A NEW CLASSROOM ADDITION FOR: DAVIS ELEMENTARY SCHOOL FOR DADE COUNTY SCHOOLS

PLUMBING FIXTURE TABULATION

AREA	NO.	GIRLS		BOYS			D.F.
	I.U.	W.C.	LAV.	W.C.	URIN.	LAV.	
EXISTING FIXTURES							
ALL	32	35	18	25	13	11	8
NEW FIXTURES							
RENO	-2	5	2	2	3	2	2
TOTAL	30	40	20	27	16	13	10
			·				
REQ' D	-	8	3	5	6	3	10

NOTE: 10 I.U.s ARE SELF CONTAINED.



ARCHITECTURAL

KRH ARCHITECTS, INC. 855 ABUTMENT RD., STE. 4 **DALTON, GA 30721** TEL. 706.529.5895

CIVIL

PWH ENGINEERING, INC. 2900 DELK RD., STE. 700 #318 MARIETTA, GA 30067 TEL. 770.433.8190

5491 HIGHWAY 301 TRENTON, GA 30752

BUILDING INFORMATION

OWNER:

FACILTY CODE:

FTE:

INSTRUCTIONAL UNITS:

EXISTING CONSTRUCTION TYPE:

NEW CONSTRUCTION TYPE:

NUMBER OF STORIES:

BUILDING SPRINKLERED:

SQUARE FOOTAGE:

EXISTING: DEMO: **NEW ADDITION:** TOTAL BUILDING: DADE COUNTY SCHOOLS **52 TRADITION LANE** TRENTON, GA 30752

641-0275

450

32 - 2*= 30 IUs

IBC II-B

ONE

NEW ADDITION - YES **EXISTING BUILDINGS - NO**

72,065 GROSS SQUARE FEET 14,825 GROSS SQUARE FEET 8.697 GROSS SQUARE FEET 65,937 GROSS SQUARE FEET

* NOTE: TWO I.U.S SHALL BE REMOVED DUE TO RENOVATIONS.

ALL WORK IN RENOVATED AREAS SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES:

2018 LIFE SAFETY CODE (LSC) - INCLUDING THE GA 120-3-3 RULES & **REGULATIONS OF THE STATE FIRE COMMISSIONER**

2018 INTERNATIONAL BUILDING CODE (IBC) - 2020 GEORGIA AMENDMENTS 2018 INTERNATIONAL FIRE CODE (IFC)

2018 INTERNATIONAL MECHANICAL CODE (IMC) - 2020 GEORGIA AMENDMENTS

AMENDMENTS

2010 A.D.A. STANDARDS FOR ACCESSIBLE DESIGN - INCLUDING GA. ACCESSIBILITY STANDARDS 120-3-20

ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND REGULATIONS

STRUCTURAL

WILLIAM J. PELTIER AND

ASSOCIATES 270 LANGLEY DR. LAWRENCEVILLE, GA 30046 TEL. 770.963.0654

MECHANICAL

MBA CONSULTING ENGINEERS 225 REFORMATION PKWY., STE 200 CANTON, GA 30114 TEL. 770.751.0773



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CODE INFORMATION

2018 INTERNATIONAL PLUMBING CODE (IPC) - 2020 GEORGIA AMENDMENTS

2018 INTERNATIONAL FUEL GAS CODE - 2020 GEORGIA AMENDMENTS

2020 NATIONAL ELECTRIC CODE (NEC)

2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) - 2020 GEORGIA

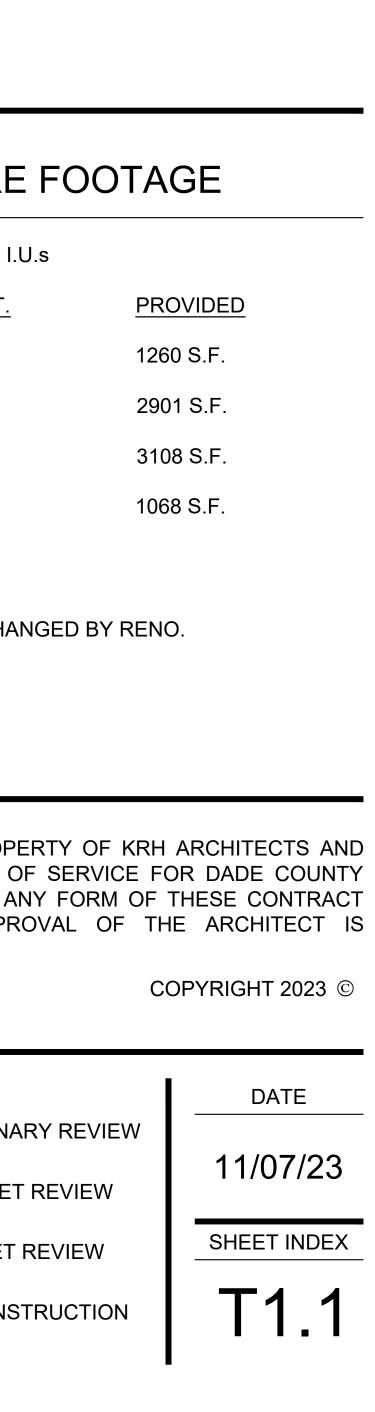
REQUIRED SQUARE FOOTAGE

NEW FTE:	450 BASED ON 30 I.
AREA	REQUIRED SQ. FT.
KITCHEN *	1600 S.F.
CAFETERIA *	1428 S.F.
MEDIA *	2660 S.F.
INSTRUMENTAL/ CHORUS	1000 S.F.

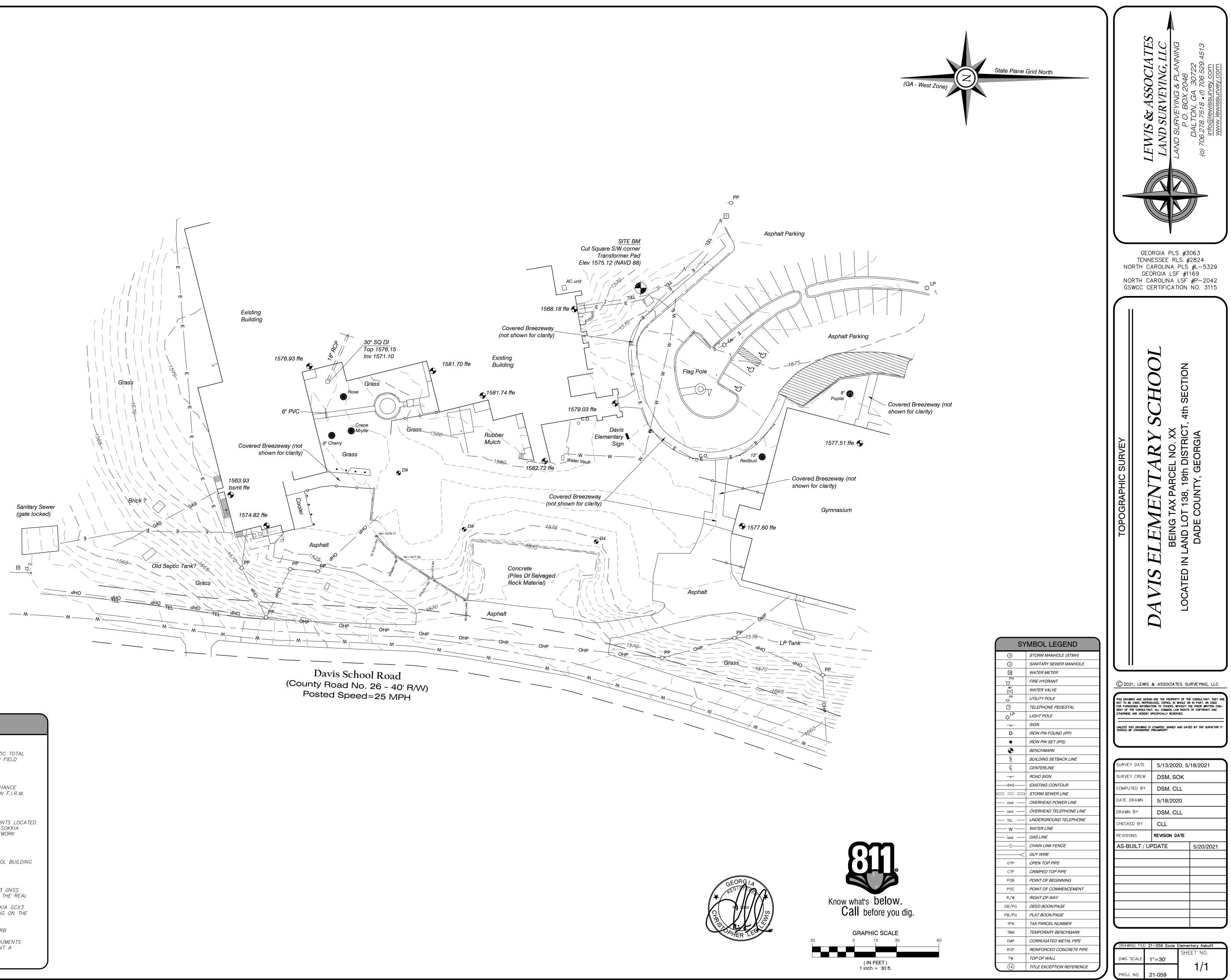
* NOTE: EXISTING SPACES NOT CHANGED BY RENO.

THESE DRAWINGS ARE THE EXCLUSIVE PROPERTY OF KRH ARCHITECTS AND HAVE BEEN PREPARED AS AN INSTRUMENT OF SERVICE FOR DADE COUNTY SCHOOLS. THE USE OR REPRODUCTION IN ANY FORM OF THESE CONTRACT DOCUMENTS WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT IS \pm PROHIBITED

ELECTRICAL	PROJECT NUMBER	DR.	AWING REVISI	ONS DATE	
ERSLEY JACKSON &	23-031				
SSOCIATES, INC. 285 ELKINS RD., STE. F4B	FACILTY CODE				FINAL SET
ROSWELL, GA 30076 TEL. 678.523.1160	641-0275				FOR CONS



AND SCHEDULES AN - PLUMBING AN - S,W, & V AN - H & CW ING R COM & SECURITY LARM DIAGRAM & SCHEDULES POWFR



NOTES

<u>EQUIPMENT</u>

ALL FIELD MEASUREMENTS WERE MADE USING A SOKKIA iX1003 ROBOTIC TOTAL STATION AND SOKKIA GCX 3 GNSS RECEIVER WITH A SOKKIA SHC5000 FIELD CONTROLLER.

<u>FLOOD STATEMENT</u>

THE PROJECT AREA AS SHOWN <u>DOES NOT</u> LIE WITHIN A 1% ANNUAL CHANCE SPECIAL FLOOD HAZARD AREA (100-YEAR FLOOD ZONE) AS SHOWN ON F.I.R.M. MAP NO. 13083C0025D, EFFECTIVE DATE 09/26/2008.

<u>BASIS OF BEARINGS</u>

BEARINGS ROTATED TO MONUMENTS FOUND AND SURVEY CONTROL POINTS LOCATED BY GPS OBSERVATION USING A SOKKIA GCX3 GNSS RECEIVER WITH A SOKKIA SHC5000 FIELD CONTROLLER OPERATING ON THE REAL TIME GNSS NETWORK OPERATED BY eGPS SOLUTIONS, INC.

<u>SOURCE OF TITLE</u>

TITLE TO THE SUBJECT PARCEL IS CURRENTLY VESTED IN STATE SCHOOL BUILDING AUTHORITY PER DEED BOOK 46, PAGE 196.

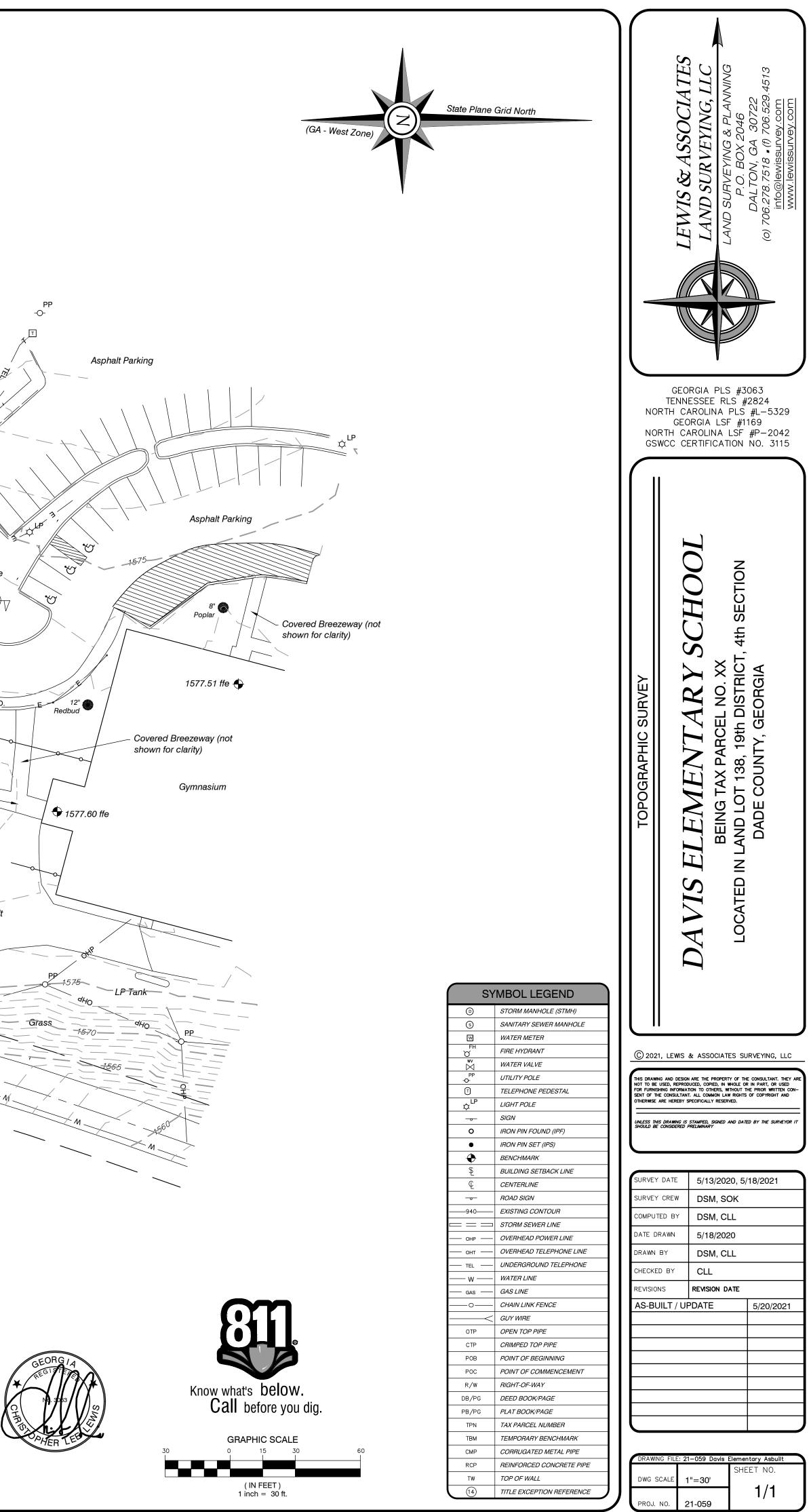
<u>TOPOGRAPHY NOTES</u>

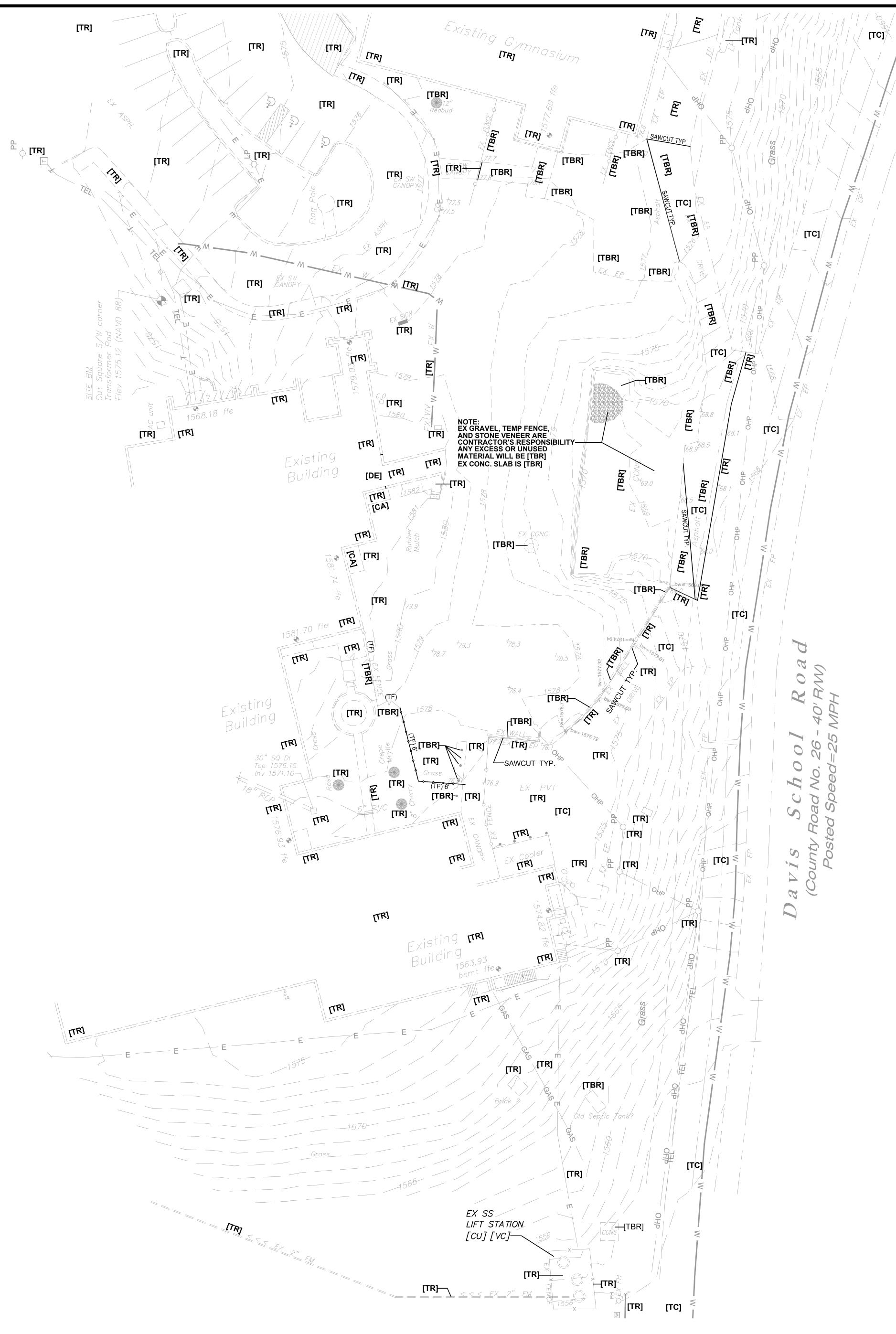
. VERTICAL DATUM IS NAVD 88 ESTABLISHED USING A SOKKIA GCX3 GNSS RECEIVER WITH A SOKKIA SHC5000 FIELD CONTROLLER OPERATING ON THE REAL

TIME GNSS NETWORK OPERATED BY EARL DUDLEY, INC. 2. HORIZONTAL DATUM IS NAD 83(2011) ESTABLISHED USING A SOKKIA GCX3 GNSS RECEIVER WITH A SOKKIA SHC5000 FIELD CONTROLLER OPERATING ON THE REAL TIME GNSS NETWORK OPERATED BY EARL DUDLEY, INC. 3. A 1-FOOT CONTOUR INTERVAL IS SHOWN.

4. ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT / BOTTOM OF CURB ELEVATIONS UNLESS NOTED OTHERWISE. 5. BOUNDARY LINES SHOWN BASED ON PLATS OF RECORD AND MONUMENTS LOCATED BY FIELD OBSERVATION. THIS DRAWING DOES NOT REPRESENT A

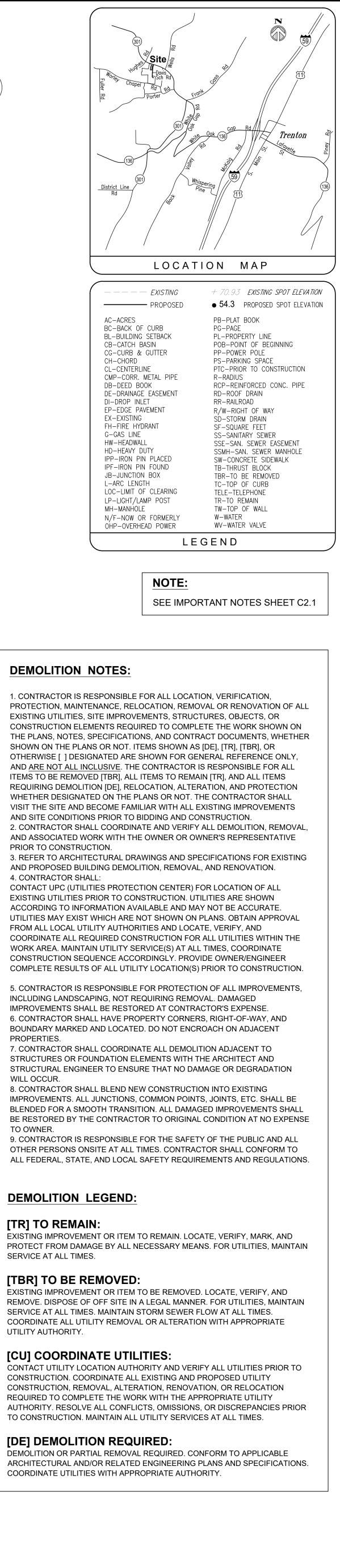
COMPREHENSIVE BOUNDARY SURVEY.











DEMOLITION NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR ALL LOCATION, VERIFICATION, PROTECTION, MAINTENANCE, RELOCATION, REMOVAL OR RENOVATION OF ALL EXISTING UTILITIES, SITE IMPROVEMENTS, STRUCTURES, OBJECTS, OR CONSTRUCTION ELEMENTS REQUIRED TO COMPLETE THE WORK SHOWN ON THE PLANS, NOTES, SPECIFICATIONS, AND CONTRACT DOCUMENTS, WHETHER SHOWN ON THE PLANS OR NOT. ITEMS SHOWN AS [DE], [TR], [TBR], OR OTHERWISE [] DESIGNATED ARE SHOWN FOR GENERAL REFERENCE ONLY, AND <u>ARE NOT ALL INCLUSIVE</u>. THE CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS TO BE REMOVED [TBR], ALL ITEMS TO REMAIN [TR], AND ALL ITEMS REQUIRING DEMOLITION [DE], RELOCATION, ALTERATION, AND PROTECTION WHETHER DESIGNATED ON THE PLANS OR NOT. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING IMPROVEMENTS AND SITE CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION. 2. CONTRACTOR SHALL COORDINATE AND VERIFY ALL DEMOLITION, REMOVAL, AND ASSOCIATED WORK WITH THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

3. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR EXISTING AND PROPOSED BUILDING DEMOLITION, REMOVAL, AND RENOVATION. 4. CONTRACTOR SHALL:

CONTACT UPC (UTILITIES PROTECTION CENTER) FOR LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. UTILITIES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AND MAY NOT BE ACCURATE. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON PLANS. OBTAIN APPROVAL FROM ALL LOCAL UTILITY AUTHORITIES AND LOCATE, VERIFY, AND COORDINATE ALL REQUIRED CONSTRUCTION FOR ALL UTILITIES WITHIN THE WORK AREA. MAINTAIN UTILITY SERVICE(S) AT ALL TIMES, COORDINATE CONSTRUCTION SEQUENCE ACCORDINGLY. PROVIDE OWNER/ENGINEER COMPLETE RESULTS OF ALL UTILITY LOCATION(S) PRIOR TO CONSTRUCTION.

5. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL IMPROVEMENTS, INCLUDING LANDSCAPING, NOT REQUIRING REMOVAL. DAMAGED IMPROVEMENTS SHALL BE RESTORED AT CONTRACTOR'S EXPENSE. 6. CONTRACTOR SHALL HAVE PROPERTY CORNERS, RIGHT-OF-WAY, AND BOUNDARY MARKED AND LOCATED. DO NOT ENCROACH ON ADJACENT PROPERTIES.

7. CONTRACTOR SHALL COORDINATE ALL DEMOLITION ADJACENT TO STRUCTURES OR FOUNDATION ELEMENTS WITH THE ARCHITECT AND STRUCTURAL ENGINEER TO ENSURE THAT NO DAMAGE OR DEGRADATION WILL OCCUR.

8. CONTRACTOR SHALL BLEND NEW CONSTRUCTION INTO EXISTING IMPROVEMENTS. ALL JUNCTIONS, COMMON POINTS, JOINTS, ETC. SHALL BE BLENDED FOR A SMOOTH TRANSITION. ALL DAMAGED IMPROVEMENTS SHALL BE RESTORED BY THE CONTRACTOR TO ORIGINAL CONDITION AT NO EXPENSE TO OWNER.

9. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF THE PUBLIC AND ALL OTHER PERSONS ONSITE AT ALL TIMES. CONTRACTOR SHALL CONFORM TO ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS AND REGULATIONS.

DEMOLITION LEGEND:

[TR] TO REMAIN:

EXISTING IMPROVEMENT OR ITEM TO REMAIN. LOCATE, VERIFY, MARK, AND PROTECT FROM DAMAGE BY ALL NECESSARY MEANS. FOR UTILITIES, MAINTAIN SERVICE AT ALL TIMES.

[TBR] TO BE REMOVED:

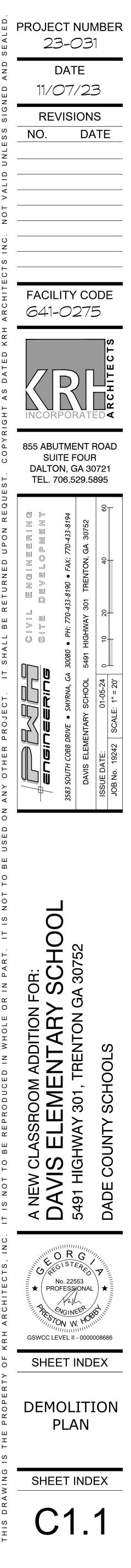
EXISTING IMPROVEMENT OR ITEM TO BE REMOVED. LOCATE, VERIFY, AND REMOVE. DISPOSE OF OFF SITE IN A LEGAL MANNER. FOR UTILITIES, MAINTAIN SERVICE AT ALL TIMES. MAINTAIN STORM SEWER FLOW AT ALL TIMES. COORDINATE ALL UTILITY REMOVAL OR ALTERATION WITH APPROPRIATE UTILITY AUTHORITY.

[CU] COORDINATE UTILITIES:

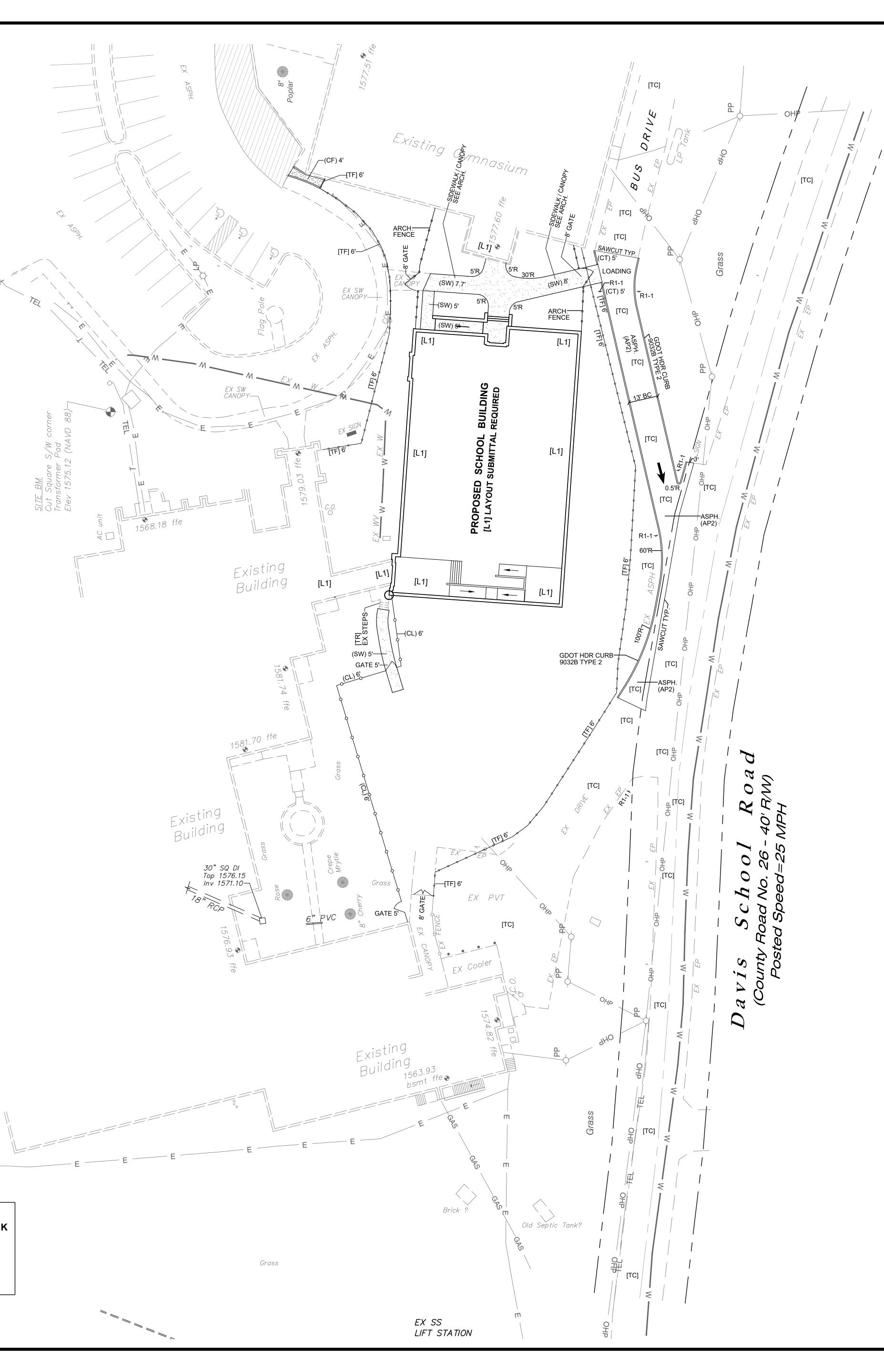
CONSTRUCTION. COORDINATE ALL EXISTING AND PROPOSED UTILITY CONSTRUCTION, REMOVAL, ALTERATION, RENOVATION, OR RELOCATION REQUIRED TO COMPLETE THE WORK WITH THE APPROPRIATE UTILITY AUTHORITY. RESOLVE ALL CONFLICTS, OMISSIONS, OR DISCREPANCIES PRIOR TO CONSTRUCTION. MAINTAIN ALL UTILITY SERVICES AT ALL TIMES.

[DE] DEMOLITION REQUIRED:

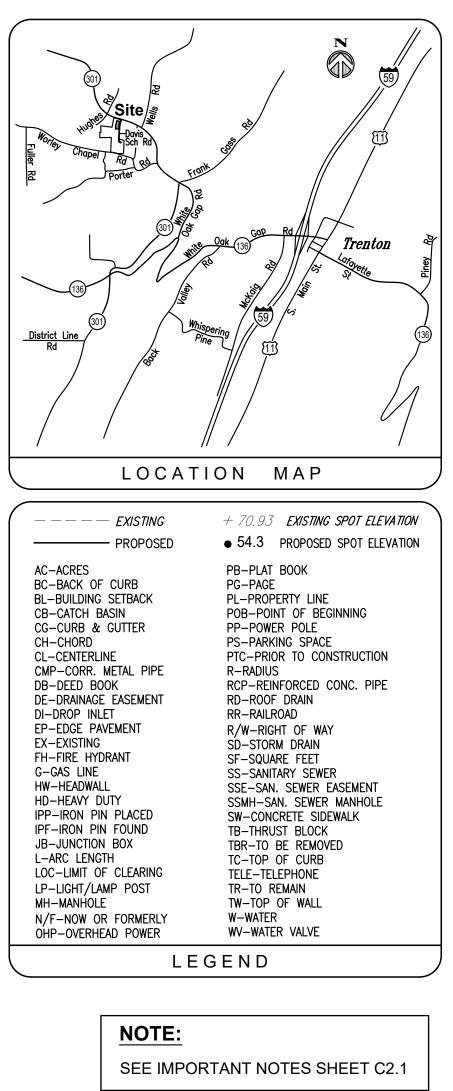
ARCHITECTURAL AND/OR RELATED ENGINEERING PLANS AND SPECIFICATIONS. COORDINATE UTILITIES WITH APPROPRIATE AUTHORITY.

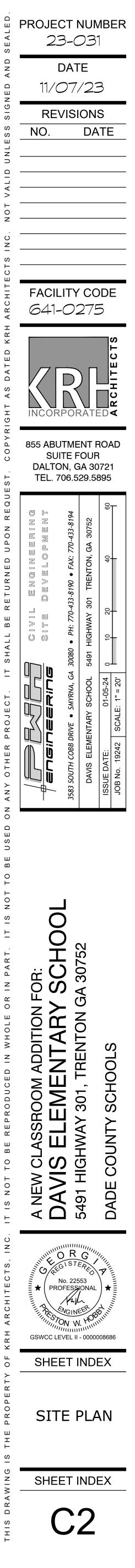


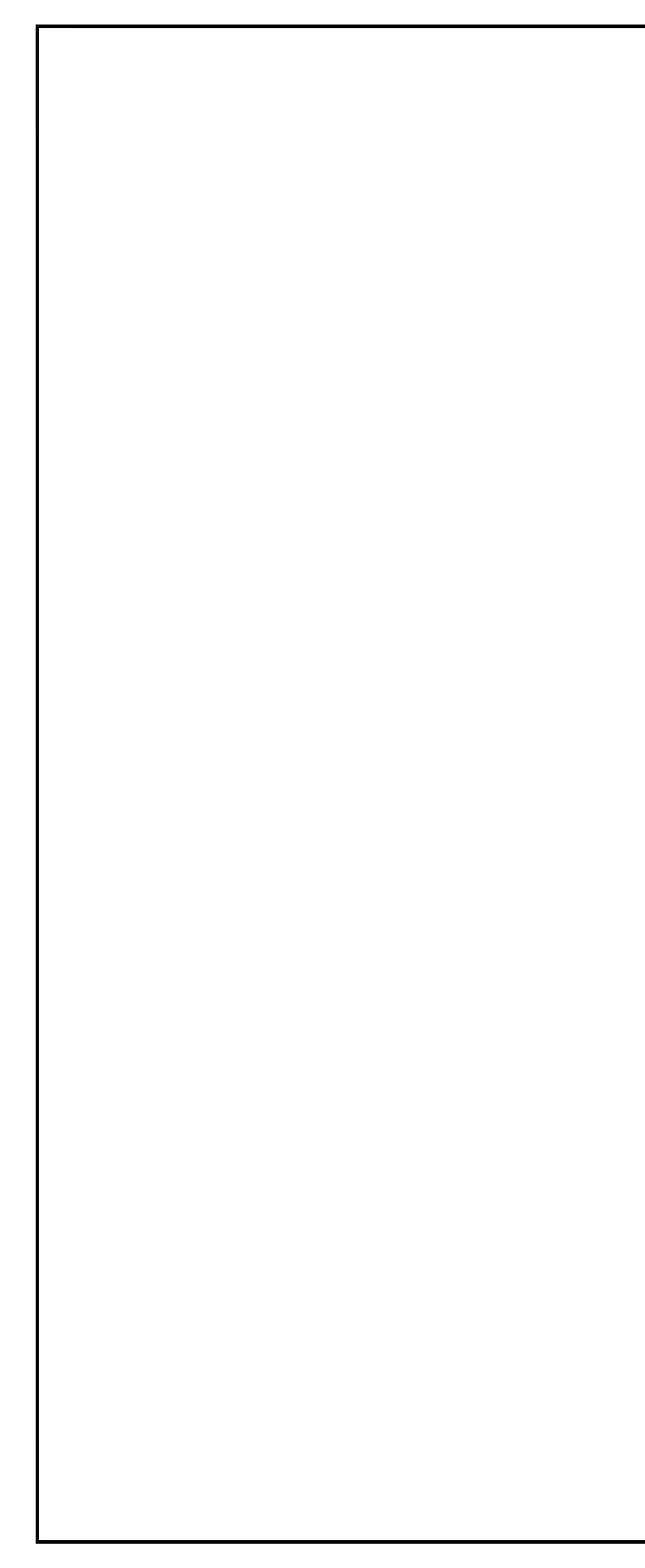
FENCING :
INSTALL 400 LF 4' (CL) BLACK VINYL CHAIN LINK
FENCE PER DETAIL AND SPECIFICATIONS.
PROVIDE TWO (2) DOUBLE LEAFED 10' GATES,
LOCATION PER ARCHITECT. FENCE MUST BE
STAKED AND APPROVED BY OWNER'S
REPRESENTATIVE PRIOR TO CONSTRUCTION.











CONSTRUCTION LEGEND:

[AT] STRUCTURE TOP ADJUSTMENT: RAISE, LOWER, MOVE, ALTER, ADD OR ADJUST EXISTING MANHOLE OR OTHER STRUCTURE TOP, BOX, RING AND COVER AS REQUIRED FOR PROPOSED CONSTRUCTION. REFERENCED STANDARDS, DETAILS, AND SPECIFICATIONS APPLY AS MINIMUM REQUIREMENTS. STRUCTURE TOPS SHALL BE EVEN WITH FINISHED PAVEMENT IN PAVED AREAS AND RATED FOR TRAFFIC IN TRAFFIC AREAS. STRUCTURE TOPS SHALL BE 6 INCHES ABOVE FINISHED GRADE IN UNPAVED AREAS.

[CA] CONTROLLED ACCESS:

PROVIDE CONTROLLED ACCESS TO PROJECT SITE USING GATES, TRAFFIC CONTROL [TC], AND PERSONNEL TO MONITOR ACCESS AND PROHIBIT UNAUTHORIZED ENTRY TO THE SITE. PROVIDE ALL WARNING, INSTRUCTIONAL, AND DIRECTIONAL SIGNAGE TO INFORM PUBLIC AND MAINTAIN SAFE CONTROLLED ACCESS AT ALL TIMES. ALL GATES SHALL BE LOCKED AT ALL TIMES EXCEPT FOR AUTHORIZED ENTRY. PROVIDE TEMPORARY FENCING TO PROHIBIT AND CONTROL ACCESS. COORDINATE WITH OWNER AND MAINTAIN SAFE ACCESS FOR NORMAL OPERATION AND FUNCTION. CONTROLLED ACCESS POINTS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL FINAL RELEASE BY OWNER.

[CS] CRITICAL SLOPE:

SLOPE SHOWN IS LESS THAN 1 FOOT PER 100 FEET (1.0%). CONTRACTOR SHALL USE LASER GUIDED EQUIPMENT AND PROVIDE ALL NECESSARY MEASURES TO ENSURE FINAL GRADE IS ESTABLISHED AS DESIGNED. CONSTRUCTION TOLERANCE IS NOT ALLOWED FOR CRITICAL SLOPES OR GRADES. NO PONDING OR DEPRESSED AREAS ALLOWED.

[CT] CURB TAPER:

CONTRACTOR SHALL: TAPER CURB HEIGHT FROM STANDARD HEIGHT TO 0" HEIGHT FOR LENGTH SHOWN ON PLANS. END OF TAPER SHALL BLEND SMOOTH INTO PROPOSED FINISH GRADES SO THAT 0" (ZERO INCHES) CURB HEIGHT WILL MATCH ADJACENT PAVEMENT, IMPROVEMENTS, AND/OR FINISH GRADES. PROVIDE EXPANSION JOINT AT INTERFACE. ALL SIDEWALKS ADJACENT TO CURB TAPERS (CT) SHALL BE TAPERED TO MATCH CURB TAPER(S).

[DF] DROP FOOTING:

DROP THE BUILDING OR STRUCTURE FOOTING BEARING SURFACE AS REQUIRED FOR PROPOSED GRADES AT BUILDING PERIMETER TO ACCEPT BUILDING FINISH PER ARCHITECTURAL PLANS WITHOUT EXPOSING FOOTING. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS AND SPECIFICATIONS. COORDINATE PTC.

[FJ] FLUSH JOINT:

CONTRACTOR SHALL: PROVIDE FLUSH JOINT ALONG DESIGNATED LENGTH. ELEVATIONS SHALL MATCH EQUALLY ALONG ENTIRE LENGTH FROM ONE SURFACE TO ADJACENT SURFACES. PROVIDE EXPANSION JOINT ALONG ENTIRE LENGTH OF PAVEMENT OR CURB EDGES. CROSS SLOPE SHALL BE LEVEL ACROSS GUTTER WIDTH. FLUSH JOINT SHALL BE INSTALLED TO PROVIDE SMOOTH, LEVEL CROSS SLOPE, AND EVEN TRANSITION FROM ONE SURFACE TO ANOTHER ALONG ENTIRE LENGTH. BUMPS, DIPS, RAISED OR LOWERED EDGES, OR OTHER ELEVATION DIFFERENCES WILL NOT BE ALLOWED.

[IG] IRRIGATION:

PROVIDE IRRIGATION FOR FOOTBALL AND SOFTBALL FIELDS PER SPECIFICATIONS. CONTRACTOR SHALL PROVIDE CERTIFIED SPRINKLER SYSTEM DESIGN BY PROFESSIONAL ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. ALL IRRIGATION SPRINKLERS, VALVES, CONNECTIONS, FITTINGS, AND ASSOCIATED HARDWARE SHALL BE HEAVY DUTY BRONZE BODY STAINLESS STEEL CONSTRUCTION.

[L1] LAYOUT SUBMITTAL:

CONTRACTOR SHALL: SUBMIT FOUNDATION AND PROPOSED BUILDING LAYOUT PLAN TO ARCHITECT AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. PROVIDE AS BUILT DIMENSIONS OF ALL EXISTING BUILDINGS, IMPROVEMENTS, COLUMNS, CANOPIES, OR STRUCTURES AT THE INTERFACE BETWEEN EXISTING AND PROPOSED CONSTRUCTION, AND ANY ADDITIONAL MEASUREMENTS REQUIRED TO ACCURATELY DESCRIBE THE EXISTING AND PROPOSED CONSTRUCTION. PROVIDE ALL DIMENSIONS, GEOMETRY, ANGLES, AND CLOSURES FOR PROPOSED CONSTRUCTION AND EXISTING CONSTRUCTION, AND THE INTERFACE BETWEEN EACH.

BUILDING LAYOUT SHALL BE BASED ON ARCHITECTURAL PLANS, DO NOT USE CIVIL OR OTHER RELATED

ENGINEERING PLANS, DRAWINGS, OR CAD FILES, OR SURVEYOR'S DRAWINGS OR CAD FILES. DO NOT USE SURVEY EQUIPMENT OR SURVEYOR TO SET INDIVIDUAL **BUILDING CORNERS OR POINTS USING ONE REFERENCE** POINT. ALL BUILDING CORNERS AND TIE IN POINTS TO EXISTING BUILDINGS OR STRUCTURES MUST BE VERIFIED AND CONFIRMED USING MULTIPLE REFERENCE POINTS. SUBMITTAL SHALL INCLUDE SUFFICIENT INFORMATION TO DEMONSTRATE FULL COMPLIANCE WITH DESIGN INTENT AND LAYOUT AS SHOWN ON THE PLANS.

CONSTRUCTION LEGEND:

[ME] MATCH EXISTING: MATCH EXISTING FINISH GRADE. VERIFY IN FIELD PRIOR TO CONSTRUCTION (PTC). VERIFY POSITIVE SLOPE TO PROVIDE FLOW AS INDICATED.

[RA] CURB RAMP: TO MATCH CURB.

[RD] ROOF DRAIN:

AND PLUMBING DETAILS.

CONSTRUCTION (PTC).

CONNECT ALL ROOF DOWNSPOUTS AS SHOWN ON ARCHITECTURAL PLANS TO STORM SEWER WITH [RD] PIPING. NUMBER AND LOCATION OF DOWNSPOUTS SHALL CONFORM TO TO ARCHITECTURAL PLANS, VERIFY PTC. CONNECTIONS TO INDIVIDUAL DOWNSPOUTS OR PLUMBING DRAINS SHOWN ON CIVIL SITE DEVELOPMENT PLANS ARE FOR REFERENCE ONLY TO INDICATE TYPICAL CONDITIONS. CONNECT ALL HUB DRAINS FROM WALL HUNG HVAC UNITS AND ALL PLUMBING ROOF DRAINS WITH [RD] PIPING TO STORM SEWER - REFER TO MECHANICAL AND PLUMBING ENGINEERING PLANS AND SPECIFICATIONS. [RD] COLLECTOR PIPE SIZE AND MATERIAL SHOWN ON PLANS. [RD] CONNECTIONS TO INDIVIDUAL DOWNSPOUTS & PLUMBING ROOF DRAINS SHALL BE 6" DIAMETER, 2" DIAMETER FOR HVAC UNITS. PIPE BEDDING FOR [RD] IS CLASS B. MINIMUM COVER OVER TOP OF PIPE: 1.0 FEET UNPAVED AREAS, 3.0 FEET PAVED AREAS. MINIMUM PIPE SLOPE: 1/8"/FT (1.0%). USE DUCTILE IRON PIPE IN PAVED AREAS, SCHED. 40 PVC IN NON-PAVED AREAS. PROVIDE CLEANOUTS AT ALL LINE DEFLECTIONS. CLEANOUTS IN NON-PAVED AREAS SHALL BE PVC 6 INCHES ABOVE GRADE. CLEANOUTS IN PAVED AREAS SHALL BE H-20 RATED HEAVY DUTY TO MATCH FINISHED PAVEMENT ELEVATION. LONG SWEEP RADIUS REQUIRED FOR ALL ELBOWS AND PIPE LINE DEFLECTIONS. PIPE CONNECTION TO DOWNSPOUTS SHALL BE PER ARCHITECTURAL

[RT1] RETANING WALL: INSTALL CONCRETE REINFORCED RETAINING WALL PER STRUCTURAL ENGINEERING PLANS. PROVIDE BRICK VENEER ON ALL EXPOSED WALL FACES, AND ARCHITECTURAL FENCING ON TOP OF WALL FOR ENTIRE LENGTH PER ARCHITECTURAL PLANS. VERIFY ALL WALL DIMENSIONS, DETAILS, AND FINISHES PRIOR TO

[SW] SIDEWALK, RAMP OR STEPS: CONCRETE SIDEWALK WITH FINISH PER ARCHITECT. SIDEWALK WIDTHS AND DIMENSIONS AT DOORS OR ENTRANCE/EXITS SHALL BE PER ARCHITECTURAL PLANS, MINIMUM WIDTH IS DOOR WIDTH PLUS 1.0 FEET EACH SIDE. PROVIDE POSITIVE SLOPE AWAY FROM DOOR THRESHOLDS OF 1/8 INCH PER FOOT (1.0%) MINIMUM. SIDEWALK SLOPES GREATER THAN 1:20 (0.05 FT./FT.) WILL BE CONSIDERED RAMPS. MAXIMUM SLOPE FOR SIDEWALKS IS 1:12 (0.083 FT./FT.). MAXIMUM SIDEWALK CROSS SLOPE IS 1/4 INCH PER FOOT. SIDEWALKS SHALL BE INSTALLED WITH MINIMUM 6X6 10 GAUGE WWF REINFORCEMENT, 1.5 INCHES FROM BOTTOM. HANDRAILING SHALL BE INSTALLED ON BOTH SIDES OF SIDEWALK RAMPS PER ADA CODE. CONTRACTOR SHALL INSTALL STEPS AND RAILING PER LOCAL CODE(S) AND CONSTRUCTION DETAILS. CONSULT WITH ARCHITECT REGARDING SIDEWALK AND RAILING DETAILS PRIOR TO CONSTRUCTION. MINIMUM RAILING DETAIL REQUIREMENT(S) SHALL COMPLY WITH GEORGIA D.O.T. 9031R OR AS SHOWN ON PLANS AND SPECIFICATIONS. CANOPIES SHALL BE INSTALLED PER ARCHITECTURAL PLANS AND SPECIFICATIONS. COORDINATE AND VERIFY ALL SIDEWALK LAYOUT, WIDTH, LOCATION AND FINISH WITH ARCHITECT PRIOR TO CONSTRUCTION.

[TC] TRAFFIC CONTROL: CONTRACTOR SHALL: PROVIDE 24 HOUR TRAFFIC CONTROL FOR ALL PUBLIC RIGHT-OF-WAY, ROADWAYS, PRIVATE DRIVES, [CA] CONTROLLED ACCESS AREAS, AND ALL AREAS REQUIRING ACCESS. PROVIDE TRAFFIC PLATES OR OTHER APPROVED METHODS FOR ALL AREAS REQUIRING TEMPORARY ACCESS WHICH MAY BE OBSTRUCTED DUE TO REQUIRED UTILITY TRENCH CUTS OR OTHER OBSTRUCTIONS. TRAFFIC CONTROL SHALL CONFORM TO GEORGIA D.O.T STANDARDS AND SPECIFICATIONS THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND LOCAL AUTHORITY STANDARDS AND SPECIFICATIONS. TRAFFIC CONTROL SHALL INCLUDE, BUT NOT BE LIMITED TO: WARNING SIGNS AND DEVICES, LIGHTED DEVICES/SIGNALS FOR NIGHT CONDITIONS, BARRICADES, QUALIFIED FLAGMEN, AND ALL OTHER MEASURES TO INSURE THE SAFETY OF PEDESTRIAN AND VEHICULAR TRAFFIC AND WORKMEN, AND TO PROTECT THE WORK. MAINTAIN ALL TRAFFIC CONTROL MEASURES IN GOOD REPAIR, CLEAN AND VISIBLE FOR DAY AND NIGHT OPERATION. ALL LANE CLOSURES SHALL BE COORDINATED WITH AND APPROVED BY THE LOCAL AUTHORITY PRIOR TO CONSTRUCTION.

[TF] TEMPORARY FENCE: INSTALL TEMPORARY FENCE PER PROJECT SPECIFICATIONS TEMPORARY FENCE [TF] SHOWN ON PLANS IS IN ADDITION TO TEMPORARY FENCE REQUIRED BY THE SPECIFICATIONS. MINIMUM HEIGHT IS SIX FEET (6'). TEMPORARY FENCE MUST BE INSTALLED VERTICAL (PLUMB), RIGID AND STABLE, AND WITHOUT GAPS TO PROHIBIT UNAUTHORIZED ENTRY OR REMOVAL. IN PAVED AREAS TO REMAIN [TR] WHERE [TF] IS REQUIRED PORTABLE FENCING MAY BE USED. PORTABLE FENCING MUST BE HEAVY DUTY GRADE COMPLYING WITH PROJECT SPECIFICATIONS AT A MINIMUM, SECTIONS SHALL BE CONNECTED AND ATTACHED SECURELY, VERTICAL (PLUMB), STABLE AND RIGID TO PROHIBIT UNAUTHORIZED ENTRY OR REMOVAL. PROVIDE WEIGHTED BOTTOM RAIL OR OTHER MEANS TO PREVENT HORIZONTAL DISPLACEMENT OR MOVEMENT. WHERE DRIVEN POSTS ARE USED IN AREAS TO REMAIN [TR], PAVEMENTS MUST BE CUT AND PATCHED FOR FULL DEPTH AND ALL IMPROVEMENTS MUST BE RESTORED TO MATCH INDUSTRY STANDARD OR EXISTING CONDITION, WHICHEVER IS GREATER. TEMPORARY FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL FINAL RELEASE BY

OWNER/ARCHITECT. INSPECT, REPAIR AND MAINTAIN TEMPORARY AND PORTABLE FENCING DAILY TO PROHIBIT UNAUTHORIZED ENTRY. SUBMIT ALL MANUFACTURER DETAILS AND SPECIFICATIONS FOR [TF] TEMPORARY FENCE AND PORTABLE FENCE APPROVAL PRIOR TO CONSTRUCTION (PTC).

[UD] UNDISTURBED BUFFER: INSTALL AND MAINTAIN TREE FENCE AROUND ENTIRE PERIMETER OF UNDISTURBED AREA. NO ACCESS ALLOWED IN UNDISTURBED AREAS INCLUDING BUT NOT LIMITED TO: PEDESTRIAN, VEHICULAR, STORAGE, PARKING, OR ANY OTHER ENCROACHMENT OR DISTURBANCE. PROVIDE SIGNAGE AND INSTRUCTION TO ALL PERSONNEL AS REQUIRED.

[VC] VERIFY & COORDINATE: VERIFY ALL EXISTING IMPROVEMENTS. PROTECT BY ALL MEANS NECESSARY ALL EXISTING IMPROVEMENTS TO REMAIN COORDINATE RELOCATION, REMOVAL, STORAGE, OR DEMOLITION WITH OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

PROVIDE CURB RAMP CONFORMING TO CURRENT GEORGIA ADA CODE. VERIFY ALL REQUIREMENTS, DIMENSIONS, SLOPES, AND CONSTRUCTION PTC. PROVIDE MINIMUM 6' CURB TAPER [CT] AT EACH SIDE OF ADJOINING CURBS. TAPER ADJOINING SIDEWALKS

GRADING NOTES:

1. SEE GENERAL CONSTRUCTION NOTES FOR FURTHER INFORMATION RELATING TO SITE DEVELOPMENT AND GRADING IMPROVEMENTS.

2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LOCAL AUTHORITIES HAVING JURISDICTION (LAHJ). ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE. SEE EROSION CONTROL PLAN FOR DETAILS. 3. RESERVED

4. ALL UTILITIES SHOWN ON THE PLANS ARE SHOWN ACCORDING TO THE INFORMATION AVAILABLE, AND MAY NOT BE ACCURATE HORIZONTALLY OR VERTICALLY. GAS LINES SHALL BE LOCATED AND VERIFIED WITH GAS AUTHORITY PRIOR TO CONSTRUCTION. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, ORIGIN, VERIFICATION, PROTECTION, AND MAINTENANCE OF ALL UTILITIES AND UTILITY EASEMENTS WHICH EXIST ONSITE. CONTRACTOR SHALL HAVE ALL UTILITIES FIELD LOCATED BY THE APPROPRIATE AUTHORITY AND COORDINATE ALL EXISTING OR PROPOSED UTILITY CONSTRUCTION, RELOCATION, TAPS OR OTHER ASSOCIATED WORK WITH THE APPROPRIATE UTILITY AUTHORITY. RESOLVE ALL CONFLICTS OR PROBLEMS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL UNDERGROUND UTILITIES FOR PROPOSED CONSTRUCTION WITH OWNER AND UTILITY AUTHORITY, INCLUDING BUT NOT LIMITED TO: GAS LINES, POWER LINES, CABLE TV OR TELEPHONE, IT LINES, IRRIGATION LINES, AND OTHER ASSOCIATED UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. RESOLVE ALL CONFLICTS OR PROBLEMS PRIOR TO CONSTRUCTION.

5. ALL CUT AND FILL GRADING OPERATIONS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS AND REQUIREMENTS OF THE GEOTECHNICAL/SOILS ENGINEER. SUBSURFACE SOIL CONDITIONS WHICH MAY BE ENCOUNTERED, SUCH AS UNDERGROUND SPRINGS, HIGH WATER TABLE, ROCK OR UNSUITABLE SOILS, SHALL BE RESOLVED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER. IN THE ABSENCE OF A QUALIFIED SOILS ENGINEER, THE CONTRACTOR IS RESPONSIBLE FOR ALL SOILS AND CONSTRUCTION SELECTED FOR ANY USE IN

COMPLETING THE WORK. 6. PWH ENGINEERING, INC., IS NOT RESPONSIBLE FOR SUITABILITY, STRUCTURAL INTEGRITY, COMPACTION, CUT OR FILL QUANTITY OF ANY SOILS SELECTED OR REQUIRED FOR USE IN THE COMPLETION OF THE WORK.

7. MINIMUM COMPACTION FOR ALL FILL IS 95% MAXIMUM DRY DENSITY PER ASTM D698, OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER, OR AS SPECIFIED IN THE GEOTECHNICAL SOILS SUBSURFACE EVALUATION ANALYSIS AND REPORT, WHICHEVER IS GREATER.

8. MAXIMUM CUT OR FILL SLOPE IS 2H:1V UNLESS SPECIFIED OTHERWISE

9. MINIMUM FLOOR ELEVATIONS SHOWN ARE BASED UPON EXISTING CONDITIONS, PROPER FUNCTIONING OF CHANNELS, DRAINAGE COURSES, AND STORM DRAIN SYSTEMS. ANY RESTRICTIONS OR ALTERATIONS TO THESE ELEMENTS MAY CAUSE FLOODING ABOVE THE STATED MINIMUM FLOOR ELEVATIONS. 10. CONTRACTOR SHALL PROVIDE POSITIVE SLOPE AWAY FROM ALL BUILDINGS, FINISHED FLOORS, AND STRUCTURES WHICH MAY BE DAMAGED BY WATER INTRUSION FOR A MINIMUM OF 5.0 FEET HORIZONTALLY.

11. THE CONTRACTOR IS RESPONSIBLE FOR ALL LOCAL. STATE. FEDERAL, AND INDUSTRY STANDARD SAFETY DEVICES, PROCEDURES, PRECAUTIONS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK. NO PERSON SHALL ENTER ANY MANHOLE OR OTHER UNDERGROUND STRUCTURE OR EXCAVATION, WITHOUT PROTECTIVE BREATHING APPARATUS, AND AT LEAST ONE OTHER PERSON PRESENT FOR SAFETY. ALL TRENCHES, GRADING, EXCAVATION, AND EARTHWORK SHALL CONFORM TO OSHA STANDARDS FOR SAFETY, SHORING, AND BRACING. 12. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ADJACENT PROPERTY OR EXISTING UTILITIES OR IMPROVEMENTS DUE TO CONSTRUCTION REQUIRED TO COMPLETE THE WORK. ALL DAMAGED PROPERTY SHALL BE RESTORED TO ORIGINAL CONDITION BY CONTRACTOR.

13. LINE OF SIGHT DISTANCE AT INTERSECTIONS SHALL BE MAINTAINED PERMANENTLY FREE AND CLEAR OF ALL OBSTRUCTION.

14. FINISHED GRADES LESS THAN 1.0% (1 FT. PER 100 FT.) MAY BE REQUIRED DUE TO SITE CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS NECESSARY TO PROVIDE GRADES WITHOUT PONDING OR DEPRESSED AREAS. 15. FLOW ARROWS AND SPOT ELEVATIONS SHOWN DETERMINE DESIGN INTENT. WHERE CONFLICTS OCCUR BETWEEN FLOW ARROWS AND SPOT ELEVATIONS NOTIFY ENGINEER IMMEDIATELY AND RESOLVE PRIOR TO CONSTRUCTION. 16. CONTRACTOR SHALL ESTABLISH PERMANENT GRASSING ON ALL DISTURBED AREAS PRIOR TO FINAL RELEASE, WHETHER SHOWN

ON THE PLANS OR NOT. 17. OWNER IS RESPONSIBLE FOR COMPLIANCE WITH CLEAN WATER ACT, USACE WETLANDS AND SECTION 404 PERMITTING.

18. THE CONTRACTOR SHALL PROVIDE STORM WATER DISCHARGE MONITORING, DOCUMENTATION, AND REPORTING, AND FULLY COMPLY WITH THE CURRENT GEORGIA NPDES PERMIT CONDITIONS AND REQUIREMENTS. CONTRACTOR SHALL PROVIDE COPIES OF ALL REPORTING AND DOCUMENTATION TO OWNER IMMEDIATELY AND THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL SIGN, CERTIFY, AND SUBMIT THE NOTICE OF INTENT (NOI) USING **REGISTERED MAIL, AND ANY OTHER RELATED NOTICE(S),** APPLICATIONS, OR CERTIFICATIONS REQUIRED FOR FULL COMPLIANCE WITH CURRENT APPLICABLE LAWS AND **REGULATIONS. CONTRACTOR SHALL PROVIDE COPIES OF ALL** REPORTING AND DOCUMENTATION TO OWNER IN A TIMELY MANNER THROUGHOUT CONSTRUCTION.

19. ALL SOILS USED FOR FILL IN EARTHEN DAMS OR WATER IMPOUNDMENT AREAS SHALL BE ML OR CL LOW PLASTICITY CLAYS PER THE UNIFIED SOIL CLASSIFICATION, APPROVED BY THE GEOTECHNICAL ENGINEER. ALL ORGANICS, TOPSOIL, OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ENTIRE FILL AREA. ALL FILL SHALL BE PLACED IN MAXIMUM 6 INCH LIFTS, MINIMUM COMPACTION IS 95% OF STANDARD MAXIMUM DENSITY. NO GRAVEL, AGGREGATE OR GRAVEL PIPE BEDDING, OR ANY PERVIOUS MATERIAL SHALL BE PLACED IN THE DAM OR FILL AREA(S). SCARIFY EXISTING SUBGRADE PRIOR TO PLACING FILL.

20. ALL STORM SEWER STRUCTURES, PIPING, AND APPURTENANCES SHALL BE COMPLETELY CLEANED AND FREE OF ALL TRASH, DEBRIS, SEDIMENT, SILT, OR OTHER UNSUITABLE MATERIALS PRIOR TO FINAL RELEASE.

21. CONTRACTOR SHALL PROVIDE ONSITE UTILITY LOCATIONS FOR ALL UTILITIES BY PRIVATE UTILITY LOCATING COMPANY. PROVIDE OWNER/ENGINEER COMPLETE RESULTS OF ALL UTILITY LOCATION(S) PRIOR TO CONSTRUCTION. THIS REQUIREMENT IS IN ADDITION TO THE STANDARD UPC LOCATION OF UTILITIES. 22. EXISTING STORMWATER POND(S) AND STORM SEWER(S) CAPACITY AND SERVICE LEVEL HAVE NOT BEEN ANALYZED AND WILL NOT BE INCREASED OR ENHANCED BY PROPOSED DESIGN.

GENERAL CONSTRUCTION NOTES:

1. LAHJ = LOCAL AUTHORITIES HAVING JURISDICTION.

2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM, AT A MINIMUM, TO THE CURRENT STANDARDS AND SPECIFICATIONS THE LAHJ. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL CURRENT APPLICABLE STANDARDS, SPECIFICATIONS, AND DET OF THE LAHJ. ALL DISCREPANCIES BETWEEN THESE STANDARD AND THE CONSTRUCTION PLANS AND SPECIFICATIONS SHALL REPORTED IMMEDIATELY FOR RESOLUTION PRIOR TO CONSTRUCTION.

WHEN ANY CONSTRUCTION, MATERIALS, OR SPECIFICATIONS THE SAME OR SIMILAR ITEM(S) OR REQUIREMENTS ARE SHOW MORE THAN ONE PLACE IN THE CONSTRUCTION DOCUMENTS, PLANS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIRE SHALL APPLY AS DETERMINED BY THE ENGINEER. 3. THE CONTRACTOR IS RESPONSIBLE FOR ALL FEDERAL, STAT OSHA, AND LOCAL SAFETY REGULATIONS, LAWS, CODES OR

ORDINANCES WHICH MAY APPLY. 4. THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS FOR ERRORS, OMISSIONS, DISCREPANCIES, CONFLICTS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHA NOTIFY THE ENGINEER OF ANY ERRORS OR OMISSIONS IN THE PLANS, OR BETWEEN THE PLANS AND ACTUAL FIELD CONDITION

IMMEDIATELY. ANY WORK DONE AFTER SUCH DISCOVERY, WITHOUT APPROVAL, IS AT THE CONTRACTOR'S RISK. 5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND FROM SITE AT ALL TIMES. UTILITY SERVICES SHALL BE MAINTAINED A TIMES. THE CONTRACTOR SHALL COORDINATE ANY TEMPORAF INTERRUPTION OF ACCESS OR UTILITIES WITH THE OWNER PRIC

TO THE INTERRUPTION. 6. ALL MATERIALS TO BE REMOVED SHALL BE DISPOSED OF OFFSITE IN A LEGAL MANNER.

7. ALL UTILITIES SHOWN ON THE PLAN ARE SHOWN ACCORDING INFORMATION AVAILABLE, AND MAY NOT BE ACCURATE HORIZONTALLY OR VERTICALLY. UTILITIES MAY EXIST WHICH A NOT SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBL FOR THE LOCATION, ORIGIN, VERIFICATION, PROTECTION AND MAINTENANCE OF ALL UTILITIES WHICH EXIST ONSITE OR MAY IMPACTED BY THE WORK. CONTRACTOR SHALL HAVE ALL UTILI LOCATED AND MARKED BY THE APPROPRIATE AUTHORITIES AN COORDINATE ALL UTILITY CONSTRUCTION, TAPS, OR OTHER ASSOCIATED WORK WITH THE APPROPRIATE UTILITY AUTHORI RESOLVE ANY CONFLICTS OR ERRORS PRIOR TO CONSTRUCT CONTRACTOR SHALL CLEARLY MARK AND MAINTAIN PROPERTY CORNERS, BOUNDARY, MONUMENT, AND BENCHMARKS THROUGHOUT CONSTRUCTION.

8. CONTRACTOR SHALL REVIEW ALL SITE IMPROVEMENTS, WAL PARKING, PAVEMENT, BUILDINGS, STRUCTURES, OR OTHER IMPROVEMENTS SHOWN ON THESE PLANS FOR CONFORMITY THE CURRENT APPROVED ARCHITECTURAL AND RELATED ENGINEERING PLANS. RESOLVE ALL CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.

9. CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES SIGNS, LIGHTS, OR OTHER DEVICES FOR THE SAFETY AND PROTECTION OF ALL PERSONS ON THE SITE. FOR TRAFFIC SAF IN THE ABSENCE OF SPECIFIC TRAFFIC REQUIREMENTS OF THE LAHJ, THE MANUAL FOR UNIFORM TRAFFIC SAFETY CONTROL

DEVICES SHALL BE USED. 10. PROPOSED BUILDING AND STRUCTURE LOCATIONS ARE SHO BASED ON ARCHITECTURAL PLANS PROVIDED. CONTRACTOR RESPONSIBLE FOR VERIFICATION OF ALL BUILDING DIMENSION EXISTING AND PROPOSED, JUNCTIONS, COMMON POINTS, AND LAYOUT GEOMETRY AS REQUIRED FOR COMPLETION OF THE

WORK 11. MINIMUM PIPE BEDDING FOR ALL PIPING SHALL CONFORM GEORGIA D.O.T. STANDARDS AND SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE. UNSUITABLE, WET, SPONGY, OR SOFT SOILS WILL REQUIRE ADDITIONAL BEDDING DESIGN AND CONSTRUCTION, AND SHALL BE REPORTED IMMEDIATELY TO T ENGINEER FOR RESOLUTION PRIOR TO PROCEEDING WITH THE

AFFECTED WORK. 12. BOUNDARY, TOPOGRAPHIC, VERTICAL AND HORIZONTAL SURVEY DATA PROVIDED BY OTHERS. PWH ENGINEERING, INC. NOT RESPONSIBLE FOR ERRORS, OMISSIONS, OR OTHER DEFE ARISING FROM OR RELATED TO ANY INFORMATION OR DATA PROVIDED BY OTHERS.

13. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION AND COORDINATION WITH THE LAHJ FOR START OF CONSTRUCTION AND INSPECTION PROCEDURES.

14. ALL CONSTRUCTION DETAILS SHOWN ON THE PLANS ARE FO REFERENCE ONLY. CONTRACTOR SHALL REVIEW AND VERIFY A CONSTRUCTION DETAILS FOR COMPLIANCE WITH CURRENT REFERENCED STANDARDS AND THE LAHJ.

15. THE CONTRACTOR IS RESPONSIBLE FOR ALL LOCAL, STATE FEDERAL, AND INDUSTRY STANDARD SAFETY DEVICES, PROCEDURES, PRECAUTIONS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK. NO PERSON SHALL ENTER ANY MANHOI OR OTHER UNDERGROUND STRUCTURE OR EXCAVATION, WITH PROTECTIVE BREATHING APPARATUS, AND AT LEAST ONE OTH PERSON PRESENT FOR SAFETY. ALL TRENCHES, GRADING, EXCAVATION, AND EARTHWORK SHALL CONFORM TO OSHA

STANDARDS FOR SAFETY, SHORING, AND BRACING. 16. MINIMUM FINISHED FLOOR ELEVATIONS WHICH MAY BE SHO ARE BASED UPON EXISTING CONDITIONS AND PROPER FUNCTION OF CHANNELS, DRAINAGE COURSES, AND STORM DRAIN SYSTE ANY RESTRICTION, DAMAGE, OR ALTERATION TO THESE ELEME EXISTING OR PROPOSED, MAY CAUSE FLOODING ABOVE THE STATED MINIMUM FLOOR ELEVATIONS.

