

# BIG OAK VET HOSPITAL

## MASTER PLAN

### TOWN OF KNIGHTDALE

### TOK Project# ZCP-11-24



VICINITY MAP



SCALE: 1" =800'

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PROPOSED SITE DATA		
PROPOSED		
PROJECT NAME	BIG OAK VET HOSPITAL	
PROPOSED USE	ANIMAL SERVICES, NON BOARDING	
PARKING		
REQUIRED		
MAX: 6 PER 1,000 GFA	35	SPACES
MIN: ½ MAXIMUM	18	SPACES
PROVIDED		
STANDARD SPACES	28	SPACES
ADA SPACES	2	SPACES
ELECTRIC CHARGING: 1 PER 40	2	SPACES
	TOTAL	32 SPACES
BICYCLE PARKING		
REQUIRED: 1 PER 40 SPACES (MIN. 2 SPACES)	2	SPACES
PROVIDED: 1 PER 40 SPACES (MIN. 2 SPACES)	2	SPACES
	TOTAL	2 SPACES
IMPERVIOUS SURFACE AREA		
EXISTING	11,239	SF
PROPOSED		
BUILDING	5,815	SF
CONCRETE	3,050	SF
ASPHALT	15,847	SF
TOTAL AREA PROPOSED	24,712	SF
PERCENT OF THE SITE	53	%
NET CHANGE OF IMPERVIOUS	13,473	SF
AREA FOR STORMWATER DEVICE		
PROVIDED	1,500	SF

EXISTING SITE DATA	
EXISTING STREET ADDRESS	1004 BIG OAK COURT, KNIGHTDALE NC
LOT AREA (CURRENT)	46,677 SF / 1.07 AC
CURRENT ZONING	NMX
PARCEL NUMBER	1744445693
REID	0195735
DEED BOOK / DEED PAGE	DB 017157, PG 02669
EXISTING GROSS BUILDING AREA	1,652 SF
EXISTING BUILDING USE	RESTAURANT
EXISTING IMPERVIOUS AREA	11,239 SF

#### WATER ALLOCATION TABLE

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<b>TOTAL</b>	<b>51</b>

#### CONTACT INFORMATION

OWNER  
ROWDY RIDGEBACKS HOLDINGS LLC  
325 NASH ST E  
WILSON NC 27893-4130  
PHONE: 919.266.9852

LANDSCAPE ARCHITECT  
SITE COLLABORATIVE, INC.  
1620 HILLSBOROUGH ST. SUITE 100  
RALEIGH, NC 27605  
CONTACT: GRAHAM H. SMITH  
PHONE: 919.805.3586  
EMAIL: GRAHAM@SITECOLLABORATIVE.COM

ENGINEER  
RESPEC  
555 FAYETTEVILLE ST. SUITE 300  
CONTACT: TRAVIS TYBOROSKI  
PHONE: 919.230.1597  
EMAIL: TRAVIS.TYBOROSKI@RESPEC.COM

ARCHITECT  
CLINE DESIGN ASSOCIATES  
125 N. HARRINGTON ST  
RALEIGH, NC 27603  
CONTACT: KELLY SYNNOTT  
PHONE: 919.833.6413  
EMAIL: KELLYS@CLINEDESIGNASSOC.COM



DEMOLITION NOTES

1.

THE CONTRACTOR SHALL NOTIFY THE N.C. ONE CALL CENTER AT 811 OR 1-800-632-4949 PRIOR TO STARTING WORK.
2.

THE CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNING PUBLIC UTILITIES DEPARTMENT PRIOR TO STARTING WORK.
3.

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.
4.

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.
5.

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.
6.

THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL REQUIREMENTS REGARDING REMOVAL AND DISPOSAL OF MATERIALS AND DEBRIS.
7.

CONTRACTOR SHALL REFER TO CIVIL SHEETS FOR SANITARY SEWER AND WATER REMOVALS AND RELOCATIONS.
8.

RELOCATION OF EXISTING UTILITIES TO BE COORDINATED WITH THE LOCAL UTILITY PROVIDER(S).
9.

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.
10.

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.
11.

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.
12.

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.
13.

CONTRACTOR SHALL RETAIN AND STOCKPILE CONCRETE WHEELSTOPS WHICH ARE IN USEABLE CONDITION FOR RE-INSTALLATION AT THE END OF THE PROJECT.
14.

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.
15.

CLEAN SOILS SHALL BE UTILIZED FOR BACKFILL. COMPACTION OF THESE SOILS PERFORMED IN ACCORDANCE WITH SPECIFICATIONS, GEOTECHNICAL REPORT, AND SITE PLAN.
16.

ALL FENCING TO BE REMOVED SHALL BE REMOVED AT NEXT NEAREST POLE.
17.

ALL GRAVEL TO BE REMOVED (SURFACE OR SUBSURFACE) SHALL BE STOCKPILED AND REUSED ON SITE WHERE POSSIBLE.
18.

ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE REMOVED COMPLETELY, INCLUDING ALL SUBGRADE MATERIALS DIRECTLY ASSOCIATED WITH ITEMS TO BE REMOVED.
19.

ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF LEGALLY OFFSITE UNLESS OTHERWISE NOTED ON THIS PLAN.
20.

ALL TREES TO BE REMOVED SHALL BE GROUND DOWN TO A MINIMUM DEPTH OF 12" BELOW PROPOSED FINISH GRADE.
21.

ALL TREE PROTECTION FENCING SHALL REMAIN IN PLACE DURING DEMOLITION AND CONSTRUCTION.
22.

CONTRACTOR SHALL NOT STOCKPILE SOILS OR CONSTRUCTION EQUIPMENT WITHIN ROOT ZONES OF EXISTING TREES TO REMAIN. ANY DAMAGED TREES SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.

GRADING NOTES

1.

ORIGINAL EXISTING CONDITIONS SHOWN AS 'EXISTING' IN THIS PLAN SET HAS BEEN COMPILED FROM SURVEY DATA PROVIDED BY JAECO. 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 CITY OF RALEIGH 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 CITY OF RALEIGH EROSION AND SEDIMENT CONTROL MANUAL INCLUDING SEEDING AND SILT FENCE AROUND THE BASE OF THE STOCK PILE.

GENERAL SITE NOTES

1.

ALL CONSTRUCTION IN RIGHT-OF-WAY PER TOWN OF KNIGHTDALE STANDARD.
2.

SIDEWALKS ALONG RIGHT-OF-WAY ARE PUBLIC AND MUST BE ACCESSIBLE TO PERSONS WHO ARE BLIND, HAVE LOW VISION AND PEOPLE WITH MOBILITY DISABILITIES. EXISTING PEDESTRIAN ROUTES AND ALTERNATE PEDESTRIAN ROUTES DURING CONSTRUCTION ARE REQUIRED TO BE COMPLIANT WITH THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG), 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3.

ALL PAVEMENTS TO SLOPE POSITIVELY AWAY FROM ALL BUILDINGS.PONDING OF WATER IS PROHIBITED.
4.

PROVIDE CONSTRUCTION JOINTS IN CONCRETE WALKWAYS AS SHOWN IN PLANS. IF NOT SHOWN ON PLANS - MAX SPACING @ 10'
5.

THROUGHOUT PROJECT SITE, ALL DIMENSIONS TO BE FIELD VERIFIED. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCY. ALL DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING, TO CENTERLINE, CENTER TO CENTER ON STRIPES, AND/OR FACE OF CURB, UNLESS OTHERWISE NOTED.
6.

BUILDING AND PUBLIC ROADWAY STAKE OUT SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR.
7.

GUARDRAILS MUST BE INSTALLED ON THE OPEN SIDES OF ELEVATED WALKING SURFACES THAT EXCEED 30 INCHES IN HEIGHT. ALL GUARDRAILS MUST BE A MINIMUM HEIGHT OF 42 INCHES ABOVE THE LEADING EDGE OF THE TREAD OR WALKING SURFACE. GUARDRAILS SHALL HAVE BALUSTERS SUCH THAT A 4 INCH DIAMETER SPHERE CANNOT PASS THROUGH ANY OPENING UP TO A HEIGHT OF 34 INCHES. FROM 34 INCHES TO 42 INCHES ABOVE THE WALKING SURFACE, A 8 INCH DIAMETER SPHERE SHALL NOT PASS.
8.

THE CONTRACTOR, AT ALL TIMES, MUST KEEP THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS OR RUBBISH CAUSED BY THE CONTRACTOR, THE CONTRACTOR'S EMPLOYEES OR THE CONTRACTOR'S SUBCONTRACTOR. ALL DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE ON A DAILY BASIS.
9.

IF DEPARTURES FROM THE DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITH THE EXPRESS WRITTEN PERMISSION OF THE OWNER.
10.

LANDSCAPE ARCHITECT AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
11.

EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE, ARE BASED ON A FIELD DATA PROVIDED TO LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES, UNDERGROUND LINES, AND STRUCTURES AS NECESSARY TO AVOID DAMAGING OR DESTROYING EXISTING SERVICES.
12.

THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE ACTUAL AND EXACT LOCATION, SIZE, AND MATERIAL COMPOSITION OF ANY EXISTING WATER OR SEWER SERVICE PROPOSED FOR CONNECTION OR USE ON THIS PROJECT. THE RELOCATION OF ANY UTILITY SERVICES REQUIRED TO COMPLETE ANY PORTION OF THESE CONSTRUCTION PLANS.
13.

CONTRACTOR SHALL MAINTAIN AN "AS BUILT" SET OF DRAWINGS TO RECORD ANY FIELD CHANGES, ALONG WITH ANY PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER AT THE END OF THE PROJECT.
14.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PERMITS AS ISSUED, AND ANY AND ALL APPLICABLE STATE, COUNTY AND LOCAL CODES.
15.

EXISTING IMPROVEMENTS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED OR RESTORED TO THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE OWNER OF THE IMPROVEMENTS.
16.

THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, AND/OR ANY OTHER REQUIREMENTS WHICH MUST BE MET UNDER CONTRACT.
17.

CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR DETAILS OF BUILDINGS AND BUILDING DIMENSIONS.
18.

CONTRACTOR SHALL COORDINATE CONSTRUCTION OF ALL UNDERGROUND UTILITIES FOR THIS PROJECT WITH THE OWNER'S REPRESENTATIVE PER ALL APPLICABLE REGULATIONS.
19.

CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTOR'S ON SITE AND UTILITY PROVIDERS DURING CONSTRUCTION TO ENSURE SMOOTH TRANSITION BETWEEN DISCIPLINES.
20.

ALL DEMOLITION, AND ANY SUBSEQUENT CONSTRUCTION, SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS SET FORTH AND APPROVED BY THE CITY OF RALEIGH. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS. ALL TREE PROTECTION FENCING SHALL REMAIN IN PLACE DURING CONSTRUCTION.
21.

TRAFFIC CONTROLS FOR ANY UTILITY WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL BE PERFORMED IN COMPLIANCE WITH STANDARDS OF THE NORTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
22.

ALL CROSSWALK MARKINGS WITHIN RIGHT-OF-WAY SHALL BE CONSTRUCTED OF THERMOPLASTIC MATERIALS AND CONSTRUCTED IN ACCORDANCE WITH NCDOT SPECIFICATIONS. CONTRACTOR TO INSTALL CROSSWALKS IN SUCH A MANNER THAT CROSSWALKS ARE ALIGNED BETWEEN HANDICAP/WALKWAY ACCESS POINTS OR PERPENDICULAR TO THE ROADWAY / DRIVE LANE.
23.

ALL SIGNS AND PAVEMENT MARKINGS ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND NCDOT STANDARDS.
24.

ALL SIGNS SHALL USE PRISMATIC SHEETING THAT MEETS MINIMUM RETROREFLECTIVITY STANDARDS FOUND IN THE LATEST EDITION OF THE MUTCD.

PLANTING NOTES

1.

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.
2.

CONTRACTOR RESPONSIBLE FOR LOCATING ALL UTILITIES AND UNDERGROUND IMPEDIMENTS PRIOR TO BEGINNING PLANTING.
3.

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.
4.

PLANTING SHOULD OCCUR IMMEDIATELY AFTER CONSTRUCTION TO STABILIZE AREAS OF BARE SOIL.
5.

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.
6.

PLANTS ARE TO BE PURCHASED BY BOTANICAL 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.
7.

LANDSCAPE ARCHITECT OR OWNER MAINTAINS RIGHT TO REJECT ANY PLANT DUE TO AESTHETICS OR STRUCTURAL DEFICIENCY AT ANY TIME.
8.

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 DESIGNEE PRIOR TO PROCEEDING.
9.

ALL PLANT MATERIAL SHALL CONFORM TO OR EXCEED THE AMERICAN STANDARD FOR NURSERY STOCK (LATEST EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
10.

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.
11.

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.
12.

IF ANY PLANT/MATERIAL SUBSTITUTIONS ARE REQUESTED BY CONTRACTOR, THEN NOTICE SHALL BE GIVEN TO PROJECT MANAGER OR DESIGNEE 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.
13.

BALLED AND BURLAPPED PLANTS/TREES TO BE PLANTED PRIOR TO CONTAINER OR BEDDING PLANTS.
14.

BALLED AND BURLAPPED MATERIAL SHALL COMPLY WITH THE FOLLOWING GUIDELINES:

14.1.

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.

14.2.

ROOT BALLS SHALL BE FIRMLY WRAPPED WITH NONSYNTHETIC, ROTTABLE BURLAP AND SECURED WITH NAILS AND HEAVY, NONSYNTHETIC TWINE.

14.3.

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.

14.4.

REMOVE ALL BURLAP, LACING, AND WIRE BASKET FROM AT LEAST THE TOP 1/2 OF THE ROOTBALL AND DISCARD FROM PLANTING HOLE.

14.5.

DO NOT MANEUVER BY TRUNK. HANDLE BY ROOT BALL ONLY.
15.

CONTAINERIZED PLANTS SHALL COMPLY WITH THE FOLLOWING GUIDELINES:

15.1.

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

15.2.

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.

15.3.

REMOVE CONTAINER PRIOR TO PLANTING.
16.

TREES TO BE STAKED WILL BE DESIGNATED BY THE LANDSCAPE ARCHITECT. TREE STAKING FOR CANOPY AND LARGE EVERGREEN TREES SHALL NOT EXCEED 90 DAYS.
17.

PLANT BED PREPARATION:

17.1.

ALL PLANT BEDS ARE TO RECEIVE A MINIMUM OF 4" OF APPROVED TOPSOIL TILLED IN TO A DEPTH OF 8" TO ENSURE INTEGRATION WITH EXISTING SOIL.

17.2.

APPROVED TOPSOIL IS TO BE PREFERABLY FROM ON-SITE STOCKPILE FROM STRIPPING OPERATIONS - SEE EROSION AND SEDIMENT CONTROL PLANS.

17.3.

IF ON-SITE TOPSOIL IS NOT AVAILABLE, CONTRACTOR SHALL PROVIDE TO SITE ACCORDINGLY.
18.

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

1.

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.
2.

ALL SEEDED/SODDED AREAS SHALL BE FINISHED GRADE AT THE THICKNESS OF THE SOD.
3.

NO SEEDED/SODDED AREAS SHALL BE SODDED UNTIL ALL OTHER CONSTRUCTION ACTIVITIES, INCLUDING PLANTING AND MULCHING HAVE OCCURRED AND LANDSCAPE ARCHITECT HAS REVIEWED THE FINAL GRADING.
4.

SOD AREAS WILL BE ACCEPTED WHEN IN COMPLIANCE WITH ALL THE FOLLOWING CONDITIONS:

4.1.

ROOTS ARE THOROUGHLY KNIT TO THE SOIL

4.2.

ABSENCE OF VISIBLE JOINTS

4.3.

ALL AREAS SHOW A UNIFORM STAND OF SPECIFIED GRASS IN HEALTHY CONDITION

4.4.

AT LEAST 30 DAYS HAVE ELAPSED SINCE THE COMPLETION OF WORK UNDER THIS SECTION.
5.

QUALITY GUARANTEE:

5.1.

SOD SHALL BE UNIFORM IN COLOR, LEAF TEXTURE, LEAF AND ROOD 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.

5.2.

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.
6.

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.
7.

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 ARCHITECTS OPINION FAILS TO MEET THESE SPECIFICATIONS REQUIREMENTS.
8.

SOD STANDARDS:

8.1.

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.

8.2.

EACH PIECE OF SOD; SANDY-LOAM SOIL BASE THAT WILL NOT BREAK, CRUMBLE OR TEAR DURING SOD INSTALLATION.

8.3.

THICKNESS: MINIMUM 3/4" THICK, EXCLUDING THE TOP GROWTH THATCH.

8.4.

THATCH: NOT TO EXCEED 1/2" UNCOMPRESSED.

8.5.

SIZE: CUT IN STRIPS 18" WIDE NO MORE THAN 24 HOURS PRIOR TO DELIVERY.
9.

SOD DELIVERY, STORAGE AND HANDLING GUIDELINES ARE AS FOLLOWS:

9.1.

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.

9.2.

PROTECT FROM DEHYDRATION, CONTAMINATION, FREEZING AND HEATING AT ALL TIMES. KEEP STORED SOD MOIST AND UNDER SHADE OR COVERED WITH MOISTENED BURLAP.

9.3.

DO NOT DROP SOD ROLLS FROM CARTS, TRUCKS OR PALLETS.

9.4.

DO NOT DELIVER MORE SOD THAN CAN BE INSTALLED WITHIN 36 HOURS.

9.5.

DO NOT STACK SOD MORE THAN 2 FEET DEEP.
10.

SEED/SODDED BED PREPARATION:

10.1.

ALL DEBRIS, ROCKS, ETC. LARGER THAN .5" ARE TO BE REMOVED PRIOR TO SEEDING/SODDING OR PLANTING.

10.2.

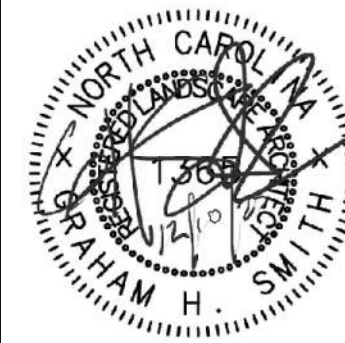
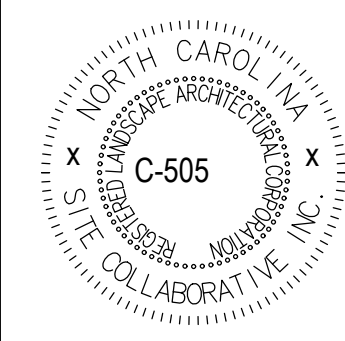
ALL AREAS TO BE SEEDED/SODDED ARE TO RECEIVE A MINIMUM OF 2" OF APPROVED TOPSOIL TILLED INTO A DEPTH OF 4" TO ENSURE INTEGRATION WITH EXISTING SOIL.

10.3.

APPROVED TOPSOIL IS TO BE PREFERABLY FROM ON-SITE STOCKPILE FROM STRIPPING OPERATIONS - SEE EROSION AND SEDIMENT CONTROL PLANS.

10.4.

IF ON-SITE TOPSOIL IS NOT AVAILABLE, CONTRACTOR SHALL PROVIDE TO SITE ACCORDINGLY.



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BIG OAK VET HOSPITAL  
VETS PETS  
1004 BIG OAK COURT

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

DATE: 08.11.2025  
1. RESUBMITTAL 12.10.2025  
--  
--  
--  
--

SHEET TITLE:  
STANDARD NOTES

SHEET NUMBER:

L001





VICINITY MAP  
NOT TO SCALE

SITE DATA

LOT 2  
OWNER STONE & HIXSON REAL ESTATE LLC  
4117 GARDENLAKE DR  
RALEIGH, NC 27612  
SITE ADDRESS 401 HILLSBOROUGH ST  
RALEIGH, NC 27603  
PIN 1744445693  
REFERENCES DB 17151, PG 2669  
BM 1994, PG 840  
DB 9312, PG 2086  
AREA 46.677 S.F. (1.0716 AC.)  
ZONING NMX

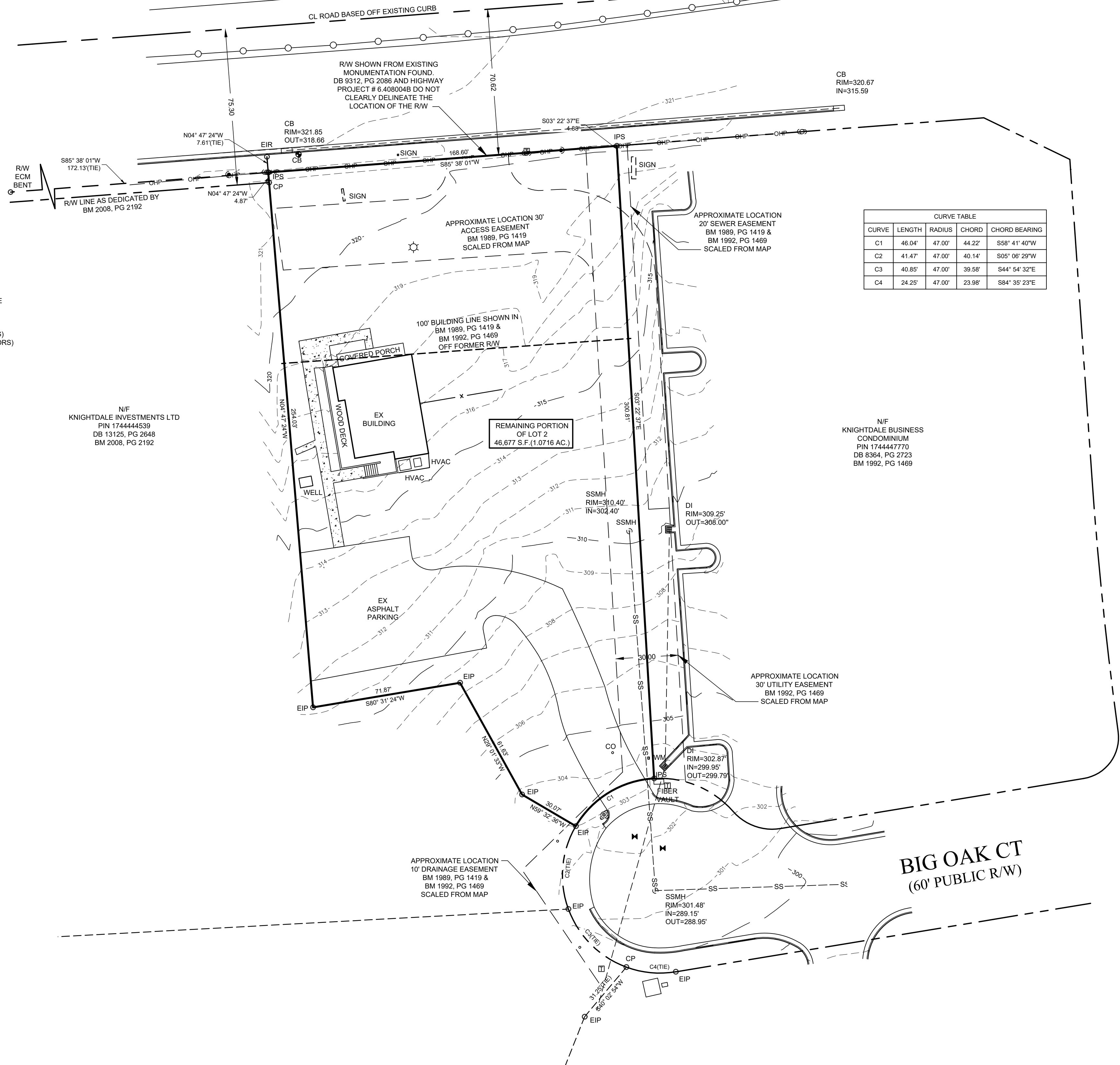
NOTES:

- ALL DISTANCES ARE HORIZONTAL GROUND.
- ALL DIMENSIONS ARE IN FEET.
- AREA COMPUTED USING COORDINATE METHOD FROM MEASURED FIELD DATA.
- THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY BE SUBJECT TO ANY MATTERS THAT A FULL TITLE SEARCH WOULD DISCLOSE.
- BASIS OF BEARINGS IS NORTH CAROLINA GRID NORTH, NAD83(2011). THE SITE WAS LOCALIZED UTILIZING REAL-TIME KINEMATIC (RTK) GLOBAL POSITIONING SYSTEM (GPS) SOLUTIONS REFERENCING THE CONTINUOUSLY OPERATING REFERENCE STATION (CORS) NETWORK BASE STATION NCRD, RALEIGH, NC.
- ALL REFERENCE ARE MADE TO THE WAKE COUNTY REGISTRY.
- HORIZONTAL DATUM IS NAD 83(2011) AND VERTICAL DATUM IS NAVD 88

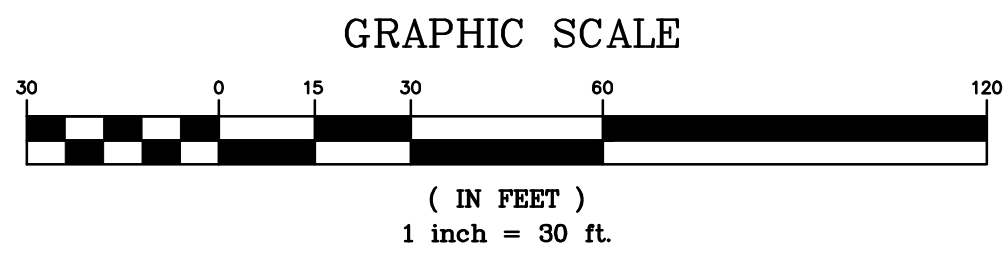
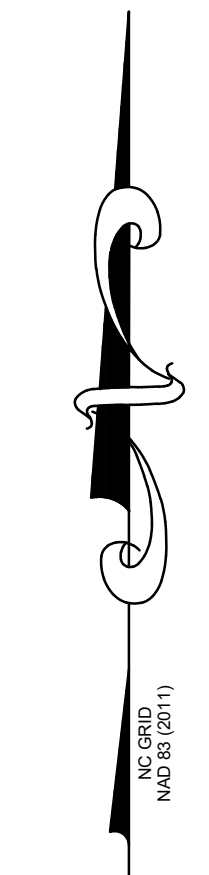
N/F  
KNIGHTDALE INVESTMENTS LTD  
PIN 1744444539  
DB 13125, PG 2648  
BM 2008, PG 2192

N/F  
KNIGHTDALE BUSINESS  
CONDOMINIUM  
PIN 1744447770  
DB 8364, PG 2723  
BM 1992, PG 1469

US HIGHWAY 64  
KNIGHTDALE BLVD  
(VARIABLE WIDTH PUBLIC R/W)  
SEE NCDOT PROJECT # 6.408004B  
HM 3, PG 193



CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD	CHORD BEARING	
C1	46.04'	47.00'	44.22'	S88° 41' 40\"W	
C2	41.47'	47.00'	40.14'	S05° 08' 29\"W	
C3	40.85'	47.00'	39.58'	S44° 54' 32\"E	
C4	24.25'	47.00'	23.98'	S64° 39' 23\"E	



JOHN A. EDWARDS & COMPANY  
Consulting Engineers  
and Land Surveyors

NC License F-0289  
333 Wade Ave., Raleigh, N.C. 27605  
Phone: (919) 828-4428  
Fax: (919) 828-4711  
E-mail: info@jaeco.com  
www.jaeco.com



Project  
1004 BIG OAK CT  
KNIGHTDALE, NC 27545

Client  
SITE COLLABORATIVE  
1620 HILLSBOROUGH ST  
STE 100  
RALEIGH, NC 27605

LEGEND	
BM	BOOK OF MAPS
DB	DEED BOOK
PG	PAGE
N/F	NOW OR FORMERLY
R/W	RIGHT OF WAY
EIP	EXISTING IRON PIPE
EMAG	EXISTING MAG NAIL
IPS	IRON PIPE SET
MAGS	MAG NAIL SET
CP	COMPUTED POINT
SS	SANITARY SEWER
CO	SANITARY SEWER CLEAN OUT
HC	HANDICAPPED
ST	STORM
TF	TRANSFORMER
CB	STORM CATCH BASIN
WV	WATER VALVE
DI	DROP INLET
CONC	CONCRETE
SSMH	SANITARY SEWER
WM	WATER METER
LP	LIGHT POLE
GM	GAS METER
TP	TELEPHONE PEDESTAL
FH	FIRE HYDRANT
PP	POWER POLE
BFP	BACK FLOW PREVENTER
RCP	REINFORCED CONCRETE PIPE
EBOX	ELECTRICAL BOX
[Symbol]	DENOTES CONCRETE
[Symbol]	DENOTES ADDRESS

---	PROPERTY LINE
---	RIGHT OF WAY LINE
---	PROP. LINE NOT SURVEYED
---	EASEMENT LINE
---	OVERHEAD POWERLINE
CB	STORM CATCH BASIN
FW	FIRE HYDRANT
LP	LIGHT POLE
WV	WATER VALVE
SSMH	SANITARY SEWER
GW	GAS METER
MW	WATER METER
PP	POWER POLE
TP	TELEPHONE PEDESTAL
GM	GAS METER

Drawing  
Title  
**EXISTING  
CONDITIONS SURVEY**

Revisions		
Number	Description	Date

Drawing Scale 1" = 30'  
Drawn By ZCS  
Checked By CLP/JAE, JR.  
Date Issued 8/20/2024 1 of 1

**BIG OAK VET HOSPITAL**  
**VETS PETS**  
**1004 BIG OAK COURT**

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

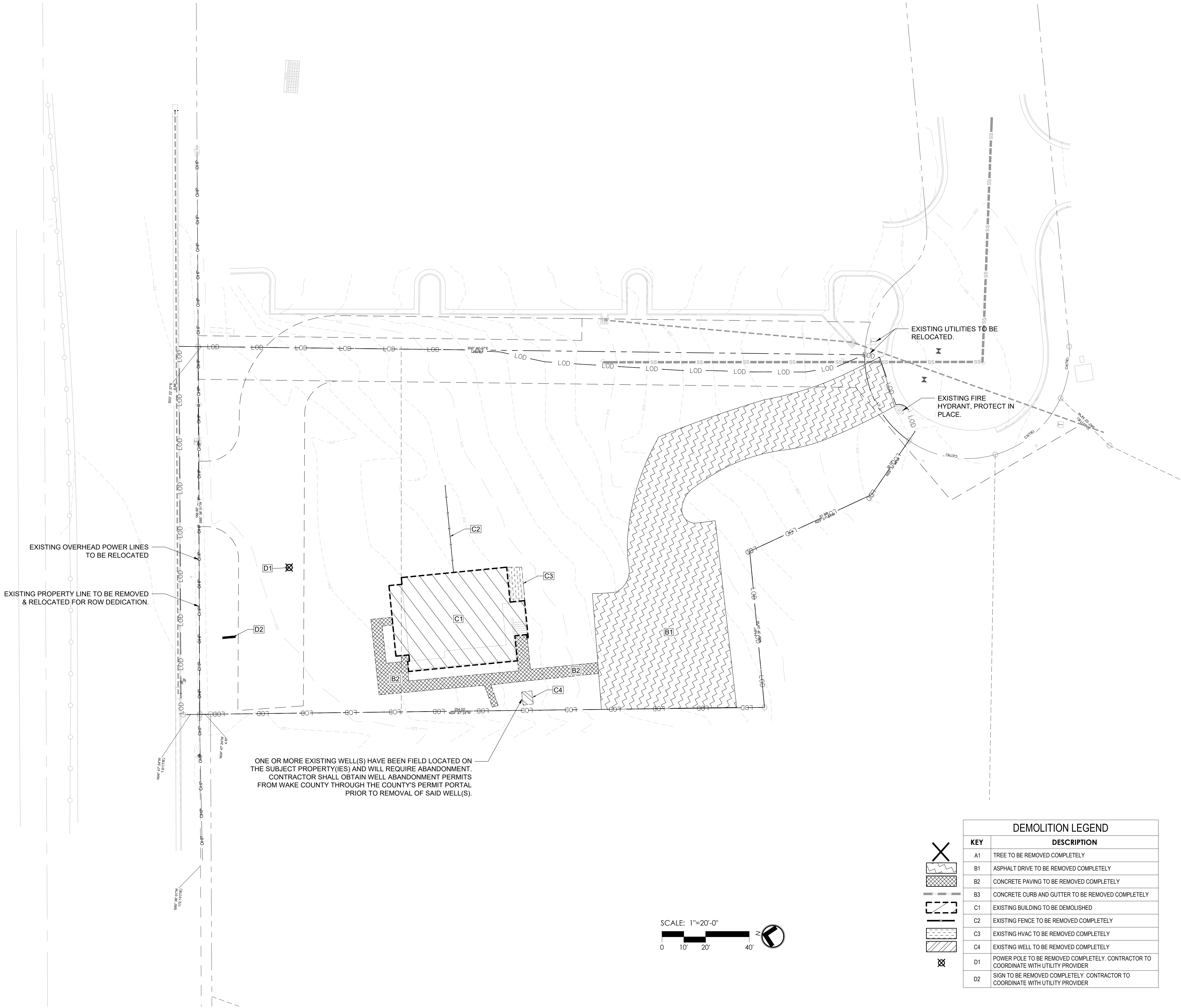
DATE: 08.11.2025  
1. RESUBMITTAL 12.10.2025

SHEET TITLE:

DEMOLITION PLAN

SHEET NUMBER:

L101

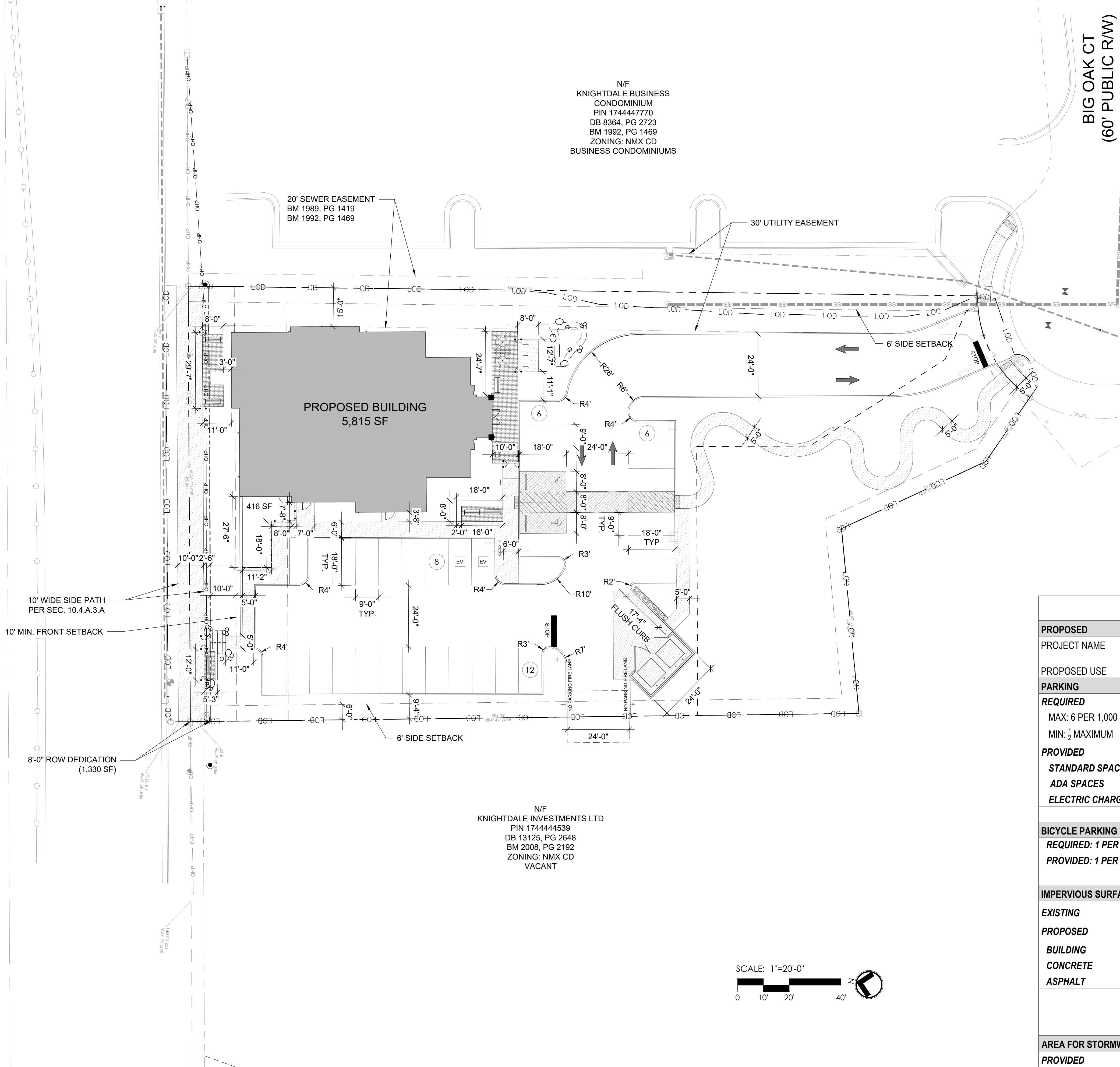


DEMOLITION LEGEND	
KEY	DESCRIPTION
A1	TREE TO BE REMOVED COMPLETELY
B1	ASPHALT DRIVE TO BE REMOVED COMPLETELY
B2	CONCRETE PAVING TO BE REMOVED COMPLETELY
B3	CONCRETE CURB AND GUTTER TO BE REMOVED COMPLETELY
C1	EXISTING BUILDING TO BE DEMOLISHED
C2	EXISTING FENCE TO BE REMOVED COMPLETELY
C3	EXISTING HVAC TO BE REMOVED COMPLETELY
C4	EXISTING WELL TO BE REMOVED COMPLETELY
D1	POWER POLE TO BE REMOVED COMPLETELY. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER
D2	SIGN TO BE REMOVED COMPLETELY. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER



US HIGHWAY 64  
KNIGHTDALE BLVD  
(VARIABLE WIDTH PUBLIC R/W)

SEE NCDOT PROJECT # 6-408004B  
HM 3, PG 193



LAYOUT LEGEND

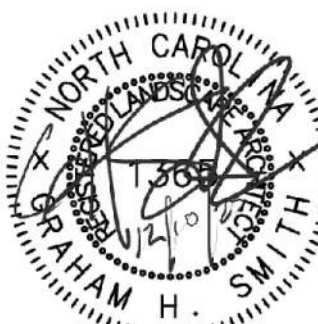
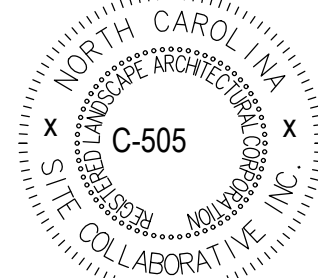
SYMBOL	DESCRIPTION
	ALIGN
	DIMENSION (PRECISION TO 1")
	ARC DIMENSION (PRECISION TO 1")
TYP.	TYPICAL
	CENTERLINE
	MIRROR
	DIAMETER
R	RADIUS

BIG OAK CT  
(60' PUBLIC RW)

CURRIN, GLENN R TRUSTEE  
CURRIN, SUE A TRUSTEE  
PIN 1744444361  
DB 018770, PG 00024  
BM 1998, PG 1482  
ZONING: NMX CD  
DAYCARE

PROPOSED SITE DATA

PROPOSED	
PROJECT NAME	BIG OAK VET HOSPITAL
PROPOSED USE	ANIMAL SERVICES, NON BOARDING
PARKING	
<b>REQUIRED</b>	
MAX: 6 PER 1,000 GFA	35 SPACES
MIN: 1/2 MAXIMUM	18 SPACES
<b>PROVIDED</b>	
STANDARD SPACES	28 SPACES
ADA SPACES	2 SPACES
ELECTRIC CHARGING: 1 PER 40	2 SPACES
TOTAL	32 SPACES
BICYCLE PARKING	
REQUIRED: 1 PER 40 SPACES (MIN. 2 SPACES)	2 SPACES
PROVIDED: 1 PER 40 SPACES (MIN. 2 SPACES)	2 SPACES
TOTAL	2 SPACES
IMPERVIOUS SURFACE AREA	
EXISTING	11,239 SF
<b>PROPOSED</b>	
BUILDING	5,815 SF
CONCRETE	3,050 SF
ASPHALT	15,847 SF
TOTAL AREA PROPOSED	24,712 SF
PERCENT OF THE SITE	53 %
NET CHANGE OF IMPERVIOUS	13,473 SF
AREA FOR STORMWATER DEVICE	
PROVIDED	1,500 SF



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BIG OAK VET HOSPITAL  
VETS PETS  
1004 BIG OAK COURT

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

DATE: 08.11.2025  
1. RESUBMITTAL 12.10.2025

SHEET TITLE:  
LAYOUT PLAN

SHEET NUMBER:

L200



US HIGHWAY 64  
KNIGHTDALE BLVD  
(VARIABLE WIDTH PUBLIC R/W)  
SEE NCDOT PROJECT # 6-408004B  
HM 3, PG 193

ENHANCED ROADSIDE LANDSCAPING  
& SEATING PER WATER ALLOCATION  
POLICY. SEE SHEET L212.

RELOCATED OVERHEAD  
POWER LINES

PUBLIC GATHERING SPACE  
(BRICK PAVING, BENCH & SEATWALL)

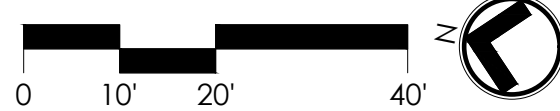
RAIN GARDEN PER WATER ALLOCATION  
POLICY. SEE SHEET L400 FOR PLANTING

N/F  
KNIGHTDALE BUSINESS  
CONDOMINIUM  
PIN 1744447770  
DB 8364, PG 2723  
BM 1992, PG 1469  
ZONING: NMX CD  
BUSINESS CONDOMINIUMS

N/F  
KNIGHTDALE INVESTMENTS LTD  
PIN 1744444539  
DB 13125, PG 2648  
BM 2008, PG 2192  
ZONING: NMX CD  
VACANT

PUBLIC GATHERING SPACE	
REQUIRED (1 SF / 25 SF GFA)	233 SF (0.04*5,815=232.6)
PROVIDED	360 SF

SCALE: 1"=20'-0"



PROPOSED SITE DATA

PROPOSED	
PROJECT NAME	BIG OAK VET HOSPITAL ANIMAL SERVICES, NON BOARDING
PROPOSED USE	
PARKING	
REQUIRED	
MAX: 6 PER 1,000 GFA	35 SPACES
MIN: 1/2 MAXIMUM	18 SPACES
PROVIDED	
STANDARD SPACES	28 SPACES
ADA SPACES	2 SPACES
ELECTRIC CHARGING: 1 PER 40	2 SPACES
TOTAL	32 SPACES
BICYCLE PARKING	
REQUIRED: 1 PER 40 SPACES (MIN. 2 SPACES)	2 SPACES
PROVIDED: 1 PER 40 SPACES (MIN. 2 SPACES)	2 SPACES
TOTAL	2 SPACES
IMPERVIOUS SURFACE AREA	
EXISTING	11,239 SF
PROPOSED	
BUILDING	5,815 SF
CONCRETE	3,050 SF
ASPHALT	15,847 SF
TOTAL AREA PROPOSED	24,712 SF
PERCENT OF THE SITE	53 %
NET CHANGE OF IMPERVIOUS	13,473 SF
AREA FOR STORMWATER DEVICE	
PROVIDED	1,500 SF

HARDSCAPE LEGEND

VEH.	PED.	SYMBOL	PROPOSED SITE ITEM	DETAIL/SHEET
		1A	C.I.P. CONCRETE PAVING	2/L205
		1B	PRECAST CONCRETE PAVERS	7+8/L205
		1C	TRUNCATED DOME PAVERS	4/L209
		1D	ASPHALT PAVING	1/L205
		1E	GRAVEL	9/L205
		2A	C.I.P. CONCRETE CURB	4/L210
		2B	C.I.P. FLUSH CONCRETE CURB	6/L205
		2C	C.I.P. CONCRETE RETAINING WALL	2/L207
		2D	C.I.P. CONCRETE STEPS	1/L207
		2E	C.I.P. CONCRETE SEAT WALL	3/L207
		3A	ADA PARKING	1/L206
		3B	CURB RAMP (TYPE R-2)	3/L209
	+	3C	ADA SIGN (MUTCD R7-8)	2/L206
	+	3D	STOP SIGN (MUTCD R1-1)	5/L204
	+	3E	NO PARKING SIGN (MUTCD R8-3)	5/L204
		4A	CONCRETE WHEELSTOP	3/L206
		4B	PARKING STRIPE (4" WIDE)	
		4C	CROSSWALK	
		5A	DUMPSTER ENCLOSURE WITH GATE	1/L208
		5B	6' HT. OPAQUE FENCE	5/L206
		5C	LANDSCAPE BOULDER	6/L206

SYMBOL	SITE FURNITURE	
F1	36" BENCH	
F2	CHAIR & UMBRELLAS	
F3	2 PORT EV CHARGING STATION	
F4	BICYCLE RACK	
F5	PLANTER	
SYMBOL	BY OTHER CONSULTANTS	
K1	BUILDING COLUMN	PER ARCH.
K2	STORMWATER BASIN	PER CIVIL
K3	LIGHT POLES	DUKE ENERGY
SYMBOL	EXISTING SITE ITEM TO REMAIN	
E1	EXISTING FIRE HYDRANT	
E2	EXISTING ELECTRICAL EQUIPMENT	
SYMBOL	OTHER	
PA	PLANTING AREA	
TYP.	TYPICAL	
—	SAWCUT JOINT	4/L204
—	EXPANSION JOINT	4/L204
— LOD —	LIMIT OF DISTURBANCE	



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BIG OAK VET HOSPITAL  
VETS PETS  
1004 BIG OAK COURT

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

DATE: 08.11.2025  
1. RESUBMITTAL 12.10.2025

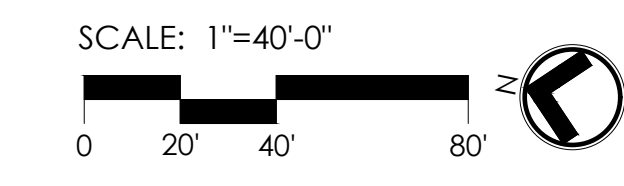
SHEET TITLE:

HARDSCAPE PLAN

SHEET NUMBER:

L201





**BIG OAK VET HOSPITAL**  
**VETS PETS**  
**1004 BIG OAK COURT**

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

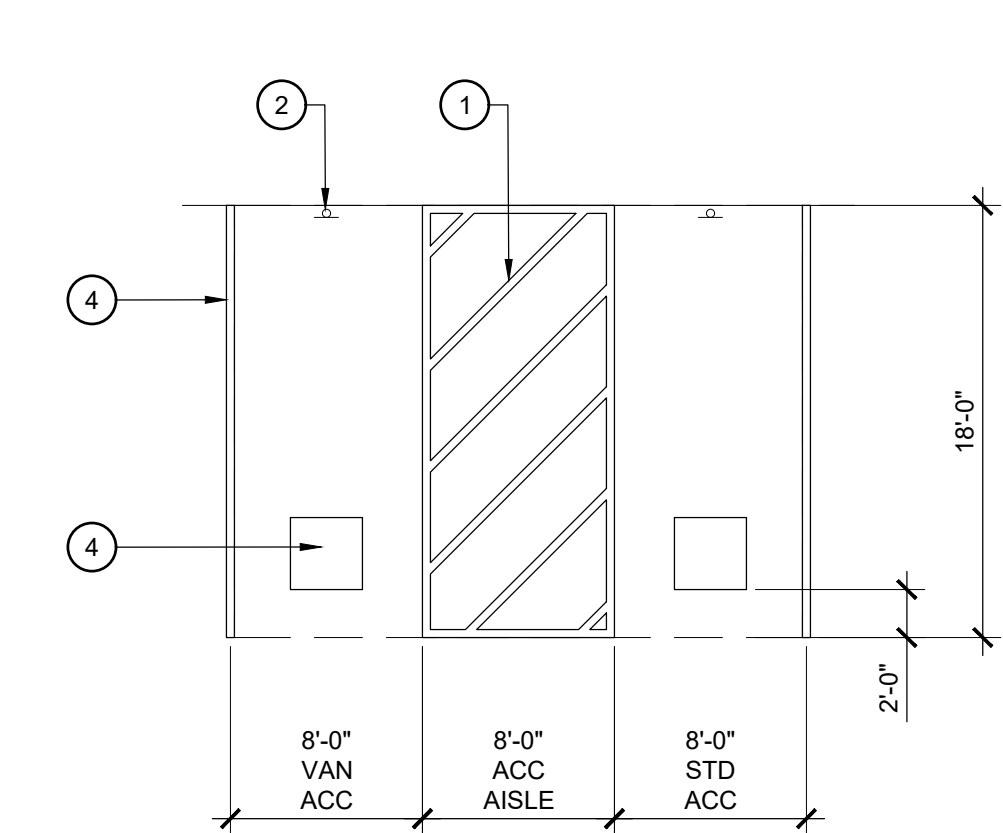
DATE: 08.11.2025  
1. RESUBMITTAL 12.10.2025

1  
1  
1

SHEET TITLE:  
VICINITY MAP

SHEET NUMBER:  
L203



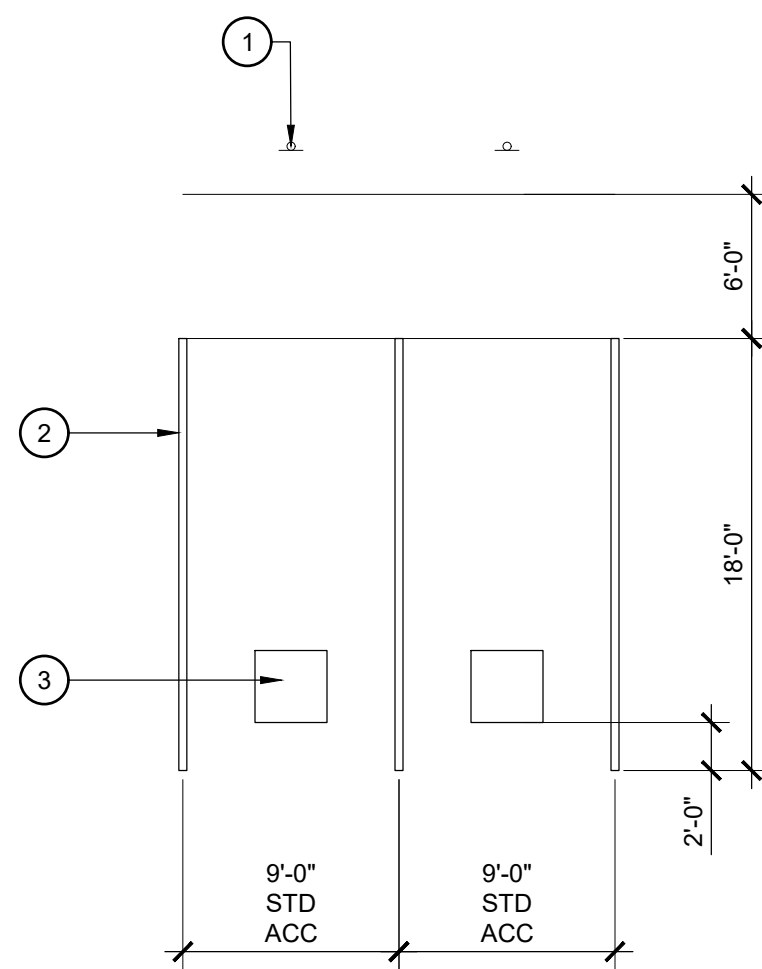


LEGEND

- 45 DEGREE ANGLED STRIPING 4" THICK
- ACCESSIBLE SIGN, SEE HARDSCAPE PLAN FOR LOCATION
- 4" WIDE WHITE STRIPE
- 36" X 36" INTERNATIONAL SIGN OF ACCESSIBILITY EMBLEM

NOTES

- THE LAYOUT AND NUMBER OF PARKING SPACES VARIES. REFER TO PLAN FOR LOCATION
- STALL DIMENSIONS ARE MEASURED TO THE CENTERLINE OF THE PAINTED STRIPE.



