



**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)**  
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: ASCEND ACADEMY - PHASE II  
Address: 226-266, Harvey Faulk Rd, Sanford, NC 27332 Zip Code 28786  
Owner/Authorized Agent: J. Neil Tate, AIA Phone # (336) 413-0601 E-Mail: neil@tatearchitecture.com  
Owned By:  City/County  Private  State  
Code Enforcement Jurisdiction:  City  County LEE  State

DESIGNER FIRM	NAME	LICENSE #	TELEPHONE	E-MAIL
Architectural	Tate Architecture PLLC	J. Neil Tate, AIA 8434	(336) 413-0601	neil@tatearchitecture.com
Civil	Civil Consultants INC	William Akin, PE 35509	(919) 450-1645	randy.akin@civil-consultants.com
Electrical	Greensboro Engineering	Charles Lackey, PE 029468	(336) 275-6300	clackey@greengreening.com
Fire Alarm	Greensboro Engineering	Charles Lackey, PE 029468	(336) 275-6300	clackey@greengreening.com
Plumbing	Carroll Engineering	Danny Brook, PE 033773	(919) 371-1070	
Mechanical	RKB Engineering	Robert Bouknight, PE 14846	(336) 420-2686	rkb@rkbeng.com
Sprinkler-Standpipe	RKB Engineering	Robert Bouknight, PE 14846	(336) 420-2686	rkb@rkbeng.com
Structural	ACE Solutions	Kevin Adams, PE 17224	(336) 993-5114	adams@acesol.com
Retaining Walls >5' High				
Other				

(\*Other\* should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

**2018 NC BUILDING CODE:**  New Building  Addition  Renovation  
 1st Time Interior Completion  
 Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements  
 Phased Construction - Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements

**2018 NC EXISTING BUILDING CODE:** EXISTING:  Prescriptive  Repair  Chapter 14  
 Level I  Level II  Level III  
Alteration:  Historic Property  Change of Use

CONSTRUCTED: (date) \_\_\_\_\_ CURRENT OCCUPANCY(S) (Ch. 3): \_\_\_\_\_  
RENOVATED: (date) \_\_\_\_\_ PROPOSED OCCUPANCY(S) (Ch. 3): \_\_\_\_\_

RISK CATEGORY (Table 1604.5): Current:  I  II  III  IV  
Proposed:  I  II  III  IV

**BASIC BUILDING DATA**  
Construction Type:  I-A  II-A  III-A  IV  V-A  
(check all that apply)  I-B  II-B  III-B  V-B  
Sprinklers:  No  Partial  Yes  NFPA 13  NFPA 13R  NFPA 13D  
Standpipes:  No  Yes Class  I  II  III Wet  Dry  
Fire District:  No  Yes **Flood Hazard Area:**  No  Yes  
Special Inspections Required:  No  Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

FLOOR	NEW - PHASE I (SQ FT)	NEW - PHASE II (SQ FT)	SUB-TOTAL
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	21,150	15,550	30,108
Basement			
TOTAL	21,150	15,550	65,608

**ALLOWABLE AREA**  
Primary Occupancy Classification(s): Select one Select one Select one Select one Select one  
Assembly  A-1  A-2  A-3  A-4  A-5  
Business  B-1  B-2  B-3  B-4  B-5  
Educational  E-1  E-2  E-3  E-4  E-5  
Factory  F-1 Moderate  F-2 Low  
Hazardous  H-1 Detonate  H-2 Deflagrate  H-3 Combust  H-4 Health  H-5 H-6M  
Institutional  I-1 Condition  I-2  I-3 Condition  I-4  
 I-1  I-2  I-3  I-4  
Mercantile  M-1  M-2  M-3  M-4  
Residential  R-1  R-2  R-3  R-4  
Storage  S-1 Moderate  S-2 Low  High-piled  
 Parking Garage  Open  Enclosed  Repair Garage  
Utility and Miscellaneous

**Accessory Occupancy Classification(s):** \_\_\_\_\_  
Incidental Uses (Table 509): \_\_\_\_\_  
**Special Uses (Chapter 4 - List Code Sections):** \_\_\_\_\_  
**Special Provisions: (Chapter 5 - List Code Sections):** \_\_\_\_\_

**Mixed Occupancy:**  No  Yes Separation: 1-4R Hr. Exception: \_\_\_\_\_  
 Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.  
 Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A + Actual Area of Occupancy B  $\leq$  1  
Allowable Area of Occupancy A Allowable Area of Occupancy B

7,170	0.1256	+	13,880	0.1551	+ ..... = 0.2807	$\leq$ 1.00
57,045			90,135			

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2.4 AREA	(C) AREA FOR FRONTAGE INCREASE 1.5	(D) ALLOWABLE AREA PER STORY OR UNLIMITED 2.3
MAIN	A-3	7,170	28,500	21,375	57,045
MAIN	E	13,880	43,500	32,625	90,135

1 Frontage area increases from Section 506.3 are computed thus:  
a. Perimeter which fronts a public way or open space having 20 feet minimum width = 866 (F)  
b. Total Building Perimeter = 866 (P)  
c. Ratio (F/P) = 1 (F/P)  
d. W = Minimum width of public way = 20' (W)  
e. Percent of frontage increase If =  $100[F/P - 0.25] \times W/30 = 75$  (%)  
2 Unlimited area applicable under conditions of Section 507.  
3 Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).  
4 The maximum area of open parking garages must comply with Table 406.5.4.  
5 Frontage increase is based on the unspinklered area value in Table 506.2.

ALLOWABLE HEIGHT	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3) 2	75'-0"	38'-0"	
Building Height in Stories (Table 504.4) 3	3	2	

1 Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.  
2 The maximum height of air traffic control towers must comply with Table 412.3.1.  
3 The maximum height of open parking garages must comply with Table 406.5.4.

**FIRE PROTECTION REQUIREMENTS**

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses							
Bearing Walls	Table 602						
Exterior	X-30'	0	0				
North	X-30'	0	0				
East	X-30'	0	0				
West	X-30'	0	0				
South	X-30'	0	0				
Interior		0	0				
Nonbearing Walls and Partitions							
Exterior walls							
North	0	0					
East	0	0					
West	0	0					
South	0	0					
Interior walls and partitions	0	0					
Floor Construction							
Including supporting beams and joists	0	0					
Floor Ceiling Assembly	0	0					
Columns Supporting Floors	0	0					
Roof Construction, including supporting beams and joists	0	0					
Roof Ceiling Assembly	0	0					
Columns Supporting Roof	0	0					
Shaft Enclosures - Exit/Elevator	1	1	AD000.5.0	UL-U415	----	----	HW-D-0612
Shaft Enclosures - Other (Mechanical-Shafts)	0	0					
Corridor Separation	0	0					
Occupancy/Fire Barrier Separation	1	1	AD000.5.0 AD002.6-P2	NCBC 721.2.1.1	----	----	----
Party/Fire Wall Separation	0	0					
Smoke Barrier Separation	0	0					
Smoke Partition	0	0					
Tenant/Dwelling Unit/ Sleeping Unit Separation	0	0					
Incidental Use Separation	1	1	AD000.5.2	UL-U465	----	----	HW-D-0564

\* Indicate section number permitting reduction

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
X-30'	X-30'	UNPROTECTED (UP) NON-SPRINKLERED (NS)	5%

2018 NC Administrative Code and Policies

**LIFE SAFETY SYSTEM REQUIREMENTS**

Emergency Lighting:  No  Yes  
Exit Signs:  No  Yes  
Fire Alarm:  No  Yes  
Smoke Detection Systems:  No  Yes  Partial  
Carbon Monoxide Detection:  No  Yes

**LIFE SAFETY PLAN REQUIREMENTS**

Life Safety Plan Sheet #: AD000.0.0  
 Fire and/or smoke rated wall locations (Chapter 7)  
 Assumed and real property line locations (if not on the site plan)  
 Exterior wall opening area with respect to distance to assumed property lines (705.8)  
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)  
 Occupant loads for each area  
 Exit access travel distances (1017)  
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))  
 Dead end lengths (1020.4)  
 Clear exit widths for each exit door  
 Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)  
 Actual occupant load for each exit door  
 A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation  
 Location of doors with panic hardware (1010.1.10)  
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)  
 Location of doors with electromagnetic egress locks (1010.1.9.9)  
 Location of doors equipped with hold-open devices  
 Location of emergency escape windows (1030)  
 The square footage of each fire area (202)  
 The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)  
 Note any code exceptions or table notes that may have been utilized regarding the items above

**ACCESSIBLE DWELLING UNITS (SECTION 1107)**

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

**ACCESSIBLE PARKING (SECTION 1106)**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 6' ACCESS AISLE	VAN SPACES WITH 132' ACCESS AISLE	# ACCESS AISLE	
Current & Proposed	74	194	5	0	1	6
TOTAL	74	194	5	0	1	6

**PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)**

USE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS / TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
A3	EXIST'G	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NEW	3	5	NA	2	3	3	NA	NA	2
	REQ'D	3	3	NA	NA	3	3	NA	NA	2

USE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS / TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
E	EXIST'G	NA	NA	NA	NA	NA	NA	NA	NA	NA
	NEW	8	18	NA	10	12	12	NA	NA	4
	REQ'D	14	14	NA	NA	6	6	NA	NA	4

**SPECIAL APPROVALS**

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

NCDOI - OSFM

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)**

**MECHANICAL SUMMARY**

**MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**

**Thermal Zone**

winter dry bulb: \_\_\_\_\_  
summer dry bulb: \_\_\_\_\_

**Interior design conditions**

winter dry bulb: \_\_\_\_\_  
summer dry bulb: \_\_\_\_\_  
relative humidity: \_\_\_\_\_

SEE MECHANICAL COMPLIANCE  
MEP SHEETS

**Building heating load:** \_\_\_\_\_

**Building cooling load:** \_\_\_\_\_

**Mechanical Spacing Conditioning System**

**Unitary**

description of unit: \_\_\_\_\_  
heating efficiency: \_\_\_\_\_  
cooling efficiency: \_\_\_\_\_  
size category of unit: \_\_\_\_\_

Boiler  
Size category, if oversized, state reason: \_\_\_\_\_

Chiller  
Size category, if oversized, state reason: \_\_\_\_\_

List equipment efficiencies: \_\_\_\_\_

**ENERGY SUMMARY**

**ENERGY REQUIREMENTS:**

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code:  No  Yes (The remainder of this section is not applicable)

Exempt Building:  No  Yes (Provide code or statutory reference): \_\_\_\_\_

Climate Zone:  3A  4A  5A

Method of Compliance: Energy Code  Performance  Prescriptive  
ASHRAE 90.1  Performance  Prescriptive  
(If "Other" specify source here) \_\_\_\_\_

**THERMAL ENVELOPE (Prescriptive method only)**

**Roof/ceiling Assembly (each assembly)**

Description of assembly: New Mill Deck w/ Rigid Insul./ Single Ply Roof Assembly  
U-Value of total assembly: U = 0.040  
R-Value of insulation: R-25 CI  
Skylights in each assembly: NA  
U-Value of skylight: NA  
total square footage of skylights in each assembly: NA

**Exterior Walls (each assembly)**

Description of assembly: Concrete Tilt Wall (0'-8") + 3.5" Stud Wall (Interior)  
U-Value of total assembly: U = 0.0500  
R-Value of insulation: Tilt Wall - R(0) + 3.5" BATT Insulation (R-20) + 5/8" Gyp. Bd. (R-0.5)  
Openings (windows or doors with glazing)  
U-Value of assembly: 0.0700  
Solar heat gain coefficient: 0.38  
projection factor: NA  
Door R-Values: 0.45

**Walls below grade (each assembly)**

Description of assembly: NA  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_

**Floors over unconditioned space (each assembly)**

Description of assembly: NA  
U-Value of total assembly: \_\_\_\_\_  
R-Value of insulation: \_\_\_\_\_

**Floors slab on grade**

Description of assembly: SLAB ON GRADE  
U-Value of total assembly: NR  
R-Value of insulation: NR  
Horizontal/vertical requirement: NR  
slab heated: NR

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
STRUCTURAL DESIGN (PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)**

**DESIGN LOADS:**

Importance Factors: Snow (IS) 1.0  
Seismic (IE) 1.25

Live Loads: Roof 20 psf  
Mezzanine NA psf  
Floor NA psf

Ground Snow Load: 10 psf

Wind Load: Ultimate Wind Speed 150 mph (ASCE-7)  
Exposure Category B

**SEISMIC DESIGN CATEGORY:**  A  B  C  D

Provide the following Seismic Design Parameters:  
Risk Category (Table 1604.5)  I  II  III  IV

Spectral Response Acceleration SS 64.7 %g S1 82.8 %g

Site Classification (ASCE 7)  A  B  C  D  E  F

Data Source:  Field Test  Presumptive  Historical Data

Basic structural system  Bearing Wall  Dual w/Special Moment Frame  
 Building Frame  Dual w/Intermediate R/C or Special Steel  
 Moment Frame  Inverted Pendulum

Analysis Procedure:  Simplified  Equivalent Lateral Force  Dynamic

Architectural, Mechanical, Components anchored?  Yes  No

LATERAL DESIGN CONTROL: Earthquake  Wind

**SOIL BEARING CAPACITIES:**

Field Test (provide copy of test report) 2,000 psf  
Presumptive Bearing capacity NA psf  
Pile size, type, and capacity NA

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)**



These documents, as instruments of service, and the design represented are the property of BCCG | Tate Architecture PLLC. Use of these documents or the design without the written authorization of BCCG | Tate Architecture PLLC is prohibited.

The files attached hereto are and shall remain the exclusive property of BCCG | Tate Architecture PLLC. Any reuse, changes, amendments, derivations or other re-transmission of these files, without the express written consent of BCCG | Tate Architecture PLLC, is prohibited.

All information is the sole property of BCCG | Tate Architecture PLLC and is protected as follows. The attached documents, as instruments of service, and the designs represented are protected by copyright act (Title 17 U.S. Code | Section 102) and are the sole property of BCCG | Tate Architecture PLLC | Tate Architecture PLLC. CR 2019.

BC Construction Group  
SchoolHouse Development  
Ascend Academy  
Phase I | Phase II  
SUP Submission  
Sanford\_NC

DESCRIPTION:	
Issue Date:	10.01.2019
Job Number:	2019-25
Drawn By:	MM/JNT
Checked By:	JNT
Drawing Title:	
<b>AD100.0</b>	

AD200.3.7

AD200.0.1

AD200.3.0

AD200.1.0

AD300.0.1

AD300.1.1

AD200.1.1

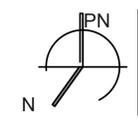
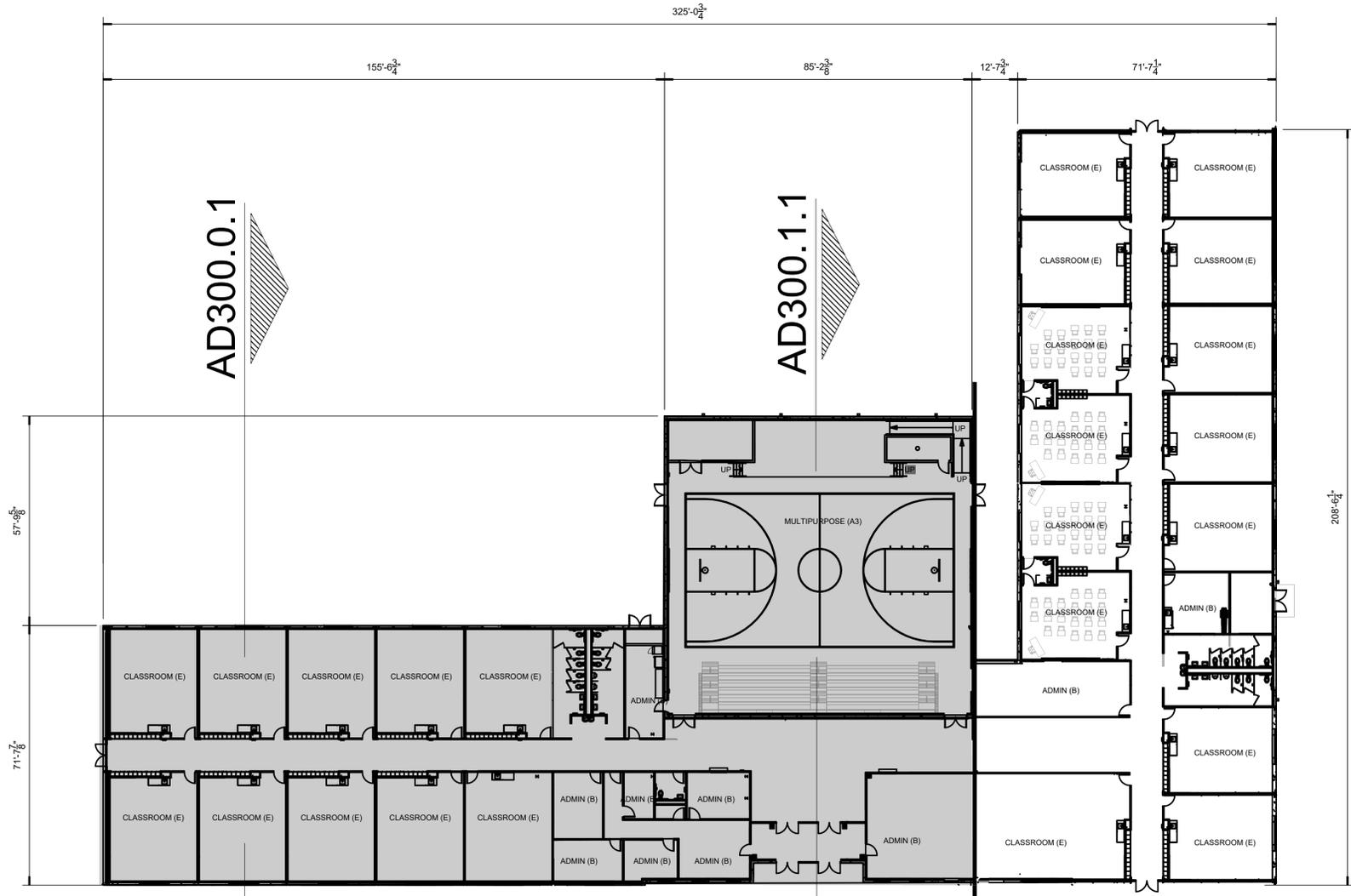
AD200.2.0

AD300.0.0

AD200.0.0

AD300.1.0

AD200.2.7



**AD100.0.0**  
Proposed Floor Plan -  
Main Level | Admin., Classrooms, Gym  
Scale: 1:20

These documents, as instruments of service, and the design represented are the property of BCCG | Tate Architecture PLLC. Use of these documents or the design without the written authorization of BCCG | Tate Architecture PLLC is prohibited.

The files attached hereto are and shall remain the exclusive property of BCCG | Tate Architecture PLLC. Any reuse, changes, amendments, derivations or other re-transmission of these files, without the express written consent of BCCG | Tate Architecture PLLC, is prohibited.

All information is the sole property of BCCG | Tate Architecture PLLC and is protected as follows: The attached documents, as instruments of service, and the designs represented are protected by copyright law (Title 17 U.S. Code / section 102) and are the sole property of BCCG | Tate Architecture PLLC | Tate Architecture PLLC. CR 2019.

MARK	MATERIAL
EM1	Exterior Wall #1 <ul style="list-style-type: none"> <li>Tilt-Wall Panel w/</li> <li>Brick Veneer (thin)</li> <li>Pattern: Running Bond</li> <li>Paint: N/A</li> <li>Color: Gray / As Shown</li> </ul>
EM2	Exterior Wall #2 <ul style="list-style-type: none"> <li>Tilt-Wall Panel w/</li> <li>Painted</li> <li>Pattern: N/A</li> <li>Paint: N/A</li> <li>Color: Dark Blue / As Shown</li> </ul>
EM3	Exterior Wall #3 <ul style="list-style-type: none"> <li>Tilt-Wall Panel w/</li> <li>Painted</li> <li>Pattern: N/A</li> <li>Paint: N/A</li> <li>Color: Gray / As Shown</li> </ul>
EM4	Exterior Wall #4 <ul style="list-style-type: none"> <li>Tilt-Wall Panel w/</li> <li>Painted</li> <li>Pattern: N/A</li> <li>Paint: N/A</li> <li>Color: Dark Gray / As Shown</li> </ul>
EM5	Exterior Wall #5 <ul style="list-style-type: none"> <li>Aluminum Storefront System</li> <li>Series: See Details</li> <li>Pattern: See Elevations</li> <li>Color: Clear Anodized Finish</li> </ul>
EM6	Exterior Wall #6 <ul style="list-style-type: none"> <li>Aluminum Architectural Grill System</li> <li>Series: See Details</li> <li>Pattern: See Elevations</li> <li>Color: Yellow / As Shown</li> </ul>



**AD200.0.1**  
Proposed Exterior View  
Rear Facade  
Scale: 1:10



**AD200.0.0**  
Proposed Exterior View  
Front Facade  
Scale: 1:10

BC Construction Group  
SchoolHouse Development  
Ascend Academy  
Phase I | Phase II  
SUP Submission  
Sanford\_NC

DESCRIPTION:

Issue Date:	10.01.2019
Job Number:	2019-25
Drawn By:	MM/JNT
Checked By:	JNT
Drawing Title:	<b>AD200.0</b>

**EXTERIOR MATERIAL LEGEND**

MARK	MATERIAL
EM1	Exterior Wall #1 • Tilt-Wall Panel w/ • Brick Veneer (thin) • Pattern: Running Bond • Paint: N/A • Color: Gray / As Shown
EM2	Exterior Wall #2 • Tilt-Wall Panel w/ • Painted • Pattern: N/A • Paint: N/A • Color: Dark Blue / As Shown
EM3	Exterior Wall #3 • Tilt-Wall Panel w/ • Painted • Pattern: N/A • Paint: N/A • Color: Gray / As Shown
EM4	Exterior Wall #4 • Tilt-Wall Panel w/ • Painted • Pattern: N/A • Paint: N/A • Color: Dark Gray / As Shown
EM5	Exterior Wall #5 • Aluminum Storefront System • Series: See Details • Pattern: See Elevations • Color: Clear Anodized Finish
EM6	Exterior Wall #6 • Aluminum Architectural Grill System • Series: See Details • Pattern: See Elevations • Color: Yellow / As Shown

These documents, as instruments of service, and the design represented are the property of the BCCG | Tate Architecture PLLC. Use of these documents or the design without the written authorization of BCCG | Tate Architecture PLLC is prohibited.

The files attached hereto are and shall remain the exclusive property of BCCG | Tate Architecture PLLC. Any reuse, changes, amendments, derivations or other re-transmission of these files, without the express written consent of BCCG | Tate Architecture PLLC, is prohibited.

All information is the sole property of BCCG | Tate Architecture PLLC and is protected as follows: The attached documents, as instruments of service, and the designs represented are protected by copyright act (Title 17 U.S. Code / section 103) and are the sole property of BCCG | Tate Architecture PLLC. © BCCG | Tate Architecture PLLC. CR 2019.



EM1

EM2

EM3

EM5

**AD200.1.1**  
Proposed Exterior View  
Right Side Facade  
Scale: 1:10



EM1

EM2

EM5

EM1

EM6

EM3

EM6

**AD200.1.0**  
Proposed Exterior View  
Left Side Facade  
Scale: 1:10

BC Construction Group  
SchoolHouse Development  
Ascend Academy  
Phase I | Phase II  
SUP Submission  
Sanford\_NC

**DESCRIPTION:**

--	--

Issue Date:	10.01.2019
Job Number:	2019-25
Drawn By:	MM/JNT
Checked By:	JNT

Drawing Title:  
**AD200.1**



These documents, as instruments of service, and the design represented are the property of the BCCG | Tate Architecture PLLC. Use of these documents or the design without the written authorization of BCCG | Tate Architecture PLLC is prohibited.

The files attached hereto are and shall remain the exclusive property of BCCG | Tate Architecture PLLC. Any reuse, changes, amendments, derivations or other re-transmission of these files, without the express written consent of BCCG | Tate Architecture PLLC, is prohibited.

All information is the sole property of BCCG | Tate Architecture PLLC and is protected as follows: The attached documents, as instruments of service, and the designs represented are protected by copyright act (Title 17 U.S. Code / section 102) and are the sole property of BCCG | Tate Architecture PLLC. © BCCG | Tate Architecture PLLC. CR 2019.



**AD200.2.1**  
Proposed Exterior View  
Perspective - Front #2  
Scale: nts



**AD200.2.0**  
Proposed Exterior View  
Perspective - Front #1  
Scale: nts

BC Construction Group  
SchoolHouse Development  
Ascend Academy  
Phase I | Phase II  
SUP Submission  
Sanford\_NC

DESCRIPTION:

--	--

Issue Date: 10.01.2019

Job Number: 2019-25

Drawn By: MM/JNT

Checked By: JNT

Drawing Title:

**AD200.2**



These documents, as instruments of service, and the design represented are the property of the BCCG | Tate Architecture PLLC. Use of these documents or the design without the written authorization of BCCG | Tate Architecture PLLC is prohibited.

The files attached hereto are and shall remain the exclusive property of BCCG | Tate Architecture PLLC. Any reuse, changes, amendments, derivations or other re-transmission of these files, without the express written consent of BCCG | Tate Architecture PLLC, is prohibited.

All information is the sole property of BCCG | Tate Architecture PLLC and is protected as follows: The attached documents, as instruments of service, and the designs represented are protected by copyright act (Title 17 U.S. Code / section 103) and are the sole property of BCCG | 7 Group LLC | Tate Architecture PLLC. CR 2019.



**AD200.3.1**  
Proposed Exterior View  
Perspetive - Rear #2  
Scale: nts



**AD200.3.0**  
Proposed Exterior View  
Perspetive - Rear #1  
Scale: nts

BC Construction Group  
SchoolHouse Development  
Ascend Academy  
Phase I | Phase II  
SUP Submission  
Sanford\_NC

DESCRIPTION:

--	--

Issue Date:	10.01.2019
Job Number:	2019-25
Drawn By:	MM/JNT
Checked By:	JNT

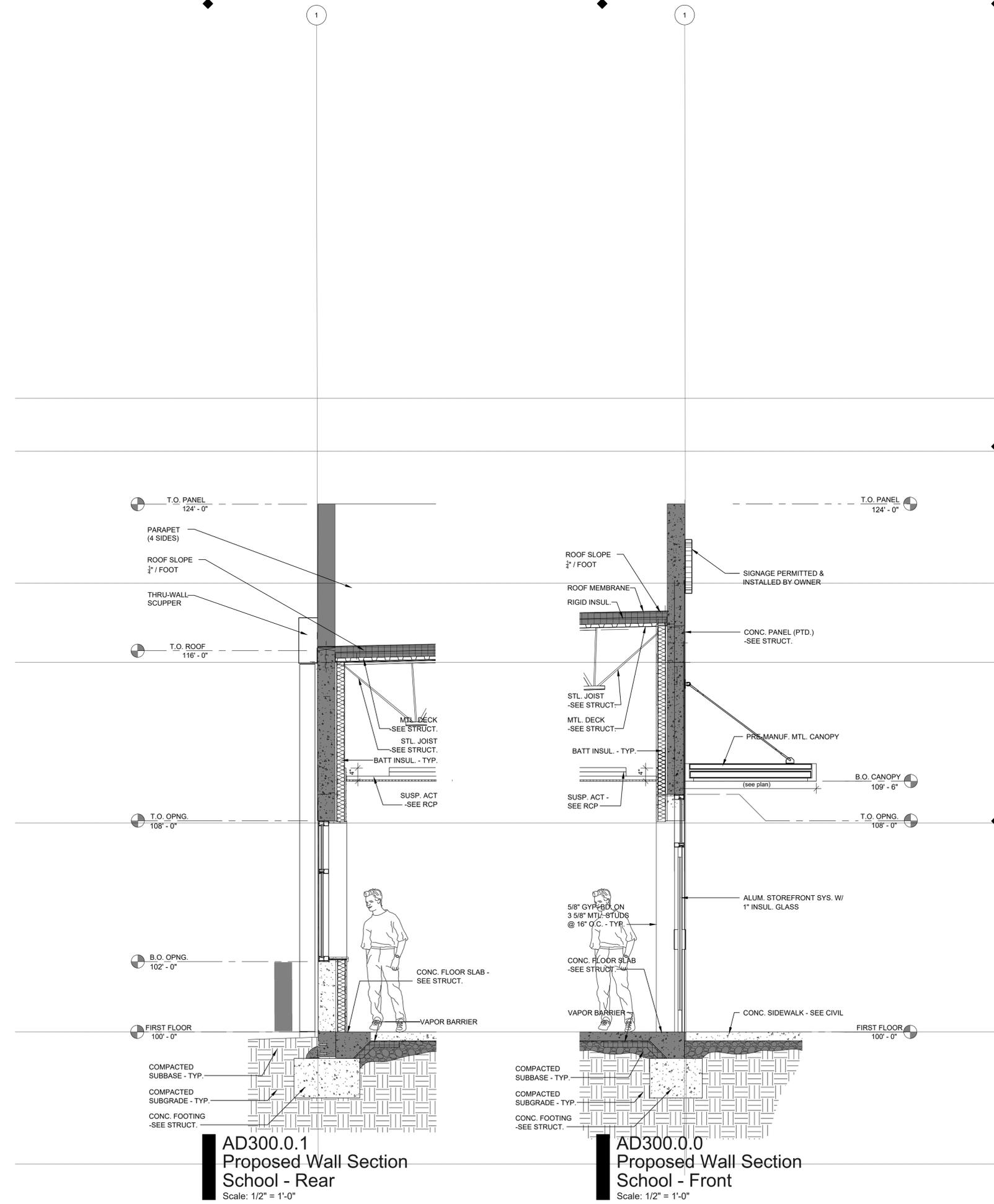
Drawing Title:  
**AD200.3**



These documents, as instruments of service, and the design represented are the property of the BCCG | Tate Architecture PLLC. Use of these documents or the design without the written authorization of BCCG | Tate Architecture PLLC is prohibited.

