CONSTRUCTION DOCUMENT FOR:

ZEBULON PUBLIC SAFETY STATION

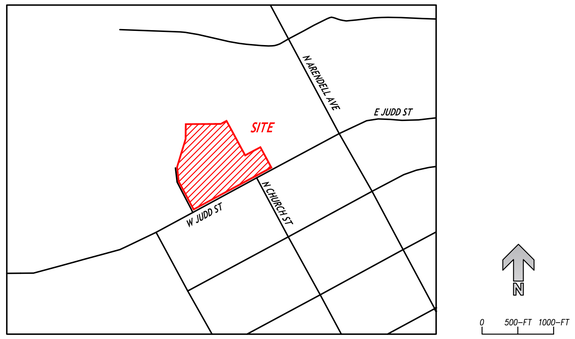
CONSTRUCTION DRAWINGS

DEVELOPMENT PLAN #: 1634214

201 W JUDD ST
ZEBULON, NC 27597

WAKE COUNTY

VICINITY MAP



SITE DATA

OWNER:	TOWN OF ZEBULON
OWNER CONTACT:	CHRISTOPHER C. PERRY, CFO FIRE CHIEF 113 E. VANCE STREET ZEBULON, NC 27597 PHONE: 919-823-1840 EMAIL: CPERRY@TOWNOFZEBULON.ORG
CIVIL/LANDSCAPE ARCHITECT:	CLH DESIGN, P.A.
DESIGNER CONTACT:	Y'HOSHUA AAL-ANUBIA, PLA - SENIOR PROJECT MANAGER 919-319-6716 400 REGENCY FOREST DRIVE, STE. 120 CARY, NC 27518 YAALANUBIA@CLHDESIGNPA.COM
ARCHITECTURAL:	ADW ARCHITECTS
DESIGNER CONTACT:	MIKE A. ESPOSITO - SENIOR PRINCIPAL 704-379-1919 2815 COLISUEM CENTRE DRIVE. SUITE 500 CHARLOTTE, NC 28217 MESPOSITO@ADWARCHITECTS.COM
PROJECT ADDRESS:	201 W. JUDD STREET ZEBULON, NC, 27597
PLANNING JURISD:	TOWN OF ZEBULON
PIN:	2705180148
REID:	0103437
DEEDED ACREAGE:	11.13 AC
ZONING:	OI
FRONT SETBACK:	20
SIDE SETBACK:	0 OR 5
REAR SETBACK:	25
EXISTING LAND USE:	SUBURBAN COMMERCIAL (SC)
PROPOSED LAND USE:	SUBURBAN COMMERCIAL (SC)
DISTURBED AREA:	4.05 ACRES
EXISTING IMPERVIOUS AREA:	0 ACRES
PROPOSED ON-SITE IMPERVIOUS:	1.97 ACRES
PROPOSED OFF-SITE IMPERVIOUS:	0.22 ACRES
PROPOSED OPEN AREA SET-ASIDE	±0.83 ACRES
BUILDING AREA SF:	±25,000 SF

PARKING REQUIREMENT:	REQUIRED	PROVIDED
VEHICLE PARKING	1 PER 600 SF - 42 SPACES	62 SPACES
ACCESSIBLE PARKING	3 SPACES (1 VAN)	4 SPACES (2 VAN)
BICYCLE PARKING	1 PER 20 VEHICLE - 3 SPACES	2 RACKS (4 SPACES)
FEMA 100-YEAR FLOODPLAIN:	NOT PRESENT	

SHEET INDEX

INFRASTRUCTURE INSPECTIONS QUANTITIES TABLE

Phase Number(s)	PHASE 1	PHASE 2	PHASE 3
Number of Lot (s)	1		
Lot Number (s) by Phase	N/A		
Number of Units	N/A		
Livable Buildings	1		
Open Space?	N/A		
Number of Open Space Lots	0		
Public Water (LF)	0		
Private Water* (LF)	318		
Public Sewer (LF)	0		
Public Force Main (LF)	0		
Private Sewer** (LF)	0		
Public Street (LF) - FULL	0		
Public Street (LF) - PARTIAL	625		
Public Sidewalk (LF) - FULL	522		
Public Sidewalk (LF) - PARTIAL	0		
Multi-Use Path*** (LF)	0		
Public Stormdrain (LF)	34		
Street Signs (LF)	0		
Water Service Stubs	1		
Sewer Service Stubs	1		
Average Daily Flow per phase****	450-GPD		

* Water mains 4" and larger
**Sewer mains and manholes as part of a collection system
*** 10 or 12 ft wide path in lieu of sidewalk or a Multi-Use path as part of a development amenity
****Entire Project Flow. Based on 75gpd per bedroom for residential (Apartments, single Family dwelling, townhouse, condos), or based on 15A NCAC 02T .0114 Wastewater Design Flow Rates for Commercial and Industrial.

CERTIFICATION/STANDARD TOWN NOTES/QUANTITIES/CONDITIONAL APPROVALS/ETC

STORMWATER AND FLOODPLAIN MANAGEMENT

APPROVED

STORMWATER MGMT.☐SWF-_____

FLOOD STUDY ☐SWF-_____

DATE_____

ENVIRONMENTAL CONSULTANT SIGNATURE

ATTENTION CONTRACTORS

The Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Infrastructure Inspections Division and schedule a Pre-construction meeting on the Development Portal prior to beginning any construction.
Raleigh Water must be contacted at (919) 996-4540 at least twenty-four hours prior to beginning any work activity around critical water and sewer infrastructure.

Failure to notify City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, install a downstream plug, have permitted plans on the jobsite, or any other violation of City of Raleigh Standards will result in a fine and possible exclusion from future work in the City of Raleigh.

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LA: C-106, PE: C-1595

ZEBULON PUBLIC SAFETY STATION
201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

COVER SHEET

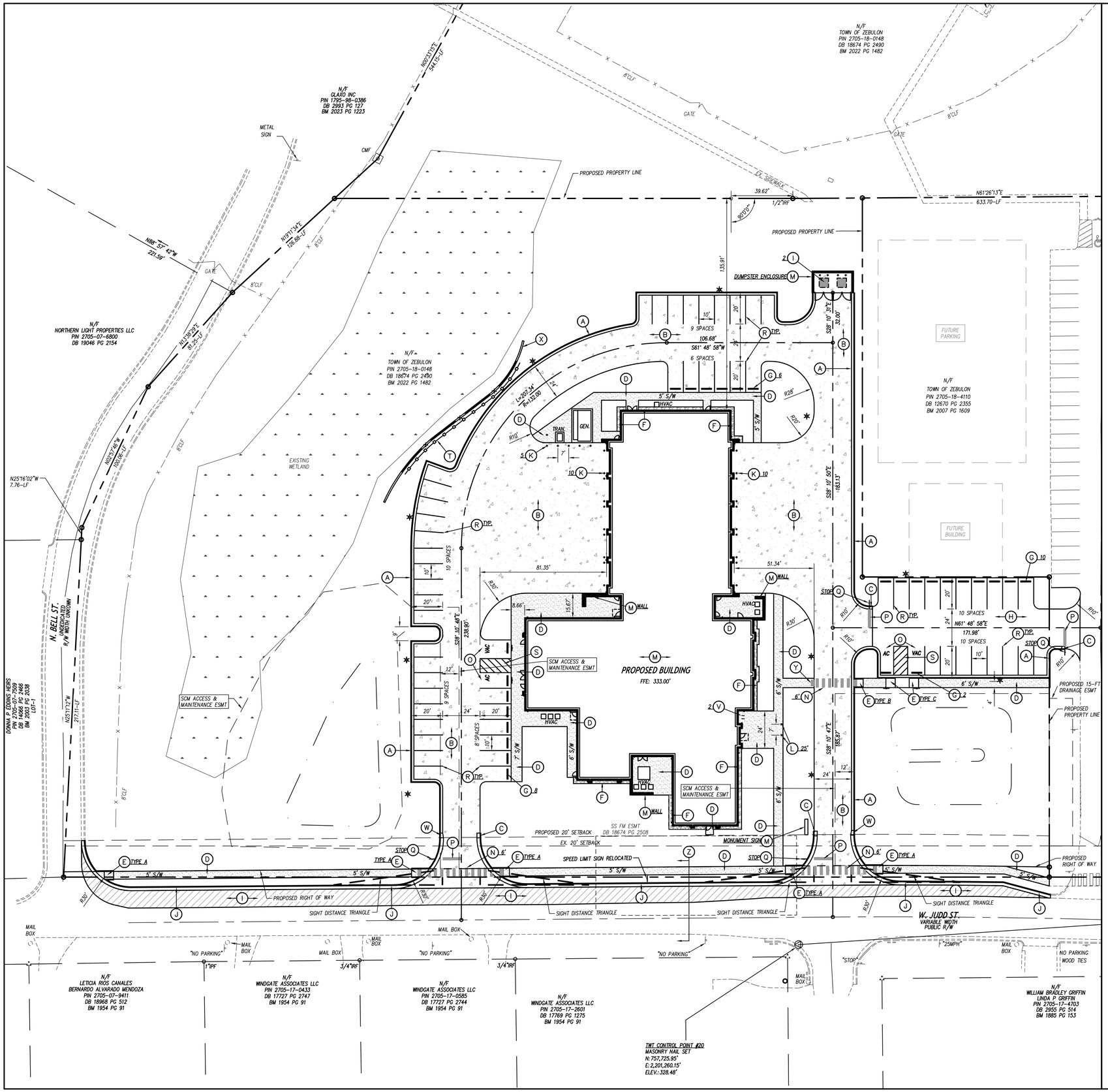
DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS
NO DATE DESCRIPTION:

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2472 Y'HOSHUA K. AAL-ANUBIA 07-18-25

SHEET NUMBER

C001



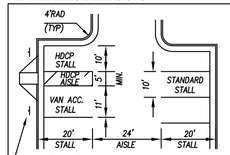
GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON AND NCDOT STANDARDS AND SPECIFICATIONS.
2. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB AND FACE OF BUILDING WALL, UNLESS OTHERWISE SHOWN.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES OCCUR.
4. CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL PAVEMENT MARKINGS AND SIGNAGE SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
6. ALL FACE OF RADII ARE 4-FT UNLESS OTHERWISE SHOWN.
7. ALL PARKING SPACES SHALL BE A MINIMUM OF 10-FT WIDE X 20-FT DEEP.
8. (AC) DENOTES ACCESSIBLE PARKING SPACE.
9. (VAC) DENOTES VAN ACCESSIBLE PARKING SPACE.
10. ANY AND ALL LANDSCAPING, EXISTING TREES OR SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
11. CONTRACTOR SHALL SUBMIT SCALED PLANS OF ALL SCORING/JOINTS FOR APPROVAL BY ARCHITECT 30 DAYS MINIMUM PRIOR TO INSTALLATION.
12. THE CROSS-SLOPE ON ALL SIDEWALKS SHALL BE A MAXIMUM OF 2.0%
13. NO WORK SHALL BE PERFORMED ON RIGHT-OF-WAYS OR ADJACENT PROPERTIES UNTIL THE OWNER NOTIFIES CONTRACTOR IN WRITING OF PROCUREMENT OF APPROPRIATE PERMITS, EASEMENTS, AGREEMENTS, OR RIGHTS-OF-WAY.

KEY NOTES

- (A) 24-IN CURB & GUTTER, SEE DETAIL SHEET C901.
- (B) HEAVY DUTY CONCRETE PAVEMENT, SEE DETAIL SHEET C901.
- (C) STANDARD CURB & GUTTER TERMINUS, SEE DETAIL SHEET C901.
- (D) CONCRETE SIDEWALK, SEE DETAIL SHEET C901.
- (E) ACCESSIBLE CURB RAMP, SEE DETAIL SHEET C902.
- (F) DECORATIVE STONE BAND, SEE DETAIL SHEET C903.
- (G) PRECAST CONCRETE WHEELSTOP, SEE DETAIL SHEET C902.
- (H) LIGHT DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET C901.
- (I) HEAVY DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET C901.
- (J) 30-IN CURB & GUTTER, SEE DETAIL SHEET C901.
- (K) STEEL BOLLARD, SEE ARCH. DETAIL SHEET A500.
- (L) FLAGPOLE, SEE DETAIL SHEET C901.
- (M) SEE ARCHITECTURAL PLANS FOR CANOPY, SCREEN AND STRUCTURAL WALLS, BUILDING COLUMNS, BOLLARDS, DUMPSTER ENCLOSURE, MONUMENT SIGN AND MECHANICAL SERVICE YARD.
- (N) HI-VIS CROSS WALK, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (O) ACCESSIBLE PARKING & SIGNAGE, SEE DETAIL SHEET C902.
- (P) STOP BAR, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (Q) TRAFFIC CONTROL SIGNAGE, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (R) PARKING SPACE STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (S) DIAGONAL STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (T) TRAFFIC GUARDRAIL, SEE DETAIL SHEET C902.
- (U) DUMPSTERS, PROVIDED BY OWNER.
- (V) BIKE RACK, SEE SPECIFICATIONS. SEE DETAIL SHEET C902.
- (W) 24" TO 30" G&G TRANSITIONS. SEE DETAIL SHEET C901.
- (X) SEGMENTAL RETAINING WALL BY OTHERS.
- (Y) DETECTABLE WARNING DOMES, SEE DETAIL SHEET C902.
- (Z) ROAD SECTION, SEE DETAIL SHEET C902.

TYP. PARKING DIMENSIONS



ACCESSIBLE PARKING SIGN

NOTES:
1. ALL DIMENSIONS ARE FROM FACE OF CURB.
2. ALL STANDARD ACCESSIBLE PARKING STALLS SHALL BE 10' WIDE.
3. ALL VAN ACCESSIBLE PARKING STALLS SHALL BE 11' WIDE.

TRAFFIC CONTROL NOTES

1. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.

SIGN	MUTCD STD.	SIZE
STOP	R1-1	30"x30"

2. ALL SIGNS SHALL BE MOUNTED WITH 7-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 3-LB. GALV. STEEL U-CHANNEL POST SET IN 3-FT DEEP x 12-IN DIA. CONCRETE FOOTING.
3. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND NCDOT STANDARDS AND THE PROJECT SPECIFICATIONS.

MARKING	NCDOT STD.	SIZE	COLOR
PARKING SPACES	-	4-IN	WHT.
CROSSWALK	1205.07(HI-VIS)	24-IN	WHT.
STOP BAR	-	24-IN	WHT.

4. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC TYPE EXCEPT FOR PARKING SPACE LINES WHICH SHALL BE ALKYD-RESIN TYPE PAINT.
5. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY CLH DESIGN PRIOR TO SIGN INSTALLATION.
6. CENTER ALL DIRECTIONAL ARROWS WITHIN TRAVEL LANE.
7. COORDINATE FIRE LANE MARKINGS WITH TOWN OF ZEBULON FIRE MARSHAL.
8. ALL SIGNS SHALL USE PRISMATIC SHEETING THAT MEETS MINIMUM RETLECTIVITY STANDARDS FOUND IN THE LATEST EDITION OF THE MUTCD.

NORTH

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

STAKING PLAN

DATE 07-18-2025
CLH PROJECT NO 22-154

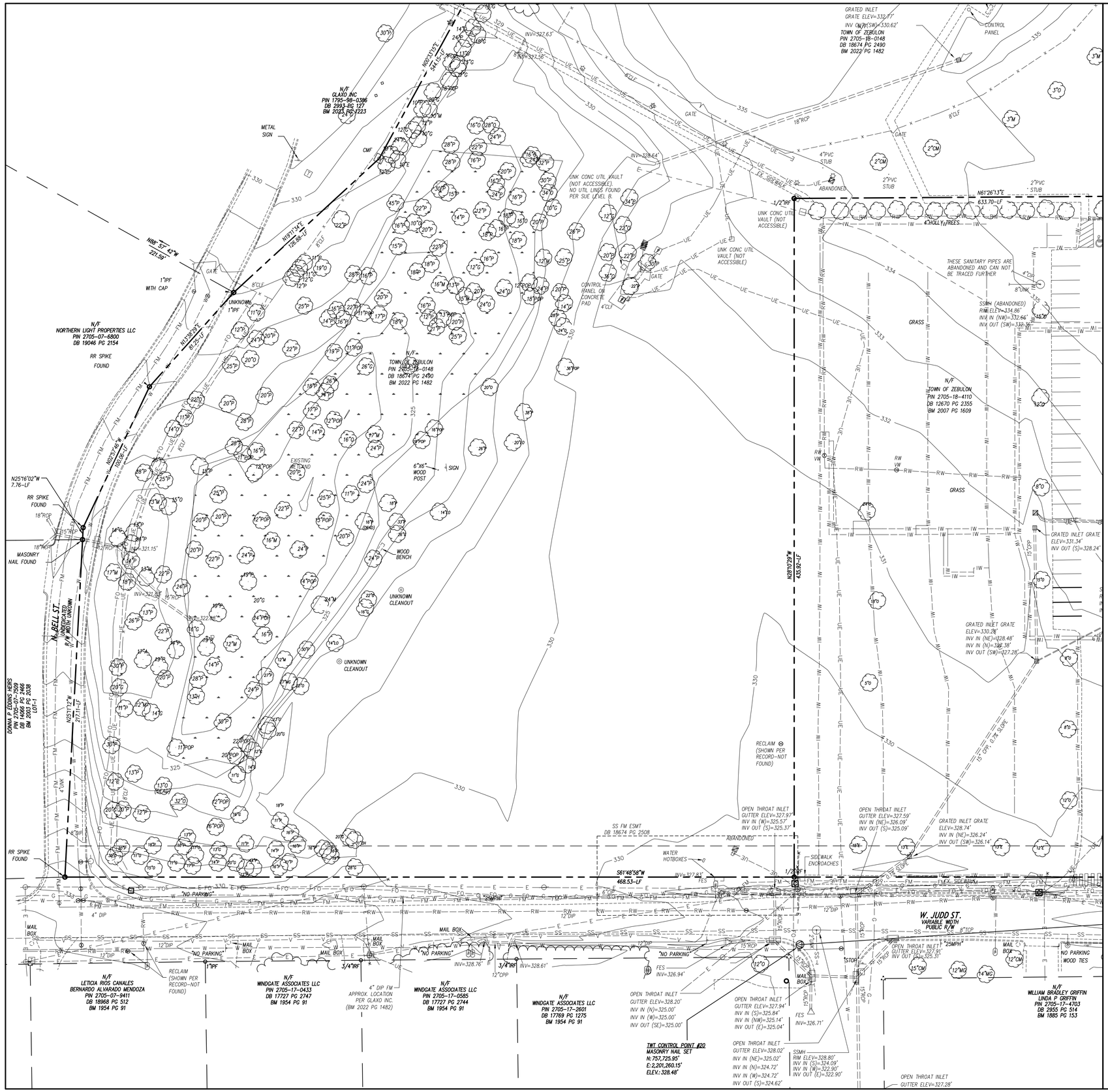
REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2472 CLH DESIGN, P.A. RACHAEL K. AAL-ANDRIANOFF
07-18-25

SHEET NUMBER

C101



LEGEND

OVERHEAD ELECTRICAL	E
UNDERGROUND ELECTRICAL	UE
FIRE PROTECTION	FP
GAS	G
SANITARY SEWER	SS
TELEPHONE	T
UNDERGROUND TELEPHONE	UT
FIBER OPTIC	FO
WATER	W
FORCE MAIN	FM
STORM DRAIN	
INDIVIDUAL TREE	
LIGHT POLE	LP
UTILITY POLE	PP
MANHOLE	MH
CLEAN OUT	CO
DROP INLET,CATCH BASIN	DI, CB
FIRE HYDRANT	FH
WATER VALVE	WV

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ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

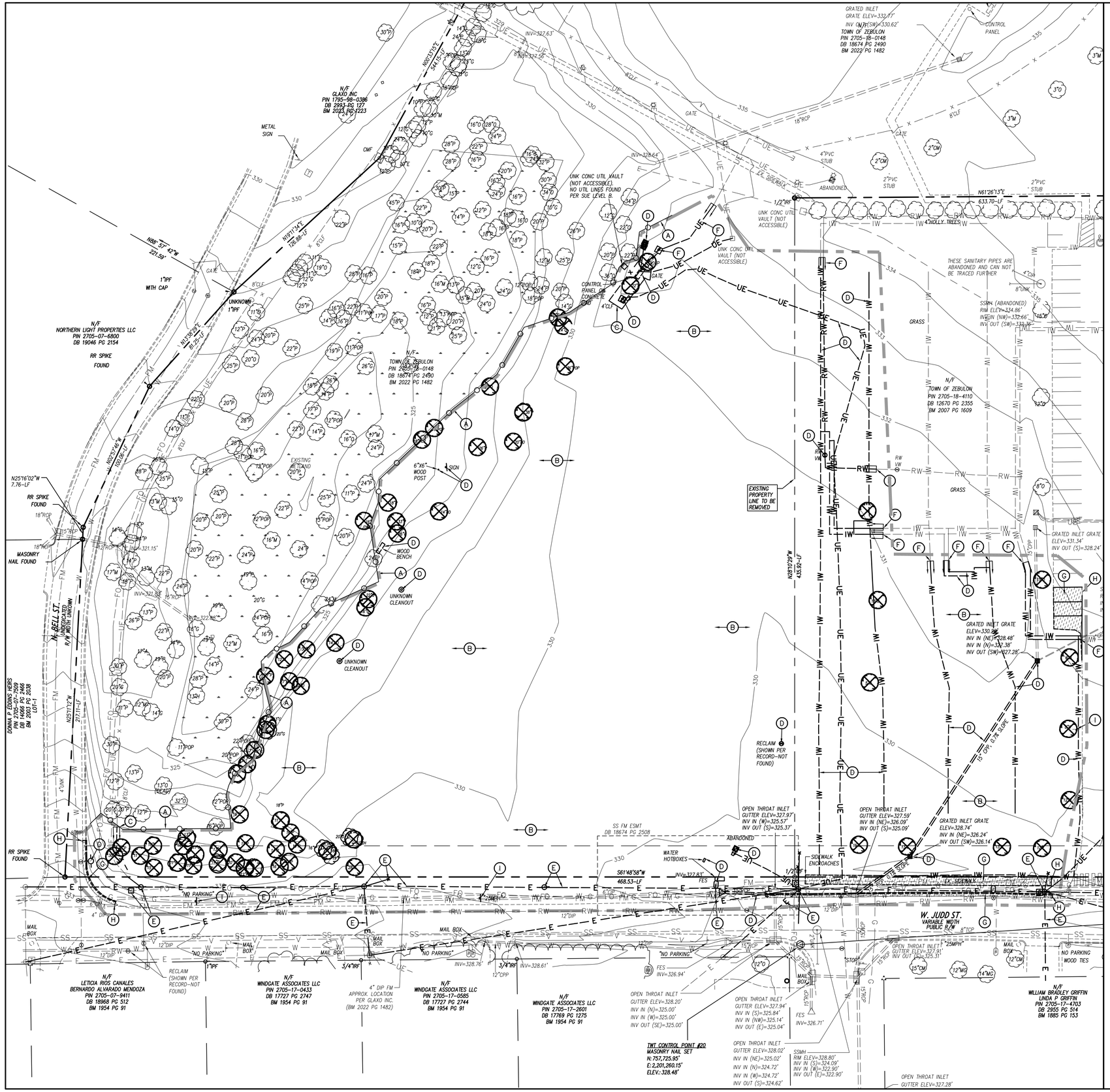
EXISTING CONDITION

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS
NO DATE DESCRIPTION:

NORTH CAROLINA LANDSCAPE ARCHITECT SEAL 2472 KENNETH K. AAL-ANDRIANOV 07-18-25

SHEET NUMBER
C201



LEGEND

STRUCTURES/UTILITIES TO BE REMOVED		STRUCTURES/UTILITIES TO REMAIN	
OVERHEAD ELECTRICAL	E	OVERHEAD ELECTRICAL	E
UNDERGROUND ELECTRICAL	UE	UNDERGROUND ELECTRICAL	UE
FIRE PROTECTION	FP	FIRE PROTECTION	FP
GAS	G	GAS	G
SANITARY SEWER	SS	SANITARY SEWER	SS
TELEPHONE	T	TELEPHONE	T
UNDERGROUND TELEPHONE	UT	UNDERGROUND TELEPHONE	UT
FIBER OPTIC	FO	FIBER OPTIC	FO
WATER	W	WATER	W
FORCE MAIN	FM	FORCE MAIN	FM
STORM DRAIN		STORM DRAIN	
INDIVIDUAL TREE TO BE REMOVED.		INDIVIDUAL TREE TO REMAIN.	
LIGHT POLE	LP	LIGHT POLE	LP
UTILITY POLE	PP	UTILITY POLE	PP
MANHOLE	MH	MANHOLE	MH
CLEAN OUT	CO	CLEAN OUT	CO
DROP INLET,CATCH BASIN	DI, CB	DROP INLET,CATCH BASIN	DI, CB
FIRE HYDRANT	FH	FIRE HYDRANT	FH
WATER VALVE	WV	WATER VALVE	WV
CONSTR./CLEARING LIMITS		PAVEMENT, S/W, C&G TO BE REMOVED.	
TREE PROTECTION FENCE			

GENERAL NOTES

1. ALL EXISTING STRUCTURES AND UTILITIES SHALL BE REMOVED AS NEEDED TO ALLOW NEW CONSTRUCTION. IN GENERAL, FEATURES INDICATED IN BOLD ON THIS PLAN SHALL BE REMOVED.
2. ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT FOR NEW PAVEMENT, SIDEWALK, OR CURB AND GUTTER, ETC. ANY EXISTING PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH PRE-CONSTRUCTION CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS TO BE REMOVED).
3. ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
4. ALL WASTE MATERIAL GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
5. EXISTING SITE BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION WAS TAKEN FROM SURVEY BY TAYLOR WISEMAN & TAYLOR, PERFORMED REX V. BOHN. THESE PLANS DO NOT ASSUME ANY LIABILITY FOR ANY EXISTING INFORMATION BOTH SHOWN AND NOT SHOWN ON THE SURVEY AND ANY CHANGES TO THE EXISTING CONDITIONS THAT MAY HAVE OCCURRED AFTER THE SURVEY WAS ISSUED. CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.
6. INSTALL TREE PROTECTION FENCING PRIOR TO BEGINNING CLEARING OPERATIONS. CLEAR AND GRUB ALL AREAS AS SHOWN AND REQUIRED TO PERMIT INSTALLATION OF NEW CONSTRUCTION PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE MATERIAL WHICH WILL CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS). ALL CONTRACTORS SHALL VISIT THE SITE AND OBSERVE EXISTING CONDITIONS PRIOR TO BIDDING.
7. TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE INTERIOR EDGE OF CLEARING LIMITS, THE CONTRACTOR SHALL CUT 2-FT DEEP TRENCHES ALONG THE LIMITS OF DISTURBANCE, SO AS TO CUT, RATHER THAN TEAR ROOTS.
8. PRIOR TO DEMOLISHING EXISTING STRUCTURES, MAKE AN INSPECTION FOR ANY HAZARDOUS MATERIALS. CONTACT ARCHITECT IMMEDIATELY IF ANY HAZARDOUS MATERIALS ARE DISCOVERED. CAP AND REMOVE UTILITY SERVICES, FUEL TANKS AND SEPTIC SYSTEMS. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
9. VERIFY ALL ILLUSTRATED UNDERGROUND ELEMENTS/UTILITIES. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS/UTILITIES. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS/UTILITIES ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
10. CONTACT UTILITY LOCATING SERVICE AT LEAST 48-HRS PRIOR TO EXCAVATION.
11. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGES OCCUR, REPAIR IMMEDIATELY AS DIRECTED BY THE ARCHITECT. AREAS TO BE PROTECTED, REPAIRED AND CLEANED SHALL ALSO INCLUDE ANY STAGING AREAS, ACCESS ROUTES AND OTHER EXISTING IMPROVEMENTS WITHIN THE CONSTRUCTION LIMITS THAT ARE TO REMAIN.
12. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.
13. ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, CLEANOUTS, ETC. SHALL BE ADJUSTED AS NEEDED TO MATCH FINISH GRADE.
14. DEMOLITION AND PATCHING OF PAVEMENT, SIDEWALK, CURB AND GUTTER AND OTHER EXISTING PAVED SURFACES IN ADDITION TO THAT INDICATED ON THIS PLAN SHALL BE PERFORMED AS REQUIRED TO CONSTRUCT AND INSTALL NEW UTILITIES. ALL SUCH DEMOLITION AND PATCHING SHALL BE INCLUDED IN THE BASE BID SCOPE OF WORK.
15. THIS SITE IS NOT LOCATED WITHIN SPECIAL FLOOD HAZARD AREAS AS DETERMINED BY FEMA AND DEPICTED ON F.I.R.M. MAP 3720270500K, DATED 7/19/2022 AS BEING WITHIN ZONE "X-OTHER AREA".
16. NO WORK SHALL BE PERFORMED ON RIGHT-OF-WAYS OR ADJACENT PROPERTIES UNTIL THE OWNER NOTIFIES CONTRACTOR IN WRITING OF PROCUREMENT OF APPROPRIATE PERMITS, EASEMENTS, AGREEMENTS, OR RIGHTS-OF-WAY.
17. MITIGATION MEASURE #3 - WETLANDS: WHEN DISPOSING OF EXCESS, SPOIL, OR OTHER CONSTRUCTION MATERIALS ON PUBLIC OR PRIVATE PROPERTY, CONTRACTOR SHALL NOT FILL IN OR OTHERWISE CONVERT WETLANDS. PER REQUIREMENTS OF CONSOLIDATED FARM AND RURAL DEVELOPMENT ACT (CONACT), NO IMPACTS TO WETLANDS ARE PERMITTED.