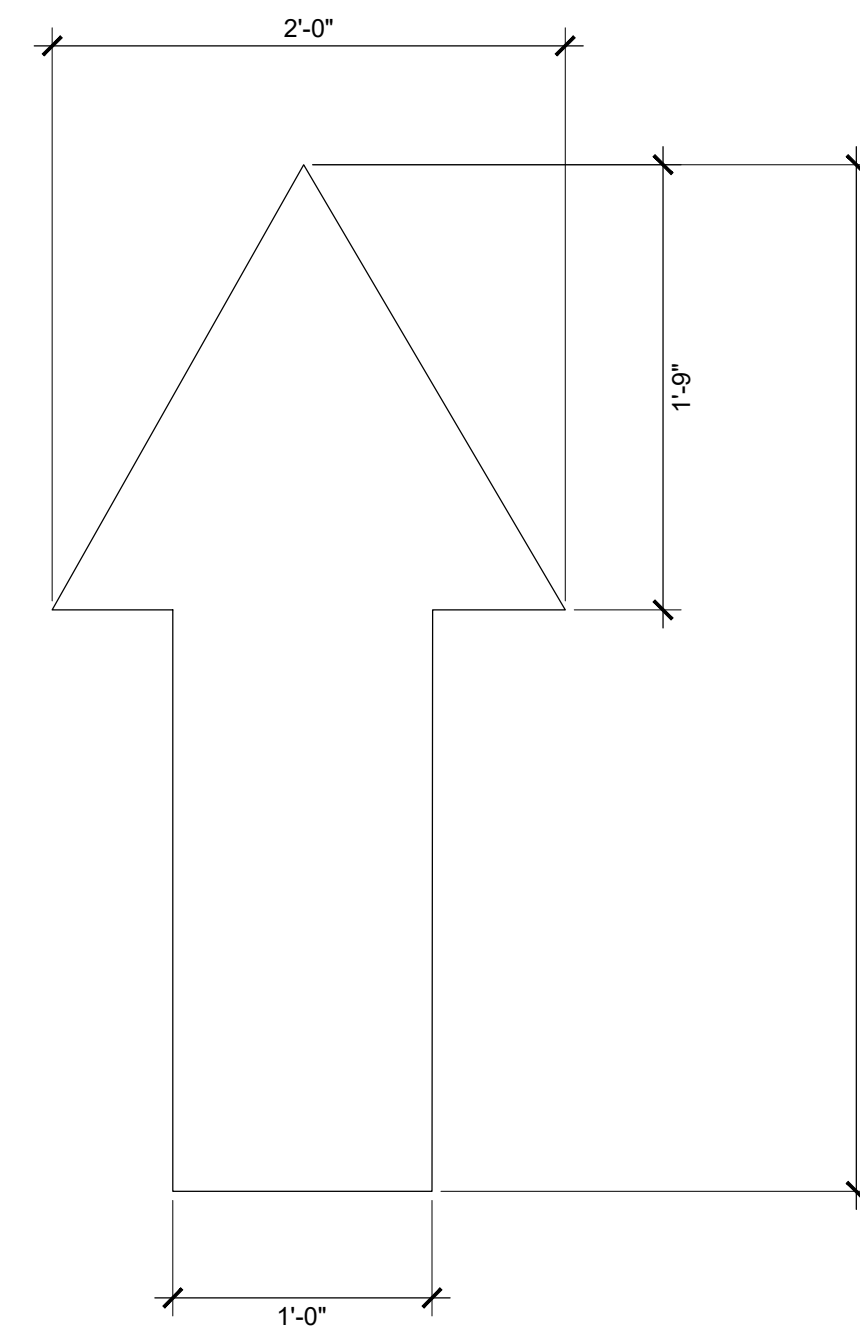
ELECTRIC VEHICLE SIGN

LEGEND

- ELECTRIC VEHICLE SIGN PER DETAIL, SEE HARDSCAPE PLAN FOR LOCATION
- 4" WIDE WHITE STRIPE
- 36" X 36" EV SYMBOL FOR ELECTRICAL VEHICLES

NOTES

- STALL DIMENSIONS ARE MEASURED TO THE CENTERLINE OF THE PAINTED STRIPE.
- REFER TO PLAN FOR EV EQUIPMENT PLACEMENT AND PROTECTION.



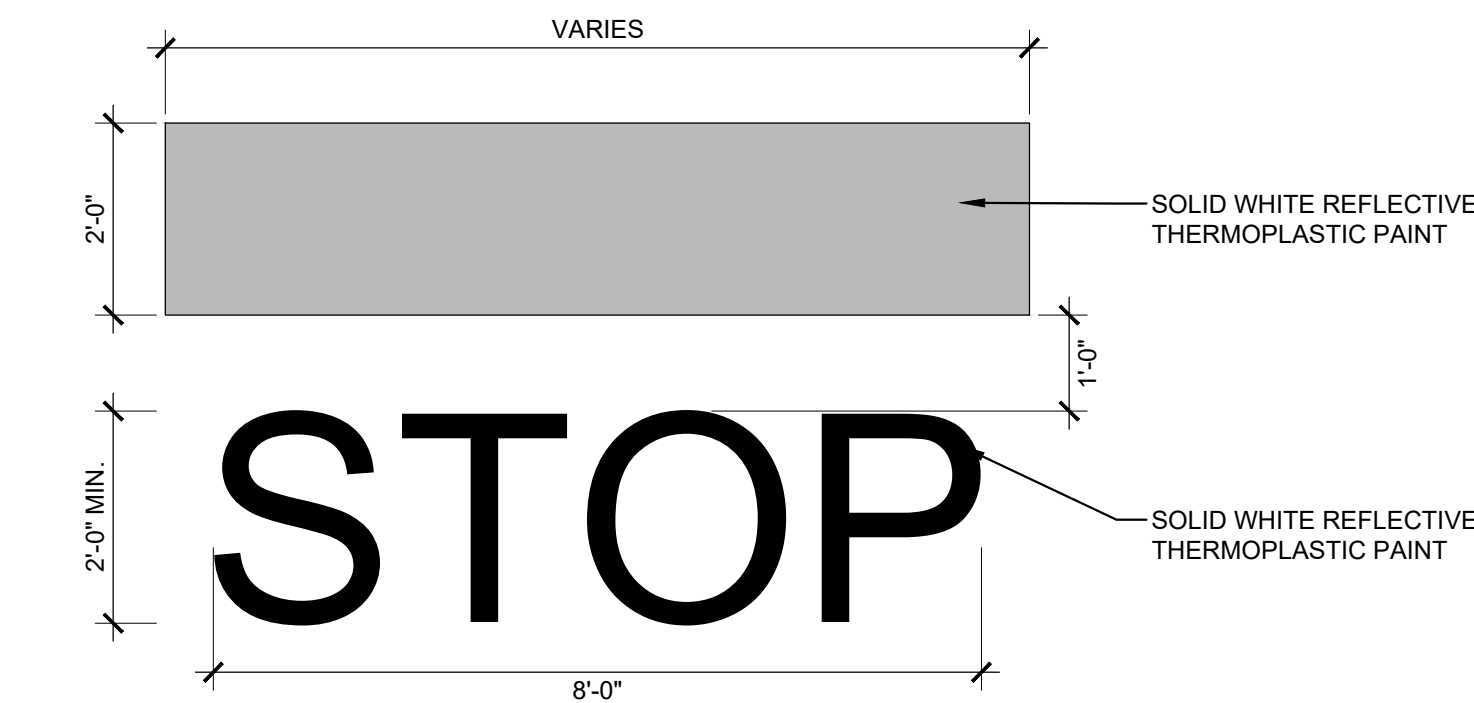
NOTES

- ALL TRAFFIC FLOW ARROWS TO BE THERMOPLASTIC REFLECTIVE WHITE PAINT.

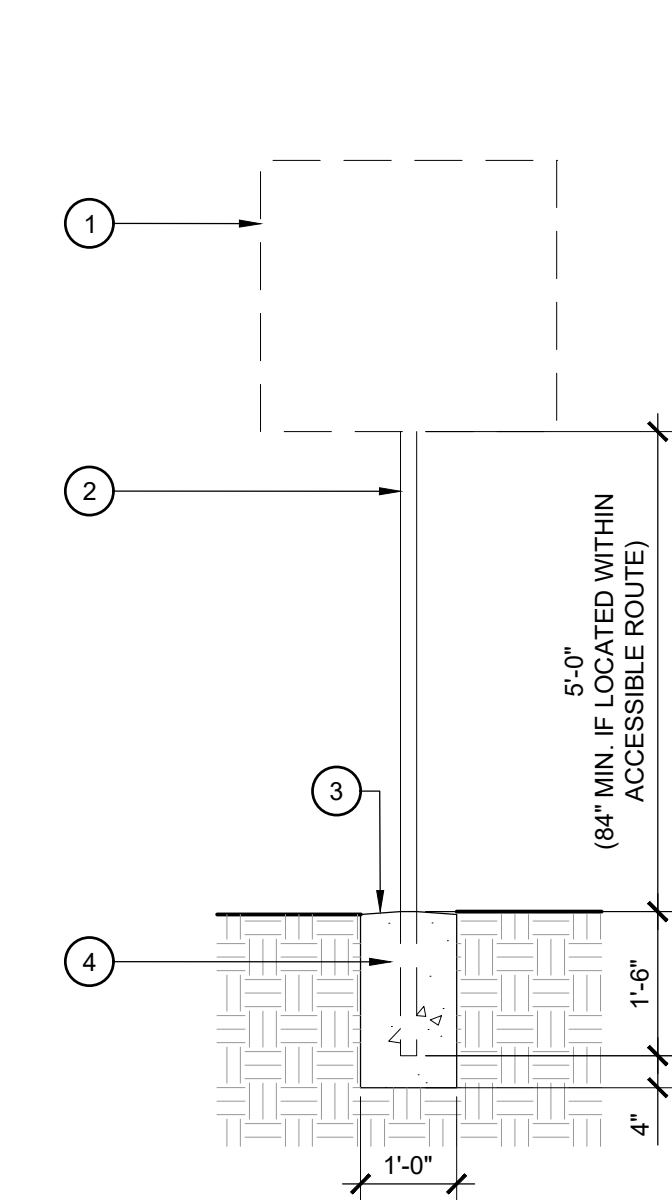
1 ADA PARKING  
SCALE: NTS

2 EV PARKING  
SCALE: NTS

3 DIRECTIONAL ARROW  
SCALE: NTS



4 STOP BAR  
SCALE: NTS

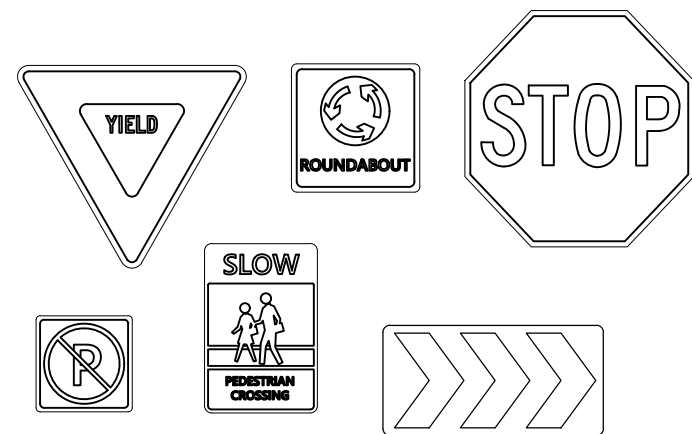


LEGEND

- SIGN WITH STANDARD TRAFFIC CONTROL SYMBOL SHOW BELOW
- 2" DIA. OR U-CHANNEL GALVANIZED STEEL POST CENTERED ON POST
- SLOPE TOP OF FOOTER AWAY FROM POST WHEN FOOTER IS IN A PLANTING AREA
- CAST-IN-PLACE CONCRETE FOOTER

NOTES

- HEIGHT OF SIGN AS PRESCRIBED BY N.C. DEPT. OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- STANDARD SIGNS FOR TRAFFIC CONTROL BELOW. REFER TO HARDSCAPE PLAN FOR LOCATION OF EACH SIGN TYPE.



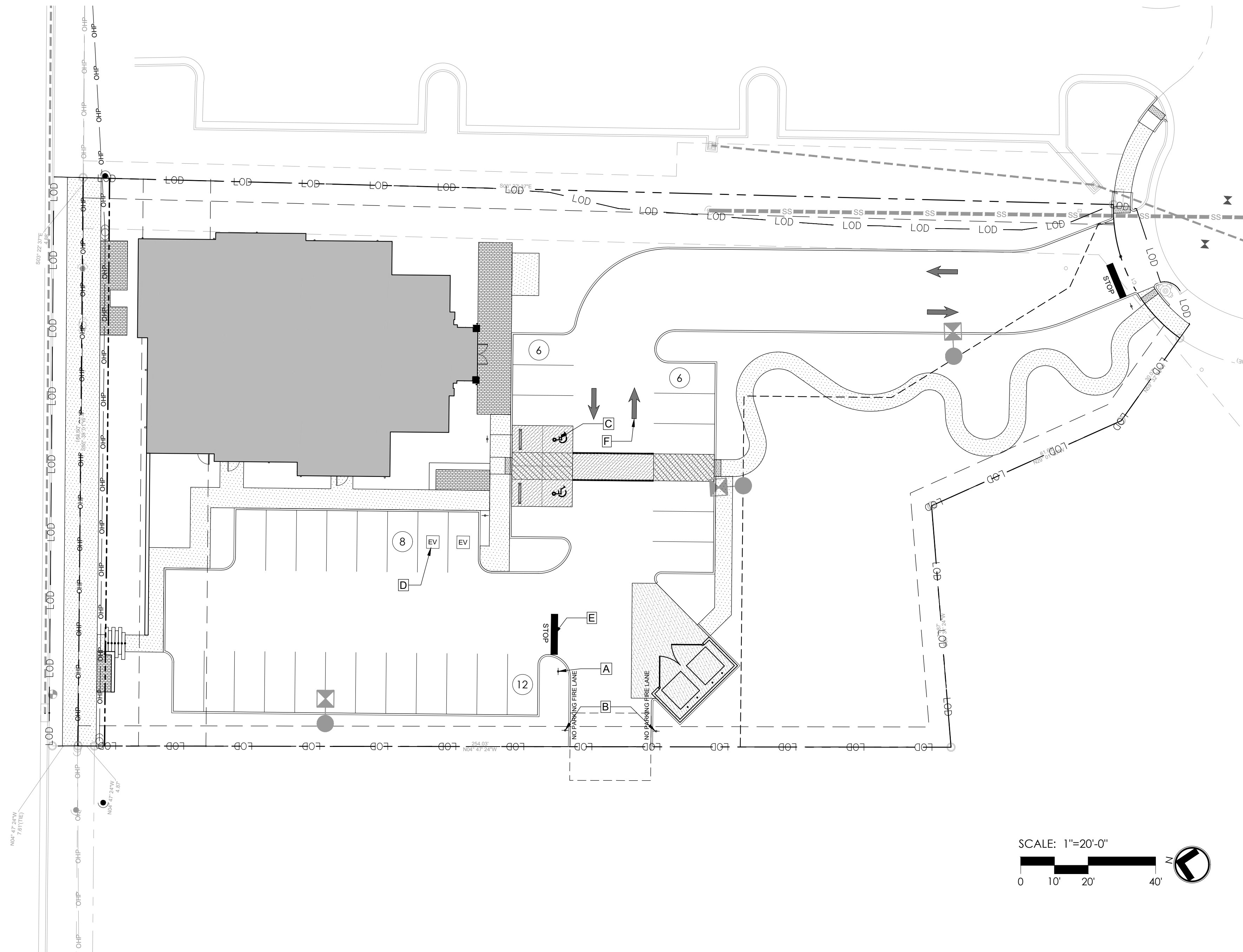
5 SIGN DETAILS  
SCALE: NTS

STRIPING NOTES

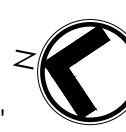
- ALL MARKING AND SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUTCD STANDARDS, INCLUDING COLOR, LETTER HEIGHT, AND LETTER CASE.
- ALL PAVEMENT MARKING SHALL BE THERMOPLASTIC.

SIGN LEGEND

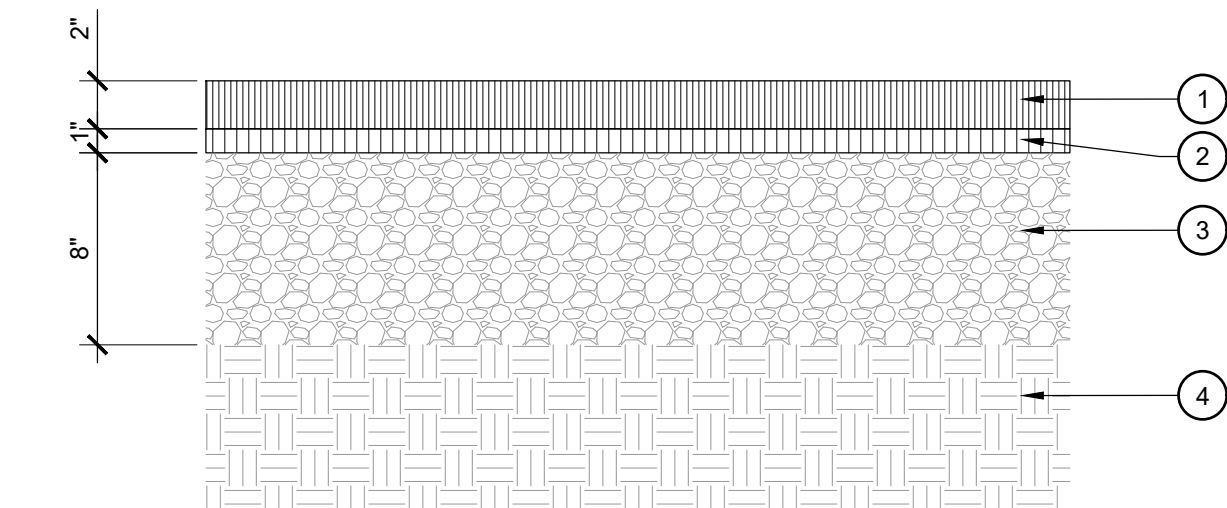
SYMBOL	DESCRIPTION	DETAIL
	A STOP SIGN	5/L204
	B NO PARKING SIGN	5/L204
	C ADA PARKING	1/L206
	D EV PARKING	2/L204
	E STOP BAR	4/L204
	F DIRECTIONAL ARROW	3/L204



SCALE: 1"=20'-0"







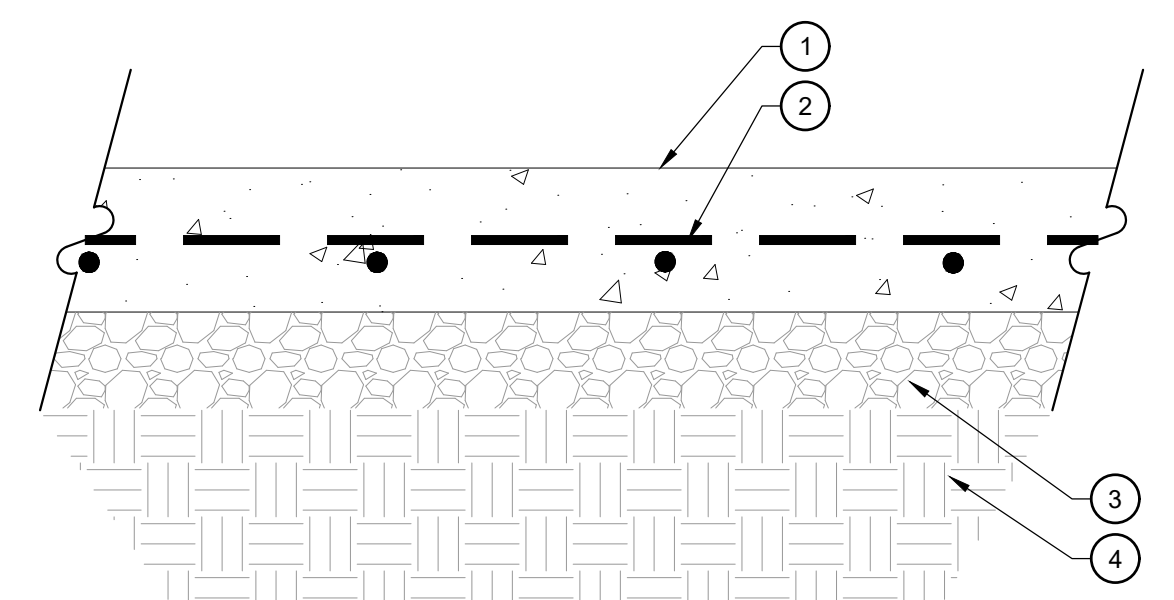
HEAVY DUTY (DRIVE LANES AND PARKING AREAS)

**LEGEND**

1. S-9.5B ASPHALT WEARING COURSE
2. SF-9.5A ASPHALT BASE COURSE
3. AGGREGATE BASE COURSE
4. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT

**NOTES**

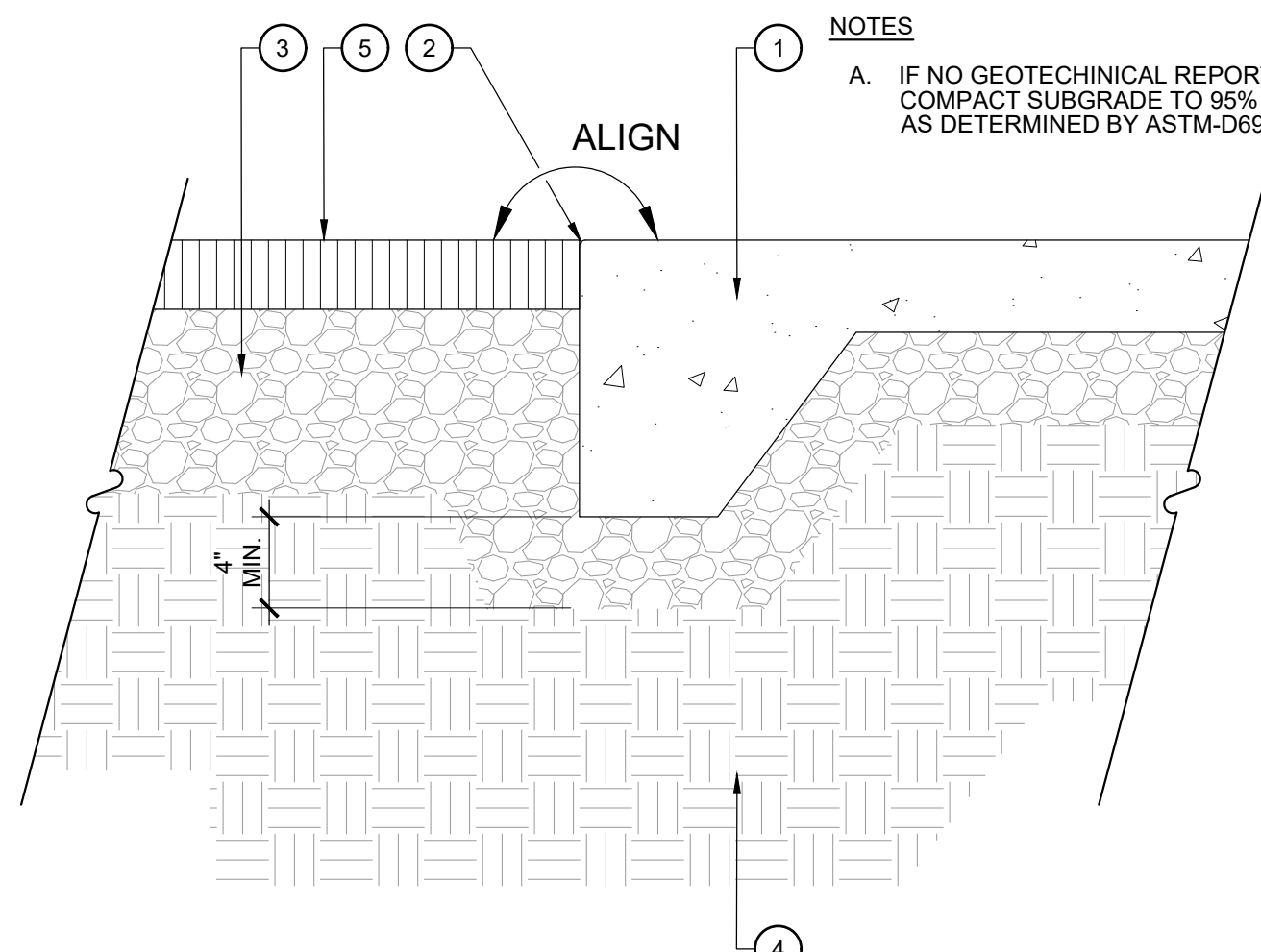
- A. CONTRACTOR SHALL INFORM LANDSCAPE ARCHITECT OF ANY PAVING DESIGN CONFLICTS WITH GEOTECHNICAL REPORT PRIOR TO INSTALLATION.
- B. IF NO GEOTECHNICAL REPORT IS AVAILABLE, COMPACT SUBGRADE TO 95% S.P.D. AS DETERMINED BY ASTM-D698



**NOTES**

- A. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT TO REVIEW FORMS PRIOR TO POURING.
- B. IF NO GEOTECHNICAL REPORT IS AVAILABLE, COMPACT SUBGRADE TO 95% S.P.D. AS DETERMINED BY ASTM-D698

PAVEMENT TYPE	ABC (IN.)	REINFORCEMENT	CONCRETE (IN.)
SERVICE DRIVE AREA / DUMPSTER PAD	4	#4 @ 12" O.C., B.W.	8
ACCESSIBLE PARKING SPACES	4	#4 @ 12" O.C., B.W.	6
PEDESTRIAN SIDEWALKS	4	NONE	4



**LEGEND**

1. CONCRETE THICKENED EDGE PER DETAIL
2. 1/4" RADIUS AT ALL EXPOSED EDGES
3. AGGREGATE BASE COURSE
4. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
5. ASPHALT PAVING PER DETAIL

**NOTES**

- A. IF NO GEOTECHNICAL REPORT AVAILABLE, COMPACT SUBGRADE TO 95% S.P.D. AS DETERMINED BY ASTM-D698

**1 ASPHALT PAVING**  
SCALE: 1-1/2" = 1'-0"

**2 CONCRETE PAVING**  
SCALE: 1-1/2" = 1'-0"

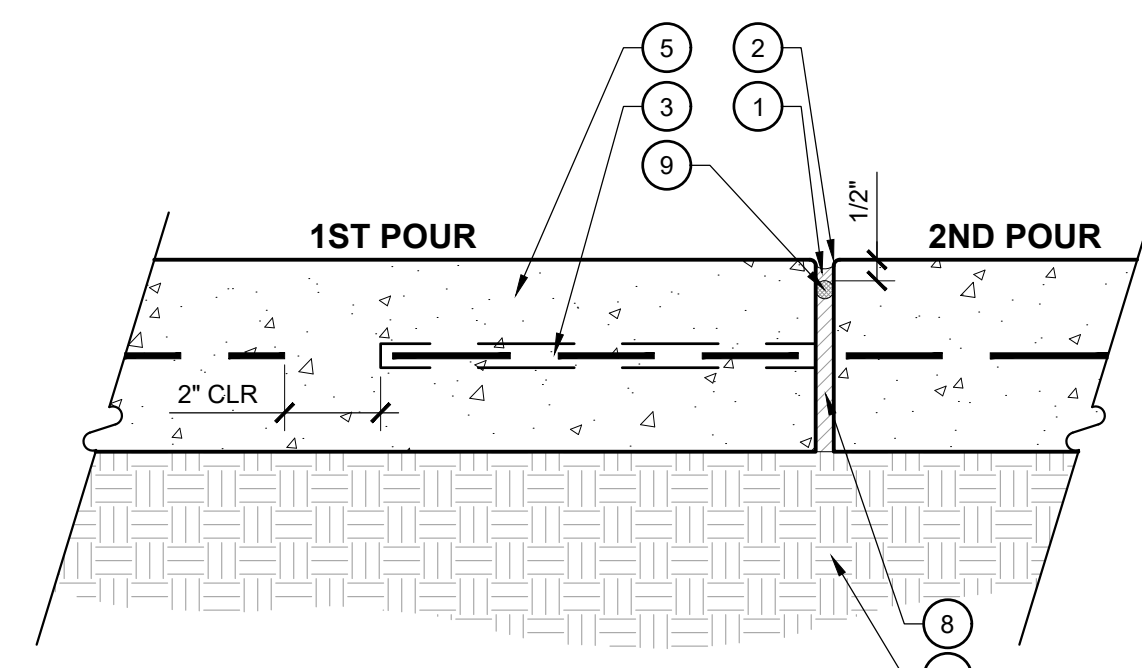
**3 ASPHALT TO CONCRETE TRANSITION**  
SCALE: 1-1/2" = 1'-0"

**LEGEND**

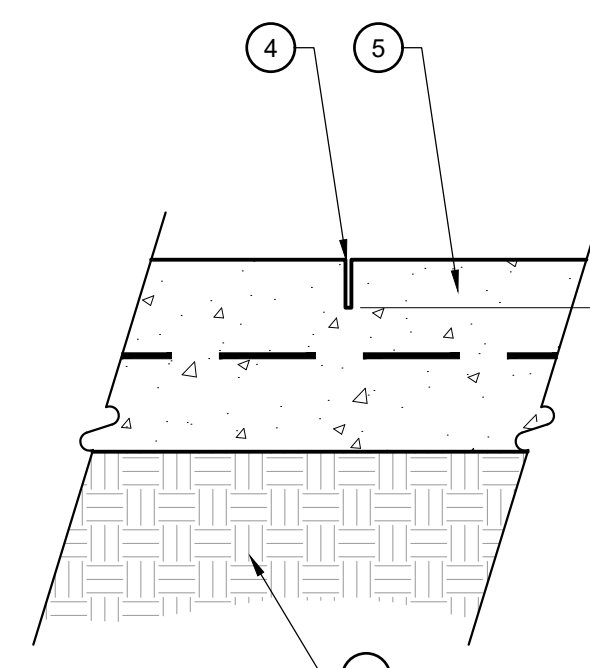
1. 3/8" EXPANSION JOINT W/ SEALANT DUSTED WITH DOUBLE-WASHED CONCRETE SAND WHILE WET PER SPECIFICATIONS. SAND COLOR TO MATCH COLOR OF ADJACENT CONCRETE COLOR
2. 1/8" RADIUS TOOLED EDGE
3. #4 18" STEEL DOWEL @ 18" O.C., CENTERED IN SLAB, SLEEVE ONE SIDE
4. 1/8" WIDE SAWCUT JOINT
5. C.I.P. CONCRETE PAVING PER DETAIL
6. BASE AND SUBGRADE PREPARATION PER GEOTECHNICAL REPORT
7. 3/16" WIDE SAWCUT JOINT; INSTALLED AFTER TOOLED EDGES
8. PREMOLEDDED FOAM EXPANSION JOINT FILLER PER SPECIFICATIONS
9. 5/8" DIA. POLYETHYLENE FOAM BACKER ROD

**NOTES**

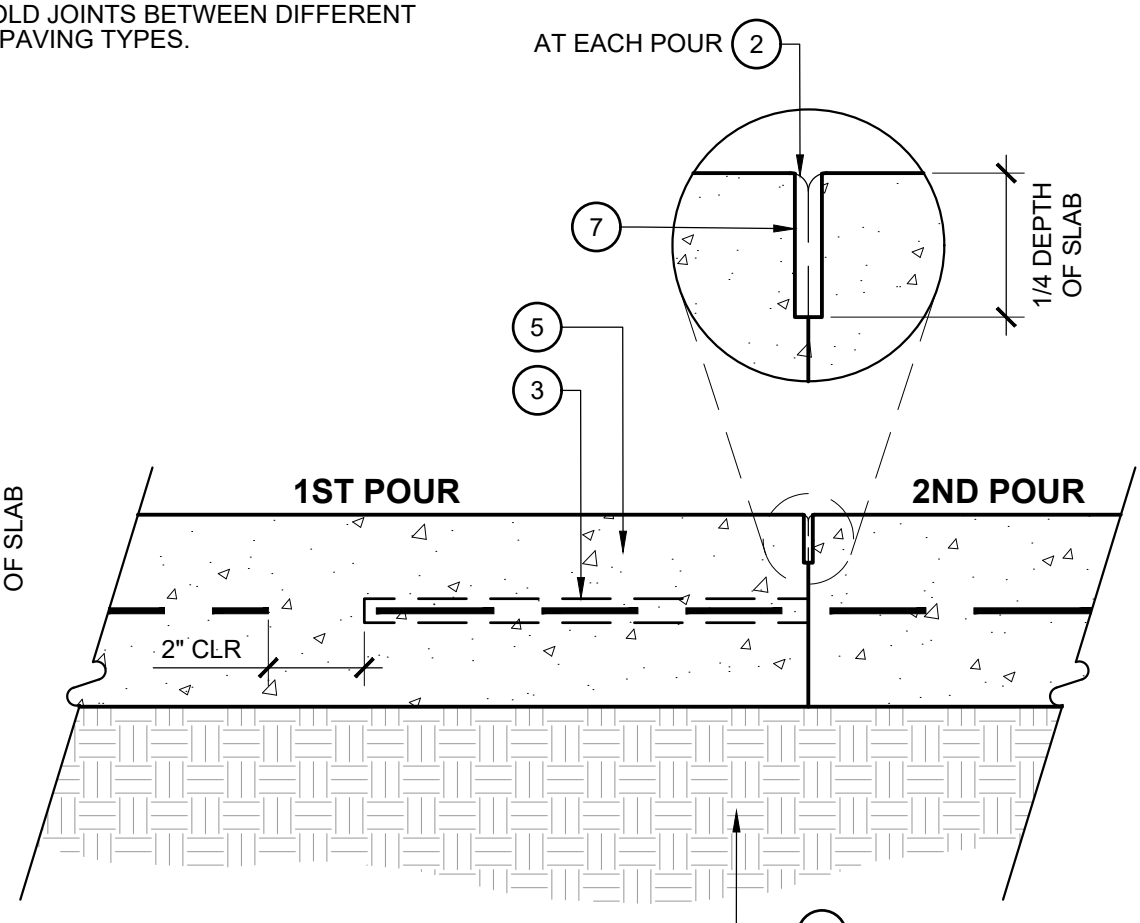
- A. PROVIDE EXPANSION JOINTS WHERE INDICATED ON THE DRAWINGS, AND WHERE PAVING ABUTS WALLS, CURBS, STEPS, RAMPS AND OTHER VERTICAL APPURTENANCES. OMIT DOWELS WHERE ABUTTING WALLS, BUILDINGS, AND CURBS.
- B. ALL TOOLED EDGES OF EXPANSION JOINTS SHALL BE 1/4" RADIUS MAX.
- C. PROVIDE COLD JOINTS BETWEEN DIFFERENT CONCRETE PAVING TYPES.



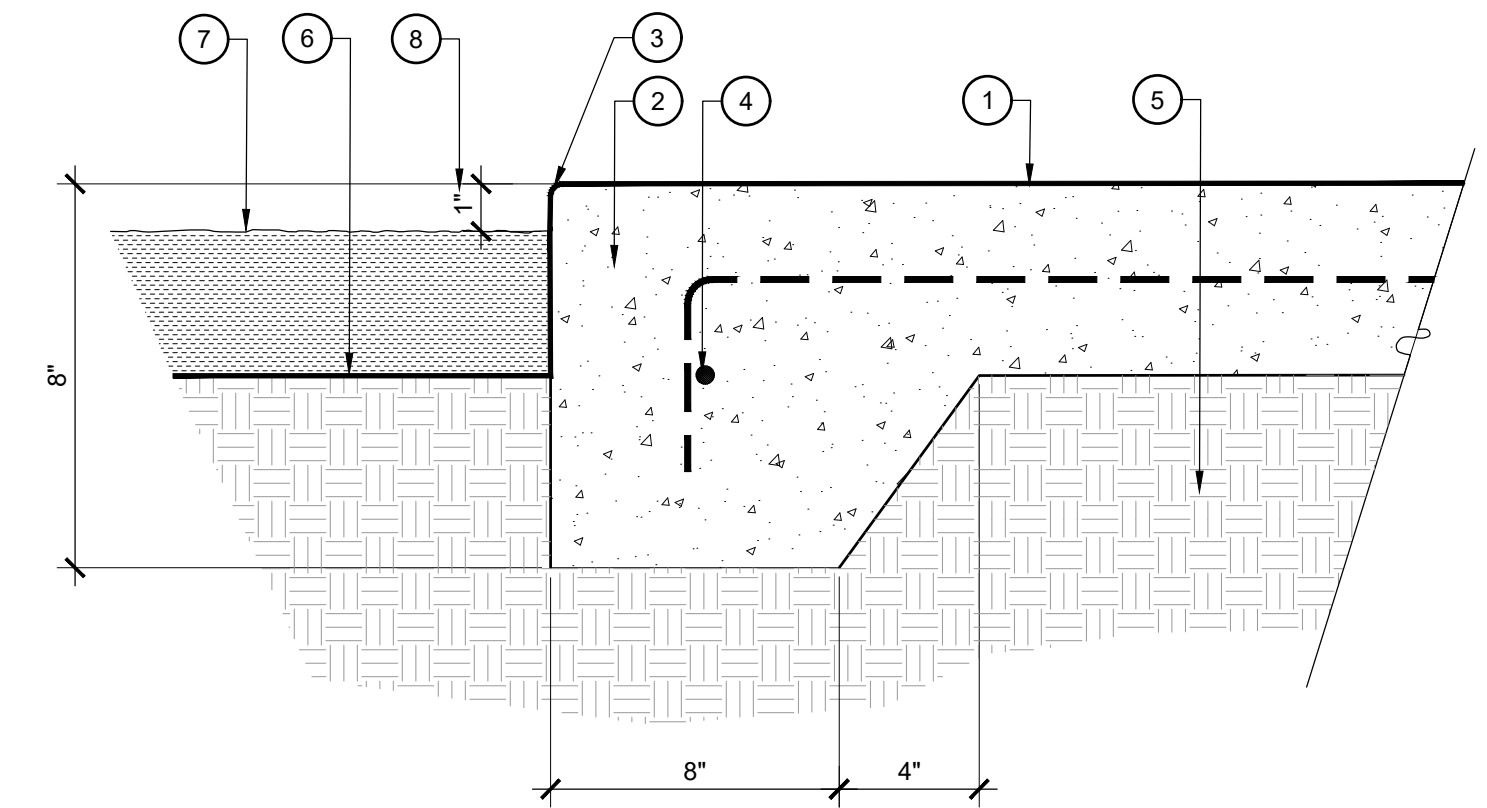
EXPANSION JOINT



SAWCUT JOINT



COLD JOINT



**LEGEND**

1. CONCRETE PAVING PER DETAIL
2. THICKENED EDGE
3. 1/8" RADIUS TOOLED EDGE
4. #3 BAR CONTINUOUS, 48" LAPPED AND WIRED
5. COMPACTED SUBGRADE AND BASE REQUIREMENTS PER GEOTECHNICAL REPORT
6. FINISH GRADE AT PLANTING
7. FINISH SURFACE FOR MULCH, PER PLANS AND SPECIFICATIONS
8. 1" GAP NOT REQUIRED WHEN ADJACENT TO ASPHALT PAVING

**NOTES**

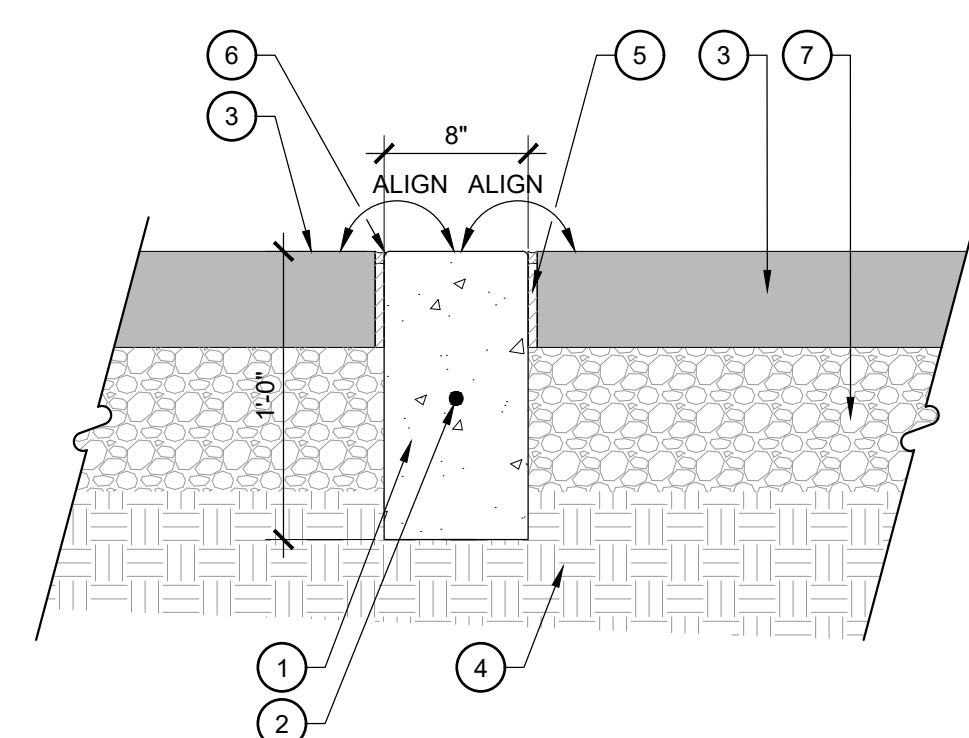
- A. THICKENED EDGE REQUIRED WHEREVER CONCRETE PAVING IS ADJACENT TO ASPHALT OR DECOMPOSED GRANITE.
- B. IF NO GEOTECHNICAL REPORT AVAILABLE COMPACT SUBGRADE TO 95% S.P.D.

**LEGEND**

1. 3,000 PSI. CAST-IN-PLACE CONCRETE PER HARDSCAPE LEGEND
2. #4 REBAR HORIZ., CONTINUOUS. 24" MIN. LAP AT SPLICE
3. ADJACENT PAVING PER PLANS
4. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
5. EXPANSION JOINT PER DETAIL (UTILIZE ONLY WHEN ADJACENT TO CONCRETE PAVING OR BASE)
6. 1/4" RADIUS AT ALL EXPOSED EDGES
7. COMPACTED AGGREGATE BASE COURSE

**NOTE**

- A. IF NO GEOTECHNICAL REPORT IS AVAILABLE COMPACT BASE AND SUBGRADE TO 95% S.P.D. AS DETERMINED BY ASTM D-698.
- B. PROVIDE EXPANSION JOINT 30" O.C. THROUGH LENGTH OF CURB UNLESS OTHERWISE NOTED IN PLANS



**4 CONCRETE JOINTS**  
SCALE: 3" = 1'-0"

**5 CONCRETE THICKENED EDGE**  
SCALE: 3" = 1'-0"

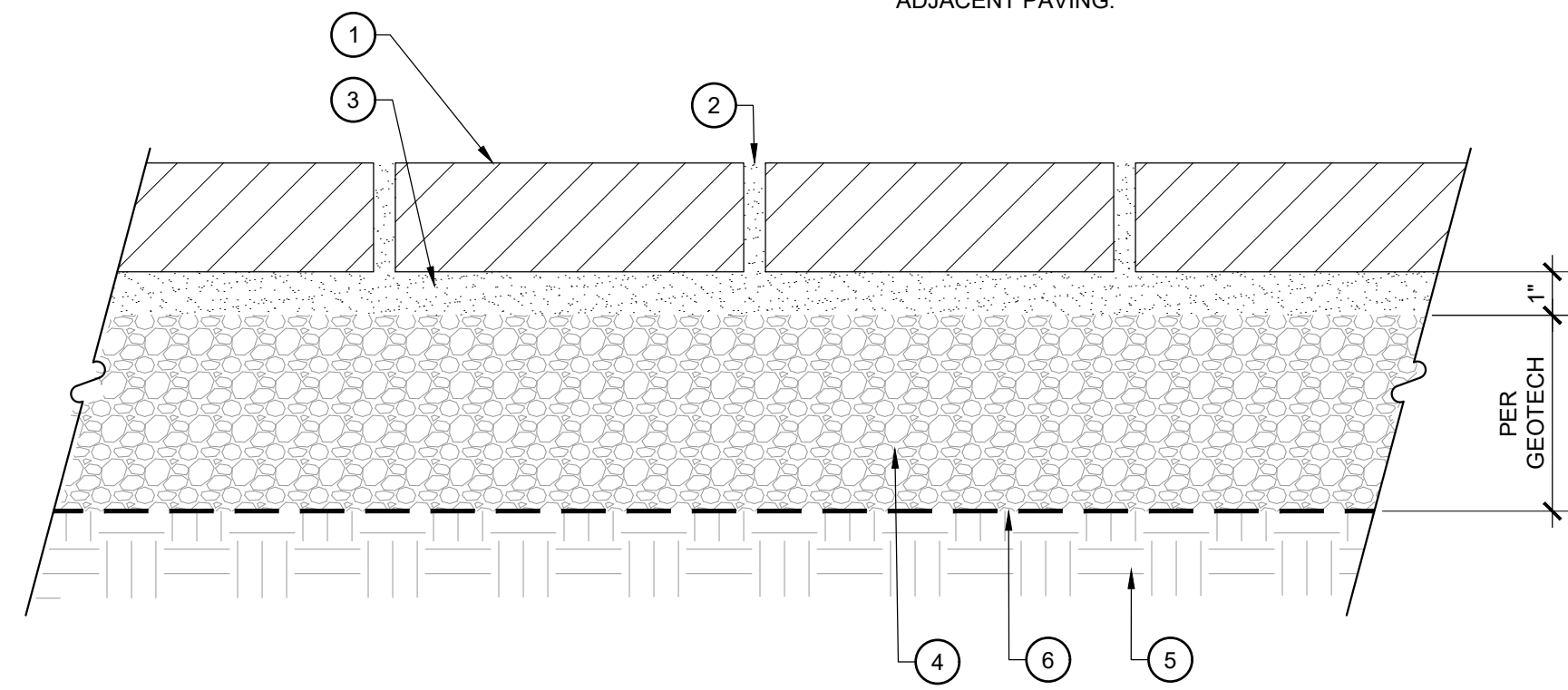
**6 6" FLUSH CURB**  
SCALE: 1-1/2" = 1'-0"

**LEGEND**

1. PRECAST CONCRETE PAVER PER HARDSCAPE LEGEND
2. ASTM C33 SAND SWEPT JOINTS
3. ASTM C33 SAND SETTING BED
4. COMPACTED AGGREGATE BASE COURSE
5. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
6. GEOTEXTILE MEMBRANE, MIRAFI OR EQUAL

**NOTES**

- A. IF GEOTECHNICAL REPORT NOT AVAILABLE, COMPACT SUBGRADE TO 95% S.P.D. AS DETERMINED BY ASTM-D698
- B. REFER TO HARDSCAPE PLAN AND LEGEND FOR LAYOUT AND PATTERN OF PAVERS.
- C. CONTRACTOR TO SUBMIT PAVER SAMPLE TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO ORDERING AND INSTALLATION.
- D. FINISH SURFACE OF PAVERS SHALL BE LEVEL WITH ADJACENT PAVING.



