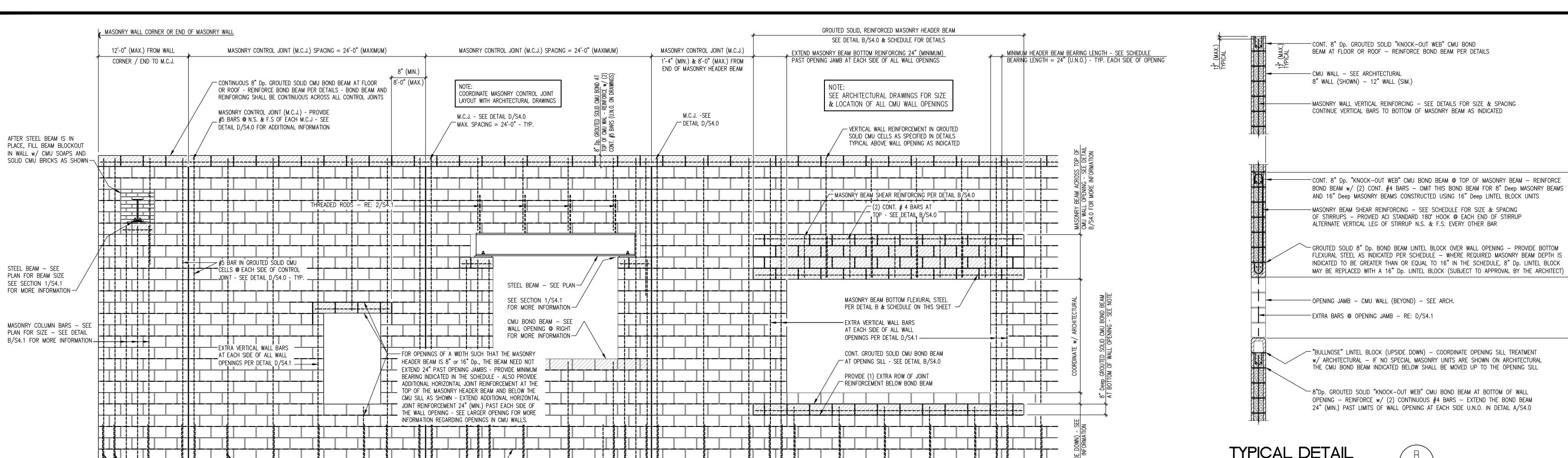
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### MASONRY (CMU) WALL OPENINGS, JOINTS + REINFORCING

- DOWELS OUT OF FOUNDATION TO MATCH

DETAILS FOR ADDITIONAL INFORMATION

VERTICAL WALL BARS - SEE FOUNDATION

- M.C.J. - SEE

DETAIL D/S4.0



SPECIFIED HORIZONTAL REINFORCEMENT

START (1) COURSE ABOVE FOUNDATION —

- VERTICAL WALL REINFORCEMENT IN GROUTED

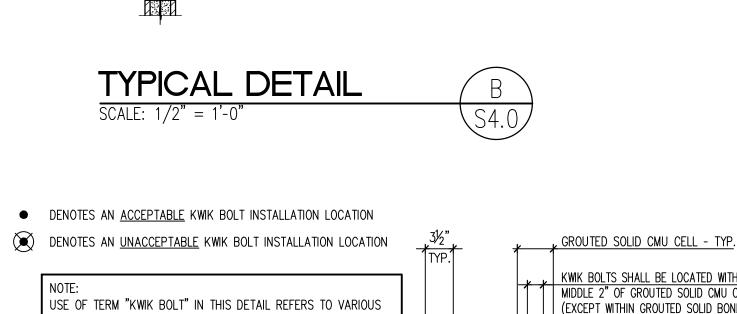
SOLID CMU CELLS AS SPECIFIED IN DETAILS

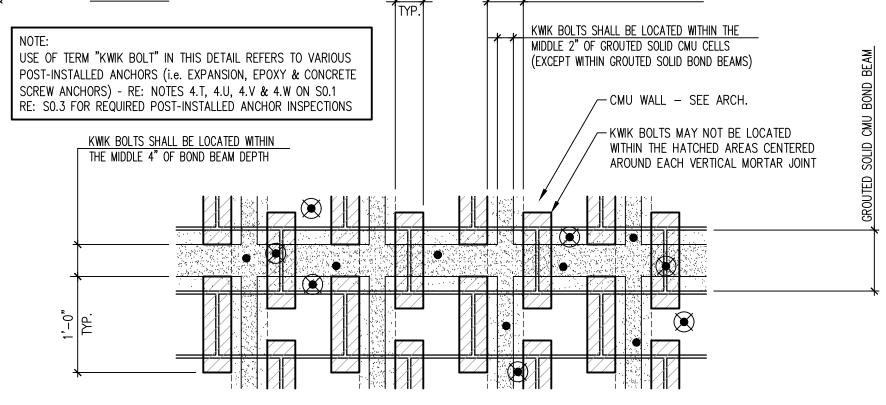
∽M.C.J. - SEE DETAIL D/S4.0 - TYPICAL

EXTRA VERTICAL BARS @ END / CORNER OF WALL

SEE DETAIL D/S4.1 FOR ADDITIONAL INFORMATION

ALL OPENING MARK No. (1)	OPENING WIDTH	CMU WALL THICKNESS	CMU HEADER BEAM DEPTH	CMU HEADER BEAM LOAD	CMU BOND BEAM FLEXURAL REINFORCING	CMU BOND BEAM SHEAR REINFORCING	MINIMUM BEARING LENGTH	REMARKS
$\langle A \rangle$	2'-4"	8"	8"		(2) #4	NONE REQUIRED	24"	INTERIOR DOOR - MECHANICAL CHASE
B	3'-4"	8"	16"		(2) #5	NONE REQUIRED	24"	INTERIOR DOOR
⟨C⟩	3'-4"	12"	16"		(2) #5	NONE REQUIRED	24"	INTERIOR DOOR - GYMNASIUM
D	4'-0"	8"	16"		(2) #5	NONE REQUIRED	24"	INTERIOR DOOR - MECHANICAL
(E)	6'-4"	12"	16"		(2) #5	NONE REQUIRED	24"	INTERIOR DOOR - GYMNASIUM
F	6'-4"	12"	16"		(2) #5	NONE REQUIRED	24"	EXTERIOR DOOR - GYMNASIUM
G	8'-8"	8"	24"		(2) #5	NONE REQUIRED	24"	EXTERIOR WINDOW - CLASSROOMS
$\overline{H}$	6'-8"	12"	24"		(2) #5	NONE REQUIRED	24"	INTERIOR DOOR/WINDOW - GYMNASIUM
J	6'-4"	12"	24"		(2) #5	NONE REQUIRED	24"	INTERIOR WINDOW - GYMNASIUM
K	3'-4"	6"	16"		(2) #5	NONE REQUIRED	24"	INTERIOR DOOR - EXISTING BUILDING
⟨L⟩	6'-4"	8"	24"		(2) #5	NONE REQUIRED	24"	EXTERIOR DOOR - MECHANICAL ROOM
M	3'-4"	6"	8"		(1) #4	NONE REQUIRED	24"	INTERIOR DOOR
<b>N</b>	4'-4"	8"	16"		(2) #5	NONE REQUIRED	24"	EXTERIOR DOOR - PUMP HOUSE



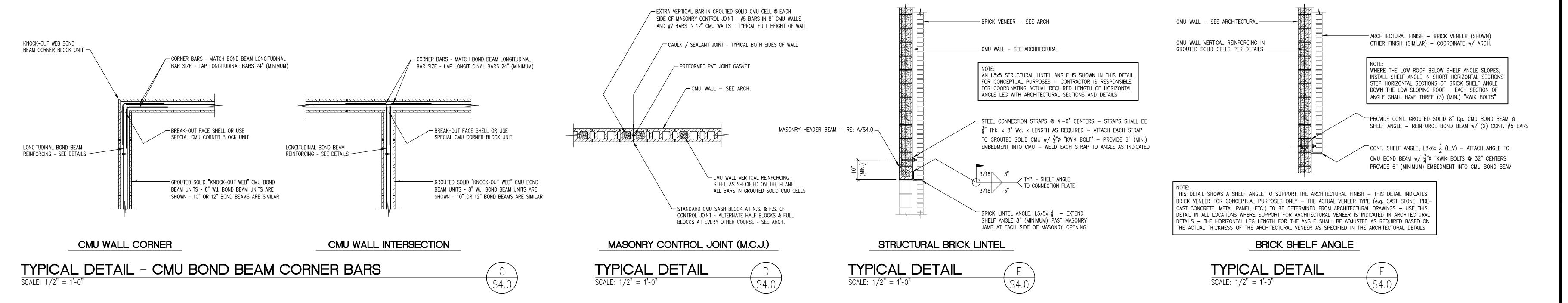


### ALLOWED INSTALLATION LOCATION FOR POST INSTALL ANCHOR BOLTS



### MASONRY HEADER BEAM SCHEDULE NOTES:

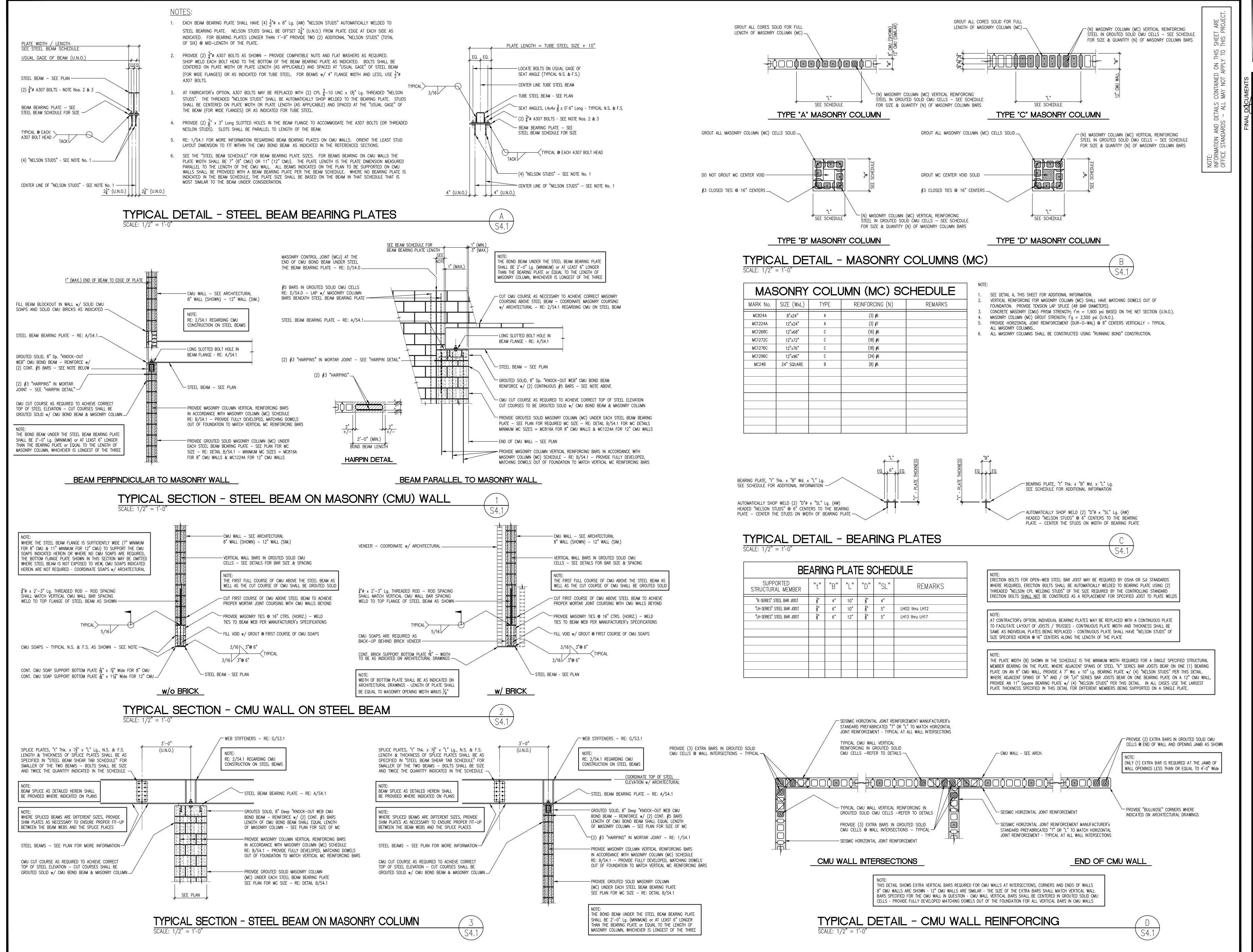
- 1. WALL OPENING MARK NUMBERS ARE IDENTIFIED IN HEXAGONS ON THE FRAMING PLANS FOR THE PLAN DIRECTLY ABOVE THE OPENING.
- 2. AT CONTRACTOR'S OPTION, THE CMU BOND BEAM HEADER OVER WALL OPENINGS MAY BE REPLACED WITH A STEEL BEAM (+ PLATE TO CARRY CMU SOAPS AND / OR BRICK VENEER). CONTACT THE STRUCTURAL ENGINEER FOR STEEL BEAM SIZE. BEAM SHALL BE SUPPORTED AT EACH END PER SECTION 1/S4.1. CONSTRUCT CMU WALL ABOVE STEEL BEAM AND PROVIDE STEEL PLATE PER SECTION 2/S4.1.
- 3. ALL STEEL LINTEL ANGLES & STEEL BEAMS (+ PLATE) SHALL BE HOT-DIPPED GALVANIZED.
- 4. WHERE MASONRY OPENINGS ARE SHOWN ON ARCHITECTRUAL DRAWINGS BUT NOT INDICATED ON STRUCTURAL DRAWINGS (e.g. PARTITIOIN WALLS & NON-BEARING WALLS), THE MASON SHALL PROVIDE A REINFORCED CMU HEADER BEAM DETAILED PER THIS SCHEDULE USING THE OPENING THAT MOST CLOSELY RESEMBLES MASONRY OPENING IN QUESTION.



PROVIDE A CONTINUOUS 8" Dp. GROUTED SOLID CMU BOND BEAM AT BOTTOM OF ALL WALL OPENINGS (EXCEPT

INFORMATION - EXTEND REINFORCING 24" (MIN.) PAST JAMB AT EACH SIDE OF WALL OPENING AS INDICATED.

DOORS) - REINFORCE BOND BEAM w/ (2) CONT. #4 BARS SEE DETAIL B/S4.0 AND BEAM SCHEDULE FOR MORE



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SHEET

HEADER FOR NEW OPENING IN EXISTING MASONRY WALL EXIST WALL w/ BRICK (SHOWN) - EXIST. WALL w/o BRICK (SIMILAR)

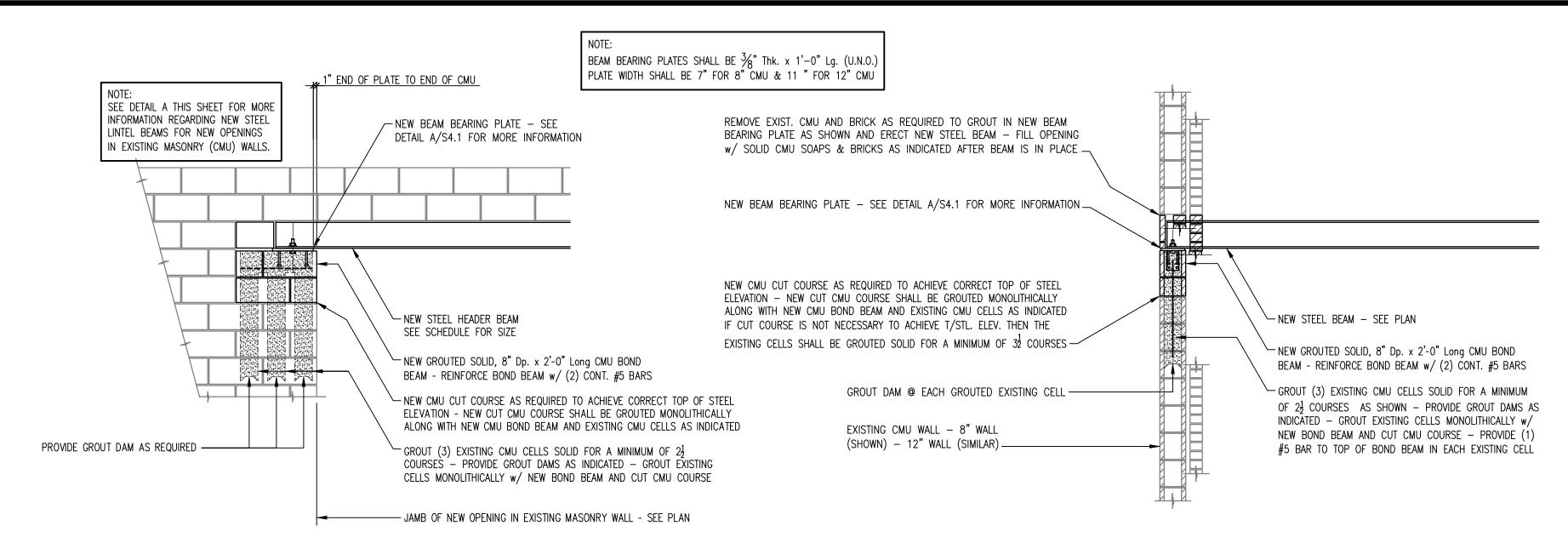
BEARING PLATE AT EACH END PER SECTION 1 ON THIS SHEET

TYPICAL DETAIL SCALE: 1/2" = 1'-0"

	NEW STEEL HEADER BEAM SCHEDULE							
OPENING MARK NUMBER	MASONRY OPENING WIDTH	STEEL HEADER BEAM	BEAM BEARING PLATE	REMARKS				
1	3'-4"	W8x28+P	0.375"x7"x1'-0" Lg.	NEW DOOR OPENING IN EXISTING INTERIOR WALL - 8" CMU				
<b>(2</b> )	3'-4"	W8x28+P	0.375"x7"x1-0" Lg.	NEW DOOR OPENING IN EXISTING EXTERIOR WALL - 8" CMU+4" BRICK				
<b>3</b> >	5'-2"(F.V.)	W8x28+P	0.375"x7"x1'-0" Lg.	NEW DOOR OPENING IN EXISTING INTERIOR WALL - 8" CMU				

STEEL HEADER BEAM SCHEDULE NOTES:

- 1. WALL OPENING MARK NUMBERS ARE IDENTIFIED IN HEXAGONS ON THE FRAMING PLANS FOR THE PLAN DIRECTLY ABOVE THE OPENING.
- 2. SEE DETAIL A & SECTION 1 ON THIS SHEET FOR MORE INFORMATION.
- 3. ALL STEEL BEAMS SHALL HAVE FLANGE PLATES PER DETAIL A ON THIS SHEET FOR MORE INFORMATION AT EXTERIOR WALLS, FLANGE PLATES SHALL BE HOT-DIPPED GALVANIZED.
- 4. WHERE OPENINGS IN EXISTING MASONRY WALLS ARE SHOWN ON ARCHITECTRUAL DRAWINGS BUT NOT INDICATED ON STRUCTURAL DRAWINGS, THE CONTRACTOR SHALL PROVIDE A NEW STEEL HEADER BEAM DETAILED PER THIS SCHEDULE USING THE OPENING THAT MOST CLOSELY RESEMBLES MASONRY OPENING IN QUESTION.
- 5. DETAIL B ON THIS SHEET MAY BE USED FOR OPENINGS LESS THAN 4'-8" WIDE WITH THE ARCHITECT'S APPROVAL

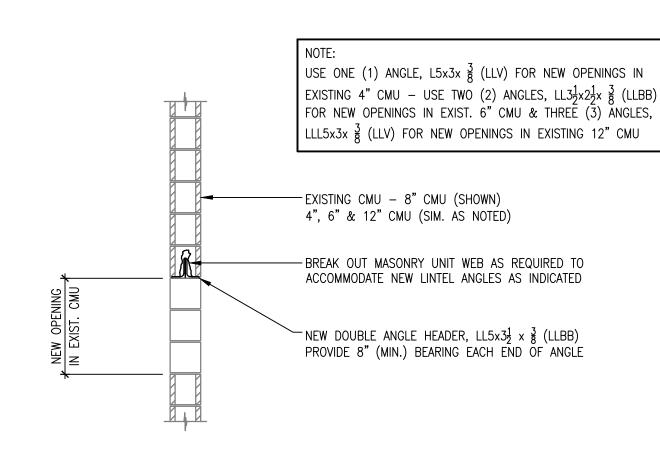


NEW STEEL BEAM PARALLEL TO EXISTING MASONRY WALL

NEW STEEL BEAM PERPINDICULAR TO EXISTING MASONRY WALL

TYPICAL SECTION - STEEL BEAM ON EXISTING MASONRY (CMU) WALL SCALE: 1/2" = 1'-0"

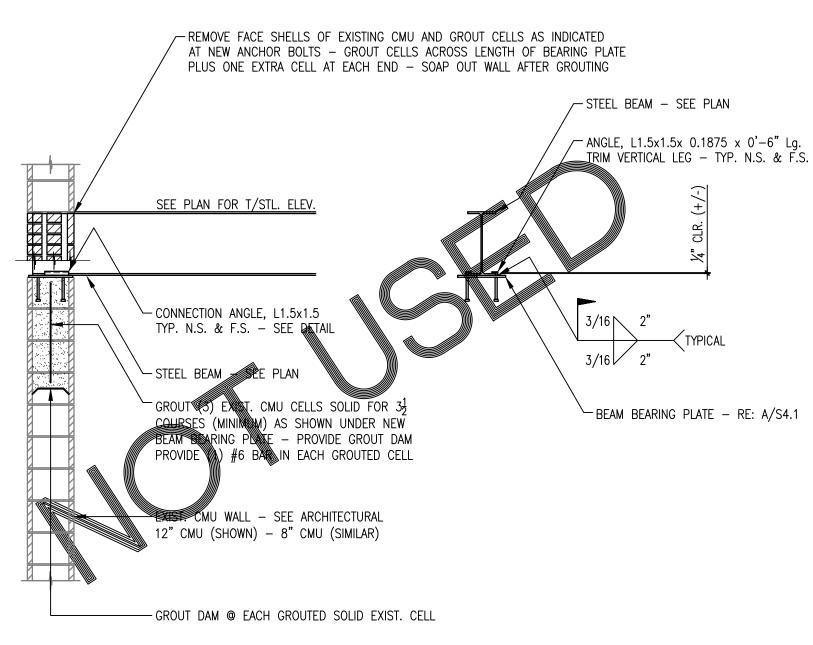
\S4.2/



NEW OPENING IN EXISTING MASONRY WALL

4'-8" = MAXIMUM OPENING SIZE FOR THIS DETAIL

TYPICAL DETAIL SCALE: 1/2" = 1'-0"



STEEL BEAM ON EXISTING MASONRY FIRE WALL

TYPICAL DETAIL SCALE: 1/2" = 1'-0"

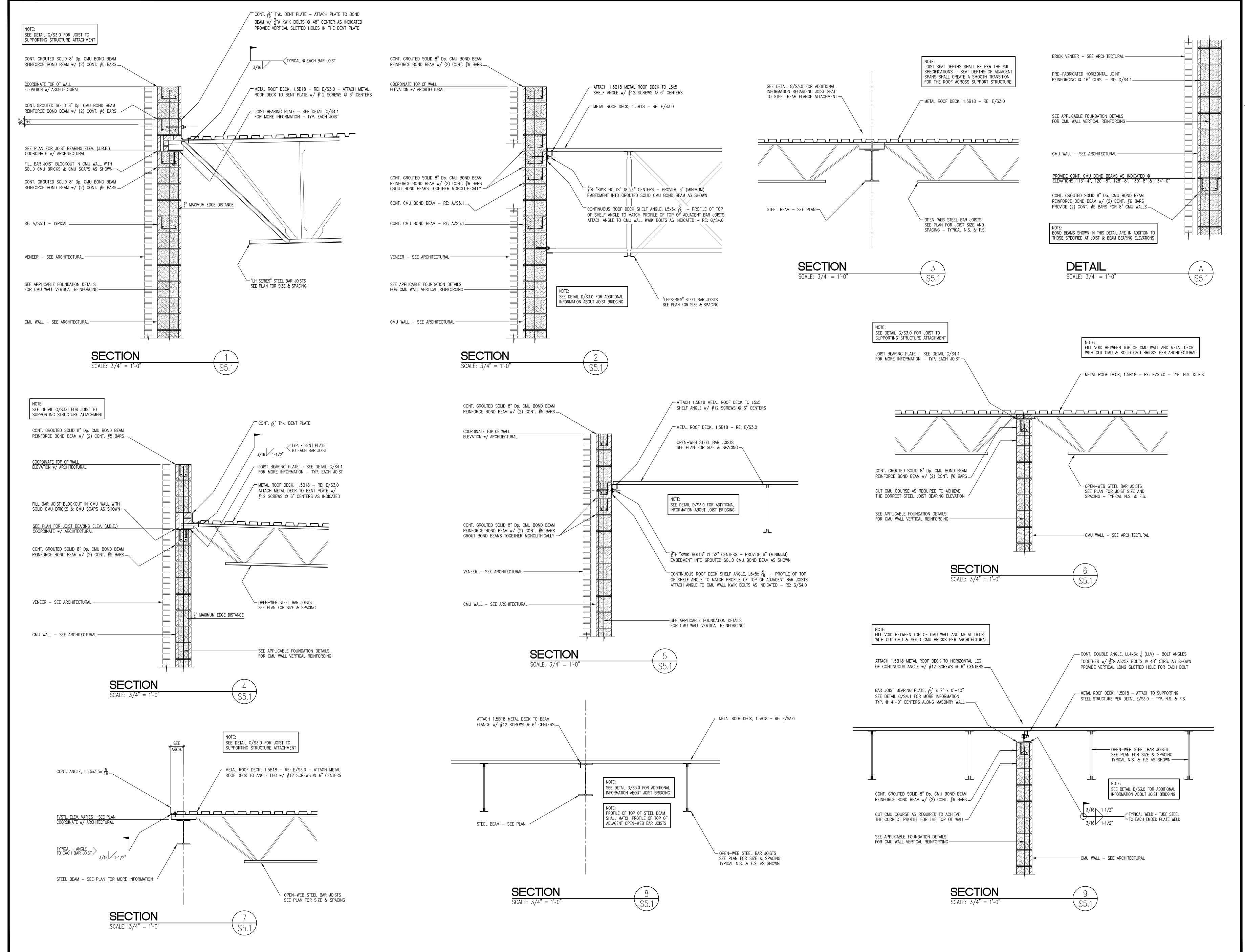
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INFORMATION AND DETAILS CONTAINED ON THIS SHEET ARE OFFICE STANDARDS - ALL MAY NOT APPLY TO THIS PROJECT.



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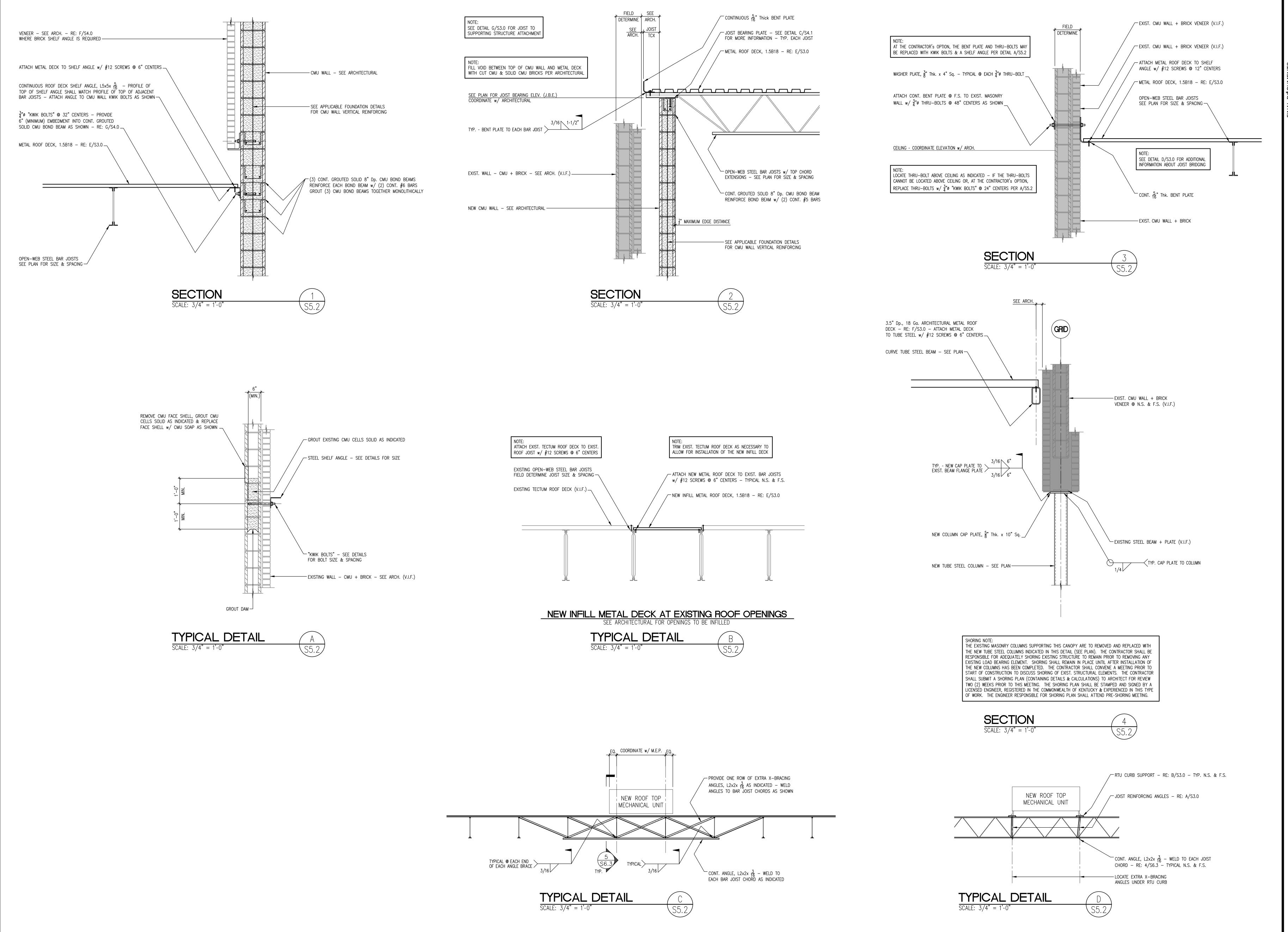
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ROOF TAILS BAR NS al STEEL SECTION OPEN-WEB FRAMING

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S5.



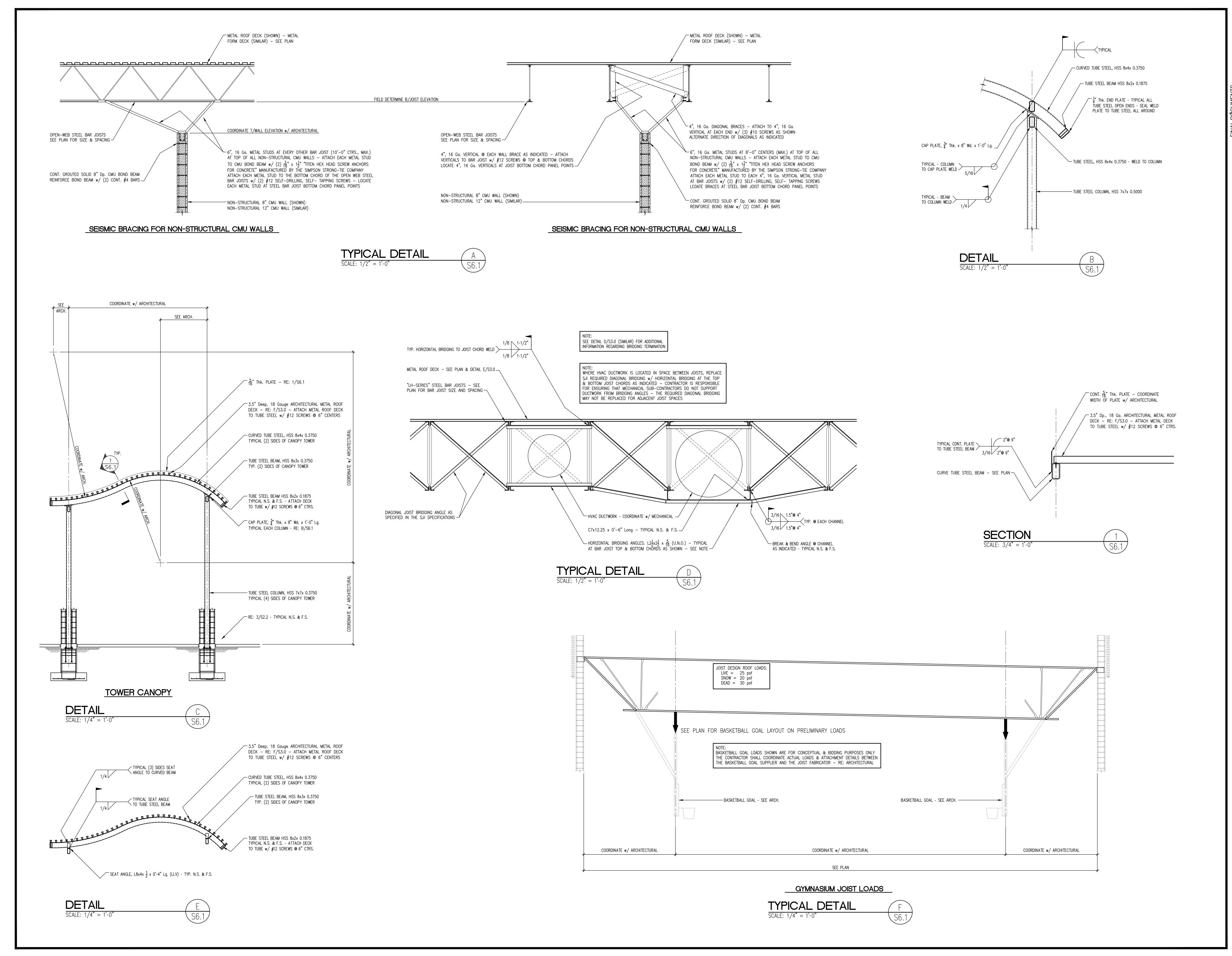
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ANEOUS STRUCTURAL SECTIONS + DETAILS

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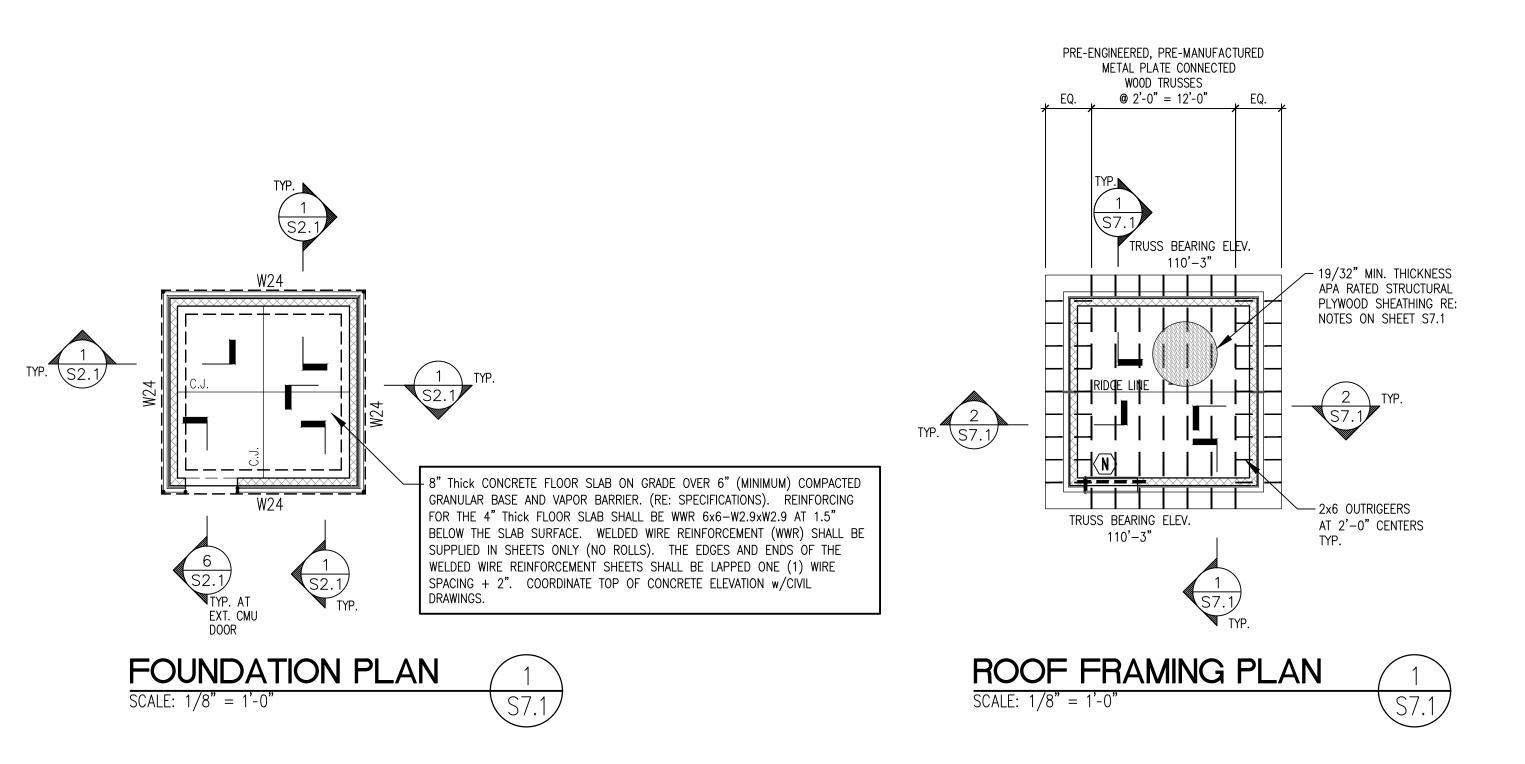
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CONT. PRESSURE TREATED (P.T.) (2) 2x8

TOP PLATE - ATTACH PLATE TO CMU BOND

CONTINUOUS GROUTED SOLID CMU BOND BEAM

-SEE APPLICABLE FOUNDATION DETAILS FOR CMU WALL VERTICAL REINFORCING

— CMU WALL — SEE ARCH.

REINFORCE BOND BEAM w/ (2) CONT. #5 BARS

BEAM w/ $\frac{1}{2}$ "ø "J"-BOLTS @ 48" CENTERS

PRE-ENGINEERED, PRE-FABRICATED METAL PLATE CONNECTED WOOD TRUSSES @ 24" CTRS. - SEE NOTES, S7.1 FOR MORE INFORMATION -

PLYWOOD ROOF SHEATHING - RE: NOTES ON SHEET S7.1 -

SIMPSON STRONG-TIE "H10A" HURRICANE TIE-

PROVIDE 2x4 X-BRACING OVER

CMU WALL PER DETAIL B/S7.1

COORDINATE TRUSS BEARING ELEVATION w/ ARCHITECTURAL

COORDINATE TOP OF MASONRY ELEVATION w/ ARCHITECTURAL

VENEER - SEE ARCH. ---

CONTINUOUS 2x10 EAVE BOARD - RIP AS SHOWN ATTACH TO EACH TRUSS "TAIL" w/ (3) 16d NAILS -

**SECTION** 

SCALE: 1/2" = 1'-0"

ASSOCIATION" (AFPA) AND THE "AMERICAN WOOD COUNCIL (AWC)", LATEST EDITION OF EACH.

GRADE SUCH THAT THE FOLLOWING MINIMUM DESIGN VALUES FOR A 2x6 ARE MET: ALLOWABLE BENDING STRESS, Fb = 1,250 psi (SINGLE USE) MODULUS OF ELASTICITY, E = 1,600,000 psi

C. SUBJECT TO APPROVAL, SOUTHERN YELLOW PINE (SYP) No. 2 WILL MEET THE REQUIREMENTS FOR STRUCTURAL FRAMING LUMBER LISTED ABOVE.

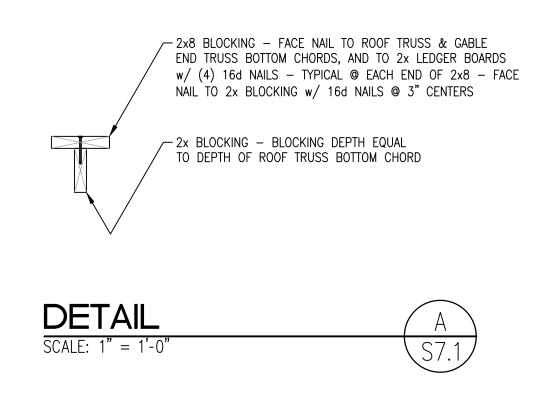
D. LUMBER USED IN STRUCTURAL FRAMING SHALL BE "VISUALLY GRADED" AND CERTIFIED TO MEET THE DESIGN VALUES LISTED IN NOTES B ABOVE.

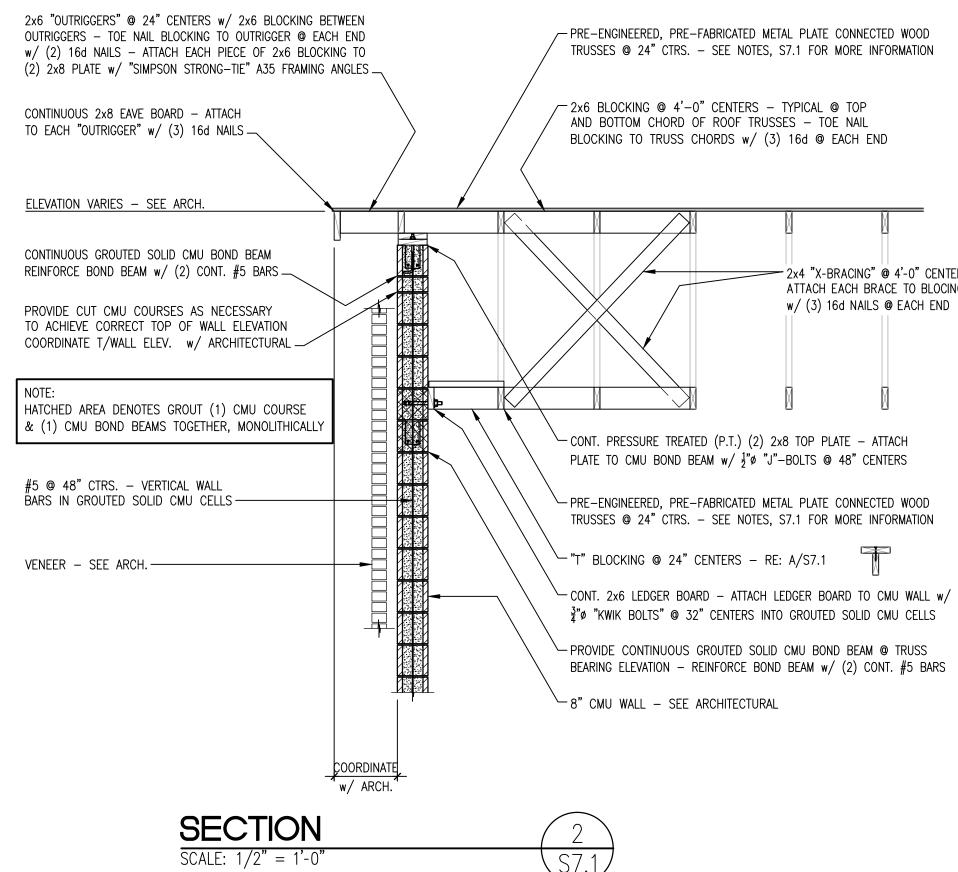
ALL METAL FRAMING CONNECTORS SHOWN ON THE DRAWINGS SHALL BE THE PRODUCTS OF THE "SIMPSON STRONG-TIE COMPANY, INC.; 2600 INTERNATIONAL STREET; COLUMBUS, OHIO 43228" (OR APPROVED EQUAL). METAL FRAMING CONNECTORS TO BE USED WITH PRESSURE TREATED LUMBER THAT IS EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED TO THE REQUIREMENTS OF ASTM A653 G185 (1.85 OUNCES OF ZINC PER SQUARE FOOT) ON BOTH SIDES. SUBJECT TO APPROVAL, SIMPSON STRONG-TIE "ZMAX" FRAMING CONNECTORS MEET THIS REQUIREMENT. ALL METAL FRAMING CONNECTORS SHALL BE APPROPRIATE FOR THE CONNECTION UNDER CONSIDERATION AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS.

ROOF SHEATHING FOR THIS PROJECT SHALL BE APA RATED STRUCTURAL SHEATHING - 32/16,

SPECIFICATIONS.

K. WHERE A UL RATED ASSEMBLY IS REQUIRED PER THE ARCHITECTURAL DRAWINGS, SHEATHING THICKNESS, AS WELL AS FASTENER SIZE AND SPACING SHALL BE THE MORE RESTRICTIVE BETWEEN THAT SPECIFIED IN THE STRUCTURAL DRAWINGS OR BY THE UL ASSEMBLY REQUIREMENTS.





1. WOOD FRAMING CONSTRUCTION:

A. THE CONSTRUCTION DETAILS USED IN ALL WOOD FRAMING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE "AMERICAN INSTITUTE OF TIMBER CONSTRUCTION" (AITC) AS WELL AS THE NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION PUBLISHED BY THE "AMERICAN FOREST & PAPER

ALL LUMBER USED IN STRUCTURAL FRAMING ON THIS PROJECT SHALL BE OF A SPECIES AND

EXPOSURE 1, TONGUE & GROOVE, 48" x 96" SHEETS WITH LONG DIMENSION PERPENDICULAR TO THE ROOF FRAMING (TRUSSES, RAFTERS OR ROOF JOISTS). ROOF SHEATHING SHALL BE NAILED TO ROOF FRAMING w/ 10d NAILS @ 6" CENTERS ALONG SUPPORTED EDGES OF SHEETS AND @ 12" CENTERS ALONG INTERMEDIATE ROOF FRAMING.  $\frac{19}{37}$  Thick PLYWOOD SHALL BE USED FOR ROOF SHEATHING. ORIENTED STRAND BOARD (OSB) IS NOT PERMITTED FOR USE AS ROOF SHEATHING.

G. WHERE "MICROLLAM" BEAMS ARE INDICATED ON PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL 1.9E MICROLLAM LVL MEMBERS OF THE SIZE SPECIFIED. MICROLLAM'S SHALL BE THE PRODUCTS OF "TRUS JOIST, A WEYERHAEUSER BUSINESS; 6460 BUSCH BLVD., SUITE 200; COLUMBUS, OHIO 43229" OR APPROVED EQUAL. MICROLLAM INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S

H. ALL ENGINEERED WOOD PRODUCTS (MICROLLAMS) USED ON THIS PROJECT SHALL BE HANDLED, STORED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS ENGINEERED WOOD PRODUCTS SHALL NOT BE FIELD MODIFIED IN ANY WAY WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRODUCT MANUFACTURER AND THE ARCHITECT.

2 METAL PLATE CONNECTED WOOD TRUSSES:

A. ALL PRE-ENGINEERED. PRE-FABRICATED. METAL-PLATE CONNECTED WOOD TRUSSES ON THIS PROJECT SHALL BE DESIGNED, FABRICATED, HANDLED AND ERECTED IN ACCORDANCE WITH RECOMMENDATIONS, REQUIREMENTS AND SPECIFICATIONS OUTLINED IN THE PUBLICATIONS OF THE "TRUSS PLATE INSTITUTE" (TPI), LATEST EDITION.

STRUCTURAL DESIGN OF WOOD TRUSSES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE "AMERICAN INSTITUTE OF TIMBER CONSTRUCTION" (AITC) AND THE "NATIONAL DESIGN SPECIFICATIONS (NDS) FOR WOOD CONSTRUCTION" PUBLISHED BY THE "AMERICAN FOREST & PAPER ASSOCIATION" (AFPA) AND THE "AMERICAN WOOD COUNCIL" (AWC), LATEST EDITION OF EACH.

TOTAL REQUIRED ON THE PREMISES OF THE SHOP FABRICATING WOOD TRUSSES FOR THIS PROJECT. THE OWNER WILL ENGAGE AN INDEPENDENT TESTING AND INSPECTION FIRM (HEREINAFTER REFERED TO AS THE "INSPECTOR") TO PERFORM THESE INSPECTIONS. THE FAB SHOP SHALL RE-IMBURSE THE OWNER FOR THE COSTS OF THESE SPECIAL INSPECTIONS. WOOD TRUSS FABRICATION SHOPS THAT ARE MEMBERS OF THE WOOD TRUSS COUNCIL (WTC) OR THE TRUSS PLATE INSTITUTE (TPI) ARE DEEMED TO MEET THE EXCEPTION IN 1704.2.5.1 & 1704.2.5.2 OF THE KENTUCKY BUILDING CODE AND ARE EXEMPT FROM THIS REQUIRMENT AT THE COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION COCUMENTS.

D. THE FRAMING PLANS AND TRUSS CONFIGURATIONS SHOWN ON CONTRACT DOCUMENTS ARE FOR CONCEPTUAL PURPOSES ONLY. THE ACTUAL LAYOUT AND CONFIGURATIONS OF THE WOOD TRUSSES ON THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE TRUSS FABRICATOR'S "TRUSS DESIGN ENGINEER" (TDE) WITH ADVICE AND CONSENT OF THE STRUCTURAL ENGINEER OF RECORD (SER). THE TDE IS RESPONSIBLE FOR PRODUCING A ROOF FRAMING PLAN AND TRUSS CONFIGURATIONS THAT WILL ACHIEVE THE APPEARANCE OF THE ROOF AS SHOWN AND DETAILED ON THE ARCHITECTURAL DRAWINGS.

THE TOP AND BOTTOM CHORDS OF THE WOOD TRUSSES SHALL BE FABRICATED USING LUMBER OF A SPECIES, GRADE AND MOISTURE CONTENT SUCH THAT THE FOLLOWING MINIMUM DESIGN VALUES FOR A SINGLE MEMBER ARE MFT:

ALLOWABLE BENDING STRESS, Fb = 1,650 psi MODULUS OF ELASTICITY, E = 1,600,000 psi

F. LUMBER USED TO FABRICATE THE TOP & BOTTOM CHORDS OF WOOD TRUSSES SHALL BE MACHINE STRESS RATED (MSR) AND CERTIFIED TO MEET THE DESIGN VALUES LISTED ABOVE. THE GRADE OF LUMBER USED TO FABRICATE TRUSS WEB MEMBERS SHALL BE AT THE TRUSS FABRICATOR'S OPTION.

G. ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING SUPERIMPOSED GRAVITY LOADS: TOP CHORD LIVE LOAD (U.N.O.) 20 psf

TOP CHORD DEAD LOAD 20 psf BOTTOM CHORD LIVE LOAD 10 psf BOTTOM CHORD DEAD LOAD

H. THE TRUSSES SHALL BE DESIGNED FOR WIND AND / OR SEISMIC LOADS IN ACCORDANCE WITH CHAPTER 16 OF THE KENTUCKY BUILDING CODE (KBC), LATEST EDITION.

J. THE TRUSS DESIGN ENGINEER (TDE) SHALL FURNISH DETAILS FOR ALL BRACING, BRIDGING AND OTHER MISCELLANEOUS FRAMING REQUIRED TO ENSURE THE STRUCTURAL INTEGRITY AND STABILITY OF THE WOOD TRUSSES.

K. PRIOR TO TRUSS FABRICATION, THE CONTRACTOR SHALL COORDINATE BETWEEN THE TRUSS DESIGN ENGINEER (TDE) AND ALL SUB-CONTRACTORS TO ENSURE THAT ALL FIELD ATTACHMENTS (e.g. MECHANICAL, ELECTRICAL, PLUMBING, ETC.) THAT IMPART SIGNIFICANT LOADS (i.e. LOADS > 200 POUNDS) TO THE WOOD TRUSSES ARE BROUGHT TO THE ATTENTION OF THE TDE. SIGNIFICANT LOADS, (MECHANICAL, ELECTRICAL, PLUMBING, ETC.) SHALL BE ATTACHED TO THE WOOD TRUSSES AT TRUSS PANEL POINTS ONLY. THE TDE SHALL FURNISH SUITABLE DETAILS TO BE USED IN ATTACHING LOADS TO THE WOOD TRUSS.

L. THE CONTRACTOR SHALL COORDINATE BETWEEN TRUSS SUPPLIER & M.E.P. SUB-CONTRACTOR TO ENSURE THAT NO CONFLICTS OCCUR BETWEEN TRUSSES AND UTILITIES. THE TRUSS LAYOUT SHALL PROVIDE FOR ADEQUATE CLEARANCE FOR WATER CLOSET SOIL LINES, MOP SINK DRAINS, ETC.

M. THE TRUSS DESIGN ENGINEER (TDE) SHALL DESIGN AND DETAIL ALL TRUSS TO GIRDER TRUSS CONNECTIONS, TRUSS TO RIDGE TRUSS CONNECTIONS, RIDGE TRUSS TO GIRDER TRUSS CONNECTIONS, ETC. THE METAL PLATE CONNECTED WOOD TRUSS FABRICATOR SHALL FURNISH ALL HARDWARE NECESSARY TO MAKE THE CONNECTIONS.

N. THE TRUSS FABRICATOR SHALL DETAIL AND FURNISH ALL VALLEY TRUSS SETS AND / OR OVERLAY FRAMING NECESSARY TO ACHIEVE THE ROOF LINES SHOWN ON THE ARCHITECTURAL DRAWINGS.

P. THE TRUSS FABRICATOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR ALL WOOD TRUSSES TO THE ARCHITECT FOR REVIEW. DRAWINGS AND CALCULATIONS SHALL BE PREPARED, STAMPED AND SIGNED BY THE TRUSS DESIGN ENGINEER (TDE). THE TDE SHALL BE A LICENSED PROFESSIONAL ENGINEER, REGISTERED IN THE COMMONWEALTH OF KENTUCKY AND EXPERIENCED IN STRUCTURAL ENGINEERING.

Q. THE TRUSS FABRICATOR IS RESPONSIBLE FOR DELIVERY OF THE WOOD TRUSSES TO THE JOB SITE. THE GENERAL CONTRACTOR SHALL RECEIVE, UNLOAD, PROPERLY STORE AND PROTECT THE TRUSSES IN ACCORDANCE WITH THE FABRICATOR'S INSTRUCTIONS OR WITH THE TERMS OF THE SPECIFICATIONS; WHICHEVER HAS THE MORE STRINGENT REQUIREMENTS.

-

DETAIL

SCALE: 1/2" = 1'-0"

- PLYWOOD ROOF SHEATHING - RE: NOTES ON SHEET S8.3

- PRE-ENGINEERED, PRE-FABRICATED METAL PLATE CONNECTED WOOD

TRUSSES @ 24" CTRS. - SEE NOTES, S8.3 FOR MORE INFORMATION

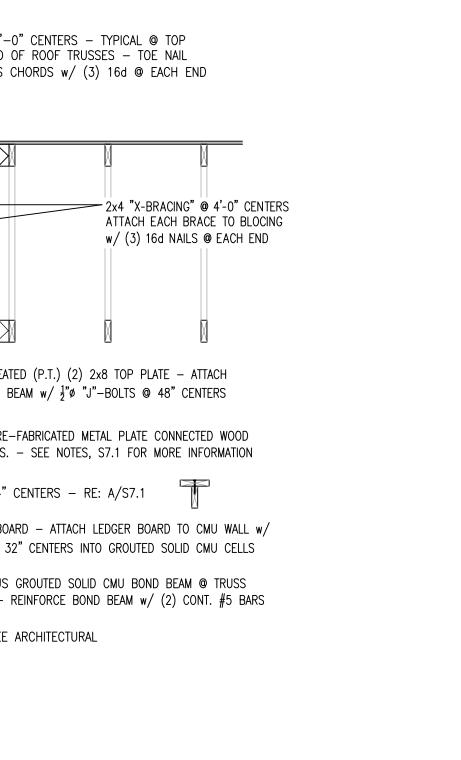
- CMU WALL - RE: 1/S8.3

CONT. PRESSURE TREATED (P.T.) (2) 2x8 TOP PLATE

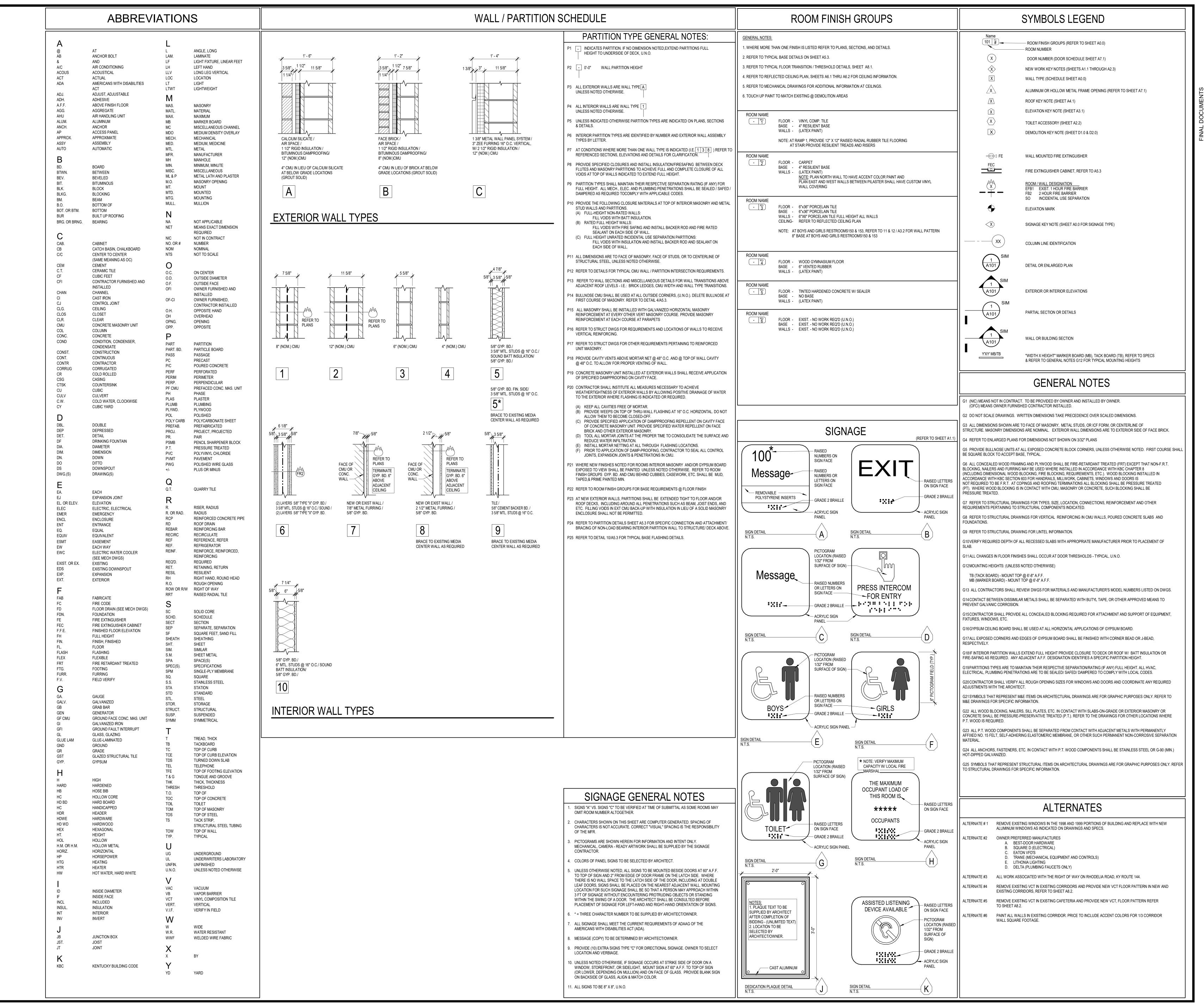
RE: 1/S8.3 (SHOWN) & 4/S8.3 & 5/S8.3 (SIMILAR)

- 2x4 "X-BRACING" OVER CMU WALLS - ATTACH EACH 2x4 TO TOP CHORD OF ONE TRUSS AND TO BOTTOM

CHORD OF ADJACENT TRUSS w/ (3) 16d NAILS

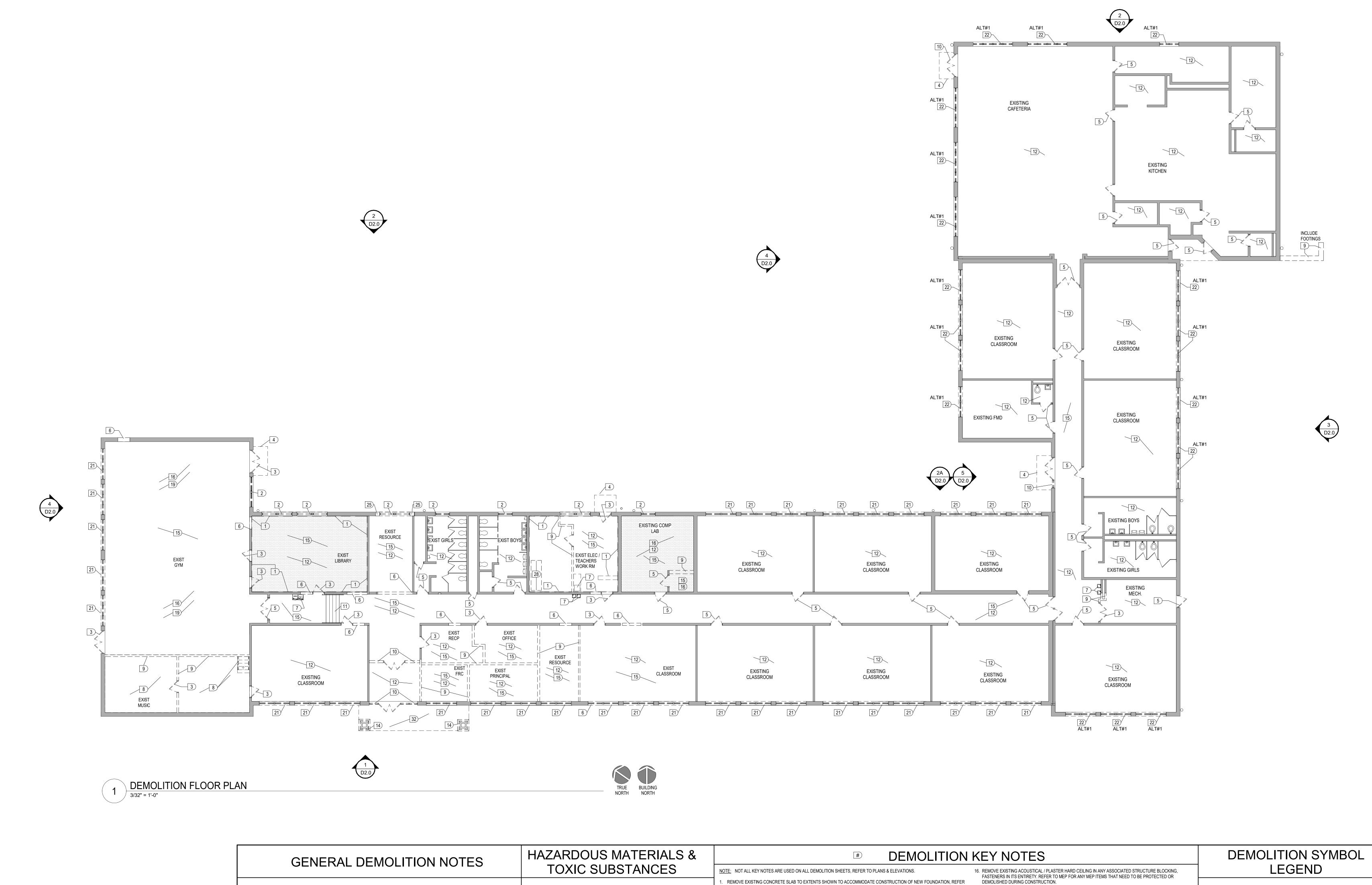


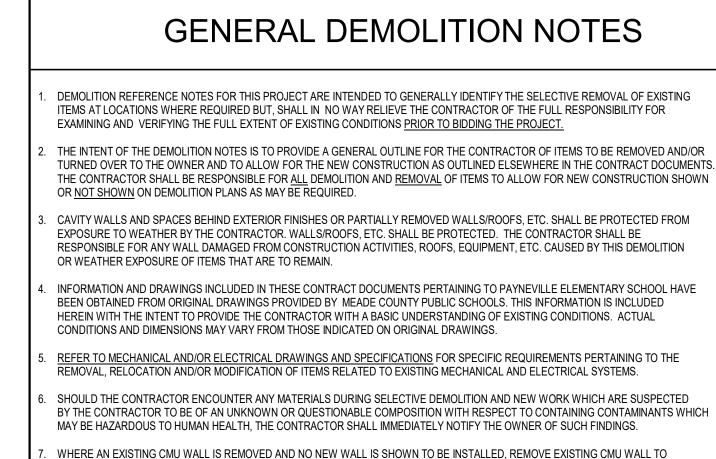




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8 INCHES BELOW ADJACENT FLOOR SLAB. PATCH AND REPAIR SLAB AS REQUIRED FOR INSTALLATION OF NEW FLOOR FINISH. ALL AREAS LEFT EXPOSED AS A RESULT OF DEMOLITION AND/OR EQUIPMENT REMOVAL SHALL BE PATCHED AND REPAIRED TO RESULT IN A FLUSH SMOOTH SURFACE PREPARED TO RECEIVE NEW FINISHES AS SCHEDULED. ANY AREAS / OPENINGS IN MASONRY WALLS LARGER THAN 2" EXPOSED TO VIEW SHALL BE PATCHED WITH SOAPED IN CMU UNITS TOOTHED-IN TO EXISTING MASONRY. UNLESS INDICATED OTHERWISE. ALL EXISTING FLOOR SLABS SHALL MEET NEW FLOOR SLABS AT THE SAME ELEVATION WHERE NEW FINISHES SHALL BE INSTALLED FLUSH. CONTRACTOR SHALL VERIFY ALL EXISTING FLOOR SLABS FOR COMPLIANCE PRIOR TO PLACING NEW SLABS AT ASSUMED ELEVATIONS INDICATED.

. AREAS NOT KEY NOTED ARE EXISTING TO REMAIN, KEEP / MAINTAIN EXISTING FINISHES. CEILING MODIFICATION INCLUDES REMOVAL & REINSTALLATION AS REQUIRED TO FACILITATE MEP WORK. REFER TO MEP DOCUMENTS. . REFER TO ROOF PLAN ROOF DEMOLITION.

DUE TO THE AGE OF THE EXISTING BUILDINGS, IT IS POSSIBLE HAZARDOUS MATERIALS OR TOXIC SUBSTANCES / MOLDS MAY EXIST. THIS INCLUDES BUT IS NOT LIMITED TO ASBESTOS PRODUCTS, POLYCHLORINATED BIPHENYL (PCB), AND OTHER TOXIC SUBSTANCES. IF ANY WORKERS IN ACCORDANCE WITH FEDERAL. STATE AND LOCAL LAWS. CODES AND RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL OR DISPOSAL OF OR EXPOSURE OF PERSONS TO HAZARDOUS MATERIALS OR TOXIC SUBSTANCES IN ANY FORM AT THE PROJECT SITE, INCLUDING BUT NOT LIMITED TO ASBESTOS, ASBESTOS PRODUCTS, POLYCHLORINATED BIPHENYL (PCB), OTHER TOXIC SUBSTANCES, OR TOXIC MOLDS.

THE CONTRACTOR IS HEREBY ADVISED THAT SHERMAN-CARTER- BARNHART, PLLC IS NOT A DESIGN PROFESSIONAL IN THE DETERMINATION OF THE PRESENCE OF HAZARDOUS MATERIALS, NOR IS SHERMAN-CARTER-BARNHART, PLLC A DESIGN PROFESSIONAL INVOLVED IN MAKING RECOMMENDATIONS REGARDING THE TESTING, REMOVAL, ENCAPSULATION OR OTHER CORRECTIVE MEASURES PERTAINING TO HAZARDOUS MATERIALS OR TOXIC MOLDS /

SUBSTANCES. 2. IF THE WORK WHICH IS TO BE PERFORMED UNDER THE CONTRACT INTERFACES IN ANY WAY WITH THE EXISTING COMPONENTS WHICH CONTAIN HAZARDOUS MATERIALS OR TOXIC SUBSTANCES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER'S ENVIRONMENTAL CONSULTANT REGARDING THE PROPER MEANS AND METHODS TO BE UTILIZED IN DEALING WITH HAZARDOUS MATERIALS AND SUBSTANCES.

BY EXECUTION OF THE CONTRACT FOR CONSTRUCTION, THE CONTRACTOR HEREBY AGREES TO BRING NO CLAIM FOR NEGLIGENCE, BREACH OF CONTRACT, INDEMNITY OR OTHERWISE AGAINST THE ARCHITECT, HIS PRINCIPALS, EMPLOYEES, AGENTS OR CONSULTANTS IF SUCH A CLAIM IN ANY WAY WOULD INVOLVE THE INVESTIGATION OF OR REMEDIAL WORK RELATED TO HAZARDOUS MATERIALS OR TOXIC SUBSTANCES IN THE

BY EXECUTION OF THE CONTRACT FOR CONSTRUCTION, THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE ARCHITECT, HIS PRINCIPALS, EMPLOYEES, AGENTS AND CONSULTANTS HARMLESS FROM ANY SUCH ASBESTOS, OTHER HAZARDOUS MATERIALS, OR TOXIC SUBSTANCES / MOLD RELATED CLAIMS THAT MAY BE BROUGHT BY THE CONTRACTOR'S SUBCONTRACTORS, SUPPLIERS OR OTHER THIRD PARTIES WHO MAY BE ACTING UNDER THE DIRECTION OF THE CONTRACTOR PURSUANT TO THIS PROJECT.

- REMOVE EXISTING WINDOW ASSEMBLY IN ITS ENTIRETY. PREP OPENING TO RECEIVE NEW WORK / INFILL. REMOVE EXISTING DOOR AND FRAME IN ITS ENTIRETY, PATCH AND REPAIR EXISTING WALL AS REQUIRED TO
- REMOVE EXISTING CANOPY / WALKWAY COVER AND ANY ASSOCIATED ELECTRICAL ITEMS, PATCH/REPAIR AND INFILL
- EXISTING BRICK WALL BEYOND AS REQUIRED. REFER TO NEW WORK AND MEP.
- REMOVE EXISTING DOOR IN ITS ENTIRETY. EXISTING DOOR FRAME TO REMAIN. PROTECT FROM DAMAGE DURING
- PLANS AND BUILDING SECTIONS.
- REMOVE EXISTING PLUMBING FIXTURES IN THEIR ENTIRETY, PATCH AND REPAIR WALLS AND FLOORS AS REQUIRED TO RECEIVE NEW FINISHES. REFER TO NEW WORK PLANS AND MEP.
- REMOVE STAGE FLOOR ASSEMBLY AND RELATED FRAMING IN ITS ENTIRETY, PREP ADJACENT SURFACE AND FLOOR BELOW 23. REMOVE CAST STONE SILL.
- REMOVE EXISTING WALL IN ITS ENTIRETY TO EXTENTS SHOWN. PATCH / REPAIR ALL ADJACENT EXISTING SURFACES TO
- REMAIN AS REQUIRED TO RECEIVE SCHEDULED FINISHES. I. REMOVE EXISTING STOREFRONT DOOR / WINDOW FRAMING SYSTEM IN ITS ENTIRETY. PREP SURFACE AS REQUIRED TO RECEIVE NEW STOREFRONT DOOR / WINDOW FRAMING SYSTEM OR PATCH/REPAIR FINISHES TO MATCH ADJACENT
- . REMOVE EXISTING RUBBER STAIR TREADS & RISERS IN THERE ENTIRETY, PREP FLOOR FOR SCHEDULED FIN. REMOVE EXISTING LAY-IN ACOUSTICAL CEILING SYSTEM IN ITS ENTIRETY AS WELL AS ANY PLASTER CEILING INCLUDING ASSOCIATED PLASTER CEILING STRUCTURE. CONTRACTOR TO PROTECT EXISTING AUDIO VISUAL CABLE THAT IS ATTACHED TO PLASTER CEILING. REFER TO MEP FOR FULL EXTENT OF MEP ITEMS TO BE PROTECTED OR DEMOLISHED DURING
- 3. REMOVE DOWNSPOUT, BOOT AND RELATED BRACKETS.
- 4. REMOVE EXISTING CONCRETE AND MASONRY COLUMN IN ITS ENTIRETY. PROTECT CANOPY ABOVE FROM DAMAGE DURING 31. REMOVE EXISTING METAL ROOF IN ITS ENTIRETY INCLUDING ANY ASSOCIATED STRUCTURE. CONSTRUCTION. CONTRACTOR TO PROVIDE TEMPORARY CANOPY SUPPORT, REFER TO STRUCTURAL.
- 5. REMOVE EXISTING VINYL COMPOSITE TILE (VCT) AND BASE IN ITS ENTIRETY, PREP FLOOR FOR INSTALLATION OF SCHEDULED FINISH.

- 17. REMOVE AND REINSTALL EXISTING SATELLITE DISH AND RELATED ITEMS TO ACCOMMODATE NEW ROOF / GUTTER INSTALLATION. 18. REMOVE EXISTING COPING AND RELATED BLOCKING, FASTENERS, PREPARE SURFACE FOR NEW COPING OR
- PARAPET, REFER TO NEW WORK PLANS. 19. REMOVE WD 2X NET SUPPORT, NETTING, BASKETBALL GOAL, WOOD SUPPORT STRUCTURE IN THEIR

ENTIRETY INCLUDING ANY ASSOCIATED WOOD BLOCKING OR FASTENERS.

- 20. REMOVE EXISTING LOUVER, PATCH/REPAIR AND INFILL EXISTING BRICK WALL BEYOND AS REQUIRED. REFER
- 3. REMOVE PORTION OF EXISTING WALL TO ACCOMMODATE NEW CONSTRUCTION, COORDINATE WITH STRUCT., NEW WORK 21. REMOVE EXISTING WINDOW ASSEMBLY IN ITS ENTIRETY. PREP OPENING TO RECEIVE NEW WINDOW REFER
  - TO NEW WORK PLANS. 22. REMOVE EXISTING WINDOW ASSEMBLY IN ITS ENTIRETY AS PART OF ALTERNATE #1. PREP OPENING TO RECEIVE NEW WINDOW REFER TO NEW WORK PLANS AND ALTERNATE #1.

  - 24. REMOVE PORTION OF CAST STONE SILL AS REQUIRED TO ACCOMMODATE NEW DOOR / WINDOW SYSTEM. 25. REMOVE PORTION OF EXISTING WALL (SAW CUT) TO EXTENTS SHOWN AND TO BOTTOM OF EXISTING CONC. BEAM, PROVIDE NEW STEEL BRICK LINTEL, REFER TO STRUCTURAL AND PLANS FOR EXTENT OF OPENING.
  - 26. REMOVE EXISTING CONDUCTOR HEAD AND SCUPPER.
  - 27. REMOVE EXISTING GUTTER, FASCIA AND FLASHING, AS REQ'D. TO RECEIVE NEW WORK. 28. REMOVE EXISTING CONCRETE ROOF DECK (ABOVE) AS REQUIRED TO FACILITATE NEW ROOF HATCH - REFER
  - 29. EXISTING BRICK CANOPY TO REMAIN. PROTECT FROM DAMAGE DURING CONSTRUCTION. REFER TO
  - 30. REMOVE EIFS PEDIMENT AND ASSOCIATED STRUCTURE IN ITS ENTIRETY.

32. REMOVE EXISTING SOFFIT.

TO STRUCTURAL DWGS. AND NEW WORK PLANS / DETAILS...

EXTENTS CONCRETE SLAB REMOVAL # DEMOLITION KEY NOTE

EXISTING WALL / CONSTRUCTION TO REMAIN

8 EXISTING DOOR & FRAME TO BE REMOVED

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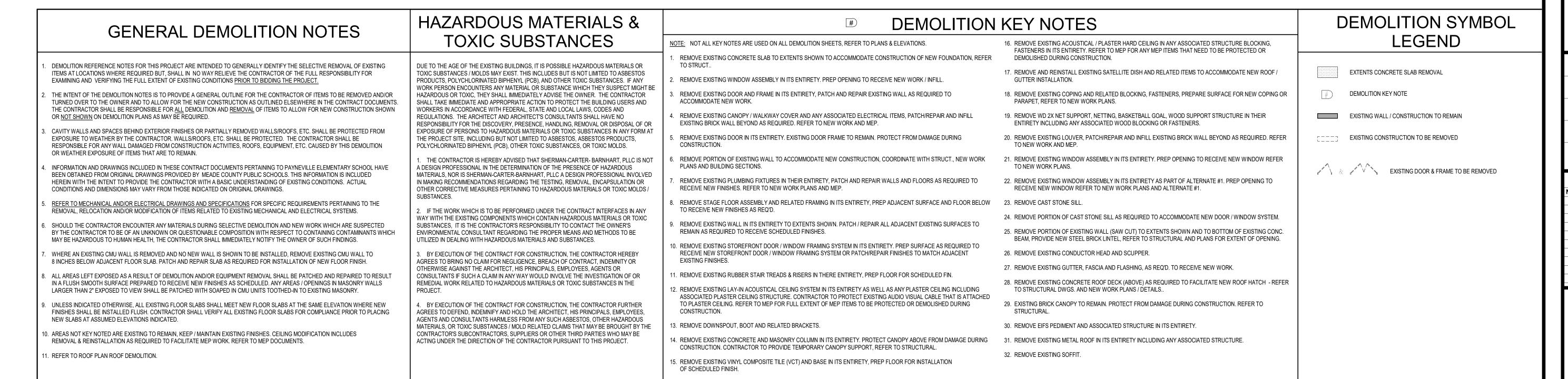
SHERMAN CARTER BARNHART

No. Description Date

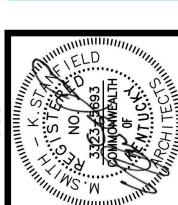
SHERMAR CARTER BARNHAR

07/10/2019

CTM, ANR



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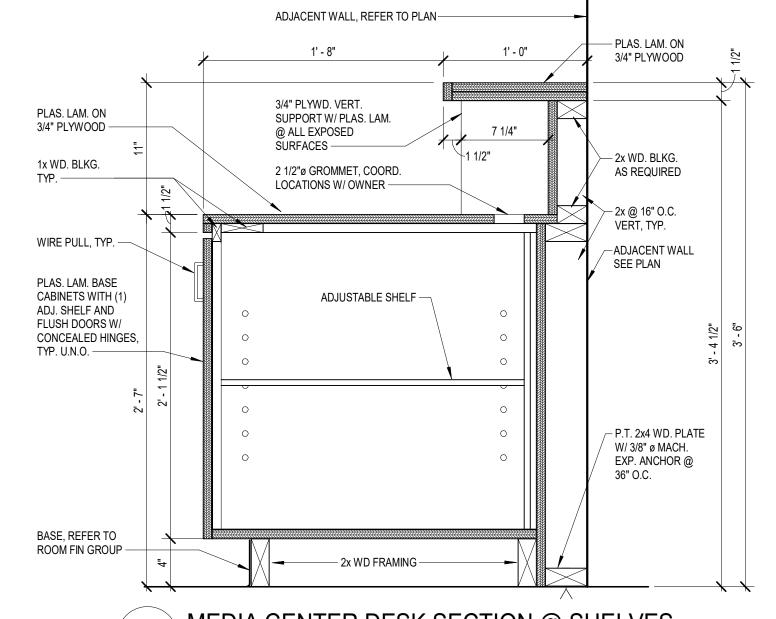


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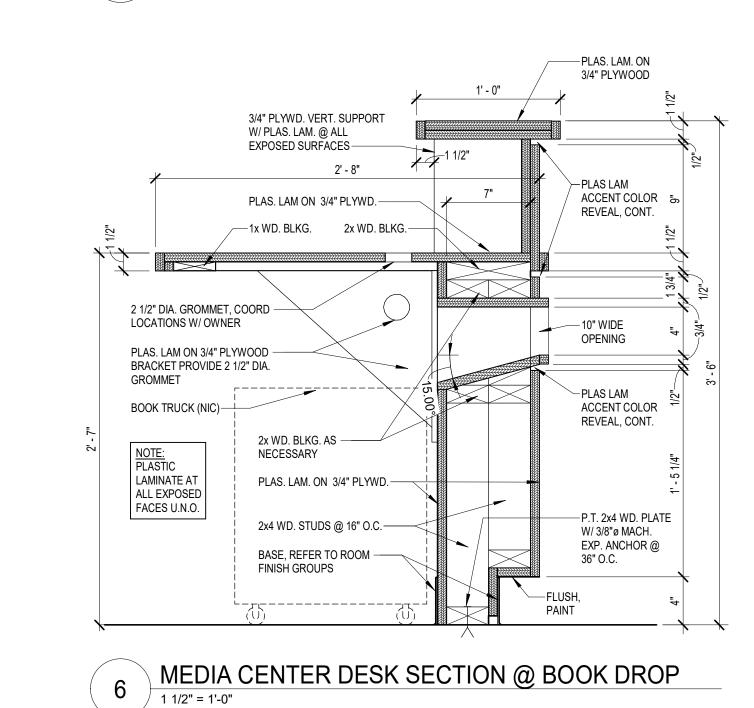
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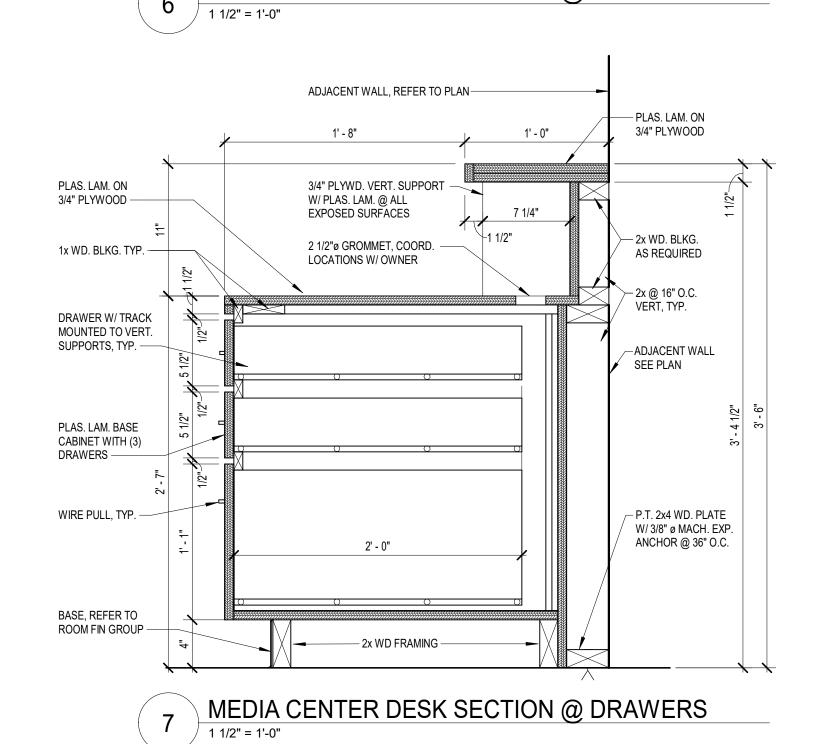
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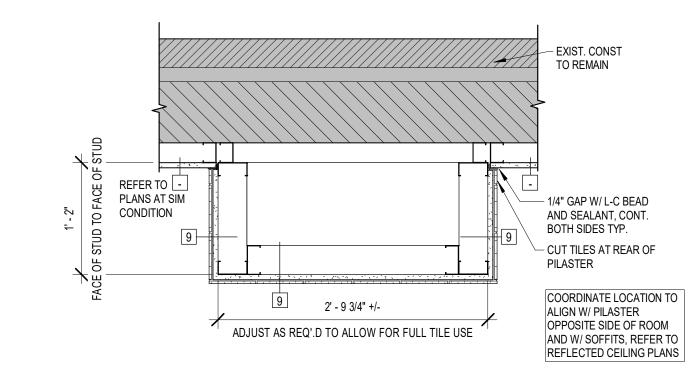
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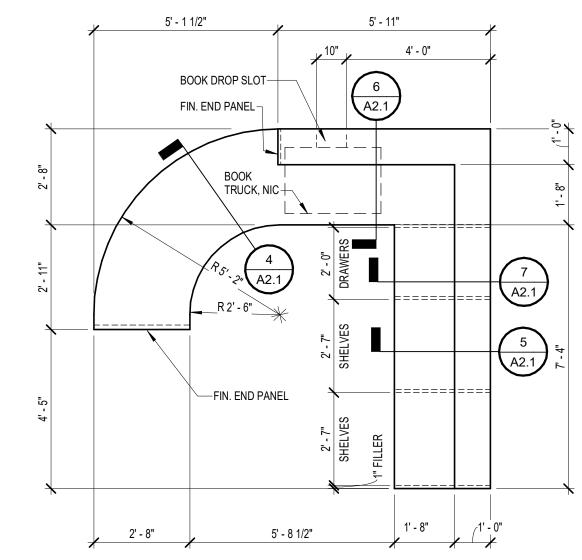
MEDIA CENTER DESK SECTION @ SHELVES

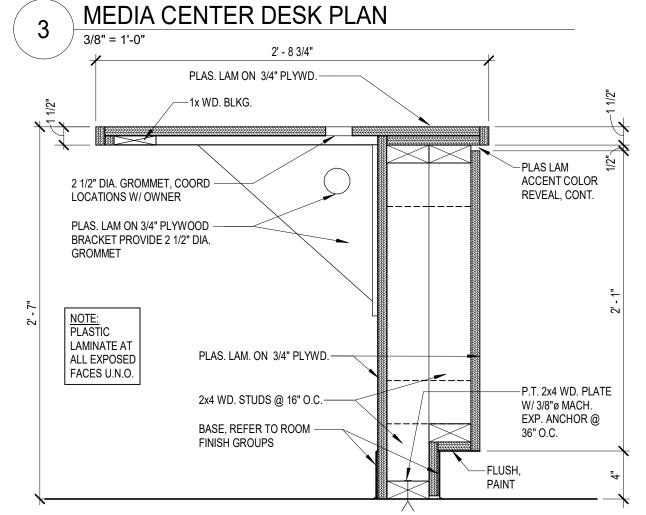




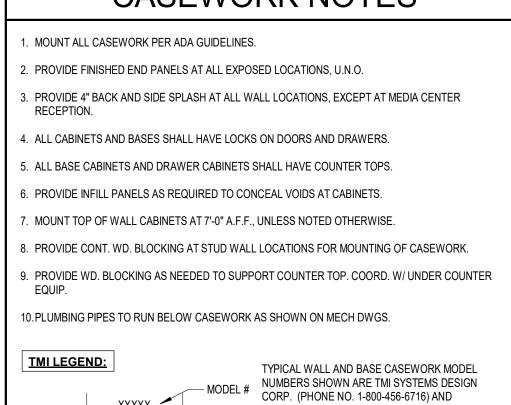


PILASTER DETAIL MEDIA CENTER







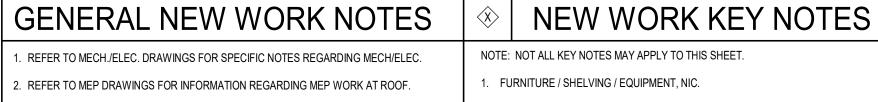




CENTER MEDIA N AND GED ENLAR( FLOOR

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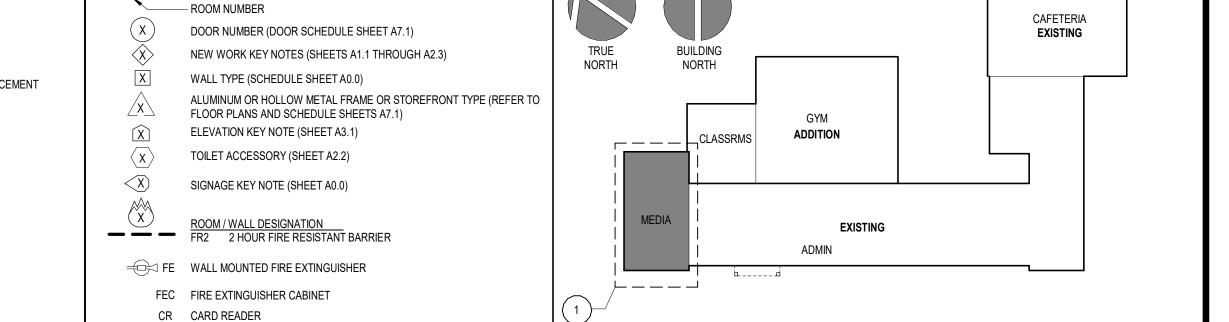


3. REFER TO SHEET A0.0 FOR GENERAL NOTES AND PARTITION TYPES. 4. REFER TO DETAILS ON SHEET A5.4 FOR TYPICAL WALL INTERSECTION DETAILS.

