

SITE CONSTRUCTION PLANS FOR

V1 -SDP-24-05



POST OFFICE BOX 91727 RALEIGH, NORTH CAROLINA 2767 PHONE: 919.610.1051 FIRM NC LICENSE NUMBER C-422



REVISION HISTORY

REV # DESCRIPTION DATE BY DESCRIPTION DATE BY DESCRIPTION DATE			
	DESCRIPTION	DATE	BY

ORIGINAL PLAN SIZE: 24" X 36"

SCALE ADJUSTMENT

THIS BAR IS 1 INCH IN LENGTH
ON ORIGINAL DRAWING

0 1"

L J

IF IT IS NOT 1 INCH ON THIS

SHEET, ADJUST YOUR SCALE ACCORDINGLY

SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

COVER

C-1SHEET 1 OF 18

PINE GLO

414 S MAIN ST ST ROLESVILLE, NC 27571 PIN: 1758-79-7437

SHEET	TITLE
C-1	COVER
C-2	CALCULATIONS
C-3	EXISTING CONDITIONS & DEMOLITION PLAN
C-4	SITE PLAN
C-5	UTILITY PLAN
C-6	GRADING & DRAINAGE PLAN
C-7	SCM DETAILS
C-8	EROSION & SEDIMENT CONTROL PLAN - PHASE 1
C-9	EROSION & SEDIMENT CONTROL PLAN - PHASE 2
C-10	LANDSCAPING PLAN
C-11	LIGHTING PLAN
C-12	SITE DETAILS
C-13	STORM DRAINAGE DETAILS
C-14	EROSION & SEDIMENT CONTROL DETAILS
C-15	EROSION & SEDIMENT CONTROL DETAILS
C-16	WATER & SEWER DETAILS
C-17	NCG01 SELF-INSPECTION, RECORDKEEPING & REPORTING
C-18	NCG01 GROUND STABILIZATION & MATERIAL HANDLING

DEVELOPER:

OPTIMAL GLO LLC
CONTACT: ROBERT SHAAR
1021 FORESTVILLE RD, STE 200
WAKE FOREST, NC 27587
610.295.3699
SHAAR@MYOPTIMALEQUITY.COM

ENGINEER OF RECORD:

FLM ENGINEERING, INC CONTACT: JON FRAZIER, PE PO BOX 91727 RALEIGH, NC 27675 919.610.1051 JFRAZIER@FLMENGINEERING.COM

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YOU DIG

NORTH CAROLINA
ONE-CALL CENTER
1-800-632-4949

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

CITY OF RALEIGH DEVELOPMENT APPROVAL _______RALEIGH WATER REVIEW OFFICER

ACCORDANCE WITH ALL TOWN OF
ROLESVILLE, CITY OF RALEIGH AND WAKE
COUNTY STANDARDS AND SPECIFICATIONS

ALL CONSTRUCTION SHALL BE IN

								F	PIPE TABLE									
STRUCTU	RE NUMBER		Сс	I	Α	Α	Тс	Q	Q									
FROM	то	NO. OF BOXES	RUNOFF COEFFICIENT	10-YEAR INTENSITY (in/hr)	DRAINAGE AREA (sf)	DRAINAGE AREA (ac)	TIME OF CONCENTRATION (min)	FLOW (cfs)	TOTAL FLOW (cfs)	SLOPE (ft/ft)	Dtheo (in)	SIZE (in)	Vfull (ft/sec)	PIPE LENGTH (ft)*	UPPER INVERT (ft)	LOWER INVERT (ft)	TOP ELEVATION (ft)	PIPE MATERIAL
YI-1	EX. JB	-	0.90	7.19	9500	0.22	5.0	1.41	1.41	0.0068	9.1	12	4.1	176.00	415.40	414.20	418.30	HDPE
JB-2	JB-4	-	0.90	7.19	22200	0.51	5.0	3.30	3.30	0.0050	13.3	15	4.0	260.00	414.50	413.20	419.50	HDPE
YI-3	JB-4	-	0.90	7.19	10100	0.23	5.0	1.50	4.80	0.0142	12.5	15	6.8	109.00	414.75	413.20	418.10	HDPE
JB-4	FES-5	-	0.90	7.19	0	0.00	5.0	0.00	4.80	0.0500	9.9	18	14.4	4.00	413.20	413.00	419.50	HDPE
	•		•	•	•									•		•		
YI-6	YI-8	-	0.90	7.19	9800	0.22	5.0	1.46	1.46	0.0059	9.5	12	3.8	85.00	415.00	414.50	418.20	HDPE
YI-7	YI-8	-	0.90	7.19	4000	0.09	5.0	0.59	0.59	0.0063	6.7	12	3.9	63.00	414.90	414.50	418.30	HDPE
YI-8	YI-9	-	0.90	7.19	6200	0.14	5.0	0.92	2.97	0.0056	12.5	15	4.2	72.00	414.50	414.10	418.30	HDPE
YI-9	YI-13	-	0.90	7.19	6000	0.14	5.0	0.89	3.86	0.0058	13.7	15	4.3	69.00	414.10	413.70	418.30	HDPE
YI-10	YI-11	-	0.90	7.19	3900	0.09	5.0	0.58	0.58	0.0050	6.9	12	3.5	40.00	414.60	414.40	418.30	HDPE
YI-11	YI-12	-	0.90	7.19	4000	0.09	5.0	0.59	1.17	0.0054	8.9	12	3.6	74.00	414.40	414.00	418.30	HDPE
YI-12	YI-13	-	0.90	7.19	6800	0.16	5.0	1.01	2.18	0.0050	11.4	12	3.5	60.00	414.00	413.70	418.10	HDPE
YI-13	YI-16	-	0.90	7.19	5200	0.12	5.0	0.77	6.82	0.0053	17.2	18	4.7	75.00	413.70	413.30	418.30	HDPE
JB-14	YI-15	-	0.90	7.19	28300	0.65	5.0	4.20	4.20	0.0097	12.8	15	5.6	269.00	416.40	413.80	419.70	HDPE
YI-15	YI-16	-	0.90	7.19	8800	0.20	5.0	1.31	5.51	0.0055	15.8	18	4.8	91.00	413.80	413.30	418.00	HDPE
YI-16	FES-17	-	0.90	7.19	6600	0.15	5.0	0.98	13.31	0.0065	21.3	24	6.3	46.00	413.30	413.00	418.20	HDPE

^{*}LENGTHS ARE OF THE PIPE ONLY, CENTER OF STRUCTURE TO CENTER OF STRUCTURE, AND DO NOT INCLUDE FLARED END SECTIONS OR OTHER END TREATMENT

	SKIMMER SEDIMENT BASIN DESIGN CALCULATIONS															
	SKIMMER SEDIMENT BASIN DESIGN								SKIMMER SEDIMENT BASIN EFFICIENCY					SKIMMER**		
BASIN NUMBER	BASIN TYPE	DRAINAGE AREA (ac)	DISTURBED AREA (ac)	REQUIRED VOLUME 1800 CF/AC (cf)	DEPTH* (ft)	WIDTH (ft)	LENGTH (ft)	VOLUME PROVIDED (cf)	WEIGHTED RUNOFF COEFFICIENT	10-YEAR RAINFALL INTENSITY (in/hr)	FLOW Q (cfs)	REQUIRED SURFACE AREA 435 SF/CFS (sf)	AREA PROVIDED (sf)	SIZE (in)	ORIFICE RADIUS (in)	ORIFICE DIAMETER (in)
SK-1***	PERMANENT RISER BASIN	2.13	1.98	3834	3	-	-	20504	0.50	7.19	7.66	2489	8719	1.5	0.7	1.3

^{*}DEPTH FROM BOTTOM TO RISER TOP

**SKIMMER SIZED PER SIZING CALCULATOR AT WWW.FAIRCLOTHSKIMMER.COM FOR REQUIRED VOLUME AT A DRAWDOWN RATE OF 72 HOURS

^{***}SK-1 VOLUME AND SURFACE AREA PER HYDROCAD MODEL DUE TO IRREGULAR SHAPE

	TEMPORARY DIVERSION DITCH DESIGN																
DITCH NUMBER	RUNOFF COEFFICIENT	10-YEAR RAINFALL INTENSITY (in/hr)	DRAINAGE AREA (acres)	Q (cfs)	LENGTH (ft)	CHANNEL SECTION	BOTTOM WIDTH (ft)	LEFT SIDE SLOPE, Z:1 (ft)	RIGHT SIDE SLOPE, Z:1 (ft)	CHANNEL DEPTH (ft)	CHANNEL SLOPE (ft/ft)	NORMAL DEPTH (ft)	FREEBOARD (ft)	SHEAR STRESS (lb/ft2)	VELOCITY (fps)	MANNING'S n VALUE	TEMPORARY LINER
TD-1	0.50	7.19	0.98	3.52	200.00	TRIANGULAR	-	2.00	2.00	1.50	0.005	0.98	0.52	0.31	1.83	0.033	STRAW W/ NET

	BOUYANCY CALCULATIONS								
	STORMWATER WETLAND								
STRUCTUR	RE DIMENSIONS								
TOP OF OL	JTLET STRUCTURE =	416.00	ft						
BOTTOM =		413.00	ft						
HEIGHT OF	RISER =	3.00	ft						
ASSUME 6'	' WALL THICKNESS								
WEIGHT CA	ALCULATIONS								
Vbase =	0' x 0' x 0' =		0.00	cf					
Wbase =	0 cf x 150 lb/cf =		0.00	lbs					
Vsump =	4' x 4' x 2' =		32.00	cf					
Wsump =	32 cf x 150 lb/cf =		4800.00	lbs					
Wstruc =	[(5 x 5 x 3)-(4 x 4 x 2.5)] x	x 150 lb/cf =	5250.00	lbs					
TOTAL WE	GHT =		10050.00	lbs					
BOUYANC	CALCULATIONS								
Bbase =	0 cf x 62.4 lb/cf =		0.00	lbs					
Bstruc =	(5 x 5 x 3) x 62.4 lb/cf	4680.00	lbs						
TOTAL BOU	JYANCY =	4680.00	lbs						
FACTOR O	F SAFETY =		2.15						

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CITY OF RALEIGH DEVELOPMENT APPROVAL

RALEIGH WATER REVIEW OFFICER

ENGINEERING

POST OFFICE BOX 91727
RALEIGH, NORTH CAROLINA 27675
PHONE: 919.610.1051

FIRM NC LICENSE NUMBER C-4222



REVISION	LICTODY
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REV #	DESCRIPTION	DATE	BY
I			

ORIGINAL PLAN SIZE: 24" X 36"

SCALE ADJUSTMENT

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

IF IT IS NOT 1 INCH ON THIS SHEET, ADJUST YOUR SCALE ACCORDINGLY

SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

CALCULATIONS

C-2
SHEET 2 OF 18

ALL CONSTRUCTION SHALL BE IN

ACCORDANCE WITH ALL TOWN OF

ROLESVILLE, CITY OF RALEIGH AND WAKE

COUNTY STANDARDS AND SPECIFICATIONS

NOTES OWNER: DAN RYAN BUILDERS -1. BOUNDARY AND TOPOGRAPHIC SURVEY BY CMP PROFESSIONAL LAND NORTH CAROLINA LLC SURVEYORS. OWNER: A MASTER TEAM LLC PIN: 1758793974 PIN: 1758797957 USE: DWELLING, SINGLE FAMILY, 2. THERE ARE NO FLOOD PRONE AREAS PRESENT PER FEMA FIRM PANEL USE: DWELLING, SINGLE FAMILY, ATTACHED NO. 3720175800K, EFFECTIVE 07/19/22. ATTACHED EX. FENCE (TO BE EX. 30' DUKE ZONING: R&PUD EX. POWER -REMOVED WITHIN ZONING: GC-CZ ENERGY ESMT. POLE (TYP.) 3. THE UTILITIES SHOWN ARE NOT GUARANTEED TO BE A REPRESENTATION PROPERTY) OF ALL UTILITIES WITHIN THE PROJECT EXTENT. EX. OVERHEAD — ELECTRIC LINE (TYP.) 4. THE CONTRACTOR SHALL CALL THE NORTH CAROLINA ONE-CALL-CENTER AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. 5. THE CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING WORK AND SHALL USE CARE WHEN OPERATING AROUND EXISTING UTILITIES. EX. SHED (TO BE REMOVED) 6. THE CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR THE REPAIR OF ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. EX. CONCRETE PAD (TO BE REMOVED) **LEGEND** EX. CONCRETE APRON (TO BE EX. PROPERTY LINE REMOVED) EX. LP TANKS (TO ———— — EX. RIGHT-OF-WAY EX. FENCE ----BE REMOVED) EX. ADJACENT OWNERS - EX. OVERHEAD ELECTRIC LINE AND POWER POLES (TO BE REMOVED) EX. CHAIN LINK FENCE S55° 40′ 13.14″W EX. CONCRETE S34° 19′ 46.86″E PAD (TO BE --- OHW --- OHW --- EX. OVERHEAD ELECTRIC LINE REMOVED, TYP.) — W — W — EX. WATER LINE —— SS —— SS —— **EX. SANITARY SEWER** —— SD ——— SD —— **EX. STORM SEWER** ——— EX. MAJOR CONTOUR (5') EX. LIGHT POLE -— — — 419— — EX. MINOR CONTOUR (1') (TO BE REMOVED) OWNER: COFFEE LODGE PROPERTIES LLC - EX. GRAVEL (TO — PIN: 1758799572 - EX. CONCRETE BE REMOVED) PAD, DOCKS, USE: EATING ETC. (TO BE **ESTABLISHMENT** REMOVED) ZONING: R&PUD EX. ASPHALT (TO BE — EX. SEWER REMOVED) CLEAN-OUT (TO EX. BLDG. (TO BE BE REMOVED) REMOVED) EX. OVERHEAD ELECTRIC EX. 18" RCP -LINE AND POWER POLES INV: 411.55' (TO BE REMOVED) EX. MANHOLE — OWNER: STORAGE MAX II LLC PIN: 1758792469 TOP: 416.09' USE: SELF STORAGE INV IN: 401.34' INV OUT: 401.34 – EX. BRICK WALK ZONING: GC-CZ (TO BE REMOVED) — EX. SEPTIC HOLDING TANK (TO BE REMOVED) EX. WATER METERS — TO BE ABANDONED PER RALEIGH → EX. SEWER WATER STANDARDS CLEAN-OUT (TO RAIL FENCE BE REMOVED) EX. HYDRANT - EX. CURB INLET TOP: 418.35' EX. GRAVEL (TO -EX. CONCRETE INV IN (N): 411.35' BE REMOVED) PAD (TO BE INV IN (W): 411.60' EX. 15" HDPE -REMOVED) INV OUT: 411.00' INV: 415.60' EX. JUNCTION BOX EX. 24" RCP ← TOP: 418.16' EX. FLAG -EX. DRIVEWAY INV IN: 415.30' POLE (TO BE INV OUT: 414.00' REMOVED) APPROX. LOCATION EX. WATER LINE; SIZE, EX. FIBER MATERIAL & DEPTH OPTIC LINE UNKNOWN EX. WATER METERS — TO BE ABANDONED EX. CURB INLET PER RALEIGH TOP: 418.35' WATER STANDARDS OWNER: GETTY LEASING INC " INV IN (N): 413.25' PIN: 1758795264 INV IN (W): 413.20' GUTTER (TYP.) USE: GAS STATION INV OUT: 413.20' ZONING: GC $\mathcal{S}(\mathcal{S})$ - EX. 5' SIDEWALK (TYP.) – EX. CURB INLET 📨 EX. WATER METER -TOP: 417.80' (ONSITE ONLY) TO INV IN: 414.25' BE ABANDONED PER INV OUT: 413.90' RALEIGH WATER EX. DRIVEWAY STANDARDS EX. CURB INLET TOP: 417.72' CALL 48 HOURS BEFORE INV OUT: 415.02' **CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION** YOU DIG 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 lortn 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



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EX. 20' CITY OF

RALEIGH

SANITARY

SEWER ESMT.

EX. 30' CITY OF RALEIGH SANITARY

SEWER ESMT.

