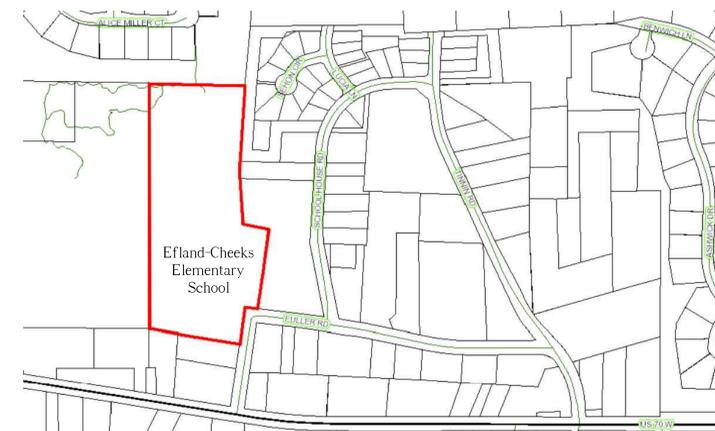


# EFLAND-CHEEKS GLOBAL ELEMENTARY SCHOOL MODULAR CLASSROOM UNIT ORANGE COUNTY BOARD OF EDUCATION HILLSBOROUGH, NORTH CAROLINA 4/3/2023

OWNER - ORANGE COUNTY SCHOOLS  
 200 S. CAMERON ST. P.O. BOX 8181  
 HILLSBOROUGH, NC 27278  
 APPLICANT - ORANGE COUNTY SCHOOLS  
 200 EAST KING ST.  
 HILLSBOROUGH, NC 27278  
 CONTACT PERSON - PATRICK ABELE, CHIEF OPERATIONS OFFICER  
 PHONE NUMBER - (919)732-8126  
 PROPERTY ADDRESS: 4411 FULLER ROAD  
 PIN: 9844399372  
 LOT AREA: 10.53 ACRES  
 ZONING: R-1  
 WATERSHED: LOWER ENO UNPROTECTED

## INDEX OF DRAWINGS

C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS PLAN
C1.1	SITE DEMOLITION PLAN
C2.0	OVERALL SITE PLAN
C2.1	ENLARGED SITE PLAN
C3.0	OVERALL GRADING, STORM DRAINAGE AND UTILITY PLAN
C3.1	ENLARGED GRADING, STORM DRAINAGE AND UTILITY PLAN
C4.1	ENLARGED EROSION CONTROL PLAN
1	FLOOR PLAN 154 X 64 (FOR INFORMATION ONLY)
E0.1	ELECTRICAL SPECIFICATIONS AND NOTES
E1.0	ELECTRICAL SITE PLAN
E1.1	ELECTRICAL POWER PLAN
E2.0	ELECTRICAL RISER AND PANEL SCHEDULES
P1.0	PLUMBING PLAN, NOTES, DETAILS AND SPECIFICATIONS



VICINITY MAP N.T.S.



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 919.401.8586  
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Efland-Cheeks Global Elementary School  
 Modular Classroom Unit  
 Orange County Schools  
 4401 Fuller Road  
 Efland, North Carolina



no. revisions

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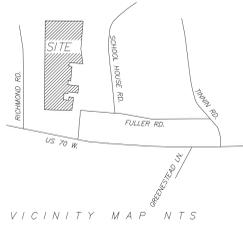
Cover Sheet

sheet

C0.0

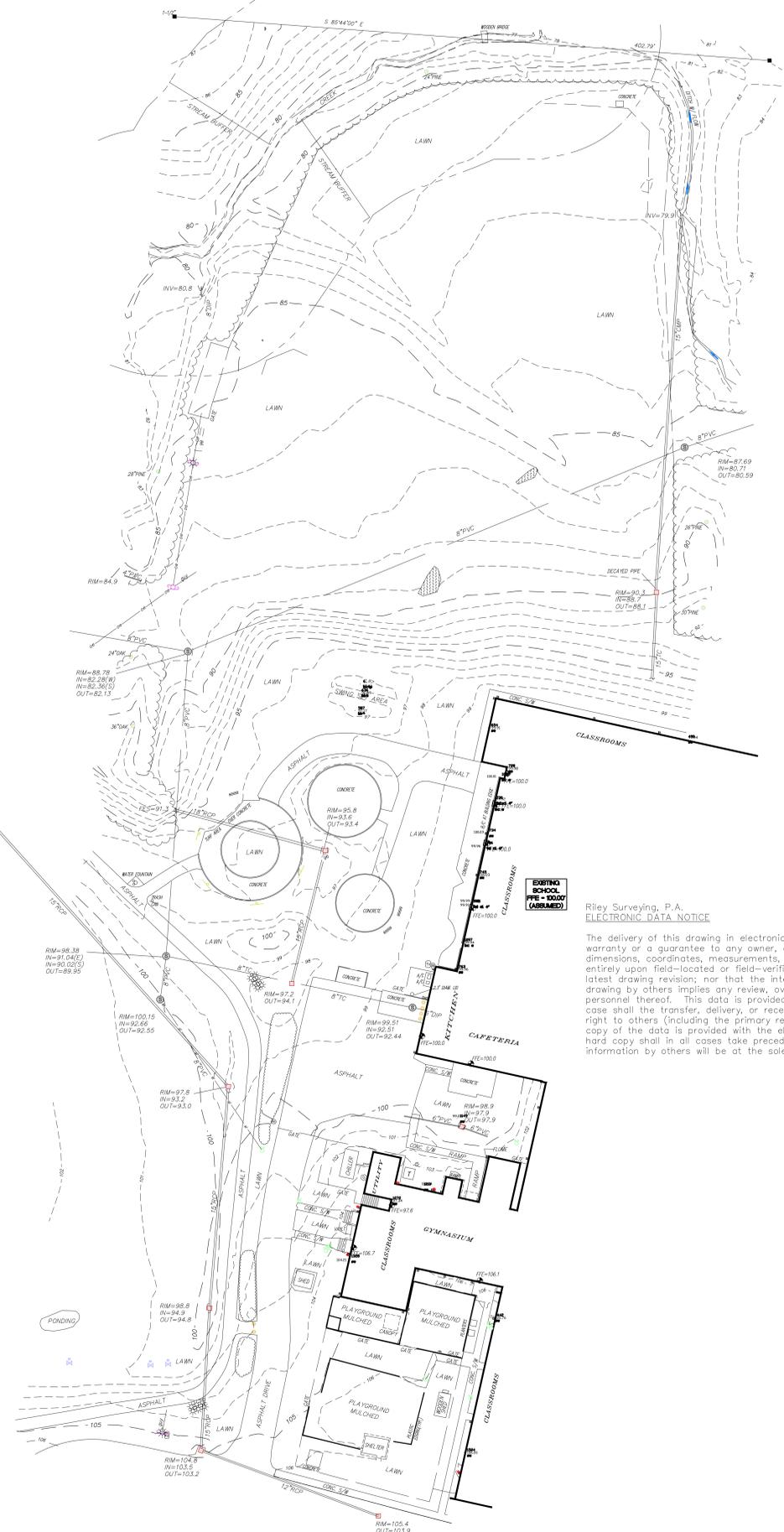
project no. 2231

date 4/3/2023



**SURVEYOR'S CERTIFICATION**  
 I, Jose L. Torres, certify that this project was completed under my direct and responsible charge from an actual survey made under my supervision; that this ground survey was performed at the 95 percent confidence level (± signal) to meet Federal Geographic Data Committee Standards; that the horizontal accuracy is 1:10,000+, that the vertical accuracy is 1:10,000+ and that the original data was obtained on February 13-15, 2023; that the survey was completed on February 24, 2023; that contours shown meet the stated standard; all elevations are based on an assumed Vertical Datum of 100.00.

DATE: \_\_\_\_\_  
 JOSE L. TORRES, PLS L-3771



Riley Surveying, P.A.  
 ELECTRONIC DATA NOTICE

The delivery of this drawing in electronic format should not be construed to provide an express warranty or a guarantee to any owner, designer, surveyor, contractor, or other party that all dimensions, coordinates, measurements, notations, or other data is exact; nor that it is complete or represents the latest drawing revision; nor that the intended or unintended uses or modifications of this drawing by others implies any review, oversight, or approval by Riley Surveying, P.A., or the personnel thereof. This data is provided for the convenience of the intended recipient; but in no case shall the transfer, delivery, or receipt of this electronic data be construed to provide any right to others (including the primary recipient) to rely fully upon the information. If a hard copy of the data is provided with the electronic data or under separate cover, the hard copy shall in all cases take precedence over the electronic data. Any use of this information by others will be at the sole risk and liability of the user.

**LEGEND**

- EXISTING IRON PIPE(SIZE)
- CONCRETE MONUMENT W/ NAIL
- BASKETBALL GOAL
- BENCH
- BOLLARD
- CATV HANDHOLE
- CATCH BASIN
- TRENCH DRAIN
- CONNECTION NOT FOUND
- ROOF DRAIN
- TERACOTTA INLET
- GAS METER
- WATER METER
- SANITARY SEWER MANHOLE
- CLEAN-OUT
- FIBER OPTICS HANDHOLE
- FIBER OPTIC POST
- AIR CONDITIONING UNIT
- FINISHED FLOOR ELEVATION (SEE NOTE #3)
- IRRIGATION CONTROL VALVE
- UTILITY POLE
- UTILITY POLE WITH LIGHT
- STADIUM LIGHTS
- ELECTRIC TRANSFORMER
- TELEPHONE PEDESTAL
- SPECIMEN TREE(24" & LARGER DIA.)
- SHRUB
- ROCK OUTCROP
- BUILDING OVERHANG/CANOPY
- OVERHEAD ELECTRIC LINES
- GRAVEL
- CHAINLINK FENCE
- TREE LINE
- STREAM BUFFER

**TOPOGRAPHIC SURVEY**  
 PROPERTY OF ORANGE COUNTY BOARD OF EDUCATION  
 A PORTION OF  
**EFLAND CHEEKS ELEMENTARY SCHOOL**  
 CHEEKSTOWNSHIP  
 ORANGE COUNTY, NORTH CAROLINA

- NOTES**
- THIS IS NOT A BOUNDARY SURVEY. BOUNDARY INFORMATION TAKEN FROM PB 4 PG 163.
  - CONTRACTORS TO FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION. UNDERGROUND UTILITIES WERE NOT MARKED FOR THIS SURVEY. THERE MAY BE UNDERGROUND UTILITIES BEYOND THOSE SHOWN HEREON.
  - VERTICAL DATUM BASED ON AN ASSUMED FINISHED FLOOR ELEV=100.00 AS SHOWN. FINISHED FLOOR ELEVATIONS TAKEN AT DOOR THRESHOLD. ALL DOORS WERE LOCKED.
  - RAI/O OF PRECISION= 1:10,000+.
  - HORIZONTAL GROUND DISTANCES SHOWN HEREON.