17. CONTRACTOR SHALL ESTABLISH PERMANENT GRASSING ON DISTURBED AREAS PRIOR TO FINAL RELEASE, WHETHER SHOW ON THE PLANS OR NOT. 18. THE CONTRACTOR SHALL PROVIDE STORM WATER DISCHAF

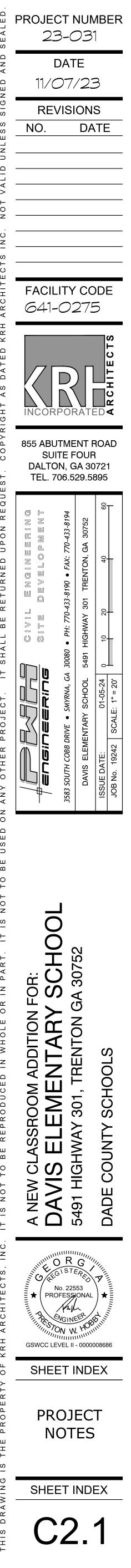
MONITORING, DOCUMENTATION, AND REPORTING, AND FULLY COMPLY WITH THE CURRENT GEORGIA NPDES PERMIT CONDIT AND REQUIREMENTS. CONTRACTOR SHALL SIGN, CERTIFY, AN SUBMIT THE NOTICE OF INTENT (NOI) USING REGISTERED MAIL AND ANY OTHER RELATED NOTICE(S), APPLICATIONS, OR CERTIFICATIONS REQUIRED FOR FULL COMPLIANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS. CONTRACTO SHALL PROVIDE COPIES OF ALL REPORTING AND DOCUMENTA TO OWNER IN A TIMELY MANNER THROUGHOUT CONSTRUCTIO 19. NO PARKING FOR CONTRACTORS OR SUBCONTRACTORS W BE ALLOWED ON PUBLIC STREETS OR RIGHT OF WAY. 20. ALL CUTS IN PAVEMENT AND PAVEMENT EDGES ADJOINING

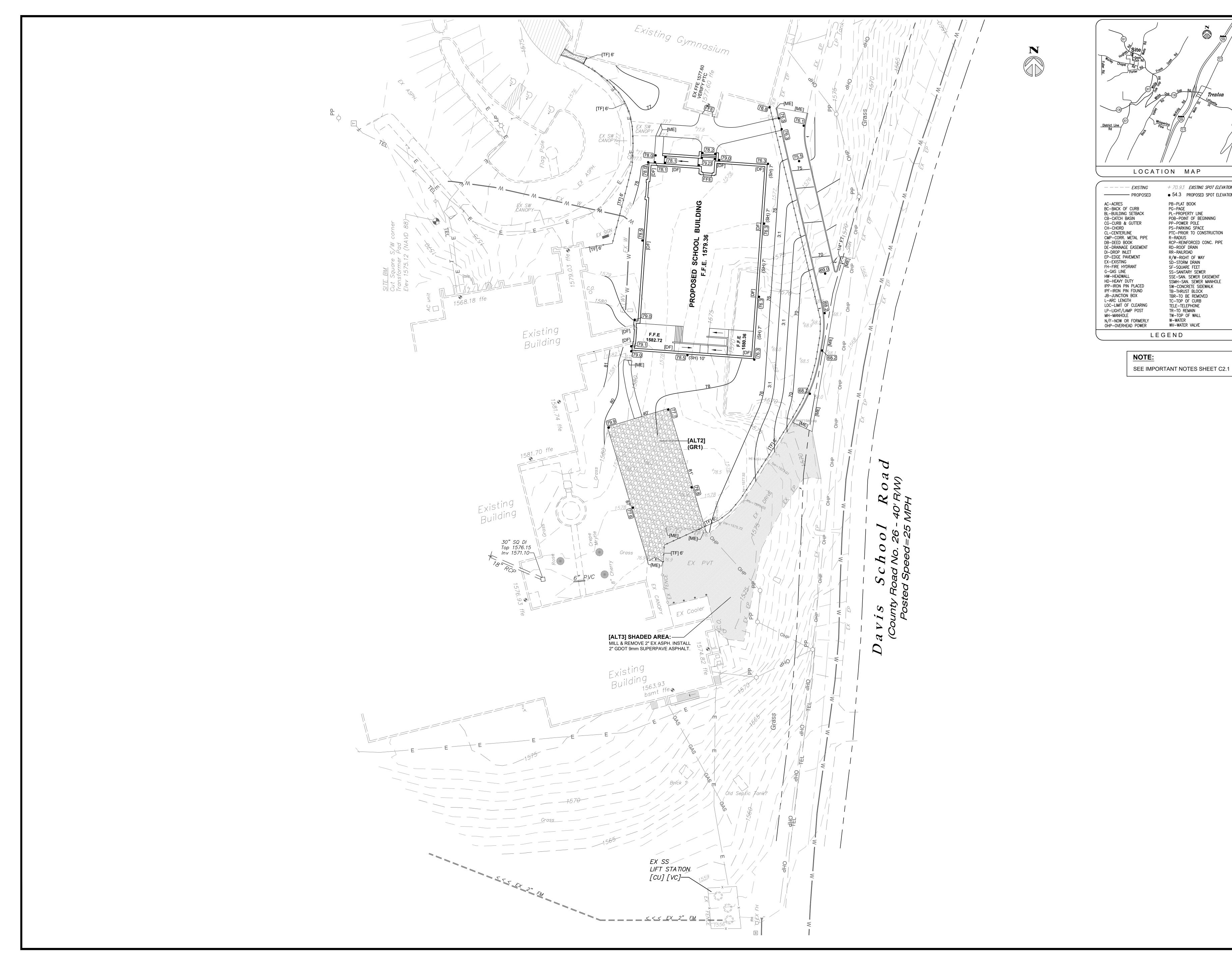
PAVEMENT SHALL BE SAW CUT. 22. CONTRACTOR SHALL COORDINATE WITH OWNER AUTHORIZ **REPRESENTATIVE AND OBTAIN APPROVAL PTC FOR ALL DAIL** CONSTRUCTION ACTIVITIES SCHEDULED AND ANY IMPACT ON **REQUIRED OWNER ACTIVITIES, FUNCTIONS, EVENTS, OR ACCES** WHICH MAY BE AFFECTED IN ANY WAY. DO NOT ALLOW PEDESTRIANS, PUBLIC, VISITORS, OR OTHER UNAUTHORIZED PERSON(S) TO ENTER WORK AREAS. WORK AND STORAGE AREA(S) SHALL BE FENCED [TF] AND SECURE [CA] AT ALL TIMI FOR ALL PHASES OF CONSTRUCTION. FOUL OR OFFENSIVE LANGUAGE, IMPROPER OR REVEALING CLOTHING OR ATTIRE, ALCOHOL, FIREARMS, DRUGS, OR OTHER INAPPROPRIATE BEHAVIOR AS DETERMINED BY OWNER AND LOCAL AUTHORIT STRICTLY PROHIBITED. ANY INTERACTION OR CONTACT WITH PUBLIC OR VISITORS IS STRICTLY PROHIBITED AT ALL TIMES. COORDINATION AND COMMUNICATION SHALL BE THROUGH TH DESIGNATED OWNER AUTHORIZED REPRESENTATIVE. CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL OWNER REQUIREMENTS, STANDARDS, POLICIES, RULES AND SPECIFICATIONS.

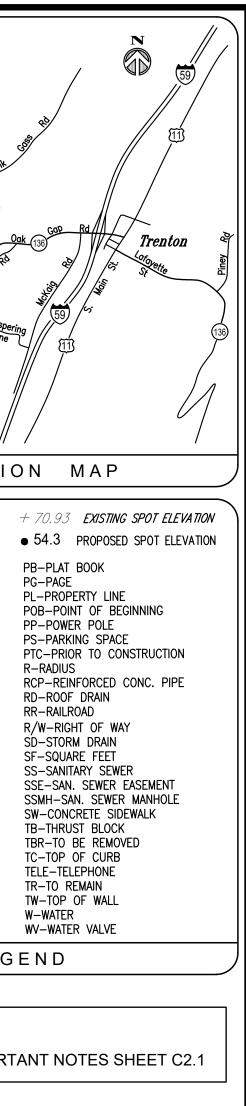
NO PARKING IN THE RIGHT OF WAY IS ALLOWED. ALL CONSTRUCTION TRAFFIC MUST BE COORDINATED WITH [TC] A ALL TIMES WITH NO INTERRUPTION OF ACCESS FOR OWNER **OPERATIONS OR PUBLIC RIGHT OF WAY.** 23. DESIGN IS BASED ON SURVEY INFORMATION PROVIDED BY

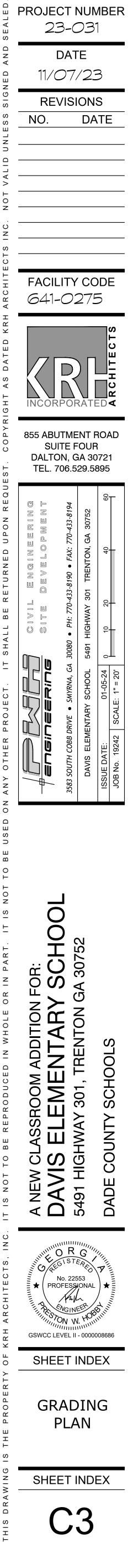
OTHERS. ENGINEER IS NOT RESPONSIBLE FOR ERRORS OR OMISSIONS IN ANY INFORMATION PROVIDED BY OTHERS.

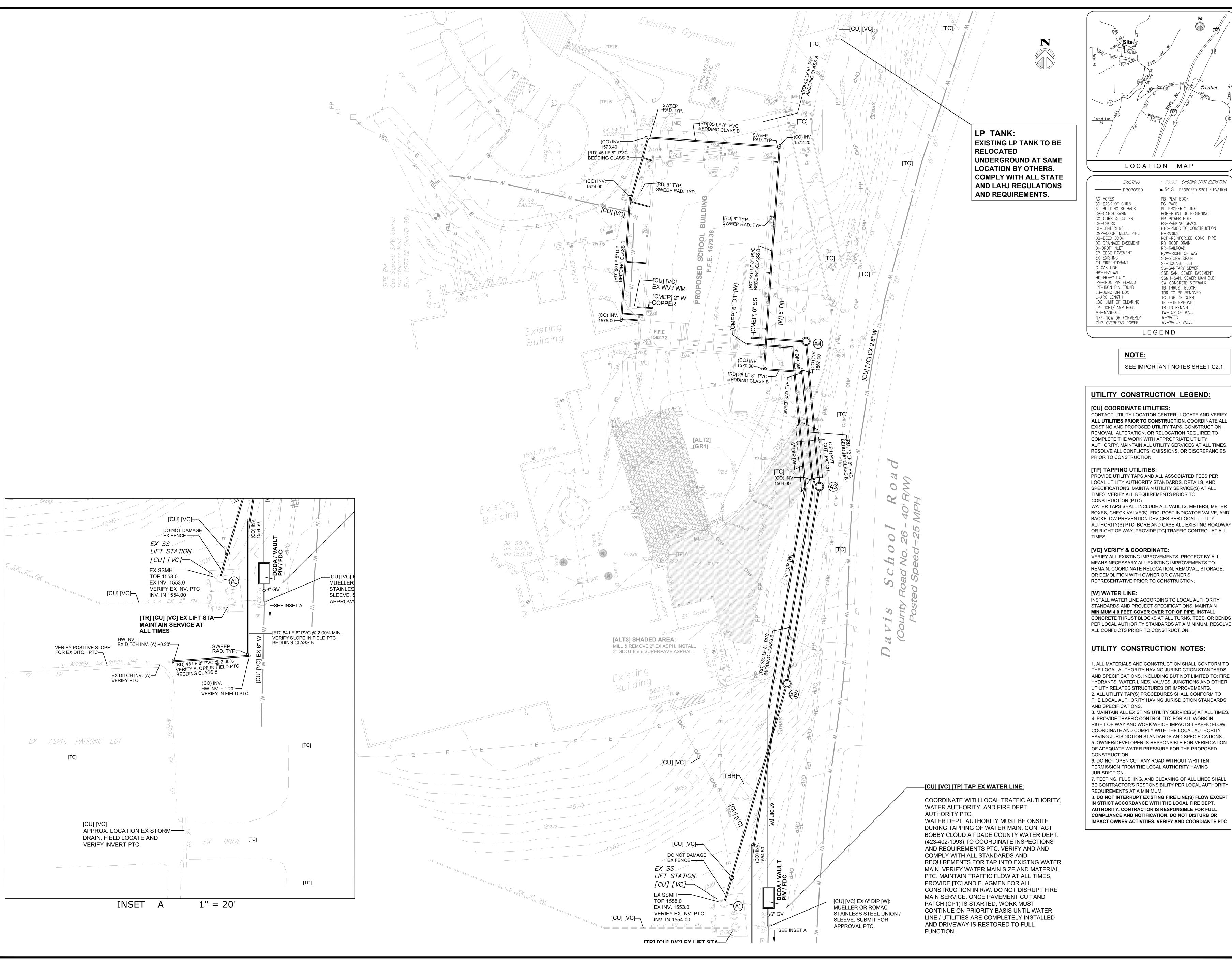
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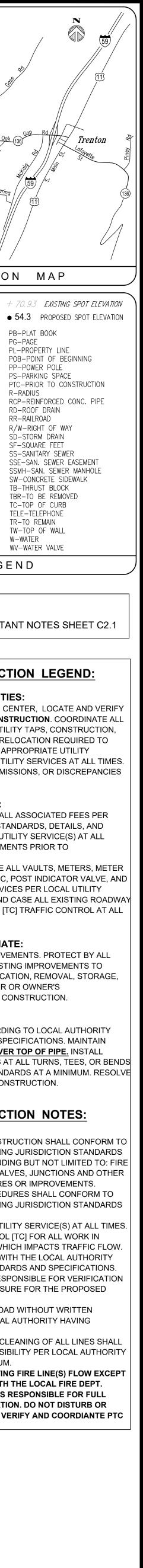


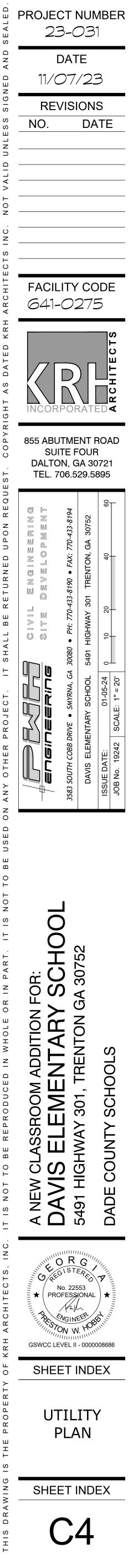


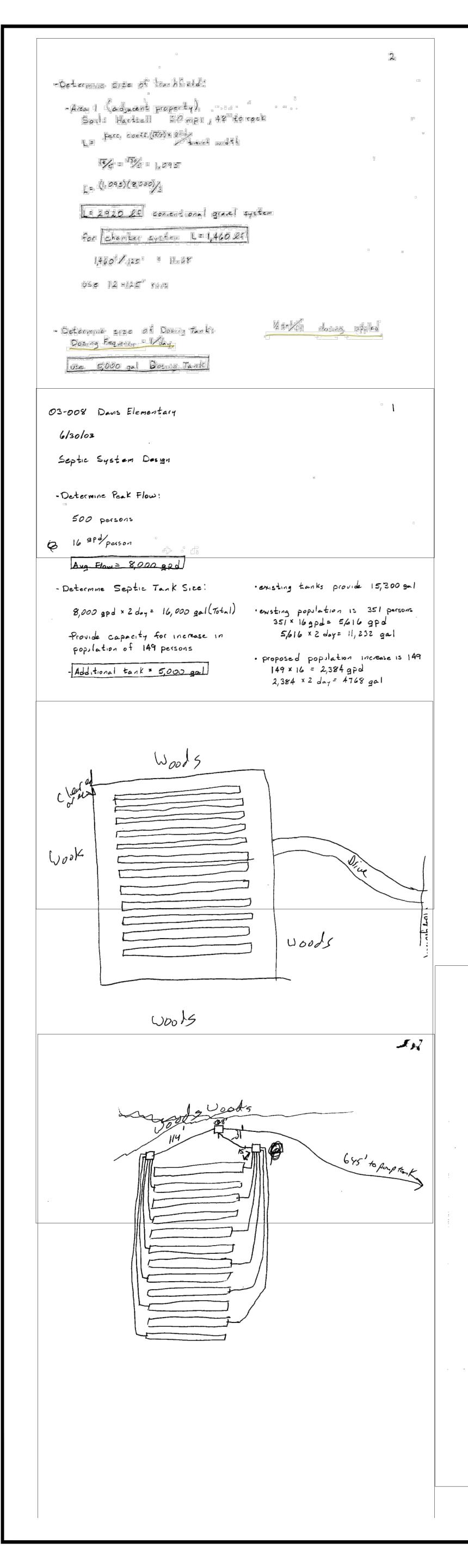


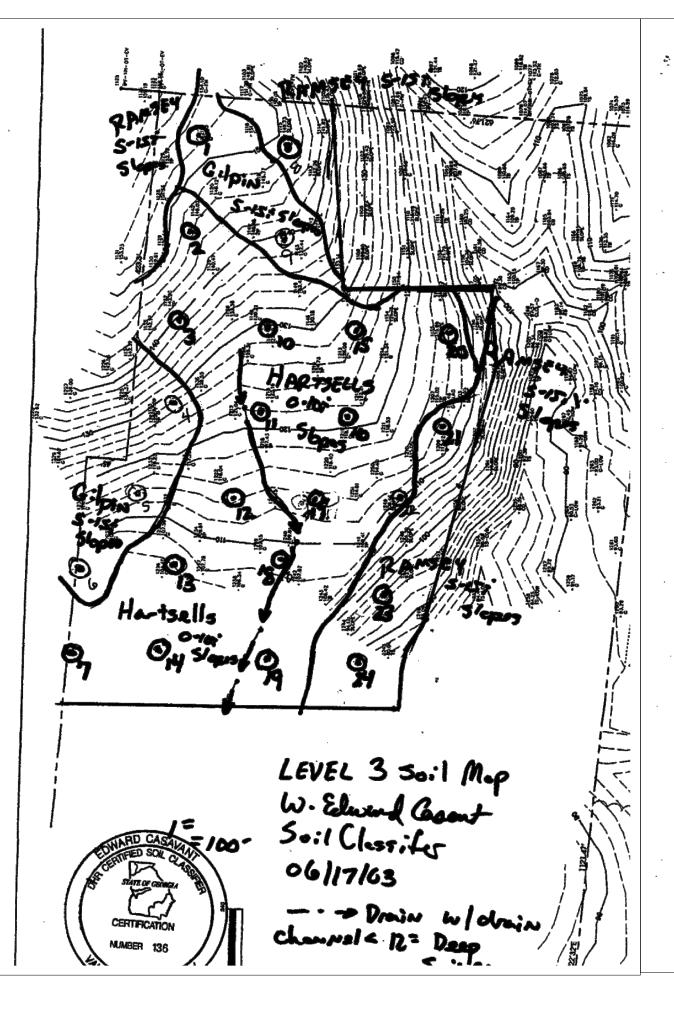


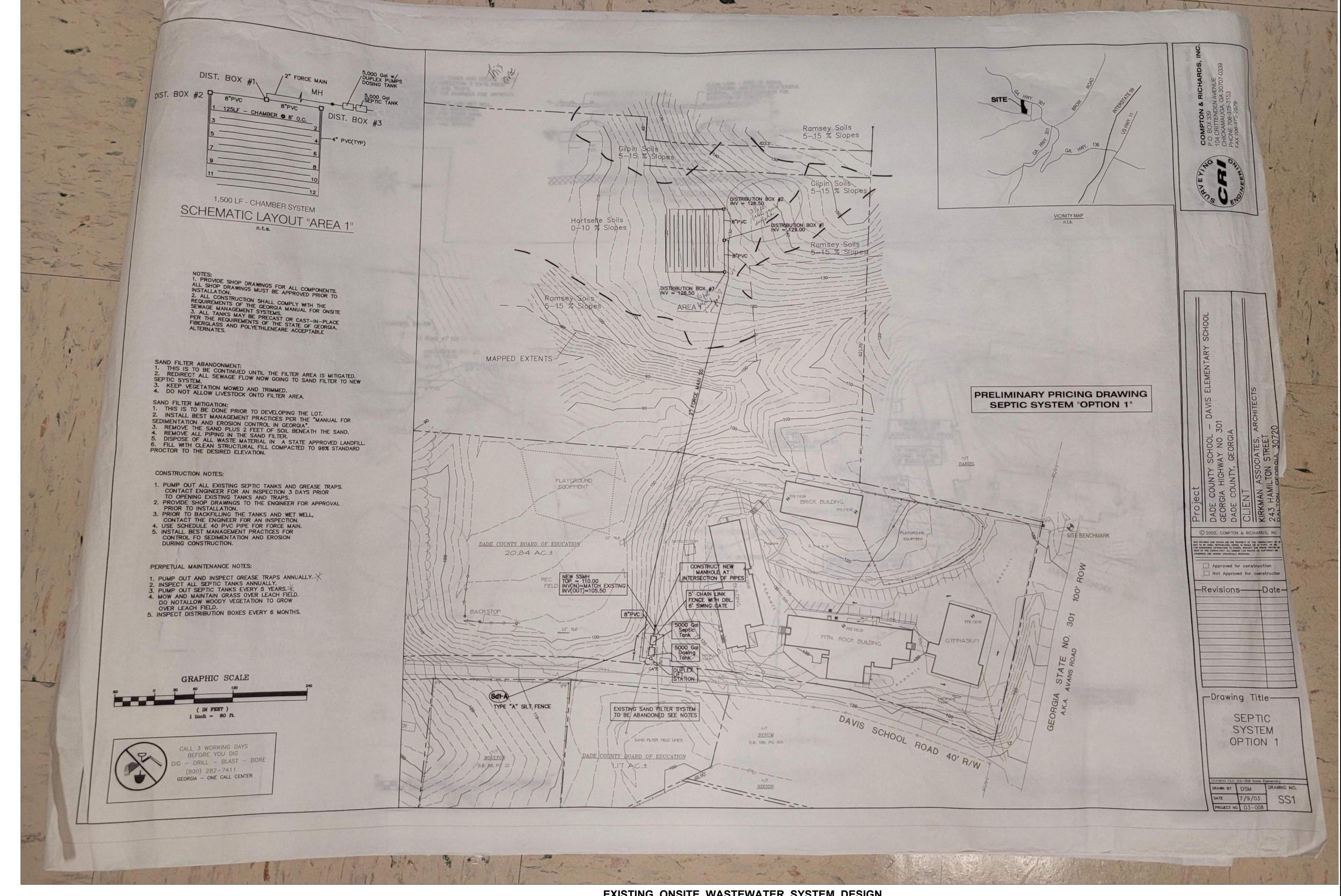












DAVIS School - SAND MAN. GA. Addendum for Dade (o. Education Dapt. Test Hole Number 2,7, 16,11 3, 17, 22 4,56 7,14,19 8 12,13,20 Series Horsells Hartsells (Gilpon T Hartsolls Hartsells Ramsey Name Hartsells (Gilpin) Slope (Percent) 0-100 0-5-S-lai 6-15;i 5-15,-5-15-Bedrock Depth (in) 48= 6 28 % 48= to 36=1. 48:10 15=10 Rock Rock Reik Rock Rock Port 345 topres Seasonal High >6ft 76ft >6ft >6ft Water Table >6ft Suitability I/O Code I +1 I I10 30 mpi to Rock Estimated BOMpit. 30 mpito 7.Smpita 30 mpite Percolation Rate Forn Rock Rock Optimum 700 Percolation Depth 24.30* 24-24-30-1 Shallow 18-24= 24-30= Hydraulic ,25to 36= • 1510 36 ⁶ ,25to 36= +25 to . 10% × Loading Rate 34 = **28**-Additional Comments: (W. Edward Case vant 320 SigNAL MTN. BIVD. SIGNAL MTN., TN. 37377 1-423-986-6148 The areas Mapped Gilpin will need french draws to protect fieldlines from lateral water. The other option is to avoid the bilpin areas.

Soil Analysis Report (Individual Lot)

EXISTING ONSITE WASTEWATER SYSTEM DESIGN

• .	Soil Aı	nalysis	Report	t (Indivi	dual Lot))
DAVIS School for Dede	l - SAND MT, Co. Education	u. GA Дер ^г и	Addendur ^P gL	n		
Test Hole Number	9	15,16	24	18	23,	24
Series Name	Gilpin	Hartsolls	Romsey	Hartsells	RAMSEY	Panse 4
Slope (Percent)	5-10;	0-10;	5-127	0.5%	5-15 r	5-15-
Bedrock Depth (in)	40= to Rack	45= +0 Fock	20= 46 Rain	H2 ² to Rock	15= te Rock	8° to Rock
Seasonal High Water Table	grey mottles 38t	>6ft	9°e 4 mattes 18=	>6ft	>Gft	7614
Suitability Code	I/0	I	H	I	H	H
Estimated Percolation Rate	GOmpita Roch	30mnito Rock	Too	30mpito Roja	Too ShA	• • • • • • • • • • • • • • • • • • •
Optimum Percolation Depth	24-30=	24-30-	Shallow TO	24-300	τ0	×
Hydraulic Loading Rate	· 15 to 36 c	•25to 36=	use	, 25to 36=	hsē	x
Additional Commen	its:	W. Edward	Casavant			
			AL MTN. BIVE			
·		<u> </u>	TU., TN.373 886-6148			- 4
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EXISTING ONSITE WASTEWATER SYSTEM DESIGN SUMMARY 1. SEPTIC TANK = 5000 GALLONS

1.1 SYSTEM DESIGN CAPACITY: 8000 GPD (SEE CALCULATIONS)

1.2 MAXIMUM AVERAGE DAILY FLOW PER RECENT WATER USAGE: 3000 GPD

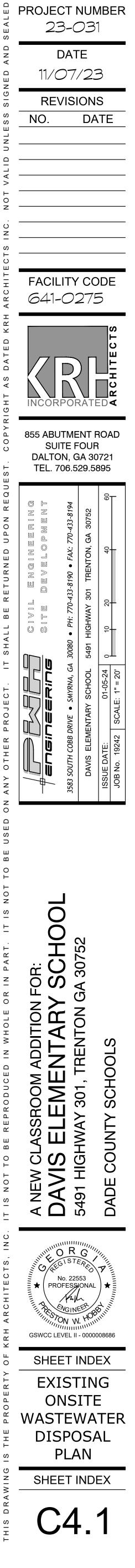
2. DOSING TANK = 5000 GALLONS

3. METHOD OF DOSING: SS LIFT STATION, DISTRIBUTION BOXES

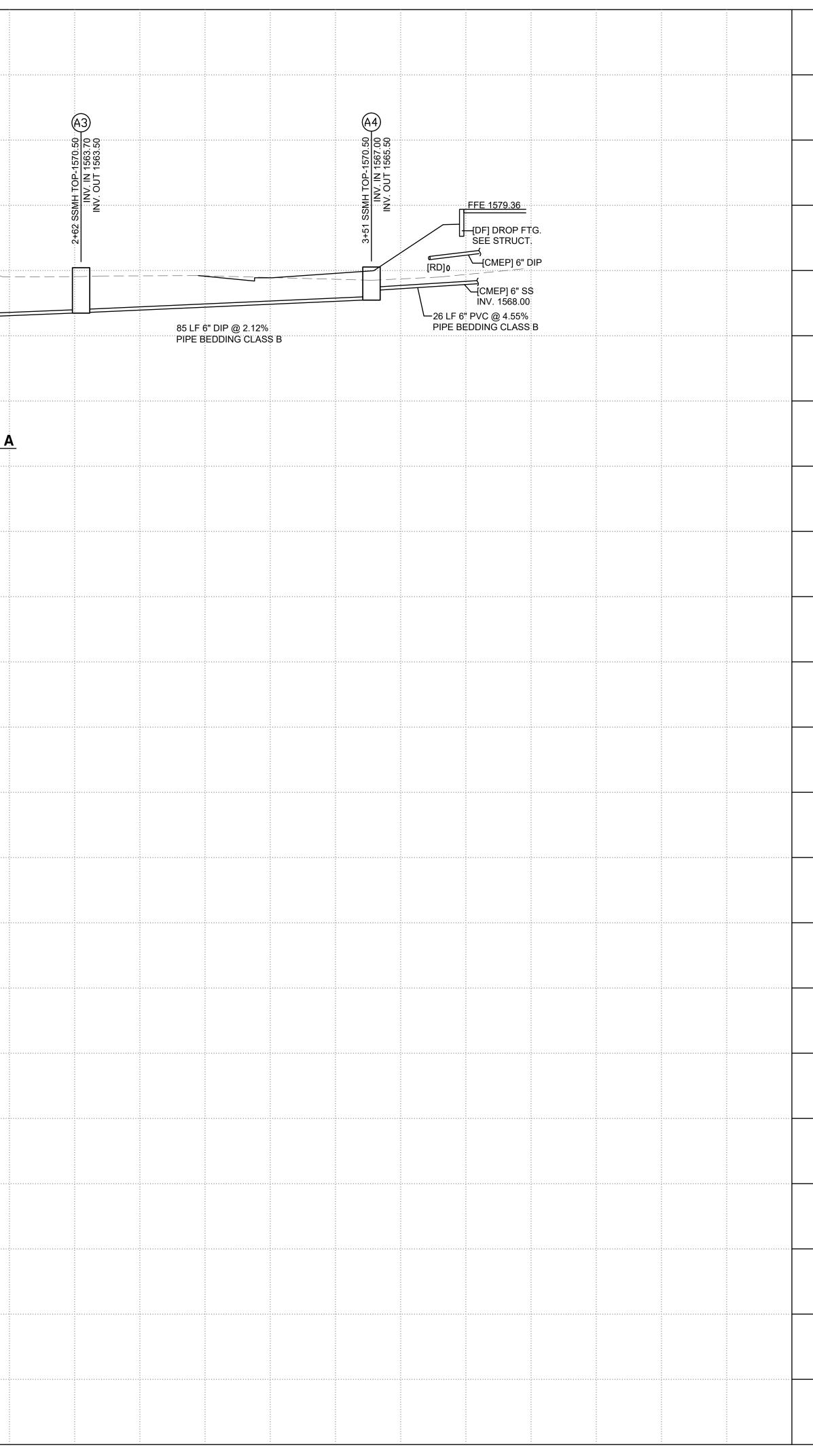
4. DRAIN FIELD = 12 ABSORPTION LINES AT 125 LF = 1500 LF TOTAL

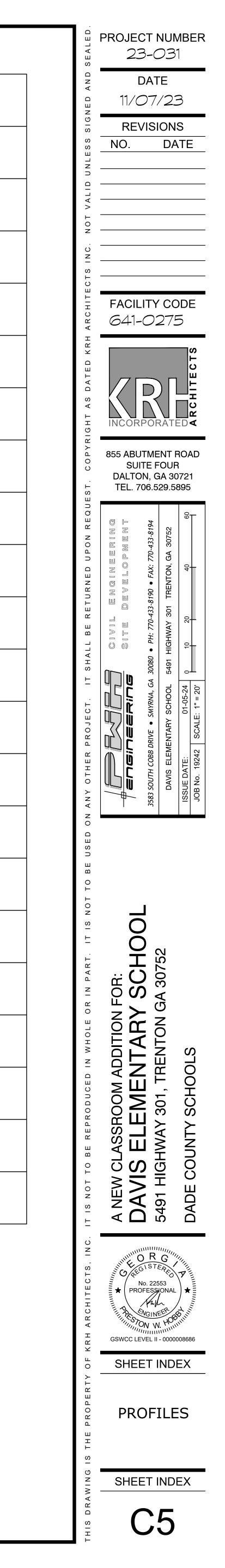
5. ADDITIONAL EXPECTED LOAD: NO ADDITIONAL LOAD PROPOSED

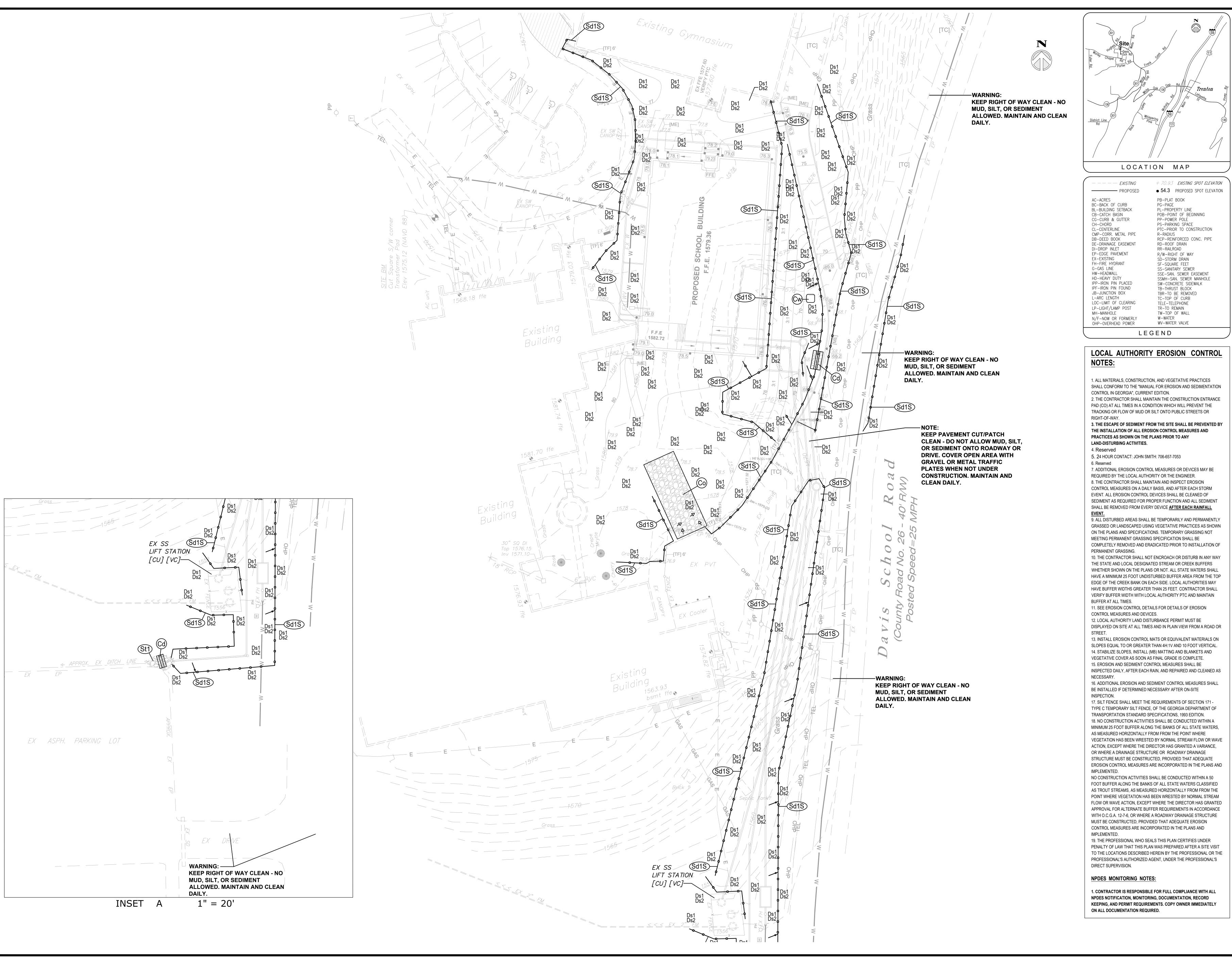
6. PER SCHOOL MAINTENANCE PERSONNEL, SYSTEM IS MAINTAINED AND INSPECTED REGULARLY AND HAS NO DEFICIENCIES OR PROBLEMS.

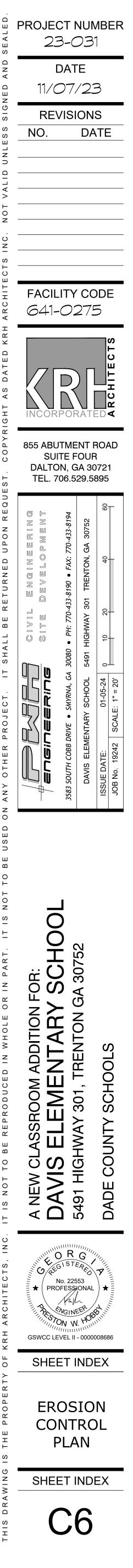


	(A1)		-1567.00 1561.20 1561.00	
	EX SSMH TOP ~1558:00 EX INV. 1553.00 +/- VERIFY EX INV. PTC INV. IN 1554:00		1+40 SSMH TOP-1567.00 INV. IN 1561.00 INV. OUT 1561.00	
	P	===== ================================	I.0' CLEARANCE MIN.	118 LF 6" PVC @ 1.95% PIPE BEDDING CLASS B
[CU] [M VERIF INV. P	CJCORE INTO EX MH CEX PROVIDE KOR N SEAL C PERMANENT WEATERTI	TIGHT SEAL		<u>SANITARY SEWER LINE A</u> 1" = 20' H 1" = 10' V

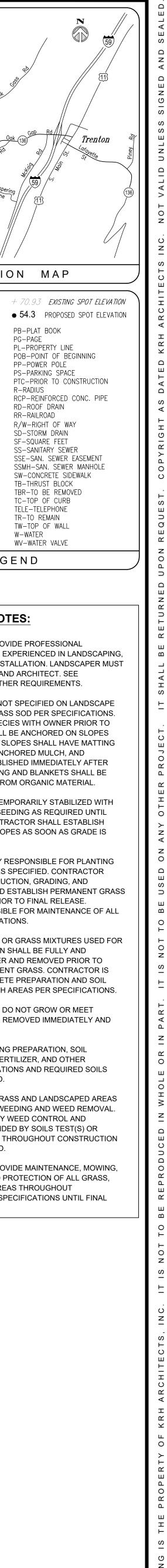


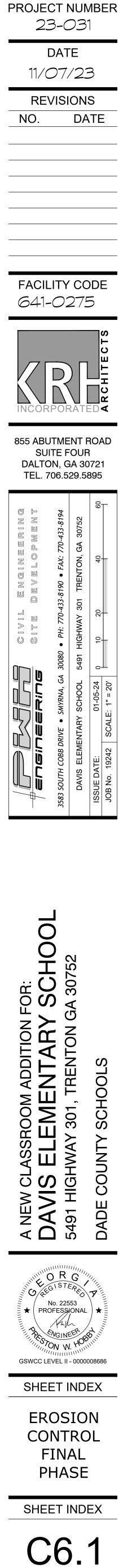


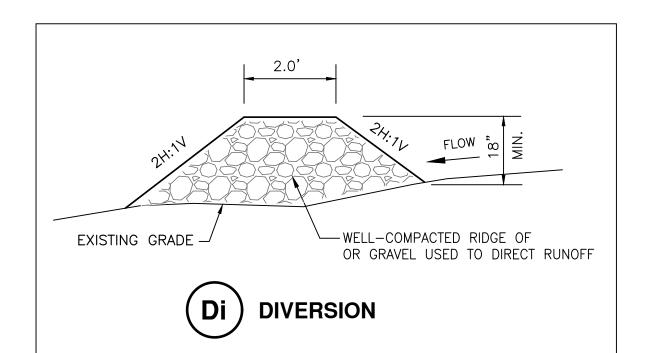












	Rate per		PLANTING DATES			
SPECIES	1000 S.F.	Rate per Acre	Mountain	Piedmont	Coastal	
Bermuda, Common Unhulled Seed	0.2 LB	10 LB	NO	10/1-3/1	11/1-2/1	
Bermuda, Common Hulled Seed	0.2 LB	10 LB	NO	3/1-8/1	2/15-8/1	
Lespedeza, Sericea Unscarified	1.7 LB	75 LB	1/1-12/1	1/1-12/1	1/1-12/1	
Lespedeza Unscarified	1.7 LB	75 LB	1/1-12/1	1/1-12/1	1/1-12/1	
Lovegrass, Weeping	0.1 LB	4.0 LB	3/15-6/15	3/1-6/15	2/1-6/15	
Fescue, Tall	1.1 LB	50 LB	8/1-11/1	8/15-11/1	NO	
Switchgrass	1.0 lb	40 lb	3/15-6/1	3/15-6/1	3/15-6/1	
Bahia	1.4 lb	60 lb	1/1-12/1	1/1-12/1	1/1-12/1	

		FERTILIZER REQ	UIREMENTS	
SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
Cool season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	50—100 lbs/ac 1/2/ _ 30—100 lbs/ac
Cool season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	50—100 lbs/ac 1/ — —
Ground covers	First Second Maintenance	10-10-10 10-10-10 10-10-10	1300 lbs/ac 3/ 1300 lbs/ac 3/ 1100 lbs/ac	-
Pine seedlings	First	20-10-5	one 21-gram pellet per seedling placed in closing hole	_
Shrub Lespedeza	First Maintenance	0-10-10 0-10-10	700 lbs/ac 700 lbs/ac 4/	_
Temporary cover crops seeded alone	First	10-10-10	500 lbs/ac	30 lbs/ac 5/
Warm season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 lbs/ac 800 lbs/ac 400 lbs/ac	50—100 lbs/ac 2/6/ 50—100 lbs/ac 2/ 30 lbs/ac
Warm season grasses and legumes	First Second Maintenance	6-12-12 0-10-10 0-10-10	1500 lbs/ac 1000 lbs/ac 400 lbs/ac	50 lbs/ac 6/

LIME RATES AND ANALYSIS:

WHERE PERMANENT VEGETATION IS TO BE ESTABLISHED, AGRICULTURAL LIME SHALL BE APPLIED AS INDICATED BY SOIL TESTS OR AT THE RATE OF 1-2 TONS PER ACRE. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.

LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE CALCITIC OR DOLOMITIC GROUND LIMESTONE GROUND SO THAT 90% OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE, NOT LESS THAN 50% WILL PASS THROUGH A 50-MESH SIEVE, AND NOT LESS THAN 25% WILL PASS THROUGH A 100-MESH SIEVE.

LIME SPREAD BY HYDRAULIC SEEDING SHALL BE CALCITIC OR DOLOMITIC "FINELY GROUND LIMESTONE", GROUND SO THAT 98% OF THE MATERIAL WILL PASS THROUGH A 20-MESH SIEVE,

AND NOT LESS THAN 70% WILL PASS THROUGH A 100-MESH SIEVE. 4. IT IS DESIRABLE TO USE DOLOMITIC LIMESTONE IN THE SAND HILLS, SOUTHERN COASTAL PLAIN, AND ATLANTIC COAST FLATWOODS MLRA'S.

MULCHING RATES:

- . USE MULCH ON ALL SLOPES STEEPER THAN 3 PERCENT; WHERE SEEDLINGS ARE MADE SO LATE IN THE FALL AND WINTER THAT GERMINATION CANNOT BE EXPECTED UNTIL SPRING; IN THE
- BOTTOM OF SPILLWAYS, AND ON ROADBANKS. 2. USE DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS. DRY STRAW WILL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY WILL BE APPLIED AT THE RATE OF 2 1/2 TONS PER ACRE; OR,
- 3. FOR HYDRAULIC SEEDING, USE WOOD CELLULOSE MULCH OR WOOD PULP FIBER AT THE RATE

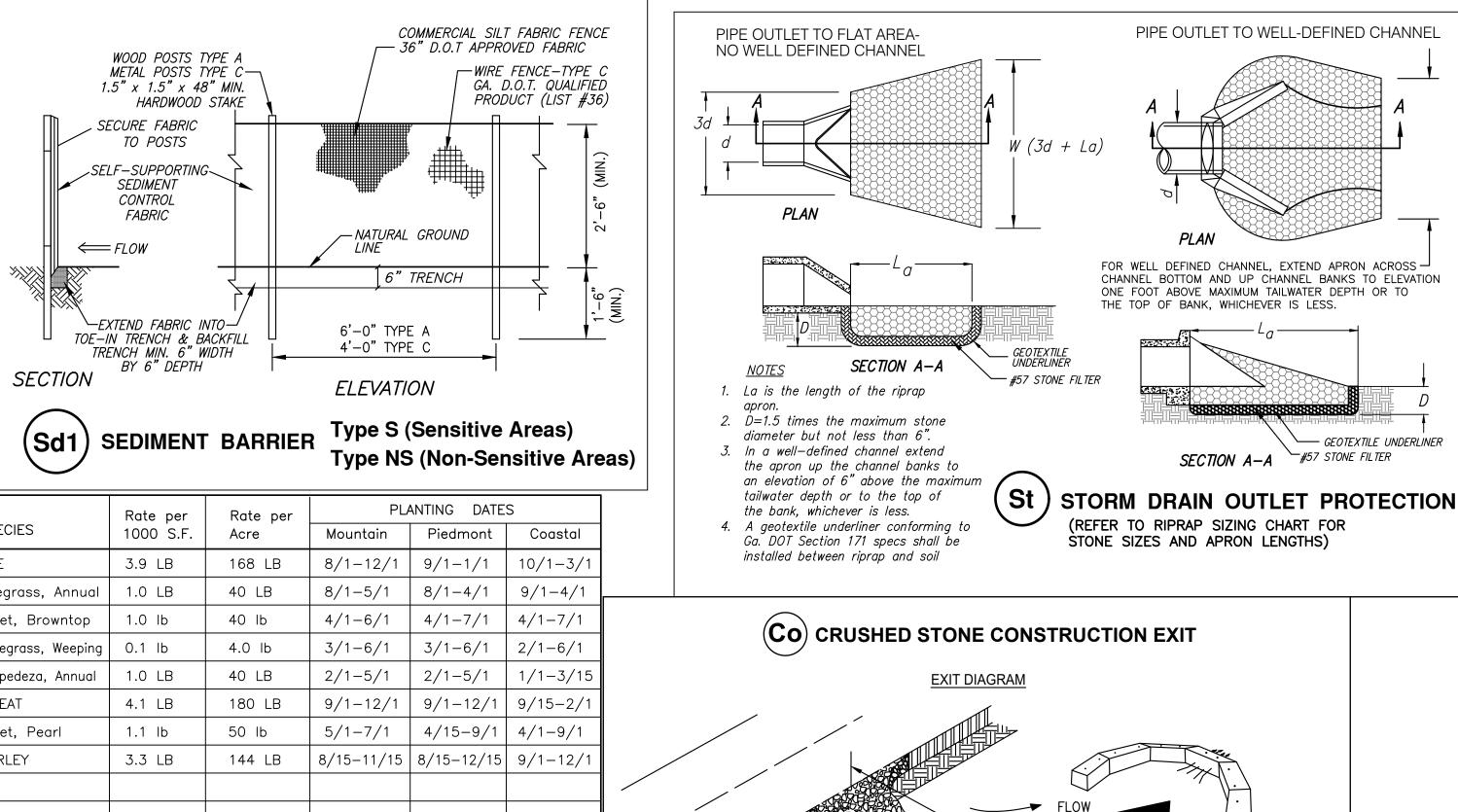
OF 500 POUNDS PER ACRE, AND DRY STRAW OR DRY HAY AT THE RATE LISTED ABOVE; OR, 4. USE THREE TONS PER ACRE OF SERICEA LESPEDEZA HAY CONTAINING MATURE SEED; OR, . APPLY PINE STRAW OR PINE BARK AT A THICKNESS OF 3 INCHES. OTHER SUITABLE MATERIALS

IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED; OR, 5. SOIL RETENTION BLANKETS, EROSION CONTROL NETTING, OTHER MANUFACTURED MATERIALS, OR

BLOCK SOD MAY BE REQUIRED IN ADDITION TO MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS.

DISTURBED AREA STABILIZATION (PERMANENT SEEDING) Ds3

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS, LIME & FERTILIZER RATES, AND SPECIFICATIONS.



	Rate per Rate per		PLANTING DATES			
SPECIES	1000 S.F.	Acre	Mountain	Piedmont	Coastal	
RYE	3.9 LB	168 LB	8/1-12/1	9/1-1/1	10/1-3/1	
Ryegrass, Annual	1.0 LB	40 LB	8/1-5/1	8/1-4/1	9/1-4/1	
Millet, Browntop	1.0 lb	40 lb	4/1-6/1	4/1-7/1	4/1-7/1	
Lovegrass, Weeping	0.1 lb	4.0 lb	3/1-6/1	3/1-6/1	2/1-6/1	
Lespedeza, Annual	1.0 LB	40 LB	2/1-5/1	2/1-5/1	1/1-3/15	
WHEAT	4.1 LB	180 LB	9/1-12/1	9/1-12/1	9/15-2/1	
Millet, Pearl	1.1 lb	50 lb	5/1-7/1	4/15-9/1	4/1-9/1	
BARLEY	3.3 LB	144 LB	8/15-11/15	8/15-12/15	9/1-12/1	

LIME AND FERTILIZER:

1. AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION.

2. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS, FERTILIZER IS NOT REQUIRED. FOR SOILS OF VERY LOW FERTILITY, USE 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12–16 LBS./1000 SQ. FT.). FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIP, OR CHISEL.

MULCHING:

1. TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. SEE Ds1, DISTURBED AREA STABILIZATION (MULCHING ONLY).

6)	DISTURBED AREA STABILIZAT
SZ	REFER TO THE "MANUAL FOR EROSION FOR FURTHER DETAILS, LIME & FERTILI

FOR TEMPORARY PROTECTION OF CRITICAL AREAS: MULCHING MATERIALS

- Dry straw or hay-spread at a rate of 2 1/2 tons per acre. Wood waste, chips, sawdust or bark-spread 2 to 3 inches deep (about 6 to
- 9 tons per acre.) Erosion control matting or netting, such as excelsior, jute, textile and plastic
- Polyethylene film-secured over banks or stockpiled soil material for temporary protection.

APPLYING AND ANCHORING MULCH:

- Apply straw or hay mulch uniformly or by hand or mechanically. Anchor as appropriate and feasible. It may be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." The disk may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position.
- . Spread wood waste uniformly on slopes that are 3:1 or flatter. No anchoring is needed. . Commercial matting and netting: Follow manufacturer's specification included
- with the material. 4. Apply asphalt so area has uniform appearance (do not use in pedestrian traffic areas.)

TO CONSERVE MOISTURE AND CONTROL WEEDS: . Grain straw or grass hay: 6" to 10" depth

. Pine needles: 4" to 6" depth

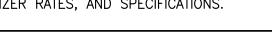
- . Wood waste: 4" to 8" depth 4. Shredded residues: 4" to 8" depth
- When using organic mulches, apply 20-30 pounds of nitrogen in addition to the normal amount needed for plant growth to offset the tie up of N by the decomposition of mulch.

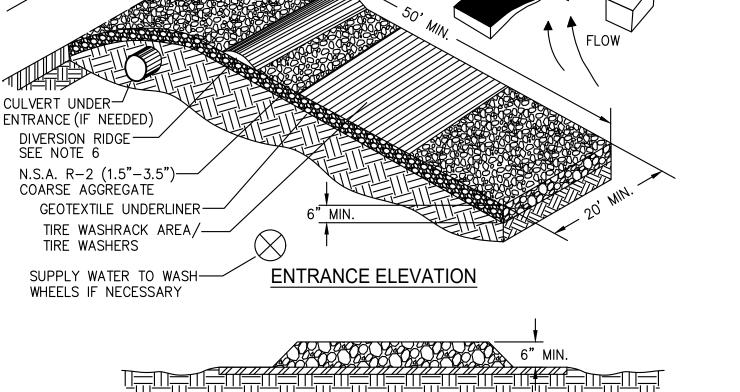
DISTURBED AREA STABILIZATION (MULCHING ONLY) Ds1 REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS, LIME & FERTILIZER RATES, AND SPECIFICATIONS.

TION (TEMPORARY SEEDING)

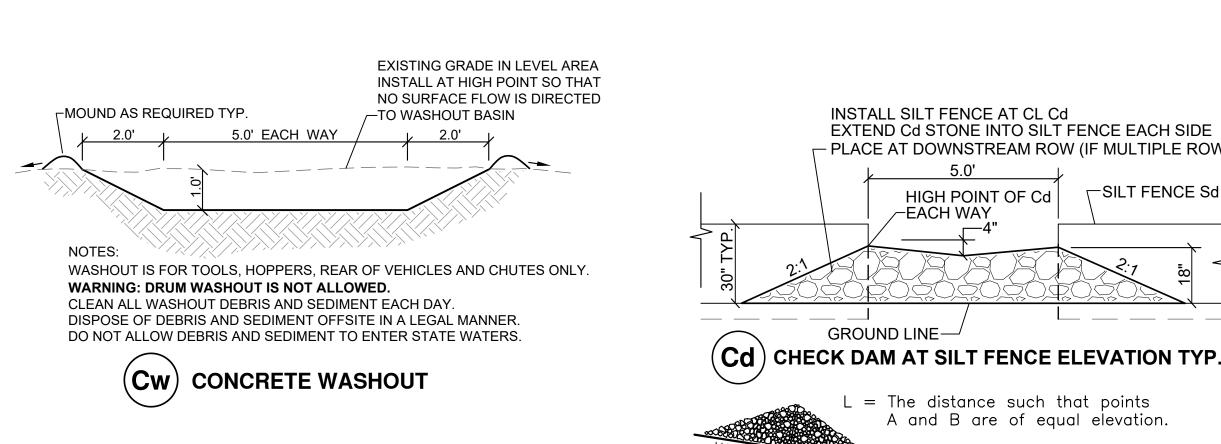
AND SEDIMENT CONTROL IN GEORGIA" LIZER RATES, AND SPECIFICATIONS.

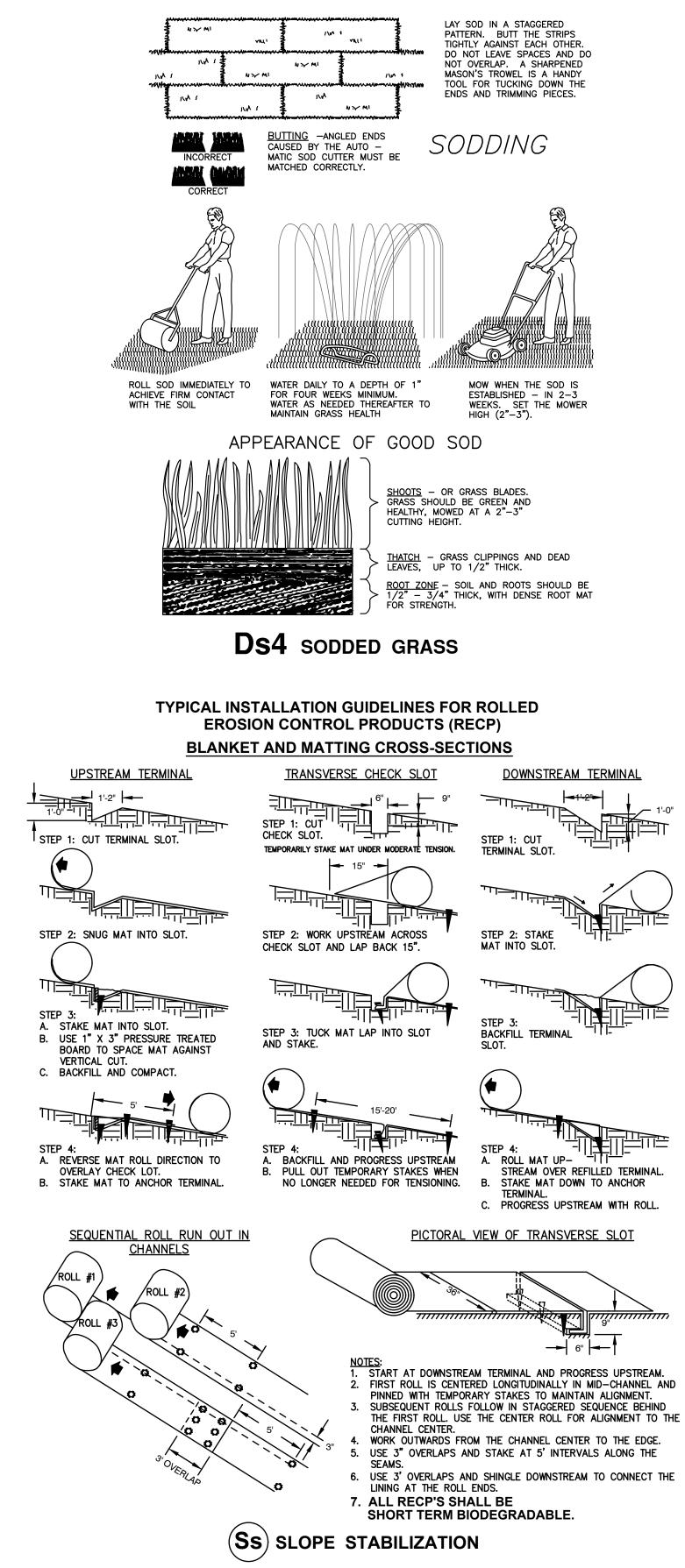
mating and netting-applied in accordance with manufacturer's specifications.





- <u>NOTES:</u> 1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS. 2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE. 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
- 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6". 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'. 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
- 7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES. 8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND
- DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE). 9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
- O.MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.





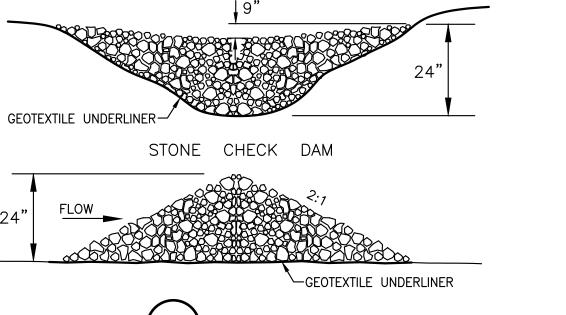
INSTALL SILT FENCE AT CL Cd EXTEND Cd STONE INTO SILT FENCE EACH SIDE - PLACE AT DOWNSTREAM ROW (IF MULTIPLE ROWS) 5 0'

0.0		
HIGH POINT OF Cd		TYP
∠ ⁴ "		
	2:7 [8]	>
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L_____ **GROUND LINE-**

L = The distance such that points A and B are of equal elevation.

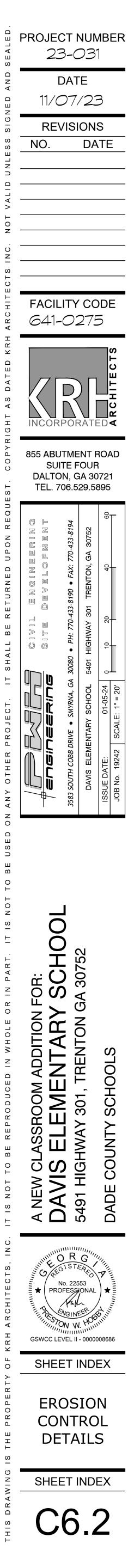
SPACING BETWEEN CHECK DAMS

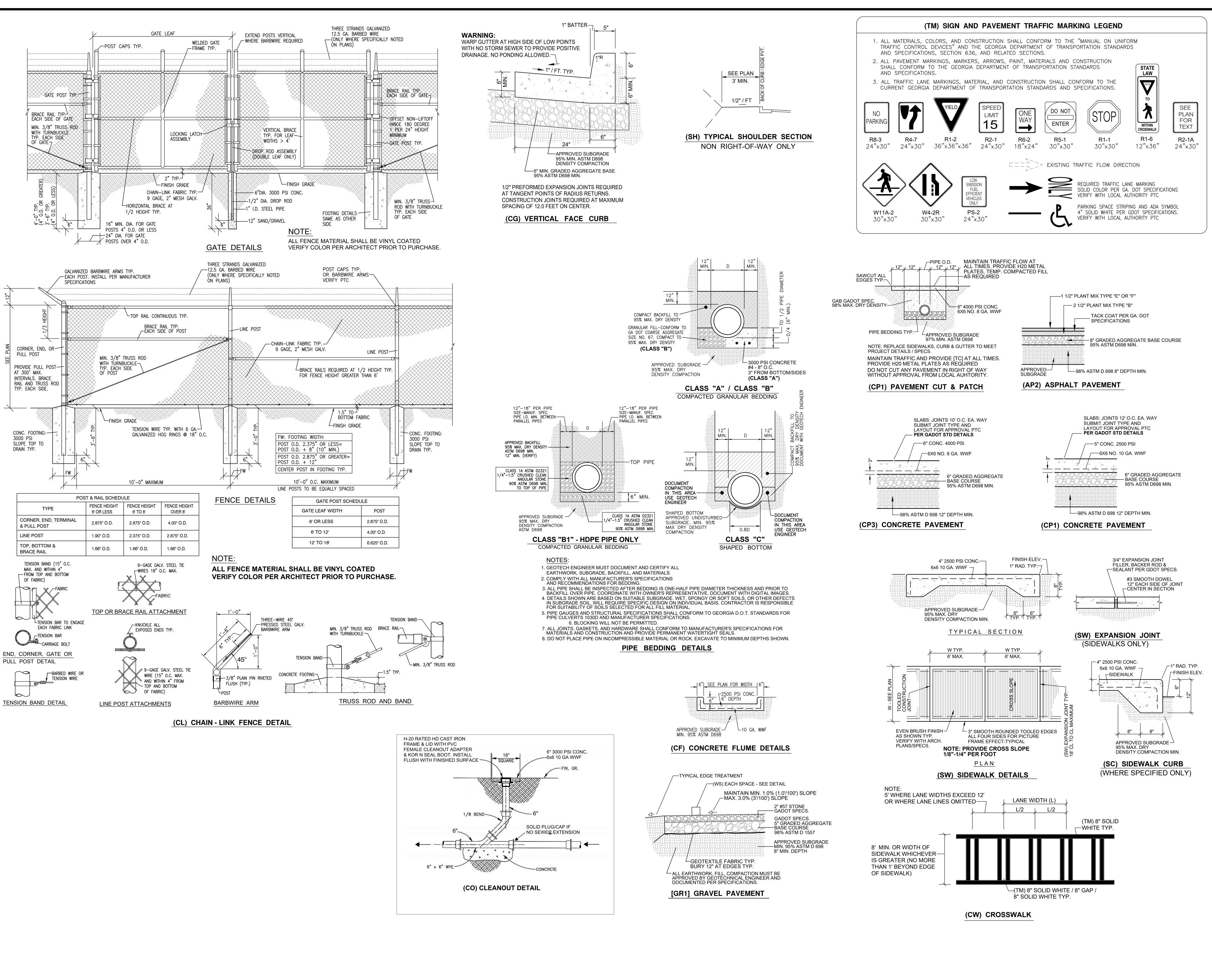


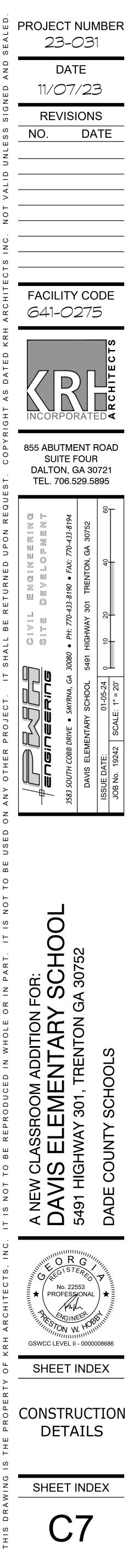
(Cd) CHECK DAM

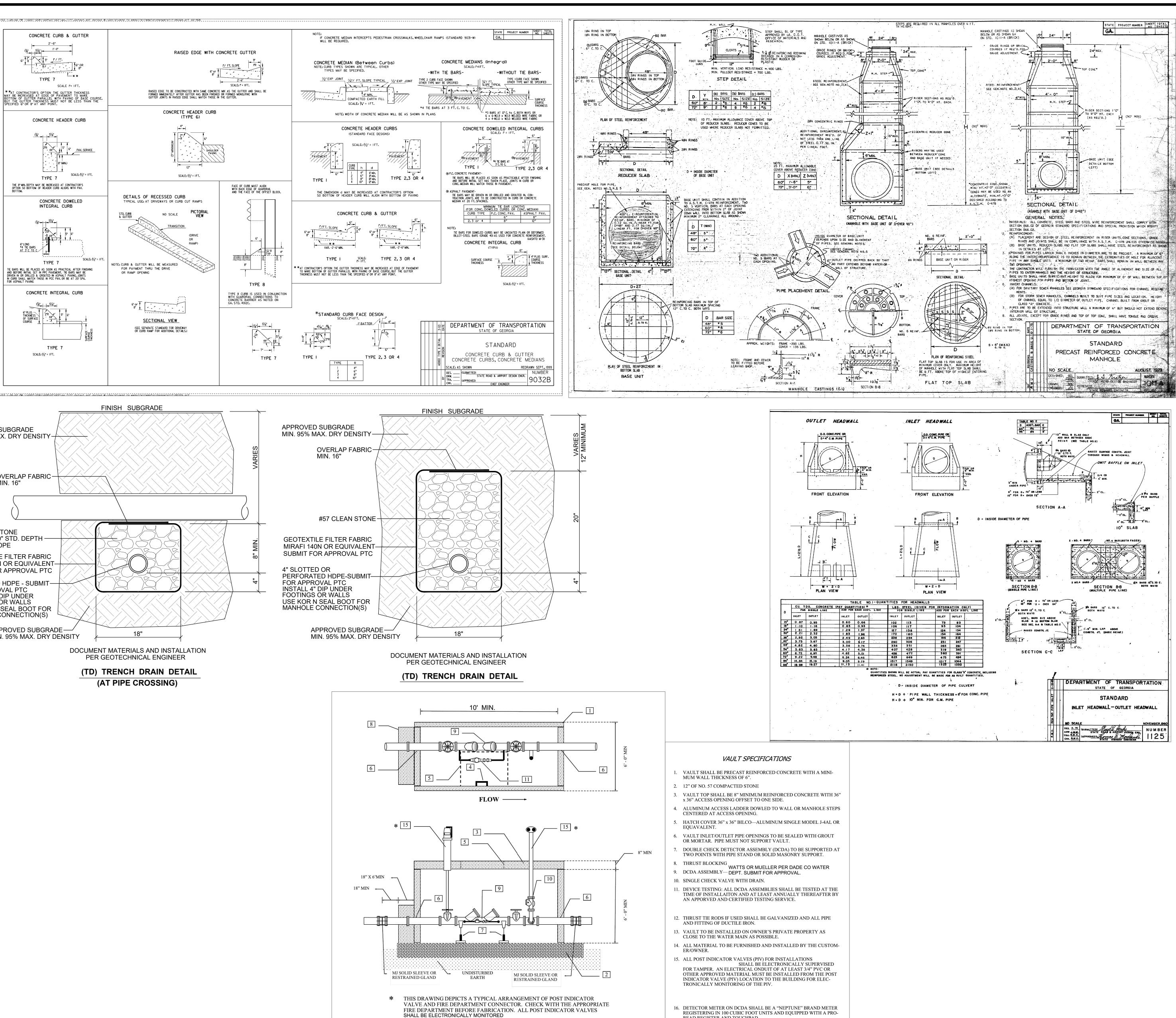
	St) F	RIPRAP/A	PRON SI	ZING	
STRUCTURE No.	St1				
d (PIPE DIA.)	8"				
Q (25 YR.)	2.0 cfs				
VEL. (25 YR.)	6 fps				
d50 STONE SIZE	9"				
MAX. STONE DIA.	12"				
D (APRON THICKNESS)	24"				
FILTER FABRIC	DOT STD.				
TAILWATER CONDITION	MIN.				
La (LENGTH OF APRON)	15'				
W1 = 3 x Do (PIPE Dia.) (APRON WIDTH @ HW)	15'				
W2 = Do + La (APRON WIDTH DOWNSTREAM)	AS SHOWN				











(TD) TRENCH DRAIN NOTES:

1. REFER TO SPECIFICATIONS FOR

ADDITIONAL REQUIREMENTS. 2. GEOTECHNICAL ENGINEER SHALL

DOCUMENT AND APPROVE ALL SUBGRADE, COMPACTION, BACKFILL, TRENCH DRAIN MATERIALS AND INSTALLATION FOR FULL

COMPLIANCE WITH CONTRACT DOCUMENTS. 3. ALL CONNECTIONS AND FITTINGS TO PVC PIPES AND STRUCTURES SHALL BE STANDARD FITTINGS WITH STRENGTH

RATING TO MATCH THE PVC SPECIFICATIONS. ALL CONNECTIONS AND FITTINGS SHALL BE PERMANENT AND WATERTIGHT .

4. SUBMIT ALL MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION (PTC). 5. ALL CONNECTIONS INTO MANHOLES OR OTHER STRUCTURES SHALL BE CORED WITH BOOTS EQUAL TO KOR-N-SEAL. 6. TAPER TRENCH DRAIN STONE AT PIPE

CROSSINGS AS SHOWN, MAINTAIN MINIMUM STONE DEPTHS AT ALL CROSSINGS. DOCUMENT EACH CROSSING,

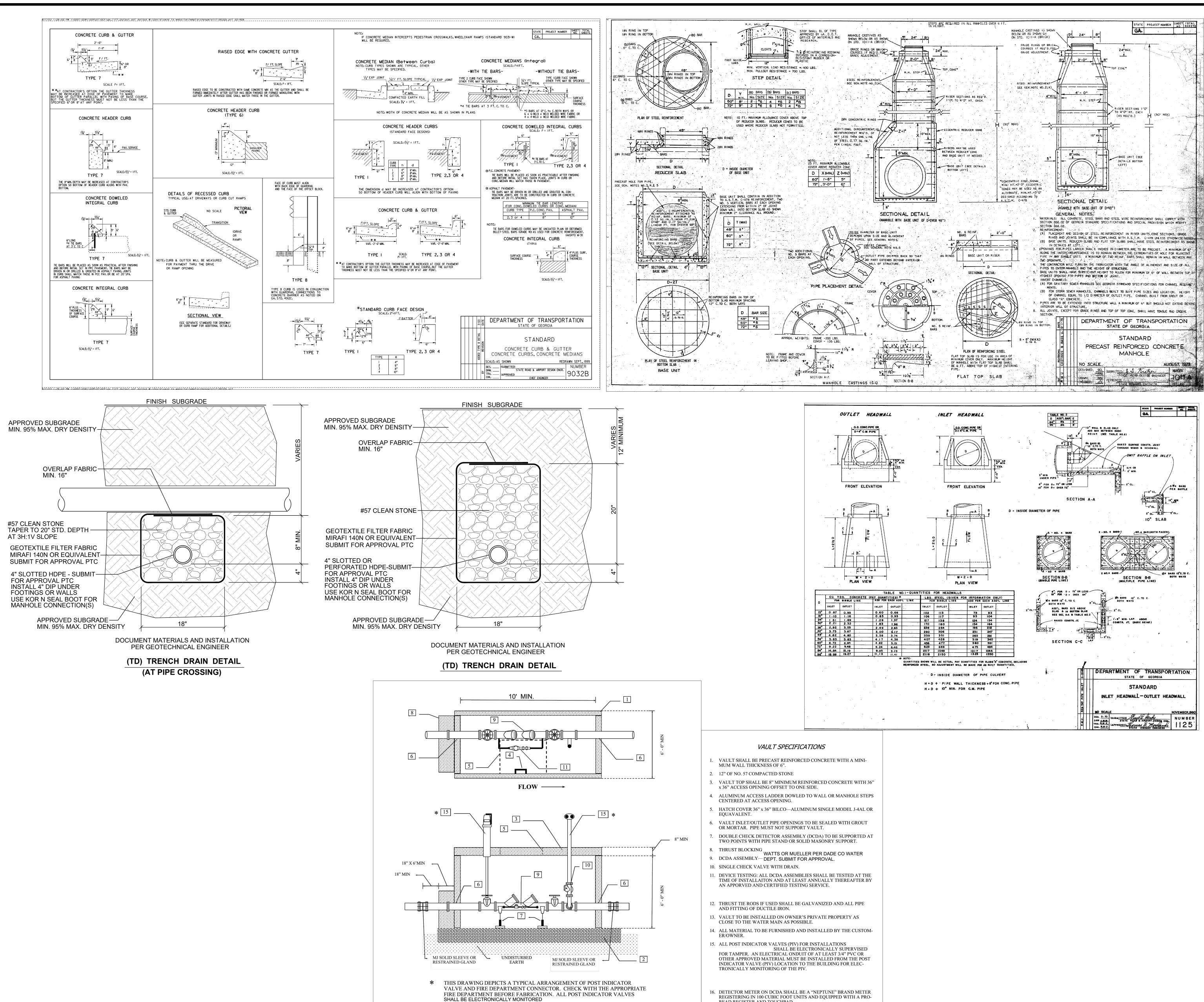
CAREFULLY WRAP AND MAINTAIN FILTER FABRIC TO ENSURE PERIMETER PROTECTION FOR TRENCH

DRAIN (TD) ENTIRE PERIMETER. ANY HOLES, TEARS, OR OTHER DAMAGE OR DEGRADATION OF FILTER FABRIC SHALL BE REPAIRED

PER MANUFACTURERS SPECIFICATIONS TO PROVIDE FILTER FABRIC FUNCTION TO MEET FILTER FABRIC SPECIFICATIONS FOR UNDAMAGED FABRIC.