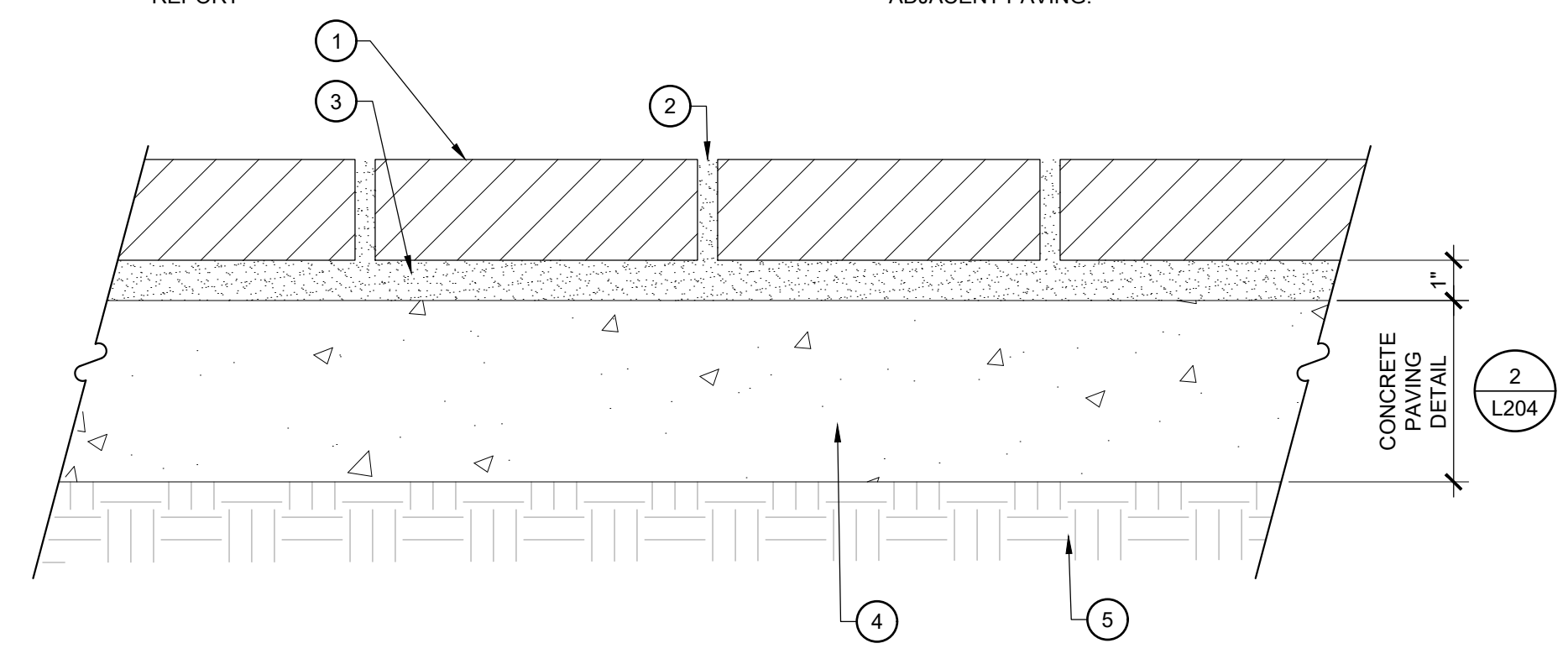
**7 PRECAST PAVERS - SAND SET**  
SCALE: 3" = 1'-0"

**LEGEND**

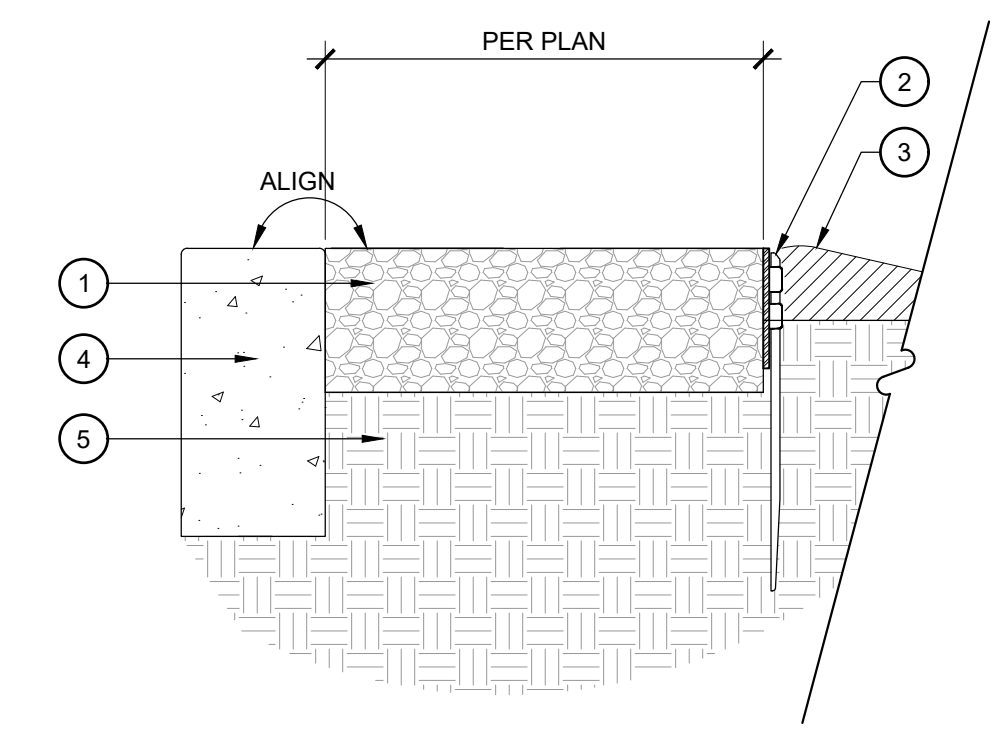
1. PRECAST CONCRETE PAVER PER HARDSCAPE LEGEND
2. GROUTED JOINTS, COLOR PER HARDSCAPE LEGEND
3. MORTAR SETTING BED
4. CONCRETE SUBBASE, REINFORCED PER DETAIL
5. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT

**NOTES**

- A. IF GEOTECHNICAL REPORT NOT AVAILABLE, COMPACT SUBGRADE TO 95% S.P.D. AS DETERMINED BY ASTM-D698
- B. REFER TO HARDSCAPE PLAN AND LEGEND FOR LAYOUT AND PATTERN OF PAVERS
- C. CONTRACTOR TO SUBMIT PAVER AND GROUT SAMPLE TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO ORDERING AND INSTALLATION.
- D. FINISH SURFACE OF PAVERS SHALL BE LEVEL WITH ADJACENT PAVING.



**8 PRECAST PAVERS - MORTAR SET**  
SCALE: 3" = 1'-0"

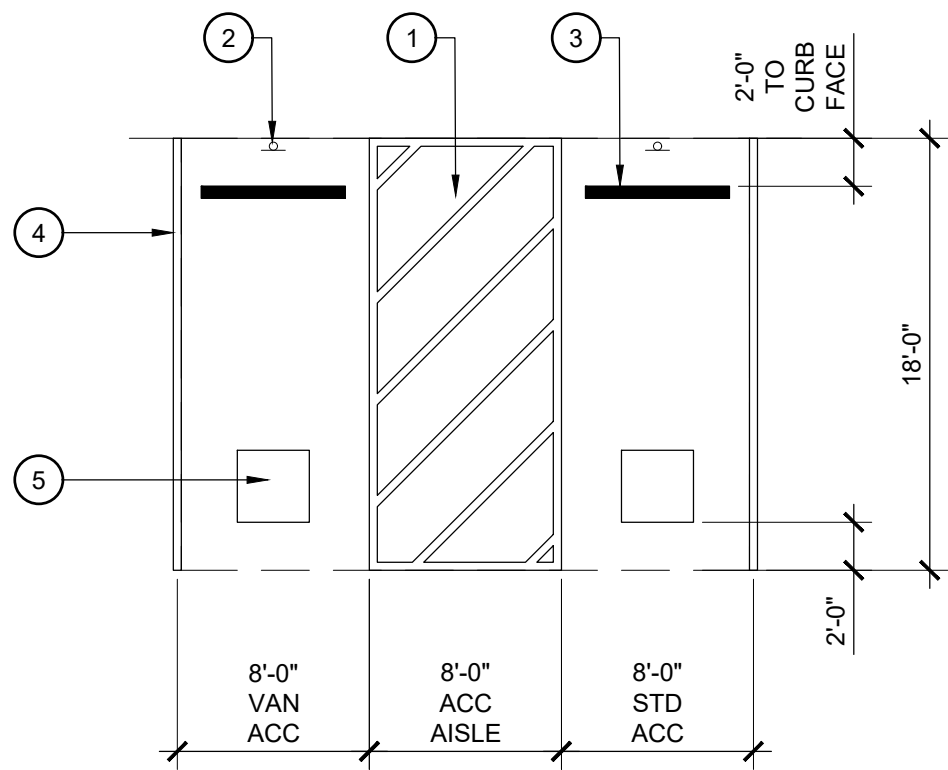


**LEGEND**

1. DECORATIVE GRAVEL PER HARDSCAPE LEGEND
2. STEEL EDGING PER HARDSCAPE PLANS, INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE DETAIL
3. ADJACENT PLANTING AREA
4. CURB, WALL, ARCHITECTURE OR VERTICAL SURFACE PER HARDSCAPE PLAN
5. BASE AND SUBGRADE PREPARATION PER GEOTECHNICAL REPORT

**9 GRAVEL**  
SCALE: 1-1/2" = 1'-0"



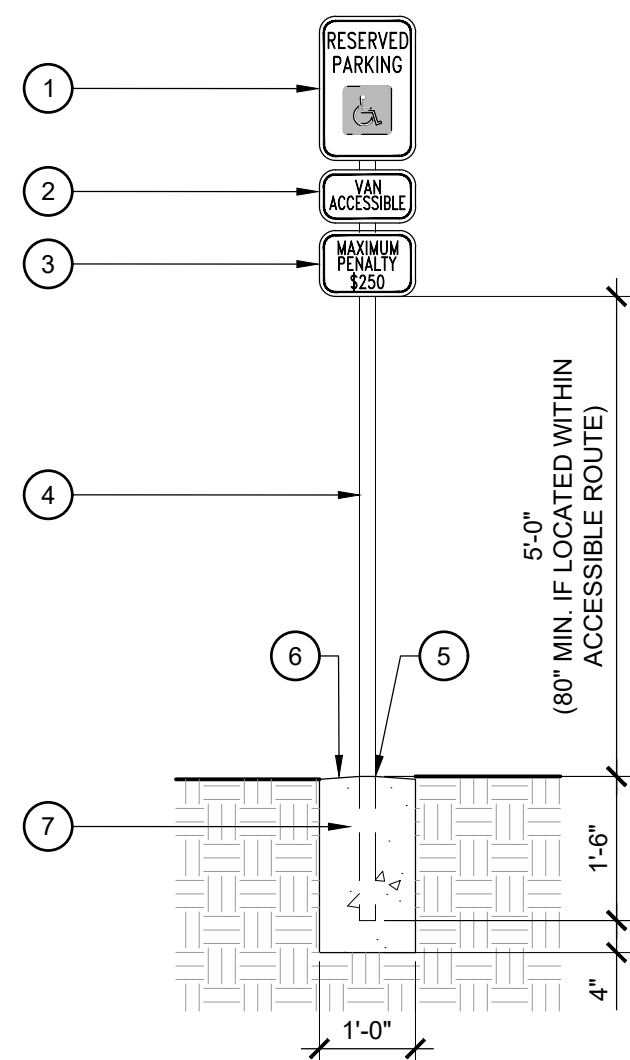


#### LEGEND

1. ACCESSIBLE AISLE TO BE CLEAR OF ALL OBSTRUCTIONS
2. ACCESSIBLE SIGN PER DETAIL, SEE HARDSCAPE PLAN FOR LOCATION
3. CONCRETE WHEEL STOP
4. 4" WIDE WHITE STRIPE
5. 36" X 36" INTERNATIONAL SIGN OF ACCESSIBILITY EMBLEM

#### NOTES

- A. CONTRACTOR SHALL VERIFY A MAX. SLOPE OF 2% IN ALL DIRECTIONS. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION

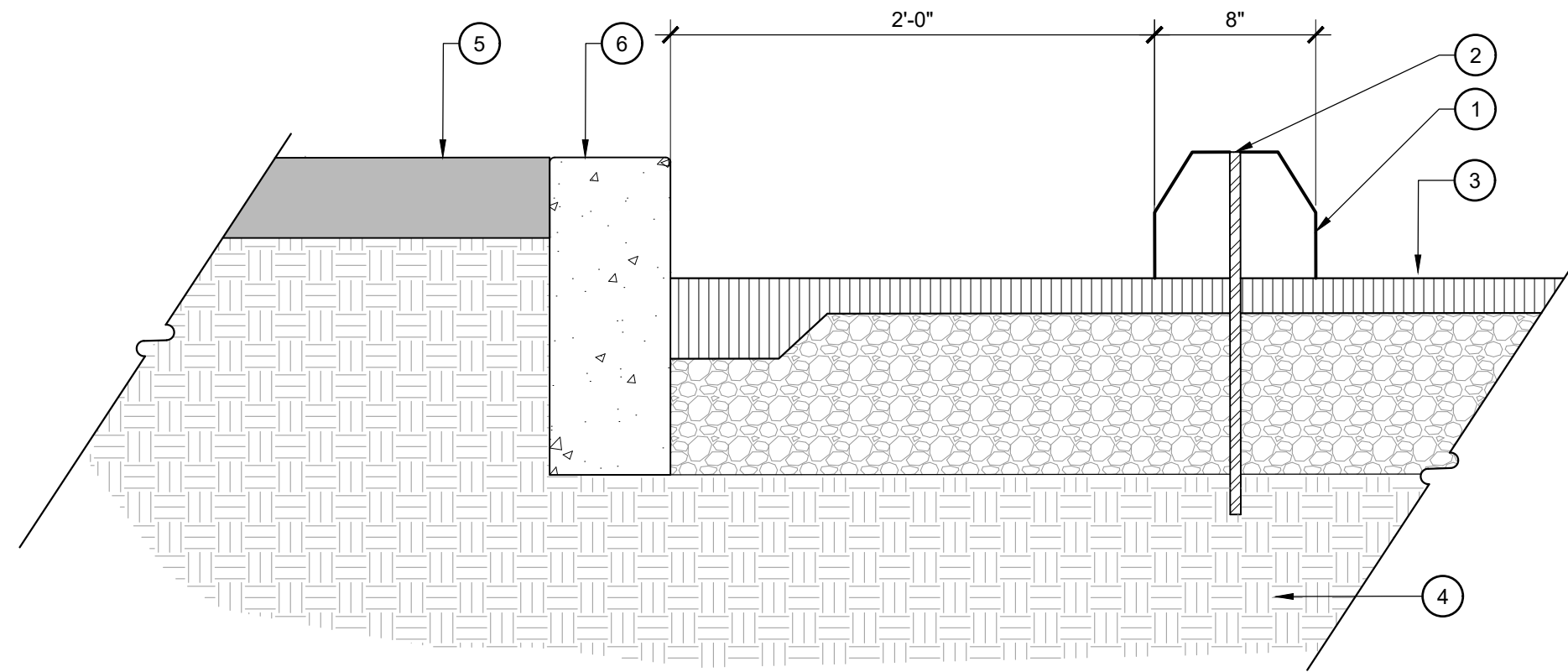


#### LEGEND

1. SIGN WITH INTERNATIONAL SIGN OF ACCESSIBILITY (MUTCD R7-8)
2. UTILIZE VAN ACCESSIBLE SIGN WHEN APPLICABLE
3. PENALTY SIGN, WHEN VAN ACCESSIBLE SIGN NOT REQUIRED PLACE DIRECTLY BELOW INTERNATIONAL SIGN OF ACCESSIBILITY
4. 2" DIA. OR U-CHANNEL GALVANIZED STEEL POST CENTERED ON POST
5. NON-SHRINK GROUT POST TO FOOTER
6. SLOPE TOP OF FOOTER AWAY FROM POST WHEN FOOTER IS IN A PLANTING AREA
7. CAST-IN-PLACE CONCRETE FOOTER

#### NOTES

- A. HEIGHT OF R7-8C RESERVED PARKING SIGN AS PRESCRIBED BY N.C. DEPT. OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SECTION 2A-23, PART II



#### LEGEND

1. PRECAST CONCRETE WHEEL STOP
2. 5/8" DIA. REIN. BAR 18" LONG 2 PER WHEEL STOP
3. ASPHALT PAVING PER DETAIL
4. EXISTING SUBGRADE
5. ADJACENT PAVING PER HARDSCAPE PLANS
6. C.I.P. CONCRETE CURB PER DETAIL

### 1 ACCESSIBLE PARKING SPOT

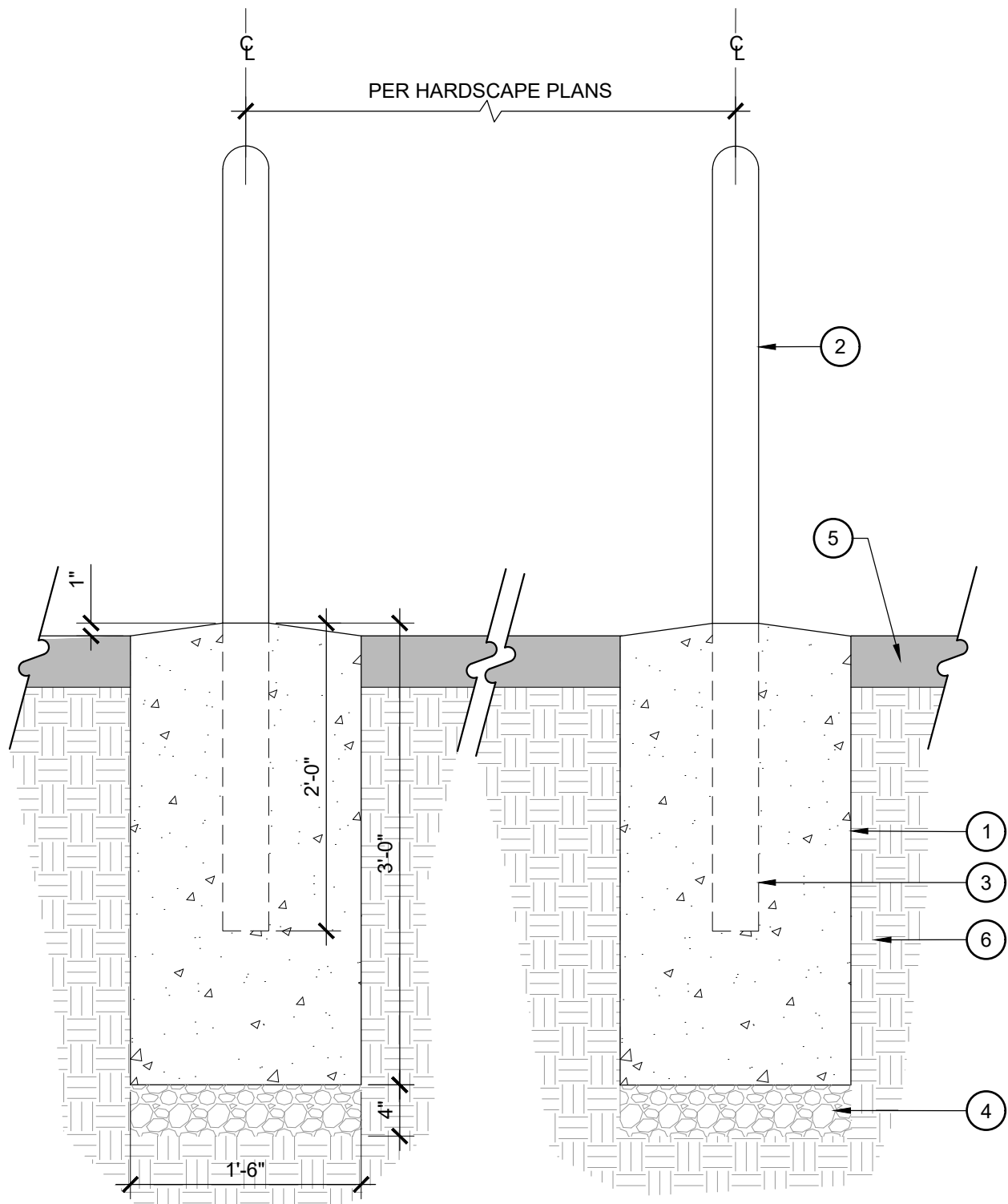
SCALE: 1/8" = 1'-0"

### 2 ACCESSIBLE PARKING SIGN

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

### 3 CONCRETE WHEEL STOP

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

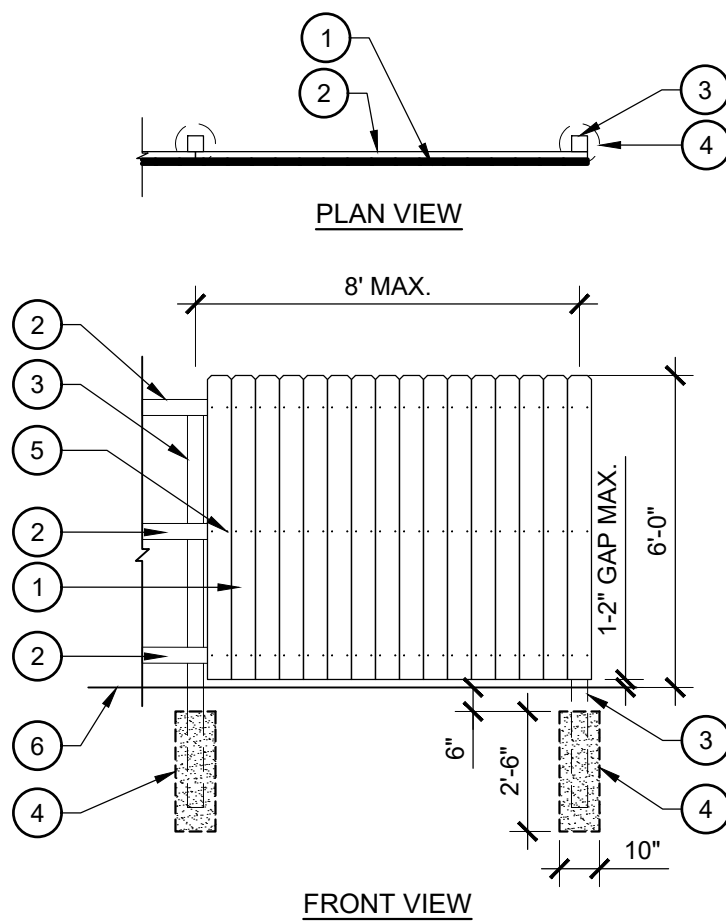


#### LEGEND

1. CAST-IN-PLACE CONCRETE FOOTING
2. BOLLARD PER HARDSCAPE LEGEND
3. EMBED BOLLARD PER MANUFACTURER'S RECOMMENDATIONS
4. COMPACTED AGGREGATE BASE COURSE
5. ADJACENT PAVING PER PLANS
6. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT

#### NOTES

- A. IF NO GEOTECHNICAL REPORT IS AVAILABLE, COMPACT SUBGRADE TO 85% S.P.D.  
B. FLAG BOLLARD LOCATIONS IN FIELD PRIOR TO INSTALLATION FOR REVIEW BY LANDSCAPE ARCHITECT  
C. INSTALL BOLLARD PER MANUFACTURER'S RECOMMENDATIONS



#### LEGEND

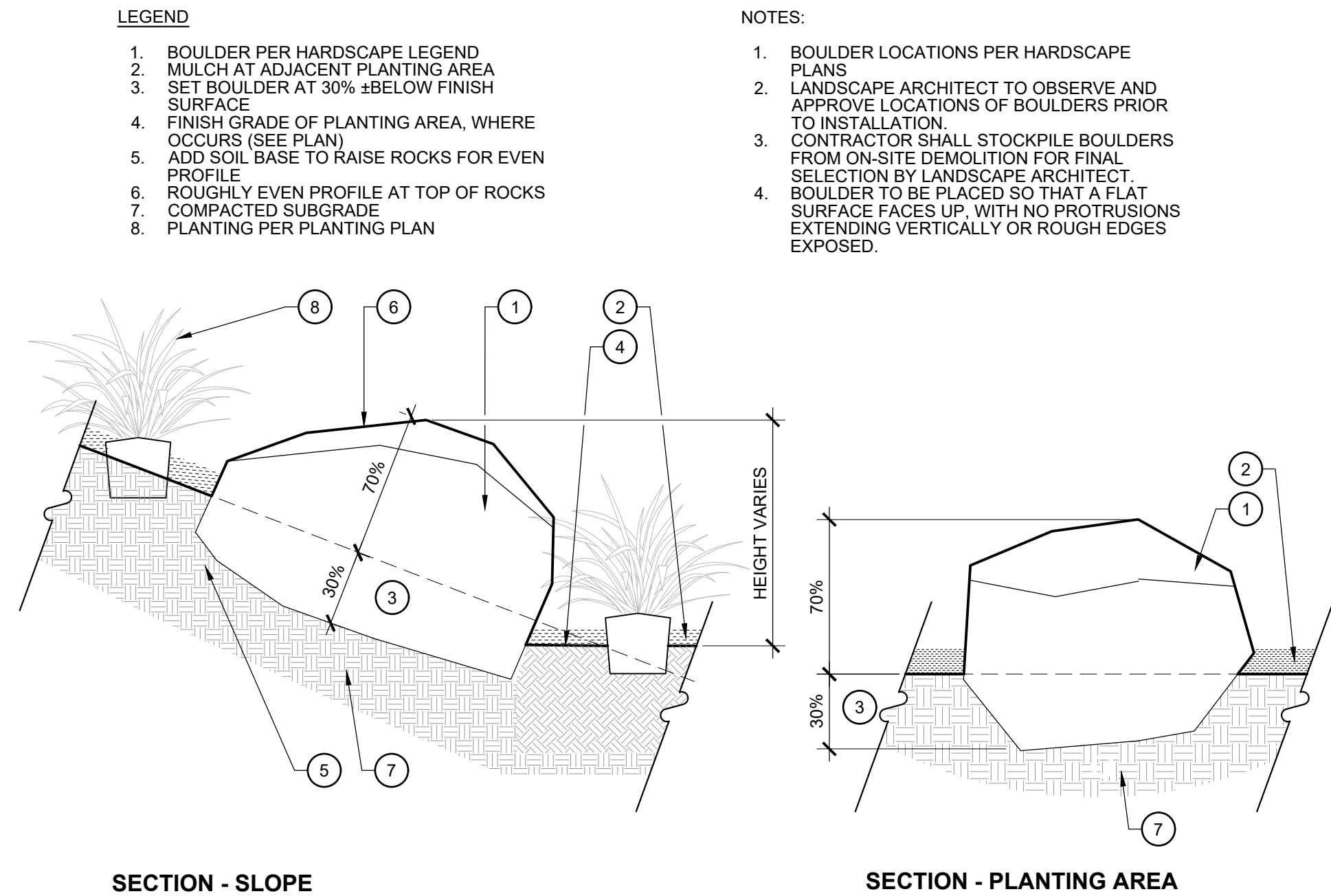
1. 1" X 6" VERTICAL PICKET
2. 2" X 4" WOOD FRAMING
3. 4" X 4" WOOD POST
4. 3000 PSI CONCRETE FOOTING
5. GALVANIZED NAIL
6. FINISH GRADE

#### NOTES

- A. ALL LUMBER DIMENSIONS NOMINAL.  
B. ALL LUMBER TO BE PRESSURE TREATED.  
C. INSTALL FENCE SO THAT FRONT VIEW FACES ADJACENT LOT.

### 5 WOOD FENCE

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



#### LEGEND

1. BOULDER PER HARDSCAPE LEGEND
2. MULCH AT ADJACENT PLANTING AREA
3. SET BOULDER AT 30% ±BELOW FINISH SURFACE
4. FINISH GRADE OF PLANTING AREA, WHERE OCCURS (SEE PLAN)
5. ADD SOIL BASE TO RAISE ROCKS FOR EVEN PROFILE
6. ROUGHLY EVEN PROFILE AT TOP OF ROCKS
7. COMPACTED SUBGRADE
8. PLANTING PER PLANTING PLAN

#### NOTES:

1. BOULDER LOCATIONS PER HARDSCAPE PLANS
2. LANDSCAPE ARCHITECT TO OBSERVE AND APPROVE LOCATIONS OF BOULDERS PRIOR TO INSTALLATION
3. CONTRACTOR SHALL STOCKPILE BOULDERS FROM ON-SITE DEMOLITION FOR FINAL SELECTION BY LANDSCAPE ARCHITECT
4. BOULDER TO BE PLACED SO THAT A FLAT SURFACE FACES UP, WITH NO PROTRUSIONS EXTENDING VERTICALLY OR ROUGH EDGES EXPOSED.

#### SECTION - SLOPE

#### SECTION - PLANTING AREA

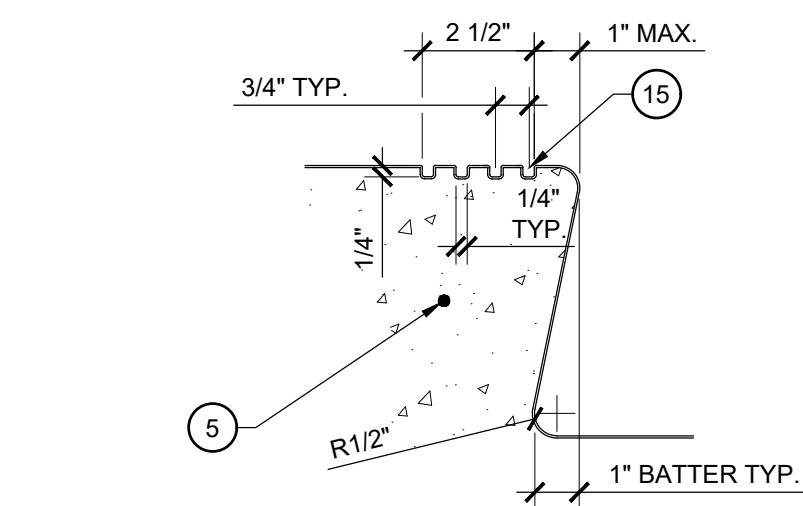
### 6 BOULDER

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

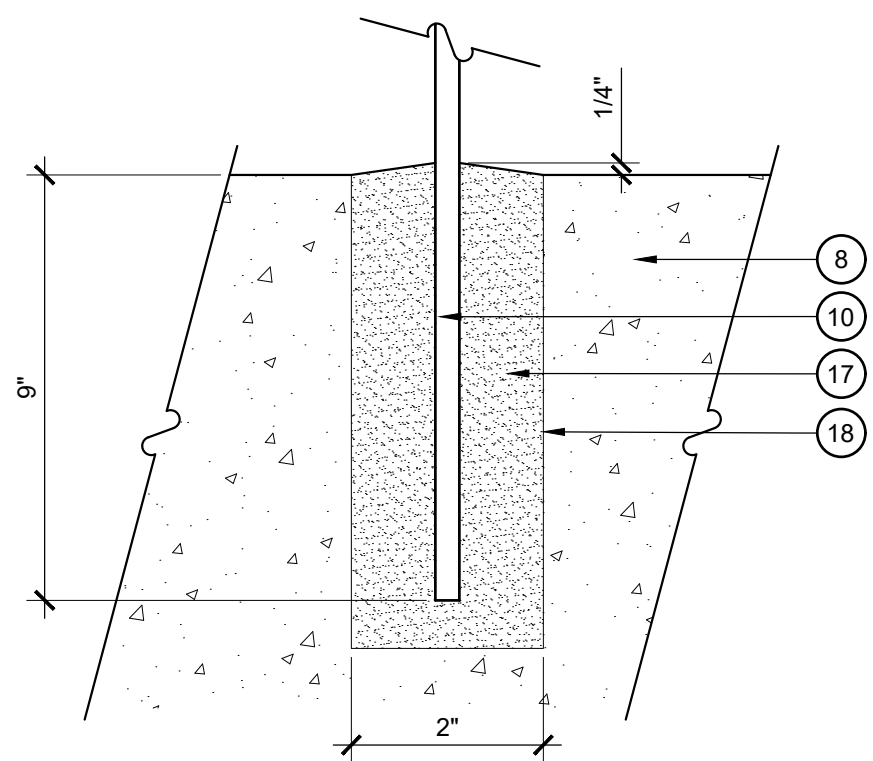
### 4 BOLLARD

SCALE: 1" = 1'-0"

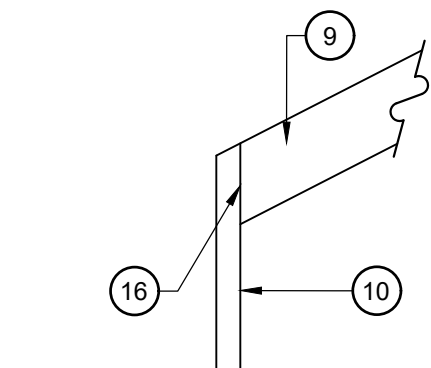




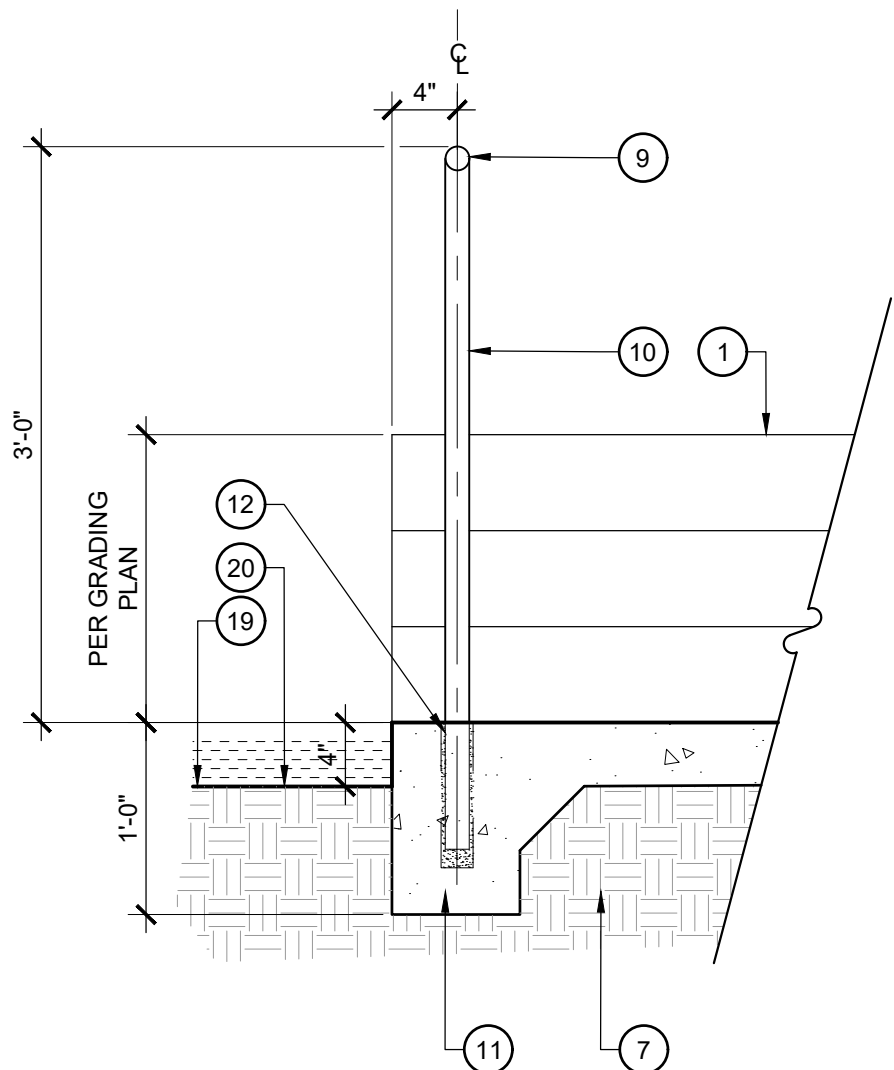
ENLARGEMENT 'A' - STAIR NOSING



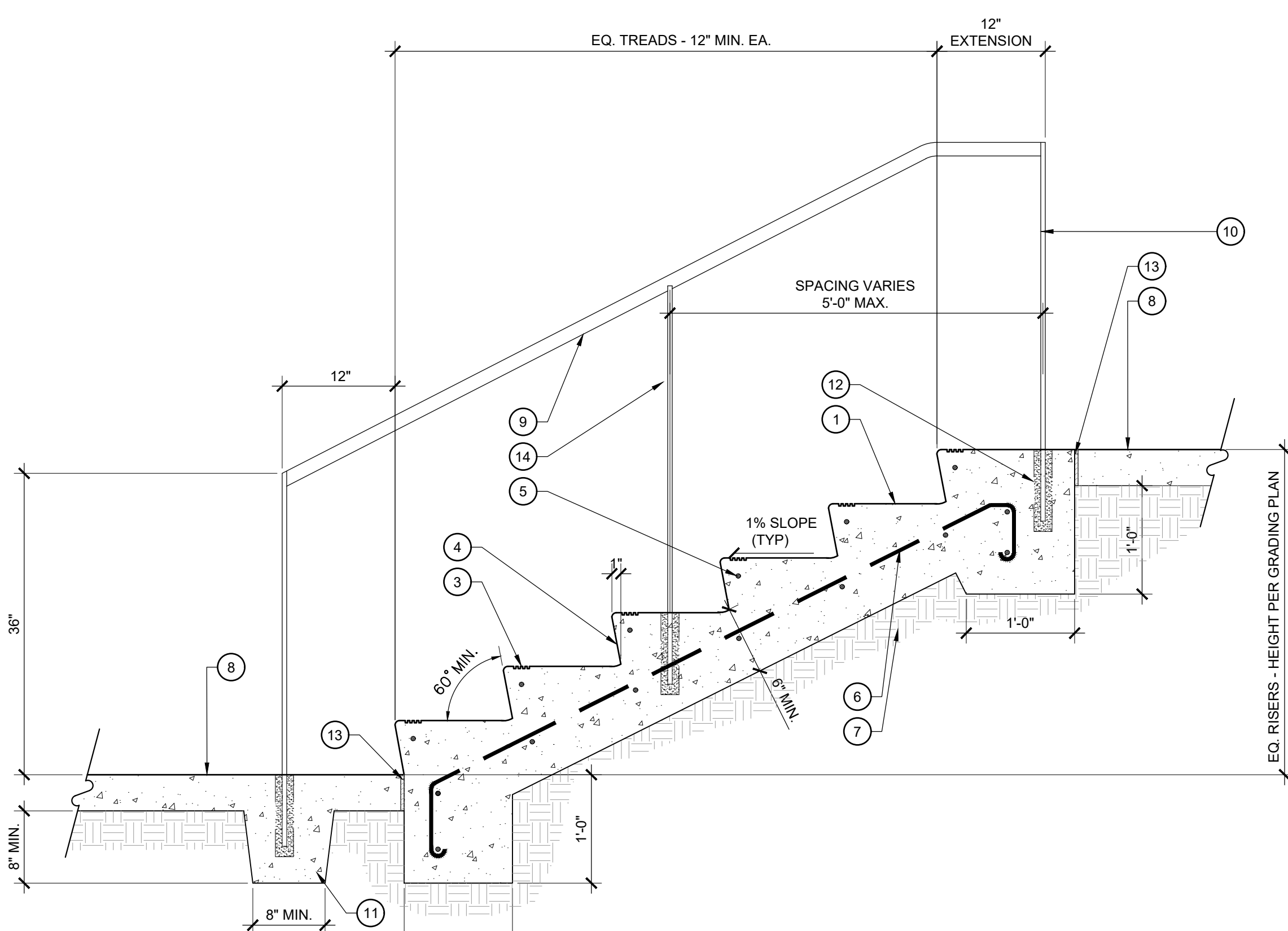
ENLARGEMENT 'C' - POST EMBEDMENT



ENLARGEMENT 'B' - HANDRAIL END CONDITION



SECTION - FRONT



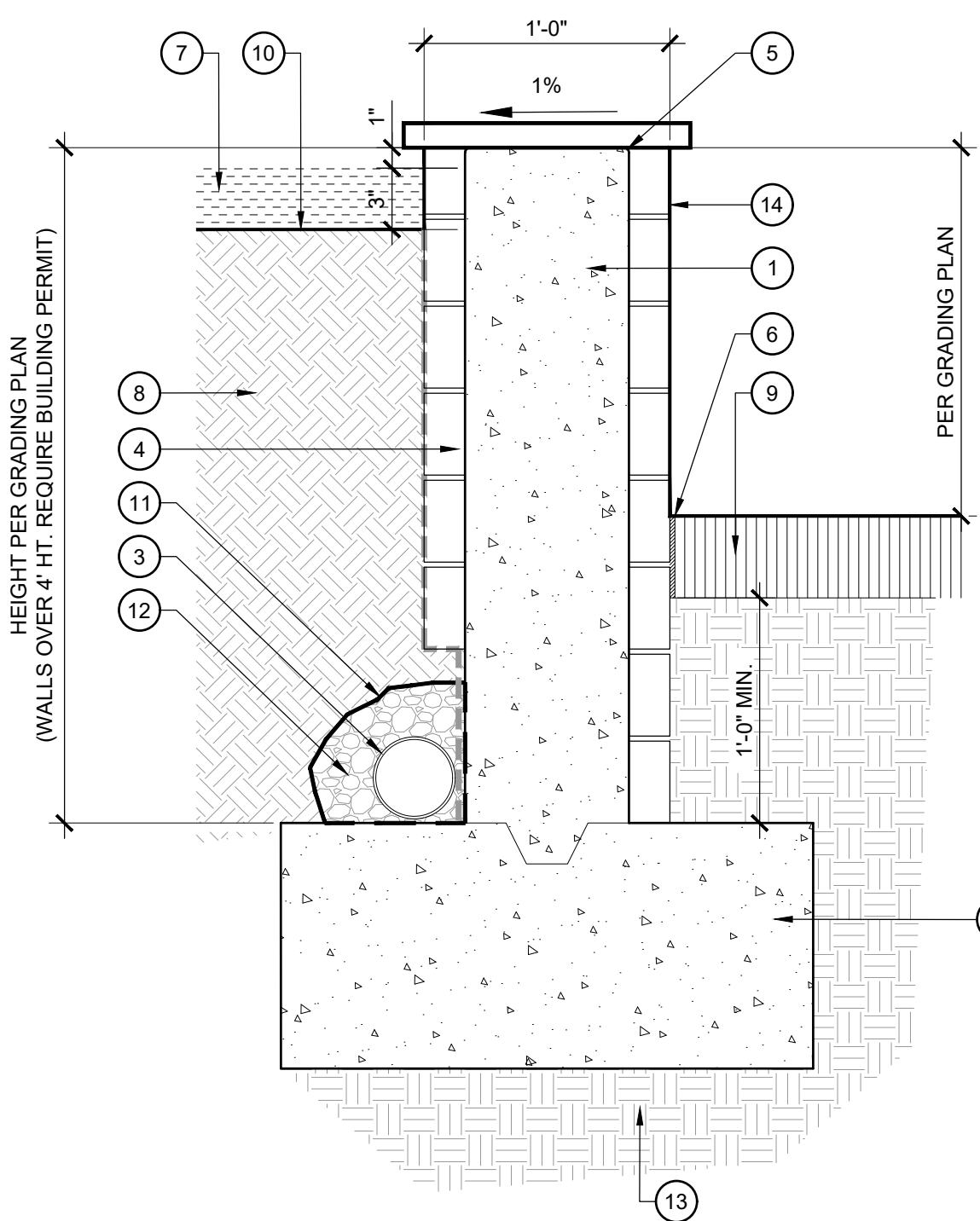
SECTION - SIDE

LEGEND

1. C.I.P. CONCRETE STAIRS PER HARDSCAPE LEGEND, REINFORCEMENT PER STRUCTURAL DRAWINGS
2. 1/2\"R. TOOLED EDGE, TYP.
3. STAIR NOSE - SEE ENLARGEMENT 'A'. REINFORCEMENT PER STRUCTURAL DRAWINGS
4. BATTERED RISER/FACE PER ENLARGEMENT 'A'
5. #4 REBAR CONT. AT NOSING, 3/4\" CLEAR
6. #5 @ 12\" O.C. BOTH WAYS, 3\" CLEAR
7. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
8. ADJACENT PAVING PER HARDSCAPE PLAN
9. 1-1/2\" DIA. STAINLESS STEEL TOP RAIL PER HARDSCAPE LEGEND
10. 1-1/2\" X 1/2\" THICK STAINLESS STEEL FLAT BAR POST PER HARDSCAPE LEGEND
11. DEEP POUR PAVING FOR POST EMBEDMENT
12. EMBEDDED POST MOUNT - SEE ENLARGEMENT 'C'
13. EXPANSION JOINT PER DETAIL
14. 1-1/4\" X 1/2\" THICK INTERMEDIATE POST TO BE CENTERED ON TREAD, TYP.
15. TOOLED GROOVES WITH BLACK EPOXY PAINT FULL WIDTH OF STAIRS
16. WELD ALL AROUND, GRIND SMOOTH, MIN. 1/8\" RADIUS AT JOINT
17. NON-SHRINK EPOXY GROUT, COLOR TO MATCH ADJACENT CONCRETE
18. 4\" DIA. CORE DRILL IN CONCRETE TO RECEIVE SUPPORT
19. FINISH GRADE PER GRADING PLAN
20. MULCH PER PLANTING PLAN

- NOTE
- A. PROVIDE SHOP DRAWING OF RAILING PER FIELD CONDITIONS FOR LANDSCAPE ARCHITECT APPROVAL PRIOR TO RAILING FABRICATION
  - B. GRIPPING SURFACES SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS
  - C. SUBMIT JOINT COLOR SAMPLE FOR LANDSCAPE ARCHITECT APPROVAL PRIOR TO INSTALLATION
  - D. PROVIDE POSITIVE DRAINAGE AT TOP AND BOTTOM LANDINGS TO AVOID PONDING
  - E. REFER TO GRADING PLANS FOR ALL FINISH GRADE AND SURFACE ELEVATIONS