EX. 12" DIP SANITARY

- EX. MONOLITHIC

/ CURB

SEWER LINE

ALL CONSTRUCTION SHALL BE IN

ACCORDANCE WITH ALL TOWN OF

COUNTY STANDARDS AND SPECIFICATIONS

ROLESVILLE, CITY OF RALEIGH AND WAKE

CITY OF RALEIGH DEVELOPMENT APPROVAL

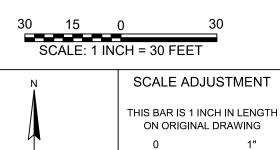
RALEIGH WATER REVIEW OFFICER



REVISION HISTORY

REV #	DESCRIPTION	DATE	BY
	ORIGINAL PLAN SIZE: 1	04" Y 36"	

ORIGINAL PLAN SIZE: 24" X 36"



SITE CONSTRUCTION PLANS

IF IT IS NOT 1 INCH ON THIS

SHEET, ADJUST YOUR SCALE ACCORDINGLY

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

EXISTING CONDITIONS & DEMOLITION PLAN

SHEET 3 OF 18

NORTH CAROLINA

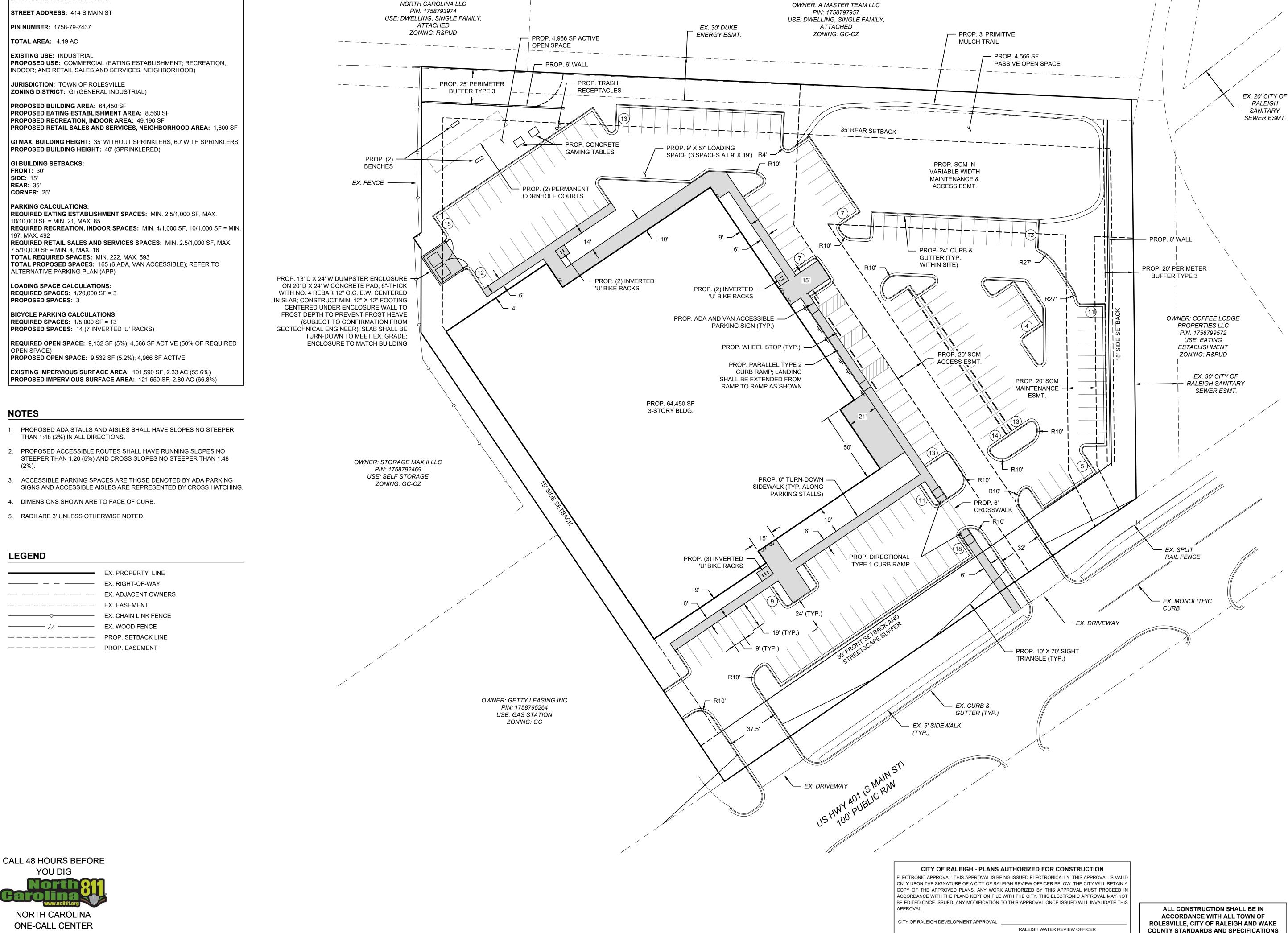
ONE-CALL CENTER



- STEEPER THAN 1:20 (5%) AND CROSS SLOPES NO STEEPER THAN 1:48
- ACCESSIBLE PARKING SPACES ARE THOSE DENOTED BY ADA PARKING SIGNS AND ACCESSIBLE AISLES ARE REPRESENTED BY CROSS HATCHING.
- 4. DIMENSIONS SHOWN ARE TO FACE OF CURB.
- 5. RADII ARE 3' UNLESS OTHERWISE NOTED.

LEGEND

EX. PROPERTY LINE EX. RIGHT-OF-WAY — — — EX. ADJACENT OWNERS ---- EX. EASEMENT EX. CHAIN LINK FENCE —— // ———— EX. WOOD FENCE — — — — — — PROP. SETBACK LINE ---- PROP. EASEMENT



OWNER: DAN RYAN BUILDERS -



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REVISION HISTORY

REV	DESCRIPTION	DATE	BY
	ORIGINAL PLAN SIZE: 2	24" X 36"	

ORIGINAL PLAN SIZE: 24" X 36"

SCALE: 1 INCH = 30 FEET SCALE ADJUSTMENT

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING IF IT IS NOT 1 INCH ON THIS SHEET, ADJUST YOUR SCALE ACCORDINGLY

SITE CONSTRUCTION PLANS

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	•

SITE PLAN

SHEET 4 OF 18

YOU DIG

Orth

NORTH CAROLINA

ONE-CALL CENTER

CITY OF RALEIGH STANDARD UTILITY NOTES (AS APPLICABLE) OWNER: DAN RYAN BUILDERS -NORTH CAROLINA LLC OWNER: A MASTER TEAM LLC ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF PIN: 1758793974 PIN: 1758797957 RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD USE: DWELLING, SINGLE FAMILY, USE: DWELLING, SINGLE FAMILY, HANDBOOK, CURRENT EDITION). ATTACHED ATTACHED EX. 30' DUKE 2. UTILITY SEPARATION REQUIREMENTS: **ZONING: R&PUD** EX. POWER -ZONING: GC-CZ ENERGY ESMT. A. A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE POLE (TYP.) -----OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE EX. OVERHEAD -ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO ELECTRIC LINE (TYP.) WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE PROP. 6' WALL LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLICWELL 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 WHERE IT ISIMPOSSIBLE TO OBTAIN PROPERSEPARATION, 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 & ------**MULCH TRAIL** STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER 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 PROP. SCM IN CORPUD DETAILS W- 41 & S-49). VARIABLE WIDTH F. ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH **MAINTENANCE &** 18" MIN. VERTICAL SEPARATION REQUIRED. EX. FENCE ---ACCESS ESMT. 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 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. — PROP. 6' WALL CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY PROP. 24" CURB & SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24-HOUR ADVANCE NOTICE TO THE CITY GUTTER (TYP. OF RALEIGH PUBLIC UTILITIES DEPARTMENT. WITHIN SITE) SEWER BYPASS PUMPING – A BYPASS PLAN SEALED BY AN NC PROFESSIONAL ENGINEER SHALL BE PROVIDED TO RALEIGH WATER PRIOR TO PUMPING OPERATIONS FOR APPROVAL. PROP. 13' D X 24' W DUMPSTER ENCLOSURE THE OPERATIONS AND EQUIPMENT SHALL COMPLY WITH THE PUBLIC UTILITIES HANDBOOK. ON 20' D X 24' W CONCRETE PAD, 6"-THICK WITH NO. 4 REBAR 12" O.C. E.W. CENTERED '. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS. 4.0' IN SLAB; CONSTRUCT MIN. 12" X 12" FOOTING MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS. CENTERED UNDER ENCLOSURE WALL TO 8. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & FROST DEPTH TO PREVENT FROST HEAVE OWNER: COFFEE LODGE SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE (SUBJECT TO CONFIRMATION FROM DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES PROPERTIES LLC GEOTECHNICAL ENGINEER); SLAB SHALL BE ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD PIN: 1758799572 TURN-DOWN TO MEET EX. GRADE; USE: EATING **ENCLOSURE TO MATCH BUILDING** INSTALL 3/4" COPPER* WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' **ESTABLISHMENT** WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S ZONING: R&PUD RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE. EX. 30' CITY OF 10. INSTALL 4" PVC* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT PROP. 20' SCM ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM. RALEIGH SANITARY PROP. 64,450 SF MAINTENANCE SEWER ESMT. 3-STORY BLDG. 11. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; FFE = 420.00' BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING - PROP. GREASE INTERCEPTOR (BLDG. SHALL BE DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAMMANHOLE. ∖ (SUBJECT TO APPROVAL BY) **EQUIPPED WITH** CITY OF RALEIGH 12. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM AUTOMATIC PRETREATMENT PROGRAM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN SPRINKLER SYSTEM IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION. AND SIZE TO BE DETERMINED EX. 18" RCP PRIOR TO BLDG. PERMITS) INV: 411.55' 13. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO PROP. 4" SCHED 40 PVC -EX. MANHOLE SEWER CLEAN-OUT OWNER: STORAGE MAX II LLC TOP: 416.09' 14. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION INV IN: 401.34' PIN: 1758792469 SPECIFICATIONS SHALL BE APPROVED BY THE RW FOG PROGRAM COORDINATOR PRIOR TO PROP. 4" SCHED 40 PVC -JSE: SELF STORAGE INV OUT: 401.34 ISSUANCE OF A UC AND/OR BUILDING PERMIT. CONTACT (919) 996-4516 OR GREASE LINES ZONING: GC-CZ FOG@RALEIGHNC.GOV FOR MORE INFORMATION. PROP. 4" SCHED 40 PVC -PROP. 4" SCHED 40 PVC — SEWER CLEAN-OUT 15. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON THE SEWER SERVICE LINE DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX B OF THE RULES PROP. 4" SCHED 40 PVC SEWER GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA PROP. 4" SCHED 40 PVC -EX. 12" DIP SANITARY TRAFFIC-BEARING CLEAN-OUT SEWER CLEAN-OUT SEWER LINE 16. THE DEVICES SHALL MEET THE AMERICAN SOCIETY OF SANITARY ENGINEERING (SAAE) STANDARDS AND BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. 17. THE DEVICE AND INSTALLATION SHALL MEE THE GUIDELINES OF APPENDIX A – GUIDELINES AND REQUIREMENTS FOR THE CROSS CONNECTION PROGRAM IN RALEIGH'S SERVICE AREA. · EX. SPLIT PROP. 6" TURN-DOWN -18. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH, INITIAL AND PERIODIC TESTING RAIL FENCE EX. HYDRANT (ALL SIDES -THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE SIDEWALK (TYP. ALONG OF BLDG. ARE WITHIN 600' 🝾 LOCAL CROSS CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. PARKING STALLS) - EX. CURB INLET CONTACT CROSS.CONNECTION@RALEIGHNC.GOV FOR MORE INFORMATION. OF HYDRANT BY THE 🖊 TOP: 418.35' // 'PULL-THE-HOSE' METHOD) INV IN (N): 411.35' FIRE LINE 19. NOTICE FOR PROJECTS THAT INVOLVE AN OVERSIZED MAIN OR URBAN MAIN REPLACEMENT. INV IN (W): 411.60' EX. 15" HDPE — ANY CITY REIMBURSEMENT GREATER THAN \$250,000.00 MUST UNDERGO THE PUBLIC INV OUT: 411.00' BIDDING PROCESS. INV: 415.60' EX. JUNCTION BOX " ✓ EX. 24" RCP — PROP. 2" SOFT 'K' TOP: 418.16' COPPER WATER - EX. DRIVEWAY INV IN: 415.30' **LEGEND NOTES** SERVICE LINE INV OUT: 414.00' APPROX. LOCATION - PROP. 2" X 6" EX. PROPERTY LINE ALL WATER AND SANITARY SEWER CONSTRUCTION SHALL BE IN EX. WATER LINE; SIZE, TEE ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND PROP. 6" WILKINS 350ASTDA EX. RIGHT-OF-WAY MATERIAL & DEPTH PROP. 6" DIP SPECIFICATIONS. (OR APPROVED EQUAL) RPDA UNKNOWN — — — EX. ADJACENT OWNERS FIRE LINE IN HEATED ENCLOSURE; FDC SHALL BE ON ENCLOSURE THE UTILITIES SHOWN ARE NOT GUARANTEED TO BE A ✓ EX. 15" RCP REPRESENTATION OF ALL UTILITIES WITHIN THE PROJECT EXTENT. EX. CURB INLET EX. CHAIN LINK FENCE EX. 5' SIDEWALK TOP: 418.35' NV IN (N): 413.25' THE CONTRACTOR SHALL CALL THE NORTH CAROLINA PROP. 2" WILKINS 375 (OR APPROVED — INV IN (W): 413.20' EX. CURB & ONE-CALL-CENTER AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. EQUAL) RPZ IN HEATED ENCLOSURE INV OUT: 413.20' GUTTER (TYP.) — OHW — OHW — EX. OVERHEAD ELECTRIC LINE \mathcal{S} OWNER: GETTY LEASING INC 4. THE CONTRACTOR SHALL VERIFY DEPTHS AND LOCATIONS OF ALL PROP. 2" METER ASSEMBLY — — W — W — EX. WATER LINE PIN: 1758795264 UTILITIES PRIOR TO BEGINNING WORK AND SHALL USE CARE WHEN - PROP. 6" TAPPING PROP. 2" 90° BEND — **USE: GAS STATION** OPERATING AROUND EXISTING UTILITIES. SLEEVE & VALVE —— SS ——— SS —— EX. SANITARY SEWER ZONING: GC —— SD —— SD —— **EX. STORM SEWER** THE CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR THE - EX. CURB INLET 📨 ---- PROP. SETBACK LINE REPAIR OF ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. TOP: 417.80' INV IN: 414.25' ---- PROP. EASEMENT INV OUT: 413.90' — W — W — PROP. WATER LINE EX. DRIVEWAY PROP. STORM SEWER EX. CURB INLET TOP: 417.72' **CALL 48 HOURS BEFORE** INV OUT: 415.02' **CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION** YOU DIG 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

FLM FLM 24028 UTILITY PLAN

06-03-2024 AS SHOWN

SHEET 5 OF 18

ENGINEERING

POST OFFICE BOX 91727

RALEIGH, NORTH CAROLINA 27675

PHONE: 919.610.1051

FIRM NC LICENSE NUMBER C-4222

REVISION HISTORY

ORIGINAL PLAN SIZE: 24" X 36"

SCALE: 1 INCH = 30 FEET

SITE CONSTRUCTION PLANS

PINE GLO

414 S MAIN ST

ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:

DESIGNED BY:

APPROVED BY:

PROJECT NO.:

SCALE ADJUSTMENT

THIS BAR IS 1 INCH IN LENGTH

ON ORIGINAL DRAWING

IF IT IS NOT 1 INCH ON THIS

SHEET, ADJUST YOUR SCALE

ACCORDINGLY

DESCRIPTION

DATE BY

EX. 20' CITY OF

RALEIGH

SANITARY

SEWER ESMT.

— EX. MONOLITHIC

CURB

ALL CONSTRUCTION SHALL BE IN

ACCORDANCE WITH ALL TOWN OF

ROLESVILLE, CITY OF RALEIGH AND WAKE

COUNTY STANDARDS AND SPECIFICATIONS

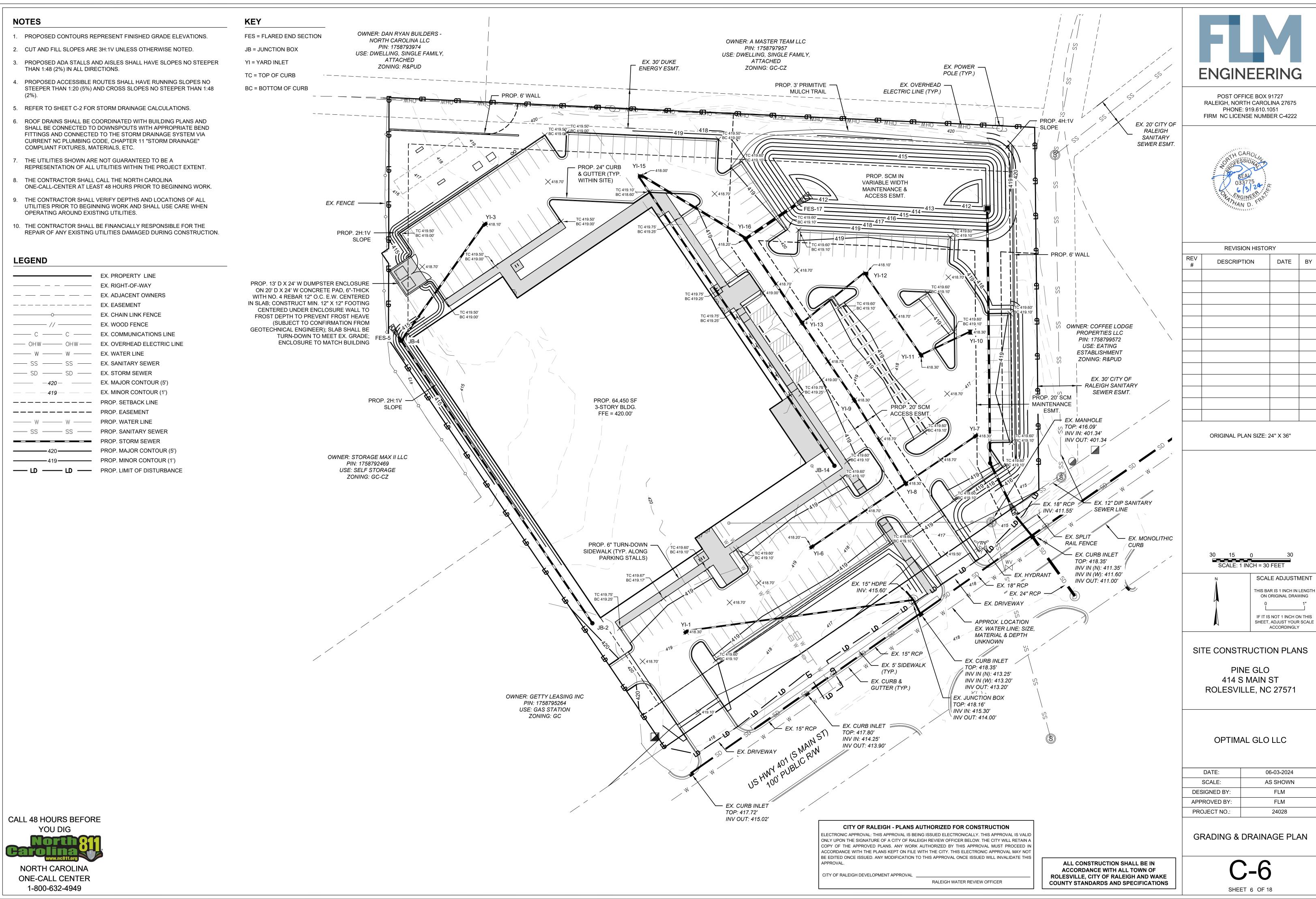
ACCORDANCE WITH THE PLANS KEPT ON FILE WITH THE CITY. THIS ELECTRONIC APPROVAL MAY NOT lacksquareBE EDITED ONCE ISSUED. ANY MODIFICATION TO THIS APPROVAL ONCE ISSUED WILL INVALIDATE THIS

