

SITE PLANS  
FOR:

CRS - LAKE CITY  
SR 247 AT CR 242

COLUMBIA COUNTY, FLORIDA

SECTION 20, TOWNSHIP 4 SOUTH, RANGE 16 EAST

SUBMITTED TO:

COLUMBIA COUNTY  
SUWANNEE RIVER WATER MANAGEMENT DISTRICT  
FLORIDA DEPARTMENT OF TRANSPORTATION

REQUIRED PERMITS

0 COLUMBIA COUNTY SITE PLAN APPROVAL PERMIT  
0 COLUMBIA COUNTY PARKING VARIANCE  
0 DOH FOR WELL AND SEPTIC (BY OTHERS)  
0 FDEP NOI  
0 SRWMD 10/2 SELF CERTIFICATION  
0 FDOT DRIVEWAY CONNECTION PERMIT  
0 FDOT DRAINAGE CONNECTION PERMIT

DEVELOPER/APPLICANT

MATT CASON, PRESIDENT  
CONCEPT DEVELOPMENT, INC.  
3324 W UNIVERSITY AVE #151  
GAINESVILLE, FL 32607  
(352) 333-3233

OWNER

RALPH NORRIS - TRUSTEE OF THE RALPH  
NORRIS REVOCABLE LIVING TRUST  
319 SW RALPH TERRACE  
LAKE CITY, FL 32024  
COLUMBIA PARCEL NO. 20-45-16-03077-002

ENGINEER OF RECORD

DANIEL H. YOUNG, P.E.  
CHW  
11801 RESEARCH DRIVE  
ALACHUA, FL 32615  
(352) 331-1976  
EMAIL: DanielY@chw-inc.com

SURVEYOR OF RECORD

AARON H. HICKMAN, P.S.M.  
CHW  
11801 RESEARCH DRIVE  
ALACHUA, FL 32615  
(352) 331-1976  
EMAIL: AaronH@chw-inc.com

LANDSCAPE ARCHITECT

BRIAN D. BORTON, R.L.A.  
BORTON DESIGN, INC.  
1354 N. KYLE WAY  
SAINT JOHNS, FLORIDA 32259  
(904) 287-1996

ZONING: C-1 COMMERCIAL INTENSIVE

TRAFFIC STATEMENT:

PROPOSED LAND USE	ITE LU	AREA	RATE	AADT	AM PEAK	PM PEAK
VARIETY STORE	(814)	9,100SF	63.47	578	29	62

1.) BASED ON ITE 10TH EDITION AND GROSS BUILDING SQUARE FOOTAGE.

PARKING CALCULATION: 9,100 SF AT 1 SPACE PER 150 SF OF NON STORAGE FLOOR AREA = 53 SPACES REQUIRED  
PROVIDED: 30 SPACES (VARIANCE SUBMITTED)

REQUIRED: 2 HANDICAP SPACES; PROVIDED: 2 HANDICAP SPACES

DEVELOPMENT DATA

LAND USE: GENERAL COMMERCIAL  
ZONING: CN - COMMERCIAL, NEIGHBORHOOD

	ON-SITE	
DEVELOPMENT AREA:	133,729 S.F.	3.07 AC
BUILDING AREA:	9,100 S.F.	6.80 %
ROADS/CURB/CONCRETE:	22,718 S.F.	16.99 %
STORM MAGEMENT FACILITY	52,550 S.F.	39.29 %
IMPERVIOUS AREA:	31,818 S.F.	23.79 %
OPEN SPACE:	49,085 S.F.	14.27 %

PARKING SPACES	30
MAX BUILDING HEIGHT:	LESS THAN 22 FEET

TAX PARCEL: 20-45-16-03077-002

SHEET INDEX

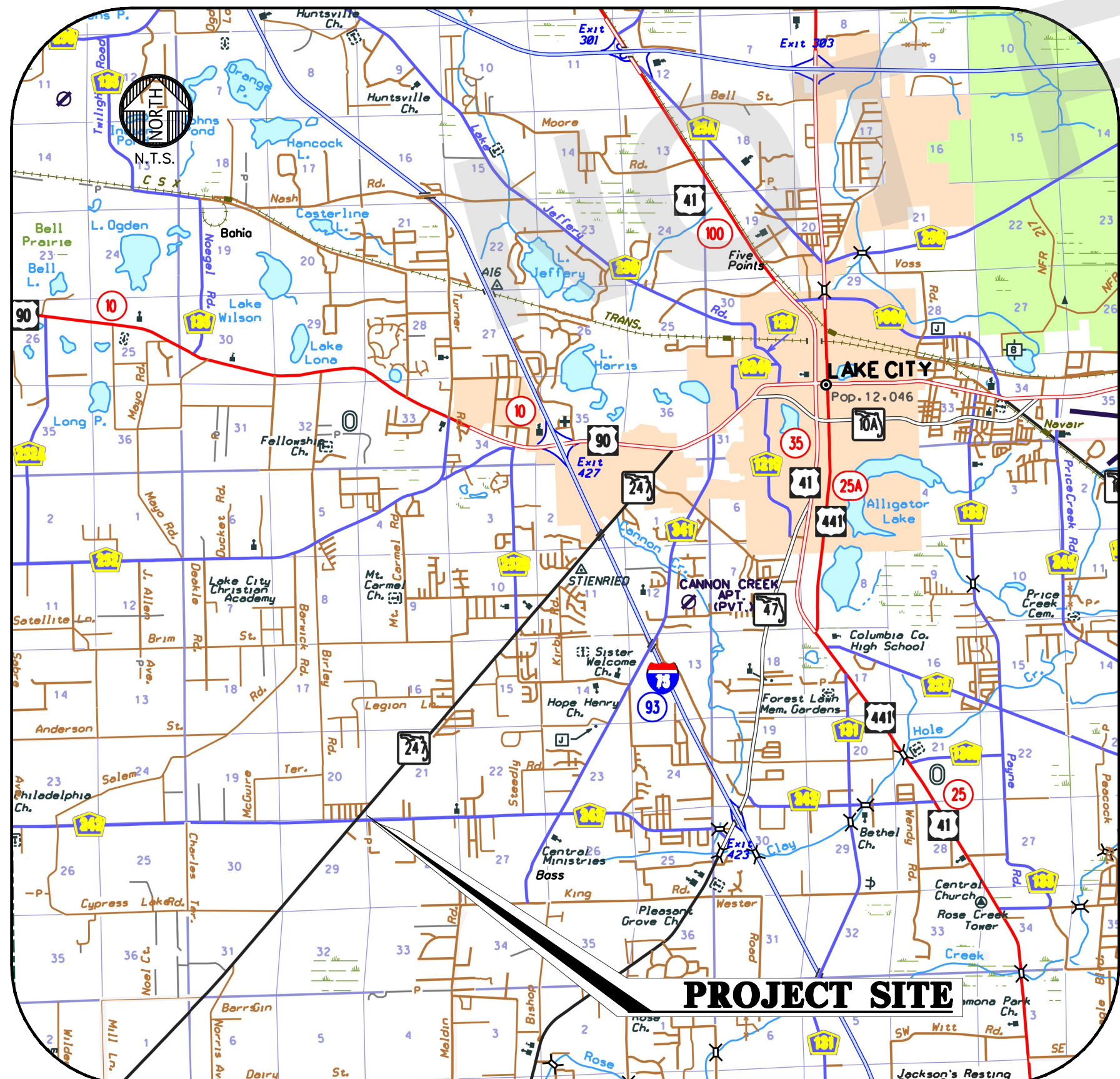
SHEET NUMBER	DESCRIPTION
C0.00	COVER SHEET AND INDEX
C0.10	GENERAL NOTES
C0.11	LEGEND
1 OF 1	ALTA/NSPS LAND TITLE SURVEY
C0.20	STORMWATER POLLUTION PREVENTION NOTES
C0.21	STORMWATER POLLUTION PREVENTION PLAN
C0.30	DEMOLITION AND TREE PROTECTION PLAN
C1.00	HORIZONTAL CONTROL AND SITE PLAN
C1.20	ACCESSIBILITY SITE PLAN
C2.00	MASTER GRADING AND DRAINAGE PLAN
C2.10	DETAILED GRADING AND DRAINAGE PLAN
C2.20	STORMWATER MANAGEMENT FACILITY
C2.30	CONSTRUCTION DETAILS
C3.00	UTILITY PLAN
A2	EXTERIOR ELEVATIONS & EXTERIOR FINISH SCHEDULE
LS-01 - LS-04	LANDSCAPE PLANS

BEFORE YOU DIG !  
CALL SUNSHINE STATE ONE CALL OF FLORIDA  
AT LEAST TWO FULL BUSINESS DAYS BEFORE  
DIGGING OR DISTURBING EARTH

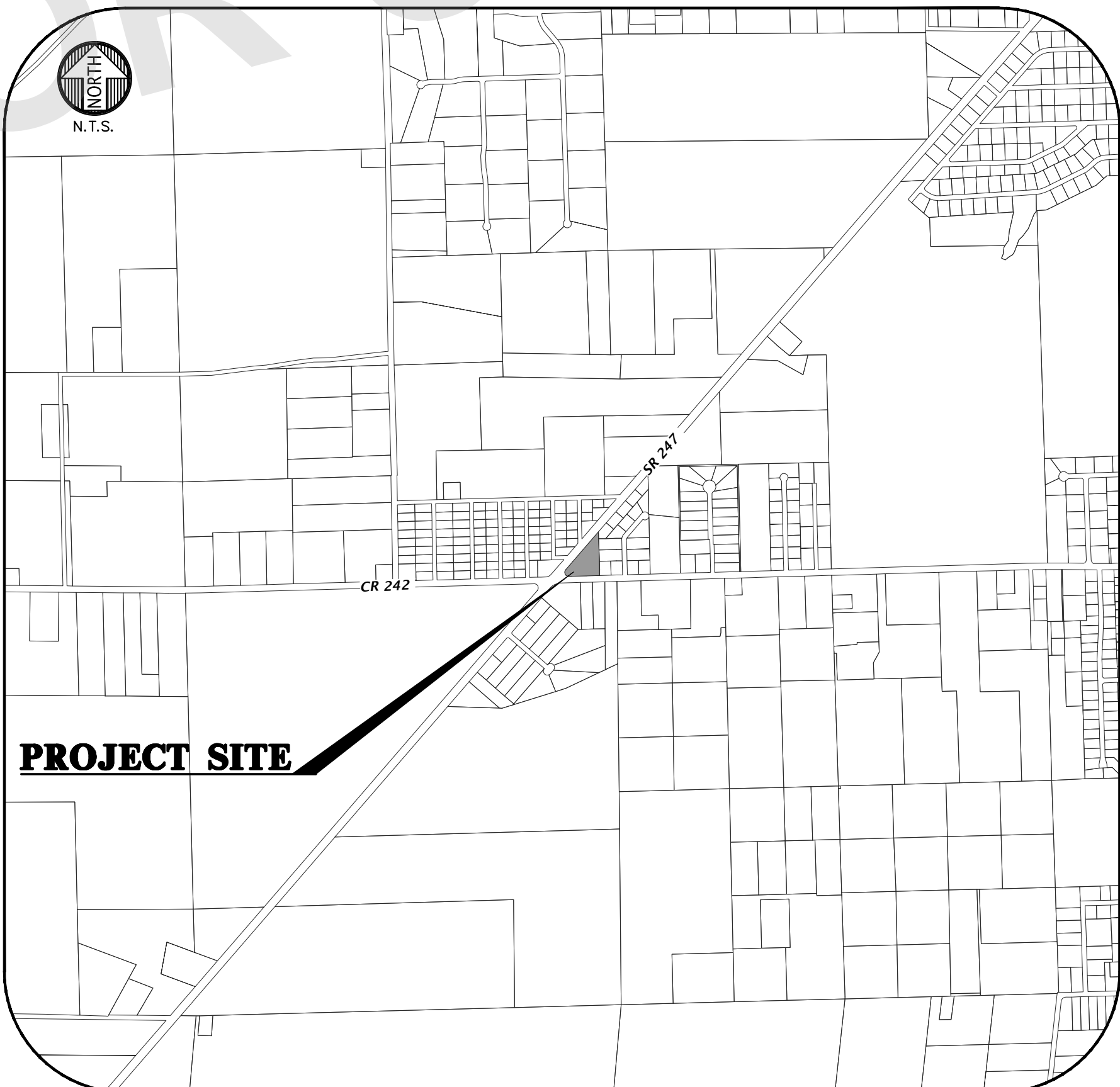
811

Know what's below.  
Call before you dig.

1-800-432-4770



VICINITY MAP



LOCATION MAP

11801 Research Drive  
Alachua, Florida 32615  
(352) 331-1976  
www.chw-inc.com

CHW  
Professional Consultants

SCALE  
N/A  
VERIFY SCALE ON  
ORIGINAL DRAWING  
IF NOT THE SAME AS  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

SCALE

CONSTRUCTION REVISIONS

DATE  
2/15/21 - FIRST SUBMITTAL

CLIENT  
CONCEPT DEVELOPMENT, INC.

PROJECT  
CRS LAKE CITY - SR 247 AT CR 242

DESIGNER  
K. HERRITT

EXERCISE  
C. THORNTON

QUALITY CONTROL  
D. YOUNG

PROJECT NUMBER  
20-0425

DANIEL H. YOUNG  
Daniel H. Young, P.E.  
State of Florida, Professional  
Engineer, License No. 70780  
This item has been digitally  
signed and sealed by Daniel  
H. Young, P.E. on the date  
indicated here: 02/16/2021  
Printed copies of this  
document are not considered  
signed and sealed and the  
signature must be verified on  
any electronic copies.

FL PE No. 70780

SHEET NO.

C0.00



SHOWN HEREON WERE TAKEN FROM AN ALTA/NSPS LAND TITLE SURVEY PREPARED BY CHW, AND THE ACCURACY OF THIS PLAN HAS BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES COMPANIES OF ANY RELOCATION OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL RELOCATE ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION. THE UTILITY COMPANIES DURING THE RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED BY SUCH RELOCATION SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

NOTICE IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE NEAREST MARKING OF THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES IN ADVANCE OF COMMENCEMENT OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL UTILITY LOCATIONS. NO DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER UNTIL AFTER THE WORK HAS BEEN PROPERLY MARKED.

HORIZONTAL LOCATION AND VERTICAL LOCATION OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR SHALL CALL ALL UTILITY COMPANIES TO HAVE THEIR UTILITIES RELOCATED PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION.

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO DISPOSE OF ALL DEMOLITION MATERIALS IN A SAFE AND LAWFUL MANNER. THE CONTRACTOR SHALL SALVAGE TO THE OWNER ANY ITEM AS DETERMINED BY THE OWNER. ONCE DEMOLISHED, MATERIAL SHALL BE DISPOSED OF PROPERLY AND IMMEDIATELY.
2. REMOVE ALL IMPROVEMENTS DEFINED ON THE DEMOLITION PLAN. SALVAGE ITEMS TO OWNER AS DEFINED BY THE OWNER'S REPRESENTATIVE AND CONSTRUCTION DOCUMENT SPECIFICATIONS.
3. EXISTING PAVEMENT AND SIDEWALK EDGES THAT BORDER NEW CONSTRUCTION OR DEMOLITION ARE TO BE SAW-CUT TO PROVIDE A SMOOTH TRANSITION.
4. ALL EXISTING TREES ARE TO REMAIN UNLESS OTHERWISE NOTED.
5. ROOTS LARGER THAN 1 INCH IN DIAMETER ON TREES TO BE PRESERVED THAT ARE ENCOUNTERED DURING CONSTRUCTION MUST BE CUT CLEANLY AND COVERED OVER WITH SOIL BY THE END OF THE WORKING DAY.
6. ALL ASPHALT AND LIMEROCK WILL BE COMPLETELY REMOVED FROM AREAS THAT WILL BE LANDSCAPED. IN PARTICULAR, AREAS WHERE ASPHALT WILL BE REMOVED MUST HAVE THE TOP HARD SURFACE, LIMEROCK, AND COMPACTED SOIL REMOVED. REPLACEMENT SOIL SHALL BE CLEAN DEEP FILL OF PH 5.5 - 6.5. THE DEPTH OF UNCOMPACTED SOIL PRIOR TO PLANTING MUST BE AT LEAST 3 FEET TO ACCOMMODATE FUTURE TREE ROOT GROWTH. NO LIMEROCK, LARGE STONES, OR OTHER CONSTRUCTION DEBRIS CAN REMAIN IN AREAS TO BE LANDSCAPED.

