NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

MARION COUNTY BOARD OF EDUCATION

DARYL WEATHERLY	DISTRICT 1
JOYCE FOWLER	DISTRICT 2
MARK DEAREN	DISTRICT 3
DON JONES	DISTRICT 4
BEVERLY BURLESON	DISTRICT 5
ANN WEST	SUPERINTENDENT

OWNER
MARION COUNTY BOARD OF EDUCATION
188 WINCHESTER DRIVE
HAMILTON, ALABAMA 35570

ARCHITECT
LATHAN ASSOCIATES ARCHITECTS, P.C.
300 CHASE PARK SOUTH
SUITE 200
HOOVER, ALABAMA 35244
EMAIL: RFI@LATHANASSOCIATES.COM

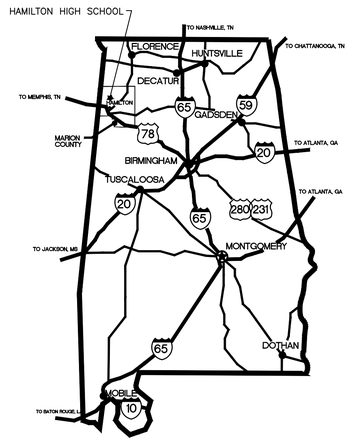
CIVIL
LBYD, INC
880 MONTCLAIR ROAD
SUITE 600
BIRMINGHAM, ALABAMA 35213

STRUCTURAL
STRUCTURAL DESIGN GROUP
300 CHASE PARK SOUTH
SUITE 125
HOOVER, ALABAMA 35244

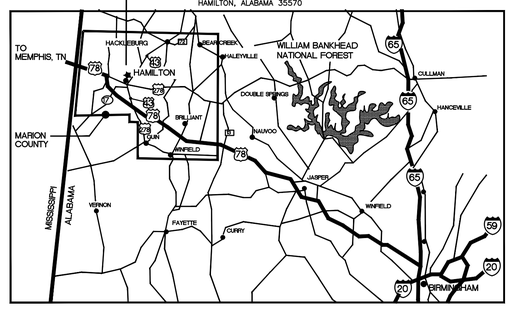
PLUMBING & MECHANICAL
WHORTON ENGINEERING, INC.
P.O. BOX 5190
ANNISTON, ALABAMA 36205

ELECTRICAL
STEWART ENGINEERING
P.O. BOX 2233
ANNISTON, ALABAMA 36202

DRAWING INDEX (SET - 49 TOTAL SHEETS)



AREA MAP
STATE OF ALABAMA



VICINITY MAP
MARION COUNTY, ALABAMA

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

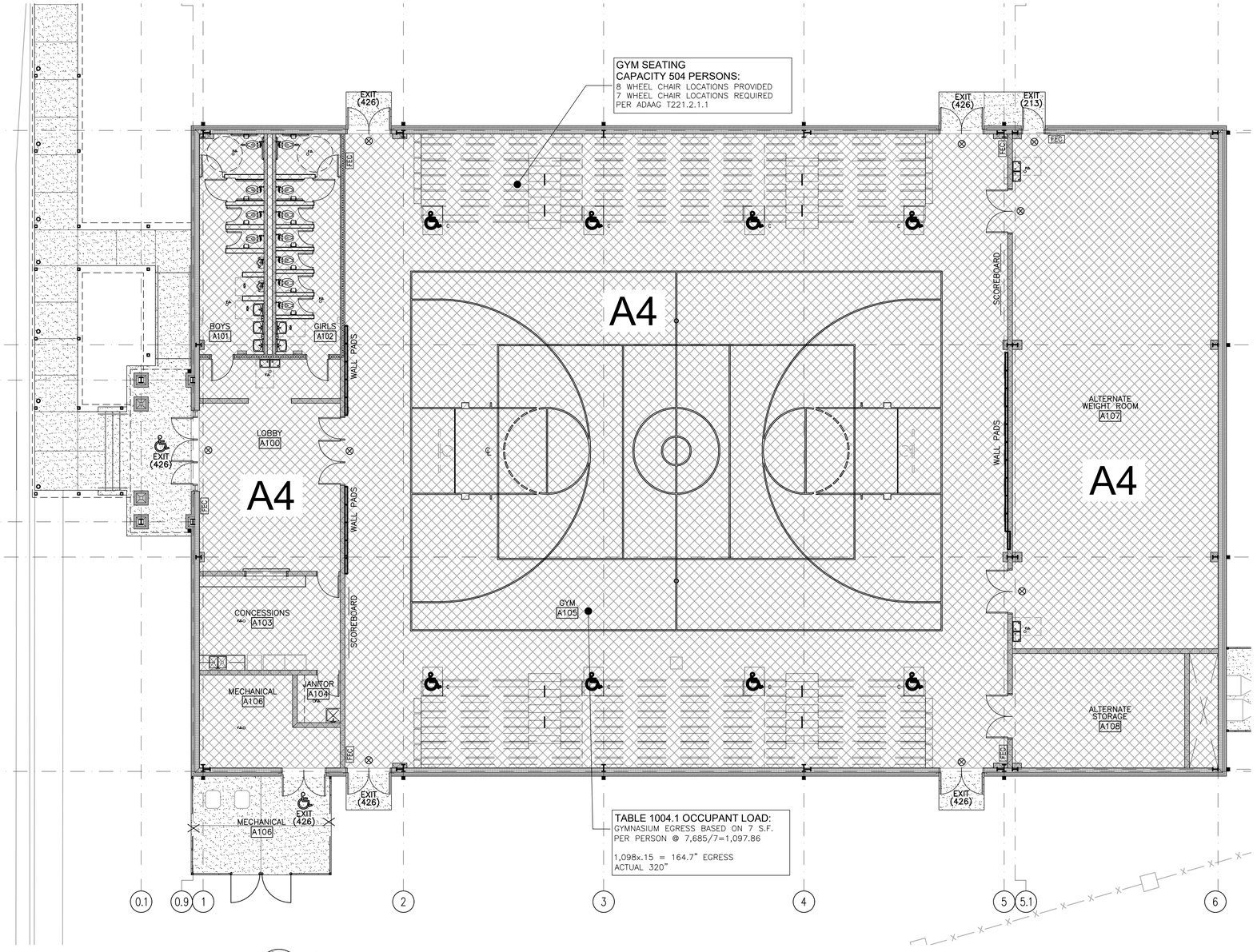
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
TITLE AND INDEX

PROJ. MGR.: M.S.CALMA
DRAWN:
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
T1
1 OF 2

0 1" 2"



1 LIFE SAFETY PLAN

1/8" = 1'-0"

2021 INTERNATIONAL BUILDING CODE RESEARCH

OCCUPANCY CLASSIFICATION:	GROUP A4	
TYPE OF CONSTRUCTION :	TYPE IIB (S1)	
BUILDING AREA:	12,629 S.F.	
TABLE 504.4 ALLOWABLE NUMBER OF STORIES:	ALLOWABLE STORIES: 3	ACTUAL STORIES: 1
TABLE 506.2 ALLOWABLE AREA:	AREA FACTOR: S1	38,000 S.F.

TABLE 601 AND 705.5
FIRE-RESISTANCE RATING REQUIREMENTS
FOR BUILDING ELEMENTS:

CONSTRUCTION TYPE:		IIB
STRUCTURAL FRAME:		0
BEARING WALLS:		0
T. 705.5 EXTERIOR:	< 5'	1hr
	≥ 5'< 10'	1hr
	≥ 10'< 30'	0
	≥ 30'	0
INTERIOR:		0
NONBEARING WALLS:		
T. 705.5 EXTERIOR:	< 5'	1hr
	≥ 5'< 10'	1hr
	≥ 10'< 30'	0
	≥ 30'	0
INTERIOR:		0
FLOOR CONSTRUCTION:		0
ROOF CONSTRUCTION:		0

TABLE 1020.2 CORRIDOR FIRE-RESISTANCE RATING PARTITIONS AND OPENING PROTECTIVES	GROUP A4 SPRINKLERED	0

CHAPTER 29 - PLUMBING SYSTEMS

OCCUPANCY		WATERCLOSETS				LAVATORIES				DRINKING FOUNTAINS		SERVICE SINKS
USE	LOAD	RATIO	MALE	RATIO	FEMALE	RATIO	MALE	RATIO	FEMALE	RATIO	ALL	ALL
A3	52.13	1/125	.21	1/65	.40	1/200	.13	1/200	.13	1/500	.10	
A4	504	1/75 FIRST 1,500 1/120 REMAINDER EXCEEDING 1,500.	3.36	1/40 FIRST 1,520 1/80 REMAINDER EXCEEDING 1,520.	6.30	1/200	1.26	1/150	1.68	1/1000	.5	1
B	2.02	1/25 FIRST 50 1/50 REMAINDER EXCEEDING 50.	.04	1/25 FIRST 50 1/50 REMAINDER EXCEEDING 50.	.04	1/40 FIRST 80 1/80 EXCEED 80.	.03	1/40 FIRST 80 1/80 EXCEED 80.	.03	1/100	.02	
S1,S2	1.97	1/100	.01	1/100	.01	1/100	.01	1/100	.01	1/1000	0	
REQUIRED TOTALS			3.62		6.75		1.43		1.85		.62	1
PROVIDED TOTALS			6		7		3		2		4	1

DOOR/WINDOW RATING LEGEND

- (20) 20 MINUTE DOOR AND FRAME
- (45) 45 MINUTE DOOR AND FRAME
- (60) 60 MINUTE DOOR AND FRAME
- (90) 90 MINUTE DOOR AND FRAME

WALL TYPE LEGEND

- 1 HR WALL
- 2 HR WALL
- S-S-S-S-S-S-S-S-S-S-S- SMOKE BARRIER

LIFE SAFETY NOTES

FEC FIRE EXTINGUISHER AND CABINET (PROVIDE FIRE RATED CABINETS IN RATED WALLS.)	
FE FIRE EXTINGUISHER	ACCESSIBLE
EXIT SIGN DIRECTION	EXIT (320) EXIT CAPACITY
EXTEND AND KEY ALL RATED WALLS TO SHAFT WALL SYSTEM, AND/OR BOTTOM OF ROOF ASSEMBLY	
STENCIL LABEL ALL RATED WALLS & DRAFT STOPS ABOVE CEILING EACH SIDE @ 20'-0" O.C. MAX.	
ALL RATED DOORS AND FRAMES TO BE LABELED WITH EMBOSSED LABELS INDICATING RATING IN MINUTES	
HE - HORIZONTAL EXIT	XHE - EXISTING HORIZONTAL EXIT
FB - FIRE BARRIER	XFB - EXISTING FIRE BARRIER
FP - FIRE PARTITION	XFP - EXISTING FIRE PARTITION
FW - FIRE WALL	XFW - EXISTING FIRE WALL

OCCUPANCY USE LEGEND

A4

GROUP A4
EXISITNG GROUP XA4

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
LIFE SAFETY PLAN

PROJ. MGR.: M.S.CALMA
DRAWN: H.RASCO
H.Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
LS1.1
2 OF 2

0 1" 2"

GENERAL NOTES:

1. LBYD, INC. SHALL NOT HAVE AUTHORITY OVER THE SITE OR BUILDING CONTRACTOR'S WORK OR RESPONSIBILITIES. LBYD IS NOT RESPONSIBLE FOR SITE SAFETY PROCEDURES OR METHODS OF CONSTRUCTION.
2. ALL EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND OTHER UTILITIES MAY EXIST. CONTRACTOR MUST HAVE EXISTING UTILITIES LOCATED BY UNDERGROUND LINE LOCATORS AS WELL AS FIELD VERIFIED BY ONSITE PERSONNEL PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO LBYD IMMEDIATELY.
3. EXISTING UTILITIES TO REMAIN MAY BE LOCATED WITHIN PROPOSED DEMOLITION AREAS. CONTRACTOR SHALL USE EXTREME CAUTION WHILE WORKING IN THESE AREAS TO ENSURE NO UTILITY SERVICE INTERRUPTIONS TO FACILITIES THAT REMAIN OR TO ADJACENT PROPERTIES.
4. ALL EXISTING IMPROVEMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED UNLESS SPECIFICALLY NOTED,"TO REMAIN".
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ADJACENT PROPERTIES AND IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS ON OR OFF SITE DUE TO THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL VERIFY SITE BOUNDARY AND EXISTING TOPOGRAPHY. NOTIFY LBYD OF ANY DISCREPANCIES PRIOR TO SUBMITTING PRICES OR ORDERING MATERIALS
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL BENCHMARKS AND PROPERTY CORNERS. ANY REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE.
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS REQUIRED TO CONSTRUCT THIS PROJECT AND PAY ALL PERMIT FEES. ALL PERMITS MUST BE IN-HAND PRIOR TO CONSTRUCTION.
9. BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY THE OWNER AND PERFORMED BY REED ENGINEERING, LLC.
10. TOPOGRAPHIC INFORMATION WAS PERFORMED VIA GROUND RUN FORMAT.

SITE LAYOUT NOTES:

1. ALL HANDICAP RAMPS, SIGNS, SYMBOLS, AND PAINTED ISLANDS AND ACCESS ROUTES MUST CONFORM TO THE LATEST ADA REQUIREMENTS.
2. THE MAXIMUM SLOPE IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2.0% GRADE IN ANY DIRECTION. SLOPE IN THE DIRECTION OF TRAVEL IN ALL HANDICAP ACCESS ROUTES SHALL NOT EXCEED 5.0% GRADE AND 2.0% CROSS SLOPE.
3. ALL DIMENSIONS AND COORDINATES SHOWN ARE TO THE OUTSIDE FACE OF BUILDING, TO THE BACK OF CURB, OR TO THE EDGE OF SURFACING UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL PLANS FOR SPECIFIC BUILDING INFORMATION.
4. ALL STRIPING TO BE PER THE LATEST EDITION OF THE MUTCD UNLESS NOTED OTHERWISE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SITE CONSTRUCTION TRAFFIC CONTROL PLAN AND OBTAINING ANY REQUIRED APPROVALS FROM THE LOCAL JURISDICTIONAL AUTHORITY. THE SITE CONSTRUCTION TRAFFIC CONTROL PLAN SHALL TAKE INTO ACCOUNT THE ENTERING AND EXITING OF CONSTRUCTION TRAFFIC ONTO THE ROADWAY AND THE IMPACT TO THE FLOW OF TRAFFIC. THIS PLAN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. THIS SITE CONSTRUCTION TRAFFIC CONTROL PLAN SHALL BE IN ADDITION TO ANY TRAFFIC CONTROL PLAN PROVIDED IN THE PLAN SET FOR ROADWAY IMPROVEMENTS.
6. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ELEVATIONS OF ALL AT-GRADE STRUCTURES AND UTILITIES TO REMAIN (VALVE BOXES, MANHOLES, INLETS, VAULTS, ETC) TO MATCH PROPOSED FINISHED GRADES.

GRADING NOTES:

1. THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING COMPACTION TESTING.
2. ALL TOPSOIL SHALL BE STRIPPED WITHIN THE PROPOSED LIMITS OF GRADING AND SHALL BE STOCKPILED ON-SITE IN AN APPROVED LOCATION FOR LATER USE WITH ANY EXCESS TO BE DISPOSED OF OFF-SITE ONCE ALL LANDSCAPED AREAS HAVE BEEN BROUGHT TO FINISH GRADE UNLESS OTHERWISE NOTED ON THE PLANS.
3. SUBGRADE SHALL BE PROOF ROLLED WITH A HEAVILY LOADED DUMP TRUCK AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL. ANY AREAS SHOWING SIGNS OF PUMPING, RUTTING, OR ANY UNSUITABLE (ORGANIC, SOFT, WET, LOOSE) MATERIAL FOUND IN PLACE SHALL BE UNDERCUT AND REPLACED, OR MOISTURE CONDITIONED AND COMPACTED TO THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW.
4. ALL EXPOSED SUBGRADE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 12" AND RECOMPACTED TO THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE SUBGRADE AFTER IT HAS BEEN INITIALLY PREPPED DUE TO INCLEMENT WEATHER AND CONSTRUCTION TRAFFIC.
6. FILL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES: VIRTUALLY FREE OF ORGANICS, NO ROCK FRAGMENTS GREATER THAN 4" WITHIN 4' OF FINISH GRADE, LIQUID LIMIT NOT EXCEEDING 50, PLASTICITY INDEX NOT EXCEEDING 30, MINIMUM STANDARD PROCTOR (ASTM D-698) OF 100 PCF, COMPACTED 98% IN ALL AREAS, PLACED IN 8" LOOSE LIFTS, AND WITHIN ±2.0% OF OPTIMUM MOISTURE CONTENT.
7. COMPACTION TESTS SHALL BE TAKEN AT THE RECOMMENDATION OF THE ON-SITE GEOTECHNICAL ENGINEER, BUT AT A MINIMUM EVERY 2,500 SQUARE FEET OF AREA PER 8" LIFT.
8. COMPACTION WITHIN LIMITED SPACES (I.E. MANHOLES, INLETS, UTILITY TRENCHES) SHOULD BE BACKFILLED AND COMPACTED SYSTEMATICALLY, AT THE DIRECTION OF THE ON-SITE GEOTECHNICAL ENGINEER. STONE BACKFILL SHALL BE INSTALLED IN 12" LOOSE LIFTS AND COMPACTED WITH 6-8 PASSES OF A VIBRATORY COMPACTOR
9. CLEARING LIMITS SHALL BE 5' OUTSIDE OF ALL PROPOSED GRADED AREAS OR NOT BEYOND THE PROPERTY LINES WHICHEVER IS LESS.
10. NO GRADING OFF-SITE OR IN ANY ROAD RIGHT-OF-WAY WITHOUT PROPER APPROVALS AND PRIOR NOTIFICATION.
11. COORDINATE THE SEQUENCING OF ALL GRADING OPERATIONS WITH THE EROSION CONTROL PLAN.
12. THE MAXIMUM SLOPE IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2.0% GRADE IN ANY DIRECTION. SLOPE IN THE DIRECTION OF TRAVEL IN ALL HANDICAP ACCESS ROUTES SHALL NOT EXCEED 5.0% GRADE AND 2.0% CROSS SLOPE.
13. ALL GRADING ADJACENT TO EXISTING OR PROPOSED BUILDINGS SHALL BE SLOPED AWAY FROM THE STRUCTURES AT A MINIMUM OF 1.0% GRADE. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM THE STRUCTURES. NOTIFY LBYD OF ANY DISCREPANCIES.
14. PROPOSED GRADES INDICATED ON THIS PLAN ARE TO FINISH GRADE. THE CONTRACTOR SHALL MAKE SUBGRADE ADJUSTMENTS FOR TOPSOIL, PAVING, BUILDING PAD, ETC.
15. ALL PROPOSED STORM INLETS (GRATES, CURB, YARD, AREA DRAINS) SHALL BE LOCATED AT THE LOWPOINTS. GRADING SHALL BE TO DIRECT RUNOFF TO THESE INLETS. NOTIFY LBYD OF ANY DISCREPANCIES.
16. STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM. VERIFY ALL PIPE SLOPES, INVERTS, AND POINTS OF CONNECTION PRIOR TO CONSTRUCTION. NOTIFY LBYD OF ANY DISCREPANCIES.
17. A GEOTECHNICAL REPORT HAS BEEN PREPARED BY TERRACON CONSULTANTS, INC., PROJECT NUMBER E1235010 AND IS AVAILABLE FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL REVIEW THIS REPORT, VISIT THE SITE AND COMPLETE ANY ADDITIONAL EXPLORATIONS THAT IT FEELS NECESSARY IN ORDER TO PROVIDE A SATISFACTORY BID.
18. DEWATERING SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION. REROUTE SURFACE WATER RUNOFF AWAY FROM EXCAVATED AREAS. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. DO NOT USE EXCAVATED TRENCHES AS TEMPORARY DRAINAGE DITCHES. INSTALL A DEWATERING SYSTEM TO KEEP SUBGRADES DRY AND CONVEY GROUND WATER AWAY FROM EXCAVATIONS. MAINTAIN UNTIL DEWATERING IS NO LONGER REQUIRED. IF GROUNDWATER DEWATERING IS REQUIRED, CONTRACTOR IS TO OBTAIN ANY PERMITS AS MAY BE REQUIRED PRIOR TO DISCHARGE OF EFFLUENT FROM DEWATERING.
19. GRADING ADJACENT TO THE BUILDING SHALL BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR FOUNDATION WALLS, STEM WALLS, DRAINS, AND OTHER CONDITIONS. THE CONTRACTOR SHALL NOTIFY LBYD INC. OF ANY DISCREPANCIES.

EROSION CONTROL NOTES:

1. SITE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY REQUIRED EROSION CONTROL PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MONITORING, INSPECTIONS, ETC. TO ENSURE THE OWNER THAT THE SITE IS AT ALL TIMES IN ACCORDANCE WITH PERMIT RULES & REGULATIONS. DOCUMENTATION OF INSPECTIONS BY A Q.C.I. OR Q.C.P. SHALL BE MAINTAINED BY THE CONTRACTOR AND PROVIDED TO THE OWNER AT HIS/HER REQUEST. ANY AND ALL FEES, FINES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING THE CONSTRUCTION PROCESS AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
4. EROSION CONTROL DEVICES SHOWN ON THESE PLANS ARE A MINIMUM AND ARE DEPENDENT ON THE CONTRACTOR'S CONSTRUCTION PHASING OF THE PROJECT. ADDITIONAL DEVICES SHALL BE INSTALLED AS REQUIRED TO PREVENT SILTATION, EROSION AND OTHER DEGRADATION OR POLLUTION TO THE SITE OR ADJACENT PROPERTIES, STREAMS, DITCHES, AND PUBLIC ROADWAYS. ADDITIONAL MEASURES MAY INCLUDE, AS MINIMUM, TEMPORARY SEDIMENT BASINS, CONSTRUCTION EXITS PAD, VEHCILE WASH RACKS, SILT FENCING, STRAW AND RIP RAP CHECK DAMS, DIVERSION DITCHES, ETC. THESE ADDITIONAL MEASURES SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
5. EROSION CONTROL DEVICES SHALL INCLUDE, BUT NOT LIMITED, TO THE FOLLOWING DEVICES: SILT FENCING, BRUSH BERMS, SEDIMENT BASINS, DETENTION PONDS, STRAW WATTLES , CHECK DAMS, FILTER BERMS, JUTE MATTING, VEGETATIVE FILTER STRIPS, TURF REINFORCEMENT MAT, DIVERSION BERMS, ETC.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES IN GOOD OPERATING CONDITION DURING ALL LAND DISTURBING ACTIVITIES. THIS RESPONSIBILITY SHALL INCLUDE THE CLEANUP AND/OR REPAIRS TO THE DEVICES AT NO ADDITIONAL COST TO THE OWNER.
7. EROSION CONTROL DEVICES SHALL BE MONITORED AND MAINTAINED UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED AND AFTER EACH RAINFALL GREATER THAN 0.75 INCHES IN A 24 HOUR PERIOD, ANY WIND GUSTS GREATER THAN 25 MPH, AND ANY SUSTAINED WINDS GREATER THAN 20 MPH IN A 24 HOUR PERIOD.
8. AFTER ALL LAND DISTURBANCE ACTIVITIES HAVE CEASED AND AFTER ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED, THE EROSION CONTROL DEVICES SHALL BE REMOVED BY THE CONTRACTOR AND THE AREA CLEANED AND DRESSED.
9. DEWATERING OPERATIONS MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE OR POLLUTION TO ADJACENT PROPERTIES, STREAMS, DITCHES, OR PUBLIC ROADWAYS.
10. A GRAVELED ACCESS DRIVE OF SUFFICIENT SIZE SHALL BE AT EACH SITE ENTRANCE/EXIT TO PREVENT TRACKING OF DIRT AND SEDIMENT ONTO PUBLIC OR PRIVATE ROADWAYS. IF SEDIMENT REACHES THE ROADWAY, THEN IT MUST BE CLEANED AT THE END OF EACH WORKDAY.
11. ALL LAND DISTURBANCE ACTIVITIES SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE EXPOSURE OF BARE AREAS AT ANY ONE TIME.
12. ALL DISTURBED AREAS LEFT INACTIVE FOR MORE THAN 13 DAYS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ALDOT SPECIFICATIONS SECTION 652 AND 656 OR HYDRAULICALLY APPLIED BY ALDOT SPECIFICATION SECTION 659.
13. ALL PREVIOUSLY GRADED AREAS SHALL RECEIVE 4 INCHES OF TOPSOIL AND PERMANENT GRASSING UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLAN.
14. PRIOR TO SITE CLEARING, ALL PERIMETER SILT FENCING, BRUSH BERMS, ETC. AND GRAVELED ACCESS DRIVES SHALL BE INSTALLED.
15. ALL EXISTING STREAMS, DITCHES, ETC. SHALL BE PROTECTED FROM SEDIMENTS AND SILTS BY SILT FENCING, WATTLES, BRUSH BERMS, ETC.
16. GEOTEXTILE SHALL BE PLACED ON ALL DITCH BOTTOMS & 1' UP EACH SIDE. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

UTILITY NOTES:

1. THE SITE CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL UTILITY SERVICES (WATER, SEWER, GAS, ELECTRICAL, TELEPHONE, CABLE TV) FROM THE POINT THE RESPECTIVE UTILITY COMPANY COMPLETES THEIR WORK TO THE POINT OF CONNECTION AT THE BUILDING.
2. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, ETC. PLANS FOR ALL PROPOSED UTILITY POINTS OF CONNECTION AT THE BUILDING. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
3. GRAVITY SEWER SYSTEMS SHALL BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM. VERIFY ALL PIPE SLOPES, INVERTS, AND POINTS OF CONNECTION PRIOR TO CONSTRUCTION. NOTIFY LBYD OF ANY DISCREPANCIES.
4. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED GRAVITY SEWER PIPE GRADES AND POINTS OF CONNECTION PRIOR TO INSTALLATION. LBYD SHALL BE NOTIFIED OF ANY DEVIATIONS PRIOR TO CONSTRUCTION.
5. BACKFLOW PREVENTION AND METERING SHALL BE PROVIDED ON THE FIRE AND DOMESTIC SERVICES IN ACCORDANCE WITH THE LOCAL UTILITY COMPANY AND FIRE DEPARTMENT'S REQUIREMENTS.
6. WATER MAINS 4 INCHES IN DIAMETER AND GREATER SHALL BE DIP(CL.350) AND WATER MAINS LESS THAN 3 INCHES IN DIAMETER SHALL BE PVC (SCH.40) UNLESS OTHERWISE INDICATED ON THE PLANS.
7. WATER MAINS AND SERVICES SHALL BE A MINIMUM OF 10 FEET HORIZONTAL AND 2 FEET VERTICAL FROM ALL SANITARY SEWER MAINS AND LATERALS.
8. WATER MAINS AND SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL UTILITY COMPANY'S REQUIREMENTS. ALL MAINS AND SERVICES SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER UNLESS OTHERWISE INDICATED ON PLANS.
9. ALL SANITARY SEWER MAINS AND LATERALS SHALL BE PVC (SCH.40) UNLESS OTHERWISE REQUIRED BY THE LOCAL UTILITY COMPANY.
10. ALL UNDERGROUND ELECTRICAL, TELEPHONE, AND CABLE TV SHALL BE INSTALLED IN PVC CONDUIT OR CONCRETE ENCASED DUCT BANK WITH PULL WIRE MEETING THE LOCAL UTILITY COMPANY'S REQUIREMENTS. INFORMATION SHOWN ON CIVIL DRAWINGS FOR REFERENCE ONLY. REFER TO ELECTRICAL PLANS FOR SPECIFIC INFORMATION.
11. GAS SERVICE SHALL BE PER THE LOCAL UTILITY COMPANY'S REQUIREMENTS. INFORMATION SHOWN ON CIVIL DRAWINGS FOR REFERENCE ONLY. COORDINATE WITH MECHANICAL ENGINEER AND UTILITY COMPANY.
12. UTILITY TRENCHES SHALL BE BACKFILLED WITH COMPACTED FILL PLACED IN 6 INCH LOOSE LIFTS. FILL SHALL BE COMPACTED TO 98% STANDARD PROCTOR AND OPTIMUM MOISTURE CONTENT WITHIN ±2.0%.
13. WHEN INSTALLING UTILITIES IN EXISTING PAVED AREAS OR IN AREAS WHERE SOILS ARE CONSIDERED UNSUITABLE FOR BEDDING OR BACKFILLING, UTILITY TRENCHES SHALL BE BACKFILLED FULL DEPTH WITH CRUSHED AGGREGATE.
14. WHERE UTILITIES ARE TO BE INSTALLED IN AREAS OF EXISTING PAVING, HARDSCAPE, SIDEWALKS, ETC. CONTRACTOR SHALL SAWCUT AND REMOVE EXISTING PAVING, HARDSCAPE, SIDEWALK ETC. AND REPLACE IN LIKE KIND AND RESTRIPE AS NECESSARY. BACKFILL TRENCH FULL DEPTH WITH STONE.
15. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ELEVATIONS OF ALL AT-GRADE STRUCTURES AND UTILITIES TO REMAIN (VALVE BOXES, MANHOLES, INLETS, VAULTS, ETC) TO MATCH PROPOSED FINISHED GRADES.
16. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TAMPER SWITCHES AND ASSOCIATED CONDUIT, WIRING, ETC ON FIRE SERVICE POST INDICATOR VALVES AND VALVES IN PIT MOUNTED FIRE BACKFLOW PREVENTOR ASSEMBLIES. COORDINATE WITH FIRE PROTECTION AND ELECTRICAL PLANS.
17. PROVIDE 4" PVC SCHEDULE 40 GRAVITY DRAIN LINE FROM ALL BELOW GRADE UTILITY VAULTS TO THE NEAREST STORM DRAINAGE INLET OR DAYLIGHT AT GRADE.

TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST EDITION AND REVISION OF PART VI OF THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE APPROVED TRAFFIC CONTROL PLAN FOR ALL CONSTRUCTION WITHIN WORK AREAS SHOWN AND DESCRIBED IN PART VI OF THE MUTCD.
2. PERMANENT ROADWAY SIGNS OR TEMPORARY CONSTRUCTION SIGNS WHICH ARE NOT APPLICABLE OR INAPPROPRIATE FOR THE CURRENT CONDITIONS SHALL BE COVERED OR REMOVED.
3. THE DIMENSIONS SHOWN OR DESCRIBED FOR LOCATING CONSTRUCTION SIGNS ARE NOMINAL. THE ACTUAL DIMENSIONS SHALL BE ADJUSTED TO BEST FIT LOCAL CONDITIONS AND PROVIDE MAXIMUM VISIBILITY.
4. IF TRAFFIC CONTROL DEVICES ARE NECESSARY FOR PROPER WARNING AND TRAFFIC CONTROL AFTER SUNSET, THEN AS A MINIMUM, TYPE "B" WARNING LIGHTS SHALL BE PLACED ON THE FIRST WARNING SIGN AND CHANNELIZING DRUM AND TYPE "A" REFLECTIVE SHEETING SHALL BE REQUIRED ON ALL SIGNS.
5. HAZARDOUS CONDITIONS ON OPEN ROADWAYS SUCH AS PAVEMENT DROP-OFFS IN EXCESS OF 2"; CONSTRUCTION MATERIALS, VEHICLES, OR EQUIPMENT STORED OR PLACED WITHIN THE ROADWAY RIGHT-OF-WAY; AND OPEN TRENCHES ACROSS OR NEAR THE ROADWAY SHALL NOT BE ALLOWED UNLESS THE CONTRACTOR IS ON SITE AND WORKING, AND PROPER TRAFFIC CONTROL MEASURES ARE BEING TAKEN.
6. THE CONTRACTOR SHALL KEEP OPEN ROADWAYS CLEAN AND FREE OF CONSTRUCTION DEBRIS, DIRT, LOOSE GRAVEL OR OTHER MATERIAL THAT MAY CAUSE HAZARDOUS DRIVING CONDITIONS.
7. TRAFFIC CONTROL DEVICES SHALL MEET THE STANDARD MATERIAL AND INSTALLATION REQUIREMENTS SPECIFIED IN THE CURRENT EDITION OF THE AL.D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
8. ROADWAYS AND DRIVEWAYS SHALL REMAIN OPEN DURING CONSTRUCTION. CHANNELIZING DEVICES SHALL BE PLACED AT 10' ON CENTER ALONG MINIMUM 20' RADII TO CHANNELIZE TRAFFIC INTO AND OUT OF INTERSECTING ROAD AND DRIVES WITHIN AREAS WHERE CHANNELIZING DEVICES ARE REQUIRED. TEMPORARY REGULATORY SIGNS SUCH AS STOP SIGNS AND YIELD SIGNS SHALL BE PLACED AS NECESSARY FOR PROPER TRAFFIC CONTROL IN ACCORDANCE WITH THE MUTCD.

LBYD, Inc.
Civil and Structural Engineers
880 Montclair Road
Suite 600
Birmingham, AL 35213
Main (205) 251-4500
PROJECT NO.
132825.001

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 24443
CHRISTOPHER ALLEN
4/25/2023

SHEET TITLE:
CIVIL NOTES

PROJ. MGR.:	CAH
DRAWN:	CAH
DATE: APRIL 25, 2023	
REVISIONS	

JOB NO. **22-131**

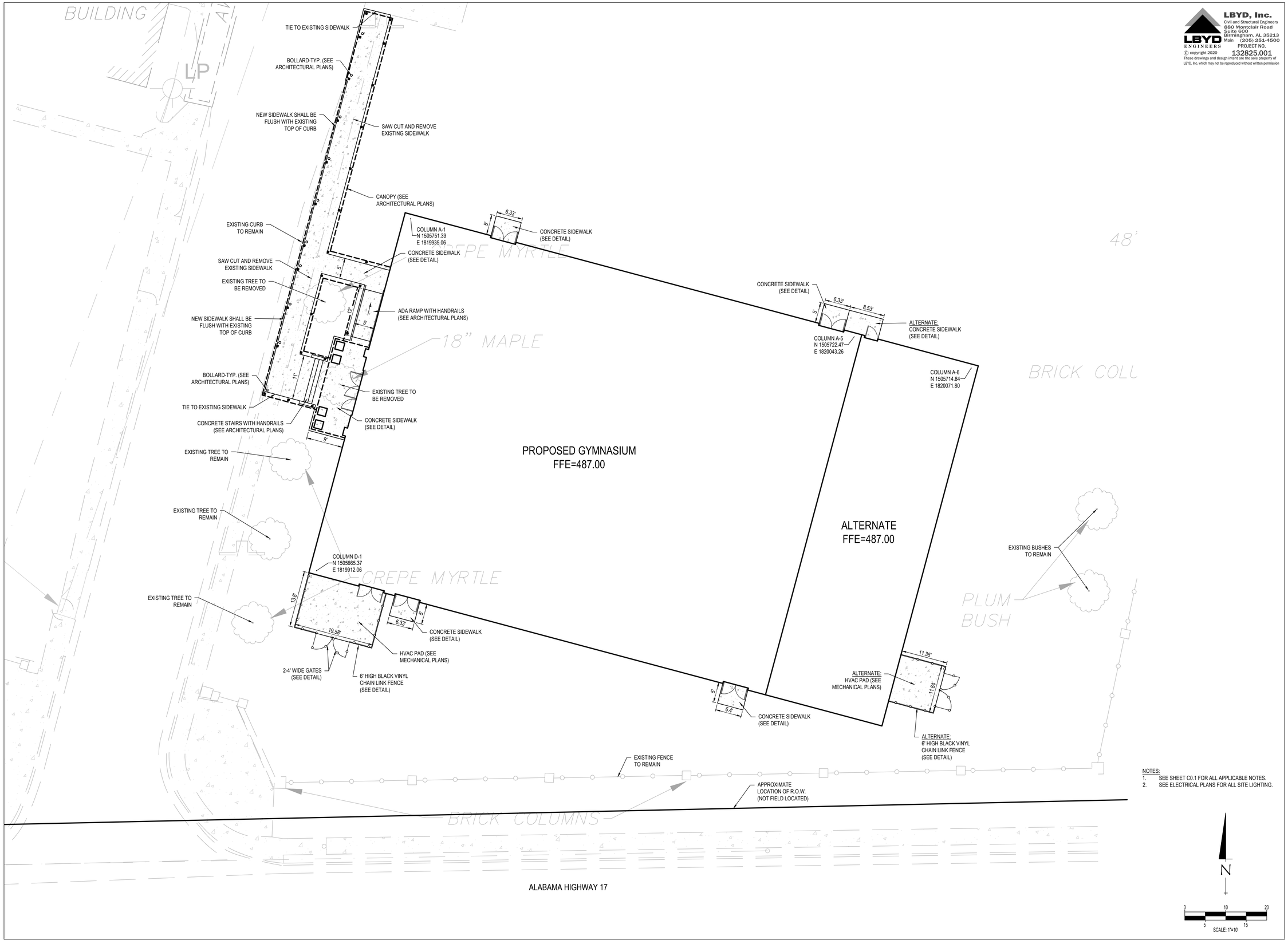
SHEET NO:
C0.1

0 1" 2"

LBYD, Inc.
Civil and Structural Engineers
880 Montclair Road
Suite 600
Birmingham, AL 35213
Main (205) 251-4500
PROJECT NO.
132825.001

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION



NOTES:
1. SEE SHEET C0.1 FOR ALL APPLICABLE NOTES.
2. SEE ELECTRICAL PLANS FOR ALL SITE LIGHTING.

ALABAMA LICENSED No. 24443 PROFESSIONAL ENGINEER CHRISTOPHER ALLEN
4/25/2023

SHEET TITLE:
SITE LAYOUT PLAN

PROJ. MGR.:	CAH
DRAWN:	CAH
DATE: APRIL 25, 2023	
REVISIONS	

JOB NO. **22-131**

SHEET NO:
C1.0

0 1" 2"

LBYD, Inc.
Civil and Structural Engineers
880 Montclair Road
Suite 600
Birmingham, AL 35213
Main (205) 251-4500
PROJECT NO.
132825.001

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

EROSION CONTROL LEGEND

- SB — SILT FENCING
- CDW — WATTLE CHECK DAM
- TSG — TOPSOIL
- SOD — SODDING
- CEP — CONSTRUCTION EXIT PAD

PROPOSED GYMNASIUM
FFE=487.00

ALTERNATE
FFE=487.00

SWALE @ 2%

SWALE @ 1% MIN. (2' WIDE MIN.)

APPROXIMATE
LOCATION OF R.O.W.
(NOT FIELD LOCATED)

ALABAMA HIGHWAY 17

NOTES:
1. SEE SHEET C0.1 FOR ALL APPLICABLE NOTES.

N

0 10 20
5 15
SCALE: 1"=10'

ALABAMA LICENSED No. 24443 PROFESSIONAL ENGINEER CHARLES ALLEN
4/25/2023

SHEET TITLE:
GRADING, DRAINAGE & EROSION CONTROL PLAN

PROJ. MGR.:	CAH
DRAWN:	CAH
DATE: APRIL 25, 2023	
REVISIONS	

JOB NO. **22-131**

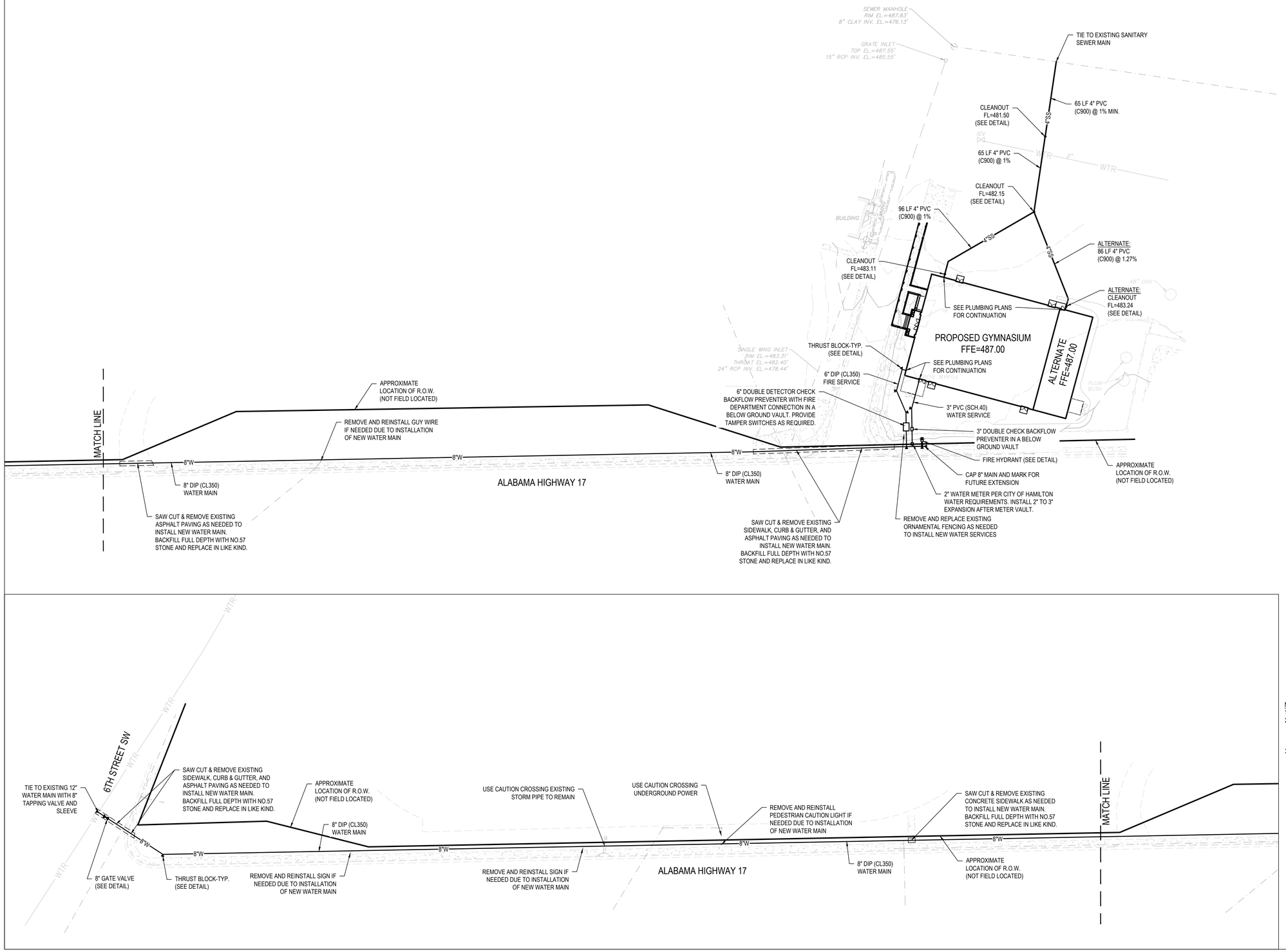
SHEET NO:
C2.0

0 1" 2"

LBYD, Inc.
Civil and Structural Engineers
880 Montclair Road
Suite 600
Birmingham, AL 35213
Main (205) 251-4500
PROJECT NO.
132825.001

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION



NOTES:
1. SEE SHEET C0.1 FOR ALL APPLICABLE NOTES.
2. ALL TOPOGRAPHIC INFORMATION ALONG WATER MAIN EXTENSION ROUTE IS FROM AERIAL PHOTOGRAPHY AND SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
3. NO CONSTRUCTION WITHIN THE STATE HIGHWAY RIGHT-OF-WAY UNTIL PROPER PERMITS HAVE BEEN APPROVED.

ALABAMA LICENSED No. 24443 PROFESSIONAL ENGINEER CHRISTOPHER ALLEN
4/25/2023

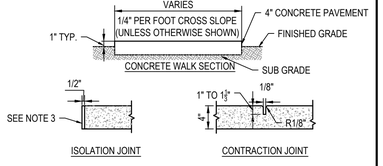
SHEET TITLE:
SITE UTILITY PLAN

PROJ. MGR.:	CAH
DRAWN:	CAH
DATE: APRIL 25, 2023	
REVISIONS	

JOB NO. **22-131**

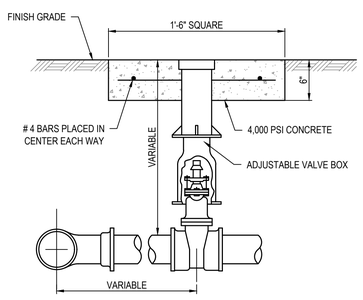
SHEET NO:
C3.0

0 1" 2"

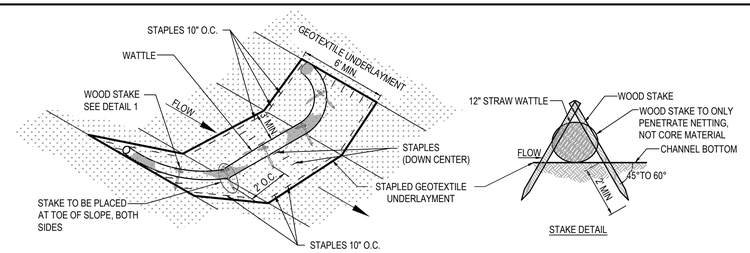


NOTES:
1. CONTRACTION (SAW CUT) JOINTS TO BE EVERY 5 TO 8 FEET WITH A MAXIMUM SPACING OF TWICE THE SLAB THICKNESS IN FEET; CUT TO A DEPTH OF 1" MINIMUM TO 1 ¼" MAXIMUM.
2. CUT CONTRACTION JOINTS BETWEEN 2 HOURS AND 12 HOURS OF CONCRETE PLACEMENT.
3. PLACE ISOLATION JOINTS WHEN ADJACENT TO BUILDINGS, CURBS, ETC. USE A ½" THICK PRE-MOULDED EXPANSION JOINT FILLER CONFORMING TO ASTM D1751 OR D1752 TO CREATE A BOND BREAK. INSTALL JOINT SEALER OVER JOINT FILLER.
4. CONCRETE TO BE 4000 PSI COMPRESSIVE STRENGTH UNLESS OTHERWISE NOTED.
5. PLACE SIDEWALK ON COMPACTED SUBGRADE- 98% STANDARD PROCTOR DENSITY (ASTM D698) UNLESS OTHERWISE NOTED.

TYPICAL SIDEWALK DETAIL
N.T.S.



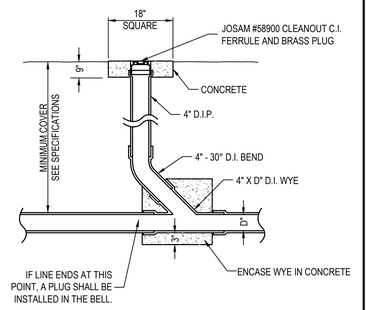
TYPICAL GATE VALVE
N.T.S.



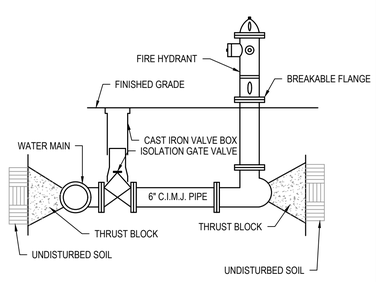
WATTLE CHECK DAMS TO BE INSTALLED WITHOUT TRENCHING AND ON TOP OF STAPLED GEOTEXTILE UNDERLAYMENT THAT EXTENDS A MINIMUM 3 FT. UP AND DOWNSTREAM FROM THE WATTLE. WATTLES MUST BE PROPERLY STAPLED WITH SOD STAPLES ON 10-INCH CENTERS ON EACH SIDE OF THE WATTLE TO PREVENT FLOTATION AND STAKED OVER THE TOP USING NON-DESTRUCTIVE TEE-PEE TYPE STAKING

WATTLE SPACING
REFER TO ALDOT SPECIAL DRAWING NO. ESC-300 FOR RECOMMENDED PLACEMENT INTERVAL BETWEEN WATTLES

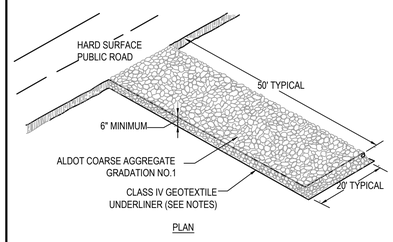
CdW **WATTLE CHECK DAM**
N.T.S.



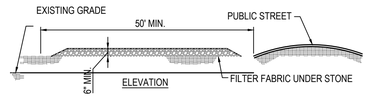
TYPICAL CLEANOUT
N.T.S.



FIRE HYDRANT ASSEMBLY
N.T.S.



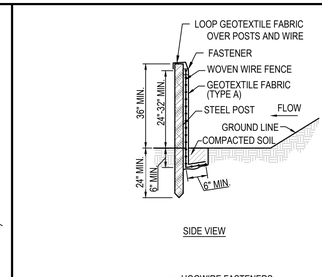
PLAN



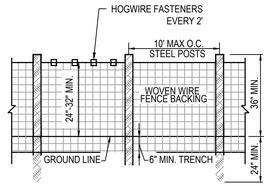
SPECIAL NOTES :

1. A STABILIZED PAD OF CRUSHED STONE SPREAD OVER FILTER FABRIC SHALL BE LOCATED WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC STREET. THE STONE SHALL BE ALDOT GRADATION NO. 1 STONE, FILTER FABRIC SHALL BE NONWOVEN GEOTEXTILE CLASS IV OR EQUAL.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
3. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY BY STREET CLEANING (NOT FLUSHING). WHEN NECESSARY, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.
4. IF THE PAD SLOPE TOWARDS THE ROAD EXCEEDS 2%, A DIVERSION RIDGE 6" - 8" HIGH WITH 3:1 SIDE SLOPES MUST BE CONSTRUCTED ACROSS THE FOUNDATION APPROXIMATELY 15' AWAY FROM THE ROAD AND DRAIN INTO A SEDIMENT TRAP OR BASIN.

CEP **CONSTRUCTION EXIT PAD**
N.T.S.



SIDE VIEW



FRONT VIEW

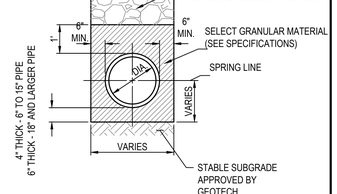
SPECIAL NOTES:
1. SILT FENCE FABRIC SHALL BE PER TABLE SB-1 FROM THE LATEST ALABAMA EROSION CONTROL HANDBOOK.
2. USE D.O.T. APPROVED WOVEN WIRE FENCE.
3. USE 5' MIN. STEEL POSTS (1.3 LB/FT MIN.).

NOTES:
1. THE WOVEN WIRE FENCING SHALL BE FASTENED TO THE UPSTREAM SIDE OF POSTS BY STAPLES OF WIRE TIES.
2. GEOTEXTILE FABRIC SHALL BE SECURELY FASTENED TO THE WOVEN WIRE FENCING.

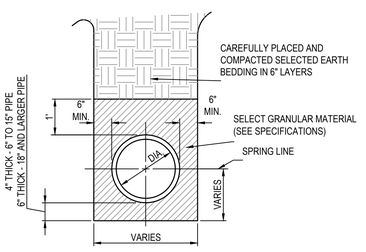
MAINTENANCE SCHEDULE:
REMOVE SEDIMENT DEPOSITS WHEN THEY REACH A DEPTH OF 15" OR 1/2 THE HEIGHT OF THE FENCE AS INSTALLED TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. SHOULD THE FABRIC OR SILT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

SB **SILT FENCE - TYPE A**
N.T.S.

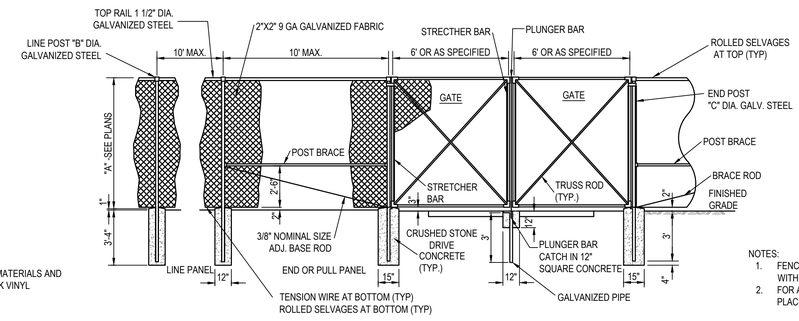
ADEM



TYPICAL PIPE BEDDING AND INITIAL BACKFILL UNDER IMPROVED SURFACES
N.T.S.



TYPICAL PIPE BEDDING AND INITIAL BACKFILL UNDER UNIMPROVED SURFACES
N.T.S.

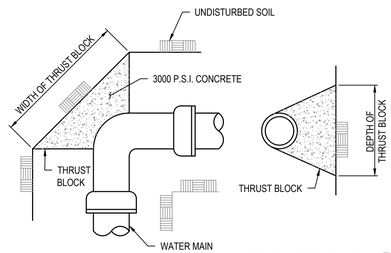


FINISH NOTE:
ALL FENCING FABRIC, FRAME MATERIALS AND ACCESSORIES SHALL BE BLACK VINYL COATED.

"A" HEIGHT	"B" LINE POST	"C" END POST
4'	2.375" DIA.	2.5" DIA
6'	2.375" DIA.	2.5" DIA
8'	2.5" DIA.	3.0" DIA

NOTES:
1. FENCE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALDOT STANDARD SPECIFICATIONS, SECTION 634.
2. FOR ATHLETIC FIELDS, THE FENCE FABRIC SHALL BE PLACED ON THE PLAYING FIELD SIDE OF THE FENCE.

CHAIN LINK FENCE AND GATE
N.T.S.



THRUST AT FITTINGS IN POUNDS*

PIPE SIZE	90° BEND	45° BEND	22.5° BEND	TEE OR PLUG
4"	2,666	1,443	735	1,885
6"	5,998	3,246	1,655	4,241
8"	10,663	5,771	2,942	7,540
10"	16,661	9,017	4,597	11,781
12"	23,992	12,984	6,619	16,965
14"	32,655	17,673	9,010	23,091
16"	42,652	23,083	11,768	30,160
18"	53,981	29,214	14,893	38,170
20"	66,643	36,067	18,387	47,124
24"	95,966	51,937	26,477	67,858

*BASED ON 150 PSI TEST PRESSURE

SOIL BEARING LOAD

SOIL	BEARING LOAD P.S.F.
MUCK	0
SOFT CLAY	1,000
SILT	1,500
SANDY SILT	3,000
SAND	4,000
SANDY CLAY	6,000
HARD PAN	9,000

END AREA OF THRUST BLOCK (IN SQUARE FEET) = THRUST (AT FITTING) / SOIL BEARING LOAD (AT FITTING) X 1.5

NOTE: THE WIDTH OF THE THRUST BLOCK SHALL BE 2X THE DEPTH OF THE THRUST BLOCK.

TYPICAL THRUST BLOCK
N.T.S.