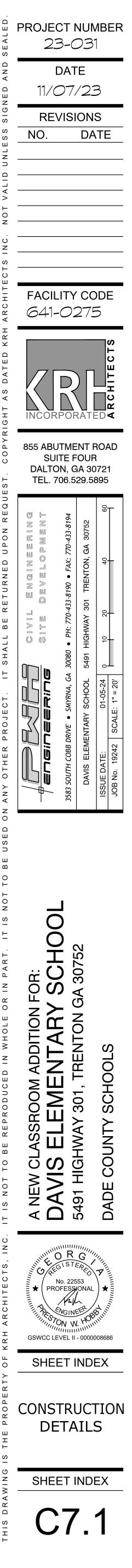
7. EXTEND STONE TO 24" FROM MANHOLES OR STRUCTURES, WRAP FILTER FABRIC AROUND END(S) OF (TD) TRENCH DRAINS STONE

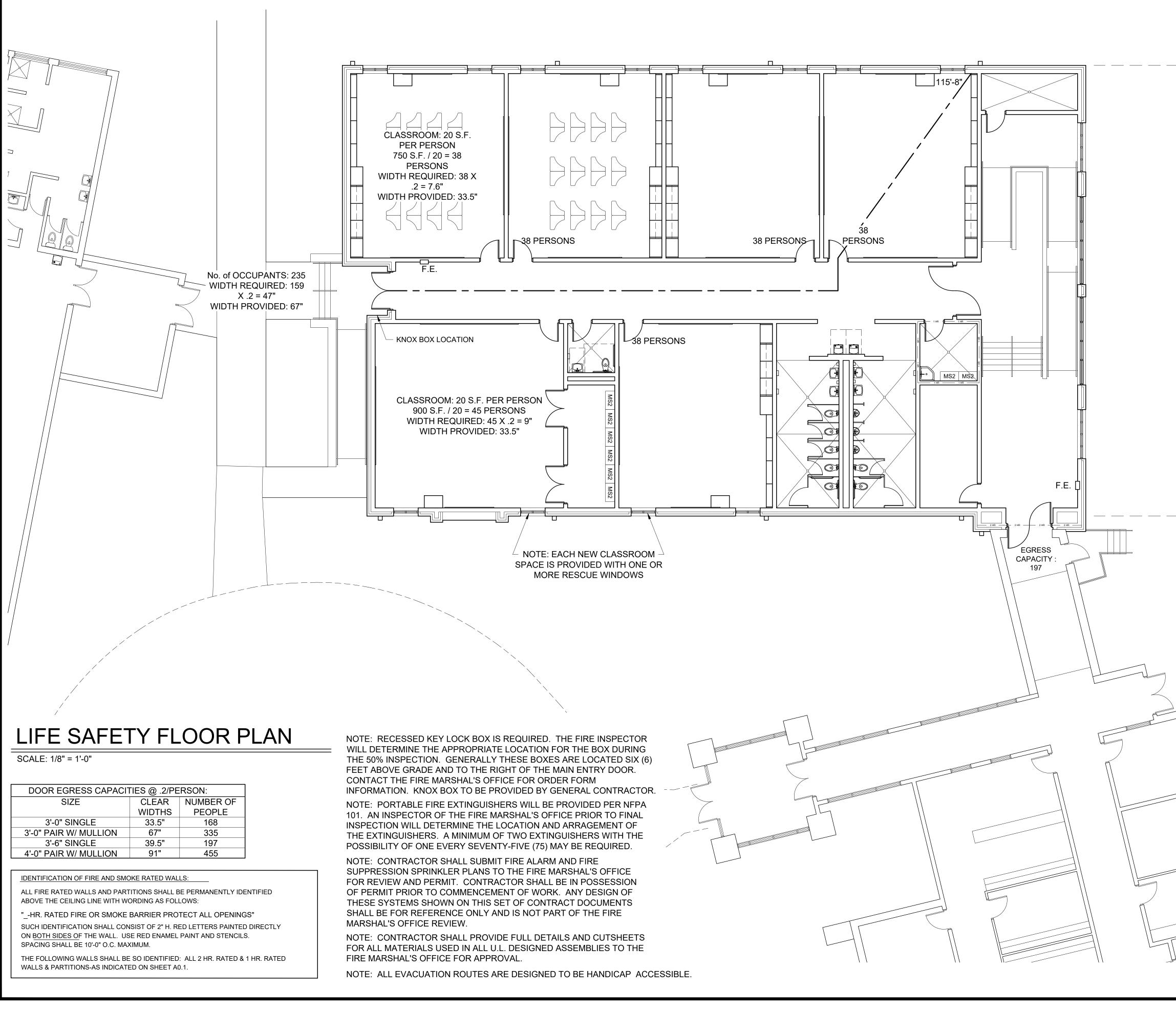
AT MANHOLES OR STRUCTURES. EXTEND SOLID PIPE FROM END OF STONE TO CONNECT TO MANHOLE OR STRUCTURE. PROVIDE 100% FILTER FABRIC COVERAGE FOR ALL TRENCH DRAIN STONE, **OVERLAP FABRIC MIN. 16 INCHES.**



DCDA VAULT DETAILS PROVIDE COMPLETE SUBMITTAL PRIOR TO PURCHASE

- READ REGISTER AND TOUCHPAD OR APPROVED EQUAL





LEGEND

FOR CONSTRUCTION

\equiv \equiv \equiv - Typical walls below
- NON-FIRE RATED SHEARWALLS TO E STRUCTURE
- ONE HOUR RATED PARTITION ABOVE METAL STUDS WITH STYPE "X" GYP I EACH SIDE. SEALED TIGHT TO ROOF U.L. DESIGN # U419. UNLESS NOTED
- TWO HOUR RATED 12" MASONRY PAI SEALED TIGHT TO ROOF DECK PER U #U905. UNLESS NOTED OTHERWISE.
- NON FIRE RATED SMOKE PARTITION
F.EFIRE EXTINGUISHER EXACT LOCATION W/ ALL EQUIPMENT

FUTURE EXPANSION

6

D EXTEND TO

OVE CEILING-GYP BOARD ON OOF DECK. ED OTHERWISE.

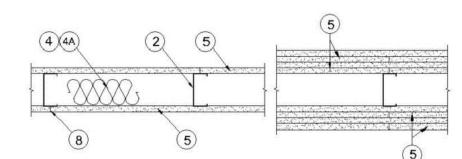
PARTITION WALL R U.L. DESIGN

TION COORDINATE



Design No. U419

Nonbearing Wall Ratings -- 1, 2, 3 or 4 Hr (See Items 4 & 5)



1. Floor and Ceiling Runners -- (Not shown) -- For use with Item 2 - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max. 1A. Floor and Ceiling Runners* -- Not shown - In lieu of Item 1 -- For use with Item 2A, proprietary channel shaped, min. 3-5/8 in. wide with 1 in. long legs, fabricated from min. 0.0150 in. (0.0146 in., min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC max. DIETRICH INDUSTRIES INC -- UltraSTEEL®.

1B. Floor and Ceiling Runners -- (Not shown - In lieu of Item 1) -- For use with Item 2A, proprietary channel shaped, min. 2-9/16 in. wide with 1-3/16 in. wide flanges, fabricated from min. 0.0150 in. galvanized steel, attached to floor and ceiling fasteners 24 in. OC. max. DIETRICH INDUSTRIES INC -- UltraSTEEL®.

2. Steel Studs -- Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min width as indicated under Item 5, min 1-1/4 in. flanges and 1/4 in. return, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. Steel Studs* -- In lieu of Item 2 - Proprietary channel shaped studs, min. width as indicated under Item 5, min. 1-1/4 in. long legs and 1/4 in. long folded back return flange legs, fabricated from min. 0.0155 in. (0.0149 in., min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height. Allowable use of studs is shown in the table below. For direct attachment of gypsum board only. DIETRICH INDUSTRIES INC -- UltraSTEEL®.

2B. Steel Studs -- (As an alternate to Item 2, For use with Item 5B) Channel shaped, fabricated from min 20 MSG (0.0327 in. thick) corrosion-protected or galv steel, 3-1/2 in. min width, min 1-1/2 in. flanges and 1/4 in. return, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

3. Wood Structural Panel Sheathing -- (Optional, For use with Item 5 Only.)- (Not Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel study. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field.

4. Batts and Blankets* -- (Required as indicated under Item 5) -- Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

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

5. Gypsum Board* -- Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows: Wallboard Protection on Each Side of Wall

Rating Min Stud Depth (Item 2) Min Stud Depth (Item 2A) No. of Layers & Thkns of Panel Min Thkns of Insul (Item 4)

1	3-1/2	3-5/8	1 layer, 5/8 in. thick	Optional
1	2-1/2	3-5/8	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	3-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2-1/2	2 layers, 1/2 in. thick	Optional
2	1-5/8	2-1/2	2 layers, 5/8 in. thick	Optional
2	3-1/2	3-5/8	1 layer, 3/4 in. thick	3 in.
3	1-5/8	2-1/2	3 layers, 1/2 in. thick	Optional
3	1-5/8	2-1/2	2 layers, 3/4 in. thick	Optional
3	1-5/8	2-1/2	3 layers, 5/8 in. thick	Optional
4	1-5/8	2-1/2	4 layers, 5/8 in. thick	Optional
4	1-5/8	2-1/2	4 layers, 1/2 in. thick	Optional
4	2-1/2	2-1/2	2 layers, 3/4 in. thick	2 in.

CANADIAN GYPSUM COMPANY -- 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO -- 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR ; 3/4 in. thick Types IP-X3 or ULTRACODE

USG MEXICO S A DE C V -- 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, Steel Framing Members*, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in. min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. Gypsum Board* -- (As an alternate to Item 5) -- 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6. CANADIAN GYPSUM COMPANY -- Type SHX.

UNITED STATES GYPSUM CO -- Type FRX-G, SHX.

USG MEXICO S A DE C V -- Type SHX.

5B. Gypsum Board* -- (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only, not to be used with Item 3) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. RAY-BAR ENGINEERING CORP -- Type RB-LBG

6. Fasteners -- (Not shown) -- For use with Item 2 - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems: First layer-1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. Three-layer systems: First layer-1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

6A. Fasteners -- (Not shown) -- For use with Item 2A - Type S or S-12 steel screws used to attach panels to studs (Item 2) Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8-1/2 in. OC with additional screws 1 in. and 2-1/2 in. from edges of the board when panels are horizontally. or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems applied vertically: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer-1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. Two layer systems applied horizontally: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC starting 8 in. from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC starting 8 in. from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board with screws offset 8 in. from first layer. Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer-2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. For all layers, an additional screw shall be placed 1-1/4 in. from each edge of the board. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. 6. Roof Covering* — Consisting of hot-mopped or cold-application materials compatible with insulation(s) described herin (Item 1). Screws offset min 6 in. from layer below. For all layers, an additional screw shall be placed 1-1/4 in. from each edge of the

7. Furring Channels -- (Optional, not shown, for single or double layer systems) -- Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A.

7A. Steel Framing Members (Not Shown)* -- (Optional on one or both sides, not shown, for single or double layer systems) -- As an alternate to Item 7, furring channels and Steel Framing Members as described below: a. Furring Channels -- Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as

described in Item 6. Not for use with Item 5A. b. Steel Framing Members* -- Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring Iength to penetrate top chord of truss by 3/8 in.

channels are friction fitted into clips. PAC INTERNATIONAL INC -- Types RSIC-1, RSIC-V.

Furring channels are friction fitted into clips.

7B. Steel Framing Members (Optional, Not Shown)* -- As an alternate to Item 7, furring channels and Steel Framing Members on only one side of studs as described below:

a. Furring Channels -- Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A. b. Steel Framing Members* -- Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48

KINETICS NOISE CONTROL INC -- Type Isomax 8. Joint Tape and Compound -- Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

9. Siding, Brick or Stucco -- (Optional, not shown) -- Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

10. Caulking and Sealants* -- (Optional, not shown) -- A bead of acoustical sealant applied around the partition perimeter for sound control. UNITED STATES GYPSUM CO -- Type AS

vertical joints.

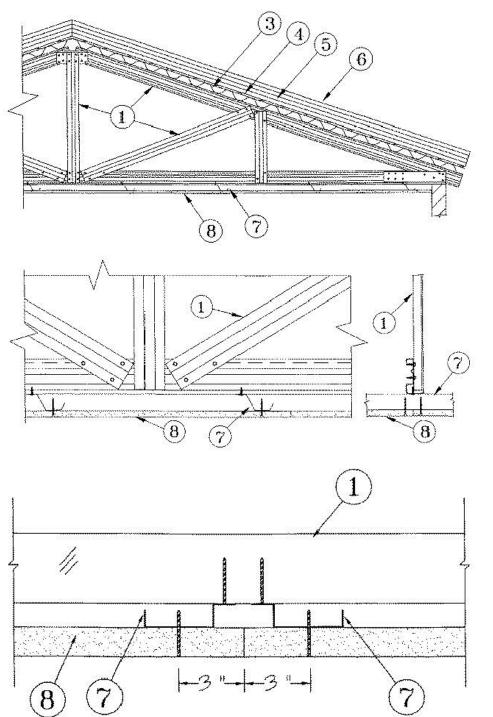
12. Lead Discs or Tabs -- (Not Shown, For Use With Item 5B) - Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". *Bearing the UL Classification Mark

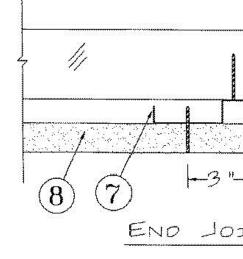
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Design No. P521 October 09, 2017

Restrained Assembly Rating — 1, 1-1/2 and 2 Hr. (See Items 3A, 5, 5A, 5B, 5C, 5D, 8 and 8A) Unrestrained Assembly Rating — 1, 1-1/2 and 2 Hr. (See Items 3A, 5, 5A, 5B 5C, 5D, 8 and 8A) See Guide BXUV or BXUV7







Structural Steel Members* — Pre-fabricated light gauge steel truss system consisting of cold-formed, galvanized steel chord and web sections. Trusses fabricated in various sizes, depths, and from various steel thickness. Trusses spaced a max of 48 in. OC. AEGIS METAL FRAMING, DIV OF MITEK — Ultra-Span, Pre-fabricated Light Gauge Steel Truss System

Bridging — (Not Shown) — Location of lateral bracing for truss chord and web sections to be specified on truss engineering Steel Floor and Form Units — (Classified or Unclassified) — Corrugated or fluted steel form units, min 22 MSG painted or galv steel, welded or mechanically fastened max 12 in. OC to truss-top chords. Cementitious Backer Units* — Nom 1/2 or 5/8 in. thick sheets. End-joists to occur over crests of steel roof deck with end-joints staggered in adjacent rows. Units loosely laid, adhered or mechanically attached to steel roof deck. UNITED STATES GYPSUM CO — Type DCB.

4A. Gypsum Board — (Classified or Unclassified) — (Not Shown) — As an alternate to Item 4, Gypsum sheathing, min 1/2 in. thick, applied perpendicular to steel roof deck. End joints to occur over crests of steel roof deck. Sheathing loosely laid, adhered or mechanically attached to steel roof deck. See Gypsum Board (CKNX) category for names of Classified companies. USG MEXICO S A DE C V — Type C or IP-X2 5. Roof Insulation — Foamed Plastic* — Any polyisocyanurate foamed plastic insulation boards bearing the UL Classification Marking. Min thickness is 1 in. for the 1 hr assembly ratings, 2 in. for the 1-1/2 hr assembly ratings and 4 in. for the 2 hr ratings, with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4) or gypsum sheathing (Item 4A), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer of board cUL Certification (such as Canada), respectively. to be offset in both directions from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units or gypsum sheathing, and to steel roof deck (Item 3). See Foamed Plastic (CCVW) Category in

the Fire Resistance Directory. 5A. Roof Insulation — Foamed Plastic* — (Not Shown) — As an alternate to Item 5 — For 1 and 1-1/2 hr ratings only — Any polystyrene foamed plastic insulation boards bearing the UL Classification Marking. Min thickness is 1 in. for the 1 hr assembly ratings, and 2 in. for the 1-1/2 hr assembly ratings, with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4) or gypsum sheathing (Item 4A), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer or board to be offset in both directions from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units or gypsum sheathing, and to steel roof deck (Item 3). See Foamed Plastic (BRYX) category in the Building Materials Directory or Foamed Plastic (CCVW) category in the Fire Resistance Directory.

5B. Roof Insulation — Mineral and Fiber Boards* — (Not Shown) — As an alternate to Item 5 — Mineral wool, glass fiber or perlite insulation boards, 24 by 48 in. min size, applied in one or more layers. Min thickness is 1 in. for the 1 hr assembly ratings, 2 in. for the 1-1/2 hr assembly rating and 4 in. for the 2 hr ratings, with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4) or gypsum sheathing (Item 4A), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer of board to be offset in both directions from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units or gypsum sheathing, and to steel roof deck (Item 3).

See Mineral and Fiber Boards (BQXR) Category in the Building Materials Directory or Mineral and Fiber Boards (CERZ) Category in the Fire Resistance Directory.

(Item 3). See Building Units (BZXX) category in the Fire Resistance Directory. (Item 4). See Foamed Plastic (CCVW) Category in the Fire Resistance Directory.

Resistance Directory-Roofing Membranes (CHCI) Category. Directory (TJPV) or Fire Resistance Directory (CETW) for names of manufacturers. 6C. Roof Covering* — In Lieu of Item 6 — Any UL Class A, B or C Prepared Roof Covering (TFWZ) acceptable for use over Resilient Channels — Resilient channels formed of 25 MSG galv steel, installed perpendicular to the trusses (Item 1)

by 1/2 in. long screws. 7A. Furring Channels — (Not Shown) — As an alternate to Item 7 — Hat chanels min 20 MSG galv steel, min 2-5/8 in. wide by min 7/8 in. deep, installed perpendicular to the trusses (Item 1) spaced a max of 16 in. OC. Two courses of channel positioned 6 in. OC at wallboard butt-joints (3 in. from each end of wallboard). Channel splices overlapped 6 in. beneath steel trusses. Channels secured to each truss with No. 18 SWG steel wire double strand saddle ties. Channels tied together with double strand of No.18 SWG steel wire at each end overlap. in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. 7B. Resilient Channels — (Not Shown) — As an alternate to Items 7 and 7A, resilient channels, double legged formed of 25 MSG galv steel, 2-7/8 in. wide by 1/2 in. deep, perpendicular to steel trusses (Item 1) when steel trusses are spaced a max 24 in. OC. Resilient channels spaced a max of 16 in. OC. Two courses of resilient channel positioned 6 in. OC at wallboard butt-joints (3 in. from each end of wallboard). Channel splices overlapped 4 in. beneath steel trusses. Channels secured to each truss with Type S12 by 1/2 in. long screws or with No. 18 SWG galv steel wire double strand saddle ties. Channels tied together with double strand of No. 18 SWG galv steel wire at each end overlap. Gypsum Board* — For all ratings except the 2 Hr Assembly Ratings — One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trusses. Attached to the resilient channels using 1 in. long Type S bugle-head screws spaced 12 in. OC along butted end-joints and 12 in. OC in the field. For the 2 Hr Ratings — Two layers of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trussses. Base layer attached as described above. Face layer attached to the resilient channels using 1-5/8 in. long Type S bugle-head screws spaced 12 in. OC along butted end-joints and 12 in. OC in the field. Screws staggered from base layer screws. Face layer side and end joints offset a minimum 16 in. from base layer side and end joints.

> CGC INC — Types C, IP-X2, IPC-AR. UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR. USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR.

11. Lead Batten Strips -- (Not Shown, For Use With Item 5B) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind

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This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design c.

END JOINT DETAIL

5C. Roof Insulation —Building Units* — (Not Shown) — As an alternate to Item 5—Any polyisocyanurate foamed plastic insulation faced on the top surface with oriented strand board or faced on the underside or both sides with wood fiber board, bearing the UL Classification Marking for Fire Resistance. No min thickness of the polyisocyanurate foamed plastic core required for the 1 hr assembly ratings, min 2 in. polyisocyanurate foamed plastic core for the 1-1/2 hr assembly ratings and min See Concrete Blocks category for list of eligible manufacturers. 4 in. polyisocyanurate foamed plastic core for the 2 hr rating with no limit on max overall thickness. Boards installed over the cementitious backer units (Item 4) or gypsum sheathing (Item 4A), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer of board to be offset in both directions from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units or gypsum sheathing and to steel roof deck lime (by cement volume). Vertical joints staggered.

5D. Roof Insulation — Foamed Plastic* — (Not Shown) — For use with Item 8A. Any polyisocyanurate foamed plastic insulation boards bearing the UL Classification Marking. Min thickness is 1 in. for the 1 hr. Assembly Ratings and 3 in. for the from layer below in order to lap all joints. Boards loosely laid, adhered or mechanically fastened to cementitious backer units

which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering Materials (TEVT). 6A. Roofing Membrane* — (Not Shown) — In lieu of Item 6, single-ply membrane that is either ballasted, adhered or mechanically attached to the insulation(s) described herin as permitted under the respective company's Classification. See Fire

6B. Metal Roof Deck Panels* — In Lieu of or in addition to Items 6 and 6A, the roof covering may consist of mechanically fastened galv or painted steel roof deck panels. Panels may be installed above a steel purlin assembly per metal roof deck manufacturer's specifications. Steel purlin assembly to be installed transverse to steel roof trusses (Item 1). A line of sealant or Copyright © 2007 Underwriters Laboratories Inc.® tape may be used at panel side and end laps. See Metal Roof Deck Panels Category in the Roofing Materials and Systems

plywood sheathing or nonveneer APA Rated Series Sheathing. Sheathing mechanically fastened through roof insulation to top chord of steel trusses with fasteners spaced a max of 12 in. OC. As an alternate to the plywood sheathing or nonveneer APA Rated Series Sheathing, the Prepared Roof Covering (TFWZ) may be applied directly to the Building Units* (Item 5C) if the building units also carry the UL Classification Marking for Prepared Roofing Accessories (TGDY). Fasteners to be of sufficient

when steel trusses are spaced a max 24 in. OC,. Resilient channels spaced a max of 16 in. OC. Channels oriented opposite at wallboard butt-joints. Channel spices overlapped 4 in. beneath steel trusses. Channels secured to each truss with Type S-12

8A. Gypsum Board* — (Not Shown) — For use with Item 5D. For all ratings except the 2 Hr Assembly Ratings -One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trusses. Attached to the furring channels using 1 in. long Type S bugle-head screws spaced 8 in. OC along butted end-joints and in the field. For the 2 Hr Ratings — Two layers of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trusses. Base layer attached as described above. Face layer attached to the resilient channels using 1-5/8 in. long Type S bugle-head screws spaced 8 in. OC along butted end-joints and 8 in. OC in the field. Screws staggered from base layer screws. Face layer side and end joints offset a min 8 in. from base layer side and end

UNITED STATES GYPSUM CO — Type ULIX

Finishing System — (Not Shown) — Vinyl, dry of premixed joint compound, applied in two coats to joints and screw heads, paper tape, 2 in. wide, embedded in first layer of compound over all joints. Alternate Ceiling Membrane — (Not shown).

2. Steel Framing Members a. Main runners — Installed perpendicular to Structural Steel Members — Nom 10 or 12 ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft OC. Main runners hung a min of 2 in. from bottom chord of Structural Steel Members with 12 SWG galv steel wire. Wires located a max of 48 in. OC. b. Cross tees or channels — Nom 4 ft long, 15/16 in. or 1-1/2 in. wide face or cross channels, nom 4 ft long, 1-1/2 in. wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or

channels used at 8 in. from each side of butted wallboard end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation. Wall angles or channels — Used to support steel framing member ends and for screw-attachment of the Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — gypsum wallboard — Min 0.016 in. thick painted or galvanized steel angle with 1 in. legs or min. 0.016 in. thick painted or galvanized steel channel with a 1 by 1-1/2 by 1 in. profile, attached to walls at perimeter of ceiling with fasteners 16 in. OC. CGC INC — Type DGL or RX.

USG INTERIORS LLC — Type DGL or RX.

10A. Alternate Steel Framing Members* — (Not Shown) — As an alternate to Item 10 — For the 1 and 1-1/2 hr ratings only. Main runners nom 12 ft long, spaced 72 in. OC. Main runners hung a min of 2 in. from bottom chord of Structural Steel Members with 12 SWG galv steel wire. Wires located a max of 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.

USG INTERIORS LLC — Type DGL or RX

11. Gypsum Board* — For use with Steel Framing Members (Item 10) — For the 1 and 1-1/2 hr ratings — One laver of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to the main runners. Wallboard fastened to each cross tee or channel with five wallboard screws, with one screw located at the midspan of the cross tee or channel, one screw located 12 in. from and on each side of the cross tee or channel mid span and one screw located 1-1/2 in. from each wallboard side joint. Except at wallboard end joints, wallboard screws shall be located on alternating sides of cross tee flange. At wallboard end joints, wallboard screws shall be located 1/2 in. from the joint. Wallboard fastened to main runners with wallboard screws 1/2 in. from side joints, midway between intersections with cross tees or channels (16 in. OC). End joints of adjacent wallboard sheets shall be staggered not less than 32 in. Wallboard sheets screw attached to leg of wall angle with wallboard screws spaced 12 in. OC. Joints treated as described in Item 8. For the 2 hr rating — Two layers of nominal 5/8 in. thick by 48 in. wide boards. Inner layer installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Inner layer fastened to cross tees with 1-1/4 in. long Type S bugle-head steel screws spaced 8 in. OC along buted end joints and 12 in. OC in the field of T Rating -- 0 Hr the board. End joints of adjacent wallboard sheets shall be staggered not less than 4 ft OC. Outer layer attached to the cross tees through inner layer using 1-7/8 in. long Type S bugle-head steel screws spaced 8 in. OC at butted end joints and 12 in. OC in the field. Butted end joints to be centered along cross tees and be offset a min of 32 in. from end joints of inner layer. Rows of screws on both sides of butted end joints of each layer shall be located 3/8 to 1/2 in. from end joints. Butted side joints of outler layer to be offset a min of 18 in. from butted side joints of inner layer. Joints treated as described in Item 8. CGC INC — Type C or IP-X2

UNITED STATES GYPSUM CO — Type C or IP-X2

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Type C or IP-X2

11A. Gypsum Board* — For use with Steel Framing Members (Item 10A) — For the 1 and 1-1/2 hr ratings — One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip with hold down clips to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with 1 in. drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. CGC INC — Type C or IP-X2

UNITED STATES GYPSUM CO — Type C or IP-X2

USG BORAL DRYWALL SFZ LLC — Type C

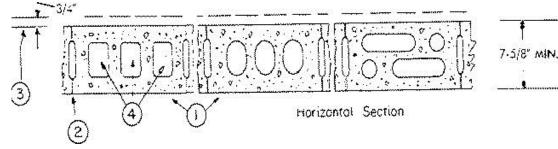
Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or Last Updated on 2017-10-09

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Design No. U905

Bearing Wall Rating -- 2 HR.

Nonbearing Wall Rating -- 2 HR Load Restricted for Canadian Applications -- See Guide BXUV7



1. Concrete Blocks* -- Various designs. Classification D-2 (2 hr).

2. Mortar -- Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated 3. Portland Cement Stucco or Gypsum Plaster -- Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

1-1/2 hr and 2 hr. Assembly Ratings, with no limit on max overall thickness. Boards installed over the cementitious backer units 4. Loose Masonry Fill -- If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary (Item 4), with the end-joints staggered in adjacent rows. When applied in more than one layer, each layer of board to be offset Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification. 5. Foamed Plastic* -- (Optional-Not Shown) -- 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks

THE DOW CHEMICAL CO -- Type Thermax

*Bearing the UL Classification Mark

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Wall	
Assembly	
Rating	
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2	

HILTI INC -- FS-One Sealant

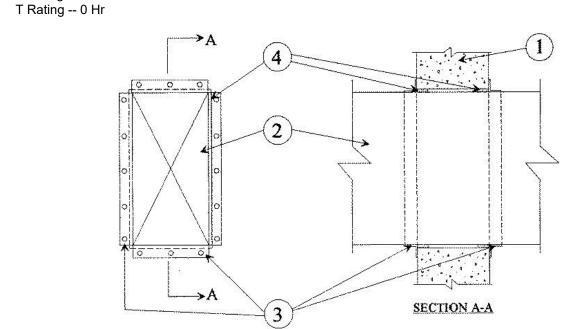
HILTI INC -- CP 601s or FS-ONE Sealant

System No. W-J-5042

Max diam of opening is 18-5/8 in.

System No. W-J-7001

F Rating -- 1 Hr



1. Wall Assembly -- Min 3-3/4 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max area of opening is 325 sq in. with max dimension of 25 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Steel Vent Duct -- Nom 12 x 24 in. (or smaller) x 24 gauge (or heavier) galv steel vent duct. One vent duct to be positioned within the firestop system. The annular space shall be min 1/4 in. to a max 3/4 in. Duct to be rigidly supported on both sides of the wall assembly. 3. Steel Retaining Angle -- Nom 2 x 2 x 1/8 in. steel angles attached to all four sides of the duct on both sides of

the wall. The angles shall be attached with No. 8 (or larger) steel sheet metal screws or 1/4 in. diam by min 1 in. long steel bolts and nuts spaced within a max of 2 in. from each end and at a max of 5 in. OC. 4. Fill, Void or Cavity Material* -- Sealant -- Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall.

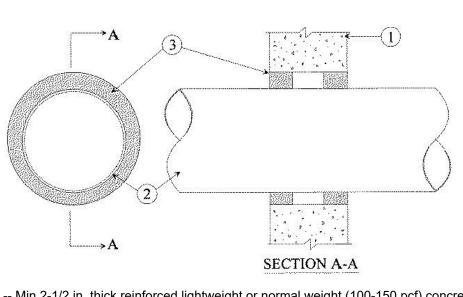
HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC -- CP601S, CP606 or FS-One Sealant

*Bearing the UL Classification Mark

System No. W-J-1028

F Ratings -- 1 & 2 Hr (See Item 3)



1. Wall Assembly -- Min 2-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 12-1/2 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through-Penetrants -- One metallic pipe, conduit or tubing to be centered within the firestop system. The annular space between pipes, conduit or tubing and periphery of opening shall be min 1/2 in. to max 7/8 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used: A. Steel Pipe -- Nom 10 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Conduit -- Nom 4 in. diam (or smaller) steel electrical metallic tubing or nom 6 in. diam (or smaller) steel

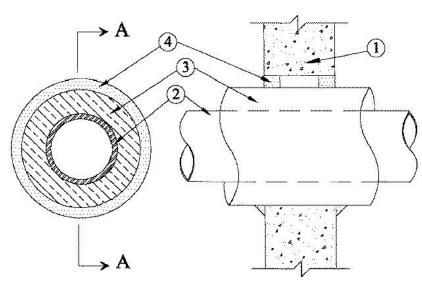
C. Copper Tubing -- Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing. D. Copper Pipe -- Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe. 3. Fill, Void or Cavity Material* -- Sealant -- Min 5/8 in. or 1-1/4 in. thickness of fill material applied within the

annulus, flush with both surfaces of wall for 1 hr and 2 hr fire-rated walls, respectively. HILTI CONSTRUCTION CHEMICALS, DIV OF

*Bearing the UL Classification Mark

F Ratings -- 1 and 2 Hr (See Items 1 and 4) T Ratings -- 1/2, 3/4, 1, 1-1/2 and 1-3/4 Hr (See Item 3)

L Rating At Ambient -- 4 CFM/Sq Ft L Rating at 400 F -- Less Than 1 CFM/Sq Ft



SECTION A-A

1. Wall Assembly -- Min 3-3/4 in. and 5 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete for 1 and 2 h rated assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks*.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through--Penetrants -- One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may

A. Steel Pipe -- Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe. B. Iron Pipe -- Nom 12 in. diam (or smaller) cast or ductile iron pipe.

C. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing. D. Copper Pipe -- Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

3. Pipe Covering* -- Nom 1, 1-1/2 or 2 in. thick hollow-cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. See Pipe and Equipment Covering Materials (BRGU) category in the Building Materials Directory for the names of the manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

The hourly T Rating of the firestop system is dependent on the size and type of through penetrant, the pipe covering thickness and the annular space as shown in the the table below:

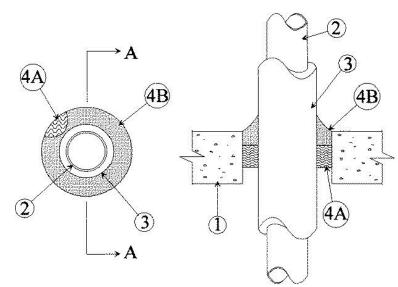
Wall Assembly	Through Penetrant		Pipe Covering	Annular Space		T Rating Hr.
Rating	Type +	Max Diameter In.	•	Min. In.	Max In.	
1	A,B	4	1	0	1-1/2	1/2
1	C OR D	2	1 OR 1-1/2	0	1-1/2	1/2
1	A,B	4	1-1/2	0	1-1/2	1
1	A,B	10	2	0	1-7/8	3/4
1	C OR D	6	2	0	1-7/8	1
2	A,B	4	1	0	1-1/2	1
2	C OR D	4	1 OR 1-1/2	0	1-1/2	1
2	A,B	4	1-1/2	0	1-1/2	1-3/4
2	A,B	12	2	0	1-7/8	1-1/2
2	C OR D	6	2	0	1-7/8	1

+-Indicates penetrant type as itemized in Item 2.

4. Fill, Void or Cavity Material*--Sealant -- Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe covering/wall interface on both surfaces of wall. HILTI CONSTRUCTION CHEMICALS, DIV OF

*Bearing the UL Classification Mark

System No. C-BJ-5008 F Rating -- 3 Hr T Rating -- 3 Hr



SECTION A-A

1. Floor or Wall Assembly -- Min 6 in. thick reinforced normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 16 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Steel Pipe -- Nom 8 in. diam (or smaller) Schedule 10 (or heavier) steel pipe. One pipe to be installed either concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of floor or wall assembly.

3. Pipe Coverings -- One of the following types of pipe coverings shall be used: A. Pipe and Equipment Coverings and Materials* -- Nom 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners for factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied

with the product. The annular space within the firestop system shall be min 1/2 in. to max 2 in. See Pipe and Equipment Covering -- Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

B. Pipe Covering Materials* -- Nom 2 in. thick unfaced mineral fiber pipe insulation having a nom density of 3.5 pcf (or heavier) and sized to the outside diam of pipe or tube. Pipe insulation secured with min 8 AWG steel wire spaced max 12 in. OC. The annular space within the firestop system shall be min 1/2 in. to max 2 in. IIG MINWOOL L L C -- High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT or High Temperature Pipe Insulation Thermaloc

C. Sheathing Material* -- Used in conjunction with item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or butt tape. See Sheating Materials (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

1. Firestop System -- The firestop system shall consist of the following:

A. Packing Material -- Min 2-1/2 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material. B. Fill, Void or Cavity Material* -- Sealant -- Min 1 in. thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces. Additional fill material to be installed such that a min 1/4 in. crown is formed around the penetrating item

*Bearing the UL Classification Mark

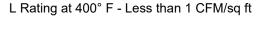
W R GRACE & CO - CONN -- FS 1900 Sealant

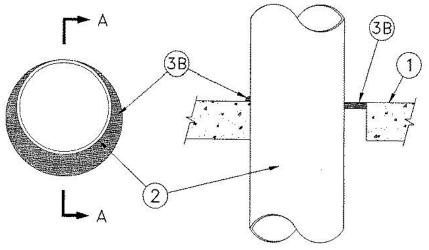
System No. C-AJ-1235

names of manufacturers.

F Ratings -- 2 and 3 Hr (See Item 3B)

T Rating -- 0 Hr L Rating at Ambient - Less than 1 CFM/sq ft





SECTION 'A-A'

1. Floor or Wall Assembly -- Min 4-1/2 in. (114 mm) thick reinforced normal weight (140-150 pcf or 2200-2400 kg/m3) concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 26 in. (660 mm). If the firestop system is installed within a hollow-core hollow-core precast concrete unit, max diam of opening shall be 7 in. (178 mm). See Concrete Block (CAZT) and Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for

1A. Metallic Sleeve -- (Not shown, Optional) -- Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces. The use and the max diam of the steel sleeve is dependent upon the type and max diam of the through penetrant (Item 3) and type and min fill material thickness as tabulated in Item 3B.

2. Through Penetrants -- One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe, conduit or tubing and the periphery of the opening shall be min 0 in. (point contact) to a max 1-7/8 in. (48 mm). Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used: A. Steel Pipe -- Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe -- Nom 24 in. (610 mm) diam (or smaller) cast or ductile iron pipe. C. Conduit -- Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 6 in. (152 mm) diam (or smaller) steel conduit.

D. Copper Tubing -- Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing. E. Copper Pipe -- Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe. 3. Firestop System -- The firestop system shall consist of the following:

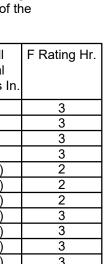
A. Packing Material -- Min 4 pcf (64 m3) mineral wool batt insulation firmly packed into opening or min 1 in. (25 mm) diam backer rod friction fitted into the opening as a form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material. When the floor is constructed of hollow-core precast concrete units, packing material shall be recessed from both surfaces of floor to accommodate the required thickness of fill materials. In floors, the packing material may be removed after the fill material cures.

B. Fill, Void or Cavity Material* -- Sealant -- Fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. At the point contact location between through penetrant and concrete, a min 3/8 in. (10 mm) diam bead of fill material shall be applied at the concrete/through penetrant interface on the top surface of floor and on both surfaces of wall. When the floor is constructed of hollow-core precast concrete units, fill material shall be installed symmetrically on both sides of floor, flush with both floor surfaces. The F Rating of the firestop system is dependent upon the use and the max diam of the steel sleeve, type and max diam of the through penetrant and type and min fill material thickness as tabulated below:

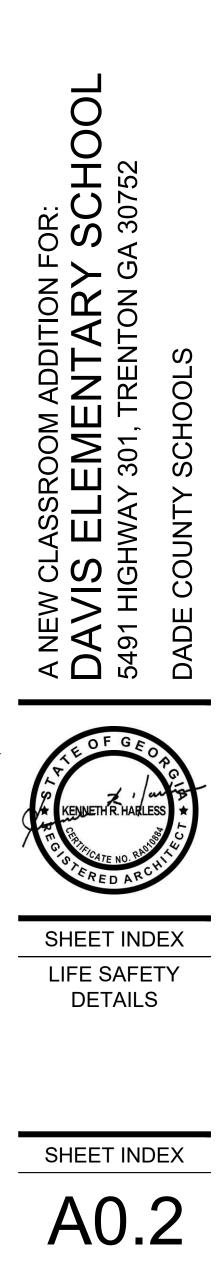
Use of Steel Sleeve	Max. Dia. of Stl. Sleeve In.	Type of Through Penetration	Max. Dia. of Through Penetration In.	Type of Fill Material	Min. Fill Material Thickness
Not Permitted	-	Steel or Iron Pipe	24 (610)	FS1900	1 (25)
Permitted	8 (203)	Steel or Iron Pipe	6 (125)	FS1900	1 (25)
Permitted	8 (203)	Copper Pipe, Tube or Stl.	6 (125)	FS1900	1 (25)
Permitted	6 (125)	Steel EMT	4 (102)	FS1900	1 (25)
Permitted	6 (125)	Steel or Iron Pipe	4 (102)	FS1900	1/2 (13)
Permitted	6 (125)	Copper Pipe, Tube or Stl.	4 (102)	FS1900	1/2 (13)
Permitted	6 (125)	Steel EMT	4 (102)	FS1900	1/2 (13)
Not Permitted	-	Steel or Iron Pipe	24 (610)	FS900/FS900+	1/2 (13)
Permitted	8 (203)	Steel or Iron Pipe	6 (125)	FS900/FS900+	1/2 (13)
Permitted	8 (203)	Copper Pipe, Tube or Stl.	6 (125)	FS900/FS900+	1/2 (13)
Permitted	6 (125)	Steel EMT	4 (102)	FS900/FS900+	1/2 (13)
W R GRACE	& CO - CONN	FlameSafe® FS1900, F	lamesafe® FS900	, FlameSafe® FS	900+.

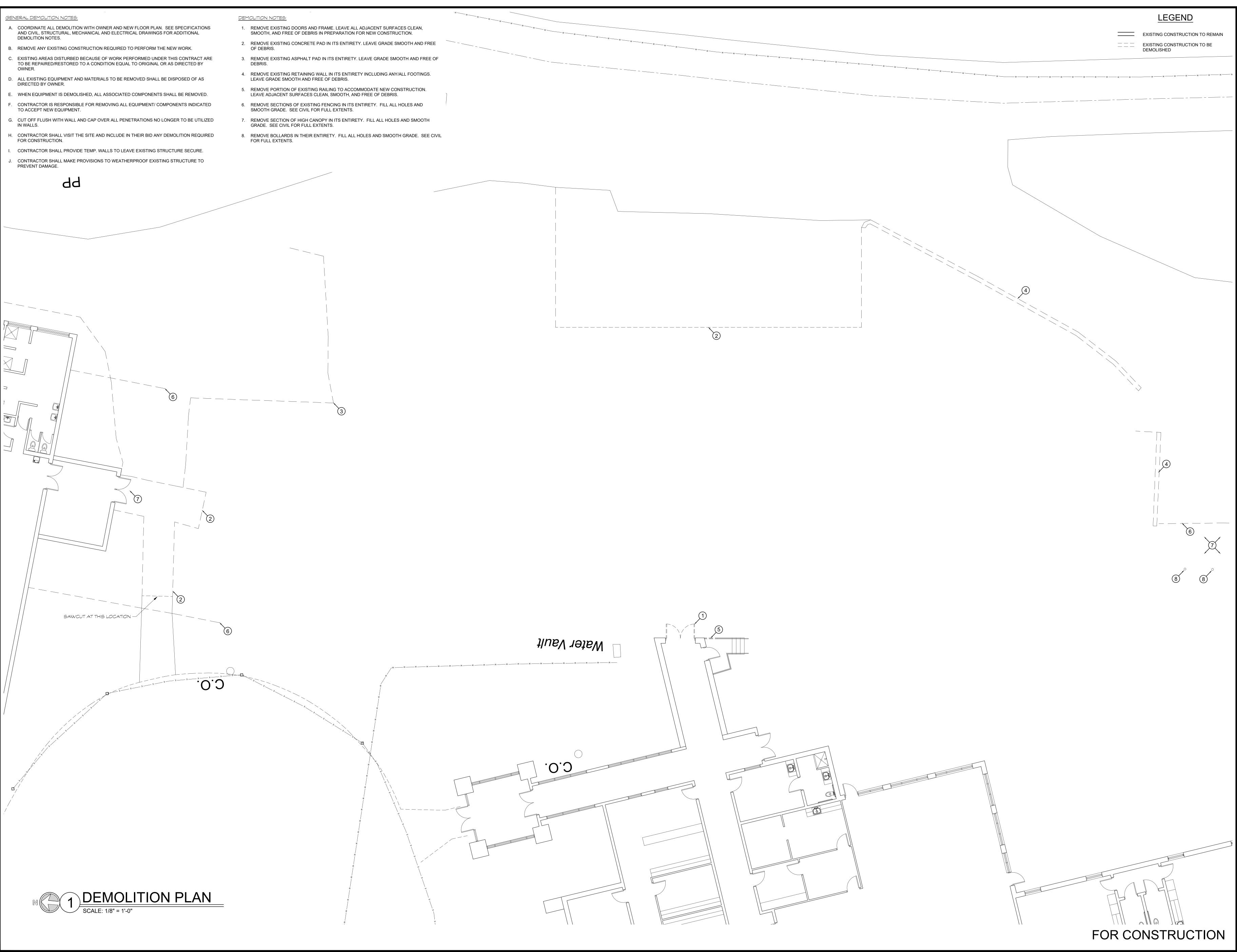
*Bearing the UL Classification Mark





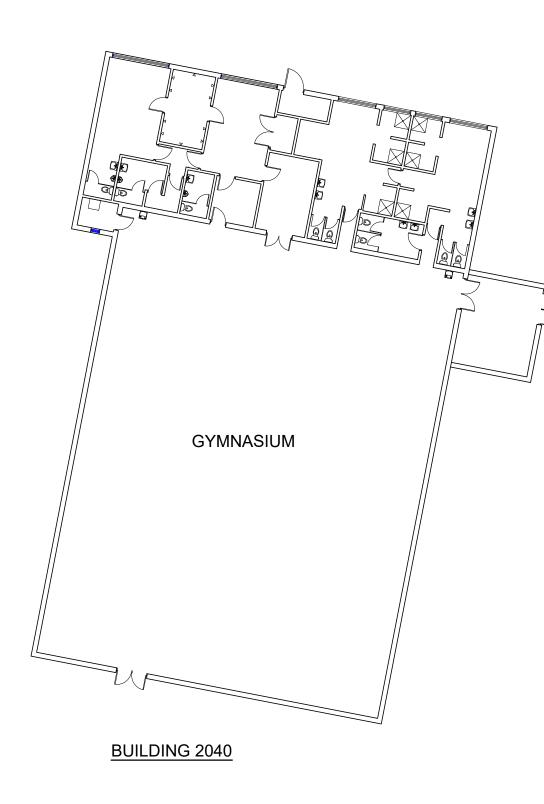




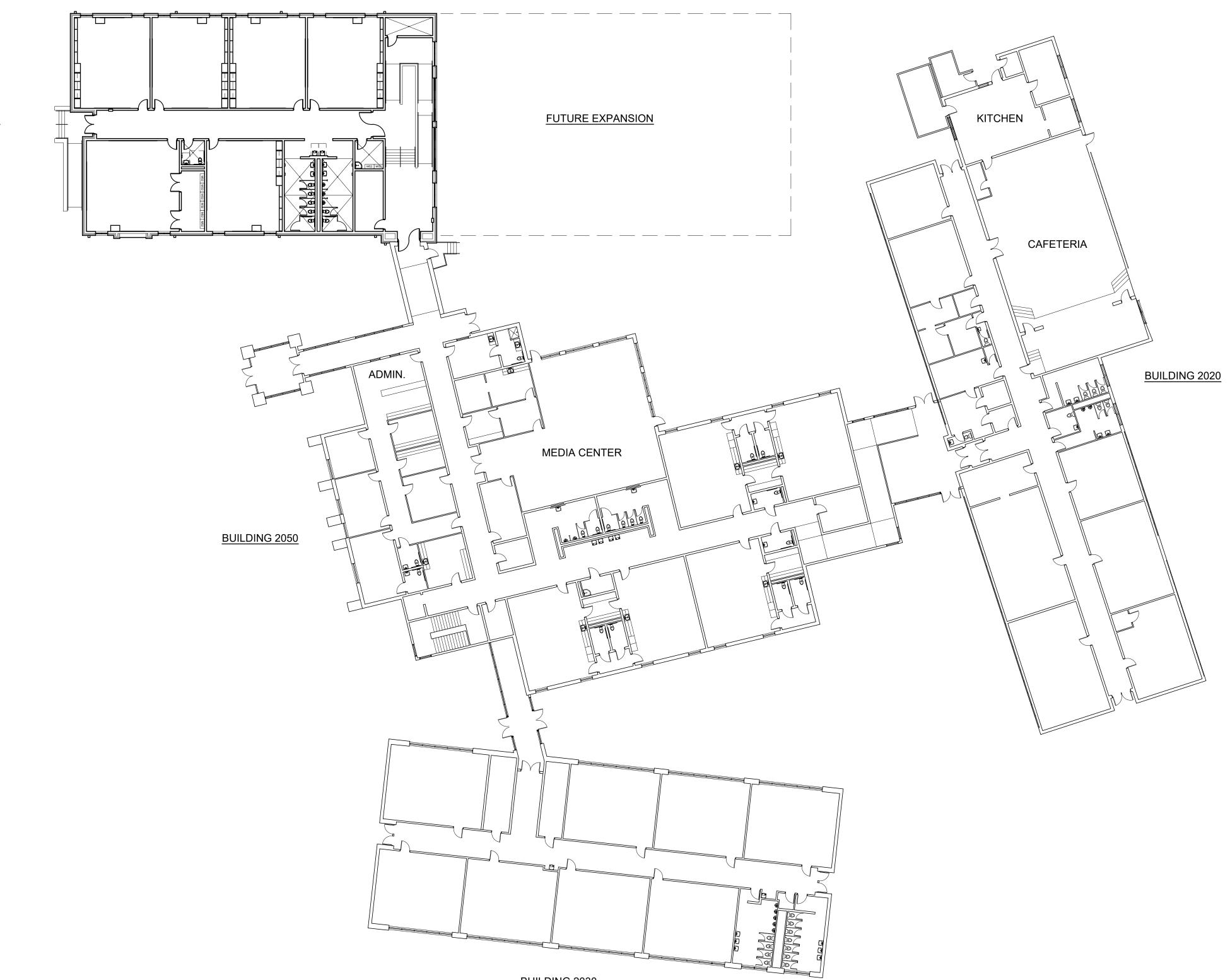








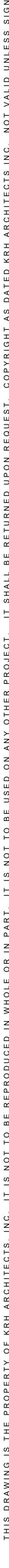


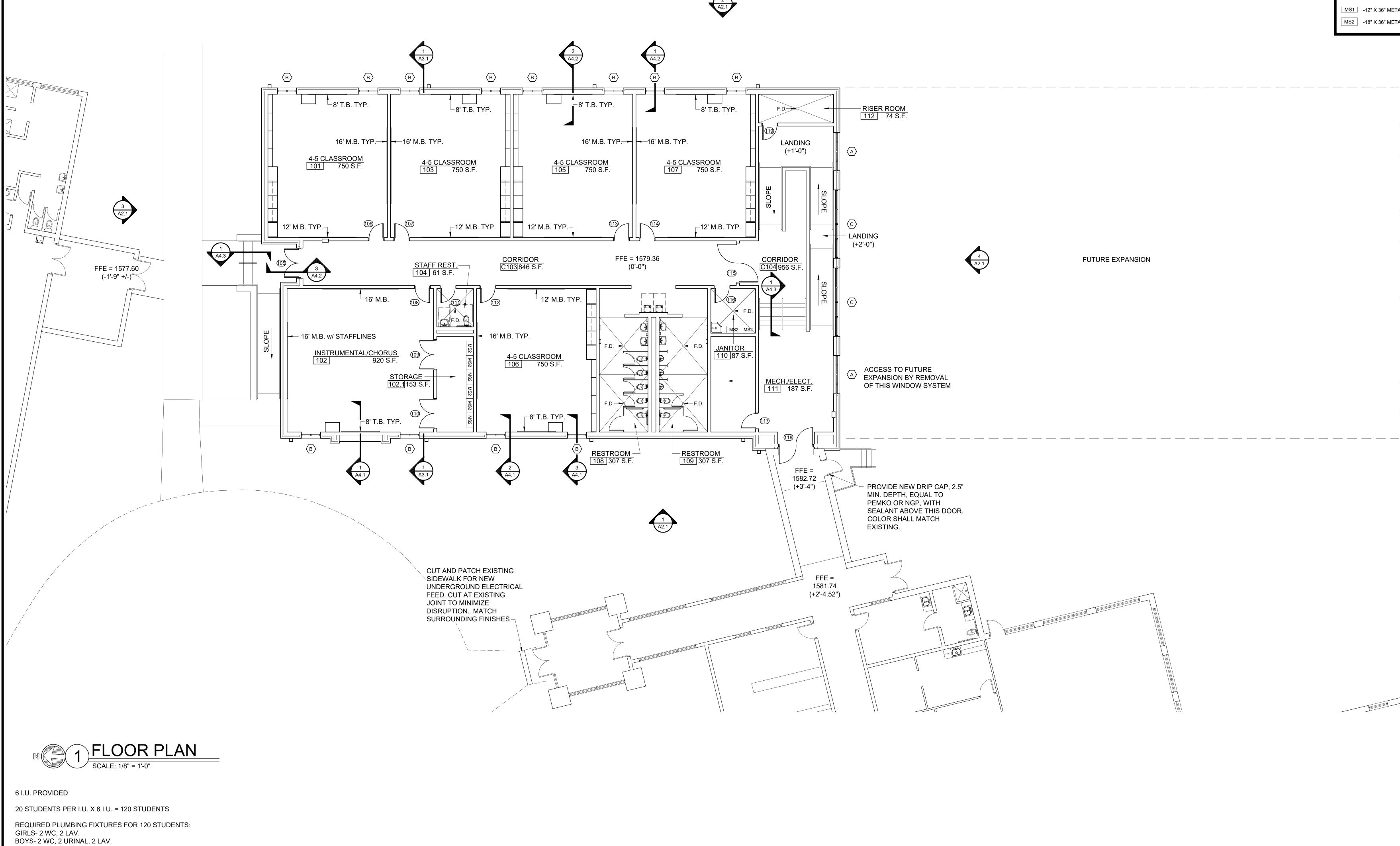


NEW CLASSROOM WING (BUILDING 2060)

BUILDING 2030







PROVIDED: GIRLS- 5 WC, 2 LAV. BOYS- 2 WC, 3 URINAL, 2 LAV.

FOR CONSTRUC

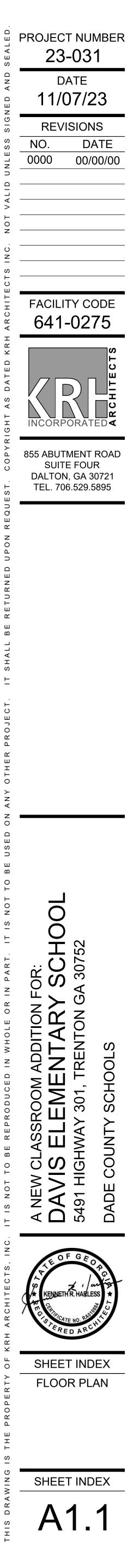
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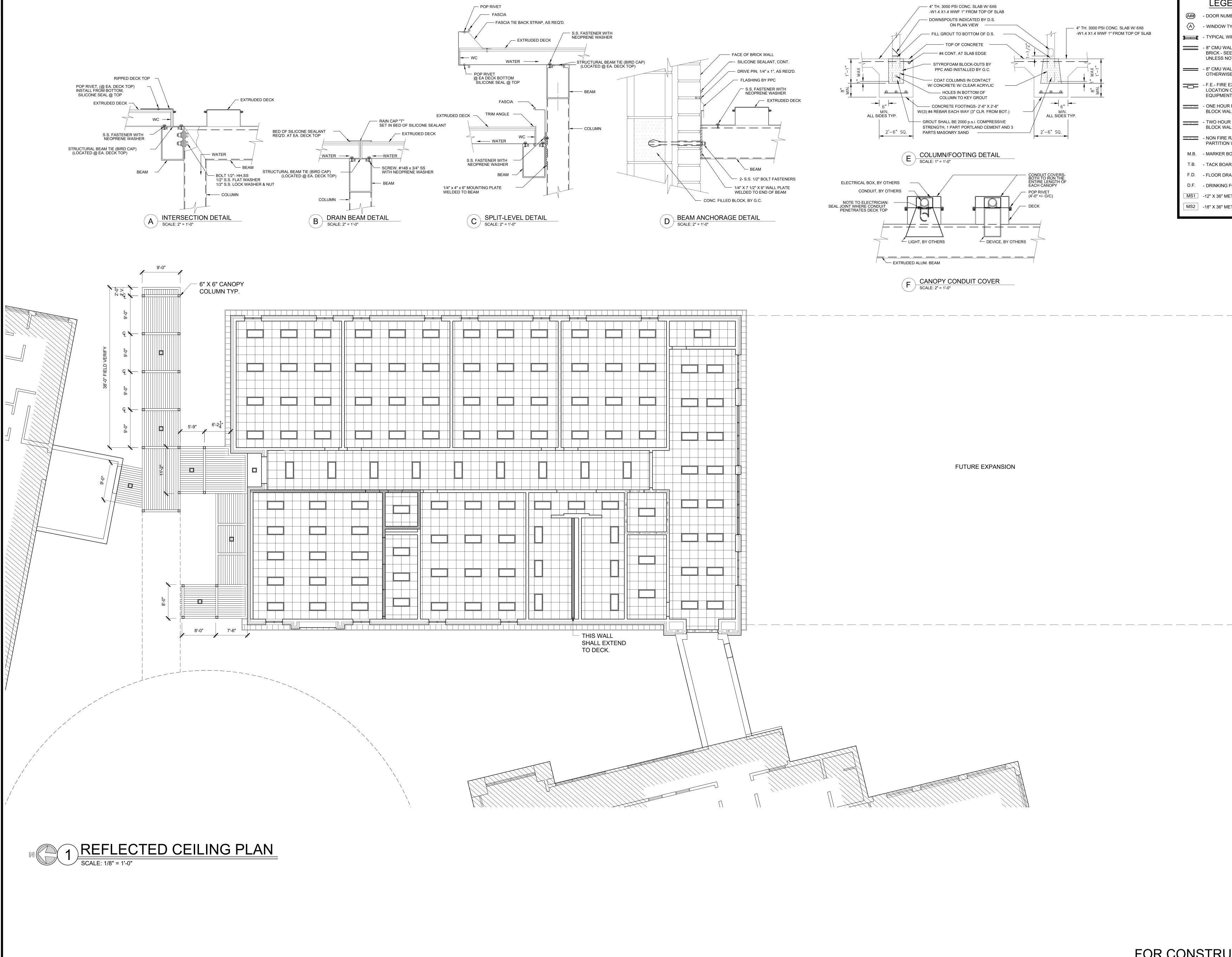
NOTE:

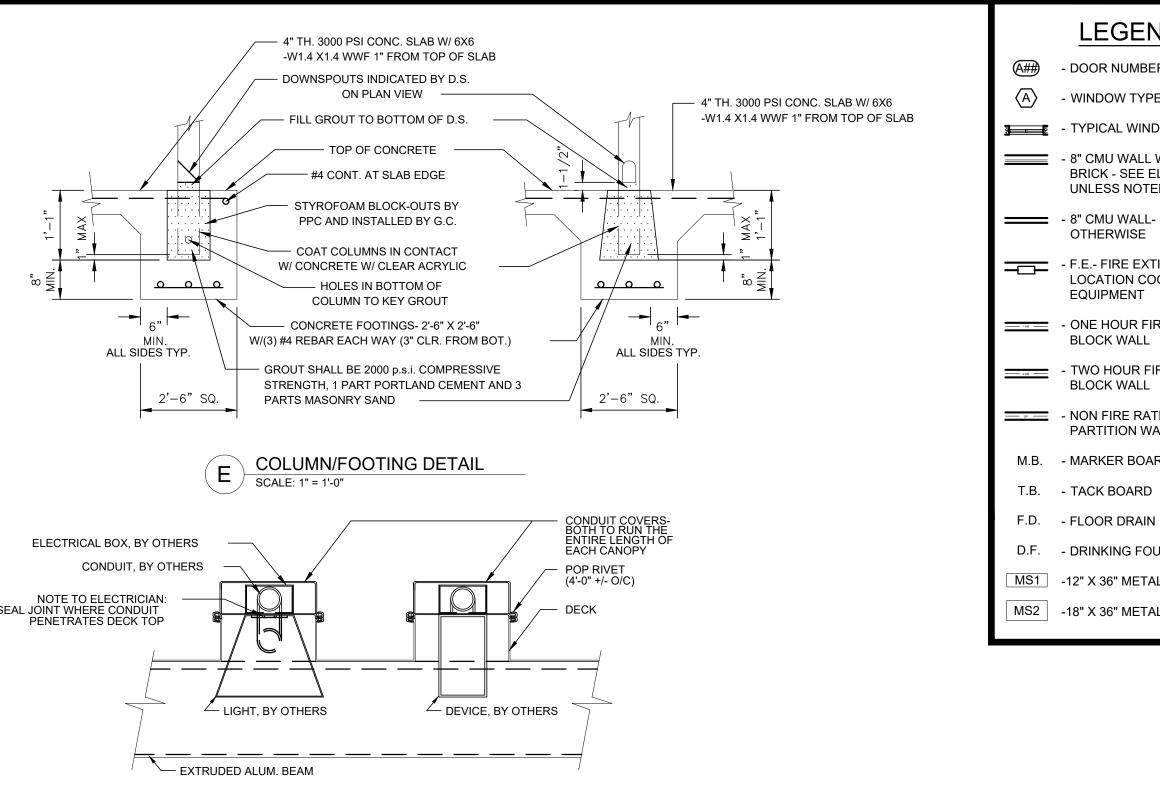
PARTITION WALLS.

LEGEI NOTE: FOR LARGE SCALE TYP. CLASSROOMS AND TOILETS SEE SHEETS STARTING ON A6.1 THROUGH A6.4. A## - DOOR NUMBE NOTE: SEE LARGE SCALE PLANS FOR ADDITIONAL TYPICAL CASEWORK ELEVATION MARKERS. A - WINDOW TYPE FOR LARGE SCALE TYP. STAIRS SEE SHEET A6.5. - TYPICAL WIND SMOKE PARTITIONS ON CORRIDOR WALLS NOT SHOWN FOR CLARITY. SEE A0.1 FOR LOCATIONS OF ALL SMOKE - 8" CMU WALL BRICK - SEE E UNLESS NOTE - 8" CMU WALL-OTHERWISE - F.E.- FIRE EXT LOCATION CC EQUIPMENT - ONE HOUR FI BLOCK WALL BLOCK WALL - NON FIRE RAT

 A - -<	LEGEND DOOR NUMBER TAG WINDOW TYPE TAG TYPICAL WINDOW S"CMU WALL WITH 4" FACE BRICK - SEE ELEVATIONS - UNLESS NOTED OTHERWISE S"CMU WALL- UNLESS NOTED OTHERWISE S.C. FIRE EXTINGUISHER EXACT LOCATION COORDINATE W/ ALL EQUIPMENT ONE HOUR FIRE RATED CMU BLOCK WALL MON FIRE RATED SMOKE ARTITION WALL MARKER BOARD TACK BOARD FLOOR DRAIN DRINKING FOUNTAIN
	18" X 36" METAL SHELVING UNIT
ONS	TRUCTION

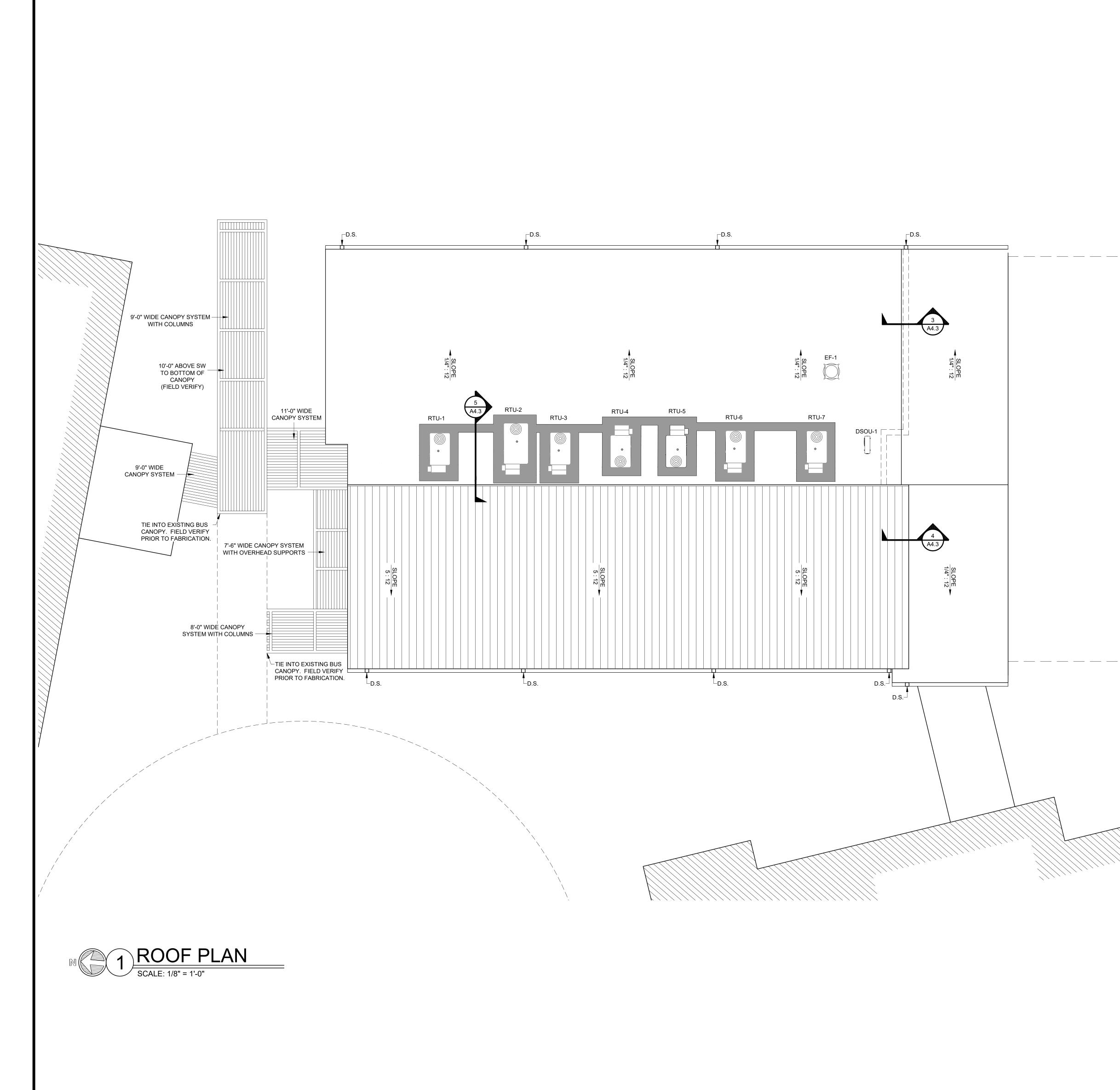






ND
BER TAG ′PE TAG
NDOW L WITH 4" FACE
L WITH 4" FACE ELEVATIONS - TED OTHERWISE L- UNLESS NOTED
COORDINATE W/ ALL
L FIRE RATED CMU
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OUNTAIN TAL SHELVING UNIT
TAL SHELVING UNIT





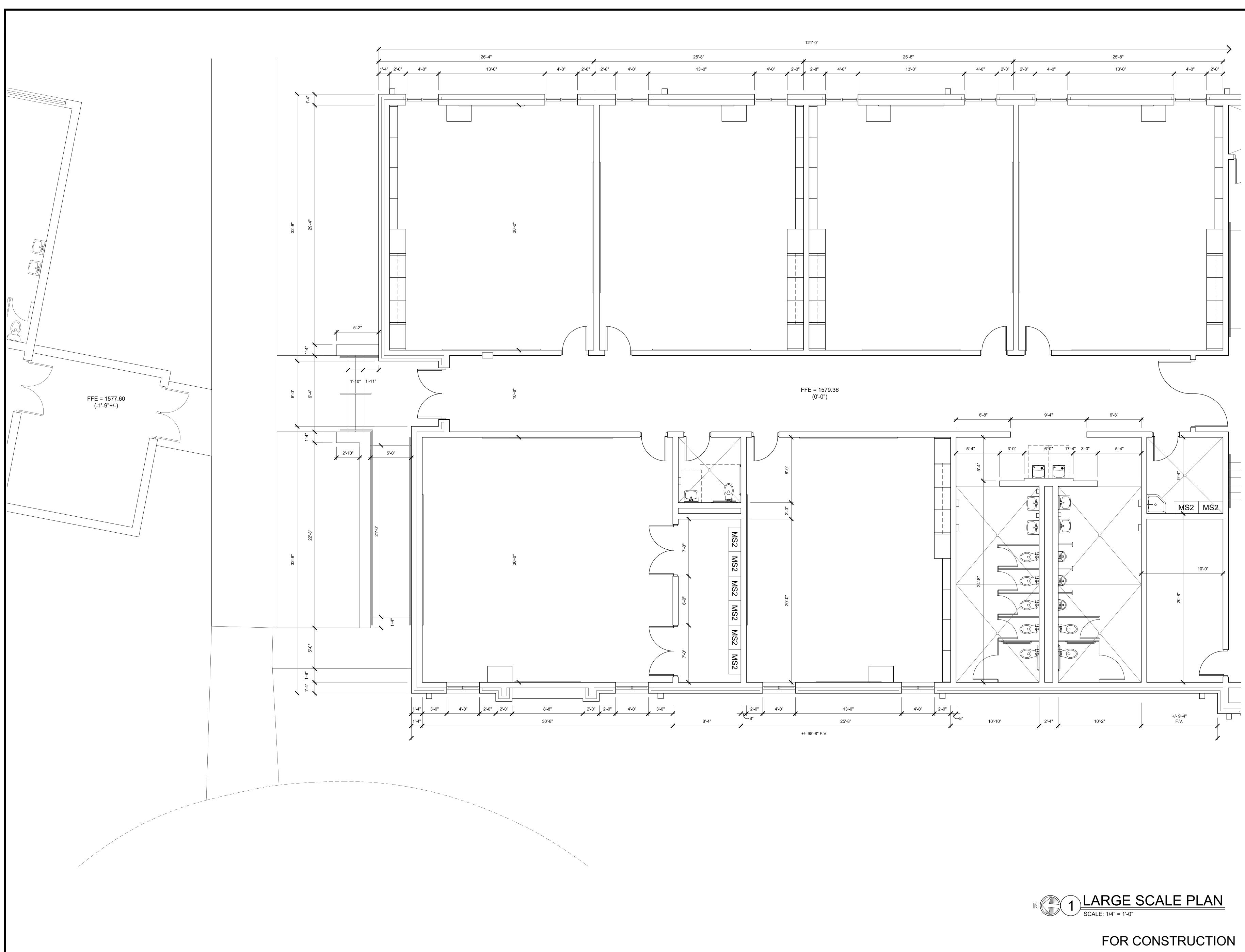
NOTE:	FOR LARGE SCALE TYP. CLASSROOMS AND TOILETS SEE SHEETS STARTING ON A6.1 THROUGH A6.4.	
NOTE:	SEE LARGE SCALE PLANS FOR ADDITIONAL TYPICAL CASEWORK ELEVATION MARKERS.	(A##
NOTE:	FOR LARGE SCALE TYP. STAIRS SEE SHEET A6.5.	
NOTE:	SMOKE PARTITIONS ON CORRIDOR WALLS NOT SHOWN FOR CLARITY. SEE A0.1 FOR LOCATIONS OF ALL SMOKE PARTITION WALLS.	