The files attached hereto are and shall remain the exclusive property of BCCG | Tate Architecture PLLC. Any reuse, changes, amendments, derivations or other re-transmission of these files, without the express written consent of BCCG | Tate Architecture PLLC, is prohibited.

All information is the sole property of BCCG | Tate Architecture PLLC and is protected as follows: The attached documents, as instruments of service, and the designs represented are protected by copyright act (Title 17 U.S. Code / section 102) and are the sole property of BCCG | Tate Architecture PLLC | Tate Architecture PLLC. CR 2019.



**AD300.0.1**  
Proposed Wall Section  
School - Rear  
Scale: 1/2" = 1'-0"

**AD300.0.0**  
Proposed Wall Section  
School - Front  
Scale: 1/2" = 1'-0"

BC Construction Group  
SchoolHouse Development  
Ascend Academy  
Phase I | Phase II  
SUP Submission  
Sanford\_NC

DESCRIPTION:	
Issue Date:	10.01.2019
Job Number:	2019-25
Drawn By:	MM/JNT
Checked By:	JNT
Drawing Title:	
<b>AD300.0</b>	



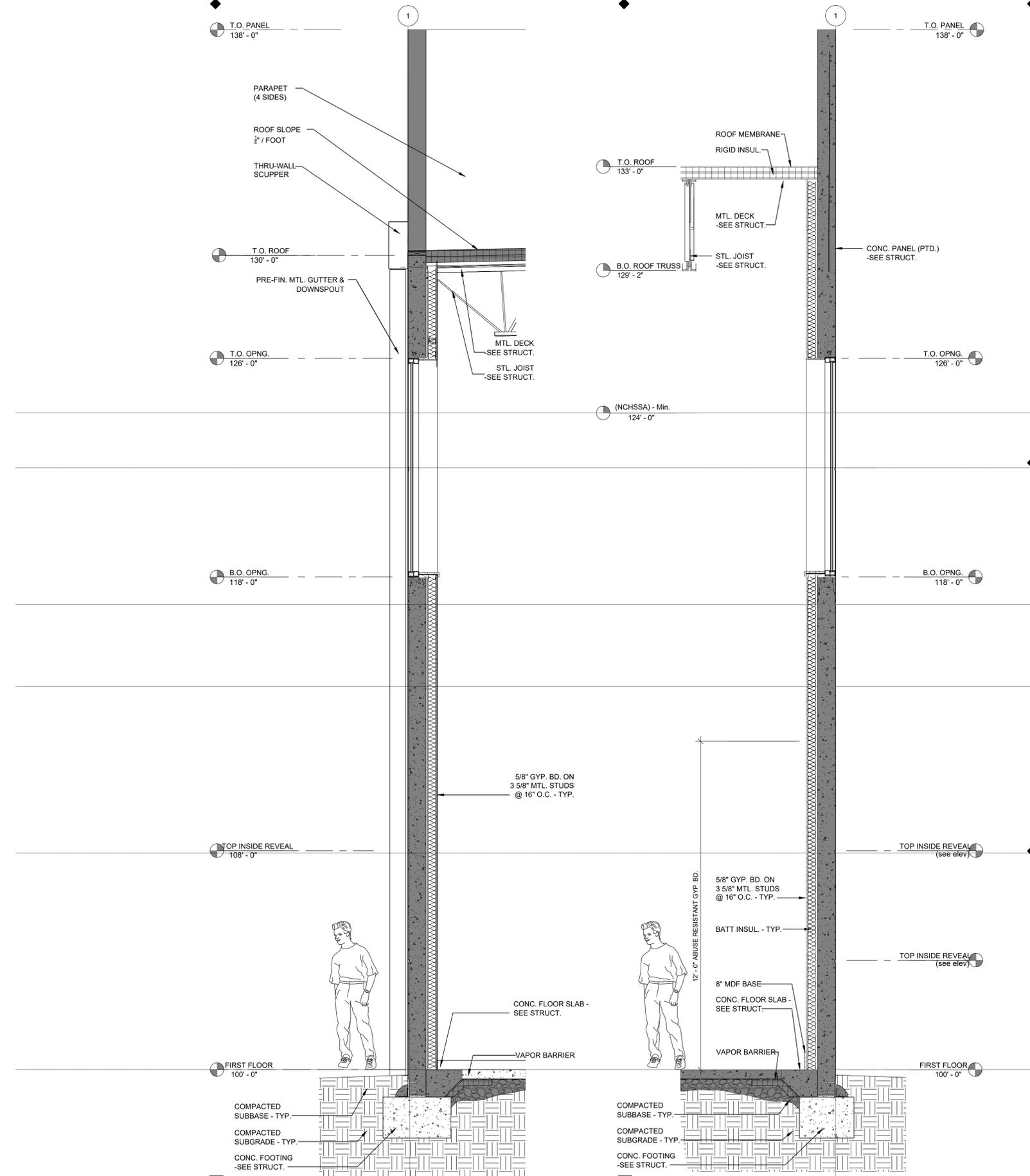
These documents, as instruments of service, and the design represented are the property of the BCCG | Tate Architecture PLLC. Use of these documents or the design without the written authorization of BCCG | Tate Architecture PLLC is prohibited.

The files attached hereto are and shall remain the exclusive property of BCCG | Tate Architecture PLLC. Any reuse, changes, amendments, derivations or other re-transmission of these files, without the express written consent of BCCG | Tate Architecture PLLC, is prohibited.

All information is the sole property of BCCG | Tate Architecture PLLC and is protected as follows: The attached documents, as instruments of service, and the designs represented are protected by copyright act (Title 17 U.S. Code / section 102) and are the sole property of BCCG | Tate Architecture PLLC | Tate Architecture PLLC. CR 2019.

BC Construction Group  
SchoolHouse Development  
Ascend Academy  
Phase I | Phase II  
SUP Submission  
Sanford\_NC

DESCRIPTION:	
Issue Date:	10.01.2019
Job Number:	2019-25
Drawn By:	MM/JNT
Checked By:	JNT
Drawing Title:	
<b>AD300.1</b>	



**AD300.1.1**  
Proposed Wall Section  
Gym - Rear  
Scale: 1/2" = 1'-0"

**AD300.1.0**  
Proposed Wall Section  
Gym - Front  
Scale: 1/2" = 1'-0"



GENERAL

- STANDARDS AND REGULATIONS REFERENCED HEREIN SHALL BE INTERPRETED AS THE LATEST EDITION OF SUCH STANDARDS AND REGULATIONS.
IF VARIOUS PROJECT REQUIREMENTS DIFFER IN DEGREE, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
PRIOR TO FINAL ACCEPTANCE BY THE OWNER, ALL IMPROVEMENTS SHALL PASS FINAL INSPECTION BY THE ENGINEER AND ANY AUTHORITY HAVING JURISDICTION.

EXISTING SITE CONDITIONS

- EXISTING SITE CONDITIONS INFORMATION HAS BEEN TAKEN FROM A COMBINATION OF SOURCES, INCLUDING FIELD SURVEY DATA BY COLE LAND SURVEY, P.A.; PUBLICLY AVAILABLE MAPPING; INFORMATION PROVIDED VERBALLY BY REGULATORY AGENCY STAFF, AND FIELD OBSERVATIONS BY ENGINEER.
INFORMATION ABOUT EXISTING UNDERGROUND FACILITIES AND SUBSURFACE CONDITIONS INDICATED ON THESE DRAWINGS IS NOT BASED ON AN EXHAUSTIVE INVESTIGATION; CONSEQUENTLY THE ENGINEER MAKES NO WARRANTY TO ANY PARTY REGARDING THEM.
PRIOR TO BEGINNING WORK AND AS NEEDED DURING THE COURSE OF PROJECT WORK, NOTIFY ALL APPLICABLE UTILITY LOCATION SERVICES AND UTILITY PROVIDERS TO REASONABLY VERIFY THE LOCATION OF ALL KNOWN OR SUSPECTED UTILITIES.

SAFETY

- PROVIDE AND ADMINISTER SAFETY PROGRAMS AND MEASURES ON THE PROJECT SITE AND ELSEWHERE TO THE EXTENT THAT OFFSITE ACTIVITIES ARE RELATED TO THE PROJECT WORK.
PROVIDE ADEQUATE TRAFFIC CONTROL MEASURES DURING THE COURSE OF PROJECT WORK IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, THE N.C. SUPPLEMENT TO THE MUTCD, ANY APPLICABLE AGENCY REQUIREMENTS, AND PROJECT-SPECIFIC SAFETY CONSIDERATIONS.

PROTECTION

- PROVIDE PROTECTION OF ALL EXISTING UTILITIES AND SITE FEATURES WHICH ARE INTENDED TO REMAIN IN SERVICE OR IN PLACE.
DO NOT EXCEED THE LIMIT OF DISTURBANCE SHOWN ON THE DRAWINGS WITHOUT WRITTEN AUTHORIZATION BY THE OWNER AND THE ENGINEER.
WHERE DISTURBANCE LIMITS, GRADING LIMITS, CLEARING LIMITS, TREE PROTECTION FENCING, TEMPORARY SILT FENCING, RETAINING WALLS OR OTHER TYPE OF WORK IS SHOWN IN CLOSE PROXIMITY TO AN EXISTING PROPERTY LINE OR OTHER LEGAL BOUNDARY, DO NOT CONDUCT LAND DISTURBANCE, TREE REMOVAL, OR OTHER CONSTRUCTION ACTIVITIES BEYOND THE PROPERTY LINE OR BOUNDARY WITHOUT WRITTEN AUTHORIZATION BY THE OWNER AND THE ENGINEER.

BUILDING FEATURES

- BUILDING SIZE, CONFIGURATION, ARCHITECTURAL ELEMENTS, UTILITY STUBS, AND OTHER BUILDING FEATURES SHOWN ON THESE DRAWINGS ARE TAKEN FROM INFORMATION PROVIDED BY OTHERS; BUILDING LINES SHOWN GENERALLY REPRESENT THE EXTERIOR FACE OF THE BUILDING, BUT SHOULD NOT BE USED FOR ANY HORIZONTAL AREA SUBJECT TO PROPOSED OR REASONABLY ANTICIPATED DIRECT BEARING PRESSURE FROM A BUILDING, WALL, IMPROVED VEHICULAR OR PEDESTRIAN AREA, EQUIPMENT AREA, DAM, OR ANY SIMILAR FEATURE OR CONDITION; PLUS AN ADDITIONAL HORIZONTAL DISTANCE OF FIVE FEET ALL AROUND.

COMPLIANCE

- COMPLY WITH THE INFORMATION AND REQUIREMENTS CONTAINED IN THESE DRAWINGS.
COMPLY WITH REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION OVER THE WORK AND WITH ALL PERMITS AND APPROVALS FOR THE PROJECT, INCLUDING BUT NOT LIMITED TO THOSE RELATING TO TREE PROTECTION, CLEARING, SEDIMENTATION AND EROSION CONTROL, GRADING, STORM DRAINAGE, SANITARY SEWER, WATER SYSTEM, FIRE PROTECTION SYSTEM, TRAFFIC CONTROL, AND WORK IN STREET RIGHTS OF WAY.

MATERIAL TESTING

- THE TESTING AGENCY SHALL PROVIDE MATERIAL AND DENSITY TESTING DURING THE COURSE OF THE WORK AND AFTER THE WORK IS COMPLETED.

AS-BUILT DOCUMENTATION

- DURING THE COURSE OF CONSTRUCTION MAINTAIN A RECORD SET OF PROJECT DRAWINGS WITH NOTATIONS AND DEPICTIONS OF DISCOVERED UTILITIES AND SUBSURFACE CONDITIONS, APPROVALS GRANTED BY REGULATORY AGENCIES, AND OTHER RELEVANT AS-BUILT DATA.
PROVIDE A COPY OF THE RECORD SET TO THE ENGINEER PRIOR TO PROJECT CLOSE-OUT.

PRE-CONSTRUCTION MEETINGS

- PRIOR TO BEGINNING PROJECT WORK, CONTACT THE ENGINEER TO CONFIRM PROJECT REQUIREMENTS FOR PRE-CONSTRUCTION MEETINGS AND REQUIRED PARTICIPANTS.
COORDINATE AND PARTICIPATE IN PRE-CONSTRUCTION MEETINGS AS REQUIRED FOR VARIOUS COMPONENTS OF WORK.
FAILURE TO ADHERE TO PRE-CONSTRUCTION REQUIREMENTS MAY BE GROUNDS FOR REJECTION OF PROJECT WORK.

NOTIFICATIONS

- NOTIFY THE ENGINEER AT LEAST TWO BUSINESS DAYS PRIOR TO BEGINNING OR RESUMING STORM DRAINAGE, GRADING, WATER SYSTEM, OR WASTEWATER SYSTEM WORK. THE ENGINEER MUST OBSERVE CONNECTIONS, INSTALLATION, BACKFILLING, AND TESTING WORK, IN ORDER TO PROVIDE NECESSARY PROJECT CERTIFICATIONS AND CLOSE-OUT DOCUMENTS.
NOTIFY THE AGENCY WITHIN A STRUCTURAL ZONE UNLESS THE SURFACE HAS BEEN APPROVED BY THE TESTING AGENCY FOR USE UNDER LIMITED CONDITIONS OR IN LIMITED AREAS.
DO NOT PLACE SOIL WITHIN A STRUCTURAL ZONE UNLESS THE SURFACE HAS BEEN APPROVED BY THE TESTING AGENCY TO RECEIVE ADDITIONAL FILL.

COORDINATION

- PROVIDE COORDINATION WITH SUBCONTRACTORS, ENGINEER, OWNER, TESTING AGENCY, SURVEYOR, INSPECTORS, UTILITY SERVICE PROVIDERS, AND OTHERS AS NEEDED FOR SUCCESSFUL COMPLETION OF THE PROJECT SCOPE.
UTILITY SERVICE COORDINATION WORK SHALL INCLUDE MAKING APPLICATIONS FOR SERVICE, SCHEDULING WORK BY OTHERS, VERIFYING ROUTINGS AND EQUIPMENT LOCATIONS, FURNISHING AND INSTALLING CONDUIT AND PADS, RELATED WORK, AND TESTING WORK.
COORDINATE THE REQUIREMENTS OF THESE DRAWINGS WITH REQUIREMENTS FOR OTHER PROJECT WORK, SUCH AS BUILDINGS AND BUILDING FEATURES, FOOTINGS, WALLS, STRUCTURAL SLABS, EQUIPMENT PADS, PATIOS, AND LANDSCAPING WORK.

SEDIMENTATION AND EROSION CONTROL

- COMPLY WITH APPLICABLE STANDARDS AND REQUIREMENTS OF THE GOVERNING SEDIMENTATION AND EROSION CONTROL AUTHORITY, AND RELATED PERMITS AND APPROVALS FOR THE PROJECT.
ADHERE TO THE SEQUENCE OF WORK DESCRIBED FOR PROGRESSION OF CONSTRUCTION ACTIVITIES AS THEY RELATE TO SEDIMENTATION AND EROSION CONTROL WORK.

DEMOLITION WORK

- SECURE ANY DEMOLITION PERMIT THAT MAY BE REQUIRED BY LOCAL AUTHORITIES PRIOR TO BEGINNING DEMOLITION ACTIVITIES.
COMPLY WITH REMOVAL AND DISPOSAL PROCEDURES THAT MAY BE REQUIRED FOR ANY MATERIALS TO BE REMOVED, INCLUDING THOSE THAT MAY CONTAIN ASBESTOS, PETROLEUM PRODUCTS, OR OTHER REGULATED SUBSTANCES.
PROVIDE STRAIGHT AND NEAT CUTS TO PAVEMENTS, PADS, WALKS, APRONS, CURBS, PIPING, AND OTHER FEATURES, WHERE PRACTICAL, EXTEND REMOVAL LIMITS TO NEARBY CONTROL JOINTS OR CONSTRUCTION JOINTS. DO NOT CREATE CONDITIONS THAT WILL LEAVE UNSTABLE OR NON-DURABLE FEATURES IN PLACE.
PRIOR TO CONNECTING NEW WORK TO THE REMOVAL LIMITS, RE-CUT EDGES IF NEED TO PROVIDE NEAT AND DURABLE JOINTS AND TIE-INS.

QUALITY CONTROL

- PERFORM ALL EARTHWORK AND PAVING OPERATIONS, INCLUDING TOPSOIL STRIPPING, STOCKPILING, EXCAVATION, FILLING, COMPACTING, TRENCHING, BACKFILLING, RETAINING WALLS, AND FINISH GRADING, IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE TESTING AGENCY, WHICH SHALL VERIFY THE SUITABILITY OF SOIL MATERIALS, MONITOR EARTHWORK ACTIVITIES, DIRECT AND OBSERVE PROOFROLLING, AND PROVIDE TESTING DURING THE PROGRESS OF THE WORK AND AFTER COMPLETION OF THE WORK.
NO SOIL OR OTHER MATERIAL SHALL BE PLACED IN A PERMANENT LOCATION UNLESS IT HAS BEEN APPROVED BY THE TESTING AGENCY FOR THE INTENDED USE AND LOCATION.

CLEARING, GRUBBING, STRIPPING, AND SUBGRADE PREPARATION

- IN AREAS OF NEW CONSTRUCTION, REMOVE ALL VEGETATION, ROOTMAT, AND ORGANIC SOIL UNLESS OTHERWISE INDICATED.
DO NOT BURN CLEARING WASTE ON THE PROJECT SITE. DO NOT BURY CLEARING WASTE OR ORGANIC SOIL ON THE SITE UNLESS SPECIFICALLY AUTHORIZED.
REMOVE ANY SOIL FROM THE SITE ALL VEGETATIVE MATERIALS, INCLUDING BUT NOT LIMITED TO GRUBBING ACTIVITIES, AND DISPOSE IN AN APPROPRIATE OFFSITE LOCATION.
STOCKPILE ORGANIC SOIL THAT IS DETERMINED TO BE SUITABLE FOR LATER USE, IN LOCATIONS SHOWN OR AS APPROVED.

GRADING, TRENCHING, AND BACKFILLING - DEFINITIONS

- "STRUCTURAL FILL" IS DEFINED AS SOIL CLASSIFIED AS SM, SC, ML, OR CL; FREE OF ORGANIC MATERIAL, DEBRIS, ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION, ICE, EXCESS WATER, AND OTHER UNSUITABLE MATERIAL, HAVING A LIQUID LIMIT LESS THAN 60 AND A PLASTICITY INDEX LESS THAN 25; CAPABLE OF BEING COMPACTED TO THE REQUIRED DENSITY; AND WHICH HAS BEEN APPROVED FOR USE BY THE TESTING AGENCY.
"STRUCTURAL AREA" IS DEFINED AS ANY HORIZONTAL AREA SUBJECT TO PROPOSED OR REASONABLY ANTICIPATED DIRECT BEARING PRESSURE FROM A BUILDING, WALL, IMPROVED VEHICULAR OR PEDESTRIAN AREA, EQUIPMENT AREA, DAM, OR ANY SIMILAR FEATURE OR CONDITION; PLUS AN ADDITIONAL HORIZONTAL DISTANCE OF FIVE FEET ALL AROUND.

GRADING, TRENCHING, AND BACKFILLING - GENERAL

- REFER TO SPECIFICATIONS AND DETAILS FOR SPECIFIC PIPE SYSTEMS FOR ANY BEDDING AND HAUNCHING REQUIREMENTS APPLICABLE THERE TO.
NOTWITHSTANDING THE REQUIREMENTS LISTED BELOW, TIGHTER SPECIFICATIONS OR ALTERNATE REQUIREMENTS FOR SOIL QUALITY, MOISTURE CONTENT, DENSITY, AND MAXIMUM LIFT THICKNESS MAY BE REQUIRED FOR PARTICULAR TYPES OF WORK, MARGINAL SOIL CHARACTERISTICS, OR COMPACTION METHODS USING SMALL EQUIPMENT.
DEVIATIONS FROM REQUIREMENTS HEREIN MAY OCCUR ONLY WITH SPECIFIC AUTHORIZATION FROM THE TESTING AGENCY.
REFER TO RETAINING WALL DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS APPLICABLE TO RETAINING WALL FOOTINGS AND BACKFILL.

GRADING, TRENCHING, AND BACKFILLING - SOIL COMPACTION

- THE IN-PLACE COMPACTED UNIT WEIGHT OF STRUCTURAL FILL SHALL BE AT LEAST 90 POUNDS PER CUBIC FOOT.
THE MINIMUM DENSITY FOR COMPACTED SOIL FILL MATERIAL SHALL BE AT LEAST THE FOLLOWING PERCENTAGE OF THE SOIL'S MAXIMUM DRY DENSITY (MDD), AS DETERMINED BY ASTM D-698:
- IN AREAS NOT DESIGNATED AS A STRUCTURAL ZONE: 95%
- IN AREAS NOT DESIGNATED AS A STRUCTURAL ZONE: 90%

GRADING - EXECUTION

- ALL SOIL PLACED IN STRUCTURAL ZONES SHALL MEET THE DEFINITION FOR STRUCTURAL FILL, UNLESS SPECIFICALLY APPROVED OTHERWISE BY THE TESTING AGENCY.
IN-SITU SOIL WITHIN STRUCTURAL ZONES SHALL BE EVALUATED BY THE TESTING AGENCY PRIOR TO BEING FILLED. IF IN-SITU SOIL CONDITIONS ARE NOT ACCEPTABLE, REMOVE, REPLACE, AND/OR REMEDIATE IN-SITU SOIL AS RECOMMENDED BY THE TESTING AGENCY.
OTHER SOIL NOT MEETING THE DEFINITION FOR STRUCTURAL FILL MAY BE APPROVED BY THE TESTING AGENCY FOR USE UNDER LIMITED CONDITIONS OR IN LIMITED AREAS.
DO NOT PLACE SOIL WITHIN A STRUCTURAL ZONE UNLESS THE SURFACE HAS BEEN APPROVED BY THE TESTING AGENCY TO RECEIVE ADDITIONAL FILL.
DO NOT PLACE SOIL ON WATER, ICE, OR ON SATURATED OR FROZEN SUBGRADES.
PLACE AND COMPACT STRUCTURAL FILL ONLY WHEN THE SOIL'S MOISTURE CONTENT IS WITHIN 3 PERCENTAGE POINTS OF THE SOIL'S OPTIMUM MOISTURE CONTENT, IN LIFTS NOT TO EXCEED 8 INCHES LOOSE THICKNESS.
UNLESS OTHERWISE INDICATED, IN GRASSED OR MULCHED AREAS THAT ADJUT EXTERIOR BUILDING WALLS, PROVIDE FINISHED SURFACE ELEVATIONS THAT ARE 8 INCHES BELOW THE FINISHED FLOOR ELEVATION, AND THAT SLOPE AWAY FROM THE BUILDING WITH POSITIVE DRAINAGE OF AT LEAST 2.0%.

PROTECTION OF SOIL AND COMPLETED GRADING WORK

- SOILS ON THE PROJECT SITE ARE MOISTURE SENSITIVE AND REQUIRE PROPER CARE AND MAINTENANCE TO AVOID MOISTURE-RELATED DEGRADATION OF STRUCTURAL AND STABILITY CHARACTERISTICS. PROVIDE GOOD PRACTICE TO REASONABLY PREVENT ACCUMULATION OR RETENTION OF EXCESSIVE MOISTURE IN ONSITE SOIL DURING THE CONSTRUCTION PERIOD, AND TO PROTECT COMPLETED WORK FROM DEGRADATION. THESE PRACTICES INCLUDE BUT ARE NOT LIMITED TO MAINTAINING POSITIVE SURFACE DRAINAGE ON THE SITE AT ALL TIMES, SEALING COMPLETED SUBGRADES WITH A SMOOTH-DRUM ROLLER BEFORE RAINFALL EVENTS, LIMITING CONSTRUCTION TRAFFIC TO DESIGNATED TRAVEL LANES, AND COVERING EXPOSED SUBGRADES AS SOON AS PRACTICAL.

TRENCHING AND BACKFILLING - EXECUTION

- WHERE ROCK OR OTHER HARD MATERIAL OCCURS AT THE DESIGNED TRENCH BOTTOM, OVEREXCAVATE TRENCH DEPTH BY SIX INCHES. REPLACE OVEREXCAVATION MATERIAL WITH #67 STONE BEDDING.
WHERE THE TRENCH BOTTOM CONSISTS OF UNSUITABLE BEARING SOIL, UNDERCUT TRENCH TO THE LIMITS SPECIFIED BY THE TESTING AGENCY. REPLACE UNDERCUT MATERIAL WITH #67 STONE. ALTERNATE TYPES OF REPLACEMENT MATERIAL MAY BE ALLOWED SUBJECT TO APPROVAL OF PLACEMENT AND COMPACTION PROCEDURES BY THE TESTING AGENCY.
DO NOT BACKFILL ANY STORM DRAINAGE, SANITARY SEWER, OR WATER MAIN WORK WITHOUT THE ENGINEER'S CONSENT.
ENGAGE OTHERS TO WILL REQUIRE VISUAL VERIFICATION OF THE INSTALLED UTILITY WORK BY THE ENGINEER, OR AN ALTERNATE PROTOCOL AS MAY BE ALLOWED FOR SPECIFIC SITUATIONS.

STORAGE AND HANDLING OF MATERIALS

- PIPING, FITTINGS, GASKETS, AND OTHER MATERIALS SHALL BE KEPT CLEAN WHILE BEING STORED AND DURING CONSTRUCTION ACTIVITIES. PIPE BUNDLES SHALL BE STORED ON FLAT SURFACES WITH UNIFORM SUPPORT, AND PROTECTED FROM PROLONGED EXPOSURE TO SUNLIGHT BY A COVERING ALLOWING AIR FLOW UNDERNEATH. GASKETS SHALL NOT BE SUBJECTED TO OIL, GREASE, OZONE, EXCESSIVE HEAT OR DIRECT SUNLIGHT. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR STORAGE AND HANDLING OF ALL MATERIALS.

UTILITY AND DRAINAGE WORK - PRELIMINARY INVESTIGATIONS

- PRIOR TO BEGINNING UTILITY OR DRAINAGE INSTALLATIONS, FIELD DETERMINE THE LOCATIONS AND ELEVATIONS OF ALL CONNECTIONS OR TERMINATION POINTS FOR THE UTILITIES BEING INSTALLED, AND FOR ALL UNDERGROUND UTILITIES AND OTHER FEATURES ALONG THE PROPOSED UTILITY ROUTE, TO VERIFY THAT THE PROPOSED UTILITY CAN BE INSTALLED TO MEET SPECIFIED DESIGN CRITERIA, DEPTHS, AND CLEARANCES. IF SPECIFIED CONDITIONS CANNOT BE ACHIEVED, CONTACT THE ENGINEER FOR GUIDANCE PRIOR TO PROCEEDING WITH UTILITY INSTALLATION.

UTILITY AND DRAINAGE PIPING CLEARANCES

- INSTALL SANITARY SEWER MAINS AND POTABLE WATER MAINS WITH A MINIMUM HORIZONTAL CLEARANCE OF 10 FEET BETWEEN THE OUTSIDE EDGES OF EACH PIPE.
WHERE UTILITY AND/OR DRAINAGE LINES CROSS, PROVIDE THE FOLLOWING VERTICAL CLEARANCES FROM THE OUTSIDE EDGES OF EACH PIPE:
- SANITARY SEWER OVER OR UNDER STORM DRAINAGE: 24 INCHES.
- POTABLE WATER OVER SANITARY SEWER: 18 INCHES, WITH WATER MAIN JOINTS SPACED AT MAXIMUM EQUIVALENT LOCATIONS FROM THE POINT OF CROSSING.
- POTABLE WATER UNDER SANITARY SEWER: 18 INCHES, WITH BOTH PIPES CONSTRUCTED OF FERROUS MATERIAL HAVING JOINTS EQUIVALENT TO WATER MAIN STANDARDS.
- SANITARY SEWER OVER OR UNDER POTABLE WATER: 24 INCHES, WITH A FULL SECTION OF WATER MAIN PIPE CENTERED AT THE POINT OF CROSSING.
- POTABLE WATER OVER OR UNDER STORM DRAINAGE: 18 INCHES.

STORM DRAINAGE SYSTEM - GENERAL

- PROVIDE ALL STORM DRAINAGE MATERIALS, INSTALLATION, AND TESTING IN ACCORDANCE WITH LOCAL STORM DRAINAGE AUTHORITY AND NCDOT REQUIREMENTS, AS APPLICABLE.
COMPLY WITH OTHER SECTIONS OF THESE SPECIFICATIONS APPLICABLE TO STORM DRAINAGE WORK, INCLUDING TREE PROTECTION, TRENCHING AND BACKFILLING, SAFETY, PROTECTION, QUALITY CONTROL, AS-BUILT DOCUMENTATION, ETC.
FAILURE TO PROVIDE NOTIFICATIONS AS SPECIFIED MAY RESULT IN THE WORK BEING UNVERIFIED AND REJECTED.
STORM DRAINAGE PIPE LENGTHS SHOWN HEREIN ARE APPROXIMATE HORIZONTAL DISTANCES AS MEASURED FROM THE CENTER OF DRAINAGE STRUCTURES, AND INCLUDE THE LENGTH OF ANY CONNECTED FLARED END SECTION.
STORM DRAINAGE STRUCTURE "TOP" OR "FIN" ELEVATIONS SHOWN REFER TO THE HIGHEST ELEVATION OF THE FINISHED STRUCTURE'S FRAME OR COVER.