LBYD, Inc.
Civil and Structural Engineers
880 Montclair Road
Suite 600
Birmingham, AL 35213
Main (205) 251-4500
PROJECT NO.
132825.001

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA LICENSED No. 24443 PROFESSIONAL ENGINEER CHRISTOPHER ALLEN
4/25/2023

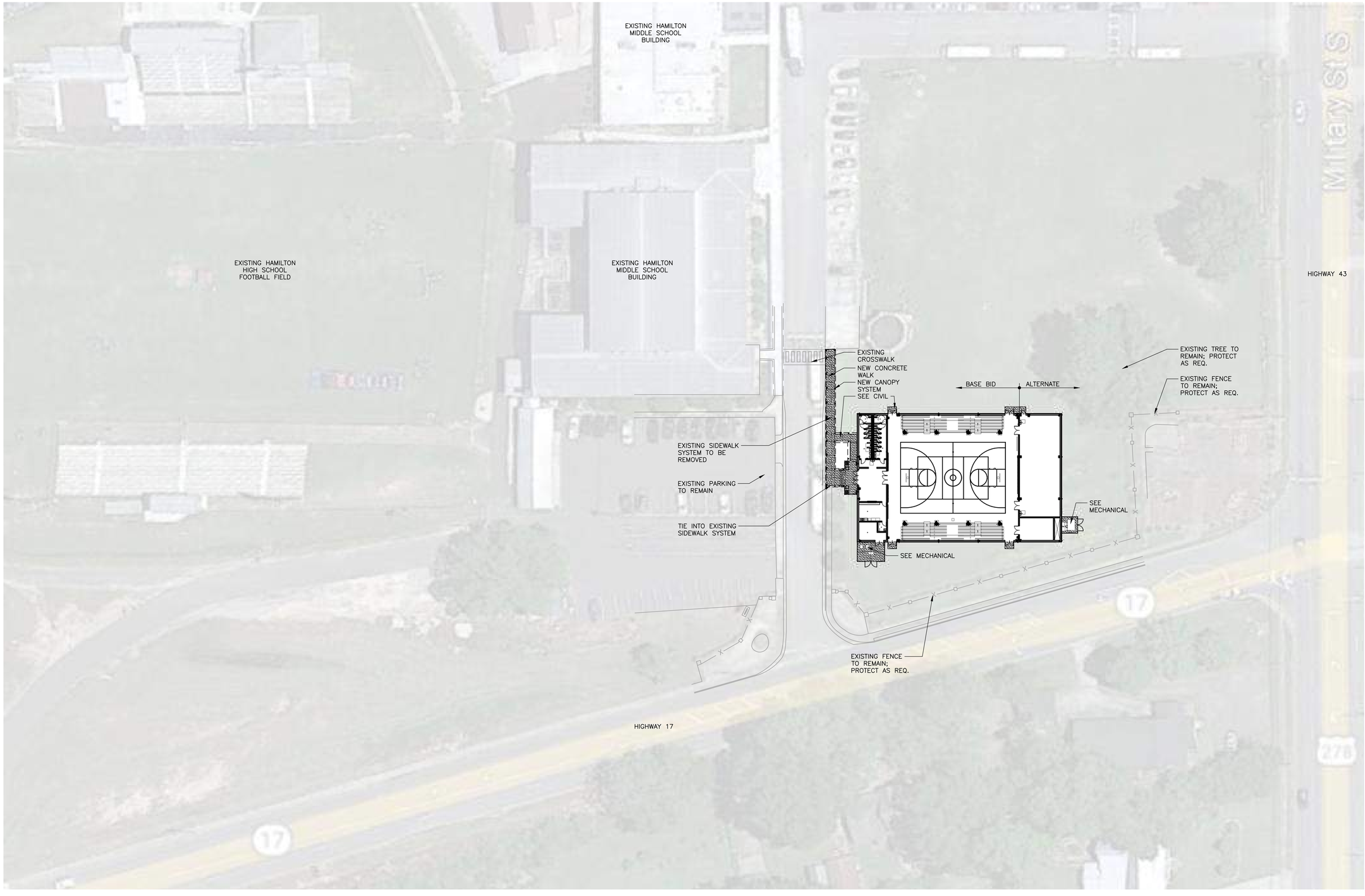
SHEET TITLE:
CIVIL DETAILS

PROJ. MGR.:	CAH
DRAWN:	CAH
DATE: APRIL 25, 2023	
REVISIONS	

JOB NO. **22-131**

SHEET NO:
C4.0

0 1" 2"



1 SITE PLAN

1/32" = 1'-0"

LATHAN
ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

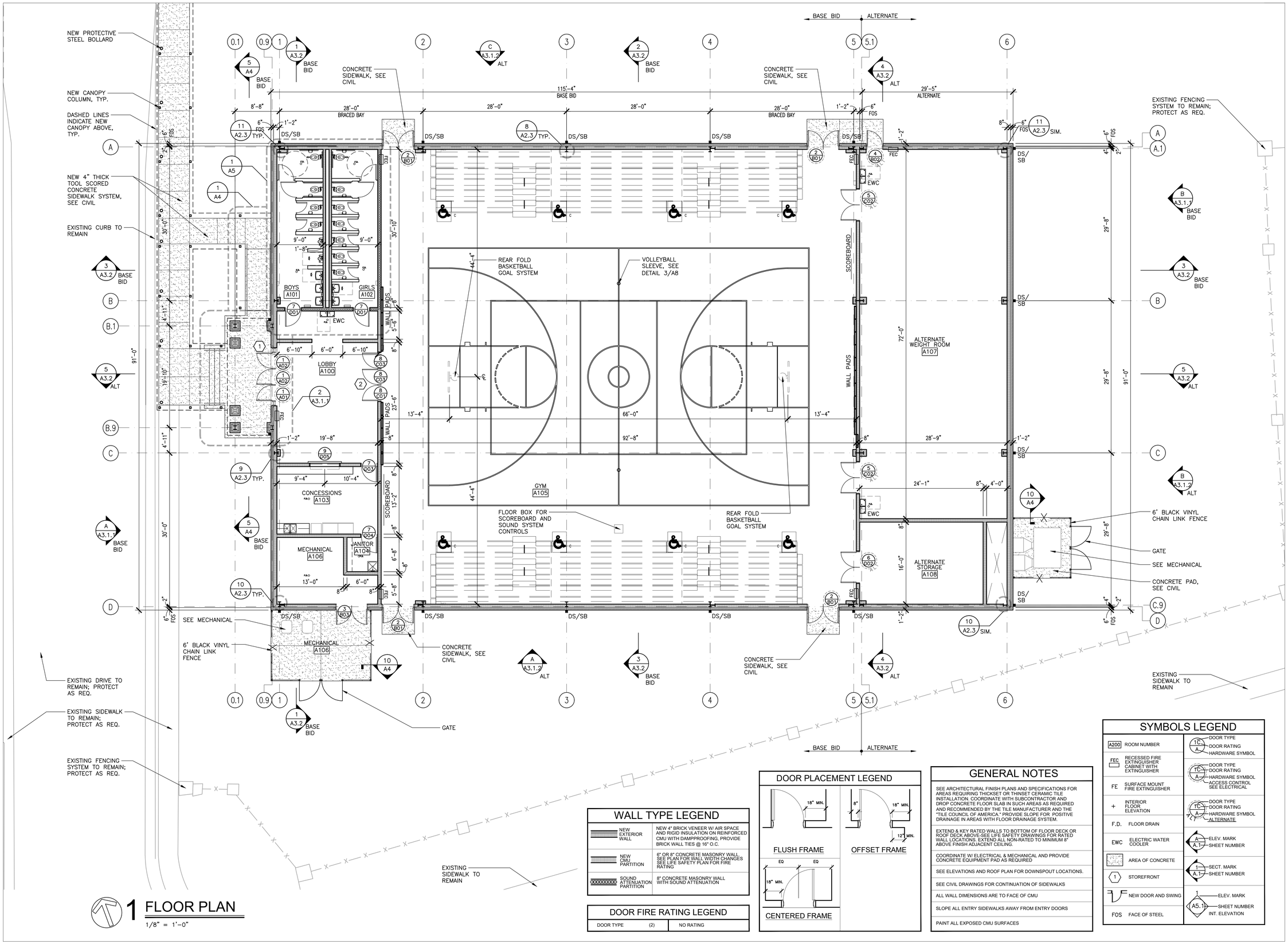
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
SITE PLAN

PROJ. MGR.: M.S.CALMA
DRAWN: E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
A1
1 OF 15

0 1" 2"



1 FLOOR PLAN

1/8" = 1'-0"

WALL TYPE LEGEND

NEW EXTERIOR WALL	NEW 4" BRICK VENEER W/ AIR SPACE AND RIGID INSULATION ON REINFORCED CMU WITH DAMPPROOFING, PROVIDE BRICK WALL TIES @ 16" O.C.
NEW CMU PARTITION	6" OR 8" CONCRETE MASONRY WALL SEE PLAN FOR WALL WIDTH CHANGES SEE LIFE SAFETY PLAN FOR FIRE RATING
SOUND ATTENUATION PARTITION	8" CONCRETE MASONRY WALL WITH SOUND ATTENUATION

DOOR FIRE RATING LEGEND

DOOR TYPE (2)	NO RATING

DOOR PLACEMENT LEGEND

GENERAL NOTES

- SEE ARCHITECTURAL FINISH PLANS AND SPECIFICATIONS FOR AREAS REQUIRING THICKSET OR THINSET CERAMIC TILE INSTALLATION. COORDINATE WITH SUBCONTRACTOR AND DROP CONCRETE FLOOR SLAB IN SUCH AREAS AS REQUIRED AND RECOMMENDED BY THE TILE MANUFACTURER AND THE "TILE COUNCIL OF AMERICA." PROVIDE SLOPE FOR POSITIVE DRAINAGE IN AREAS WITH FLOOR DRAINAGE SYSTEM.
- EXTEND & KEY RATED WALLS TO BOTTOM OF FLOOR DECK OR ROOF DECK ABOVE-SEE LIFE SAFETY DRAWINGS FOR RATED WALL LOCATIONS. EXTEND ALL NON-RATED TO MINIMUM 8" ABOVE FINISH ADJACENT CEILING.
- COORDINATE W/ ELECTRICAL & MECHANICAL AND PROVIDE CONCRETE EQUIPMENT PAD AS REQUIRED
- SEE ELEVATIONS AND ROOF PLAN FOR DOWNSPOUT LOCATIONS.
- SEE CIVIL DRAWINGS FOR CONTINUATION OF SIDEWALKS
- ALL WALL DIMENSIONS ARE TO FACE OF CMU
- SLOPE ALL ENTRY SIDEWALKS AWAY FROM ENTRY DOORS
- PAINT ALL EXPOSED CMU SURFACES

SYMBOLS LEGEND

A200	ROOM NUMBER
FEC	RECESSED FIRE EXTINGUISHER CABINET WITH EXTINGUISHER
FE	SURFACE MOUNT FIRE EXTINGUISHER
+	INTERIOR FLOOR ELEVATION
F.D.	FLOOR DRAIN
EWC	ELECTRIC WATER COOLER
	AREA OF CONCRETE
1	STOREFRONT
	NEW DOOR AND SWING
FOS	FACE OF STEEL

1C / A	DOOR TYPE / DOOR RATING / HARDWARE SYMBOL
1C / A	DOOR TYPE / DOOR RATING / HARDWARE SYMBOL / ACCESS CONTROL SEE ELECTRICAL
1C / A	DOOR TYPE / DOOR RATING / HARDWARE SYMBOL / ALTERNATE
A / A.1	ELEV. MARK / SHEET NUMBER
1 / A.1	SECT. MARK / SHEET NUMBER
1 / A5.1	ELEV. MARK / SHEET NUMBER / INT. ELEVATION

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

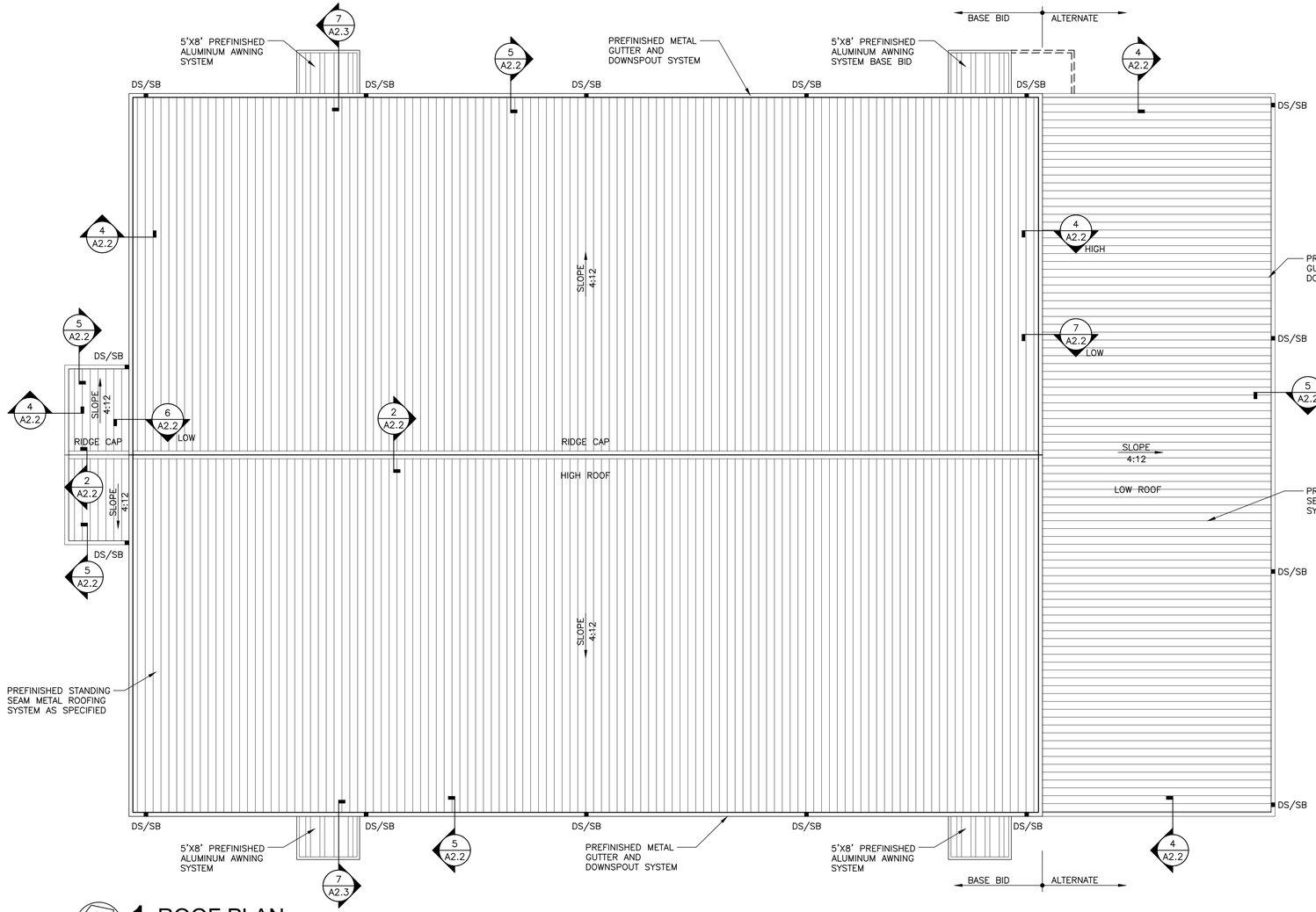
SHEET TITLE:
FLOOR PLAN

PROJ. MGR.: M.S.CALMA
DRAWN: S.CALMA, E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131

SHEET NO:
A2.1
2 OF 15

0 1" 2"



1 ROOF PLAN

1/8" = 1'-0"

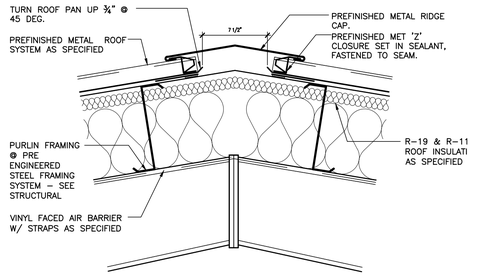
ROOF GENERAL NOTES

1. CONTRACTOR TO COORDINATE LOCATIONS OF ROOF PENETRATIONS WITH MECHANICAL AND/OR ARCHITECT.
2. SEE MECHANICAL, PLUMBING AND ELECTRICAL FOR ADDITIONAL ROOF WORK AND PENETRATIONS; MAKE ALL PENETRATIONS WEATHERTIGHT UNDER ROOFING SCOPE OF WORK
3. EACH INDIVIDUAL EQUIPMENT CONDITION ETC. MAY NOT HAVE A DETAIL DESIGNATION BUBBLE FOR CLARITY PURPOSES, HOWEVER, EACH DETAIL APPLIES TO ALL EQUIPMENT, CONDITIONS, ETC. OF THAT TYPE.
4. VERIFY LOCATIONS OF ROOF TOP UNITS WITH MECHANICAL.

NOTE: COORDINATE WITH PLUMBING, MECHANICAL AND ELECTRICAL FOR ROOF PENETRATIONS. FLASH ALL PENETRATIONS. ROOFING CONTRACTOR SHALL MAINTAIN SINGLE SOURCE RESPONSIBILITY FOR WEATHER TIGHTNESS OF ROOF PENETRATIONS AS PART OF ROOFING SYSTEM ENVELOPE

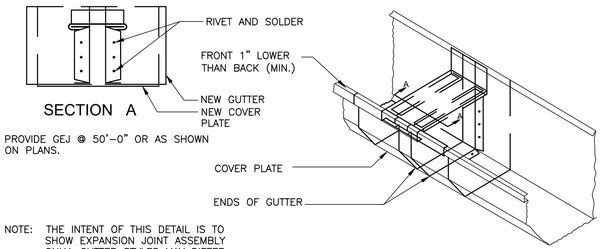
ROOF LEGEND

DETAIL NUMBER / SHEET NUMBER	ROOF DETAIL MARKER
SLOPE 1/4:12 (DIRECTION OF DOWNWARD SLOPE, RISE:RUN)	ROOF SLOPE MARKER
	NEW PREFINISHED METAL STANDING SEAM ROOFING SYSTEM
	NEW PREFINISHED METAL AWNING/CANOPY SYSTEM
DS	DOWNSPOUT
SB	SPLASHBLOCK
G	GUTTER
GEJ	GUTTER EXPANSION JOINT
BT	DOWNSPOUT BOOT



2 RIDGE DETAIL

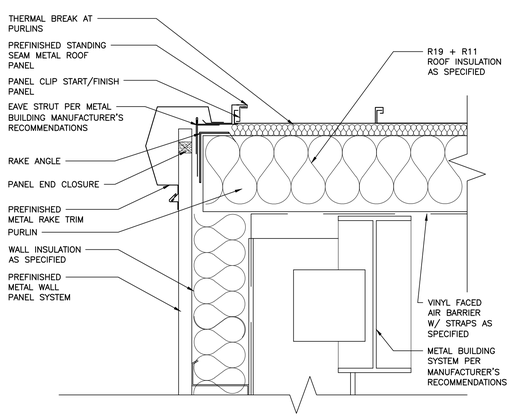
1 1/2" = 1'-0"



NOTE: THE INTENT OF THIS DETAIL IS TO SHOW EXPANSION JOINT ASSEMBLY ONLY: GUTTER STYLES MAY DIFFER.

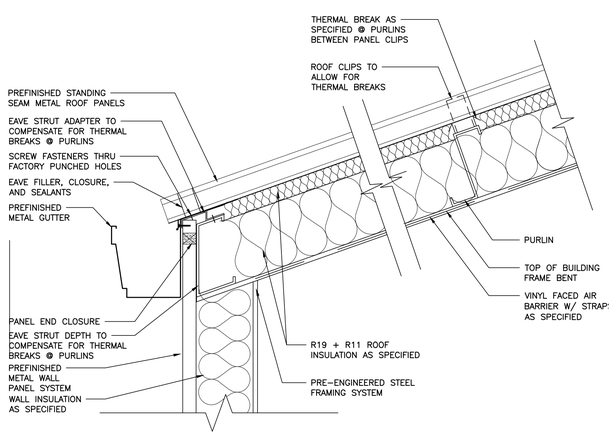
3 GUTTER EJ

3" = 1'-0"



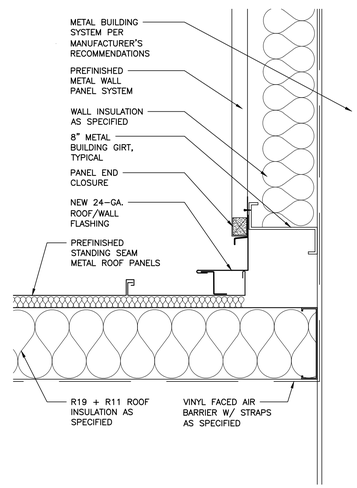
4 RAKE DETAIL

1 1/2" = 1'-0"



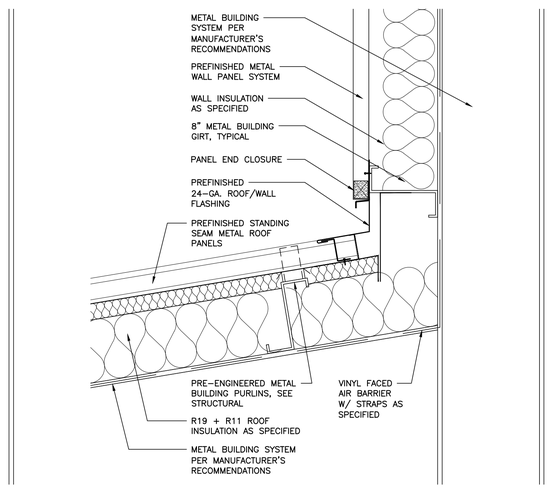
5 EAVE DETAIL

1 1/2" = 1'-0"



6 ROOF/WALL DETAIL

1 1/2" = 1'-0"



7 ROOF/WALL DETAIL

1 1/2" = 1'-0" @ALTERNATE

LATHAN ARCHITECTS

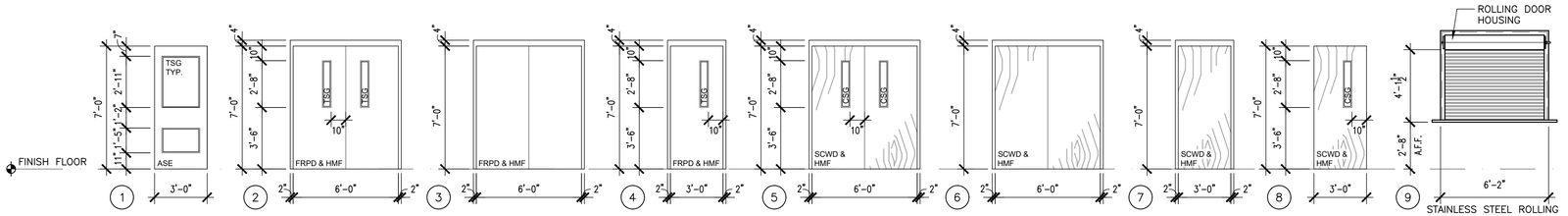
NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
ROOF PLAN AND DETAILS

PROJ. MGR.: M.S.CALMA
DRAWN: E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

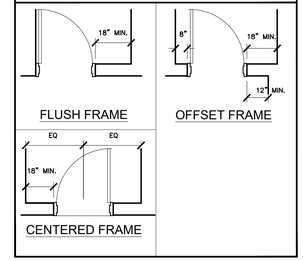
JOB NO. 22-131
SHEET NO:
A2.2
3 OF 15



1 DOOR SCHEDULE

1/4" = 1'-0"

DOOR PLACEMENT LEGEND

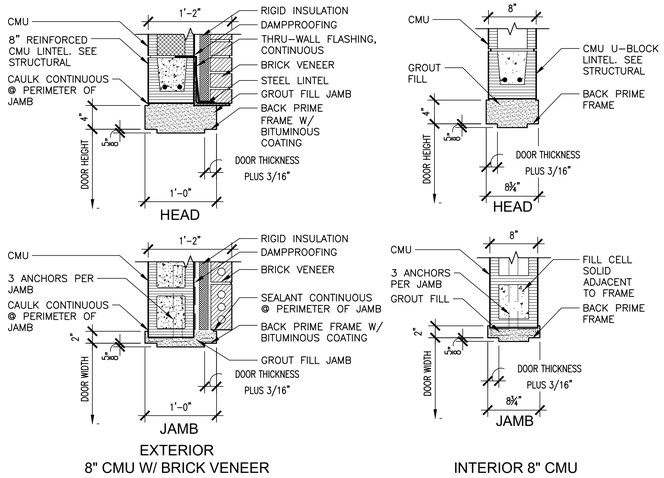


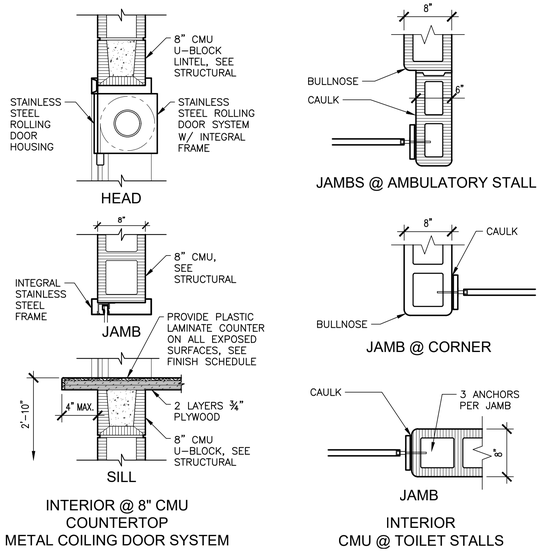
DOOR AND WINDOW LEGEND

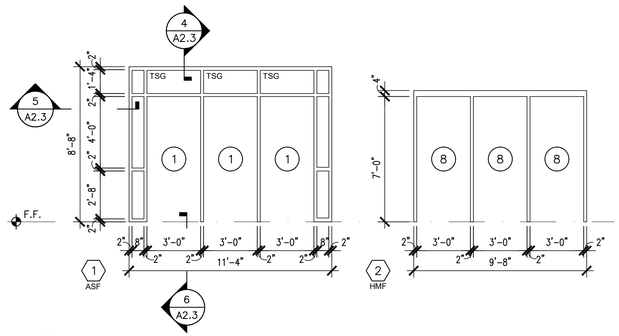
CSG	¼" THICK CLEAR TEMPERED SAFETY GLASS
CFG	CLEAR FIRE RATED SAFETY GLASS AS SPECIFIED
TSG	TINTED INSULATED TEMPERED SAFETY GLASS AS SPECIFIED. 1" TYPICAL UNLESS NOTED OTHERWISE.
ASE	PREFINISHED ALUMINUM STOREFRONT ENTRANCE SYSTEM AS SPECIFIED
ASF	PREFINISHED ALUMINUM STOREFRONT SYSTEM
FRPD	FIBERGLASS REINFORCED PLASTIC DOOR
SCWD	SOLID CORE WOOD DOOR
HMF	HOLLOW METAL FRAME

DOOR FIRE RATING LEGEND

DOOR TYPE	(2)	NO RATING





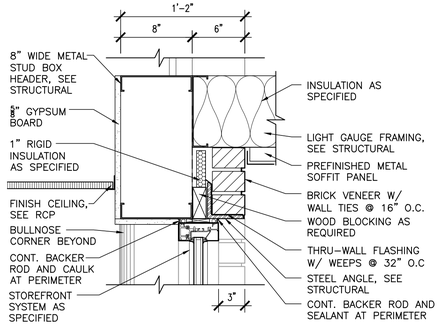


2 STOREFRONT AND HMF SCHEDULE

1/4" = 1'-0"

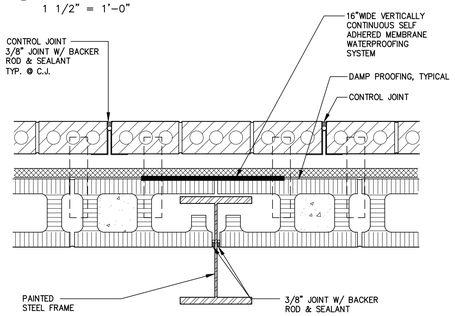
3 HOLLOW METAL FRAME DETAILS

1" = 1'-0"



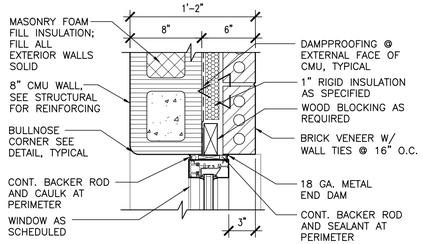
4 STOREFRONT DETAIL @HEAD

1 1/2" = 1'-0"



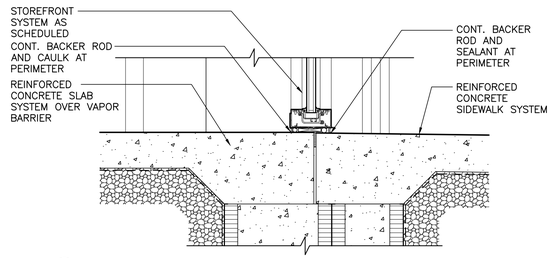
5 STOREFRONT DETAIL @JAMB

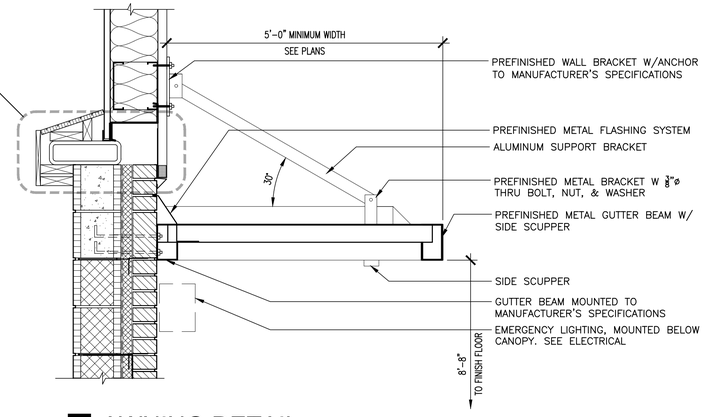
1 1/2" = 1'-0"



6 STOREFRONT DETAIL @SILL

1 1/2" = 1'-0"



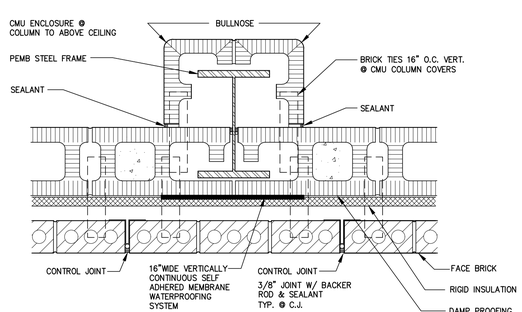


7 AWNING DETAIL

1" = 1'-0"

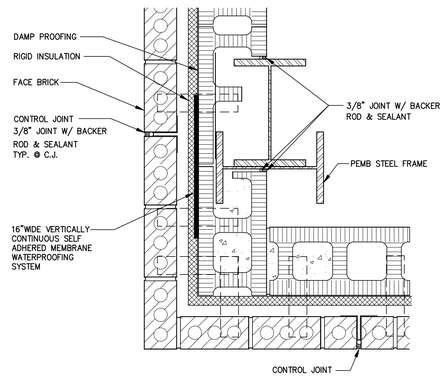
8 COLUMN DETAIL

1 1/2" = 1'-0"



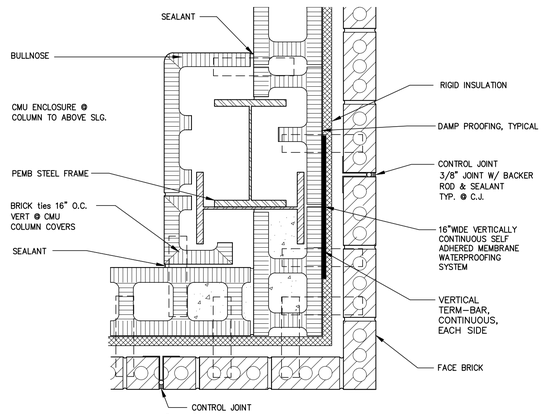
9 COLUMN WRAP DETAIL

1 1/2" = 1'-0"



10 COLUMN DETAIL

1 1/2" = 1'-0"



11 COLUMN WRAP DETAIL

1 1/2" = 1'-0"

LATHAN ARCHITECTS

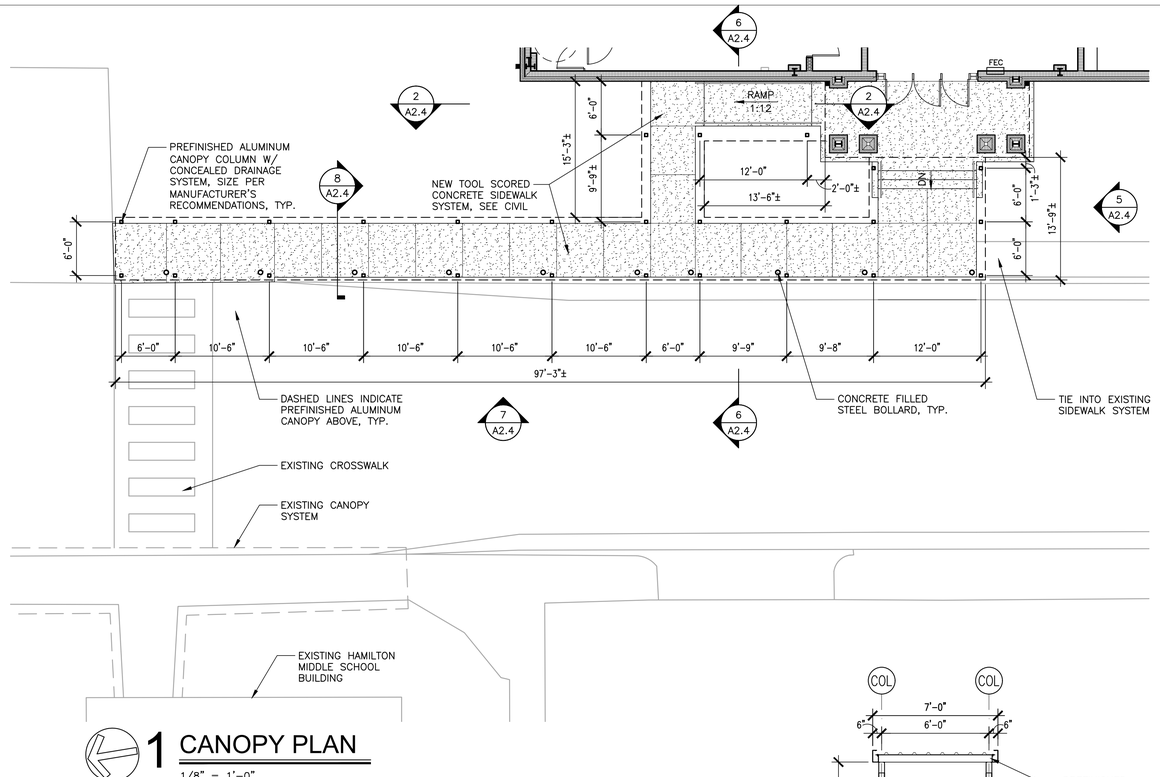
NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
DOOR SCHEDULE AND DETAILS

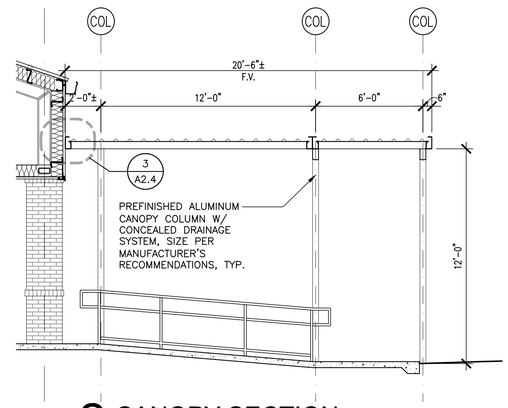
PROJ. MGR.: M.S.CALMA
DRAWN: Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
A2.3
4 OF 15



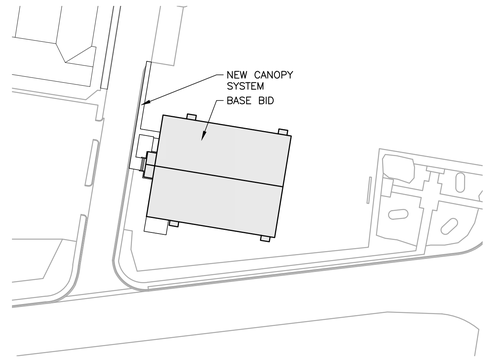
1 CANOPY PLAN

1/8" = 1'-0"



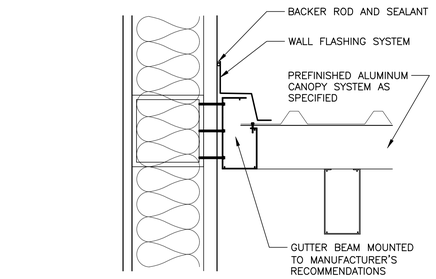
2 CANOPY SECTION

1/4" = 1'-0"



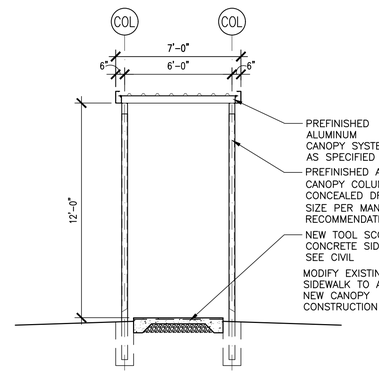
KEY PLAN

N.T.S.



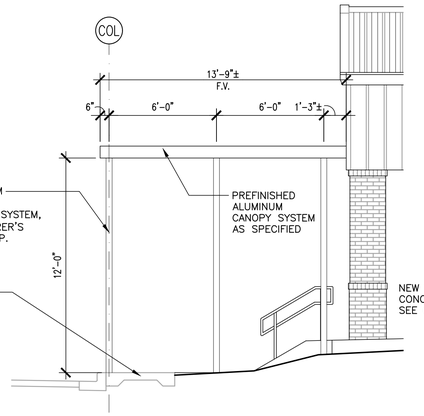
3 CANOPY DETAIL

1 1/2" = 1'-0"



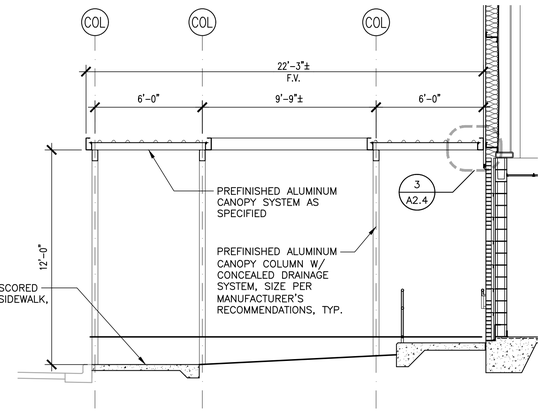
4 CANOPY SECTION

1/4" = 1'-0"



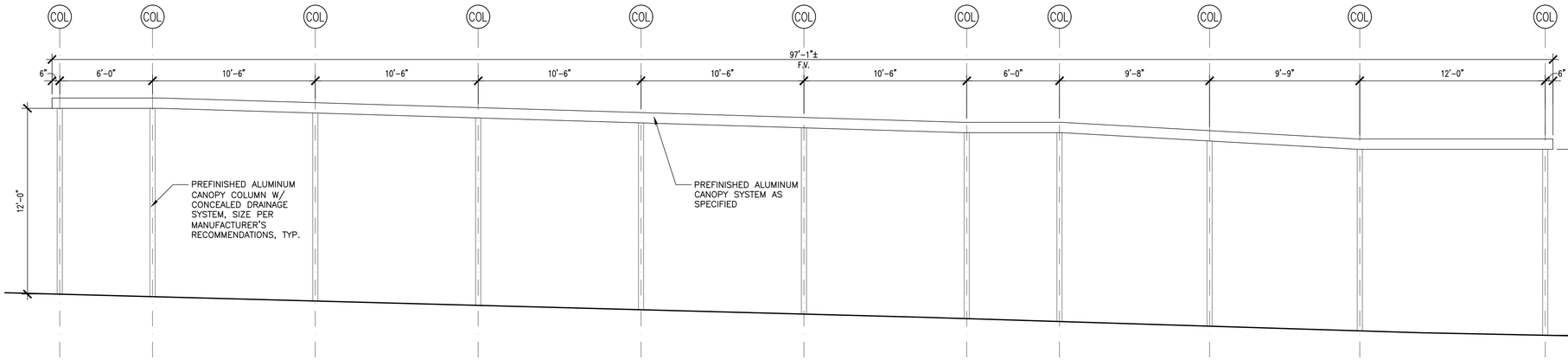
5 CANOPY ELEVATION

1/4" = 1'-0"



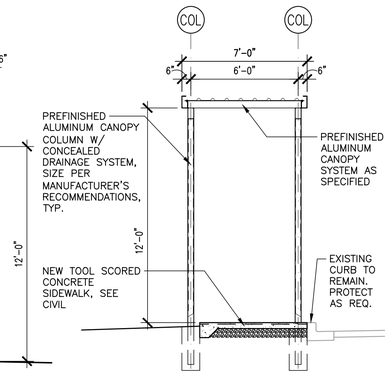
6 CANOPY SECTION

1/4" = 1'-0"



7 CANOPY ELEVATION

1/4" = 1'-0"



8 CANOPY SECTION

1/4" = 1'-0"

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

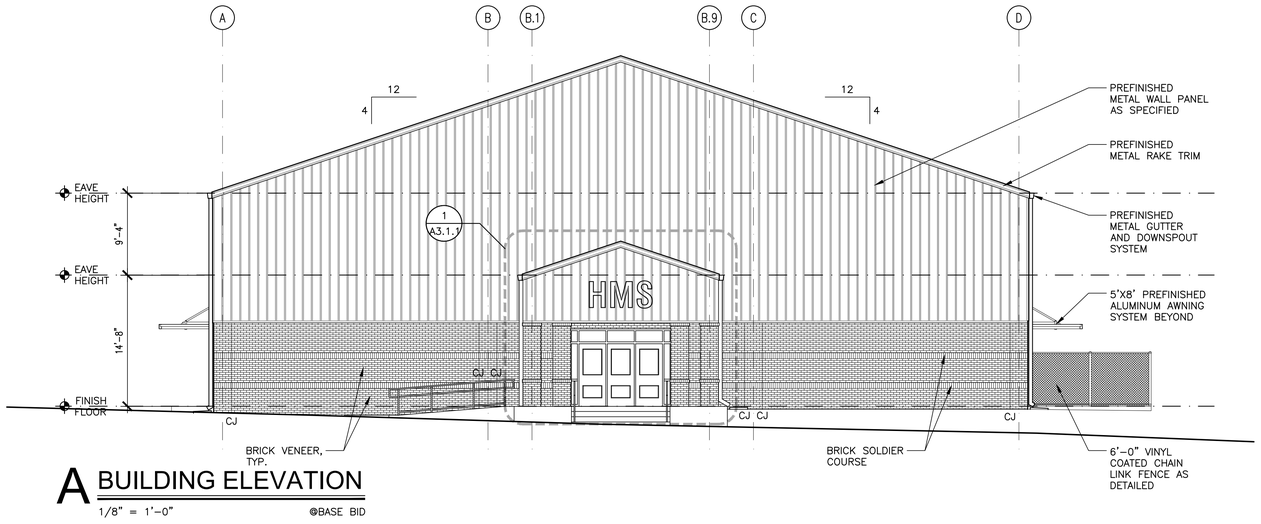
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
CANOPY PLAN AND SECTIONS

PROJ. MGR.: M.S.CALMA
DRAWN: E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

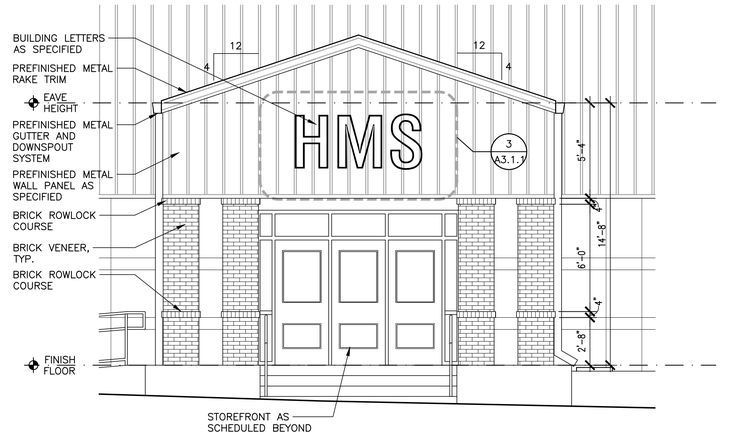
JOB NO. 22-131
SHEET NO:
A2.4
5 OF 15

0 1" 2"



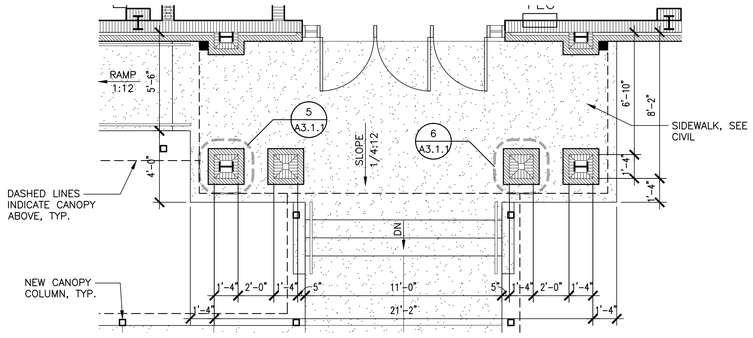
A BUILDING ELEVATION

1/8" = 1'-0" @BASE BID



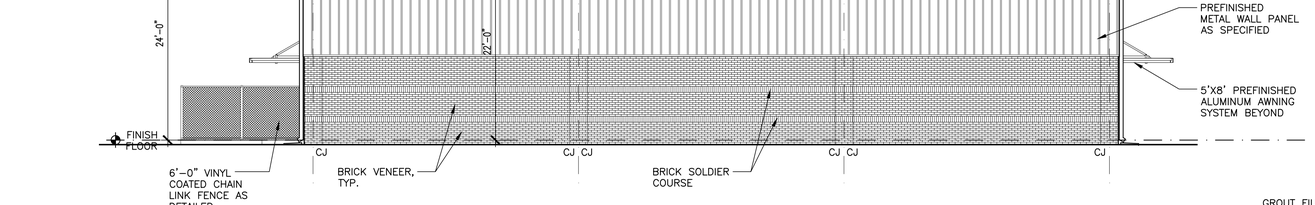
1 ENLARGED ELEVATION

1/4" = 1'-0" @BASE BID



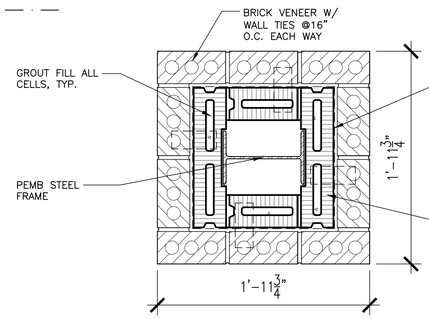
2 ENLARGED FLOOR PLAN

1/8" = 1'-0" @BASE BID



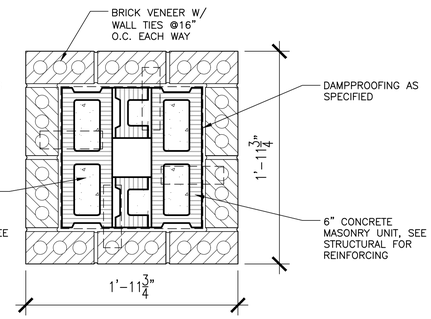
B BUILDING ELEVATION

1/8" = 1'-0" @BASE BID



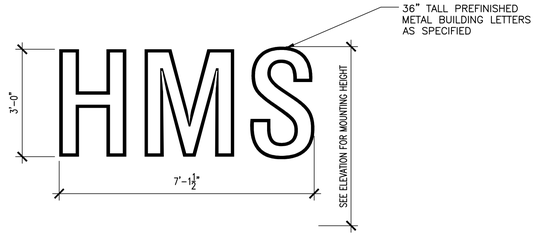
5 DETAIL

1 1/2" = 1'-0"



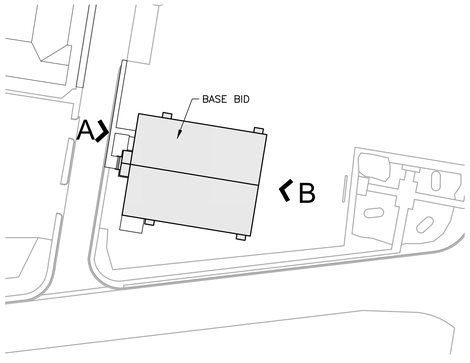
6 DETAIL

1 1/2" = 1'-0"



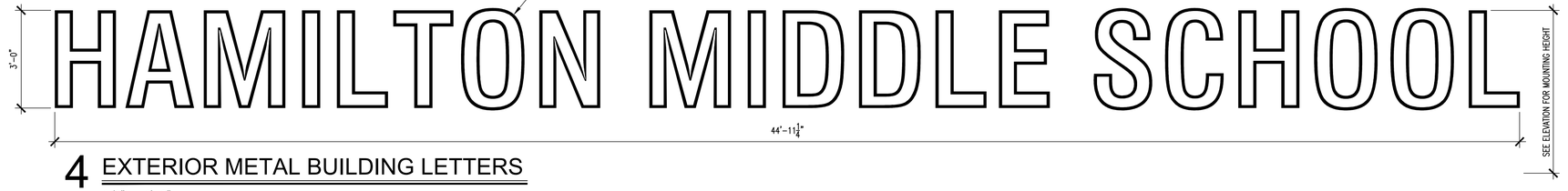
3 EXTERIOR METAL BUILDING LETTERS

1/2" = 1'-0"



KEY PLAN

N.T.S.



4 EXTERIOR METAL BUILDING LETTERS

1/2" = 1'-0"

LATHAN ARCHITECTS

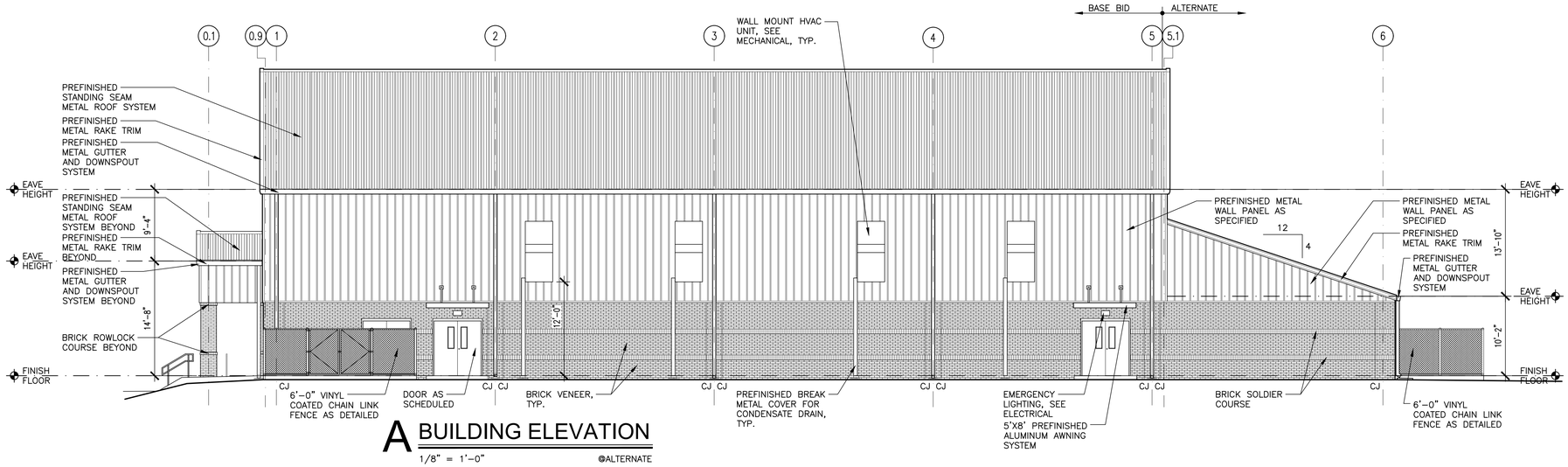
NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
BUILDING ELEVATIONS, ENLARGED PLAN, AND DETAILS

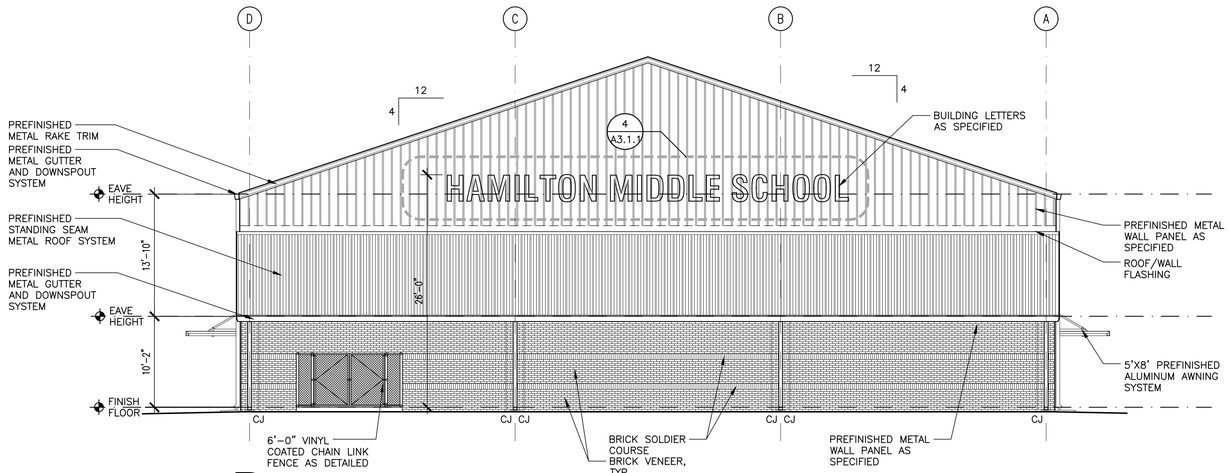
PROJ. MGR.: M.S.CALMA
DRAWN: S.CALMA, E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
A3.1.1
6 OF 15



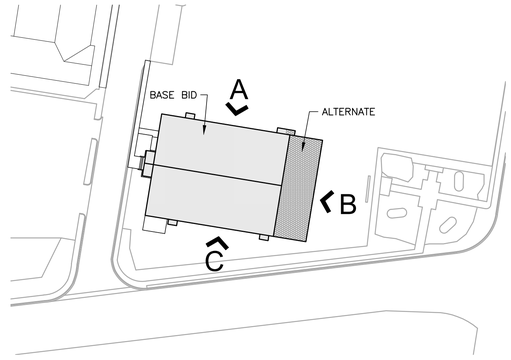
A BUILDING ELEVATION

1/8" = 1'-0" @ALTERNATE



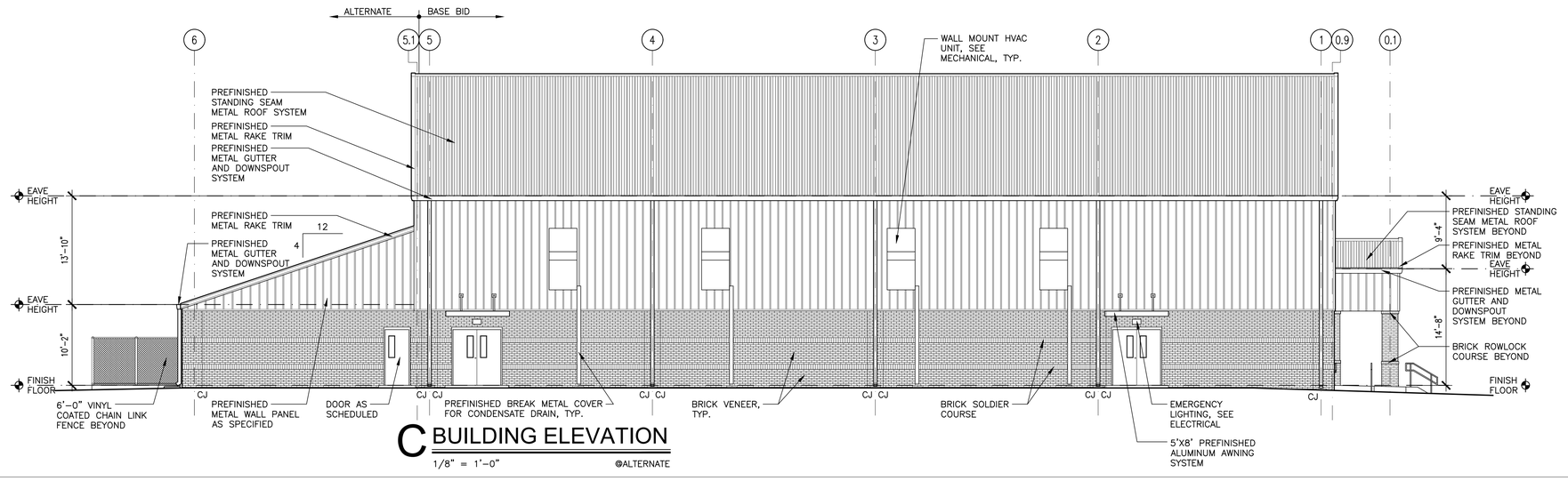
B BUILDING ELEVATION

1/8" = 1'-0" @ALTERNATE



KEY PLAN

N.T.S. @ALTERNATE



C BUILDING ELEVATION

1/8" = 1'-0" @ALTERNATE

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

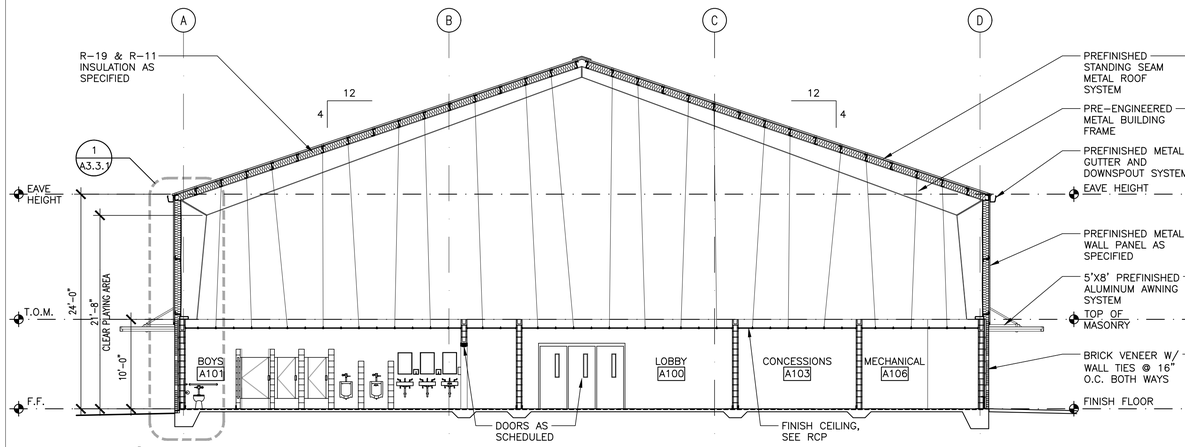
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
BUILDING ELEVATIONS - ALTERNATE