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4/24/2023

**Efland-Cheeks Global Elementary School**  
**Modular Classroom Unit**  
**Orange County Schools**  
 4401 Fuller Road  
 Efland, North Carolina



no.	revisions

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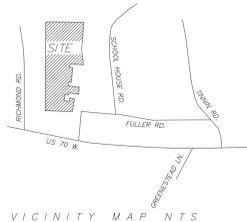
Existing Conditions Site Plan

sheet **C1.0**

project no. 2231

date 4/3/2023



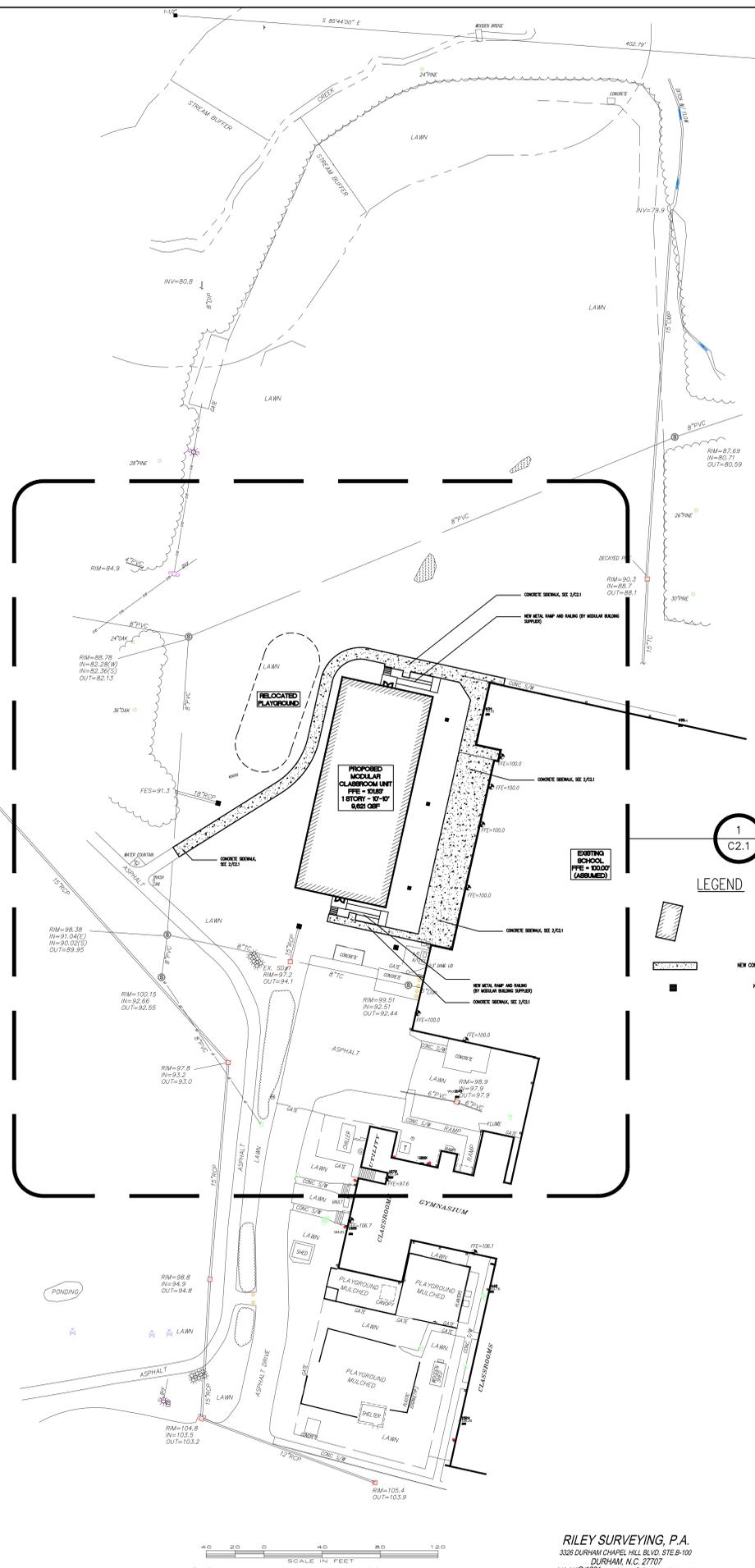


VICINITY MAP NTS

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DATE \_\_\_\_\_  
 JOSE L. TORRES, PLS L-3771

FB 4 2023  
 00000000



LEGEND

- LEGEND**
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  - BASKETBALL GOAL
  - BENCH
  - BIKELAND
  - CATY HANDHOLE
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4/24/2023

**Efland-Cheeks Global Elementary School**  
**Modular Classroom Unit**  
**Orange County Schools**  
 4401 Fuller Road  
 Efland, North Carolina



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dmt mh

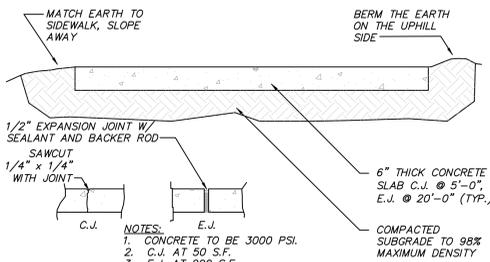
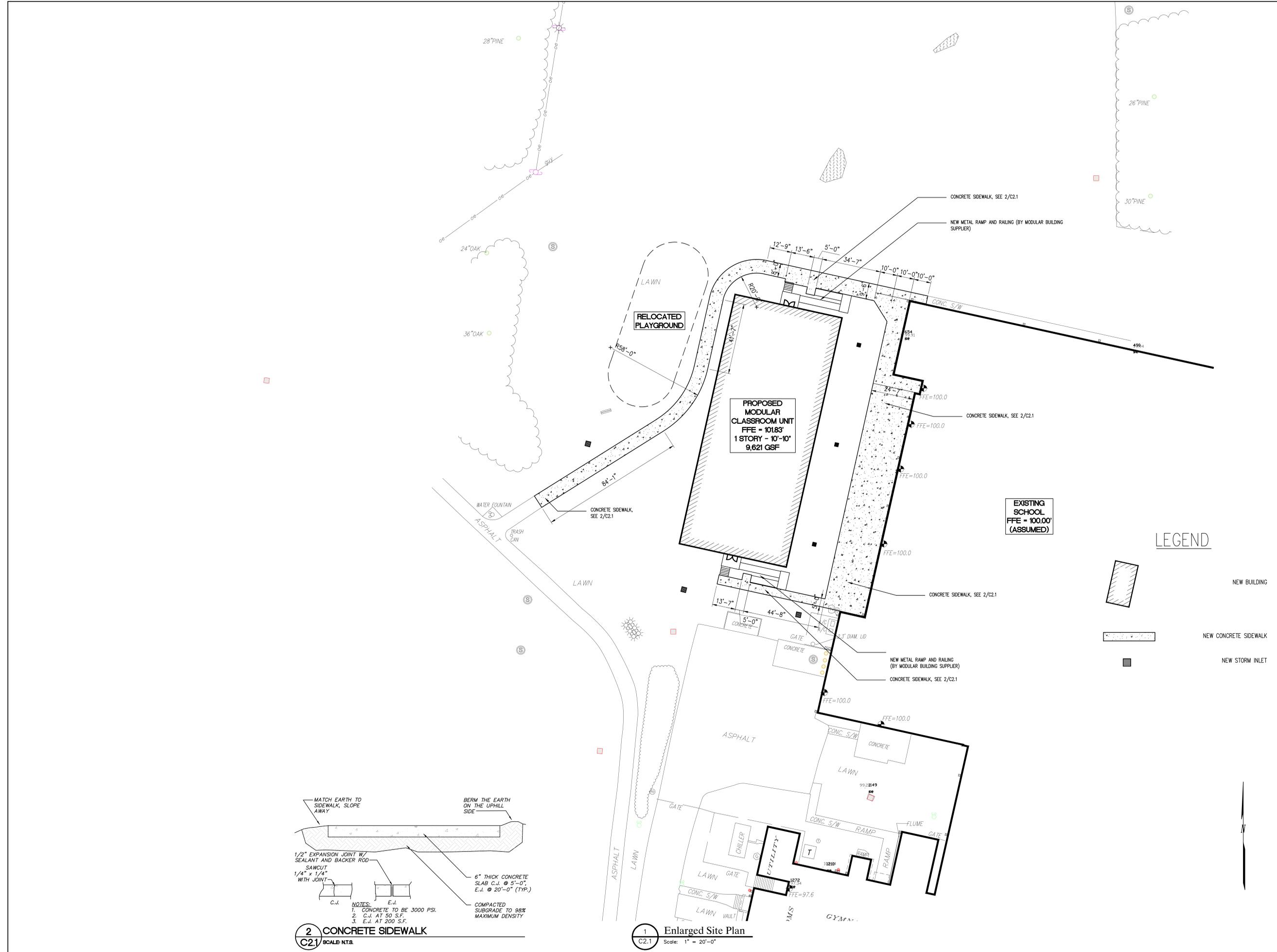
Site Plan

sheet

**C2.0**

project no. 2231

date 4/3/2023



**2 CONCRETE SIDEWALK**  
 SCALE: N.T.S.

**1 Enlarged Site Plan**  
 Scale: 1" = 20'-0"



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Enlarged Site Plan

sheet

**C2.1**

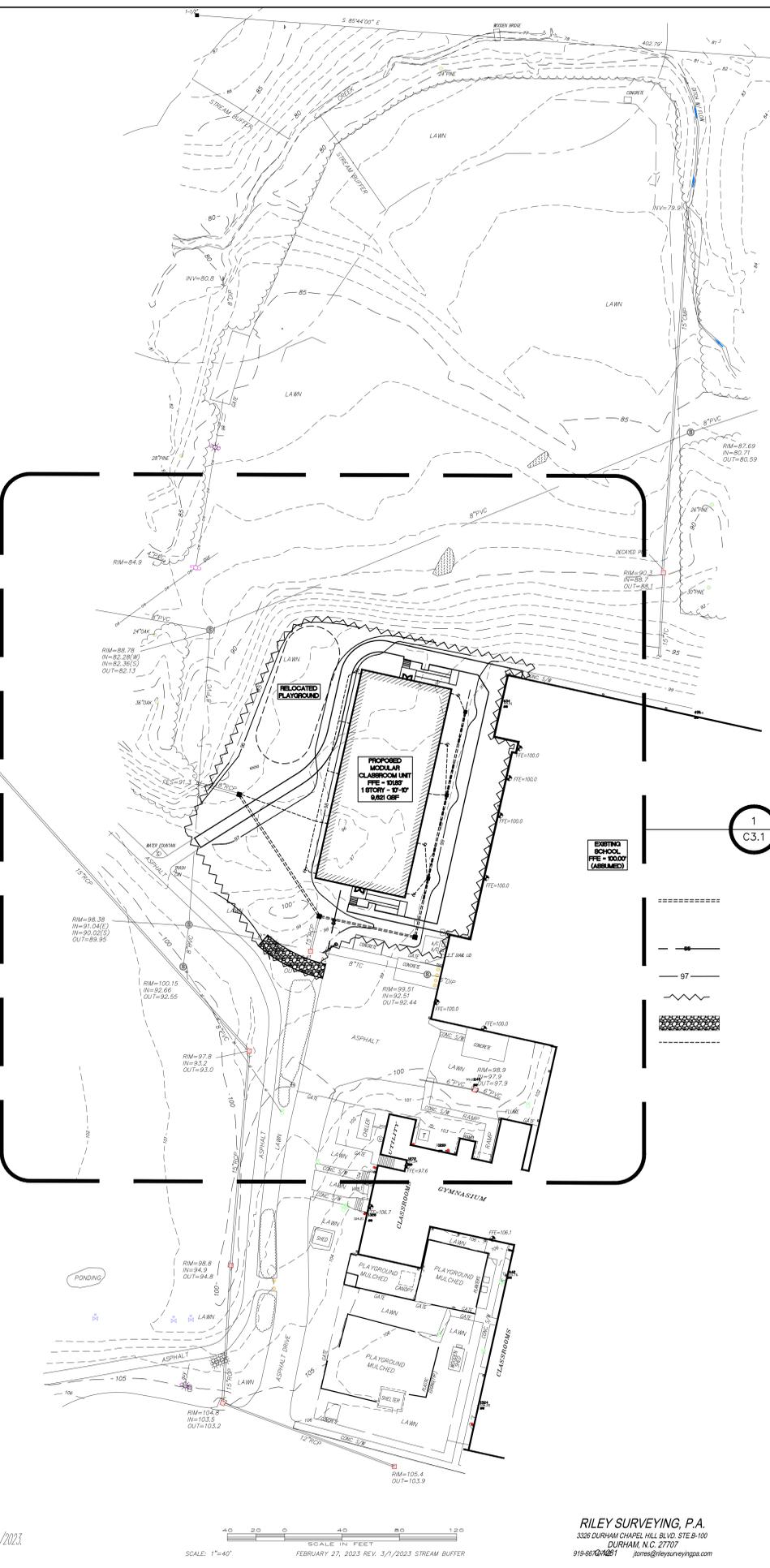
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 JOSE L. TORRES, PLS L-3771