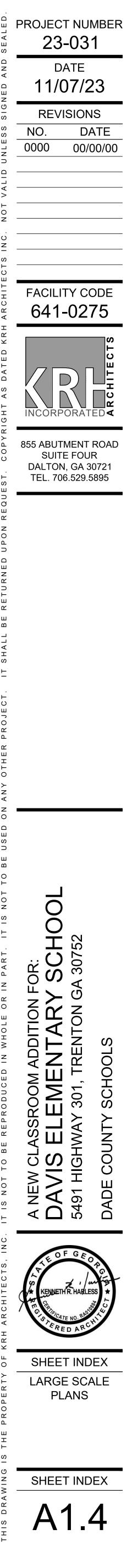
LEGEN 🗰 - DOOR NUMBE - WINDOW TYPE - TYPICAL WIND - 8" CMU WALL BRICK - SEE E UNLESS NOTE - 8" CMU WALL-OTHERWISE LOCATION CO EQUIPMENT - ONE HOUR F BLOCK WALL BLOCK WALL - NON FIRE RAT PARTITION W M.B. - MARKER BOA T.B. - TACK BOARD F.D. - FLOOR DRAIN D.F. - DRINKING FO MS1 -12" X 36" META MS2 -18" X 36" META

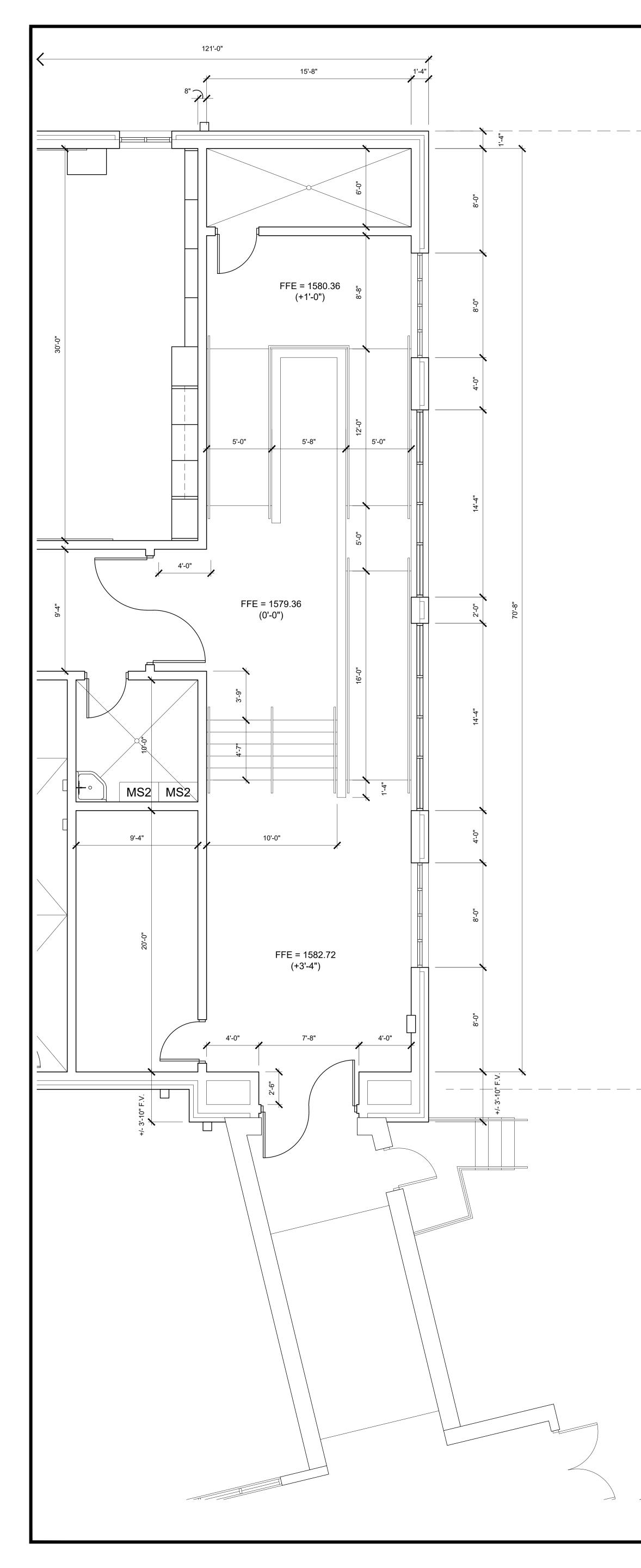
FUTURE EXPANSION

ND BER TAG
YPE TAG
L WITH 4" FACE ELEVATIONS - TED OTHERWISE
TED OTHERWISE L- UNLESS NOTED
XTINGUISHER EXACT COORDINATE W/ ALL
FIRE RATED CMU L
FIRE RATED CMU L
ATED SMOKE WALL DARD
D
OUNTAIN
TAL SHELVING UNIT



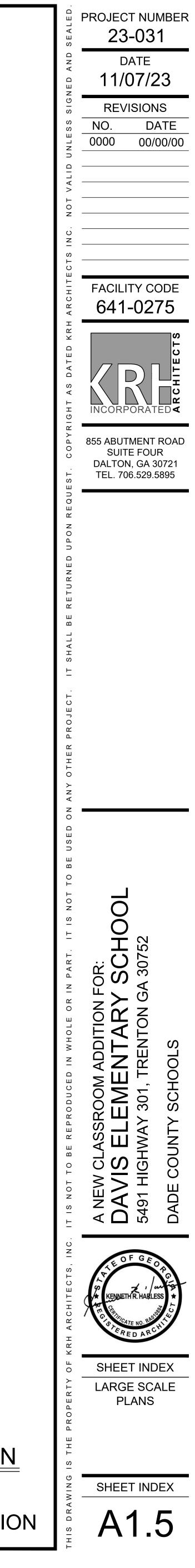


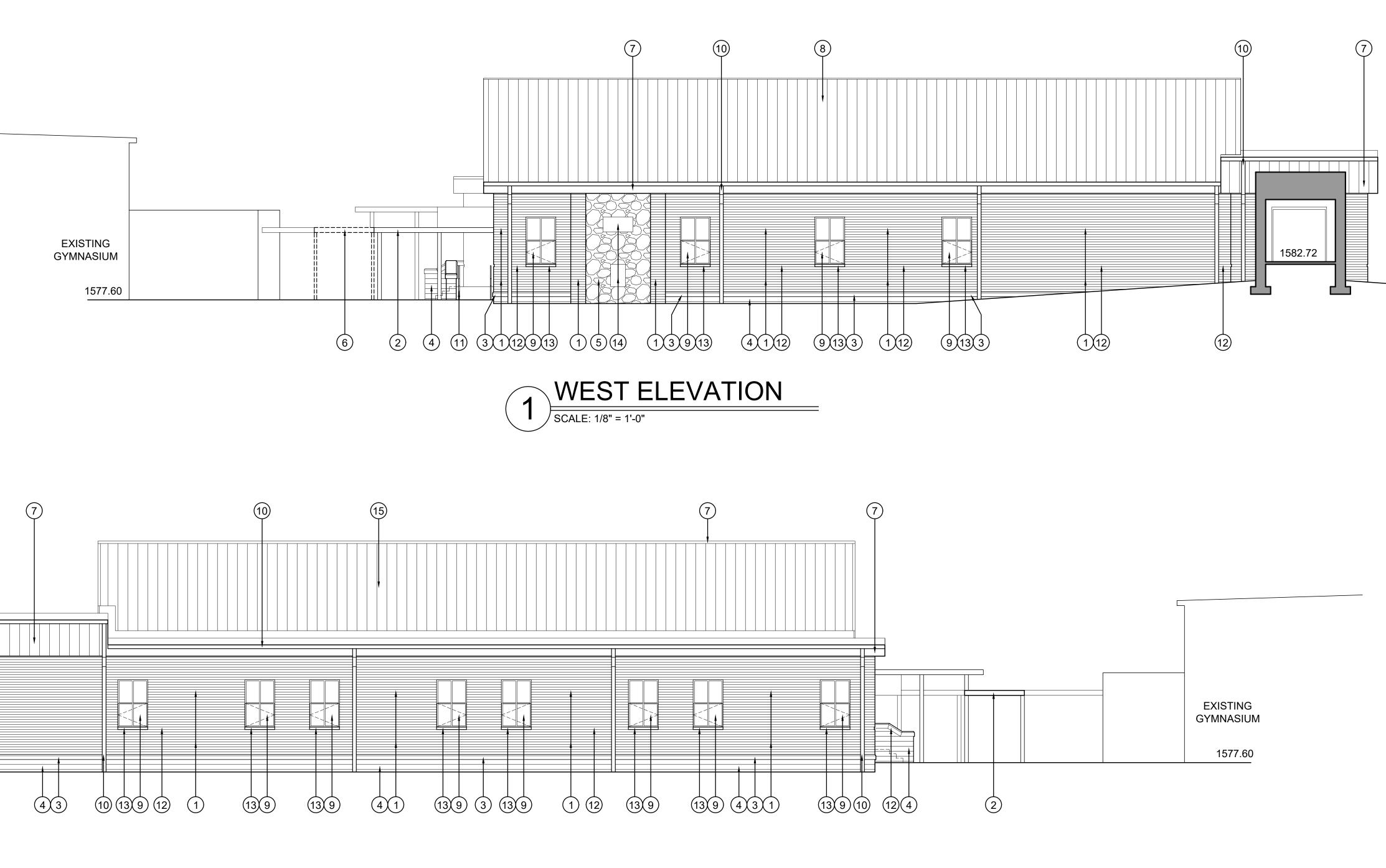


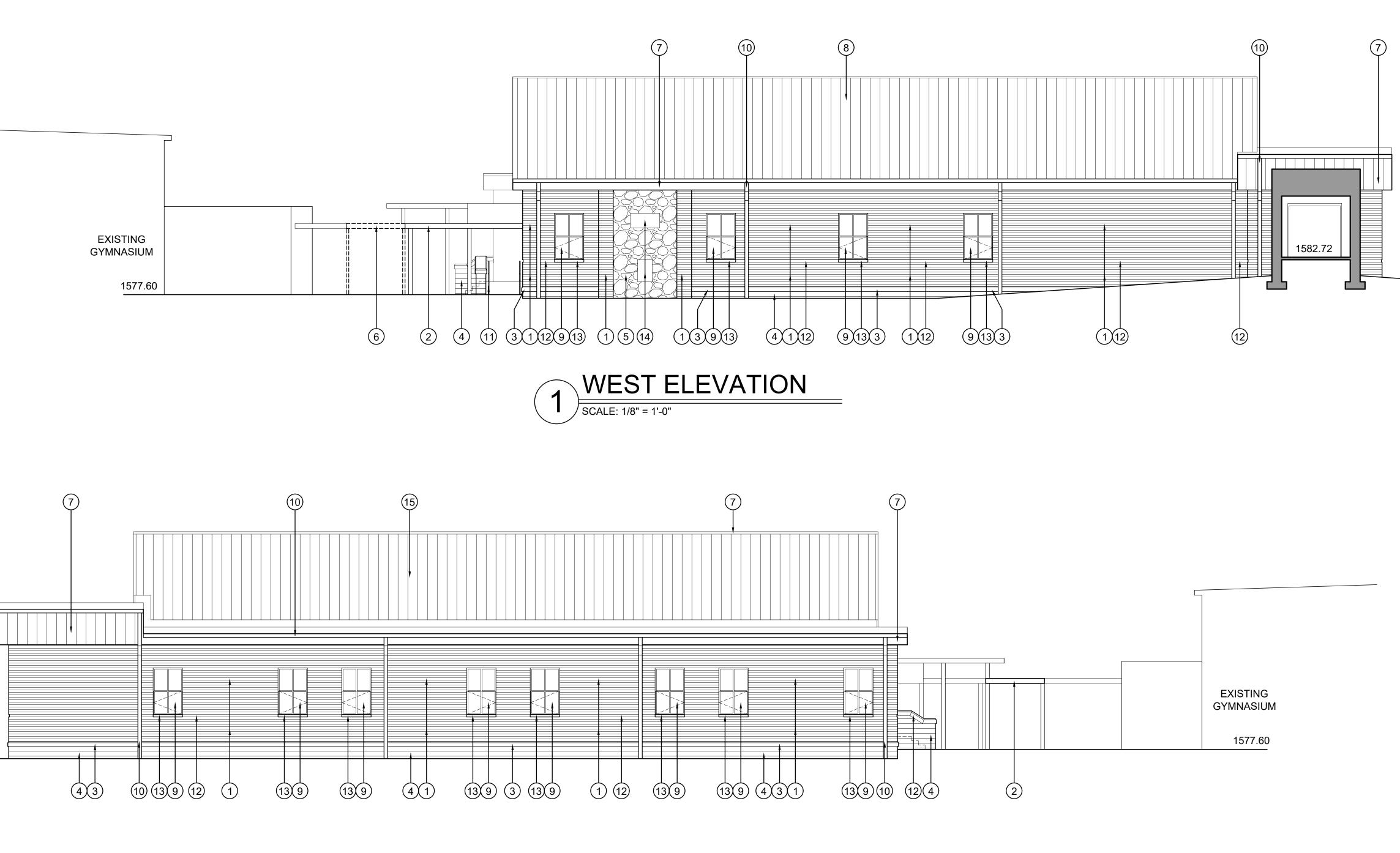


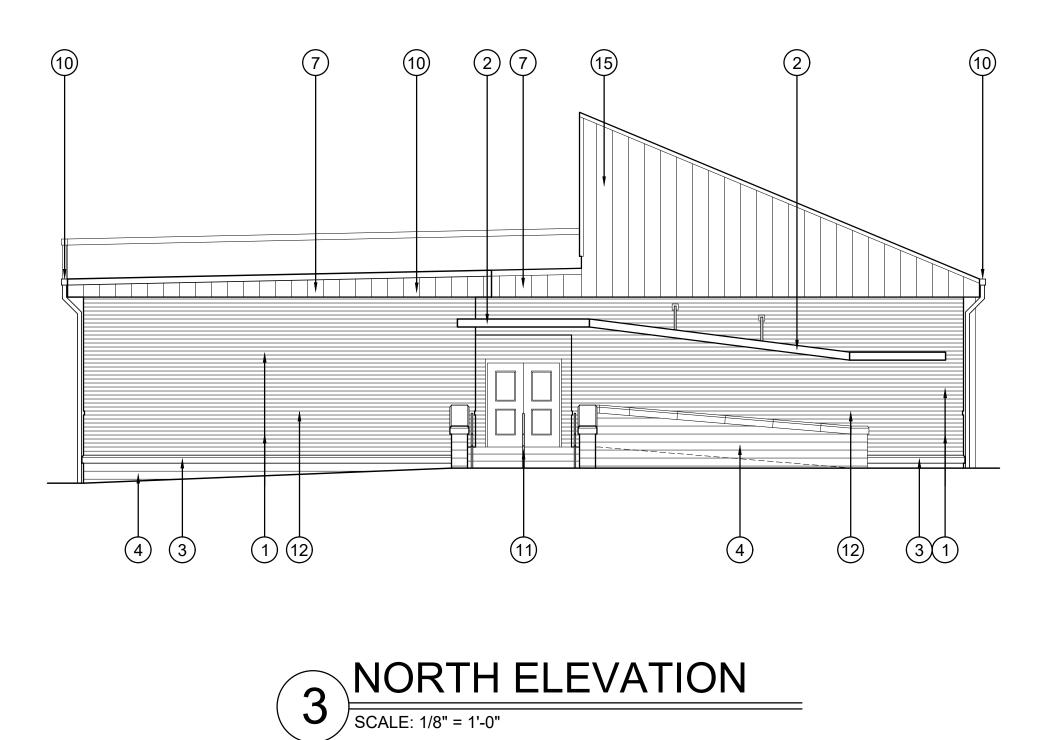
FUTURE EXPANSION

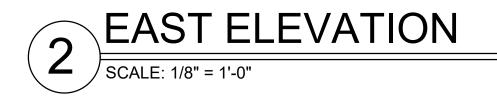


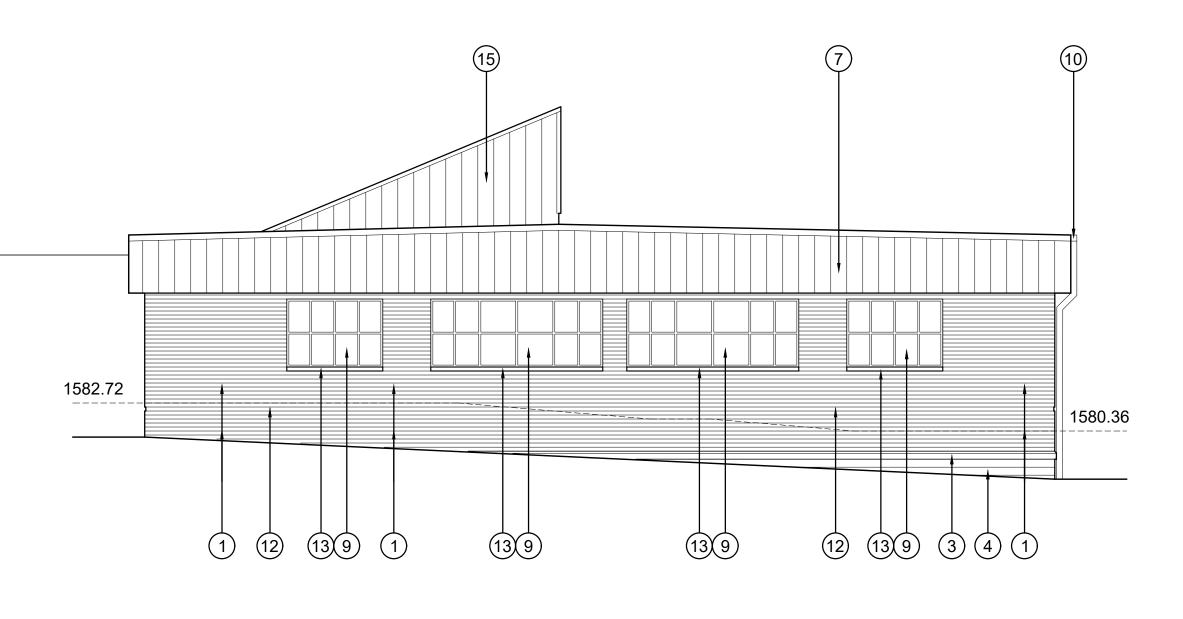








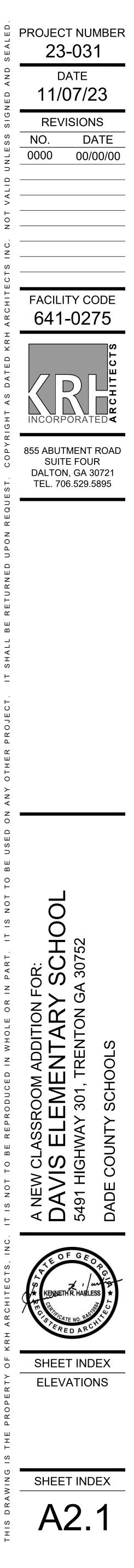




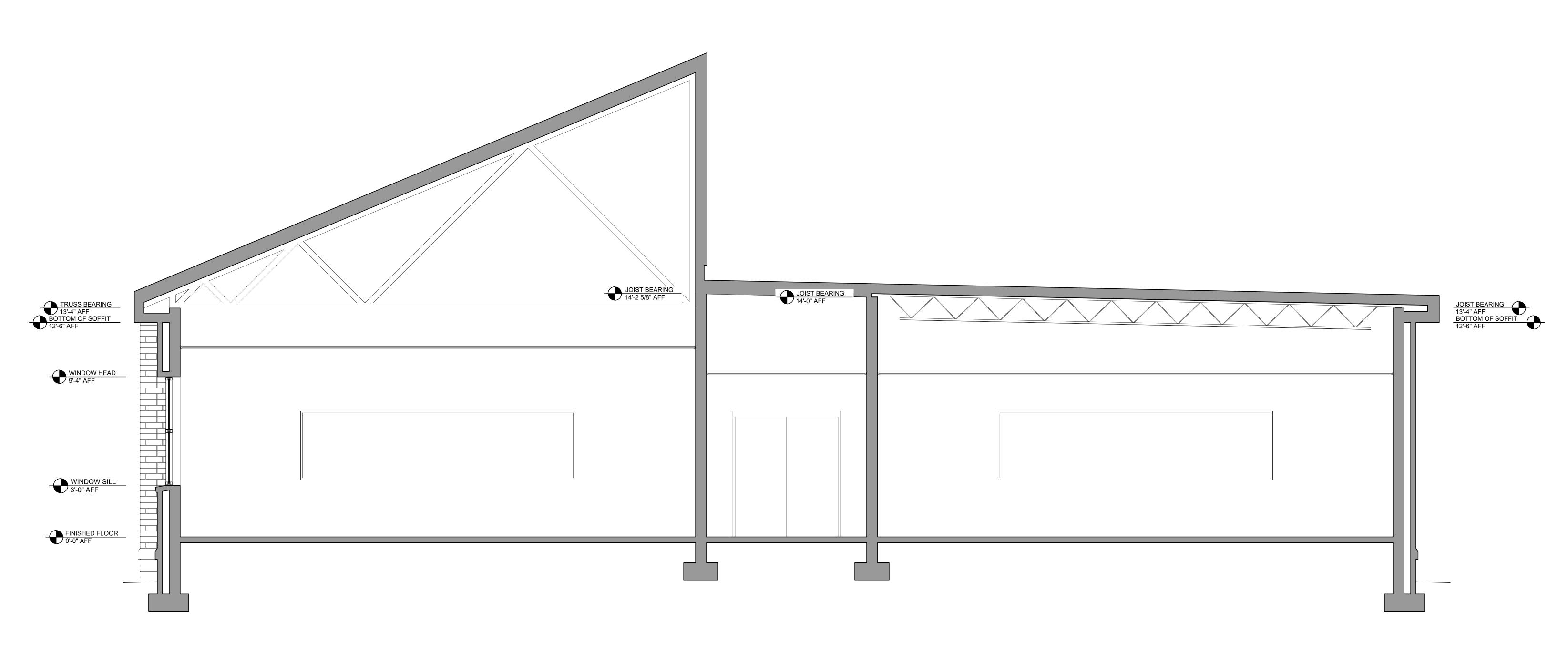
MATERIALS LEGEND ΤЕМ SILL STONE YSTEM _ FASCIA _ ROOFING RONT WINDOWS ERS AND ING SSED COURSE OCK ONUMENT SIGNS (VERIFY EXACT MOUNTING LOCATIONS PRIOR TO INSTALLATION) 15. PREFINISHED METAL PANELS

1. UTILITY BRICK	
2. METAL CANOPY SY	ST
3. PRECAST CONCRE	ΤE
4. SPLIT FACE BLOCK	
5. RECLAIMED RUBBL	E٤
6. EXISTING CANOPY	SY
7. PREFINISHED META	۱L
8. PREFINISHED META	۱L
9. ALUMINUM STOREF	R
10.PREFINISHED GUTT	ĒF
DOWNSPOUT	
11. PAINTED METAL RA	ILI
12. UTILITY BRICK REC	ES
13. UTILITY BRICK ROW	/LC
14. EXISTING STONE M	٥N
	1 IN 1

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

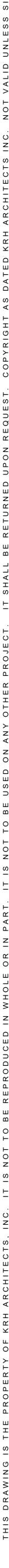




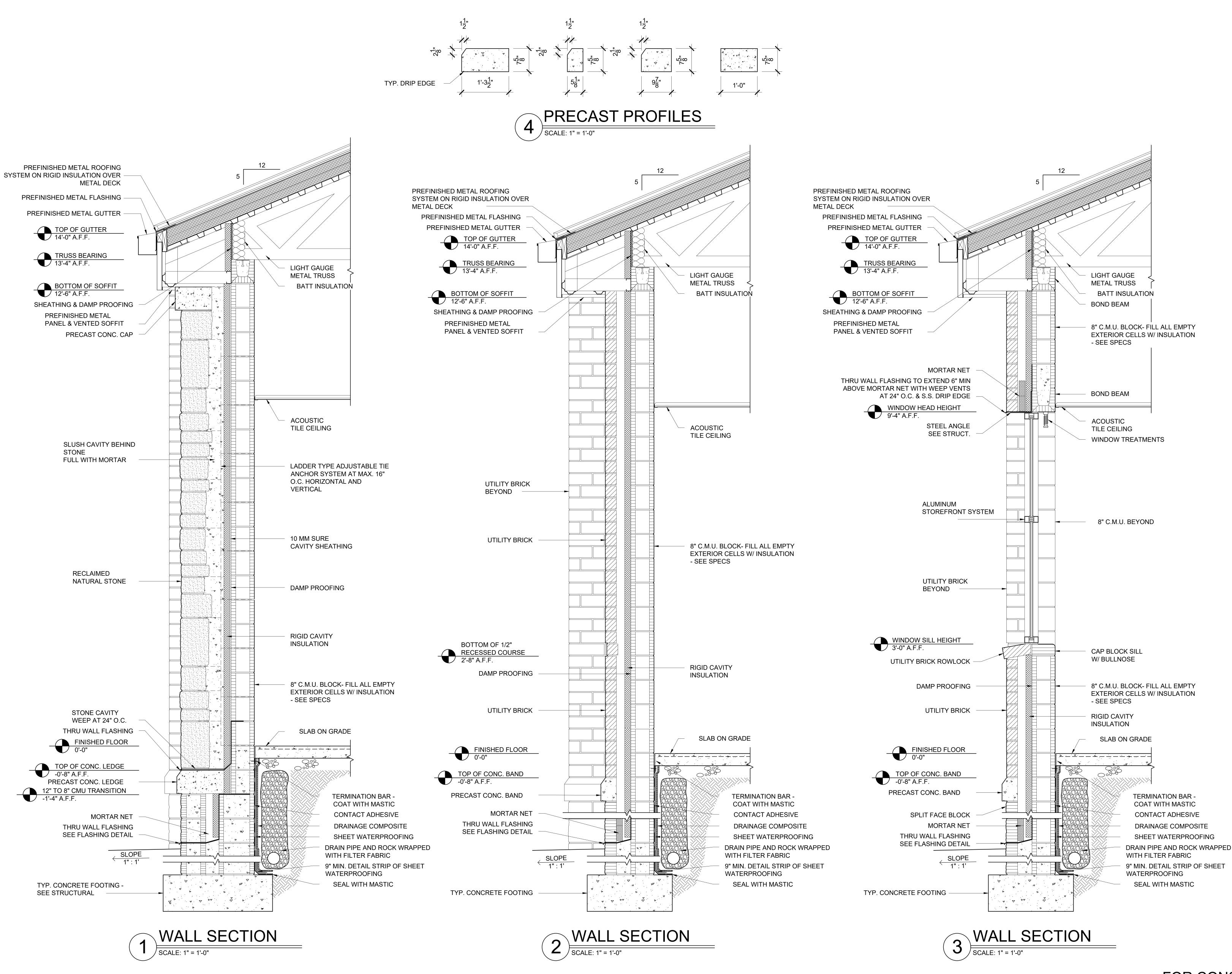


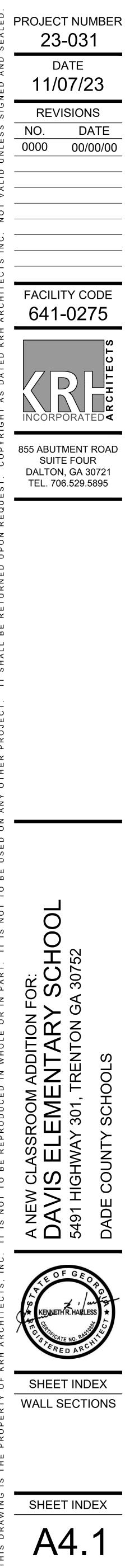


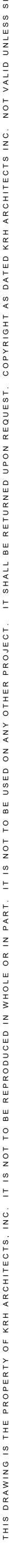




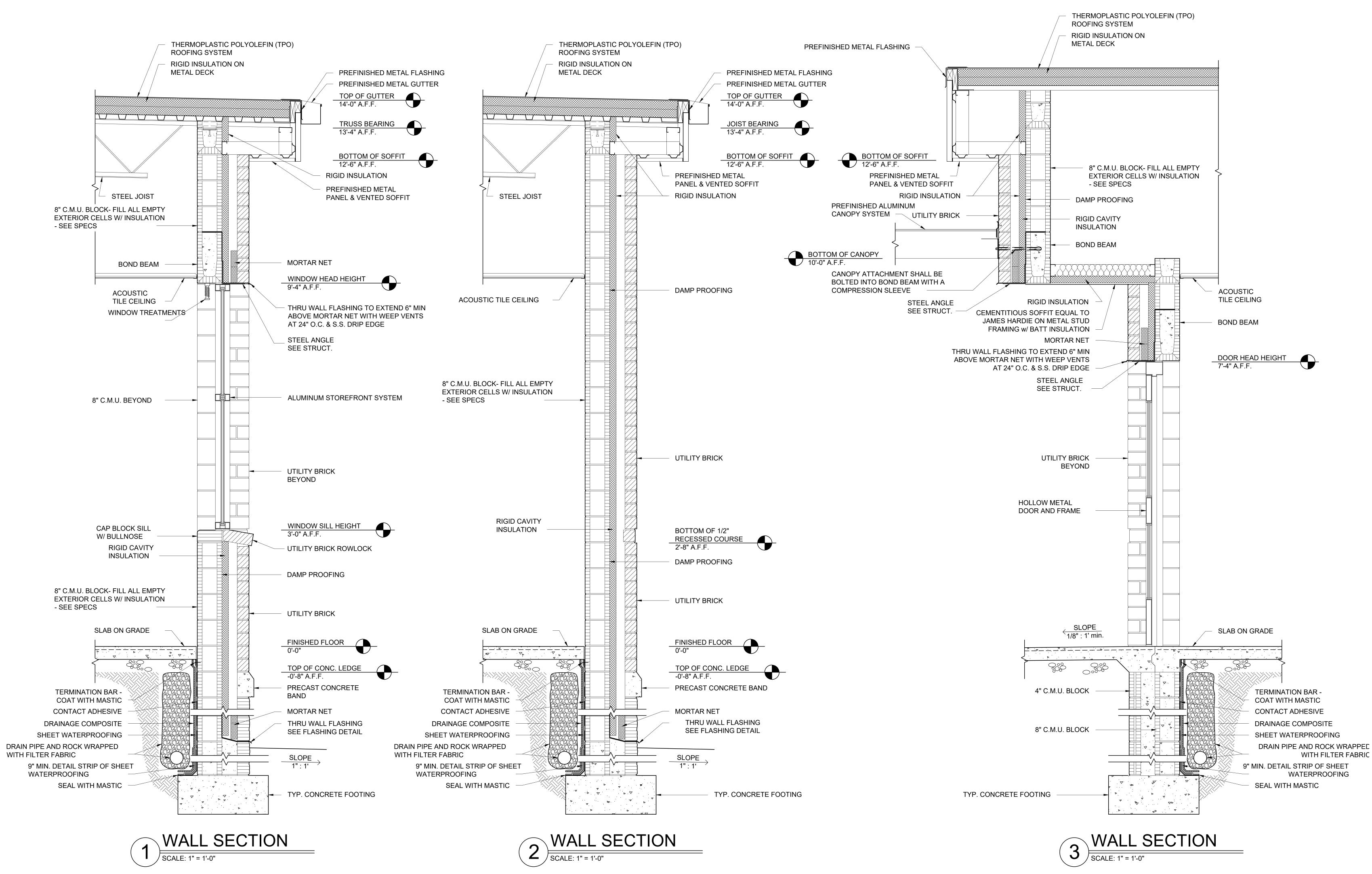






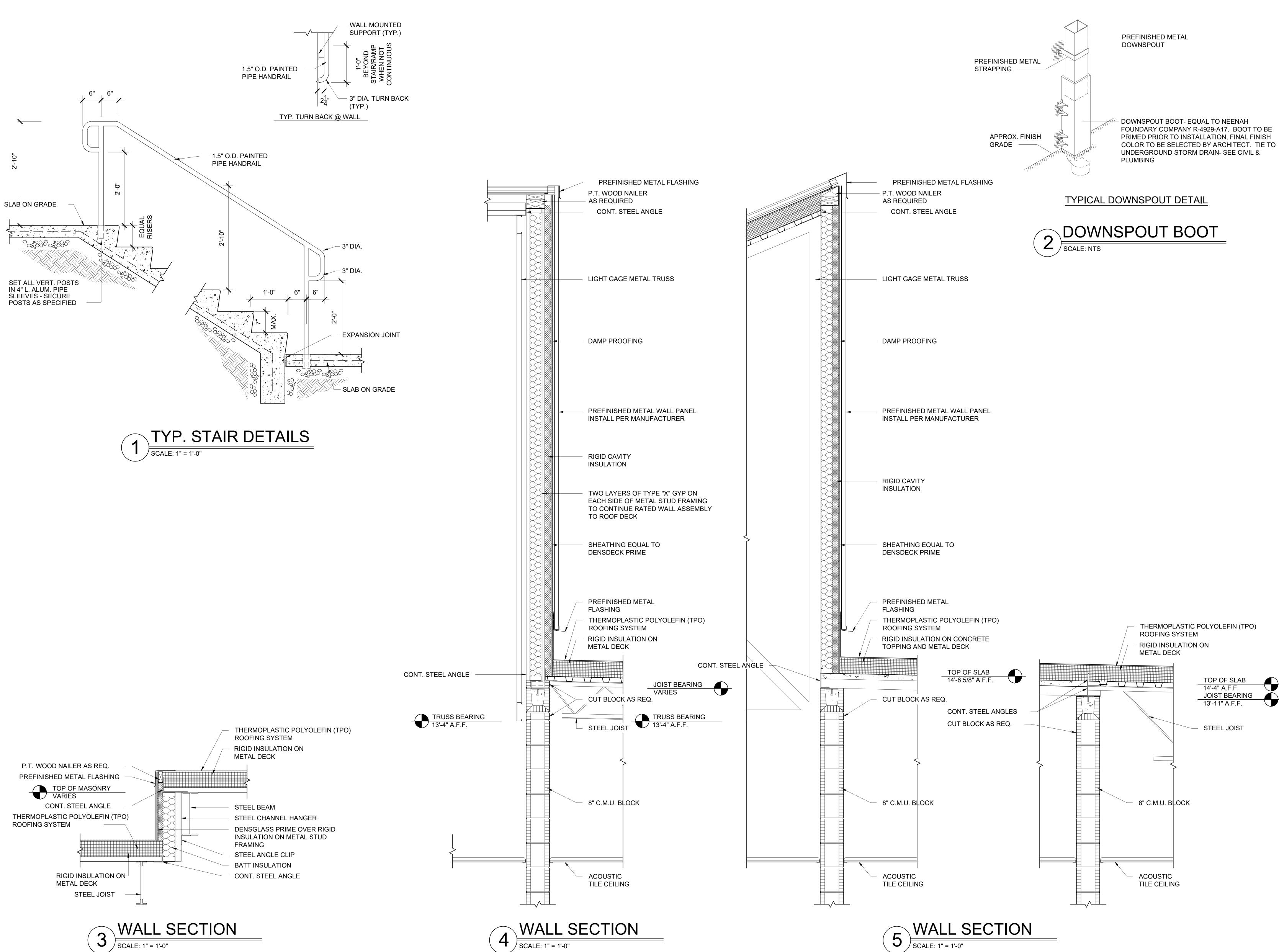


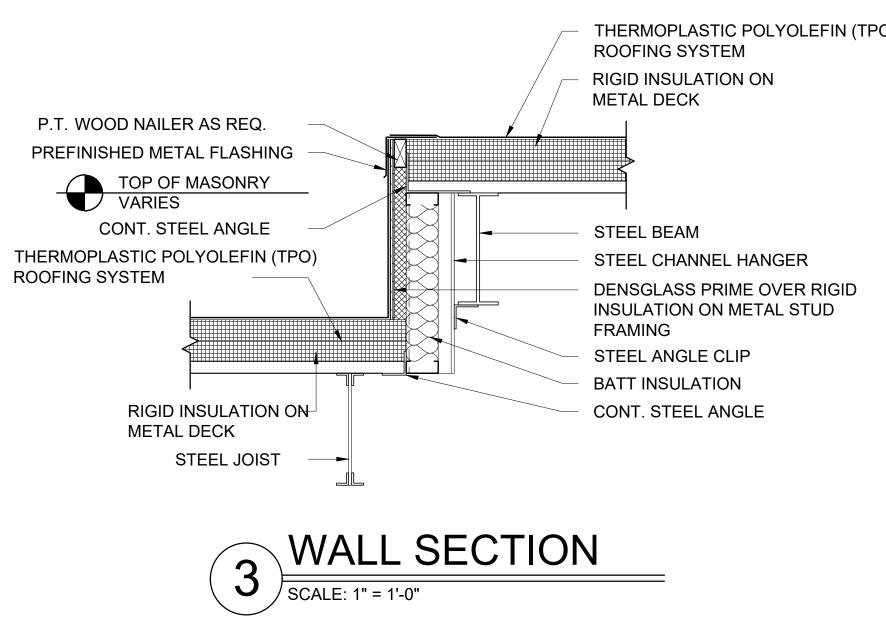


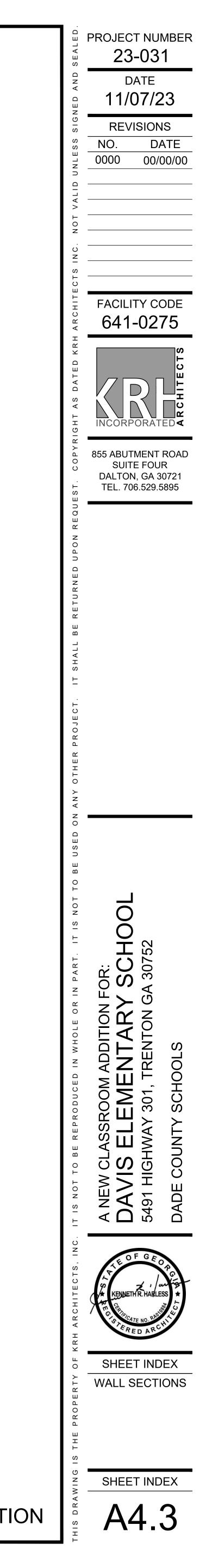


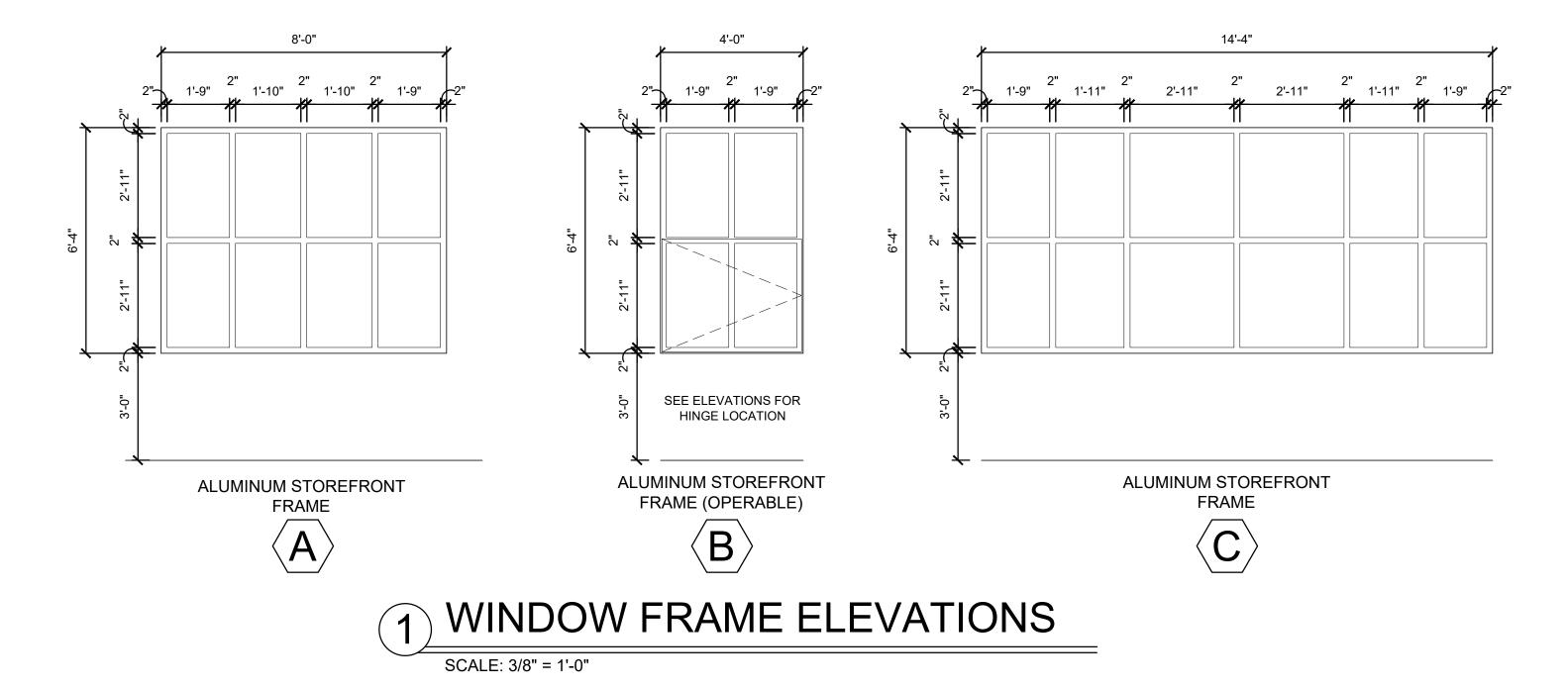


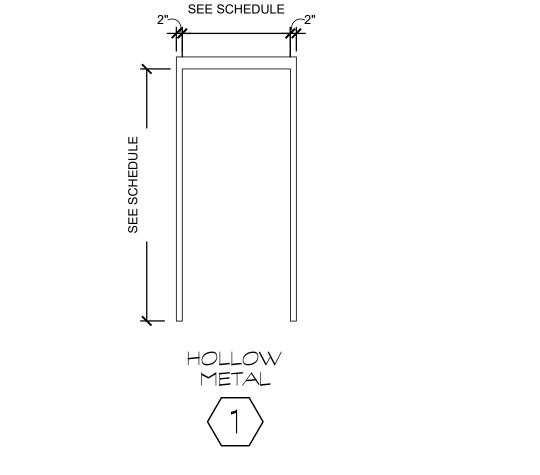










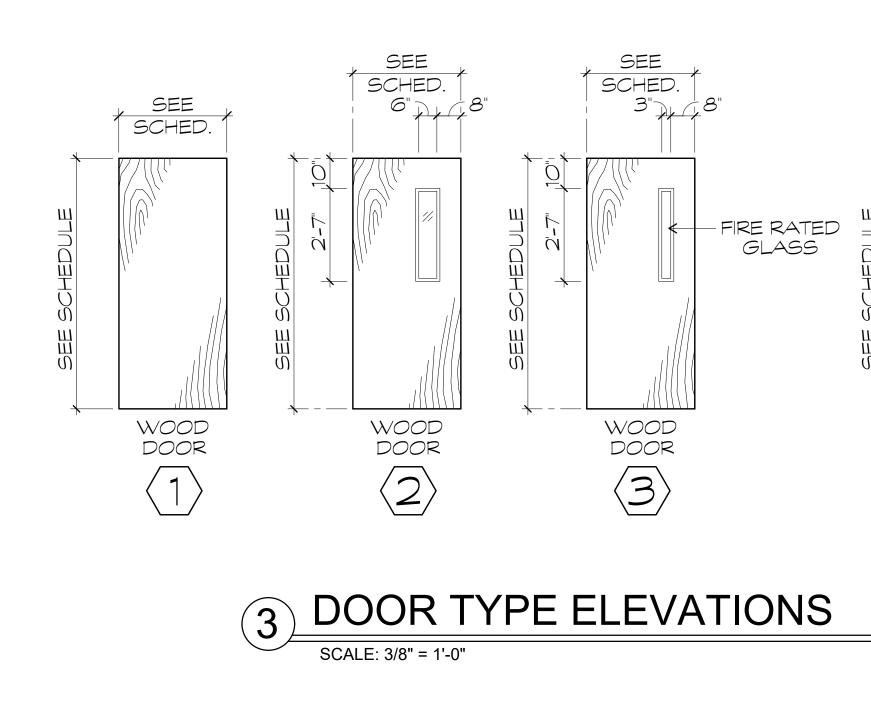


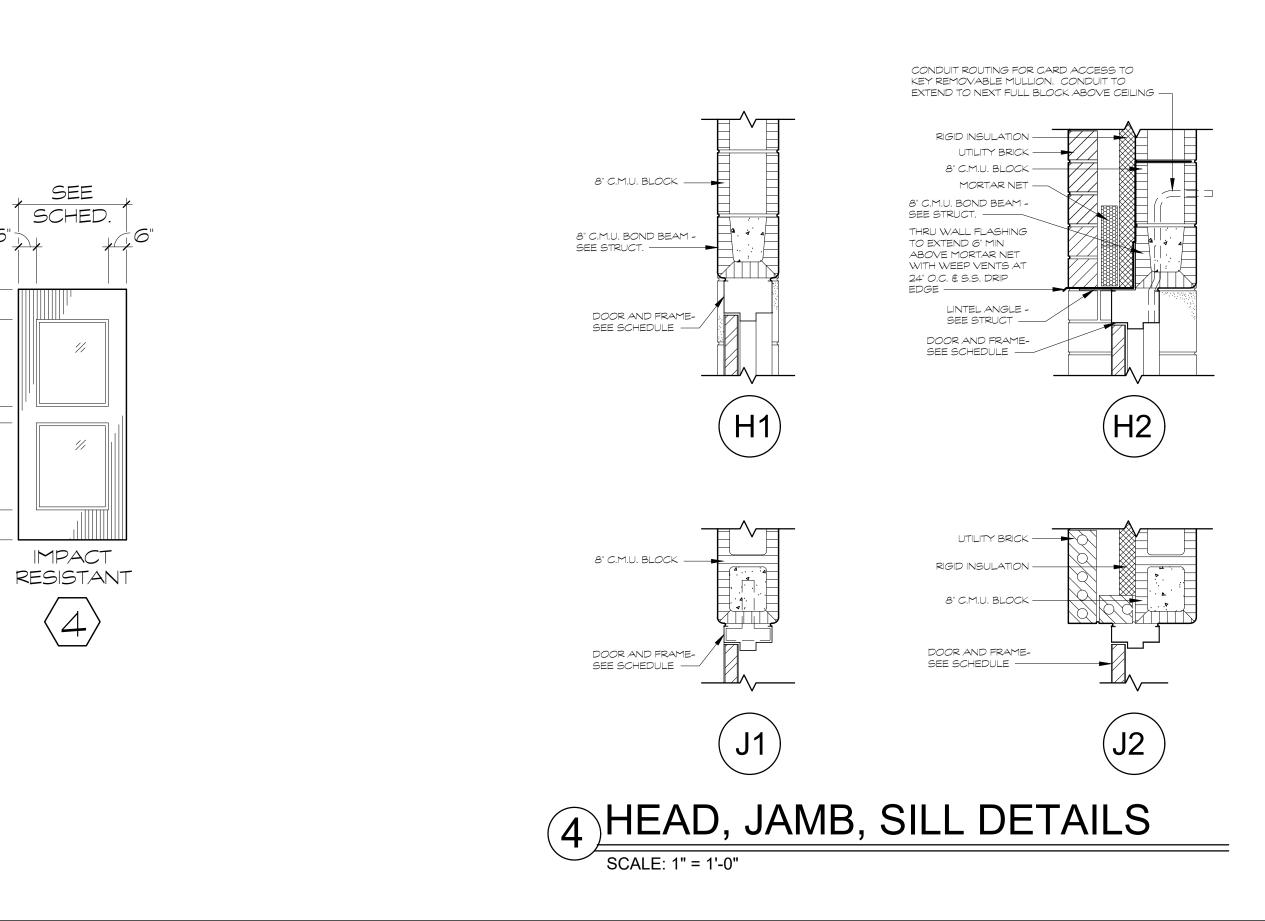
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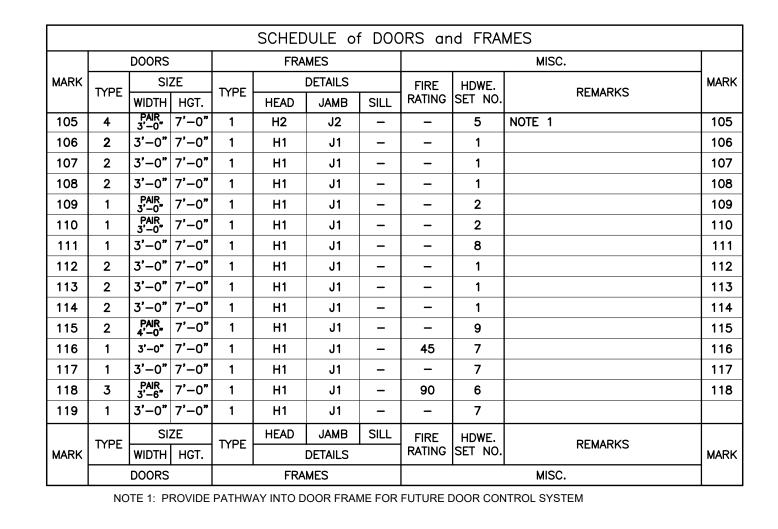
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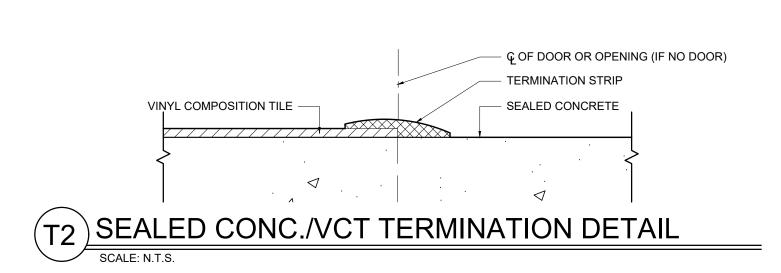
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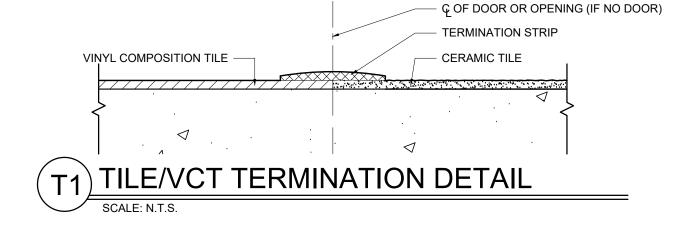








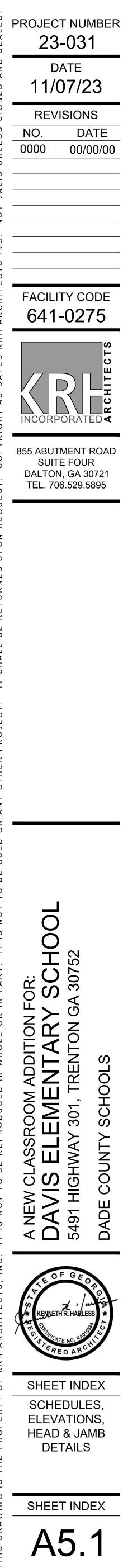




GENERAL FINISH NOTES:
G.F.N.#1: PROVIDE A TERMINATION EDGE AT DOORS/OPENINGS TO ALLOW FOR A SMOOTH TRANSFER TO ADJACENT FLOOR SURFACE. TYPICAL AT ALL CHANGES IN FLOOR FINISH. SEE DETAIL "T1" ON THIS SHEET.
G.F.N.#2: PREP ALL FLOORING PRODUCTS PER MANUFACTURERS INSTRUCTIONS PRIOR TO APPLICATION TO INSURE PROPER INSTALLATION.

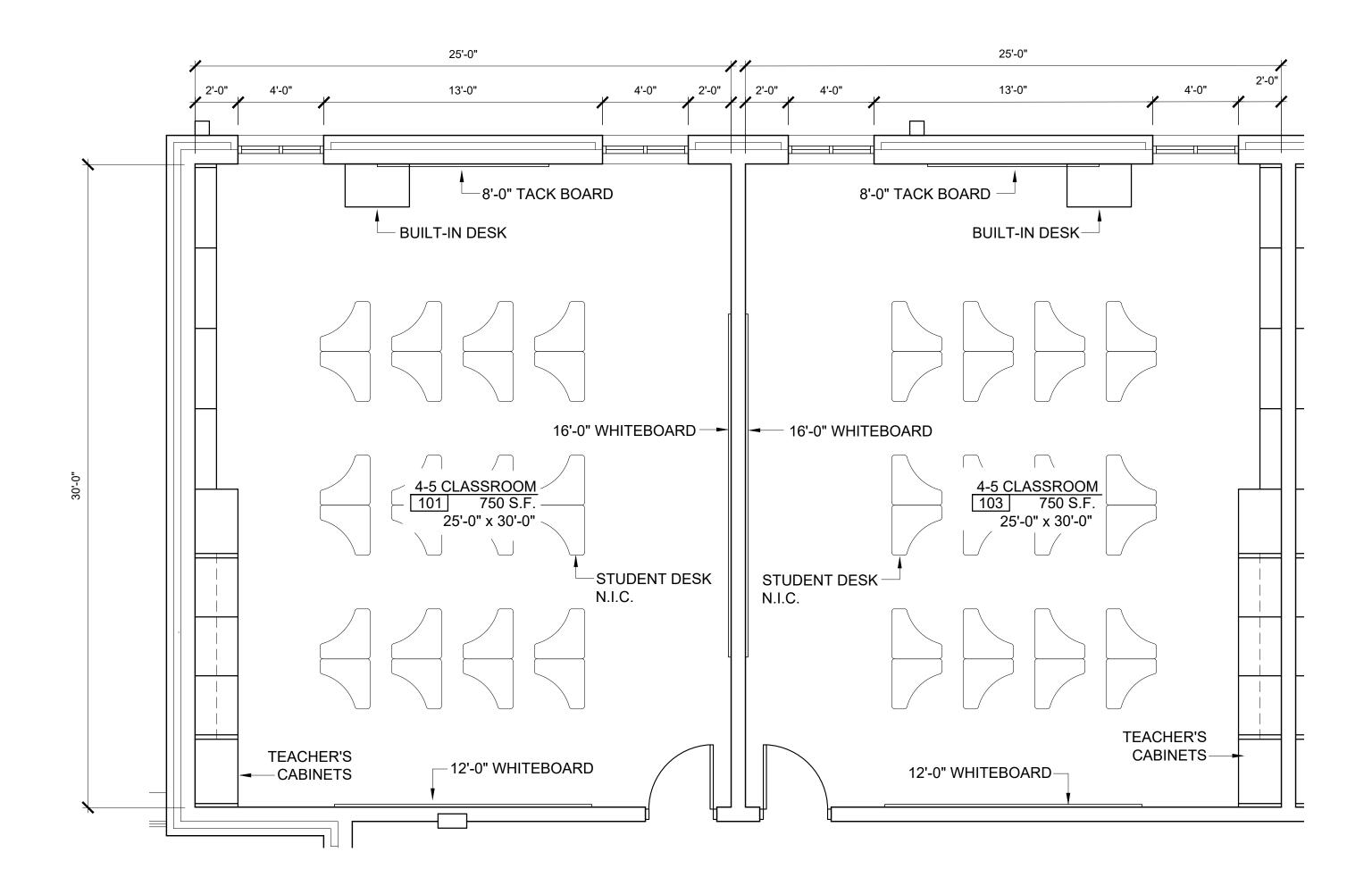
NOTE 1. CEILING MATERIAL	SHALL BE MOISTURE RESISTANT.
NOTE T. CEILING MATERIAL	SHALL DE MUISIURE RESISTANT.
NOTE 2. ALL STAID TOFADS	AND INTERMEDIATE LANDINGS SHALL BE RAISED DISK RUBBER FLOORING.
NOTE Z. ALL STAIN TREADS	AND INTERMEDIATE LANDINGS SHALL BE RAISED DISK ROBBER FLOORING.

				SC	CHE	EDI	JLE	E c	of	FIN	ISF	IES	;						
ROOM NAME	NO.		FLC	OR		E	BASI	Ξ	W	ALL	S	CE	ILIN	G		CL	G.	HT.	REMARKS
		VINYL COMPOSITION TILE	CERAMIC TILE	SEALED CONCRETE		RUBBER WALL BASE	CERAMIC TILE BASE		PAINT			LAY-IN ACOUSTICAL TILE in 2'-0"x2'-0" METAL GRID			9'-6"	11'-0"			
CORRIDOR	C103	Х				X			X			X			Х				
CORRIDOR	C104	Х				Х			X			Х				Х			
4-5 CLASSROOM	101	Х				Х			X			Х			X				
INSTRUMENTAL/CHORUS	102	Х				Х			X			Х				Х			
STORAGE	102.1	Х				X			X			X			Х				
4-5 CLASSROOM	103	Х				X			X			х			Х				
STAFF RESTROOM	104		Х				X		X			X			Χ				NOTE 1
4-5 CLASSROOM	105	Х				Х			X			Х			Х				
4-5 CLASSROOM	106	Х				Х			X			X			Х				
4-5 CLASSROOM	107	Х				X			X			X			Х				
RESTROOM	108		Х				X		X			х			Χ				NOTE 1
RESTROOM	109		Х				X		X			Х			Х				NOTE 1
JANITOR	110			Х		Х			X			Х			Х				NOTE 1
MECH./ELECT.	111			Х		X			X			x			Х				
RISER ROOM	112			X		Х			X			X			Х				

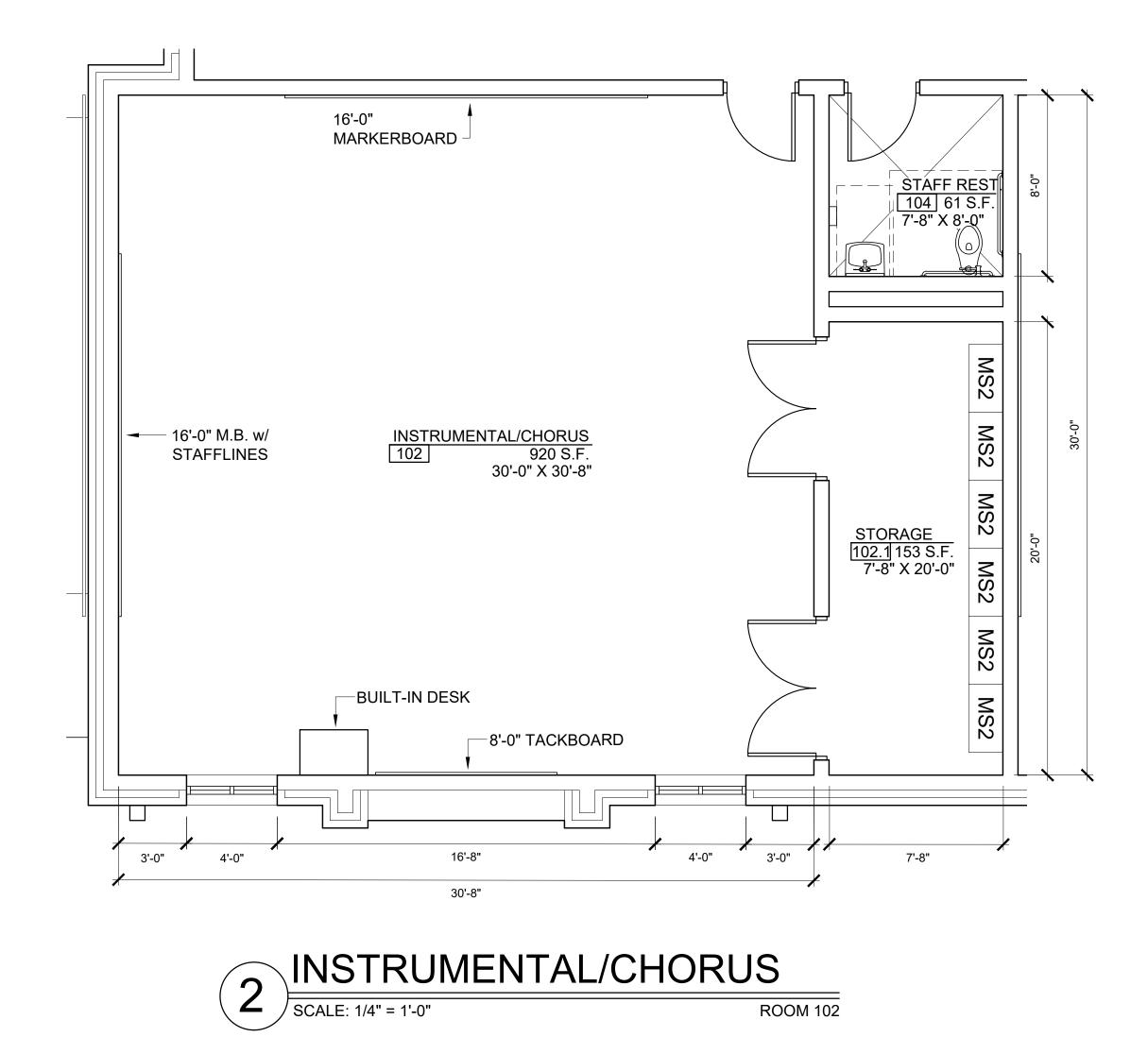




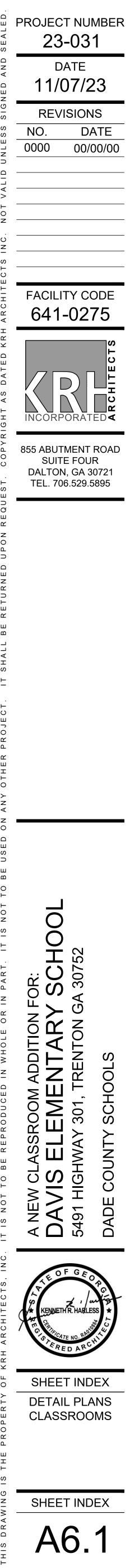






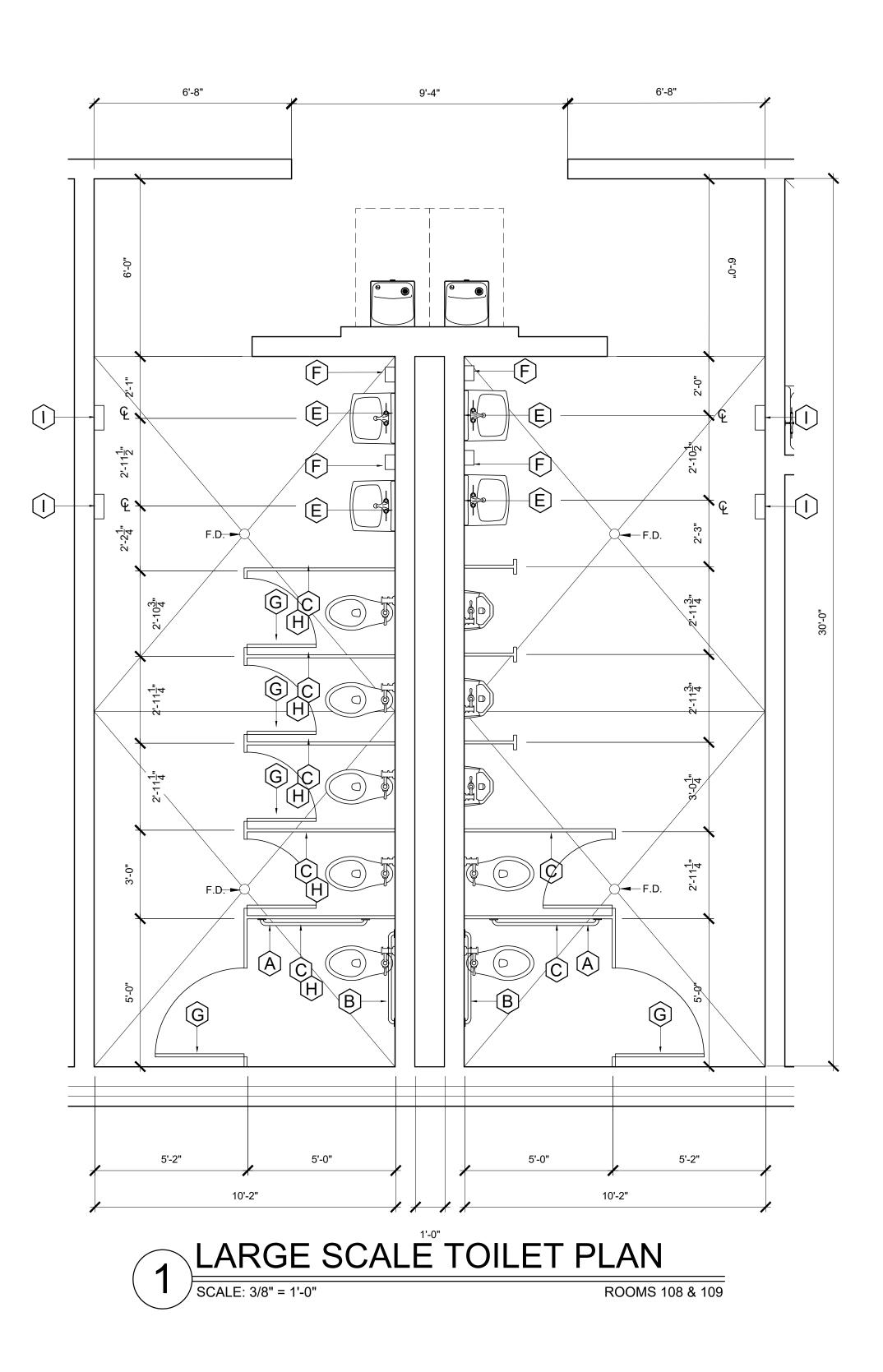


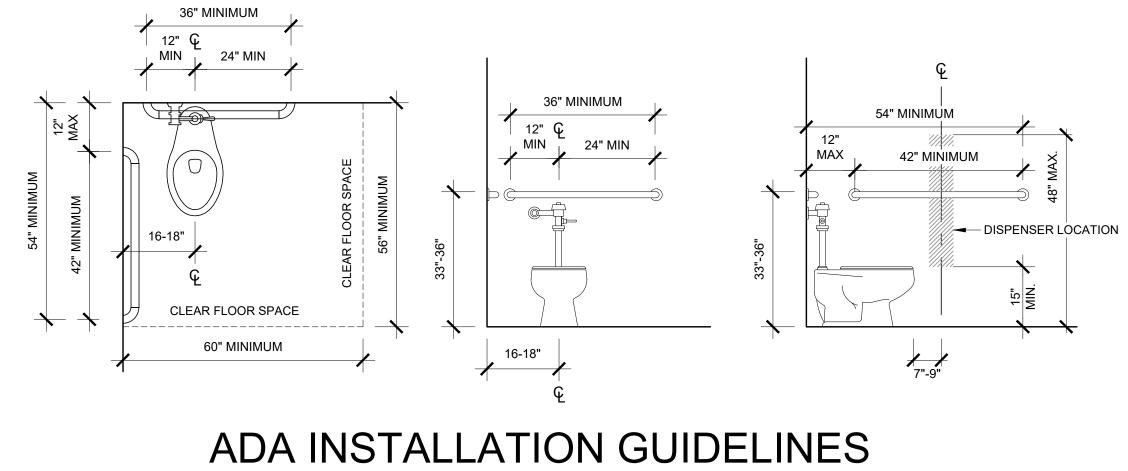
ROOMS 101, 103, 105, 106, & 107





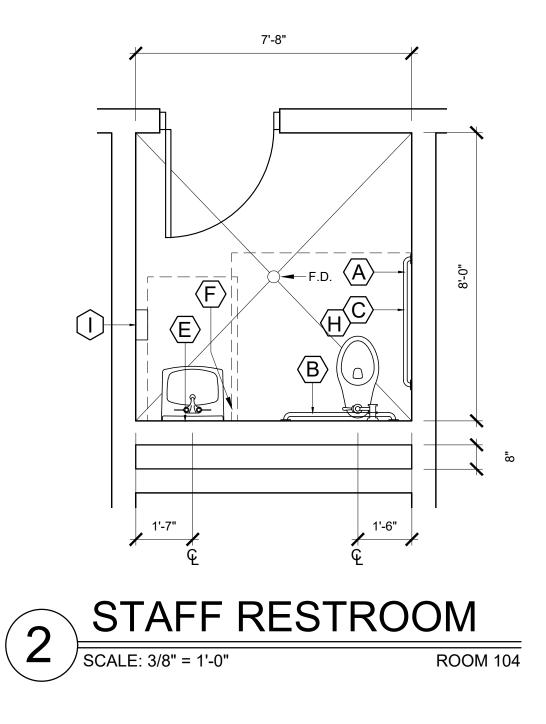


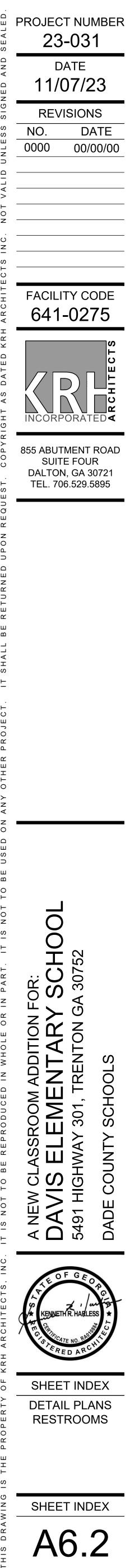


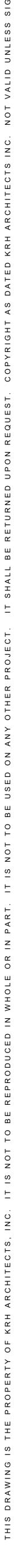


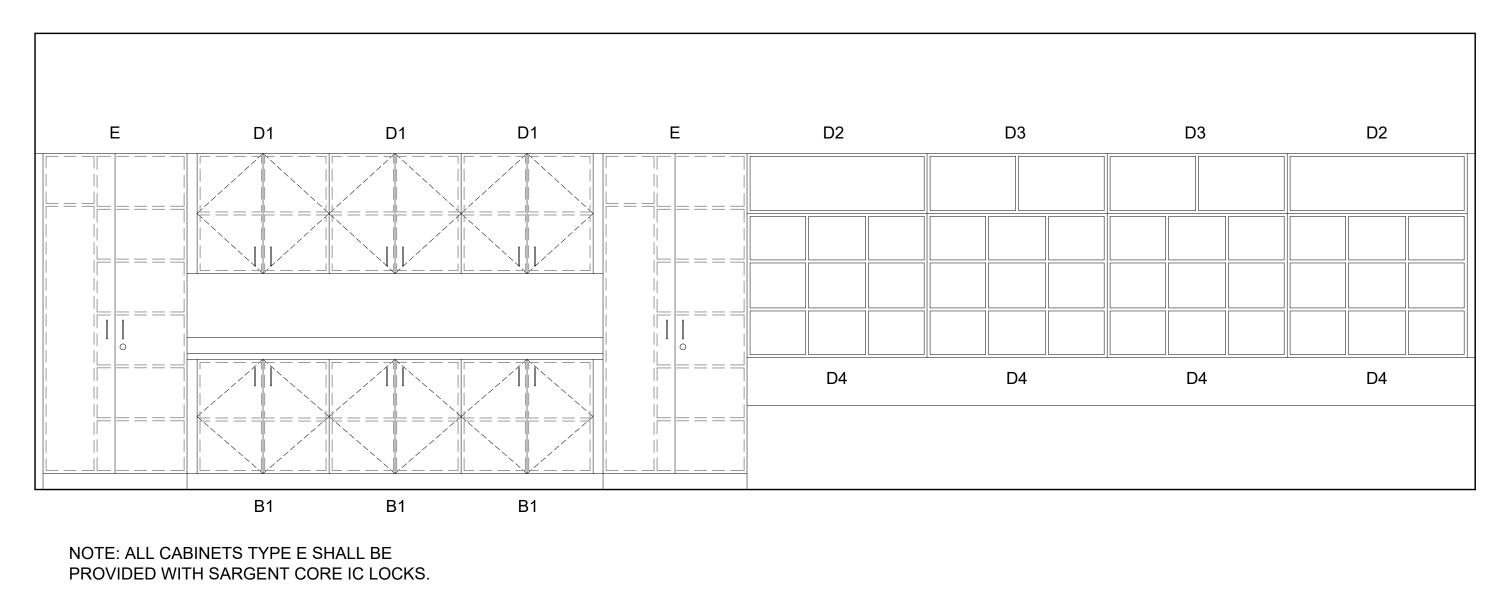
SCHEDULE OF TOILET ACCESSORIES							
MARK	ITEM	MFR.	No.	LOCATION			
А	GRAB BARS AT SIDE WALL OF WATER CLOSETS	BOBRICK	B-5806-42	33" TO CENTERLINE AFF			
В	GRAB BARS AT REAR WALL OF WATER CLOSETS	BOBRICK	B-5806-36	33" TO CENTERLINE AFF			
С	TOILET PAPER DISPENSER		JRNISHED R INSTALLED	40" TO BOTTOM OF DISPENSER AFF - ONE DISPENSER PER WATER CLOSET			
D	PAPER TOWEL DISPENSER		JRNISHED R INSTALLED	40" TO BOTTOM OF DISPENSER AFF - SUPPLY 5			
Е	MIRROR	BOBRICK	B-290-2436	40" TO BOTTOM OF MIRROR AFF			
F	SOAP DISPENSER		JRNISHED R INSTALLED	40" TO BOTTOM OF DISPENSER AFF - SUPPLY 5			
G	ROBE HOOK	BY TOILET COMPARTMENT MANUF.					
Н	SANITARY NAPKIN DISPOSAL	BOBRICK	B-270	LOCATION TO BE PROVIDED BY OWNER - SUPPLY 5			
I	HAND DRYER	XCELERATOR	XL-SB	40" TO BOTTOM OF OUTLET			

NOTE: COORDINATE ALL FINAL MOUNTING HEIGHTS WITH OWNER PRIOR TO INSTALLATION.