PROJ. MGR.: M.S.CALMA
DRAWN: S.CALMA, E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

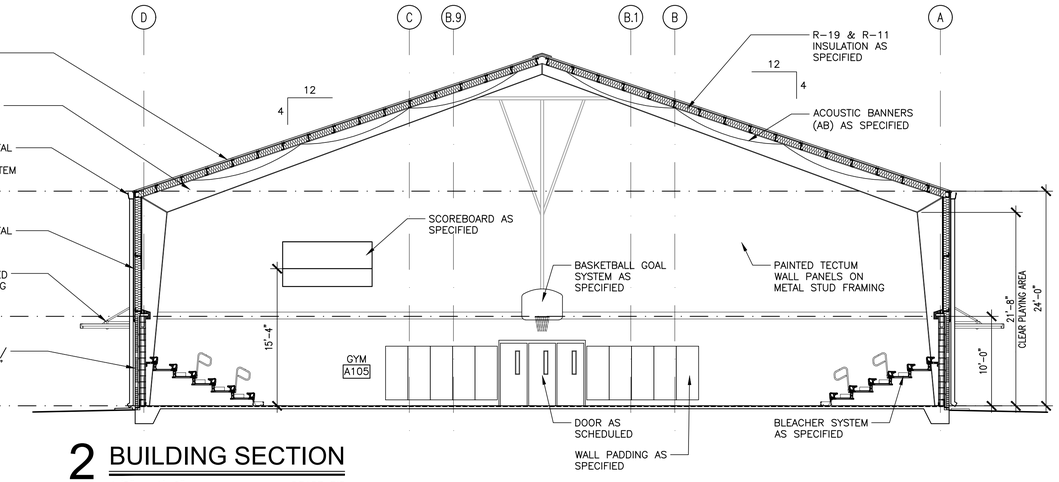
JOB NO. 22-131
SHEET NO:
A3.1.2
7 OF 15

0 1" 2"



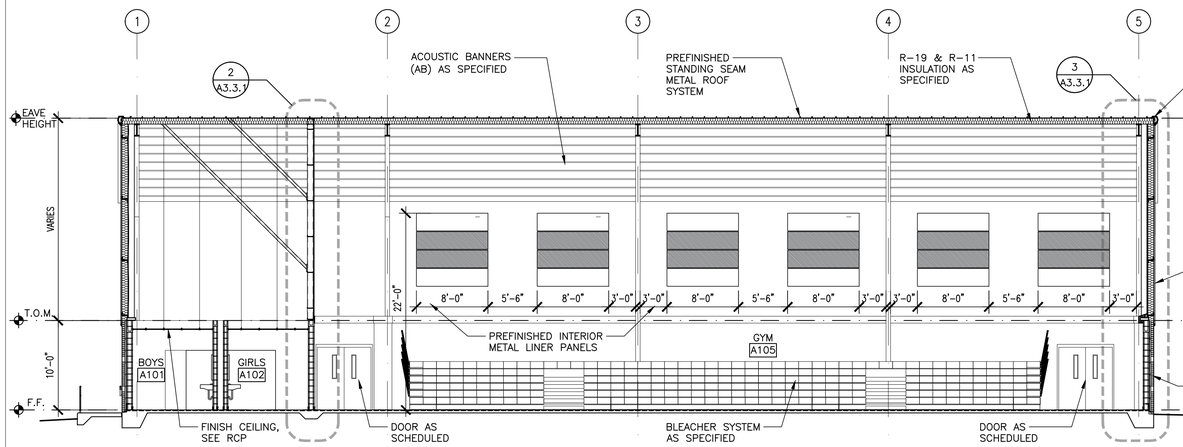
1 BUILDING SECTION

1/8" = 1'-0" @BASE BID



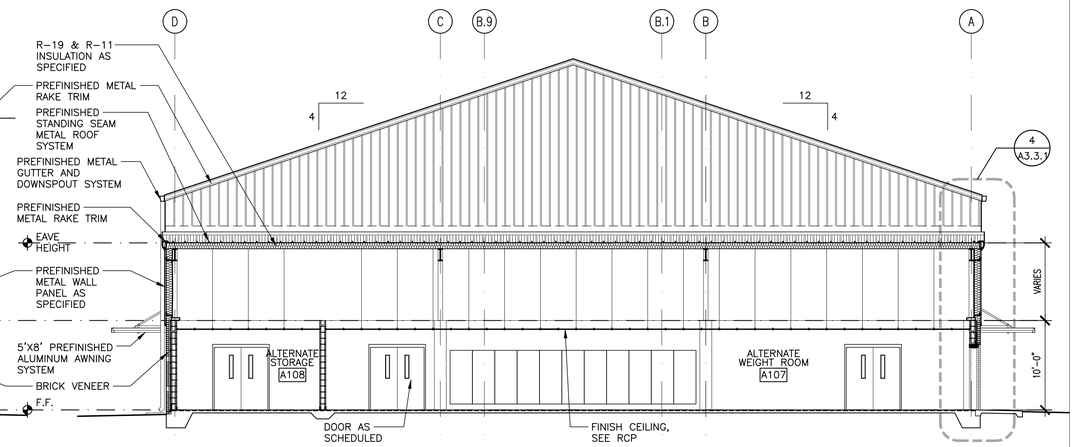
2 BUILDING SECTION

1/8" = 1'-0" @BASE BID



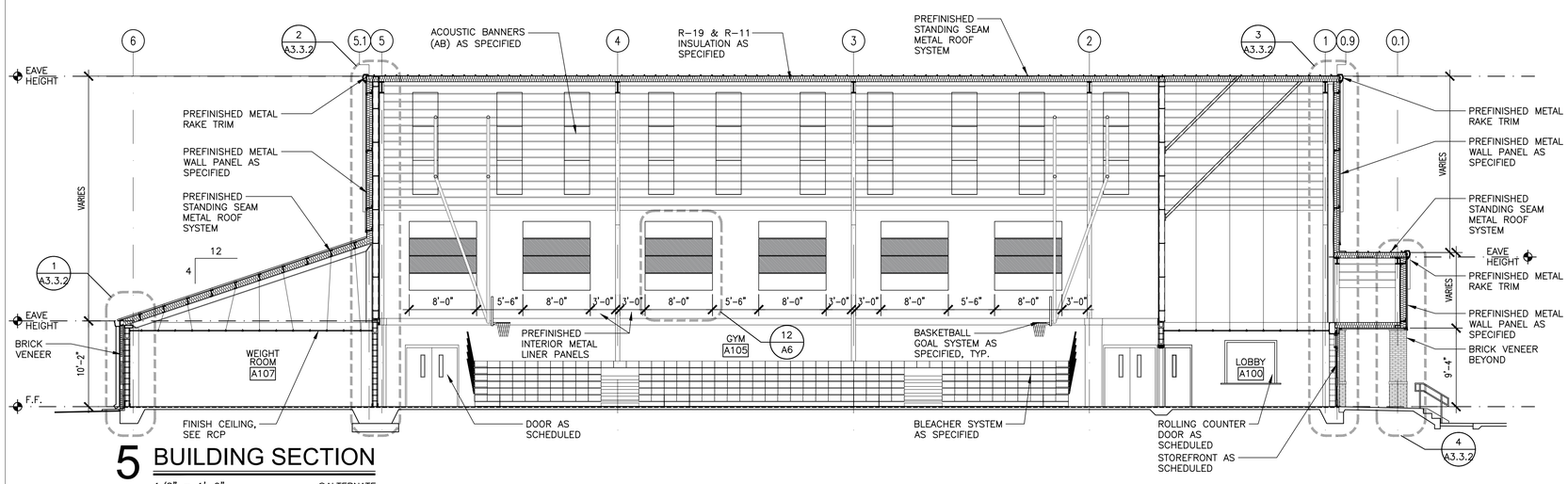
3 BUILDING SECTION

1/8" = 1'-0" @BASE BID



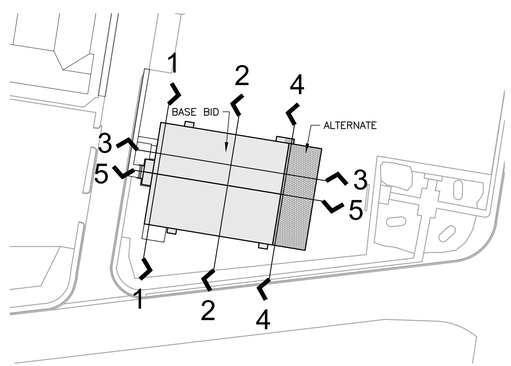
4 BUILDING SECTION

1/8" = 1'-0" @ALTERNATE



5 BUILDING SECTION

1/8" = 1'-0" @ALTERNATE



KEY PLAN - ALTERNATE

N.T.S.

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

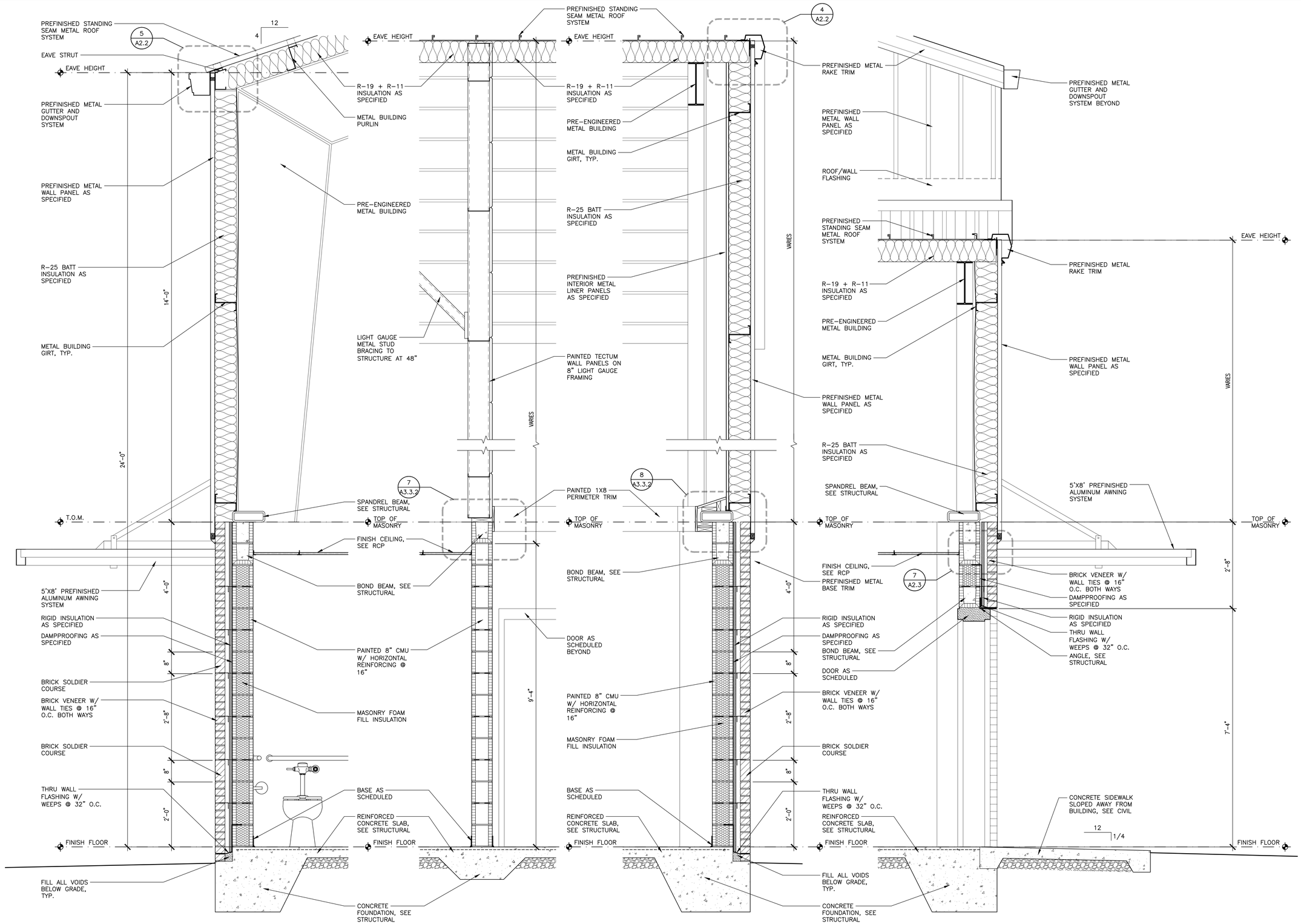
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
BUILDING SECTIONS

PROJ. MGR.: M.S.CALMA
DRAWN: E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
A3.2
8 OF 15

0 1" 2"



1 WALL SECTION
3/4" = 1'-0" @BASE BID

2 WALL SECTION
3/4" = 1'-0" @BASE BID

3 WALL SECTION
3/4" = 1'-0" @BASE BID

4 WALL SECTION
3/4" = 1'-0" @ALTERNATE

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

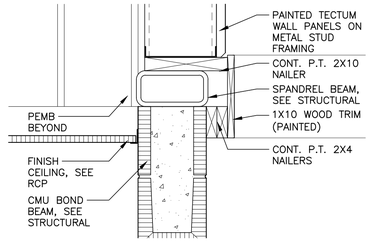
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
WALL SECTIONS

PROJ. MGR.: M.S.CALMA
DRAWN: E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

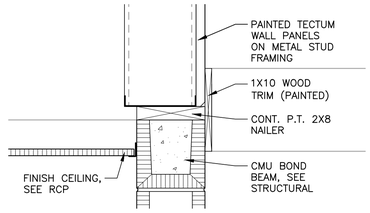
JOB NO. 22-131
SHEET NO:
A3.3.1
9 OF 15

0 1" 2"



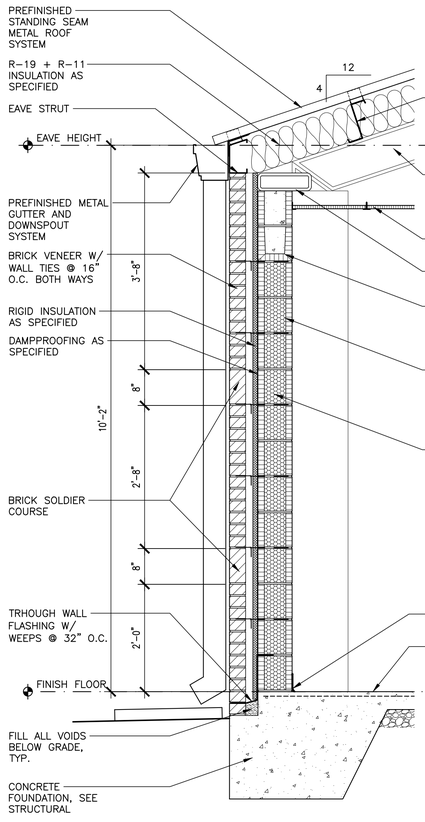
6 DETAIL

1 1/2" = 1'-0" @ALTERNATE



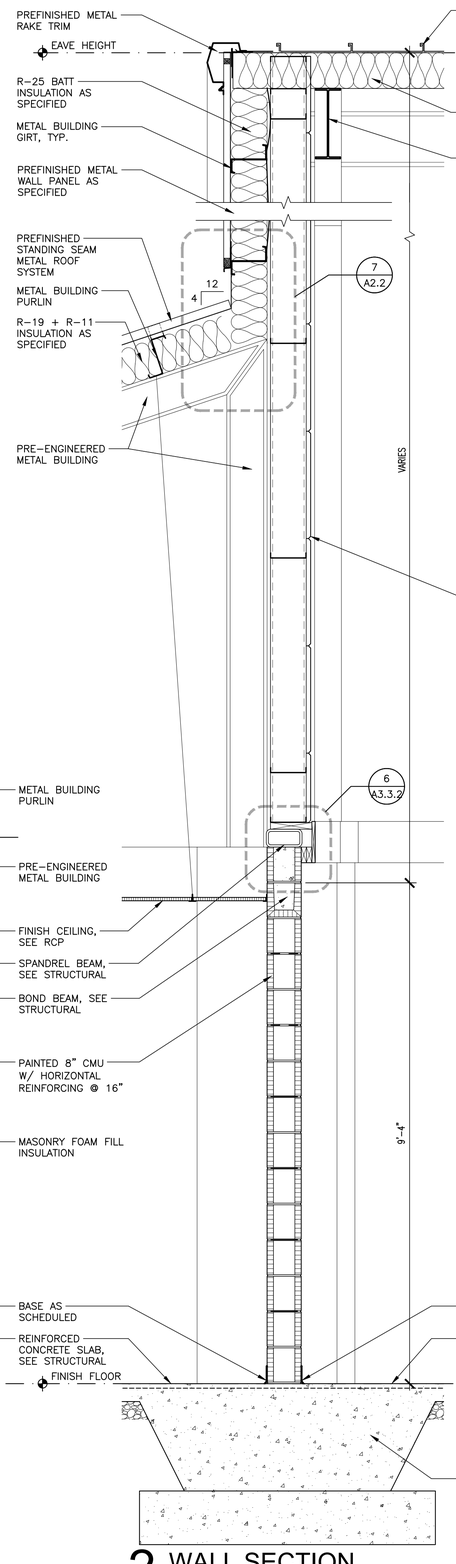
7 DETAIL

1 1/2" = 1'-0" @BASE BID



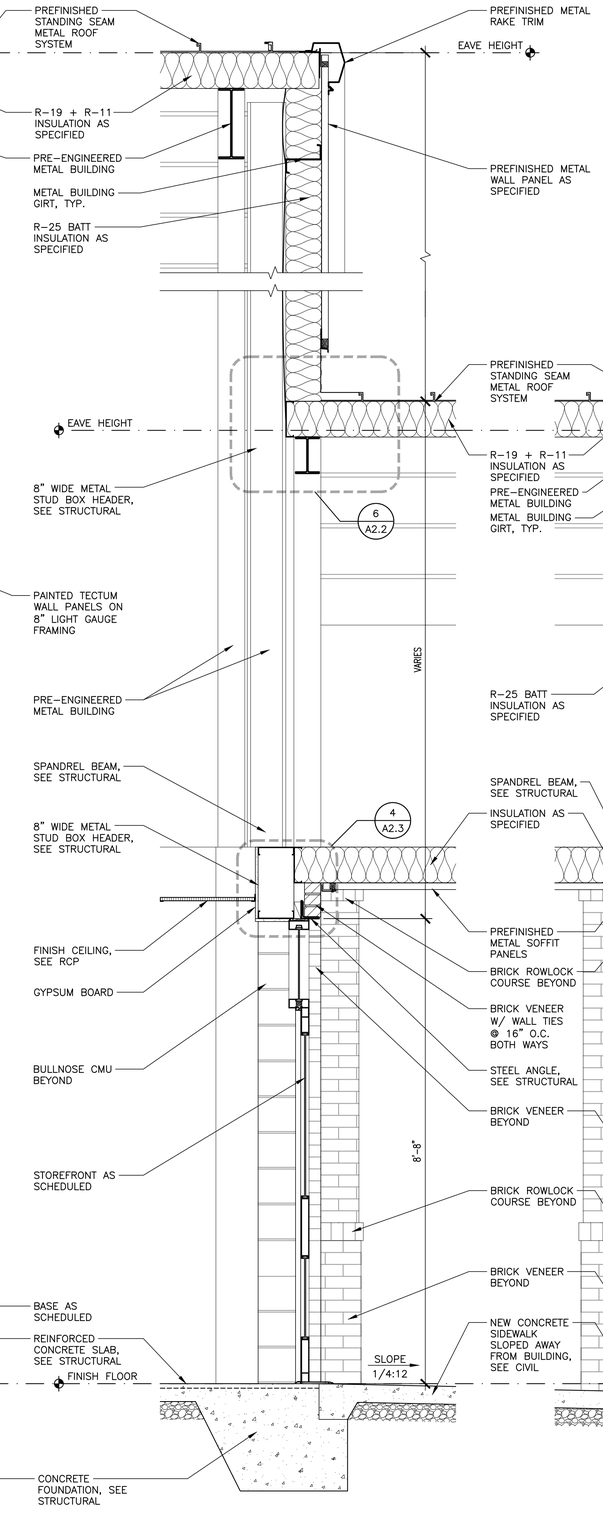
1 WALL SECTION

3/4" = 1'-0" @ALTERNATE



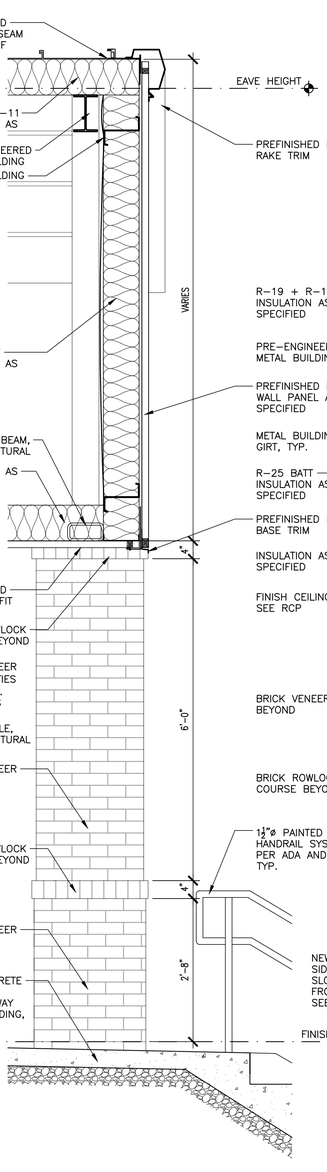
2 WALL SECTION

3/4" = 1'-0" @ALTERNATE



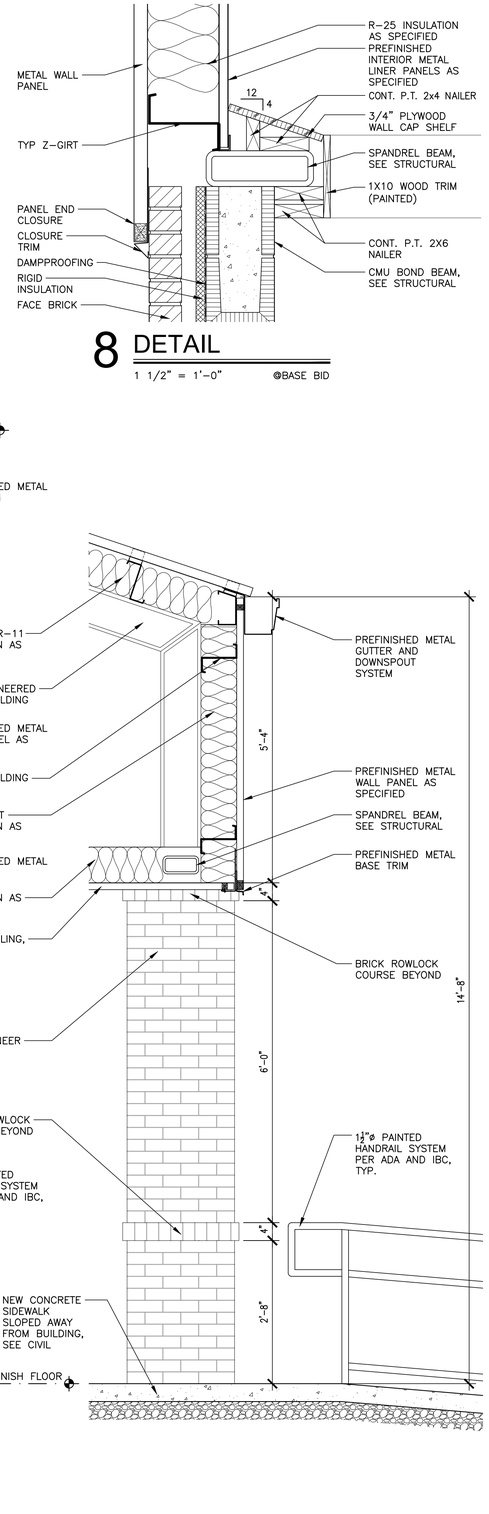
3 WALL SECTION

3/4" = 1'-0" @BASE BID



4 WALL SECTION

3/4" = 1'-0" @BASE BID



8 DETAIL

1 1/2" = 1'-0" @BASE BID

5 WALL SECTION

3/4" = 1'-0" @BASE BID

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

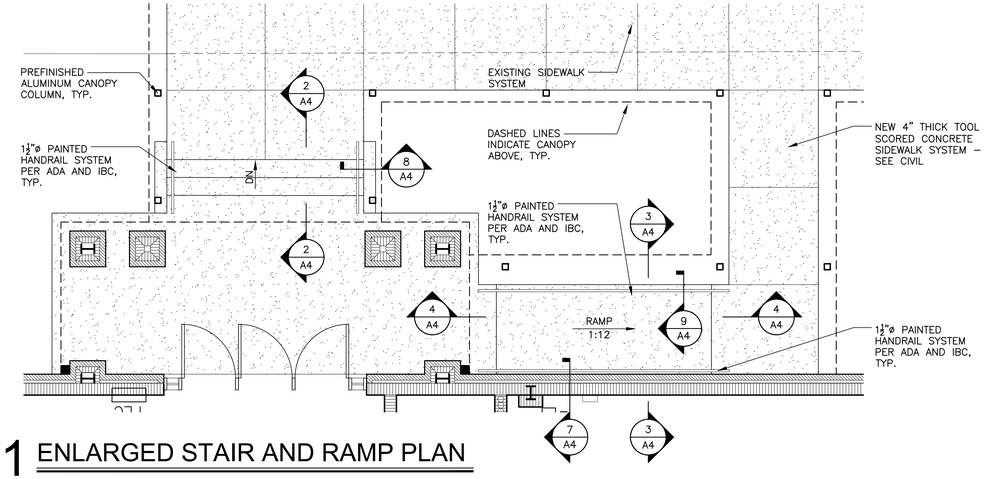
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
WALL SECTIONS

PROJ. MGR.: M.S.CALMA
DRAWN: E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

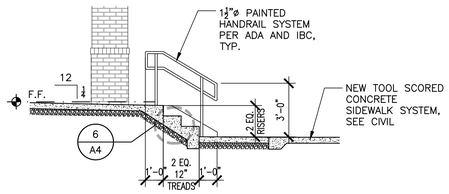
JOB NO. 22-131
SHEET NO:
A3.3.2
10 OF 15

0 1" 2"



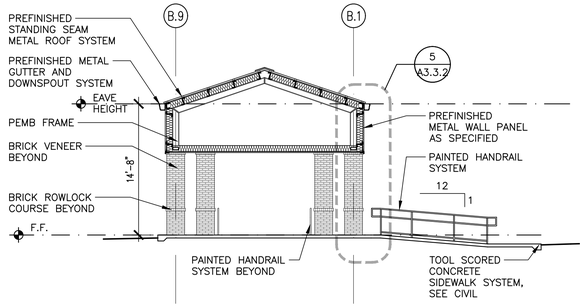
1 ENLARGED STAIR AND RAMP PLAN

1/4" = 1'–0"



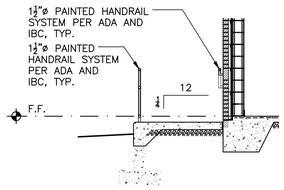
2 ENLARGED STAIR SECTION

1/4" = 1'–0"



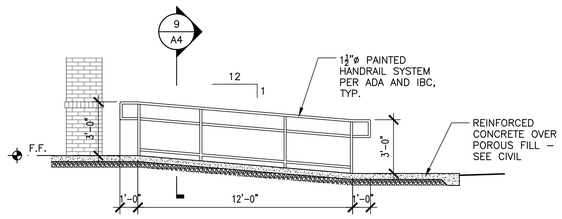
5 BUILDING SECTION

1/8" = 1'–0"



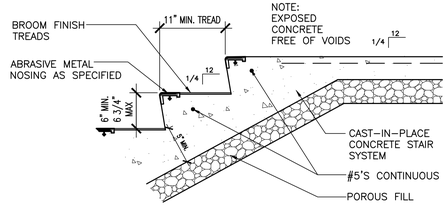
3 ENLARGED RAMP SECTION

1/4" = 1'–0"



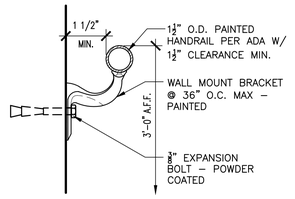
4 ENLARGED RAMP SECTION

1/4" = 1'–0"



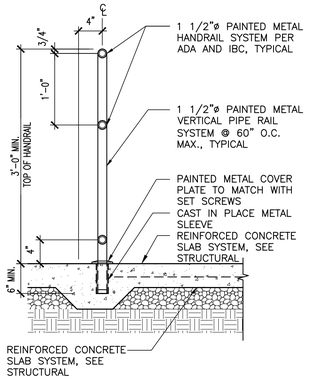
6 STAIR DETAIL

1" = 1'–0"



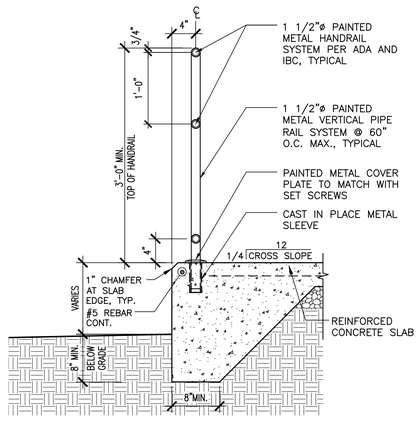
7 HANDRAIL DETAIL

3" = 1'–0"



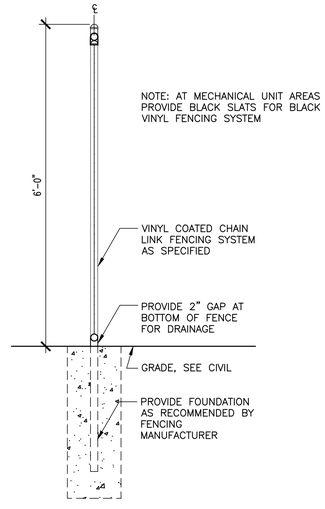
8 HANDRAIL DETAIL

1" = 1'–0"



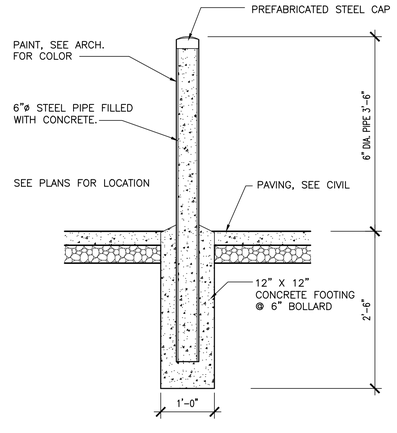
9 HANDRAIL DETAIL

1" = 1'–0"



10 FENCE DETAIL

3/4" = 1'–0"



11 BOLLARD DETAIL

3/4" = 1'–0"

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

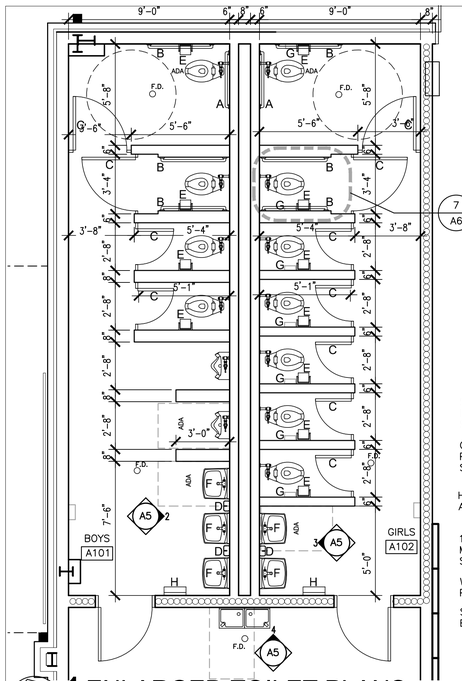
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
STAIR AND RAMP PLANS, SECTIONS, AND DETAILS

PROJ. MGR.: M.S.CALMA
DRAWN: E.B.
Rasco
DATE: APRIL 25, 2023
REVISIONS

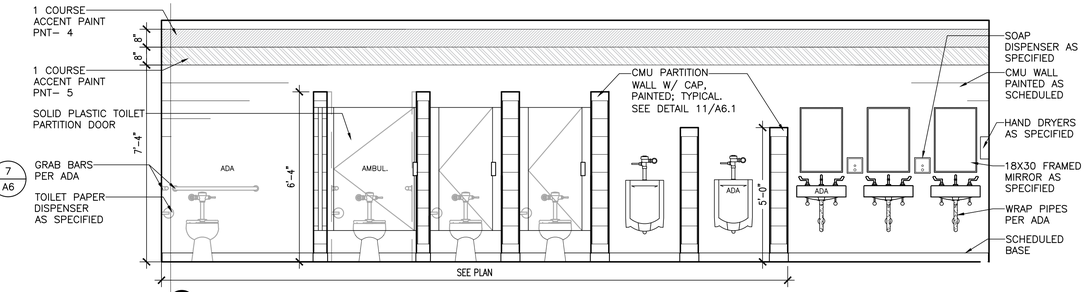
JOB NO. 22-131
SHEET NO:
A4
11 OF 15

0 1" 2"



1 ENLARGED TOILET PLANS @A101,A102

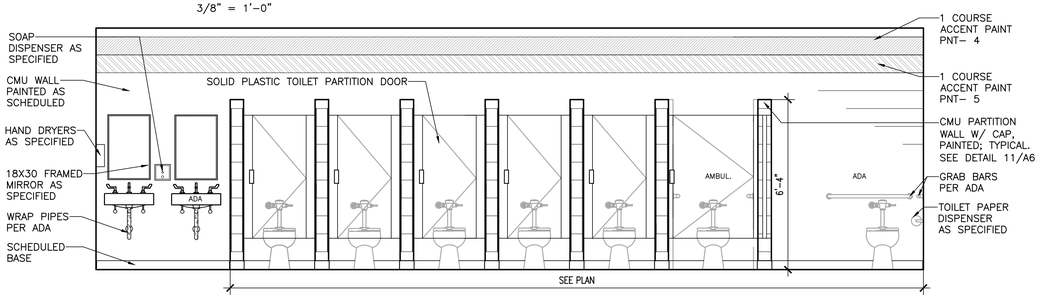
1/4" = 1'-0"



2 INTERIOR ELEVATION @BOYS A101

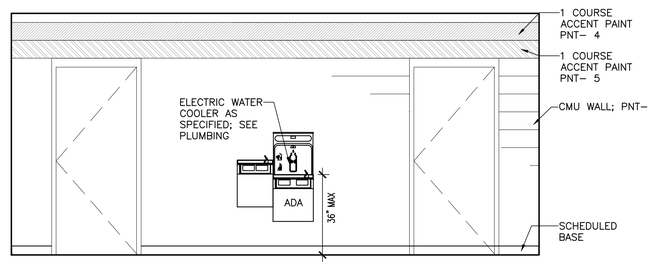
3/8" = 1'-0"

TOILET ACCESSORY LEGEND	
A	36" S.S. GRAB BAR
B	42" S.S. GRAB BAR
C	COAT HOOK (MOUNTED ON STALL SIDE OF DOOR)
D	SOAP DISPENSER
E	TOILET TISSUE DISPENSER
F	FRAMED MIRROR 18" X 36"
G	FEMININE NAPKIN DISPOSAL
H	ELECTRIC HAND DRYER
J	MOP RACK



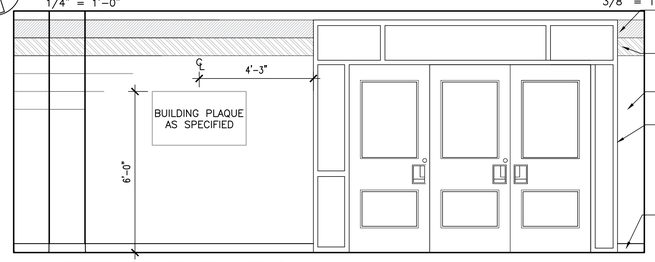
3 INTERIOR ELEVATION @GIRLS A102

3/8" = 1'-0"



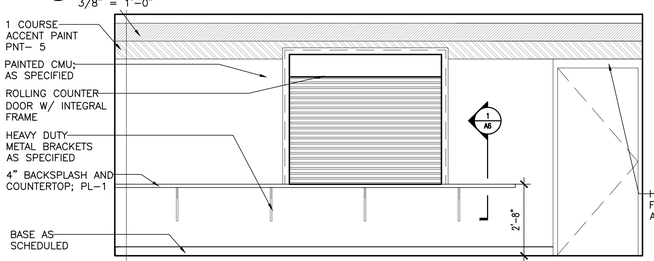
4 INTERIOR ELEVATION @ EWC

3/8" = 1'-0"



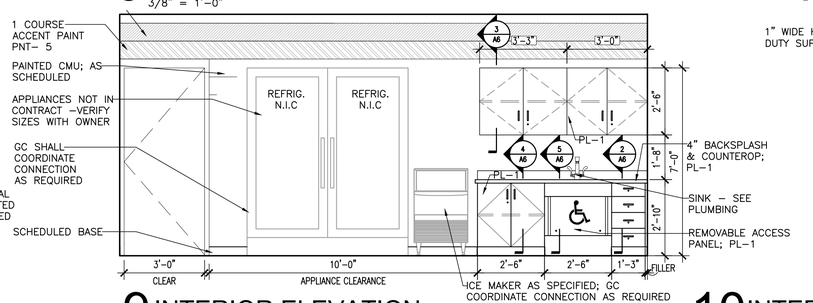
5 INTERIOR ELEVATION @ LOBBY

3/8" = 1'-0"



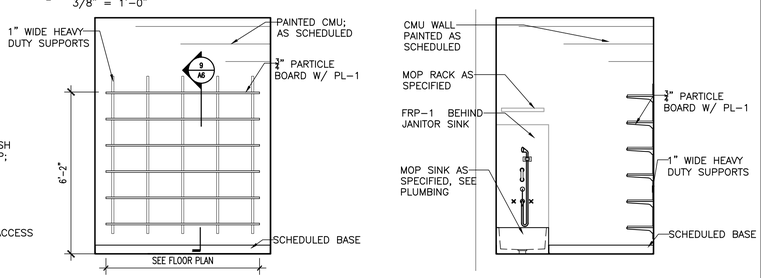
6 INTERIOR ELEVATION @ LOBBY

3/8" = 1'-0"



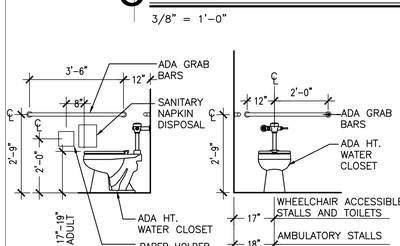
7 INTERIOR ELEVATION @ LOBBY

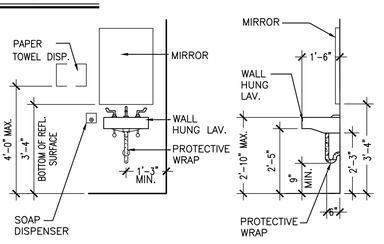
3/8" = 1'-0"



8 INTERIOR ELEVATION @ CONCESSIONS

3/8" = 1'-0"



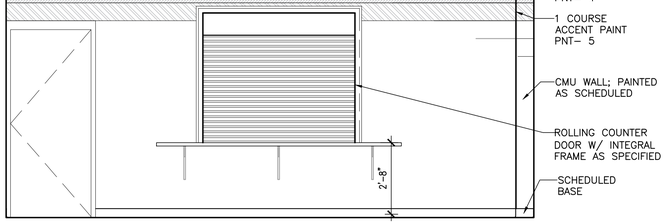


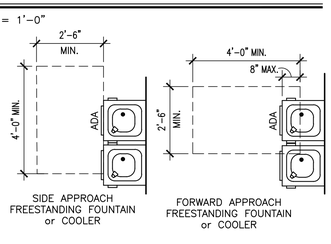
TYPICAL ADA DETAILS

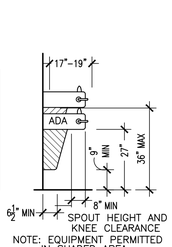
3/8" = 1'-0"

9 INTERIOR ELEVATION @ CONCESSIONS

3/8" = 1'-0"

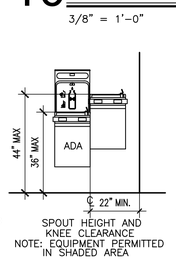






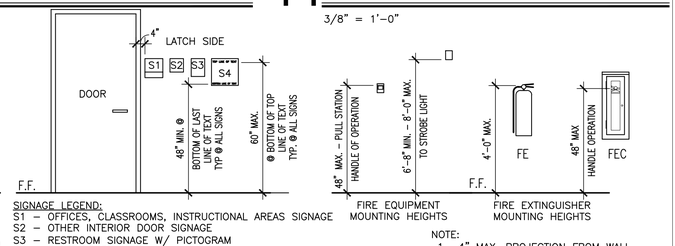
10 INTERIOR ELEVATION @STORAGE A109

3/8" = 1'-0"



11 INTERIOR ELEVATION @JANITOR A104

3/8" = 1'-0"



LATHAN ARCHITECTS

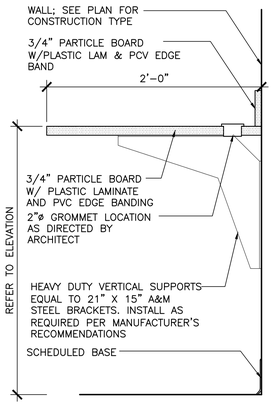
NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
ENLARGED TOILET PLANS, TOILET ELEVATIONS, INTERIOR ELEVATIONS, AND ADA DETAILS

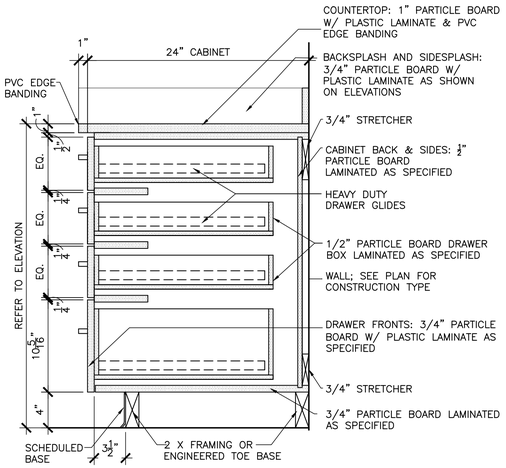
PROJ. MGR.: M.S.CALMA
DRAWN: K.GILBERT
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
A5
12 OF 15



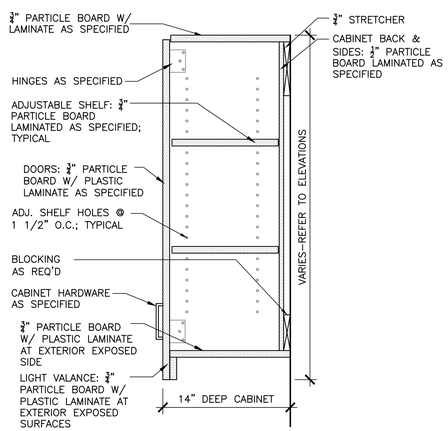
1 SECTION @WORKSPACE

1 1/2" = 1'-0



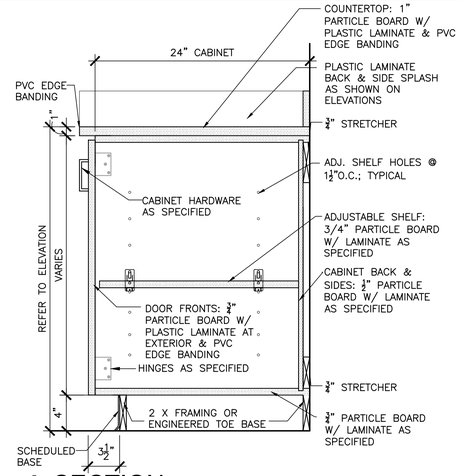
2 SECTION @4 DRAWER BASE CABINET

1 1/2" = 1'-0



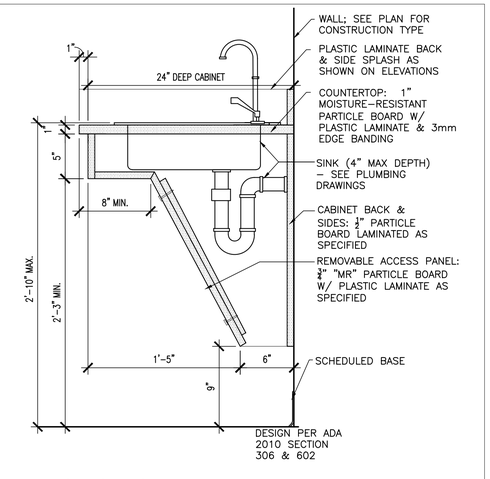
3 SECTION @ WALL CABINET

1 1/2" = 1'-0



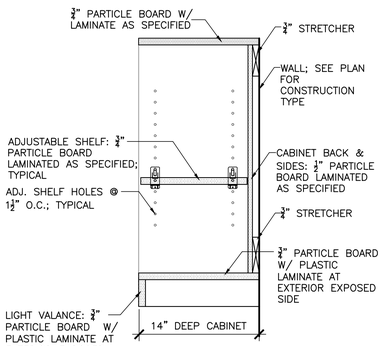
4 SECTION @ BASE CABINET WITH DOOR

1 1/2" = 1'-0



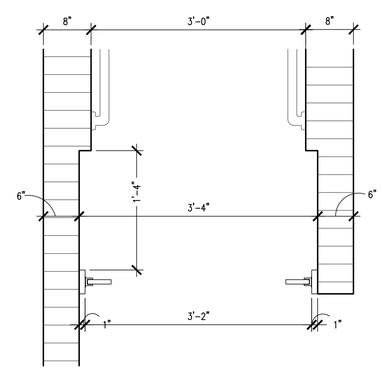
5 SECTION @ ADA SINK

1 1/2" = 1'-0



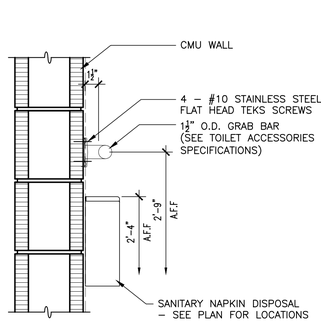
6 SECTION @ OPEN WALL CABINET

1 1/2" = 1'-0



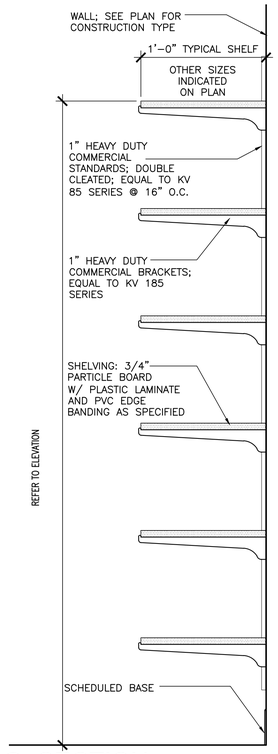
7 PLAN DETAIL @ AMBULATORY STALL

1" = 1'-0"



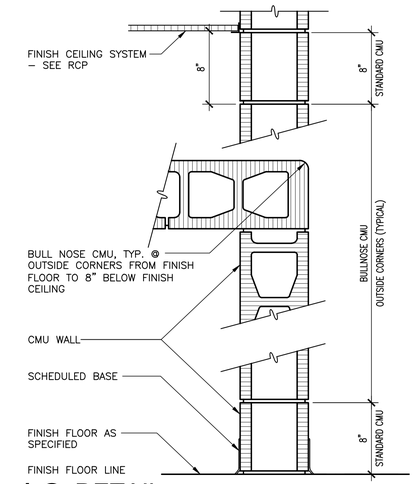
8 GRAB BAR DETAIL

1 1/2" = 1'-0



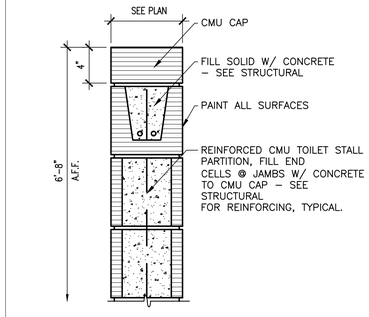
9 SECTION @STORAGE SHELVES

1 1/2" = 1'-0



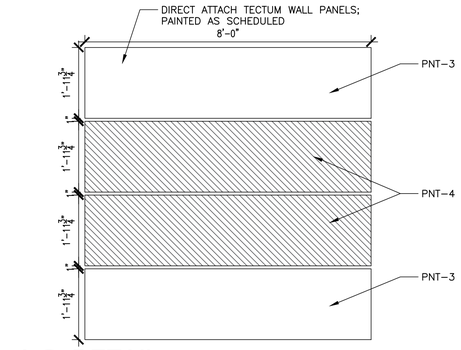
10 DETAIL @ BULL NOSE DETAIL

1 1/2" = 1'-0



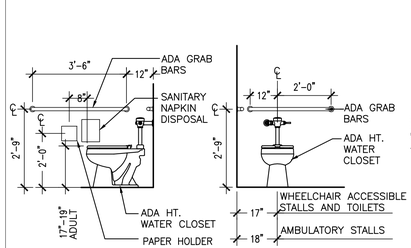
11 DETAIL @ PARTITION CAP DETAIL

1 1/2" = 1'-0



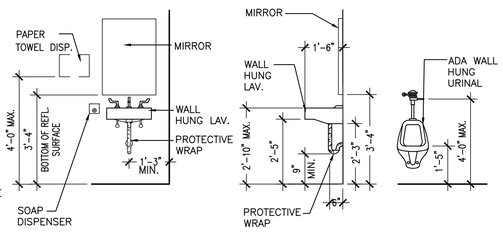
12 DETAIL @ ACOUSTIC WALL PANELS

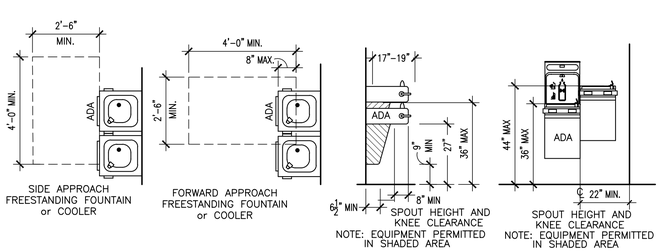
1 1/2" = 1'-0

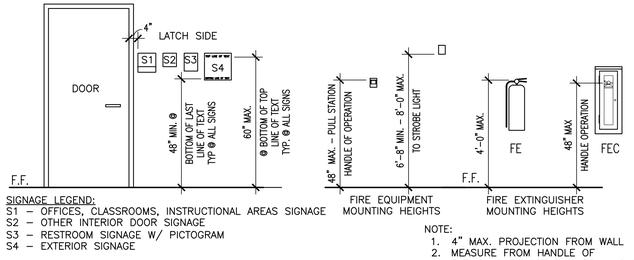


TYPICAL ADA DETAILS

3/8" = 1'-0"







LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

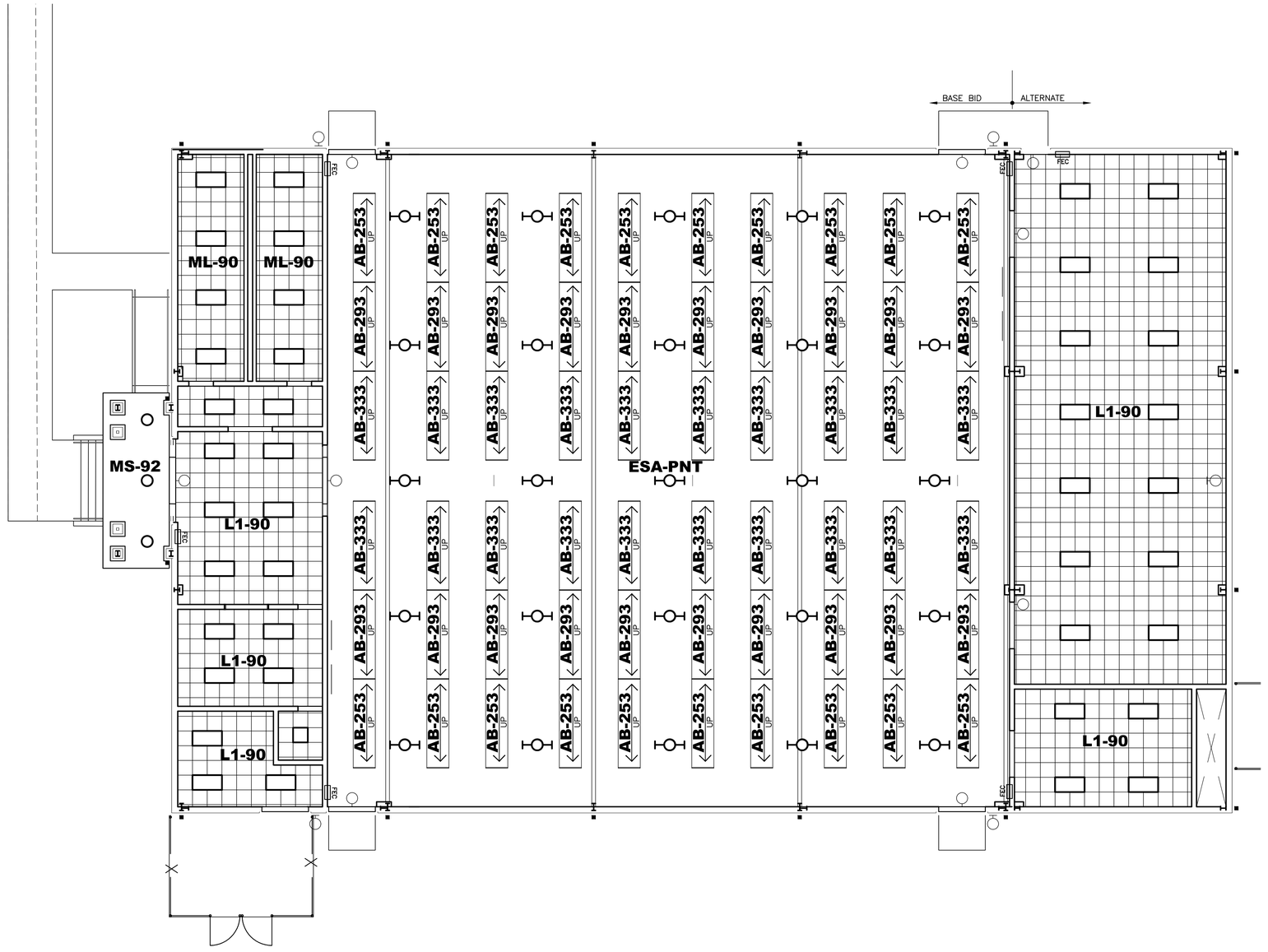
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
MILLWORK, SECTIONS AND DETAILS

PROJ. MGR.: M.S.CALMA
DRAWN: K. GILBERT
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
A6
13 OF 15

0 1" 2"



1 REFLECTED CEILING PLAN
1/8" = 1'-0"

CEILING LEGEND

FIXTURE TYPES - SEE ELECTRICAL

CEILING TYPE	CEILING HEIGHTS
MS- PRE-FINISHED METAL SOFFIT	90 = 9'-0" AFF
ESA - EXPOSED STRUCTURE ABOVE - PAINTED	280 = 28'-0" AFF
L1 - 2 x 2 LAY-IN ACOUSTIC CEILING TILE; AS SPECIFIED	
ML - 2x2 MOISTURE RESISTANT LAY-IN CEILING TILE; AS SPECIFIED	
AB - ACOUSTIC BANNER	

CEILING TYPE — L1-90 — CEILING HEIGHT

CEILING NOTES

- AFF = ABOVE FINISH FLOOR
- ALL CEILING HEIGHTS ARE FROM ADJACENT FINISHED FLOOR
- CEILING HEIGHTS INDICATED ARE MINIMUM HEIGHTS. COORDINATE W/ PLUMBING, MECHANICAL, AND ELECTRICAL TO INSTALL CEILINGS AS HIGH AS POSSIBLE.
- ALL CEILING GRIDS ARE TO BE CENTERED IN ROOM UNLESS SHOWN OR NOTED OTHERWISE
- USE 2x4 LAY-IN CEILING TILES CUT TO FIT AT ALL LOCATIONS LESS THAN 12" AT PERIMETER OF ROOM. WHERE 2x4 TILES OCCUR THEY SHALL MATCH SPECIFIED TILE AS INDICATED FOR EACH ROOM.
- COORDINATE W/ PLUMBING, MECHANICAL AND PLUMBING DRAWINGS AND PROVIDE FRAMING AS REQUIRED TO ACCOMMODATE MECHANICAL AND PLUMBING SYSTEMS
- COORDINATE MECHANICAL/ELECTRICAL FIXTURES LOCATED IN HIGH CEILINGS; ALL EQUIPMENT LOCATED SHALL MATCH COLOR OF CEILING GRID/CEILING TILE.