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**CRA ASSOCIATES, INC.**  
 CERT. NO. 50072  
 NORTH CAROLINA  
 CHAPEL HILL, NC

**STATE OF NORTH CAROLINA**  
 PROFESSIONAL SEAL  
 4/24/2023

**Efland-Cheeks Global Elementary School**  
**Modular Classroom Unit**  
**Orange County Schools**  
 4401 Fuller Road  
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dnt	mh

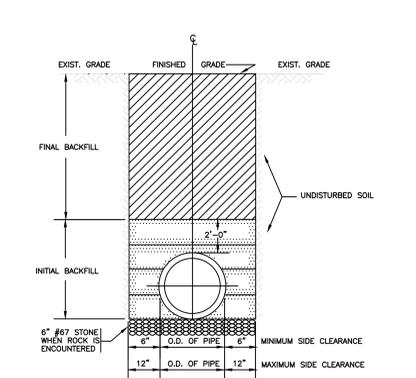
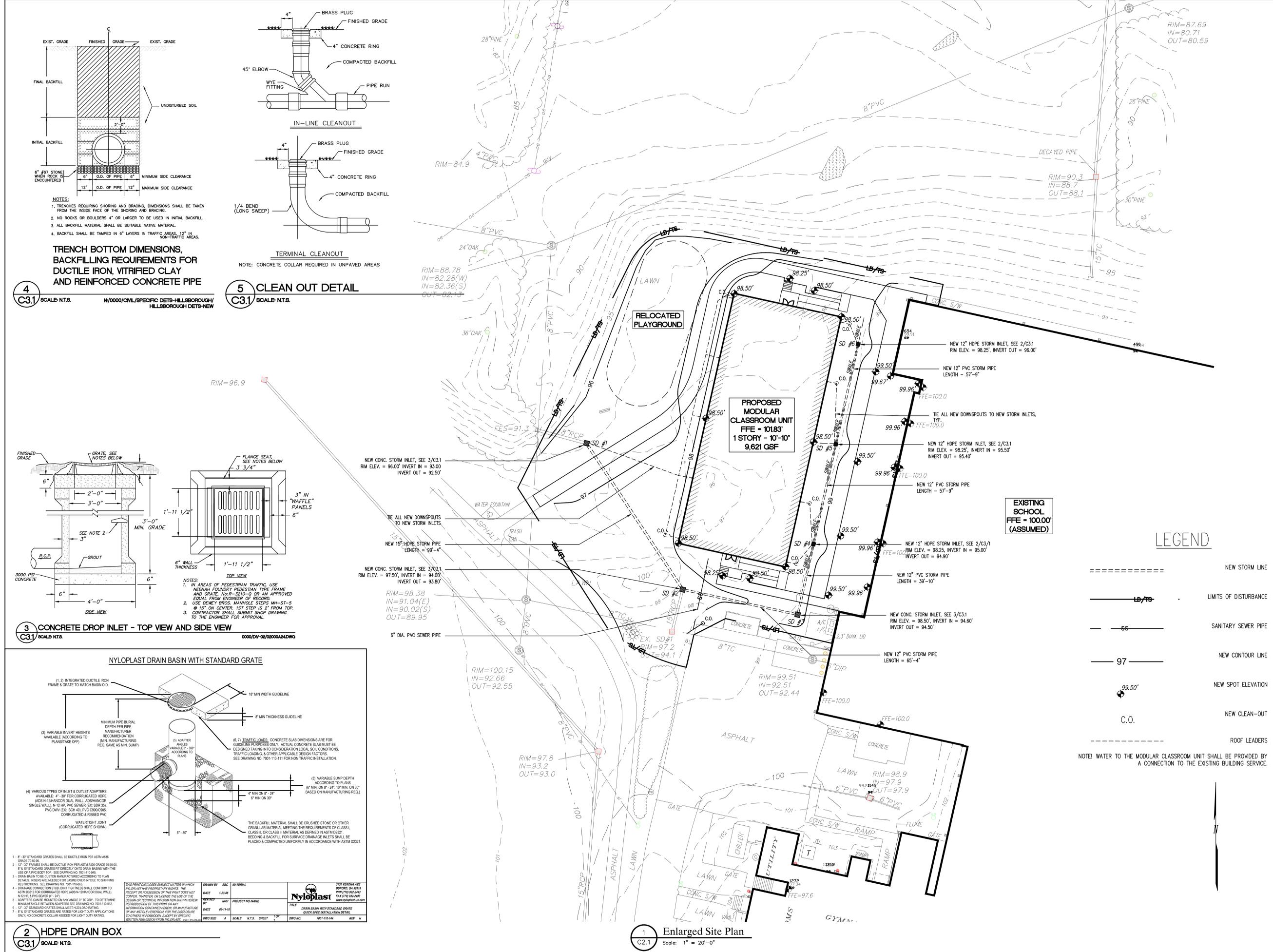
**Storm Drainage & Grading Plan**

sheet

**C3.0**

project no. 2231

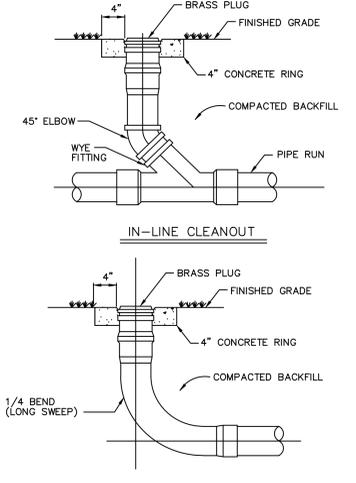
date 4/3/2023



- NOTES:
- TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
  - NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
  - ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
  - BACKFILL SHALL BE TAMPED IN 6" LAYERS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.

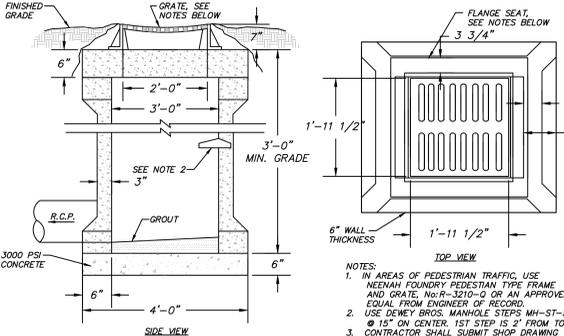
**TRENCH BOTTOM DIMENSIONS, BACKFILLING REQUIREMENTS FOR DUCTILE IRON, VITRIFIED CLAY AND REINFORCED CONCRETE PIPE**

**4** C3.1 SCALE: N.T.S. N/0000/CIVIL/SPECIFIC DETS-HILLSBOROUGH/HILLSBOROUGH DETS-NEW

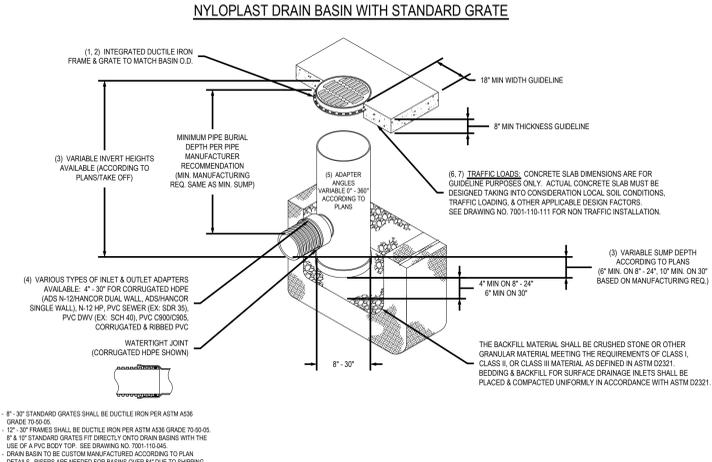


NOTE: CONCRETE COLLAR REQUIRED IN UNPAVED AREAS

**5** C3.1 SCALE: N.T.S. CLEAN OUT DETAIL



**3** C3.1 SCALE: N.T.S. 0000/EN-02/02000A04DWG



NO.	DATE	BY	DESC.
1	03-11-16	AW	ISSUED FOR PERMIT
2	03-11-16	AW	ISSUED FOR PERMIT

**2** C3.1 SCALE: N.T.S. HDPE DRAIN BOX

**1** C2.1 Enlarged Site Plan Scale: 1" = 20'-0"

EXISTING SCHOOL FFE = 100.00' (ASSUMED)

**LEGEND**

- NEW STORM LINE
- LIMITS OF DISTURBANCE
- SANITARY SEWER PIPE
- NEW CONTOUR LINE
- NEW SPOT ELEVATION
- NEW CLEAN-OUT
- ROOF LEADERS

NOTE! WATER TO THE MODULAR CLASSROOM UNIT SHALL BE PROVIDED BY A CONNECTION TO THE EXISTING BUILDING SERVICE.

**cra**

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CERT. NO. 50072

4/24/2023

Efland-Cheeks Global Elementary School  
Modular Classroom Unit  
Orange County Schools  
4401 Fuller Road  
Efland, North Carolina



no.	revisions

drawn [ ] checked [ ]  
Enlarged Grading Storm Drainage & Utility Plan

sheet **C3.1**

project no. 2231  
date 4/3/2023

**SEEDBED PREPARATION**

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
  2. RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
  3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
  4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW).
  5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
  6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
  7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
  8. INSPECT ALL SEEDING AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, RE-ESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
  9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
- SEE SEASONAL APPLICATION SCHEDULE •

**PERMANENT SEEDING FOR GENTLE SLOPES, AVERAGE SOIL; LOW MAINTENANCE SEEDING MIXTURE:**

- SPECIES**  
TALL FESCUE  
RIVER OATS  
KY BLUEGRASS
- RATE (LB/ACRE)**  
200-250  
15  
30
- SEEDING NOTES:**  
1. AFTER AUG. 15 USE UNSCARIFIED SERICEA SEED.  
2. TO EXTEND SPRING SEEDING DATES INTO JUNE, ADD 15 LB/ACRE HULLED BERMUDA GRASS. HOWEVER, AFTER MID-APR. IT IS PREFERABLE TO SEED TEMPORARY COVER.  
3. PROVIDE NURSE CROP FOR INCORPORATION INTO PERMANENT SEEDING MIXTURE.
- NURSE PLANTS:**  
BETWEEN MAY 1 AND AUG. 15, ADD 10 LB/ACRE GERMAN MILLET OR 15 LB/ACRE SUDAGRASS. PRIOR TO MAY 1 OR AFTER AUG. 15 ADD 40 LB/ACRE RYE (GRAIN).
- SEEDING DATES:**  
BEST POSSIBLE  
FALL: AUG. 25 - SEPT. 15 AUG. 20 - OCT. 25  
LATE WINTER: FEB. 15 - MAR. 21 FEB. 1 - APR. 15
- FALL IS BEST FOR TALL FESCUE.
- SOIL AMENDMENTS:**  
FOLLOW SOIL TESTS OR APPLY MINIMUM OF 2 TONS/ACRE WITH 3 TONS/ACRE IN CLAY SOILS OR PER SOILS TEST OF GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-20-20 FERTILIZER.
- MULCH:**  
APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT NETTING, OR ROVING OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL. APPLY ASPHALT TACK AT A RATE OF 400 GAL/ACRE OR IF CRIMPING IS TO BE USED:  
1. APPLY MULCH 2000 LB/ACRE  
2. CRIMP WITH MULCH ANCHORING TOOL  
3. APPLY SECOND LAYER OF MULCH 2000 LB/ACRE
- MAINTENANCE:**  
REFERTILIZE IN THE SECOND YEAR UNLESS GROWTH IS FULLY ADEQUATE. MAY BE MOWED ONCE OR TWICE A YEAR, BUT MOWING IS NOT NECESSARY. RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY.