5. REFER TO SHEETS D1.0-D2.0 FOR DEMOLITION WORK REQUIRED. 6. REFER TO SHEETS A7.1 & A7.2 FOR DOORS AND FRAMES AND ASSOCIATED DETAILS.

8. REFER TO SHEET A0.0 FOR ALTERNATE INFORMATION.

- 7. REFER TO SHEET A3.1 FOR ELEVATION GENERAL NOTES AND KEY NOTES.
- NOTE: NOT ALL KEY NOTES MAY APPLY TO THIS SHEET.
- FURNITURE / SHELVING / EQUIPMENT, NIC.
- 2. CMU/STEEL LINTEL ABOVE, REFER TO STRUCTURAL & CEILING PLANS.
- 3. DISPLAY CASE REFER TO ELEVATION 1/A3.2.
- MASONRY INFILL, TOOTH-IN INFILL TO NEAREST MASONRY JOINT ON EITHER SIDE AND ALIGN WITH FACE OF WALL. SEE DEMOLITION PLAN ON D1.0.
- STEEL COLUMN, REFER TO STRUCT., PAINT WHEN EXPOSED TO VIEW.
- PATCH/REPAIR FLOOR WHERE PORTION OF EXISTING WALL WAS REMOVED TO MATCH EXISTING ADJACENT AND PREPARE FLOOR AS REQUIRED TO RECEIVE NEW FINISH.
- WASHER AND DRYER, NIC, PROVIDE MECH, PLUMBING AND ELEC. HOOK-UP
- 10. WALL MOUNTED TEACHERS MAILBOX, REFER TO CASEWORK NOTES AND SPECS.



- HIGH-LOW EWC

w/ FILL STATION

DISPLAY CASE

- CONCRETE BLOCK

- CONC. BOND BEAM

W/ 1 #5 REBAR CONT.

(GROUT SOLID)

TILE TRIM RETURN

— CUT CMU COURSE

- OPENING IS TYPICAL

AT ALL STALL WALLS — CMU AND TILE BEYOND

--- BASE (SEE ROOM FINISH GROUP)

— BULLNOSE

BEYOND

PARTITION W/ TILE

(152B)

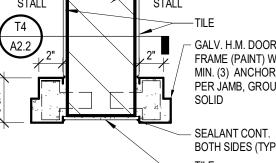
4' - 4"

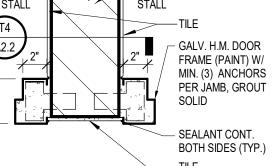
07/10/2019 CTM, DF DRAWN CHECKED **COPYRIGHT © 2019** SHERMAN CARTER BARNHAR ARCHITECTS, PLLC REVISIONS No. Description Date

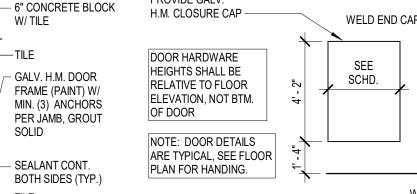
DOOR NUMBER (DOOR SCHEDULE SHEET A7.1) NEW WORK KEY NOTES (SHEETS A1.1 THROUGH A2.3) WALL TYPE (SCHEDULE SHEET A0.0)

ALUMINUM OR HOLLOW METAL FRAME OR STOREFRONT TYPE (REFER TO FLOOR PLANS AND SCHEDULE SHEETS A7.1) ELEVATION KEY NOTE (SHEET A3.1) TOILET ACCESSORY (SHEET A2.2) SIGNAGE KEY NOTE (SHEET A0.0) ROOM / WALL DESIGNATION
FR2 2 HOUR FIRE RESISTANT BARRIER

101 | # ROOM FINISH GROUPS (REFER TO SHEET A0.0







PROVIDE GALV.

T3 SECTION
1 1/2" = 1'-0"

WELD END CAP - TYP. DOOR/FRAME ELEVATIONS

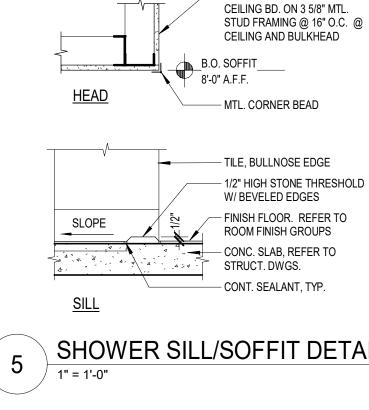
# T6 JAMB DETAIL 1 1/2" = 1'-0"

# SYMBOLS LEGEND

FE WALL MOUNTED FIRE EXTINGUISHER

FEC FIRE EXTINGUISHER CABINET

CR CARD READER



REF. TO KINDERGARTEN CLASSROOMS

TOP & ENDS (TYP.)——1"

FINISH EXPOSED

DOUBLE COAT HOOK,

ONE PER EA CUBBIE, TYP-

CUBBIES TO BE

SECURED TO WALL-

PLASTIC LAMINATE

CLAD CUBBIES.

SPECIFICATIONS. -

4" RESILIENT BASE —

VINYL EDGING @ ALL EXPOSED

DIVIDER END FACES———

4" RESILIENT

NOTE: CUBBIES ARE 15" DEEP TYPICAL.

LAYOUTS ON THIS SHEET FOR QUANTITY.

1' - 2 1/4"

CHILDRENS CUBBIE ELEVATION

-PLAS. LAM. OVER (2) LAYERS 3/4" PLYWOOD

-PLAS. LAM. ON SOLID WD. BLOCKING

-DOUBLE METAL COAT HOOK

-PLASTIC LAMINATE OVER 3/4"

—DOUBLE METAL COAT HOOK

-CONT. 2x4 WD. BLOCKING

CHILDRENS CUBBIE BASE SECTION

REFER TO SPECS.

PLYWOOD @ ALL FACES INSIDE OF CUBBIES AND @ END PANELS.

-PLAS. LAM. ON SOLID WD. BLOCKING

CUBBIES TO BE SECURED TO WALL.

SHIM AS REQ'D. TO MAINTAIN CUBBIES IN STRAIGHT ALIGNMENT.

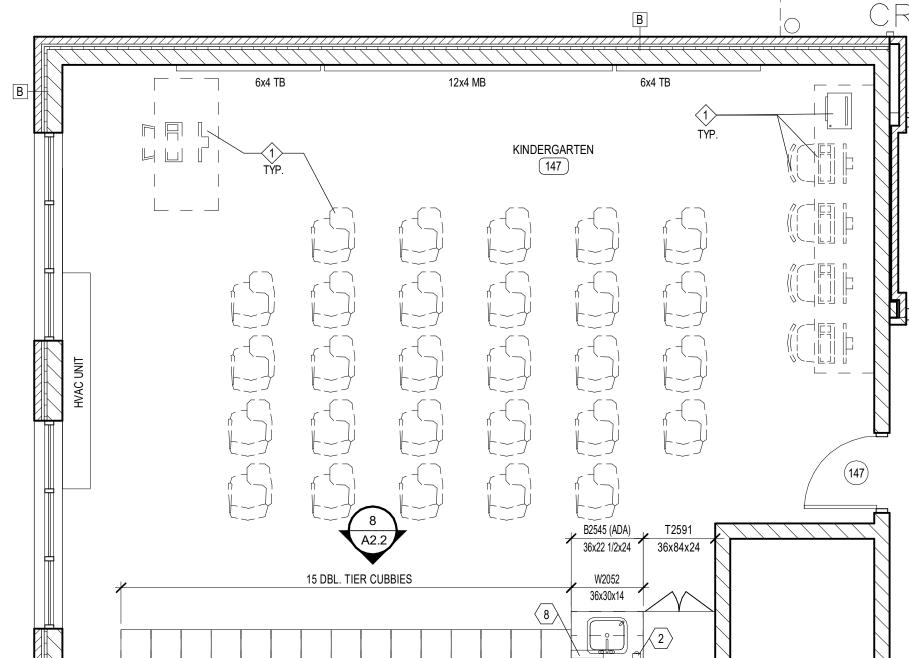
ADA CONTROLS -2nd SHOWER HEAD, REFER SHOWER SILL/SOFFIT DETAIL TO PLUMBING —

> 3' - 0" PE RESTROOM

> > 1/4" = 1'-0"

NOT USED

- 5/8" WATER RESISTANT GYP.



RESTROOM PLAN 1/4" = 1'-0" 3' - 4" CENTERLINE OF BRACKET 6" FROM CORNER, PROJECTIONS 2' - 0" MIN. ADA WATER CLOSET 3' - 6" MAX. REQUIREMENTS. (SEE FIGURES 604.5.1 & 609.4. PER ICC/ANSI A117.1-2009 FOR FURTHER INFORMATION) ADA COMPLIANT GRAB BAR LAYOUT 1/2" = 1'-0"

4" BRG. FOR BOND BEAM (THIS END

\*SCHEDULE LOCATED ON SHEET A7.1

1/4"=1'-0" \*SCHEDULE LOCATED ON SHEET A7.1
\*\*REFER TO FLOOR PLANS FOR STALL LAYOUT AND QUANTITY

— 6" CONC. BOND BEAM

CONT. (GROUT SOLID)

SMOOTH AND LEVEL

W/ 1 NO. 5 REBAR

AND TROWEL

AT TOP

NOTE: NON-BULLNOSE CMU SHALL BE USED AT OUTSIDE

CORNERS WHERE PORCELAIN TILE OCCURS. WHERE

PORCELAIN TILE IS NOT FULL HEIGHT, BULLNOSE CMU SHALL BE INSTALLED ABOVE PORCELAIN TILE.

HEAD DETAIL

**PARTIAL ELEVATION** 

\*\*REFER TO FLOOR PLANS FOR STALL LAYOUT AND QUANTITY

6" CONCRETE BLOCK W/

PORCELAIN TILE

GALV. H.M. DOOR

FRAME (PAINT) W/ MIN. (3) ANCHORS

PER JAMB, GROUT

SEALANT CONT.

BOTH SIDES (TYP.) ----

T5 JAMB DETAIL
1 1/2" = 1'-0"

TO ROOF PLAN.

TO 7'-4" A.F.F. -

TOILET COMPARTMENT DETAILS (TC)

4' - 2 1/8"

FACE OF TILE

REFER TO MEP — 6" MAX.

- CONCRETE BLOCK

PARTITION W/ TILE

- 6" CONCRETE BLOCK

BOND BEAM WITH 1-#5

REBAR CONT. (GROUT

REFER TO 12 & 13/A3.2

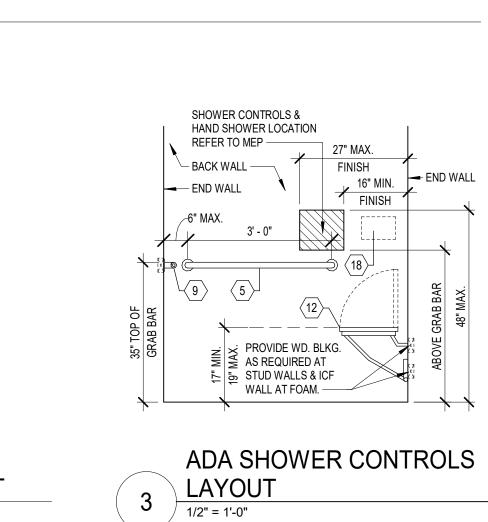
FOR TILE PATTERN.

BASE (REF. ROOM FINISH GROUPS)

- CUT CMU COURSE

SOLID)

A3.2



3  $\rangle$  STAFF T.

	TOILET ACCES	SORY SCHEDL	JLE	
->	ACCESSORY	MTG. HT.	MFR.	
1>	COAT HOOK AND BUMPER	48" TOP OF HOOK	ASI 0714	
2	SOAP DISPENSER (SURFACE MTD.)	40" TO VALVE	ASI 0347	
3	DOUBLE ROLL TOILET PAPER DISPENSER W/ VANDAL RESISTANT SPINDLE (SURFACE MOUNTED)	24" TO CENTER LINE	ASI 0264-12	
1	42" S.S. GRAB BAR (1-1/4")	33" TO CENTERLINE	ASI 3700-P-42	
5	36" S.S. GRAB BAR (1-1/4")	33" TO CENTERLINE	ASI 3700-P-36	
6	SANITARY NAPKIN DISPOSAL (SURFACE MOUNTED)	24" TO TOP (28" FOR ADA)	ASI 0852	Ĭ.
7	MIRROR W/ S.S. FRAME - 24"x30"	42" TO BOTTOM	ASI 0600-B - 24"x30"	
8	PAPER TOWEL DISPENSER (DISPENSER W/ WASTE RECEPTACLE AT ALL RESTROOMS - SURFACE MTD.)	48" TO DISPENSER SLOT	ASI 0469-9	
9	24" S.S. GRAB BAR (1-1/4")	33" TO CENTERLINE	ASI 3700-P-24	
10>	MOP BASIN	FLOOR MOUNTED	SEE PLUMBING	
11	18" VERTICAL S.S. GRAB BAR (1-1/4")	40" TO BTM. CENTERLINE	ASI 3700-P-18	
12	FOLDING SHOWER SEAT	18" TO TOP OF SEAT	ASI 8203-28	
13>	SHOWER ROD / CURTAIN HOOKS / CURTAIN	84" TO CENTER / LENGTH AS REQ'D ON PLANS	ASI 1204-2 / 1200 SHU / 1200V	
14	MOP / BROOM HOLDER (36" WIDE)	72" TO TOP	SEE PLUMBING	
15	DOUBLE ROBE/ TOWEL HOOK	48" TO TOP OF HOOK	ASI 7312	
16	ELECTRIC HAND DRYER (SURFACE MTD.)	40" TO BUTTON CENTERLINE	EXCEL XL-BW XLERATOR	
17	PAPER TOWEL DISPENSER (SURFACE MOUNTED)	46" TO DISPENSER SLOT	ASI 20210	
18	S.S. SOAP DISH	48" TO TOP	ASI 7320-S	

KINDERGARTEN CLASSROOM TYPICAL

1/4" = 1'-0"

# GENERAL TOILET ACCESSORY NOTES

- OF QUALITY REQUIRED AND SHALL BE USED AS A BASIS OF DESIGN. ALL ITEMS SHALL BE LOCATED HORIZONTALLY AND MOUNTED TO SPECIFIC POINT ABOVE FINISH FLOOR SURFACES IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) - ANSI A117.1 - 2009.
- ALL TOILET ACESSORIES TO INCLUDE VANDAL RESISTANT OPTION.

7. REFER TO SHEET A3.1 FOR ELEVATION GENERAL NOTES AND KEY NOTES.

8. REFER TO SHEET A0.0 FOR ALTERNATE INFORMATION.

REFER TO ALL FLOOR PLAN SHEETS FOR ACCESSORIES REQUIRED AT OTHER LOCATIONS 7 INSTALL GRAB BARS TO ALLOW 1 1/2" BETWEEN GRAB BAR AND WALL.

B REFER TO DETAIL 2 AND 3 THIS SHEET FOR TYPICAL ADA COMPLIANT GRAB BAR LAYOU'

#### GENERAL NEW WORK NOTES NEW WORK KEY NOTES

- . REFER TO MECH./ELEC. DRAWINGS FOR SPECIFIC NOTES REGARDING MECH/ELEC.
- 2. REFER TO MEP DRAWINGS FOR INFORMATION REGARDING MEP WORK AT ROOF. B. REFER TO SHEET A0.0 FOR GENERAL NOTES AND PARTITION TYPES.
- B. DISPLAY CASE REFER TO ELEVATION 1/A3.2. REFER TO DETAILS ON SHEET A5.4 FOR TYPICAL WALL INTERSECTION DETAILS.
- . MASONRY INFILL, TOOTH-IN INFILL TO NEAREST MASONRY JOINT ON EITHER SIDE AND ALIGN 5. REFER TO SHEETS D1.0-D2.0 FOR DEMOLITION WORK REQUIRED. WITH FACE OF WALL. SEE DEMOLITION PLAN ON D1.0. 6. REFER TO SHEETS A7.1 & A7.2 FOR DOORS AND FRAMES AND ASSOCIATED DETAILS
  - PATCH/REPAIR FLOOR WHERE PORTION OF EXISTING WALL WAS REMOVED TO MATCH EXISTING ADJACENT AND PREPARE FLOOR AS REQUIRED TO RECEIVE NEW FINISH.
  - 9. BASKETBALL GOAL ABOVE. 10. WALL MOUNTED TEACHERS MAILBOX, REFER TO CASEWORK NOTES AND SPECS.
- NOTE: NOT ALL KEY NOTES MAY APPLY TO THIS SHEET. . FURNITURE / SHELVING / EQUIPMENT, NIC.
- 2. CMU/STEEL LINTEL ABOVE, REFER TO STRUCTURAL & CEILING PLANS.
  - . STEEL COLUMN, REFER TO STRUCT., PAINT WHEN EXPOSED TO VIEW.

  - . WASHER AND DRYER, NIC, PROVIDE MECH, PLUMBING AND ELEC. HOOK-UP NOT USED.
- WITH EXISTING JOIST SPACING & LOCATIONS. 15. WALL MOUNTED HANDRAIL, REFER TO DETAILS 11 & 12/A5.3. 16. FIRE RATING, IS KDE REQUIREMENT. 17. SEAL ALL OPENINGS AND PENETRATIONS IN EXISTING WALL TO MAINTAIN FIRE RATING.

REFER TO ROOM FINISH GROUPS (RFG) FOR FLOOR FINISH.

12. DASHED LINE INDICATES NEW PRE-ENGINEERED CANOPY ABOVE, REFER

13. ATHLETIC WALL PADS AT LENGTH INDICATED ON PLANS REFER TO SPECS.

11. 1" RECESSED CONCRETE FLOOR SLAB, AT ADA SHOWER FOR POSITIVE DRAINAGE TO DRAIN,

14. INDUSTRIAL STAIR TO ROOF HATCH ABOVE, REFER TO DETAIL 5/A5.1. COORDINATE PLACEMENT

7 5/8"

T2 DETAIL
1 1/2" = 1'-0"

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SHERMAN CARTER BARNHAF

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RESILIENT BASE

BULLNOSE EDGE

- 1/8"W x 1/8"D KERF JOINT

– 2" W x 1/4" THICK PRE-FIN RADIUSED OAK PLYWD ACCENT BAND, ANCHOR W/ TRIM NAILS.

PLAS. LAM. COLOR "A" OVER

FILL W/ WOOD PUTTY TO MATCH

101 # ROOM FINISH GROUPS (REFER TO SHEET A0.0

--- ROOM NUMBER DOOR NUMBER (DOOR SCHEDULE SHEET A7.1) NEW WORK KEY NOTES (SHEETS A1.1 THROUGH A2.3)

WALL TYPE (SCHEDULE SHEET A0.0)

ALUMINUM OR HOLLOW METAL FRAME OR STOREFRONT TYPE (REFER TO FLOOR PLANS AND SCHEDULE SHEETS A7.1) ELEVATION KEY NOTE (SHEET A3.1)

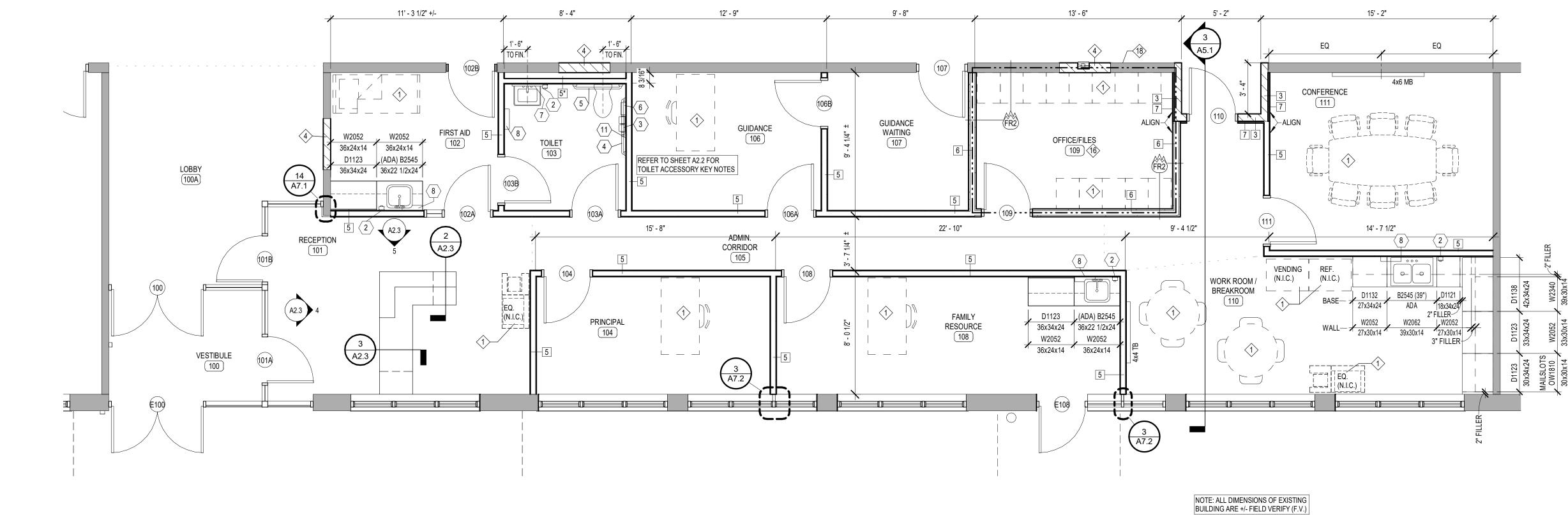
TOILET ACCESSORY (SHEET A2.2)

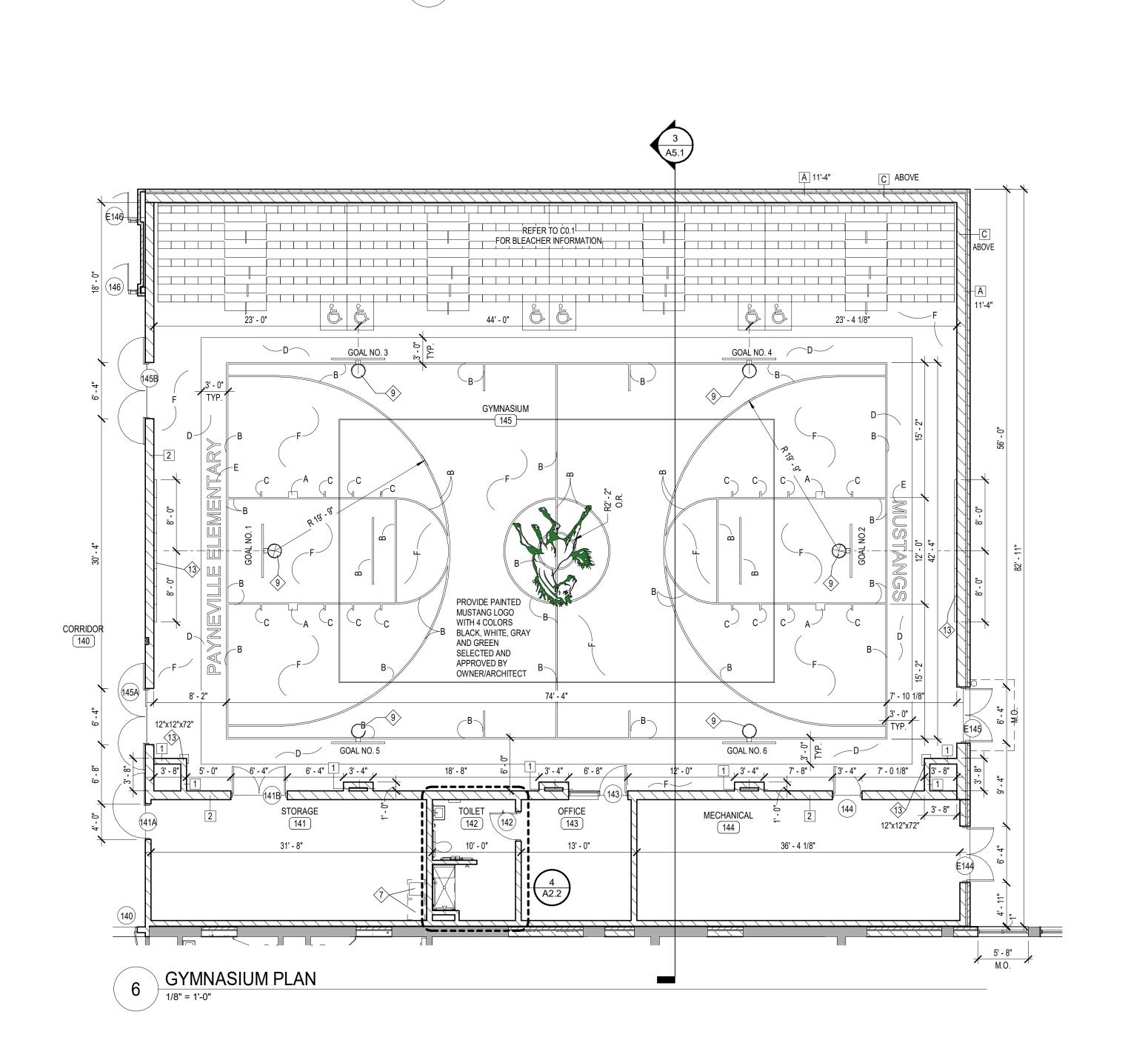
SIGNAGE KEY NOTE (SHEET A0.0)

ROOM / WALL DESIGNATION
FR2 2 HOUR FIRE RESISTANT BARRIER

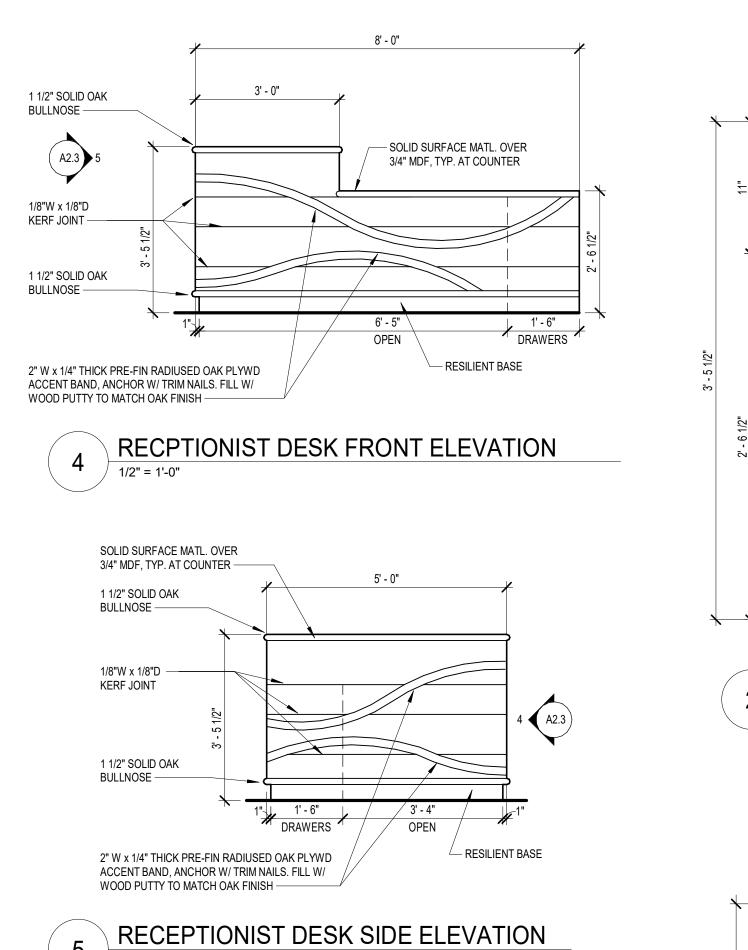
FE WALL MOUNTED FIRE EXTINGUISHER FEC FIRE EXTINGUISHER CABINET

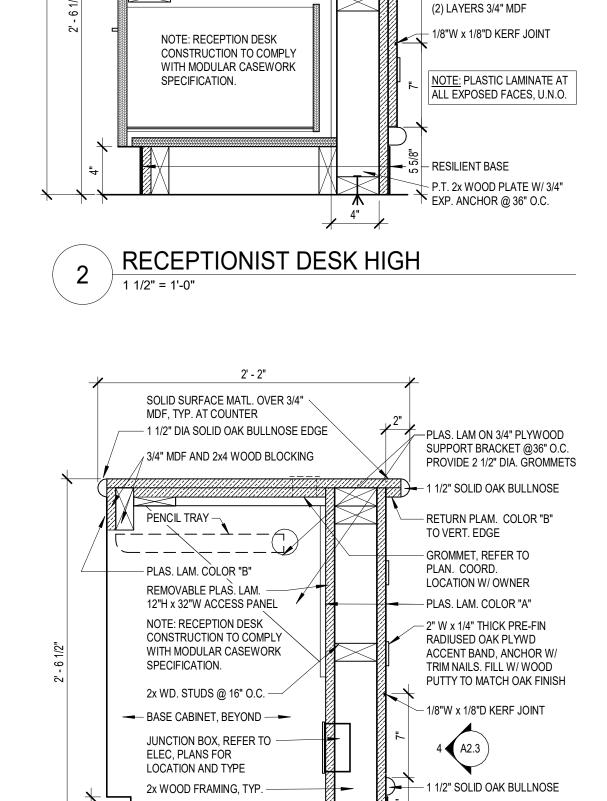
CR CARD READER





ADMINISTRATION SUITE





BULLNOSE EDGE

\_\_\_\_ 1x4 WD. BLKG.

- WOOD DRAWER W/ PLAS. LAM. FACE & TOP EDGE

— WIRE PULL, TYP.

— PLAS. LAM. COLOR "B"

#### GYM STRIPING KEY NOTES A - 12"W x 8"L BOX (GREEN GLOSS AS SELECTED BY OWNER/ARCHITECT)

- B 2"W STRIPE (GREEN GLOSS AS SELECTED BY OWNER/ARCHITECT)
- C 2"W x 8"L STRIPE (GREEN GLOSS AS SELECTED BY OWNER/ARCHITECT)
- D 3'-0"W STRIPE, (GREEN GLOSS AS SELECTED BY OWNER/ARCHITECT) E - 24" H. LETTERS (PAINTED WHITE/BLACK GLOSS VARSITY FONT)
- FIELD COLOR STAIN (BY OWNER)

OWNER & ARCHITECT.

- G 2"W STRIPE (WHITE GLOSS) H - FIELD COLOR (GRAY GLOSS SELECTED BY OWNER/ARCHITECT)
- I LOGO COLOR 1 (BLACK GLOSS)
- K LOGO COLOR 2 (WHITE GLOSS) - LOGO COLOR 3 (GREEN GLOSS SELECTED BY OWNER/ARCHITECT)
- M LOGO COLOR 3 (GRAY GLOSS SELECTED BY OWNER/ARCHITECT) NOTE: STRIPING CONTRACTOR TO CONFIRM STRIPING LAYOUT COMPLIES WITH CURRENT KHSAA GUIDELINES. FINAL GYM STRIPING COLORS TO BE SELECTED AND CONFIRMED BY

#### . REFER TO MECH./ELEC. DRAWINGS FOR SPECIFIC NOTES REGARDING MECH/ELEC.

GENERAL NEW WORK NOTES

- - 2. REFER TO MEP DRAWINGS FOR INFORMATION REGARDING MEP WORK AT ROOF. 3. REFER TO SHEET A0.0 FOR GENERAL NOTES AND PARTITION TYPES.

8. REFER TO SHEET A0.0 FOR ALTERNATE INFORMATION.

- 4. REFER TO DETAILS ON SHEET A5.4 FOR TYPICAL WALL INTERSECTION DETAILS.
- 5. REFER TO SHEETS D1.0-D2.0 FOR DEMOLITION WORK REQUIRED. 6. REFER TO SHEETS A7.1 & A7.2 FOR DOORS AND FRAMES AND ASSOCIATED DETAILS. . REFER TO SHEET A3.1 FOR ELEVATION GENERAL NOTES AND KEY NOTES.

. MASONRY INFILL, TOOTH-IN INFILL TO NEAREST MASONRY JOINT ON EITHER SIDE AND ALIGN WITH FACE OF WALL. SEE DEMOLITION PLAN ON D1.0. STEEL COLUMN, REFER TO STRUCT., PAINT WHEN EXPOSED TO VIEW.

2. CMU/STEEL LINTEL ABOVE, REFER TO STRUCTURAL & CEILING PLANS.

NEW WORK KEY NOTES

NOTE: NOT ALL KEY NOTES MAY APPLY TO THIS SHEET.

. FURNITURE / SHELVING / EQUIPMENT, NIC.

3. DISPLAY CASE REFER TO ELEVATION 1/A3.2.

1/2" = 1'-0"

- PATCH/REPAIR FLOOR WHERE PORTION OF EXISTING WALL WAS REMOVED TO MATCH EXISTING ADJACENT AND PREPARE FLOOR AS REQUIRED TO RECEIVE NEW FINISH. . WASHER AND DRYER, NIC, PROVIDE MECH, PLUMBING AND ELEC. HOOK-UP
- 8. NOT USED. 9. BASKETBALL GOAL ABOVE.
- 10. WALL MOUNTED TEACHERS MAILBOX, REFER TO CASEWORK NOTES AND SPECS.

#### 11. 1" RECESSED CONCRETE FLOOR SLAB, AT ADA SHOWER FOR POSITIVE DRAINAGE TO DRAIN, REFER TO ROOM FINISH GROUPS (RFG) FOR FLOOR FINISH.

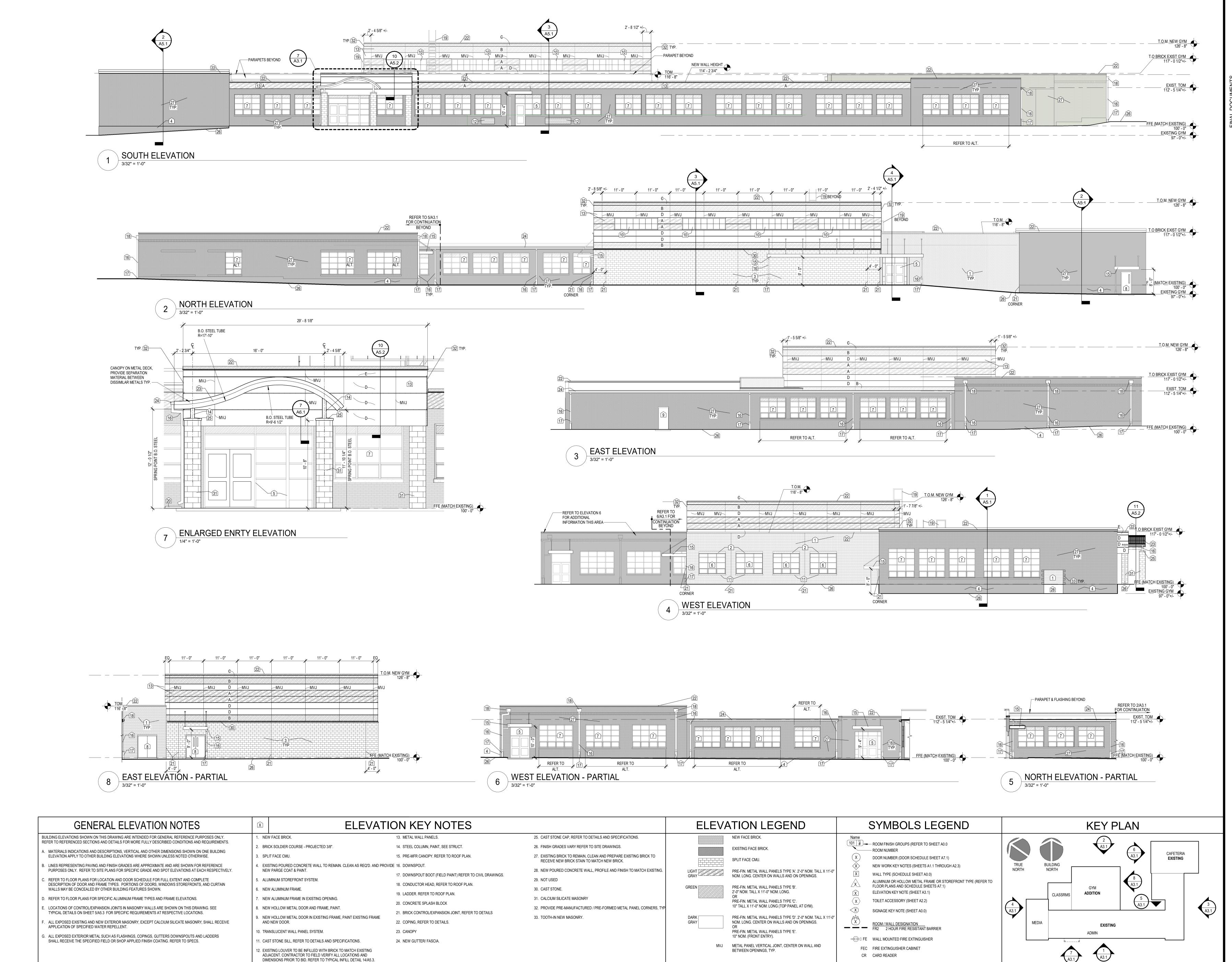
- 12. DASHED LINE INDICATES NEW PRE-ENGINEERED CANOPY ABOVE, REFER
- TO ROOF PLAN.
- 13. ATHLETIC WALL PADS AT LENGTH INDICATED ON PLANS REFER TO SPECS.
- 14. INDUSTRIAL STAIR TO ROOF HATCH ABOVE, REFER TO DETAIL 5/A5.1. COORDINATE PLACEMENT WITH EXISTING JOIST SPACING & LOCATIONS.
- 15. WALL MOUNTED HANDRAIL, REFER TO DETAILS 11 & 12/A5.3.
- 16. FIRE RATING, IS KDE REQUIREMENT. 17. SEAL ALL OPENINGS AND PENETRATIONS IN EXISTING WALL TO MAINTAIN FIRE RATING.

P.T. 2x WOOD PLATE W/ 3/4" -

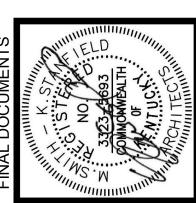
RECEPTIONIST DESK LOW
1 1/2" = 1'-0"

EXP. ANCHOR @ 36" O.C.

SHEET



SHERMAN CARTER BARNHART ARCHITECTS



EVILLE ELEMENTARY
OL RENOVATION AND
ADDITION

EXTERIOR BUILDING ELEVATIONS

JOB NO. 1569

DATE 07/10/2019

DRAWN CTM, DF

CHECKED DF/BKL

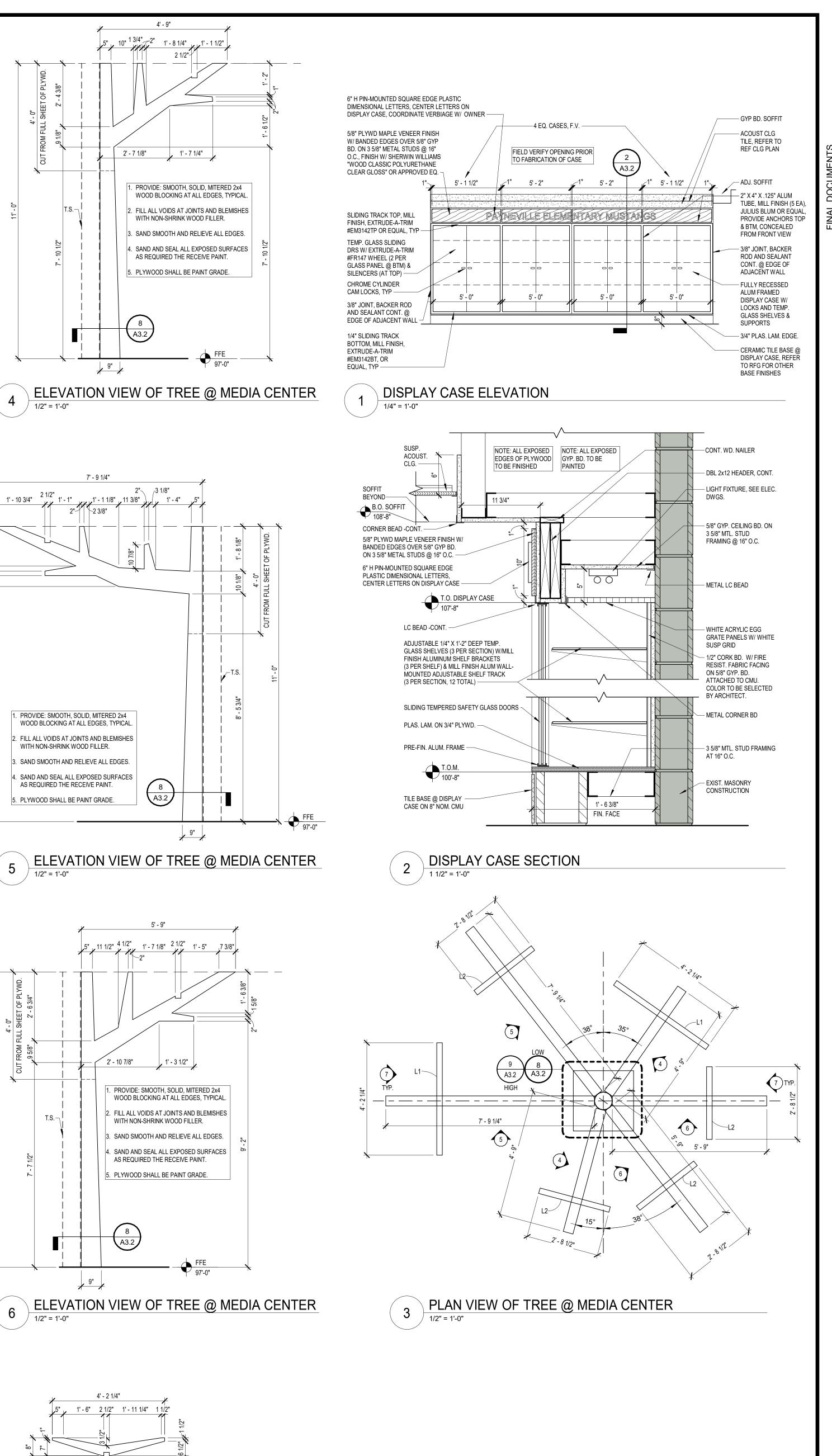
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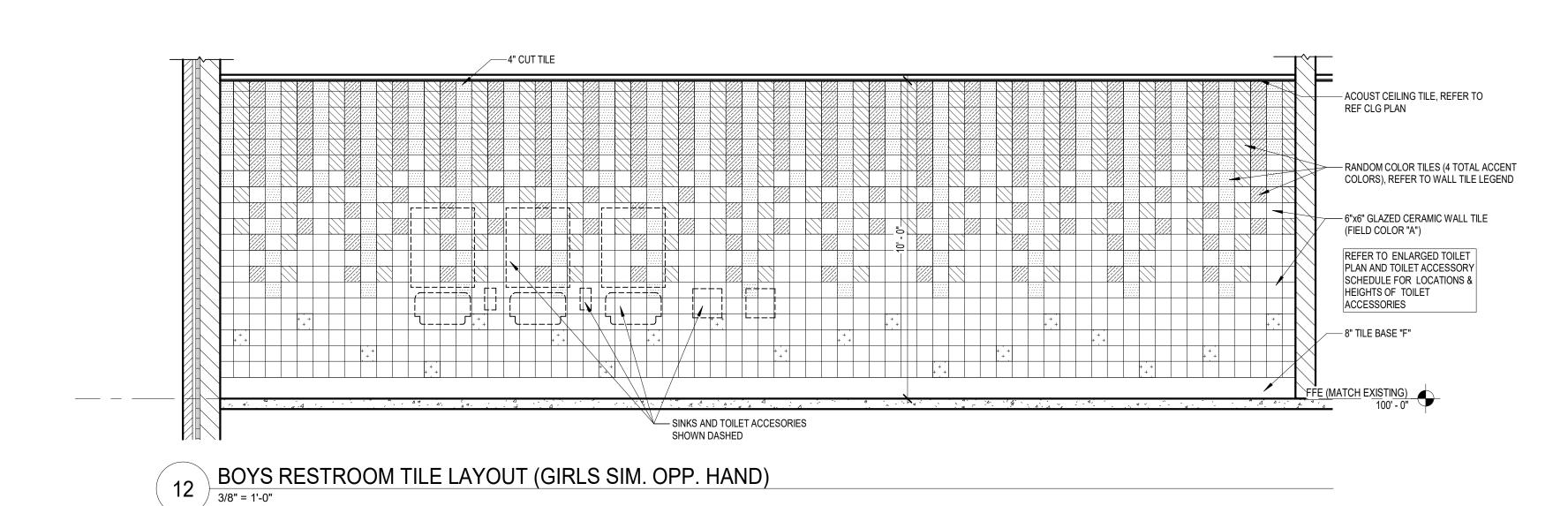
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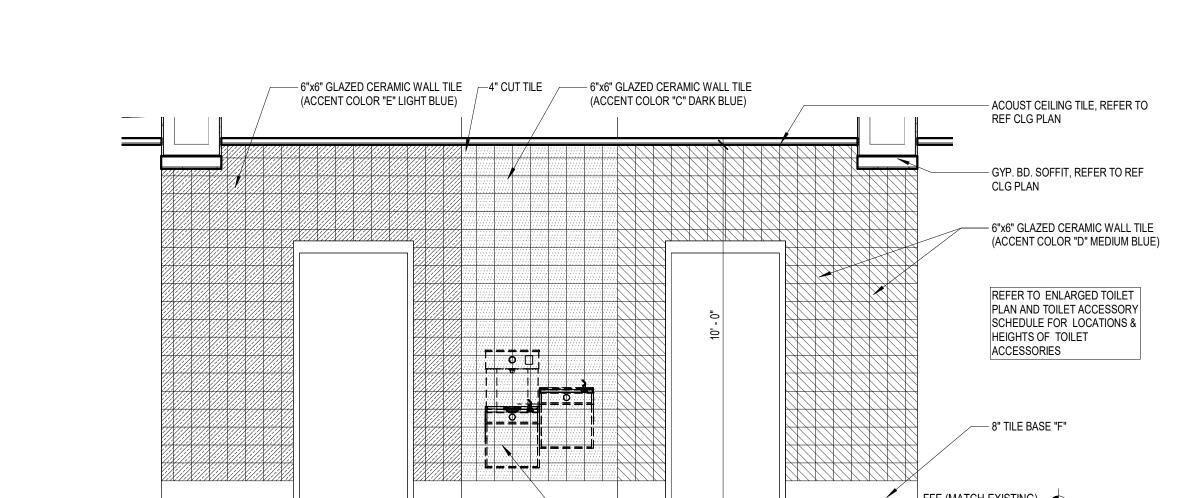
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HEET

A3.1







RESTROOM ENTRY LAYOUT

WALL TILE LEGEND

"A" CERAMIC WALL TILE FIELD COLOR WHITE

| + + + | "B" CERAMIC WALL TILE ACCENT LIGHT GRAY

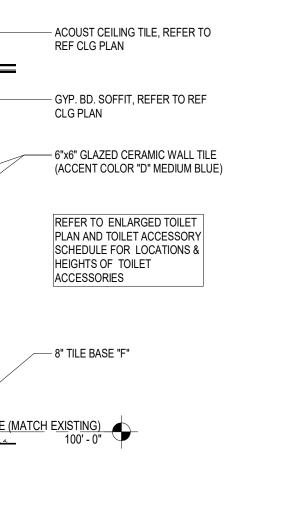
"F" CERAMIC BASE TILE, MATCH FLOOR

"C" CERAMIC WALL TILE ACCENT COLOR DARK BLUE

"D" CERAMIC WALL TILE ACCENT COLOR MEDIUM BLUE

"E" CERAMIC WALL TILE ACCENT COLOR LIGHT BLUE

— ELEC. WATER COOLER W/ FILL STATION, REFER TO MEP



PLYWOOD EDGE AT TOP, NOT SIDE

-PAINT GRADE 1/2" PLYWOOD

-MATCH WALL BASE AS CALLED OUT ON ROOM FINISH GROUP (RFG)

-FLOOR FIN. AS CALLED OUT ON ROOM FINISH

-BEVEL CUT 2x TOP &

BOTTOM PLATES AS

GROUP (RFG)

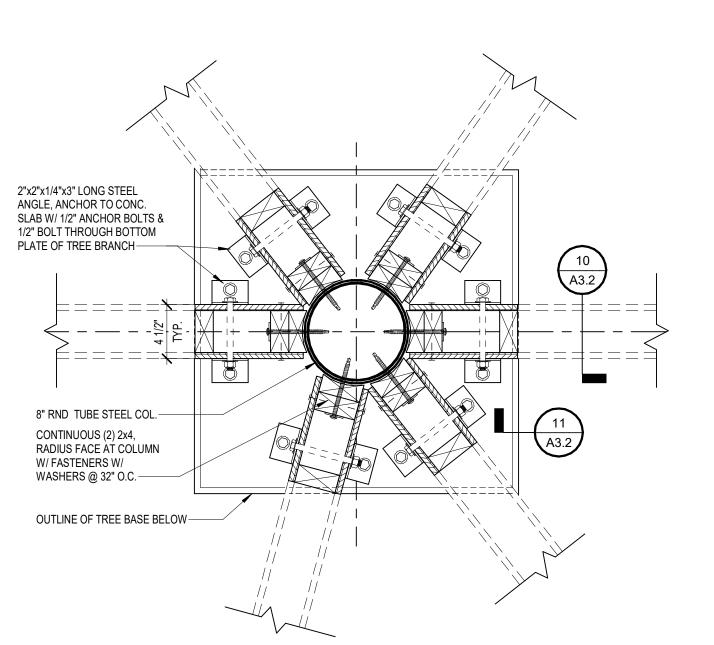
REQUIRED

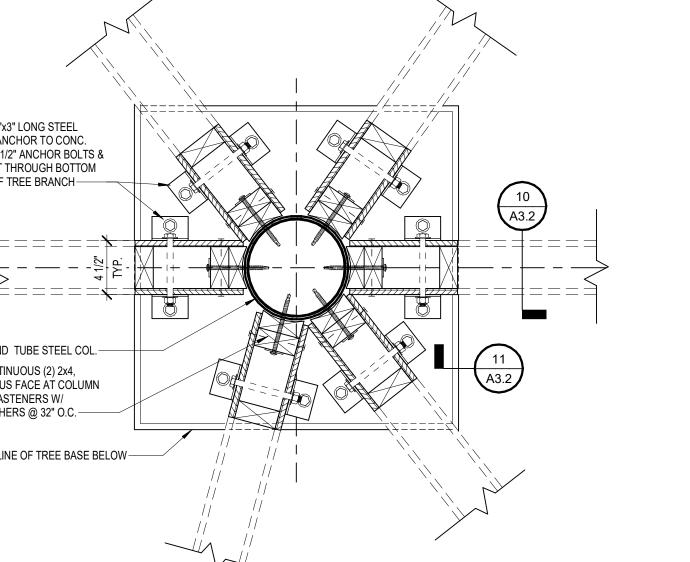
TREE TRUNK SECTION

11 ) 1 /2" = 1'-0"



BLOCKING AT CORNERS, TYP.





-MAIN TREE BODY 1/2" FINISH

GRADE PLYWOOD, PROVIDE

CONT. 2x4 SILL PLATE W/ SEPERATION MATERIAL

BEWTEEN WD AND CONC.

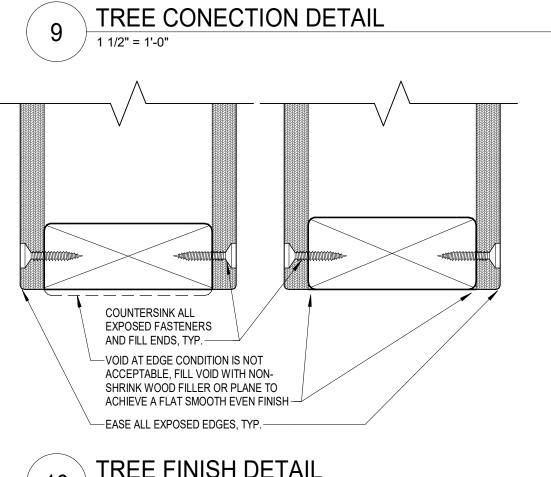
PROVIDE 2x WD BLOCKING

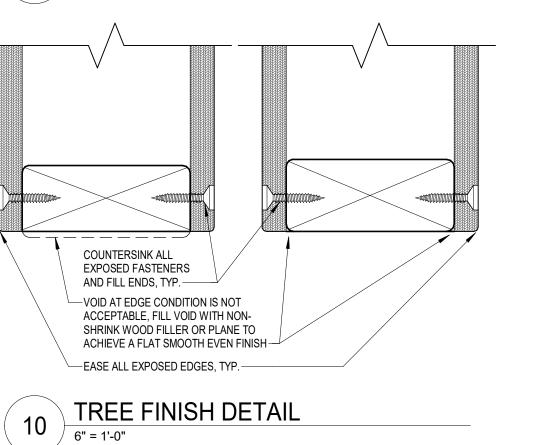
CONT. WHERE TREE LIMBS INTERSECT MAIN TREE, TYP.

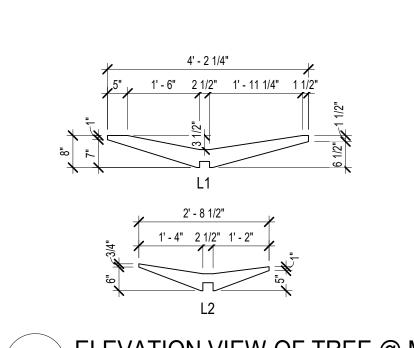
-8" RND TUBE STEEL COL. W/

1/2" ANCHOR BOLTS

3/8" STEEL PLATE, W/ PLATE @







ELEVATION VIEW OF TREE @ MEDIA CENTER

1569 PAYNEVILLE ELEMENTARY SCHOOL A3.2 INTERIOR ELEVATIONS AND DETAILS C:\Users\tmoss.SCB\Documents\Revit Project 7/18/2019 1:37:31 PM

ELEVATIONS A

INTERIOR

DRAWN

CHECKED

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NOTE: REFER TO SHEET D1.0 FOR GENERAL DEMOLITION NOTES AND HAZARDOUS MATERIALS AND TOXIC SUBSTANCES NOTES.

WATERTIGHT CONDITIONS & WATERTIGHT WARRANTY.

#### **ROOF DEMOLITION KEY NOTES**

NOTE: EXISTING SPF (SPRAY FOAM) ROOF SYSTEM IS WARRANTED THROUGH INSULATED ROOFING CONTRACTORS (IRC) - (812) 206-7700 - (WAYNE HAMPTON). COORDINATE ALL DEMOLITION WORK, & SUBSEQUENT "TIE-IN" OR NEW WORK WITHIN LIMITS OF EXISTING SPRAY FOAM ROOFING PER MFR. GUIDELINES & IRC'S RECOMMENDATIONS TO MAINTAIN

- REMOVE EXISTING GUTTER, FASCIA, WOOD BLOCKING, DOWNSPOUTS W/ BOOTS, AND SPRAY FOAM ROOF & SUBSTRATE AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK. REFER TO ROOF PLAN AND DETAILS.
- REMOVE EXISTING PORTION OF SPRAY FOAM SUBSTRATE AND METAL ROOF DECK AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW ROOF DRAIN & OVERFLOW
- REMOVE EXISTING COPING AT SLOPED PARAPET WALL AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW CONSTRUCTION AND EXPANSION JOINT. REFER TO DETAILS ON SHETTS A4.1 AND A4.2.

## GENERAL ROOF NOTES

DRAIN. REFER TO DETAIL 5/A4.1 AND TO STRUCTURAL DRAWINGS.

- DOWNSPOUTS WHICH DO NOT DISCHARGE ONTO A LOWER ROOF SURFACE SHALL BE CONNECTED TO FIELD PAINTED BOOTS UNLESS NOTED OTHERWISE. REFER TO CIVIL
- ALL ROOFING AND RAIN DRAINAGE RELATED WORK SHALL BE DONE SUCH THAT A WATERTIGHT INSTALLATION IS ACHIEVED AND MAINTAINED.
- ANY FOOT TRAFFIC OR STORAGE OF MATERIALS ON NEW OR PARTIALLY INSULATED ROOF MUST BE CONFINED TO PROTECTED LOCATIONS. THESE TRAFFIC AREAS WILL
- THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ROOFING/FLASHING WITH OTHER TRADES FOR ADDITIONAL WORK REQUIRED. (I.E., FLASHING OF EQUIPMENT

INCLUDE A MINIMUM 1" LAYER OF INSULATION WITH 1/2" PLYWOOD SHEATHING.

- FLASH ALL ROOF PENETRATIONS PER MANUFACTURER'S STANDARD DETAILS FOR A WATERTIGHT INSTALLATION.
- REFER TO M&E DRAWINGS FOR ROOF TOP ITEMS NOT SHOWN ON THIS PLAN.

REFER TO THIS SHEET, A4.2 & A5.2 FOR TYPICAL ROOF DETAILS.

- . AT ROOF TYPES 'A', 'B' & 'C' SPRAY APPLIED POLYURETHANE ROOF SYSTEM SHALL EXTEND UP FULL HEIGHT OF PARAPET WALLS AND UNDER FASCIA DRIP EDGE OF COPING
- . GEJ = GUTTER EXPANSION JOINT, PER SMACNA GUIDELINES.

UNLESS OTHERWISE NOTED.

### **ROOF KEY NOTES**

- 5"x5" PRE-FINISHED METAL DOWNSPOUT TO BOOT & STORM DRAINAGE, OR TO SPLASHBLOCK AT LOWER ROOF CONDITIONS.
- PROVIDE PRECAST CONC. SPLASHBLOCKS SET ON WALKWAY PADS AT ALL DOWNSPOUTS DISCHARGING TO A LOWER ROOF SURFACE.
- ROOF DRAIN REFER TO DETAIL 5/A4.1 (SEE PLUMBING DWGS.).
- . SCUPPER SEE DETAIL 4/A4.2
- 6. 6"x6" GUTTER.
- PRE-MANUFACTURED HEAVY-DUTY FACTORY ALUMINUM, MILL FINISH, FIXED ROOF LADDER WITH WALK-THRU PLATFORM BY PRECISION LADDERS INC. OR APPROVED EQUAL. EXPANSION BOLT TO MASONRY OR THROUGH TO CMU CONCRETE. SEAL ALL
- COPING SEE TYP. DETAIL 2/A4.1 & OTHER DETAILS ON SHTS. A4.1, A4.2 & A5.2.
- 8. ROOF TO WALL EXPANSION JOINT.
- 9. EDGE OF NEW FASCIA AND SPRAY FOAM, REFER TO DETAILS.
- 10. VENT PIPE PENETRATION SEE DETAIL 8/A4.2. 1. ROOFTOP MECHANICAL UNIT - REFER TO MECHANICAL DWGS. PROVIDE CRICKETS
- WHERE APPLICABLE. REFER TO CURB DETAIL 7/A4.2.
- 12. 24"x24" ROOF WALKWAY PADS REFER TO SPECIFICATIONS. 13. FASCIA EDGE RETURN, REFER TO DETAIL6/A4.2.
- 14. WALKWAY COVER. 5. PRE-FINISHED METAL CONDUCTOR HEAD TO 6"x6" PRE-FINISHED METAL DOWNSPOUT,
- SEE DETAIL 3/A4.2.
- 6. PRE-MANUFACTURED, WALL HUNG CANOPY, AND INTEGRAL DOWNSPOUT. LENGTH INDICATED ON ROOF PLAN. REFER TO DETAIL 9/A4.2. 7. ROOF PATCH, REFER TO M2.1.

#### **ROOF ASSEMBLIES**

INDICATES ROOF CRICKET -- 1/4" / FT. MIN. AT NEW CRICKETS ON PER MFR. STANDARD EXISTING ROOF

-- 1/4" / FT. MIN. @ NEW ROOF

ROOF ASSEMBLY TYPE "A" (SLOPE AT 1/4" / FT. MIN.) NEW SPRAY APPLIED POLYURETHANE ROOF SYSTEM (1 1/2" THICK) OVER 1/2" FIBERBOARD SHEATHING OVER 3" (MIN.)

POLYIŚOCYANURATE INSULATION OVER 5/8" TYPE 'X' GYPŚUM SHEATHING OVER SPECIFIED METAL ROOF DECK. ROOF ASSEMBLY TYPE "B" (SLOPE AT 1/4" / FT. MIN.)

NEW SPRAY APPLIED POLYURETHANE ROOF SYSTEM (1 1/2" THICK) OVER 1/2" FIBERBOARD SHEATHING OVER 3" (MIN.) POLYISOCYANURATE INSULATION OVER EXISTING CONCRETE ROOF DECK.

ROOF ASSEMBLY TYPE "C" (SLOPE AT 1/4" / FT. MIN.) NEW SPRAY APPLIED POLYURETHANE ROOF SYSTEM (1 1/2" THICK) OVER 1/2" FIBERBOARD SHEATHING OVER 3" (MIN.) POLYISOCYANURATE INSULATION OVER EXISTING METAL ROOF

### SYMBOLS LEGEND

101 | # ROOM FINISH GROUPS (REFER TO SHEET A0.0 DOOR NUMBER (DOOR SCHEDULE SHEET A7.1) NEW WORK KEY NOTES (SHEETS A1.1 THROUGH A2.3)

WALL TYPE (SCHEDULE SHEET A0.0) ALUMINUM OR HOLLOW METAL FRAME OR STOREFRONT TYPE (REFER TO FLOOR PLANS AND SCHEDULE SHEETS A7.1) ELEVATION KEY NOTE (SHEET A3.1)

TOILET ACCESSORY (SHEET A2.2) SIGNAGE KEY NOTE (SHEET A0.0)

FE WALL MOUNTED FIRE EXTINGUISHER

FEC FIRE EXTINGUISHER CABINET

CR CARD READER

ROOM / WALL DESIGNATION
FR2 2 HOUR FIRE RESISTANT BARRIER

07/10/2019

CTM, RP

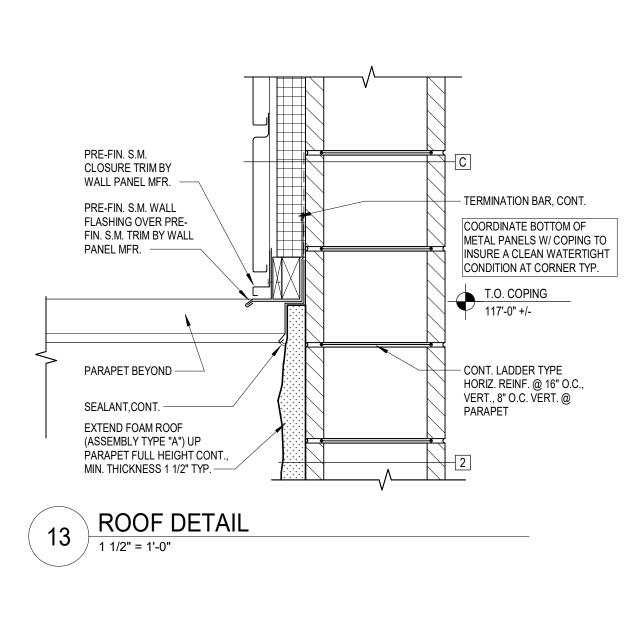
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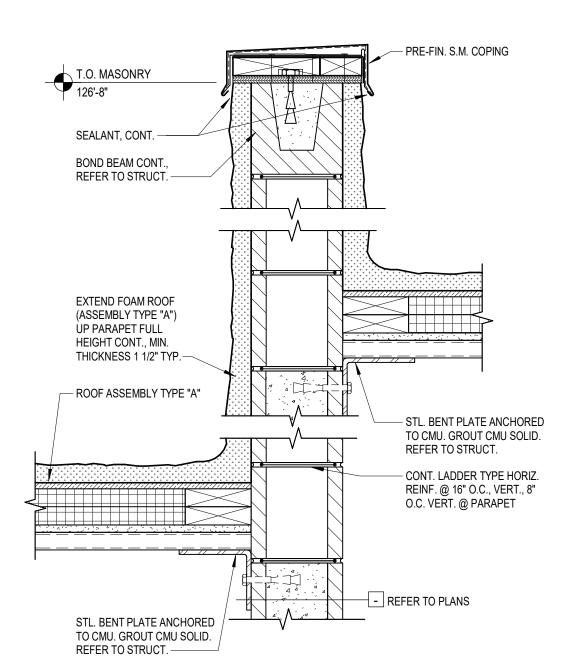
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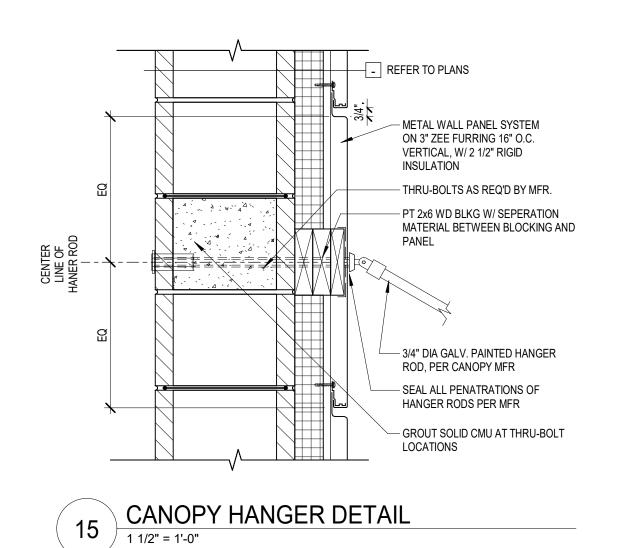
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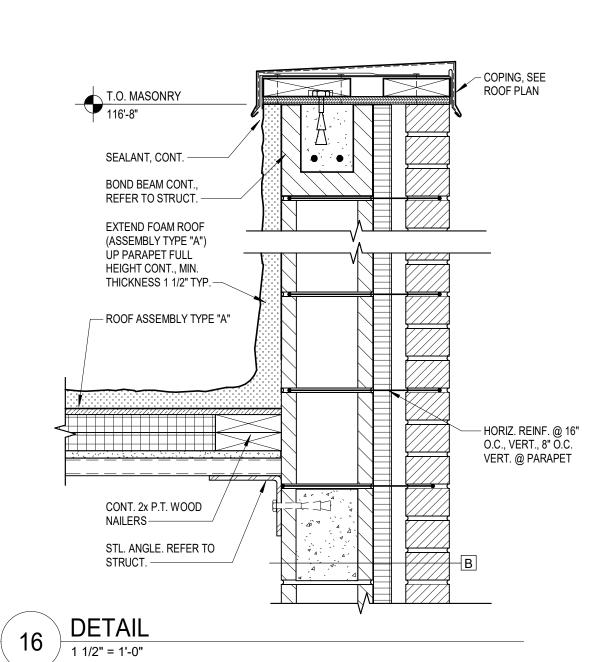
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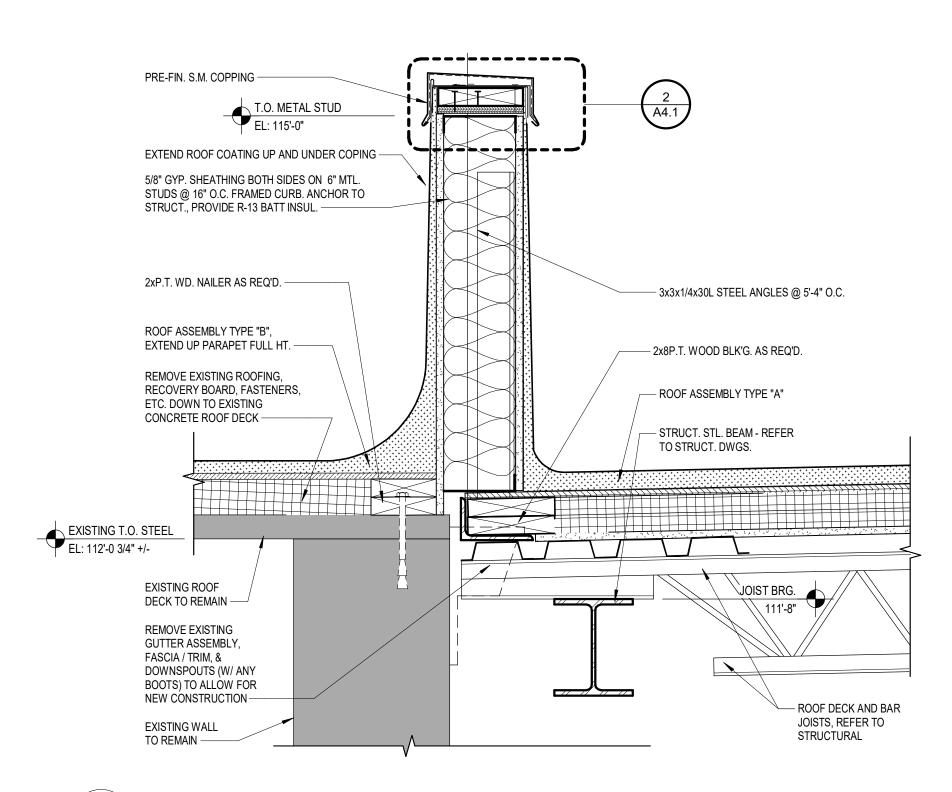


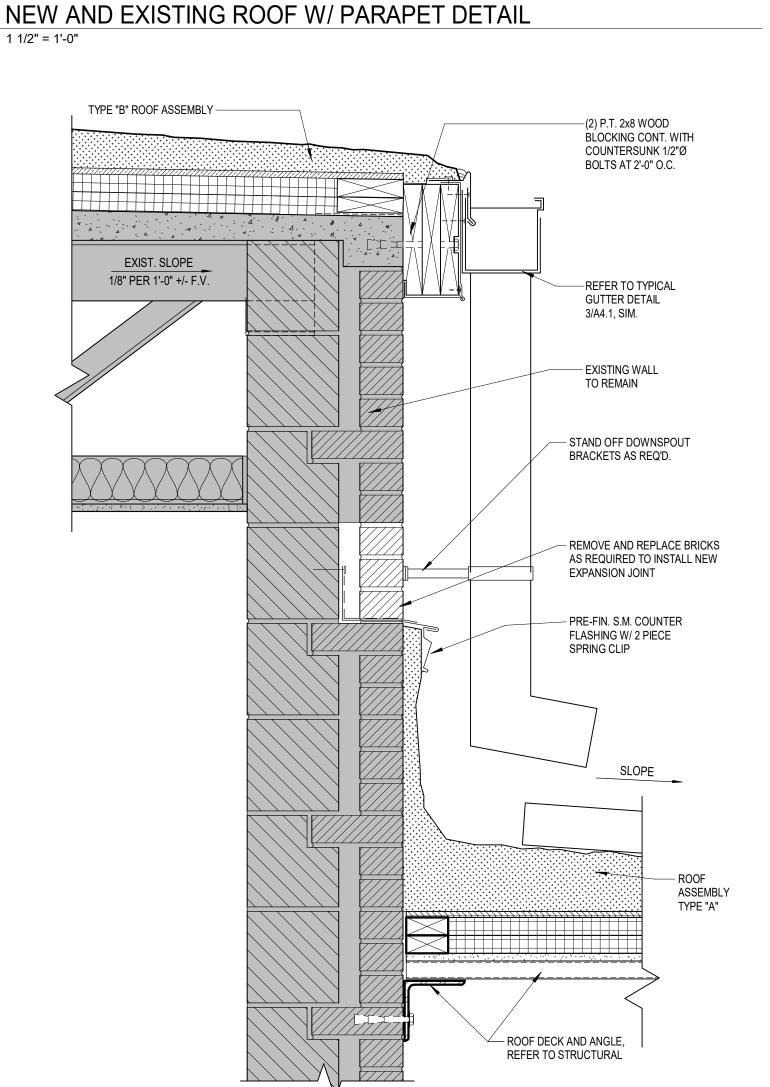


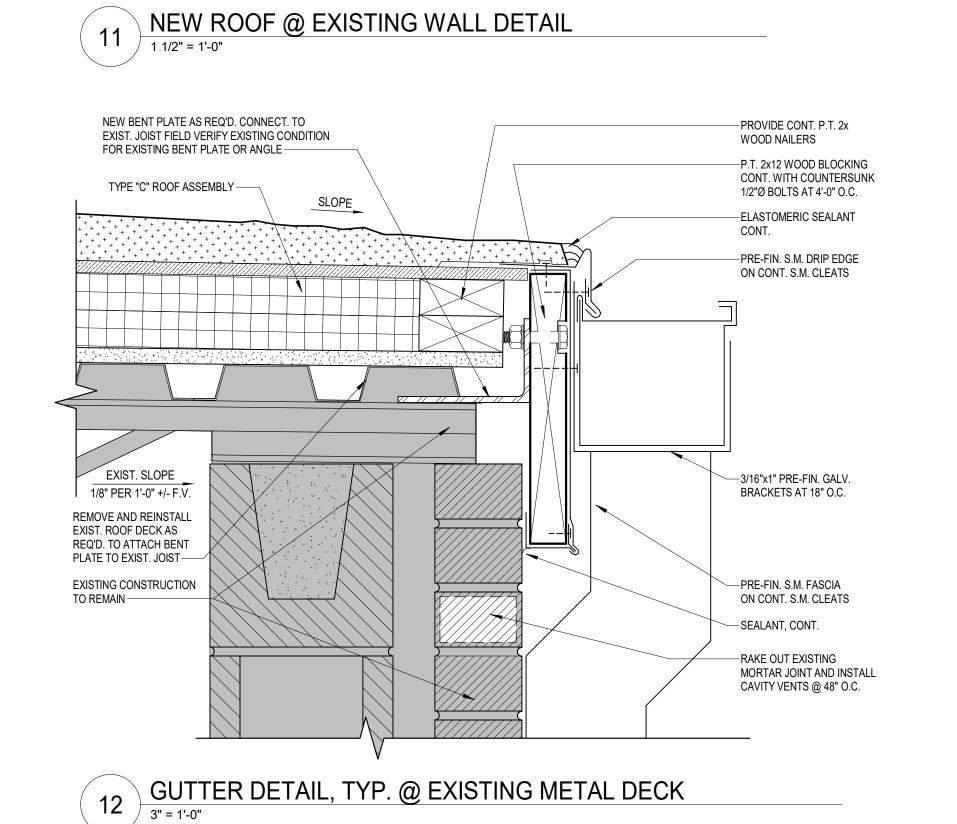


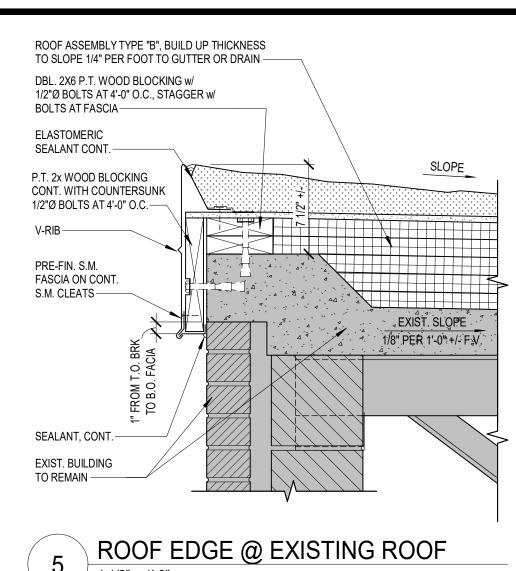
DETAIL 1 1/2" = 1'-0"

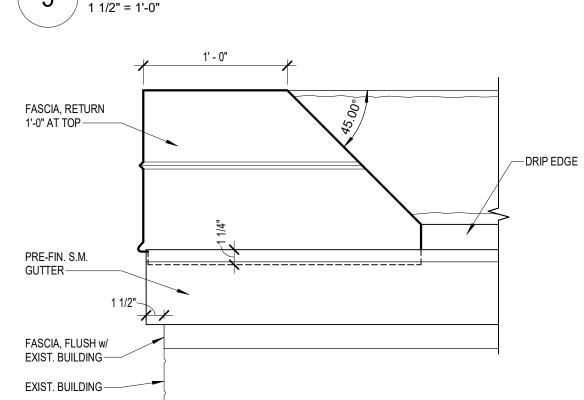


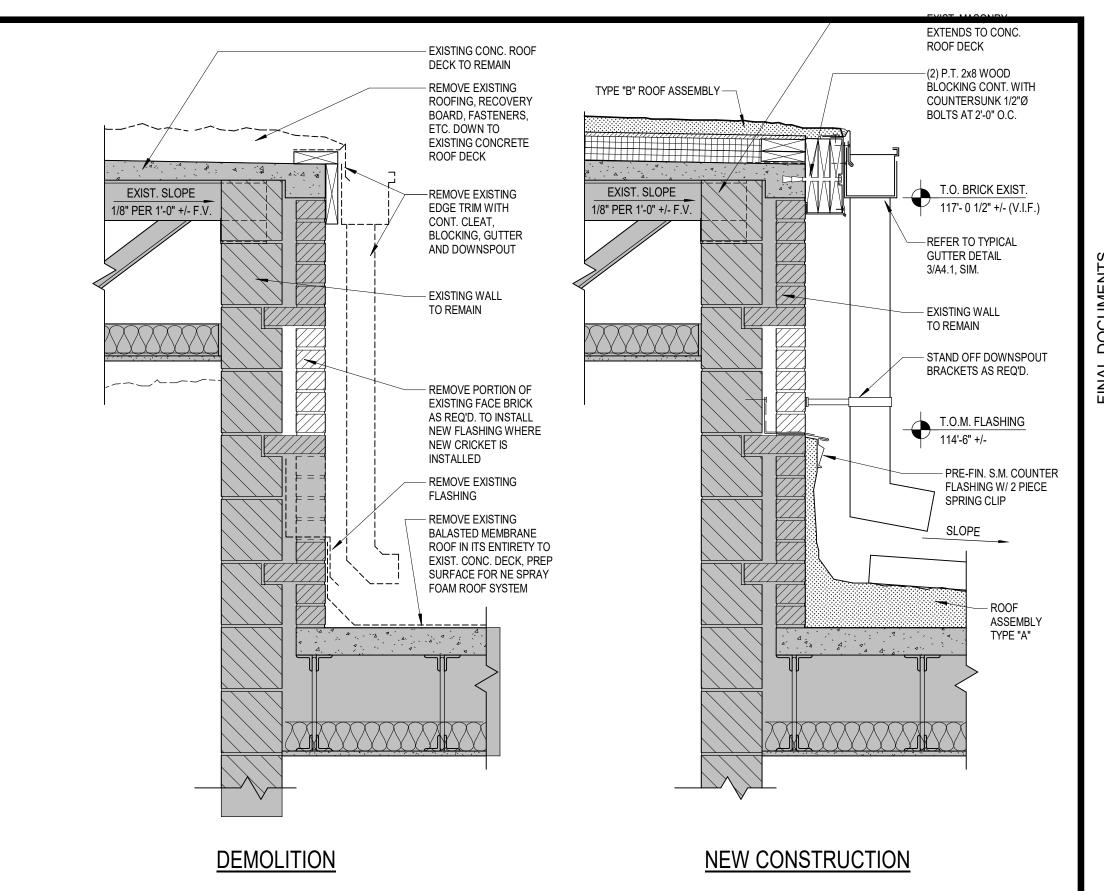




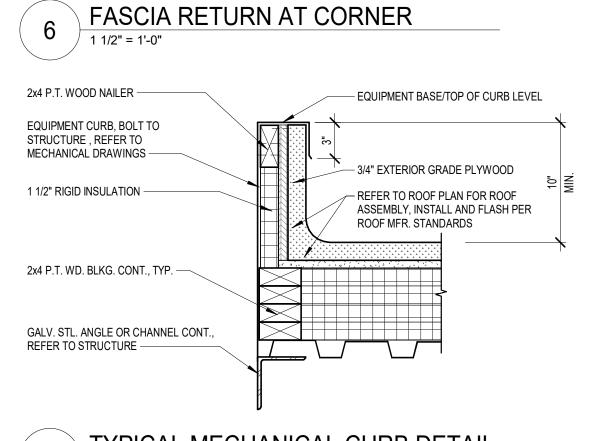


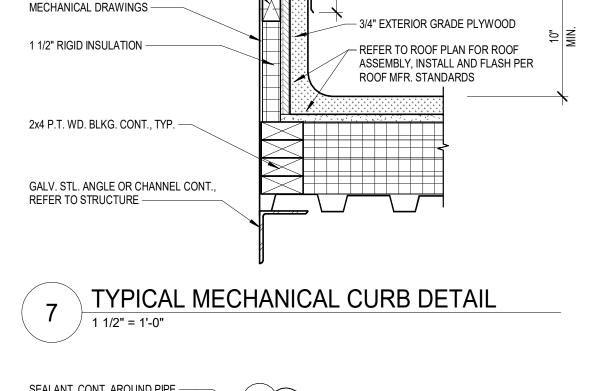


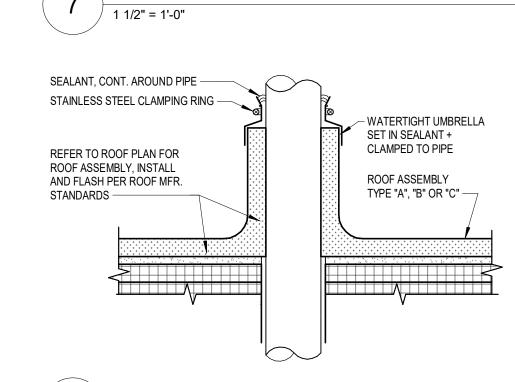


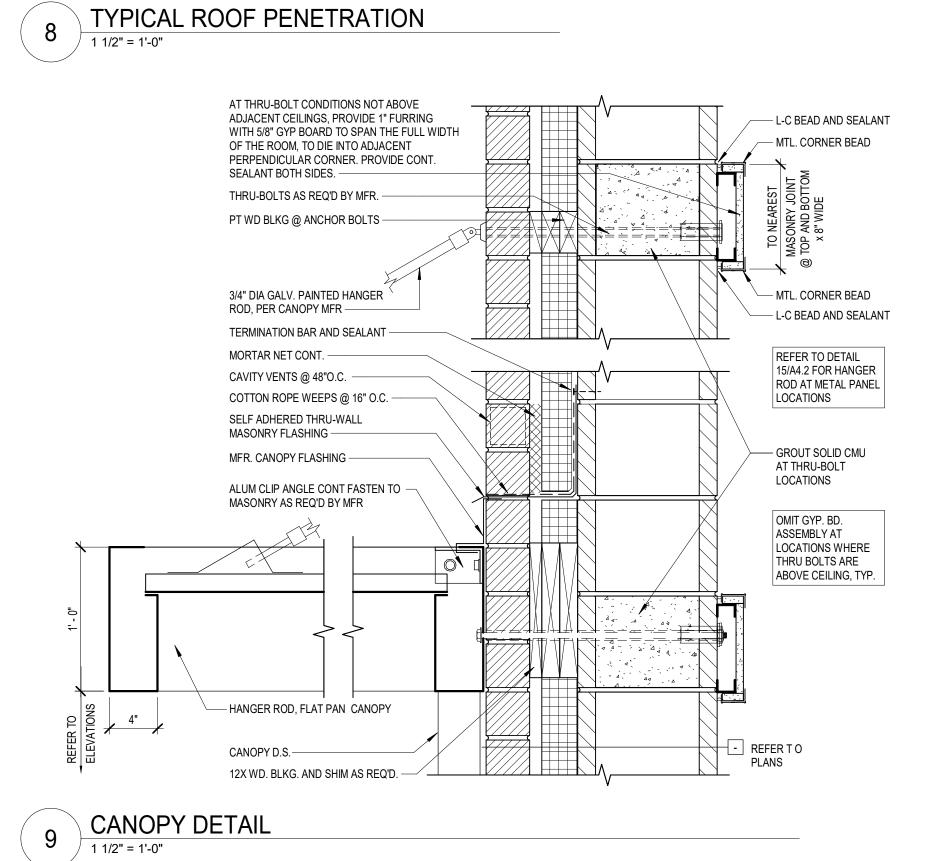


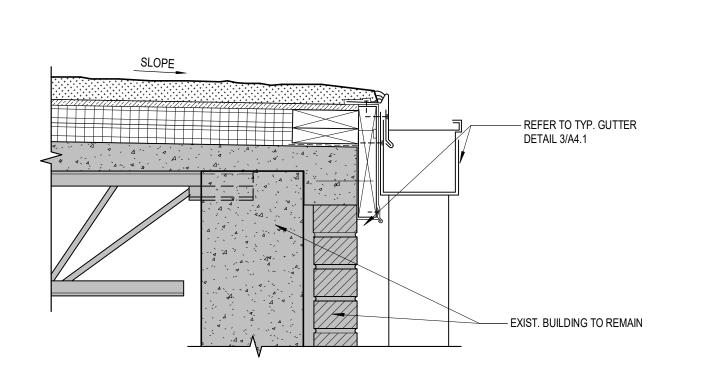
**DEMOLITION / NEW DETAIL** 

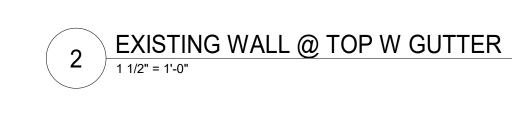


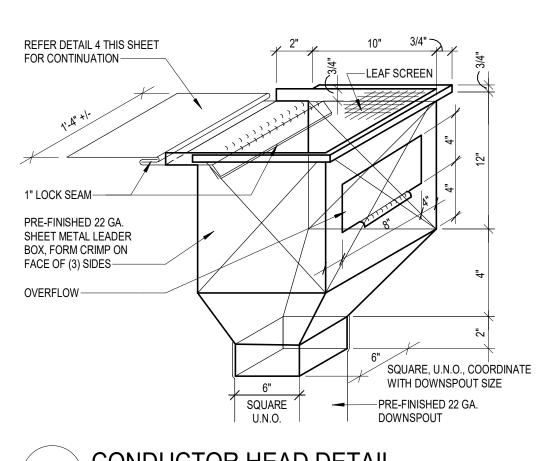




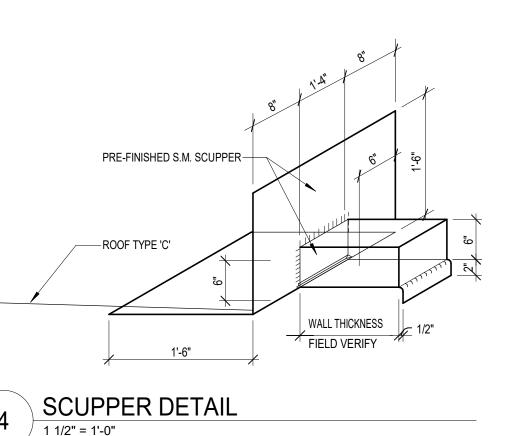








CONDUCTOR HEAD DETAIL



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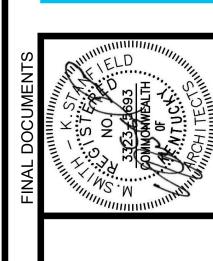
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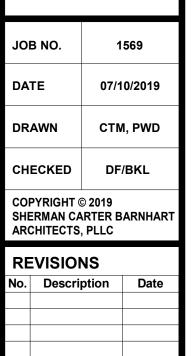
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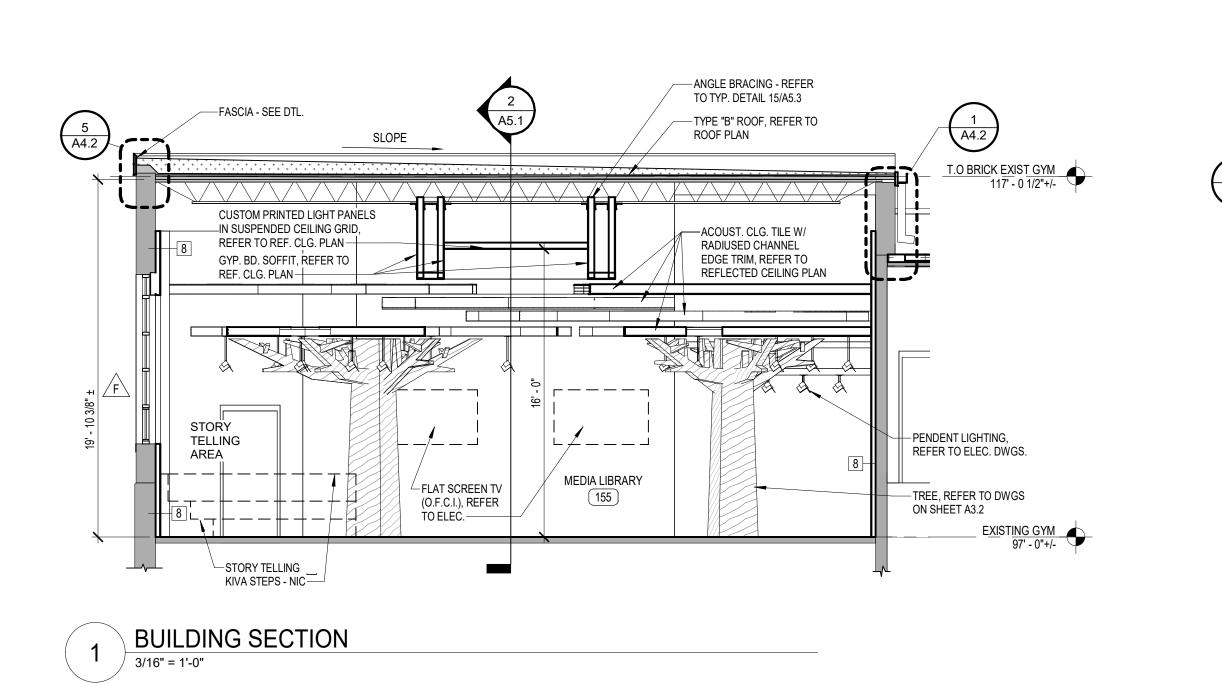
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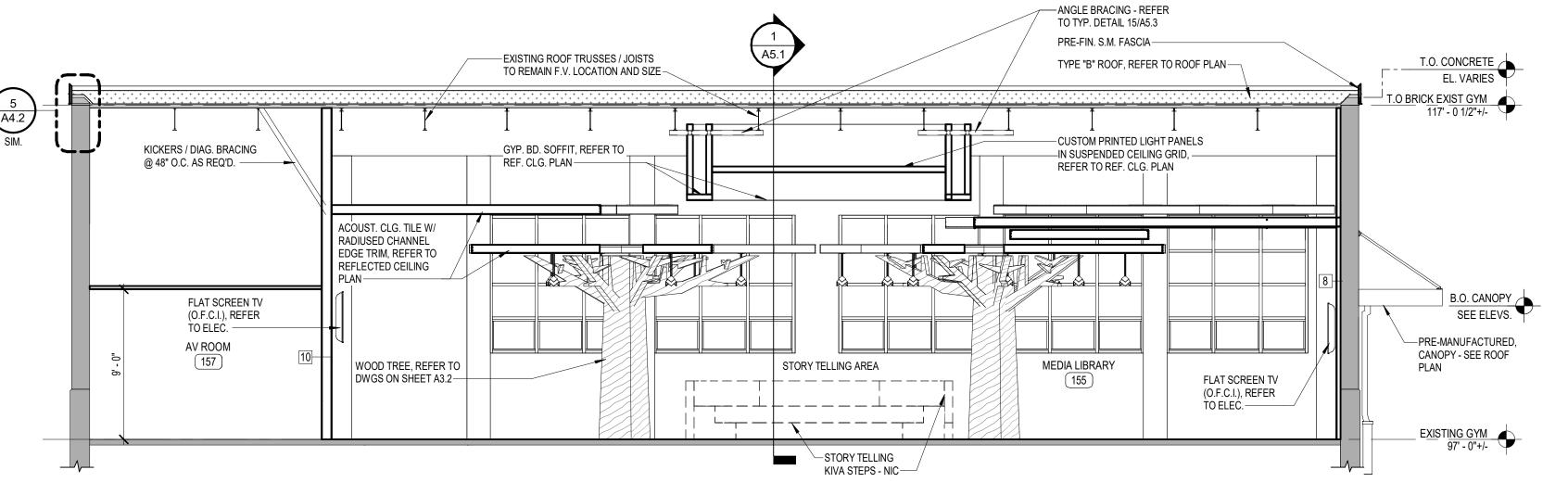
BUILDING SECTIONS



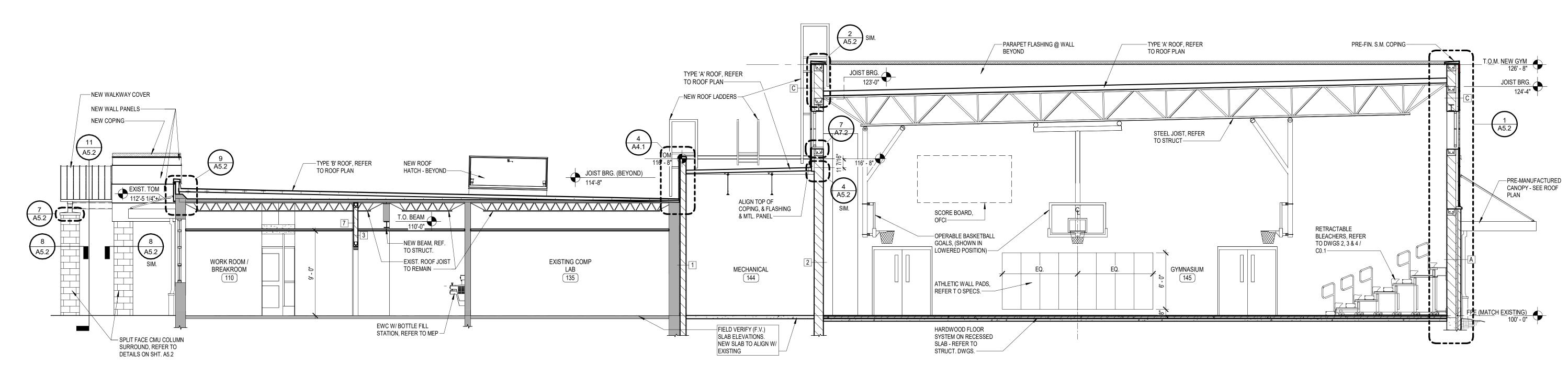
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A5.1



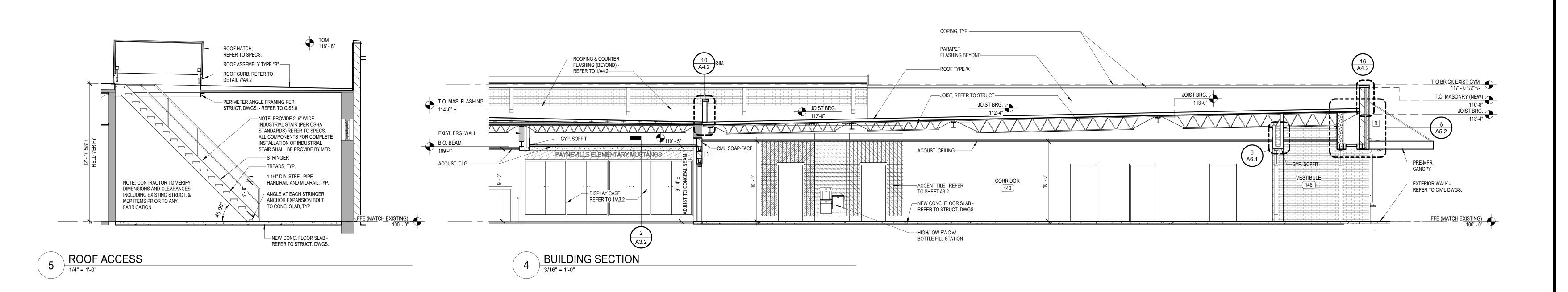


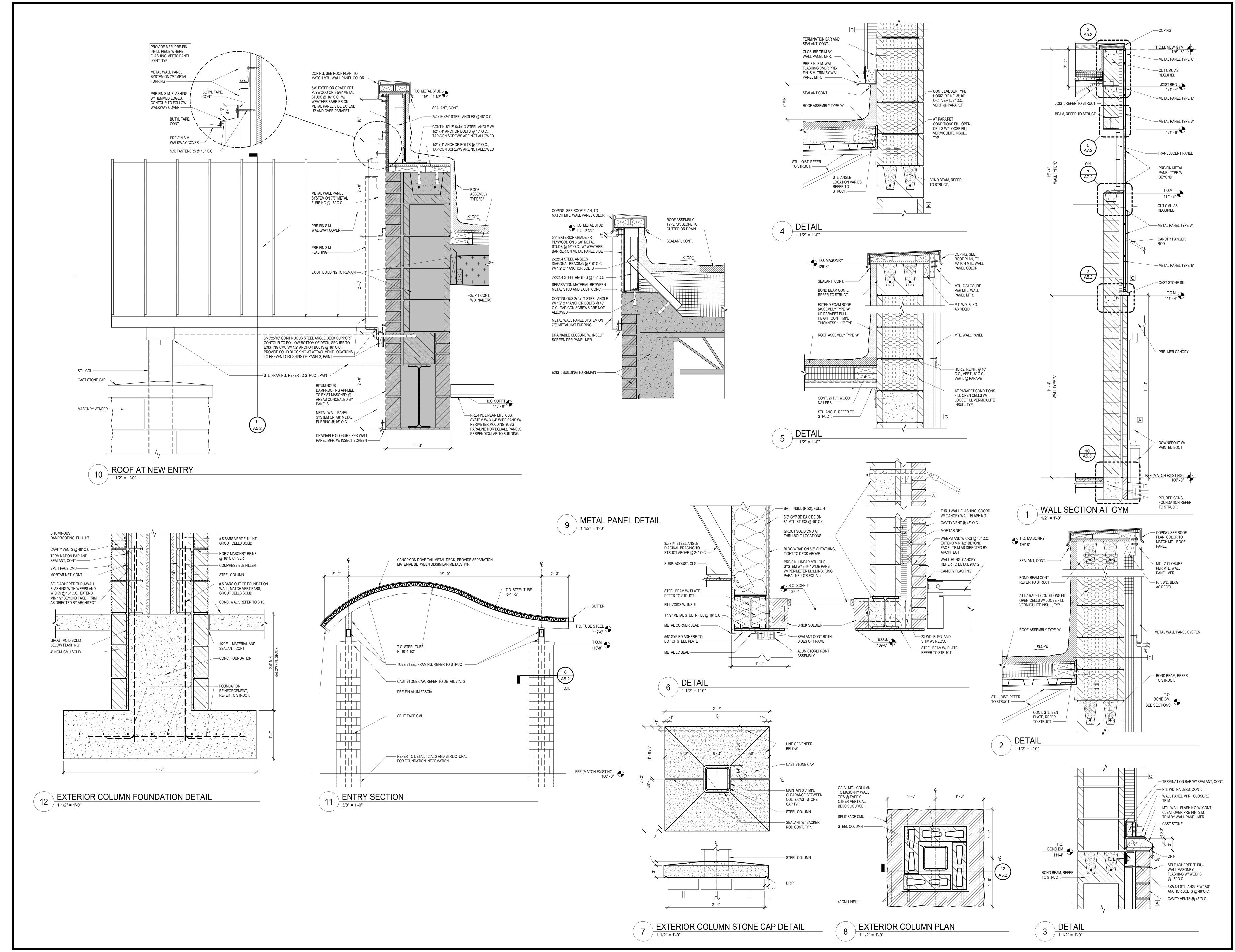
2 BUILDING SECTION
3/16" = 1'-0"



BUILDING SECTION

3/16" = 1'-0"





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- STANDARD CABINET

SEMI-RECESSED

CABINET (FEC),

REFER TO SPECS.