STORM DRAINAGE SYSTEM - MATERIALS

- STORM DRAINAGE PIPING SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS III, CONFORMING TO ASTM C76, UNLESS OTHERWISE NOTED. ALL JOINTS SHALL BE SEALED USING PRE-FORMED FLEXIBLE BUTYL RUBBER SEALING COMPOUND CONFORMING TO ASTM C-990.
STORM DRAINAGE PIPING NOTED AS HAVING "WATER TIGHT JOINTS" SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS III, CONFORMING TO ASTM C76, WITH BELL AND SPIGOT JOINTS USING RUBBER GASKETS. THE JOINT AND GASKET ASSEMBLY SHALL CONFORM TO ASTM C443.
STORM DRAINAGE STRUCTURES SHALL CONFORM TO NCDOT STANDARDS UNLESS OTHERWISE INDICATED. IN ADDITION TO THE STANDARD STRUCTURE TYPE NOTED, PRE-CAST CONCRETE STRUCTURES SHALL CONFORM TO NCDOT STANDARD 840.45, AS APPLICABLE.
STORM DRAINAGE STRUCTURES SHALL BE OF SOLID WALL CONSTRUCTION WITH CUSTOMIZED PRE-CAST ROUND OPENINGS FOR PIPE CONNECTIONS. KNOCK-OUT TYPE STRUCTURES MAY NOT BE USED UNLESS APPROVED FOR SPECIFIC LOCATIONS BY THE ENGINEER AND BY REGULATORY AUTHORITIES. FOR ALL STRUCTURES, STRUCTURAL INTEGRITY MAY NOT BE IMPAIRED BY UNAPPROVED REMOVAL OF CORNERS OR OTHER STRUCTURAL ELEMENTS.
STORM DRAINAGE STRUCTURES SHALL BE SIZED AND CONFIGURED AS NEEDED TO ACCOMMODATE LARGE-DIAMETER PIPING, MULTIPLE PIPE PENETRATIONS, AND PIPE CONNECTION ANGLES.
REFER TO STORM DRAINAGE STRUCTURE DETAILS FOR DIMENSIONS, OFFSETS, CLEARANCES, SETBACKS FROM CURB, FRAMES AND COVERS, GRATES, AND OTHER REQUIREMENTS.
ROOF DRAINAGE PIPE AND FITTINGS SHALL BE SOLVENT-WELDED SCHEDULE 40 PVC, OR ALTERNATELY DUAL-WALL POLY PIPE WITH SMOOTH INTERIOR, CORRUGATED EXTERIOR, AND SILT-TIGHT CONNECTIONS. PIPE SIZE SHALL BE 6" DIAMETER UNLESS OTHERWISE SHOWN.

STORM DRAINAGE SYSTEM - EXECUTION

- INSTALL STORM DRAINAGE PIPING WITH REQUIRED CLEARANCES FROM POTABLE WATER AND SANITARY SEWER PIPING AS SPECIFIED ELSEWHERE IN THESE SPECIFICATIONS.
INSTALL ROOF DRAINAGE PIPING WITH 2.0% MINIMUM SLOPE AND 12 INCHES MINIMUM COVER TO FINISHED GRADE, UNLESS OTHERWISE SHOWN.
INSTALL PIPE WITH BELLS FACING UPSTREAM. INSERT PIPE ENDS FULLY INTO BELLS.
VERIFY AND COORDINATE EXACT POSITIONING OF STORM DRAINAGE PIPING AND STRUCTURES TO ASSURE PROPER ALIGNMENTS, LOCATIONS, ORIENTATIONS, ELEVATIONS, SLOPES, FLOW PATTERNS, AND SURFACE DRAINAGE.
PROVIDE INFORMATION AS REQUIRED UNDER "AS-BUILT DOCUMENTATION".

OTHER DRAINAGE SYSTEMS

- EXTEND DRAINAGE PIPING FROM BUILDING FOUNDATION DRAINS, RETAINING WALL FOOTING DRAINS, OR OTHER SUBSURFACE DRAINAGE FEATURES AT A MINIMUM SLOPE OF 1.0% TO THE INDICATED LOCATIONS OR OTHERWISE TO AN APPROVED OUTLET POINT.

CONNECTIONS TO EXISTING DRAINAGE AND UTILITY SYSTEMS

- FOR CONNECTIONS TO EXISTING UTILITY AND DRAINAGE LINES, VERIFY EXISTING PIPE SIZE AND MATERIAL, AND PROVIDE APPROPRIATE CONNECTION FITTINGS.
COORDINATE ANY CONNECTION TO EXISTING UTILITIES OR ANY UTILITY SERVICE INTO EXISTING STRUCTURES. THESE SPECIFICATIONS APPLY TO ALL SANITARY SEWER WORK, SUCH AS NOTIFICATIONS, COORDINATION, TRENCHING AND BACKFILLING, SAFETY, PROTECTION, QUALITY CONTROL, AS-BUILT DOCUMENTATION, ETC.
FAILURE TO PROVIDE NOTIFICATIONS AS SPECIFIED MAY RESULT IN THE WORK BEING UNVERIFIED AND REJECTED.
SEE DRAWINGS AND NOTIFICATIONS BY OTHERS FOR THE ONSITE WASTEWATER SYSTEM, INCLUDING TANKS, PUMPS, CONTROLS, FORCE MAIN, AND DRAIN LINES.

SANITARY SEWER - MATERIALS

- EXCEPT WHERE OTHERWISE INDICATED, SANITARY SEWER SERVICE PIPE AND FITTINGS SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED JOINTS.
SANITARY SEWER SERVICE PIPING INDICATED AS "DI" OR "DIP" OR "DUCTILE IRON" SHALL BE DUCTILE IRON PIPE PER AWWA C151/ANSI A21.51, PRESSURE CLASS 350, OR ALTERNATELY PER ASTM A746. THE PIPE INTERIOR SHALL HAVE A CEMENT MORTAR LINING AND A SEAL COAT PER AWWA C104. THE PIPE EXTERIOR SHALL HAVE A BITUMINOUS SEAL COAT PER AWWA C151/ANSI A21.51.

SANITARY SEWER - EXECUTION

- INSTALL SANITARY SEWER SERVICE PIPE WITH REQUIRED CLEARANCES FROM POTABLE WATER AND STORM DRAINAGE PIPES AS SPECIFIED HEREIN.
INSTALL SANITARY SEWER SERVICE LINES AND CLEANOUTS IN ACCORDANCE WITH THE N.C. PLUMBING CODE, WITH AT LEAST 18 INCHES COVER TO FINISHED GRADE.
PLACE AND COMPACT ALL HAUNCHING AND BACKFILL MATERIAL WITHOUT DAMAGING OR DISPLACING PIPE OR STRUCTURES.
ANY SOIL PLACED ALONG PIPE SIZES OR WITHIN 12 INCHES ABOVE ANY PIPE SHALL MEET THE CRITERIA FOR SELECT FILL. SOIL PLACED IN THESE AREAS SHALL BE COMPACTED IN THIN LIFTS USING HAND-OPERATED EQUIPMENT.
PLACE AND COMPACT STRUCTURAL FILL IN OTHER PORTIONS OF TRENCHES GREATER THAN 12 INCHES ABOVE THE TOP OF PIPE.
PLACE ALL BACKFILL MATERIALS IN TRENCHES IN LOOSE LIFTS HAVING A MAXIMUM THICKNESS OF 8 INCHES, AND COMPACT TO THE REQUIRED DENSITY APPLICABLE TO THE SPECIFIC AREA OR TYPE OF WORK.

SANITARY SEWER - TESTING AND CLOSE-OUT

- PRIOR TO ANY PLACING ANY SANITARY SEWER IMPROVEMENTS INTO SERVICE:
- SUCCESSFULLY TEST ALL SANITARY SEWER SERVICE PIPE FOR LEAKAGE, WITH A LOW-HEAD HYDROSTATIC TEST AS DIRECTED BY THE ENGINEER.
- RESOLVE ALL FINAL INSPECTION PUNCH LIST ITEMS IDENTIFIED BY THE ENGINEER AND BY AN INSPECTOR HAVING AUTHORITY OVER THE SEWER WORK.
- PROVIDE INFORMATION AS REQUIRED UNDER "AS-BUILT DOCUMENTATION".

WATER SYSTEM - GENERAL

- PROVIDE, INSTALL, AND TEST ALL WATER SYSTEM COMPONENTS IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE WATER AUTHORITY, THE NC DEC-DIVISION OF WATER RESOURCES, AND THE PLUMBING CODE, AS APPLICABLE.
COMPLY WITH ALL PERMIT CONDITIONS AND REQUIREMENTS RELATING TO WATER SYSTEM WORK FOR THIS PROJECT, INCLUDING AS APPLICABLE, WATER EXTENSION PERMIT, STREET ENROACHMENT PERMIT, FIRE PROTECTION PLANS APPROVAL, AND PLUMBING PERMIT.
COMPLY WITH OTHER SECTIONS OF THESE SPECIFICATIONS APPLICABLE TO WATER SYSTEM WORK, SUCH AS NOTIFICATIONS, COORDINATION, TRENCHING AND BACKFILLING, SAFETY, PROTECTION, QUALITY CONTROL, AS-BUILT DOCUMENTATION, ETC.
FAILURE TO PROVIDE NOTIFICATIONS AS SPECIFIED MAY RESULT IN THE WORK BEING UNVERIFIED AND REJECTED.

WATER SYSTEM - MATERIALS

- WATER MAIN PIPING SHALL BE DUCTILE IRON PIPE PER AWWA C151/ANSI A21.51, PRESSURE CLASS 350, WITH INTERIOR CEMENT MORTAR LINING AND SEAL COAT PER AWWA C104/ANSI 21.4, AND EXTERIOR ASPHALT COAT PER AWWA C151/ANSI A21.51.
WHERE UTILITY AND/OR DRAINAGE LINES CROSS, PROVIDE STANDARD ELASTOMERIC GASKETS PER AWWA C111/ANSI A21.1.
FITTINGS SHALL BE COMPACT MECHANICAL JOINT DUCTILE IRON PER AWWA/C153/ANSI A21.43, PRESSURE CLASS 350, WITH INTERIOR CEMENT MORTAR LINING PER AWWA C104/ANSI 21-4, AND EXTERIOR BITUMINOUS COAT OF ONE-MIL MINIMUM THICKNESS PER AWWA C110.
FITTING RESTRAINTS SHALL CONSIST OF CONCRETE BLOCKING, TIE-RODS WITH EYE-BOLTS, MECHANICAL JOINT WEDGE-ACTION RESTRAINT DEVICE, OR SOME COMBINATION THEREOF, AS APPROVED BY THE WATER AUTHORITY INSPECTOR OR THE ENGINEER.
MECHANICAL JOINT WEDGE-ACTION RESTRAINT DEVICE SHALL BE MEGA-LUG SERIES 1100 OR SIMILAR APPROVED SYSTEM, RATED AT 350 PSI.
INSTALL WATER SYSTEM MATERIALS IN ACCORDANCE WITH WATER AUTHORITY REQUIREMENTS.

WATER SYSTEM - EXECUTION

- INSTALL WATERLINES TO PROVIDE 36" COVER TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR APPROVED BY THE ENGINEER AND THE WATER AUTHORITY INSPECTOR.
RESTRAIN ALL WATERLINE BENDS, CROSSES, TEES, VALVES, BLOWOFFS, AND PIPE ENDS. DO NOT OPERATE WATER SYSTEM VALVES UNLESS PERMITTED BY THE WATER AUTHORITY.
INSTALL DUCTILE IRON PIPING PER AWWA C600.
COORDINATE FIRE HYDRANT, WATER METER, AND BACKFLOW PREVENTER LOCATIONS WITH THE WATER AUTHORITY INSPECTOR PRIOR TO INSTALLATION.
INSTALL POTABLE WATER PIPING WITH REQUIRED CLEARANCES FROM SANITARY SEWER AND STORM DRAINAGE PIPING AS SPECIFIED ELSEWHERE IN THESE SPECIFICATIONS.
INSTALL METALLIC WARNING TAPE OVER DOMESTIC WATER SERVICES AT A DEPTH OF 18" BELOW FINISHED GRADE.

WATER SYSTEM - TESTING AND CLOSE-OUT

- PRIOR TO ANY PLACING ANY WATER SYSTEM IMPROVEMENTS INTO SERVICE:
- SUCCESSFULLY TEST ALL WATER MAINS FOR WATER LEAKAGE AND WATER QUALITY IN ACCORDANCE WITH REQUIREMENTS OF THE WATER AUTHORITY AND THE NC DEC-DIVISION OF WATER SUPPLY SECTION.
- RESOLVE ALL FINAL INSPECTION PUNCH LIST ITEMS IDENTIFIED BY THE ENGINEER AND BY AN INSPECTOR HAVING AUTHORITY OVER THE WATER SYSTEM WORK.
- PROVIDE INFORMATION AS REQUIRED UNDER "AS-BUILT DOCUMENTATION".
- PROVIDE DOCUMENTATION OF ALL TESTING RESULTS TO ENGINEER.

BACKFLOW PREVENTION

- BACKFLOW PREVENTER ASSEMBLIES AND ENCLOSURES SHALL CONFORM TO ALL REQUIREMENTS OF THE WATER AUTHORITY AND FIRE PROTECTION AUTHORITY, AS APPLICABLE.
BACKFLOW PREVENTER ASSEMBLIES FOR DOMESTIC WATER SERVICE SHALL HAVE A LEAD-FREE CERTIFICATION.
BACKFLOW PREVENTER ASSEMBLIES FOR NON-DOMESTIC WATER SERVICE ARE EXEMPT FROM LEAD-FREE CERTIFICATION UNLESS OTHERWISE REQUIRED BY THE WATER AUTHORITY.
INSTALL BACKFLOW PREVENTER ASSEMBLIES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE REGULATORY REQUIREMENTS.
PROVIDE INITIAL TESTING AND CERTIFICATION FOR BACKFLOW PREVENTER ASSEMBLIES AS REQUIRED FOR ACCEPTANCE BY REGULATORY AUTHORITIES.

FIRE PROTECTION

- COORDINATE TYPE AND LOCATION OF HYDRANTS, FIRE DEPARTMENT CONNECTIONS, AND OTHER FIRE PROTECTION SYSTEM COMPONENTS WITH THE FIRE CODE OFFICIAL PRIOR TO INSTALLATION.

SURFACE DRAINAGE

- ALL SPOT ELEVATIONS SHOWN ARE FINISHED SURFACE ELEVATIONS. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER ELEVATION CONTOURS. ALL ELEVATIONS SHOWN ON CURB AND GUTTER REFER TO TOP OF CURB, UNLESS OTHERWISE INDICATED.
FINE GRADE AND FINISH ALL PAVEMENT AND YARD SURFACES TO HAVE POSITIVE SURFACE DRAINAGE TO A FREE-FLOWING DRAINAGE OUTLET, WITH NO IRREGULARITIES OR DEPRESSIONS THAT WOULD CAUSE UNINTENDED WATER PONDING.
USE REVERSE-PITCH CURB AND GUTTER WHERE ADJACENT PAVEMENT SLOPES AWAY FROM CURB, AND STANDARD-PITCH CURB AND GUTTER ELSEWHERE, UNLESS OTHERWISE NOTED.
PROVIDE POSITIVE DRAINAGE ALONG AND FROM ALL GUTTERS.

ACCESSIBILITY

- ALL ACCESSIBLE PARKING SPACES, AISLES, RAMPS, SIGNAGE, PAVEMENT MARKINGS, CROSSWALKS, AND ROUTES SHALL MEET APPLICABLE REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE, ICC A117.1, NC GENERAL STATUTES 20-37.6 AND 136-30, AND LOCAL REGULATIONS AND POLICIES.
FINISH ELEVATIONS OF WALKWAYS OR PEDESTRIAN AREAS ADJUTING EXTERIOR DOORWAY THRESHOLDS SHALL BE ONE-FOURTH INCH BELOW THE ADJOINING FINISHED FLOOR ELEVATION.
EXTERIOR WALKWAYS SHALL SLOPE AWAY FROM THE BUILDING AT A RATE NO LESS THAN 1.0% AND NO MORE THAN 2.0%.
SIDEWALKS, CROSSWALKS, AND OTHER WALKWAYS SHALL NOT EXCEED 2.0% CROSS-SLOPE. NO PORTION OF ANY ACCESSIBLE ROUTE SHALL EXCEED 2.0% CROSS-SLOPE OR 5.0% LONGITUDINAL SLOPE EXCEPT WHERE AN ACCESSIBLE RAMP IS PROVIDED.
NO PORTION OF ANY HANDICAP PARKING SPACE OR ADJOINING ACCESS AISLE SHALL EXCEED 2.0% SLOPE IN ANY DIRECTION.

TIE-INS TO EXISTING FEATURES

- PROVIDE TIE-INS AND CONNECTIONS TO EXISTING PAVEMENT, CURBS, WALKS, ETC. WITH NEAT EDGES AND SMOOTH, GRADUAL TRANSITIONS THAT ARE SAFE, FUNCTIONAL, DURABLE, AND ACCEPTABLE TO THE OWNER AND REVIEW AUTHORITIES.

GRAVEL BASE AND BITUMINOUS PAVING

- PRIOR TO PLACEMENT OF ANY BASE OR PAVEMENT, PROVIDE PROOF-ROLLING OF ALL AREAS TO BE PAVED. THE TESTING AGENCY AND ANY INSPECTOR HAVING AUTHORITY OVER THE WORK, PROVIDE ANY REMEDIATION MEASURES AS REQUIRED.
PROVIDE, PLACE, AND FINISH ALL AGGREGATE BASE AND BITUMINOUS PAVING WORK IN ACCORDANCE WITH NCDOT STANDARDS.
SPECIFIED PAVEMENT THICKNESS REFERS TO COMPACTED THICKNESS AND IN ACCORDANCE WITH NCDOT STANDARDS FOR THICKNESS TOLERANCES.
IN ADDITION TO TESTING WORK PROVIDED DURING CONSTRUCTION, OWNER MAY TEST OR MAY REQUIRE TESTING OF IN-PLACE AGGREGATE BASE AND BITUMINOUS PAVING WORK IN ORDER TO VERIFY CONFORMANCE TO PROJECT REQUIREMENTS.

PAVEMENT MARKINGS AND SIGNAGE

- UNLESS OTHERWISE SPECIFIED, ALL PAVEMENT MARKINGS SHALL BE MADE WITH PAINT CONFORMING TO NCDOT "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES", LATEST EDITION, AND SHALL HAVE A MINIMUM DRY FILM THICKNESS OF 1 TO MILS. ALL MARKINGS SHALL BE WHITE UNLESS OTHERWISE SPECIFIED OR REQUIRED BY STANDARDS OF GOVERNING AUTHORITIES.

CONCRETE WORK - GENERAL

- THESE CONCRETE SPECIFICATIONS APPLY ONLY TO CAST-IN-PLACE CONCRETE FOR SITE ELEMENTS SHOWN AND DETAILED ON THESE CIVIL DRAWINGS; THEY DO NOT APPLY TO PRE-CAST STRUCTURE FOOTINGS, STRUCTURE FOOTINGS, RETAINING WALLS, OR EQUIPMENT PADS, UNLESS THESE ITEMS ARE SPECIFICALLY DETAILED HEREIN.
NOTIFY ENGINEER AND ANY AGENCY HAVING JURISDICTION OVER THE CONCRETE WORK AT LEAST TWO BUSINESS DAYS PRIOR TO PLACEMENT OF ANY CONCRETE.
ENSURE THAT SUBGRADES COMPLY WITH PROJECT REQUIREMENTS FOR ELEVATION, SLOPE, SOIL CHARACTERISTICS, DENSITY, AND CONDITION PRIOR TO PLACING ANY FORMS, BASE MATERIAL, OR CONCRETE.
VERIFY THAT CURRENT AND FORECASTED WEATHER CONDITIONS ARE APPROPRIATE FOR CONCRETE PLACEMENT.
CONCRETE MATERIALS AND WORK SHALL COMPLY WITH THE FOLLOWING, AS APPLICABLE:

Table with 3 columns: DESCRIPTION, STANDARD, COMMENT. Lists concrete specifications such as Ready-mix concrete, Portland cement, Coarse and fine aggregate, Mixing water, etc.

- PROVIDE ALL CONCRETE WORK IN COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS AND GOVERNING AUTHORITY REQUIREMENTS AS APPLICABLE. IN CASE OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.
FOR CONCRETE WORK IN EXISTING OR ANTICIPATED FUTURE NCDOT RIGHTS OF WAY, PROVIDE PRE-CAST PRODUCTS, BUILDING CONCRETE, STRUCTURE FOOTINGS, RETAINING WALLS, FOR ROADS AND STRUCTURES, AND ASHTO STANDARDS SPECIFIED THEREIN.
UNLESS OTHERWISE SPECIFIED OR REQUIRED, PROVIDE NORMAL-WEIGHT CONCRETE HAVING A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI, WITH A MAXIMUM WATER/CEMENT RATIO OF 0.58. THE MEASURED SLUMP RANGE SHALL BE AT THE POINT OF PLACEMENT SHALL BE 1.5 TO 4.0 INCHES, EXCEPT WHEN CONCRETE IS PLACED USING A CURB MACHINE, THE MEASURED SLUMP RANGE SHALL BE 1.5 TO 2.0 INCHES.
WHERE EXTERIOR CONCRETE WILL BE FULLY OR PARTIALLY ABOVE THE FROST LINE, PROVIDE UNRESTRAINED CONCRETE WITH AN AIR CONTENT OF 5% BY VOLUME, PLUS OR MINUS 1.5% UNLESS OTHERWISE SPECIFIED. SYNTHETIC FIBER REINFORCEMENT SHALL BE FIBERESH 300 BY PROPEX, OR APPROVED EQUAL, INCORPORATED AT A MINIMUM RATE OF 1.5 LBS. PER CUBIC YARD OF CONCRETE.
UNLESS OTHERWISE SHOWN OR NOTED, PROVIDE CONCRETE JOINTS WITH MAXIMUM SPACING AND PHYSICAL CHARACTERISTICS AS FOLLOWS:

Table with 4 columns: CONTROL JOINTS, MAXIMUM JOINT SPACING FOR WALKS, FOR PADS, BY THICKNESS, FOR CURB & GUTTER, SPECIFICATION. Lists joint spacing requirements for different concrete elements.

- BACKFLOW PREVENTER ASSEMBLIES AND ENCLOSURES SHALL CONFORM TO ALL REQUIREMENTS OF THE WATER AUTHORITY AND FIRE PROTECTION AUTHORITY, AS APPLICABLE.
BACKFLOW PREVENTER ASSEMBLIES FOR DOMESTIC WATER SERVICE SHALL HAVE A LEAD-FREE CERTIFICATION.
BACKFLOW PREVENTER ASSEMBLIES FOR NON-DOMESTIC WATER SERVICE ARE EXEMPT FROM LEAD-FREE CERTIFICATION UNLESS OTHERWISE REQUIRED BY THE WATER AUTHORITY.
INSTALL BACKFLOW PREVENTER ASSEMBLIES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE REGULATORY REQUIREMENTS.
PROVIDE INITIAL TESTING AND CERTIFICATION FOR BACKFLOW PREVENTER ASSEMBLIES AS REQUIRED FOR ACCEPTANCE BY REGULATORY AUTHORITIES.

CONCRETE CURB AND GUTTER

- ALL CURB DIMENSIONS SHOWN ARE MEASURED TO BACK OF CURB, AND ALL CURB RADI SHALL BE 3 FEET UNLESS OTHERWISE INDICATED.
UNLESS OTHERWISE NOTED, INSTALL CURB AND GUTTER WITH REVERSE PITCH WHERE ADJACENT PAVEMENT SLOPES AWAY FROM CURB. INSTALL STANDARD CURB AND GUTTER ELSEWHERE.
PROVIDE POSITIVE DRAINAGE ALONG AND FROM ALL GUTTERS.

LANDSCAPE WORK

- VERIFY ALL PLANT QUANTITIES SHOWN ON DRAWINGS.
PROVIDE FINISHED LANDSCAPED SURFACES THAT ARE A MINIMUM OF 6 INCHES BELOW THE FINISHED FLOOR ELEVATION, UNLESS SPECIFICALLY SHOWN OTHERWISE.
REMOVE AND PROPERLY DISPOSE ANY EXCESS SOIL MATERIAL IN AN APPROVED ONSITE LOCATION.
DO NOT PLACE PINE STRAW MULCH WITHIN 10 FEET OF ANY BUILDING FOUNDATION.
UNLESS OTHERWISE NOTED, LANDSCAPE MULCH SHALL BE SHREDED HARDWOOD MULCH, PLACED 3 INCHES TO 4 INCHES DEEP. PLACE MULCH NO CLOSER THAN 3" FROM THE TRUNK OF ANY TREE.
DO NOT STAKE TREES UNLESS THEY BECOME UNSTABLE AFTER PLANTING DURING THE CONSTRUCTION PERIOD. REMOVE ALL STAKING MATERIAL AS SOON AS THE TREE IS STABILIZED AND NO LATER THAN 1 YEAR AFTER PLANTING.
ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF THE AMERICAN NATIONAL STANDARD FOR NURSERY STOCK, ANSI Z601, AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

FINISHING

- PROVIDE PROPER RESTORATION AND CLEAN-UP OF ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES.