1 CAST-IN-PLACE CONCRETE STAIRS  
SCALE: 1\" = 1'-0"

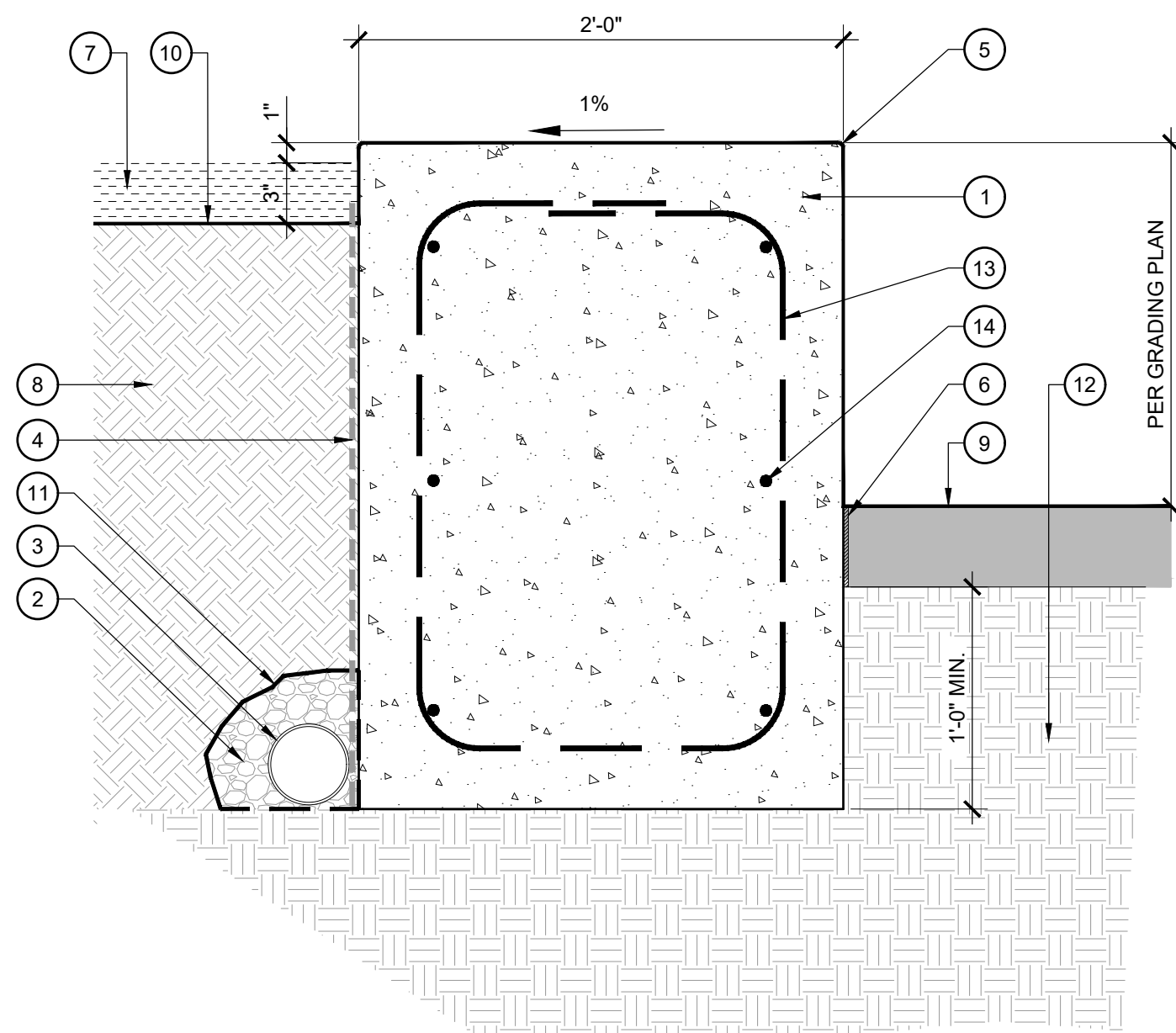


LEGEND

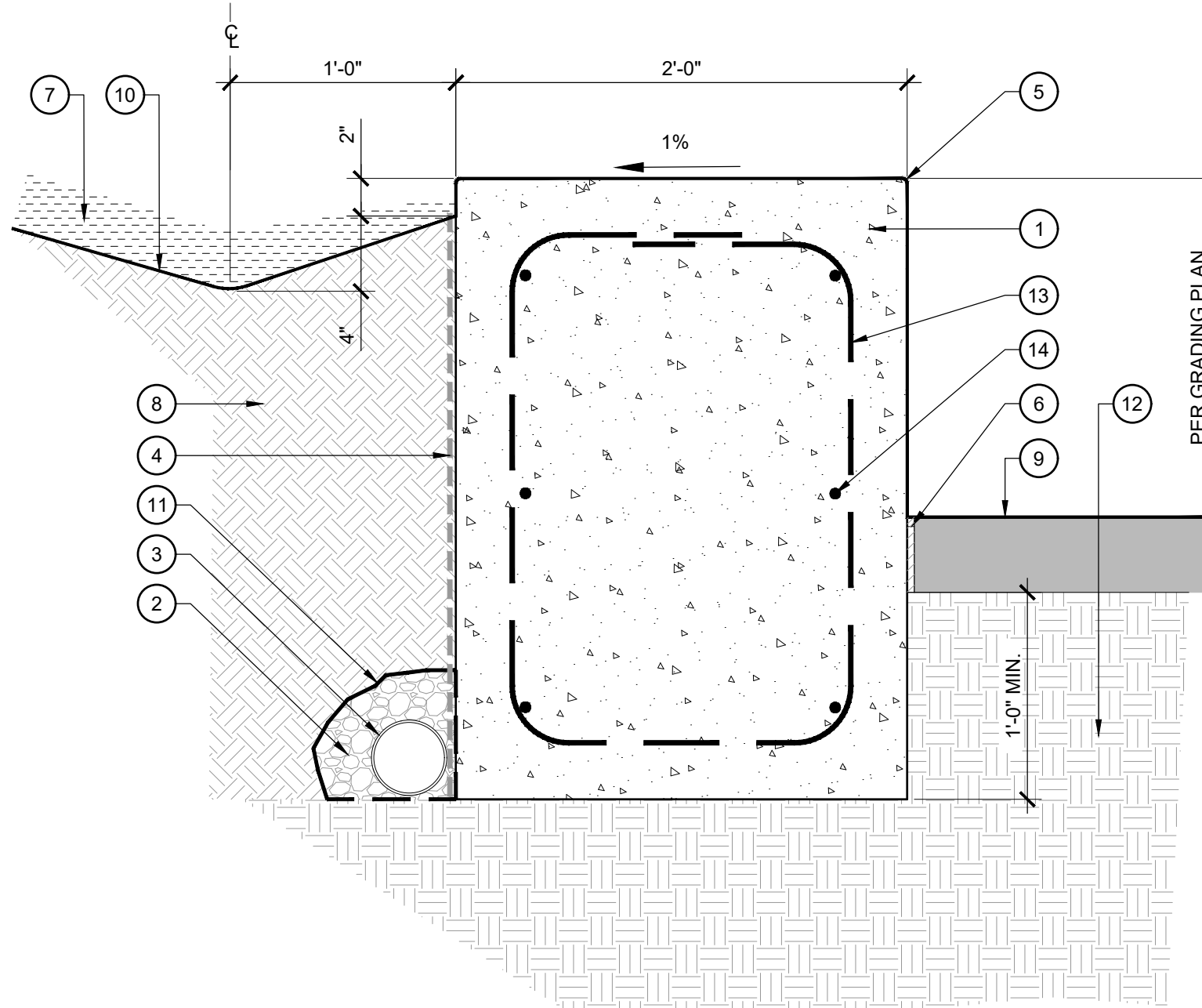
1. C.I.P. CONCRETE RETAINING WALL PER HARDSCAPE LEGEND, REINFORCEMENT PER STRUCTURAL ENGINEER
2. CONCRETE FOOTING SIZE AND REINFORCEMENT PER STRUCTURAL ENGINEER
3. 4\" DIA. PERFORATED HDPE PIPE, DAYLIGHT PER CIVIL ENGINEER
4. WATERPROOFING AND DRAINAGE BOARD
5. 1/4\" RADIUS AT ALL EXPOSED EDGES
6. EXPANSION JOINT PER DETAIL (ONLY IF ADJACENT TO CONCRETE PAVING)
7. MULCH PER PLAN AND SPECIFICATIONS
8. PLANTING SOIL PER SPECIFICATIONS
9. ADJACENT CONCRETE PAVING OR PLANTING AREA PER PLANS
10. FINISH GRADE AT PLANTING AREA
11. GEOTEXTILE FABRIC
12. DRAINAGE AGGREGATE, 1 CU.FT. MIN. AROUND PIPE
13. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
14. BRICK MASONRY FACADE TO MATCH BUILDING

NOTES

- A. WALLS OVER 4' HEIGHT REQUIRE A BUILDING PERMIT



SECTION - LEVEL CONDITION



SECTION - SLOPED CONDITION

LEGEND

1. C.I.P. CONCRETE RETAINING WALL PER HARDSCAPE LEGEND
2. DRAINAGE AGGREGATE, 1 CU.FT. MIN. AROUND PIPE
3. 4\" DIA. PERFORATED HDPE PIPE, DAYLIGHT PER CIVIL ENGINEER
4. WATERPROOFING AND DRAINAGE BOARD
5. 1/4\" RADIUS AT ALL EXPOSED EDGES
6. EXPANSION JOINT PER DETAIL
7. MULCH PER PLAN AND SPECIFICATIONS
8. PLANTING SOIL PER SPECIFICATIONS
9. ADJACENT CONCRETE PAVING OR PLANTING AREA PER PLANS
10. FINISH GRADE AT PLANTING AREA
11. GEOTEXTILE FABRIC, MIRAFI OR EQUAL
12. COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
13. #3 REBAR AT 12\" O.C.
14. #5 REBAR HORIZONTAL, 18\" LAP AT SPLICE

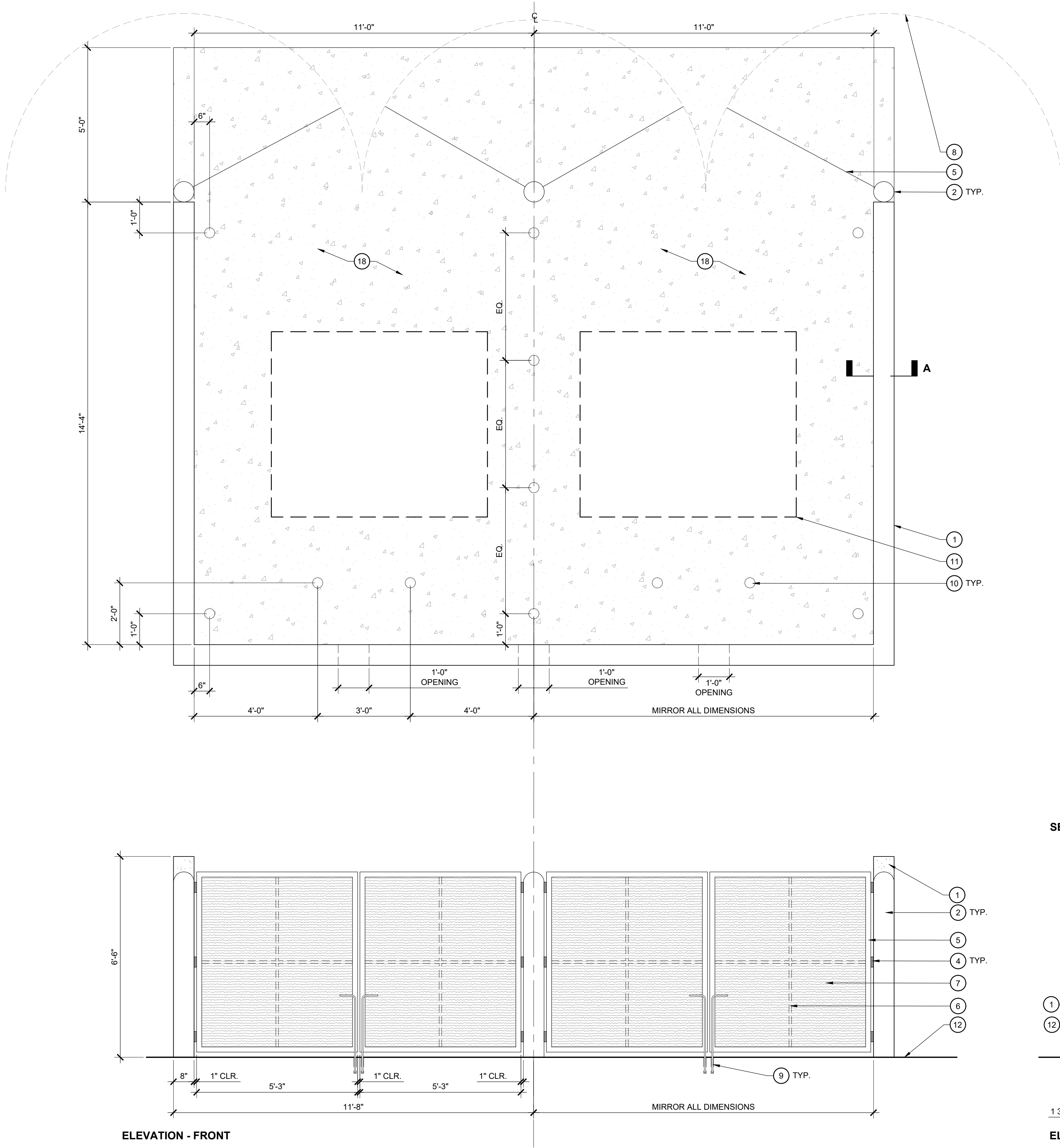
NOTES

- A. PROVIDE SHOP DRAWINGS PRIOR TO INSTALLATION

2 RETAINING WALL  
SCALE: 1-1/2\" = 1'-0"

3 CAST-IN-PLACE CONCRETE SEATING WALL  
SCALE: 1-1/2\" = 1'-0"



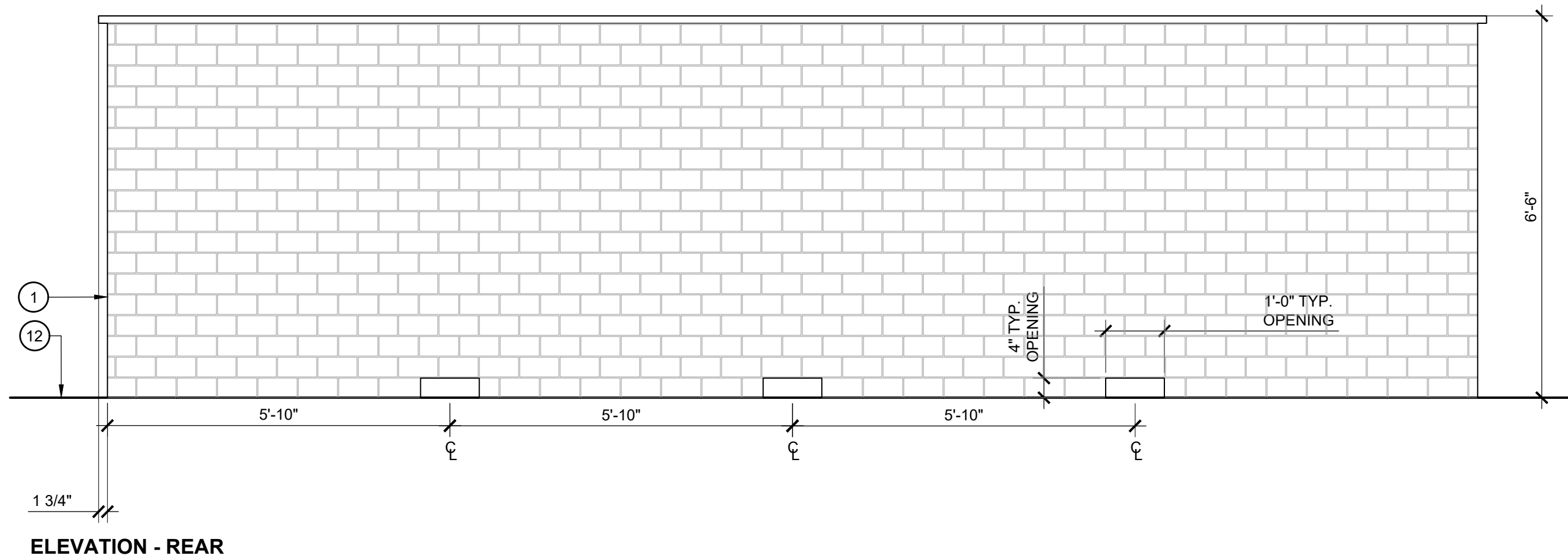
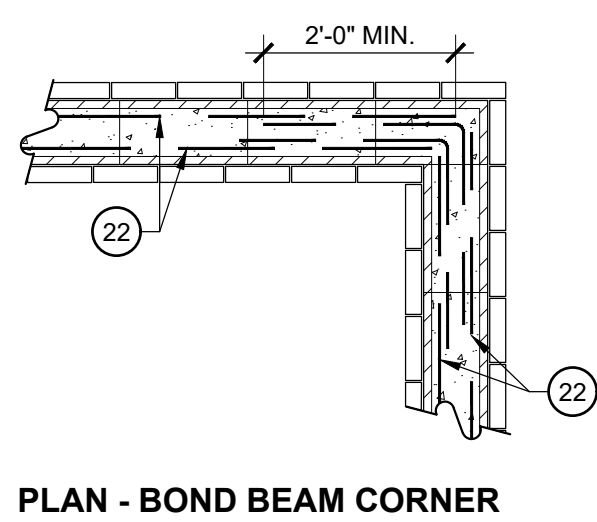
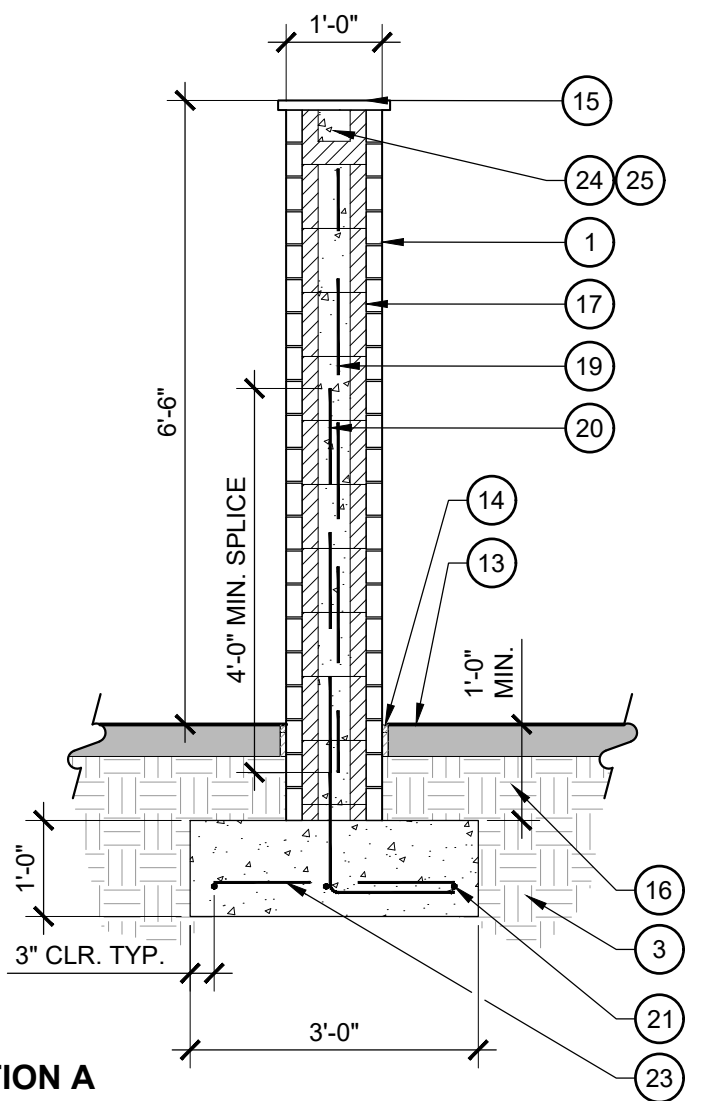


LEGEND

- 8"X8"X16" CMU BLOCK, GROUT ALL VOIDS SOLID WITH 3,000 PSI GROUT, PALMETTO BRICK VENEER 2.0 GREYSTONE WIRECUT TO MATCH BUILDING.
- 8" DIA. GALVANIZED STEEL GATE POST.
- C.I.P. CONCRETE FOOTING, 3,000 PSI MIN.
- HEAVY DUTY GALVANIZED STEEL GATE HINGES, THREE (3) AT EACH GATE EQUALLY SPACED.
- 2X2" SQ. GALVANIZED H.S.S. EXTERIOR SUPPORT GATE FRAME
- 1"X1" SQ. GALVANIZED H.S.S. INTERIOR SUPPORT GATE FRAME
- 1" THICK WOOD PANEL
- GATE HINGES SHALL ALLOW FOR 180° SWING
- 1/2" DIA. SOLID STOCK STEEL DROP ROD
- BOLLARD PER DETAIL
- 8 YARD DUMPSTER BY OTHERS (SHOWN FOR REFERENCE ONLY)
- FINISH SURFACE
- ADJACENT PAVING PER PLANS.
- EXPANSION JOINT PER DETAIL
- 1/4" TOOLED RADIUS AT ALL EXPOSED EDGES
- COMPACTED SUBGRADE TO 95% STANDARD MAXIMUM DRY DENSITY (MDD), +/-3% OPTIMUM MOISTURE AS DETERMINED BY ASTM D-693, OR PER GEOTECHNICAL REPORT
- SKIM COAT CONCRETE, SACK AND PATCH ANY IRREGULARITIES
- CONCRETE PAVING PER DETAIL
- #5 VERT. REBAR AT 40" O.C. PLACE A VERTICAL BAR AT EACH CORNER INTERSECTION
- #6 REBAR DOWEL AT 40" O.C., ALTERNATE SIDES
- (3) #5 HORIZ. REBAR
- #6 HORIZ. REBAR, CONTINUOUS BOND BEAM REINFORCEMENT
- #6 REBAR AT 40" O.C.
- TOP OF WALL 8"X8"X16" BOND BEAM CMU BLOCK
- REFER TO TOP OF WALL BOND BEAM DETAIL ON THIS SHEET

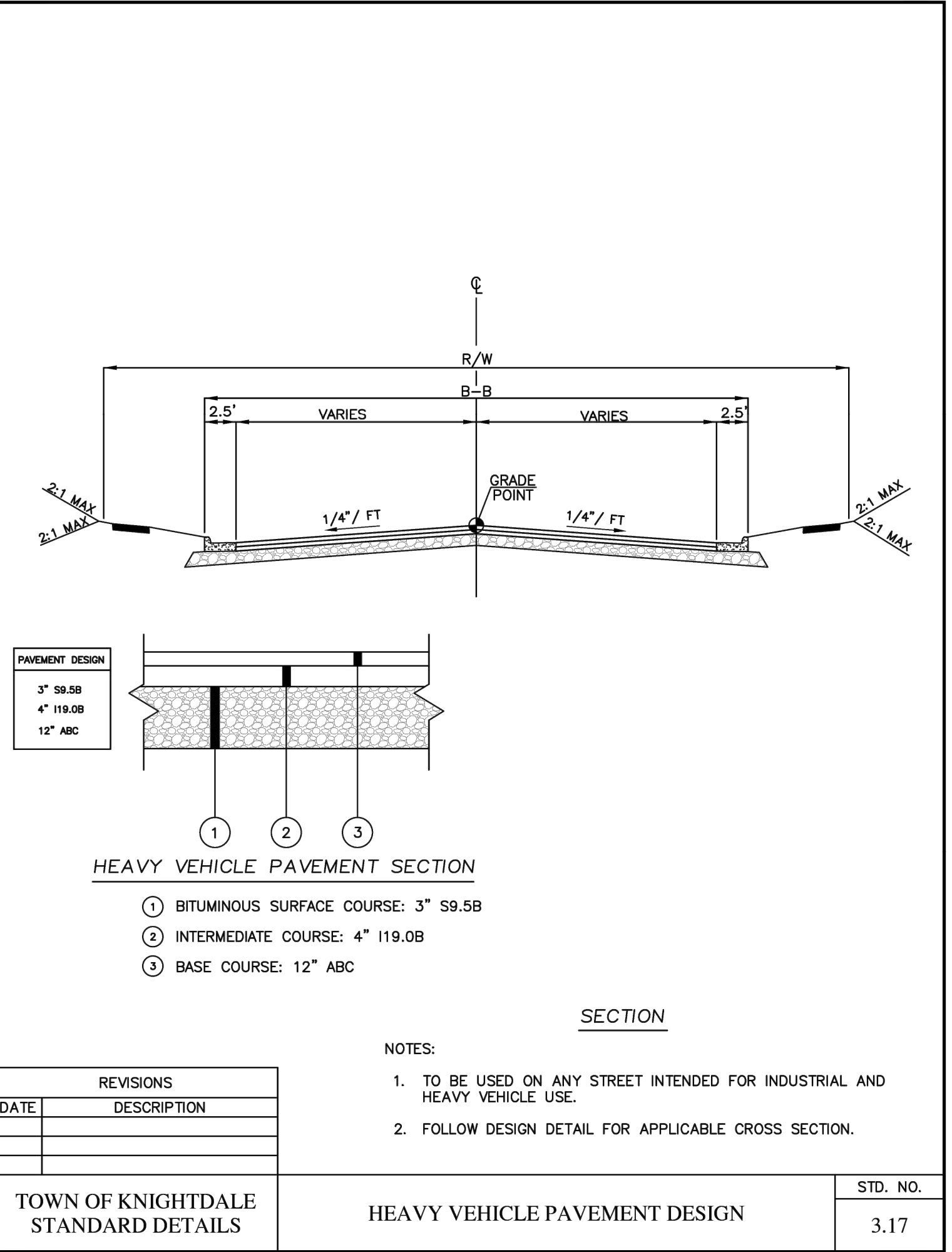
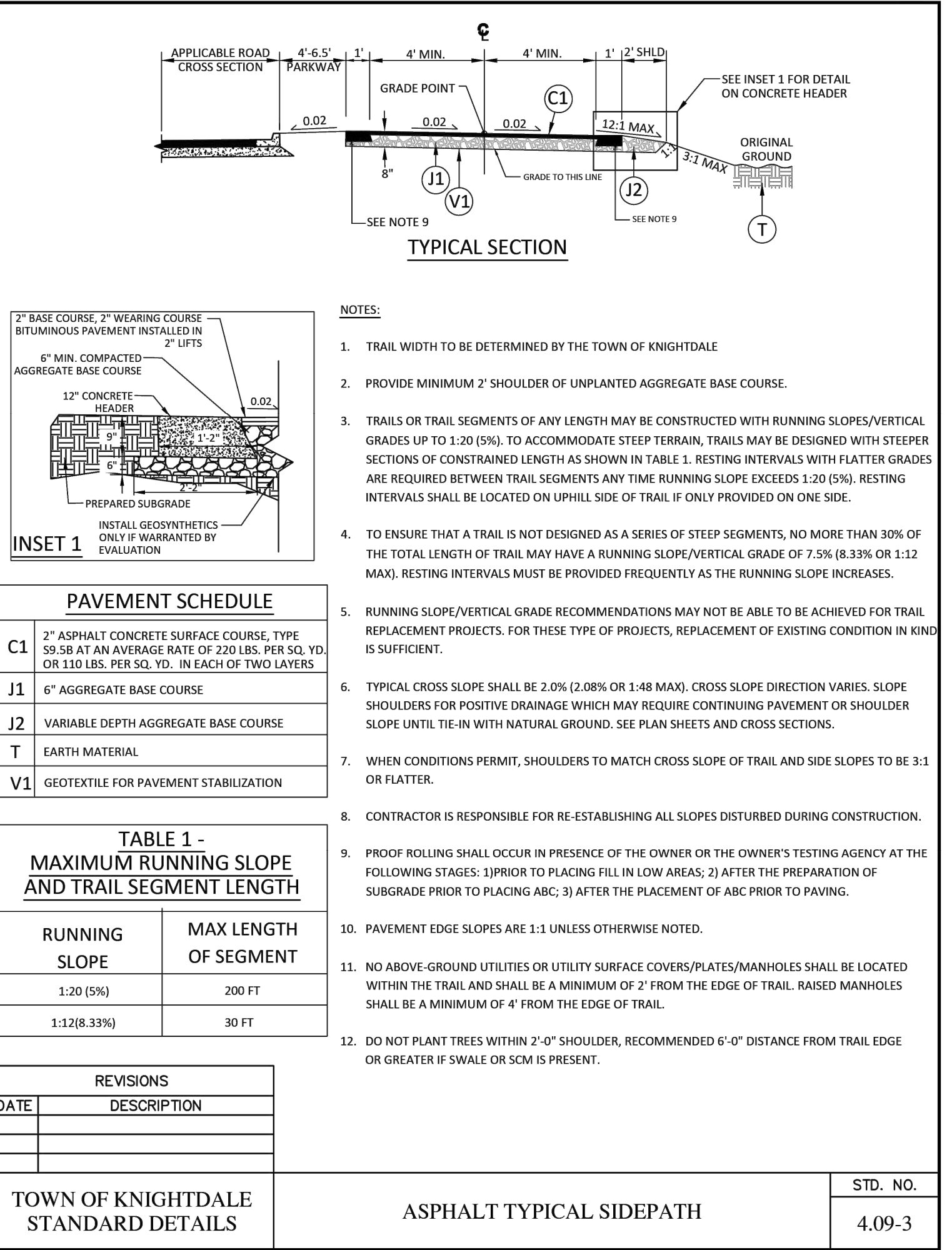
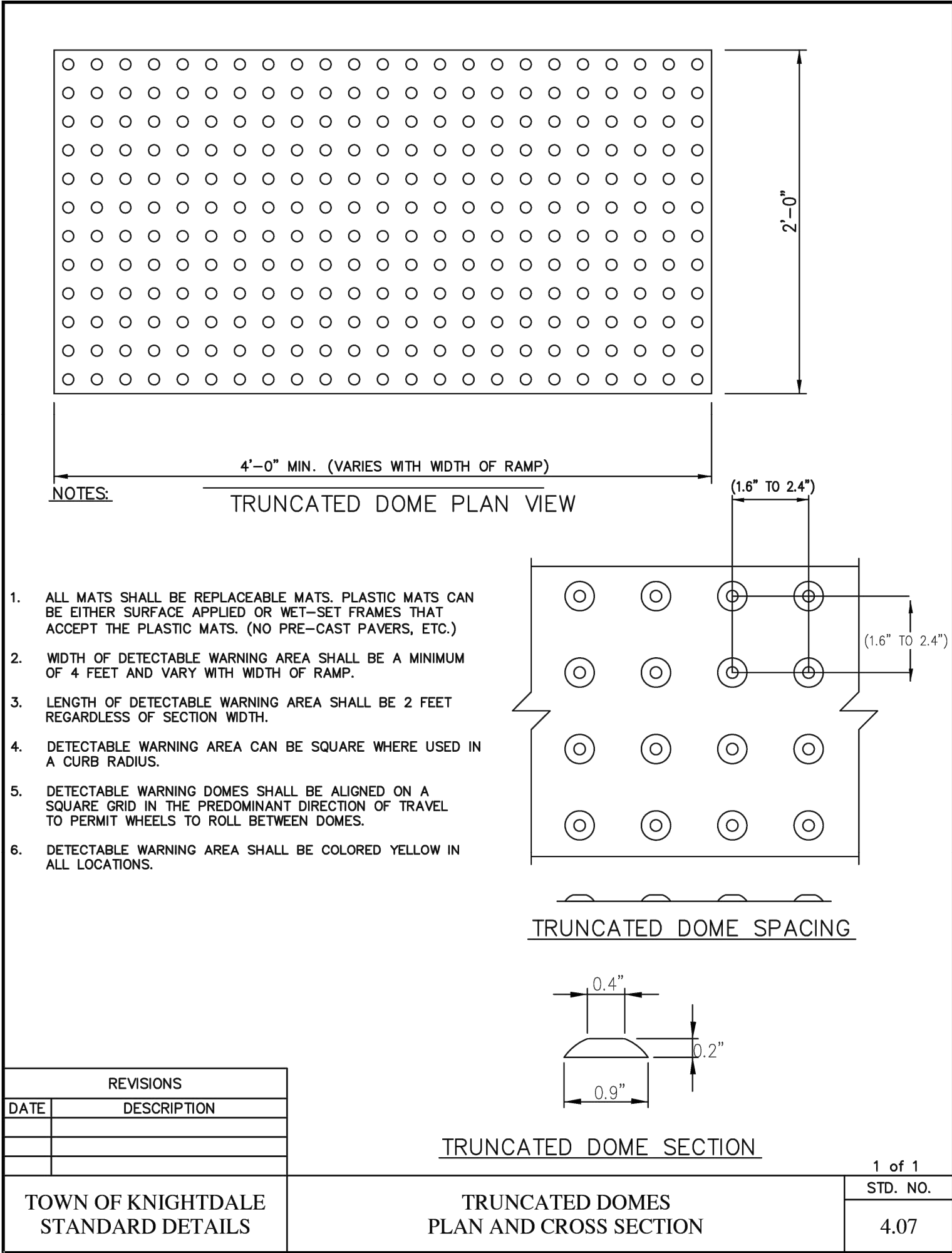
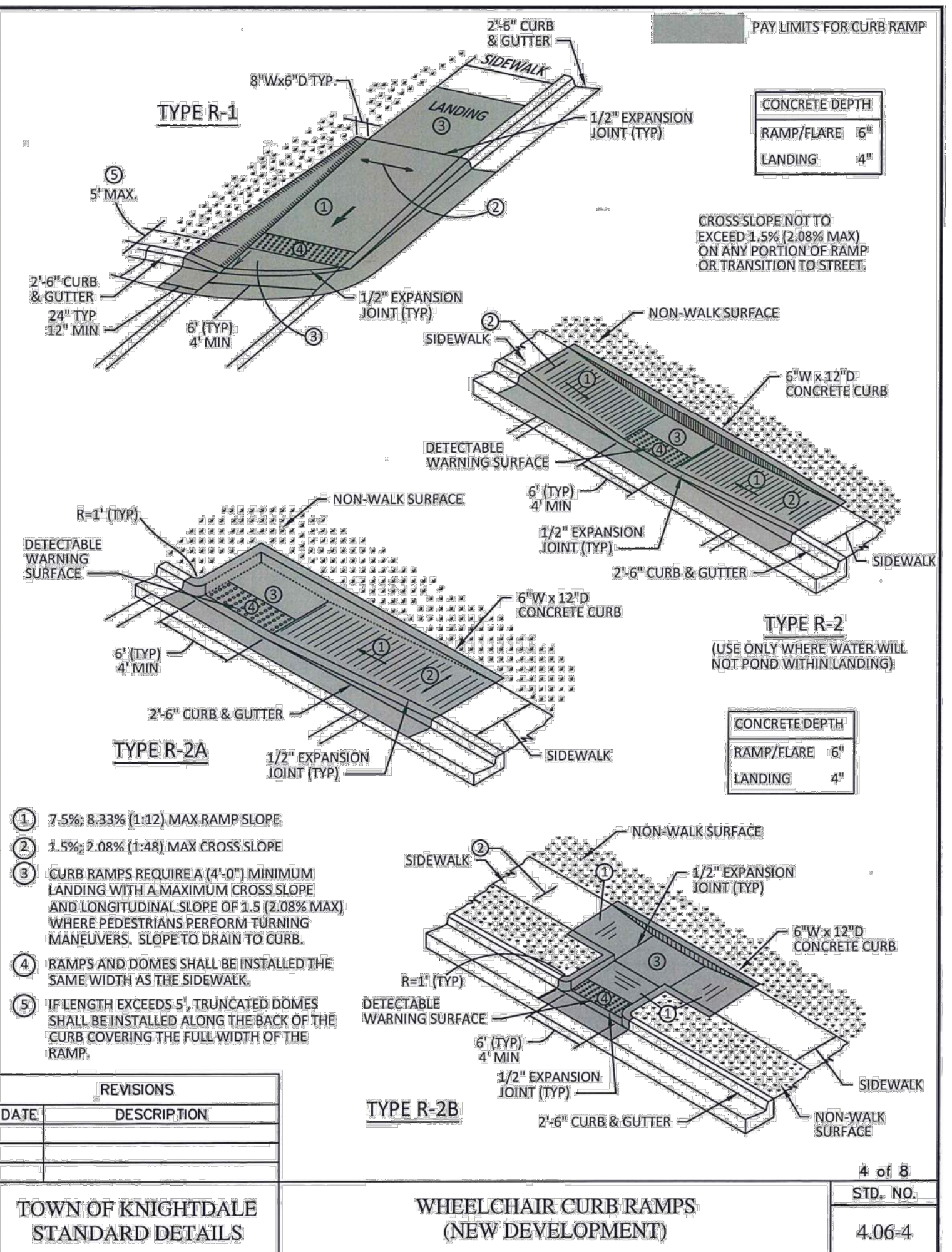
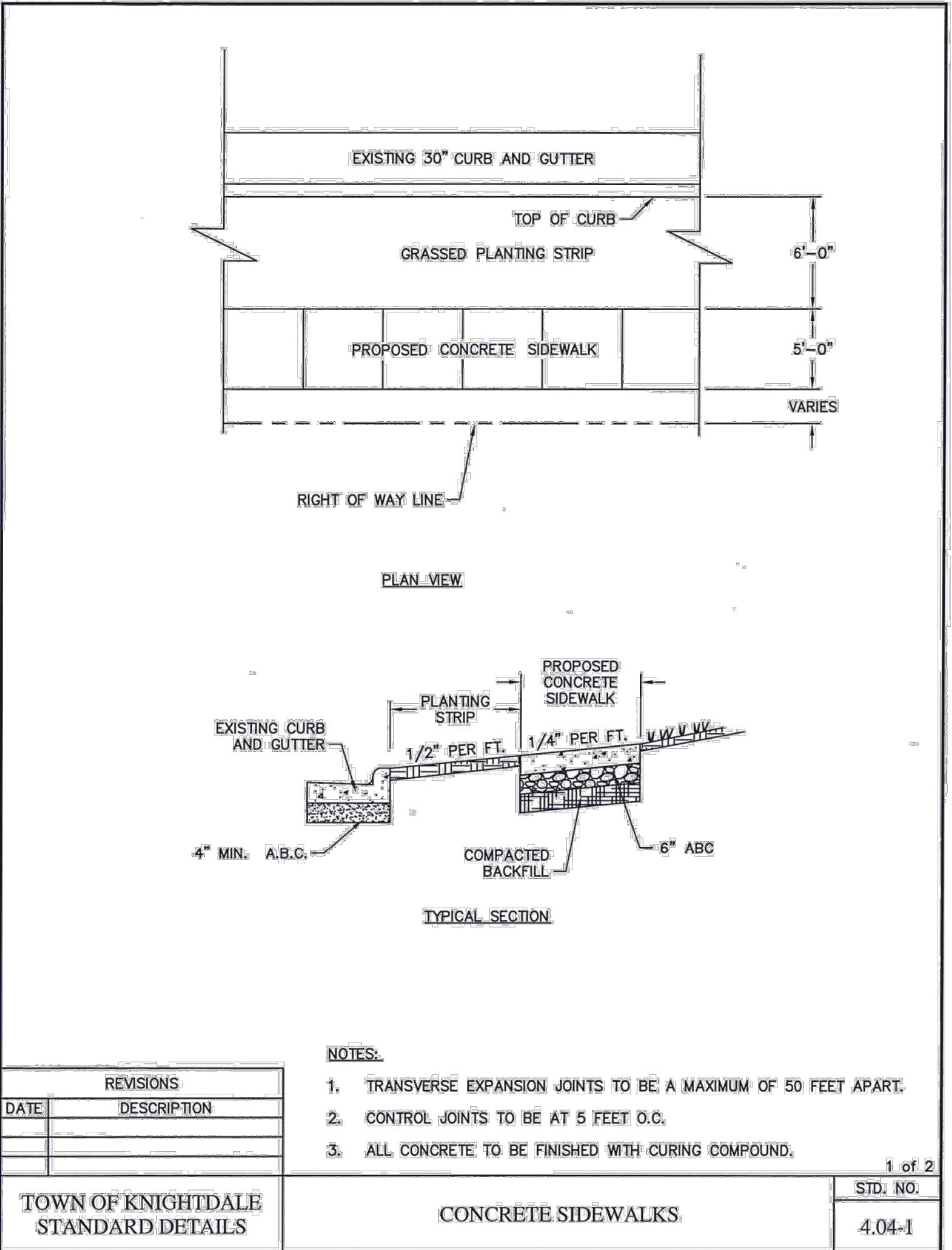
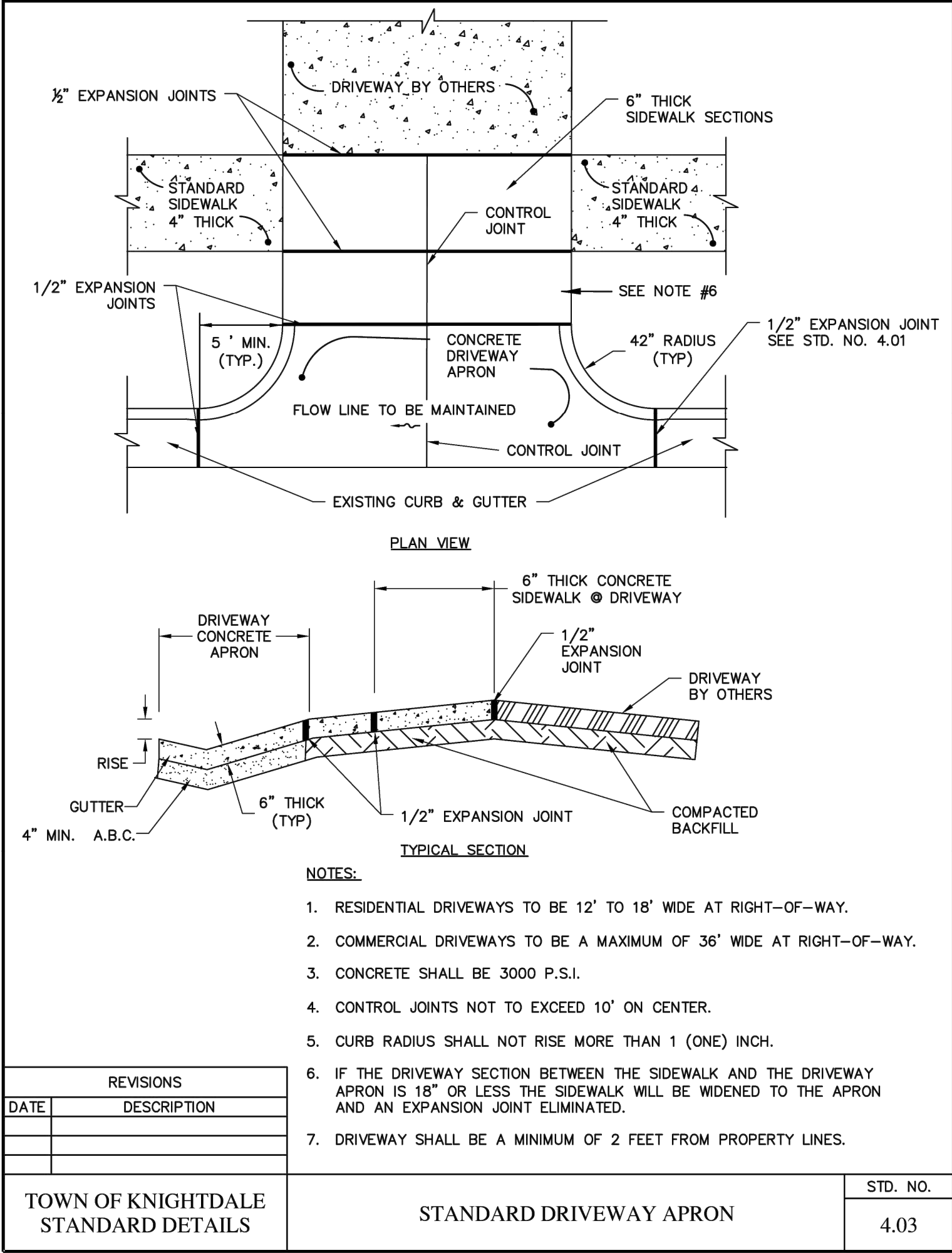
NOTES

- A. ALL MOUNTING HARDWARE TO BE GALVANIZED STEEL
- B. PROVIDE SHOP DRAWINGS PRIOR TO INSTALLATION

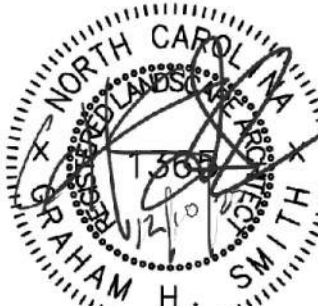
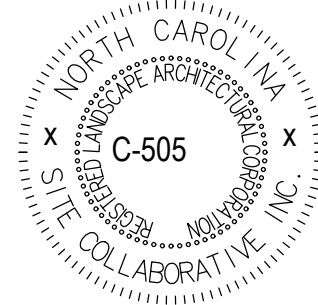