LIGHTING/ELECTRICAL NOTES

COORDINATE LIGHTING LAYOUTS WITH ELECTRICAL DRAWINGS. CONTACT ARCHITECT WITH ANY DISCREPANCIES

LATHAN
ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

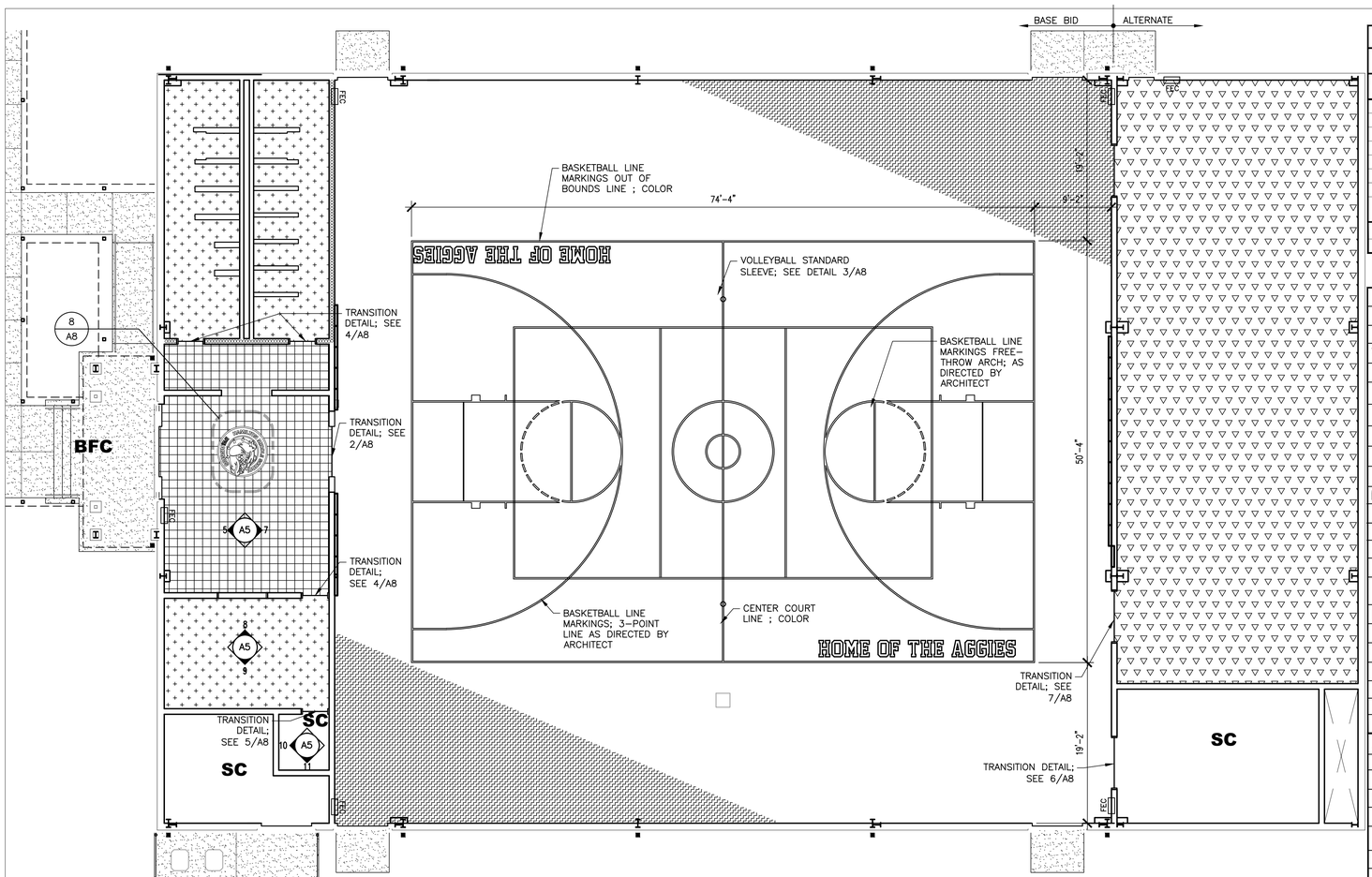
STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
REFLECTED CEILING PLAN, LEGENDS AND NOTES

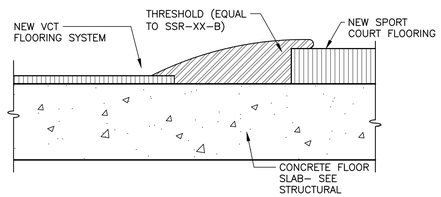
PROJ. MGR.: M.S.CALMA
DRAWN: K. GILBERT
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
A7
14 OF 15

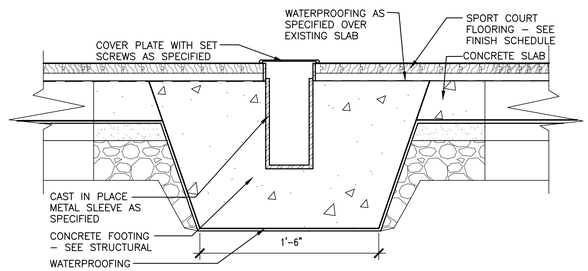
0 1" 2"



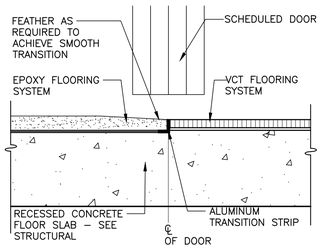
1 FINISH FLOOR PLAN
1/8" = 1'-0"



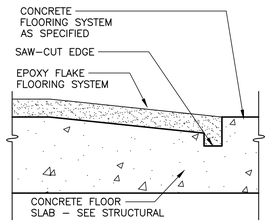
2 TRANSITION DETAIL @SPORT COURT TO VCT
NOT TO SCALE



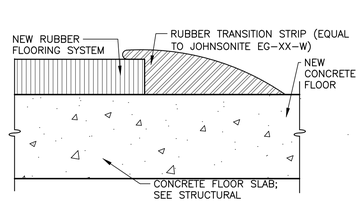
3 DETAIL @ NEWCOMB (VOLLEYBALL) POLE SLEEVE
SCALE: 1-1/2" = 1'-0"



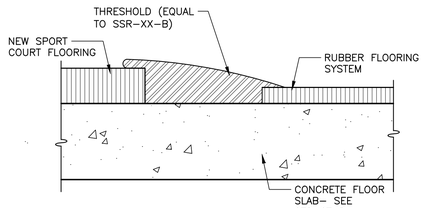
4 TRANSITION DETAIL @EPOXY TO VCT
NOT TO SCALE



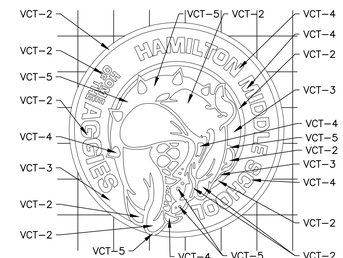
5 TRANSITION DETAIL @EPOXY TO CONCRETE
NOT TO SCALE



6 TRANSITION DETAIL @SPORT COURT TO CONCRETE
NOT TO SCALE



7 TRANSITION DETAIL @RUBBER FLOORING TO SPORT COURT
NOT TO SCALE



8 ENLARGED LOGO @A100
1/2" = 1'-0"

FINISH SCHEDULE

BASE BID

ROOM NO.	ROOM NAME	FLOOR	BASE	MILLWORK FACE	MILLWORK TOP	WALLS NORTH	WALLS SOUTH	WALLS EAST	WALLS WEST	DOOR FRAME	CEILING/SOFFIT PAINT	NOTES
A100	LOBBY	VCT-1	RB-1	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	ACCENT STRIPE; SEE ELEVATIONS
A101	BOYS	ERF-1	RB-1	-	-	PNT-1,3,4	PNT-1,3,4	PNT-1,3,4	PNT-1,3,4	PNT-2	PNT-3	EPOXY PAINT IN WET AREAS
A102	GIRLS	ERF-1	RB-1	-	-	PNT-1,3,4	PNT-1,3,4	PNT-1,3,4	PNT-1,3,4	PNT-2	PNT-3	EPOXY PAINT IN WET AREAS
A103	CONCESSIONS	ERF-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	EPOXY PAINT IN WET AREAS
A104	JANITOR	SC	CTB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	EPOXY PAINT IN WET AREAS
A105	GYM	RSF-1	CTB-1	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	
A106	MECHANICAL	SC		-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	

ALTERNATE

A107	WEIGHT ROOM	RSF - 2		-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	---	
A108	STORAGE	SC		-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	---	

BASE(RUBBER/CERAMIC/PORCELAIN/WOOD)

ITEM	MANUFACTURER	ITEM NUMBER/NAME	LOCATION
RB-1	TARKETT	40 GREY WG	AS SPECIFIED IN FINISH SCHEDULE

VINYL COMPOSITE TILE FLOORING

ITEM	MANUFACTURER	ITEM NUMBER/NAME	LOCATION
VCT-1	TARKETT	COLLECTION: STANDARD EXCELON COLOR: NEUTRAL	FIELD
VCT-2	TARKETT	COLLECTION: STANDARD EXCELON COLOR: GRAY	WATER JET LOGO
VCT-3	TARKETT	COLLECTION: STANDARD EXCELON COLOR: WHITE	WATER JET LOGO
VCT-4	TARKETT	COLLECTION: STANDARD EXCELON COLOR: BLACK	WATER JET LOGO
VCT-5	TARKETT	COLLECTION: STANDARD EXCELON COLOR: MAROON	WATER JET LOGO

MODULAR SPORT COURT

ITEM	MANUFACTURER	ITEM NUMBER/NAME	LOCATION
MSC-1	SPORT COURT	COLOR: WOODGRAIN (LIGHT)	GYMNASIUM (FIELD)

PLASTIC LAMINATE

ITEM	MANUFACTURER	ITEM NUMBER/NAME	LOCATION
PL-1	DECOTONE SURFACES	COLOR: LT 2315 MT DARK STEEL	STORAGE A102, JANITOR A103

PAINT

ITEM	MANUFACTURER	ITEM NUMBER/NAME	TYPE/LOCATION
PNT-1	SHERWIN WILLIAMS	COLOR: SW 7049 NUANCE	GENERAL WALLS
PNT-2	SHERWIN WILLIAMS	COLOR: SW 7669 SUMMIT GRAY	GENERAL TRIM
PNT-3	SHERWIN WILLIAMS	COLOR: SW 7007 CEILING BRIGHT WHITE	CEILING/SOFFIT
PNT-3	SHERWIN WILLIAMS	COLOR: SW 7007 CEILING BRIGHT WHITE	CEILING/SOFFIT
PNT-3	SHERWIN WILLIAMS	COLOR: SW --- TBD - MAROON	ACCENT STRIPE AS SCHEDULED

ACOUSTIC BANNERS

ITEM	MANUFACTURER	ITEM NUMBER/NAME	TYPE/LOCATION
AB-1	GS ACOUSTICS	---	SEE RCP

EPOXY RESIN FLOORING

ITEM	MANUFACTURER	ITEM NUMBER/NAME	TYPE/LOCATION
ERF-1	TORGINAL	4 -COLOR B CUSTOM COLOR B 1/4" BROADCAST FLAKE	GENERAL WALLS

RUBBER SPORT FLOORING

ITEM	MANUFACTURER	ITEM NUMBER/NAME	TYPE/LOCATION
RSF-1	--	---	---

FINISH ABBREVIATION LEGEND

APF	ACOUSTIC PANEL FABRIC	MSC	MODULAR SPORT COURT	RB	RUBBER BASE
CC	COATED CONCRETE	PAP	PRINTED ACOUSTIC PANEL	RFT	RUBBER FLOOR TILE
CPT	CARPET	PL	PLASTIC LAMINATE	SC	STAINED/SEALED CONCRETE
CWT	CERAMIC WALL TILE	PNT	PAINT	SS	SOLID SURFACE
CTB	CERAMIC TILE BASE	PFT	PORCELAIN FLOOR TILE	SW	STAINED WOOD
FRP	FIBERGLASS REINFORCED PLASTIC	PFMP	PREFINISHED METAL PANELING	TS	TACKABLE SURFACE
GYP	GYPSUM BOARD	QFB	QUARTZ RESIN BASE	VCT	VINYL COMP. TILE
LVT	LUXURY VINYL TILE	QFS	QUARTZ RESIN FLOOR	WB	WOOD BASE
				WF	WOOD FLOORING

FINISH NOTES

ALL WALLS TO BE PAINTED PNT-1 UNLESS NOTED OTHERWISE.

ALL WALLS LOCATED IN WET AREAS,RESTROOMS, JANITOR CLOSETS, ETC. SHALL HAVE EPOXY BASED PAINT

FINISH PATTERN LEGEND

- SC — SC-1 SEALED CONCRETE
- RF-1 RUBBER SPORT FLOORING
- MSC-1 MODULAR SPORT COURT
- ERF-1 EPOXY RESIN FLOORING
- VCT-1 VINYL COMPOSITE TILE
- BFC — BFC BROOM FINISHED CONCRETE

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

STATE OF ALABAMA
No. 3365
RICK N. LATHAN
REGISTERED ARCHITECT

SHEET TITLE:
FINISH FLOOR PLAN, DETAILS, LEGENDS, AND NOTES

PROJ. MGR.: M.S.CALMA
DRAWN:
Rasco
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
A8
15 OF 15

0 1" 2"

GENERAL NOTES

1.0 DESIGN CRITERIA

1.1 CODES AND SPECIFICATIONS:

A. GENERAL BUILDING CODE:
INTERNATIONAL BUILDING CODE, 2021 EDITION.

B. CONCRETE:
BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-19)

C. STRUCTURAL STEEL:
SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (ANSI/AISC 360-16)

D. MASONRY:
SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602-16)

BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (TMS 602-16)

NATIONAL CONCRETE MASONRY ASSOCIATION'S STANDARD PRACTICES AND "SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY"

E. COLD-FORMED STEEL FRAMING: AISI NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AMERICAN IRON AND STEEL INSTITUTE (AISI S100-16(2020) W/S2-20)

OTHER APPLICABLE AISI STANDARDS, AMERICAN IRON AND STEEL INSTITUTE, LATEST EDITION

1.2 DESIGN GRAVITY LOADS (PSF):

A. DEAD LOADS:
ANY CHANGES IN CONSTRUCTION MATERIALS FROM THOSE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE REPORTED BY THE GENERAL CONTRACTOR TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF LOAD-CARRYING CAPACITY OF THE STRUCTURE.

B. ROOF LIVE LOADS:
WHERE PERMITTED ROOF LIVE LOADS ARE REDUCED FROM THE BASE VALUE SHOWN BELOW IN ACCORDANCE WITH IBC SECTION 1607.14

ROOF---20

C. ROOF SNOW LOADS:
GROUND SNOW LOAD (Pg)------------------------------------10.0
IMPORTANCE FACTOR (I)------------------------------------1.0
EXPOSURE FACTOR (Ce)-------------------------------------1.0
THERMAL FACTOR (Ct)--------------------------------------1.0

1.3 DESIGN LATERAL LOADS:

A. WIND LOADS:
BASIC WIND SPEED (3-SECOND GUST)----------------------112MPH
WIND IMPORTANCE FACTOR (I)-------------------------------1.0
WIND EXPOSURE CATEGORY-------------------------------------C
INTERNAL PRESSURE COEFFICIENTS-------------------- +/- 0.18
SEE TYPICAL DETAILS FOR COMPONENT AND CLADDING LOADS

B. SEISMIC LOADS:
MAPPED SPECTRAL RESPONSE ACCELERATIONS:
SS---0.273
S1---0.100
SITE CLASS---D
SPECTRAL RESPONSE COEFFICIENTS:
SDS--0.288
SD1--0.160
SEISMIC DESIGN CATEGORY------------------------------------C

THE FOLLOWING INFORMATION SHALL BE PROVIDED BY THE METAL BUILDING MANUFACTURER:

BASIC SEISMIC FORCE RESISTING SYSTEM
DESIGN BASE SHEAR
SEISMIC RESPONSE COEFFICIENT, Cs
RESPONSE MODIFICATION FACTOR, R
ANALYSIS PROCEDURE
IMPORTANCE FACTOR, I

2.0 GENERAL CONDITIONS

2.1 THE STRUCTURAL DRAWINGS AND SPECIFICATIONS ARE A PORTION OF THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL REFERENCE AND COORDINATE WITH OTHER DISCIPLINE'S DRAWINGS. ANY DISCREPANCIES OR OMISSIONS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND STRUCTURAL DESIGN GROUP.

2.2 ALL REPORTS, PLANS, SPECIFICATIONS, COMPUTER FILES, FIELD DATA, NOTES, AND OTHER DOCUMENTS AND INSTRUMENTS PREPARED BY STRUCTURAL DESIGN GROUP AS INSTRUMENTS OF SERVICE SHALL REMAIN THE PROPERTY OF STRUCTURAL DESIGN GROUP. STRUCTURAL DESIGN GROUP SHALL RETAIN ALL COMMON LAW, STATUTORY, AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT THERETO.

2.3 SUBMIT ONLY THREE COPIES OF SHOP DRAWINGS TO STRUCTURAL DESIGN GROUP UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS. TWO PRINTS WILL BE RETURNED. ALL ADDITIONAL PRINTS REQUIRED BY THE CONTRACTOR ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHOULD BE MADE AFTER THE PRINTS ARE RETURNED. IF ADDITIONAL SETS ARE SUBMITTED, THEY WILL BE RETURNED UNMARKED.

2.4 WHERE SHOP DRAWINGS, CALCULATIONS, OR SUBMITTALS ARE CALLED FOR IN THE PROJECT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) AND ARE NOT PROVIDED BY THE CONTRACTOR, THE CONTRACTOR ASSUMES TOTAL RESPONSIBILITY FOR THE DESIGN AND ASSOCIATED WORK.

2.5 ENGINEER'S SHOP DRAWING REVIEW IS LIMITED TO REVIEW FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT REFLECTED IN THE STRUCTURAL PORTION OF THE CONTRACT DOCUMENTS. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE DRAWINGS, SPECIFICATIONS OR OTHER PROJECT CONTRACT DOCUMENTS. NO RESPONSIBILITY IS ASSUMED OR IMPLIED FOR THE CORRECTNESS OF DIMENSIONS OR DETAILS. THIS REVIEW DOES NOT AUTHORIZE CHANGES TO THE CONTRACT SUM UNLESS STATED IN A SEPARATE WRITTEN FORM OR CHANGE ORDER. CONTRACTOR SHALL CONFIRM AND CORRELATE ALL QUANTITIES AND DIMENSIONS, SELECT FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATE HIS WORK WITH THAT OF OTHER TRADES, AND PERFORM HIS WORK IN A SAFE AND SATISFACTORY MANNER. CONTRACTOR SHALL ALSO REFER TO THE REQUIREMENTS OF THE GENERAL AND SUPPLEMENTARY GENERAL CONDITIONS.

2.6 ALL DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS, UNLESS NOTED.

2.7 VERIFY ALL DIMENSIONS AND DETAILS SHOWN ON THESE DRAWINGS. ANY DISCREPANCIES OR OMISSIONS FOUND SHALL BE REPORTED TO THE ENGINEER AND OTHER DESIGN PROFESSIONALS AS APPROPRIATE FOR RESOLUTION PRIOR TO PROCEEDING WITH ANY RELATED WORK.

2.8 THESE DRAWINGS DO NOT INCLUDE PROVISIONS TO SATISFY JOB SITE SAFETY REQUIREMENTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING SAFETY DURING CONSTRUCTION, AND FOR CONFORMANCE TO ALL APPLICABLE OSHA STANDARDS. JOBSITE VISITS BY ENGINEER SHALL NOT CONSTITUTE APPROVAL, AWARENESS OR LIABILITY FOR ANY HAZARDOUS CONDITIONS.

2.9 STRUCTURAL DESIGN GROUP IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, SAFETY PROCEDURES, CONSTRUCTION SUPERVISION OR SITE SAFETY, AND DOES NOT HAVE THE AUTHORITY TO STOP WORK FOR THESE ITEMS.

2.10 STRUCTURAL OBSERVATION IS VISUAL OBSERVATION OF THE IN PLACE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT THE TIME OF THE OBSERVATION AND SHALL NOT BE CONSTRUED AS INSPECTION OR APPROVAL OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING TESTING AND SPECIAL INSPECTIONS PER THE REQUIREMENTS IN THE PROJECT MANUAL.

2.11 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR BRACING AND SHORING ALL EXCAVATIONS, DEWATERING OF EXCAVATION FROM EITHER SURFACE WATER, GROUND WATER OR SEEPAGE, TEMPORARY AND EXISTING STRUCTURES, AND PARTIALLY COMPLETED PORTIONS OF THE WORK TO ASSURE THE SAFETY OF ANY PERSON COMING IN CONTACT WITH THE WORK.

2.12 OBSERVATION BY THE ENGINEER OF RECORD'S OFFICE DOES NOT REPLACE INSPECTIONS AND TESTING BY THE TESTING AGENCY OR SPECIAL INSPECTOR.

2.13 ALL SUBMITTALS: IF THERE ARE QUESTIONS, CLARIFICATIONS, MODIFICATIONS, OR ITEMS WHERE INFORMATION, A RESPONSE, OR APPROVAL IS REQUESTED, SUCH ITEMS SHALL BE WRITTEN ON THE TRANSMITTAL OR COVER SHEET. INDICATING SUCH ITEMS ON THE SHOP DRAWINGS, WITHIN ANY CALCULATIONS, OR PRODUCT DATA IS NOT SUFFICIENT. WHERE SUCH ITEMS ARE NOT SPECIFICALLY LISTED ON THE TRANSMITTAL OR COVER SHEET IN ACCORDANCE WITH THESE GENERAL NOTES AND THE SPECIFICATIONS, SUCH ITEMS ARE NOT TO BE CONSIDERED APPROVED OR CONSIDERED. IF A QUESTION, CLARIFICATION, MODIFICATION, OR REQUEST FOR INFORMATION IS MADE AND NOT SPECIFICALLY RESPONDED TO BY STRUCTURAL DESIGN GROUP, NO APPROVAL OR CONSENT SHALL BE ASSUMED. THE CONTRACTOR SHALL ASSUME TOTAL LIABILITY AND RESPONSIBILITY IN ALL CASES WHERE SPECIFIC WRITTEN RESPONSE FROM STRUCTURAL DESIGN GROUP IS NOT OBTAINED, REGARDLESS OF ANY OTHER ACTIONS TAKEN BY STRUCTURAL DESIGN GROUP.

3.0 FOUNDATIONS

3.1 GEOTECHNICAL REPORT: FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT BY TERRACON TITLED "HAMILTON MIDDLE SCHOOL GYMNASIUM TERRACON PROJECT NO. E1235010" DATED MARCH 28, 2023, ALONG WITH ANY SUPPLEMENTAL CORRESPONDENCE. THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT FROM THE OWNER AND FOLLOW ALL REQUIREMENTS AND RECOMMENDATIONS. GEOTECHNICAL RECOMMENDATIONS SHALL TAKE PRECEDENCE OVER THE ITEMS THAT FOLLOW IN THIS SECTION OF THE STRUCTURAL GENERAL NOTES.

3.2 MAXIMUM ALLOWABLE BEARING PRESSURE PER GEOTECHNICAL REPORT: 2000 PSF.

NOTE: ALL FOOTING BEARING ELEVATIONS SHALL BE BEARING IN SIMILAR MATERIAL (NATIVE SOILS OR WEATHERED BEDROCK), EXTEND FOOTINGS AS NECESSARY WITH LEAN CONCRETE OR FLOWABLE FILL.

3.3 ALL FOUNDATION BEARING SURFACES SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE TO ENSURE THEIR COMPLIANCE WITH PRESSURES NOTED. ALL FOOTING ELEVATIONS ARE ESTIMATED AND MAY BE ADJUSTED IN THE FIELD BY THE GEOTECHNICAL ENGINEER.

3.4 SUBGRADE AND GRANULAR FILL SUPPORTING SLABS ON GRADE SHALL BE AS RECOMMENDED BY THE GEOTECHNICAL REPORT AND COMPACTED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER OR HIS APPROVED REPRESENTATIVE. SEE SPECIFICATIONS FOR VAPOR RETARDER BENEATH SLABS ON GRADE

3.5 GRANULAR FILL BENEATH SLABS, UNLESS NOTED OTHERWISE, SHALL BE 4" COMPACTED #57 STONE.

3.6 NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (TWO HORIZONTAL TO ONE VERTICAL) TO A FOOTING.

3.7 PROVIDE A MINIMUM OF 4" OF #57 STONE GRANULAR FILL SUPPORTING SLABS ON GRADE. THE BUILDING FLOOR SLAB SUBGRADE SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER OR HIS APPROVED REPRESENTATIVE. THE SUBGRADE SHALL BE INSTALLED TO A MINIMUM MODULUS OF SUBGRADE REACTION OF 100PSI. THE GEOTECHNICAL ENGINEER AND CONTRACTOR SHALL PERFORM EARTHWORK AS REQUIRED TO MEET THIS SPECIFICATION.

4.0 CONCRETE

4.1 CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.

4.2 CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS (PSI), TYPE OF CONCRETE, MAXIMUM WATER/CEMENTITIOUS RATIO, AIR CONTENT, SLUMP, AND CONCRETE USE:

STRENGTH	TYPE	MAX W/C	AIR	SLUMP	USE
3500	NORMAL WT.	0.53	----	3" TO 5"	FOOTINGS AND INTERIOR SLABS

4.3 REINFORCING BARS: ASTM A615 GRADE 60.

4.4 REINFORCING STEEL SHOWN IN SECTIONS AND DETAILS ARE A SCHEMATIC INDICATION THAT REINFORCING EXISTS. SEE SCHEDULES, SECTION NOTES AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.

4.5 REINFORCING BAR PLACING ACCESSORIES IN ACCORDANCE WITH ACI MANUAL OF STANDARD PRACTICE. WHERE CONCRETE IS EXPOSED IN FINISHED BUILDING, PROVIDE ACCESSORIES WITH RUSTPROOF LEGS. WHERE CONCRETE IS SAND-BLASTED OR BUSH-HAMMERED, PROVIDE ACCESSORIES OF STAINLESS STEEL.

4.6 DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315. REINFORCEMENT SHALL NOT BE WELDED UNLESS NOTED OR APPROVED BY THE ENGINEER.

4.7 ALL SPLICES SHALL BE CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.

4.8 ALL REINFORCING MARKED "CONT." INDICATES REINFORCING SHALL BE "CONTINUOUS" SHALL BE SPLICED WITH CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.

4.9 PROVIDE CORNER BARS AT ALL CORNERS OF CONTINUOUS REINFORCING IN FOOTINGS, SLABS, OR WALLS. CORNER BARS SHALL BE LONG ENOUGH TO PROVIDE A CLASS "B" LAP SPLICE OF REINFORCING BARS.

4.10 CONCRETE COVERAGE OF REINFORCEMENT, UNLESS NOTED:

FOOTINGS---------------------------------2" TOP & 3" BOTTOM & SIDES
COLUMNS & PEDESTALS----------------------------1-1/2" CLEAR OF TIES
SLAB FACES NOT EXPOSED TO WEATHER OR EARTH---------------------3/4"
SLAB FACES EXPOSED TO WEATHER
A. #5 AND LESS---1-1/2"
B. #6 AND GREATER--2"

NOTE: SLAB ON GRADE WWR OR REINFORCEMENT EACH WAY SHALL BE 2" CLEAR FROM TOP OF SLAB. SEE EARTH SUPPORTED SLABS SECTION BELOW.

4.11 COLUMN, PEDESTAL AND WALL VERTICAL REINFORCING: DOWEL TO FOUNDATION WITH HOOKED BARS OF SAME SIZE AND SPACING AS VERTICAL REINFORCING.

4.12 WELDED WIRE REINFORCEMENT (WWR): ASTM A185. MINIMUM LAP AND EMBEDMENT TO BE THE GREATER OF ONE CROSS WIRE SPACING PLUS 2 INCHES OR 6 INCHES.

4.13 EARTH SUPPORTED SLABS:

5" THICK, REINFORCED WITH 6X6 W2.9/W2.9 WWR FLAT SHEETS SUPPORTED 2" CLEAR OF TOP OF SLAB, UNLESS NOTED. WWR TO BE CHAIRED AT 36 INCHES EACH WAY MINIMUM. SEE FOUNDATION NOTES FOR SUBGRADE REQUIREMENTS.

PROVIDE CONTROL AND CONSTRUCTION JOINTS AT MAXIMUM OF 3-4 TIMES SLAB THICKNESS IN FEET OR AS REQUIRED TO PREVENT UNCONTROLLED CRACKING PER ACI RECOMMENDATIONS. AS AN EXAMPLE, FOR A 4" THICK SLAB, PROVIDE JOINTS SPACED 12 - 16 FEET MAXIMUM. PANELS TO BE RECTANGULAR WITH LONG SIDE NOT TO EXCEED 1-1/2X SHORT SIDE. CUTTING SHOULD BE STARTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM BEING DISLODGE. CONTRACTOR SUBMIT PLAN SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS.

FLOOR DESIGN AND CONSTRUCTION BASIS IS ACI 302 AND 360, AND IT IS UNREALISTIC TO EXPECT CRACK-FREE OR CURL-FREE FLOORS. IT IS NORMAL TO EXPECT SOME AMOUNT OF CRACKING AND CURLING IN THE SLAB ON GRADE, AND SUCH OCCURRENCE DOES NOT NECESSARILY REFLECT ADVERSELY ON EITHER THE ADEQUACY OF THE FLOOR DESIGN OR THE QUALITY OF ITS CONSTRUCTION.

EARTH SUPPORTED SLABS SHALL BE MOIST CURED FOR A MINIMUM OF SEVEN DAYS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. CURING COMPOUNDS, UNLESS NOTED, SHALL BE A MINIMUM OF CLEAR, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND MEETING ASTM C 309, TYPE 1, CLASS B, SELF-DISSIPATING, CERTIFIED BY CURING COMPOUND MANUFACTURER TO NOT INTERFERE WITH BONDING OF FLOOR COVERING.

WHERE CONTROL JOINTS TERMINATE INTO NON-PARALLEL CONTROL JOINTS PROVIDE 2#4 X 6'-0" BARS MID DEPTH OF SLAB PERPENDICULAR TO TERMINAL CONTROL JOINT.

PROVIDE 2#4 X 6'-0" BARS MID DEPTH OF SLAB AT REENTRANT CORNERS.

4.14 CAST IN PLACE ALL SLEEVES AND INSERTS.

4.15 NO CONDUIT OR PIPE SHALL BE CAST IN THE SLAB ON GRADE WITHOUT THE WRITTEN APPROVAL OF STRUCTURAL DESIGN GROUP.

5.0 PREFABRICATED METAL BUILDING

5.1 METAL BUILDING MANUFACTURER SHALL BE A MEMBER OF MBMA (METAL BUILDING MANUFACTURERS ASSOCIATION) AND BE AISC CERTIFIED FOR CATEGORY MB.

5.2 METAL BUILDING SHALL BE DESIGNED IN ACCORDANCE WITH THE METAL BUILDING MANUFACTURERS ASSOCIATION'S (MBMA)'S 2018 METAL BUILDING SYSTEMS MANUAL. METAL BUILDING LIVE LOADS AND LATERAL LOADS TO MEET THE GENERAL BUILDING CODE NOTED ABOVE.

5.3 ANCHOR ROD SIZE, TOTAL LENGTH, AND LOCATION BY METAL BUILDING SUPPLIER. FOR ANCHOR ROD EMBEDMENT LENGTH, SEE SHEET S1.2. ANCHOR RODS PURCHASED AND INSTALLED BY GENERAL CONTRACTOR.

5.4 BEFORE FOOTING INSTALLATION, THE ANCHOR ROD EMBEDMENT LENGTHS MUST BE VERIFIED. THE FOOTING DEPTH SHALL BE THE SCHEDULED DEPTH OR THE ANCHOR ROD EMBEDMENT LENGTH PLUS 3 INCHES, WHICHEVER IS GREATER.

5.5 HORIZONTAL FORCE TRANSFER FROM METAL BUILDING COLUMN BASE TO CONCRETE SHALL BE BY THE METAL BUILDING SUPPLIER.

5.6 METAL BUILDING SUPPLIER TO VERIFY COLUMN LAYOUT. ANY CHANGES MUST BE SUBMITTED FOR REVIEW OF FOUNDATION DESIGN BEFORE CONSTRUCTION STARTS.

5.7 GRAVITY DESIGN LOADS:
LIVE LOAD: 20 PSF (REDUCIBLE AT RIGID FRAME RAFTERS AND COLUMNS ONLY)

DEAD LOAD: WEIGHT OF STRUCTURE

COLLATERAL LOAD: 10 PSF AND INCLUDE ADDITIONAL DEAD LOADS SUCH AS SPRINKLERS, MECHANICAL AND ELECTRICAL SYSTEMS, BASKETBALL GOALS, ETC.

5.8 DEFLECTION LIMITS FOR MEMBERS:
PURLINS AND RAFTERS: DL L/360 LL L/360 TL L/240
GIRTS: HORIZONTAL DEFLECTION OF L/600
OVERALL BUILDING DRIFT: H/300, WHERE "H" IS THE BUILDING EAVE HEIGHT.

5.9 ROOF PURLINS MUST BE CAPABLE OF RESISTING NET WIND PRESSURES (IN OR OUT) ASSUMING INTERIOR FLANGE UNBRACED EXCEPT WHERE FLANGE BRACING IS PROVIDED.

5.10 THE METAL BUILDING MANUFACTURER WILL BE RESPONSIBLE FOR COMPLETE DESIGN OF THE BUILDING STRUCTURAL FRAME (INCLUDING LATERAL LOADS) DOWN TO THE FOUNDATION. THE DESIGN SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

5.11 BEFORE FABRICATION AND INSTALLATION OF FOUNDATIONS, METAL BUILDING SUPPLIER SHALL SUBMIT DESIGN LOADS AND COLUMN REACTIONS TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CURRENT FOUNDATION DESIGN HAS BEEN BASED ON ASSUMED VALUES. THE FOOTING SIZES ARE NOT FINAL UNTIL METAL BUILDING REACTIONS HAVE BEEN PROVIDED AND REVIEWED. DO NOT FABRICATE REINFORCING STEEL OR INSTALL FOOTINGS PRIOR TO REVIEW OF METAL BUILDING SHOP DRAWINGS BY THIS OFFICE.

5.12 METAL BUILDING DESIGN CALCULATIONS' COVER SHEET AND ALL METAL BUILDING SHOP DRAWINGS AND ERECTION DRAWINGS SHALL BE SEALED AND SIGNED BY THE MANUFACTURER'S PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

5.13 ALL CONNECTIONS OF STRUCTURAL STEEL MEMBERS TO THE METAL BUILDING SHALL BE DESIGNED BY THE METAL BUILDING SUPPLIER TO RESIST THE FORCES INDICATED ON THE DRAWINGS. CALCULATIONS FOR THESE CONNECTIONS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW.

5.14 ALL COLUMNS SHALL BE ANALYZED AND DESIGNED AS HAVING PINNED BASES.

5.15 EXCEPT AS OTHERWISE APPROVED BY ARCHITECT, STRUCTURAL CLEARANCES SHALL BE MAINTAINED AS CURRENTLY INDICATED IN THE CONTRACT DOCUMENTS.

5.16 STANDING SEAM STEEL DECK SHALL NOT BE CONSIDERED AS PROVIDING DIAPHRAGM RESISTANCE FOR LATERAL WIND LOADS.

5.17 METAL BUILDING ENGINEER SHALL VISIT THE JOB SITE AT LEAST ONCE EVERY TWO WEEKS DURING ERECTION TO OBSERVE INSTALLATION OF METAL BUILDING FRAMING AND ISSUE REPORTS TO ARCHITECT/ENGINEER.

5.18 ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS ARE SUBJECT TO APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. ALL DEVIATIONS SHALL BE EXPRESSLY LISTED AND DEFINED IN THE SHOP DRAWING SUBMITTAL. ARCHITECT AND STRUCTURAL ENGINEER ARE NOT RESPONSIBLE FOR DISCOVERY OF DEVIATIONS NOT LISTED, AND APPROVAL OF UNLISTED DEVIATIONS SHALL NOT BE IMPLIED.

6.0 STRUCTURAL STEEL

6.1 FABRICATE AND ERECT ALL STRUCTURAL STEEL IN ACCORDANCE WITH AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".

6.2 THE STEEL FRAME IS "NON-SELF-SUPPORTING". ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL REQUIRED CONNECTIONS OR ELEMENTS ARE IN PLACE.

6.3 STRUCTURAL STEEL: ASTM A992 FOR WIDE FLANGE BEAMS AND COLUMNS; ASTM A36 FOR S, M, AND HP SHAPES AND CHANNELS; ASTM A36 FOR STIFFENER PLATES, BASE PLATES, COLUMN CAP PLATES, BEAM CONNECTION PLATES, AND STEEL ANGLES.

6.4 HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500, GRADE B

6.5 WELDED CONNECTIONS: E70XX ELECTRODES, MINIMUM SIZE FILLET WELD 3/16". WELDING QUALIFICATION, PROCEDURES AND PERSONNEL SHALL BE CERTIFIED ACCORDING TO AWS D1.1, THE STRUCTURAL WELDING CODE - STEEL.

6.6 THREADED AND PLAIN STEEL RODS: ASTM A36

6.7 HIGH STRENGTH THREADED RODS: ASTM A193 B7

6.8 ANCHOR RODS: ASTM F1554 GRADE 36 ANCHOR AND HEAVY HEX NUT, UNLESS OTHERWISE INDICATED. IF ANCHOR ROD ASSEMBLIES ARE NOT ENCASED IN MINIMUM OF 3" OF CONCRETE, ANCHOR ROD ASSEMBLIES ARE TO BE HOT DIP GALVANIZED.

6.9 HEADED STUDS: TYPE B SHEAR STUD CONNECTORS MADE FROM ASTM A108, GRADE 1015 OR 1020, COLD-FINISHED CARBON, AND COMPLYING WITH AWS D1.1.

6.10 CONNECTIONS:

A. BEARING TYPE A325-N IN ACCORDANCE WITH RCSC (LRFD OR ASD VERSION) "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". BOLTS THROUGH 4" WIDE BEAM FLANGES SHALL BE 5/8" DIAMETER. OTHER BOLTS SHALL BE 3/4" DIAMETER.

B. BOLTS SHOWN IN SECTIONS AND DETAILS ARE A SCHEMATIC INDICATION THAT BOLTS MAY BE USED. ACTUAL NUMBER, UNLESS SPECIFIED, TO BE IN ACCORDANCE WITH AISC.

C. ALL STRUCTURAL STEEL CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE DESIGNED TO RESIST FORCES INDICATED, BY THE CONTRACTOR.

1. WHERE BEAM REACTIONS ARE SHOWN ON THE DRAWINGS, THE CONNECTIONS SHALL DEVELOP THE REACTIONS SHOWN. WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNING AND DETAILING THE CONNECTION.

2. WHERE BEAM REACTIONS OR DESIGN FORCES ARE NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL CONTACT STRUCTURAL DESIGN GROUP FOR DIRECTION.

D. DESIGN CALCULATIONS FOR THE CONNECTIONS DESIGNED BY THE CONTRACTOR SHALL BE SUBMITTED FOR THE FILES OF THE ARCHITECT AND ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. SHOP DRAWINGS CONTAINING CONNECTIONS FOR WHICH CALCULATIONS HAVE NOT BEEN RECEIVED WILL BE RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL.

6.11 ALL STRUCTURAL STEEL, INCLUDING EXPOSED BOLTS, NUTS, WASHERS OR ANCHOR RODS, EXPOSED TO WEATHER IN THE FINAL CONFIGURATION OF THE STRUCTURE SHALL BE HOT-DIP GALVANIZED, UNLESS NOTED, PER ASTM A 123/A 123M. VENT HOLES SHALL BE FILLED AND GROUND SMOOTH AFTER GALVANIZING. DAMAGE TO GALVANIZING SHALL BE PAINTED WITH GALVANIZING REPAIR PAINT, SSPC-PAINT 20. SEE 05120 SPECIFICATION FOR PAINT REQUIREMENTS FOR STEEL THAT IS GALVANIZED AND PAINTED.

6.12 ALL STEEL EXPOSED TO WEATHER, INCLUDING STEEL LINTELS FOR MASONRY OPENINGS, EXCEPT WHERE FABRICATED OF APPROVED CORROSION-RESISTANT STEEL OR OF STEEL HAVING A CORROSION RESISTANT OR OTHER APPROVED COATING, SHALL BE PROTECTED AGAINST CORROSION WITH AN APPROVED COAT OF PAINT, ENAMEL, OR OTHER APPROVED PROTECTION.

6.13 ALL HANDRAILS, GUARDRAILS, AND EMBEDS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE DESIGNED IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE NOTED ABOVE, BY THE CONTRACTOR, UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. CALCULATIONS SHALL BEAR THE SEAL OF THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE SUBMITTED FOR THE FILES OF THE ARCHITECT AND SHALL BE INCLUDED WITH THE SHOP DRAWINGS.

6.14 WHERE STEEL BEAMS ARE CONTINUOUS OVER COLUMNS, PROVIDE WEB STIFFENER PLATES EACH SIDE OF BEAM WEB, OF THICKNESS EQUAL TO BEAM FLANGE THICKNESS, LOCATED IN ALIGNMENT WITH COLUMN WEB OR FLANGES OR CENTER LINE OF HSS COLUMNS.

6.15 PROVIDE 3/4" THICK CLOSURE PLATES ON THE ENDS OF TUBE STEEL BEAMS. SHOP WELD TO BEAM WITH 1/4" PARTIAL PENETRATION WELDS ALL AROUND.

7.0 STEEL DECK

7.1 DECK PROPERTIES AND ATTACHMENTS SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE.

7.2 DECK SHALL BE CONTINUOUS OVER THREE OR MORE SPANS. WHERE DECK SPANS LESS THAN THREE SPANS ARE REQUIRED, THEY SHOULD BE CLEARLY MARKED ON THE SHOP DRAWINGS.

7.3 ROOF DECK SHALL BE CONNECTED TO SUPPORTING STRUCTURE AS SHOWN IN THE TYPICAL DETAILS AND/OR PLAN NOTES.

A. MANUFACTURER SHALL VERIFY ROOF DECK ATTACHMENT IS ADEQUATE TO RESIST THE WIND UPLIFT LOADING FROM THE COMPONENTS AND CLADDING WIND LOAD TABLE PROVIDED IN THE TYPICAL DETAILS.

7.4 WELDED CONNECTIONS: E60XX ELECTRODES: WELDING QUALIFICATION, PROCEDURES AND PERSONNEL SHALL BE CERTIFIED ACCORDING TO AWS D1.3, THE STRUCTURAL WELDING CODE - SHEET STEEL.

7.5 COLD-FORMED STEEL FRAMING, SUSPENDED CEILINGS, LIGHT FIXTURES, DUCTS, PIPING, AND/OR OTHER UTILITIES SHALL NOT BE SUPPORTED BY THE STEEL ROOF DECK.

8.0 MASONRY

8.1 MASONRY CONSTRUCTION SHALL CONFORM TO TMS 602-16 SPECIFICATION.

8.2 ALL MASONRY MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE RECOMMENDATIONS OF BRICK INSTITUTE OF AMERICA (BIA) AND NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) AND MINIMUM REQUIREMENTS ESTABLISHED BY THE LOCAL BUILDING CODE.

8.3 MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNIT (f'm) SHALL BE 2000 PSI AT 28 DAYS.

8.4 GROUT COMPRESSIVE STRENGTH SHALL BE 2500 PSI AT 28 DAYS. GROUT SHALL ADDITIONALLY COMPLY WITH TABLE 6 OF TMS 602 FOR DIMENSIONS OF GROUT SPACES AND POUR HEIGHTS. COURSE GROUT SHALL BE USED WHERE POSSIBLE.

8.5 ALL MASONRY SHALL BE NORMAL WEIGHT IN ACCORDANCE WITH ASTM C90.

8.6 MORTAR: EXCEPT OTHERWISE SET FORTH HEREIN ALL MORTARS AND THE MATERIALS THEREIN SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR MORTAR OF MASONRY UNITS, ASTM C270.

A. THE TYPE OF MORTAR BASED ON CONSIDERATION OF THE LOCATION OF THE UNIT MASONRY CONSTRUCTION SHALL BE AS FOLLOWS:

USE OF LOCATION	TYPE OF MORTAR
BELOW GRADE FOUNDATION AND WALLS	M
EXTERIOR WALLS AND LOAD BEARING WALLS	M OR S
PARTITIONS	M, S OR N

8.7 ALL MASONRY SHALL BE RUNNING BOND, UNLESS NOTED.

8.8 ALL BLOCK CELLS AND CAVITIES BELOW GRADE SHALL BE FILLED WITH CONCRETE OR GROUT.

8.9 MASONRY REINFORCING LAP SPLICE LENGTHS PER SCHEDULE. SEE MASONRY LAP SPLICE LENGTHS TYPICAL DETAIL.

8.10 THE CONTRACTOR SHALL PROVIDE DETAILED SHOP DRAWINGS OF THE CMU REINFORCEMENT.

A. SHOP DRAWINGS SHALL INCLUDE AN ELEVATION VIEW OF EACH REINFORCED WALL WITH ALL VERTICAL AND HORIZONTAL REINFORCING AS WELL AS WALL OPENINGS/PENETRATIONS SHOWN. REINFORCING SHOP DRAWINGS NOT CONTAINING THESE ELEVATION DRAWINGS WILL BE RETURNED AS AN INCOMPLETE SUBMITTAL.

8.11 PROVIDE CONTRACTION (CONTROL) JOINTS IN ALL CONCRETE MASONRY WALLS AT LOCATIONS APPROVED BY THE ARCHITECT AT A MAXIMUM SPACING OF 2.0 TIMES THE WALL HEIGHT OR 25'-0", WHICHEVER IS LESS.

8.12 CONTROL JOINTS IN CMU WALLS SHALL BE DISCONTINUOUS AT MASONRY BOND BEAMS. BOND BEAM REINFORCING SHALL EXTEND CONTINUOUS WITH 48 BAR DIAMETER LAPS AND CORNER BARS. SEE TYPICAL DETAILS FOR ADDITIONAL INFORMATION.

8.13 WHEN REINFORCING IS SPECIFIED, PROVIDE AT EACH SIDE OF CONTROL JOINTS, OPENINGS AND WALL ENDS.

8.14 EXTEND REBAR AT WALL OPENINGS A MINIMUM OF 2'-0" PAST THE OPENING AT ALL CORNERS, UNLESS NOTED. AT WINDOWS, PROVIDE A MINIMUM OF 2#4 BARS AT THE SILL OF THE WINDOWS.

8.15 AT CMU PARTITIONS OVER 8'-0" TALL, SUPPORTED BY SLAB ON GRADE, PROVIDE THICKENED SLAB PER TYPICAL DETAILS.

8.16 PROVIDE WALL TOP SUPPORT AT 8'-0" OC FOR ALL INTERIOR NON-LOAD BEARING CMU WALLS WHERE CONTINUOUS WALL SPAN BETWEEN PERPENDICULAR BRACING WALLS EXCEEDS 20'-0".

8.17 PROVIDE HORIZONTAL JOINT REINFORCING IN REINFORCED MASONRY WALLS AS DIRECTED BY THE ARCHITECT. AT WALL CORNERS AND INTERSECTIONS, PROVIDE PREFABRICATED T AND L SHAPES, FIELD BENDING IS NOT PERMITTED. MINIMUM OF LADDER TYPE ZINC COATED CONFORMING TO ASTM A82 HOHMANN & BARNARD 220 LADDER-MESH OR EQUIVALENT AT EVERY OTHER BLOCK COURSE ABOVE FOOTING. REINFORCEMENT SHOULD CONSIST OF TWO OR MORE LONGITUDINAL WIRES, NO. 9 GAUGE OR LARGER, WELDED WITH NO. 9 GAUGE OR LARGER CROSS WIRES. LAP SPLICE HORIZONTAL JOINT REINFORCING A MINIMUM OF 12".

8.18 PROVIDE GROUT FILLED LINTEL BLOCK AT TOP OF ALL CMU WALLS REINFORCED WITH 2 #4 BARS CONTINUOUS, UNLESS NOTED.

8.19 WHERE TOP OF FOOTING SUPPORTING MASONRY WALLS IS MORE THAN 2'-8" BELOW FINISH FLOOR, PROVIDE #6@16, UP TO THE FINISH FLOOR ELEVATION, IN ADDITION TO SPECIFIED REINFORCEMENT.

8.20 THE MASONRY WALLS ARE "NON-SELF-SUPPORTING". ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL REQUIRED CONNECTIONS OR ELEMENTS ARE IN PLACE. BRACING SHALL BE PER THE FOLLOWING, AND CONTRACTOR SHALL PROVIDE ADDED REINFORCING AND GROUT IF REQUIRED BY THE BRACING.

A. THE "2012 STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION".
B. THE "MASONRY WALL BRACING HANDBOOK" AS PUBLISHED BY THE MASONRY CONTRACTORS ASSOCIATION OF AMERICA (MCAA) SHOULD BE USED IN CONJUNCTION WITH THE "STANDARD PRACTICE".

9.0 COLD-FORMED STEEL FRAMING

9.1 STRUCTURAL PROPERTIES OF FRAMING MEMBERS SHALL BE COMPUTED IN ACCORDANCE WITH AISI "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING" AND ALL OTHER APPLICABLE AISI STANDARDS, LATEST EDITIONS.

9.2 GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL COLD-FORMED STEEL FRAMING. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR FRAMING LAYOUT , SIZES, SPACING, AND SECTIONS. THE GAGE OF THE STUDS, IF SHOWN, SHALL NOT BE REVISED UNLESS IT IS REQUIRED TO BE INCREASED AS DIRECTED BY THE COLD-FORMED STEEL DESIGN ENGINEER. COLD-FORMED STEEL FRAMING SHOP DRAWINGS AND DESIGN CALCULATIONS SHALL BE SUBMITTED FOR FILES OF THE STRUCTURAL ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. THE CONTRACTOR SHALL INCLUDE THE COST OF SHOP DRAWINGS AND CALCULATIONS, INCLUDING ENGINEERING FEES, IN THE BASE BID OF THE CONTRACT.

9.3 DEFLECTION LIMITS FOR MEMBERS:

A.	SOFFITS:	DL L/240 LL L/240 TL L/180
B.	WALL SUPPORTING BRICK:	HORIZONTAL DEFLECTION OF L/600
C.	WALL SUPPORTING STUCCO:	HORIZONTAL DEFLECTION OF L/360
D.	WALL SUPPORTING EIFS:	HORIZONTAL DEFLECTION OF L/240
E.	WALL PARTITIONS:	HORIZONTAL DEFLECTION OF L/180

9.4 COLD-FORMED STEEL FRAMING MEMBERS SHALL NOT BE SUPPORTED BY THE STEEL ROOF DECK.

9.5 COLD-FORMED STEEL FRAMING MEMBERS ABUTTING STRUCTURE SHALL HAVE VERTICAL SLIP TRACKS TO ACCOMMODATE UP TO 1-1/2" VERTICAL MOVEMENT UP OR DOWN.

9.6 VERTICAL STUDS INTERRUPTED BY WALL OPENINGS SHALL BE LOCATED EQUALLY ON EACH SIDE OF THE OPENING. PROVIDE EVEN NUMBER OF FULL HEIGHT STUDS ON EACH SIDE OF OPENING. WELD STUD FLANGES TOGETHER WITH 1/8" FILLET WELD 1" LONG SPACED AT 6" OC.

9.7 TRACK SHALL BE SCREWED TO STUD WITH 2#8 TEK SCREWS EACH FLANGE, OR AS REQUIRED BY DESIGN.

9.8 WELDED CONNECTIONS: E60XX ELECTRODES, MINIMUM SIZE FILLET WELD 1/8": WELDING QUALIFICATION, PROCEDURES AND PERSONNEL SHALL BE CERTIFIED ACCORDING TO AWS D1.3, THE STRUCTURAL WELDING CODE - SHEET STEEL.

9.9 PROVIDE SHOP DRAWINGS SHOWING PLANS, ELEVATIONS AND CONNECTION DETAILS AT ALL NON-LOAD BEARING STEEL FRAMING.

9.10 ALL CONNECTIONS OF THE COLD-FORMED STEEL FRAMING MEMBERS TO THE STRUCTURE SHALL BE FULLY DETAILED ON THE COLD-FORMED STEEL FRAMING SHOP DRAWINGS. ANY SPECIAL LOADING IMPOSED ON THE STRUCTURE SHALL BE CLEARLY INDICATED ON THE SHOP DRAWINGS.

10.0 POST-INSTALLED ANCHORS AND REINFORCING

10.1 POST-INSTALLED ANCHORS AND/OR REINFORCING SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS AND/OR REINFORCING IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS AND/OR REINFORCING. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS AND/OR REINFORCING TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE. CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY. CALL SIMPSON STRONG-TIE AT (800) 999-5099.

A. CONCRETE ANCHORAGE
1. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193 FOR UNCRACKED AND CRACKED CONCRETE RECOGNITION. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:
a. SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-2713 & IAPMO-UES ER-493)
b. SIMPSON STRONG-TIE "STRONG-BOLT 2" (ICC-ES ESR-3037)
2. ADHESIVE ANCHORS AND ADHESIVE FOR REINFORCING SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC308 FOR UNCRACKED AND CRACKED CONCRETE RECOGNITION. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:
a. SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)

B. MASONRY ANCHORAGE
1. ANCHORAGE TO HOLLOW CONCRETE MASONRY/UNREINFORCED CLAY BRICK MASONRY
a. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC106. PRE-APPROVED SCREW ANCHORS INCLUDE:
i. SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-1056)
b. ADHESIVE ANCHORS WITH SCREEN TUBES SHALL BE TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC58 OR AC60, AS APPROPRIATE. THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER. PRE-APPROVED ADHESIVE ANCHORS WITH SCREEN TUBES INCLUDE:
i. SIMPSON STRONG-TIE "SET" (ICC-ES ESR-1772)
ii. SIMPSON STRONG-TIE "ACRYLIC-TIE" (ICC-ES ESR-5791)

10.2 SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE LISTED MAY BE SUBMITTED BY THE CONTRACTOR TO THE EOR FOR REVIEW NO LESS THAN TWO WEEKS PRIOR TO BID. SUBSTITUTIONS WILL ONLY BE CONSIDERED FOR PRODUCTS HAVING A RESEARCH REPORT RECOGNIZING THE PRODUCT FOR THE APPROPRIATE APPLICATION UNDER THE PROJECT BUILDING CODE. SUBSTITUTION REQUESTS SHALL INCLUDE CALCULATIONS PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATE THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE EQUIVALENT. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE, AND INSTALLATION TEMPERATURE.

10.3 INSTALL ANCHORS PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), OR AS INCLUDED IN THE ANCHOR PACKAGING.

10.4 THERE IS TO BE NO GAP BETWEEN CONNECTED PARTS UNLESS SHIMS ARE PROVIDED. ANCHORS TO SECURE CONNECTED PARTS TOGETHER TO SNUG.

10.5 OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE MANUFACTURER'S INSTRUCTIONS AND INSTALLER MUST BE ACI CERTIFIED.

10.6 THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.

10.7 THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S SPECIAL INSPECTION AGENCY FOR CONTINUOUS SPECIAL INSPECTION OF ADHESIVE ANCHORS AND PERIODIC INSPECTION OF MECHANICAL ANCHORS, SEE SPECIAL INSPECTION SCHEDULE FOR ADDITIONAL INFORMATION.

10.8 ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

11.0 PREFABRICATED CANOPY

11.1 PROTECTIVE COVER WALKWAYS AND PREFABRICATED CANOPIES SHALL BE CONSIDERED A DEFERRED SUBMITTAL TO THE BUILDING INSPECTION AGENCY.

11.2 PROTECTIVE COVER WALKWAYS AND PREFABRICATED CANOPIES SHALL BE FULLY ENGINEERED BY THE CANOPY MANUFACTURER AND CONTRACTOR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

11.3 CALCULATIONS SHALL ACCOMPANY THE SHOP DRAWINGS AND SHALL INCLUDE DESIGN OF ALL WALKWAY/CANOPY SYSTEM COMPONENTS INCLUDING, BUT NOT LIMITED TO, FOOTINGS, MEMBERS, CONNECTIONS AND ATTACHMENT TO STRUCTURE.

11.4 PROTECTIVE COVER WALKWAY AND PREFABRICATED CANOPY SHOP DRAWINGS SHALL BE SUBMITTED TO INCLUDE A FULL DESCRIPTION OF ALL CANOPY MEMBERS, INCLUDING COLUMNS, BEAMS, FOOTINGS, FACIA, ETC. SHOP DRAWINGS SHALL BEAR THE SEAL OF THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

11.5 IF PROTECTIVE COVER WALKWAYS AND PREFABRICATED CANOPIES SHALL BE ATTACHED TO THE BUILDING, MINIMUM 16" DEEP BOND BEAM IS TO BE PROVIDED WITHIN THE LOAD-BEARING MASONRY WALL FOR WALKWAY AND CANOPY ANCHORAGE AS REQUIRED. MINIMUM 16" DEEP BOND BEAM IS TO BE CONSTRUCTED ON (2) 8" DEEP FORM BLOCKS WITH 2#5 CONTINUOUS IN EACH COURSE. CONNECTIONS TO BUILDING BY CANOPY MANUFACTURER, CONTRACTOR COORDINATE. DO NOT ANCHOR WALKWAY AND CANOPY TO VENEER. ANCHOR WALKWAY AND CANOPY INTO LOAD-BEARING MASONRY WALL WITH THREADED RODS IN PIPE SLEEVES. FOR ADDITIONAL INFORMATION, SEE ARCHITECTURAL DRAWINGS.