**5 SEEDBED PREPARATION**

C4.1 SCALE N.T.S. 0000/NC-SEDMT/NC682AD-DWG

**TEMPORARY SEEDING FOR SUMMER**

**SPECIES**  
GERMAN MILLET

**RATE (LB/ACRE)**  
40

IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUDAGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE

**SEEDING DATES:**  
MOUNTAINS: MAY 15 - AUG. 15  
PIEDMONT: MAY 1 - AUG. 1  
COASTAL PLAIN: APR. 1 - AUG. 15

**SOIL AMENDMENTS:**  
FOLLOW SOIL TESTS OR APPLY MINIMUM OF 2 TONS/ACRE WITH 3 TONS/ACRE IN CLAY SOILS OR PER SOILS TEST OF GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-20-20 FERTILIZER.

**MULCH:**  
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT TACK, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL. APPLY ASPHALT TACK AT A RATE OF 400 GAL/ACRE OR IF CRIMPING IS TO BE USED:  
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2. CRIMP WITH MULCH ANCHORING TOOL  
3. APPLY SECOND LAYER OF MULCH 2000 LB/ACRE

**MAINTENANCE:**  
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

**6 PERMANENT SEEDING**

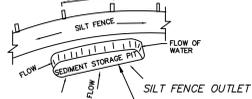
C4.1 SCALE N.T.S. 0000/NC-SEDMT/NC682AD-DWG

**4 TEMPORARY SEEDING FOR SUMMER**

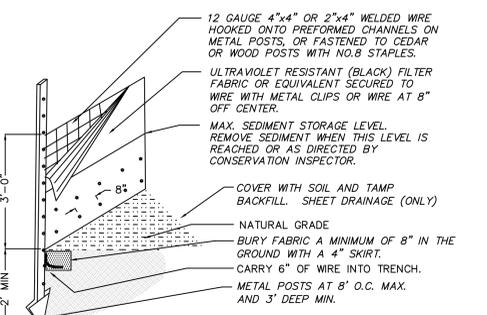
C4.1 SCALE N.T.S. 0000/NC-SEDMT/NC682AD-DWG

**NOTES:**

1. TOTAL DRAINAGE AREA FLOWING TO FENCE MAY NOT EXCEED 1 ACRE.
2. SILT FENCES SHOULD NOT BE USED AT PIPE OUTLETS OR IN AREAS OF CONCENTRATED FLOW (CREEKS, DITCHLINES, SWALES, ETC.).



TO INCREASE STORAGE CAPACITY AND PROLONG THE LIFE OF THE SILT FENCE, IT IS GENERALLY ADVISABLE TO DIG A SEDIMENT PIT IN FRONT OF YOUR SILT FENCE WHENEVER POSSIBLE.



**3 SILT FENCE DETAIL**

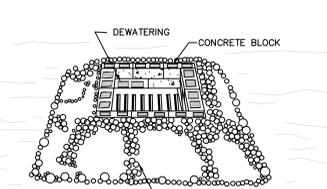
C4.1 SCALE N.T.S. 0000/NC-SEDMT/NC682AD-DWG

**NOTES:**

1. TOTAL DRAINAGE AREA FLOWING TO FENCE MAY NOT EXCEED 1 ACRE.
2. SILT FENCES SHOULD NOT BE USED AT PIPE OUTLETS OR IN AREAS OF CONCENTRATED FLOW (CREEKS, DITCHLINES, SWALES, ETC.).

**CONSTRUCTION SPECIFICATIONS:**

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE ON THE BOTTOM ROW TO ALLOW POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2" BELOW THE CREST OF THE STORM DRAIN. PLACE THE BOTTOM ROW OF THE BLOCK AGAINST THE EDGE OF THE STORM DRAIN FOR LATERAL SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. IF NEEDED, GIVE LATERAL SUPPORT TO SUBSEQUENT ROWS BY PLACING 2x4 WOOD STUDS THROUGH BLOCK OPENINGS.
2. CAREFULLY FIT HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2" OPENING OVER ALL BLOCK OPENINGS TO HOLD GRAVEL IN PLACE.
3. USE CLEAN GRAVEL, 3/4" TO 1 1/2" IN DIAMETER, PLACED 2" BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER AND SMOOTH IT TO AN EVEN GRADE. #7 WASHED AND STONE IS RECOMMENDED AND SHOULD BE AROUND INLET TO A MINIMUM DEPTH OF 16".

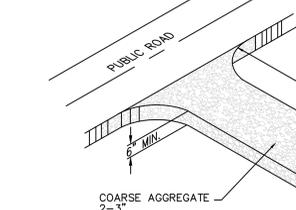


**2 BLOCK AND GRAVEL DROP INLET PROTECTION**

C4.1 SCALE N.T.S. 0000/NC-SEDMT/NC682AD-DWG

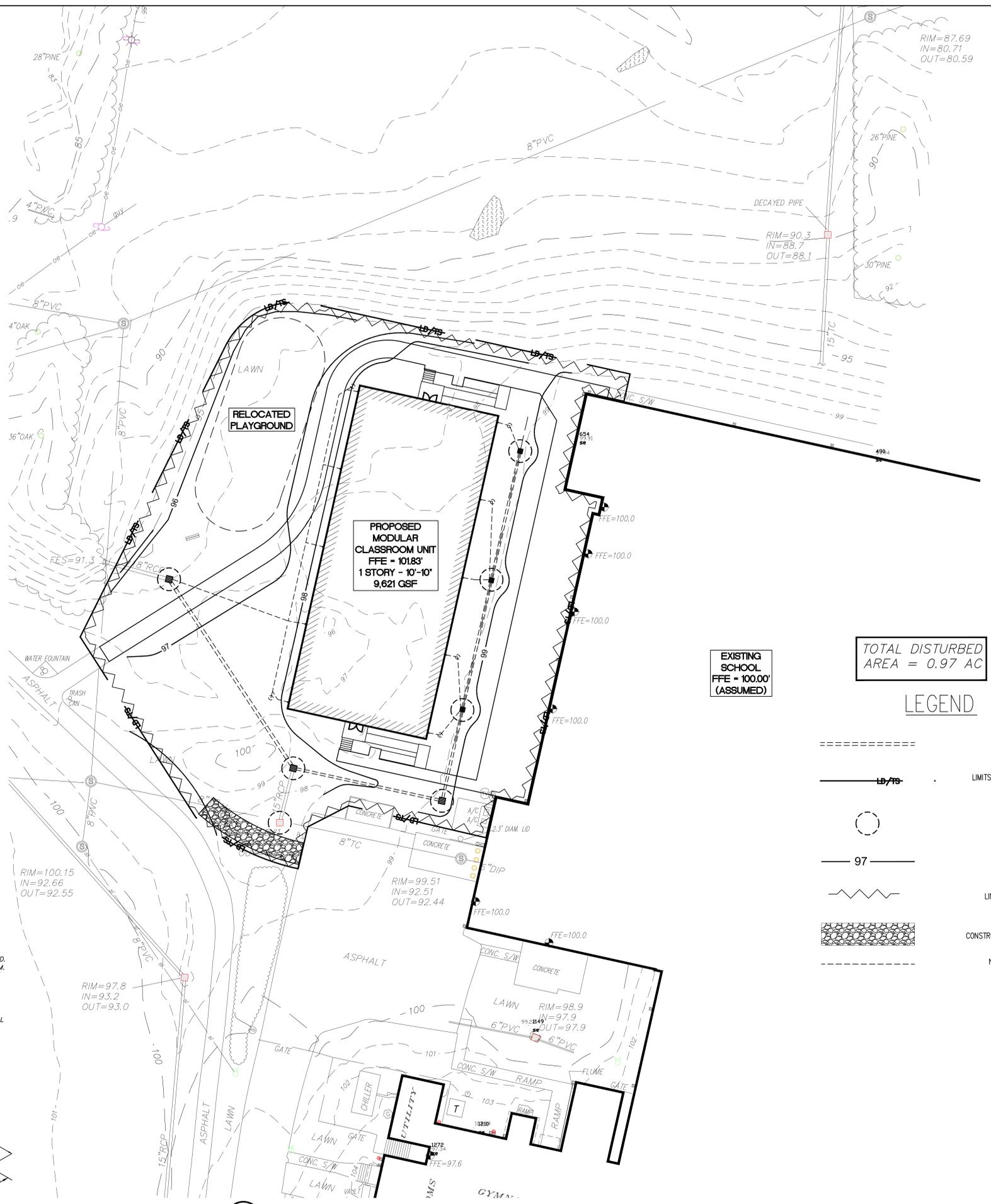
**NOTES:**

1. APPLICABLE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE SHALL BE PROVIDED.
2. GRAVEL PAD SHALL BE 12"x50" AND 6" THICK MINIMUM. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS SHALL BE PROVIDED.
3. ENTRANCE(S) SHALL BE LOCATED TO PROVIDE FOR MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
4. SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOP DRESSING WITH STONE SHALL BE NECESSARY; KEEP EXTRA STONE HANDY.
5. ANY MUD/MATERIAL WHICH STILL MAKES IT ONTO THE ROAD SHALL BE CLEANED UP IMMEDIATELY.