FIRE EXTINGUISHER

RATED ASSEMBLY TO

WALL RATING, WHERE

MATCH OR EXCEED

2x WOOD BLOCKING

STANDARD CABINET

EXTERIOR TRIM W/ CONT.

SEALANT @ PERIMETER

- REFER TO FLOOR PLAN

WHERE APPLICABLE

APPLICABLE

AS REQ'D.

ALL WORK PERTAINING TO

BE DONE IN ACCORDANCE

WITH NFPA 10

FIRE EXTINGUISHERS SHALL

EXTERIOR TRIM W/ CONT.

SEALANT @ PERIMETER

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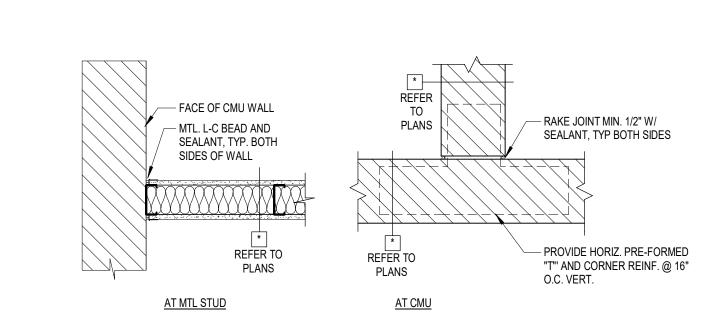
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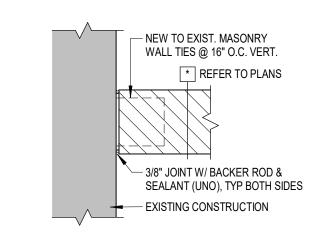
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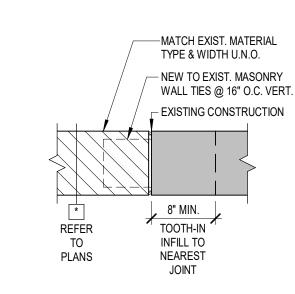
JOISTS, SEE STRUCT.—— MORTAR NET CONT. CAVITY VENTS @ 48" O.C. SELF-ADHERED THRU-WALL FLASHING W/ CONT. TERM. BAR 3 5/8" (20 GA. MIN.) METAL & SEALANT, EXTEND UP 8" -FRAMING @ 4'-0" O.C. MAX, EXTEND THRU-WALL FLASHING 1/2" BEYOND FACE BRICK. TRIM LOCATE AT PANEL POINTS METAL STUD WALL -FLASHING AS DIRECTED BY ARCHITECT -PARALLEL TO JOISTS F.F.E. VARIES
REFER TO PLANS JOISTS, SEE ROPE WEEPS @ 16" O.C. STRUCT.-FINISH GRADE VARIES, REFER TO SITE -BRICK LEDGE
REFER TO STRUCT CONCRETE FOUNDATION, — REFER TO STRUCT. DWGS. L 3X3X3/16" CONT.-METAL STUD WALL-PERPENDICULAR TO JOISTS TYP. SOFFIT SUPPORT / 1 1/2" = 1'-0"



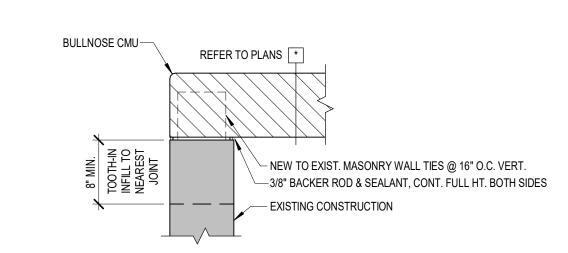
TYP INTERIOR PARTITION INTERSECTIONS



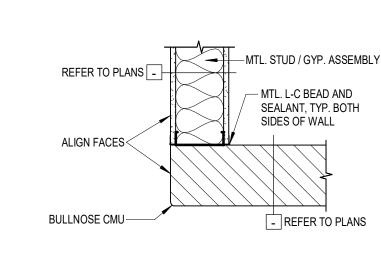
TYP INTERIOR PARTITION INTERSECTIONS



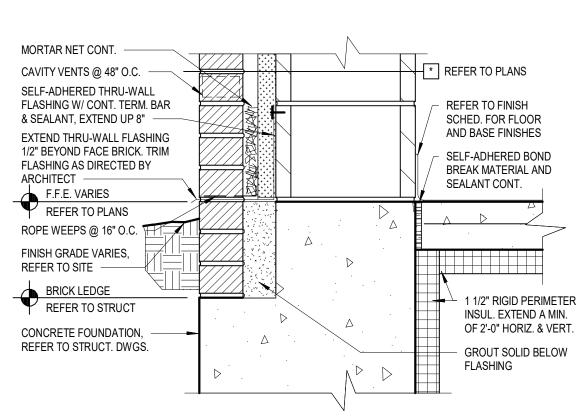
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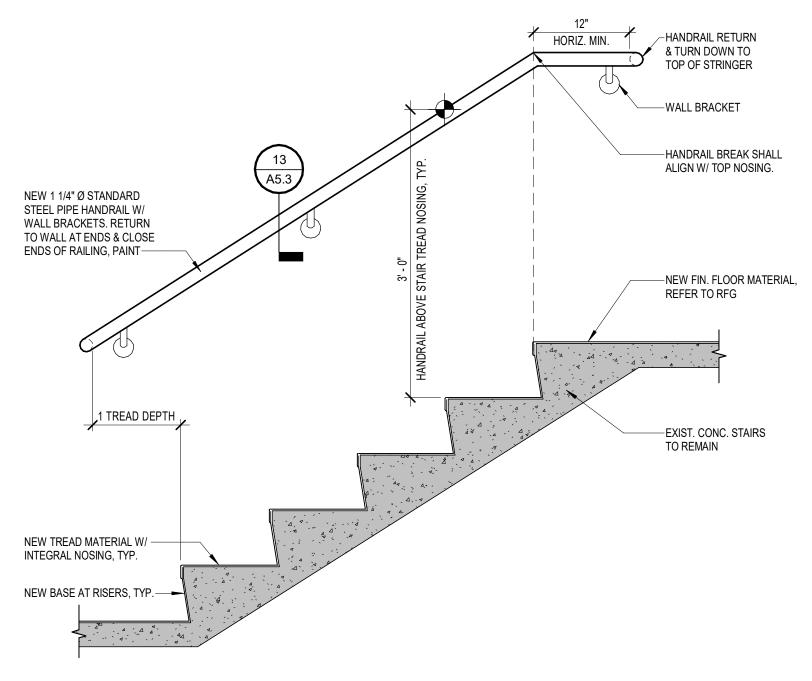
TYP INTERIOR PARTITION INTERSECTIONS



TYP. PLAN DETAIL

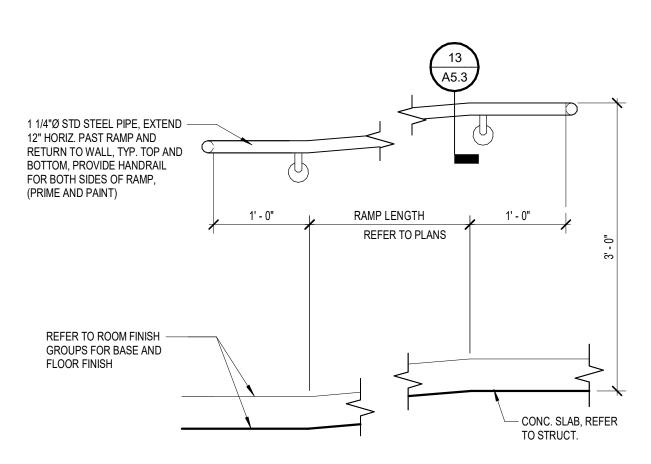


TYP. CMU FLASHING DETAIL

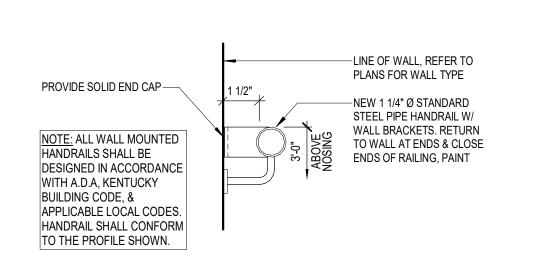


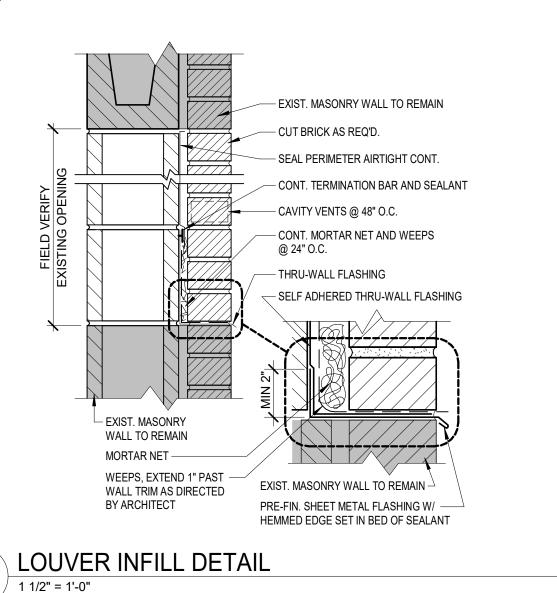
EXISTING STAIRS DETAIL

1" = 1'-0"

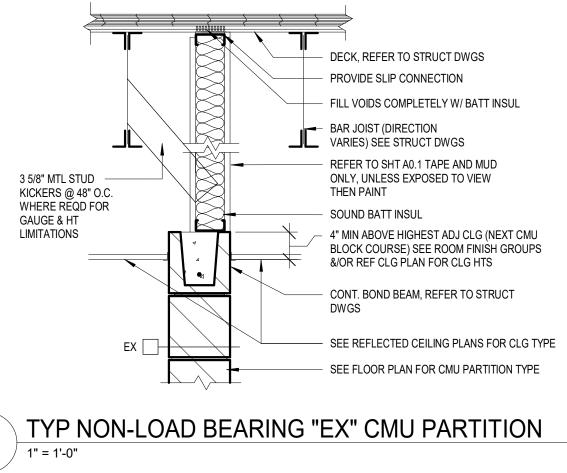


TYP. RAMP HANDRAIL





PLAN DETAIL 1 1/2" = 1'-0"

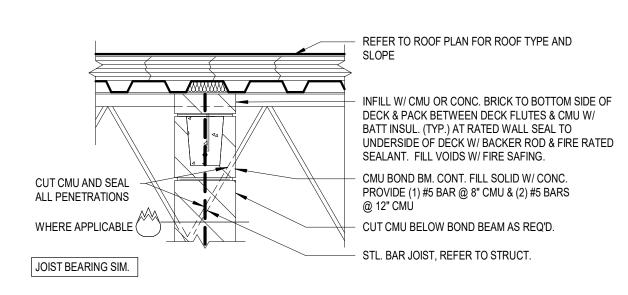


——3/8" BACKER ROD & SEALANT CONT. FULL HT.

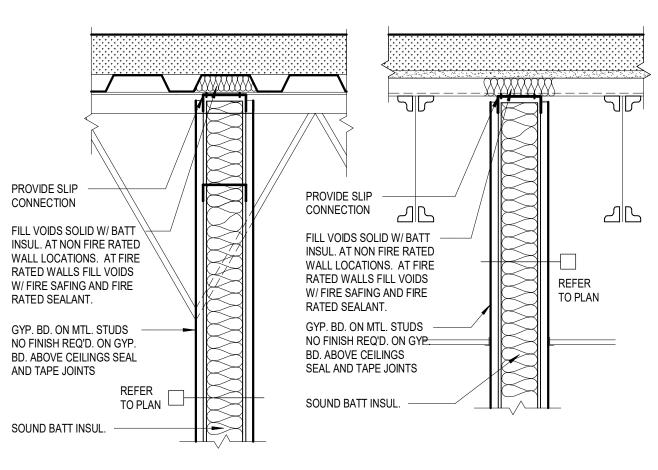
FIELD BRICK

\* REFER TO PLANS

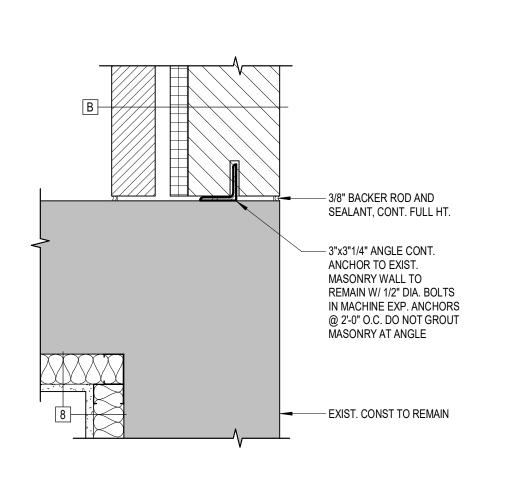
TYP. CONTROL JOINT PLAN DETAIL

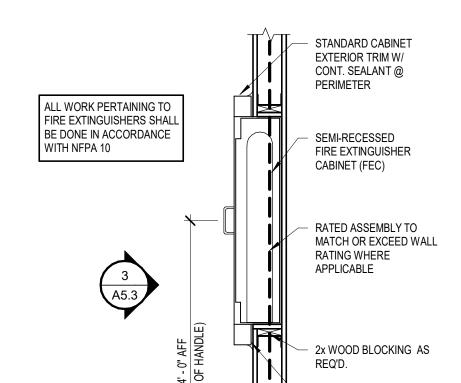


TYP. NON-LOAD BEARING "FH" CMU PARTITIONS



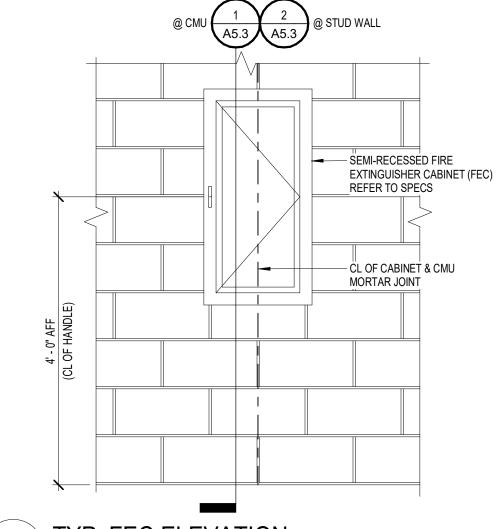
TYP. "FH" METAL STUD/ GYP. BD. PARTITION
1 1/2" = 1'-0"



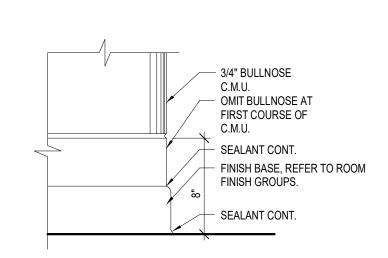


TYP. FEC SECTION AT STUD WALL

WHERE APPLICABLE



TYP. FEC ELEVATION



4 TYP. CMU BASE DETAIL

1 1/2" = 1'-0"

SEE STRUCTURAL AND ARCHITECTURAL FLOOR PLANS FOR COL. LINES AND DIMENSIONS NOT SPECIFICALLY REFERENCED ON THESE DETAILS.

FIRE RATED SEALANT IS REQUIRED AT ALL JOINTS IN RATED WALLS. SAWCUT ALL MASONRY AT STRUCTURAL STEEL AS REQUIRED TO MAINTAIN A 3/8" CLEARANCE BETWEEN MASONRY AND STEEL.

**444** ΣWΙ œ⊢z ¦

SHERMAN CARTER BARNHAR

No. Description Date

ARCHITECTS, PLLC

REVISIONS

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#### **GENERAL CEILING NOTES** REFER TO MECHANICAL AND/OR ELECTRICAL DRAWINGS FOR TYPE, SIZE AND OTHER REQUIREMENTS PERTAINING SPECIFICALLY TO THE REFLECTED CEILING PLANS.

REFLECTED CEILING

PLAN KEY NOTES

. INTERIOR GYP. CEILING BD. SOFFIT/BULKHEAD, PAINT, REFER TO TYPICAL

CONDUIT, DUCTS, ETC. COLOR TO BE SELECTED BY ARCHITECT.

B. EXPOSED STRUCTURE AND DECK. PAINT ALL EXPOSED STRUCTURE, DECK, PIPES,

C. STL. LINTEL/BOND BEAM/CONC. BEAM, PAINT EXPOSED STL. LINTEL. HOT-DIP GALVANIZE ALL EXTERIOR LINTELS PRIOR TO PAINTING, PAINT.

NEW CEILING SYSTEM, REFER TO MECH. FOR NEW CEILING GRID SYSTEM LAYOUT IN

. CEILING HEIGHT SHOWN ON PLAN IS PLUS OR MINUS, ADJUST TO CONCEAL BEAM AT

N. PRE-FIN. LINEAR MTL. CLG. SYSTEM W/ 3 1/4" WIDE PANS W/ PERIMETER MOLDING.

GENERAL CEILING LEGEND

SOFFIT SUPPORT DETAIL 3/A6.1 U.N.O.

D. WALKWAY COVER. REFER TO ROOF PLAN.

G. EXPOSED STRUCTURE AND DECK, NO FINISH.

H. GYP. BD. CONTROL JOINT. CONTINUE UP VERTICAL FACE.

M. PLY WOOD TREE. REFER TO DETAILS ON SHEET A3.2.

Q. 8" RADIUSED CHANNEL EDGE TRIM, REFER TO DETAIL 7/A6.2.

2'x2' SUSPENDED ACOUSTICAL

CEILING (ACT-1 UNLESS NOTED

OTHERWISE, REFER TO SPECS.)

CUSTOM PRINTED LIGHT PANELS

2'x2' SUSPENDED VINYL CLAD

ACOUSTICAL CEILING (ACT-2,

REFER TO SPECS)

J. SCOREBOARD N.I.C., PROVIDE ELEC. ROUGH-IN, REFER TO ELEC. DWGS.

EXISTING AREA..

F. BASKETBALL GOALS.

K. CANOPY, REFER TO ROOF PLAN

EXISTING WALL OPENING.

(USG PARALINE II OR EQUAL)

P. NOT USED

2. ALL CEILINGS ARE AT 9'-0" A.F.F., UNLESS NOTED OTHERWISE.

REFER TO WALL PARTITION TYPES FOR DESCRIPTION OF WALLS EXTENDING (OR NOT) TO UNDERSIDE OF DECKING AND/OR STRUCTURE ABOVE.

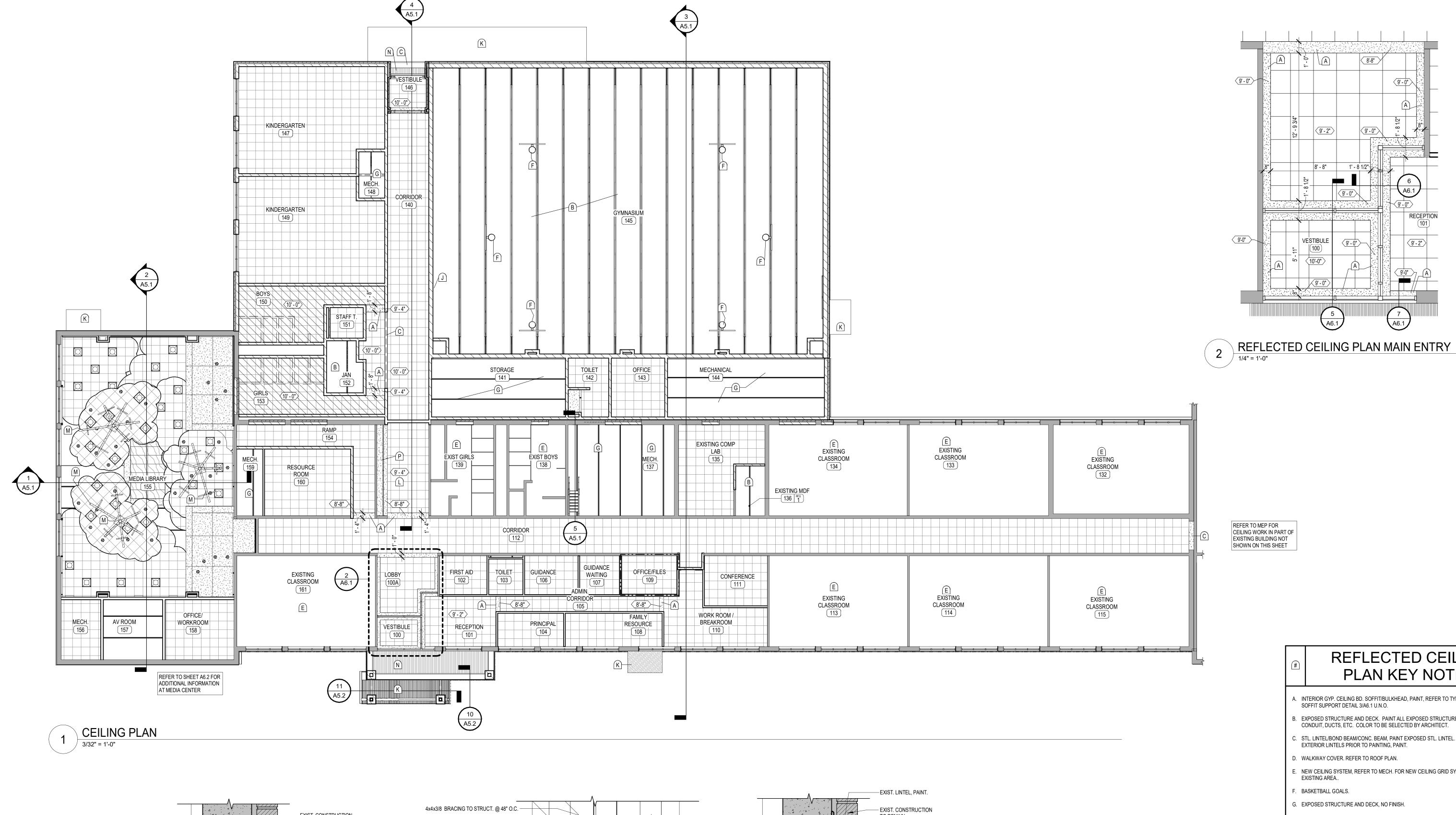
4. INSTALL SPRINKLER HEADS IN THE CENTER OF CEILING PANELS.

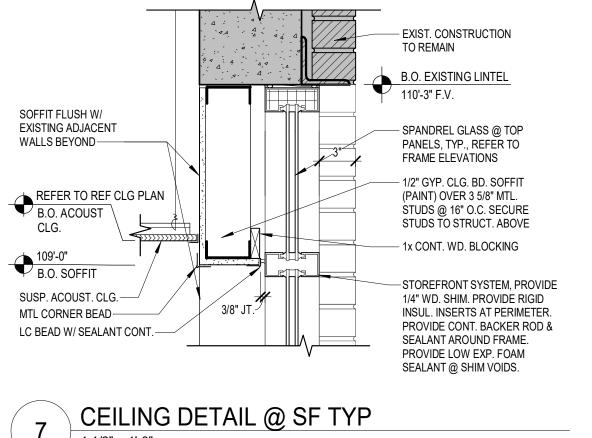
. INSTALL ALL SPRINKLER HEADS ON SWING ARM NIPPLES. SEE MECHANICAL DRAWINGS

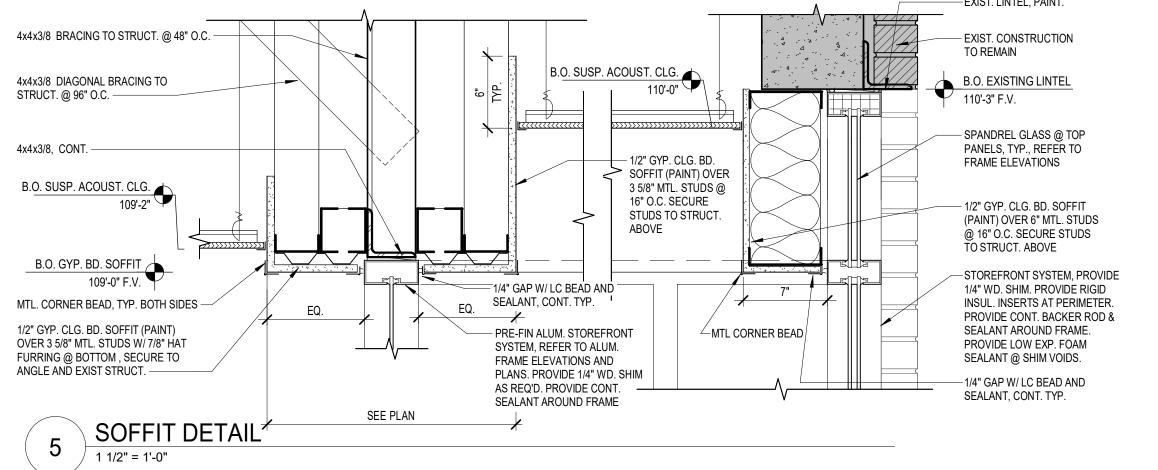
FOR MORE SPECIFIC REQUIREMENTS. PAINT ALL ITEMS EXPOSED TO VIEW INCLUDING UNDERSIDE OF METAL DECK, BEAMS,

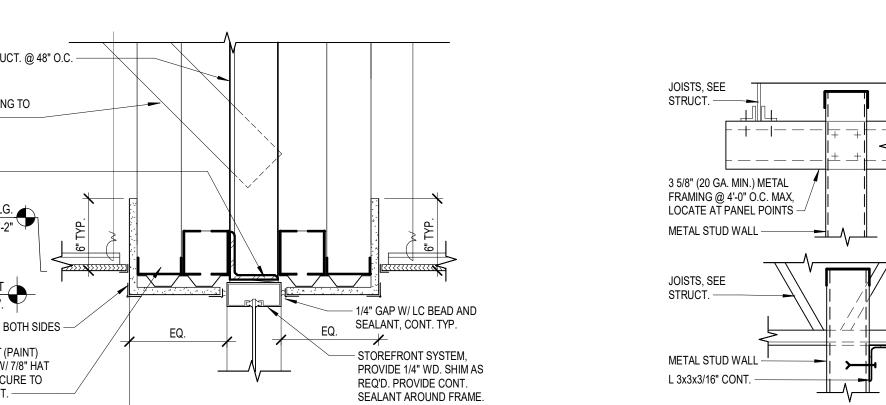
BAR JOISTS, MISC. STRUCT. ITEMS, CONDUIT, & PIPING U.N.O. CONTRACTOR TO SUBMIT FULL COORDINATION DRAWINGS FOR ALL CEILING ITEMS

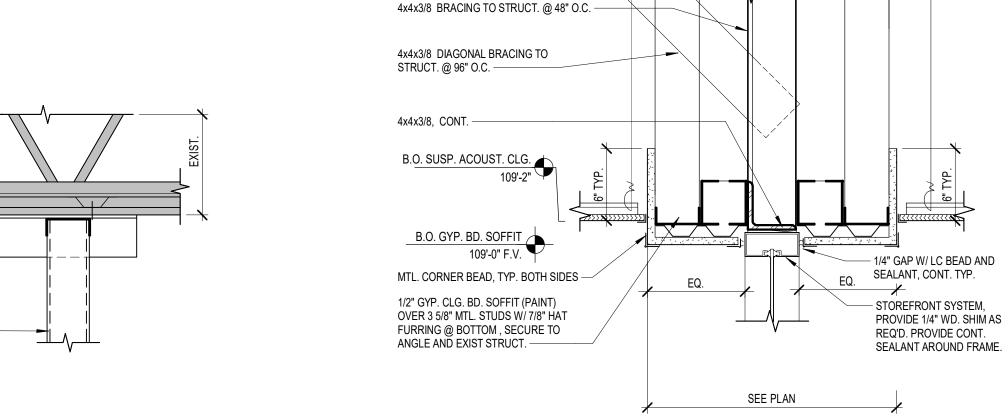
INCLUDING JOIST SPACING /LIGHTING, HVAC LAYOUT AND FIRE PROTECTION SYSTEMS. 8. CONTRACTOR SHALL PROVIDE CONTROL JOINTS IN ALL GYPSUM BOARD SOFFITS AT ALL HORIZONTAL / VERTICAL JOINTS, UNO.















EXTEND FRAMING

TO STRUCT. ABOVE.

1/2" GYP. CLG. BD. -

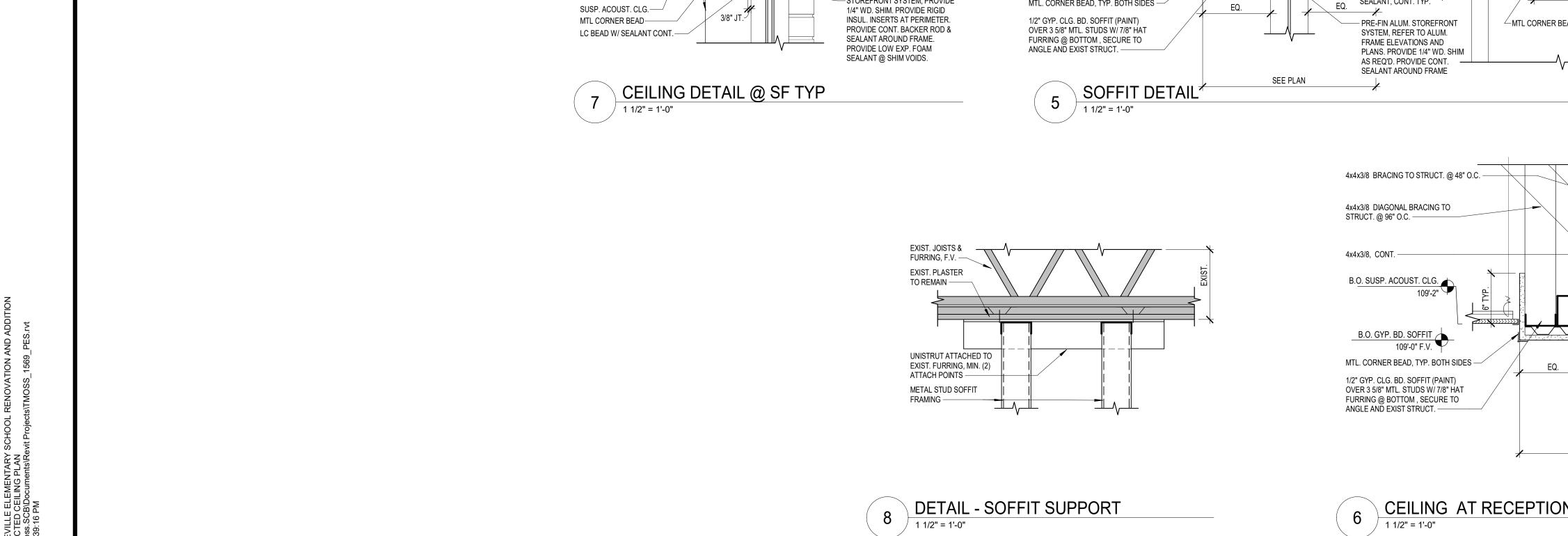
STUDS @ 16" O.C.

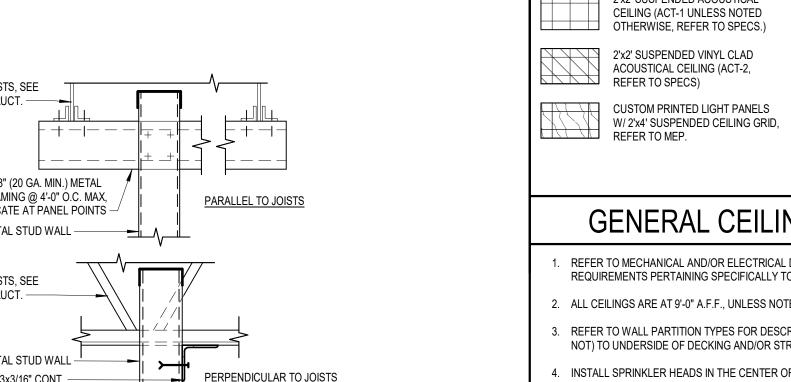
CONT. ANCHOR TO

STRUCT. ABOVE.

(PAINT) ON 3 5/8" MTL.







ACOUST.

MTL. CORNER BEAD. -

SEE PLAN

TYP. BOTH SIDES

SOFFIT DETAIL- TYPICAL

REFER TO MECH. AND ELEC. DWGS. FOR NEW CEILING IN EXISTING SPACES NOT SHOWN ON ARCHITECTURAL DWGS.

EXPOSED STRUCTURE.

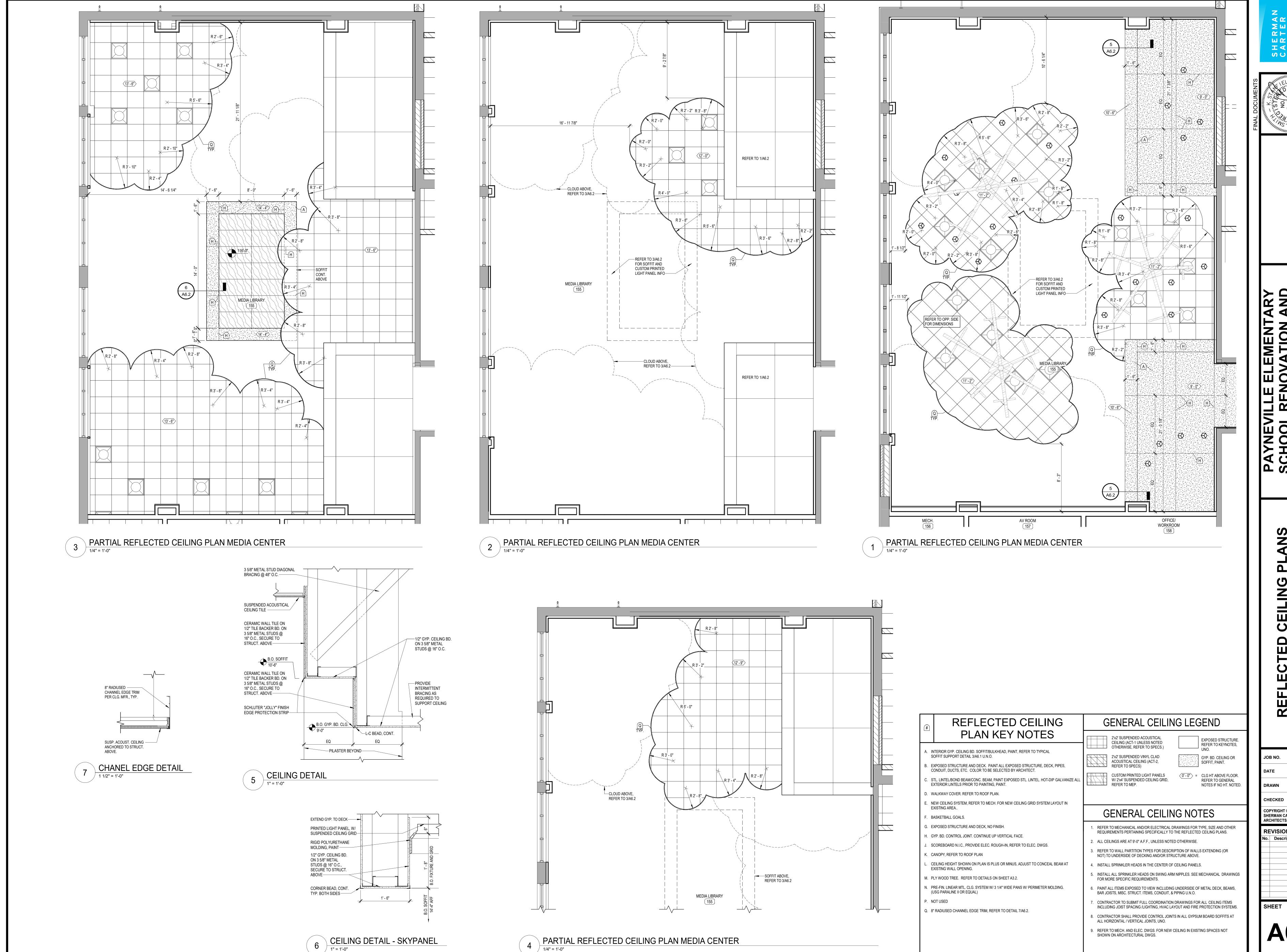
REFER TO KEYNOTES,

GYP. BD. CEILING OR

REFER TO GENERAL NOTES IF NO HT. NOTED

SOFFIT, PAINT.

0' - 0" = CLG HT ABOVE FLOOR.



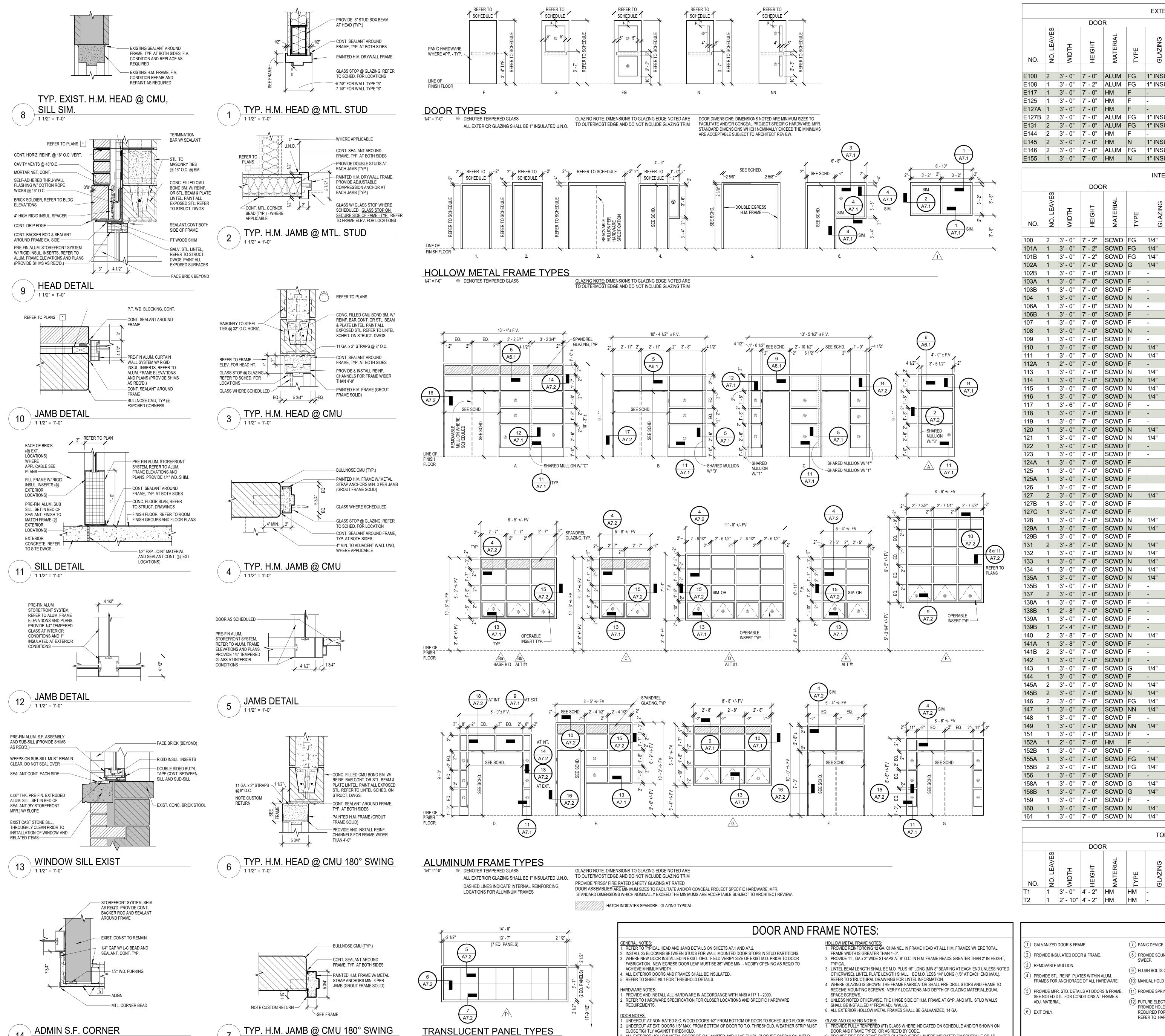
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CEILING MEDIA ( TED AIL REFLECT AND DET/

07/10/2019 CTM, DF CHECKED

SHERMAN CARTER BARNHART ARCHITECTS, PLLC REVISIONS No. Description Date



ALL EXTERIOR HOLLOW METAL DOORS BE GALVANIZED AND HAVE FLUSH CLOSURE CAPS16 GA. WELD

PROVIDE THRESHOLDS AS REQUIRED AT DOORS. SEE SHEET A8.1 FOR TYPICAL THRESHOLD DETAILS

CONT. TOP AND BOTTOM.

AND FLOOR FINISHES.

						EXTERI	OR DOC	R SCH	IEDULE			
			DOO	R				FRAI	ME	40	(j	
NO.	NO. LEAVES	WIDTH	HEIGHT	MATERIAL	TYPE	GLAZING	MATERIAL	TYPE	GLAZING	FIRE RATING	CLOSER DEG	REFER TO A9.1 FOR DOOR A100 REMARKS
NO.		>	<u> </u>		<u> </u>	0		<b> -</b>	0	<u> </u>		INLIMATINO
E100	2	3' - 0"	7' - 0"	ALUM	FG	1" INSUL	ALUM	Α	1" INSUL		105	3,4,5,7,12,14,15
E108	1	3' - 0"	7' - 2"	ALUM	FG	1" INSUL	ALUM	E	1" INSUL	-	105	4,5,15
E117	1	3' - 0"	7' - 0"	НМ	F	-	EXIST	-	-	-	105	7,13,15,17
E125	1	3' - 0"	7' - 0"	HM	F	-	EXIST	-	-	-	90	1,2,7,13,15,17
E127A	1	3' - 0"	7' - 0"	HM	F	-	EXIST	-	-	-	90	1,2,6,7,13,14,15,17
E127B	2	3' - 0"	7' - 0"	ALUM	FG	1" INSUL	ALUM	F	1" INSUL	-	105	3,4,5,6,7,15
E131	2	3' - 0"	7' - 0"	ALUM	FG	1" INSUL	ALUM	G	1" INSUL	-	105	3,4,5,6,7,15
E144	2	3' - 0"	7' - 0"	НМ	F	-	НМ	3	-	-	105	1,2,3,6,7
E145	2	3' - 0"	7' - 0"	HM	N	1" INSUL	НМ	3	-	-	105	1,2,3,6,7
E146	2	3' - 0"	7' - 0"	ALUM	FG	1" INSUL	ALUM	D	1" INSUL	-	105	3,4,5,7,14
	1	3' - 0"	7' - 0"	НМ	N	1" INSUL	HM	2	_	_	105	1,2,6,7

	ĘS										DEG.	
NO.	NO. LEAVES	WIDTH	HEIGHT	MATERIAL	TYPE	GLAZING	MATERIAL	TYPE	GLAZING	FIRE RATING	CLOSER	REMARKS
100	2	3' - 0"	7' - 2"	SCWD	FG	1/4"	ALUM	В	1/4"		105	3,4,5,7,14,18
101A	1	3' - 0"	7' - 2"	SCWD	FG	1/4"	ALUM	С	1/4"	-	105	4,5,12,14,18
101B	1	3' - 0"	7' - 2"	SCWD	FG	1/4"	ALUM	С	1/4"	-	105	4,5,12
102A	1	3' - 0"	7' - 0" 7' - 0"	SCWD	G F	1/4"	HM	4	1/4"	-	-	
102B 103A	1	3' - 0"	7' - 0"	SCWD SCWD	F	_	HM HM	1	_	-	90	
103A 103B	1	3' - 0"	7' - 0"	SCWD	F	-	HM	1	_	-		
104	1	3' - 0"	7' - 0"		N	-	HM	1	-	_	-	
106A	1	3' - 0"	7' - 0"	SCWD	N	-	НМ	1	-	-	-	
106B	1	3' - 0"	7' - 0"	SCWD	F	-	НМ	1	-	-	-	
107	1	3' - 0"	7' - 0"	SCWD	F	-	НМ	1	-	-	90	
108	1	3' - 0"	7' - 0"	SCWD	N	-	HM	1	-	-	90	
109	1	3' - 0"	7' - 0"	SCWD	F	- 4/40	HM	1	-	90	90	
110 111	1	3' - 0"	7' - 0" 7' - 0"	SCWD	N	1/4"	HM HM	1	-	-	90	
112A	1	2' - 0"	7' - 0"	SCWD	F	1/4	EXIST	-	-		90	13,15,17
112A 113	1	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-	-		180	13,15,17
114	1	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-	-		180	13,15,17
115	1	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-	-		180	13,15,17
116	1	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-	-		180	13,15,17
117	1	3' - 6"	7' - 0"	SCWD	F	-	НМ	2	-		105	
118	1	3' - 0"	7' - 0"	SCWD	F	-	EXIST	-	-		-	13,15,17
119	1	3' - 0"	7' - 0"	SCWD	F	4/40	EXIST	-	-		-	13,15,17
120 121	1	3' - 0"	7' - 0" 7' - 0"	SCWD SCWD	N N	1/4"	EXIST EXIST	-	-		180	13,15,17
121	1	3' - 0"	7' - 0"	SCWD	F	1/4	EXIST	-	-		180	13,15,17 13,15,17
123	1	3' - 0"	7' - 0"	SCWD	F	-	EXIST	-	-		-	13,15,17
124A	1	3' - 0"	7' - 0"	SCWD	F		EXIST	-			-	13,15,17
125	1	3' - 0"	7' - 0"	SCWD	F		EXIST	-			-	13,15,17
125A	1	3' - 0"	7' - 0"	SCWD	F		EXIST	-			-	13,15,17
126	1	3' - 0"	7' - 0"	SCWD	F		EXIST	-			90	13,15,17
127	2	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-			90	13,15,17
127B	1	3' - 0"	7' - 0"	SCWD	F		EXIST	-			180	10,13,15,17
127C 128	1	3' - 0"	7' - 0" 7' - 0"	SCWD SCWD	F N	1/4"	EXIST	_			180	10,13,15,17 13,15,17
129A	1	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-			180	13,15,17
129B	1	3' - 0"	7' - 0"	SCWD	F	., .	EXIST	-			-	13,15,17
131	2	3' - 8"	7' - 0"	SCWD	N	1/4"	EXIST	-			100	15,17
132	1	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-			180	13,15,17
133	1	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-			180	13,15,17
134	1	3' - 0"	7' - 0"	SCWD	N	1/4"	EXIST	-			180	13,15,17
135A	1	3' - 0"	7' - 0" 7' - 0"	SCWD SCWD	F	1/4"	EXIST	-			180	13,15,17
135B 137	2	3' - 0"	7' - 0"	SCWD	F	-	HM	3			105	13,15,17 9
138A	1	3' - 0"	7' - 0"	SCWD	F	-	EXIST	-			-	13,15,17
138B	1	2' - 8"	7' - 0"	SCWD	F	-	EXIST	-			-	13,15,17
139A	1	3' - 0"	7' - 0"	SCWD	F	-	EXIST	-			-	13,15,17
139B	1	2' - 4"			F	-	EXIST	-			-	13,15,17
140	2	3' - 8"	7' - 0"	SCWD	N	1/4"	HM	5			100	15,17
141A	1	3' - 8"	7' - 0"	SCWD	F	-	HM	2			105	0
141B 142	2	3' - 0"	7' - 0" 7' - 0"	SCWD SCWD	F	-	HM HM	2			105	9
142	1	3' - 0"	7' - 0"	SCWD	G	1/4"	HM	6			-	
144	1	3' - 0"	7' - 0"	SCWD	F	-	HM	2			-	7
145A	2	3' - 0"	7' - 0"	SCWD	N	1/4"	HM	3			180	3, 7
145B	2	3' - 0"	7' - 0"	SCWD	N	1/4"	НМ	3			180	3, 7
146	2	3' - 0"	7' - 0"	SCWD	FG	1/4"	ALUM	D			105	3,4,5,7
147	1	3' - 0"	7' - 0"	SCWD	NN	1/4"	HM	2			-	
148	1	3' - 0"	7' - 0"	SCWD	F	1/4"	HM	2			-	
149 151	1	3' - 0"	7' - 0" 7' - 0"	SCWD	NN F	1/4"	HM HM	2			_	
151 152A	1	2' - 0"	7' - 0"	HM	F	-	HM	2			-	
152A 152B	1	3' - 0"	7' - 0"	SCWD	F	-	HM	2			90	
155A	1	3' - 0"	7' - 0"	SCWD	FG	1/4"	HM	2			90	
155B	2	3' - 0"	7' - 0"	SCWD	FG	1/4"	HM	EXIST			90	7,13,15,17
156	1	3' - 0"	7' - 0"	SCWD	F	-	НМ	1			90	
158A	1	3' - 0"	7' - 0"	SCWD	G	1/4"	НМ	1			90	
158B	1	3' - 0"	7' - 0"	SCWD	G	1/4"	HM	1			90	
159	1	3' - 0"	7' - 0"	SCWD	F	4/4"	HM	2			90	
160 161	1	3' - 0"	7' - 0" 7' - 0"	SCWD	N	1/4"	HM	2			180	
		1 5 - ''	/ _ ' '		1/1	1 1 / / 1	HIV/				uri	

	TOILET DOOR SCHEDULE												
	DOOR							FRAME				رن ن	
NO.	NO. LEAVES	WIDTH	HEIGHT	MATERIAL	TYPE	GLAZING	MATERIAL	TYPE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	GLAZING	FIRE RATING	CLOSER DE(	REMARKS
T1	1	3' - 0"	4' - 2"	HM	HM	-	HM	T7	-		_	-	REFER TO A2.2
T2	1	2' - 10"	4' - 2"	НМ	НМ	-	НМ	T7	-		-	-	REFER TO A2.2

HM

## REMARKS

GALVANIZED DOOR & FRAME. PROVIDE INSULATED DOOR & FRAME.

REMOVABLE MULLION.

PROVIDE FIRE RESISTANT RATED GLAZING (FRRG) WHERE INDICATED ON SCHEDULE OR AS

REQ'D BY CODE.

3. GLASS STOPS ON SECURE SIDE OF FRAME.

PROVIDE STL. REINF. PLATES WITHIN ALUM. FRAMES FOR ANCHORAGE OF ALL HARDWARE. PROVIDE MFR. STD. DETAILS AT DOORS & FRAME. SEE NOTED DTL. FOR CONDITIONS AT FRAME &

7 PANIC DEVICE. 8) PROVIDE SOUND SEALS AT HEAD & JAMB WITH SOUND (9) FLUSH BOLTS ON INACTIVE LEAVES.

PROVIDE HOLE IN FRAME & BLANK CONDUIT AS

REQUIRED FOR ELECTRICAL ROUGH-IN REQUIREMENTS.

REFER TO HARDWARE SPECS. & ELECTRICAL DWGS.

2) FUTURE ELECT. HARDWARE.

FRAME FOR NEW FINISHES. (14) COORDINATE POWER / CARD READER. (15) EXISTING OPENING F.V. (10) MANUAL HOLD OPEN DEVICES. (16) HOLD OPEN OPTION ON CLOSER. (11) PROVIDE SPRING HINGES. (17) PAINT EXISTING FRAME.

90

(13) NEW DOOR(S) IN EXSISTING FRAME. MODIFY/PATCH

SHEET (18) WIRE ELECT. DOOR HARDWARE TO RELEASE BUTTON

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AND

CHEDULI RAME EL

SIL

OOR

07/10/2019

CTM

CHECKED

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ARCHITECTS, PLLC

Description Date

REVISIONS

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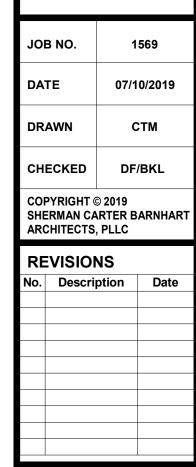
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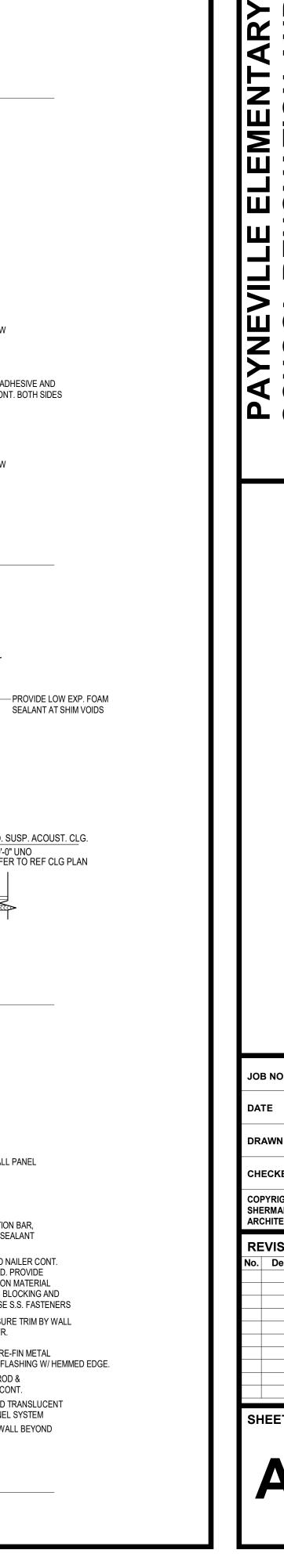
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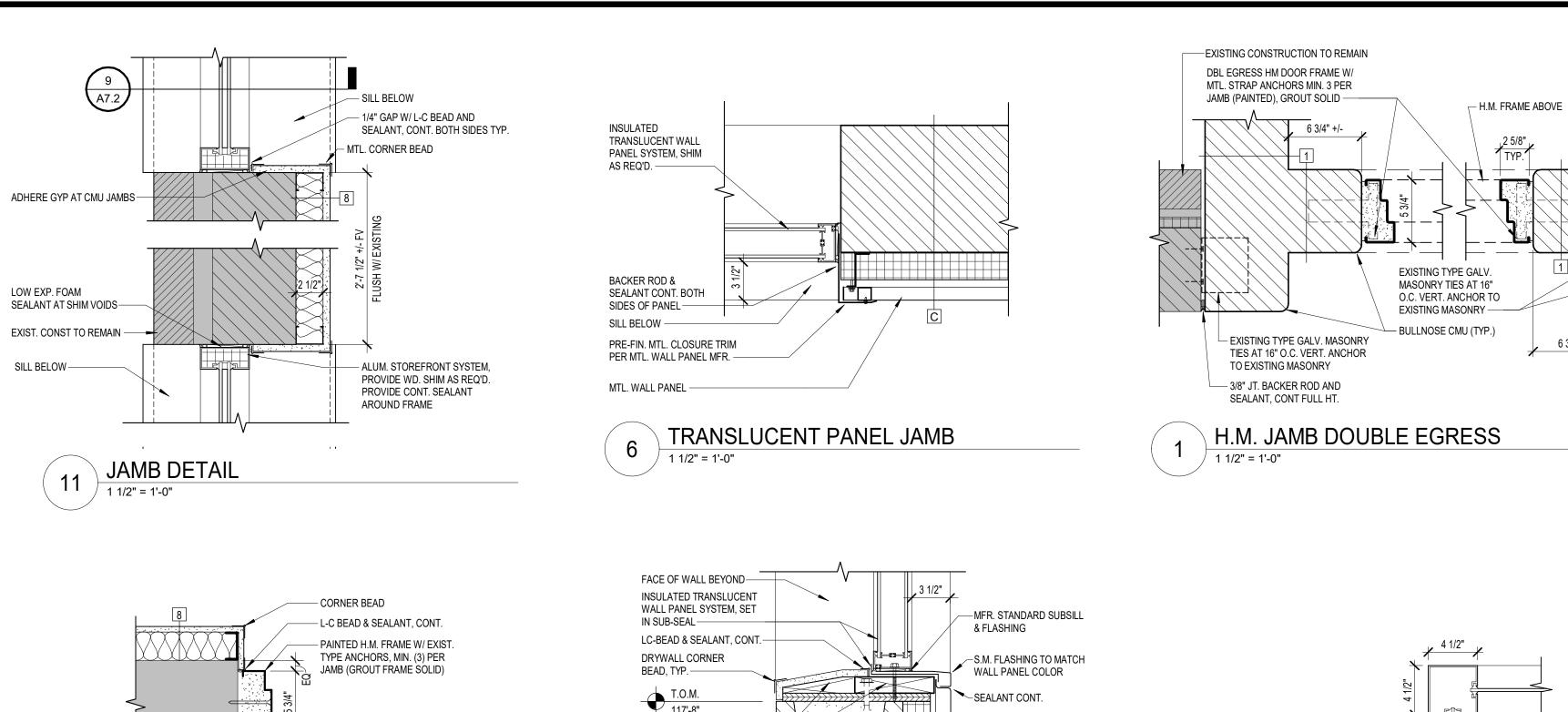
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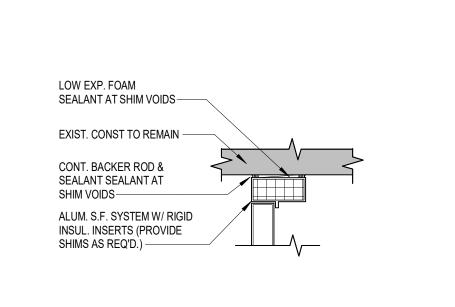
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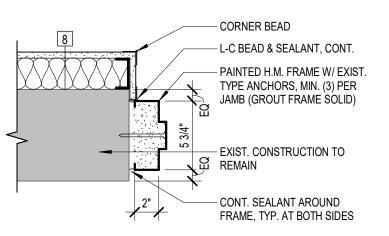
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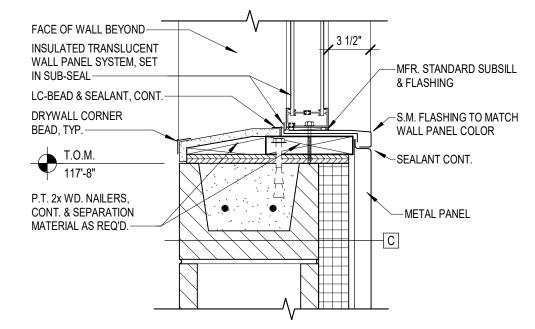


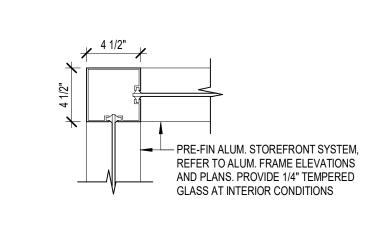










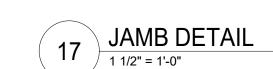


- 3/8" JT. BACKER ROD

AND SEALANT, CONT

TO REMAIN ----

— EXISTING CONSTRUCTION



LOW EXP. FOAM

SEALANT AT SHIM VOIDS-

EXIST. CONST TO REMAIN ---

ALUM. S.F. SYSTEM W/ RIGID

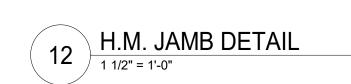
JAMB DETAIL

INSUL. INSERTS (PROVIDE

CONT. BACKER ROD & SEALANT AT

SHIM VOIDS-

SHIMS AS REQ'D.) —

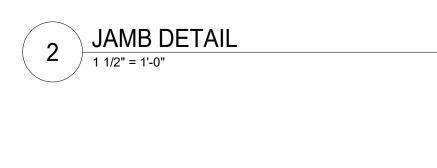


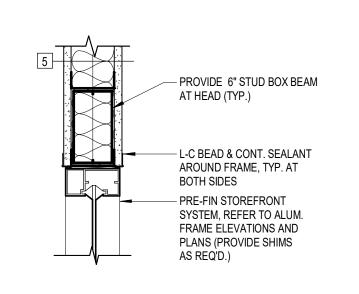
LOW EXP. FOAM

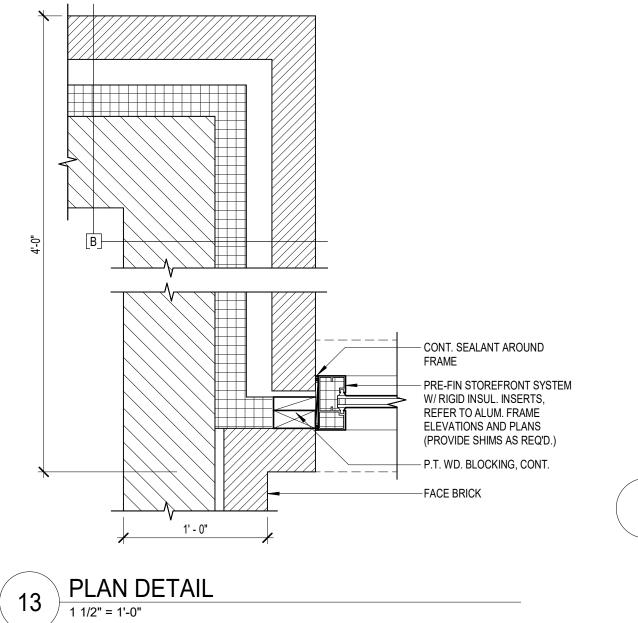
SILL BELOW —

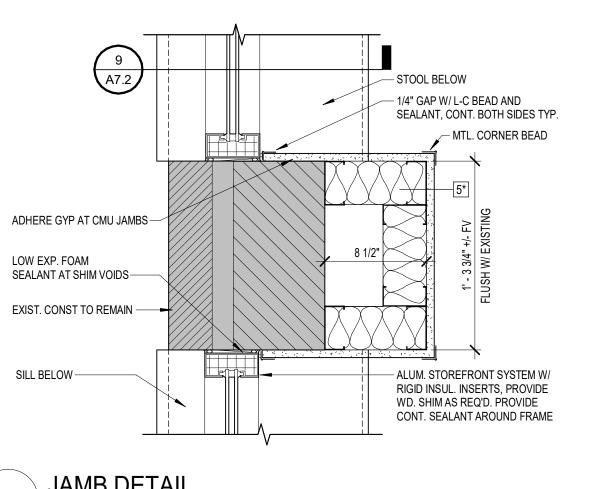
EXIST. CONST TO REMAIN -

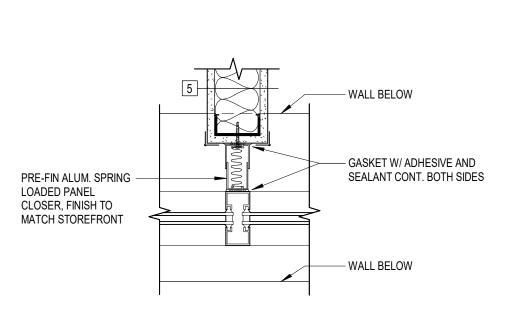




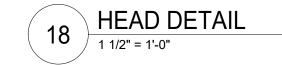


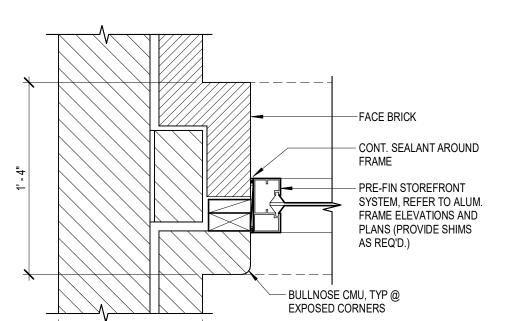


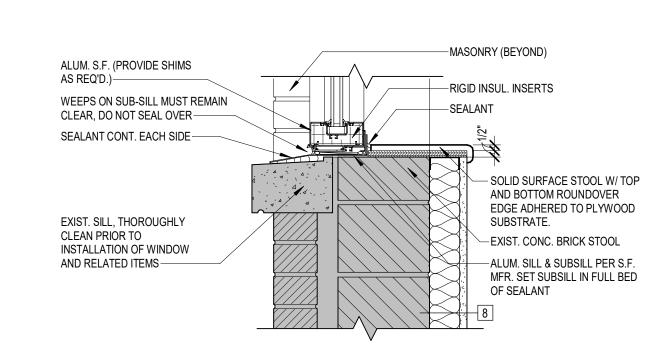


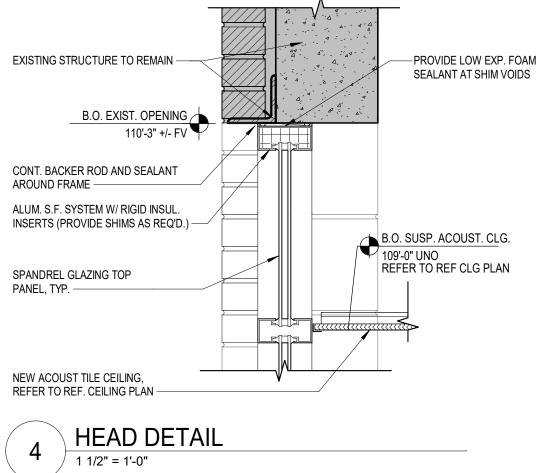


JAMB DETAIL
1 1/2" = 1'-0"











LOW EXP. FOAM SEALANT AT SHIM VOIDS—

EXIST. CONST TO REMAIN —

ALUM. S.F. SYSTEM W/ RIGID INSUL. INSERTS (PROVIDE

CONT. BACKER ROD & SEALANT SEALANT AT

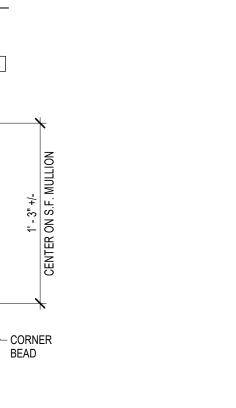
SHIMS AS REQ'D.) —

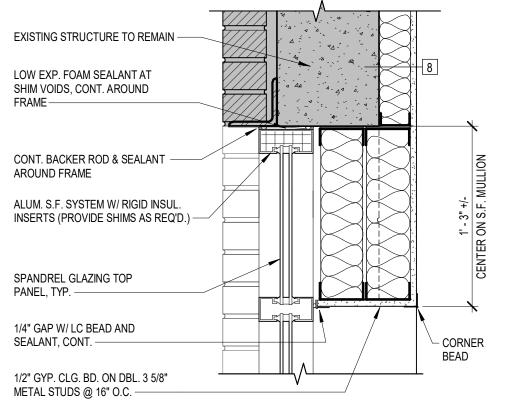
SHIM VOIDS-

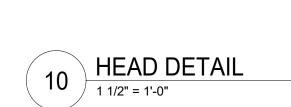
1' - 0"

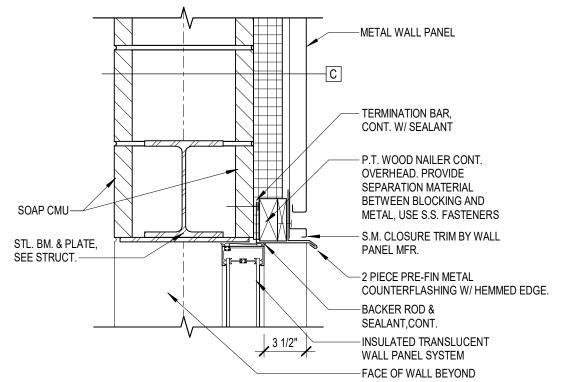
9 SILL DETAIL
1 1/2" = 1'-0"

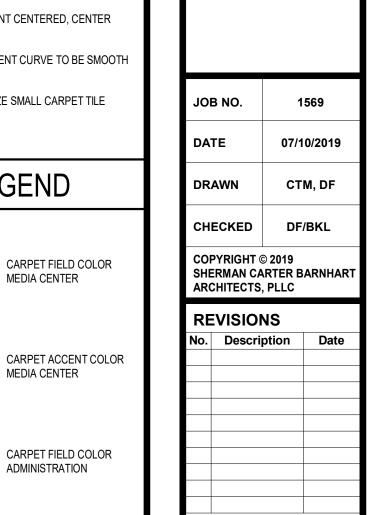
1 1/2" = 1'-0"











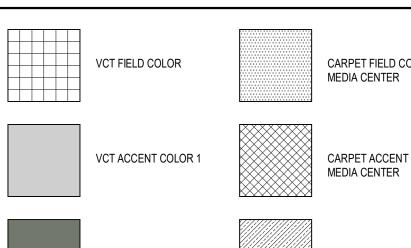
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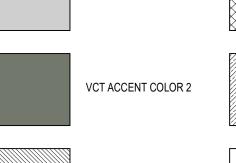
ATTERN PLAN
AND DETAILS

OR PA' BID /

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VCT ACCENT COLOR 4

GENERAL NOTES:

. REFER TO ROOM FINISH GROUPS SHEET A0.0 FOR FLOOR

FINISHES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO

INSURE THAT THE PROPER THRESHOLD IS USED.

2. PROVIDE RESILIENT TRANSITION STRIPS OR REDUCERS

BETWEEN ALL DIFFERING FLOOR FINISH MATERIALS.

4. PROVIDE SCHULTER MTL EDGE, OR APPROVED EQUAL,

BY MANUFACTURER FOR APPLICATION.

AT ALL CERAMIC TILE TRANSITIONS.

3. PROVIDE STRIP OR REDUCER PROFILE AS RECOMMENDED

CENTER STRIP ON DOOR

| & ON WALL. AT OPENING

| WHERE THERE ARE NO

DOORS TO NEAREST

HALF OR FULL TILE

\_ 2" RESILIENT

┌ RUBBER TILE

REDUCER STRIP

SCHEDULED DOOR,

SCHLUTER MTL

TILE EDGE ---

1/8" JOINT W/

SEALANT —

RESILIENT

CONCRETE -

REDUCER STRIP

└ VCT, REFER TO ROOM

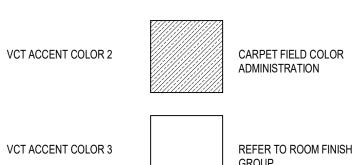
FINISH SCHEDULE

REFER TO PLANS FOR

LOCATIONS —

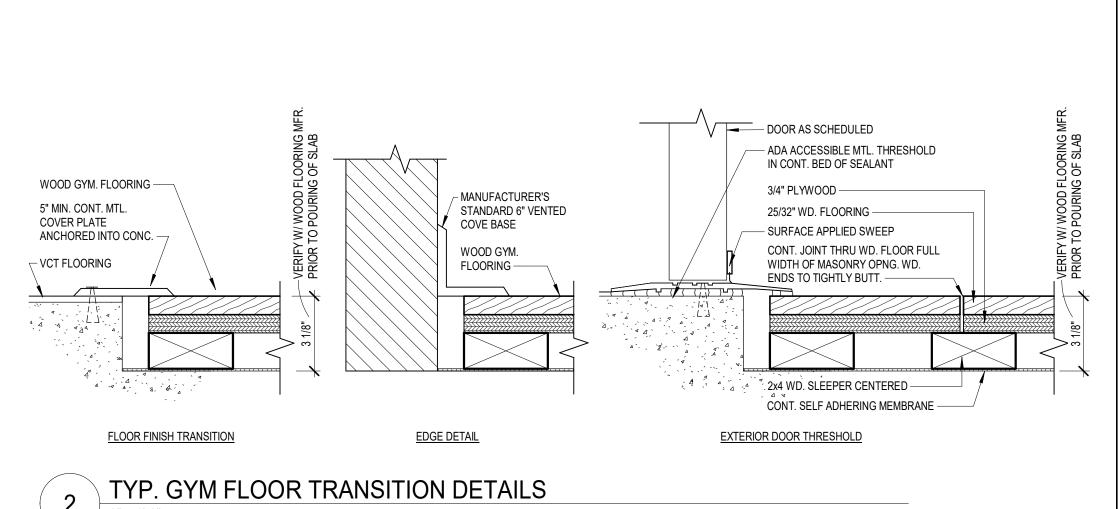
— CERAMIC TILE

— EDGE OF WALL BEYOND —



F.V. WIDTH CENTER TILE PATTERN 3 FLOOR TILE LAYOUT DETAIL

1/4" = 1'-0"



1. ALIGN TILES WHERE NEW

2. FIELD VERIFY EXIST. TILE

ORIENTATION, NEW TO MATCH.

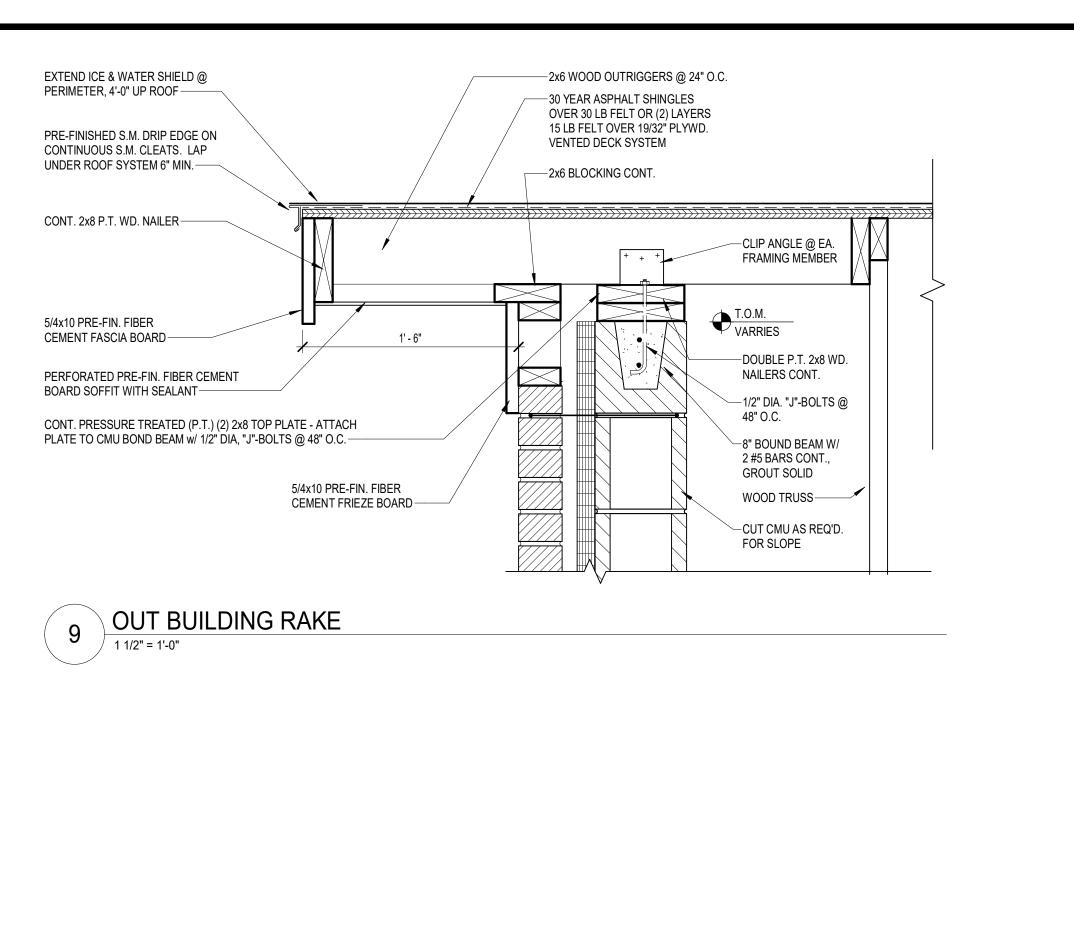
PATTERNS, COLORS &

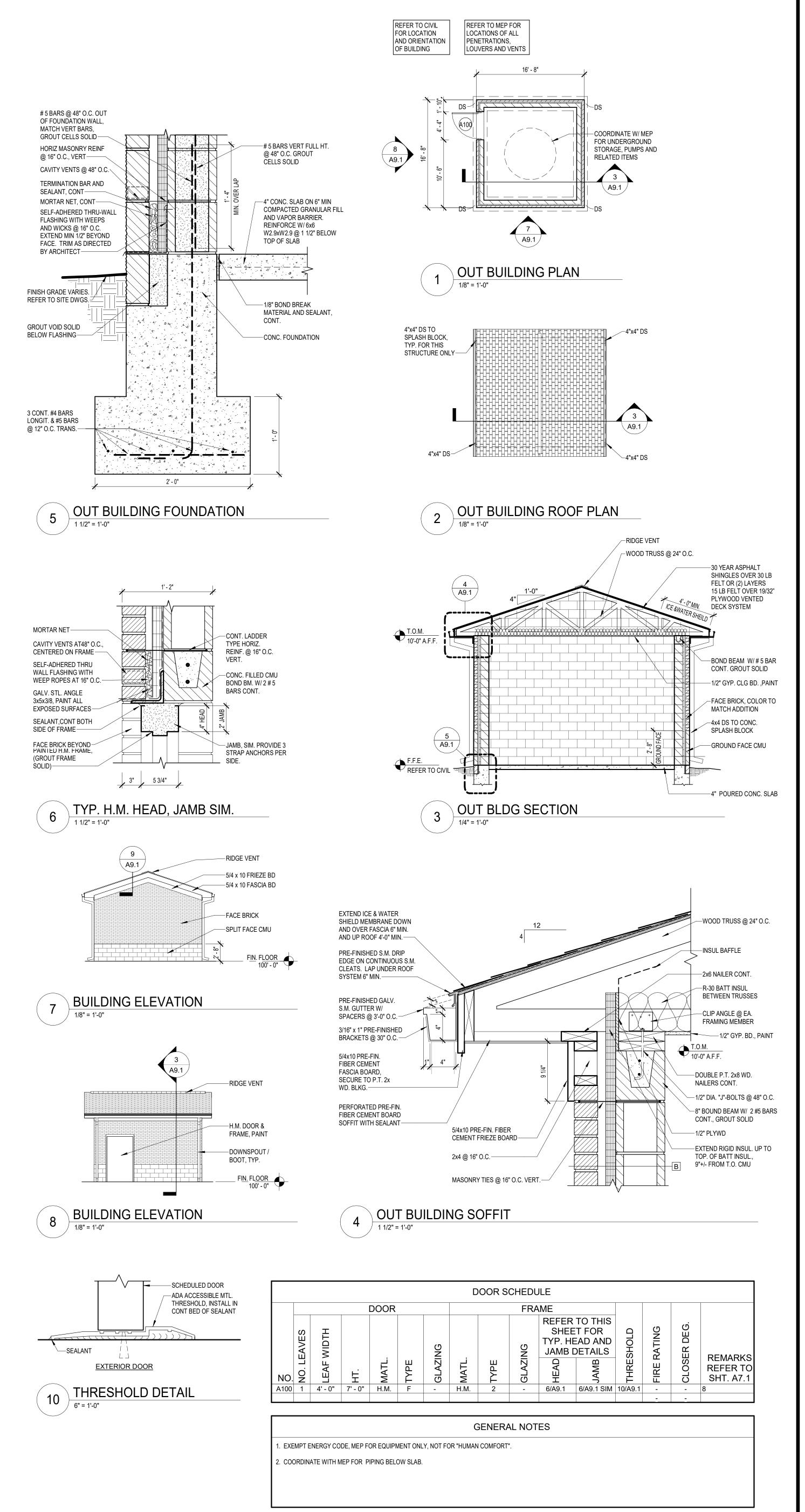
AND EXISTING MEET.