KEY NOTES

- (A) TEMPORARY TREE PROTECTION FENCE, SEE DETAIL SHEET C903.
- (B) CLEAR AND GRUB, STRIP TOPSOIL WITHIN CONSTRUCTION LIMITS.
- (C) FENCE TO BE REMOVED.
- (D) STRUCTURE/UTILITY TO BE REMOVED.
- (E) UTILITY LINE/STRUCTURE TO BE REMOVED/RELOCATED BY LOCAL UTILITY COMPANY. LOCAL UTILITY COMPANY SHALL DETERMINE THE LIMITS AND EXTENT OF REMOVAL/RELOCATION OF UTILITIES REQUIRED FOR NEW CONSTRUCTION. COORDINATE SCHEDULE AND WORK WITH LOCAL UTILITY COMPANY AND ARCHITECT/OWNER.
- (F) EXTENTS OF UTILITY DEMOLITION. CAP AND ABANDON REMAINING UTILITIES IN ACCORDANCE WITH SPECIFICATIONS.
- (G) ASPHALT OR CONCRETE PAVEMENT TO BE REMOVED.
- (H) SAWCUT AND REMOVE EXISTING PAVEMENT, SIDEWALK, AND CURB & GUTTER.
- (I) SIGN AND POST TO BE REMOVED. RELOCATE SIGN ON NEW POST AS INDICATED ON SITE STAKING PLAN.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

DEMOLITION PLAN

DATE 07-18-2025
CLH PROJECT NO 22-154

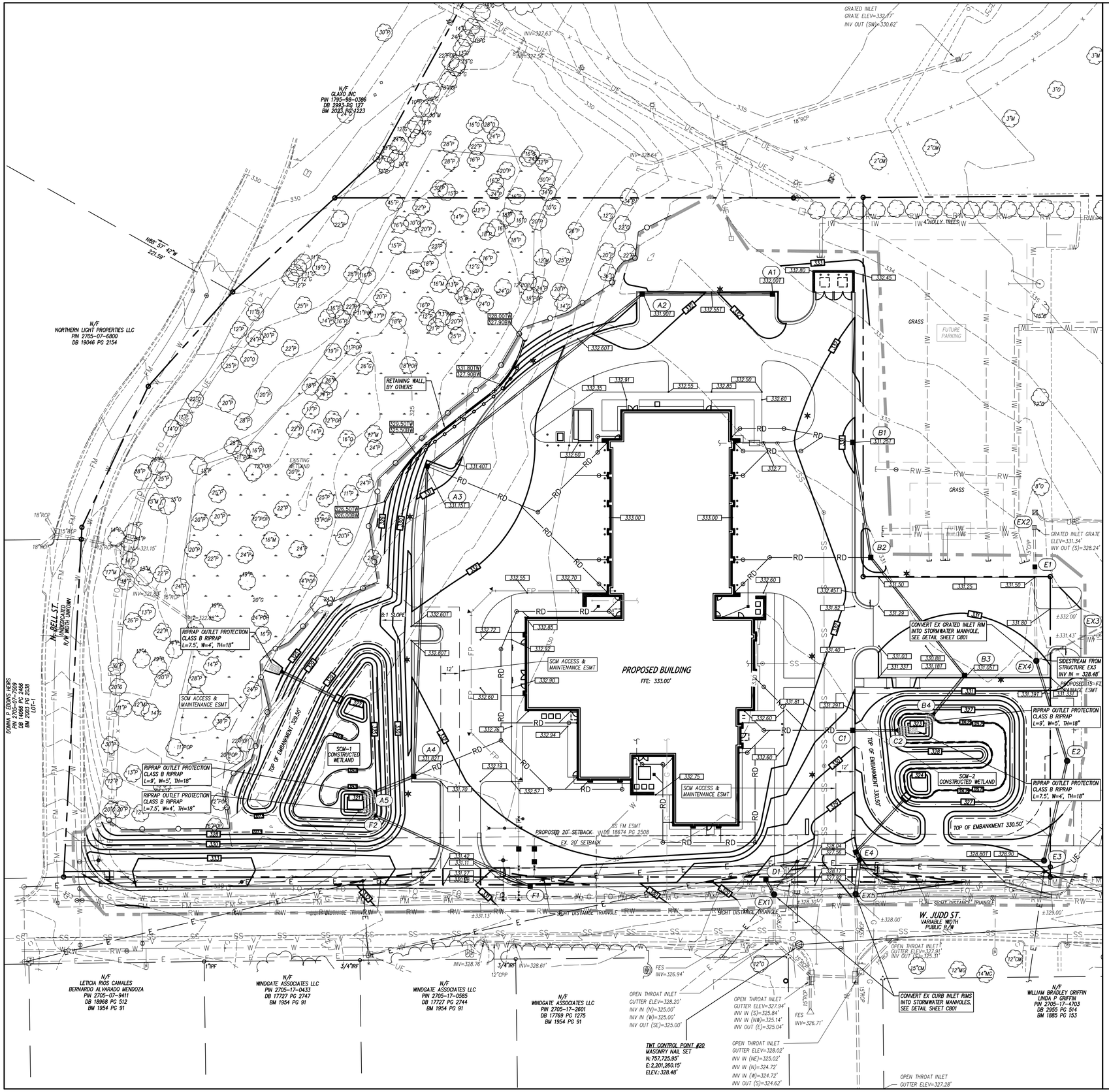
REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2472 NATHAN K. KAI-ANDRIANOPOULOS 07-18-25

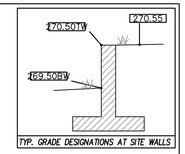
SHEET NUMBER

C202



GRADING LEGEND

- EXISTING CONTOURS
- FINAL CONTOURS
- 270.4' — EXISTING SURVEY SPOT ELEVATION
- 270.50T — PROPOSED TOP OF CURB SPOT ELEVATION
- 270.50 — PROPOSED GROUND/PAVEMENT ELEVATION
- 270.50TW — PROPOSED FINISHED GRADE AT TOP OF WALL ELEVATION
- 270.50BW — PROPOSED FINISHED GRADE AT BOTTOM OF WALL ELEVATION
- A4 — STORM STRUCTURE NUMBER
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- FD — PROPOSED FOUNDATION DRAIN DISCHARGE LINE. SEE ARCH. PLANS FOR DRAIN PIPE LOCATIONS ALONG BUILDING WALLS.
- RD — PROPOSED ROOF DRAIN
- TREE PROTECTION FENCE



GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON AND NCDOT STANDARDS AND SPECIFICATIONS.
2. ALL SPOT ELEVATIONS INDICATED AT CURB AND GUTTER AND ARE DENOTED TO TOP OF CURB, UNLESS OTHERWISE SHOWN.
3. TOTAL DENUDED AREA = 4.05 AC
4. CONTRACTOR SHALL ADJUST ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, CLEANOUTS, ETC. AS NEEDED TO MATCH FINISH GRADE.
5. ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE PERFORMED BY THE OWNER'S INDEPENDENT TESTING LABORATORY. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6. ALL STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY. SEE DETAIL ON SHEET C702.
7. EXISTING VEGETATION WITHIN TREE PROTECTION AREAS SHALL REMAIN UNDISTURBED, UNLESS NOTED OTHERWISE.
8. ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. THE GRADING CONTRACTOR SHALL COMPLY WITH ALL STATE CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF-SITE.
10. THE GRADING CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY STATE AUTHORITIES OR THE ARCHITECT.
11. THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE DISPOSAL OF ALL CLEARING AND GRADING WASTE MATERIALS GENERATED DURING CONSTRUCTION AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS.
12. THE CROSS-SLOPE ON ALL SIDEWALKS SHALL BE A MAXIMUM OF 2.0%
13. CONTRACTOR SHALL VERIFY ALL EXISTING ELEVATIONS WHERE NEW CONSTRUCTION JOIN OR CONNECT TO EXISTING PAVEMENT, CURB AND OTHER RIGID STRUCTURES. NOTIFY ARCHITECT IF DISCREPANCIES OCCUR.

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NO. UP STRM	STRUCTURE NO. DN STRM	PIPE SLOPE	PIPE DIA. (IN)	PIPE LENGTH (LF)	PIPE MATRL	UPPER INV. (FT)	LOWER INV. (FT)	UPSTREAM STRUCTURE DATA TOP ELEV (FT) (1)	DEPTH (FT)	TYPE	NOTES
A1	A2	0.60%	15	84	RCP	328.10	327.60	332.00	3.90	CB	
A2	A3	0.62%	15	177	RCP	327.50	326.40	331.90	4.40	CB	
A3	A4	0.68%	15	219	RCP	326.30	324.80	331.15	4.85	CB	
A4	A5	0.71%	18	28	RCP	324.70	324.50	331.82	7.12	CB	4
B1	B2	0.67%	15	75	RCP	327.80	327.30	331.25	3.45	CB	
B2	B3	0.62%	15	97	RCP	327.20	326.60	330.75	3.55	DI	
B3	B4	0.76%	18	33	RCP	326.50	326.25	331.05	4.55	CB	4
C1	C2	6.03%	15	29	RCP	328.00	326.25	332.00	4.00	CB	
D1	EX1	0.91%	15	11	RCP	325.60	325.50	328.40	2.80	CI	6
EX2	E1	0.96%	15	26	EX RCP	328.24	327.99	331.25	3.01	DI	
E1	EX4	1.02%	15	60	EX RCP	327.99	327.38	331.25	3.26	DI	7
EX4	E2	1.09%	15	67	RCP	327.28	326.55	330.90	3.62	MH	
E2	E3	0.53%	15	66	RCP	326.45	326.10	330.25	3.80	MH	
E3	E4	0.51%	15	118	RCP	326.00	325.40	329.50	3.50	MH	
E4	EX5	0.45%	24	22	RCP	325.30	325.20	328.06	2.76	DBL CB	5, 6
EX3	EX4	2.08%	6	106	EX CPP	330.68	328.48	333.58	2.90	JB	
F1	F2	2.55%	15	110	RCP	327.30	324.50	331.25	3.95	CB	4

LEGEND

- CB — CATCH BASIN, SEE SHEET C801
- DI — DROP INLET, SEE SHEET C801
- CI — CURB INLET, SEE SHEET C803
- MH — MANHOLE, SEE SHEET C801
- JB — JUNCTION BOX
- FES — FLARED END SECTION, SEE SPECS
- RCP — REINFORCED CONCRETE PIPE, CLASS III UNLESS OTHERWISE SPECIFIED
- A4 — STRUCTURE I.D. NUMBER

NOTES

1. TOP ELEV. IS TOP OF CURB FOR CATCH BASINS, TOP OF RIM FOR MANHOLES, TOP OF GRATE FOR DROP INLETS AND INLINE AREA DRAINS, AND FINISH GRADE FOR CLEANOUTS.
2. ALL PIPE LENGTHS LISTED ARE HORIZONTAL LENGTHS BETWEEN CENTER OF GRATES, MANHOLES, OR TO THE END OF THE FES.
3. ALL FES INLETS & OUTLETS SHALL BE RCP.
4. DOWNSTREAM STRUCTURE IS A FES.
5. UPSTREAM STRUCTURE IS A DOUBLE CATCH BASIN.
6. PIPE SHALL BE CLASS IV RCP.
7. UPSTREAM STRUCTURE IS A DOGHOUSE OVER EXISTING PIPE.

BUILT-UPON AREA

PROPERTY SIZE =	214,537-SF (4.93-AC)
EXISTING BUA =	0-SF
PROPOSED BUA =	85,726-SF (1.97-AC)
PERCENT BUA =	40% HIGH-DENSITY
PROPOSED BUA BREAKDOWN:	
BUILDING =	27,457-SF (0.63-AC)
PARKING/DRIVEWAY =	51,609-SF (1.18-AC)
SIDEWALK =	6,660-SF (0.16-AC)

NORTH

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

GRADING & DRAINAGE PLAN

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

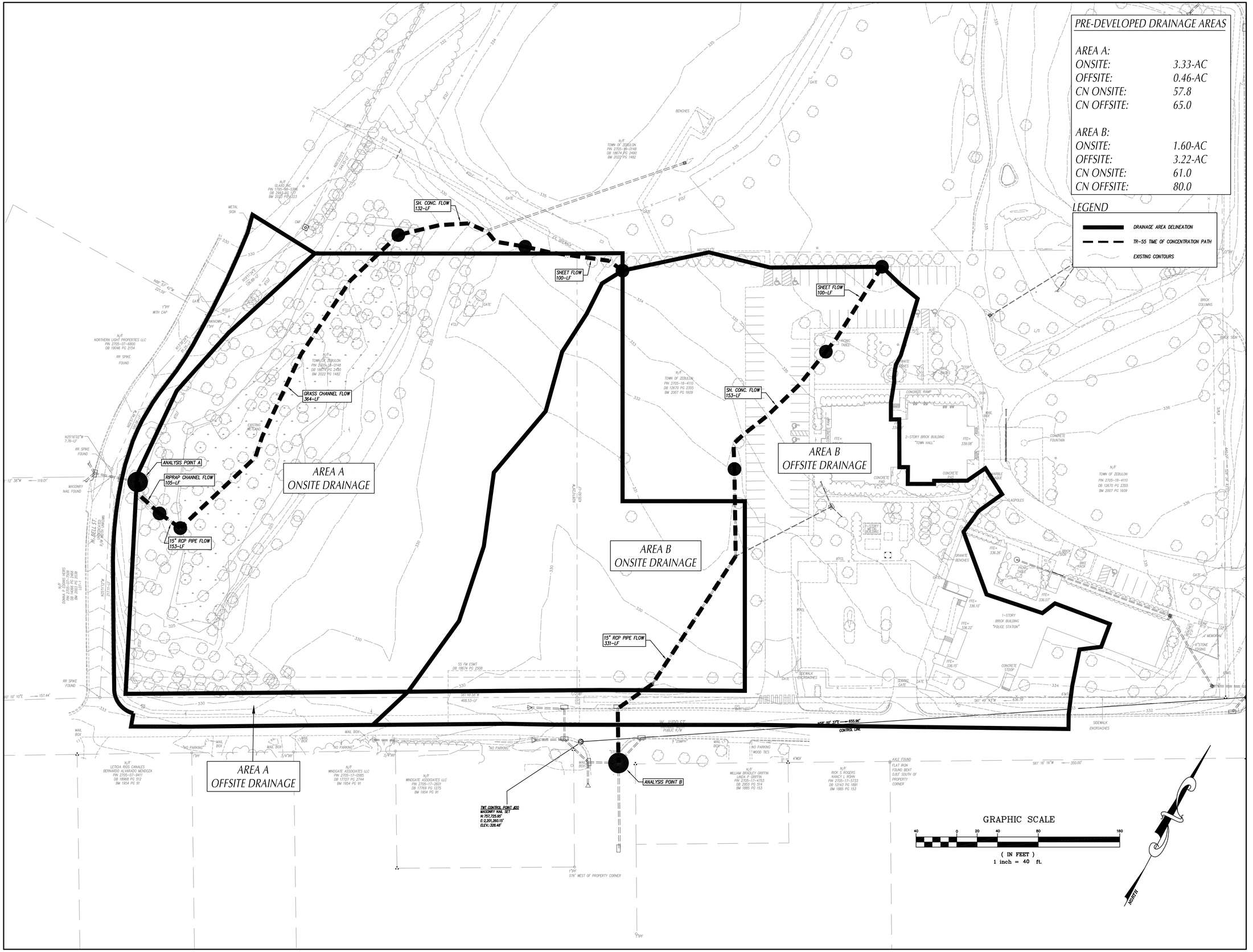
NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA SEAL 22625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:19:46-04'00'

SHEET NUMBER

C301



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ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

PRE-DEVELOPMENT DRAINAGE AREA MAP

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS
NO DATE DESCRIPTION:

NORTH CAROLINA PE SEAL 022625 ENGINEER STEVEN J. MILLER

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Date: 2025.08.22 15:20:23-04'00'

SHEET NUMBER

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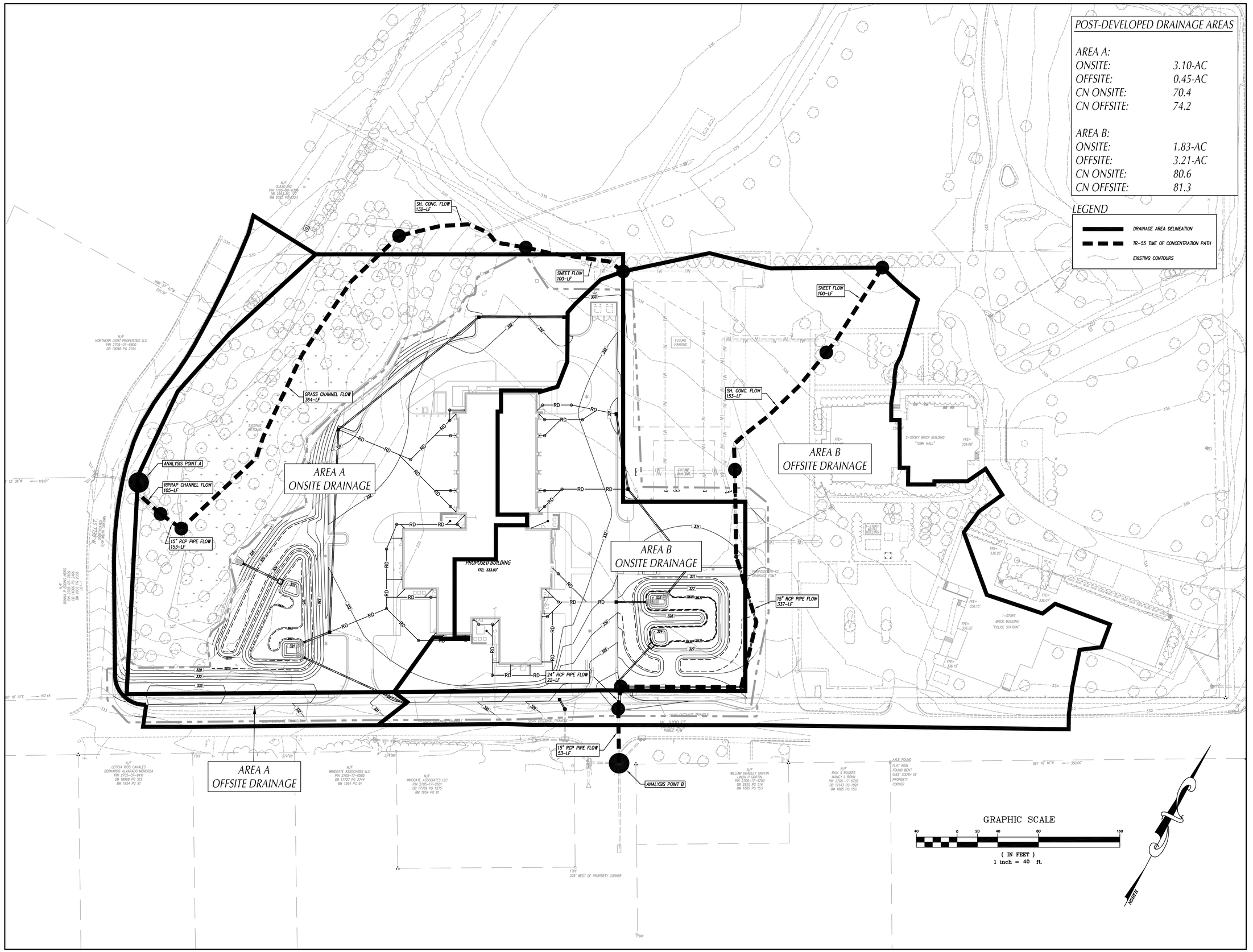

POST-DEVELOPED DRAINAGE AREAS

AREA A:	
ONSITE:	3.10-AC
OFFSITE:	0.45-AC
CN ONSITE:	70.4
CN OFFSITE:	74.2
AREA B:	
ONSITE:	1.83-AC
OFFSITE:	3.21-AC
CN ONSITE:	80.6
CN OFFSITE:	81.3

LEGEND

- DRAINAGE AREA DELINEATION
- TR-55 TIME OF CONCENTRATION PATH
- EXISTING CONTOURS

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CONSTRUCTION DOCUMENTS

POST-DEVELOPMENT DRAINAGE AREA MAP

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

NO	DATE	DESCRIPTION:

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 022025 STEVEN J. MILLER

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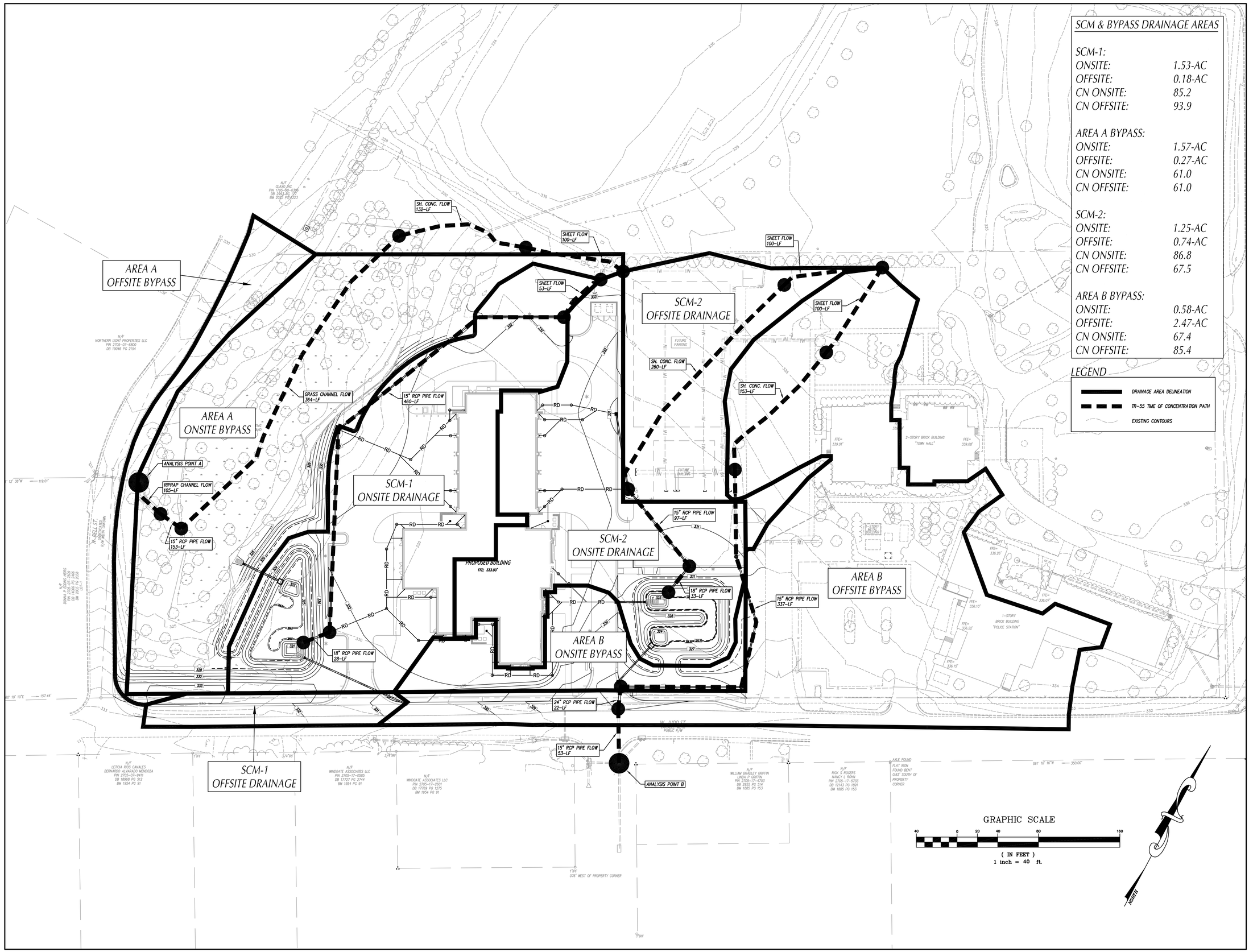
Date: 2025.08.22 15:20:30-04'00'

SHEET NUMBER

C303



SCM & BYPASS DRAINAGE AREAS

SCM-1:	
ONSITE:	*1.53-AC*
OFFSITE:	*0.18-AC*
CN ONSITE:	*85.2*
CN OFFSITE:	*93.9*
AREA A BYPASS:	
ONSITE:	*1.57-AC*
OFFSITE:	*0.27-AC*
CN ONSITE:	*61.0*
CN OFFSITE:	*61.0*
SCM-2:	
ONSITE:	*1.25-AC*
OFFSITE:	*0.74-AC*
CN ONSITE:	*86.8*
CN OFFSITE:	*67.5*
AREA B BYPASS:	
ONSITE:	*0.58-AC*
OFFSITE:	*2.47-AC*
CN ONSITE:	*67.4*
CN OFFSITE:	*85.4*

LEGEND

- *DRAINAGE AREA DELINEATION*
- *TR-55 TIME OF CONCENTRATION PATH*
- *EXISTING CONTOURS*

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CONSTRUCTION DOCUMENTS

SCM & BYPASS DRAINAGE AREA MAP

DATE 07-18-2025
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REVISIONS
NO DATE DESCRIPTION:

NORTH CAROLINA SEAL 022625 ENGINEER STEVEN J. MILLER

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SHEET NUMBER

C304

CONSTRUCTION SEQUENCE - INITIAL INSTALL

1. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES (INCLUDING TIMBERING AND DEMOLITION) OCCUR. THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM AT DEQ.NC.GOV/NCG01. PLEASE NOTE, THE E-NOI FORM MAY ONLY BE FILLED OUT ONCE THE PLANS HAVE BEEN APPROVED.
   - 1.1. PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTIONS RECORDS, PERMIT, CERTIFICATE OF COVERAGE, AND S&E PLAN ARE REQUIRED TO BE MAINTAINED ON SITE AND ACCESSIBLE DURING INSPECTION. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OR ENTRANCE OF PROJECT.
2. INSTALL TREE PROTECTION FENCING.
3. OBTAIN APPROVED PLAN AND APPROVAL PLACARD. A COPY OF THE APPROVED PLAN MUST BE ON FILE AT THE JOB SITE.
4. CONTACT NC DEQ LDS RALEIGH OFFICE AT 919-791-4200 TO SCHEDULE PRE-CONSTRUCTION MEETING AT LEAST 72 HOURS PRIOR TO PROJECT ACTIVATION AND PROVIDE NOTIFICATION OF THE PROJECT START-UP DATE.
5. CONDUCT PRE-CONSTRUCTION CONFERENCE.
6. THE FOLLOWING MUST BE KEPT ON SITE UNTIL THE E&SC PLAN HAS BEEN CLOSED OUT BY LAND QUALITY: RAIN GAUGE, A COPY OF APPROVED E&SC PLAN WITH APPROVAL CERTIFICATE/LETTER, AND NPDES PERMIT WITH A MINIMUM OF MOST RECENT 30 DAYS OF SELF-INSPECTION RECORDS (SEE SELF-INSPECTION REQUIREMENTS BELOW). THESE ITEMS SHOULD BE LOCATED NEAR THE MAIN CONSTRUCTION ENTRANCE. FAILURE TO MAINTAIN THESE ON-SITE VIOLATES THE NPDES PERMIT.

** SELF-INSPECTION FOR EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PREFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN **

7. CONTACT THE DEMLR RALEIGH REGIONAL OFFICE AT 919-792-4200 AT LEAST 48 HOURS PRIOR TO COMMENCING THE LAND-DISTURBING ACTIVITIES.
8. INSTALL TEMPORARY CONSTRUCTION ENTRANCES, PERIMETER SILT FENCES, REINFORCED OUTLET PROTECTION, J-HOOK OUTLET PROTECTION, AND COMPOST SOCK FENCES.
9. INSTALL SILT BAG INLET PROTECTION ON EXISTING STORMWATER STRUCTURES AS SHOWN. SILT BAGS ARE TO BE CONTINUOUSLY MONITORED DURING OPERATION.
10. CLEAR AND GRUB AREAS ONLY AS REQUIRED FOR INSTALLATION OF INITIAL SEDIMENT CONTROL MEASURES.
    - 10.1. PER THE NPDES PERMIT, GROUND STABILIZATION WILL BE APPLIED WITHIN 14 CALENDAR DAYS FROM LAST LAND DISTURBING ACTIVITY. FOR STEEP SLOPES, THAT AREA MUST BE STABILIZED WITHIN 7 CALENDAR DAYS.

** STOCKPILES, LAYDOWN AND WASTE AREAS, CONCRETE WASHOUTS, PORTABLE TOILETS, AND FUELS MUST BE LOCATED AT LEAST 50 FEET AWAY FROM ANY OPEN WATER CONVEYANCES, SUCH AS BASINS, DITCHES, STORM DRAIN INLETS, ETC. THE LOCATION OF THESE ACTIVITIES MAY BE FIELD ADJUSTED IF THE DISTANCE REQUIREMENTS ARE MET. **

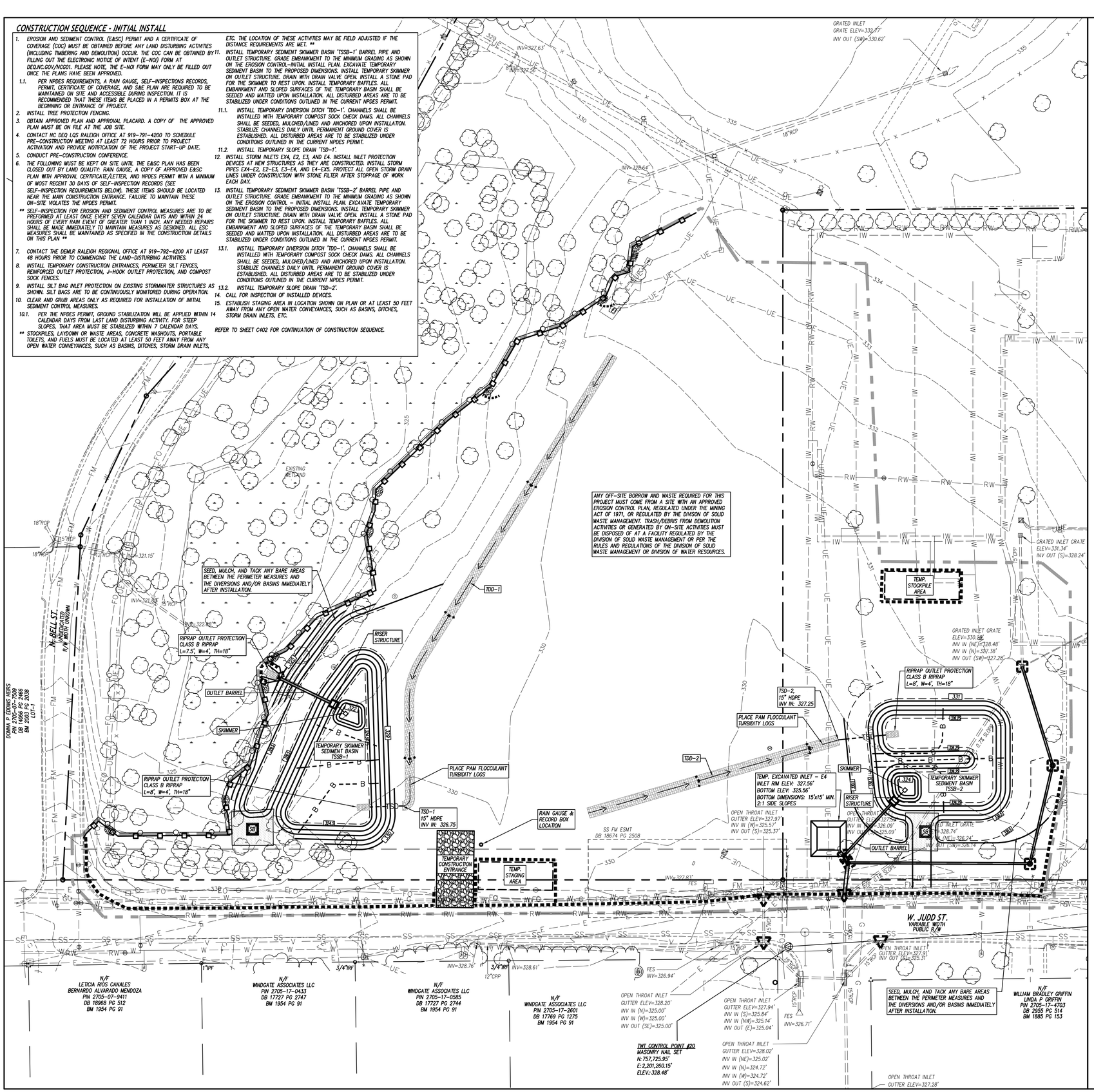
11. INSTALL TEMPORARY SEDIMENT SKIMMER BASIN "TSSB-1" BARREL PIPE AND OUTLET STRUCTURE. GRADE EMBANKMENT TO THE MINIMUM GRADING AS SHOWN ON THE EROSION CONTROL-INITIAL INSTALL PLAN. EXCAVATE TEMPORARY SEDIMENT BASIN TO THE PROPOSED DIMENSIONS. INSTALL TEMPORARY SKIMMER ON OUTLET STRUCTURE. DRAIN WITH DRAIN VALVE OPEN. INSTALL A STONE PAD FOR THE SKIMMER TO REST UPON. INSTALL TEMPORARY BAFFLES. ALL EMBANKMENT AND SLOPED SURFACES OF THE TEMPORARY BASIN SHALL BE SEEDED AND MATTED UPON INSTALLATION. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
    - 11.1. INSTALL TEMPORARY DIVERSION DITCH "TDD-1". CHANNELS SHALL BE INSTALLED WITH TEMPORARY COMPOST SOCK CHECK DAMS. ALL CHANNELS SHALL BE SEEDED, MULCHED/LINED AND ANCHORED UPON INSTALLATION. STABILIZE CHANNELS DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
    - 11.2. INSTALL TEMPORARY SLOPE DRAIN "TSD-1".
12. INSTALL STORM INLETS EX4, E2, E3, AND E4. INSTALL INLET PROTECTION DEVICES AT NEW STRUCTURES AS THEY ARE CONSTRUCTED. INSTALL STORM PIPES EX4-E2, E2-E3, E3-E4, AND E4-EX5. PROTECT ALL OPEN STORM DRAIN LINES UNDER CONSTRUCTION WITH STONE FILTER AFTER STOPPAGE OF WORK EACH DAY.
13. INSTALL TEMPORARY SEDIMENT SKIMMER BASIN "TSSB-2" BARREL PIPE AND OUTLET STRUCTURE. GRADE EMBANKMENT TO THE MINIMUM GRADING AS SHOWN ON THE EROSION CONTROL – INITIAL INSTALL PLAN. EXCAVATE TEMPORARY SEDIMENT BASIN TO THE PROPOSED DIMENSIONS. INSTALL TEMPORARY SKIMMER ON OUTLET STRUCTURE. DRAIN WITH DRAIN VALVE OPEN. INSTALL A STONE PAD FOR THE SKIMMER TO REST UPON. INSTALL TEMPORARY BAFFLES. ALL EMBANKMENT AND SLOPED SURFACES OF THE TEMPORARY BASIN SHALL BE SEEDED AND MATTED UPON INSTALLATION. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
    - 13.1. INSTALL TEMPORARY DIVERSION DITCH "TDD-1". CHANNELS SHALL BE INSTALLED WITH TEMPORARY COMPOST SOCK CHECK DAMS. ALL CHANNELS SHALL BE SEEDED, MULCHED/LINED AND ANCHORED UPON INSTALLATION. STABILIZE CHANNELS DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
    - 13.2. INSTALL TEMPORARY SLOPE DRAIN "TSD-2".
14. CALL FOR INSPECTION OF INSTALLED DEVICES.
15. ESTABLISH STAGING AREA IN LOCATION SHOWN ON PLAN OR AT LEAST 50 FEET AWAY FROM ANY OPEN WATER CONVEYANCES, SUCH AS BASINS, DITCHES, STORM DRAIN INLETS, ETC.