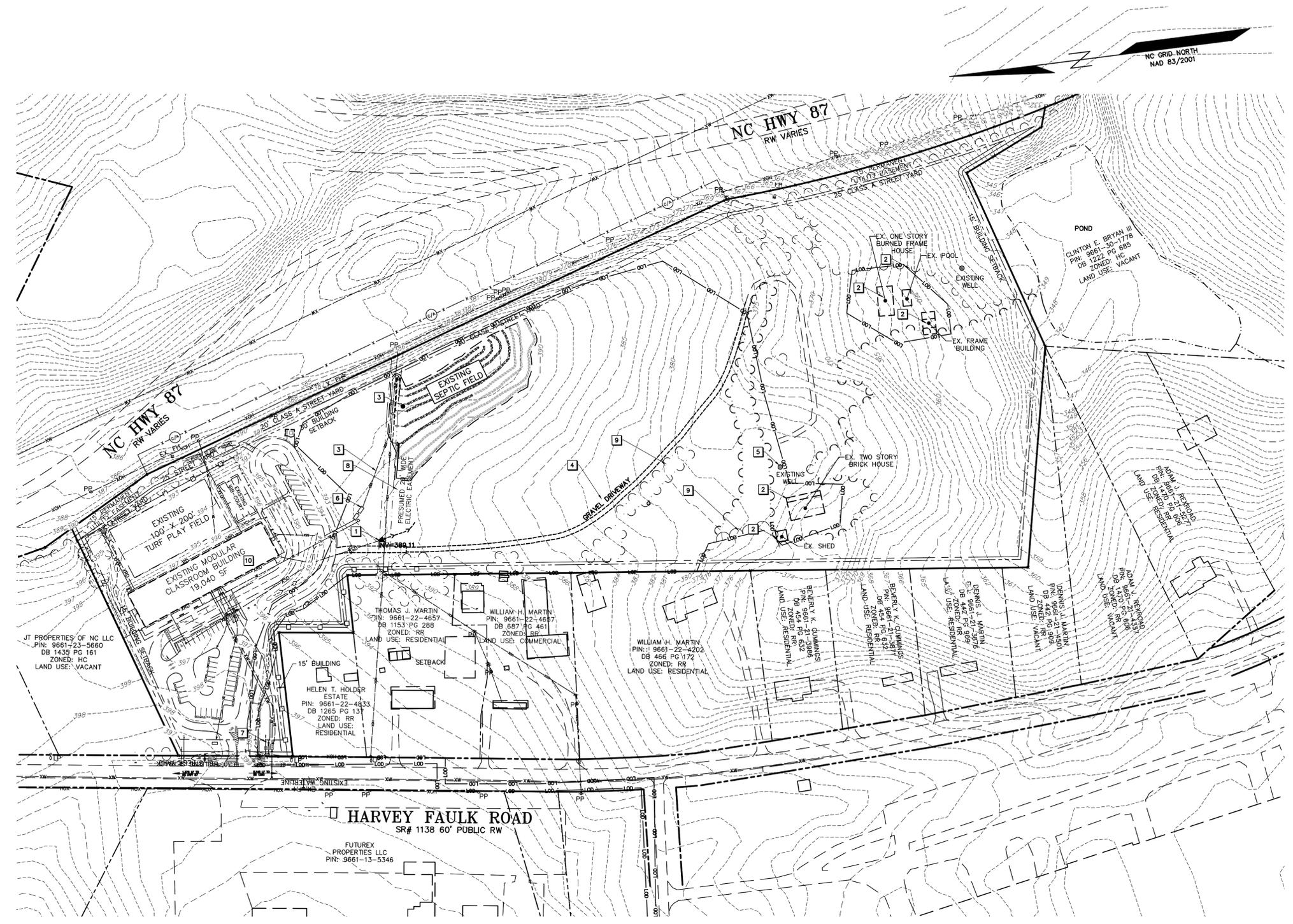


**ASCEND LEADERSHIP  
 ACADEMY EXPANSION**  
 LEE COUNTY, NORTH CAROLINA  
**EXISTING CONDITIONS AND  
 DEMOLITION PLAN**

REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019  
 THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.  
 COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

SHEET NO.  
**C2.1**

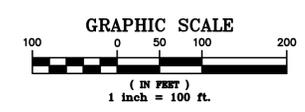


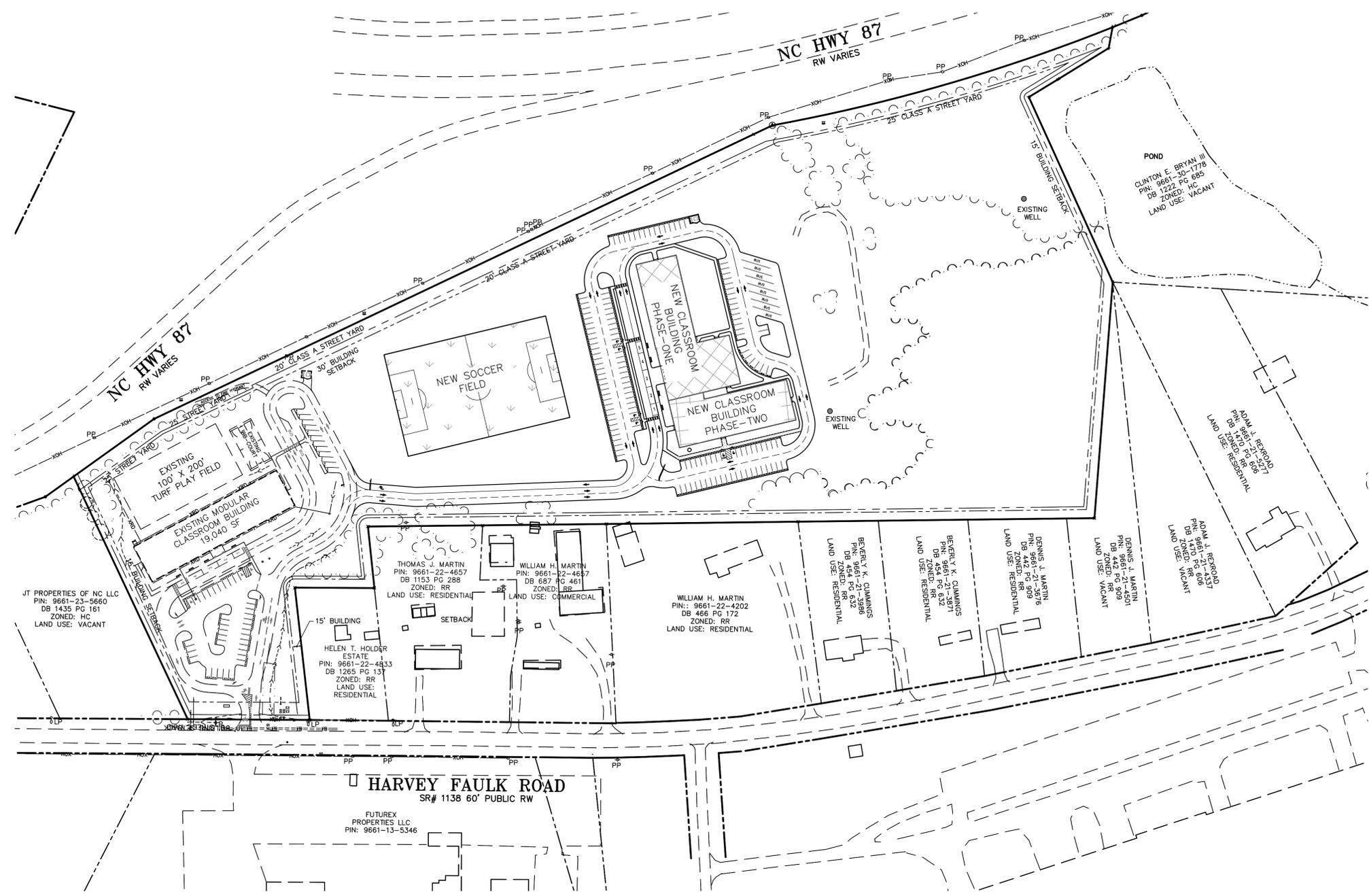
**KEY KEYED NOTES – DEMOLITION**

- 1 CUT EXISTING DRAINAGE PIPE AT NEAREST JOINT AND REMOVE FLARED END SECTION FOR INSTALLATION OF PIPE EXTENSION.
- 2 REMOVE STRUCTURE AND CONTENTS, INCLUDING ALL ABOVE-GROUND AND SUBSURFACE ELEMENTS, AND UTILITY CONNECTIONS. FOLLOW ALL APPLICABLE REGULATIONS AND REQUIREMENTS FOR REMOVAL, TRANSPORT, RECYCLING AND DISPOSAL. OBTAIN ALL PERMITS AS NEEDED.
- 3 ABANDON EXISTING SEPTIC LINES AFTER CONSTRUCTION OF SANITARY SEWER EXTENSION PER REQUIREMENTS OF THE LOCAL HEALTH DEPARTMENT. PROVIDE TANK REMOVAL DOCUMENTATION TO HEALTH DEPARTMENT AS REQUIRED, WITH COPY TO ENGINEER.
- 4 REMOVE EXISTING GRAVEL DRIVEWAY AS NEEDED FOR CONSTRUCTION.
- 5 FILL AND ABANDON EXISTING WELL PER REQUIREMENTS OF THE LOCAL HEALTH DEPARTMENT. PROVIDE WELL ABANDONMENT DOCUMENTATION TO THE HEALTH DEPARTMENT AS REQUIRED WITH COPY TO ENGINEER.
- 6 DISCONNECT EXISTING SEPTIC SYSTEM AFTER CONSTRUCTION OF SANITARY SEWER EXTENSION. CONVERT EFFLUENT LINE TO CONVEY FLOW TO PROPOSED SANITARY PUMP.
- 7 MAINTAIN AND PROTECT EXISTING WATER SERVICE, METER, AND BACKFLOW PREVENTER DURING CONSTRUCTION.
- 8 COORDINATE WITH UTILITY PROVIDER FOR REMOVAL OF UTILITY POLE AND OVERHEAD UTILITY LINES. PROVIDE REASONABLE LEAD-TIMES AS NEEDED FOR WORK BY OTHERS.
- 9 SEE GRADING PLAN FOR NEW CLEARING LIMITS.
- 10 MAINTAIN EXISTING SCHOOL BUILDINGS AND OPERATIONS DURING CONSTRUCTION.

**REFERENCES:**  
 1. REFER TO DRAWING SHEET C1.2 FOR NOTES AND SPECIFICATIONS RELEVANT TO WORK SHOWN ON THIS SHEET.

**811**  
 Know what's below.  
 Call before you dig.  
 (Or call: 1-800-632-4949)





**ASCEND LEADERSHIP  
 ACADEMY EXPANSION**  
 LEE COUNTY, NORTH CAROLINA  
**SITE LAYOUT  
 PLAN**

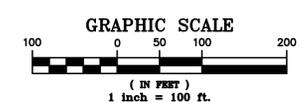
REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019  
 THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.  
 COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

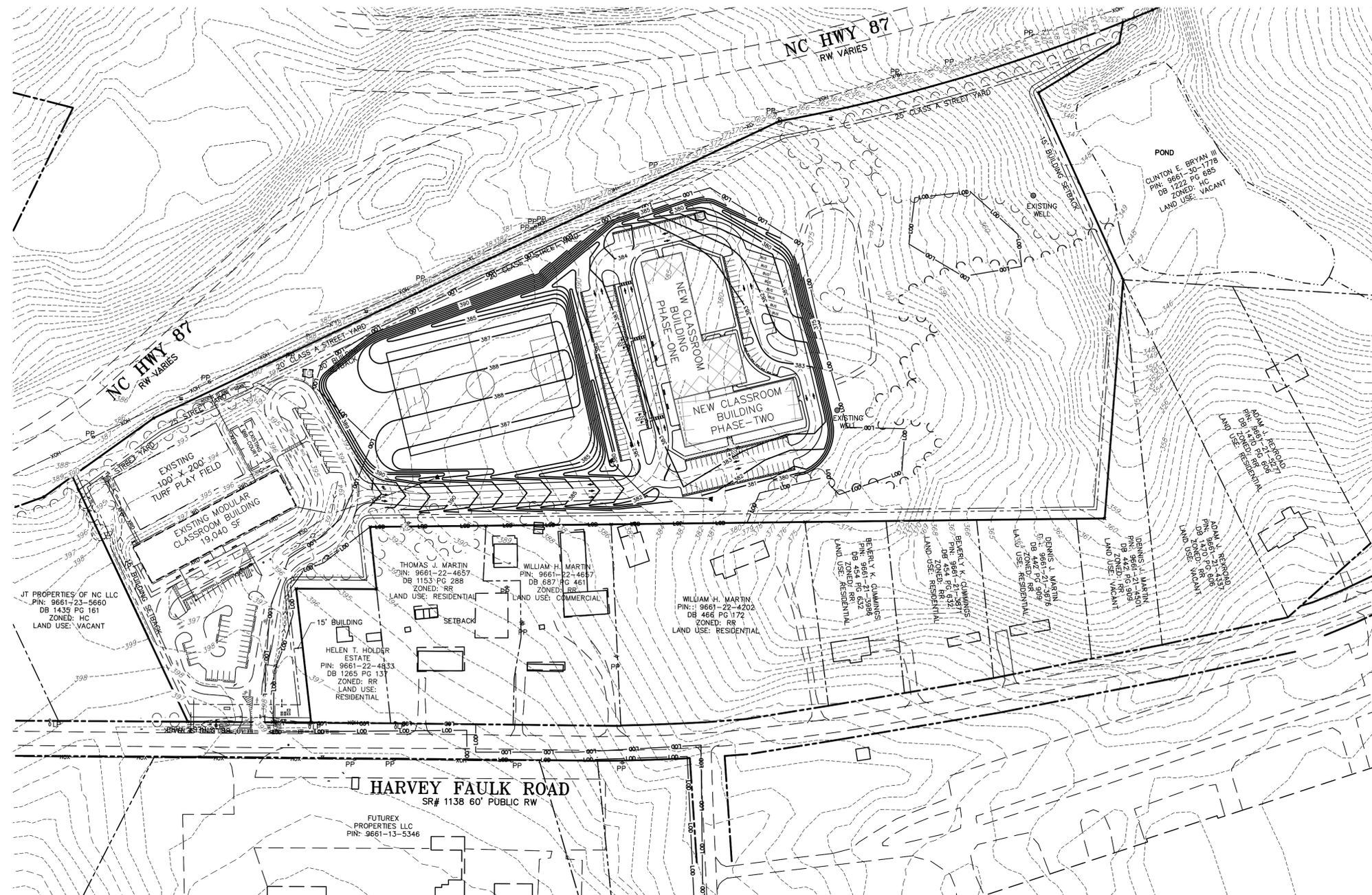
SHEET NO.  
**C3.1**



Know what's below.  
 Call before you dig.  
 (Or call: 1-800-632-4949)







NC GRID NORTH  
NAD 83/2011



**ASCEND LEADERSHIP  
ACADEMY EXPANSION**  
LEE COUNTY, NORTH CAROLINA  
**GRADING AND STORM  
DRAINAGE PLAN**

REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019

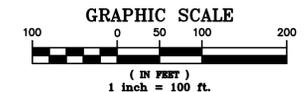
THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.

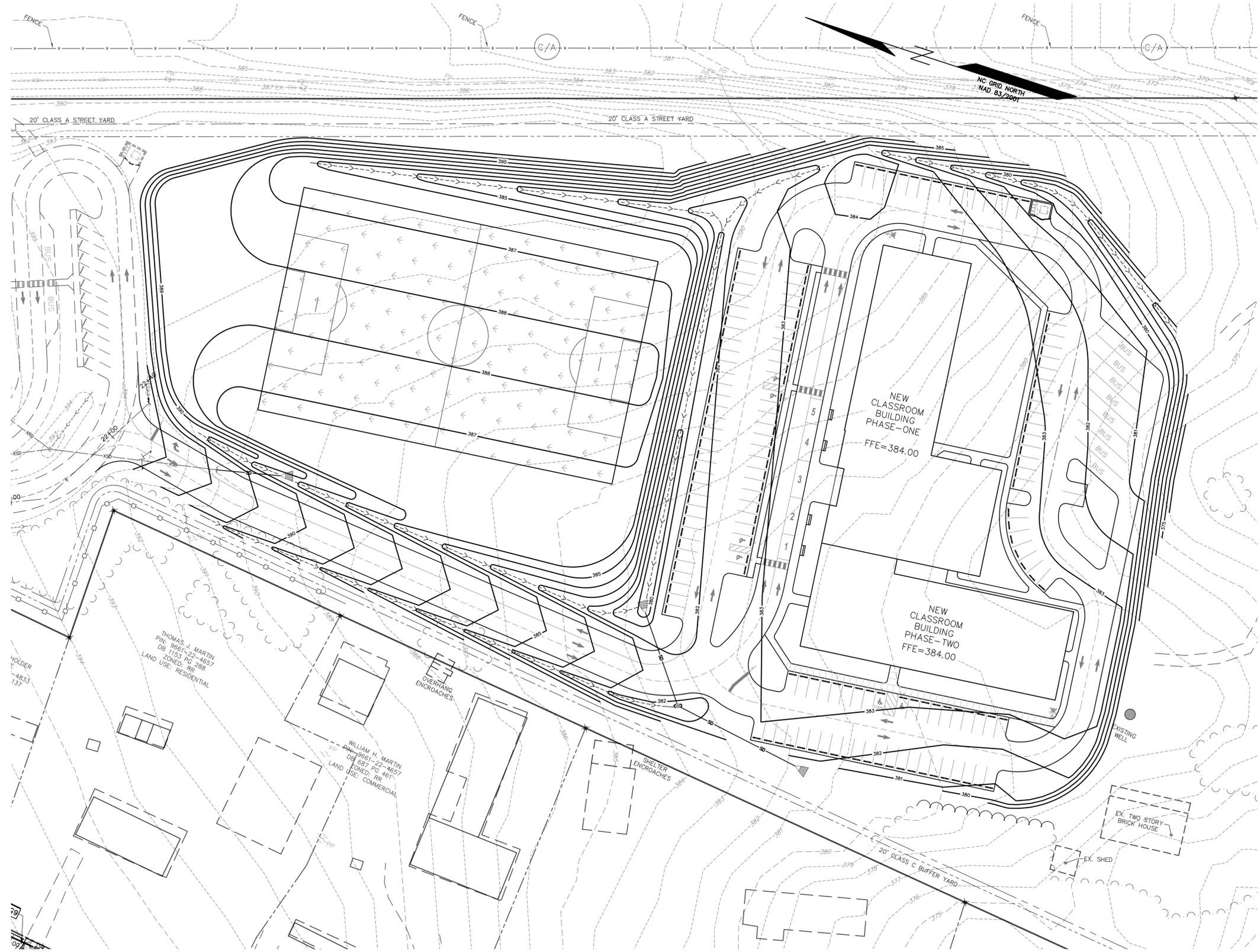
COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

SHEET NO.  
**C4.1**



Know what's below.  
Call before you dig.  
(Or call: 1-800-632-4949)





**ASCEND LEADERSHIP  
 ACADEMY EXPANSION**  
 LEE COUNTY, NORTH CAROLINA  
**ENLARGED GRADING AND  
 STORM DRAINAGE PLAN**

REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019

THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.

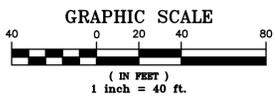
COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

- REFERENCES:**
- REFER TO DRAWING SHEET C1.2 FOR NOTES AND SPECIFICATIONS RELEVANT TO WORK SHOWN ON THIS SHEET.
  - REFER TO DETAIL DRAWING SHEETS FOR CONSTRUCTION DETAILS RELEVANT TO WORK SHOWN ON THIS SHEET.

**NOTE:**  
 1. CONNECT ALL BUILDING DOWN SPOUTS TO ROOF DRAINAGE PIPING.



Know what's below.  
 Call before you dig.  
 (Or call: 1-800-632-4949)



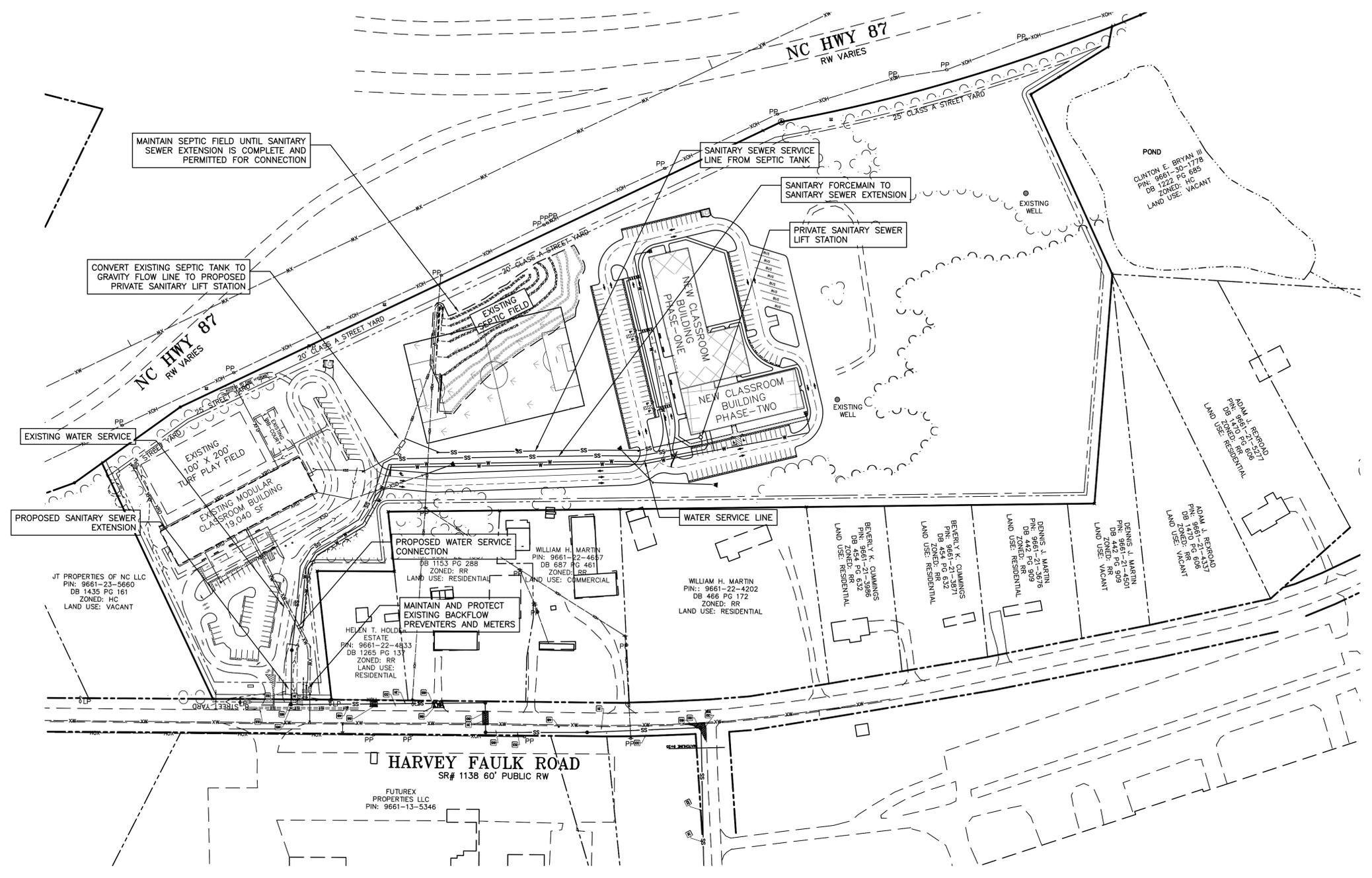


**ASCEND LEADERSHIP  
 ACADEMY EXPANSION**  
 LEE COUNTY, NORTH CAROLINA  
**OVERALL UTILITY  
 PLAN**

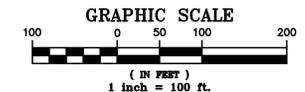
REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019  
 THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.  
 COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

SHEET NO.  
**C6.1**

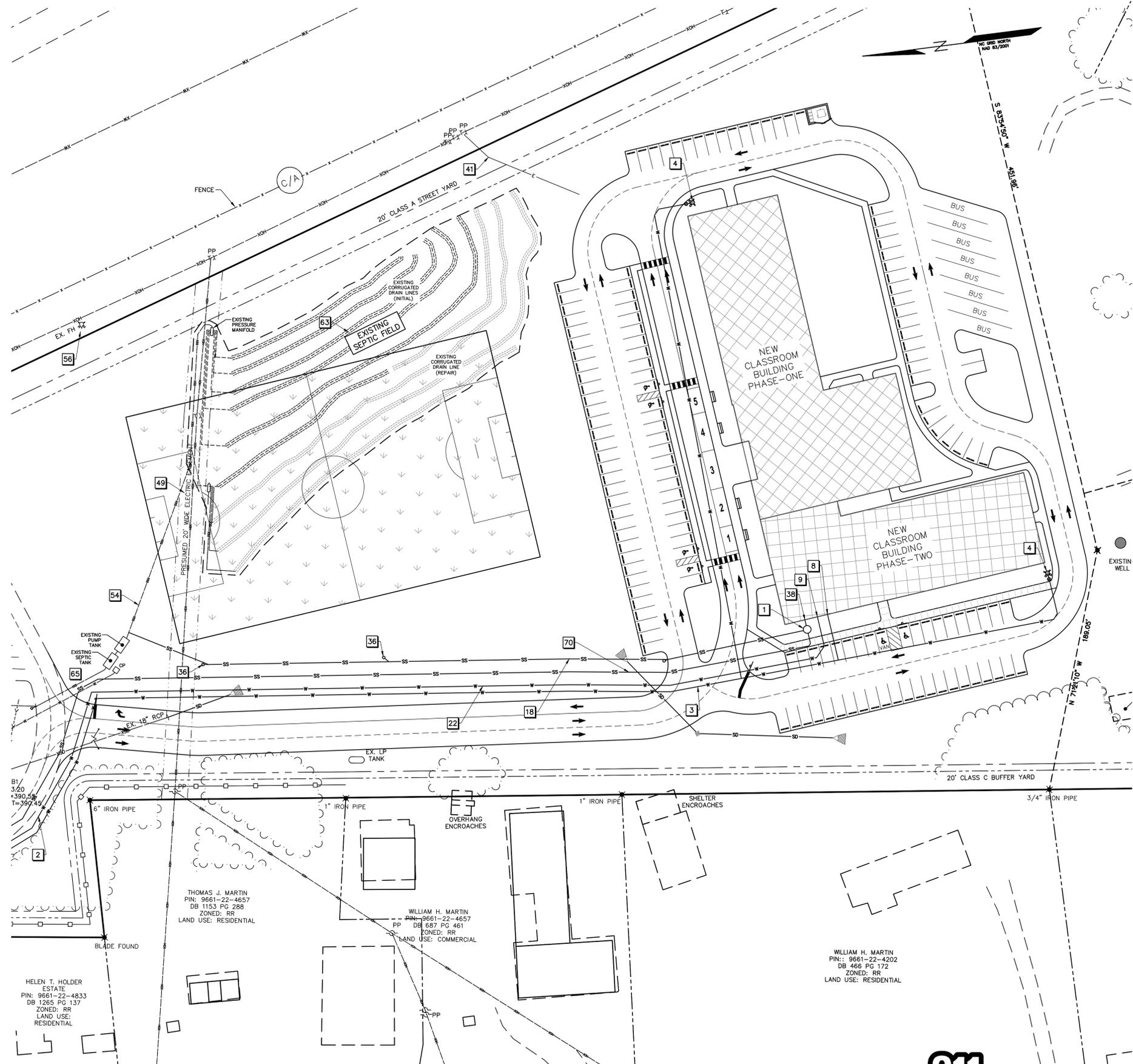


Know what's below.  
 Call before you dig.  
 (Or call: 1-800-632-4949)



**KEY**      **KEYED NOTES – UTILITY PLAN**

- 1 PRIVATE SANITARY SEWER LIFT STATION, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- 2 CONNECT TO EXISTING 3" PVC WATERLINE BY CUTTING IN A 3" X 3" MJ TEE, WITH THRUST RESTRAINT. VERIFY EXISTING PIPE SIZE AND MATERIAL, AND PROVIDE SUITABLE MATERIALS FOR THE CONNECTION. INSTALL TEE WITH AT LEAST 24" SEPARATION FROM ANY JOINT, BELL, FITTING, OR TAP. PRIOR TO INTERRUPTING WATER SERVICE, NOTIFY AND COORDINATE WITH ALL IMPACTED WATER CUSTOMERS AS REQUIRED BY THE WATER AUTHORITY. PROVIDE TESTING, FLUSHING, AND DISINFECTION AS REQUIRED BY THE WATER AUTHORITY. RESTORE SERVICE AS SOON AS PRACTICAL AFTER COMPLETION OF THE CONNECTION.
- 3 PRIVATE 6" DIAMETER DUCTILE IRON WATERLINE. PROVIDE MINIMUM 36" COVER TO FINISHED GRADE.
- 4 PROPOSED FIRE HYDRANT WITH 6" GATE VALVE.
- 8 INSTALL WATERLINE UNDER BUILDING FOOTING AND TURN UP WITH MJ ELBOW AND CONNECT TO FIRE PROTECTION SPRINKLER RISER. USE MEGA-LUG JOINT RESTRAINTS AT ALL BENDS.
- 9 INSTALL DOMESTIC WATER SERVICE IN D.I. SLEEVE THROUGH FOUNDATION WALL OR UNDER FOOTING. TURN UP AND ROUTE TO WATER SUPPLY CONNECTION POINTS PER NC PLUMBING CODE REQUIREMENTS. PROVIDE JOINT RESTRAINTS AT ALL BENDS.
- 18 4" PVC SANITARY SEWER SERVICE LINE
- 22 PRIVATE 3" POLYETHYLENE PR 200 DOMESTIC WATER SERVICE LINE FROM EXISTING WATER SERVICE TO BUILDING. PROVIDE 36" COVER TO FINISHED GRADE.
- 36 4" PVC SANITARY SEWER CLEANOUT ASSEMBLY WITH CONCRETE COLLAR. MINIMALLY PROVIDE SPACING AND LOCATIONS AS SHOWN. PROVIDE ADDITIONAL CLEANOUT ASSEMBLIES IF REQUIRED BY NC PLUMBING CODE.
- 38 INSTALL SANITARY SEWER SERVICE PIPE IN D.I. SLEEVE THROUGH FOUNDATION WALL OR UNDER FOOTING. ROUTE TO SANITARY SEWER CONNECTION POINT(S) UNDER BUILDING PER NC PLUMBING CODE REQUIREMENTS. MAINTAIN MINIMUM SLOPE OF 1/8 INCH PER FOOT.
- 41 UNDERGROUND ELECTRIC SERVICE LINE WITH TRANSFORMER AND METER BASE, SHOWN SCHEMATICALLY. CONTRACTOR SHALL MAKE APPLICATION FOR ELECTRIC SERVICE. COORDINATE INSTALLATION, AND PROVIDE ALL MATERIALS AND WORK NOT PROVIDED BY THE ELECTRIC SERVICE PROVIDER. VERIFY ROUTING AND TRANSFORMER LOCATION WITH SERVICE PROVIDER AND SITE ENGINEER. VERIFY SERVICE TYPE, VOLTAGE, PHASE, AND LOAD REQUIREMENTS WITH SERVICE PROVIDER AND ELECTRICAL DESIGNER.
- 49 COORDINATE WITH UTILITY PROVIDERS FOR REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES, LINES, AND DEVICES AS NEEDED (SEE DEMOLITION PLAN). ACCOUNT FOR REASONABLE LEAD TIMES FOR WORK BY OTHERS.
- 54 ABANDON EXISTING SEPTIC SYSTEM.
- 56 APPROXIMATE LOCATION OF EXISTING FIRE HYDRANT.
- 63 ONSITE WASTEWATER SYSTEM DRAIN FIELD (APPROXIMATE LOCATION).
- 65 PRIOR TO UTILITY INSTALLATION, FIELD DETERMINE LOCATIONS AND ELEVATIONS OF BURIED UTILITIES OR OTHER FEATURES THAT WILL BE CROSSED BY THE NEW UTILITY. VERIFY THAT ADEQUATE CLEARANCES (AND SLOPES, IF APPLICABLE) WILL BE MAINTAINED. CONSULT ENGINEER AS NEEDED TO RESOLVE ANY NON-CONFORMING CONDITIONS.
- 70 INSTALL SERVICE LINES UNDERNEATH THE STORM DRAIN LINE WITH CLEARANCES AS REQUIRED ON SHEET C1.2.

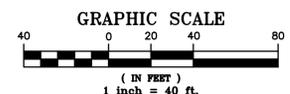


**REFERENCES:**

- 1. REFER TO DRAWING SHEET C1.2 FOR NOTES AND SPECIFICATIONS RELEVANT TO WORK SHOWN ON THIS SHEET.
- 2. REFER TO DETAIL DRAWING SHEETS FOR CONSTRUCTION DETAILS RELEVANT TO WORK SHOWN ON THIS SHEET.