1569 PAYNEVILLE ELEMENTARY SCHOOL RENOVATION AND A8.2 FLOOR PATTERN PLAN ALTERNATE BID AND DETAILS C:\Users\tmoss.SCB\Documents\Revit Projects\TMOSS\_1569\_PE.7/18/2019 1:40:43 PM

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1569 PAYNEVILLE ELEMENTARY SCHOOL R UM1.0 MECHANICAL SITE UTILITY PLAN C:\Users\choskins\Documents\VMPE18-HVAC-I 7/18/2019 11:57:54 AM



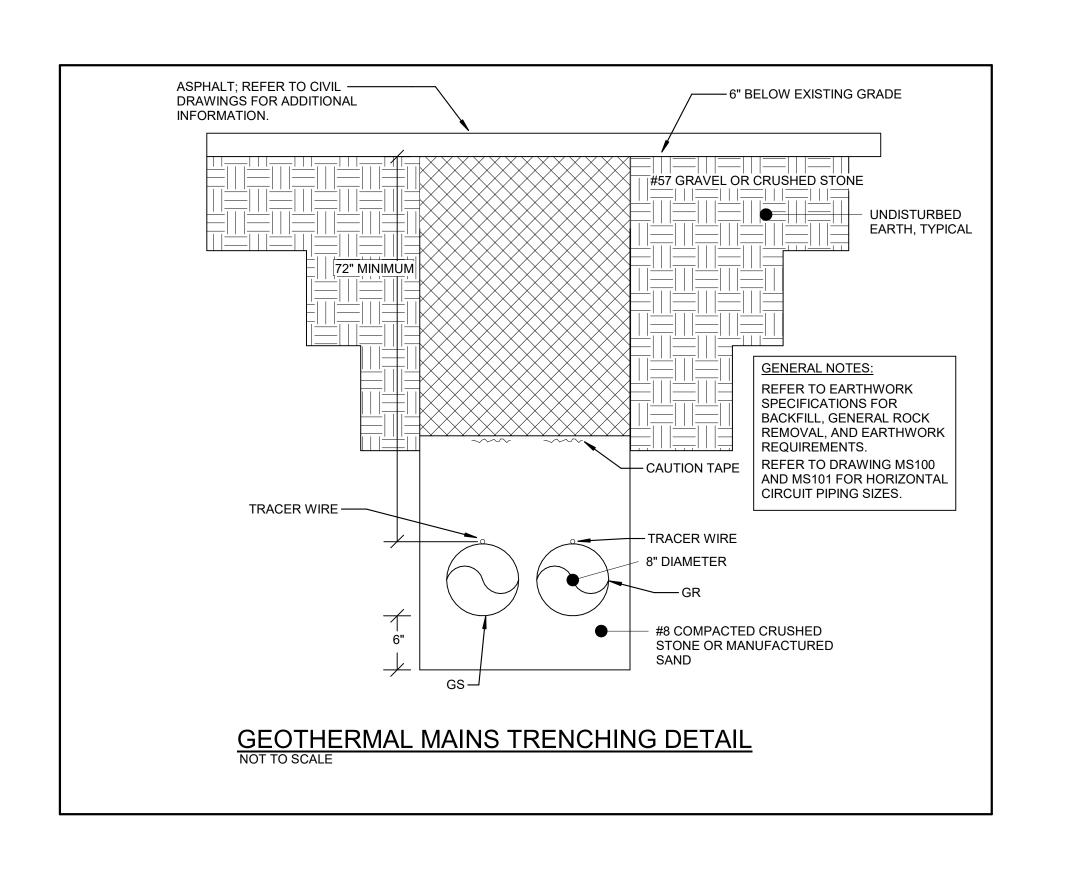
MECHANIC

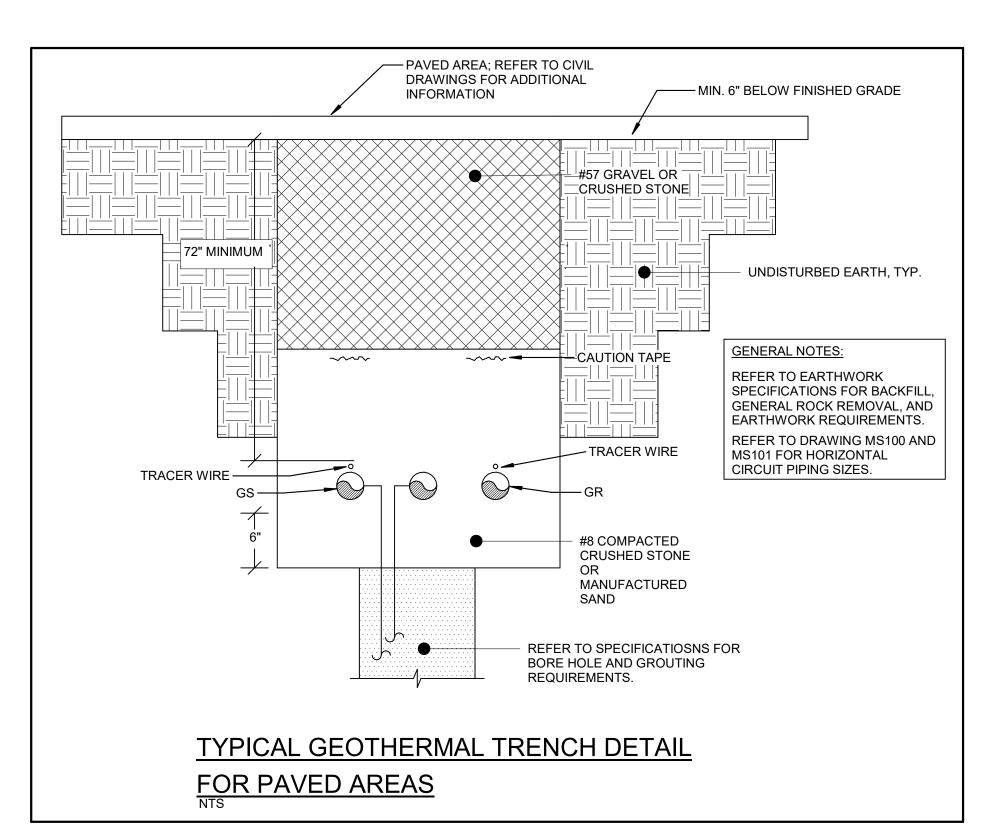
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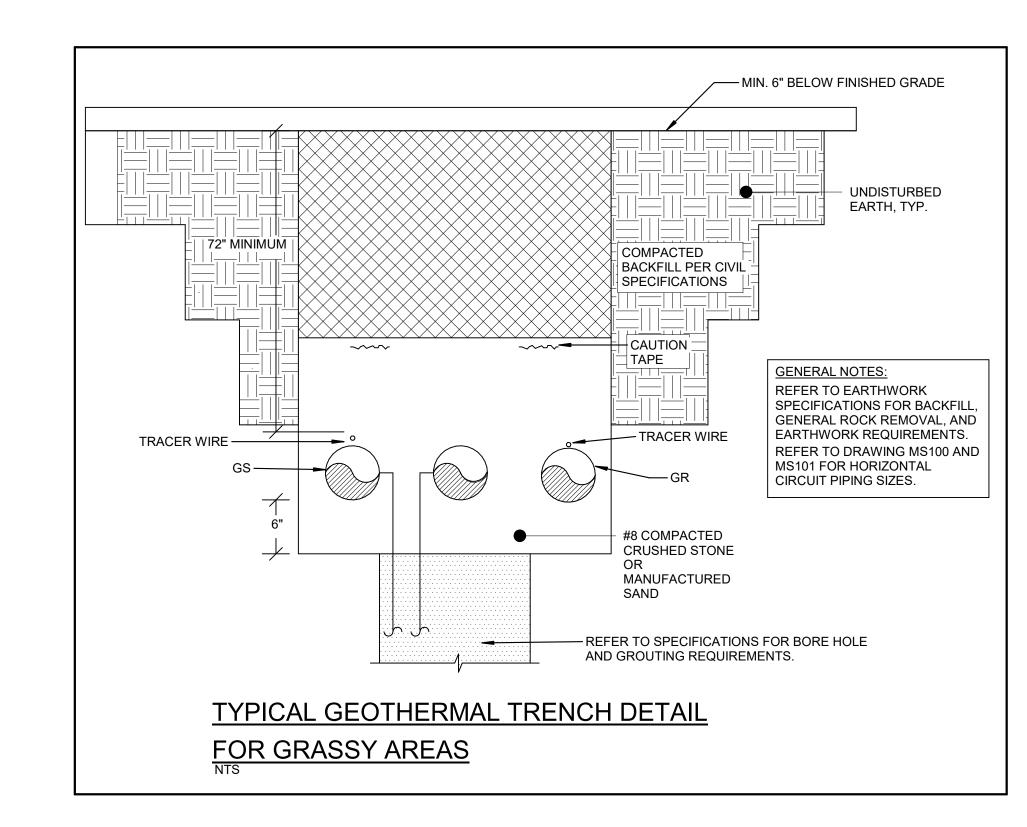
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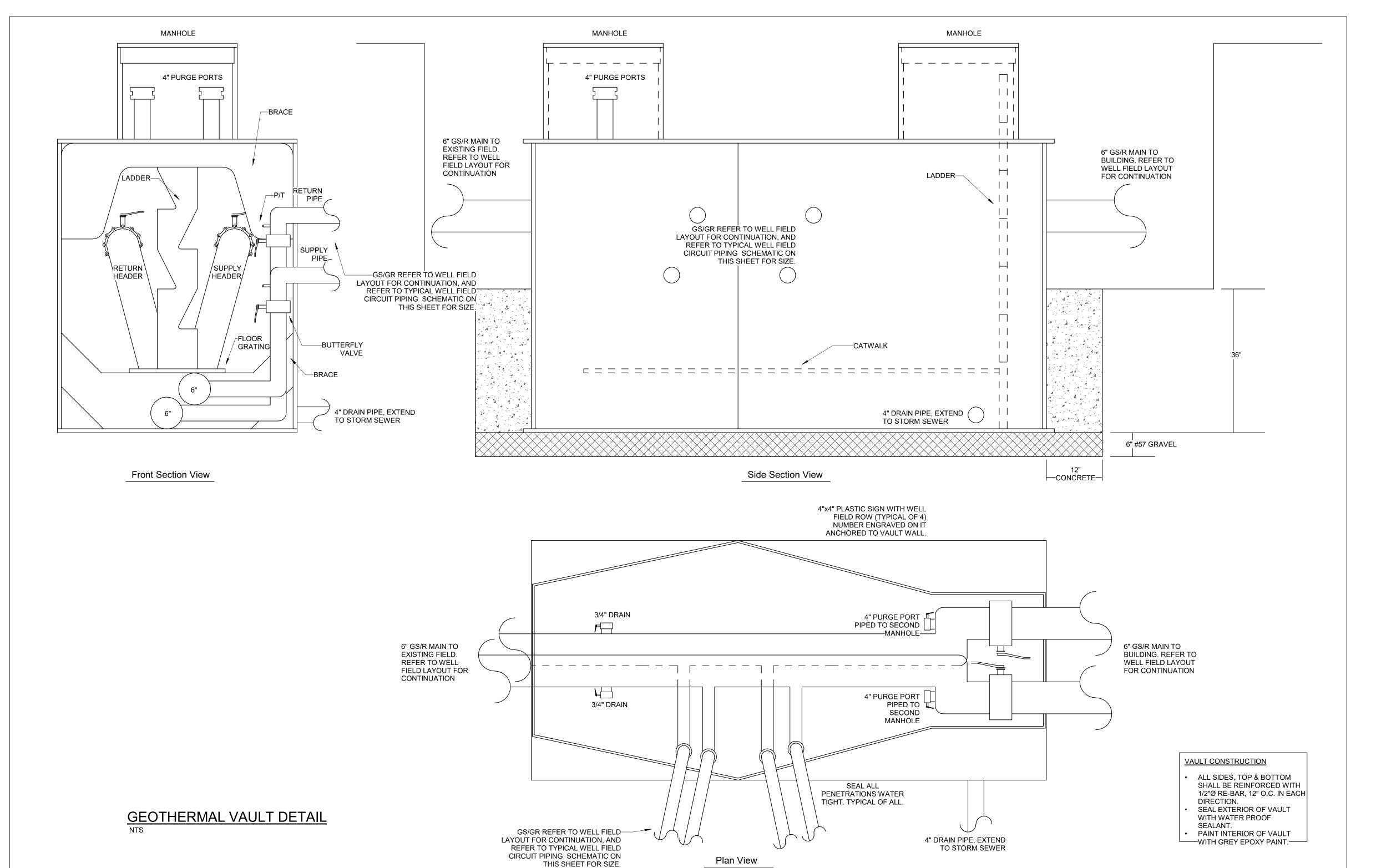
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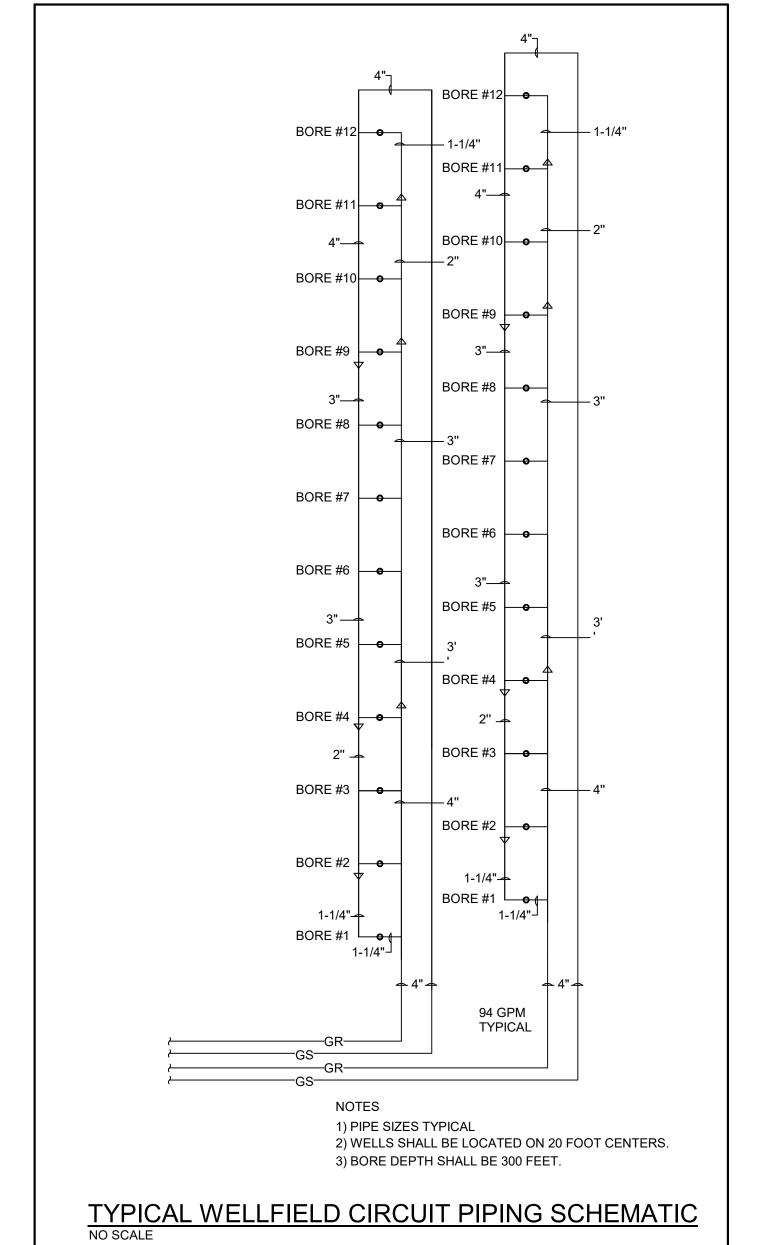
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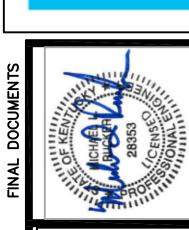


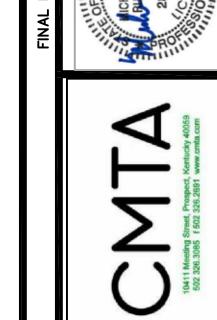


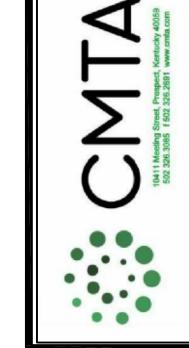


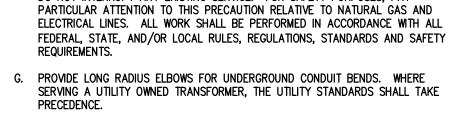












H. UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. IF ANY VARIATION OCCURS, CONSULT THE ENGINEER. CONTRACTOR SHALL VISIT THE SITE AND FIELD VERIFY THE ROUTING OF ALL UTILITIES NEW AND EXISTING PRIOR TO SUBMISSION OF BIDS. SUBMISSION OF A BID PROPOSAL INDICATES THAT THE CONTRACTOR IS FULLY AWARE OF ALL OBSTRUCTIONS AND WILL INSTALL ALL OF THE NEW UTILITIES WITHOUT REQUESTS FOR ANY ADDITIONAL CHANGES.

**GENERAL SITE WORK NOTES:** 

INCREASE IN THE CONTRACT PRICE.

THIS CONTRACT.

A. DO NOT SCALE FROM MECHANICAL AND ELECTRICAL DRAWINGS. FIELD VERIFY REQUIRED DIMENSIONS AND COORDINATE WITH CIVIL DRAWINGS AND SURVEYS.

B. REFER ALSO TO ALL OTHER PLANS AND THE SPECIFICATION, BUT ESPECIALLY TO: THE SITE SURVEY, THE ARCHITECTURAL SITE PLAN, THE SITE GRADING PLAN,

THE PLANTING PLAN (WHERE AVAILABLE), FOUNDATION PLAN(S), APPROPRIATE MECHANICAL & ELECTRICAL FLOOR PLANS FOR SERVICE CONTINUATIONS, THE SITE UTILITY PLAN - MECHANICAL & ELECTRICAL. WHERE THERE ARE CONFLICTS

AMONG THESE PLANS AND/OR RELATED SPECIFICATIONS, ADVISE THESE ENGINEERS AT LEAST TEN DAYS PRIOR TO SUBMISSION OF BIDS.

C. ALL FEES AND ANY OTHER COSTS TO UTILITY COMPANIES, MUNICIPALITIES, INSPECTORS, REVIEWING AGENCIES, ETC. ARE TO BE INCLUDED AS A PART OF

D. FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN.

E. WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICE IS PLANNED OR OCCURS ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO

F. LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKEN FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT

TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS, EXISTING UTILITIES LOCATIONS MAY VARY. CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY

- PROVIDE GALVANIZED RIGID CONDUIT FOR EXTERIOR UNDERGROUND TRANSITIONS TO ABOVE GRADE; EXTEND CONDUIT A MINIMUM OF 6" ABOVE GRADE.
- J. CONTRACTOR SHALL PERFORM A SMOKE TEST ON ALL CONDUITS INSTALLED ON SITE AND SHALL TAKE ALL NECESSARY CORRECTIVE ACTION IF NOT FOUND IN COMPLIANCE WITH FACILITY STANDARDS.
- K. CONTRACTOR SHALL CONTACT ENGINEER FOR INSPECTION OF TRENCHES PRIOR TO INSTALLATION OF CONDUITS OR RACEWAYS. PROVIDE PHOTOS UPON
- CONTRACTOR SHALL CUT AND PATCH ALL PAVEMENT, CURBING, ETC. AS REQUIRED FOR WORK. CONTRACTOR SHALL REPAIR ALL LANDSCAPING THAT IS DAMAGED FOR WORK. FINISH GRADE, SEED AND STRAW ALL DISTURBED GREEN SPACES. ALL PATCH AND REPAIR WORK SHALL BE IN ACCORDANCE WITH BOTH

#### TAGGED NOTES:

1. ROUTE CIRCUIT THROUGH EXTERIOR LIGHTING CONTROL CABINET.

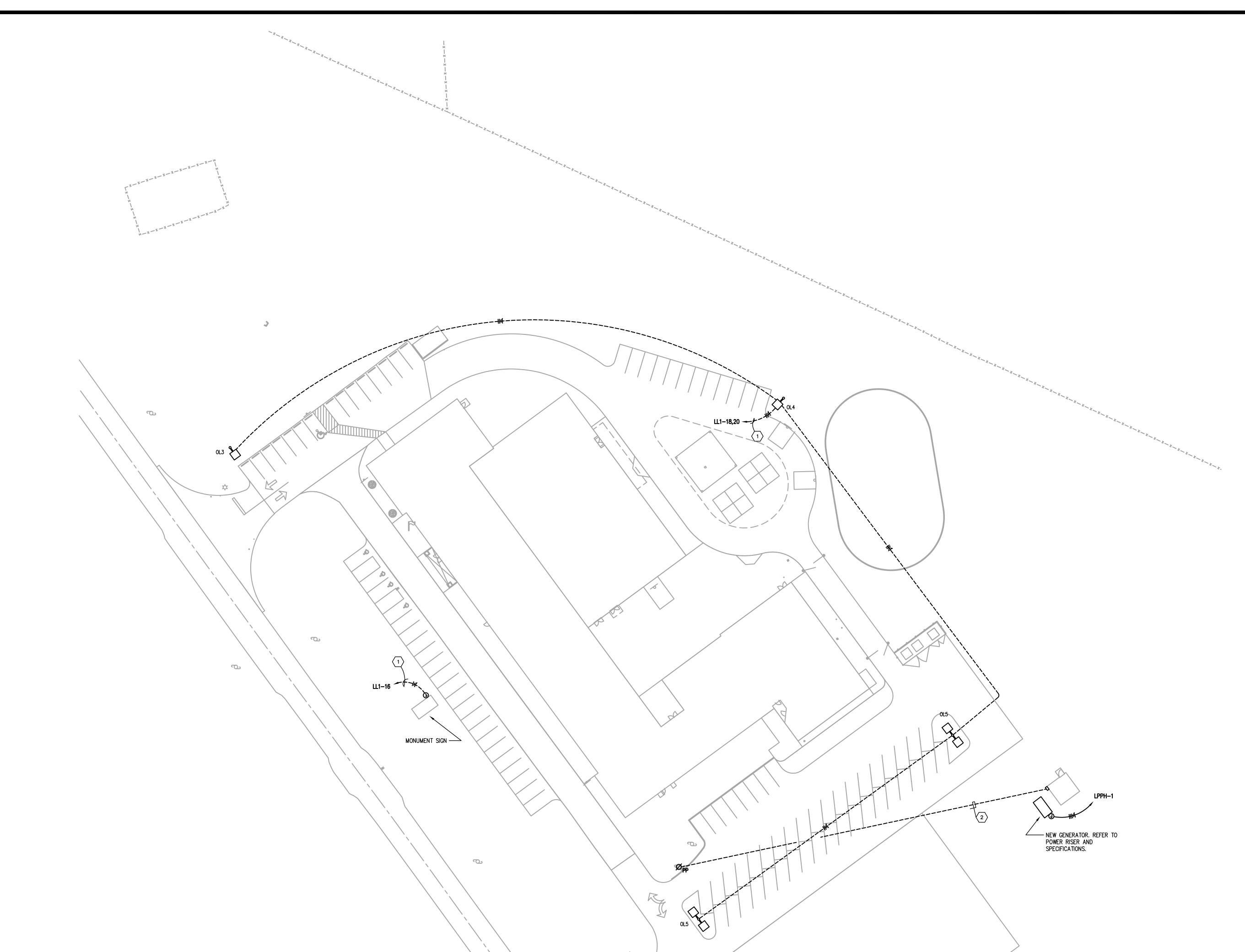
# 2. PROVIDE NEW CONCRETE-ENCASED SERVICE SECONDARY FROM POLE MOUNTED TRANSFORMER TO NEW FIRE PUMP SERVICE WITH MINIMUM BURY AT 36". REFER TO POWER RISER FOR FURTHER REQUIREMENTS.

## GENERAL INSTALLATION NOTE:

COORDINATE INSTALLATION AND PIPE CROSSINGS WITH ALL UTILITIES AND ALL TRADES TO AVOID INTERFERENCE AND TO ENSURE ALL CLEARANCES ARE MET PRIOR TO INSTALLATION.

> BEFORE YOU DIG THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL CONTACT "BUD (BEFORE YOU DIG)" AT 811 OR 1-800-752-6007 TO OBTAIN UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION.
> ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING ANY TYPE OF EXCAVATION ON THIS PROJECT SHALL CALL "BUD" TO OBTAIN AN AUTHORIZATION NUMBER.

	AG ITIGINIZATION IN						
ELECTRICAL SITE UTILITIES LINE LEGEND							
	EXISTING	DEMOLITION	NEW				
OVERHEAD	——(E)ОН ——	— -(D)OH- —	——(N)OH——				
UNDERGROUND	(E)UG	(D)UG					
POWER POLE	(E)PP Ø	(D)PP Ø	(N)PP Ø				
SITE LIGHTS		Ç					
ELECTRIC		- ELEC					
TELEPHONE		- TEL-					
TELEPHONE		- FIBER					
CABLE TV		- CATV -					



SITE UTILITIES PLAN - ELECTRICAL

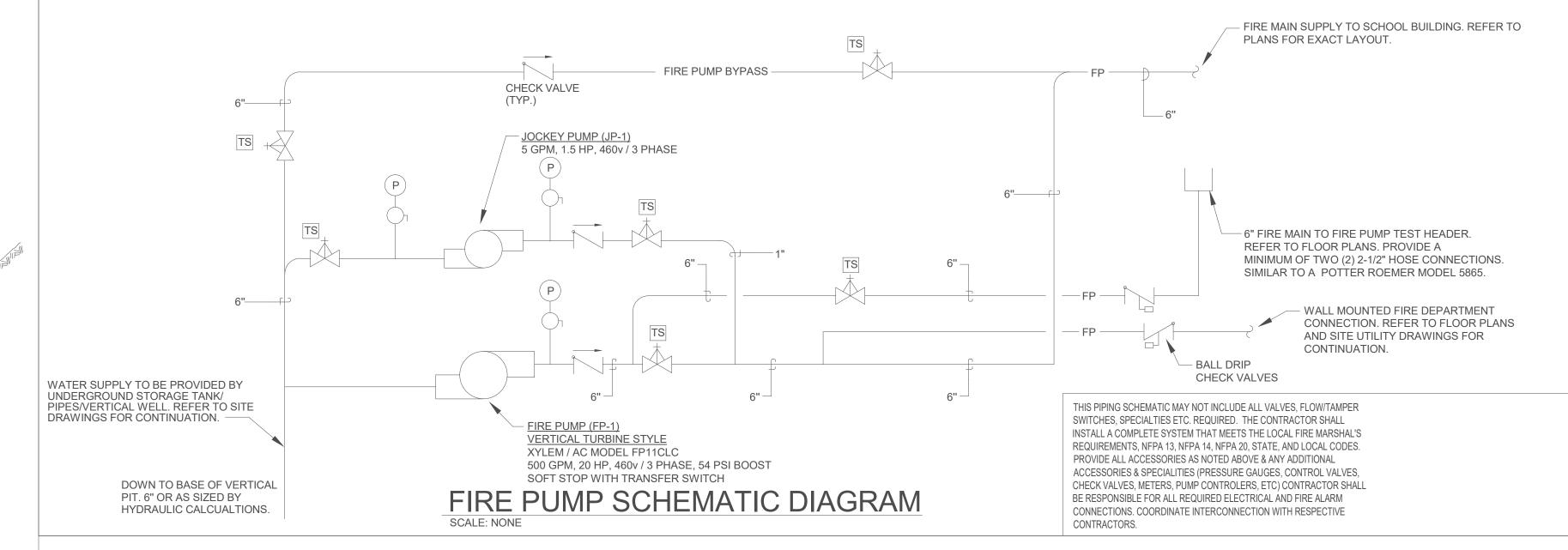
#### PIPE TEES AND SIZE DEAD ENDS BEND BEND BEND 4" 1 SQ. FT. 1.5 SQ. FT. 1 SQ. FT. .5 SQ. FT. 6" 2 SQ. FT. 3 SQ. FT. 2 SQ. FT. 1 SQ. FT. 8" 4 SQ. FT. 5 SQ. FT. 3 SQ. FT. 1.5 SQ. FT.

## THRUST BLOCK DETAILS FOR FIRE &

# DOMESTIC WATER MAINS

NOT TO SCALE REFER TO SITE PLAN

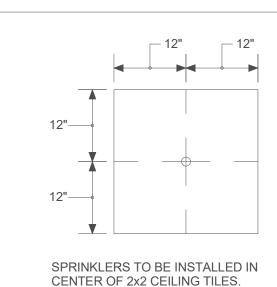
NOTE: LENGTH, WIDTH & MINIMUM THICKNESS OF THRUST BLOCKS SHALL BE EQUAL TO THE DIAMETER OF THE PIPE FOR WHICH THEY ARE INSTALLED. REFER TO SITE DRAWINGS FOR ROUTING OF PIPING. PROVIDE AT EACH CHANGE OF DIRECTION.



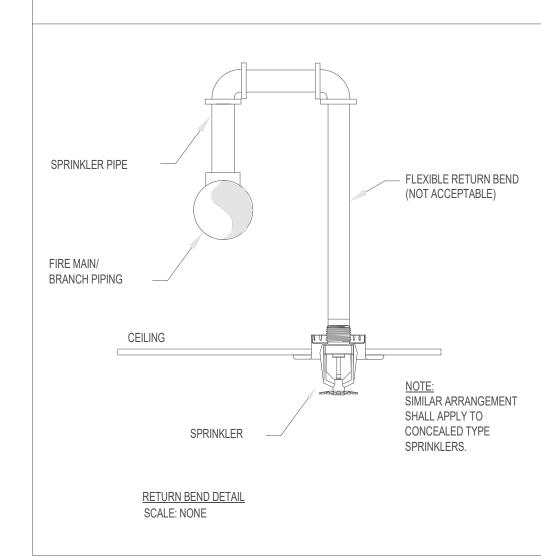
#### **EXISTING FIRE HYDRANT** FLOW TEST DATA

FIRE PROTECTION SERVICE WILL BE SUPPLIED BY AN UNDERGROUND 30,000 GALLON FIRE PROTECTION STORAGE TANK / PIPE SYSTEM & FIRE PUMP. DOMESTIC WATER SUPPLY WILL BE PROVIDED AS A MEANS TO KEEP THE STORAGE TANK FULL TO CAPACITY DURING NON-USE.

BASED ON ORDINARY HAZAZRD DESIGN (0.15/1500GPM) PLUS 250 GPM HOSE STREAM OR 475 GPM SUPPLY FOR 60 MINUTES 28,500 GALLONS OR APPROX. 30,000 GALLON CAPACITY.



2x2 CEILING TILE DETAIL

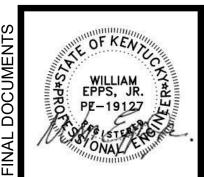


#### **GENERAL FIRE PROTECTION NOTES:**

- A. THE ENTIRE BUILDING SHALL BE 100% PROTECTED WITH A FULLY AUTOMATIC FIRE PROTECTION SYSTEM DESIGNED IN ACCORDANCE WITH NFPA (13, 20, & 22), STATE AND LOCAL CODES. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE FIRE PROTECTION SYSTEM AS PART OF THEIR DELEGATED DESIGN. FIRE PROTECTION SYSTEM SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING COMPONENTS: UNDERGROUND STORAGE TANK, DIESEL FIRE PUMP, DIESEL STORAGE TANK, ALL INTERCONNECTING DIESEL PIPING AND ACCESSORIES, LEAK DETECTION, AIR COMPRESSOR, VALVES, SWITCHES, CONTROLLERS, SPRINKLER PIPING, SPRINKLERS, ETC.
- THE SUCCESSFUL FIRE PROTECTION CONTRACTOR SHALL OBTAIN AND UTILIZE ALL APPLICABLE ARCHITECTURAL FLOOR PLANS, SECTIONS, AND REFLECTED CEILING PLANS FOR LAYING OUT SPRINKLERS. FIRE PROTECTION PIPING LAYOUTS SHALL BE CAREFULLY REVIEWED AND ROUTED AS INDICATED TO AGREE WITH ARCHITECTURAL REQUESTED ROUTINGS TO ENSURE CONCEALMENT OF ALL EXPOSED PIPING IN HIGH PROFILE SPACES. REFER TO A COMPLETE SET OF DOCUMENTS (ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL PLANS AND SPECIFICATIONS FOR COORDINATION OF TRADES, ROOMS, STRUCTURE, AND EQUIPMENT).
- ALL AREAS ARE TO BE PROVIDED WITH QUICK RESPONSE SPRINKLERS (EXCEPTIONS PER NFPA SHALL BE APPLIED, IE MECHANICAL SPACES, ETC.). REFER TO FLOOR PLANS FOR LOCATIONS AND SPECIFICATION SECTION 210100 FOR ACCEPTABLE MANUFACTURERS AND MODELS.
- D. ALL SPRINKLERS SHALL BE CENTERED IN BOTH DIRECTIONS OF A 2' x 2' CEILING TILE. REFER TO CEILING GRID DETAIL.
- WHERE CEILINGS ARE INDICATED, ALL SPRINKLER PIPING MUST BE INSTALLED ABOVE CEILINGS. SPRINKLER PIPING MUST BE COORDINATED WITH OTHER TRADES. PIPING MUST OFFSET AS REQUIRED TO AVOID CONFLICTS WITH DUCTWORK, CONDUIT, ALL EQUIPMENT, ETC.
- F. HVAC DUCTWORK MAINS SHALL BE INSTALLED PRIOR TO FIRE PROTECTION PIPING. PROVIDE DRAIN VALVES IN THE FIRE PROTECTION SYSTEM WHERE NECESSARY TO COMPLETELY DRAIN
- G. PROVIDE ALL REQUIRED DRAIN PIPING TO TEST FLOW SWITCHES. DISCHARGE DRAIN PIPING TO OUTDOORS.
- H. SIZE FIRE PUMP IN ACCORDANCE WITH ALL APPLICABLE NFPA GUIDELINES. (NFPA 13,20,ETC.)
- SIZE ALL FIRE PROTECTION PIPING IN ACCORDANCE WITH NFPA 13. PIPE SIZING SHALL BE ACCOMPLISHED USING HYDRAULIC
- SUBMIT HYDRAULIC CALCULATIONS AND SYSTEMS DESIGN FOR REVIEW TO THE M/E ENGINEER.
- K. THE SPARE SPRINKLERS, WRENCH AND CABINET SHALL BE LOCATED IN THE FIRE PUMP ROOM.
- BUILDING SHALL BE CLASSIFIED AS LIGHT/ORDINARY HAZARD. LIGHT HAZARD AREAS (IE. GENERAL POPULATION, OFFICES, RESTROOM, ETC.) SHALL BE PROVIDED WITH A SPRINKLER DENSITY OF 0.10GPM/1500SQFT. ORDINARY HAZARD GROUP I AREAS (IE STORAGE ROOMS, MECHANICAL ROOMS, ETC.) SHALL BE PROVIDED WITH A SPRINKLER DENSITY OF 0.15GPM/1500SQFT. AREA REDUCTION METHOD SHALL NOT BE APPLIED. COORDINATE ALL REQUIRED SPRINKLER DENSITIES WITH THE OWNERS INSURANCE
- M. ALL SPRINKLER PIPING SHALL BE INSTALLED AND SUPPORTED IN ACCORDANCE WITH ALL APPLICABLE NFPA, STATE, AND LOCAL REQUIREMENTS. REFER TO STATE BUILDING CODE FOR ALL INFORMATION RELATED TO THE SEISMIC DESIGN CATEGORIES.
- N. COORDINATE ALL SPRINKLER PIPE ROUTINGS WITH ALL ELECTRICAL EQUIPMENT.
- O. PROVIDE SPRINKLER COVERAGE BELOW THE LOWEST LEVEL OF STAIR RISER/TREADS.
- P. ALL AREAS HAVING CEILINGS SHALL BE PROVIDED WITH CONCEALED STYLE SPRINKLERS.
- Q. ALL AREAS HAVING NO CEILINGS SHALL BE PROVIDED WITH UPRIGHT OR SIDEWALL TYPE SPRINKLERS.
- R. COLOR FINISHES OF ALL SPRINKLERS/ESCUTCHEONS/COVER PLATES SHALL BE COORDINATED WITH ARCHITECT.
- S. ARCHITECTURAL REFLECTED CEILING PLANS SHALL BE UTILIZED AS AN AID IN LOCATING SPRINKLERS BUT DOES NOT RELIEVE THE SPRINKLER CONTRACTOR FROM PROVIDING A FULLY PROTECTED BUILDING SPRINKLER LAYOUT. CONTRACTOR SHALL ALSO COORDINATE ALL SPRINKLER LOCATION WITH ALL TRADE DRAWINGS (LIGHTING, FIRE ALARM, SECURITY, HVAC, ETC.)
- COORDINATE LOCATIONS OF THE FOLLOWING FIRE PROTECTION APARATUS' WITH CIVIL ENGINEER & THE LOCAL FIRE DEPARTMENT PRIOR TO INSTALLATION: FIRE DEPARTMENT CONNECTION (F.D.C.), FIRE PUMP TEST HEADER (F.P.T.H.), POST INDICATOR VALVE (P.I.V.), FIRE ALARM BELLS, ETC. COORDINATION SHALL ALSO INCLUDE VERIFICATION OF ALL HOSE CONNECTION SIZES, THREAD TYPES.
- J. ALL SPRINKLER DRAIN PIPING SHALL BE DISCHARGED TO THE BUILDING EXTERIOR AT AN APPROVED LOCATION OR TO A
- BUILDING DRAIN CAPABLE OF HANDLING FULL FLOW. V. ALL SPRINKLERS LOCATED IN IDF/MDF, AND ELECTRICAL ROOMS SHALL BE HIGH TEMPERATURE SPRINKLERS WITH PROTECTIVE
- W. ALL EXPOSED PIPING SHALL BE PAINTED TO MATCH SURFACE COLORS. COORDINATE ALL COLORS WITH ARCHITECT.

SHERMA CARTER BARNHA ARCHITECTS





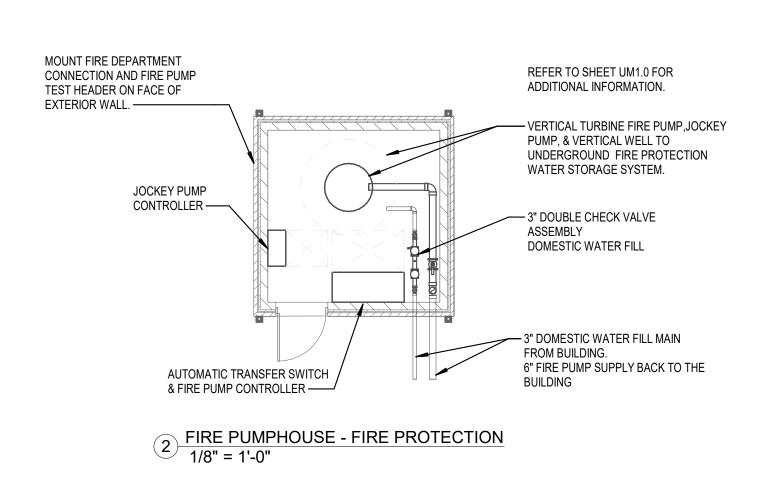


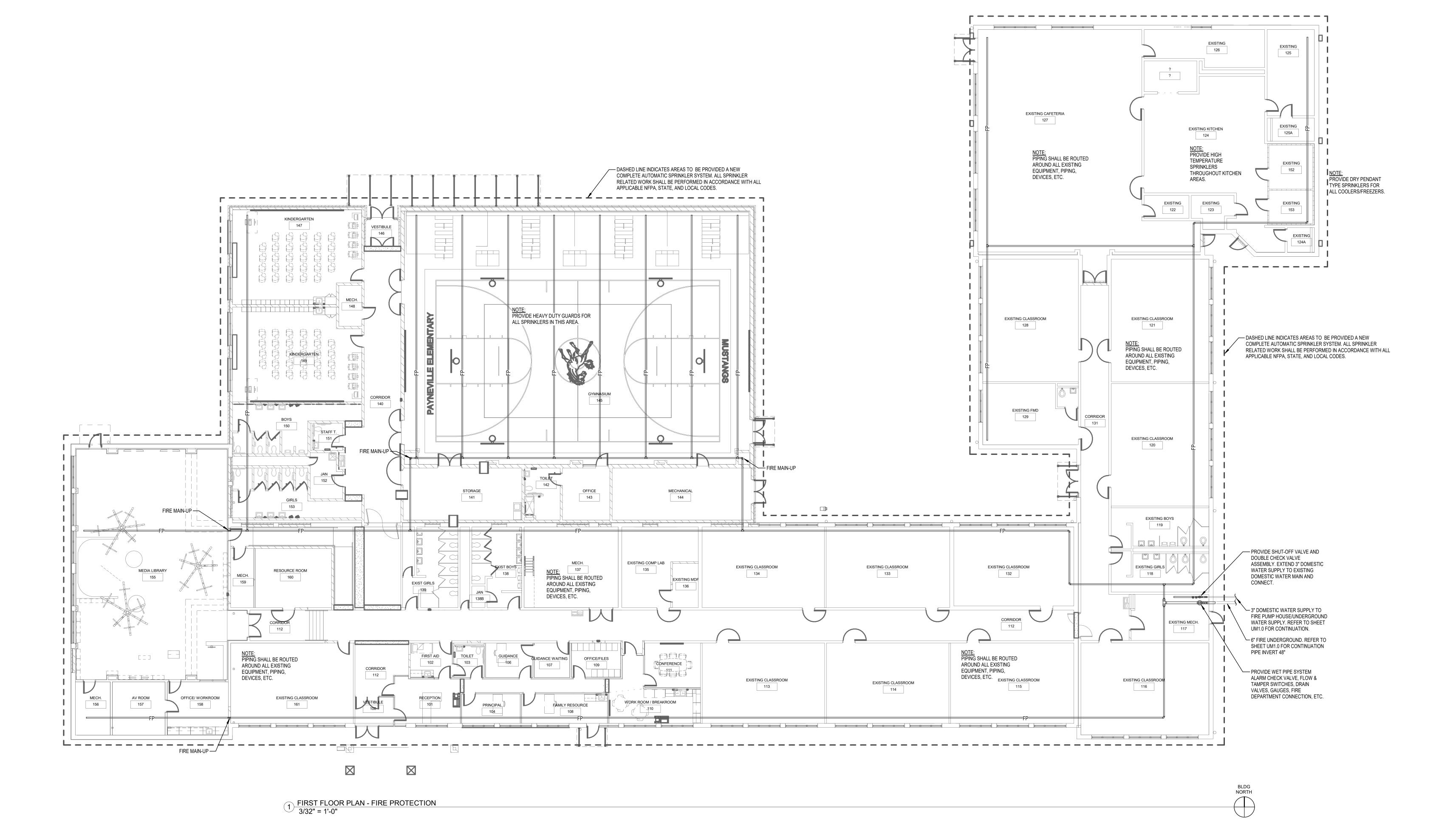


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THERMOSTATIC MIXING VALVE						
TAG	TMV-1					
MANUFACTURER	BRADLEY CORP.					
MODEL	NRS-13-RP5-R1-AQ-H					
MIN. FLOW (GPM)*	4.0					
MAX. FLOW (GPM)	58.0					
PRESSURE DROP AT MAX. FLOW (PSI)	10					

 $^{\star}$  MINIMUM FLOW OF 0.5 GPM WHEN PROVIDED WITH A CONTINUOUSLY OPERATING RECIRC. PUMP

WILKINS TANKS TO BE ASME RATED.

## ELECTRIC TANK WATER HEATER

TAG	DWH-1
MANUFACTURER	A.O. SMITH
MODEL	DVE-52
GALLONS	50
KW	9
ELEMENTS	(3) 3,000 watt
GPH RECOVERY @ 77° F	53 GPH @ 70°
VOLTAGE / MAX FUSE	208V / 1ph / 43 AMPS
ASME RATED	YES
UL LISTED	YES
ASHRAE 90.1 COMPLIANT	YES

NOTES:

\* EQUAL WATER HEATER BY LOCHINVAR, STATE, BOCK

\* REFER TO MANUFACTURERS RECOMMENDED PIPING DIAGRAMS FOR ADDITIONAL INFORMATION.

## GENERAL SCOPE NOTES:

CONTRACTOR SHALL REPAIR OR REPLACE ANY PIPING

INSULATION DAMAGED DURING DEMOLITION WORK.

7. ALL PIPING INSTALLED SHALL BE IDENTIFIED AS DOMESTIC

8. CMTA, INC., CONSULTING ENGINEERS, HAVE NO EXPERTISE

THEREOF WILL NEITHER OFFER NOR MAKE ANY

9. PRO PRESS PIPING SYSTEMS BY VIEGA ARE AN ACCEPTABLE

PROVIDE A 50 YEAR PARTS AND 5 YEAR LABOR WARRANTY

ALTERNATE FOR THE FOLLOWING PIPING SYSTEMS:

WHICH INCLUDES CONSEQUENTIAL DAMAGES.

10. CONTRACTOR SHALL SAW CUT EXISTING CONCRETE FLOOR

AS REQUIRED TO PERFORM WORK INDICATED ON THE

MATCH ADJACENT SURFACES. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDITIONAL PATCHING

PLANS. FLOORS SHALL BE PATCHED AS REQUIRED TO

OR DISPOSAL OF SUCH MATERIAL

- DOMESTIC WATER

METHOD.

- DOMESTIC HOT WATER

COLD WATER (D.C.W.), AND DOMESTIC HOT WATER (D.H.W.).

IN THE DETERMINATION OF THE PRESENCE OF HAZARDOUS

MATERIALS. THEREFORE, NO ATTEMPT HAD BEEN MADE BY

THEM TO IDENTIFY THE EXISTENCE OR LOCATION OF ANY

SUCH MATERIAL. FURTHERMORE, CMTA NOT ANY AFFILIATE

RECOMMENDATIONS RELATIVE TO THE REMOVAL, HANDLING

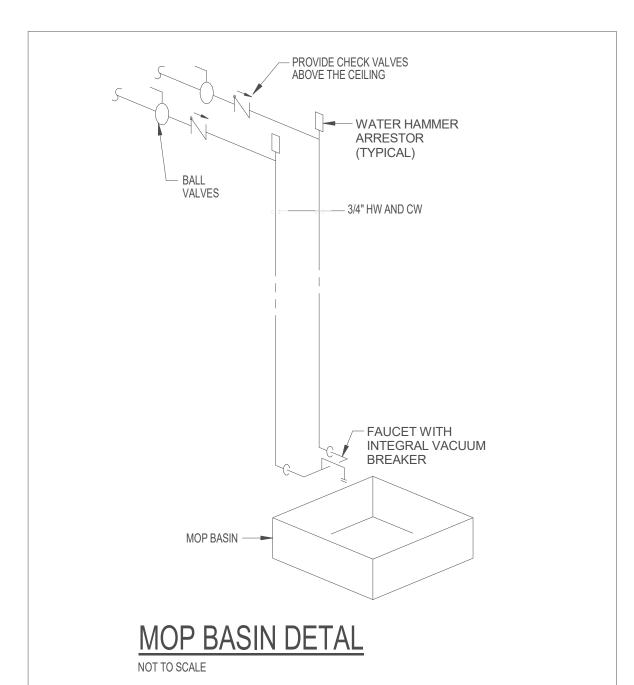
- EACH CONTRACTOR/SUPPLIER SHALL INFORM THEIR SELF OF ALL OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, THE SITE OF THE WORK, THE OBSTACLES THAT MAY BE ENCOUNTERED, THE AVAILABILITY AND LOCATION OF NECESSARY FACILITIES AND ALL RELEVANT MATTERS CONCERNING THE WORK. EACH CONTRACTOR/SUPPLIER SHALL ALSO FULLY ACQUAINT THEIR SELF WITH ALL EXISTING CONDITIONS AS TO INGRESS AND EGRESS, DISTANCE OF HAUL FROM SUPPLY POINTS, ROUTES FOR TRANSPORTATION OF MATERIALS, FACILITIES AND SERVICES, AVAILABILITY OF UTILITIES, ETC. EACH CONTRACTOR/SUPPLIER SHALL COVER ALL EXPENSES OR DISBURSEMENTS IN CONNECTION WITH SUCH MATTERS AND CONDITIONS. NO ALLOWANCE WILL BE MADE FOR LACK OF KNOWLEDGE CONCERNING SUCH CONDITIONS AFTER BIDS ARE ACCEPTED.
- 2. THE EXISTING PLUMBING SYSTEMS WILL BE IN KEPT IN SERVICE DURING THE TIME OF CONSTRUCTION. THIS CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING THE EXISTING PLUMBING SYSTEMS FROM DAMAGE.
- 3. WHERE WORK IS REQUIRED ABOVE EXISTING CEILINGS
  AND/OR OUTSIDE OF WORKSCOPE AREA, CONTRACTORS
  SHALL BE RESPONSIBLE FOR CUT, PATCH, REMOVAL, AND
  REINSTALLATION (OR REPLACEMENT IF DAMAGED) OF ALL
  CEILING TILES AND GRID MEMBERS NECESSARY TO
  PERFORM THIS WORK. COORDINATE CLOSELY WITH
  ARCHITECT, OWNER AND FACILITIES ENGINEER. REFER TO
  ARCHITECTURAL DRAWINGS FOR NEW CEILING LOCATIONS.
- 4. CONTRACTOR SHALL CLEAN UP CONSTRUCTION DEBRIS DURING AND AFTER PLUMBING EQUIPMENT DEMOLITION.
- 5. CONTRACTOR SHALL DISPOSE OF REMOVED PLUMBING EQUIPMENT AND COORDINATE WITH THE OWNER.

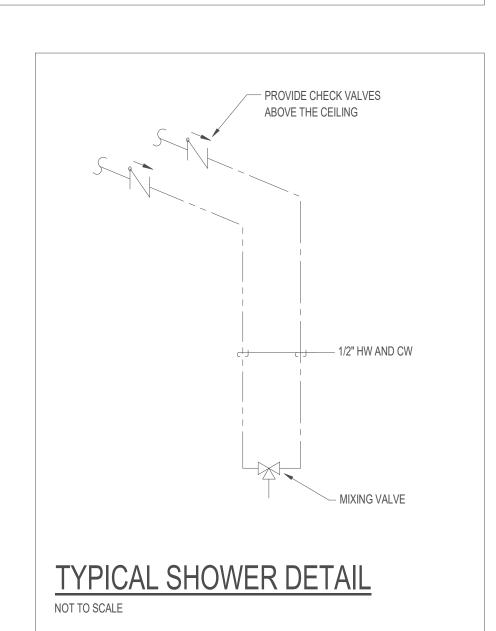
#### PLUMBING FIXTURE SCHEDULE

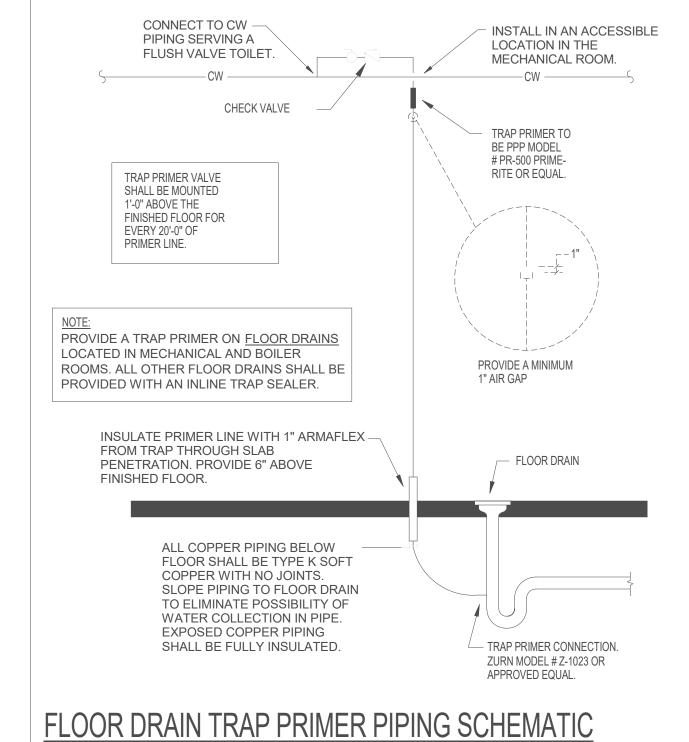
DESIGNATOR	FIXTURE	CW	HW	SAN	VENT
P-1	WATER CLOSET - WALL HUNG, SENSOR OPERATED FLUSH VALVE	11/4"		4"	2"
P-1A	WATER CLOSET - WALL HUNG, SENSOR OPERATED FLUSH VALVE, ADA	1 1/4"		4"	2"
P-2	LAVATORY - WALL HUNG, PUSH BUTTON METERING FAUCET	1/2"	1/2"	11/2"	11/2"
P-2A	LAVATORY - WALL HUNG, PUSH BUTTON METERING FAUCET, ADA	1,"	1/2"	11/2"	11/2"
P-2B	LAVATORY - WALL HUNG, FAUCET WITH WRIST BLADE HANDLES, ADA	1/2"	1/2"	11/2"	11/2"
P-3	URINAL - WALL HUNG, SENSOR OPERATED FLUSH VALVE	1"		2"	11/2"
P-3A	URINAL - WALL HUNG, SENSOR OPERATED FLUSH VALVE, ADA	1"		2"	11/2"
P-4	ONE COMPARTMENT SINK - GOOSENECK FAUCET WITH WRIST BLADE HANDLES, ADA	1/2"	1/2"	11/2"	11/2"
P-4A	TWO COMPARTMENT SINK - GOOSENECK FAUCET WITH WRIST BLADE HANDLES, ADA	34"	3,"	2"	11/2"
P-4B	ONE COMPARTMENT SINK - GOOSENECK FAUCET WITH WRIST BLADE HANDLES, BUBBLER, ADA	1/2"	1/2"	11/2"	11/2"
P-5	30"X60" SHOWER, TRANSITIONAL ROLL IN, SHOWER CONTROLS, 2 SHOWERHEADS, ADA	34"	34"	2"	11/2"
P-6	MOP BASIN, FLOOR SET, 24" x 24"	34"	34"	3"	11/2"
P-7	BI-LEVEL DRINKING FOUNTAIN WITH BOTTLE FILLER STATION, REPLACE EXISTING, ADA	34"	34"	2"	11/2"
P-8	ICE MAKER CONNECTION BOX, RECESSED, MINI-ROUND	1/2"			
НВ	HOSE BIBB, RECESSED	1/2"			
FPWH	FROST PROOF WALL HYDRANT, RECESSED, LOCKABLE	34"			
FD-1	TOILET ROOM FLOOR DRAIN. PROVIDE WITH A TRAP PRIMER OR TRAP SEAL DEVICE.	1/2"		3"	11/2"
FD-2	MECHANICAL ROOM FLOOR DRAIN. PROVIDE WITH A TRAP PRIMER OR TRAP SEALER DEVICE.	1/2"		3"	11/2"

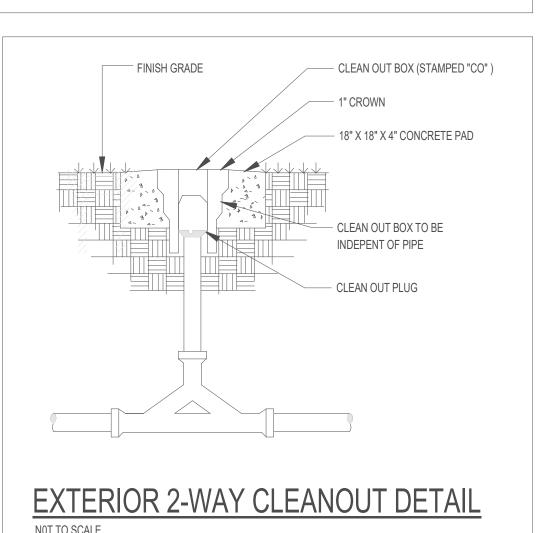
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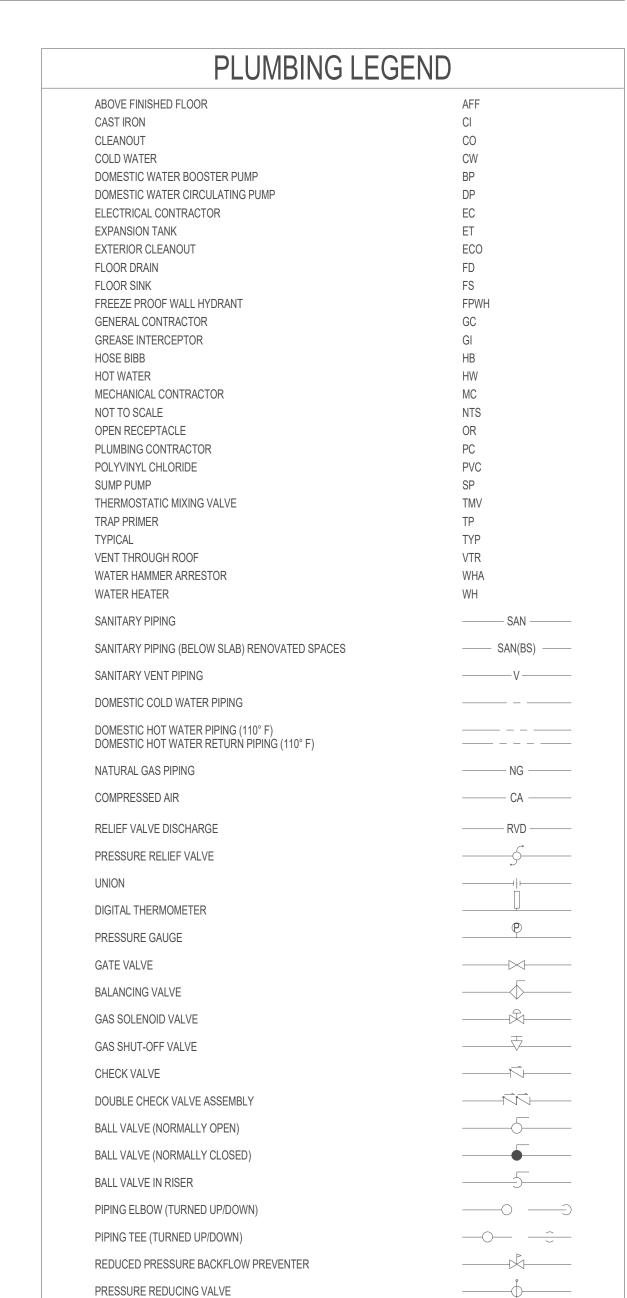
- PIPE SIZES ARE AS INDICATED UNLESS OTHERWISE NOTED ON FLOOR PLANS AND RISER DIAGRAMS.
- MINIMUM 2" SANITARY PIPING UNDERGROUND.
- PROVIDE ALL REQUIRED PIPING TO FIXTURES INDICATED ON THE FLOOR PLANS, INDICATED WITH A "P" DESIGNATION. PROVIDE PIPING OF SIZE INDICATED IN THIS SCHEDULE.
- PIPE ALL EQUIPMENT (SUPPLIED BY OTHERS) AS REQUIRED TO OBTAIN A FULL AND OPERATIONAL SYSTEM.
   PROVIDE BACKFLOW PROTECTION AS/IF REQUIRED BY THE DETAILS AND BY THE KENTUCKY PLUMBING CODE.
- PROVIDE BACKFLOW PROTECTION AS/IF REQUIRED BY THE DETAILS AND BY THE KENTUCKY PLUMBING CODE.
  ALL EQUIPMENT SHALL BE CONNECTED PER THE MANUFACTURER'S REQUIREMENTS. THE PLUMBING CONTRACTOR
  SHALL ALSO INSTALL ANY DRAIN PIPING CONNECTIONS AND SPILL INDIRECTLY TO EITHER AN OPEN RECEPTACLE
  OR FLOOR DRAIN. REFER TO ARCHITECTURAL PLANS FOR EXACT PLACEMENT OF ALL EQUIPMENT.











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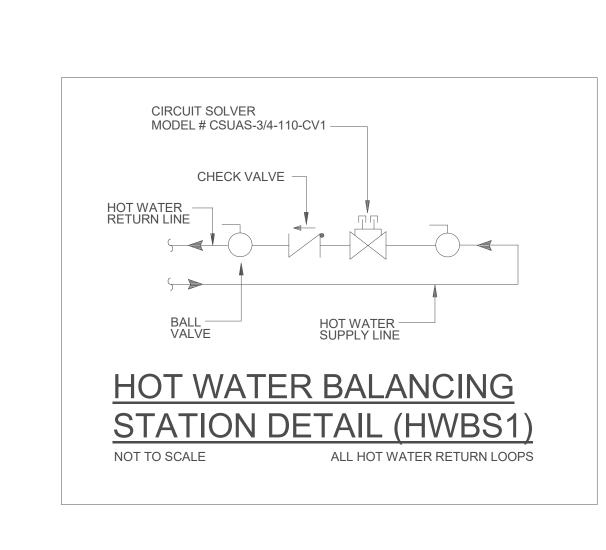
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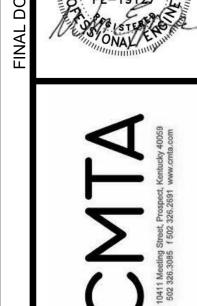
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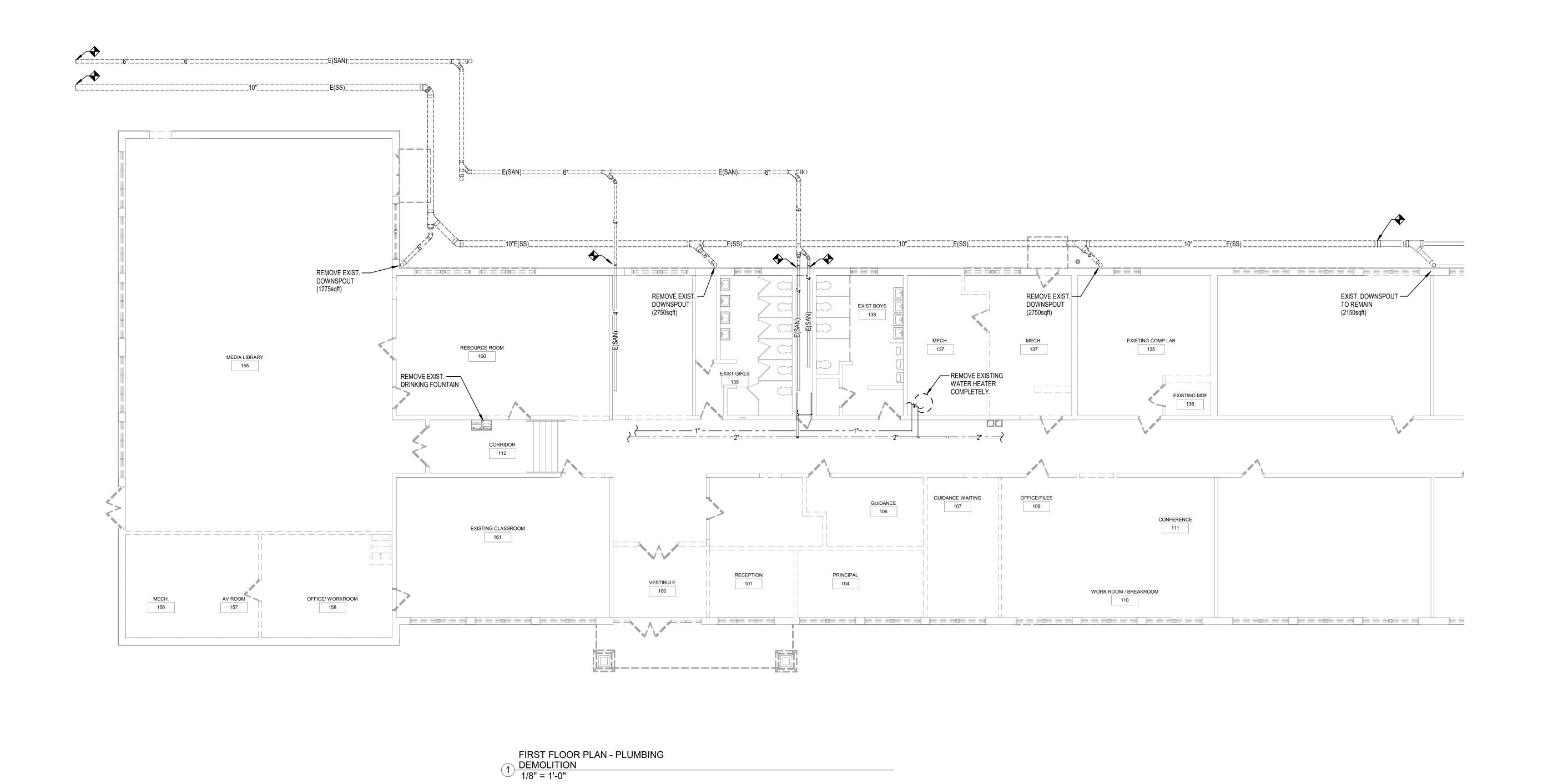
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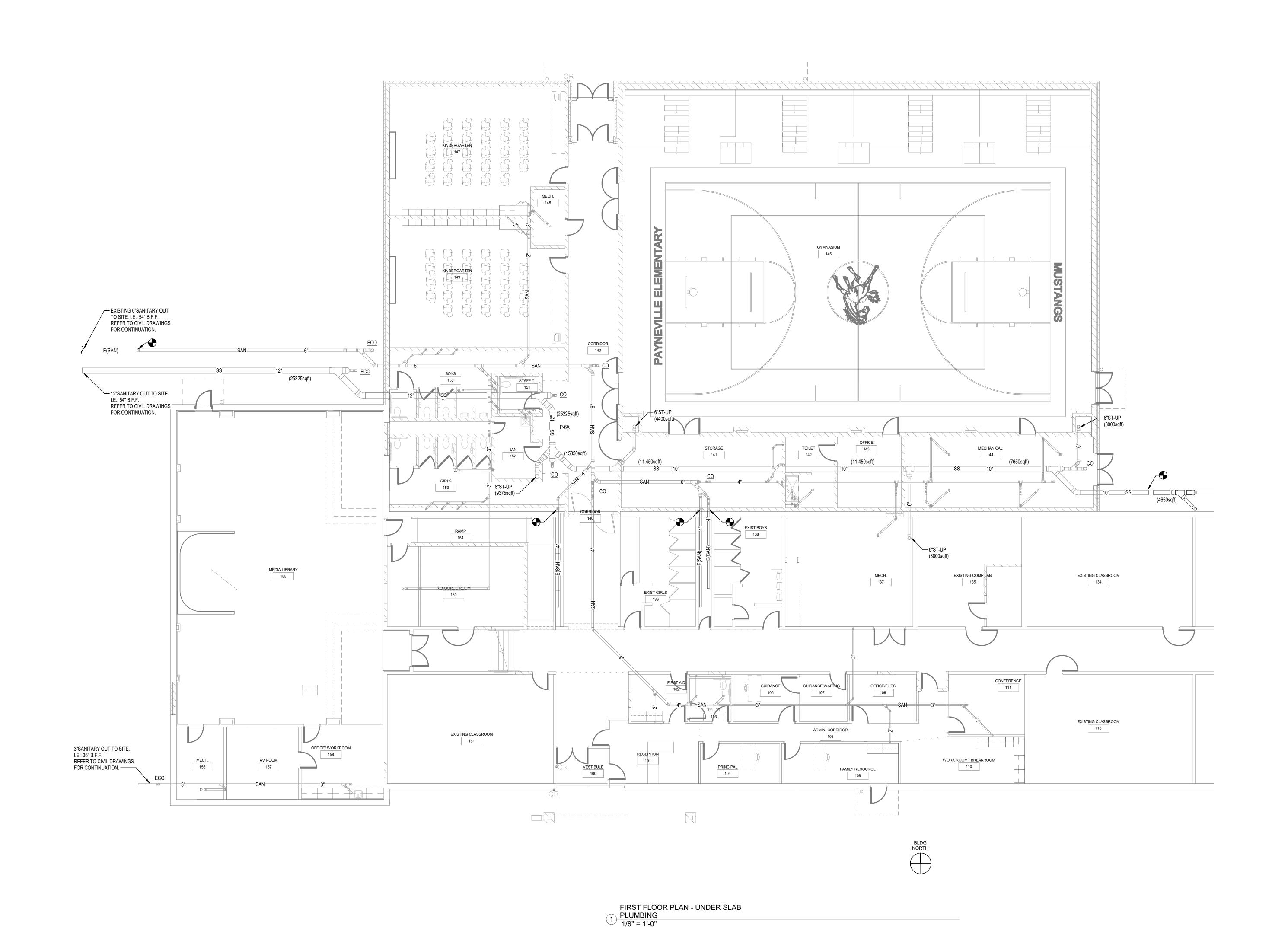
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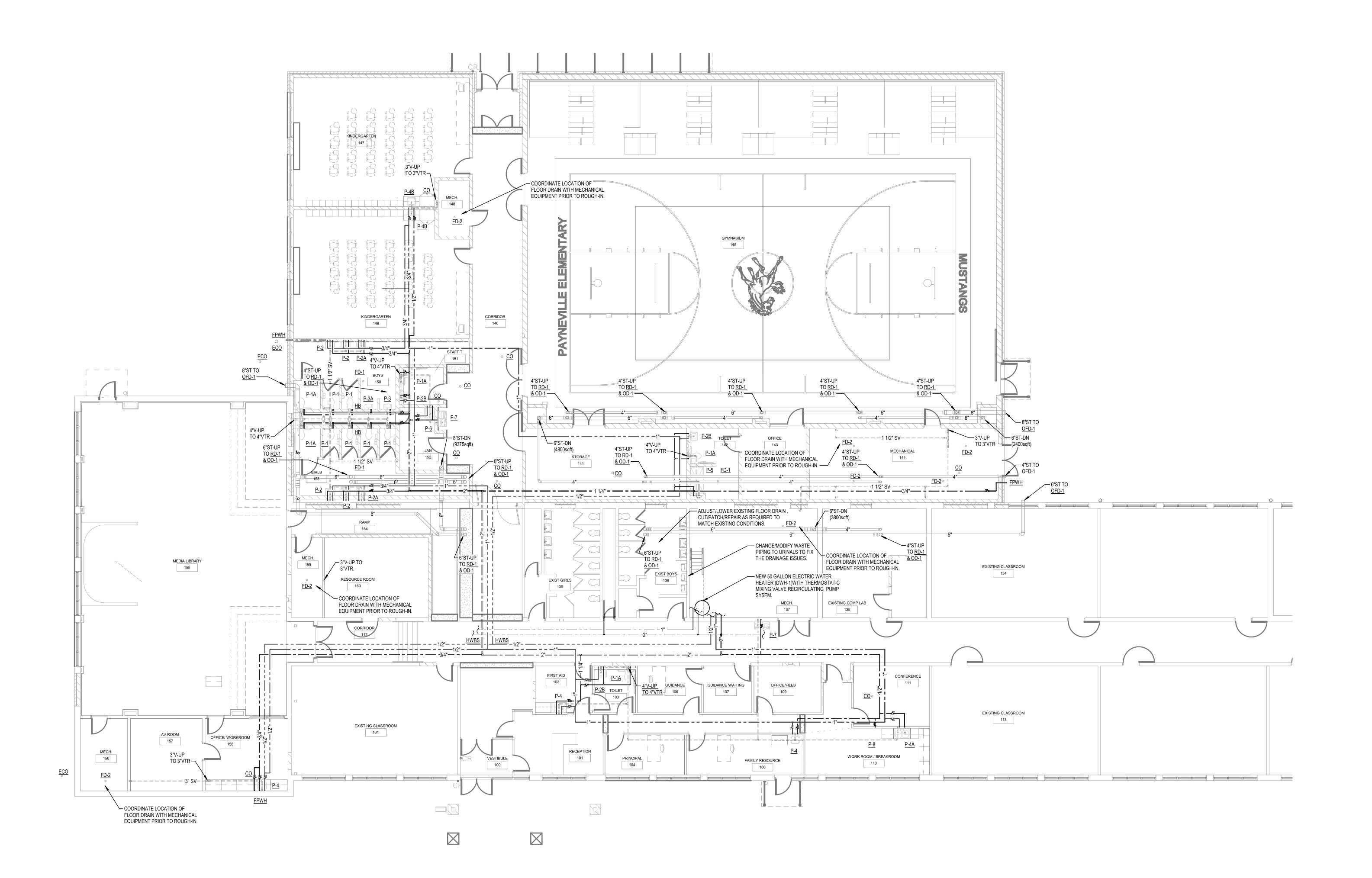
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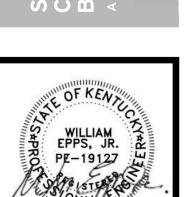
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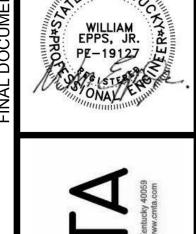


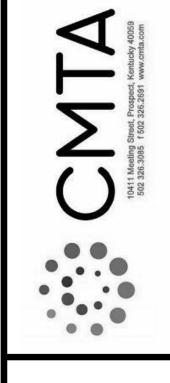


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- SYSTEMS. VERIFY SAME WITH SHOP DRAWINGS.

  2 PROVIDE FIRE DAMPERS AT ALL FIRE WALLS. MINIMUM DUCT GUAGE TO BE 24 GUAGE AND SHEET METAL CONSTRUCTION TO THE DIFFUSER/GRILLE.
- OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS (CITY, COUNTY, LOCAL, STATE, FEDERAL, MUNICIPALITY, UTILITY COMPANY, OSHA, ETC.) REFER TO SPECIFICATION 230 100.
   ALL SYSTEMS, EQUIPMENT AND MATERIALS ARE TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. WORK NOT DONE SO SHALL BE REMOVED AND REINSTALLED SATISFACTORILY.
- WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE CONSTRUCTION MANAGER BEFORE INSTALLATION. REFER ALSO TO ARCHITECTURAL WALL INTERIOR AND EXTERIOR WALL ELEVATIONS, CEILING HEIGHTS AND OTHER DETAILS OF THESE DOCUMENTS. REFER TO SPECIFICATIONS. COORDINATION DRAWINGS REQUIRED.
- 6 DO NOT SCALE FROM DRAWINGS, PRINTING DISTORTS SCALE. WORK SHALL BE LAID OUT FROM DIMENSIONED DRAWINGS, OR DIMENSIONS SUPPLIED TO THE CONTRACTOR.
- 7 THE CONTRACTOR.

  7 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR THEIR WORK. ALL CUTTING AND PATCHING SHALL MATCH ADJACENT SURFACES. REFER TO ARCHITECTURAL
- DRAWINGS FOR ADDITIONAL INFORMAITON.

  8 TURNING VANES SHALL BE INSTALLED IN ALL SUPPLY, RETURN, AND EXHAUST DUCT WORK ELBOWS. TURNING VANES SHALL NOT BE INSTALLED FOR KITCHEN EXHAUST DUCTS.
- KNOWLEDGE, HOWEVER LOCATIONS, ELEVATIONS AND SIZES SUBJECT TO DEVIATION. THE CONTRACTOR SHALL ASSUME SOME DEVIATIONS AND INCLUDE OFFSETS, ADDITIONAL PIPING, ETC. AT THE TIME OF BID.

  10 ALL BRANCH CONNECTIONS TO BE LOW LOSS, FLARED CONNECTIONS A MINIMUM OF 6" WIDER AND 2" DEEPER THAN BRANCH DUCTWORK, IN DIRECTION OF AIR FLOW UTILIZING 30° ANGLE. ALL PLENUM CONNECTIONS TO BE LOW LOSS, FLARED CONNECTIONS A MINIMUM OF 12" WIDER (6" EACH SIDE) AND 6" DEEPER (3" EACH SIDE) THAN THE

CONNECTION DUCTWORK.

THROUGH JOISTS.

9 THESE DRAWINGS ARE ACCURATE TO THE BEST OF THE ENERINEER'S

- 11 CONTRACTOR SHALL INCLUDE COORDINATION DRAWINGS (REFER TO SPECIFICATIONS). COORDINATION OF ALL BUILDING SYSTEMS WHICH INCLUDES ALL TRADES WITH SUFFICIENT DETAILS FOR COMPLETE HVAC SYSTEM INSTALLATION. CONTRACTOR SHALL PROVIDE ALL OFFSETS, TURNS, FITTINGS, TRIM, DETAIL, ETC., (WHICH MAY NOT BE INDICATED) AS NECESSARY FOR A COMPLETE MECHANICAL SYSTEM. ADDITIONAL ALLOWANCES SHALL BE INCLUDED FOR SAME AT EACH PROPOSER'S DISCRETION. NO ADDITIONAL COSTS WILL BE ALLOWED FOR COORDINATION OF SYSTEMS. NOTE: AT SEVERAL LOCATIONS, DUCTWORK IS LOCATED UP IN THE STEEL, ROTE BETWEEN BEAMS AND
- WHERE PENETRATION ROOFING MEMBRANE OR OTHER MATERIALS USED FOR WEATHERPROOFING THE BUILDING, MAKE SUCH PENETRATIONS IN A WAY THAT WILL NOT VOID OR DIMINISH THE ROOFING WARRANTY OR INTEGRITY IN ANY WAY. COORDINATE ALL SUCH PENETRATIONS WITH THE GENERAL CONTRACTOR/ROOFER.
- ADVISE THE CONSTRUCTION MANAGER, ARCHITECT AND ENGINEER OF ANY CONFLICTS, ERRORS, OMISSIONS, ETC. AT LEAST TEN DAYS PRIOR TO BID DATE, TO ALLOW CLARIFICATION BY WRITTEN ADDENDUM. DEVIATION FROM SPECIFICATIONS OR PLANS REQUIRES PRIOR WRITTEN APPROVAL FROM THE OWNERS REPRESENTATIVES AND MUST BE SUBMITTED IN WRITING NO LATER THAN TEN DAYS PRIOR TO THE BID DATE. AFTER THIS DATE, THE ENGINEER WILL PROVIDE AN INTERPRETATION FOR THE SCOPE TO BE PROVIDED WITHOUT ADDITIONAL COST TO THE PROJECT.
- 14 COORDINATE THE LOCATION OF DRAINS, ELECTRICAL OUTLETS, ETC. WITH ALL MECHANICAL ROOM EQUIPMENT ETC. PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE RESPONSIBLE CONTRACTOR(S).
- 15 THE PURPOSE AND INTENT OF ALL THE DOCUMENTS PERTAINING TO THIS PROJECT IS TO PROVIDE A COMPLETE, FUNCTIONAL, AND SAFE FACILITY. CONTRACTOR TO PROVIDE ALL SCOPE AS REQUIRED TO MEET THE PURPOSE AND INTENT, ANYTHING LESS SHALL BE UNACCEPTABLE.
- 16 ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTOR'S EXPENSE. THE FINAL DECISION ON THE SUITABILITY OF A PARTICULAR INSTALLATION SHALL BE THAT OF THE CONTRACTING OFFICER'S REPRESENTATIVE.
- 17 INSTALL EQUIPMENT, MATERIALS, ETC. IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND DIRECTIONS. IF IN CONFLICT WITH THE DESIGN INDICATED IN CONTRACT DOCUMENTS, ADVISE THE CONTRACTING OFFICER'S REPRESENTATIVES PRIOR TO INSTALLATION FOR CLARIFICATION.

18 ALL SUPPORTS FOR EQUIPMENT, DEVICES, OR FIXTURES SHALL BE

UNIQUE, FROM THE BUILDING STRUCTURE. DO NOT SUPPORT WORK FROM OTHER TRADES, EQUIPMENT OR SUPPORTS WITHOUT WRITTEN PERMISSION FROM THE CONTRACTING OFFICER'S REPRESENTATIVE AND CONSENT OF THE OTHER TRADE, IN WRITING.

19 DEVIATIONS IN SIZE, CAPACITIES, FIT, FINISH, ETC. FOR EQUIPMENT FROM THAT PRIME SPECIFIED SHALL BE THE RESPONSIBILITY OF THE

PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO

- ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE CONTRACTING OFFICER'S REPRESENTATIVES OR NOT. SHALL BE THE RESPONSIBILITY OF THE PURCHASER.

  20 THE CONSTRUCTION MANAGER FOR THIS CONSTRUCTION IS RESPONSIBLE FOR THE COORDINATION, APPEARANCE, SCHEDILING
- 20 THE CONSTRUCTION MANAGER FOR THIS CONSTRUCTION IS
  RESPONSIBLE FOR THE COORDINATION, APPEARANCE, SCHEDULING
  AND TIMELINESS OF THE WORK OF ALL TRADES, CONTRACTORS,
  SUPPLIERS, INSTALLERS, ETC.
  21 DESIGN HAS BEEN COORDINATED TO PREVENT EQUIPMENT FROM
- BEING LOCATED ABOVE HARD CEILINGS. MECHANICAL/ELECTRICAL ITEMS SHALL NOT BE LOCATED ABOVE A HARD CEILING. IF THIS IS NOT POSSIBLE, THEN AN APPROPRIATELY SIZED ACCESS DOOR (24"x24" MIN.) SHALL BE PLACED UNDER THE ITEM TO ALLOW EASY MAINTENANCE AND ADJUSTMENT BY THIS CONTRACTOR.

  22 THE MECHANICAL CONTRACTOR AND ALL OTHER CONTRACTORS SHALL
- 22 THE MECHANICAL CONTRACTOR AND ALL OTHER CONTRACTORS SHA ENSURE PROPER COORDINATION BETWEEN ALL TRADES SUCH THAT CONDUITS, PIPING DUCTWORK, ETC. DO NOT BLOCK ACCESS TO VALVES, EQUIPMENT, DUCT ACCESS DOORS, ETC. ITEMS THAT HAVE BEEN INSTALLED WHERE ACCESS IS COMPROMISED SHALL BE RELOCATED AT THE CONTRACTOR'S EXPENSE.
- 23 THE CONTRACTOR SHALL INCLUDE IN THEIR BID ALL COSTS ASSOCIATED WITH DRAINING AND FILLING/ RE-FILLING PIPING SYSTEMS AS REQUIRED TO INSTALL THEIR NEW WORK, PURGE AND FINAL INSTALLATION/ START-UP OF THE SYSTEM.
- TEST AND BALANCE AGENCY IS TO PROVIDE VARIABLE SPEED DRIVE SETTINGS AS PART OF BALANCING. TAB AGENCY IS ALSO TO PROVIDE STATIC PRESSURE SENSOR SET POINTS AS NECESSARY FOR BALANCED AIR FLOW RATES. BALANCING DAMPERS ABOVE HARD CEILING SHALL BE LOCATED TO ALLOW ACCESS VIA LAY IN CEILING OR DIFFUSERS INSTALLATION SHALL BE REMOVABLE. VALVES LOCATED ABOVE HARD CEILINGS SHALL BE ACCESSIBLE VIA LAY IN CEILING OR ACCESS DOOR REQUIRED. (24"x24" MIN.)
- THE OUTSIDE AIR SYSTEM IS DESIGNED WITH A HIGH LEVEL OF DIVERSITY. ALL TERMINALS UNITS WILL NEED TO BE SET AT MINIMUM FLOW AND EACH SPACE (TERMINAL UNIT) BALANCED INDIVIDUALLY FOR THE DESIGN FLOW. THE RELIEF AIRFLOW FOR THAT SPACE SHALL BE THE RESULTANT AIRFLOW AVAILABLE (REMAINING AIRFLOW AFTER THE EXHAUST).
- PRIOR TO ORDERING ANY MATERIALS OR ROUGH-IN OF ANY KIND, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION OF ALL ELECTRICAL REQUIREMENTS (I.E. VOLTAGE, PHASE, CIRCUIT BREAKER, WIRE SIZING, ETC.) WITH THE ELECTRICAL CONTRACTOR. THERE WILL BE NO CHANGE IN THE CONTRACT AMOUNT FOR ANY DISCREPANCIES. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER CONTRACTORS, VENDORS, AND SUPPLIERS AND SHALL INSURE COMPLETE, 100% FUNCTIONAL, TESTED, INSPECTED, AND APPROVED SYSTEMS. CLAIMS FOR ADDITIONAL COST OR CHANGE ORDERS WILL IMMEDIATELY BE REJECTED.
- 27 SEISMIC DESIGN DELEGATED WITH SEISMIC DESIGN CRETERIA B; AT MINIMUM, CONTRACTOR TO PROVIDE EQUIPMENT BRACING. EQUIPMENT BRACING SHALL BE INCLUDED FOR EQUIPMENT WEIGHING 31 POUNDS OR MORE (EXCLUDING DISTRIBUTED SYSTEMS SUCH AS PIPING, ETC.). BRACING WILL BE ACCOMPLISHED BY EITHER REGID OR FLEXIBLE SYSTEMS. ALL EQUIPMENT MOUNTINGS WILL BE DESIGNED TO RESIST FORCES OF 0.5 TIMES THE EQUIPMENT WEIGHT IN ANY DIRECTION AND 1.5 TIMES THE EQUIPMENT WEIGHT IN THE DOWNWARD DIRECTION. ALL BRACING SHALL BE CONTRACTOR DESIGNED.
- 28 PROJECT INCLUDES COMMISSIONING: COORDINATE ALL SCOPE, TRAINING, START-UP AND COMPLETE SYSTEM OPERATION. CONTRACTOR IS RESPONSIBLE FOR COMMISSIONING THE SYSTEMS AS SPECIFIED. REFER TO COMMISSIONING SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ADJ ADJUSTABLE  AFF ABOVE FINISHED FLOOR  AFR ABOVE FINISHED ROOF  AFUE ANNUAL FUEL UTILIZATION EFFICIENCY  AHJ AUTHORITY HAVING JURISDICTION  AMP AMPERE (AMP, AMPS)  ANSI AMERICAN NATIONAL STANDARD INSTITUTE  APD AIR PRESSURE DROP  ASHRAE AMERICAN SOCIETY OF HEATING, REFRIGERATION, AAIR-CONDITIONING ENGINEERS	
AFR ABOVE FINISHED ROOF  AFUE ANNUAL FUEL UTILIZATION EFFICIENCY  AHJ AUTHORITY HAVING JURISDICTION  AMP AMPERE (AMP, AMPS)  ANSI AMERICAN NATIONAL STANDARD INSTITUTE  APD AIR PRESSURE DROP  ASSLIBATE AMERICAN SOCIETY OF HEATING, REFRIGERATION, A	
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ANSI AMERICAN NATIONAL STANDARD INSTITUTE  APD AIR PRESSURE DROP  ASHDAE AMERICAN SOCIETY OF HEATING, REFRIGERATION, A	
APD AIR PRESSURE DROP  ASHDAE AMERICAN SOCIETY OF HEATING, REFRIGERATION, A	
ASHDAE AMERICAN SOCIETY OF HEATING, REFRIGERATION, A	
	V NID
	AIND
ATU AIR TERMINAL UNIT	
AVG AVERAGE	
BAS BUILDING AUTOMATION SYSTEM	
BHP BREAK HORSEPOWER	
BTU BRITISH THERMAL UNIT	
CAP CAPACITY	
CAV CONSTANT AIR VOLUME	
CD CONDENSATE DRAIN	
CFM CUBIC FEET PER MINUTE	
C.I. CAST IRON	
CLG CEILING	
CLR CLEAR	
CO CARBON MONOXIDE	
CO2 CARBON DIOXIDE	
COND CONDENS (-ER, -ING, -ATION, -ATE)	
CONT CONTINU (-ED, -OUS)	
CU FT CUBIC FEET	
CU IN CUBIC INCHES	
CV VALVE FLOW COEFFICIENT	
dB DECIBEL	
DB DRY BULB	
DBT DRY BULB TEMPERATURE	
DC DIRECT CURRENT	
DD DUCT SMOKE DETECTOR	
DDC DIRECT DIGITAL CONTROLS	
DEG DEGREE (-S)	
DIA DIAMETER (-S)	
DN DOWN	
DWG DRAWING	
EAT ENTERING AIR TEMPERATURE	
EC ELECTRICAL CONTRACTOR	
ELEV ELEVA (-TION, -TOR)	
ENGR ENGINEER	
EQ EQUAL	
ESP EXTERNAL STATIC PRESSURE	
ETR EXISTING TO REMAIN	
EVAP EVAPORAT (-E, -ING, -ED, -OR, -ION)	_
EWT ENTERING WATER TEMPERATURE	
EXP EXPANSION	
EXT EXTERIOR	

## HAZARDOUS MATERIALS NOTES

INFORMATION.

- A. THE CONTRACTOR IT IS HEREBY ADVISED THAT IS POSSIBLE THAT
  ASBESTOS AND/OR OTHER HAZARDOUS MATERIALS ARE OR WERE PRESENT
  IN THIS BUILDING(S). ANY WORKER, OCCUPANT, VISITOR, ETC., WHO
  ENCOUNTERS ANY MATERIAL OF WHOSE CONTENT THEY ARE NOT CERTAIN
  SHALL PROMPTLY REPORT THE EXISTENCE AND LOCATION OF THAT
  MATERIAL TO THE OWNER. FURTHERMORE, THE CONTRACTOR SHALL
  INSURE THAT NO ONE COMES NEAR TO OR IN CONTACT WITH ANY SUCH
  MATERIAL OR FUMES THEREFROM UNTIL ITS CONTENT CAN BE
- ASCERTAINED TO BE NON-HAZARDOUS.