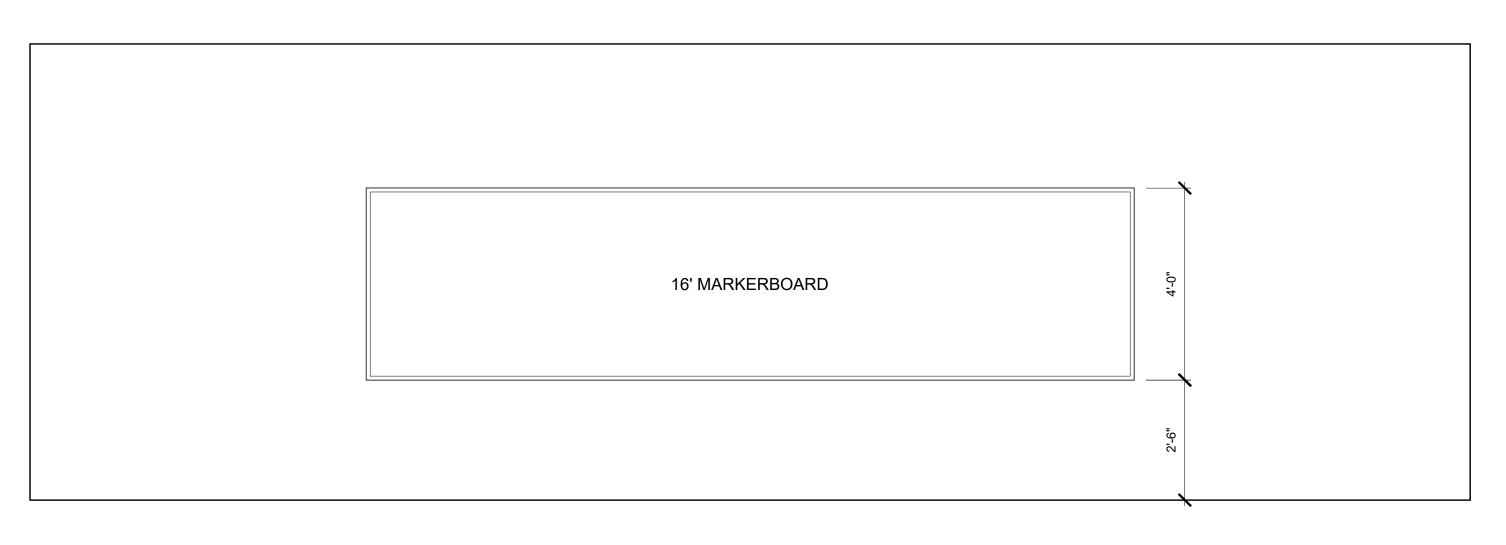




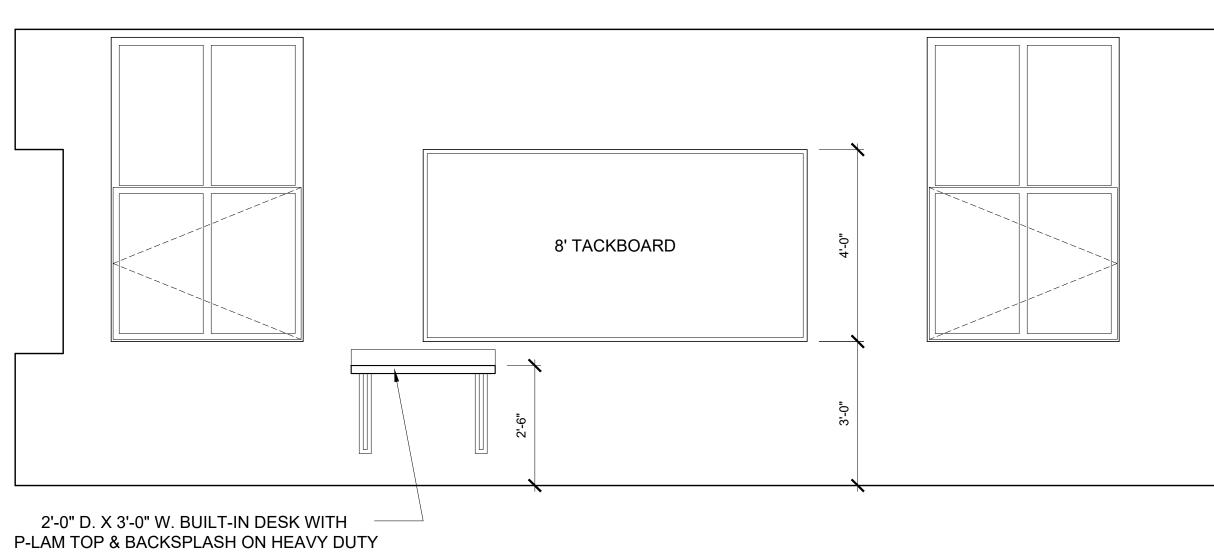






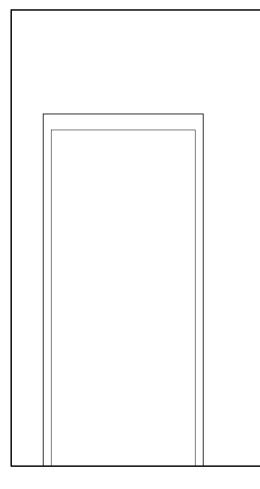


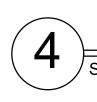


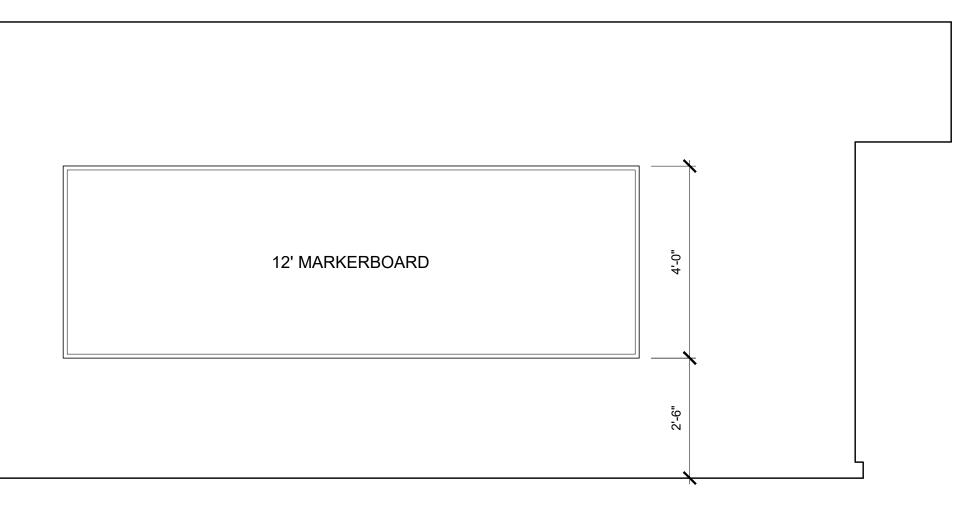


METAL WALL MOUNTED BRACKETS









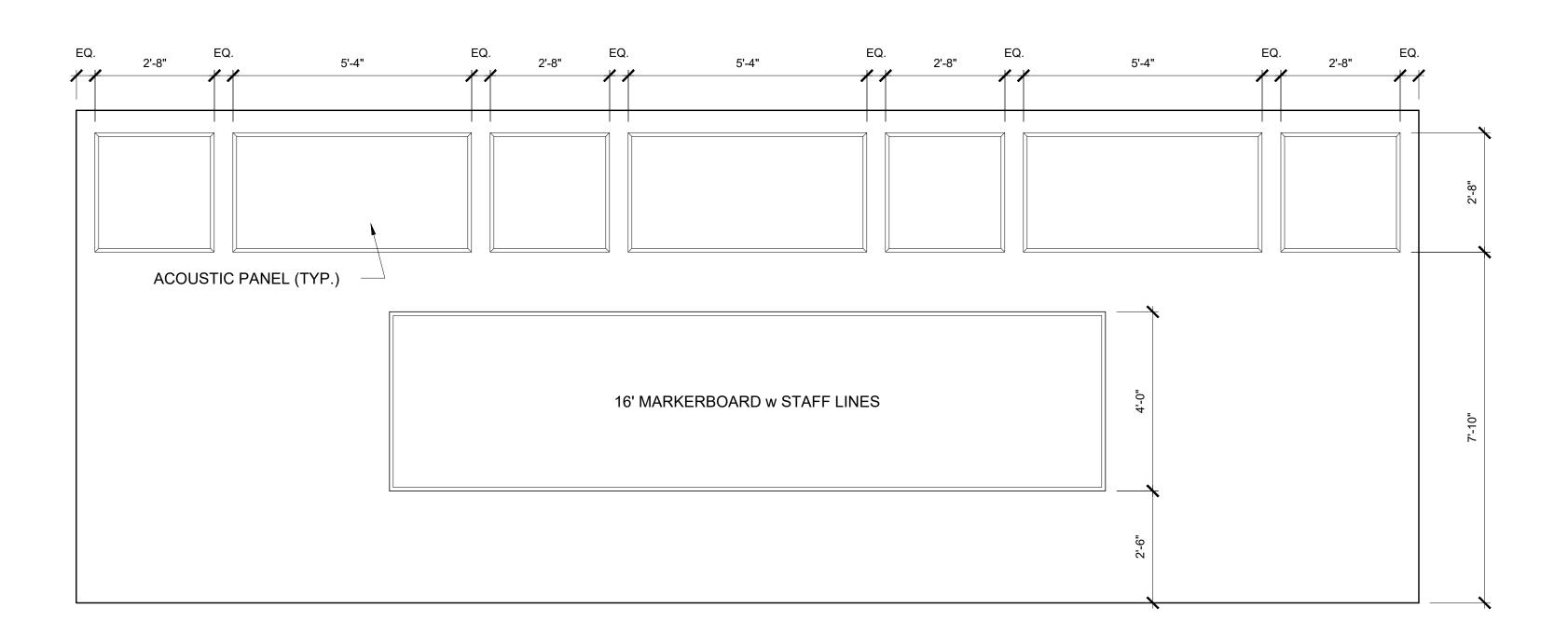
4 TYP. 4-5 CLASSROOM ELEVATION SCALE: 1/2" = 1'-0"

CA	SEW	ORK SC	HEDULE
B1	B10210	BASE CABINET	33W, 34H, 24D
D1 D2 D3 D4	2 W30000 3 W30210	WALL CABINET WALL CABINET WALL CABINET WALL CABINET	33W, 30H, 13D 45W, 15H, 13D 45W, 15H, 13D 45W, 36H, 13D
E	T60220L	TALL CABINET	36W, 84H, 24D

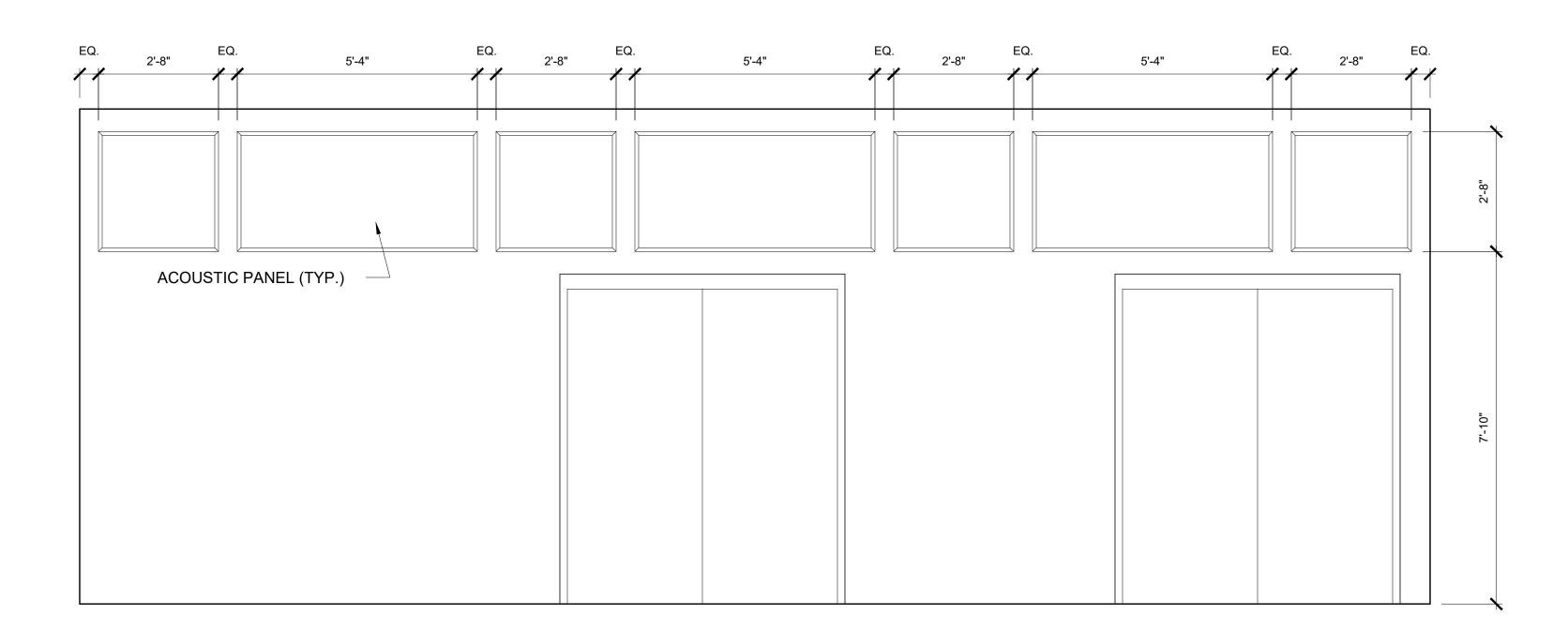




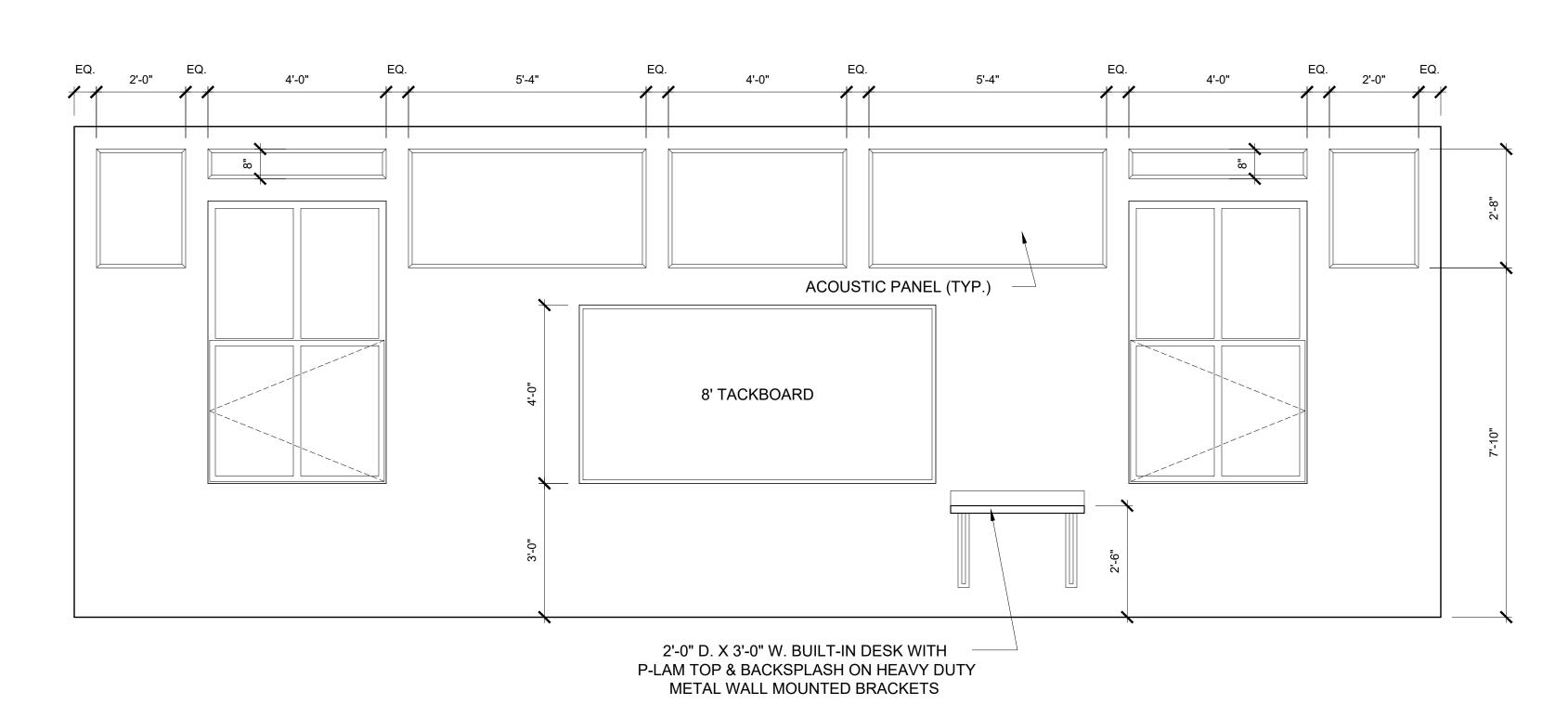


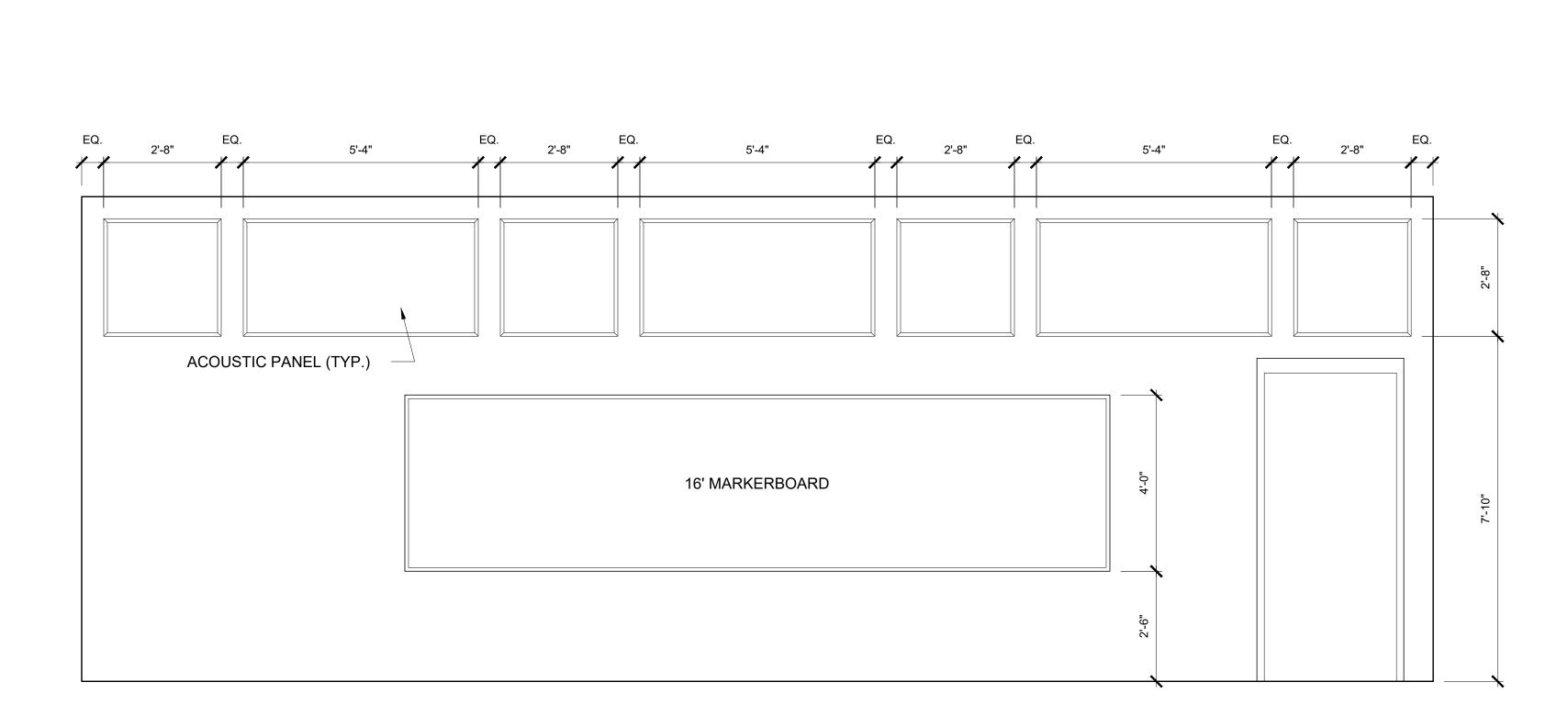








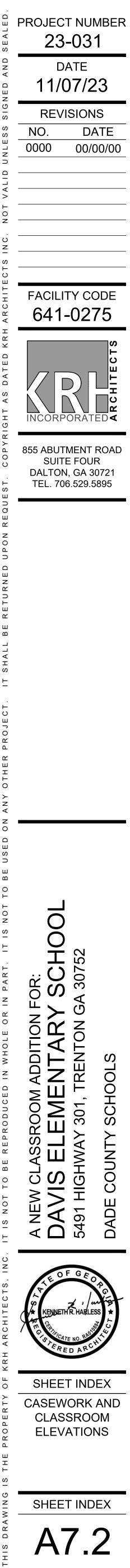


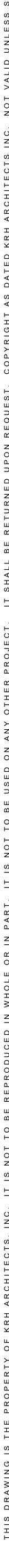


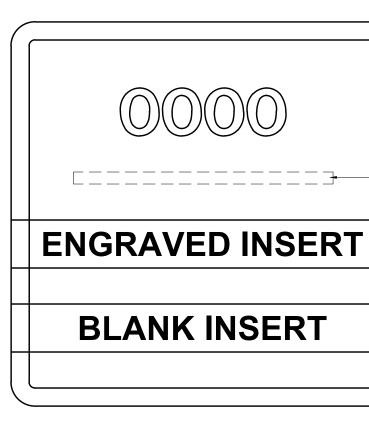




2 INSTRUMENTAL/CHORUS ELEVATION SCALE: 1/2" = 1'-0"

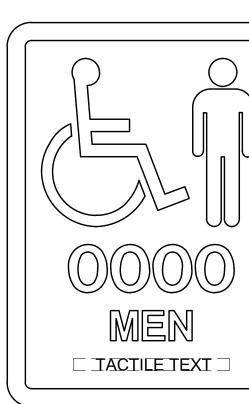




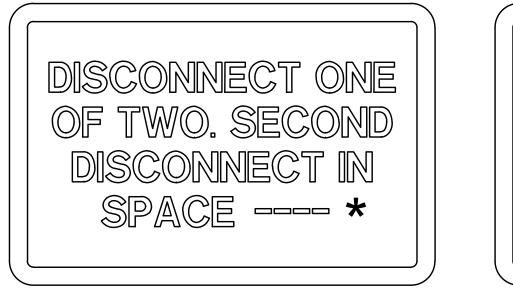












★FIELD VERIFY FINAL SPACE NAMES BEFORE FABRICATING SIGNAGE









ALL VISITORS WITH OFFICE

MUST REGISTER

DISCONNECT TWO OF TWO. FIRST DISCONNECT IN SPACE ----- *





TACTILE TEXT



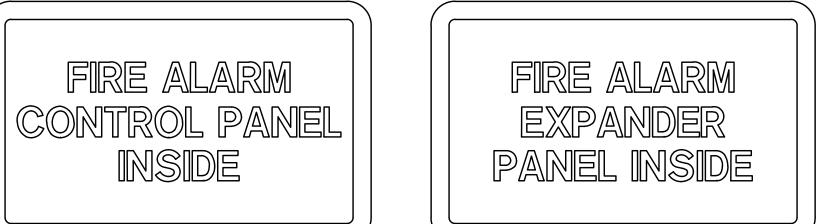
GYMNASIUM

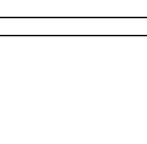
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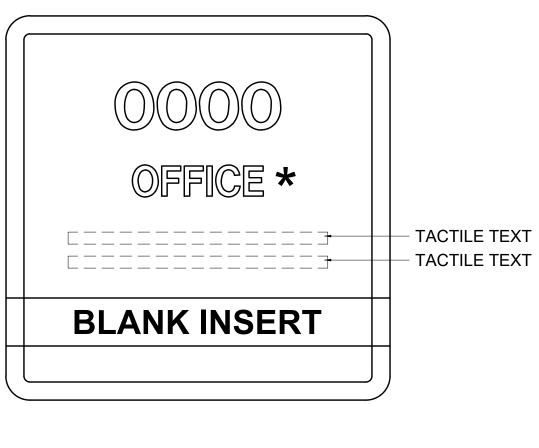






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- TACTILE TEXT

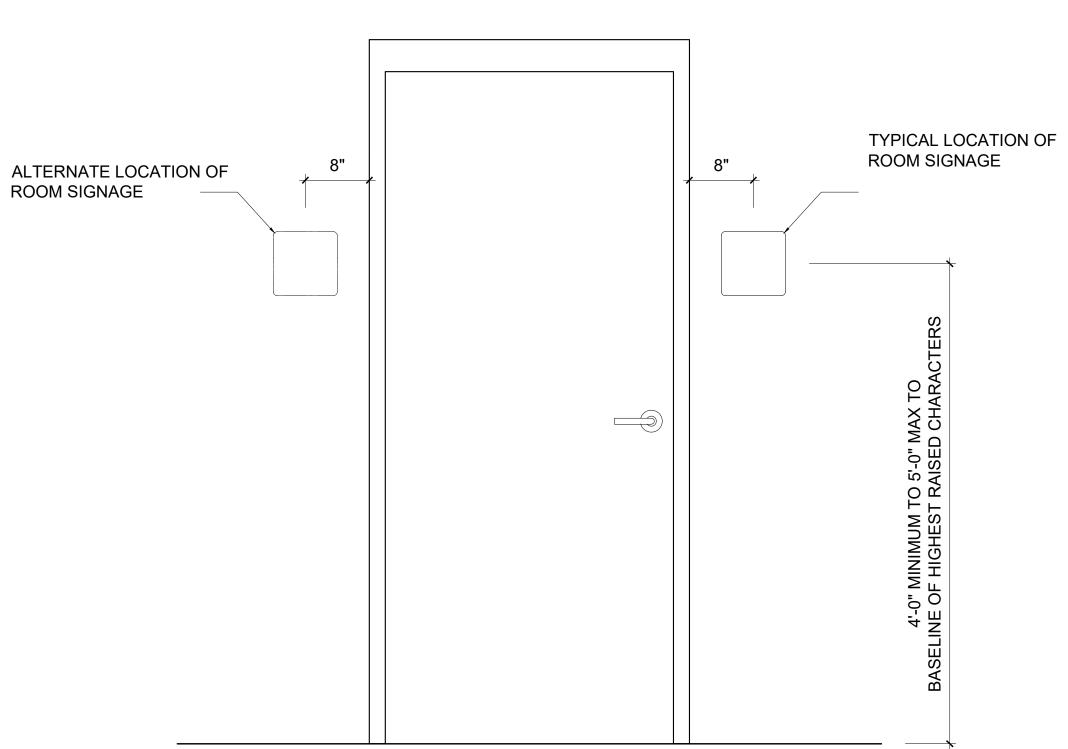


SPACE NAME WILL VARY

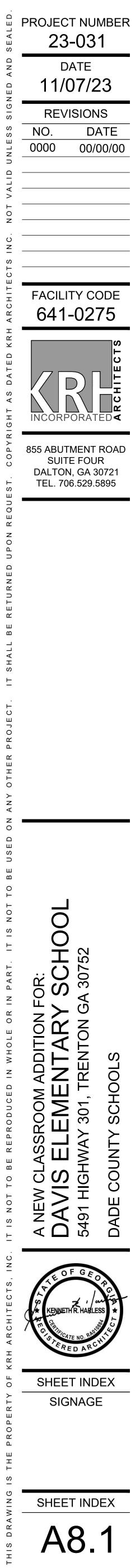


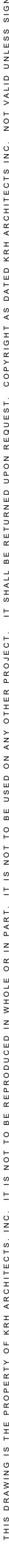
FIRE SPRINKLER RISER INSIDE













BUILDING CODE: INTERNATIONAL BUILDING CODE 2018 (IBC) W/GEORGIA STATE AMENDMENTS \underline{WND} : V_{ULT} : 111 MPH V_{AGD}: 86.1 MPH RISK CATAEGORY: III EXPOSURE CATEGORY: B INTERNAL PRESSURE COEFFICIENT: ±0.18 FOUNDATIONS: COMPONENTS AND CLADDING ELEMENTS NOT SPECIFICALLY DESIGNED ON THESE DRAWINGS SHALL BE DESIGNED ACCORDING TO THE WIND PRESSURES STIPULATED BY IBC 2018 FOR THE TRIBUTARY AREA OF THE SPECIFIC COMPONENT. MIN DESIGN PRESSURE = 37 PSF (WALLS, 100 SQ FT, NON-END ZONE) <u>SEISMIC:</u> RISK CATEGORY III le = 1.25 $l_{\rm p} = 1.0$ $S_{\rm S} = 0.425$ $S_{\rm 1} = 0.119$ SITE CLASS = C S_{DS} = 0.369 S_{D1} = 0.119 SEISMIC DESIGN CATEGORY = C BASE SEISMIC FORCE-RESISTING SYSTEM(S): INTERMEDIATE REINFORCED MASONRY SHEAR WALLS R = 3.5 $\Omega_{O} = 2.5$ $C_{D} = 2.25$ DESIGN BASE SHEAR: $V_X = 35$ KIPS Vy = 40 KIPS ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE SNOW GROUND SNOW LOAD = 10 PSF FLAT ROOF SNOW LOAD = 12 PSF SNOW EXPOSURE FACTOR Ce = 0.9 SNOW THERMAL FACTOR Ct = 1.0 SHEET INDEX: SO.1 GENERAL NOTES FOUNDATION PLAN S1.1 S2.1 ROOF FRAMING PLAN S3.1 SECTIONS & DETAILS S3.2 SECTIONS & DETAILS S4.1 TYPICAL SECTIONS & DETAILS S4.2 TYPICAL SECTIONS & DETAILS MISCELLANEOUS

<u>DESIGN:</u>

- 1. THE FOLLOWING NOTES APPLY TO ALL PROJECT RELATED STRUCTURAL DRAWINGS. THIS INCLUDES THESE DRAWINGS, FIELD SKETCHES AND RESPONSES TO REQUESTS FOR INFORMATION (RFI'S), UNLESS OTHERWISE INDICATED.
- 2. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS.REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 3. STRUCTURAL DRAWINGS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING PERTINENT ASPECTS OF ALL DISCIPLINES INTO THEIR SHOP DRAWINGS AND WORK, AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSIONS.
- 4. NO OPENINGS OR MODIFICATIONS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
- 5. NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
- 6. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL DESIGN, ADEQUACY, SAFETY AND STABILITY OF TEMPORARY BRACING AND SHORING THAT MAY BE REQUIRED AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURAL FRAMING. APPLIED CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF ANY STRUCTURAL BUILDING ELEMENT.
- 7. THE CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION LIFECYCLE.
- 8. DO NOT SCALE THESE DRAWINGS; USE DIMENSIONS. FOR DIMENSIONS NOT SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS, SEE ARCHITECTURAL DRAWINGS.
- 9. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE PROFESSIONAL OF RECORD, REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.
- 10. WHERE A SECTION OR DETAIL IS CUT ON THE PLAN, IT IS UNDERSTOOD TO BE REPRESENTATIVE OF ALL LIKE OR SIMILAR CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
- 11. AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING SAFETY OF PERSONS AND PROPERTY. THE ARCHITECTS OR ENGINEER'S PRESENCE AT THE JOB SITE OR REVIEW OF WORK DOES NOT IMPLY CONFIRMATION OF THE ADEQUACY OF THE CONTRACTOR'S MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE WITH OSHA REGULATIONS.
- 12. CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION, SIZES, AND EXTENT OF CHASES, INSERTS, RECESSES, RIDGES, FINISHES, DEPRESSIONS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- 13. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF RECORD IN WRITING OF ALL CONDITIONS ENCOUNTERED IN THE FIELD THAT ARE CONTRADICTORY TO THOSE SHOWN ON THE STRUCTURAL DRAWINGS.
- 14. STRUCTURAL CONTRACT DOCUMENTS SHALL NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR ANY MATERIAL PREPARED AND SUBMITTED BY THE CONTRACTOR OR SUBCONTRACTOR.
- 15. REFERENCE TO STANDARD SPECIFICATIONS OF ANY TECHNICAL SOCIETY, ORGANIZATION OR ASSOCIATION OR TO CODES OF LOCAL OR STATE AUTHORITIES, SHALL MEAN THE LATEST STANDARD, CODE, SPECIFICATION OR TENTATIVE SPECIFICATION ADOPTED AND PUBLISHED AT THE DATE OF TAKING BIDS, UNLESS SPECIFICALLY STATED OTHERWISE.
- 16. SEE ARCHITECTURAL DRAWINGS FOR FLOOR ELEVATIONS, SLOPE, AND LOCATION OF DEPRESSED FLOOR AREAS. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH THE ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.
- 17. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON THESE DRAWINGS. OPENINGS 1'-4" IN WIDTH OR LENGTH (AND LESS) ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL REQUIRED OPENINGS. ALL MECHANICAL OPENING LOCATIONS, UNIT OPERATING WEIGHTS, AND SIZES SHALL BE VERIFIED WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION. ANY DEVIATION FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR APPROVAL.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES IN ORDER TO COMPLY WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

SUBMITTALS:

- STRUCTURAL DRAWINGS GIVE REPRESENTATIVE DETAILS AND ARE NOT INTENDED TO SHOW ALL CONDITIONS THAT MAY BE PRESENT. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS AS INDICATED IN THE PROJECT DOCUMENTS.
- 2. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTAL DATES TO ARCHITECT AT LEAST 30 DAYS PRIOR TO FIRST SUBMITTAL. FAILURE TO SUBMIT DRAWINGS ON DESIGNATED DATE MAY IMPACT REVIEW SCHEDULE.
- 3. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIALS OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE CONSIDERED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED: A. A COST SAVINGS TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE
 - REQUEST. B. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CODE COUNCIL (ICC) AND THE ICC-ES REPORT IS SUBMITTED WITH THE REQUEST. SUBMITTALS NOT SATISFYING THE ABOVE CRITERIA WILL NOT BE CONSIDERED.
- 4. REVIEW OF SUBMITTALS OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

5. COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL FABRICATED AND SPECIALTY BUILDING COMPONENTS INCLUDING (BUT NOT LIMITED TO) WINDOW SYSTEMS, CANOPY SYSTEMS, AND METAL STAIRS. SHOP DRAWINGS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA.

6. ALL APPROVED SUBMITTALS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, SHALL BE MADE AVAILABLE ON THE JOBSITE FOR REVIEW BY THE INSPECTOR. 7. REPRODUCTION OF CONTRACT DOCUMENTS FOR USE AS SHOP DRAWINGS IS NOT

1. FOOTINGS SHALL BEAR ON SOIL CAPABLE OF SUSTAINING AN ASSUMED NET ALLOWABLE BEARING PRESSURE OF 4.0 KSF FOR INDIVIDUAL COLUMN FOOTINGS AND 4.0 KSF FOR CONTINUOUS WALL FOOTINGS UNDER FULL SERVICE LIVE AND DEAD LOAD.

2. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH THE CIVIL DRAWINGS, PROJECT SPECIFICATIONS, AND GEOTECHNICAL REPORT: "REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERED EVALUATION," (PROJECT NO 200732.20 AND DATED SEPTEMBER 15, 2020) PREPARED BY GEO HYDRO ENGINEERS. A QUALIFIED GEOTECHNICAL ENGINEER, LICENSED IN THE STATE OF GEORGIA, SHOULD VERIFY ALL THE ASSUMPTIONS IN THE AFOREMENTIONED REPORT AND NOTIFY THE ENGINEER OF AN VARIATIONS OR DISCREPANCIES WITH ACTUAL, CURRENT FIELD CONDITIONS.

3. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH THE CIVIL DRAWINGS AND PROJECT SPECIFICATIONS, AND THE "GEOTECHNICAL ENGINEERING REPORT", PREPARED BY NOVA ENGINEERING AND ENVIRONMENTAL, LLC. FOR THE UNION GENERAL MEDICAL OFFICE BUILDING (PROJECT NUMBER 002-20213887, DATED JULY 29, 2021). A QUALIFIED GEOTECHNICAL ENGINEER, LICENSED IN THE STATE OF GEORGIA, SHALL VERIFY ALL ASSUMPTIONS IN THE AFOREMENTIONED REPORT AND NOTIFY THE ENGINEER OF RECORD TO ANY VARIATIONS OR DISCREPANCIES WITH THE ACTUAL, CURRENT FIELD CONDITIONS.

4. THE FOOTINGS HAVE BEEN POSITIONED AT THE ESTIMATED ELEVATION WHICH WILL PROVIDE SUITABLE BEARING, HOWEVER, IF ADEQUATE BEARING CAPACITY IS NONEXISTENT AT THESE ESTIMATED ELEVATIONS. THE FOOTING SHALL BE LOWERED TO AN ELEVATION WHERE THE PRESCRIBED SAFE BEARING CAPACITY EXISTS (AS RECOMMENDED BY A QUALIFIED GEOTECHNICAL ENGINEER).

5. FOOTINGS MAY BE CAST INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT. 6. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.

7. IN AREA OF THE BUILDING, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS SHALL BE REMOVED. ANY CUT AND FILL REQUIREMENTS SPECIFIED BY CIVIL SHALL BE AS INSTALLED PURSUANT TO THE GEOTECHNICAL REPORT NOTED IN ITEM 2 OF THIS SECTION.

8. FOOTING CONCRETE SHALL BE CAST ON THE SAME DAY THE EXCAVATION IS APPROVED. IF THE BEARING SURFACE IS ALLOWED TO BECOME DISTURBED IN ANY WAY, IT SHALL BE REWORKED TO THE SATISFACTION OF AN INDEPENDENT TESTING AGENCY PRIOR TO CASTING OF THE CONCRETE.

9. ALL EXCAVATIONS AND STRUCTURE BEARING PADS SHALL BE INSPECTED BY AN INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL.

10. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 1'-6" BELOW FINAL GRADE FOR FROST PROTECTION.

11. NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (2 HORIZONTAL TO 1 VERTICAL) TO A FOOTING. PROVIDE SHORING AND PROTECTION FOR EXCAVATION BANKS AS NECESSARY TO PRESERVE SAFETY AND PREVENT CAVING.

12. ALL BEARING STRATA SHALL BE ADEQUATELY DRAINED BEFORE FOUNDATION CONCRETE IS PLACED. 13. BACKFILL AGAINST WALLS SHALL BE PLACED IN 8" LIFTS AND SHALL BE DEPOSITED

EVENLY AGAINST EACH SIDE OF WALL UNTIL THE LOWER FINAL GRADE IS REACHED. BACKFILL SHALL NOT BE PLACED AGAINST WALLS DEPENDENT UPON TOP AND BOTTOM SLABS/FOUNDATION FOR SUPPORT UNTIL SUCH SLABS HAVE ATTAINED MINIMUM SUFFICIENT BRACING AND SHORING FOR ALL WORK DURING THE CONSTRUCTION PROCESS. RETAINING WALLS ARE NOT DESIGNED TO CANTILEVER AT ANY TIME UNLESS EXPLICITLY NOTED ON DRAWINGS.

14. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE DRAINAGE SYSTEM FOR ALL BACKFILL CONDITIONS PER CIVIL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. 15. COLUMN FOOTINGS AND WALL FOOTINGS SHALL BE POURED MONOLITHIC WITH TOPS OF

ADJACENT FOOTINGS AT THE SAME ELEVATION. 16. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY FOOTING WITHOUT

CONCRETE

7. MINIMU

REQUIREMENTS:

PERMITTED.

1. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318-14. CEMENT USED SHALL BE TYPE I OR III CONFORMING TO ASTM C-150. CONCRETE SHALL DEVELOP A MINIMUM 28 DAY STRENGTH AND DENSITY AS FOLLOWS.

	DEVELOPATION DE 20 DAT STRENGTAA	ND DENSITI AS FOLL	
		STRENGTH (PSI)	DENSITY (PCF)
	FOOTINGS, 4" SLAB ON GRADE	3000	145 - 150
	EXTERIOR SLAB ON GRADE	4000	145 - 150
	ELEVATED SLAB ON DECK	3000	115 - 120
З.	AGGREGATE SHALL BE WELL GRADATED .	AND SHALL CONFORM	1 TO THE FOLLOWING:
	FOOTING & SLAB ON GRADE	1" COARSE AGGRE	GATE
	(DENSITY 145 - 150 PCF)	(ASTM C-33)	
	ELEVATED SLAB ON DECK	3/4" COARSE AGO	GREGATE
	(DENSITY 115 - 120 PCF)	(ASTM C-330))
4			

CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGN SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS BY EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD AND SHALL BE CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. RESULTS OF ALL COMPRESSIVE STRENGTH TEST SHALL BE MADE AVAILABLE AT THE JOB SITE FOR REVIEW BY THE INSPECTOR.

5. ALL MIXING, TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.

NO ADDITIONAL WATER SHALL BE ADDED TO CONCRETE AT THE .	JOB SITE.
MINIMUM CONCRETE COVER UNLESS NOTED OTHERWISE: A. #11 BARS AND SMALLER:	3/4 INCHES
B. UNFORMED SURFACE IN CONTACT WITH THE GROUND:	3 INCHES
C. C. BASEMENT WALLS:	2 INCHES EXTERIOR 3/4 INCHES INTERIOR
D. FORMED SURFACES EXPOSED TO EARTH OR WEATHER:	JA NORES INTERIOR
#6 BARS AND LARGER:	2 INCHES
#5 BARS AND SMALLER:	11/2 INCHES
E. FORMED SURFACES NOT EXPOSED TO EARTH OR WEATH	
BEAMS, GIRDERS AND COLUMNS:	

8. SLAB-ON-GRADE SHALL BE SAW CUT NO MORE THAN 12 HOURS AFTER CONCRETE HAS BEEN FINISHED. CONTRACTOR TO SUBMIT LAYOUT AND CONSTRUCTION SCHEDULE ("SOFT-CUT" INTERNATIONAL OR SIM.)

SLABS, WALLS, AND JOISTS: 3/4 INCHES

9. PLACEMENT OF CONCRETE, COLD WEATHER AND HOT WEATHER PRECAUTIONS, MATERIAL AND PROPORTIONING REQUIREMENTS, REBAR COVER AND DETAILING SHALL CONFORM TO REQUIREMENTS OF THE AMERICAN CONCRETE INSTITUTE (ACI) 318-14.

10. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS FOR SLAB FINISHES, SLAB DEPRESSIONS, ELEVATIONS AND ENCASED OR EMBEDDED ITEMS. 11. PIPES AND CONDUITS EMBEDDED IN CONCRETE SHALL CONFORM TO THE FOLLOWING

> A. NO MATERIAL HARMFUL TO CONCRETE (SUCH AS , BUT NOT LIMITED TO, ALUMINUM) IS PERMITTED B. NO EMBEDMENT OR PENETRATION WHICH IMPAIRS THE STRUCTURAL STRENGTH OR INTEGRITY IS PERMITTED. C. CONDUITS AND PIPES SHALL NOT HAVE A DIAMETER THAT EXCEEDS 1/3 THE OVERALL THICKNESS OF THE STRUCTURAL ELEMENT IN WHICH THEY ARE EMBEDDED. D. MINIMUM CENTER TO CENTER SPACING SHALL NOT BE CLOSER THAN 3 DIAMETERS OR WIDTHS. E. PLACEMENT SHALL OCCUR ABOVE BOTTOM LAYER OF REINFORCEMENT AND BELOW TOP LAYER OF REINFORCEMENT AND SHALL NOT CAUSE REINFORCEMENT TO BE CUT BENT OR DISPLACED IN ANY MANNER. F. PLACEMENT SHALL MAINTAIN A MINIMUM CLEARANCE FROM REINFORCEMENT OF 3 REINFORCING BAR DIAMETERS OR 3/4" FROM WELDED WIRE FABRIC REINFORCEMENT. G. PLUMBING AND ELECTRICAL CONDUITS SHALL BE PLACED BELOW SLAB ON GRADE.

12. UNLESS NOTED OTHERWISE, PROVIDE CONTROL JOINTS IN SLABS ON GRADE NOT TO EXCEED 15 FEET ON CENTER IN EACH DIRECTION, UNLESS OTHERWISE APPROVED BY THE STRUCTURAL ENGINEER. 13. FORMING SHALL BE OF WOOD, STEEL, OR FIBERGLASS OF SATISFACTORY QUALITY AND CONDITION.

14. NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE UNLESS APPROVED BY THE ENGINEER. 15. REINFORCING SHALL CONFORM TO ASTM A615, GR60 UNLESS NOTED OTHERWISE. 16. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 GRADE 60.

17. REINFORCING STEEL AND ACCESSORIES SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 (MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES) AND CRSI MSP-1 (MANUAL OF STANDARD PRACTICE), LATEST EDITION.

18. ALL "CONTINUOUS" REINFORCEMENT SHALL HAVE MINIMUM LAP OF "B" TYPE (ACI 318-14, SECTION 25.5.2) AT SPLICES UNLESS NOTED OTHERWISE. 19. PROVIDE REINFORCING CHAIRS FOR ALL SLAB-ON-GRADE REINFORCING.

- 20. SUBMIT REINFORCING PLACEMENT AND DETAIL (SHOP) DRAWINGS FOR REVIEW. NO REINFORCING BARS SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
- 21. ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH CRSI "MANUAL OF STANDARD PRACTICE" (27TH EDITION).
- 22. WHERE WELDED WIRE FABRIC REINFORCEMENT IS SPECIFIED IN SLABS ON GRADE PLACEMENT SHALL BE 1" BELOW TOP OF SLAB. OVERLAP EACH REINFORCING SHEET TWO FULL PANELS AND TIE CROSS WIRES ON EACH SIDE.
- 23. SCHEDULED OR DETAILED REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL AND/OR SPLICES ARE PERMITTED ONLY WHERE SHOWN ON DRAWINGS. WHERE WELDING IS PERMITTED IT SHALL CONFORM TO AWS D1.4, STRUCTURAL WELDING CODE - REINFORCING STEEL.
- 24. BASE PLATES, ANCHOR RODS, SUPPORT ANGLES, ETC. BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 4" OF CONCRETE.

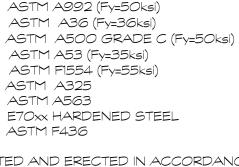
STRUCTURAL STEEL

	ESIGN CODE: MERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR STRUC NSC 360-16
1.	STEEL SHALL CONFORM TO THE FOLLOWING GRADES:

STRUCTURAL W-SHAPES
ALL CHANNELS, ANGLES, PLATES, ETC. (UNO)
STRUCTURAL TUBES

STEEL PIPE ANCHOR RODS HIGH STRENGTH BOLTS HEX NUTS - GRADE A WELDING ELECTRODES

WASHERS - TYPE |



- 2. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (AISC 2016) EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS. 3. THE STEEL STRUCTURE IS A NON-SELF-SUPPORTING STEEL FRAME AND IS DEPENDENT UPON
- DIAPHRAGM ACTION OF THE METAL ROOF DECK AND ATTACHMENT TO THE MASONRY WALLS AND METAL STUD SHEAR WALLS FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES. PROVIDE ALL TEMPORARY SUPPORTS REQUIRED FOR STABILITY AND FOR RESISTANCE TO WIND AND SEISMIC FORCES UNTIL THESE ELEMENTS ARE COMPLETE AND ARE CAPABLE OF PROVIDING THIS SUPPORT.
- 4. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL CONNECTIONS SHOWN ON THE STRUCTURAL DRAWINGS. CONNECTIONS SHOWN ARE SCHEMATIC AND ARE ONLY INTENDED TO SHOW THE RELATIONSHIP OF MEMBERS CONNECTED. CONNECTION DETAILS INDICATED ON THE DRAWINGS SHALL BE INCORPORATED INTO FABRICATOR'S CONNECTION DESIGN ONLY AS THEY ARE DEEMED APPROPRIATE AND ADEQUATE. BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH AISC 14TH EDITION "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS".
- 5. SPLICING OF STEEL MEMBERS UNLESS SHOWN ON THE DRAWINGS IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.
- 6. NO HOLES SHALL BE CUT IN ANY STEEL ELEMENT UNLESS THEY ARE DETAILED ON THE DRAWINGS.
- 7. UNLESS NOTED OTHERWISE, BEAMS SHALL BEAR 8" MINIMUM ON CONCRETE OR MASONRY. ANCHOR BEAMS TO MASONRY WITH TWO 5/8" DIAMETER ANCHOR RODS WITH 1'-0" EMBEDMENT INTO GROUT FILLED MASONRY.
- 8. WHERE BEAMS INTERSECT AT THE TERMINATING ELEVATION OF A COLUMN, THE BEAM WITH THE GREATEST REACTION SHALL BEAR ON TOP OF THE COLUMN UNLESS NOTED OTHERWISE ON DRAWINGS. WHERE BEAMS INTERSECT AT THE INTERMEDIATE ELEVATION OF A COLUMN, THE FRAMING BEAMS SHALL BE CONNECTED TO THE COLUMNS WITH A WT CONNECTION. FIN PLATE CONNECTIONS ARE NOT PERMITTED.

9. CONNECTIONS FOR NON-COMPOSITE BEAMS WHICH CANNOT CONFORM TO AISC TYPICAL CONNECTION DETAILS SHALL BE DETAILED IN ACCORDANCE WITH THE FOLLOWING: A. WHERE BEAM REACTIONS ARE NOT SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE MAXIMUM UNIFORM LOAD WHICH THE BEAM WILL SUPPORT (AS SIMPLE SPAN) FOR THE SPAN SHOWN ON THE DRAWINGS. (TABLE

- 3-6, AISC 15TH EDITION) B. WHERE CONNECTIONS ARE SUBJECT TO ECCENTRICITY, SUCH ECCENTRICITY SHALL
- BE TAKEN INTO ACCOUNT WHEN DESIGNING THE CONNECTION. C. WHERE CONNECTIONS SUPPORT BEAMS WHICH ARE SUBJECT TO CONCENTRATED LOADS, SUCH CONCENTRATED LOADS SHALL BE TAKEN INTO ACCOUNT WHEN
- DESIGNING THE CONNECTION. D. BOLTED CONNECTIONS SHALL BE BEARING TYPE WITH A325 BOLTS. MINIMUM
- DIAMETER OF ALL BOLTS SHALL BE 3/4", MAX. DIA. 11/8". PROVIDE AT LEAST 2 BOLTS PER CONN. TIGHTENED "SNUG TIGHT".
- E. END CONNECTIONS OF FLOOR MEMBERS SHALL ACCOMMODATE END ROTATIONS OF SIMPLE, UNRESTRAINED BEAMS. FOR THIS PURPOSE, INELASTIC ACTION IN THE CONNECTION IS PERMITTED.
- F. COPED OR CUT ENDS OF MEMBERS SHALL BE REINFORCED WHERE REQUIRED TO SUSTAIN THE SPECIFIED REACTIONS.
- G. TENSILE CONNECTIONS SHALL BE DESIGNED FOR A FORCE RESULTING FROM MULTIPLYING THE GROSS AREA BY 20 KSI.
- 10. FABRICATE AND ERECT MEMBERS WITH NATURAL CAMBER UP.
- STRUCTURAL STEEL CONTRACTOR TO PROVIDE DECK SUPPORT ANGLES AS REQ'D (L3x3x) MINIMUM, UNO). THE CONTINUOUS ANGLE AT THE ROOF PERIMETER SHALL BE SPLICED SUCH THAT THE FULL TENSION FORCE THAT CAN BE DEVELOPED BY THE ANGLE WILL BE TRANSFERRED THROUGHOUT THE SPLICE.
- 12. UNLESS OTHERWISE SHOWN ON DRAWINGS, SIZE OF WELDS SHALL NOT BE SMALLER THAN 3/16". ALL WELDED JOINTS SHALL CONFORM TO THE PROVISIONS OF AWS D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE DURING TIMES OF INSPECTION.
- 13. THE CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL COST, ALL ADDITIONAL STEEL CONNECTIONS, GUYING, ETC. REQUIRED FOR ERECTION.
- 14. OBTAIN ALL FIELD MEASUREMENTS REQUIRED FOR PROPER FABRICATION AND INSTALLATION OF WORK PRIOR TO DETAILING. PRECISE MEASUREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 15. PROVIDE STIFFENERS FINISHED TO BEAR UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS, ON ALL MEMBERS FRAMING OVER COLUMNS, AT BEAM COLUMN JOINTS (AS REQUIRED BY THE AISC SPECIFICATIONS) AND WHERE SHOWN ON THE DRAWINGS.
- 16. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND ELEVATIONS OF LOOSE LINTELS. 17. THE FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND FOR THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS
- 18. WELDING INSPECTION SHALL MEET REQUIREMENTS AS STATED IN THE SCHEDULE OF SPECIAL INSPECTIONS.
- 19. ALL STRUCTURAL STEEL NOT RECEIVING FIRE PROOFING SHALL RECEIVE ONE SHOP COAT OF RUST INHIBITIVE PRIMER.

MASONRY

- 1. ALL MASONRY DESIGN AND CONSTRUCTION SHALL CONFORM TO TMS 402-16. 2. MASONRY SHALL BE NORMALWEIGHT AND HAVE A MINIMUM COMPRESSIVE STRENGTH, f'm, OF 1500 PSI BASED ON GROSS AREA. MORTAR SHALL CONFORM TO ASTM C270 TYPE S OR M. GROUT SHALL CONFORM TO ASTM C476, WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
- 3. REINFORCING BARS SHALL CONFORM TO ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE.
- 4. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED LADDER TYPE FABRICATED UNITS WITH A SINGLE PAIR OF 9 GA DIAMETER SIDE RODS AND CROSS RODS FABRICATED FROM COLD DRAWN STEEL WIRE COMPLYING WITH ASTM A82. JOINT REINFORCING SHALL BE SPACED AT 16" O.C. VERTICALLY IN ALL MASONRY WALLS UNLESS NOTED OTHERWISE. PROVIDE HOOK AND EYE VENEER REINFORCING IN ALL EXTERIOR WALLS.
- 5. VERTICAL CONTROL JOINTS IN MASONRY WALLS ARE NOT INDICATED ON THESE DRAWINGS. "HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS. HORIZONTAL JOINT REINFORCING (DUR-O-WALL) SHALL BE TERMINATED ON EITHER SIDE OF VERTICAL CONTROL JOINTS. WALLS SHORTER THAN 15'-O" IN LENGTH SHALL NOT HAVE VERTICAL CONTROL JOINTS.
- A. AT EXTERIOR WALLS, SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF VERTICAL CONTROL JOINTS. JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-O" ON CENTER. JOINTS SHALL NOT BE LOCATED CLOSER THAN 2'-8" TO THE JAMB OF ANY EXTERIOR WALL OPENING. JOINTS SHALL NOT BE LOCATED FURTHER THAN 15'-O" FROM ANY CORNER, NOR CLOSER THAN 5'-0" FROM ANY CORNER.
- B. AT INTERIOR SHEAR WALLS, JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-0" ON CENTER. JOINTS SHALL NOT BE LOCATED CLOSER THAN 2'-8" TO THE JAMB OF ANY SHEAR WALL OPENING. JOINTS SHALL NOT BE LOCATED FURTHER THAN 15'-O" FROM ANY CORNER, NOR CLOSER THAN 5'-O" FROM ANY CORNER.
- C. AT INTERIOR NON-SHEAR WALLS, VERTICAL CONTROL JOINTS SHALL BE PLACED AT A SPACING NOT TO EXCEED 30'-O" ON CENTER. JOINTS SHALL BE LOCATED AT WALL JAMBS, WHERE PRACTICAL, AND SHALL STEP 8" HORIZONTALLY AT MASONRY LINTEL LOCATIONS. WHERE WALLS SIT ON TOP OF A CAST SLAB-ON-GRADE, ALIGN WALL CONTROL JOINTS WITH SLAB CONTROL JOINTS. JOINTS SHALL BE LOCATED AT ALL CORNER/TEE INTERSECTIONS WHERE THE LEGS OF EACH CORNER/TEE EXCEED 15'-O" IN LENGTH.
- 6. MASONRY PILASTERS SHALL BE LOCATED ADJACENT TO CONTROL OR EXPANSION JOINTS PER TYPICAL DETAILS.
- 7. ALL REINFORCED CELLS AND ALL CELLS BELOW FINISH FLOOR SHALL BE GROUTED SOLID.

CTURAL STEEL BUILDINGS

8. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICAL. DOWELS MAY BE GROUTED INTO A CELL IN VERTICAL ALIGNMENT EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING.

9. REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING STARTS.

- 10. VERTICAL BARS SHALL BE HELD IN POSITION WITH PRE-MANUFACTURED TIES AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 200 DIAMETERS OF THE REINFORCING NOR 10 FEET
- 11. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 2-1/2" × 3".
- 12. GROUTING SHALL BE STOPPED 1-1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT.
- 13. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
- 14. ALL BOLTS INSERTED IN THE WALLS SHALL BE GROUTED SOLIDLY INTO POSITION. 15. WHERE EXPANSION BOLTS OR OTHER ANCHORS ARE EMBEDDED INTO THE SIDE OF MASONRY WALLS, THE CELLS SHALL BE FULLY GROUTED AT LEAST 8" ABOVE AND
- BELOW EACH BOLT OR ANCHOR. 16. WHERE NOT OTHERWISE SHOWN, MASONRY WALL FOOTINGS SHALL BE 12" THICK AND HAVE A MINIMUM OF 4" PROJECTION ON EACH SIDE OF WALL. REINFORCE WITH (2) #5 BARS CONTINUOUS TOP AND BOTTOM.
- 17. WALLS SHALL BE GROUTED USING LOW LIFT GROUTING TECHNIQUES.
- 18. ALL MAGONRY WALLS SHALL BE ASSUMED TO BE RUNNING BOND, UNLESS NOTED OTHERWISE IN PLAN OR SECTION. 19. MASONRY MORTAR SHALL BE TYPE "S" AND CONFORM TO ASTM C-270

STEEL JOISTS (K SERIES)

1. STEEL JOISTS SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS, K-SERIES" (SJI 100-15) OF THE STEEL JOIST INSTITUTE (SJI).

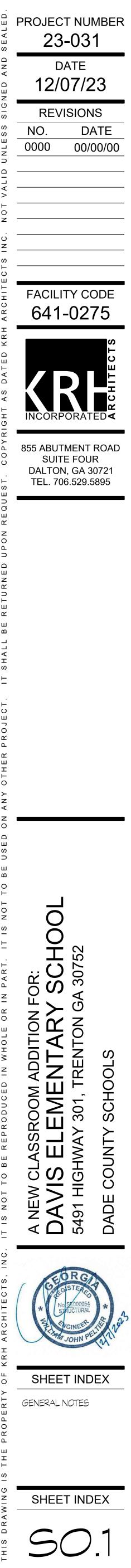
- 2. STEEL JOISTS SHALL BE DESIGNED BY THE MANUFACTURER. THE MANUFACTURERS ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN, ADEQUACY AND SAFETY OF ALL STEEL JOISTS. ALL SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN GEORGIA.
- 3. UNLESS OTHERWISE NOTED, STEEL JOISTS SHALL BE DESIGNED AS SIMPLY SUPPORTED UNIFORMLY LOADED TRUSSES WITH THE TOP CHORD BRACED AGAINST LATERAL BUCKLING. THE UNIFORM DESIGN LOAD SHALL BE THE TOTAL SAFE UNIFORMLY DISTRIBUTED LOAD AS SHOWN IN THE SJI STANDARD LOAD TABLE.
- 4. WHEN NET UPLIFT FORCES DUE TO WIND ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS, BRIDGING, AND CONNECTIONS OF THE JOISTS TO THE SUPPORTING STRUCTURE FOR THE NET UPLIFT. A SINGLE LINE OF BOTTOM CHORD BRIDGING MUST BE PROVIDED NEAR THE FIRST BOTTOM CHORD PANEL POINTS WHENEVER UPLIFT DUE TO WIND FORCES IS SHOWN ON THE DESIGN DRAWINGS.
- 5. WHEN NON-UNIFORM OR CONCENTRATED LOADS ARE SHOWN ON THE DRAWINGS, THE MANUFACTURER SHALL DESIGN THE JOISTS IN ACCORDANCE WITH THE SJI STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, K-SERIES.
- 6. STEEL JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE SJI SPECIFICATION. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE PLACED AND STEEL JOIST ENDS FIXED PRIOR TO THE APPLICATION OF ANY LOADS. BRIDGING THAT TERMINATES AT, OR IS INTERRUPTED BY, STRUCTURAL STEEL BEAMS, MAGONRY WALLS OR CONCRETE WALLS SHALL BE ATTACHED THERETO. COORDINATE BRIDGING LOCATIONS TO AVOID INTERFERENCE WITH ALL MECHANICAL, ELECTRICAL, FIRE PROTECTION EQUIPMENT, AND ARCHITECTURAL CONDITIONS.
- 7. MINIMUM BEARING REQUIREMENTS FOR K-SERIES JOISTS, UNLESS NOTED OTHERWISE, SHALL BE 2-1/2" ON STRUCTURAL STEEL AND 4" ON STEEL BEARING PLATES OVER MASONRY OR CONCRETE.
- 8. UNLESS NOTED OTHERWISE, K-SERIES STEEL JOISTS SHALL BE ATTACHED TO SUPPORTING STEEL WORK OR STEEL BEARING PLATE WITH TWO 1/8" FILLET WELDS (ONE EACH SIDE), 2" LENGTH MINIMUM, OR WITH (2) 1/2" DIAMETER BOLTS (ONE EACH SIDE).
- 9. STEEL JOISTS AT COLUMN CENTER LINES SHALL BE BOLTED TO STRUCTURAL STEEL WITH TWO 1/2" DIAMETER BOLTS. WHERE STEEL JOISTS DO NOT SPACE TO COLUMN CENTER LINES, USE BOLTED CONNECTIONS FOR THE STEEL JOIST CLOSEST TO THE CENTERLINE.
- 10. HOLES IN STEEL JOIST CHORDS ARE NOT PERMITTED, EXCEPT FOR BOLTED CONNECTIONS AT THE BEARING END OF THE STEEL JOIST.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING JOIST ANCHORAGE THAT MEETS ALL OSHA REQIUIREMENTS.
- 12. ALL ITEMS SUCH AS MECHANICAL EQUIPMENT, DUCT WORK, PIPES, CEILING FIXTURES, ETC. THAT ARE TO BE SUPPORTED OR HUNG FROM THE STEEL JOISTS SHALL BE FRAMED WITH AUXILIARY FRAMING TO THE PANEL POINTS OF THE STEEL JOISTS. METHODS OF FRAMING THAT INDUCE BENDING TO THE STEEL JOIST CHORDS OR WEB MEMBERS WILL NOT BE PERMITTED.
- 13. ALL JOISTS SHALL RECEIVE RUST-INHIBITIVE PRIMER PER PROJECT SPECIFICATIONS.

METAL ROOF DECK:

- 1. METAL ROOF DECK SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE SDI RD - 2017: STANDARD FOR STEEL ROOF DECK.
- 2. THE METAL DECK WORK SHALL CONSIST OF FURNISHING EVERYTHING (LABOR, MATERIALS, ACCESSORIES, EQUIPMENT, ETC.) NECESSARY AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF ALL METAL DECK WORK AS INDICATED AND SPECIFIED ON THE DRAWINGS.
- 3. SUBMIT PLACEMENT AND DETAILED ("SHOP") DRAWINGS FOR REVIEW. NO METAL DECK SHALL BE INSTALLED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED.
- 4. METAL DECK SHALL CONFORM TO STEEL DECK INSTITUTE'S CURRENT STANDARDS.
- 5. METAL DECK SHALL BE OF THE CONFIGURATION, DEPTH AND MINIMUM GAGE AS SHOWN ON THE DRAWINGS. ATTACHMENT TO THE SUPPORTING STRUCTURE SHALL BE AS SHOWN ON THE DRAWINGS AS A MINIMUM. SEE PLAN NOTES.
- 6. DO NOT HANG OR SUPPORT ANY LOADS FROM METAL ROOF DECK. 7. WHERE POSSIBLE, METAL ROOF DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 3 SPANS. TWO SPAN DECK SHALL BE USED ONLY WHERE DECK LAYOUT DOES NOT
- PERMIT THE USE OF THREE SPANS. SINGLE SPAN DECK IS NOT PERMITTED. 8. ROOF OPENINGS LESS THAN 6" SQUARE OR DIAMETER REQUIRE NO REINFORCEMENT. OPENINGS 6" TO 10" INCLUSIVE SHALL BE REINFORCED WITH A 20 GAUGE GALVANIZED PLATE WELDED TO THE DECK AT EACH CORNER AND 6" MAXIMUM CENTERS WITH A 5/8" DIAMETER PUDDLE WELD OR SHEET METAL SCREWS. SEE DRAWINGS FOR REINFORCEMENT OF OPENINGS LARGER THAT 10".
- 9. DECK SHALL BE POSITIONED SO THAT A COMPLETE RIB BEARS ON STEEL SUPPORT.

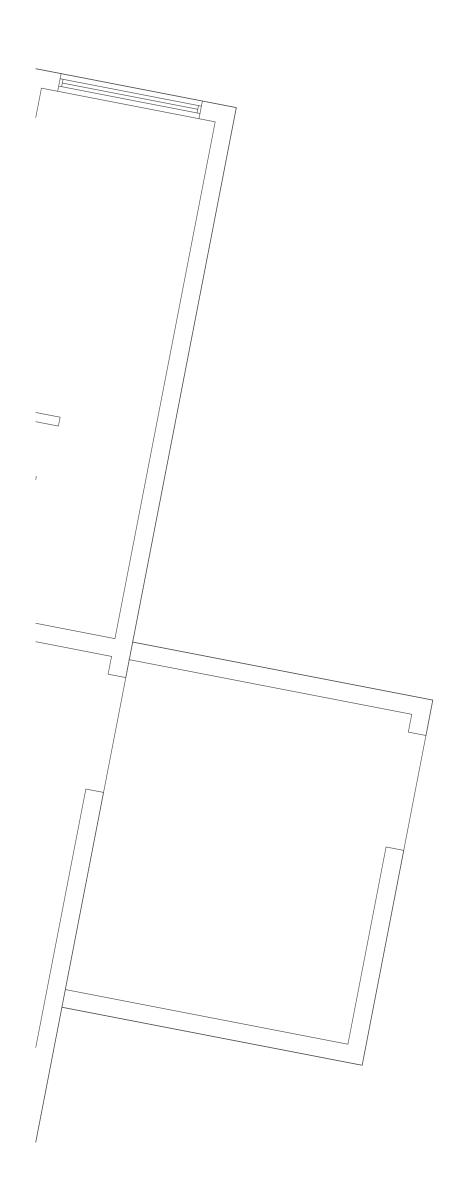
LIGHT GAUGE METAL TRUSSES:

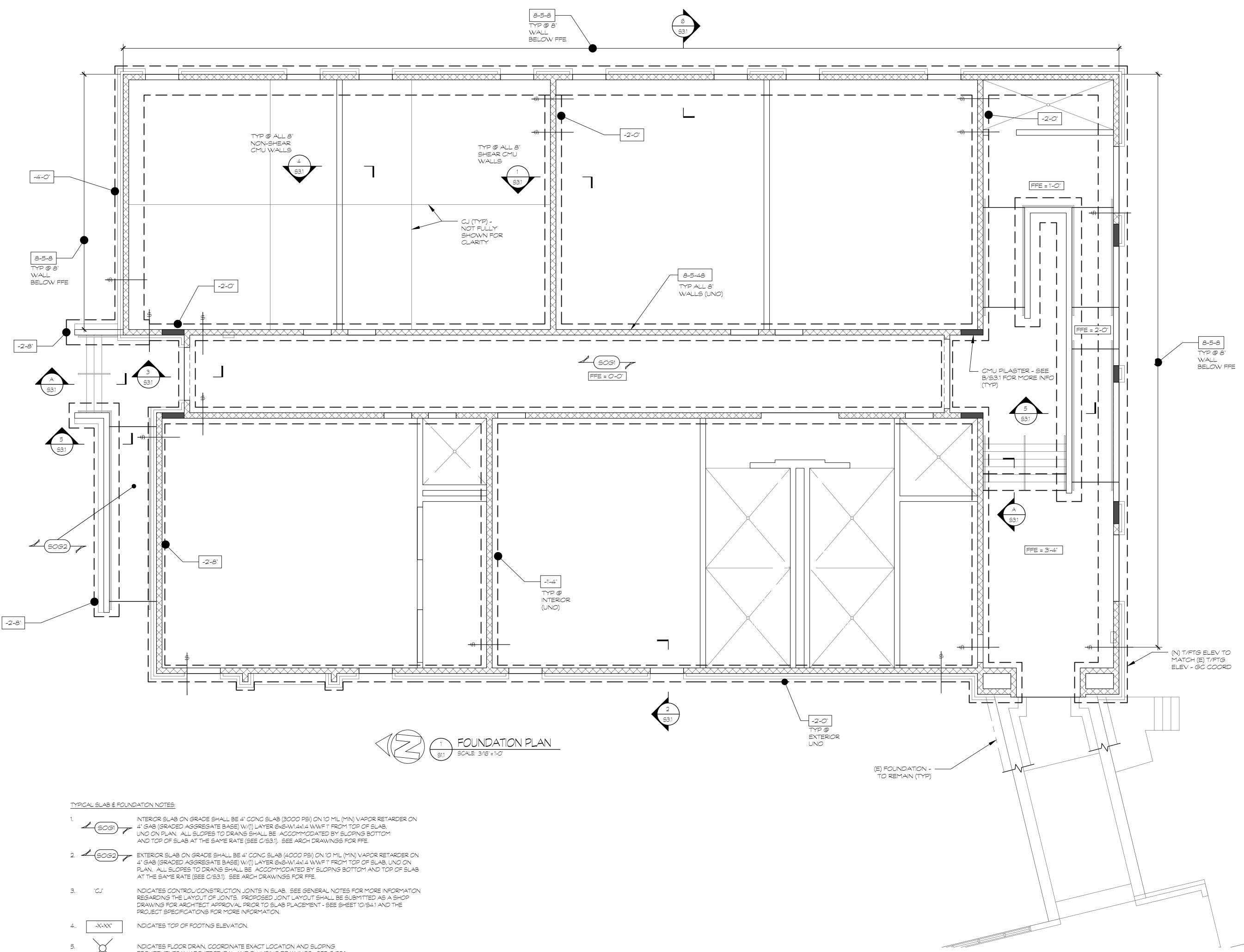
- 1. DESIGN, FABRICATIONS AND ERECTION SHALL CONFORM TO AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.
- 2. LIGHT-GAUGE METAL TRUSSES SHALL BE FULLY DESIGNED AND FABRICATED BY THE MANUFACTURER AND SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF GEORGIA.
- 3. SHOP DRAWING AND CALCULATION SUBMITTALS SHALL INCLUDE THE FOLLOWING: TRUSS SPACING, SIZE OF MEMBERS, CONNECTIONS OF TRUSS COMPONENTS, CONNECTIONS OF TRUSS MEMBERS TO THE MAIN STRUCTURE, REACTIONS OF THE CONNECTIONS TO THE MAIN STRUCTURE, AND PERMANENT BRACING.
- 4. DESIGN OF ALL COMPONENTS SHALL CONSIDER DEAD LOADS, LIVE LOADS, SHORT TERM LOADS AND ALL SPECIAL LOADS FROM ANY EQUIPMENT, FEATURES, ETC., INCLUDING LOADS POSTED ON STRUCTURAL DRAWINGS (IF APPLICABLE). TRUSS ELEMENTS SHALL BE CAPABLE OF TRANSI A DIAPHRAGM FORCE OF 225 POUNDS PER LINEAL FOOT FROM THE ROOF DECK DIAPHRAGM TO THE MAIN BUILDING STRUCTURE (UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS).
- 5. UNLESS OTHERWISE NOTED ON PLANS, TRUSS TOP CHORDS SHALL BE DESIGNED FOR 15 POUNDS PER SQUARE FOOT DEAD LOAD AND THE ROOF LIVE LOAD AS NOTED ON THE ROOF PLAN. TRUSS BOTTOM CHORDS SHALL BE DESIGNED FOR 5 PSF DEAD LOAD AND NO LIVE LOAD.
- 6. MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS EXERTING LOADS ONTO TRUSSES SHALL BE COORDINATED BY THE GENERAL CONTRACTOR. RESULTING LOADS SHALL BE PROVIDED TO THE TRUSS DESIGNER AND SHALL BE APPLIED IN ADDITION TO TYPICAL UNIFORM LOADS.
- 7. CONCENTRATED LOADS SHALL BE APPLIED AT PANEL POINTS ONLY. FIELD CONDITIONS RESULTING IN LOADS AT NON-PANEL POINT LOCATIONS WILL BE REPORTED BY THE CONTRACTOR DIRECTLY TO THE TRUSS DESIGNER FOR APPROVAL AND REINFORCEMENT (IF REQUIRED).
- 8. TRUSS DEFLECTION SHALL BE LIMITED TO SPAN / 240 FOR DEAD PLUS LIVE CONDITION AND SPAN / 360 FOR LIVE LOAD CONDITION. 9. NO ALTERATIONS OF ANY KIND ARE PERMITTED TO ANY TRUSS MEMBER WITHOUT PRIOR WRITTEN APPROVAL OF THE TRUSS DESIGNER.
- 10. ALL LIGHT GAUGE METAL FRAMING SHALL BE GALVANIZED.
- 11. LIGHT GAUGE METAL TRUSS FRAMING LAYOUT SHOWN ON STRUCTURAL FRAM SHOWN FOR REFERENCE ONLY AND SHALL BE BY TRUSS DESIGNER.