1. THE CONTRACTOR IS RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL PRACTICES DURING CONSTRUCTION TO MINIMIZE ON-SITE EROSION/SEDIMENTATION AND TO PROTECT AGAINST DAMAGE TO OFF SITE PROPERTY. THE FOLLOWING PRACTICES SHALL BE EMPLOYED:

A. EROSION AND SEDIMENTATION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AREAS OF OFF-SITE DISCHARGE DURING CONSTRUCTION SHALL BE PROTECTED WITH A SEDIMENT BARRIER PER FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL TO PREVENT OFF-SITE DISCHARGE OF SEDIMENTS. A SILT BARRIER SHALL SPECIFICALLY BE REQUIRED, CONSTRUCTED, AND MAINTAINED AS INDICATED ON THIS SHEET. TEMPORARY SEED AND MULCH SHOULD BE USED TO CONTROL ON-SITE EROSION WHEN IT IS NOT PRACTICAL TO ESTABLISH PERMANENT VEGETATION. SOD SHALL BE PLACED AS EARLY AS POSSIBLE ON ALL SLOPES STEEPER THAN 5 (FT) HORIZONTAL TO 1 (FT) VERTICAL. SOD SHALL BE PINNED AS REQUIRED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PHASE. THE CONTRACTOR SHALL INSPECT AND REPAIR AS NECESSARY THE EROSION/SEDIMENTATION PROTECTION AT THE END OF EACH WORKING DAY.

NOTE: EROSION/SEDIMENTATION CONTROL SHALL BE PLACED PRIOR TO SITE EXCAVATION AND SHALL REMAIN IN PLACE UNTIL SITE VEGETATION AND LANDSCAPING IS COMPLETE.

B. ALL INLET STRUCTURES AND PIPE SHALL BE PROTECTED FROM SILTATION BY CONSTRUCTING INLET PROTECTION AS DEFINED BY THESE PLANS OR IN THE FDOT STANDARDS. IF SILTATION OCCURS, THE CONTRACTOR IS RESPONSIBLE TO REMOVE SILTATION AS PART OF THE BASE CONTRACT AT NO ADDITIONAL COST TO THE OWNER.

C. EXCAVATED STORMWATER FACILITIES SHALL BE CONSTRUCTED AS PART OF THE INITIAL CONSTRUCTION. THE FACILITIES SHALL BE ROUGH GRADED TO THE DESIGN ELEVATION AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED. THE FACILITIES BOTTOM SHALL BE OVER-EXCAVATED BY SIX INCHES, SCARIFIED, BACKFILLED WITH ARCHER FILT (HAVING NO MORE THAN 5% PASSING NO. 200 SIEVE), AND GRADED TO FINAL DESIGN GRADES. EXCESS AND UNSUITABLE SOILS SHALL BE REMOVED FROM THE BASIN (REMOVE ALL ACCUMULATED SILTS, CLAYS, ORGANIC, AND DEBRIS). FINALLY, SCARIFY AND RAKE BOTTOM AND VEGETATE.

D. PERMANENT VEGETATIVE STABILIZATION SHALL BE APPLIED ON FINE GRADED SITES AS SOON AS PRACTICAL. TEMPORARY SEEDING SHOULD BE EMPLOYED TO PREVENT EXPOSURE OF BARREN SOILS UNTIL PERMANENT VEGETATION CAN BE APPLIED.

E. ALL SLOPES 1:3 OR STEEPER REQUIRE LAPPED OR PEGGED SOD.

1. MATERIALS AND CONSTRUCTION METHODS FOR WATER AND WASTEWATER SYSTEMS SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION, LATEST REVISION THEREOF AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL UTILITY EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE.
3. THE CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY UTILITY FIELD LOCATION AND RELOCATION AS REQUIRED.
4. THE COST OF ALL TESTING OF COMPRESSION AND OTHER REQUIRED TESTS SHALL BE PAID BY THE CONTRACTOR AND MADE AVAILABLE TO THE ENGINEER OF RECORD DURING SITE INSPECTIONS.
5. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF PARTIES US THE CONTRACTOR'S RESPONSIBILITY.
6. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
7. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER AND OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR THE PERFORMANCE OF THE ITEM.
8. A HORIZONTAL SEPARATION OF TEN FEET PREFERRED, BUT NO LESS THAN SIX FEET, SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND GRAVITY OR PRESSURE WASTEWATER MAINS, WASTEWATER FORCE MAINS, AND RECLAIMED WATER MAINS NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. A HORIZONTAL SEPARATION OF TEN FEET PREFERRED, BUT NO LESS THAN THREE FEET, SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND VACUUM WASTEWATER MAINS. A HORIZONTAL SEPARATION OF THREE FEET SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND STORM SEWERS, STORMWATER FORCE MAINS, AND RECLAIMED WATER MAINS REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
9. WHEN POTABLE WATER MAINS CROSS OTHER PIPES, THE TWO PIPES SHALL HAVE JOINTS A MINIMUM OF SIX FEET FROM THE CROSSING. WHEN POTABLE WATER MAINS CROSS UNDERNEATH OTHER PIPES, THE MINIMUM VERTICAL SEPARATION IS TWELVE INCHES. WHEN POTABLE WATER MAINS CROSS ABOVE PRESSURE WASTEWATER MAINS, WASTEWATER FORCE MAINS, AND RECLAIMED WATER MAINS, THE MINIMUM VERTICAL SEPARATION IS TWELVE INCHES. WHEN POTABLE WATER MAINS CROSS ABOVE GRAVITY AND VACUUM WASTEWATER MAINS, STORM SEWERS, AND STORMWATER FORCE MAINS, THE PREFERRED VERTICAL SEPARATION IS TWELVE INCHES AND THE THE MINIMUM VERTICAL SEPARATION IS SIX INCHES.
10. ALL WATER MAINS SHALL HAVE A MINIMUM OF 36 INCHES OF COVER.
11. RESTRAINED JOINTS SHALL BE PROVIDED AT ALL FITTINGS AND HYDRANTS IN ACCORDANCE WITH AWWA STANDARDS.
12. ALL PVC WATER SERVICE LINES SHALL BE SCH 40 PVC.
13. THE SITE WORK CONTRACTOR SHALL ENGAGE THE SERVICES OF A LICENSED UNDERGROUND UTILITY AND EXCAVATION CONTRACTOR TO INSTALL THE NEW WATER SERVICE LINE.
14. ALL SANITARY SEWER SERVICE LATERALS SHALL BE 4" PVC SDR 35 OR 6" PVC SDR 35 WITH A CLEAN-OUT LOCATED PER THE PLANS. MINIMUM SLOPE FOR 4" LATERALS SHALL BE 1.0% AND A MINIMUM CLEANOUT SPACING OF 75 FEET ON-CENTER AND MINIMUM SLOPE FOR 6" LATERALS SHALL BE 0.6% AND A MINIMUM CLEANOUT SPACING OF 100 FEET ON-CENTER.
15. PUBLIC UTILITY EASEMENTS WILL BE PROVIDED AS REQUIRED FOR ALL UTILITIES SHOWN HEREON BY METES AND BOUND DESCRIPTION AND IN ACCORDANCE WITH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.

1. ALL ELECTRICAL UTILITIES AND INFORMATION SHOWN ON THE CIVIL PLANS ARE FOR LOCATION AND COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL PLANS BY OTHERS FOR THE ELECTRICAL DESIGN AND DETAILS.

2. ELECTRIC DESIGN PROVIDED BY OTHERS.

1. ALL WORK PERFORMED WITHIN THE FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY SHALL CONFORM TO THE FOLLOWING:
  - A. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JULY 2020).
  - B. FDOT STANDARD PLANS (FY 19-20 ROAD CONSTRUCTION)
  - C. FDOT DESIGN MANUAL (2020)
  - D. FDOT FLEXIBLE PAVEMENT DESIGN MANUAL FOR NEW CONSTRUCTION AND PAVEMENT REHABILITATION
- SHOULD A CONFLICT ARISE BETWEEN THE DETAILS SHOWN IN THE PLANS AND THE DEPARTMENT OF TRANSPORTATION STANDARDS THE ENGINEER/PERMITTEE SHALL IMMEDIATELY CONFER WITH THE DEPARTMENT'S ENGINEER IN ORDER TO RESOLVE THE DISCREPANCY. IN NO CASE WILL ANYTHING LESS THAN THE DEPARTMENT'S MINIMUM STANDARD BE ALLOWED.
2. ALL TRAFFIC STRIPING AND MARKINGS ARE TO BE LEAD-FREE, NON-SOLVENT BASED THERMOPLASTIC.
3. REMOVAL OF EXISTING STRIPING SHALL BE ACCOMPLISHED USING THE HYDRO-BLAST METHOD.
4. ALL CURB AND GUTTER AND SIDEWALK WILL BE REMOVED AND REPLACED JOINT TO JOINT.
5. ALL DISTURBED AREA WITH THE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY WILL RESTORED TO ORIGINAL OR BETTER CONDITION BY GRADING AND SODDING THE AREA DISTURBED (BERMUDA IN RURAL, CENTPEDEE IN UTILITY STRIPS).

1. THE CONTRACTOR IS RESPONSIBLE FOR CREATING A MAINTENANCE OF TRAFFIC (MOT) PLAN FOR CONSTRUCTION ACTIVITY THAT OCCURS WITHIN THE PUBLIC RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO SIDEWALK WORK AND ACTIVITIES THAT REQUIRE A LANE (OR ROAD) CLOSURE, SUCH AS CONNECTION TO SEWER MANHOLES AND WATER MAINS. THE MOT PLAN MUST BE CREATED BY A REGISTERED PROFESSIONAL ENGINEER WHO IS CERTIFIED TO DO SO BY THE FDOT MOT CERTIFICATION TRAINING. THE MOT PLAN MUST ALSO BE IN ACCORDANCE WITH FDOT STANDARDS PLANS AND FDOT STANDARD SPECIFICATIONS REQUIREMENTS AND MUST BE REVIEWED AND APPROVED BY THE FDOT AND COLUMBIA COUNTY.
2. THE CONTRACTOR SHALL SUBMIT THE MOT TO THE APPROPRIATE REGULATORY AUTHORITY PRIOR TO WORK REQUIRING THE MOT FOR APPROVAL. NO WORK IN THE ROW SHALL OCCUR UNTIL THE MOT IS APPROVED.

SUBMITTALS						CONSTRUCTION REQUIRED RESPONSE:					
SUBMITTALS						SCALE					
N/A						VERTICAL SCALE BAR IS ONE INCH ON ORIGINAL DRAWING					
						DO NOT OVERLAP OR CROSS THIS SHEET. ADJUST SCALES ACCORDINGLY.					
TECHNICIAN: <b>K MERRITT</b>						CLIENT: <b>CONCEPT DEVELOPMENT, INC.</b>					
DESIGNER: <b>C THORNTON</b>						PROJECT: <b>CRS LAKE CITY - SR 247 AT CR 42</b>					
QUALITY CONTROL: <b>D YOUNG</b>						SHEET TITLE: <b>GENERAL NOTES</b>					
<b>20-0425</b>						<b>PROJECT NUMBER</b>					
<b>DANIEL H. YOUNG</b>											
<p>Daniel H Young, P.E. State of Florida, Professional Engineer, License No. 70780</p> <p>This item has been digitally signed and sealed by Daniel H. Young, P.E., on the date indicated here: 6/21/2024</p> <p>Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.</p>											
FL PE No. 70780											
SHEET NO.: <b>C0.10</b>											

## ABBREVIATIONS

SYMBOLS		
·	FEET (WHEN USED WITH LENGTHS)	N
°	DEGREES	NORTH
'	MINUTES (WHEN USED WITH ANGLES)	NORTHING - EASTING
"	SECONDS	N/A
%	PERCENT	NAVD
@	AT	NATIONAL AMERICAN VERTICAL DATUM OF 1988
		NGVD
		NATIONAL GEODETIC VERTICAL DATUM OF 1929
		NO
		NUMBER
A	ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	NPDES
		NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
AC	ACRES	NTS
		NOT TO SCALE
ADA	AMERICAN WITH DISABILITIES ACT	
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	O
ARCH	ARCHITECT	ON CENTER
ARV	AIR RELEASE VALVE	OHW
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	OVERHEAD WIRE
AWWA	AMERICAN WATER WORKS ASSOCIATION	ORB
		OFFICIAL RECORDS BOOK
		OSHA
		OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
		P
		PAVEMENT
		PC
		POINT OF CURVATURE
BC	BACK OF CURB	PCC
		POINT OF COMPOUND CURVE
BFP	BACKFLOW PREVENTER	PERF
		PERFORATED
BLDG	BUILDING	PROP
		PROPOSED
BM	BENCHMARK	PT
		POINT OF TANGENCY
BMP	BEST MANAGEMENT PRACTICE	PVC
		POLYVINYL CHLORIDE
BOC	BACK OF CURB	PUE
		PUBLIC UTILITY EASEMENT
BVCS	BEGIN VERTICAL CURVE STATION	PVI
		POINT OF VERTICAL INTERSECTION
BVCE	BEGIN VERTICAL CURVE ELEVATION	
BW	BOTTOM OF WALL	R
BSL	BUILDING SETBACK LINE	RADIUS
		R
		RCP
		REINFORCED CONCRETE PIPE
CATV	CABLE TELEVISION	RPM
		RAISED REFLECTIVE PAVEMENT MARKER
CI	CURB INLET	RPZ
		REDUCED PRESSURE ZONE
CIP	CAST IRON PIPE	RT
		RIGHT
CLDIP	CEMENT LINE DUCTILE IRON PIPE	RWM
		RECLAIMED WATER MAIN
CMP	CORRUGATED METAL PIPE	R/W
		RIGHT-OF-WAY
CO	CLEANOUT	S
CONC	CONCRETE	SOUTH
COORD	COORDINATE	SAN
CR	COUNTY ROAD	SANITARY
C/O	CLEANOUT	SHWE
		SEASONAL HIGH WATER ELEVATION
		SF
		SILT FENCE
		SL
		SLOPE
DBH	DIAMETER AT BREAST HEIGHT	SP
		SUPERPAVE
DE	DRAINAGE EASEMENT	SR
DEG	DEGREE	STATE ROAD
DIA	DIAMETER	SS
		SANITARY SEWER
DIP	DUCTILE IRON PIPE	ST
DWG	DRAWING	STORM
		STA
		STATION
		STD
		STANDARD
		T
		TREE BARRICADE
		TB
		TEMPORARY CONSTRUCTION EASEMENT
e	RATE OF ELEVATION	TCE
		TEMPORARY
E	EAST	TEMP
EA	EACH	TEMP
EL	ELEVATION	TOB
		TOP OF BANK
ELEV	ELEVATION	TV
		TELEVISION
EOP	EDGE OF PAVEMENT	TW
		TOP OF WALL
EOR	ENGINEER OF RECORD	TYP
		TYPICAL
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE	U
		UNITED STATES FOUNDRY
ESMT	EASEMENT	USGS
		UNITED STATES GEOLOGICAL SURVEY
EVCS	END VERTICAL CURVE STATION	UTIL
		UTILITY
EVCE	END VERTICAL CURVE ELEVATION	
EX	EXISTING	V
		VERTICAL
		V
		VERTICAL CURVE
		VCP
		VITRIFIED CLAY PIPE
		W
		WEST
FAC	FLORIDA ADMINISTRATIVE CODE	W
		WATER
FBR	FLORIDA BEARING RATIO	W/
		WITH
FC	FRICTION COURSE	WM
		WATER MAIN
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	WW
		WASTEWATER
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	WWF
		WELDED WIRE FABRIC
FFE	FINISHED FLOOR ELEVATION	
FH	FIRE HYDRANT	
FHWA	FLORIDA HIGHWAY ADMINISTRATION	
FIG	FIGURE	
FM	FORCE MAIN	
FOC	FACE OF CURB	
FS	FLORIDA STATUTES	
FT	FEET	
		G
		GALVANIZED
GALV		GM
		GAS MAIN
GV	GATE VALVE	
		H
		HDPPE
		HIGH DENSITY POLYETHYLENE
HP	HIGH POINT	
		I
		IDENTIFICATION
ID		INV
		INVERT
INV EL		INV EL
		INVERT ELEVATION
IP		IP
		IRON PIPE
		K
		VERTICAL CURVE RATE OF CHANGE
		L
		LENGTH
L		LA
		LANDSCAPE ARCHITECT
LBR		LBR
		LIMEROCK BEARING RATIO
LDR		LDR
		LAND DEVELOPMENT REGULATION
LF		LF
		LINEAR FEET
LP		LP
		LOW POINT
LT		LT
		LEFT
		M
		MAXIMUM
MAX		ME
		MATCH EXISTING
ME		MH
		MANHOLE
MH		MIN
		MINIMUM
MIN		MISC
		MISCELLANEOUS
MISC		MJ
		MECHANICAL JOINT
MJ		MUTCD
		MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

## SIGNAGE

SIGNS ARE PER FDOT SPECIFICATIONS OR PER MUTCD. SIGN POSTS AND INSTALLATION SHALL BE PER FDOT INDEX NO. 700-010. SIGN PLACEMENT SHALL BE PER FDOT INDEX NO. 700-101.