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041

LATHAN
ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER H. CRAIG WINN
H. Craig Winn P.E.
4-25-2023

SHEET TITLE:
GENERAL NOTES

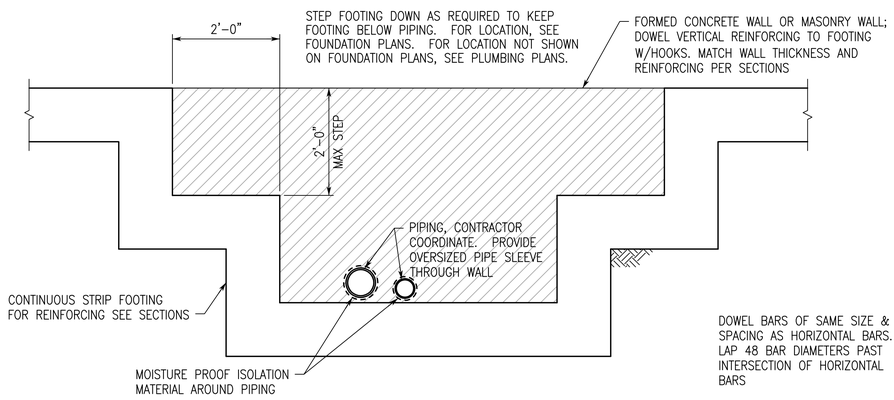
PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

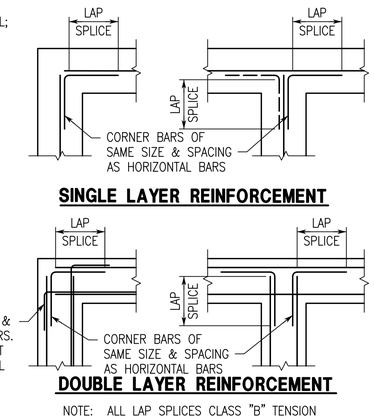
SHEET NO:
S1.1
1 OF 10

0 1" 2"

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041



FOOTING/FOUNDATION WALL AT PIPING
TYPICAL



NOTE: ALL LAP SPLICES CLASS "B" TENSION

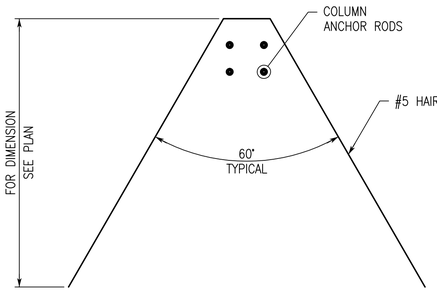
FOOTING, SLAB OR WALL CORNER REINFORCING DETAIL
TYPICAL

ANCHOR ROD EMBEDMENT LENGTHS	
BOLT DIA	MIN EMBEDMENT
3/4"	9"
1"	12"
1 1/4"	15"
1 1/2"	18"

NOTE:
ANCHOR ROD SIZE AND MATERIAL TO BE PROVIDED BY METAL BUILDING MANUFACTURER. THE ABOVE TABLE IS MINIMUM EMBEDMENT TO FULLY DEVELOP ASTM F1554 GRADE 36 HEADED ANCHOR RODS. FINAL ANCHOR ROD EMBEDMENT DEPTH SHALL BE DETERMINED BY STRUCTURAL ENGINEER AFTER SUBMITTAL OF COLUMN BASE AND ANCHOR ROD INFORMATION FROM METAL BUILDING MANUFACTURER PRIOR TO MATERIAL ORDER AND FABRICATION.

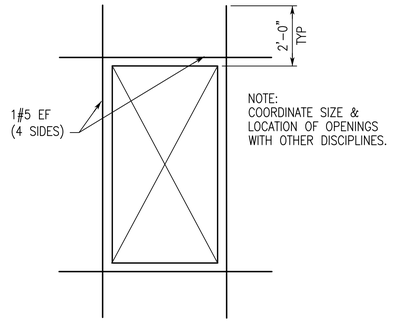
TENSION LAP SPLICE LENGTHS									
BAR SIZE	f_C= 3000 PSI				f_C= 4000 PSI				
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		
	A	B	A	B	A	B	A	B	
#3	22"	28"	17"	22"	19"	24"	15"	19"	
#4	29"	37"	22"	29"	25"	32"	19"	25"	
#5	36"	47"	28"	36"	31"	40"	24"	31"	
#6	43"	56"	33"	43"	37"	48"	29"	37"	
#7	63"	81"	48"	63"	54"	70"	42"	54"	
#8	72"	93"	55"	72"	62"	80"	48"	62"	
#9	81"	105"	62"	81"	70"	91"	54"	70"	
#10	91"	118"	70"	91"	79"	102"	61"	79"	
#11	101"	131"	78"	101"	87"	113"	67"	87"	

TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF CONCRETE CAST BELOW THE REINFORCEMENT.



NOTE: HAIRPIN TO BE ONE CONTINUOUS PIECE

COLUMN HAIRPIN DETAIL
TYPICAL

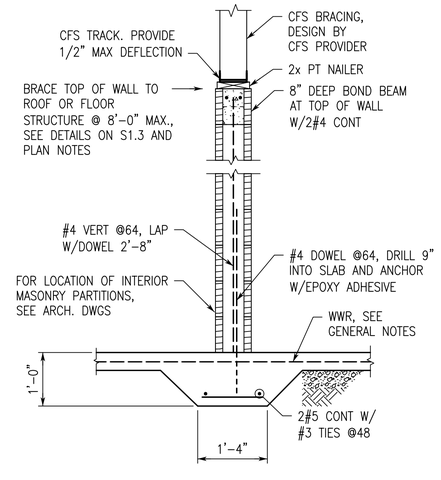


WALL OPENING REINFORCMENT DETAIL
TYPICAL

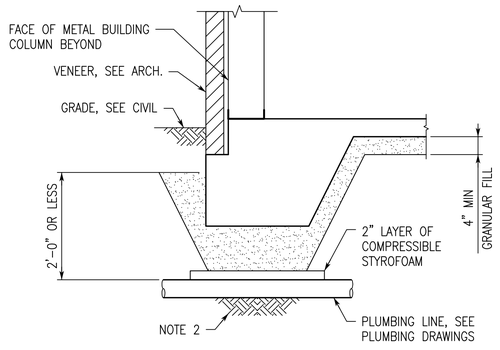
METAL BUILDING COLUMN REACTIONS (KIPS)

COLUMN DESIGNATION	DEAD		COLLATERAL		ROOF LIVE		WIND 1		WIND 2	
	H	V	H	V	H	V	H	V	H	V
B1,B5,C1,C5	-	.5	-	.3	-	.8	+19.7,-19.7	-1.0	-	-2.67
A1,A5,D1,D5	.7	7.3	.4	3.7	1.2	14.6	+10.9,-10.9	-3.9	+2.3,-2.3	-23.3
A2,A3,A4,D2,D3,D4	2.5	14.6	.7	7.3	2.7	29.1	+21.7,-21.7	-7.7	+2.5,-2.5	-26.7
B5.1,C5.1,B6,C6	1.2	4.2	.6	2.1	2.3	8.1	+9.5,-9.5	-4.0	+1.9,-1.9	-7.7
A5.1,D5.1,A6,D6	.7	2.1	.3	1.0	1.2	4.1	+4.8,-4.8	-4.0	+1.9,-1.9	-6.7
B.2-0.1,B.2-0.9,B.8-0.1,B.8-09	.3	1.1	.15	.4	.7	1.4	+9.5,-9.5	-3.7	+1.9,-1.9	-8.1

NOTES:
1. BEFORE INSTALLATION OF FOUNDATIONS, METAL BUILDINGS SUPPLIER SHALL SUBMIT DESIGN LOADS AND COLUMN REACTIONS TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CURRENT FOUNDATION DESIGN HAS BEEN BASED ON PRELIMINARY BUILDING REACTIONS DETERMINED BY STRUCTURAL DESIGN GROUP. THIS MAY REQUIRE ADJUSTMENTS TO THE FOUNDATIONS SIZES AFTER REVIEW OF THE FINAL METAL BUILDING COLUMN REACTIONS.
2. POSITIVE AND NEGATIVE AXIAL FORCES (V) INDICATE FORCES ACTING TO AND AWAY FROM THE STRUCTURE, RESPECTIVELY. POSITIVE AND NEGATIVE SHEAR (H) INDICATES FORCES ACTING TOWARDS AND AWAU FROM THE CENTER OF THE BUILDING, RESPECTIVELY.
3. WIND 1 INDICATES MWFRS WIND SHEAR AND UPLIFT. WIND 2 INDICATES WIND C&C UPLIFT WIND LOADS ONLY.

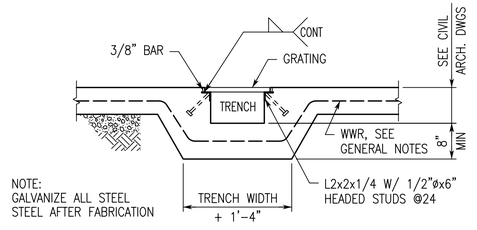


INTERIOR PARTITION WALL ON THICKENED SLAB ON GRADE DETAIL
TYPICAL

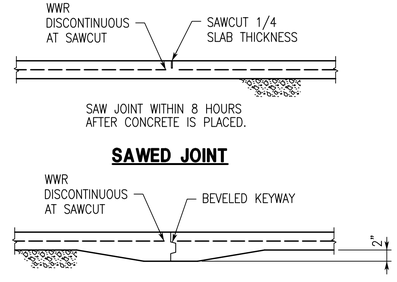


NOTES:
1. DO NOT RUN PLUMBING LINE BELOW AND PARALLEL TO FOOTING. OFFSET PARALLEL PLUMBING LINE MINIMUM 1'-0" BEYOND EDGE OF FOOTING.
2. SOIL UNDER UTILITY TRENCHES SHALL BE COMPACTED AS REQUIRED TO PROVIDE ALLOWABLE BEARING PRESSURE NOTED IN GENERAL NOTES.
3. IF A PLUMBING LINE IS REQUIRED TO EXTEND VERTICALLY THROUGH THE FOOTING, CONTRACTOR TO PROVIDE A PVC SLEEVE (1" LARGER IN DIAMETER THAN PLUMBING LINE) TO ALLOW FOR FOOTING MOVEMENT.

PLUMBING LINE BELOW INTERIOR FOOTING (IF LESS THAN 2'-0")
TYPICAL



TRENCH DETAIL
TYPICAL



KEYED JOINT

SLAB CONTROL JOINT DETAILS
TYPICAL
JOINT TYPE IS OPTIONAL

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER H. CRAIG WINN P.E.
4-25-2023

SHEET TITLE:
TYPICAL DETAILS

PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131
SHEET NO:
S1.2
2 OF 10
0 1" 2"

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041

VENEER LINTEL SCHEDULE

MAXIMUM OPENING WIDTH	STEEL FOR EACH 4" OF WALL THICKNESS
2'-0"	L4x4x3/8 MINIMUM
4'-0"	L4x4x3/8 MINIMUM
6'-0"	L4x4x3/8 MINIMUM
8'-0"	L6x4x3/8 MINIMUM (LLV)
LARGER	CONTACT ENGINEER

1. PROVIDE 8" MINIMUM BEARING FOR ALL LINTELS.
2. ALL EXPOSED LINTEL ANGLES TO BE HOT DIP GALVANIZED.
3. CONTRACTOR TO COORDINATE DIMENSION OF OUTSTANDING LEG WITH MINIMUM VENEER SUPPORT REQUIREMENT(S) AND WITH DETAILS INDICATED ON ARCH. DWGS.

LOAD BEARING RUNNING BOND MASONRY LINTEL SCHEDULE

MAXIMUM OPENING WIDTH	LINTEL DIMENSIONS AND REINFORCING		
	DEPTH	8" WALL	12" WALL
4'-0"	24	2#5 BOT & 2#5 TOP	2#5 BOT & 2#5 TOP
6'-0"	32	2#5 BOT & 2#5 TOP	2#6 BOT & 2#6 TOP
8'-0"	32	2#6 BOT & 2#6 TOP	2#6 BOT & 2#6 TOP
10'-0"	48	2#6 BOT & 2#6 TOP	2#6 BOT & 2#6 TOP
12'-0"	48	2#6 BOT & 2#6 TOP	2#6 BOT & 2#6 TOP

1. PROVIDE 24" MINIMUM BEARING FOR ALL LINTELS. FILL CELLS SOLID AT EACH SIDE OF OPENING AND REINFORCE WITH 1#5 BAR CONTINUOUS. (JAMB BARS OF SAME SIZE AS VERTICAL WALL REINFORCING BARS.)
2. SHORE LINTEL UNTIL MORTAR AND GROUT HAVE SET AND CURED.
3. PROVIDE 8" DEEP BOND BEAM REINFORCED WITH 2#5 CONT AT BOTTOM OF ALL OPENINGS. EXTEND 24" PAST OPENING ON EACH SIDE OF OPENING.

NON-LOAD BEARING RUNNING BOND MASONRY LINTEL SCHEDULE

MAXIMUM OPENING WIDTH	LINTEL DIMENSIONS AND REINFORCING				
	DEPTH	8" WALL		12" WALL	
		REINFORCING	MAX HEIGHT OF WALL ABOVE LINTEL	REINFORCING	MAX HEIGHT OF WALL ABOVE LINTEL
2'-0"	8	1#4 BOT	20'-0"	1#4 BOT	22'-0"
4'-0"	8	1#4 BOT	10'-0"	2#4 BOT	9'-4"
6'-0"	8	1#5 BOT & 1#4 TOP	4'-0"	2#5 BOT & 2#4 TOP	4'-8"
8'-0"	16	1#6 BOT & 1#5 TOP	15'-4"	2#5 BOT & 2#4 TOP	16'-0"
10'-0"	16	1#7 BOT & 1#5 TOP	10'-0"	2#6 BOT & 2#4 TOP	12'-0"
12'-0"	16	1#8 BOT & 1#5 TOP	7'-4"	2#7 BOT & 2#5 TOP	10'-8"

1. DO NOT USE THIS SCHEDULE IF WALL IS LOAD BEARING SUPPORTING ANYTHING OTHER THAN WALL WEIGHT ONLY. IF WALL IS LOAD BEARING USE THE LOAD BEARING STACK BOND MASONRY LINTEL SCHEDULE.
2. PROVIDE 2'-0" MINIMUM BEARING FOR ALL LINTELS. FILL CELLS SOLID AT EACH SIDE OF OPENING AND REINFORCE WITH 1#5 BAR CONTINUOUS.
3. WHERE MAXIMUM HEIGHT OF WALL ABOVE LINTEL IS EXCEEDED, PROVIDE ADDITIONAL LINTELS EQUALLY SPACED ABOVE TO LIMIT WALL HEIGHTS ABOVE LINTEL TO THAT SHOWN IN THE TABLE ABOVE.
4. SHORE LINTEL UNTIL MORTAR AND GROUT HAVE SET AND CURED.
5. PROVIDE 8" DEEP BOND BEAM REINFORCED WITH 2#4 CONT AT BOTTOM OF ALL OPENINGS. EXTEND 2'-0" PAST OPENING ON EACH SIDE OF OPENING.

COMPONENTS AND CLADDING WIND LOADS FOR WALLS (PSF)

112 MPH VELOCITY (3-SEC. GUST)	EFFECTIVE WIND AREA (FT^2)	ZONES 4 & 5	ZONES 4 (Int.)	ZONES 5 (Edge)
	10	32.0	-34.8	-42.9
	20	30.6	-33.3	-40.1
	50	28.7	-31.4	-36.2
	100	27.3	-29.9	-33.4
	200	25.8	-28.5	-30.5
	500	23.9	-26.6	-26.6

NOTES:
1. WIDTH OF EDGE STRIP 'a' = 9'-2".
2. VALUES SHOWN ABOVE HAVE BEEN ADJUSTED FOR BUILDING HEIGHT AND EXPOSURE ACCORDING TO ASCE 7-16 STANDARD TABLE 30.3-1. VALUES SHOWN ARE ULTIMATE.
3. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE BUILDING SURFACES.
4. EFFECTIVE WIND AREA IS THE SPAN LENGTH MULTIPLIED BY AN EFFECTIVE WIDTH THAT NEED NOT BE LESS THAN ONE-THIRD THE SPAN LENGTH.
5. WIND PRESSURES IN THESE TABLES SHALL BE MULTIPLIED BY 0.3 TO OBTAIN NOMINAL WIND PRESSURES.

PIPING WEIGHTS

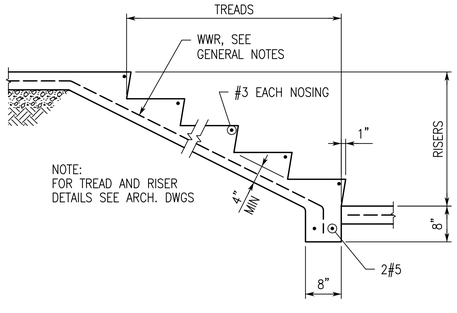
PIPE DIAMETER	PIPE WT PER/FOOT (PLF)	FLUID WT PER/FOOT (PLF)	INSULATION & HANGERS (PLF)	TOTAL WT PER/FOOT (PLF)
4"	10.80	6.10	2.00	18.90
6"	19.00	13.80	3.00	35.80
8"	28.60	23.90	4.00	56.50
10"	40.50	37.50	4.00	82.00
12"	49.60	54.00	5.00	108.60
14"	54.60	65.70	5.00	125.30
16"	62.60	87.10	5.00	154.70

NOTES:
1. FROM ANVIL INTERNATIONAL PIPE FITTERS HANDBOOK.
2. ALL PIPES ASSUMED TO BE SCHEDULE 40.
3. FLUID WEIGHT INCLUDES ALLOWANCE FOR GLYCOL CONCENTRATION.
4. PIPING SUPPORT AND THRUST BRACING REQUIREMENTS SHALL BE COORDINATED BY THE GENERAL CONTRACTOR WITH THE STEEL/JOIST FABRICATOR. SEE MECHANICAL/PLUMBING DRAWINGS FOR PIPING SUPPORT AND THRUST BRACING REQUIREMENTS.
5. FOR PIPE SIZES NOT LISTED, CONTACT STRUCTURAL ENGINEER.

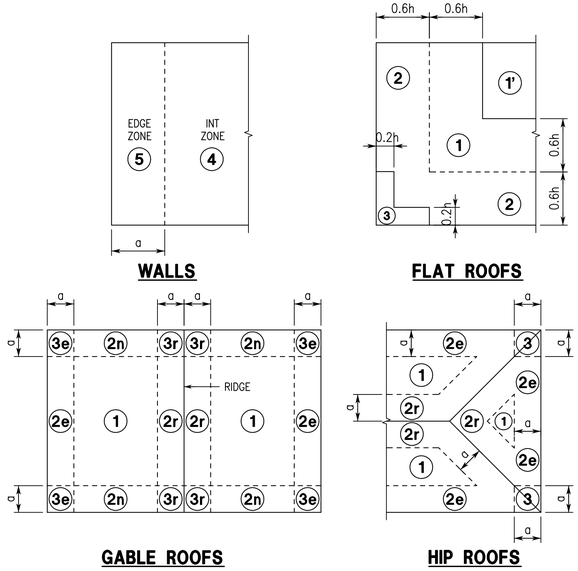
COMPONENTS AND CLADDING WIND LOADS FOR ROOF (PSF)

		ROOF					OVERHANG			
112 MPH VELOCITY (3-SEC. GUST)	EFFECTIVE WIND AREA (FT^2)	Positive Max. Net Pressure 'p' (PSF)	Zone 1 & 2e (Int.)	Zone 2n, 2r, & 3e (Edge)	Zone 3r (Corner)		Zone 1 & 2e (Int) - Max. Net Pressure 'p' (PSF)	Zone 2n & 2r (Edge) - Max. Net Pressure 'p' (PSF)	Zone 3e (Corner) - Max. Net Pressure 'p' (PSF)	Zone 3r (Corner) - Max. Net Pressure 'p' (PSF)
	10	19.4	-59.2	-36.0	-102.7		-87.9	-96.1	-111.4	-127.6
	20	17.5	-59.2	-74.7	-87.9		-87.9	-76.0	-96.1	-108.0
	50	16.0	-36.0	-59.2	-68.5		-52.4	-74.7	-76.0	-32.0
	100	16.0	-18.5	-57.9	-53.8		-74.7	-60.2	-60.8	-62.5
	200	16.0	-18.5	-36.0	-53.8		-74.7	-57.1	-45.6	-62.5
	500	16.0	-18.5	-32.0	-53.8		-74.7	-54.3	-74.7	-62.5

NOTES:
1. WIDTH OF EDGE STRIP 'a' = 9'-2".
2. VALUES SHOWN ABOVE HAVE BEEN ADJUSTED FOR BUILDING HEIGHT AND EXPOSURE ACCORDING TO ASCE 7-16 STANDARD TABLE 30.3-1. VALUES SHOWN ARE ULTIMATE.
3. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE BUILDING SURFACES.
4. EFFECTIVE WIND AREA IS THE SPAN LENGTH MULTIPLIED BY AN EFFECTIVE WIDTH THAT NEED NOT BE LESS THAN ONE-THIRD THE SPAN LENGTH.
5. METAL BUILDING MANUFACTURER RESPONSIBLE FOR CALCULATING WIND UPLIFT PRESSURES AND MINIMUM DEAD LOADS FOR METAL BUILDING COMPONENTS AND CLADDING.
6. WIND PRESSURES IN THESE TABLES SHALL BE MULTIPLIED BY 0.3 TO OBTAIN NOMINAL WIND PRESSURES.



STAIR ON GRADE DETAIL
TYPICAL



WALL AND ROOF WIND PRESSURE ZONE DIAGRAMS
TYPICAL

LATHAN ARCHITECTS

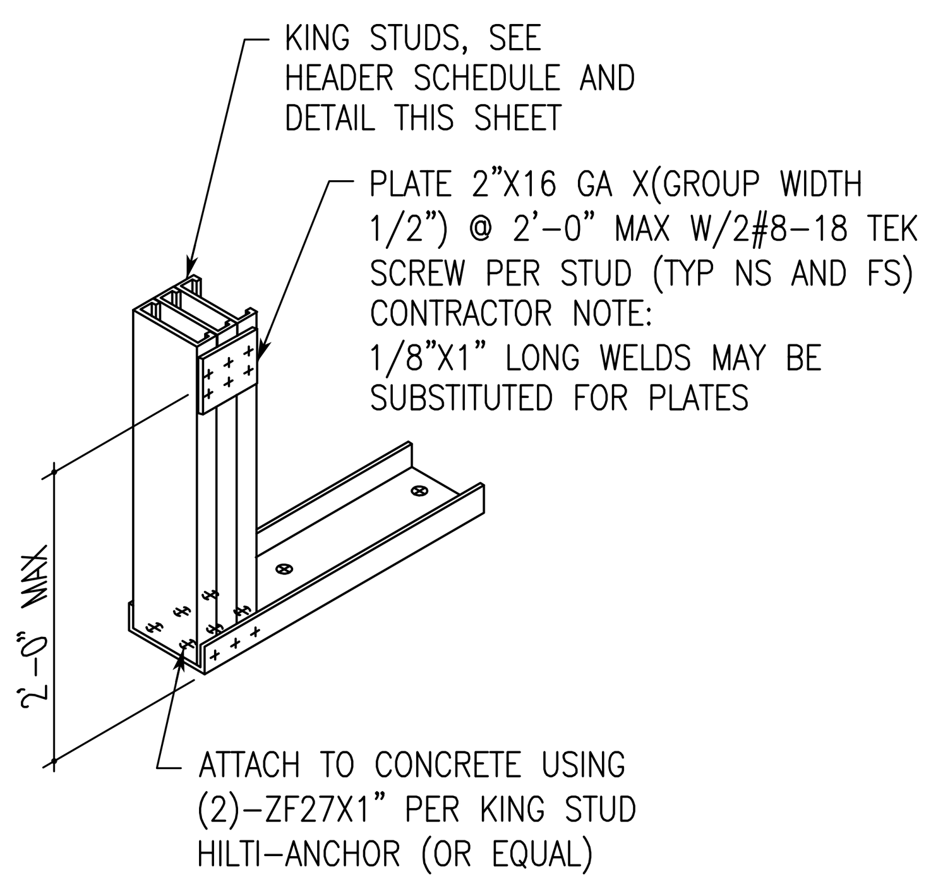
NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER H. CRAIG WINN
H. Craig Winn P.E.
4-25-2023

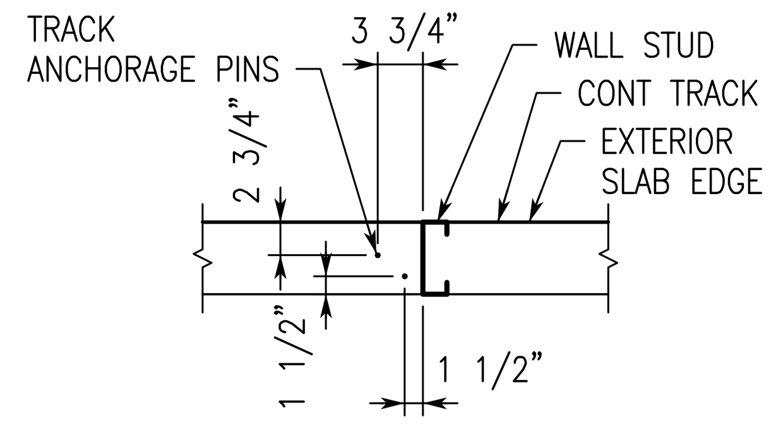
SHEET TITLE:
TYPICAL DETAILS

PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

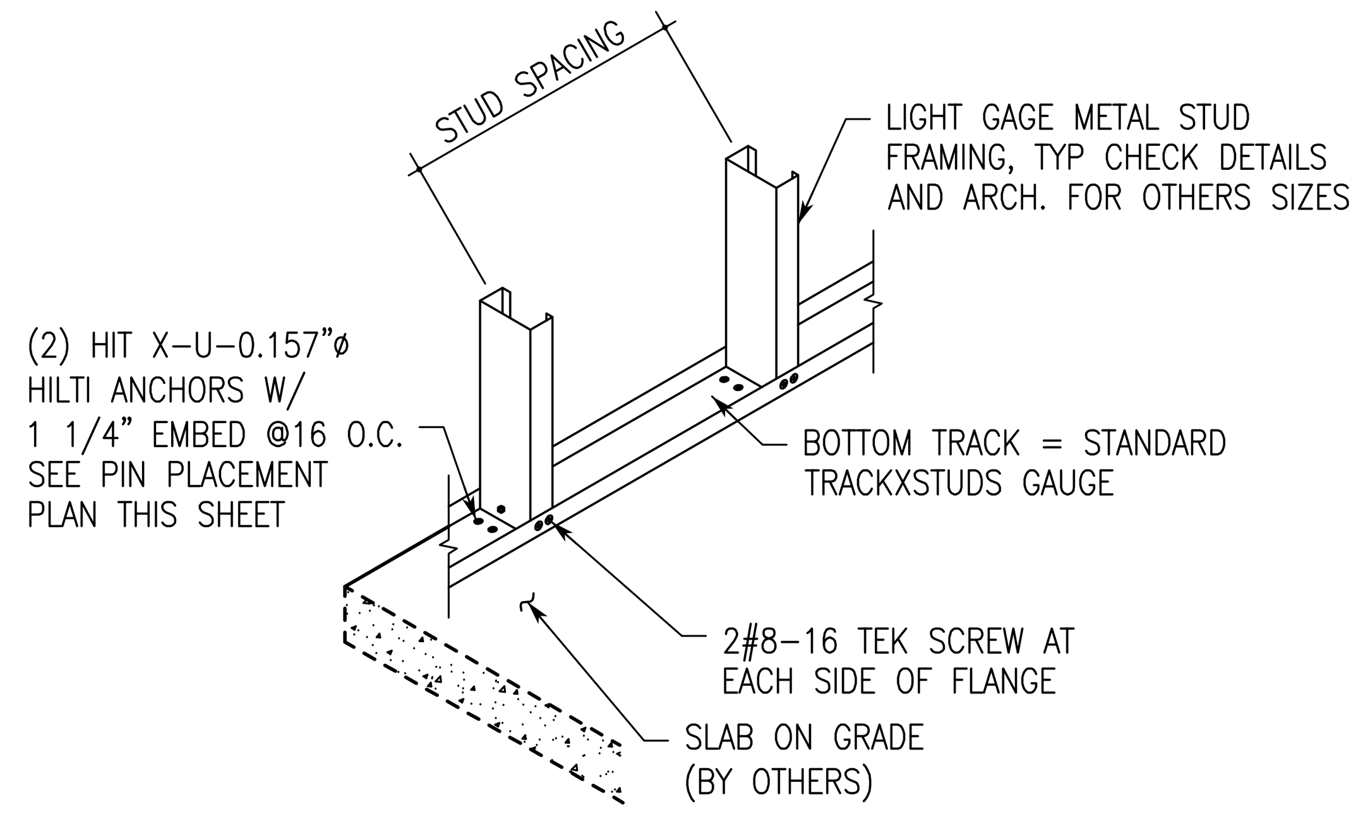
JOB NO. 22-131
SHEET NO:
S1.3
3 OF 10
0 1" 2"



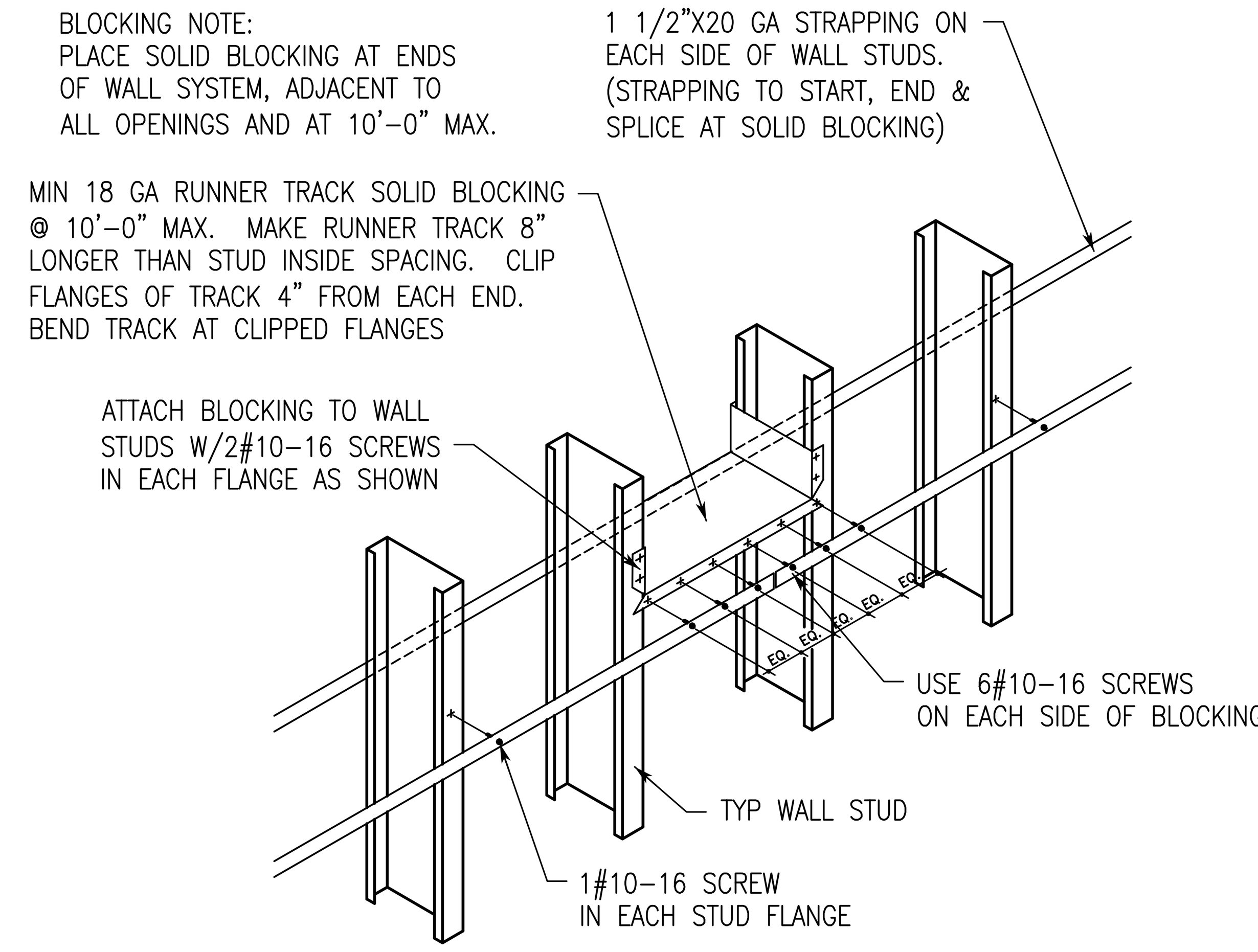
KING STUD GROUP CONNECTION
TYPICAL



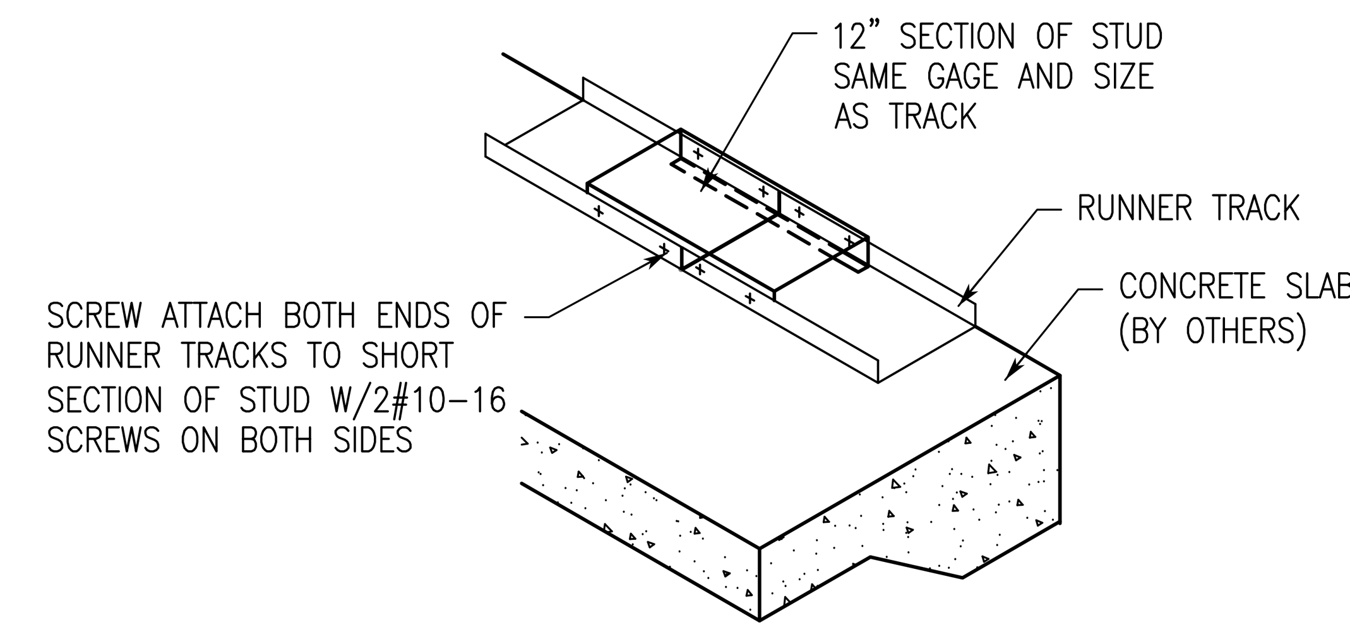
PIN PLACEMENT PLAN



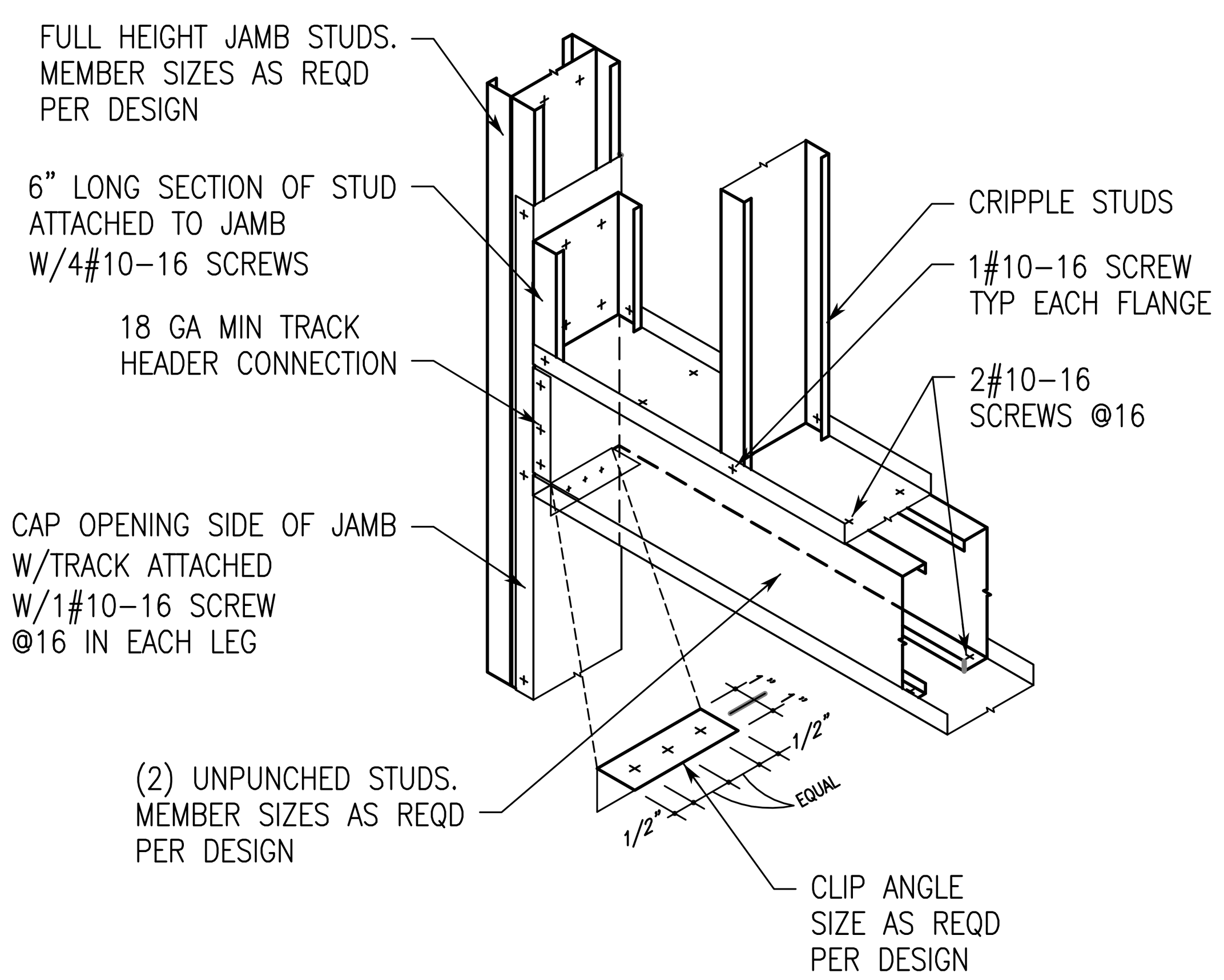
SLAB CONNECTION DETAIL
TYPICAL



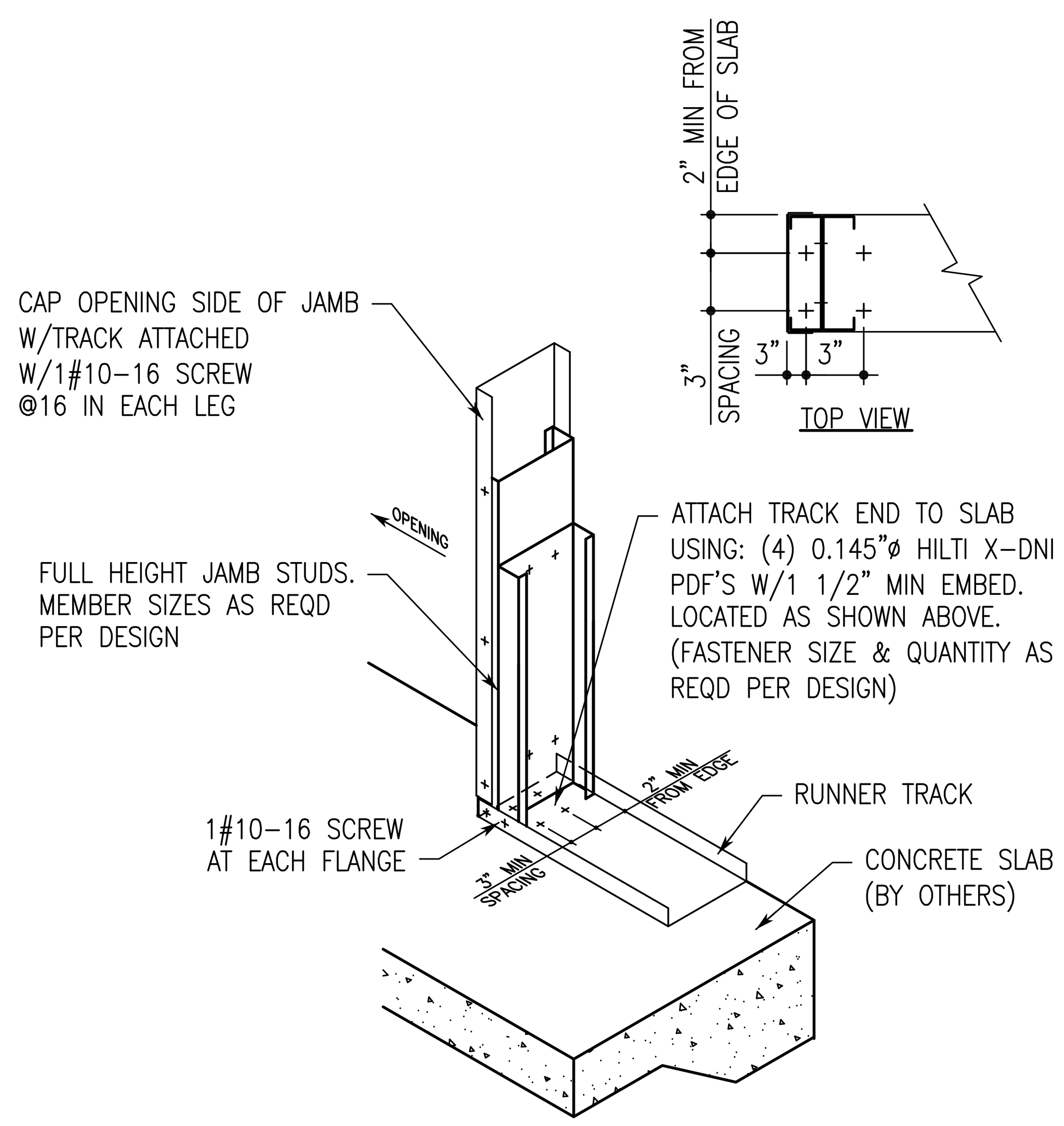
STRAP BRIDGING LATERAL BRACING
TYPICAL



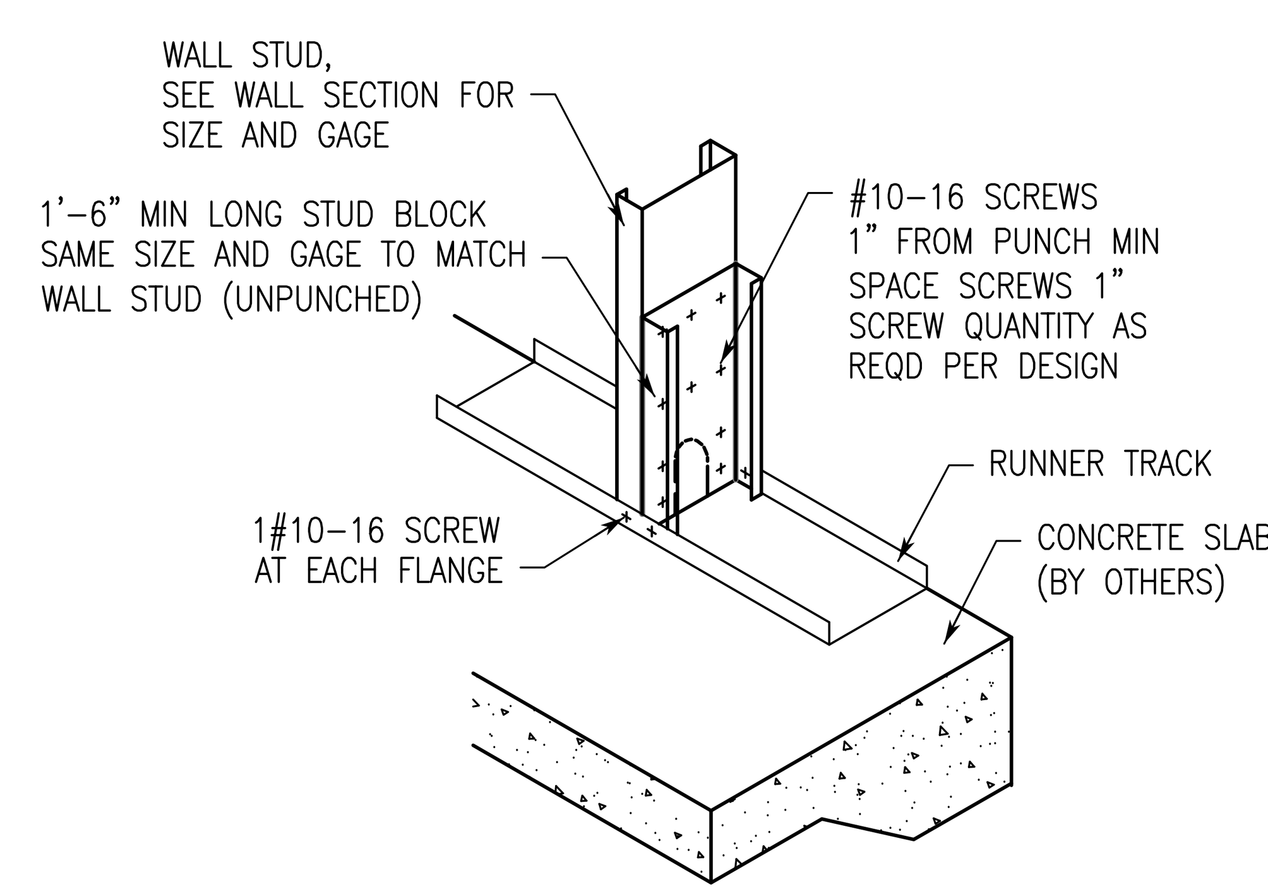
BOTTOM TRACK SPLICE
TYPICAL



BOX HEADER
TYPICAL

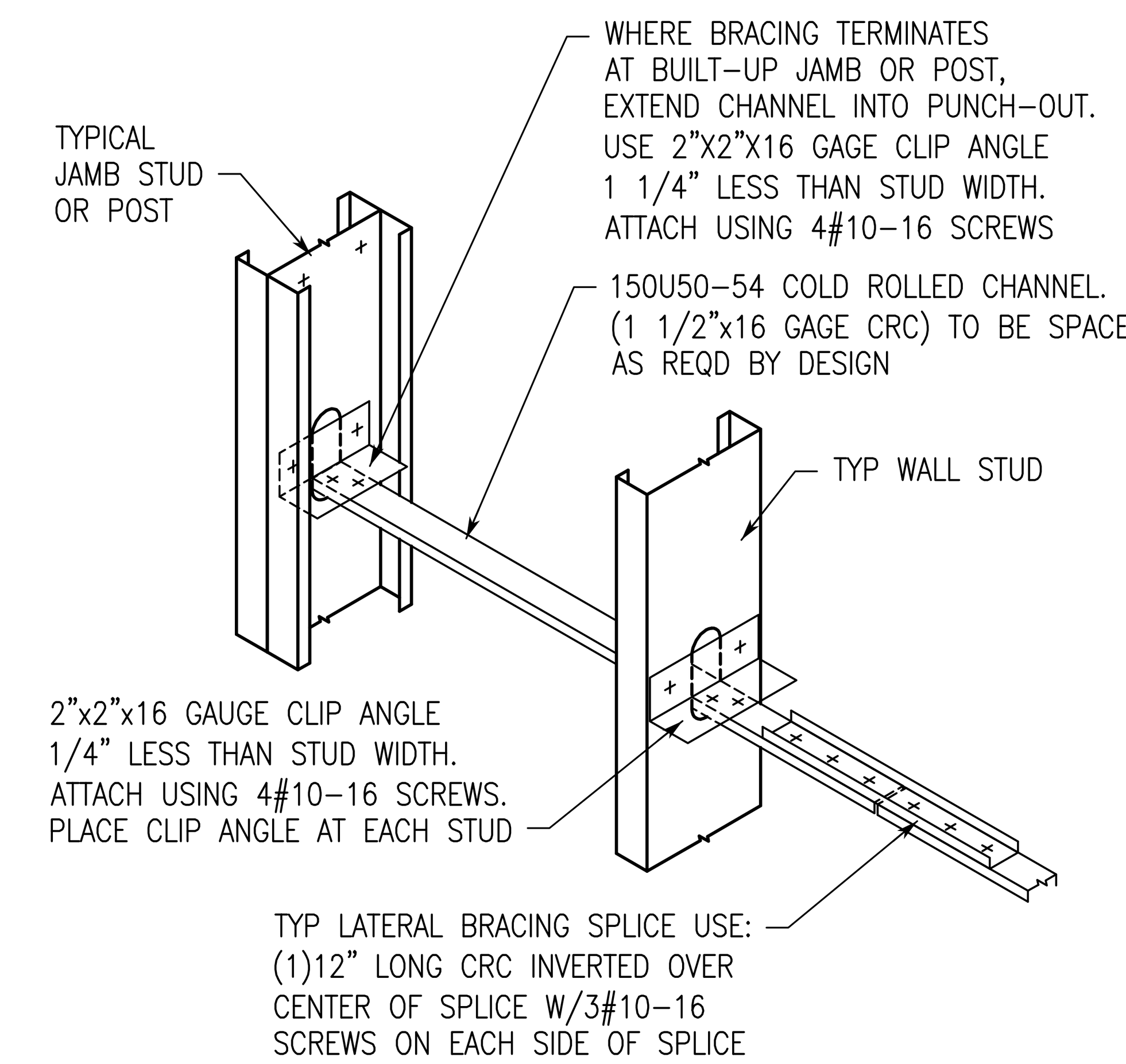


DOOR JAMB ANCHORAGE
TYPICAL



NOTE:
WHERE FIELD CUTS CAUSE PUNCHOUT TO OCCUR AT STUD/RUNNER INTERSECTION REINFORCE STUD AS SHOWN FOR SCREW ATTACHMENT.

REINFORCEMENT AT STUD END
TYPICAL



THIS DETAIL IS NOT RECOMMENDED FOR WALL STUDS DEEPER THAN 8"

STUD BRIDGING WITH BRIDGING CLIP
TYPICAL

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041

LATHAN ARCHITECTS
LATHAN ▪ BRYANT ▪ CALMA

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER H. CRAIG WINN
H. [illegible], P.E.
4-25-2023

SHEET TITLE:
TYPICAL DETAILS

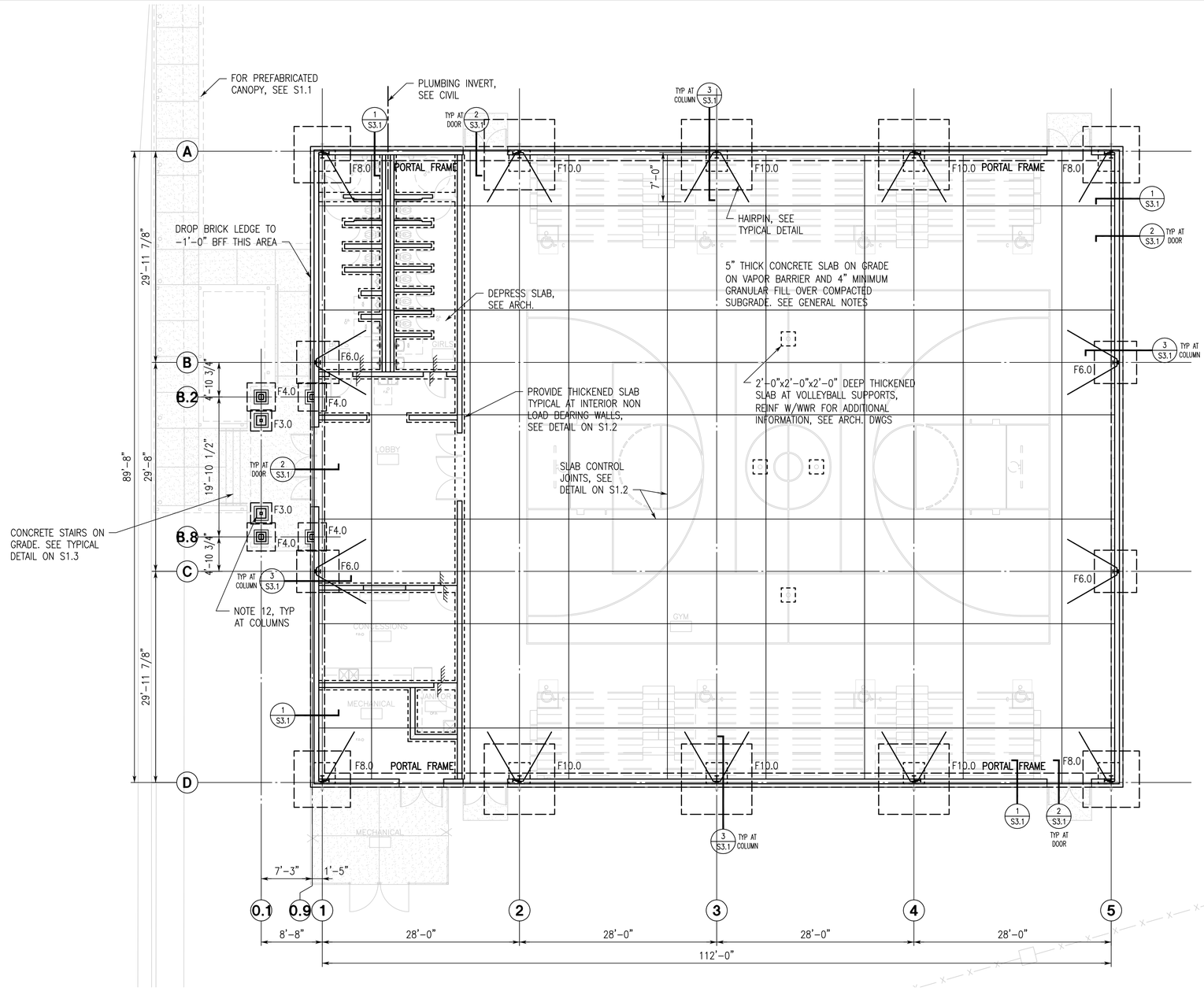
PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
S1.4
4 OF 10

0 1" 2"

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041



FOOTING SCHEDULE

FOOTING DESIGNATION		F3.0	F4.0	F6.0	F8.0	F10.0
FOOTING	SIZE (LxW)	3'-0"x3'-0"	4'-0"x4'-0"	6'-0"x6'-0"	8'-0"x8'-0"	10'-0"x10'-0"
	DEPTH (D)	1'-3"	1'-6"	1'-6"	1'-6"	1'-6"
	REINF EW (BOT)	3#5	4#5	6#6	8#6	10#6
	NOTES	1	1	1	1	1

NOTES:
1. PROVIDE SCHEDULED REINFORCING AT TOP AND BOTTOM OF FOOTING.

PROJECT NORTH

FOUNDATION PLAN

1/8"=1'-0"

1. FINISH FLOOR (TOP OF SLAB) ELEVATION 0'-0", UNLESS NOTED.
2. TOP OF FOOTING ELEVATION IS -2'-0" BELOW FINISH FLOOR, UNLESS NOTED.
3. FOR GENERAL NOTES SEE SHEET S1.1.
4. FOR SLAB ON GRADE CONSTRUCTION, SEE GENERAL NOTES AND TYPICAL DETAILS.
5. FOR SLAB RECESS SIZE AND LOCATION, SEE ARCHITECTURAL DRAWINGS.
6. GENERAL CONTRACTOR SHALL CUT SAWN JOINTS NO MORE THAN 8 HOURS AFTER STEEL TROWEL FINISH ON SLAB.
7. GENERAL CONTRACTOR TO COORDINATE ALL DRAWINGS WITH THE METAL BUILDING SUPPLIER BEFORE FOUNDATION INSTALLATION BEGINS. SEE GENERAL NOTES ON S1.1 FOR ADDITIONAL INFORMATION.
8. GENERAL CONTRACTOR SHALL OBTAIN AND LAYOUT COLUMN ANCHOR RODS FROM ANCHOR ROD SETTING PLAN PROVIDED BY THE METAL BUILDING MANUFACTURER.
9. FOR PRE-FABRICATED METAL BUILDING, SEE GENERAL NOTES ON S1.1.
10. "F#" INDICATES CONCRETE SPREAD FOOTING. SEE SCHEDULE ON THIS SHEET FOR SIZE AND REINFORCING.
11. COORDINATE ALL BUILDING OFFSETS AND SLAB EDGE WITH ARCHITECTURAL DRAWINGS.
12. INFILL CMU WITH #4 BARS EACH CELL FOR FULL HEIGHT.