RALEIGH WATER REVIEW OFFICER

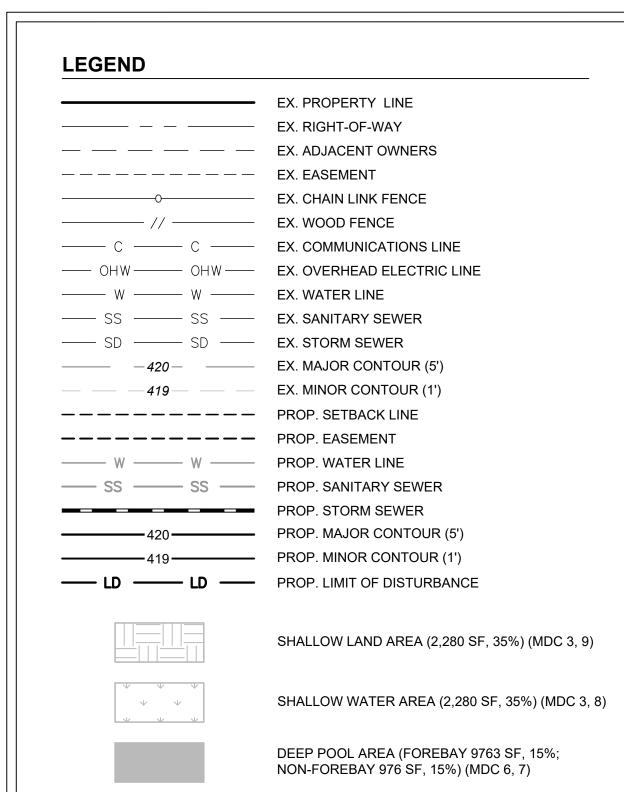
CITY OF RALEIGH DEVELOPMENT APPROVAL

NORTH CAROLINA

ONE-CALL CENTER



DATE BY



	STORMWATER WETLAND PLANTING TABLE (MDC 12, 13, 14)					
QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING		
SHALLOW WA	TER PLANTINGS (AREA = 2,280 SQ. FT.; 50 HER	BACEOUS PLANTS PER 200 SQ. FT.; 570 TOTAL PLAI	NTS REQ.)			
114	ACORUS SUBCORDATUM	SWEETFLAG	4 CU. IN.	2' O.C.		
114	HYDROLEA QUADRIVALVIS	WATERPOD	4 CU. IN.	2' O.C.		
114	IRIS VIRGINICA	BLUE FLAG IRIS	4 CU. IN.	2' O.C.		
114	SAGITTARIA LATIFOLIA	DUCK POTATO	4 CU. IN.	2' O.C.		
114	SAURURUS CERNUUS	LIZARD'S TAIL	4 CU. IN.	2' O.C.		
SHALLOW LA	ND PLANTINGS (AREA = 2,280 SQ. FT.; 50 HERBA	ACEOUS PLANTS PER 200 SQ. FT.; 570 TOTAL PLANT	S REQ.)			
190	CAREX TENERA	QUILL SEDGE	4 CU. IN.	2' O.C.		
190	HIBISCUS COCCINEUS	SCARLET ROSE MALLOW	4 CU. IN.	2' O.C.		
190	LOBELIA ELONGATA	LONGLEAF LOBELIA	4 CU. IN.	2' O.C.		

PROP. 20' SCM - MAINTENANCE PROP. 20' SCM ESMT. PROP. JB SCM TOP: 418.90' INV IN: 412.00' INV OUT: 412.00' PROP. 34 LF 18" RCP OUTLET PIPE @ 0.50% 꼭 FES SCM1 INV: 411.80' PROP. RIPRAP ENERGY DISSIPATOR (MDC 11) CLASS A RIP RAP 9" THICK INV: 411.55' LENGTH: 6'; WIDTH: 4.5' - EX. CURB INLET TOP: 418.35' INV IN (N): 411.35' INV IN (W): 411.60' - EX. HYDRANT INV OUT: 411.00' EX. 24" RCP ✓ EX. DRIVEWAY

STORMWATER WETLAND PLAN VIEW

EX. POWER -

POLE (TYP.)

- SLOPE

PROP. NON-FOREBAY

DEEP POOL (MDC 7)

RISER STRUCTURE

-`PROP. 5' X 5' CONCRETE

PROP. 6' WALL

PROP. 194 LF 18" RCP OUTLET PIPE @ 0.50%

EX. OVERHEAD —

ELECTRIC LINE (TYP.)

412.50' X

PROP. 3H:1\

SLOPE

412.50' X

412.25' X

412.50' X

PROP. INLET LOCATED

TO AVOID SHORT

CIRCUITING (MDC 5)

PROP. 3' PRIMITIVE -

MULCH TRAIL

PROP. STORMWATER —

ACCESS ESMT

WETLAND IN VARIABLE

WIDTH MAINTENANCE & 7

PROP. DEEP POOL AS

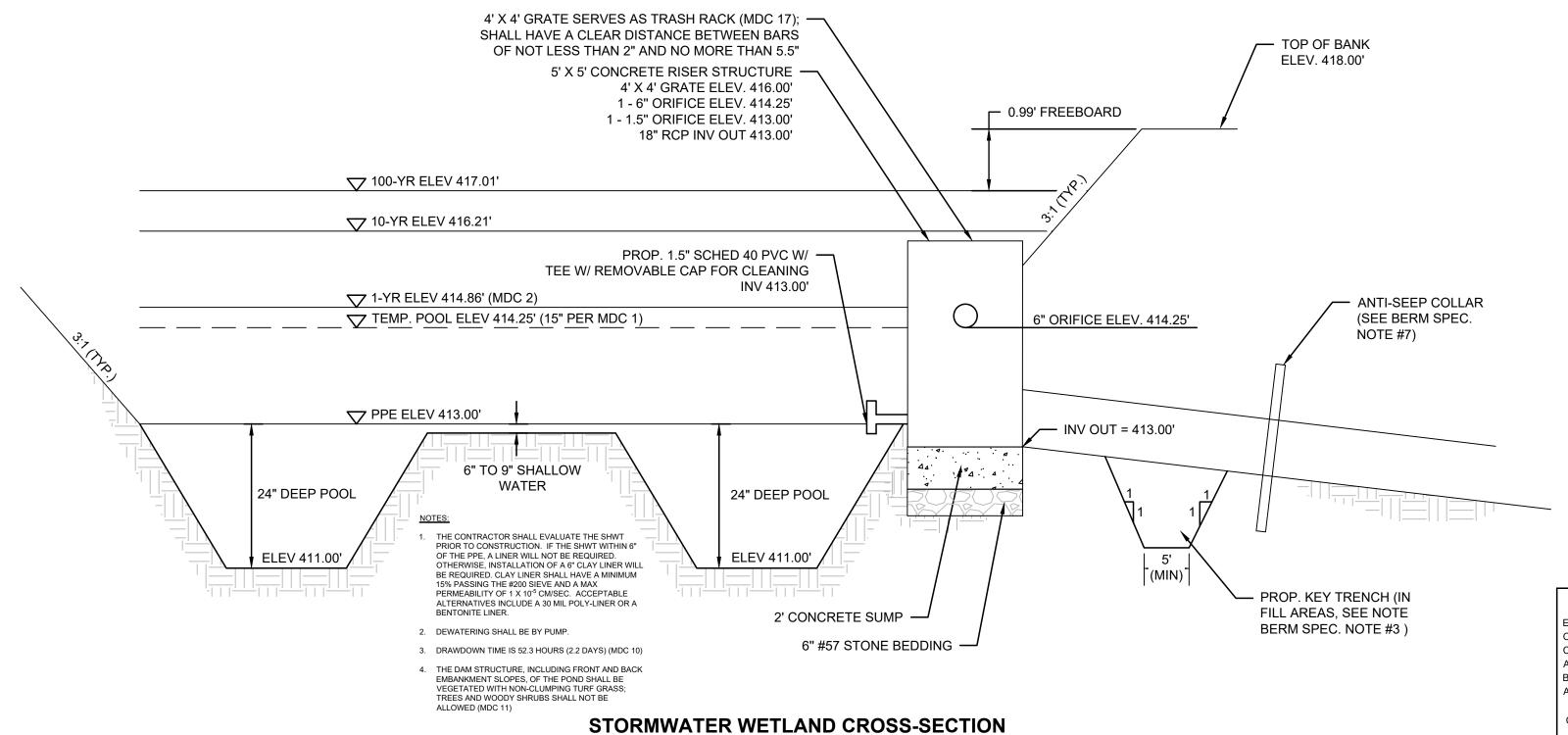
PROP. RIPRAP ENERGY

LENGTH: 8'; WIDTH: 6'

CLASS A RIP RAP 9" THICK

FOREBAY (MDC 6)

DISSIPATOR .



NOT TO SCALE

NOTES

- 1. THE WETLAND MUST BE STABILIZED WITHIN 14 DAYS OF CONSTRUCTION. CONSTRUCTION SHALL BE SEQUENCED SO THAT VEGETATION CAN BE PLANTED AND THE WETLAND BROUGHT ONLINE WITHIN 14 DAYS. PLANTS MAY NEED TO BE WATERED DURING THIS TIME IF THE DEVICE IS NOT BROUGHT ONLINE THE SAME DAY. STABILIZATION MAY BE IN THE FORM OF FINAL VEGETATION PLANTINGS OR A TEMPORARY MEANS UNTIL THE VEGETATION BECOMES ESTABLISHED. IF USING A TEMPORARY MEANS, CONTRACTOR SHALL PROVIDE A WET HYDROSEED MIX. CONTRACTOR SHALL SCARIFY THE SOIL TO A HALF-INCH PRIOR TO HYDROSEEDING.
- INLET AND OUTLET CHANNELS SHALL BE PROTECTED FROM SCOUR THAT MAY OCCUR DURING PERIODS OF HIGH FLOW. STANDARD EROSION CONTROL MEASURES SHOULD BE USED.
- 3. THE STORMWATER WETLAND SHOULD BE STAKED AT THE ONSET OF THE PLANTING SEASON. WATER DEPTHS IN THE WETLAND SHOULD BE MEASURED TO CONFIRM THE ORIGINAL PLANTING ZONES. AT THIS TIME, IT MAY BE NECESSARY TO MODIFY THE PLANTING PLAN TO REFLECT ALTERED DEPTHS OR THE AVAILABILITY OF WETLAND PLANT STOCK. CONTRACTOR SHALL COORDINATE PLANTINGS, PLANTING ZONES AND WATER DEPTHS WITH THE ENGINEER. SURVEYED PLANTING ZONES SHOULD BE MARKED ON AN "AS-BUILT" OR RECORD DESIGN PLAN AND LOCATED IN THE FIELD USING STAKES OR FLAGS.
- 4. THE WETLAND SHOULD BE DRAINED FOR NO MORE THAN 3 DAYS PRIOR TO THE PLANTING DATE (WHICH SHOULD COINCIDE WITH THE DELIVERY DATE FOR THE WETLAND PLANT STOCK) TO PRESERVE SOIL MOISTURE AND WORKABILITY.
- 5. NURSERY STOCK SHALL BE TRANSPLANTED FROM LOCAL AQUATIC PLANT NURSERIES. THE OPTIMAL PERIOD FOR TRANSPLANTING EXTENDS FROM EARLY APRIL TO MID-JUNE SO THAT THE WETLAND PLANTS WILL HAVE A FULL GROWING SEASON TO BUILD THE ROOT RESERVES NEEDED TO SURVIVE THE WINTER. HOWEVER, SOME SPECIES MAY BE PLANTED SUCCESSFULLY IN EARLY FALL. CONTRACTOR SHALL CONTACT NURSERY WELL IN ADVANCE OF CONSTRUCTION TO ENSURE THAT THEY WILL HAVE THE DESIRED SPECIES AVAILABLE.
- 6. POST-NURSERY CARE OF WETLAND PLANTS IS VERY IMPORTANT IN THE INTERVAL BETWEEN DELIVERY OF THE PLANTS AND THEIR SUBSEQUENT INSTALLATION BECAUSE THEY ARE PRONE TO DESICCATION. STOCK SHOULD BE FREQUENTLY WATERED AND SHADED.
- SEASONAL HIGH WATER TABLE (SHWT) SHALL BE EVALUATED PRIOR TO CONSTRUCTION. IF SHWT IS WITHIN 6" OF PERMANENT POOL ELEVATION, A LINER WILL NOT BE REQUIRED. OTHERWISE, INSTALLATION OF A 6" CLAY LINER WILL BE REQUIRED. CLAY LINER SHALL HAVE A MINIMUM 15% PASSING THE #200 SIEVE AND A MAX PERMEABILITY OF 1 X 10⁻⁵ CM/SEC. ACCEPTABLE ALTERNATIVES INCLUDE A 30 MIL POLY-LINER OR A BENTONITE LINER.
- 8. GRADES SHOWN REPRESENT FINISH GRADE ELEVATIONS. TO ACHIEVE FINISH GRADE ELEVATIONS, INSTALL 4" OF TOPSOIL.
- 9. ADJUST THE PH, COMPACTION, AND OTHER ATTRIBUTES OF THE FIRST 12" DEPTH OF THE SOIL IF NECESSARY TO PROMOTE PLANT ESTABLISHMENT AND GROWTH (MDC 4).
- 10. PROVIDE PLANTS PER TABLE ON THIS SHEET. DAM STRUCTURE AND PERIMETER FILL SLOPES SHALL BE PLANTED WITH NON-CLUMPING TURF GRASS. TREES AND WOODY SHRUBS NOT ALLOWED (MDC 15).
- 11. CATTAILS OR ANY OTHER INVASIVE SPECIES SHALL NOT BE PLANTED IN WETLAND (MDC 16).

OUTLET STRUCTURE NOTES & SPECIFICATIONS

- RCP OUTLET SHALL BE CLASS III RCP MEETING REQUIREMENTS OF ASTM C76. THE PIPE JOINTS SHALL BE MORTAR OR FLEXIBLE PLASTIC TYPE JOINT.
- 2. THE MANHOLE OUTLET RISER SHALL MEET ASTM C-913. THE MANHOLE JOINTS SHALL BE ASTM C-443 RUBBER GASKET JOINTS. MANHOLE JOINTS SHALL BE SECURELY ANCHORED TO PREVENT SEPARATION. CONTRACTOR IS RESPONSIBLE FOR DESIGN OF THE MANHOLE SECTION ANCHORING SYSTEM.
- 3. WATERTIGHT SEAL SHALL BE PROVIDED AT RISER/BARREL INTERFACE. PERVIOUS MATERIAL SUCH AS SAND, GRAVEL, OR CRUSHED STONE SHALL NOT BE USED AS BACKFILL AROUND THE PIPE OR ANTI-SEEP COLLAR. FILL MATERIAL AROUND THE RISER/BARREL STRUCTURE SHALL BE PLACED IN 4" LAYERS AND COMPACTED TO THE SAME DENSITY AS THE ADJACENT EMBANKMENT
- 4. OUTLET STRUCTURE SHALL BE PROVIDED WITH STEPS 1'-2" ON CENTER. STEPS SHALL BE IN ACCORDANCE WITH NCDOT STD.
- 5. CONCRETE ANTI-FLOATATION BLOCK SHALL BE PRECAST DURING FABRICATION. IF THE CONCRETE ANTI-FLOATATION BLOCK IS CAST SEPARATE FROM THE MANHOLE ASSEMBLY THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANCHORING THE ANTI-FLOATATION BLOCK TO THE MANHOLE RISER ASSEMBLY.
- 6. ALL POURED CONCRETE SHALL BE A MINIMUM 3,000 PSI (28 DAY) UNLESS OTHERWISE NOTED.
- 7. NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED AROUND EACH JOINT OF THE RCP OUTLET BARREL IN 2' WIDE STRIPS CENTERED ON JOINT. FABRIC SHALL BE AMOCO STYLE 4553 POLYPROPYLENE NON-WOVEN NEEDLE PUNCHED OR APPROVED EQUAL (NON-WOVEN FABRIC).

BERM SPECIFICATIONS

- 1. ALL FILL SOILS FOR BERM SECTION SHALL BE CLEAN, IMPERMEABLE MATERIAL AND COMPACTED TO AT LEAST 98% STANDARD PROCTOR MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT. NO BLASTED MATERIALS SHALL BE USED IN THE EMBANKMENT CONSTRUCTION. SOILS SHALL NOT EXHIBIT SIGNIFICANT SHRINK/SWELL OR DISPERSIVE CHARACTERISTICS. THE ON-SITE GEOTECHNICAL ENGINEER SHALL APPROVE THE SOILS FOR PLACEMENT WITHIN THE BERM SECTION. THE GEOTECHNICAL ENGINEER SHALL ALSO SPECIFY THE METHODS TO BE USED FOR PLACEMENT OF FILL.
- IN ALL FILL AREAS OF THE BERM, A SOILS COMPACTION TEST SHALL BE CONDUCTED EACH 2,500 SQUARE FEET PER VERTICAL CUT OF FILL.
- 3. A KEY TRENCH IS TO BE PROVIDED IN ALL FILL AREAS. TRENCH TO EXTEND A MINIMUM OF TWO FEET BELOW EXISTING GRADE. THE MINIMUM BOTTOM WIDTH SHALL BE WIDE ENOUGH TO PERMIT OPERATION OF EXCAVATION AND COMPACTION EQUIPMENT, BUT IN NO CASE SHALL BE LESS THAN 2' WIDE. CONTRACTOR SHALL CONFIRM KEY TRENCH DEPTH AND WIDTH WITH THE ON-SITE GEOTECHNICAL ENGINEER. SOILS AND COMPACTION FOR KEY TRENCH SHALL MEET ALL REQUIREMENTS OF #1 ABOVE.
- 4. FILL PLACEMENT SHALL NOT EXCEED A MAXIMUM OF 8" LIFTS. EACH LIFT SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF EMBANKMENT. BEFORE PLACEMENT OF FILL FOR THE BERM SECTION, ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND THE SURFACE PROPERLY PREPARED FOR FILL PLACEMENT.
- 5. NO TREES OF ANY TYPE MAY BE LOCATED ON THE BERM SECTION.
- 6. SIDE SLOPES SHALL BE LINED WITH NAG S75, OR APPROVED EQUAL.
- INSTALL ANTI-SEEP COLLAR AT MIDPOINT OF OUTLET PIPE. CONCRETE SHALL BE 3,000 PSI (28 DAYS) AND REINFORCED WITH #4
 REBAR 12" O.C. EACH WAY AND SHALL EXTEND AT LEAST 8" AROUND ALL SIDES OF PIPE. MINIMUM BEARING CAPACITY BENEATH
 COLLAR SHALL BE 2,000 PSF.