Know what's below.  
Call before you dig.  
(Or call: 1-800-632-4949)



**ASCEND LEADERSHIP  
ACADEMY EXPANSION**  
LEE COUNTY, NORTH CAROLINA  
**ENLARGED UTILITY  
PLAN**

REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019

THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.

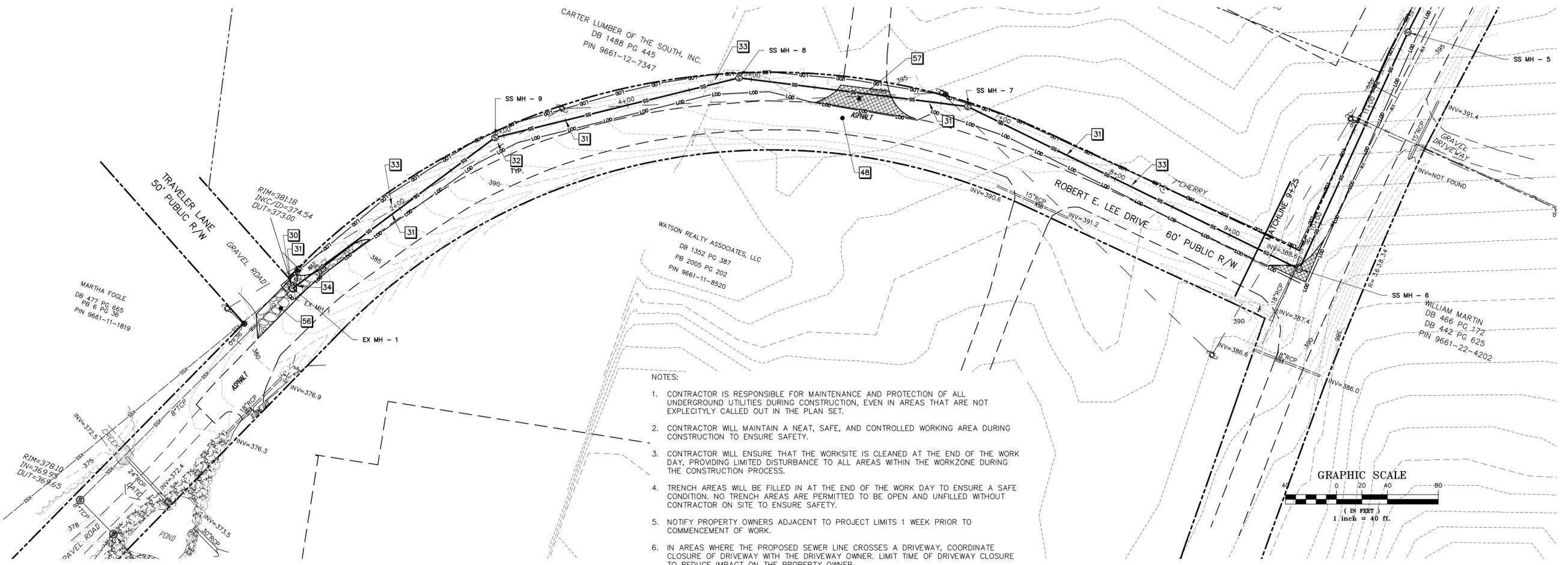
COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

SHEET NO.

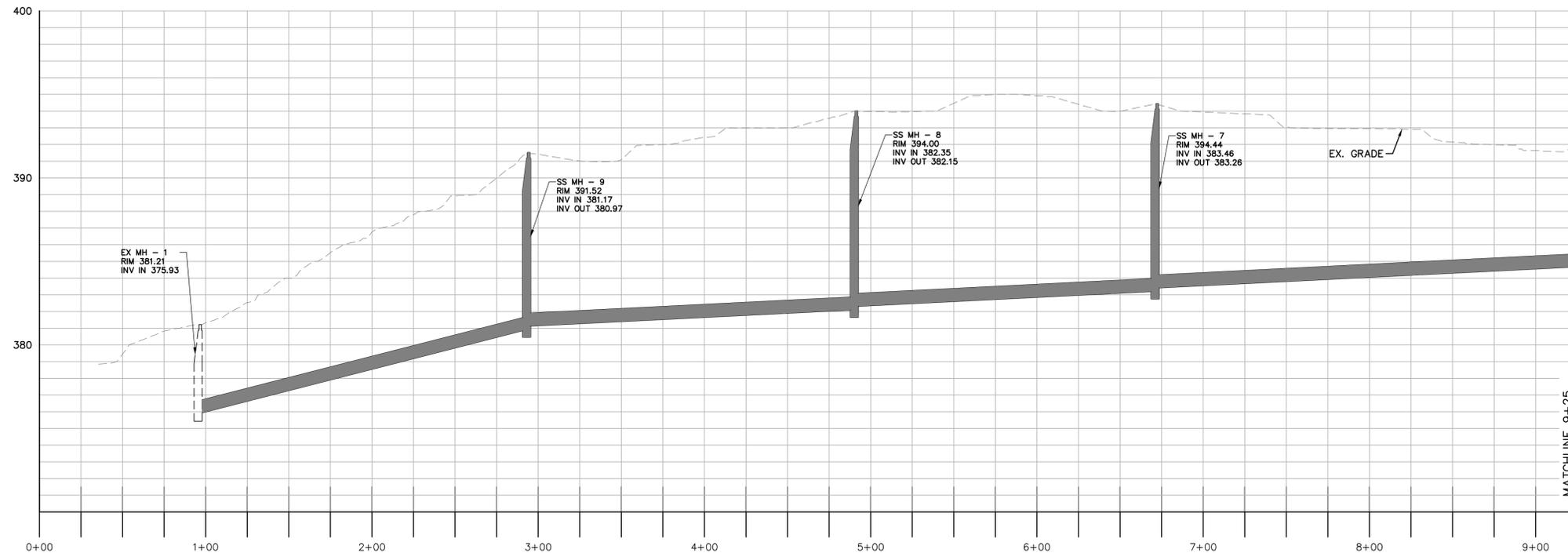
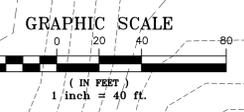
**C6.2**



**ASCEND LEADERSHIP  
 ACADEMY EXPANSION**  
 LEE COUNTY, NORTH CAROLINA  
**SANITARY SEWER EXTENSION  
 PLAN AND PROFILE**



- NOTES:
- CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF ALL UNDERGROUND UTILITIES DURING CONSTRUCTION, EVEN IN AREAS THAT ARE NOT EXPLICITLY CALLED OUT IN THE PLAN SET.
  - CONTRACTOR WILL MAINTAIN A NEAT, SAFE, AND CONTROLLED WORKING AREA DURING CONSTRUCTION TO ENSURE SAFETY.
  - CONTRACTOR WILL ENSURE THAT THE WORKSITE IS CLEANED AT THE END OF THE WORK DAY, PROVIDING LIMITED DISTURBANCE TO ALL AREAS WITHIN THE WORKZONE DURING THE CONSTRUCTION PROCESS.
  - TRENCH AREAS WILL BE FILLED IN AT THE END OF THE WORK DAY TO ENSURE A SAFE CONDITION. NO TRENCH AREAS ARE PERMITTED TO BE OPEN AND UNFILLED WITHOUT CONTRACTOR ON SITE TO ENSURE SAFETY.
  - NOTIFY PROPERTY OWNERS ADJACENT TO PROJECT LIMITS 1 WEEK PRIOR TO COMMENCEMENT OF WORK.
  - IN AREAS WHERE THE PROPOSED SEWER LINE CROSSSES A DRIVEWAY, COORDINATE CLOSURE OF DRIVEWAY WITH THE DRIVEWAY OWNER. LIMIT TIME OF DRIVEWAY CLOSURE TO REDUCE IMPACT ON THE PROPERTY OWNER.



PROPOSED GRADE: ———  
 EXISTING GRADE: - - - - -  
 PROPOSED GRADE: — L — — L — — L — —  
 PROPOSED GRADE: — R — — R — — R — —

SCALE:  
 HORIZONTAL: 1" = 40'  
 VERTICAL: 1" = 4'

KEY	KEYED NOTES – UTILITY PLAN
30	MAINTAIN AND PROTECT EXISTING SANITARY SEWER STRUCTURE AND PIPES DURING CONSTRUCTION.
31	8" DIAMETER DUCTILE IRON SANITARY SEWER MAIN. INSTALLED PER THE CITY OF SANFORD'S STANDARD SPECIFICATIONS.
32	4" DIAMETER SANITARY SEWER MANHOLE, BUILT IN ACCORDANCE WITH CITY OF SANFORD'S STANDARDS.
33	REGRADE, RESEED, AND REESTABLISH EXISTING DITCH LINE TO MATCH EXISTING CONDITIONS PRIOR TO CONSTRUCTION. ENSURE A DRAINAGE PATH IS ESTABLISHED AFTER CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE WITHIN THE DITCH LINE. AFTER REGRADE, INSTALL ROLLMAX S75BN, TO ENSURE REESTABLISHMENT OF GRASS IN DITCHLINE.
34	CONNECT TO EXISTING SANITARY MANHOLE USING NEW FLEXIBLE BOOT. CORE-DRILL MANHOLE AND INSTALL BOOT PER INSPECTOR'S REQUIREMENTS.
35	4" DUCTILE IRON SANITARY SEWER SERVICE LINE INSTALLED IN ACCORDANCE WITH THE NC PLUMBING CODE. MAINTAIN MINIMUM SLOPE OF 1/8 INCH PER FOOT.
36	4" PVC SANITARY SEWER CLEANOUT ASSEMBLY WITH CONCRETE COLLAR. MINIMALLY PROVIDE SPACING AND LOCATIONS AS SHOWN. PROVIDE ADDITIONAL CLEANOUT ASSEMBLIES IF REQUIRED BY NC PLUMBING CODE.
37	CONNECT TO EXISTING 4" SEWER SERVICE LINE. PROVIDE VERTICAL CONNECTION POINT TO MAINTAIN MINIMUM SLOPES FOR SANITARY SERVICE LINE SPECIFIED IN KEY NOTE 35.
38	NOT USED.
48	PROVIDE ADEQUATE TRAFFIC CONTROL AND SAFETY MEASURES FOR PUBLIC AND WORKER SAFETY DURING ALL PHASES OF THE WORK FOR THE ENTIRE LENGTH OF THE PROJECT. CONFORM TO STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD, AND REQUIREMENTS OF APPLICABLE ROADWAY AUTHORITIES.
50	PAVEMENT CUT AND PATCH AS NEEDED FOR UTILITY LINE INSTALLATION. CONFORM TO ALL RIGHT-OF-WAY ENCROACHMENT CONDITIONS WHEN IN THE PUBLIC RIGHT-OF-WAY. SEAL PAVEMENT JOINT AFTER PAVING.
52	20' WIDE PUBLIC SANITARY SEWER EASEMENT
53	APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITY SERVICE. VERIFY LOCATION WITH PROVIDER. MAINTAIN AND PROTECT SERVICE LINE THROUGH CONSTRUCTION.
54	APPROXIMATE LOCATION OF EXISTING WATER MAIN.
56	REHABILITATE EXISTING GRAVEL DRIVEWAY.
57	REHABILITATE EXISTING ASPHALT DRIVEWAY.
65	PRIOR TO UTILITY INSTALLATION, FIELD DETERMINE LOCATIONS AND ELEVATIONS OF BURIED UTILITIES OR OTHER FEATURES THAT WILL BE CROSSED BY THE NEW UTILITY. VERIFY THAT ADEQUATE CLEARANCES (AND SLOPES, IF APPLICABLE) WILL BE MAINTAINED. CONSULT ENGINEER AS NEEDED TO RESOLVE ANY NON-CONFORMING CONDITIONS.

REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019

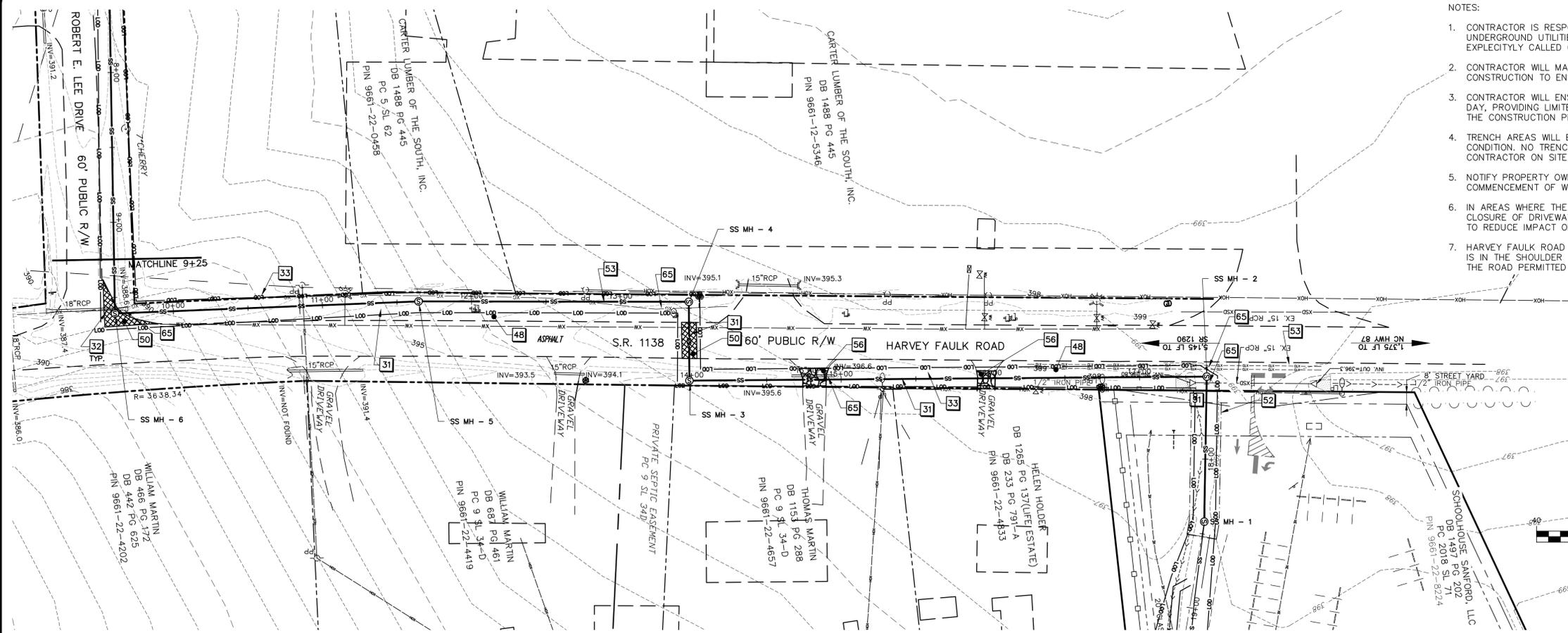
THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.

COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

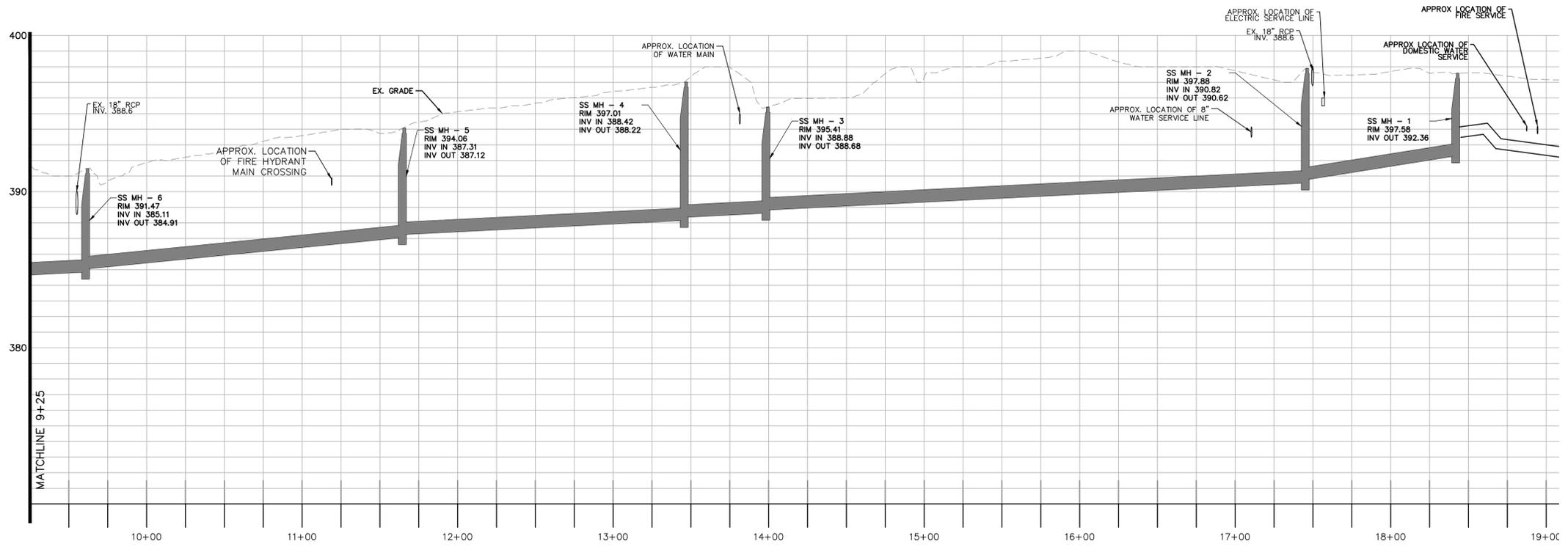
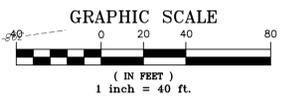


**PRELIMINARY  
 DO NOT USE FOR  
 CONSTRUCTION**

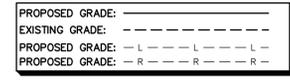
SHEET NO.  
**C6.4**



- NOTES:
- CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF ALL UNDERGROUND UTILITIES DURING CONSTRUCTION, EVEN IN AREAS THAT ARE NOT EXPLICITLY CALLED OUT IN THE PLAN SET.
  - CONTRACTOR WILL MAINTAIN A NEAT, SAFE, AND CONTROLLED WORKING AREA DURING CONSTRUCTION TO ENSURE SAFETY.
  - CONTRACTOR WILL ENSURE THAT THE WORKSITE IS CLEANED AT THE END OF THE WORK DAY, PROVIDING LIMITED DISTURBANCE TO ALL AREAS WITHIN THE WORKZONE DURING THE CONSTRUCTION PROCESS.
  - TRENCH AREAS WILL BE FILLED IN AT THE END OF THE WORK DAY TO ENSURE A SAFE CONDITION. NO TRENCH AREAS ARE PERMITTED TO BE OPEN AND UNFILLED WITHOUT CONTRACTOR ON SITE TO ENSURE SAFETY.
  - NOTIFY PROPERTY OWNERS ADJACENT TO PROJECT LIMITS 1 WEEK PRIOR TO COMMENCEMENT OF WORK.
  - IN AREAS WHERE THE PROPOSED SEWER LINE CROSSES A DRIVEWAY, COORDINATE CLOSURE OF DRIVEWAY WITH THE DRIVEWAY OWNER. LIMIT TIME OF DRIVEWAY CLOSURE TO REDUCE IMPACT ON THE PROPERTY OWNER.
  - HARVEY FAULK ROAD SHALL REMAIN OPEN DURING CONSTRUCTION WHEN CONSTRUCTION IS IN THE SHOULDER AND DITCHLINE ADJACENT TO THE ROAD. THE ONLY CLOSURE OF THE ROAD PERMITTED IS WHEN THE SEWER CROSSES THE ROAD AT STATION 13+25.



- KEY**      **KEYED NOTES – UTILITY PLAN**
- 50 MAINTAIN AND PROTECT EXISTING SANITARY SEWER STRUCTURE AND PIPES DURING CONSTRUCTION.
  - 31 8" DIAMETER DUCTILE IRON SANITARY SEWER MAIN. INSTALLED PER THE CITY OF SANFORD'S STANDARD SPECIFICATIONS.
  - 32 4" DIAMETER SANITARY SEWER MANHOLE, BUILT IN ACCORDANCE WITH CITY OF SANFORD'S STANDARDS.
  - 33 REGRADE, RESEED, AND REESTABLISH EXISTING DITCH LINE TO MATCH EXISTING CONDITIONS PRIOR TO CONSTRUCTION. ENSURE A DRAINAGE PATH IS ESTABLISHED AFTER CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE WITHIN THE DITCH LINE. AFTER REGRADING, INSTALL ROLLMAX S758N, TO ENSURE REESTABLISHMENT OF GRASS IN DITCHLINE.
  - 34 CONNECT TO EXISTING SANITARY MANHOLE USING NEW FLEXIBLE BOOT. CORE-DRILL MANHOLE AND INSTALL BOOT PER INSPECTOR'S REQUIREMENTS.
  - 35 4" DUCTILE IRON SANITARY SEWER SERVICE LINE INSTALLED IN ACCORDANCE WITH THE NC PLUMBING CODE. MAINTAIN MINIMUM SLOPE OF 1/8 INCH PER FOOT.
  - 36 4" PVC SANITARY SEWER CLEANOUT ASSEMBLY WITH CONCRETE COLLAR. MINIMALLY PROVIDE SPACING AND LOCATIONS AS SHOWN. PROVIDE ADDITIONAL CLEANOUT ASSEMBLIES IF REQUIRED BY NC PLUMBING CODE.
  - 37 CONNECT TO EXISTING 4" SEWER SERVICE LINE. PROVIDE VERTICAL CONNECTION POINT TO MAINTAIN MINIMUM SLOPES FOR SANITARY SERVICE LINE SPECIFIED IN KEY NOTE 35.
  - 38 NOT USED.
  - 48 PROVIDE ADEQUATE TRAFFIC CONTROL AND SAFETY MEASURES FOR PUBLIC AND WORKER SAFETY DURING ALL PHASES OF THE WORK FOR THE ENTIRE LENGTH OF THE PROJECT. CONFORM TO STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD, AND REQUIREMENTS OF APPLICABLE ROADWAY AUTHORITIES.
  - 50 PAVEMENT CUT AND PATCH AS NEEDED FOR UTILITY LINE INSTALLATION. CONFORM TO ALL RIGHT-OF-WAY ENCROACHMENT CONDITIONS WHEN IN THE PUBLIC RIGHT-OF-WAY. SEAL PAVEMENT JOINT AFTER PAVING.
  - 52 20' WDE PUBLIC SANITARY SEWER EASEMENT
  - 53 APPROXIMATE LOCATION OF EXISTING UNDERGROUND UTILITY SERVICE. VERIFY LOCATION WITH PROVIDER. MAINTAIN AND PROTECT SERVICE LINE THROUGH CONSTRUCTION.
  - 54 APPROXIMATE LOCATION OF EXISTING WATER MAIN.
  - 56 REHABILITATE EXISTING GRAVEL DRIVEWAY.
  - 57 REHABILITATE EXISTING ASPHALT DRIVEWAY.
  - 65 PRIOR TO UTILITY INSTALLATION, FIELD DETERMINE LOCATIONS AND ELEVATIONS OF BURIED UTILITIES OR OTHER FEATURES THAT WILL BE CROSSED BY THE NEW UTILITY. VERIFY THAT ADEQUATE CLEARANCES (AND SLOPES, IF APPLICABLE) WILL BE MAINTAINED. CONSULT ENGINEER AS NEEDED TO RESOLVE ANY NON-CONFORMING CONDITIONS.



SCALE:  
HORIZONTAL: 1" = 40'  
VERTICAL: 1" = 4'



**PRELIMINARY  
DO NOT USE FOR  
CONSTRUCTION**

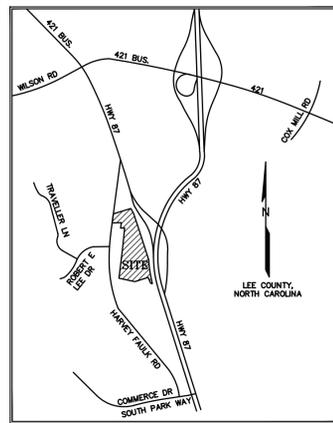


**ASCEND LEADERSHIP  
ACADEMY EXPANSION**  
LEE COUNTY, NORTH CAROLINA  
**SANITARY SEWER EXTENSION  
PLAN AND PROFILE**

REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019  
THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.





VICINITY MAP

**MAINTENANCE PLAN**

- CHECK ALL EROSION AND SEDIMENT CONTROL PRACTICES FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL PRODUCING RUNOFF BUT IN NO CASE LESS THAN ONCE EVERY WEEK. MAKE ANY NEEDED REPAIRS IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. FOLLOW ALL REQUIREMENTS OF NPDES PHASE II PERMIT.
- REMOVE SEDIMENT FROM BEHIND CHECK DAMS AND STONE FILTERS WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. CLEAN OR REPLACE GRAVEL ON OUTLETS WHEN WATER POOLS AND IS NO LONGER DRAINING PROPERLY.
- FERTILIZE ALL SEEDED AREAS, RESEED AS NECESSARY, AND MULCH ACCORDING TO THE SEEDING SCHEDULE TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
- RE-WORK DEVICES AND MEASURES, INCLUDING REMOVAL, RE-CONSTRUCTION, AND/OR RELOCATION AS NEEDED DURING THE PROGRESS OF WORK TO ACCOMMODATE CHANGING TOPOGRAPHIC CONDITIONS, SURFACE RUNOFF PATTERNS, INSTALLATIONS OF OTHER WORK, ETC.

**GROUND COVER NOTE:**

THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 15 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION



**EROSION CONTROL LEGEND**

- NEW
- DRAINAGE STRUCTURE: [Symbol]
  - CLEARING LIMIT/TREE LINE: [Symbol]
  - BLOCK & GRAVEL INLET PROTECTION: [Symbol]
  - STANDARD SILT FENCE: [Symbol]
  - LIMIT OF DISTURBANCE: [Symbol]
  - TEMPORARY DIVERSION DITCH: [Symbol]
  - STRAW WATTLE CHECK DAM: [Symbol]
  - TEMPORARY SEEDING: [Symbol]
  - PERMANENT SEEDING: [Symbol]
  - SILT FENCE OUTLET (SFO): [Symbol]

**PROJECT INFORMATION**

**PROJECT DESCRIPTION:**  
THE PURPOSE OF THE PROJECT IS TO CONSTRUCT A NEW PUBLIC CHARTER SCHOOL. APPROXIMATELY 10.27 ACRES WILL BE DISTURBED DURING THIS CONSTRUCTION PERIOD. THE SITE IS LOCATED IN LEE COUNTY, NORTH CAROLINA ALONG HARVEY FAULK ROAD.

**SITE DESCRIPTION:**  
CURRENT LAND USE IS A CHARTER SCHOOL. THE SITE HAS RELATIVELY FLAT TOPOGRAPHY WITH SLOPES ABOUT 2%. THE SITE IS PRIMARILY OPEN FIELD AND PARTIALLY WOODED. ON-SITE SOILS ARE DOTHAN SANDY LOAM.

HIGHWAY 87 ADJOINS THE SITE TO THE EAST AND A VACANT PROPERTY IS LOCATED TO THE NORTH. THE SITE IS BOUNDED BY RESIDENTIAL ZONED PROPERTIES TO THE SOUTH. ACCESS TO THE PROPERTY IS ALONG HARVEY FAULK ROAD WHICH BOUNDS THE SITE TO THE WEST.

**EROSION AND SEDIMENT CONTROL NOTES:**

- PLAN APPROVAL WILL BE FROM THE LAND QUALITY SECTION OF THE RALEIGH REGIONAL OFFICE OF THE DEQM.
- PERSONS RESPONSIBLE FOR LAND DISTURBING ACTIVITIES LARGER THAN ONE ACRE MUST CONDUCT INSPECTIONS AND PARTICIPATE IN THE EROSION CONTROL SELF-MONITORING PROGRAM. INSPECTIONS OF THE PROJECT ARE TO BE COMPLETED AFTER EACH PHASE OF PROJECT WORK, AND DOCUMENTED. THE INSPECTION REPORTS SHALL BE DOCUMENTED ON FORMS PROVIDED BY DEQ (AVAILABLE AT <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>)
- EROSION CONTROL MEASURES INCLUDE A TEMPORARY CONSTRUCTION ENTRANCE/EXIT WHICH SHALL BE CONSTRUCTED AND MAINTAINED TO PREVENT CONSTRUCTION VEHICLES, SEDIMENT TRAPPING MEASURES, AND STABILIZATION OF DISTURBED AREAS WITHIN THE REQUIRED PERIOD AFTER COMPLETION OF ANY PHASE OF GRADING. STABILIZATION CONSISTS OF EITHER TEMPORARY COVER OR PERMANENT VEGETATION ON AREAS THAT ARE NOT SURFACED WITH PAVEMENT OR GRAVEL OR LANDSCAPE MULCH.

**EROSION CONTROL MAINTENANCE NOTES:**

- INSPECT AND MAINTAIN THE EROSION CONTROL MEASURES AFTER EVERY RAINFALL PRODUCING EVENT BUT IN NO CASE LESS THAN ONCE A WEEK. PROVIDE ANY MAINTENANCE OR ADJUSTMENTS NEEDED TO ENSURE THAT THE MEASURES FUNCTION PROPERLY AND TO ENSURE THAT SEDIMENT LADEN RUNOFF IS NOT LEAVING THE SITE.
- PREVENT DIRT, MUD AND CONSTRUCTION DEBRIS FROM BEING DEPOSITED ON PUBLIC AND ADJACENT ROADWAY SURFACES. IMMEDIATELY CLEAN ANY DRIVEWAY/ROADWAY SURFACES THAT ARE SOILED BY CONSTRUCTION ACTIVITIES.
- REMOVE SEDIMENT FROM SKIMMER BASINS, SEDIMENT OUTLETS, BLOCK AND GRAVEL INLET PROTECTION DEVICES AND DIRT BAGS ONCE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL WILL BE CLEANED OR REPLACED AS NECESSARY.
- SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FT DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.

