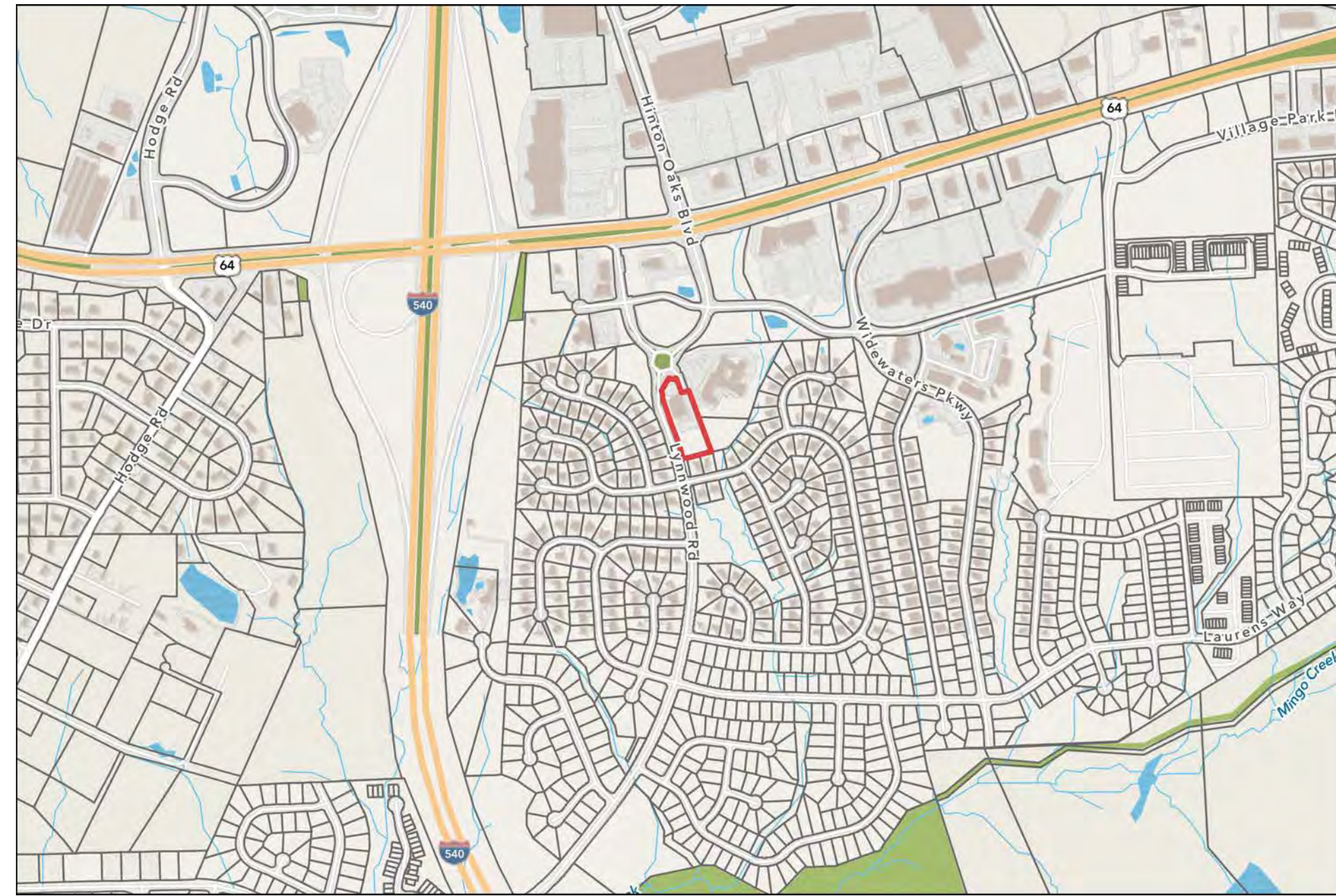


WAKE VETERINARY HOSPITAL CONSTRUCTION DRAWINGS SUBMITTAL

KNIGHTDALE TRANSACTION #: ZMA-14-21
ORDINANCE 22-08-17-004



VICINITY MAP



SCALE: 1" = 800'

VEHICLE PARKING			
	AREA (SF)	MAXIMUM SPACES PERMITTED 6 per 1000 GFA	MINIMUM SPACES REQUIRED 1/2 OF MAX
EXISTING BUILDING (VET HOSPITAL)	8,354	50	25
PROPOSED ADDITION	6,197	37	19
TOTAL	14,551	87	44
TOTAL EXISTING SPACES	37		
TOTAL PROPOSED SPACES	60		
DIFFERENCE	23		

ACCESSIBLE PARKING		
TOTAL # OF SPACES	REQUIRED	PROVIDED
60	4	4

BICYCLE PARKING	
REQUIRED	PROVIDED
5	6

SHEET INDEX	
COV	COVER
L100	EXISTING CONDITIONS
L101	DEMOLITION PLAN
L200	LAYOUT PLAN & MATERIALS PLAN
L201	SITE DETAILS
L202	SITE DETAILS
L203	SITE DETAILS
L204	SIGNS & MARKINGS PLAN
L300	GRADING PLAN
L400	LANDSCAPE PLAN
L401	PLANTING NOTES & DETAILS
C100	STORMWATER PLAN
C101	SUBGRADE PLAN
C102	SEDIMENTATION AND EROSION CONTROL PLAN
C200	STORMWATER DETAILS
C201	STORMWATER DETAILS
C202	SEDIMENTATION AND EROSION CONTROL DETAILS
C203	SEDIMENTATION AND EROSION CONTROL DETAILS
C204	SEDIMENTATION AND EROSION CONTROL DETAILS
U100	WATER + SEWER PLAN
U200	WATER + SEWER DETAILS
22-0228A	DUKE ENERGY LIGHTING PLAN
A2.01	BUILDING ELEVATIONS
A2.02	BUILDING ELEVATIONS
A3.01	BUILDING SECTIONS

ZMA-14-21 WAKE VETERINARY HOSPITAL EXPANSION PLANNED UNIT DEVELOPMENT CONDITION:

APPROVED MASTER PLAN SHALL SERVE AS A SITE-SPECIFIC CONDITION TO THE PARCEL OF LAND IDENTIFIED AS PIN 1744-53-2798. HOWEVER, THE APPLICANT MUST SUBMIT CONSTRUCTION DRAWINGS TO THE TOWN FOR APPROVAL THAT ARE IN CONFORMANCE WITH THE APPROVED CONDITIONS OF THE NMX-CD ZONING DISTRICT, MASTER PLAN COMMENTS, UNIFIED DEVELOPMENT ORDINANCE, AND COMMENTS FROM THE MAY 12, 2022 DRC MEETING.

SITE DATA SUMMARY	
PROJECT NAME	WAKE VET HOSPITAL
EXISTING STREET ADDRESS	1007 TANDAL PLACE, KNIGHTDALE, NC
LOT AREA (CURRENT)	74,488 SF (1.71 AC)
ZONING	NMX - CD
OVERLAY DISTRICT(S)	N/A
PARCEL NUMBER	1744532798
REAL ID NUMBER	0164389
DEED BOOK / DEED PAGE	BM 017298 / PG 02413
EXISTING BUILDING USE	VETERINARY HOSPITAL
PROPOSED BUILDINGS USES	VETERINARY HOSPITAL
EXISTING IMPERVIOUS AREA	28,718 SF
PROPOSED IMPERVIOUS AREA	41,632 SF
NET CHANGE IN IMPERVIOUS AREA	12,914 SF
WATER ALLOCATION POLICY	N/A

CONTACT INFORMATION

PROPERTY OWNER
ROWDY RIDGEBACKS HOLDING LLC
4935 RALEIGH ROAD PKWY W
WILSON, NC 27896
PHONE: 919.266.9852
EMAIL: GEORGEHNEIMDVM@THEVETSPETS.COM

CIVIL ENGINEER
FINCH & ASSOCIATES
309 N BOYLAN AVE
RALEIGH, NC
CONTACT: JAY WATSON
PHONE: 919.933.1212
EMAIL: JWATSON@FINCH-ASSOCIATES.COM

LANDSCAPE ARCHITECT
SITE COLLABORATIVE, INC.
821 WAKE FOREST RD
RALEIGH, NC 27604
CONTACT: GRAHAM H. SMITH
PHONE: 919.805.3586
EMAIL: GRAHAM@SITECOLLABORATIVE.COM

ARCHITECT
CLINE DESIGN ASSOCIATES
125 N. HARRINGTON ST.
RALEIGH, NC 27601
PHONE: 919.833.6413 EXT. 4146
EMAIL: CARLW@CLINEDESIGNASSOC.COM

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

Land Use Administrator

Town Approved Standards Shall Control. In the event of a conflict or inconsistency between these construction drawings and the Town of Knightdale's Approved Standards for this project, the Approved Standards shall control. Town of Knightdale Approved Standards shall mean all development documents necessary for approval for the Property including, but not limited to, any special use permit, subdivision plan, site plan, subdivision plat(s), phasing schedule, Development Agreement, Utility Allocation Agreement, Annexation Agreement, the Town of Knightdale Standard Specification and Details Manual and applicable provisions of the North Carolina State Building Code.

Professional Design Engineer Certification. These improvements shall be constructed in accordance with the following drawings and with the Standard Specifications of the Town of Knightdale. I, _____, PE, certify that the Standard Specifications of the Town of Knightdale have been thoroughly checked and found to be applicable to this project. All exceptions to the applicable Town standards have been previously approved by the Town of Knightdale and said exceptions are shown on Sheet(s) _____ of these drawings.
Seal By: _____, PE
Date: _____

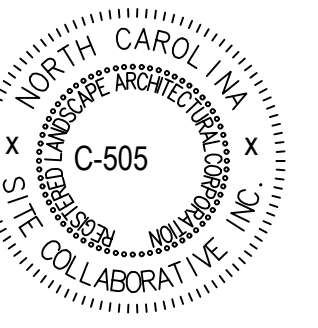
CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

PLANS FOR THE PROPOSED USE HAVE BEEN REVIEWED FOR GENERAL COMPLIANCE WITH APPLICABLE CODES. THIS LIMITED REVIEW, AND AUTHORIZATION FOR CONSTRUCTION IS NOT TO BE CONSIDERED TO REPRESENT TOTAL COMPLIANCE WITH ALL LEGAL REQUIREMENTS FOR DEVELOPMENT AND CONSTRUCTION. THE PROPERTY OWNER, DESIGN CONSULTANTS, AND CONTRACTORS ARE EACH RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CITY, STATE AND FEDERAL LAWS. THIS SPECIFIC AUTHORIZATION BELOW IS NOT A PERMIT, NOR SHALL IT BE CONSTRUED TO PERMIT ANY VIOLATION OF CITY, STATE OR FEDERAL LAW. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS. THIS APPROVAL OF THIS ELECTRONIC DOCUMENT IS ONLY VALID IF THE DOCUMENT HAS NOT BEEN MODIFIED AND THE DIGITAL SIGNATURE BELOW IS VALID:

CITY OF RALEIGH DEVELOPMENT APPROVAL _____



821 Wake Forest Road
Raleigh, NC 27604 | 919.805.3586



REUSE OF DOCUMENT
This document is the property of Site Collaborative, Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative, Inc.

Wake Veterinary Hospital
Rowdy Ridgebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

PROJECT PHASE:
CONSTRUCTION
DRAWINGS

DATE:
12.14.2022

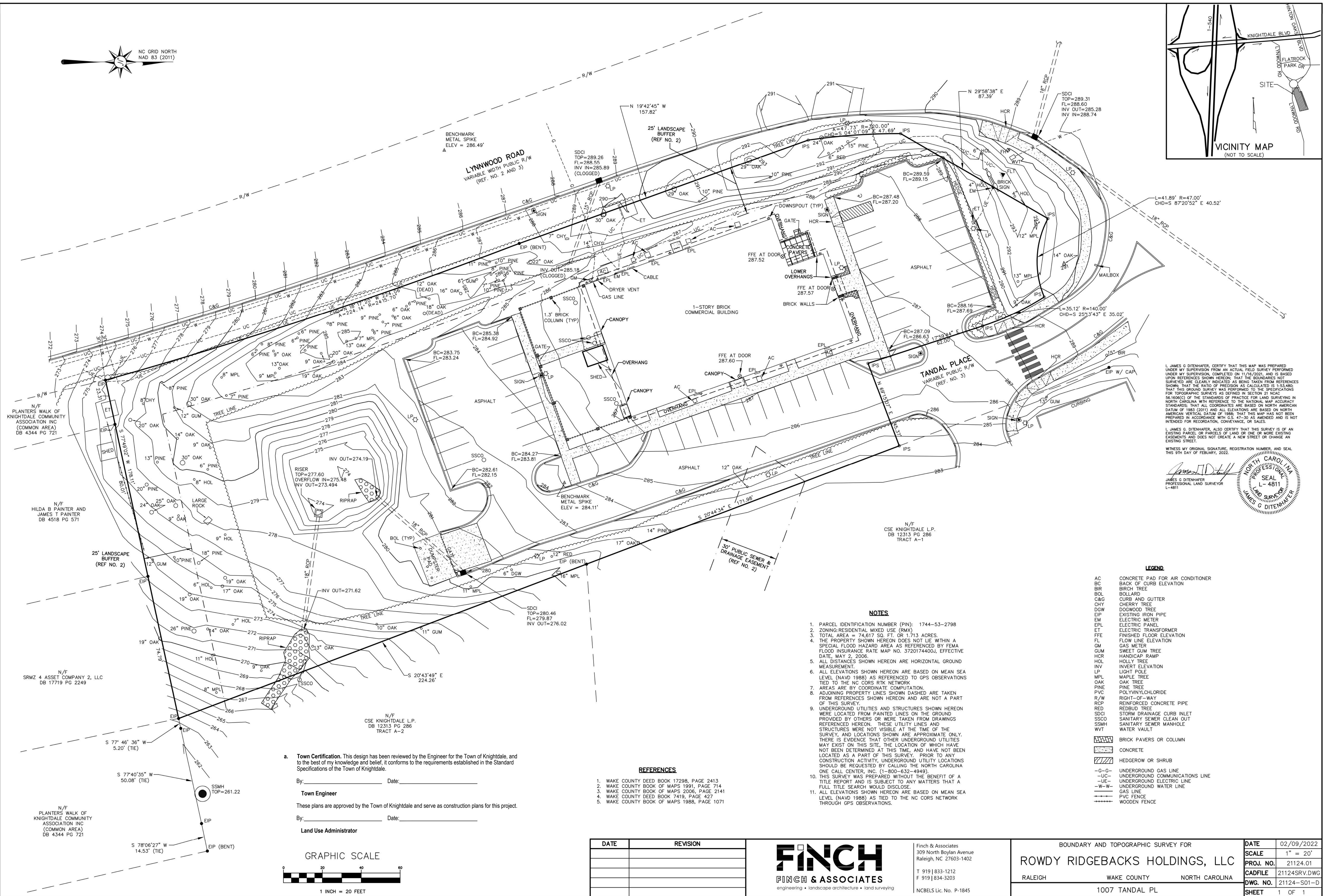
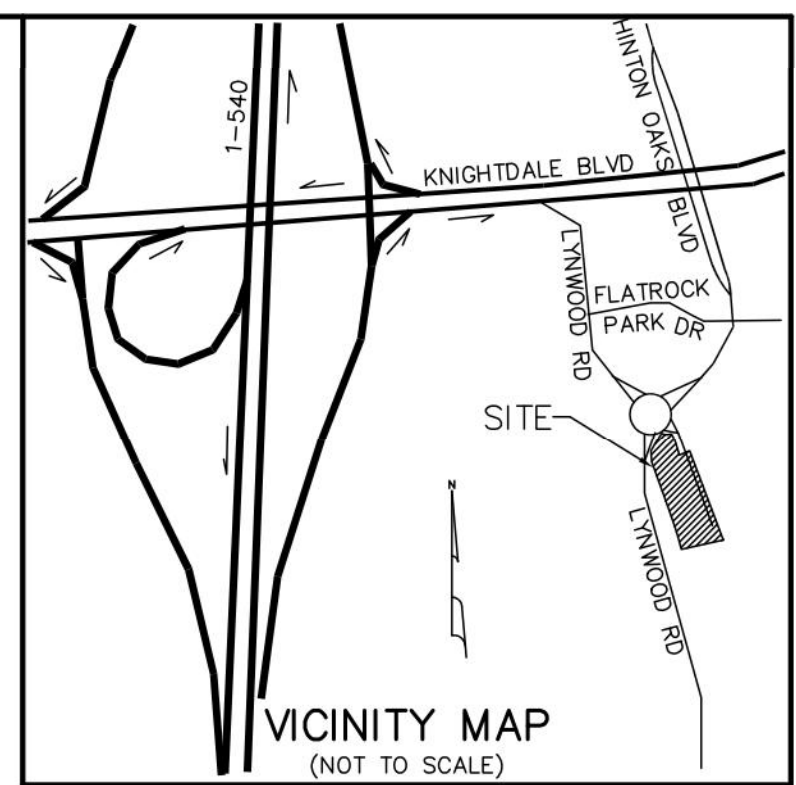
SIGNATURE SET

SHEET TITLE:

COVER SHEET

SHEET NUMBER:

COV



I, JAMES G. DITENHAER, CERTIFY THAT THIS MAP WAS PREPARED UNDER MY SUPERVISION FROM AN ACTUAL FIELD SURVEY PERFORMED UNDER MY SUPERVISION, COMPLETED ON 11/09/2022, AND IS BASED UPON REFERENCES SHOWN HEREON; THAT THE BOUNDARIES NOT SHOWN ARE CLEARLY INDICATED AS BEING TAKEN FROM REFERENCES SHOWN; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:53,480; THAT THIS SURVEY WAS PERFORMED TO THE SPECIFICATIONS FOR TOPOGRAPHIC SURVEYS AS DEFINED IN SECTION 21 NCAC 56.100(c) OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA WITH REFERENCE TO THE NATIONAL MAP ACCURACY STANDARDS; THAT ALL COORDINATES ARE BASED ON NORTH AMERICAN DATUM OF 1983 (NAD 83) AND ALL ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988; THAT THIS MAP HAS NOT BEEN PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED AND IS NOT INTENDED FOR RECORDATION, CONVEYANCE, OR SALES.

I, JAMES G. DITENHAER, ALSO CERTIFY THAT THIS SURVEY IS OF AN EXISTING PARCEL OR PARCELS OF LAND OR ONE OR MORE EXISTING EASEMENTS AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.

WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER, AND SEAL THIS 9TH DAY OF FEBRUARY, 2022.

James G. Ditenhaer
 JAMES G. DITENHAER
 PROFESSIONAL LAND SURVEYOR
 L-4811

LEGEND

AC	CONCRETE PAD FOR AIR CONDITIONER
BC	BACK OF CURB ELEVATION
BIR	BIRCH TREE
BOL	BOLLARD
C&G	CURB AND GUTTER
CHY	CHERRY TREE
DGW	DOGWOOD TREE
EIP	EXISTING IRON PIPE
EM	ELECTRIC METER
EPL	ELECTRIC PANEL
ET	ELECTRIC TRANSFORMER
FFE	FINISHED FLOOR ELEVATION
FL	FLOW LINE ELEVATION
GM	GAS METER
GUM	SWEET GUM TREE
HCR	HANDICAP RAMP
HOL	HOLLY TREE
INV	INVERT ELEVATION
LP	LIGHT POLE
MPL	MAPLE TREE
OAK	OAK TREE
PINE	PINE TREE
PVC	POLYVINYLCHLORIDE
R/W	RIGHT-OF-WAY
RC	REINFORCED CONCRETE PIPE
RED	REDBUD TREE
SDCI	STORM DRAINAGE CURB INLET
SSMH	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
WWT	WATER VAULT
	BRICK PAVERS OR COLUMN
	CONCRETE
	HEDGEROW OR SHRUB
-G-G-	UNDERGROUND GAS LINE
-UC-	UNDERGROUND COMMUNICATIONS LINE
-E-E-	UNDERGROUND ELECTRIC LINE
-W-W-	UNDERGROUND WATER LINE
---	GAS LINE
---	PVC FENCE
-----	WOODEN FENCE

- NOTES**
1. PARCEL IDENTIFICATION NUMBER (PIN): 1744-53-2798
 2. ZONING: RESIDENTIAL MIXED USE (RMX)
 3. TOTAL AREA = 74,617 SQ. FT. OR 1.713 ACRES.
 4. THE PROPERTY SHOWN HEREON DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA AS REFERENCED BY FEMA FLOOD INSURANCE RATE MAP NO. 3720174400J, EFFECTIVE DATE, MAY 2, 2006.
 5. ALL DISTANCES SHOWN HEREON ARE HORIZONTAL GROUND MEASUREMENT.
 6. ALL ELEVATIONS SHOWN HEREON ARE BASED ON MEAN SEA LEVEL (NAVD 1988) AS REFERENCED TO GPS OBSERVATIONS TIED TO THE NC CORS RTK NETWORK.
 7. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY MATTERS THAT A FULL TITLE SEARCH WOULD DISCLOSE.
 8. ADJOINING PROPERTY LINES SHOWN DASHED ARE TAKEN FROM REFERENCES SHOWN HEREON AND ARE NOT A PART OF THIS SURVEY.
 9. UNDERGROUND UTILITIES AND STRUCTURES SHOWN HEREON WERE LOCATED FROM PAINTED LINES ON THE GROUND PROVIDED BY OTHERS OR WERE TAKEN FROM DRAWINGS REFERENCED HEREON. THESE UTILITY LINES AND STRUCTURES WERE NOT VISIBLE AT THE TIME OF THE SURVEY, AND LOCATIONS SHOWN ARE APPROXIMATE ONLY. THERE IS EVIDENCE THAT OTHER UNDERGROUND UTILITIES MAY EXIST ON THIS SITE, THE LOCATION OF WHICH HAVE NOT BEEN DETERMINED AT THIS TIME, AND HAVE NOT BEEN LOCATED AS A PART OF THIS SURVEY. PRIOR TO ANY CONSTRUCTION ACTIVITY, UNDERGROUND UTILITY LOCATIONS SHOULD BE REQUESTED BY CALLING THE NORTH CAROLINA ONE CALL CENTER, INC. (1-800-632-4949).
 10. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY MATTERS THAT A FULL TITLE SEARCH WOULD DISCLOSE.
 11. ALL ELEVATIONS SHOWN HEREON ARE BASED ON MEAN SEA LEVEL (NAVD 1988) AS TIED TO THE NC CORS NETWORK THROUGH GPS OBSERVATIONS.

- REFERENCES**
1. WAKE COUNTY DEED BOOK 17298, PAGE 2413
 2. WAKE COUNTY BOOK OF MAPS 1991, PAGE 714
 3. WAKE COUNTY BOOK OF MAPS 2006, PAGE 2141
 4. WAKE COUNTY DEED BOOK 7419, PAGE 427
 5. WAKE COUNTY BOOK OF MAPS 1988, PAGE 1071

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

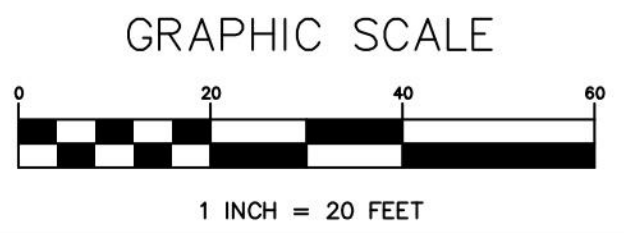
By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

Land Use Administrator



DATE	REVISION

FINCH & ASSOCIATES
 engineering • landscape architecture • land surveying

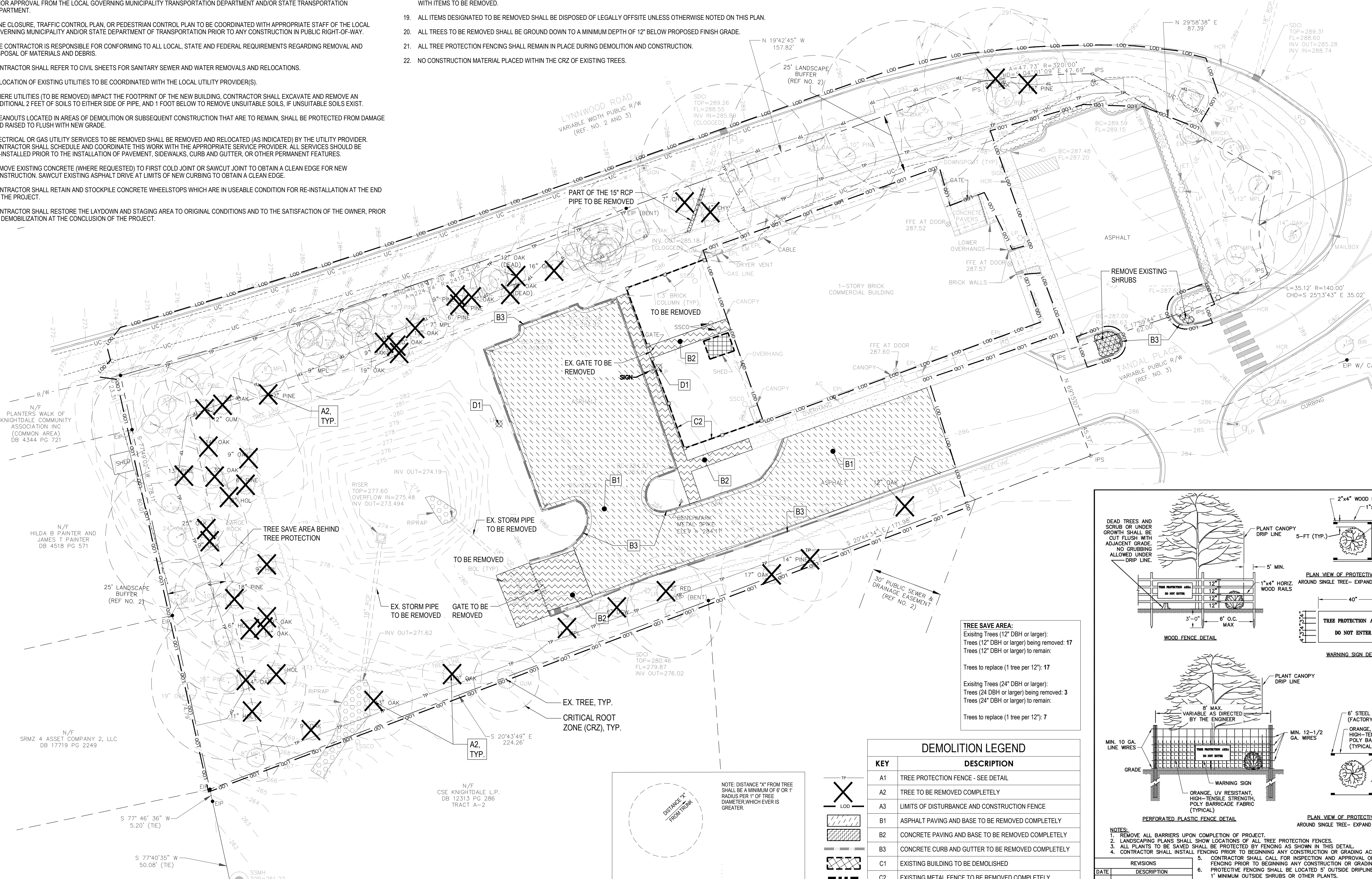
Finch & Associates
 309 North Boylan Avenue
 Raleigh, NC 27603-1402
 T 919 | 833-1212
 F 919 | 834-3203
 NCBELS Lic. No. P-1845

BOUNDARY AND TOPOGRAPHIC SURVEY FOR			DATE
ROWDY RIDGEBACKS HOLDINGS, LLC			02/09/2022
RALEIGH WAKE COUNTY NORTH CAROLINA			SCALE 1" = 20'
1007 TANDAL PL			PROJ. NO. 21124.01
			CADFILE 21124SRV.DWG
			DWG. NO. 21124-S01-D
			SHEET 1 OF 1

DEMOLITION NOTES

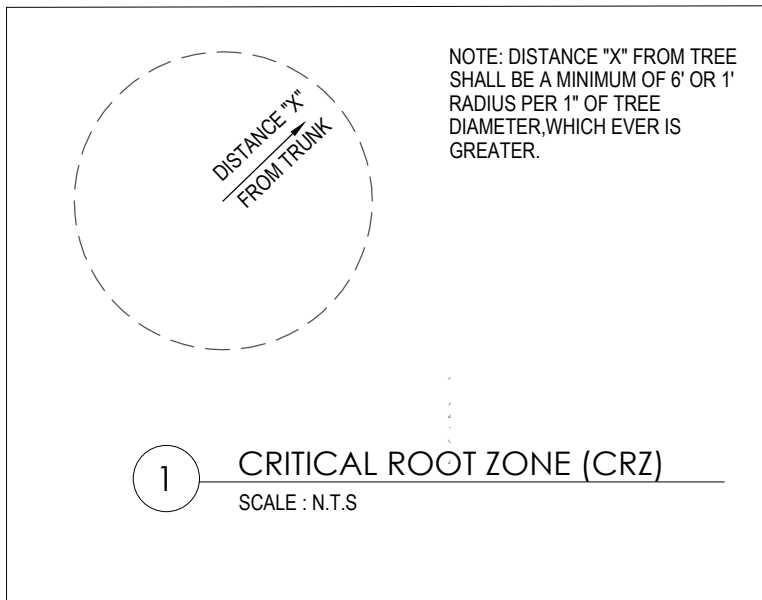
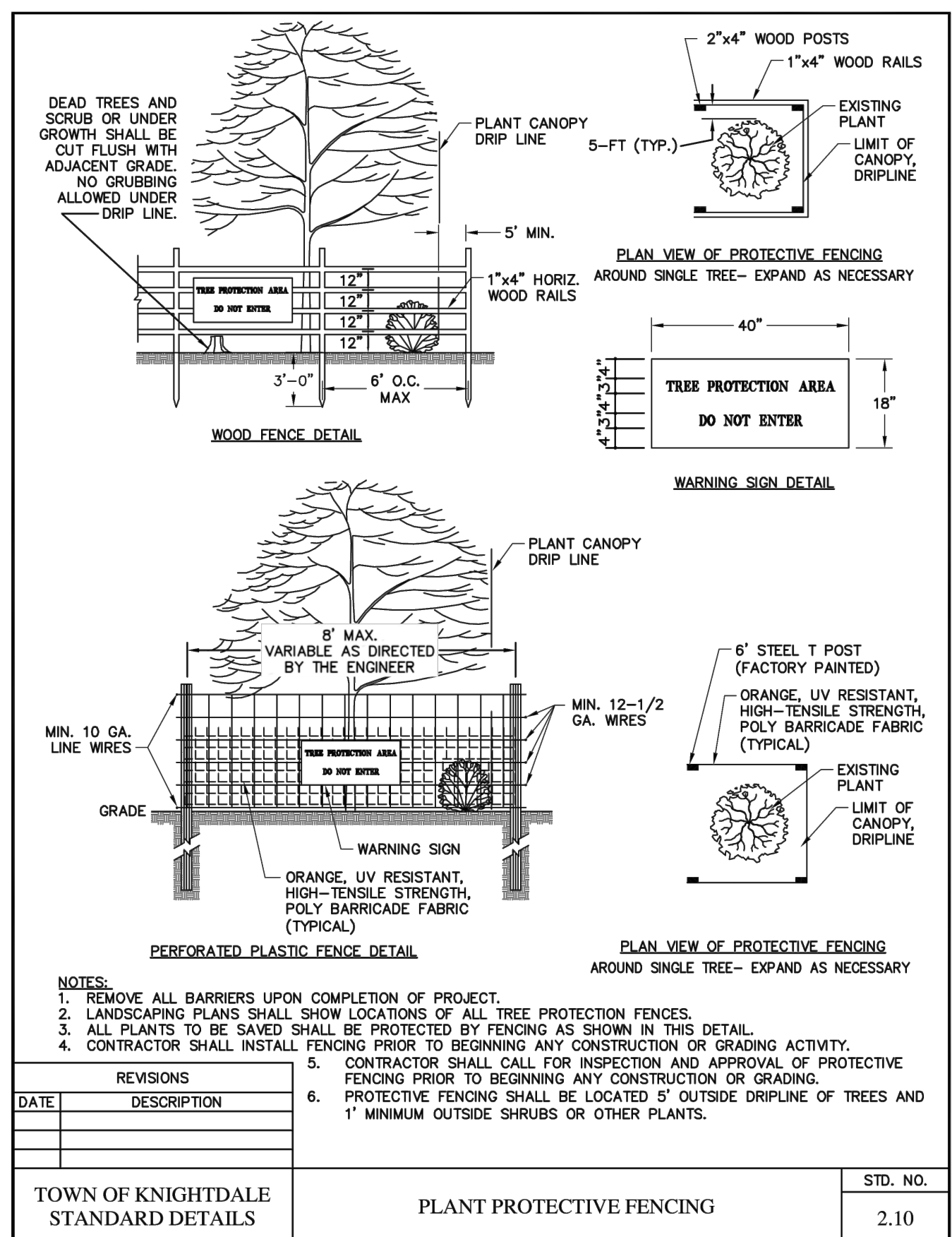
- THE CONTRACTOR SHALL NOTIFY THE N.C. ONE CALL CENTER AT 811 OR 1-800-632-4949 PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNING PUBLIC UTILITIES DEPARTMENT PRIOR TO STARTING WORK.
- ALL DEMOLITION, AND ANY SUBSEQUENT CONSTRUCTION, SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS SET FORTH AND APPROVED BY THE LOCAL GOVERNING MUNICIPALITY OR THE STATE. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.
- THE CONTRACTOR SHALL NOT MAKE ANY LANE CLOSURES OR CHANGES TO THE EXISTING TRAVEL PATTERNS ON ANY PUBLIC STREET WITHOUT PRIOR APPROVAL FROM THE LOCAL GOVERNING MUNICIPALITY TRANSPORTATION DEPARTMENT AND/OR STATE TRANSPORTATION DEPARTMENT.
- LANE CLOSURE, TRAFFIC CONTROL PLAN, OR PEDESTRIAN CONTROL PLAN TO BE COORDINATED WITH APPROPRIATE STAFF OF THE LOCAL GOVERNING MUNICIPALITY AND/OR STATE DEPARTMENT OF TRANSPORTATION PRIOR TO ANY CONSTRUCTION IN PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL REQUIREMENTS REGARDING REMOVAL AND DISPOSAL OF MATERIALS AND DEBRIS.
- CONTRACTOR SHALL REFER TO CIVIL SHEETS FOR SANITARY SEWER AND WATER REMOVALS AND RELOCATIONS.
- RELOCATION OF EXISTING UTILITIES TO BE COORDINATED WITH THE LOCAL UTILITY PROVIDER(S).
- WHERE UTILITIES (TO BE REMOVED) IMPACT THE FOOTPRINT OF THE NEW BUILDING, CONTRACTOR SHALL EXCAVATE AND REMOVE AN ADDITIONAL 2 FEET OF SOILS TO EITHER SIDE OF PIPE, AND 1 FOOT BELOW TO REMOVE UNSUITABLE SOILS, IF UNSUITABLE SOILS EXIST.
- CLEANOUTS LOCATED IN AREAS OF DEMOLITION OR SUBSEQUENT CONSTRUCTION THAT ARE TO REMAIN, SHALL BE PROTECTED FROM DAMAGE AND RAISED TO FLUSH WITH NEW GRADE.
- ELECTRICAL OR GAS UTILITY SERVICES TO BE REMOVED SHALL BE REMOVED AND RELOCATED (AS INDICATED) BY THE UTILITY PROVIDER. CONTRACTOR SHALL SCHEDULE AND COORDINATE THIS WORK WITH THE APPROPRIATE SERVICE PROVIDER. ALL SERVICES SHOULD BE RE-INSTALLED PRIOR TO THE INSTALLATION OF PAVEMENT, SIDEWALKS, CURB AND GUTTER, OR OTHER PERMANENT FEATURES.
- REMOVE EXISTING CONCRETE (WHERE REQUESTED) TO FIRST COLD JOINT OR SAWCUT JOINT TO OBTAIN A CLEAN EDGE FOR NEW CONSTRUCTION. SAWCUT EXISTING ASPHALT DRIVE AT LIMITS OF NEW CURBING TO OBTAIN A CLEAN EDGE.
- CONTRACTOR SHALL RETAIN AND STOCKPILE CONCRETE WHEELSTOPS WHICH ARE IN USEABLE CONDITION FOR RE-INSTALLATION AT THE END OF THE PROJECT.
- CONTRACTOR SHALL RESTORE THE LAYDOWN AND STAGING AREA TO ORIGINAL CONDITIONS AND TO THE SATISFACTION OF THE OWNER, PRIOR TO DEMOBILIZATION AT THE CONCLUSION OF THE PROJECT.

- CLEAN SOILS SHALL BE UTILIZED FOR BACKFILL. COMPACTION OF THESE SOILS PERFORMED IN ACCORDANCE WITH SPECIFICATIONS, GEOTECHNICAL REPORT, AND SITE PLAN.
- ALL FENCING TO BE REMOVED SHALL BE REMOVED AT NEXT NEAREST POLE.
- ALL GRAVEL TO BE REMOVED (SURFACE OR SUBSURFACE) SHALL BE STOCKPILED AND REUSED ON SITE WHERE POSSIBLE.
- ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE REMOVED COMPLETELY, INCLUDING ALL SUBGRADE MATERIALS DIRECTLY ASSOCIATED WITH ITEMS TO BE REMOVED.
- ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF LEGALLY OFFSITE UNLESS OTHERWISE NOTED ON THIS PLAN.
- ALL TREES TO BE REMOVED SHALL BE GROUND DOWN TO A MINIMUM DEPTH OF 12" BELOW PROPOSED FINISH GRADE.
- ALL TREE PROTECTION FENCING SHALL REMAIN IN PLACE DURING DEMOLITION AND CONSTRUCTION.
- NO CONSTRUCTION MATERIAL PLACED WITHIN THE CRZ OF EXISTING TREES.