STORMWATER WETLAND MAINTENANCE NOTES

- 1. THE LANDSCAPE PROFESSIONAL MANAGING THE WETLAND MUST UNDERSTAND THE BIOLOGICAL REQUIREMENTS OF THE PLANTS AND MANAGE WATER LEVELS APPROPRIATELY TO PROVIDE FOR THEIR NEEDS.
- 2. ALTHOUGH WETLAND PLANTS REQUIRE WATER FOR GROWTH AND REPRODUCTION, THEY CAN BE KILLED BY DROWNING IN EXCESSIVELY DEEP WATER. USUALLY, INITIAL GROWTH IS BEST WITH TRANSPLANTED PLANTS IN WET, WELL-AERATED SOIL. OCCASIONAL INUNDATION FOLLOWED BY EXPOSURE TO AIR OF THE MAJORITY OF THE VEGETATION ENABLES THE PLANTS TO OBTAIN OXYGEN AND GROW OPTIMALLY. CONVERSELY, FREQUENT SOIL SATURATION IS IMPORTANT FOR WETLAND PLANT SURVIVAL.
- 3. DRAMATIC SHIFTS CAN OCCUR AS PLANT SUCCESSION PROCEEDS. THE PLANT COMMUNITY REFLECTS MANAGEMENT AND CAN INDICATE PROBLEMS OR THE RESULTS OF IMPROVEMENTS. FOR EXAMPLE, A REQUIREMENT OF SUBMERGED AQUATIC PLANTS, SUCH AS PONDWEED (POTAMOGETON SPP.), IS LIGHT PENETRATION INTO THE WATER COLUMN. THE DISAPPEARANCE OF THESE PLANTS MAY INDICATE INADEQUATE WATER CLARITY. THE APPEARANCE OF INVASIVE SPECIES OR DEVELOPMENT OF A MONOCULTURE IS ALSO A SIGN OF A PROBLEM WITH THE AQUATIC/SOIL/VEGETATIVE REQUIREMENTS. FOR INSTANCE, MANY INVASIVE SPECIES CAN QUICKLY SPREAD AND TAKE OVER A WETLAND. IF CATTAILS BECOME INVASIVE, THEY CAN BE REMOVED BY A LICENSED AQUATIC PESTICIDE APPLICATOR BY WIPING AQUATIC GLYPHOSATE, A SYSTEMIC HERBICIDE, ON THE CATTAILS.
- 4. UNLIKE MAINTENANCE REQUIREMENTS FOR WET OR DRY STORMWATER PONDS, SEDIMENT SHOULD ONLY BE SELECTIVELY REMOVED FROM STORMWATER WETLANDS, PRIMARILY FROM THE FOREBAY. SEDIMENT REMOVAL DISTURBS STABLE VEGETATION COVER AND DISRUPTS FLOWPATHS THROUGH THE WETLAND. THE TOP FEW INCHES OF SEDIMENT SHOULD BE STOCKPILED SO THAT IT CAN BE REPLACED OVER THE SURFACE OF THE WETLAND AFTER THE COMPLETION OF SEDIMENT REMOVAL TO RE-ESTABLISH THE VEGETATIVE COVER USING ITS OWN SEED BANK. ACCUMULATED SEDIMENT SHOULD BE REMOVED FROM AROUND INLET AND OUTLET STRUCTURES.
- 5. THE TOWN OF WAKE FOREST SHALL NOT BE RESPONSIBLE FOR ANY MAINTENANCE TO THE STORMWATER CONTROL MEASURES (SCMs).

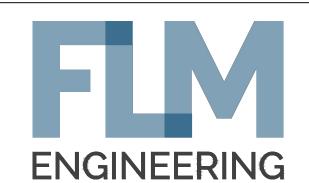
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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

CITY OF RALEIGH DEVELOPMENT APPROVAL ______RALEIGH WATER REVIEW OFFICER

ACCORDANCE WITH ALL TOWN OF ROLESVILLE, CITY OF RALEIGH AND WAKE COUNTY STANDARDS AND SPECIFICATIONS

ALL CONSTRUCTION SHALL BE IN



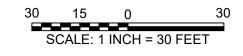
POST OFFICE BOX 91727 RALEIGH, NORTH CAROLINA 27675 PHONE: 919.610.1051 FIRM NC LICENSE NUMBER C-4222

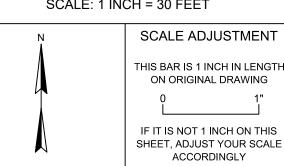


REVISION HISTORY

REV #	DESCRIPTION	DATE	BY
I			

ORIGINAL PLAN SIZE: 24" X 36"





SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

SCM DETAILS

C-7SHEET 7 OF 18

CALL 48 HOURS BEFORE

YOU DIG

NORTH CAROLINA

ONE-CALL CENTER

WAKE COUNTY CONSTRUCTION SEQUENCE

1. SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL CONSULTANT. OBTAIN A LAND-DISTURBING PERMIT.

DHASE

- 2. INSTALL GRAVEL CONSTRUCTION PADS, TEMPORARY DIVERSION, SILT FENCE, SKIMMER SEDIMENT BASIN OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS AND BASIN IMMEDIATELY AFTER CONSTRUCTION
- 3. CALL WAKE COUNTY FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT TO OBTAIN A CERTIFICATE OF COMPLIANCE.
- 4. BEGIN DEMOLITION, CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED.
- 5. BEGIN ROUGH GRADING.

DUASE 2

- 6. INSTALL STORM SEWER AND PROTECT INLETS WITH INLET PROTECTION, OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN.
- 7. ONCE STORM SEWER IS INSTALLED AND DIRECTING RUNOFF TO BASIN, INSTALL RETAINING IN BASIN.
- 8. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
- 9. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL WAKE COUNTY FOR AN INSPECTION BY THE ENVIRONMENTAL CONSULTANT.

PHASE 3 (SEE GRADING & DRAINAGE PLAN, SHEET C-6)

- 10. IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, ETC., AND SEED OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS. SHOULD NOW BE INSTALLED.
- 11. UPON STABILIZATION OF THE ENTIRE DISTURBED AREA, CONVERT SKIMMER BASIN TO STORMWATER WETLAND AS SHOWN ON THE APPROVED PLANS.
- 12. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT. OBTAIN A CERTIFICATE OF COMPLETION.

EROSION CONTROL NOTES

- 1. ALL LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH WAKE COUNTY AND NCDEQ STANDARDS.
- 2. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED IN PROPER WORKING CONDITION DURING THE PERIOD OF CONSTRUCTION.
- 3. ADDITIONAL EROSION CONTROL MEASURES AND/OR MODIFICATIONS TO PROPOSED MEASURES MAY BE NECESSARY DEPENDING ON ACTUAL SITE CONDITIONS.

4. THE TOTAL DISTURBED AREA IS 4.33 ACRE.

- 5. SILT FENCE OUTLETS TO BE PLACED AS SHOWN AND AT LOW POINTS ALONG SILT FENCE AS NECESSARY.
- 6. SEE EROSION CONTROL CALCULATIONS ON SHEET C-2.
- 7. SKIMMER BASIN GRADES SHOWN ARE 2H:1V UNLESS OTHERWISE NOTED.
- 8. CONTRACTOR SHALL ESTABLISH GROUND COVER IMMEDIATELY AFTER DISTURBANCE DURING CONSTRUCTION OF PERMANENT SWALES.
- 9. PROVIDE STABLE TRANSITION AT TEMPORARY DIVERSION ENTRANCES TO BASIN LINE SLOPE AT ENTRANCE WITH 12" ROCK RIPRAP.

10.RIPRAP ENERGY DISSIPATOR DIMENSIONS SHOWN ON DETAIL SHEET C-15.

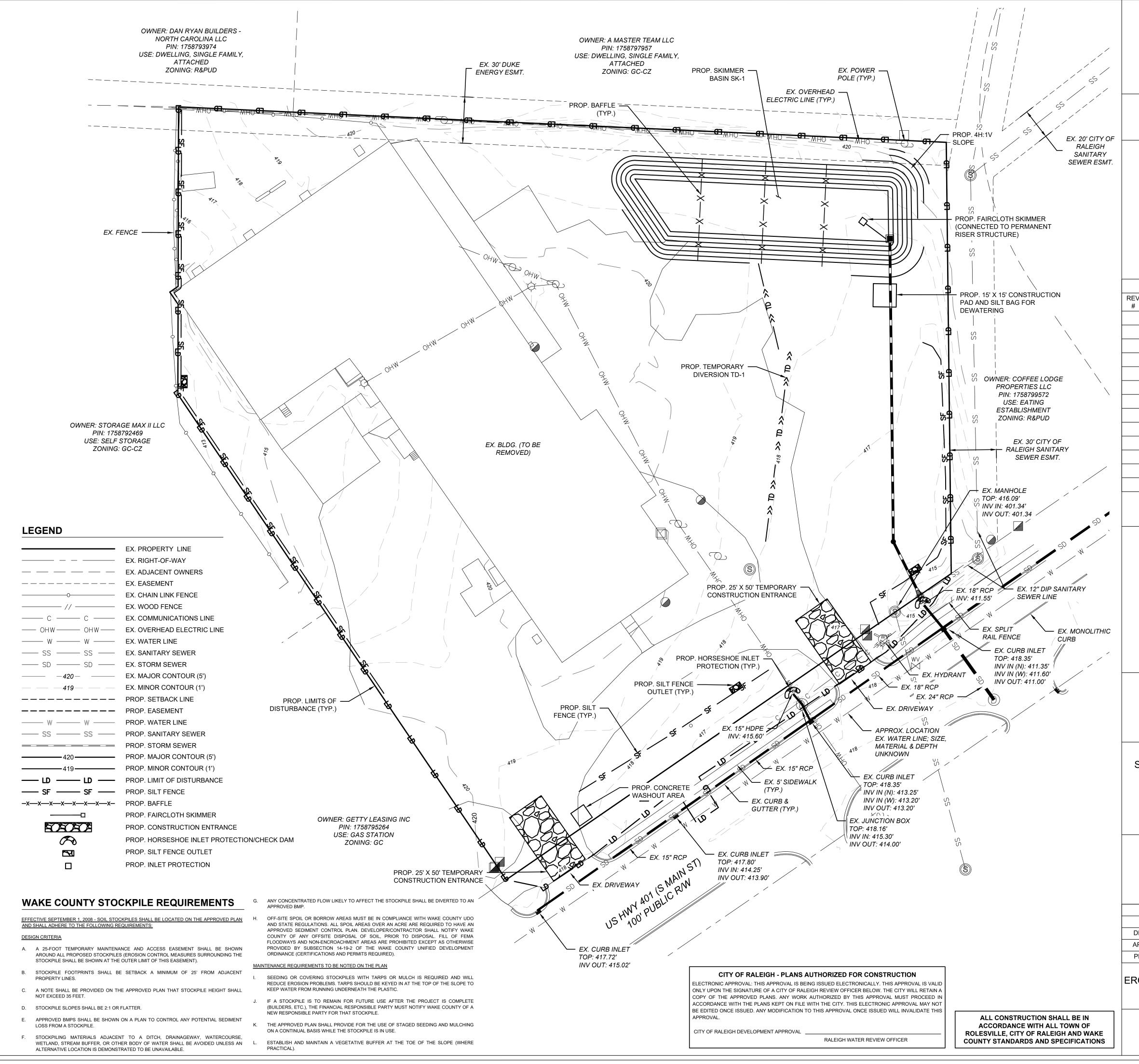
- 11. DISTURBED AREAS TO BE STABILIZED AND GROUND COVER SHOULD BE ACHIEVED WITHIN 7 WORKING DAYS FOLLOWING COMPLETION OF DEVELOPMENT, PER THE NPDES CONSTRUCTION STORMWATER GENERAL
- 12. SEE DETAIL SHEETS C-14 AND C-15 FOR EROSION AND SEDIMENT CONTROL MAINTENANCE REQUIREMENTS.

BASIN CONVERSION SEQUENCE:

- SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL ENGINEER / CONSULTANT TO DETERMINE IF A BASIN CAN BE CONVERTED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO CONVERSION OF THE BASIN.
- 2. DEWATER BASIN(S) VIA SILT BAG. REMOVE ACCUMULATED SEDIMENT. FINE GRADE WETLAND IN PREPARATION FOR PLANTING.
- 3. PERFORM PLANTING PREPARATION, PLANT/SEED, MULCH AND ASPHALT TACK ANY RESULTING BARE AREAS IMMEDIATELY.
- 4. INSTALL VELOCITY DISSIPATORS AS REQUIRED ON THE EROSION CONTROL
- 5. WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL ENGINEER / CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVISE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION.



1-800-632-4949



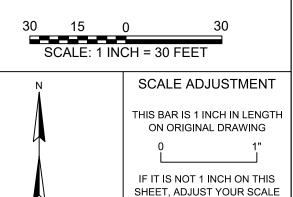
POST OFFICE BOX 91727 RALEIGH, NORTH CAROLINA 27675 PHONE: 919.610.1051 FIRM NC LICENSE NUMBER C-4222



REVISION HISTORY

REV #	DESCRIPTION	DATE	BY
	ORIGINAL PLAN SIZE:	24" X 36"	

ORIGINAL FLAN SIZE. 24 X 30



ACCORDINGLY

SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

EROSION & SEDIMENT CONTROL PLAN - PHASE 1



WAKE COUNTY CONSTRUCTION SEQUENCE

1. SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL CONSULTANT. OBTAIN A LAND-DISTURBING PERMIT.

PHASE

- 2. INSTALL GRAVEL CONSTRUCTION PADS, TEMPORARY DIVERSION, SILT FENCE, SKIMMER SEDIMENT BASIN OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS AND BASIN IMMEDIATELY AFTER CONSTRUCTION.
- 3. CALL WAKE COUNTY FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT TO OBTAIN A CERTIFICATE OF COMPLIANCE.
- 4. BEGIN DEMOLITION, CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED.
- 5. BEGIN ROUGH GRADING.

PHASE 2

- 6. INSTALL STORM SEWER AND PROTECT INLETS WITH INLET PROTECTION, OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN.
- 7. ONCE STORM SEWER IS INSTALLED AND DIRECTING RUNOFF TO BASIN, INSTALL RETAINING IN BASIN.
- 8. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
- 9. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL WAKE COUNTY FOR AN INSPECTION BY THE ENVIRONMENTAL CONSULTANT.

PHASE 3 (SEE GRADING & DRAINAGE PLAN, SHEET C-6)

- 10. IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, ETC., AND SEED OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
- 11. UPON STABILIZATION OF THE ENTIRE DISTURBED AREA, CONVERT SKIMMER BASIN TO STORMWATER WETLAND AS SHOWN ON THE APPROVED PLANS.
- 12. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT. OBTAIN A CERTIFICATE OF COMPLETION.

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- 6. SEE EROSION CONTROL CALCULATIONS ON SHEET C-2.
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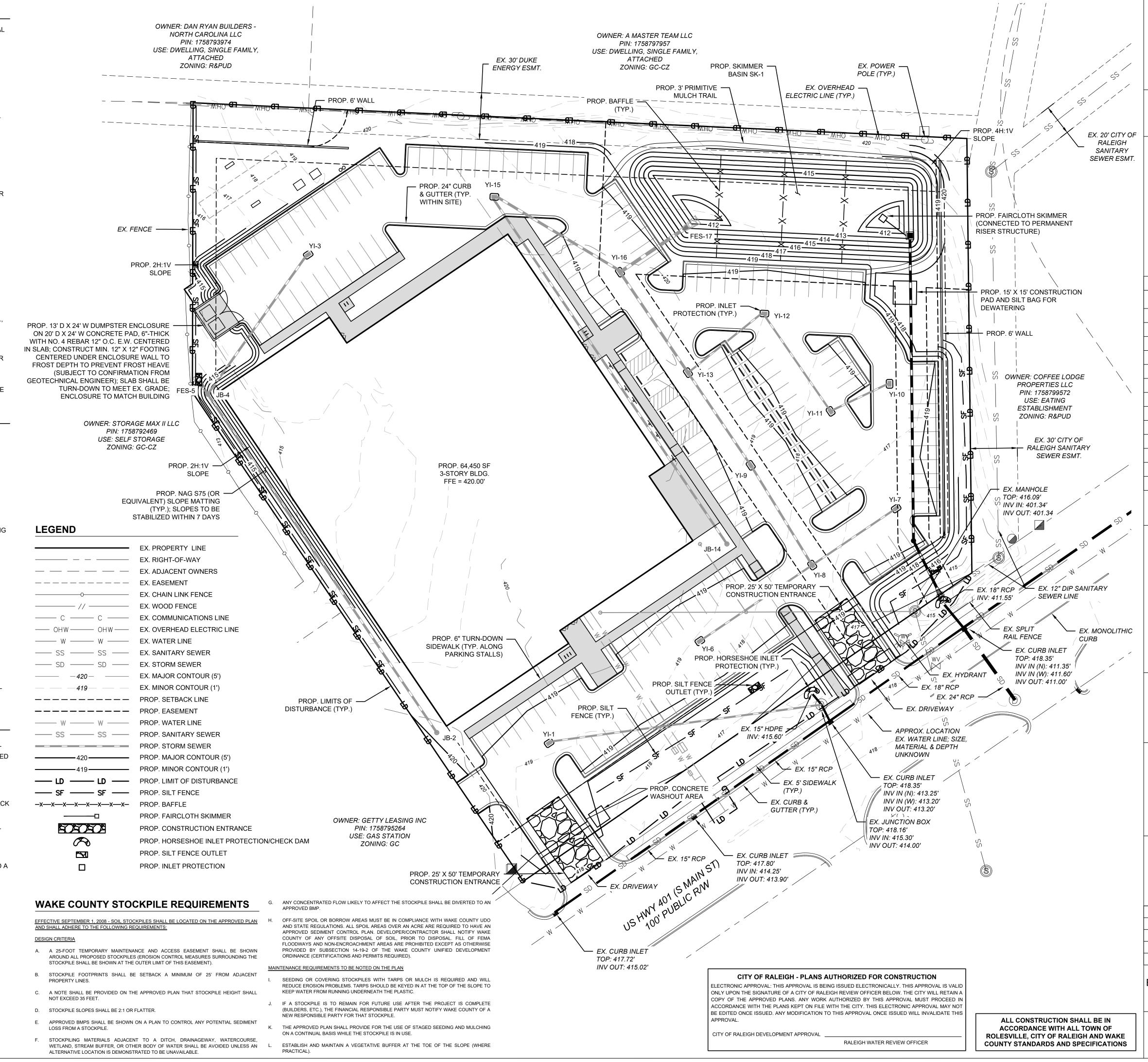
10.RIPRAP ENERGY DISSIPATOR DIMENSIONS SHOWN ON DETAIL SHEET C-15.