**EROSION CONTROL CONSTRUCTION SEQUENCE**

- PHASE 1**
- OBTAIN ALL THE APPROVALS AND PERMITS NECESSARY TO BEGIN AND COMPLETE THE PROJECT. THESE APPROVALS AND PERMITS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: EROSION CONTROL PLANS APPROVAL, GRADING PERMIT, AND ZONING COMPLIANCE PERMIT.
  - CONTACT NC DEQ LAND QUALITY SECTION (RALEIGH REGIONAL OFFICE - 919-791-4200) AT LEAST 72 HOURS PRIOR TO PROJECT ACTIVATION TO SCHEDULE AND HOLD A PRECONSTRUCTION MEETING BEFORE STARTING ANY CLEARING OR GRADING. ATTENDEES SHALL INCLUDE THE OWNER, THE ENGINEER AND THE CONTRACTOR(S) RESPONSIBLE FOR LAND DISTURBANCE AND EROSION CONTROL.
  - INSTALL CONSTRUCTION ENTRANCE/EXIT AT LOCATION SHOWN ON PLAN.
  - PROVIDE LIMITED CLEARING AS NEEDED TO INSTALL SEDIMENT FENCING AND SEDIMENT OUTLETS AND TREE PROTECTION, THEN INSTALL THESE MEASURES AS SHOWN.
  - BEGIN CLEARING, GRUBBING AND STRIP TOPSOIL AS NEEDED FOR CONSTRUCTION OF SKIMMER BASIN #1 AND #2. COMPLETE BASIN INSTALLATION AND ATTACH DIRT BAGS OR APPROVED EQUIVALENT TO SKIMMER OUTLETS. THE SILT FENCING INTO SPILLWAY EDGES AS SHOWN. INSTALL TEMPORARY DIVERSIONS. CONSTRUCT CONCRETE WASH OUT AREA.
  - COMPLETE SITE CLEARING AND GRUBBING. STRIP TOPSOIL AND STOCKPILE OR PLACE IT IN THE AREA(S) SHOWN OR AS OTHERWISE AGREED. MAINTAIN TEMPORARY DIVERSIONS OR RE-CONSTRUCT DIVERSIONS AS NEEDED.
- PHASE 2**
- BEGIN DEMOLITION AND ROUGH GRADING THE SITE.
  - INSTALL THE STORM DRAINAGE SYSTEM AND UTILITIES. INSTALL INLET PROTECTION FOR DRAINAGE INLETS AS THEY ARE CONSTRUCTED. STORM DRAINAGE PIPING SHOULD BE DIRECTED TO THE SKIMMER BASINS UNTIL THE SITE IS STABILIZED AND THE SKIMMER BASINS ARE REMOVED.
  - CONSTRUCT RIP RAP APRONS.
  - BRING SITE UP TO FINAL GRADES. PLACE STONE BASE AND FIRST LIFT OF ASPHALT.
  - UPON INSTALLATION OF BUILDING FOUNDATION DRAINS, INSTALL TEMPORARY DIRT BAG OR APPROVED EQUIVALENT TO OUTLET OF DRAINAGE PIPE.
  - STABILIZE UNCOVERED GROUND SURFACES WITH VEGETATION OR LANDSCAPE MULCH ALLOWING RUNOFF TO DRAIN TO DESIGNATED AREAS. INSTALL TEMPORARY STRAW WATTLE CHECK DAMS IN PERMANENT SWALES.
  - STABILIZE ALL DISTURBED AREAS WITHIN THE REQUIRED TIMEFRAME FOR EACH TYPE AND AREA OF DISTURBANCE. SEE SURFACE STABILIZATION TIMEFRAMES.
- PHASE 3**
- WITH APPROVAL OF THE ENGINEER, DEWATER AND REMOVE SKIMMER SEDIMENT BASINS UTILIZING A DIRT BAG OR OTHER APPROVED METHOD. BACKFILL SKIMMER BASIN AREAS WITH SOIL FILL.
  - COMPLETE FINE-GRADING, FINAL ASPHALT PAVING AND CONCRETE FLATWORK.
  - SEED REMAINING DISTURBED AREAS PER THE PERMANENT VEGETATION SCHEDULE.
  - REMOVE SEDIMENT FENCE, SEDIMENT OUTLETS, STRAW WATTLES, DIRT BAGS AND TREE PROTECTION FENCING AND ALL OTHER TEMPORARY EROSION CONTROL DEVICES AND PROVIDE PERMANENT STABILIZATION FOR THOSE AREAS.

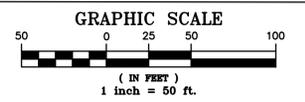
AREA TO BE STABILIZED WITH VEGETATION: 7.11 ACRES

DISTURBED AREA = 10.27 ACRES (447,506 SF)

SURFACE STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME*	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1 (H:V)	7 DAYS	IF SLOPES ARE 10 FEET OR LESS IN LENGTH AND NOT STEEPER THAN 2:1, 14 DAYS ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES

\*TIMEFRAME BEGINS ON THE DATE THAT LAND-DISTURBING ACTIVITY FOR THE INDICATED AREA OF THE SITE CEASES, WHETHER TEMPORARILY OR PERMANENTLY.

FINANCIALLY RESPONSIBLE PARTY:  
SCHOOLHOUSE SANFORD, LLC  
JIM WAY  
(801) 278-0800



**civil consultants**  
LAND PLANNERS + CIVIL ENGINEERS  
WWW.CIVIL-CONSULTANTS.COM  
3708 LYCKEAN PARKWAY - SUITE 201 - DURHAM, NC 27707  
919-490-1645 PHONE  
Lic. #C-1030



ASCEND LEADERSHIP  
ACADEMY EXPANSION  
LEE COUNTY, NORTH CAROLIAN  
PHASE 1 EROSION  
CONTROL PLAN

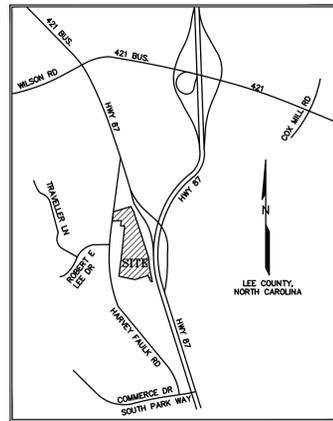
REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019

THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.

COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

SHEET NO.  
**C7.1**



VICINITY MAP

**MAINTENANCE PLAN**

- CHECK ALL EROSION AND SEDIMENT CONTROL PRACTICES FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL PRODUCING RUNOFF BUT IN NO CASE LESS THAN ONCE EVERY WEEK. MAKE ANY NEEDED REPAIRS IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. FOLLOW ALL REQUIREMENTS OF NPDES PHASE II PERMIT.
- REMOVE SEDIMENT FROM BEHIND CHECK DAMS AND STONE FILTERS WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. CLEAN OR REPLACE GRAVEL ON OUTLETS WHEN WATER POOLS AND IS NO LONGER DRAINING PROPERLY.
- FERTILIZE ALL SEEDED AREAS, RESEED AS NECESSARY, AND MULCH ACCORDING TO THE SEEDING SCHEDULE TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
- RE-WORK DEVICES AND MEASURES, INCLUDING REMOVAL, RE-CONSTRUCTION, AND/OR RELOCATION AS NEEDED DURING THE PROGRESS OF WORK TO ACCOMMODATE CHANGING TOPOGRAPHIC CONDITIONS, SURFACE RUNOFF PATTERNS, INSTALLATIONS OF OTHER WORK, ETC.

**GROUND COVER NOTE:**

THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 15 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION



**EROSION CONTROL LEGEND**

- NEW
- DRAINAGE STRUCTURE: [Symbol]
  - CLEARING LIMIT/TREE LINE: [Symbol]
  - BLOCK & GRAVEL INLET PROTECTION: [Symbol]
  - STANDARD SILT FENCE: [Symbol]
  - LIMIT OF DISTURBANCE: [Symbol]
  - TEMPORARY DIVERSION DITCH: [Symbol]
  - STRAW WATTLE CHECK DAM: [Symbol]
  - TEMPORARY SEEDING: [Symbol]
  - PERMANENT SEEDING: [Symbol]
  - SILT FENCE OUTLET (SFO): [Symbol]

**PROJECT INFORMATION**

**PROJECT DESCRIPTION:**  
THE PURPOSE OF THE PROJECT IS TO CONSTRUCT A NEW PUBLIC CHARTER SCHOOL. APPROXIMATELY 10.27 ACRES WILL BE DISTURBED DURING THIS CONSTRUCTION PERIOD. THE SITE IS LOCATED IN LEE COUNTY, NORTH CAROLINA ALONG HARVEY FAULK ROAD.

**SITE DESCRIPTION:**  
CURRENT LAND USE IS A CHARTER SCHOOL. THE SITE HAS RELATIVELY FLAT TOPOGRAPHY WITH SLOPES ABOUT 2%. THE SITE IS PRIMARILY OPEN FIELD AND PARTIALLY WOODED. ON-SITE SOILS ARE DOTHAN SANDY LOAM.

HIGHWAY 87 ADJOINS THE SITE TO THE EAST AND A VACANT PROPERTY IS LOCATED TO THE NORTH. THE SITE IS BOUNDED BY RESIDENTIAL ZONED PROPERTIES TO THE SOUTH. ACCESS TO THE PROPERTY IS ALONG HARVEY FAULK ROAD WHICH BOUNDS THE SITE TO THE WEST.

**EROSION AND SEDIMENT CONTROL NOTES:**

- PLAN APPROVAL WILL BE FROM THE LAND QUALITY SECTION OF THE RALEIGH REGIONAL OFFICE OF THE DEMUL.
- PERSONS RESPONSIBLE FOR LAND DISTURBING ACTIVITIES LARGER THAN ONE ACRE MUST CONDUCT INSPECTIONS AND PARTICIPATE IN THE EROSION CONTROL SELF-MONITORING PROGRAM. INSPECTIONS OF THE PROJECT ARE TO BE COMPLETED AFTER EACH PHASE OF PROJECT WORK, AND DOCUMENTED. THE INSPECTION REPORTS SHALL BE DOCUMENTED ON FORMS PROVIDED BY DEQ (AVAILABLE AT <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>)
- EROSION CONTROL MEASURES INCLUDE A TEMPORARY CONSTRUCTION ENTRANCE/EXIT WHICH CONSTRUCTION INGRESS AND EGRESS FOR ALL CONSTRUCTION VEHICLES, SEDIMENT TRAPPING MEASURES, AND STABILIZATION OF DISTURBED AREAS WITHIN THE REQUIRED PERIOD AFTER COMPLETION OF ANY PHASE OF GRADING. STABILIZATION CONSISTS OF EITHER TEMPORARY COVER OR PERMANENT VEGETATION ON AREAS THAT ARE NOT SURFACED WITH PAVEMENT OR GRAVEL OR LANDSCAPE MULCH.

**EROSION CONTROL MAINTENANCE NOTES:**

- INSPECT AND MAINTAIN THE EROSION CONTROL MEASURES AFTER EVERY RAINFALL PRODUCING EVENT BUT IN NO CASE LESS THAN ONCE A WEEK. PROVIDE ANY MAINTENANCE OR ADJUSTMENTS NEEDED TO ENSURE THAT THE MEASURES FUNCTION PROPERLY AND TO ENSURE THAT SEDIMENT LADEN RUNOFF IS NOT LEAVING THE SITE.
- PREVENT DIRT, MUD AND CONSTRUCTION DEBRIS FROM BEING DEPOSITED ON PUBLIC AND ADJACENT ROADWAY SURFACES. IMMEDIATELY CLEAN ANY DRIVEWAY/ROADWAY SURFACES THAT ARE SOILED BY CONSTRUCTION ACTIVITIES.
- REMOVE SEDIMENT FROM SKIMMER BASINS, SEDIMENT OUTLETS, BLOCK AND GRAVEL INLET PROTECTION DEVICES AND DIRT BAGS ONCE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL WILL BE CLEANED OR REPLACED AS NECESSARY.
- SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FT DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.

**EROSION CONTROL CONSTRUCTION SEQUENCE**

- PHASE 1**
- OBTAIN ALL THE APPROVALS AND PERMITS NECESSARY TO BEGIN AND COMPLETE THE PROJECT. THESE APPROVALS AND PERMITS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: EROSION CONTROL PLANS APPROVAL, GRADING PERMIT, AND ZONING COMPLIANCE PERMIT.
  - CONTACT NC DEQ LAND QUALITY SECTION (RALEIGH REGIONAL OFFICE - 919-791-4200) AT LEAST 72 HOURS PRIOR TO STARTING ACTIVATION TO SCHEDULE AND HOLD A PRECONSTRUCTION MEETING BEFORE STARTING ANY CLEARING OR GRADING. ATTENDEES SHALL INCLUDE THE OWNER, THE ENGINEER AND THE CONTRACTOR(S) RESPONSIBLE FOR LAND DISTURBANCE AND EROSION CONTROL.
  - INSTALL CONSTRUCTION ENTRANCE/EXIT AT LOCATION SHOWN ON PLAN.
  - PROVIDE LIMITED CLEARING AS NEEDED TO INSTALL SEDIMENT FENCING AND SEDIMENT OUTLETS AND TREE PROTECTION, THEN INSTALL THESE MEASURES AS SHOWN.
  - BEGIN CLEARING, GRUBBING AND STRIP TOPSOIL AS NEEDED FOR CONSTRUCTION OF SKIMMER BASIN #1 AND #2. COMPLETE BASIN INSTALLATION AND ATTACH DIRT BAGS OR APPROVED EQUIVALENT TO SKIMMER OUTLETS. THE SILT FENCING INTO SPILLWAY EDGES AS SHOWN. INSTALL TEMPORARY DIVERSIONS. CONSTRUCT CONCRETE WASH OUT AREA.
  - COMPLETE SITE CLEARING AND GRUBBING. STRIP TOPSOIL AND STOCKPILE OR PLACE IT IN THE AREA(S) SHOWN OR AS OTHERWISE AGREED. MAINTAIN TEMPORARY DIVERSIONS OR RE-CONSTRUCT DIVERSIONS AS NEEDED.
- PHASE 2**
- BEGIN DEMOLITION AND ROUGH GRADING THE SITE.
  - INSTALL THE STORM DRAINAGE SYSTEM AND UTILITIES. INSTALL INLET PROTECTION FOR DRAINAGE INLETS AS THEY ARE CONSTRUCTED. STORM DRAINAGE PIPING SHOULD BE DIRECTED TO THE SKIMMER BASINS UNTIL THE SITE IS STABILIZED AND THE SKIMMER BASINS ARE REMOVED.
  - CONSTRUCT RIP RAP APRONS.
  - BRING SITE UP TO FINAL GRADES. PLACE STONE BASE AND FIRST LIFT OF ASPHALT.
  - UPON INSTALLATION OF BUILDING FOUNDATION DRAINS, INSTALL TEMPORARY DIRT BAG OR APPROVED EQUIVALENT TO OUTLET OF DRAINAGE PIPE.
  - STABILIZE UNCOVERED GROUND SURFACES WITH VEGETATION OR LANDSCAPE MULCH ALLOWING RUNOFF TO DRAIN TO DESIGNATED AREAS. INSTALL TEMPORARY STRAW WATTLE CHECK DAMS IN PERMANENT SWALES.
  - STABILIZE ALL DISTURBED AREAS WITHIN THE REQUIRED TIMEFRAME FOR EACH TYPE AND AREA OF DISTURBANCE. SEE SURFACE STABILIZATION TIMEFRAMES.
- PHASE 3**
- WITH APPROVAL OF THE ENGINEER, DEWATER AND REMOVE SKIMMER SEDIMENT BASINS UTILIZING A DIRT BAG OR OTHER APPROVED METHOD. BACKFILL SKIMMER BASIN AREAS WITH SOIL FILL.
  - COMPLETE FINE-GRADING, FINAL ASPHALT PAVING AND CONCRETE FLATWORK.
  - SEED REMAINING DISTURBED AREAS PER THE PERMANENT VEGETATION SCHEDULE.
  - REMOVE SEDIMENT FENCE, SEDIMENT OUTLETS, STRAW WATTLES, DIRT BAGS AND TREE PROTECTION FENCING AND ALL OTHER TEMPORARY EROSION CONTROL DEVICES AND PROVIDE PERMANENT STABILIZATION FOR THOSE AREAS.

AREA TO BE STABILIZED WITH VEGETATION: 7.11 ACRES

DISTURBED AREA = 10.27 ACRES (447,506 SF)

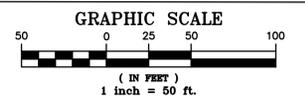
NOTE:  
EASEMENTS SHOWN HEREON SHALL NOT BE USED AS A BASIS FOR A LEGAL DESCRIPTION OR AS AN ATTACHMENT TO A DEED OF EASEMENT.



Know what's below.  
Call before you dig.  
(Or call: 1-800-632-4949)

SURFACE STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME*	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1 (H:V)	7 DAYS	IF SLOPES ARE 10 FEET OR LESS IN LENGTH AND NOT STEEPER THAN 2:1, 14 DAYS ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES

\*TIMEFRAME BEGINS ON THE DATE THAT LAND-DISTURBING ACTIVITY FOR THE INDICATED AREA OF THE SITE CEASES, WHETHER TEMPORARILY OR PERMANENTLY.



FINANCIALLY RESPONSIBLE PARTY:  
SCHOOLHOUSE SANFORD, LLC  
JIM WAY  
(801) 278-0800

**civil consultants**  
LAND PLANNERS + CIVIL ENGINEERS  
WWW.CIVIL-CONSULTANTS.COM  
3708 LYCKEAN PARKWAY - SUITE 201 - DURHAM, NC 27707  
919-490-1645 PHONE  
LIC. #C-1030

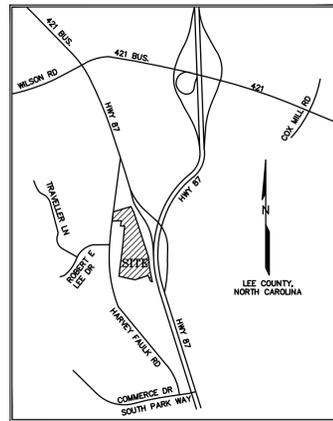


ASCEND LEADERSHIP  
ACADEMY EXPANSION  
LEE COUNTY, NORTH CAROLIAN  
PHASE 2 EROSION  
CONTROL PLAN

REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019  
THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.  
COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

SHEET NO.  
**C7.2**



VICINITY MAP

**MAINTENANCE PLAN**

- CHECK ALL EROSION AND SEDIMENT CONTROL PRACTICES FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL PRODUCING RUNOFF BUT IN NO CASE LESS THAN ONCE EVERY WEEK. MAKE ANY NEEDED REPAIRS IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. FOLLOW ALL REQUIREMENTS OF NPDES PHASE II PERMIT.
- REMOVE SEDIMENT FROM BEHIND CHECK DAMS AND STONE FILTERS WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. CLEAN OR REPLACE GRAVEL ON OUTLETS WHEN WATER POOLS AND IS NO LONGER DRAINING PROPERLY.
- FERTILIZE ALL SEEDED AREAS, RESEED AS NECESSARY, AND MULCH ACCORDING TO THE SEEDING SCHEDULE TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
- RE-WORK DEVICES AND MEASURES, INCLUDING REMOVAL, RE-CONSTRUCTION, AND/OR RELOCATION AS NEEDED DURING THE PROGRESS OF WORK TO ACCOMMODATE CHANGING TOPOGRAPHIC CONDITIONS, SURFACE RUNOFF PATTERNS, INSTALLATIONS OF OTHER WORK, ETC.

**GROUND COVER NOTE:**

THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 15 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION



**EROSION CONTROL LEGEND**

- NEW
- DRAINAGE STRUCTURE: [Symbol]
  - CLEARING LIMIT/TREE LINE: [Symbol]
  - BLOCK & GRAVEL INLET PROTECTION: [Symbol]
  - STANDARD SILT FENCE: [Symbol]
  - LIMIT OF DISTURBANCE: [Symbol]
  - TEMPORARY DIVERSION DITCH: [Symbol]
  - STRAW WATTLE CHECK DAM: [Symbol]
  - TEMPORARY SEEDING: [Symbol]
  - PERMANENT SEEDING: [Symbol]
  - SILT FENCE OUTLET (SFO): [Symbol]

**PROJECT INFORMATION**

**PROJECT DESCRIPTION:**  
THE PURPOSE OF THE PROJECT IS TO CONSTRUCT A NEW PUBLIC CHARTER SCHOOL. APPROXIMATELY 10.27 ACRES WILL BE DISTURBED DURING THIS CONSTRUCTION PERIOD. THE SITE IS LOCATED IN LEE COUNTY, NORTH CAROLINA ALONG HARVEY FAULK ROAD.

**SITE DESCRIPTION:**  
CURRENT LAND USE IS A CHARTER SCHOOL. THE SITE HAS RELATIVELY FLAT TOPOGRAPHY WITH SLOPES ABOUT 2%. THE SITE IS PRIMARILY OPEN FIELD AND PARTIALLY WOODED. ON-SITE SOILS ARE DOTHAN SANDY LOAM.

HIGHWAY 87 ADJOINS THE SITE TO THE EAST AND A VACANT PROPERTY IS LOCATED TO THE NORTH. THE SITE IS BOUNDED BY RESIDENTIAL ZONED PROPERTIES TO THE SOUTH. ACCESS TO THE PROPERTY IS ALONG HARVEY FAULK ROAD WHICH BOUNDS THE SITE TO THE WEST.

**EROSION AND SEDIMENT CONTROL NOTES:**

- PLAN APPROVAL WILL BE FROM THE LAND QUALITY SECTION OF THE RALEIGH REGIONAL OFFICE OF THE DEQ.
- PERSONS RESPONSIBLE FOR LAND DISTURBING ACTIVITIES LARGER THAN ONE ACRE MUST CONDUCT INSPECTIONS AND PARTICIPATE IN THE EROSION CONTROL SELF-MONITORING PROGRAM. INSPECTIONS OF THE PROJECT ARE TO BE COMPLETED AFTER EACH PHASE OF PROJECT WORK, AND COMMENTED THE IN WRITING. INSPECTION REPORTS SHALL BE DOCUMENTED ON FORMS PROVIDED BY DEQ (AVAILABLE AT <https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>)
- EROSION CONTROL MEASURES INCLUDE A TEMPORARY CONSTRUCTION ENTRANCE/EXIT WHICH WILL PROVIDE INGRESS AND EGRESS FOR ALL CONSTRUCTION VEHICLES, SEDIMENT TRAPPING MEASURES, AND STABILIZATION OF DISTURBED AREAS WITHIN THE REQUIRED PERIOD AFTER COMPLETION OF ANY PHASE OF GRADING. STABILIZATION CONSISTS OF EITHER TEMPORARY COVER OR PERMANENT VEGETATION ON AREAS THAT ARE NOT SURFACED WITH PAVEMENT OR GRAVEL OR LANDSCAPE MULCH.

**EROSION CONTROL MAINTENANCE NOTES:**

- INSPECT AND MAINTAIN THE EROSION CONTROL MEASURES AFTER EVERY RAINFALL PRODUCING EVENT BUT IN NO CASE LESS THAN ONCE A WEEK. PROVIDE ANY MAINTENANCE OR ADJUSTMENTS NEEDED TO ENSURE THAT THE MEASURES FUNCTION PROPERLY AND TO ENSURE THAT SEDIMENT LADEN RUNOFF IS NOT LEAVING THE SITE.
- PREVENT DIRT, MUD AND CONSTRUCTION DEBRIS FROM BEING DEPOSITED ON PUBLIC AND ADJACENT ROADWAY SURFACES. IMMEDIATELY CLEAN ANY DRIVEWAY/ROADWAY SURFACES THAT ARE SOILED BY CONSTRUCTION ACTIVITIES.
- REMOVE SEDIMENT FROM SKIMMER BASINS, SEDIMENT OUTLETS, BLOCK AND GRAVEL INLET PROTECTION DEVICES AND DIRT BAGS ONCE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. GRAVEL WILL BE CLEANED OR REPLACED AS NECESSARY.
- SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FT DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.

**EROSION CONTROL CONSTRUCTION SEQUENCE**

- PHASE 1**
- OBTAIN ALL THE APPROVALS AND PERMITS NECESSARY TO BEGIN AND COMPLETE THE PROJECT. THESE APPROVALS AND PERMITS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: EROSION CONTROL PLANS APPROVAL, GRADING PERMIT, AND ZONING COMPLIANCE PERMIT.
  - CONTACT NC DEQ LAND QUALITY SECTION (RALEIGH REGIONAL OFFICE - 919-791-4200) AT LEAST 72 HOURS PRIOR TO PROJECT ACTIVATION TO SCHEDULE AND HOLD A PRECONSTRUCTION MEETING BEFORE STARTING ANY CLEARING OR GRADING. ATTENDEES SHALL INCLUDE THE OWNER, THE ENGINEER AND THE CONTRACTOR(S) RESPONSIBLE FOR LAND DISTURBANCE AND EROSION CONTROL.
  - INSTALL CONSTRUCTION ENTRANCE/EXIT AT LOCATION SHOWN ON PLAN.
  - PROVIDE LIMITED CLEARING AS NEEDED TO INSTALL SEDIMENT FENCING AND SEDIMENT OUTLETS AND TREE PROTECTION, THEN INSTALL THESE MEASURES AS SHOWN.
  - BEGIN CLEARING, GRUBBING AND STRIP TOPSOIL AS NEEDED FOR CONSTRUCTION OF SKIMMER BASIN #1 AND #2. COMPLETE BASIN INSTALLATION AND ATTACH DIRT BAGS OR APPROVED EQUIVALENT TO SKIMMER OUTLETS. THE SILT FENCING INTO SPILLWAY EDGES AS SHOWN. INSTALL TEMPORARY DIVERSIONS. CONSTRUCT CONCRETE WASH OUT AREA.
  - COMPLETE SITE CLEARING AND GRUBBING. STRIP TOPSOIL AND STOCKPILE OR PLACE IT IN THE AREA(S) SHOWN OR AS OTHERWISE AGREED. MAINTAIN TEMPORARY DIVERSIONS OR RE-CONSTRUCT DIVERSIONS AS NEEDED.
- PHASE 2**
- BEGIN DEMOLITION AND ROUGH GRADING THE SITE.
  - INSTALL THE STORM DRAINAGE SYSTEM AND UTILITIES. INSTALL INLET PROTECTION FOR DRAINAGE INLETS AS THEY ARE CONSTRUCTED. STORM DRAINAGE PIPING SHOULD BE DIRECTED TO THE SKIMMER BASINS UNTIL THE SITE IS STABILIZED AND THE SKIMMER BASINS ARE REMOVED.
  - CONSTRUCT RIP RAP APRONS.
  - BRING SITE UP TO FINAL GRADES. PLACE STONE BASE AND FIRST LIFT OF ASPHALT.
  - UPON INSTALLATION OF BUILDING FOUNDATION DRAINS, INSTALL TEMPORARY DIRT BAG OR APPROVED EQUIVALENT TO OUTLET OF DRAINAGE PIPE.
  - STABILIZE UNCOVERED GROUND SURFACES WITH VEGETATION OR LANDSCAPE MULCH ALLOWING RUNOFF TO DRAIN TO DESIGNATED AREAS. INSTALL TEMPORARY STRAW WATTLE CHECK DAMS IN PERMANENT SWALES.
  - STABILIZE ALL DISTURBED AREAS WITHIN THE REQUIRED TIMEFRAME FOR EACH TYPE AND AREA OF DISTURBANCE. SEE SURFACE STABILIZATION TIMEFRAMES.
- PHASE 3**
- WITH APPROVAL OF THE ENGINEER, DEWATER AND REMOVE SKIMMER SEDIMENT BASINS UTILIZING A DIRT BAG OR OTHER APPROVED METHOD. BACKFILL SKIMMER BASIN AREAS WITH SOIL FILL.
  - COMPLETE FINE-GRADING, FINAL ASPHALT PAVING AND CONCRETE FLATWORK.
  - SEED REMAINING DISTURBED AREAS PER THE PERMANENT VEGETATION SCHEDULE.
  - REMOVE SEDIMENT FENCE, SEDIMENT OUTLETS, STRAW WATTLES, DIRT BAGS AND TREE PROTECTION FENCING AND ALL OTHER TEMPORARY EROSION CONTROL DEVICES AND PROVIDE PERMANENT STABILIZATION FOR THOSE AREAS.

AREA TO BE STABILIZED WITH VEGETATION: 7.11 ACRES

DISTURBED AREA = 10.27 ACRES (447,506 SF)

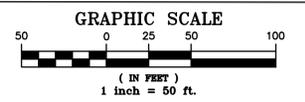
NOTE:  
EASEMENTS SHOWN HEREON SHALL NOT BE USED AS A BASIS FOR A LEGAL DESCRIPTION OR AS AN ATTACHMENT TO A DEED OF EASEMENT.