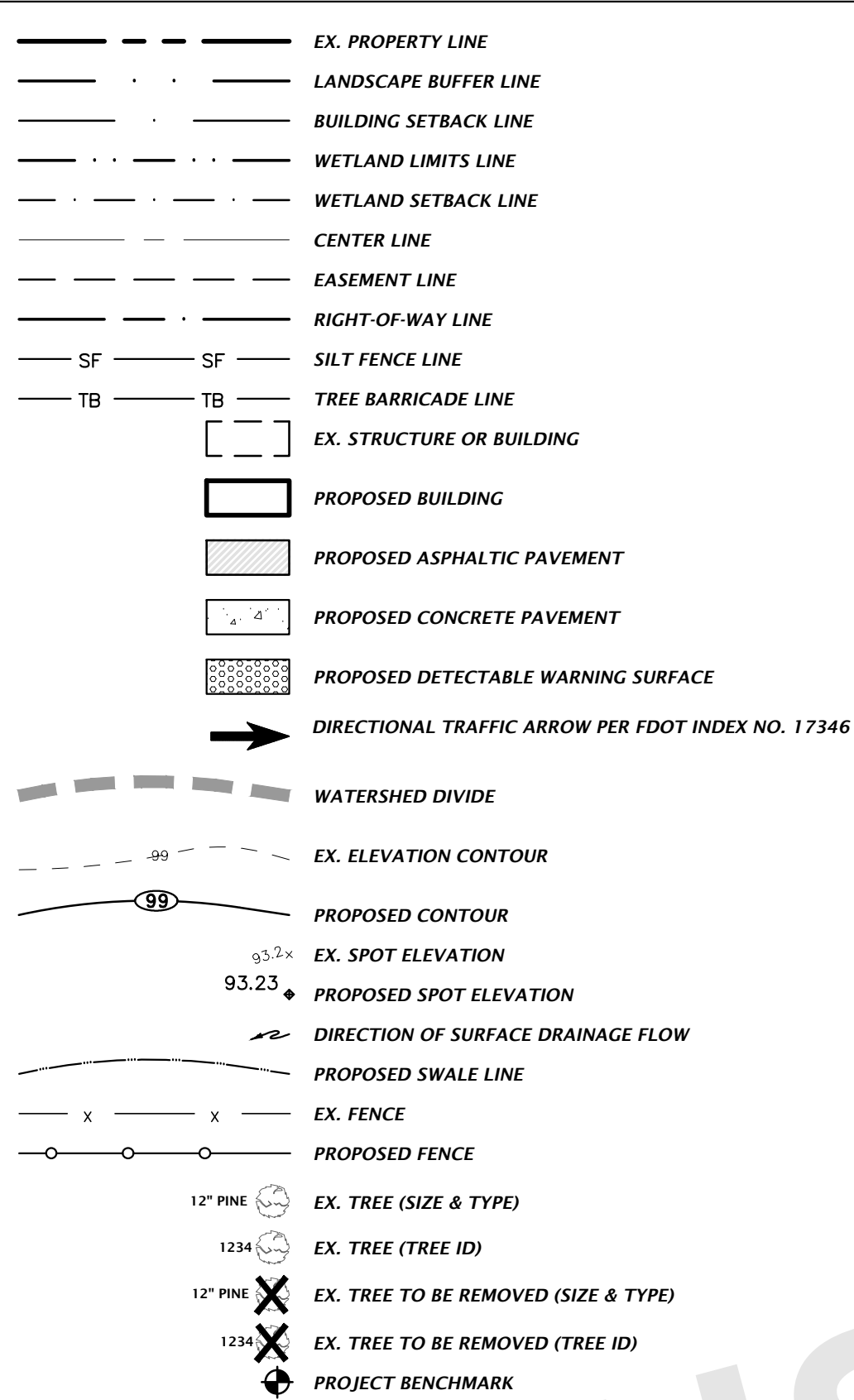


FTP-20-06 (12" X 18") PER FDOT INDEX NO. 700-102



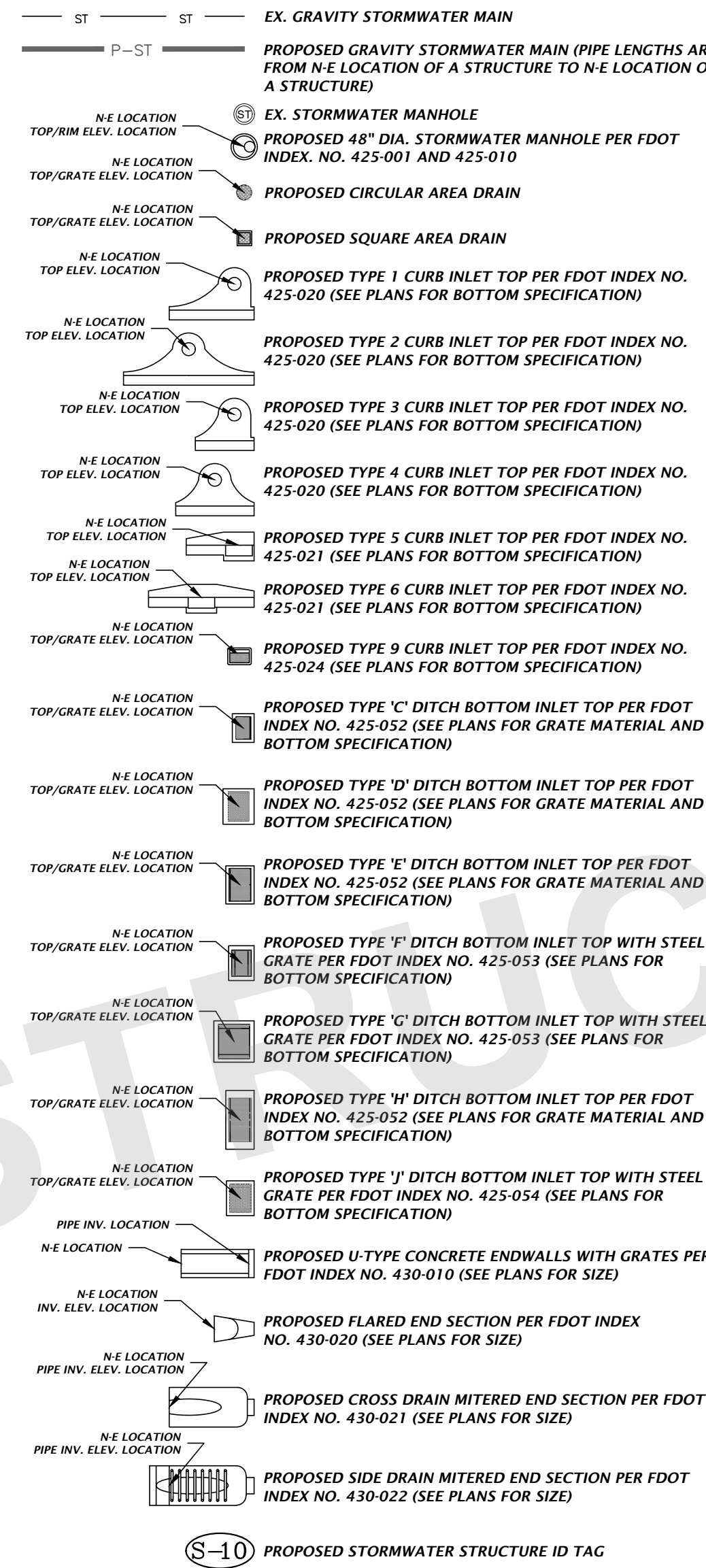
R1-1 "STOP" - SEE PLANS FOR SIZE

## SITE INFORMATION

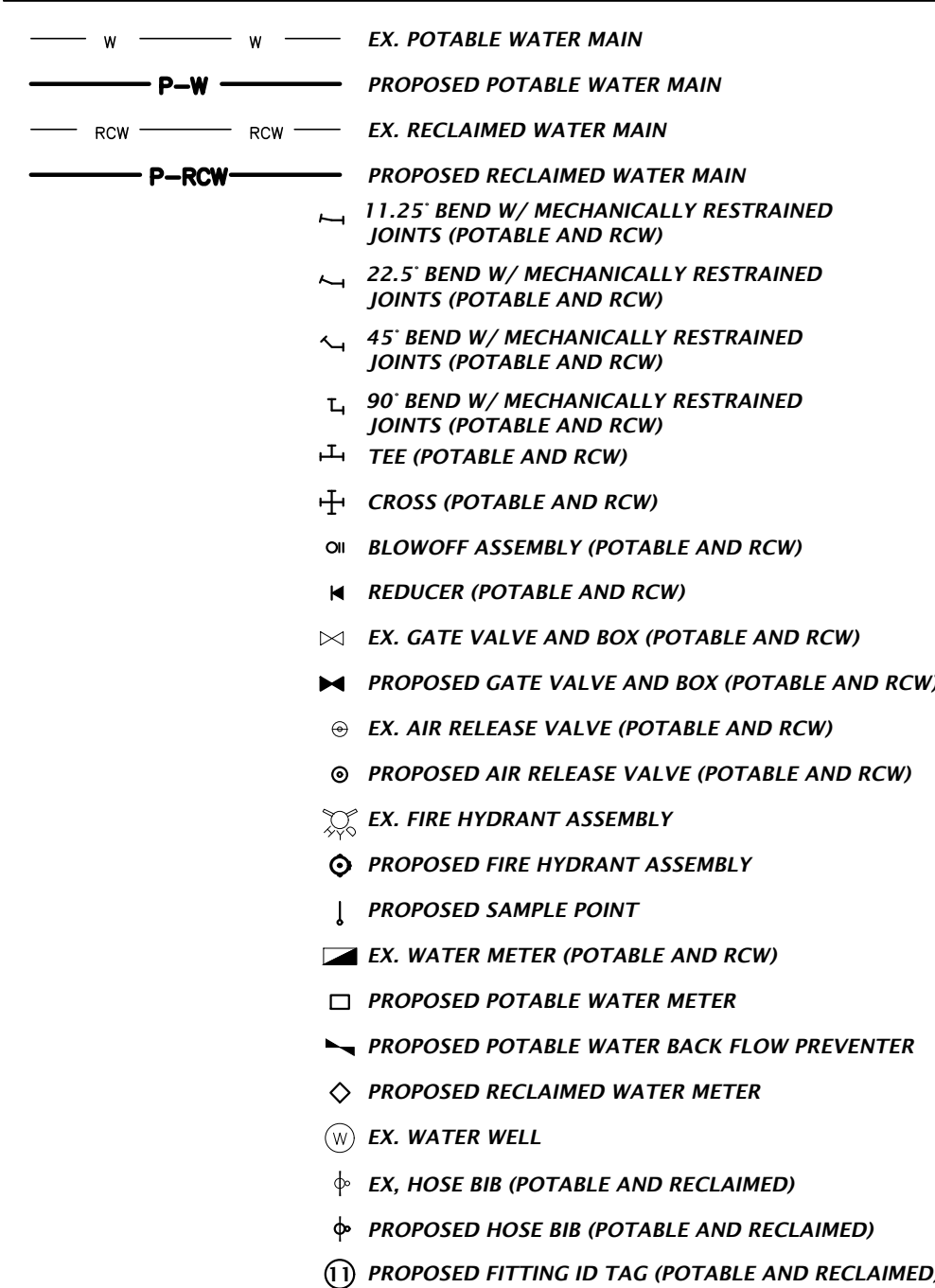


## STORMWATER

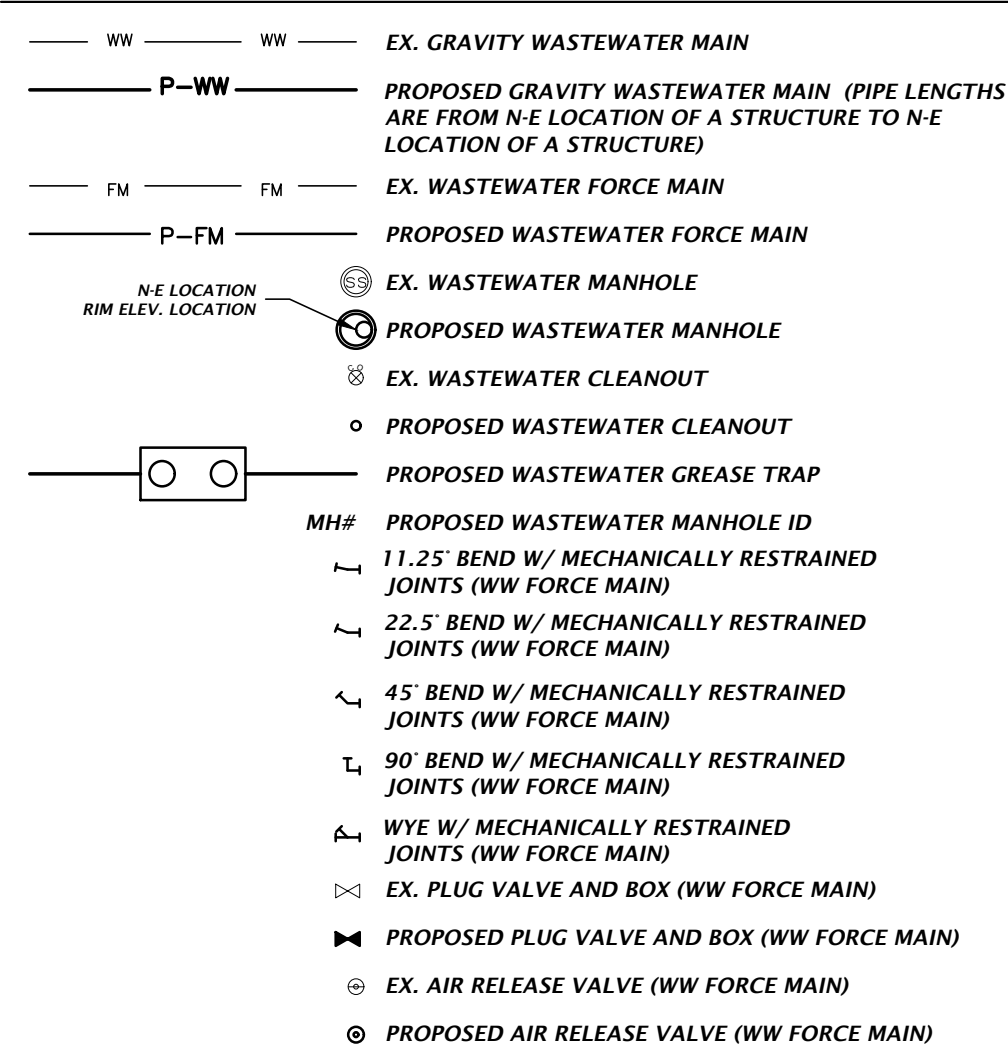
THE PROPOSED STORMWATER STRUCTURES DEPICTED BELOW ARE DRAWN PER FDOT SPECIFICATIONS AND TO SCALE WHEN SHOWN ON THE PLAN SHEETS.