REFER TO SHEET C402 FOR CONTINUATION OF CONSTRUCTION SEQUENCE.

ANY OFF-SITE BORROW AND WASTE REQUIRED FOR THIS PROJECT MUST COME FROM A SITE WITH AN APPROVED EROSION CONTROL PLAN, REGULATED UNDER THE MINING ACT OF 1971, OR REGULATED BY THE DIVISON OF SOLID WASTE MANAGEMENT. TRASH/DEBRIS FROM DEMOLITION ACTIVITIES OR GENERATED BY ON-SITE ACTIVITIES MUST BE DISPOSED OF AT A FACILITY REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT OR PER THE RULES AND REGULATIONS OF THE DIVISION OF SOLID WASTE MANAGEMENT OR DIVISION OF WATER RESOURCES.

SEED, MULCH, AND TACK ANY BARE AREAS BETWEEN THE PERIMETER MEASURES AND THE DIVERSIONS AND/OR BASINS IMMEDIATELY AFTER INSTALLATION.

SEED, MULCH, AND TACK ANY BARE AREAS BETWEEN THE PERIMETER MEASURES AND THE DIVERSIONS AND/OR BASINS IMMEDIATELY AFTER INSTALLATION.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

LEGEND

- GRAVEL CONSTR. ENTRANCE, SEE DETAIL SHEET C701.
- TEMP. INLET PROTECTION DEVICE, SEE DETAIL SHEET C702.
- TEMP. SILT BAG INLET PROTECTION, SEE DETAIL SHEET C702.
- TEMP. DIVERSION DITCH / BERM, SEE DETAIL SHEET C702.
- TEMP. SILT FENCE, SEE DETAIL SHEET C701.
- TEMP. REINFORCED SILT FENCE OUTLET, SEE DETAIL SHEET C701.
- TEMP. J-HOOK PROTECTION, SEE DETAIL SHEET C702.
- PERMANENT OUTLET PROTECTION, SEE DETAIL SHEET C703.
- TEMP. CONCRETE WASHOUT AREA, SEE DETAIL SHEET C703.
- TEMP. PLASTIC LINING, SEE TEMP. BASIN BAFFLES DETAIL SHEET C702.
- TEMP. EXCAVATED INLET, SEE DETAIL SHEET C703.
- TEMP. SKIMMER SEDIMENT BASIN, SEE DETAIL SHEETS C704 & C705.
- TEMP. BAFFLES, SEE DETAIL SHEET C702.
- EXISTING CONTOUR
- FINISHED CONTOUR
- TEMP. CONTOUR (TEMP. GRADES DURING CONSTR.)
- CHANNEL LINING, SEE DETAIL SHEET C702.
- TEMP. DEWATERING SILT BAG, SEE DETAIL SHEET C702.
- TREE PROTECTION FENCE, SEE DETAIL SHEET C701.
- TEMP. COMPOST SOCK, SEE DETAIL SHEET C703.
- TEMP. COMPOST SOCK IN CHANNEL, SEE DETAIL SHEET C703.
- TEMP. SLOPE DRAIN, SEE DETAIL SHEET C703.
- PROPOSED STORM SEWER PIPES
- EXISTING STORM SEWER PIPES
- LIMITS OF DISTURBANCE

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE. ALL OFF-SITE SOIL BORROW AND WASTE SITES SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITIES. CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION OF SEDIMENT & EROSION CONTROL PERMIT FOR ANY OFF-SITE SITES TO OWNER PRIOR TO RELOCATING ANY STOCKPILE MATERIALS.
3. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ARCHITECT.
4. TOTAL DISTURBED AREA: 4.05 AC.
5. ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY. SEE DETAIL SHEET C702.
6. ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM. CLEANING SHALL BE PERFORMED IN A MANNER WHICH PREVENTS SEDIMENT FROM BEING FLUSHED THROUGH PIPES TO THE EXISTING DRAINAGE SYSTEM.
7. THE INDICATED STAGING AREA IS INTENDED FOR VEHICLES AND NON-ERODIBLE MATERIALS ONLY. NO SOIL, SAND OR OTHER ERODIBLE, FINE GRAINED MATERIAL SHALL BE STORED OUTSIDE OF THE LIMITS OF THE SITE PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
8. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES. STOCKPILES SHALL BE STABILIZED AS REQUIRED AS INDICATED IN THE SLOPE & SURFACE STABILIZATION NOTES ON THIS PLAN.
9. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
10. TREE PROTECTION FENCING SHALL NOT BE MOVED AND THERE SHALL BE NO ENCROACHMENT INTO SUCH PROTECTED AREA(S) WITHOUT WRITTEN AUTHORIZATION OF THE COUNTY ZONING COMPLIANCE STAFF. ANY ACTIVITY (LANDSCAPING, FENCING, OR UTILITY INSTALLATION) SHOWN ON THE APPROVED PLANS IN A TREE PROTECTION AREA, SHALL ALSO NOT OCCUR WITHOUT WRITTEN AUTHORIZATION FROM THE COUNTY ZONING COMPLIANCE STAFF. ANY UNAUTHORIZED ENCROACHMENT OR DISTURBANCE WITHIN THE BOUNDARIES OF A TREE PROTECTION AREA SHALL AUTOMATICALLY RESULT IN FINES AND THE REPLACEMENT OF ANY DAMAGED VEGETATION IN ACCORDANCE WITH THE LAND DEVELOPMENT ORDINANCE.
11. ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
12. INSTALL TEMPORARY MATTING TO TOP OF ALL SIDE SLOPES ON CHANNELS, DIVERSION DITCHES AND TEMPORARY SEDIMENT BASINS. SEE DETAIL SHEET C702 (TEMPORARY DIVERSION DITCH) FOR TYPE OF MATTING TO USE.
13. ANY DEWATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE, REMOVAL OR CONVERSION PURPOSES IS TO BE DONE THROUGH A SILT BAG.
14. ANY DEWATERING OF STORM/UTILITY TRENCHES IS TO BE DONE THROUGH A SILT BAG.
15. GROUND COVER IS TO BE APPLIED PER CONDITIONS OF THE NPDES PERMIT OR AT THE END OF THE DAY IN CRITICAL AREAS.
16. CONTRACTOR SHALL USE TIRE WASH STATION TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROAD IF CONSTRUCTION ENTRANCE IS FOUND INSUFFICIENT AT NO ADDITIONAL COST TO OWNER.
17. CONTRACTOR SHALL UTILIZE PAM FLOCCULANTS TO REDUCE RUN-OFF TURBIDITY. SEE SPECS.

MAINTENANCE PLAN

1. DURING ALL PHASES OF CONSTRUCTION, GROUNDCOVER ON EXPOSED SLOPES SHALL BE PROVIDED ACCORDING TO GROUND STABILIZATION TABLE (SHEET C701) FOLLOWING COMPLETION OF ANY PHASE OF GRADING. SEE SHEET C903 FOR TEMPORARY SEEDING.
2. FINAL PERMANENT GROUNDCOVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION TABLE (SHEET C701) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT. SEE SHEET C903 FOR PERMANENT SEEDING.
3. THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.
4. SLOPE EROSION CONTROL MATTING SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). REFER TO MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.
5. ALL OTHER SEEDED AREAS SHALL BE MULCHED WITH STRAW AND TACKED WITH ASPHALT.

SELF-INSPECTION RULES

SEE SHEET C701 FOR SELF-INSPECTION REQUIREMENTS.

THE FINANCIALLY RESPONSIBLE PERSON AND/OR HIS AGENT WILL BE PERFORM SELF INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES USING NCDEMLR'S SELF INSPECTION REPORT (WORKSHEET) AND THIS WILL BE KEPT ONSITE.

SLOPE & SURFACE STABILIZATION

GROUND STABILIZATION SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION NOTES. SEE SHEET C701.

EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE (SECTION II.B(2) (b)).

THE REQUIREMENTS ON SHEET C701 ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED MINIMUM REQUIREMENTS.

INSTALL TEMPORARY EXCELSIOR MATTING FOR STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER) AND AREAS OF CONCENTRATED FLOW (CHANNELS, DITCHES, SWALES, ETC.). UTILIZE TEMPORARY COCONUT MAT IN AREAS IDENTIFIED ON PLAN. REFER TO SPECIFICATION SECTION 312500 FOR MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.

SEE SHEETS C401 & C402 FOR EROSION CONTROL CONSTRUCTION SEQUENCE.

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CONSTRUCTION DOCUMENTS

EROSION CONTROL PLAN - INITIAL INSTALL

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 22625 STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:20:43-04'00'

SHEET NUMBER

C401

CONSTRUCTION SEQUENCE

REFER TO SHEET C401 FOR CONSTRUCTION SEQUENCE – INITIAL INSTALL

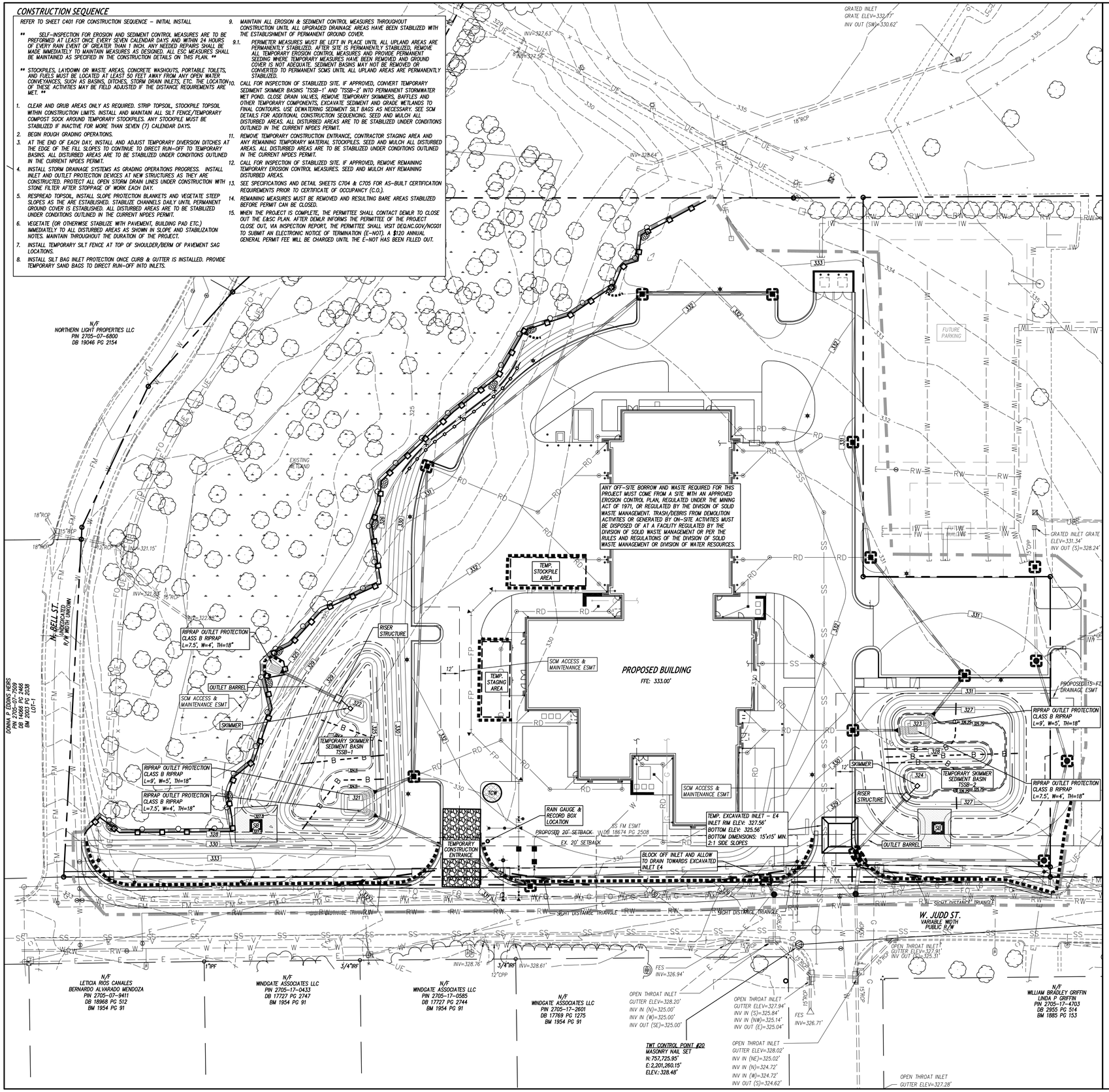
** SELF-INSPECTION FOR EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PREFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. **

** STOCKPILES, LAYDOWN OR WASTE AREAS, CONCRETE WASHOUTS, PORTABLE TOILETS, AND FUELS MUST BE LOCATED AT LEAST 50 FEET AWAY FROM ANY OPEN WATER CONVEYANCES, SUCH AS BASINS, DITCHES, STORM DRAIN INLETS, ETC. THE LOCATION OF THESE ACTIVITIES MAY BE FIELD ADJUSTED IF THE DISTANCE REQUIREMENTS ARE MET. **

1. CLEAR AND GRUB AREAS ONLY AS REQUIRED. STRIP TOPSOIL, STOCKPILE TOPSOIL WITHIN CONSTRUCTION LIMITS. INSTALL AND MAINTAIN ALL SILT FENCE/TEMPORARY COMPOST SOCK AROUND TEMPORARY STOCKPILES. ANY STOCKPILE MUST BE STABILIZED IF INACTIVE FOR MORE THAN SEVEN (7) CALENDAR DAYS.
2. BEGIN ROUGH GRADING OPERATIONS.
3. AT THE END OF EACH DAY, INSTALL AND ADJUST TEMPORARY DIVERSION DITCHES AT THE EDGE OF THE FILL SLOPES TO CONTINUE TO DIRECT RUN-OFF TO TEMPORARY BASINS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
4. INSTALL STORM DRAINAGE SYSTEMS AS GRADING OPERATIONS PROGRESS. INSTALL INLET AND OUTLET PROTECTION DEVICES AT NEW STRUCTURES AS THEY ARE CONSTRUCTED. PROTECT ALL OPEN STORM DRAIN LINES UNDER CONSTRUCTION WITH STONE FILTER AFTER STOPPAGE OF WORK EACH DAY.
5. RESPREAD TOPSOIL, INSTALL SLOPE PROTECTION BLANKETS AND VEGETATE STEEP SLOPES AS THE ARE ESTABLISHED. STABILIZE CHANNELS DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
6. VEGETATE (OR OTHERWISE STABILIZE WITH PAVEMENT, BUILDING PAD ETC.) IMMEDIATELY TO ALL DISTURBED AREAS AS SHOWN IN SLOPE AND STABILIZATION NOTES. MAINTAIN THROUGHOUT THE DURATION OF THE PROJECT.
7. INSTALL TEMPORARY SILT FENCE AT TOP OF SHOULDER/BERM OF PAVEMENT SAG LOCATIONS.
8. INSTALL SILT BAG INLET PROTECTION ONCE CURB & GUTTER IS INSTALLED. PROVIDE TEMPORARY SAND BAGS TO DIRECT RUN-OFF INTO INLETS.
9. MAINTAIN ALL EROSION & SEDIMENT CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ALL UPGRADED DRAINAGE AREAS HAVE BEEN STABILIZED WITH THE ESTABLISHMENT OF PERMANENT GROUND COVER.

9.1. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED TO PERMANENT SCMS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED.

10. CALL FOR INSPECTION OF STABILIZED SITE. IF APPROVED, CONVERT TEMPORARY SEDIMENT SKIMMER BASINS "TSSB-1" AND "TSSB-2" INTO PERMANENT STORMWATER WET POND. CLOSE DRAIN VALVES, REMOVE TEMPORARY SKIMMERS, BAFFLES AND OTHER TEMPORARILY CONSTRUCTED COMPONENTS, EXCAVATE SEDIMENT AND GRADE WETLANDS TO FINAL CONTOURS. USE DEWATERING SEDIMENT SILT BAGS AS NECESSARY. SEE SCM DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING. SEED AND MULCH ALL DISTURBED AREAS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
11. REMOVE TEMPORARY CONSTRUCTION ENTRANCE, CONTRACTOR STAGING AREA AND ANY REMAINING TEMPORARY MATERIAL STOCKPILES. SEED AND MULCH ALL DISTURBED AREAS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
12. CALL FOR INSPECTION OF STABILIZED SITE. IF APPROVED, REMOVE REMAINING TEMPORARY EROSION CONTROL MEASURES. SEED AND MULCH ANY REMAINING DISTURBED AREAS.
13. SEE SPECIFICATIONS AND DETAIL SHEETS C704 & C705 FOR AS-BUILT CERTIFICATION REQUIREMENTS PRIOR TO CERTIFICATE OF OCCUPANCY (C.O.).
14. REMAINING MEASURES MUST BE REMOVED AND RESULTING BARE AREAS STABILIZED BEFORE PERMIT CAN BE CLOSED.
15. WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN. AFTER DEMLR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV/NCG01 TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A $120 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.



LEGEND

- GRAVEL CONSTR. ENTRANCE, SEE DETAIL SHEET C701.
- TEMP. INLET PROTECTION DEVICE, SEE DETAIL SHEET C702.
- TEMP. SILT BAG INLET PROTECTION, SEE DETAIL SHEET C702.
- TEMP. DIVERSION DITCH / BERM, SEE DETAIL SHEET C702.
- TEMP. SILT FENCE, SEE DETAIL SHEET C701.
- TEMP. REINFORCED SILT FENCE OUTLET, SEE DETAIL SHEET C701.
- TEMP. J-HOOK PROTECTION, SEE DETAIL SHEET C702.
- PERMANENT OUTLET PROTECTION, SEE DETAIL SHEET C703.
- TCW — TEMP. CONCRETE WASHOUT AREA, SEE DETAIL SHEET C703.
- TEMP. PLASTIC LINING, SEE TEMP. BASIN BAFFLES DETAIL SHEET C702.
- TEMP. EXCAVATED INLET, SEE DETAIL SHEET C703.
- TSSB — TEMP. SKIMMER SEDIMENT BASIN, SEE DETAIL SHEETS C704 & C705.
- B — TEMP. BAFFLES, SEE DETAIL SHEET C702.
- EXISTING CONTOUR
- FINISHED CONTOUR
- TEMP. CONTOUR (TEMP. GRADES DURING CONSTR.)
- CHANNEL LINING, SEE DETAIL SHEET C702.
- TEMP. DEWATERING SILT BAG, SEE DETAIL SHEET C702.
- TREE PROTECTION FENCE, SEE DETAIL SHEET C701.
- TEMP. COMPOST SOCK, SEE DETAIL SHEET C703.
- TEMP. COMPOST SOCK IN CHANNEL, SEE DETAIL SHEET C703.
- TSD — TEMP. SLOPE DRAIN, SEE DETAIL SHEET C703.
- PROPOSED STORM SEWER PIPES
- EXISTING STORM SEWER PIPES
- LIMITS OF DISTURBANCE

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON, NCDEQ, AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE. ALL OFF-SITE SOIL BORROW AND WASTE SITES SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITIES. CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION OF SEDIMENT & EROSION CONTROL PERMIT FOR ANY OFF-SITE SITES TO OWNER PRIOR TO RELOCATING ANY STOCKPILE MATERIALS.
3. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ARCHITECT.
4. TOTAL DISTURBED AREA: 4.05 AC.
5. ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY, SEE DETAIL SHEET C702.
6. ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM. CLEANING SHALL BE PERFORMED IN A MANNER WHICH PREVENTS SEDIMENT FROM BEING FLUSHED THROUGH PIPES TO THE EXISTING DRAINAGE SYSTEM.
7. THE INDICATED STAGING AREA IS INTENDED FOR VEHICLES AND NON-ERODIBLE MATERIALS ONLY. NO SOIL, SAND OR OTHER ERODIBLE, FINE GRAINED MATERIAL SHALL BE STORED OUTSIDE OF THE LIMITS OF THE SITE PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
8. SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES. STOCKPILES SHALL BE STABILIZED AS REQUIRED AS INDICATED IN THE SLOPE & SURFACE STABILIZATION NOTES ON THIS PLAN.
9. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
10. TREE PROTECTION FENCING SHALL NOT BE MOVED AND THERE SHALL BE NO ENCROACHMENT INTO SUCH PROTECTED AREA(S) WITHOUT WRITTEN AUTHORIZATION OF THE COUNTY ZONING COMPLIANCE STAFF. ANY ACTIVITY (LANDSCAPING, FENCING, OR UTILITY INSTALLATION) SHOWN ON THE APPROVED PLANS IN A TREE PROTECTION AREA, SHALL ALSO NOT OCCUR WITHOUT WRITTEN AUTHORIZATION FROM THE COUNTY ZONING COMPLIANCE STAFF. ANY UNAUTHORIZED ENCROACHMENT OR DISTURBANCE WITHIN THE BOUNDARIES OF A TREE PROTECTION AREA SHALL AUTOMATICALLY RESULT IN FINES AND THE REPLACEMENT OF ANY DAMAGED VEGETATION IN ACCORDANCE WITH THE LAND DEVELOPMENT ORDINANCE.
11. ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
12. INSTALL TEMPORARY MATTING TO TOP OF ALL SIDE SLOPES ON CHANNELS, DIVERSION DITCHES AND TEMPORARY SEDIMENT BASINS. SEE DETAIL SHEET C702 (TEMPORARY DIVERSION DITCH) FOR TYPE OF MATTING TO USE.
13. ANY DEWATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE, REMOVAL OR CONVERSION PURPOSES IS TO BE DONE THROUGH A SILT BAG.
14. ANY DEWATERING OF STORM/UTILITY TRENCHES IS TO BE DONE THROUGH A SILT BAG.
15. GROUND COVER IS TO BE APPLIED PER CONDITIONS OF THE NPDES PERMIT OR AT THE END OF THE DAY IN CRITICAL AREAS.
16. CONTRACTOR SHALL USE TIRE WASH STATION TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROAD IF CONSTRUCTION ENTRANCE IS FOUND INSUFFICIENT AT NO ADDITIONAL COST TO OWNER.
17. CONTRACTOR SHALL UTILIZE PAM FLOCCULANTS TO REDUCE RUN-OFF TURBIDITY. SEE SPECS.

MAINTENANCE PLAN

1. DURING ALL PHASES OF CONSTRUCTION, GROUNDCOVER ON EXPOSED SLOPES SHALL BE PROVIDED ACCORDING TO GROUND STABILIZATION TABLE (SHEET C701) FOLLOWING COMPLETION OF ANY PHASE OF GRADING. SEE SHEET C903 FOR TEMPORARY SEEDING.
2. FINAL PERMANENT GROUNDCOVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION TABLE (SHEET C701) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT. SEE SHEET C903 FOR PERMANENT SEEDING.
3. THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.
4. SLOPE EROSION CONTROL MATTING SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). REFER TO MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.
5. ALL OTHER SEEDED AREAS SHALL BE MULCHED WITH STRAW AND TACKED WITH ASPHALT.

SELF-INSPECTION RULES

SEE SHEET C701 FOR SELF-INSPECTION REQUIREMENTS.

THE FINANCIALLY RESPONSIBLE PERSON AND/OR HIS AGENT WILL BE PERFORM SELF INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES USING NCDEMLR'S SELF INSPECTION REPORT (WORKSHEET) AND THIS WILL BE KEPT ONSITE.

SLOPE & SURFACE STABILIZATION

GROUND STABILIZATION SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION NOTES. SEE SHEET C701.

EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE (SECTION II.B(2) (b)).

THE REQUIREMENTS ON SHEET C701 ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED MINIMUM REQUIREMENTS.

INSTALL TEMPORARY EXCELSIOR MATTING FOR STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER) AND AREAS OF CONCENTRATED FLOW (CHANNELS, DITCHES, SWALES, ETC.). UTILIZE TEMPORARY COCONUT MAT IN AREAS IDENTIFIED ON PLAN. REFER TO SPECIFICATION SECTION 312500 FOR MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.

SEE SHEETS C401 & C402 FOR EROSION CONTROL CONSTRUCTION SEQUENCE.

NORTH

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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CONSTRUCTION DOCUMENTS

EROSION CONTROL PLAN

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 1222625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:20:49-04'00'

SHEET NUMBER

C402

STANDARD RALEIGH UTILITY NOTES

1. ALL MATERIALS & CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS, & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
2. UTILITY SEPARATION REQUIREMENTS:
   - A. A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
   - B. WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
   - C. WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
   - D. 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER
   - E. MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
   - F. ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
4. DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY.
5. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24-HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
6. SEWER BYPASS PUMPING – A BYPASS PLAN SEALED BY AN NC PROFESSIONAL ENGINEER SHALL BE PROVIDED TO RALEIGH WATER PRIOR TO PUMPING OPERATIONS FOR APPROVAL. THE OPERATIONS AND EQUIPMENT SHALL COMPLY WITH THE PUBLIC UTILITIES HANDBOOK.
7. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
8. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
9. INSTALL WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
10. INSPECTIONS OF 4" AND LARGER WATER MAINS OF THE PRIVATE DISTRIBUTION SYSTEM WILL BE INSPECTED AS PART OF THE INFRASTRUCTURE PERMIT.
11. PRIVATE SEWER MAINS AS PART OF A COLLECTION SYSTEM ARE PERMITTED AND INSPECTED UNDER THE PRIVATE INFRASTRUCTURE PERMIT FOR SEWER.
12. ANY WATER OR SEWER SERVICES ON PRIVATE PROPERTY THAT WILL BE INSTALLED UNDER CONSTRUCTION DRAWINGS MAY REQUIRE A PLUMBING UTILITY PERMIT IN THE CITY OF RALEIGH. CONSULT WITH THE ENGINEERING INSPECTION COORDINATOR DURING THE PRE-CONSTRUCTION MEETING ON THE NECESSARY PERMITS.
13. INSTALL SEWER SERVICES WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED PER THE CURRENT NC PLUMBING CODE.
14. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
15. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
16. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
17. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE RW FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A UC AND/OR BUILDING PERMIT. CONTACT (919) 996-4516 OR FOG@RALEIGHNC.GOV FOR MORE INFORMATION.
18. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON THE DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA.
19. THE DEVICES SHALL MEET THE AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS AND BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST.
20. THE DEVICE AND INSTALLATION SHALL MEET THE GUIDELINES OF APPENDIX A – GUIDELINES AND REQUIREMENTS FOR THE CROSS CONNECTION PROGRAM IN RALEIGH'S SERVICE AREA.
21. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH, INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT CROSS.CONNECTION@RALEIGHNC.GOV FOR MORE INFORMATION.
22. NOTICE FOR PROJECTS THAT INVOLVE AN OVERSIZED MAIN OR URBAN MAIN REPLACEMENT. ANY CITY REIMBURSEMENT GREATER THAN $250,000.00 MUST UNDERGO THE PUBLIC BIDDING PROCESS.
23. PRIVATE SUB-METERING – NO RESALE OF WATER SHALL OCCUR WITHOUT APPROVAL OF THE NORTH CAROLINA UTILITY COMMISSION. SUB-METERING SHALL BE IN ACCORDANCE WITH SECTION 1400 OF THE "SAFE DRINKING WATER ACT".

UTILITY GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
2. INSTALL WATERMAINS WITH A COVER OF NO LESS THAN 3-FT. WHERE WORK IS PERFORMED OVER EXISTING WATERMAINS WITH LESS THAN 3-FT OF COVER, ENCASE THE WATERMAIN IN 1-FT MIN. OF CONCRETE ON ALL SIDES.
3. INSTALL SEWER MAINS WITH A COVER OF NO LESS THAN 3-FT TO FINISH GRADE IN NON-TRAFFIC AREAS, 4-FT TO FINISH GRADE IN TRAFFIC AREAS.
4. INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE SPECIFICATIONS.
5. WATERLINES AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL CLEARANCE OF 10-FT.
6. SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 24-IN TO STORM DRAINAGE PIPES.
7. COORDINATE AND SCHEDULE INSTALLATION OF ALL UTILITIES WITH OTHER PRIME CONTRACTORS, UTILITY COMPANIES AND OTHER TRADES INCLUDING BUT NOT LIMITED TO: NATURAL GAS, ELECTRICITY, TELEPHONE AND CATV.
8. VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IF ANY DISCREPANCIES ARE DISCOVERED.
9. CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
10. ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE NCSBC AND OSHA REQUIREMENTS.
11. THE CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY AND STORM DRAINAGE IMPROVEMENTS FOLLOWING CONSTRUCTION, SEE SPECS FOR ALL AS-BUILT REQUIREMENTS.
12. CONTRACTOR SHALL PHASE DEMOLITION AND NEW CONSTRUCTION TO ENSURE UNINTERRUPTED ACCESS AND UTILITY SERVICE TO ADJACENT FACILITIES. COORDINATE SHORT-TERM, OFF-HOUR, TEMPORARY SHUT-DOWNS WITH THE OWNER.
13. SEE GENERAL NOTES ON EXISTING CONDITIONS AND DEMOLITION PLAN FOR REQUIREMENTS FOR REMOVAL AND PATCHING OF PAVEMENT FOR UTILITY INSTALLATION.
14. ALL ROOF DRAINS SHALL BE 6" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN.
15. ALL SANITARY SEWER SERVICES SHALL BE 4" PVC (SCH 40) @1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN.
16. ALL CONDENSATE LINES SHALL BE CONNECTED TO STORM DRAINAGE SYSTEM.
17. NO WORK SHALL BE PERFORMED ON RIGHT-OF-WAYS OR ADJACENT PROPERTIES UNTIL THE OWNER NOTIFIES CONTRACTOR IN WRITING OF PROCUREMENT OF APPROPRIATE PERMITS, EASEMENTS, AGREEMENTS, OR RIGHTS-OF-WAY.