Know what's below.  
Call before you dig.  
(Or call: 1-800-632-4949)

SURFACE STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME*	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1 (H:V)	7 DAYS	IF SLOPES ARE 10 FEET OR LESS IN LENGTH AND NOT STEEPER THAN 2:1, 14 DAYS ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES

\*TIMEFRAME BEGINS ON THE DATE THAT LAND-DISTURBING ACTIVITY FOR THE INDICATED AREA OF THE SITE CEASES, WHETHER TEMPORARILY OR PERMANENTLY.



FINANCIALLY RESPONSIBLE PARTY:  
SCHOOLHOUSE SANFORD, LLC  
JIM WAY  
(801) 278-0800

**civil consultants**  
LAND PLANNERS + CIVIL ENGINEERS  
WWW.CIVIL-CONSULTANTS.COM  
3708 LYCKEAN PARKWAY - SUITE 201 - DURIHAM, NC 27707  
LIC. #C-1030



ASCEND LEADERSHIP  
ACADEMY EXPANSION  
LEE COUNTY, NORTH CAROLIAN  
PHASE 3 EROSION  
CONTROL PLAN

REV.	DATE	DESCRIPTION

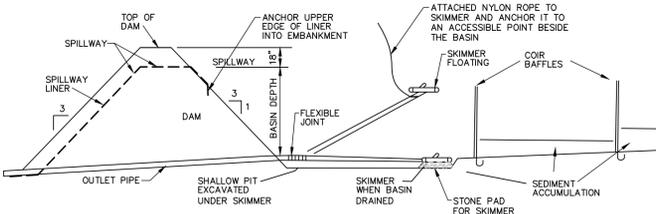
DATE: SEPTEMBER 30, 2019

THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.

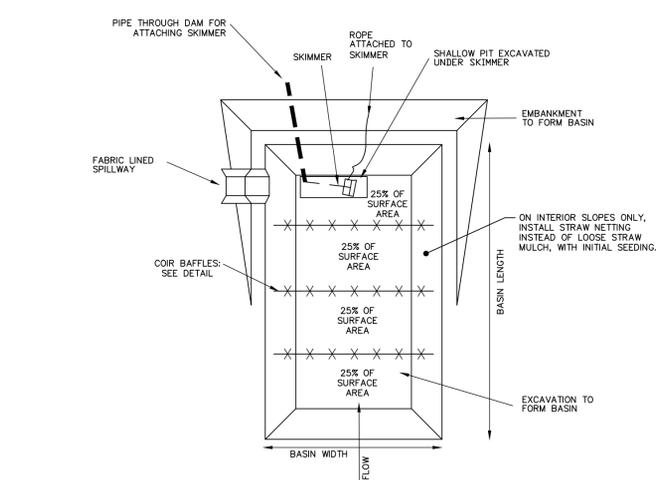
COPYRIGHT 2019 CIVIL CONSULTANTS, INC.  
SHEET NO.  
**C7.3**

**INSTALLATION**

- CLEAR, GRUB, AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY. PLACE TEMPORARY SEDIMENT CONTROL MEASURES BELOW BASIN AS NEEDED.
- ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETATION, ORGANIC MATTER, AND OTHER OBJECTIONABLE MATERIAL. PLACE THE FILL IN LIFTS NOT TO EXCEED 8 INCHES, AND MACHINE COMPACT IT. OVER FILL THE EMBANKMENT 6 INCHES TO ALLOW FOR SETTLEMENT.
- SHAPE THE BASIN TO THE SPECIFIED DIMENSIONS. PREVENT THE SKIMMING DEVICE FROM SETTLING INTO THE MUD BY EXCAVATING A SHALLOW PIT UNDER THE SKIMMER OR PROVIDING A LOW SUPPORT UNDER THE SKIMMER OF STONE OR TIMBER.
- PLACE THE OUTLET PIPE (TYPICALLY 4-INCH SCHEDULE 40 PVC) ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL. DO NOT USE PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED STONE AS BACKFILL AROUND THE PIPE. PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-INCH LAYERS AND COMPACT IT UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. PLACE A MINIMUM DEPTH OF 2 FEET OF COMPACTED BACKFILL OVER THE PIPE BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. DO NOT INSTALL THE PIPE CONDUIT BY CUTTING A TRENCH THROUGH THE DAM AFTER THE EMBANKMENT IS COMPLETE.
- ASSEMBLE THE SKIMMER FOLLOWING THE MANUFACTURER'S INSTRUCTIONS.
- LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT AT THE INLET OF THE OUTLET PIPE. ATTACH THE FLEXIBLE JOINT TO THE OUTLET PIPE AND POSITION THE SKIMMER OVER THE EXCAVATED PIT OR SUPPORT. ATTACH A ROPE TO THE SKIMMER AND ANCHOR IT TO THE SIDE OF THE BASIN.
- EARTHEN SPILLWAY - INSTALL THE SPILLWAY IN UNDISTURBED SOIL IF POSSIBLE. FINE-GRADE THE SPILLWAY TO MATCH DESIGN ELEVATIONS. LINE THE SPILLWAY WITH LAMINATED PLASTIC OR IMPERMEABLE GEOTEXTILE FABRIC THAT IS WIDE AND LONG ENOUGH TO COVER THE SPILLWAY BOTTOM AND SIDES. EXTEND LINER OVER THE TOP OF THE DAM AND ANCHOR IN A TRENCH. SECURE THE EDGES WITH 8-INCH STAPLES OR PINS. EXTEND THE LINER DOWN THE SPILLWAY AND ONTO STABLE GROUND. IF THE LENGTH OF THE FABRIC IS INSUFFICIENT FOR THE ENTIRE LENGTH OF THE SPILLWAY, MULTIPLE SECTIONS MAY BE USED, AS LONG AS THE SECTIONS SPAN THE FULL WIDTH OF THE SPILLWAY AND SIDES, AND THE UPPER SECTIONS OVERLAP LOWER SECTIONS SO THAT WATER WILL NOT FLOW UNDER THE FABRIC. SECURE ALL UPPER FABRIC EDGES IN TRENCHES WITH STAPLES OR PINS.
- INLETS - DISCHARGE WATER INTO THE BASIN IN A MANNER TO MINIMIZE EROSION. USE TEMPORARY SLOPE DRAINS OR DIVERSIONS WITH OUTLET PROTECTION TO DIVERT SEDIMENT-LADEN WATER TO THE UPPER END OF THE POOL AREA TO IMPROVE BASIN TRAP EFFICIENCY.
- EROSION CONTROL - CONSTRUCT THE STRUCTURE SO THAT THE DISTURBED AREA IS MINIMIZED. DIVERT SURFACE WATER AWAY FROM BARE AREAS. STABILIZE THE SPILLWAY EMBANKMENT AND ADJOINING DISTURBED AREAS IMMEDIATELY AFTER CONSTRUCTION.
- INSTALL POROUS BAFFLES AS SPECIFIED.



**SECTION VIEW OF SEDIMENT BASIN COMPONENTS**



**PLAN VIEW OF SKIMMER SEDIMENT BASIN COMPONENTS**

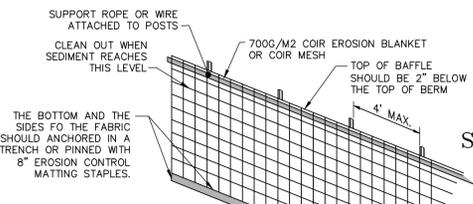
**SKIMMER SEDIMENT BASIN**

NTS

**MAINTENANCE**

- INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL.
- REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.
- REMOVE ANY DEBRIS FROM OR AROUND THE SKIMMER THAT MIGHT PREVENT THE SKIMMER FROM OPERATING PROPERLY.
- CHECK THE SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH LINER MATERIAL THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR EXCESSIVE SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY.

**INSTRUCTIONS FOR SKIMMER SEDIMENT BASIN**

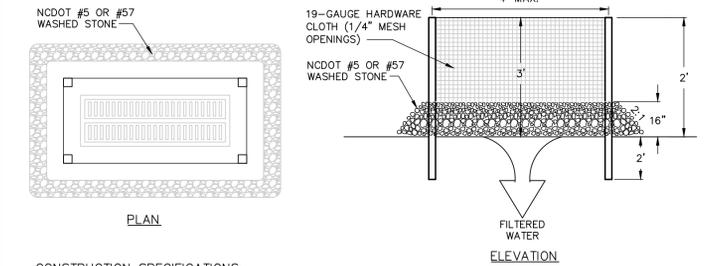


**COIR BAFFLE**

NTS

SURFACE STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME*	TIMEFRAME EXCEPTIONS
HIGH QUANTITY DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
PERMETER WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1 (H:V)	7 DAYS	IF SLOPES ARE 10 FEET OR LESS IN LENGTH AND NOT STEEPER THAN 2:1, 14 DAYS ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES

\*TIMEFRAME BEGINS ON THE DATE THAT LAND-DISTURBING ACTIVITY FOR THE INDICATED AREA OF THE SITE CEASES, WHETHER TEMPORARILY OR PERMANENTLY.

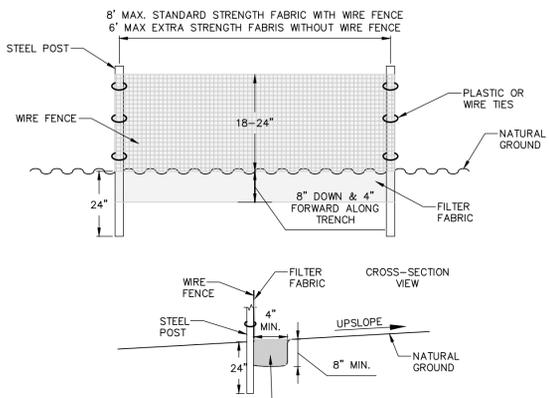


- CONSTRUCTION SPECIFICATIONS:**
- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
  - DRIVE 5 FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
  - SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2 FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
  - PLACE CLEAN GRAVEL (NO DOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
  - ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
  - COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.

**MAINTENANCE:**  
INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

**HARDWARE CLOTH AND GRAVEL INLET PROTECTION**

NTS



**CONSTRUCTION SPECIFICATIONS:**

- USE A SYNTHETIC FILTER FABRIC OF AT LEAST 95% BY WEIGHT OF POLYOLEFINS OR POLYESTER, WHICH IS CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS IN THE ASTM D 6461.
- SYNTHETIC FILTER FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX MONTHS OF EXPECTED USE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0 TO 120 DEGREES FAHRENHEIT.
- FOR REINFORCEMENT OF STANDARD STRENGTH FILTER FABRIC, USE WIRE FENCE WITH A MINIMUM FOURTEEN GAUGE AND A MAXIMUM MESH SPACING OF SIX INCHES.

**CONSTRUCTION:**

- CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRIC.
- ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED TWENTY FOUR INCHES ABOVE THE GROUND SURFACE. (HIGHER FENCES MAY IMPOUND THE VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE).
- CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT SUPPORT POSTS WITH FOUR FEET MINIMUM OVERLAP TO THE NEXT POST.
- SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM OF THE TRENCH. FASTEN THE WIRE REINFORCEMENT, THEN FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM FIFTY POUND TENSILE STRENGTH.
- WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE A MAXIMUM OF EIGHT FEET APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF TWENTY FOUR INCHES.
- EXTRA STRENGTH FILTER FABRIC WITH SIX FOOT POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. SECURELY FASTEN THE FILTER FABRIC DIRECTLY TO POSTS. WIRE OR PLASTIC ZIP TIES SHOULD HAVE MINIMUM FIFTY POUND TENSILE STRENGTH.
- EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND EIGHT INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIERS (AS SHOWN ABOVE).
- PLACE TWELVE INCHES OF THE FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
- BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.
- DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

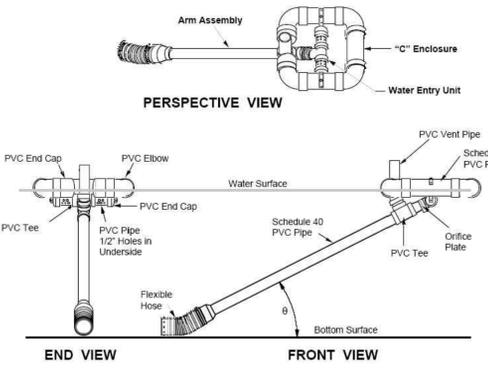
NOTE: SEE CHAPTER SIX OF NCDENR "PRACTICE STANDARDS AND SPECIFICATIONS" MANUAL FOR EROSION CONTROL FOR INFORMATION ON SEDIMENT FENCE INSTALLATION USING THE SLICING METHOD.

**MAINTENANCE:**

- INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
- SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
- REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE DURING CLEANOUT.
- REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

**FAIRCLOTH SKIMMER DETAIL**

J. W. FAIRCLOTH & SON, INC. (919) 732-1244

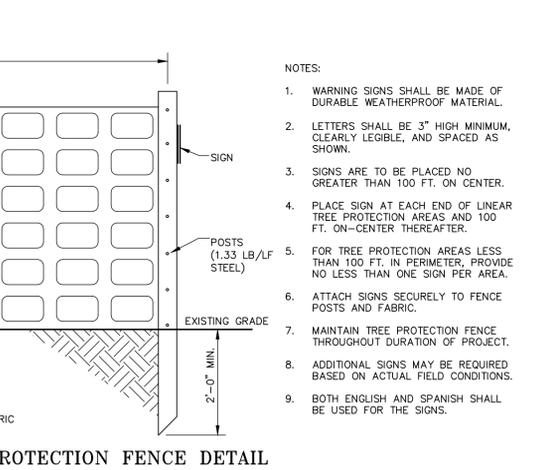


**FAIRCLOTH SKIMMER DETAIL**

J. W. FAIRCLOTH & SON, INC. (919) 732-1244

**TEMPORARY SEDIMENT FENCE**

NTS



**TEMPORARY CONSTRUCTION ENTRANCE APRON**

NTS

- CONSTRUCTION SPECIFICATIONS:**
- CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
  - PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
  - PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
  - USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.
- DESIGN CRITERIA:**  
AGGREGATE SIZE: USE 2-3 INCH WASHED STONE.  
DIMENSION OF GRAVEL PAD:  
THICKNESS: 6 INCHES MINIMUM.  
WIDTH: 12 FEET MINIMUM OR FULL WIDTH AT ALL POINTS OF THE VEHICULAR ENTRANCE AND EXIT AREA, WHICHEVER IS GREATER.  
LENGTH: 50 FEET MINIMUM.
- LOCATION:** LOCATE CONSTRUCTION ENTRANCES AND EXITS TO LIMIT SEDIMENT FROM LEAVING THE SITE AND TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES. AVOID STEEP GRADES, AND ENTRANCES AT CURVES IN PUBLIC ROADS.
- WASHING:** IF CONDITIONS AT THE SITE ARE SUCH THAT MOST OF THE MUD AND SEDIMENT ARE NOT REMOVED BY VEHICLES TRAVELING OVER THE GRAVEL, THE TIRE SHOULD BE WASHED. WASHING SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO A SEDIMENT TRAP OR OTHER SUITABLE DISPOSAL AREA. A WASH BACK MAY ALSO BE USED TO WASH WASHING MORE CONVENIENT AND EFFECTIVE.
- MAINTENANCE:**  
MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2 INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT FOR DAMAGE. REMOVE AND REPLACE AS NEEDED. REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

**NPDES PERMIT REQUIREMENTS AND SELF-INSPECTION**

This project is subject to the requirements of NPDES Permit for construction activities (Permit No. NC010000). The items noted are some of the obligations associated with the NPDES permit process.

**CONTROLS FOR STORMWATER DISCHARGES**

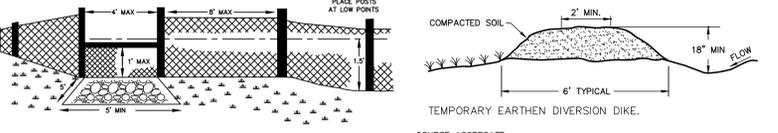
- The Permittee shall implement the Soil and Erosion Control plan, which has been approved by the approved authority. The approved plan is considered a requirement or condition of NPDES permit. Deviation from the approved plan, or approved amendment to the plan, shall constitute a violation of the terms and conditions of this general permit except that deviation from the approved plan will be allowed to correct an emergency situation where sediments are being discharged off the site, even though the approved plan is in effect. Such a deviation from the approved plan shall be noted on the approved plan maintained at the job site. A signed copy of the approved plan shall be maintained on the site at all times.
- Equipment utilized during the construction activity on a site must be operated and maintained in such a manner as to prevent the potential or actual pollution of the surface or ground waters of the state. Fuels, lubricants, coolants, and hydraulic fluids, or any other petroleum products, shall not be discharged onto the ground or into surface waters. Spent fluids shall be disposed of in a manner so as not to enter the waters, surface or ground, of the state and in accordance with applicable state and federal disposal regulations. Any spilled fluids shall be cleaned up to the extent practicable and disposed of in a manner so as not to allow their entry into the waters, surface or ground, of the state.
- Herbicide, pesticide, and fertilizer usage during the construction activity shall be restricted to those materials approved by EPA and shall be in accordance with label restrictions.
- All wastes composed of building materials shall be disposed of in accordance with North Carolina General Statutes.
- The permittee shall report to the central office or the appropriate regional office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances.

The written submission shall contain a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance (See specific permit requirements for reporting information).

**MINIMUM MONITORING AND REPORTING REQUIREMENTS**

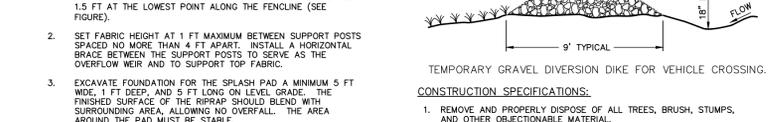
Minimum monitoring and reporting requirements are as follows unless otherwise approved in writing by the Director of the Division of Environmental Management.

- All sedimentation and erosion control facilities shall be inspected by or under the direction of the permittee at least once every seven calendar days and within 24 hours after any storm event of greater than 0.5 inches of rain per 24 hour period.
- Stormwater runoff discharges shall be inspected by observation for stormwater discharge characteristics as defined below at the above frequency to evaluate the effectiveness of the pollution control facilities or practices. If any visible off-site sedimentation is leaving the site, corrective action shall be taken to reduce the discharge of sediments.



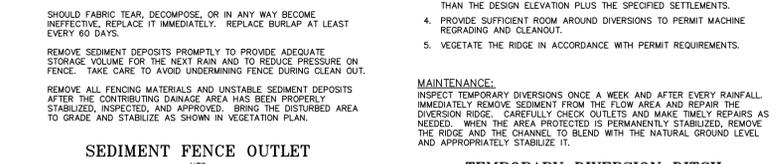
**TEMPORARY DIVERSION DITCH**

NTS



**TEMPORARY CONSTRUCTION ENTRANCE APRON**

NTS



**STRAW WATTLE DETAIL**

NTS

- CONSTRUCTION SPECIFICATIONS:**
- CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
  - PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
  - PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
  - USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.
- DESIGN CRITERIA:**  
AGGREGATE SIZE: USE 2-3 INCH WASHED STONE.  
DIMENSION OF GRAVEL PAD:  
THICKNESS: 6 INCHES MINIMUM.  
WIDTH: 12 FEET MINIMUM OR FULL WIDTH AT ALL POINTS OF THE VEHICULAR ENTRANCE AND EXIT AREA, WHICHEVER IS GREATER.  
LENGTH: 50 FEET MINIMUM.
- LOCATION:** LOCATE CONSTRUCTION ENTRANCES AND EXITS TO LIMIT SEDIMENT FROM LEAVING THE SITE AND TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES. AVOID STEEP GRADES, AND ENTRANCES AT CURVES IN PUBLIC ROADS.
- WASHING:** IF CONDITIONS AT THE SITE ARE SUCH THAT MOST OF THE MUD AND SEDIMENT ARE NOT REMOVED BY VEHICLES TRAVELING OVER THE GRAVEL, THE TIRE SHOULD BE WASHED. WASHING SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO A SEDIMENT TRAP OR OTHER SUITABLE DISPOSAL AREA. A WASH BACK MAY ALSO BE USED TO WASH WASHING MORE CONVENIENT AND EFFECTIVE.
- MAINTENANCE:**  
MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2 INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT FOR DAMAGE. REMOVE AND REPLACE AS NEEDED. REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

**CONSTRUCTION SPECIFICATIONS:**

- CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
  - PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
  - PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
  - USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.
- DESIGN CRITERIA:**  
AGGREGATE SIZE: USE 2-3 INCH WASHED STONE.  
DIMENSION OF GRAVEL PAD:  
THICKNESS: 6 INCHES MINIMUM.  
WIDTH: 12 FEET MINIMUM OR FULL WIDTH AT ALL POINTS OF THE VEHICULAR ENTRANCE AND EXIT AREA, WHICHEVER IS GREATER.  
LENGTH: 50 FEET MINIMUM.
- LOCATION:** LOCATE CONSTRUCTION ENTRANCES AND EXITS TO LIMIT SEDIMENT FROM LEAVING THE SITE AND TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES. AVOID STEEP GRADES, AND ENTRANCES AT CURVES IN PUBLIC ROADS.
- WASHING:** IF CONDITIONS AT THE SITE ARE SUCH THAT MOST OF THE MUD AND SEDIMENT ARE NOT REMOVED BY VEHICLES TRAVELING OVER THE GRAVEL, THE TIRE SHOULD BE WASHED. WASHING SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO A SEDIMENT TRAP OR OTHER SUITABLE DISPOSAL AREA. A WASH BACK MAY ALSO BE USED TO WASH WASHING MORE CONVENIENT AND EFFECTIVE.
- MAINTENANCE:**  
MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2 INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT FOR DAMAGE. REMOVE AND REPLACE AS NEEDED. REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

**CONSTRUCTION SPECIFICATIONS:**

- NO DAYLIGHT SHOULD BE SEEN UNDER THE WATTLE. PACK SOIL AGAINST THE WATTLE ON THE UPSLOPE SIDE.
- STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE, LEAVING 2 TO 3 INCHES OF THE STAKE PROTRUDING ABOVE THE WATTLE. A HEAVY SEDIMENT LOAD WILL TEND TO PICK UP THE WATTLE AND COULD PULL IT OFF THE STAKES IF THEY ARE DRIVEN TO LOW.
- WHEN INSTALLING THE WATTLES ON SLOPES, DRIVE THE STAKES IN PERPENDICULAR TO THE SLOPE.
- CONSTRUCT THE WATTLES AT EACH END AND 4 FEET ON CENTER, WITH 3 - 1x2" WOOD STAKES OR APPROVED EQUAL PER BAG.

**CONSTRUCTION SPECIFICATIONS:**

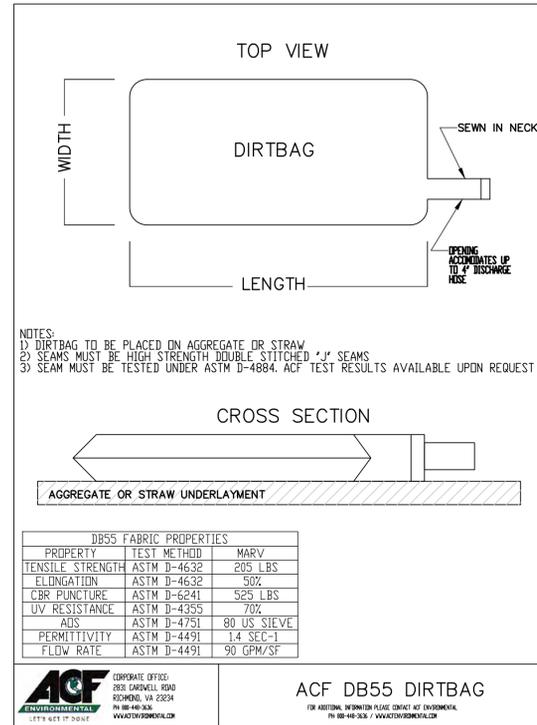
- NO DAYLIGHT SHOULD BE SEEN UNDER THE WATTLE. PACK SOIL AGAINST THE WATTLE ON THE UPSLOPE SIDE.
- STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE, LEAVING 2 TO 3 INCHES OF THE STAKE PROTRUDING ABOVE THE WATTLE. A HEAVY SEDIMENT LOAD WILL TEND TO PICK UP THE WATTLE AND COULD PULL IT OFF THE STAKES IF THEY ARE DRIVEN TO LOW.
- WHEN INSTALLING THE WATTLES ON SLOPES, DRIVE THE STAKES IN PERPENDICULAR TO THE SLOPE.
- CONSTRUCT THE WATTLES AT EACH END AND 4 FEET ON CENTER, WITH 3 - 1x2" WOOD STAKES OR APPROVED EQUAL PER BAG.

**civil consultants**  
LAND PLANNERS & CIVIL ENGINEERS  
WWW.CIVIL-CONSULTANTS.COM  
5705 LYCKEAN PARKWAY • SUITE 201 • DURHAM, NC 27707  
919-490-1645 PHONE  
LIC. #C-1030

**NORTH CAROLINA PROFESSIONAL SEAL**  
SEAL #45959  
JAMES M. BROWN  
REGISTERED PROFESSIONAL ENGINEER  
7-30-R

**ASCEND LEADERSHIP ACADEMY EXPANSION**  
LEE COUNTY, NORTH CAROLIAN  
**EROSION CONTROL DETAILS**

REV. DATE DESCRIPTION  
DATE: SEPTEMBER 30, 2019  
THIS DRAWING AND THE DESIGN/REVISION ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.  
COPYRIGHT 2019 CIVIL CONSULTANTS, INC.  
SHEET NO. **C7.4**



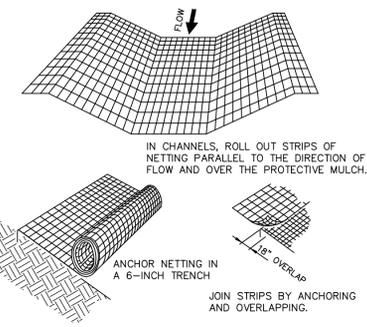
**INSTALLATION OF NETTING AND MATTING**

PRODUCTS DESIGNED TO CONTROL EROSION SHOULD BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ANY MAT OR BLANKET-TYPE PRODUCT USED AS A PROTECTIVE MULCH SHOULD PROVIDE COVER OF AT LEAST 30% OF THE SURFACE WHERE IT IS APPLIED.

1. APPLY LIME, FERTILIZER AND SEED BEFORE LAYING THE NET OR MAT.
2. START LAYING THE NET FROM THE TOP OF THE CHANNEL OR SLOPE AND UNROLL IT DOWN THE GRADE. ALLOW NETTING TO LAY LOOSELY ON THE SOIL BUT WITHOUT WRINKLES - DO NOT STRETCH.
3. TO SECURE THE NET, BURY THE UPSLOPE END IN A SLOT OR TRENCH NO LESS THAN 6 INCHES DEEP, COVER WITH SOIL, AND TAMP FIRMLY. STAPLE THE NET EVERY 12 INCHES ACROSS THE TOP END AND EVERY 3 FEET AROUND THE EDGES AND BOTTOM. WHERE 2 STRIPS OF NET ARE LAID SIDE BY SIDE, THE ADJACENT EDGES SHOULD BE OVERLAPPED 3 INCHES AND STAPLED TOGETHER. EACH STRIP OF NETTING SHOULD ALSO BE STAPLED DOWN THE CENTER, EVERY 3 FEET. DO NOT STRETCH THE NET WHEN APPLYING STAPLES.
4. TO JOIN TWO STRIPS, CUT A TRENCH TO ANCHOR THE END OF THE NEW NET. OVERLAP THE END OF THE PREVIOUS ROLL 18 INCHES AND STAPLE EVERY 12 INCHES JUST BELOW THE ANCHOR SLOT.

**MAINTENANCE**

INSPECT ALL MULCHES PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR RILL EROSION, DISLOCATION, OR FAILURE. WHERE EROSION IS OBSERVED, APPLY ADDITIONAL MULCH. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED, AND REINSTALL MULCH. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.



**NETS AND MATS**

NTS

**SEEDBED PREPARATION:**

FILL SLOPES 3:1 OR STEEPER TO BE SEEDED WITH A HYDRAULIC SEEDER (PERMANENT SEEDING)

- 1) LEAVE THE LAST 4-6 INCHES OF FILL LOOSE AND UNCOMPACTED, ALLOWING ROCKS, ROOTS, LARGE CLODS AND OTHER DEBRIS TO REMAIN ON THE SLOPE.
- 2) ROUGHEN SLOPE FACES BY MAKING GROOVES 2-3 INCHES DEEP, PERPENDICULAR TO THE SLOPE.
- 3) SPREAD LIME EVENLY OVER SLOPES AT RATES RECOMMENDED BY SOIL TESTS.

GENTLE OR FLAT SLOPES WHERE TOPSOIL IS NOT USED.

- 1) REMOVE ROCKS AND DEBRIS
- 2) APPLY LIME AND FERTILIZER AT RATES RECOMMENDED BY SOIL TESTS, SPREAD EVENLY AND INCORPORATE INTO THE TOP 6 INCHES WITH A DISK, CHISEL PLOW, OR ROTARY TILLER.
- 3) BREAK UP LARGE CLODS AND RAKE INTO A LOOSE, UNIFORM SEEDBED.
- 4) RAKE TO LOOSEN SURFACES JUST PRIOR TO APPLYING SEED.