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER H. CRAIG WINN
H. Craig Winn, P.E.
4-25-2023

SHEET TITLE:
FOUNDATION PLAN

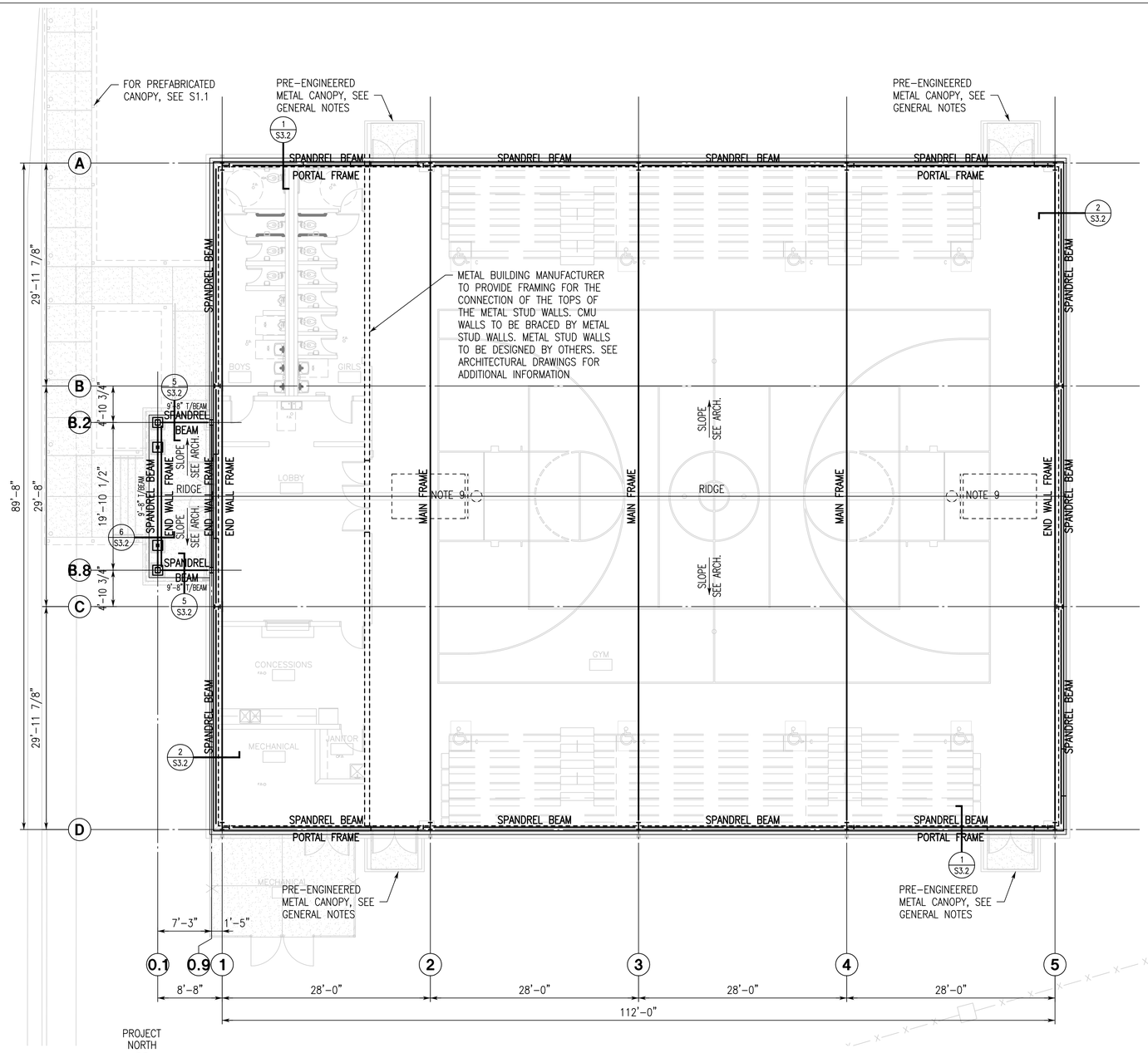
PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
S2.1
5 OF 10

0 1" 2"

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041



PROJECT NORTH

METAL BUILDING ROOF FRAMING PLAN

1/8"=1'-0"

1. ROOF SYSTEM: PREFABRICATED METAL BUILDING FRAMES WITH PURLINS SUPPORTING STANDING SEAM METAL ROOFING.
2. TOP OF CMU WALL ELEVATION 10'-0" ABOVE FINISH FLOOR, UNLESS NOTED. TOP OF STEEL ELEVATION 10'-4" ABOVE FINISH FLOOR, UNLESS NOTED.
3. FOR ELEVATIONS OF STRUCTURAL STEEL LINTELS AND WIND GIRTS, SEE PLAN OR SECTIONS.
4. METAL BUILDING MANUFACTURER TO USE FRAME LINES AS INDICATED. WHERE THIS IS NOT FEASIBLE THE METAL BUILDING SHOP DRAWINGS SHOULD CLEARLY DESIGNATE ANY DEVIATIONS. ARCHITECT MUST APPROVE ANY CHANGES MADE TO FRAME LAYOUT PRIOR TO FABRICATION.
5. LOCATIONS OF PORTAL AND BRACED FRAMES FOR LATERAL STABILITY OF THE STRUCTURE TO BE AS DIRECTED BY THE METAL BUILDING MANUFACTURER. EVERY EFFORT SHOULD BE MADE TO COORDINATE FRAMES WITH EXISTING ARCHITECTURE. LOCATIONS AND SIZE OF FRAME ELEMENTS SHOULD BE CLEARLY DEFINED ON SHOP DRAWINGS SUBMITTED FOR APPROVAL.
6. THE METAL BUILDING MANUFACTURER IS TO DESIGN THE FRAMES AND END WALL COLUMNS FROM REACTIONS OF HORIZONTAL GIRTS SHOWN ON THESE DRAWINGS. WHERE REACTIONS ARE NOT PROVIDED, THE METAL BUILDING MANUFACTURER IS TO SHOW ESTIMATED REACTIONS ON THE METAL BUILDING SHOP DRAWINGS SUBMITTED FOR APPROVAL. ALL CONNECTIONS OF THE HORIZONTAL GIRTS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROVIDED ON THE STRUCTURAL STEEL SHOP DRAWINGS AND FULLY COORDINATED WITH THE METAL BUILDING MANUFACTURER. SUBMIT CALCULATIONS PROVIDED BY A PROFESSIONAL REGISTERED STRUCTURAL ENGINEER.
7. HANGER LOCATIONS FOR PIPING LARGER THAN 3 INCHES IN DIAMETER MUST BE COORDINATED BY GENERAL CONTRACTOR WITH THE METAL BUILDING MANUFACTURER AND THE JOIST MANUFACTURER. FOR PIPING WEIGHTS, SEE TABLE ON SHEET S1.3.
8. CONTRACTOR COORDINATE SPRINKLER PIPING LOADS WITH METAL BUILDING MANUFACTURER. FOR PIPING WEIGHTS, SEE TABLE ON SHEET S1.3. PIPING WILL RESULT IN A CONCENTRATED LOAD AT HANGER LOCATIONS. COORDINATE MAXIMUM HANGER SPACING WITH METAL BUILDING MANUFACTURER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF BASKETBALL GOAL SUPPORTS AND THEIR ATTACHMENT TO THE ROOF STRUCTURE. SUBMIT SHOP DRAWINGS SHOWING DETAILING OF GOAL SUPPORTS AND ATTACHMENT TO ROOF STRUCTURE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER. COORDINATE LOADS WITH METAL BUILDING MANUFACTURER.
10. WHERE ROOF SUPPORTED/SUSPENDED MECHANICAL UNITS ARE LOCATED THE CONTRACTOR SHALL COORDINATE ALL LOADING, CURB SUPPORTS, OPENING FRAMING AND ANY ADDITIONAL SUPPORT REQUIREMENTS WITH THE METAL BUILDING MANUFACTURER. THE METAL BUILDING MANUFACTURER SHALL PROVIDE ALL FRAMING AS REQUIRED TO SUPPORT THE MECHANICAL UNIT AND CURBS AT LOCATIONS SHOWN.

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER H. CRAIG WINN
H. Craig Winn, P.E.
4-25-2023

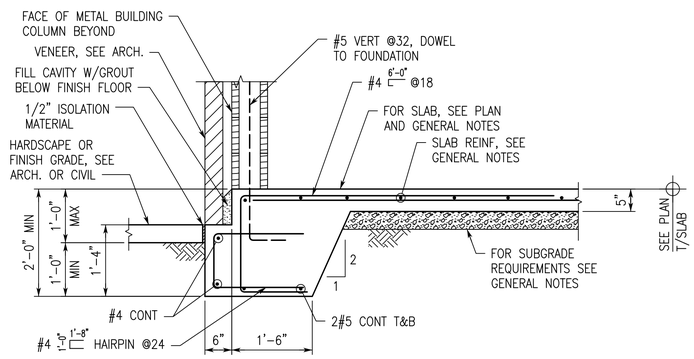
SHEET TITLE:
ROOF FRAMING PLAN

PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

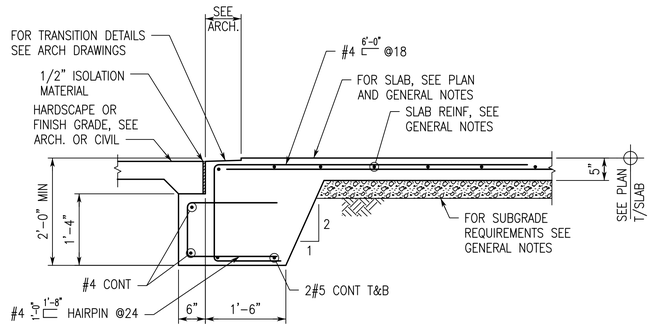
JOB NO. 22-131

SHEET NO:
S2.2
6 OF 10

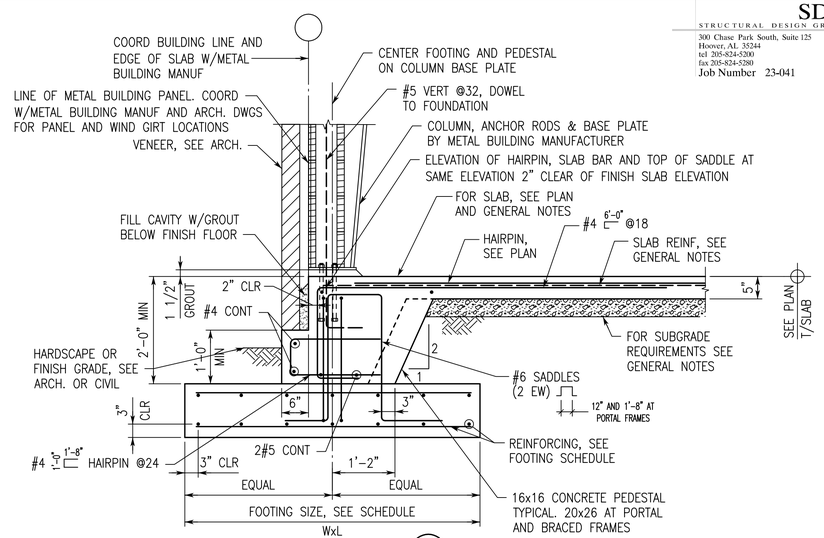
0 1" 2"



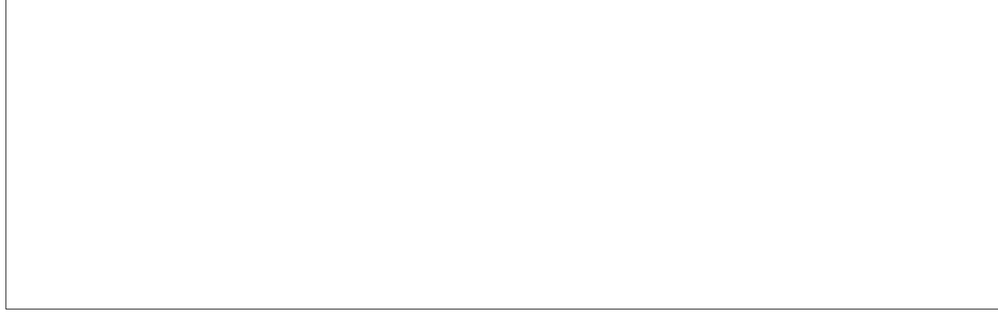
SECTION 1/S3.1
3/4"=1'-0"



SECTION 2/S3.1
3/4"=1'-0"



SECTION 3/S3.1
3/4"=1'-0"



SECTION 4/S3.1
3/4"=1'-0"

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER H. CRAIG WINN
H. Craig Winn, P.E.
4-25-2023

SHEET TITLE:
SECTIONS AND DETAILS

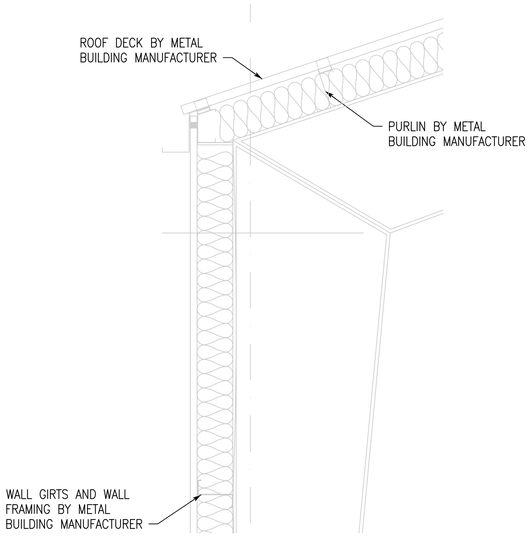
PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

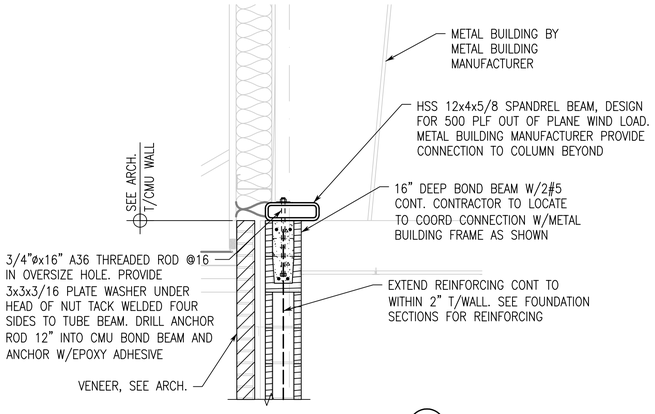
JOB NO. 22-131

SHEET NO:
S3.1
7 OF 10

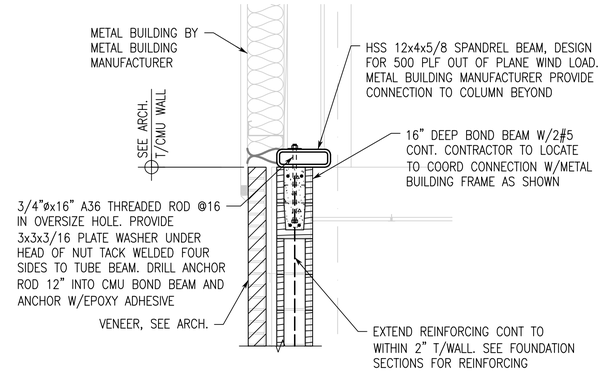
0 1" 2"

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041

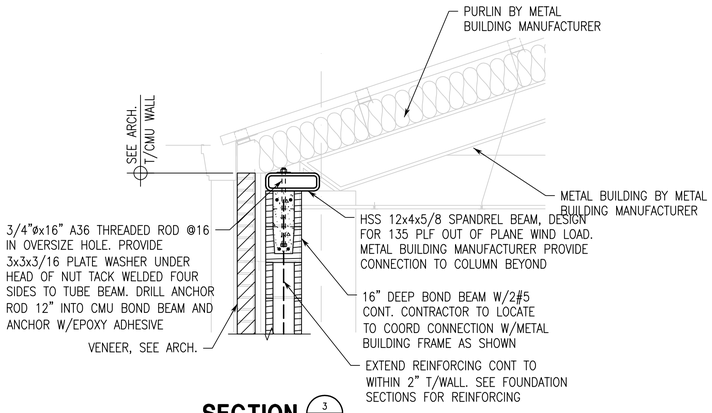




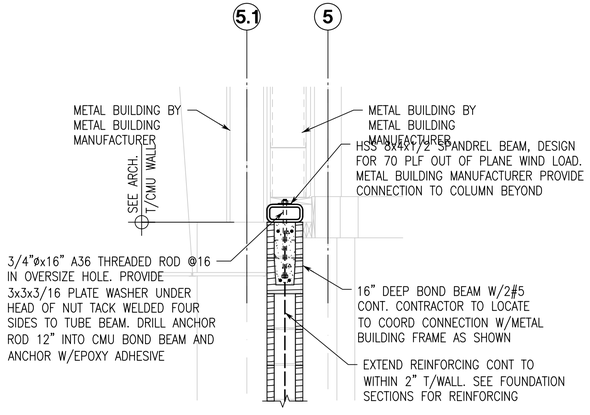
SECTION 1 S3.2
3/4"=1'-0"



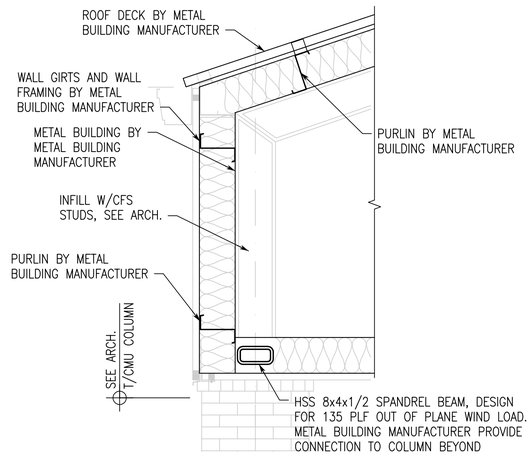
SECTION 2 S3.2
3/4"=1'-0"



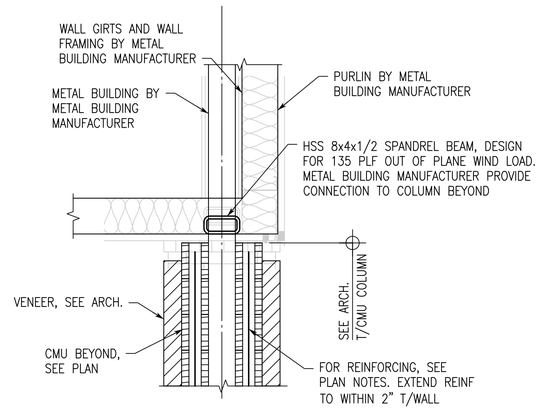
SECTION 3 S3.2
3/4"=1'-0"



SECTION 4 S3.2
3/4"=1'-0"



SECTION 5 S3.2
3/4"=1'-0"



SECTION 6 S3.2
3/4"=1'-0"

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER H. Craig Winn P.E.
4-25-2023

SHEET TITLE:
SECTIONS AND DETAILS

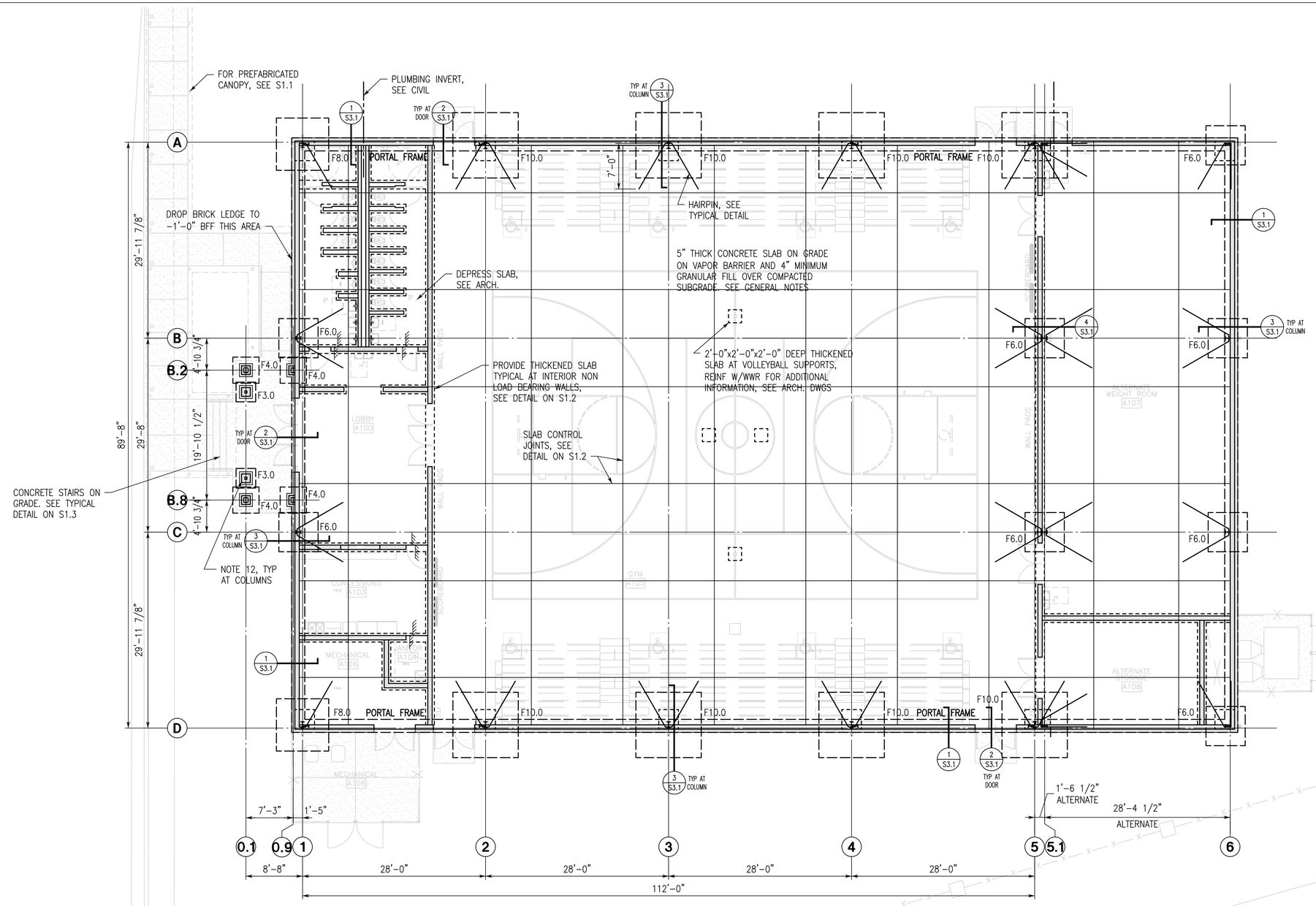
PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
S3.2
8 OF 10

0 1" 2"

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041



FOOTING SCHEDULE

FOOTING DESIGNATION		F3.0	F4.0	F6.0	F8.0	F10.0
FOOTING	SIZE (LxW)	3'-0"x3'-0"	4'-0"x4'-0"	6'-0"x6'-0"	8'-0"x8'-0"	10'-0"x10'-0"
	DEPTH (D)	1'-3"	1'-6"	1'-6"	1'-6"	1'-6"
	REINF EW (BOT)	3#5	4#5	6#6	8#6	10#6
	NOTES	1	1	1	1	1

NOTES:
1. PROVIDE SCHEDULED REINFORCING AT TOP AND BOTTOM OF FOOTING.

PROJECT NORTH

FOUNDATION PLAN - ALTERNATE

1/8"=1'-0"

1. FINISH FLOOR (TOP OF SLAB) ELEVATION 0'-0", UNLESS NOTED.
2. TOP OF FOOTING ELEVATION IS -2'-0" BELOW FINISH FLOOR, UNLESS NOTED.
3. FOR GENERAL NOTES SEE SHEET S1.1.
4. FOR SLAB ON GRADE CONSTRUCTION, SEE GENERAL NOTES AND TYPICAL DETAILS.
5. FOR SLAB RECESS SIZE AND LOCATION, SEE ARCHITECTURAL DRAWINGS.
6. GENERAL CONTRACTOR SHALL CUT SAWN JOINTS NO MORE THAN 8 HOURS AFTER STEEL TROWEL FINISH ON SLAB.
7. GENERAL CONTRACTOR TO COORDINATE ALL DRAWINGS WITH THE METAL BUILDING SUPPLIER BEFORE FOUNDATION INSTALLATION BEGINS. SEE GENERAL NOTES ON S1.1 FOR ADDITIONAL INFORMATION.
8. GENERAL CONTRACTOR SHALL OBTAIN AND LAYOUT COLUMN ANCHOR RODS FROM ANCHOR ROD SETTING PLAN PROVIDED BY THE METAL BUILDING MANUFACTURER.
9. FOR PRE-FABRICATED METAL BUILDING, SEE GENERAL NOTES ON S1.1.
10. "F#" INDICATES CONCRETE SPREAD FOOTING. SEE SCHEDULE ON THIS SHEET FOR SIZE AND REINFORCING.
11. COORDINATE ALL BUILDING OFFSETS AND SLAB EDGE WITH ARCHITECTURAL DRAWINGS.
12. INFILL CMU WITH #4 BARS EACH CELL FOR FULL HEIGHT.

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER CRAIG WINN
H. Craig Winn, P.E.
4-25-2023

SHEET TITLE:
FOUNDATION PLAN - ALTERNATE

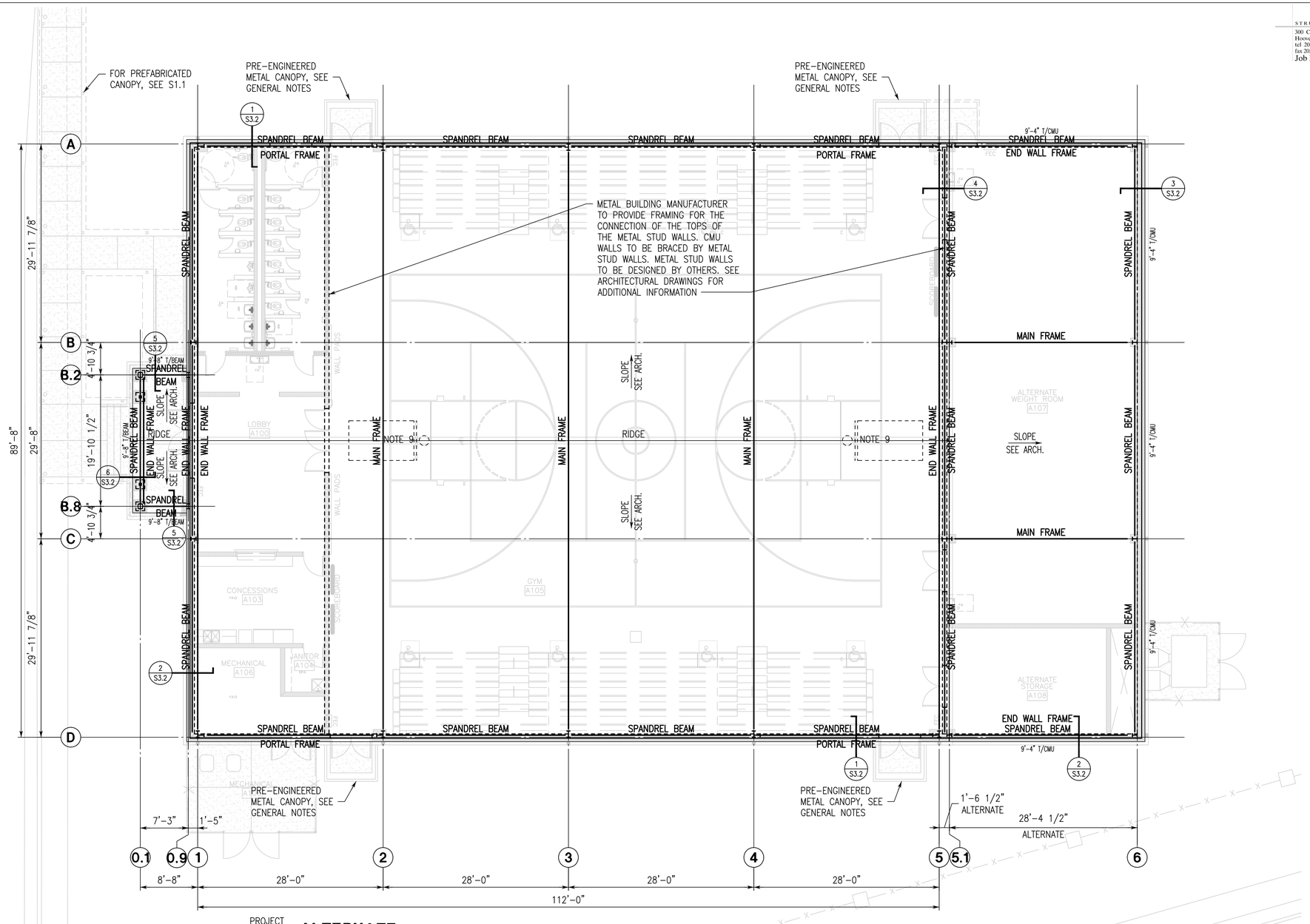
PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
S10.1
9 OF 10

0 1" 2"

SDG
STRUCTURAL DESIGN GROUP
300 Chase Park South, Suite 125
Hoover, AL 35244
tel 205-824-5200
fax 205-824-5280
Job Number 23-041



PROJECT NORTH

ALTERNATE
METAL BUILDING ROOF FRAMING PLAN
1/8"=1'-0"

1. ROOF SYSTEM: PREFABRICATED METAL BUILDING FRAMES WITH PURLINS SUPPORTING STANDING SEAM METAL ROOFING.
2. TOP OF CMU WALL ELEVATION 10'-0" ABOVE FINISH FLOOR, UNLESS NOTED. TOP OF STEEL ELEVATION 10'-4" ABOVE FINISH FLOOR, UNLESS NOTED.
3. FOR ELEVATIONS OF STRUCTURAL STEEL LINTELS AND WIND GIRTS, SEE PLAN OR SECTIONS.
4. METAL BUILDING MANUFACTURER TO USE FRAME LINES AS INDICATED. WHERE THIS IS NOT FEASIBLE THE METAL BUILDING SHOP DRAWINGS SHOULD CLEARLY DESIGNATE ANY DEVIATIONS. ARCHITECT MUST APPROVE ANY CHANGES MADE TO FRAME LAYOUT PRIOR TO FABRICATION.
5. LOCATIONS OF PORTAL AND BRACED FRAMES FOR LATERAL STABILITY OF THE STRUCTURE TO BE AS DIRECTED BY THE METAL BUILDING MANUFACTURER. EVERY EFFORT SHOULD BE MADE TO COORDINATE FRAMES WITH EXISTING ARCHITECTURE. LOCATIONS AND SIZE OF FRAME ELEMENTS SHOULD BE CLEARLY DEFINED ON SHOP DRAWINGS SUBMITTED FOR APPROVAL.
6. THE METAL BUILDING MANUFACTURER IS TO DESIGN THE FRAMES AND END WALL COLUMNS FROM REACTIONS OF HORIZONTAL GIRTS SHOWN ON THESE DRAWINGS. WHERE REACTIONS ARE NOT PROVIDED, THE METAL BUILDING MANUFACTURER IS TO SHOW ESTIMATED REACTIONS ON THE METAL BUILDING SHOP DRAWINGS SUBMITTED FOR APPROVAL. ALL CONNECTIONS OF THE HORIZONTAL GIRTS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROVIDED ON THE STRUCTURAL STEEL SHOP DRAWINGS AND FULLY COORDINATED WITH THE METAL BUILDING MANUFACTURER. SUBMIT CALCULATIONS PROVIDED BY A PROFESSIONAL REGISTERED STRUCTURAL ENGINEER.
7. HANGER LOCATIONS FOR PIPING LARGER THAN 3 INCHES IN DIAMETER MUST BE COORDINATED BY GENERAL CONTRACTOR WITH THE METAL BUILDING MANUFACTURER AND THE JOIST MANUFACTURER. FOR PIPING WEIGHTS, SEE TABLE ON SHEET S1.3.
8. CONTRACTOR COORDINATE SPRINKLER PIPING LOADS WITH METAL BUILDING MANUFACTURER. FOR PIPING WEIGHTS, SEE TABLE ON SHEET S1.3. PIPING WILL RESULT IN A CONCENTRATED LOAD AT HANGER LOCATIONS. COORDINATE MAXIMUM HANGER SPACING WITH METAL BUILDING MANUFACTURER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF BASKETBALL GOAL SUPPORTS AND THEIR ATTACHMENT TO THE ROOF STRUCTURE. SUBMIT SHOP DRAWINGS SHOWING DETAILING OF GOAL SUPPORTS AND ATTACHMENT TO ROOF STRUCTURE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER. COORDINATE LOADS WITH METAL BUILDING MANUFACTURER.
10. WHERE ROOF SUPPORTED/SUSPENDED MECHANICAL UNITS ARE LOCATED THE CONTRACTOR SHALL COORDINATE ALL LOADING, CURB SUPPORTS, OPENING FRAMING AND ANY ADDITIONAL SUPPORT REQUIREMENTS WITH THE METAL BUILDING MANUFACTURER. THE METAL BUILDING MANUFACTURER SHALL PROVIDE ALL FRAMING AS REQUIRED TO SUPPORT THE MECHANICAL UNIT AND CURBS AT LOCATIONS SHOWN.

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED No. 22596 PROFESSIONAL ENGINEER CRAIG WINN
H. Craig Winn, P.E.
4-25-2023

SHEET TITLE:
ROOF FRAMING PLAN - ALTERNATE

PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
S10.2
10 OF 10

0 1" 2"

PLUMBING NOTES

1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE PLUMBING SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, ACCESSORIES, AND CONTROLS COMPLETELY COORDINATED WITH ALL TRADES. ALL REQUIREMENTS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED TO. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, LOCAL AUTHORITIES, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE OWNER. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
2. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC, AND ELECTRICAL TRADES. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC.
3. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.
4. VERIFY LOCATION OF ALL FIXTURES WITH ARCHITECTURAL PLANS.
5. VERIFY ALL FIXTURE MOUNTING HEIGHTS WITH ENGINEER AND ARCHITECT.
6. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL DRAWINGS. SET SLEEVES IN FLOORS/WALLS AND ATTACHMENTS FOR HANGERS AS CONSTRUCTION PROGRESSES. ALL PENETRATIONS MUST BE SEALED AND HELD AS TIGHT TO COLUMNS OR WALLS AS POSSIBLE.
7. PROVIDE 12"X12" ACCESS PANEL FOR SHOCK ABSORBERS, TRAP PRIMERS, AND ALL VALVES LOCATED ABOVE NON-ACCESSIBLE CEILINGS AND INSIDE PIPE CHASES. EXACT LOCATION MUST BE COORDINATED WITH ARCHITECTURAL AND APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
8. ALL PIPING SHALL BE CONCEALED INSIDE WALLS, WITHIN PIPE CHASES, OR ABOVE CEILINGS. HOLD ALL PIPING ABOVE CEILING AS HIGH AS POSSIBLE.
9. COORDINATE ALL UNDERGROUND PIPING WITH GRADE BEAMS, WALL FOOTINGS, AND OTHER STRUCTURAL CONDITIONS.
10. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL EQUIPMENT INDICATED ON DRAWINGS FINAL CONNECTION SHALL INCLUDE ANY ADAPTORS, NIPPLES, SHUT-OFF VALVES, PRV'S, SHOCK ABSORBERS, BACKFLOW PREVENTION DEVICES, REGULATORS, ETC.
11. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCK OUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
12. CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL DOMESTIC WATER AND SANITARY SEWERS, UNLESS OTHERWISE NOTED.
13. ALL PLUMBING COMPONENTS TO BE LEAD-FREE.
14. ENCASE ALL WASTE/WATER PIPING, VALVES, WATER HEATER, OR ANY OTHER ASSOCIATED PLUMBING EQUIPMENT BELOW WALL HUNG LAVATORY, WITH TRUEBRO LAV-SHIELD (OR APPROVED EQUAL). THIS APPLIES TO ALL LAVS. LAV GUARD SHALL INCLUDE STAINLESS STEEL TAMPER RESISTANT SCREWS. LAV-SHIELD SHALL BE ORDERED TO MATCH SPECIFIED/APPROVED LAVATORY.
15. HORIZONTAL DRAINAGE PIPING OF 2-1/2" DIAMETER OR LESS SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/4" PER FOOT. PIPING 3" AND LARGER SHALL BE INSTALLED WITH A FALL OF NOT LESS THAN 1/8" PER FOOT.
16. SET FLOOR DRAIN ELEVATION DEPRESSED BELOW FINISHED SLAB ELEVATION AS LISTED BELOW TO PROVIDE PROPER FLOOR SLOPE TO DRAIN:
    5 FOOT DRAIN RADIUS : 1/2" DEPRESSION
    10 FOOT DRAIN RADIUS : 3/4" DEPRESSION
    15 FOOT DRAIN RADIUS : 1" DEPRESSION
    20 FOOT DRAIN RADIUS : 1-1/4" DEPRESSION
    25 FOOT DRAIN RADIUS ; 1-1/2" DEPRESSION
17. ALL TRAP ARMS, P-TRAPS, ETC. EXPOSED UNDER LAVATORIES SHALL BE 18. GA. CHROME PLATED.
18. ABOVE GROUND DRAINAGE AND VENT PIPING LOCATED WITHIN FIRE RATED WALLS SHALL BE COPPER PIPE IN ACCORDANCE WITH STANDARDS ASTM B42 AND B302 OR CAST IRON PIPE IN ACCORDANCE WITH STANDARDS ASTM A 74; ASTM A 888; CISPI 301. COORDINATE WITH ARCHITECTURAL LIFE SAFETY PLANS FOR EXACT LOCATION OF ALL FIRE WALLS.
19. ALL CONDENSATE DRAIN PIPING LOCATED WITHIN RETURN AIR PLENUM, SHALL BE TYPE "L" COPPER. ALL COPPER PIPING MUST BE INSULATED WITH 1/2" ARMAFLEX OR APPROVED EQUAL. PIPING CAN ALSO BE SCHEDULE 40 CPVC. ALL CONDENSATE DRAIN PIPING THAT IS NOT LOCATED WITHIN RETURN AIR PLENUM MAY BE SCHEDULE 40 PVC WITH 1/2" ARMAFLEX INSULATION (OR APPROVED EQUAL). INSULATION SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION. COORDINATE WITH HVAC PLAN FOR REQUIREMENT AND LOCATION OF AIR PLENUM(S).
20. VERIFY ORIENTATION OF FLUSHING MECHANISM ON TOILET/URINAL WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.
21. PROVIDE WATER PRESSURE REDUCING/REGULATING VALVE ON MAIN SERVICE WHEN MAIN PRESSURE EXCEEDS 75 PSI AT ANY TIME OF DAY. COORDINATE WITH LOCAL UTILITY.
22. PROVIDE REDUCED PRESSURE BACKFLOW PREVENTER AT ALL CONNECTIONS TO MECHANICAL EQUIPMENT. KITCHEN AND LAUNDRY EQUIPMENT, ETC., AS REQUIRED BY CODE AND BY LOCAL AUTHORITY. CONTRACTOR IS TO VERIFY WITH THE LOCAL AUTHORITY THE TYPE OF BACKFLOW PREVENTION DEVICE REQUIRED FOR ALL APPLICATIONS PRIOR TO INSTALLATION.
23. ALL OVERHEAD WATER PIPING SHALL BE INSTALLED BELOW CEILING INSULATION.
24. INSTALL BACKFLOW PREVENTION IN ACCORDANCE WITH CITY AND STATE REQUIREMENTS. INSTALL ON MAIN DOMESTIC WATER SERVICE TO THE BUILDING.
25. CONTRACTOR SHALL INSTALL WATER HAMMER ARRESTER EQUAL TO ZURN SERIES 1700 AT EACH PLUMBING GROUP.
26. CONTRACTOR TO FURNISH AND INSTALL ANTI-SIPHON VALVE ON EACH WATER HEATER.
27. CONTRACTOR SHALL FURNISH AND INSTALL BALL VALVES FOR WATER SHUT-OFF AT FIXTURE GROUPINGS.
28. TRAP PRIMERS TO BE PRECISION PLUMBING PRODUCTS MODEL NO. PO-500 WITH A6-500 AIR GAPS OR APPROVED EQUAL. DISTRIBUTION CUP (DU-4) ABOVE CEILING OR BEHIND ACCESS PANEL FOR UP TO FOUR FLOOR DRAINS.
29. WATER HEATERS SHALL INCLUDE HEAT TRAP FITTING ON INLET AND OUTLET WATER CONNECTIONS.
30. ALL STOPS/SUPPLIES SHALL BE CHROME PLATED BRASS.

CIRCULATOR PUMP SCHEDULE

MARK NO.	TYPE	GPM	TOTAL HEAD FT. W.G.	MAXIMUM H.P.	MINIMUM EFFICIENCY	ELECTRICAL	DESIGN MFGR.	DESIGN MFGR. MODEL NO.
CP-1	IN-LINE CENTRIF.	0-11	0-4.5	1/40	-	120-1-60	TACO	006e3LC

NOTES:
(1) SmartPlus-e HOT WATER RECIRCULATION PUMP WITH SmartPlug CONTROLS FOR DOMESTIC WATER
(2) 1" BRONZE SWEAT
(3) 6 FT. CORD

PLUMBING EQUIPMENT SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	NOTES
WC-1	WATER CLOSET FLUSH VALVE	ZURN MODEL NO. Z5655 OR APPROVED EQUAL	FLOOR	15" TO RIM	4"	2"	1 1/4"	-	WHITE ELONGATED VITREOUS CHINA, FLUSH VALVE WALL SUPPORT, WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS. HCP. 12" ROUGH-IN, ZURN Z6000AV-YJ FLUSH VALVE
WC-1A	WATER CLOSET FLUSH VALVE ADA	ZURN MODEL NO. Z5665 OR APPROVED EQUAL	FLOOR	16-1/8" TO RIM	4"	2"	1 1/4"	-	WHITE ELONGATED VITREOUS CHINA, FLUSH VALVE WALL SUPPORT, WHITE OPEN FRONT SOLID PLASTIC SEAT, BOLT CAPS. HCP. 12" ROUGH-IN, ZURN Z6000AV-YJ FLUSH VALVE
U-1	URINAL	ZURN MODEL NO. Z5755 OR APPROVED EQUAL	WALL	REF. ARCH.	2"	1-1/4"	1"	-	WHITE VITREOUS CHINA, ZURN Z6003AV-YJ FLUSH VALVE, BOLT CAPS, WALL HANGER, 1 GAL. VERSION
U-1A	URINAL ADA	ZURN MODEL NO. Z5755 OR APPROVED EQUAL	WALL	REF. ARCH.	2"	1-1/4"	1"	-	WHITE VITREOUS CHINA, ZURN Z6003AV-YJ FLUSH VALVE, BOLT CAPS, WALL HANGER, 1 GAL. VERSION
L-1	LAVATORY 20"X18"	ZURN MODEL NO. Z5344 OR APPROVED EQUAL	WALL	REF. ARCH.	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, DELTA MODEL 501-DST FAUCET, W/ 0.5 GPM AERATOR; P-TRAP W/ CLEANOUT; CONCEALED ARM CARRIER; SUPPLIES W/ STOPS
L-1A	LAVATORY, ADA 20"X18"	ZURN MODEL NO. Z5344 OR APPROVED EQUAL	WALL	REF. ARCH.	1-1/4"	1-1/4"	1/2"	1/2"	WHITE VITREOUS CHINA, OPEN GRID STRAINER, DELTA MODEL 501-DST FAUCET, W/ 0.5 GPM AERATOR; P-TRAP W/ CLEANOUT; CONCEALED ARM CARRIER; SUPPLIES W/ STOPS
SS-1	SERVICE SINK	FIAT MODEL NO. MSB-2424 OR APPROVED EQUAL	FLOOR	SEE DETAIL	3"	2"	1/2"	1/2"	MOLDED-STONE, DELTA NO. 28C2383, 3" IPS STRAINER, POLISHED CHROME FAUCET WITH VACUUM BREAKER, HOSE/ WALL BRACKET, MOP HANGER
S-1	STAINLESS SINK TWO COMPARTMENT	JUST MODEL NO. DL-2133-A-GR OR APPROVED EQUAL	CABINET	-	1-1/2"	1-1/4"	1/2"	1/2"	ELKAY MODEL NO. LK-335 STRAINER, DELTA MODEL 100LF-HDF (1.5 GPM) FAUCET, SUPPLIES WITH STOPS, P-TRAP WITH CLEANOUT, 8" BOWL DEPTH

EQUALS BY ELJER, KOHLER, TOTO, AND AMERICAN STANDARD WILL BE ACCEPTED.

PLUMBING SPECIALITY SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	H.W. SIZE	MIXED WATER SIZE	NOTES
FD-1	FLOOR DRAIN	ZURN MODEL NO. ZN-415B-P OR APPROVED EQUAL	FLOOR	-	4"	2"	1/2"	-	-	5" DIA. NICKEL BRONZE ADJUSTABLE TOP 1/2" TRAP PRIMER W/ PROSET SYSTEM INC. TG34IP RETROFIT TRAP GUARD
WH-1	WALL HYDRANT	WOODFORD MODEL NO. B65 OR APPROVED EQUAL	WALL	18" TO 24"	-	-	3/4"	-	-	FREEZELESS, ANTI-SIPHON, LOCKING BOX
F.C.O.	FLOOR CLEANOUT	ZURN MODEL NO. ZN-1400-2 OR APPROVED EQUAL	FLOOR	-	4"	-	-	-	-	6" DIA. ADJUSTABLE NICKEL BRONZE TOP
W.H.A.	WATER HAMMER ARRESTOR	ZURN SERIES 1700 OR APPROVED EQUAL	-	-	-	-	VARIES	VARIES	-	
WB-1	ICEMAKER WALLBOX	OATEY MODEL NO. 38574 OR APPROVED EQUAL	WALL	36" A.F.F.	-	-	1/2"	-	-	1/4 TURN BRASS BALL VALVE - COPPER SWEAT - STANDARD PACK WITH 6' STAINLESS STEEL HOSE
HD-1	HUB DRAIN	PROSET MODEL SYSTEM INC. MODEL NO. TG34IP OR APPROVED EQUAL	FLOOR	-	4"	2"	1/2"	-	-	STUB TO 1" A.F.F. 1/2" TRAP PRIMER

EQUALS BY JAY R SMITH, ZURN, OATEY, OR JONES WILL BE ACCEPTED

ELECTRIC WATER HEATER SCHEDULE

MARK	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	SIZE	VOLTAGE	WATTS SIZE	DIMENSIONS	C.W. INLET	H.W. INLET	NOTES
EWH-1	ELECTRIC WATER HEATER LOW BOY	A.O. SMITH MODEL NO. DEL-30 OR APPROVED EQUAL	30 GAL.	240 1 PHASE	4,500	24"ø 32"H	3/4"	3/4"	UPPER AND LOWER 4,500 WATT NON-SIMULTANEOUS ELEMENTS; ASHRAE 90.1 COMPLIANT; SIDE CONNECTIONS

EQUALS BY STATE, RHEEM, OR A. O. SMITH WILL BE ACCEPTED

ELECTRIC WATER COOLER SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER'S MODEL NO.	MOUNT	MOUNT HEIGHT	WASTE SIZE	VENT SIZE	C.W. SIZE	NOTES
EWC-1	ELECTRIC WATER COOLER, ADA SPLIT LEVEL	ELKAY MODEL NO. EZSTL8WSSK OR APPROVED EQUAL	WALL	34-1/2" TO NOZ. CENTER	1-1/4"	1-1/4"	1/2"	ADA MOUNTED AT 34.5" AFF TO NOZZLE CENTERLINE, STAINLESS STEEL W/ TRIM BEZEL, WITH BOTTLE FILLING STATION, FILTER, MOUNTING KIT

EQUALS BY HAWS OR OASIS WILL BE ACCEPTED

MIXING VALVE SCHEDULE

MARK NO.	MANUFACTURER'S MODEL NO.	TEMPERATURE (°F)	INLET	OUTLET
MV-1	POWERS SERIES LFLM497	SET AT 90°-110°	1"	1"

NOTES:
1. UNLESS OTHERWISE NOTED, MIXING VALVES SHALL CONFORM TO ASSE 1070 AND ASSE 1017

PLUMBING LEGEND

SS	SANITARY SEWER		FLOOR DRAIN
SD	STORM DRAIN, RAINWATER DRAIN		HUB DRAIN
CD	CONDENSATE DRAIN		HOT WATER RETURN PUMP
CW	COLD WATER		BALL VALVE
110°	110° HOT WATER		BALL VALVE IN PLASTIC METER BOX W/CAST IRON LID
140°	140° HOT WATER		GAS COCK
110°HWR	110° HOT WATER RETURN		CHECK VALVE
140°HWR	140° HOT WATER RETURN		RISER DOWN (ELBOW)
V	VENT		RISER UP (ELBOW)
NG	NATURAL GAS		90° ELBOW
	TRAP PRIMER		TEE
	CONNECT TO EXISTING		CROSS
AAV	AIR ADMITTANCE VALVE (SBCCI APPROVED)	VTR	VENT THRU ROOF

PVC PIPE HANGER SPACING GUIDE

PVC PIPE SUPPORTS - SCHEDULE 40

MAXIMUM SUPPORT SPACING (FEET)

NPS (INCHES)	OPERATING TEMPERATURE (°F)		
	60	100	140
1/2	4.5	4	2.5
3/4	5	4	2.5
1	5.5	4.5	2.5
1-1/4	5.5	5	3
1-1/2	6	5	3
2	6	5	3
3	7	6	3.5
4	7.5	6.5	4
6	8.5	7.5	4.5
8	9	8	4.5

PVC PIPE SUPPORTS - SCHEDULE 80

MAXIMUM SUPPORT SPACING (FEET)

NPS (INCHES)	OPERATING TEMPERATURE (°F)		
	60	100	140
1/2	5	4.5	2.5
3/4	5.5	4.5	2.5
1	6	5	3
1-1/2	6.5	5.5	3.5
2	7	6	3.5
3	8	7	4
4	9	7.5	4.5
6	10	9	5
8	11	9.5	5.5

NOTE: PLASTIC PIPE SUPPORTS SHALL BE AS NOTED ABOVE UNLESS MANUFACTURER'S RECOMMENDATION IS MORE STRINGENT FOR THE APPLICATION.

CODES AND STANDARDS

- **2021 INTERNATIONAL PLUMBING CODE**
- **2021 INTERNATIONAL MECHANICAL CODE**
- **2021 INTERNATIONAL FIRE CODE**
- **2010 ADA STANDARDS FOR ACCESSIBLE DESIGN**

PLUMBING DRAWING INDEX

PLUMBING SCHEDULES, LEGEND, AND NOTES

NOT TO SCALE

WHORTON ENGINEERING, INC.
HVAC - PLUMBING - PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA REGISTERED PROFESSIONAL ENGINEER RANDALL D. WHORTON No.14192 PROFESSIONAL
05-04-2023

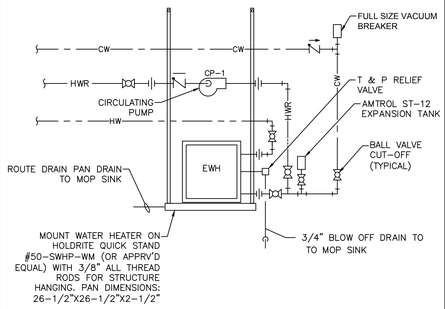
SHEET TITLE:
PLUMBING SCHEDULES, LEGEND AND NOTES

PROJ. MGR.:	RDW
DRAWN:	RLJ
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

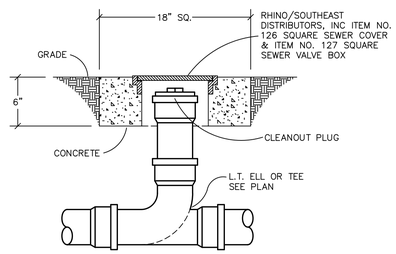
SHEET NO:
P1.1
1 OF 5

0 1" 2"



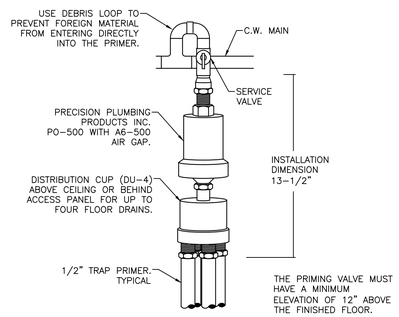
ELECTRIC WATER HEATER MOUNTED ABOVE MOP SINK

NOT TO SCALE



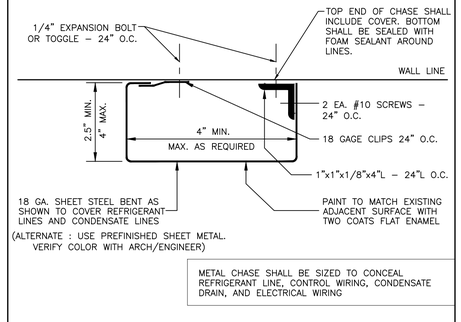
CLEANOUT UP TO GRADE

NOT TO SCALE



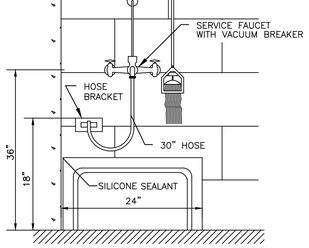
TYPICAL TRAP PRIMER

NOT TO SCALE



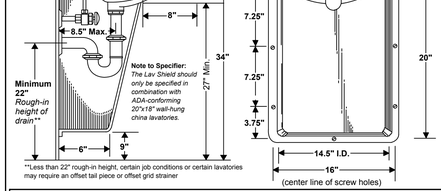
SECTION THRU METAL CHASE

NOT TO SCALE



MOP SINK DETAIL

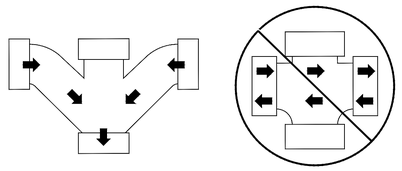
NOT TO SCALE



ENCASE ALL WASTE/WATER PIPING, VALVES, WATER HEATER, OR ANY OTHER ASSOCIATED PLUMBING EQUIPMENT BELOW WALL HUNG LAVATORY, WITH TRUEBRO LAV-SHIELD (OR APPROVED EQUAL). THIS APPLIES TO ALL ADA LAVS, LAVS WITH MIXING VALVES MOUNTD BELOW LAV, AND ALL LAVS THAT INCLUDE INSTANTANEOUS ELECTRIC WATER HEATERS MOUNTED BELOW LAVS. LAV GUARD SHALL INCLUDE STAINLESS STEEL TAMPER RESISTANT SCREWS. SPECIAL PRE-CUT FOR LAVATORY TO BE INSTALLED. LAV-SHIELD SHALL BE ORDERED TO MATCH SPECIFIED LAVATORY.

TYP. LAVATORY WITH "LAV SHIELD"

NOT TO SCALE



USE A 45° DOUBLE WYE FITTING.

DO NOT USE A DOUBLE SANITARY TEE.