## POTABLE AND RECLAIMED WATER

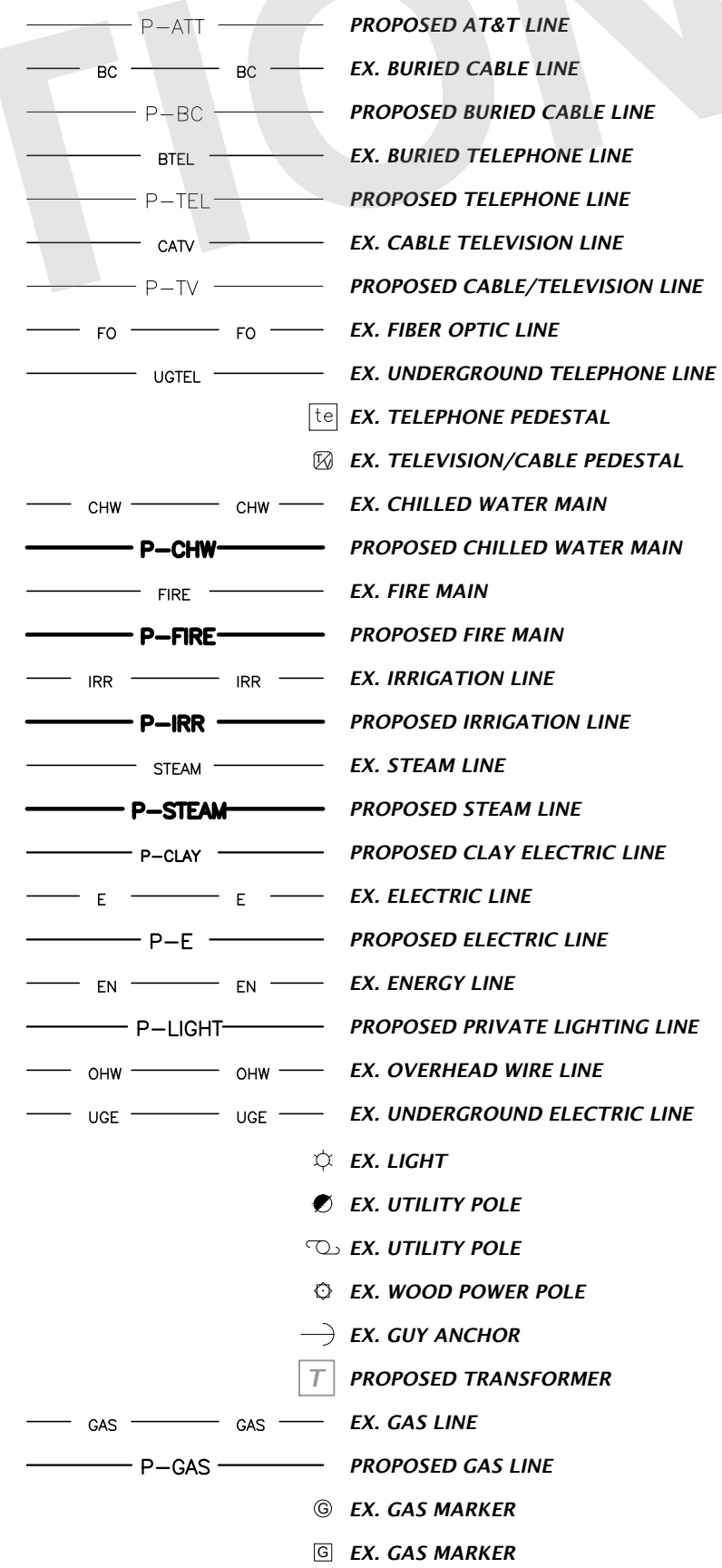


## WASTEWATER



## MISCELLANEOUS UTILITIES

THE PROPOSED UTILITIES BELOW ARE DESIGN BY OTHERS AND ARE DEPICTED FOR COORDINATION PURPOSES ONLY. REFER TO PLANS BY OTHERS FOR EXACT LOCATIONS, DIMENSION, AND DETAILS.



NOTES:  
1. THIS LEGEND IS ALL INCLUSIVE AND MAY INCLUDE ITEMS NOT A PART OF THIS PLAN SET.  
2. SYMBOLS SHOWN ON THIS SHEET ARE FOR ILLUSTRATIVE PURPOSES ONLY. UNLESS NOTED OTHERWISE, SYMBOLS IN THESE PLANS MAY NOT BE REPRESENTATIVE OF SIZE.

11801 Research Drive  
Alachua, Florida 32615  
www.chw-inc.com  
est. 1988 FLORIDA  
CA-5075

CHW  
Professional Consultants

SCALE  
N/A  
VERTICAL SCALE ON  
ORIGINAL DRAWING  
FOR THE PURPOSES OF  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

CONSTRUCTION REVISIONS

DATE: 2/11/21 - FIRST SUBMITTAL

CURRY: CONCEPT DEVELOPMENT, INC.  
PROJECT: CRIS LAKE CITY - SR 247 AT CR 242  
SHEET TITLE: LEGEND

DESIGNER: K. HERRITT  
CHECKER: C. THORNTON  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 20-0425

DANIEL H. YOUNG  
Daniel H. Young, P.E.  
(State of Florida, Professional  
Engineer, License No. 70780)  
This item has been digitally  
signed and sealed by Daniel  
H. Young, P.E. on the date  
indicated here: 02/15/2021  
Printed copies of this  
document are not considered  
signed and sealed and the  
signature must be verified on  
any electronic copies.

FL PE No. 70780  
SHEET NO.: C0.11



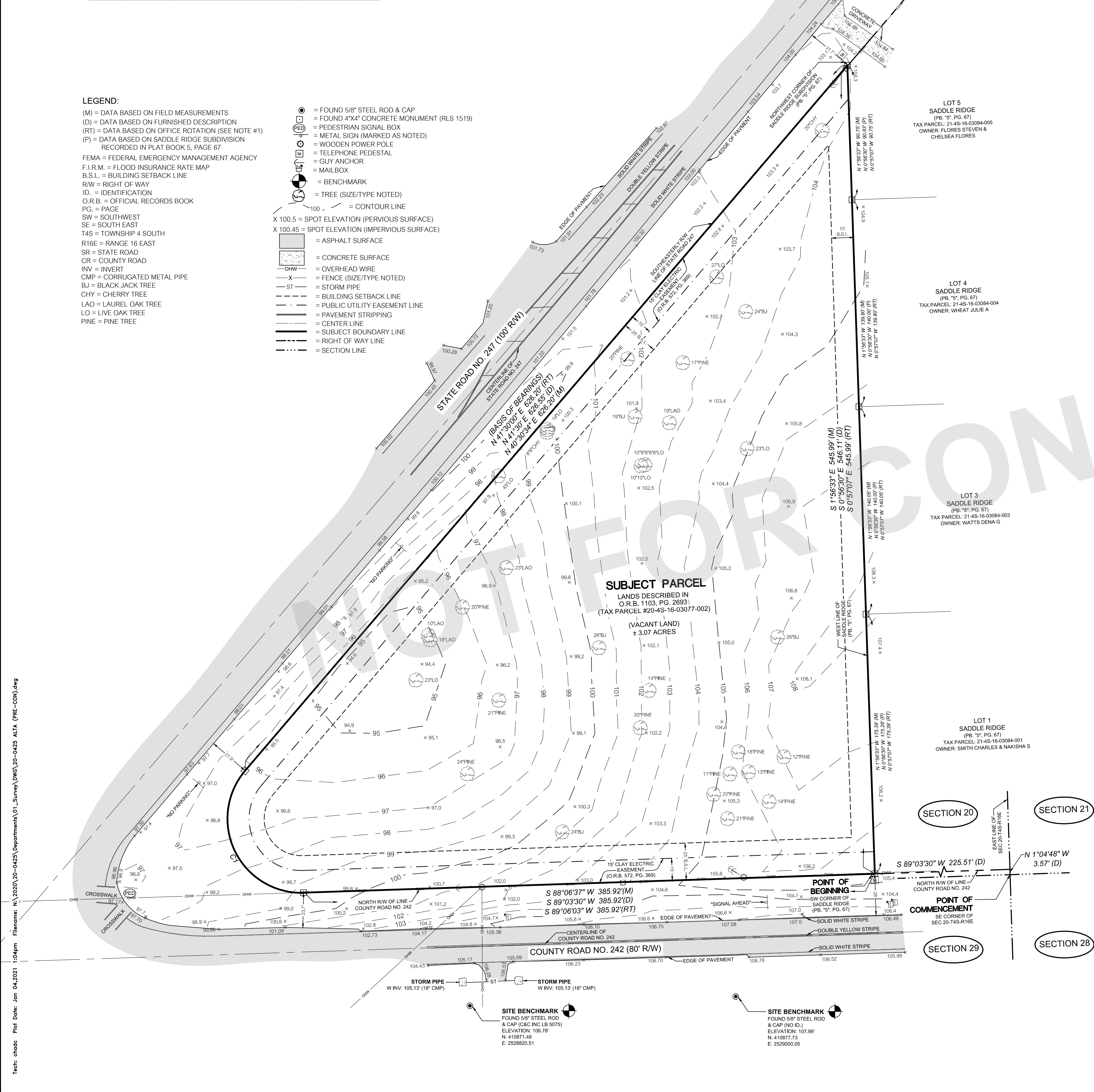
CURVE DATA TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD	CHORD BEARING
C1	115.09' (M) 115.58' (D)	50.00' (M) 50.00' (D)	131°52'59" (M) 132°28'30" (D)	91.31' (M)	N 25°40'35" W (M) N 24°41'09" W (RT)

LEGEND:

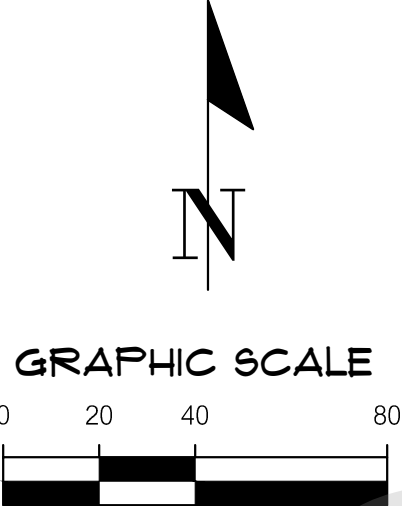
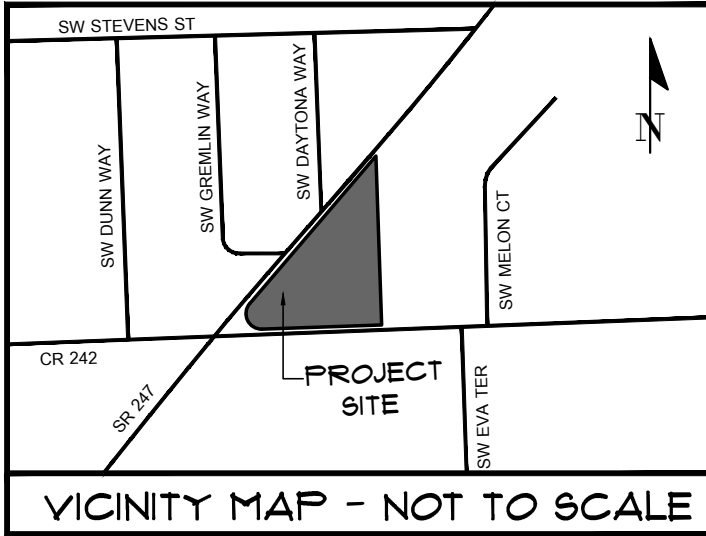
(M) = DATA BASED ON FIELD MEASUREMENTS  
(D) = DATA BASED ON FURNISHED DESCRIPTION  
(RT) = DATA BASED ON OFFICE ROTATION (SEE NOTE #1)  
(P) = DATA BASED ON SADDLE RIDGE SUBDIVISION  
RECORDED IN PLAT BOOK 5, PAGE 67  
FEMA = FEDERAL EMERGENCY MANAGEMENT AGENCY  
F.I.R.M. = FLOOD INSURANCE RATE MAP  
B.S.L. = BUILDING SETBACK LINE  
RW = RIGHT OF WAY  
ID = IDENTIFICATION  
O.R.B. = OFFICIAL RECORDS BOOK  
PG. = PAGE  
SW = SOUTHWEST  
SE = SOUTH EAST  
T4S = TOWNSHIP 4 SOUTH  
R16E = RANGE 16 EAST  
SR = STATE ROAD  
CR = COUNTY ROAD  
INV = INVERT  
CMP = CORRUGATED METAL PIPE  
BJ = BLACK JACK TREE  
CHY = CHERRY TREE  
LAO = LAUREL OAK TREE  
LO = LIVE OAK TREE  
PINE = PINE TREE

● = FOUND 5/8" STEEL ROD & CAP  
□ = FOUND 4"x4" CONCRETE MONUMENT (RLS 1519)  
□ = PEDESTRIAN SIGNAL BOX  
□ = METAL SIGN (MARKED AS NOTED)  
□ = WOODEN POWER POLE  
□ = TELEPHONE PEDESTAL  
□ = GUY ANCHOR  
□ = MAILBOX  
○ = BENCHMARK  
○ = TREE (SIZE/TYPE NOTED)  
--- 100 --- = CONTOUR LINE  
X 100.5 = SPOT ELEVATION (PERVIOUS SURFACE)  
X 100.45 = SPOT ELEVATION (IMPERVIOUS SURFACE)  
--- = ASPHALT SURFACE  
--- = CONCRETE SURFACE  
--- = OVERHEAD WIRE  
--- = FENCE (SIZE/TYPE NOTED)  
--- ST --- = STORM PIPE  
--- = BUILDING SETBACK LINE  
--- = PUBLIC UTILITY EASEMENT LINE  
--- = PAVEMENT STRIPPING  
--- = CENTER LINE  
--- = SUBJECT BOUNDARY LINE  
--- = RIGHT OF WAY LINE  
--- = SECTION LINE

Tech: chado Plot Date: Jan 04, 2021 1:54pm Filename: N:\2020\20-0425\Departments\01\_Survey\DWG\20-0425 ALTA (PRE-COM).dwg



ALTA/NSPS LAND TITLE SURVEY  
SITUATED IN THE SOUTHEAST QUARTER (SE 1/4)  
OF THE SOUTHEAST QUARTER (SE 1/4) OF  
SECTION 20, TOWNSHIP 4 SOUTH, RANGE 16 EAST,  
COLUMBIA COUNTY, FLORIDA



LEGAL DESCRIPTION: (PER FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NO.: 2076-5029700, COMMITMENT DATE: NOVEMBER 03, 2020)

COMMENCE AT THE SOUTHEAST CORNER OF SECTION 20, TOWNSHIP 4 SOUTH, RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA AND RUN THENCE N 1°04'48" W ALONG THE EAST LINE OF SAID SECTION 20, 3.57 FEET TO THE NORTH RIGHT-OF-WAY LINE OF COUNTY ROAD NO. C-242; THENCE S 89°03'30" W ALONG SAID NORTH RIGHT-OF-WAY LINE, 225.51 FEET TO THE SOUTHWEST CORNER OF SADDLE RIDGE, A SUBDIVISION ACCORDING TO PLAT THEREOF RECORDED IN PLAT BOOK 5, PAGE 67 OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA AND TO THE POINT OF BEGINNING; THENCE CONTINUE S 89°03'30" W ALONG SAID NORTH RIGHT-OF-WAY LINE 385.92 FEET TO A POINT OF CURVE; THENCE NORTHWESTERLY ALONG SAID CURVE CONCAVE TO THE RIGHT HAVING A RADIUS OF 50 FEET AND A TOTAL CENTRAL ANGLE OF 132°28'30", AN ARC DISTANCE OF 115.58 FEET TO THE SOUTHEASTLY RIGHT-OF-WAY LINE OF STATE ROAD 247; THENCE N 41°30' E ALONG SAID SOUTHEASTLY RIGHT-OF-WAY LINE, 626.55 FEET TO THE NORTHWEST CORNER OF SAID SADDLE RIDGE SUBDIVISION; THENCE S 0°56'30" E ALONG THE WEST LINE OF SAID SUBDIVISION, 546.11 FEET TO THE POINT OF BEGINNING.