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- 12. SEE DETAIL SHEETS C-14 AND C-15 FOR EROSION AND SEDIMENT CONTROL MAINTENANCE REQUIREMENTS.

BASIN CONVERSION SEQUENCE:

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 FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED
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- 3. PERFORM PLANTING PREPARATION, PLANT/SEED, MULCH AND ASPHALT TACK ANY RESULTING BARE AREAS IMMEDIATELY.
- 4. INSTALL VELOCITY DISSIPATORS AS REQUIRED ON THE EROSION CONTROL
- 5. WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL ENGINEER / CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVISE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION.







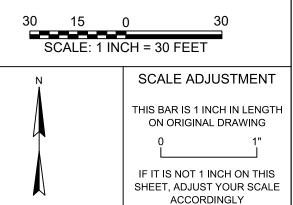
POST OFFICE BOX 91727 RALEIGH, NORTH CAROLINA 27675 PHONE: 919.610.1051 FIRM NC LICENSE NUMBER C-4222



REVISION HISTORY

REV #	DESCRIPTION	DATE	BY
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ORIGINAL PLAN SIZE: 24" X 36"



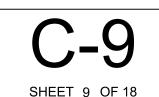
SITE CONSTRUCTION PLANS

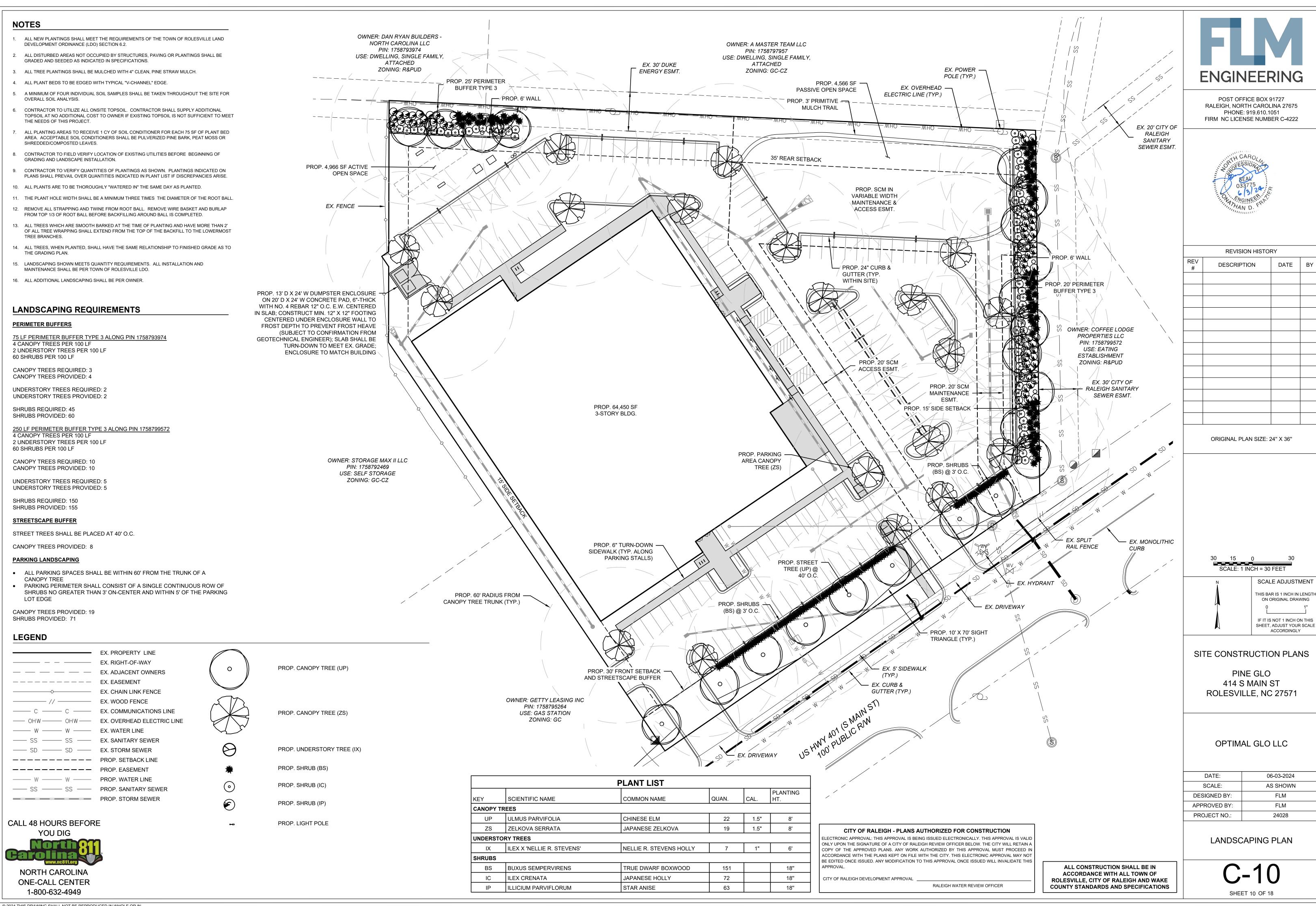
PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

EROSION & SEDIMENT CONTROL PLAN - PHASE 2





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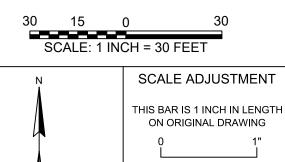
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REVISION HISTORY

REV #	DESCRIPTION	DATE	BY



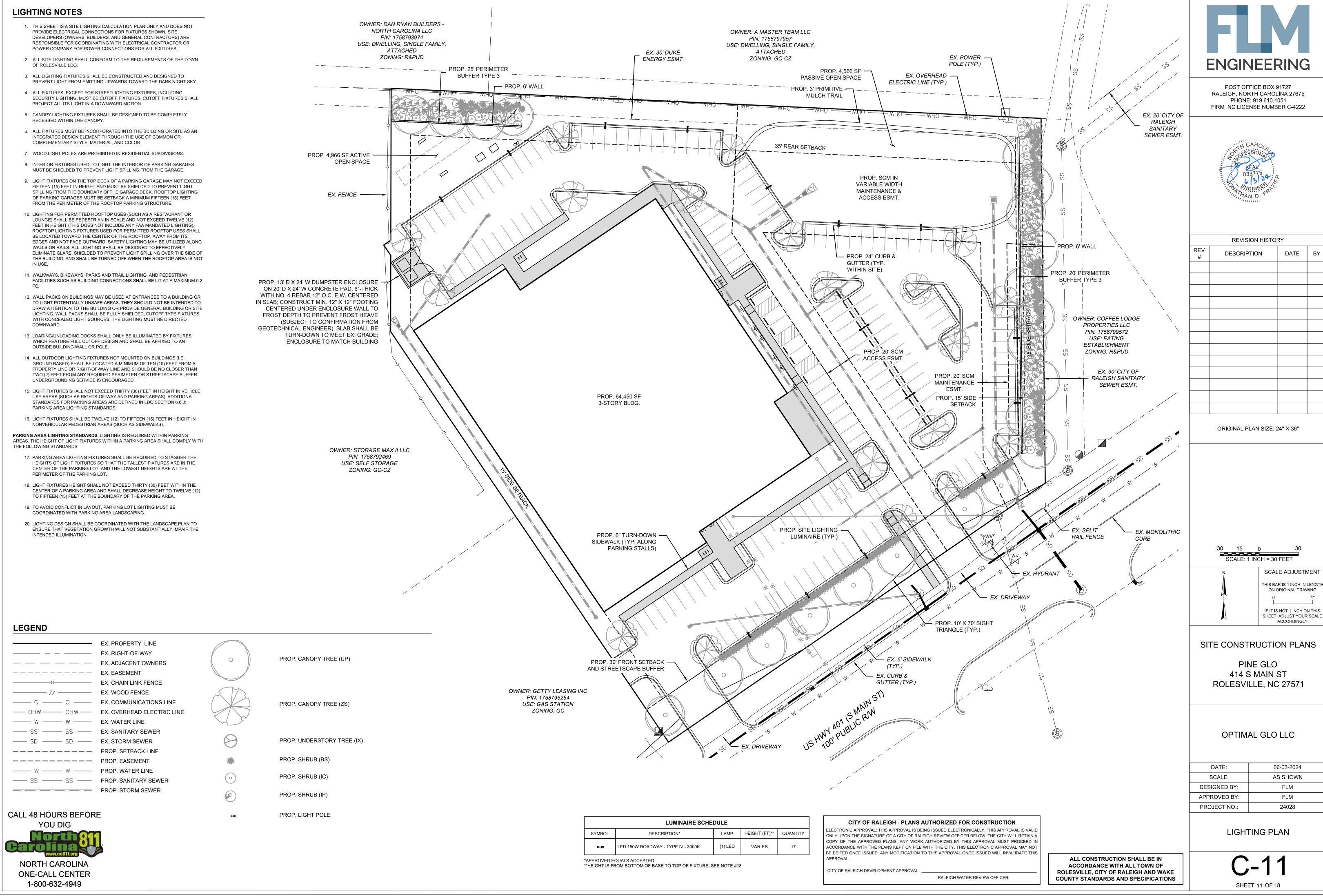
SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

LANDSCAPING PLAN



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REVISION HISTORY

REV #	DESCRIPTION	DATE	ВУ

ORIGINAL PLAN SIZE: 24" X 36"

SCALE: 1 INCH = 30 FEET SCALE ADJUSTMENT THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

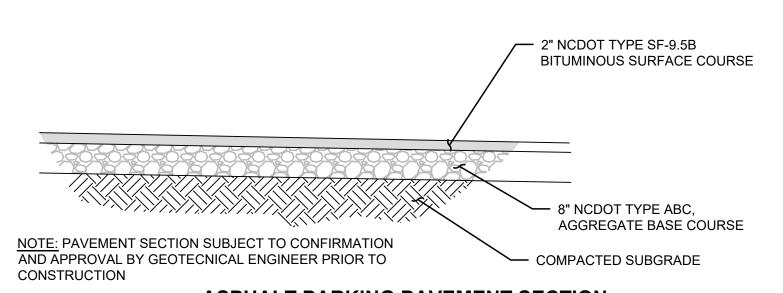
SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

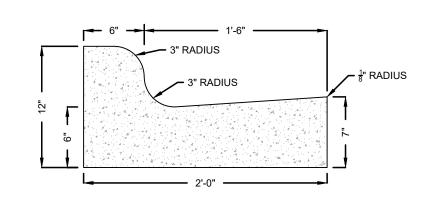
DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

LIGHTING PLAN



ASPHALT PARKING PAVEMENT SECTION

NO SCALE

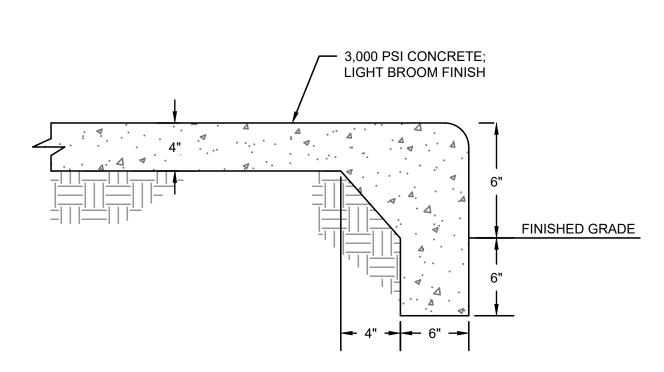


24" STANDARD CURB AND GUTTER

- 1. CONCRETE SHALL BE 3,000 PSI. 2. CONTRACTION JOINTS SHALL BE SPACED AT 10' INTERVALS OR 15' INTERVALS WHEN A
- MACHINE IS USED. 3. EXPANSION JOINTS SHALL BE SPACED AT 50' INTERVALS.
- 4. FINISH ALL CONCRETE WITH CURING COMPOUND.

5. FOLLOW ALL APPLICABLE ACI REQUIRMENTS. **CONCRETE CURB & GUTTER**

NO SCALE



TURNDOWN SIDEWALK

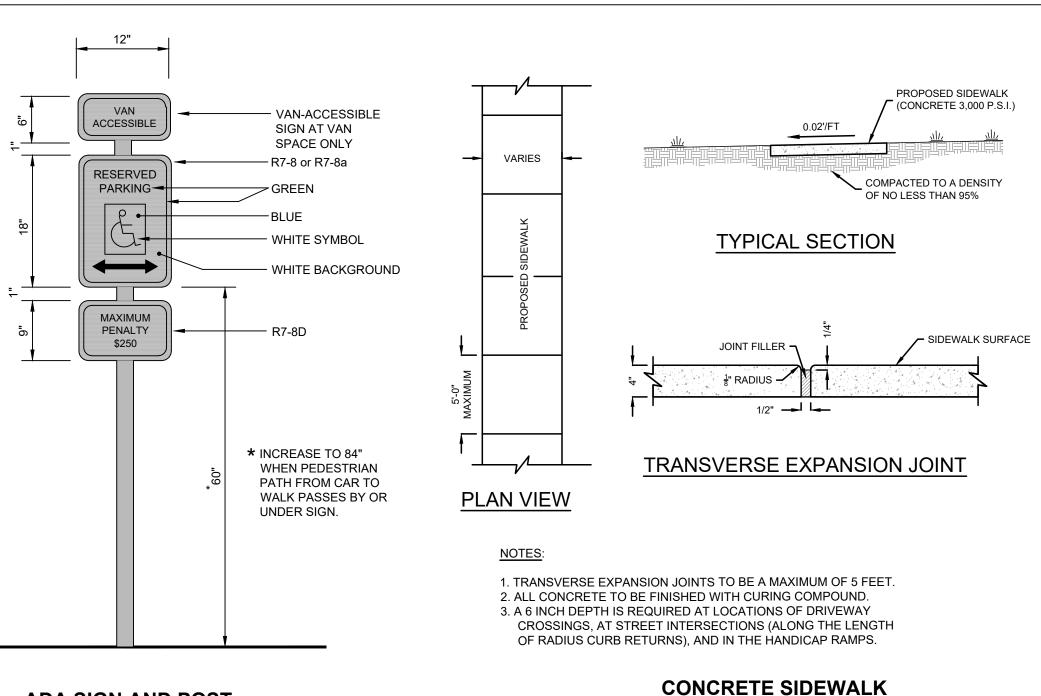
ALLOW THIN LAYER OF SOIL TO COVER BALL ROOT BALL TO BE 1/3 - 1/2 ABOVE EXISTING GRADE TWICE RADIUS OF BALL BASED ON SOIL DRAINAGE — IMPORTED TOP 2" MINIMUM SOIL PINE STRAW OR BARK PEEL BACK BURLAP ON B&B SHRUBS

- 1. ALL SHRUB/EVERGREEN BEDS SHALL BE RAISED 6" 8" ABOVE ADJACENT GRADE, AND TILLED WITH SOIL CONDITIONER.
- 2. ALL SHRUB/EVERGREEN BEDS IN PARKING ISLANDS ONLY SHALL BE RAISED 12" ABOVE ADJACENT GRADE AND TILLED WITH SOIL CONDITIONER.

TYP. SHRUB/EVERGREEN PLANTING DETAIL

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ADA SIGN AND POST NO SCALE

1-Loop Wave Style Bike Rack - 3 Bike Capacity, Black

business districts.



Q, More Images

BACKFILL 1 PART

COMPOSTED BARK WITH 5

PARTS EXISTING SOIL

COMPACT BACKFILL

IN BOTTOM OF HOLE

 For stadiums, parks and athletic fields. 10-gauge steel with attractive powder coating. 2 3/8" diameter bar. Mounting hardware included.