TYPICAL BACK TO BACK INSTALLATION FITTINGS

NOT TO SCALE

PLUMBING DETAILS

NOT TO SCALE

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA LICENSED PROFESSIONAL ENGINEER RANDALL D. WHORTON No.14192 PROFESSIONAL
05-04-2023

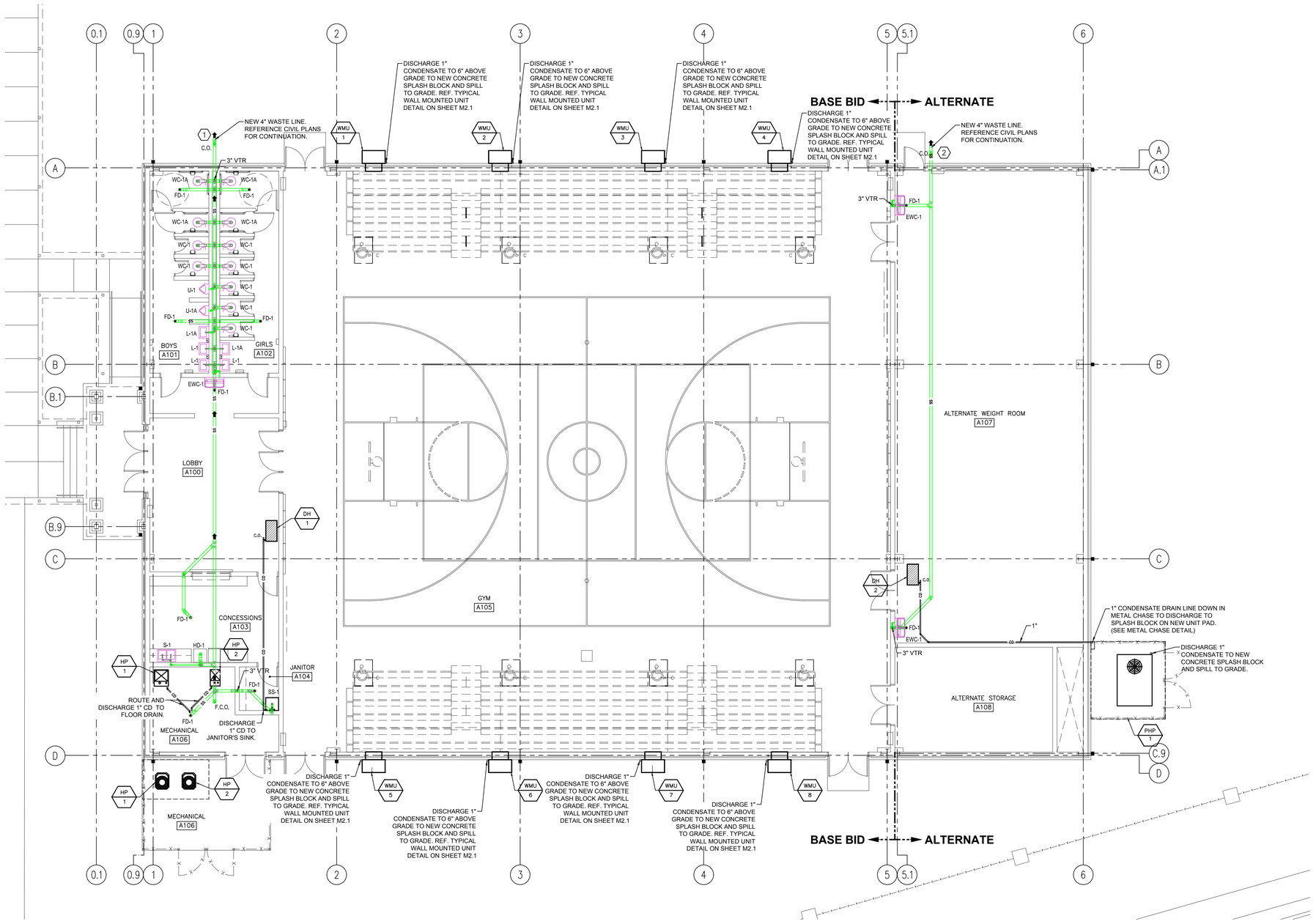
SHEET TITLE:
PLUMBING DETAILS

PROJ. MGR.:	RDW
DRAWN:	RLJ
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
P1.2
2 OF 5

0 1" 2"



SANITARY OUTFALL

MARK NO.	HORIZ. LENGTH FT	EST. BFF (BELOW FIN. FLOOR) FT
1	86	±3.89
2	73	±3.76 (ALTERNATE)

NOTE: VERIFY FINAL OUTFALL WITH CIVIL ENGINEER PRIOR TO BEGINNING WORK.

WASTE AND CONDENSATE PLUMBING PLAN

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

SCALE 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA No.14192 PROFESSIONAL ENGINEER RANDALL D WHORTON
05-04-2023

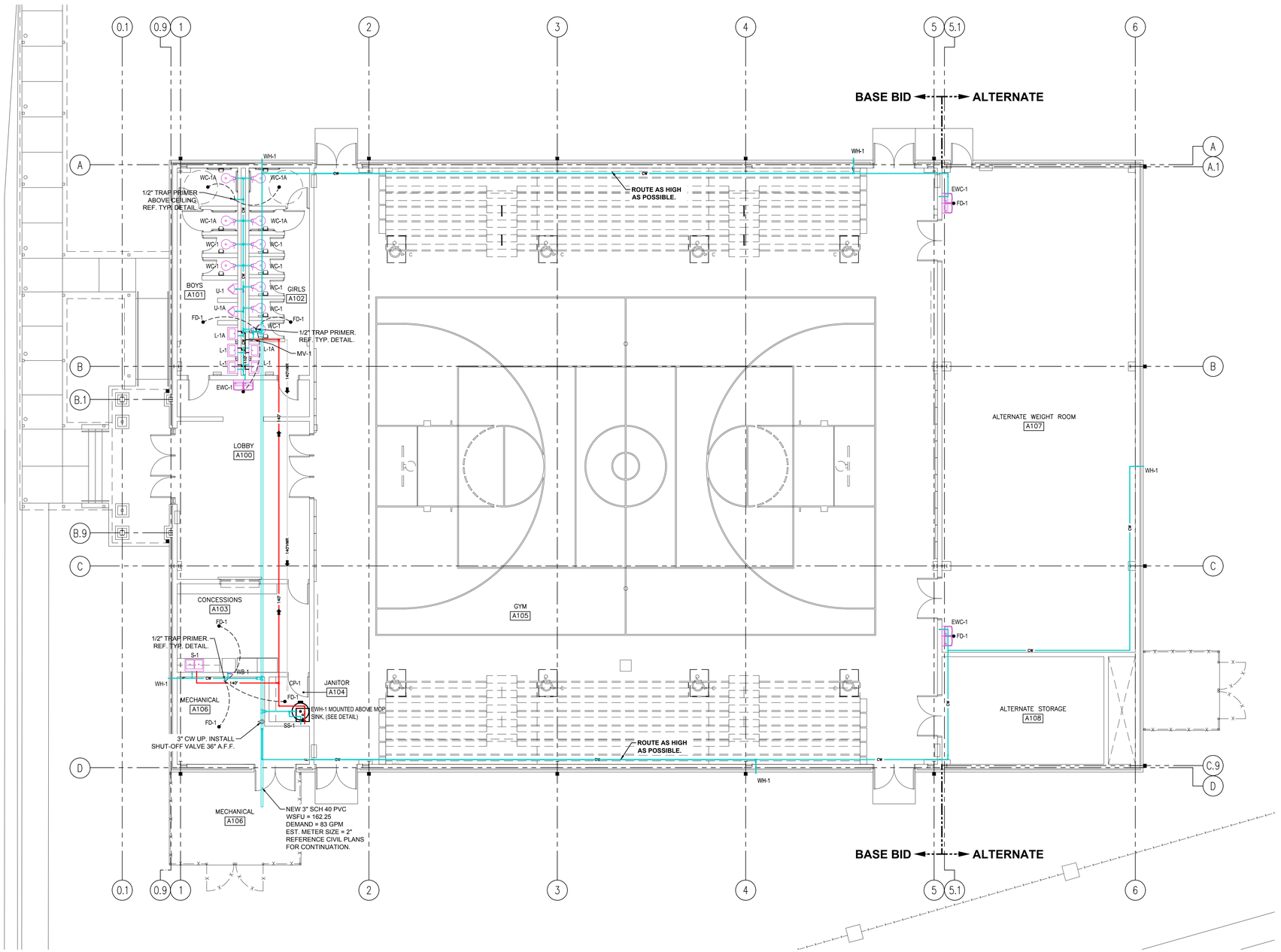
SHEET TITLE:
WASTE AND CONDENSATE PLUMBING PLAN

PROJ. MGR.:	RDW
DRAWN:	RLJ
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
P2.1
3 OF 5

0 1" 2"



N

W E

S

WATER PLUMBING PLAN

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

SCALE 4' 8' 16'

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA
REGISTERED
No.14192
PROFESSIONAL
ENGINEER
RANDALL D. WHORTON
05-04-2023

SHEET TITLE:
WATER PLUMBING PLAN

PROJ. MGR.:	RDW
DRAWN:	RLJ
DATE:	APRIL 25, 2023
REVISIONS	

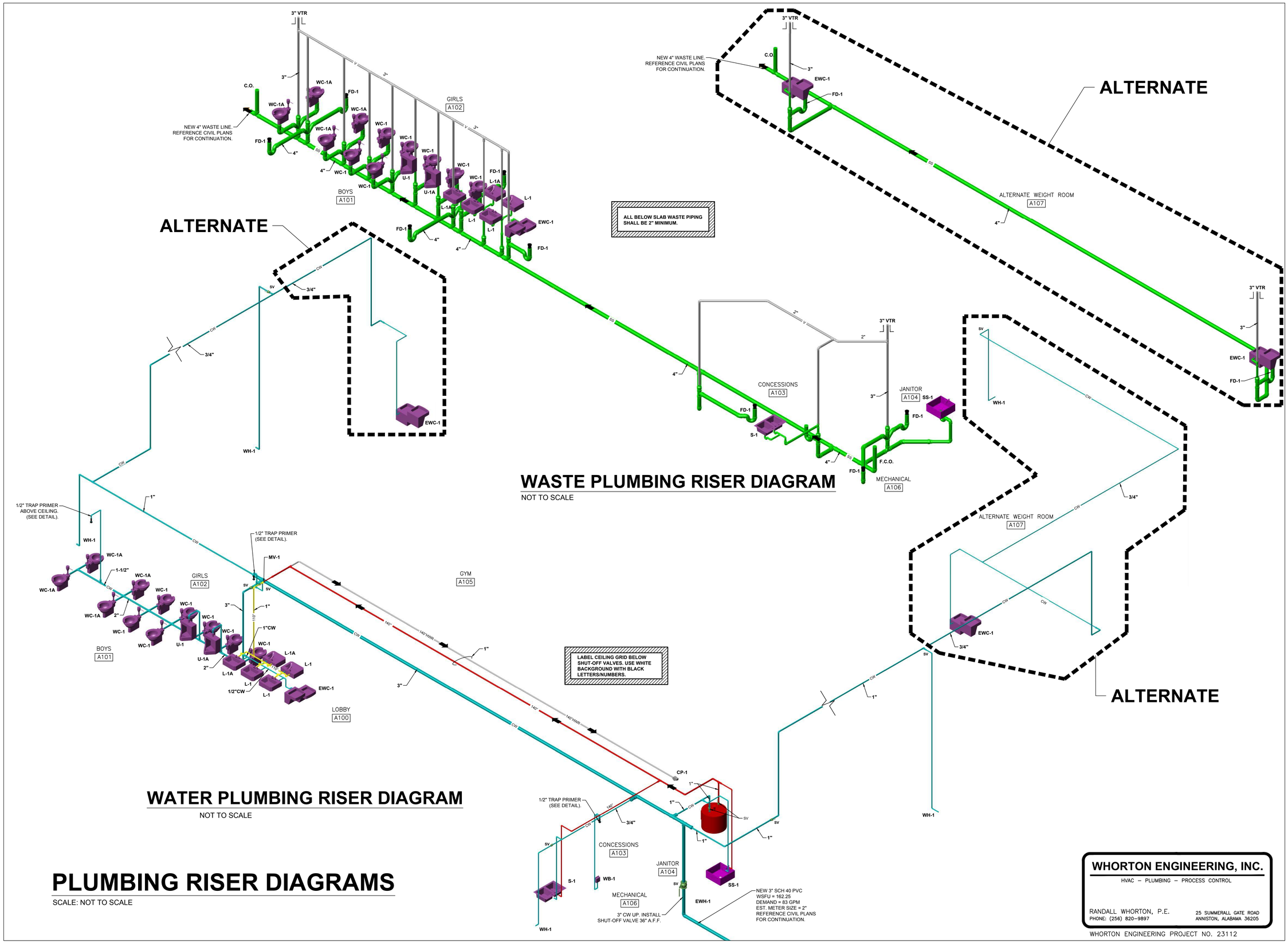
JOB NO. 22-131

SHEET NO:

P3.1

4 OF 5

0 1" 2"



WASTE PLUMBING RISER DIAGRAM

NOT TO SCALE

WATER PLUMBING RISER DIAGRAM

NOT TO SCALE

PLUMBING RISER DIAGRAMS

SCALE: NOT TO SCALE

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA LICENSED PROFESSIONAL ENGINEER No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
05-04-2023

SHEET TITLE:
PLUMBING RISER DIAGRAMS

PROJ. MGR.:	RDW
DRAWN:	RLJ
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

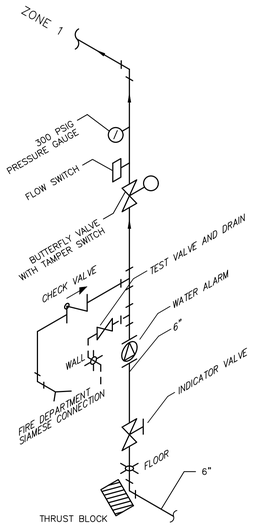
SHEET NO:
P4.1
5 OF 5

0 1" 2"

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 23112

FIRE SERVICE RISER DIAGRAM



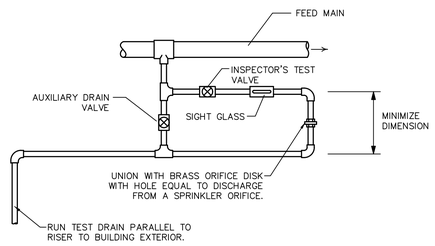
FIRE SPRINKLER SYSTEM NOTES

1. THE FIRE PROTECTION SYSTEM IS SHOWN IN SCHEMATIC FORM ONLY. THE SUCCESSFUL FIRE PROTECTION VENDOR SHALL LOCATE AND SIZE ALL SPRINKLER HEADS, FIRE DEPARTMENT CONNECTIONS, STANDPIPE SYSTEMS, PIPING, ETC. IN COMPLETE ACCORDANCE WITH NFPA 13 AND THE 2015 INTERNATIONAL BUILDING CODE AND LOCAL REQUIREMENTS.
2. SYSTEM DESIGN TO BE IN ACCORDANCE WITH WRITTEN SPECIFICATIONS. ALL HYDRAULIC CALCULATIONS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW AND APPROVAL.
3. ALL PIPING SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID PLUMBING AND HVAC INSTALLATIONS. FAILURE TO COORDINATE WORK WILL RESULT IN REWORK AT CONTRACTOR'S EXPENSE. MAINTAIN MINIMUM STAIR WELL EGRESS CLEARANCE.
4. INSTALL ALL ABOVE CEILING PIPING BELOW DUCT.
5. NSTALL ALL EXPOSED PIPING AS HIGH AS POSSIBLE.
6. ROUTE ALL EXPOSED PIPING IN CHASES WHERE POSSIBLE.
7. COORDINATE ALL WORK WITH ARCHITECTURAL, STRUCTURAL, HVAC AND ELECTRICAL TRADES, PLUMBING. PIPE ROUTING SHOWN IS DIAGRAMMATIC. PROVIDE ALL OFFSETS, ETC., TO AVOID INTERFERENCES WITH EQUIPMENT, PIPING, DUCTWORK, LIGHTS, CONDUIT, ETC..
8. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL DRAWINGS. SET SLEEVES IN FLOORS AND WALLS AND ATTACHMENTS FOR HANGERS AS CONSTRUCTION PROGRESSES. ALL PENETRATIONS MUST BE SEALED AND HELD AS TIGHT TO COLUMNS OR WALLS AS POSSIBLE.
9. ALL PIPING SHALL BE CONCEALED INSIDE WALLS AND IN PIPE CHASES OR ABOVE CEILINGS. HOLD ALL PIPING ABOVE CEILING AS HIGH AS POSSIBLE.
10. ALL STRUCTURAL PENETRATIONS (SLEEVES, BLOCKOUTS, ETC.) ARE TO BE LOCATED AND COORDINATED IN THE FIELD BY THE CONTRACTOR IN RELATION TO THE REQUIREMENTS OF FINAL EQUIPMENT AND FIXTURES SELECTED.
11. FIELD VERIFY EXACT SIZE, MATERIAL, AND LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING WORK.
12. ALL WET PIPING TO BE ROUTED BELOW CEILING INSULATION.
13. ALL DRY PIPING TO BE ROUTED IN ATTIC SPACE.
14. FIRE SPRINKLER CONTRACTOR SHALL BE LICENSED BY THE ALABAMA STATE FIRE MARSHALL'S OFFICE.

FIRE SPRINKLER LEGEND

	CONNECT TO EXISTING PIPING FIELD VERIFY LOCATION OF ALL EXISTING PIPING.
—— F ——	EXISTING FIRE PROTECTION PIPING FIELD VERIFY EXACT LOCATION.
—— FP ——	NEW FIRE PROTECTION PIPING
FDV	FIRE DEPARTMENT VALVE
—— CV ——	CONTROL VALVE
— — —	SPRINKLER ZONE DIVISION

INSTALL NEAR END OF EACH CONTROL ZONE. VERIFY FINAL LOCATION WITH ENGINEER AND INCLUDE ON SHOP DRAWINGS.



TYPICAL INSPECTOR'S TEST VALVE DETAIL

NOT TO SCALE

FIRE SPRINKLER ZONE LEGEND

ZONE NO.	AREA DISCRIPTION	SYSTEM TYPE	ZONE COVERAGE (SQFT)	ZONE HATCH PATTERN
1	GYMNASIUM, REST ROOMS, & CONCESSIONS (BASE BID)	WET PIPE	10,535	
1	GYMNASIUM, RRs, WEIGHT RM, & CONCESSIONS (BASE BID + ALT.)	WET PIPE	13,237	

FIRE SPRINKLER DRAWING INDEX

FIRE SPRINKLER LEGEND, NOTES AND DETAILS

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

WHORTON ENGINEERING, INC.

HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897

25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

STATE OF ALABAMA
REGISTERED
No.14192
PROFESSIONAL
ENGINEER
RANDALL D. WHORTON
05-04-2023

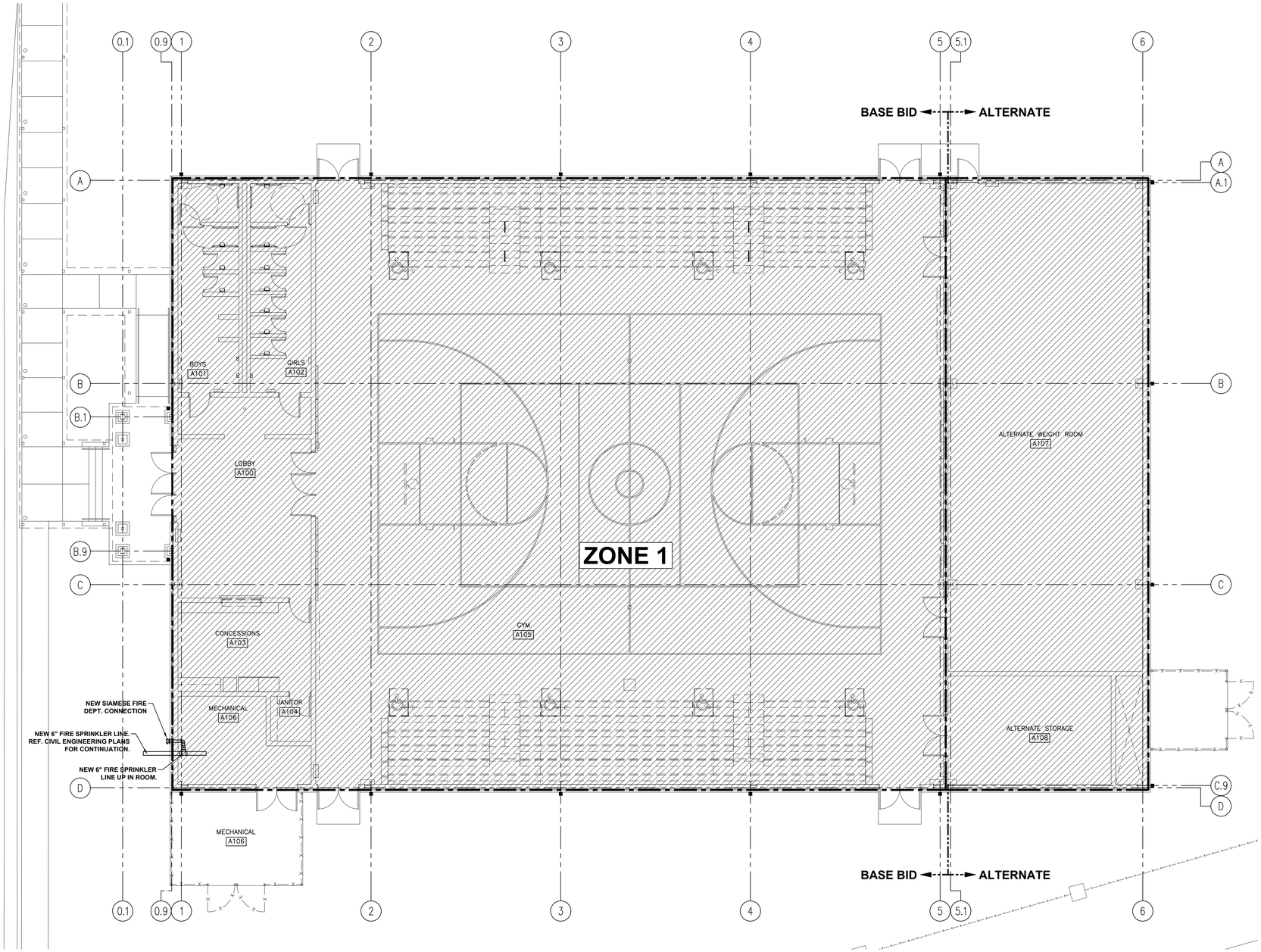
SHEET TITLE:
FIRE SPRINKLER LEGEND, NOTES AND DETAILS

PROJ. MGR.:	RDW
DRAWN:	RLJ
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
SP1.1
1 OF 2

0 1" 2"



N
W
E
S

FIRE SPRINKLER PLUMBING PLAN

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

SCALE 4' 8' 16'

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL

RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA No.14192 PROFESSIONAL ENGINEER RANDALL D. WHORTON
05-04-2023

SHEET TITLE:
FIRE SPRINKLER PLUMBING PLAN

PROJ. MGR.:	RDW
DRAWN:	RLJ
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
SP2.1
2 OF 2

0 1" 2"

HVAC LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CEILING DIFFUSER – SUPPLY RECTANGULAR WITH ROUND NECK 4–WAY THROW UNLESS OTHERWISE INDICATED		MANUAL VOLUME DAMPER OPPOSED BLADE		STANDARD 90° RADIUS ELBOW
	CEILING DIFFUSER – RETURN RECTANGULAR WITH SQUARE NECK	M	LOW LEAKAGE MOTORIZED VOLUME DAMPER		STANDARD 45° RADIUS ELBOW
	SIDEWALL DIFFUSER – SUPPLY WITH MULTI–VANE DEFLECTOR	S	SMOKE DETECTOR FOR FAN SHUT–DOWN		90° VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
	SIDEWALL DIFFUSER – RETURN WITH 30° FIXED DEFLECTION	T	THERMOSTAT LOCATION		45° VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
XX–X XXX CFM	DIFFUSER TAG REFERENCE SCHEDULE FOR SIZING	H	HUMIDISTAT LOCATION		VANED TEE (PROVIDE ALL SQUARE OR RECTANGULAR TEE'S WITH VANES EVEN IF SYMBOL IS MISSING)
	CEILING EXHAUST FAN	C	CARBON DIOXIDE SENSOR LOCATION		STANDARD DUCT SIZE TRANSITION
12"X12"	NEW RECTANGULAR DUCT WIDTH X DEPTH	CD	HVAC CONDENSATE DRAIN PIPING		STANDARD SQUARE TO ROUND TRANSITION
10"ø	NEW ROUND DUCT DIAMETER	R	HVAC REFRIGERANT LINE		ELECTRIC UNIT HEATER WALL MOUNTED (RECESSED)

HVAC NOTES

1. ALL DUCT DIMENSIONS SHOWN ARE NET INTERNAL.
2. INSTALL OPPOSED BLADE BALANCING DAMPERS IN ALL NEW DIFFUSERS AND GRILLES.
3. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE HVAC SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES, AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL REQUIREMENTS OF THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE HVAC SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE CONTRACT. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
4. COORDINATE DUCTWORK AND PIPING WITH STRUCTURAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS AS REQUIRED TO CLEAR STRUCTURAL MEMBERS, ETC. COORDINATE WITH OTHER TRADES WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
5. REFER TO ARCHITECTURAL CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES; COORDINATE EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS WITH ARCHITECTURAL AND INTERIOR REFLECTED CEILING PLANS AND LIGHTING FIXTURES. FOR PARTICULAR ITEMS NOT SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN, PREPARE A DRAWING AND PRESENT IT TO THE ARCHITECT FOR REVIEW AND/OR APPROVAL.
6. COORDINATE ALL ROOF AND SLAB PENETRATIONS WITH THE STRUCTURAL ENGINEER. TRANSITIONS RECTANGULAR DUCTWORK ON THE BOTTOM AND THE SIDES. MAINTAIN DUCTWORK LEVEL AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE.
7. THE HVAC CONTRACTOR IS TO REVIEW THE ENTIRE SET OF PLANS FOR COORDINATION WITH OTHER TRADES. SHOP DRAWINGS WITH ALL TRADES COORDINATED WILL BE REQUIRED.
8. THE HVAC CONTRACTOR SHALL REVIEW THE ARCHITECTURAL PLANS FOR FINAL LOCATIONS OF ALL RATED WALLS, CEILINGS, FLOORS, ETC. THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL FIRE OR FIRE/SMOKE DAMPERS IN ALL RATED LOCATIONS WHETHER SHOWN ON THE MECHANICAL PLANS OR NOT.
9. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
10. ALL THREE PHASE EQUIPMENT SHALL BE EQUIPPED WITH PHASE LOSS PROTECTION.
11. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR.
12. CONTRACTOR TO COORDINATE ALL CEILING TYPES WITH DIFFUSERS. ALL DIFFUSERS IN GYPSUM CEILING SHALL INCLUDE PLASTER FRAME.
13. ALL DISTRIBUTION DEVICES SHALL HAVE FACE OPERABLE DAMPERS. ALL DIFFUSER RUNOUTS SHALL INCLUDE SPIN–IN WITH DAMPER IN ROUND DUCTS.
14. INSULATE TOP SIDE/BACK OF ALL DIFFUSERS/GRILLES, ETC.
15. CONDENSATE DRAIN PIPING SHALL BE SLOPED A MINIMUM OF 1/8" PER FOOT AND SHALL BE SIZED PER TABLE 307.2.2 IN THE 2021 INTERNATIONAL MECHANICAL CODE UNLESS SHOWN LARGER ON PLANS.
16. ALL 3/4" AND 1" CONDENSATE DRAIN TRAPS SHALL BE EZ–TRAP OR APPROVED EQUAL WITH FLOAT SWITCH.
17. INSTALL AUXILIARY DRAIN PAN UNDER ALL UNITS MOUNTED IN ATTIC, ABOVE CEILINGS, ETC. INSTALL FLOAT SWITCH FOR UNIT SHUT DOWN IN AUXILIARY DRAIN PAN.
18. REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING. IF CONDENSATE DRAINS ARE NOT SHOWN ON THE PLUMBING PLANS, ALL CONDENSATE DRAINS SHALL BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR.
19. VERIFY WITH THE ARCHITECTURAL DRAWINGS, SIZE, LOCATION, AND MOUNTING HEIGHT OF ALL LOUVERS. VERIFY COLOR AND FINISH WITH ARCHITECT.
20. ALL UNUSED PORTION OF LOUVERS SHALL BE CAPPED OFF WITH 1" INSULATED ALUMINUM AND SEALED AIR/WATER TIGHT.
21. ALL THERMOSTATS TO BE AUTOMATIC CHANGE OVER TYPE AND SHALL INCLUDE LOCKING THERMOSTAT COVERS.
22. ALL THERMOSTATS TO BE MOUNTED 4'–0" A.F.F. TO HIGHEST OPERABLE CONTROL UNLESS OTHERWISE INDICATED.
23. ALL REFRIGERANT LINES SHALL BE SIZED/APPROVED BY THE EQUIPMENT VENDOR/COMPRESSOR MANUFACTURER.
24. PAINT ALL EXTERIOR EXPOSED ARMAFLEX INSULATION FOR UV PROTECTION.
25. PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES, REGISTERS, AND DIFFUSERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
26. FLEXIBLE DUCT (SUPPLY RUNOUTS ONLY) SHALL NOT EXCEED 6'–0" IN LENGTH.
27. DUCTWORK SHALL BE INSULATED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
    RECTANGULAR SUPPLY: 1" INTERNAL
    ROUND SUPPLY: 1–1/2" EXTERNAL
    FLEXIBLE SUPPLY: 1" PRE INSULATED
    RECTANGULAR RETURN: 1" INTERNAL
    OSA/EXHAUST: 1–1/2" EXTERNAL
28. DUCTWORK SHALL BE GALVANIZED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS.
29. LABEL ALL DUCTS WITH TYPE (SUPPLY, RETURN, ETC.) AND ARROWS INDICATING DIRECTION OF AIR FLOW. LABELS SHALL BE EVERY SIX FEET AND AT EACH CHANGE OF DIRECTION (T'S, ELBOWS, ETC.)
30. ROUND DUCT SHALL BE INSULATED WITH DUCT WRAP EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP WITH FSK VAPOR RETARDER FACING TYPE 75 WITH MINIMUM INSTALLED R–VALUE 4.2. ROUND DUCTS LOCATED WITHIN THE ATTIC SHALL BE INSULATED WITH DUCT WRAP EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP WITH FSK VAPOR RETARDER FACING TYPE 100 WITH MINIMUM INSTALLED R–VALUE 6.0
31. ALL OPEN ENDED DUCT SHALL BE CAPPED WITH 1/2"X1/2" WIRE MESH.
32. ALL EXPOSED DUCT SHALL BE INSULATED INTERNALLY WITH 1" DUCT LINER EQUAL TO CERTAINTEED TG2 DUCT LINER WITH MINIMUM INSTALLED R–VALUE 4.0.
33. ALL EXPOSED DUCT SHALL BE PAINTED. DUCT SHALL BE "PAINT GRIP". COORDINATE PAINT COLOR WITH ARCHITECT.
34. DUCT LINER FOR RECTANGULAR DUCTS SHALL BE EQUAL TO CERTAINTEED TG2 DUCT LINER WITH A MINIMUM R–VALUE OF 4.0. RECTANGULAR DUCTS LOCATED WITHIN THE ATTIC SHALL BE LINED WITH DUCT LINER EQUAL TO CERTAINTEED TG2 DUCT LINER WITH A MINIMUM R–VALUE OF 4.0 AND WRAPPED EXTERNALLY WITH DUCT WRAP EQUAL TO CERTAINTEED SOFT TOUCH DUCT WRAP WITH FSK VAPOR RETARDER FACING TYPE 75 WITH A MINIMUM INSTALLED R–VALUE OF 4.2.
35. EXTERIOR DUCT SHALL INCLUDE INSTALLATION OF GLASS CLOTH OVER INSULATION. GLASS CLOTH JACKET SHALL BE DRAWN SMOOTH AND TIGHT WITH A 2–INCH OVERLAP AT JOINTS. EMBED GLASS CLOTH BETWEEN TWO (2) 1/16–INCH–THICK COATS OF LAGGING ADHESIVE. COMPLETELY ENCAPSULATE THE INSULATION WITH THE JACKET, LEAVING NO EXPOSED RAW INSULATION. FLEXIBLE ELASTOMERIC SHEET 2" THICK MAY BE USED IN LIEU OF 2"–FIBERGLASS ON EXTERIOR DUCT. HOWEVER, GLASS CLOTH JACKET SHALL BE RETAINED IF ELASTOMERIC INSULATION IS USED. MINIMUM INSTALLED R–VALUE 6.0.
36. EXTERIOR DUCT SHALL BE JACKETED WITH MFM BUILDING PRODUCTS FLEX–CLAD 250. FLEX–CLAD 250 SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. FLEX–CLAD COLOR SHALL BE AS SELECTED BY ENGINEER. STANDARD COLORS ARE ALUMINUM, WHITE, AND ALMOND.
37. THE HVAC CONTRACTOR SHALL FURNISH AND INSTALL A SMOKE DETECTOR FOR FIRE SHUT DOWN IN ALL UNITS 2000 CFM AND ABOVE AND IN ALL UNITS SERVING EXIT ACCESS CORRIDORS REGARDLESS OF SIZE.
38. ALL DAMPERS INTERLOCKED WITH CARBON DIOXIDE SENSOR SHALL BE 24 VOLT MODULATING MOTORIZED DAMPER. DAMPER SHALL INCLUDE STEP DOWN TRANSFORMER 120V/24V.
39. WARRANTIES SHALL BEGIN AT DATE OF SUBSTANTIAL COMPLETION. ALL COMPRESSORS SHALL INCLUDE MIN. OF FIVE YEAR WARRANTY. ONE YEAR WARRANTY FOR LABOR, PARTS, UNITS, ETC. IS REQUIRED FOR ALL EQUIPMENT.
40. CONTRACTOR SHALL ANCHOR OUTDOOR UNITS TO CONCRETE PAD IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION, WIND LOAD REQUIREMENTS, AND AS PER PLANS/SPECIFICATIONS. COORDINATE CONCRETE PAD SIZE, UNIT CLEARANCES, ETC. WITH STRUCTURAL AND ARCHITECTURAL PLANS, FRAMING, ETC.
41. THE CONTRACTOR SHALL INSTALL ANY CURB–MOUNTED EQUIPMENT IN SUCH A WAY THAT NO WATER LEAKAGE IS INTRODUCED INTO THE BUILDING.
42. ALL INDOOR AND OUTDOOR UNITS SHALL BE LOCATED SO THAT MAINTENANCE CLEARANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND AS PER PLANS/SPECIFICATIONS ARE MAINTAINED. COORDINATE MAINTENANCE CLEARANCES WITH STRUCTURAL AND ARCHITECTURAL PLANS, FRAMING, ETC.

BASE BID
LOUVER SCHEDULE

MARK NO.	MOUNTING	SIZE W X H	BLADE ANGLE	BLADE CENTERS	MIN. FREE AREA	MINIMUM FREE AREA SQ. FT.	MAXIMUM PRESSURE DROP IN W.G.	CFM	MODEL NO. DATA		NOTES
									MANUFACTURER (OR APPROVED EQUAL)	MODEL NO.	
L 1	SIDE WALL	16"X16"	37°	4"	33%	0.6	0.12	500	GREENHECK	ESD–635	SEE BELOW
L 2	SIDE WALL	16"X16"	37°	4"	33%	0.6	0.11	450	GREENHECK	ESD–635	SEE BELOW
L 3	SIDE WALL	16"X16"	37°	4"	33%	0.6	0.11	525	GREENHECK	ESD–635	SEE BELOW
L 4	SIDE WALL	16"X16"	37°	4"	33%	0.6	0.11	75	GREENHECK	ESD–635	SEE BELOW

1. LOUVER TO INCLUDE FLANGE FRAME AND KYNAR FINISH. VERIFY FINAL COLOR AND FINISH WITH ARCHITECT. VERIFY QUANTITY WITH PLANS.

APPROVED EQUALS: RUSKIN AND UNITED ENERTECH.

BASE BID
EXHAUST FAN SCHEDULE

MARK NO.	MOUNTING	CFM	STATIC IN W.G.	SONES	WATTS	VOLTAGE	MANUFACTURER (OR APPROVED EQUAL)	MODEL NO.	WEIGHT (LBS.)	NOTES
EF 1	CEILING	450	0.25	3.8	215	115–1–60	LOREN COOK	GC–740	36	1 2 3
EF 2	CEILING	525	0.25	2.1	160	115–1–60	LOREN COOK	GC–862	74	1 2 3
EF 3	CEILING	75	0.25	1.6	55	115–1–60	LOREN COOK	GC–142	15	1 3 4

1. FAN TO INCLUDE FACTORY MOUNTED/PRE–WIRED FAN SPEED CONTROL.
2. FAN TO BE SWITCHED WITH LIGHTING.
3. FAN TO INCLUDE CEILING RADIATION DAMPER.
4. FAN TO BE SWITCHED WITH WALL SWITCH.

APPROVED EQUALS: BREIDERT, GREENHECK, AND PENN.

BASE BID
WALL MOUNTED ELECTRIC HEATER SCHEDULE

MARK NO.	NOMINAL CFM	VOLTAGE	WATTS	BTU/HR	AMPS	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	UNIT WEIGHT (LBS)	NOTES
WEH 1	100	208–1–60	1,500	5,120	7.2	BERKO	FRC4024F	25	SEE BELOW

1. UNIT TO INCLUDE BUILT–IN TAMPER–PROOF THERMOSTAT.
2. UNIT TO INCLUDE FACTORY DISCONNECT SWITCH – MOUNTED BEHIND FRONT GRID PANEL.
3. UNIT TO INCLUDE THERMAL CUTOUT.
4. UNIT TO INCLUDE SEMI–RECESSED MOUNTING FRAME.
5. UNIT TO BE MOUNTED AT 16" AFF.

APPROVED EQUALS: INDEECO, MARKEL, QMARK, AND RAYWALL

CODES AND STANDARDS

- **2021 INTERNATIONAL PLUMBING CODE**
- **2021 INTERNATIONAL MECHANICAL CODE**
- **2010 ADA STANDARDS FOR ACCESSIBLE DESIGN**
- **ASHRAE 90.1-2013 ENERGY STANDARD**

HVAC DRAWING INDEX

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820–9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 23112

HVAC LEGEND, NOTES, AND SCHEDULES

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA
No.14192
PROFESSIONAL
ENGINEER
05–04–2023

SHEET TITLE:
HVAC LEGEND, NOTES, AND SCHEDULES

PROJ. MGR.:	RDW
DRAWN:	JH
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
M1.1
1 OF 5

0 1" 2"

BASE BID
WALL MOUNTED HEAT PUMP EQUIPMENT SCHEDULE

MARK NO.	NOMINAL FAN CFM	OSA CFM	COOLING CAPACITY					HEATING CAPACITY			MODEL NO. DATA		ELECTRICAL DATA								UNIT WEIGHT (LBS.)	NOTES
			SENSIBLE CAPACITY (MBH)	TOTAL CAPACITY (MBH)	CONDENSER E.A.T.	EVAPORATOR E.W.B. TEMP	MIN. EER	LOW TEMP 15° E.A.T. MBH	HIGH TEMP 45° E.A.T. MBH	COP	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	VOLTAGE	COMPRESSOR R.L.A.	OUTDOOR FAN H.P.	INDOOR FAN H.P.	ELECTRIC STRIP HEAT K.W.	MINIMUM CIRCUIT AMPS (MCA)	MAXIMUM OVERCURRENT PROTECTION (MOP)	SINGLE POINT CONNECTION		
WMU 1	1,750	375	41.4	54.5	95	80/67	11.0	32.2	49.7	3.3	BARD	W60HCD	208/230-3-60	15.1/13.4	1/3	3/4	15	55	60	YES	600	SEE BELOW
WMU 2	1,750	375	41.4	54.5	95	80/67	11.0	32.2	49.7	3.3	BARD	W60HCD	208/230-3-60	15.1/13.4	1/3	3/4	15	55	60	YES	600	SEE BELOW
WMU 3	1,750	375	41.4	54.5	95	80/67	11.0	32.2	49.7	3.3	BARD	W60HCD	208/230-3-60	15.1/13.4	1/3	3/4	15	55	60	YES	600	SEE BELOW
WMU 4	1,750	375	41.4	54.5	95	80/67	11.0	32.2	49.7	3.3	BARD	W60HCD	208/230-3-60	15.1/13.4	1/3	3/4	15	55	60	YES	600	SEE BELOW
WMU 5	1,750	375	41.4	54.5	95	80/67	11.0	32.2	49.7	3.3	BARD	W60HCD	208/230-3-60	15.1/13.4	1/3	3/4	15	55	60	YES	600	SEE BELOW
WMU 6	1,750	375	41.4	54.5	95	80/67	11.0	32.2	49.7	3.3	BARD	W60HCD	208/230-3-60	15.1/13.4	1/3	3/4	15	55	60	YES	600	SEE BELOW
WMU 7	1,750	375	41.4	54.5	95	80/67	11.0	32.2	49.7	3.3	BARD	W60HCD	208/230-3-60	15.1/13.4	1/3	3/4	15	55	60	YES	600	SEE BELOW
WMU 8	1,750	375	41.4	54.5	95	80/67	11.0	32.2	49.7	3.3	BARD	W60HCD	208/230-3-60	15.1/13.4	1/3	3/4	15	55	60	YES	600	SEE BELOW
TOTAL		3,000		436.0																		

1. UNIT TO INCLUDE A UNIT MOUNTED 7-DAY PROGRAMMABLE ELECTRONIC SETBACK AUTOMATIC CHANGEOVER THERMOSTAT/HUMIDISTAT WITH SUB-BASE AND LOCKING COVER.
2. UNIT TO BE EXTERIOR MOUNTED. REFRIGERANT R-410A.
3. UNIT TO INCLUDE FACTORY OUTDOOR THERMOSTAT.
4. UNIT TO INCLUDE FACTORY HOT GAS REHEAT TO PROVIDE DEHUMIDIFICATION.
5. UNIT TO INCLUDE FACTORY BAROMETRIC RELIEF DAMPER.
6. UNIT TO INCLUDE FACTORY REAR CONDENSATE DRAIN KIT AND SIDE TRIM EXTENSION KIT.
7. VERIFY COLOR AND FINISH OF SUPPLY AND RETURN LOUVERS, CABINET, ETC. WITH ARCHITECT.
8. UNIT TO INCLUDE BIOCLIMATIC (OR APPROVED EQUAL) BI-POLAR IONIZATION UNIT (NEEDLEPOINT) MOUNTED IN UNIT RETURN PER MANUFACTURER'S RECOMMENDATION. IONIZATION UNIT SHALL BE POWERED FROM ASSOCIATED WALL MOUNTED HEAT PUMP.
9. UNIT TO INCLUDE MOTORIZED FRESH AIR INLET DAMPERS.
10. UNIT TO INCLUDE FACTORY MERV-13 FILTERS.
11. UNIT TO INCLUDE UV-C PROTECTION. EQUIPMENT SHALL BE FRESH-AIRE UV (OR APPROVED EQUAL).
12. UNIT TO INCLUDE FACTORY CARBON DIOXIDE SENSOR.
13. THERMOSTAT/HUMIDISTAT/CARBON DIOXIDE SENSORS SHALL INCLUDE LOCKING METAL GYM GUARDS.
14. ALL UNITS SHALL BE ASHRAE 90.1-2013 COMPLIANT.

APPROVED EQUALS: MARVAIR

BASE BID
HEAT PUMP EQUIPMENT SCHEDULE

MARK NO.	NOMINAL FAN CFM	MINIMUM OSA CFM	EXT. STATIC (IN. W.G.)	COOLING CAPACITY						HEATING CAPACITY			MODEL NO. DATA			APPROXIMATE REFRIG. PIPING SIZE		NOTES
				TOTAL CAP. MBH	SENS. CAP. MBH	COND. E.A.T.	EVAP. E.W.B. TEMP	MIN. SEER/EER	MIN. IEER	LOW TEMP 17° E.A.T. MBH	HIGH TEMP 47° E.A.T. MBH	MIN. HSPF/COP	MANUFACTURER (OR APPROVED EQUAL)	INDOOR UNIT MODEL NO.	OUTDOOR UNIT MODEL NO.	GAS/SUCTION (IN. O.D.)	LIQUID (IN. O.D.)	
HP 1	2,000	400	0.6"	57.9	45.1	95	80/67	SEER 14.5	N/A	34.6	52.5	HSPF 8.5	TRANE	GAM5B0C60	4TWA4060	1-1/8	3/8	SEE BELOW
HP 2	600	100	0.8"	18.6	13.6	95	80/67	SEER 14.5	N/A	10.6	16.3	HSPF 8.5	TRANE	GAM5B0A18	4TWR4018	3/4	3/8	SEE BELOW
TOTAL		500		76.5														

1. UNIT TO INCLUDE A 7-DAY PROGRAMMABLE AUTOMATIC CHANGEOVER ELECTRONIC SETBACK THERMOSTAT/HUMIDISTAT WITH SUB-BASE AND LOCKING COVER.
2. UNIT TO INCLUDE OUTDOOR THERMOSTAT.
3. UNIT TO INCLUDE CONDENSER HAIL GUARD.
4. VERTICAL UNIT TO BE MOUNTED ON A STEEL ANGLE PLENUM. PRIME AND PAINT STEEL TO MATCH UNIT. VERIFY PLENUM HEIGHT WITH EQUIPMENT SUPPLIER.
5. UNIT TO INCLUDE FACTORY HOT GAS REHEAT FOR DEHUMIDIFICATION CONTROL AND RAWAL APR VALVE.
6. REFRIGERANT R-410A.
7. UNIT TO INCLUDE LOW AMBIENT CONTROLS TO 0 DEG F.
8. UNIT TO INCLUDE BIOCLIMATIC (OR APPROVED EQUAL) BI-POLAR IONIZATION UNIT (NEEDLEPOINT) MOUNTED IN UNIT RETURN DUCT PER MANUFACTURER'S RECOMMENDATION. IONIZATION UNIT SHALL BE POWERED FROM ASSOCIATED HEAT PUMP.
9. ALL INDOOR UNITS TO INCLUDE 2" MERV 13 PLEATED FILTER AND FILTER RACK ON UNIT RETURN.
10. UNIT HP-1 TO INCLUDE FACTORY RETURN AIR SMOKE DETECTOR.
11. ALL UNITS TO INCLUDE UV-C PROTECTION. EQUIPMENT SHALL BE FRESH-AIRE UV AIRBORNE DUCT SYSTEM MODEL TUV-C-ADS (OR APPROVED EQUAL).
12. VERIFY FINAL REFRIGERANT PIPING SIZE AND LENGTH WITH MANUFACTURER.
13. ALL UNITS SHALL BE ASHRAE 90.1-2013 COMPLIANT.

APPROVED EQUALS: AMERICAN STANDARD, BRYANT, CARRIER, LENNOX, AND RHEEM

BASE BID
HEAT PUMP EQUIPMENT ELECTRICAL DATA

MARK NO.	OUTDOOR UNIT						INDOOR UNIT						SINGLE POINT CONNECTION
	VOLTAGE	COMPRESSOR R.L.A. (EACH)	OUTDOOR FAN F.L.A. (EACH)	MINIMUM CIRCUIT AMPS (MCA)	MAXIMUM OVERCURRENT PROTECTION	WEIGHT (LBS.)	VOLTAGE	INDOOR FAN H.P.	ELECTRIC STRIP HEAT K.W.	MINIMUM CIRCUIT AMPS (MCA)	MAXIMUM OVERCURRENT PROTECTION	WEIGHT (LBS.)	
HP 1	208/230-3-60	15.9	1.1	21	35	325	208/230-3-60	1.0	10.8/14.4	46/52	50/60	180	YES
HP 2	208/230-1-60	9.0	0.54	12	20	165	208/230-3-60	1/3	7.2/9.6	28/32	30/35	130	YES

BASE BID
DEHUMIDIFIER EQUIPMENT SCHEDULE

MARK NO.	NOMINAL FAN CFM	REFRIGERANT	WATER REMOVAL 80°F 60% RH	OPERATING RANGE	ELECTRICAL		MODEL NO. DATA		WEIGHT (LBS.)	NOTES
					POWER SUPPLY	AMPS	MANUFACTURER (OR APPROVED) EQUAL)	UNIT MODEL NO.		
DH 1	495	R-410A	205 PINTS/DAY	49°-95°F	115-1-60	13.2	THERMA-STOR	SANTA-FE ULTRA205	140	SEE BELOW

1. UNIT TO BE CONTROLLED WITH FACTORY MODEL DEH 3000 WALL MOUNTED HUMIDISTAT.
2. UNIT TO INCLUDE FACTORY DUCT COLLARS (10").
3. UNIT TO INCLUDE FACTORY MERV-13 FILTER.
4. UNIT TO INCLUDE FACTORY CONDENSATE PUMP KIT.

ALTERNATE
DEHUMIDIFIER EQUIPMENT SCHEDULE

MARK NO.	NOMINAL FAN CFM	REFRIGERANT	WATER REMOVAL 80°F 60% RH	OPERATING RANGE	ELECTRICAL		MODEL NO. DATA		WEIGHT (LBS.)	NOTES
					POWER SUPPLY	AMPS	MANUFACTURER (OR APPROVED) EQUAL)	UNIT MODEL NO.		
DH 2	495	R-410A	205 PINTS/DAY	49°-95°F	115-1-60	13.2	THERMA-STOR	SANTA-FE ULTRA205	140	SEE BELOW

1. UNIT TO BE CONTROLLED WITH FACTORY MODEL DEH 3000 WALL MOUNTED HUMIDISTAT.
2. UNIT TO INCLUDE FACTORY DUCT COLLARS (10").
3. UNIT TO INCLUDE FACTORY MERV-13 FILTER.
4. UNIT TO INCLUDE FACTORY CONDENSATE PUMP KIT.

HVAC SCHEDULES

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

LICENSED PROFESSIONAL ENGINEER
No.14192
PROFESSIONAL
ENGINEER
RANDALL D WHORTON
05-04-2023

SHEET TITLE:
HVAC SCHEDULES

PROJ. MGR.: RDW
DRAWN: JH
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
M1.2
2 OF 5
0 1" 2"

Bioclimatic
IAQ Analysis/Design Program
©1995 - 2006 Bioclimatic Air Systems

Ventilation Formula (Based on Appendices D and E, ASHRAE Standard 62-01)

Project:	GYM
Representative:	WMU (8 TOTAL)
Date:	March 3, 2023

Total Airflow Into The Space (cfm)	14,000
Ventilation (Outside) Airflow (cfm)	3,000
Recirculation Airflow (cfm)	11,000
Number of Occupants	521
Volume Calculator (Optional)	
Length of Space (ft)	
Width of Space (ft)	
Height of Space (ft)	
Volume Of The Space (ft) **re-enter below**	0
Volume Of The Space (ft)	201,216
Outdoor Concentration of CQ (ppm)	340
Indoor Concentration of CQ At Time t=0 (ppm)	340
CO_2 Generation Rate By One (1) Occupant (ft^3/hr)	0.62
Level of Physical Activity	Sedentary, At Ease
CO_2 Generation Rate By Non-occupant Sources (ff/hr)	0
Ventilation Effectiveness (fraction)	0.8
Respiratory Flow (Single Occupant, cfm)	0.27
Time (t, minutes)	60

Notes: Application

Total Air (cfm/p)	26.9
Outside Air (cfm/p)	5.8
Air Changes/Hr	4.2

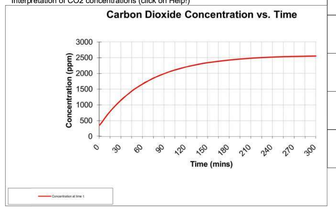
(Notes)

Steady State CO_2 Concentration, time =∞ 2,583 ppm
(No filtration)
CO_2 Concentration at time = t 1,666 ppm

*Interpretation of CO2 concentrations (click on Help!)

CO_2 Calculation

time (t)	concentration (ppm)
0	340
15	790
30	1149
45	1436
60	1666
75	1850
90	1997
105	2114
120	2208
135	2283
150	2344
165	2392
180	2430
195	2461
210	2485
225	2505
240	2521
255	2533
270	2543
285	2551
300	2558



Bioclimatic
IAQ Analysis/Design Program
©1995 - 2006 Bioclimatic Air Systems

(ASHRAE Standard 62-99, "Required Outdoor Air or Space Contaminant Concentration with Recirculation and Filtration)

Contaminant: Ammonia

Contaminant Conc. no smoking (blank for Off)	Ambient Contaminant Conc. (blank for off)	List of Contaminants in Cigarette

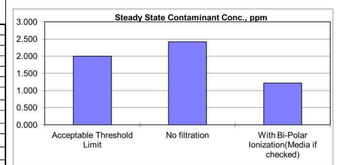
List of Contaminants by Humans

Project: GYM
Representative: WMU (8 TOTAL)
Date: March 3, 2023
Notes: Application

TA (cfm/p)	27
OA (cfm/p)	5.8
AC/Hr	4.2
(Notes)	

Steady State Contaminant Concentration:	
Acceptable Threshold Limit	2.000 ppm
No filtration	2.419 ppm
With Bi-Polar Ionization(Media if checked)	1.216 ppm

# of Occupants	521
Contaminant Generation Rate	2.987E-04 lb/min
Smoking in space	☐
# of cigarettes / hour / person	
% of People Smoking	
Ventilation Effectiveness	0.8
Recirculation Flow Factor	0.79
Volumetric Return Air Flow	11000 cfm
Gas Phase Filtration Media Used	☐
GPF Efficiency	30%
O/A Contaminant Concentration	7.49136E-11 lb/ft^3
Volumetric Outdoor Air Flow	3,000 cfm
Molecular Wt. of Contaminant	17
Outside Air Gas Phase Filtration	☐



ALTERNATE
PACKAGED HEAT PUMP EQUIPMENT SCHEDULE

MARK NO.	NOMINAL FAN CFM	OSA CFM	EXT. STATIC (IN. W.G.)	COOLING CAPACITY						HEATING CAPACITY			MODEL NO. DATA		NOTES
				TOTAL CAPACITY MBH	SENS. CAPACITY MBH	CONDENSER E.A.T.	EVAPORATOR E.W.B. TEMP	MIN. EER	MIN. IEER	LOW TEMP 17° E.A.T. MBH	LOW TEMP 47° E.A.T. MBH	COP	MANUFACTURER (OR APPROVED EQUAL)	UNIT MODEL NO.	
PHP 1	4,000	720	0.8"	123.6	96.3	95	80/67	11.5	16.0	73.8	117.4	3.63	TRANE	WHC120	SEE BELOW

1. UNIT TO INCLUDE 7-DAY PROGRAMMABLE AUTOMATIC CHANGEOVER THERMOSTAT AND HUMIDISTAT WITH SUB-BASE AND LOCKING COVER.
2. UNIT TO INCLUDE FACTORY ROOF CURB WITH THRU THE CURB ELECTRICAL CONNECTION. COORDINATE ALL ROOF CURBS WITH THE ROOFING CONTRACTOR.
3. UNIT TO INCLUDE FACTORY BAROMETRIC RELIEF, DISCONNECT SWITCH, AND HINGED ACCESS DOORS.
4. UNIT TO INCLUDE CONDENSER HAIL GUARD AND FILTER RACK.
5. REFRIGERANT R-410A.
6. UNIT TO INCLUDE FACTORY MODULATING MOTORIZED OUTSIDE AIR DAMPER INTERLOCKED WITH ROOM LIGHTING.
7. COORDINATE UNIT ARRANGEMENT WITH PLANS.
8. UNIT TO INCLUDE FACTORY HOT GAS REHEAT FOR DEHUMIDIFICATION CONTROL SIZED FOR FULL UNIT CAPACITY.
9. UNIT TO INCLUDE BIOCLIMATIC (OR APPROVED EQUAL) BI-POLAR IONIZATION UNIT (NEEDLEPOINT) MOUNTED IN UNIT RETURN DUCT PER MANUFACTURER'S RECOMMENDATION. IONIZATION UNIT SHALL BE POWERED FROM ASSOCIATED PACKAGED HEAT PUMP UNIT.
10. UNIT TO INCLUDE LOW AMBIENT CONTROLS TO 0°F.
11. UNIT TO INCLUDE ALL NECESSARY SENSORS, AND DAMPER ACTUATORS TO PROVIDE ULTRA LOW LEAKAGE ECONOMIZER FUNCTION WITH COMPARATIVE ENTHALPY CONTROL.
12. UNIT TO INCLUDE 2 SPEED INDOOR MOTOR.
13. UNIT TO INCLUDE RETURN AIR SMOKE DETECTOR.
14. UNIT TO INCLUDE 2" FILTERS – MERV 13.
15. UNIT TO INCLUDE UV-C PROTECTION. EQUIPMENT SHALL BE FRESH-AIRE UV AIRBORNE DUCT SYSTEM MODEL TUV-C-ADS (OR APPROVED EQUAL).
16. UNIT SHALL BE ASHRAE 90.1-2013 COMPLIANT.