UTILITY LEGEND

	EXISTING	PROPOSED
SEWER FORCE MAIN	FM	FM
ELECTRICAL (OVERHEAD)	E	E
ELECTRICAL (UNDERGROUND)	UE	UE
RECLAIMED WATER	RW	RW
GAS	G	G
SANITARY SEWER	SS	SS
TELEPHONE (OVERHEAD)	T	T
TELEPHONE (UNDERGROUND)	UT	UT
WATER	W	W
ROOF DRAIN	RD	RD
FIRE PROTECTION	FP	FP
STORM DRAIN		
TREE PROTECTION FENCING, SEE EROSION CONTROL PLANS		
LIGHT POLE	LP	
UTILITY POLE	PP	
MANHOLE	MH	
CLEAN OUT	CO	
DROP INLET,CATCH BASIN	DI, CB	
FIRE HYDRANT	FH	
WATER VALVE	WV	
POST INDICATOR VALVE (PIV)		
FIRE DEPARTMENT CONNECTION (FDC)		
THRUST BLOCKING		
SANITARY SEWER STRUCTURE IDENTIFICATION		1

KEY NOTES

- (A) FIRE HYDRANT ASSEMBLY, SEE DETAIL SHEET C802.
- (B) THRUST BLOCKING, TYP, SEE DETAIL SHEET C802.
- (C) EXTEND UTILITY TO WITHIN 5'-0" OF BUILDING WALL OR AS INDICATED ON PLUMBING PLANS. REFER TO PLUMBING PLANS FOR LOCATION AND INVERTS.
- (D) EXTEND WATER LINE TO 12-IN ABOVE FINISH FLOOR FOR FIRE PROTECTION/PLUMBING CONNECTION, SEE DETAIL SHEET C803. REFER TO FIRE PROTECTION/PLUMBING PLANS FOR EXACT LOCATION.
- (E) CLEANOUT, SEE DETAIL SHEET C803.
- (F) 2-IN DOMESTIC WATER METER (105-GPM) WITHIN VAULT, SEE DETAIL SHEET C802.
- (G) GATE VALVE AND VALVE BOX, SEE DETAIL SHEET C802.
- (H) DOWNSPOUT CONNECTION, SEE DETAIL SHEET C803.
- (I) 6"X6" TAPPING SLEEVE, VALVE, AND BLOCKING ASSEMBLY SEE SPECIFICATIONS.
- (J) FIRE DEPARTMENT CONNECTION, SEE DETAIL SHEET C803.
- (K) 2-IN ZURN-WILKINS MODEL 975XL2 REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY (RPZ) WITHIN HEATED ENCLOSURE, SEE DETAIL SHEET C802. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
- (L) 6-IN ZURN-WILKINS MODEL 475 REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY (RPZ) WITHIN HEATED ENCLOSURE, SEE DETAIL SHEET C802. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
- (M) 6"X6" TEE & THRUST BLOCKING.
- (N) SERVICE SADDLE & CORPORATION STOP, SEE SPECIFICATIONS.
- (O) POST INDICATOR VALVE W/ TAMPER SWITCH, SEE DETAIL SHEET C803 AND SPECIFICATIONS. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
- (P) EX 4" DIP FORCE MAIN TO BE REPLACED WITH NEW 4" DIP FORCE MAIN (±115-LF) INSTALLED AT GREATER DEPTH TO PASS AT LEAST 18" BELOW NEW STORM PIPES. COORDINATE BRIEF SHUTDOWN OF EX FORCE MAIN FOR CONNECTIONS. REMOVE EX FORCE MAIN.
- (Q) IN-LINE DRAIN, SEE DETAIL SHEET C903.

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer _____

ATTENTION CONTRACTORS

The Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Infrastructure Inspections Division and schedule a Pre-construction meeting on the Development Portal prior to beginning any construction. Raleigh Water must be contacted at (919) 996-4540 at least twenty-four hours prior to beginning any work activity around critical water and sewer infrastructure.

Failure to notify City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, install a downstream plug, have permitted plans on the jobsite, or any other violation of City of Raleigh Standards will result in a fine and possible exclusion from future work in the City of Raleigh.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

UTILITY PLAN

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

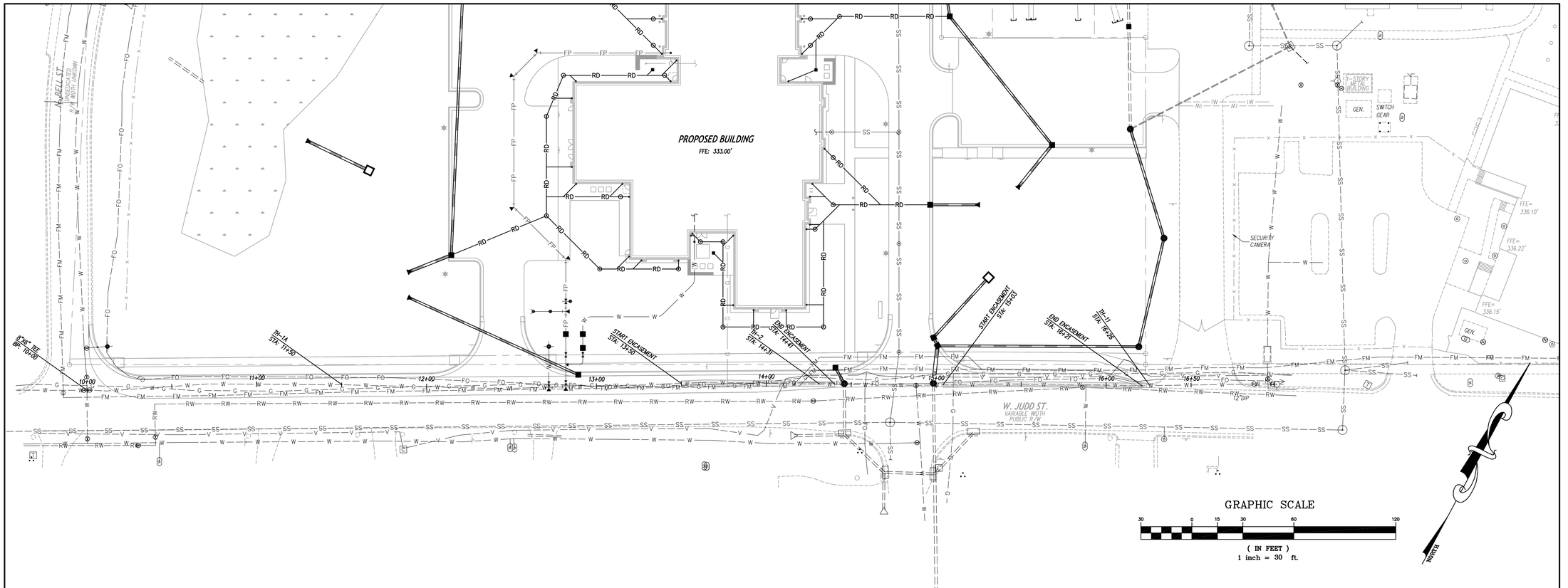
NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

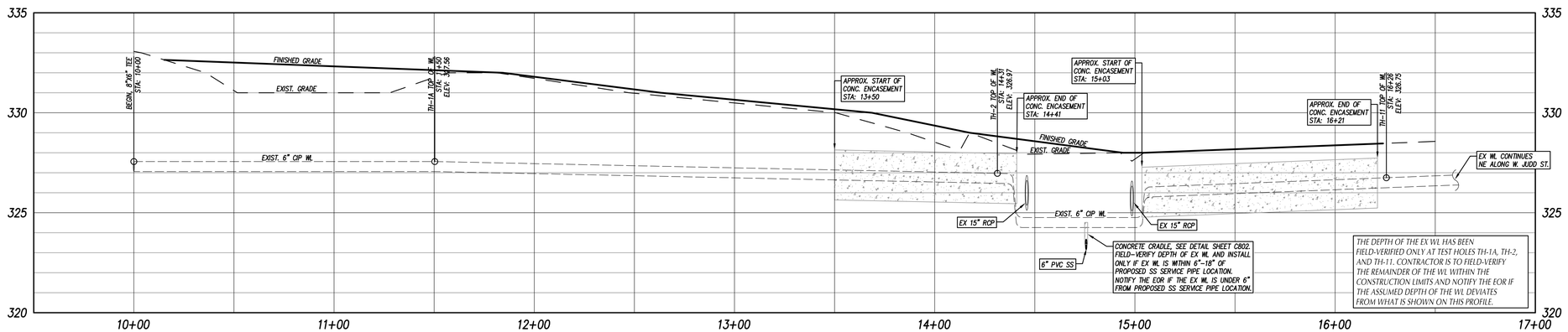
NORTH CAROLINA SEAL 022625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:20:55-04'00'

SHEET NUMBER

C501





GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.
HORIZONTAL: 1"=30'
VERTICAL: 1"=3'

ATTENTION CONTRACTORS

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City of Raleigh Development Approval _____

Raleigh Water Review Officer _____

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WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EST. 1976 EMS

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

WATERLINE PLAN & PROFILE

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

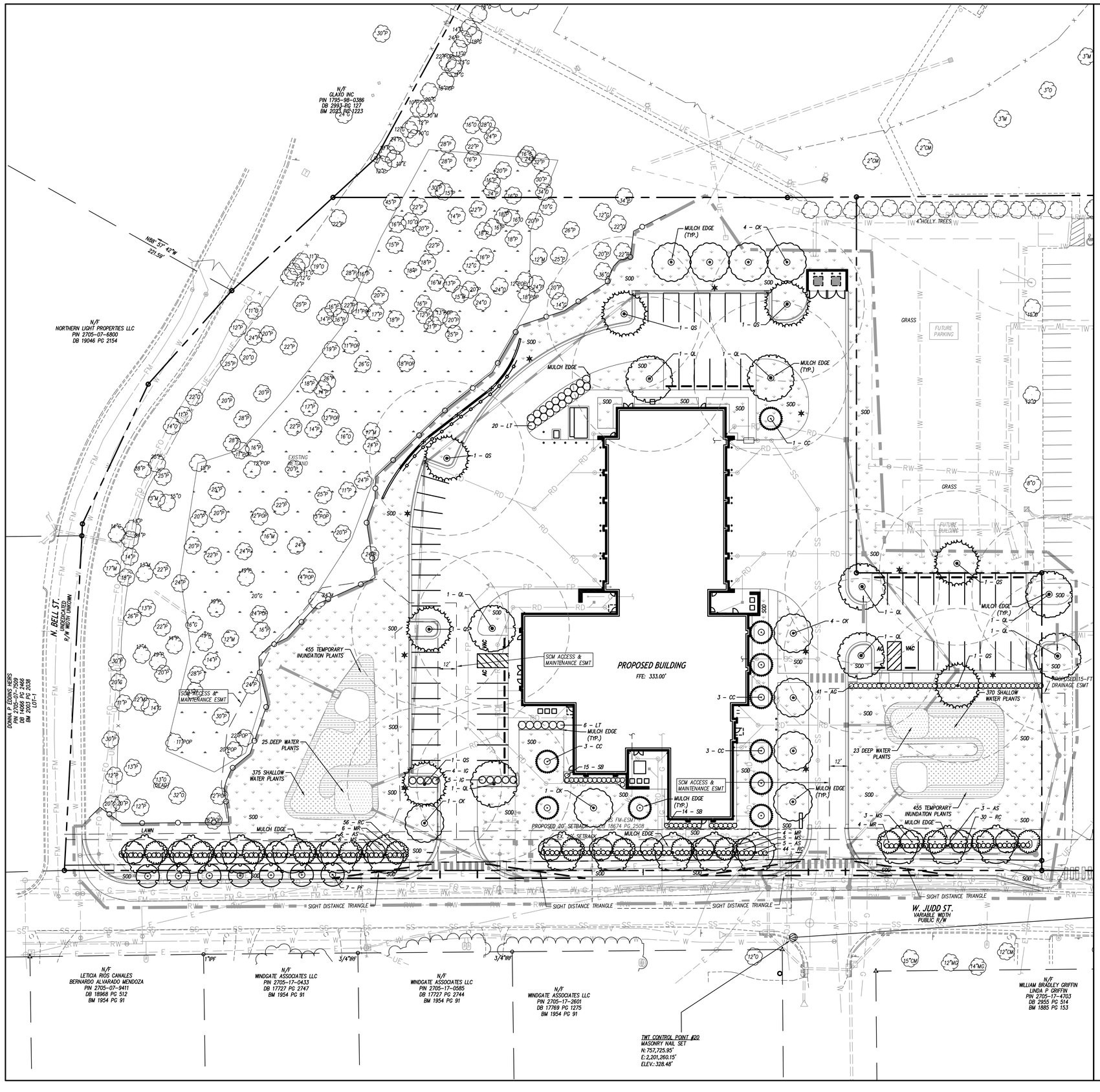
NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA PROFESSIONAL SEAL 22625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:21:02-04'00'

SHEET NUMBER

C502



SEE SHEET C-903 FOR LANDSCAPE GENERAL NOTES.

PLANT SCHEDULE

CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
TREES					
AS	14	ACER SACCHARUM SUGAR MAPLE	B&B, STRAIGHT TRUNK, FULL CROWN	2.5" MIN.	12' HT. MIN.
CC	10	CERCIS CANADENSIS EASTERN REDBUD	B&B, STRAIGHT TRUNK, FULL CROWN	2" MIN.	6' HT. MIN.
CK	10	CLADRASTIS KENTUKEA AMERICAN YELLOWWOOD	B&B, STRAIGHT TRUNK, FULL CROWN	2" MIN.	8' HT. MIN.
MR	14	MAGNOLIA STELLATA 'ROYAL STAR' ROYAL STAR MAGNOLIA	B&B, STRAIGHT TRUNK, FULL CROWN	2" MIN.	6' HT. MIN.
MS	14	MAGNOLIA VIRGINIANA SWEETBAY MAGNOLIA	B&B, STRAIGHT TRUNK, FULL CROWN	2" MIN.	6' HT. MIN.
PF	7	PRUNUS X 'FIRST LADY' FIRST LADY FLOWERING CHERRY	B&B, STRAIGHT TRUNK, FULL CROWN	2" MIN.	6' HT. MIN.
QL	8	QUERCUS LYRATA OVERCUP OAK	B&B, STRAIGHT TRUNK, FULL CROWN	2.5" MIN.	12' HT. MIN.
QS	7	QUERCUS SHUMARDII SHUMARD OAK	B&B, STRAIGHT TRUNK, FULL CROWN	2.5" MIN.	12' HT. MIN.
SHRUBS					
AG	41	ABELIA X GRANDIFLORA GLOSSY ABELIA	CONT.	-	18"-24" HT.
IG	9	ILEX GLABRA INKBERRY HOLLY	CONT.	-	18"-24" HT.
LT	26	LIGUSTRUM JAPONICUM 'TEXANUM' TEXAS JAPANESE PRIVET	CONT.	-	36" HT. MIN.
RC	130	RHODODENDRON CATAWBIENSE CATAWBA RHODODENDRON	CONT.	-	18"-24" HT.
SB	29	SPIRAEA BETULIFOLIA BIRCHLEAF SPIREA	CONT.	-	18"-24" HT.
SOD				SEE DETAIL SHEET C903	
TREE PROTECTION FENCE, SEE EROSION CONTROL PLANS					

DETENTION WETLAND PLANTING SCHEDULE

TEMPORARY INUNDATION ZONE PLANT LIST

	149	CAREX STRICTA – TUSSOCK SEDGE	LARGE PLUGS (MIN. 6 CUBIC INCHES) SPACE 2' O.C.
	149	ASCLEPIAS INCARNATA – SWAMP MILKWEED	
	149	IRIS VIRGINICA – BLUE FLAG IRIS	
	149	LOBELIA CARDINALIS – CARDINAL FLOWER	
	149	LIATRIS SPICATA – BLAZING STAR	

SHALLOW WATER PLANT LIST

	182	PELTANDRA VIRGINICA – ARROW ARUM	LARGE PLUGS (MIN. 6 CUBIC INCHES) SPACE 2' O.C.
	182	PONTEDERIA CORDATA – PICKEREL WEED	
	182	ACORUS SUBCORDATUM – SWEETFLAG	
	182	SAURURUS CERNUUS – LIZARD'S TAIL	
	182	JUNCUS EFFUSUS – SOFT RUSH	

DEEP POOL AND MICRO POOL PLANT LIST

	48	NYMPHAEA ODORATA – WATERLILY	LARGE PLUGS (MIN. 6 CUBIC INCHES) SPACE 2' O.C.

SCM-1 PLANT CALC.

SHALLOW WATER ZONE SQUARE FOOTAGE: 1,490 SF
PLANTINGS REQUIRED: 50 HERBACEOUS PLANTS PER 200 SF. (1,490/200)X50 = 373 PLANTS
PLANTINGS PROVIDED: 375 PLANTS

TEMPORARY INUNDATION ZONE SQUARE FOOTAGE: 1,814 SF
PLANTINGS REQUIRED: 50 HERBACEOUS PLANTS PER 200 SF. (1,814/200)X50 = 454 PLANTS
PLANTINGS PROVIDED: 455 PLANTS

DEEP POOL AND MICRO POOL PLANT LIST: 500 SF
PLANTINGS REQUIRED: 50 HERBACEOUS PLANTS PER 200 SF. (500/1000)X50 = 25 PLANTS
PLANTINGS PROVIDED: 25 PLANTS

SCM-2 PLANT CALC.

SHALLOW WATER ZONE SQUARE FOOTAGE: 1,462 SF
PLANTINGS REQUIRED: 50 HERBACEOUS PLANTS PER 200 SF. (1,462/200)X50 = 366 PLANTS
PLANTINGS PROVIDED: 370 PLANTS

TEMPORARY INUNDATION ZONE SQUARE FOOTAGE: 1,815 SF
PLANTINGS REQUIRED: 50 HERBACEOUS PLANTS PER 200 SF. (1,815/200)X50 = 454 PLANTS
PLANTINGS PROVIDED: 455 PLANTS

DEEP POOL AND MICRO POOL PLANT LIST: 444 SF
PLANTINGS REQUIRED: 50 HERBACEOUS PLANTS PER 200 SF. (444/1000)X50 = 23 PLANTS
PLANTINGS PROVIDED: 23 PLANTS

NOTES

1. WETLAND AREA SHALL BE DRAINED ONE DAY PRIOR TO PLANTING.
2. LANDSCAPE ARCHITECT TO APPROVE ALL LOCATIONS IN FIELD.
3. PLACE PLANTINGS IN DESIGNATED AREA BY SPECIES IN GROUPINGS OF 40 PLANTS OR MORE.
4. SODDED AREA SHALL NOT BE MOWED AT SIDE SLOPES.

WETLAND SOIL MIX

ADD 12" OF TOPSOIL THROUGHOUT STORMWATER WETLAND AREA. TOPSOIL SHALL BE PLACED WITHIN THE SHALLOW LAND, SHALLOW WATER AND DEEP POOL AREAS AND ADHERE TO THE FOLLOWING REQUIREMENTS:

1. THE SOIL MUST BE UNIFORM AND FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR MATERIAL GREATER THAN 2 INCHES.
2. SOIL TEXTURE SHALL BE A LOAMY SAND, WITH NO MORE THAN 10% CLAY (USDA SOIL TEXTURAL CLASSIFICATION).
3. A MINIMUM ORGANIC CONTENT OF 10% BY DRY WEIGHT.
4. THE PH SHALL BE BETWEEN 5.5 AND 7.0.

LANDSCAPE CALCULATION

PARKING LOT LANDSCAPING (64 SPACES)

- ONE CANOPY TREE FOR EVERY 12 OFF-STREET PARKING SPACES PROVIDED. (6 TREES)
  - PROVIDED: 15 TREES
- PERIMETER PLANTINGS REQUIRED – EVERGREEN SHRUBS 3' ON CENTER AND 36" MIN HEIGHT.
  - PROVIDED: 50 SHRUBS

FOUNDATION PLANTINGS

- EVERGREEN SHRUBS OR DECORATIVE GRASSES WITH A MINIMUM HEIGHT OF 18 INCHES SHALL BE LOCATED WITHIN 10 FEET OF ANY BUILDING FOUNDATION WALL VISIBLE FROM A PUBLIC STREET EXCLUDING ALLEYS.
  - PROVIDED: 35 SHRUBS
- ONE CANOPY TREE FOR EVERY 2,000 SQUARE FEET OF LOT AREA FOR THE FIRST 20,000 SQUARE FEET OF A LOT.
  - PROVIDED: 10 TREES

PERIMETER BUFFERS:

**NO REQUIREMENT. EXEMPTION BETWEEN LOTS WITHIN THE DEVELOPMENT.

NORTH BELL STREET – STREETSCAPE BUFFERS

**NO DEVELOPMENT. EXISTING WETLAND/VEGETATION.

WEST JUDD STREET – STREETSCAPE BUFFERS

MINIMUM WIDTH: 15 FEET
**NOT BE LOCATED WITHIN SIGHT DISTANCE TRIANGLES WHERE FIRE TRUCK EXIT.
**NOT BE LOCATED WITHIN UTILITY EASEMENT.
TYPE C SCM-OPAQUE BUFFER:

- CANOPY TREES – 3 PER 100 LINEAR FEET. 33' ON-CENTER.
  - PROVIDED: 6 TREES
- UNDERSTORY TREES – 6 PER 100 LINEA FEET. 75% EVERGREEN
  - PROVIDED: 12 TREES
- SHRUBS – 25 PER 100 LINEAR FEET, SPACED 3' MAX.
  - PROVIDED: 56 SHRUBS

STREET TREES (360 FEET)

**NOT BE LOCATED WITHIN SIGHT DISTANCE TRIANGLES AS FIRE TRUCK EXIT.
**WITHIN OVERHEAD POWER LINES

- UNDERSTORY TREES SHALL BE PLANTED 20 TO 25 FEET ON-CENTER.
  - PROVIDED: 10 TREES

OPEN SPACE SET-ASIDE:

8% OF TOTAL SITE (5.18 AC)
REQUIRED: 8% x 5.18 = 0.41 AC (18,042 SF)
PROVIDED: EXISTING WETLAND AREA 0.83 AC (36,292 SF)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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PUBLIC SAFETY WAKE COUNTY EMS EST. 1976

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CONSTRUCTION DOCUMENTS

LANDSCAPE PLAN

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2472 KENNETH K. AAL-ANDRIANOFF
07-18-25

SHEET NUMBER

C601

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (one this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDCs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes [After Discovery] and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains 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 noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,

(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,

(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,

(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,

(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and

(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

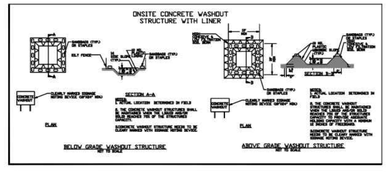
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA Environmental Quality



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

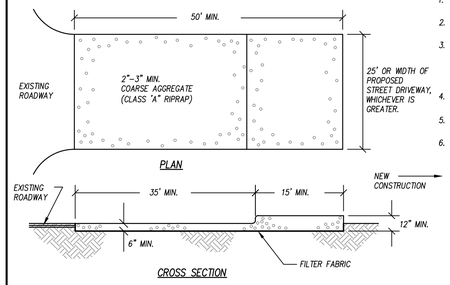
1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

NCDEQ STANDARD NOTES

N.T.S.



NOTES:

1. *ENTRANCE(S) SHALL BE LOCATED TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.*
2. *TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS SHALL TO BE PROVIDED.*
3. *ENTRANCES MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY. CONTRACTOR SHALL MAINTAIN AS NECESSARY.*
4. *ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED UP IMMEDIATELY.*
5. *FREQUENT CHECKS OF THE ENTRANCE(S) AND TIMELY MAINTENANCE SHALL BE PROVIDED.*
6. *NOTES ARE APPLICABLE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED.*

MAINTENANCE NOTES:

1. *MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. MAY REQUIRE PERIODIC TOPDRESSING WITH 2-INCH STONE.*
2. *AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY.*
3. *IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED OR TRACKED ONTO PUBLIC ROADWAYS.*

CONSTRUCTION SPECIFICATIONS:

1. *CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.*
2. *PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.*
3. *PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR SUITABLE OTHER OUTLET.*
4. *USE GEOTEXTILE FABRIC TO IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.*

GRAVEL CONSTRUCTION ENTRANCE

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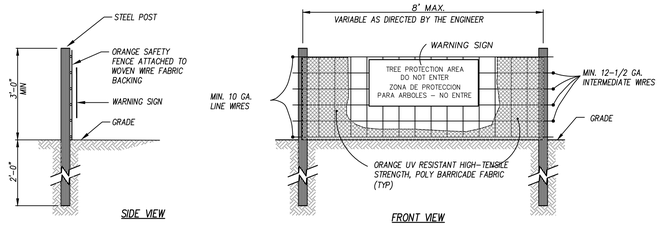
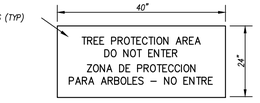


NOTES:

1. *INSTALL TREE PROTECTION FENCING PRIOR TO PERFORMING ANY CLEARING OF THE SITE.*
2. *WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.*
3. *LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.*
4. *SIGNS SHALL BE PLACED AT 100' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 100' ON CENTER THEREAFTER.*
5. *FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.*
6. *ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.*
7. *MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.*



TEMPORARY TREE PROTECTION FENCE

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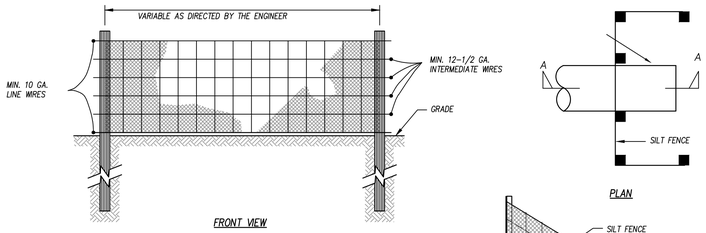
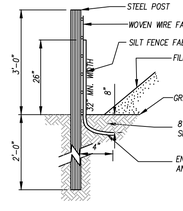


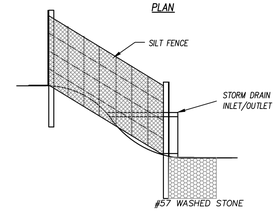
INSTALLATION NOTE:

USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.

MAINTENANCE NOTES:

1. *REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.*
2. *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.*
3. *REPAIR SILT FENCE FAILURES WITH NO. 57 WASHED STONE BERM.*





STANDARD TEMPORARY SILT FENCE

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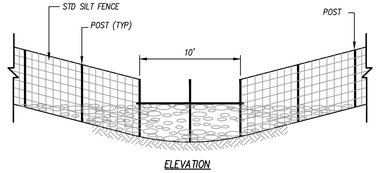
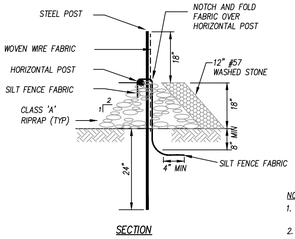


MAINTENANCE NOTES:

1. *REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE/OUTLET. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE & REPLACE STONE AS NECESSARY AS IT BECOMES CLOGGED WITH SEDIMENT.*
2. *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.*



NOTES:

1. *INSTALL SILT FENCE PER STD. SILT FENCE DETAIL.*
2. *LOCATE REINFORCED OUTLET AT LOW POINTS OF SILT FENCE BARRIER.*

REINFORCED SILT FENCE OUTLET

N.T.S.

adwarchitects
environmentsforlife
architecture planning interiors
2815 COLISUEM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P 704 379 1919
F 704 379 1920
www.adwarchitects.com

CLH DESIGN, P.A.
400 Regency Forest Drive
Suite 120
Cary, North Carolina 27518
Phone: (919)319-6716
Fax: (919)319-7516
LA: C-106, PE: C-1595

WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EMS EST. 1976

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

EROSION CONTROL DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

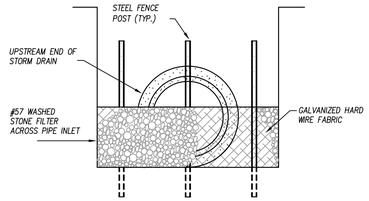
REVISIONS
NO DATE DESCRIPTION:

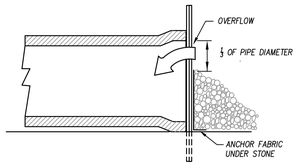
NORTH CAROLINA REGISTERED SEAL 22625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:21:09-04'00'

SHEET NUMBER

C701





MAINTENANCE NOTES:

1. ALL OPEN STORM DRAIN PIPES SHALL BE PROTECTED AFTER STOPPAGE OF WORK EACH DAY AS ILLUSTRATED.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF AND THE TRENCH BOTTOM REGRADED AND COMPACTED IN ACCORDANCE w/ SPECIFICATIONS PRIOR TO CONTINUANCE OF LAYING PIPE.

PROTECTION OF STORM DRAIN UNDER CONSTRUCTION

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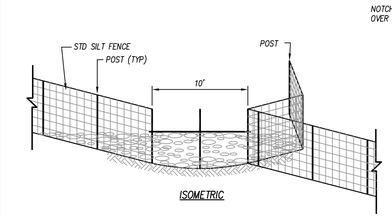
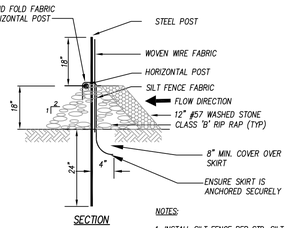


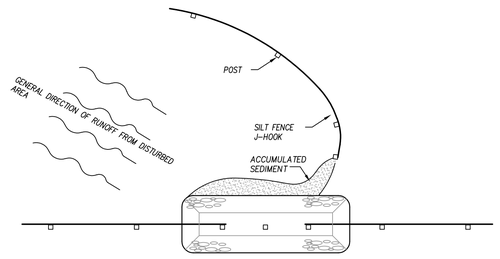
ISOMETRIC



SECTION

NOTES:

1. INSTALL SILT FENCE PER STD. SILT FENCE DETAIL.
2. LOCATE REINFORCED OUTLET AT LOW POINTS OF SILT FENCE BARRIER.



PLAN VIEW REINFORCED SILT FENCE WITH J-HOOK OUTLET

MAINTENANCE NOTES:

1. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE/OUTLET. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE & REPLACE STONE AS NECESSARY AS IT BECOMES CLOGGED WITH SEDIMENT.

   REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND
2. STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

TEMPORARY REINFORCED SILT FENCE J-HOOK INSTALLATION

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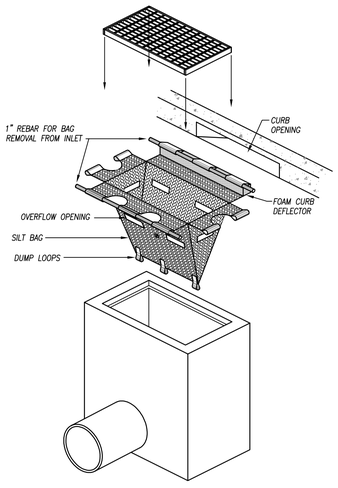

NOTES:

1. CONTRACTOR TO INSPECT SILT BAG EVERY TWO WEEKS OR AFTER EVERY SUBSTANTIAL RAIN EVENT.
2. CONTRACTOR TO REMOVE AND DISPOSE OF COLLECTED SILT AT AN ACCEPTABLE OFF SITE LOCATION.
3. COLLECTED SEDIMENT TO BE REMOVED ROUTINELY TO ENSURE FUNCTIONALITY OF SILT BAG.
4. DEVICE SHALL BE MANUFACTURED FROM WOVEN POLYPROPYLENE GEOTEXTILE TO FIT THE OPENING OF A CATCH BASIN OR DROP INLET TO FILTER SEDIMENT FROM RUNOFF ENTERING THE INLET. DEVICE SHALL BE PROVIDED WITH AN INTEGRAL CURB DEFLECTOR IF INSTALLED AT A CATCH BASIN WITH A VERTICAL OPENING ADJACENT TO A HORIZONTAL GRATE.
5. THE DEVICE SHALL BE A HIGH FLOW "SILTSACK" AS MANUFACTURED BY ACF ENVIRONMENTAL, INC. OR APPROVED EQUAL.
6. INSTALL DEVICE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND INSTALL A CURB DEFLECTOR IF APPROPRIATE.
7. INSPECT DEVICE AFTER EACH RAIN EVENT AND AT INTERVALS NOT EXCEEDING TWO WEEKS DURING CONSTRUCTION. REMOVE, EMPTY, CLEAN, AND REPLACE THE DEVICE AS NEEDED DURING CONSTRUCTION. EMPTY COLLECTED SEDIMENT IN APPROVED, PROTECTED LOCATION. REMOVE AND DISPOSE OF DEVICE FOLLOWING FULL AND PERMANENT STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA.

MAINTENANCE NOTES:

1. INSPECT THE BARRIER AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL AND MAKE REPAIRS AS NEEDED.
2. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS.
3. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.

SILT BAG INLET PROTECTION

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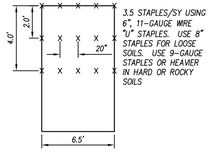
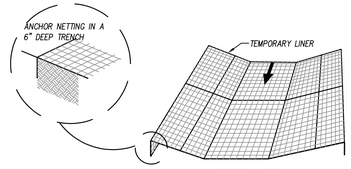


TEMPORARY MAT STAPLE PATTERN
NTS



CHANNEL LINER

MATTING INSTALLATION NOTES:

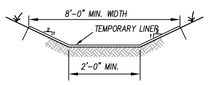
1. INSTALL TEMPORARY CHANNEL MATTING IN ALL DIVERSION SWALES OR OTHER GRASSED AREAS OF CONCENTRATED STORMWATER FLOW DURING BOTH TEMPORARY AND PERMANENT GRASS ESTABLISHMENT. ALL TEMPORARY MATTING SHALL BE EXCELSIOR MATTING UNLESS NOTED OTHERWISE ON THE EROSION CONTROL PLAN.
2. SEE SPECIFICATIONS FOR TEMP. LINING REQUIREMENTS.
3. PREPARE SOIL BEFORE INSTALLING MATS OR NETS, INCLUDING APPLICATION OF LIME, FERTILIZER AND SEED.
4. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE NET OR MAT IN A 6" DEEP TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
5. ROLL CENTER MAT OR NET IN DIRECTION OF WATER FLOW ON BOTTOM OF CHANNEL.
6. PLACE MAT OR NET END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE.
7. FULL LENGTH EDGE OF MAT OR NET AT TOP SIDE SLOPES SHALL BE ANCHORED IN 6" DEEP TRENCH AFTER STAPLING.
8. MATS OR NETS SHALL BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED.
9. THE TERMINAL END OF THE MAT OR NET MUST BE ANCHORED IN A 6" DEEP TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

DIVERSION DITCH SCHEDULE

CHANNEL	BOTTOM WIDTH (FT)	SIDE SLOPE (H:V)	CHANNEL GRADE	CHANNEL LENGTH	PERM. LINING	TEMP. LINING	MIN. TOP WIDTH OF LINING (FT)	RIPRAP DEPTH (IN)
TDD-1	2	2:1	1.00%	335 LF	GRASS	EXCELSIOR	6	N/A
TDD-2	3	2:1	1.32%	170 LF	GRASS	EXCELSIOR	7	N/A

CONSTRUCTION SPECIFICATIONS:

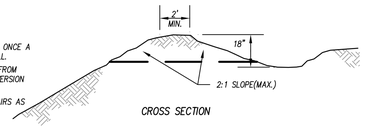
1. REMOVE AND PROPERLY DISPOSE OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIALS.
2. ENSURE THAT THE MINIMUM CONSTRUCTED CROSS SECTION MEETS ALL DESIGN REQUIREMENTS.
3. ENSURE THAT THE TOP OF THE DIKE IS NOT LOWER AT ANY POINT THAN THE DESIGN ELEVATION PLUS THE SPECIFIED SETTLEMENT.
4. PROVIDE SUFFICIENT ROOM AROUND DIVERSIONS TO PERMIT MACHINE REGRADING AND CLEANOUT.
5. VEGETATE THE RIDGE IMMEDIATELY AFTER CONSTRUCTION, UNLESS IT WILL REMAIN IN PLACE LESS THAN 30 WORKING DAYS.
6. APPLY SOLID PLASTIC (BLACK, 20 MIL) LINING ON SURFACE OF DIVERSION DITCH ON ANY SLOPES GREATER THAN 10% ENTERING BASINS/PONDS.



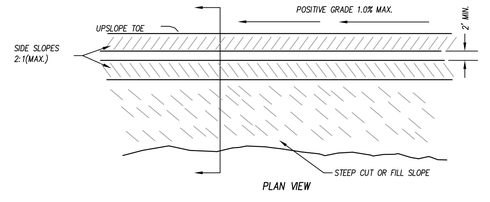
TEMP. PLASTIC LINING
NTS

MAINTENANCE NOTES:

1. INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL.
2. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR DIVERSION DITCH.
3. INSPECT AND MAKE TIMELY REPAIRS AS NEEDED.



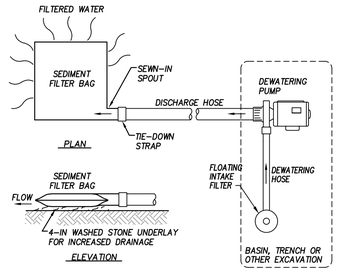
CROSS SECTION



PLAN VIEW

DEWATERING SEDIMENT FILTER BAG

N.T.S.



CONSTRUCTION NOTES:

1. SILT BAG SHALL BE A PERMEABLE, POLYPROPYLENE, NON-WOVEN GEOTEXTILE (WITH AN 80 SIEVE AOS) SEWN INTO A BAG AND MANUFACTURED TO ACCEPT AND FILTER PUMPED, SEDIMENT-LADEN WATER FROM DEWATERING ACTIVITIES.
2. SILT BAG SHALL BE SIZED BY THE MANUFACTURER AS APPROPRIATE FOR THE DEWATERING PUMP DISCHARGE RATE AND SHALL BE FITTED WITH A FILL SPOUT LARGE ENOUGH TO ACCOMMODATE THE DISCHARGE PIPING OF THE DEWATERING PUMP.
3. DEWATERING PUMP/HOSE SHALL BE EQUIPPED WITH A FLOATING INTAKE FILTER.
4. INSTALL SILT BAG ON AN UNDISTURBED OR FULLY STABILIZED SLOPE SO INCOMING WATER FLOWS DOWNHILL THROUGH THE BAG WITHOUT CAUSING EROSION.

MAINTENANCE NOTES:

1. MONITOR BAG DURING PUMPING OPERATIONS. ENSURE PUMP RATE DOES NOT EXCEED
2. REMOVE AND REPLACE SILT BAG WHEN DEVICE NO LONGER DRAINS EFFICIENTLY DUE TO ACCUMULATED SEDIMENT IN BAG.
3. EMPTY BAG WITHIN DISTURBED LIMITS OF THE SITE PROTECTED BY OTHER SEDIMENT CONTROL MEASURES OR DISPOSE OF OFF-SITE AT AN APPROPRIATELY PERMITTED LOCATION.

TEMPORARY DIVERSION DITCH / BERM

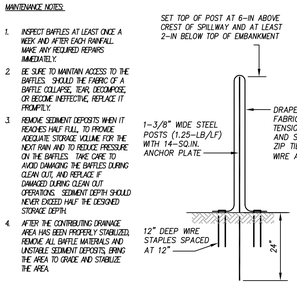
N.T.S.

MAINTENANCE NOTES:

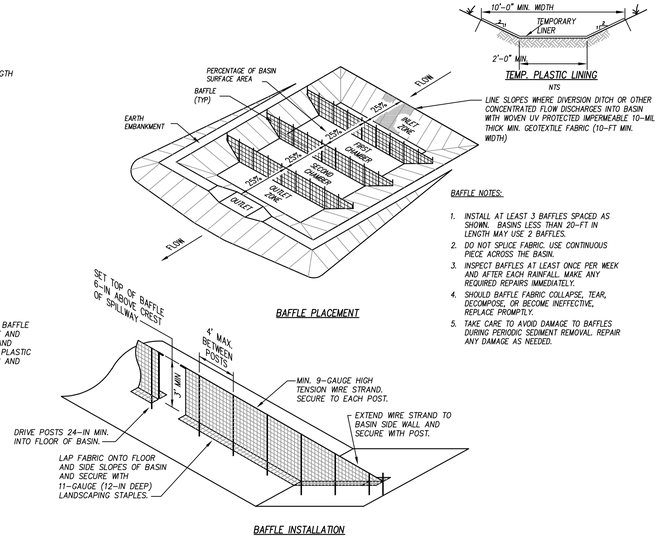
1. INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FILL, TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEAN OUT, AND REPLACE IF DAMAGED DURING CLEAN OUT OPERATIONS. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH.
4. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE AND STABILIZE THE AREA

BAFFLE FABRIC:
100% COCONUT FIBER (COIR) TWINE, HIGH-STRENGTH WOVEN MESH WITH THE FOLLOWING PROPERTIES:

THICKNESS:	0.30 IN. MIN.
TENSILE STRENGTH (MET):	900 x 690 LB/FT MIN.
ELONGATION (MET):	69% x 34% MAX.
FLOW VELOCITY:	10-12 FT/SEC
WEIGHT:	20-oz/SY MIN.
WIDTH:	6.5-FT MIN.
OPEN AREA:	50% MAX.



BAFFLE SECTION



BAFFLE PLACEMENT

BAFFLE INSTALLATION

BAFFLE NOTES:

1. INSTALL AT LEAST 3 BAFFLES SPACED AS SHOWN. BASINS LESS THAN 20-FT IN LENGTH MAY USE 2 BAFFLES.
2. DO NOT SPLICE FABRIC. USE CONTINUOUS PIECE ACROSS THE BASIN.
3. INSPECT BAFFLES AT LEAST ONCE PER WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
4. SHOULD BAFFLE FABRIC COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE PROMPTLY.
5. TAKE CARE TO AVOID DAMAGE TO BAFFLES DURING PERIODIC SEDIMENT REMOVAL. REPAIR ANY DAMAGE AS NEEDED.

TEMPORARY BASIN BAFFLES

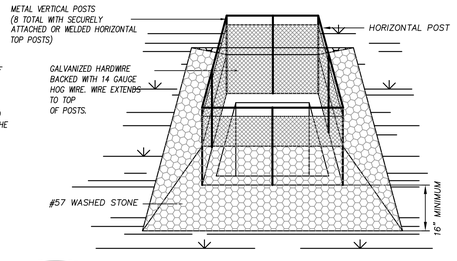
N.T.S.

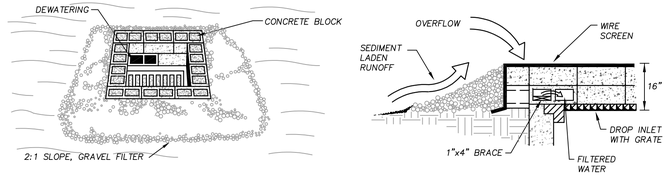
MAINTENANCE NOTES:

1. MAINTAIN DEVICE AFTER EACH RAIN. REPLACE #57 WASHED STONE IF IT CLOGS W/ SEDIMENT.
2. PLACE 1"x4" BOARDS THROUGH THE HOLES OF CORNER BLOCKS.

NOTE:

TEMPORARY INLET PROTECTION MAY BE SUBSTITUTED WITH A PROPERLY SIZED FILTREXX COMPOST SOCK OR APPROVED EQUAL IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.





CATCH BASIN AND YARD INLET PROTECTION

N.T.S.

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WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EST. 1976 EMS

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

EROSION CONTROL DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

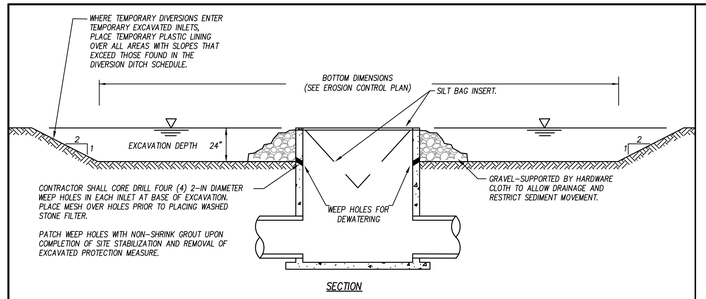
NO	DATE	DESCRIPTION:

NORTH CAROLINA PROFESSIONAL SEAL 022625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:21:15-04'00'

SHEET NUMBER

C702



SECTION

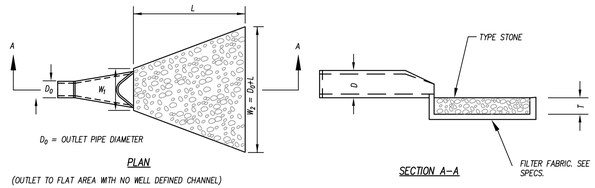
CONSTRUCTION NOTES:

1. PROVIDE WEEP HOLES IN SIDE OF INLET AT BOTTOM OF EXCAVATION FOR DEWATERING.
2. WIRE MESH OR HARDWARE CLOTH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE OF THE INLET, TO PREVENT STONE FROM BEING WASHED THROUGH THE WEEP HOLES.
3. #57 WASHED STONE SHALL BE PILED AGAINST THE WIRE.
4. MAINTAIN DEVICE AFTER EACH RAIN. REPLACE #57 WASHED STONE IF IT CLOGS WITH SEDIMENT.
5. CONTRACTOR TO PAINT CLEANOUT MARK ON STRUCTURE AT HALF CAPACITY ELEVATION. SILT IS TO BE REMOVED AND TRAP REPAIRED EACH TIME IT REACHES THIS MARK.
6. CLEAR THE AREA OF ALL DEBRIS THAT MIGHT HINDER EXCAVATION AND DISPOSAL OF SPOIL.
7. GRADE THE APPROACH TO THE INLET UNIFORMLY.
8. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, SEAL WEEP HOLES, FILL THE BASIN WITH COMPACTED, DRY, SUITABLE SOIL TO FINAL GRADES AND APPLY FINAL SURFACING.

MAINTENANCE NOTES:

1. INSPECT, CLEAN, AND PROPERLY MAINTAIN THE EXCAVATED BASIN AFTER EVERY STORM UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.
2. REMOVE SEDIMENT WHEN THE VOLUME OF THE BASIN HAS BEEN REDUCED BY ONE-HALF. DISPOSE OF REMOVED SEDIMENT PROPERLY AT AN OFFSITE LOCATION.
3. SPREAD ALL EXCAVATED MATERIAL EVENLY OVER THE SURROUNDING LAND AREA OR STOCKPILE AND STABILIZE IT APPROPRIATELY.
4. SHOULD MANUAL DEWATERING BECOME NECESSARY FOR MAINTENANCE OR FINAL REMOVAL, UTILIZE A MUD PUMP WITH FLOATING SUCTION INLET AND DISCHARGE FLOW ONLY THROUGH A PROPERLY INSTALLED SILT BAG. MONITOR PUMPING TO ENSURE FLOW CAPACITY OF SILT BAG IS NOT EXCEEDED.

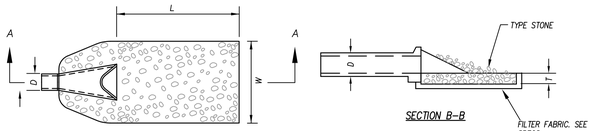
EXCAVATED INLET PROTECTION N.T.S.



PLAN

(OUTLET TO FLAT AREA WITH NO WELL DEFINED CHANNEL)

SECTION A–A



PLAN

(OUTLET TO WELL DEFINED CHANNEL)

SECTION B–B

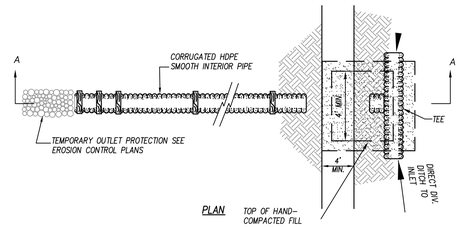
MAINTENANCE NOTES:

1. RIP RAP OUTLET STRUCTURES TO BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT.
2. REPAIR DISLODGED STONES TO DESIGN DIMENSIONS IMMEDIATELY.
3. IF MORE SUBSTANTIAL DAMAGE OCCURS, NOTIFY ENGINEER TO DETERMINE A REPAIR SOLUTION.

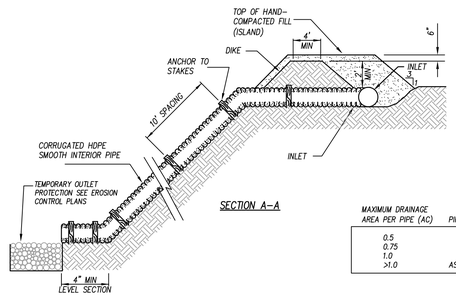
NOTES:

1. TOP OF RIP RAP AT DOWNSTREAM END OF APRON SHALL BE FLUSH WITH NATURAL GRADE OF THE RECEIVING CHANNEL.
2. VEGETATE ALL DISTURBED AREAS WITH VEGETATION IMMEDIATELY AFTER INSTALLATION.
3. SEE EROSION CONTROL PLAN FOR APRON DIMENSIONS.

OUTLET PROTECTION N.T.S.



PLAN



SECTION A–A

MAXIMUM DRAINAGE AREA PER PIPE (Ac)	PIPE DIA. (IN)
0.5	12
0.75	15
1.0	18
>1.0	AS DESIGNED

TEMP. SLOPE DRAIN NUMBER	LENGTH (LF)	DIAMETER (IN)	10-YR DESIGN FLOW (CFS)
TSD-1	22	15	2.95
TSD-2	31	15	3.91

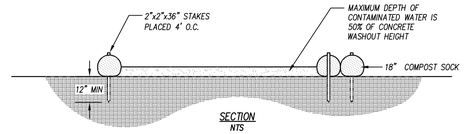
CONSTRUCTION NOTES:

1. PLACE SLOPE DRAINS ON UNDISTURBED SOIL OR WELL COMPACTED FILL AT LOCATIONS SHOWN ON THE PLANS.
2. SLIGHTLY SLOPE THE SECTION OF PIPE UNDER THE DIKE TOWARDS ITS OUTLET.
3. HAND TAMP THE SOIL UNDER AND AROUND THE ENTRANCE SECTION IN LIFTS NOT TO EXCEED 6-IN.
4. ENSURE THAT FILL OVER THE DRAIN AT THE TOP OF THE SLOPE HAS MINIMUM DIMENSIONS OF 1.5 FT DEPTH, 4 FT TOP WIDTH AND 3:1 SIDE SLOPES.
5. ENSURE THE SETTLED, COMPACTED DIKE RIDGE IS NO LESS THAN 1-FT ABOVE THE PIPE AT ALL LOCATIONS.
6. ENSURE ALL PIPE CONNECTIONS ARE WATER-TIGHT.
7. ENSURE THAT ALL FILL MATERIAL IS WELL COMPACTED. SECURELY FASTEN THE EXPOSED SECTION OF THE DRAIN WITH GROMMETS OR STAKES SPACED NO MORE THAN 10-FT APART.
8. EXTEND THE DRAIN BEYOND THE TOE OF THE SLOPE AND ADEQUATELY PROTECT THE OUTLET FROM EROSION.
9. IMMEDIATELY STABILIZE ALL DISTURBED AREAS FOLLOWING CONSTRUCTION.

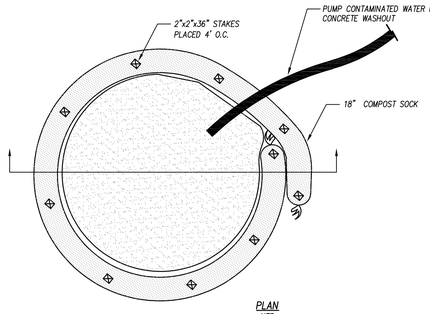
MAINTENANCE NOTES:

1. INSPECT THE SLOPE DRAIN AND SUPPORTING DIVERSIONS AFTER EVERY RAINFALL AND MAKE NECESSARY REPAIRS PROMPTLY.
2. CLEAR ACCUMULATED SEDIMENT FROM THE PIPE ENTRANCES AND OUTLET.

TEMPORARY COMPOST SOCK CONCRETE WASHOUT N.T.S.



SECTION
NTS



PLAN
NTS

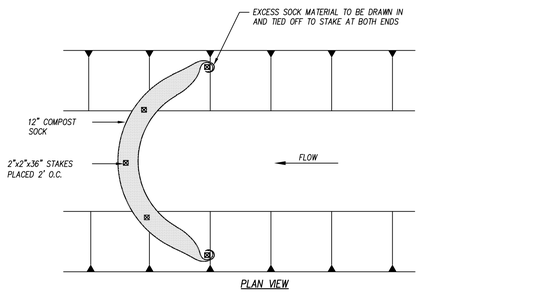
NOTES:

1. MATERIALS TO BE FILTREXX OR APPROVED EQUAL.
2. COMPOST SOCK CONCRETE WASHOUT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
3. CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
4. 2"X2" OAK OR OTHER DURABLE HARDWOOD STAKES SHALL BE USED. STAKES SHALL BE PLACES AT A MAXIMUM INTERVAL OF 4 FEET. STAKES SHALL BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCKS.

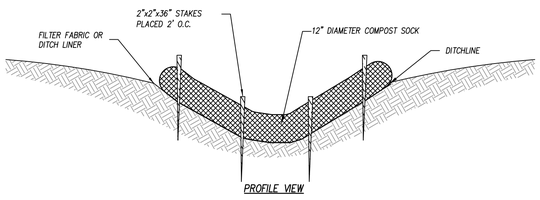
MAINTENANCE NOTES:

1. INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER).
2. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
3. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN.
4. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE.
5. THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED.
6. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.

TEMPORARY COMPOST SOCK CHECK DAM N.T.S.



PLAN VIEW



PROFILE VIEW

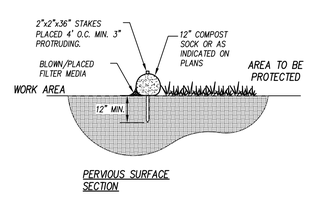
NOTES:

1. MATERIALS TO BE FILTREXX OR APPROVED EQUAL.
2. ALL MATERIAL AND INSTALLATION TO MEET STATE AND LOCAL SPECIFICATIONS.
3. COMPOST SOCK MAY BE USED AS CHECK DAMS IN DITCHES NOT EXCEEDING 3 FEET IN DEPTH.
4. PRIOR TO SOCK INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND OTHER DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION.
5. 2"X2" OAK OR OTHER DURABLE HARDWOOD STAKES SHALL BE USED. STAKES SHALL BE PLACED AT A MAXIMUM INTERVAL OF 2 FEET. STAKES SHALL BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCKS.
6. THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS.
7. CHECK DAM SHOULD BE USED IN AREAS THAT DRAIN 10 ACRES OR LESS.
8. CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.

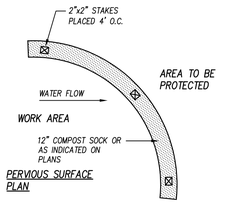
MAINTENANCE NOTES:

1. INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER).
2. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
3. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN.
4. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE.
5. THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED.
6. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.

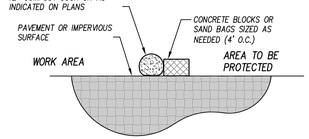
TEMPORARY SLOPE DRAIN N.T.S.



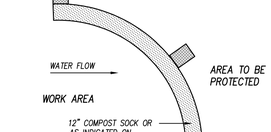
PERVIOUS SURFACE SECTION



PERVIOUS SURFACE PLAN



IMPERVIOUS SURFACE SECTION



IMPERVIOUS SURFACE PLAN

NOTES:

1. MATERIALS TO BE FILTREXX OR APPROVED EQUAL.
2. ALL MATERIAL AND INSTALLATION TO MEET STATE AND LOCAL SPECIFICATIONS.
3. COMPOST SOCKS SHALL BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREAS, PERPENDICULAR TO SHEET FLOW. COMPOST SOCKS ARE EFFECTIVE IN AREAS WHERE SEDIMENT ACCUMULATION OF LESS THAN SIX INCHES IS EXPECTED.
4. COMPOST SOCKS CAN BE APPLIED ON SLOPES UP TO A 2:1 GRADE WITH A MAXIMUM HEIGHT OF 10 FEET. COMPOST SOCK SHOULD NOT BE USED ALONE BELOW GRADED SLOPES GREATER THAN 10 FEET IN HEIGHT.
5. 2"X2" OAK OR OTHER DURABLE HARDWOOD STAKES SHALL BE USED. STAKES SHALL BE PLACES AT A MAXIMUM INTERVAL OF 4 FEET, OR A MAXIMUM INTERVAL OF 8 FEET IF THE SOCK IS PLACER IN A 4 INCH TRENCH. STAKES SHALL BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCKS.
6. COMPOST SOCKS SHALL BE SLEEVED WHEN SECTIONS LONGER THAN 200-LF ARE REQUIRED. STAKES SHALL BE PLACED ON SLEEVED AREAS TO KEEP SECTIONS TOGETHER.
7. IN THE EVENT STAKING IS NOT POSSIBLE (I.E., WHEN SOCKS ARE USED ON PAVEMENT) HEAVY CONCRETE BLOCKS OR SAND BAGS SHALL BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS.
8. COMPOST SOCK SHOULD BE PLACED AT A 10 FOOT MINIMUM DISTANCE FROM THE TOE OF THE SLOPE TO ALLOW FOR A PROPER RUNOFF ACCUMULATION AND MAXIMUM SEDIMENT STORAGE. ON FLAT AREAS, COMPOST SOCK SHALL BE PLACED AT THE EDGE OF DISTURBED AREAS.
9. THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS.

MAINTENANCE NOTES:

1. INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER).
2. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
3. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN.
4. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE.
5. THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED.
6. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.

TEMPORARY COMPOST SOCK PERIMETER FENCE N.T.S.

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WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EMS EST. 1976

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

EROSION CONTROL DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS
NO DATE DESCRIPTION:

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 222625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:21:22-04'00'

SHEET NUMBER

C703

CONSTRUCTION SEQUENCE

1. THE STORMWATER WETLAND SHALL BE UTILIZED AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION.
   - 1.1. SCHEDULE THE FOLLOWING WORK TO COINCIDE WITH AN EXTENDED FORECAST OF NO PRECIPITATION SUCH THAT ALL WORK CAN BE COMPLETED DURING A PERIOD OF DRY WEATHER. INSTALL COFFER DAM UPSTREAM OF POND IN CASE OF ANY UNEXPECTED PRECIPITATION EVENT. UTILIZE MUD PUMP WITH FLOATING SUCTION INLET THROUGH A SEDIMENT FILTER BAG LOCATED DOWNSTREAM OF BASIN.
   - 1.2. INSTALL WETLAND BARREL, OUTLET STRUCTURE, EMBANKMENT, EMERGENCY SPILLWAY AND OTHER WETLAND COMPONENTS.
   - 1.3. CALL FOR SITE INSPECTION PRIOR TO BACKFILLING WETLAND BARREL.
   - 1.4. INSTALL TEMPORARY SKIMMER ON WETLAND DRAIN. DRAIN VALVE TO REMAIN OPEN.
   - 1.5. EXCAVATE WETLAND TO TEMPORARY SKIMMER BASIN DIMENSIONS, SEE EROSION CONTROL PLAN.
   - 1.6. INSTALL BAFFLES AND OTHER TEMPORARY SKIMMER BASIN COMPONENTS.
   - 1.7. SEED ALL DISTURBED AREAS.
2. FOLLOWING COMPLETION OF CONSTRUCTION AND STABILIZATION OF POND DRAINAGE BASIN, PERFORM THE FOLLOWING:
   - 2.1. SCHEDULE THE FOLLOWING WORK TO COINCIDE WITH AN EXTENDED FORECAST OF NO PRECIPITATION SUCH THAT ALL WORK CAN BE COMPLETED DURING A PERIOD OF DRY WEATHER. INSTALL COFFER DAM UPSTREAM OF POND IN CASE OF ANY UNEXPECTED PRECIPITATION EVENT. UTILIZE MUD PUMP WITH FLOATING SUCTION INLET THROUGH A SEDIMENT FILTER BAG LOCATED DOWNSTREAM OF BASIN.
   - 2.2. REMOVE TEMPORARY BAFFLES.
   - 2.3. REMOVE ALL ACCUMULATED SEDIMENT. GRADE WETLAND INTERIOR TO SUBGRADE ELEVATIONS.
   - 2.4. INSTALL CLAY LINER AND ARMORED SECTIONS OF FOREBAY WEIRS.
   - 2.5. IF ADDITIONAL DE-WATERING IS NEEDED BELOW DRAIN/SKIMMER ELEVATION, UTILIZE A MUD PUMP WITH FLOATING SUCTION INLET AND DISCHARGE REMAINING WATER THROUGH A SEDIMENT FILTER BAG LOCATED OUTSIDE OF THE BASIN. MONITOR PUMPING TO ENSURE FLOW DOES NOT EXCEED THE CAPACITY OF FILTER BAG.
   - 2.6. INSTALL AND FINE GRADE TOPSOIL TO FINISH GRADES.
   - 2.7. INSTALL TEMPORARY SLOPE LININGS.
   - 2.8. REMOVE TEMPORARY CAP/BLOCKING FROM PRIMARY SPILLWAY.
   - 2.9. INSTALL WETLAND PLANTINGS.
   - 2.10. PERFORM DETAILED TOPOGRAPHIC SURVEY.
   - 2.11. FOLLOWING APPROVAL OF SURVEY, REMOVE TEMPORARY SKIMMER AND CLOSE DRAIN VALVE.