SURVEYORS NOTES:

- HORIZONTAL DATUM SHOWN HEREON IS BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM NAD 83, NORTH ZONE. ANY ROTATED BEARINGS "RT" SHOWN HEREON HAVE BEEN ROTATED CLOCKWISE 00°56'55" FROM GRID BEARINGS TO MATCH FURNISHED DESCRIPTION BEARING OF NORTH 41°30'00" EAST FOR THE EASTERLY RIGHT OF WAY LINE OF STATE ROAD NO. 247.
- VERTICAL DATUM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). ELEVATIONS WERE ESTABLISHED FROM GPS REAL TIME KINEMATIC OBSERVATIONS WHILE RECEIVING NETWORK CORRECTIONS FROM TRIMBLE'S VRS. ELEVATIONS FROM THE GPS WERE COMPARED TO FLORIDA DEPARTMENT OF TRANSPORTATION BENCHMARK 2902010 BM2, AND WERE FOUND TO BE WITHIN REASON.
- NO UNDERGROUND INSTALLATION OF UTILITIES OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS SHOWN.
- THE SURVEYOR HAS NO KNOWLEDGE OF UNDERGROUND FOUNDATIONS WHICH MAY ENCLOSE.
- FENCING, SYMBOLS AND MONUMENTATION SHOWN HEREON MAY BE EXAGGERATED IN SIZE AND PLACEMENT FOR PICTORIAL PURPOSES ONLY AND ARE NOT SHOWN TO SCALE.
- IN THE OPINION OF THIS SURVEYOR, THE PERMITTER LINES AS SHOWN HEREON REPRESENT THE LOCATION OF THE BOUNDARY LINES OF THE SUBJECT PARCEL IN RELATION TO THE DESCRIPTION OF RECORD AND THOSE EXISTING LAND CORNERS FOUND TO BE ACCEPTABLE BY THIS SURVEYOR.
- THIS SURVEY WAS PRODUCED WITH THE BENEFITS OF FURNISHED TITLE WORK VIA FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NO.: 2076-5029700, COMMITMENT DATE: NOVEMBER 03, 2020. A SEARCH OF THE PUBLIC RECORDS HAS NOT BEEN DONE BY THE SURVEYOR.
- INFORMATION FROM FEDERAL EMERGENCY MANAGEMENT AGENCY, (F.E.M.A.) FLOOD INSURANCE RATE MAP(S), SHOWN ON THIS MAP WAS CURRENT AS OF THE REFERENCED DATE. MAP REVISIONS AND AMENDMENTS ARE PERIODICALLY MADE BY LETTER AND MAY NOT BE REFLECTED ON THE MOST CURRENT MAP.
- THERE WERE NO MARKED PARKING SPACES OBSERVED AT THE TIME OF THIS SURVEY.
- THERE WAS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS BEING CONDUCTED AT THE TIME OF THIS SURVEY.
- THERE WAS NO EVIDENCE OF CHANGES IN STREET RIGHT OF WAY LINES. THERE WAS NO OBSERVED EVIDENCE OF CURRENT STREET CONSTRUCTION OR REPAIRS. THERE WAS NO OBSERVED EVIDENCE OF CURRENT SIDEWALK CONSTRUCTION OR REPAIRS.
- THERE IS NO OBSERVED EVIDENCE OF SITE USE AS A CEMETERY, SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
- THERE HAS BEEN NO FIELD DELINEATION OF ANY WETLANDS ON THE SUBJECT PARCEL.
- PROJECT LIMITS PER CLIENTS REQUEST.
- THIS PROPERTY IS CONTIGUOUS WITH THE RIGHT OF WAYS AND ACCESS EASEMENTS WITHOUT ANY GAPS, GOES, OR HIATUS.
- DISTANCE TO THE INTERSECTION OF S.W. STATE ROAD NO. 247 AND S.W. COUNTY ROAD NO. 242 IS 0 FEET.
- ONLY TREES 8" IN DIAMETER OR GREATER ARE SHOWN HEREON AND WERE MEASURED AT CHEST HEIGHT.
- ADDITIONAL POINTS MAY BE FOUND BY TURNING ON THE SV-NODE\* LAYERS IN THE SUPPLIED DIGITAL FILE.
- TOPOGRAPHIC INFORMATION SHOWN HEREON BASED ON GROUND SURVEY. CONTOURS SHOWN HEREON REFLECT 1-FOOT INTERVALS.
- THE SUBJECT PROPERTY IS VACANT AND DOES NOT HAVE A POSTED ADDRESS.
- THERE WAS NO EVIDENCE OF CHANGES IN STREET RIGHT OF WAY LINES. THERE WAS NO OBSERVED EVIDENCE OF CURRENT STREET CONSTRUCTION OR REPAIRS. THERE WAS NO OBSERVED EVIDENCE OF CURRENT SIDEWALK CONSTRUCTION OR REPAIRS.
- THE SUBJECT PARCEL DOES NOT APPEAR TO HAVE ANY OFFSITE EASEMENTS/SERVITUDE NOR WERE ANY PROVIDED TO THIS SURVEYOR.

SCHEDULE B-II EXCEPTIONS: (PER FIRST AMERICAN TITLE INSURANCE COMPANY, FILE NO.: 2076-5029700, COMMITMENT DATE: NOVEMBER 03, 2020)

ITEM NO. 9: THIS PROPERTY IS SUBJECT TO THE EASEMENT GRANTED TO CLAY ELECTRIC COOPERATIVE, INC. BY INSTRUMENT RECORDED IN BOOK 572, PAGE 369. (AS SHOWN HEREON)

ZONING RESTRICTIONS: (AS FURNISHED)  
ZONE: CN - COMMERCIAL NEIGHBORHOOD  
MINIMUM SETBACK REQUIREMENTS:

- FRONT: 25 FEET  
- SIDE: 10 FEET  
- REAR: 15 FEET

FLOOD ZONE:

THIS PROPERTY IS LOCATED IN FEDERAL FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS INTERPOLATED FROM FEMA F.I.R.M. PANEL NO. 380 OF 552, COMMUNITY PANEL NO. 120070 0380 C, EFFECTIVE DATE: FEBRUARY 4, 2009.

SURVEYOR'S CERTIFICATION:

TO: CONCEPT DEVELOPMENT, INC., A FLORIDA CORPORATION, PROVIDENCE TITLE COMPANY, LLC AND FIRST AMERICAN TITLE INSURANCE COMPANY.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(d), 8, 9, 11, 13, 14, 16, 17, 18 AND 19, OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON DECEMBER 15, 2020.

CHADA, COLSON, P.S.M.  
FLORIDA SURVEYOR & MAPPER CERTIFICATE NUMBER 7142  
CHADQ@CHW-INC.COM

DATE OF PLAT OR MAP:

11001 Research Drive  
Alachua, Florida 32015  
(352) 331-1976  
www.chw-inc.com  
est. 1988 FLORIDA  
CA-5075

CHW  
Professional Consultants

SCALE  
1" = 40'  
VERIFY SCALE  
BASED ON THE  
ORIGINAL DRAWING  
0  
1" MAY BE USED  
FOR THIS SHEET  
SCALES ACCORDINGLY.

(SEE SURVEYORS CERTIFICATIONS)

CERTIFIED TO:

SURVEY DATE: 12-11-2020  
REVISION DATE: N/A  
PROJECT NUMBER: 20-0425  
FIELD BOOK & PAGE: 605 / 29

CHAD A. COLSON  
(SEE SURVEYORS CERTIFICATIONS)  
Professional Surveyor & Mapper Fla. License No. 7142

This map prepared by:  
Certificate of Authorization No. LB 5075  
NOT VALID WITHOUT THE ORIGINAL  
SIGNATURE AND SEAL OF A FLORIDA  
LICENSED SURVEYOR AND MAPPER

SHEET NO.:  
1 OF 1



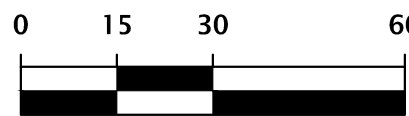




## STORMWATER POLLUTION PREVENTION LEGEND

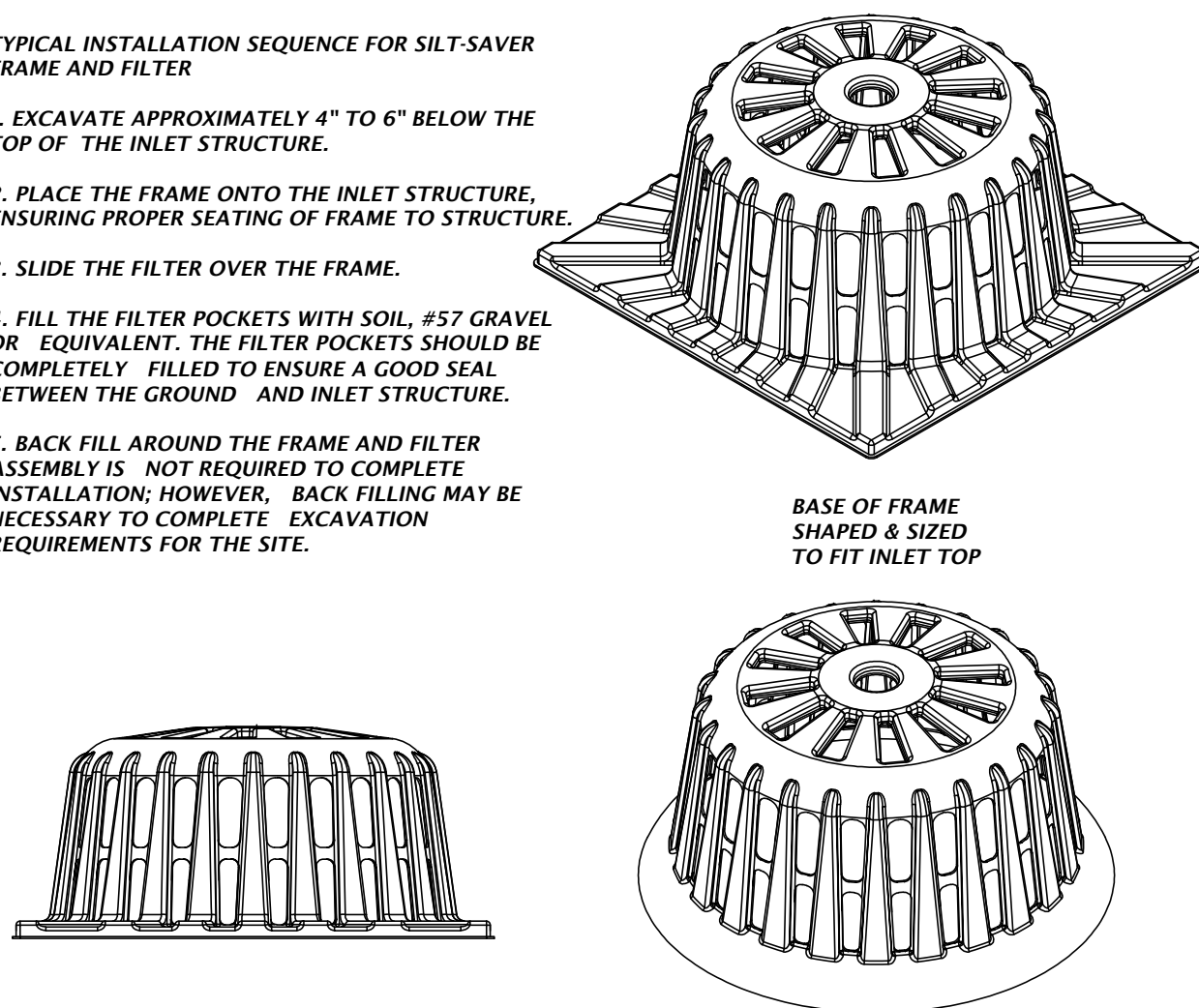
TS = TEMPORARY SEEDING  
PS = PERMANENT SEEDING  
ML = MULCHING  
SD = SOD STABILIZATION  
SF = SILT BARRIER  
TB = TREE BARRIER  
IP = INLET PROTECTION  
OP = OUTLET PROTECTION  
CO = CONSTRUCTION ENTRANCE/EXIT

### GRAPHIC SCALE



#### TYPICAL INSTALLATION SEQUENCE FOR SILT-SAVER FRAME AND FILTER

1. EXCAVATE APPROXIMATELY 4" TO 6" BELOW THE TOP OF THE INLET STRUCTURE.
2. PLACE THE FRAME ONTO THE INLET STRUCTURE, ENSURING PROPER SEATING OF FRAME TO STRUCTURE.
3. SLIDE THE FILTER OVER THE FRAME.
4. FILL THE FILTER POCKETS WITH SOIL, #57 GRAVEL OR EQUIVALENT. THE FILTER POCKETS SHOULD BE COMPLETELY FILLED TO ENSURE A GOOD SEAL BETWEEN THE GROUND AND INLET STRUCTURE.
5. BACK FILL AROUND THE FRAME AND FILTER ASSEMBLY IS NOT REQUIRED TO COMPLETE INSTALLATION; HOWEVER, BACK FILLING MAY BE NECESSARY TO COMPLETE EXCAVATION REQUIREMENTS FOR THE SITE.