1 DUMPSTER ENCLOSURE  
SCALE: 1/2" = 1'-0"

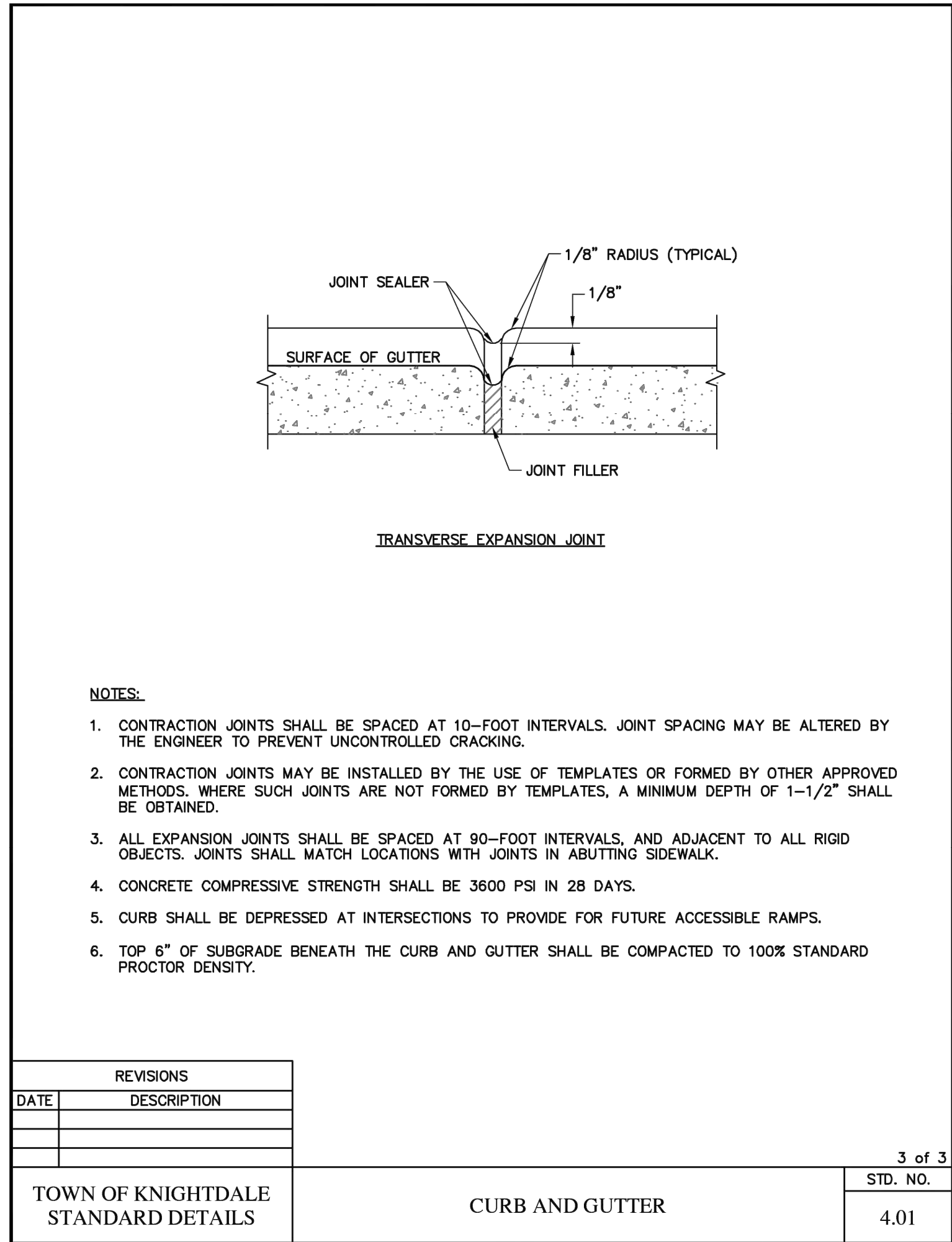
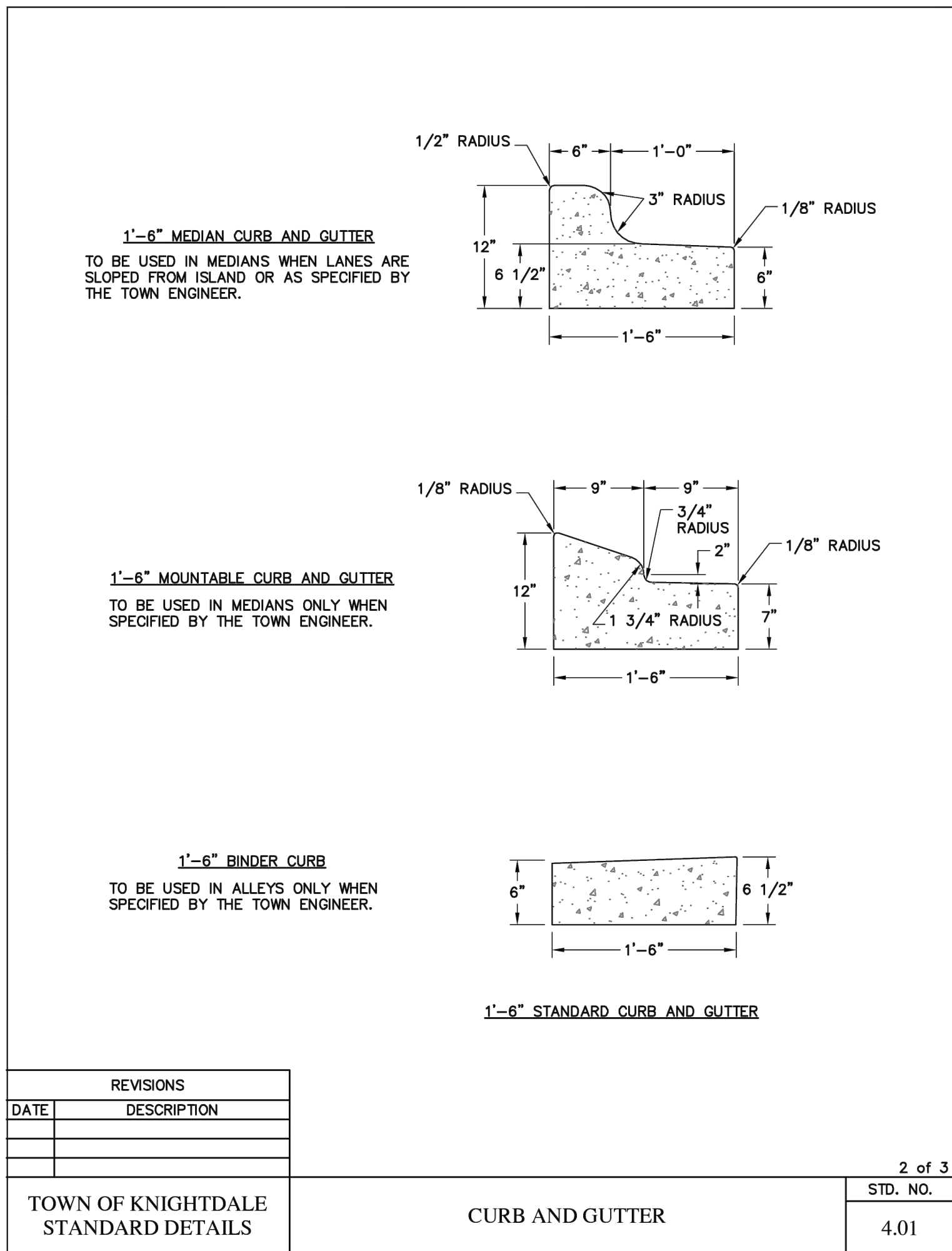
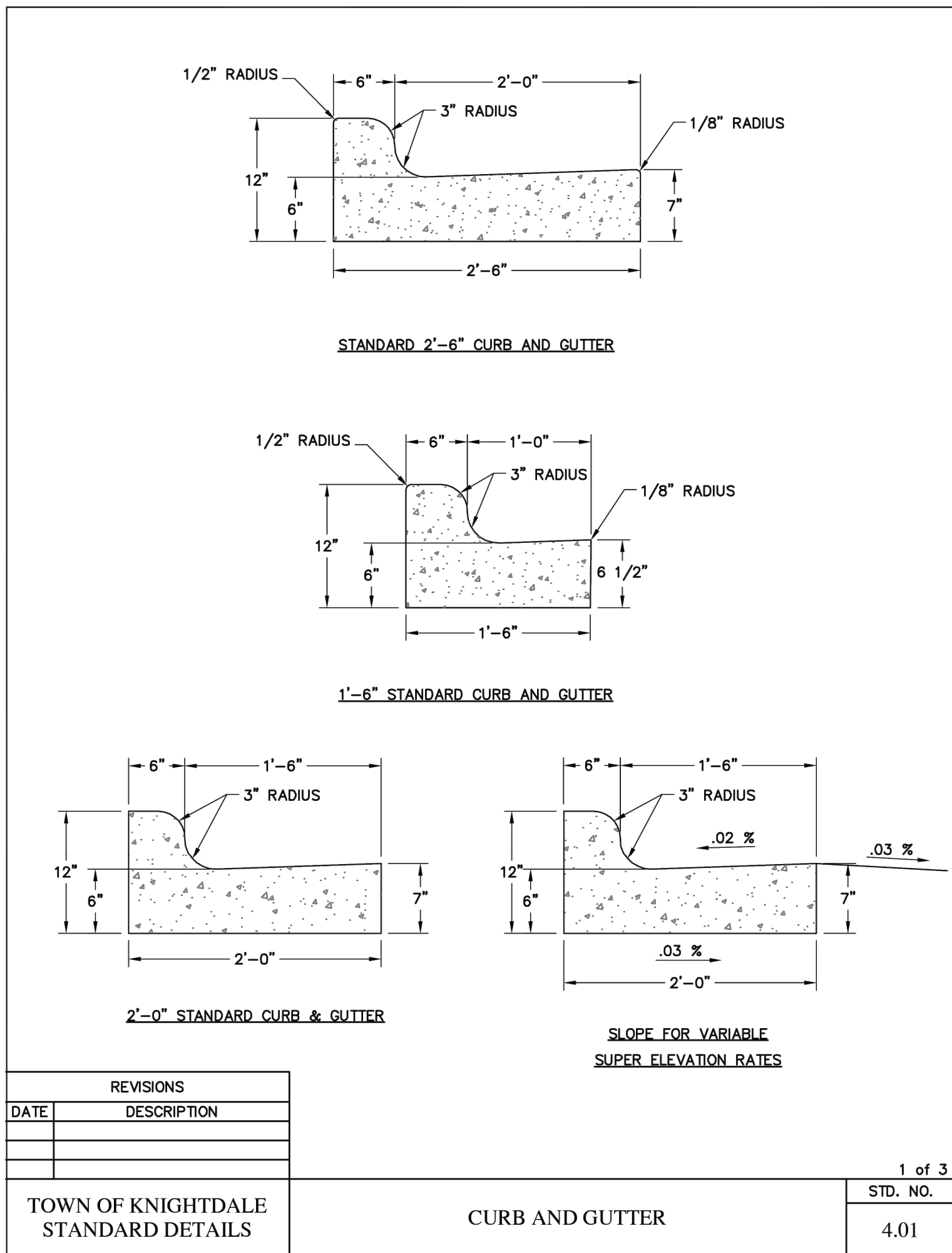
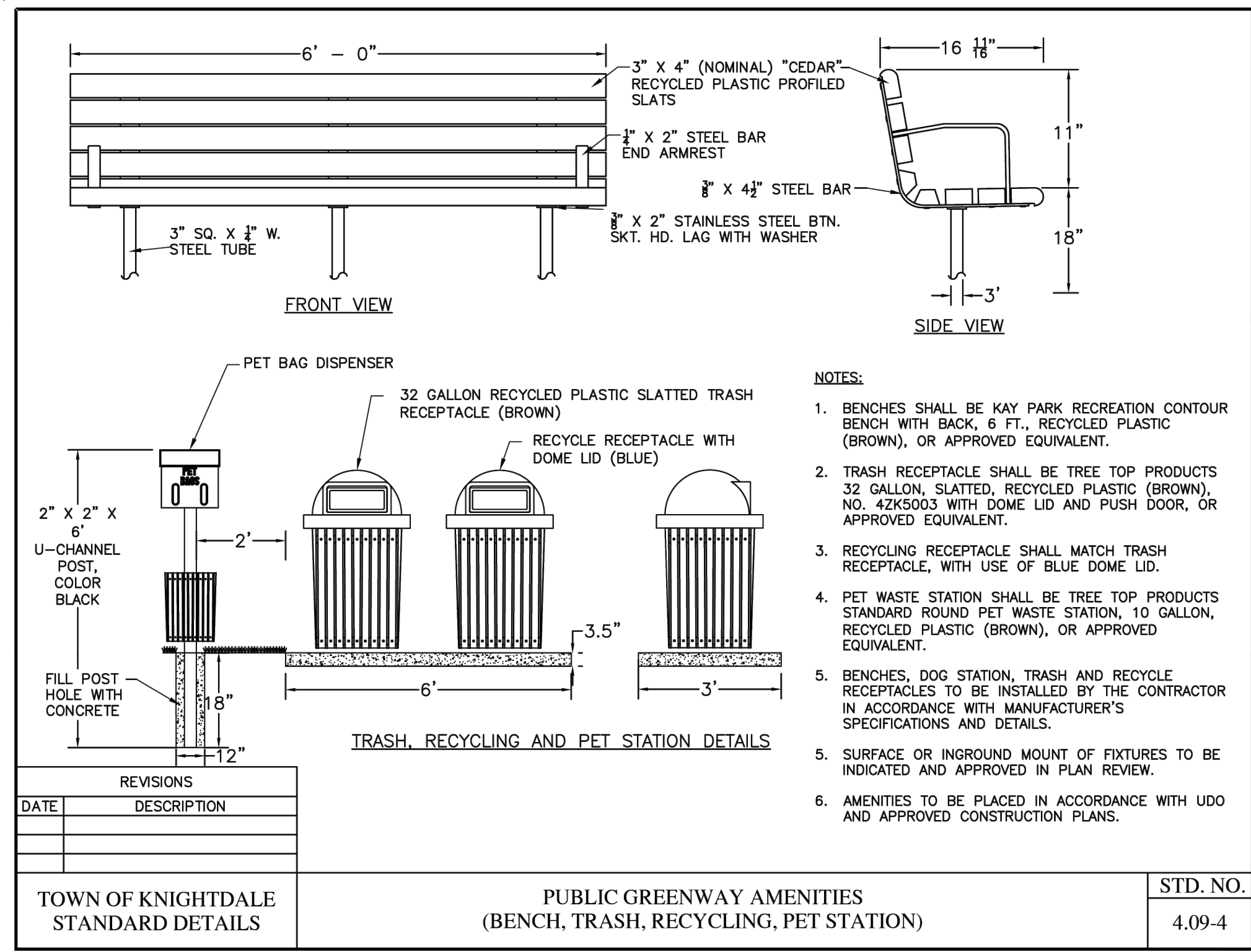
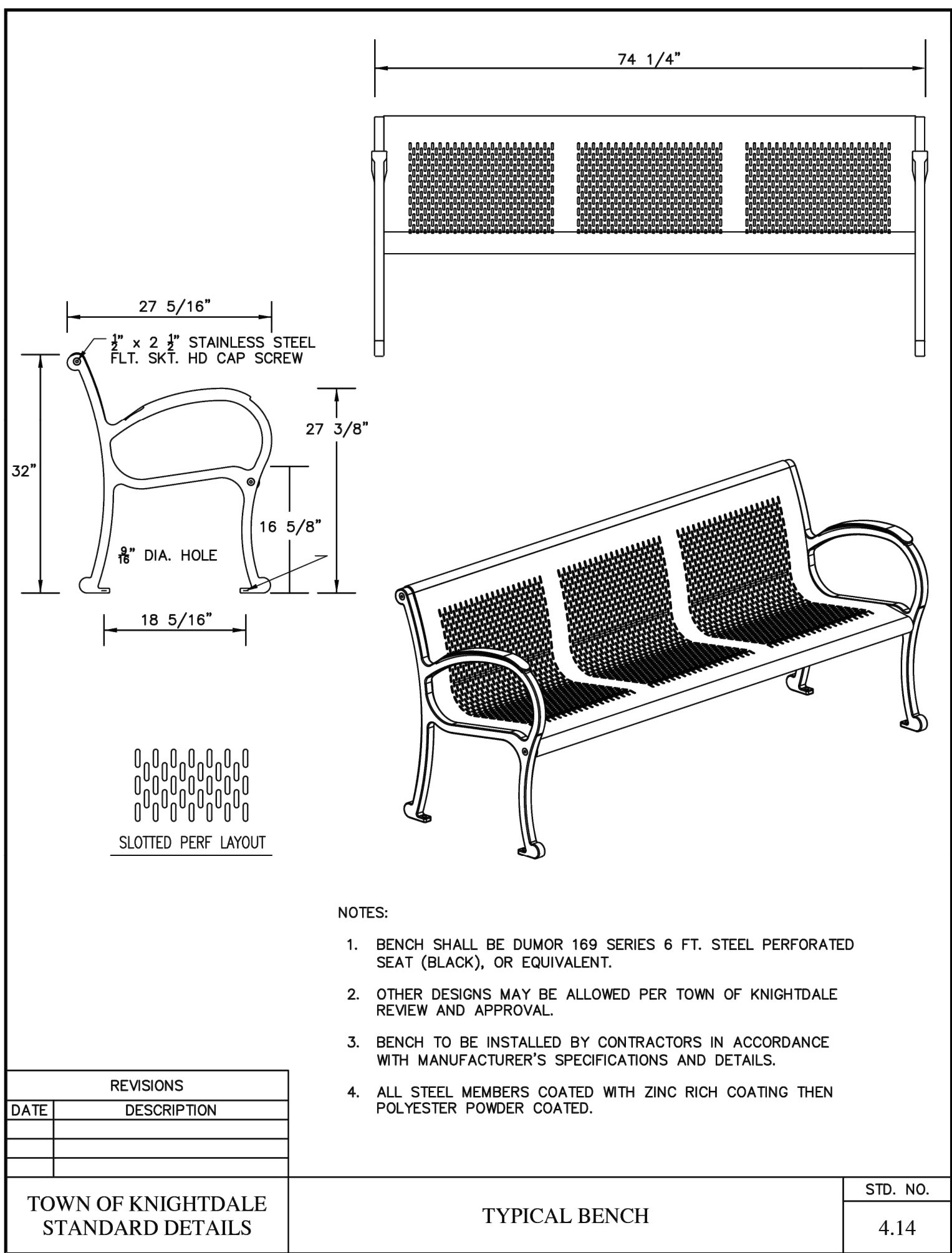
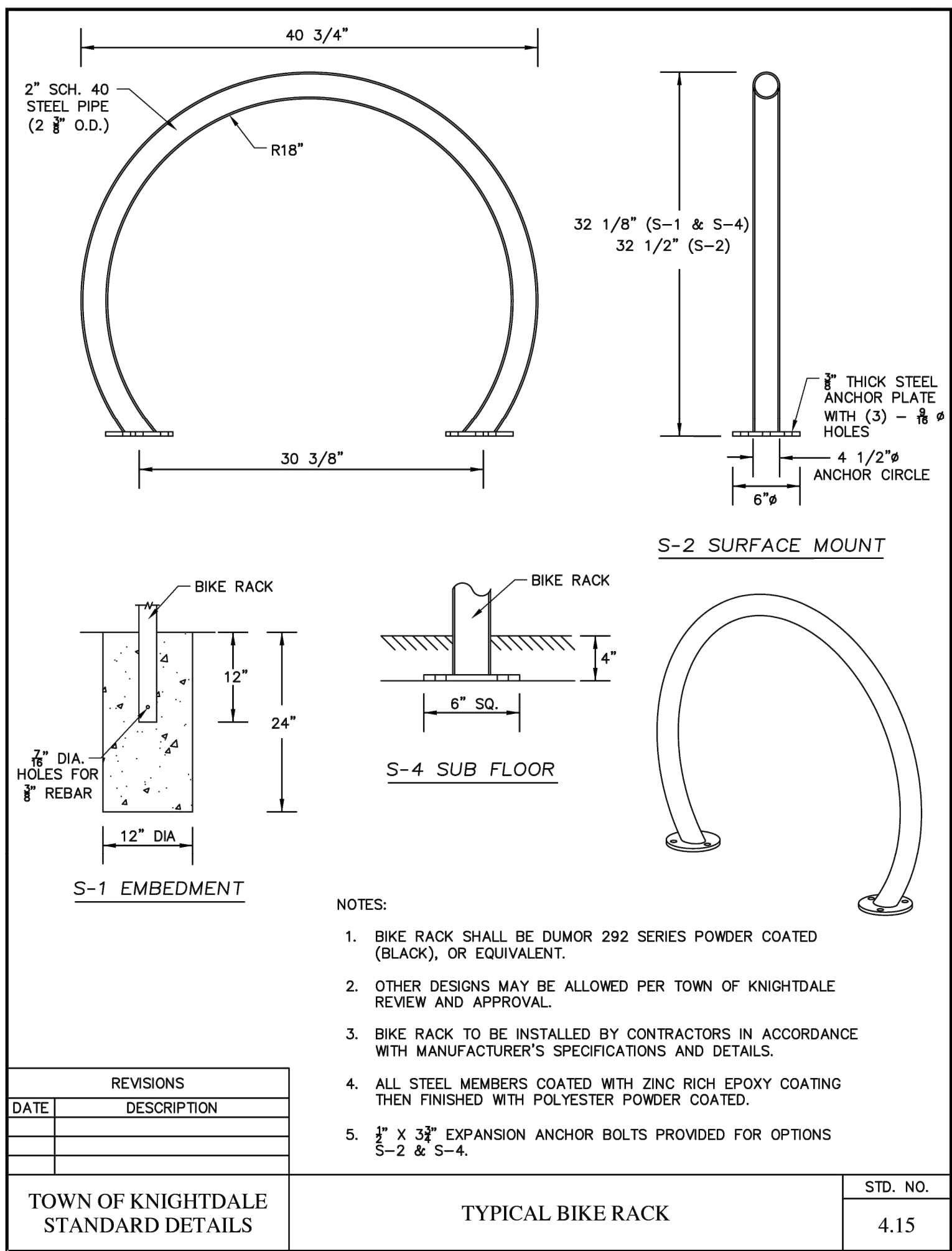








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# BIG OAK VET HOSPITAL

## VETS PETS

### 1004 BIG OAK COURT

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

DATE: 08.11.2025

1. RESUBMITTAL 12.10.2025

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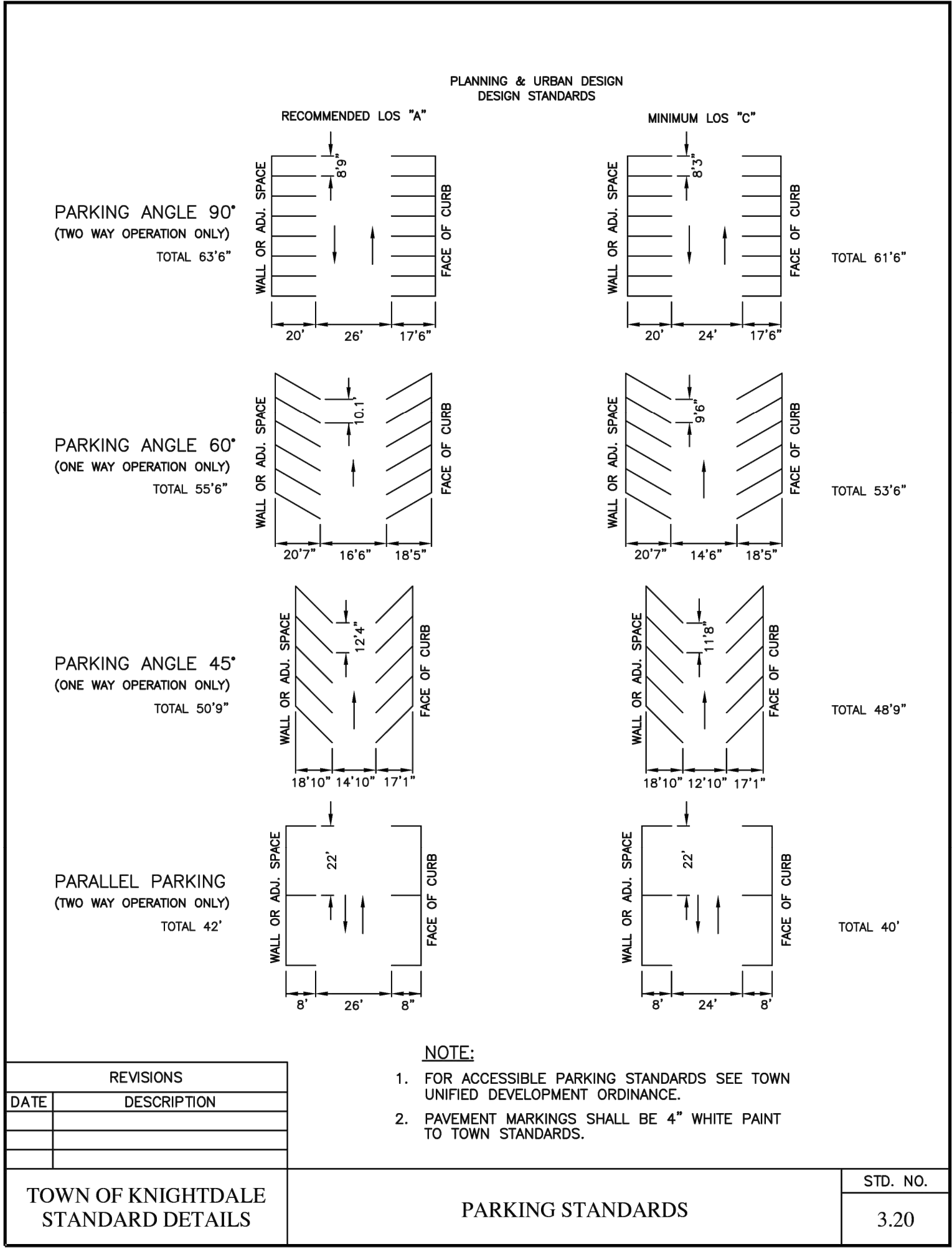
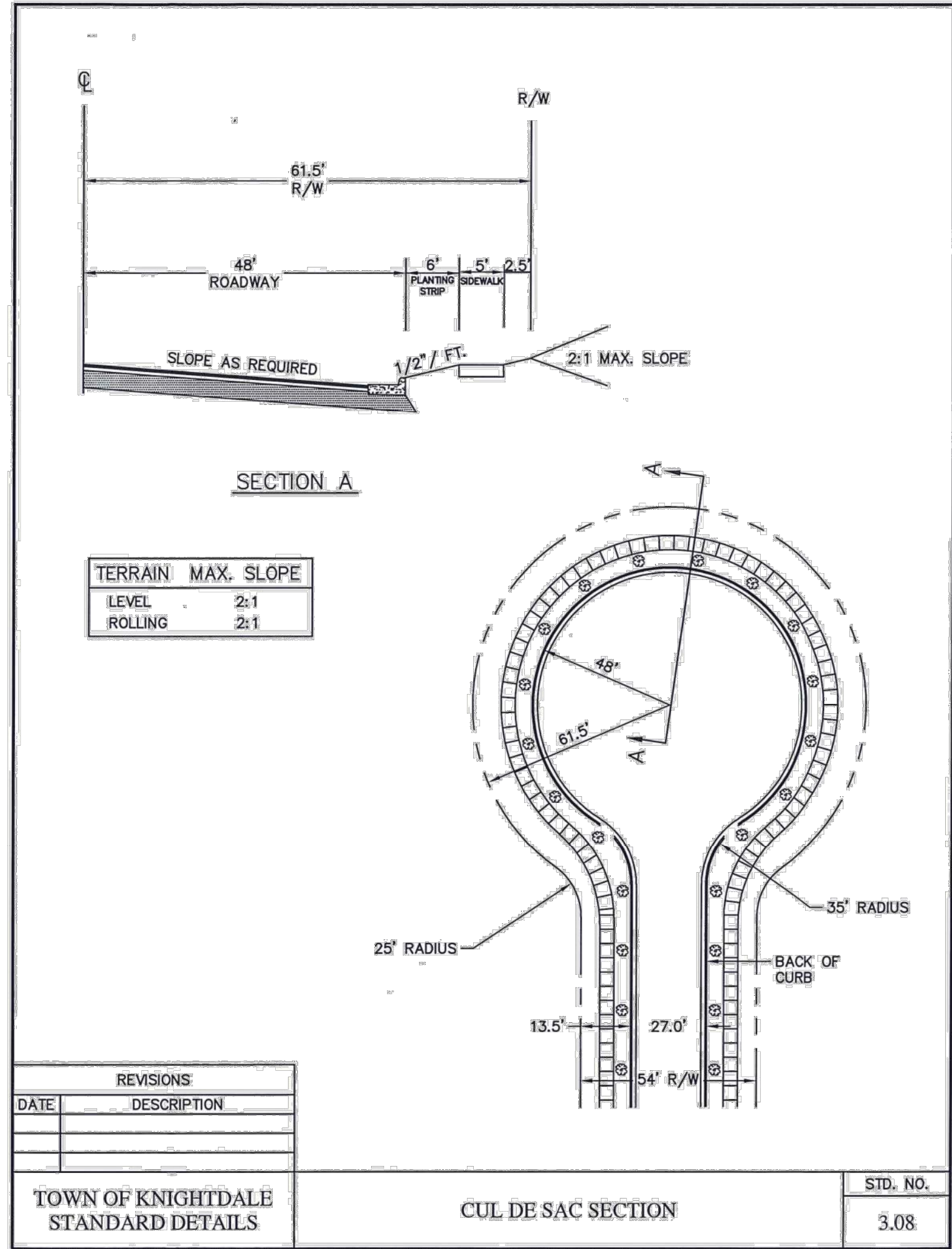
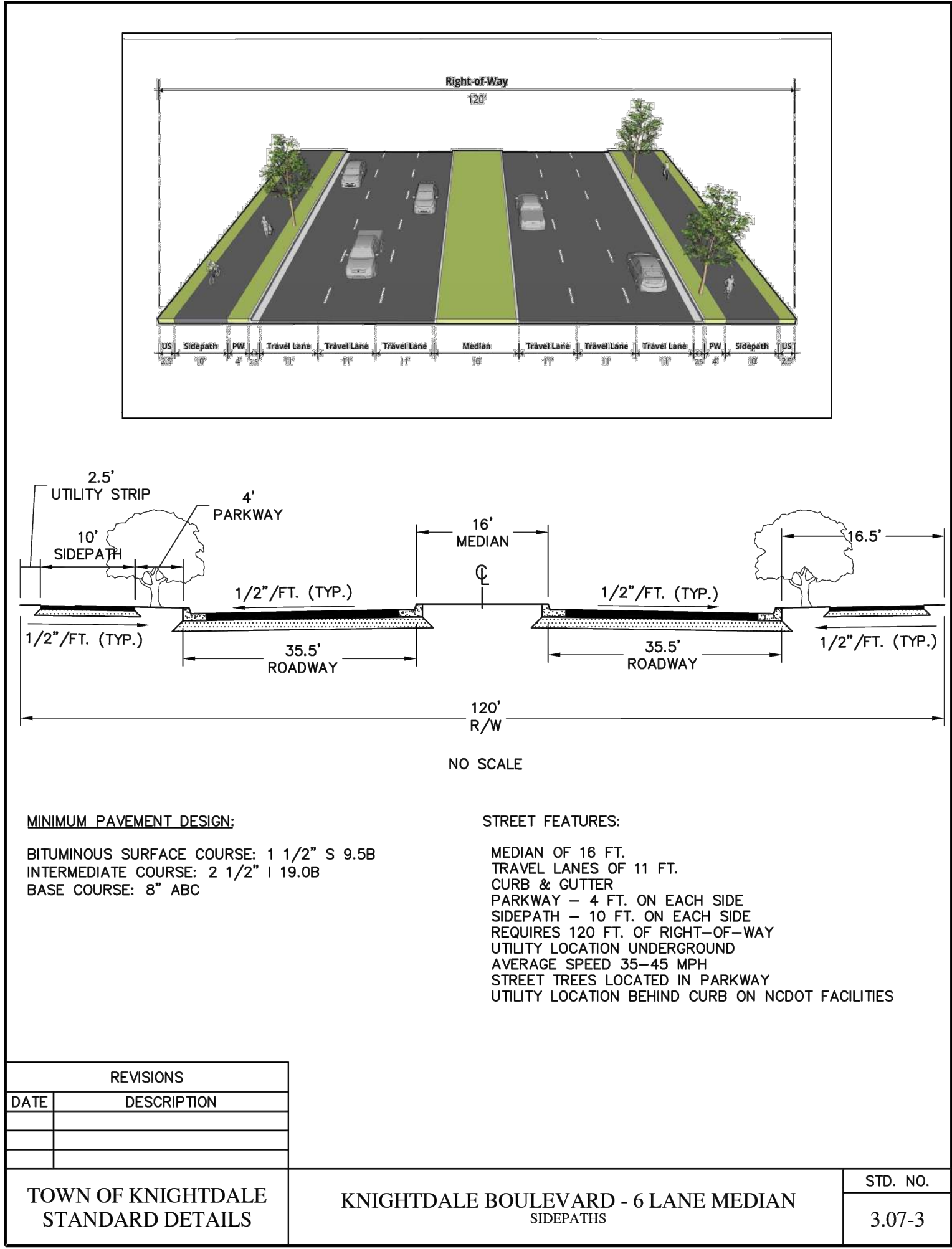
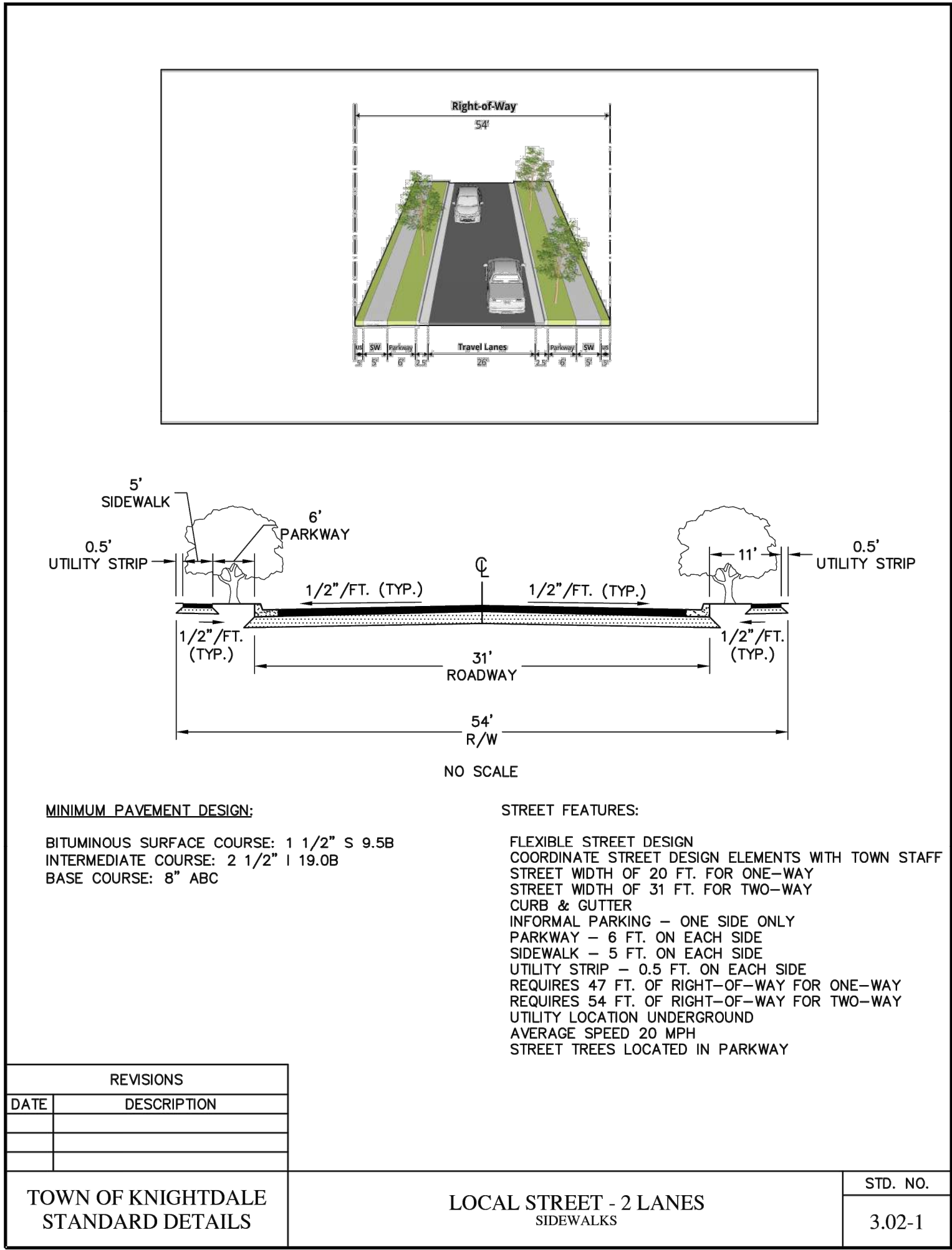
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TOWN DETAILS

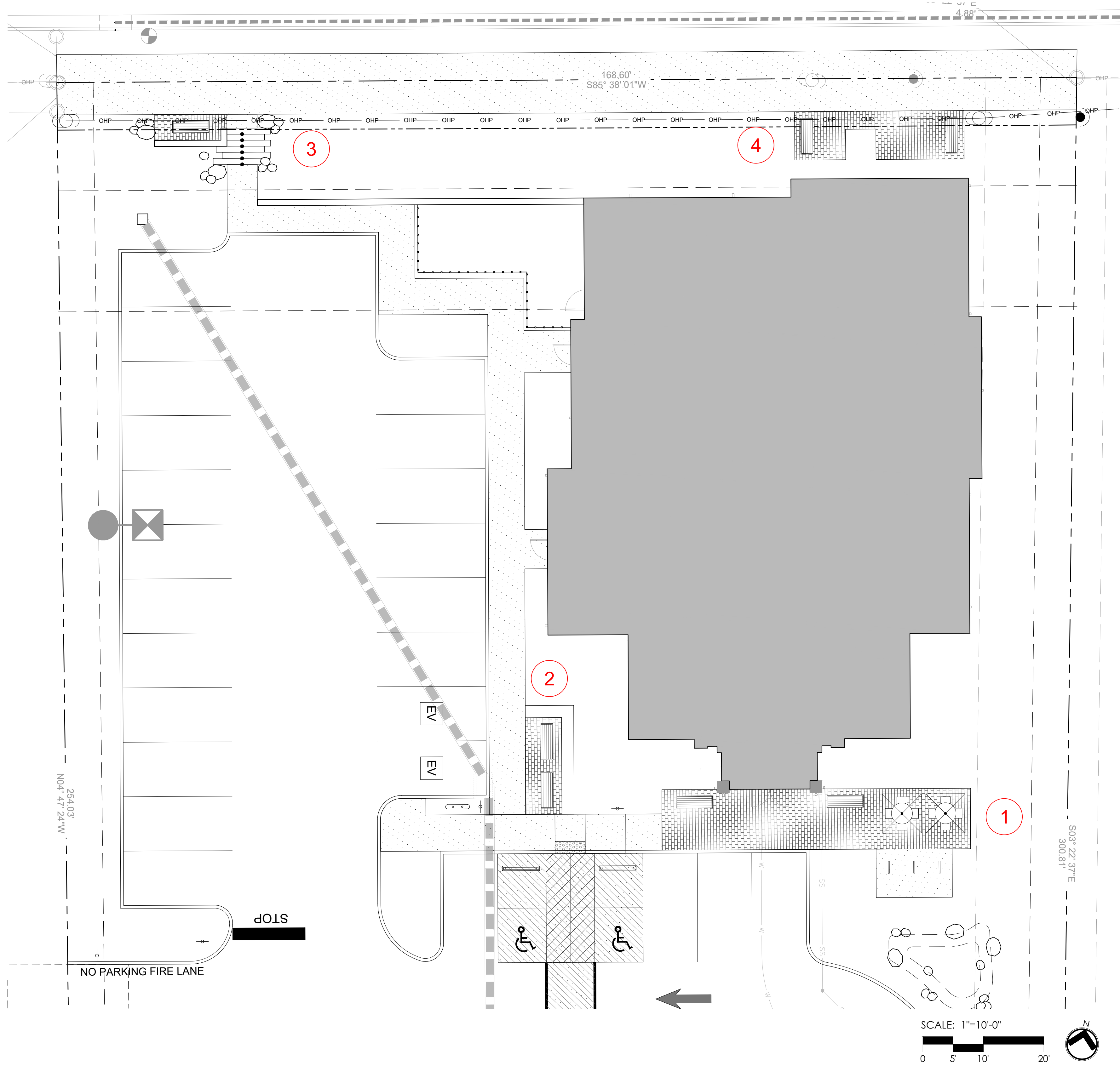
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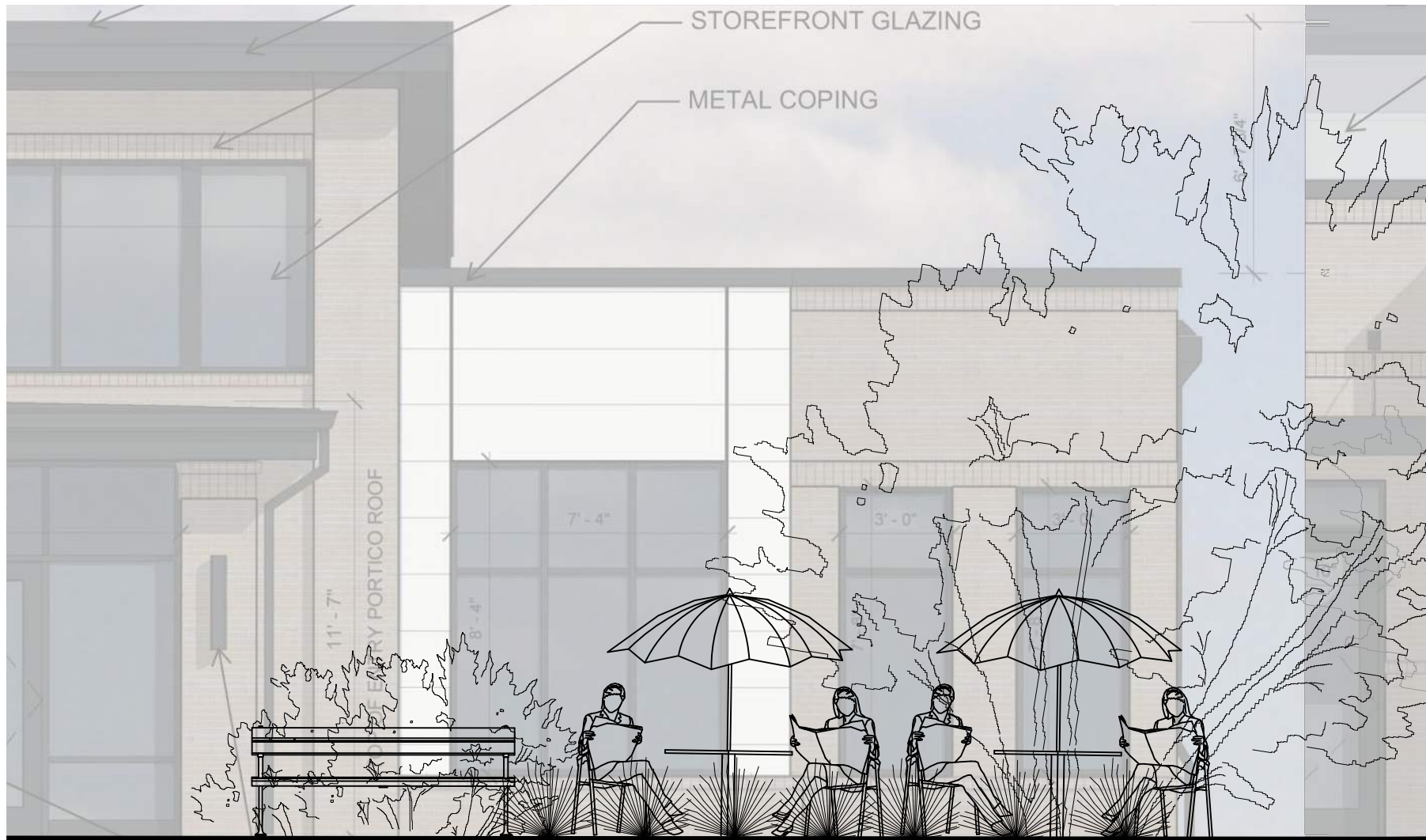




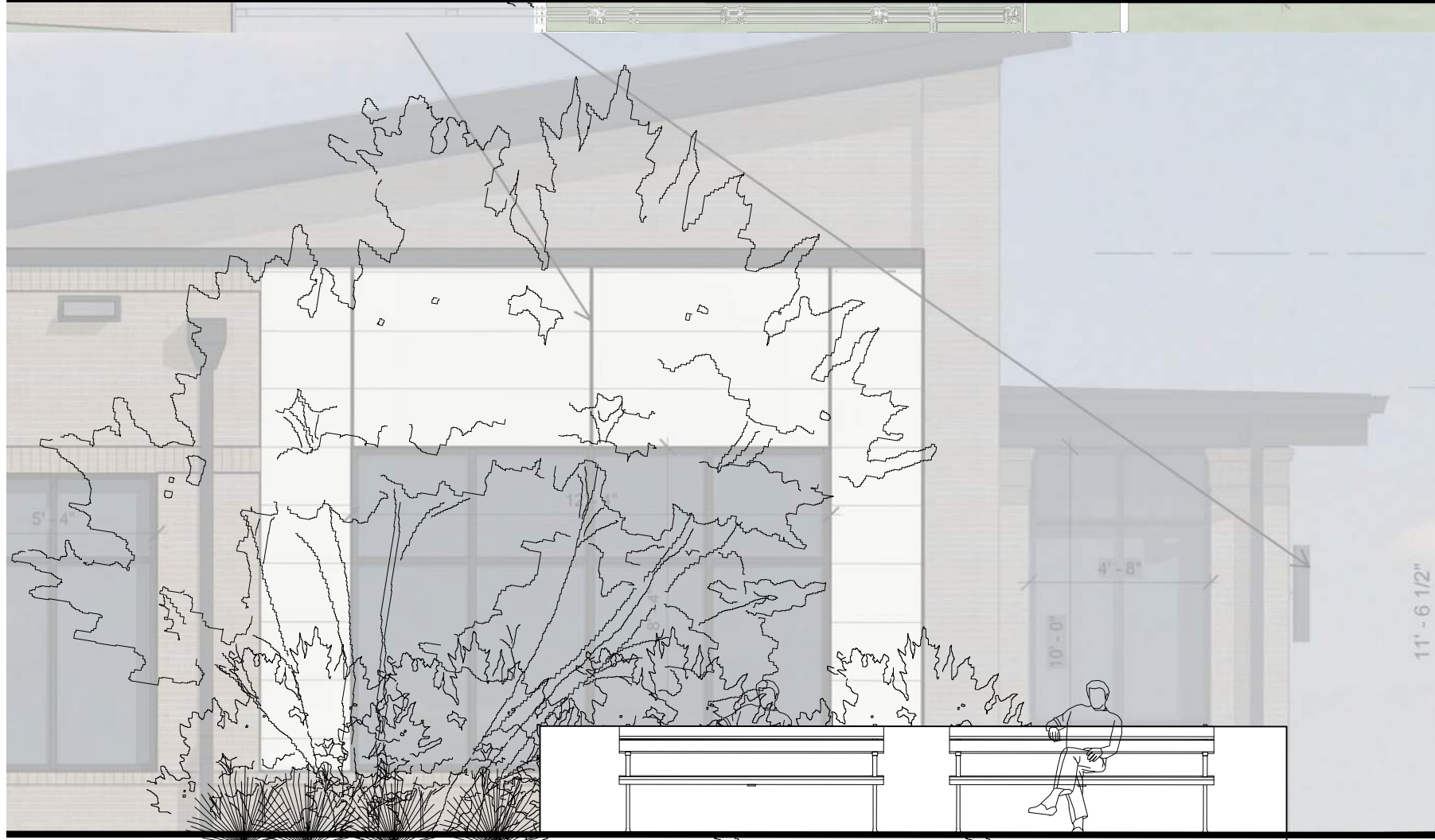




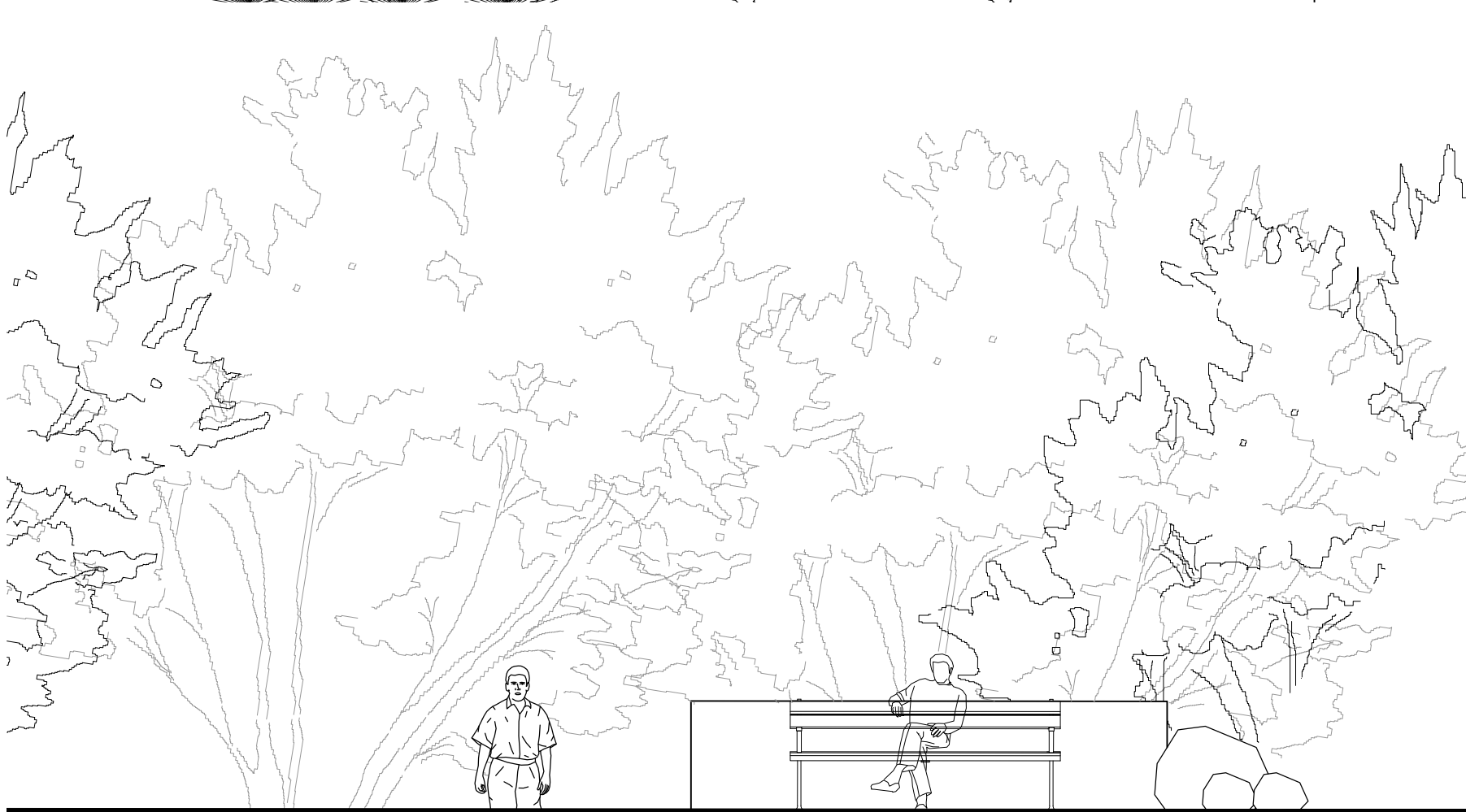
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2



3



4



**BIG OAK VET HOSPITAL  
VETS PETS  
1004 BIG OAK COURT**

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

DATE: 08.11.2025  
1. RESUBMITTAL 12.10.2025

SHEET TITLE:  
**PUBLIC  
GATHERING  
SPACE**

SHEET NUMBER:

**L212**



**BIG OAK VET HOSPITAL**  
**VETS PETS**  
**1004 BIG OAK COURT**

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

DATE: 08.11.2025  
1. RESUBMITTAL 12.10.2025

SHEET TITLE:  
GRADING PLAN

SHEET NUMBER:

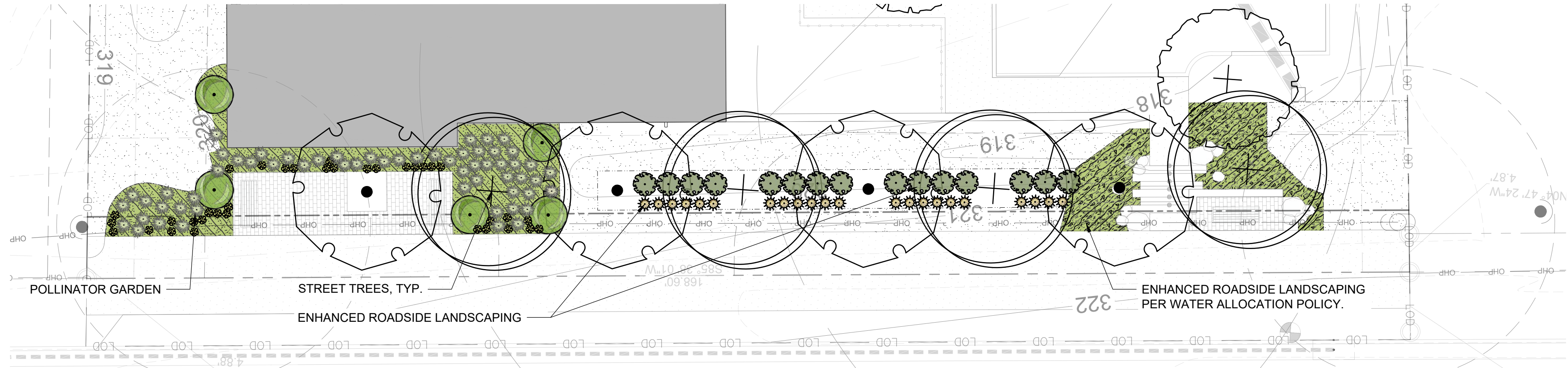
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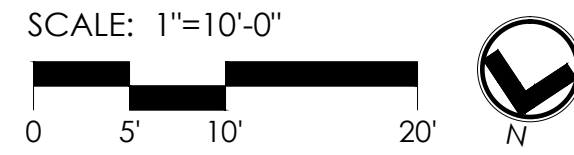


US HIGHWAY 64  
KNIGHTDALE BLVD  
(VARIABLE WIDTH PUBLIC R/W)