TEMPORARY SEDIMENT BASIN NOTES:

1. THE AREA OF THE NEW CONSTRUCTED WETLAND WILL BE UTILIZED AS A TEMP SEDIMENT BASIN DURING CONSTRUCTION.
2. A TEMP. SKIMMER SHALL BE ATTACHED TO THE OUTLET RISER DRAIN. THE BASIN SHALL BE GRADED TO TEMP. CONTOURS SHOWN ON THE EROSION CONTROL PLAN. TEMP. BAFFLES INSTALLED.
3. INSPECT DEVICE AFTER EACH RAINFALL. REMOVE SEDIMENT WHEN SEDIMENT REACHES A DEPTH OF NO MORE THAN ONE-HALF THE HEIGHT OF THE RISER. REPAIR BAFFLES IF DAMAGED.
4. PULL SKIMMER TO SIDE OF BASIN WITH ROPE AND INSPECT REGULARLY. KEEP SKIMMER HEAD, ORIFICE AND PIPE FREE OF DEBRIS. REMOVE SEDIMENT FROM BENEATH SKIMMER AND ENSURE VEGETATION DOES NOT INTERFERE WITH SKIMMER OPERATION.
5. PROVIDE PAINT MARK ON RISER AT 12" HEIGHT. CLEAN AND REPAIR ONCE SEDIMENT REACHES MARK.
6. INSTALL ALL COMPONENTS OF POND EMBANKMENT, OUTLET STRUCTURE, SKIMMER, EMERGENCY SPILLWAY, ETC. (UNLESS NOTED) PRIOR TO BEGINNING CLEARING OPERATIONS.
7. PROVIDE GROUND COVER/TEMPORARY SEEDING ON BOTTOM OF TEMPORARY BASINS.

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3. CHECK FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY.

AS-BUILT SURVEY REQUIREMENTS

1. CONTRACTOR SHALL PROVIDE AS-BUILT TOPOGRAPHIC SURVEY PERFORMED BY A PROFESSIONAL LAND SURVEYOR CERTIFYING SCM AREA DIMENSIONS AND ELEVATIONS OF THE FOLLOWING:
   - 1.1. OUTLET STRUCTURE TOPS AND INVERTS, ORIFICE DIAMETERS, BARREL PIPE SIZES AND INVERTS AND STRUCTURE DIMENSIONS.
   - 1.2. EMERGENCY SPILLWAY ELEVATION AND DIMENSIONS.
   - 1.3. TOPOGRAPHY THAT EXTENDS 20 FEET OUTSIDE LIMITS OF POND WATER SURFACE AND EMBANKMENT.

CLAY LINER

CONTRACTOR SHALL FURNISH AND INSTALL A 6-IN THICK LAYER OF COMPACTED CLAY BENEATH THE WETLAND TOPSOIL IF DEEMED NECESSARY BY THE OWNER.

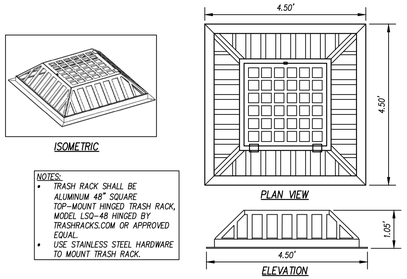
SUBGRADE OF WETLAND MUST BE OVER-EXCAVATED TO ACCOMMODATE CLAY LAYER.

COMPACTED CLAY SHALL BE TESTED IN PLACE AND SHALL HAVE A PERMEABILITY NO GREATER THAN 0.01 IN/HR.

TOPSOIL

ADD 12-18" OF TOPSOIL THROUGHOUT STORMWATER WETLAND AREA. TOPSOIL SHALL BE PLACED WITHIN THE SHALLOW LAND, SHALLOW WATER AND DEEP POOL AREAS AND ADHERE TO THE FOLLOWING REQUIREMENTS:

1. THE SOIL MUST BE UNIFORM AND FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR MATERIAL GREATER THAN 2 INCHES.
2. SOIL TEXTURE SHALL BE A LOAMY SAND, WITH NO MORE THAN 10% CLAY (USDA SOIL TEXTURAL CLASSIFICATION).
3. A MINIMUM ORGANIC CONTENT OF 10% BY DRY WEIGHT.
4. THE pH SHALL BE BETWEEN 5.5 AND 7.0.



ISOMETRIC

PLAN VIEW

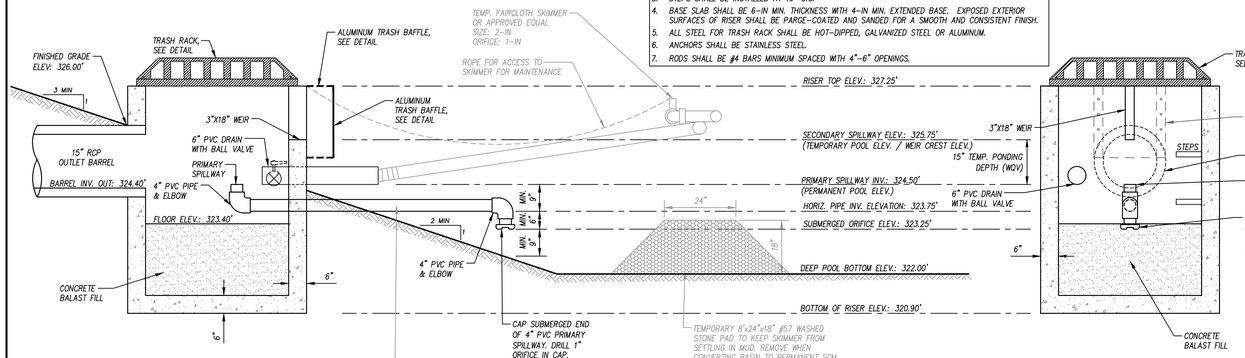
ELEVATION

NOTES:
- TRASH RACK SHALL BE ALUMINUM 48" SQUARE TOP-MOUNT HINGED TRASH RACK, MODEL LSQ-48 HINGED BY TRASHRACKS.COM OR APPROVED EQUAL.
- USE STAINLESS STEEL HARDWARE TO MOUNT TRASH RACK.

TRASH RACK DETAIL
SCALE: N.T.S.

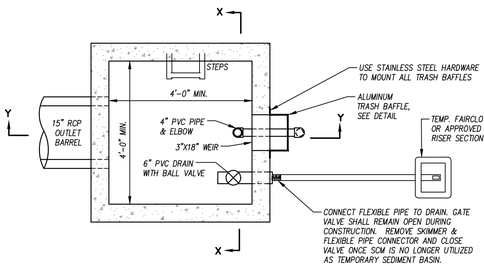
PRECAST CONCRETE OUTLET RISER:

1. ASTM C-478, PRECAST, REINFORCED CONCRETE WITH SOLID WALLS (NOT WAFFLE). ALTERNATIVE CAST-IN-PLACE ALLOWED WITH APPROVAL OF SHOP DRAWINGS.
2. ALL JOINTS AND PENETRATIONS TO BE ASTM C-1107, NON-SHRIK, HYDRAULIC-CEMENT GROUT.
3. STEPS SHALL BE INSTALLED AT 16" O.C.
4. BASE SLAB SHALL BE 6-IN MIN. THICKNESS WITH 4-IN MIN. EXTENDED BASE. EXPOSED EXTERIOR SURFACES OF RISER SHALL BE PARGE-COATED AND SANDED FOR A SMOOTH AND CONSISTENT FINISH.
5. ALL STEEL FOR TRASH RACK SHALL BE HOT-DIPPED, GALVANIZED STEEL OR ALUMINUM.
6. ANCHORS SHALL BE STAINLESS STEEL.
7. RODS SHALL BE #4 BARS MINIMUM SPACED WITH 4"-6" OPENINGS.

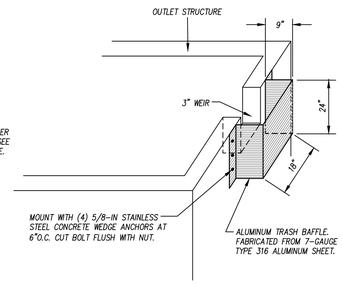


RISER SECTION Y-Y
SCALE: N.T.S.

RISER SECTION X-X
SCALE: N.T.S.

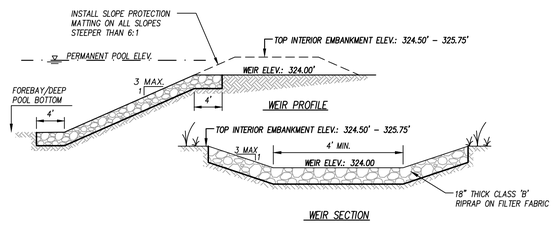


RISER PLAN
SCALE: N.T.S.

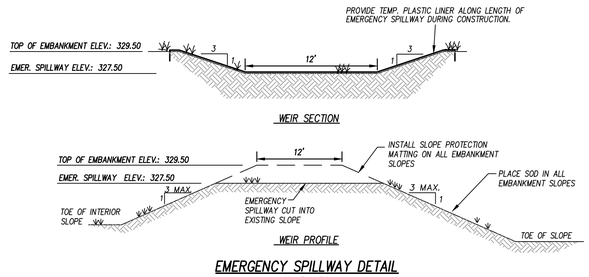


ALUMINUM TRASH BAFFLE DETAIL
SCALE: N.T.S.

OUTLET RISER DETAIL
SCALE: NTS

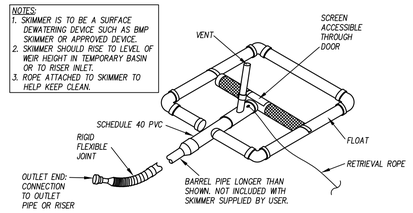


ARMORED WEIR DETAIL
SCALE: N.T.S.

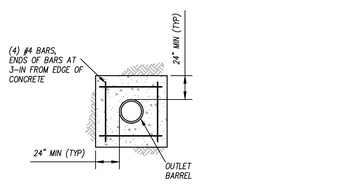


EMERGENCY SPILLWAY DETAIL
SCALE: N.T.S.

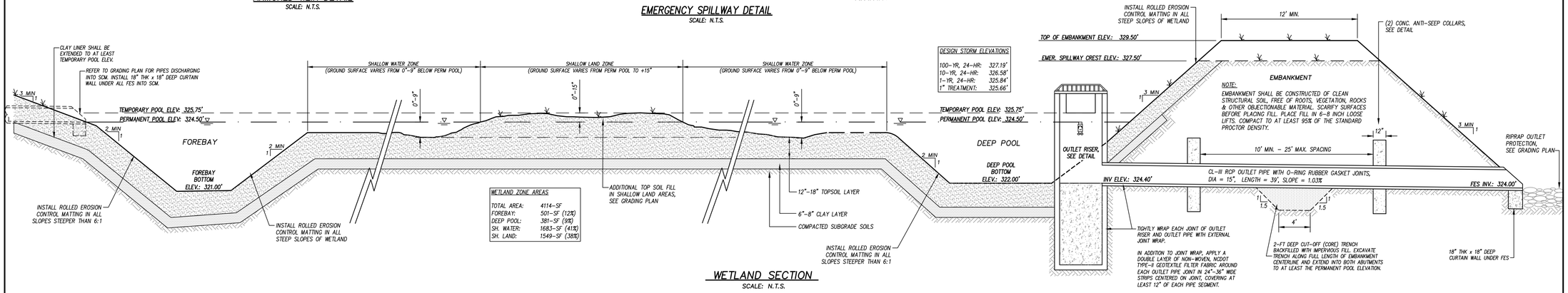
NOTES:
1. SKIMMER IS TO BE A SURFACE DEWATERING DEVICE SUCH AS BMP SKIMMER OR APPROVED DEVICE.
2. SKIMMER SHOULD RISE TO LEVEL OF WEIR HEIGHT IN TEMPORARY BASIN OR TO RISER INLET.
3. ROPE ATTACHED TO SKIMMER TO HELP KEEP CLEAN.



TEMPORARY SKIMMER
SCALE: N.T.S.



ANTI-SEEP COLLAR DETAIL
SCALE: N.T.S.



DESIGN STORM ELEVATIONS

100-YR, 24-HR:	327.19'
10-YR, 24-HR:	326.58'
1-YR, 24-HR:	325.84'
1" TREATMENT:	325.66'

WETLAND ZONE AREAS

TOTAL AREA:	4114-SF
FOREBAY:	501-SF (12%)
DEEP POOL:	381-SF (9%)
SH. WATER:	1683-SF (41%)
SH. LAND:	1549-SF (38%)

WETLAND SECTION
SCALE: N.T.S.

SCM-1 (STORMWATER CONTROL MEASURE) DETAIL

adwarchitects
environmentsforlife
architecture planning interiors
2815 COLISUEM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P 704 379 1919
F 704 379 1920
www.adwarchitects.com

CLH DESIGN, P.A.
400 Regency Forest Drive
Suite 120
Cary, North Carolina 27518
Phone: (919)319-6716
Fax: (919)319-7516
LA: C-106, PE: C-1595

WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EMS EST. 1976

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

WETLAND DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA PROFESSIONAL SEAL 22625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:21:29-04'00'

SHEET NUMBER

C704

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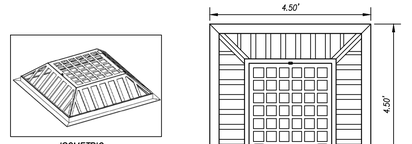

NOTES:
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- USE STAINLESS STEEL HARDWARE TO MOUNT TRASH RACK.

TRASH RACK DETAIL
SCALE: N.T.S.

PRECAST CONCRETE OUTLET RISER:

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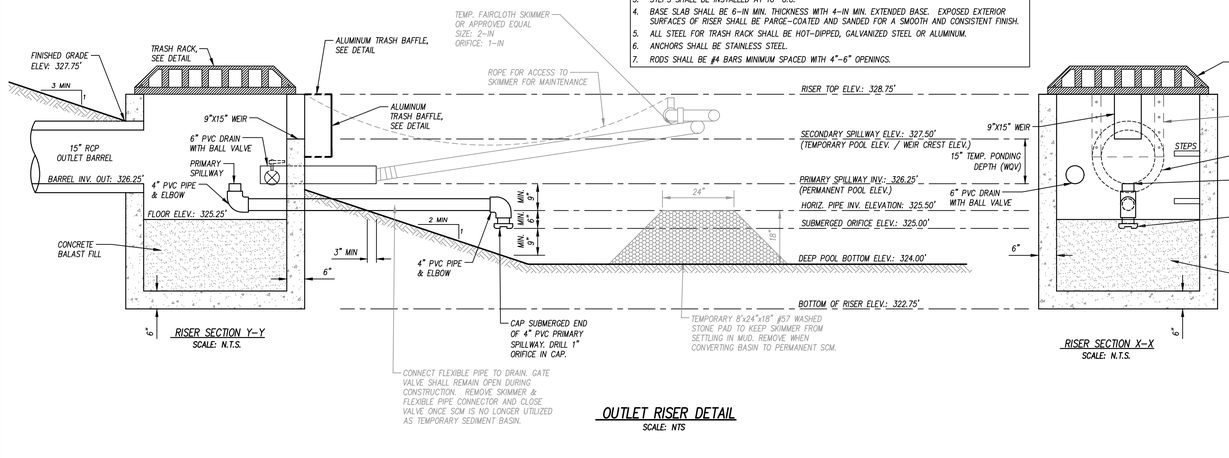
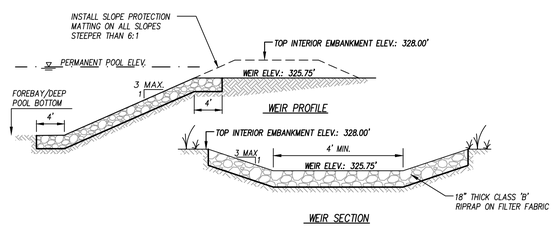
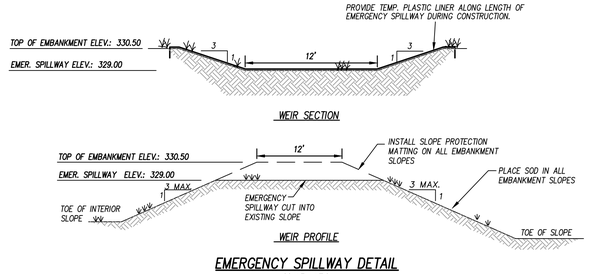


OUTLET RISER DETAIL
SCALE: NTS



ARMORED WEIR DETAIL
SCALE: N.T.S.



EMERGENCY SPILLWAY DETAIL
SCALE: N.T.S.

NOTES:
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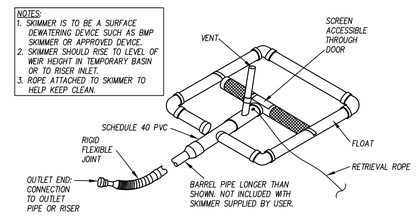
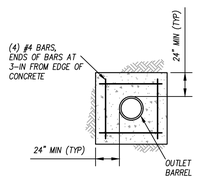
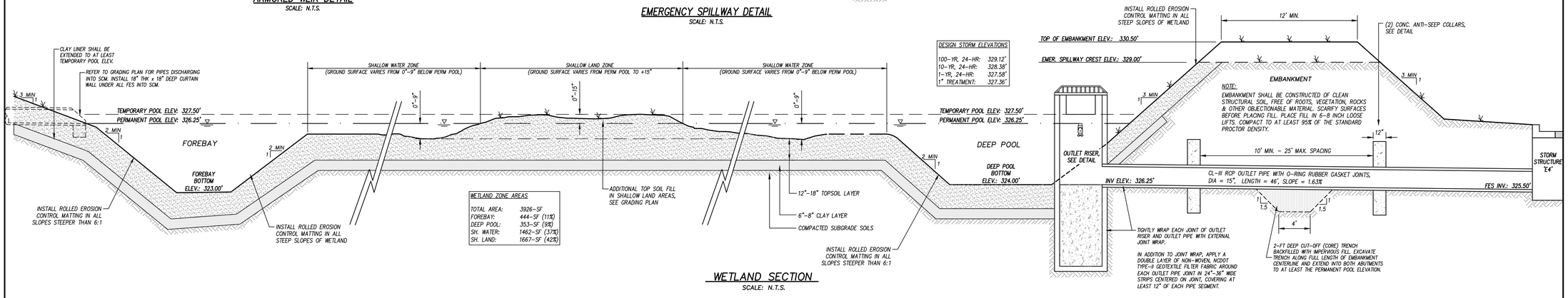


TEMPORARY SKIMMER
SCALE: N.T.S.



ANTI-SEEP COLLAR DETAIL
SCALE: N.T.S.



DESIGN STORM ELEVATIONS:

100-YR, 24-HR:	329.12'
10-YR, 24-HR:	328.38'
1-YR, 24-HR:	327.58'
1" TREATMENT:	327.36'

WETLAND ZONE AREAS

TOTAL AREA:	3926-SF
FOREBAY:	444-SF (11%)
DEEP POOL:	353-SF (9%)
SH. WATER:	1462-SF (37%)
SH. LAND:	1667-SF (42%)

WETLAND SECTION
SCALE: N.T.S.

SCM-2 (STORMWATER CONTROL MEASURE) DETAIL

adwarchitects
environmentsforlife
architecture planning interiors
2815 COLISUEM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P 704 379 1919
F 704 379 1920
www.adwarchitects.com

CLH DESIGN, P.A.
400 Regency Forest Drive
Suite 120
Cary, North Carolina 27518
Phone: (919)319-6716
Fax: (919)319-7516
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WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EMS EST. 1976

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

WETLAND DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

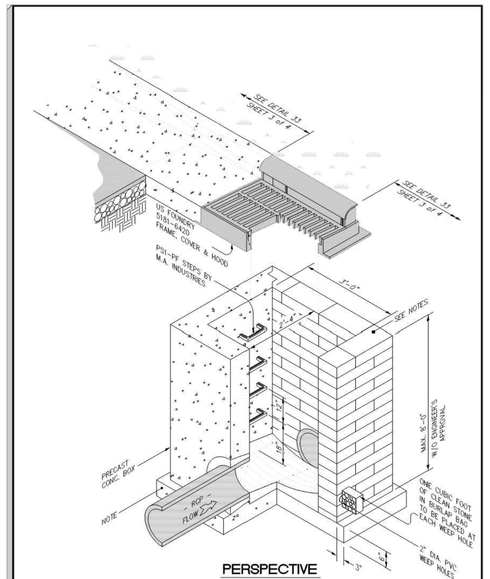
NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22625 STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:21:37-04'00'

SHEET NUMBER

C705



PERSPECTIVE

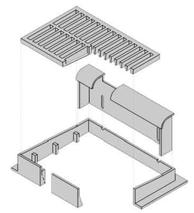
TOWN OF ZEBULON

STD. C&G INLET W/HOOD DETAIL

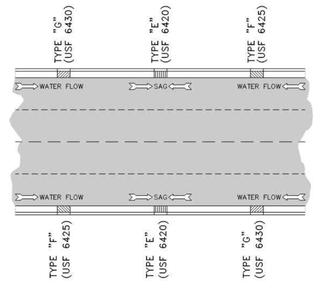
USE WITH STANDARD SPECIFICATIONS ONLY

SCALE:	DETAIL #:
NOT TO SCALE	33
DATE:	SHEET #:
JULY 2010	1 OF 4

U.S. FOUNDRY 5181 CURB & GUTTER INLET FRAME (SHOWN WITH 6420 GRATE)
HEAVY DUTY FRAME, COVER & HOOD
FRAME, COVER & HOOD WEIGHT = 550 LBS.
WEIGHT MAY NOT DEVIATE BY MORE THAN -5.0%



PERSPECTIVE



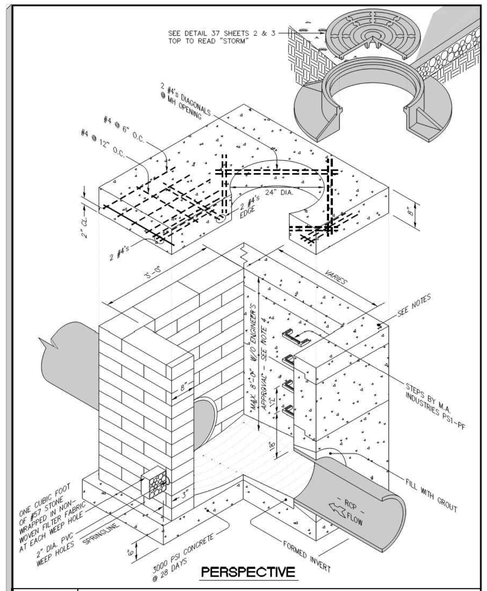
DETAIL SHOWING TYPES OF GRATES TO BE USED ACCORDING TO WATER FLOW

TOWN OF ZEBULON

STD. C&G INLET W/HOOD DETAIL

USE WITH STANDARD SPECIFICATIONS ONLY

SCALE:	DETAIL #:
NOT TO SCALE	33
DATE:	SHEET #:
JULY 2010	2 OF 4



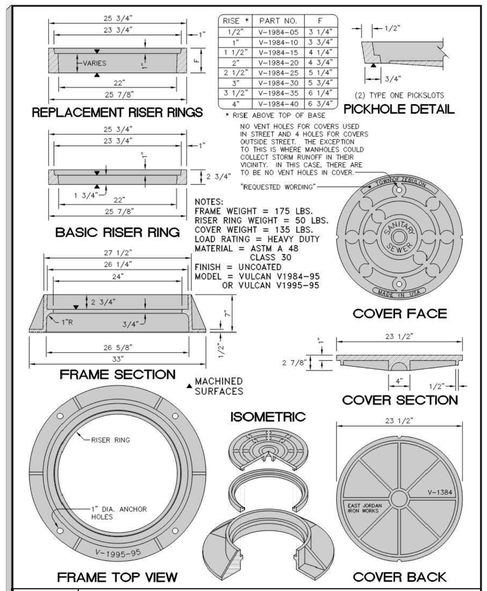
PERSPECTIVE

TOWN OF ZEBULON

STD. M.H. J.B. VARIABLE LENGTH

USE WITH STANDARD SPECIFICATIONS ONLY

SCALE:	DETAIL #:
NOT TO SCALE	37
DATE:	SHEET #:
JULY 2010	1 OF 3



REPLACEMENT RISER RINGS

RISE *	PART NO.	F
1/2"	V-1984-05	3 1/4"
1"	V-1984-10	3 3/4"
1 1/2"	V-1984-15	4 1/4"
2"	V-1984-20	4 3/4"
2 1/2"	V-1984-25	5 1/4"
3"	V-1984-30	5 3/4"
3 1/2"	V-1984-35	6 1/4"
4"	V-1984-40	6 3/4"

* RISE ABOVE TOP OF BASE

(2) TYPE ONE PICKSLOTS

PICKHOLE DETAIL

BASIC RISER RING

NO VENT HOLES FOR COVERS USED IN STREET AND 4 HOLES FOR COVERS OUTSIDE STREET. THE EXCEPTION TO THIS IS WHERE MANHOLES COULD COLLECT STORM RUNOFF IN THEIR VICINITY. IN THIS CASE, THERE ARE TO BE NO VENT HOLES IN COVER.

"REQUESTED WORDING"

NOTES:
FRAME WEIGHT = 175 LBS.
RISER RING WEIGHT = 50 LBS.
COVER WEIGHT = 135 LBS.
LOAD RATING = HEAVY DUTY
MATERIAL = ASTM A 48 CLASS 30
FINISH = UNCOATED
MODEL = VULCAN V1984-95 OR VULCAN V1995-95

COVER FACE

FRAME SECTION

▲ MACHINED SURFACES

COVER SECTION

FRAME TOP VIEW

ISOMETRIC

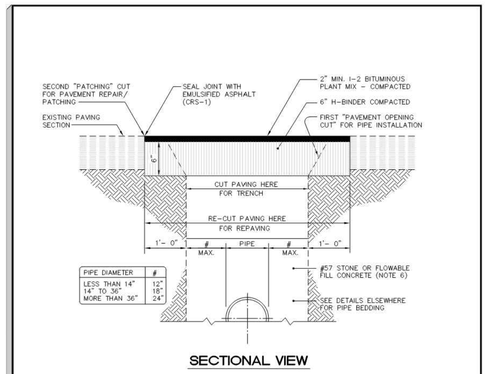
COVER BACK

TOWN OF ZEBULON

STANDARD MANHOLE COVER & RING
ADJUSTABLE - EAST JORDAN IRON WORKS V-1984

USE WITH STANDARD SPECIFICATIONS ONLY

SCALE:	DETAIL #:
NOT TO SCALE	37
DATE:	SHEET #:
JULY 2010	2 OF 3



SECTIONAL VIEW

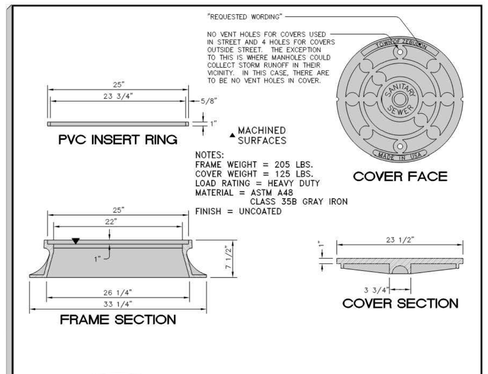
NOTES:
1. PAVEMENT REPAIRS SHALL HAVE 6" COMPACTED H-BINDER AND 2" TOPPING OF SF9.5B.
2. TRENCH IS TO BE BACK FILLED IN 6" LIFTS AND COMPACTED TO 98% STANDARD DENSITY AS DETERMINED BY AASHTO TEST METHOD T-99 OR ASTM D-698 BEFORE PAVEMENT REPAIRS ARE MADE.
3. COMPACTION TEST MAY BE REQUIRED AT REQUEST OF INSPECTOR.
4. ALL EXISTING PAVED STREETS AND SECONDARY ROADS WHICH ARE OPEN CUT TO INSTALL SEWER OR WATER PIPE, MUST BE REPAIRED ACCORDING TO THIS DETAIL.
5. CABC BACKFILL IS NOT ALLOWED IN ANY PART OF TRENCH WITHIN PAVEMENT.
6. FIBER OPTIC & GAS: #57 STONE OR FLOWABLE FILL CONCRETE (MINIMUM 50 PSI) BUT MIN. 6" COMPACTED CLASS II OR III (DEFINITION IN SECTION 02210 - PARAGRAPH 3B OF SPECS) FILL OVER TOP OF FIBER OPTIC CABLE OR GAS PIPE.

TOWN OF ZEBULON

FULL DEPTH ASPHALT REPAIR DETAIL FOR UTILITY CUTS

USE WITH STANDARD SPECIFICATIONS ONLY

SCALE:	DETAIL #:
NOT TO SCALE	6
DATE:	SHEET #:
JULY 2010	1 OF 1



TOWN OF ZEBULON

STANDARD MANHOLE & RING
US FOUNDRY 700 KL

USE WITH STANDARD SPECIFICATIONS ONLY

SCALE:	DETAIL #:
NOT TO SCALE	37
DATE:	SHEET #:
JULY 2010	3 OF 3

adwarchitects
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2815 COLISUEM CENTRE DRIVE
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LA: C-106, PE: C-1595

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

UTILITY DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

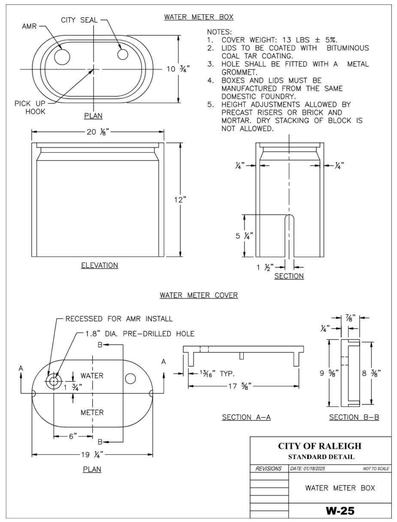
REVISIONS
NO DATE DESCRIPTION:

NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 022625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:21:44-04'00'

SHEET NUMBER

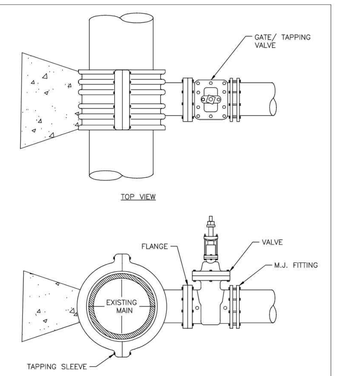
C801



NOTES:
1. COVER WEIGHT: 13 LBS ± 5%.
2. LIDS TO BE COATED WITH BITUMINOUS COAL TAR COATING.
3. HOLE SHALL BE FITTED WITH A METAL GROMMET.
4. BOXES AND LIDS MUST BE MANUFACTURED FROM THE SAME DOMESTIC FOUNDRY.
5. HEIGHT ADJUSTMENTS ALLOWED BY PRECAST RISERS OR BRICK AND MORTAR. DRY STACKING OF BLOCK IS NOT ALLOWED.

CITY OF RALEIGH
STANDARD DETAIL

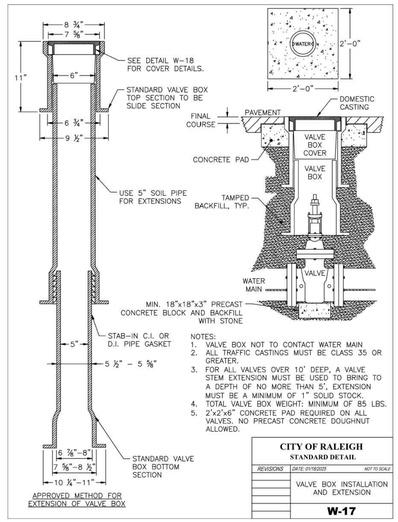
REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	WATER METER BOX	
	W-25	



NOTES:
1. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
2. SEE DETAIL W-10 & W-11 (REACTION BLOCK TABLES) FOR AREA OF CONCRETE REQUIRED.
3. 3,000 PSI SOLID CONCRETE SHALL BE USED AS FOOTING FOR DUCTILE IRON PIPE.
4. FULL CIRCUMFERENCE SLEEVE, STAINLESS STEEL MATERIAL REQUIRED.