APPROVED EQUALS: AMERICAN STANDARD, BRYANT, CARRIER, LENNOX, AND RHEEM

ALTERNATE
PACKAGED HEAT PUMP ELECTRICAL SCHEDULE

MARK NO.	VOLTAGE	COMPRESSOR QTY	COMPRESSOR R.L.A. (EACH)	OUTDOOR FAN QTY	OUTDOOR FAN H.P.	INDOOR FAN MOTOR H.P.	ELECTRIC STRIP HEAT KW	MINIMUM CIRCUIT AMPS	MAXIMUM OVERCURRENT PROTECTION	SINGLE POINT CONNECTION	UNIT WEIGHT LBS	NOTES
PHP 1	208/230-3-60	2	(1,2) 17.6,16.0	1	0.75	2.75	27/36	142/157	150/175	YES	1,820	–

HAMILTON MIDDLE SCHOOL GYMNASIUM
MARION COUNTY BOARD OF EDUCATION
2021 IMC TABLE 403.3 COMPLIANCE CALCULATIONS

ROOM NAME	AREA (SF)	PEOPLE (QTY)	OUTDOOR AIR CALCULATIONS			EZ	VOZ CFM	VPZ CFM	ZP VOZ/VPZ	EV	VOT	DESIGN CFM	EXHAUST AIR					UNIT
			PEOPLE (CFM/PERSON)	AREA (CFM/SF)	TOTAL (VOU)								CFM/SF	FIXTURES	UNIT	REQUIRED CFM	DESIGN CFM	
LOBBY	624	7	5.0	0.06	72	0.8	91					400						HP-1
CONCESSIONS	285	3	7.5	0.12	57	0.8	71					100						HP-2
GYM	8,384	521	SEE GYM BIOCLIMATIC SHEET									3,000						WMU-1 THROUGH WMU-8
WEIGHT ROOM (ALTERNATE)	2,163	22	20.0	0.06	570	0.8	712					720						PHP-1 (ALTERNATE)
BOYS	331													6	75	450	450	EF-1
GIRLS	323													7	75	525	525	EF-2
JANITOR	49													1	75	75	75	EF-3

HVAC SCHEDULES AND
IAQ / COMPLIANCE CALCULATIONS

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 23112

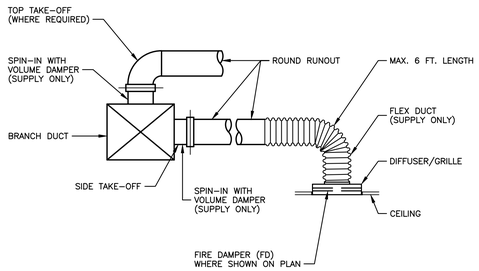
LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

SHEET TITLE:
HVAC SCHEDULES AND IAQ / COMPLIANCE CALCULATIONS

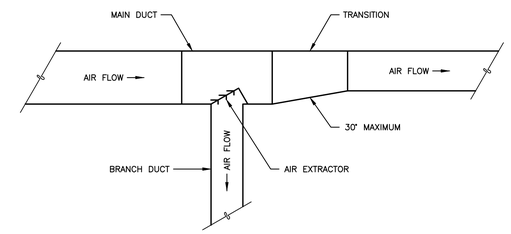
PROJ. MGR.: RDW
DRAWN: JH
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
M1.3
3 OF 5



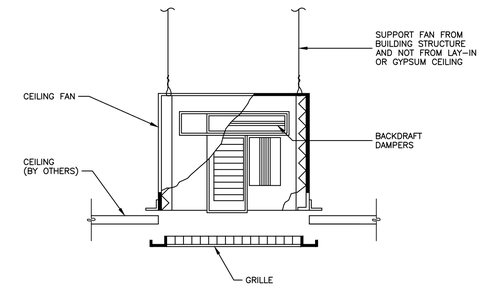
DIFFUSER / GRILLE RUNOUT DETAIL

NOT TO SCALE



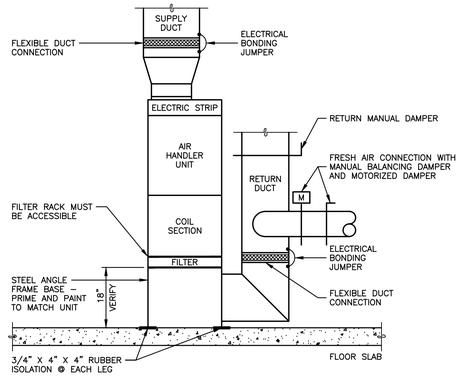
TYPICAL DUCT TAKE OFF DETAIL

NOT TO SCALE



TYPICAL CEILING EXHAUST FAN DETAIL

NOT TO SCALE



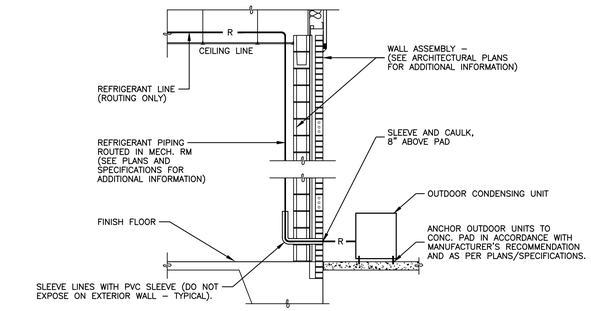
TYPICAL SECTION AT INDOOR UNIT

NOT TO SCALE

HP-1 / HP-2

ALL PIPING SHALL BE SPACED ADEQUATELY APART (HOT GAS REHEAT, SUCTION, LIQUID, ETC.) TO ENSURE THAT INSULATION AND JACKETING CAN BE INSTALLED WITH GOOD WORKMANSHIP.

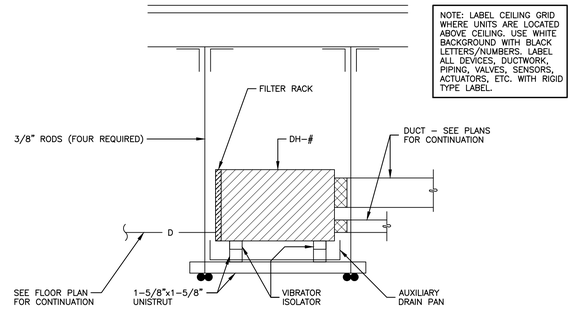
ALL REFRIGERANT LINES SHALL BE SIZED/APPROVED BY THE EQUIPMENT VENDOR/COMPRESSOR MANUFACTURER. ALL REFRIGERANT LINES SHALL BE INSTALLED USING INSULATED LINE CLAMPS.



REFRIGERANT LINE ROUTING DETAIL

NOT TO SCALE

NOTE: LABEL CEILING GRID WHERE UNITS ARE LOCATED ABOVE CEILING. USE WHITE BACKGROUND WITH BLACK LETTERS/NUMBERS. LABEL ALL DEVICES, DUCTWORK, PIPING, VALVES, SENSORS, ACTUATORS, ETC. WITH RIGID TYPE LABEL.

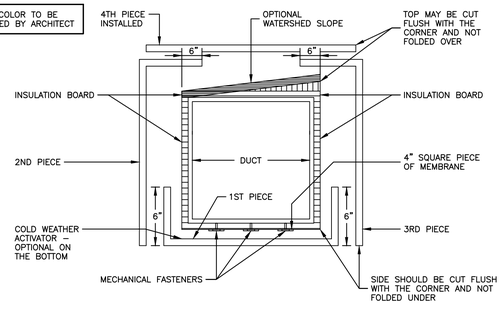


TYPICAL SECTION AT ABOVE CEILING DEHUMIDIFIER

NOT TO SCALE

DH-1 (BASE BID)
DH-2 (ALTERNATE)

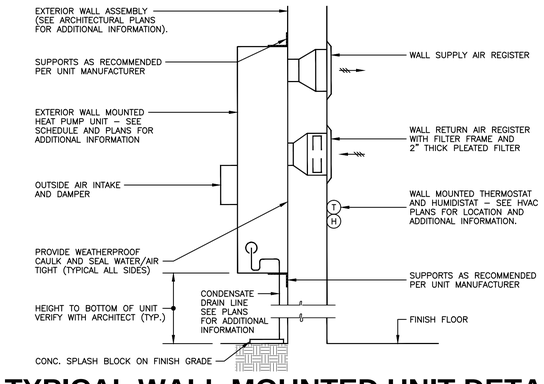
NOTE: COLOR TO BE SELECTED BY ARCHITECT



TYPICAL EXTERIOR DUCT WITH ALUMAGUARD DETAIL

NOT TO SCALE

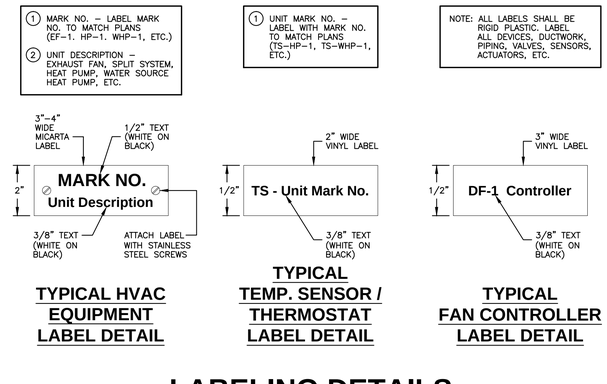
ALTERNATE (PHP-1)



TYPICAL WALL MOUNTED UNIT DETAIL

NOT TO SCALE

WMU-1 / WMU-2 / WMU-3 / WMU-4
WMU-5 / WMU-6 / WMU-7 / WMU-8



TYPICAL HVAC EQUIPMENT LABEL DETAIL

TYPICAL TEMP. SENSOR / THERMOSTAT LABEL DETAIL

TYPICAL FAN CONTROLLER LABEL DETAIL

LABELING DETAILS

NOT TO SCALE

HVAC DETAILS

WHORTON ENGINEERING, INC.
HVAC - PLUMBING - PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA LICENSED PROFESSIONAL ENGINEER RANDALL D. WHORTON No.14192 PROFESSIONAL
05-04-2023

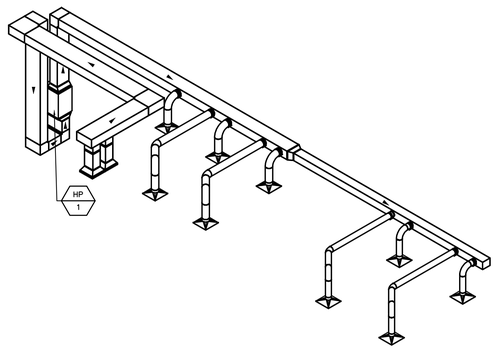
SHEET TITLE:
HVAC DETAILS

PROJ. MGR.:	RDW
DRAWN:	JH
DATE:	APRIL 25, 2023
REVISIONS	

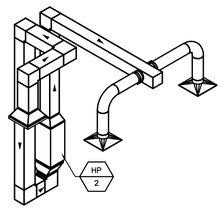
JOB NO. 22-131

SHEET NO:
M2.1
4 OF 5

0 1" 2"



DUCT SCHEMATIC HP-1



DUCT SCHEMATIC HP-2

BASE BID DIFFUSER SCHEDULE

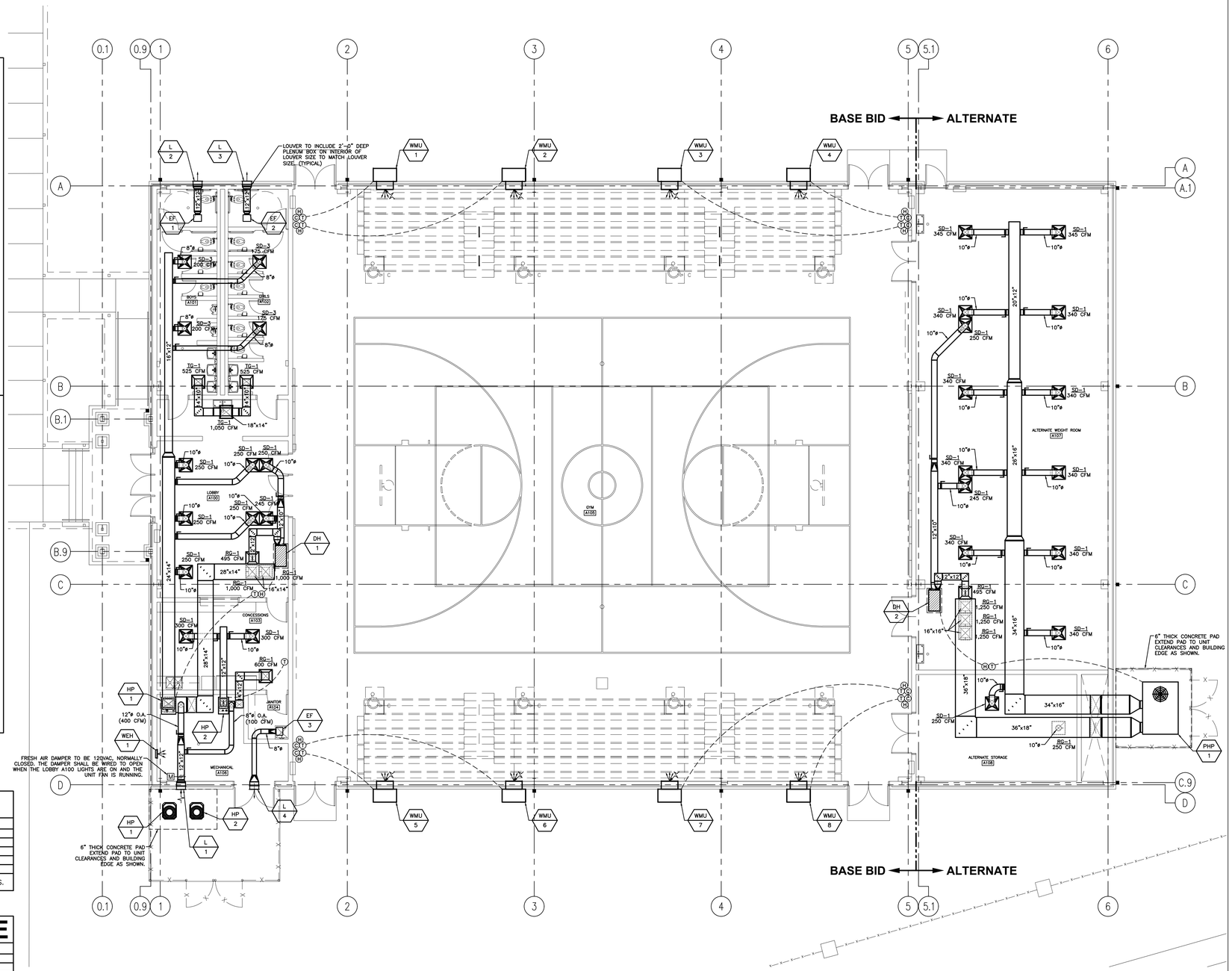
TAG	Size	Neck Size	Quantity	Manufacturer	Model Number	Type	Notes
RG-1	24"X24"	23X23	4	TITUS	8RF	RETURN	20"X20"X1" FILTER
SD-1	24"X24"	10"ø	9	TITUS	TDC	SUPPLY	
SD-3	24"X24"	8"ø	4	TITUS	TDC-AA	SUPPLY	ALUMINUM
TG-1	24"X24"	23X23	3	TITUS	8F	TRANSFER	
			20				

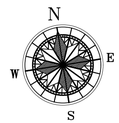
NOTE: FURNISH AND INSTALL AN INSULATION BLANKET ON THE BACK OF ALL CEILING MOUNTED DIFFUSERS AND GRILLES.

ALTERNATE DIFFUSER SCHEDULE

TAG	Size	Neck Size	Quantity	Manufacturer	Model Number	Type	Notes
RG-1	24"X24"	23X23	5	TITUS	8RF	RETURN	20"X20"X1" FILTER
SD-1	24"X24"	10"ø	14	TITUS	TDC	SUPPLY	
			19				

NOTE: FURNISH AND INSTALL AN INSULATION BLANKET ON THE BACK OF ALL CEILING MOUNTED DIFFUSERS AND GRILLES.





HVAC PLAN

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

0' 5' 10' 20'

SCALE

REFERENCE PLUMBING PLANS FOR CONDENSATE PIPING

WHORTON ENGINEERING, INC.
HVAC – PLUMBING – PROCESS CONTROL
RANDALL WHORTON, P.E.
PHONE: (256) 820-9897
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205

WHORTON ENGINEERING PROJECT NO. 23112

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA
REGISTERED
No.14192
PROFESSIONAL
ENGINEER
RANDALL D. WHORTON
05-04-2023

SHEET TITLE:
HVAC PLAN

PROJ. MGR.:	RDW
DRAWN:	MCK
DATE:	APRIL 25, 2023
REVISIONS	

JOB NO. 22-131

SHEET NO:
M3.1
5 OF 5

0 1" 2"

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NO.	LAMPS			MOUNTING HEIGHT	TYPE MOUNTING	RECESS DEPTH	REMARKS
			NO.	WATTS	TYPE				
A	METALUX	24CGT5535C	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	
A (EM)	METALUX	24CGT5535C-EL14W	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	SEE NOTE 1
B	METALUX	24CGT4535C	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	
B (EM)	METALUX	24CGT4535C-EL14W	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	SEE NOTE 1
C	METALUX	22CGT4535C	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	
D	MCGRAW-EDISON	TT-D5-740-U-MQ-BZ-F-TR	FURNISHED WITH FIXTURE			BOTTOM OF BEAM	SURFACE		
D (EM)	MCGRAW-EDISON	TT-D5-740-U-MQ-BZ-F-TR-IBP	FURNISHED WITH FIXTURE			BOTTOM OF BEAM	SURFACE		SEE NOTE 1
F	PORTFOLIO	LD8B50D010-ER8B50708040-8M2MW	FURNISHED WITH FIXTURE			CEILING	RECESSED	6-1/2"	
F (EM)	PORTFOLIO	LD8B50D010EM14-ER8B50708040-8M2MWE	FURNISHED WITH FIXTURE			CEILING	RECESSED	6-1/2"	SEE NOTE 1
G	MCGRAW-EDISON	ISW-E02-LED-E1-BL4-BZ-TR	FURNISHED WITH FIXTURE			+9'	BRACKET		
G (EM)	MCGRAW-EDISON	ISW-E02-LED-E1-BL4-BZ-TR-BBB	FURNISHED WITH FIXTURE			+9'	BRACKET		SEE NOTE 1
H	MCGRAW-EDISON	TT-D2-740-U-MQ-BZ-F-TR	FURNISHED WITH FIXTURE			CEILING	SURFACE		
H (EM)	MCGRAW-EDISON	TT-D2-740-U-MQ-BZ-F-TR-IBP	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 1
X	SURE-LITES	EUX7-R-UNV	FURNISHED WITH FIXTURE			℄ ABOVE DOOR	BRACKET		

NOTES:
1. FEED ALL "EM" FIXTURES WITH SWITCHED AND UNSWITCHED HOT LEGS. UNSWITCHED HOT LEG IS USED FOR VOLTAGE SENSING.
2. VERIFY ALL FIXTURE COLORS WITH ARCHITECT PRIOR TO SUBMITTALS.
3. EQUAL FIXTURES BY LITHONIA, PARKER, DAYBRITE, AND COLUMBIA WILL BE CONSIDERED APPROVED EQUALS.

GENERAL NOTES

1. SERVICE TO PROJECT IS 120/208 VOLTS, 3 PHASE, 4 WIRE.
2. VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL DRAWINGS BEFORE ROUGHING IN SWITCHES.
3. VERIFY EXACT LOCATION OF ALL MOTORS AND EQUIPMENT BEFORE ROUGHING IN.
4. CONTRACTOR TO VERIFY LOCATION OF ALL OUTLETS PRIOR TO INSTALLATION.
5. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF COUNTERTOPS AND BACKSPLASHES ON ARCHITECTURAL DETAILS AND/OR CASEWORK SHOP DRAWINGS AND ADJUST SPECIFIED MOUNTING HEIGHT OF WALL OUTLETS AS REQUIRED TO AVOID CONFLICTS.
6. CONTRACTOR WILL CHECK ALL LIGHTING FIXTURES FOR EXACT TYPE MOUNTING AND SPACE REQUIRED BEFORE ROUGHING IN.
7. FURNISH AND INSTALL PLASTER FRAMES FOR ALL RECESSED FIXTURES AS REQUIRED.
8. SUPPORT OF ALL LIGHTING FIXTURES TO BE THE RESPONSIBILITY OF THIS CONTRACTOR. FIXTURES TO BE SUPPORTED INDEPENDENT OF CEILING FROM STRUCTURAL MEMBERS OF THE BUILDING.
9. ELECTRICAL CONTRACTOR MUST CHECK THE CORRESPONDING MECHANICAL SHEETS AND BE RESPONSIBLE FOR INCLUDING PROPER SERVICE AND CONNECTIONS TO ALL MECHANICAL ITEMS SHOWN THEREON REGARDLESS OF ITS BEING OR NOT BEING SHOWN ON ELECTRICAL SHEETS.
10. ALL CONDUIT CONCEALED UNLESS SPECIFICALLY SHOWN EXPOSED.
11. COORDINATE SERVICES WITH POWER AND COMMUNICATIONS COMPANIES. REMOVE OR RELOCATE ALL POWER AND COMMUNICATIONS CIRCUITS ABOVE OR BELOW GRADE THAT WOULD OBSTRUCT THE CONSTRUCTION OF THE PROJECT OR CONFLICT IN ANY MANNER WITH COMPLETION OF THE PROJECT OR ANY CODE PERTAINING THERETO. IF UTILITY COMPANY REQUIREMENTS ARE AT VARIANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACT PRICE SHALL INCLUDE THE ADDITIONAL COST.
12. IT IS INTENDED THAT SPECIFICATIONS AND PLANS SHALL INCLUDE EVERYTHING REQUIRED AND NECESSARY FOR PROPER AND COMPLETE INSTALLATION OF THE COMPLETE SYSTEMS SHOWN EVEN THOUGH EVERY ITEM MAY NOT BE PARTICULARLY MENTIONED IN DETAIL. THE CONTRACTOR SHALL DELIVER TO OTHER TRADES ANY EQUIPMENT THAT MUST BE INSTALLED DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS AND COORDINATION OF THE PHYSICAL SIZE OF ALL EQUIPMENT WITH THE ARCHITECTURAL REQUIREMENTS OF THE SPACES INTO WHICH THE EQUIPMENT WILL BE INSTALLED.
13. THIS CONTRACTOR SHALL INSTALL EQUIPMENT GROUNDS THROUGHOUT THIS PROJECT, USING GREEN INSULATED GROUND WIRE. USE OF CONDUIT AS THE ONLY GROUND CONDUCTOR WILL NOT BE ALLOWED. (SIZE GROUND WIRES PER N.E.C.)

COLOR CODE FOR ELECTRICAL WIRING

1. 120/208 V, 60Hz, 3 PHASE, 4 WIRE SYSTEM
   PHASE A-BLACK
   B-RED
   C-BLUE
   N-WHITE
2. GROUND-GREEN

COLOR CODE FOR JUNCTION BOXES

NOTE:
PAINT ALL JUNCTION BOXES AND COVERS WITH COLORS AS SHOWN BELOW. PAINTING COVERS ONLY IS NOT ACCEPTABLE.

FUNCTION:	COLOR:
LIGHTING	BLUE
POWER	GREEN
FIRE ALARM	RED
MISC. AUXILIARIES (SOUND, ETC.)	BROWN

FIRE ALARM SYSTEM NOTES

1. PROVIDE FIRE ALARM COMPLETION DOCUMENTS AT THE STATE FINAL INSPECTION. THIS ITEM WILL BE REQUIRED BY STATE BUILDING INSPECTOR AT THE TIME OF FINAL INSPECTION (OLD CERTIFICATION FORM).
2. ADDITIONS AND ALTERATIONS TO THE FIRE ALARM SYSTEM REQUIRE TESTING, A RECORD OF COMPLETION, AND RECERTIFICATION. ALL FIRE ALARM WORK SHALL BE PERFORMED BY QUALIFIED PERSONNEL AS DEFINED IN NFPA-72 (2013) 10.4.2, 10.5.2, AND 10.18.1.
3. ALL WORK SHALL BE PERFORMED BY A CERTIFIED FIRE ALARM CONTRACTOR - SEE SPECS.

CODE EXCEPTION NOTE

THIS PROJECT HAS BEEN DESIGNED UNDER ASHRAE 90.1 2013, EXCEPT AS FOLLOWS: WE TAKE EXCEPTION TO SECTION 8.4.2 FOR REQUIRING CONTROLLED RECEPTACLES, AND SECTION 8.4.3 FOR REQUIRING ENERGY MONITORING. WE OFFICIALLY REQUEST THAT THIS PROJECT BE APPROVED WITHOUT THOSE ITEMS.

ELECTRICAL SYMBOLS

Ⓐ$^{1}_{a}$	CEILING OUTLET - FIXTURE "A", CIRCUIT 1, SWITCH a.
▭○▭	CEILING OUTLET - FLUORESCENT FIXTURE.
├─○─┤	CEILING OUTLET - FLUORESCENT INDUSTRIAL OR STRIP TYPE.
○┤	WALL OUTLET - INCANDESCENT BRACKET TYPE.
├─○─┤	WALL OUTLET - FLUORESCENT BRACKET TYPE.
⊖	WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT5362A-GRY WITH PT6STR PLUG TAIL CONNECTOR.
⊕	WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT5362A-GRY WITH PT6STR PLUG TAIL CONNECTOR - MOUNT AT 6" ABOVE COUNTER.
⊖⊖ IG D	WALL OUTLET - ISOLATED GROUND DOUBLE DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PTIG5362 WITH PT6STR PLUG TAIL CONNECTOR. (THESE ARE ORANGE ISOLATED GROUND TYPE RECEPTACLES)
⊕⊕ IG D	WALL OUTLET - ISOLATED GROUND DOUBLE DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PTIG5362 WITH PT6STR PLUG TAIL CONNECTOR. (THESE ARE ORANGE ISOLATED GROUND TYPE RECEPTACLES) MOUNT AT 6" ABOVE COUNTER
⊖ GFCI	WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT2095-GRY WITH PT6STR PLUG TAIL CONNECTOR.
⊖ WP GFCI	WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, WEATHERPROOF, PASS & SEYMOUR PT2095-GRY WITH PT6STR PLUG TAIL CONNECTOR. INSTALL #WIUC10-CAGV WEATHERPROOF COVER. DEVICE SHALL BE LABELED AS "EXTRA DUTY".
⊜	WALL OUTLET - SINGLE OUTLET, 30A, 125/250V, 4W, BY HUBBELL OR APPROVED EQUAL.
•	FLOOR OUTLET - CONDUIT STUB UP.
Ⓙ	CEILING OUTLET - JUNCTION BOX.
~[J]	WALL OUTLET - JUNCTION BOX WITH FLEXIBLE CONNECTION TO EQUIPMENT.
$	SWITCH OUTLET - AC TYPE, SINGLE POLE, 20A, 120/277V, HUBBELL #1221 - GREY.("N" DENOTES NARROW)
$$_D$$	SWITCH OUTLET - FLUORESCENT DIMMER - LUTRON NOVA-T SERIES #NTF-103P.
$$_2$$	SWITCH OUTLET - AC TYPE, TWO POLE, 20A, 120/277V, HUBBELL #1222 - GREY.
$$_3$$	SWITCH OUTLET - AC TYPE, THREE WAY, 20A, 120/277V, HUBBELL #1223 - GREY.
$$_4$$	SWITCH OUTLET - AC TYPE, FOUR WAY, 20A, 120/277V, HUBBELL #1224 - GREY.
$$_M$$	SWITCH MANUAL MOTOR STARTER, SINGLE POLE WITH OVERLOAD PROTECTION.
$ P	SWITCH OUTLET - AC TYPE, SINGLE POLE, 20A, 120/277V, HUBBELL #12211LC.
▬	LIGHTING PANEL - SEE SPECIFICATIONS AND SCHEDULE.
▨	POWER PANELS - SEE SPECIFICATIONS AND SCHEDULE.
⌒	BRANCH CIRCUIT CONCEALED IN WALL OR CEILING.
- - -	BRANCH CIRCUIT CONCEALED IN FLOOR OR GROUND.
⌒	HOMERUN TO PANELBOARD - ANY CIRCUIT WITHOUT FURTHER DESIGNATION 2 # 12 & 1 # 12(G) - 1/2" CONDUIT. ⌒ 3 # 12 & 1 # 12(G) - 3/4" CONDUIT. ⌒ 4 # 12 & 1 # 12(G) - 3/4" CONDUIT.
—E—	EMPTY CONDUIT - 3/4".
—	BRANCH CIRCUIT EXPOSED.
∘	CONDUIT RUN DOWN WALLS, CONCEALED
•	CONDUIT RUN UP WALLS, CONCEALED
⑤	MOTOR SHOWN 5hp (TYPICAL) OR 40 AMPS (TYPICAL).
ⓕ	EXHAUST FAN MOTOR - FRACTIONAL HORSEPOWER.
⊠	MAGNETIC MOTOR STARTER.
▭	NON-FUSED DISCONNECT SWITCH. (RT - RAINTIGHT).
▭	FUSED DISCONNECT SWITCH.
A.F.F.	ABOVE FINISHED FLOOR.
VER.	VERIFY LOCATION.
N.E.C.	NATIONAL ELECTRICAL CODE.
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHER PROOF
IG	ISOLATED GROUND
◕	FIRE ALARM - SMOKE DETECTOR - SEE SPEC.
◕ D	FIRE ALARM - DUCT DETECTOR - SEE SPEC.
⊕ H	FIRE ALARM - HEAT DETECTOR - SEE SPEC.
[F]	FIRE ALARM - MANUAL PULL STATION - SEE SPEC.
[F]◀	FIRE ALARM - STROBE LIGHT - SEE SPEC.
[S]◁	FIRE ALARM - SPEAKER STROBE - SEE SPEC.
FACP	FIRE ALARM CONTROL PANEL - EXISTING - SEE SPEC.
F.A.A.	FIRE ALARM ANNUNCIATOR - SEE SPEC.
SSR-G	SOUND SYSTEM RACK - GYMNASIUM - SEE SPEC.
[SS]	SOUND SYSTEM - GYM SPEAKER - SEE SPEC.
$ OR	LIGHTING CONTROL PANEL OVERRIDE SWITCH - DIGITA 5-1B
$ MS	WALL SWITCH WITH BUILT IN MOTION SENSOR - COOPER #OSW-P-0451-W WITH WALL PLATE
⊗	FLOOR BOX - COMBINATION EMPTY / DATA / POWER OUTLET. PROVIDE WITH TWO DUPLEX OUTLETS AND EMPTY COMPARTMENTS FOR DATA AND POWER (WIREMOLD EFB10S BOX WITH EFB10SM COMPARTMENTS EFB10-B, EFB10-DP, EFB10-DEC PLATES AS REQUIRED AND EFB10S-DIVIDERS AS REQUIRED AND EFB610BTBZ COVER).
ⓉⒽⒸ	THERMOSTAT, HUMIDISTAT, ETC. - WALL OUTLET 48" AFF OR AS DIRECTED BY MECHANICAL DRAWINGS. RUN EMPTY 3/4" CONDUIT TO RESPECTIVE UNIT. VERIFY WITH MECHANICAL FOR EXACT SIZE OF BOX AND QUANTITY OF BOXES AND CONDUITS AT EACH LOCATION.

STEWART ENGINEERING
ELECTRICAL CONSULTANTS
P.O. Box 2233 (36202)
300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
Email: services@stewartengineering.org
STEWART ENGINEERING Electrical Consultants
Engineer:
J. Lance Junkin, P.E.
Alabama Reg. 14817

Project Number: 2343

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

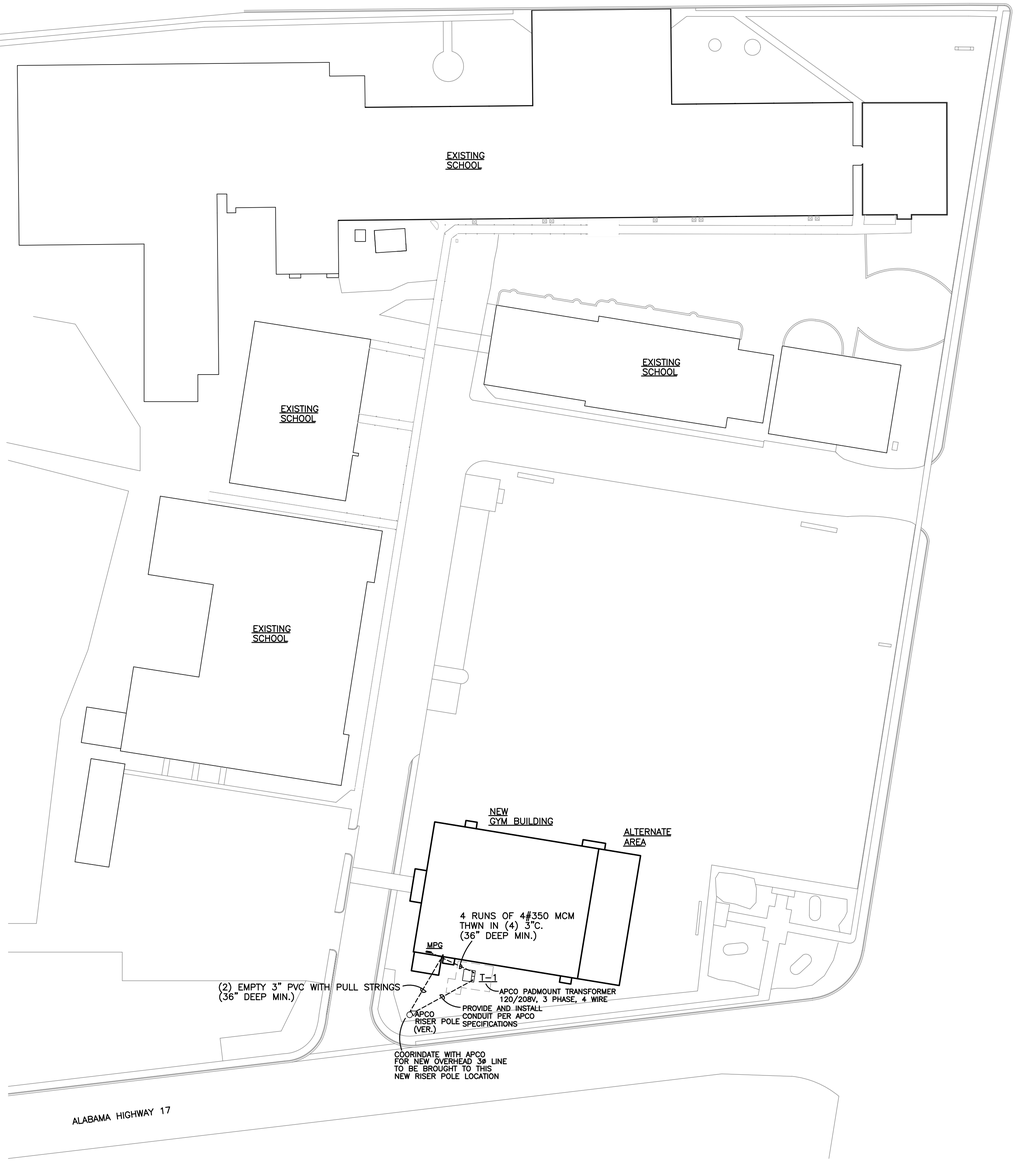
ALABAMA LICENSED No. 14817 PROFESSIONAL ENGINEER JEFFREY LANCE JUNKIN
[illegible]
4-24-23

SHEET TITLE:
SCHEDULES, SYMBOLS, AND NOTES

PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
E1.1
1 OF 5

0 1" 2"



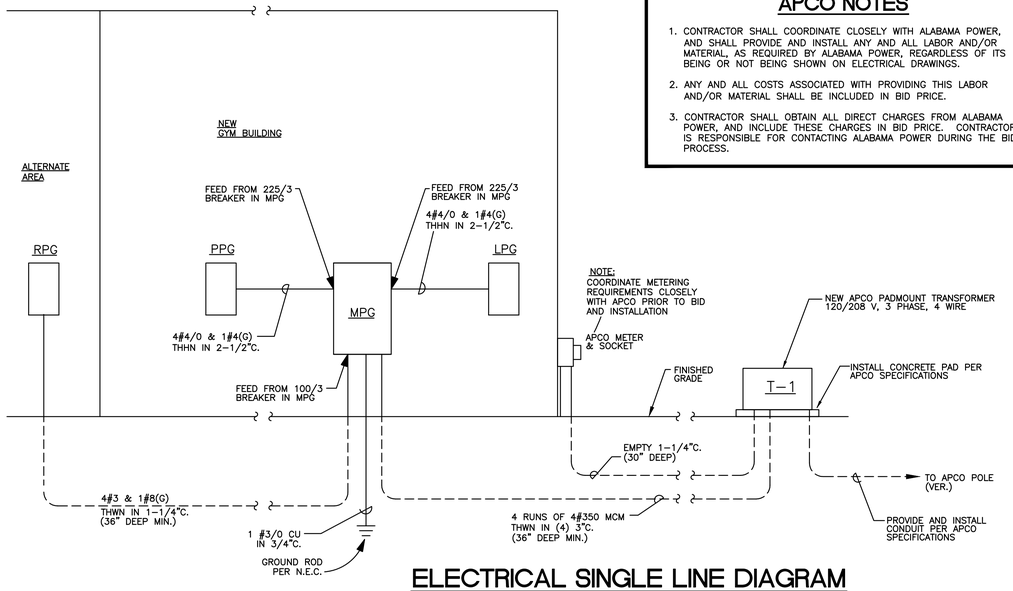
SITE PLAN
SCALE: 1" = 50'

PANELBOARD SCHEDULE

MARK	TYPE	MAINS			BRANCHES					LUG LOCATION	TYPE MOUNTING	AREA PANEL LOCATED	AVAILABLE FAULT CURRENT	REMARKS
		TYPE	AMPS	SERVICE	1 POLE	2 POLE	3 POLE	SPARES	SPACES					
MPG	I-LINE	M/B	1200	120/208V 3ø, 4W			9-60 1-100 1-150 2-225		5-3PS	BOTTOM	SURFACE	MECH A106	41,000	SEE NOTES 1, 2, 3, 4, & 5
LPG	NQOD	LUGS	225	120/208V 3ø, 4W	30-20 2-30			6-20/1	16-1PS	BOTTOM	SURFACE	MECH A106	32,000	SEE NOTES 1, 2, & 5 54 SPACE PANEL
PPG	NQOD	LUGS	225	120/208V 3ø, 4W	3-20	1-20 1-30	3-20 1-30 1-35 1-50	6-20/1	11-1PS	BOTTOM	SURFACE	MECH A106	27,000	SEE NOTES 1, 2, & 5
RPG	NQOD	LUGS	100	120/208V 3ø, 4W	23-20			6-20/1	1-1PS	BOTTOM	SURFACE	AL STOR A108	10,000	SEE NOTES 1, 2, & 5 ALTERNATE AREA

NOTES:
1. ALL PANELBOARDS SHALL BE CAPABLE OF WITHSTANDING AND INTERRUPTING THE AVAILABLE FAULT CURRENTS AS LISTED ABOVE.
2. ALL PANELBOARDS SHALL HAVE MICARTA LABELS SHOWING SWITCHBOARD/PANELBOARD DESIGNATION, AND OPERATING VOLTAGE. I-LINE PANELBOARDS SHALL ALSO HAVE MICARTA LABELS AT EACH BREAKER.
3. SHALL BE RATED FOR SERVICE ENTRANCE EQUIPMENT.
4. SHALL BE EQUIPPED WITH BUILT-IN SURGE PROTECTION, CAPABLE OF WITHSTANDING A TRANSIENT SURGE OF 160,000 AMPS. (60/3 BREAKER IS SHOWN FOR THIS PURPOSE IN MPG).
5. NO SERIES RATING WILL BE ALLOWED ON ANY PANELBOARDS.

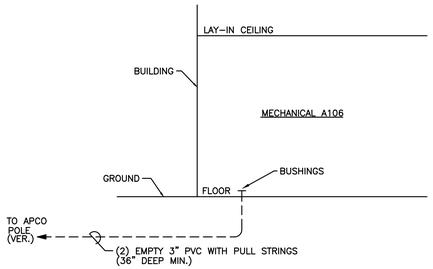
PANELBOARD NOTES:
1. MANUFACTURER OF SWITCHBOARDS AND/OR PANELBOARDS SHALL PERFORM FAULT CURRENT CALCULATIONS, COORDINATION STUDY, AND ARC FLASH HAZARD ANALYSIS, AND LABEL ALL SWITCHBOARDS AND/OR PANELBOARDS, IN ACCORDANCE WITH NFPA 70E-2009 (ARTICLE 130) AND NFPA 70-2008 (ARTICLE 110.16).
2. CONTRACTOR SHALL FIELD MARK ELECTRICAL SERVICE EQUIPMENT WITH A CONSPICUOUS AND PERMANENT LABEL THAT INDICATES THE AVAILABLE FAULT CURRENT PER NEC 110.24.
3. CONTRACTOR SHALL FIELD MARK ELECTRICAL PANELS WITH A CONSPICUOUS AND PERMANENT LABEL THAT INDICATES WHERE PANELS ARE FED FROM PER NEC 408.4(B).



ELECTRICAL SINGLE LINE DIAGRAM
N.T.S.

APCO NOTES

1. CONTRACTOR SHALL COORDINATE CLOSELY WITH ALABAMA POWER, AND SHALL PROVIDE AND INSTALL ANY AND ALL LABOR AND/OR MATERIAL, AS REQUIRED BY ALABAMA POWER, REGARDLESS OF ITS BEING OR NOT BEING SHOWN ON ELECTRICAL DRAWINGS.
2. ANY AND ALL COSTS ASSOCIATED WITH PROVIDING THIS LABOR AND/OR MATERIAL SHALL BE INCLUDED IN BID PRICE.
3. CONTRACTOR SHALL OBTAIN ALL DIRECT CHARGES FROM ALABAMA POWER, AND INCLUDE THESE CHARGES IN BID PRICE. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALABAMA POWER DURING THE BID PROCESS.



TELCO RISER DIAGRAM
N.T.S.

STEWART ENGINEERING
ELECTRICAL CONSULTANTS
P.O. Box 2233 (36202)
300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
Email: services@stewartengineering.org
Engineer:
J. Lance Junkin, P.E.
Alabama Reg. 14817
Project Number:
2343

LATHAN ARCHITECTS

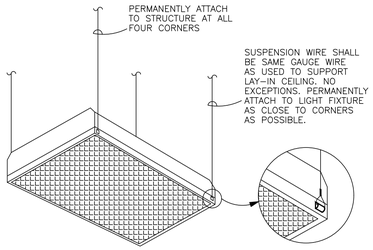
NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA LICENSED No. 14817 PROFESSIONAL ENGINEER LANCE JUNKIN
4-24-23

SHEET TITLE:
SITE PLAN AND SINGLE LINE DIAGRAM

PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
E2.1
2 OF 5



DETAIL - LIGHT FIXTURE SUPPORT

N.T.S.

CONTRACTOR SHALL INSTALL HEAVY DUTY "C" CHANNEL UNISTRUT TO SUPPORT ALL LIGHT FIXTURES AND CONDUITS. NO CANOPY PENETRATIONS WILL BE PERMITTED. PAINT ALL CONDUIT AND UNISTRUT TO MATCH CANOPY. (TYPICAL)

(5) 6"x6"x6"D RECESSED HOFFMAN BOXES (GSB-1,2,3,4,5) WITH KEYED COVER AND COOPER SWITCH STATIONS AND OVERRIDE SWITCHES MOUNTED INSIDE	CONTRACTOR SHALL PROGRAM LIGHTING RELAY CABINET FOR COMPLETE OPERATION BY OWNER. CONTRACTOR SHALL COORDINATE WITH OWNER ON ALL OVERRIDE CAPABILITIES AS WELL AS THE "NORMAL TIME OF OPERATION" FOR NORMAL DAY TO DAY TIME. CONTRACTOR SHALL INSTALL CLASS 2/PELV LOW VOLTAGE WIRING TO (2) CONTROL STATIONS.
COOPER SWITCH STATION (2)GDS-2TSB-W (2 ZONES) (SEE DETAIL FOR ZONES)	
COOPER OVERRIDE SWITCH FOR LCP-G (1 BUTTON WITH 4HR)	CONTRACTOR SHALL SUPPLY OWNER WITH TRAINING BY FACTORY REPRESENTATIVE FOR COMPLETE SYSTEM OPERATION AND PROGRAMMING FOR ALL LIGHTING CONTROL RELAY PANELS
WIRE TO LCP-G AS REQUIRED	

SITE VISIT NOTE:
CONTRACTOR SHALL INCLUDE IN BID PRICE A TOTAL OF (3) SITE VISITS FROM FACTORY TRAINED REPRESENTATIVE FOR LIGHTING CONTROL SYSTEM INSTALLATION, PROGRAMMING, AND TRAINING.

BASE BID ← → ALTERNATE

BOYS A101 · GIRLS A102 · LOBBY A100 · CONCESSIONS A103 · JANITOR A104 · MECHANICAL A106 · GYM A105 · ALTERNATE WEIGHT ROOM A107 · ALTERNATE STORAGE A108 · RPG · PPG · FACP · MPG

GSB-1 · GSB-2 · GSB-3 · GSB-4 · GSB-5

LCP-G (LPG-2) · LPG-2 · LPG-1 · LCP-G (LPG-3,4) · LPG-3 · LCP-G (LPG-5) · LPG-5

RELAY PANEL LCP-G

R	PANEL	CIRCUIT	PROGRAM MODE	
1	LPG	2	NORMAL DAY-TO-DAY	
2	LPG	3 ZONE 1	NORMAL DTD (SWITCH "a")	----- GYM PUSHBUTTON 1
3	LPG	4 ZONE 2	NORMAL DTD (SWITCH "b")	----- GYM PUSHBUTTON 2
4	LPG	5	NORMAL DAY-TO-DAY	
5	LPG	6	EXTERIOR DUSK TO DAWN	
6	LPG	7	EXTERIOR DUSK TO MIDN.	
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

COOPER GREENGATE RELAY CABINET (NETWORKABLE) CONTROLKEEPER 16 (CKT16) WITH 16 RELAYS

FLOOR PLAN - LIGHTING

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

NOTES:
1. ALL WIRING SHOWN FEEDING EXTERIOR FIXTURES SHALL BE #10 THHN.
2. ALL WIRING ASSOCIATED WITH LIGHTING CONTROL RELAY PANELS SHALL BE #10 THHN UNLESS OTHERWISE NOTED.

STEWART ENGINEERING
ELECTRICAL CONSULTANTS

P.O. Box 2233 (36202)
300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
Email: services@stewartengineering.org

Engineer:
J. Lance Junkin, P.E.
Alabama Reg. 14817

Project Number:
2343

LATHAN ARCHITECTS

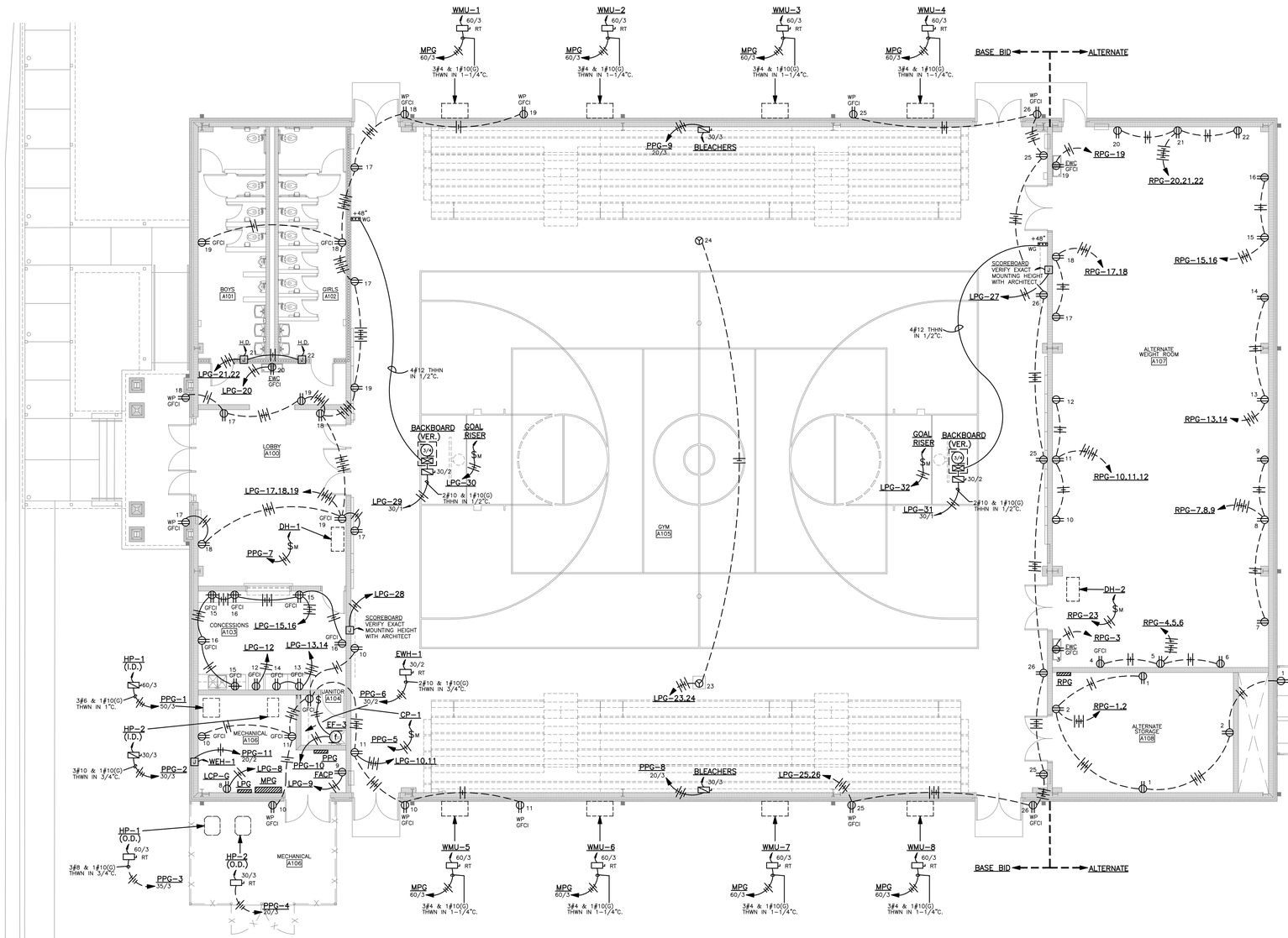
NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA LICENSED No. 14817 PROFESSIONAL ENGINEER JEFFREY LANCE JUNKIN
4-24-23

SHEET TITLE:
FLOOR PLAN - LIGHTING

PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
E3.1
3 OF 5



FLOOR PLAN - POWER

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

NOTES:

1. COORDINATE ALL OUTLETS AT COUNTER AREAS CLOSELY WITH ARCHITECTURAL CASEWORK DRAWINGS. PLACE OUTLETS BELOW COUNTERS, AT STANDARD MOUNTING HEIGHT, WHEN KNEE SPACE PERMITS ACCESS (COORDINATE INSTALLATION OF HOLES WITH RUBBER GROMMETS IN THOSE CASES).
2. COORDINATE INSTALLATION OF OUTLETS CLOSELY WITH FURNITURE SUPPLIER.
3. ALL BRANCH CIRCUIT HOME RUNS THAT EXCEED 100' IN LENGTH SHALL BE #10 THHN.

STEWART ENGINEERING
ELECTRICAL CONSULTANTS

P.O. Box 2233 (36202)
300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
Email: services@stewartengineering.org

Engineer:
J. Lance Junkin, P.E.
Alabama Reg. 14817

Project Number:
2343

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

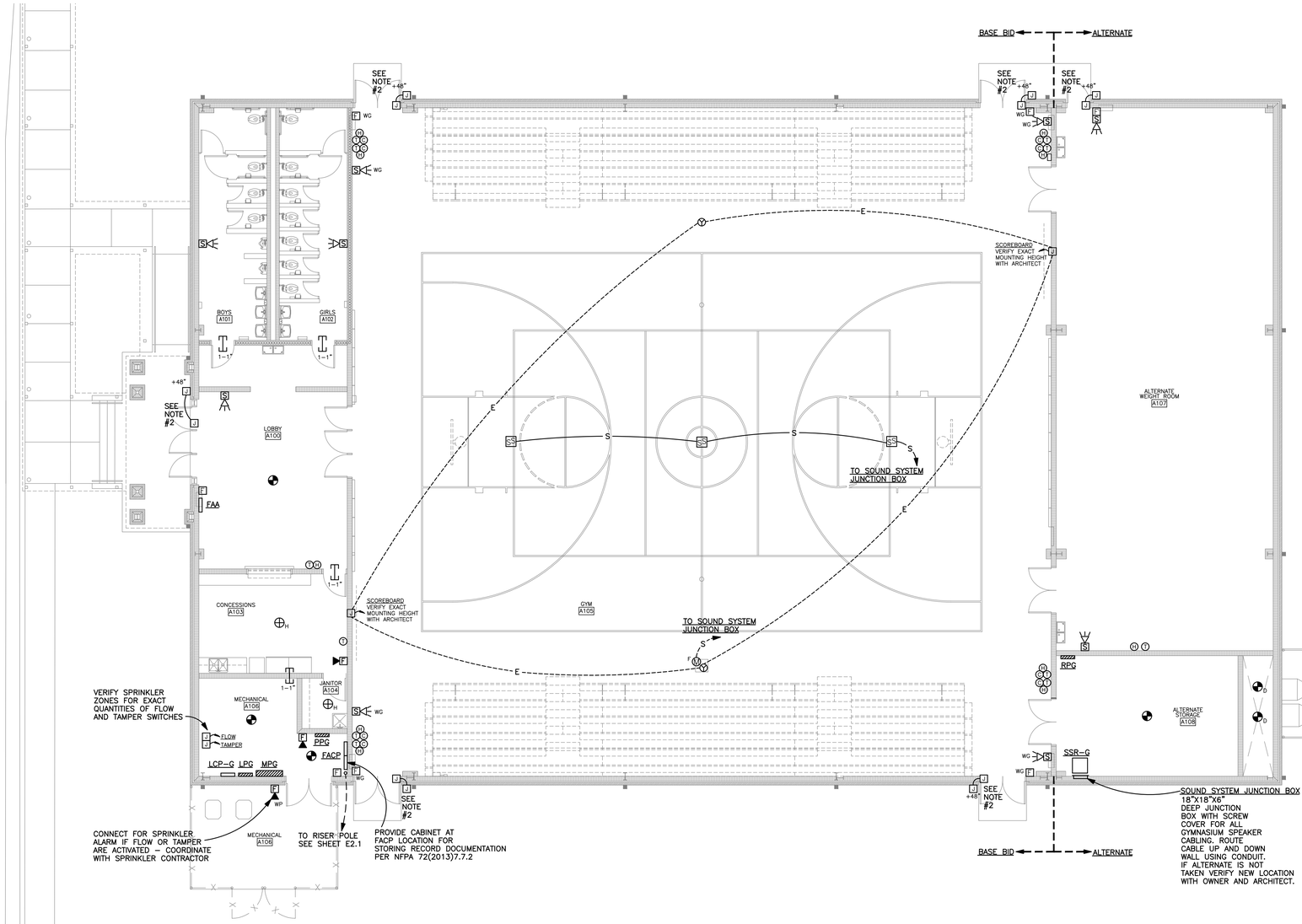
ALABAMA LICENSED No. 14817 PROFESSIONAL ENGINEER LANCE JUNKIN
4-27-23

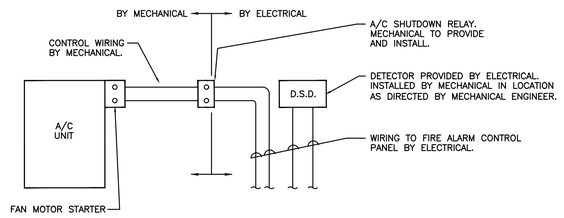
SHEET TITLE:
FLOOR PLAN - POWER

PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
E4.1
4 OF 5

0 1" 2"





DETAIL - DUCT SMOKE DETECTOR CONNECTION

N.T.S.

FLOOR PLAN - AUXILIARIES

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

NOTES:

1. COORDINATE FINAL LOCATIONS OF ALL CEILING SPEAKERS, SMOKE DETECTORS, ETC. TO AVOID CONFLICT WITH LIGHT FIXTURES AND MECHANICAL DIFFUSERS. PLACE THESE DEVICES AS CLOSE AS POSSIBLE TO LOCATION SHOWN ON THESE DRAWINGS. COORDINATE WITH FIRE ALARM SYSTEM MANUFACTURER WITH REGARD TO APPROPRIATE "MINIMUM" DISTANCE FROM DIFFUSERS.
2. AT THESE DOOR LOCATIONS, CONTRACTOR SHALL INSTALL EMPTY JUNCTION BOX WITH 3/4" EMPTY CONDUIT WITH PULL STRING TO ABOVE LAY-IN CEILING FOR FUTURE CARD ACCESS SYSTEM. COORDINATE CLOSELY WITH ARCHITECT FOR DOOR HARDWARE CONFIGURATION.

STEWART ENGINEERING
ELECTRICAL CONSULTANTS

P.O. Box 2233 (36202)
300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
Email: services@stewartengineering.org

Engineer:
J. Lance Junkin, P.E.
Alabama Reg. 14817

Project Number:
2343

LATHAN ARCHITECTS

NEW GYMNASIUM FOR:
HAMILTON MIDDLE SCHOOL
HAMILTON, ALABAMA
MARION COUNTY BOARD OF EDUCATION

ALABAMA LICENSED No. 14817 PROFESSIONAL ENGINEER LANCE JUNKIN
4-24-23

SHEET TITLE:
FLOOR PLAN – AUXILIARIES

PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: APRIL 25, 2023
REVISIONS

JOB NO. 22-131
SHEET NO:
E5.1
5 OF 5