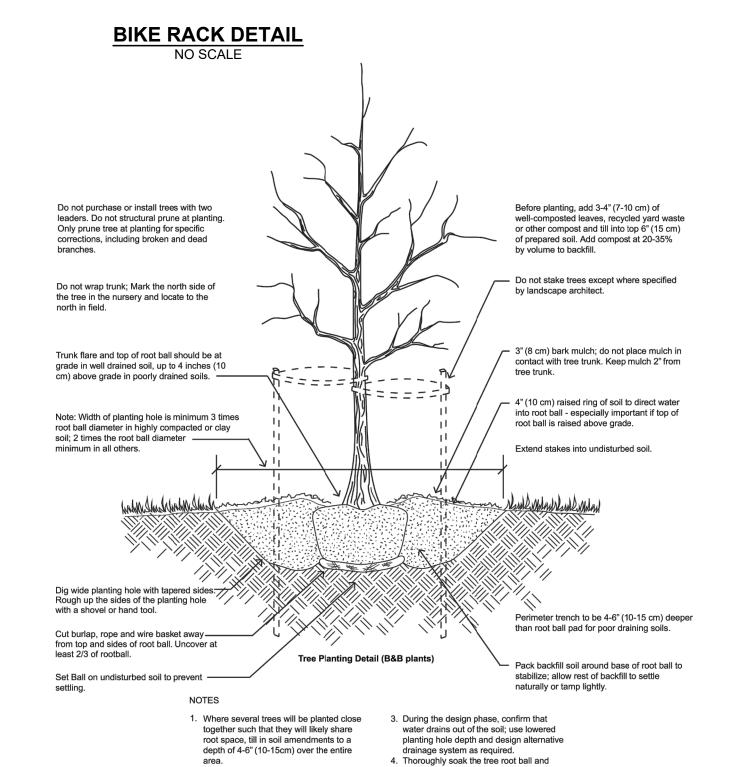
Upscale stylish look for downtown shopping and

							SPECIFY	COLOR:
MODEL NO.	DESCRIPTION	SIZE L x W x H	BIKE CAPACITY	WT.	PRICE 1	EACH 3+	COLOR	IN STOCK SHIPS TODAY
H-2892BL	1-Loop	22 x 2 ¹ / ₂ x 34"	3	27	\$230	\$220	■ Black ▼	1 ADD

SEAL 1/2" DEEP HOLE W/ MORTAR 2-#3 REBARS

NO SCALE

PRE-CAST CONCRETE WHEEL STOP DETAIL



TREE PLANTING DETAIL

adjacent prepared soil several times during

the first month after planting and regularly

throughout the following two summers.

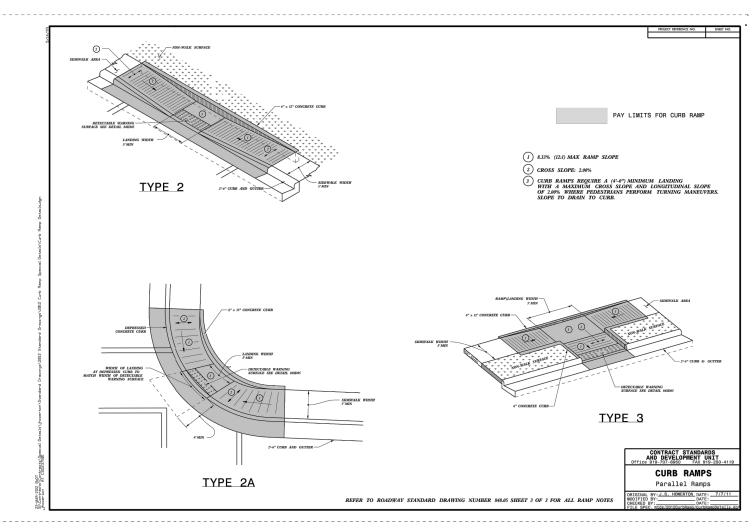
The planting process is similar for

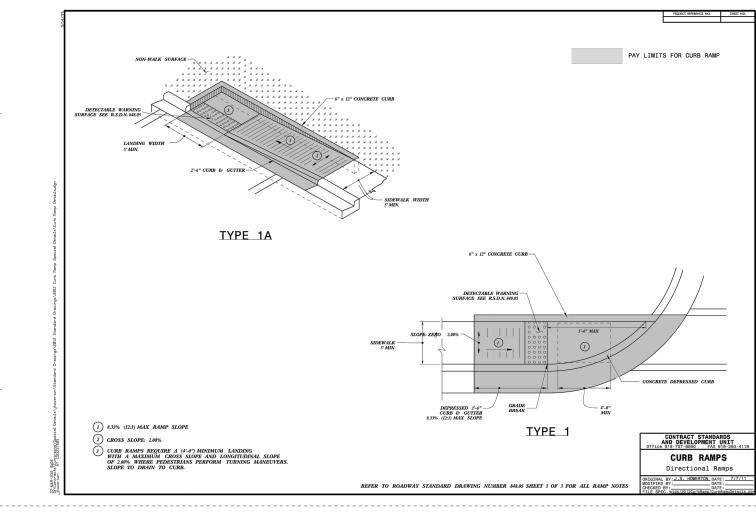
2. For container grown trees, use fingers or

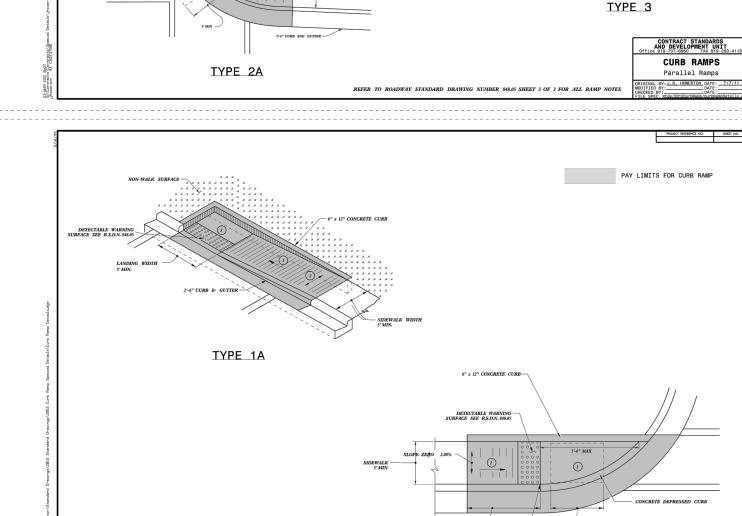
small hand tools to pull the roots out of the

outer layer of potting soil; then cut or pull

apart any roots circling the perimeter of the





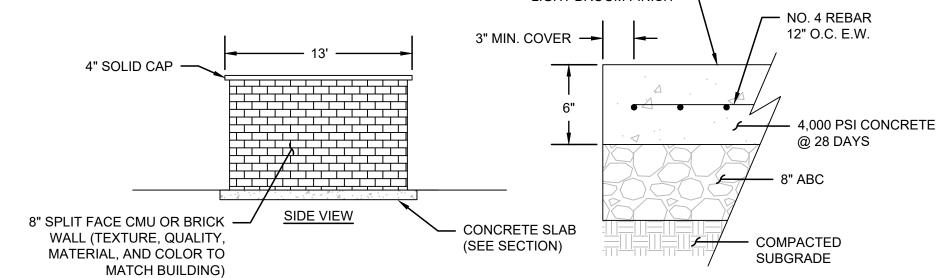


QUALITY, MATERIAL, AND COLOR TO MATCH BUILDING) - HEAVY DUTY HINGES - CONCRETE SLAB (SEE SECTION) SUPPORT WHEEL FRONT VIEW LIGHT BROOM FINISH -NO. 4 REBAR 12" O.C. E.W. 3" MIN. COVER --

- OPAQUE ENCLOSURE DOOR; INSTALL SUPPORT WHEEL AT BASE AS NECESSARY (TEXTURE, QUALITY, MATERIAL, AND COLOR TO

- 8" SPLIT FACE CMU OR BRICK WALL (TEXTURE,

MATCH BUILDING)



DUMPSTER SLAB AND ENCLOSURE

NO SCALE

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.

MIN. HEIGHT 6' (MUST —

FROM VIEW)

SCREEN DUMPSTER

CONSTRUCT MIN. 12" X 12" FOOTING —

CENTERED UNDER ENCLOSURE

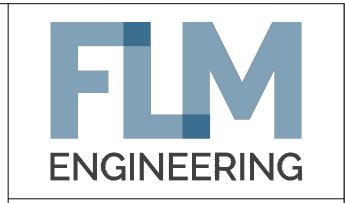
WALL TO FROST DEPTH TO

PREVENT FROST HEAVE

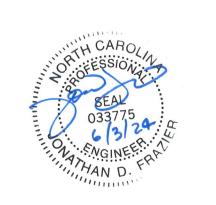
CITY OF RALEIGH DEVELOPMENT APPROVAL RALEIGH WATER REVIEW OFFICER

ALL CONSTRUCTION SHALL BE IN **ACCORDANCE WITH ALL TOWN OF** ROLESVILLE, CITY OF RALEIGH AND WAKE

SLAB SECTION



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	REVISION HISTOR	RY	
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ORIGINAL PLAN SIZE: 24" X 36"

SCALE ADJUSTMENT THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING IF IT IS NOT 1 INCH ON THIS SHEET, ADJUST YOUR SCALE

ACCORDINGLY

SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

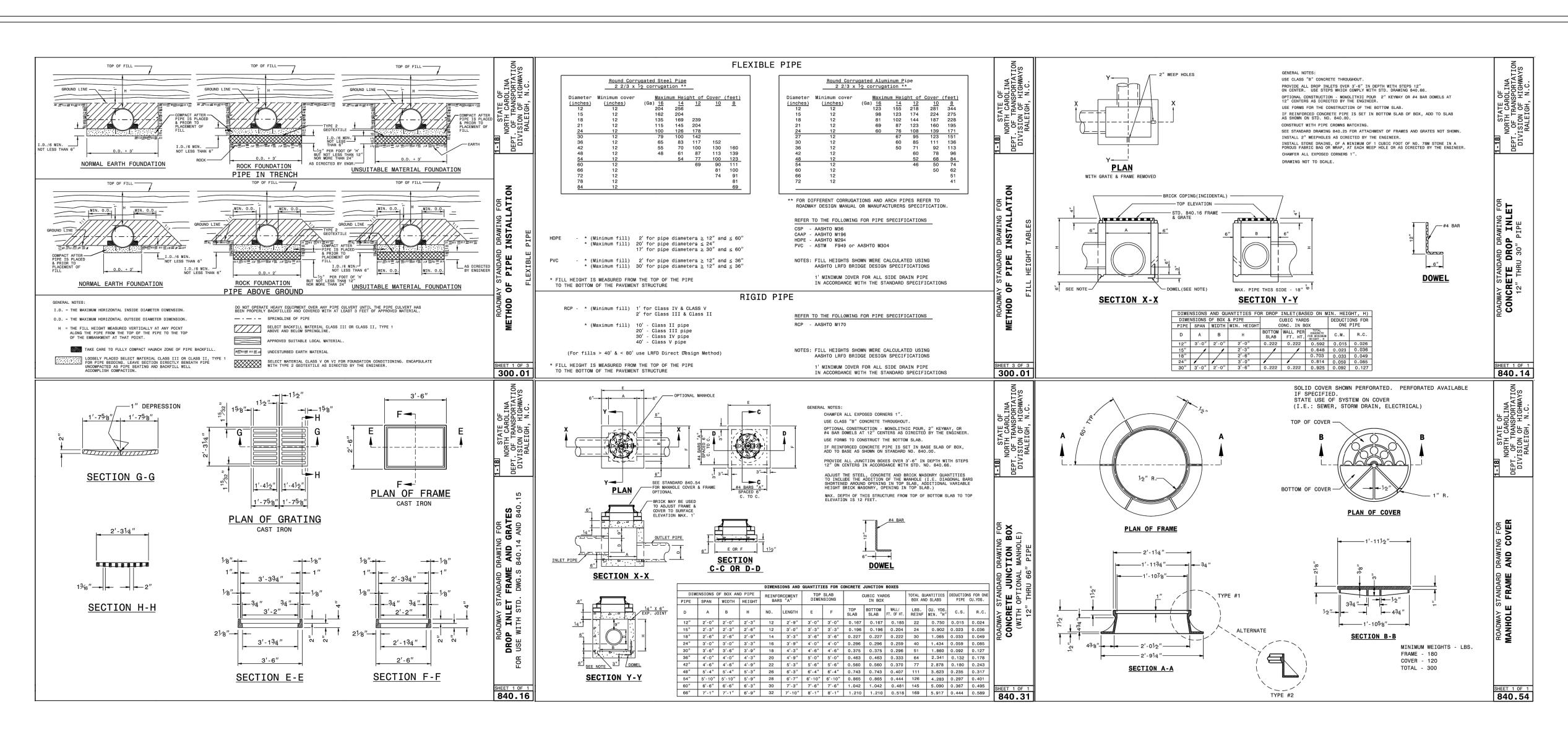
DATE:	06-03-2024
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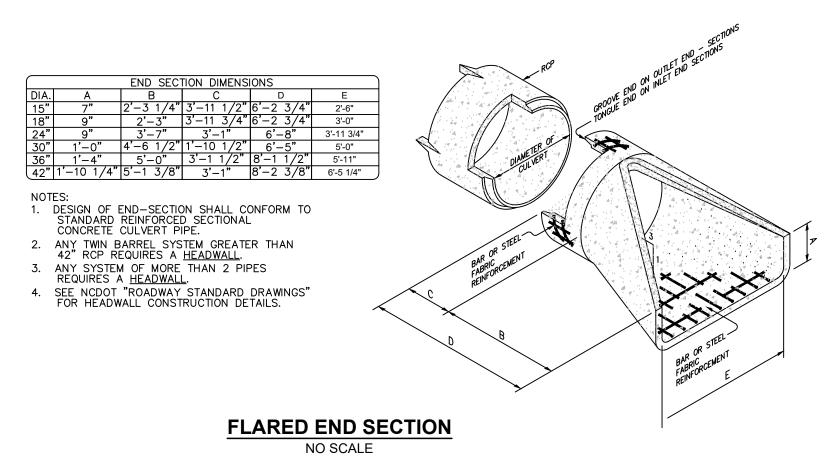
SITE DETAILS

SHEET 12 OF 18

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COUNTY STANDARDS AND SPECIFICATIONS





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CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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CITY OF RALEIGH DEVELOPMENT APPROVAL ______RALEIGH WATER REVIEW OFFICER

ACCORDANCE WITH ALL TOWN OF ROLESVILLE, CITY OF RALEIGH AND WAKE COUNTY STANDARDS AND SPECIFICATIONS

ALL CONSTRUCTION SHALL BE IN



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ORIGINAL PLAN SIZE: 24" X 36"

SCALE ADJUSTMENT

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ON ORIGINAL DRAWING

0 1"

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SITE CONSTRUCTION PLANS

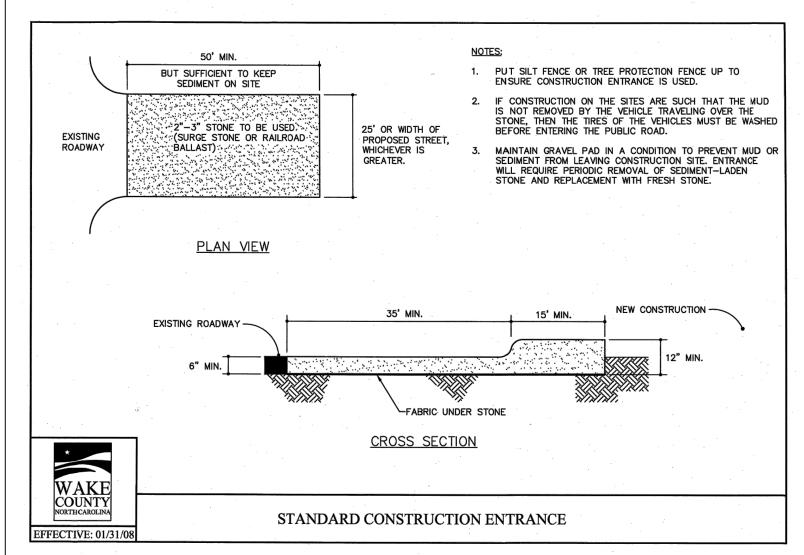
PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

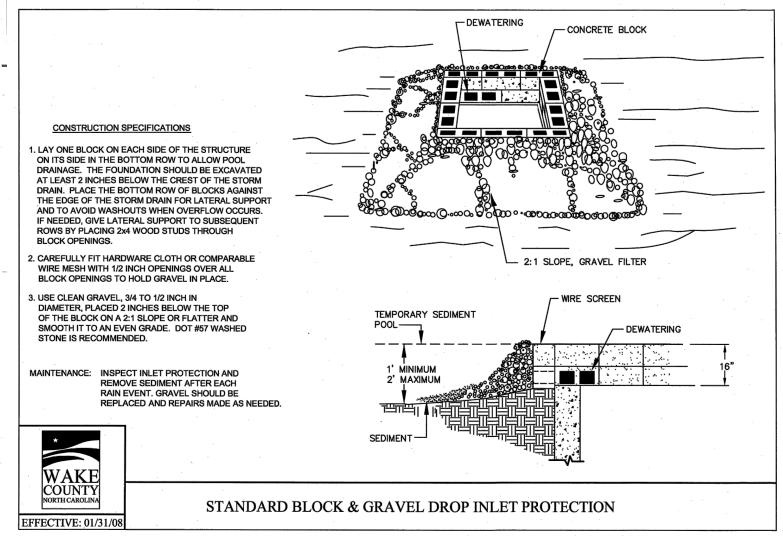
OPTIMAL GLO LLC

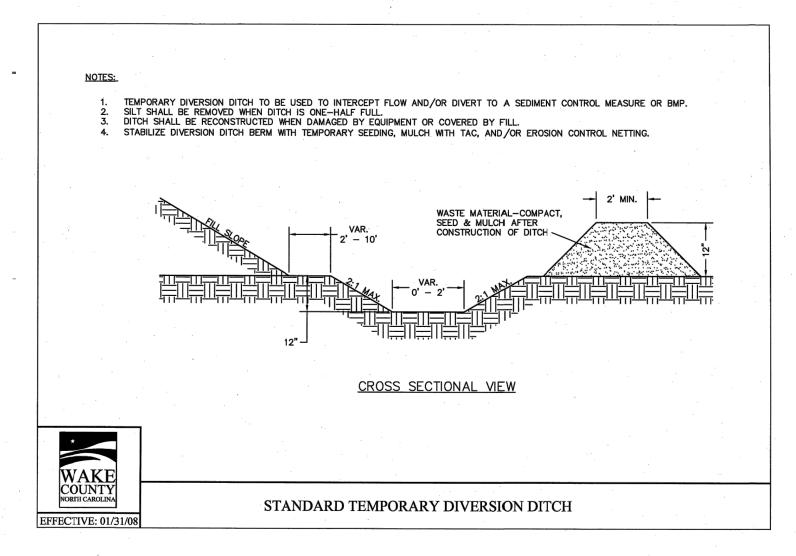
DATE:		
	DATE:	06-03-2024
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	DESIGNED BY:	FLM
	APPROVED BY:	FLM
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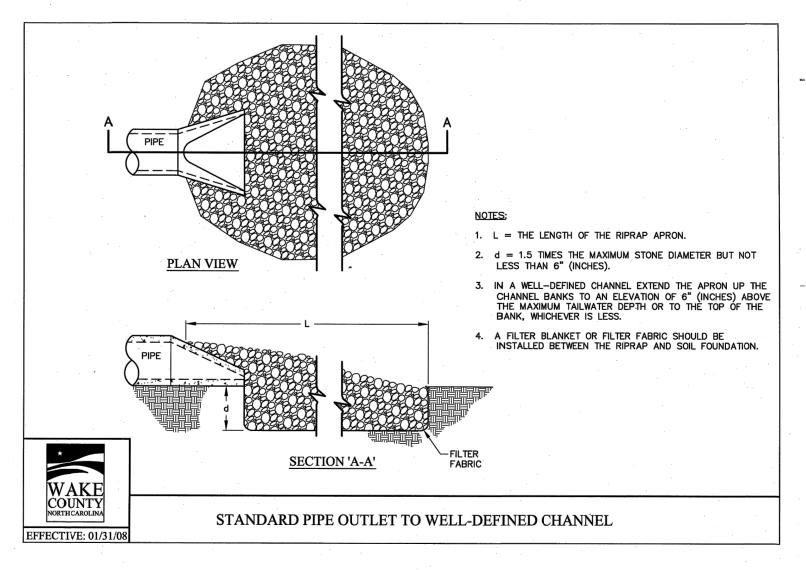
STORM DRAINAGE DETAILS