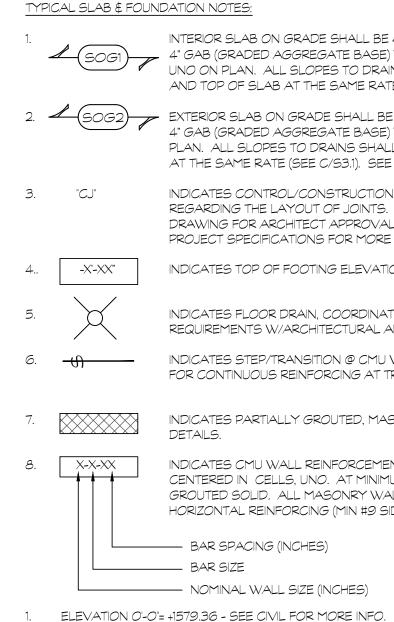








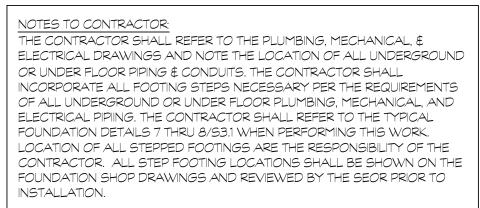


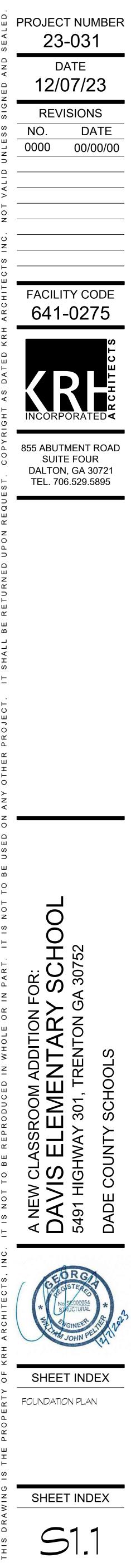


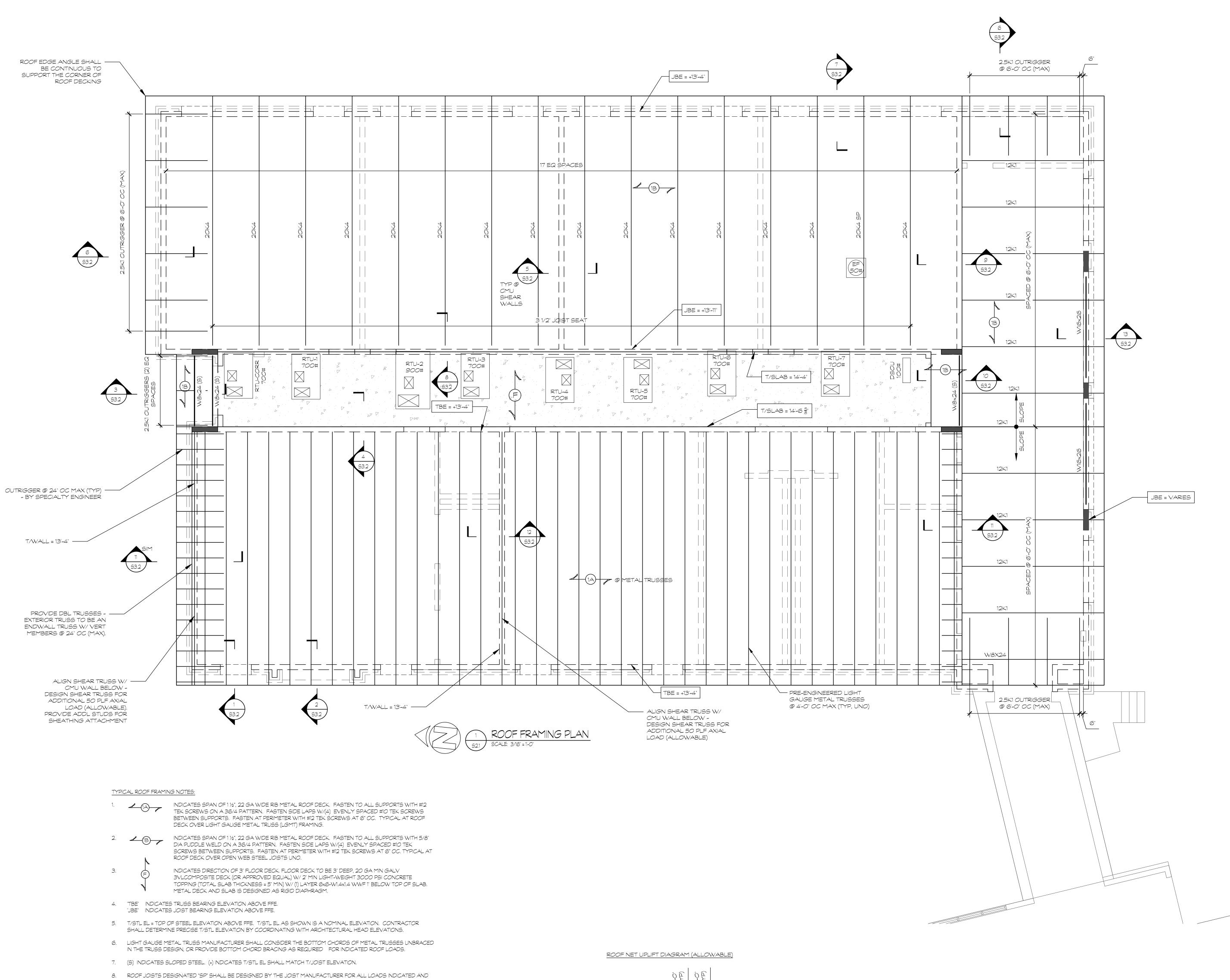
REQUIREMENTS W/ARCHITECTURAL AND PLUMBING DRAWINGS. SEE C/S3.1.

INDICATES PARTIALLY GROUTED, MASONRY SHEAR WALL. SEE S4.1 FOR TYPICAL DETAILS.

8. X-X-XX INDICATES CMU WALL REINFORCEMENT. ALL KLINT UNDER THE CENTERED IN CELLS, UNO. AT MINIMUM, ALL REINFORCED CELLS SHALL BE CENTERED IN CELLS, UNO. AT MINIMUM, ALL REINFORCED CELLS SHALL BE HORIZONTAL REINFORCING (MIN #9 SIDE RODS) AT 16" OC, UNO.





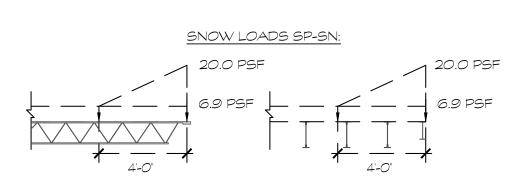


TYP	PICAL ROOF FRAMIN	NG NOTES:
1.	1 - (A	INDICATES SI TEK SCREWS BETWEEN SL DECK OVER L
2.	<u>∕_</u> ®	INDICATES SI DIA PUDDLE SCREWS BET ROOF DECK (
З.	Ē	INDICATES DI 3VLCOMPOS TOPPING (TO METAL DECK
4.	"TBE" INDICATE "JBE" INDICATE	IS TRUSS BEAR IS JOIST BEARIN
5.	T/STL EL = TOP (SHALL DETERMI	
6.	LIGHT GAUGE M IN THE TRUSS DI	
7.	(S) INDICATES S	LOPED STEEL.
8.	ROOF JOISTS DE FOR SPECIAL GE	
9.	ROOF JOIST SPA	ACING SHALL N
10.	CONTRACTOR S	HALL COORDIN
11.	CONTRACTOR S JOISTS SHALL E	
12.	ROOF JOISTS DE FOR SPECIAL GE	ESIGNATED "SP EOMETRY CONS
	ROOF DEAD LOAD METAL DECKING: INSULATION: ROOF MEMBRANE CEILING/LIGHTS: METAL ROOFING: SPRINKLERS:	3 PSF 1 PSF

SPRINKLERS: MISCELLANEOUS: TOTAL 2 PSF 4 PSF 15 PSF (USE 10 PSF TOP CHORD & 5 PSF

BOTTOM CHORD @ METAL TRUSSES) LIVE LOAD: 20 PSF UPLIFT (NET): 15 PSF



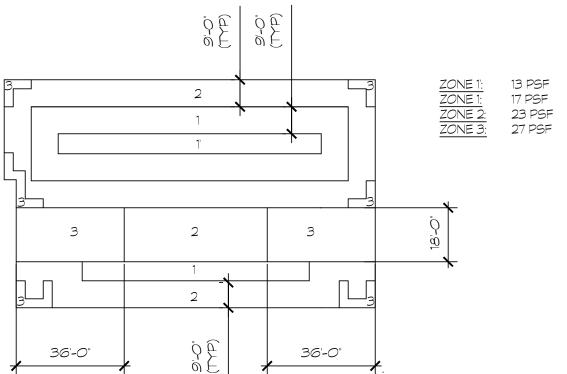


P" SHALL BE DESIGNED BY THE JOIST MANUFACTURER FOR ALL LOADS INDICATED AND NSIDERATIONS. REFER TO SNOW LOADING FOR ROOF JOISTS DESIGNATED "SP-SN"

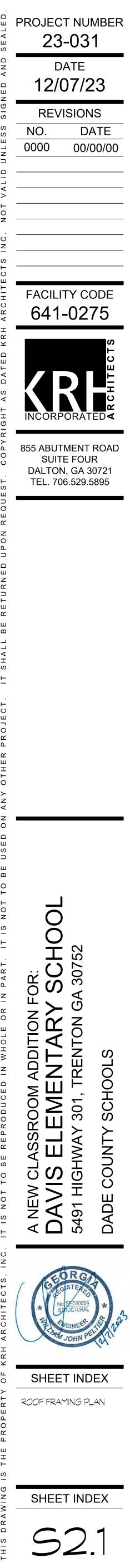
INATE THE LOCATIONS AND SIZES OF ALL ROOF OPENINGS. INATE LOCATION, SIZE, AND OPERATING WEIGHT OF ALL MECHANICAL UNITS. ROOF ADDITIONAL LOAD.

NOT EXCEED 6'-6" OC.

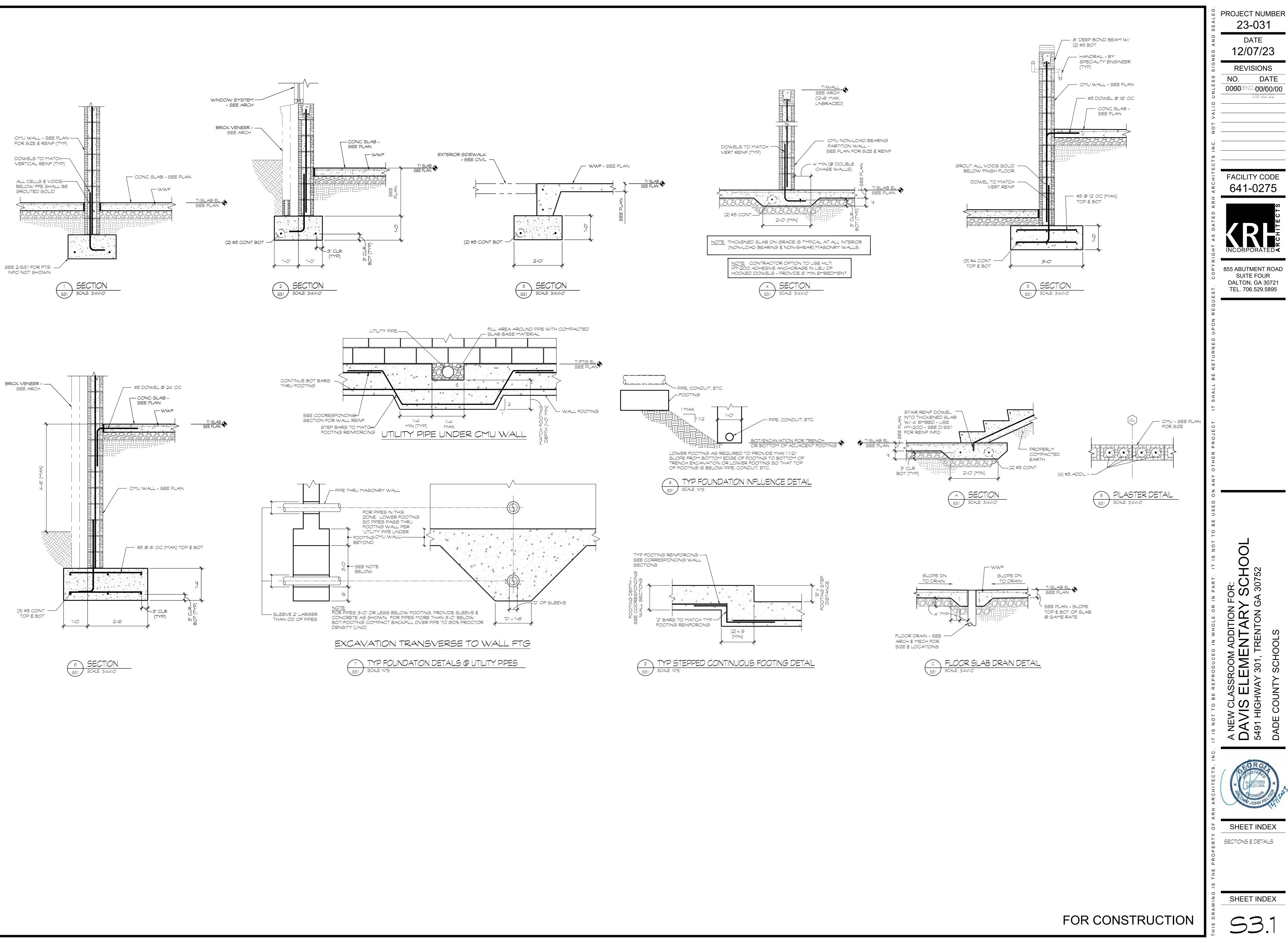
NSIDERATIONS. REFER TO SNOW LOADING FOR ROOF JOISTS DESIGNATED "SP-SN"

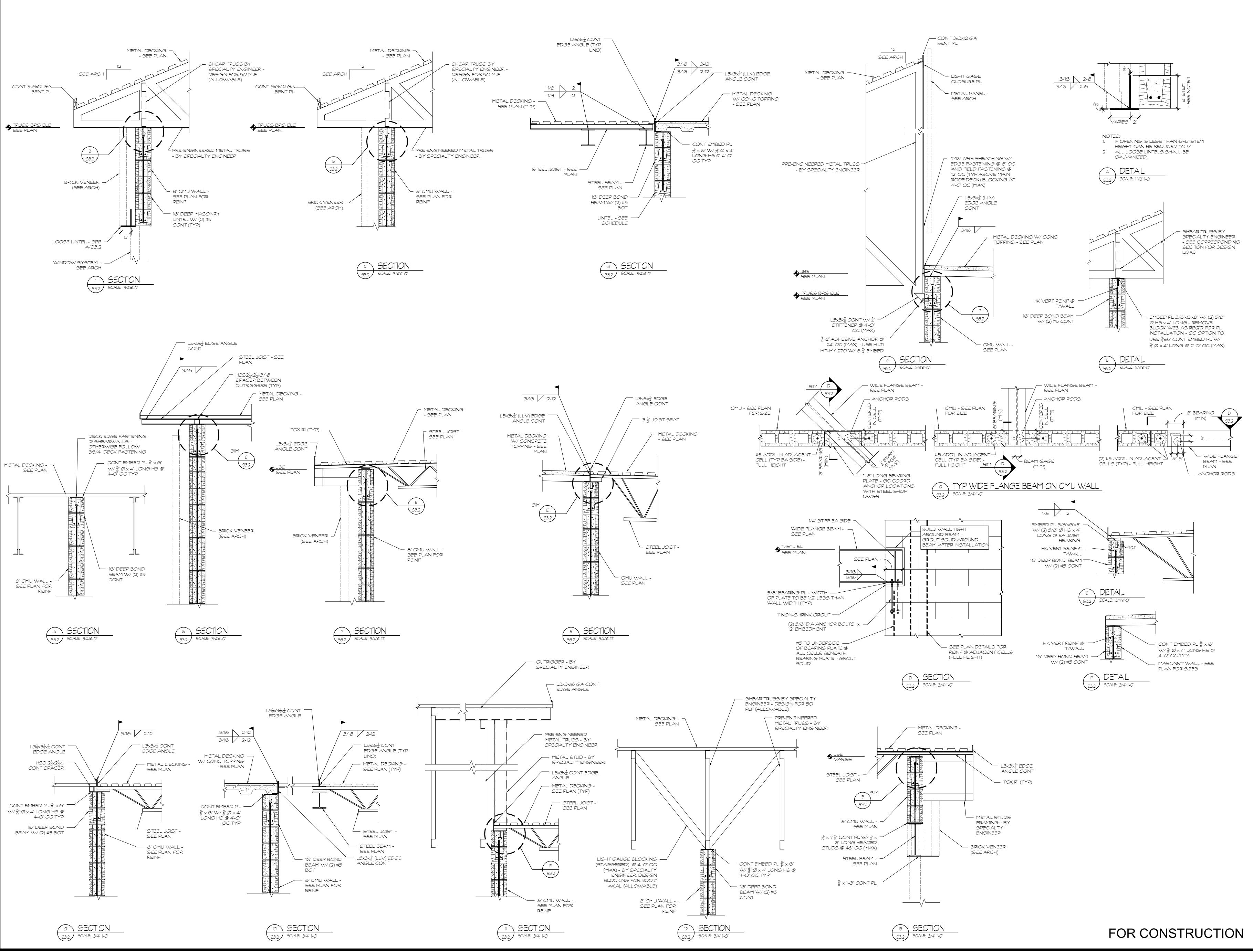


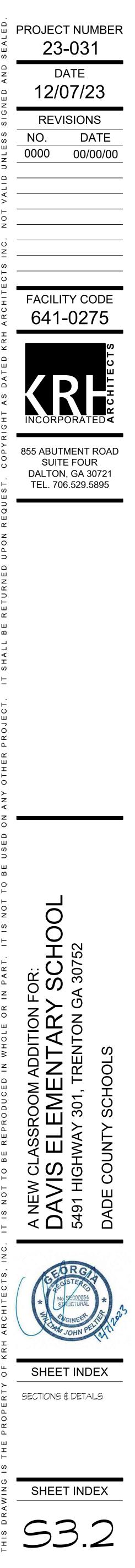
FOR CONSTRUCTION

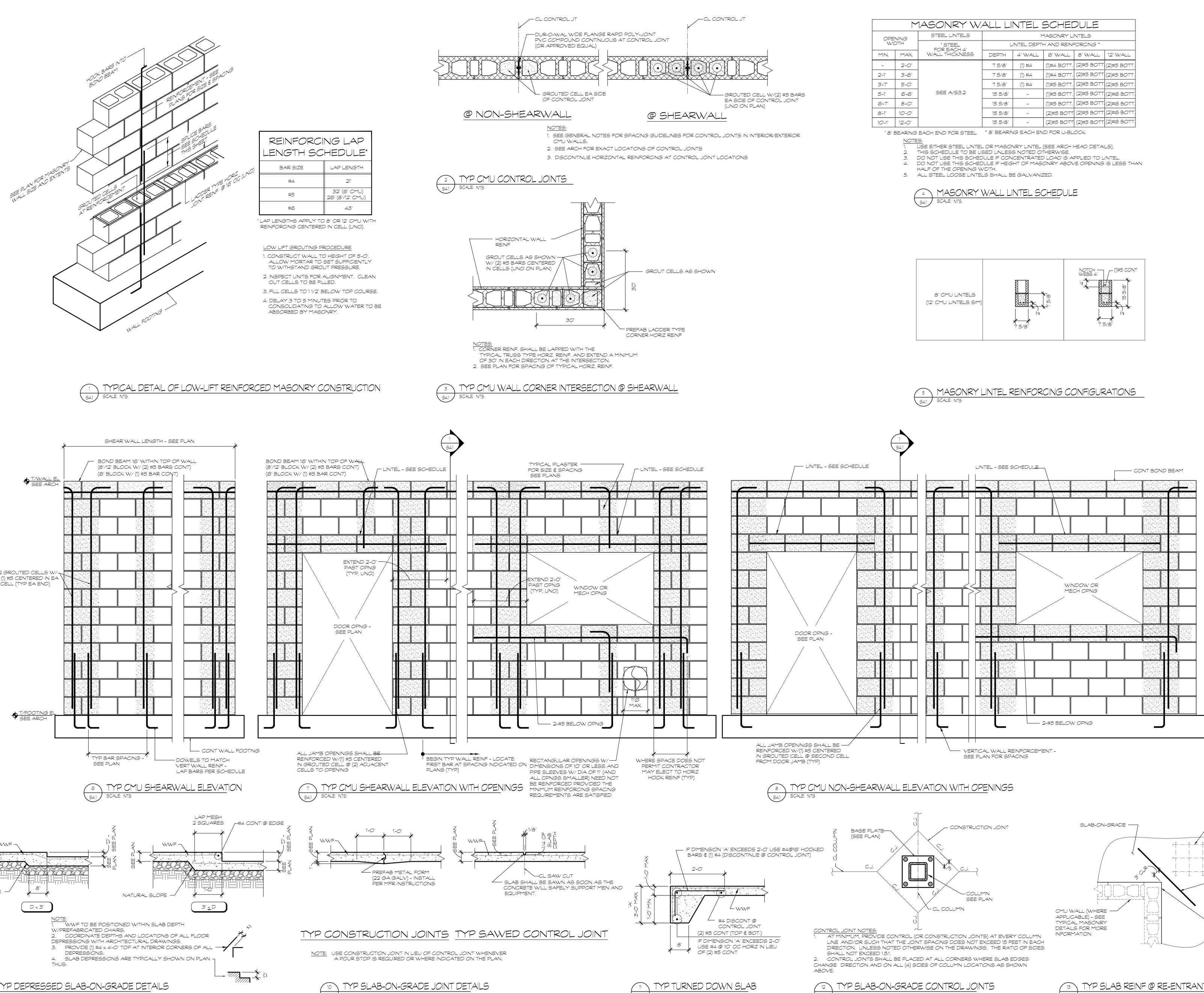


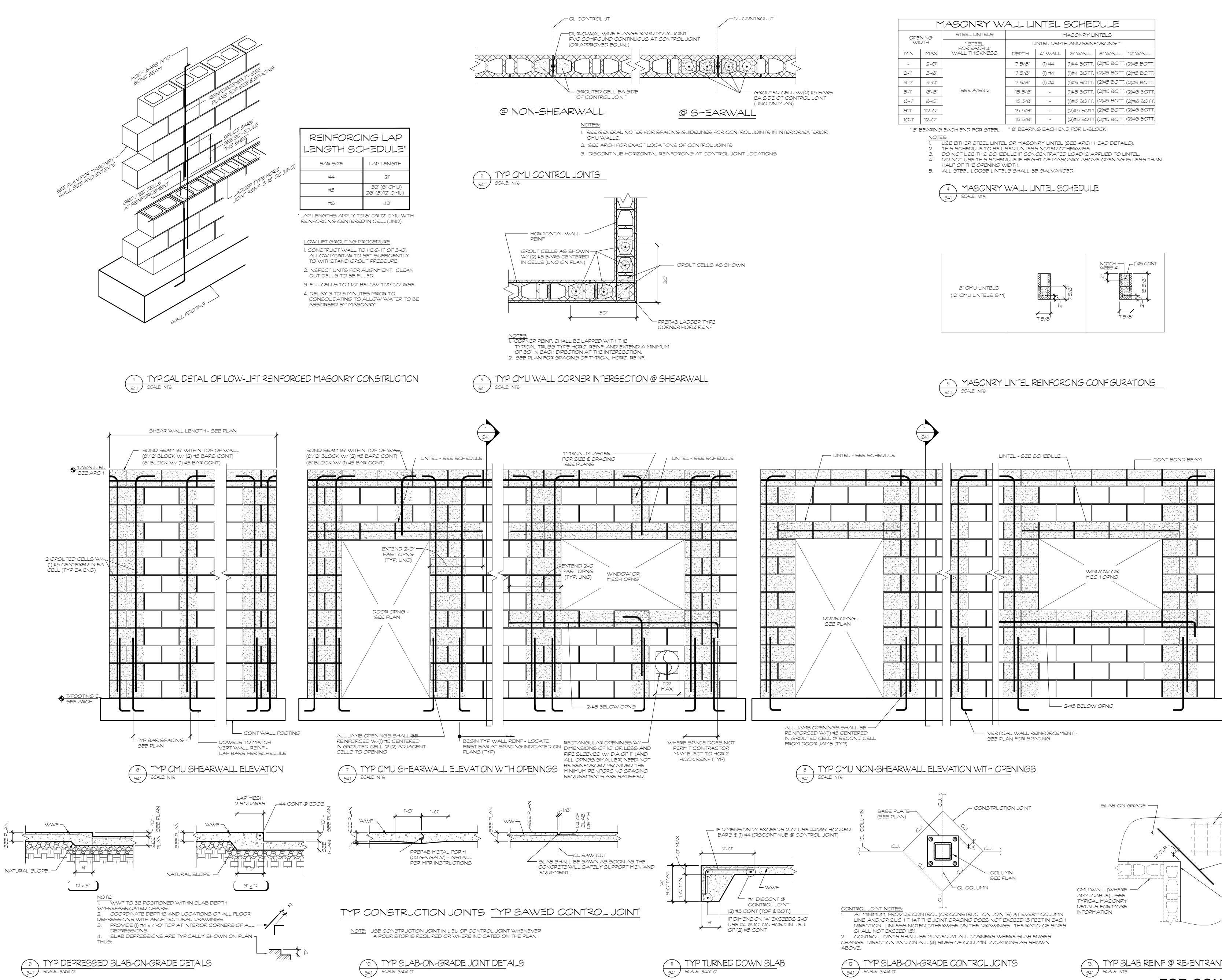


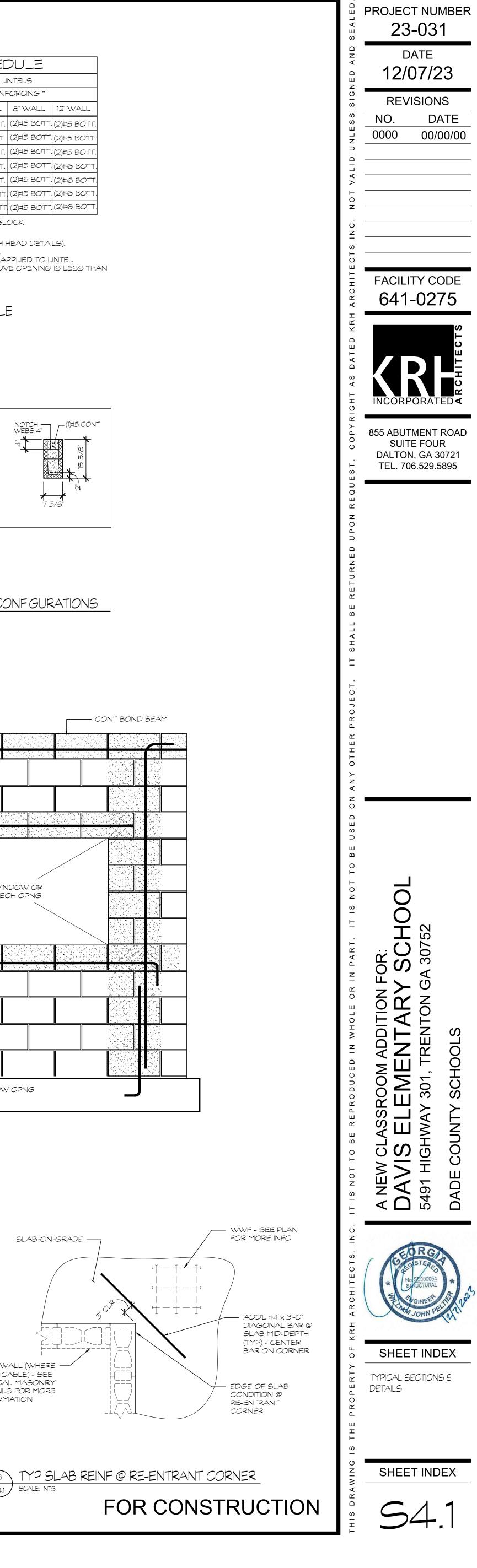


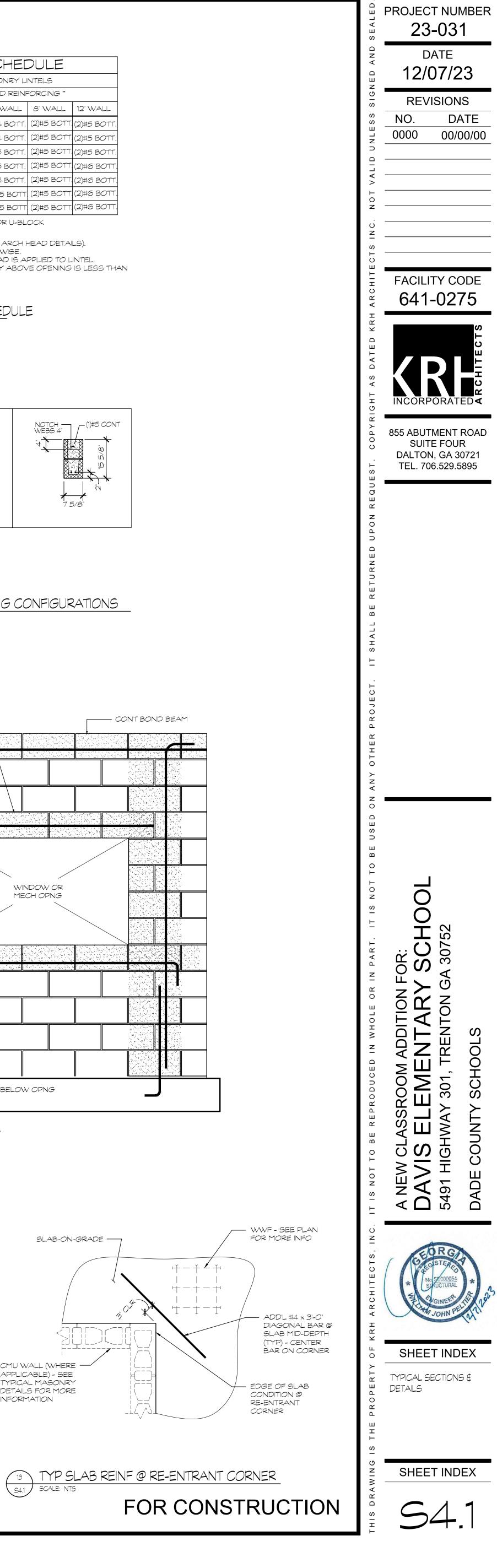


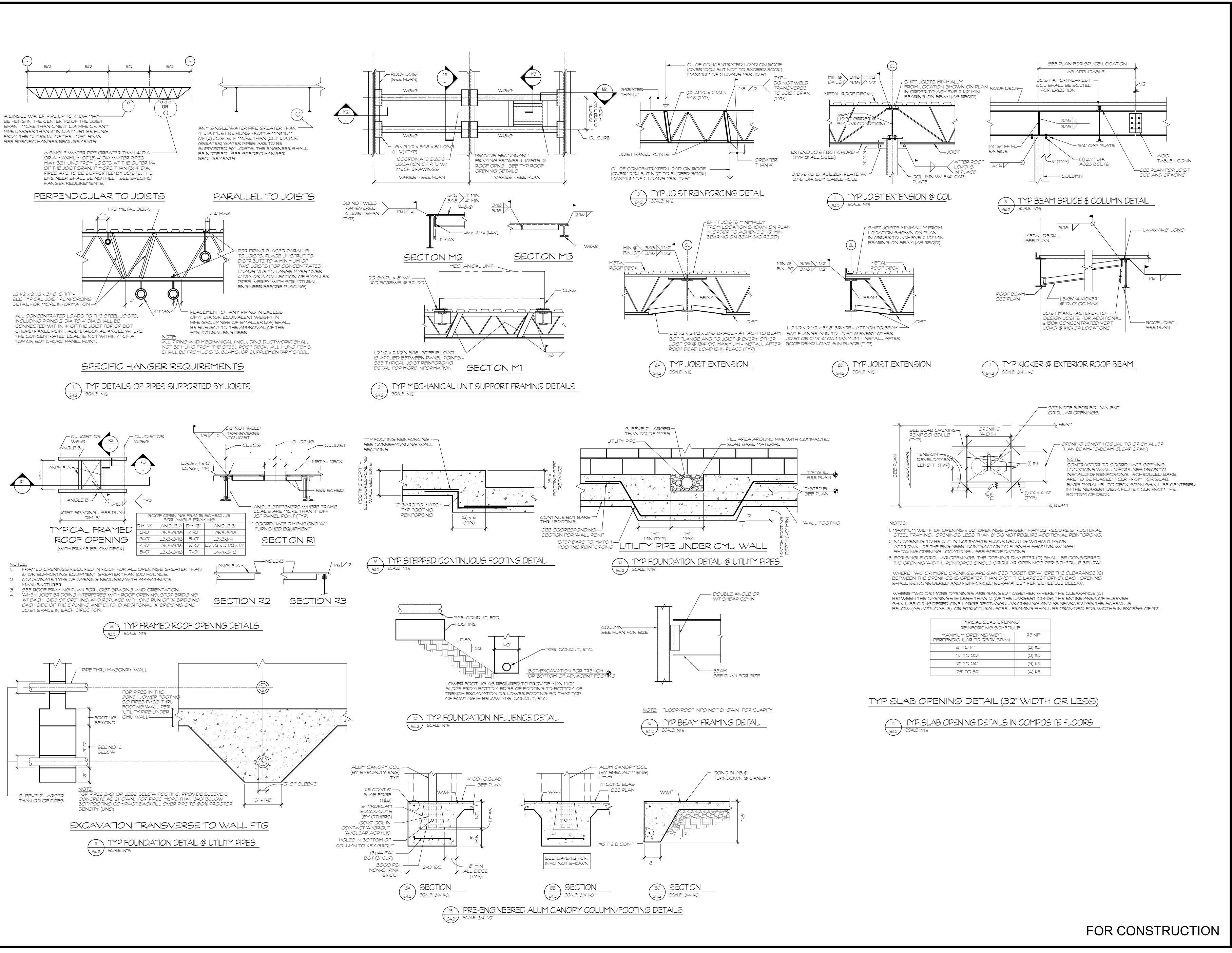




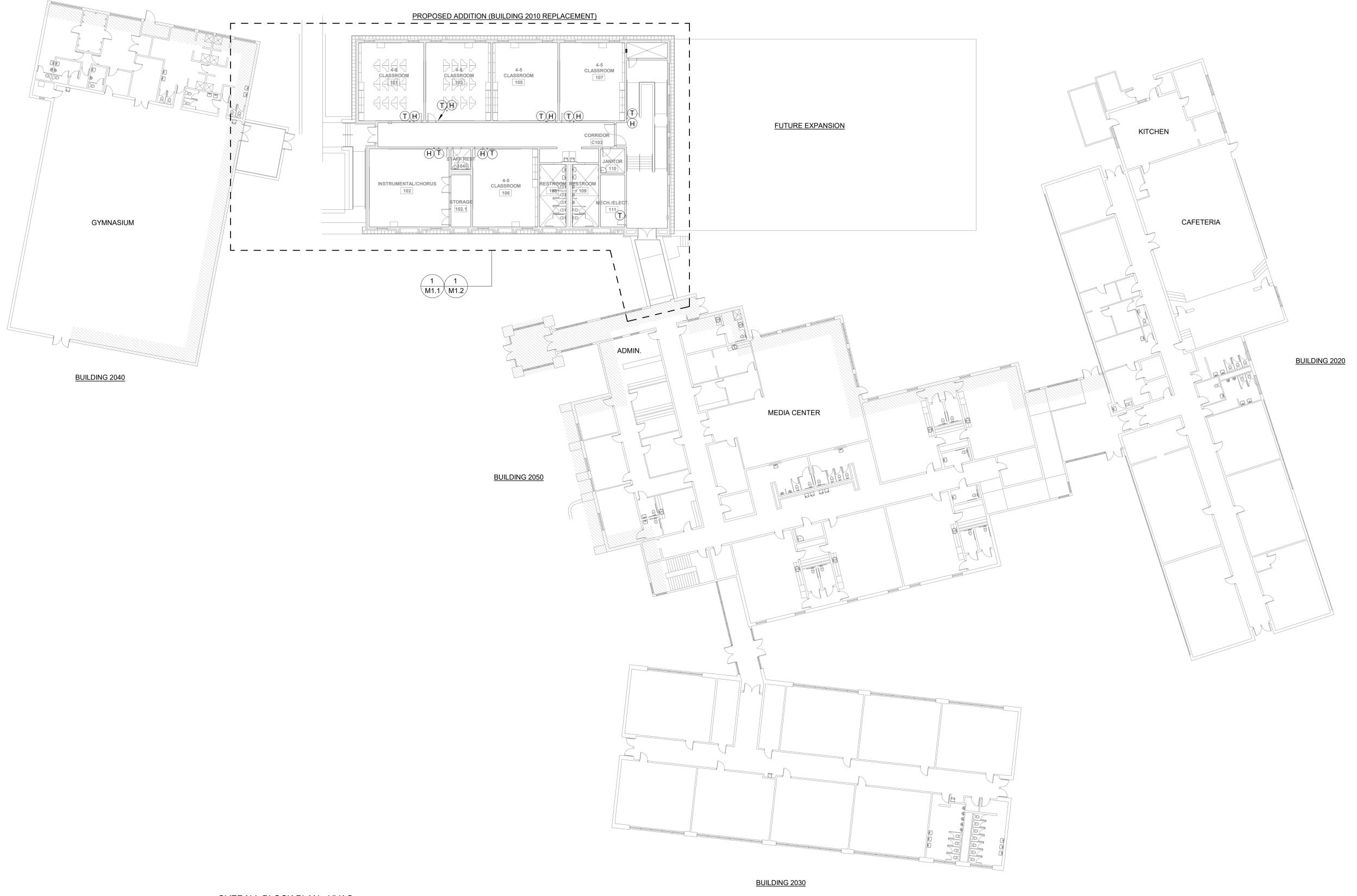








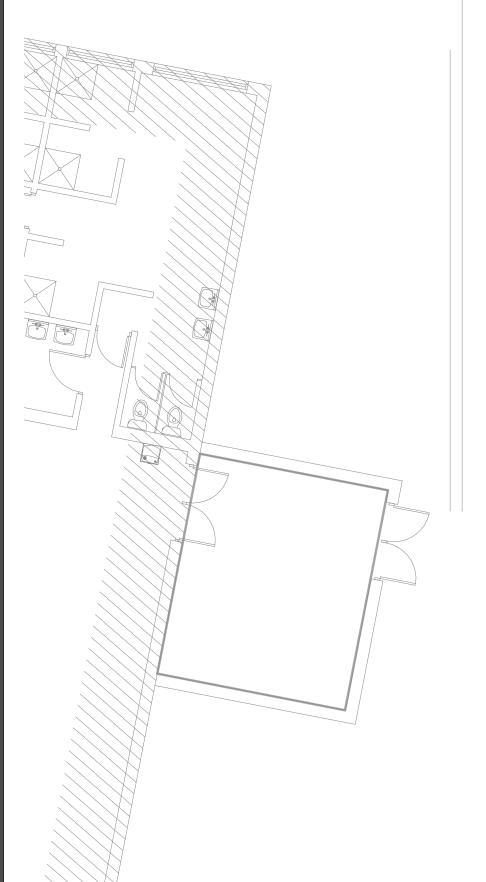


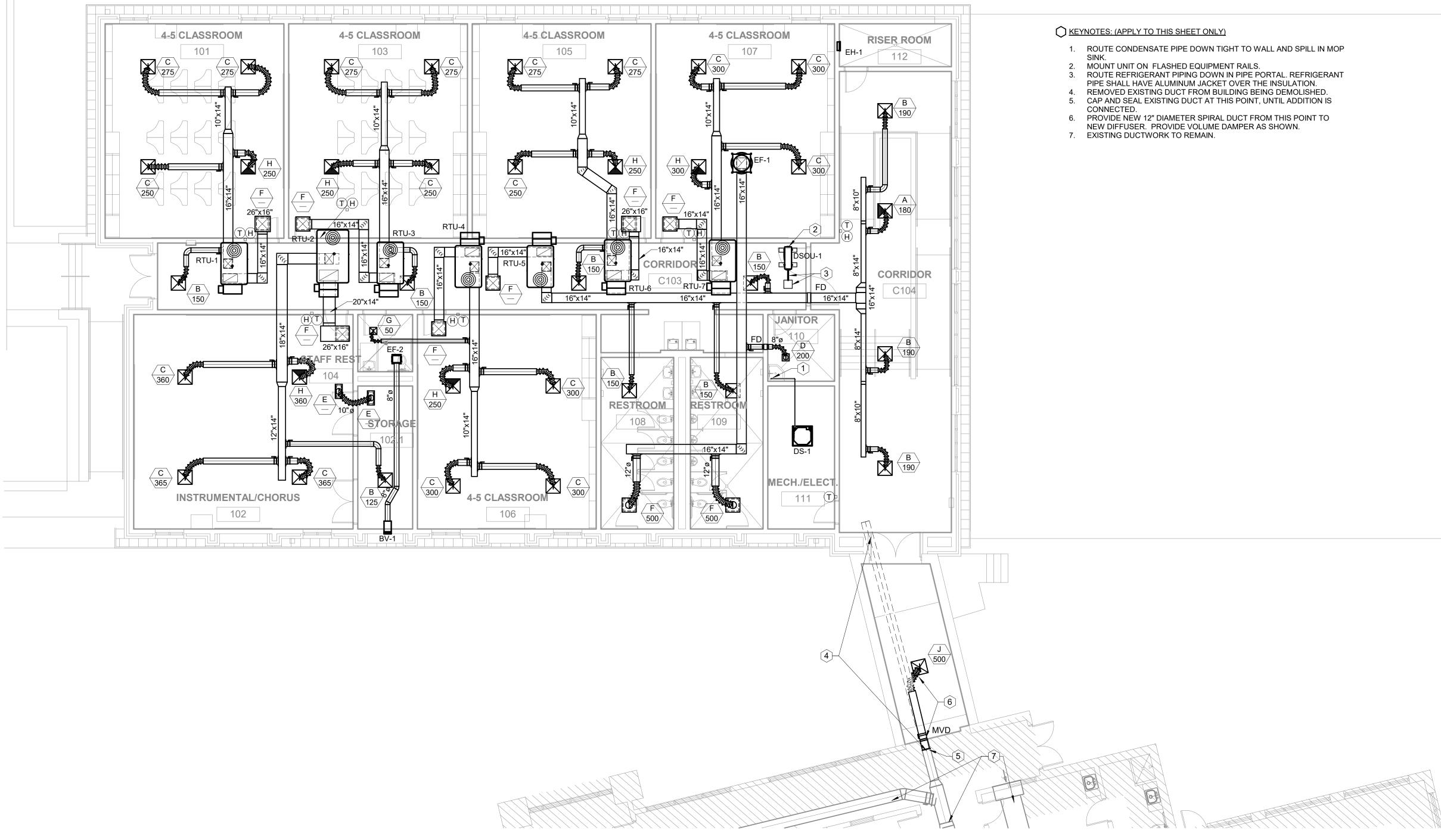


1 OVERALL BLOCK PLAN - HVAC 1" = 20'-0"









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

GENERAL NOTES:

TRANSITION FROM SHOWN DUCT SIZE TO WALL GRILLE NECK SIZE SPECIFICATION. COST TO THE OWNER. . FANS AND CLOSE ALL OUTSIDE AIR DAMPERS WHEN DEPRESSED. 10. MINIMUM 10' SEPARATION BETWEEN O.A. INTAKES AND EXHAUST OR PLUMBING VENTS. 16. BRANCH DUCTWORK SHALL BE THE SAME SIZE AS THE AIR DISTRIBUTION DEVICE SERVED U.N.O. LIFE SAFETY PLANS FOR WALL RATINGS. LOCKING QUADRANTS. 21. RETURN GRILLES OPENING TO A RETURN AIR PLENUM SHALL BE PROVIDED WITH A SOUND BOOT. SEE DETAIL. THE BUILDING CONTROLS PROVIDER. AND NUMBER OF THE SPACE SERVED. 24. DIFFUSERS LOCATED ADJACENT TO TEMPERATURE SENSORS SHALL BE 3-WAY BLOW TYPE PER DETAIL. REFER TO DETAIL. GENERAL CONTRACTOR AND ARCHITECT.

1. ALL DUCT PENETRATIONS THROUGH WALLS SHALL BE SEALED. THE INTERSTITIAL SPACE BETWEEN THE DUCT AND WALL SHALL BE SEALED WITH CAULK. WHEN FIRE, SMOKE, OR FIRE-SMOKE DAMPERS ARE USED, REFER TO THE MANUFACTURERS REQUIREMENTS FOR SEALING. 2. ALL SUPPLY DIFFUSERS SHALL HAVE A MINIMUM THROW OF 10 FEET AT 100 FPM FOR FULL ROOM COVERAGE. 3. ALL FIRE DAMPERS AND FIRE/SMOKE DAMPERS SHALL HAVE A MINIMUM FIRE RESISTANCE RATING OF 1-1/2 HOURS U.N.O. 4. ALL MECHANICAL EQUIPMENT SHALL BE CONTROLLED BY A COMPUTERIZED ENERGY MANAGEMENT SYSTEM. 5. ALL ROOF MOUNTED EQUIPMENT SHALL BE LOCATED A MINIMUM OF 10' FROM EDGE OF ROOF.

7. MECHANICAL CONTRACTOR SHALL COORDINATE AND PROVIDE ACCESS PANELS TO THE GENERAL CONTRACTOR TO INSTALL AS REQUIRED IN 8. THE BID DOCUMENTS ARE DESIGNED BASED ON THE BASIS OF DESIGN. IF A LISTED "EQUAL" IS USED IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO MAKE ANY REVISIONS AND MODIFICATIONS REQUIRED TO ACCOMMODATE THE "EQUAL" MANUFACTURER AT NO ADDITIONAL 9. PROVIDE AN EMERGENCY STOP BUTTON (MUSHROOM TYPE WITH COVER) LOCATED IN ADMINISTRATION AREA TO SHUT DOWN ALL EXHAUST

11. COORDINATE THE EXACT LOCATION OF WALL MOUNTED SWITCHES AND SENSORS WITH DIVISION 26. 12. PROVIDE & INSTALL STEPDOWN TRANSFORMERS AS REQUIRED WHEN 120V IS PROVIDED FOR A 24V DEVICE.

13. ALL SUPPLY AND EXHAUST BRANCH DUCTS SHALL BE PROVIDED WITH VOLUME DAMPERS - ROUND AND RECTANGULAR DAMPERS SHALL BE PROVIDED WITH CONTINUOUS SQUARE SHAFT, END BEARINGS, 2" STANDOFF BRACKET AND LOCKING QUADRANTS. 14. WHERE DUCT MOUNTED SMOKE DETECTOR ARE REQUIRED FOR HVAC EQUIPMENT SHUT DOWN, THE DUCT MOUNTED SMOKE DETECTORS SHALL BE INSTALLED IN THE SUPPLY DUCT OF UNIT SERVED PRIOR TO ANY BRANCH DUCTS. 15. VOLUME DAMPERS SHALL ACCESSIBLE VIA A STEP LADDER AND REACHING ABOVE THE CEILING.

17. HVAC SYSTEM COMPONENT LOCATIONS ARE DIAGRAMMATIC IN NATURE. COORDINATE EQUIPMENT LOCATIONS WITH DUCTWORK, PIPING, CONDUIT, CABLING, & STRUCTURAL MEMBERS TO ENSURE THAT ALL MANUFACTURER'S REQUIRED CLEARANCES ARE MET. COORDINATE ROOF MOUNTED EQUIPMENT LOCATIONS WITH STRUCTURAL MEMBERS TO AVOID DUCT/STRUCTURE CONFLICTS. 18. CONTRACTOR SHALL COORDINATE EQUIPMENT VOLTAGES WITH THE ELECTRICAL CONTRACTOR AND ELECTRICAL PLANS PRIOR TO ORDERING. 19. ALL PENETRATIONS THROUGH A SMOKE PARTITION SHALL BE FIRE CAULKED AROUND THE PENETRATION SMOKE TIGHT. SEE ARCHITECTURAL

20. WHERE MULTIPLE SPACES ARE SERVED BY A SINGLE UNIT ALL EXHAUST AND RETURN AIR PATHS SHALL BE PROVIDED WITH A MANUAL BALANCING DAMPER. WHERE BALANCING DAMPER IS NOT SHOWN ON PLAN, THE EXHAUST/RETURN GRILLE SHALL BE PROVIDED WITH AN O.B.D. ROUND AND RECTANGULAR DAMPERS SHALL BE PROVIDED WITH CONTINUOUS SQUARE SHAFT, END BEARINGS, 2" STANDOFF BRACKET AND

22. WHERE MULTIPLE SENSORS (TEMP, HUMIDITY, AND CO2) ARE SHOWN IN ONE ROOM, A SINGLE MULTIFUNCTION SENSOR SHALL BE PROVIDED BY 23. ALL EQUIPMENT SHALL BE LABELED PER SPECIFICATION REQUIREMENTS. EQUIPMENT LABELS SHALL INCLUDE UNIT NUMBER AND ROOM NAME

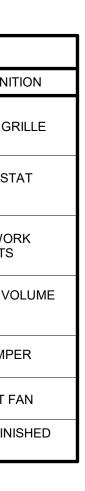
25. ROUTE ROOF MOUNTED UNITS' CONDENSATE DRAINS TO THE NEAREST ROOF DRAIN OR GUTTER. CONDENSATE DRAINS SHALL BE COPPER. 26. ALL DUCTWORK, PIPING ETC. SHALL BE CONCEALED, LOCATED ABOVE CEILING OR IN CHASE U.N.O. 27. ALL EXHAUST FANS, RELIEF HOODS, FLUES AND PLUMBING VENTS SHALL BE A MINIMUM OF 10' FROM ANY OUTSIDE AIR INTAKES.

28. CONTRACTOR SHALL COORDINATE ALL CONTROL DEVICE ELECTRICAL REQUIREMENTS AND LOCATIONS WITH ELECTRICAL CONTRACTOR. 29. WHERE DUCTWORK, PIPING AND CONDUIT ARE NOT CONCEALED ABOVE A CEILING, THEY SHALL BE PAINTED. COORDINATE COLOR WITH 30. WHERE DAMPERS, VALVES AND EQUIPMENT ARE LOCATED ABOVE A HARD CEILING, ACCESS PANELS SHALL BE PROVIDED AND INSTALLED. ACCESS PANELS SHALL BE A MINIMUM OF 18"x18" BUT SHALL BE LARGE ENOUGH TO PROVIDE ACCESS TO CONCEALED DEVICES. IF ACCESS PROVIDED IS NOT LARGE ENOUGH TO PROVIDE ACCESS TO CONCEALED DEVICE, THE ACCESS PANEL SHALL BE REPLACED WITH THE APPROPRIATE SIZE ACCESS PANEL. CONTRACTOR SHALL DEMONSTRATE ADEQUATE ACCESS HAS BE ACHIEVE TO THE OWNER.

31. MECHANICAL CONTRACTOR SHALL COORDINATE ALL DUCTWORK NOTED TO BE ROUTED IN THE JOIST BAY AND WEB WITH THE GENERAL CONTRACTOR FOR COORDINATION WITH THE STRUCTURAL FABRICATOR. THE GENERAL CONTRACTOR SHALL COORDINATE CROSS BRACING BETWEEN JOIST AND ROUTING OF DUCTWORK WITHIN JOIST.

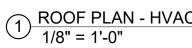
	DRAWING LEGEND								
SYMBOL	DEFINITION	SYMBOL	DEFIN						
\boxtimes	SUPPLY DIFFUSER		RETURN G						
	AIR DEVICE DESIGNATOR	T	THERMOS						
A XX'-XX" 000 A.F.F.	SIDEWALL GRILLE DESIGNATOR. A.F.F. HEIGHT IS TO BOTTOM OF GRILLE FACE		DUCTW(OFFSET						
Ĥ	HUMIDISTAT	∏ m∨d	MANUAL \ DAMPER						
	SPIN-IN WITH VOLUME DAMPER	🛛 FD	FIRE DAM						
RTU-	ROOFTOP UNIT	EF-	EXHAUST						
U.N.O.	UNLESS NOTED OTHERWISE	A.F.F.	ABOVE FIN FLOOR						

ALL HVAC EQUIPMENT NOT SPECIFICALLY ADDRESSED IN THE CONSTRUCTION DOCUMENTS IS TO REMAIN AS-IS. IN SERVICE. ADEQUATELY PROTECT ALL REMAINING EQUIPMENT DURING CONSTRUCTION TO PREVENT DAMAGE.









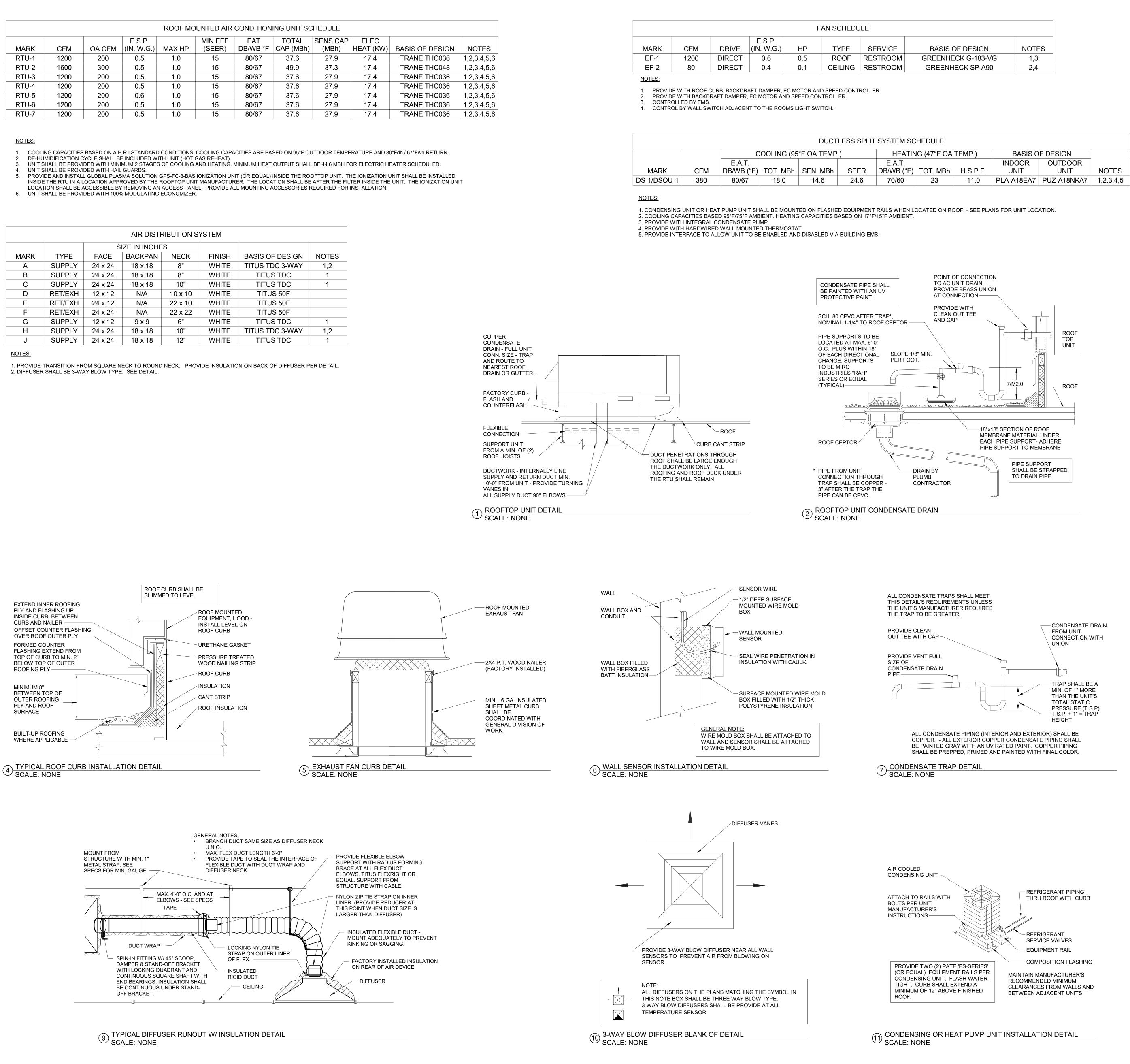


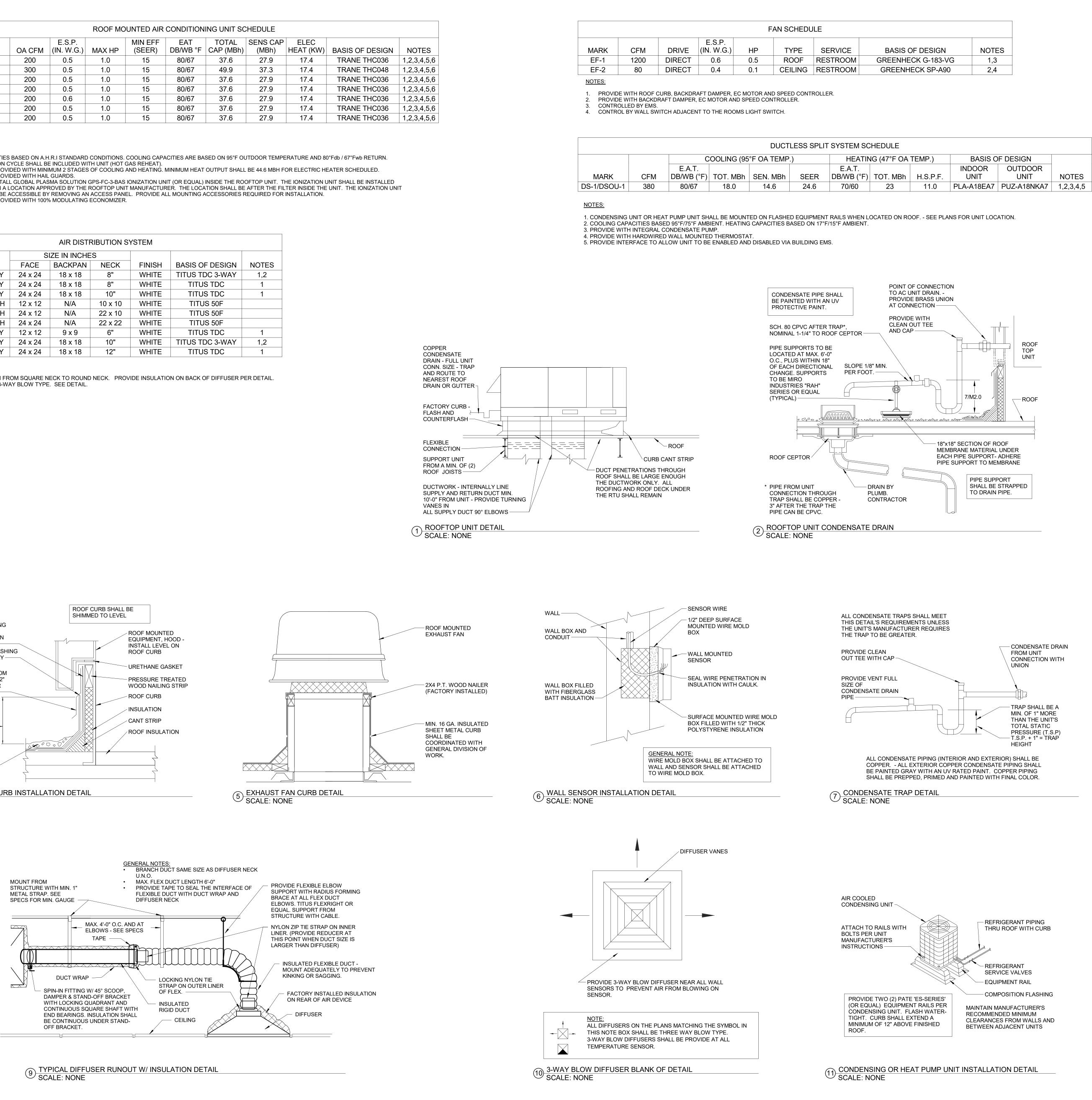
	ROOF MOUNTED AIR CONDITIONING UNIT SCHEDULE											
			E.S.P.		MIN EFF	EAT	TOTAL	SENS CAP	ELEC			
MARK	CFM	OA CFM	(IN. W.G.)	MAX HP	(SEER)	DB/WB °F	CAP (MBh)	(MBh)	HEAT (KW)	BASIS		
RTU-1	1200	200	0.5	1.0	15	80/67	37.6	27.9	17.4	TRA		
RTU-2	1600	300	0.5	1.0	15	80/67	49.9	37.3	17.4	TRAI		
RTU-3	1200	200	0.5	1.0	15	80/67	37.6	27.9	17.4	TRA		
RTU-4	1200	200	0.5	1.0	15	80/67	37.6	27.9	17.4	TRA		
RTU-5	1200	200	0.6	1.0	15	80/67	37.6	27.9	17.4	TRAI		
RTU-6	1200	200	0.5	1.0	15	80/67	37.6	27.9	17.4	TRA		
RTU-7	1200	200	0.5	1.0	15	80/67	37.6	27.9	17.4	TRA		

UNIT SHALL BE PROVIDED WITH HAIL GUARDS.

LOCATION SHALL BE ACCESSIBLE BY REMOVING AN ACCESS PANEL. PROVIDE ALL MOUNTING ACCESSORIES REQUIRED FOR INSTALLATION.

AIR DISTRIBUTION SYSTEM									
		S	IZE IN INCHE	S					
MARK	TYPE	FACE	BACKPAN	NECK	FINISH	BASIS OF DESIGN	NOTES		
А	SUPPLY	24 x 24	18 x 18	8"	WHITE	TITUS TDC 3-WAY	1,2		
В	SUPPLY	24 x 24	18 x 18	8"	WHITE	TITUS TDC	1		
С	SUPPLY	24 x 24	18 x 18	10"	WHITE	TITUS TDC	1		
D	RET/EXH	12 x 12	N/A	10 x 10	WHITE	TITUS 50F			
Е	RET/EXH	24 x 12	N/A	22 x 10	WHITE	TITUS 50F			
F	RET/EXH	24 x 24	N/A	22 x 22	WHITE	TITUS 50F			
G	SUPPLY	12 x 12	9 x 9	6"	WHITE	TITUS TDC	1		
Н	SUPPLY	24 x 24	18 x 18	10"	WHITE	TITUS TDC 3-WAY	1,2		
J	SUPPLY	24 x 24	18 x 18	12"	WHITE	TITUS TDC	1		





=	BASIS OF DESIGN	NOTES
M	GREENHECK G-183-VG	1,3
M	GREENHECK SP-A90	2,4

	LOUVER SCHEDULE							
MARK	SIZE	FREE AREA SQ. FT.	SERVICE	BASIS OF DESIGN GREENHECK				
BV-1	12X7.75	0.23	RESTROOM	BVE				

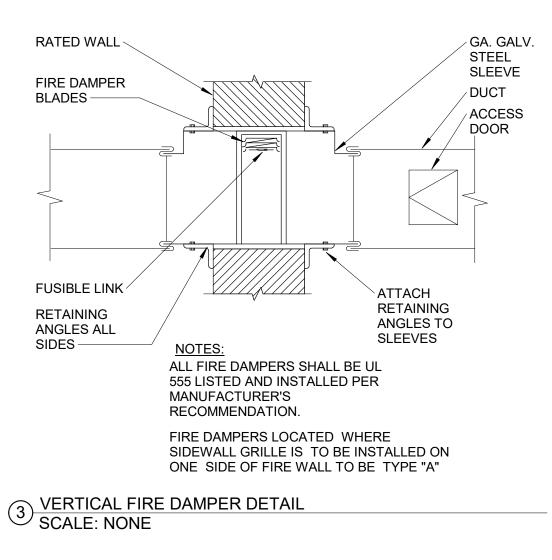
NOTES:

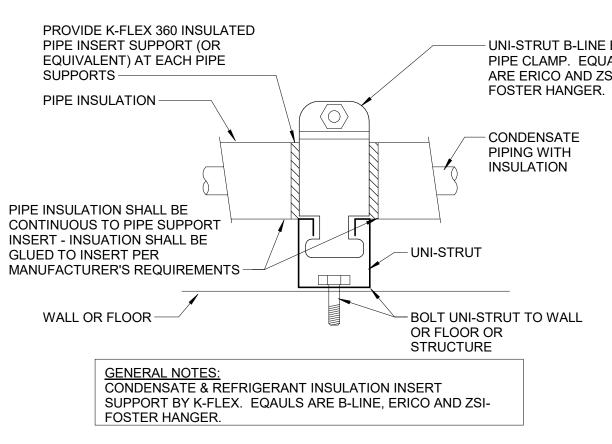
1. COORDINATE CUSTOM COLOR FROM FULL RANGE OF COLORS WITH ARCHITECT. LOUVER SHALL HAVE A KYNAR FINISH.