CITY OF RALEIGH
STANDARD DETAIL

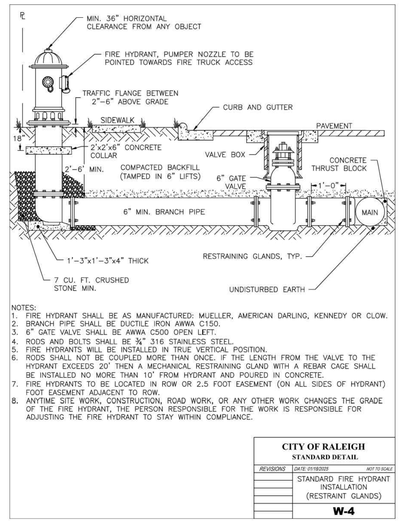
REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	4"-24" STANDARD TAPPING SLEEVE AND VALVE ASSEMBLY	
	W-14	



NOTES:
1. VALVE BOX NOT TO CONTACT WATER MAIN.
2. ALL TRAFFIC CASTINGS MUST BE CLASS 35 OR GREATER.
3. FOR ALL VALVES OVER 10' DEEP, A VALVE STEM EXTENSION MUST BE USED TO BRING TO A DEPTH OF NO MORE THAN 5', EXTENSION MUST BE A MINIMUM OF 1" SOLID STOCK.
4. TOTAL VALVE BOX WEIGHT: MINIMUM OF 85 LBS.
5. 2'x2'x6" CONCRETE PAD REQUIRED ON ALL VALVES. NO PRECAST CONCRETE DOUGHNUT ALLOWED.

CITY OF RALEIGH
STANDARD DETAIL

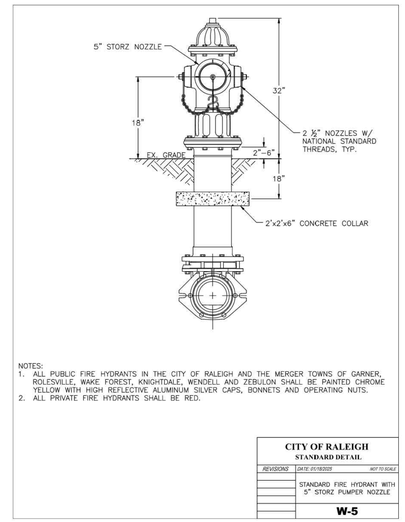
REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	VALVE BOX INSTALLATION AND EXTENSION	
	W-17	



NOTES:
1. FIRE HYDRANT SHALL BE AS MANUFACTURED: MUELLER, AMERICAN DARLING, KENNEDY OR CLOW.
2. BRANCH PIPE SHALL BE DUCTILE IRON AWWA C150.
3. 6" GATE VALVE SHALL BE AWWA C500 OPEN LEFT.
4. RODS AND BOLTS SHALL BE ¾" 316 STAINLESS STEEL.
5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION.
6. RODS SHALL NOT BE COUPLED MORE THAN ONCE. IF THE LENGTH FROM THE VALVE TO THE HYDRANT EXCEEDS 20' THEN A MECHANICAL RESTRAINING GLAND WITH A REBAR CAGE SHALL BE INSTALLED NO MORE THAN 10' FROM HYDRANT AND POURED IN CONCRETE.
7. FIRE HYDRANTS TO BE LOCATED IN ROW OR 2.5 FOOT EASEMENT (ON ALL SIDES OF HYDRANT) FOOT EASEMENT ADJACENT TO ROW.
8. ANYTIME SITE WORK, CONSTRUCTION, ROAD WORK, OR ANY OTHER WORK CHANGES THE GRADE OF THE FIRE HYDRANT, THE PERSON RESPONSIBLE FOR THE WORK IS RESPONSIBLE FOR ADJUSTING THE FIRE HYDRANT TO STAY WITHIN COMPLIANCE.

CITY OF RALEIGH
STANDARD DETAIL

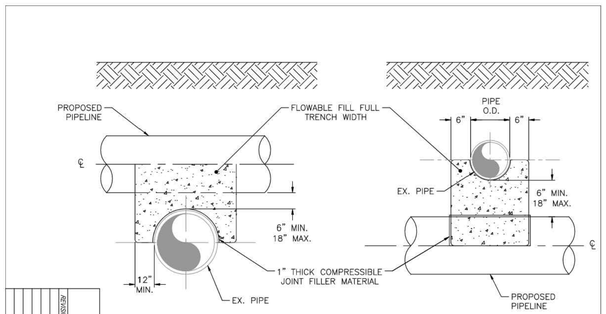
REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	STANDARD FIRE HYDRANT INSTALLATION (RESTRAINT GLANDS)	
	W-4	



NOTES:
1. ALL PUBLIC FIRE HYDRANTS IN THE CITY OF RALEIGH AND THE MERGER TOWNS OF GARNER, ROLESVILLE, WAKE FOREST, KNIGHTDALE, WENDELL AND ZEBULON SHALL BE PAINTED CHROME YELLOW WITH HIGH REFLECTIVE ALUMINUM SILVER CAPS, BONNETS AND OPERATING NUTS.
2. ALL PRIVATE FIRE HYDRANTS SHALL BE RED.

CITY OF RALEIGH
STANDARD DETAIL

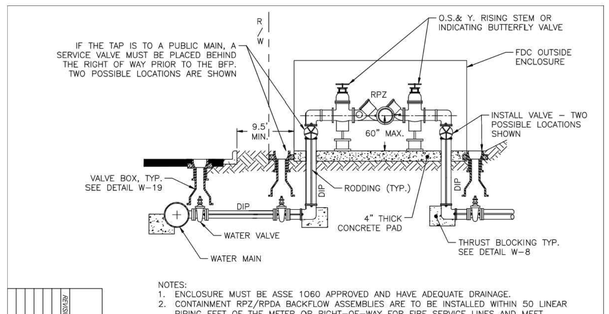
REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	STANDARD FIRE HYDRANT WITH 5" STORZ PUMPER NOZZLE	
	W-5	



NOTE:
NO ENCASEMENT REQUIRED FOR SPACE GREATER THAN 18" FOR WATER LINES.

CITY OF RALEIGH
STANDARD DETAIL

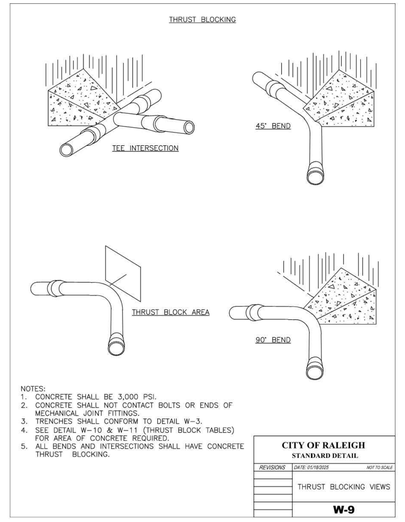
REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	CONCRETE CRADLE OVER UTILITY WATER LINE CROSSINGS	
	W-41	



NOTES:
1. ENCLOSURE MUST BE ASSE 1060 APPROVED AND HAVE ADEQUATE DRAINAGE.
2. CONTAINMENT RPZ/RPDA BACKFLOW ASSEMBLIES ARE TO BE INSTALLED WITHIN 50 LINEAR PIPING FEET OF THE METER OR RIGHT-OF-WAY FOR FIRE SERVICE LINES AND MEET INSTALLATION REQUIREMENTS AS LISTED IN APPENDIX A: GUIDELINES AND REQUIREMENTS OF THE CROSS CONNECTION AND HYDRANT METER PROGRAM.
3. NO VALVE IN THE EXISTING SYSTEM SHALL BE OPERATED WITHOUT FOLLOWING THE PROCEDURE OUTLINED IN THE RALEIGH WATER PUBLIC UTILITY DESIGN MANUAL. THE CONTRACTOR SHALL NOTIFY RALEIGH WATER'S DISTRIBUTION DIVISION AT 919-996-3245 TO REQUEST THE OPERATION OF ANY VALVE.
4. RESIDENTIAL LAWN IRRIGATION R.P. ASSEMBLIES THAT ARE REMOVED TO PREVENT FREEZING IN THE WINTER MONTHS MUST BE CAPPED OFF. ALL ABOVE GROUND ASSEMBLIES, EXCEPT RESIDENTIAL LAWN IRRIGATION ASSEMBLIES, MUST BE PROTECTED FROM FROST.
5. ALL CONTAINMENT BACKFLOW ASSEMBLIES MUST BE ASSE AND USC APPROVED.
6. STEEL RODS AND BOLTS SHALL BE ¾" 316 STAINLESS STEEL.

CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	REDUCED PRESSURE ZONE AND DETECTOR ASSEMBLY	
	W-36	



NOTES:
1. CONCRETE SHALL BE 3,000 PSI.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.
3. TRENCHES SHALL CONFORM TO DETAIL W-3.
4. SEE DETAIL W-10 & W-11 (THRUST BLOCK TABLES) FOR AREA OF CONCRETE REQUIRED.
5. ALL BENDS AND INTERSECTIONS SHALL HAVE CONCRETE THRUST BLOCKING.

CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	THRUST BLOCKING VIEWS	
	W-9	

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS
BASED ON TEST PRESSURE OF 200 PSI
ALL AREAS GIVEN IN SQUARE FEET

SIZE OF BEND	DEGREE OF BEND	STATIC THRUST IN POUNDS	MODERATELY DRY CLAY 4,000 LBS/FT²	SOFT CLAY 2,000 LBS/FT²	1,600 LBS/FT² GRAVEL/ COARSE SAND	8,000 LBS/FT² DRY CLAY (ALWAYS DRY)	SAND, COMPACT FIRM 8,000 LBS/FT²	SAND-- CLEAN DRY 4,000 LBS/FT²	SOIL 1,000 LBS/FT² QUICKSAND (VERY POOR)	ROCK-- POOR 10,000 LBS/FT²
6"	11 ¼°	1,108	1	1	1	1	1	1	2	1
	22 ½°	2,207	1	2	2	1	1	1	3	1
	45°	4,328	2	3	3	1	1	2	5	1
	90°	7,996	2	4	5	1	1	2	8	1
	PLUG	5,655	2	3	4	1	1	2	6	1
8"	11 ¼°	1,970	1	1	2	1	1	1	2	1
	22 ½°	3,922	1	2	3	1	1	1	4	1
	45°	7,694	2	4	5	1	1	2	8	1
	90°	14,215	4	8	9	2	2	4	15	2
	PLUG	10,053	3	5	6	2	2	3	10	1
12"	11 ¼°	4,433	2	3	3	1	1	2	5	1
	22 ½°	8,826	3	5	6	2	2	3	9	1
	45°	17,312	5	9	11	3	3	5	18	2
	90°	31,983	8	16	19	4	4	8	32	4
	PLUG	22,619	6	12	14	3	3	6	23	3
16"	11 ¼°	7,881	2	4	5	1	1	2	8	1
	22 ½°	15,691	4	8	10	2	2	4	16	2
	45°	30,779	8	16	19	4	4	8	31	4
	90°	56,861	15	29	35	8	8	15	57	6
	PLUG	40,213	10	21	25	5	5	10	41	5

NOTES:
1. REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.
2. USE 6" 90° BEND VALUE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR.

CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 07/18/2025	NOT TO SCALE
	THRUST BLOCKING DESIGN QUANTITY TABLE	
	W-10	

CITY OF RALEIGH STANDARD WATER AND FIRE PROTECTION DETAILS **N.T.S.**

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WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EMS EST. 1976

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

UTILITY DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

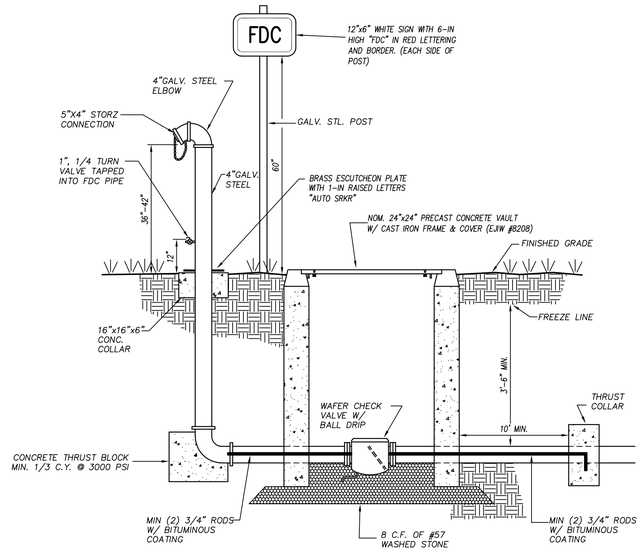
NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA PROFESSIONAL SEAL 022625 ENGINEER STEVEN J. MILLER

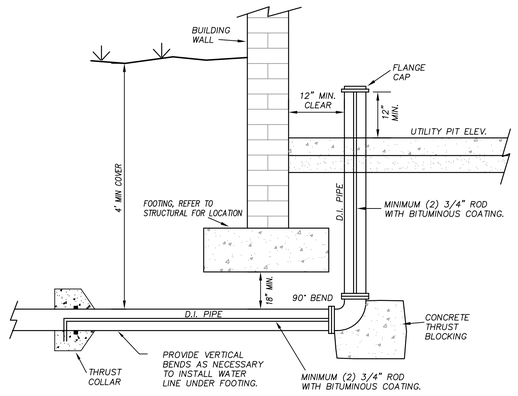
Digitally signed by Steven Miller
Date: 2025.08.22 15:21:51-04'00'

SHEET NUMBER

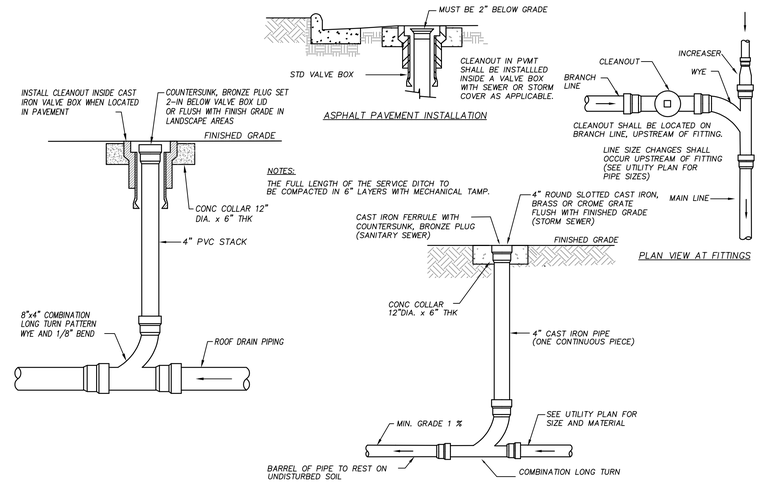
C802



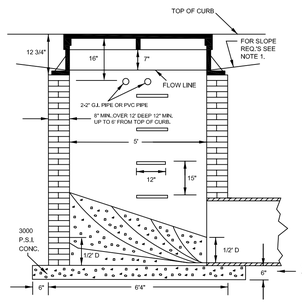
FIRE DEPARTMENT STORZ CONNECTION DETAIL NTS



STANDARD FIRE SERVICE INSTALLATION AT BUILDING NTS



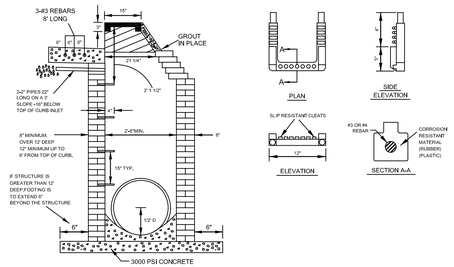
CLEANOUT N.T.S.



NOTES:
1. THE SLOPE OF THE GUTTER TO THE CURB INLET ON THE UPHILL SIDE SHALL BEGIN 10' FROM THE THE CURB INLET. THE SLOPE OF THE GUTTER TO THE CURB INLET ON THE DOWNHILL SIDE, SHALL BEGIN 10' FROM THE CURB INLET.
2. STEPS SHALL BE INSTALLED IN ALL CURB INLETS OVER 2' IN DEPTH. DEPTH SHALL BE MEASURED FROM THE TOP OF CURB TO THE INVERT OF THE CURB INLET.
3. SOLID CONCRETE BRICKS MAY BE USED IN 4X4X8 OR 4X8X16 SIZES.
4. NCDOT APPROVED PRECAST CONCRETE BOXES ACCEPTABLE USING STANDARD 5' CASTINGS.
5. DOMESTIC CASTING REQUIRED WITHIN STREET RIGHT OF WAY.
6. 1" MAXIMUM EXTENSION OF PIPE INTO THE STORM BOX.

6" UP TO 12' DEEP
12" OVER 12' DEEP

STANDARD CURB INLET STEP

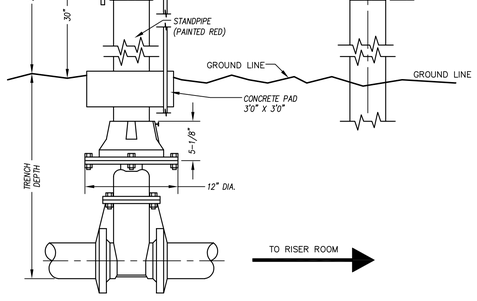


CURB INLET DETAIL NTS

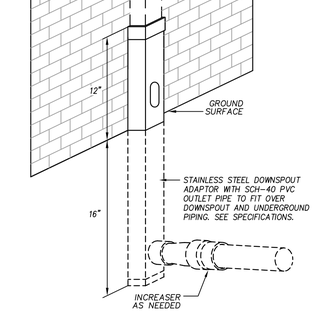
FIELD ADJUSTMENT INSTRUCTIONS

1. REMOVE THE BODY FROM THE TOP OF THE INDICATOR POST ASSEMBLY.
2. CUT THE REQUIRED LENGTH OFF THE BOTTOM OF THE STANDPIPE FOR THE GROUND LINE TO MATCH UP WITH STANDPIPE GROUND LINE MARK.
3. CUT THE 1" SQ. EXTENSION AT A DISTANCE OF 9" ABOVE THE TOP OF THE STANDPIPE.
4. SET THE "OPEN" AND "SHUT" TARGETS FOR THE APPROPRIATE VALVE SIZE.
5. RE-ATTACH THE BODY TO THE TOP OF THE INDICATOR POST ASSEMBLY.
6. ALL PIV(s) SHALL BE INSTALLED WITH AN ELECTRONICALLY CONTROLLED TAMPER SWITCH.

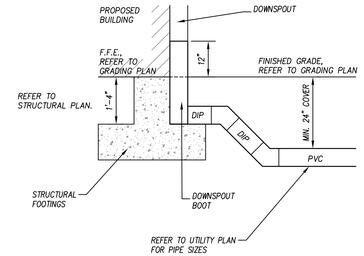
NOTE:
POST INDICATOR VALVE SHALL BE LOCATED AT A MINIMUM 40-ft FROM BUILDING



POST INDICATOR VALVE DETAIL NTS



NOTES:
1. ALL BELOW GRADE ROOF DRAINAGE PIPING SHALL BE 6" PVC @ 1.04% MIN. SLOPE UNLESS NOTED OTHERWISE.
2. PIPE SHALL BE DIP WHEN LESS THAN 24-IN OF COVER IS PROVIDED.
3. VERIFY DOWNSPOUT DIMENSIONS MATCH SHOE DIMENSIONS PRIOR TO ORDERING OR INSTALLING ADAPTOR.



DOWNSPOUT CONNECTION DETAIL NTS

adwarchitects
environmentsforlife
architecture planning interiors
2815 COLISUEM CENTRE DRIVE
SUITE 500
CHARLOTTE, NORTH CAROLINA 28217
P 704 379 1919
F 704 379 1920
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CLH DESIGN, P.A.
400 Regency Forest Drive
Suite 120
Cary, North Carolina 27518
Phone: (919)319-6716
Fax: (919)319-7516
LA: C-106, PE: C-1595

WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EMS EST. 1976

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

UTILITY DETAILS

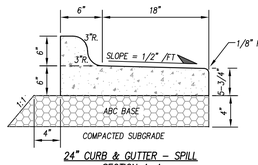
DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS
NO DATE DESCRIPTION:

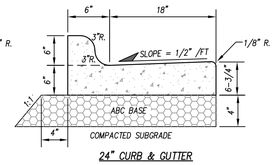
NORTH CAROLINA PE SEAL 022625 ENGINEER STEVEN J. MILLER

Digitally signed by Steven Miller
Date: 2025.08.22 15:21:58-04'00'

SHEET NUMBER
C803



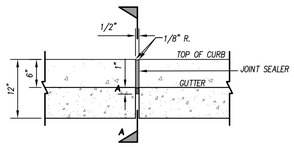
24" CURB & GUTTER – SPILL
SECTION A–A



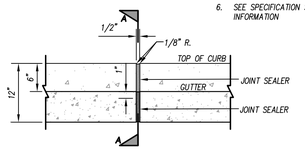
24" CURB & GUTTER
SECTION A–A

CURB AND GUTTER NOTES:

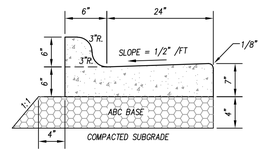
1. ALL CONCRETE SHALL BE 4,000 P.S.I. @ 28 DAYS
2. CONTRACTION JOINTS SHALL BE SPACED AT 10' INTERVALS, SPACING MAY BE INCREASED TO 15' IF MACHINE IS USED.
3. CONTRACTION JOINTS SHALL BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1-1/2" SHALL BE OBTAINED.
4. EXPANSION JOINTS SHALL BE SPACED AT 90' MAX. INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS.
5. ALL JOINTS SHALL BE FILLED WITH JOINT FILLER AND SEALER.
6. SEE SPECIFICATION SECTION 32 13 13 FOR ADDITIONAL INFORMATION



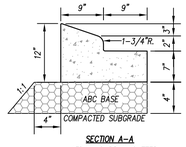
CONTRACTION JOINT



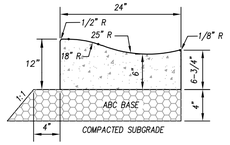
TRANSVERSE EXPANSION JOINT



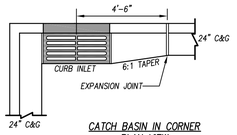
SECTION A–A
30" CURB & GUTTER



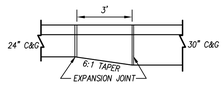
SECTION A–A
MEDIAN CURB & GUTTER



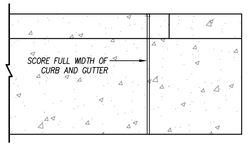
SECTION A–A
STANDARD ROLL CURB



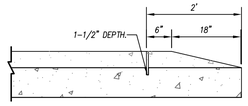
CATCH BASIN IN CORNER
PLAN VIEW



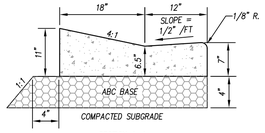
24" TO 30" C&G TRANSITION
PLAN VIEW



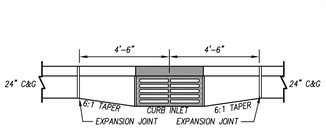
PLAN



FRONT
STANDARD METHOD OF
ENDING CURB AND GUTTER

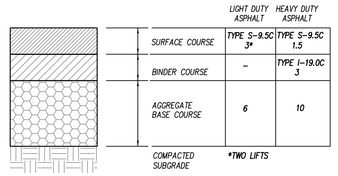


SECTION A–A
30" VALLEY CURB



CATCH BASIN ALONG GUTTER
PLAN VIEW

CURB AND GUTTER N.T.S.



SEE SPECIFICATIONS FOR PROOFROLLING, COMPACTION & TESTING REQUIREMENTS.

DETAIL IS FOR ON–SITE PAVING OPERATIONS ONLY.

THE CONTRACTOR MAY CHOOSE TO INSTALL INTERMEDIATE COURSES OF PAVEMENT TO STABILIZE THE SITE DURING CONSTRUCTION AT NO ADDITIONAL COST.

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ADEQUATE THICKNESS REQUIRED FOR INTERMEDIATE PAVING. INCREASES IN THE DESIGN PAVEMENT SECTION TO FACILITATE INTERMEDIATE PAVING SHALL BE PROVIDED AT NO ADDITIONAL COST.

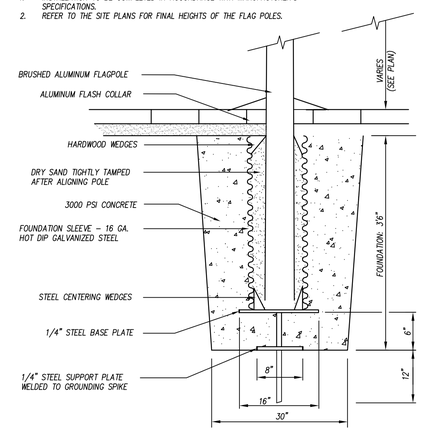
THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGES TO SUBGRADE, INSTALLED BASE COURSE AND/OR INTERMEDIATE PAVING PRIOR TO PLACING SUBSEQUENT PAVEMENT LIFTS AT NO ADDITIONAL COST.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING PAVEMENT DURING ALL PHASES OF WORK. THE FINAL SURFACE OF PAVEMENT SHALL BE FREE OF ALL DEFECTS OR DAMAGE.

PAVEMENT SECTIONS N.T.S.

NOTES:

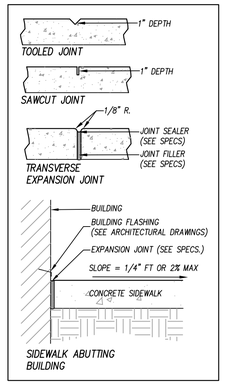
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. REFER TO THE SITE PLANS FOR FINAL HEIGHTS OF THE FLAG POLES.

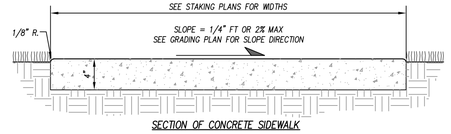


FLAG POLE BASE DETAIL N.T.S.

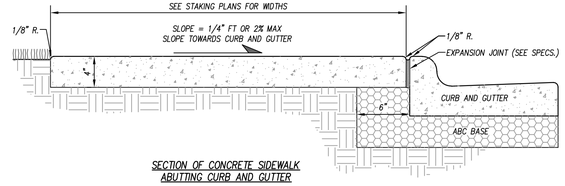
GENERAL NOTES:

1. PROVIDE GROOVE CONTROL JOINT 1.5–IN DEEP WITH 1/8–IN RADII IN EDGING AT 10' INTERVALS UNLESS INDICATED OTHERWISE.
2. PROVIDE 1/2–IN WIDE EXPANSION JOINT AT 50' INTERVALS AND WHERE EDGING ABUTS ANY RIGID PAVEMENT AND/OR STRUCTURE.
3. ALL CONCRETE SHALL BE 4,000 P.S.I.
4. SURFACE SHALL RECEIVE FINE BROOM FINISH.

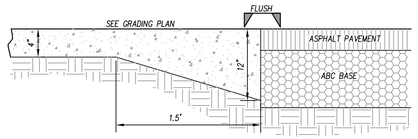




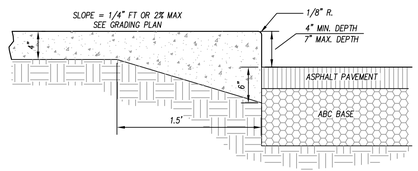
SECTION OF CONCRETE SIDEWALK



SECTION OF CONCRETE SIDEWALK
ABUTTING CURB AND GUTTER

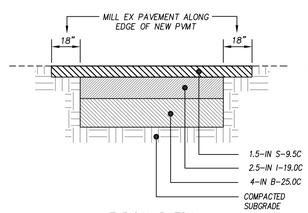


SECTION OF SIDEWALK ABUTTING PAVEMENT FLUSH

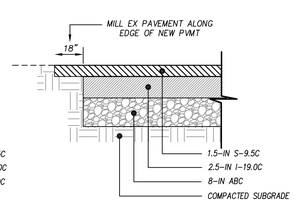


SECTION OF SIDEWALK ABUTTING PAVEMENT

CONCRETE SIDEWALK N.T.S.



TYPICAL PATCH

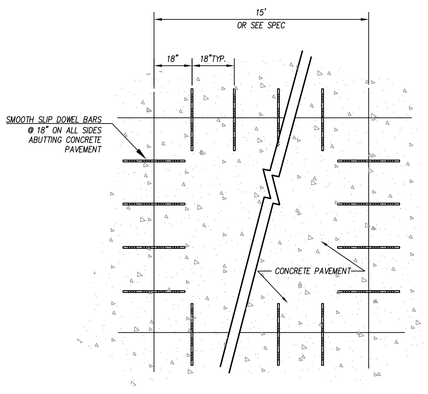


TYPICAL PAVEMENT SECTION

NOTES:

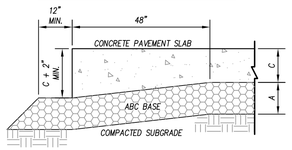
1. ASPHALT PATCH SECTION SHALL BE INSTALLED WHERE PAVEMENT WIDTH IS LESS THAN 6–FT.
2. SEE EARTH MOVING AND ASPHALT PAVEMENT SPECIFICATIONS FOR PROOF–ROLLING, COMPACTION & TESTING REQUIREMENTS.
3. THE CONTRACTOR MAY CHOOSE TO INSTALL INTERMEDIATE COURSES OF PAVEMENT TO STABILIZE THE SITE DURING CONSTRUCTION AT NO ADDITIONAL COST.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGES TO SUBGRADE, INSTALLED BASE COURSE AND/OR INTERMEDIATE PAVING PRIOR TO PLACING SUBSEQUENT PAVEMENT LIFTS AT NO ADDITIONAL COST.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING PAVEMENT DURING ALL PHASES OF WORK. THE FINAL SURFACE OF PAVEMENT SHALL BE FREE OF ALL DEFECTS OR DAMAGE.

ASPHALT PATCH N.T.S.



PLAN VIEW
NTS

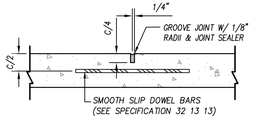
CONCRETE PAVEMENT DIMENSIONS	
CONC SLAB THICKNESS, C	8–IN
ABC THICKNESS, A	4–IN
DOWEL DIAMETER	SEE SPECS



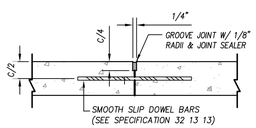
TYPICAL THICKENED EDGE
NTS

NOTES:

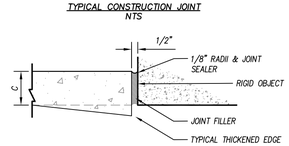
1. ALL CONCRETE SHALL BE OF NCDOT TYPE AA PORTLAND CEMENT CONCRETE WITH A 28–DAY COMPRESSIVE STRENGTH OF 4500 PSI (ASTM C39).
2. CONTRACTION JOINTS SHALL BE PLACED PER SPECIFICATION 32 13 13.
3. ISOLATION JOINTS SHALL BE PLACED WHERE CONCRETE PAVEMENT ABUTS ANY RIGID OBJECT.
4. JOINTS IN CURB & GUTTER SHALL BE ALIGNED WITH JOINTS IN ADJOINING CONCRETE PAVEMENT.
4. JOINTING PLAN DEVELOPED BY CONTRACTOR IN ACCORDANCE WITH ACI–330R–08 SHALL BE APPROVED BY SITE DESIGN ENGINEER PRIOR TO POURING SLAB.