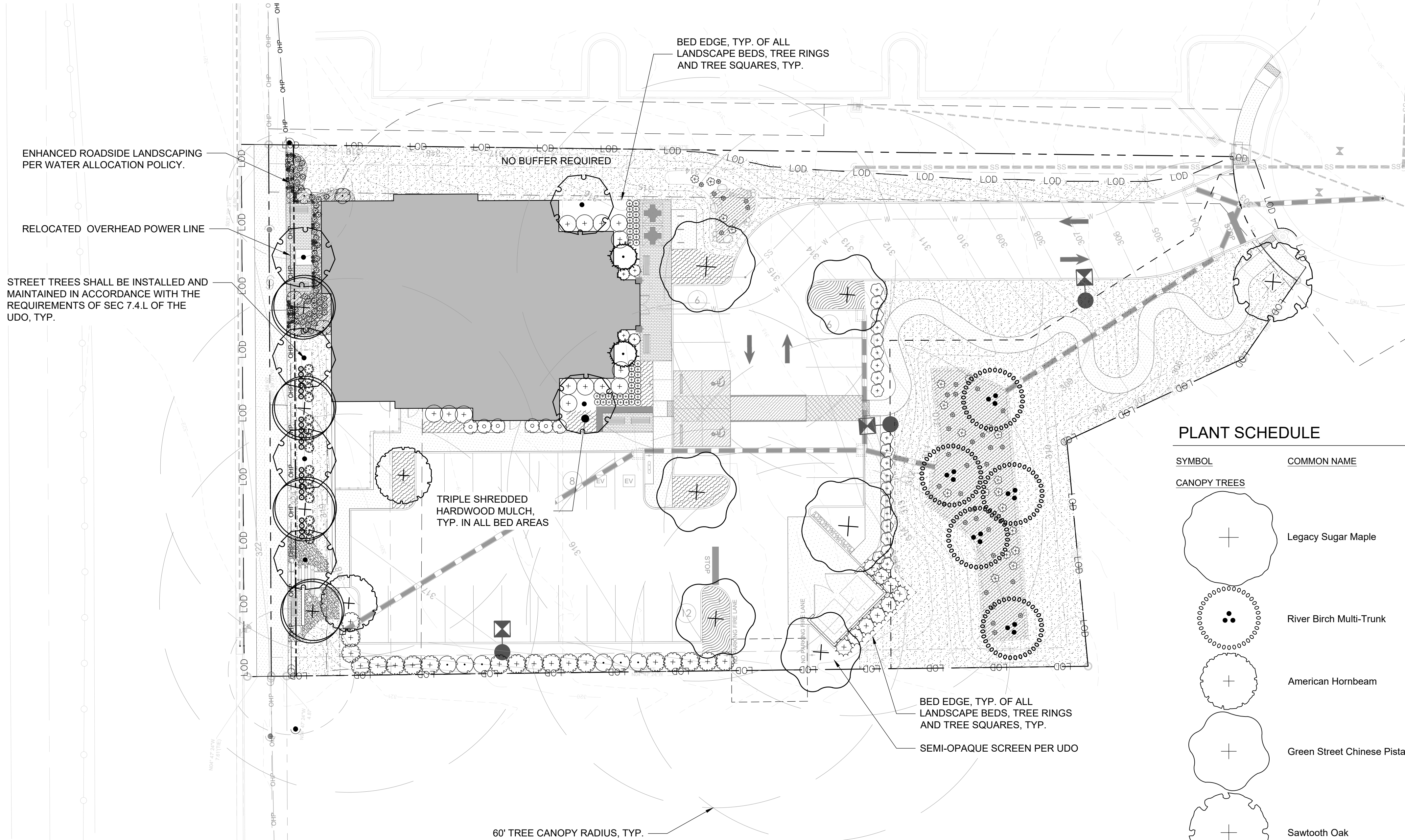
SEE NCDOT PROJECT # 6.408004B  
HM 3, PG 193



ENHANCED ROADSIDE LANDSCAPE ENLARGEMENT

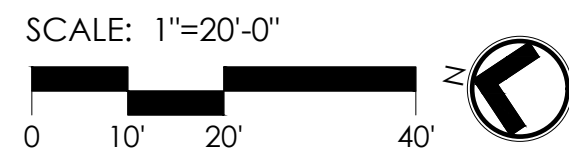


BIG OAK CT  
(60' PUBLIC RW)



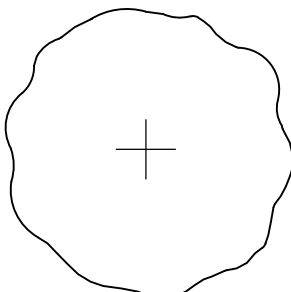
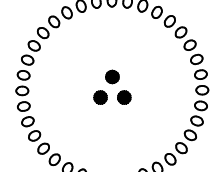
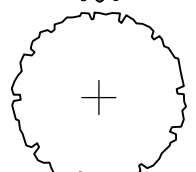
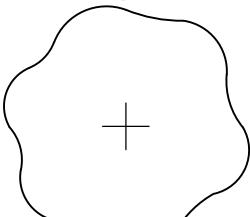
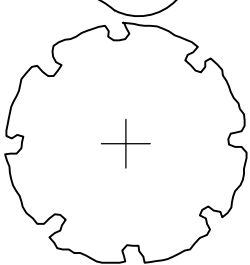
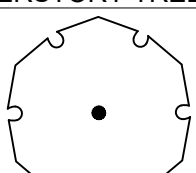

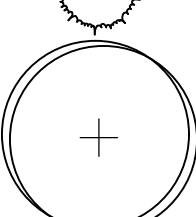
















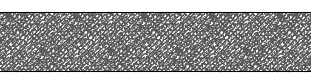



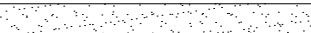
PLANT SCHEDULE

SYMBOL	COMMON NAME	SYMBOL	COMMON NAME
CANOPY TREES		SHRUBS	
	Legacy Sugar Maple		Encore Azalea
	River Birch Multi-Trunk		Shishi Gashira Camellia
	American Hornbeam		Panicke Hydrangea
	Green Street Chinese Pistache		Gatsby Gal® Oakleaf Hydrangea
	Sawtooth Oak		Dwarf Burford Holly
UNDERSTORY TREES (KEY)			Inkberry Holly
	Kousa Dogwood		Dwarf Yaupon Holly
	Nellie R. Stevens Holly		Oak Leaf Holly
	Japanese Flowering Cherry		Virginia Sweetspire
			Spicebush
		GRASSES / PERENNIALS	
			Blue Flag Iris
			Pink Cloud Pink Muhly Grass
			Cassian Fountain Grass
			Little Bunny Fountain Grass
			Black-eyed Susan
		GROUND COVERS	
			Creek Sedge
			Appalachian Sedge
			Cherokee Sedge
			Silver Carpet Dymondia
			Blue Fescue
LANDSCAPE REQUIREMENTS			
STREET TREES			
REQUIRED: (1) SHADE TREE PER 40' OF FRONTAGE OR (1) UNDERSTORY TREE PER 20' OF FRONTAGE DUE TO OVERHEAD UTILITY LINE			
KNIGHTDALE BLVD. FRONTAGE: 169'			
REQUIRED: (4) SHADE TREES			
PROVIDED: (8) UNDERSTORY TREES (OVERHEAD UTILITY LINES)			
BIG OAK CT FRONTAGE: 24' (46' - 22' DRIVE)			
REQUIRED: (1) SHADE TREES			
PROVIDED: (1) SHADE TREES			





PLANT SCHEDULE

SYMBOL	COMMON NAME	BOTANICAL NAME	CALIPER	INSTALL HEIGHT	B&B OR CONT.	FORM	QTY	REMARKS
CANOPY TREES								
	Legacy Sugar Maple	Acer saccharum 'Legacy'	2 1/2"	14' MIN.	B&B	SINGLE LEADER	2	Full, Dense, Upright / Strong Central Leader
	River Birch Multi-Trunk	Betula nigra	1 1/2"	8-10' MIN.	B&B	2-3 TRUNKS	5	Bioretention Pond
	American Hornbeam	Carpinus caroliniana	3 1/2"	10-12' MIN.	B&B	SINGLE LEADER	2	Parking Lot Interior
	Green Street Chinese Pistache	Pistacia chinensis 'Green Street'	2 1/2"	12-14' MIN.	B&B	SINGLE LEADER	4	Parking Lot Interior
	Sawtooth Oak	Quercus acutissima 'Gobbler'	3" MIN.	10-12' MIN.	B&B	SINGLE LEADER	1	Strong, Central Leader   Street Tree
UNDERSTORY TREES (KEY)								
	Kousa Dogwood	Cornus kousa	1 1/2"	10' MIN.	B&B	SINGLE STEM	6	Street Tree
	Nellie R. Stevens Holly	Ilex x 'Nellie R. Stevens'	1 1/2" MIN.	8-10' MIN.	B&B	SINGLE STEM	2	
	Japanese Flowering Cherry	Prunus serrulata 'Snow Goose'	2 1/2"	10-12' MIN.	B&B	2-3 TRUNKS	4	Street Tree
SYMBOL	COMMON NAME	BOTANICAL NAME	SPACING	INSTALL HEIGHT	INSTALL SPREAD	TYPE	QTY	REMARKS
SHRUBS								
	Encore Azalea	Azalea encore 'Autumn Royalty' TM	AS SHOWN	24" MIN.	36" MIN.		6	Full, Dense
	Shishi Gashira Camellia	Camellia sasanqua 'Shishi Gashira'	AS SHOWN	24" MIN.	24" MIN.		14	Full, Dense, Upright
	Panic Hydrangea	Hydrangea paniculata 'Fire & Ice'	AS SHOWN	24" MIN.	42" MIN.		4	
	Gatsby Gal® Oakleaf Hydrangea	Hydrangea quercifolia 'Brenhill'	AS SHOWN	36" MIN.	36" MIN.		6	Full, Dense
	Dwarf Burford Holly	Ilex cornuta 'Burfordii Nana'	AS SHOWN	18" MIN.	CONTAINER		21	Full, Dense   Screening
	Inkberry Holly	Ilex glabra	AS SHOWN	24" MIN.	24" MIN.		9	Screening
	Dwarf Yaupon Holly	Ilex vomitoria 'Nana'	36"	24" MIN.	24" MIN.		15	Enhanced Roadside Landscaping
	Oak Leaf Holly	Ilex x 'Oak Leaf'	AS SHOWN	24" MIN.	24" MIN.		19	Screening
	Virginia Sweetspire	Itea virginica	AS SHOWN	24" MIN.	24" MIN.		20	
	Spicebush	Lindera benzoin	AS SHOWN	32" MIN.	30" MIN.		5	Enhanced Roadside Landscaping
GRASSES / PERENNIALS								
	Blue Flag Iris	Iris virginica	AS SHOWN	18" MIN.	16" MIN.		35	
	Pink Cloud Pink Muhly Grass	Muhlenbergia capillaris 'Pink Cloud'	AS SHOWN	18" MIN.	18" MIN.		44	Enhanced Roadside Landscaping
	Cassian Fountain Grass	Pennisetum alopecuroides 'Cassian's Choice'	24"	12" MIN.	12" MIN.		59	Enhanced Roadside Landscaping
	Little Bunny Fountain Grass	Pennisetum alopecuroides 'Little Bunny'	AS SHOWN	10" MIN.	12" MIN.		22	Enhanced Roadside Landscaping
	Black-eyed Susan	Rudbeckia hirta	AS SHOWN	12" MIN.	12" MIN.		35	Enhanced Roadside Landscaping
GROUND COVERS								
	Creek Sedge	Carex amphibola	16"	10" MIN.	10" MIN.		442	
	Appalachian Sedge	Carex appalachica	16"	12" MIN.	16" MIN.		123	Enhanced Roadside Landscaping
	Cherokee Sedge	Carex cherokeensis	16"	12" MIN.	12" MIN.		247	Enhanced Roadside Landscaping
	Silver Carpet Dymondia	Dymondia margaretae	20"	10" MIN.	10" MIN.		244	
	Blue Fescue	Festuca glauca	12"	6" MIN.	10" MIN.		335	
TURF								
	Cashmere Zoysia	Zoysia x 'Cashmere'	SOD				11,172 sf	



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BIG OAK VET HOSPITAL  
VETS PETS  
1004 BIG OAK COURT

TOK PROJECT #:  
ZCP-11-24

PROJECT NUMBER:

PROJECT PHASE:  
MASTER PLAN

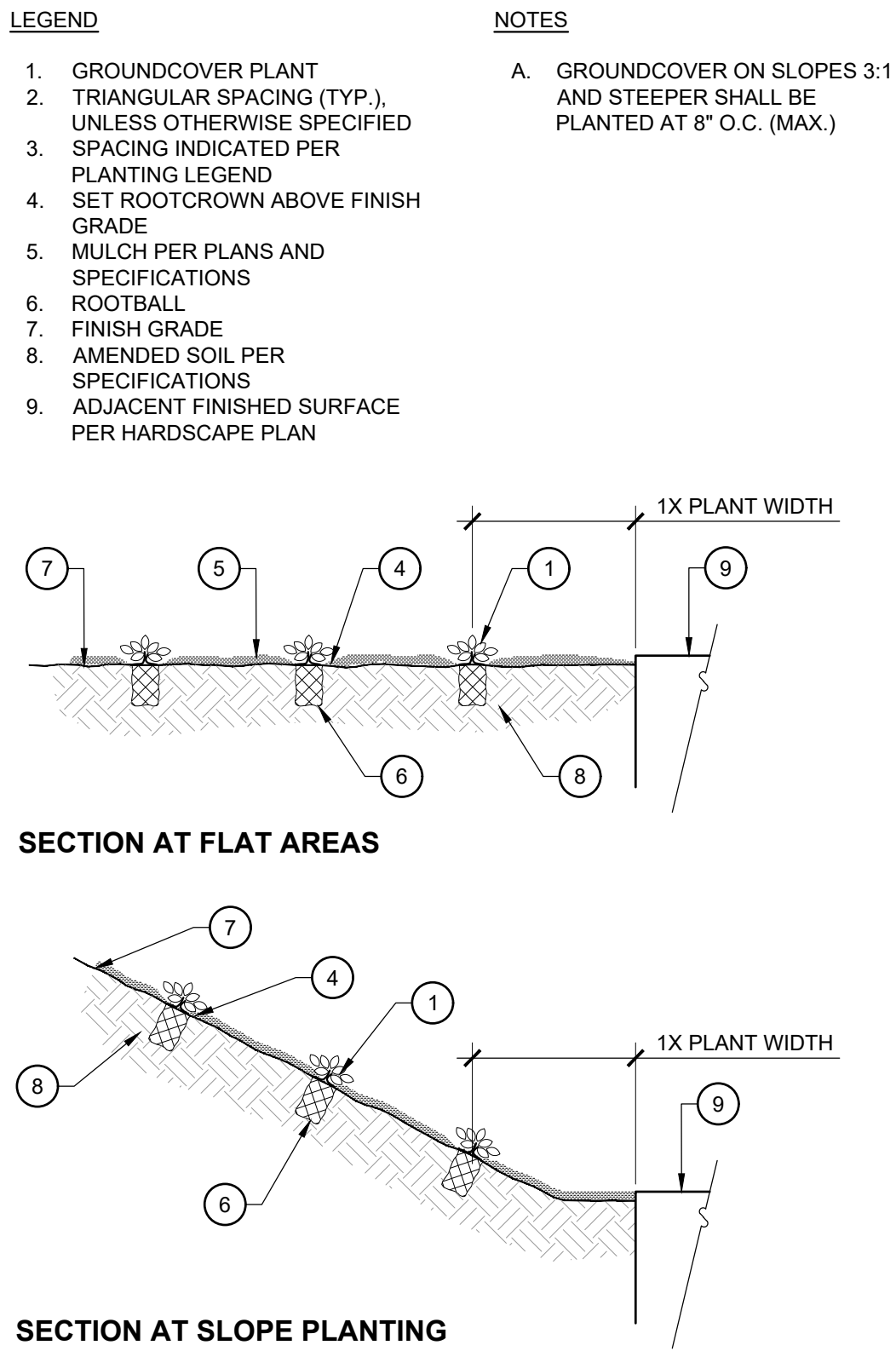
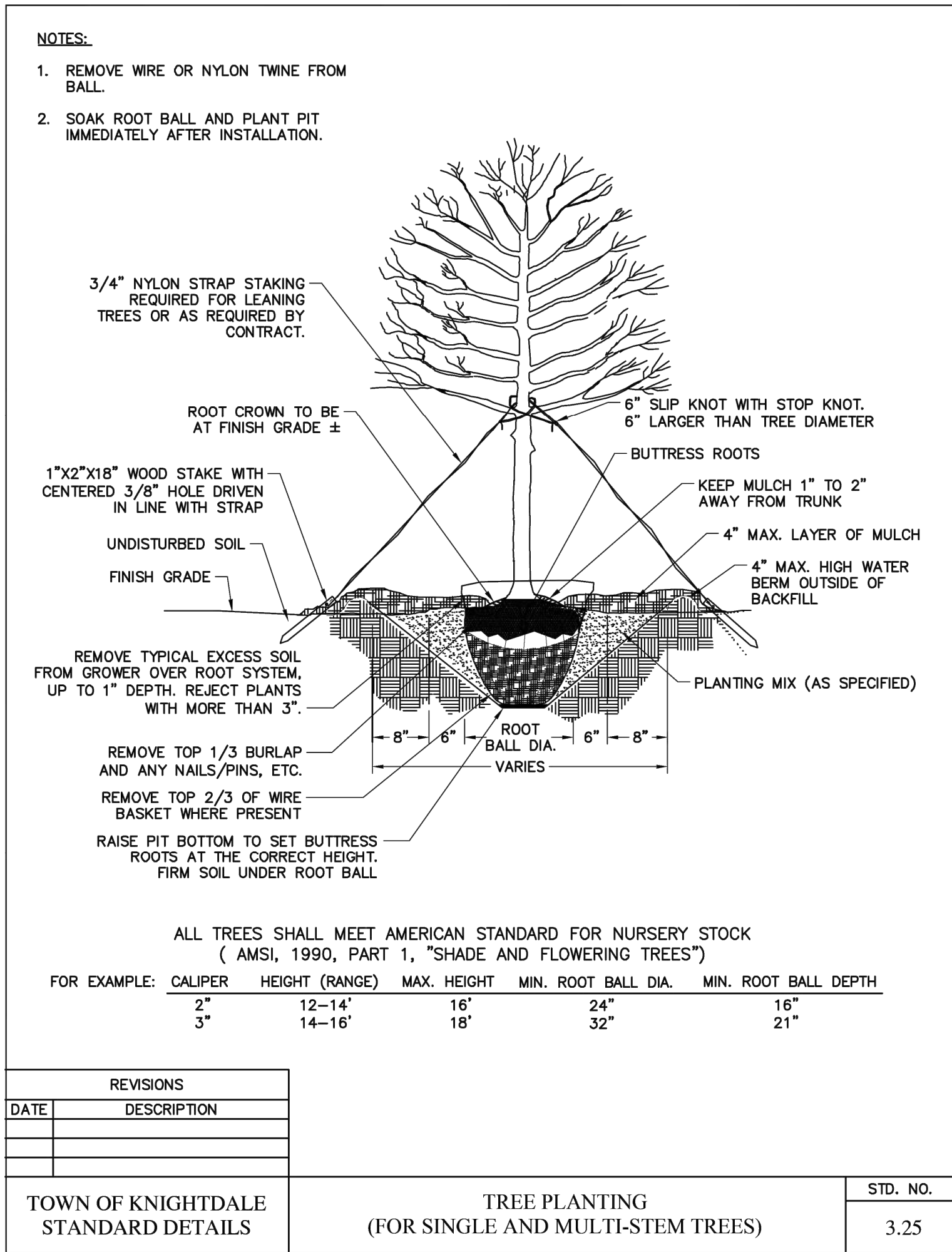
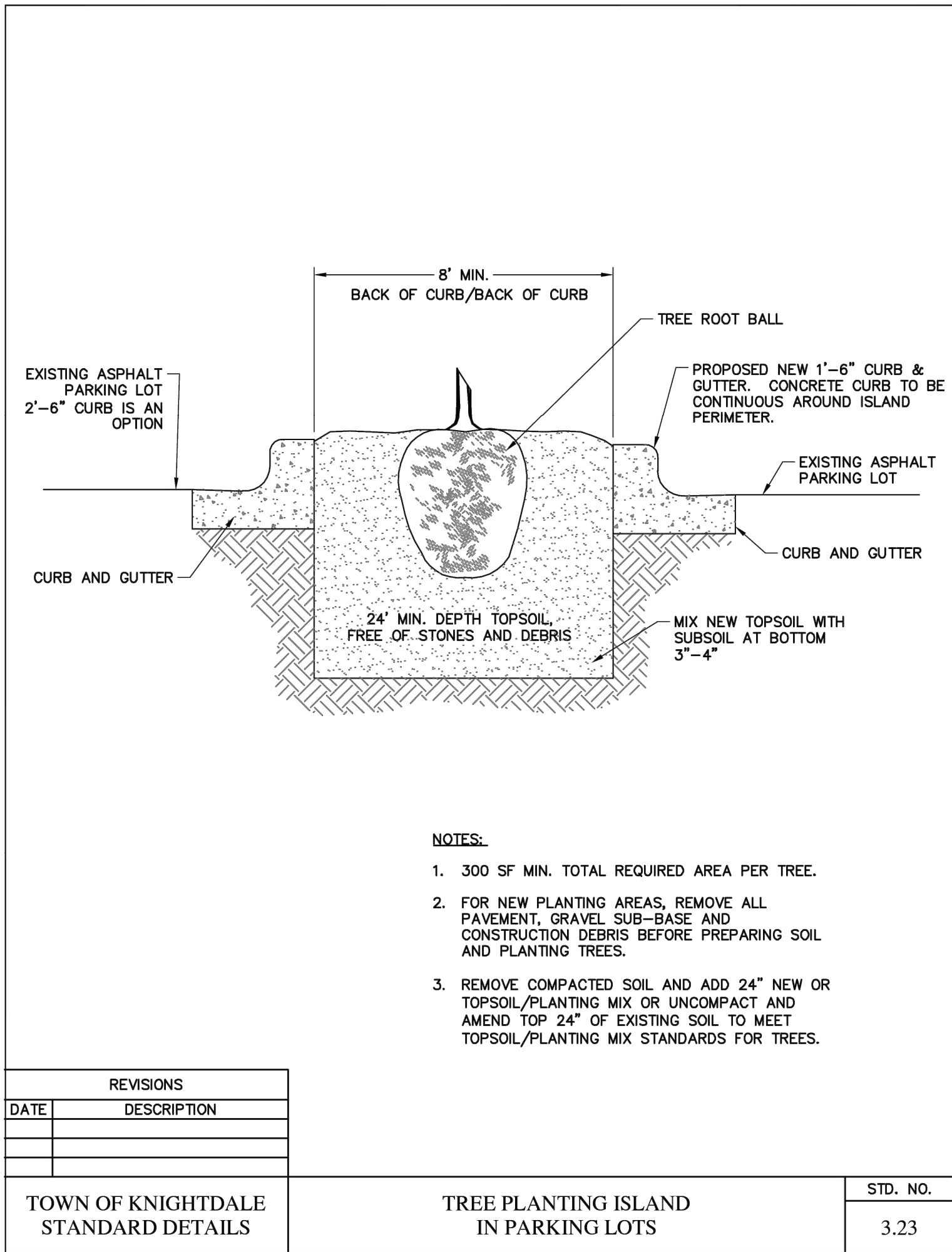
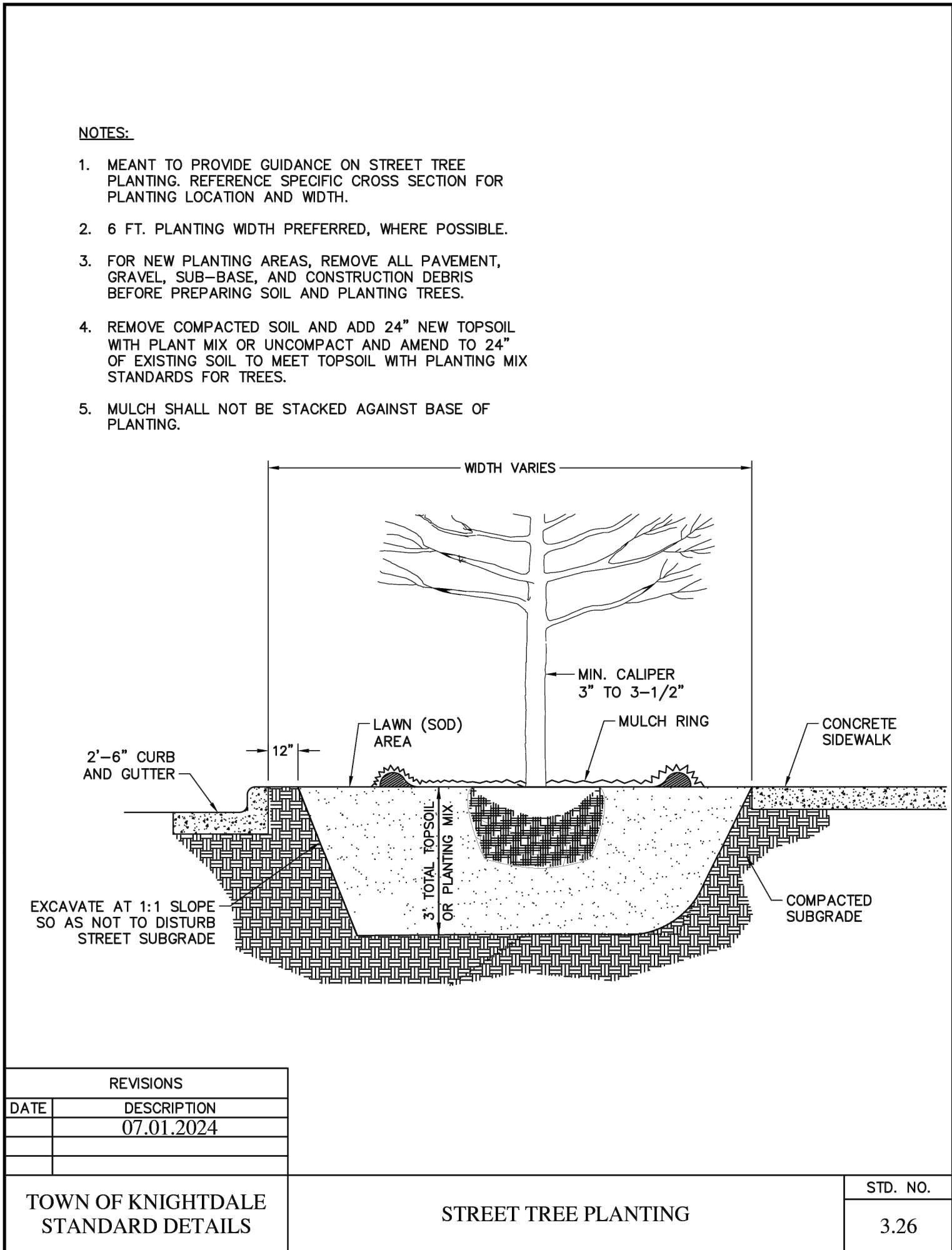
DATE: 08.11.2025  
1. RESUBMITTAL 12.10.2025  
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SHEET TITLE:  
FULL PLANTING  
SCHEDULE

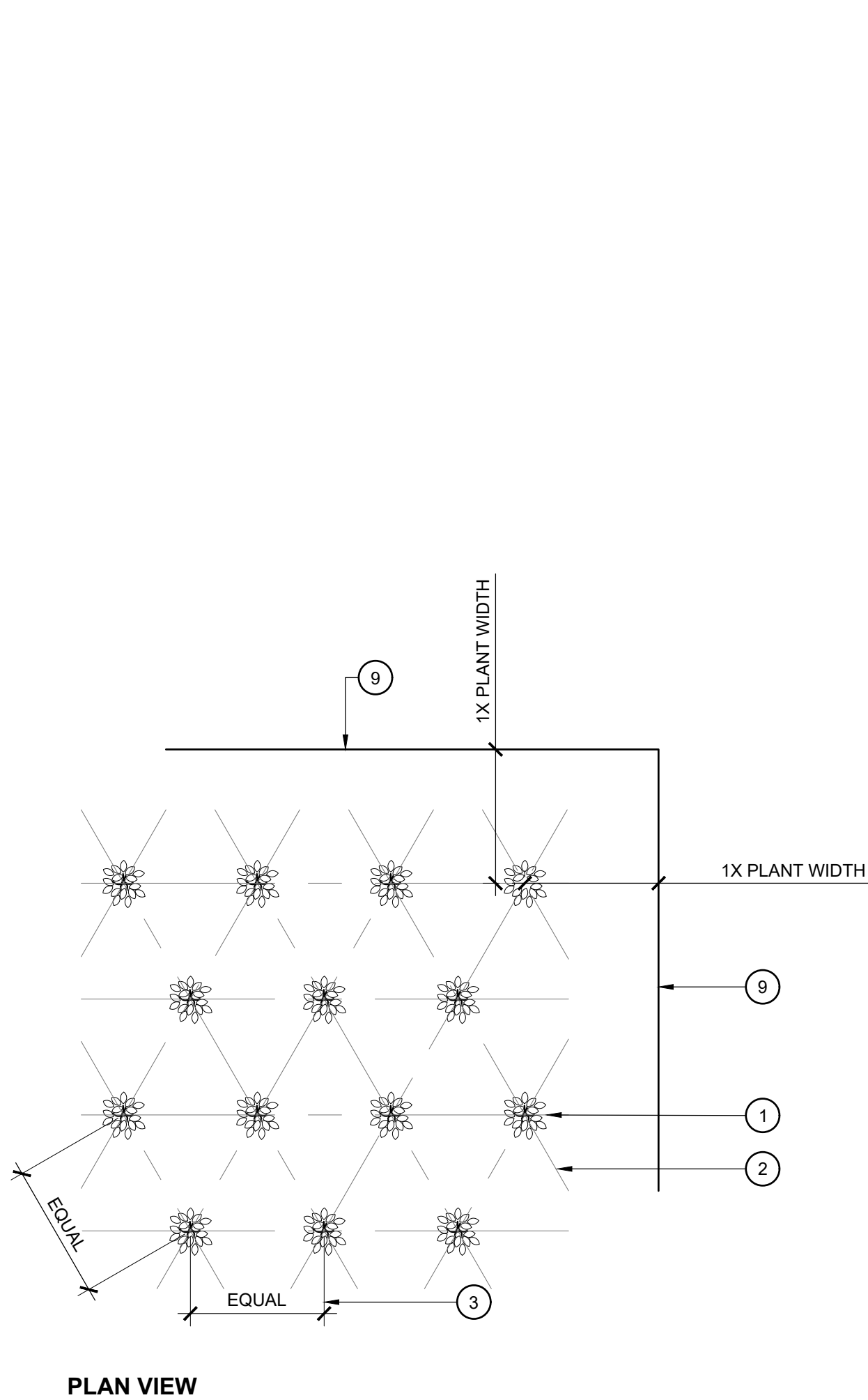
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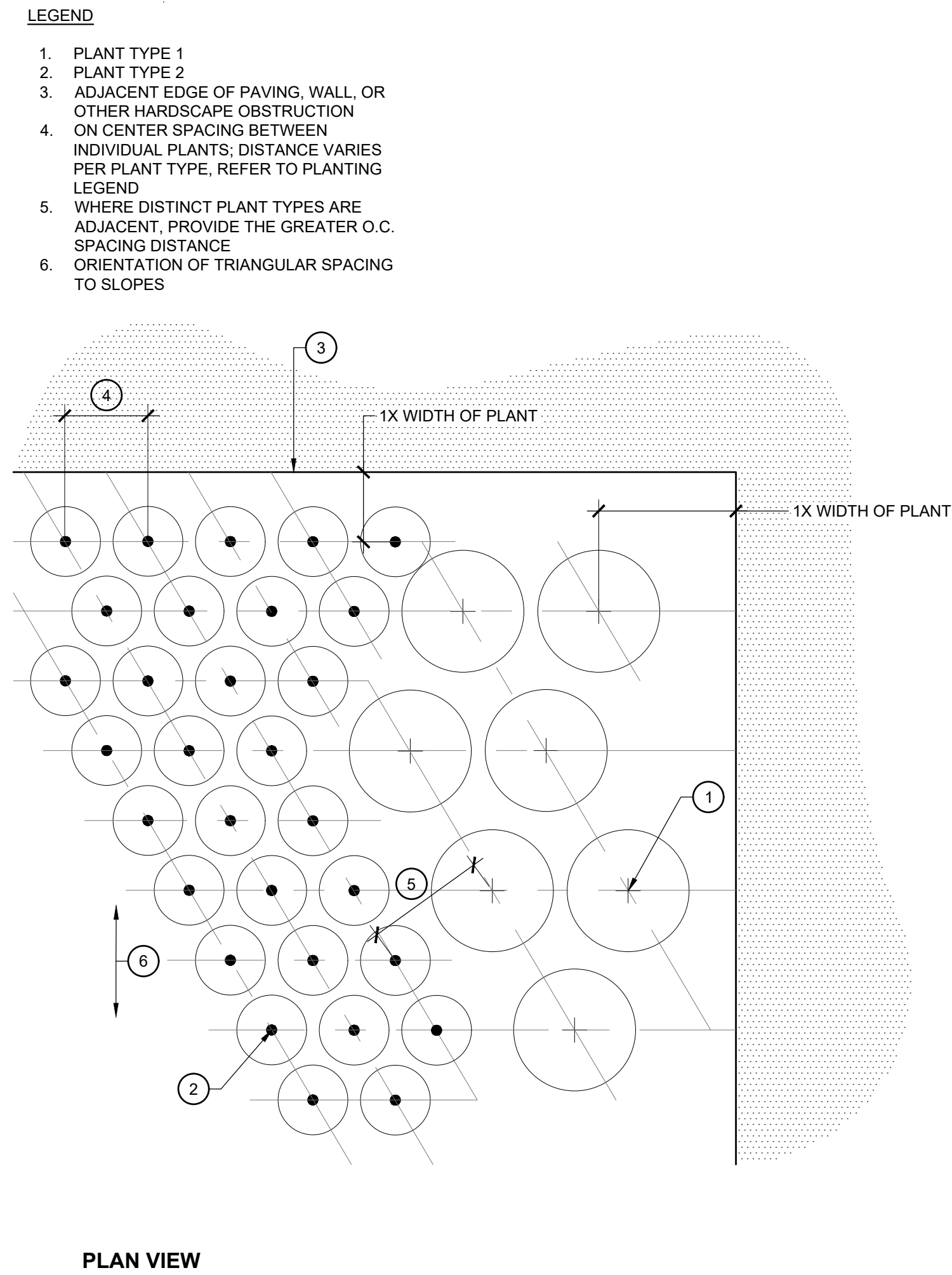




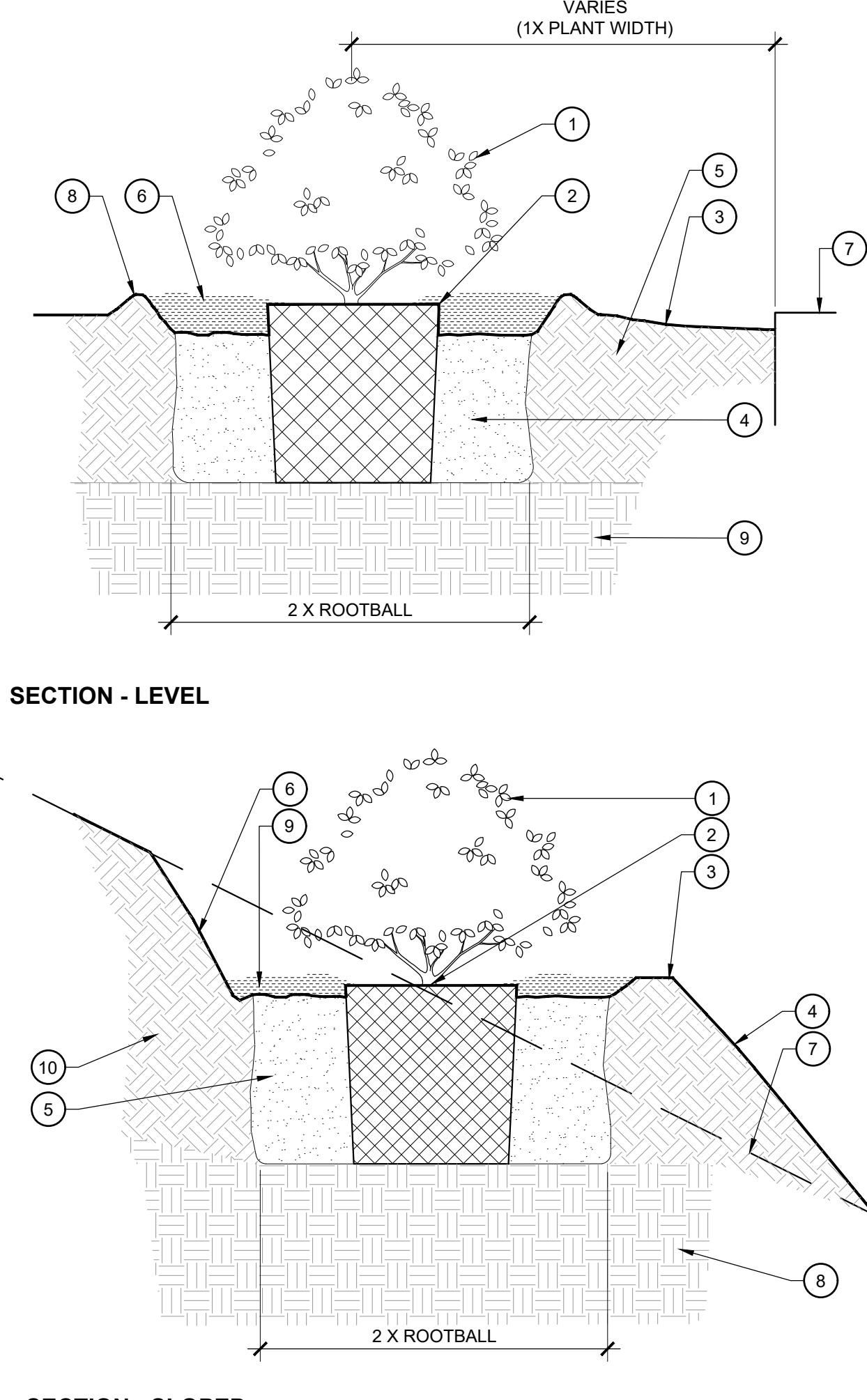
4 GROUNDCOVER PLANTING  
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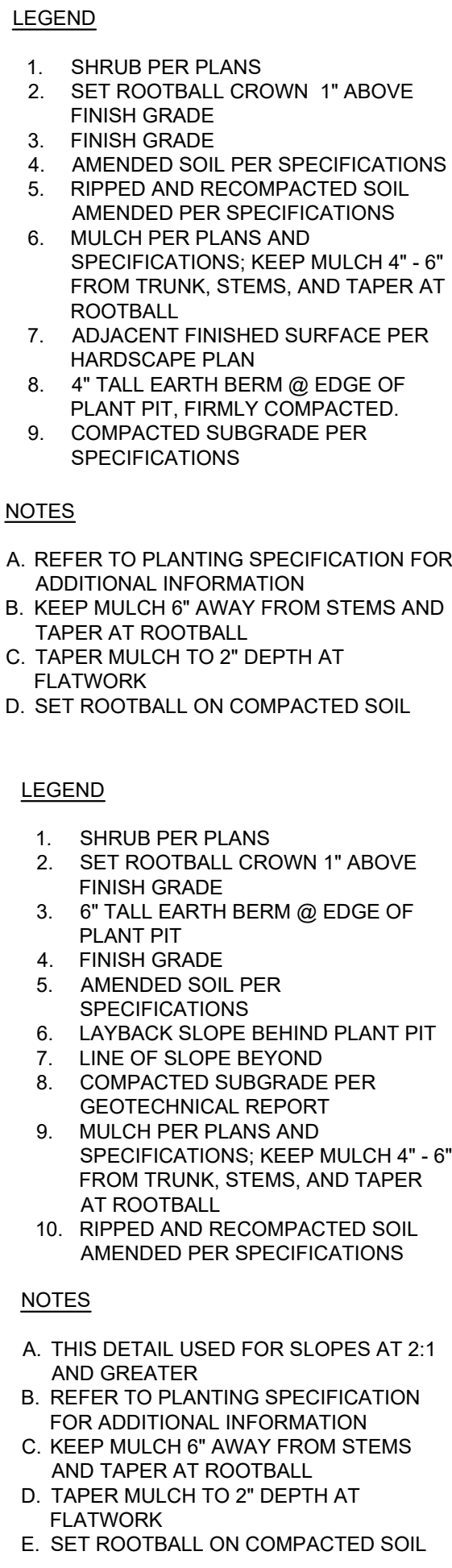
5 PLANT SPACING  
SCALE: 1" = 1'-0"



5 PLANT SPACING  
SCALE: 1" = 1'-0"



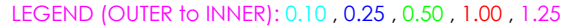
2 SHRUB PLANTING  
SCALE: 1" = 1'-0"








## ISOFOOTCANDLE CURVES



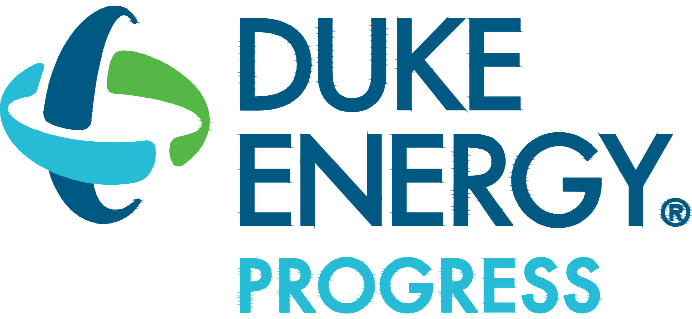
Schedule						
Symbol	Label	QTY	Description	Number Lamps	Lamp Output	LLF
	A	3	LED 110w Roadway - Type IV - - 3000K	1	15719	0.85

DISTANCE CALIBRATION (INCHES)

0 0.5 1.0 2.0 3.0 4.0

## LIGHTING DESIGN TOLERANCE

The calculated footcandle light levels in 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 (foilage 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.



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BIG OAK VET		
KNIGHTDALE, NC		
SITE LIGHTING ARRANGEMENT		
Designed by	DUKE ENERGY PROGRESS LIGHTING SOLUTIONS	
Reviewed by	N. Johnson	Scale 1" = 30'
Date	08/13/2025	Size Drawing size "D"
Description LED ROADWAY		
Drawing No.	25-0364A	Sht. 1 OF 1





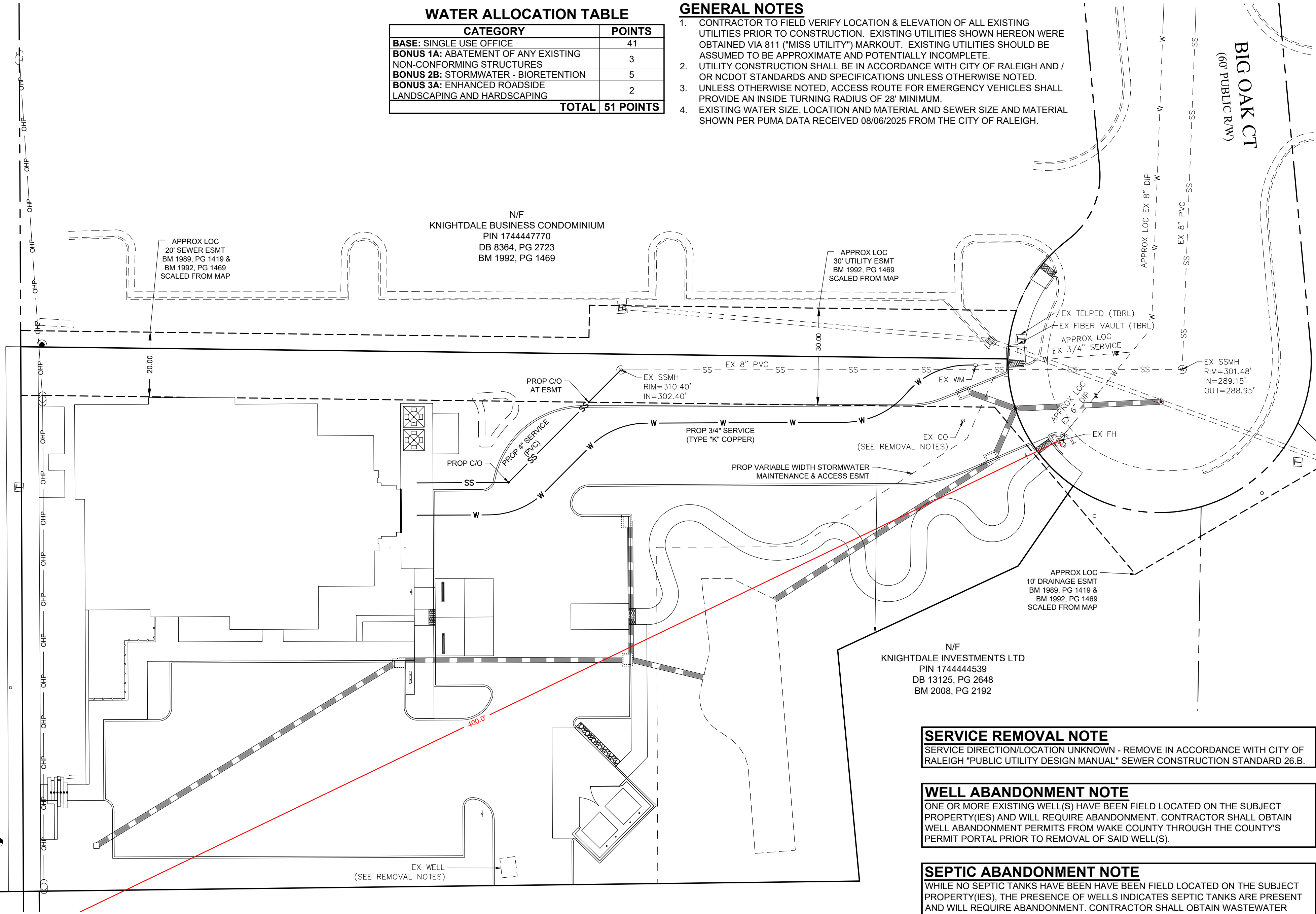
SEE NCDOT PROJECT # 6.408004B  
HM 3, PG 193

HM 3, PG 193

<b>AC</b>	<b>ACRE</b>	<b>EIR</b>	<b>EX IRON ROD</b>	<b>LF</b>	<b>LINEAR FEET</b>	<b>STBK</b>	<b>SETBACK</b>
<b>APPRO X</b>	<b>APPROXIMATE</b>	<b>ELEC</b>	<b>ELECTRIC</b>	<b>LP</b>	<b>LIGHT POLE</b>	<b>STD</b>	<b>STANDARD</b>
<b>B-B</b>	<b>BACK-TO-BACK</b>	<b>ELEV</b>	<b>ELEVATION</b>	<b>LOC</b>	<b>LOCATION</b>	<b>SWM</b>	<b>STORMWATER MANAGEMENT</b>
<b>BFP</b>	<b>BACKFLOW PREVENTOR</b>	<b>EOP</b>	<b>EDGE OF PAVEMENT</b>	<b>MAGS</b>	<b>MAG NAIL SET</b>	<b>TBD</b>	<b>TO BE DETERMINED</b>
<b>BM</b>	<b>BOOK OF MAPS</b>	<b>ESMT</b>	<b>EASEMENT</b>	<b>MH</b>	<b>MANHOLE</b>	<b>TBR</b>	<b>TO BE REMOVED</b>
<b>CB</b>	<b>CATCH BASIN</b>	<b>EX</b>	<b>EXISTING</b>	<b>N/F</b>	<b>NOW OR FORMERLY NORTH CAROLINA DEPARTMENT OF TRANSPORTATION</b>	<b>TBRL</b>	<b>TO BE RELOCATED</b>
<b>CIP</b>	<b>CAST IRON PIPE</b>	<b>FDC</b>	<b>FIRE DEPARTMENT CONNECTION</b>	<b>NCDOT</b>		<b>TF</b>	<b>ELECTRIC TRANSFORMER</b>
<b>CL</b>	<b>CENTERLINE</b>	<b>FEMA</b>	<b>FEDERAL EMERGENCY MANAGEMENT AGENCY</b>	<b>PRKG</b>	<b>PARKING</b>	<b>TP</b>	<b>TELEPHONE PEDESTAL</b>
<b>CO</b>	<b>CLEANOUT</b>	<b>FH</b>	<b>FIRE HYDRANT</b>	<b>PG</b>	<b>PAGE</b>	<b>TYP</b>	<b>TYPICAL</b>
<b>CONC</b>	<b>CONCRETE</b>	<b>FM</b>	<b>FORCE MAIN</b>	<b>PP</b>	<b>POWER POLE</b>	<b>UNK</b>	<b>UNKNOWN</b>
<b>COR</b>	<b>CITY OF RALEIGH</b>	<b>FP</b>	<b>FLOODPLAIN</b>	<b>PROP</b>	<b>PROPOSED</b>	<b>UPE</b>	<b>UTILITY PLACEMENT ESMT</b>
<b>CP</b>	<b>COMPUTED POINT</b>	<b>GIS</b>	<b>GEOGRAPHIC INFORMATION SYSTEM</b>	<b>PVC</b>	<b>POLYVINYL CHLORIDE</b>	<b>WV</b>	<b>WATER VALVE</b>
<b>DB</b>	<b>DEED BOOK</b>	<b>GM</b>	<b>GAS METER</b>	<b>RCP</b>	<b>REINFORCED CONC PIPE</b>	<b>WLE</b>	<b>WATER LINE ESMT</b>
<b>DI</b>	<b>DROP INLET</b>	<b>GP</b>	<b>GALVANIZED PIPE</b>	<b>ROW</b>	<b>RIGHT-OF-WAY</b>	<b>WM</b>	<b>WATER METER</b>
<b>DIP</b>	<b>DUCTILE IRON PIPE</b>	<b>GW</b>	<b>GUY ANCHOR</b>	<b>R/W</b>		<b>YI</b>	<b>YARD INLET</b>
<b>DTL</b>	<b>DETAIL</b>	<b>HB</b>	<b>HOT BOX</b>	<b>RSDM</b>	<b>RALEIGH STREET DESIGN MANUAL</b>		
<b>ECM</b>	<b>EX CONC MONUMENT</b>	<b>HDPE</b>	<b>HIGH DENSITY POLYETHYLENE</b>	<b>SF</b>	<b>SQUARE FEET</b>		
<b>EIP</b>	<b>EX IRON PIPE</b>	<b>IPS</b>	<b>IRON PIPE SET</b>	<b>SS</b>	<b>SANITARY SEWER</b>		

CATEGORY	POINTS
<b>BASE:</b> SINGLE USE OFFICE	41
<b>BONUS 1A:</b> ABATEMENT OF ANY EXISTING NON-CONFORMING STRUCTURES	3
<b>BONUS 2B:</b> STORMWATER - BIORETENTION	5
<b>BONUS 3A:</b> ENHANCED ROADSIDE LANDSCAPING AND HARDSCAPING	2
<b>TOTAL</b>	<b>51 POINTS</b>

1. CONTRACTOR TO FIELD VERIFY LOCATION & ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. EXISTING UTILITIES SHOWN HEREON WERE OBTAINED VIA CITY OF RALEIGH'S MAPWORKS UTILITY SYSTEMS. DATA SHOULD BE ASSUMED TO BE APPROXIMATE AND POTENTIALLY INCOMPLETE.
2. UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH AND / OR NCDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
3. UNLESS OTHERWISE NOTED, ACCESS ROUTE FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AND NOTED ON THE PLAN.
4. EXISTING WATER SIZE, LOCATION AND MATERIAL AND SEWER SIZE AND MATERIAL SHOWN PER PUMA DATA RECEIVED 08/06/2025 FROM THE CITY OF RALEIGH.