  B. CMTA, INC. HAS NO EXPERTISE IN THE DETERMINATION OF THE PRESENCE OF ANY HAZARDOUS MATERIAL. THEREFORE, NO ATTEMPT HAS BEEN MADE BY CMTA TO IDENTIFY THE EXISTENCE OR LOCATION OF ANY SUCH HAZARDOUS MATERIAL. FURTHERMORE, CMTA NOR ANY AFFILIATE HEREOF WILL NOT OFFER OR MAKE ANY RECOMMENDATIONS RELATIVE TO THE REMOVAL, HANDLING OR DISPOSAL OF SUCH MATERIAL.
- REMOVAL, HANDLING OR DISPOSAL OF SUCH MATERIAL.

  IF THE WORK WHICH IS TO BE PERFORMED INTERFACES, CONNECTS OR
  RELATES IN ANY PHYSICAL WAY WITH OR TO EXISTING COMPONENTS
  WHICH CONTAIN OR BEAR ANY HAZARDOUS MATERIAL, ASBESTOS BEING
  ONE, THEN IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO
  CONTACT THE OWNER AND SO ADVISE HIM/HER IMMEDIATELY.
- CONTACT THE OWNER AND SO ADVISE HIM/HER IMMEDIATELY.

  D. THE CONTRACTOR BY EXECUTION OF THE CONTRACT FOR ANY WORK AND/OR BY THE ACCOMPLISHMENT OF ANY WORK THEREBY AGREE TO BRING NO CLAIM RELATIVE TO HAZARDOUS MATERIALS FOR NEGLIGENCE, BREACH OF CONTRACT, INDEMNITY, OR ANY OTHER SUCH ITEM AGAINST CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS OR CONSULTANTS. ALSO, THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS AND CONSULTANTS HARMLESS FROM ANY SUCH RELATED CLAIMS WHICH MAY BE BROUGHT BY ANY SUBCONTRACTORS, SUPPLIERS OR ANY OTHER THIRD PARTIES.

  E. THE CONTRACTOR IS DIRECTED TO THE SPECIFICATIONS FOR FURTHER

	FPC	FIRE PROTECTION CONTRACTOR
	FPM	FEET PER MINUTE
	FPS	FEET PER SECOND
	FT	FEET <b>OR</b> FOOT
	FUT	FUTURE
	FV	FACE VELOCITY
	GA	GAGE/GAUGE
	GAL	GALLON (-S)
•	GC	GENERAL CONTRACTOR
•	GPD	GALLONS PER DAY
•	GPH	GALLONS PER HOUR
	GPM	GALLONS PER MINUTE
•	GR	GRAINS
	Н	HUMIDITY
•	HD	HEAD
	HG	MERCURY
•	HORIZ	HORIZONTAL
	HP	H (-ORSEPOWER, -EAT PUMP)
•	HR	HOUR (-S)
	HVAC	HEATING, VENTILATING, & AIR-CONDITIONING
	Hz	HERTZ
	ID	I (-DENTIFICATION, -NSIDE DIAMETER, -NSIDE DIMENSION)
	IN	INCH (-ES)
	INSUL	INSULAT (-ED, -ION)
	INT	INTER (-IOR, -ERVAL)
	IPS	IRON PIPE SIZE
	kW	KILOWATT
	kWh	KILOWATT HOUR
	LAT	LEAVING AIR TEMPERATURE
	LBS	POUNDS
	LF	LINEAR FEET/FOOT
	LRA	LOCKED ROTOR AMPS
	LWT	LEAVING WATER TEMPERATURE
	MAX	MAXIMUM
,	MBH	BTU PER HOUR [THOUSANDS]
	MCA	MINIMUM CIRCUIT AMPS
	MFG	MANUFACTURER
	MIN	MIN (-IMUM, -UTE)
,	MISC	MISCELLANEOUS
	MOCP	MAXIMUM OVERCURRENT PROTECTION [AMPS]
	MTG	MOUNTING
	N/A	NOT APPLICABLE
	NC	NOISE CRITERIA <b>OR</b> NORMALLY CLOSED
	NEBB	NATIONAL ENVIRONMENTAL BALANCING BUREAU
	NIC	NOT IN CONTRACT

ABBREVIATIONS (CONTINUED)

FULL LOAD AMPS

FLAT ON BOTTOM

FLAT ON TOP

FLOOR

FOB

FOT

- A. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR AREAS IN WHICH THE CEILING IS REMAINING. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE EXISTING CEILING AS REQUIRED AND REINSTALLATION. TEMPORARILY SUPPORT LIGHTS, DIFFUSERS, CEILING ETC. REPLACE BROKEN CEILING TILES WITH NEW AT NO ADDITIONAL COST TO OWNER. FIELED VERIFY EXACT REQUIREMENTS.

  B. ALL OUTAGES SHALL BE SCHEDULED THROUGH THE PROJECT REPRESENTATIVE FOR PROPER COORDINATION. A REQUEST FOR AN
- OUTAGE SHALL BE SUBMITTED IN WRITING A MINIMUM OF TWO WEEKS IN ADVANCE.

  C. DURING SPRINKLER SYSTEM OUTAGES THE CONTRACTORS SHALL PROVIDE FIRE WATCH OF AREAS WITH OUTAGES.
- D. ALL WALLS AND FLOOR SLABS SHALL BE REPAIRED TO MATCH EXISTING AND TO A LIKE NEW CONDITION. ALL RATED WALLS AND FLOOR SLABS SHALL BE PATCHED AND REPAIRED TO MAINTAIN RATING.
  E. ALL EXISTING BUILDING FINISHES SHALL BE PROTECTED DURING THE DEMOLITION PHASE.
- F. HEAVY DASHED LINES INDICATE ITEMS FOR REMOVAL (U.O.N) AND LIGHT SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.
  G. COORDINATE DISPOSAL OF ALL FIXTURES, DEVICES, ETC. (INDICATED FOR DEMOLITION) WITH THE OWNER.

#### DHASING NOTE

A. THIS PROJECT INTERFACES EXTENSIVELY WITH EXISTING BUILDING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PHASE ALL TIE-INS AND INTERRUPTIONS OF EXISTING SERVICES TO MINIMIZE OR ELIMINATE DOWNTIME. AS AN EXAMPLE, WATER SERVICE, ELECTRICAL SERVICE, HVAC SERVICES, ETC., WILL BE AFFECTED AND REPLACED OR MOVED DURING THIS PROJECT. THE CONTRACTOR SHALL INSTALL ALL NEW SERVICES AND EQUIPMENT AND HAVE THEM TESTED AND FULLY AND RELIABLY FUNCTIONAL PRIOR TO INTERRUPTING, RELOCATING OR REMOVING ANY EXISTING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BARE ANY AND ALL COSTS ASSOCIATED WITH THIS PHASING, INCLUDING TEMPORARY SERVICES, TEMPORARY RELOCATION, PREMIUM TIME WORK, ETC. CONTRACTOR SHALL COORDINATE ALL SAID WORK WITH THE OWNER AND APPLICABLE UTILITIES PER THE CONTRACT DOCUMENTS.

STRUCTURAL COORDINATION NOTES (APPLICABLE TO ALL DRAWINGS)

**ABBREVIATIONS (CONTINUED)** 

NOT TO SCALE

ON CENTER

OPEN RECEPTACLE

PLUMBING CONTRACTOR

OUNCE (-S)

PRESSURE DROP

PLUMBING

PPSI GAUGE

PHASE [ELECTRICAL]

PARTS PER MILLION

PRESSURE REDUCING STATION

POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

RELATIVE HUMIDITY [%]

RUNNING LOAD AMPS

SMOKE DAMPER

STATIC PRESSURE

SQUARE FEET **OR** FOOT

SQUARE INCH **OR** INCHES

TESTING AND BALANCING

TOTAL STATIC PRESSURE

UNLESS NOTED OTHERWISE

TO BE DETERMINED

TOP ELEVATION

**TEMPERATURE** 

VOLT (-AGE, -S)

VARI (-ABLE, -IES)

WATT (-AGE, -S)

WET BULB

VARIABLE AIR VOLUME

VARIABLE FEQUENCY DRIVE

WET BULB TEMPERATURE

WATER PRESSURE DROP

DIFFERENTIAL PRESSURE

CENTERLINE

TEMPERATURE DIFFERENCE

REVOLUTIONS PER MINUTE

PRESSURE REDUCING VALVE (STEAM, WATER, GAS)

NTS

OC

OD

CFCI

OFCI

OR

ΟZ

PC

PLBG

PSF

PSI

PSIG

RLA

RPM

SQ FT

SQ IN

TAB

TBD

TE

TEMP

TSP

TYP

UNO

VAR

VAV

VEL

VFD

WBT

WPD

WT

W/O

%

NORMALLY OPEN **OR** NUMBER

OUTSIDE DI (-AMETER, -MENSION)

CONTRACTOR FURNISHED, CONTRACTOR INSTALLED

OWNER FURNISHED, CONTRACTOR INSTALLED

OWNER FURNISHED, OWNER INSTALLED

- THE MEP PLANS INDICATE APPROXIMATE LOCATIONS OF PENETRATIONS.
   EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND THE PLANK MANUFACTURER.
- THE PLANK MANUFACTURER.

  2. FOR ALL PENETRATIONS THAT CAN BE PROPERLY INSTALLED IN A 6"∅ OR SMALLER OPENING, THE CONTRACTOR WHO'S WORK REQUIRES THE PENETRATION SHALL BE RESPONSIBLE FOR CORE DRILLING THE OPENING. THESE PENETRATIONS SHALL BE COORDINATED WITH THE PLANK MANUFACTURER AND MUST NOT DAMAGE THE REINFORCING
- STEEL.

  3. REPAIRS FOR DAMAGED REINFORCING STEEL WILL BE THE RESPONSIBILITY OF THE PARTY AT FAULT. THE PLANK MANUFACTURER SHALL PROVIDE INSTRUCTIONS ON HOW TO FIELD LOCATE CORE DRILL OPENINGS WITHOUT DAMAGING REINFORCING STEEL. IF CORE DRILL LOCATIONS ARE INSTALLED PER INSTRUCTIONS AND DAMAGE OCCURS, THE PLANK MANUFACTURER SHALL BE RESPONSIBLE FOR REPAIRS. IF
- THE PLANK MANUFACTURER SHALL BE RESPONSIBLE FOR REPAIRS. IF THE CONTRACTOR DOES NOT FOLLOW THE INSTRUCTIONS AND DAMAGE OCCURS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS.

  4. FOR ALL PENETRATIONS THAT CANNOT BE PROPERLY INSTALLED IN A 6"Ø OR SMALLER OPENING, THE PLANK MANUFACTURER SHALL PROVIDE THE OPENING. ALL PENETRATIONS MANUFACTURED WITHIN THE PLANKS MUST BE RECTANGULAR AND MUST BE COORDINATED BY THE CONTRACTOR REQUIRING THE OPENING. CONTACT THE ARCHITECT FOR
- ANY REQUIRED PENETRATIONS NOT SHOWN ON DRAWINGS.

  5. OPENINGS PROVIDED BY THE PLANK MANUFACTURER WILL ONLY BE FURNISHED DURING THE MANUFACTURE OF THE PLANKS.

  PENETRATIONS LARGER THAN 6"Ø THAT WERE NOT COORDINATED WITH PLANK MANUFACTURER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE PENETRATION. SUCH PENETRATIONS MADE ON SITE SHALL BE MADE PER PLANK MANUFACTURER'S INSTRUCTIONS. ALL ADDITIONAL COSTS INCURRED BY SUCH PENETRATIONS MADE ON SITE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUIRING THE PENETRATION. NOTIFY THE ARCHITECT
- OF ANY SUCH PENETRATIONS.

  ALL MECHANICAL, ELECTRICAL, AND PLUMBING PENETRATIONS
  THROUGH FLOORS SHALL BE SEALED / SAFED / DAMPERED AS REQUIRED
  TO COMPLY WITH APPLICABLE CODES. ANY ANCILLARY / ANNULAR
  SPACE BETWEEN DUCTWORK AND FLOOR SLAB OR PLANK / PARTITION
  MUST BE SEALED W/ APPROVED NON-COMBUSTIBLE MATERIAL.

GENERAL S	SYMBOLS
<u></u>	TAGGED NOTE DESIGNATOR
$\triangle$	REVISION TRIANGLE
ROOM NAME RM #	ROOM TAG
TAG <u>MARK</u> INSTANCE	EQUIPMENT TAG
•	POINT OF CONNECTION / CONNECT TO EXISTING
<b>♦</b>	POINT OF DEMOLITION

	SUPPLY AIR DIFFUSER			
	RETURN AIR DIFFUSER			
	EXHAUST AIR DIFFUSER			
	TRANSFER AIR DIFFUSER W/ SOUND ATTENUATING BOOT			
	SIDEWALL DIFFUSER/GRILLE			
	SIDEWALL DIFFUSER/GRILLE			
TAG XXX AIRFLOW #,###	AIR DEVICE TAG (REGISTER, GRILLE, DIFFUSER,LOUVER)			
##/##	RECTANGULAR DUCT			
#ø	ROUND/SPIRAL DUCT			
##/## <b></b>	FLAT OVAL DUCT			
SA	SUPPLY AIR DUCT			
RA	RETURN AIR DUCT			
EA	EXHAUST AIR DUCT			
OA	OUTSIDE AIR DUCT			
TA	TRANSFER AIR DUCT			
CAE	COMBUSTION AIR EXHAUST DUCT			
CAI	COMBUSTION AIR INTAKE DUCT			
SA	SA AIR DUCT TURNING UP			
× SA	SA AIR DUCT TURNING DOWN			
RA	RA AIR DUCT TURNING UP			
RA	RA AIR DUCT TURNING DOWN			
EA	EA AIR DUCT TURNING UP			
EA	EA AIR DUCT TURNING DOWN			
E(XXX)	EXISTING DUCT - (XXX) DENOTES SYSTEM			
†_D(XXX)	DUCT TO BE DEMOLISHED - (XXX) DENOTES SYSTEM			
A(XXX)	DUCT TO BE ABANDONED IN PLACE - (XXX) DENOTES SYSTEI			
<sup>30</sup> 00	MITERED ELBOW WITH TURNING VANES			
HHH	FLEXIBLE DUCT			
(1)	THERMOSTAT			
Ts	TEMPERATURE SENSOR			
$\oplus$	HUMIDITY SENSOR			
©	CARBON DIOXIDE SENSOR			
10	TEMPERATURE & CARBON DIOXIDE SENSOR			
VERT. HORIZ.	MANUAL BALANCING/VOLUME DAMPER			
VERT. HORIZ.	MOTORIZED DAMPER			

☐ ☐ |FIRE DAMPER

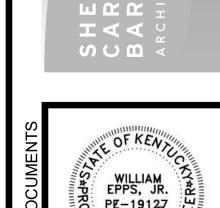
j ⊟ → | SMOKE DAMPER

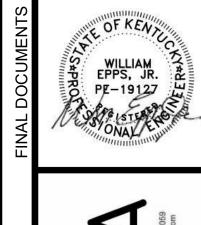
☐☐ | COMBINATION FIRE & SMOKE DAMPER

—0	PIPE ELBOW TURNING UP			
<del></del> 5	PIPE ELBOW TURNING DOWN			
<del></del>	PIPE TEE; CONNECTION ON TOP			
	PIPE TEE; CONNECTION ON BOTTOM			
<del></del>	PIPE CAP			
CD	CONDENSATE DRAIN			
—CHWS/R—	CHILLED/HOT WATER SUPPLY/RETURN (DUAL TEMP)			
—GS/R—	GEOTHERMAL WATER SUPPLY/RETURN			
RL	REFRIGERANT LIQUID			
RS	REFRIGERANT SUCTION			
D(XXX)	PIPING TO BE DEMOLISHED - (XXX) DENOTES SYSTEM			
—E(XXX)—	EXISTING PIPING - (XXX) DENOTES SYSTEM			
—A(XXX)—	ABANDONED IN PLACE PIPING - (XXX) DENOTES SYSTEM			
<u> </u>	TWO-WAY CONTROL VALVE			
	THREE-WAY CONTROL VALVE			
φ	AUTOMATIC AIR VENT (AAV)			
<u></u>	MANUAL AIR VENT (MAV)			
<del></del>	MANUAL BALANCING VALVE (BV)			
<u> </u>	BALL VALVE			
_W_	BUTTERFLY VALVE			
<b>─</b> ⋈─	TRIPLE DUTY VALVE (TDV)			
<del>-  </del>	STRAINER			
$\longrightarrow$	MANUAL ISOLATION VALVE			
X	GLOBE VALVE			
	OS&Y (GATE) VALVE			
<u>_</u> \ <u>\</u>	PRESSURE REDUCING VALVE (STEAM, GAS, WATER, ETC.)			
	AUTO-FLOW CONTROL VALVE			
_ <u>_</u>	CHECK VALVE			
<del>-</del>	DOUBLE CHECK VALVE ASSEMBLY			
	FLEXIBLE PIPE CONNECTION			
	FLOW METER (VENTURI)			
<u> </u>	PIPING UNION			
Fs	FLOW SWITCH			
Ps	PRESSURE SWTICH			
	TAMPER SWITCH			

PETE'S PLUG; TEMPERATURE/PRESSURE PORT

SHERMAN CARTER BARNHART







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SCHOOL RENOVATIO

ECHANICAL LEGENI

JOB NO. 1569

DATE 07/10/2019

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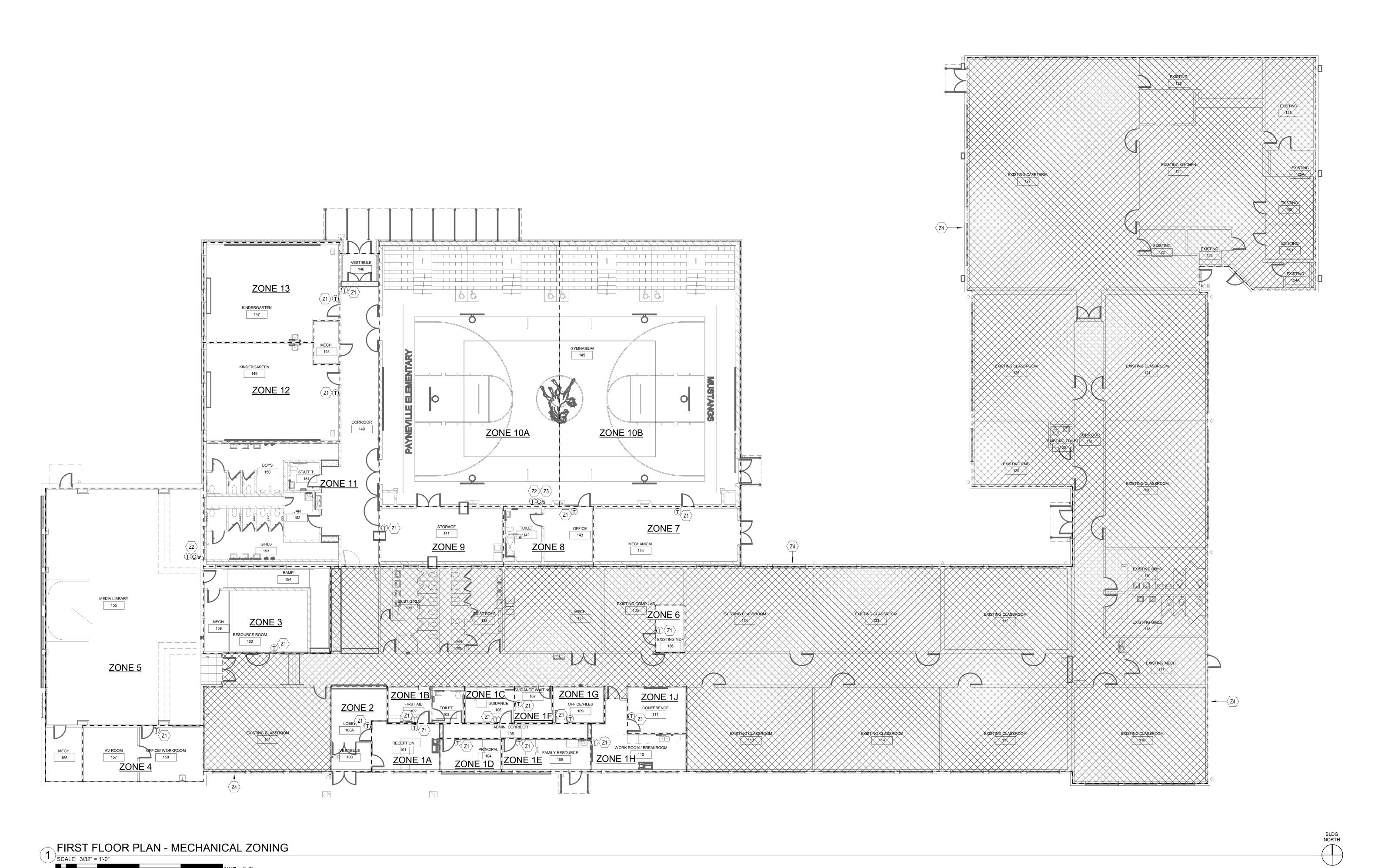
Z4 HATCHING INDICATES NO ZONING REVISION IN THIS AREA.

FIRST FLOOR PLAN - MECHANICAL ZONING

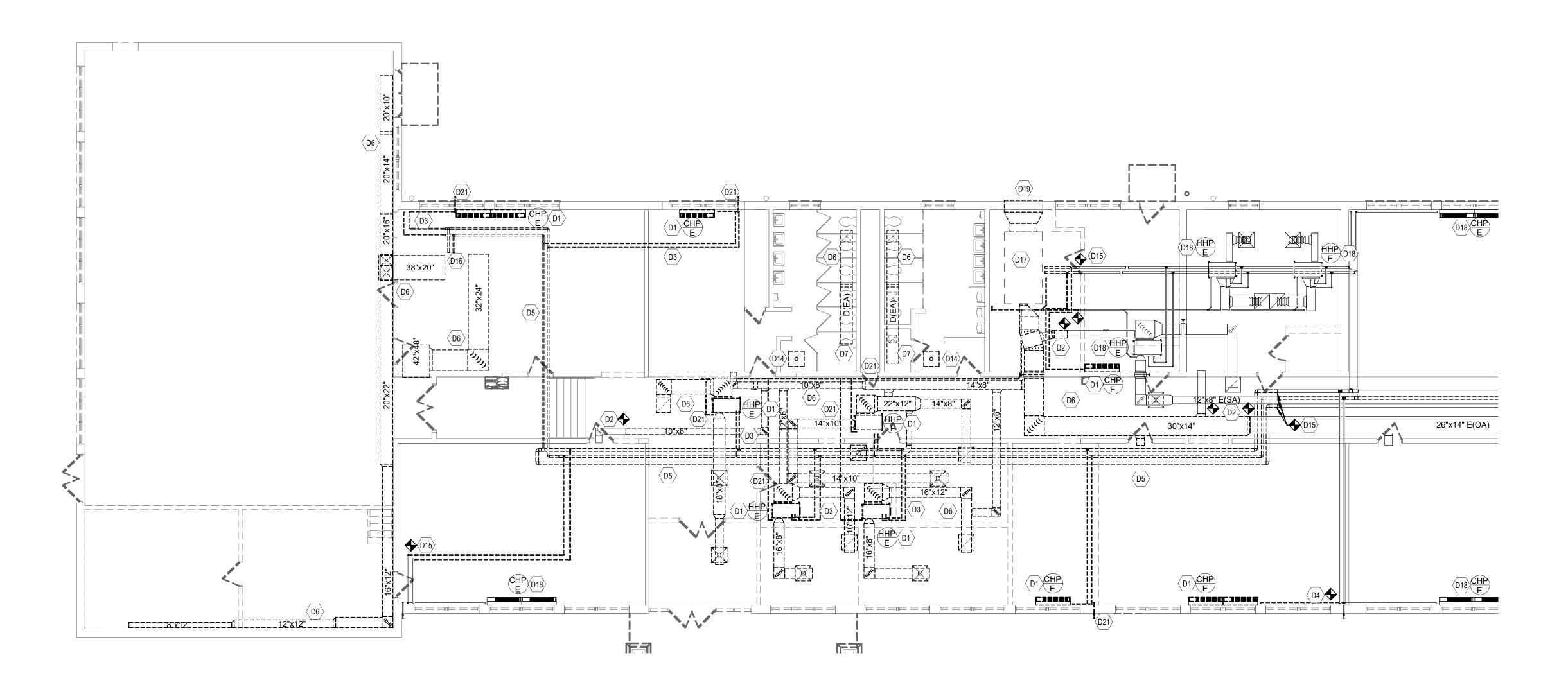
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PARTIAL FIRST FLOOR PLAN - AREA 'A' -MECHANICAL DEMOLITION

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

0 2' 4' 8' 16' 24'

1569 PAYNEVILLE ELEMENTARY SCHOOL RENOVATION AND ADDITION M2.0A PARTIAL FIRST FLOOR PLAN - AREA 'A' - MECHANICAL DEMOLITION C:\Users\choskins\Documents\VMPE18-HVAC-R19\_choskins@cmtaegrs.com.rvt 7/18/2019 11:57:13 AM



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No. Description Date

TAGGED NOTES

D3 DEMOLISH EXISTING GEOTHERMAL WATER PIPING COMPLETELY. TYPICAL.

D6 DEMOLISH EXISTING DUCTWORK INCLUDING ALL HANGERS/CLAMPS/ETC.

SHUTDOWN WITH OWNER.

D7 DEMOLISH EXISTING EXHAUST AIR DUCT THROUGH ROOF. PENETRATION TO BE REPAIRED DURING REROOFING

D8 DEMOLISH EXISTING PUMP AND ALL ASSOCIATED PIPING.

D9 DEMOLISH EXISTING AIR SEPARATORS/EXPANSION TANKS AND SUPPORTS/HANGERS.

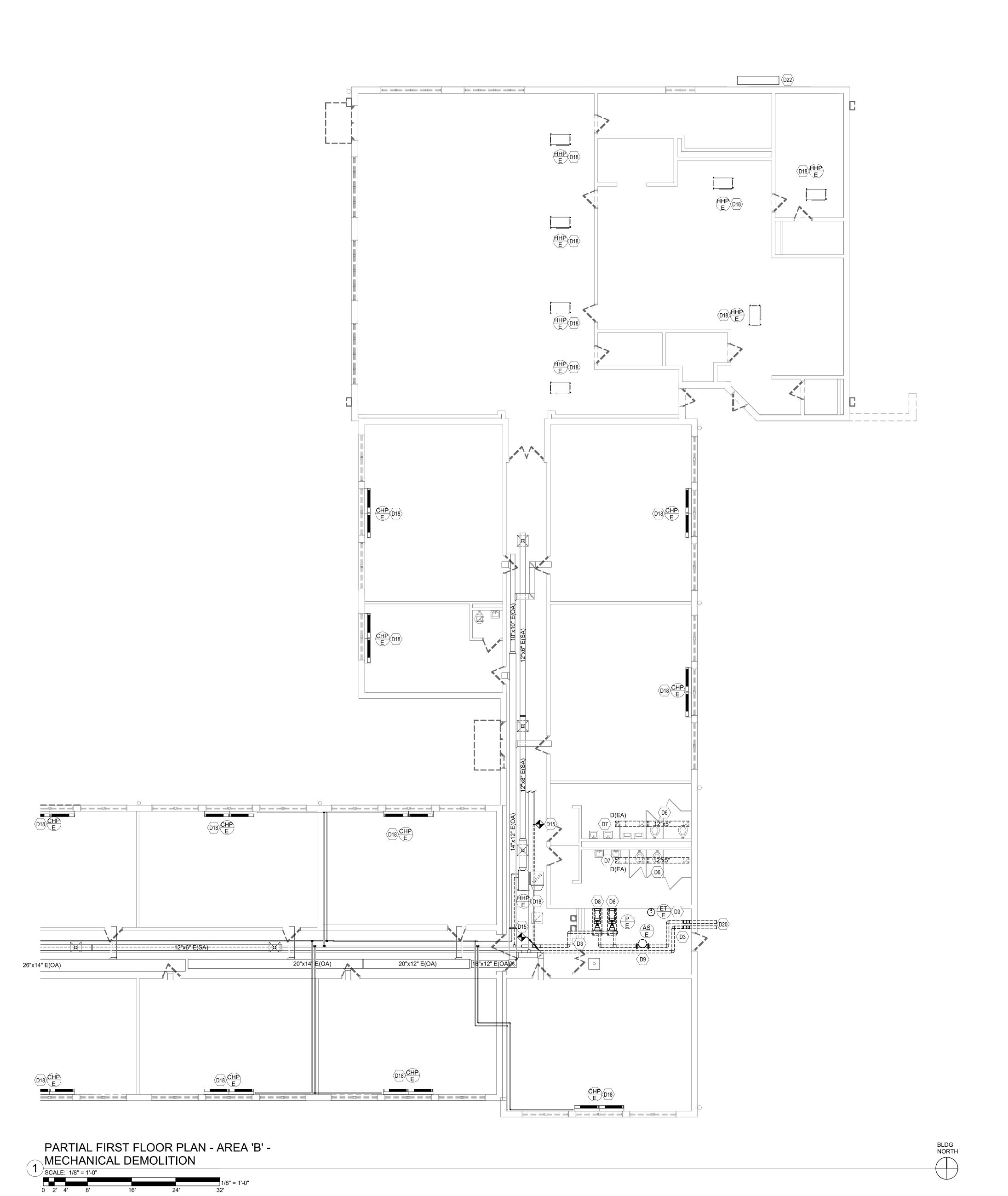
D15 DEMOLISH EXISTING PIPING TO POINT INDICATED.

D18 EXISTING HEAT PUMP TO REMAIN.

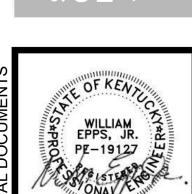
D20 DEMOLISH UNDERGROUND PIPING. SEE SITE PLAN ON UM1.0 FOR PIPING CONTINUATION.

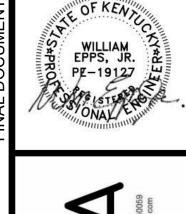
D22 DISCONNECT FREEZER/COOLER CONDENSER REFRIGERANT PIPING AND MAINTAIN EQUIPMENT FOR REINSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING AND PRESERVING REFRIGERANT. COORDINATE FREEZER/COOLER SHUTDOWN WITH OWNER

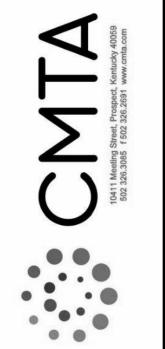
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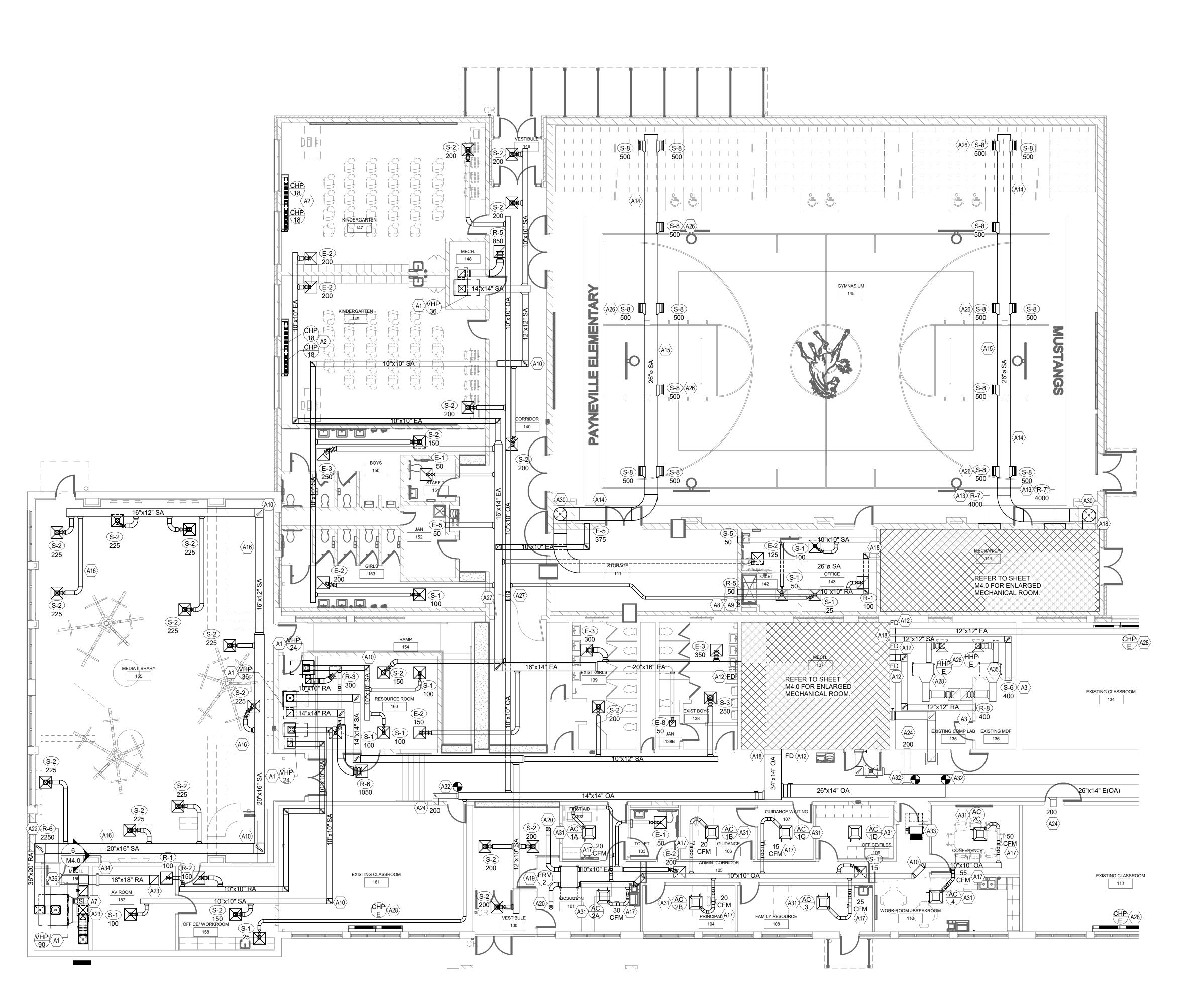




ROOF PLAN - MECHANICAL
DEMOLITION

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TAGGED NOTES

- A1 INSTALL VERTICAL HEAT PUMP SIZED AS INDICATED. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. ENSURE THAT CLEARANCE IS FREE FROM OBSTRUCTIONS BY OTHER BUILDING SYSTEMS. REFER TO HEAT PUMP DETAILS FOR ADDITIONAL INSTALLATION INFORMATION. TYPICAL OF ALL
- A2 INSTALL NEW CONSOLE HEAT PUMP SIZED AS INDICATED. MANIFOLD TWO CONSOLE HEAT PUMPS SIDE-BY-SIDE. PIPE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. ENSURE THAT CLEARANCE IS FREE FROM OBSTRUCTIONS BY OTHER BUILDING SYSTEMS. REFER TO HEAT PUMP DETAILS FOR ADDITIONAL INSTALLATION INFORMATION. TYPICAL OF
- A3 COORDINATE INSTALLATION OF SIDE WALL MOUNTED GRILLE WITH ELECTRICAL/COMMUNICATIONS EQUIPMENT. A7 INSTALL DUCT MOUNTED SMOKE DETECTOR. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR. COVER DETECTOR HOUSING WITH IMPACT RESISTANT COVER. INSTALL DETECTER BETWEEN LAST RETURN RUNOUT AND UNIT. INSTALL DETECTOR SUCH THAT IT IS ACCESSIBLE ABOVE CEILING.
- A8 PROVIDE RECESSED DRYER VENT CONNECTION (DRYERBOX OR EQUAL). ROUTE DRYER VENT DUCTWORK WITHIN WALL. PROVIDE ACCESSIBLE CLEANOUTS IN DRYER EXHAUST DUCTWORK AT ALL CHANGES IN DIRECTION.
- A9 4" DIAMETER DRYER EXHAUST DUCT. ROUTE DUCT FROM DRYERBOX EXHAUST AS SHOWN AND TERMINATE WITH MANUFACTURER'S WALL CAP. PROVIDE ACCESSIBLE CLEANOUTS IN DRYER EXHAUST DUCTWORK AT ALL CHANGES
- A10 FURNISH AND INSTALL TURNING VANES ON ALL TEES AND ELBOWS. PROVIDE 45 DEGREE TURNING VANES IN 45 DEGREE
- A12 FURNISH AND INSTALL VERTICAL FIRE DAMPER AND DUCT ACCESS DOOR. INSTALL AND SEAL ACCORDING TO MANUFACTURER'S UL LISTING.
  - A13 CONNECT RETURN GRILLE TO 42X30 RETURN AIR PLENUM IN MECHANICAL ROOM. REFER TO MECHANICAL ROOM PLAN ON SHEET M4.0 FOR CONTINUATION. A14 ALL EXPOSED DUCTWORK IN GYMNASIUM TO BE DOUBLE
- WALLED SPIRAL DUCTWORK. PAINT DUCTWORK. ARCHITECT TO SELECT COLOR.
- A15 SLOPE DUCTWORK UP AS NECESSARY TO MATCH SLOPE OF GYMNASIUM ROOF. ROUTE DUCTWORK WITHIN JOIST SPACE. PAINT GYMNASIUM DUCTWORK. ARCHITECT TO SELECT
- A16 ALL FLEXIBLE AND HARD DUCTWORK AND INSULATION ABOVE MEDIA CENTER CEILING TO BE PAINTED BLACK. A17 PROVIDE VOLUME DAMPER IN LOCATION INDICATED. INSTALL OVER LAY-IN CEILING TO ENSURE ACCESS TO DAMPER.
- A18 REFER TO ENLARGED MECHANICAL ROOM VIEW ON SHEET M4.0 FOR DUCTWORK CONTINUATION. A19 FURNISH AND INSTALL NEW ENERGY RECOVERY VENTILATION UNIT ABOVE CEILING. INSTALL WITH MANUFACTURER'S
- HANGING KIT AND PER MANUFACTURER'S INSTRUCTIONS. MAINTAIN ALL NECESSARY CLEARANCES. A20 ROUTE 8" ROUND DUCTWORK UP THROUGH ROOF AND TERMINATE WITH GOOSENECK, FLASH AND SEAL ROOF
- AROUND DUCT PENETRATION. REFER TO GOOSENECK DETAIL FOR ADDITIONAL INFORMATION. A22 INSTALL NEW RETURN GRILLE IN MEDIA CENTER WALL.
- COORDINATE EXACT HEIGHT OF RETURN GRILLE WITH A23 RELIEF/INTAKE AIR DUCTWORK UP TO NEW HOOD ON ROOF. REFER TO SECTION ON SHEET M4.0 FOR ADDITIONAL
- ECONOMIZER DUCTWORK INFORMATION. A24 REBALANCE EXISTING OUTSIDE AIR SIDEWALL DIFFUSER TO CFM INDICATED. TYPICAL.
- A26 INSTALL RECTANGULAR TAP TO ROUND DUCTWORK POINTING DOWNWARD AT 45 DEGREE ANGLE. TYPICAL OF ALL GYMNASIUM GRILLES. PAINT DUCTWORK AND GRILLES. ARCHITECT TO SELECT COLOR.
- A27 ROUTE DUCT DOWN AS NECESSARY TO REMAIN BELOW LOWER ROOF LEVEL.
- A28 FURNISH AND INSTALL BI-POLAR IONIZATION DEVICE ON EXISTING HEAT PUMP UNIT. THIS DEVICE SHALL BE PLASMA AIR MODEL PA-600 (OR EQUAL).
- A30 ROUTE DOUBLE WALL SPIRAL DUCTWORK UP IN NEW ARCHITECTURAL DUCTWORK CHASE TO HIGH AS POSSIBLE IN
- A31 INSTALL NEW CEILING CONSOLE VRF UNIT. MAKE ALL CONNECTIONS AND SUPPORT PER MANUFACTURER'S

FOR SOUND DAMPENING.

BLDG NORTH

- RECOMMENDATIONS. A32 CONNECT NEW DUCTWORK TO EXISTING AT LOCATION INDICATED.
- A33 FURNISH AND INSTALL VARIABLE REFRIGERANT BRANCH BOX PER MANUFACTURER'S INSTRUCTIONS. SUPPORT AS
- A34 ECONOMIZER DAMPER. INSULATE RELIEF DUCT THE SAME AS SUPPLY DUCTWORK FROM ECONOMIZER RELIEF DAMPER TO RELIEF HOOD, INCLUDING RELIEF HOOD PLENUM.
- REMOVE AND REINSTALL EXISTING HEAT PUMP AS REQUIRED FOR CONSTRUCTION OF NEW WALL. PROVIDE NEW DUCTWORK AND PIPING CONNECTIONS AS REQUIRED.
- A36 PROVIDE PLENUM BOX FULL SIZE OF GRILLE NECK OPENING TAP RETURN DUCT INTO SIDE OF PLENUM. INTERNALLY INSULATE PLENUM WITH FLEXIBLE ELASTOMERIC INSULATION

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

TAGGED NOTES

BLDG NORTH A24 REBALANCE EXISTING OUTSIDE AIR SIDEWALL DIFFUSER TO CFM INDICATED. TYPICAL.

A28 FURNISH AND INSTALL BI-POLAR IONIZATION DEVICE ON EXISTING HEAT PUMP UNIT. THIS DEVICE SHALL BE PLASMA AIR MODEL PA-600 (OR EQUAL).

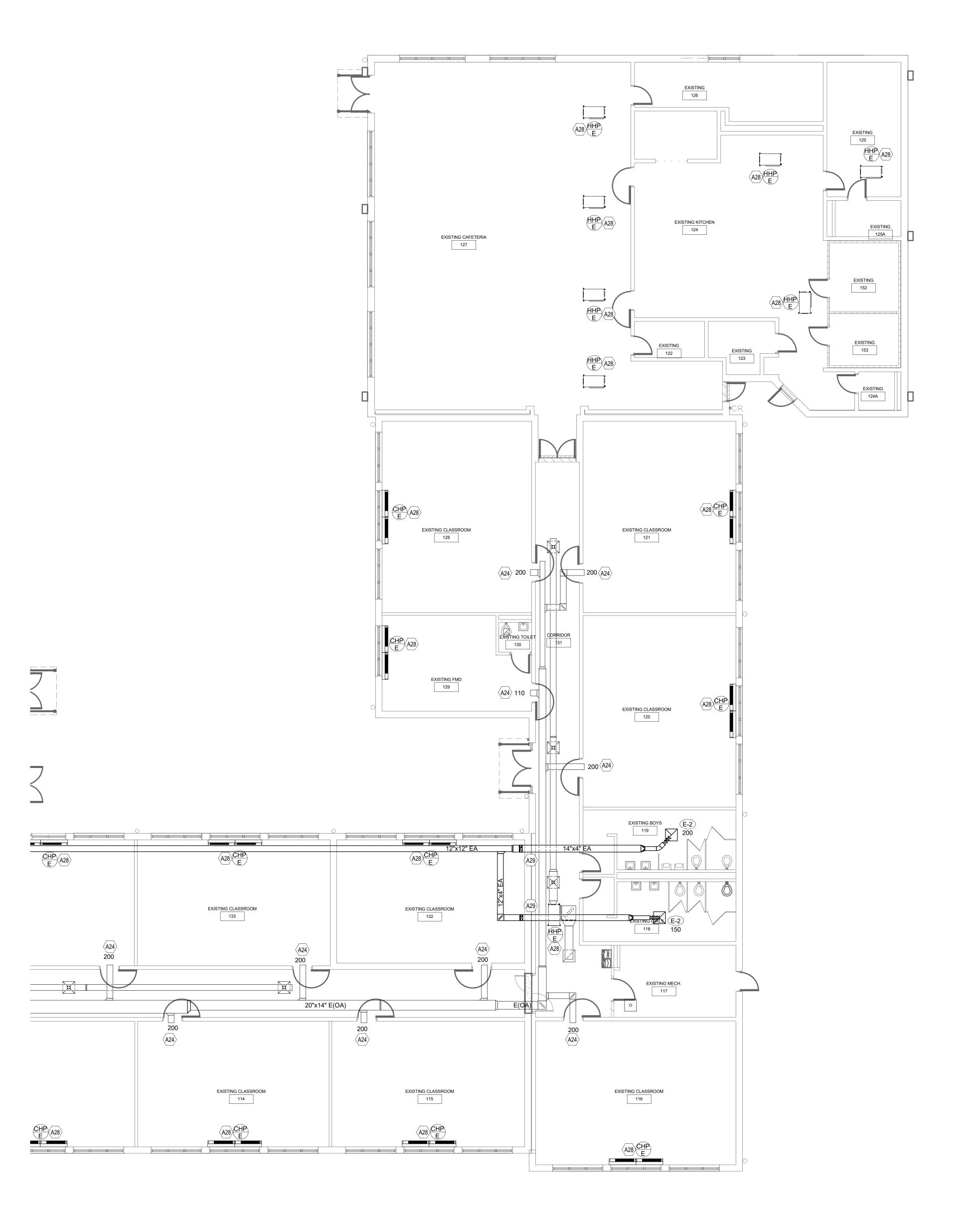
A29 ROUTE EXHAUST AIR UP IN JOIST SPACE ABOVE EXISTING DUCTWORK AND EQUIPMENT.

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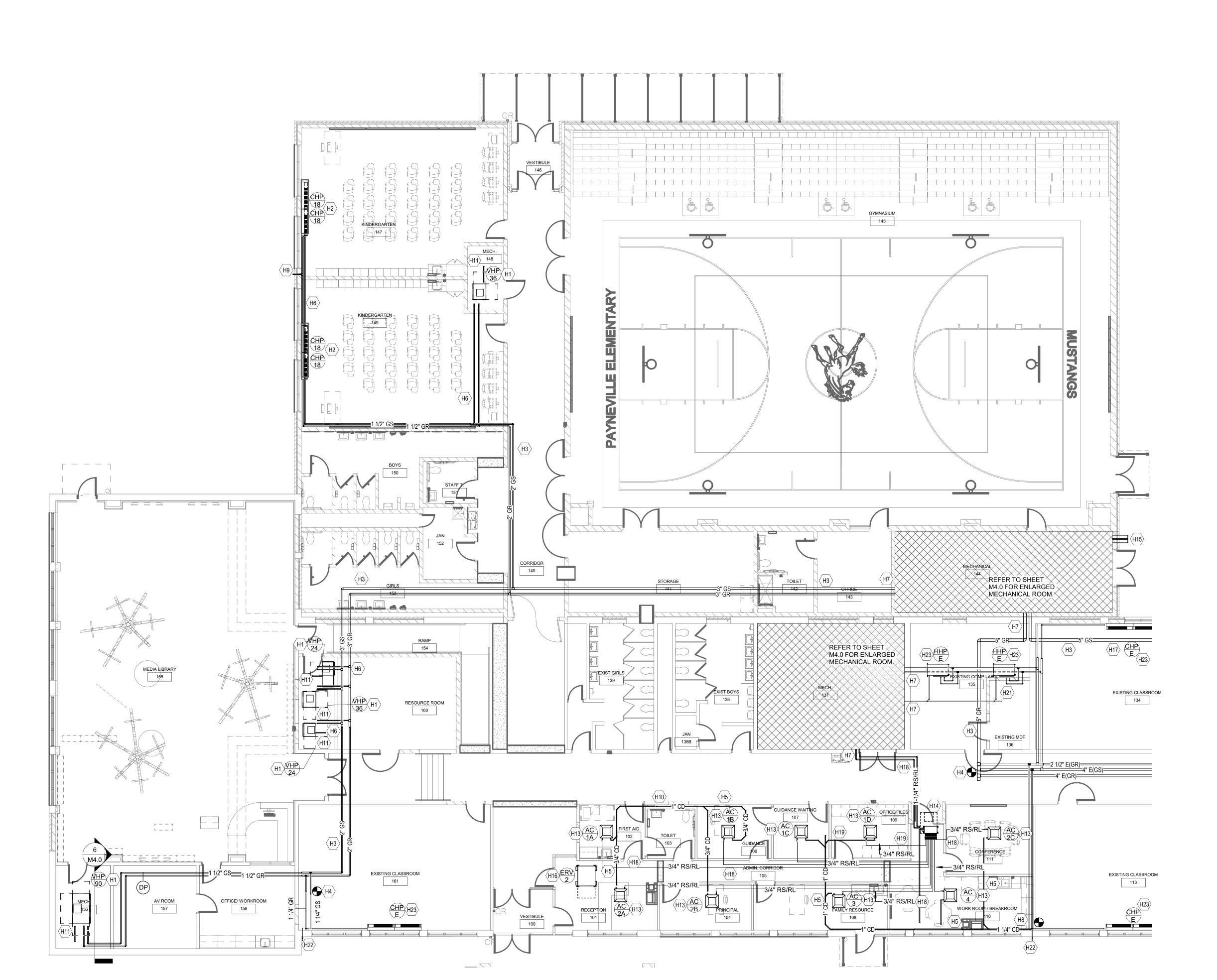
M3.0E



1569 PAYNEVILLE ELEMENTARY SCHOOL RENOVATION AND ADDIM3.0B PARTIAL FIRST FLOOR PLAN - AREA 'B' - AIR DISTRIBUTION C:\Users\choskins\Documents\VMPE18-HVAC-R19\_choskins@cmtaegrs 7/18/2019 11:57:30 AM

07/10/2019

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MANUFACTURER'S RECOMMENDED CLEARANCES. REFER TO HEAT PUMP DETAILS AND PIPING SCHEMATICS FOR ADDITIONAL INSTALLATION REQUIREMENTS. DO NOT ROUTE PIPING THROUGH MANUFACTURER'S CLEARANCES. TYPICAL OF ALL UNITS. H2 INSTALL NEW CONSOLE HEAT PUMP SIZED AS INDICATED. MANIFOLD TWO CONSOLE HEAT PUMPS SIDE-BY-SIDE. PIPE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. ENSURE THAT CLEARANCE IS FREE FROM OBSTRUCTIONS BY OTHER BUILDING SYSTEMS. REFER TO HEAT PUMP DETAILS FOR ADDITIONAL INSTALLATION INFORMATION. TYPICAL OF

H1 INSTALL VERTICAL HEAT PUMP SIZED AS INDICATED. MAINTAIN

**TAGGED NOTES** 

H3 INSTALL GEOTHERMAL PIPING. INSULATE AND SUPPORT PIPING PER SPECIFICATIONS

H4 CONNECT NEW GEOTHERMAL WATER PIPING TO EXISTING GEOTHERMAL MAIN AT LOCATION INDICATED. INSULATE AND SUPPORT CONNECTION PER SPECIFICATIONS. H5 INSTALL NEW COPPER CONDENSATE PIPING, SIZED AS INDICATED. INSULATE CONDENSATE PIPING AS SPECIFIED. PROVIDE ACCESSIBLE CLEANOUTS AT ALL CHANGES IN

CONDENSATE TERMINATION. H6 GEOTHERMAL WATER SUPPLY AND RETURN PIPING RUNOUTS TO HEAT PUMP. REFER TO RUNOUT SCHEDULE ON THIS

DIRECTION. PROVIDE SLOPE IN CONDENSATE PIPING TOWARD

SHEET FOR RUNOUT SIZE. TYPICAL. H7 REFER TO ENLARGED MECHANICAL ROOM VIEW ON SHEET 4.0 FOR PIPING CONTINUATION. H8 ROUTE CONDENSATE DOWN IN WALL AND CONNECT TO

EXISTING CONDENSATE SPILLING TO EXTERIOR DRYWELL. H9 ROUTE CONDENSATE IN FLOOR LEVEL PIPE CHASE. PENETRATE WALL AND SPILL INTO NEW EXTERIOR DRYWELL. REFER TO DRYWELL DETAIL ON SHEET M6.0 FOR ADDITIONAL INFORMATION.

H10 ROUTE CONDENSATE PIPE DOWN IN WALL AND SPILL INTO NEW HUB DRAIN AT SINK. H11 ROUTE CONDENSATE PIPING, SIZED AS INDICATED ON HEAT

PUMP PIPING RUNOUT SCHEDULE, TO NEAREST FLOOR DRAIN. WHERE PIPING CREATES A TRIP HAZARD, COVER WITH PLASTIC TRIP PROTECTION COVER, PAINTED YELLOW. H13 INSTALL NEW CEILING CONSOLE VRF UNIT. MAKE ALL

CONNECTIONS AND SUPPORT PER MANUFACTURER'S RECOMMENDATIONS.

H14 INSTALL NEW VRF BRANCH BOX UNIT. MAKE ALL CONNECTIONS AND SUPPORT PER MANUFACTURER'S RECOMMENDATIONS. H15 6" GEOTHERMAL SUPPLY AND RETURN. REFER TO SITE PLAN

ON SHEET UM1.0 AND PIPING SCHEMATIC ON SHEET M5.0 FOR ADDITIONAL INFORMATION. REFER TO SHEET M4.0 FOR CONTINUATION IN MECHANICAL ROOM. H16 FURNISH AND INSTALL NEW ENERGY RECOVERY VENTILATION

UNIT ABOVE CEILING. INSTALL WITH MANUFACTURER'S HANGING KIT AND PER MANUFACTURER'S INSTRUCTIONS. MAINTAIN ALL NECESSARY CLEARANCES. H17 REFER TO SHEET M3.1B FOR PIPING CONTINUATION. H18 ROUTE REFRIGERANT PIPING TO EQUIPMENT. INSTALL,

INSULATE, AND SUPPORT PIPING PER MANUFACTURER'S RECOMMENDATIONS. H19 FIRE CAULK AND SEAL ALL ABOVE CEILING PIPING

PENETRATIONS IN RATED WALL. H21 REMOVE AND REINSTALL GS/GR AND CONDENSATE PIPING AS CONSTRUCTION AND NEW MDF ROOM SIZE.

H22 REMOVE AND INSTALL NEW THROUGH WALL CONDENSATE PIPING TERMINATING IN NEW CONDENSATE DRYWELL. REFER TO DRYWELL DETAIL ON SHEET M6.0 FOR ADDITIONAL H23 DEMOLISH EXISTING VENTURI BALANCING VALVE AND

REWORK PIPING TO PROVIDE AUTOMATIC FLOW CONTROL VALVES WHICH SHALL BE FACTORY SET TO RATED FLOW AND VALVES WHICH SHALL BE FACTORY SET TO RATED FLOW AND SHALL AUTOMATICALLY CONTROL THE FLOW TO WITHIN 10% OF THE RATED VALUE SUBJECT TO THE OPERATING PARAMETERS OF 2-80 PSID, FLUID FREEZING TO 225°F, 2-7 FPS. ALSO PROVIDE A THREE-WIRE, TWO-WAY, TWO-POSITION CONTROL VALVE WITH ACTUATOR. ACTUATOR SHALL BE FIELD INSTALLED BY THE TCC AND INTERFACED WITH EXISTING EQUIPMENT CONTROLLER. TYPICAL OF ALL EXISTING HEAT PUMPS.

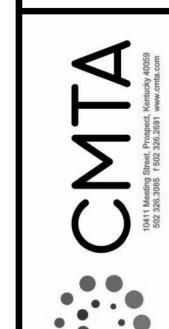
### HEAT PUMP PIPING **RUNOUT SCHEDULE**

HP SIZE	CWS SIZE	CWR SIZE	CD SIZE
CHP-18	1-1/4"	1-1/4"	3/4"
VHP-24	1-1/4"	1-1/4"	3/4"
VHP-36	1-1/4"	1-1/4"	3/4"
VHP-90	2"	2"	3/4"
VHP-180	2-1/2"	2-1/2"	1"

BLDG NORTH

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

SHERMAN CARTER BARNHAN ARCHITECTS



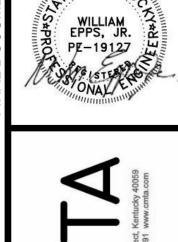
PARTIAL FIRST FLOOR PLAN AREA 'B' - HYDRONICS

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REVISIONS

SHERMAN CARTER BARNHART

WILLIAM EPPS, JR. PE-19127





SCHOOL RENOVATION
ADDITION

OF PLAN - MECHANICAL

JOB NO. 1569

DATE 07/10/2019

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No. Description Date

SHEET

M3.2

M1 MAIN DIGITAL CONTROL PANEL. ELECTRICAL CONTRACTOR TO

12 REFER TO SHEET M3.0A FOR CONTINUATION OF DUCTWORK. M3 REFER TO SHEET M3.1A FOR CONTINUATION OF PIPING. M4 RELIEF/INTAKE AIR DUCTWORK UP TO NEW HOOD ON ROOF. M5 ROUTE NEW GEOTHERMAL SUPPLY AND RETURN DOWN WALL AND UNDERGROUND. REFER TO SITE PLAN ON SHEET UM1.0 AND PIPING SCHEMATIC ON SHEET M5.0 FOR ADDITIONAL

7 INSTALL EXPANSION TANK ON 4" THICK HOUSEKEEPING PAD. INSTALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS. REFER TO PIPING SCHEMATICS ON SHEET M6.0 AND M6.1 FOR

M8 INSTALL DUCT MOUNTED SMOKE DETECTOR. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR. COVER DETECTOR HOUSING WITH IMPACT RESISTANT COVER. INSTALL DETECTER BETWEEN LAST RETURN RUNOUT AND UNIT. INSTALL DETECTOR SUCH THAT IT IS ACCESSIBLE

PROVIDE POWER AND DATA DROP.

M11 INSTALL INLINE AIR SEPARATOR AS HIGH AS POSSIBLE. REFER TO SCHEMATIC SHEET FOR CONNECTION INFORMATION. M12 SECURE PUMP VFD'S TO EXTERIOR WALL. MAINTAIN 24"

**TAGGED NOTES** 

INFORMATION.

ABOVE CEILING.

BETWEEN DRIVES.

ADDITIONAL INFORMATION.

M13 PROVIDE 4" THICK CONCRETE PAD UNDER EQUIPMENT. M14 24x24 OPEN RETURN FILTER OPENING. PROVIDE 1/2"x1/2" WIRE MESH OVER OPENING. M15 PROVIDE PUMP PIPE PEDESTAL SUPPORT FOR PUMP.

LOCATE AT FLOOR AND ORIENT PUMP MOUNTED VFD IN A SERVICABLE ORIENTATION. M16 MINIMUM OUTSIDE AIR DAMPER. CONTROLS CONTRACTOR TO ADJUST DAMPER TO OBTAIN MINIMUM VENTILATION AIRFLOW INDICATED. EXTEND OA DUCT INTO HEAT PUMP RA DUCT OR

M17 ECONOMIZER OUTSIDE AIR DAMPER (NORMALLY CLOSED). EXTEND OA DUCT INTO HEAT PUMP RA DUCT OR PLENUM. M18 ECONOMIZER DAMPER. INSULATE RELIEF DUCT THE SAME AS SUPPLY DUCTWORK FROM ECONOMIZER RELIEF DAMPER TO

PLASTIC TRIP PROTECTION COVER, PAINTED YELLOW.

RELIEF HOOD, INCLUDING RELIEF HOOD PLENUM. M19 ECONOMIZER RETURN DAMPER (NORMALLY OPEN). M20 ROUTE CONDENSATE PIPING, SIZED AS INDICATED ON HEAT PUMP PIPING RUNOUT SCHEDULE, TO NEAREST FLOOR DRAIN. WHERE PIPING CREATES A TRIP HAZARD, COVER WITH

M21 2"X2" UNISTRUT FRAME TO SUPPORT PIPING (TYPICAL) M22 ELECTRICAL PANELS AND TRANSFORMER. M23 FURNISH AND INSTALL VERTICAL FIRE DAMPER AND DUCT

ACCESS DOOR. INSTALL AND SEAL ACCORDING TO MANUFACTURER'S UL LISTING. M25 FURNISH AND INSTALL NEW VARIABLE REFRIGERANT WATER COOLED CONDENSING UNIT ON NEW CONCRETE

HOUSEKEEPING PAD. REFER TO SCHEMATIC FOR ADDITIONAL INFORMATION. M26 FURNISH AND INSTALL NEW HEAT PUMP CHILLER UNIT ON NEW CONCRETE HOUSEKEEPING PAD.. REFER TO SCHEMATIC FOR ADDITIONAL INFORMATION.

127 FURNISH AND INSTALL BI-POLAR IONIZATION DEVICE ON EXISTING HEAT PUMP UNIT. THIS DEVICE SHALL BE PLASMA AIR MODEL PA-600 (OR EQUAL), DEMOLISH EXISTING VENTURI BALANCING VALVE AND REWORK PIPING TO PROVIDE AUTOMATIC FLOW CONTROL VALVES WHICH SHALL BE FACTORY SET TO RATED FLOW AND SHALL AUTOMATICALLY CONTROL THE FLOW TO WITHIN 10% OF THE RATED VALUE SUBJECT TO THE OPERATING PARAMETERS OF 2-80 PSID, FLUID FREEZING TO 225°F, 2-7 FPS. ALSO PROVIDE A THREE-WIRE, TWO-WAY, TWO-POSITION CONTROL VALVE WITH ACTUATOR. ACTUATOR SHALL BE FIELD INSTALLED BY THE TCC AND INTERFACED WITH EXISTING EQUIPMENT

M28 INSTALL NEW OUTSIDE AIR UNIT PER MANUFACTURER'S INSTRUCTIONS. EQUIPMENT SHALL BE INSTALLED ON NEW CONCRETE PAD. DO NOT COVER FLOOR DRAIN WITH

CONCRETE PAD. M30 OUTSIDE AIR AND EXHAUST AIR DUCTWORK UP TO ENERGY RECOVERY UNIT ON ROOF. TRANSITION FROM DUCT SIZE

M31 FURNISH AND INSTALL WALL MOUNTED UNIT HEATER.

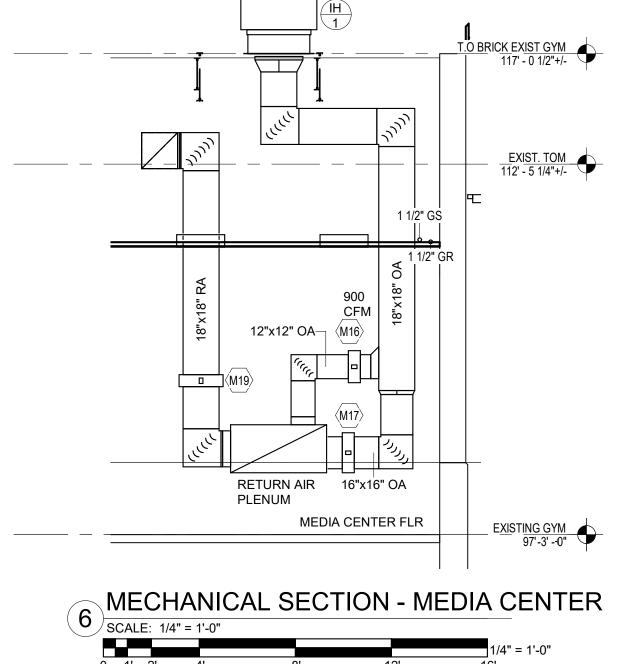
PROVIDE HEATER WITH INTEGRAL THERMOSTAT. HEATER SHALL ENABLE WHEN TEMPERATURE IS BELOW 55 DEG F. 32 SUPPORT DUCTWORK FROM STRUCTURE ABOVE AND TERMINATE AT WALL EXTERIOR WITH 20X20 RUSKIN ELF6375DX DRAINABLE LOUVER. MOUNT HIGH AS POSSIBLE. PROVIDE INTERIOR DUCT TERMINATION WITH 1/2" BIRD SCREEN. PROVIDE MOTORIZED DAMPER. INTERLOCK MOTORIZED DAMPER WITH EXHAUST FAN OPERATION. DAMPER SHALL BE OPEN WHEN FAN IS "ON". COORDINATE

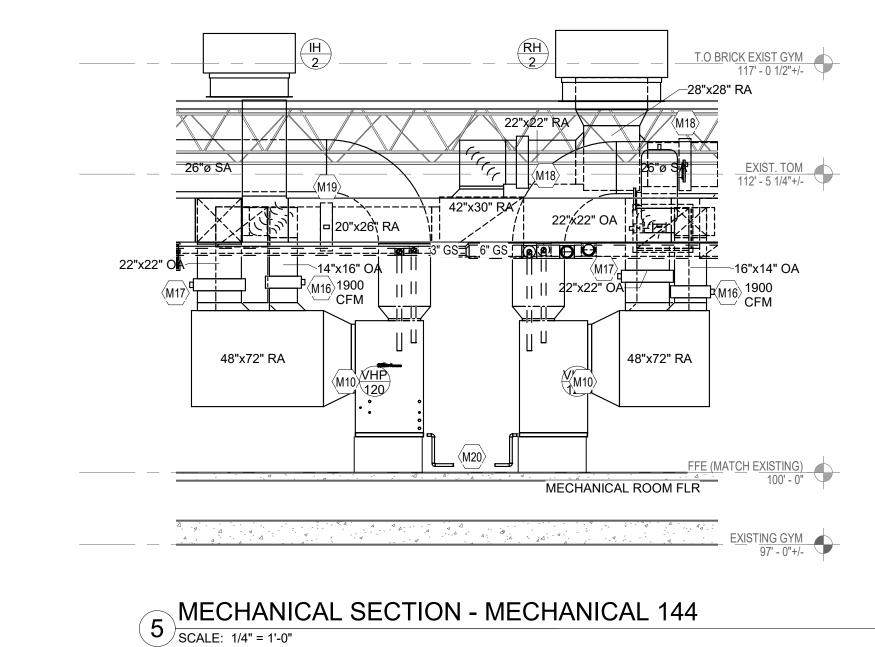
INSTALLATION WITH NEW PUMP AND ELECTRICAL EQUIPMENT SUPPORT PER MANUFACTURER'S INSTRUCTIONS. MOUNT HIGH AS POSSIBLE. INTERLOCK EXHAUST FAN WITH WALL MOUNTED THERMOSTAT. EXHAUST FAN SHALL ACTIVATE WHEN SPACE TEMPERATURE IS ABOVE 95 DEG F (ADJ).
COORDINATE INSTALLATION WITH PUMP, PIPING, AND
ELECTRICAL SERVICES.

M34 PROVIDE WALL MOUNTED THERMOSTAT. INTERLOCK WITH EXHAUST FAN AND MOTORIZED DAMPER AS INDICATED.

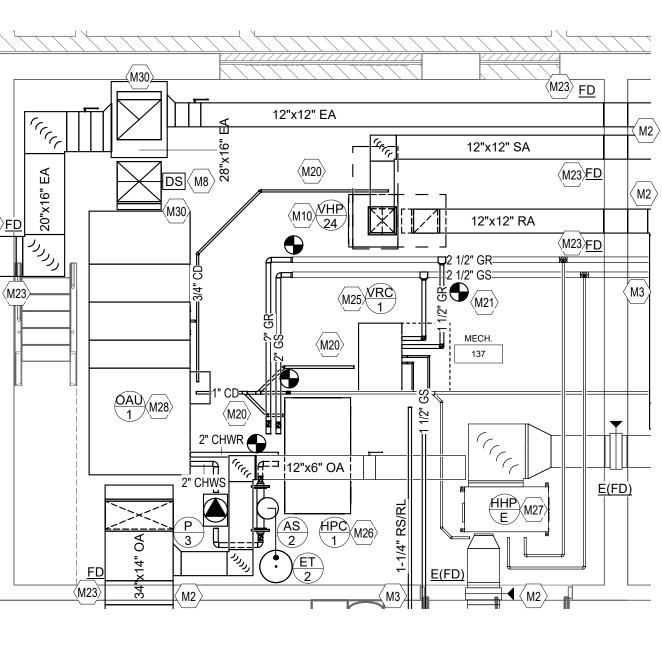
# HEAT PUMP PIPING

RUNOUT SCHEDULE				
HP SIZE	CWS SIZE	CWR SIZE	CD SIZE	
CHP-18	1-1/4"	1-1/4"	3/4"	
VHP-24	1-1/4"	1-1/4"	3/4"	
VHP-36	1-1/4"	1-1/4"	3/4"	
VHP-90	2"	2"	3/4"	
VHP-180	2-1/2"	2-1/2"	1"	

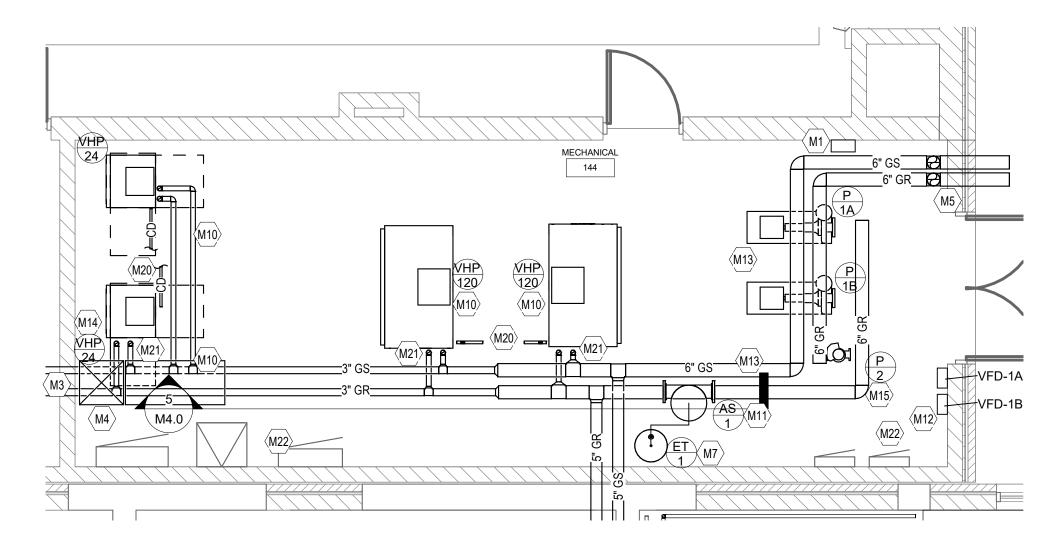




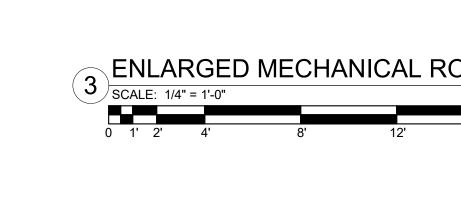


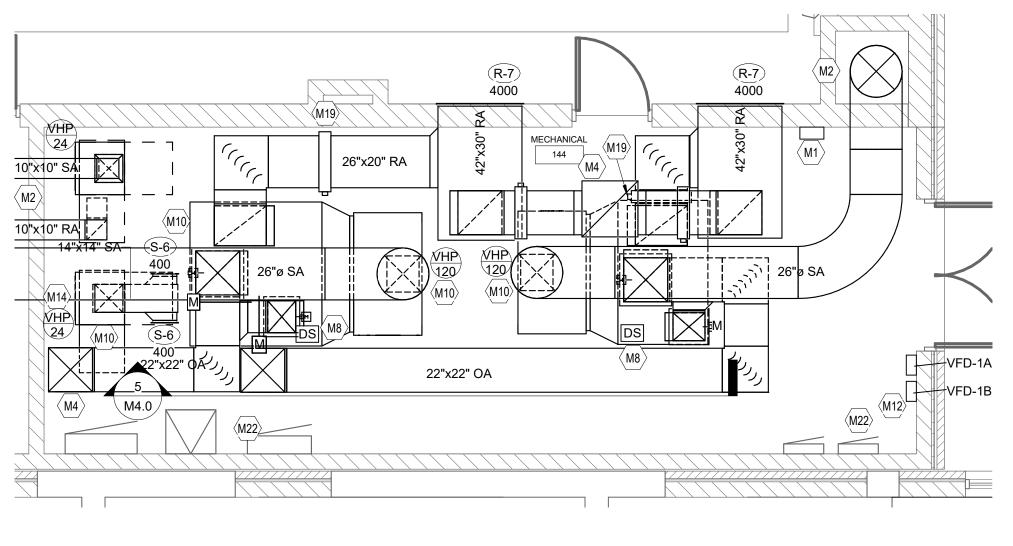






HYDRONICS
SCALE: 1/4" = 1'-0"





# ENLARGED MECHANICAL ROOM 144 - AIR DISTRIBUTION SCALE: 1/4" = 1'-0"

ENLARGED MECHANICAL ROOM 144 -

ENLARGED PUMP HOUSE

SCALE: 1/4" = 1'-0"

ENLARGED MECHANICAL ROOMS AND SECTIONS

07/10/2019

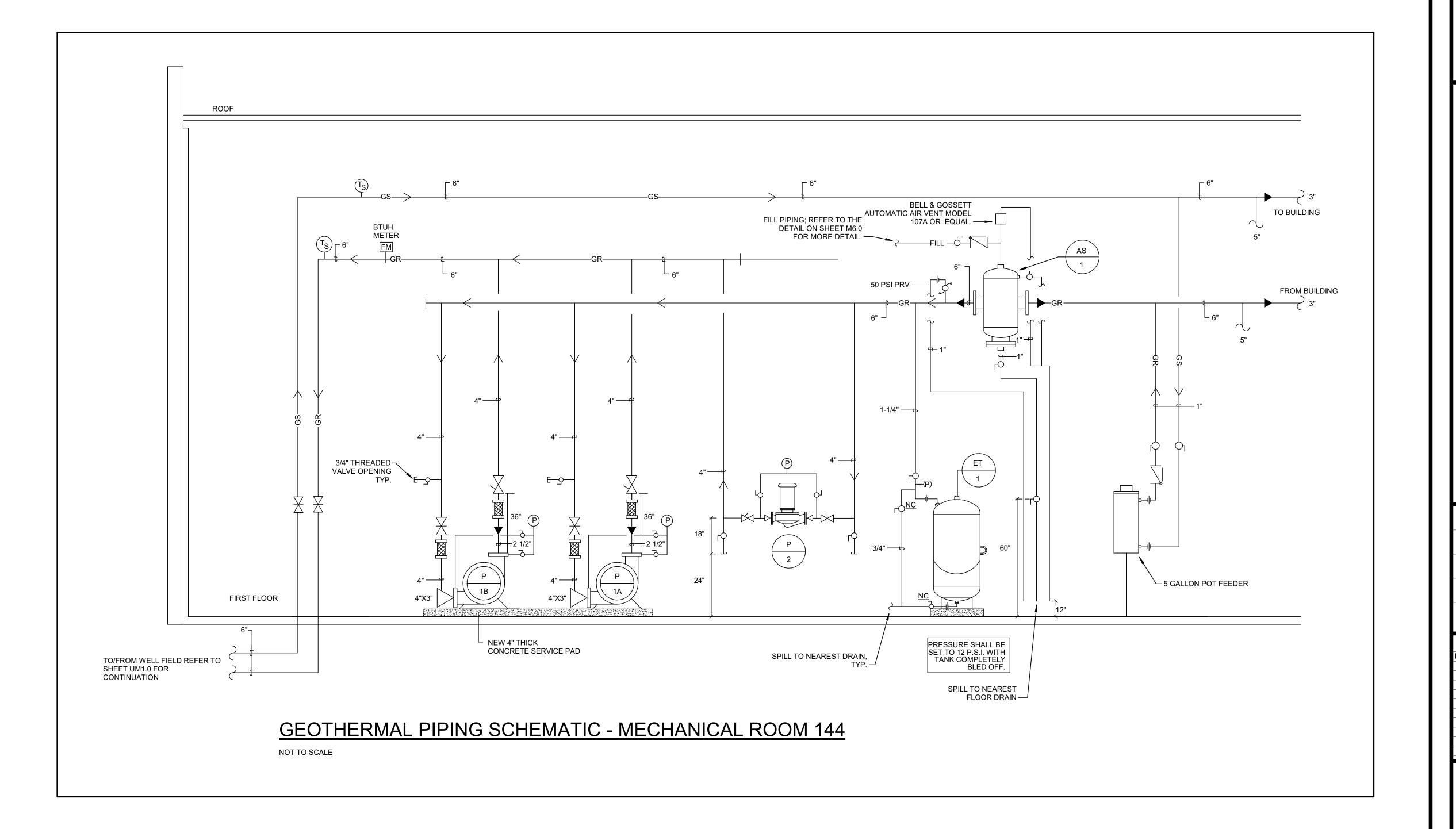
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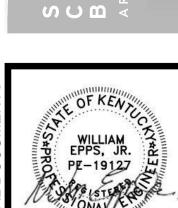
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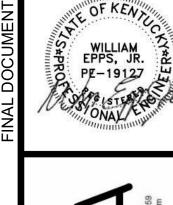
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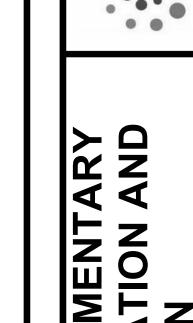








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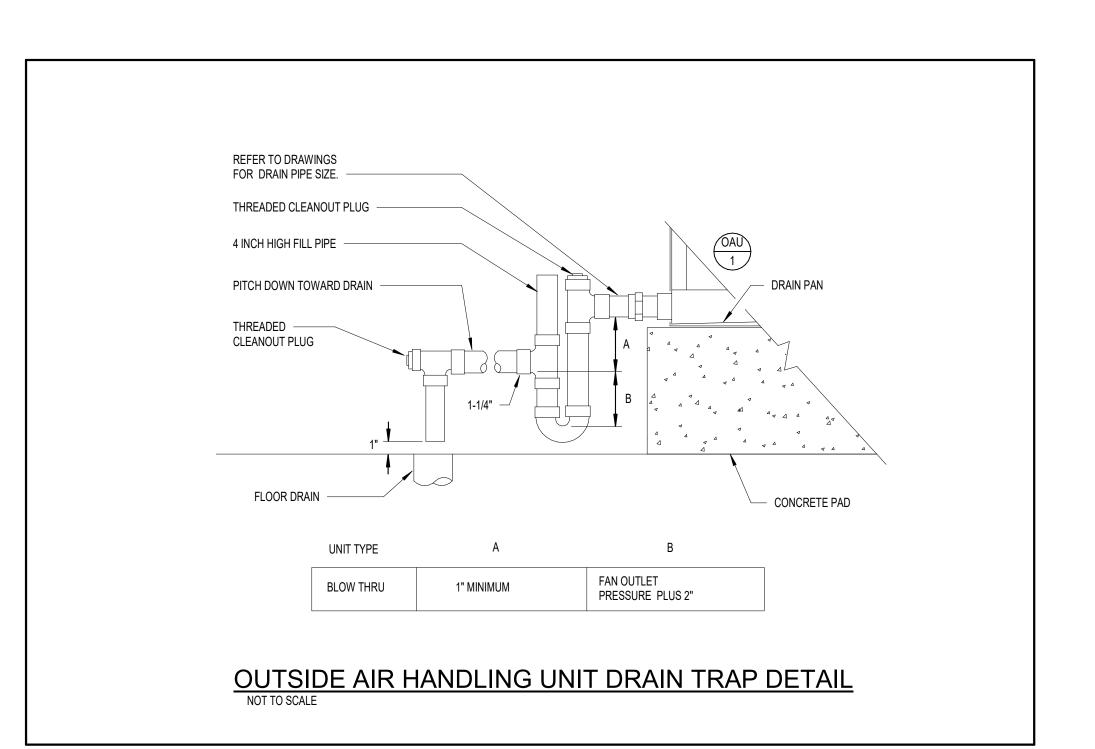
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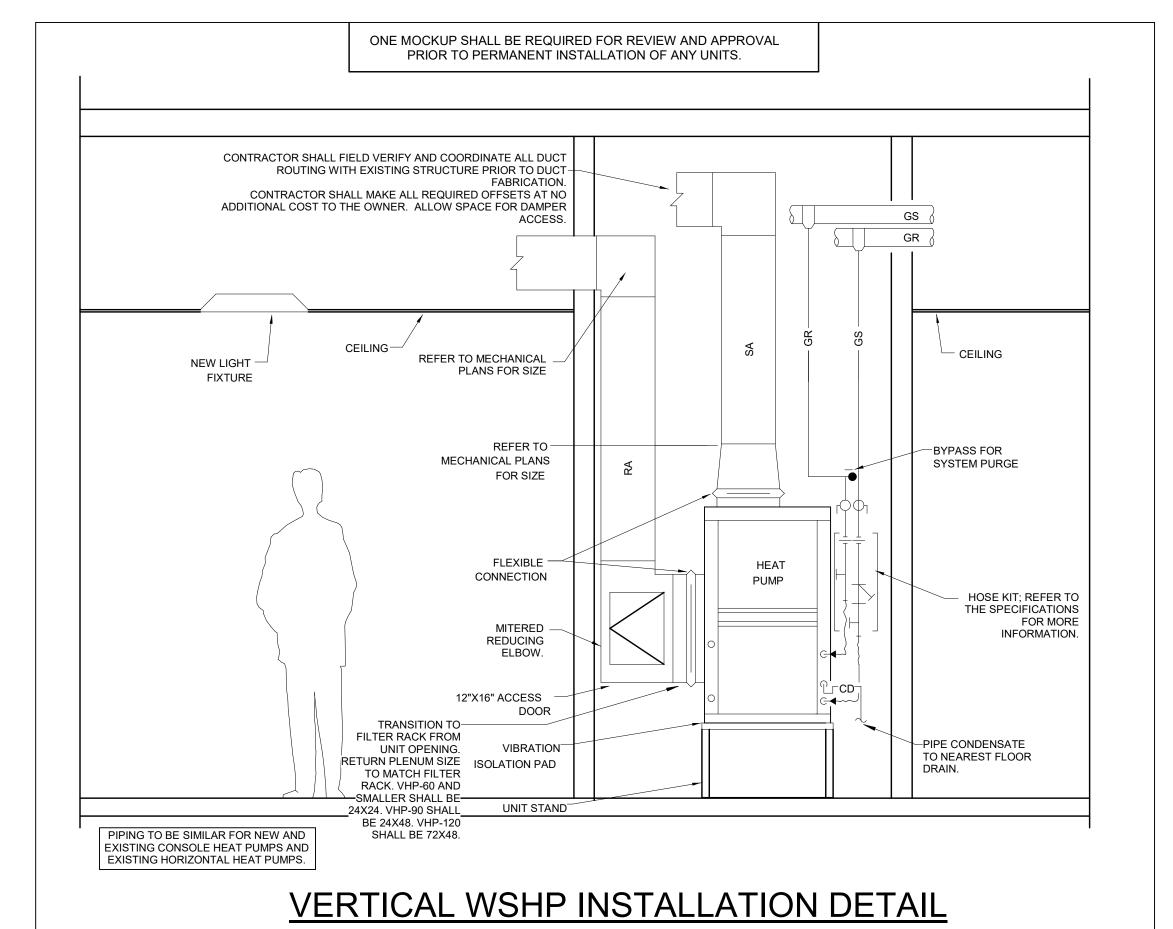
MEC

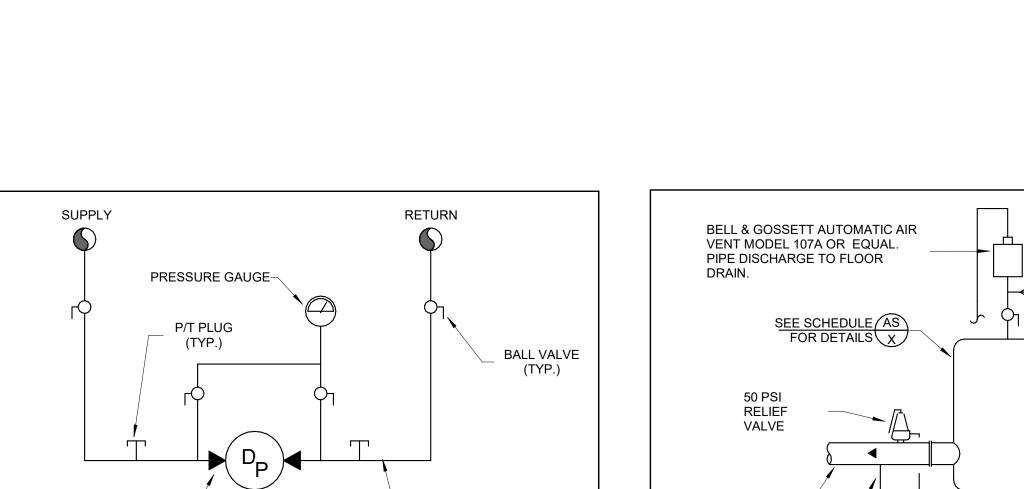
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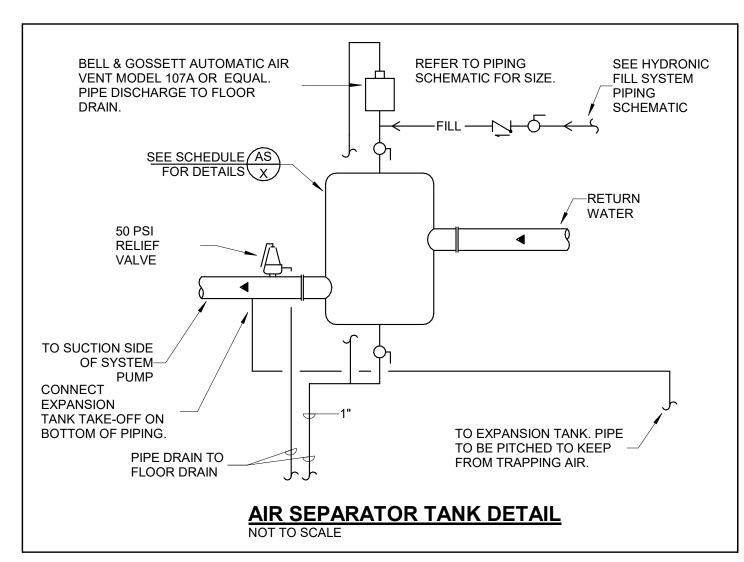
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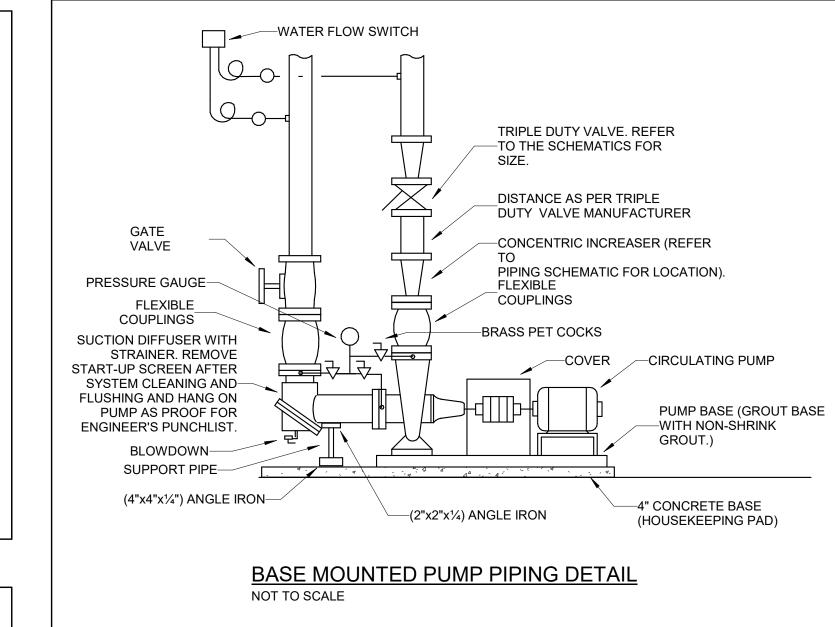
SHEET











HEAT PUMP PIPING

RUNOUT SCHEDULE

1-1/4"

1-1/4"

1-1/4"

2-1/2"

CWS SIZE | CWR SIZE | CD SIZE

1-1/4"

1-1/4"

1-1/4"

2-1/2"

3/4"

3/4"

HP SIZE

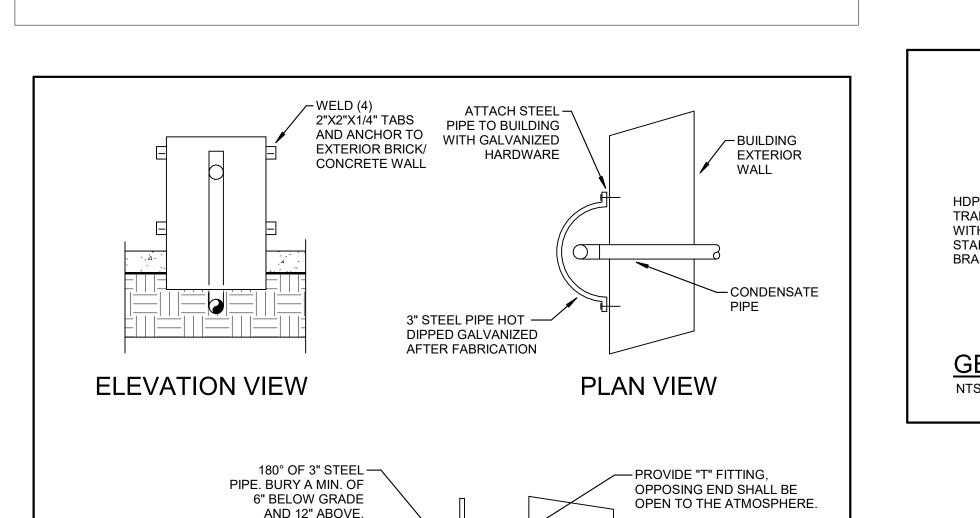
CHP-18

VHP-24

VHP-36

VHP-90

VHP-180



NC FULL SIZE-

TO 2-PIPE

── LOOP. PIPING

PUMP LOOP

SIMILAR TO HEAT

→ MECHANICAL CONTRACTOR

BYPASS VALVE.