**5 TEMPORARY CONSTRUCTION ENTRANCE/EXIT**

C5.1 SCALE N.T.S. 0000/NC-SEDMT/NC686AD-1DWG



EXISTING SCHOOL  
FFE = 100.0'  
(ASSUMED)

TOTAL DISTURBED AREA = 0.97 AC

**LEGEND**

- NEW STORM LINE
- LIMITS OF DISTURBANCE
- INLET PROTECTION
- NEW CONTOUR
- LINE OF SILT FENCE
- CONSTRUCTION ENTRANCE
- NEW ROOF LEADER

**2 BLOCK AND GRAVEL DROP INLET PROTECTION**

C4.1 SCALE N.T.S. 0000/NC-SEDMT/NC682AD-DWG

**5 TEMPORARY CONSTRUCTION ENTRANCE/EXIT**

C5.1 SCALE N.T.S. 0000/NC-SEDMT/NC686AD-1DWG

**1 Enlarged Site Plan**

C4.1 Scale: 1" = 20'-0"



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chapel hill, nc 27514  
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www.cra-ae.com



4/24/2023

Efland-Cheeks Global Elementary School  
Modular Classroom Unit  
Orange County Schools  
4401 Fuller Road  
Efland, North Carolina



no. revisions

no.	revisions
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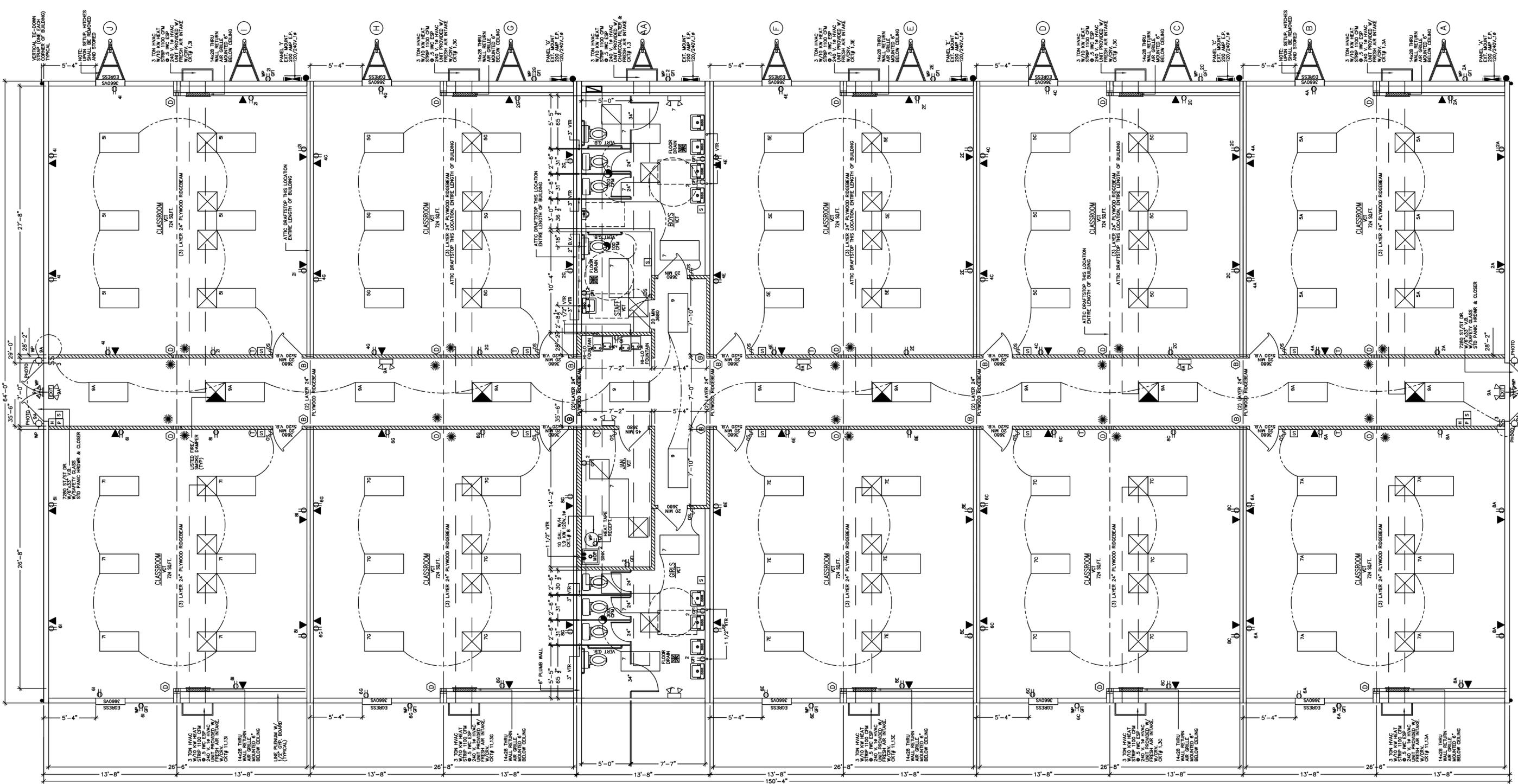
Enlarged Erosion Control Plan

sheet

C4.1

project no. 2231

date 4/3/2023



**COLOR AND FINISH MATERIAL SELECTION**

MATERIAL/FINISH	MATERIAL NAME	MATERIAL NO.
CARPET / TILE		
WALL COVERING		
VINYL COVE BASE		
<b>EXTERIOR MATERIALS</b>		
SIDING		
MANSARD TRIM		
MANSARD TRIM		
BODY COLOR		
SKIRTING COLOR		
<b>DOORS AND WINDOWS</b>		
DOORS TRIM COLOR		
WINDOW TRIM COLOR		
DOORS COLOR		

PLEASE CAREFULLY REVIEW THE ATTACHED FLOOR PLAN. PLEASE MAKE SURE ALL RECEPTACLES, J-BOXES, LIGHTS, CIRCUITING, WALLS, DOORS, FINISH FLOORING, ECT., TO AVOID MISUNDERSTANDING AND CONFUSION.

PLEASE INDICATE YOUR SELECTED COLOR/FINISH MATERIAL IN THE SPACE PROVIDED.

APPROVED WITH NO CHANGES:

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED WITH CHANGES:

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

NOTE: IF CHANGES ARE MADE TO THE DRAWING, THE FLOOR PLAN WILL BE RETURNED FOR REVIEW AND FINAL APPROVALS BEFORE DRAWINGS ARE SENT FOR ENGINEERING PLANS AND SEALS

**SPECIALIZED STRUCTURES INC.**  
 2400 SPRINGHEAD CHURCH ROAD  
 1-912-384-7168

WILLCOODGE, GA 31650  
 FAX: 1-912-384-4943

DATE: 2-24-2023  
 SHEET: S.L.H.  
 FLOOR PLAN 154 x 64

## ELECTRICAL SPECIFICATIONS

IT IS THE INTENT OF THESE SPECIFICATIONS FOR THE ELECTRICAL CONTRACTOR TO FURNISH A COMPLETE ELECTRICAL SYSTEM, FULLY ADJUSTED, AND READY FOR USE.

ALL ELECTRICAL WORK TO BE DONE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE OBSERVING ALL STATE AND LOCAL CODES.

ELECTRICAL CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL SALES TAXES, UTILITY COMPANY CHARGES FOR SERVICE, PERMITS, FEES, AND OTHER COSTS IN CONNECTION WITH HIS WORK.

ELECTRICAL CONTRACTOR TO ENSURE THAT ALL MATERIAL AND EQUIPMENT FURNISHED FOR THIS PROJECT WHICH CAN BE U.L. LISTED SHALL BE. THE MATERIAL AND EQUIPMENT HAS BEEN CAREFULLY SELECTED FOR THIS PROJECT AND THE ELECTRICAL CONTRACTOR IS EXPECTED TO PROVIDE ALL ITEMS AS CLOSELY AS POSSIBLE TO THE SPECIFICATIONS AND AS CALLED FOR ON THE DRAWINGS.

ELECTRICAL CONTRACTOR SHALL SUBMIT THREE (3) SETS OF EQUIPMENT DATA SHOP DRAWINGS TO THE ENGINEER FOR ALL ITEMS TO BE FURNISHED AND INSTALLED FOR APPROVAL.

ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS, INCIDENTAL CONSTRUCTION WORK, ETC., IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, AND REGULATIONS, WHETHER OR NOT SHOWN ON DRAWINGS AND/OR SPECIFIED. NO CLAIM FOR EXTRAS WILL BE APPROVED WITHOUT PRIOR COORDINATION FOR CONFLICTS BY CONTRACTOR, AND WRITTEN REQUEST AND APPROVAL PRIOR TO PERFORMING WORK. ALL WORK AND EQUIPMENT TO BE GUARANTEED BY CONTRACTOR FOR ONE (1) YEAR.

UPON COMPLETION OF ALL WORK AND ALL TESTS, ELECTRICAL CONTRACTOR SHALL INSTRUCT THE OWNER OR HIS REPRESENTATIVE FULLY IN THE OPERATIONS, ADJUSTMENTS, AND MAINTENANCE OF EQUIPMENT FURNISHED. ELECTRICAL CONTRACTOR SHALL PROVIDE OWNER WITH MAINTENANCE SCHEDULE FOR THE PRINCIPAL ITEMS OF EQUIPMENT FURNISHED. MANUFACTURER'S ADVERTISING LITERATURE OR CATALOGS WILL NOT BE ACCEPTABLE.

ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND GOOD RECOMMENDED PRACTICES.

ELECTRICAL CONTRACTOR SHALL GIVE FULL COOPERATION TO OTHER TRADES. WHERE THE WORK OF ELECTRICAL CONTRACTOR WILL BE INSTALLED IN CLOSE PROXIMITY TO, OR WILL INTERFERE WITH WORK OF OTHER TRADES, HE SHALL ASSIST IN WORKING OUT SPACE CONDITIONS TO MAKE SATISFACTORY ADJUSTMENTS. IF ELECTRICAL CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATING WITH OTHER TRADES, HE SHALL MAKE THE NECESSARY CHANGES IN HIS WORK TO CORRECT THE CONDITION WITHOUT EXTRA CHARGE.

THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. THE DRAWINGS ARE NOT TO BE SCALED.

EXISTING INFORMATION SHOWN ON DRAWINGS TAKEN FROM OWNER FURNISHED AS BUILT DRAWINGS AND LIMITED SITE SURVEY. CONTRACTOR TO FIELD VERIFY ALL EXISTING EQUIPMENT, CIRCUITS, AND WIRING.

ELECTRICAL CONTRACTOR TO VERIFY EXACT LOCATION OF EQUIPMENT, ROUTING PIPE, ETC., AND WORK CLOSELY WITH OTHER TRADES TO AVOID CONFLICTS.

ELECTRICAL CONTRACTOR TO LOCATE AND INSTALL ELECTRICAL CONTROL PANELS IN SUITABLE LOCATION WITH APPROPRIATE CLEARANCES & OVERLOAD PROTECTION FOR ALL ITEMS REQUIRED.

ELECTRICAL CONTRACTOR MAY COMBINE CONDUITS WHERE APPLICABLE, BUT MUST HOOK UP ITEMS TO PROPER CIRCUITS AS SHOWN. THE OWNER, ARCHITECT AND ELECTRICAL CONTRACTOR TO COORDINATE FOR PROPER CUTOUT HOLES, ALL STUB-UPS AND JUNCTION BOXES, AND TO VERIFY LOCATIONS.

ALL CONDUCTORS, THROUGH # 10 AWG, TO BE SOLID COPPER WITH TYPE THWN/THHN OR XHHW INSULATION UNLESS NOTED OTHERWISE.

ALL CONDUCTORS, #8 AWG AND LARGER, TO BE CLASS B STRANDED COPPER WITH TYPE THWN/THHN OR XHHW INSULATION UNLESS NOTED OTHERWISE.

THE COLOR CODE FOR CONDUCTORS SHALL BE BLACK, RED, BLUE, WHITE (120/208V, 3ø, Y). PROVIDE GREEN GROUNDING CONDUCTOR WITH ALL CIRCUITS.

P.V.C. CONDUIT SHALL NOT BE USED IN AREAS OF ASSEMBLY.

ALL WIRING TO BE IN CONDUIT OR APPROVED RACEWAY.

ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL STAINLESS STEEL DEVICE PLATES TYPE 302, 93000 SERIES HUBBELL, BRYANT, LEVITON, OR APPROVED EQUAL. EXTERIOR MOUNTED BOXES SHALL HAVE APPROVED WEATHERPROOF PLATES AND/OR COVERS. ALL SURFACE INSTALLED BOXES SHALL HAVE STAMPED STEEL DEVICE PLATES.

ALL DEVICE OUTLETS SHALL BE FLUSH MOUNTED UNLESS SPECIFICALLY NOTED.