		ELECT	RIC HEATER SO	CHEDULE
MARK	KW	CFM	LOCATION	BASIS OF DESIGN
EH-1	3.0	245	RISER ROOM	MARKEL 3450 SERIE
NOTES:				

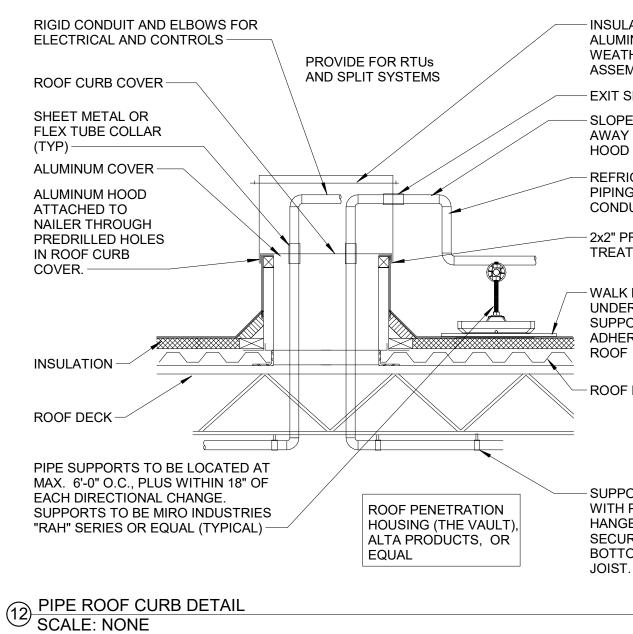
1. RECESSED MOUNTED HEATER WITH RECESSED MOUNTING KIT, WITH INTEGRAL DISCONNECT AND INTEGRAL THERMOSTAT

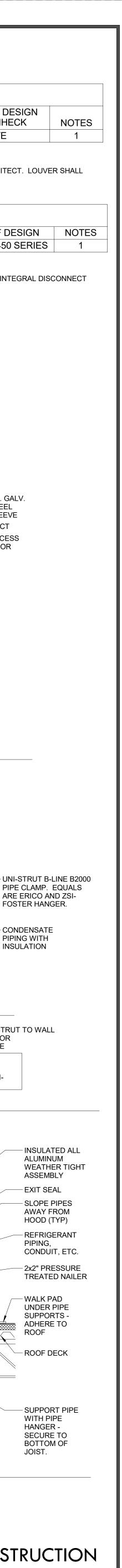
EM SC	EM SCHEDULE									
HEATING (47°F OA TEMP.)			BASIS O	F DESIGN						
4. Т.			INDOOR	OUTDOOR						
/B (°F)	TOT. MBh	H.S.P.F.	UNIT	UNIT	NOTES					
/60	23	11.0	PLA-A18EA7	PUZ-A18NKA7	1,2,3,4,5					
				I						



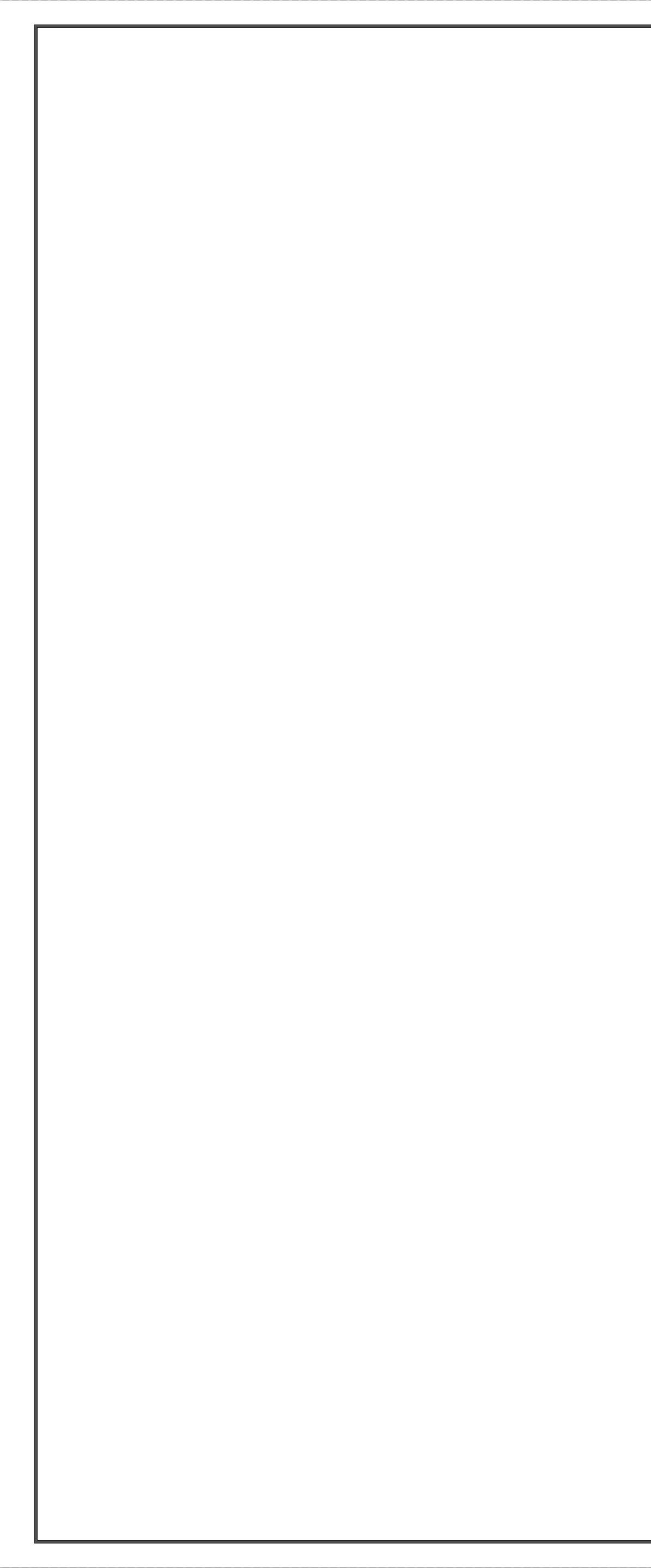


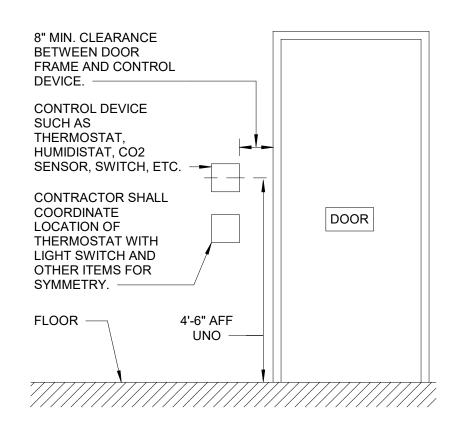
8 REFRIGERANT/REFRIGERNAT PIPING SUPPORT DETAIL SCALE: NONE



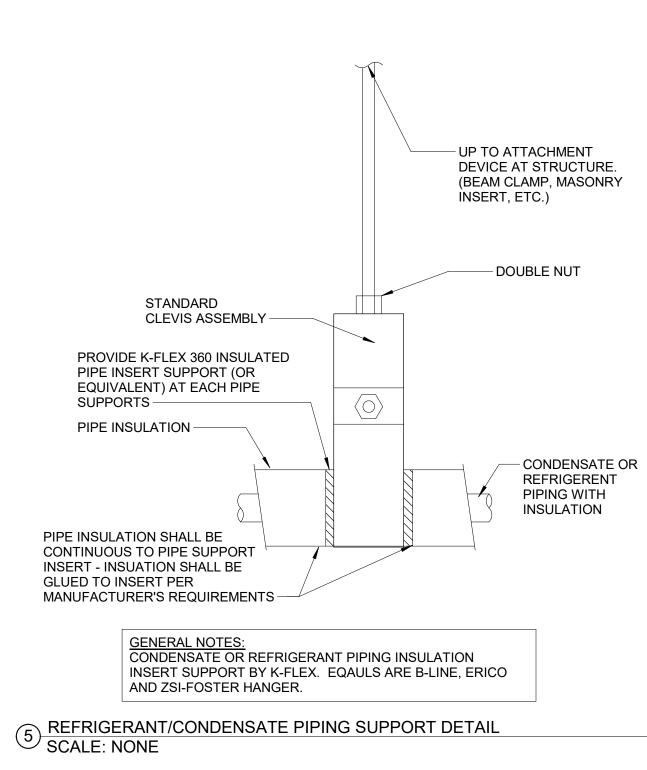


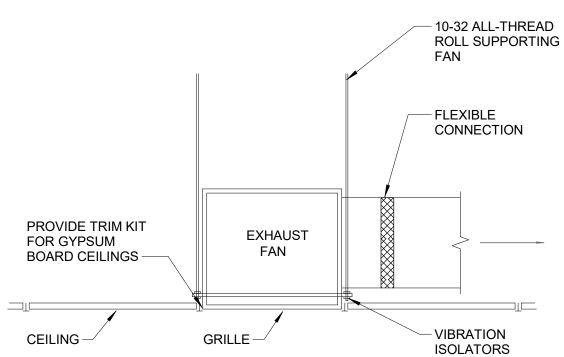




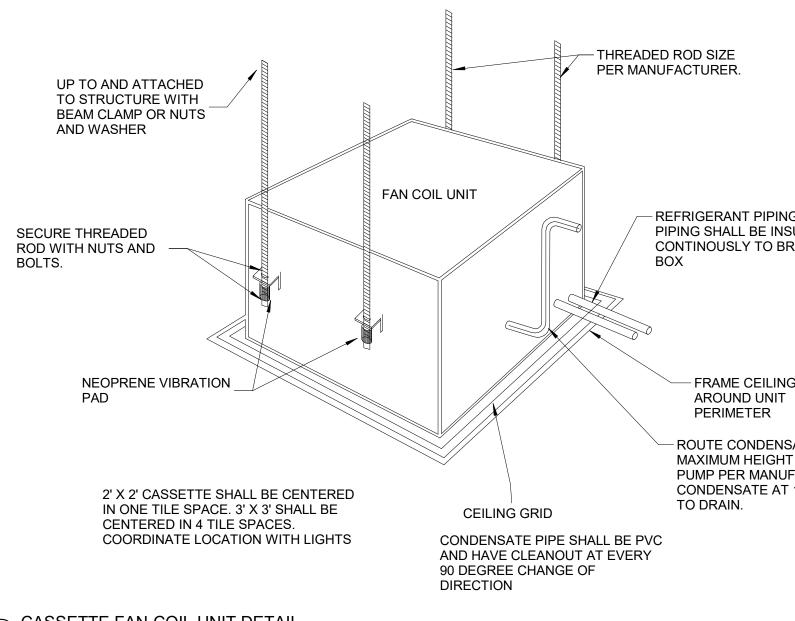




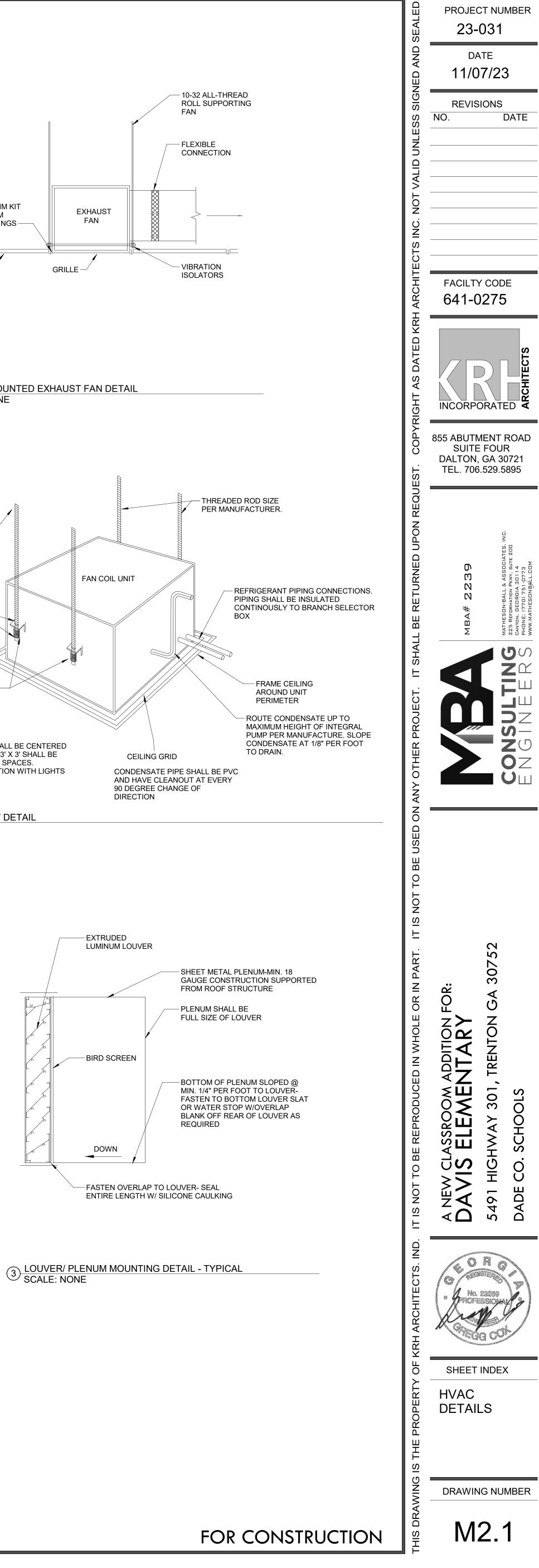




1 CEILING MOUNTED EXHAUST FAN DETAIL SCALE: NONE



2 CASSETTE FAN-COIL UNIT DETAIL SCALE: NONE



GENERAL NOTES:

- 1. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF VENTS THRU ROOF TO BE A MINIMUM OF 3'-0" FROM LOW POINT VALLEY IN FLAT ROOF AREAS. SANITARY VENTS SHALL EXTEND 12" ABOVE FINISHED ROOF MEASURED FROM THE TOP OF TAPER INSULATION AT POINT OF PIPE PENETRATION.
- 2. ALL PIPE PENETRATIONS THROUGH WALLS SHALL BE SEALED. THE INTERSTITIAL SPACE BETWEEN THE PIPE AND WALL SHALL BE SEALED WITH CAULK. WHEN FIRE, SMOKE, OR FIRE-SMOKE DAMPERS ARE USED, REFER TO THE MANUFACTURERS REQUIREMENTS FOR SEALING.
- 3. ALL PLUMBING FIXTURES INSTALLED SHALL BE HIGH EFFICIENCY PLUMBING FIXTURES AND FITTING AS DEFINED IN THE GEORGIA STATE AMENDMENTS TO THE INTERNATIONAL PLUMBING CODE (2018 EDITION)
- 4. ALL PIPING DROPS SHALL BE PROVIDE WITH ISOLATION BALL VALVES.
- 5. UNLESS NOTED OTHERWISE ALL VALVES SHALL BE FULL PORT BALL VALVES.
- 6. ALL VERTICAL PIPING IN THE BUILDING IS TO BE CONCEALED IN A CHASE OR IN A WALL OR ABOVE CEILING.
- 7. DO NOT SCALE PLUMBING FIXTURE LOCATIONS OFF OF THE PLUMBING PLANS. PLUMBING FIXTURE LOCATIONS ARE TO BE TAKEN OFF OF THE LATEST ARCHITECTURAL DRAWINGS.

	PLUMBING FIXTURE SCHEDULE									
MARK	DESCRIPTION	MOUNTING HEIGHT	FLOW RATE	CW	HW	S/W	NOTES			
P101	WATER CLOSET, FLOOR MNTD, FLUSH VALVE	SEE SPECS	1.28 GPF	1-1/4"	-	4"				
P101H	WATER CLOSET, ADA - FLOOR MNTD, FLUSH VALVE	SEE SPECS	1.28 GPF	1-1/4"	-	4"				
P102H	WATER CLOSET, ADA - FLOOR MNTD, FLUSH VALVE	SEE SPECS	1.28 GPF	1-1/4"	-	4"				
P201	URINAL, WALL HUNG, FLUSH VALVE	15" AFF	0.5 GPM	3/4"	-	2"				
P201H	URINAL, WALL HUNG, ADA, FLUSH VALVE	17" AFF	0.5 GPM	3/4"	-	2"				
P301H	LAVATORY, WALL HUNG, ADA, FAUCET	34" TOP OF RIM TO FLOOR	0.5 GPM	1/2"	1/2"	1-1/2"				
P401B	ELECTRIC WATER COOLER, W/ BOTTLE FILL STATION	30" CENTER OF BUBBLER TO FLOOR	NOT RATED	1/2"	-	1-1/2"				
P401H	ELECTRIC WATER COOLER, ADA	36" CENTER OF BUBBLER TO FLOOR	NOT RATED	1/2"	-	1-1/2"				
P501	MOP RECEPTOR WITH FAUCET	FLOOR MOUNTED	NOT RATED	1/2"	1/2"	1-1/2"				

	ELECTRIC WATER HEATER SCHEDULE									
MARK	LOCATION	STORAGE CAPACITY	KW INPUT	RECOVERY RATE @ 100°F RISE	BASIS OF DESIGN A.O. SMITH					
DWH-1	DRAWING P1.2	20 GALLON	2.5	11 GPH	DEL-20					

DOMESTIC HW RECIRCULATING PUMP SCHEDULE									
MARK	ASSO. WATER HEATER	GPM	TDH (FT)	HP	BASIS OF DESIGN				
CP-1	DWH-1	1.0	2.0	1/40	TACO 006				
TEMPERING VALVE SCHEDULE									

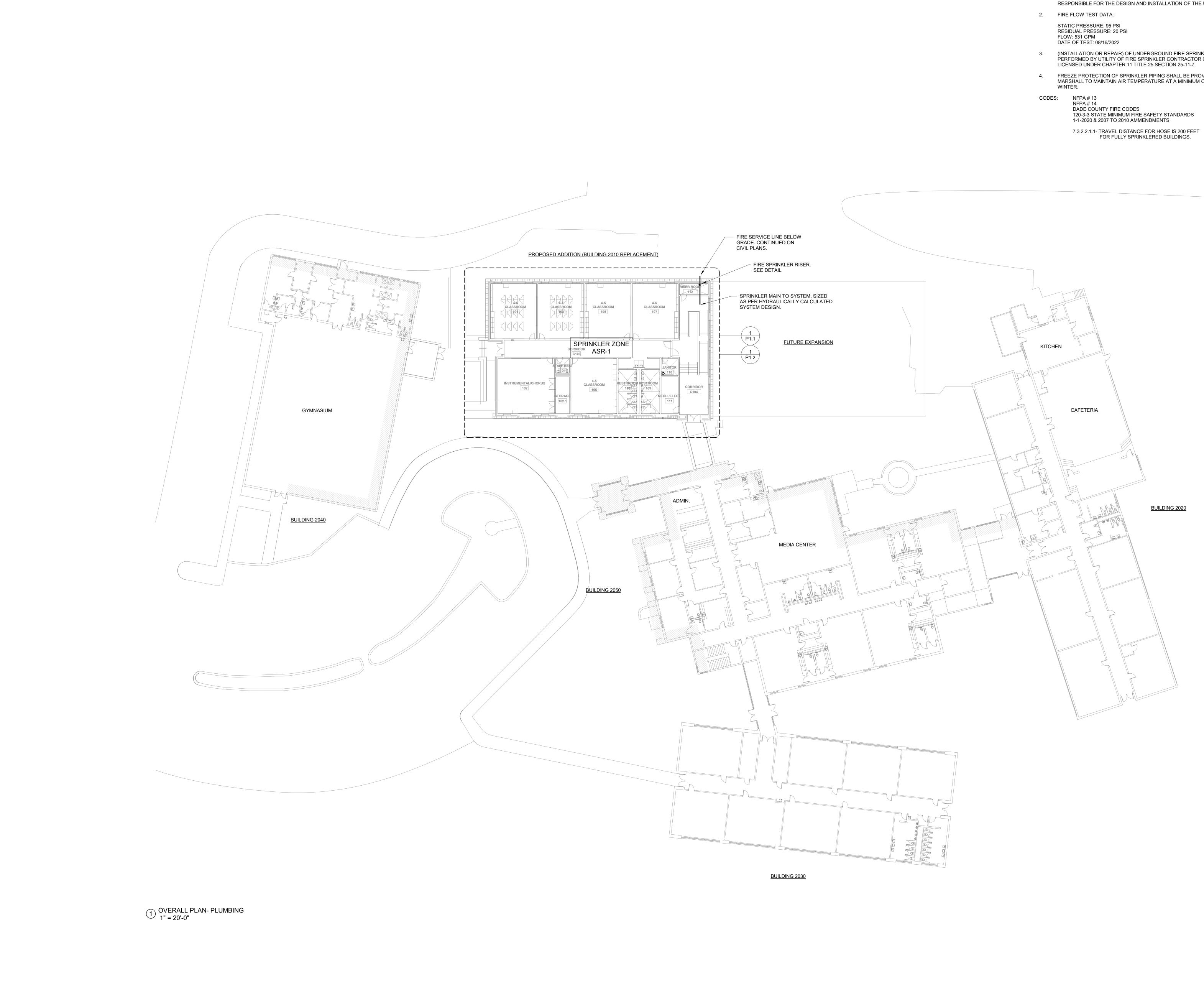
M	1ARK	ASSOCIATED WITH	PRESSURE	FLOW	BASIS OF DESIGN					
		WATER HEATER	DROP (PSI)	(GPM)	(LEONARD)					
Т	TV-1	DWH-1	15	12.5	LV-20-E-LF					

EQUAL PRODUCTS - POWERS, LAWLER

PLUMBING L	LEGEND
------------	--------

	PLUMBING LEGEND
SYMBOL	
	SANITARY PIPING (S) SANITARY VENT PIPING (V)
	DOMESTIC HOT WATER PIPING (H)
	DOMESTIC COLD WATER PIPING (C)
	HOT WATER RECIRCULATING PIPING (HR)
	LOW PRESSURE (LESS THAN 2.0 PSIG) NATURAL GAS PIPING (LPG)
	MEDIUM PRESSURE (5.0 PSIG) NATURAL GAS PIPING (MPG)
	KITCHEN WASTE (K)
	STORM PIPING (ST)
	STORM OVERFLOW PIPING (SO)
	CONDENSATE DRAIN (CD)
	TRAP PRIMER LINE (TP)
<u> </u>	FIRE MAIN OR FEED MAIN
TP/CD	COMBINED TRAP PRIMER/CONDENSATE DRAIN
CI	CAST IRON
	DUCTILE IRON PIPE (THICKNESS CLASS 50)
	CORRUGATED METAL PIPE, FULLY COATED, PAVED INVERT
HD W.CO.	
Y.CO.	VALL CLEANOUT YARD CLEANOUT
F.CO.	FLOOR CLEANOUT
AP	ACCESS PANEL
 P-1	PLUMBING FIXTURE NUMBER
	SEE PLUMBING NOTES
	UNION
	FLOW ARROW
\bullet	CONNECT TO EXISTING PIPING
VTR	VENT THROUGH ROOF
0	BALL VALVE (FULL PORT)
A/C	ABOVE CEILING
B/F	BELOW FLOOR
#"FD-1	FLOOR DRAIN (# INDICATES SIZE, NUMBER INDICATES TYPE - SEE SPECS)
WH	HOSE BIBB WITH VANDAL PROOF VACUUM BREAKER
RD	ROOF DRAIN-NUMBER INDICATES TYPE - SEE SPECS
NPW	NON-POTABLE WATER
BFP	USC/ASSE APPROVED BACKFLOW PREVENTION DEVICE ASSEMBLY
RPZ DCV	REDUCED PRESSURE ZONE BACKFLOW PREVENTER DOUBLE CHECK VALVE BACKFLOW PREVENTER
	DOUBLE DETECTOR CHECK VALVE BACKFLOW PREVENTER
VB	3 PIECE ADJUSTABLE VALVE BOX
TP-2	TRAP PRIMER - NUMBER INDICATES TYPE - SEE SPECS
TPDU-2	TRAP PRIMER DISTRIBUTION UNIT - NUMBER INDICATES TYPE - SEE SPECS
NFWH	NON-FREEZE WALL HYDRANT
WH	WALL HYDRANT
	AGA RATED LUBRICATED PLUG COCK
BV	BALL VALVE (FULL PORT)
	GATE VALVE (GV)
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
🛇 GV & VB	GATE VALVE WITH VALVE BOX AT FIN. GRADE
IE	INVERT ELEVATION
SA "B"	SHOCK ARRESTOR - LETTER INDICATES SIZE (PER PDI STANDARDS)
PRV	PRESSURE REDUCING VALVE ASSEMBLY
\mathbf{k}	OS & Y GATE VALVE IN VERTICAL
	CHECK VALVE
CHKV	
INV.	
INV. OFD	OVERFLOW ROOF DRAIN
INV.	





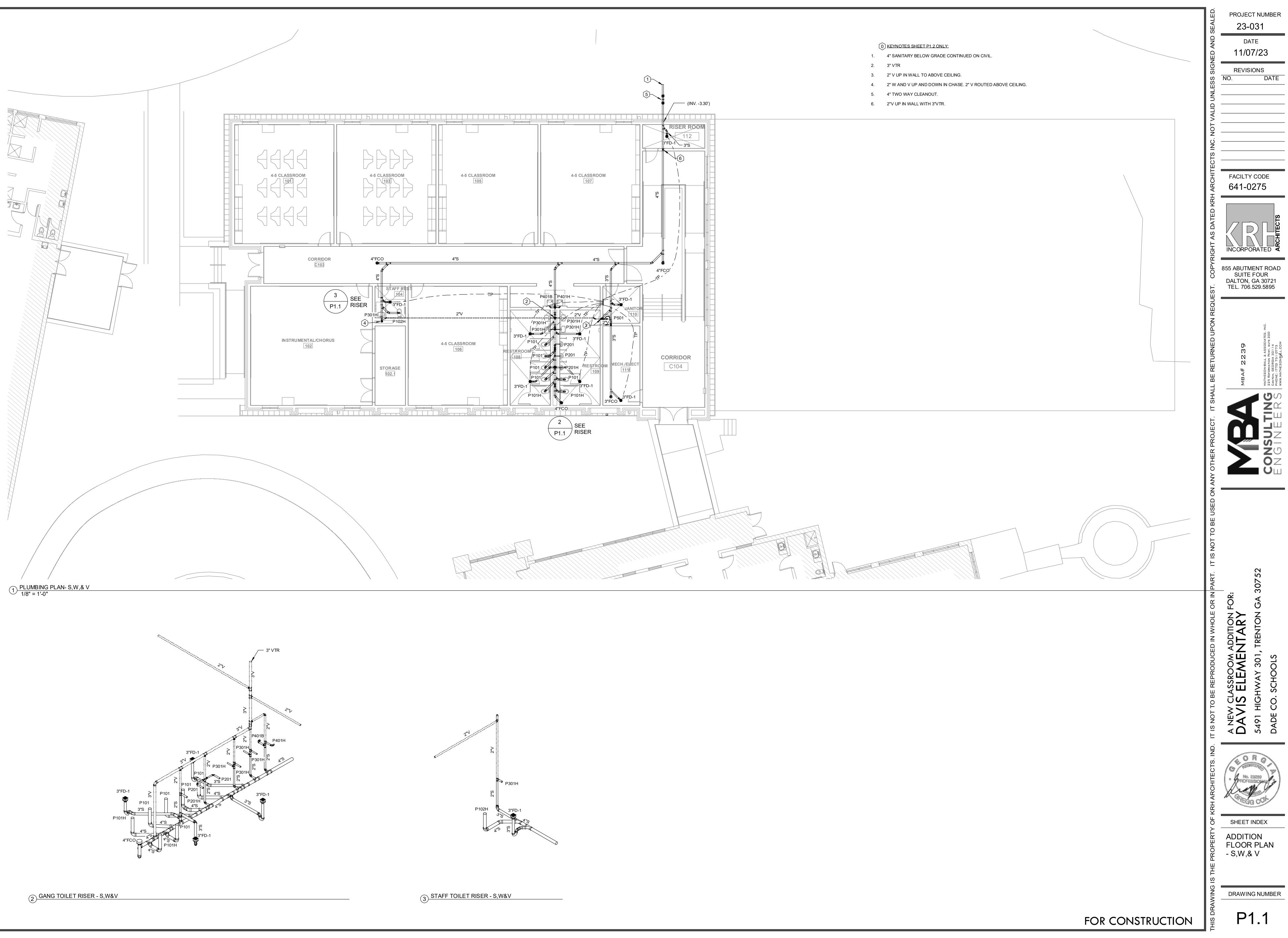


- 1. THE INSTALLATION OF THE OUTSIDE UNDERGROUND FIRE PROTECTON SYSTEM AND ASSOCIATED COMPONENTS SHALL BE INSTALLED BY A GEORGIA CERTIFICATE OF COMPETENCY HOLDER FOR AUTOMATIC FIRE PROTECTION SYSTEMS. THE CERTIFICATE HOLDER SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE UNDERGROUND SUPPLY PIPING.

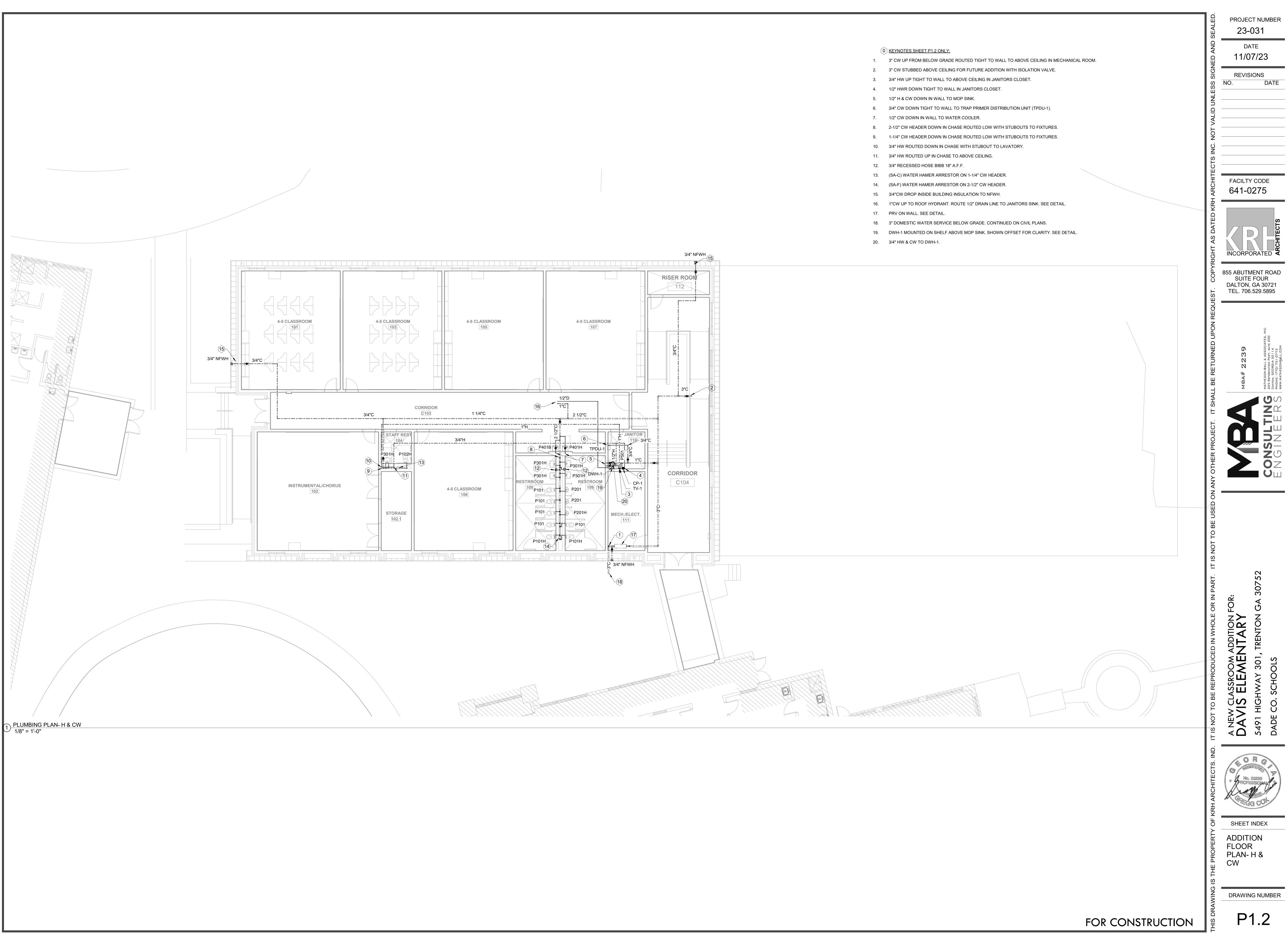
- (INSTALLATION OR REPAIR) OF UNDERGROUND FIRE SPRINKLER WATER SUPPLIES SHALL BE PERFORMED BY UTILITY OF FIRE SPRINKLER CONTRACTOR OR PLUMBING CONTRACTOR LICENSED UNDER CHAPTER 11 TITLE 25 SECTION 25-11-7.
- FREEZE PROTECTION OF SPRINKLER PIPING SHALL BE PROVIDED AS REQUIRED BY THE FIRE MARSHALL TO MAINTAIN AIR TEMPERATURE AT A MINIMUM OF 40 DEGREES FAHRENHEIT IN

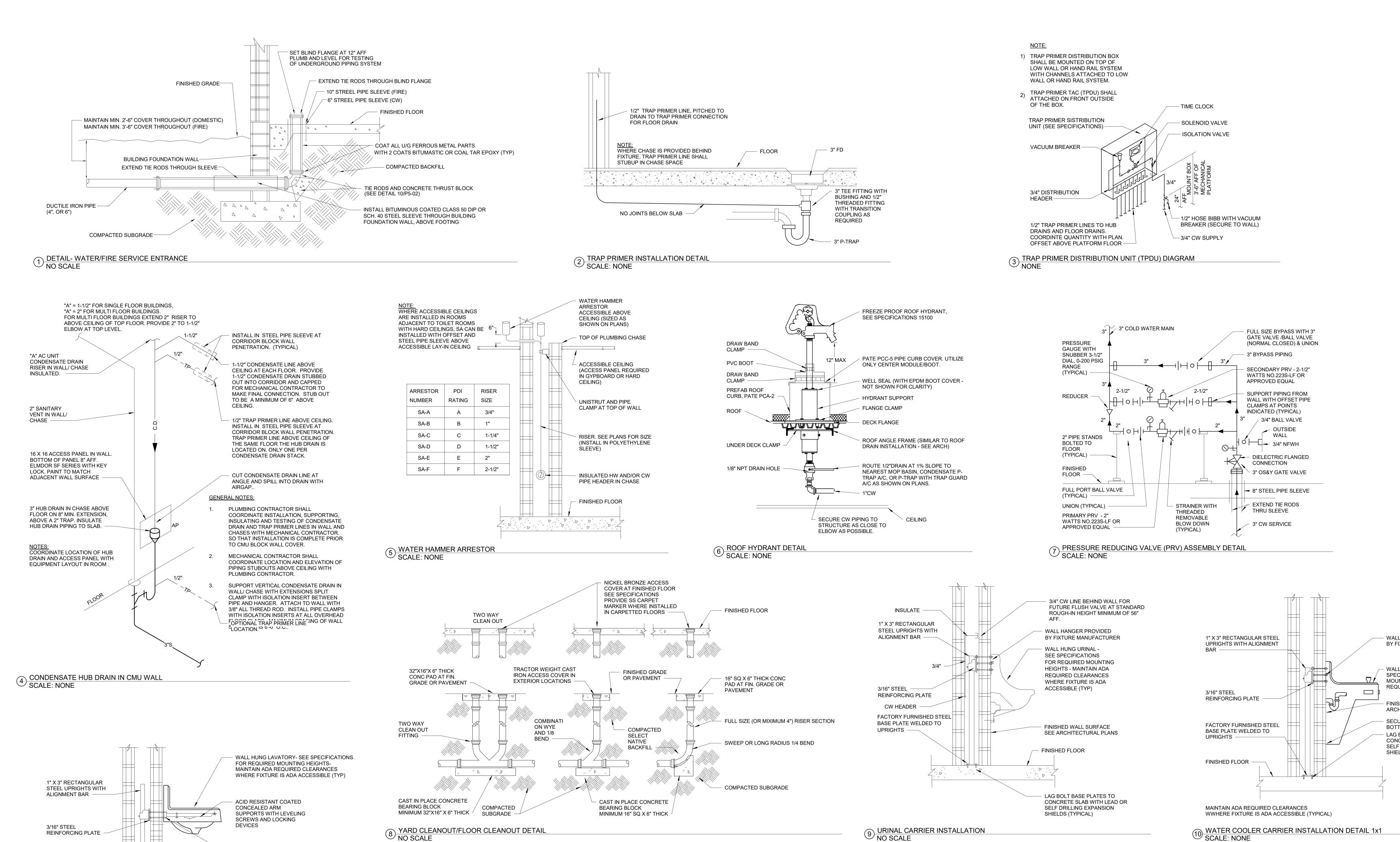




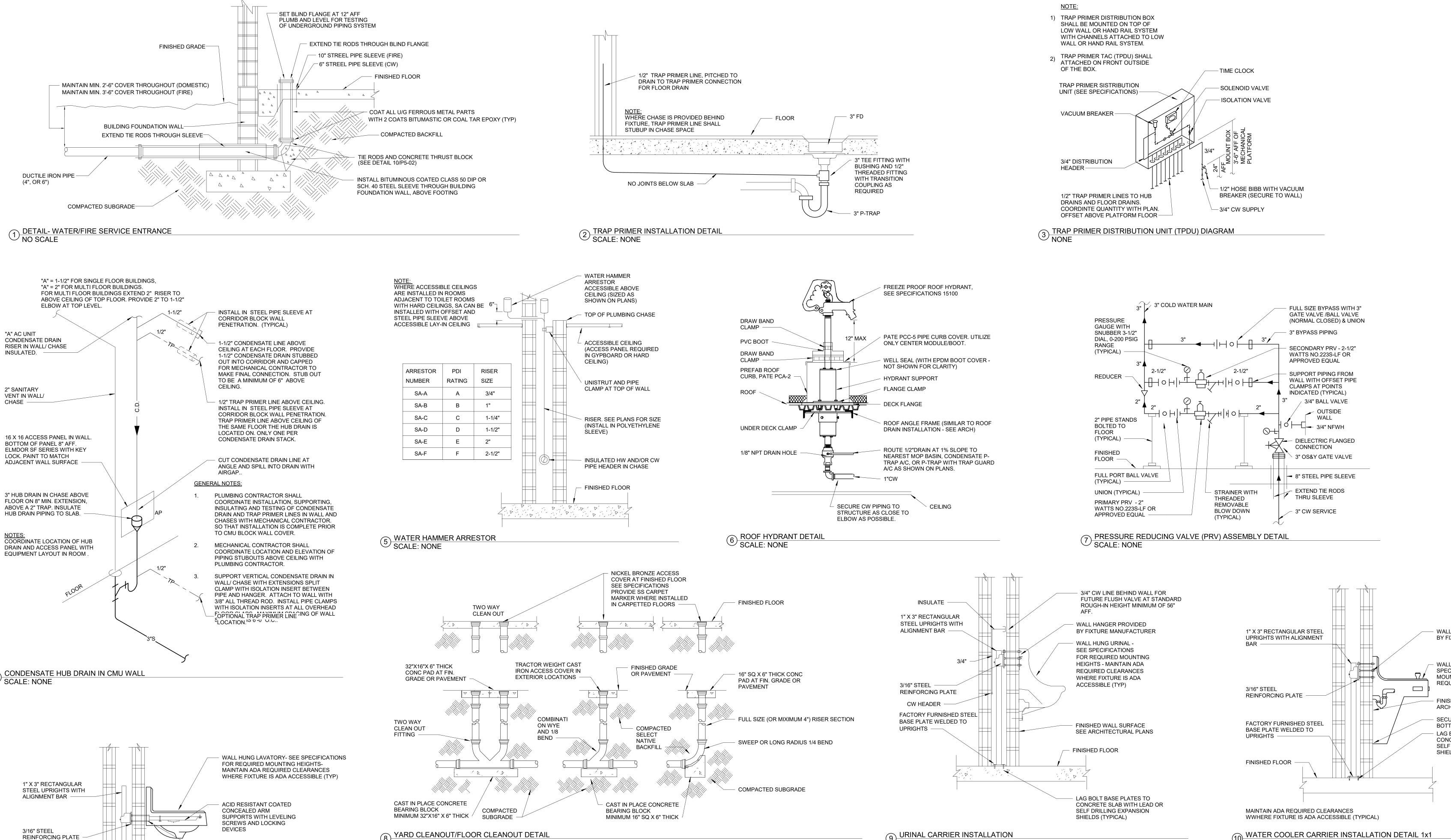


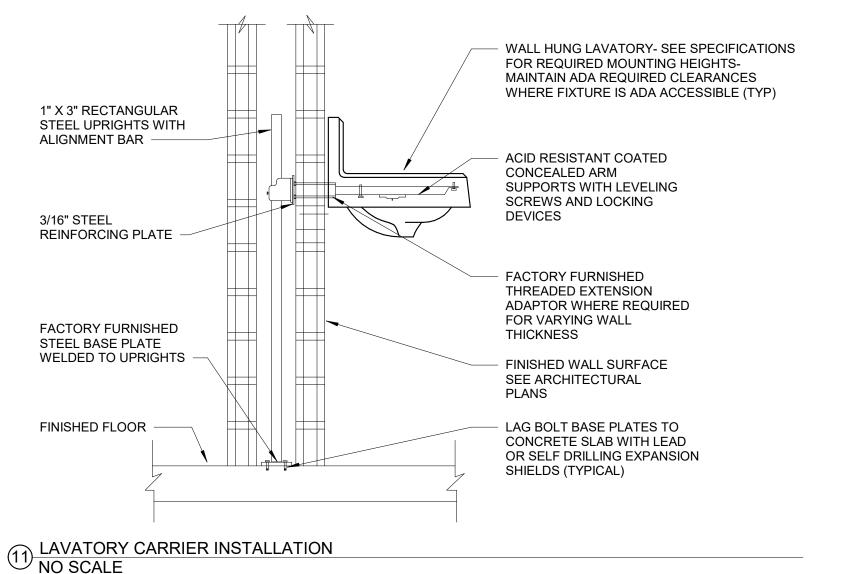


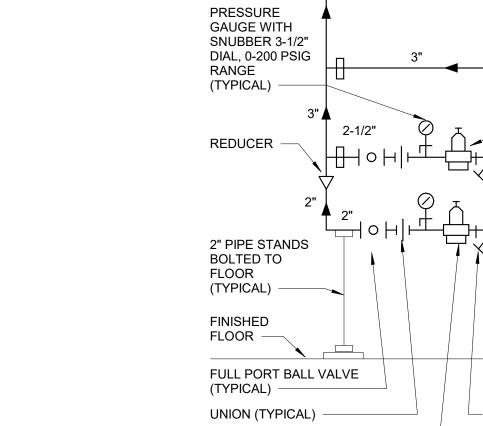




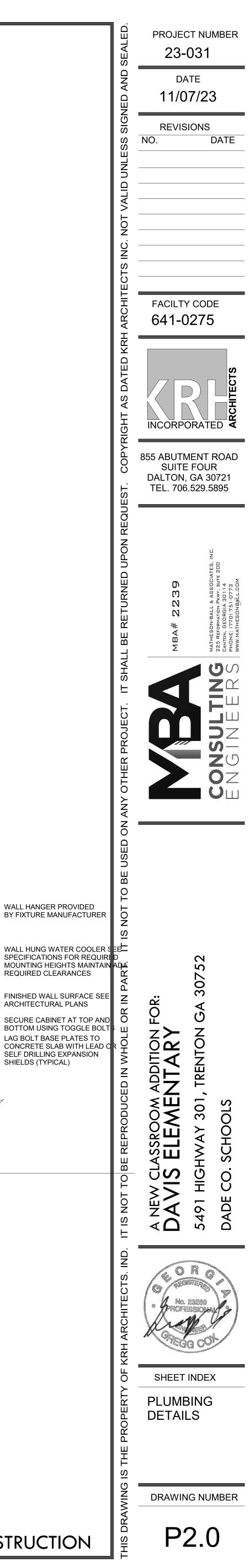




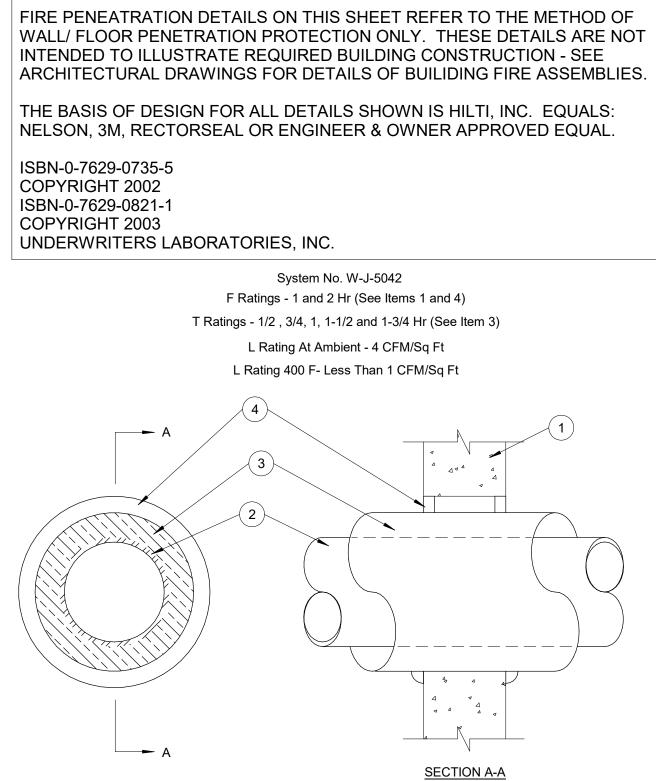








NOTE:



Wall Assembly: Min 3-3/4 in. and 5 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete for 1 and 2 h rated assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 16 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

Through-Penetrants: One metallic pipe, conduit or tubing to be centered within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used: A. Steel Pipe Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

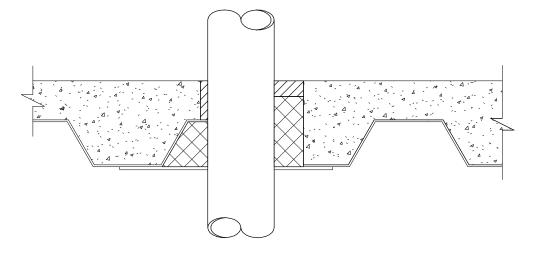
B. Conduit Nom 4 in. diam (or smaller) steel electrical metallic tubing or 6 in. diam (or smaller) steel conduit. C. Copper Tubing Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing. D. Copper Pipe Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

Pipe Covering:* Nom 1, 1-1/2 or 2 in. thick hollow-cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factoryapplied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. See Pipe and Equipment Covering Materials (BRGU) category in the Building Materials Directory for the names of the manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used. The hourly T Rating of the firestop system is dependent on the size and type of through penetrant, the pipe covering thickness and the annular space as shown in the the table below:

WALL ASSEMBLY	TYPE +-	THROUGH PENETRANT	PIPE COVERING	ANNULA	R SPACE RATING	
RATING		MAX DIAM	THKNS	MIN	MAX	
HR		IN.	IN.	IN.	IN.	
1	A OR B	4	1	0	1-1/2	
1	C OR D	2	1 OR 1-1/2	0	1-1/2	
1	A OR B	4	1-1/2	0	1-1/2	
1	А	10	2	0	1-7/8	
1	C OR D	6	2	0	1-7/8	
2	A OR B	4	1	0	1-1/2	
2	C OR D	4	1 OR 1-1/2	0	1-1/2	
2	A OR B	4	1-1/2	0	1-7/8	
2	А	12	2	0	1-7/8	
2	C OR D	6	2	0	1-7/8	
+- INDICATES	PENETRANT	TYPE AS ITEMIZE	ED IN ITEM 2.			

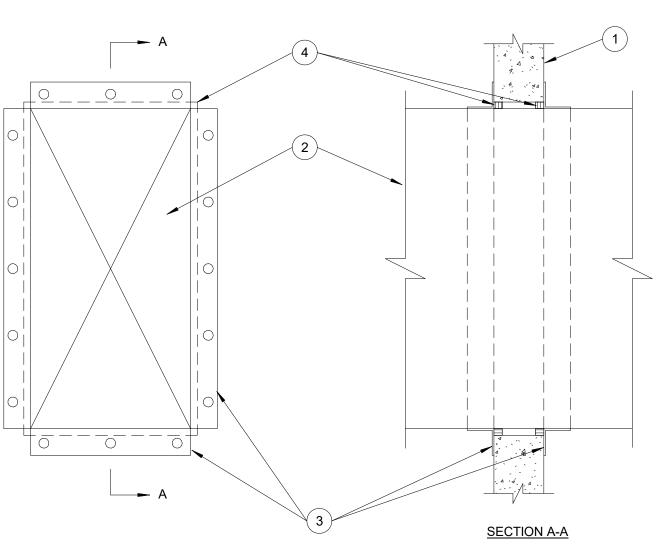
^{4.} Fill, Void or Cavity Material*-Sealant Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe covering/wall interface on both surfaces of wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS-One Sealant

INSULATED PIPE FIRE WALL PENETRATION DETAIL



ALL UNINSULATED METALLIC PIPING THRU RATED FLOOR ASSEMBLY SHALL BE SEALED WITH GROUT TO FULL THICKNESS OF DECK.

UNINSULATED PIPE FLOOR PENETRATION DETAIL



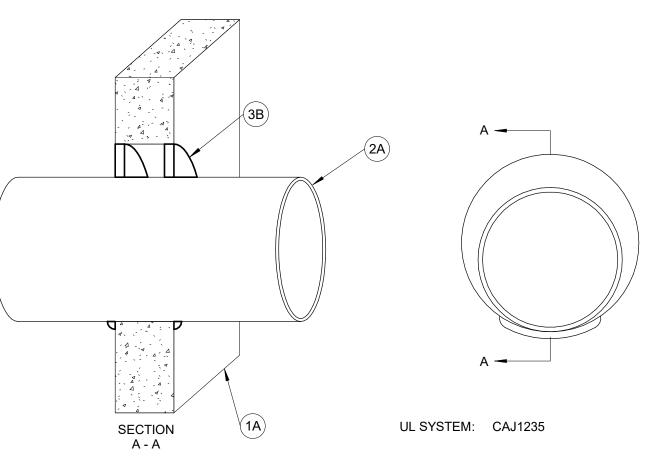
- OF MANUFACTURERS.
- WALL ASSEMBLY.
- HILTI CONSTRUCTION CHEMICALS, DIV OF *BEARING THE UL CLASSIFICATION MARK

Т

HR

1-3/4

1-1/2



1. WALL ASSEMBLY A. MIN. 4-1/2 IN. NW CONCRETE OR BLOCK WALL CAPABLE OF A 2 HR. OR 3 HR. RATING. MAX. DIAMETER OF PENETRANT OPENING IS 26 IN. 1B. OPTIONAL S/10 (OR HEAVIER) STEEL SLEEVE

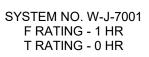
DIAMETER FOR EMT.

2. <u>PENETRANT</u> 2A. ONE OF THE FOLLOWING MAY BE USED. PIPE

	SEALAN
MAX. 24" Steel/ Iron	FS 900/9
MAX. 6" Copper	FS 900/9
MAX. 6" Steel conduit	FS 900/9
MAX. 4" EMT	FS 900/9
MAX. 24" Steel/ Iron	FS 1900
MAX. 6" Copper	FS 1900
MAX. 6" Steel conduit	FS 1900
MAX. 4" EMT	FS 1900
MAX. 4" Steel/ Iron	FS 1900
MAX. 4" Copper	FS 1900
MAX. 6" Steel conduit	FS 1900
MAX. 4" EMT	FS 1900

1 FIRE PENETRATION SCALE: NONE

*Bearing the UL Classification Marking



1. WALL ASSEMBLY MIN 3-3/4" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE WALL. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX AREA OF OPENING IS 325 SQ IN. WITH MAX DIMENSIONS OF 25". SEE CONCRETE BLOCKS (CAZT) CATEFORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES

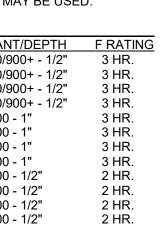
STEEL VENT DUCT NOM 12"X24" (OR SMALLER) X 24 GAUGE (OR HEAVIER) GALV STEEL VENT DUCT. ONE VENT DUCT TO BE POSITIONED WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN 1/4" TO A MAX 3/4". DUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF

3. STEEL RETAINING ANGLE NOM 2x2x1/8" STEEL ANGLES ATTACHED TO ALL FOUR SIDES OF THE DUCT ON BOTH SIDES OF THE WALL. THE ANGLES SHALL BE ATTACHED WITH NO. 8 (OR LARGER) STEEL SHEET METAL SCREWS OR 1/4" DIAM BY MIN 1" LONG STEEL BOLTS AND NUTS SPACED WITHIN A MAX OF 2" FROM EACH END AND A MAX OF 5" O.C. FILL, VOID OR CAVITY MATERIAL* - SEALANT MIN 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL.

HILTI INC - CP601S, CP606 OR FS-ONE SEALANT

DUCT W/ O DAMPER FIRE WALL PENETRATION DETAIL

IRON, OR COPPER PENETRANT AND MAX. 6 IN.



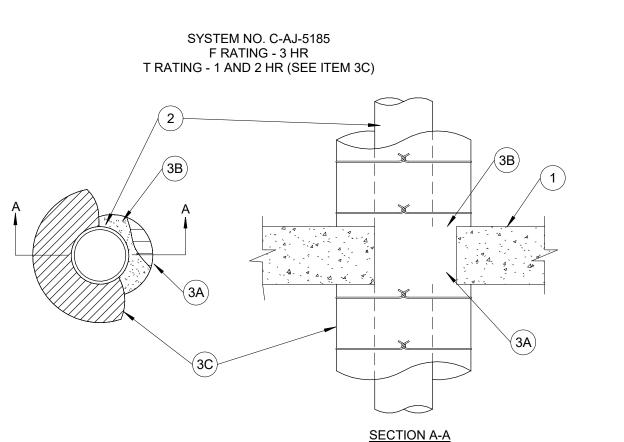
ANNULAR SPACE - MIN. 0 IN. (POINT OF CONTACT) TO MAX. 1-7/8 IN. FIRESTOPING - FLAMESAFE FS 900+/900/1900 SEALANT (NOT SHOWN) MAX. 8 IN. DIAMETER FOR STEEL, 3A. OPTIONSAL MINERAL WOOL (4 PCF) OR BACKER ROD (NOT SHOWN) COMPRESSED INTO ANNULAR SPACE TO ACT AS DAMMING MATERIAL, LEAVING

ROOM FOR SEALANT.

- AT WALL SURFACE, APPLY FS 900+, FS SPACE TO REQUIRED DEPTH (SEE TABLE) AND FINISH FLUSH WITH WALL SURFACE (BOTH SIDES). ADD A 3/8 IN
- 900 OR FS 1900 SEALANT INTO ANNULAR BEED AT POINT OF CONTACT.



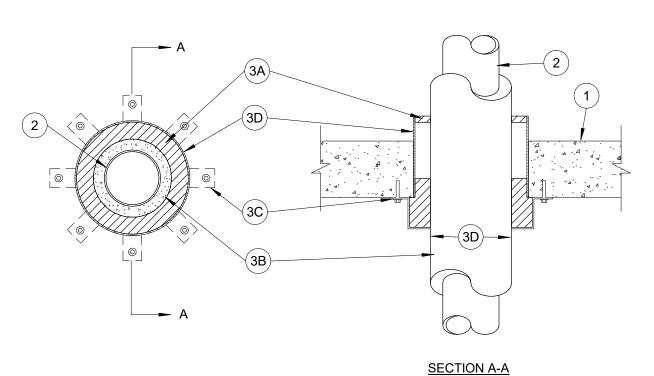
3B



- 1. FLOOR OR WALL ASSEMBLY: MIN 4-1/2" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS 25-7/8". SEE CONCRETE BLOCKS (CAZT) CATEGORLY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- THROUGH PENETRANTS: ONE METALLIC PIPE OR TUBING TO BE INSTALLED CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE PIPE OR TUBE AND THE OPENING SHALL BE MIN 0" (POINT CONTACT TO MAX 1-7/8"). PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED: A. STEEL PIPE, NOM 24" DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - B. IRON PIPE, NOM 24" DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
- COPPER TUBING, NOM 4" DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING. COPPER PIPE, NOM 4" DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
- FIRESTOP SYSTEM: THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING PACKING MATERIAL, MIN 4" THICKNESS OF MIN 4 PCF MINERAL WOOL BATT
- INSULATION FIMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE. OF FLOOR OR BOTH SURFACES OF WALL TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. FILL VOID OR CAVITY MATERIALS* - SEALANTS, MIN 1/4" THICKNESS OF FILL MATERIAL
- APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC --FS-ONE SEALANT PIPE COVERING MATERIALS*, NOM 3" THICK UNFACED MINERAL FIBER PIPE
- INSULATION SIZED TO THE OUSIDE DIAM OF PIPE OR TUBE. WHEN PIPE INSULATION EXTENDS THE ENTIRE LENGTH OF THE PIPE OR TUBE, PIPE INSULATION SECURED WITH NOM 16 AWG STEEL WIRE SPACED MAX 12" O.C. WHEN PIPE INSULATION EXTENDS ONLY 12" BEHOND EACH SIDE OF FLOOR OR WALL, PIPE INSULATION SECURED WIGH NOM 16 AWG STEEL WIRE SPACED 3" AND 9" BEYOND EACH SIDE OF FLOOR OR WALL. WHEN THE PIPE INSULATION EXTENDS THE ENTIRE LENGTH OF THE PIPE OR TUBE, ON EACH SIDE OF FLOOR OR WALL, THE T RATING IS 2 HR. WHEN THE PIPE INSULATION EXTENDS ONLY 12" BEYOND EACH SIDE OF FLOOR OR WALL,
- THE T RATING IS 1 HR. OWENS CORNING HT INC. DIV OF OWENS CORNING -- HIGH TEMPERATURE PIPE INSULATION 1200, HIGH TEMPERATURE PIPE INSULATION BWT OR HIGH TEMPERATURE PIPE INSULATION THERMALOC

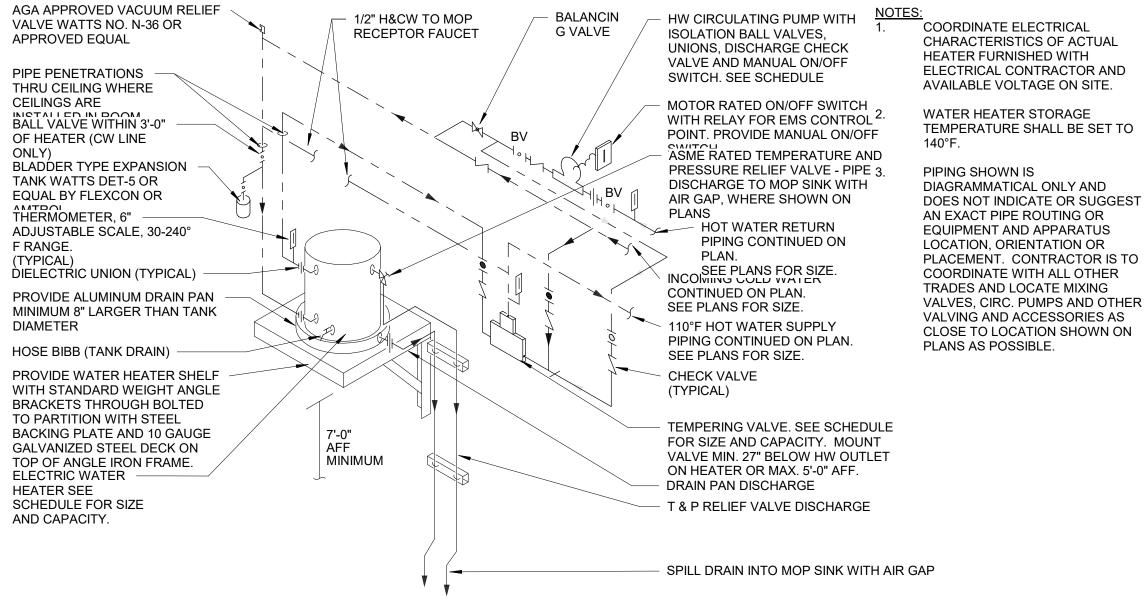
*BEARING THE UL CLASSIFACTION MARK

INSULATED PIPE FLOOR PENETRATION DETAIL SYSTEM NO. F-A-5009 F RATING - 2 HR T RATING - 0 HR

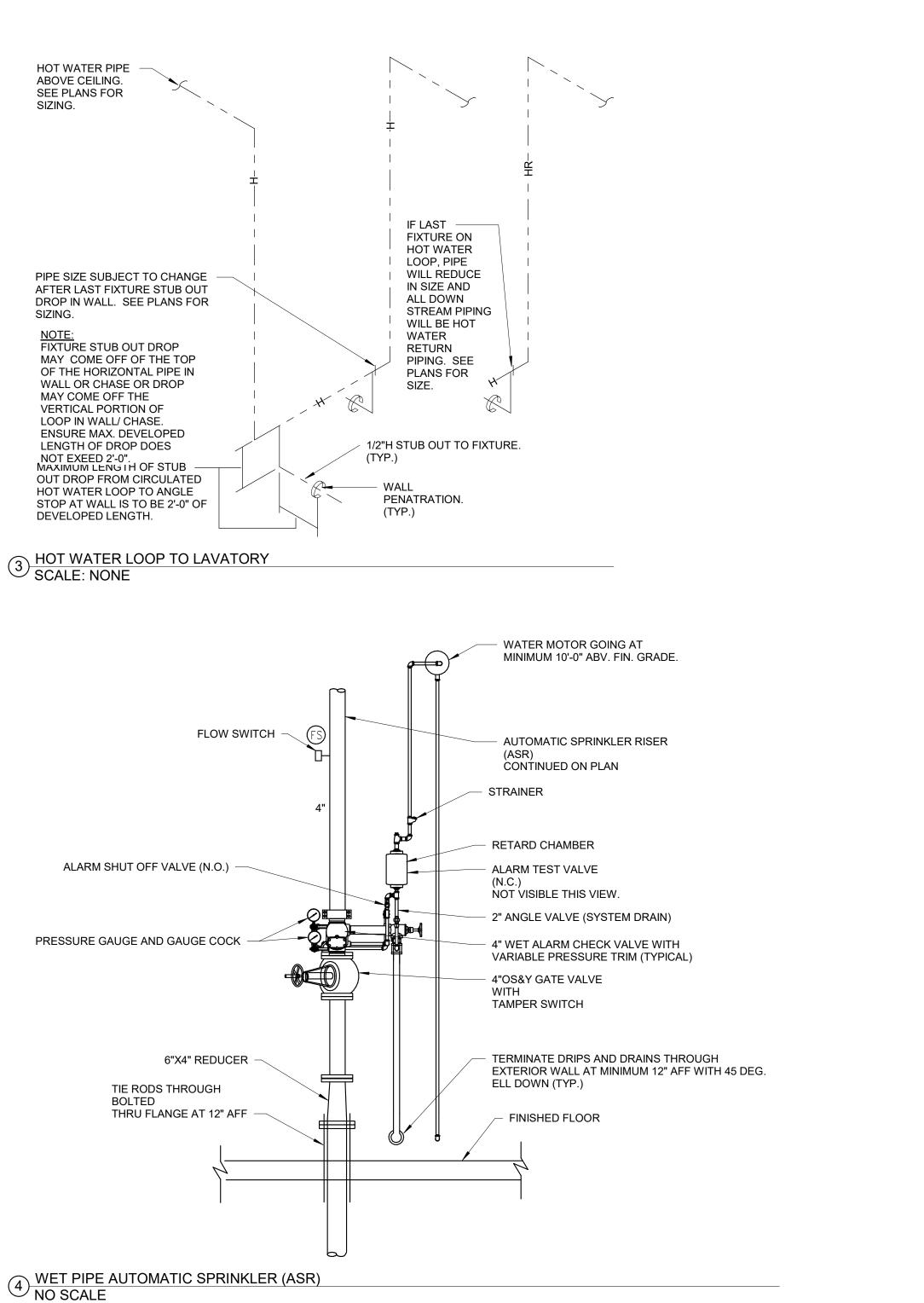


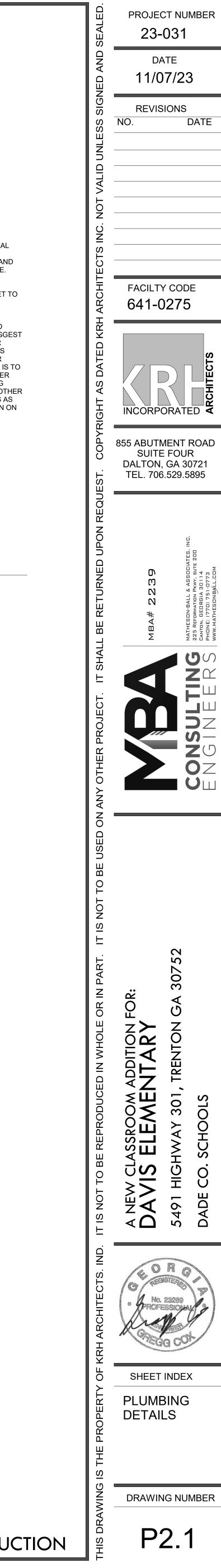
- 1. FLOOR ASSEMBLY MIN 4-1/2" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. MAX DIAM OF OPENING IS
- 2. THROUGH PENETRANTS ONE METALLIC PIP, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED: STEEL PIPE - NOM 10" DIAM (OR SMALLER) SCHEDULE 10 Α. (OR HEAVIER) STEEL PIPE. CONDUIT - NOM 4" DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOM 6" DIAM (OR SMALLER) STEEL

CONDUIT. INSULATED PIPE FLOOR PENETRATION DETAIL



² DETAIL- ELECTRIC WATER HEATER, TMV & PUMP - WALL MTD. NO SCALE







SIX INCH RECESSED LED DOWNLIGHT, CLEAR SPECULAR REFLECTOR, 4000K COLOR TEMP, DAMP LOCATION, 750 LUMENS, 0-10V DIMMING CONTROLS TO 1%, 120/277 MVOLT, LITHONIA LDN6 SERIES OR EQUAL BY CREE, COLUMBIA, COOPER, HUBBELL, , VISIONEERING, PHILIPS AND GE. RI

SURFACE MOUNT LED, 31W, CUSTOM COLOR AS SELECTED BY ARCHITECT, UNIVERSAL 120VOLT DRIVER, 4000K COLOR TEMP, LOW PROFILE, RUGGED CAST ALUMINUM, RAIN TIGHT. CREE CPY 250 SERIES OR PRIOR APPROVED EQUAL CIRCUITING FOR THIS FIXTURE SHALL BE RUN UNDER THE CANOPY. FIXTURE SHALL BE PROVIDED WITH THE PD OPTION FOR THE ATTACHED JUNCTION BOX FOR SURFACE MOUNTED CONDUIT ENTRY.

RECESSED TWO FOOT BY FOUR FOOT LED, 120 VOLT, 80 CRI, 0-10V DIMMING, 4000K COLOR TEMP, 5000 LUMEN DUTPUT, SATIN WHITE LENS. COLUMBIA LCAT24 SERIES OR EQUAL BY LITHONIA, CREE, COOPER, HUBBELL,

RECESSED TWO FOOT BY TWO FOOT LED, 120 VOLT, 80 CRI, 0-10V DIMMING, 4000K COLOR TEMP, 5000 LUMEN

DUTPUT, SATIN WHITE LENS, 90 MINUTE EMERGENCY BATTERY PACK. COLUMBIA LCAT24 SERIES OR EQUAL BY

RECESSED TWO FOOT BY FOUR FOOT LED, 120 VOLT, 80 CRI, 0-10V DIMMING, 4000K COLOR TEMP, 4000 LUMEN DUTPUT, SATIN WHITE LENS. COLUMBIA LCAT24 SERIES OR EQUAL BY LITHONIA, CREE, COOPER, HUBBELL,

RECESSED TWO FOOT BY FOUR FOOT LED, 120 VOLT, 80 CRI, 0-10V DIMMING, 4000K COLOR TEMP, 4000 LUMEN

DUTPUT, SATIN WHITE LENS, 90 MINUTE EMERGENCY BATTERY PACK. COLUMBIA LCAT24 SERIES OR EQUAL BY

RECESSED ONE FOOT BY FOUR FOOT LED, 120/277 MVOLT, 80 CRI, 0-10V DIMMING, 4000K COLOR TEMP, 3200 LUMEN DUTPUT, SATIN WHITE LENS. COLUMBIA LCAT14 SERIES DR EQUAL BY LITHONIA, COLUMBIA, CREE,

NINETY MINUTE EMERGENCY BATTERY PACK WITH TWO HIGH OUTPUT 5.4W LED HEADS, WIRE GUARD, WHITE FINISH,

120/277 MVOLT. EXITRONIX NFT-HO, MULE LIGHTING TSR-HO SERIES OR EQUAL BY LITHONIA, COLUMBIA, CREE,

SURFACE MOUNTED FOUR FOOT LED, 120/277 MVOLT, 80 CRI, 4000K COLOR TEMP, 4000 LUMEN OUTPUT. LITHONIA ZLID SERIES OR EQUAL BY CREE, COLUMBIA, COOPER, HUBBELL, VISIONEERING, PHILIPS AND GE.

- WALL MOUNTED EXTERIOR DECORATIVE LED FIXTURE, 120 VOLT, CUSTOM COLOR AS SELECTED BY ARCHITECT, 4000K COLOR TEMP, WET LOCATION, CAST ALUMINUM HOUSING, WALL MOUNTED EXTRUDED ALUMINUM ARM, 1350 LUMENS, 26W. LUMINIS SR115 SERIES OR PRIOR APPROVED EQUAL. SEE FIXTURE NOTE 1.
- EXTERIOR WALL MOUNTED LED WALL PACK, 120 VOLT, 15W INPUT, 1500 LUMENS, 4000K COLOR TEMP, FINISH AS W
- SELECTED BY ARCHITECT. TRACELITE SLW-15-4K SERIES OR EQUAL BY CREE, COLUMBIA, PHILIPS AND GE. LED EXIT SIGN, SINGLE OR DOUBLE STENCIL FACE, WITH ARROWS AS INDICATED, CAST ALUMINUM BODY, NINETY MINUTE EMERGENCY BATTERY PACK AND RED LED LAMPS AND LETTERS, DIFFUSE FACE, MOUNT TO CEILING OR WALL AS INDICATED, 277V/120V. EXITRONIX SERIES, LITHONIA, COLUMBIA, MULE LIGHTING MD SERIES OR PRIOR APPROVED EQUAL.

EACH FIXTURE SHALL BE DESIGNED TO MOUNT IN THE TYPE OF CEILING IN WHICH IT IS BEING INSTALLED FOR PROPER OPERATION IN THE TYPE OF CEILING CONSTRUCTION AND FOR THE MOUNTING ARRANGEMENT ON/IN WHICH IT IS INSTALLED. WHERE SIMILAR FIXTURES OR A FAMILY OF SIMILAR FIXTURES ARE SPECIFIED OBTAIN FORM ONE MANUFACTURER. COORDINATE THE CEILING TYPE WITH THE ARCHITECT'S

PRIOR APPROVAL PACKAGES SHALL BE SUBMITTED AT LEAST TEN BUSINESS DAYS BEFORE THE PUBLISHED BID DATE AND TIME.

LIGHTING FIXTURE NOTES: (I.E. PLASTER, GRID, CONCEALED SPLINE, SLOPED, ETC.). EACH LIGHTING FIXTURE SHALL BE UL LABELED

ALTERNATE#1 – FURNISH AND INSTALL THE OWNER'S PREFERRED LIGHTING VENDER COLUMBIA: LCAT

LITHONIA, CREE, COOPER, HUBBELL, VISIONEERING, PHILIPS AND GE.

LITHONIA, CREE, COOPER, HUBBELL, VISIONEERING, PHILIPS AND GE.

COOPER, HUBBELL, VISIONEERING, PHILIPS AND GE.

COOPER, HUBBELL, VISIONEERING, PHILIPS AND GE.

WITH FULL PHOTOMETRIC CALCULATIONS FOR THE AREAS IN WHICH THEY ARE USED. PHOTOMETRIC CALCULATIONS SHALL ALSO INCLUDE CALCULATIONS FOR TYPICAL CLASSROOMS, LABS, AND OFFICES.

CEILING PLANS PRIOR TO THE SHOP DRAWING SUBMITTALS.

LIGHTING FIXTURE SCHEDULE:

VISIONEERING, PHILIPS AND GE.

VISIONEERING, PHILIPS AND GE.

SERIES

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FIXTURE NOTES: PROPOSED SUBSTITUTIONS FOR FIXTURES INDICATED WITH "FIXTURE NOTE #1" SHALL BE SUBMITTED

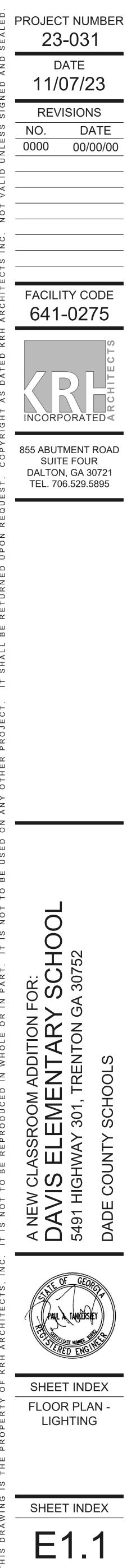
 $\langle 4 \rangle$ SPACE. RUN LOW VOLTAGE CONTROL CABLING IN CONDUIT TO DIMMABLE BALLAST. $\langle 5 \rangle$ FURNISH AND INSTALL A TYPE "EX" EMERGENCY BATTERY PACK AT THIS LOCATION. FURNISH AND INSTALL $\frac{1}{2}$ "C-2#12 & #12G FROM THE FIXTURE TO THE UNSWITCHED CIRCUIT THAT SERVES THIS SPACE. (6) REFER TO THE ARCHITECT'S DETAIL AND ELEVATIONS FOR THE EXACT MOUNTING HEIGHT AND LOCATION OF THE EXTERIOR LIGHT FIXTURE. $\langle 7 \rangle$ RUN THE EXTERIOR LIGHTING CIRCUITS THROUGH CONTACTOR "EIT". CONTACTOR SHALL BE E.O.M.H., WITH H-O-A INTEGRAL SWITCH, 120 VOLT COIL RUN 3/4"C-4#10 FROM THE CONTACTOR TO THE EMS LIGHTING

SENSOR SHALL BE LOCATED A MAXIMUM OF FOUR FEET FROM THE WINDOW. THREE WAY 0-10V LED DIMMER SWITCH. FURNISH AND INSTALL THE SWITCH TO CONTROL THE LIGHTS IN THIS

CONTROL RELAY PANEL IN THIS BUILDING. COORDINATE THE EXACT LOCATION OF THE CONTROL PANEL WITH THE HVAC CONTRACTOR PRIOR TO ROUGH-IN. CONTACTOR TO BE CONTROLLED BY THE HVAC EMS SYSTEM.

RUN CIRCUIT THROUGH CONTACTOR "A1" CONTACTOR SHALL BE F.O.M.H., WITH H-O-A INTEGRAL SWITCH, 120 VOLT COIL. CONTRACTOR SHALL RUN A UNSWITCHED HOT CONDUCTOR THROUGH THE CONTACTOR TO THE NIGHT LIGHTS, EMERGENCY BATTERY UNITS AND EXIT SIGNS. RUN 3/4"C-4#10 FROM THE CONTACTOR TO THE EMS LIGHTING CONTROL RELAY PANEL IN ELECTRICAL ROOM. FIXTURES MARKED AS "NL" (NIGHT LIGHT) SHOULD NOT BE SWITCHED. COORDINATE THE EXACT LOCATION OF THE CONTROL PANEL WITH THE HVAC CONTRACTOR PRIOR TO ROUGH-IN. CONTACTOR TO BE CONTROLLED BY THE HVAC EMS SYSTEM.