HYDRONIC FILL SYSTEM - PIPING DETAIL

BACK FLOW PREVENTER-

1569 PAYNEVILLE ELEMENTAI M6.0 MECHANICAL DETAILS C:\Users\choskins\Documents\VI 7/18/2019 11:57:49 AM

-ROUTE AND SPILL TO

PLUMBING

CONTRACTOR

NEAREST FLOOR DRAIN

APPLIES TO HEAT PUMP AND 2-PIPE

1 1/2"

TO HEAT

PUMP

−3/4" DRAIN WITH

CONNECTION

THREADED HOSE

LOOP

LOOPS

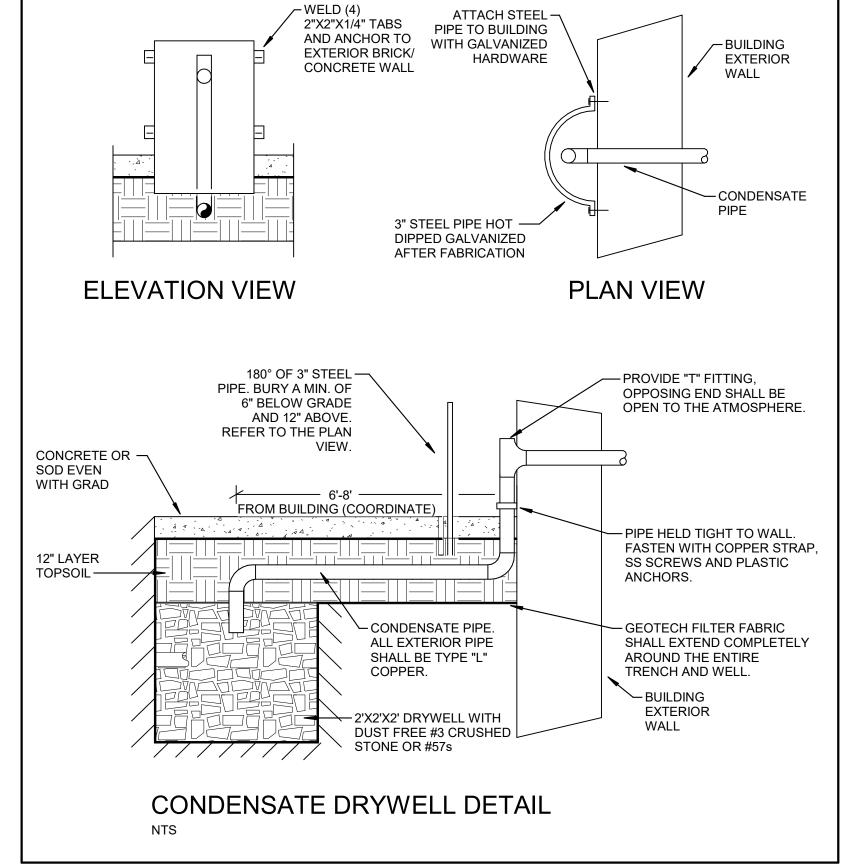
HEAT PUMP

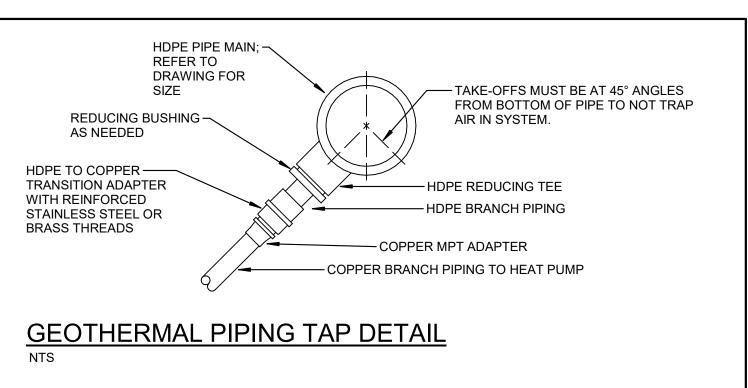
FLOW METER

\_PRV

<sup>1</sup>2 WAY, 2-POSITION

2-PIPE





DDC DIFFERENTIAL

DIFFERENTIAL PRESSURE SENSOR DETAIL

PRESSURE SENSOR

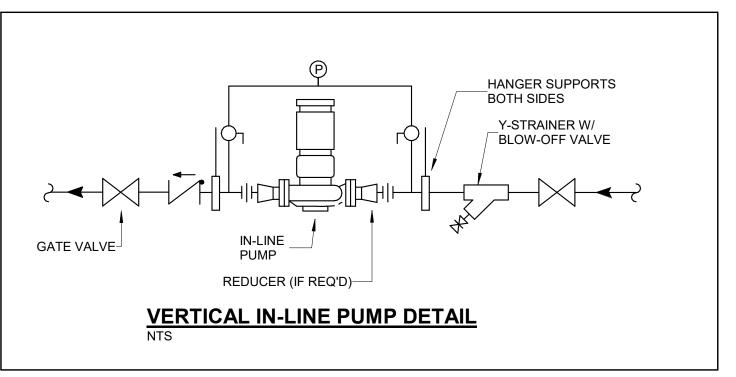
TRANSITION TO

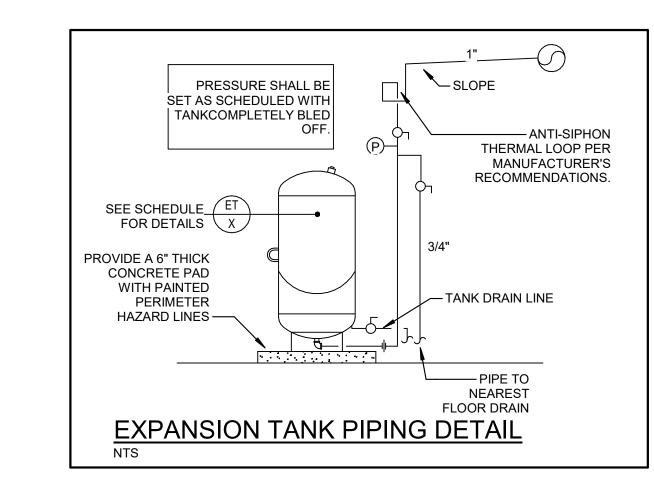
DIFFERENTIAL PRESSURE

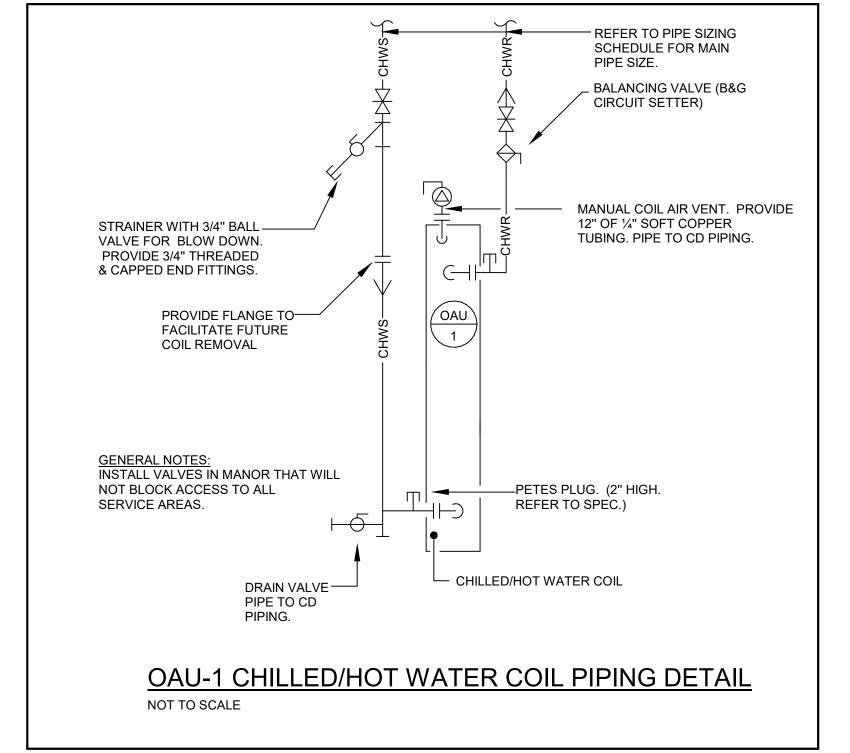
AT POINTS INDICATED

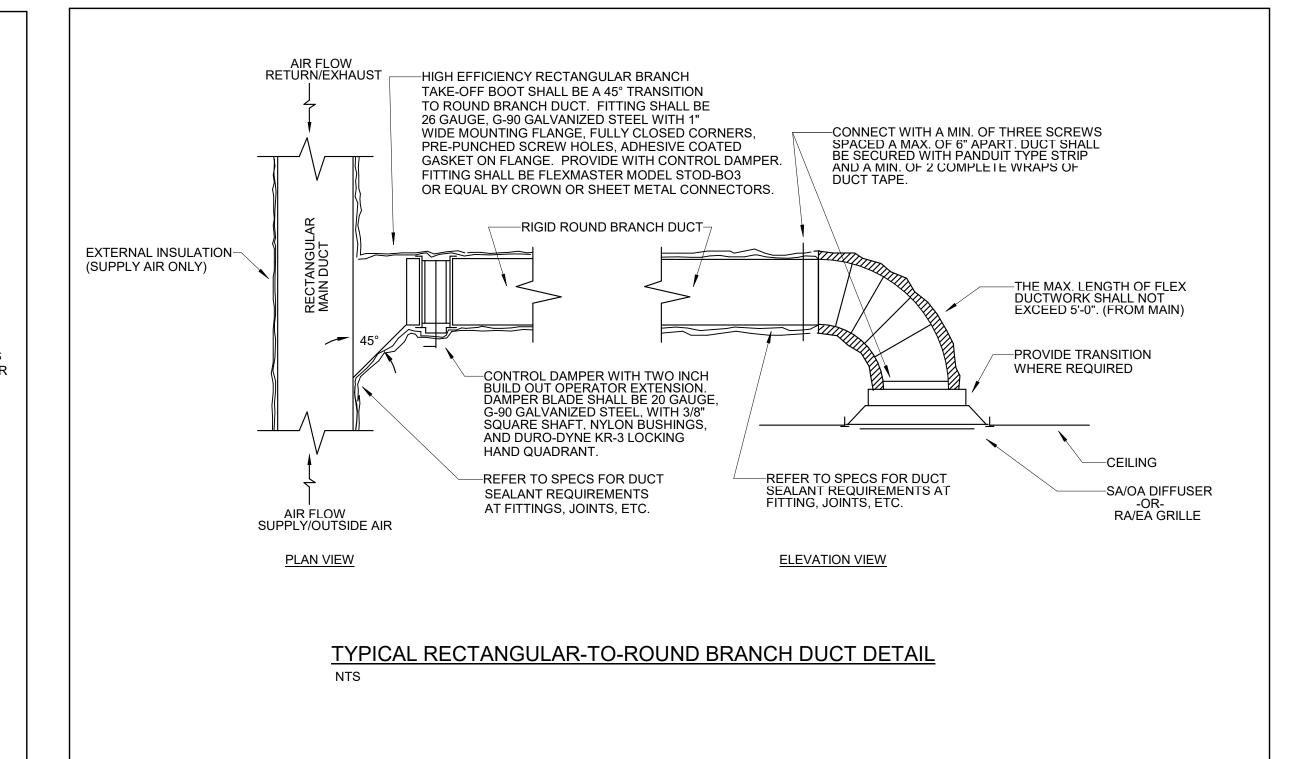
NTS

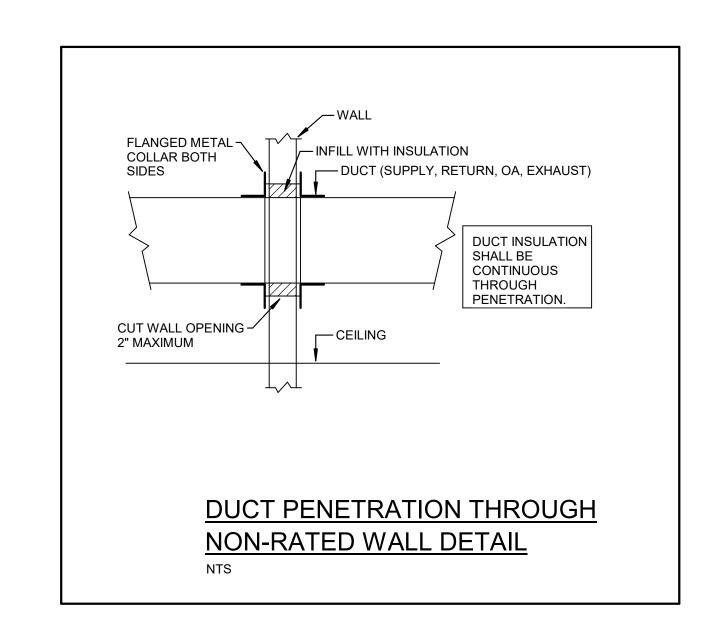
SENSOR INLET/OUTLET SIZE

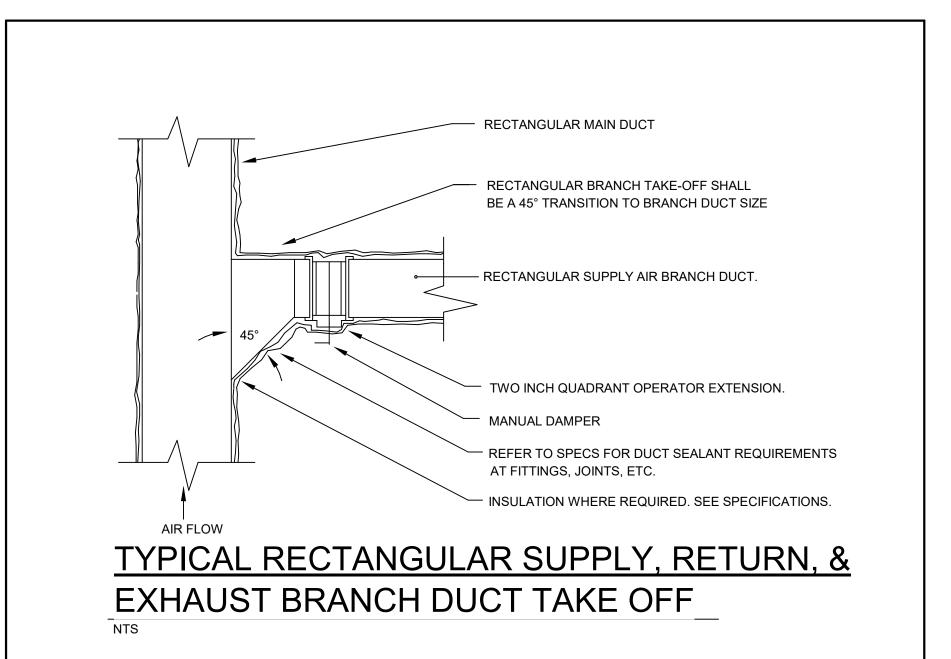


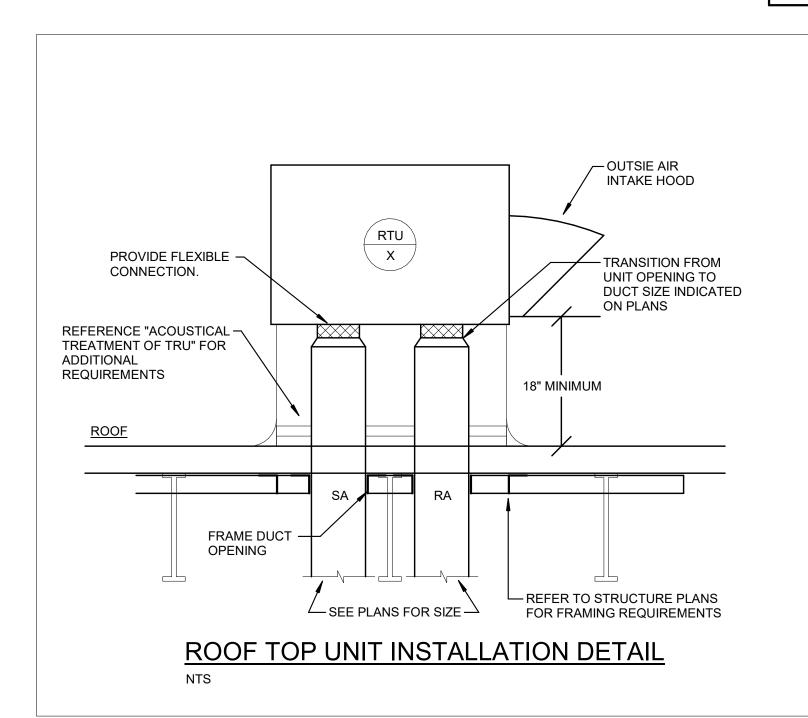


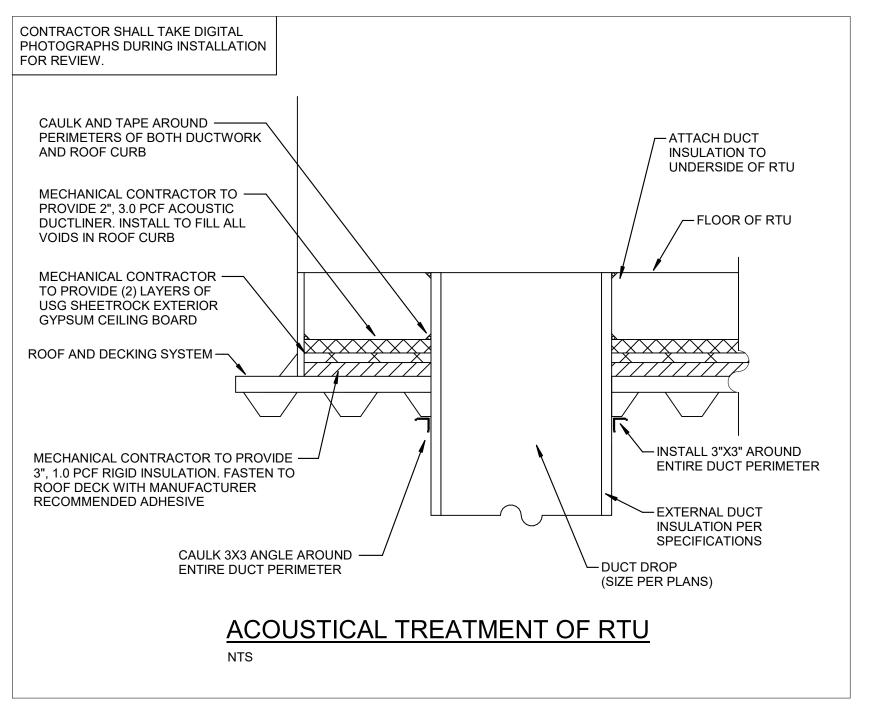


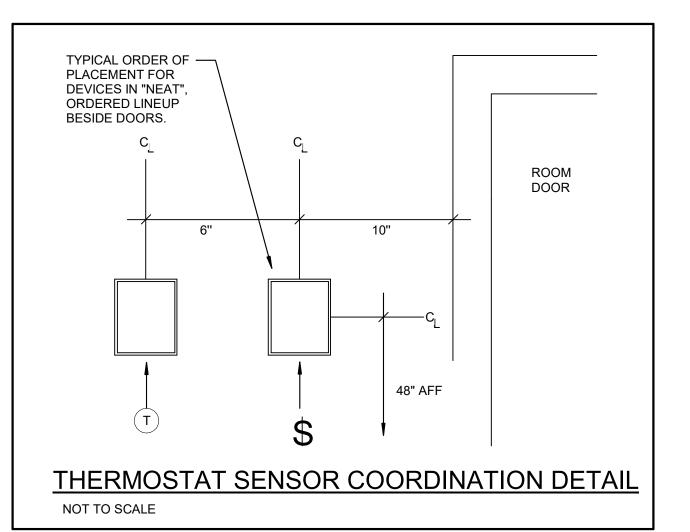


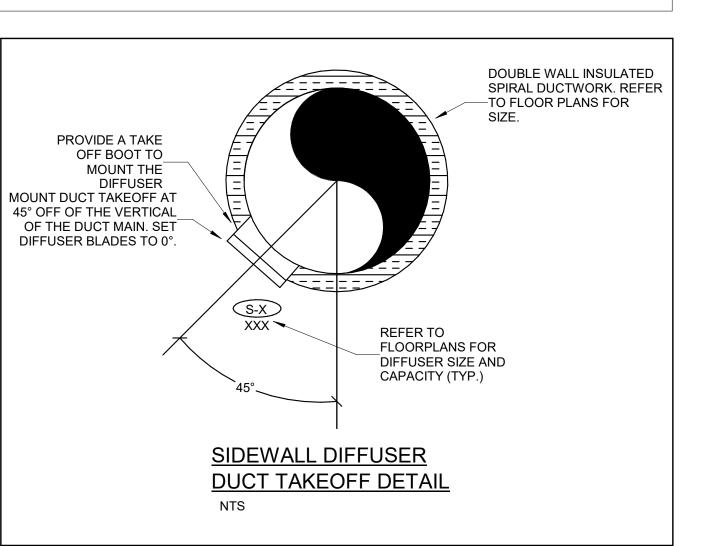












SHERMAN CARTER BARNHAR

WILLIAM EPPS, JR. PE-19127

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07/10/2019

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07/10/2019

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RE	REVISIONS				
No.	Descri	ption	Date		

OUTSIDE A	ID I INIIT	
SCHED	ULE	GENERA
SYMBOL	OAU-1	CVMPOL
MANF & MODEL	TRANE CSAA008	SYMBOL
TYPE OF SYSTEM	100% DEDICATED OA SYSTEM	MANF. &
CONFIGURATION	SEE DRAWINGS	
DESIGN DIMENSIONS	132"L x 51"W x 42"H	BOX TYP
DESIGN WEIGHT	1,655 lbs	
REMARKS (SEE NOTES BELOW)	ALL	NOMINA
FAN SECTION		# 00MD
MAXIMUM CFM	3,500	# COMPI
TYPE / OPERATING RPM	PLENUM / 2,523	ECM MC
TOTAL SP / ESP	2.5" / 1" WG	
HP / V / Ø / Hz	3/460/3/60	REFRIGI
DRIVE	DIRECT	\(\text{O} \) TO/5
FACE DAMPER MAX AIRFLOW / APD	2,100 / 0.044"	VOLTS/F
BYPASS DAMPER MAX AIRFLOW / APD	1,400 / 0.109"	MCA/MO
WATER COIL PERFORMANCE (COOLING	)	
TOTAL COOLING CAP. (MBH)	100.4	REVERS
SENSIBLE COOLING CAP. (MBH)	64.4	GPM/WF
MAX. FACE VELOCITY (FT/MIN)	431	
TOTAL CFM	2,100	TOTAL H
MAX. AIR PRESSURE DROP	0.59" WG	HEAT O
EAT - SUMMER (DB/WB)	82.7°F / 69.6°F	
LAT - SUMMER (DB/WB)	55.0°F / 54.7°F	COP @ /
WATER COIL PERFORMANCE (HEATING)		COOLIN
TOTAL HEATING CAP. (MBH)	124.4	COOLIN
TOTAL CFM	2,100	SENSIBL
MAX. AIR PRESSURE DROP	0.42" WG	
ENTERING AIR TEMP	48.2°F	TOTAL (I
LEAVING AIR TEMP	102.8°F	HEAT O
FILTERS		
MANUFACTURER	AAF	EER @ A
MODEL/TYPE	30-30/DISPOSABLE	DEMARKS
EFFICIENCY	MERV 8	REMARKS
VELOCITY	315	1. PROV
SIZE (W" x H" x D") / QTY	20x20x2 / 4	2. UNIT \$ 3. PROV
RESISTANCE (CL./MEAN.)	0.16"WG/.58"WG	4. PROV
APPROVED MANUFACTURERS	FARR, AFF, AND FLANDERS	5. HEAT
UNIT ELECTRIC (SINGLE POINT POWER	· · · · · · · · · · · · · · · · · · ·	PROV 6. PROV
VOLTS/PH/HZ	460/3/60	7. INSTA
FLA/MCA/MOP	5.45 / 6.65 / 15	CONT
REMARKS:	1	8. EQUIF MODE

- ENTIRE UNIT SHALL BE DOUBLE WALL CONSTRUCTION.
   SUPPLY STAINLESS STEEL IAQ CONDENSATE DRAIN PAN. ENTIRE PAN SHALL BE PITCHED TO OUTLET.
- 3. PROVIDE STAINLESS STEEL DX WATER COIL CASING. PROVIDE ROOF CURB.
   FUSED DISCONNECT SHALL BE PROVIDED FOR SINGLE POINT POWER
- CONNECTION.

  6. PROVIDE BACNET CARD FOR INTERFACE WITH BAS.

  7. ACCEPTABLE MANUFACTURERS: DAIKIN, JCI, MCQUAY, TRANE, CARRIER, INNOVENT, AAON.

HEAT PUMP CHILLER SCHEDULE			
GENERAL			
SYMBOL	HPC-1		
MANUFACTURER & MODEL	TRANE EXWE 1204		
SERVICE	OAU-1		
DESCRIPTION	WATER SOURCE HEAT PUMP		
REFRIGERANT	R-410A		
COMPRESSOR	INVERTER SCROLL (2)		
COOLING PERFORMANCE			
COOLING CAPACITY (MBH)	105.8		
HEAT REJECTION (MBH)	131.0		
EER	13.2		
SOURCE GPM / WPD (FT)	30.0 / 12.2		
SOURCE EWT / LWT (°F)	85 / 93.7		
LOAD EWT / LWT (°F)	55 / 45.3		
HEATING PERFORMANCE			
HEATING CAPACITY (MBH)	121.9		
HEAT ABSORPTION (MBH)	88.7		
COP	3.9		
SOURCE GPM / WPD (FT)	30 / 14.5		
SOURCE EWT / LWT (°F)	55 / 49.1		
LOAD EWT / LWT (°F)	100 / 111		
ELECTRIC			
V / PH / HZ	460 / 3 / 60		
MCA / MOP PER MODULE	20.3 / 25		
DISCONNECT WITH SINGLE POINT POWER	YES		

1. ACCEPTABLE MANUFACTURERS: DAIKIN, LG OR TRANE

EXHAUST FAN SCHEDULE			
GENERAL			
SYMBOL	EF-1		
MANUFACTURER	GREENHECK		
MODEL	SE1-16-436-VG		
SERVICE	FIRE PUMP HOUSE		
TYPE	WALL MOUNTED		
CFM / ESP	800 / .32		
FAN BHP / HP	0.14 / 3/4		
DRIVE / FAN RPM	DIRECT / 910		
VOLTS / PHASE / Hz	115V / 1PH / 60		
SONES	13.2		
REMARKS	ALL		
REMARKS:	1		

- PROVIDE WITH FACTORY BACKDRAFT DAMPER.
   PROVIDE WITH FACTORY INSTALLED DISCONNECT
- PROVIDE WITH OPTIONAL WALL HOUSING.
   PROVIDE WITH MOTOR COVER.

GEOTHERMAL HEAT PUMP SCHEDULE					
GENERAL					
SYMBOL	CHP-18	VHP-24	VHP-36	VHP-90	VHP-120
MANF. & MODEL	TRANE MODEL GECE0181	TRANE MODEL DXVF0243	TRANE MODEL DXVF0363	TRANE MODEL GEVE0903	TRANE MODEL GEVE1203
BOX TYPE	CONSOLE UNIT	VERTICAL UNIT	VERTICAL UNIT	VERTICAL UNIT	VERTICAL UNIT
NOMINAL CFM/ESP	530 / 0.0"	700 - 950 / 0.7"	1,000 - 1,300 / 0.7"	1,800 - 2,600 / 0.6"	2,600 - 4,000 / 1.0"
# COMPR. / # STAGES	1 / SINGLE STAGE	1 / TWO STAGE	1 / TWO STAGE	2 / TWO STAGE	2 / TWO STAGE
ECM MOTOR	NO	YES	YES	NO	YES
REFRIGERANT	410A	410A	410A	410A	410A
VOLTS/PHASE/HZ	277/1/60	460/3/60	460/3/60	460/3/60	460/3/60
MCA/MOP	10.5 / 15	6.6 / 15	10.6 / 15	17.8 / 20	24.1 / 30
REVERSE CYCLE HEATING CAPACITY 70°F EAT - 60°F EWT					
GPM/WPD (FT)	4.5 / 10.6	6.0 / 7.2	9.0 / 6.9	22.5 / 14.5	30 / 15.1
TOTAL HEAT (MBH)	20.5	33.2	50.9	103.2	140.3
HEAT OF ABSORPTION (MBH)	16.2	26.9	40.7	81.9	110.3
COP @ ARI	4.8	5.3	5.1	4.5	4.5
COOLING CAPACITY 80°F/67°F EAT - 90°F EWT	-				
SENSIBLE (MBH)	13.2	20.2	29.6	67.4	92.3
TOTAL (MBH)	16.5	26.2	37.9	89.7	120.0
HEAT OF REJECTION (MBH)	20.5	31.8	46.7	111.3	150.0
EER @ ARI	13.4	17.7	16.6	15.1	14.5
REMARKS:	1		1	1	1

- OVIDE WITH FACTORY START-UP UTILIZING MANUFACTURER'S STANDARD FORMS AND THE FORMS INCLUDED IN SPECIFICATIONS.
- SHALL BE ARI STANDARD 330 LISTED.
- OVIDE FACTORY/FIELD CONTROLS, REFER TO SPECIFICATION OF CONTROLS SCOPE OF WORK.

  AT PURPLE CHP-18 AND VHP-24 VHP-90 TO BE PROVIDED WITH INTEGRAL DISCONNECT. IF MANUFACTURER CANNOT ACCOMMODATE, A DISCONNECT SHALL BE
- OVIDE HEAT PUMP WITH CONDENSATE OVERFLOW SWITCH.
- STALL DUCT SMOKE DETECTOR, PROVIDED BY ELECTRICAL CONTRACTOR, IN RETURN DUCT OF VHP-080 VHP-120. COORDINATE LOCATION WITH ELECTRICAL INTRACTOR.
- EQUIPMENT VENDOR IS RESPONSIBLE FOR PURCHASE AND INSTALLATION OF BI-POLAR IONIZATION DEVICE ON ALL UNITS. THIS DEVICE SHALL BE PLASMA AIR MODEL BAR-PB FOR VERTICAL UNITS 10 TONS AND LARGER AND MODEL PA-600 FOR ALL OTHERS (OR EQUAL).
   ACCEPTABLE MANUFACTURERS: TRANE, JCI, DAIKIN, CLIMATEMASTER, FLORIDA HEAT PUMP, WATERFURNACE.

ELECTRIC UNIT HEATER SCHEDULE			
SYMBOL	UH-1		
MANUFACTURER	MARKEL		
MODEL	3320 SERIES		
TYPE	FAN FORCED WALL HEATER		
SIZE (WATTS)	3000		
VOLTS / PHASE / Hz	277V / 1PH / 60		
MCA	10.8		
FINISH			

- 1. APPROVED MANUFACTURERS: MARKEL, REZNOR, QMARK 2. WALL HEATER WITH BUILT-IN THERMOSTAT, DISCONNECT SWITCH, THERMAL OVERHEAT PROTECTION, AND RECESSED MOUNTING FRAME.

ENERGY RECOVERY	UNITS

SYMBOL	ERV-1	ERV-2
MANF. & MODEL	MICROMETL	LOSSNAY
CONFIGURATION	SEE DRAWINGS	SEE DRAWINGS
V/PHASE/Hz	460/3/60	208/1/60
SINGLE POINT MCA/MOP	9.0A / 15A	1.8A / 15A
FRESH AIR CFM / ESP	3,500 CFM @ 1.0"	300 CFM @ 0.75"
EXHAUST AIR CFM / ESP	3,200 CFM @ 0.75"	250 CFM @ 0.75"
HEATING EFFICIENCY	76% TOTAL	63% TOTAL
COOLING EFFICIENCY	72.8% TOTAL	50% TOTAL
REMARKS	1, 2, 3, 4, 5	1, 2, 3, 4, 5

- 1. ACCEPTABLE MANUFACTURERS: RENEWAIRE, FANTECH, GREENHECK,
- PROVIDE WITH SINGLE POINT POWER CONNECTION. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH, REFER TO ELECTRICAL DRAWINGS.

4.	PROVIDE ISOLATION DAMPERS IN THE AIR STREAMS.
5.	REFER TO DRAWINGS FOR UNIT DUCT CONNECTION ORIENTATIONS.

INTAKE/RELIEF HOOD SCHEDULE						
SYMBOL	IH-1	RH-1	IH-2	RH-2		
MANUFACTURER / TYPE	GREENHECK / PENTHOUSE INTAKE	GREENHECK / PENTHOUSE RELIEF	GREENHECK / PENTHOUSE INTAKE	GREENHECK / PENTHOUSE INTAKE		
MODEL	WIH-WITH ROOF CURB AND SCREEN	WRH-WITH ROOF CURB AND SCREEN	WIH-WITH ROOF CURB AND SCREEN	WRH-WITH ROOF CURB AND SCREEN		
PHYSICAL SIZE	24"X24" NECK 32"X32" HOOD CURB	24"X24" NECK 32"X32" HOOD CURB	32"X32" NECK 40"X40" HOOD CURB	42"X42" NECK 56"X56" HOOD CURB		
CFM	2,400 CFM	2,400 CFM	4,000 CFM	8,000 CFM		
MAX THROAT VEL / PRESSURE DROP	700 FPM / 0.065"	700 FPM / 0.055"	700 FPM / 0.065"	700 FPM / 0.088"		
SERVICE	INTAKE	RELIEF	INTAKE	RELIEF		
MOUNTING HEIGHT	PROVIDE ROOF CURB FOR 24" CLEAR	PROVIDE ROOF CURB FOR 24" CLEAR	PROVIDE ROOF CURB FOR 24" CLEAR	PROVIDE ROOF CURB FOR 24" CLEAR		

### REMARKS:

- 1. 1/2" MESH SCREEN OVER INLET/RELIEF
- 2. ALL ALUMINUM CONSTRUCTION 3. ACCEPTABLE MANUFACTURERS: K-TECH, GREENHECK, CAPTIVE-AIRE OR HALTON

SYMBOL	MANUFACTUER & MODEL	MATERIAL & TYPE	CFM RANGE	INLET DUCT SIZE	FACE SIZE	NECK SIZE	REMARKS
S-1	TITUS OMNI AA	EXTRUDED ALUMINUM SQUARE PLAQUE FACE	0-100	6''ø	24X24	6"ø	1, 3, 4
S-2	TITUS OMNI AA	EXTRUDED ALUMINUM SQUARE PLAQUE FACE	101-225	8''ø	24X24	8"ø	1, 3, 4
S-3	TITUS OMNI AA	EXTRUDED ALUMINUM SQUARE PLAQUE FACE	226-375	10''ø	24X24	10"ø	1, 3, 4
S-4	TITUS OMNI AA	EXTRUDED ALUMINUM SQUARE PLAQUE FACE	376-600	12''ø	24X24	12"ø	1, 3, 4
S-5	TITUS 300FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING DOUBLE DEFLECTION	0-200	8X8	10X10	8X8	1, 3
S-6	TITUS 300FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING DOUBLE DEFLECTION	201-600	12X12	14X14	12X12	1, 3
S-7	TITUS OMNI AA	EXTRUDED ALUMINUM SQUARE PLAQUE FACE	0-100	6''ø	12X12	6''ø	1, 3, 4
S-8	TITUS 300RS	STEEL 3/4" BLADE SPACING DOUBLE DEFLECTION GYMNASIUM GRILLE	400-800	18X14	20X16	18X14	1, 3
S-9	TITUS 300RS	STEEL 3/4" BLADE SPACING DOUBLE DEFLECTION GYMNASIUM GRILLE	801-1100	24X12	26X14	24X12	1, 3
R-1	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE	0-100	6"ø	24X24	8X8	1, 2, 3
R-2	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE	101-225	8"ø	24X24	10X10	1, 2, 3
R-3	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE	226-375	10"ø	24X24	12X12	1, 2, 3
R-4 / T-2	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE	376-600	12 <b>"</b> ø	24X24	14X14	1, 2, 3
R-5	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE	601-1000	14"ø	24X24	16X16	1, 2, 3
R-6	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE	1001-1500	16"ø	24X24	20X20	1, 2, 3
R-7	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE	1500-2000	22X22	24X24	22X22	1, 2, 3
R-8 / T-1	TITUS 350FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING 35 DEGREE DEFLECTION	0-600	12X12	14X14	12X12	1, 2, 3
R-9	TITUS 350FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING 35 DEGREE DEFLECTION	501-900	18X12	20X14	18X12	1, 2, 3
R-10	TITUS 350FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING 35 DEGREE DEFLECTION	901-1350	18X18	20X20	18X18	1, 2, 3
R-11	TITUS 350FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING 35 DEGREE DEFLECTION	1351-1750	24X18	26X20	24X18	1, 2, 3
R-12	TITUS 350FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING 35 DEGREE DEFLECTION	1751-2400	30X24	32X26	30X24	1, 2, 3
R-13	TITUS 33RFL	STEEL 3/8" BLADE SPACING 35 DEGREE DEFLECTION GYMNASIUM GRILLE	2401-5000	36X24	38X26	36X24	1, 2, 3
R-14	TITUS 33RFL	STEEL 3/8" BLADE SPACING 35 DEGREE DEFLECTION GYMNASIUM GRILLE	5001-10000	80X40	82X42	80X40	1, 2, 3
E-1	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE 35 DEGREE DEFLECTION	0-100	6"ø	12X12	8X8	1, 2, 3
E-2	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE 35 DEGREE DEFLECTION	101-225	8"ø	24X24	10X10	1, 2, 3
E-3	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE 35 DEGREE DEFLECTION	226-375	10"ø	24X24	12X12	1, 2, 3
E-4	TITUS 50F	EXTRUDED ALUMINUM FRAME W/ 1/2" CUBE CORE 35 DEGREE DEFLECTION	376-600	12"ø	24X24	14X14	1, 2, 3
E-5	TITUS 350FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING 35 DEGREE DEFLECTION	501-900	18X12	20X14	18X12	1, 2, 3
E-6	TITUS 350FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING 35 DEGREE DEFLECTION	0-75	4X6	6X8	4X6	1, 2, 3
E-7	TITUS 350FS	EXTRUDED ALUMINUM 3/4" BLADE SPACING 35 DEGREE DEFLECTION	76-200	8X6	10X8	8X6	1, 2, 3

REGISTERS, GRILLES, AND DIFFUSERS

PANELS. FOR DRYWALL, WALL OR DUCT MOUNTED AIR DEVICES PROVIDE APPROPRIATE SURFACE MOUNTING FRAME. 2. PROVIDE SQUARE TO ROUND TRANSITION BOX.

3. COORDINATE COLOR OF AIR DEVICES IN GYMNASIUM AND CAFETERIA WITH ARCHITECT. ALL OTHERS SHALL HAVE A WHITE FINISH.

4. PROVIDE WITH MOLDED INSULATION BLANKET. 5. PROVIDE WITH CUSTOM PLENUM BOX WITH ROUND DUCT INLET.

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CODO VIII	W EP PE-	F KE	M JR.	ER*XY DIVIN

FINAL DOCUMENTS	WILLIAM EPPS, JR. BUILDING OF KENTING
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No. Description Date

A	IR SEPARAT SCHEDULE	
NERAL		
BOL	AS-1	AS-2
IUF. & MODEL	BELL & GOSSETT RL-5F	BELL & GOSSETT RL-3F
VICE	PRIMARY GEO LOOP	CHILLED WATER LOOP
1	365	100
D LOSS	0.91 FT	1.0 FT
TEMPERATURE	350 F	350 F
PRESSURE	125 PSI	125 PSI
E CERTIFIED	YES	YES

<sup>1.</sup> ACCEPTABLE MANUFACTURER'S: TACO, BELL AND GOSSETT, ARMSTRONG

1. THE VFD SHALL INCLUDE A COMMUNICATIONS PORT FOR BACNET COMPATIBLE

3. PROVIDE ALL VFDS WITH A LAMICOID PLATE INDICATING ID#, HP, AND EQUIPMENT SERVED. INCLUDE VFD SPEED FOR REQUIRED FLOW ONPUMP VFDS AND VFD SPEED

2. PROVIDE VFD EQUIPPED MOTORS WITH SHAFT GROUNDING RINGS.

5. ACCEPTABLE MANUFACTURERS: ABB, SQUARE D, DANFOSS, YASKAWA

4. PROVIDE NEMA 12 ENCLOSURE AND BACNET MS/TP PROTOCOL.

PROTOCOL. COORDINATE WITH THE TCC. PROVIDE INPUT POINTS FOR TWO PRESET SPEEDS. PROVIDE TWO PROGRAMMABLE FORM C RELAYS RATED FOR 2 AMPS TO

**REMARKS**:

ACTIVATE AT SPEED.

FOR REQUIRED AIRFLOW ON AHU VFDS.

## **EXPANSION TANK** SCHEDULE

SYMBOL	ET-1	ET-2
MANUF. & MODEL	BELL & GOSSETT D-280V	BELL & GOSSETT D-40V
SERVICE	PRIMARY GEO LOOP	CHILLED WATER LOOP
TANK VOLUME	211 GAL	21.7 GAL
ACCEPTANCE VOLUME	84 GAL	11.3 GAL
ORIENTATION	VERTICAL	VERTICAL
TYPE	BLADDER	BLADDER
MAX TEMPERATURE	240 F	240 F
MAX PRESSURE	125 PSI	125 PSI
AIR PRESSURE CHARGE	15 PSI	15 PSI
ASME RATED	YES	YES

REMARKS:

1. ACCEPTABLE MANUFACTURER'S: TACO, BELL AND GOSSETT, ARMSTRONG

# HYDRONIC PUMP SCHEDULE

GENERAL			
SYMBOL	P-1A/1B	P-2	P-3
MANUF. & MODEL	BELL & GOSSETT E-1510 3BD	BELL & GOSSETT E-90 2AC SENSORLESS ITSC OPTION	BELL & GOSSETT E-90 2AB SENSORLESS ITSC OPTION
SERVICE	PRIMARY GEO LOOP	LOW-FLOW GEO LOOP	CHILLED WATER LOOP
GPM	365	100	85
HEAD (FT)	55	55	35
VFD	YES	YES	NO
HP	10	3	2
MIN. EFFICIENCY (%)	81	55	55
RPM	1622	3236	1750
IMPELLER	8.5	4.25	4.25
VOLTS / PHASE / HZ	460 / 3 / 60	208 / 3 / 60	208 / 3 / 60
REMARKS	1, 2, 3, 4	2, 3, 4	2, 3, 4

REMARKS:

1. PROVIDE PUMPS WITH MANUFACTURER'S PUMP STAND ON EXISTING CONCRETE PAD.

2. PUMP SHALL NOT USE MORE THAN 90% OF FULL IMPELLER.

3. LESS EFFICIENT EQUIPMENT WILL NOT BE ACCEPTED.

4. ACCEPTABLE MANUFACTURER'S: TACO, BELL AND GOSSETT, ARMSTRONG

GENERAL

VARIABLE FREQUENCY	VARIABLE REFRIGERANT HEAT PUMP UNIT SCHEDU
DRIVE SCHEDULE	VAINABLE INLI MIGENAINT TILAT FOINT OINT SCHEDO

Di	RIVE SCH	EDULE	VICINDEL	TKEI TKIOEIK	<i>/</i> (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Olvii O
GENERAL			GENERAL			
SYMBOL	VFD-1A	VFD-1B	SYMBOL	AC-1	AC-2	AC-3
STWIDGE	VI D-IA	VI D-10	MANUFACTURER & MODEL	TRANE PLFY-P05NFMU-E	TRANE PLFY-P08NFMU-E	TRANE PLFY-P12
MANUF. & MODEL	ABB	ABB	SERVICE	ADMIN VRF	ADMIN VRF	ADMIN VRF
WANT . A WODEL	ACH550	ACH550	DESCRIPTION	CEILING CASSETTE	CEILING CASSETTE	CEILING CASSET
SED/IICE	P-1A	P-1B	REFRIGERANT	R-410A	R-410A	R-410A
SERVICE	F-IA	F-1D	PERFORMANCE			
MOTOR HP	10	10	COOLING CAPACITY (MBH)	5.0	8.0	12.0
VOLTS / PH / HZ	208 V / 3 / 60		HEATING CAPACITY (MBH)	5.6	9.0	13.5
FUSED DISCONNECT AND	VEC	VEC	AIRFLOW	230-265-280	230-280-315	245-280-335
NEMA 12 ENCLOSURE	YES	YES	ELECTRIC	•		'
BYPASS STARTER	YES	YES	V / PH / HZ	208 / 1 / 60	208 / 1 / 60	208 / 1 / 60
	1	1	MCA / FUSE	0.24 / 15	0.28 / 15	0.20 / 15

RIABLE REFRIGERANT HEAT PUMP UNIT SCHEDULE	VARIABLE REFRIGERANT HEAT PUMP CONDENSER
INABLE INCINICATION TOWN ONLY SCHEDULE	HEAT PUMP CONDENSER

GENERAL				
SYMBOL	AC-1	AC-2	AC-3	AC-4
MANUFACTURER & MODEL	TRANE PLFY-P05NFMU-E	TRANE PLFY-P08NFMU-E	TRANE PLFY-P12NFMU-E	TRANE PLFY-P15NFMU-E
SERVICE	ADMIN VRF	ADMIN VRF	ADMIN VRF	ADMIN VRF
DESCRIPTION	CEILING CASSETTE	CEILING CASSETTE	CEILING CASSETTE	CEILING CASSETTE
REFRIGERANT	R-410A	R-410A	R-410A	R-410A
PERFORMANCE				
COOLING CAPACITY (MBH)	5.0	8.0	12.0	15.0
HEATING CAPACITY (MBH)	5.6	9.0	13.5	17.0
AIRFLOW	230-265-280	230-280-315	245-280-335	265-315-390
ELECTRIC				
V / PH / HZ	208 / 1 / 60	208 / 1 / 60	208 / 1 / 60	208 / 1 / 60
MCA / FUSE	0.24 / 15	0.28 / 15	0.29 / 15	0.35 / 15

1. ACCEPTABLE MANUFACTURERS: DAIKIN, LG OR TRANE

MANUFACTURER & MODEL TRANE PQRY-P72YLMU-A1  SERVICE ADMINISTRATION VRF  DESCRIPTION 6 TON WATER-COOLED CONDENSING UNIT  REFRIGERANT R-410A  COMPRESSOR INVERTER SCROLL HERMETIC COMPRESSOR  COOLING PERFORMANCE  COOLING CAPACITY (MBH) 72.0
DESCRIPTION 6 TON WATER-COOLED CONDENSING UNIT REFRIGERANT R-410A COMPRESSOR INVERTER SCROLL HERMETIC COMPRESSOR COOLING PERFORMANCE
REFRIGERANT R-410A  COMPRESSOR INVERTER SCROLL HERMETIC COMPRESSOR  COOLING PERFORMANCE
COMPRESSOR INVERTER SCROLL HERMETIC COMPRESSOR COOLING PERFORMANCE
COOLING PERFORMANCE
COOLING CAPACITY (MBH) 72.0
EER 16.7
SOURCE GPM / WPD (FT) 25.4 / 8.0
SOURCE EWT / LWT (°F) 85 / 97.1
HEATING PERFORMANCE
HEATING CAPACITY (MBH) 80.0
COP 5.51
SOURCE GPM / WPD (FT) 25.4 / 8.0
SOURCE EWT / LWT (°F) 45 / 35.9
ELECTRIC
V/PH/HZ 460/3/60

REMARKS:

MCA / MOP

POINT POWER

1. ACCEPTABLE MANUFACTURERS: DAIKIN, LG OR TRANE

DISCONNECT WITH SINGLE YES

6 / 15

B. WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ALL LOCAL, STATE, AND NATIONAL CODES. INCLUDING BUT NOT LIMITED TO NFPA 70 (NEC), NFPA 72, INTERNATIONAL BUILDING CODES, ETC.

C. CONTRACTOR SHALL FOLLOW SEISMIC RESTRAINT AND DESIGN REQUIREMENTS CONTAINED IN LATEST ADOPTED STATE AND INTERNATIONAL BUILDING CODES, WITH ALL AMENDMENTS AS ADOPTED BY THE CURRENT LEGISLATION. REFER TO ELECTRICAL AND STRUCTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION. D. ALL OFFSETS, TURNS, FITTINGS, TRIM, DETAIL, ETC. MAY NOT BE INDICATED, BUT SHALL BE PROVIDED AS REQUIRED. ADDITIONAL ALLOWANCES SHALL BE INCLUDED FOR SAME AT

EACH PROPOSER'S DISCRETION. E. INSTALL NO PIPING, CONDUIT, DUCTWORK, ETC. IN A LOCATION OR IN A MANNER WHICH WILL ALLOW FREEZING OR THE COLLECTION OF CONDENSATION THEREON. IF IN DOUBT,

F. ADVISE THE ENGINEER OF ANY CONFLICTS, ERRORS, OMISSIONS, ETC. AT LEAST TEN DAYS PRIOR TO BID DATE, TO ALLOW CLARIFICATION BY WRITTEN ADDENDUM. G. WHERE CONFLICTS ARE FOUND BETWEEN DRAWINGS, DETAILS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY. NOTIFY ARCHITECT OF DISCREPANCY IN

H. DEVIATION FROM SPECIFICATIONS OR PLANS REQUIRES PRIOR WRITTEN APPROVAL FROM THE ENGINEERS AND MUST BE SUBMITTED IN WRITING NO LATER THAN TEN DAYS PRIOR

TO THE BID DATE. I. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, STATE, FEDERAL, MUNICIPALITY, UTILITY COMPANY, OSHA, ETC.).

J. MOUNTING HEIGHTS FOR WALL MOUNTED DEVICES INDICATED ABOVE FINISHED FLOOR ARE TO CENTER OF DEVICE UNO. MOUNTING HEIGHTS TO CEILING SUSPENDED DEVICES ARE TO BOTTOM OF DEVICE UNO.

K. INSTALL EQUIPMENT, MATERIALS, ETC. IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND DIRECTIONS. IF IN CONFLICT WITH THE DESIGN INDICATED IN CONTRACT DOCUMENTS, ADVISE THE ENGINEER PRIOR TO INSTALLATION FOR CLARIFICATION.

L. DO NOT RECESS PANELBOARD TUBS OR OTHER FLUSH-MOUNTED EQUIPMENT IN WALLS THAT HAVE A FIRE RATING. NO INSTALLATION SHALL DIMINISH OR VOID FIRE RESISTIVE M. THE PURPOSE AND INTENT OF ALL OF THE DOCUMENTS PERTAINING TO THIS PROJECT IS TO PROVIDE A COMPLETE, FUNCTIONAL, SAFE, LIKE-NEW FACILITY. ANYTHING LESS SHALL

N. ALL SYSTEMS, EQUIPMENT AND MATERIALS ARE TO BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. WORK NOT MEETING THIS CRITERION SHALL BE REMOVED AND REINSTALLED SATISFACTORILY. FINAL DETERMINATION OF THE ACCEPTABILITY OF THE QUALITY OF WORK RESIDES WITH THE ENGINEER

O. ALL WORK, MATERIALS, EQUIPMENT, ETC. SHALL BE FULLY GUARANTEED FOR ONE FULL CALENDAR YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AS DOCUMENTED BY THE ENGINEER, UNLESS LONGER WARRANTY PERIODS FOR EQUIPMENT ARE SPECIFIED.

P. UNLESS OTHERWISE SPECIFIED OR INDICATED, ALL EQUIPMENT AND/OR MATERIALS WITHIN OCCUPIED SPACES OR EXPOSED TO VIEW ON THE BUILDING EXTERIOR SHALL BE PRIMED AND FINISHED SO AS TO COMPLEMENT ADJACENT SURFACE, UNLESS OTHERWISE NOTED. COORDINATE WORK AND COLORS WITH ARCHITECT. Q. WHERE PENETRATING ROOFING MEMBRANE OR OTHER MATERIALS USED FOR WEATHERPROOFING THE BUILDING, MAKE SUCH PENETRATION IN A WAY THAT WILL NOT VOID OR

DIMINISH THE ROOFING WARRANTY OR INTEGRITY IN ANYWAY. COORDINATE ALL SUCH PENETRATIONS WITH THE ROOFING MANUFACTURER AND ARCHITECT. R. COORDINATE WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND CASEWORK DETAILS FOR LOCATION OF ADDITIONAL RECEPTACLES, UTILITY OUTLETS, ELECTRICAL DEVICES, S. CEILING-MOUNTED ELECTRICAL DEVICES SHALL BE CENTERED IN 2'X2' CEILING TILE AND INSTALLED CENTERED ON 2' DIMENSION OF 2'X4' TILE AND ON CENTERLINE OR A QUARTER

POINT ON 4' DIMENSION. T. ANY VIBRATING. OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTORS' EXPENSE. THE FINAL DECISION ON THE SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY SHALL BE THAT OF THE ENGINEER.

U. CHECK ALL THREE PHASE MOTORS WITH A PHASE ROTATION METER, PRIOR TO PLACING IN SERVICE. V. PROVIDE DETAILED SHOP DRAWINGS TO ENGINEER PRIOR TO PURCHASING OR INSTALLING ANY EQUIPMENT

DRAWING DATA PRIOR TO ROUGH-IIN AND/OR START OF WORK.

W. DEVIATIONS IN SIZES, CAPACITIES, FIT, FINISH, ETC. FOR EQUIPMENT FROM THAT PRIME SPECIFIED SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE ENGINEER OR NOT, SHALL BE THE RESPONSIBILITY OF THE PURCHASER. X. THE CONSTRUCTION MANAGER, GENERAL CONTRACTOR, OR WHOMEVER HOLDS THE PRIME CONTRACT(S) FOR THIS CONSTRUCTION IS RESPONSIBLE FOR THE COORDINATION, APPEARANCE, SCHEDULING AND TIMELINESS OF THE WORK OF ALL TRADES, CONTRACTORS, SUPPLIERS, INSTALLERS, ETC. POOR OR UNTIMELY WORK ON THE PART OF ANY SUBCONTRACTOR SHALL BE RESOLVED BY THE PARTY WHO ENGAGED THEM ON THIS PROJECT.

Y. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINEER BEFORE AFFECTING INSTALLATION. REFER ALSO TO ARCHITECTURAL INTERIOR AND EXTERIOR ELEVATIONS, CEILING HEIGHTS AND OTHER DETAILS OF THESE DOCUMENTS, AS APPLICABLE. Z. WHERE FIRE-RATED CEILING ASSEMBLIES ARE NOTED, PROVIDE UL-LISTED FIRE-RATED GYPSUM BOARD OR PRE-MANUFACTURED ENCLOSURES ABOVE LUMINAIRES, CEILING

DEVICES, ETC. IN OR ON CEILING, AS REQUIRED TO MAINTAIN CEILING RATINGS. AA. COORDINATE THE LOCATION OF DRAINS, ELECTRICAL OUTLETS, GAS OUTLETS, ETC. WITH ALL CASEWORK, KITCHEN EQUIPMENT, MECHANICAL ROOM EQUIPMENT, ETC. PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE RESPONSIBLE CONTRACTOR(S).

AB. ALL ELECTRICAL COMPONENTS OR EQUIPMENT SHALL BE LISTED AND LABELED BY UNDERWRITER'S LABORATORIES OR OTHER APPROVED LISTING AGENCY. APPROVAL AND

LABELING OF INDIVIDUAL COMPONENTS ON AN ASSEMBLY IS NOT ACCEPTABLE AS MEETING THIS REQUIREMENT, UNLESS WAIVED BY THE ENGINEER IN WRITING. AC. ALL WIRING SYSTEMS SHALL BE INSTALLED WITH A MINIMUM OF SPLICES. CONDUCTORS, WHETHER SINGLE OR MULTI-PAIR, SHALL BE INSTALLED CONTINUOUS INSOFAR AS

POSSIBLE FROM TERMINAL POINT TO TERMINAL POINT. AD. NO CONDUIT, SUPPORTS, ETC. SHALL BE RUN THROUGH ACCESS CLEARANCES OF EQUIPMENT BY OTHER TRADES (I.E. VAV BOXES). COORDINATE WITH ALL TRADES PRIOR TO AE. ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE OR SUB-SERVICE FOR SAFETY PURPOSES. PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC. OF EACH

UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARD AND

SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. AF. ALL SUPPORTS FOR EQUIPMENT, DEVICES OR FIXTURES SHALL BE UNIQUE, DIRECTLY FROM THE BUILDING STRUCTURE. DO NOT SUPPORT WORK FROM OTHER TRADES

EQUIPMENT OR SUPPORTS WITHOUT WRITTEN PERMISSION FROM THE ENGINEER AND CONSENT OF THE OTHER TRADE, IN WRITING. AG. WHERE INTERRUPTING AN EXISTING UTILITY OR SERVICE DELIBERATELY OR ACCIDENTALLY. THE RESPONSIBLE CONTRACTOR SHALL WORK CONTINUOUSLY AS NEEDED TO

RESTORE SAME, PROVIDING PREMIUM TIME AS NEEDED. AH. REFER TO ARCHITECTURAL WALL ELEVATIONS (WHERE GIVEN) FOR HEIGHTS AND MOUNTING RELATIONSHIP OF OUTLETS AND EQUIPMENT. IF IN DOUBT, CONTACT ENGINEER FOR

AI. FLUSH OR PEDESTAL TYPE FLOOR OUTLETS/BOXES, AS INDICATED ON PLAN, SHALL BE LOCATED BY DIMENSIONS PROVIDED BY THE ARCHITECT, UNLESS OTHERWISE SHOWN ON PLANS. IF IN DOUBT, CONTACT THE ENGINEER PRIOR TO ROUGHING-IN ANY WORK. AJ. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR HIS WORK. ALL CUTTING AND PATCHING SHALL BE IN ACCORDANCE WITH THE

ARCHITECT'S STANDARDS FOR SUCH WORK. AK. ALL WORK SHALL BE CONCEALED UNLESS SPECIFICALLY INDICATED TO BE EXPOSED, OR REQUIRED TO BE EXPOSED. IF IN DOUBT, CONTACT THE ENGINEER FOR CLARIFICATIONS PRIOR TO INSTALLING ANY SUCH WORK.

AL. WHERE BACKBOXES ARE LOCATED IN THE SAME VERTICAL CHANNEL/STUD SPACE ON OPPOSITE SIDES OF THE SAME WALL, PROVIDE SOUND-INSULATING PUTTY AROUND BOXES AS REQUIRED TO ELIMINATE SOUND TRANSMISSION FROM ROOM TO ROOM. AM. JUNCTION BOXES LOCATED ABOVE ACCESSIBLE CEILINGS SHALL BE LOCATED NO MORE THAN 36" ABOVE CEILING LEVEL. LABEL EACH BOX IN AREA OF WORK WITH A PERMANENT

MARKER OR IN ACCORDANCE WITH SPECIFICATIONS. WHICHEVER IS MORE STRINGENT. AN. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODES, NATIONAL FIRE CODES OF THE NATIONAL FIRE PROTECTION ASSOCIATION, THE REQUIREMENTS OF LOCAL UTILITY COMPANIES, AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL AGENCIES OR

DEPARTMENTS HAVING JURISDICTION. IF ANY CONFLICTS OR DISCREPANCIES OCCUR THE MOST STRINGENT SHALL APPLY. AO. DO NOT SCALE FROM DRAWINGS, AS PRINTING DISTORTS SCALE. WORK SHALL BE LAID OUT FROM DIMENSIONED DRAWINGS, OR DIMENSIONS SUPPLIED TO THE CONTRACTOR. AP. NOISY WORK, WORK OUTSIDE CONSTRUCTION BARRIERS, WORK IN OCCUPIED AREAS, ETC. SHALL BE PERFORMED AFTER HOURS OR ON WEEKENDS. COORDINATE EXACT

SCHEDULING WITH FACILITY PRIOR TO CONSTRUCTION. AQ. ALL ITEMS HAVING KEYED LOCKS/OPERATORS SHALL HAVE CORED LOCKS/OPERATORS. ALL KEYING SHALL MATCH THE OWNER'S EXISTING KEY-WAYS. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO CONSTRUCTION.

AR. REFER TO ARCHITECTURAL PLANS FOR PHASING REQUIREMENTS. WORK SHALL BE COMPLETED IN PHASES PER THE PHASING PLAN AND AS COORDINATED WITH OWNER AND GENERAL CONTRACTOR. PROVIDE ALL REQUIRED INCREMENTAL INSPECTIONS, CERTIFICATIONS, ETC. AND ALL TEMPORARY SERVICES AS REQUIRED BY OWNER TO ACCOMPLISH

AS. UNLESS OTHERWISE SPECIFIED OR INDICATED, INSTALL LIGHT FIXTURES, SMOKE DETECTORS, SPEAKERS AND OTHER CEILING MOUNTED APPURTENANCES IN THE CEILINIG IN A

SYMMETRICAL PATTERN, UNLESS SPECIFICALLY INDICATED OTHERWISE. AT. WHERE EXIT LIGHTS ARE CONNECTED TO EMERGENCY CIRCUITS WITH KEYSWITCH OR CONTACTOR CONTROL. AN UNSWITCHED LINE SHALL BE PULLED IN TO MAINTAIN THEIR

OPERATION REGARDLESS OF SWITCH POSITION. AU. LOCATE CABLE AND CHAIN-HUNG INDUSTRIAL FIXTURES IN MECHANICAL ROOMS TO AVOID DUCTWORK AND PIPING. TO MAXIMIZE AVAILABLE LIGHT AND SPACE AROUND

EQUIPMENT, AIR HANDLERS, ETC., TO PROVIDE ADEQUATE LIGHTING TO ALL AREAS OF ROOM. PROVIDE ADDITIONAL FIXTURES OF SAME TYPE AS NEEDED TO FULFILL THIS REQUIREMENT. LIGHT FIXTURES SHALL NOT BE MOUNTED BELOW 7'-6" A.F.F. AV. ALL LIGHTING FIXTURE LENSES, DOWNLIGHTING ALZAK CONES AND LOUVERS SHALL BE HANDLED WITH COTTON GLOVES DURING INSTALLATION AND LAMPING TO AVOID FINGERPRINTS OR DIRT DEPOSITS. IT IS PREFERRED THAT FIXTURES BE SHIPPED AND INSTALLED WITH CLEAR PLASTIC BAGS TO PROTECT LOUVERS. AT CLOSE OF PROJECT AND

AFTER CONSTRUCTION AIR FILTERS ARE CHANGED, REMOVE BAGS. ANY LOUVER OR CONE SHOWING DIRT OR FINGERPRINTS SHALL BE CLEANED WITH SOLVENT RECOMMNEDED BY THE MANUFACTURER, OR REPLACED AS NECESSARY IN ORDER TO TURN OVER TO THE OWNER NEW FIXTURES AT OCCUPANCY. AW. REFER TO ARCHITECTURAL DETAILS AS APPLICABLE FOR RECESSED SOFFIT LED FIXTURES. ADJUST FIXTURE LENGTHS BY FIELD MEASUREMENT OF SOFFIT, AS NECESSARY. AX. CONTRACTOR SHALL INSTALL INTERIOR DISCONNECT SWITCHES, MOTOR RATED SWITCHES, STARTERS, ETC. IN A NEMA 1 ENCLOSURE AND IN A NEM 3R ENCLOSURE FOR EXTERIOR UNITS. UON. DEVICES ARE TO BE WITHIN SIGHT OF THE UNIT SERVING, IN A MAINTENANCE ACCESSIBLE LOCATION. COORDINATE ALL SIZES WITH FINAL EQUIPMENT SHOP

AY. ALL FLOOR SLEEVES SHALL BE SEALED WATER TIGHT. AZ. THE CONTRACTOR SHALL PROVIDE AND LOCATE ALL SLEEVES AND INSERTS REQUIRED FOR HIS WORK BEFORE THE FLOORS AND SURFACE BEING PENETRATED ARE BUILT. CORING OF ANY ELEVATED DECK SHALL NOT BE ACCEPTED. ALL METAL DECK PENETRATIONS SHALL BE COORDINATED AND SLEEVED. ANY COSTS INCURRED DUE TO LACK OF COORDINATION SHALL BE BORNE BY THIS CONTRACTOR. WHERE SLEEVES ARE PLACED IN EXTERIOR WALLS OR IN SLABS ON GRADES, THE SPACE BETWEEN THE PIPE OR CONDUIT AND THE SLEEVES SHALL BE MADE COMPLETELY AND PERMANENTLY WATER TIGHT.

POKE-THRU/FLOOR BOX GENERAL NOTES:

A. ALL ABOVE SLAB DEVICES SHALL BE SCRUB WATER RATED B. ALL ON GRADE DEVICES SHALL BE CAST IRON OR RATED FOR ONGRADE USE.

C. FLOOR BOX FLANGE/FLOOR TYPE REQUIREMENTS SHALL BE COORDINATED ARCHITECTURAL FLOOR FINISH PRIOR TO SUBMISSION. PROVIDE FLANGED SETTINGS, TILE/CARPET OR BARE CONCRETE

COORDINATED FLOOR BOXES AS REQUIRED FOR FLOOR. D. CONTRACTOR SHALL PROVIDE ALL SYSTEMS AND POWER CONDUITS (REFER TO STUB-OUT DETAIL FOR DEVICE TYPE AND NUMBER OF CONDUITS U.O.N. ) AT CEILING SPACE BELOW UP IN NEAREST WALL TO

ABOVE ACCESSIBLE CEILING AS REQUIRED FOR SYSTEMS STUB OUTS, POWER CIRCUITING, ETC. REFER TO FLOOR PLANS AND DEVICES AND PROVIDE AS REQUIRED. E. WHERE SYSTEMS FURNITURE CONNECTIONS ARE REQUIRED, CONTRACTOR SHALL PROVIDE FLEXIBLE

CONDUIT WHIPS WITH APROPRIATE CONNECTIONS AT EACH END FOR FLOOR BOX AND SYSTEMS FURNITURE CONNECTIONS. APPLIES FOR POWER AND SYSTEMS CONNECTIONS.

F. PROVIDE SEPARATE COMPARTMENTS FOR POWER AND SYSTEMS CONNECTIONS OR DIVIDERS LISTED FOR THAT USE BY THE MANUFACTURER. G. COORDINATE EXACT FLOOR BOX LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.

DESCRIPTION	MOUNTING HEIGHT (TC CENTER OF BOX)	DRAWING	DESCRIPTION	MOUNTING HEIGHT (TC CENTER OF BOX)	DRAWING
LIGHTING CONTROL SWITCHES			LIGHTING		
LIGHT SWITCH: GENERAL PURPOSE	4'-0"	\$	REFER TO LUMINAIRE SCHEDULE FOR EXACT FIXTURE		
NIGHT LIGHT SWITCH WITH CONSTANTLY ILLUMINATED HANDLE	4'-0"	\$ N	SPECIFICATIONS, MOUNTING HEIGHTS, ETC. SURFACE OR SUSPENDED CEILING FIXTURE (SLASH		<del>Ф</del> ,О,_
LOW VOLTAGE DIMMER SWITCH	4'-0"	\$ D	INDICATES RECESSED)		└──, └─
THREE-WAY SWITCH	4'-0"	\$ <sup>3</sup>	POLE MOUNTED AREA LIGHT  EMERGENCY BATTERY WALL-PACK		₽, Q
FOUR-WAY SWITCH	4'-0"	\$ 4	WALL MOUNT FIXTURE		Ф,Ю
KEYED SWITCH  OCCUPANCY OR VACANCY SENSOR SWITCH	4'-0"	\$ K	FLOODLIGHT		$\triangleleft$
LIGHT SWITCH FOR UNDER-CABINET LIGHTS	4'-0"	\$os,\$vs   \$u	EXIT LIGHT (CEILING, END, WALL MOUNT)		$\Theta_{,}\Phi_{,}$
ILLUMINATED HANDLE LIGHT SWITCH (ILLUMINATED	4'-0"	\$ IL	STRIP FIXTURE		$\longmapsto$
WHEN LOAD IS OFF) LOW VOLTAGE MOMENTARY SWITCH	4'-0"		PARALLEL-HATCHING INDICATES EMERGENCY BATTERY BACK-UP		
PILOT LIGHT SWITCH (ILLUMINATED WHEN LOAD IS ON)	4'-0"	] \$PL	MISCELLANEOUS		
NON-REVERSING MOTOR STARTER SNAP SWITCH	AS NOTED	\$ M	CONDUIT CONCEALED IN WALLS OR IN CEILING		—GROUND
MOMENTARY CONTACT SWITCH	4'-0"	\$ MC	SPACE: ARROW(S) INDICATE(S) HOME RUN & # OF CIRCUITS: HASHMARKS INDICATE # OF		- NEUTRAL
HAND-OFF-AUTO 3-POSTION SWITCH	4'-0"	\$ HOA	CONDUCTORS. DASHED LINE INDICATES CONDUIT BELOW FLOOR.		PHASE
REMOTE INVERTER REFER TO LIGHT FIXTURE SCHEDULE FOR DETAILS	CLG	E	DISCONNECT SWITCH	5'-0"	, 
	CI C		MAGNETIC STARTER	5'-0"	$\bowtie$
OCCUPANCY OR VACANCY SENSOR, CEILING MOUNT	CLG	(os) (vs)	MAGNETIC COMBINATION STARTER	5'-0"	
PHOTO-CELL AS NOTED	AS NOTED	(PC)	VARIABLE FREQUENCY DRIVE  ENCLOSED FLUSH MTD. CIRCUIT BREAKER	5'-0" 5'-0"	
POWER OUTLETS			BOX ON ANY DEVICE INDICATES SURFACE MOUNTED	3 0	
DUPLEX RECEPTACLE, TAMPER PROOF, SHUTTER TYPE  DUPLEX RECEPTACLE, TAMPER PROOF, SHUTTER TYPE	1'-6"	<del> </del>	CIRCLE ON ANY DEVICE INDICATES DEVICE FED FROM STUB		$\oplus$
SLASH THROUGH ANY DEVICE INDICATES MOUNTING		] <del>↓</del> Ø ,₩	UP CONDUIT  FLEXIBLE CONDUIT		$\sim$
ABOVE COUNTERTOP 4" ABOVE BACKSPLASH	4'-0"	,	PANELBOARD, SURFACE OR FLUSH MOUNTED,	6'-6" TO TOP	
FILLED CENTER BAR INDICATES INTEGRAL GROUND FAULT PROTECTION (GFCI)	1'-6"	<b>→</b>	HATCHING INDICATES EMERGENCY		
DEAD FRONT GFCI DEVICE, LABEL AND INSTALL IN READILY ACCESSIBLE LOCATION		$\Theta$	TRANSFORMER	AS NOTED	
FILLED OUTER BARS INDICATES INTEGRAL INTEGRAL USB	1'-6"	<b>-</b>	EQUIPMENT TAG, REFER TO EQUIPMENT SCHEDULE		EQUIP-1
OUTLETS IN ADDITION TO POWER RECEPTACLES  GANG RECEPTACLE IN COMBINATION WITH SWITCH	41.0"	<b>←</b> c/s	TAGGED NOTE		$\bigcirc$
(PROVIDE DIVIDER IF LIGHTING CIRCUIT IS 277V)	4'-0"	-	REVISION TAG	VC CHORE.	
DUPLEX RECEPTACLE, CEILING MOUNTED  QUADRUPLEX RECEPTACLE	CLG 1'-6"	<del>                                     </del>	LOW VOLTAGE CABLE PATH  CABLE TRAY AS NOTED	AS SHOWN AS SHOWN	
UNCTION BOX, CEILING OR WALL		①,Ю	DOORBELL PUSHBUTTON STATION, PROVIDE COMPLETE	333771	F===
OLTAGE/1PH RECEPTACLE, AS NOTED	AS NOTED		WITH TRANSFORMER (MOUNT ABOVE CEILING IN CORRIDOR	4'-0"	DB
OLTAGE/3PH RECEPTACLE, AS NOTED	1'-6"	<b>=</b>	NEAREST AVAILABLE 120V NORMAL POWER GENERAL RECEPTACLE CIRCUIT, NUTONE OR EQUAL		
DOG-HOUSE" TYPE TWIN DUPLEX RECEPTACLE WITH DNE DUPLEX RECEPTACLE ON BOTH SIDES	ON CNTR.	• DP	DOORBELL AUDIO/VISUAL STATION, PROVIDE PROVIDE CONNECTION TO PUSHBUTTON STATION IN AREA.	71.611	
SS INDICATES SURGE SUPPRESION TYPE OUTLET(S)		⇒ ss	COORDINATE EXACT AUDIO SOUND (CHIME, BUZZER, ETC.) DESIRED WITH OWNER/ARCHITECT, NUTONE OR EQUAL	7'-6"	DB
GROUND FAULT PROTECTED DUPLEX WITH NEATHER-PROOF "WHILE IN USE" TYPE DIE-CAST			EQUIPMENT HARDWIRE CONNECTION (SEE DETAIL)		⊕~
METAL COVERPLATE WITH LOCKABLE ENCLOSURE AT DUTLET - SEE SPECIFICATIONS	2'-2"	₩P	KITCHEN EQUIPMENT OUTLET COUPLING CONNECTION		<b>⊕</b> ~
DUPLEX FOR ELECTRIC WATER COOLER: COORDINATE			(SEE DETAIL) MOTOR CONNECTION, REFER TO EQUIPMENT		κ ∕⁄
EXACT LOCATION WITH PLUMBING CONTRACTOR TO CONCEAL OUTLET BEHIND COOLER, PROVIDE READILY		EWC	CONNECTION SCHEDULE WIREGUARD - PROVIDE MANUFACTURER'S SPECIFIC		
ACCESSIBLE GFI DEVICE AT 18" ADJACENT TO WATER COOLER			GUARD FOR DEVICE NOTED		WG
FIRE ALARM			WEATHERPROOF - NEMA-3R, WET LOCATION LISTED. PROVIDE COVERS, RATINGS, ETC, AS SUITABLE FOR		WP
MAIN CONTROL PANEL CENTRAL PROCESSING UNIT (CPU)	6'-6" TO	FACP	OUTDOORS.  INDICATES MOUNTING ABOVE COUNTER-TOP, 2"		С
· ·	TOP 48" TO		ABOVE BACKSPLASH, NO HIGHER THAN 48"		
PULL STATION : DOUBLE ACTION	LEVER	F A	PLUMBING FIXTURE SOLENOID VALVE/ELECTRIC EYE		$\oplus$
AUDIO/VISUAL NOTIFICATION APPLIANCE	WALL, CLG	FN, FX	SENSOR CONNECTION. COORDINATE EXACT CONNECTION REQUIREMENTS WITH MANUFACTURER.		Ψ
AUDIO-ONLY NOTIFICATION APPLIANCE	WALL, CLG	A A	PLUMBING FIXTURE ELECTRIC EYE TRANSFORMER CONNECTION, TRANSFORMER SHALL BE 120V-24V, MOUNT		0
/ISUAL-ONLY NOTIFICATION APPLIANCE	WALL, CLG		ABOVE SUSPENDED ACCESSIBLE CEILING IN J-BOX. PROVIDE ADDITIONAL TRANSFORMERS OF SAME TYPE		$\otimes$
EXTERIOR ELECTRIC BELL	80"	В	AS/IF NEEDED		
PHOTO-ELECTRIC SMOKE DETECTOR	CLG	SD	PROVIDE CONNECTION TO HAND DRYER (SEE ARCHITECTURAL SPECIFICATIONS)	VERIFY WITH ARCHITECT	Ø
HEAT DETECTOR	CLG	HD	SURGE PROTECTION DEVICE	/	SPD
CARBON MONOXIDE DUCT DETECTOR	ABV CLG	CD			
		·	THERMOSTAT PROVIDED BY MECHANICAL CONTRACTOR,		T
DOOR HOLDER : WALL TYPE	WALL	DH	ELECTRICAL CONTRACTOR SHALL PROVIDE BACK-BOX CONDUIT STUB-UP, REFER TO MECHANICAL DRAWINGS		
DOOR HOLDER : CLOSURE TYPE	ABV DOOR	DH C	FOR LOCATIONS CONDUIT UP		0
DUCT SMOKE DETECTOR	ABV CLG	DD	CONDUIT DOWN  GROUND BUS BAR ON INSULATED STANDOFFS	2'-0"	•
1		FS	DATA / VOICE	1	
CONNECTION TO SPRINKLER FLOW SWITCH			DATA OUTLET : NUMBER BESIDE OUTLET INDICATES	1'-6"	#D
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE		TS	NUMBER OF DATA JACKS	1.0	₩V
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE		<del>                                     </del>		1'-6"	▼
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH	F4"	PS	VOICE OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF VOICE JACKS		
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH	54"	FAA	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET	1'-6"	#D/#V <b>▼</b> 7
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR		FAA	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS		#D/#V <b>\</b>
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE	54"	FAA PIV NAC	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL		<b>V</b>
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES	4'-0"	FAA	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM		
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES FIRE ALARM CONTROL EXTENDER		FAA PIV NAC	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR		<b>V</b>
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CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES FIRE ALARM CONTROL EXTENDER SOLATION MODULE CONE ADDRESSABLE MODULE	4'-0"	FAA PIV NAC EXT	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  TELECOMMUNICATIONS SYSTEM BACKBOARD. PROVIDE 96"H x 3/4"D FIRE-RETARDENT PLYWOOD BACKBOARD WITH TWO (2) COATS OF NON-CONDUCTIVE, FIRE-		MDF IDF
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES FIRE ALARM CONTROL EXTENDER SOLATION MODULE CONE ADDRESSABLE MODULE H.V.A.C. SMOKE DAMPER CONNECTION	4'-0" WALL	FAA PIV NAC EXT I Z SM	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  TELECOMMUNICATIONS SYSTEM BACKBOARD. PROVIDE 96"H x 3/4"D FIRE-RETARDENT PLYWOOD BACKBOARD WITH TWO (2) COATS OF NON-CONDUCTIVE, FIRE-RETARDANT LIGHT GRAY PAINT, #3/0 TO GROUND BAR AT MAIN SERVICE SWITCHBOARD, 30-PT GROUND BAR AND A		MDF
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CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES FIRE ALARM CONTROL EXTENDER SOLATION MODULE CONE ADDRESSABLE MODULE H.V.A.C. SMOKE DAMPER CONNECTION FLUSH MOUNTED REMOTE ALARM INDICATING STATION/TEST SWITCH FIREMAN'S KNOX BOX CONNECTION	4'-0" WALL	FAA  PIV  NAC  EXT  I  Z  SM	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  TELECOMMUNICATIONS SYSTEM BACKBOARD. PROVIDE 96"H x 3/4"D FIRE-RETARDENT PLYWOOD BACKBOARD WITH TWO (2) COATS OF NON-CONDUCTIVE, FIRE-RETARDANT LIGHT GRAY PAINT, #3/0 TO GROUND BAR AT MAIN SERVICE SWITCHBOARD, 30-PT GROUND BAR AND A 6'-0", #3 AWG PIGTAIL AT BACKBOARD. INSTALL BOARD AT 2' AFF. (LENGTH OF BOARD AS INDICATED ON FLOOR PLAN)  WIRELESS ACCESS POINT OUTLET WITH PROVISIONS FOR (1 DATA OUTLET FOR ANTENNA. PROVIDE A COMPLETE DATA OUTLET WITH FACEPLATE ABOVE CEILING, MOUNTED		MDF  IDF  TEL
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES FIRE ALARM CONTROL EXTENDER ISOLATION MODULE CONE ADDRESSABLE MODULE H.V.A.C. SMOKE DAMPER CONNECTION FLUSH MOUNTED REMOTE ALARM INDICATING STATION/TEST SWITCH FIREMAN'S KNOX BOX CONNECTION ADDRESSABLE RELAY MODULE INDICATES VANDAL-PROOF POLYCARBONATE COVER,	4'-0" WALL	FAA PIV NAC EXT I Z SM RI KB	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  TELECOMMUNICATIONS SYSTEM BACKBOARD. PROVIDE 96"H x 3/4"D FIRE-RETARDENT PLYWOOD BACKBOARD WITH TWO (2) COATS OF NON-CONDUCTIVE, FIRE-RETARDANT LIGHT GRAY PAINT, #3/0 TO GROUND BAR AT MAIN SERVICE SWITCHBOARD, 30-PT GROUND BAR AND A 6'-0", #3 AWG PIGTAIL AT BACKBOARD. INSTALL BOARD AT 2' AFF. (LENGTH OF BOARD AS INDICATED ON FLOOR PLAN)  WIRELESS ACCESS POINT OUTLET WITH PROVISIONS FOR (1 DATA OUTLET FOR ANTENNA. PROVIDE A COMPLETE DATA OUTLET WITH FACEPLATE ABOVE CEILING, MOUNTED AT AN ACCESSIBLE HEIGHT NO MORE THAN 24" ABOVE CEILING. AT EACH OUTLET, PROVIDE A 20' COIL OF CABLE		MDF IDF
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES FIRE ALARM CONTROL EXTENDER ISOLATION MODULE CONE ADDRESSABLE MODULE H.V.A.C. SMOKE DAMPER CONNECTION FLUSH MOUNTED REMOTE ALARM INDICATING STATION/TEST SWITCH FIREMAN'S KNOX BOX CONNECTION ADDRESSABLE RELAY MODULE INDICATES VANDAL-PROOF POLYCARBONATE COVER, WANDAL PROOF COVERS SHALL BE UL LISTED FOR USE WITH THE SPECIFIC DEVICE THEY ARE PROTECTING	4'-0" WALL	FAA  PIV  NAC  EXT  I  Z  SM  RI  KB  R	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  TELECOMMUNICATIONS SYSTEM BACKBOARD. PROVIDE 96"H x 3/4"D FIRE-RETARDENT PLYWOOD BACKBOARD WITH TWO (2) COATS OF NON-CONDUCTIVE, FIRE-RETARDANT LIGHT GRAY PAINT, #3/0 TO GROUND BAR AT MAIN SERVICE SWITCHBOARD, 30-PT GROUND BAR AND A 6'-0", #3 AWG PIGTAIL AT BACKBOARD. INSTALL BOARD AT 2' AFF. (LENGTH OF BOARD AS INDICATED ON FLOOR PLAN)  WIRELESS ACCESS POINT OUTLET WITH PROVISIONS FOR (1 DATA OUTLET FOR ANTENNA. PROVIDE A COMPLETE DATA OUTLET WITH FACEPLATE ABOVE CEILING, MOUNTED AT AN ACCESSIBLE HEIGHT NO MORE THAN 24" ABOVE CEILING. AT EACH OUTLET, PROVIDE A 20' COIL OF CABLE AHEAD OF THE OUTLET FOR ADJUSTMENT OF FINAL OUTLET LOCATION. THE CONTRACTOR SHALL COORDINATE EXACT		MDF  IDF  TEL
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE PRESSURE SWITCH REMOTE L.C.D. FIRE ALARM ANNUNCIATOR POST INDICATOR VALVE POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES FIRE ALARM CONTROL EXTENDER SOLATION MODULE CONE ADDRESSABLE MODULE H.V.A.C. SMOKE DAMPER CONNECTION FLUSH MOUNTED REMOTE ALARM INDICATING STATION/TEST SWITCH FIREMAN'S KNOX BOX CONNECTION ADDRESSABLE RELAY MODULE NDICATES VANDAL-PROOF POLYCARBONATE COVER, VANDAL PROOF COVERS SHALL BE UL LISTED FOR USE	4'-0" WALL	FAA PIV NAC EXT I Z SM RI KB	NUMBER OF VOICE JACKS  COMBINATION OUTLET: NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS  TELECOMMUNICATIONS SYSTEM BACKBOARD. PROVIDE 96"H x 3/4"D FIRE-RETARDENT PLYWOOD BACKBOARD WITH TWO (2) COATS OF NON-CONDUCTIVE, FIRE-RETARDANT LIGHT GRAY PAINT, #3/0 TO GROUND BAR AT MAIN SERVICE SWITCHBOARD, 30-PT GROUND BAR AND A 6'-0", #3 AWG PIGTAIL AT BACKBOARD. INSTALL BOARD AT 2' AFF. (LENGTH OF BOARD AS INDICATED ON FLOOR PLAN)  WIRELESS ACCESS POINT OUTLET WITH PROVISIONS FOR (1 DATA OUTLET FOR ANTENNA. PROVIDE A COMPLETE DATA OUTLET WITH FACEPLATE ABOVE CEILING, MOUNTED AT AN ACCESSIBLE HEIGHT NO MORE THAN 24" ABOVE CEILING. AT EACH OUTLET, PROVIDE A 20' COIL OF CABLE AHEAD OF THE OUTLET FOR ADJUSTMENT OF FINAL OUTLET		MDF  IDF  TEL