BALLASTS SUPPLIED WITH RECESSED FLUORESCENT FIXTURES SHALL BE APPROVED BY UNDERWRITERS' LABORATORIES AND SHALL BE, ELECTRONIC, ENERGY SAVINGS, PREMIUM GRADE, PROPERLY APPLIED TO EACH INSTALLATION. BALLASTS SUPPLIED WITH SURFACE MOUNTED FLUORESCENT FIXTURES SHALL BE, ELECTRONIC, ENERGY SAVINGS EXTRA LOW HEAT, SUPER PREMIUM TYPES. BALLASTS TO BE AS MANUFACTURED BY ADVANCE, UNIVERSAL, JEFFERSON, OR APPROVED EQUAL.

## GENERAL ELECTRIC NOTES

1. FLUORESCENT FIXTURES WITH DUAL BALLASTS- SWITCH ONE BALLAST IN EACH FIXTURE TO PROVIDE HALF OR FULL ILLUMINATION OF THIS WIRE SUCH THAT ONE SWITCH CONTROLS INSIDE LAMPS OF FIXTURE AND OTHER SWITCH CONTROLS OUTSIDE LAMPS. TYPICAL AS NOTED OR AS REQUIRED BY STATE ENERGY CODE.

--FOR FLUORESCENT FIXTURES HAVING ONLY ONE BALLAST OR LED FIXTURES WITH STANDARD ELECTRONIC OR DIMMING DRIVER (NOT BEING DIMMED), PROVIDE SWITCHING SUCH THAT ALTERNATE FIXTURES ARE CONTROLLED BY SEPARATE SWITCHES.

2. THIS CONTRACTOR SHALL COORDINATE WITH ALL OTHER CONTRACTORS AND TRADES TO LOCATE HIS WORK TO AVOID CONFLICTS.

3. CONTRACTOR TO COORDINATE FIXTURE MOUNTING METHOD (FLANGED, GRID, SPLINE ETC.) WITH TYPE OF CEILING ACTUALLY INSTALLED IN THESE AREAS, TYPICAL.

4. THIS CONTRACTOR SHALL NOT UTILIZE THRU TYPE OUTLET BOXES WHERE DEVICES ARE SHOWN BACK TO BACK IN SOUND INSULATED OR SOUND SECURE AREAS, TYPICAL.

5. MOUNTING HEIGHTS GIVEN ARE TO TOP OF OUTLET BOX, UNLESS OTHERWISE NOTED. HEIGHTS MAY BE ADJUSTED TO MATCH MASONRY JOINTS, AND MUST COMPLY WITH STATE BUILDING CODE.

6. ALL CONDUITS AND RACEWAYS ARE TO BE CONCEALED UNLESS OTHERWISE NOTED OR APPROVED BY THE DESIGNER.

7. ALL CONDUITS, SLEEVES, INSERTS, OUTLET BOXES, AND OTHER ROUGH-IN MATERIALS SHALL BE INSTALLED AS BUILDING CONSTRUCTION PROGRESSES.

8. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

9. FLASH PROTECTION WARNING LABELS REQUIRED ON SWITCHBOARDS, PANEL BOARDS, AND MOTOR CONTROL CENTERS PER ARTICLE 110.16 OF THE 2014 NEC.

10. PROVIDE POWER FOR VAV BOXES FROM NEAREST RECEPTACLE CIRCUIT. COORDINATE QUANTITIES AND LOCATIONS WITH MECHANICAL CONTRACTOR.

11. THERE SHALL BE NO CONDUIT RUNS INSTALLED HORIZONTALLY IN SLABS.

12. ALL CONDUIT TO BE INSTALLED WITH J-BOXES/PULL BOXES LOCATED IN AREAS WITH LAY IN CEILING. SEE ARCHITECTURAL DRAWINGS FOR CEILING CONSTRUCTION.

13. ALL FLOOR/ROOF/PLATFORM/WALL PENETRATIONS TO BE MADE/INSTALLED PER STRUCTURAL DRAWINGS.

14. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH MANUFACTURER TO DETERMINE ALL BREAKER TRIP SETTINGS.

## ELECTRICAL LOAD SUMMARY

SERVICE VOLTAGE= 208/120 VOLT, 3 PHASE, 4 WIRE  
 SERVICE WIRING = 4 SETS #4250MCM, 1#2/0, 2 1/2" CONDUIT EACH SET  
 SERVICE CAPACITY = 192.00 KVA

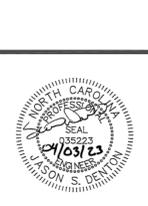
	CONNECTED LOAD	DEMAND LOAD
LIGHTING	4.54 KVA	4.54 KVA (100%)
FAN COIL UNITS/UNIT VENTILATORS/MISC. MECH. EQUIP.	169.38 KVA	101.63 KVA (60%)
RECEPTACLES (FIRST 10KVA)	10.00 KVA	10.00 KVA (100%)
RECEPTACLES (REMAINDER OVER 10KVA)	8.02 KVA	4.01 KVA (50%)
<b>TOTALS</b>	<b>191.53 KVA</b>	<b>120.17 KVA (62.6%)</b>

NOTICE: NO WARRANTY, EITHER EXPRESSED OR IMPLIED, IS GIVEN WITH RESPECT TO THE ACCURACY OF INFORMATION PROVIDED IN THE ELECTRICAL LOAD SUMMARY, AND USER MUST ASSUME ALL RISKS IN CONNECTION WITH USE THEREOF. THE VOLTAGE AND PHASE REQUIREMENT OF ELECTRICAL SYSTEM LOAD DATA ARE BASED ON CONVENTIONAL ENGINEERING PRINCIPLES AT THE TIME OF DESIGN, AND ARE INTENDED TO BE USED ONLY AS A GUIDE IN ESTIMATING LOADS TO BE SERVED. FOR ACTUAL LOADS, USER IS ADVISED TO REFER TO NAME-PLATE DATA OF EXACT EQUIPMENT PURCHASED AND INSTALLED.

-REECE, NOLAND & McELRATH, INC. ENGINEERS



222 cloister  
 court chapel  
 hill, nc 27514  
 919.401.8586  
 www.cra-oe.com



Efland-Cheeks Global Elementary School  
 Modular Classroom Unit  
 Orange County Schools  
 4401 Fuller Road  
 Efland, North Carolina



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 BAD JSD

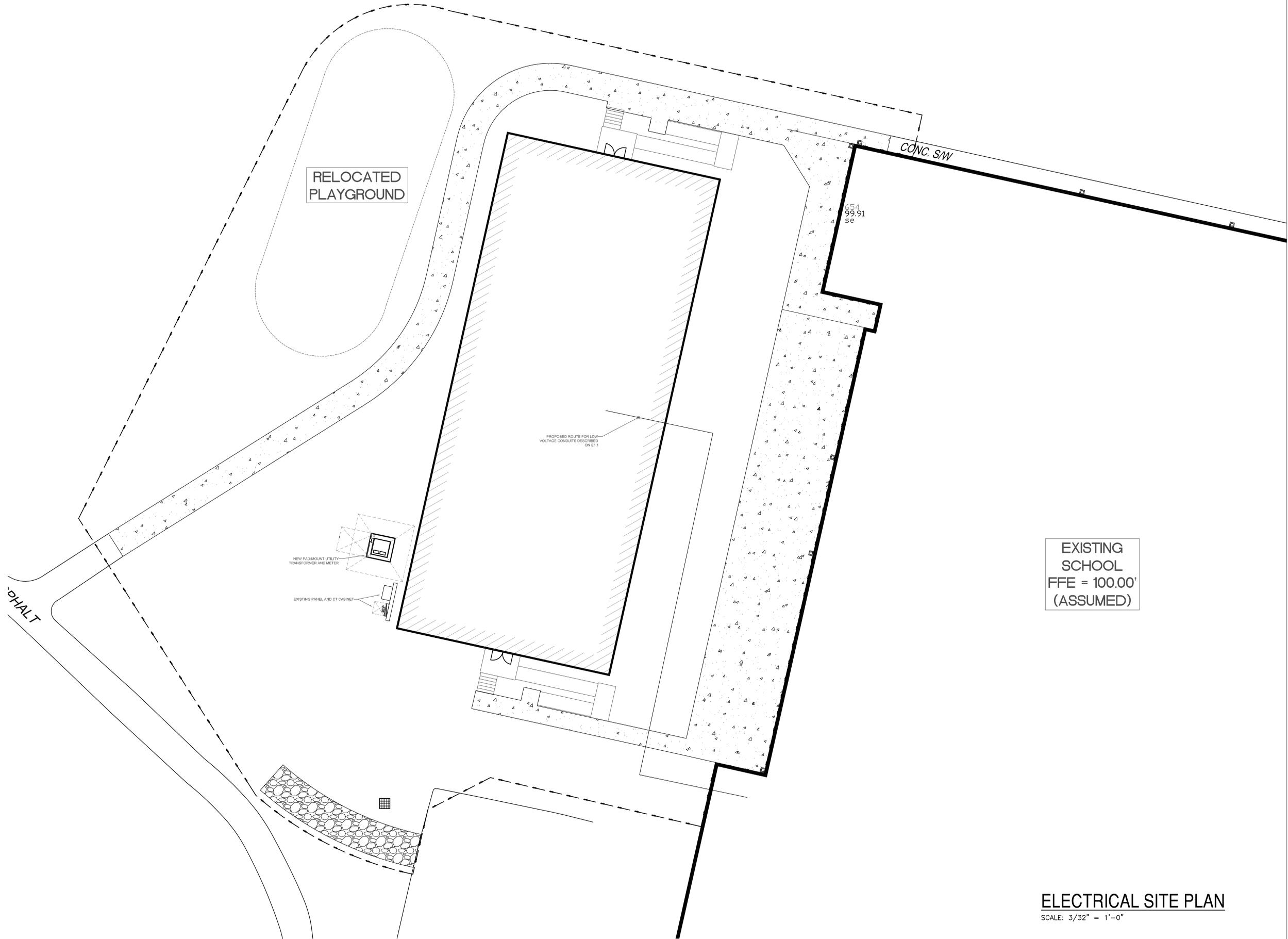
### ELECTRICAL SPECS, SCHEDULES, & NOTES

sheet

# E0.1

project no. 2231

date 04/03/23



**ELECTRICAL SITE PLAN**  
SCALE: 3/32" = 1'-0"



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drawn: BAD checked: JSD

Enlarged Site Plan

sheet

**E1.0**

project no. 2231

date 04/03/23



NOTE: ELECTRICAL CONTRACTOR TO ROUTE THE FOLLOWING CONDUITS, WITH PULL STRINGS, FROM JANITOR ROOM TO ABOVE CEILING IN EXISTING CORRIDOR:  
 2" - TELEPHONE  
 2" - FIRE ALARM  
 2" - SECURITY  
 2" - INTERCOM  
 2" - FIBER OPTIC CABLE