TREE SAVE AREA:
 Existing Trees (12" DBH or larger):
 Trees (12" DBH or larger) being removed: 17
 Trees (12" DBH or larger) to remain:
 Trees to replace (1 tree per 12"): 17
 Existing Trees (24" DBH or larger):
 Trees (24" DBH or larger) being removed: 3
 Trees (24" DBH or larger) to remain:
 Trees to replace (1 tree per 12"): 7

DEMOLITION LEGEND	
KEY	DESCRIPTION
A1	TREE PROTECTION FENCE - SEE DETAIL
A2	TREE TO BE REMOVED COMPLETELY
A3	LIMITS OF DISTURBANCE AND CONSTRUCTION FENCE
B1	ASPHALT PAVING AND BASE TO BE REMOVED COMPLETELY
B2	CONCRETE PAVING AND BASE TO BE REMOVED COMPLETELY
B3	CONCRETE CURB AND GUTTER TO BE REMOVED COMPLETELY
C1	EXISTING BUILDING TO BE DEMOLISHED
C2	EXISTING METAL FENCE TO BE REMOVED COMPLETELY
D1	POWER POLE TO BE REMOVED COMPLETELY. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER
D2	DRY UTILITY BOX/DEVICE TO BE REMOVED COMPLETELY - CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER

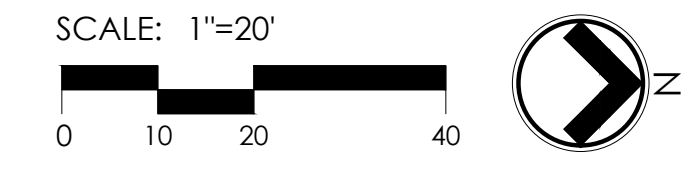


a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

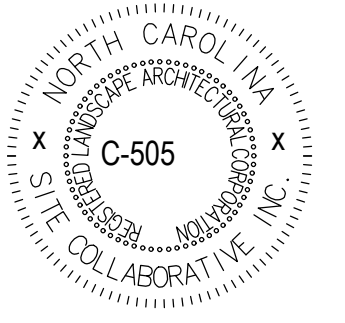
By: _____ Date: _____
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
Land Use Administrator



821 Wake Forest Road
 Raleigh, NC 27604 | 919.805.3596



REUSE OF DOCUMENT
 This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
 Rowdy Ridebacks Holdings LLC
 1007 Tandall Place, Knightdale, NC

PROJECT NUMBER:
 20063

PROJECT PHASE:
 CONSTRUCTION DRAWINGS

DATE:
 12.14.2022

SIGNATURE SET

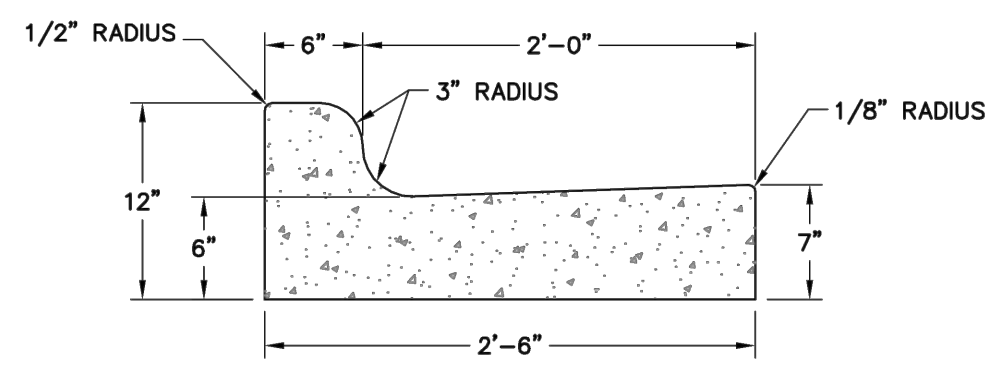
SHEET TITLE:

DEMOLITION PLAN

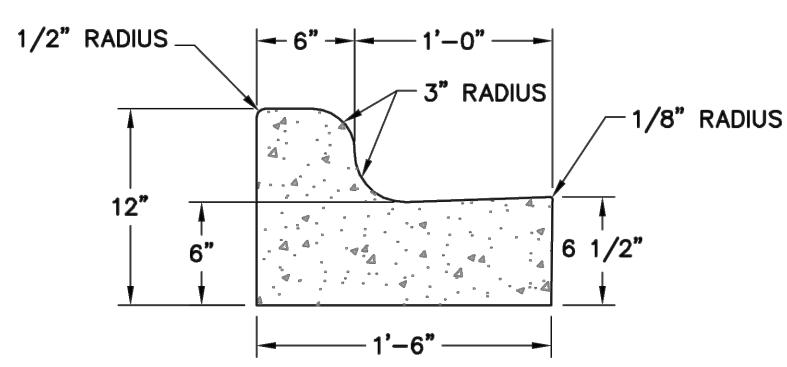
SHEET NUMBER:

L101

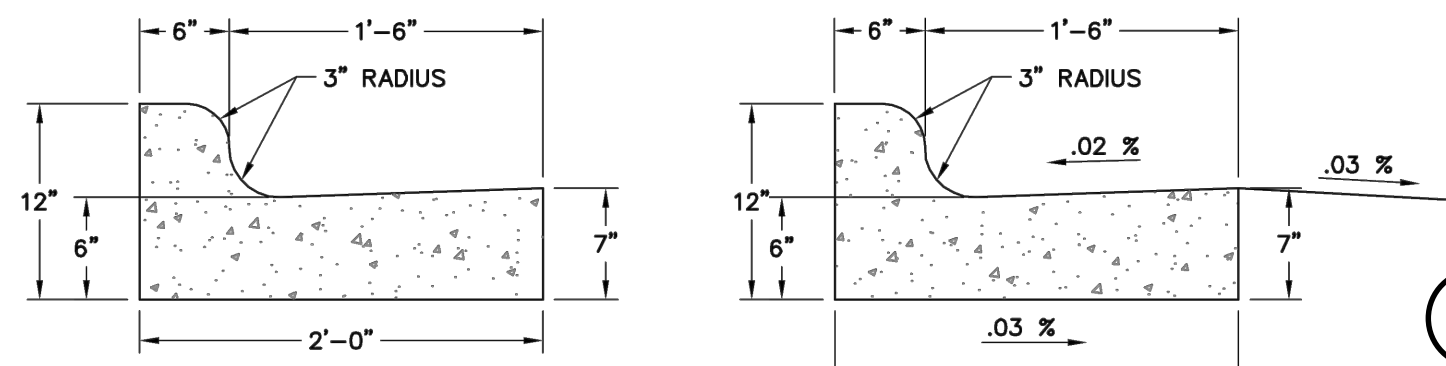
*STANDARD CURB AND GUTTER USED EVERYWHERE ON SITE NOT ADJACENT TO PAVERS. SEE SHEET L200.



STANDARD 2'-6" CURB AND GUTTER



1'-6" STANDARD CURB AND GUTTER

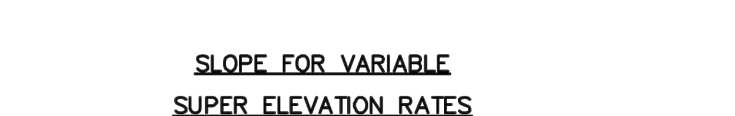


SPILL CURB DETAIL

*USE ONLY WHERE CURB AND GUTTER SURROUNDS PAVERS



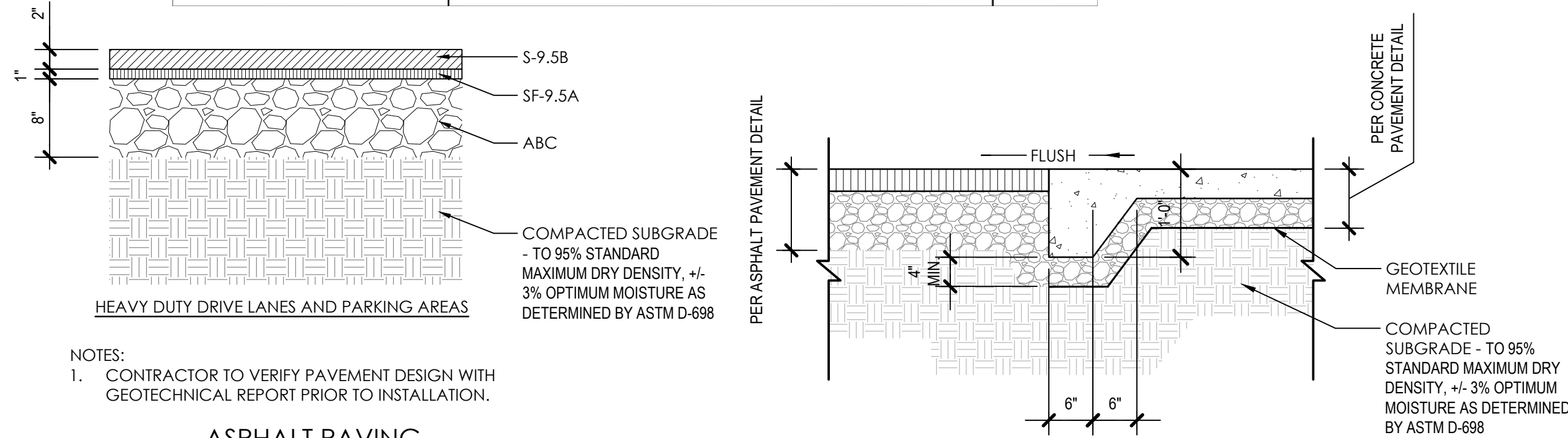
2'-0" STANDARD CURB & GUTTER



SLOPE FOR VARIABLE SUPER ELEVATION RATES

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS	CURB AND GUTTER	1 of 3 STD. NO. 4.01
--	-----------------	----------------------------



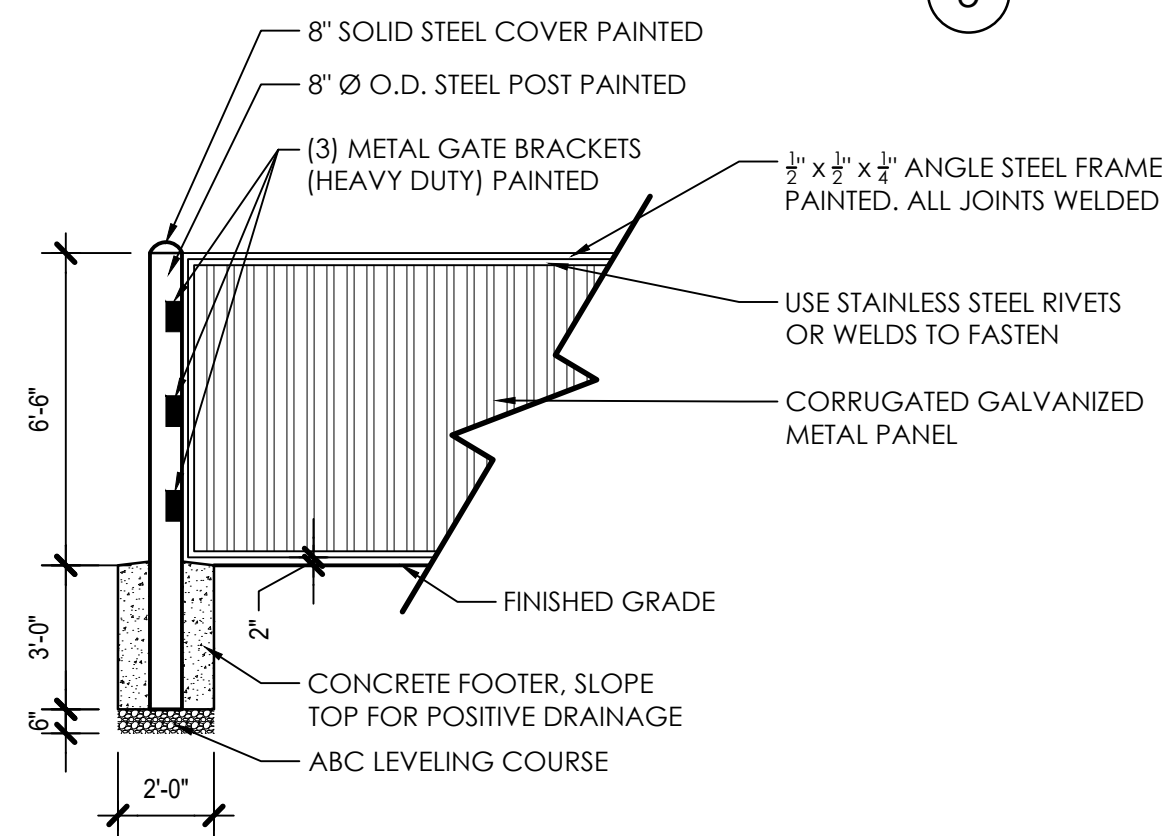
ASPHALT PAVING

SCALE: 1" = 1'-0"



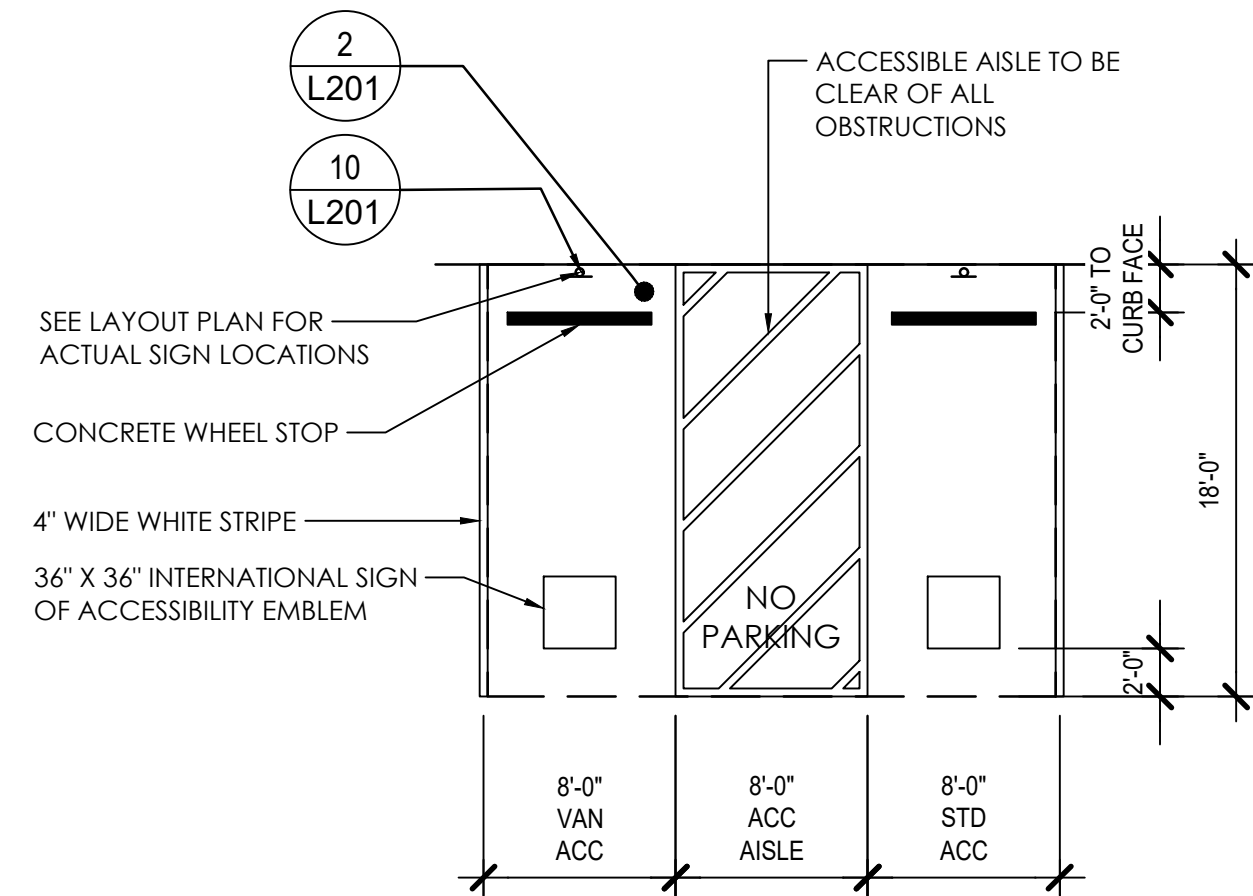
ASPHALT TO CONCRETE TRANSITION

SCALE: 3/4" = 1'-0"



DUMPSTER ENCLOSURE GATE

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



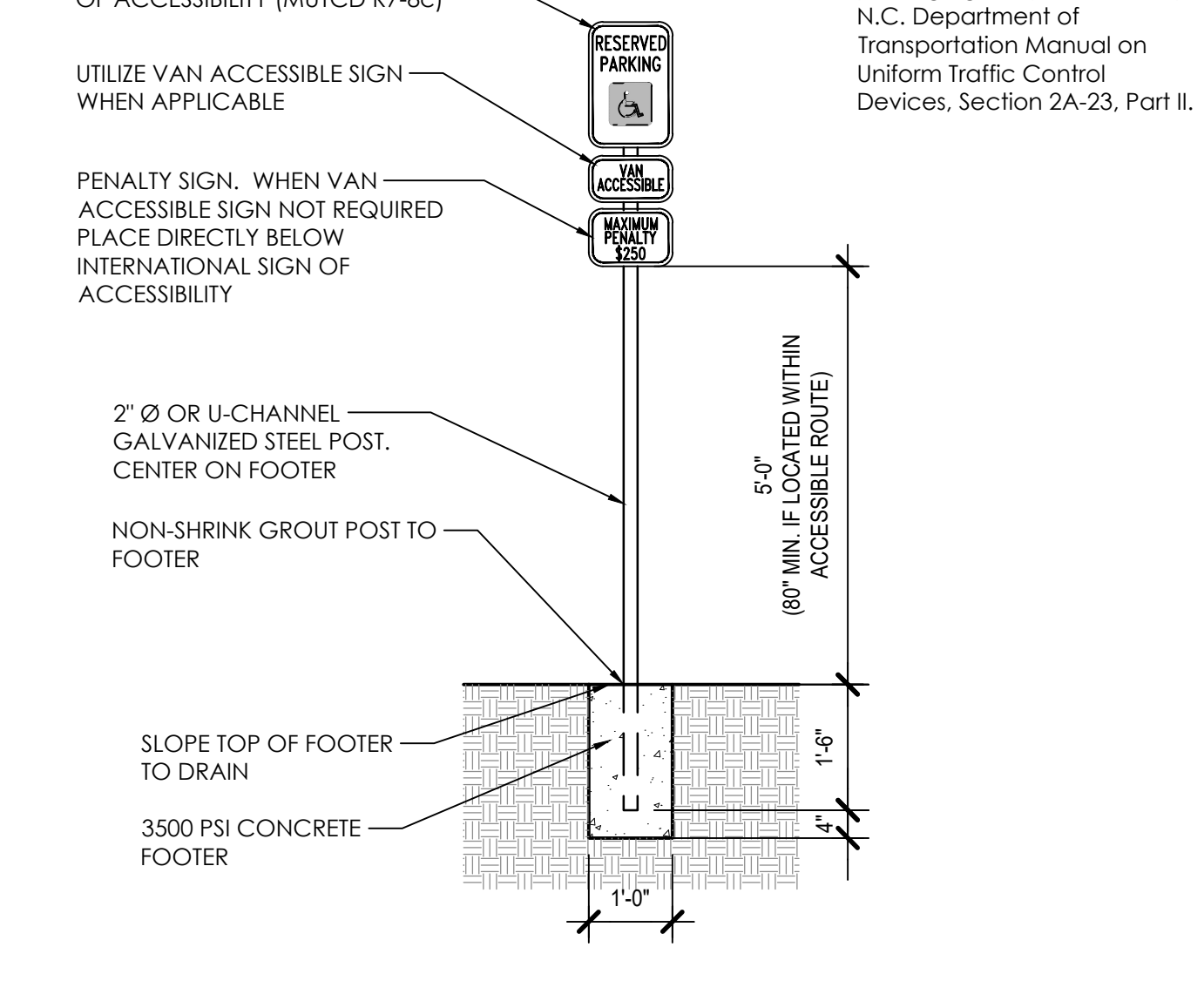
ACCESSIBLE PARKING SPACE

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



Typical Fence Cross Section

NOTE: 1. Height of R7-8c reserved parking sign as prescribed by N.C. Department of Transportation Manual on Uniform Traffic Control Devices, Section 2A-23, Part II.



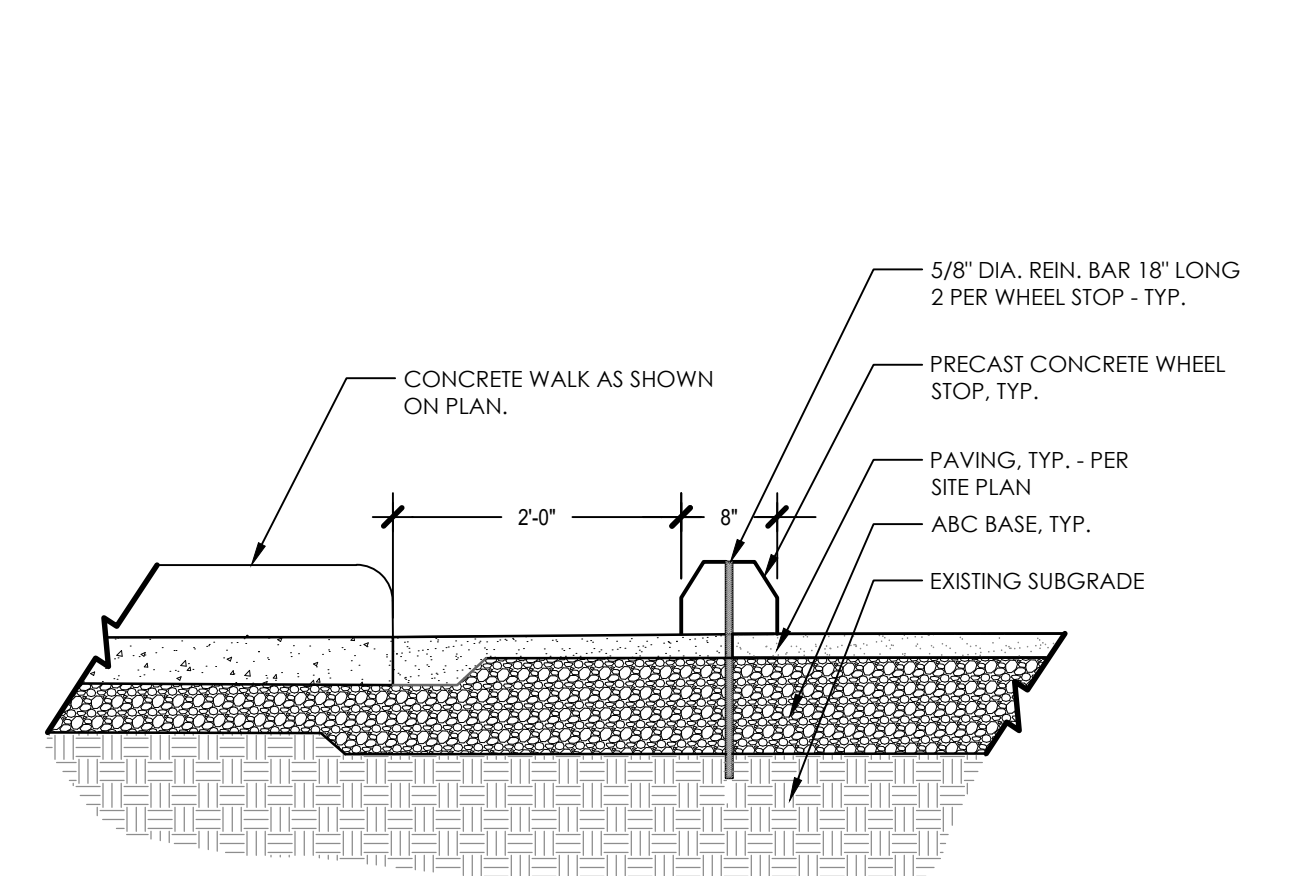
ACCESSIBLE SIGN

SCALE: 1/2" = 1'-0"



DUMPSTER ENCLOSURE

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



CONCRETE WHEEL STOP

SCALE: 1/2" = 1'-0"

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

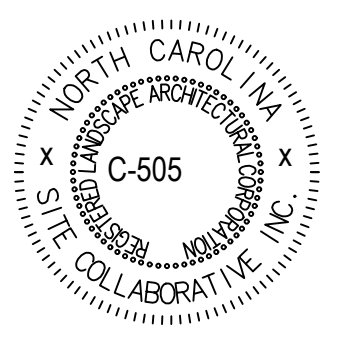
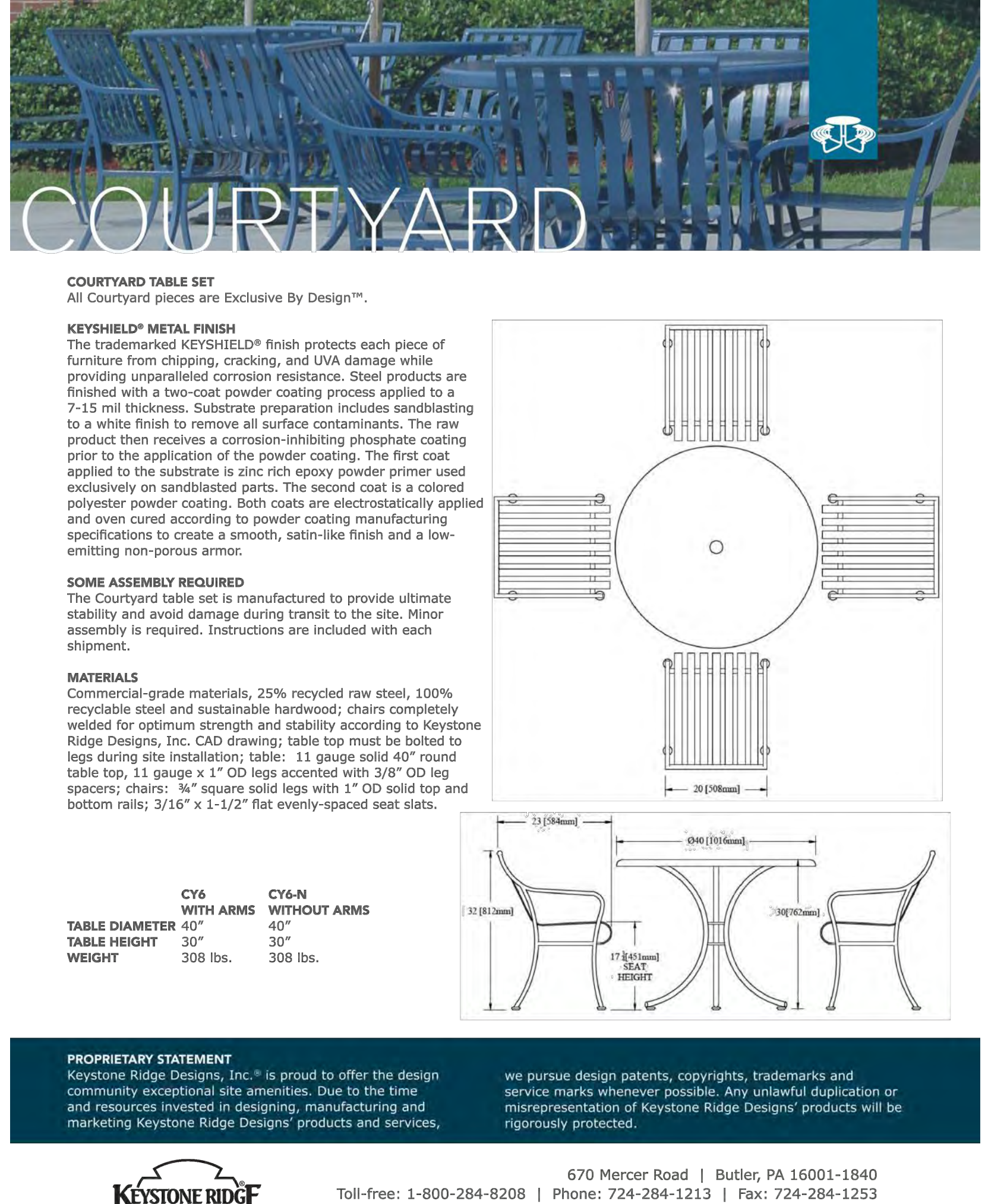
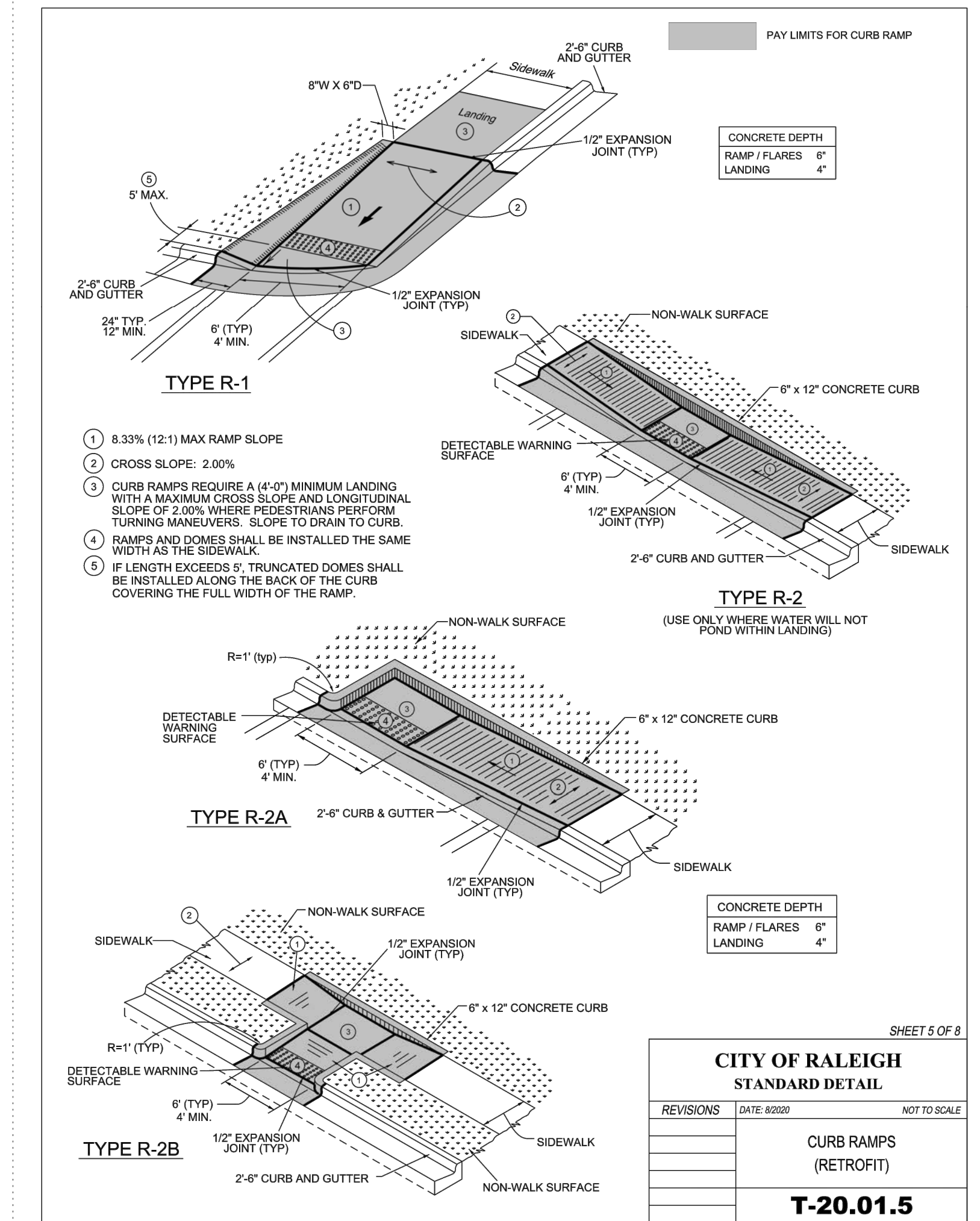
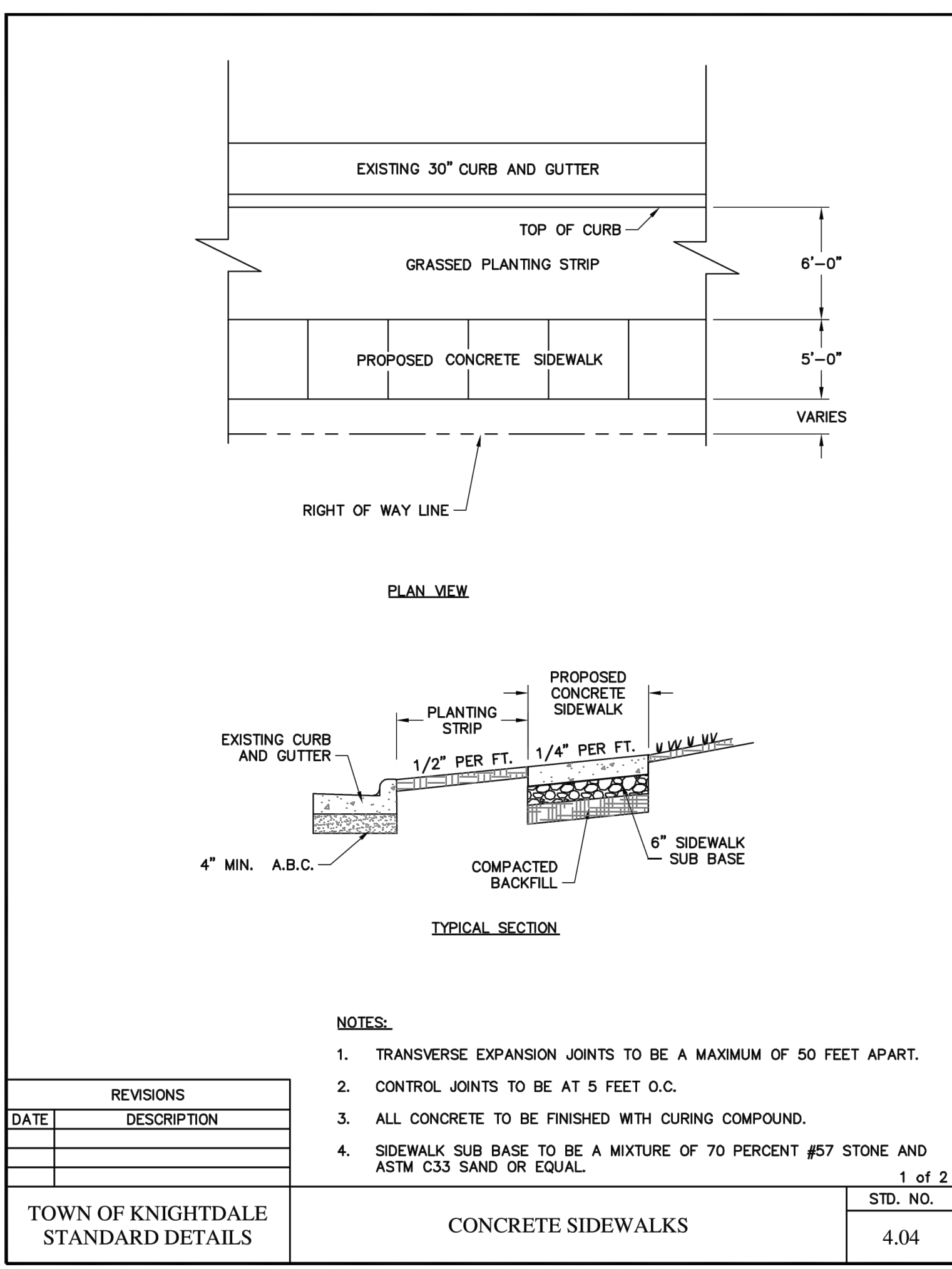
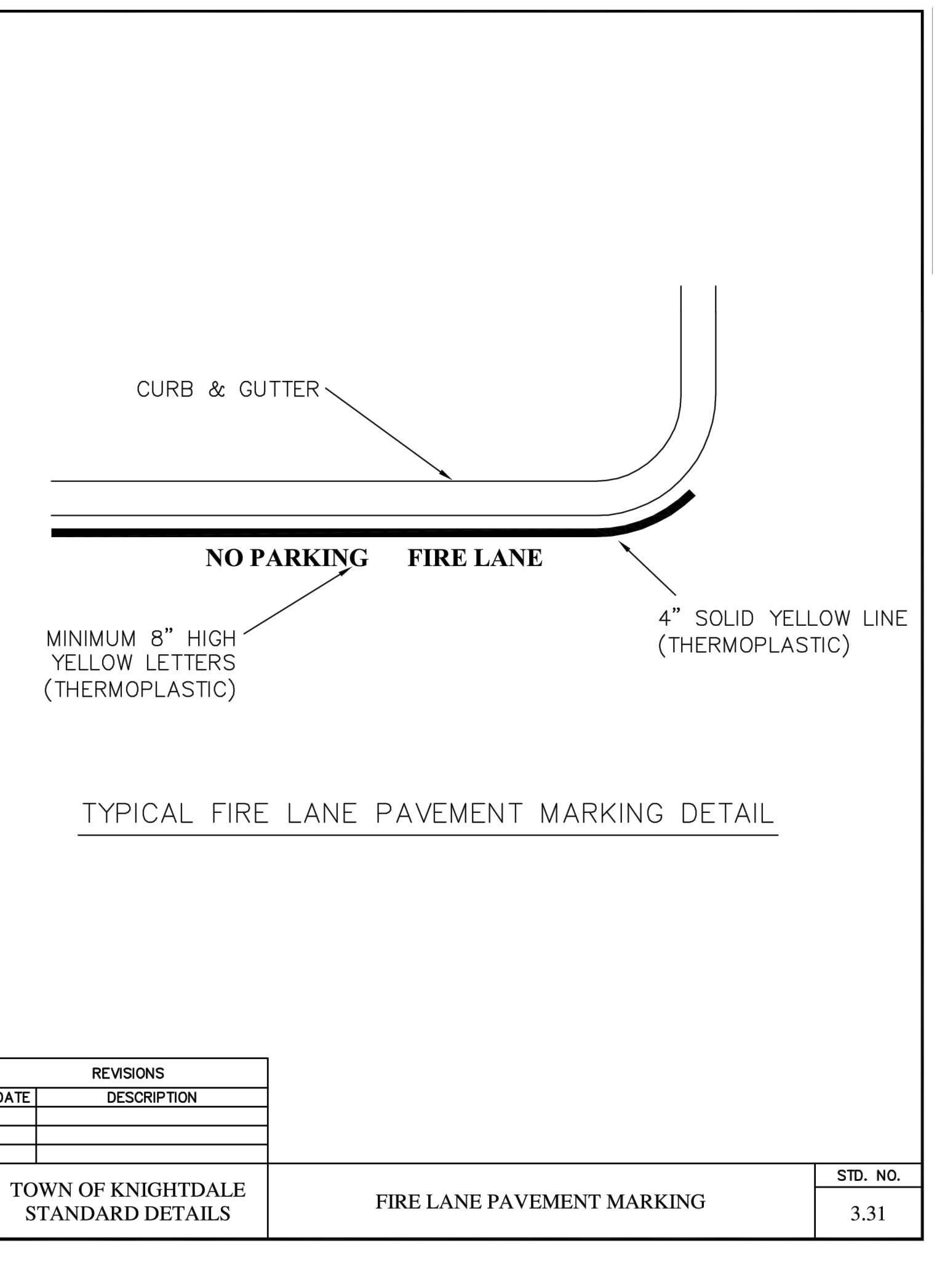
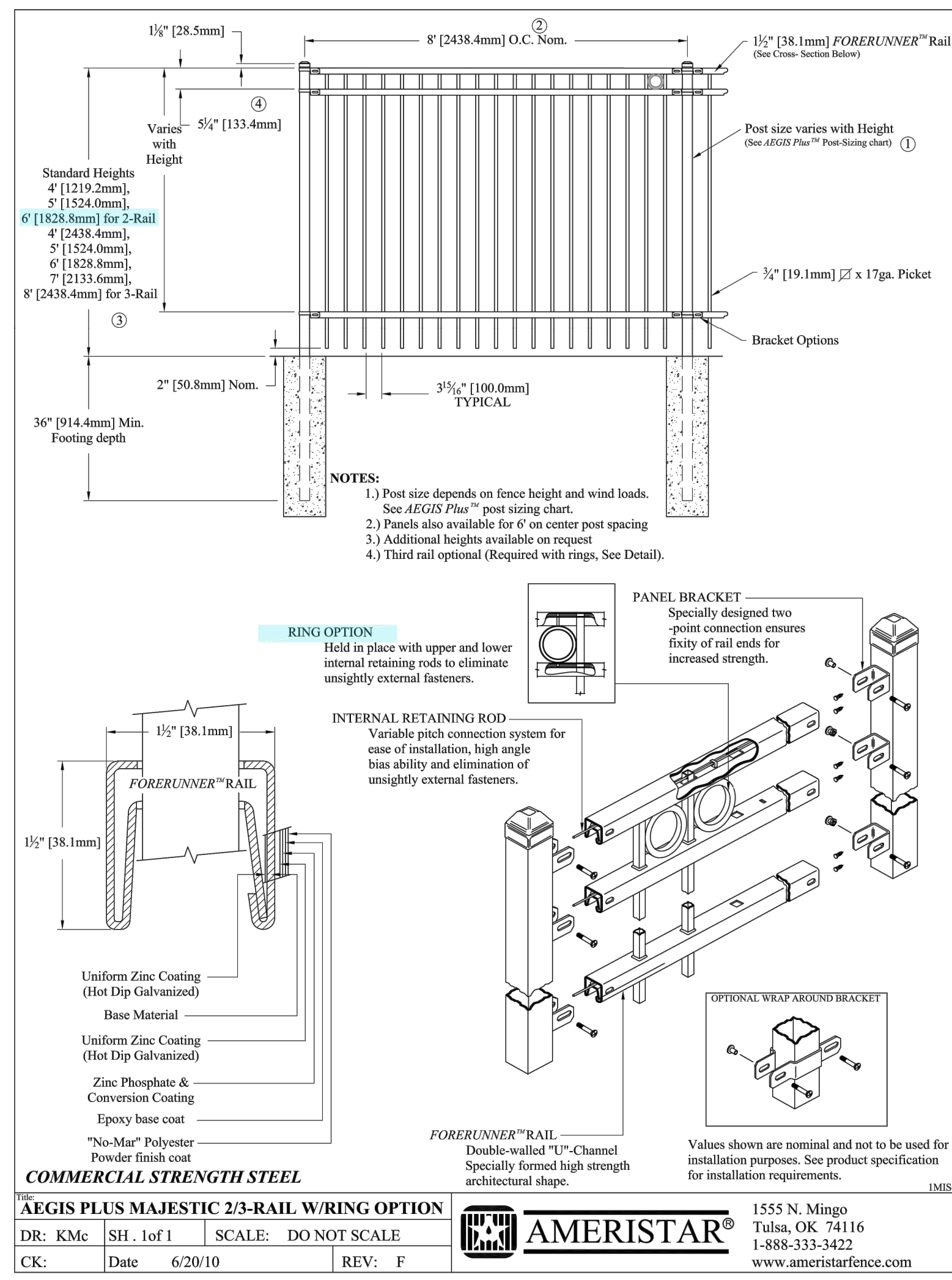
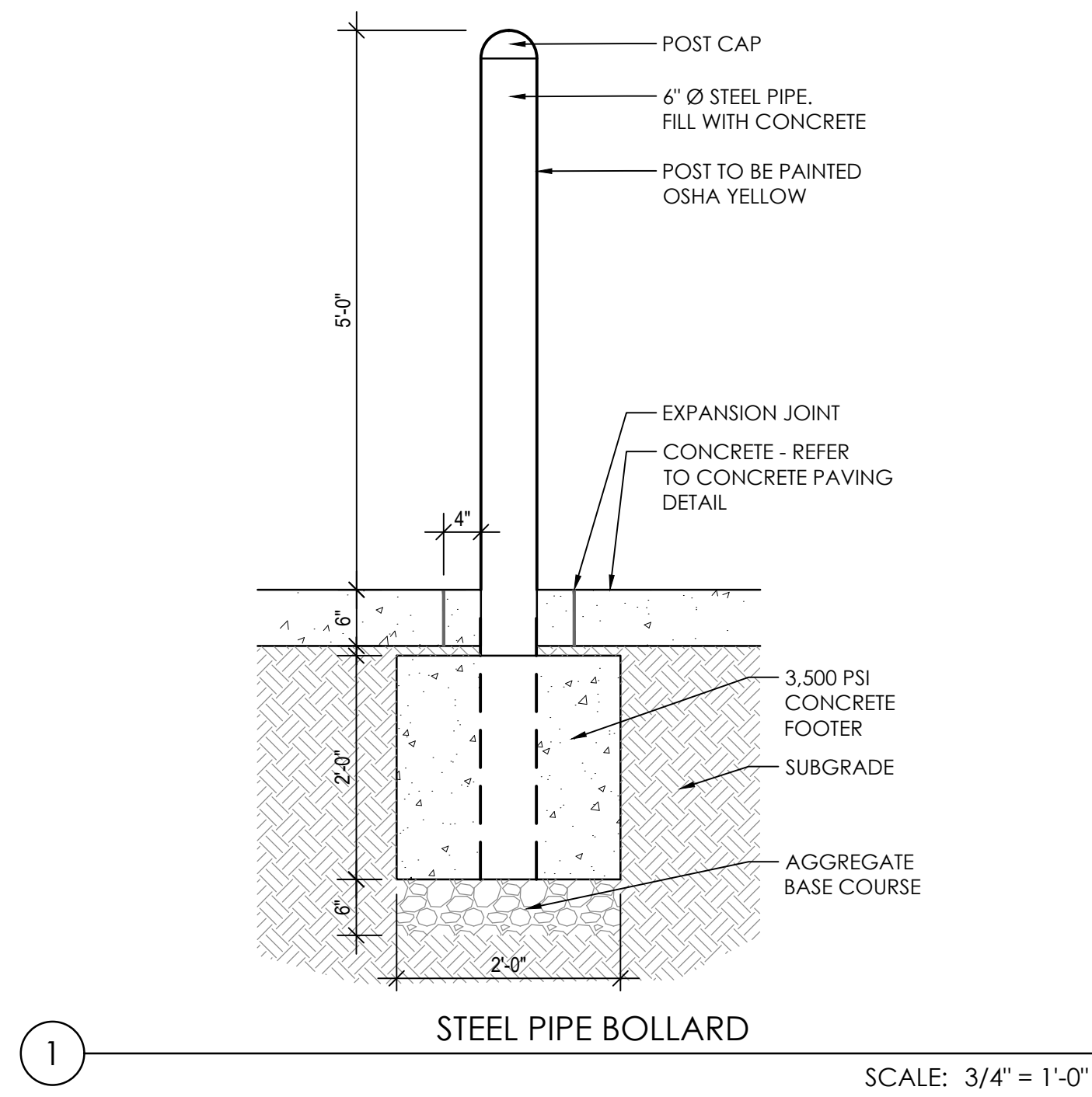
By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