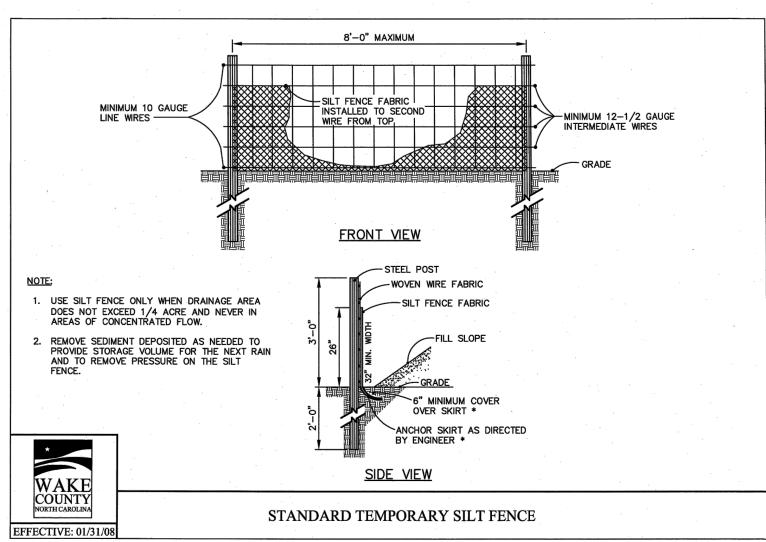
C-13
SHEET 13 OF 18

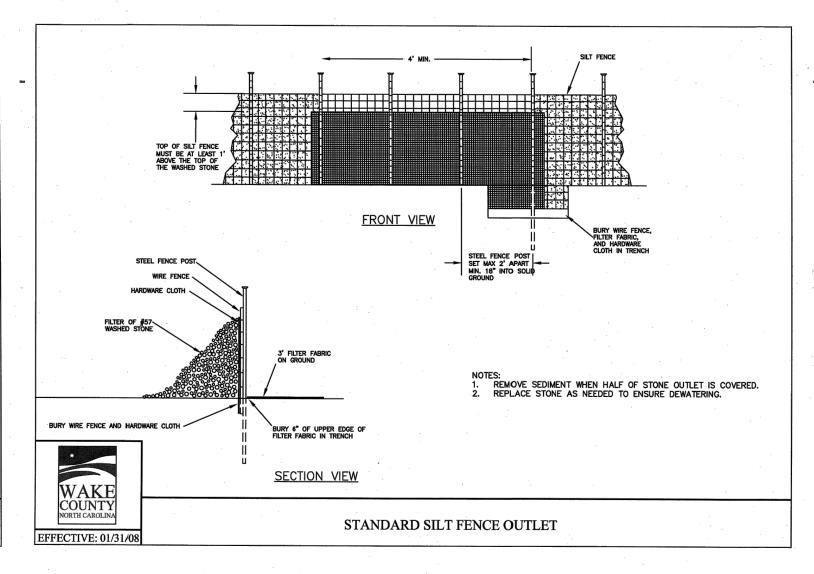


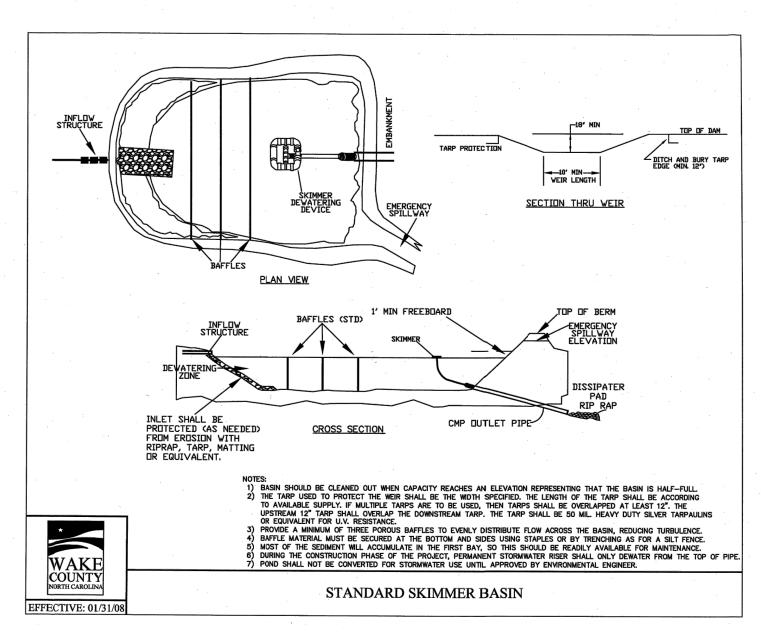


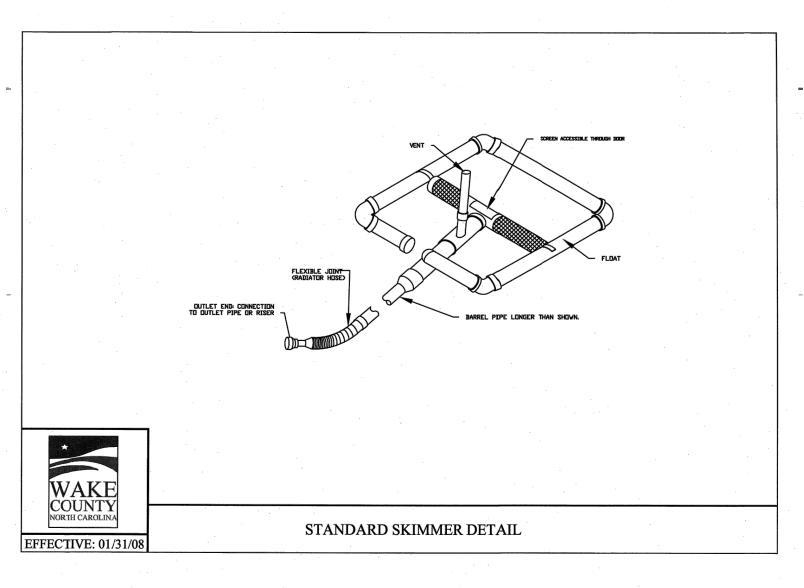


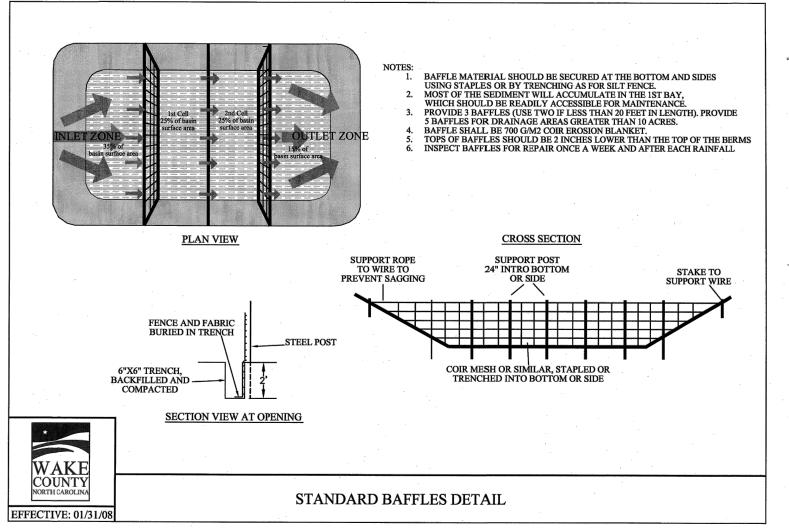












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COUNTY STANDARDS AND SPECIFICATIONS

ENGINEERING

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REVISION HISTORY

		• •	
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SCALE ADJUSTMENT

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L

IF IT IS NOT 1 INCH ON THIS
SHEET, ADJUST YOUR SCALE

ACCORDINGLY

SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

EROSION & SEDIMENT CONTROL DETAILS

C-14
SHEET 14 OF 18

FOR SHOULDERS, SIDE DITCHES, SLOPES (MAX 3:1):				
DATE	ТҮРЕ	PLANTING RATE		
AUG 15-NOV 1	TALL FESCUE	300 LBS/ACRE		
NOV 1-MAR 1	TALL FESCUE & ABRUZZI RYE	300 LBS/ACRE		
MAR 1-APR 15	TALL FESCUE	300 LBS/ACRE		
APR 15-JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE		
JUL 1-AUG 15 TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS *** TALL FESCUE AND BROWNTOP MILLET 125 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)				
VEGETATION. DO	RESEED ACCORDING TO OPTIMUM SEASOI NOT ALLOW TEMPORARY COVER TO GROV VISE, FESCUE MAY BE SHADED OUT.			

DATE	ТҮРЕ	PLANTING RATE
MAR 1 - JUN 1	SERICEA LESPEDEZA (SCARIFIED) AND USE THE FOLLOWING COMBINATIONS:	50 LBS/ACRE
MAR 1 - APR 15	ADD TALL FESCUE	120 LBS/ACRE
MAR 1 - JUN 30	OR ADD WEEPING LOVE GRASS	10 LBS/ACRE
MAR 1 - JUN 30	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUN 1 - SEPT 1	TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS ***	120 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)
SEPT 1 - MAR 1	SERICEA LESPEDEZA (UNHULLED - UNSCARIFIED) AND TALL FESCUE	70 LBS/ACRE (SERICEA LESPEDEZA); 120 LBS/ACRE (TALL FESCUE)
NOV 1 - MAR 1	AND ABRUZZI RYE	25 LBS/ACRE

MIXTURE				
AGRICULTURAL LIMESTONE	2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)			
FERTILIZER	1,000 LBS/ACRE - 10-10-10			
SUPERPHOSPHATE	500 LBS/ACRE - 20% ANALYSIS			
MULCH	2 TONS/ACRE - SMALL GRAIN STRAW			
ANCHOR	ASPHALT EMULSION AT 300 GALS/ACRE			

SEEDBED PREPARATION:

CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF

RIP THE ENTIRE AREA TO SIX INCHES DEEP.

- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND
- APPLY AGRICULTURAL LIME, FERTILIZER AN SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (*SEE BELOW).
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX
- SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.

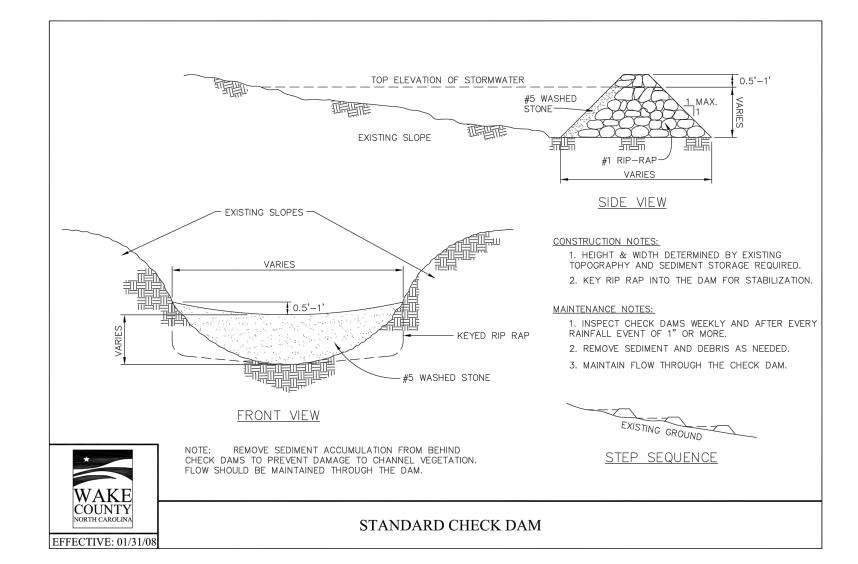
INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND

APPLY: AGRICULTURAL LIMESTONE- 2 TONS/ACRE MINIMUM OR PER SOIL TEST

FERTILIZER - 10-10-10 ANALYSIS @ 900 LBS/ACRE SUPERPHOSPHATE - 500 LBS/ACRE OF 20% ANALYSIS MULCH - 2 TONS (+/- 80 BALES) STRAW/ACRE ANCHOR - USE LIQUID ASPHALT @ 400 GALS/ACRE

OR EMULSIFIED ASPHALT @ 300 GALS/ACRE

PERMANENT SEEDING SCHEDULE



EARLY SPRING:

SEEDING MIXTURE: RYE (GRAIN) - 120 LB/ACRE

PIEDMONT: JAN. 1 - MAY 1

FOR SUMMER

COASTAL PLAIN: DEC. 1 - APR. 15

SEEDING DATES: MOUNTAINS: MAY 15 - AUG. 15

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY

TACKING WITH ASPHALT, NETTING, OR A MULCH

IT IS NECESSARY TO EXTEND TEMPORARY COVER

(PIEDMONT AND COASTAL PLAIN) OR KOREAN

BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE

(MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR EARLY

ANCHORING TOOL. A DISK WITH BLADES SET NEARLY

STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL

REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF

1,000 LB/ACRE 10-10-10 FERTILIZER

COASTAL PLAIN AND PIEDMONT: AUG. 15 - DEC. 30 APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY

LIMING - APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE PH (ACIDITY) OF THE SOIL IS NOT KNOWN, AN APPLICATION OF GROUND AGRICULTURAL LIMESTONE AT THE 6.106 RATE OF 1 TO 1 1/2

SUFFICIENT. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL. SOILS

FERTILIZER - BASE APPLICATION RATES ON SOIL TESTS. WHEN THESE ARE NOT POSSIBLE, APPLY A 10-10-10 GRADE FERTILIZER AT 700-1,000 LB/ACRE. BOTH FERTILIZER AND LIME SHOULD BE INCORPORATED INTO THE

TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN

RAKING, HARROWING, OR OTHER SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON

TEMPORARY SEEDING SCHEDULE

NO SCALE

SURFACE ROUGHENING - IF RECENT TILLAGE OPERATIONS HAVE RESULTED IN A LOOSE SURFACE, ADDITIONAL ROUGHENING MAY NOT BE REQUIRED, EXCEPT TO BREAK UP LARGE CLODS. IF RAINFALL CAUSES THE SURFACE TO BECOME SEALED OR CRUSTED. LOOSEN IT JUST PRIOR TO SEEDING BY DISKING

THE CONTOUR BEFORE SEEDING (PRACTICE 6.03, SURFACE ROUGHENING)

TONS/ACRE ON COARSE-TEXTURED SOILS AND 2-3 TONS/ACRE ON FINETEXTURED SOILS IS USUALLY

MAINTENANCE:

2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND

PIEDMONT: MAY 1 - AUG. 15 COASTAL PLAIN: APR. 15 - AUG. 15

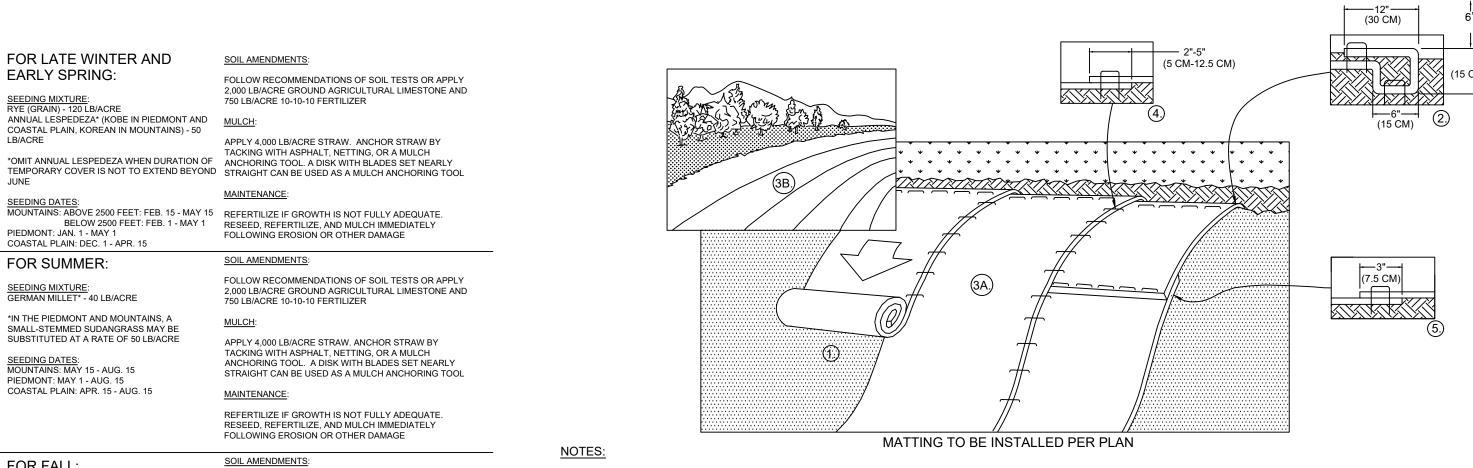
SEEDING MIXTURE: RYE (GRAIN) - 120 LB/ACRE