TYPICAL CONTRACTION JOINT
NTS



TYPICAL CONSTRUCTION JOINT
NTS



TYPICAL ISOLATION JOINT
NTS

HEAVY DUTY CONCRETE PAVEMENT (FIRE STATIONS) N.T.S.

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LA: C–106, PE: C–1595

ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

STAKING DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2472 RONALD K. AAL–ANDRIANOV
07-18-25

SHEET NUMBER
C901

RAMPS DEVELOPED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA)

THE WALKING SURFACE SHALL BE SLIP RESISTANT. THE COLOR FOR THE DETECTABLE WARNING AREA SHALL BE YELLOW FOR CONTRAST.

NO SLOPE ON THE SIDEWALK ACCESS RAMP SHALL EXCEED 1"/FT (12:1) IN RELATIONSHIP TO THE GRADE OF THE STREET. SEE GRADING FOR ADDITIONAL INFORMATION.

NO RAMPS OR SIDEWALK SHALL BE LESS THAN 48" WIDE. REFER TO STAKING SHEETS FOR ALL SIDEWALK AND RAMP WIDTHS.

ALL CONCRETE SHALL BE 4,000 PSI @ 28 DAYS.

CURB RAMPS SHALL BE PARALLEL TO THE DIRECTION OF TRAVEL.

EXPANSION JOINTS SHALL BE INSTALLED FULL DEPTH WHEN EVER IT ABUTS EXISTING OR CURB AND GUTTER

CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP OR TRANSITION TO STREET.

NO RAMP SHALL EXCEED 8.33% (12:1) SLOPE.

CROSS SLOPE SHALL BE MAX 2%.

ALL RAMPS SHALL HAVE A 4' MIN. LANDING WITH A MAX SLOPE OF 2% WERE PEDESTRIANS PERFORM TURNING. ENSURE TO PITCH TOWARDS GUTTER.

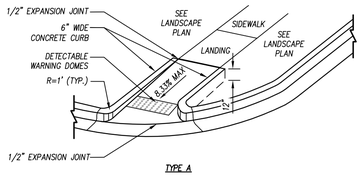
DETECTABLE DOMES SHALL BE INSTALL AT FULL WIDTH OF RAMP.

SEE CONCRETE SIDEWALK DETAIL FOR ADDITIONAL INFORMATION.

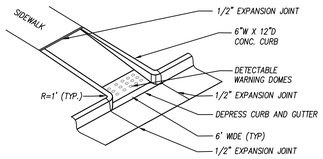
DOMES SUBMITTAL SHALL BE SUBMITTED TO DESIGN TEAM PRIOR TO INSTALLATION. COLOR SHALL BE YELLOW UNLESS OTHERWISE NOTED.

W	A	W+A+9"	X	B
5'	0.0'	5.8'	5.8'	5.0'*
6'	0.0'	6.8'	6.8'	6.0'**
7'	0.0'	7.8'	7.3'	6.5'**
8'	0.0'	8.8'	7.3'	6.5'**
5'	2.0'	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.4'
5'	3.5'	9.3'	8.4'	4.1'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.4'
5'	5.0'	10.8'	8.9'	3.1'

B = X-(A+9")
B = DISTANCE FROM FRONT EDGE OF SIDEWALK TO BACK POINT OF 12:1 (8.33%) SLOPE.
* BACK OF SIDEWALK DROP REQUIRED FOR ALL SIDEWALK SLOPES.
** BACK OF SIDEWALK DROP REQUIRED FOR SIDEWALK SLOPE 0.04.



TYPE A



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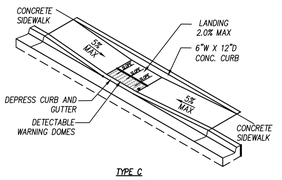

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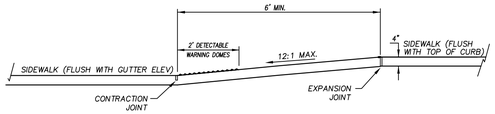


SECTION VIEW

ACCESSIBLE CURB RAMPS N.T.S.

NOTES:

RAMPS DEVELOPED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA)

THE WALKING SURFACE SHALL BE SLIP RESISTANT. THE COLOR FOR THE DETECTABLE WARNING AREA SHALL BE YELLOW FOR CONTRAST.

NO SLOPE ON THE SIDEWALK ACCESS RAMP SHALL EXCEED 1"/FT (12:1) IN RELATIONSHIP TO THE GRADE OF THE STREET. SEE GRADING FOR ADDITIONAL INFORMATION.

NO RAMPS OR SIDEWALK SHALL BE LESS THAN 48" WIDE. REFER TO STAKING SHEETS FOR ALL SIDEWALK AND RAMP WIDTHS.

ALL CONCRETE SHALL BE 4,000 PSI @ 28 DAYS.

CURB RAMPS SHALL BE PARALLEL TO THE DIRECTION OF TRAVEL.

EXPANSION JOINTS SHALL BE INSTALLED FULL DEPTH WHEN EVER IT ABUTS EXISTING OR CURB AND GUTTER

CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP OR TRANSITION TO STREET.

ALL RAMPS SHALL HAVE A 4' MIN. LANDING WITH A MAX SLOPE OF 2% WERE PEDESTRIANS PERFORM TURNING. ENSURE TO PITCH TOWARDS GUTTER.

DETECTABLE DOMES SHALL BE INSTALL AT FULL WIDTH OF RAMP.

ALL DIMENSIONS ARE FROM FACE OF CURB

ACCESSIBLE STALL WIDTH AND LENGTH AS SHOWN. NO ACCESSIBLE STALL SHALL BE LESS THAT 8' WIDE.

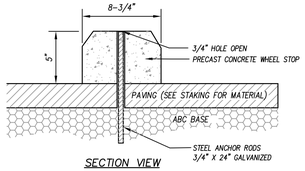
ALL VAN ACCESSIBLE PARKING STALLS ARE AS SHOWN. NO ACCESSIBLE VAN STALL SHALL BE LESS THAT 8' WIDE WITH AISLE BEING NOT LESS THAN 8' WIDE.

CONTRACTOR IS RESPONSIBLE FOR MARKING OUT ACCESSIBLE STALL TO ENSURE THEY MEET CODE. ANY DEFICIENCIES SHALL BE REPAIR AT THE CONTRACTORS EXPENSE.

NO RAMP SHALL EXCEED 8.33% (12:1) SLOPE.

CROSS SLOPE SHALL BE MAX 2%.

PARKING STALL AND ACCESSIBLE AISLE SHALL BE WHITE ON ASPHALT SURFACES AND BLUE ON CRETE SURFACES

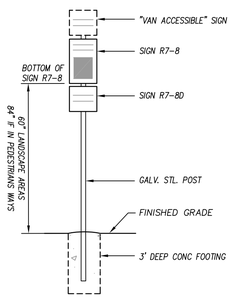


SECTION VIEW

R7-8

R7-8D

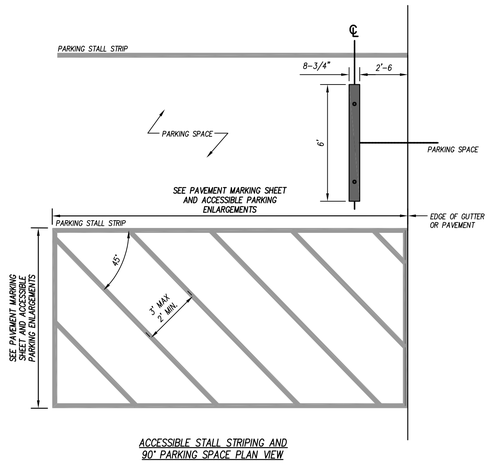
R7-8a
VAN ACCESSIBLE



NOTE: MAXIMUM PENALTY ($250) IS ESTABLISHED BY LEGISLATURE VIA GENERAL STATUTE 20-37.6

ALL SIGNS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES SPECIFICATIONS AND REQUIREMENTS

ACCESSIBLE PARKING SIGNAGE

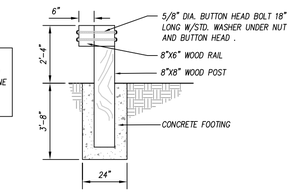


ACCESSIBLE STALL STRIPING AND 90° PARKING SPACE PLAN VIEW

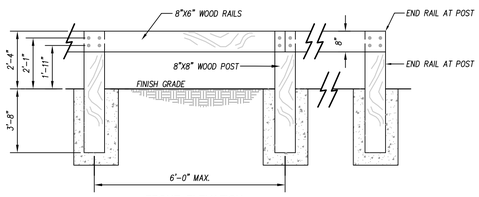
ACCESSIBLE PARKING N.T.S.

NOTES:

1. ALL WOOD SHALL BE NO.2 CCA PRESSURE TREATED YELLOW PINE
2. ALL HARDWARE SHALL BE GALVANIZED, PER ASTM A153.

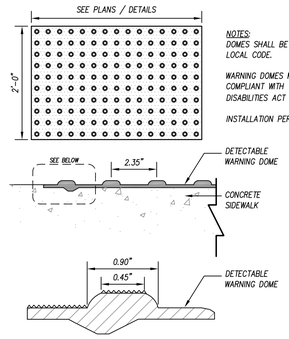


SIDE ELEVATION



FRONT ELEVATION

TRAFFIC GUARDRAIL N.T.S.



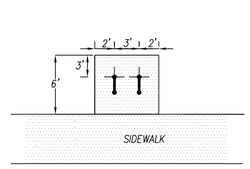
NOTES:
DOMES SHALL BE YELLOW OR PER LOCAL CODE.

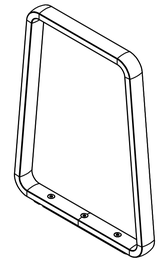
WARNING DOMES MUST BE FULLY COMPLIANT WITH THE AMERICAN WITH DISABILITIES ACT (ADA).

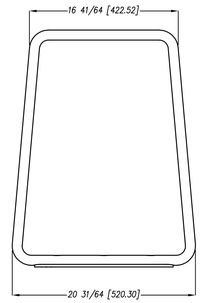
INSTALLATION PER MANUFACTURE.

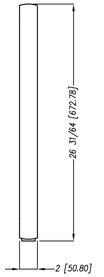
DETECTABLE WARNING DOMES N.T.S.

BIKE RACK:
1. MAGLIN ICONIC BIKE RACK 2300 SERIES OR APPROVED EQUAL.
2. COLOR: BLACK.
3. INSTALLATION: SURFACE MOUNT AS PER MANUFACTURER'S RECOMMENDATION.
4. QUANTITIES SHOWN ON SITE PLAN REPRESENT NUMBER OF HOOPS.
5. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

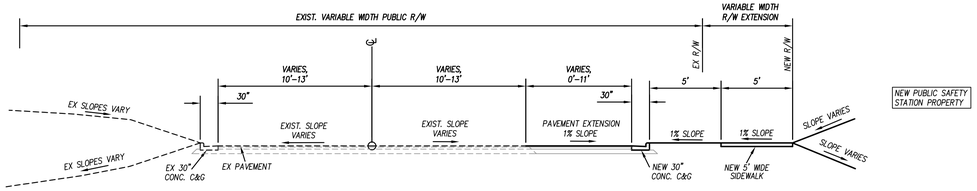








BIKE RACK DETAIL N.T.S.



W. JUDD ST. WIDENING TYP. SECTION

N.T.S.

W. JUDD ST. WIDENING SECTION N.T.S.

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ZEBULON PUBLIC SAFETY STATION

201 W. JUDD STREET
ZEBULON, NC 27597

CONSTRUCTION DOCUMENTS

STAKING DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2472 NATHAN K. AAL-ANDIAMO 07-18-25

SHEET NUMBER

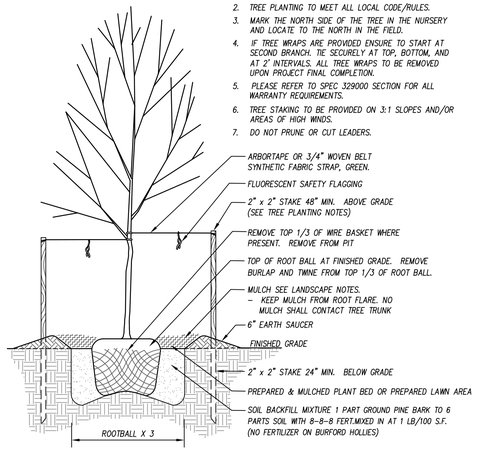
C902

PLANTING / LANDSCAPING DETAIL

N.T.S.

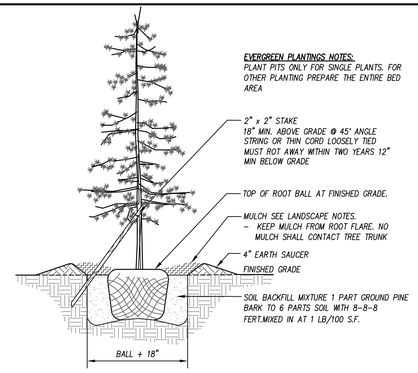
TREE PLANTING NOTES:

1. SEE SPECIFICATION SECTION 329000 FOR ADDITIONAL INFORMATION NOT NOTED ON DETAILS
2. TREE PLANTING TO MEET ALL LOCAL CODE/RULES.
3. MARK THE NORTH SIDE OF THE TREE IN THE NURSERY AND LOCATE TO THE NORTH IN THE FIELD.
4. IF TREE WRAPS ARE PROVIDED ENSURE TO START AT SECOND BRANCH. TIE SECURELY AT TOP, BOTTOM, AND AT 2' INTERVALS. ALL TREE WRAPS TO BE REMOVED UPON PROJECT FINAL COMPLETION.
5. PLEASE REFER TO SPEC 329000 SECTION FOR ALL WARRANTY REQUIREMENTS.
6. TREE STAKING TO BE PROVIDED ON 3:1 SLOPES AND/OR AREAS OF HIGH WINDS.
7. DO NOT PRUNE OR CUT LEADERS.

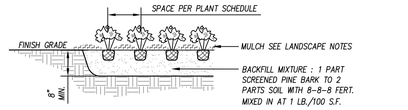


TREE PLANTING

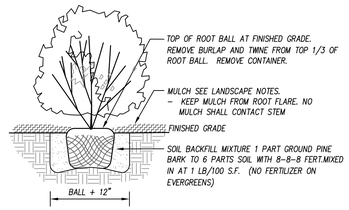
EVERGREEN PLANTINGS NOTES:
PLANT PITS ONLY FOR SINGLE PLANTS. FOR OTHER PLANTING PREPARE THE ENTIRE BED AREA



EVERGREEN PLANTING

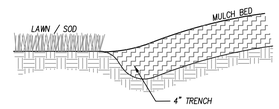


GROUNDCOVER PLANTING



SHRUB PLANTING

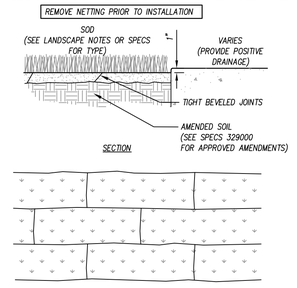
MULCH NOTES:
EDGE TO BE APPLIED TO ALL PLANTING BEDS.



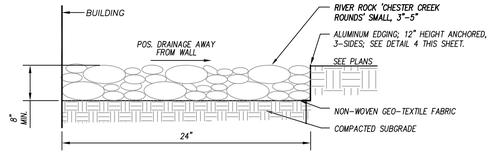
PLANTING BED EDGE

SOD MAINTENANCE NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR SOD MAINTENANCE UNTIL FINAL COMPLETION.
2. PLEASE REFER TO SPEC 329000 FOR ALL SOD INSTALLATION REQUIREMENT, WARRANTEES AND MAINTENANCE TILL FINAL COMPLETION
3. CONTRACTOR MUST MEET 95% SOD ESTABLISHMENT FOR FINAL COMPLETION. REFER TO SPEC 329000 SECTION 1.9. & 1.12 FOR ALL APPLICABLE REQUIREMENTS.
4. SOD INSTALLED INSTALLED OUTSIDE GROWING SEASON WILL NEED TO MEET THE FOLLOWING SECTION 329000 SECTIONS 1.9 & 1.12
5. PLEASE REFER TO SPEC 329000 SECTION 1.10 FOR ALL WARRANTY REQUIREMENTS.
6. CONTRACTOR IS RESPONSIBLE FOR REGULAR MOWING AND FOR FURNISHING AND APPLYING ADEQUATE WATER TO THE INSTALLED SOD UNTIL PROJECT FINAL COMPLETION BUT NO LESS THAN 4-WEEKS FOLLOWING SOD INSTALLATION
7. WATERING SHALL BE MONITORED TO ENSURE PROPER RATES ARE APPLIED. OVER-WATERING SHALL BE AVOIDED.
8. DEAD OR DYING SOD SHALL BE REPLACED PRIOR TO OWNER'S ACCEPTANCE.



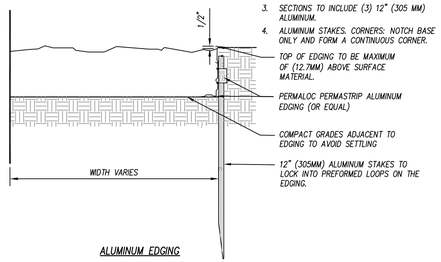
SOD INSTALLATION



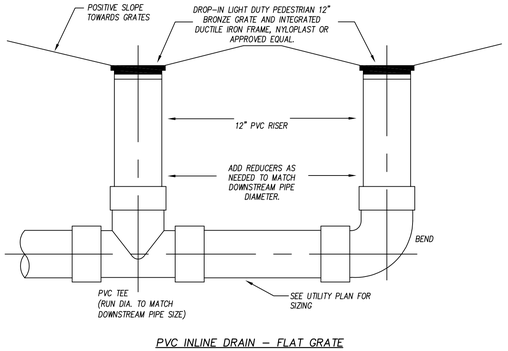
DECORATIVE STONE BAND AT BUILDING

EDGING NOTES:

1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. 16'-0" SECTIONS TO INCLUDE (8) 12" (305 MM)
3. SECTIONS TO INCLUDE (3) 12" (305 MM) ALUMINUM.
4. ALUMINUM STAKES. CORNERS: NOTCH BASE ONLY AND FORM A CONTINUOUS CORNER.



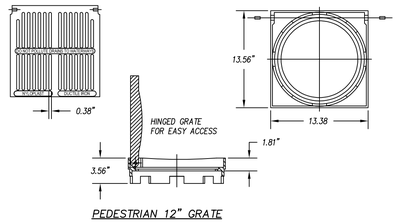
ALUMINUM EDGING



PVC INLINE DRAIN – FLAT GRATE

NOTES:

1. PIPE AND FITTINGS SHALL BE PVC, SMOOTH INTERIOR AND EXTERIOR.
2. INLINE DRAINS SHALL BE AS MANUFACTURED BY ADS, INC. OR APPROVED EQUAL.
3. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



PEDESTRIAN 12" GRATE

INLINE DRAIN

N.T.S.

LANDSCAPE GENERAL NOTES

1. LOCATE ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PLANT MATERIAL. NOTIFY OWNER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN ON THE PLAN.
2. VERIFICATION OF TOTAL QUANTITIES AS SHOWN ON THE PLANT LIST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE TOTAL QUANTITIES SHALL BE AS SHOWN ON THE PLAN.
3. ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE WRITTEN SPECIFICATIONS.
4. ALL PLANT MATERIAL (SHRUBS/TREES) SHALL BE A MINIMUM DISTANCE OF 4-1/2 FEET FROM BACK OF CURB, EXCEPT ALONG ANY NEW WALLS ADJACENT TO PARKING WHERE CURB STOPS WILL BE USED.
5. ALL PLANT GROUPINGS SHALL BE MULCHED AS ONE BED. **3-IN OF DYED BROWN DESIGNER (PALLETIZED)** MULCH SHALL BE USED AROUND ALL PLANTINGS WITH THE EXCEPTION OF BUFFER PLANTINGS. BUFFER PLANTINGS MAY USE TRIPLE SHREDDED HARDWOOD. CONFIRM WITH LANDSCAPE ARCHITECT AND OWNER FOR APPROVAL PRIOR TO INSTALLATION.
6. APPLY PRE-EMERGENT HERBICIDE TO ALL NEW PLANTING BEDS AT MANUFACTURER'S RECOMMENDED RATE PRIOR TO INSTALLATION OF MULCH.
7. ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEDS AND AWAY FROM BUILDINGS.
8. DO NOT INSTALL PLANT MATERIAL IN IMPERVIOUS SOILS, (i.e. HOLES WHICH, WHEN FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS). SEE SPECIFICATIONS FOR TOPSOIL REQUIREMENTS.
9. CONTACT THE LANDSCAPE ARCHITECT FOR INSPECTION 48 HOURS IN ADVANCE OF THE SCHEDULED SITE VISIT AND AT THE FOLLOWING INTERVALS:
   - 9.1. REVIEW OF GRADING PRIOR TO PLANT AND LAWN INSTALLATION.
   - 9.2. REVIEW OF PLANT MATERIAL PRIOR TO INSTALLATION.
   - 9.3. ONE SUBSTANTIAL COMPLETION MEETING FOR PLANT INSTALLATION.
   - 9.4. ONE FINAL INSPECTION FOR ALL SEEDING/PLANTING OPERATIONS.
10. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO THE CERTIFICATE OF OCCUPANCY (CO) IS SCHEDULED. THE FENCING SHALL BE REMOVED PRIOR TO FINAL SITE INSPECTION FOR THE CO.
11. LANDSCAPE SUB-CONTRACTOR (UNDER GC CONTRACT) SHALL BE RESPONSIBLE FOR WATERING ALL PLANTS AND LAWN/SOD AREAS AT HIS COST FROM HIS OWN WATER SOURCE INCLUDING DURING PERIODS OF DROUGHT UNTIL THE PLANTS AND LAWN MEET FINAL COMPLETION. PLANT MATERIALS OR AREAS OF GRASS WHICH PERISH SHALL BE RE-ESTABLISHED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. REFER TO SPECIFICATIONS FOR ADDITIONAL WATERING INFORMATION.
12. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL EQUIPMENT & SUBCONTRACTORS AWAY FROM SEEDED/SOD AREAS. IF DAMAGE OCCURS, THROUGH NO FAULT OF THE OWNER, AREAS SHALL BE RE-GRADED AND RE-SEEDED IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL WATER AND MAINTAIN THOSE AREAS UNTIL THEY ARE AT 95% COVERAGE AT FINAL COMPLETION.
13. SUBSTITUTIONS OF PLANT MATERIAL SHALL ONLY BE ACCEPTED 60 DAYS PRIOR TO COMMENCEMENT OF PLANTING OPERATIONS. SUBSTITUTION REQUESTS MUST BE IN WRITING AND WILL ONLY BE ACCEPTED FOR LACK OF AVAILABILITY REASONS WHICH CAN BE SUBSTANTIATED OR FOR SUPERIOR STOCK SUBSTITUTIONS.
14. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT TO REVIEW GRADING ONE WEEK PRIOR TO SEEDING, IF THE LANDSCAPE CONTRACTOR AND LANDSCAPE ARCHITECT FIND GRADING UNACCEPTABLE FOR FINAL SEEDING, LANDSCAPE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE GENERAL CONTRACTOR. LANDSCAPE CONTRACTOR SHALL NOT PROCEED WITHOUT APPROVAL BY LANDSCAPE ARCHITECT.
15. IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.
16. GENERAL LAWN AREAS SHALL BE SEEDED WITH **RIVIERA OR SUNSTAR BERMUDA SEED. SOD AREAS SHALL BE TIF-TUF BERMUDA.** 95% COVERAGE (BASED ON A PER SQUARE YARD SAMPLE) SHALL BE ATTAINED PRIOR TO FINAL INSPECTION. SEE DETAIL SHEET FOR RATES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
17. SEE PLANTING PLAN FOR LIMITS.
18. ALL 3:1 SLOPES OR GREATER SHALL RECEIVE EROSION CONTROL MATTING. REFER TO PLANTING PLANS FOR STABILIZATION REQUIREMENTS.
19. ALL FOUNDATION SHRUBS TO BE PLANTED A MINIMUM OF 5-FT FROM BUILDING WALL. ALL SHADE TREES SHALL BE A MINIMUM DISTANCE OF 15-FT FROM BUILDING ROOF EDGE TO CENTER OF TREE. NOTIFY LANDSCAPE ARCHITECT FOR ANY DISCREPANCIES.
20. **INSTALL PERMANENT SEEDING ALONG ALL ROADSIDE DITCHES AND CHANNELS WITHIN CONSTRUCTION LIMITS OF PROJECT. SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION.**

TEMPORARY SEEDING SCHEDULE (JUNE 1ST TO FEBRUARY 28TH)

DATE	TYPE	SEEDING RATE
AUG 15 – APR 15	3-WAY TALL FESCUE BLEND AND CEREAL RYE (GRAIN)	10 LBS PER 1,000/SF 35 LBS/ACRE
APR 15 – AUG 15	3-WAY TALL FESCUE BLEND AND GERMAN MILLET *** OR SUDANGRASS (SMALL-STEMMED VAR.) ***	10 LBS PER 1,000/SF 25 LBS/ACRE

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

*** TEMPORARY – RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT.

PERMANENT SEEDING SCHEDULE

DATE	TYPE	SEEDING RATE
APR 15 – JULY 15 **	HULLED SUNSTAR OR RIVIERA BERMUDA	150 LBS/ACRE *
JULY 15 – AUG 15 (WATERING AT CONTRACTOR'S EXPENSE)	SUNSTAR OR RIVIERA BERMUDA	150 LBS/ACRE *

* OR AS REQUIRED TO ACHIEVE 95% COVERAGE AS DETERMINED ON A PER SQUARE YARD BASIS PRIOR TO SUBSTANTIAL COMPLETION.

** WHEN SEEDING MUST TAKE PLACE OUT-OF-SEASON FOR PERMANENT GRASS, APPROPRIATE TEMPORARY SEEDING SHALL BE DONE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERMANENT SEEDING AS SPECIFIED IN SEASON AT NO ADDITIONAL COST TO OWNER.

LAWN MAINTENANCE NOTES:

1. SEE SPEC. SECTION 329000 FOR LAWN MAINTENANCE REQUIREMENTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR LAWN MAINTENANCE UNTIL FINAL COMPLETION.
3. LAWN MUST BE AT 95% COVERAGE AT SUBSTANTIAL COMPLETION REVIEW TO BE ACCEPTED.
4. IF NOT AT 95% SUBSTANTIAL COMPLETION WILL BE DELAYED UNTIL THE FOLLOWING GROWING SEASON.
5. DO NOT ALLOW NURSE CROP TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE THE PERMANENT SEEDING MAY BE SHADED OUT.

LIME AND FERTILIZATION SCHEDULE:

1. APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY A MINIMUM 3,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND A MINIMUM 500 LB/ACRE 10-10-10 FERTILIZER, AS NEEDED TO ESTABLISH 95% COVERAGE (AS DETERMINED ON A PER SQUARE YARD BASIS) PRIOR TO SUBSTANTIAL COMPLETION.
2. CONTRACTOR TO SUBMIT A COPY OF ALL SOIL REPORTS TO OWNER UPON RECEIPT.

TURF, SOD AND SEEDBED PREPARATION:

1. CHISEL ALL CUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 8".
2. DISC ALL AREAS TO RECEIVE GRASS TO A MINIMUM OF 8 INCHES, MIX AND AMEND WITH 3 INCHES OF WELL SCREENED TOPSOIL. ON-SITE TOPSOIL MAY BE USED IN PLACE OF IMPORTED TOPSOIL, IF WELL-SCREENED AND DRY PRIOR TO APPLICATION IN ACCORDANCE WITH SPECIFICATION SECTION 329000.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND PHOSPHATE UNIFORMLY AS PER SPECIFICATIONS AND MIX WELL WITH SOIL.
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED TO A 6 INCHES DEPTH.
6. SEED AT RATE SPECIFIED OR AS NEEDED TO ACHIEVE AND MAINTAIN A THICK HEALTHY GROUND COVERAGE.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH. BEGIN THOROUGH WATERING OF GRASSED AREAS IMMEDIATELY UPON INSTALLATION. DO NOT ALLOW GRASSED AREAS TO BECOME EXCESSIVELY DRY.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS AS NEEDED.
9. IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.

SURFACE STABILIZATION REQUIREMENTS:

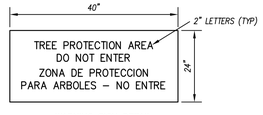
1. DURING ALL PHASES OF CONSTRUCTION, GROUNDCOVER ON EXPOSED SLOPES SHALL BE PROVIDED WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING.
2. FINAL PERMANENT GROUNDCOVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
3. USE EXCELSIOR MATTING OR OTHER APPROVED CHANNEL LINING MATERIAL TO COVER THE BOTTOM OF CHANNELS.
4. APPLY 4000 LB/ACRE(2 TONS LB/AC) GRAIN STRAW OVER SEEDED AREAS AND ANCHOR STRAW CRIMPING WITH HAND OR MECHANICAL CRIMPER 8" MAX. SPACING, ASPHALT TACKING OR OTHER APPROVED METHOD. ASPHALT TACKING SHALL BE 400 GAL/ACRE (9 GAL/1000 SF).
5. MULCH AND ANCHORING MATERIALS MUST NOT BE ALLOWED TO WASH DOWN SLOPES AND CLOG DRAINAGE DEVICES.
6. SEE NCDEQ GROUND STABILIZATION REQUIREMENTS FOR ADDITIONAL INFORMATION.

PLANTING / LANDSCAPING NOTES

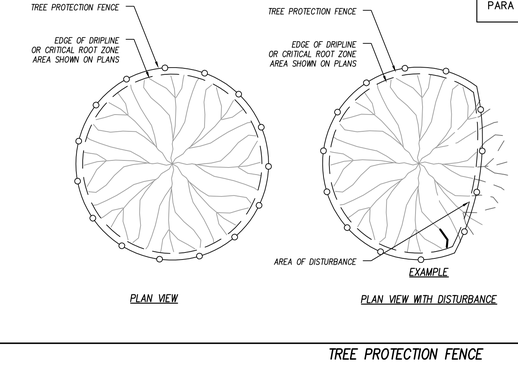
N.T.S.

SIDE VIEW

FRONT VIEW



WARNING SIGN DETAIL



PLAN VIEW

EXAMPLE

PLAN VIEW WITH DISTURBANCE

NOTES:

1. INSTALL TREE PROTECTION FENCING PRIOR TO PERFORMING ANY CLEARING OF THE SITE.
2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
3. LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
4. SIGNS SHALL BE PLACED AT 100' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 100' ON CENTER THEREAFTER.
5. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
6. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
7. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.

TREE PROTECTION FENCE

N.T.S.

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WAKE COUNTY NORTH CAROLINA

PUBLIC SAFETY WAKE COUNTY EMS EST. 1976

ZEBULON PUBLIC SAFETY STATION

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CONSTRUCTION DOCUMENTS

LANDSCAPE DETAILS

DATE 07-18-2025
CLH PROJECT NO 22-154

REVISIONS

NO	DATE	DESCRIPTION:
1	5/30/25	ADDENDUM #1

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2472 CLH DESIGN, P.A. RONALD K. AAL-ARCHAMBAULT 07-18-25

SHEET NUMBER

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