	DESCRIPTION	Z H B B	R Y	DESCRIPTION
	ABBREVIATIONS	_		SYSTEM
-	UNLESS OTHERWISE NOTED		UON	RESPONSIBILITY MATRIX
ŀ	OWNER FURNISHED CONTRACTOR INSTALLED OWNER FURNISHED OWNER INSTALLED		OFCI OFOI	
	CONTRACTOR FURNISHED CONTRACTOR INSTALLED		CFCI	
	CONTRACTOR FURNISHED OWNER INSTALLED		CFOI	
	FLOOR BOX AND POKE THROUGH OUTLETS			
ŀ		FLOOD	[ FEN	SYSTEM
	FLOORBOX, POWER ONLY, AS SCHEDULED	FLOOR		OVERHEAD PAGING / INTERCOM
	FLOOR BOX WITH (2) CFCI DUPLEX RECEPTACLES AND (1) OFOI DATA. GANG BOTH RECEPTACLES TOGETHER	FLOOR	FB-A	FIRE ALARM  SECURITY: INTRUSION DETECTION
	AND PROVIDE BARRIER TO SEPARATE FROM LOW VOLTAGE. WIREMOLD #EFB8			SECURITY: INTERCOM
	FLOOR BOX WITH (2) CFCI DUPLEX RECEPTACLES AND (2) OFOI DATA. GANG BOTH RECEPTACLES TOGETHER	FLOOR	ГБ-В	SECURITY: CCTV
	AND PROVIDE BARRIER TO SEPARATE FROM LOW VOLTAGE. WIREMOLD #EFB8			TELEVISION
AL -	FIRE RATED POKE THOUGH FLOOR BOX, COORDINATE	FLOOR		DATA / VOICE
E	EXACT COVER REQUIREMENTS WITH ARCHITECTURAL FINISHES, DEVICES AS SCHEDULED	FLOOR	● FB-A	TELEPHONE
ŀ	TELEVISION			AUDIO / VIDEO WIRELESS
ŀ	TELEVISION TELEVISION SPLITTERS/AMPLIFIERS/DISTRIBUTION	4'-0"	TV-HE	SYSTEM RESPONSIBILITY GENERAL NOTES:
-	· · · · · ·	7'-0"		A. REFER TO VENDOR DRAWINGS FOR CO
	TELEVISION SYSTEM OUTLET WITH DUPLEX RECEPTACLE, COORDINATE LOCATION WITH WALL BRACKET WHERE	7-0	Ют	VENDOR-FURNISHED EQUIPMENT. ALL SHALL BE INCLUDED BY THE CONTRAC
ŀ	APPLICABLE  OVERHEAD PAGING			B. REFER TO ARCHITECTURAL DOOR HAP CONTROL DEVICE SPECIFICATIONS AP
ŀ	PAGING SPEAKER: CEILING	CLG	S	C. PROVIDE BACKBOXES AND CONDUIT V
ŀ	PAGING SPEAKER W/ VOLUME CONTROL. QUAM	CLG	(SV)	CONTRACTOR SHALL VERIFY BACKBO) INSTALLATION LOCATIONS/REQUIREN SYSTEMS PRIOR TO CONSTRUCTION.
_	SYSTEM 12/VC OR EQUAL	CLG		D. AT ALL SYSTEMS EQUIPMENT CABINET
┸╽	WALL MOUNTED PAGING HORN	9'-0"	H	CONTRACTOR SHALL PROVIDE SIZE A CABLE PATHS AS REQUIRED BY SYSTE
	PAGING SPEAKER: WALL QUAM 1VP OR EQUAL	8'-0"	<b>⊢</b> S>	CABINETS/ON BACKBOARDS AS REQUI WITH APPROPRIATE VENDORS PRIOR E. REFER TO SPECIFICATIONS FOR REOU
ŀ			ľ	INCLUDING CABLING, CABLE MANAGE
	PAGING SPEAKER, VANDEL PROOF	44"	⊢\S <sub>VP</sub>	TESTING, LABELING, ETC.  F. WHERE INDICATED AS CFCI, THE CON
	EXTERIOR VANDAL PROOF / WEATHERPROOF WALL	COORD. W/	, VP	COMPLETE, INCLUDING ALL ROUGH-IN CONTRACTOR SHALL CONTACT THE LI
	MOUNTED PAGING SPEAKER, SHALL BE PAINTED COLOR SELECTED BY ARCHITECT/OWNER. QUAM VP6 OR EQUAL	ARCHITECT	⊬s> <sub>EXT.</sub>	ALL SYSTEMS SHALL MATCH EXISTING COMPATIBLE WITH ANY EXISTING SYS
				COORDINATE EXACT SYSTEM REQUIR COMPONENTS SHALL BE INTERCONNE
-	LCD WALL DISPLAY		(ID)	POSSIBLE. ALL NEW SYSTEM DESIGNS COORDINATED WITH THE OWNER PRI
	PAGING MICROPHONE	1'-6"	⟨M⟩	SHALL BE INCLUDED AS REQUIRED BY TRAINING FOR EACH SYSTEM.
	PAGING SYSTEM AMPLIFIER/TUNER CABINET, OFOI	4'-0"	PA	
	SECURITY INTERCOM			
ŀ	AUDIO/VIDEO INTERCOM STATION: MASTER WITH			
	SELECTIVE DOOR CONTROLS, POWER SUPPLIES & DOOR RELAY CONTACTS AS REQUIRED FOR OPERATION OF ANY			
	DOOR IN THE SYSTEM AND VIEWING OF ANY AUDIO/VIDEO INTERCOM REMOTE ON THE SYSTEM. AIPHONE#AX-MV	18"	[IM]	
	W/DESK STAND - COLOR BY ARCHITECT.			
	AI-PHONE IP VIDEO DOOR STATION VNDL. ISIPDV	52" TO TOP	[IM]	
	ACCESS CONTROL SYSTEM DOOR. SEE DETAILS/SPECS FOR ADDITIONAL INFORMATION.		(IR) <sub>V</sub>	
Ī	SECURITY CCTV VIDEO SURVEILLANCE		^	
ŀ	SECONETT COLVESTION SONVEILEANCE			
	CCTV CAMERA: CEILING MOUNT DOME, OFOI	CLG	(cc)	
-	CCTV CAMERA: WALL MOUNT DOME, OFOI	WALL	(cc)⊲	
	INDICATES EXTERIOR CAMERA RATED FOR CONDITIONS, WET LOCATION LISTED, WITH		WP	
ŀ	AUXILLARY HEATER  SECURITY INTRUSION DETECTION			
ŀ	SECURITY INTRUSION DETECTION	CLG		
-	MOTION DETECTOR		M N	
	MOTION DETECTOR KEYPAD CONTROLLER	4'-0"	[KP]	
	SECURITY SYSTEM HEAD END	4'-0"	[ [CEO.12]	
			SEC-KP	
ľ	CLASSDOOM A /V EQUIDMENT		SEC-KP	
-	CLASSROOM A/V EQUIPMENT  CEILING MOUNTED PROJECTOR		_	
-	CEILING MOUNTED PROJECTOR		<b>─</b>	
-	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE		_	
-	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS.		<b>─</b>	
-	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS		← ← AV	
-	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING AND ONE (1) DATA PER	5'-0"	↔ AV  → SMI	
-	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING AND ONE (1) DATA PER DETAIL.  MONITOR (OUTPUT) MOUNTED BEHIND MONITOR. REFER	5'-0"	← ← AV	
- - -	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING AND ONE (1) DATA PER DETAIL.  MONITOR (OUTPUT) MOUNTED BEHIND MONITOR. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING, OUTLET AND ONE (1) DATA PER DETAIL.	5'-0"	↔ AV  → SMI	
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- - - -	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING AND ONE (1) DATA PER DETAIL.  MONITOR (OUTPUT) MOUNTED BEHIND MONITOR. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING, OUTLET AND ONE (1) DATA PER DETAIL.  LOCAL SOUND  WALL MICRO-PHONE OUTLET: SINGLE  WALL MICRO-PHONE OUTLETS(# AS NOTED)	1'-4"		
- - - -	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING AND ONE (1) DATA PER DETAIL.  MONITOR (OUTPUT) MOUNTED BEHIND MONITOR. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING, OUTLET AND ONE (1) DATA PER DETAIL.  LOCAL SOUND  WALL MICRO-PHONE OUTLET: SINGLE  WALL MICRO-PHONE OUTLETS(# AS NOTED)  FLOOR MICRO-PHONE OUTLET: SINGLE	1'-4" 1'-4" FLOOR	<ul> <li>₩</li> <li>M</li> <li>M</li> <li>AV</li> <li>SMI</li> <li>SMO</li> </ul>	
-	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING AND ONE (1) DATA PER DETAIL.  MONITOR (OUTPUT) MOUNTED BEHIND MONITOR. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING, OUTLET AND ONE (1) DATA PER DETAIL.  LOCAL SOUND  WALL MICRO-PHONE OUTLET: SINGLE  WALL MICRO-PHONE OUTLETS(# AS NOTED)  FLOOR MICRO-PHONE OUTLETS(# AS NOTED)  GYMNASIUM SYSTEM SOUND SPEAKER. PROVIDE OUTLET BOX AT CEILING AND 1" CONDUIT HOMERUN TO	1'-4" 1'-4" FLOOR FLOOR	<ul> <li>₩</li> <li>M</li> <li>M</li></ul>	
-	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING AND ONE (1) DATA PER DETAIL.  MONITOR (OUTPUT) MOUNTED BEHIND MONITOR. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING, OUTLET AND ONE (1) DATA PER DETAIL.  LOCAL SOUND  WALL MICRO-PHONE OUTLET: SINGLE  WALL MICRO-PHONE OUTLETS(# AS NOTED)  FLOOR MICRO-PHONE OUTLETS(# AS NOTED)  GYMNASIUM SYSTEM SOUND SPEAKER. PROVIDE OUTLET BOX AT CEILING AND 1" CONDUIT HOMERUN TO GYMNASIUM SOUND SYSTEM AMPLIFIER  MULTI-PURPOSE ROOMS SYSTEM SOUND SPEAKER. PROVIDE OUTLET BOX AT CEILING AND 1" CONDUIT HOMERUN TO MULTI-PURPOSE ROOMS SOUND SYSTEM AMPLIFIER.	1'-4"  1'-4"  FLOOR  FLOOR  SEE SPECS  SEE SPECS	<ul> <li>₩ SMI</li> <li>₩ SMO</li> <li>₩ 2,34</li> <li>• M</li> <li>• M2,M3,M4</li> <li>• SS G</li> <li>• SS M</li> </ul>	
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-	CEILING MOUNTED PROJECTOR  A/V SYSTEM CABLING TERMINATIONS / WALLPLATE  TEACHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS DESK BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING AND ONE (1) DATA PER DETAIL.  MONITOR (OUTPUT) MOUNTED BEHIND MONITOR. REFER TO DETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, CABLING, OUTLET AND ONE (1) DATA PER DETAIL.  LOCAL SOUND  WALL MICRO-PHONE OUTLET: SINGLE  WALL MICRO-PHONE OUTLETS(# AS NOTED)  FLOOR MICRO-PHONE OUTLETS(# AS NOTED)  GYMNASIUM SYSTEM SOUND SPEAKER. PROVIDE OUTLET BOX AT CEILING AND 1" CONDUIT HOMERUN TO GYMNASIUM SOUND SYSTEM AMPLIFIER  MULTI-PURPOSE ROOMS SYSTEM SOUND SPEAKER. PROVIDE OUTLET BOX AT CEILING AND 1" CONDUIT HOMERUN TO MULTI-PURPOSE ROOMS SOUND SYSTEM AMPLIFIER.	1'-4"  1'-4"  FLOOR  FLOOR  SEE SPECS  SEE SPECS	<ul> <li>₩ SMI</li> <li>₩ SMO</li> <li>₩ 2,34</li> <li>• M</li> <li>• M2,M3,M4</li> <li>• SS G</li> <li>• SS M</li> </ul>	

SCRIPTION	MOUNTING HEIGHT (TO CENTER OF BOX)	DRAWING	DESCRIPTION									
BREVIATIONS			SYSTEM					$\top$	FOI	C I	CI	
ESS OTHERWISE NOTED NER FURNISHED CONTRACTOR INSTALLED		UON OFCI	RESPONSIBILITY MATRIX						-0	3 - 0 F	3 - C F	
NER FURNISHED OWNER INSTALLED		OFOI		ROJEC					CTORS	CTORS	CTORS	
TRACTOR FURNISHED CONTRACTOR INSTALLED TRACTOR FURNISHED OWNER INSTALLED		CFCI CFOI		SED ON PROJECT		- 0 F	-	S-CFCI	CABLING/CONDUCTORS	CABLING/CONDUCTORS	CABLING/CONDUCTORS	
OOR BOX AND POKE THROUGH OUTLETS				ITEM USED		DEVICES	DEVICES	DEVICES	ABLIN	ABLIN	ABLIN	SYSTEM
Drbox, Power only, as scheduled	FLOOR		SYSTEM  OVERHEAD PAGING / INTERCOM				5   2	5	3	Ö	5	SYMBOL
OR BOX WITH (2) CFCI DUPLEX RECEPTACLES AND	FLOOR		FIRE ALARM	•			+				•	
OFOI DATA. GANG BOTH RECEPTACLES TOGETHER PROVIDE BARRIER TO SEPARATE FROM LOW TAGE. WIREMOLD #EFB8	FLOOR	FB-A	SECURITY: INTRUSION DETECTION SECURITY: INTERCOM	•							•	$\Diamond$
OR BOX WITH (2) CFCI DUPLEX RECEPTACLES AND DFOI DATA. GANG BOTH RECEPTACLES TOGETHER PROVIDE BARRIER TO SEPARATE FROM LOW TAGE. WIREMOLD #EFB8	FLOOR	FB-B	SECURITY: CCTV TELEVISION	•							•	
RATED POKE THOUGH FLOOR BOX, COORDINATE CT COVER REQUIREMENTS WITH ARCHITECTURAL SHES, DEVICES AS SCHEDULED	FLOOR	● FB-A	DATA / VOICE TELEPHONE AUDIO / VIDEO	•							•	▼
EVISION			WIRELESS		+	+	?	+				
EVISION SPLITTERS/AMPLIFIERS/DISTRIBUTION	4'-0"	TV-HE	SYSTEM RESPONSIBILITY GENERAL NOTES:	1-1							ت	
EVISION SYSTEM OUTLET WITH DUPLEX RECEPTACLE, RDINATE LOCATION WITH WALL BRACKET WHERE LICABLE	7'-0"	$  \Theta_{T}  $	A. REFER TO VENDOR DRAWINGS FOR C VENDOR-FURNISHED EQUIPMENT. ALI SHALL BE INCLUDED BY THE CONTRACT	L WORI								
ERHEAD PAGING			B. REFER TO ARCHITECTURAL DOOR HAI CONTROL DEVICE SPECIFICATIONS AI							ACC	ESS	
ING SPEAKER: CEILING	CLG	S	C. PROVIDE BACKBOXES AND CONDUIT \ CONTRACTOR SHALL VERIFY BACKBOX	X SIZES	s, co	)NDU	IT, E	TC. Al	ND EX	XACT	Т	A11
ING SPEAKER W/ VOLUME CONTROL. QUAM	CLG	⟨\$v⟩	INSTALLATION LOCATIONS/REQUIREN SYSTEMS PRIOR TO CONSTRUCTION.								5 OF	ALL
TEM 12/VC OR EQUAL  L MOUNTED PAGING HORN	9'-0"	H	D. AT ALL SYSTEMS EQUIPMENT CABINE CONTRACTOR SHALL PROVIDE SIZE A	ND NU	MBER	R OF (	CON	DUIT :	STUB	3-OU		
ING SPEAKER: WALL OUAM 1VP OR EOUAL	8'-0"	<del> </del>	CABLE PATHS AS REQUIRED BY SYSTE CABINETS/ON BACKBOARDS AS REQUI WITH APPROPRIATE VENDORS PRIOR	IRED. (	COOR	rĎina	ATE E	EXACT				
SING SPEAKER, VANDEL PROOF	44"		E. REFER TO SPECIFICATIONS FOR REQUINCLUDING CABLING, CABLE MANAGE TESTING, LABELING, ETC.  F. WHERE INDICATED AS CFCI, THE CON	JIREME MENT,	NTS INST	APPL TALLA	ICAE ATIO	BLE TO N, GRO	OUNE	DING	3,	
ERIOR VANDAL PROOF / WEATHERPROOF WALL JNTED PAGING SPEAKER, SHALL BE PAINTED COLOR	COORD. W/ ARCHITECT	⊢S <sub>VP</sub> ⊢S <sub>EXT</sub> .	COMPLETE, INCLUDING ALL ROUGH-IN CONTRACTOR SHALL CONTACT THE LI ALL SYSTEMS SHALL MATCH EXISTING COMPATIBLE WITH ANY EXISTING SYS	NS, CAE ISTED ' G FACIL	BLING VEND LITY S	G, DE OOR F STAN	VICE FOR I DAR	ES, PO PRICII DS AN	ower Ing Pi Nd Be	R, ETOR RIOR FUL	c. Th R to Lly	IE
ECTED BY ARCHITECT/OWNER. QUAM VP6 OR EQUAL WALL DISPLAY		EXT.	COORDINATE EXACT SYSTEM REQUIR COMPONENTS SHALL BE INTERCONNE POSSIBLE. ALL NEW SYSTEM DESIGNS	EMENT CTED V S AND F	S WI WITH PROG	ITH O H EXIS GRAMI	WNE STIN MIN(	ER PRI IG SYS G SHA	IOR T STEM! ALL BE	TO BI S WH	ID. N HERE	
ING MICROPHONE	1'-6"	M N	COORDINATED WITH THE OWNER PRI SHALL BE INCLUDED AS REQUIRED BY									
ING SYSTEM AMPLIFIER/TUNER CABINET, OFOI	4'-0"	PA	TRAINING FOR EACH SYSTEM.									
CURITY INTERCOM												
IO/VIDEO INTERCOM STATION: MASTER WITH ECTIVE DOOR CONTROLS, POWER SUPPLIES & DOOR AY CONTACTS AS REQUIRED FOR OPERATION OF ANY OR IN THE SYSTEM AND VIEWING OF ANY AUDIO/VIDEO ERCOM REMOTE ON THE SYSTEM. AIPHONE#AX-MV ESK STAND - COLOR BY ARCHITECT.	18"	(IM)										
HONE IP VIDEO DOOR STATION VNDL. ISIPDV	52" TO TOP	[IM]										
ESS CONTROL SYSTEM DOOR. SEE DETAILS/SPECS		(IR) <sub>X</sub>										
ADDITIONAL INFORMATION.		X										
CURITY CCTV VIDEO SURVEILLANCE												
V CAMERA: CEILING MOUNT DOME, OFOI	CLG	<u>(cc)</u>										
V CAMERA: WALL MOUNT DOME, OFOI	WALL	(CC)⊲										
ICATES EXTERIOR CAMERA RATED FOR DITIONS, WET LOCATION LISTED, WITH ILLARY HEATER		WP										
CURITY INTRUSION DETECTION	I .											
TON DETECTOR	CLG	M										
TION DETECTOR KEYPAD CONTROLLER	4'-0"	(KP)										
JRITY SYSTEM HEAD END	4'-0"	SEC-KP										
ASSROOM A/V EQUIPMENT												
ING MOUNTED PROJECTOR		$\Leftrightarrow$										
SYSTEM CABLING TERMINATIONS / WALLPLATE		H∭ AV										
CHER STATION (INPUT) MOUNT 2" ABOVE TEACHERS K BACKSPLASH. REFER TO DETAIL FOR REQUIREMENTS. VIDE RACEWAYS, CABLING AND ONE (1) DATA PER AIL.		<b>├</b> ∰ SMI										
ITOR (OUTPUT) MOUNTED BEHIND MONITOR. REFER ETAIL FOR REQUIREMENTS. PROVIDE RACEWAYS, ING, OUTLET AND ONE (1) DATA PER DETAIL.	5'-0"	н∰ sмo										
CAL SOUND												
L MICRO-PHONE OUTLET : SINGLE	1'-4"	M										
L MICRO-PHONE OUTLETS(# AS NOTED)	1'-4"	M 2 ,3 4										
OR MICRO-PHONE OUTLET : SINGLE	FLOOR	<b>⊙</b> м										
OR MICRO-PHONE OUTLETS(# AS NOTED)	FLOOR	● M2,M3,M4										
NASIUM SYSTEM SOUND SPEAKER. PROVIDE OUTLET AT CEILING AND 1" CONDUIT HOMERUN TO NASIUM SOUND SYSTEM AMPLIFIER	SEE SPECS	(SS) <sub>G</sub>										

GENERAL RECEPTACLE NOTE: ALL RECEPTACLES IN CLASSROOMS, CORRIDORS, GYM, CAFETERIA, AND COMMON SPACES ACCESSIBLE TO STUDENTS SHALL BE SAFETY TYPE, TAMPER-RESISTANT RECEPTACLES

	BACKBOX SCHEDULE :
INDICATING NO.	SIZE REQUIRED
1G	4-11/16" SQUARE x 2-1/8"D TWO-GANG BACKBOX (STEEL CITY #72171) WITH SINGLE-GANG 3/4" RAISED EXTENSION RING. (STEEL CITY #72-C-14)
1GD	5" SQUARE x 2-7/8"D TWO-GANG BACKBOX WITH SINGLE OR DOUBLE-GANG 3/4" RAISED EXTENSION RING, AS REQUIRED.
2G	4-11/16" SQUARE x 2-1/8"D TWO-GANG BACKBOX (STEEL CITY #72171) WITH TWO-GANG 3/4" RAISED EXTENSION RING. (STEEL CITY #72-C-18)
2G-A	6-13/16" x 4-1/2"H x 2-1/2"D TWO-GANG BACKBOX (STEEL CITY #H2BD) WITH TWO-GANG 3/4" RAISED EXTENSION RING AS REQUIRED.
3G	8-5/8" x 4-1/2" x 2-1/2"D THREE-GANG BOX (STEEL CITY #H3BD) WITH THREE-GANG 3/4" RAISED EXTENSION RING AS REQUIRED.
4G	10-17/16" x 4-1/2" x 2-1/2"D FOUR-GANG BACKBOX (STEEL CITY #H4BD) WITH FOUR-GANG 3/4" RAISED EXTENSION RING AS REQUIRED.
V	BACKBOX EXTENSION RING AND COVERPLATE PROVIDED BY VENDOR AND INSTALLED BY CONTRACTOR.

#### NOTE: ALL NEW SYSTEMS CABLING SHALL BE PLENUM RATED.

PRE AND POST TEST SCOPE

ALL LOW VOLTAGE, FIRE ALARM, WIRELESS ACCESS POINTS, PROJECTOR/AV EQUIPMENT, CATV, CCTV AND SECURITY (NO DATA/VOICE) SHALL BE PRE AND POST TESTED. RESULTS SHALL BE TABULATED AND SENT TO MCPS AND THE ENGINEER FOR REVIEW AND COMMENT. THIS SHALL BE DONE PRIOR TO WORK.

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING SYSTEMS TO REMAIN AND SYSTEMS THAT ARE PARTIALLY DEMOLISHED. DOWNSTREAM DEVICES SHALL NOT BE AFFECTED DURING DEMOLITION AND ANY ISSUES WILL BE REQUIRED TO BE IMMEDIATELY CORRECTED TO ALLOW PROCEEDING WITH CONSTRUCTION.

### VARIOUS SYSTEMS SCOPE OF WORK AND REQUIREMENTS:

PHASES ARE COMPLETE. ALL UNUSED CABLING, CONDUIT, SUPPORTS, ETC. IS TO BE REMOVED COMPLETELY.

PAGING/INTERCOM SYSTEM: EXISTING PAGING INTERCOM (PA) SYSTEM, CLOCKS AND CABLING SHALL BE REMOVED AND REPLACED. NEW HEAD END EQUIPMENT SHALL BE C.F.C.I. ALL EXISTING RACEWAYS, PULL BOXES, ETC. SHALL BE COMPLETELY REMOVED. NEW INTERCOM CABLING SHALL BE SUPPORTED WITH NEW CABLE PATH. CABLES TO BE PLENUM RATED. REFER TO SPECIFICATIONS AND DRAWINGS FOR FURTHER REQUIREMENTS. CALL BUTTONS SHALL BE INSTALLED WITH THE SYSTEM AS INDICATED ON THE PLANS. SYSTEM SHALL BE OPERATIONAL 3-DAYS PRIOR TO THE FIRST OPENING DAY OF SCHOOL. MCPS SHALL BE NOTIFIED 60-DAYS PRIOR TO DATE NEEDED FOR INTERCOM SUPPLY. EXISTING DEVICES NOT IN PHASE "A" SHALL BE BACKFED FROM NEW SYSTEM OR PROVISIONS MADE TO MAINTAIN THE EXISTING SYSTEM UNTIL ALL DEVICES HAVE BEEN REPLACED AND ALL

### SYSTEMS EQUIPMENT TERMINAL POINT:

AT ALL SYSTEMS EQUIPMENT CABINET/TERMINAL BOARD LOCATIONS ( |EQUIP|) AS INDICATED ON ELECTRICAL DRAWINGS. CONTRACTOR SHALL PROVIDE SIZE AND NUMBER OF CONDUIT STUB-OUTS TO CABLE PATHS AS REQUIRED FOR CABLING TERMINATE CONDUITS AT CABINETS/ON BACKBOARDS AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH CABLING INSTALLATION PRIOR TO CONSTRUCTION.

CCTV SYSTEM: CONTRACTOR SHALL INSTALL CAT6A CABLE FROM DEVICE LOCATION ON PLAN AND TERMINATE AT PATCH PANEL. PROVIDE 15' SERVICE LOOP AT DEVICE LOCATION. PROVIDE RJ45 CONNECTOR AT DEVICE LOCATION AND TEST PER VOICE/DATA SPECIFICATION. CONTRACTOR SHALL FURNISH AND INSTALL CAMERAS.





07/10/2019 CHECKED COPYRIGHT © 2019 SHERMAN CARTER BARNHAR ARCHITECTS, PLLC REVISIONS . Description Date

A. DOTTED LINES INDICATE ITEMS FOR REMOVAL (UON) AND THIN SOLID LINES INDICATE EXISTING ITEMS TO B. THE CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF EXISTING CIRCUITS THAT CONTAIN DEVICES OR EQUIPMENT THAT ARE TO REMAIN. WHEN DEMOLITION OF AN ELECTRICAL DEVICE (OR CIRCUIT) IS INDICATED ON THE DRAWINGS: THE CONTRACTOR SHALL ENSURE THAT OTHER DEVICES OR EQUIPMENT "UPSTREAM" OR "DOWNSTREAM" ON THE CIRCUITS SHALL REMAIN IN "PRE- DEMOLITION" WORKING ORDER. "LEFT-OVER" CIRCUIT BREAKERS SHALL REMAIN, BE SWITCHED TO OFF POSITION, AND BE LABELED AS SPARES IN THEIR

PANELS. PROVIDE NEW TYPEWRITTEN DIRECTORIES FOR ALL PANELS AFFECTED. C. LOCATIONS OF DEVICES, CONNECTIONS, ETC., INDICATED ON THIS DRAWING WERE TAKEN FROM VARIOUS SOURCES. THEY ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO VARIATION FROM EXISTING CONDITIONS. CERTAIN EXISTING ELEMENTS MAY NOT BE INDICATED AT ALL. THE CONTRACTOR PROPOSING TO DO ANY PART

OF THE WORK INDICATED HEREON SHALL VISIT THIS SITE AND DETERMINE TO HIS SATISFACTION THAT THEY MAY COMPLETE ALL WORK REQUIRED FOR THE BID WHICH HE PROPOSES. D. REMOVE ALL ASSOCIATED BACKBOXES, CONDUIT AND CONDUCTORS FOR DEVICES / FIXTURES / ETC. BEING REMOVED (BACK TO SOURCE), WHETHER INDICATED OR NOT (UON). CONTRACTOR SHALL PATCH AND REPAIR ANY EXISTING WALLS, FLOORS OR CEILINGS WHERE DEVICES ARE SHOWN TO BE REMOVED (PATCH AND

REPAIR TO RECEIVE NEW FINISHES - SEE ARCHITECTURAL PLANS). E. COORDINATE DISPOSAL OF ALL FIXTURES, DEVICES, ETC. (INDICATED FOR DEMOLITION) WITH OWNER. TURN OVER ITEMS REMOVED TO OWNER AT THEIR OPTION. F. COORDINATE WITH OTHER TRADES FOR THE REMOVAL AND/OR RELOCATION OF ELECTRICAL DEVICES AND

G. PROVIDE TEMPORARY EMERGENCY EXIT LIGHTS AT CONSTRUCTION BARRIERS AS REQUIRED. H. CONTRACTOR SHALL PATCH AND REPAIR ALL EXISTING WALLS / CEILINGS AS REQUIRED WHERE DEVICES ARE BEING REMOVED OR INSTALLED.

I. UNUSED/ABANDONED CONDUCTORS DISCOVERED ABOVE ACCESSIBLE CEILINGS SHALL BE REMOVED IN ACCORDANCE WITH NEC REQUIREMENTS. J. EXISTING ELECTRICAL SYSTEMS IN CONFLICT WITH CONSTRUCTION SHALL BE RELOCATED TO PERMIT

INSTALLATION OF DEVICES AND EQUIPMENT SHOWN ON PLANS. K. CONTRACTOR SHALL SEAL ALL EXISTING AND NEW PENETRATIONS OF BUILDING ENVELOPE (EXTERIOR WALLS, ROOF, ETC.) WATER-TIGHT AND AS APPROVED BY ARCHITECT AND ENGINEER, ROOFING SHALL BE RESTORED BY A LICENSED ROOFING CONTRACTOR BASED ON WRITTEN INSTRUCTIONS AND DETAILS FROM ROOFING MANUFACTURER AS REQUIRED TO MAINTAIN ROOF WARRANTY. REFER TO ARCHITECTURAL AND ENGINEERING PLANS AND SPECIFICATIONS FOR FURTHER REQUIREMENTS. L. DEVICES INDICATED WITH AN "R" SHALL BE RELOCATED. REMOVE, PROTECT, AND REINSTALL IN NEW LOCATION

AND RE-LAMP RELOCATED LUMINAIRES. M. ALL EXISTING PANELS AFFECTED BY THIS CONTRACTOR'S WORK SHALL BE PROVIDED WITH NEW LAMACOID LABELS, TYPE-WRITTEN PANEL DIRECTORIES AND INSERT SLEEVES. PANEL DIRECTORIES SHALL NOT USE ROOM NAMES OR NUMBERS FROM THESE DRAWINGS. DIRECTORIES SHALL BE DETAILED AND COORDINATED WITH OWNER'S SUITE NUMBERS, FINAL ROOM NUMBERS, IT RACK NAMES, WORKSTATION DESIGNATIONS, ETC. UNUSED BREAKERS SHALL BE IN OFF POSITION.

INDICATED ON NEW WORK PLANS. INTERCEPT AND EXTEND ALL EXISTING CABLING TO NEW LOCATION. CLEAN

TAGGED NOTES

BLDG NORTH

D5 EXISTING WIRELESS ACCESS POINTS (WAP'S). REMOVE AND REINSTALL TO ALLOW FOR CEILING

D6 EXISTING CLASSROOM/ADMIN AUDIO VISUAL EQUIPMENT (PROJECTOR, CEILING MOUNTED SPEAKERS) SHALL BE REMOVED AND REINSTALLED. ALL EXISTING CABLING TO REMAIN INTACT AND BE PROTECTED DURING CONSTRUCTION. PROVIDE NEW J-HOOKS, SUPPORTED FROM STRUCTURE ABOVE TO RESUPPORT CABLING. D7 P/A SYSTEM TO BE REPLACED COMPLETE. EXISTING P/A HEAD END SHALL REMAIN OPERATIONAL UNTIL NEW

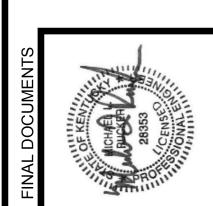
D8 FIRE ALARM SYSTEM TO BE REPLACED COMPLETE. EXISTING FIRE ALARM CONTROL PANEL SHALL REMAIN OPERATIONAL UNTIL NEW PANEL IS INSTALLED AND ALL DEVICES ARE REPLACED. D9 EXISTING HVAC ROOFTOP EQUIPMENT TO BE REMOVED AND REINSTALLED. ALL EXISTING CONDUIT AND WIRE

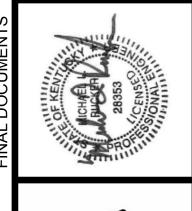
FEEDING EQUIPMENT TO REMAIN INTACT AND BE PROTECTED DURING CONSTRUCTION. PROVIDE SUPPORT FOR CONDUIT AND WIRE DURING CONSTRUCTION.

D10 EXISTING EQUIPMENT TO BE DEMOLISHED. REMOVE ELECTRICAL CONNECTION AND DISCONNECTING MEANS COMPLETELY BACK TO SOURCE. (TYPICAL)

CONNECTIONS ASSOCIATED WITH THEIR EQUIPMENT.

HEAD END IS INSTALLED AND ALL DEVICES REPLACED.





SHERMAI CARTER BARNHAI





R PLAN - AREA

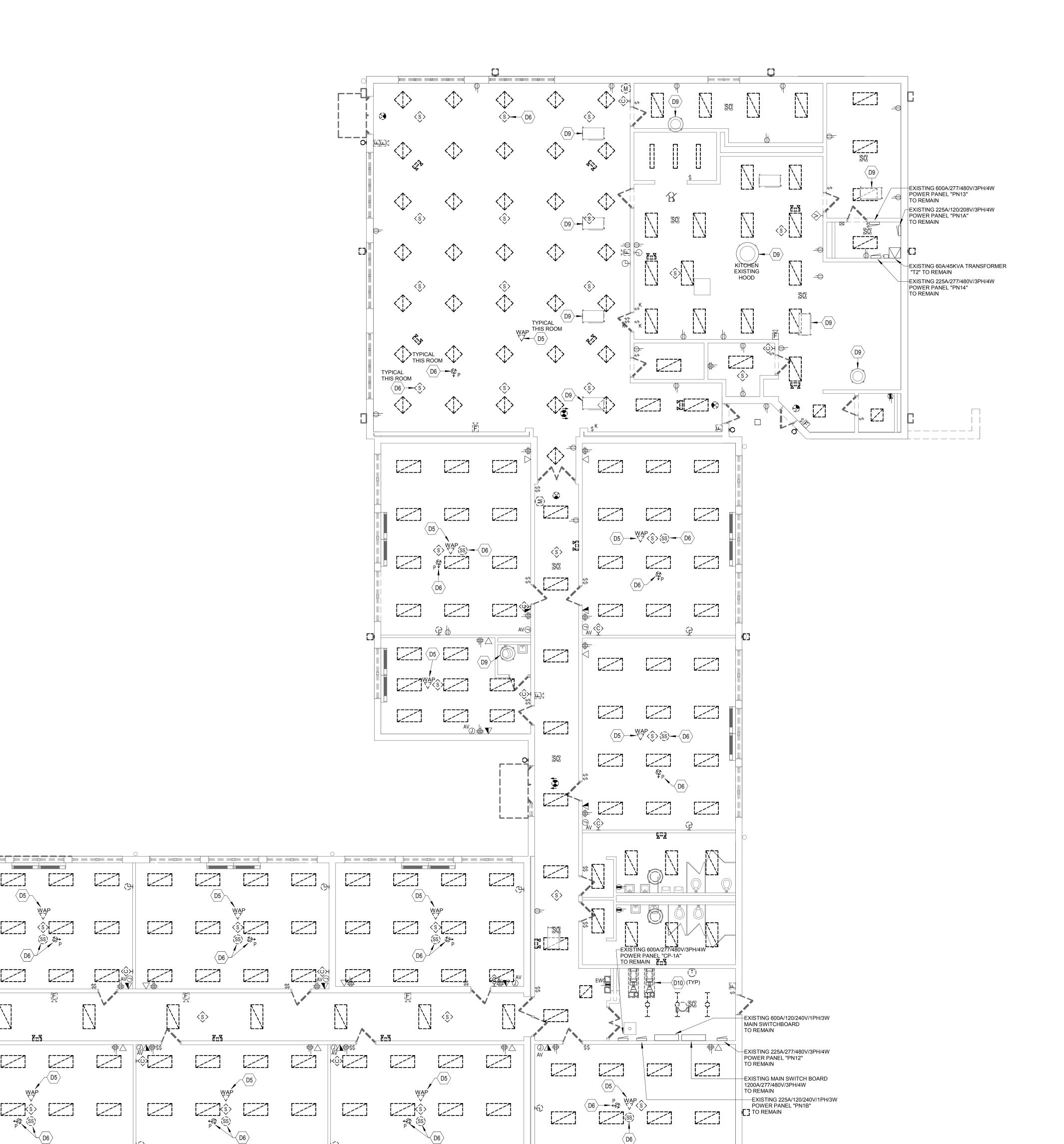
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1 First Floor Plan - Area A - Electrical Demolition 1/8" = 1'-0"

SHERMA CARTER BARNHA ARCHITECTS

SHEET

E2.2



1569 PAYNEVILLE ELEMENTARY SCHOOL RENOVATION AND A E2.2 FIRST FLOOR PLAN - AREA B - ELECTRICAL DEMOLITION C:\Users\nhodges\Documents\R19.VMPE18-ELEC\_C\_BOGGS.rvt 7/18/2019 11:58:10 AM

1 First Floor Plan - Area B - Electrical Demolition 1/8" = 1'-0"

#### **ELECTRICAL DEMOLITION NOTES:**

- A. DOTTED LINES INDICATE ITEMS FOR REMOVAL (UON) AND THIN SOLID LINES INDICATE EXISTING ITEMS TO
- B. THE CONTRACTOR SHALL MAINTAIN THE CONTINUITY OF EXISTING CIRCUITS THAT CONTAIN DEVICES OR EQUIPMENT THAT ARE TO REMAIN. WHEN DEMOLITION OF AN ELECTRICAL DEVICE (OR CIRCUIT) IS INDICATED ON THE DRAWINGS: THE CONTRACTOR SHALL ENSURE THAT OTHER DEVICES OR EQUIPMENT "UPSTREAM" OR "DOWNSTREAM" ON THE CIRCUITS SHALL REMAIN IN "PRE- DEMOLITION" WORKING ORDER. "LEFT-OVER" CIRCUIT BREAKERS SHALL REMAIN, BE SWITCHED TO OFF POSITION, AND BE LABELED AS SPARES IN THEIR PANELS. PROVIDE NEW TYPEWRITTEN DIRECTORIES FOR ALL PANELS AFFECTED.
- C. LOCATIONS OF DEVICES, CONNECTIONS, ETC., INDICATED ON THIS DRAWING WERE TAKEN FROM VARIOUS SOURCES. THEY ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO VARIATION FROM EXISTING CONDITIONS. CERTAIN EXISTING ELEMENTS MAY NOT BE INDICATED AT ALL. THE CONTRACTOR PROPOSING TO DO ANY PART OF THE WORK INDICATED HEREON SHALL VISIT THIS SITE AND DETERMINE TO HIS SATISFACTION THAT THEY MAY COMPLETE ALL WORK REQUIRED FOR THE BID WHICH HE PROPOSES.
- D. REMOVE ALL ASSOCIATED BACKBOXES, CONDUIT AND CONDUCTORS FOR DEVICES / FIXTURES / ETC. BEING REMOVED (BACK TO SOURCE), WHETHER INDICATED OR NOT (UON). CONTRACTOR SHALL PATCH AND REPAIR ANY EXISTING WALLS, FLOORS OR CEILINGS WHERE DEVICES ARE SHOWN TO BE REMOVED (PATCH AND
- REPAIR TO RECEIVE NEW FINISHES SEE ARCHITECTURAL PLANS).

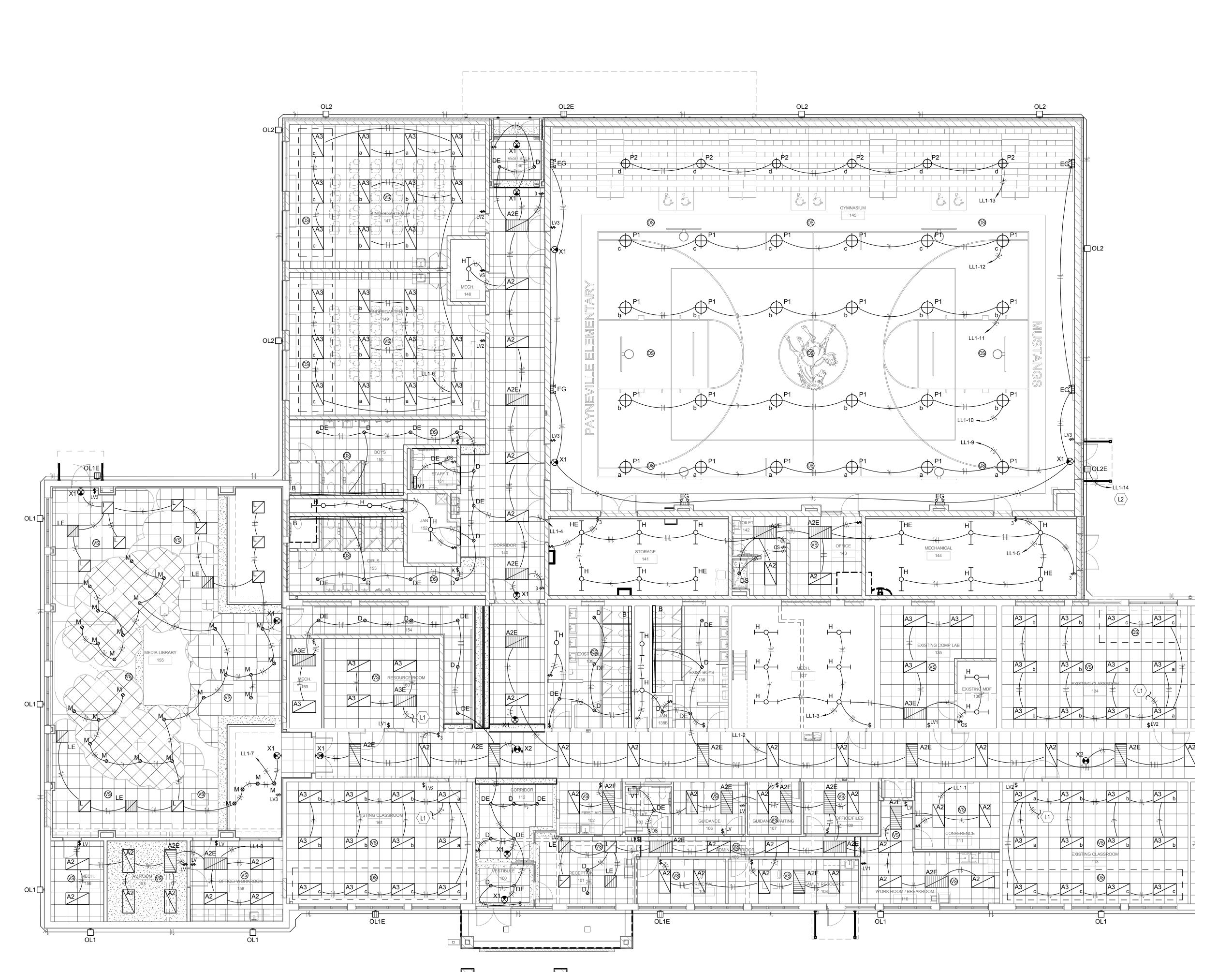
  E. COORDINATE DISPOSAL OF ALL FIXTURES, DEVICES, ETC. (INDICATED FOR DEMOLITION) WITH OWNER. TURN OVER ITEMS REMOVED TO OWNER AT THEIR OPTION.
- F. COORDINATE WITH OTHER TRADES FOR THE REMOVAL AND/OR RELOCATION OF ELECTRICAL DEVICES AND CONNECTIONS ASSOCIATED WITH THEIR EQUIPMENT.
   G. PROVIDE TEMPORARY EMERGENCY EXIT LIGHTS AT CONSTRUCTION BARRIERS AS REQUIRED.
- H. CONTRACTOR SHALL PATCH AND REPAIR ALL EXISTING WALLS / CEILINGS AS REQUIRED WHERE DEVICES ARE BEING REMOVED OR INSTALLED.
  I. UNUSED/ABANDONED CONDUCTORS DISCOVERED ABOVE ACCESSIBLE CEILINGS SHALL BE REMOVED IN ACCORDANCE WITH NEC REQUIREMENTS.
  J. EXISTING ELECTRICAL SYSTEMS IN CONFLICT WITH CONSTRUCTION SHALL BE RELOCATED TO PERMIT INSTALLATION OF DEVICES AND EQUIPMENT SHOWN ON PLANS.
- K. CONTRACTOR SHALL SEAL ALL EXISTING AND NEW PENETRATIONS OF BUILDING ENVELOPE (EXTERIOR WALLS, ROOF, ETC.) WATER-TIGHT AND AS APPROVED BY ARCHITECT AND ENGINEER. ROOFING SHALL BE RESTORED BY A LICENSED ROOFING CONTRACTOR BASED ON WRITTEN INSTRUCTIONS AND DETAILS FROM ROOFING MANUFACTURER AS REQUIRED TO MAINTAIN ROOF WARRANTY. REFER TO ARCHITECTURAL AND ENGINEERING PLANS AND SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- L. DEVICES INDICATED WITH AN "R" SHALL BE RELOCATED. REMOVE, PROTECT, AND REINSTALL IN NEW LOCATION INDICATED ON NEW WORK PLANS. INTERCEPT AND EXTEND ALL EXISTING CABLING TO NEW LOCATION. CLEAN AND RE-LAMP RELOCATED LUMINAIRES.
- M. ALL EXISTING PANELS AFFECTED BY THIS CONTRACTOR'S WORK SHALL BE PROVIDED WITH NEW LAMACOID LABELS, TYPE-WRITTEN PANEL DIRECTORIES AND INSERT SLEEVES. PANEL DIRECTORIES SHALL NOT USE ROOM NAMES OR NUMBERS FROM THESE DRAWINGS. DIRECTORIES SHALL BE DETAILED AND COORDINATED WITH OWNER'S SUITE NUMBERS, FINAL ROOM NUMBERS, IT RACK NAMES, WORKSTATION DESIGNATIONS, ETC. UNUSED BREAKERS SHALL BE IN OFF POSITION.

TAC	GED NOTES
DE	EVICTING WIDELE

- D5 EXISTING WIRELESS ACCESS POINTS (WAP'S). REMOVE AND REINSTALL TO ALLOW FOR CEILING REPLACEMENT.

  D6 EXISTING CLASSROOM/ADMIN AUDIO VISUAL EQUIPMENT (PROJECTOR, CEILING MOUNTED SPEAKERS) SHALL BE REMOVED AND REINSTALLED. ALL EXISTING CABLING TO REMAIN INTACT AND BE PROTECTED DURING CONSTRUCTION. PROVIDE NEW J-HOOKS, SUPPORTED FROM STRUCTURE ABOVE TO RESUPPORT CABLING.
- CONSTRUCTION. PROVIDE NEW J-HOOKS, SUPPORTED FROM STRUCTURE ABOVE TO RESUPPORT CABLING.

  D9 EXISTING HVAC ROOFTOP EQUIPMENT TO BE REMOVED AND REINSTALLED. ALL EXISTING CONDUIT AND WIRE FEEDING EQUIPMENT TO REMAIN INTACT AND BE PROTECTED DURING CONSTRUCTION. PROVIDE SUPPORT FOR CONDUIT AND WIRE DURING CONSTRUCTION.
- D10 EXISTING EQUIPMENT TO BE DEMOLISHED. REMOVE ELECTRICAL CONNECTION AND DISCONNECTING MEANS COMPLETELY BACK TO SOURCE. (TYPICAL)



1 First Floor Plan - Area A - Lighting 1/8" = 1'-0"

1569 PAYNEVILLE ELEMENTARY SCHOOL RENOV E3.1 FIRST FLOOR PLAN - AREA A - LIGHTING C:\Users\nhodges\Documents\R19.VMPE18-ELEC\_C\_ 7/18/2019 11:58:20 AM

**GENERAL NOTES (LIGHTING):** 

A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.

B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER N.E.C. #310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER N.E.C. #300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN N.E.C #100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE

- IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES, ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. ALSO, MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND
- CIRCUIT NUMBER. D. LOCATE CHAIN-HUNG INDUSTRIAL FIXTURES IN MECHANICAL ROOMS TO AVOID DUCTWORK AND PIPING, TO MAXIMIZE AVAILABLE LIGHT. SPACE AROUND EQUIPMENT, AIR HANDLERS, ETC. TO PROVIDE ADEQUATE LIGHTING TO ALL AREAS OF ROOM. PROVIDE ADDITIONAL FIXTURES OF SAME TYPE AS NEEDED TO FULFILL THIS REQUIREMENT.
- E. LOCATE EXIT SIGNS FOR MAXIMUM VIEWING AREA TO IDENTIFY EGRESS PATHS AS INDICATED ON PLANS. COORDINATE LOCATIONS SUCH THAT ARCHITECTURAL FEATURES OR EQUIPMENT FROM OTHER TRADES DO NOT OBSTRUCT VIEW. F. WHERE EXIT SIGNS OR EMERGENCY BATTERY PACKS ARE PROVIDED,
- THEY SHALL BE CONNECTED TO AN UNSWITCHED LINE. G. LUMINAIRES INDICATED WITH MULTI-LEVEL SWITCHING SHALL HAVE SIMILAR LAMPS CONTROLLED TOGETHER, I.E. INBOARD AND OUTBOARD
- LAMPS OR RIGHT AND LEFT HAND LAMPS. H. ALL LIGHTING FIXTURE LENSES, PARABOLIC LOUVERS, DOWNLIGHTING ALZAK CONES AND "PARACUBE" LOUVERS SHALL BE HANDLED WITH COTTON GLOVES DURING INSTALLATION AND LAMPING TO AVOID FINGERPRINTS OR DIRT DEPOSITS. IT IS PREFERRED THAT FIXTURES BE SHIPPED AND INSTALLED WITH CLEAR PLASTIC BAGS TO PROTECT LOUVERS, AT CLOSE OF PROJECT, AND AFTER CONSTRUCTION AIR FILTERS ARE CHANGED, REMOVE BAGS. ANY LOUVER OR CONE SHOWING DIRT OR FINGER PRINTS SHALL BE CLEANED WITH SOLVENT RECOMMENDED BY THE MANUFACTURER, OR REPLACED AS NECESSARY IN ORDER TO TURN OVER TO THE OWNER NEW FIXTURES AT OCCUPANCY.
- RECESSED LUMINAIRES SHALL BE SECURED SUCH THAT THE FORCE REQUIRED INSERTING LAMPS, TRIMS, LENSES, LOUVERS, OR DOOR FRAMES DOES NOT SHIFT HOUSING. ALL TRIMS SHALL BE COMPLETELY FLUSH WITH FINISHED CEILINGS AT COMPLETION OF CONSTRUCTION. J. CONTRACTOR SHALL PROVIDE UNSWITCHED CONDUCTOR TO ALL EXIT SIGNS, EMERGENCY INVERTER BATTERY PACKS, AND NIGHT LIGHTS AS
- TAGGED NOTES

### 1 PROVIDE CONNECTION TO NEW LIGHTING FROM CIRCUIT PREVIOUSLY

BLDG NORTH

REQUÍRED.

SERVING LIGHTING IN THIS ROOM.

2 ROUTE CIRCUITS THROUGH EXTERIOR LIGHTING CONTROL CABINET FOR CONTROL OF FIXTURES. REFER TO DETAIL FOR FURTHER REQUIREMENTS.



CONSTRUCTION.

BLDG NORTH

KITCHEN EXISTING HOOD

EXISTING CLASSROOM

**GENERAL NOTES (LIGHTING):** 

A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.

B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER N.E.C. #310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER N.E.C. #300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN N.E.C #100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE

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CIRCUIT NUMBER. D. LOCATE CHAIN-HUNG INDUSTRIAL FIXTURES IN MECHANICAL ROOMS TO AVOID DUCTWORK AND PIPING, TO MAXIMIZE AVAILABLE LIGHT. SPACE AROUND EQUIPMENT, AIR HANDLERS, ETC. TO PROVIDE ADEQUATE LIGHTING TO ALL AREAS OF ROOM. PROVIDE ADDITIONAL FIXTURES OF SAME TYPE AS NEEDED TO FULFILL THIS REQUIREMENT.

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F. WHERE EXIT SIGNS OR EMERGENCY BATTERY PACKS ARE PROVIDED, THEY SHALL BE CONNECTED TO AN UNSWITCHED LINE. G. LUMINAIRES INDICATED WITH MULTI-LEVEL SWITCHING SHALL HAVE SIMILAR LAMPS CONTROLLED TOGETHER, I.E. INBOARD AND OUTBOARD LAMPS OR RIGHT AND LEFT HAND LAMPS.

H. ALL LIGHTING FIXTURE LENSES, PARABOLIC LOUVERS, DOWNLIGHTING ALZAK CONES AND "PARACUBE" LOUVERS SHALL BE HANDLED WITH COTTON GLOVES DURING INSTALLATION AND LAMPING TO AVOID FINGERPRINTS OR DIRT DEPOSITS. IT IS PREFERRED THAT FIXTURES BE SHIPPED AND INSTALLED WITH CLEAR PLASTIC BAGS TO PROTECT LOUVERS. AT CLOSE OF PROJECT, AND AFTER CONSTRUCTION AIR FILTERS ARE CHANGED, REMOVE BAGS. ANY LOUVER OR CONE SHOWING DIRT OR FINGER PRINTS SHALL BE CLEANED WITH SOLVENT RECOMMENDED BY THE MANUFACTURER, OR REPLACED AS NECESSARY IN ORDER TO TURN OVER TO THE OWNER NEW FIXTURES AT OCCUPANCY. I. RECESSED LUMINAIRES SHALL BE SECURED SUCH THAT THE FORCE

REQUIRED INSERTING LAMPS, TRIMS, LENSES, LOUVERS, OR DOOR FRAMES DOES NOT SHIFT HOUSING. ALL TRIMS SHALL BE COMPLETELY FLUSH WITH FINISHED CEILINGS AT COMPLETION OF CONSTRUCTION. J. CONTRACTOR SHALL PROVIDE UNSWITCHED CONDUCTOR TO ALL EXIT SIGNS, EMERGENCY INVERTER BATTERY PACKS, AND NIGHT LIGHTS AS

TAGGED NOTES

REQUIRED.

L1 PROVIDE CONNECTION TO NEW LIGHTING FROM CIRCUIT PREVIOUSLY SERVING LIGHTING IN THIS ROOM.

1569 PAYNEVILLE ELEMENTARY SCHOOL RENOV E3.2 FIRST FLOOR PLAN - AREA B - LIGHTING C:\Users\nhodges\Documents\R19.VMPE18-ELEC\_C\_ 7/18/2019 11:58:25 AM

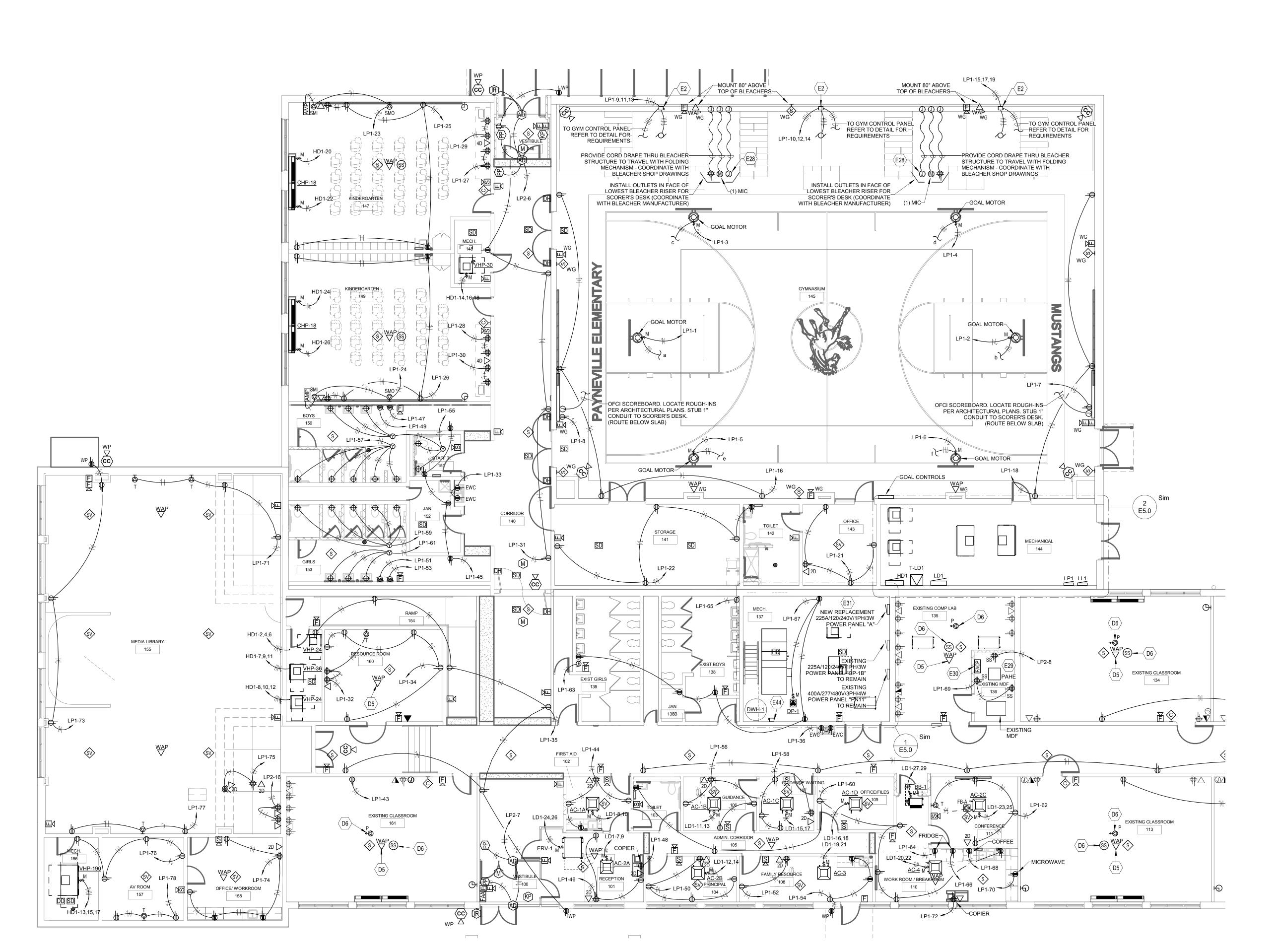
First Floor Plan - Area B - Lighting
1/8" = 1'-0"

OL1E 🖨

Description D

SHEET

**E4**.



**GENERAL NOTES (POWER):** 

- A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.
- B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER NEC 310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER NEC 300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN NEC 100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED. C. IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES, ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT
- NUMBER.

  D. RECEPTACLES THAT ARE CONTROLLED BY AN AUTOMATIC MEANS SUCH AS OCCUPANCY SENSOR OR ENERGY MANAGEMENT SYSTEM SHALL BE MARKED IN ACCORDANCE WITH NEC 406.3(E).

  E. LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS OR THROUGH ACCESS/MAINTENANCE CLEARANCES OF EQUIPMENT BY OTHER

#### **GENERAL NOTES (SYSTEMS):**

- A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.
- B. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER NEC 310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER NEC 300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN NEC 100.4 (CIRCUITS SHARING A
- COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED.

  C. IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES, ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT NUMBER.
- D. REFER TO "SYSTEM INSTALLATION MATRIX" (ON SYSTEMS LEGEND SHEET) AND SPECIFICATIONS FOR CONTRACTOR REQUIREMENTS OF

REFER TO CABLING PATH INSTALLATION DETAIL FOR ADDITIONAL

- EACH SYSTEM.

  E. THE CONTRACTOR SHALL ROUTE ALL "SYSTEM CONDUIT STUB-UPS" TO THE NEAREST CORRIDOR CABLING PATH (SEE "STUB-UP" DETAILS).
- REQUIREMENTS.

  F. CONTRACTOR SHALL PAINT ALL SYSTEMS CONDUIT STUB-UPS LIGHT BLUE FOR SYSTEMS CABLING INTO THE CORRIDOR CABLING PATH. PROVIDE PULL STRINGS IN ALL NEW CONDUIT RUNS FOR SYSTEM CABLING INSTALLATION.

#### TAGGED NOTES

NAMEPLATE.

NORTH

- D5 EXISTING WIRELESS ACCESS POINTS (WAP'S). REMOVE AND REINSTALL TO ALLOW FOR CEILING REPLACEMENT.

  D6 EXISTING CLASSROOM/ADMIN AUDIO VISUAL EQUIPMENT (PROJECTOR.
- D6 EXISTING CLASSROOM/ADMIN AUDIO VISUAL EQUIPMENT (PROJECTOR, CEILING MOUNTED SPEAKERS) SHALL BE REMOVED AND REINSTALLED. ALL EXISTING CABLING TO REMAIN INTACT AND BE PROTECTED DURING CONSTRUCTION. PROVIDE NEW J-HOOKS, SUPPORTED FROM
- STRUCTURE ABOVE TO RESUPPORT CABLING.

  E2 PROVIDE 30A/250V/3P HEAVY DUTY DISCONNECT SWITCH WITH NEMA 1 ENCLOSURE FOR CONNECTION TO NEW EQUIPMENT AS INDICATED. COORDINATE EXACT MOUNTING LOCATION AND CONNECTION REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

  E28 CONTRACTOR SHALL PROVIDE CUSTOM ANODIZED ALUMINUM
- E28 CONTRACTOR SHALL PROVIDE CUSTOM ANODIZED ALUMINUM FACEPLATE WITH ONE (1) HDMI FEMALE PASS THROUGH CONNECTOR. COORDINATE REQUIREMENTS WITH SPECIFICATIONS PRIOR TO CONSTRUCTION.
- E29 PROVIDE NEW PA HEAD END AT AREA INDICATED. EXISTING SYSTEM SHALL REMAIN OPERATIONAL UNTIL ALL DEVICES HAVE BEEN REPLACED.
  E30 PROVIDE NEW FIRE ALARM PANEL AT AREA INDICATED. EXISTING SYSTEM SHALL REMAIN OPERATIONAL UNTIL ALL DEVICES HAVE BEEN
- E31 PROVIDE NEW 225A/120/240V/1PH/3W REPLACEMENT PANEL INDICATED.
  REFER TO PANEL REPLACEMENT DETAIL FOR INSTALLATION
  REQUIREMENTS.

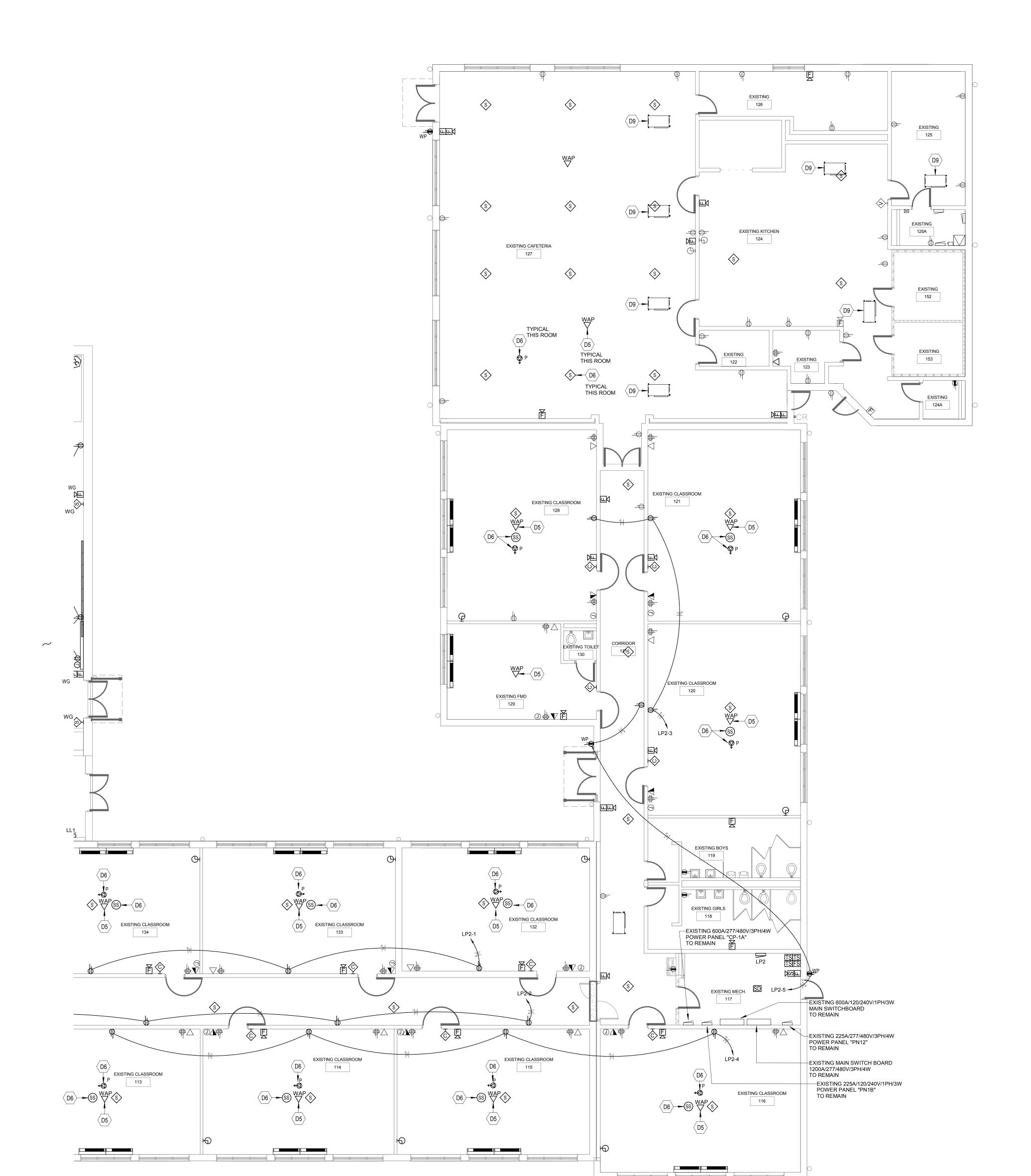
E44 PROVIDE A 60A/250V/2P DISCONNECT SWITCH FUSED AT EQUIPMENT

1569 PAYNEVILLE ELEMENTARY SCHOOL RENOVATION E4.1 FIRST FLOOR PLAN - AREA A - POWER/SYSTEMS C:\Users\nhodges\Documents\R19.VMPE18-ELEC\_C\_BOGG7/18/2019 11:58:29 AM

07/10/2019

SHEET

E4.2



#### **GENERAL NOTES (POWER):**

- A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND
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- D. RECEPTACLES THAT ARE CONTROLLED BY AN AUTOMATIC MEANS SUCH AS OCCUPANCY SENSOR OR ENERGY MANAGEMENT SYSTEM
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  E. LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS OR THROUGH ACCESS/MAINTENANCE CLEARANCES OF EQUIPMENT BY OTHER TRADES.

#### **GENERAL NOTES (SYSTEMS):**

- A. REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.
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- D. REFER TO "SYSTEM INSTALLATION MATRIX" (ON SYSTEMS LEGEND SHEET) AND SPECIFICATIONS FOR CONTRACTOR REQUIREMENTS OF
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  E. THE CONTRACTOR SHALL ROUTE ALL "SYSTEM CONDUIT STUB-UPS" TO THE NEAREST CORRIDOR CABLING PATH (SEE "STUB-UP" DETAILS). REFER TO CABLING PATH INSTALLATION DETAIL FOR ADDITIONAL REQUIREMENTS.
- F. CONTRACTOR SHALL PAINT ALL SYSTEMS CONDUIT STUB-UPS LIGHT BLUE FOR SYSTEMS CABLING INTO THE CORRIDOR CABLING PATH. PROVIDE PULL STRINGS IN ALL NEW CONDUIT RUNS FOR SYSTEM CABLING INSTALLATION.

#### TAGGED NOTES

D5 EXISTING WIRELESS ACCESS POINTS (WAP'S). REMOVE AND REINSTALL TO ALLOW FOR CEILING REPLACEMENT.

D6 EXISTING CLASSROOM/ADMIN AUDIO VISUAL EQUIPMENT (PROJECTOR, CEILING MOUNTED SPEAKERS) SHALL BE REMOVED AND REINSTALLED. ALL EXISTING CABLING TO REMAIN INTACT AND BE PROTECTED DURING CONSTRUCTION. PROVIDE NEW J-HOOKS, SUPPORTED FROM

STRUCTURE ABOVE TO RESUPPORT CABLING.

D9 EXISTING HVAC ROOFTOP EQUIPMENT TO BE REMOVED AND REINSTALLED. ALL EXISTING CONDUIT AND WIRE FEEDING EQUIPMENT TO REMAIN INTACT AND BE PROTECTED DURING CONSTRUCTION. PROVIDE SUPPORT FOR CONDUIT AND WIRE DURING CONSTRUCTION.

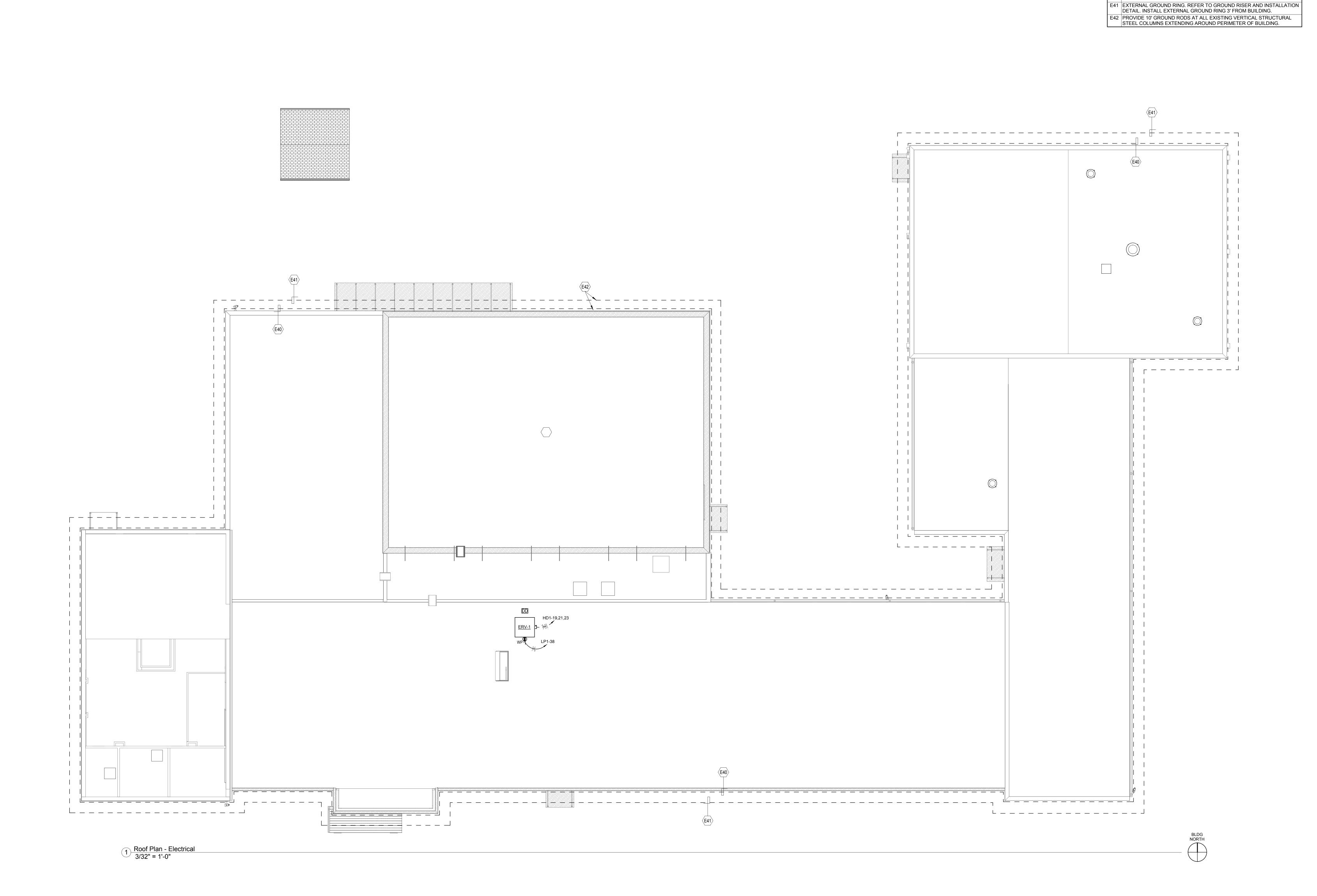
1569 PAYNEVILLE ELEMENTARY SCHOOL RENOVATION A E4.2 FIRST FLOOR PLAN - AREA B - POWER/SYSTEMS C:\Users\nhodges\Documents\R19.VMPE18-ELEC\_C\_BOGGS 7/18/2019 11:58:34 AM

TAGGED NOTES

E40 CONTRACTOR SHALL PROVIDE A NEW UL 96A MASTER LABELED LIGHTING PROTECTION SYSTEM IN ACCORDANCE TO NFPA 780. REFER TO SPECIFICATION 16600 "LIGHTNING PROTECTION FOR STRUCTURES" FOR ADDITIONAL REQUIREMENTS.

SHEET

**E4.3** 



**GENERAL NOTES (POWER):** 

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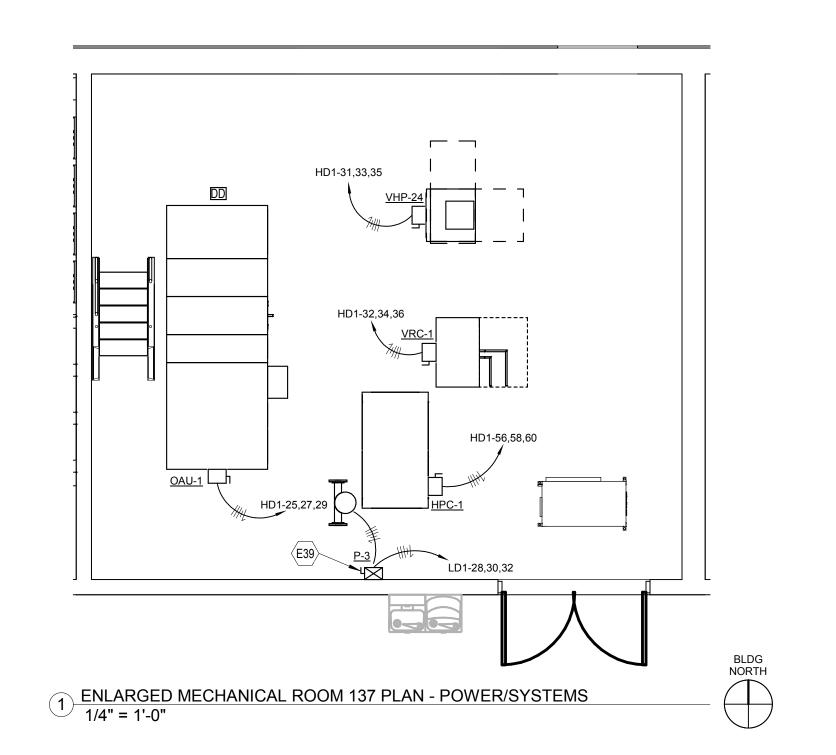
BRANCH CIRCUITS AS DEFINED IN NEC 100 / 210.4 (CIRCUITS SHARING A C. IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES, ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT NUMBER.

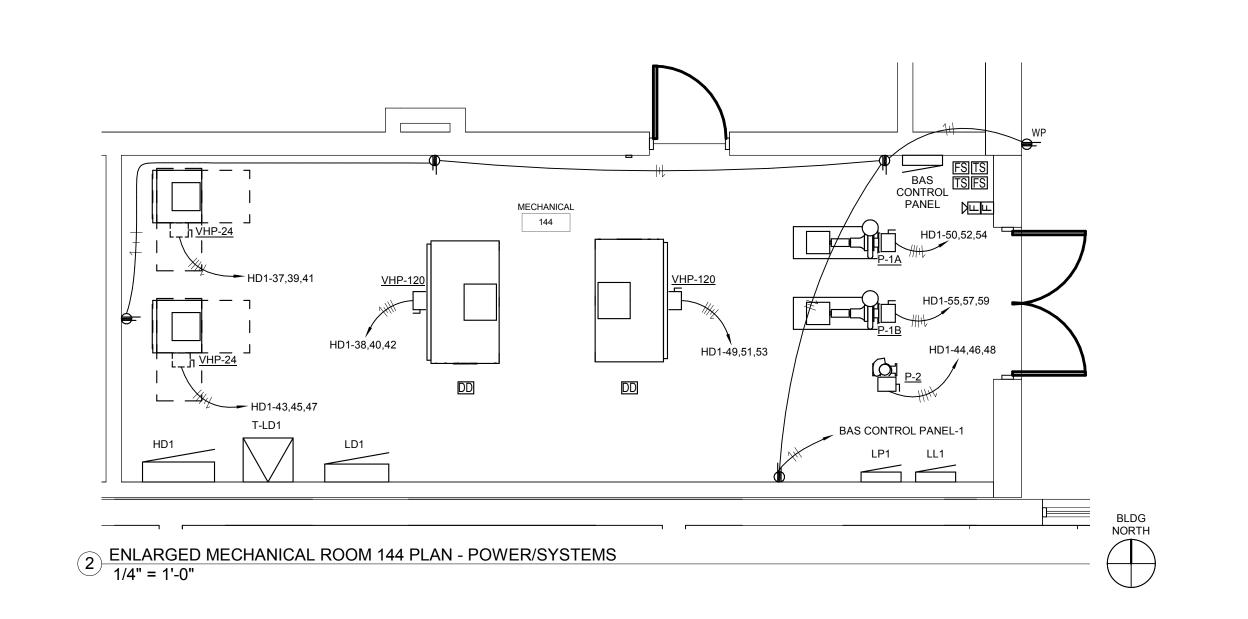
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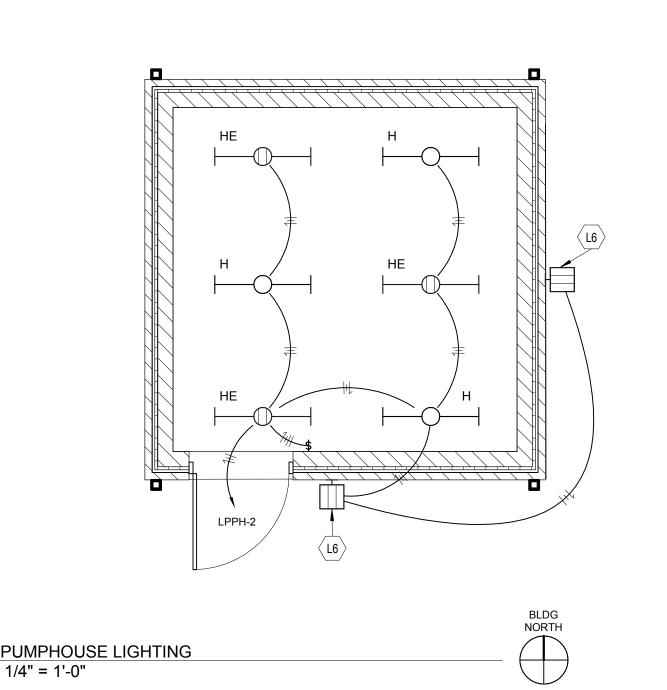
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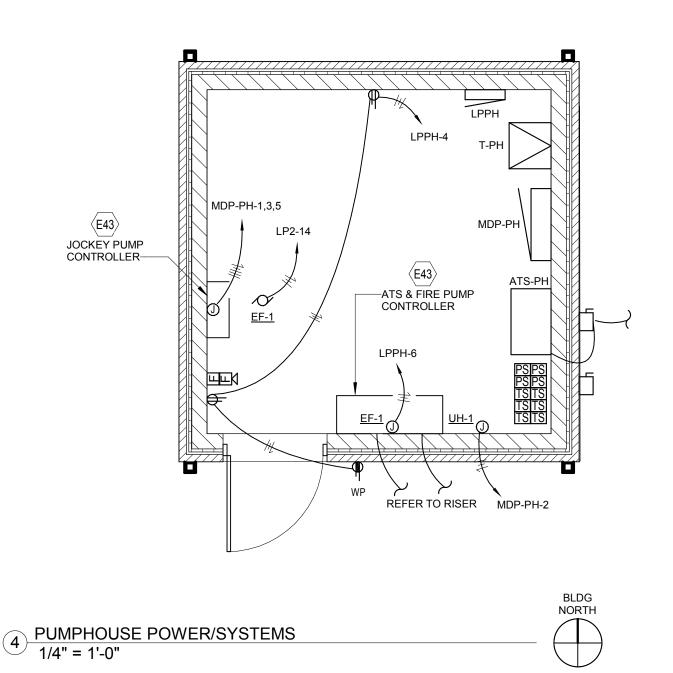
E39 PROVIDE A 30A/250V/3P NEMA1 COMBINATION STARTER DISCONNECT SWITCH TO SERVE PUMP INDICATED.

E43 ALL FIRE/JOCKEY PUMP POWER AND CONTROL WIRING SHALL BE STRANDED AND IN RIGID STEEL CONDUIT, EXCEPT FOR FINAL CONNECTIONS TO MOTORS WHICH SHALL BE IN A FLEXIBLE CONDUIT SYSTEM PERMITTED FOR FIRE PUMPS PER NEC 695. ALL WIRING SHALL BE LISTED 2-HOUR FIRE RATED CABLING SYSTEM. L6 PROVIDE FIXTURE WITH INTEGRAL PHOTO CELL.







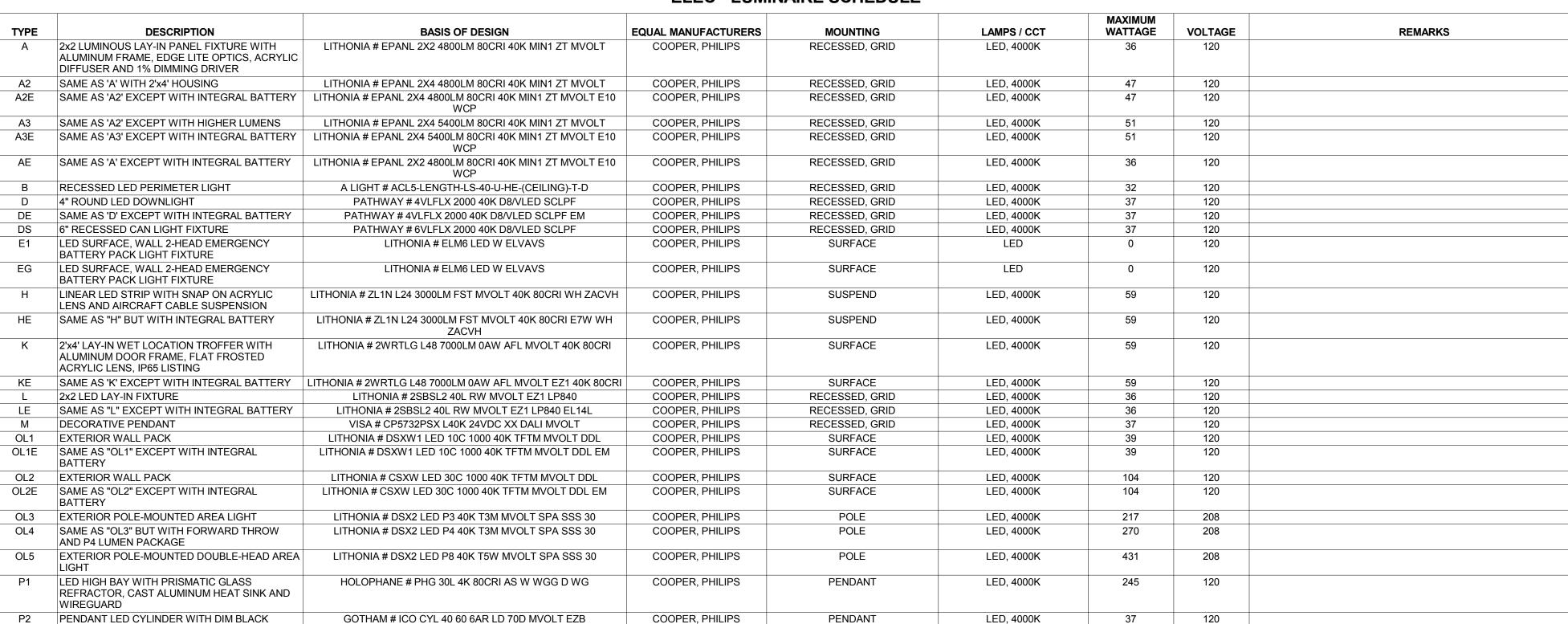


4 PUMPHOUSE POWER/SYSTEMS 1/4" = 1'-0"

3 PUMPHOUSE LIGHTING 1/4" = 1'-0"

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**ELEC - LUMINAIRE SCHEDULE** 



SURFACE

UNIVERSAL

UNIVERSAL

LED, 4000K

WACL WS-40726 AL

COOPER, PHILIPS

COOPER, PHILIPS

#### 3-POSITION (CENTER OFF) HESITATION TYPE KEY SWITCH WITH STAINLESS STEEL COVERPLATE & NAMEPLATE (LABEL FOR LOAD CONTROLLED) FOR OPERATION OF BLEACHERS, ETC. SWITCHES AND COVERPLATES SHALL BE PURCHASED FROM THE SUCCESSFUL BIDDER OF "CONTROLLED ITEMS". ALL SWITCHES SHALL BE CONTROLLED WIJSAME KEY. REFER TO FLOOR PLANS FOR EXACT NUMBER OF CONTROLLED DEVICES TO DETERMINE NUMBER OF SWITCHES THAT WILL BE REQUIRED AND FOR ANY FURTHER REQUIREMENTS. (TYPICAL). LOWER CASE LETTER DESIGNATOR DN UP DN UP DN FOR ITEMS CONTROLLED (LETTER CORRESPONDS TO LOWER-CASE LETTER DESIGNATOR ON FLOOR PLANS). NOTE: DO NOT LABEL SWITCHES WITH LETTER - LABEL UP DN UP DN UP DN UP DN ACCORDING TO LOAD SERVED. **BLANK-OFF UNUSED** PORTIONS OF PANEL \_\_\_\_\_\_ PROVIDE A #14 GAUGE STEEL 24"W x 24"H x 6"D NEMA-1 ENCLOSURE. SIMILAR TO HOFFMAN #A-24N24A WITH THE FOLLOWING: a) PROVIDE WITH KEY LOCK KIT, b) #14 GAUGE "HINGED" DIVIDER SHALL BE MOUNTED (SECURELY BRACE) 1" BACK FROM FRONT OF PANEL TO ALLOW 5" OF SPACE FOR SWITCHES AND WIRING c) PANEL SHALL HAVE FLUSH-MOUNTING TRIM FLANGE FOR RECESS MOUNT IN WALL.

# GYMNASIUM/CAFETERIA MOTOR CONTROL PANEL DETAIL SCALE: NONE

**GENERAL NOTES (LUMINAIRE SCHEDULE):** 

V1 ABOVE MIRROR LED FIXTURE

X1 SINGLE FACE, TRITIUM EXIT SIGNS

SAME AS 'X1' EXCEPT DOUBLE FACE

A. ALL LUMINAIRES AND COMPONENTS SHALL BE ULLISTED. B. WHERE LUMINAIRES ARE SHOWN SPLIT-WIRED (HALF EMERGENCY OXYGEN #3583

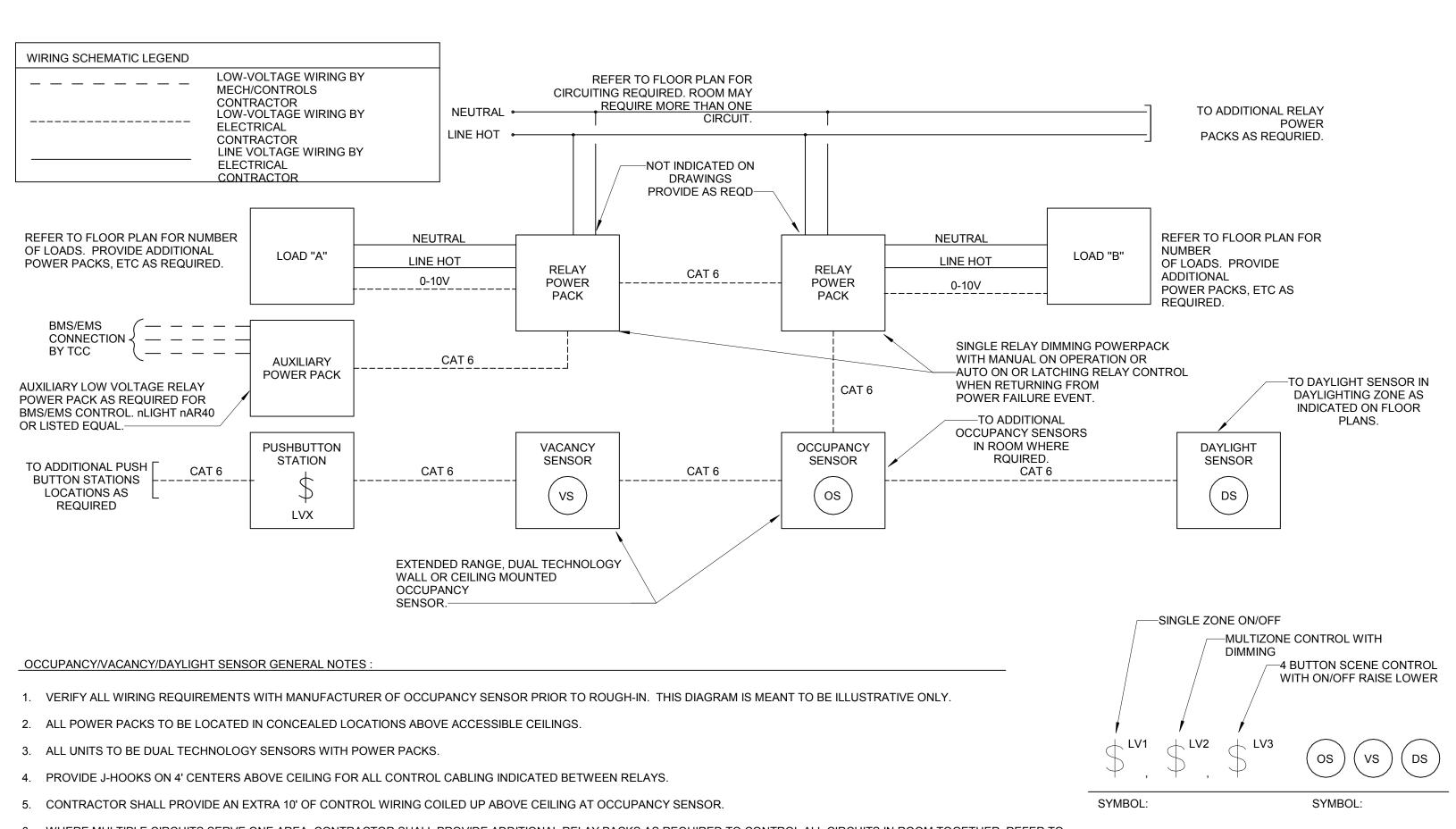
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LITHONIA # D S W 2 R 20

- POWER/ HALF NORMAL POWER) ON FLOOR PLANS, LUMINAIRES SHALL BE PROVIDED WITH MULTIPLE ELECTRONIC BALLASTS FOR MULTIPLE
- C. PROVIDE BALLASTS FOR FIXTURE LAMP SWITCHING AS INDICATED ON LIGHTING FLOOR PLANS. WHERE A SINGLE FIXTURE IS POWERED FROM NORMAL AND EMERGENCY POWER, HALF OF THE LAMPS WITH A
- MINIMUM OF TWO LAMPS SHALL BE ON EMERGENCY POWER. D. CONTRACTOR SHALL FOCUS, AIM AND ADJUST LUMINAIRES UNDER THE SUPERVISION AND DIRECTION OF THE ENGINEER AND ARCHITECT. ALLOW LABOR FOR FINAL FOCUS AND ADJUSTMENTS AFTER DARK.
- LIFTS AND SCAFFOLDING SHALL BE AVAILABLE. E. ALL LAY-IN FIXTURES SHALL BE PROVIDED WITH SCREW ON HOLD
- DOWN CLIPS AND MAXIMUM 6'-0" LONG FLEXIBLE CONDUIT WHIPS. F. EXIT SIGNS AND FIXTURES THAT ARE HATCHED OR WHERE THE FIXTURE TYPE CONTAINS THE SUFFIX "E" FOR EMERGENCY OPERATION

SHALL HAVE AN INTEGRAL 90 MINUTE BATTERY INVERTER IF NOT

POWERED FROM AN EMERGENCY GENERATOR. G. ALL BATTERY POWERED FIXTURES SHALL HAVE TEST SWITCHES FACTORY INSTALLED INTEGRAL TO THE REFLECTOR, REMOTE TEST SWITCHES WILL NOT BE ACCEPTED.