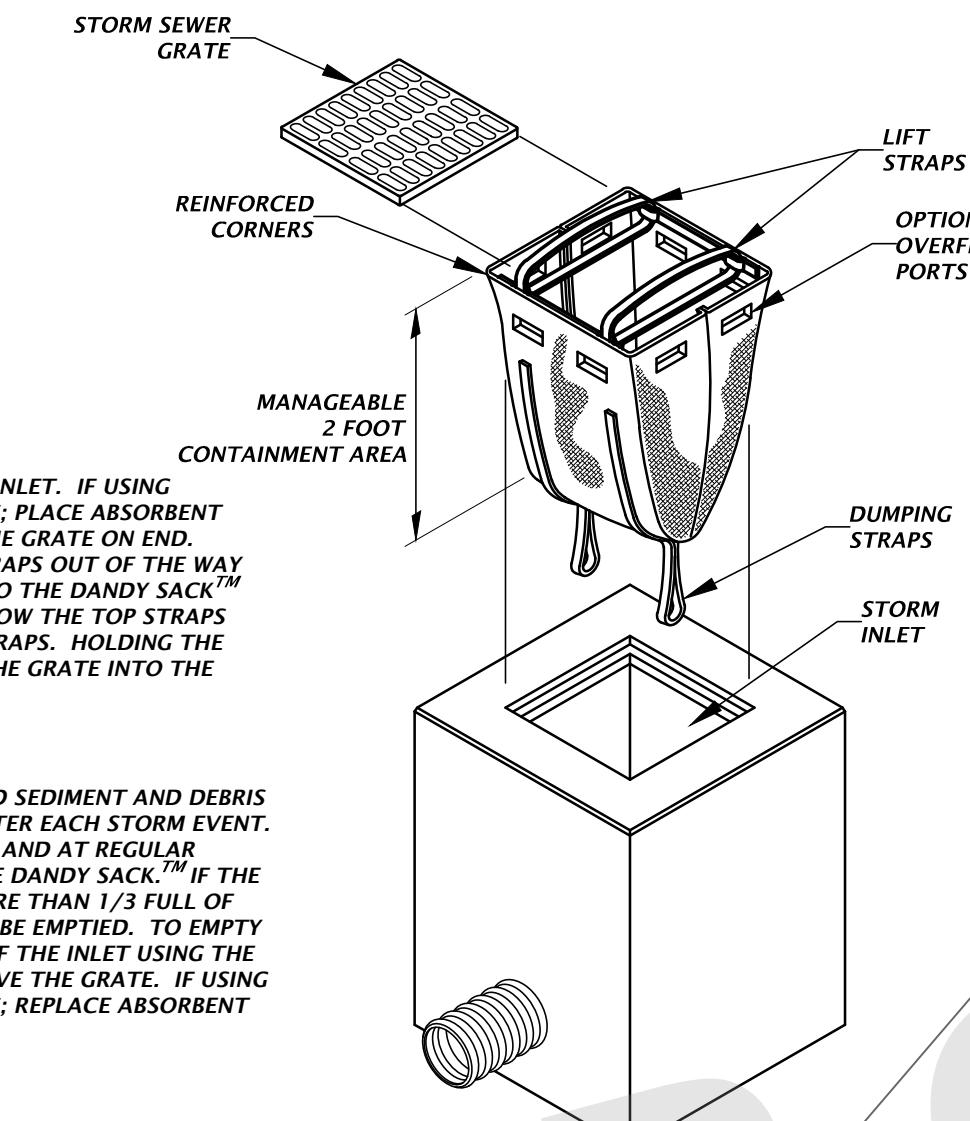
SILT-SAVER® DETAIL

#### INSTALLATION:

REMOVE THE GRATE FROM INLET. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLION IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY SACK™ SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

#### MAINTENANCE:

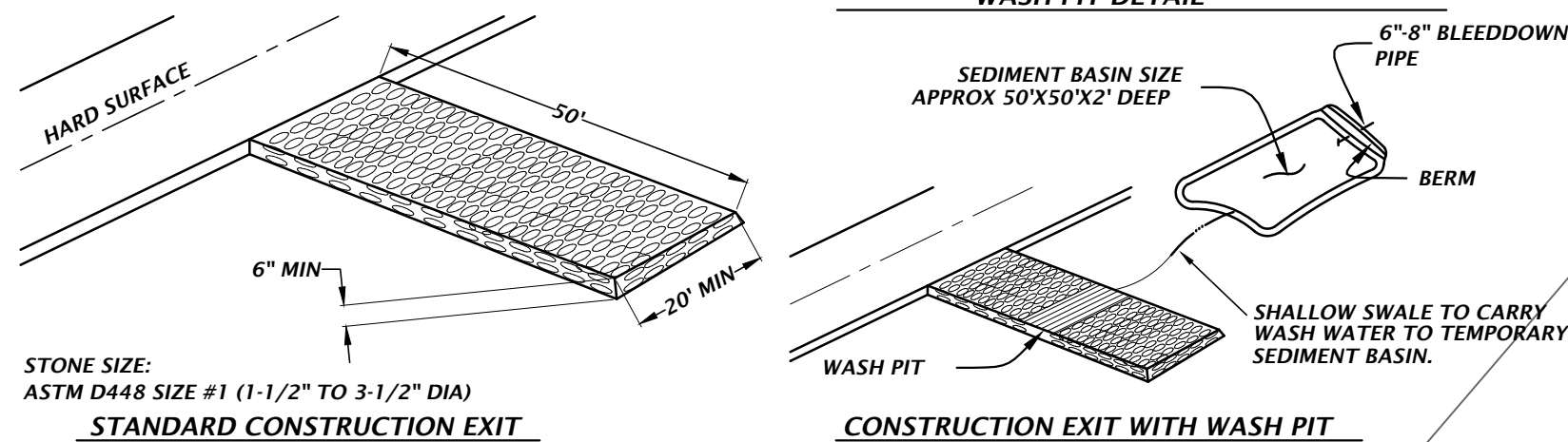
REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY SACK™. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS, REPLACE ABSORBENT WHEN NEAR SATURATION.



DANDY SACK™ DETAIL

## INLET PROTECTION OPTIONS DETAIL

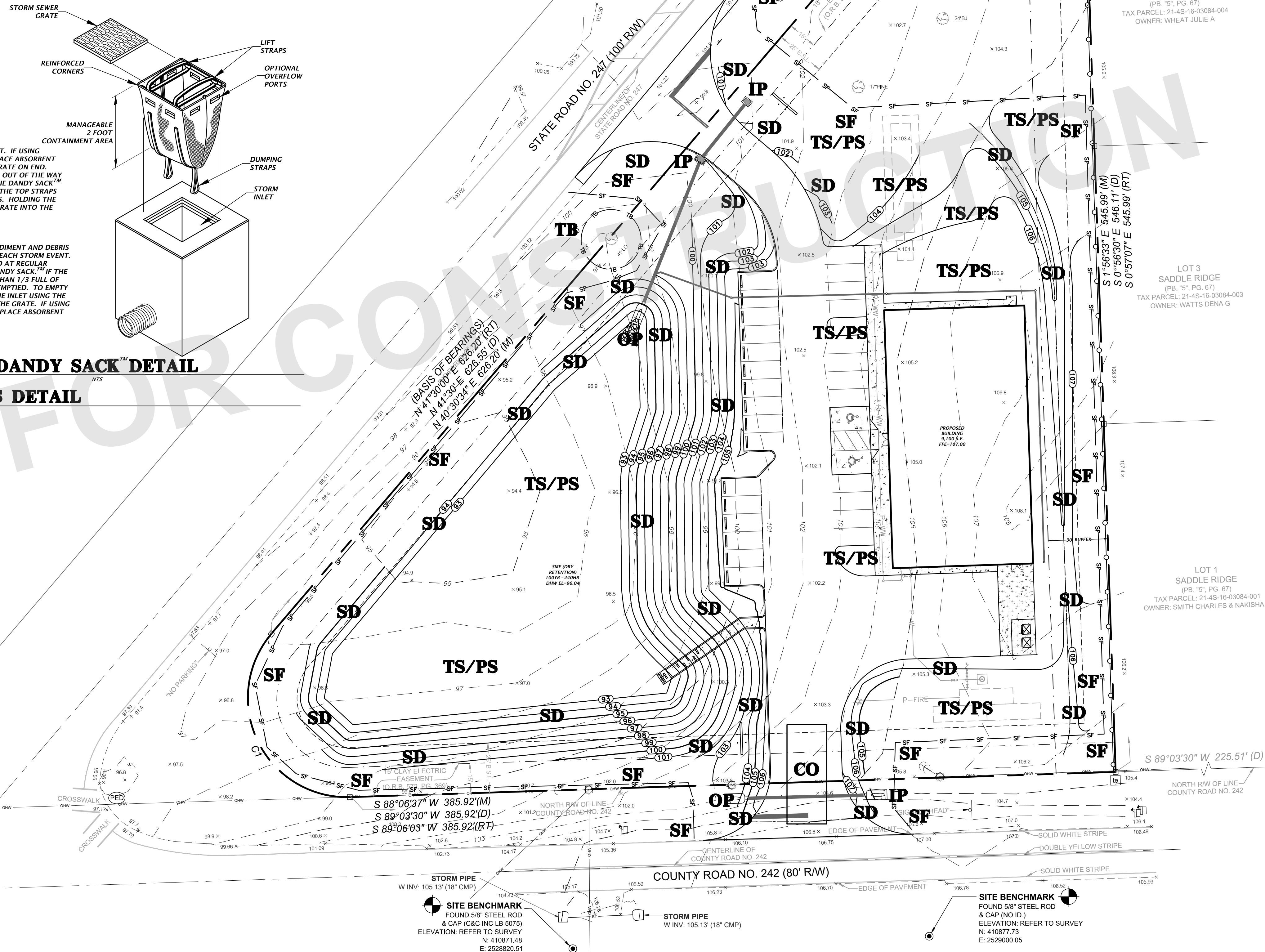
- NOTE:
1. CONSTRUCTION EXIT INSTALLATION SHALL REMOVE MUD/SOILS FROM TIRES TO PREVENT TRACKING ONTO PUBLIC ROADS.
  2. TOP DRESSING WITH 2" STONE MAY BE REQ'D AS DETERMINED BY THE USE AND FUNCTION OF THE SYSTEM.
  3. THE WASH PIT SHOULD BE INSTALLED IF THE STANDARD CONSTRUCTION EXIT DOES NOT SUFFICIENTLY REMOVE SOILS AND WASHING IS REQ'D.



TEMPORARY CONSTRUCTION EXIT DETAIL

## BASIN EROSION & SEDIMENTATION CONTROL

1. SILT FENCING AND/OR STAKED HAYBALES SHALL BE CONSTRUCTED WHERE SHOWN ON THE DRAWINGS PRIOR TO STARTING CONSTRUCTION.
2. ALL STORMDRAIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION IN ACCORDANCE WITH FDOT STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL.
3. THE DRAINAGE BASINS SHALL BE ROUGH GRADED PRIOR TO CONSTRUCTING THE LIMEROCK BASE. THE RETENTION BASINS SHALL BE FINE GRADED AND GRASSED PRIOR TO PAVING AND SITE CLEANUP.
4. THE STORMDRAIN SYSTEM SHALL BE FLUSHED OUT TO REMOVE ALL ACCUMULATED DEBRIS AND SEDIMENT UPON COMPLETION OF CONSTRUCTION.
5. THE DRAINAGE BASIN BOTTOM SHALL BE SCRAPED CLEAN OF ALL ACCUMULATED SEDIMENT UPON COMPLETION OF CONSTRUCTION AFTER THE STORMDRAIN SYSTEM IS COMPLETELY FLUSHED OUT. THIS ACTIVITY SHALL ONLY OCCUR IN A DRY STATE.
6. ALL DISTURBED AREAS IN THE CONSTRUCTION AREA SHALL BE COMPLETELY STABILIZED BY COMPLETION OF CONSTRUCTION. GRASS SEEDING RATES AND MIXTURES SHALL BE PER SECTION 570 OF THE STANDARD SPECIFICATIONS. EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO FINAL RELEASE.
7. REFER TO THE SWPPP PLAN FOR COMPLETE EROSION CONTROL MEASURES.
8. WHERE POND TOP OF BANK IS IN CUT TO EXISTING GRADE, CONTRACTOR SHALL SOD 5-FT BEYOND TOP OF BANK FOR EROSION PROTECTION.



11801 Research Drive  
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(352) 331-1976  
www.chw-inc.com

est. 1988 FLORIDA  
CA-5075

**CHW**  
Professional Consultants

VERIFIED SCALE ON  
ORIGINAL DRAWING  
1"=30'  
FOR USE ONLY ON  
THIS SHEET. ADJUST  
SCALES ACCORDINGLY.

CONSTRUCTION DIVISION

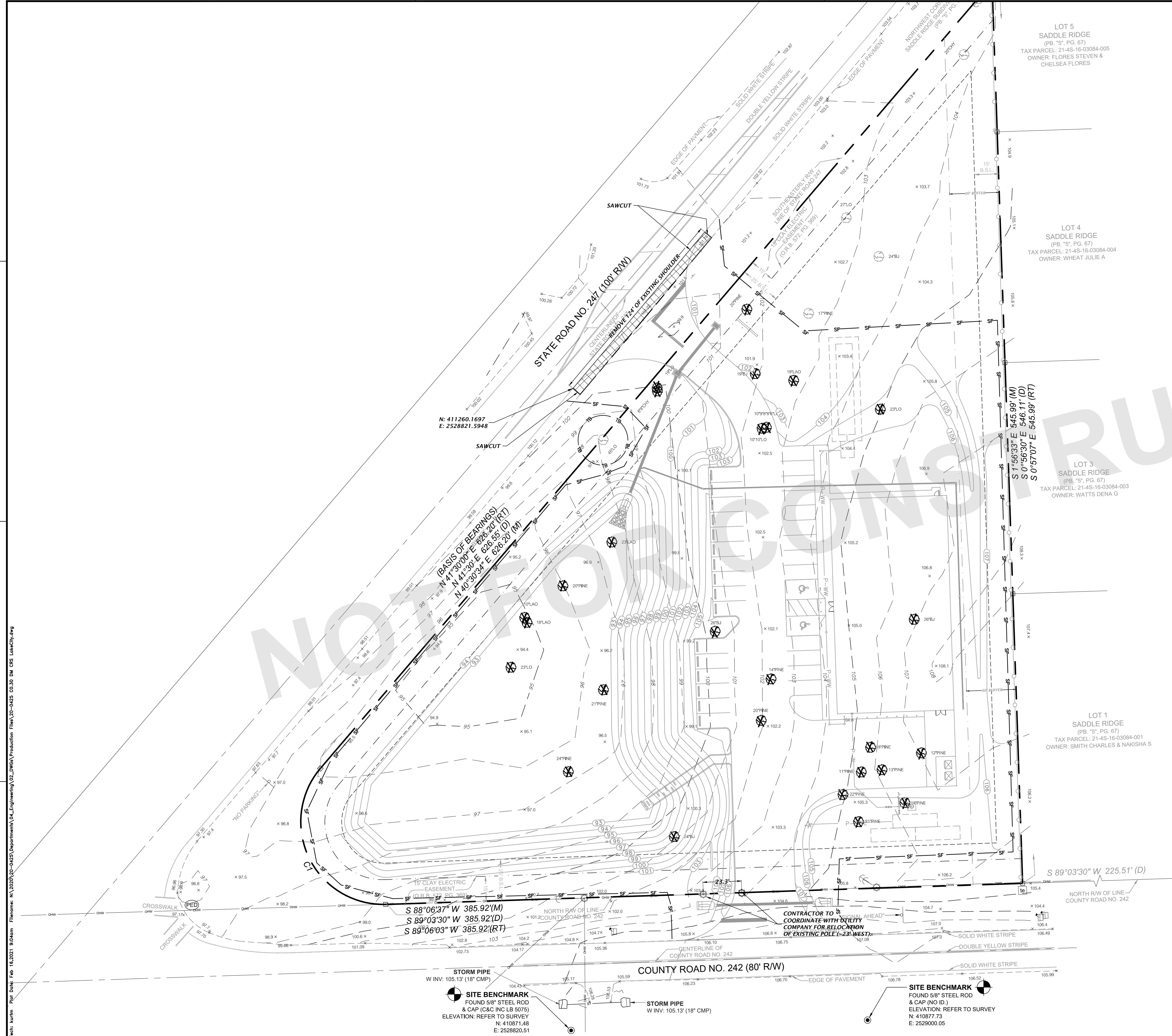
2/15/21 - FIRST SUBMITTAL

CURRY: CONCEPT DEVELOPMENT, INC.  
PROJECT: CFS LAKE CITY - SR 247 AT CR 242  
SHEET TITLE: STORMWATER POLLUTION PREVENTION PLAN