- OF THE ROOM. FURNISH AND INSTALL THE CEILING MOUNTED DAYLIGHT HARVESTING SENSOR. CONTRACTOR SHALL INTERCEPT THE EXISTING HOT CONDUCTOR BEFORE THE LIGHT SWITCH CONTROLS IN THIS SPACE. FURNISH AND INSTALL THIS POWER PACK IN A NEMA 1 ENCLOSURE LOCATED ABOVE THE CEILING. UPON COMPLETION OF THE DAYLIGHT HARVESTING SENSOR THE LIGHT SWITCHES AND OCCUPANCY SENSOR SHALL STILL CONTROL THE LIGHTS IN THE SPACE WITH THE HARVESTING SENSOR PROVIDING DAYLIGHT CONTROL. THE CEILING MOUNTED
- INSTALL THIS POWER PACK IN A NEMA 1 ENCLOSURE LOCATED ABOVE THE CEILING. UPON COMPLETION OF THE SENSOR THE LIGHT SWITCHES SHALL STILL CONTROL THE LIGHTS IN THE SPACE WITH THE OCCUPANCY SENSOR PROVIDING CONTROL. THE CEILING MOUNTED OCCUPANCY SENSOR SHALL BE LOCATED IN THE CENTER
- 0–10V LED DIMMER SWITCH. FURNISH AND INSTALL THE SWITCH TO CONTROL THE LIGHTS IN THIS SPACE. RUN ALL LOW VOLTAGE CONTROL CABLING IN CONDUIT. FURNISH AND INSTALL THE CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. CONTRACTOR SHALL INTERCEPT THE EXISTING HOT CONDUCTOR BEFORE THE LIGHT SWITCH CONTROLS IN THIS SPACE. FURNISH AND
- IGHTING KEY NOTES
- 5. WHEN MOTION IS DETECTED IN A SPACE, LIGHTS SHALL ONLY BE TURNED ON TO 50% POWER. RAISING LIGHTS TO 100% POWER SHALL REQUIRE OPERATION OF THE DIMMER SWITCHES. 6. OCCUPANCY SENSORS SHALL BE SET TO TURN THE LIGHTS OFF WHEN MOTION HAS NOT BEEN DETECTED FOR 20 MINUTES.
- 4. WHERE MULTIPLE SENSORS ARE REQUIRED WITHIN A SPACE, LIGHTS SHALL REMAIN ON (CIRCUIT ENERGIZED) IF MOTION IS DETECTED BY ANY OF THE SENSORS, AND SHALL BE TURNED OFF (OPEN THE CIRCUIT) ONLY IF MOTION IS NOT DETECTED BY ANY OF THE SENSORS.
- 3. OCCUPANCY SENSOR LOCATIONS ARE SHOWN AS A GUIDE. SENSOR MANUFACTURER SHALL PROVIDE IN THE SHOP DRAWING PACKAGE A PLAN SHOWING EXACT SENSOR LOCATIONS AND COVERAGE PATTERN FOR EACH DEVICE. PROVIDE MULTIPLE SENSORS WITHIN LARGER SPACES AS REQUIRED TO ENSURE FULL COVERAGE OF THE SPACE.
- 2. OCCUPANCY SENSOR CONTROL OF LIGHTING SHALL BE AHEAD OF LOCAL SWITCHING SO THAT THE SENSORS CONTROL THE LIGHTS IN THE ROOM REGARDLESS OF SWITCH POSITIONS.
- OCCUPANCY SENSOR NOTES: OCCUPANCY SENSORS SHALL BE PROVIDED IN EACH SPACE FOR CONTROL OF NORMAL LIGHTING IN THE SPACE. SENSORS SHALL BE CEILING MOUNTED, DUAL TECHNOLOGY DEVICES AS MANUFACTURED BY WATTSTOPPER OR EQUIVALENT. REFER TO THE SPECIFICATIONS FOR ADDITIONAL SENSOR REQUIREMENTS.

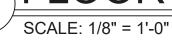






 \rightarrow H-Q ╶┯┥┢╾╱ LA1-19 LA1-21 LA1-2,4,6 104 LA2-1 LA2-2,4 LA2-3 $\overline{3}$ INSTRUMENTAL/CH ORUS STORAGE — $\overline{}$

FLOOR PLAN - POWER SCALE: 1/8" = 1'-0"



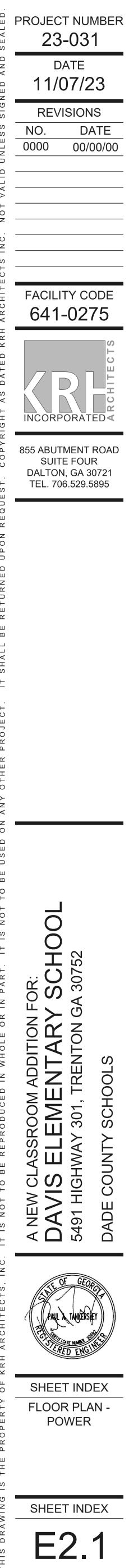


GENERAL NOTES:

REFER TO THE DATA DRAWING SHEET E2.2 FOR INFORMATION ON THE CONTRACTOR FURNISHED AND INSTALLED DATA CABLING.

KEY NOTES:

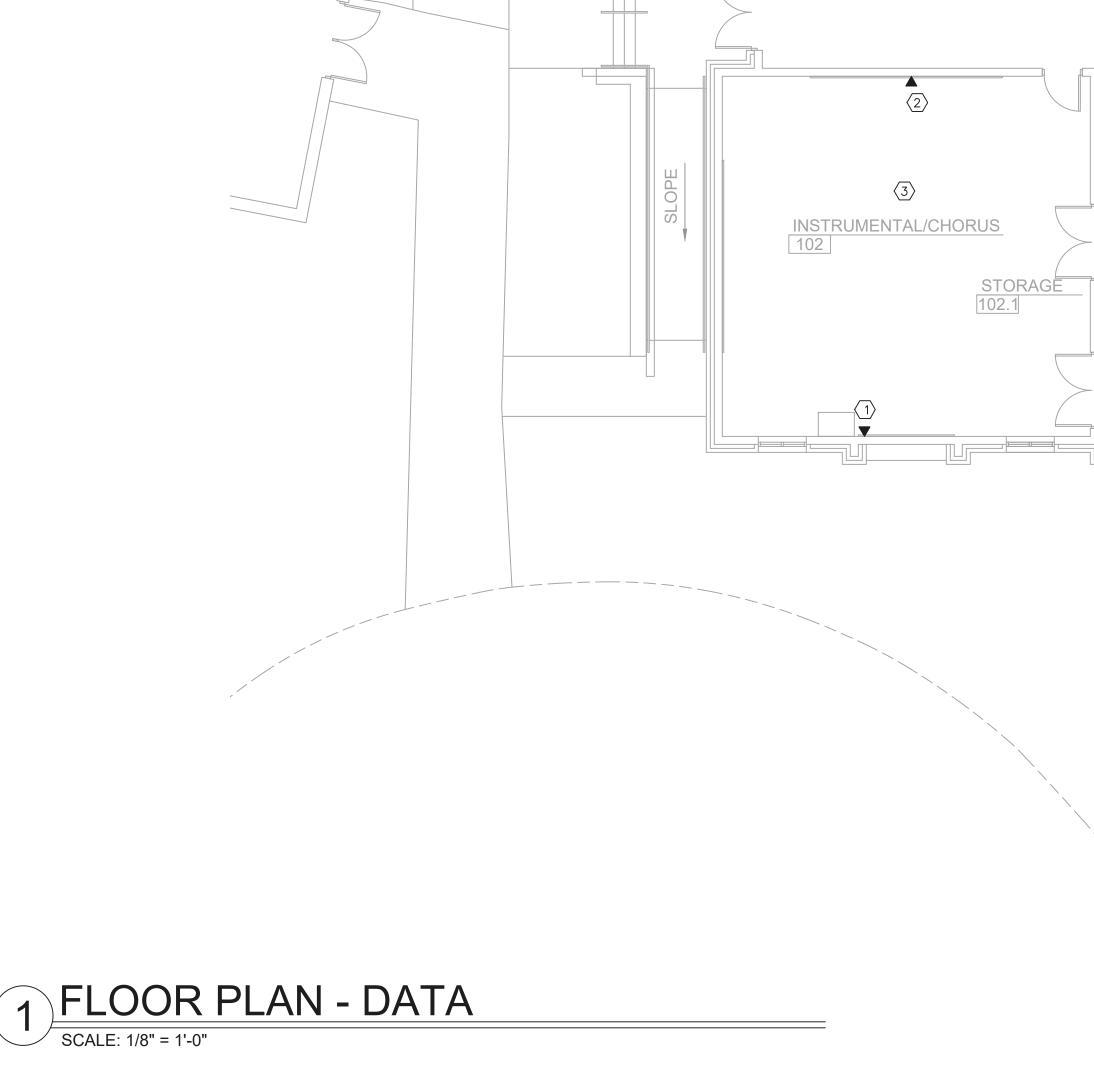
- FURNISH AND INSTALL A 4" x 4" DATA OUTLET JUNCTION BOX WITH REDUCER FRONT COVER TO FIT THE STANDARD SIZE DATA STAINLESS STEEL COVER PLATE. RUN 1"CONDUIT WITH PULL ROPE FROM THE DATA OUTLET TO ABOVE THE CEILING. FURNISH AND INSTALL A BLANK JUMBO STAINLESS STEEL COVERPLATE ON ALL UNUSED DATA BOXES.
- FURNISH AND INSTALL A DATA OUTLET AND AND DUPLEX RECEPTACLE MOUNTED ABOVE THE SMARTBOARD AT 7'4" ABOVE THE FINISHED FLOOR. COORDINATE THE EXACT MOUNTING HEIGHT WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN. THE DATA OUTLET SHALL BE A A 4" x 4" OUTLET JUNCTION BOX WITH REDUCER FRONT COVER TO FIT THE STANDARD SIZE DATA STAINLESS STEEL COVER PLATE. RUN 1"CONDUIT WITH PULL ROPE FROM THE DATA OUTLET TO ABOVE THE CEILING. FURNISH AND INSTALL A BLANK JUMBO STAINLESS STEEL COVERPLATE ON ALL UNUSED DATA BOXES.
- 3 FURNISH AND INSTALL A 2' X 2' CEILING PLATE FOR THE RECEPTACLE AND DATA OUTLETS. INSTALL THE PLATE SECURED FROM THE STRUCTURE WITH THE MANUFACTURERS MOUNTING/SUSPENSION HARDWARE. FURNISH AND INSTALL WITH 6'0" OF FLEXIBLE CONDUIT TO THE RECEPTACLE. COORDINATE THE EXACT LOCATION IN THE CEILING WITH THE ARCHITECT/OWNER PRIOR TO ROUGH-IN. EPSON #V12H805001 SERIES. SUBMIT SHOP DRAWINGS ON THE UNIT FOR REVIEW.
- LOCATION OF THE OWNER FURNISHED AND INSTALLED WIRELESS ACCESS POINT. 4 FURNISH AND INSTALL (3) 1" SLEEVES FROM THE ROOM TO THE CORRIDOR FOR OWNER FURNISHED DATA CABLING TO THIS SPACE. COORDINATE THE EXACT LOCATION OF THESE SLEEVES WITH THE OWNER PRIOR TO ROUGH-IN.
- 5 WALL MOUNT GFI RECEPTACLE AT 8" ABOVE THE COUNTER TOP.
- INSTALL THE RECEPTACLE CONCEALED BEHIND THE ELECTRIC WATER COOLER EQUIPMENT. COORDINATE THE EXACT LOCATION WITH THE PLUMBING CONTRACTOR PRIOR TO ROUGH-IN. RUN THE CIRCUIT TO THE GFI BREAKER IN THE DESIGNATED PANEL.
- 7 MAKE CONNECTION TO 120V ELECTRIC HAND DRYER. COORDINATE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN. 8 FURNISH AND INSTALL A 4" x 4" DATA OUTLET JUNCTION BOXES WITH REDUCER
- FRONT COVER TO FIT THE STANDARD SIZE DATA STAINLESS STEEL COVER PLATE. RUN 1"CONDUIT WITH PULL ROPE FROM THE DATA BOX TO ABOVE THE CEILING FOR FUTURE SMART BOARD CABLING. FURNISH AND INSTALL A BLANK JUMBO STAINLESS STEEL COVERPLATE ON ALL UNUSED DATA BOXES.

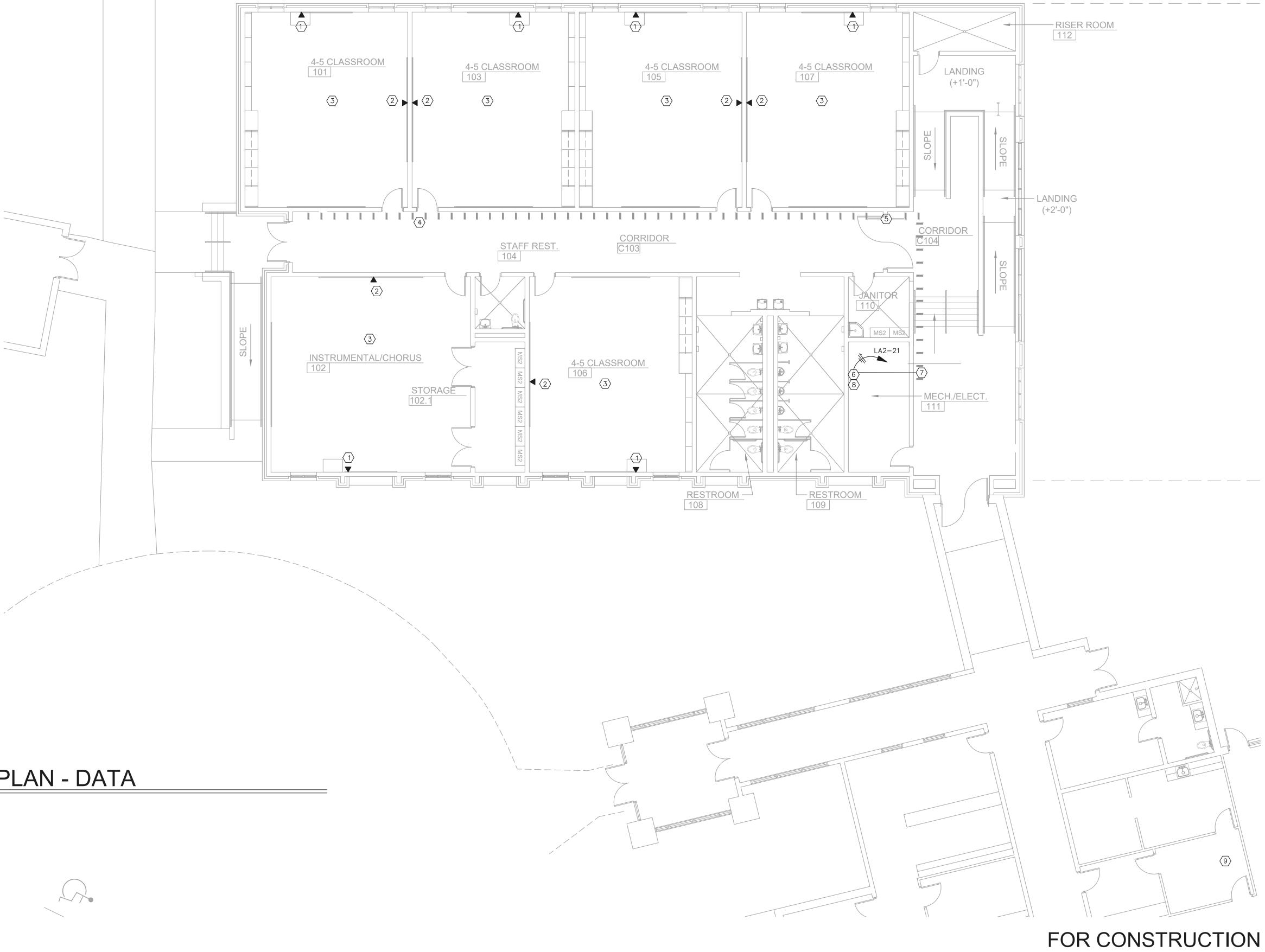










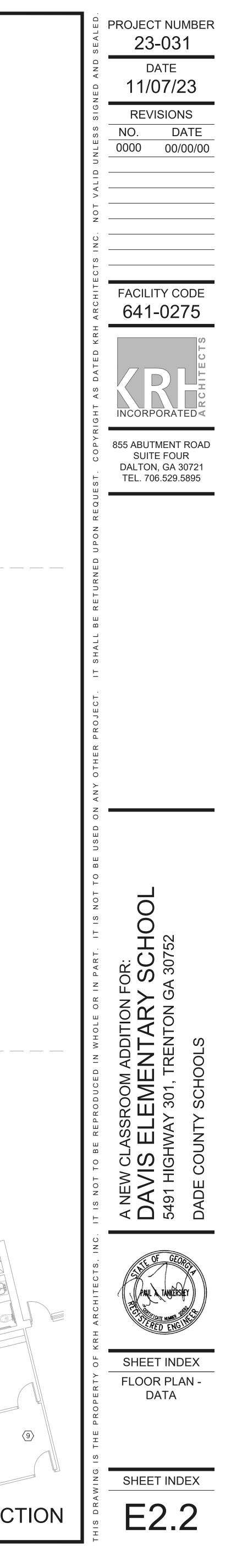


SCALE: 1/8" = 1'-0"

GENERAL NOTES: REFER TO SHEET E2.3 FOR ADDITIONAL DATA CABLING.

KEY NOTES:

- 1 TWO DATA CABLES. REFER TO POWER DRAWINGS FOR ADDITIONAL INFORMATION ON CONDUIT SIZES AND BOXES. 2 ONE DATA CABLE FOR THE PROMETHEAN BOARD. REFER TO POWER DRAWINGS FOR ADDITIONAL INFORMATION ON CONDUIT SIZES AND BOXES.
- 3 ONE DATA CABLE FOR WIRELESS ACCESS POINT. CABLE SHOULD BE COILED WITH FIVE FEET OF SLACK WITH RJ45 END. REFER TO POWER DRAWINGS FOR
- ADDITIONAL INFORMATION ON CONDUIT SIZES AND BOXES.
- 4 CABLE HANGER MOUNTED ABOVE CEILING. SEE DETAIL 2, SHEET E4.1 FOR ADDITIONAL INFORMATION.
- 5 PROVIDE (4) 4" SLEEVES THROUGH THE WALL. FIRE CAULK SLEEVES AFTER ALL CABLING HÁS BEEN INSTALLED.
- 6 LOCATION OF THE WALL MOUNTED IDF RACK.
- 7 PROVIDE (4) 4" SLEEVES THROUGH THE WALL FROM THE CABLE HOOKS TO THE IDF RACK. FIRE CAULK SLEEVES AFTER ALL CABLING HAS BEEN INSTALLED.
- 8 FURNISH AND INSTALL THE FIBER IN CONDUIT FROM THE NEW IDF RACK TO THE EXISTING MDF RACK. COORDINATE THE EXACT ROUTE WITH THE OWNER PRIOR TO ROUGH-IN.
- 9 APPROXIMATE LOCATION ON THE EXISTING MDF RACK. COORDINATE THE EXACT ROUTE WITH THE OWNER PRIOR TO ROUGH-IN. RUN NEW FIBER IN CONDUIT TO THE NEW IDF RACK.





FOR CONSTRUCTION

WALL MOUNT THE BOX AT THE LOCATION AND MOUNTING DIRECTED BY THE DOOR HARDWARE MANUFACTURER. RUN A 3/4" CONDUIT FROM THE BOX TO THE CONTROL HARDWARE IN THE DOOR AND A 3/4" CONDUIT TO ABOVE THE CORRIDOR CEILING. FURNISH AND INSTALL A 4" X 4" JUNCTION BOX FOR THE BUILDING EXTERIOR SECURITY CAMERA. 4 COORDINATE THE EXACT LOCATION AND MOUNTING HEIGHT OF THE BOX WITH THE EQUIPMENT INSTALLER PRIOR TO ROUGH-IN. RUN A 1"C WITH CAT6 DATA CABLE FROM THE CAMERA TO THE IDF DATA ROOM. COORDINATE THE EXACT LOCATION OF THIS CAMERA SECURITY JUNCTION BOX WITH THE OWNER PRIOR TO ROUGH-IN. CONTRACTOR TO LEAVE TEN FEET OF CABLE COILED ABOVE THE INTERIOR CEILING AT THE CAMERA AND AT THE IDF RACK FOR FUTURE OWNER CONNECTIONS. CONTRACTOR SHALL LABEL EACH END OF THE CABLE WITH THE ROOM LOCATION AND NUMBER. . RUN 1/2"-2#12 & #12G FROM THE CAMERA TO THE NEAREST 120VOLT PANEL AND CONNECT TO A

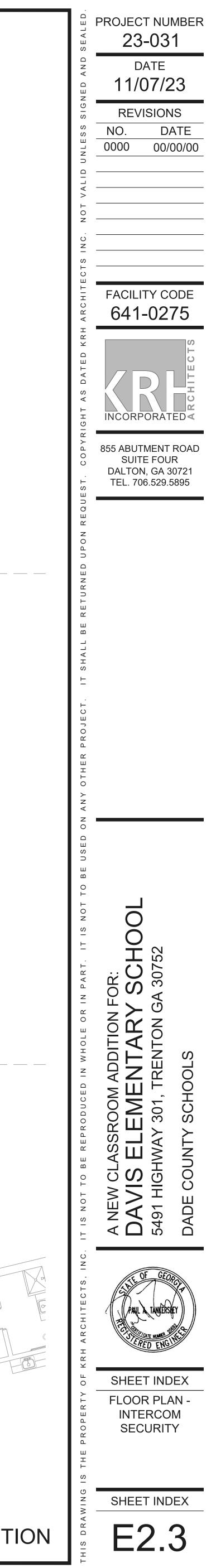
1 RUN INTERCOM CABLING IN 3/4" CONDUIT TO CABLE HOOKS IN THE CORRIDOR. CONTINUE THE

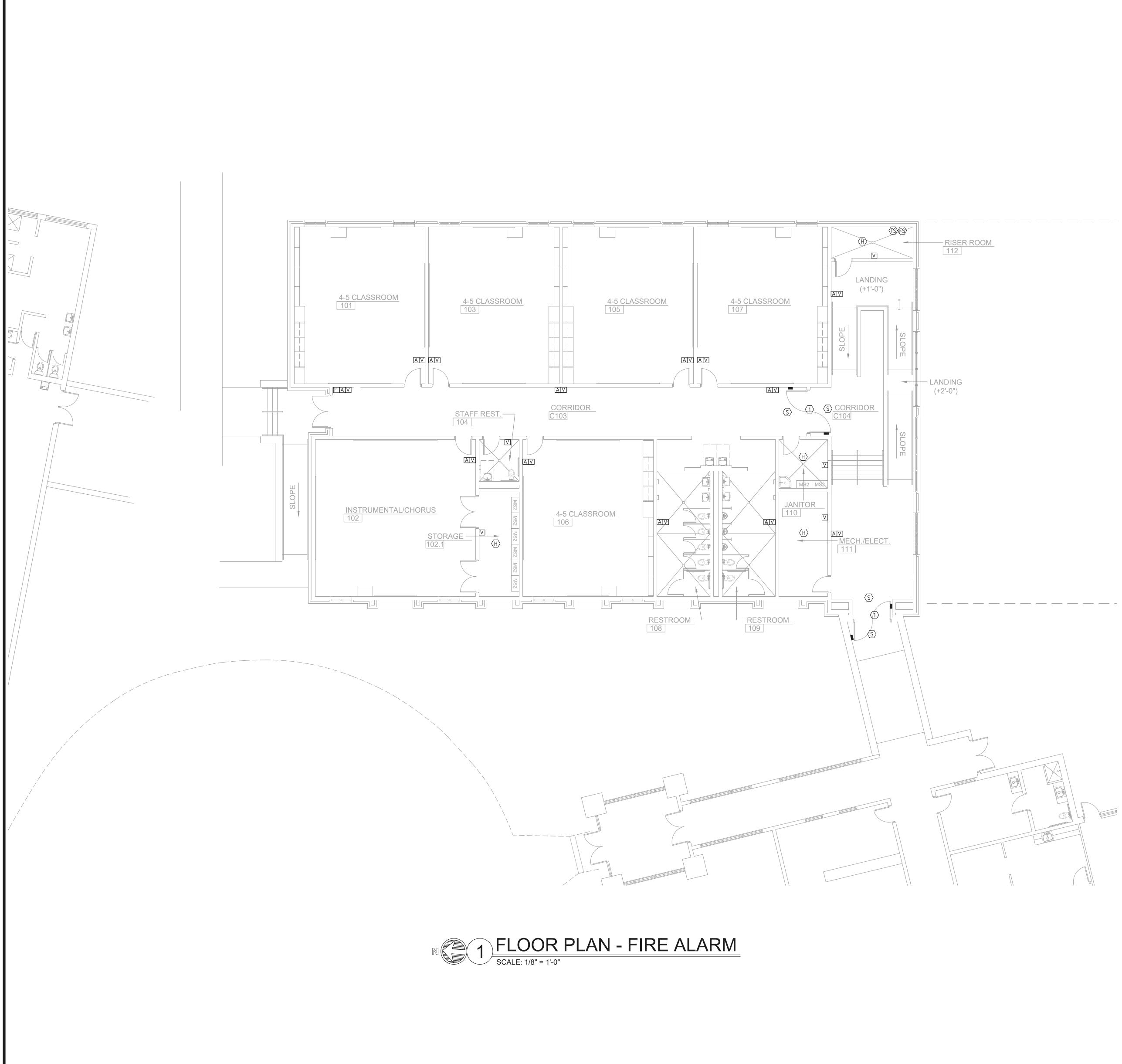
CABLE TO THE NEW IDF RACK. REFER TO THE DATA DRAWINGS FOR DATA RACK LOCATION.

- SPARE 20A/1P BREAKER FOR A CAMERA ENCLOSURE HEATER. CONNECT A MAXIMUM OF TWO CAMERAS PER CIRCUIT. FURNISH AND INSTALL A 4" X 4" JUNCTION BOX FOR THE BUILDING INTERIOR SECURITY CAMERA. 5 COORDINATE THE EXACT LOCATION OF THE BOX WITH THE EQUIPMENT INSTALLER PRIOR TO ROUGH-IN. RUN A 1"C WITH CAT6 DATA CABLE FROM THE CAMERA TO THE IDF DATA ROOM.
- COORDINATE THE EXACT LOCATION OF THIS CAMERA SECURITY JUNCTION BOX WITH THE OWNER PRIOR TO ROUGH-IN. CONTRACTOR TO LEAVE TEN FEET OF CABLE COILED ABOVE THE INTERIOR CEILING AT THE CAMERA AND AT THE IDF RACK FOR FUTURE OWNER CONNECTIONS. CONTRACTOR SHALL LABEL
- EACH END OF THE CABLE WITH THE ROOM LOCATION AND NUMBER. APPROXIMATE LOCATION ON THE EXISTING GYM DATA RACK. RUN NEW FIBER IN 6 CONDUIT TO THE EXISTING MDF DATA RACK IN THE MEDIA CENTER. COORDINATE THE EXACT ROUTE WITH THE OWNER PRIOR TO ROUGH-IN ..

2 DOOR TO BE PREPPED FOR FUTURE CARD READER. RUN A 3/4" CONDUIT FROM THE THE CONTROL HARDWARE IN THE DOOR TO ABOVE THE CORRIDOR CEILING ... COORDINATE THE EXACT LOCATION OF THIS SECURITY JUNCTION BOX WITH THE OWNER PRIOR TO ROUGH-IN. RUN 1/2"2#10 & #12G FROM A JUNCTION BOX ABOVE THE CEILING TO THE NEAREST 120VOLT PANEL AND CONNECT TO A SPARE 20A/1P BREAKER. CONNECT A MAXIMUM OF TWO READERS, DOOR HARDWARE PER CIRCUIT. FURNISH AND INSTALL GENESIS #21955099 ACCESS CONTROL PLENUM RATED UNJACKETED CABLE FROM THIS DOOR TO THE NEW IDF RACK. SUBMIT SHOP DRAWINGS FOR OWNER REVIEW OF THIS CABLE PRIOR TO ROUGH-IN. CONTRACTOR TO LEAVE TEN FEET OF CABLE COILED ABOVE THE CEILING AT THE DOOR AND AT THE IDF RACK FOR FUTURE OWNER CONNECTIONS. CONTRACTOR SHALL LABEL EACH END OF THE CABLE WITH THE DOOR LOCATION AND NUMBER. FURNISH AND INSTALL A SINGLE GANG JUNCTION BOX FOR THE CARD READER WITH COVERPLATE. 3

KEY NOTES:





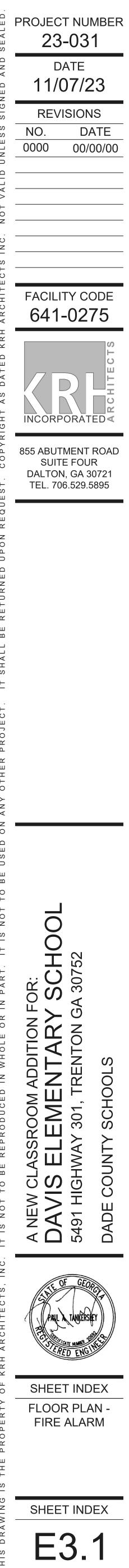
THE FIRE ALARM SYSTEM PLANS HAVE NOT BEEN REVIEWED BY THE LOCAL FIRE MARSHAL FOR APPROVAL. COMPLETE FIRE ALARM PLANS TO BE SUBMITTED FOR REVIEW AND APPROVAL TO THE FIRE MARSHAL'S OFFICE PRIOR TO INSTALLATION. REFER TO SECTION 13851 FOR ADDITIONAL INFORMATION.

FIRE ALARM SYSTEM GENERAL NOTES REFER TO THE HVAC POWER DRAWINGS FOR ADDITIONAL FIRE ALARM EQUIPMENT LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS, CARBON MONOXIDE DETECTORS AND SMOKE DAMPERS. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION OF ALL EXTERIOR DEVICES WITH THE ARCHITECT'S BUILDING ELEVATIONS AND DETAILS. REFER TO THE ELECTRICAL SITE PLAN FOR ADDITIONAL FIRE ALARM REQUIREMENTS.

KEY NOTES:

(1) FURNISH AND INSTALL CEILING MOUNTED SMOKE DETECTORS FOR SMOKE DOOR. DETECTORS SHALL BE INSTALLED WITHIN FIVE FEET OF THE DOOR OPENING. COORDINATE THE EXACT LOCATION OF MAGNETIC DOOR HOLDERS WITH ARCHITECT PRIOR TO ROUGH-IN. COORDINATE THE EXACT VOLTAGE REQUIREMENTS OF THE DOOR HOLDERS WITH FIRE ALARM MANUFACTURER AND THE ARCHITECT'S HARDWARE SPECIFICATIONS PRIOR TO ROUGH-IN. THE FIRE ALARM SYSTEM SHALL POWER AND CONTROL THE SMOKE DOOR HARDWARE. ALL CONDUIT AND WIRING SHALL BE RUN CONCEALED IN THE WALL OR ABOVE IN THE CEILING. WHERE A MANUFACTURER USES A LOW VOLTAGE TRANSFORMER TO CONTROL AND OPERATE THE DOOR HOLDERS, THE TRANSFORMER SHALL BE LOCATED ABOVE THE CEILING WITHIN FOUR FEET OF THE DOOR. THE TRANSFORMER SHALL BE INSTALLED IN A NEMA 1 ENCLOSURE.

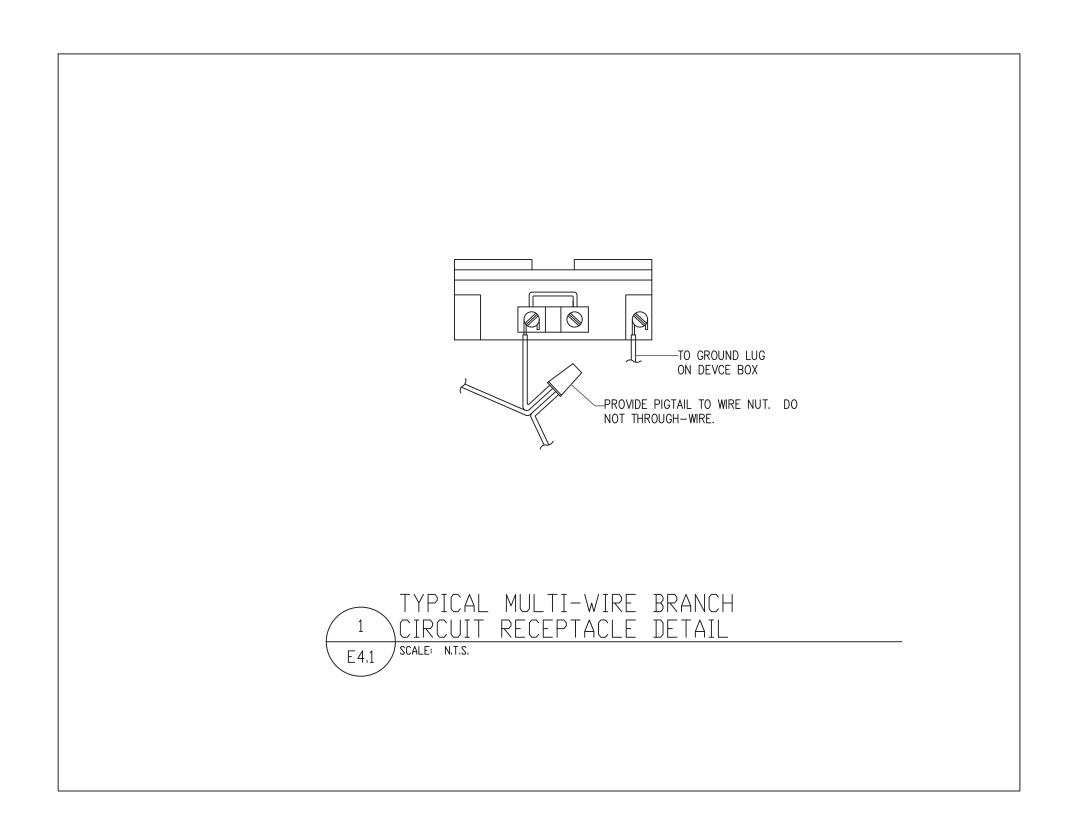
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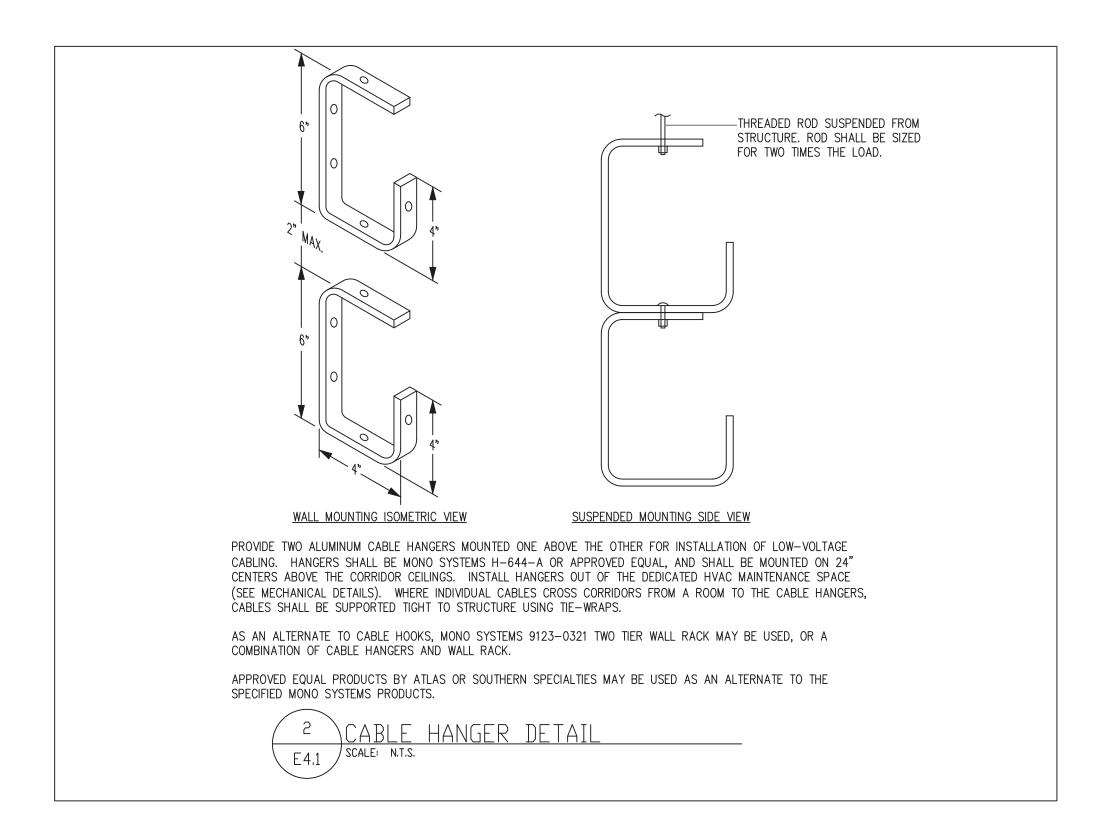


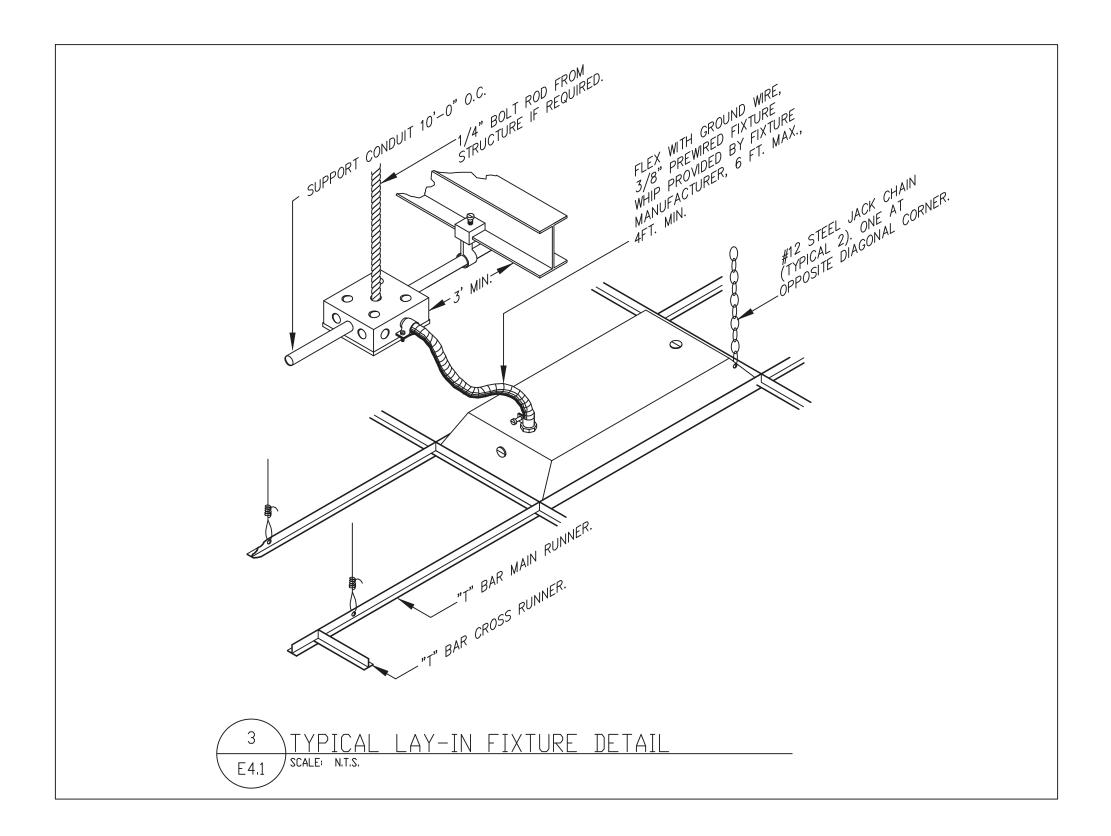


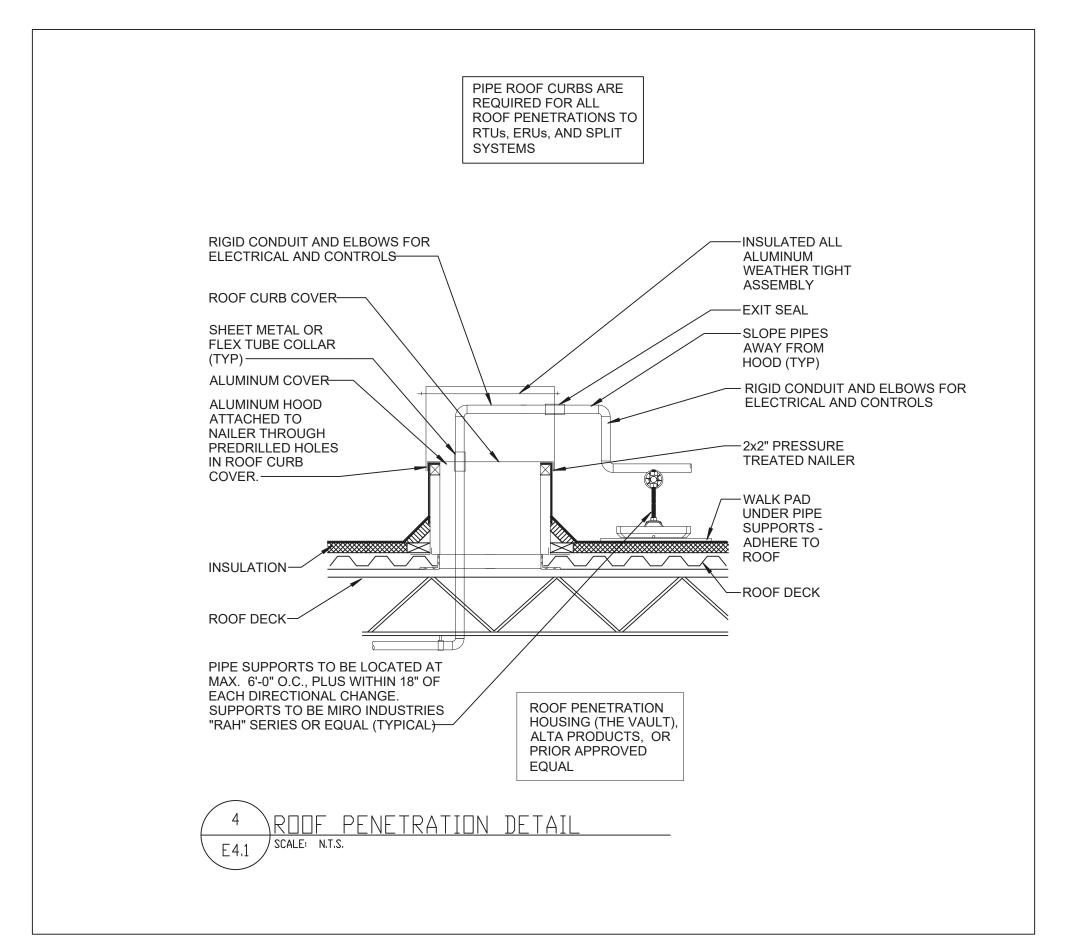


	
	SYMBOL SCHEDULE
	LIGHTING FIXTURE – FLUORESCENT
	LIGHTING FIXTURE – BARE LAMP STRIP OR INDUSTRIAL STRIP LIGHTING FIXTURE – INCAND., HID, OR FLUOR RECESSED OR SURFACE
Ю	LIGHTING FIXTURE - INCAND., HID, OR FLUOR WALL OR BRACKET MOUNTED
	LIGHTING FIXTURE CONNECTED TO EMERG. POWER SOURCE
	EXIT LIGHT – CEILING MOUNTED, ARROWS AS INDICATED EXIT LIGHT – WALL MOUNTED, ARROWS AS INDICATED
	EXIT LIGHT – WALL MOUNTED, ARROWS AS INDICATED POLE MOUNTED LIGHTING FIXTURE WITH NO. OF LUMINARIES AS INDICATED
	SELF CONTAINED EMERGENCY BATTERY/LIGHTING UNIT
₩	15A, 125V, 2 POLE, 3 WIRE, GROUNDING, NEMA 5-15R DUPLEX RECEPT.
₩	15A, 125V, 2 POLE, 3 WIRE, GROUNDING, NEMA 5-15R DOUBLE DUPLEX RECEPT.
$\vdash \bigcirc$	30A, 125/250V, 3 POLE, 3 WIRE, NEMA 10-30R SINGLE REC. (DRYER OUTLET)
	FLOOR OUTLET WITH A ISOLATED GROUND DUPLEX RECEPTACLE
GFI	DUPLEX RECEPTACLE WITH GROUND FAULT CURRENT INTERRUPTER
IG	DUPLEX RECEPTACLE WITH WITH ISOLATED GROUND WIRE
H©	MASTER CLOCK SYSTEM
⊢ ⊘ s	SPECIAL OUTLET – AS INDICATED TOGGLE SWITCH, SINGLE POLE
5 S3	TOGGLE SWITCH, THREE-WAY
S	TOGGLE SWITCH, FOUR WAY
Sp	TOGGLE SWITCH WITH PILOT LIGHT
s _K S _M	TOGGLE SWITCH, KEY OPERATED TOGGLE SWITCH, MOTOR RATED WITH THERMAL OVERLOAD ELEMENT
S _M	DIMMER SWITCH - 600W (MINIMUM) OR SIZE AS INDICATED
	TELEPHONE OUTLET WITH 1" C AND CABLE TO SYSTEM BACKBOARD.
	TELEPHONE FLOOR OUTLET WITH 1" EC HOMERUN TO TELEPHONE BACKBOARD
	120/208 OR 120/240 PANELBOARD AS SCHEDULED
	277/480 PANELBOARD OR SWITCHBOARD AS SCHEDULED TELEPHONE BACKBOARD
 	DRY TYPE TRANSFORMER
⊢ <u></u> ⊢⊙	JUNCTION BOX
рв РВ	PULL BOX
	PHOTOELECTRIC CONTROL
RB	REMOTE BALLAST
TS C	TIME SWITCH MASTER CLOCK, D – DENOTES DOUBLE FACE
	MAGNETIC STARTER
	DISCONNECT OR SAFETY SWITCH
HB	C=CHIME, B=BELL, Z=BUZZER, G=GONG
) (F) (O) (O) (O) (O) (O) (O) (O) (O) (O) (O	MOTOR, # = HORSEPOWER, F = FRACTIONAL CONDUIT RUN UP OR DOWN
	CONDUIT, HOMERUN (CROSS MARKS = # OF CONDUCTORS WHERE MORE THEN TWO)
	CONDUIT CONCEALED OVERHEAD IN FURRED CEILING, IN SLAB, OR IN WALLS
⊧≘r	DASHED SYMBOL INDICATES EXISTING DEVICE TO REMAIN.
EWC G	OUTLET FOR ELECTRIC WATER COOLER MOUNTED CONCEALED BEHIND UNIT
EC	EMPTY CONDUIT
WP	WEATHERPROOF
RT NL	RAINTIGHT (NEMA 3R) NIGHT LIGHT (CONNECTED TO UNSWITCHED CIRCUIT)
⊢_F_	FIRE ALARM MANUAL STATION
	FIRE ALARM MANUAL STATION
HV	FIRE ALARM VISUAL STROBE
HM	MICROPHONE OUTLET
(FS)	FIRE ALARM FLOW SWITCH
	FIRE ALARM TAMPER SWITCH
s s	FIRE ALARM SMOKE DETECTOR
H	FIRE ALARM HEAT DETECTOR
(I) (S _s	INTERCOM SPEAKER – THE SUBSCRIPT "S" DENOTES SURFACE MOUNTED.
	TELEVISION OUTLET
Þ	ISOLATED GROUND DUPLEX RECEPT.
	ADMINISTRATION INTERCOM PHONE AT 48" ABOVE FINISHED FLOOR.
A	ADMINISTRATION INTERCOM PHONE AT 18" ABOVE FINISHED FLOOR.
s _M	120 VOLT, 1HP MOTOR RATED DISCONNECT SWITCH.
	DATA OUTLET WITH 1" C (UNLESS NOTED OTHERWISE) TO ABOVE THE CORRIDOR CABLE HOOKS. DATA OUTLET SHALL BE A DOUBLE GANG BOX WITH REDUCER TO A SINGLE GANG COVERPLATE. COLOR TO BE SELECTED BY OWNER/ARCHITECT. PROVIDE TWO DATA JACKS WITH TWO CAT 6 DATA CABLING (UNLESS NOTED OTHERWISE) FROM EACH JACK ROUTED TO RACK MOUNTED PATCH PANELS IN IDF CLOSET. SEE SPECIFICATIONS. CABLING SHALL BE RUN IN CONDUIT TO CABLE HOOKS.
⊨⊕	ISOLATED GROUND DOUBLE DUPLEX RECEPT.
	(1) HOT (1) NEUTRAL (1) EQUIPMENT GROUND

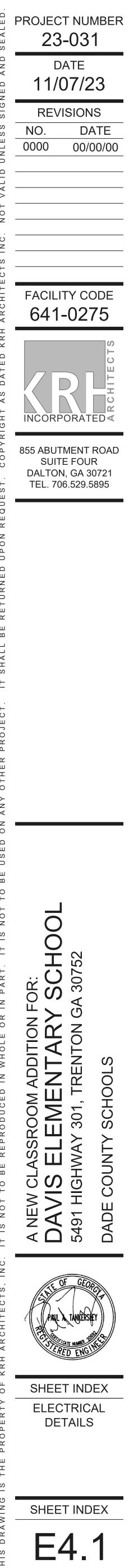


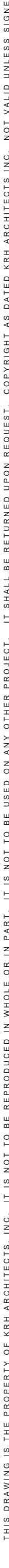






FOR CONSTRUCTION







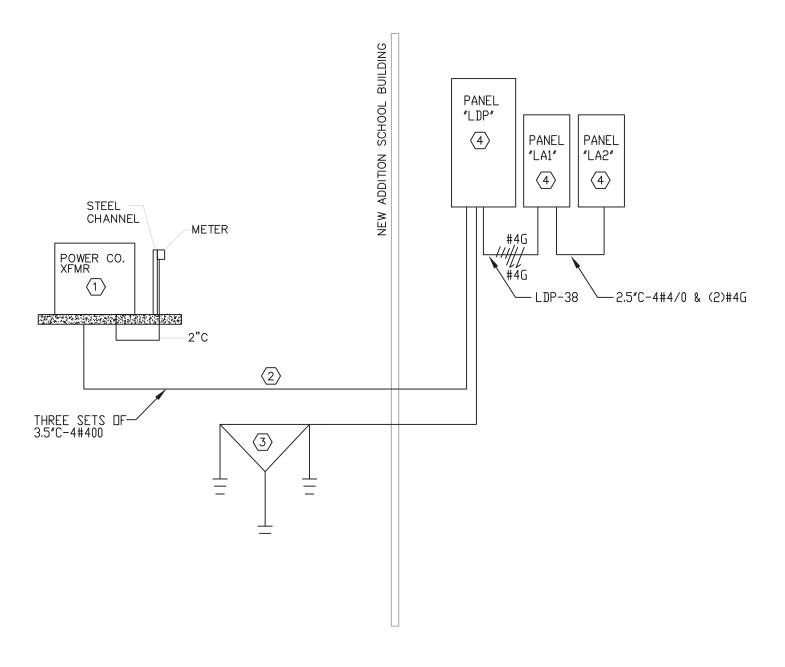
Nr. A

PNL.	BRD.	LDP N	IO. OI	F CKT. SPA	CES	:		42]	MAIN	DEVIC	E:		Р	NL.E	BRD.
PP V	OLT.	208 A	IC RA	ATING:		42,000			7	TYPE:	Ν	ICB		Р	P VC	DLT.
NO. I	PH.	3 (CABIN	ET:	5	SURFACE)			SIZE:	8	00A		N	O. P	H.
NO.	TA	WS C	COND	DESCRIP	I TL	LOAD	NO.	TA	WS	COND	DESCR	RIPT TL	LOAD	N	Ю.	TA
1	80/3	3	2"	RTU-1	С	19440	2	80/3	3	2"	RTU-5	С	19440		1	20
3						i i	4								3	20
5							6								5	20
7	80/3	3	2"	RTU-2	С	19440	8	80/3	3	2"	RTU-6	С	19440		7	20
9						с. — — — — — — — — — — — — — — — — — — —	10								9	20
11						c	12								11	20
13	80/3	3	2"	RTU-3	С	19440	14	80/3	3	2"	RTU-7	С	19440		13	20
15							16								15	20
17						c	18								17	20
19	80/3	3	2"	RTU-3	С	19440	20	80/3			SPARE)			19	20
21							22								21	20
23							24								23	20
25							26	80/3			SPARE)			25	20
27							28								27	20
29							30								29	20
31							32								31	20
33							34								33	20
35							36								35	30/2
37							38	225/3	"4/0	"2.5"	PANEI	LLAP	<mark>59458</mark>		37	
39							40								39	20/2
41							42								41	
	CRIPT.		DF	LOAI	1 -						DEM	AND				RIPT.
	. PNLS.		1	59458	<u> </u>	VOLTAGE	:		208		594	57.5				PNLS.
REC	EPT.		0.5	(PHASES:			3			0			ECE	
LIGI			1.25	(0 5	SPARE %:			0.2			0			IGH	
HEA			1	(-							0			EAT	
COO			1	136080	2						13	6080			COOI	
MOT			1	(2							0			10T	
OTH			1	(-							0			THF	
SPAI	RE		1	27210								7216		S	PAR	E
				CONN.LOA		AMP					DEM.LO		AMP			
				222754	1	618					22	2754	618			~ =
NOT	ES:													N	OTE	S: F



LA1 NO. O	F CKT. SPAC	ES:			42		MAIN	DEVICE:		
208 AIC R.	AIC RATING: 42,000						TYPE:	MLO		
3 CABIN	JET:		SURFACE				SIZE:	225A		
WS COND	DESCRIPT	TL	LOAD	NO.	TA	WS	COND	DESCRIPT	TL	LOAD
	SPARE			2	20	12	"1/2"	RECPT	R	1200
12 "1/2"	LIGHTING	L	800	4	20	12	"1/2"	RECPT	R	1200
12 "1/2"	LIGHTING	L	450	6	20	12	"1/2"	RECPT	R	1200
12 "1/2"	LIGHTING	L	400	8	20	12	"1/2"	RECPT	R	1200
12 "1/2"	LIGHTING	L	1200	10	20	12	"1/2"	RECPT	R	1200
12 "1/2"	LIGHTING	L	1550	12	20	12	"1/2"	RECPT	R	1200
12 "1/2"	LIGHTING	L	1200	14	20	12	"1/2"	RECPT	R	1200
12 "1/2"	LIGHTING	L	600	16	20	12	"1/2"	RECPT	R	1200
12 "1/2"	LIGHTING	L	450	18	20	12	"1/2"	RECPT	R	1200
12 "1/2"	RECPT	R	1200	20	20	12	"1/2"	RECPT	R	1200
12 "1/2"	PROJ	0	950	22	20	12	"1/2"	RECPT	R	1200
12 "1/2"	RECPT	R	1200	24	20	12	"1/2"	RECPT	R	1200
12 "1/2"	PROJ	0	950	26	20	12	"1/2"	EF-1	Μ	1300
12 "1/2"	RECPT	R	1200	28	20	12	"1/2"	TPDU	0	600
12 "1/2"	PROJ	0	950	30	20	12	"1/2"	CP-1	М	1300
12 "1/2"	EF-2	Μ	600	32	40/2	8	"1"	DWH-1	Η	6000
12 "1/2"	SUMP	Μ	500	34						
10 "3/4"	DSOU-1	C	2300	36	20			SPARE		
				38	20			SPARE		
12 "3/4"	DS-1	С	400	40	20			SPARE		
				42	20			SPARE		
DF	LOAD							DEMAND		
1	24270		VOLTAGE:			208		24270		
0.5	18000		PHASES:			3		9000		
1.25	6650		SPARE %:			0.05		8312.5		
1	6000							<mark>6000</mark>		
1	2700							2700		
1	3700							3700		
1	3450							3450		
1	2025							2025		
	CONN.LOAD		AMP					DEM.LOAD		AMI
	66795		185					59458		165
JRNISH AN	D INSTALL F	EE	D THROUC	ΗL	UGS TO) PANI	EL LA2			

PNL	.BRD.	LA2	NO. OF	F CKT. SP	ACE	S:		42		MAIN D
PP V	OLT.	208	AIC RA	ATING:		42,000				TYPE:
NO.	PH.	3	CABIN	IET:				SIZE:		
NO.	TA	WS	COND	DESCRIP	TTL	LOAD	NO.	TA	WS	COND I
1	20	12	"1/2"	RECPT	R	1200	2	20	12	"1/2" F
3	20	12	"1/2"	PROJ	0	950	4	20	12	"1/2" F
5	20	12	"1/2"	RECPT	R	1200	6	20	12	"1/2" F
7	20	12	"1/2"	PROJ	0	950	8	20	12	"1/2" F
9	**20	12	"1/2"	EWC	R	1200	10	20	12	"1/2" F
11	**20	12	"1/2"	EWC	R	1200	12	20	12	"1/2" F
13	**20	12	"1/2"	H DRYEF	0 1	1600	14	20	12	"1/2" F
15	**20	12	"1/2"	H DRYEF	0	1600	16	20	12	"1/2" F
17	**20	12	"1/2"	H DRYEF	0	1600	18	20	12	"1/2" F
19	**20	12	"1/2"	H DRYEF	0	1600	20	20	12	"1/2" F
21	20	12	"1/2"	IDF	0	1600	22	20		S
23	30/2	10	"3/4	EH-1	Η	3000	24	20		S
25							26	20		S
27							28	20		S
29							30	20		S
31							32	20		S
33							34	20		S
35							36	20		S
37							38	20		S
39							40	20		S
41							42	20		S
DES	CRIPT.		DF	LOA	D					
отн	I. PNLS.		1		0	VOLTAGE	1		208	
REC	EPT.		0.5	1680	0	PHASES:			3	
LIG	TH		1.25		0	SPARE %:			0.1	
HEA	Т		1	300	0					Í
COC	DL		1		0					
MO	ΓOR		1		0					
отн	ER		1	990	0					
SPA	RE		1	297	0					
				CONN.LOA	AD.	AMP				I
				3267	0	91				



ELECTRICAL RISER DIAGRAM

PANEL FEEDERS HAVE BEEN SIZED FOR VOLTAGE DROP. CONTRACTOR SHALL FURNISH AND INSTALL THE CORRECT SIZED TERMINATION LUGS INTO EACH PANEL AND BREAKER. REFER TO THE ELECTRICAL RISER DIAGRAM AND PANEL SCHEDULES FOR THE EXACT QUANTITY AND SIZE OF FEEDERS.

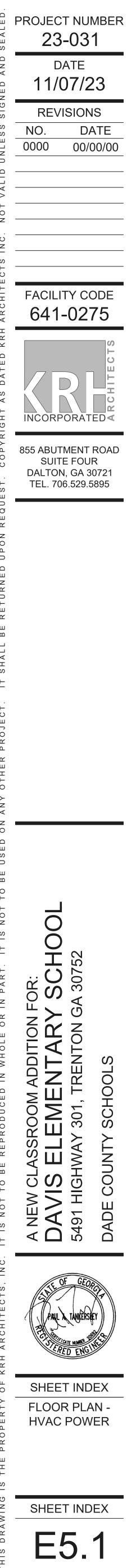
- KEY NOTES: 1 LOCATION OF POWER COMPANY TRANSFORMER. COORDINATE THE EXACT LOCATION OF TRANSFORMER WITH POWER COMPANY PRIOR TO BID. INCLUDE IN THE BASE BID ANY AND ALL COST FOR INSTALLATION, CONNECTION, CONCRETE PAD, METER, ETC. OF THE UTILITY TRANSFORMER. RUN A 1"C WITH PULL ROPE FROM THE TRANSFORMER METER TO THE HVAC EMS PANEL. CONDUIT SHALL NOT BE RUN ON TRANSFORMER INTERIOR. COORDINATE THE EXACT LOCATION OF THE EMS PANEL WITH THE HVAC CONTRACTOR PRIOR TO ROUGH-IN.
- PROPOSED ROUTE OF UNDERGROUND FEEDER. FEEDER SHALL BE ENCASED WITH 12" OF 3000 PSI CONCRETE ON ALL SIDES, TOP AND BOTTOM ON THE EXTERIOR OF THE BUILDING. FURNISH AND INSTALL SPACERS EVERY FIVE FEET OF CONDUIT RUN TO MAINTAIN CLEARANCES DURING POUR. SERVICE FEEDER SHALL BE RUN 24" BELOW GRADE.
- RUN #3/0 GROUND CONDUCTOR TO THREE 5/8" x 10' COPPERCLAD GROUND RODS SPACED TEN FEET APART ON THE EXTERIOR OF THE BUILDING, TO THE MAIN STEEL DOMESTIC WATER LINE, AND TO BUILDING STEEL.
- FURNISH AND INSTALL A "TVSS" UNIT FOR THIS PANEL. PANEL SHALL HAVE THE NEUTRAL BUS RATED FOR 200% OF THE PANEL AMPERAGE. PANEL SHALL HAVE A SEPARATE ISOLATED GROUND BUS FROM THE EQUIPMENT GROUND BUS. 5 NOT USED.
- NOT USED.
- THE EXISTING FIRE ALARM CABLE THAT SERVES THE GYM IS RUN ON THE BUILDING EXTERIOR BUS CANOPY. THIS CONTRACTOR SHALL REPLACE THIS CABLE WITH A NEW ONE IN CONDUIT RUN ON THE BUILDING INTERIOR OF THE NEW ADDITION TO THE EXISTING GYM FIRE ALARM DEVICES.
- CONNECT THE VAULT TAMPER SWITCH TO THE FIRE ALARM SYSTEM. COORDINATE THE EXACT LOCATION OF THE VAULT WITH THE CIVIL DRAWINGS PRIOR TO ROUGH-IN. RUN ALL CABLING IN CONDUIT.
- CONNECT THE POST INDICATOR VALVE VAULT TAMPER SWITCH TO THE FIRE ALARM SYSTEM. COORDINATE THE EXACT LOCATION OF THE VAULT WITH THE CIVIL DRAWINGS PRIOR TO ROUGH-IN. RUN ALL CABLING IN CONDUIT.

DEVICE: MLO 225A DESCRIPT TL LOAD RECPT R 1200 RECPT R 1200 RECPT R 1200 RECPT R 1200 1200 RECPT R RECPT R 1200 SPARE DEMAND 8400 3000 9900 2970 DEM.LOAD AMP 24270

All branch circuit wiring shall be run in the walls and above the ceiling unless explicitly noted on the floor plans. (DNLY at the lab teachers demonstration tables, low partition walls in the kitchen and items under the hood shall branch circuit wiring be allowed in the slab).

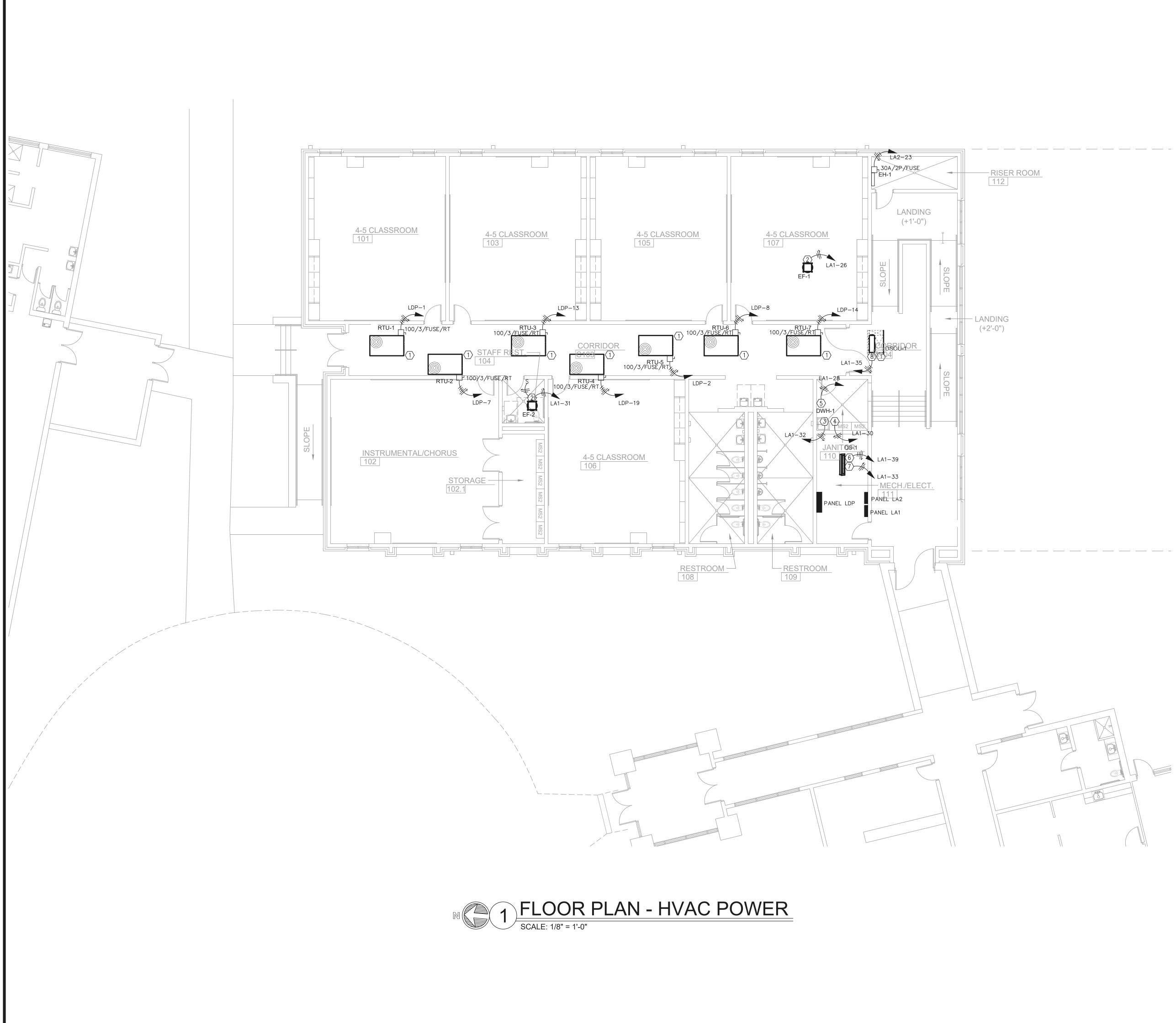
All FEEDER wining MAY BE RUN BELOW THE SLAB or run in the walls and above the ceiling.

ALL SWITCHBOARDS AND PANELS SHALL BE INSTALLED WITH ARC FLASH LABELING PER THE NEC.









GENERAL NOTES:

COORDINATE THE EXACT LOCATION OF ALL HVAC AND PLUMBING EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. FUSE ALL HVAC UNITS ACCORDING TO MANUFACTURER'S SPECIFICATIONS. FUSE SIZES ARE BASED UPON ONE OF THE ACCEPTABLE HVAC MANUFACTURERS. FUSE SIZES WILL VARY FROM MANUFACTURER TO MANUFACTURER. CONTRACTOR SHALL FURNISH AND INSTALL ALL JUNCTION BOXES AND CONDUIT FOR THE HVAC THERMOSTATS AND CONTROL SWITCHES. RUN 3/4" CONDUIT FROM THE BOX TO THE HVAC UNIT. COORDINATE THE EXACT LOCATIONS OF ALL THE HVAC UNITS THERMOSTAT/SWITCH LOCATIONS AND MOUNTING HEIGHTS WITH THE HVAC CONTRACTOR PRIOR TO ROUGH-IN. OBTAIN A COPY OF THE HVAC DRAWINGS FOR ALL SWITCH AND THERMOSTAT LOCATIONS. INCLUDE ANY AND ALL COST IN BASE BID.

CONTRACTOR SHALL INCLUDE IN THE BASE BID ANY AND ALL COST TO MOVE, EXTEND AND RELOCATE EXISTING ELECTRICAL CIRCUITS AND FEEDERS RUN WHERE THE NEW HVAC EQUIPMENT IS LOCATED.

NOTES

- . PROVIDE FUSES IN ALL DISCONNECT SWITCHES SERVING MECHANICAL EQUIPMENT AND INDICATED AS "FUSE". FUSES SHALL BE SIZED PER THE MAXIMUM FUSE SIZE RATING IN THE NAMEPLATE DATA.
- 2. COORDINATE EXACT LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. 3. REFER TO SHEET "E-* ROOF PENETRATION DETAIL FOR ADDITIONAL INFORMATION ON CONNECTIONS TO ROOF MOUNTED
- HVAC EQUIPMENT AND DEVICES. 4. CONDUITS SERVING MECHANICAL EQUIPMENT ABOVE THE CEILING SHALL BE ROUTED FROM THE LOAD SIDE OF THE DISCONNECT SWITCH UP TO STRUCTURE AND ACROSS TO ABOVE THE MECHANICAL EQUIPMENT IN HARD PIPE WITH THE LAST THREE FOOT A FLEXIBLE CONNECTION DOWN TO THE UNIT. DISCONNECT SWITCHES TO BE MOUNTED ABOVE THE CEILING. MAINTAIN CODE-REQUIRED CLEARANCES OF 36"D X 30"W IN FRONT OF ALL DISCONNECT SWITCHES, INCLUDING THOSE ABOVE THE CEILING. COORDINATE WITH OTHER TRADES TO ENSURE THAT PIPING, DUCTWORK, ETC. ARE NOT INSTALLED IN THE WORKING SPACES.

KEYNOTES

- $\overline{1}$ CONTRACTOR SHALL FURNISH AND INSTALL A NEW ROOF MOUNTED GFI WEATHERPROOF RECEPTACLE. LOCATE THE NEW DEVICE ADJACENT TO THE NEW ROOF MOUNTED HVAC EQUIPMENT. RUN 1/2*C-2#12 & #12G CIRCUIT TO THE NEAREST 120 VOLT PANEL AND CONNECT TO A SPARE 20A/1P BREAKER. TOTAL NUMBER OF RECEPTACLES ALLOWED ON A CIRCUIT SHALL NOT BE GREATER THAN FOUR.
- (2) FURNISH AND INSTALL A 30A/1P/RT DISCONNECT SWITCH FOR THE NEW EXHAUST FAN. COORDINATE THE EXACT LOCATION WITH THE HVAC CONTRACTOR PRIOR TO ROUGH-IN.
- 3 FURNISH AND INSTALL A 60A/2P/FUSE/RT DISCONNECT SWITCH FOR THE NEW 6KW WATER HEATER. COORDINATE THE EXACT LOCATION PRIOR TO ROUGH-IN.
- 4 FURNISH AND INSTALL A 30A/1P/FUSE/RT DISCONNECT SWITCH FOR THE NEW WATER HEATER CIRCULATION PUMP. COORDINATE THE EXACT LOCATION WITH THE PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
- (5) CONNECT TO THE TRAP PRIMER. FURNISH AND INSTALL A 120 VOLT 1/2 HP MOTOR RATED SWITCH AT EACH UNIT. COORDINATE THE EXACT LOCATION OF EACH UNIT WITH THE PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
- 6 FURNISH AND INSTALL A 30A/2P/FUSE DISCONNECT AT THIS UNIT. THE BASIS OF DESIGN IS FOR THE INDOOR UNIT TO BE FED FROM THE EXTERIOR MOUNTED UNIT. HOWEVER ONE OF THE ALTERNATE MANUFACTURERS REQUIRES A DEDICATED SEPARATE CIRCUIT FOR THE INDOOR UNIT. CONTRACTOR SHALL INCLUDE BOTH OPTIONS TO SERVE THIS UNIT IN THE BASE BID.
- $\langle 7 \rangle$ FURNISH AND INSTALL A 120 VOLT 1/2HP MOTOR RATED DISCONNECT SWITCH AT THE SUMP PUMP FOR THIS UNIT.
- B FURNISH AND INSTALL A 30A/2P/FUSE/RT DISCONNECT AT THIS UNIT. COORDINATE THE EXACT LOCATION OF EACH UNIT WITH THE HVAC CONTRACTOR PRIOR TO ROUGH-IN.
- $\langle 9 \rangle$ connect to the sprinkler system exterior bell. Coordinate the exact location with the sprinkler SYSTEM CONTRACTOR. RUN 1/2"C-2#12 & #12G FROM THE BELL TO THE NEAREST UNSWITCHED 120 VOLT CIRCUIT.

WORKING CLEARANCES: MAINTAIN CODE-REQUIRED CLEARANCES OF 36"D X 30"W IN FRONT OF ALL DISCONNECT SWITCHES, INCLUDING THOSE ABOVE THE CEILING. COORDINATE WITH OTHER TRADES TO ENSURE THAT PIPING, DUCTWORK, ETC. ARE NOT INSTALLED IN THE WORKING SPACES.