SERVICE DIRECTION/LOCATION UNKNOWN - REMOVE IN ACCORDANCE WITH CITY OF RALEIGH "PUBLIC UTILITY DESIGN MANUAL" SEWER CONSTRUCTION STANDARD 26.B

ONE OR MORE EXISTING WELL(S) HAVE BEEN FIELD LOCATED ON THE SUBJECT PROPERTY(IES) AND WILL REQUIRE ABANDONMENT. CONTRACTOR SHALL OBTAIN WELL ABANDONMENT PERMITS FROM WAKE COUNTY THROUGH THE COUNTY'S PERMIT PORTAL PRIOR TO REMOVAL OF SAID WELL(S).

WHILE NO SEPTIC TANKS HAVE BEEN FIELD LOCATED ON THE SUBJECT PROPERTY(IES), THE PRESENCE OF WELLS INDICATES SEPTIC TANKS ARE PRESENT AND WILL REQUIRE ABANDONMENT. CONTRACTOR SHALL OBTAIN WASTEWATER ABANDONMENT PERMITS FROM WAKE COUNTY THROUGH THE COUNTY'S PERMIT PORTAL PRIOR TO REMOVAL OF SEPTIC FACILITIES.

1. All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition).
2. Utility separation requirements:
  - 2.1. A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to waterline specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well.
  - 2.2. When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter.
  - 2.3. Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to waterline specifications.
  - 2.4. 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer.
  - 2.5. Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP stormdrain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per CORPUD details W- 41 & S-49).
  - 2.6. All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required.
3. Any necessary field reviews are subject to review & approval of an extended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction.
4. Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Utility Easement traversing private property.
5. Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24-hour advance notice to the City of Raleigh Public Utilities Department.
6. SEWER BYPASS PUMPING – A bypass plan sealed by an NC Professional Engineer shall be provided to Raleigh Water prior to pumping operations for approval. The operations and equipment shall comply with the Public Utilities Handbook.
7. 3.0' minimum cover is required on all water mains & sewer force mains. 4.0' minimum cover is required on all reuse mains.
8. It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes abandoning tap at main & removal of service from ROW or easement per CORPUD Handbook procedure.
9. Install water services with meters located at ROW or within a 2'x2' Waterline Easement immediately adjacent. NOTE: it is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure.
10. Inspections of 4" and larger water mains of the private distribution system will be inspected as part of the infrastructure permit.
11. Private sewer mains as part of a collection system are permitted and inspected under the private Infrastructure permit for sewer.
12. Any water or sewer services on private property that will be installed under Construction Drawings may require a Plumbing Utility Permit in the City of Raleigh. Consult with the Engineering Inspection Coordinator during the pre-construction meeting on the necessary permits.
13. Install sewer services with cleanouts located at ROW or easement line & spaced per the current NC Plumbing code.
14. Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains less than 1.0' above the next upstream manhole.
15. All environmental permits applicable to the project must be obtained from NCDWQ, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
16. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction.
17. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the RW FOG Program Coordinator prior to issuance of a UC and/or Building Permit. Contact (919) 996-4516 or fog@raleighnc.gov for more information.
18. Cross-connection control protection devices are required based on the degree of health hazard involved as listed in Appendix B of the Rules Governing Public Water Systems in North Carolina.
19. The devices shall meet the American Society of Sanitary Engineering (ASSE) standards and be on the University of Southern California approval list.
20. The device and installation shall meet the guidelines of Appendix A – Guidelines and Requirements for the Cross Connection Program in Raleigh's Service Area.
21. The devices shall be installed and tested (both, initial and periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross connection control program, whichever is more stringent. Contact Cross.connection@raleighnc.gov for more information.
22. NOTICE for projects that involve an oversized main or urban main replacement. Any City reimbursement greater than \$250,000.00 must undergo the public bidding process. 23. Private sub-metering - No resale of water shall occur without approval of the North Carolina Utility Commission. Sub-metering shall be in accordance with Section 1400 of the "SAFE DRINKING WATER ACT".

1	12/05/2025	PER IRC COMMENTS
NO.	DATE	ITEM
REVISIONS		

**CONSULTANT :**

**SEAL:**

**R**  
**RESPEC**

**Raleigh, NC**  
RSNC Engineering, PLLC  
555 Fayetteville St., Suite 300  
Raleigh, NC 27601  
Phone: 919.230.1597  
[www.respec.com](http://www.respec.com)

**SHEET TITLE :  
UTILITY PLAN**

**PROJECT :  
BIG OAK VET HOSPITAL  
VETS PETS**

1004 BIG OAK COURT; KNIGHTDALE, NC 27545

DESIGN	TT
DRAWN	TT
CHECKED	TT
DATE	08/11/2025

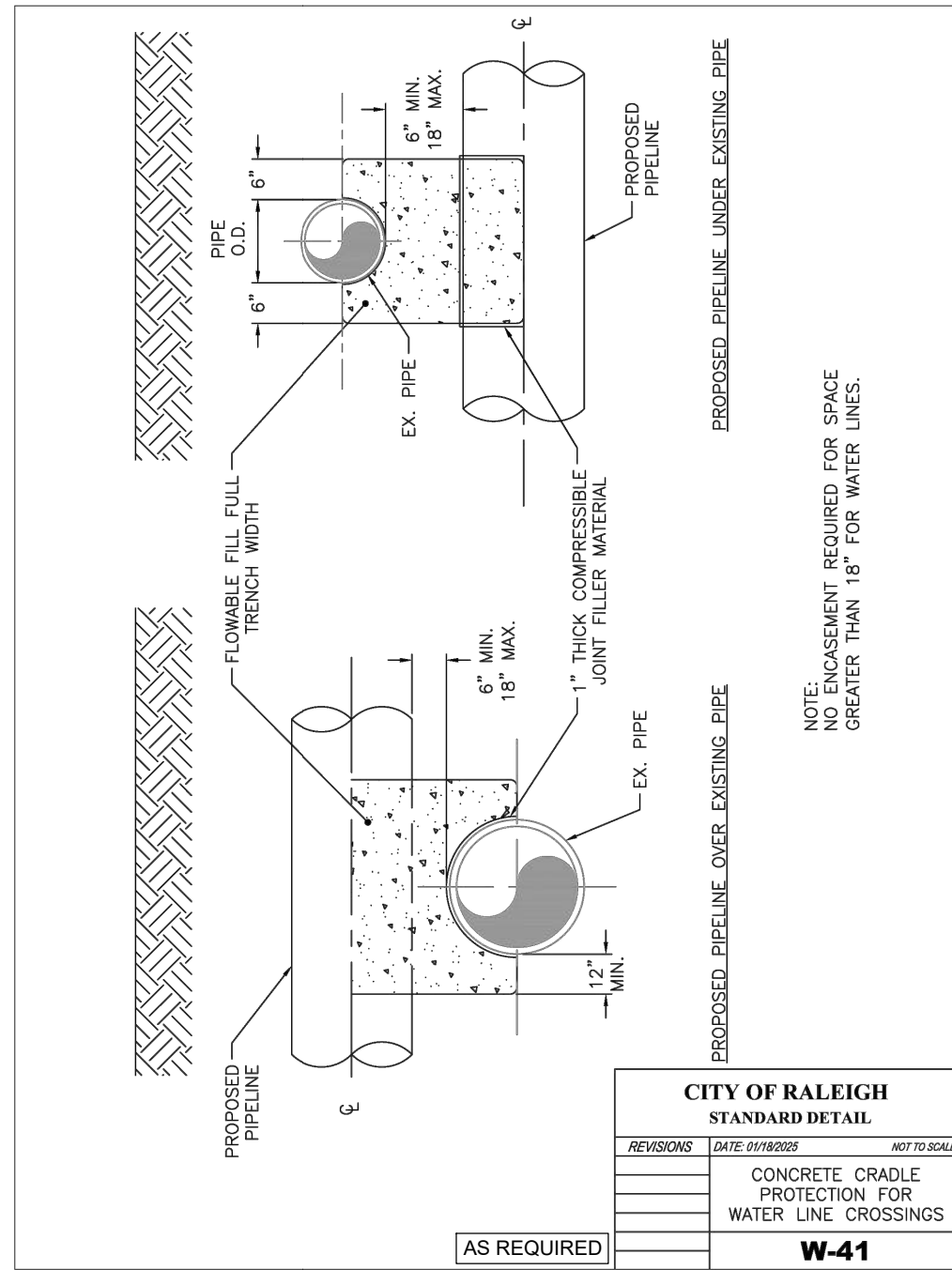
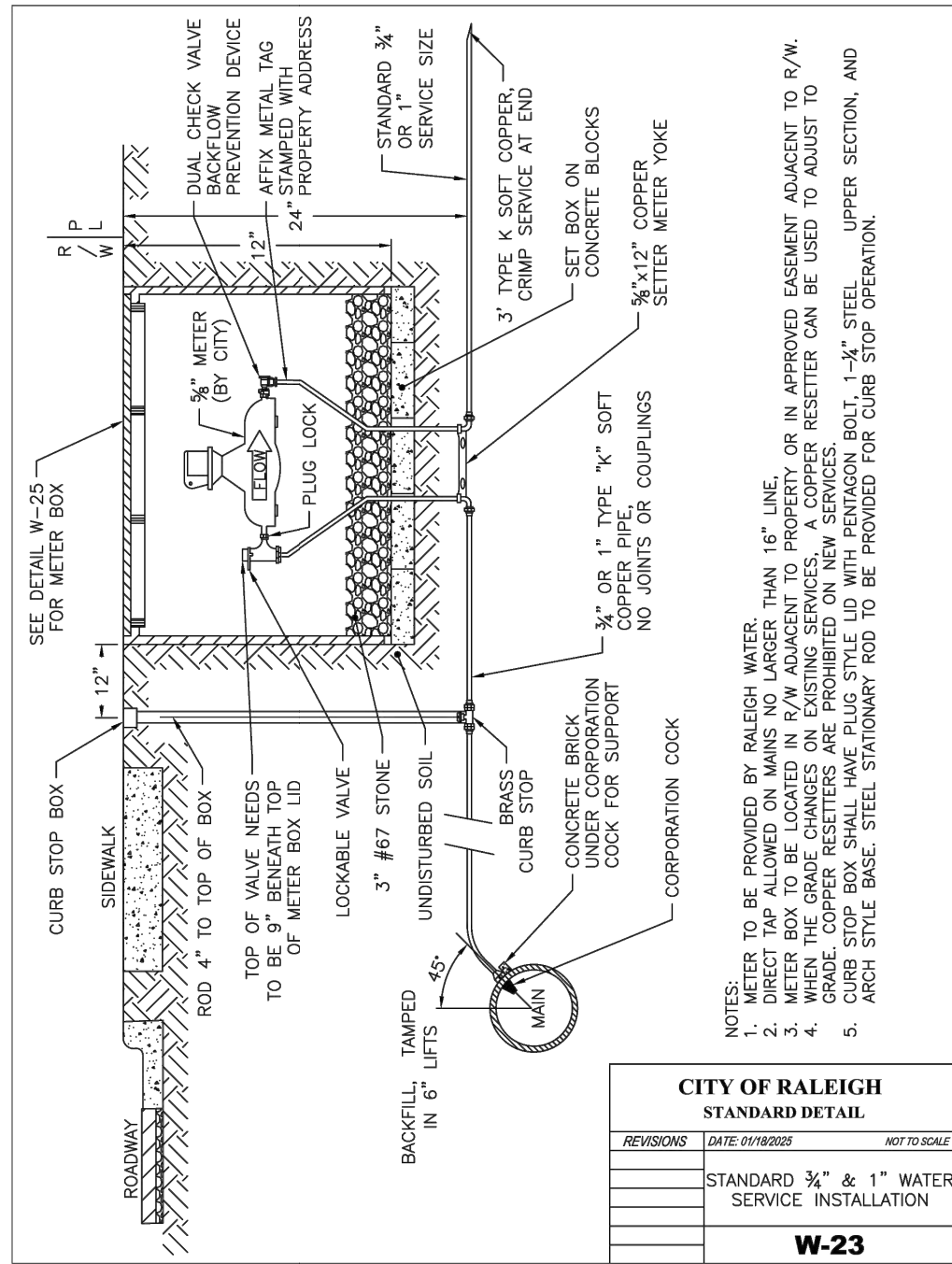
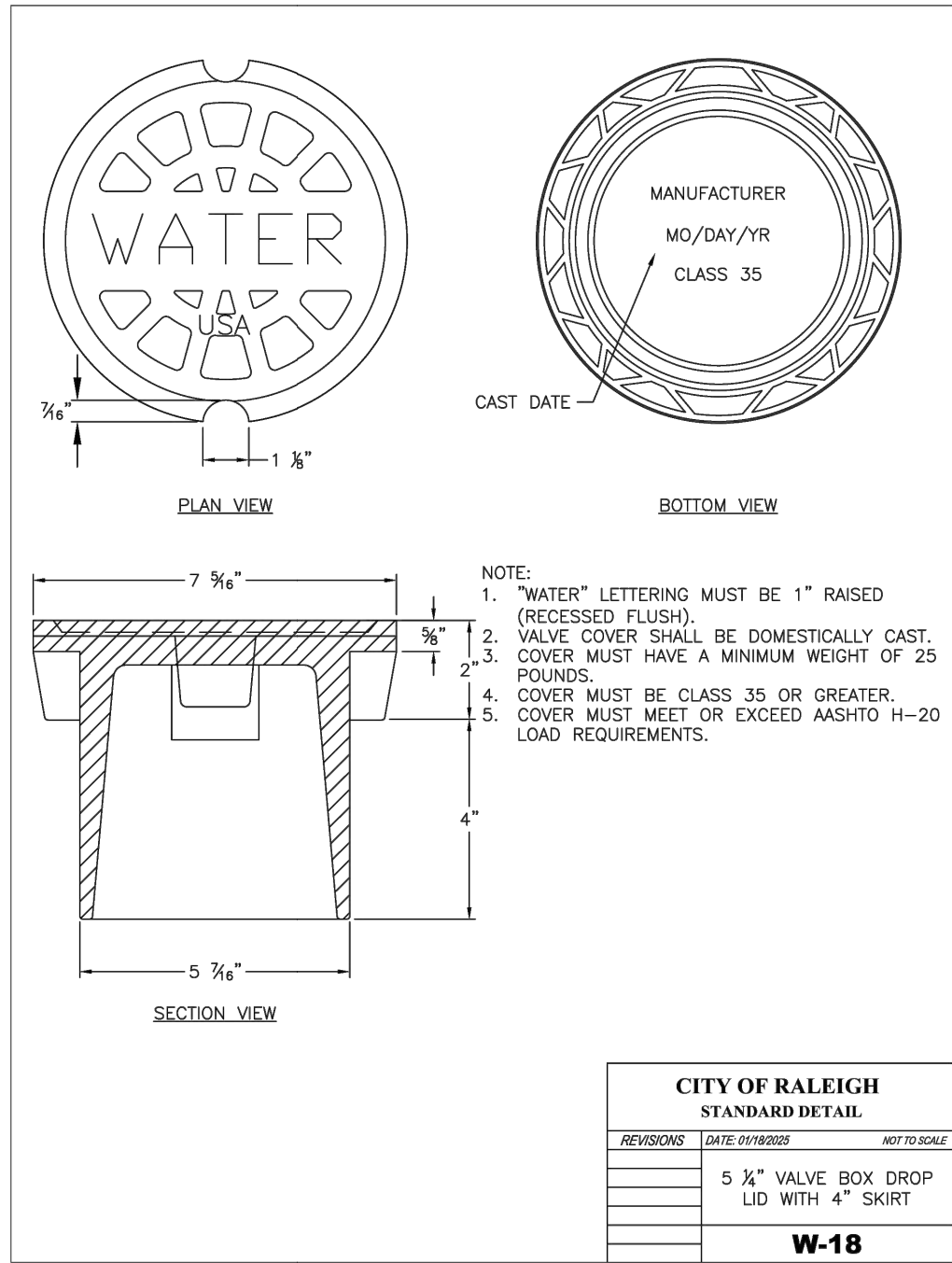
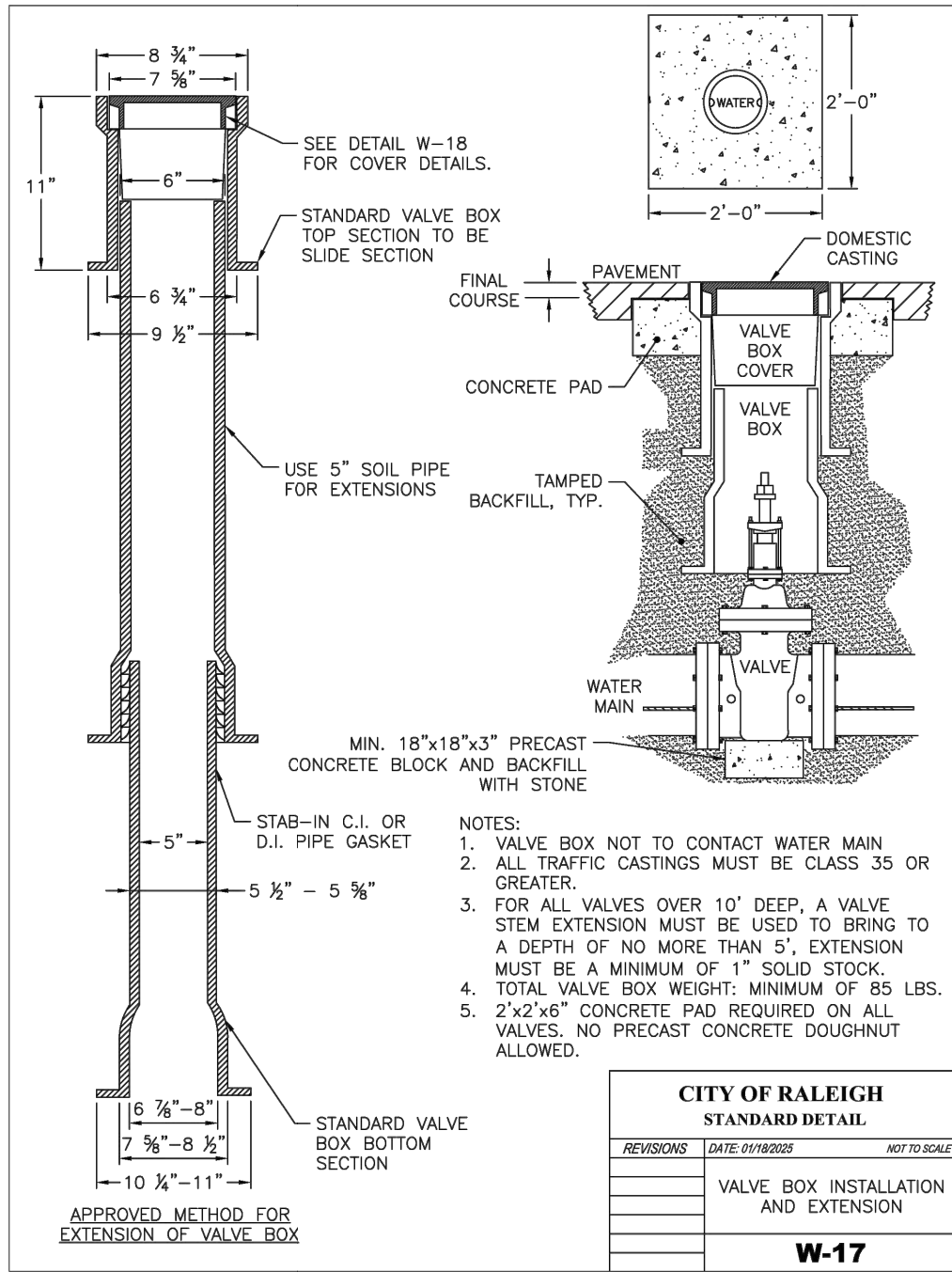
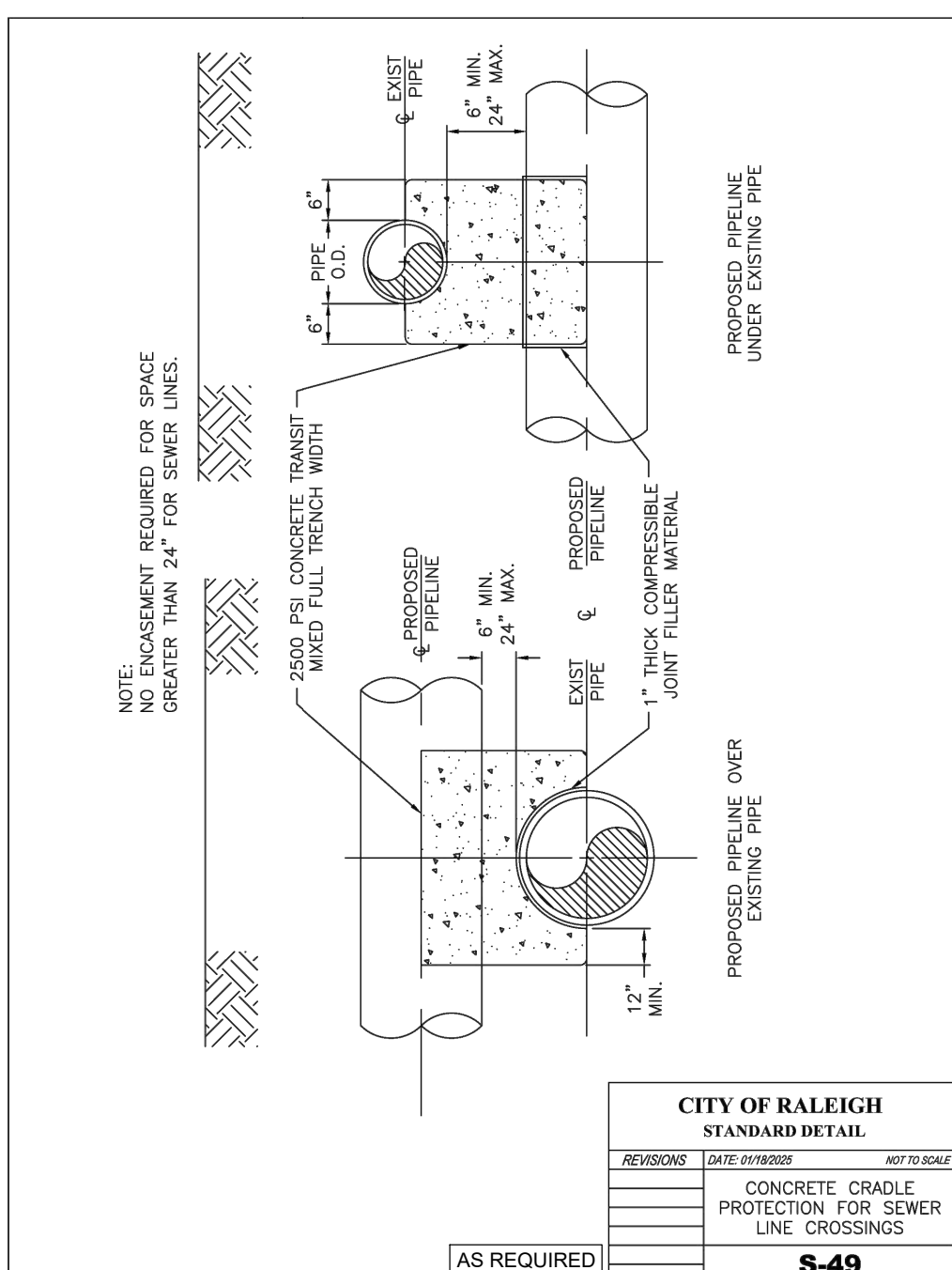
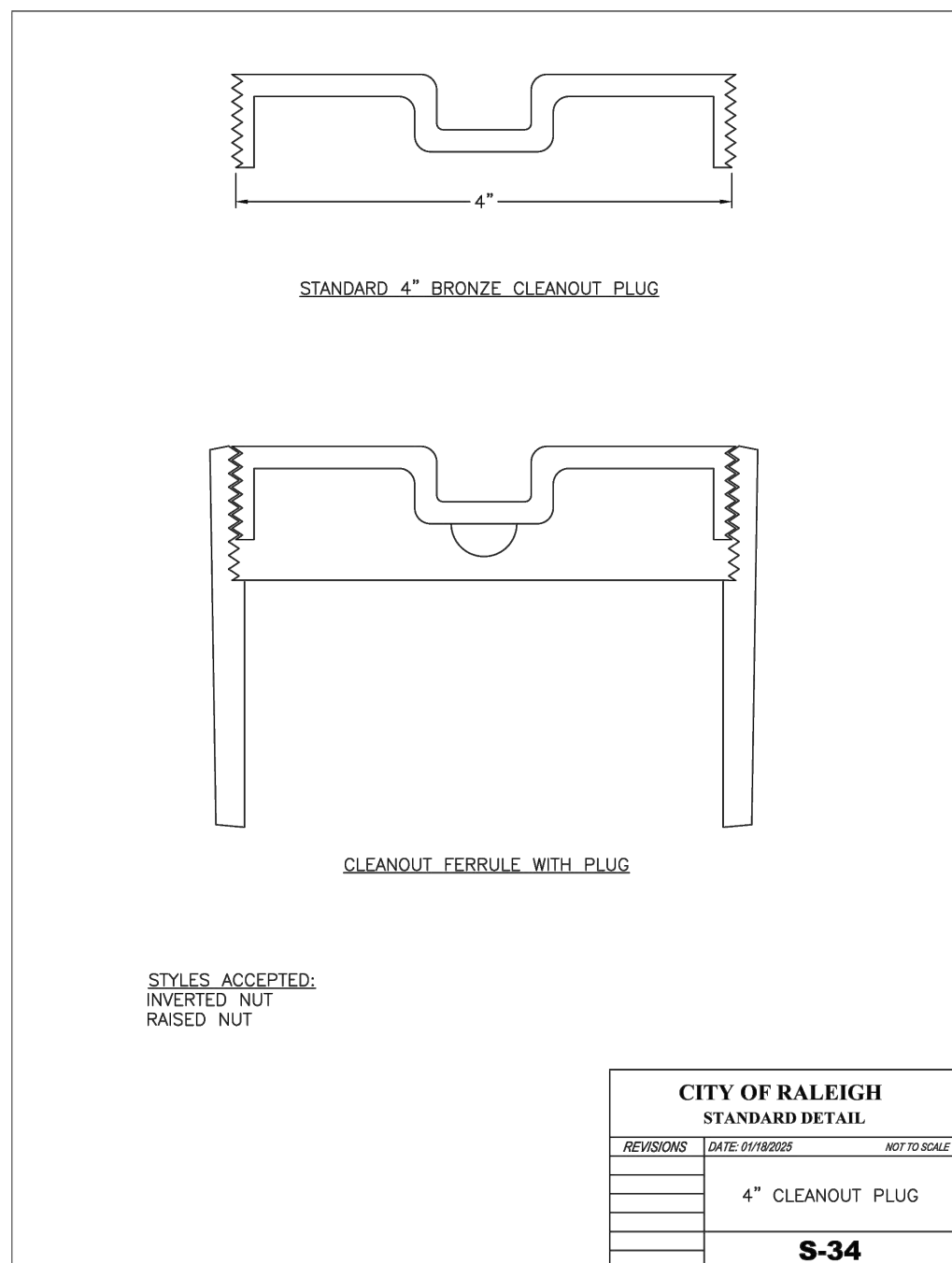
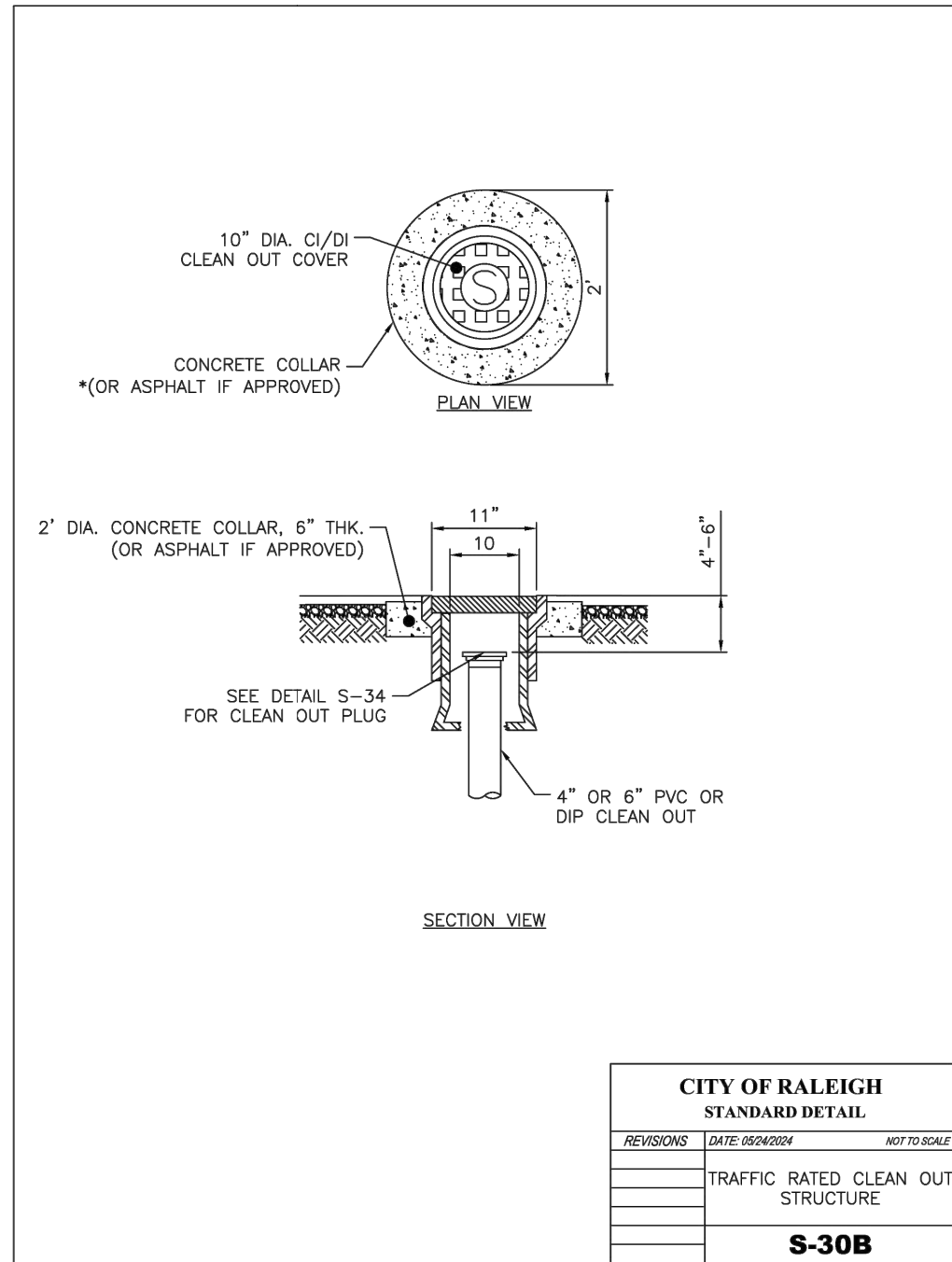
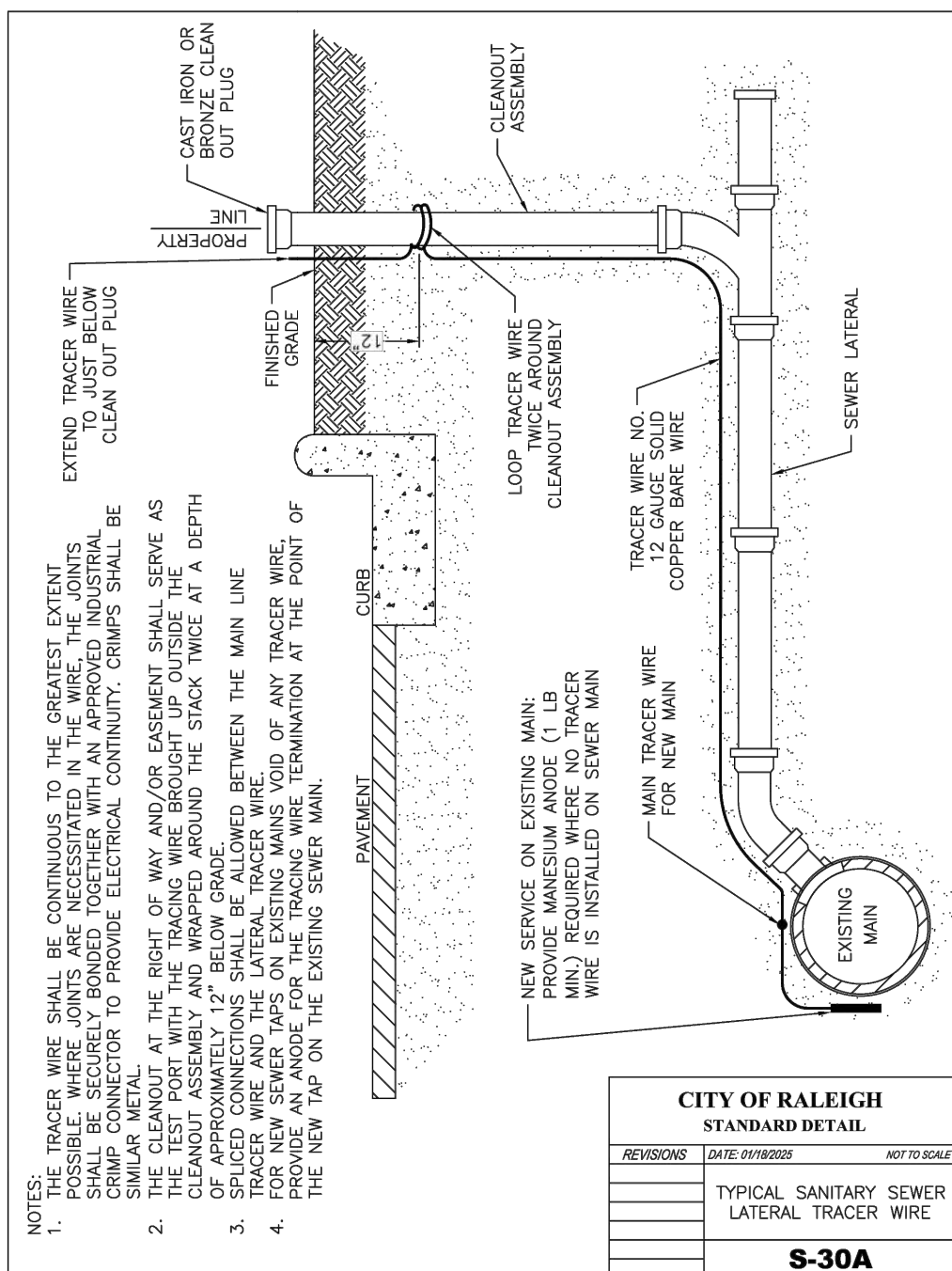
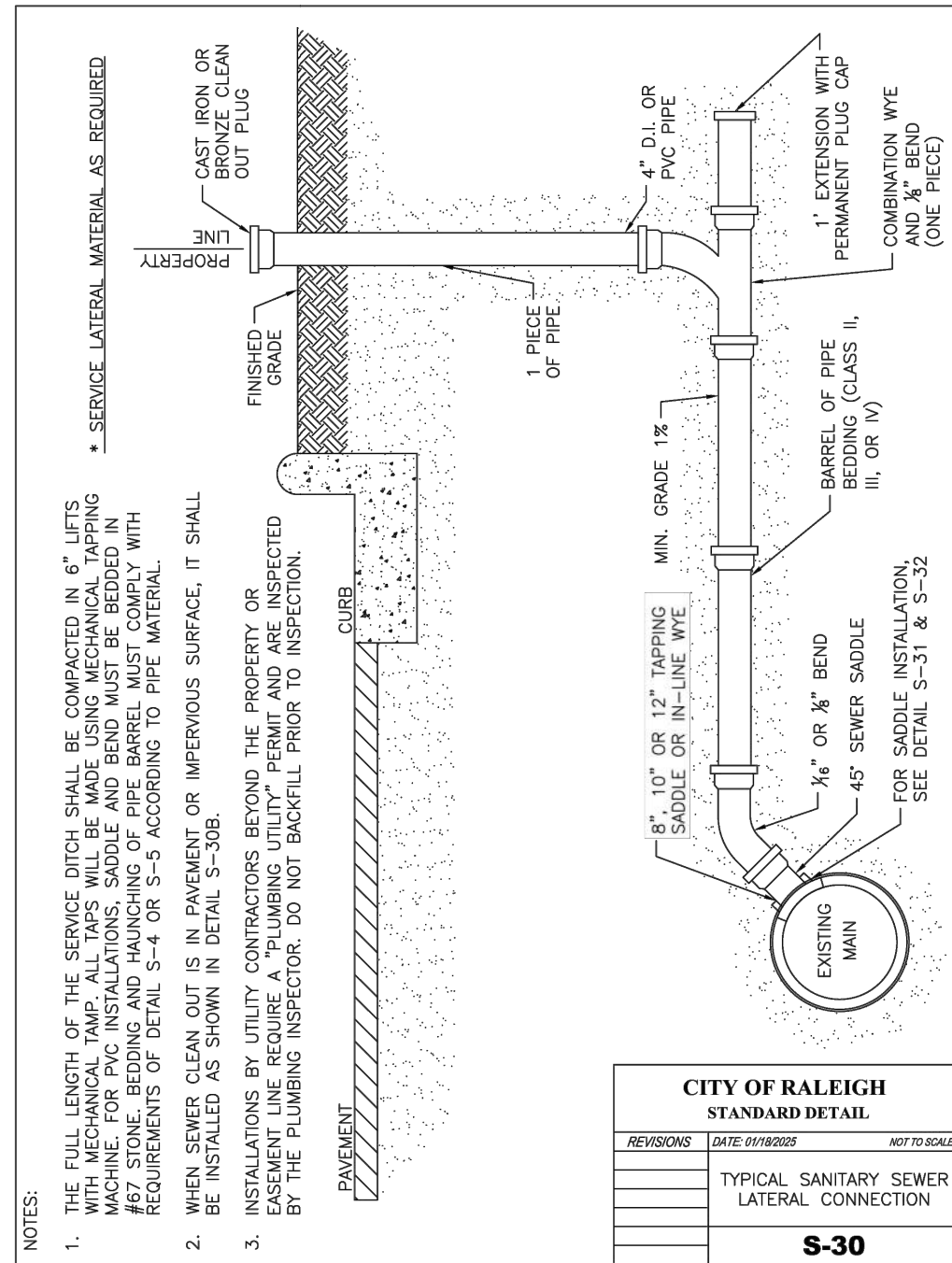
PROJECT No.  
**L0029.25001**

SHEET NUMBER

# C-400



IF THIS BAR DOES NOT MEASURE EXACTLY ONE INCH, THE SCALE OF THIS DRAWING HAS BEEN ALTERED DURING ITS PRODUCTION, AFFECTING ALL LABELED SCALES



1	12/05/2025	PER TRC COMMENTS
NO.	DATE	ITEM
REVISIONS		

**CONSULTANT :**

**SEAL:**

**R**  
**RESPEC**

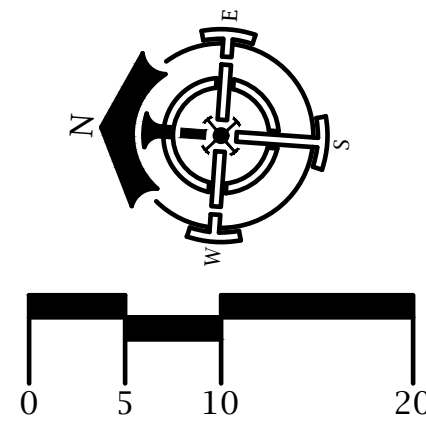
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**UTILITY DETAILS**  
PROJECT :  
**BIG OAK VET HOSPITAL**  
**VETS PETS**  
1004 BIG OAK COURT, KNIGHTDALE, NC 27545

DESIGN	TT
DRAWN	TT
CHECKED	TT
DATE	08/11/2025

PROJECT No.
<b>L0029.25001</b>
SHEET NUMBER

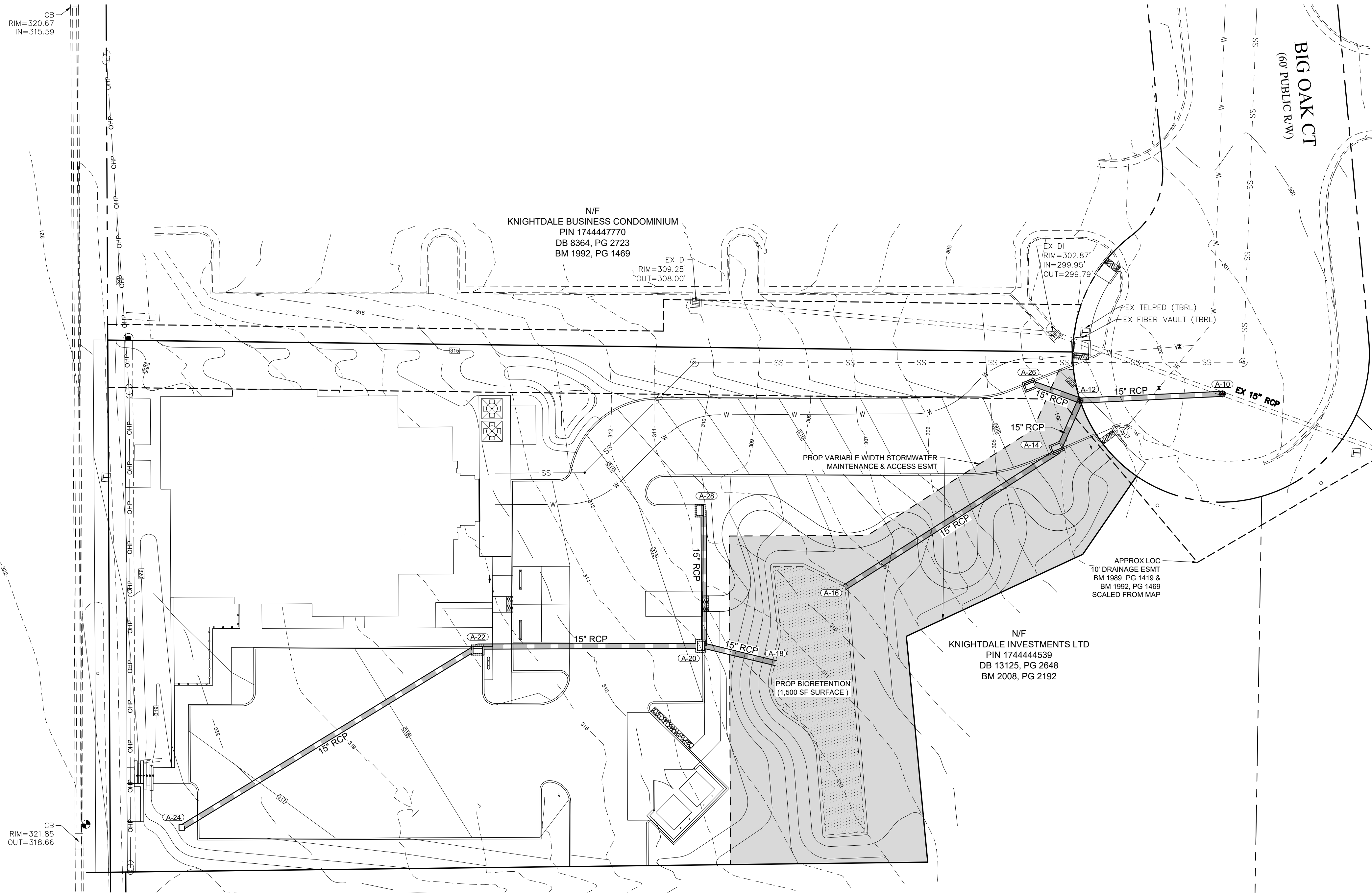
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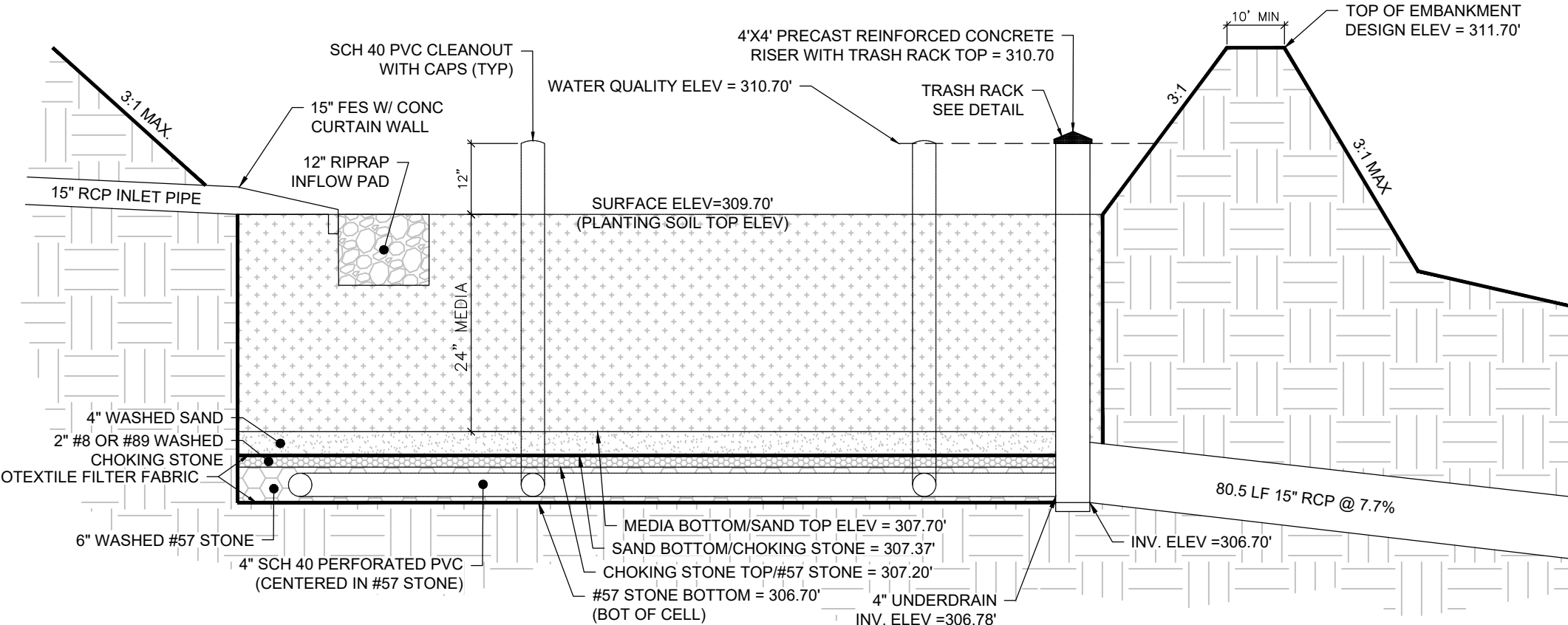
US HIGHWAY 64  
KNIGHTDALE BLVD  
(VARIABLE WIDTH PUBLIC R/W)