Land Use Administrator



REUSE OF DOCUMENT
This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative, Inc.

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER: 20063
PROJECT PHASE: CONSTRUCTION DRAWINGS

DATE: 12.14.2022
SIGNATURE SET

SHEET TITLE: SITE DETAILS

SHEET NUMBER: L202

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

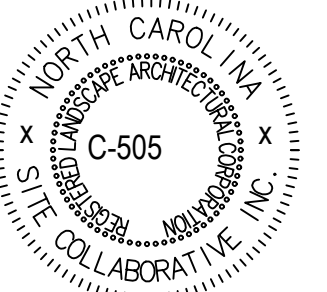
By: _____ Date: _____

Town Engineer

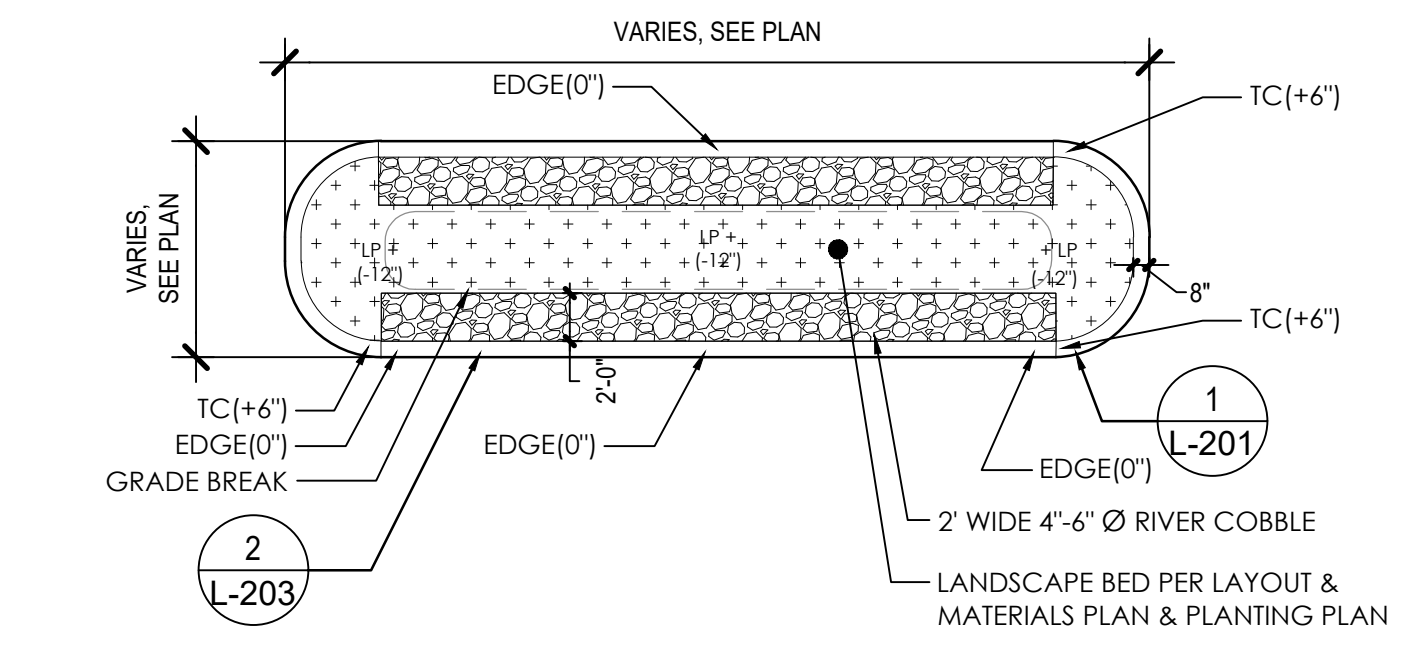
These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

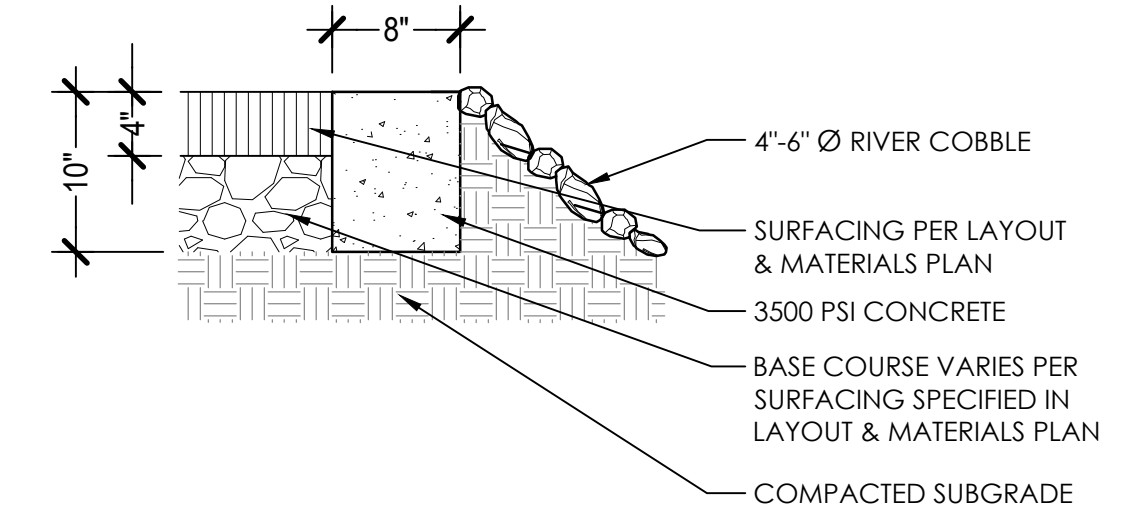
Land Use Administrator



REUSE OF DOCUMENT
This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.



1 BIORETENTION ISLAND ENLARGEMENT
SCALE: 1/8" = 1'-0"



2 FLUSH CURB (BIORETENTION AREAS)
SCALE: 1" = 1'-0"

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
Land Use Administrator

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

PROJECT PHASE:
CONSTRUCTION
DRAWINGS

DATE:
12.14.2022

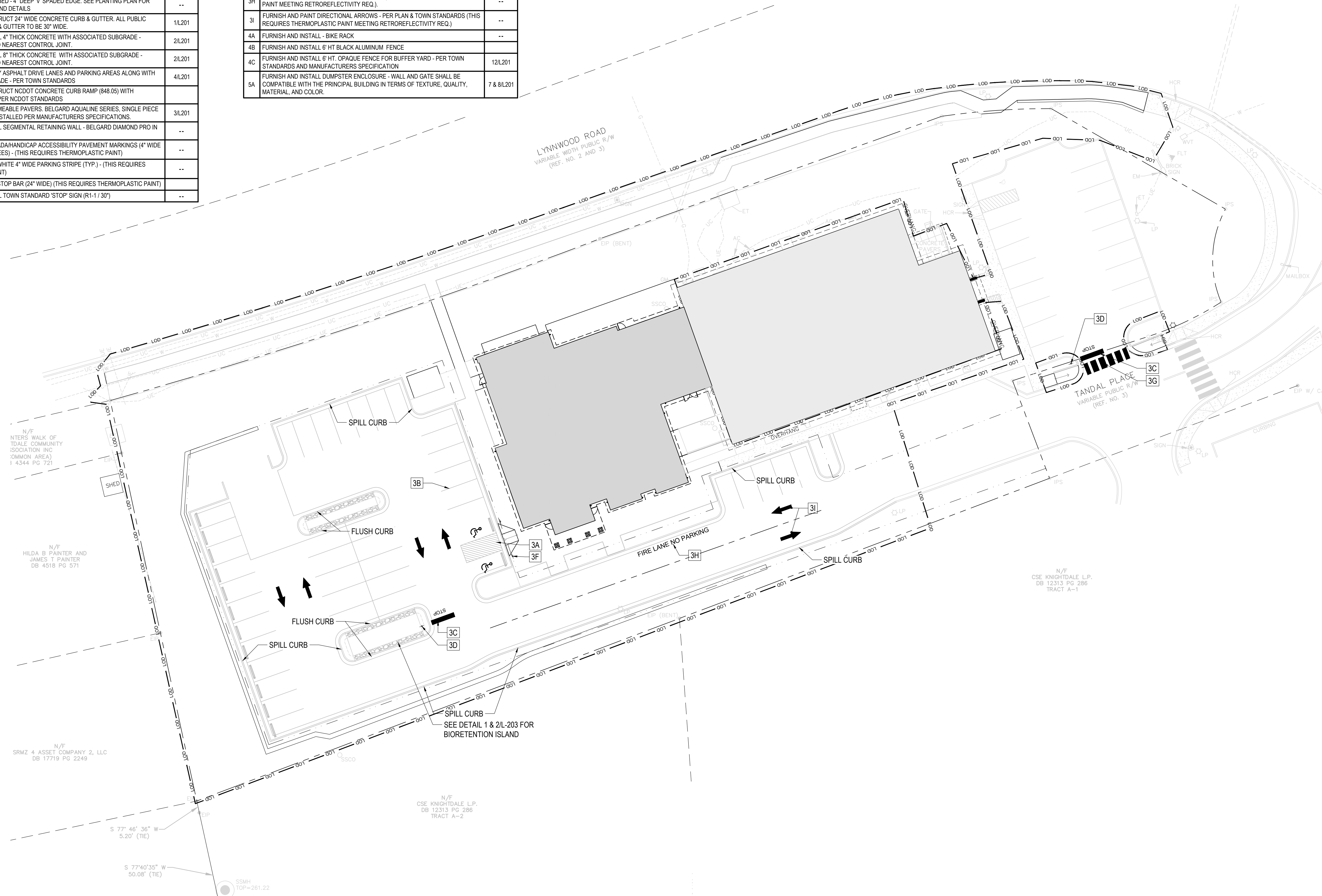
SIGNATURE SET

SHEET TITLE:
SITE DETAILS

SHEET NUMBER:
L203

KEY	DESCRIPTION	DETAIL / SHEET
1A	PLANTING BED - TRIPLE SHREDDED HARDWOOD MULCH - SEE PLANTING PLAN	--
1B	LIMITS OF PLANTING BED - 4" DEEP V' SPADED EDGE. SEE PLANTING PLAN FOR ADDITIONAL NOTES AND DETAILS	--
2A	FURNISH AND CONSTRUCT 24" WIDE CONCRETE CURB & GUTTER. ALL PUBLIC STREET/ROAD CURB & GUTTER TO BE 30" WIDE.	1/L201
2B	FURNISH AND INSTALL 4" THICK CONCRETE WITH ASSOCIATED SUBGRADE - SAWCUT EXISTING TO NEAREST CONTROL JOINT.	2/L201
2C	FURNISH AND INSTALL 8" THICK CONCRETE WITH ASSOCIATED SUBGRADE - SAWCUT EXISTING TO NEAREST CONTROL JOINT.	2/L201
2D	FURNISH HEAVY DUTY ASPHALT DRIVE LANES AND PARKING AREAS ALONG WITH ASSOCIATED SUBGRADE - PER TOWN STANDARDS	4/L201
2E	FURNISH AND CONSTRUCT NCDOT CONCRETE CURB RAMP (848.05) WITH TRUNCATED DOMES PER NCDOT STANDARDS	
2F	VEHICLE-RATED PERMEABLE PAVERS, BELGARD AQUALINE SERIES, SINGLE PIECE HATTERAS COLOR. INSTALLED PER MANUFACTURERS SPECIFICATIONS.	3/L201
2G	FURNISH AND INSTALL SEGMENTAL RETAINING WALL - BELGARD DIAMOND PRO IN PLANTATION COLOR	--
3A	FURNISH AND PAINT ADA/HANDICAP ACCESSIBILITY PAVEMENT MARKINGS (4" WIDE STRIPES AT 45 DEGREES) - (THIS REQUIRES THERMOPLASTIC PAINT)	--
3B	FURNISH AND PAINT WHITE 4" WIDE PARKING STRIPE (TYP.) - (THIS REQUIRES THERMOPLASTIC PAINT)	--
3C	FURNISH AND PAINT STOP BAR (24" WIDE) (THIS REQUIRES THERMOPLASTIC PAINT)	--
3D	FURNISH AND INSTALL TOWN STANDARD 'STOP' SIGN (R1-1/30')	--

3E	FURNISH AND INSTALL PRECAST CONCRETE WHEELSTOP PER PARKING SPACE	11/L201
3F	FURNISH AND INSTALL TOWN STANDARD 'HANDICAP PARKING' SIGN	10/L201
3G	FURNISH AND PAINT CROSSWALK - PER TOWN STANDARDS (THIS REQUIRES THERMOPLASTIC PAINT)	--
3H	FURNISH AND PAINT "NO PARKING FIRE LANE" (THIS REQUIRES THERMOPLASTIC PAINT MEETING RETROREFLECTIVITY REQ.)	--
3I	FURNISH AND PAINT DIRECTIONAL ARROWS - PER PLAN & TOWN STANDARDS (THIS REQUIRES THERMOPLASTIC PAINT MEETING RETROREFLECTIVITY REQ.)	--
4A	FURNISH AND INSTALL - BIKE RACK	--
4B	FURNISH AND INSTALL 6' HT BLACK ALUMINUM FENCE	
4C	FURNISH AND INSTALL 6' HT. OPAQUE FENCE FOR BUFFER YARD - PER TOWN STANDARDS AND MANUFACTURERS SPECIFICATION	12/L201
5A	FURNISH AND INSTALL DUMPSTER ENCLOSURE - WALL AND GATE SHALL BE COMPATIBLE WITH THE PRINCIPAL BUILDING IN TERMS OF TEXTURE, QUALITY, MATERIAL, AND COLOR.	7 & 8/L201



a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____

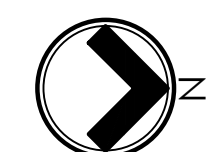
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

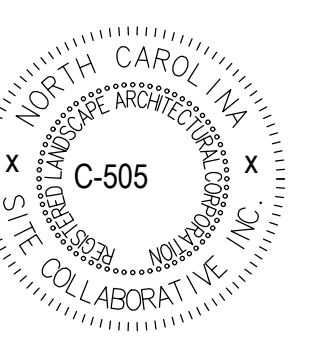
By: _____ Date: _____

Land Use Administrator

SCALE: 1"=20'



821 Wake Forest Road
Raleigh, NC 27604 | 919.805.3596



REUSE OF DOCUMENT
This document is the property of Site Collaborative, Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative, Inc.

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

CONSTRUCTION DRAWINGS

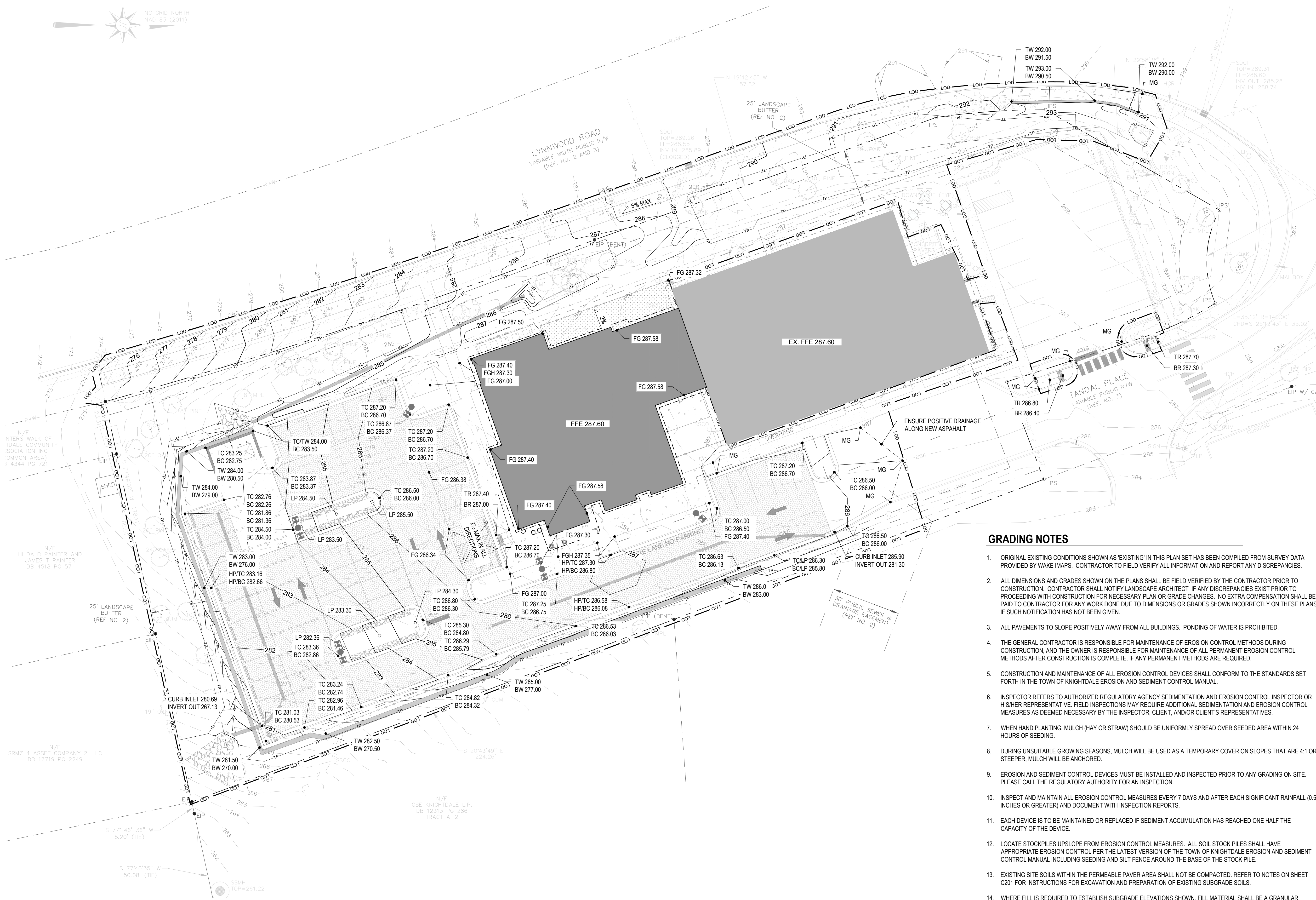
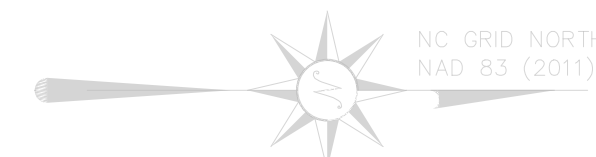
12.14.2022

SIGNATURE SET

TRAFFIC SIGNS & MARKINGS PLAN

SHEET NUMBER:

L204



GRADING NOTES

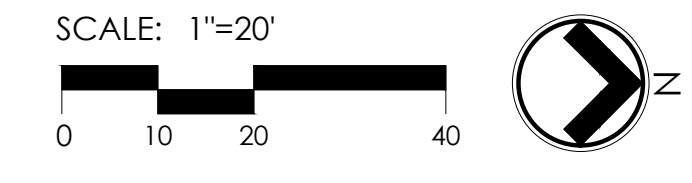
1. ORIGINAL EXISTING CONDITIONS SHOWN AS 'EXISTING' IN THIS PLAN SET HAS BEEN COMPILED FROM SURVEY DATA PROVIDED BY WAKE IMAPS. CONTRACTOR TO FIELD VERIFY ALL INFORMATION AND REPORT ANY DISCREPANCIES.
2. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
3. ALL PAVEMENTS TO SLOPE POSITIVELY AWAY FROM ALL BUILDINGS. PONDING OF WATER IS PROHIBITED.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF EROSION CONTROL METHODS DURING CONSTRUCTION, AND THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT EROSION CONTROL METHODS AFTER CONSTRUCTION IS COMPLETE, IF ANY PERMANENT METHODS ARE REQUIRED.
5. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE TOWN OF KNIGHTDALE EROSION AND SEDIMENT CONTROL MANUAL.
6. INSPECTOR REFERS TO AUTHORIZED REGULATORY AGENCY SEDIMENTATION AND EROSION CONTROL INSPECTOR OR HIS/HER REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR, CLIENT, AND/OR CLIENT'S REPRESENTATIVES.
7. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING.
8. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER ON SLOPES THAT ARE 4:1 OR STEEPER. MULCH WILL BE ANCHORED.
9. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY GRADING ON SITE. PLEASE CALL THE REGULATORY AUTHORITY FOR AN INSPECTION.
10. INSPECT AND MAINTAIN ALL EROSION CONTROL MEASURES EVERY 7 DAYS AND AFTER EACH SIGNIFICANT RAINFALL (0.5 INCHES OR GREATER) AND DOCUMENT WITH INSPECTION REPORTS.
11. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE.
12. LOCATE STOCKPILES UPSLOPE FROM EROSION CONTROL MEASURES. ALL SOIL STOCK PILES SHALL HAVE APPROPRIATE EROSION CONTROL PER THE LATEST VERSION OF THE TOWN OF KNIGHTDALE EROSION AND SEDIMENT CONTROL MANUAL INCLUDING SEEDING AND SILT FENCE AROUND THE BASE OF THE STOCK PILE.
13. EXISTING SITE SOILS WITHIN THE PERMEABLE PAVEMENT AREA SHALL NOT BE COMPACTED. REFER TO NOTES ON SHEET C201 FOR INSTRUCTIONS FOR EXCAVATION AND PREPARATION OF EXISTING SUBGRADE SOILS.
14. WHERE FILL IS REQUIRED TO ESTABLISH SUBGRADE ELEVATIONS SHOWN, FILL MATERIAL SHALL BE A GRANULAR MATERIAL CONTAINING LESS THAN 10% FINES. COMPACT FILL MATERIAL IN ACCORDANCE WITH GRADING PLANS AND DETAILS. FOLLOWING PLACEMENT OF FILL AND PRIOR TO PLACEMENT OF AGGREGATE STORAGE MATERIAL, VERIFY PERMEABILITY AND MAKE ANY NEEDED ADJUSTMENTS TO MAINTAIN MINIMUM INFILTRATION RATES OF EXISTING SOIL PRIOR TO CONSTRUCTION. SEE NOTES ON SHEET C201 FOR SURFACE PREPARATION INSTRUCTIONS.

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

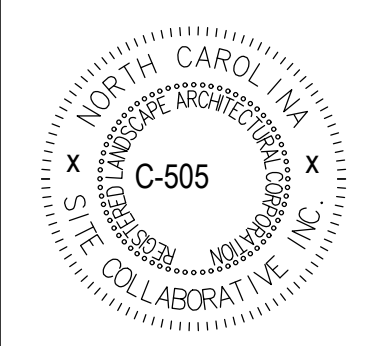
By: _____ Date: _____
Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____
Land Use Administrator



821 Wake Forest Road
 Raleigh, NC 27604 | 919.805.3596



REUSE OF DOCUMENT
 This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
 Rowdy Ridebacks Holdings LLC
 1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
 20063

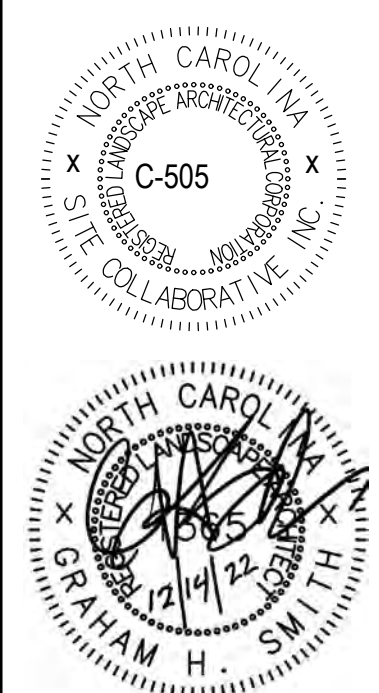
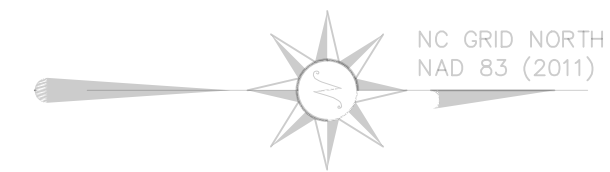
PROJECT PHASE:
 CONSTRUCTION DRAWINGS

DATE:
 12.14.2022

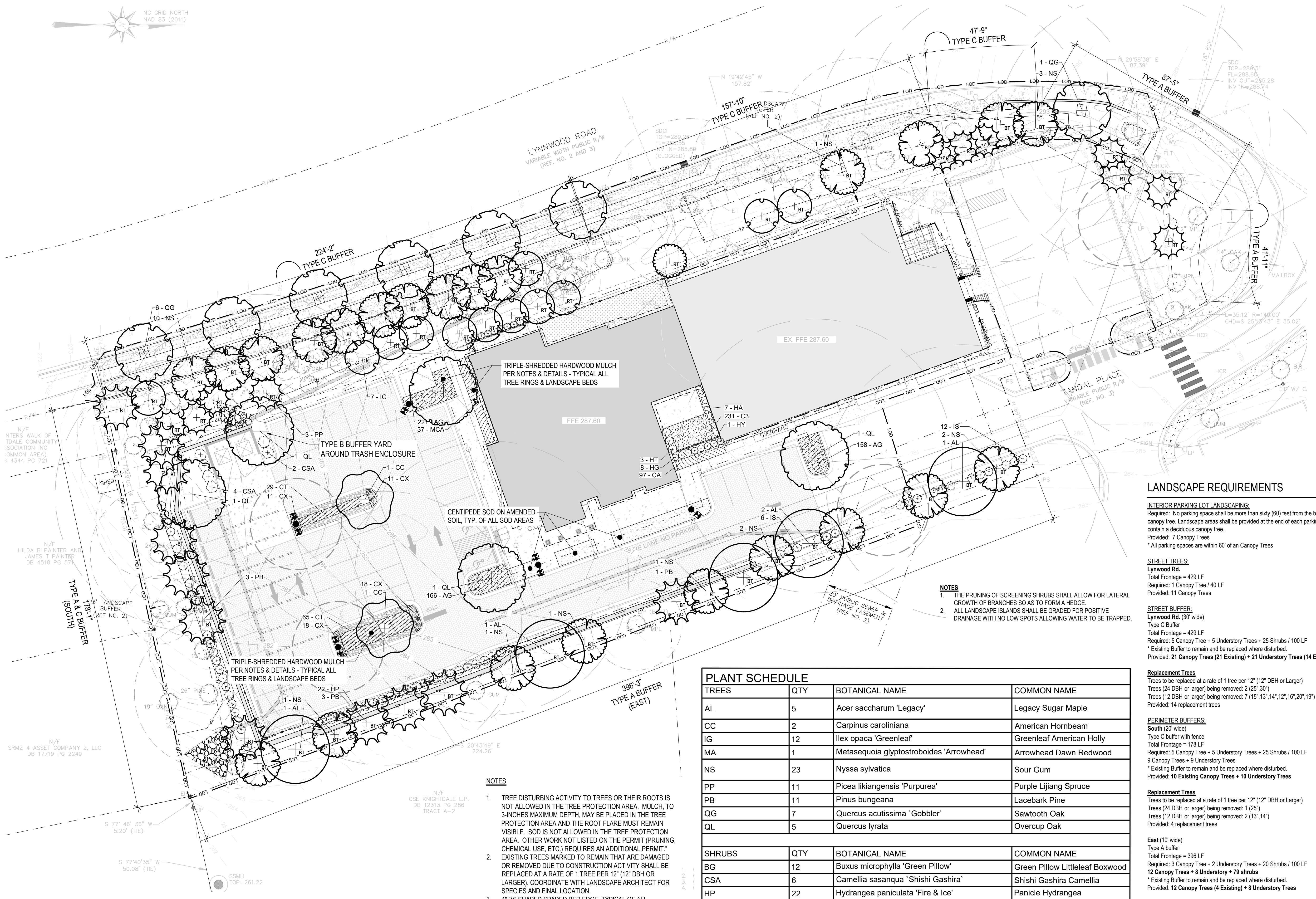
SIGNATURE SET

SHEET TITLE:
GRADING PLAN

SHEET NUMBER:
L300



REUSE OF DOCUMENT
This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.



TRIPLE-SHREDDED HARDWOOD MULCH PER NOTES & DETAILS - TYPICAL ALL TREE RINGS & LANDSCAPE BEDS

CENTIPEDE SOD ON AMENDED SOIL, TYP. OF ALL SOD AREAS

TYPE B BUFFER YARD AROUND TRASH ENCLOSURE

TRIPLE-SHREDDED HARDWOOD MULCH PER NOTES & DETAILS - TYPICAL ALL TREE RINGS & LANDSCAPE BEDS

- NOTES**
- THE PRUNING OF SCREENING SHRUBS SHALL ALLOW FOR LATERAL GROWTH OF BRANCHES SO AS TO FORM A HEDGE.
 - ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.