SEEDBED PREPARATION:

WITH A PH OF 6 OR HIGHER NEED NOT BE

30 MINUTES BEFORE APPLICATION

FOR FALL:



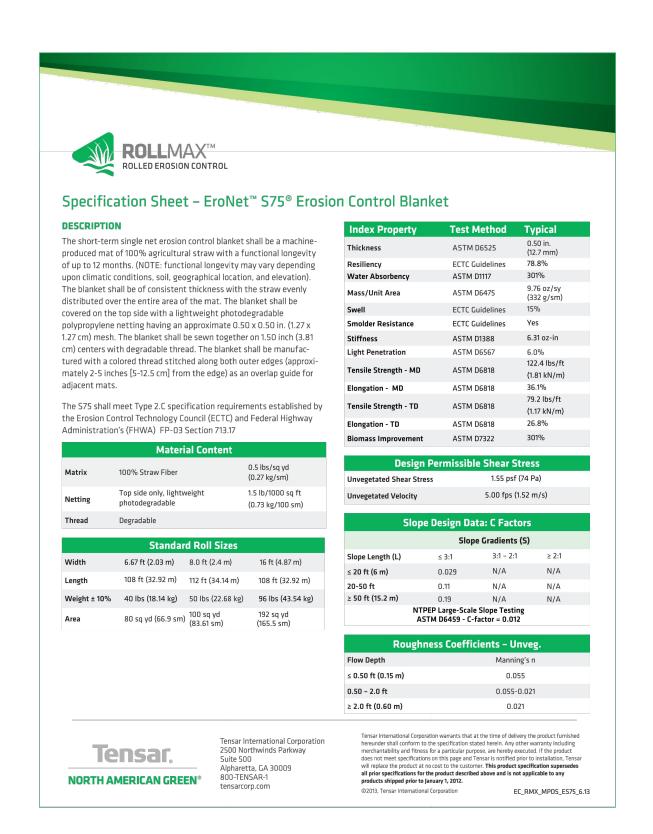
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING

- CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN. 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" 5" (5 CM 12.5 CM) OVERLAP DEPENDING ON BLANKET TYPE. 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE BLANKET WIDTH. NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

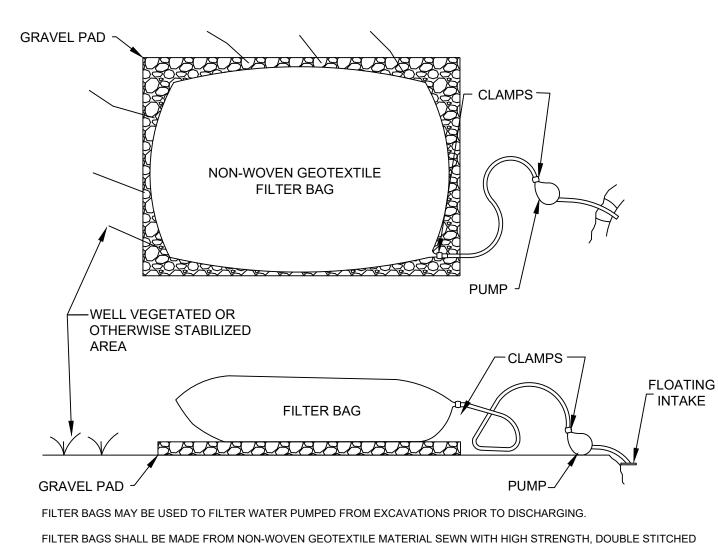
DETAIL AND LANGUAGE PROVIDED BY NORTH AMERICAN GREEN

REV. 1/2004

SLOPE INSTALLATION NO SCALE



SLOPE MATTING NO SCALE



"J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.

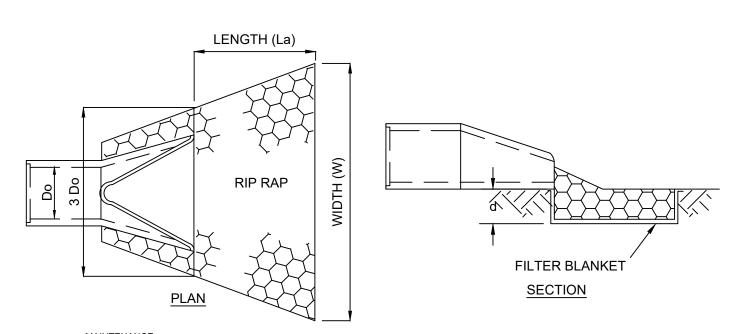
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREAS AND DISCHARGED ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE FILTER BAG IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME ½ FULL. SPARE REPLACEMENT BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE ½ FULL.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.



MAINTENANCE: INSPECT PIPE INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF THE STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

OUTLET	Do	3Do	La	W	RIP RAP	d
FES-5	18"	4.5'	6'	4.5'	CLASS A RIPRAP	9"
FES-17	24"	6'	8'	6'	CLASS A RIPRAP	9"
FES-SCM 1	18"	4.5'	6'	4.5'	CLASS A RIPRAP	9"

RIPRAP ENERGY DISSIPATOR



POST OFFICE BOX 91727 RALEIGH, NORTH CAROLINA 27675 PHONE: 919.610.1051 FIRM NC LICENSE NUMBER C-4222



REVISION HISTORY

#	DESCRIPTION	DATE	BY

ORIGINAL PLAN SIZE: 24" X 36"

SCALE ADJUSTMENT THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING IF IT IS NOT 1 INCH ON THIS SHEET, ADJUST YOUR SCALE

ACCORDINGLY

SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

EROSION & SEDIMENT CONTROL DETAILS

SHEET 15 OF 18

ALL CONSTRUCTION SHALL BE IN

ACCORDANCE WITH ALL TOWN OF

ROLESVILLE. CITY OF RALEIGH AND WAKE

COUNTY STANDARDS AND SPECIFICATIONS

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

CITY OF RALEIGH DEVELOPMENT APPROVAL RALEIGH WATER REVIEW OFFICER

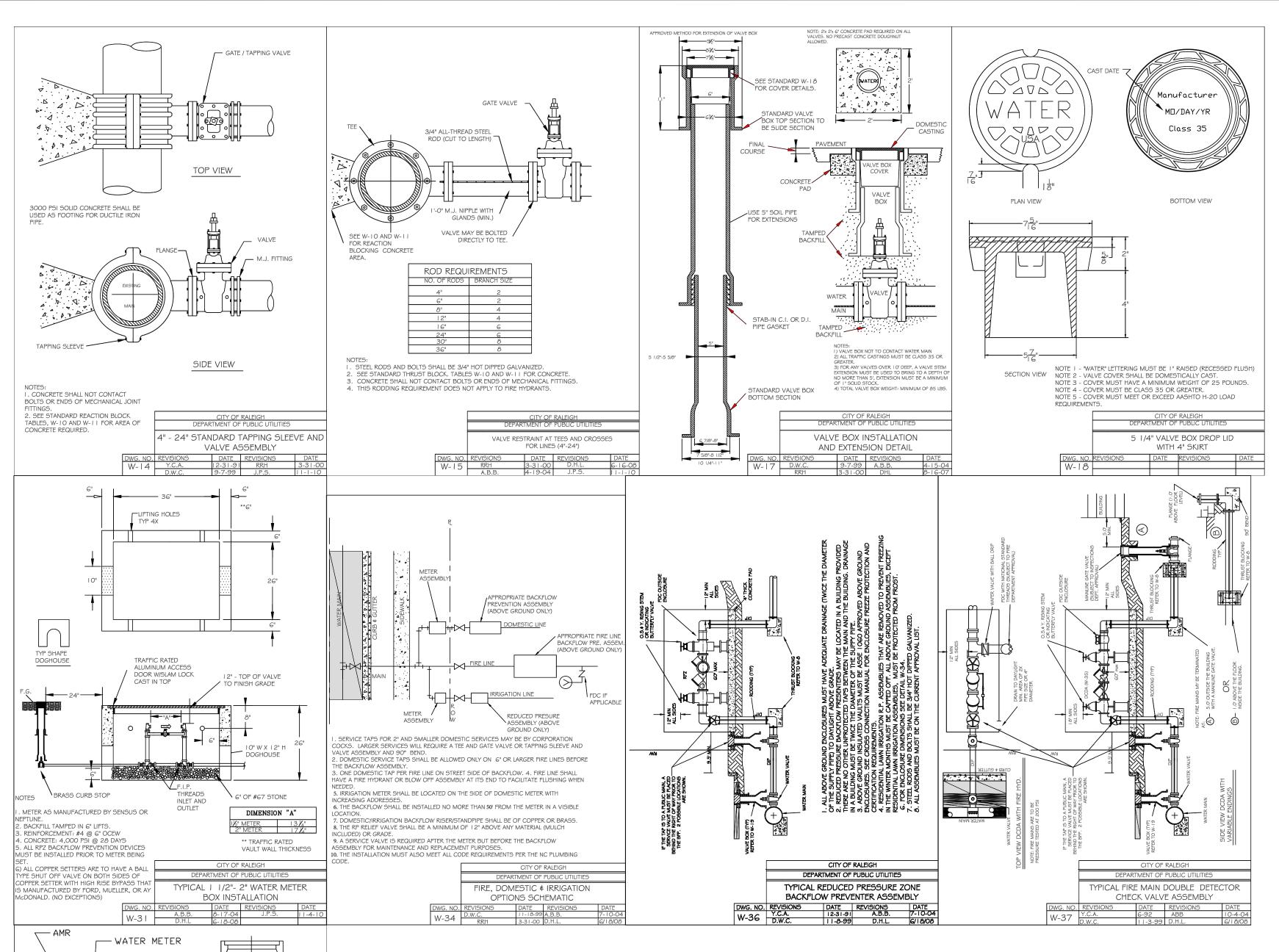
APPROVAL

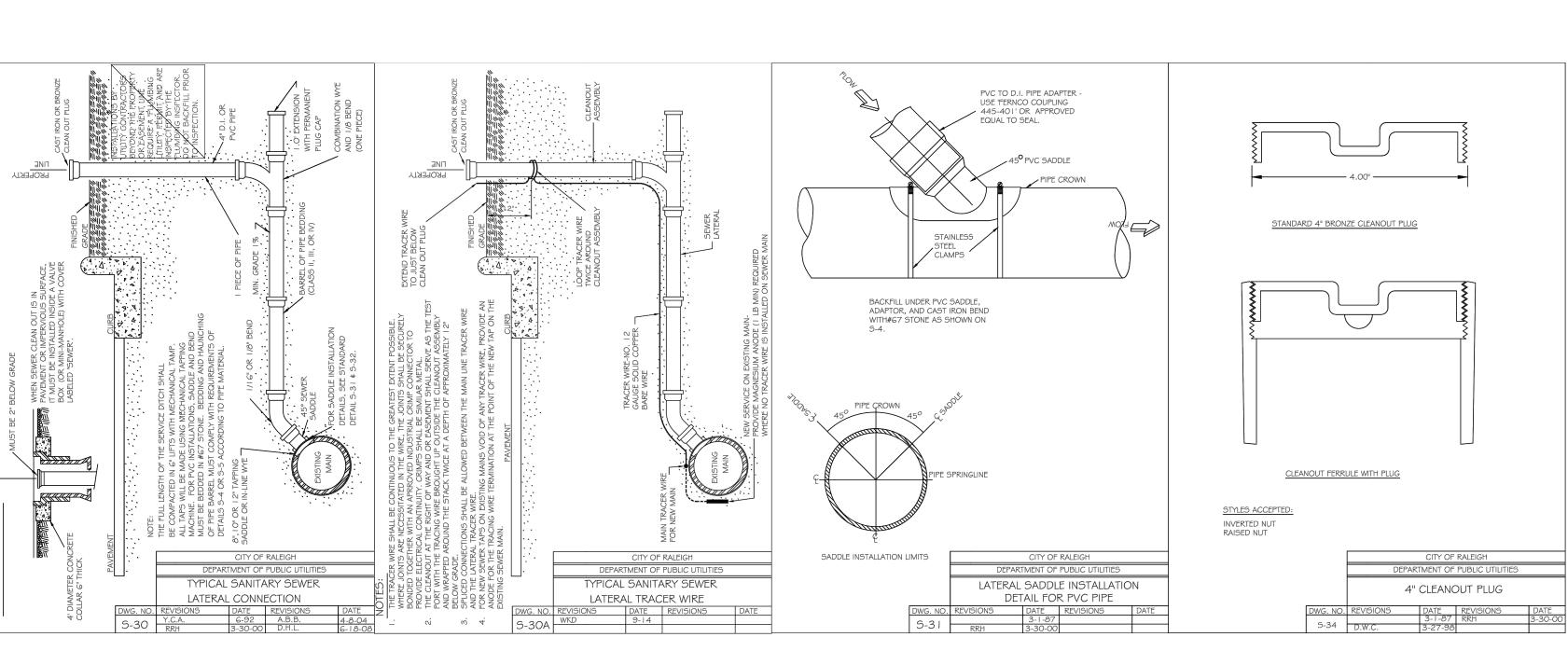
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Y _____ + ____

17 5/8"——

SECTION A-A

METER

____19 1/4″*____*

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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RALEIGH WATER REVIEW OFFICER

APPROVAL. CITY OF RALEIGH DEVELOPMENT APPROVAL

ALL CONSTRUCTION SHALL BE IN **ACCORDANCE WITH ALL TOWN OF** ROLESVILLE, CITY OF RALEIGH AND WAKE COUNTY STANDARDS AND SPECIFICATIONS **ENGINEERING**

POST OFFICE BOX 91727 RALEIGH, NORTH CAROLINA 27675 PHONE: 919.610.1051 FIRM NC LICENSE NUMBER C-4222



REVISION HISTORY

REVIOLENTIAL TERM			
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ACCORDINGLY

SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

WATER & SEWER DETAILS

SHEET 16 OF 18

SECTION C-C

DEPARTMENT OF PUBLIC UTILITIES

WATER METER BOX DETAIL

NOTES:

1. COVER WEIGHT: 13 LBS +/- 5%

2. LIDS TO BE COATED WITH BITUMINOUS COAL TAR COATING 3. BOXES AND LIDS MUST BE

MANUFACTURED FROM SAME DOMESTIC FOUNDRY.

SECTION B-B

W-25 R.K.V. **8-20-13** J.P.5

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 of holiday periods, and no individual-day rainfall information if available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection in needed). Days on which no rainfall occurred shall be recorded a "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	 Identification of the measures inspected, Date and time of the inspection, Name of the person performing the inspection, Indication of whether the measures were operating properly, Description of maintenance needs for the measure, Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	 Identification of the discharge outfalls inspected, Date and time of the inspection, Name of the person performing the inspection, Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, Indication of visible sediment leaving the site, 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: Actions taken to clean up or stabilize the sediment that has left the site limits, Description, evidence, and date of corrective actions taken, and 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 \geq 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	 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). 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 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.

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(I)(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(I)(6). Division staff may waive the requirement for a written report on a case-by-case basis.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

| EFFECTIVE: 04/01/19 |



POST OFFICE BOX 91727 RALEIGH, NORTH CAROLINA 27675 PHONE: 919.610.1051 FIRM NC LICENSE NUMBER C-4222



REVISION HISTORY

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SCALE ADJUSTMENT

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SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

NCG01 SELF-INSPECTION, RECORDKEEPING & REPORTING

C-17
SHEET 17 OF 18

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CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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CITY OF RALEIGH DEVELOPMENT APPROVAL

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COUNTY STANDARDS AND SPECIFICATIONS

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

	Required Ground Stabilization Timeframes					
Si	te 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 Uniform and evenly distributed ground cover
 - sufficient to restrain erosion Structural methods such as concrete, asphalt or
 - 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. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- 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
- 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
- 4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- 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

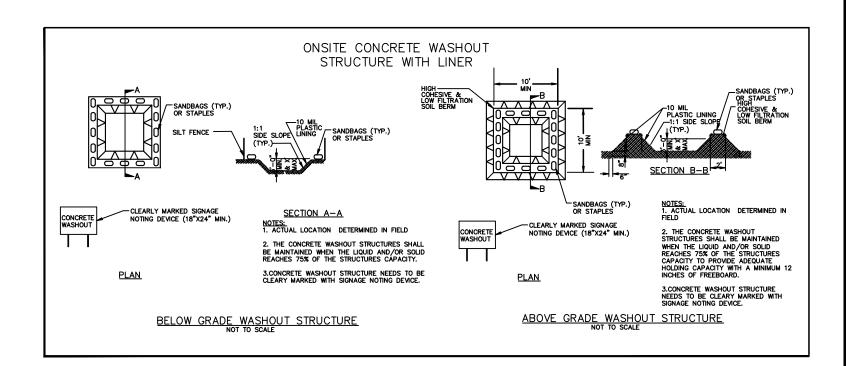
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- 2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 3. Contain liquid wastes in a controlled area.
- 4. Containment must 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

- 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.
- Provide staking or anchoring of portable toilets during periods of high winds or in high
- 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

- 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
- 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.



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.
- 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.
- 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.
- 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

- Store and apply herbicides, pesticides and rodenticides in accordance with label
- 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.
- 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.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19



POST OFFICE BOX 91727 RALEIGH, NORTH CAROLINA 27675 PHONE: 919.610.1051 FIRM NC LICENSE NUMBER C-4222



REVISION HISTORY

REV #	DESCRIPTION	DATE	BY

ORIGINAL PLAN SIZE: 24" X 36"

SCALE ADJUSTMENT

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

IF IT IS NOT 1 INCH ON THIS SHEET, ADJUST YOUR SCALE ACCORDINGLY

SITE CONSTRUCTION PLANS

PINE GLO 414 S MAIN ST ROLESVILLE, NC 27571

OPTIMAL GLO LLC

DATE:	06-03-2024
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	FLM
PROJECT NO.:	24028

NCG01 GROUND STABILIZATION & MATERIAL HANDLING

C-18

SHEET 18 OF 18

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