SEE NCDOT PROJECT # 6.408004B  
HM 3 PG 193




<b>AC</b>	ACRE	<b>EIR</b>	EX IRON ROD	<b>LF</b>	LINEAR FEET	<b>STBK</b>	SETBACK
<b>APPROX</b>	APPROXIMATE	<b>ELEC</b>	ELECTRIC	<b>LP</b>	LIGHT POLE	<b>STD</b>	STANDARD
<b>B-B</b>	BACK-TO-BACK	<b>ELEV</b>	ELEVATION	<b>LOC</b>	LOCATION	<b>SWM</b>	STORMWATER MANAGEMENT
<b>BFP</b>	BACKFLOW PREVENTOR	<b>EOP</b>	EDGE OF PAVEMENT	<b>MAGS</b>	MAG NAIL SET	<b>TBD</b>	TO BE DETERMINED
<b>BM</b>	BOOK OF MAPS	<b>ESMT</b>	EASEMENT	<b>MH</b>	MANHOLE	<b>TBR</b>	TO BE REMOVED
<b>CB</b>	CATCH BASIN	<b>EX</b>	EXISTING	<b>N/F</b>	NOW OR FORMERLY NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	<b>TBRL</b>	TO BE RELOCATED
<b>CIP</b>	CAST IRON PIPE	<b>FDC</b>	FIRE DEPARTMENT CONNECTION	<b>NCDOT</b>		<b>TF</b>	ELECTRIC TRANSFORMER
<b>CL</b>	CENTERLINE	<b>FEMA</b>	FEDERAL EMERGENCY MANAGEMENT AGENCY	<b>PRKG</b>	PARKING	<b>TP</b>	TELEPHONE PEDESTAL
<b>CO</b>	CLEANOUT	<b>FH</b>	FIRE HYDRANT	<b>PG</b>	PAGE	<b>TYP</b>	TYPICAL
<b>CONC</b>	CONCRETE	<b>FM</b>	FORCE MAIN	<b>PP</b>	POWER POLE	<b>UNK</b>	UNKNOWN
<b>COR</b>	CITY OF RALEIGH	<b>FP</b>	FLOODPLAIN	<b>PROP</b>	PROPOSED	<b>UPE</b>	UTILITY PLACEMENT ESMT
<b>CP</b>	COMPUTED POINT	<b>GIS</b>	GEOGRAPHIC INFORMATION SYSTEM	<b>PVC</b>	POLYVINYL CHLORIDE	<b>WV</b>	WATER VALVE
<b>DB</b>	DEED BOOK	<b>GM</b>	GAS METER	<b>RCP</b>	REINFORCED CONC PIPE	<b>WLE</b>	WATER LINE ESMT
<b>DI</b>	DROP INLET	<b>GP</b>	GALVANIZED PIPE	<b>ROW</b>	RIGHT-OF-WAY	<b>WM</b>	WATER METER
<b>DIP</b>	DUCTILE IRON PIPE	<b>GW</b>	GUY ANCHOR	<b>R/W</b>		<b>YI</b>	YARD INLET
<b>DTL</b>	DETAIL	<b>HB</b>	HOT BOX	<b>RSDM</b>	RALEIGH STREET DESIGN MANUAL		
<b>ECM</b>	EX CONC MONUMENT	<b>HDPE</b>	HIGH DENSITY POLYETHYLENE	<b>SF</b>	SQUARE FEET		
<b>EIP</b>	EX IRON PIPE	<b>IPS</b>	IRON PIPE SET	<b>SS</b>	SANITARY SEWER		

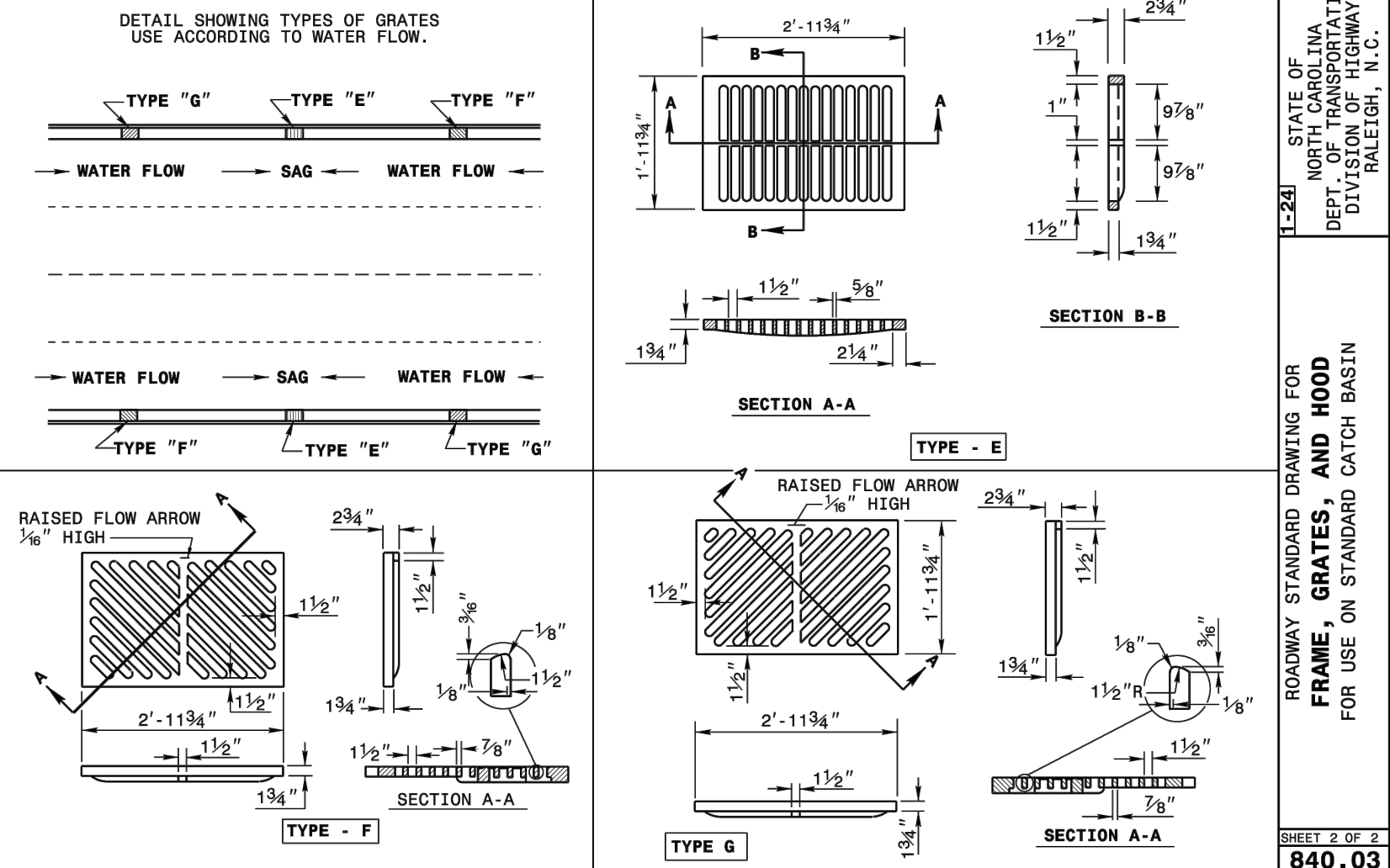
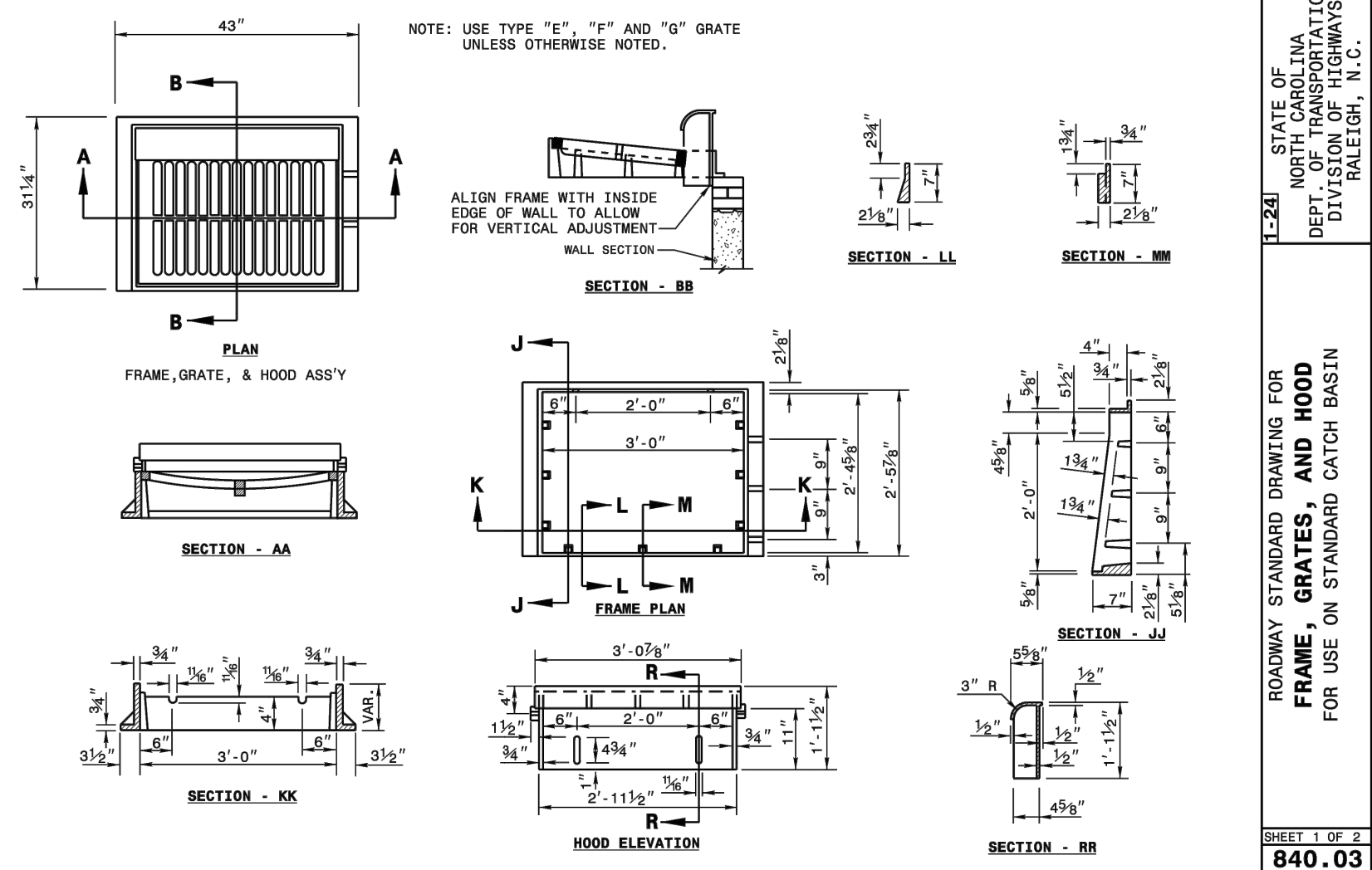
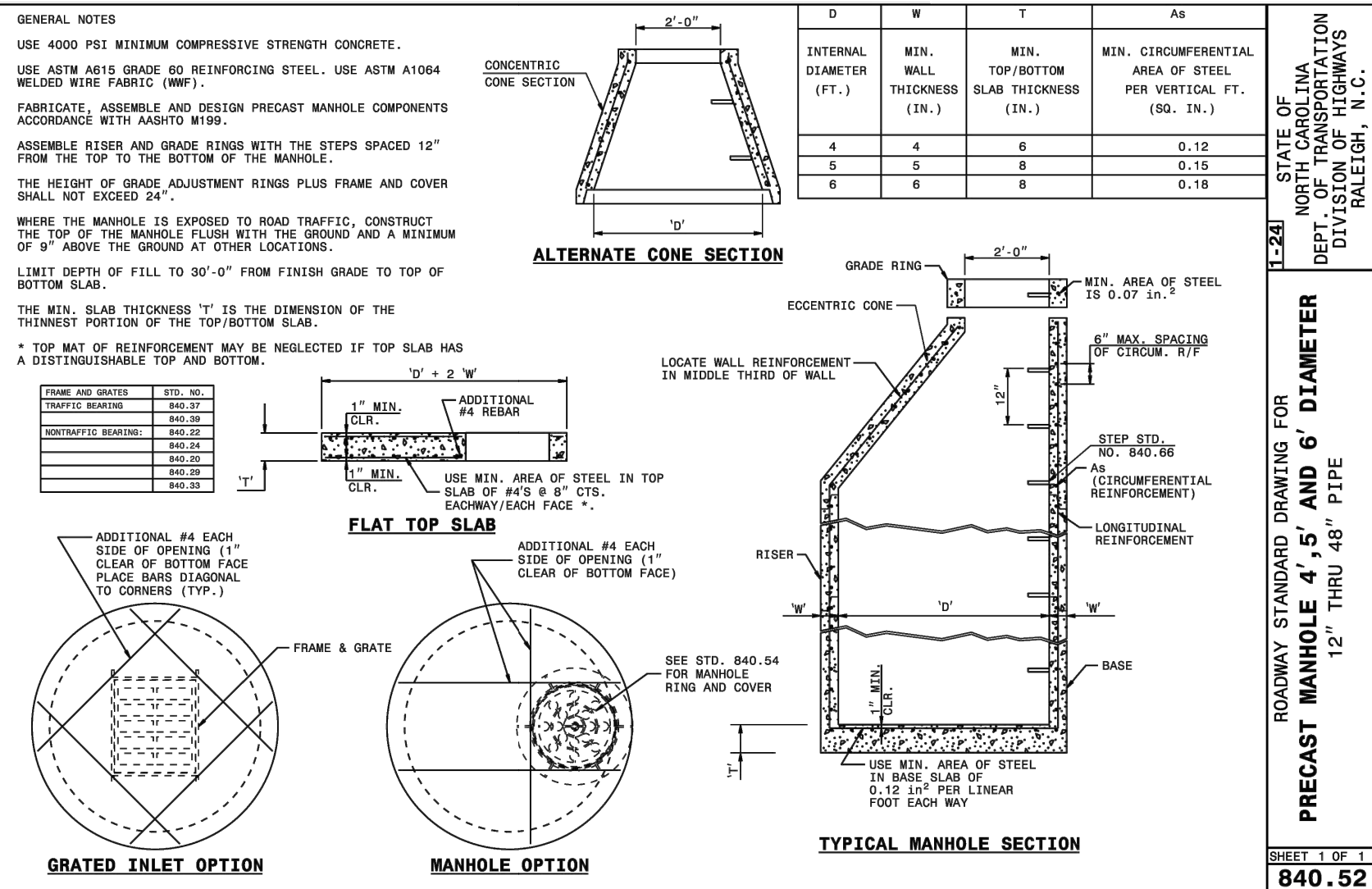
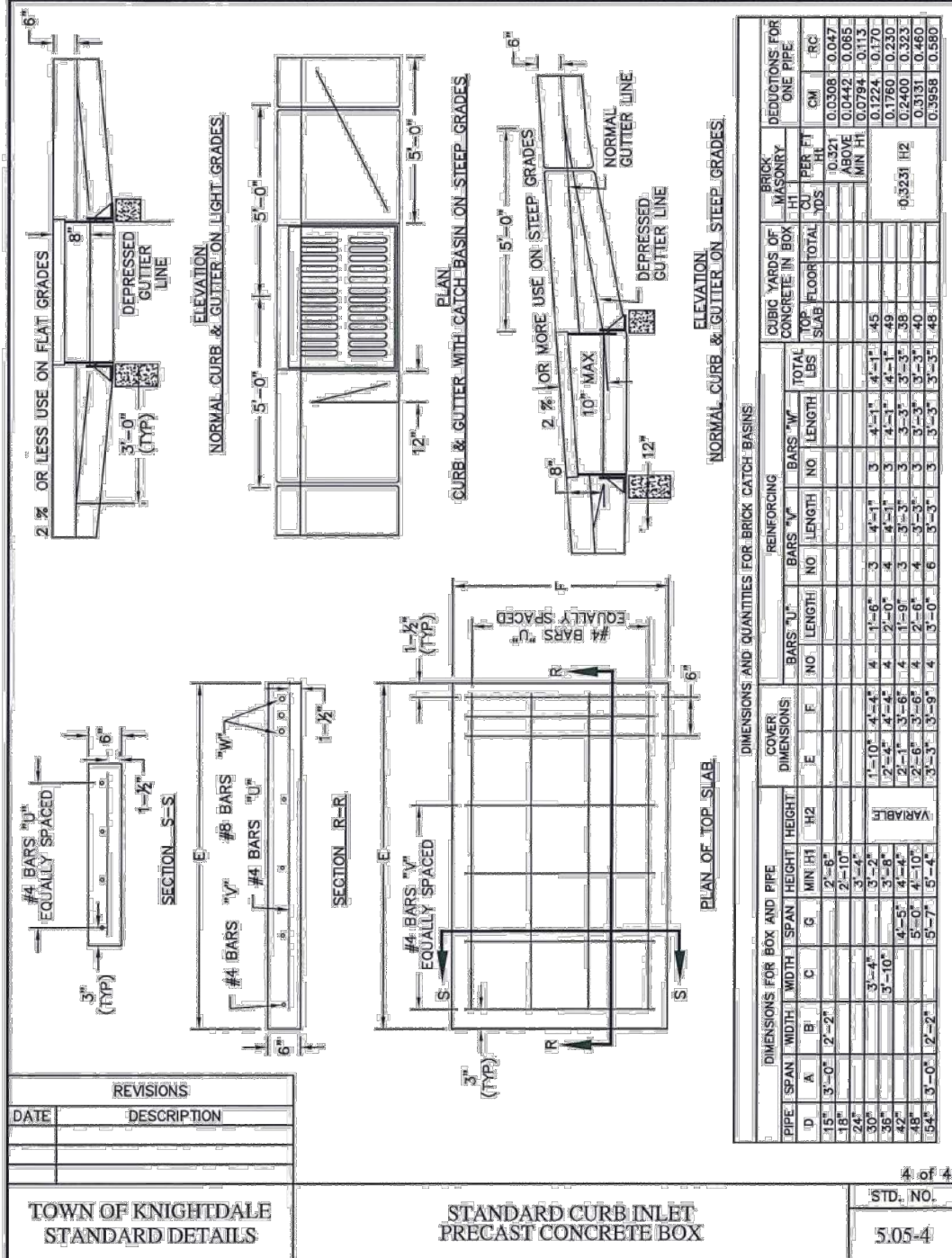
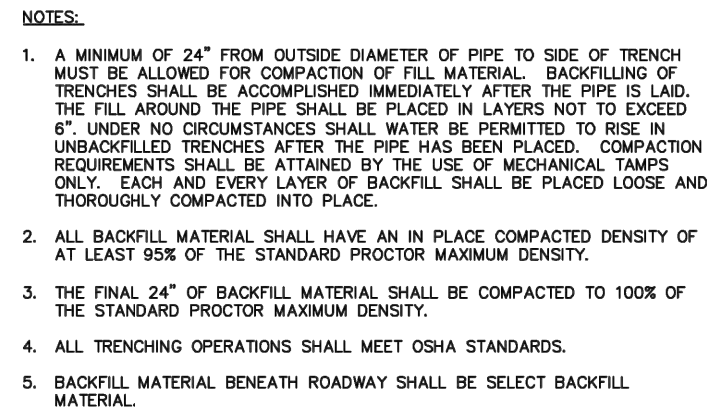
**UNDERDRAIN PERFORMANCE NOTE:**  
ALL HORIZONTAL UNDERDRAINS TO BE PERFORATED SCH 40 PVC. ALL VERTICAL CLEANOUTS TO BE SOLID SCH 40 PVC.



**BIORETENTION FACILITY DETAIL**  
NOT TO SCALE

CONSULTANT :	
SEAL :	
<div style="text-align: center;"><p>Raleigh, NC RSNC Engineering, PLLC 555 Fayetteville St. Suite 300 Raleigh, NC 27601 Phone: 919.230.1597 <a href="http://www.rsnc.com">www.rsnc.com</a></p></div>	
<div>SHEET TITLE : <b>STORMDRAIN &amp; STORMWATER PLAN</b></div>	
<div>PROJECT : <b>BIG OAK VET HOSPITAL</b> <b>VETS PETS</b> <b>1004 BIG OAK COURT; KNIGHTDALE, NC 27545</b></div>	
DESIGN	TT
DRAWN	TT
CHECKED	TT
DATE	08/11/2025
PROJECT No. <b>L0029.25001</b>	
SHEET NUMBER <b>C-500</b>	



[illegible]

**SEAL :**

**R**  
**RESPEC**

SHEET TITLE :		STORMDRAIN DETAILS	
PROJECT :		BIG OAK VET HOSPITAL VETS PETS	
DATE		08/11/2025	
DESIGN		TT	
DRAWN		TT	
CHECKED		TT	
PROJECT No.		L0029.25001	
SHEET NUMBER		C-501	



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cline

125 N. Harrington St.  
Raleigh, NC 27603  
919 / 833-6413  
ClineDesignAssoc.com

THE VETS PETS  
**WAKE VET BIG OAK COURT**  
1004 BIG OAK COURT  
KNIGHTDALE, NC 27545

NOT FOR  
CONSTRUCTION

SITE PLAN  
REVIEW

PROJECT: 024187  
DATE: 10.14.2025  
REVISIONS: DATE

\*P# = PERMIT, R# = RFI, # = REVISION  
DRAWN BY: TG  
CHECKED BY: KS, PK

ARCHITECTURAL  
FLOOR PLAN

A1.1

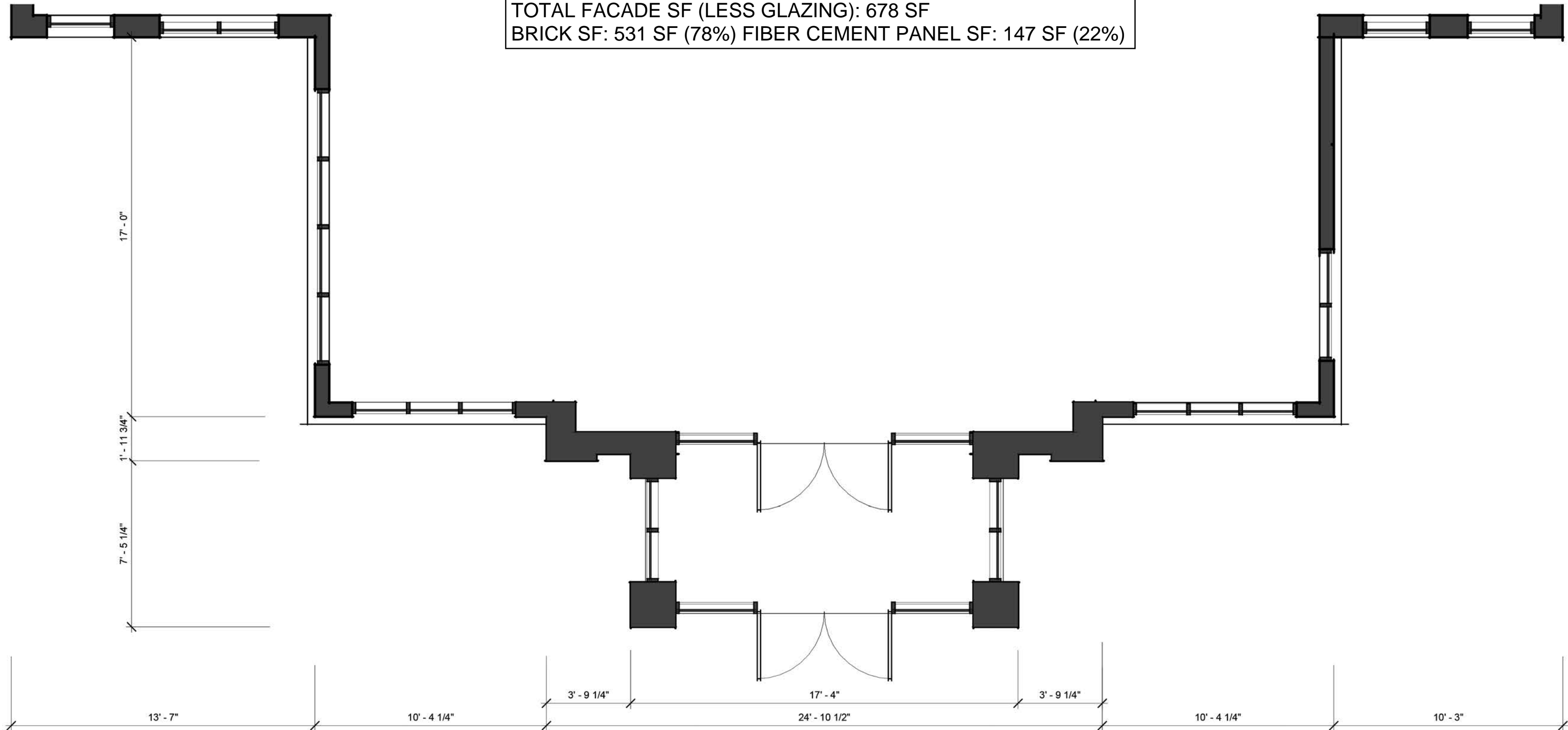


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**SOUTH ELEVATION GLAZING CALCULATIONS**  
TOTAL FACADE SF: 1,159 SF GLAZING SF: 481 SF (42%)

**MATERIAL CALCULATIONS**  
TOTAL FACADE SF (LESS GLAZING): 678 SF  
BRICK SF: 531 SF (78%) FIBER CEMENT PANEL SF: 147 SF (22%)



**SOUTH ELEVATION**

1

**cline**

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Raleigh, NC 27603  
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THE VETS PETS  
**WAKE VET BIG OAK COURT**  
1004 BIG OAK COURT  
KNIGHTDALE, NC 27545

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REVIEW

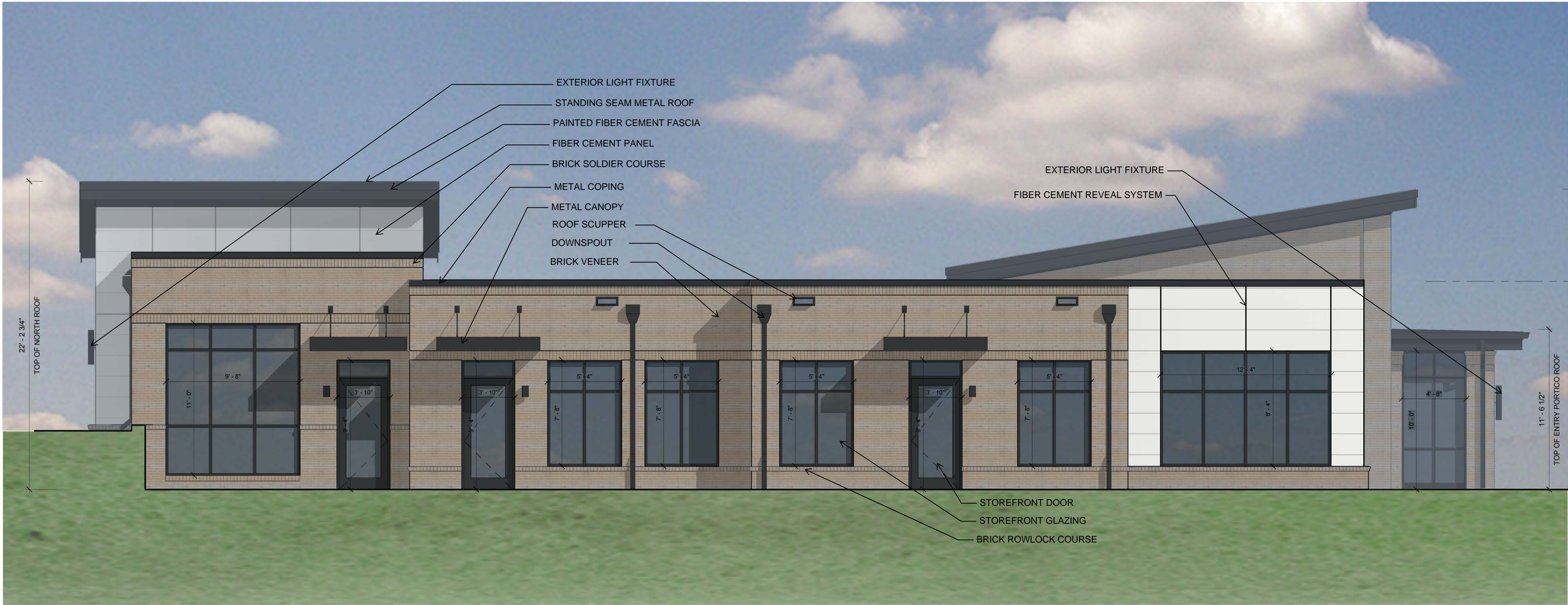
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DATE: 10.14.2025  
REVISIONS: DATE

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DRAWN BY: TG  
CHECKED BY: KS, PK

**SOUTH ELEVATION**

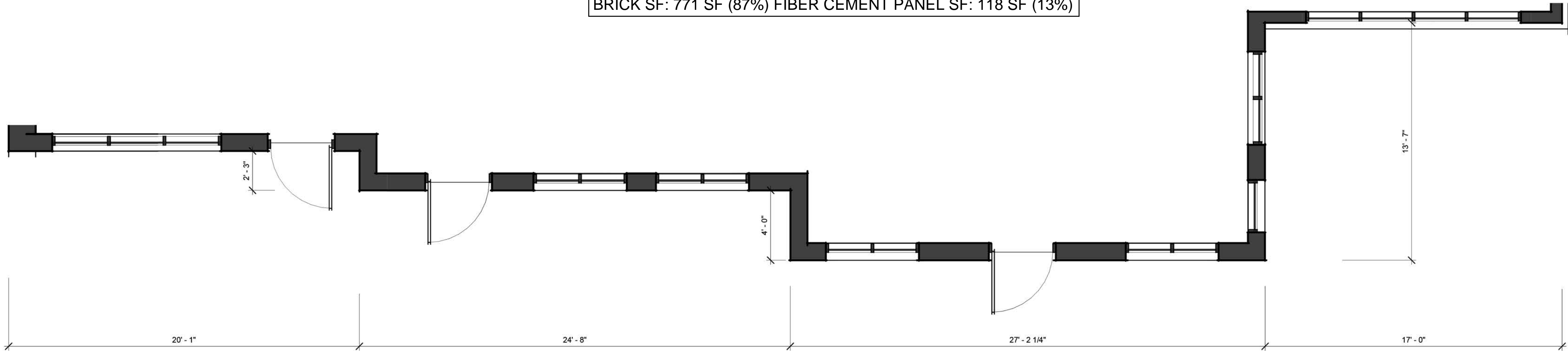
A2.1





**WEST ELEVATION GLAZING CALCULATIONS**  
TOTAL FACADE SF: 1,416 SF GLAZING SF: 527 SF (37%)

**MATERIAL CALCULATIONS**  
TOTAL FACADE SF (LESS GLAZING): 889 SF  
BRICK SF: 771 SF (87%) FIBER CEMENT PANEL SF: 118 SF (13%)



NOT FOR  
CONSTRUCTION

SITE PLAN  
REVIEW

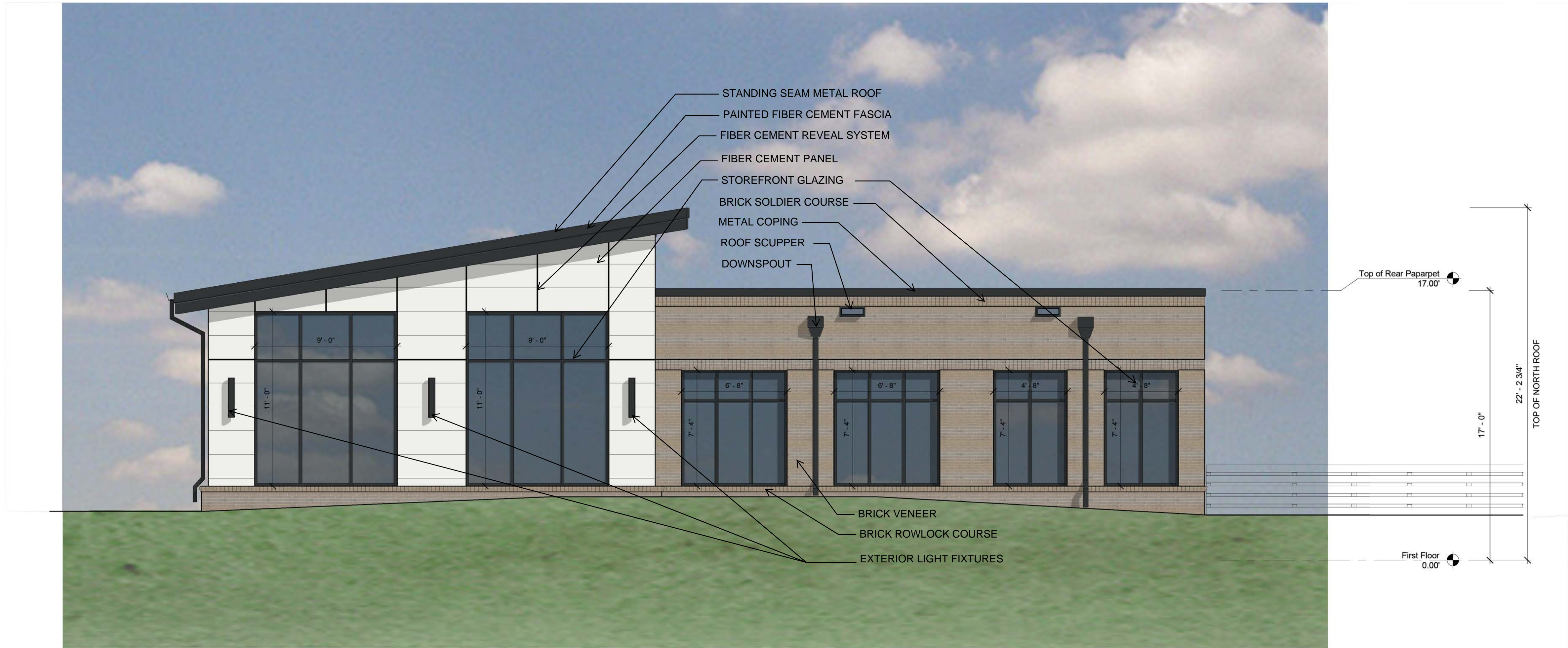
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DATE:	10.14.2025
REVISIONS:	DATE

\*P# = PERMIT, R# = RFI, # = REVISION  
DRAWN BY: TG  
CHECKED BY: KS, PK

WEST ELEVATION

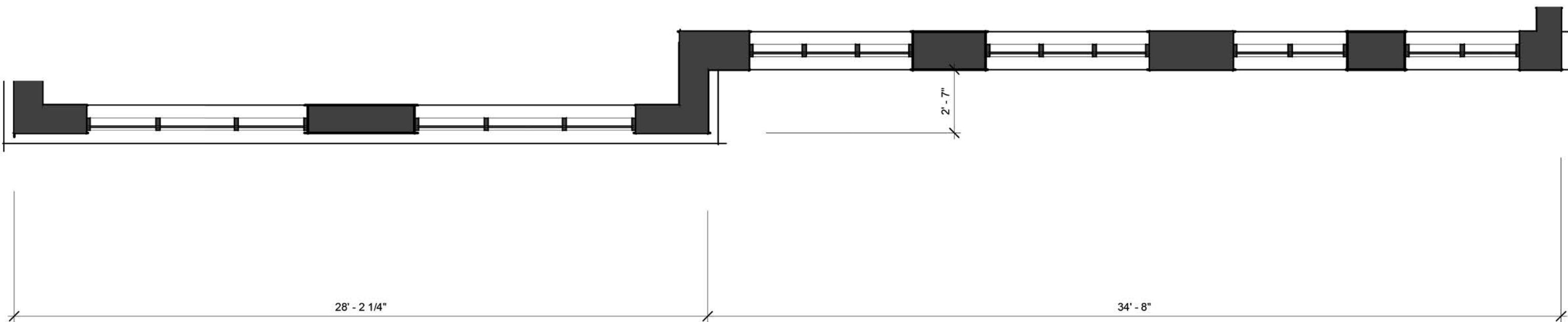


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**NORTH ELEVATION GLAZING CALCULATIONS**  
TOTAL FACADE SF: 891 SF GLAZING SF: 364 SF (41%)

**MATERIAL CALCULATIONS**  
TOTAL FACADE SF (LESS GLAZING): 527 SF  
BRICK SF : 325 SF (62%) FIBER CEMENT PANEL SF: 202 SF (38%)



**NORTH ELEVATION**

1

**cline**

125 N. Harrington St.  
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THE VETS PETS  
**WAKE VET BIG OAK COURT**  
1004 BIG OAK COURT  
KNIGHTDALE, NC 27545

NOT FOR  
CONSTRUCTION

SITE PLAN  
REVIEW

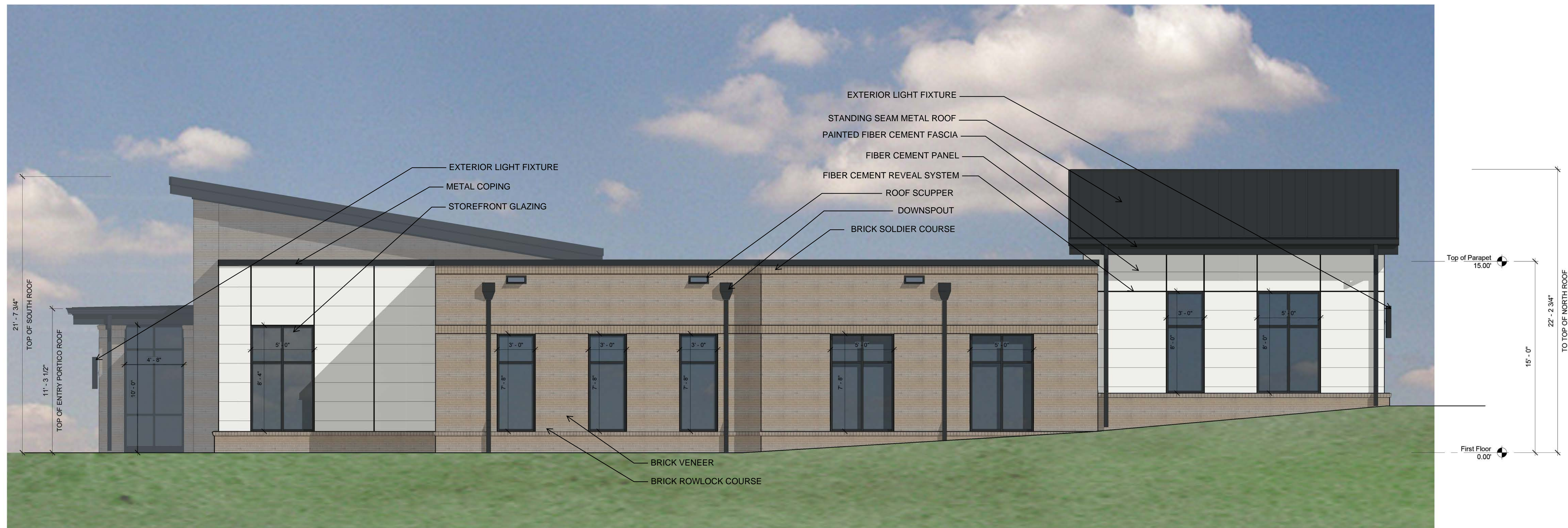
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REVISIONS: DATE

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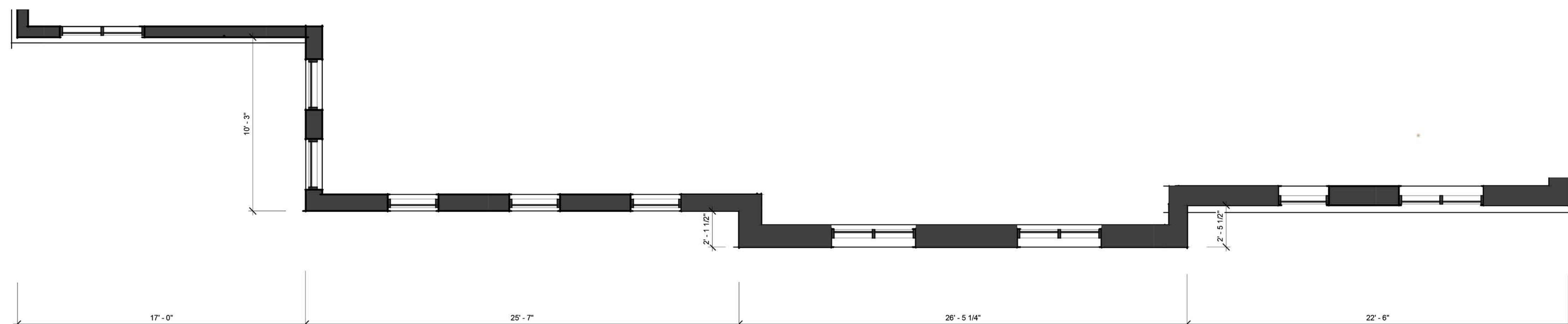
**NORTH ELEVATION**

A2.3





**MATERIAL CALCULATIONS**  
TOTAL FACADE SF (LESS GLAZING): 1,050 SF  
BRICK SF: 668 SF (64%) FIBER CEMENT PANEL SF: 382 SF (36%)



**EAST ELEVATION**

1

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919 / 833-6413  
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THE VETS PETS  
WAKE VET BIG OAK COURT  
1004 BIG OAK COURT  
KNIGHTDALE, NC 27545

NOT FOR  
CONSTRUCTION

**SITE PLAN  
REVIEW**

<b>PROJECT:</b>	<b>024187</b>
<b>DATE:</b>	<b>10.14.2025</b>
<b>REVISIONS:</b>	<b>DATE</b>

\*P# = PERMIT, R# = RFI, # = REVISION

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DRAWN BY: TG

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CHECKED BY: KS, PK

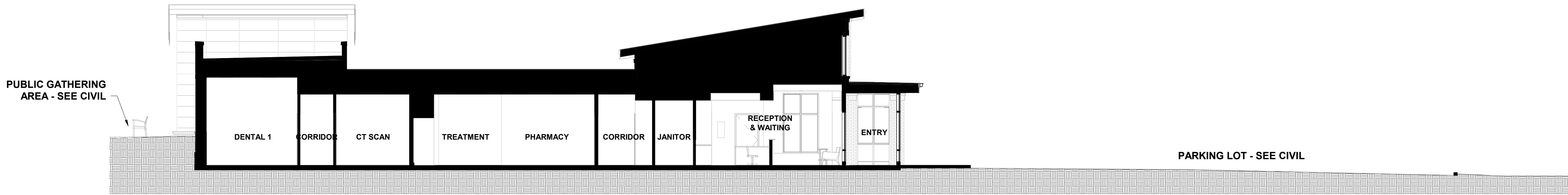
EAST ELEVATION

## A2.4

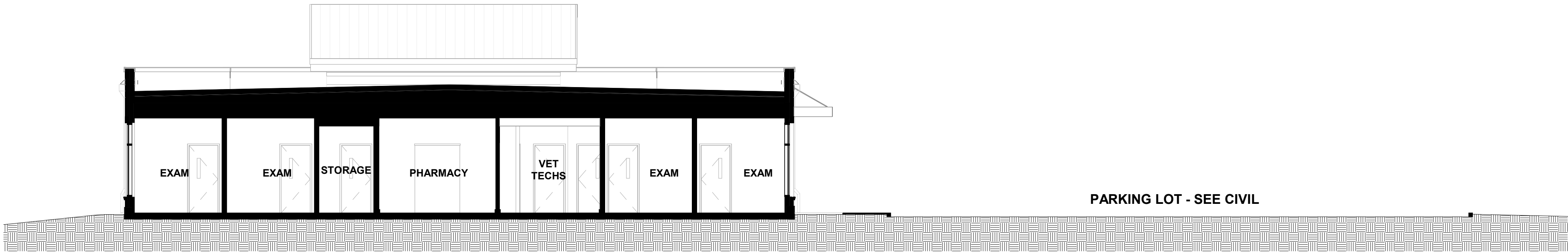
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10/10/2025 1:54:43 PM Autodesk Docs:024187 - Wake Vet Big Oak Court024187\_Big Oak Court.rvt



LONGITUDINAL SECTION 1  
1/8" = 1'-0"



TRANSVERSE SECTION 2  
1/8" = 1'-0"

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919 / 833-6413  
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cline

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CONSTRUCTION

SITE PLAN  
REVIEW

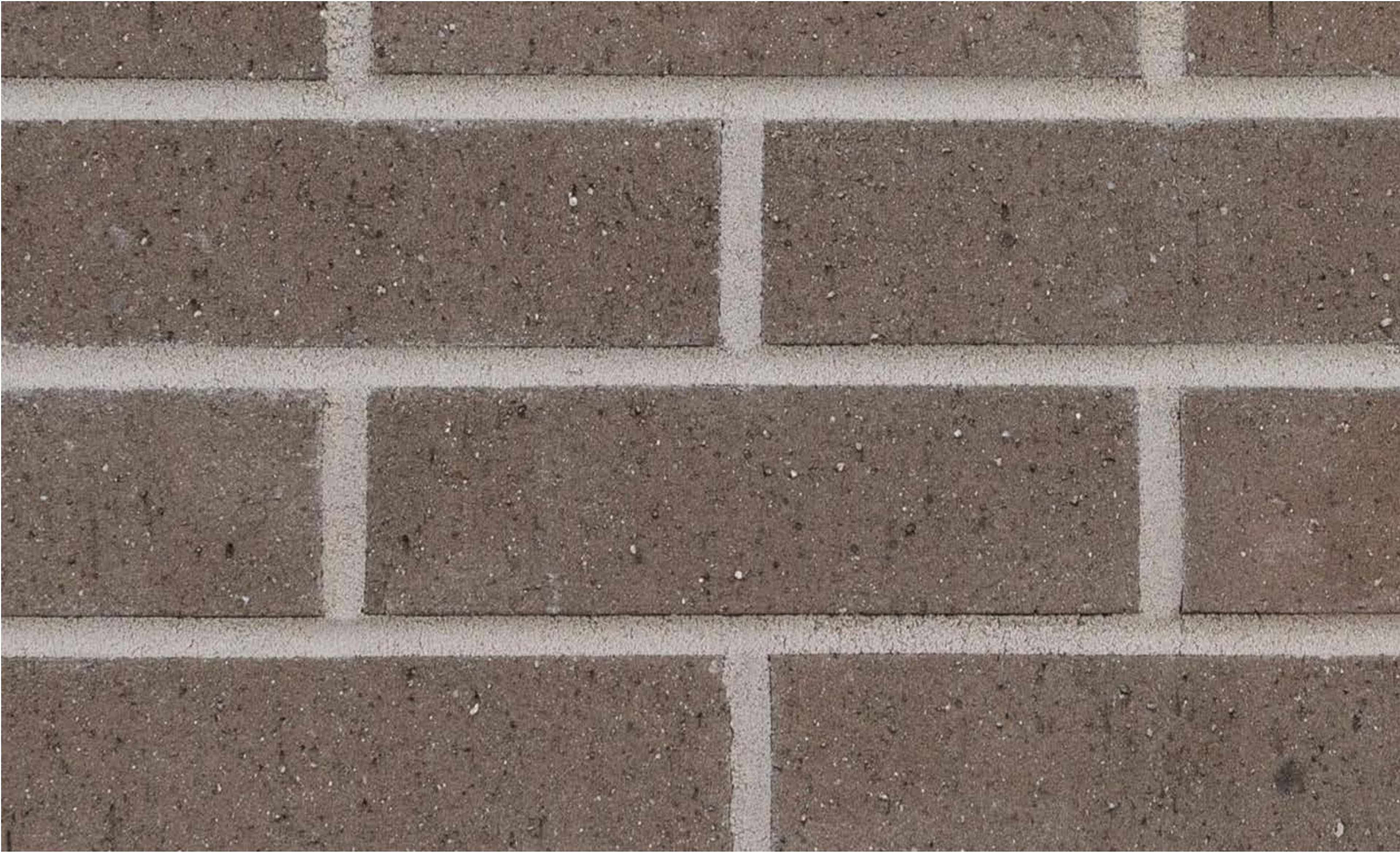
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DATE:	10.14.2025
REVISIONS:	DATE

\*P# = PERMIT, R# = RFI, # = REVISION  
DRAWN BY: TG  
CHECKED BY: KS, PK

CROSS SECTIONS

A3.1





PALMETTO BRICK VENEER  
2.0 GREYSTONE WIRECUT



NICHIHA ILLUMINATION CEMENTITIOUS  
PANEL (OR SIMILAR)  
WARM WHITE



STOREFRONT, GUTTERS, FASCIA,  
DOWNSPOUTS  
DARK BRONZE - PANTONE 7518V