- NOTES**
- TREE DISTURBING ACTIVITY TO TREES OR THEIR ROOTS IS NOT ALLOWED IN THE TREE PROTECTION AREA. MULCH, TO 3-INCHES MAXIMUM DEPTH, MAY BE PLACED IN THE TREE PROTECTION AREA AND THE ROOT FLARE MUST REMAIN VISIBLE. SOD IS NOT ALLOWED IN THE TREE PROTECTION AREA. OTHER WORK NOT LISTED ON THE PERMIT (PRUNING, CHEMICAL USE, ETC.) REQUIRES AN ADDITIONAL PERMIT. EXISTING TREES MARKED TO REMAIN THAT ARE DAMAGED OR REMOVED DUE TO CONSTRUCTION ACTIVITY SHALL BE REPLACED AT A RATE OF 1 TREE PER 12" (12" DBH OR LARGER), COORDINATE WITH LANDSCAPE ARCHITECT FOR SPECIES AND FINAL LOCATION.
 - 4" "V" SHAPED SPADED BED EDGE, TYPICAL OF ALL LANDSCAPE BEDS AND MULCH RINGS.
 - TRIPLE-SHREDDED HARDWOOD MULCH, TYPICAL OF ALL LANDSCAPE BEDS AND MULCH RINGS.
 - REMOVE WEEDS FROM MULCH, REPLACE MULCH WHEN NECESSARY, CLEAN UP MULCH MOVED ON SITE.
- SEE SHEET L401 FOR ADDITIONAL INFORMATION REGARDING PLANT SCHEDULE
 - RT = REPLACEMENT TREES (SEE PLAN)
 - BT = BUFFER TREES (SEE PLAN)

TREES	QTY	BOTANICAL NAME	COMMON NAME
AL	5	Acer saccharum 'Legacy'	Legacy Sugar Maple
CC	2	Carpinus caroliniana	American Hornbeam
IG	12	Ilex opaca 'Greenleaf'	Greenleaf American Holly
MA	1	Metasequoia glyptostroboides 'Arrowhead'	Arrowhead Dawn Redwood
NS	23	Nyssa sylvatica	Sour Gum
PP	11	Picea likiangensis 'Purpurea'	Purple Lijiang Spruce
PB	11	Pinus bungeana	Lacebark Pine
QL	7	Quercus acutissima 'Gobbler'	Sawtooth Oak
QL	5	Quercus lyrata	Overcup Oak
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME
BG	12	Buxus microphylla 'Green Pillow'	Green Pillow Littleleaf Boxwood
CSA	6	Camellia sasanqua 'Shishi Gashira'	Shishi Gashira Camellia
HP	22	Hydrangea paniculata 'Fire & Ice'	Panicle Hydrangea
HG	8	Hydrangea paniculata 'Grandiflora'	PeeGee Panicle Hydrangea
HT	3	Hydrangea quercifolia 'BIV01' TM	Tara Oakleaf Hydrangea
IS	43	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly

*SEE SHEET L401 FOR FULL PLANT SCHEDULE.

LANDSCAPE REQUIREMENTS

INTERIOR PARKING LOT LANDSCAPING:
Required: No parking space shall be more than sixty (60) feet from the base of a deciduous canopy tree. Landscape areas shall be provided at the end of each parking row and shall contain a deciduous canopy tree.
Provided: 7 Canopy Trees
* All parking spaces are within 60' of an Canopy Trees

STREET TREES:
Lynwood Rd.
Total Frontage = 429 LF
Required: 1 Canopy Tree / 40 LF
Provided: 11 Canopy Trees

STREET BUFFER:
Lynwood Rd. (30' wide)
Type C Buffer
Total Frontage = 429 LF
Required: 5 Canopy Tree + 5 Understory Trees + 25 Shrubs / 100 LF
* Existing Buffer to remain and be replaced where disturbed.
Provided: 21 Canopy Trees (21 Existing) + 21 Understory Trees (14 Existing)

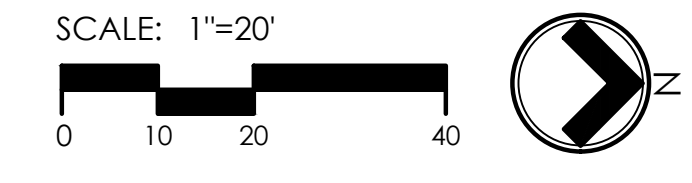
Replacement Trees
Trees to be replaced at a rate of 1 tree per 12" (12" DBH or Larger)
Trees (24 DBH or larger) being removed: 2 (26', 30')
Trees (12 DBH or larger) being removed: 7 (15', 13', 14', 12', 16', 20', 19')
Provided: 14 replacement trees

PERIMETER BUFFERS:
South (20' wide)
Type C buffer with fence
Total Frontage = 178 LF
Required: 5 Canopy Tree + 5 Understory Trees + 25 Shrubs / 100 LF
9 Canopy Trees + 9 Understory Trees
* Existing Buffer to remain and be replaced where disturbed.
Provided: 10 Existing Canopy Trees + 10 Understory Trees

Replacement Trees
Trees to be replaced at a rate of 1 tree per 12" (12" DBH or Larger)
Trees (24 DBH or larger) being removed: 1 (25')
Trees (12 DBH or larger) being removed: 2 (13', 14')
Provided: 4 replacement trees

East (10' wide)
Type A Buffer
Total Frontage = 396 LF
Required: 3 Canopy Tree + 2 Understory Trees + 20 Shrubs / 100 LF
12 Canopy Trees + 8 Understory + 79 shrubs
* Existing Buffer to remain and be replaced where disturbed.
Provided: 12 Canopy Trees (4 Existing) + 8 Understory Trees

Replacement Trees
Trees to be replaced at a rate of 1 tree per 12" (12" DBH or Larger)
Trees (24 DBH or larger) being removed: 0
Trees (12 DBH or larger) being removed: 5 (12', 13', 12', 14', 17')
Provided: 6 replacement trees



a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

Land Use Administrator

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

CONSTRUCTION DRAWINGS
12.14.2022

SIGNATURE SET

LANDSCAPE PLAN

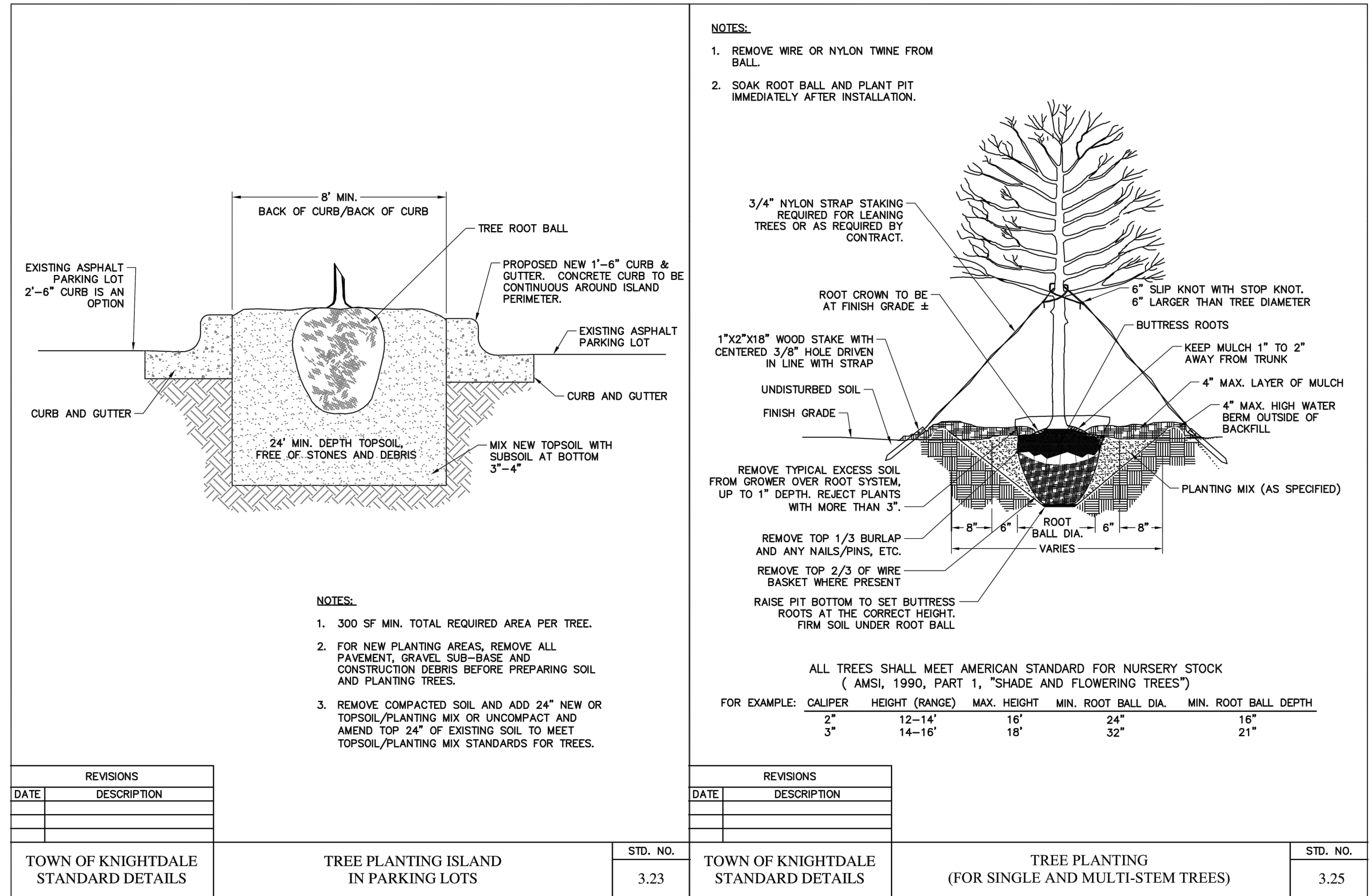
SHEET NUMBER:
L400

PLANTING NOTES

- ROUGH GRADING TO BE COMPLETED PRIOR TO THE START OF PLANT INSTALLATION. SUBSTANTIAL COMPLETION SIGN-OFF BY LANDSCAPE ARCHITECT CONTRACTOR TO ENSURE NO CHANNELIZED FLOWS AROUND THE SITE.
- CONTRACTOR RESPONSIBLE FOR LOCATING ALL UTILITIES AND UNDERGROUND IMPEDIMENTS PRIOR TO BEGINNING PLANTING.
- ALL WEEDS, NON-NATIVE INVASIVE SPECIES, AND EXOTIC SPECIES LOCATED WITHIN THE PROJECT CONTRACTOR LIMITS SHALL BE ELIMINATED PRIOR TO PLANTING BED CREATION, PLANTING, AND SEEDING/SODDING OPERATIONS.
- PLANTING SHOULD OCCUR IMMEDIATELY AFTER CONSTRUCTION TO STABILIZE AREAS OF BARE SOIL.
- IT SHALL BE NOTED THAT ALL SECTIONS OF THE SITE THAT ARE SLOPED 3:1 OR HIGHER WILL BE COVERED WITH EROSION CONTROL STABILIZATION COIR FABRIC (WITH 1" SQUARE OPENINGS) PRIOR TO PLANTING TO ENSURE IMMEDIATE STABILIZATION. LANDSCAPE CONTRACTOR SHALL CUT FABRIC AT EACH PLANT LOCATION AND PLACE PLANTS ACCORDING TO PLAN. ALL FABRIC SHALL BE RE-STAKED PER ENGINEERS ORIGINAL DRAWINGS IMMEDIATELY AFTER PLANTING.
- PLANTS ARE TO BE PURCHASED BY SCIENTIFIC NAMES. THEY SHALL BE REPRESENTATIVE OF THEIR SPECIES. MEET ALL NOTED CONDITIONS OF SPECIFICATIONS, AND SHALL BE IN VIGOROUS GROWING CONDITION MEETING ANSI STANDARD Z60.
- LANDSCAPE ARCHITECT OR OWNER MAINTAINS RIGHT TO REJECT ANY PLANT DUE TO AESTHETICS OR STRUCTURAL DEFICIENCY AT ANY TIME.
- CONTRACTOR RESPONSIBLE FOR FURNISHING AND INSTALLING ALL PLANTS SHOWN ON PLANS IN LOCATIONS SHOWN. QUANTITIES GIVEN ON THE PLANT LEGEND ARE FOR CONTRACTOR'S CONVENIENCE ONLY. IF DISCREPANCIES OCCUR, THE PLANS SHALL OVERRULE THE PLANT LEGEND. CONTRACTOR SHALL LOCATE ALL PLANTS AWAY FROM KNOWN PERMANENT FIXTURES. IF CONFLICT ARISES WITH PLAN, CONTRACTOR SHALL NOTIFY PROJECT MANAGER OR DESIGNER PRIOR TO PROCEEDING.
- ALL PLANT MATERIAL SHALL CONFORM TO OR EXCEED THE AMERICAN STANDARD FOR NURSERY STOCK (LATEST EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANT MATERIAL SHALL BE FREE OF ALL PESTS, DISEASES, AND CANKERS, IN HEALTHY CONDITION, AND FREE OF MECHANICAL DAMAGE AT THE TIME OF PLANTING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE A HEALTHY AND VIABLE PLANT AND THE PLANT SHALL BE REJECTED IF DEEMED UNHEALTHY OR UNFIT AT ANY TIME DURING THE CONTRACT OR WARRANTY DURATION.
- IF ANY PLANT/MATERIAL SUBSTITUTIONS ARE REQUESTED BY CONTRACTOR, THEN NOTICE SHALL BE GIVEN TO PROJECT MANAGER OR DESIGNER AT MINIMUM SEVENTY-TWO (72) HOURS (NOT INCLUDING WEEKENDS) PRIOR TO DESIRED ORDERING DATE/TIME. WHEN SUBSTITUTIONS ARE REQUESTED BY CONTRACTOR, SUGGESTED ACCEPTABLE REPLACEMENTS SHALL ALSO BE PRESENTED AT TIME FOR FULL AND COMPLETE REVIEW BY LANDSCAPE ARCHITECT OR OWNER.
- BALLED AND BURLAPPED PLANTS/TREES TO BE PLANTED PRIOR TO CONTAINER OR BEDDING PLANTS.
- BALLED AND BURLAPPED MATERIAL SHALL COMPLY WITH THE FOLLOWING GUIDELINES:
 - TREES DESIGNATED B&B SHALL BE PROPERLY DUG WITH FIRM, NATURAL BALLS OF SOIL RETAINING AS MANY FIBROUS ROOTS AS POSSIBLE, IN SIZES AND SHAPES AS SPECIFIED IN THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1.
 - ROOT BALLS SHALL BE FIRMLY WRAPPED WITH NONSYNTHETIC, ROTTABLE BURLAP AND SECURED WITH NAILS AND HEAVY, NONSYNTHETIC TWINE.
 - ROOT COLLAR SHALL BE APPARENT AT SURFACE OF BALL, OR THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING EXCESS SOIL FROM THE TOP OF THE ROOTBALL.
 - REMOVE ALL BURLAP, LACING, AND WIRE BASKET FROM AT LEAST THE TOP 1/2 OF THE ROOTBALL AND DISCARD FROM PLANTING HOLE.
 - DO NOT MANEUVER BY TRUNK. HANDLE BY ROOT BALL ONLY.
- CONTAINERIZED PLANTS SHALL COMPLY WITH THE FOLLOWING GUIDELINES:
 - MATERIAL SHALL HAVE FIRM, NATURAL BALLS OF SOIL RETAINING AS MANY FIBROUS ROOTS AS POSSIBLE, IN SIZES AND SHAPES AS SPECIFIED IN THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1.
 - ROOT COLLAR SHALL BE APPARENT AT SURFACE OF BALL, OR THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING EXCESS SOIL FROM THE TOP OF THE ROOTBALL.
 - REMOVE CONTAINER PRIOR TO PLANTING.
- TREES TO BE STAKED WILL BE DESIGNATED BY THE LANDSCAPE ARCHITECT. TREE STAKING FOR CANOPY AND LARGE EVERGREEN TREES SHALL NOT EXCEED 90 DAYS.
- PLANT BED PREPARATION:
 - ALL PLANT BEDS ARE TO RECEIVE A MINIMUM OF 4" OF APPROVED TOPSOIL FILLED IN TO A DEPTH OF 8" TO ENSURE INTEGRATION WITH EXISTING SOIL.
 - APPROVED TOPSOIL IS TO BE PREFERABLY FROM ON-SITE STOCKPILE FROM STRIPPING OPERATIONS - SEE EROSION AND SEDIMENT CONTROL PLANS.
 - IF ON-SITE TOPSOIL IS NOT AVAILABLE, CONTRACTOR SHALL PROVIDE TO SITE ACCORDINGLY.
- ALL MULCH TO BE CERTIFIED TO BE FREE OF WEEDS, NON-NATIVE INVASIVE SPECIES AND THEIR LARVAE. MULCH SAMPLE SUBMITTAL SHALL BE PROVIDED TO LANDSCAPE ARCHITECT BEFORE SITE DELIVERY.

SEEDING/SODDING NOTES

- ROUGH GRADING TO BE COMPLETED PRIOR TO THE START OF PLANT INSTALLATION. SUBSTANTIAL COMPLETION SIGN-OFF BY LANDSCAPE ARCHITECT CONTRACTOR TO ENSURE NO CHANNELIZED FLOWS AROUND THE SITE.
- ALL SEEDED/SODDED AREAS SHALL BE FINISHED GRADE AT THE THICKNESS OF THE SOD.
- NO SEEDED/SODDED AREAS SHALL BE SODDED UNTIL ALL OTHER CONSTRUCTION ACTIVITIES, INCLUDING PLANTING AND MULCHING HAVE OCCURRED AND LANDSCAPE ARCHITECT HAVE REVIEWED THE FINAL GRADING.
- SOD AREAS WILL BE ACCEPTED WHEN IN COMPLIANCE WITH ALL THE FOLLOWING CONDITIONS:
 - ROOTS ARE THOROUGHLY KNIT TO THE SOIL
 - ABSENCE OF VISIBLE JOINTS
 - ALL AREAS SHOW A UNIFORM STAND OF SPECIFIED GRASS IN HEALTHY CONDITION
 - AT LEAST 30 DAYS HAVE ELAPSED SINCE THE COMPLETION OF WORK UNDER THIS SECTION.
- QUALITY GUARANTEE:
 - SOD SHALL BE UNIFORM IN COLOR, LEAF TEXTURE, LEAF AND ROOT DENSITY, AND FREE FROM WEED, DISEASES, AND OTHER VISIBLE IMPERFECTIONS AT TIME OF FINAL ACCEPTANCE. GUARANTEE DOES NOT COVER DAMAGE AS A RESULT OF FERTILIZERS, PESTICIDES, OR OTHER APPLICATIONS NOT SUPERVISED BY THE CONTRACTOR OR AS A RESULT OF ACTS OF GOD OR VANDALISM.
 - SEED SHALL BE UNIFORM IN COLOR, LEAF TEXTURE, LEAF AND ROOT DENSITY, AND FREE FROM WEED, DISEASES, AND OTHER VISIBLE IMPERFECTIONS AT TIME OF FINAL ACCEPTANCE. GUARANTEE DOES NOT COVER DAMAGE AS A RESULT OF FERTILIZERS, PESTICIDES, OR OTHER APPLICATIONS NOT SUPERVISED BY THE CONTRACTOR OR AS A RESULT OF ACTS OF GOD OR VANDALISM.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE SEED/SOD IS PROPERLY IRRIGATED DURING THE GROW-IN PERIOD AND SHALL BE RESPONSIBLE IF THE SOD SUFFERS IRREPARABLE HARM.
- SEED/SOD IS SUBJECT TO INSPECTION AND ACCEPTANCE. LANDSCAPE ARCHITECT AND/OR CLIENT RESERVES THE RIGHT TO REJECT AT ANY TIME OR PLACE PRIOR TO ACCEPTANCE. ANY WORK AND SOD WHICH IN THE LANDSCAPE ARCHITECT'S OPINION FAILS TO MEET THESE SPECIFICATIONS REQUIREMENTS.
- SOD STANDARDS:
 - GENERAL: HEALTHY, THICK TURF HAVING UNDERGONE A PROGRAM OF REGULAR FERTILIZATION, MOWING AND WEED CONTROL; FREE OF OBJECTABLE WEEDS; UNIFORM IN GREEN COLOR, LEAF TEXTURE AND DENSITY; HEALTHY, VIGOROUS ROOT SYSTEM; INSPECTED AND FOUND FREE OF DISEASE, NEMATODES, PEST AND PEST LARVAE BY THE ENTOMOLOGIST OF THE STATE DEPARTMENT OF AGRICULTURE.
 - EACH PIECE OF SOD: SANDY-LOAM SOIL BASE THAT WILL NOT BREAK, CRUMBLE OR TEAR DURING SOD INSTALLATION.
 - THICKNESS: MINIMUM 3/4" THICK, EXCLUDING THE TOP GROWTH THATCH.
 - THATCH: NOT TO EXCEED 1/2" UNCOMPRESSED.
 - SIZE: CUT IN STRIPS 18" WIDE NO MORE THAN 24 HOURS PRIOR TO DELIVERY.
- SOD DELIVERY, STORAGE AND HANDLING GUIDELINES ARE AS FOLLOWS:
 - SOD SHALL BE DELIVERED ON PALLETS PROPERLY LOADED ON VEHICLES AND WITH ROOT SYSTEM PROTECTED FROM EXPOSURE TO SUN, WIND, AND HEAT IN ACCORDANCE WITH STANDARD PRACTICE AND LABELED WITH BOTANICAL AND COMMON NAME OF EACH GRASS SPECIES IN ACCORDANCE WITH FEDERAL SEED ACT. SOD THAT HAS BEEN DAMAGED BY POOR HANDLING OR IMPROPER STORAGE IS SUBJECT TO REJECTION BY THE LANDSCAPE ARCHITECT OR OWNER.
 - PROTECT FROM DEHYDRATION, CONTAMINATION, FREEZING AND HEATING AT ALL TIMES. KEEP STORED SOD MOIST AND UNDER SHADE OR COVERED WITH MOISTENED BURLAP.
 - DO NOT DROP SOD ROLLS FROM CARTS, TRUCKS OR PALLETS.
 - DO NOT DELIVER MORE SOD THAN CAN BE INSTALLED WITHIN 36 HOURS.
 - DO NOT STACK SOD MORE THAN 2 FEET DEEP.



TREES	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	B&B OR CONT.	REMARKS	
AL	5	Acer saccharum 'Legacy'	Legacy Sugar Maple	10'-12'	3"-3 1/2"	B&B	Strong, Central Leader Buffer & Canopy Tree	
CC	2	Carpinus caroliniana	American Hornbeam	8'-10'	2"	B & B	Strong central leader Parking Lot	
IG	12	Ilex opaca 'Greenleaf'	Greenleaf American Holly	6'-7'	2 1/2"	B & B	Replacement Tree	
MA	1	Metasequoia glyptostroboides 'Arrowhead'	Arrowhead Dawn Redwood	6'-7'	1 1/2"-2"	B & B	Replacement Tree	
NS	23	Nyssa sylvatica	Sour Gum	10'-12'	3"	B & B	Strong central leader Buffer & Understorey Tree	
PP	11	Picea likiangensis 'Purpurea'	Purple Lijiang Spruce	6'-8'	2 1/2"	B & B	Replacement Tree	
PB	11	Pinus bungeana	Lacebark Pine	6'-7'	2"	B & B	Replacement Tree	
QG	7	Quercus acutissima 'Gobbler'	Sawtooth Oak	10'-12'	3"-3 1/2"	CONTAINER	Strong, Central Leader Street Tree	
QL	5	Quercus lyrata	Overcup Oak	10'-12'	3"	B & B	Strong central leader Parking Lot	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	WIDTH	CONT.	REMARKS	
BG	12	Buxus microphylla 'Green Pillow'	Green Pillow Littleleaf Boxwood	12"	2"			
CSA	6	Camellia sasanqua 'Shishi Gashira'	Shishi Gashira Camellia	Container	36" HT		Full, Dense	
HP	22	Hydrangea paniculata 'Fire & Ice'	Panicle Hydrangea	6" MIN.				
HG	8	Hydrangea paniculata 'Grandiflora'	PeeCee Panicle Hydrangea	12"	18"			
HT	3	Hydrangea quercifolia 'BIV01' TM	Tara Oakleaf Hydrangea	24"	24"	CONTAINER		
IS	43	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	18"	18"			
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CONT. SIZE	SPACING	REMARKS
AG	545	Acorus gramineus 'Ogon'	Golden Variegated Sweetflag	4" pot	8"		12" o.c.	
CX	58	Carex amphibola	Creek Sedge	6"	8"	6" POT	18" o.c.	
CA	97	Carex appalachica	Appalachian Sedge	---	---	FLAT	12" o.c.	
C3	231	Carex eburnea	Bristleleaf Sedge	flat	4"	4" POT	12" o.c.	
CT	94	Carex stricta	Tussock Sedge	12"	12"	1 GAL.	24" o.c.	
CE2	4,832 sf	Cynodon dactylon x transvaalensis 'DT-1' TM	TifTuf Bermuda Grass	---	---	Seed		
HA	7	Hosta x tardiana 'Halcyon'	Halcyon Hosta	6"	12"		30" o.c.	
MCA	37	Muhlenbergia capillaris	Pink Muhly	1 gal			30" o.c.	
VINE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CONT. SIZE	SPACING	REMARKS
HY	1	Hydrangea anomala petiolaris	Climbing Hydrangea	6" PLUG		LANDSCAPE PLUG	60" o.c.	

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

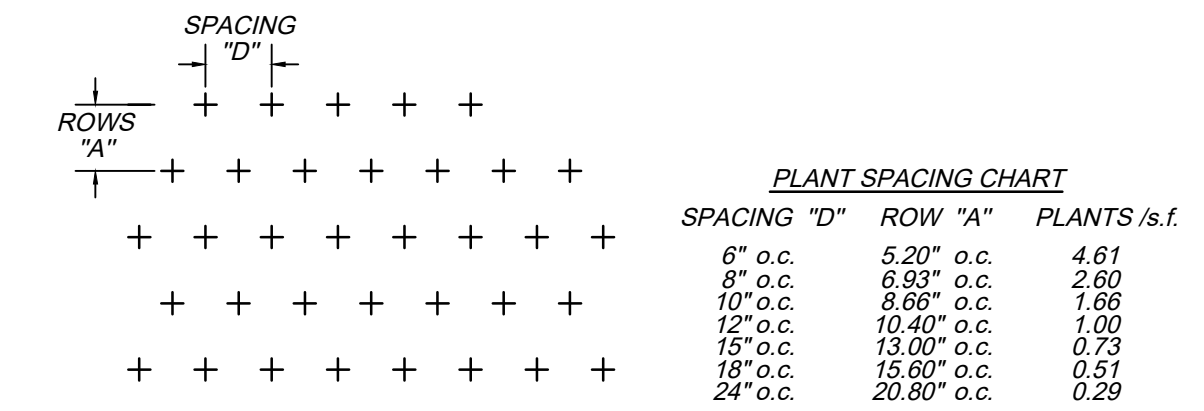
By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

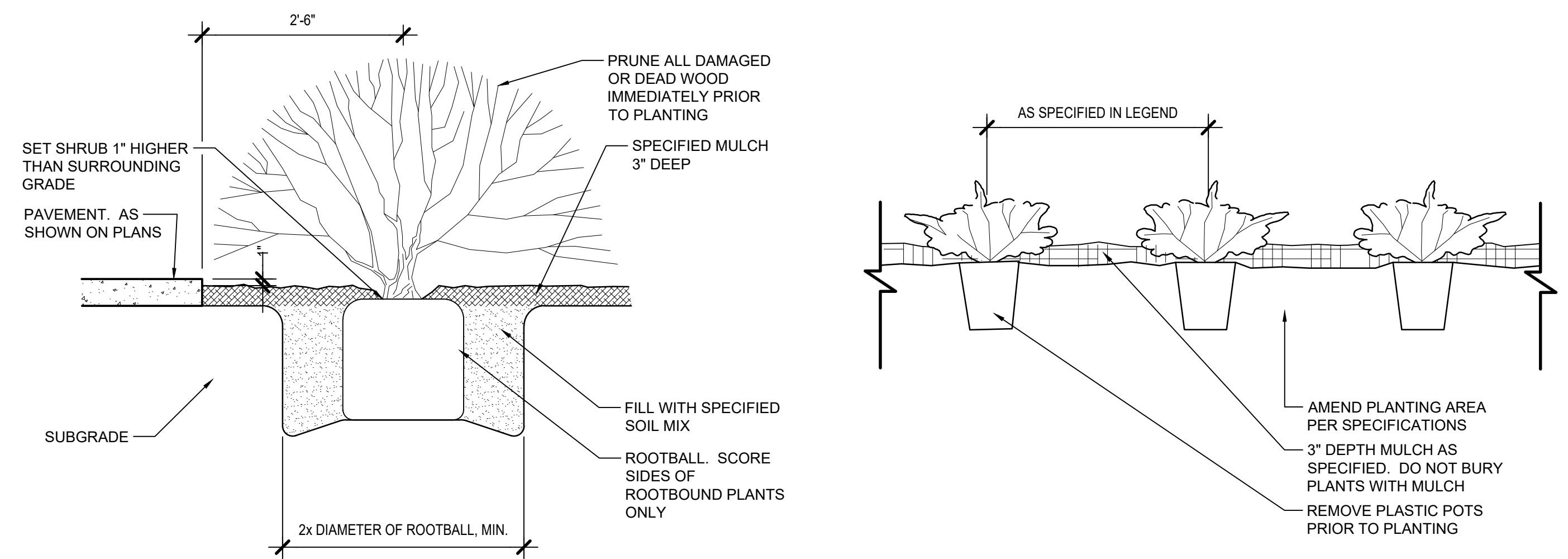
By: _____ Date: _____

Land Use Administrator



2 TRIANGULAR SPACING FOR GROUNDCOVERS

SCALE: NTS



3 SHRUB PLANTING

SCALE: 3/4" = 1'-0"

4 GROUND COVER

SCALE: 1" = 1'-0"



821 Wake Forest Road
Raleigh, NC 27604 | 919.805.3596



REUSE OF DOCUMENT
This document is the property of Site Collaborative, Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative, Inc.

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

PROJECT PHASE:
CONSTRUCTION DRAWINGS

DATE:
12.14.2022

SIGNATURE SET

SHEET TITLE:
PLANTING NOTES & DETAILS

SHEET NUMBER:

L401

STORM DRAINAGE SCHEDULE

Key	Type of Structure	Detail Reference	Inlet Elevation	Invert In	Invert Out	Pipe Out Length	Pipe Out Slope	Pipe Out (in)	Velocity
1	Catch Basin	5/C200	287.4	287.4	286.4	16.5	0.61%	6	2.2
2	Catch Basin	5/C200	287.3	285.9	285.8	6	3.33%	8	6.3
3	Catch Basin	5/C200	287.3	285.8	285.8	8	8.75%	6	8.4
4	Catch Basin	5/C200	287	285	285	8	7.50%	6	7.8
5	Catch Basin	3/C200	286.7	280.8	280.7				0.0
6	Flared End Section			283.9	283.9	131	0.70%	15	4.1
7	Flared End Section			283.0	283.0				
12	Catch Basin	5/C200	287.4	286.2	286.1	24	0.83%	6	2.6
13	Catch Basin	5/C200	287.3	286.2	286.1	38	0.53%	8	2.5
14	Catch Basin	5/C200	287.4	285.9	285.8	43	0.70%	8	2.9
15	Catch Basin	5/C200	287.4	285.5	285.4	35	3.43%	8	6.4
16	Catch Basin	5/C200	287.2	284.2	284.1	14	7.14%	8	9.3
17	Catch Basin	3/C200	287.2	283.1	283	22	7.45%	8	9.5
18	Catch Basin	3/C200	286.5	281.36					
19	Catch Basin	3/C200	286.5	281.3	281.2				
20	Catch Basin	3/C200	286.8	281.08	280.98				
21	Outlet Control Structure	5/C201		277.0	276.9	12	2.00%	18	
22	Curb Inlet	1/C200	280.69		267.13	13	1.00%	18	5.9
23	Flared End Section			267.0	267.0				
24	Flared End Section			285.49	285.39				15
25	Curb Inlet	1/C200	285.9		282.4	39	0.70%	12	
26	Catch Basin	3/C200	286.5	282.1	282.1	111	0.50%	12	
27	Catch Basin	3/C200	285.6	281.6	281.6				

OUTLET PROTECTION SCHEDULE

KEY	TYPE STRUCTURE	INVERT	PIPE SIZE	DISCHARGE	VELOCITY	PAD LENGTH	PAD WIDTH	STONE DIAMETER
D1	STONE DISSIPATOR	267.0	18"	10 CFS	5.9	20	21.5	9"
D2	STONE DISSIPATOR	282.5	15"	2.0 CFS	7.8	12	13.25	6"

DEVELOPMENT INFORMATION

SITE AREA: 1.713 ACRES
 TOTAL BUILT-UPON AREA: 57,487 SF/ 1.320 ACRES
 IMPERVIOUS PERCENTAGE: 56%

DA#1
 TOTAL AREA: 0.046 ACRES
 TOTAL IMPERVIOUS AREA: 0.002 ACRES
 IMPERVIOUS PERCENTAGE: 4.3%

DA#2
 TOTAL AREA: 0.092 ACRES
 TOTAL IMPERVIOUS AREA: 0.017 ACRES
 IMPERVIOUS PERCENTAGE: 18.5%

DA#3
 TOTAL AREA: 0.078 ACRES
 TOTAL IMPERVIOUS AREA: 0.002 ACRES
 IMPERVIOUS PERCENTAGE: 2.6%

DA#4
 TOTAL AREA: 0.075 ACRES
 TOTAL IMPERVIOUS AREA: 0.001 ACRES
 IMPERVIOUS PERCENTAGE: 1.3%

DA#5
 TOTAL AREA: 1.057 ACRES
 TOTAL IMPERVIOUS AREA: 0.707 ACRES
 IMPERVIOUS PERCENTAGE: 66.9%

TOWN CERTIFICATION
 THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
 TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
 LAND USE ADMINISTRATOR

Finch & Associates
 309 North Boylan Avenue
 Raleigh, NC 27603-1402
 T 919 | 833-1212
 F 919 | 834-3203

NCBELS Lic. No. P-1845
 NCBOLA Lic. No. C-656

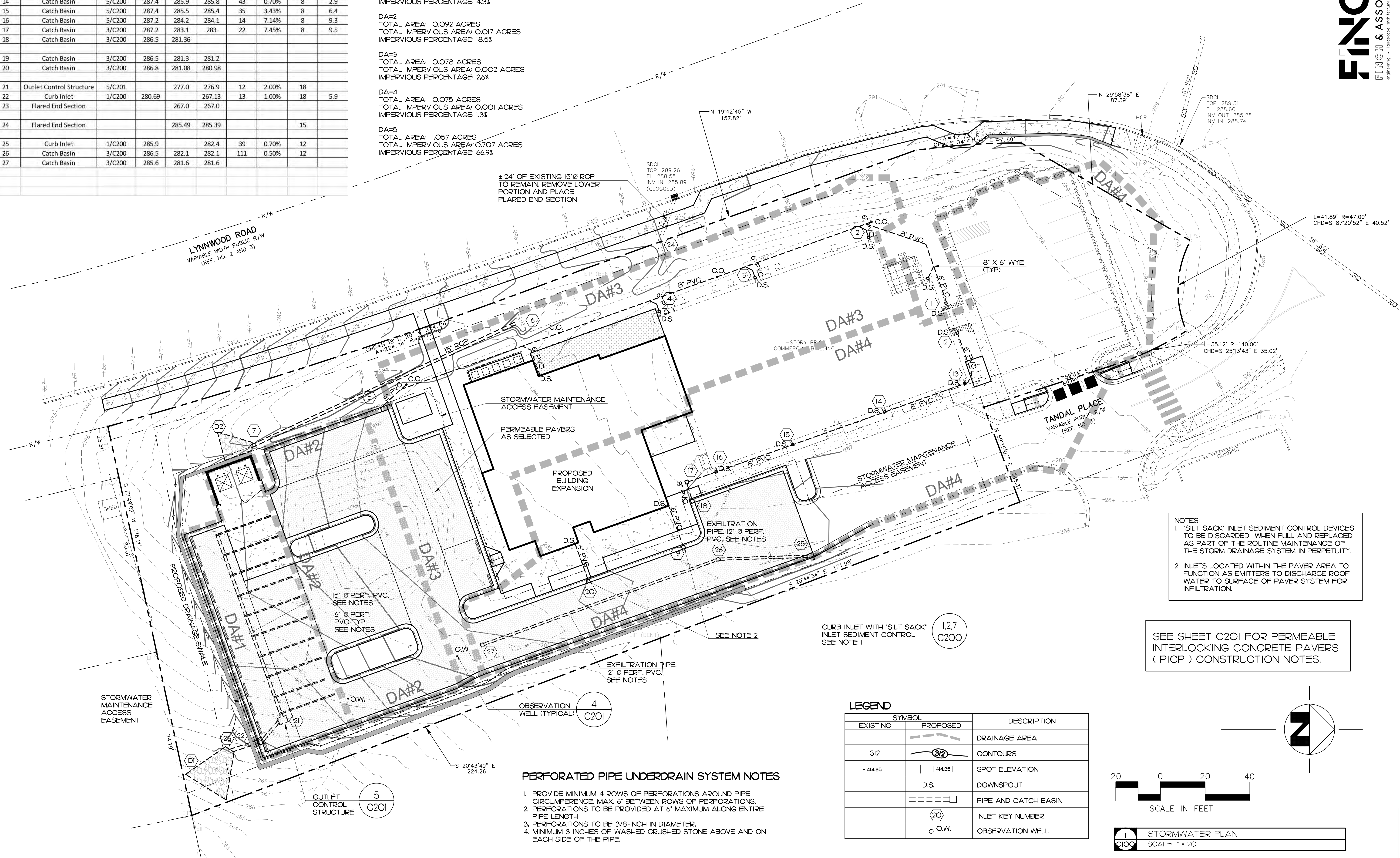
FINCH & ASSOCIATES
 engineering • landscape architecture • land surveying



821 Wake Forest Road
 Raleigh, NC 27604 |
 919.805.3586



REUSE OF DOCUMENT
 This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.



NOTES:
 1. "SILT SACK" INLET SEDIMENT CONTROL DEVICES TO BE DISCARDED WHEN FULL AND REPLACED AS PART OF THE ROUTINE MAINTENANCE OF THE STORM DRAINAGE SYSTEM IN PERPETUITY.
 2. INLETS LOCATED WITHIN THE PAVER AREA TO FUNCTION AS EMITTERS TO DISCHARGE ROOF WATER TO SURFACE OF PAVER SYSTEM FOR INFILTRATION.