**TEMPORARY SEEDING SCHEDULE:**

**SEEDING MIXTURE:**

SPECIES	RATE (LB/AC)	SEEDING DATES
RYE	120	JAN. 1 - MAY 1 OR AUG. 15 - DEC. 30
KOBE LESPEDEZA	50	JAN.1 - MAY 1
GERMAN MILLET	40	MAY 1 - AUG. 15

**SOIL ADJUSTMENTS**

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

**MULCH**

APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, ROVING (TACK RESQUE 25-35 GAL/1,000 SF) OR BY GRIPPING WITH A MULCH ANCHORING TOOL. APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR AT MINIMUM APPLY 2 TONS/ACRE (3 TONS/ACRE IN CLAYEY SOILS) LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER. EXCEPT, APPLY NO FERTILIZER TO AREAS WITHIN THE NEUSE RIVER RIPARIAN BUFFERS.

**MAINTENANCE**

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

**PERMANENT VEGETATION**

INSTRUCTIONS FOR PERMANENT STABILIZATION USING VEGETATION

**INSTALLATION**

1. REFER TO PLANS FOR LOCATION, EXTENT, AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS, WITH THE LOCATION, EXTENT, OR METHODS OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT, OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY BE ABLE TO OFFER ASSISTANCE.

IF THE DISTURBANCE IS NOT PROPERLY STABILIZED THE FIRST TIME SO THAT EROSION IS RESTRAINED, THE SEEDING WILL HAVE TO BE REPEATED UNTIL IT IS SUCCESSFUL.

**SEEDING**

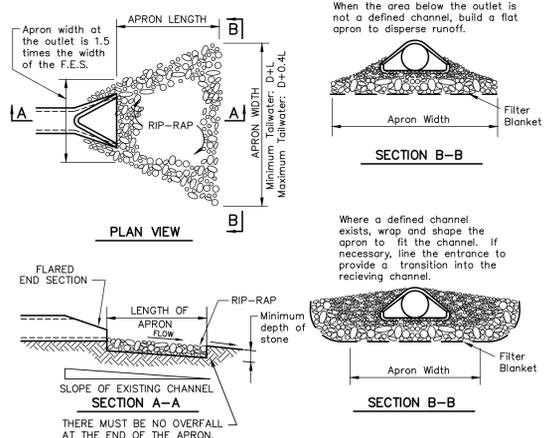
SEASON	DATE	LIME	FERTILIZER	MULCH
FALL & WINTER PERMANENT SEEDING	AUGUST 16 - FEBRUARY 28	3 TONS/AC	1000 LBS/AC	250 LBS/AC
		120 LBS/AC	250 LBS/AC	2 TONS/AC
		3 TONS/AC	1000 LBS/AC	250 LBS/AC
SPRING PERMANENT SEEDING	MARCH 31 - MAY	3 TONS/AC	1000 LBS/AC	250 LBS/AC
		120 LBS/AC	250 LBS/AC	2 TONS/AC
		3 TONS/AC	1000 LBS/AC	250 LBS/AC
SUMMER TEMPORARY SEEDING	JUNE 1 - AUGUST 15	3 TONS/AC	700 LBS/AC	40 LBS/AC
		120 LBS/AC	700 LBS/AC	40 LBS/AC
		2 TONS/AC	700 LBS/AC	40 LBS/AC

2. USE THE APPLICATION RATES FOR LIME, FERTILIZER, SEED, MULCH, ETC. SPECIFIED IN THE PLAN, OR USE THE RATES BELOW FOR THE APPROPRIATE SEASON. IF SEEDING IS TO BE DONE IN A SEASON NOT LISTED BELOW, USE VEGETATION COMPATIBLE WITH THAT SEASON OR ANOTHER METHOD OF PERMANENT STABILIZATION.
3. SEEDING: APPLY SEED AT THE RECOMMENDED RATE, AND GO OVER THE SURFACE WITH A CULTIPATOR WHERE POSSIBLE TO BRING THE SEED INTO CONTACT WITH THE SOIL.

4. SEEDBED PREPARATION: REMOVE ROCKS, STUMPS, ROOTS, ETC. SINCE THEY WILL INTERFERE WITH SEEDING AND MAINTENANCE. THE SMOOTH, COMPACTED SURFACE OF CUT AND FILL SLOPES IS NOT A GOOD SEEDBED. APPLY LIME AND FERTILIZER, THEN RIP THE SOIL 4 TO 6 INCHES TO MIX THE NUTRIENTS INTO THE SOIL AND TO LOOSEN AND ROUGHEN IT TO RECEIVE THE SEED.
5. SEEDING: APPLY SEED AT THE RECOMMENDED RATE, AND GO OVER THE SURFACE WITH A CULTIPATOR WHERE POSSIBLE TO BRING THE SEED INTO CONTACT WITH THE SOIL.
6. MULCHING: THE AREA SEEDED MUST BE MULCHED TO PROTECT THE BARE SOIL UNTIL THE VEGETATION IS ESTABLISHED AND TO RETAIN MOISTURE TO PROMOTE SEED GERMINATION AND PLANT GROWTH. APPLY ENOUGH MULCH TO COVER THE SURFACE. TO KEEP IT IN PLACE AND PREVENT WIND OR WATER FROM DISLOCATING IT, THE MULCH SHOULD BE HELD IN PLACE BY TACKING IT WITH ASPHALT, CUTTING IT WITH A STRAIGHT-SET DISK, OR COVERING IT WITH NETTING.

**MAINTENANCE**

ANY PLACES WHERE THE VEGETATION FAILS TO ESTABLISH ITSELF OR IS DAMAGED BY RUNOFF OR CONSTRUCTION ACTIVITY MUST BE RESEED. WHERE THE VEGETATION FAILS TO RESTRAIN EROSION, OTHER EROSION CONTROL MEASURES MUST BE INSTALLED.



**INSTALLATION**

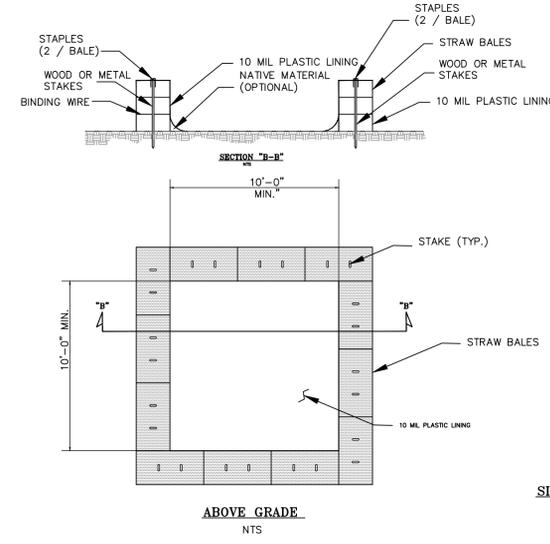
1. REFER TO THE PLANS FOR LOCATION, EXTENT, AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT, OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OR PROPERLY INSTALLED APRONS AS A AID TO INSTALLATION.

IF THE STONE APRON IS NOT INSTALLED CORRECTLY THE FIRST TIME, IT WILL HAVE TO BE REBUILT.

2. DETERMINE THE LOCATION ON THE GROUND TAKING INTO CONSIDERATION:
  - DECIDE HOW EQUIPMENT AND MATERIAL WILL REACH THE LOCATION TO CONSTRUCT THE APRON. DO NOT "PAINT YOURSELF INTO A CORNER" AND PLACE FILL, STRUCTURES, ETC. THAT COULD BLOCK ACCESS.
  - THE LOCATION OF THE APRON MUST BE SOLID GROUND. IT MAY BE NECESSAR TO EXCAVATE THE LOCATION TO REMOVE MUD AND THEN BACKFILL WITH GOOD MATERIAL. THIS IS NECESSARY SO THE STONE DOES NOT DISAPPEAR INTO THE MUD, WHICH WOULD REQUIRE MUCH MORE STONE TO COMPLETE THE APRON AND MAKE INSTALLATION DIFFICULT.
3. CLEAR THE LOCATION OF THE APRON. LEAVE AS MUCH OF THE EXISTING VEGETATION AS POSSIBLE AROUND THE LOCATION TO HOLD THE SOIL IN PLACE AND REDUCE THE AREA THAT WILL HAVE TO BE STABILIZED AFTERWARD.
4. EXCAVATE THE BOTTOM TO THE REQUIRED DEPTH TO ACCEPT THE STONE AND THE FILTER BLANKET. WHEN FINISHED, THE BOTTOM OF THE APRON MUST BE LEVEL WITH THE BOTTOM OF THE CHANNEL: THERE CANNOT BE AN OVERFALL AT THE END OF THE APRON.
5. PLACE THE FILTER BLANKET, AS SPECIFIED IN THE PLAN, OVER THE LOCATION AND UNDER THE UP OF THE FLARED END SECTION.
6. PLACE THE SPECIFIED STONE TO THE REQUIRED DIMENSIONS AND SHAPE IT TO THE CONFIGURATION
7. STABILIZE THE AREA AROUND THE APRON THAT WAS DISTURBED DURING CONSTRUCTION. USE ADDITIONAL STONE OR VEGETATION, WHICHEVER IS APPROPRIATE FOR THE SITUATION.

**RIP RAP APRON**

NTS



**TEMPORARY CONCRETE WASHOUT AREA**

NTS

**NOTES:**

1. ACTUAL LAYOUT DETERMINED IN THE FIELD - SEE PLANS FOR LOCATION.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE FACILITY.
3. LOCATE THE WASHOUT AREA AT LEAST 50- FEET FROM SENSITIVE AREAS SUCH AS STORM DRAINS, OPEN DITCHES OR WATER BODIES, INCLUDING WETLANDS.
4. THE PLASTIC LINING MATERIAL SHOULD BE A MIN OF 10 MIL. POLYETHYLENE MATERIAL AND FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT MAY COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
5. WHEN THE FACILITY IS NO LONGER REQUIRED THE HARDENED CONCRETE, SLURRIES AND LIQUIDS SHALL BE PROPERLY DISPOSED OF OFF-SITE. MATERIAL USED TO CONSTRUCT THE FACILITY SHALL BE PROPERLY DISPOSED OF OFF-SITE. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY FACILITY SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

SIGN- (SEE NOTE 2)

NTS



Know what's below.  
 Call before you dig.  
 (Or call: 1-800-632-4949)

**civil consultants**  
 LAND PLANNERS + CIVIL ENGINEERS  
 WWW.CIVIL-CONSULTANTS.COM  
 5705 LYCKEAN PARKWAY - SUITE 201 - DURHAM, NC 27707  
 Lic. #C-1030



ASCEND LEADERSHIP  
 ACADEMY EXPANSION  
 LEE COUNTY, NORTH CAROLIAN  
 EROSION CONTROL  
 DETAILS

REV.	DATE	DESCRIPTION

DATE: SEPTEMBER 30, 2019

THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.

COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

SHEET NO.

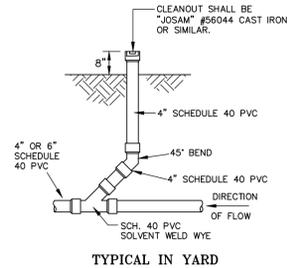
C7.5



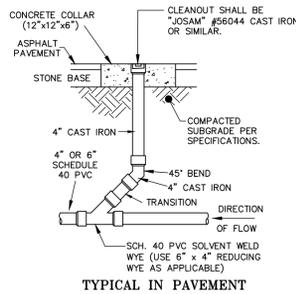






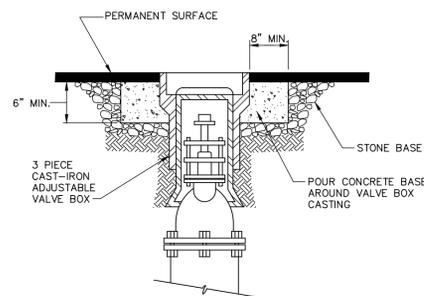


TYPICAL IN YARD

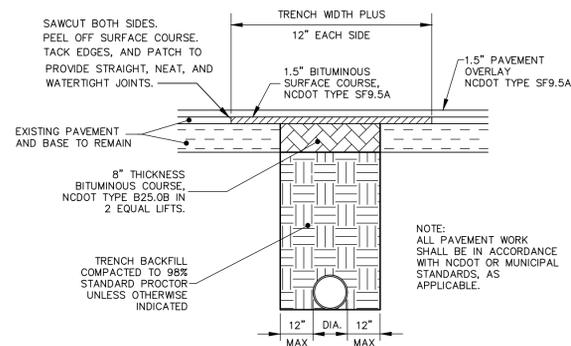


TYPICAL IN PAVEMENT

SEWER SERVICE CLEANOUT DETAILS  
NTS



VALVE BOX SETTING  
PAVED AREAS  
NTS



PAVEMENT REPAIR AT TRENCH  
NTS



Know what's below.  
Call before you dig.  
(Or call: 1-800-632-4949)

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
TEMPORARY LANE CLOSURES  
2-LANE, 2-WAY ROADWAY - 1 LANE CLOSED

1-12

1101.02

INSET FOR 2 LANE ROADWAYS WITH 2-WAY TURN LANE  
ALL OTHER DEVICES ARE THE SAME AS ABOVE

GENERAL NOTES FOR FLAGGER OPERATIONS

- REFER TO STD. 1101.11 SHEET 4 FOR SIGN SPACING.
- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- PLACE CONES THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER (REFER TO STD. 1101.11 SHEET 2).
- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
- DRUMS OR SKINNY-DRUMS MAY BE USED IN LIEU OF CONES. REFER TO ROADWAY STANDARD DRAWING 1160.01 FOR SKINNY-DRUM REQUIREMENTS.
- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE. SUPPLEMENT FLAGGERS LOCATED AT INTERSECTIONS WITH FLAGGER ARMED SIGNS (W90-74) PLACED APPROXIMATELY 200 FT. IN ADVANCE OF THE INTERSECTION. FOR SIGNALIZED INTERSECTIONS PLACE SIGNALS IN THE FLASH MODE AND RECOMMEND THE USE OF LAW ENFORCEMENT.
- REFER TO 2009 MUTCD, CHAPTER 6, FOR FLAGGER CONTROL, REQUIREMENTS, AND PROCEDURES.
- DO NOT EXCEED A 1/4 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.

GENERAL NOTES FOR PILOT CAR OPERATIONS

- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.
- IF ROADWAY WIDTH IS LESS THAN 22 FEET (EOP TO EOP), CONES MAY NOT BE REQUIRED ALONG WORK AREA, AND AT THE DISCRETION OF THE ENGINEER, CONES MAY BE OMITTED ALONG THE WORK AREA IF USING A PILOT CAR.
- CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.
- MOUNT SIGN S90-24 "PILOT CAR FOLLOW ME" AT A CONSPICUOUS POSITION ON THE REAR OF THE PILOT VEHICLE.
- DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING FLAGGING AND PILOT CAR OPERATIONS.

LEGEND

- FLAGGER
- CONE
- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
TEMPORARY LANE CLOSURES  
2-LANE, 2-WAY ROADWAY - 1 LANE CLOSED

1-12

SHEET 1 OF 15  
1101.02

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
PAVEMENT REPAIRS  
FOR SUPERPAVE MIX TYPES

1-12

654.01

D	X	W
12"	1'-4"	7'-4"
15"	1'-7"	7'-7"
18"	1'-10"	7'-10"
24"	2'-6"	8'-6"
30"	3'-1"	9'-1"
36"	3'-8"	9'-8"
42"	4'-5"	10'-5"
48"	5'-0"	11'-0"

PAVEMENT REPAIRS ON ROADS TO BE RESURFACED  
(PIPE IS PLACED UNDER EXISTING PAVEMENT)

PAVEMENT REPAIRS ON ROADS NOT TO BE RESURFACED  
(PIPE IS TO BE PLACED UNDER EXISTING PAVEMENT)

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
PAVEMENT REPAIRS  
FOR SUPERPAVE MIX TYPES

1-12

SHEET 1 OF 1  
654.01

Sanitary Sewer Manhole

City of Sanford Engineering Dept - P.O. Box 3729 - Sanford, NC 27331

Dwg. No. SD-S-003  
Date: 07/10/14  
Scale: Not To Scale  
Drawn By: Staff

Asphalt Pavement Patch

City of Sanford Engineering Dept - P.O. Box 3729 - Sanford, NC 27331

Dwg. No. SD-R-003  
Date: 07/10/14  
Scale: Not To Scale  
Drawn By: Staff

civil consultants  
LAND PLANNERS + CIVIL ENGINEERS  
WWW.CIVIL-CONSULTANTS.COM  
5708 LYCKEAN PARKWAY - SUITE 201 - DURHAM, NC 27707  
919.490.1645 PHONE  
Lic. #C-1030



ASCEND LEADERSHIP  
ACADEMY EXPANSION  
LEE COUNTY, NORTH CAROLINA  
UTILITY  
DETAILS

REV.	DATE	DESCRIPTION

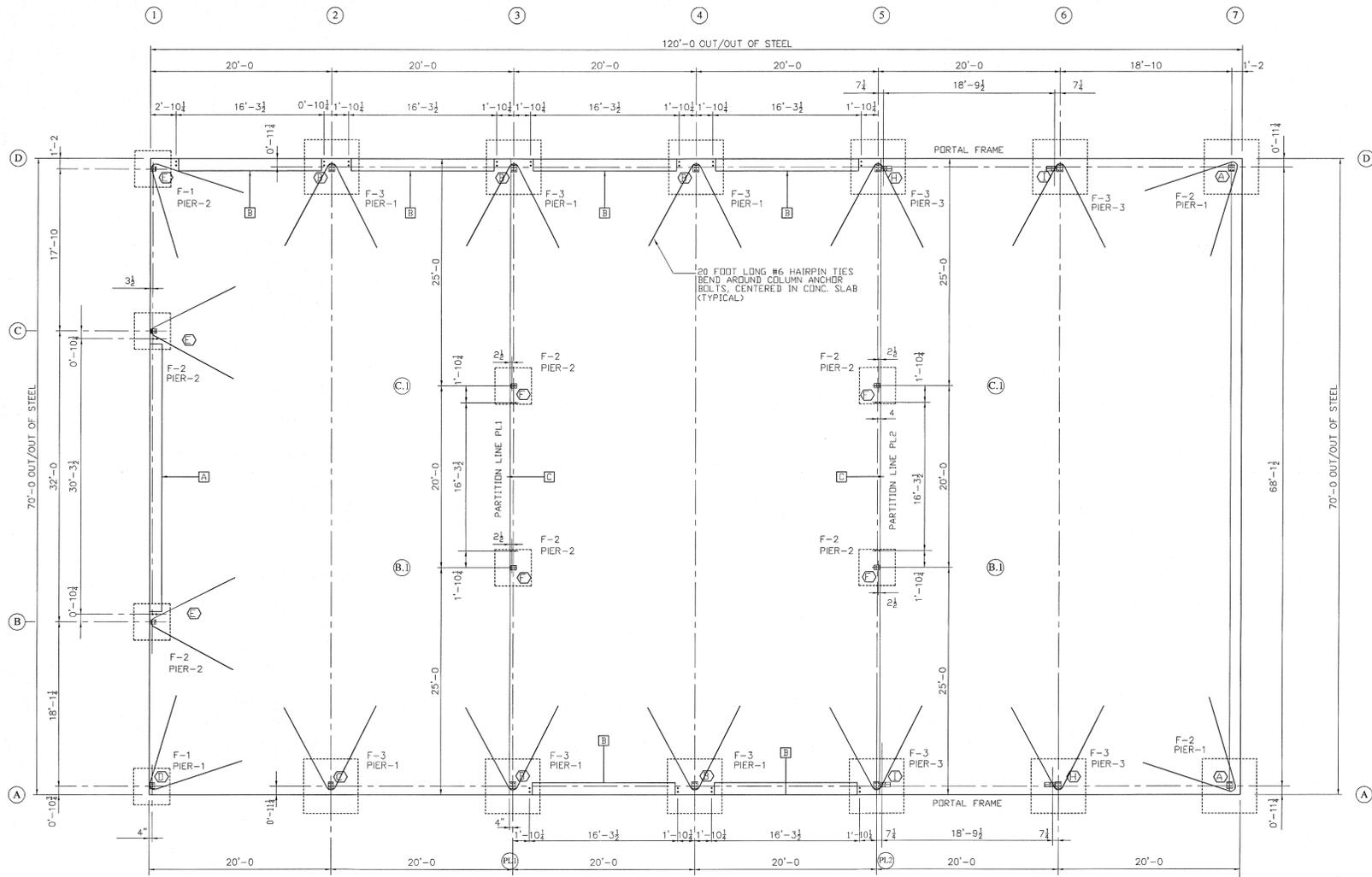
DATE: SEPTEMBER 30, 2019

THIS DRAWING AND THE DESIGN HEREON ARE THE PROPERTY OF CIVIL CONSULTANTS, INC. THE INFORMATION ON THIS DRAWING IS NOT FOR USE ON ANY OTHER SITE OR PROJECT. THE REPRODUCTION OR OTHER USE OF THIS DRAWING IN WHOLE OR IN PART, WITHOUT WRITTEN CONSENT OF CIVIL CONSULTANTS, INC. IS PROHIBITED.

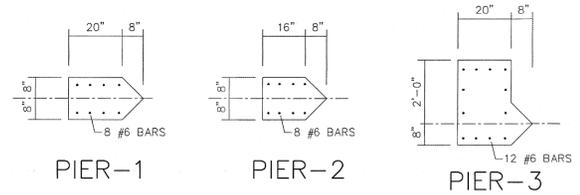
COPYRIGHT 2019 CIVIL CONSULTANTS, INC.

SHEET NO.

C14.1

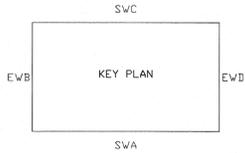


FOOTING SCHEDULE				
MARK	SIZE	DEPTH	REINFORCING EACH WAY	REMARKS
F-1	3'-0" x 3'-0"	2'-0"	4 - #5	
F-2	5'-0" x 5'-0"	2'-0"	5 - #7	
F-3	6'-0" x 6'-0"	2'-0"	6 - #7	



**FOUNDATION AND ANCHOR BOLT SETTING PLAN**

SCALE 1/8" = 1'-0"

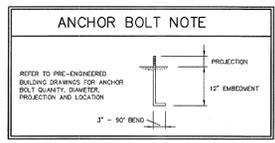


ANCHOR BOLTS TO BE DESIGNED BY FOUNDATION ENGINEER USING DIAMETERS SHOWN IN THIS TABLE.

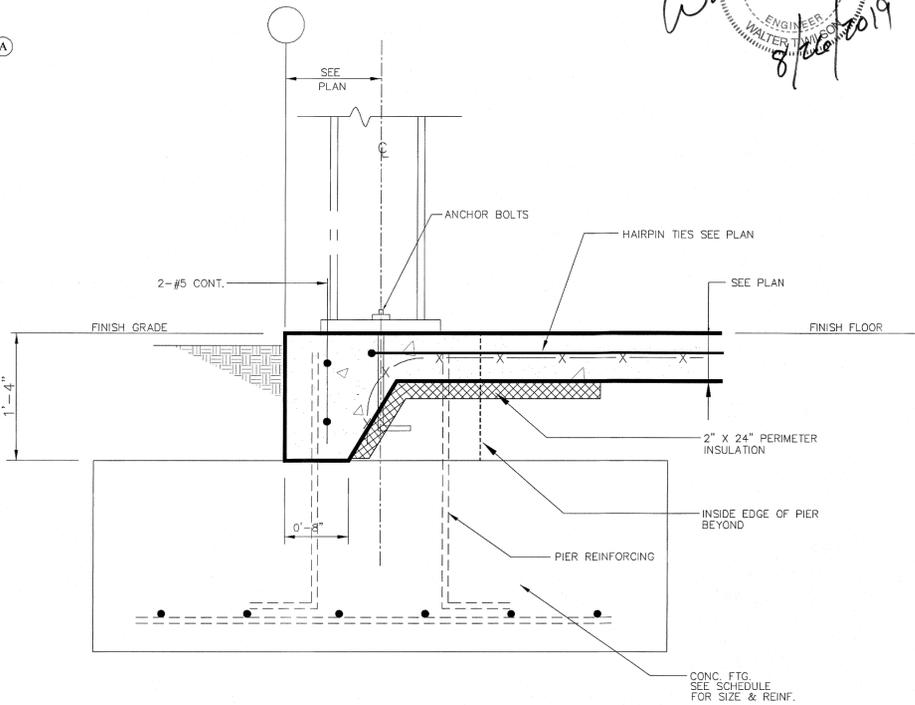
ANCHOR ROD DESCRIPTION	QUANTITY
3/4" DIAMETER X	68
1/2" DIAMETER X	64

ACCESSORY SCHEDULE

MARK	DESCRIPTION	DETAIL	QUAN.
A	30'-0" X 16'-0" FRAMED OPENINGS	(A)	1
B	16'-0" X 16'-0" FRAMED OPENINGS	(B)	6
C	16'-0" X 16'-0" FRAMED OPENINGS	(C)	2



WALTER TAYLOR  
 ENGINEER  
 SEAL 4047  
 8/26/2019



NOTE: PIERS AND FLOOR SLAB MAY BE POURED AT THE SAME TIME

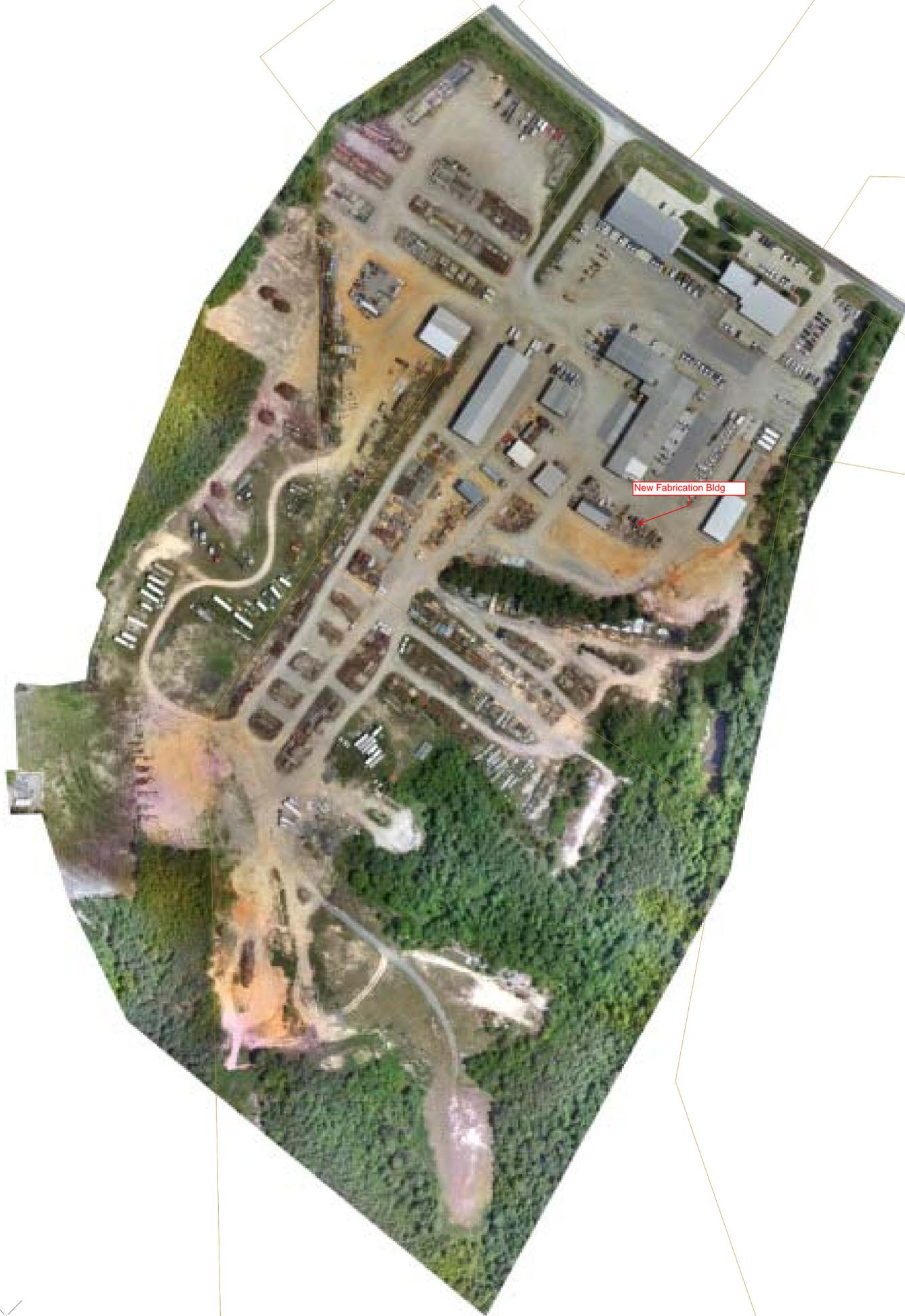
DATE	REVISIONS
8/26/2019	ADDRESSED CORRECTIONS BY CONTRACTOR



**WILSON & LYSLIAK INC.**  
 1030 EAST WENDOVER AVE.  
 GREENSBORO, NORTH CAROLINA  
 ZIP CODE 27405  
 PHONE (336) 275-1338  
 FAX (336) 275-2536

NEW WELDING & FABRICATION SHOP  
 FOR:  
**SANFORD CONTRACTORS**  
 628 ROCK POBK CHURCH ROAD  
 SANFORD, NORTH CAROLINA

JOB NO. G-1304  
 DATE 15 AUGUST 2019  
 DRAWN BY WTW  
 CHECKED BY  
 SHEET NO. **S-1**  
 OF



2

1