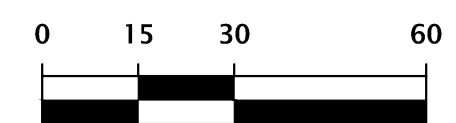
DANIEL H. YOUNG  
P.E.  
State of Florida, Professional Engineer, License No. 70780  
This item has been digitally signed and sealed by Daniel H. Young, P.E. on the date indicated here: 02/15/2021  
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

FL PE No. 70780  
SHEET NO.  
**C0.21**





### GRAPHIC SCALE



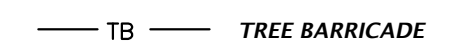
LEGEND



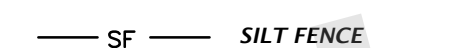
**EXISTING TREE TO BE  
REMOVED**



**EXISTING FEATURES TO BE REMOVED**



**TREE BARRICADE**



- **SILT FENCE**

**NOTES:**


1. **CONTRACTOR SHALL HAVE ALL SILT FENCE & TREE BARRICADES INSTALLED PRIOR TO ANY SITE WORK.**
2. **CONTRACTOR SHALL REPAIR/RESTORE ANY DISTURBED AREAS TO EXISTING OR BETTER CONDITION.**
3. **CONTRACTOR TO COORDINATE WITH DOH OR FDEP FOR PROPER REMOVAL AND DISPOSAL OF ANY EX. ONSITE SEPTIC SYSTEMS OR WELL SYSTEMS.**
4. **CONTRACTOR TO USE EXTREME CAUTION WHEN WORKING AROUND EXISTING ABOVE AND UNDERGROUND UTILITIES.**
5. **CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH UTILITY COMPANY AS NEEDED TO SUPPORT POLES DURING CONSTRUCTION.**

tech: kurfm Plot Date: Feb 16, 2021 9:04am Filename: N:\2020\20-0425\Departments\04\_Engineering\02\_DWG\Production Files\20-0425 C0.30 DM CRS LakeCity.dwg

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CA-5075



**1"=30'**

VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

IF NOT ONE INCH ON  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.


CONSTRUCTION/BID REVISIONS:

SUBMITTALS:  
2/15/21 - FIRST SUBMITTAL

CLIENT:	CONCEPT DEVELOPMENT, INC.
PROJECT:	CRS LAKE CITY - SR 247 AT CR 2
SHEET TITLE:	DEMOLITION AND TREE PROTECTION PLAN

TECHNICIAN:	K MERRITT
DESIGNER:	C THORTON
QUALITY CONTROL:	D YOUNG
PROJECT NUMBER:	20-0425

DANIEL H. YOUNG

Daniel H. Young, P.E.  
State of Florida, Professional  
Engineer, License No. 70780

This item has been digitally  
signed and sealed by Daniel  
H. Young, P.E. on the date  
indicated here. 02/16/2021

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

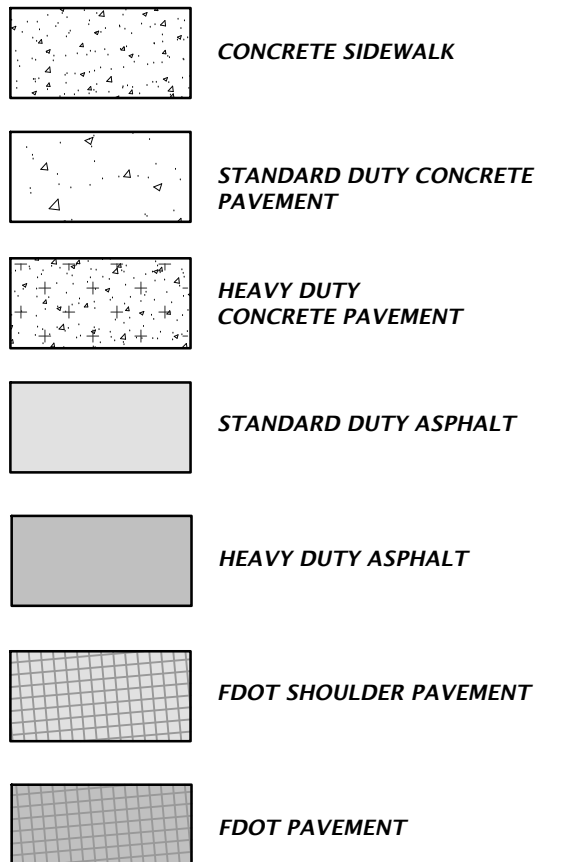
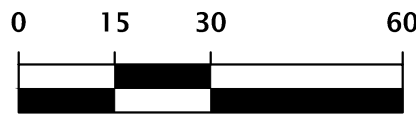
FL PE No. 70780

SHEET NO.:

SHEET NO.:  
**C0.30**



GRAPHIC SCALE

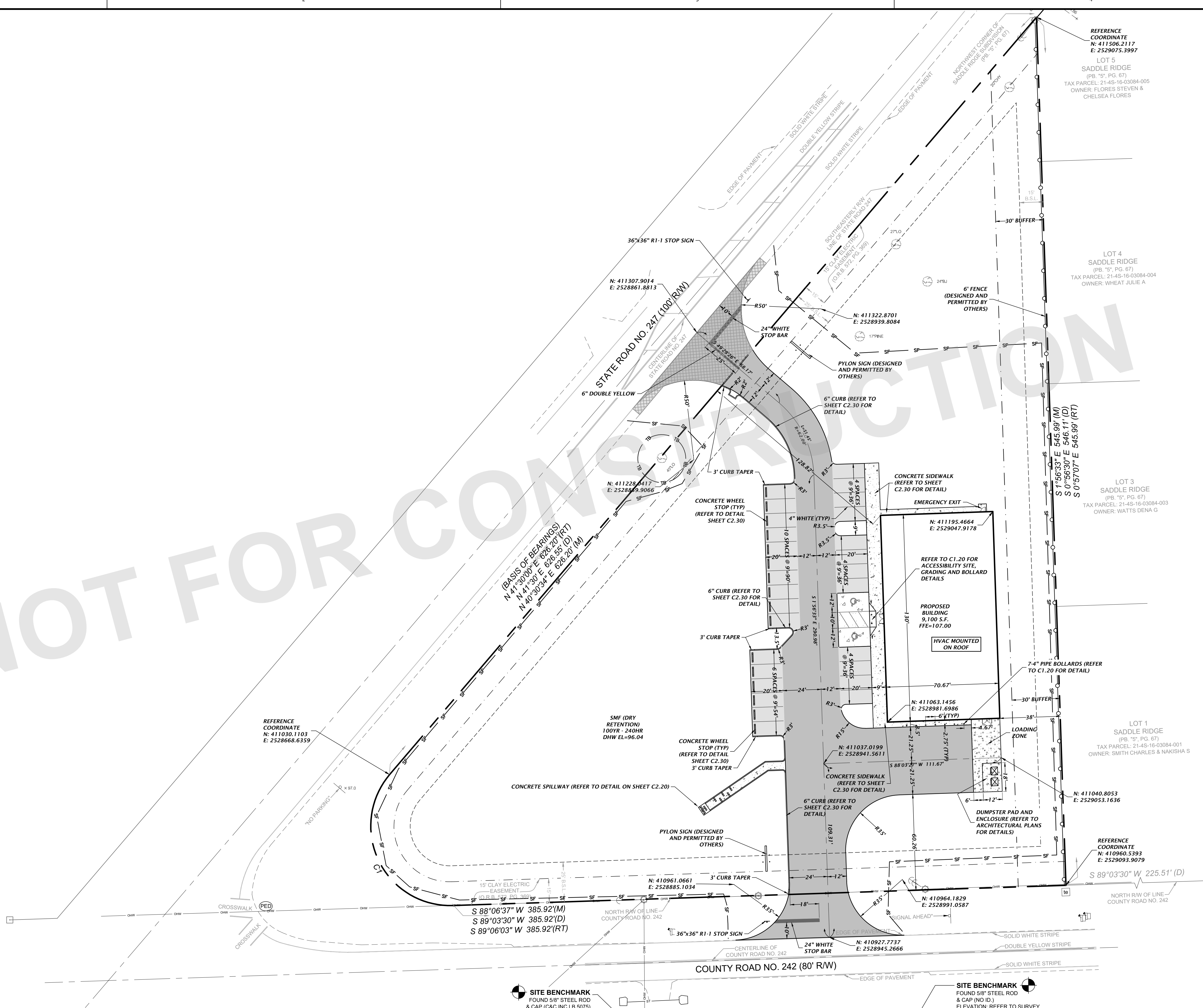


REFER TO SHEET C2.30 FOR PAVEMENT DETAILS

STRIPING NOTES	
YELLOW CURBING AND BOLLARDS - PARKING LOT	SURFACES SHOULD BE CLEAN, DRY AND METAL SURFACES FREE OF HEAVY RUST 2 COATS SHERWIN WILLIAMS - KEM 4000 ACRYLIC ALKYD ENAMEL SAFETY YELLOW BS5Y300
STRIPING - PARKING LOT	SURFACES SHOULD BE CLEAN, DRY, TOP COAT SHERWIN WILLIAMS - PRO MAR TRAFFIC MARKING PAINT WHITE TM5495
HANDICAP STRIPING - PARKING LOT	SURFACES SHOULD BE CLEAN, DRY, TOP COAT SHERWIN WILLIAMS - PRO MAR TRAFFIC MARKING PAINT "H.C." BLUE

NOTES:

- SEE SURVEY FOR BENCHMARK ELEVATIONS, LOCATIONS, AND DESCRIPTIONS.
- CONTRACTOR SHALL REPAIR/RESTORE ANY DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER.
- ALL ELEMENTS THAT ARE PLACES OF PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES ON THE SITE (INCLUDING ACCESSIBLE ROUTES AND PARKING) SHALL MEET THE REQUIREMENTS OF "FLORIDA AMERICANS WITH DISABILITIES IMPLEMENTATION ACT", ADA STANDARDS FOR ACCESSIBLE DESIGN, FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION AND THE FAIR HOUSING ACT, WHERE APPLICABLE.
- STOP SIGN SUPPORT MUST BE 2"x2" SQUARE POST, 14 FT, 14 GAUGE, 4 LBS/FT.



REFERENCE  
COORDINATE  
N: 411506.2117  
E: 2529075.3997

LOT 5  
SADDLE RIDGE  
(PB. "S", PG. 67)  
TAX PARCEL: 21-4S-16-03084-005  
OWNER: FLORES STEVEN &  
CHELSEA FLORES

LOT 4  
SADDLE RIDGE  
(PB. "S", PG. 67)  
TAX PARCEL: 21-4S-16-03084-004  
OWNER: WHEAT JULIE A

LOT 3  
SADDLE RIDGE  
(PB. "S", PG. 67)  
TAX PARCEL: 21-4S-16-03084-003  
OWNER: WATTS DENA G

LOT 1  
SADDLE RIDGE  
(PB. "S", PG. 67)  
TAX PARCEL: 21-4S-16-03084-001  
OWNER: SMITH CHARLES & NAKISHA S

REFERENCE  
COORDINATE  
N: 410960.5393  
E: 2529093.9079

S 89°03'30" W 225.51' (D)

NORTH RW OF LINE  
COUNTY ROAD NO. 242

SITE BENCHMARK  
FOUND 5/8" STEEL ROD  
& CAP (G&C INC LB 5075)

SITE BENCHMARK  
FOUND 5/8" STEEL ROD  
& CAP (NO ID.)  
ELEVATION: REFER TO SURVEY

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SCALES ACCORDINGLY.

SCALE  
1"=30'