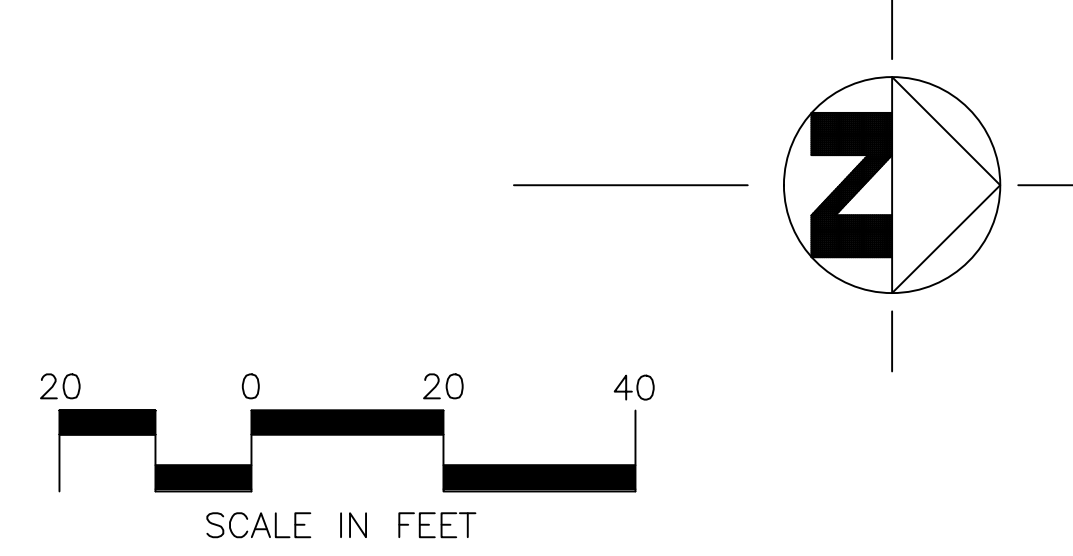
SEE SHEET C201 FOR PERMEABLE INTERLOCKING CONCRETE PAVERS (PICP) CONSTRUCTION NOTES.

PERFORATED PIPE UNDERDRAIN SYSTEM NOTES

1. PROVIDE MINIMUM 4 ROWS OF PERFORATIONS AROUND PIPE CIRCUMFERENCE. MAX. 6" BETWEEN ROWS OF PERFORATIONS.
2. PERFORATIONS TO BE PROVIDED AT 6" MAXIMUM ALONG ENTIRE PIPE LENGTH
3. PERFORATIONS TO BE 3/8-INCH IN DIAMETER.
4. MINIMUM 3 INCHES OF WASHED CRUSHED STONE ABOVE AND ON EACH SIDE OF THE PIPE.

LEGEND

EXISTING	SYMBOL	PROPOSED	DESCRIPTION
	---	---	DRAINAGE AREA
	---	---	CONTOURS
	+	+	SPOT ELEVATION
	D.S.	D.S.	DOWNSPOUT
	---	---	PIPE AND CATCH BASIN
	(20)	(20)	INLET KEY NUMBER
	o	o	OBSERVATION WELL



SCALE IN FEET
 SCALE 1" = 20'

Wake Veterinary Hospital
 Rowdy Ridebacks Holdings LLC
 1007 Tandall Place, Knightdale, NC

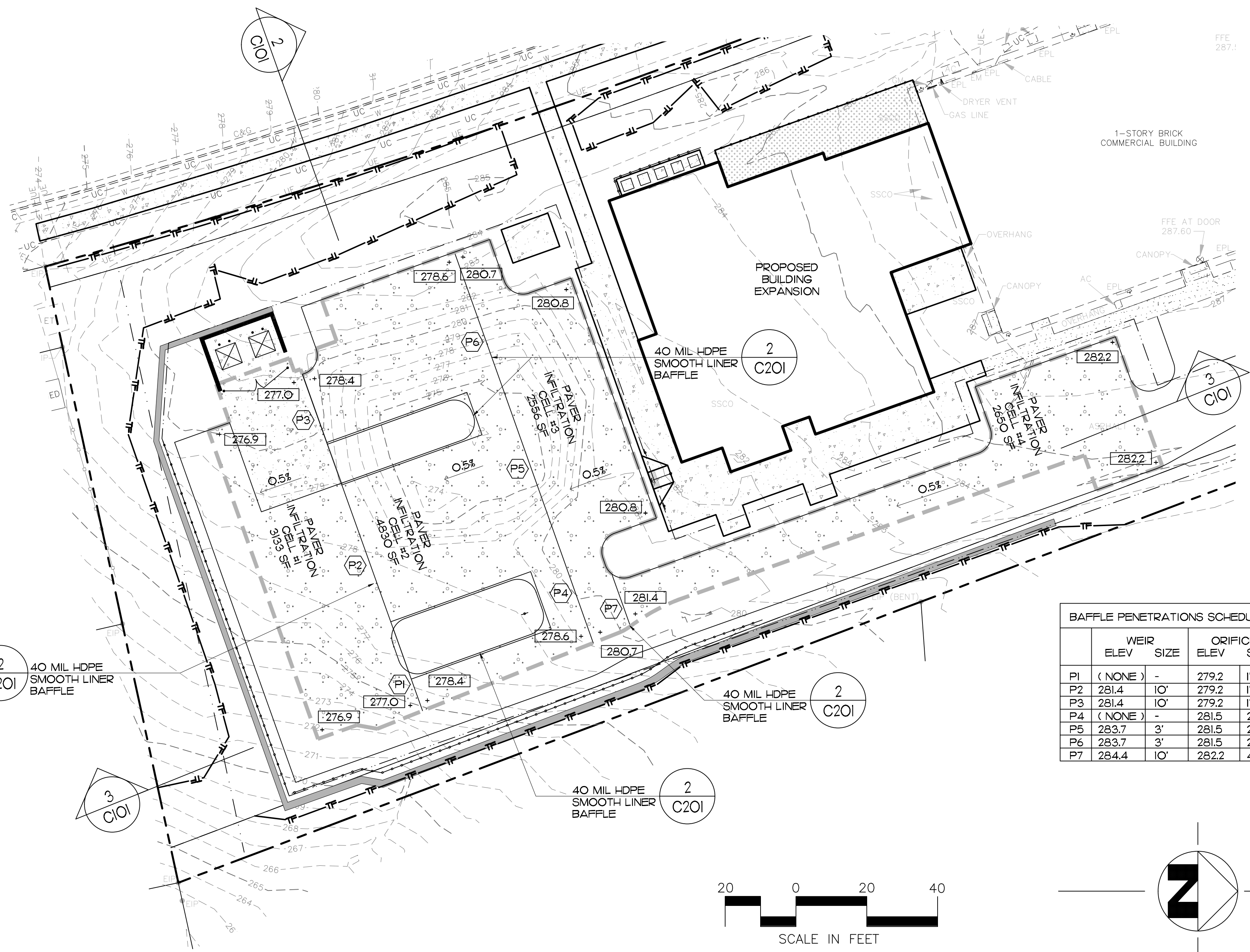
PROJECT NUMBER:
 20063
 PROJECT PHASE:
 CONSTRUCTION DOCUMENTS
 DATE:
 10.06.2022
 9.26.2022
 10.20.2022
 11.11.2022
 12.14.2022

SHEET TITLE:
 STORMWATER PLAN

SHEET NUMBER:
 C100

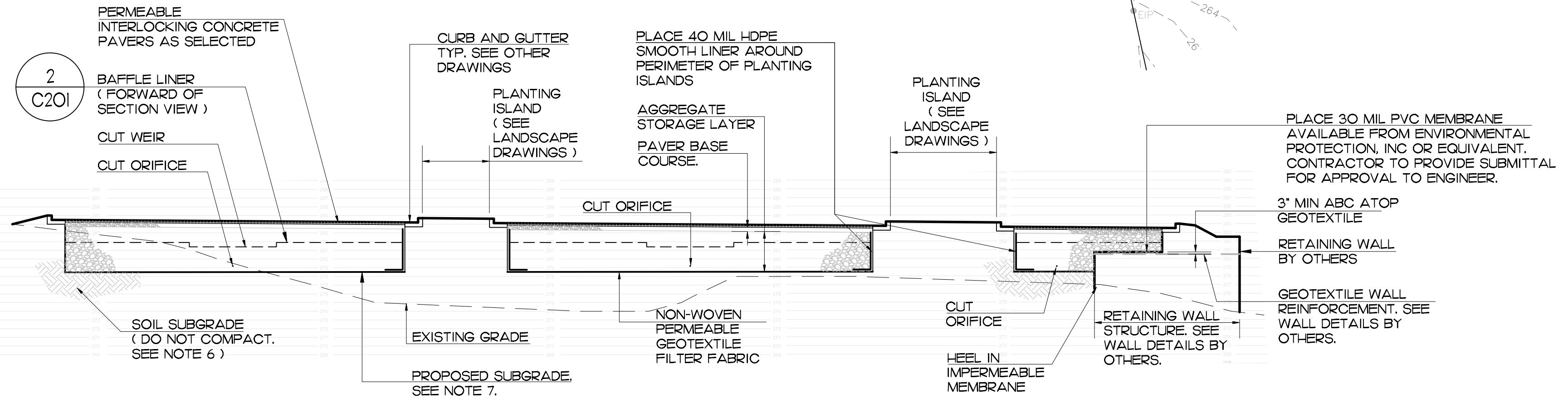
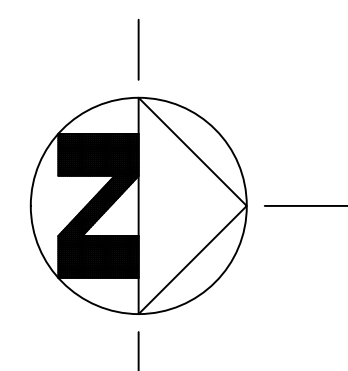
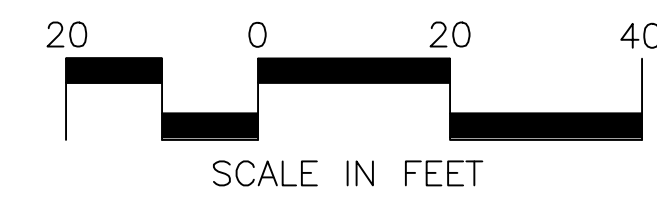
NOTES

- 1) PLANIMETRIC INFORMATION SHOWN HEREIN IS TAKEN FROM A FIELD SURVEY BY FINCH AND ASSOCIATES.
- 2) CONTRACTOR SHALL VERIFY ALL GRADES AND DIMENSIONS ON SITE PRIOR TO CONSTRUCTION AND SHALL REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR ADJUSTMENT.
- 3) LOCATIONS FOR EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SAME. PRIOR TO ANY TRENCHING OR EXCAVATION, CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE TO COORDINATE THESE ACTIVITIES.
- 4) CONTRACTOR SHALL AT ALL TIMES MAINTAIN ADEQUATE SAFETY MEASURES, ACTIVITIES, AND BARRICADES FOR THE PROTECTION OF ALL PERSONS ON OR ABOUT THE SITE. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH DIVISION OF THE NORTH CAROLINA DEPARTMENT OF LABOR. COPIES OF THE APPLICABLE REGULATIONS MAY BE OBTAINED FROM THE NORTH CAROLINA DEPARTMENT OF LABOR, OCCUPATIONAL HEALTH AND SAFETY DIVISION, 413 NORTH SALISBURY STREET, RALEIGH, NORTH CAROLINA. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ADEQUATE SHORING AND BRACING IN ALL TRENCHES BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ADEQUATE SHORING AND BRACING, AND THE AND EXCAVATIONS THAT ARE A PART OF THE CONSTRUCTION OPERATIONS OF THIS PROJECT. CONTRACTOR SHALL PROTECTION OF ALL PERSONS AND PROPERTY ON OR ABOUT THE CONSTRUCTION SITE.
- 5) ALL DISTURBED AREAS SHALL BE STABILIZED WITH NATIVE GRASS GROUND COVER.
- 6) EXISTING SITE SOILS WITHIN THE PERMEABLE PAVER AREA SHALL NOT BE COMPACTED. REFER TO NOTES ON SHEET C201 FOR INSTRUCTIONS FOR EXCAVATION AND PREPARATION OF EXISTING SUBGRADE SOILS.
- 7) EXCAVATED MATERIAL FROM THE SITE SHALL NOT BE USED AS FILL IN THE AREA OF THE PAVER SYSTEM.
- 8) WHERE FILL IS REQUIRED TO ESTABLISH SUBGRADE ELEVATIONS SHOWN, FILL MATERIAL SHALL BE A GRANULAR MATERIAL CONTAINING LESS THAN 10% FINES. COMPACT FILL MATERIAL IN ACCORDANCE WITH GRADING PLANS AND DETAILS. FOLLOWING PLACEMENT OF FILL AND PRIOR TO PLACEMENT OF AGGREGATE STORAGE MATERIAL, VERIFY PERMEABILITY AND MAKE ANY NEEDED ADJUSTMENTS TO MAINTAIN MINIMUM INFILTRATION RATES OF EXISTING SOIL PRIOR TO CONSTRUCTION. SEE NOTES ON SHEET C201 FOR SURFACE PREPARATION INSTRUCTIONS.

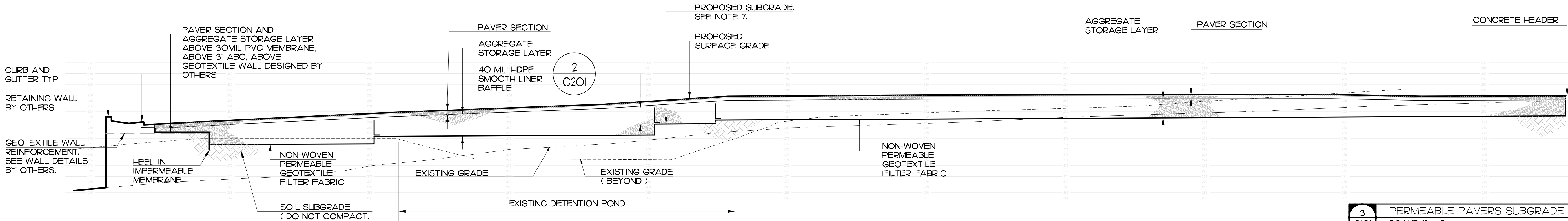


BAFFLE PENETRATIONS SCHEDULE

	WEIR ELEV	WEIR SIZE	ORIFICE ELEV	ORIFICE SIZE
P1	(NONE)	-	279.2	1"
P2	281.4	10'	279.2	1"
P3	281.4	10'	279.2	1"
P4	(NONE)	-	281.5	2"
P5	283.7	3'	281.5	2"
P6	283.7	3'	281.5	2"
P7	284.4	10'	282.2	4"



2 C201 PERMEABLE PAVERS SUBGRADE SECTION
SCALE: 1" = 10"



3 C101 PERMEABLE PAVERS SUBGRADE SECTION
SCALE: 1" = 10"

TOWN CERTIFICATION.
THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
LAND USE ADMINISTRATOR

FINCH & ASSOCIATES
engineering • landscape architecture • land surveying

Finch & Associates
308 North Boylan Avenue
Raleigh, NC 27603-1402
T 919 | 833-1212
F 919 | 834-3203
NCBELS Lic. No. P-1845
NCBOLA Lic. No. C-656



REUSE OF DOCUMENT
This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

PROJECT PHASE:
CONSTRUCTION DOCUMENTS

DATE:
10.06.2022
9.26.2022
10.20.2022
11.11.2022
12.14.2022

SHEET TITLE:
STORMWATER PLAN

SHEET NUMBER:

C101

LEGEND

SYMBOL		DESCRIPTION
EXISTING	PROPOSED	
- - - - -	- - - - -	LIMITS OF DISTURBANCE
- - - 312 - - -	- - - 312 - - -	CONTOURS
• 414.35	+ [414.35]	SPOT ELEVATION
	D.S.	DOWNSPOUT
	--- □ ---	PIPE AND INLET
	— SF —	SILT FENCE
	— TF —	TREE FENCE
	[Hatched Box]	GEOTEXTILE CHANNEL LINING

TOWN CERTIFICATION
 THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
 TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

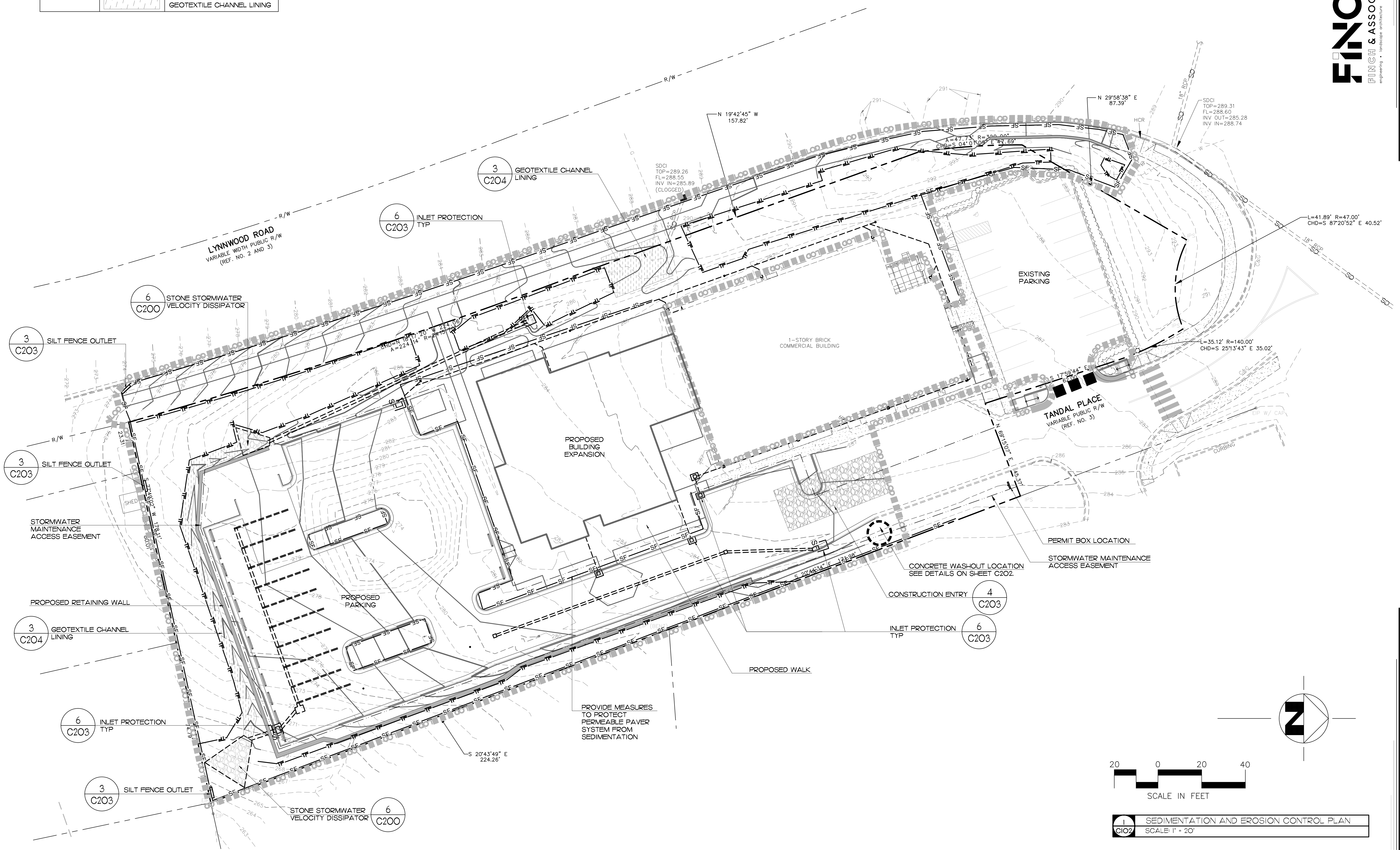
BY: _____ DATE: _____
 LAND USE ADMINISTRATOR

Finch & Associates
 309 North Boylan Avenue
 Raleigh, NC 27603-1402
 T 919 | 833-1212
 F 919 | 834-3203
 NCBELS Lic. No. P-1845
 NCBCLA Lic. No. C-656

FINCH & ASSOCIATES
 engineering • landscape architecture • land surveying



REUSE OF DOCUMENT
 This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.



Wake Veterinary Hospital
 Rowdy Ridebacks Holdings LLC
 1007 Tandal Place, Knightdale, NC

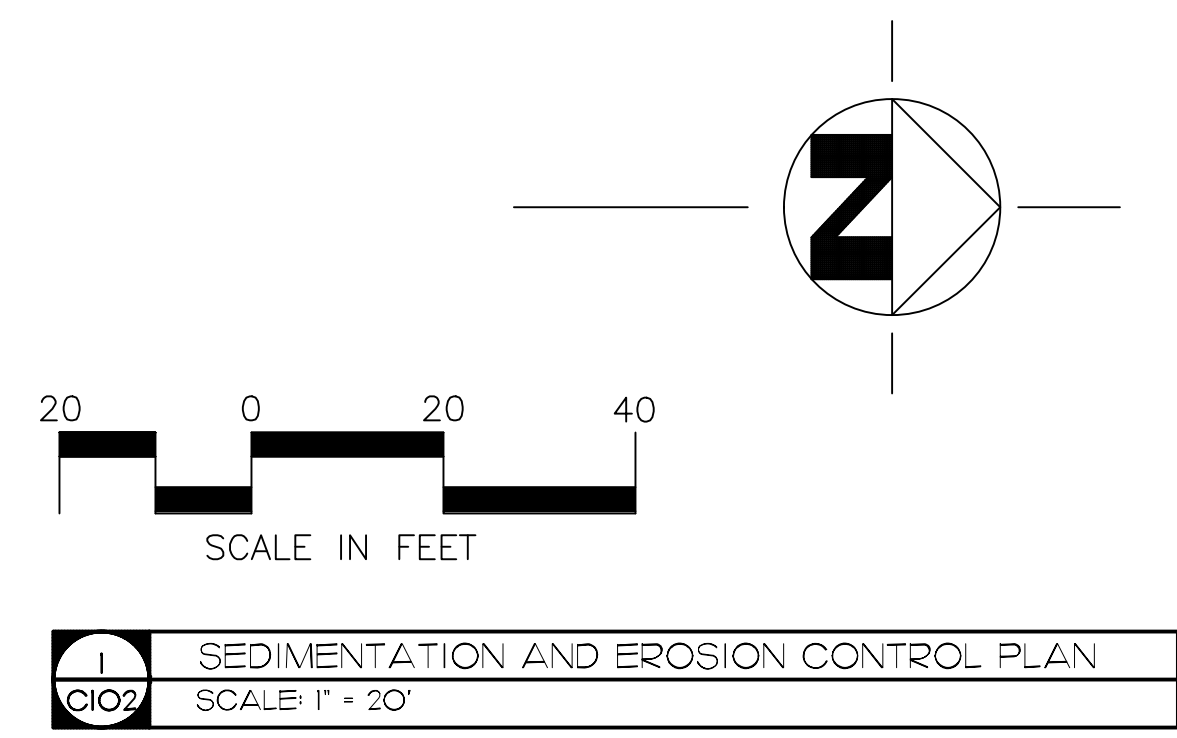
PROJECT NUMBER:
20063

PROJECT PHASE:
CONSTRUCTION DOCUMENTS

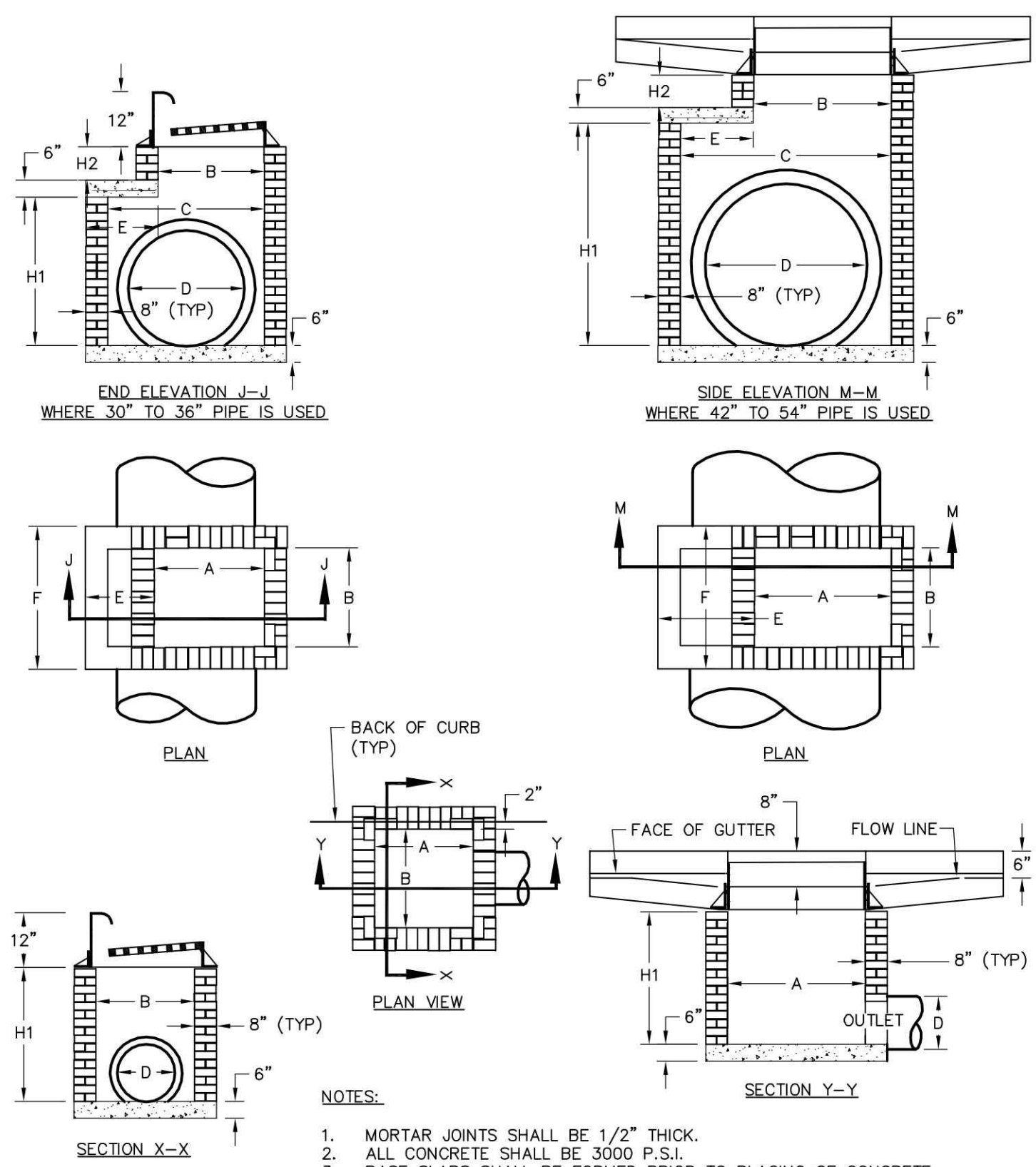
DATE:
10.06.2022
9.26.2022
10.20.2022
11.11.2022
12.14.2022

SHEET TITLE:
SEDIMENTATION AND EROSION CONTROL PLAN

SHEET NUMBER:

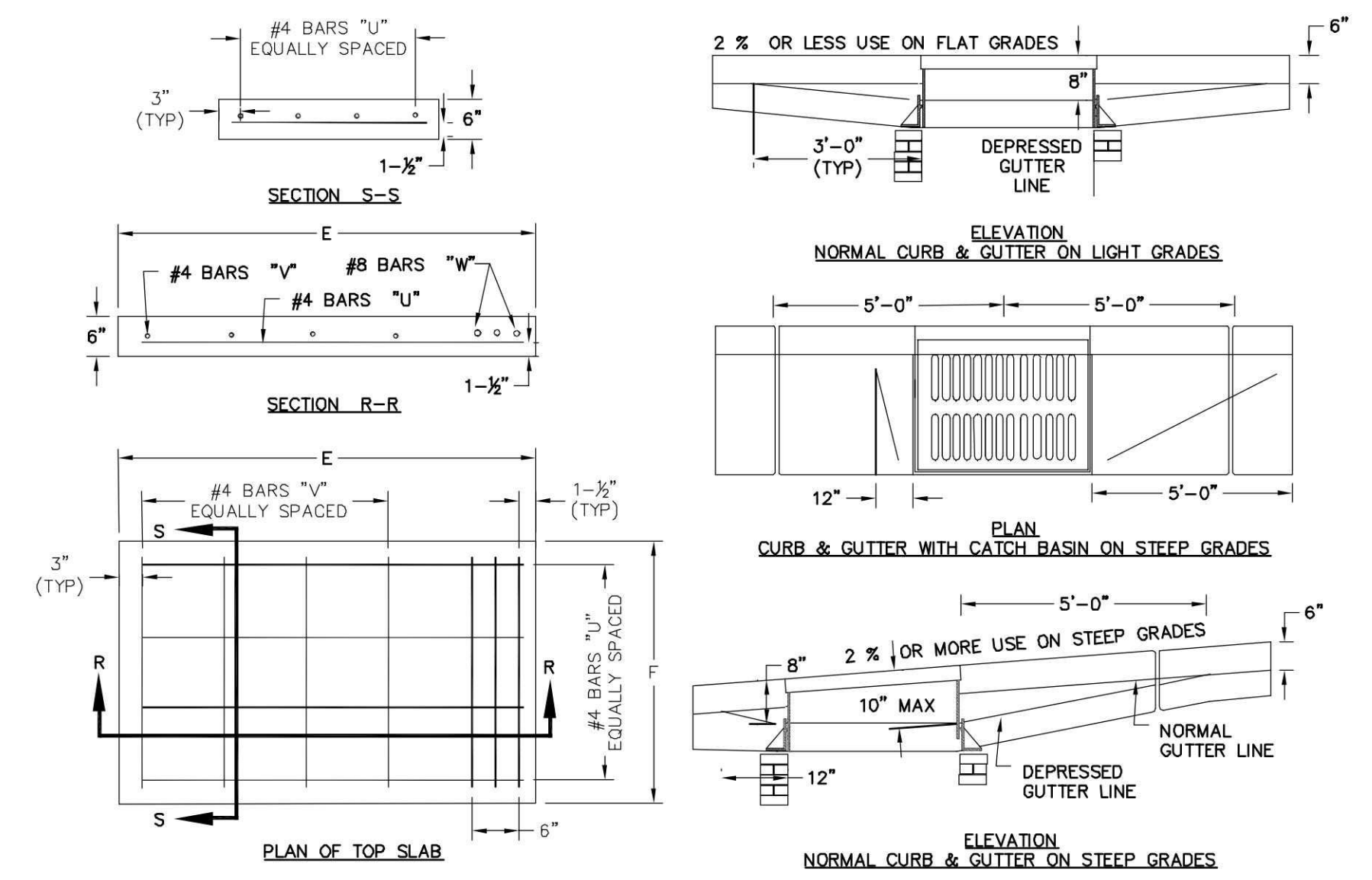


C102



TOWN OF KNIGHTDALE
REF. 5.04

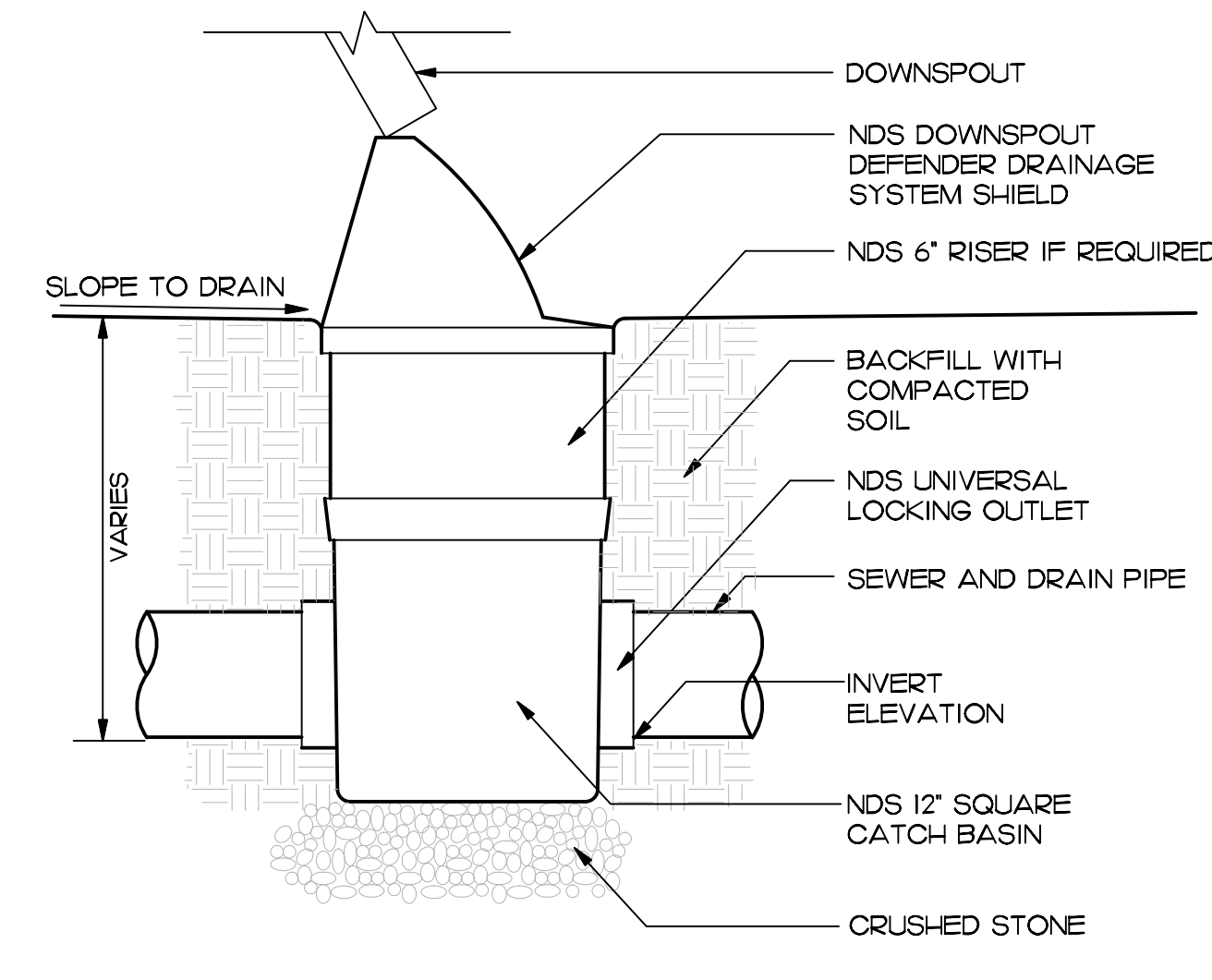
1 STANDARD CURB INLET
SCALE: NOT TO SCALE



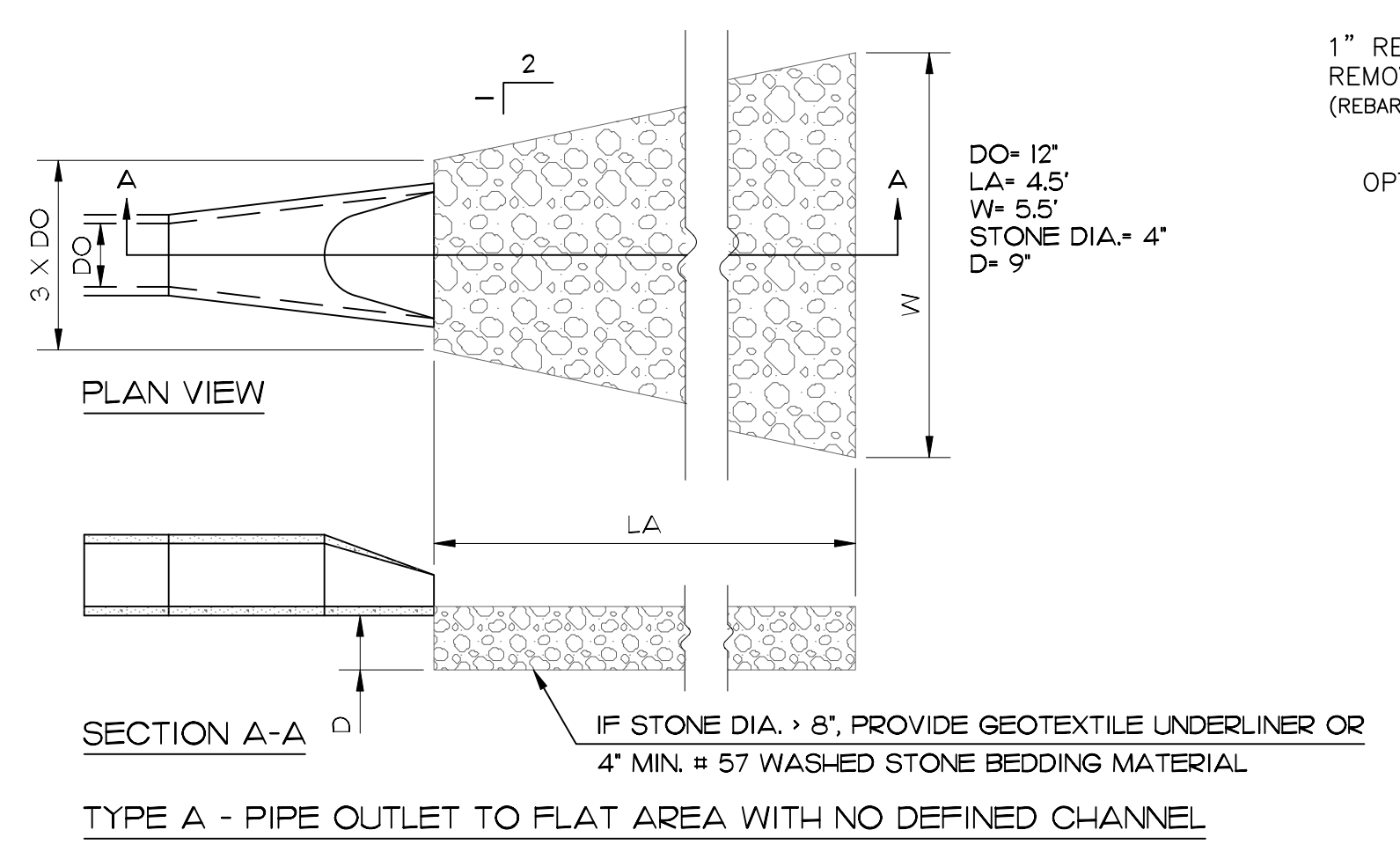
DIMENSIONS AND QUANTITIES FOR BRICK CATCH BASINS														
PIPE	DIMENSIONS FOR BOX AND PIPE			COVER DIMENSIONS		REINFORCING				CUBIC YARDS OF CONCRETE IN BOX	BRICK MASONRY		DEDUCTIONS FOR ONE PIPE	
	SPAN	WIDTH	HEIGHT	E	F	BARS "U"	BARS "V"	BARS "W"	TOTAL		TOP	PER FT	OM	RC
18"	3'-0"	2'-2"	2'-6"	3'-4"	3'-4"	4	4	4	12	0.321	0.0308	0.047		
24"				3'-4"	3'-4"	4	4	4	12	0.321	0.0308	0.047		
30"				3'-4"	3'-4"	4	4	4	12	0.321	0.0308	0.047		
36"				3'-4"	3'-4"	4	4	4	12	0.321	0.0308	0.047		
42"				3'-4"	3'-4"	4	4	4	12	0.321	0.0308	0.047		
48"				3'-4"	3'-4"	4	4	4	12	0.321	0.0308	0.047		
54"				3'-4"	3'-4"	4	4	4	12	0.321	0.0308	0.047		