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 704.442.1100  
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MODULAR BUILDING  
 ELECTRICAL  
 POWER PLAN

sheet

E1.1

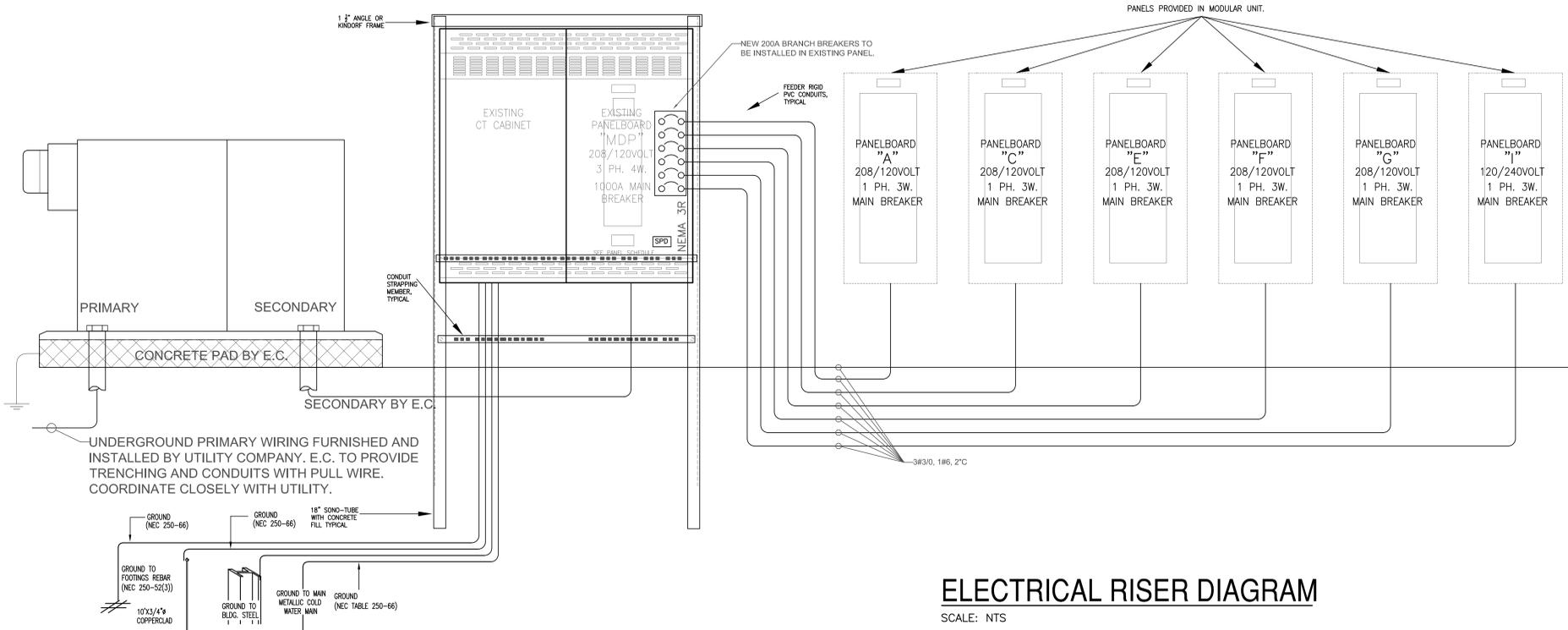
project no. 2231

date 04/03/23

ELECTRICAL POWER PLAN

SCALE: 3/16" = 1'-0"

DESCRIPTION	COND.	WIRE	LOAD	BREAKER	CIRCUIT NUMBERS		BREAKER	LOAD	WIRE	COND.	DESCRIPTION
					PH.	PH.					
PWR. PANEL "A"	2"	3#30 1#6	3540	2P 200	1 3	A B	2P 200	3470	3#30 1#6	2"	PWR. PANEL "C"
PWR. PANEL "E"	2"	3#30 1#6	3470	2P 200	5 7	C A	2P 200	17650	3#30 1#6	2"	PWR. PANEL "F"
PWR. PANEL "G"	2"	3#30 1#6	3470	2P 200	9 11	B C	2P 200	3470	3#30 1#6	2"	PWR. PANEL "I"
					13	A					
					15	B					
					17	C					
					19	A					
					21	B					
					23	C					
					25	A					
					27	B					
					29	C					
					31	A					
					33	B					
					35	C					
					37	A					
					39	B					
					41	C					



**ELECTRICAL RISER DIAGRAM**  
SCALE: NTS



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drawn BAD checked JSD

MODULAR BUILDING  
RISER DIAGRAM &  
PANEL SCHEDULES

sheet

**E2.0**

project no. 2231

date 04/03/23

**PLUMBING SPECIFICATIONS**

IT IS THE INTENT OF THESE SPECIFICATIONS TO FURNISH A COMPLETE PLUMBING SYSTEM, FULLY ADJUSTED, AND READY FOR USE.

ALL WORK SHALL BE DONE IN COMPLIANCE WITH NORTH CAROLINA BUILDING CODE AND ALL LOCAL CODES.

THIS CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL SALES TAXES, TAP AND METER FEES, AND OTHER COSTS, IN CONNECTION WITH HIS WORK.

ALL MATERIAL AND EQUIPMENT HAS BEEN CAREFULLY SELECTED FOR THIS PROJECT AND THE CONTRACTOR IS EXPECTED TO PROVIDE ALL ITEMS AS CLOSELY AS POSSIBLE TO THE SPECIFICATIONS AND AS CALLED FOR ON THE DRAWINGS.

ALL INCIDENTAL CONSTRUCTION WORK TO BE INCLUDED BY THIS CONTRACTOR.

SUBMIT ELECTRONIC FILE OF EQUIPMENT DATA SHOP DRAWINGS TO ENGINEER FOR ALL ITEMS TO BE FURNISHED AND INSTALLED FOR APPROVAL.

THIS CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS, WHETHER OR NOT SHOWN ON DRAWINGS AND/OR SPECIFIED. NO CLAIM FOR EXTRA WILL BE APPROVED WITHOUT PRIOR COORDINATION FOR CONFLICTS BY CONTRACTOR, AND WRITTEN REQUEST AND APPROVAL PRIOR TO PERFORMING WORK.

ALL WORK AND EQUIPMENT TO BE GUARANTEED BY CONTRACTOR FOR ONE (1) YEAR.

UPON COMPLETION OF ALL WORK AND ALL TESTS, INSTRUCT THE OWNER OR HIS REPRESENTATIVE FULLY IN THE OPERATIONS, ADJUSTMENTS, AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. PROVIDE OWNER MAINTENANCE SCHEDULE FOR THE PRINCIPAL ITEMS OF EQUIPMENT FURNISHED. MANUFACTURER'S ADVERTISING LITERATURE OR CATALOGS WILL NOT BE ACCEPTABLE.

ALL MATERIALS AND EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND GOOD RECOMMENDED PRACTICES.

ALL WORK AND MATERIALS SHALL MEET APPROVAL OF ARCHITECT/ENGINEER.

THIS CONTRACTOR SHALL GIVE FULL COOPERATION TO OTHER TRADES, WHERE THE WORK OF THIS CONTRACTOR WILL BE INSTALLED IN CLOSE PROXIMITY TO, OR WILL INTERFERE WITH WORK OF OTHER TRADES. HE SHALL ASSIST IN WORKING OUT SPACE CONDITIONS TO MAKE SATISFACTORY ADJUSTMENTS. IF THIS CONTRACTOR INSTALLS HIS WORK BEFORE COORDINATING WITH OTHER TRADES, HE SHALL MAKE THE NECESSARY CHANGES IN HIS WORK TO CORRECT THE CONDITION WITHOUT EXTRA CHARGE.

DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. DRAWINGS ARE NOT TO BE SCALED.

SOIL, WASTE AND VENT PIPING AND FITTINGS TO BE SCHEDULE 40 PVC.

DOMESTIC WATER PIPE UNDERGROUND TYPE "K" COPPER. ABOVE GROUND, TYPE "L" HARD DRAWN COPPER.

ALL HOT AND COLD WATER PIPING ABOVE GRADE WITHIN BUILDING SHALL BE INSULATED. HOT WATER PIPE INSULATION SHALL BE 1" THICK, AND COLD WATER INSULATION SHALL BE 1/2" THICK SECTIONAL TYPE, FIBROUS GLASS OR CELLULAR TYPE INSULATION (ARMAFLEX).

ALL LINES TO BE INSULATED CONTINUOUSLY AND SUFFICIENTLY TO PREVENT FREEZING IN EXTREME CONDITIONS. WHERE PIPES ARE INSTALLED IN CEILING PLENUM ABOVE BATT INSULATION, THE BATT INSULATION SHALL BE LOOPEL UP OVER THE WATER PIPES. IF IN WALL CHASE, CHASE TO BE LINED WITH STYROFOAM OR FIBERGLASS INSULATION. IF IN CONCRETE BLOCK CELLS, PIPE TO BE INSULATED WITH 3/4" ARMAFLEX AND BLOCKS FILLED WITH GRANULAR STYROFOAM PELLETS.

CONTROL VALVES FOR HOT AND COLD WATER LINES SHALL BE BALL VALVES, SWEAT TYPE.

PROVIDE ALL PLUMBING PIPING AND EQUIPMENT IN CONNECTION WITH THE SYSTEM.

PROVIDE ALL HANGERS AND SUPPORTS TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS IN CONTACT WITH COPPER PIPE SHALL BE COPPER PLATES OR BRASS.

CONTROL VALVES TO BE ON WATER CONNECTIONS TO ALL FIXTURES AND EQUIPMENT.

INSULATE HOT WATER SUPPLY PIPE AND DRAIN PIPE ON LAVATORY FOR HANDICAPPED.

CEILING FIBERGLASS INSULATION SHALL BE LAPPED OVER HOT AND COLD WATER PIPING IN CEILING SPACE IN ADDITION TO PIPE INSULATION SPECIFIED TO PREVENT FREEZING WHERE APPLICABLE.

THIS CONTRACTOR TO PERFORM ALL ADJUSTMENTS AND DISINFECTION OF SYSTEMS, EQUIPMENT, CONTROLS, ETC., NECESSARY FOR THE SYSTEM TO PROVIDE THE REQUIRED PERFORMANCE AND TO OPERATE SAFELY. SUBMIT "AS-BUILT" DRAWINGS TO ENGINEER SHOWING ACTUAL, INVERTS AND LOCATIONS OF UNDERGROUND LINES, AND ALL CHANGES.

ALL PIPING SHALL BE THOROUGHLY FLUSHED OUT BEFORE USE.

THE WATER SYSTEM, AFTER IT HAS BEEN COMPLETED, TESTED AND THOROUGHLY FLUSHED TO REMOVE MUD AND DEBRIS, SHALL BE DISINFECTED BY CHLORINATION.

INJECT CHLORINE IN SOLUTION INTO NEW SYSTEM BY MEANS OF A PUMP AS SYSTEM IS FILLED. CHLORINATED WATER SHALL COMPLETELY DISPLACE ALL AIR AND WATER PRESENT IN NEW SYSTEM. OPEN SPIGOTS AT END OF DISTRIBUTION IN BUILDINGS UNTIL ALL LINES ARE FILLED WITH CHLORINATED WATER AND AIR IS REMOVED. CHLORINATED WATER SHALL HAVE A MINIMUM CHLORINE CONCENTRATION OF 50 PPM, AND SHALL REMAIN IN THE SYSTEM FOR A MINIMUM OF 24 HOURS. AT THE END OF THIS PERIOD, THE SYSTEM SHALL BE FLUSHED UNTIL ONLY A NORMAL RESIDUAL OF CHLORINE IS PRESENT AS DETERMINED BY THE ORTHO-TOLIDINE TESTS.

PROVIDE SLEEVES FOR WASTE PIPES PASSING THROUGH FOUNDATION WALLS.

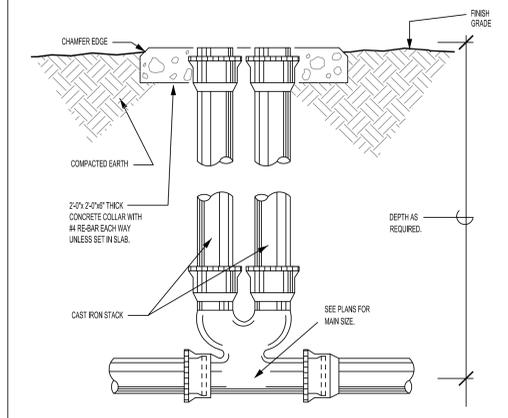
PROVIDE CLEAN OUTS LOCATED NOT MORE THAN 100' APART IN HORIZONTAL DRAINAGE LINES OR 4" NOMINAL DIAMETER OR LESS. CLEAN OUTS MUST BE INSTALLED FOR EVERY FOUR HORIZONTAL 45° CHANGES LOCATED IN SERIES AND AT THE BASE OF EACH STACK.