- 6. WHERE MULTIPLE CIRCUITS SERVE ONE AREA, CONTRACTOR SHALL PROVIDE ADDITIONAL RELAY PACKS AS REQUIRED TO CONTROL ALL CIRCUITS IN ROOM TOGETHER. REFER TO
- MANUFACTURER'S WIRING DIAGRAMS FOR WIRING REQUIREMENTS.
- 7. WHERE MULTIPLE SENSORS AND MULTIPLE POWER PACKS ARE REQUIRED IN ONE ROOM, CONTRACTOR SHALL CONNECT SENSORS AND POWER PACKS SUCH THAT MOTION DETECTION BY ANY SENSOR IN THE ROOM SHALL ALLOW ALL CIRCUITS IN THE ROOM TO OPERATE. PROVIDE ALL ACCESSORIES AND WIRE DEVICES PER MANUFACTURER'S REQUIREMENTS FOR OPERATION AS
- 8. SYSTEM SHALL BE SENSOR SWITCH nLIGHT OR WATTSTOPPER DLM EQUAL. SYSTEM SHALL BE PROVIDED, WIRED AND CONTROLLED AS A COMPLETE AND OPERABLE SYSTEM.
- 9. OCC SENSORS SHALL BE DUAL TECHNOLOGY (PIR AND ULTRASONIC) CEILING OR WALL TYPE. WHERE INDICATED AS WALL TYPE, PROVIDE WITH WITH RECESS BACKBOX, STUB-OUT AND GROMMETED COVERPLATE FOR CABLING. PROVIDE WITH ADDITIONAL EMS RELAY FOR BUILDING MANAGEMENT.
- 10. DAYLIGHT SENSOR OPERATION: DEVICE SHALL BE SET TO MAINTAIN 50FC. LOW DIMMING RANGE SHALL BE SET LOWER THAN 30% OF FIXTURES OUTPUT LEVEL. TRANSITION OFF TIME SHALL BE SET AT 10 MINUTES. TRANSITION ON TIME SHALL BE 45 SEC. SYSTEM SHALL BE "BURNT" IN FOR 100 HOURS. SYSTEM SHALL BE CONFIGURED AND TESTED PRIOR TO END OF PROJECT.

OCCUPANCY/VACANCY/DAYLIGHT SENSOR LIGHTING CONTROL WIRING DIAGRAM

IN CONCRETE SLAB, TO SUIT ACTUAL FIELD CONDITIONS (TYPICAL OF ALL FOUR CORNERS). RECESSED, SEMI -RECESSED OR SURFACE MOUNTED TROFFER PROVIDE A MINIMUM OF 3 TIGHT TWISTS AT CONNECTION TO FIXTURE (TYPICAL OF ALL FOUR CORNERS). GENERAL TROFFER SUPPORT DETAIL NOTES:

1. SUPPORT WIRES SHALL BE GALVANIZED REGULAR COATING, SOFT TEMPER, 0.1055 INCHES IN DIAMETER (12 GAGE). 2. ALTERNATELY, CONTRACTOR MAY SUPPORT FIXTURES WITH SINGLE WIRE FROM ALL FOUR CORNERS OF FIXTURE PER SPECIFICATIONS WITH NUMBER OF TWISTS AT FIXTURE AND NUMBER OF WRAPS AROUND STRUCTURE INDICATED IN THIS DETAIL. TROFFER SUPPORT DETAIL

PROVIDE A MINIMUM OF TWO (2)

STRUCTURE ABOVE OR PROVIDE

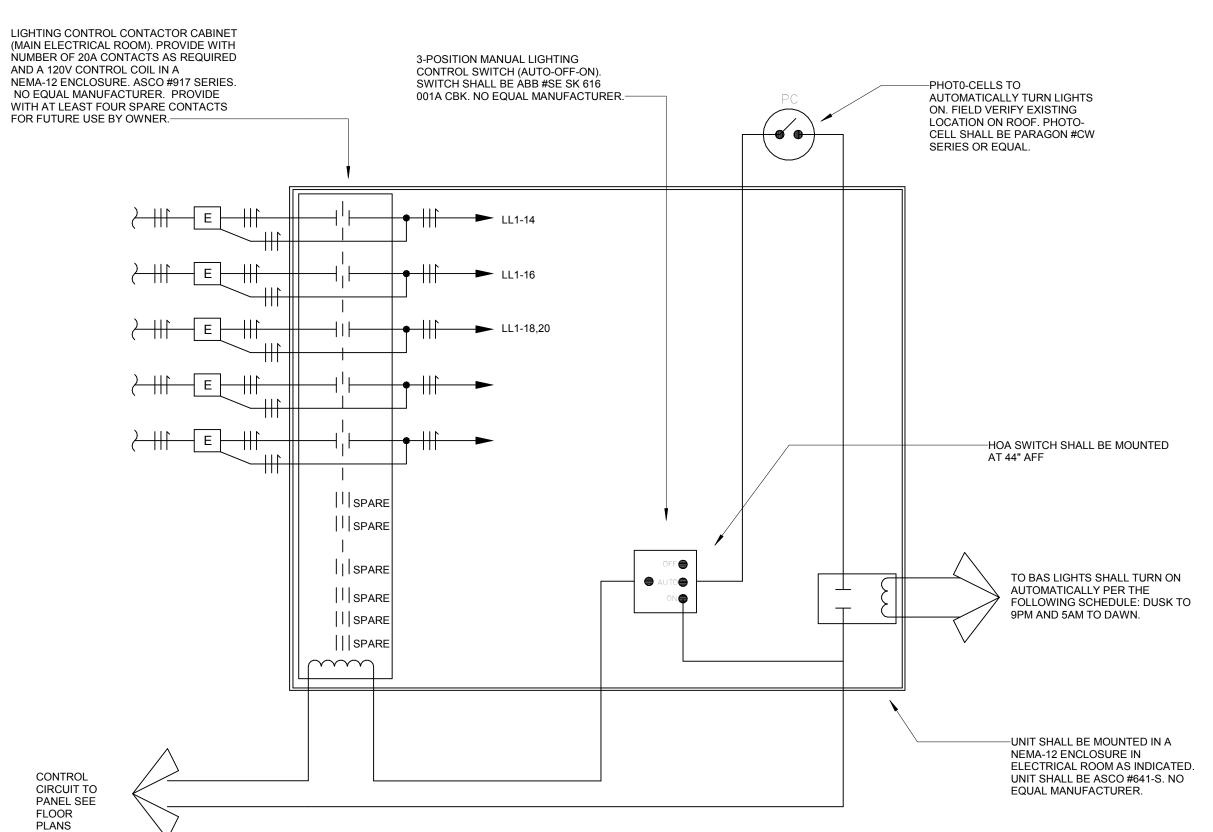
400LB. PULLOUT HILTI ANCHORS

TIGHT WRAPS AROUND

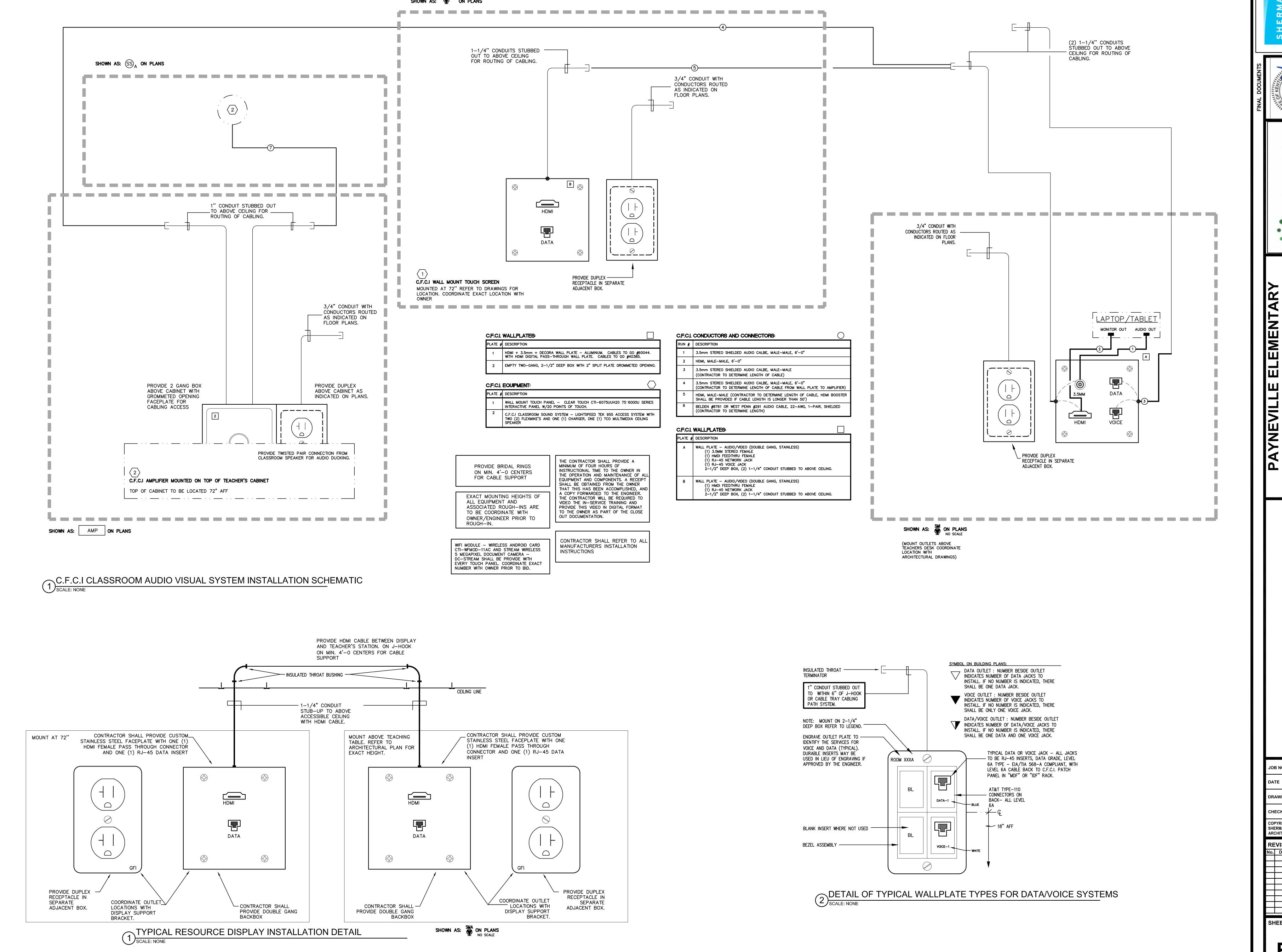
STRUCTURE-

-SUPPORT WIRE

CEILING



OUTDOOR LIGHTING CONTROL SCHEMATIC



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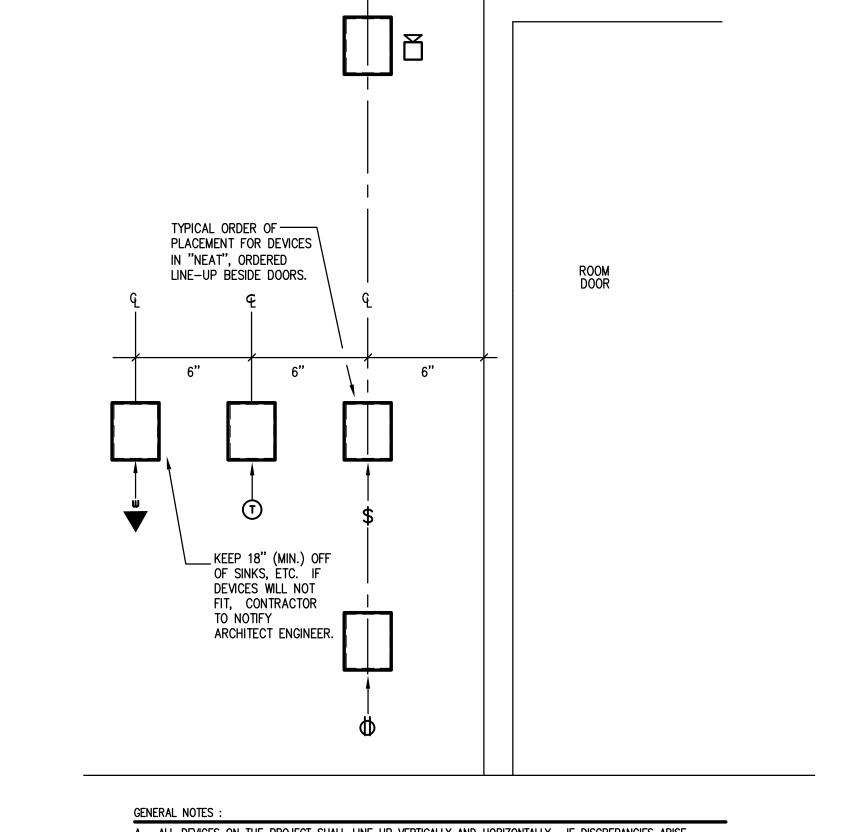
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**E6.2** 



A. ALL DEVICES ON THE PROJECT SHALL LINE UP VERTICALLY AND HORIZONTALLY. IF DISCREPANCIES ARISE, NOTIFY THE ENGINEER PRIOR TO INSTALLATION SO RESOLUTION CAN BE DETERMINED. OUTLET COORDINATION DETAIL SCALE: NONE

REMOVE EXISTING CONDUITS TO NEW JUNCTION BOX AND CIRCUIT(S) BACK INTERCEPTION — TO NEW / RELOCATED PANEL (WÌRÉ & CONDUIT SIZES TO MATCH EXISTING). \_TYPICAL PANEL BEING REPLACED / RELOCATED WHERE EXIST. CIRCUITS ARE IN SLAB, CONTRACTOR SHALL VERIRY IF EXISTING CIRCUIT IS STILL IN USE. ALL ABANDONED CIRCUITS OR CIRCUITS TO BE DEMOLISHED AS PART OF THIS CONTRACT SHALL BE COMPLETELY REMOVED. ANY REMAINING UNDERSLAB CIRCUITS SHALL BE REMOVED AND REFED FROM ABOVE CEILING FROM NEW PANEL LOCATION. PROVIDE SURFACE EXIST. WALL TO WIREMOLD AS REQUIRED TO REFEED BE REMOVED -EXISTING CIRCUIT. GROUND FLOOR FLOOR SLAB EXIST. CONDUIT TO dashEXISTING BRANCH ---

INSTALL ALL NEW CIRCUITS AND THEN

INTERCEPT EXISTING CIRCUITS ONE AT

→ CEILING STRUCTURE

SUSPENDED CEILING

A TIME TO MINIMIZE DOWNTIME.

PANEL REPLACEMENT / RELOCATION DETAIL

EXISTING PANEL FEEDER TO BE

COMPLETELY REPLACED. REFER

EXIST. CONDUIT TO

EXISTING LOAD -

RISER FOR REQUIREMENTS.

TAGGED NOTES: 1. PROVIDE NEW SURFACE MOUNTED, MICROPROCESSOR BASED, FIRE ALARM TRANSPONDER PANEL / CENTRAL PROCESSING UNIT (C.P.U.). PANEL SHALL BE CAPABLE OF MONITORING ALL INDIVIDUALLY ADDRESSABLE ÁLARM INDICATING DEVICES OR POINTS AS INDICATED AND WITH A MINIMUM OF 20% SPARE CAPACITY FOR FUTURE EXPANSION. ALL SYSTEM EQUIPMENT SHALL BE HOUSED IN A SINGLE CABINET. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.

2. NEW REMOTE FLUSH-MOUNTED FIRE ALARM ANNUNCIATOR STATION WITH LCD DISPLAY. SEE FLOOR PLANS FOR LOCATIONS AND QUANTITY. 3. TO ALL OTHER DEVICES ON LOOP/CIRCUIT AS REQUIRED. REFER TO FLOOR PLAN FOR

PROPOSED DEVICE LOCATIONS. 4. PROVIDE PHONE LINE TO REMOTE REPORTING DIALER FOR CENTRAL STATION REPORTING AS REQUIRED PER NFPA. COORDINATE WITH OWNER AND CENTRAL

RECEIVING STATION AS REQUIRED. 5. PROVIDE ZONE ADDRESSABLE MODULE FOR SUPERVISION OF ANCILLARY FIRE PROTECTION/MONITORING SYSTEMS. DEVICE SHALL BE SURFACE MOUNTED IN NEMA-1 ENCLOSURE, ABOVE SUSPENDED CEILING. PROVIDE QUANTITY AND TYPE AS REQUIRED

5.1. FIRE PROTECTION TAMPER AND FLOW SWITCHES 5.2. FIRE PROTECTION POST-INDICATOR VALVE. 5.3. DRY/CHEMICAL FIRE SUPPRESSION SYSTEMS. KITCHEN HOOD FIRE SUPPRESSION SYSTEM.

5.5. KNOX-BOXES. 6. PROVIDE ADDRESSABLE FIRE ALARM RELAY FOR SIGNAL OUTPUT TO ANCILLARY BUILDING SYSTEMS. DEVICE SHALL BE SURFACE MOUNTED IN NEMA-1 ENCLOSURE ABOVE SUSPENDED CEILING. PROVIDE QUANTITY AND TYPE AS REQUIRED FOR:

6.1. OPERABLE FIRE SHUTTERS TO CLOSE ON FIRE ALARM. ACCESS CONTROL DOORS TO UNLOCK AND POSITIVELY LATCH ON FIRE ALARM. ELEVATOR FOR ALL SPECIFIED AND REQUIRED FUNCTIONS. 7. ROUTE CONTROL WIRING (IN CONDUIT) BACK TO NEW HVAC EQUIPMENT CONTROLS FOR

AUTOMATIC SHUTDOWN. 8. TO ALL OTHER DOOR HOLDERS ON INDICATED FLOOR. DOOR HOLDERS SHALL BE POWERED FROM THE FIRE ALARM SYSTEM CABINETS AND SHALL RELEASE ON FIRE ALARM AS REQUIRED. REFER TO ARCHITECTURAL DOOR HARDWARE SCHEDULES FOR

ADDITIONAL REQUIREMENTS. 9. PROVIDE NEW FLUSH-MOUNTED REMOTE ALARM/POWER INDICATING KEY RESET/TEST STATION ON CORRIDOR WALL (WHENEVER POSSIBLE) AT 7'- 6" AFF BELOW SMOKE DAMPER/DUCT SMOKE DETECTOR LOCATION AS REQUIRED.

10. PROVIDE AN "ISOLATOR MODULE" AT ALL BRANCH RUNS. MOUNT IN A SURFACE NEMA-1 ENCLOSURE ABOVE THE SUSPENDED CEILING. PROVIDE AS REQUIRED BY SYSTEM MANUFACTURER TO ISOLATE LOOPS ON EACH FLOOR AND WITHIN EACH SMOKE

11. ROUTE 120V POWER WIRING THROUGH ADDRESSABLE RELAY MODULE FOR CONTROL OF DAMPER VIA ASSOCIATED DUCT/AREA SMOKE DETECTOR.

12. PROVIDE NUMBER OF NOTIFICATION APPLIANCE POWER SUPPLIES AS REQUIRED. LOCATE IN ELECTRICAL ROOMS. SUBMIT PROPOSED LOCATIONS IN SHOP DRAWINGS FOR REVIEW. 13. PROVIDE SURGE PROTECTION DEVICE AT POINT OF CONDUIT ENTRANCE INTO BUILDING. PROVIDE 5/8" X 10'-0" COPPER-WELD GROUND ROD AT PERIMETER OF BUILDING

NEXT TO CONDUIT ENTRANCE AND CONNECT TO SPD'S, COLD WATER LINE, AND BUILDING STEEL WITH #3 INSULATED GROUND IN 3/4" CONDUIT. 14. PROVIDE SEPARATE, DEDICATED CIRCUIT FOR CARBON MONOXIDE ALARMS. A CARBON MONOXIDE ALARM SHALL INDICATE AS A SUPERVISORY SIGNAL ONLY AND SHALL NOT INITIATE A FIRE ALARM. SINGLE-STATION ALARMS IN EACH SLEEPING UNIT SHALL BE CONNECTED TO ALL OTHER SINGLE-STATION ALARMS IN THE UNIT. WHEN ANY

DETECTOR ALARMS, ALL DETECTORS ON THE UNIT SHALL ALARM. 15. PROVIDE ETHERNET IP CONNECTION TO OWNER'S NETWORK FOR REPORTING/LOGGING. COORDINATE WITH OWNER PRIOR TO CONSTRUCTION.

16. PROVIDE GRAPHIC DISPLAY TERMINAL PC WITH LCD MONITOR AND ATTACHED HISTORICAL PRINTER. SEE FLOOR PLANS FOR LOCATION.

GENERAL FIRE ALARM SYSTEM RISER NOTES :

B. THE EXTENT OF ALL FIRE ALARM SYSTEM WORK IS INDICATED OR IMPLIED ON THE CONTRACT DRAWINGS.

> HOOD SUPPRESSION SYSTEMS, ETC.) AND MAKE CONNECTIONS AS D. PROVIDE CONNECTIONS TO ALL FIRE PROTECTION TAMPER AND FLOW SWITCHES VIA ZONE ADDRESSABLE MODULES AS REQUIRED. CONTRACTOR SHALL VERIFY ALL

> LOCATIONS WITH FIRE PROTECTION SYSTEM SHOP DRAWINGS. CONTRACTOR SHALL PROVIDE A UNIT PRICE FOR COMPLETE INSTALLATION OF A CONNECTION TO EXISTING PROTECTION SWITCHES.

E. ALL FIRE ALARM STROBE LIGHTS SHALL BE SYNCHRONIZED TO ACCOMMODATE BUILDING STANDARDS AS REQUIRED. F. TAP SPEAKERS TO PROVIDE SUFFICIENT AUDIBILITY FOR AREA SERVED.

EXHAUST AIR OPENINGS. NOR CLOSER THAN 12" TO WALL/ CEILING INTERSECTIONS.

H. AIR HANDLING UNITS SHALL ONLY SHUT DOWN WHEN SMOKE IS DETECTED AT THAT PARTICULAR AIR HANDLING UNIT (UON). SMOKE DAMPERS SHALL CLOSE ONLY WHEN SMOKE IS DETECTED AT THAT PARTICULAR SMOKE DAMPER BY ACTIVATION OF THE CONTROLLING SMOKE DETECTOR. REFER TO THE SPECIFICATIONS FOR FURTHER

7'6" AFF ON WALL IN AREA BELOW DETECTOR. J. RISER DIAGRAM IS FOR BID PURPOSES ONLY. SYSTEM SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH WIRING DIAGRAMS OBTAINED FROM MANUFACTURER, THAT HAVE BEEN APPROVED BY THE STATE FIRE MARSHAL'S OFFICE OR AUTHORITY

ALARM DEVICES AS SOON AS POSSIBLE AFTER AWARD OF CONTRACT FOR PREPROGRAMMING OF FIRE ALARM SYSTEM. COORDINATE DESCRIPTIONS WITH BUILDING OWNER. UTILIZE FINAL ROOM NAMES AND NUMBERS, NOT NAMES AND NUMBERS FROM

L. EACH FIRE ALARM DEVICE SHALL BE LABELED WITH SELF ADHESIVE POLYESTER COATED PRINTED LABELS INDICATING DEVICE ADDRESS AND CIRCUIT PER FIRE ALARM

M. MODIFY AND/OR EXPAND EXISTING CONTROL PANEL(S) AND ANNUNCIATOR(S) TO ACCOMMODATE AS REQUIRED TO SUPPORT ADDITIONAL DEVICES SHOWN. FURNISH AND INSTALL ANY MODULES OR EQUIPMENT NECESSARY TO EXPAND SYSTEM. EXISTING ANNUNCIATOR(S) AND CONTROL PANEL(S) SHALL BE UPDATED TO DISPLAY TROUBLES

O. PROVIDE ACCESS PANELS AS REQUIRED FOR MAINTENANCE AND TESTING FOR SMOKE A. THIS RISER IS PARTIAL. ALL THE DEVICES CONNECTED TO THE "FACP" UNITS ARE NOT

> WITH ARCHITECT PRIOR TO INSTALLATION. PROVIDE APPROVED TESTING AND REQUIRED CERTIFICATION OF SYSTEM COMPONENTS AND PROVE OPERATION OF SYSTEM FOR THE AREA OF WORK WHEN COMPLETE. . WIRING TO ALL FIRE ALARM DEVICES SHALL BE PER NEC AND MANUFACTURER'S

RECOMMENDATIONS. ALL WIRING SHALL BE ROUTED IN CONDUIT. CONDUIT SHALL BE R. ALL NEW DEVICES INDICATED, SUCH AS SMOKE DETECTORS, NOTIFICATION APPLIANCES, ETC., SHALL MATCH AND BE COMPATIBLE WITH EXISTING BUILDING SYSTEM.

DETECTORS LOCATED ABOVE INACCESSIBLE CEILINGS. COORDINATE SIZE AND LOCATIONS

PROVIDE-J-BOX FOR-

~~, € , \$ , \$ , \$ . ~

OR OTHER CEILING MOUNTED DEVICE

HEIGHT AS SCHEDULED

SCALE: NONE

ALL CEILING MOUNTED

DEVICES

ALL 120V POWER FOR NEW FIRE ALARM SYSTEM COMPONENTS SHALL BE CONNECTED TO EMERGENCY LIFE-SAFETY BRANCH PANELS AS APPLICABLE. PROVIDE ALL NEW POWER CONNECTIONS AS REQUIRED FOR SYSTEM OPERATION.

PROVIDE A DEDICATED POWER CIRCUIT TO EACH FIRE ALARM EQUIPMENT PANEL OR

U. FIRE ALARM OCP DEVICES SHALL HAVE NON-REMOVABLE LOCKABLE HANDLE PAINTED THIS CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL BUILDING PERMITS ELECTRICAL APPROVALS, AND APPROVALS FROM THE STATE OFFICE OF FIRE SAFETY OR AUTHORITY HAVING JURISDICTION (AHJ). THIS INCLUDES PREPARING DRAWINGS. CUTSHEETS. AND OTHER DOCUMENTATION REQUIRED BY THE AHJ OR FIRE ALARM EQUIPMENT MANUFACTURER. A COPY OF THESE REQUIREMENTS SHALL BE OBTAINED FROM AHJ. THE DRAWINGS SHALL BE PREPARED AS A FINAL SUBMITTAL OBTAINED FROM AHJ. THE DRAWINGS SHALL BE PREPARED AS A FINAL SUBMITTAL AS OUTLINED IN THE SUBMITTAL REQUIREMENTS. ELECTRONIC COPIES OF THESE PLANS REQUIRED

REQUIRED FOR APPROVAL SHALL BE FINISHED WITHIN 7 WORKING DAYS OF AWARD OF W. WRITTEN CERTIFICATION OF ENTIRE FIRE ALARM SYSTEM SHALL BE SUBMITTED TO

FOR THIS PURPOSE MAY BE OBTAINED FROM THE ENGINEER. DRAWINGS THAT ARE

OWNER & ENGINEER AT CLOSE OF PROJECT. X. A TECHNICAL REPRESENTATIVE OF FIRE ALARM MANUFACTURER SHALL BE PRESENT AT ALL TIMES DURING FIRE ALARM CERTIFICATION.

CONTRACTOR SHALL MONITOR TROUBLES ON EXISTING PANEL EQUIPMENT ON A DAILY BASIS. WHERE A TROUBLE IS INDICATED, IT SHALL BE REPORTED TO THE OWNER AND CONSTRUCTION SHALL STOP UNTIL TROUBLE IS RESOLVED UNLESS OTHERWISE INDICATED BY OWNER.

INITIATING DEVICE CIRCUITS AND NOTIFICATION APPLIANCE CIRCUITS SHALL BE IN SEPARATE RACEWAYS. FIRE ALARM SYSTEM JUNCTION BOXES, BACK BOXES, AND PULL BOXES SHALL BE PAINTED RED.

AA. PROVIDE QUANTITY OF POWER SUPPLIES AND NAC PANELS BASED UPON FINAL SYSTEM DESIGN AND REQUIRED SPARE CAPACITY. LOCATE ADDITIONAL PANELS ADJACENT TO THOSE SHOWN ON PLANS. DO NOT INSTALL ADDITIONAL EQUIPMENT IN OTHER AREAS OF THE PROJECT WITHOUT WRITTEN CONSENT BY THE ENGINEER.

EQUIPMENT ETHERNET IP COMMUNICATOR ADDRESSABLE LOOPS + MICROPHONE & FIREMAN'S PHONE REPORTING DIALER SITE FIRE PROTECTION VAULT

FIRE ALARM RISER

SHOWN). THE CONTRACTOR SHALL REFER TO THE ELECTRICAL FLOOR PLANS FOR THE

C. FIELD VERIFY THE EXACT NUMBER AND LOCATIONS OF ALL MECHANICALLY RELATED ITEMS (SPRINKLER CONNECTIONS, EXTINGUISHING SYSTEMS, SMOKE DAMPERS, RANGE

G. SMOKE DETECTOR SHALL NOT BE LOCATED CLOSER THAN 36" TO SUPPLY, RETURN OR

I. PROVIDE DUCT SMOKE DETECTORS WITH REMOTE TEST SWITCH/INDICATOR LIGHT AT

K. PROVIDE FIRE ALARM MANUFACTURER WITH LOCATION DESCRIPTIONS FOR ALL FIRE

FLOOR PLANS.

N. PROVIDE CONNECTIONS TO NEW ACCESS CONTROL DOORS TO ALLOW POSITIVE LATCHING AND FREE EGRESS UNDER ALARM CONDITIONS. COORDINATE EXACT REQUIREMENTS WITH SUCCESSFUL DOOR HARDWARE MANUFACTURER PRIOR TO

AND ALARM LOCATIONS FOR ALL NEW ZONES.

FIRE ALARM PHASING / GENERAL NOTES

CONTRACTOR SHALL NOTIFY MCPS BEFORE ANY SHUT DOWN OF THE FIRE

ALL STUB-UPS SHALL BE ROUTED (HOMERUN

TUB-UPS TO JUST ABOVE CEILING AT OUTLE

INSULATED THROAT BUSHING

TO CABLE TRAY OR TO MDF/IDF ROOM.

WILL NOT BE ACCEPTED.

3/4" MINIMUM - COORDINATE SIZES REQUIRED WITH

SYSTEM MANUFACTURER'S, VENDOR'S, ETC. (CONDUIT

SIZES MAY NEED TO BE INCREASED FOR CERTAIN

FLOOR LINE

ROUGHING-IN DETAIL FOR STUB-OUTS

-5"X5"X2-7/8" OUTLET BOX FOR

— STUB DOWN WHERE REQUIRED

— OUTLETS AS SHOWN ON PLAN.

OUTLETS - FIELD VERIFY).

CEILING LINE

ALARM SYSTEM CAUSING THE BUILDING TO BE UNMONITORED. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR ALL CEILING MOUNTED DEVICES AS REQUIRED TO ALLOW FOR DEMOLITION OF CEILINGS

TO PROCEED PRIOR TO COMPLETION OF FIRE ALARM WORK. EXPOSED ROUTINGS SHALL BE IN WIREMOLD WITH TWO HOLE SUPPORTS PER SPECIFICATIONS AND PAINTED IN A PROFESSIONAL MANNER TO MATCH EXISTING SURFACE USING TWO (2) COATS. ALL CONCEALED ROUTINGS AND

ROUTINGS IN UNFINISHED AREAS SHALL BE IN RED CONDUIT.

 CONTRACTORS SHALL FOLLOW THE PRIORITY LIST BELOW IN ROUTING RACEWAY VERTICALLY TO THE DEVICES INDICATED:

1) FISH WALLS AND CONCEAL VERTICAL ROUTINGS TO DEVICE. 2) IF RECESSED BOX AND CONCEALED CONDUIT TO EXISTING DEVICE EXISTS, CONTRACTOR SHALL REUSE. IF NEW MOUNTING HEIGHT IS REQUIRED, PROVIDE WIREMOLD SURFACE MOUNTED BOX ON EXISTING RECESSED BOX AND EXTEND WIREMOLD SURFACE RACEWAY TO WIREMOLD SURFACE MOUNTED BOX AT NEW DEVICE.

3) PROVIDE WIREMOLD SURFACE RACEWAY TO WIREMOLD SURFACE MOUNTED BOX AT NEW DEVICE LOCATION. CONTRACTOR SHALL FIELD VERIFY BEST LOCATIONS FOR VERITCAL DROPS WITH EXISTING CONDITIONS. VERTICAL RUNS OF SURFACE MOUNTED RACEWAYS SHALL BE MOUNTED IN CORNERS OF ROOMS WHENEVER POSSIBLE. FIELD VERIFY MOST INCONSPICUOUS ROUTE FOR RACEWAYS PRIOR TO CONSTRUCTION. PAINT SURFACE RACEWAYS TO MATCH ADJACENT

SURFACES AS REQUIRED. • THE FIRE ALARM SYSTEM FOR THE BUILDING SHALL REMAIN FULLY FUNCTIONAL AT ALL TIMES THOUGHOUT THE PROJECT. THE CONTRACTOR MAY INSTALL THE NEW FIRE ALARM PANEL AND MONITOR THE EXISTING PANEL TO ALLOW FOR AREAS OF WORK TO BE PHASED OFF OF THE EXISTING SYSTEM AND ONTO THE NEW SYSTEM. IF AT ANY TIME THE EXISITNG SYSTEM IS INADVERTENTLY DEACTIVATED, THE CONTRACTOR SHALL NOTIFY MCPS AND PROVIDE A 24 HOUR FIRE WATCH AS REQUIRED UNTIL THE SYSTEM IS REINITIATED. SYSTEM SHALL BE COMPLETELY

OPERATIONAL WHEN THE CONTRACTOR LEAVES THE SITE EACH DAY. NO EXPOSED CABLING SHALL BE ALLOWED IN ANY SITUATION.

 LOCATE ALL POWER EXTENDER PANELS IN ACCESSIBLE LOCATIONS IN MECH/STORAGE ROOMS. LABEL ALL CIRCUITS INTERNAL TO PANEL AND ON AS-BUILTS WITH ROOM NUMBERS.

• CONTRACTOR SHALL COORDINATE EXACT MOUNTING LOCATIONS WITH EXISTING TEACHING BOARDS, DEVICES, ETC. IN ALL LOCATIONS. FIELD VERIFY BEST MOUNTING LOCATION IN CLOSE VICINITY OF DEVICE LOCATION

 INDICATED.
 PATCH, REPAIR AND PAINT EXISTING WALLS CEILINGS ETC. THAT ARE TO REMAIN WHEN DAMAGED DURING THE CONSTRUCTION PROCESS.

 LOCATIONS OF DEVICES, CONNECTIONS, ETC. INDICATED ON THIS DRAWING WERE TAKEN FROM VARIOUS SOURCES. THEY ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO VARIATION FROM EXISTING CONDITIONS. CERTAIN EXISTING ELEMENTS MAY <u>NOT</u> BE INDICATED AT ALL. THE CONTRACTOR PROPOSING TO DO WORK ON ANY PART OF THE WORK INDICATED HEREON SHALL VISIT THE SITES AND DETERMINE TO HIS SATISFACTION THAT THEY MAY COMPLETE ALL WORK REQUIRED FOR THE BID WHICH HE PROPOSES. ALL CONTRACTORS SHALL GIVE OWNER 24 HOURS NOTICE PRIOR TO SUCH

A VISIT. CONTRACTOR SHALL REMOVE ALL FURNITURE, LOCKERS, FILES, ETC. REQUIRED TO FACILITATE HIS WORK. AFTER ALL WORK IS COMPLETED, CONTRACTOR SHALL RETURN FURNITURE, ETC. TO IT'S ORIGINAL LOCATION. IF FURNITURE, LOCKERS, FILES, ETC. IS NOT TO BE RE- INSTALLED, CONTRACTOR SHALL PATCH FLOORS, WALLS, CEILINGS, ETC. AND PAINT TO MATCH ADJACENT SURFACES.

FREE STATE.

CONTRACTOR SHALL MAINTAIN EXISTING FIRE ALARM SYSTEM UNTIL NEW SYSTEM IS COMPLETELY INSTALLED AN OPERATIONAL. TROUBLES SHALL BE IMMEDIATELY ADDRESSED. CONTRACTOR SHALL PROVIDE WEEKLY WRITTEN REPORT TO THE OWNER AND ENGINEER INDICATING STATUS OF SYSTEM AND REPAIRS THAT WERE ADDRESSED. EXISTING SYSTEM SHALL BE MAINTAINED / BACKFED OR ALL NEW DEVICES SHALL BE INSTALLED AS PART OF PHASE A. CONSTRUCTION WILL BE HALTED WHEN EXISTING DEVICES ARE NOT MAINTAINED DURING CONSTRUCTION. OWNER RESERVES RIGHT TO BRING IN INDEPENDENT FA VENDOR TO MAKE REPAIRS AT CONTRACTORS EXPENSE WHERE SYSTEM AND DEVICES IS NOT MAINTAINED IN A TROUBLE

EXISTING MDP

400A/3

LIQUID TIGHT FLEXIBLE CONDUIT. CONDUCTORS TO BE EXTRA-FLEXIBLE

TYPE. ALL POWER WIRING AND CONDUIT BY ELECTRICAL CONTRACTOR

STARTER SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR (U.O.N.). THE ELECTRICAL CONTRACTOR SHALL RECEIVE AND INSTALL STARTER (IF NOT ALREADY MOUNTED ON EQUIPMENT) AND WIRE POWER WIRING THRU STARTER TO MOTOR TERMINALS STARTERS ARE TO BE PROVIDED WITH

ALL NECESSARY ACCESSORIES SUCH AS CONTROL TRANSFORMERS, H.O.A.

CONTROLS, OVERLOAD HEATERS, ETC. BY THE SUPPLIER. REFER TO

INFORMATION. WHERE MOTOR CONTROL CENTERS AND COMBINATION

THE ELECTRICAL CONTRACTOR IS TO FURNISH AND INSTALL

DISCONNECTING MEANS UNLESS OTHERWISE NOTED. REFER TO

ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR SCHEDULES AND

SPECIFIC INFORMATION. WHERE FUSES ARE REQUIRED, THEY SHALL BE

PROPERLY SIZED TO MOTOR NAMEPLATE DATA, IN ACCORD WITH THE

CLEARANCES IN ACCORD WITH THE N.E.C. AND REQUIREMENTS OF THE

CONDUIT AS REQUIRED -

WIREMOLD TO CONDUIT

- COORDINATE ALL TURNS

EXISTING WALL DEVICES,

OFFSETS, ETC. WITH

CHALKBOARDS,

TACKBOARDS, ETC.

FOR SERVICE.

─ KO TRANSITION

\_\_\_\_\_\_

CONNECTOR.

N.E.C. DISCONNECTING MEANS SHALL BE LOCATED WITH REQUIRED

CONTRACTOR. SEE SPECIFICATIONS.

AUTHORITY HAVING JURISDICTION.

DETAIL OF TYPICAL MOTOR/STARTER INSTALLATION

SCALE: NONE

SEE PLAN AND SCHEDULES FOR POWER WIRING

PROVIDE 2G SURFACE →

SUSPENDED ACCESSIBLE CEILING

MOUNTED JUNCTION

BOX ABOVE CEILING

LOCATIÓN WITH ALL

WHERE FOR FIRE -

CONDUIT TO WIREMOLD-

PROVIDE SURFACE -

STRAP FOR SUPPORT

SWITCH/DEVICE BOX.

PROVIDÉ SUPPORTS

NEW SURFACE ---

SWITCH/DEVICE BOX

TYPICAL WIREMOLD DEVICE INSTALLATION

2'-0" ON CENTER MAX

DOWN TO NEW

AND PER CODE.

BOX AT HEIGHT

WIREMOLD

REQUIRED.

WIREMOLD WITH 2-HOLE

ARE <u>NOT ALLOWED.</u>

TRANSITIONS AT CEILINGS

ALARM, BOX TO BE

PAINTED RED.

(MIN 6" ABOVE CEILING). COORDINATE

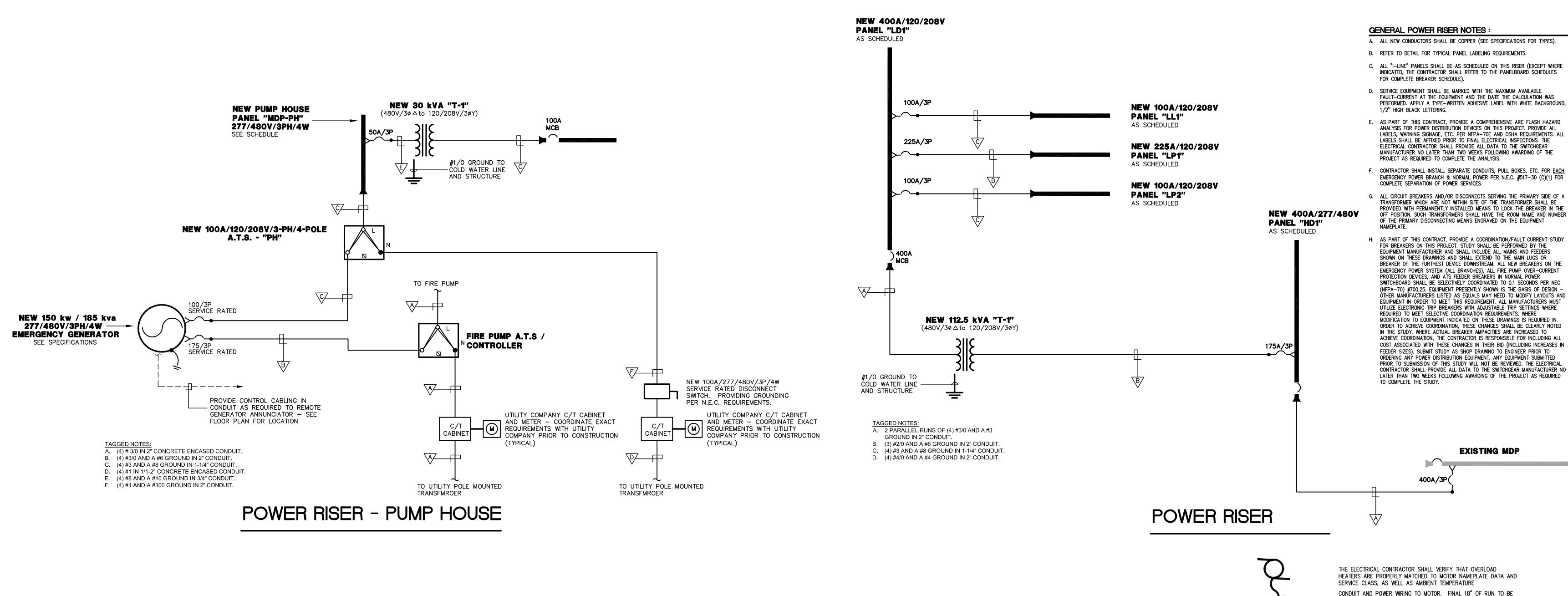
TRADES.

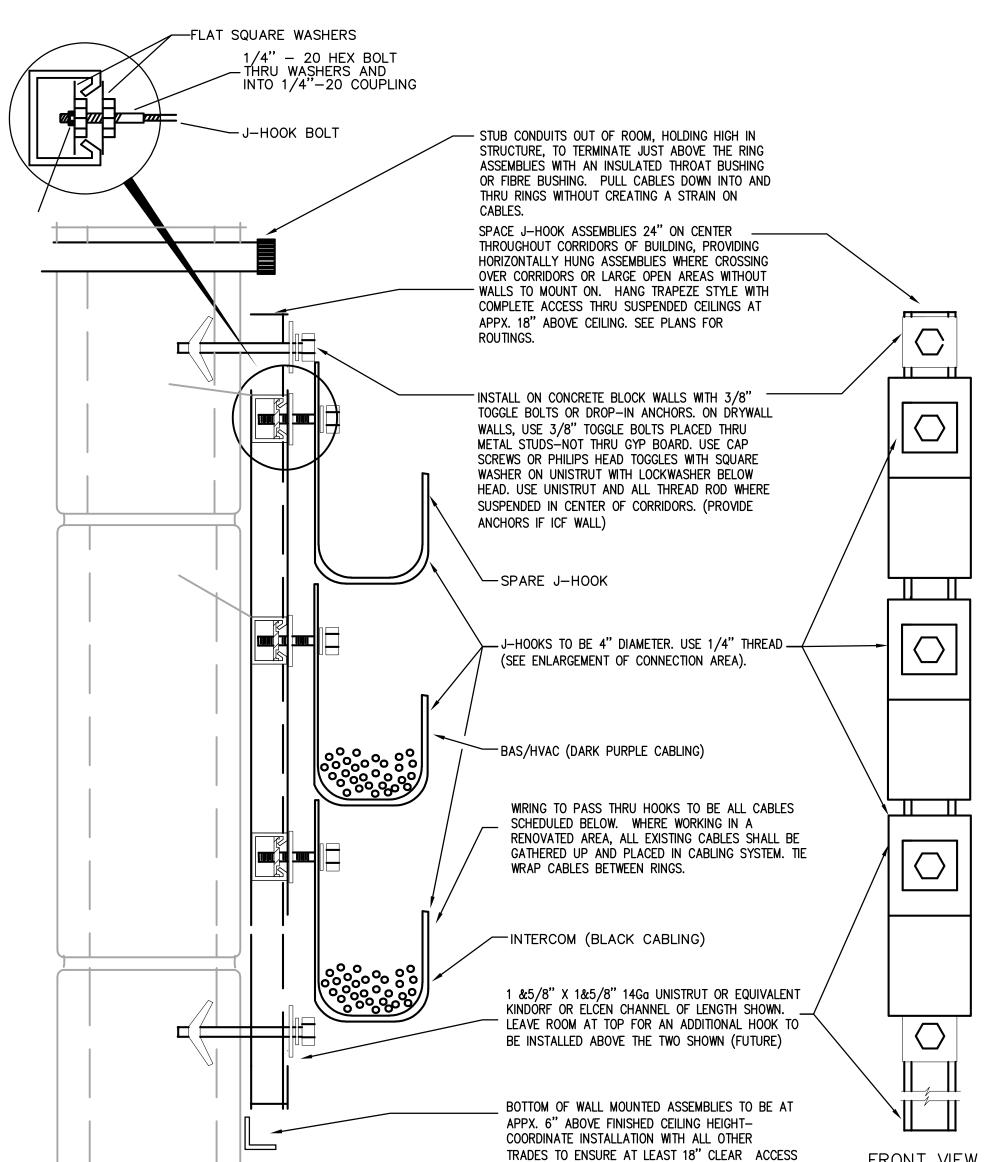
MECHANICAL AND ELECTRICAL PLANS AND SCHEDULES FOR FURTHER

STARTERS ARE SPECIFIED. STARTERS SHALL BE BY THE ELECTRICAL

REVISIONS No. Description Date

E6.3





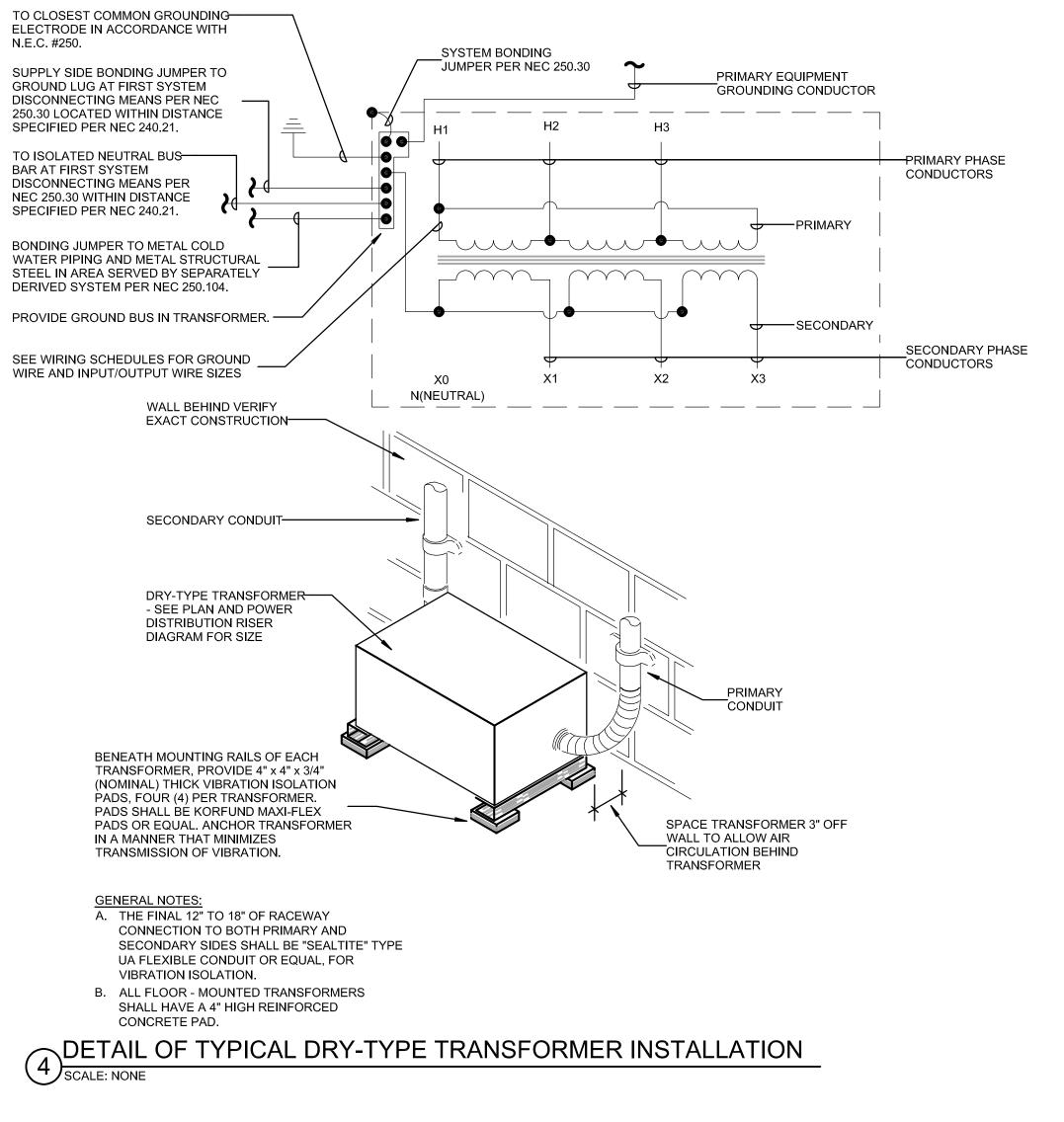
ABOVE CEILING TO THE TOP RING.

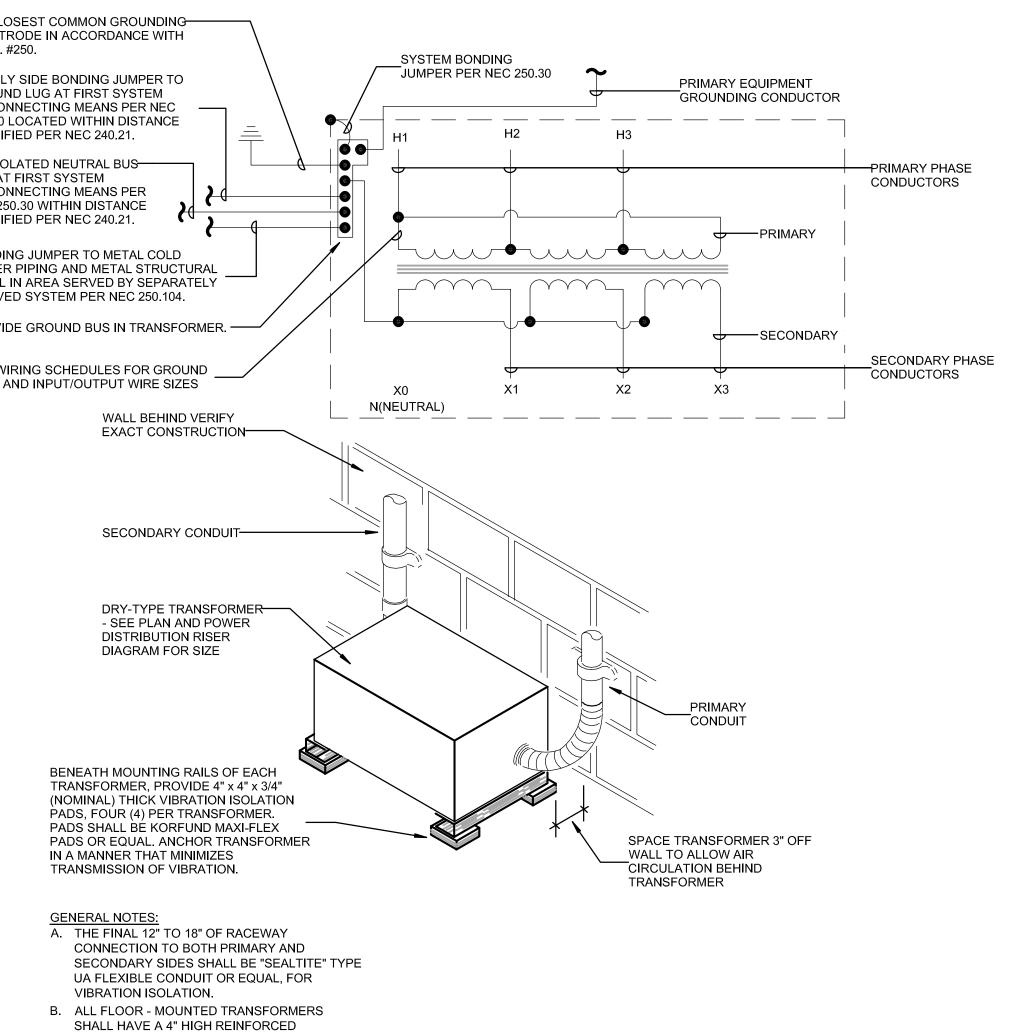
### CABLING SEPARATION REQUIREMENTS

 HVAC CONTROL CABLES MUST BE ROUTED IN DEDICATED J-HOOKS AND MUST BE SUPPORTED ON 4' MAXIMUM CENTERS. NO OTHER CABLING SHALL BE ROUTED IN SAME RINGS. HVAC CONTROL CABLES SHALL BE INSTALLED BY CONTROLS CONTRACTOR, J-HOOKS SHALL BE PROVIDED BY THE ELECTRICAL

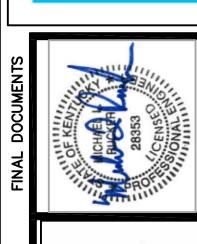
SIDE VIEW

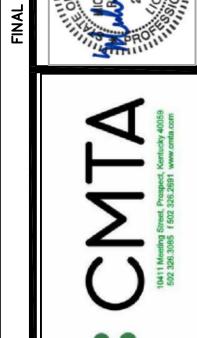
- CONTRACTOR. • INTERCOM CATEGORY CABLES SHALL BE ROUTED IN THE SAME J-HOOK AND MUST BE SUPPORTED ON 2' MAXIMUM CENTERS. NO OTHER CABLING SHALL BE ROUTED IN SAME J-HOOKS.
- ALL NEW CABLING SHALL BE ROUTED IN NEW J-HOOK PATHWAYS. PROVIDE J-HOOKS AS REQUIRED.
- PROVIDE CABLE PATHS AS REQUIRED BY SYSTEMS. J-HOOKS SHALL NOT EXCEED MORE THAN 40 PERCENT FILL. ADD ADDITIONAL J-HOOKS AS NEEDED.

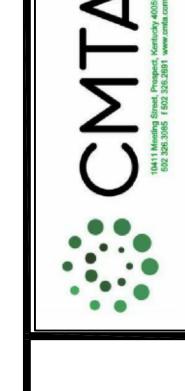




J-HOOK INSTALLATION DETAIL





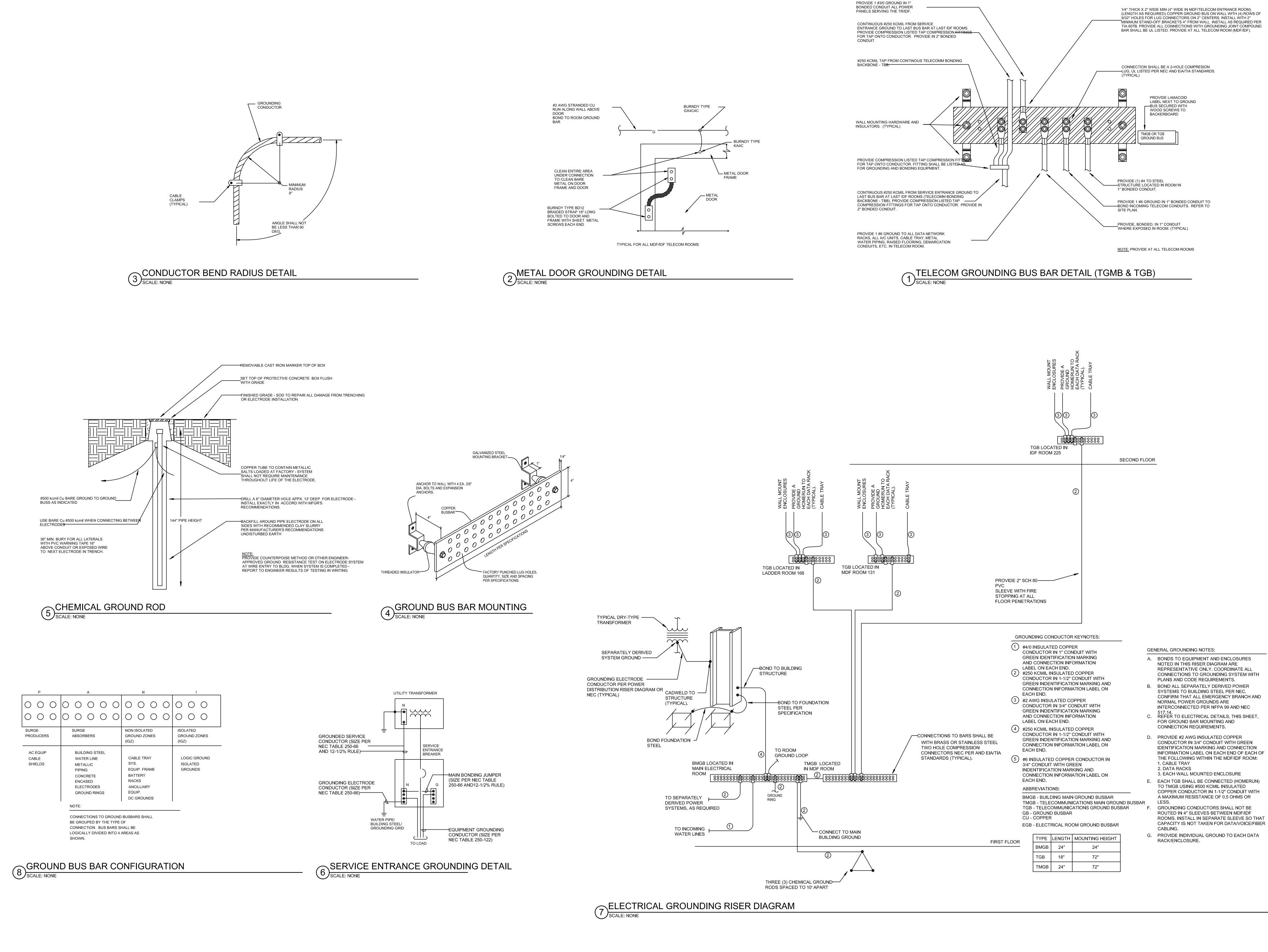


TRIC

07/10/2019 JPR

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E6.4



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No. Description Date

HEET	

PANELBOARD A	AND /	MIR	KIN(	<u>ا</u> ک	Cł	1E[	JULI							A	/AILAB	LE FAI	ULT CU	<b>RRENT</b> : 35,000
PANEL: HD1 VOLTAGE: 480Y/277V	′,3P,4W							MAIN	NS TYPE: SPD:	-				PAI	IEL INT	ERRU		Rating: Cation: Mechanical 144
AMPERES: 400 A								MO	UNTING	: SURFA	CE					5	SUPPLY	FROM:
CIRCUIT DESCRIPTION	WIRE	GND	С	ОСР	Р	СКТ	-	4	E	В	(	;	СКТ	P OCF	С	GND	WIRE	CIRCUIT DESCRIPTION
						1	33.1	1.8					2					
T-LD1				175	3	3			32.1	1.8				3 20	3/4	12	12	VHP-24
						5					36.2	1.8	6					
						7	2.6	1.8					8	_	<b>.</b>			
VHP-36	12	12	3/4	20	3	9			2.6	1.8		4.0		3 20	3/4	12	12	VHP-24
						11	4.4	2.0			2.6	1.8	12					
VHP-90	12	12	3/4	20	3	13 15	4.1	2.6	4.1	2.6			14	3 20	3/4	12	12	VHP-30
/nr-90	12	12	3/4	20	3	17			4.1	2.0	4.1	2.6	18	3 20	3/4	12	12	VNF-30
						19	2.5	2.9			7.1	2.0	20	1 20	3/4	12	12	CHP-18
ERV-1 (ROOFTOP)	12	12	3/4	20	3	21	2.5	2.5	2.5	2.9			22	1 20	3/4	12		CHP-18
	'-		0, .			23					2.5	2.9	24	1 20	3/4	12		CHP-18
						25	1.8	2.9					26	1 20	3/4	12	12	CHP-18
DAU-1	12	12	3/4	20	3				1.8	0.0			28	1 20				SPARE
						29					1.8	0.0	30	1 20				SPARE
						31	1.7	1.7					32					
VHP-26	12	12	3/4	20	3	33			1.7	1.7			34	3 20	3/4	12	12	VRC-1
						35					1.7	1.7	36					
						37	1.8	5.7					38		T			
VHP-24	12	12	3/4	20	3	39			1.8	5.7				3 30	3/4	10	10	VHP-120
						41					1.8	5.7	42			1		
						43	1.8	0.9					44					
VHP-24	12	12	3/4	20	3				1.8	0.9				3   15	3/4	12	12	P-2
						47					1.8	0.9	48					
						49	5.7	3.1					50		<b> </b>			
/HP-120	10	10	3/4	30	3				5.7	3.1		0.4		3 20	3/4	12	12	P-1
						53	0.4	5.0			5.7	3.1	54		-			
P-1	12	12	3/4	20	3	55	3.1	5.6	3.1	5.6			56 58	3 25	3/4	10	10	HPC-1
P-1	12	12	3/4	20	3	57 59			3.1	5.6	3.1	5.6	60	3   23	3/4	10	10	
SPARE				20	1		0.0	0.0			3.1	3.0		1 20	+			SPARE
SPARE				20	1	63	0.0	0.0	0.0	0.0				1 20	<u></u>			SPARE
SPARE				20	1	65			0.0	0.0	0.0	0.0		1 20	<b>-</b>			SPARE
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SPARE				20	1						0.0	0.0		1 20				SPARE
SPARE				20	1	73	0.0	0.0					74	1 20				SPARE
SPARE				20	1	75			0.0	0.0			76	1 20	T			SPARE
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SPACE						79	0.0	0.0					80					SPACE
SPACE						81			0.0	0.0			82					SPACE
SPACE						83					0.0	0.0	84					SPACE
			TOTA	AL LOA	۱ <b>D</b> (۱	kVA):	87.1	kVA	83.1	kVA	87.3	kVA						
			TOTAL	. CURR	REN'	T (A):	310	6 A	30	0 A	31	7 A						
OAD CLASSIFICATION		CON	NECT	ED LOA	٩D	DE	MAND F	ACTOR	ESTIM	ATED DE	MAND					PAN	EL TOT	ALS
EQUIP			50756	VA			100.00	%	,	50756 V <i>A</i>	\			T	OTAL (	CONNE	CTED L	OAD: 257462 VA
HVAC			148370	) VA			100.00		1	48370 V	4			TO	TAL ES	TIMATE	ED DEN	IAND: 242942 VA
_TNG			19296				100.00			19296 V								RENT: 310 A
REC			39040				62.819			24520 VA			ΤΩΤΔΙ					RENT: 292 A
LO			00040	VA			02.01	70	- 1	L-TULU V/	`		IOIAI				טוטט ב	TEITI LUL A
									I									1

PANEL: LD1 VOLTAGE: 208Y/120\	′,3P,4W								NS TYPE SPD	:					PANEL	. INT		LOC	ATING: ATION: MECHANICAL 144
AMPERES: 400 A	MIDE	OND		000	_	OVT			UNTING				OVT	<b>D</b> 4	000				FROM: T-LD1
CIRCUIT DESCRIPTION	WIRE	GND	С	ОСР	P	CKT		<b>A</b>		3	•	C	CKT	P	OCP	С	GND	WIRE	CIRCUIT DESCRIPTION
_P1				225	3	3	19.1	8.4	19.4	5.3			4	3	100				LL1
-I I				223		5			13.4	5.5	22.1	6.1	6		100				LLI
						7	0.1	0.1			22.1	0.1	8						
AC-2A	12	12	3/4	15	2	9	0.1	0.1	0.1	0.1			10	2	15	3/4	12	12	AC-1A
40.4D	40	40	2/4	4-		11					0.1	0.1	12		45	2/4	40	40	40 0D
AC-1B	12	12	3/4	15	2	13	0.1	0.1					14	2	15	3/4	12	12	AC-2B
AC-1C	12	10	3/4	15	2	15			0.1	0.1			16	2	15	3/4	12	12	AC-1D
70-10	12	12	3/4	15	2	17					0.1	0.1	18	_	15	J/4	1Z	12	WO-1D
AC-3	12	12	3/4	15	2	19	0.1	0.1					20	2	15	3/4	12	12	AC-4
	'-	'-	J 5/ T	10	_	21			0.1	0.1			22	_		J, T	'-	<u>'</u>	10 1
AC-2C	12	12	3/4	15	2	23					0.1	0.2	24	2	15	3/4	12	12	ERV-1
		ļ		"	_	25	0.1	0.2	0.4	0.0			26						
3B-1	12	12	3/4	15	2	27			0.1	0.2	0.4	0.0	28		00	2/4	40	40	D 2
					1	29	0.0	0.0			0.1	0.2	30	3	20	3/4	12	12	P-3
SPARE SPARE				20	1	31	0.0	0.2	0.0	4.5			34						
SPARE				20	1	35			0.0	4.5	0.0	4.5	36	2	60	1	10	6	DWH-1
SPACE						37	0.0	4.5			0.0	4.5	38						
SPACE						39	0.0	7.0	0.0	2.0				3	100				LP2
SPACE						41			0.0	0	0.0	2.5	42		.55				<del>-</del>
<del>-</del>		1		AL LOA			33 1	kVA	32 1	kVA		kVA	† <u>"-</u>				I	1	<u> </u>
				CURF	•	,		7 A		7 A		3 A	1						
LOAD CLASSIFICATION				ED LO		<del>_``</del>	MAND F			ATED DE			1				PANI	EL TOT	ALS
EQUIP			40436				100.00			40436 V					TOT	AL C			<b>OAD</b> : 101352 VA
HVAC			2580				100.00		1	2580 VA									AND: 86832 VA
_TNG			19296				100.00		1	19296 V									RENT: 281 A
REC			39040				62.81		-	24520 VA			TOTA						RENT: 241 A
59040 VA							02.01	70	-	LTULU VI	1		IUIA	LLO	111117711	ט ט		out.	ALIVI. 271 /\
									1			1							

PANEL: MDP-F	PH							MAI	NS TYPE	:					PANE	L INT	ERRUI	PTING I	RATING:
<b>VOLTAGE</b> : 480Y/277V	/.3P.4W								SPD	:								LO	CATION:
AMPERES: 100 A	, ,							МО	UNTING		ACF						9		/ FROM:
CIRCUIT DESCRIPTION	WIRE	GND	С	ОСР	Р	СКТ		A		B		С	СКТ	Р	ОСР	С	_	WIRE	
						1	0.2	3.0					2	1	15	3/4	12	12	UH-1
JOCKEY PUMP	12	12	3/4	20	3	3			0.2	0.0			4	1	20	-		-	SPARE
						5					0.2	0.0	6	1	20				SPARE
SPARE				20	1	7	0.0	0.0					8	1	20				SPARE
SPARE				20	1	9			0.0	0.0			10	1	20				SPARE
SPARE				20	1	11					0.0	0.0	12	1	20				SPARE
SPARE				20	1	13	0.0	0.0					14	1	20				SPARE
SPARE				20	1	15			0.0	0.0			16	1	20				SPARE
SPARE				20	1	17					0.0	0.0	18	1	20				SPARE
SPARE				20	1	19	0.0	0.0					20	1	20				SPARE
SPARE				20	1	21			0.0	0.0			22	1	20				SPARE
SPARE				20	1	23					0.0	0.0	24	1	20				SPARE
SPARE				20	1	25	0.0	0.0					26	1	20				SPARE
SPARE				20	1	27			0.0	0.0			28	1	20				SPARE
SPARE				20	1	29					0.0	0.0	30	1	20				SPARE
SPARE				20	1	31	0.0	0.0					32	1	20				SPARE
SPARE				20	1	33			0.0	0.0			34	1	20				SPARE
SPARE				20	1	35					0.0	0.0	36	1	20				SPARE
SPACE						37	0.0	0.0					38						SPACE
SPACE						39			0.0	0.0			40		-				SPACE
SPACE						41					0.0	0.0	42		-				SPACE
			TOT	AL LO	4D (	kVA):	3.2	kVA	0.2	kVA	0.2	kVA							
			TOTAL	CURF	REN	T (A):	1	1 A	1	Α	1	Α	1						
LOAD CLASSIFICATION				ED LO		<del>, ` , </del>	MAND F	ACTOR	ESTIM	ATED DE	MAND		1				PAN	EL TO1	ALS
EQUIP			3500	VA			100.00	)%		3500 VA	L				TO	TAL C	ONNE	CTED L	<b>OAD:</b> 3500 VA
															TOTA	AL ES	TIMATI	ED DEN	1AND: 3500 VA
						+								-					RENT: 4 A
						+							TOTA						RENT: 4 A
						+							1017		J		X=1411 1/X		
						+						-							
						1			1			1							

PANELBOARD A	אט ו	WIK		2 21	J٢	1EL	JULI								AVA	ILAB	LE FAL	JLT CU	<b>RRENT:</b> 18,000
PANEL: <b>LL1</b>								MAIN	IS TYPE:						PANE	LINT	ERRUP	TING F	RATING:
VOLTAGE: 208Y/120V,3	3P,4W								SPD:									LOC	CATION: MECHANICAL 144
AMPERES: 100 A								MO	UNTING:	SURFA	CE						S	UPPLY	FROM: LD1
CIRCUIT DESCRIPTION	WIRE	GND	С	ОСР	Р	CKT	-	4	E	3	(	;	СКТ	Р	ОСР	С	GND	WIRE	CIRCUIT DESCRIPTION
LTG - CONFERENCE 111	12	12	3/4	20	1	1	1.4	2.1					2	1	20	3/4	12	12	LTG - CORRIDOR 112
LTG - MECH ROOM 137	12	12	3/4	20	1	3			0.7	1.2			4	1	20	3/4	12	12	LTG - CORRIDOR 140
LTG - MECH ROOM 144	12	12	3/4	20	1	5					0.9	1.1	6	1	20	3/4	12	12	LTG - KINDERGARTEN 149
LTG - MEDIA LIBRARY 155	12	12	3/4	20	1	7	1.5	0.5					8	1	20	3/4	12	12	LTG - OFFICE/WORKROOM 158
LTG - GYM 145	12	12	3/4	20	1	9			1.5	1.5			10	1	20	3/4	12	12	LTG - GYM 145
LTG - GYM 145	12	12	3/4	20	1	11					1.5	1.5	12	1	20	3/4	12	12	LTG - GYM 145
LTG - GYM 145	12	12	3/4	20	1	13	0.2	1.5					14	1	20	3/4	12	12	LTG - EXTERIOR
SPARE				20	1	15			0.0	0.5			16	1	20	3/4	12	12	MONUMENT SIGN
SPARE				20	1	17					0.0	1.1	18	2	20	3/4	8	8	EXTERIOR AREA LIGHTS
SPARE				20	1	19	0.0	1.1					20		20	3/4	0	0	EXTERIOR AREA LIGHTS
SPARE				20	1	21			0.0	0.0			22	1	20				SPARE
SPARE				20	1	23					0.0	0.0	24	1	20				SPARE
SPARE				20	1	25	0.0	0.0					26	1	20				SPARE
SPARE				20	1	27			0.0	0.0			28	1	20				SPARE
SPARE				20	1	29					0.0	0.0	30	1	20				SPARE
SPARE				20	1	31	0.0	0.0					32	1	20				SPARE
SPARE				20	1	33			0.0	0.0			34	1	20				SPARE
SPARE				20	1	35					0.0	0.0	36	1	20				SPARE
SPACE						37	0.0	0.0					38						SPACE
SPACE						39			0.0	0.0			40						SPACE
SPACE						41					0.0	0.0	42						SPACE
		'	TOTA	AL LOA	D (I	(VA):	8.4	kVA	5.3	kVA	6.1	kVA						•	
			TOTAL	CURR	REN	Γ (A):	71	Α	44	Α	52	: A							
LOAD CLASSIFICATION		CON	NECT	ED LOA	۱D	DEI	MAND F	ACTOR	ESTIMA	ATED DE	MAND						PANI	L TOT	ALS
EQUIP			500 \	٧A			100.00	%		500 VA					TO	TAL C	ONNE	CTED L	OAD: 19796 VA
LTNG			19296	VA			100.00	%	1	19296 VA					TOTA	L ES1	IMATE	D DEM	IAND: 19796 VA
														•	TOTAL	CONN	IECTE	CURF	RENT: 55 A
													TOTA	LE	STIMA	TED D	EMANI	CURF	RENT: 55 A
NOTES: WHERE NOT LISTED, WI																			

PANEL: LP1								MAIN	IS TYPE	:•					DVNE	I INIT	EBBIII	TING C	RATING:
VOLTAGE: 208Y/120V,3	P 4W							IVIAII	SPD						FAINL		LINIOI	_	CATION: MECHANICAL 144
AMPERES: 225 A	, <del>,,</del> vv							МО	_	: SURFA	CE								FROM: LD1
CIRCUIT DESCRIPTION	WIRE	CND	С	ОСР		СКТ		4		. ЗОКГ <i>Р</i> В			СКТ	_	ОСР	С	_	WIRE	CIRCUIT DESCRIPTION
					_					<u>Б</u>	,								
GOAL MOTOR - GYM 145 GOAL MOTOR - GYM 145	12	12	3/4	20	1	· ·	0.5	0.5	0.5	0.5			2	1	20	3/4	12	12	GOAL MOTOR - GYM 145
GOAL MOTOR - GYM 145 GOAL MOTOR - GYM 145	12 12	12 12	3/4	20	1	3 5			0.5	0.5	0.5	0.5	6	1	20	3/4	12 12	12	GOAL MOTOR - GYM 145 GOAL MOTOR - GYM 145
SCOREBOARD - GYM 145	12	12	3/4	20	1		0.2	0.2			0.5	0.5	8	<u>1</u>	20	3/4	12	12	SCOREBOARD - GYM 145
SCOREBOARD - GTW 143	12	12	3/4	20	+'	9	0.2	0.2	0.5	0.5			10	-	20	3/4	12	12	SCOREBOARD - GTW 143
BLEACHERS - GYM 145	12	12	3/4	20	3	11 13	0.5	0.5	0.3		0.5	0.5	12 14	3	20	3/4	12	12	BLEACHERS - GYM 145
BLEACHERS - GYM 145	12	12	3/4	20	3	15 17 19	0.5		0.5	0.7	0.5	0.5	16 18 20	1	20	3/4	12	12	REC - GYM 145 REC - GYM 145
REC - OFFICE 143	12	12	3/4	20	1	21			0.9	0.9			22	1	20	3/4	12	12	REC - STORAGE 141
REC - KINDERGARTEN 147	12	12	3/4	20	1	23					0.6	0.6	24	1	20	3/4	12	12	REC - KINDERGARTEN 149
REC - KINDERGARTEN 147	12	12	3/4	20	1	25	1.1	1.1					26	1	20	3/4	12	12	REC - KINDERGARTEN 149
REC - KINDERGARTEN 147	12	12	3/4	20	1	27			0.7	0.7			28	1	20	3/4	12	12	REC - KINDERGARTEN 149
REC - KINDERGARTEN 147	12	12	3/4	20	1	29					0.7	0.7	30	1	20	3/4	12	12	REC - KINDERGARTEN 149
REC - CORRIDOR 140	12	12	3/4	20	1	31	1.1	0.9					32	1	20	3/4	12	12	REC - RESOURCE ROOM 1
EWC - CORRIDOR 140	12	12	3/4	20	1	33			0.4	0.9			34	1	20	3/4	12	12	REC - RESOURCE ROOM 1
REC - CORRIDOR 112	12	12	3/4	20	1	35					1.3	1.0	36	1	20	3/4	12	12	EWC - CORRIDOR 112
SPACE						37	0.0	0.2					38	1	20	3/4	12	12	REC - HVAC ROOFTOP UN
SPACE						39			0.0	0.0			40						SPACE
SPACE						41					0.0	0.0	42						SPACE
REC - EXISTING CLASSROOM 161	12	12	3/4	20	1	43	0.2	0.9					44	1	20	3/4	12	12	REC - FIRST AID 144
REC - GIRLS 153	12	12	3/4	20	1	45			0.7	0.5			46	1	20	3/4	12	12	REC - RECEPTION 101
HAND DRYER - BOYS 150	12	12	3/4	20	1	47					2.3	1.2	48	1	20	3/4	12	12	COPIER - RECEPTION 101
HAND DRYER - BOYS 150	12	12	3/4	20	1	49	2.3	0.9					50	1	20	3/4	12	12	REC - PRINCIPAL 104
HAND DRYER - GIRLS 153	12	12	3/4	20	1	51			2.3	0.5			52	1	20	3/4	12	12	REC - FAM RESOURCE 108
HAND DRYER - GIRLS 153	12	12	3/4	20	1	53					2.3	0.7	54	1	20	3/4	12	12	REC - FAM RESOURCE 108
AUTO FAUCETS - STAFF TLT 151	12	12	3/4	20	1	55	0.3	0.9	0.0				56	1	20	3/4	12	12	REC - GUIDANCE 106
AUTO FAUCETS - BOYS 150	12	12	3/4	20	1	57			0.2	0.9	0.0	4.0	58	1	20	3/4	12	12	REC - GUIDANCE WAITING
AUTO FAUCETS - GIRLS 153	12	12	3/4	20	+'	00	0.2	1.2			0.2	1.3	60	1	20	3/4	12		REC - OFFICE/FILES 109
AUTO FAUCETS - GIRLS 153	12	12	3/4	20	1		0.2	1.3	2.2	0.0			62	1	20	3/4	12		REC - CONFERENCE 111
HAND DRYER - GIRLS 139 HAND DRYER - BOYS 138	12 12	12 12	3/4	20	1				2.3	8.0	2.3	0.8	64	<u>1</u>	20	3/4			FRIDGE - WORK ROOM 110 FRIDGE - WORK ROOM 110
REC - JAN 138B	12	12	3/4	20	1	_	1.4	1.8			2.3	0.6	68	1	20	3/4	12		COFFEE - WORK ROOM 11
REC - EXISTING MDF 136	12	12	3/4	20	1	_	1.7	1.0	0.7	1.2			70	1	20	3/4	12		MICROWAVE - WORK ROC
REC - MEDIA LIBRARY 155	12	12	3/4	20	<u> </u>	71			0.7	1.2	0.8	1.2	72	<u>†</u>		3/4	12		COPIER - WORK ROOM 11
REC - MEDIA LIBRARY 155	12	12	3/4	20	1	_	0.7	1.1			0.0	1.2	74	<u>†</u>	20	3/4	12		REC - OFFICE 158
REC - MEDIA LIBRARY 155	12	12	3/4	20	1	_	0.7		0.7	0.7			76	1	20	3/4	12		REC - AV ROOM 157
REC - MEDIA LIBRARY 155	12	12	3/4	20	1	77			<b>U</b>	<b>U.</b>	0.6	0.6	78	1		3/4			REC - AV ROOM 157
SPACE					1		0.0	0.0					80						SPACE
SPACE		-		-	† <del></del>	81			0.0	0.0			82		-			1	SPACE
SPACE					1	83					0.0	0.0	84						SPACE
	•	kVA): T (A):		kVA 9 A		kVA 2 A		kVA 4 A											
LOAD CLASSIFICATION		CON	NECT	ED LO	AD	DEI	MAND F	ACTOR	ESTIM	ATED DE	MAND						PAN	EL TOT	ALS
EQUIP			26020	VA			100.00	%		26020 VA	١				TO	TAL (	ONNE	CTED L	.OAD: 60560 VA
REC			34540	) VA			64.48	%		22270 VA	\				TOTA	AL ES	TIMATE	D DEN	IAND: 48290 VA
										<u> </u>									<b>RENT</b> : 168 A
													ΤΩΤΔ						RENT: 134 A
													1017		J I IIVIA		-ifi/111	JOIN	XEITI IOTA
NOTES: WHERE NOT LISTED, WIF	RE AND (	CONDL	JIT SH	ALL B	E BE	MININ	/IUM PEI	R SPECII	FICATIO	NS. SPA	RE BREA	AKERS T	O BE 2	20A	/1P.				

PANEL: LPPH								MAIN	NS TYPE:						PANE	L INT	ERRUF	TING R	ATING:
<b>VOLTAGE</b> : 208Y/120V	,3P,4W								SPD									LOC	ATION:
AMPERES: 100 A								МО	UNTING	SURFA	CE						S	SUPPLY	FROM:
CIRCUIT DESCRIPTION	WIRE	GND	С	ОСР	Р	СКТ		A	E	3		C	СКТ	Р	ОСР	С	GND	WIRE	CIRCUIT DESCRIPTION
						1	0.2	0.4					2	1	20	3/4	12	12	LTNG PUMPHOUSE
SITE GENERATOR	6	8	1	60	3	3			0.2	0.5			4	1	20	3/4	12	12	REC PUMPHOUSE
						5					0.2	3.0	6	1	20	3/4	12	12	EF-1
SPARE				20	1	7	0.0	0.0					8	1	20				SPARE
SPARE				20	1	9			0.0	0.0			10	1	20				SPARE
SPARE				20	1	11					0.0	0.0	12	1	20				SPARE
SPARE				20	1	13	0.0	0.0					14	1	20				SPARE
SPARE				20	1	15			0.0	0.0			16	1	20				SPARE
SPARE				20	1	17					0.0	0.0	18	1	20				SPARE
SPARE				20	1	19	0.0	0.0					20	1	20				SPARE
SPARE				20	1	21			0.0	0.0			22	1	20				SPARE
SPARE				20	1	23					0.0	0.0	24	1	20				SPARE
SPARE				20	1	25	0.0	0.0					26	1	20				SPARE
SPARE				20	1	27			0.0	0.0			28	1	20				SPARE
SPARE				20	1	29					0.0	0.0	30	1	20				SPARE
SPARE				20	1	31	0.0	0.0					32	1	20				SPARE
SPARE				20	1	33			0.0	0.0			34	1	20				SPARE
SPARE				20	1	35					0.0	0.0	36	1	20				SPARE
SPACE						37	0.0	0.0					38						SPACE
SPACE						39			0.0	0.0			40						SPACE
SPACE						41					0.0	0.0	42						SPACE
			TOT	AL LO	AD (	kVA):	0.6	kVA	0.7	kVA	3.2	kVA							
		7	TOTAI	CUR	REN	T (A):	5	i A	6	A	27	7 A							
LOAD CLASSIFICATION		CON	NECT	ED LO	AD	DE	MAND F	ACTOR	ESTIM	ATED DE	MAND						PANI	EL TOT	ALS
EQUIP			3500				100.00			3500 VA					TO	TAI C	ONNF	CTFDI	<b>OAD</b> : 4472 VA
LTNG			432				100.00			432 VA									AND: 4472 VA
REC			540			+	100.00			540 VA				_					ENT: 12 A
NEU			540	vA		-	100.00	J /0		340 VA			TOT:						
						_							IUIA	LE	SHMA	ם עם ו	∟WANI	U CUKR	ENT: 12 A

PANEL: LP2	MAINS TYPE:									PANEL INTERRUPTING RATING:											
<b>VOLTAGE</b> : 208Y/120V	3P 4W								SPD	-									CATION: EXISTING MECH. 117		
AMPERES: 100 A	,01 ,411							МО	_		CE										
	_	MOUNTING: SURFACE								SUPPLY FROM: LD1											
CIRCUIT DESCRIPTION		GND	С		P	СКТ		A	l	В	(		CKT	Р	OCP	С		WIRE	CIRCUIT DESCRIPTION		
REC - EX. CLASSROOM 132	12	12	3/4	20	1	1	0.5	1.1					2	1	20	3/4	12		REC - CORRIDOR 112		
REC - EX. CLASSROOM 120	12	12	3/4	20	1	3			0.5	0.7			4	1	20	3/4	12	12	REC - EX. CLASSROOM 166		
REC - MECH ROOM 117	12	12	3/4	20	1	5					0.5	2.0	6	1	20	3/4	12	12	EQUIP		
EQUIP	12	12	3/4	20	1	7	2.0	0.4					8	1	20	3/4	12	12	REC - EXISTING MDF 136		
SPARE				20	1	9			0.0	0.0			10	1	20				SPARE		
SPARE				20	1	11					0.0	0.0	12	1	20				SPARE		
SPARE				20	1	13	0.0	0.5					14	1	20	3/4	12	12	EF-1 PUMPHOUSE		
SPARE				20	1	15			0.0	0.7			16	1	20	3/4	12	12	REC MEDIA LIBRARY 155		
SPARE				20	1	17					0.0	0.0	18	1	20		-		SPARE		
SPARE				20	1	19	0.0	0.0					20	1	20		-		SPARE		
SPARE				20	1	21			0.0	0.0			22	1	20				SPARE		
SPARE				20	1	23					0.0	0.0	24	1	20				SPARE		
SPARE				20	1	25	0.0	0.0					26	1	20				SPARE		
SPARE				20	1	27			0.0	0.0			28	1	20				SPARE		
SPARE				20	1	29					0.0	0.0	30	1	20				SPARE		
SPARE				20	1	31	0.0	0.0					32	1	20				SPARE		
SPARE				20	1	33			0.0	0.0			34	1	20				SPARE		
SPARE				20	1	35					0.0	0.0	36	1	20				SPARE		
SPARE				20	1	37	0.0	0.0					38	1	20		-		SPARE		
SPARE				20	1	39			0.0	0.0			40	1	20		-		SPARE		
SPARE				20	1	41					0.0	0.0	42	1	20				SPARE		
				AL LO		1	4.5	kVA				kVA			I .						
TOTAL CURREN					•	•		8 A				' A	1								
LOAD CLASSIFICATION CONNECTED LOAD						<del>-`                                    </del>		ACTOR	ESTIMATED DEMAND								PΔNI	EL TOT	ΔIS		
EQUIP			4500 VA				100.00		4500 VA				TOTAL CONNECTED LOAD: 9000 VA								
-,-																					
EC		4500 VA				-	100.00	J%		4500 VA					AND: 9000 VA						
														RENT: 25 A							
													TOTA	L E	STIMA	TED D	EMAN	CURF	RENT: 25 A		
							-						-		-		-	-			

PANEL: BAS C VOLTAGE: 208Y/120V	MAINS TYPE: SPD:							PANEL INTERRUPTING RATING:  LOCATION: MECHANICAL 144														
AMPERES: 400 A								МО	UNTING	SURFA	CE						SUPPL	Y FRO	M:			
CIRCUIT DESCRIPTION	WIRE	GND	С	OCP	Р	CKT		A	E	3	(	C CI	(T P	OCP	С	GND	WIRE	[	CIRCUIT DESCRIPTION			
REC - MECH 144	12	12	3/4	20	1	1	0.9					2										
						3						4										
						5						(										
						7						8	- 1									
						9						1	- 1									
						11						1										
						13						1	- 1									
						15						1										
						17						1						-				
						19						2						-				
						21						2						+				
						25						2										
						27						2	- 1									
						29						3						+				
						31						3						+				
						33						3						+				
						35						3										
SPACE						37	0.0	0.0				3				-	_	SPA	CF			
SPACE						39		0.0	0.0	0.0		4	- 1		-		-	SPA				
SPACE		-				41					0.0	0.0 4			-		-	SPA				
TOTAL LOAD (kVA):						0.9	kVA	0.0 kVA 0.0			kVA	A										
TOTAL CURRENT (A							Α	0 A 0			A											
LOAD CLASSIFICATION CO								ACTOR	ESTIMATED DEMAND				PANEL TOTALS									
REC		900 VA					100.00		900 VA				TOTAL CONNECTED LOAD: 900 VA									
							. , ,	330 171				TOTAL ESTIMATED DEMAND: 900 VA										
													TOTAL CONNECTED CURRENT: 2 A									
												TO	TOTAL CONNECTED CORRENT: 2 A  TOTAL ESTIMATED DEMAND CURRENT: 2 A									
												10	IAL	LOTIMA	ILD	JLIVIAIN	D CON	INLINI.	. 27			
NOTES: WHERE NOT LISTED, W																						