TOWN OF KNIGHTDALE
REF. 5.05

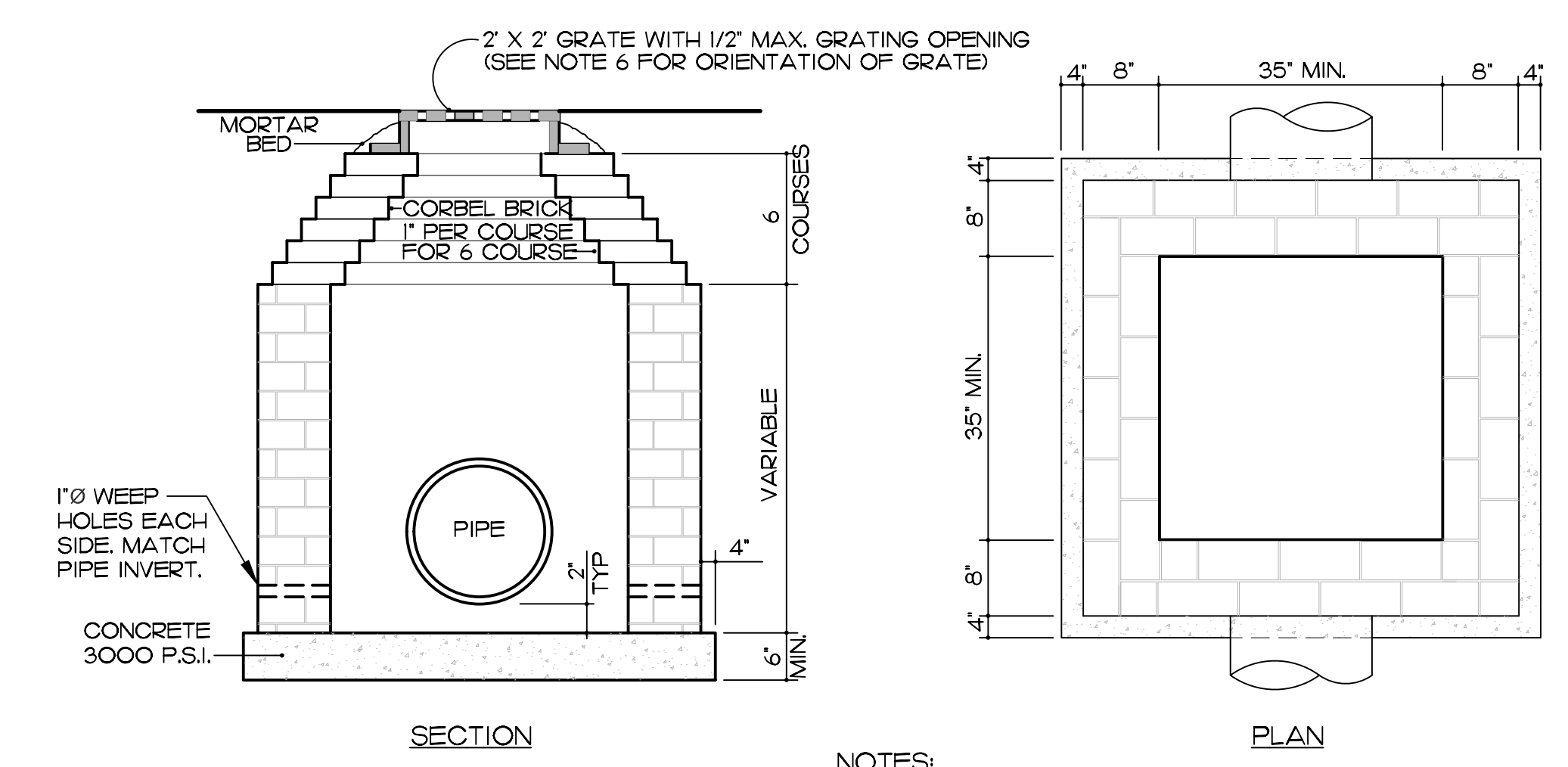
2 STANDARD CURB INLET
SCALE: NOT TO SCALE



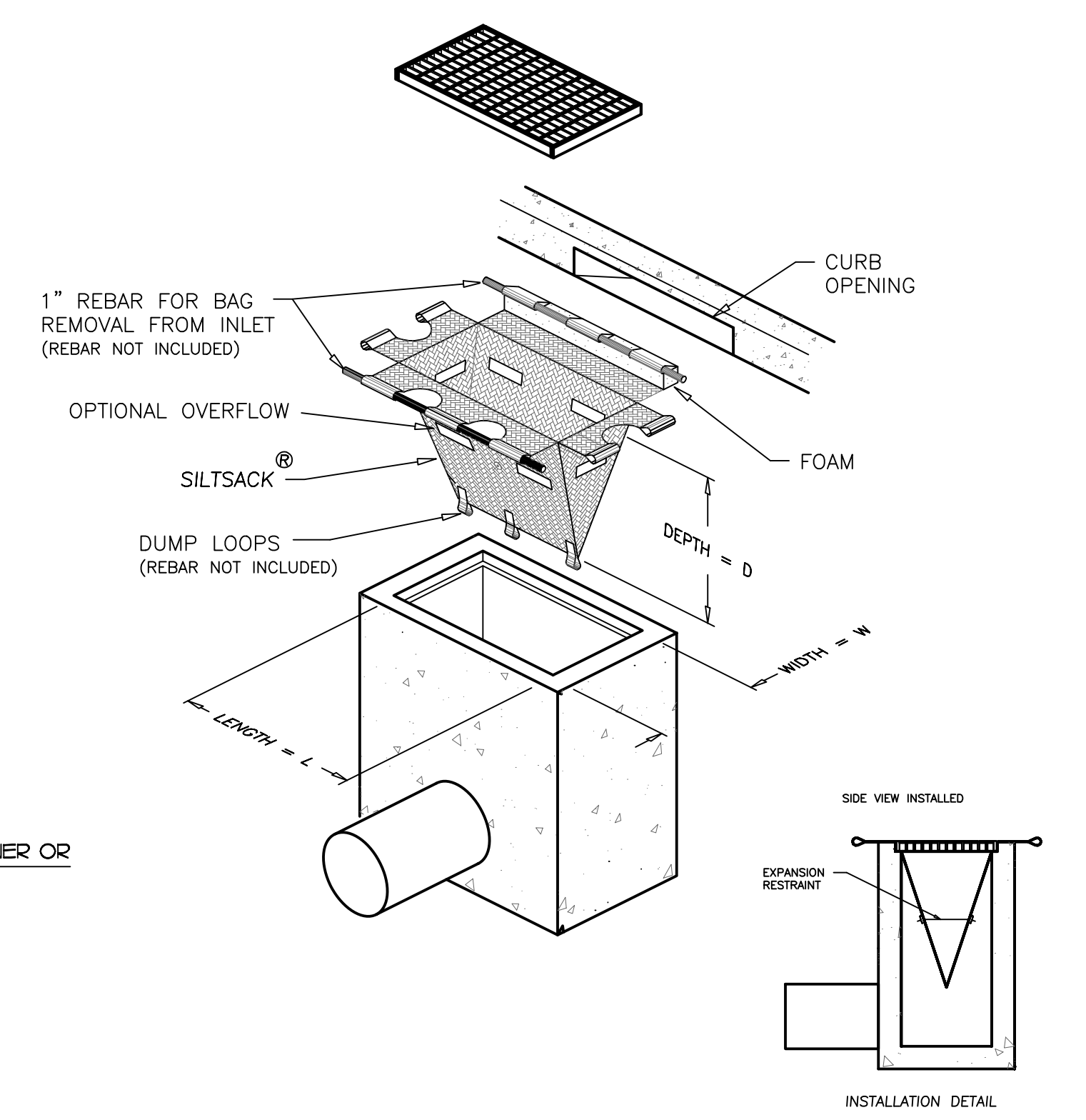
5 MANUFACTURED CATCH BASIN
SCALE: NOT TO SCALE



6 STONE STORMWATER VELOCITY DISSIPATOR
NOT TO SCALE



3 BRICK INLET
SCALE: NOT TO SCALE



7 INLET SEDIMENT CONTROL
SCALE: NOT TO SCALE

TOWN CERTIFICATION.
THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
LAND USE ADMINISTRATOR

FINCH & ASSOCIATES
engineering • landscape architecture • land surveying

Finch & Associates
309 North Boylan Avenue
Raleigh, NC 27603-1402
T 919 | 833-1212
F 919 | 834-3203
NCELS Lic. No. P-1845
NCBOLA Lic. No. C-656

SiTE COLLABORATIVE
LANDSCAPE ARCHITECTURE

821 Wake Forest Road
Raleigh, NC 27604 |
919.805.3586

REUSE OF DOCUMENT
This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

PROJECT PHASE:
CONSTRUCTION DOCUMENTS

DATE:
10.06.2022

9.26.2022
10.20.2022
11.11.2022
12.14.2022

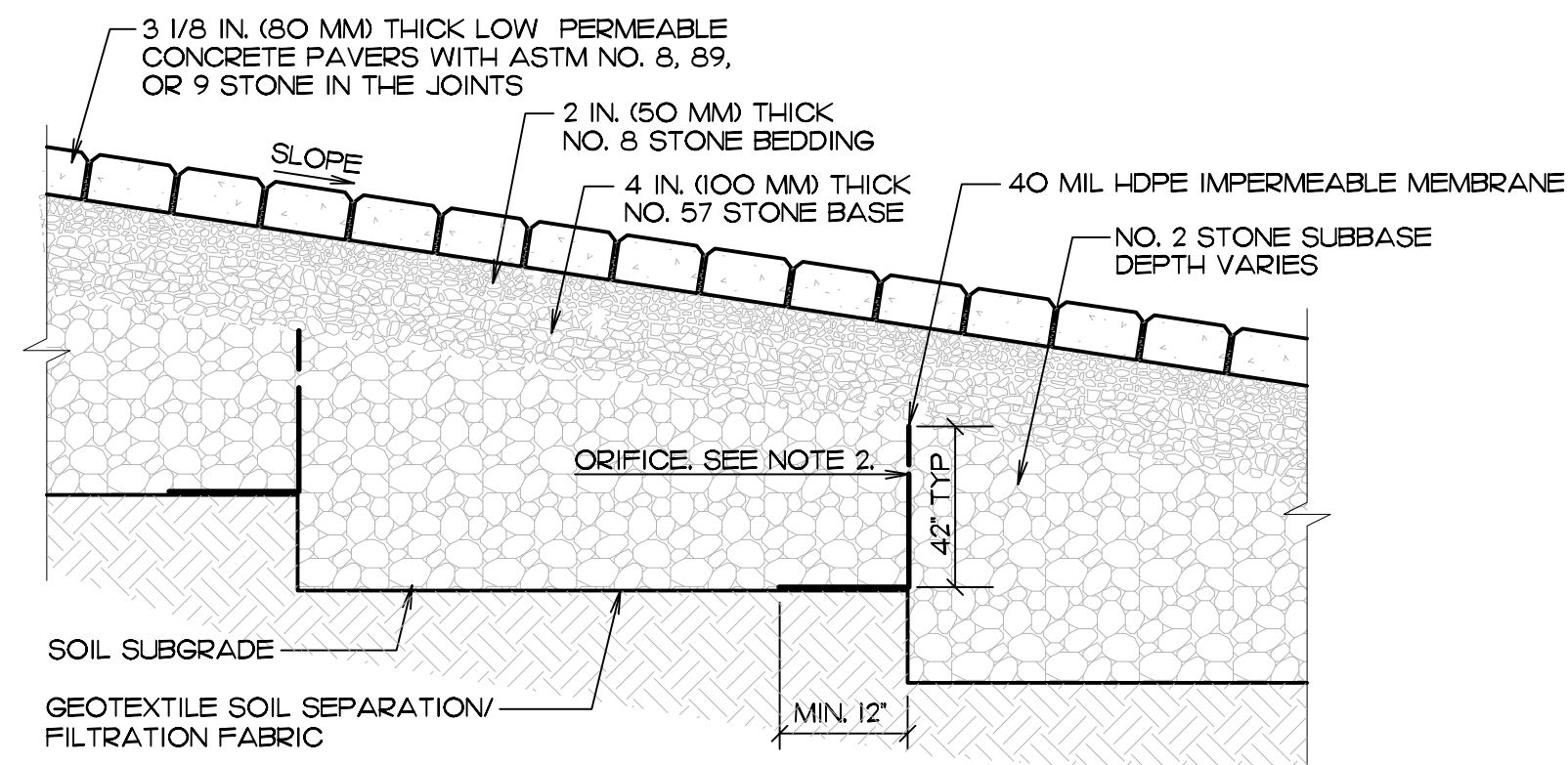
SHEET TITLE:
STORMWATER DETAILS

SHEET NUMBER:

C200

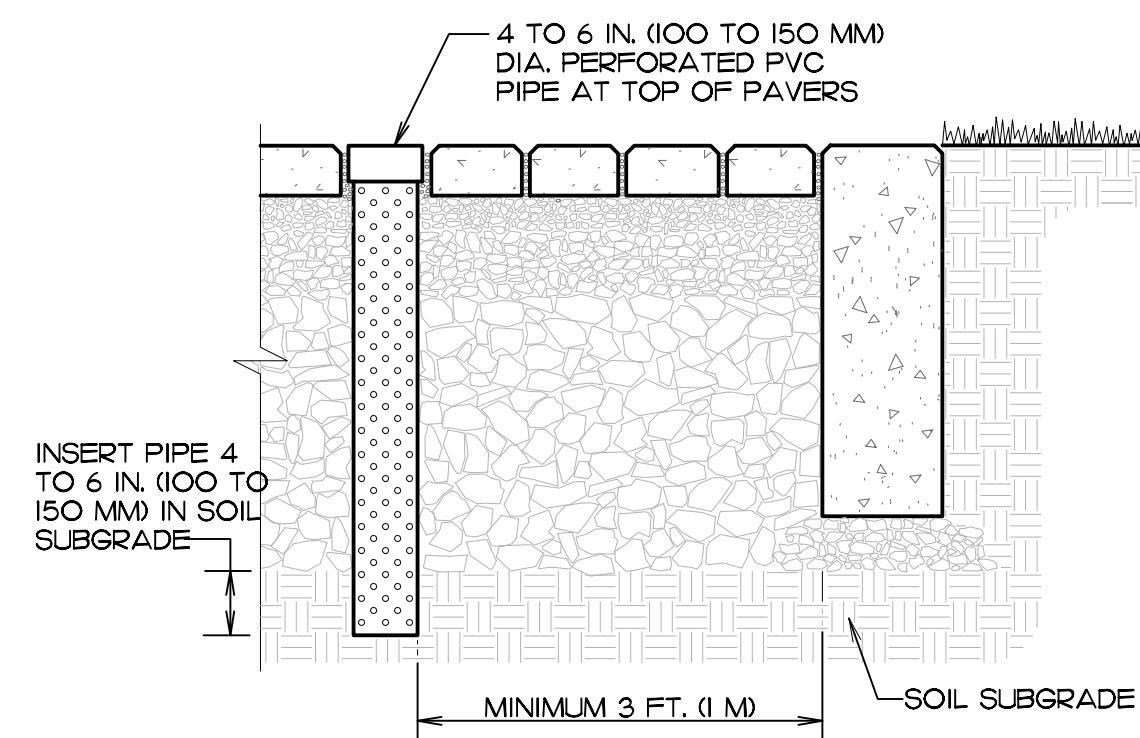
PERMEABLE INTERLOCKING CONCRETE PAVERS (PICP) CONSTRUCTION NOTES

1. PRIOR TO CONSTRUCTION OF THE PERMEABLE PAVEMENT SYSTEM, ENSURE THAT ALL ADJACENT AREAS HAVE BEEN STABILIZED WITH APPROPRIATE GROUND COVER. INSTALL DIVERSIONS AND SILT FENCE AS SHOWN ON PLANS AND AS NEEDED TO PREVENT EROSION AND POSSIBLE CONTAMINATION WITH SEDIMENTS. PERMEABLE PAVEMENT AREA SHALL BE CLEARLY MARKED ON SITE. CONSTRUCTION TRAFFIC SHALL BE ROUTED AROUND PERMEABLE PAVEMENT AREA USING FENCING OR OTHER BARRIERS AS REQUIRED UNTIL INSTALLATION IS COMPLETE.
2. COORDINATE REQUIRED INSPECTIONS OF THE PERMEABLE PAVER SYSTEM WITH TOWN OF KNIGHTDALE STORMWATER INSPECTOR.
3. EXCAVATION SHALL BE CONDUCTED IN DRY WEATHER WITH DRY SOIL CONDITIONS. GRADE TO ELEVATIONS AND SLOPES AS SHOWN ON THE SUBGRADE PLAN. CONTRACTOR SHALL TAKE NECESSARY STEPS TO MINIMIZE COMPACTION OF SUBGRADE. OPERATE EXCAVATION EQUIPMENT FROM OUTSIDE THE PAVEMENT AREA OR FROM UNEXCAVATED PORTIONS OF THE AREA. DIG THE FINAL 9 TO 12 IN. BY USING THE TEETH OF THE EXCAVATOR BUCKET TO LOOSEN SOIL AND DO NOT SMEAR THE SUBGRADE SOIL SURFACE. FINAL GRADING OR SMOOTHING OF THE SUBGRADE SHOULD BE DONE BY HAND IF POSSIBLE. MINIMIZE THE TIME BETWEEN EXCAVATION AND PLACEMENT OF THE AGGREGATE. REMOVE ANY SEDIMENTS THAT ACCUMULATE.
4. IMMEDIATELY AFTER EXCAVATION AND BEFORE THE AGGREGATE IS PLACED, A DIRECT MEASUREMENT OF THE SOIL'S INFILTRATION RATE SHALL BE CONDUCTED BY A QUALIFIED PROFESSIONAL. REPEAT IF SUBGRADE IS EXPOSED TO RAINFALL PRIOR TO PLACEMENT OF AGGREGATE. SCARIFY, RIP OR TRENCH THE SOIL SUBGRADE SURFACE AS NEEDED TO MAINTAIN THE SOIL'S PREDISTURBANCE INFILTRATION RATE.
5. PLACE NON-WOVEN PERMEABLE GEOTEXTILE FILTER FABRIC AND BAFFLE LINERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON PLANS. SECURE MATERIALS TO PREVENT DEFORMATION DURING PLACEMENT OF AGGREGATE. REMOVE ANY SEDIMENTS FROM FILTER FABRIC AND REPLACE FABRIC AS NEEDED TO MAINTAIN PERMEABILITY.
6. PLACE CATCH BASINS, OUTLET STRUCTURE, OBSERVATION WELLS AND UNDERDRAIN SYSTEM WHEN SUBGRADE PREPARATION ALLOWS. DEAD ENDS OF UNDERDRAIN PIPES SHALL BE CLOSED WITH A SUITABLE CAP PLACED OVER THE END AND HELD FIRMLY IN PLACE. PORTIONS OF THE UNDERDRAIN SYSTEM WITHIN ONE FOOT OF THE OUTLET STRUCTURE ARE SOLID AND NOT PERFORATED.
7. INSPECT ALL AGGREGATES TO ENSURE THEY ARE FREE FROM FINES PRIOR TO PLACEMENT. ANY AGGREGATE THAT CANNOT BE PLACED IMMEDIATELY SHALL BE STORED ON AN IMPERVIOUS SURFACE OR GEOTEXTILE TO KEEP AGGREGATE FREE OF SEDIMENT.
8. ALL AGGREGATE SHALL BE SPREAD (NOT DUMPED) BY A FRONT-END LOADER OR FROM DUMP TRUCKS DEPOSITING FROM NEAR THE EDGE OF THE EXCAVATED AREA OR RESTING DIRECTLY ON DEPOSITED AGGREGATE PILES. MOISTEN AND SPREAD THE WASHED STONE WITHOUT DRIVING ON THE SOIL SUBGRADE. PROTECT DRAINAGE SYSTEM COMPONENTS AND REPAIR ANY DAMAGE. COMPACT AGGREGATE AS RECOMMENDED BY THE PAVER MANUFACTURER. ENSURE ADEQUATE COMPACTION IN CORNERS AND AREAS ADJACENT TO UTILITY STRUCTURES. DO NOT CRUSH AGGREGATES DURING COMPACTION AS THIS GENERATES ADDITIONAL FINES THAT MAY CLOG THE SOIL SUBGRADE.
9. INSTALL PAVEMENT EDGE RESTRAINTS AND CURB AND GUTTER.
10. INSTALL BEDDING AND PAVER COURSES AS SHOWN ON PLANS AND DETAILS. CONTRACTOR PERFORMING PAVER INSTALLATION SHALL HOLD A PICP SPECIALIST CERTIFICATE FROM THE INTERLOCKING CONCRETE PAVEMENT INSTITUTE.
11. PROTECT PERMEABLE PAVER SYSTEM FROM DAMAGE UNTIL SITE CONSTRUCTION IS COMPLETE. REMOVE AND REPLACE PAVERS AND AGGREGATE BASE COURSE DAMAGED BY CONSTRUCTION OR SEDIMENTATION.
12. WHEN CONSTRUCTION IS COMPLETE, CONTACT PROJECT ENGINEER FOR FINAL INSPECTION. CONDUCT INFILTRATION TEST USING NCSU SIMPLE INFILTRATION TEST OR OTHER APPROPRIATE TEST METHOD TO DEMONSTRATE PERMEABILITY OF PAVEMENT SYSTEM SURFACE.
13. FOLLOWING COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS TO ENGINEER, INDICATING ANY CHANGES FROM THE CONSTRUCTION DRAWINGS.

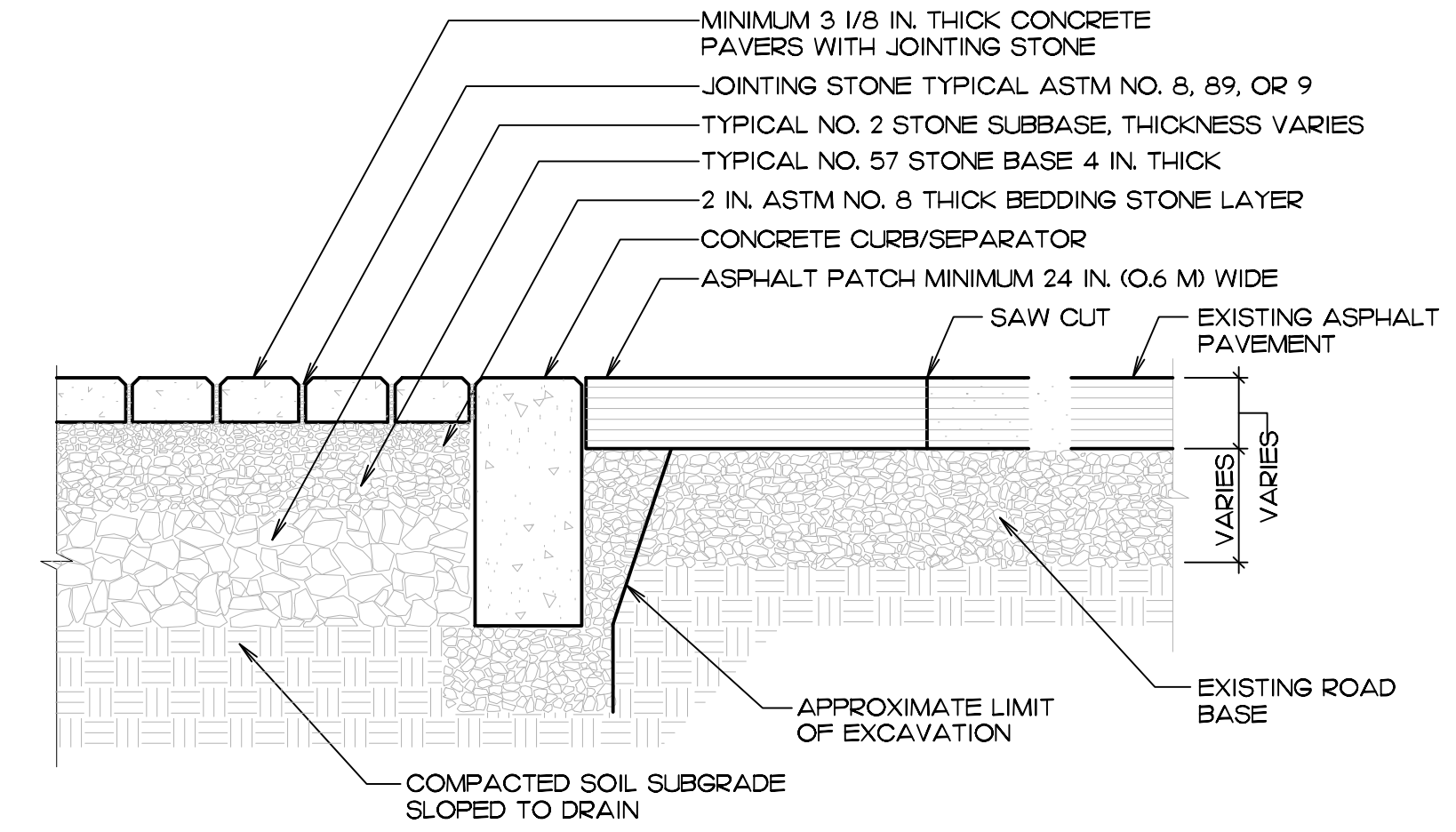


- NOTES:
1. SEE PLANS FOR LOCATIONS, HEIGHT, AND WIDTHS OF BAFFLES
 2. CUT ORIFICES AND WEIRS IN IMPERMEABLE MEMBRANES ACCORDING TO LOCATIONS, SIZES, AND ELEVATIONS REPORTED ON PLANS.
 3. PROTECT IMPERMEABLE LINER FROM DAMAGE DURING AGGREGATE PLACEMENT.

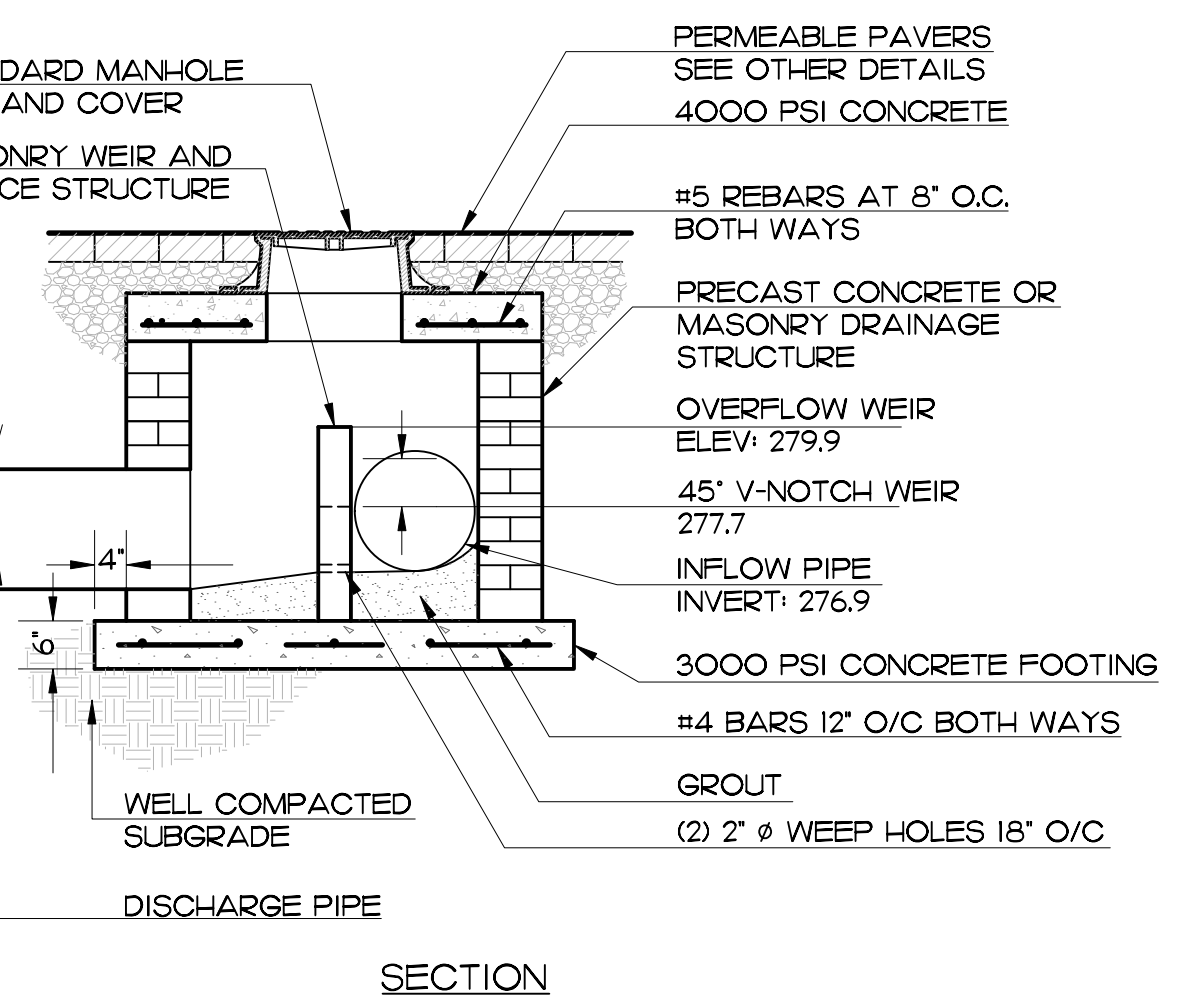
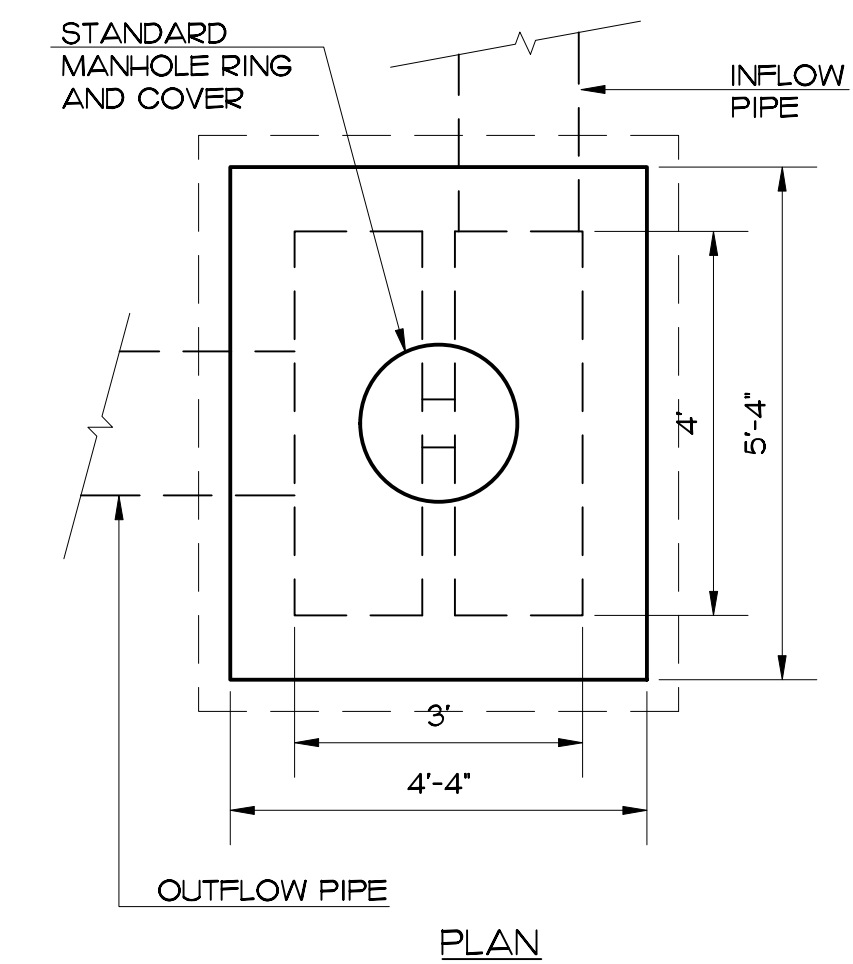
2 STEPPED SUBGRADE WITH POLYMER BAFFLES
SCALE: NOT TO SCALE



4 OBSERVATION WELL
SCALE: NOT TO SCALE



3 FLEXIBLE PAVEMENT TRANSITION DETAIL
SCALE: NOT TO SCALE



5 OUTLET CONTROL STRUCTURE
SCALE: 1/2" = 1'-0"

TOWN CERTIFICATION:
THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
LAND USE ADMINISTRATOR

FINCH & ASSOCIATES
engineering • landscape architecture • land surveying

Finch & Associates
309 North Boylan Avenue
Raleigh, NC 27603-1402
T 919 | 833-1212
F 919 | 834-3203
NGBELS Lic. No. P-1845
NCBOLA Lic. No. C-656

SiTE
COLLABORATIVE
LANDSCAPE ARCHITECTURE

821 Wake Forest Road
Raleigh, NC 27604 |
919.805.3586



REUSE OF DOCUMENT
This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

PROJECT PHASE:
CONSTRUCTION DOCUMENTS

DATE:
10.06.2022
9.26.2022
10.20.2022
11.11.2022
12.14.2022

SHEET TITLE:
STORMWATER DETAILS

SHEET NUMBER:

C201

CONSTRUCTION NARRATIVE

The proposed improvements include the expansion of the existing building and construction of new walks and parking. In conjunction with this new development, the area of the existing detention basin will be repurposed. Post-construction stormwater treatment and control will be accomplished using permeable interlocking concrete pavers with infiltration where new vehicular areas are proposed. All runoff from existing and proposed building roofs and impervious pavements is to be collected in catch basins and discharged directly into the aggregate storage of the paver system. Sumps in the catch basins are to provide pretreatment of the stormwater prior to its entry into the aggregate.

The proposed area of disturbance is 60,400 square feet, 1.4 acres.

Proposed sedimentation and erosion control measures include perimeter silt fence and silt fence outlets, inlet protection, and seeding of disturbed areas.

CONSTRUCTION SEQUENCE

- Schedule an Initial Pre-construction conference with the Town of Knightdale. Obtain a land-disturbance permit. Any fines, penalties, or additional charges incurred by the Owner due to land disturbing activities by the Contractor prior to the issuance of all applicable permits shall be charged to the Contractor.
- Install all perimeter controls as shown on the approved plans.
- Schedule an Onsite Pre-Construction Meeting with the Town of Knightdale to inspect the installed perimeter controls
- If approved, proceed with installing temporary diversions, silt fence, or other measures as shown on the approved plans. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. Seed temporary diversions and berms immediately after construction. It is the responsibility of the Contractor to install, maintain, and minimize erosion problems on the site. Maintain sizes, volumes, and devices to ensure the integrity and usefulness of the proposed measures. Contractor may relocate or modify erosion control measures to make adjustments for unforeseen field conditions so long as sizes, volumes, and construction are maintained to insure the integrity and usefulness of the proposed measures. All relocations or modifications shall have the prior approval of the Landscape Architect and the Erosion Control Inspector.
- Call Town of Knightdale Erosion Control Inspector to schedule an onsite inspection and obtain a Certificate of Coverage.
- Maintain Devices as needed. Inspect all silt fencing after each rainfall event and repair any damaged or weakened segments. Rough grade site.
- Protect inlets with block and gravel controls, sediment traps or other approved measures as shown in the approved plan.
- Begin clearing, grubbing, construction, building, etc. The contractor shall conduct the work in phases to minimize the amount of area disturbed at any one time and stabilize disturbed areas as quickly as possible. Delay removal of existing vegetation and hardscape until ready to proceed with construction in the affected areas.
- Install additional sedimentation and erosion control measures as shown on plan and as work allows to prevent sedimentation into stabilized areas from areas under construction.
- Maintain functionality of the existing storm drainage system until such time as equivalent functionality can be provided by newly constructed drainage devices and outlet structures. See notes pertaining to construction of the permeable paver system on sheet C201. The contractor shall protect the permeable interlocking concrete paver system (PICP) and crushed aggregate base course from infiltration of sediment. At project completion, contractor shall repair or replace pavers and aggregate base course as needed in any locations where sedimentation has occurred to restore functionality of the paver system and shall replace any damaged pavers.
- Stabilize site as areas are brought up to finish grade with vegetation, paving, ditch linings, silt fence, etc. Seed and Mulch denuded areas per Ground Stabilization Time Frames. It is the contractor's responsibility to minimize sediment intrusion into the stormwater control measure during all phases of construction.