SUSPENDED WATER LINES TO BE BRACED TO PREVENT SWAYING DURING THE OPERATION OF VALVES/EQUIPMENT.

**GENERAL PLUMBING NOTES**

- THIS CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS AND PLACEMENTS OF PLUMBING FIXTURES AND EQUIPMENT WITH SITE AND ARCHITECTURAL DRAWINGS, INCLUDING REFLECTED CEILING PLANS, INTERIOR ELEVATIONS, DETAILS, AND SECTIONS, PRIOR TO ROUGH-IN, OR RELOCATE AS DIRECTED BY THE DESIGNER AT NO ADDITIONAL COST TO THE OWNER.
- ALL PIPING, FIXTURES, EQUIPMENT, ETC. SHOWN ON THESE DRAWINGS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODE REQUIREMENTS.
- ALL PIPING, SLEEVES, INSERTS, AND OTHER ROUGH-IN MATERIALS SHALL BE INSTALLED AS BUILDING CONSTRUCTION PROGRESSES.
- PIPE HANGERS SHALL BE SIZED SO THAT INSULATION IS CONTINUOUS AT ALL HANGERS.
- THIS CONTRACTOR SHALL COORDINATE WITH ALL OTHER CONTRACTORS AND TRADES TO LOCATE HIS WORK TO AVOID CONFLICTS.
- EXISTING SERVICES INDICATED ON THESE DRAWINGS WERE REPRODUCED FROM EXISTING DRAWINGS AND LIMITED SITE OBSERVATIONS/VERIFICATION. THESE DRAWINGS MAY NOT BE ALL INCLUSIVE OF SERVICES THAT EXIST IN THE AREA OF WORK. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND LOCATIONS PRIOR TO CONSTRUCTION. ANY DIFFERENCE THAT IMPACT WORK SHOWN ON THESE DRAWINGS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR COORDINATION PRIOR TO CONSTRUCTION.
- CLEAN OUTS SHALL BE INSTALLED WHERE SHOWN AND WHERE REQUIRED BY CODE.
- THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL OFFSETS, FITTINGS, VALVES, AND ACCESSORIES THAT MAY BE REQUIRED FOR A COMPLETE AND PROPER INSTALLATION, OR RECOMMENDED BY THE EQUIPMENT MANUFACTURER, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN OR SPECIFIED.
- INSTALL ALL PIPING INSIDE OF THERMAL ENVELOPE. SEE ARCHITECTURAL DRAWINGS.
- ALL NEW UNDERGROUND PLUMBING AND FIRE PROTECTION SHALL BE EXTENDED TO 5'-0" OUTSIDE OF THE BUILDING FOOT PRINT WHERE ANOTHER TRADE WILL CONNECT TO OR EXTEND PIPING.
- ALL EQUIPMENT CONNECTIONS SHALL BE COORDINATED WITH EQUIPMENT DRAWINGS AND EQUIPMENT VENDOR. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE ALL NECESSARY PIPING, SHUT-OFF VALVES, P-TRAPS, PRVS, ETC. REQUIRED TO INSTALL EQUIPMENT AND MAKE FINAL CONNECTIONS.
- EXISTING FIXTURES, SERVICES, EQUIPMENT, ETC. TO REMAIN OR TO BE RELOCATED SHALL BE REPAIRED TO ORIGINAL OPERATION/CONDITION OR REPLACED, SHOULD THEY BE DAMAGED DURING CONSTRUCTION.
- NO "DOUBLE WYE" FITTINGS PERMITTED ON HORIZONTAL WASTE PIPING.
- ALL DOMESTIC WATER PIPE, TRIM, AND FITTINGS TO BE LEAD FREE.

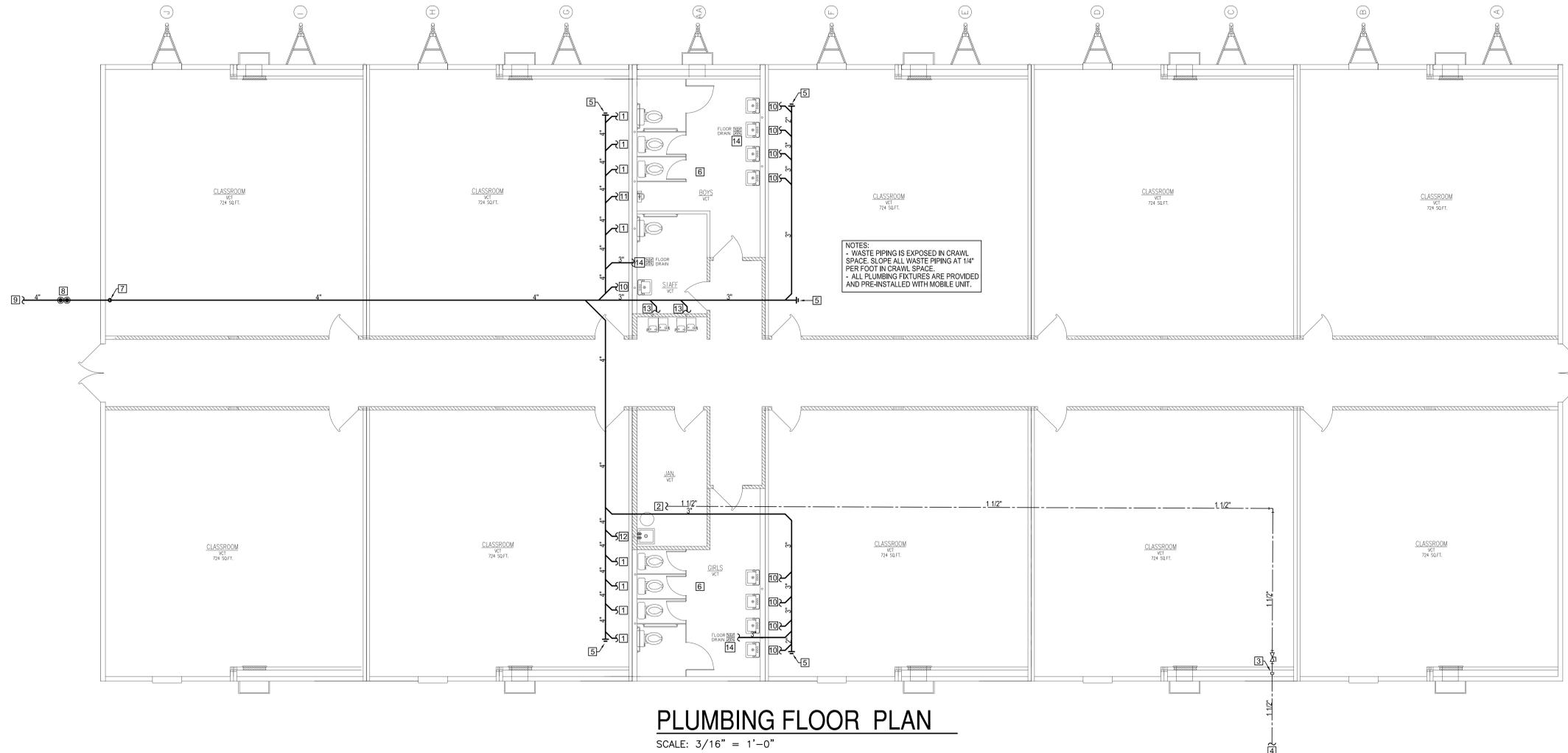
**EXTERIOR DOUBLE CLEANOUT DETAIL**



**KEYED PLUMBING CONSTRUCTION NOTES:**

- NOTES APPLY TO THIS SHEET ONLY
- CONNECT NEW WASTE PIPING TO MODULAR UNIT "PRE-PIPED" WASTE CONNECTION FOR TANK TYPE WATER CLOSET. COORDINATE LOCATIONS WITH MODULAR UNIT PROVIDED.
  - CONNECT NEW 1-1/2" CW TO "PRE-PIPED" MODULAR UNIT CW CONNECTION. COORDINATE EXACT LOCATION WITH MODULAR UNIT SPECIFICATIONS.
  - 1 1/2" CW PIPING DOWN TO BELOW GRADE.
  - 1 1/2" CW PIPING TO EXISTING BUILDING BELOW GRADE. PIPING TO TURN UP THROUGH FLOOR OF EXISTING BUILDING TO ABOVE CEILING. RUN DOWN EXISTING CORRIDOR ABOVE CEILING TO EXISTING GANG TOILET BATHROOMS. CONNECT TO LARGEST COLD WATER LINE OF AT LEAST 2" FOUND IN AREA SERVING EXISTING GANG TOILETS WITH NEW SHUT-OFF BALL VALVE ABOVE CEILING. FIELD VERIFY EXACT LOCATIONS AND CONDITIONS. PATCH FLOOR AS NEEDED TO MATCH EXISTING CONDITIONS AND THICKNESS.
  - INSTALL PIPE END CLEANOUT.
  - MODULAR UNIT TO BE "PRE-PIPED" FOR COLD WATER PIPING. HOT WATER PIPING, VENT PIPING, AND WASTE CONNECTIONS TO PLUMBING FIXTURES.
  - 4" WASTE DOWN TO BELOW GRADE.
  - EXTERIOR TOW-AWAY CLEANOUT. SOLOX CHEF 834 SERIES. SEE DETAIL THIS SHEET FOR ADDITIONAL INFORMATION.
  - 4" WASTE TO SITE. SEE CIVIL PLANS FOR CONTINUATION.
  - CONNECT NEW WASTE PIPING TO MODULAR UNIT "PRE-PIPED" WASTE CONNECTION FOR WALL HUNG LAVATORY. COORDINATE LOCATIONS WITH MODULAR UNIT PROVIDED.
  - CONNECT NEW WASTE PIPING TO MODULAR UNIT "PRE-PIPED" WASTE CONNECTION FOR WALL HUNG URINAL. COORDINATE LOCATIONS WITH MODULAR UNIT PROVIDED.
  - CONNECT NEW WASTE PIPING TO MODULAR UNIT "PRE-PIPED" WASTE CONNECTION FOR SERVICE SINK. COORDINATE LOCATIONS WITH MODULAR UNIT PROVIDED.
  - CONNECT NEW WASTE PIPING TO MODULAR UNIT "PRE-PIPED" WASTE CONNECTION FOR WATER COOLER. COORDINATE LOCATIONS WITH MODULAR UNIT PROVIDED.
  - CONNECT NEW WASTE PIPING TO MODULAR UNIT "PRE-PIPED" WASTE CONNECTION FOR FLOOR DRAIN. COORDINATE LOCATIONS WITH MODULAR UNIT PROVIDED.

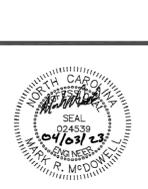
**PLUMBING LEGEND**



NOTES:  
- WASTE PIPING IS EXPOSED IN CRAWL SPACE. SLOPE ALL WASTE PIPING AT 1/4" PER FOOT IN CRAWL SPACE.  
- ALL PLUMBING FIXTURES ARE PROVIDED AND PRE-INSTALLED WITH MODULAR UNIT.



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drawn **JRW** checked **MRM**  
**MODULAR BUILDING PLUMBING PLAN, NOTES, DETAILS, SPECIFICATIONS**

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**P1.0**

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