See the following for ground stabilization:

- Soil stabilization shall be achieved on any area of the site where land-disturbing activities have temporarily or permanently ceased according to the following schedule:
 - All permanent dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3:1 shall be provided temporary or permanent stabilization with ground cover as soon as practicable, but in any event within 7 calendar days from the last land-disturbing activity.
 - All other disturbed areas shall be provided temporary or permanent stabilization with ground cover as soon as practicable, but in any event within 14 calendar days from the last land-disturbing activity.
- Conditions – In meeting the stabilization requirements above, the following conditions or exemptions shall apply:
 - Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable.
 - All slopes 50' in length or greater shall apply the ground cover within 7 days except when the slope is flatter than 4:1. Slopes less than 50' shall apply ground cover within 14 days when slopes are steeper than 3:1, the 7 day-requirement applies.
 - All sloped area flatter than 4:1 shall be exempt for the 7-day cover requirement. iv. Slopes 10' or less in length shall be exempt from the 7-day ground cover requirement except when the slope is steeper than 2:1. v. Although stabilization is usually specified as ground cover, other methods, such as chemical stabilization, may be allowed on a case-by-case basis.

12. When construction is complete and all areas are stabilized completely, call Erosion Control Inspector for an inspection.

13. If site is approved, remove temporary diversions, silt fence, sediment basins, etc., and seed out or stabilize any resulting bare areas. All remaining permanent erosion control devices, such as velocity dissipators, should now be installed.

14. When vegetation has become established (90% germination), call for a final inspection by the Erosion Control Inspector. Obtain a Certificate of Completion and submit to Landscape Architect and Owner.

* Construction phasing may be improved by the relocation of certain erosion measures or the installation of additional measures. (All phasing proposals by Contractor shall be submitted to the Landscape Architect for approval with subsequent approval by the Erosion Control Inspector required.) Contractor shall provide, install, and maintain all measures necessary to complete the work shown on these drawings and to minimize sediment intrusion into the stormwater control measure during all phases of construction.

TOWN CERTIFICATION.
THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
LAND USE ADMINISTRATOR

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

Implementing the details and specifications on this 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		
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
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Roller erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	<ul style="list-style-type: none"> 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 Roller erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 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.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- 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

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 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.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

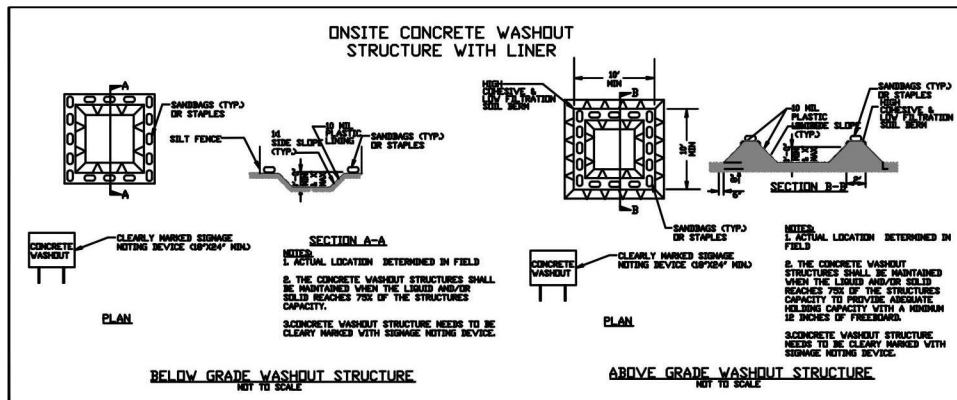
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- 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 foot traffic areas.
- 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 is shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- 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

- Do not discharge concrete or cement slurry from the site.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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 restrictions.
- 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.
- Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- 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

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 unattended days (and 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&S 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 measures. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDCO)	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	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 II, 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&S 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 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 not feasible. 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:

- The E&S 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&S plan authority has approved these items.
- 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.
- 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.
- 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.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- 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 B: RECORDKEEPING

1. E&S Plan Documentation

The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S 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&S measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S plan.	Initial and date each E&S measure on a copy of the approved E&S plan or complete, date and sign an inspection report that lists each E&S measure shown on the approved E&S plan. This documentation is required upon the initial installation of the E&S measures or if the E&S measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S 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&S plan.	Initial and date a copy of the approved E&S 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&S measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S measures.	Initial and date a copy of the approved E&S 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&S 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:

- This General Permit as well as the Certificate of Coverage, after it is received.
- 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-NCI 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:

- Visible sediment deposition in a stream or wetland.
- 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).
- 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.
- Anticipated bypasses and unanticipated bypasses.
- 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 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.
(c) Anticipated bypasses (40 CFR 122.41(m)(3))	<ul style="list-style-type: none"> 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.
(d) Unanticipated bypasses (40 CFR 122.41(m)(3))	<ul style="list-style-type: none"> 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 recurrence of the noncompliance. (40 CFR 122.41(i)(9)) Division staff may waive the requirement for a written report on a case-by-case basis.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment (40 CFR 122.41(i)(7))	<ul style="list-style-type: none"> 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 recurrence of the noncompliance. (40 CFR 122.41(i)(9)) 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



FINCH & ASSOCIATES
engineering • landscape architecture • land surveying

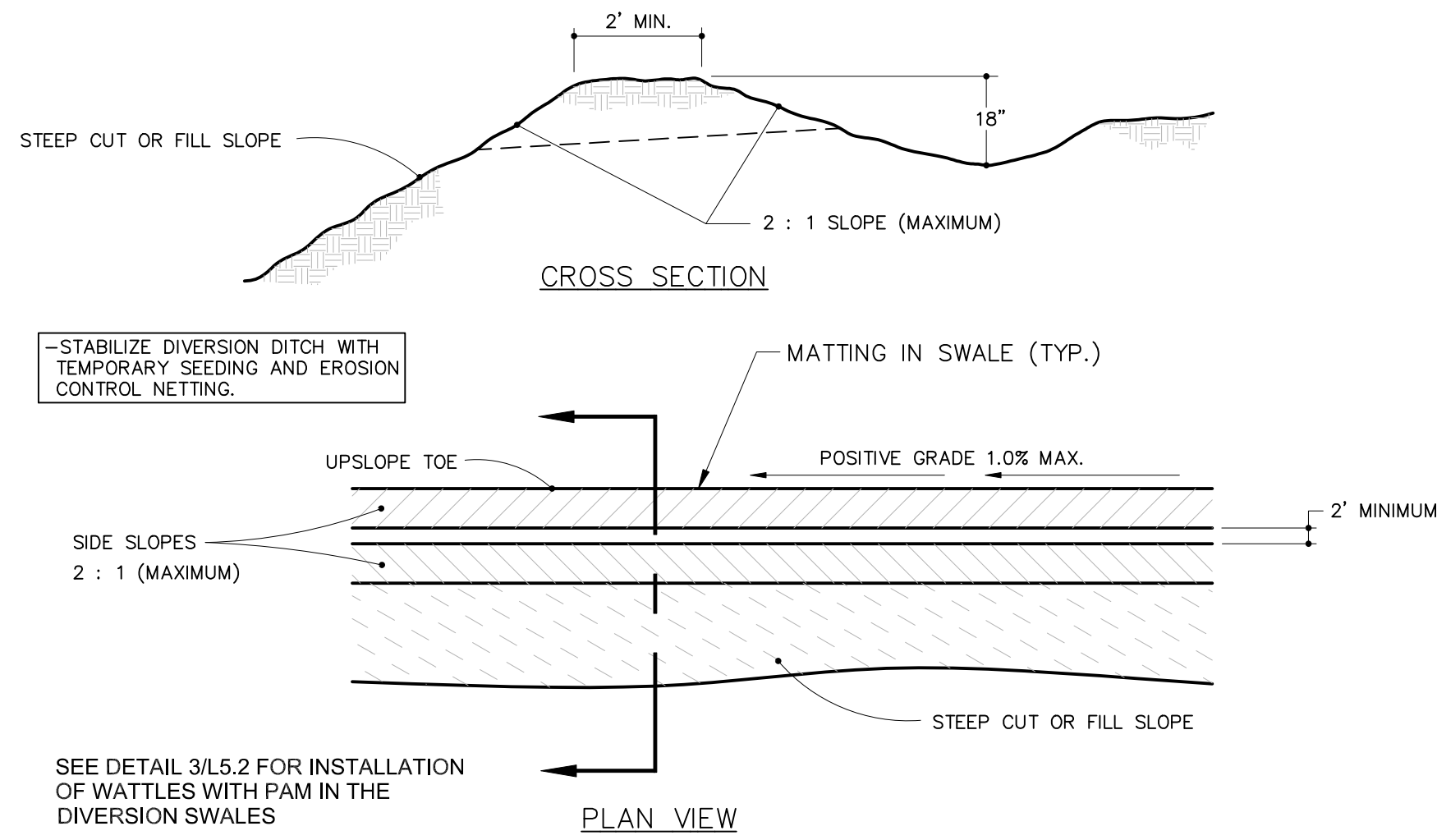
REUSE OF DOCUMENT
This document is the property of Site Collaborative Inc. The logo and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
Roway Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

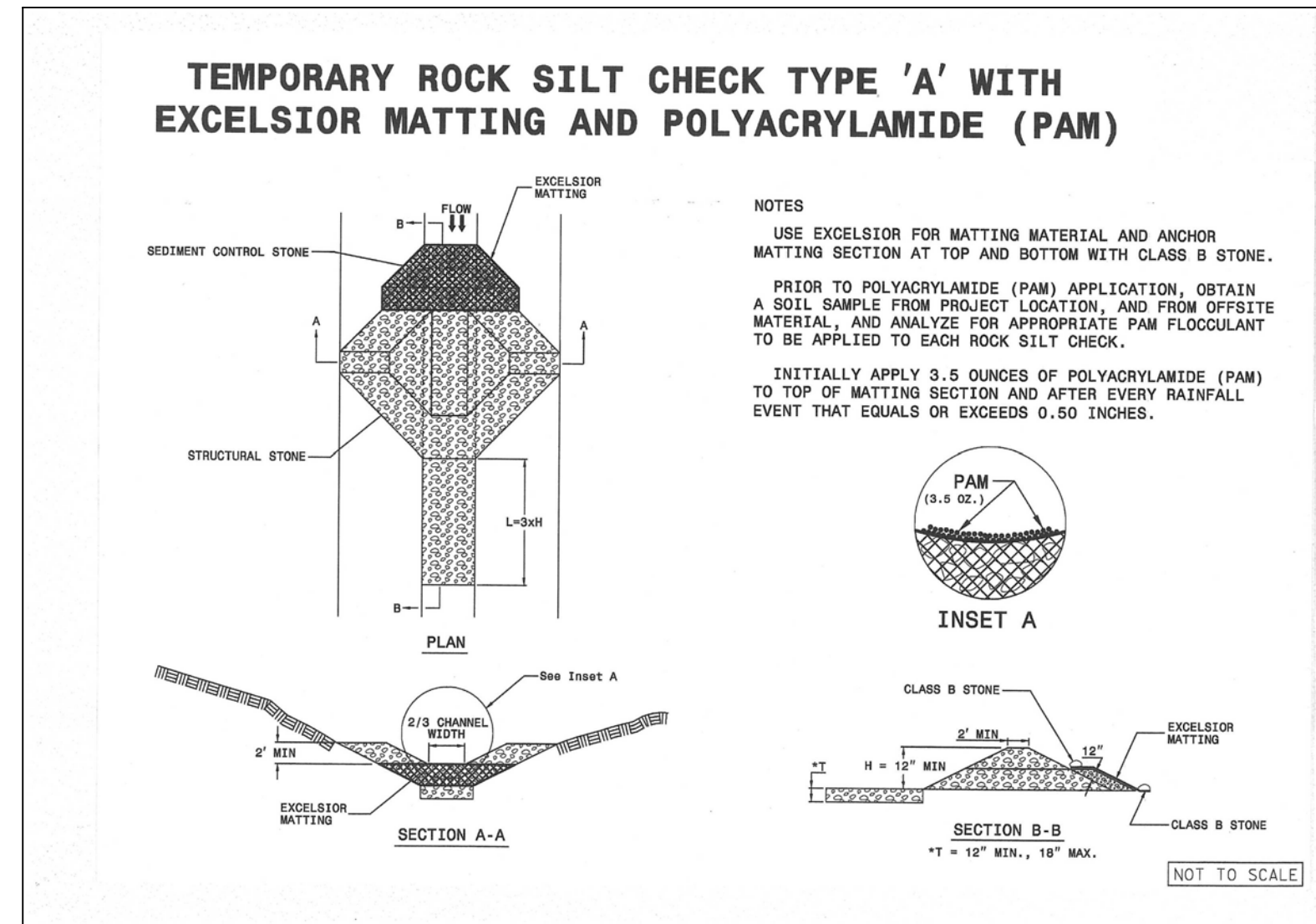
PROJECT NUMBER: 20063
PROJECT PHASE: CONSTRUCTION DOCUMENTS
DATE: 10.06.2022
9.26.2022
10.20.2022
11.11.2022
12.14.2022

SHEET TITLE: SEDIMENTATION AND EROSION CONTROL DETAILS

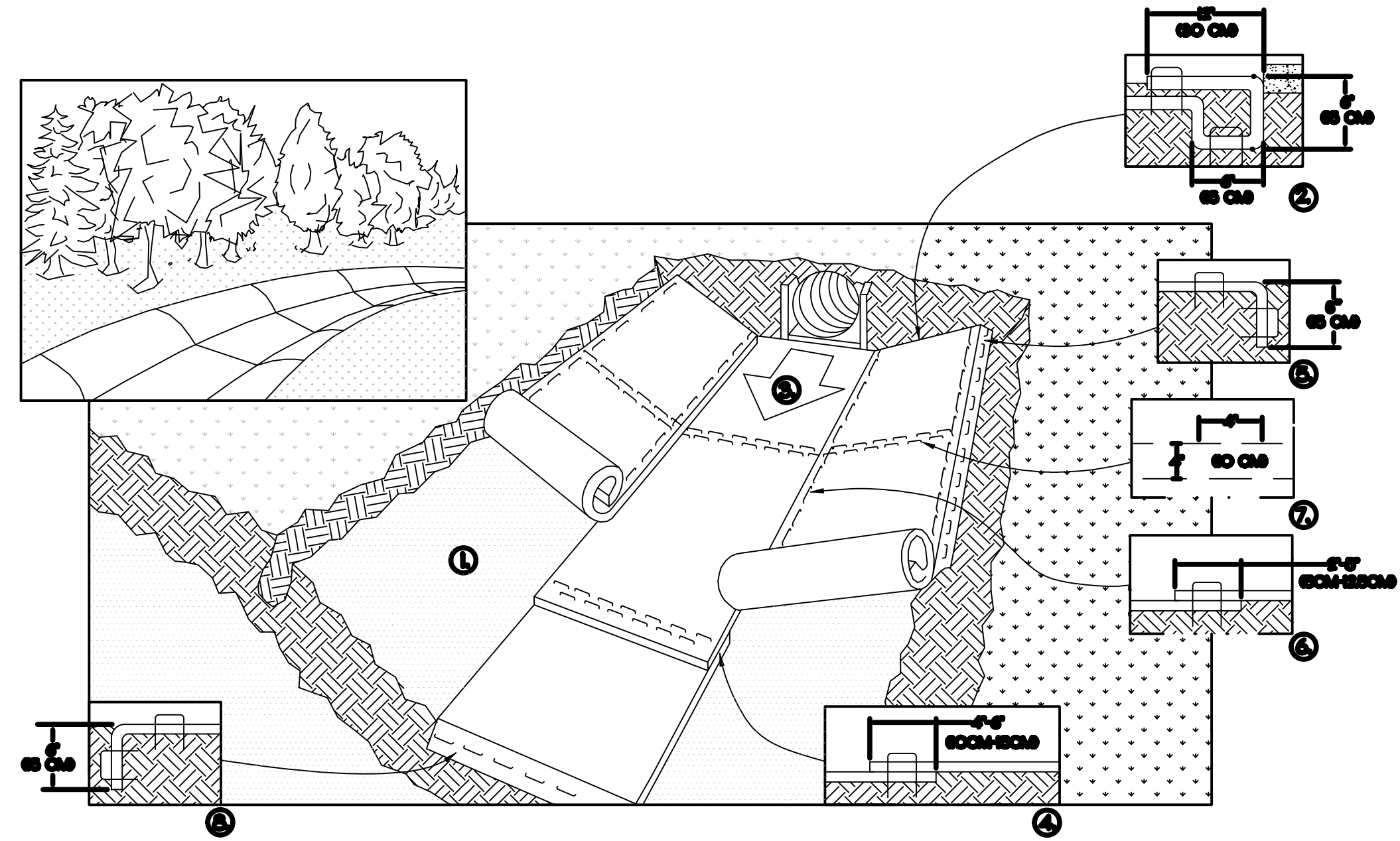
SHEET NUMBER: C202



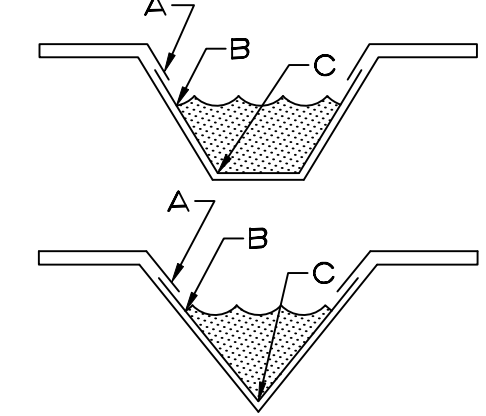
1 STANDARD DIVERSION DITCH
C204 NOT TO SCALE



2 CHECK DAM W/PAM
C204 NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15CM) DEEP X 6" (15CM) 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" (30CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. 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 OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10CM-15CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10CM) APART AND 4" (10CM) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN A 6" (15CM) DEEP X 6" (15CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2'-5" (5CM-12.5CM) (DEPENDING ON BLANKET TYPE) AND STAPLED. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9M-12M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10CM) APART AND 4" (10CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN A 6" (15CM) DEEP X 6" (15CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



3 GEOTEXTILE CHANNEL LINING
C204 NOT TO SCALE

The long-term double net 100% biodegradable erosion control blanket shall be a machine-produced mat of coconut fiber with a functional longevity up to 24 months. The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven, natural, organic fiber netting. The top netting shall consist of machine directional strands from two intertwined yarns with cross directional strands (commonly referred to as a Leno weave) to form an approximate 0.50 x 1.00 (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread.

The blanket shall meet requirements established by the Erosion Control Technology Council (ECTC) Specification and the US Dept. of Transportation - Federal Highway Administration's (FHWA) Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Section 713.17 as a type 4 Long Term Erosion Control Blanket.

Installation staple patterns shall be clearly marked on the blanket with environmentally safe paint. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2.5 inches [6.35 cm] from the edge) as an overlap guide for adjacent mats.

Matrix: 100% Coconut fibers: 0.5 lbs/syd (0.27 kg/sm)

Nettings: Top - Leno woven 100% biodegradable organic jute fiber: 9.3 lb/1000 sf (4.5 kg/100 sm)

Bottom - 100% biodegradable organic jute fiber: 7.7 lb/1000sf (3.76 kg/100 sm)

Thread: Biodegradable

NOTE:

- * HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
- ** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

TOWN CERTIFICATION.
THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
LAND USE ADMINISTRATOR

FINCH & ASSOCIATES
engineering • landscape architecture • land surveying

309 North Boylan Avenue
Raleigh, NC 27603-1402
T 919 | 833-1212
F 919 | 834-3203
NGBELS Lic. No. P-1845
NCBCLA Lic. No. C-656

SITE COLLABORATIVE
LANDSCAPE ARCHITECTURE

821 Wake Forest Road
Raleigh, NC 27604 |
919.805.3586



REUSE OF DOCUMENT
This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
Rowdy Ridebacks Holdings LLC
1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

PROJECT PHASE:
CONSTRUCTION DOCUMENTS

DATE:
10.06.2022

9.26.2022
10.20.2022
11.11.2022
12.14.2022

SHEET TITLE:
SEDIMENTATION AND EROSION CONTROL DETAILS

SHEET NUMBER:

C204

TOWN CERTIFICATION.
 THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
 TOWN ENGINEER

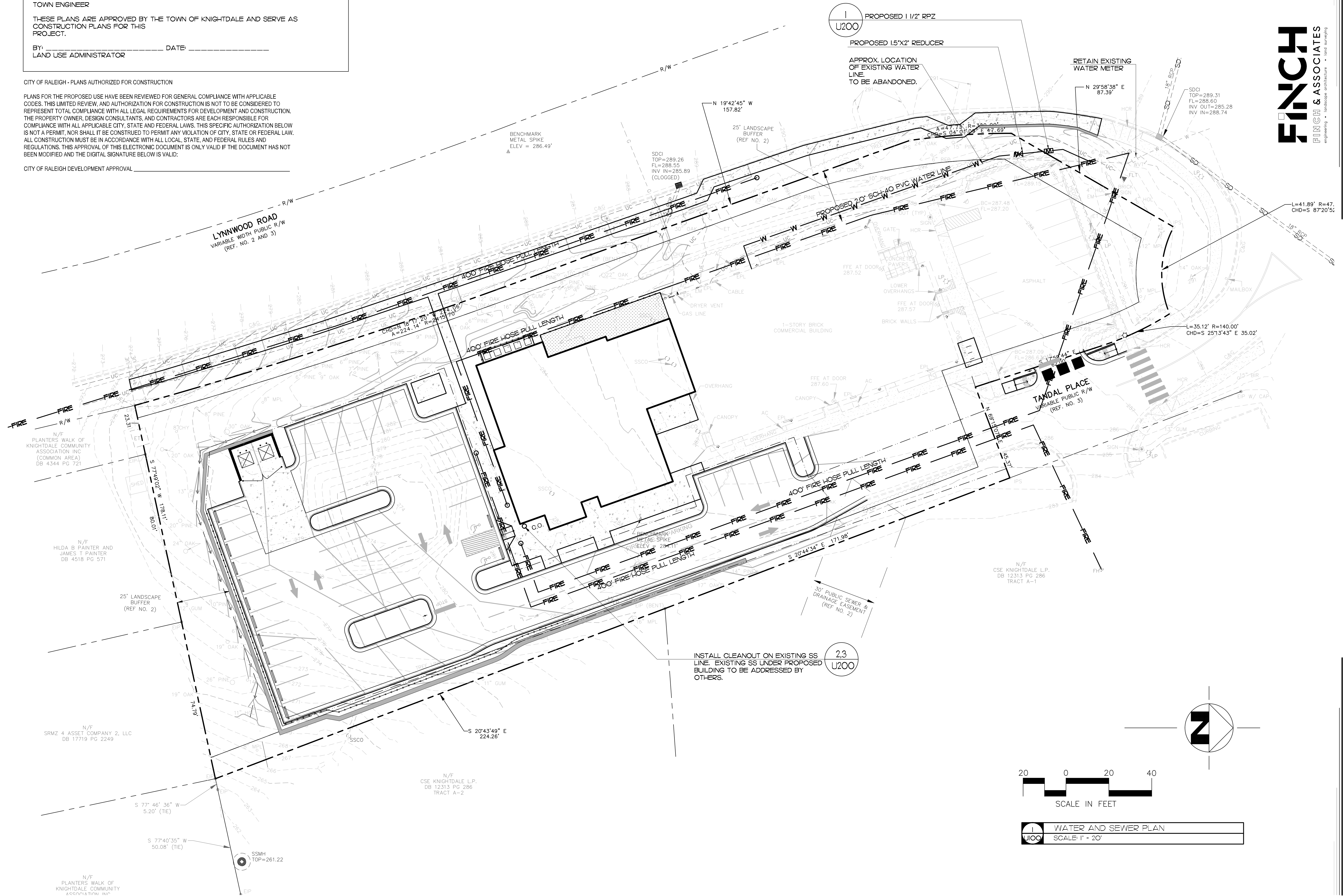
THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
 LAND USE ADMINISTRATOR

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

PLANS FOR THE PROPOSED USE HAVE BEEN REVIEWED FOR GENERAL COMPLIANCE WITH APPLICABLE CODES. THIS LIMITED REVIEW, AND AUTHORIZATION FOR CONSTRUCTION IS NOT TO BE CONSIDERED TO REPRESENT TOTAL COMPLIANCE WITH ALL LEGAL REQUIREMENTS FOR DEVELOPMENT AND CONSTRUCTION. THE PROPERTY OWNER, DESIGN CONSULTANTS, AND CONTRACTORS ARE EACH RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CITY, STATE AND FEDERAL LAWS. THIS SPECIFIC AUTHORIZATION BELOW IS NOT A PERMIT, NOR SHALL IT BE CONSTRUED TO PERMIT ANY VIOLATION OF CITY, STATE OR FEDERAL LAW. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS. THIS APPROVAL OF THIS ELECTRONIC DOCUMENT IS ONLY VALID IF THE DOCUMENT HAS NOT BEEN MODIFIED AND THE DIGITAL SIGNATURE BELOW IS VALID:

CITY OF RALEIGH DEVELOPMENT APPROVAL _____



FINCH & ASSOCIATES
 FINCH & ASSOCIATES
 engineering • landscape architecture • land surveying



REUSE OF DOCUMENT
 This document is the property of Site Collaborative Inc. The basis and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
 Rowdy Ridebacks Holdings LLC
 1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
20063

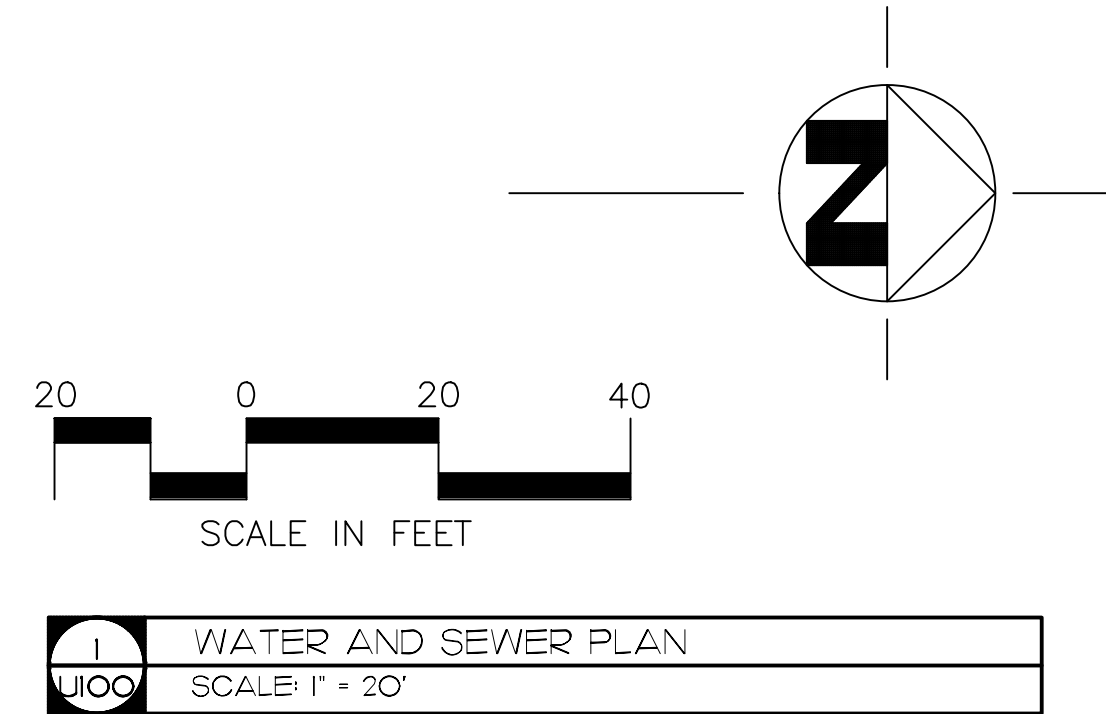
PROJECT PHASE:
CONSTRUCTION DOCUMENTS

DATE:
10.06.2022

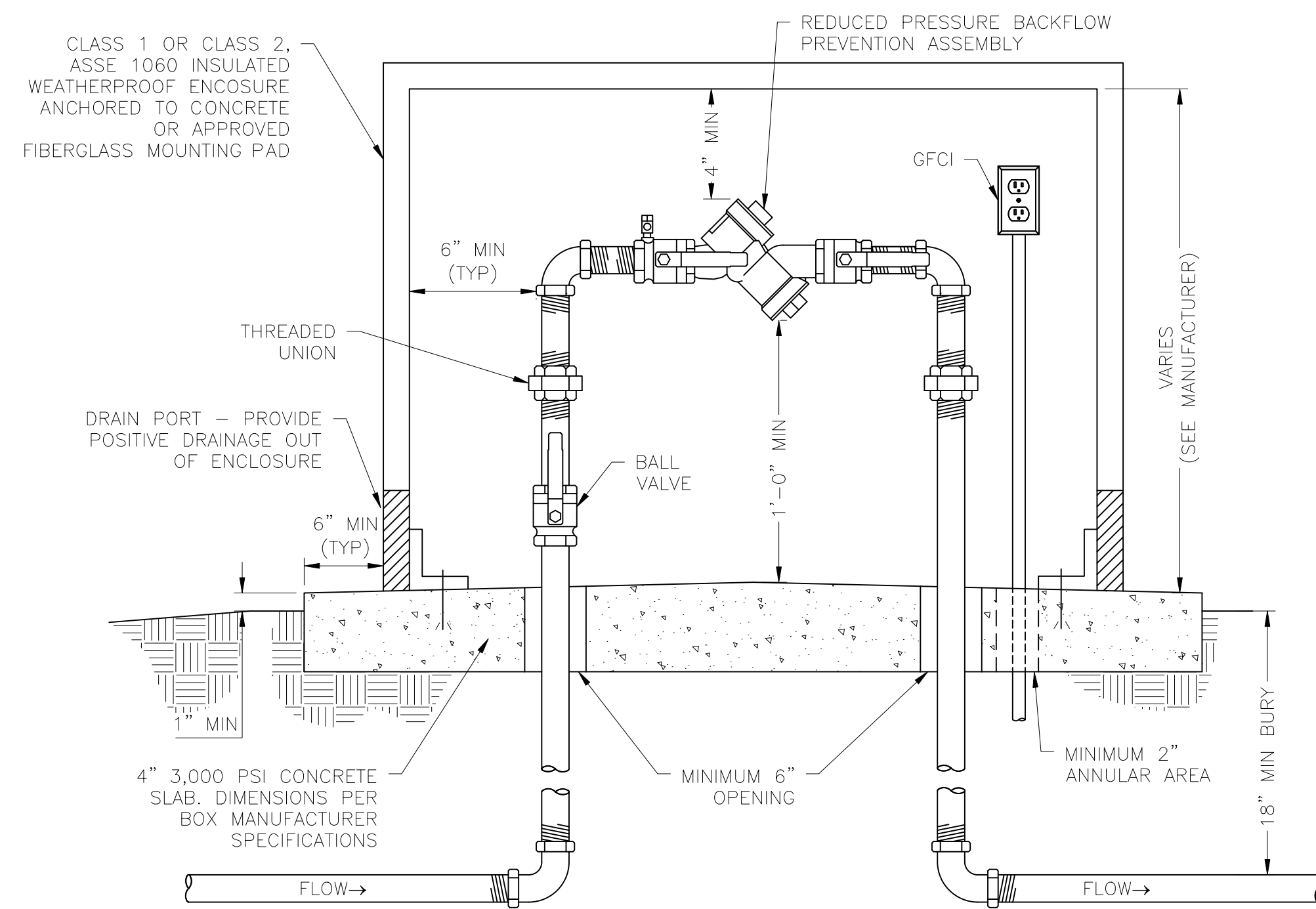
9.26.2022
 10.20.2022
 11.11.2022
 12.14.2022

SHEET TITLE:
WATER AND SEWER PLAN

SHEET NUMBER:
U100

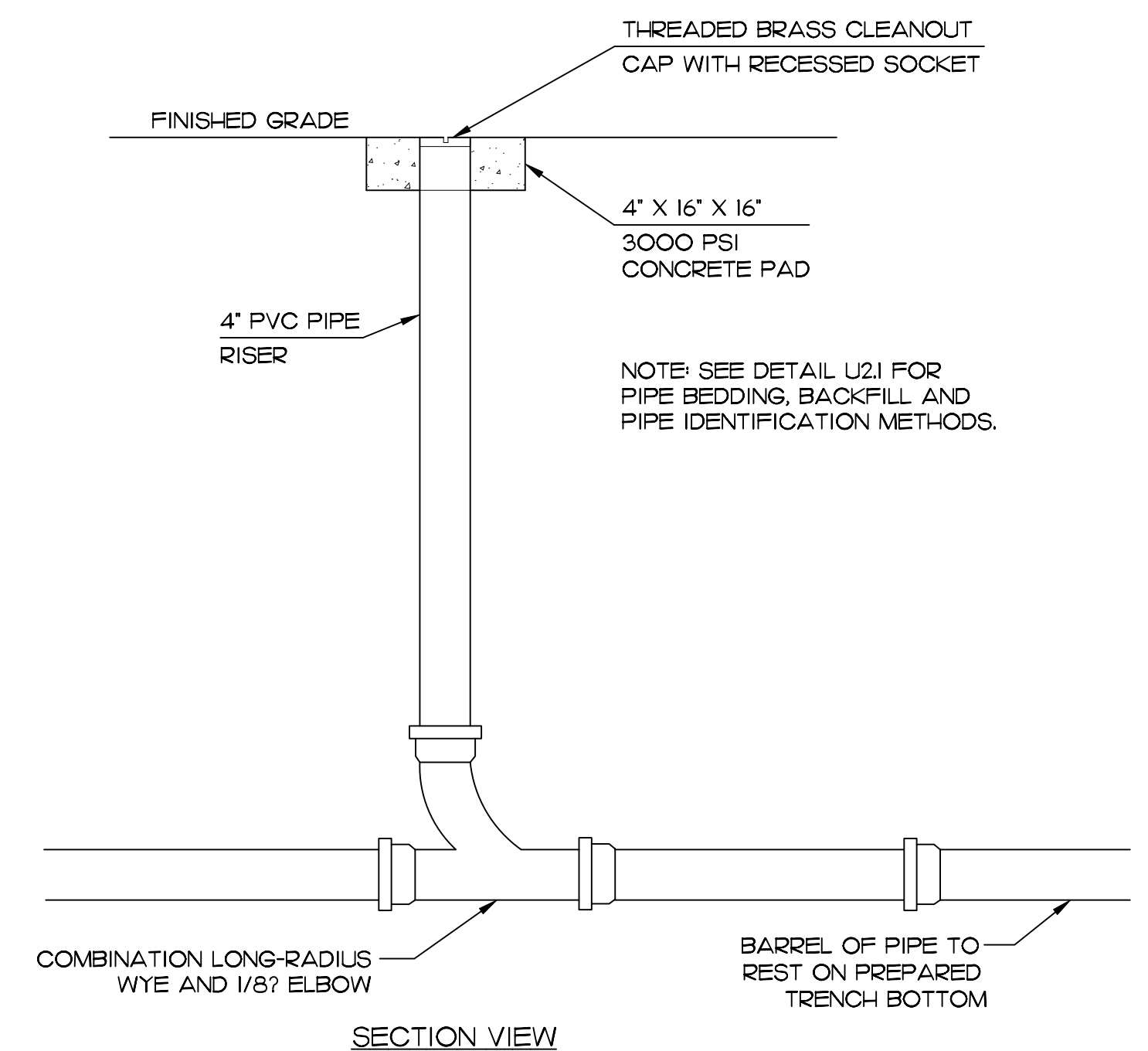


1 WATER AND SEWER PLAN
 SCALE: 1" = 20'

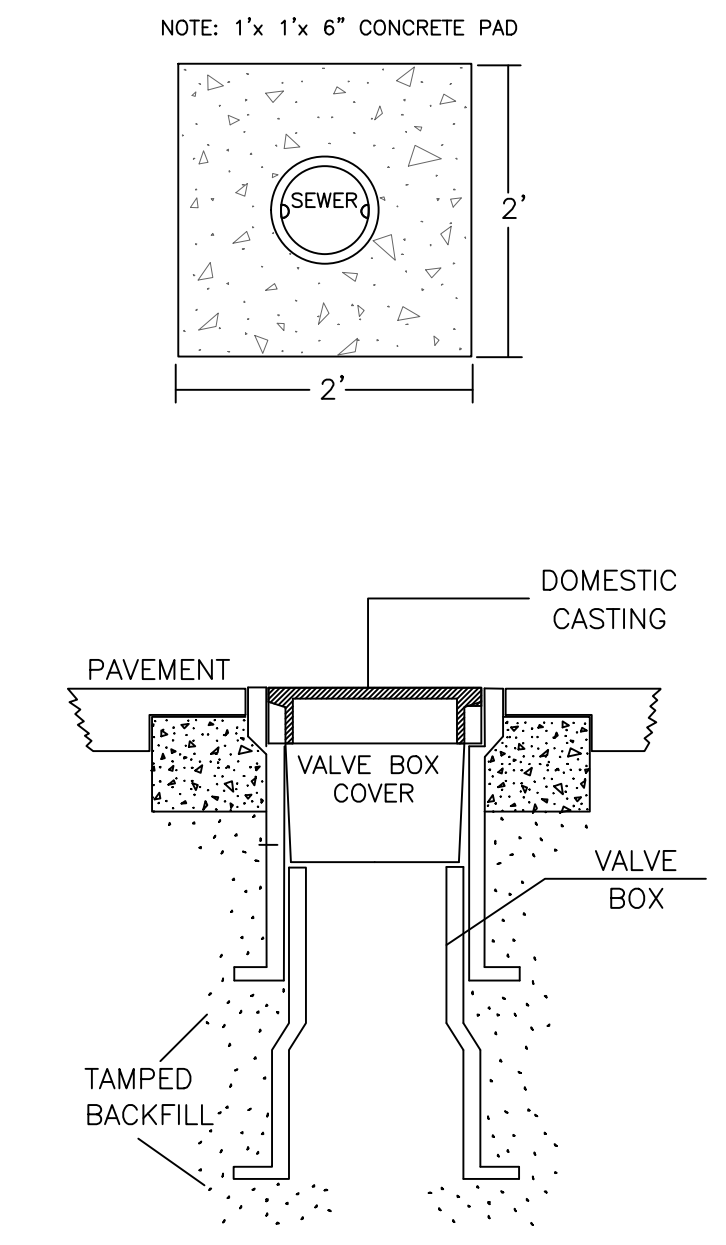


1 RPZ BACKFLOW PREVENTER
 U200 SCALE: NOT TO SCALE

- NOTES:**
1. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
 2. BACKFLOW PREVENTION ASSEMBLIES SHALL BE REDUCED PRESSURE PRINCIPLE TYPE FOR PROPOSED INSTALLATION. BACKFLOW PREVENTION ASSEMBLIES SHALL BE MANUFACTURED IN CONFORMANCE WITH AWWA C511 (REDUCED PRESSURE) AND SHALL BE APPROVED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIV. OF SOUTHERN CALIFORNIA AND NCDENR, DIVISION OF ENVIRONMENTAL HEALTH. USE A. FEBCO 15' LF860J OR SIMILAR PRODUCT.
 3. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED WITHIN 50'-FT OF THE METER.
 4. BACKFLOW ASSEMBLY SHALL BE CENTERED ON CONCRETE OR OTHER APPROVED MOUNTING PAD AND CENTERED WITHIN ENCLOSURE.
 5. MINIMUM INSULATED CLASS I OR CLASS II, ASSE 1060 WEATHERPROOF ENCLOSURE REQUIRED.
 6. 120 V GFCI ELECTRICAL RECEPTACLE TO BE INSTALLED IN ACCORDANCE WITH THE N.C. ELECTRICAL CODE FOR OUTDOOR OPERATION.
 7. PIPE MATERIAL SHALL BE PVC (SCH. 80 OR BETTER), COPPER (TYPE K), OR BRASS (ASTM B43).
 8. IRRIGATION ASSEMBLIES TO BE DRAINED DURING WINTER MONTHS BY PROPERTY OWNER.
 9. INSTALLATION SHALL BE IN COMPLIANCE WITH ALL APPLICABLE SPECIFICATIONS IN ADDITION TO THE N.C. PLUMBING CODE.
 10. INSTALL HEATER AS RECOMMENDED BY MANUFACTURER.



2 IN-LINE CLEANOUT
 U200 NOT TO SCALE



3 CLEANOUT COVER
 U200 NOT TO SCALE

TOWN CERTIFICATION.
 THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
 TOWN ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
 LAND USE ADMINISTRATOR

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

PLANS FOR THE PROPOSED USE HAVE BEEN REVIEWED FOR GENERAL COMPLIANCE WITH APPLICABLE CODES. THIS LIMITED REVIEW, AND AUTHORIZATION FOR CONSTRUCTION IS NOT TO BE CONSIDERED TO REPRESENT TOTAL COMPLIANCE WITH ALL LEGAL REQUIREMENTS FOR DEVELOPMENT AND CONSTRUCTION. THE PROPERTY OWNER, DESIGN CONSULTANTS, AND CONTRACTORS ARE EACH RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CITY, STATE AND FEDERAL LAWS. THIS SPECIFIC AUTHORIZATION BELOW IS NOT A PERMIT, NOR SHALL IT BE CONSTRUED TO PERMIT ANY VIOLATION OF CITY, STATE OR FEDERAL LAW. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS. THIS APPROVAL OF THIS ELECTRONIC DOCUMENT IS ONLY VALID IF THE DOCUMENT HAS NOT BEEN MODIFIED AND THE DIGITAL SIGNATURE BELOW IS VALID:

CITY OF RALEIGH DEVELOPMENT APPROVAL _____

FINCH & ASSOCIATES
 engineering • landscape architecture • land surveying

FINCH & ASSOCIATES
 309 North Boyden Avenue
 Raleigh, NC 27603-1402
 T 919 | 833-1212
 F 919 | 834-3203
 NCBELS Lic. No. P-1845
 NCSBPA Lic. No. C-656

Site COLLABORATIVE
 LANDSCAPE ARCHITECTURE

821 Wake Forest Road
 Raleigh, NC 27604 |
 919.503.3084



REUSE OF DOCUMENT
 This document is the property of Site Collaborative Inc. The ideas and design incorporated on this document is an instrument of professional service and shall not be used for any other project without written authorization of Site Collaborative Inc.

Wake Veterinary Hospital
 Rowdy Ridebacks Holdings LLC
 1007 Tandal Place, Knightdale, NC

PROJECT NUMBER:
 20063

PROJECT PHASE:
 CONSTRUCTION DOCUMENTS

DATE:
 10.06.2022

9.26.2022
 10.20.2022
 11.11.2022
 12.14.2022

SHEET TITLE:
 WATER AND SEWER DETAILS

SHEET NUMBER:
 U200



Outdoor Lighting Shoebox "S" Pedestrian LED



The energy-efficient Shoebox "S" Pedestrian LED combines a decorative, contemporary style with versatility and ample lighting effect that is perfect for streets, parking lots, commercial buildings and residential communities. The Shoebox "S" Pedestrian LED provides excellent color rendition along with a controlled light pattern that reduces glare and keeps the light directed only where you want it.

LED (Light Emitting Diode)	50 watts
Mounting heights	12', 13', 16'
Color	Black
Poles	Smooth round concrete Fluted concrete Fiberglass Decorative aluminum
Applications	Neighborhoods Parks Shopping centers

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866.769.6417.



Outdoor Lighting Shoebox "S" Pedestrian LED

Light source: LED (white)
Wattage: 50
Lumens: 3,730
Light pattern: IESNA Type III (oval)
IESNA Backlight - Uplight - Glare (BUG) Rating: B1-U0-G1
Color temperature: 4,000K



light distribution pattern

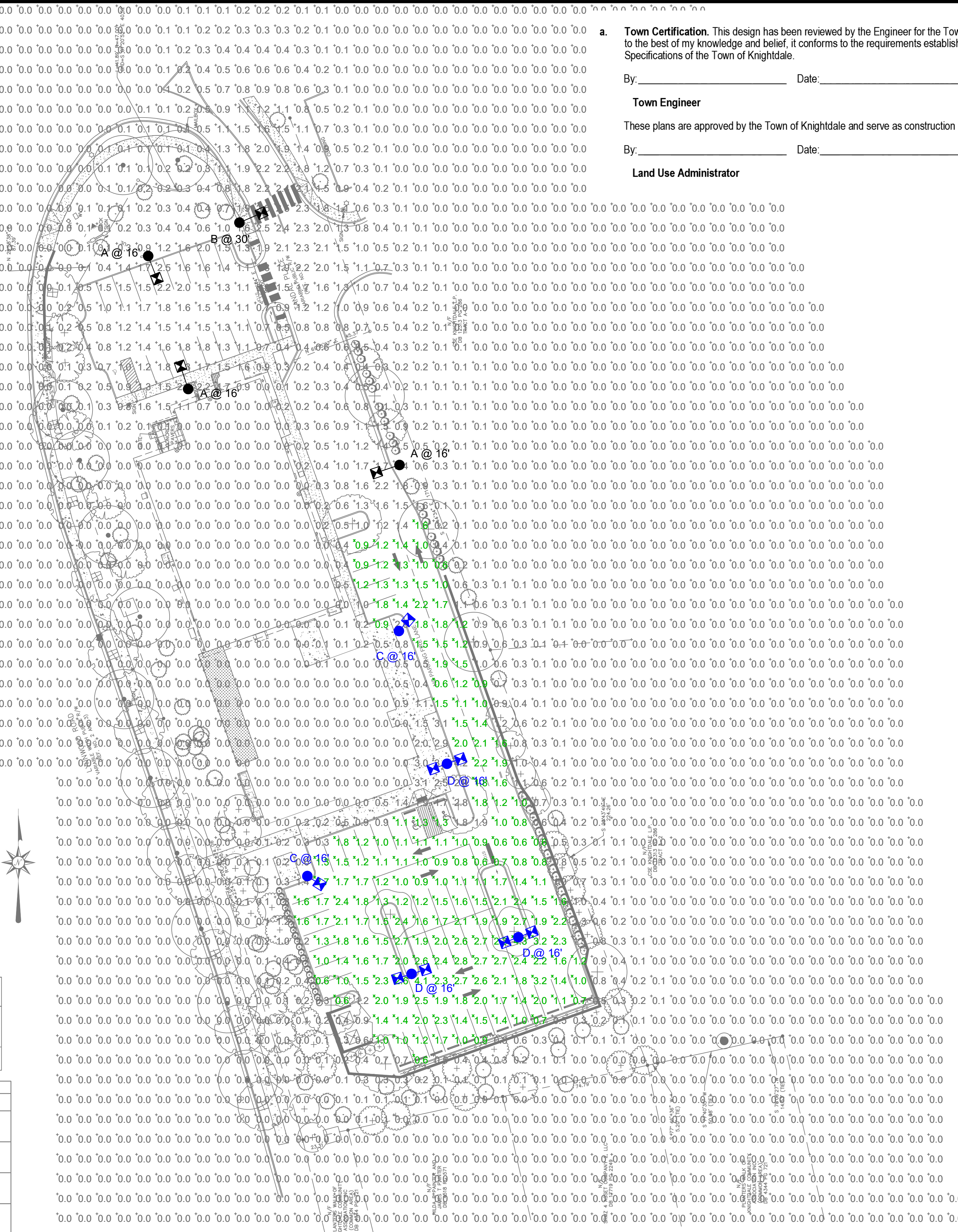
Name	Mounting height	Color
Fiberglass	16'	Black
Style V	12', 16'	Black
Style VI	12'	Black
Style VII	13'	Black

Features	Benefits
Little or no installation cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
New Parking	✕	1.6 fc	4.3 fc	0.6 fc	7.2:1	2.7:1

Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
●	A	3	Existing 50w Shoebox - Type IV - 3000K	16	382	0.85
●	B	1	Existing 150w Roadway - Type III - 4000K	1	19201	0.85
●	C	2	Proposed 50w Shoebox - Type IV - 3000K	16	382	0.85
●	D	3	Proposed 50w Shoebox - Type IV - 3000K	16	382	0.85



a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

Land Use Administrator



©2015 Duke Energy Corporation 151307 7/15

REV#	DATE	REVISION	BY
Rev A	06/21/22	Pedestrian Shoebox	NJ

Customer approval	_____
Date	_____

LIGHTING DESIGN TOLERANCE

The calculator footcandle light levels on this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (fencing or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.

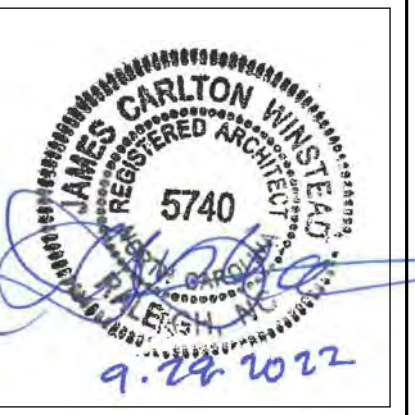
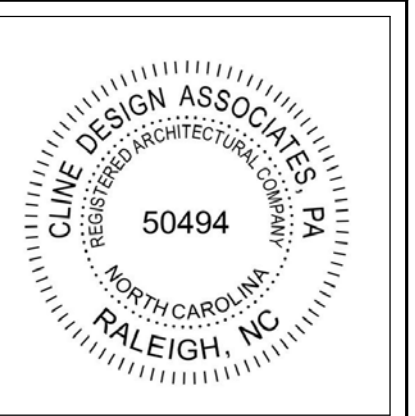


PROPRIETARY & CONFIDENTIAL

This document together with the concepts and designs presented herein, presented as an instrument of service, is the sole property of Duke Energy, and is intended only for the specific purpose and prospective client as stated in the title block of this drawing. Any use, copying, reproduction or disclosure of the drawing, design or any information contained herein by the prospective customer or other entities, including without limitation, architects, engineers, or equipment manufacturers is hereby expressly prohibited and shall not be permitted absent prior written consent from, and payment of compensation to Duke Energy. Duke Energy disclaims any liability or responsibility for any unauthorized use of or reliance on this document.

1007 TANDAL PLACE

Knightdale, NC	
SITE LIGHTING PLAN	
Designed by	DEP LIGHTING SOLUTIONS
Reviewed by	N. Johnson Scale 1" = 30'
Date	06/21/2022 Size "Arch D"
Description	LED 50w Shoebox
Drawing No.	22-0228A Sht. 1 OF 1



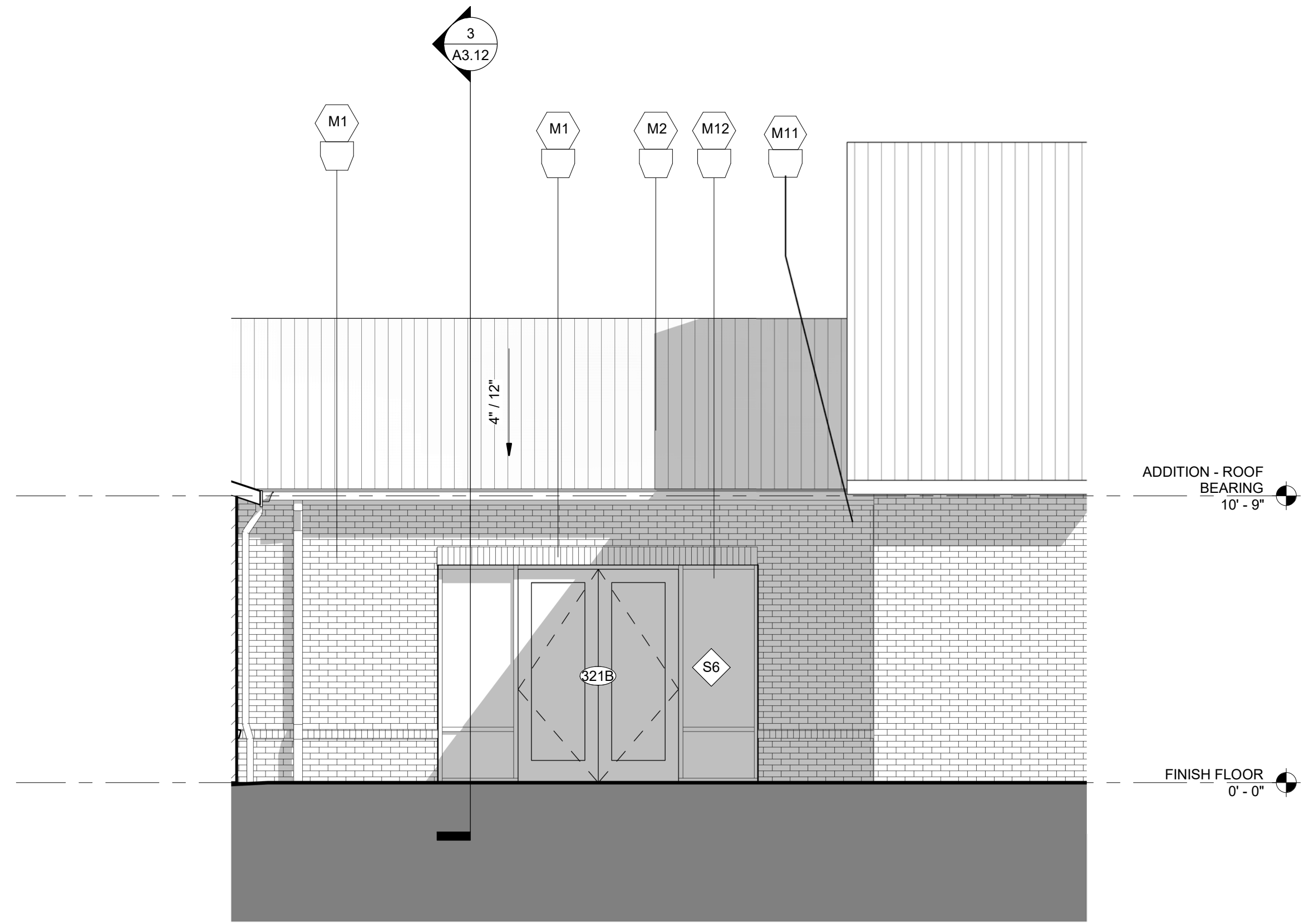
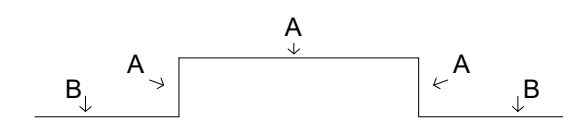
PROJECT: 020156
DATE: 09.29.22
REVISIONS: DATE

DRAWN BY: RB
CHECKED BY: CL

EXTERIOR ELEVATIONS

GENERAL NOTES

- ADDRESSING SIGNAGE TO BE LOCATED ON THE SIDE OF THE BUILDING FROM WHERE THE BUILDING IS ADDRESSED (ONE SIDE ONLY). PROVIDE BUILDING ADDRESS IN 6" HIGH LETTERS TO BE APPROVED BY FIRE MARSHALL. ADDRESS NUMBERS TO BE ILLUMINATED.
 - SEE WALL SECTIONS & ENLARGED ELEVATIONS FOR GUARDRAIL HEIGHTS. ALL BALCONIES OR WALKWAYS ELEVATED MORE THAN 30" IN VERTICAL RISE TO HAVE MINIMUM 3'-6" HIGH GUARDRAILS AS PER THE BUILDING CODE.
 - REFER TO SPECIFICATIONS FOR ALL EXTERIOR MATERIALS. THE WALL SECTIONS AND DETAILS SHOWN IN THIS SET REFLECT FIBER CEMENT PANEL SIDING WITH 5/4 TRIM. ALL MATERIAL WIDTHS TO REMAIN SAME SIZE IF ANY PRODUCT SUBSTITUTION IS MADE. CONTACT ARCHITECT IF THERE ARE ANY DISCREPANCIES IN DETAILS DUE TO PRODUCT SUBSTITUTIONS.
 - SEE ROOF PLAN FOR OVERHANG DIAGRAM DESIGNS.
 - APPLY AN ADDITIONAL 12" LAYER OF MOISTURE BARRIER AT INSIDE/OUTSIDE CORNERS FULL HEIGHT OF WALL (TYP.)
 - PROVIDE CONT. BUILDING WRAP OVER SHEATHING - TYVEK "COMMERCIAL WRAP" TO BE BASIS OF DESIGNER SPECIFICATIONS.
 - INSTALL BUILDING WRAP CONTINUOUS AT ALL WALL SURFACES PRIOR TO EXTERIOR FINISH INSTALLATION.
 - TERM./FLASH BUILDING WRAP AT PENETRATIONS DETAILS & MANU. RECOMMENDATIONS.
 - PROVIDE PRE-FAB. FLASHING BOOTS OR FLANGED EXHAUST LOUVER AT DUCT PENETRATIONS AT WALLS (TYP.)
 - PROVIDE SEALANT AT VERTICAL TRANSITIONS BETWEEN WALL FINISHES.
 - PROVIDE METAL FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
 - DRYER VENTS AT TOP LEVEL TO BE ROUTED DOWN TO THE FLOOR BELOW.
- MATERIAL (A) AND COLOR AT FACE OF BAY RETURNS AROUND THE SIDES AND BACK TO THE BUILDING. (TYP.)



SOUTH ELEV @ STAFF COURTYARD 2
1/4" = 1'-0"

SYMBOL LEGEND

- XX DENOTES DOOR NUMBER (SEE SHEET AX-XX FOR DOOR SCHEDULE)
- ◇◇ DENOTES WINDOW NUMBER (SEE SHEET AX-XX FOR SCHEDULE)

KEYED NOTES

MATERIALS

- BRICK, LIVINGSTONE (MATCH EXISTING)
- STANDING SEAM METAL ROOF (MATCH EXISTING)
- FIBER CEMENT TRIM
- PREFINISHED ALUMINUM GUTTER AND DOWNSPOUT (MATCH EXISTING)
- FIBER CEMENT VERTICAL SIDING W/ 8" EXPOSURE
- ALUMINUM STOREFRONT
- PVC COLUMN WRAP (FYPON OR EQUAL)
- DECORATIVE PVC BRACKET WITH MOUNTING BOARD
- FYPON VENT
- ALUMINUM FENCE SYSTEM
- FC PANEL W/ REVEALS
- VINYL WINDOWS, AS SPECIFIED

COLORS

- P1 SW 7005 PURE WHITE (MATCH EXISTING)
- P2 SW 7019 GAUNTLET GRAY
- P3 SW TBD (MATCH STANDING SEAM ROOF)

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

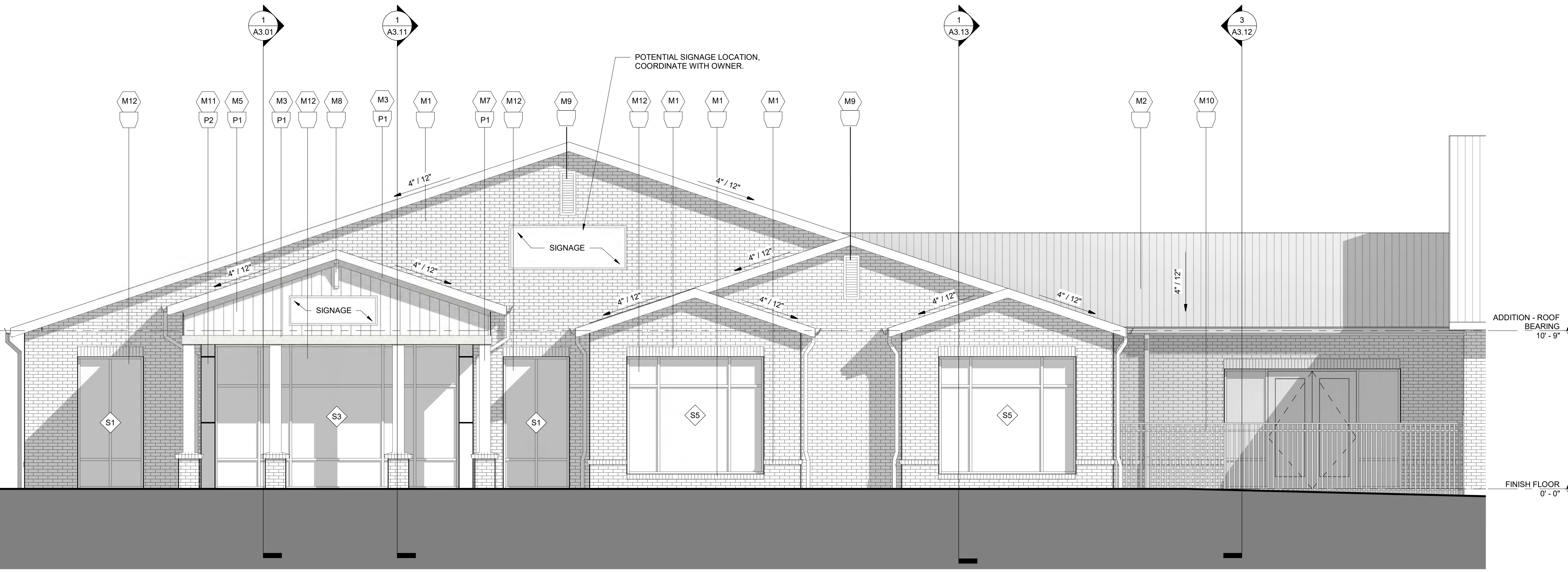
By: _____ Date: _____

Town Engineer

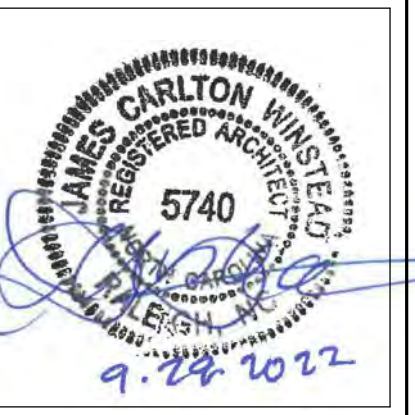
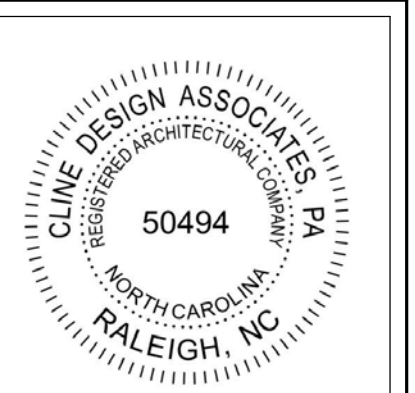
These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

Land Use Administrator



SOUTH ELEVATION 1
1/4" = 1'-0"



PROJECT: 020156
DATE: 09.29.22
REVISIONS: DATE

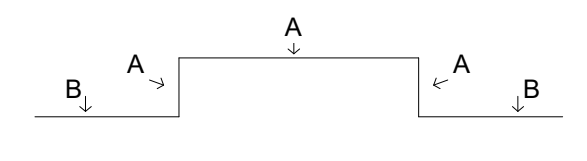
DRAWN BY: RB
CHECKED BY: CL

EXTERIOR ELEVATIONS

GENERAL NOTES

- ADDRESSING SIGNAGE TO BE LOCATED ON THE SIDE OF THE BUILDING FROM WHERE THE BUILDING IS ADDRESSED (ONE SIDE ONLY). PROVIDE BUILDING ADDRESS IN 6" HIGH LETTERS TO BE APPROVED BY FIRE MARSHALL. ADDRESS NUMBERS TO BE ILLUMINATED.
- SEE WALL SECTIONS & ENLARGED ELEVATIONS FOR GUARDRAIL HEIGHTS. ALL BALCONIES OR WALKWAYS ELEVATED MORE THAN 30" IN VERTICAL RISE TO HAVE MINIMUM 3'-6" HIGH GUARDRAILS AS PER THE BUILDING CODE.
- REFER TO SPECIFICATIONS FOR ALL EXTERIOR MATERIALS. THE WALL SECTIONS AND DETAILS SHOWN IN THIS SET REFLECT FIBER CEMENT PANEL / SIDING WITH 5/4 TRIM. ALL MATERIAL WIDTHS TO REMAIN SAME SIZE IF ANY PRODUCT SUBSTITUTION IS MADE. CONTACT ARCHITECT IF THERE ARE ANY DISCREPANCIES IN DETAILS DUE TO PRODUCT SUBSTITUTIONS.
- SEE ROOF PLAN FOR OVERHANG DIAGRAM DESIGNS.
- APPLY AN ADDITIONAL 12" LAYER OF MOISTURE BARRIER AT INSIDE/OUTSIDE CORNERS FULL HEIGHT OF WALL (TYP.)
- PROVIDE CONT. BUILDING WRAP OVER SHEATHING - TYVEK "COMMERCIAL WRAP" TO BE BASIS OF DESIGNER SPECIFICATIONS.
- INSTALL BUILDING WRAP CONTINUOUS AT ALL WALL SURFACES PRIOR TO EXTERIOR FINISH INSTALLATION.
- TERM./FLASH BUILDING WRAP AT PENETRATIONS DETAILS & MANU. RECOMMENDATIONS.
- PROVIDE PRE-FAB. FLASHING BOOTS OR FLANGED EXHAUST LOUVER AT DUCT PENETRATIONS AT WALLS (TYP.)
- PROVIDE SEALANT AT VERTICAL TRANSITIONS BETWEEN WALL FINISHES.
- PROVIDE METAL FLASHING AT HORIZONTAL TRANSITIONS BETWEEN WALL FINISHES.
- DRYER VENTS AT TOP LEVEL TO BE ROUTED DOWN TO THE FLOOR BELOW.

MATERIAL (A) AND COLOR AT FACE OF BAY RETURNS AROUND THE SIDES AND BACK TO THE BUILDING. (TYP.)



SYMBOL LEGEND

- XX DENOTES DOOR NUMBER (SEE SHEET AX-XX FOR DOOR SCHEDULE)
- XX DENOTES WINDOW NUMBER (SEE SHEET AX-XX FOR SCHEDULE)

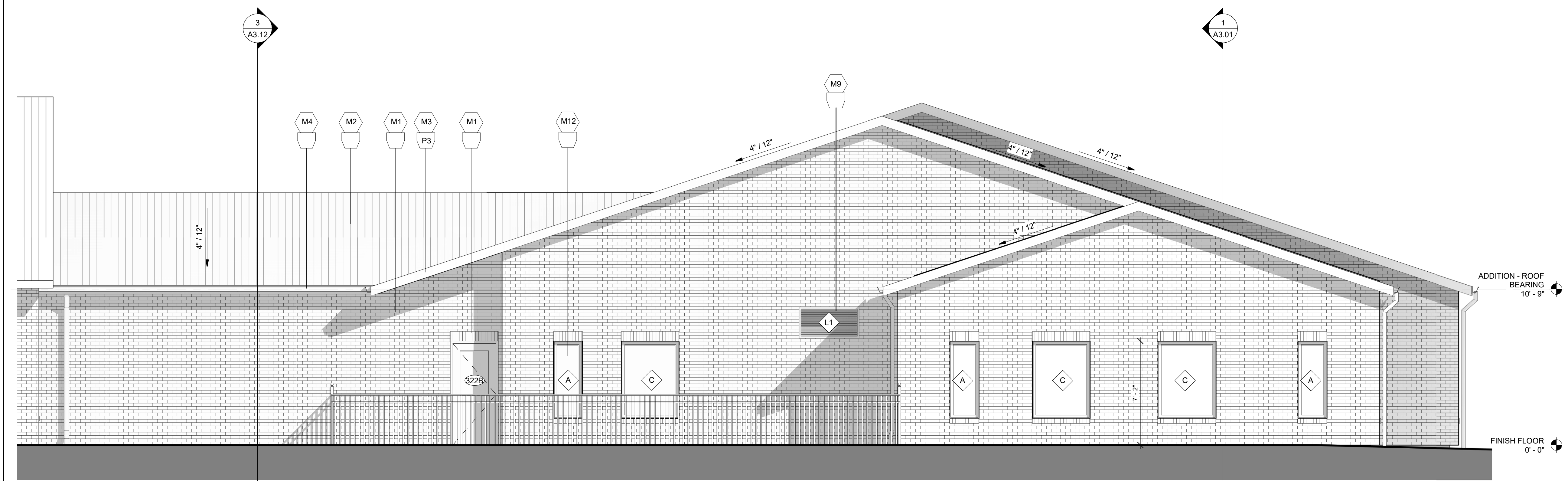
KEYED NOTES

MATERIALS

- BRICK, LIVINGSTONE (MATCH EXISTING)
- STANDING SEAM METAL ROOF (MATCH EXISTING)
- FIBER CEMENT TRIM
- PREFINISHED ALUMINUM GUTTER AND DOWNSPOUT (MATCH EXISTING)
- FIBER CEMENT VERTICAL SIDING W/ 8" EXPOSURE
- ALUMINUM STOREFRONT
- PVC COLUMN WRAP (FYPON OR EQUAL)
- DECORATIVE PVC BRACKET WITH MOUNTING BOARD
- FYPON VENT
- ALUMINUM FENCE SYSTEM
- FC PANEL W/ REVEALS
- VINYL WINDOWS, AS SPECIFIED

COLORS

- P1 SW 7005 PURE WHITE (MATCH EXISTING)
- P2 SW 7019 GAUNTLET GRAY
- P3 SW TBD (MATCH STANDING SEAM ROOF)



NORTH ELEVATION 2
1/4" = 1'-0"

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

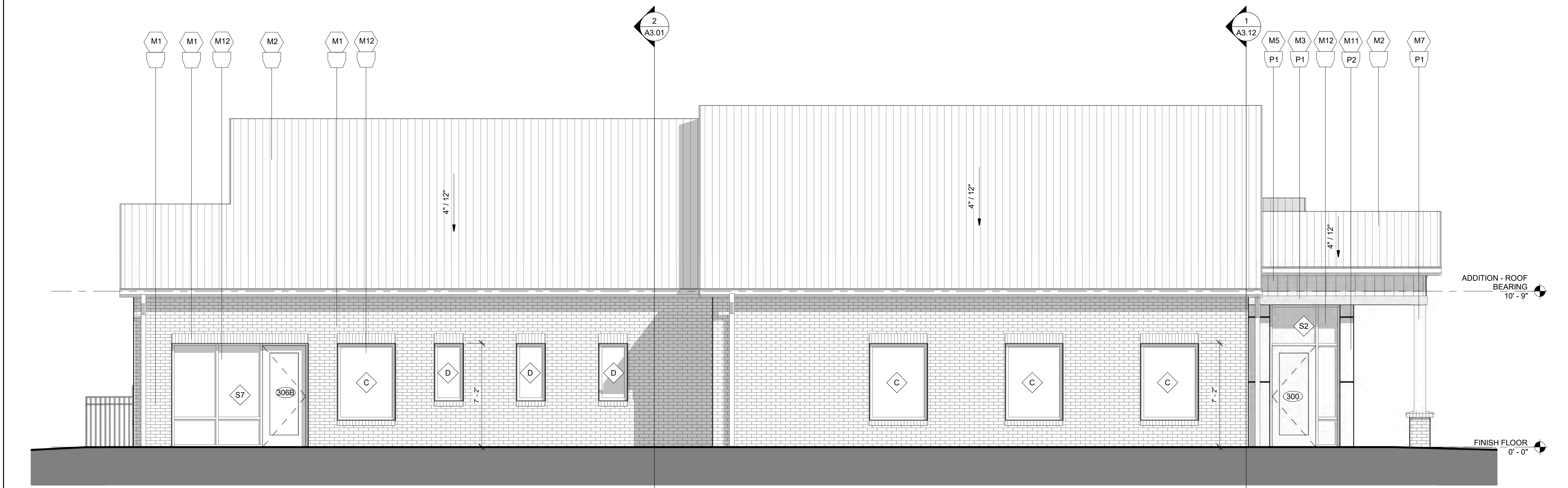
By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

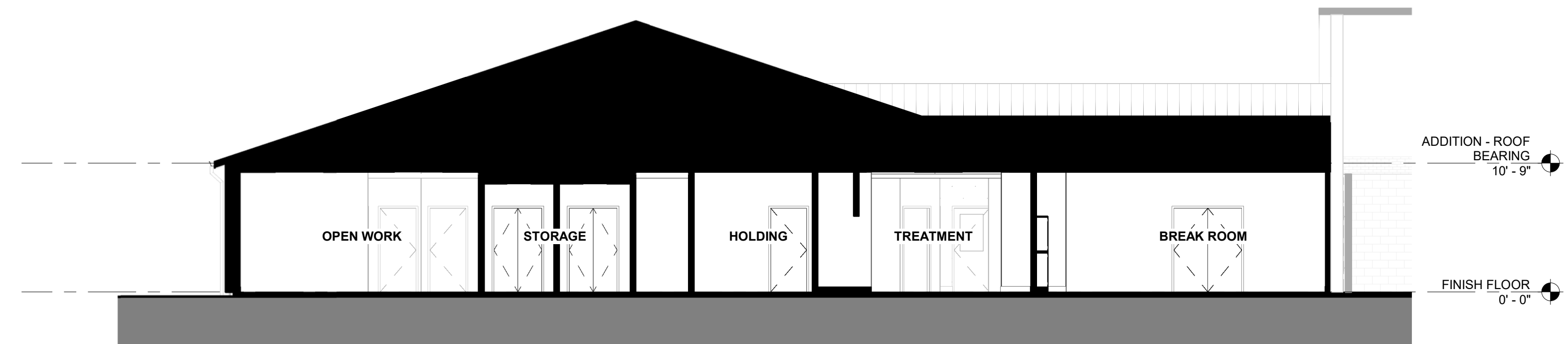
By: _____ Date: _____

Land Use Administrator

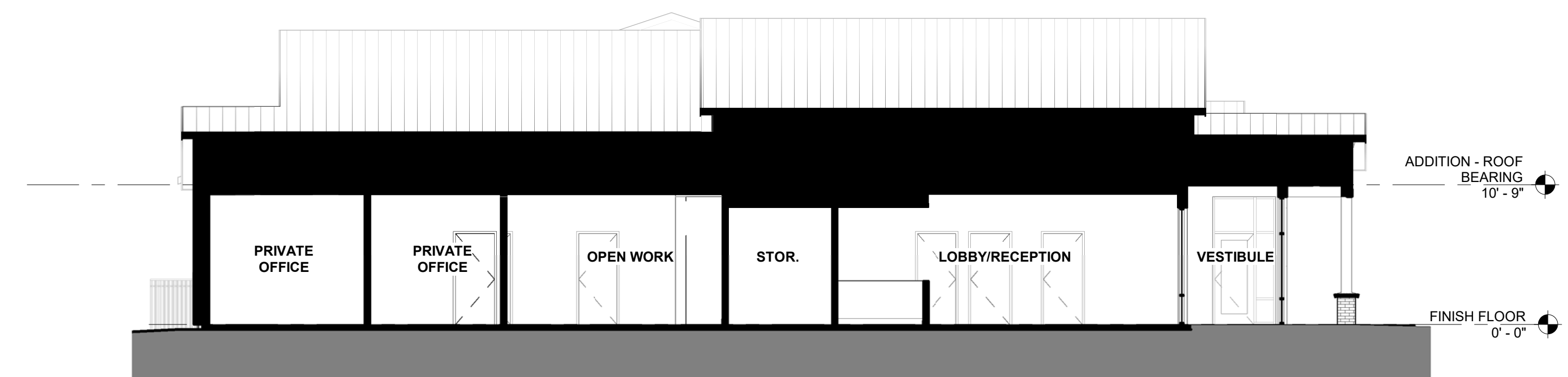


WEST ELEVATION 1
1/4" = 1'-0"

© 2022 CLINE DESIGN ASSOCIATES, PA. EXPRESSLY RESERVES ITS COMMON LAW, COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF CLINE DESIGN ASSOCIATES, PA.



BUILDING SECTION B 2
1/8" = 1'-0"



BUILDING SECTION A 1
1/8" = 1'-0"

a. **Town Certification.** This design has been reviewed by the Engineer for the Town of Knightdale, and to the best of my knowledge and belief, it conforms to the requirements established in the Standard Specifications of the Town of Knightdale.

By: _____ Date: _____

Town Engineer

These plans are approved by the Town of Knightdale and serve as construction plans for this project.

By: _____ Date: _____

Land Use Administrator



PROJECT:	020156
DATE:	09.29.22
REVISIONS:	DATE

DRAWN BY: RB
CHECKED BY: CL

BUILDING SECTIONS