CONSTRUCTION DIVISIONS

DATE: 2/15/23 - FIRST SUBMITTAL

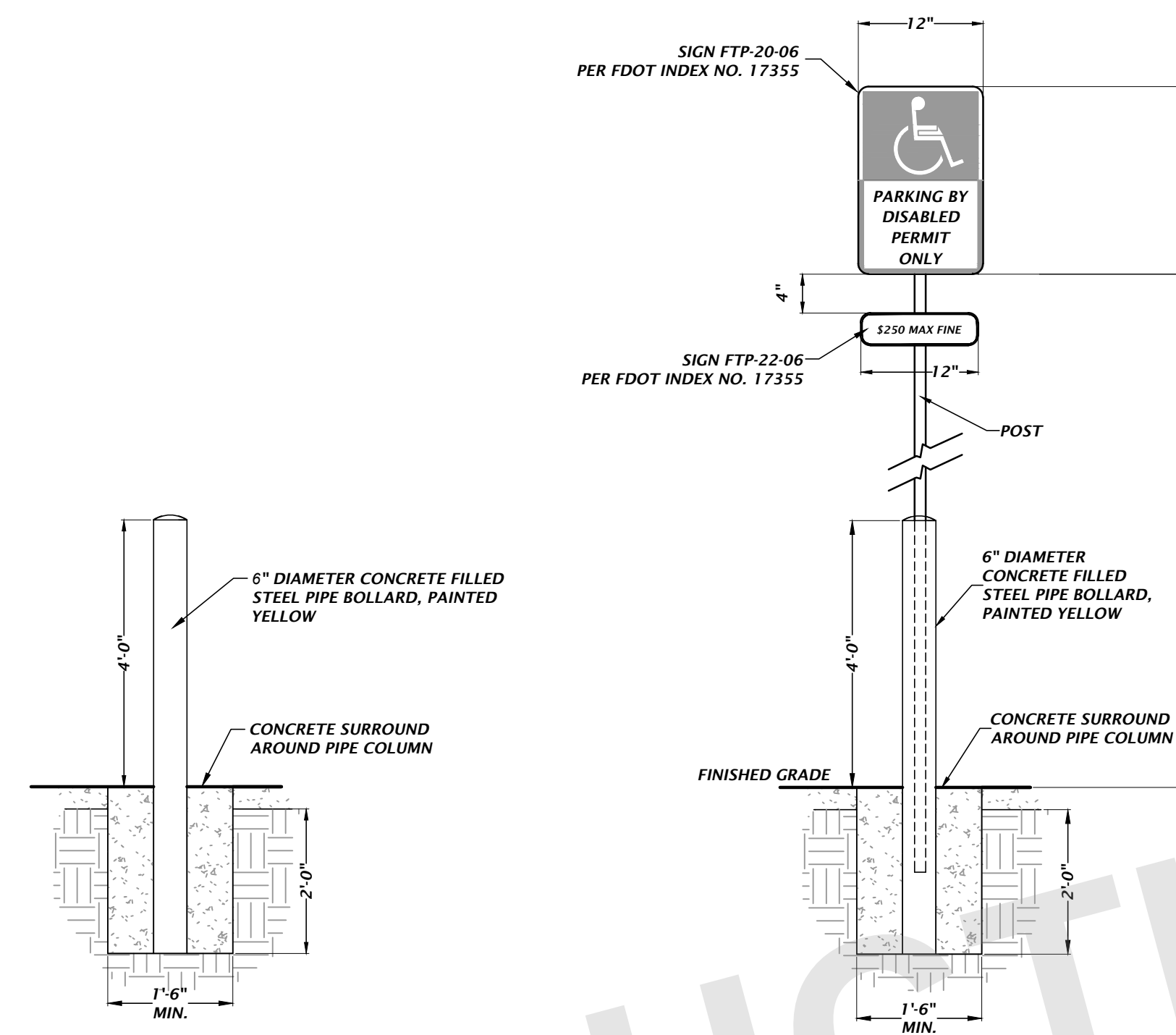
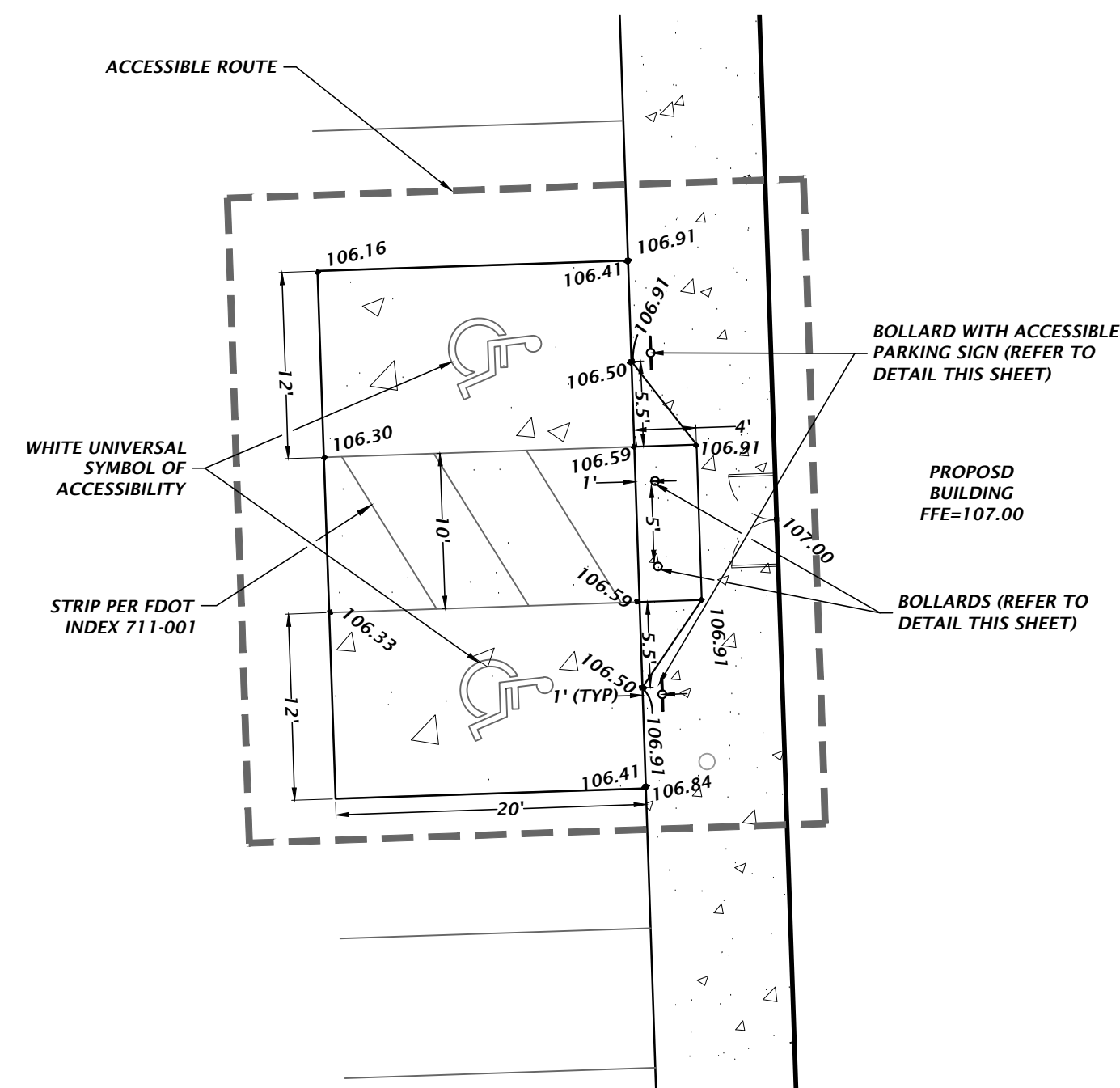
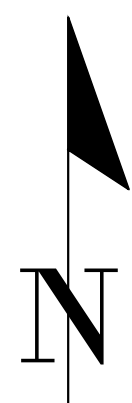
CLIENT: CONCEPT DEVELOPMENT, INC.  
PROJECT: CFS LAKE CITY - SR 247 AT CR 242  
SHEET TITLE: HORIZONTAL CONTROL AND SITE PLAN

DESIGNER: K. HERRITT  
CHECKER: C. THORNTON  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 20-0425

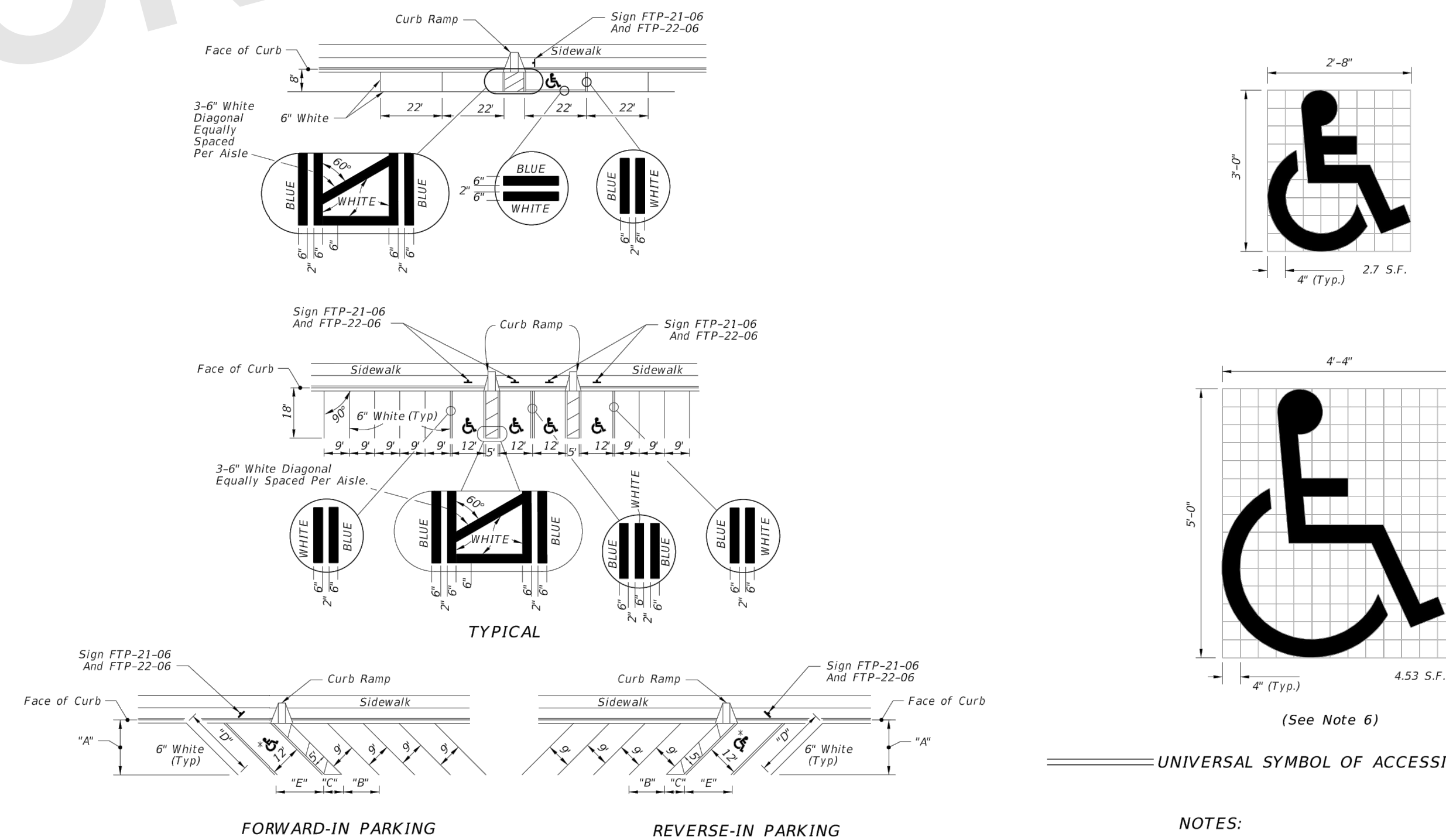
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Daniel H. Young, P.E.  
State of Florida, Professional  
Engineer, License No. 70780  
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FL PE No. 70780  
SHEET NO.  
C1.00





## BOLLARD WITH ACCESSIBLE PARKING SIGN



1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Tint blue pavement markings to match color 15180 of Federal Standards 595a.
5. Mount FTP-22-06 sign below the FTP-21-06 sign.
6. Use of the pavement symbol in accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 5'-0" high and white in color.

\*FOR ACCESSIBLE MARKINGS - SEE ABOVE

DIMENSIONS					
∠ θ	"A"	"B"	"C"	"D"	"E"
45°	17'-0"	12'-9"	7'-0"	24'-0"	17'-0"

## = PAVEMENT MARKING FOR PARKING

LAST REVISION 11/01/19	REVISION	DESCRIPTION:
------------------------------	----------	--------------



FY 2020-21  
STANDARD PLANS


PAVEMENT MARKINGS

<i>INDEX</i>	<i>SHEET</i>
<i>711-001</i>	<i>12 of 13</i>

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---

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**1" = 10'**

VERIFY SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING

IF NOT ONE INCH ON  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

**CONSTRUCTION/BID REVISIONS:**

SUBMITTALS:  
2/15/21 - FIRST SUBMITTAL

CIENT: CONCRETE DESIGN CONCRETE INC.

TECHNICIAN:  
J. MERRITT

**Daniel H. Young, P.E.**  
State of Florida, Professional  
Engineer, License No. 70780

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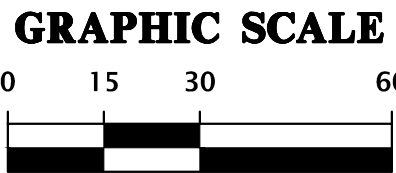
FL PE No. 70780

SHEET NO.:  
**C1.20**

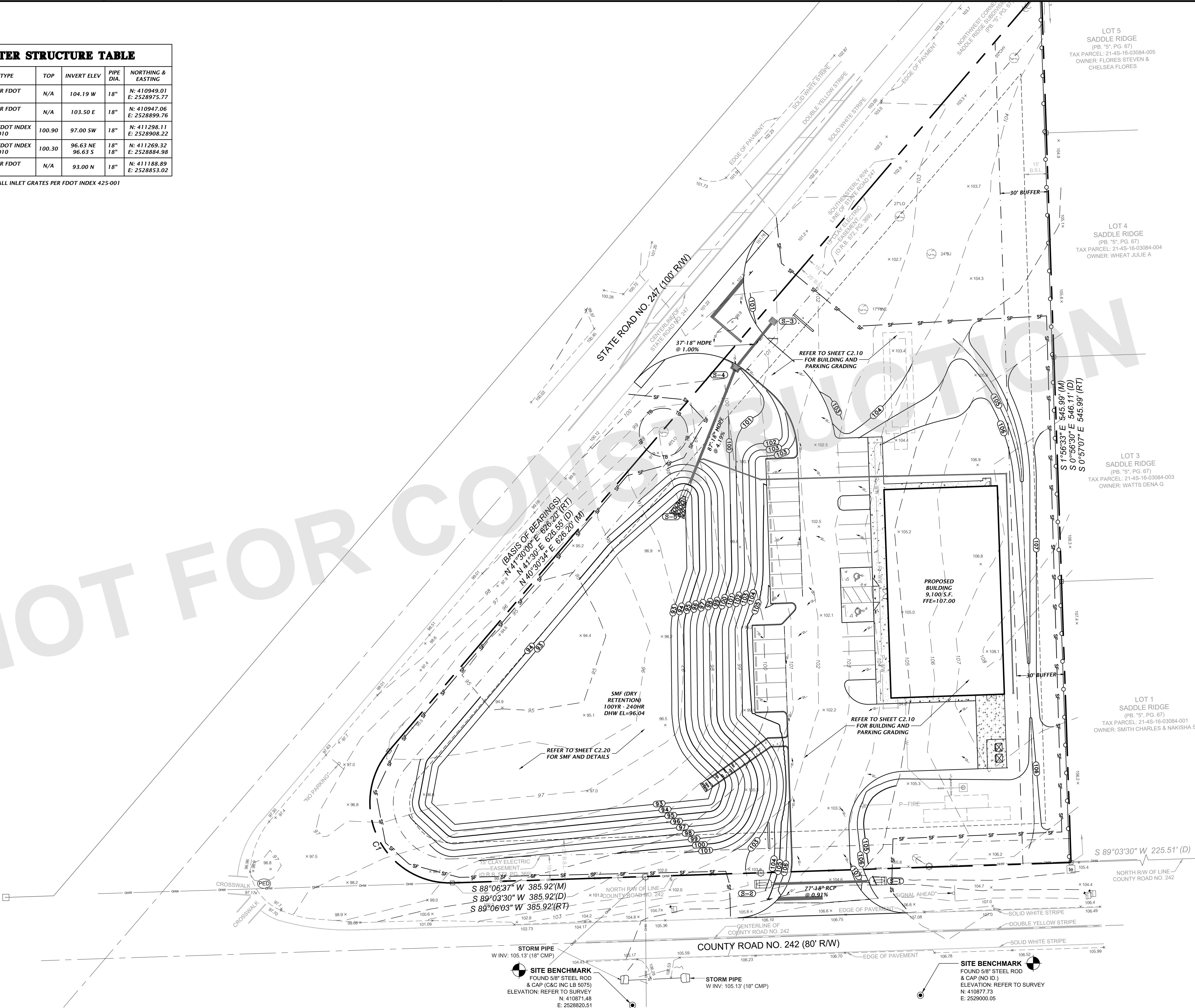


STORMWATER STRUCTURE TABLE					
STRUCTURE:	STRUCTURE TYPE	TOP	INVERT ELEV	PIPE DIA.	NORTHING & EASTING
S-1	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	104.19 W	18"	N: 410949.01 E: 2528975.77
S-2	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	103.50 E	18"	N: 410947.06 E: 2528899.76
S-3	TYPE C INLET PER FDOT INDEX 425-052 AND 425-010	100.90	97.00 SW	18"	N: 411298.11 E: 2528908.22
S-4	TYPE C INLET PER FDOT INDEX 425-052 AND 425-010	100.30	96.63 NE 96.63 S	18"	N: 411269.32 E: 2528884.98
S-5	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	93.00 N	18"	N: 411188.89 E: 2528853.02

NOTE: CHAIN ALL INLET GRATES PER FDOT INDEX 425-001



NOT FOR CONSTRUCTION



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SCALE 1"=30'

CONSTRUCTION IN PROGRESS

DATE: 2/15/21 - FIRST SUBMITTAL

CLIENT: CONCEPT DEVELOPMENT, INC.  
PROJECT: CRIS LAKE CITY - SR 247 AT CR 242  
SHEET TITLE: MASTER GRADING AND DRAINAGE PLAN

DESIGNER: K. HERRITT  
CHECKER: C. THORNTON  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 20-0425

DANIEL H. YOUNG  
Daniel H. Young, P.E.  
State of Florida, Professional  
Engineer, License No. 70780  
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indicated here: 02/15/2021

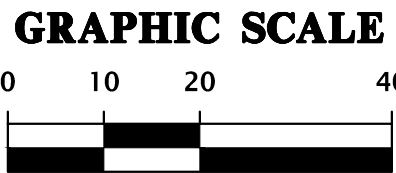
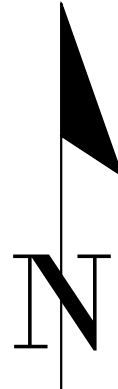
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SHEET NO.

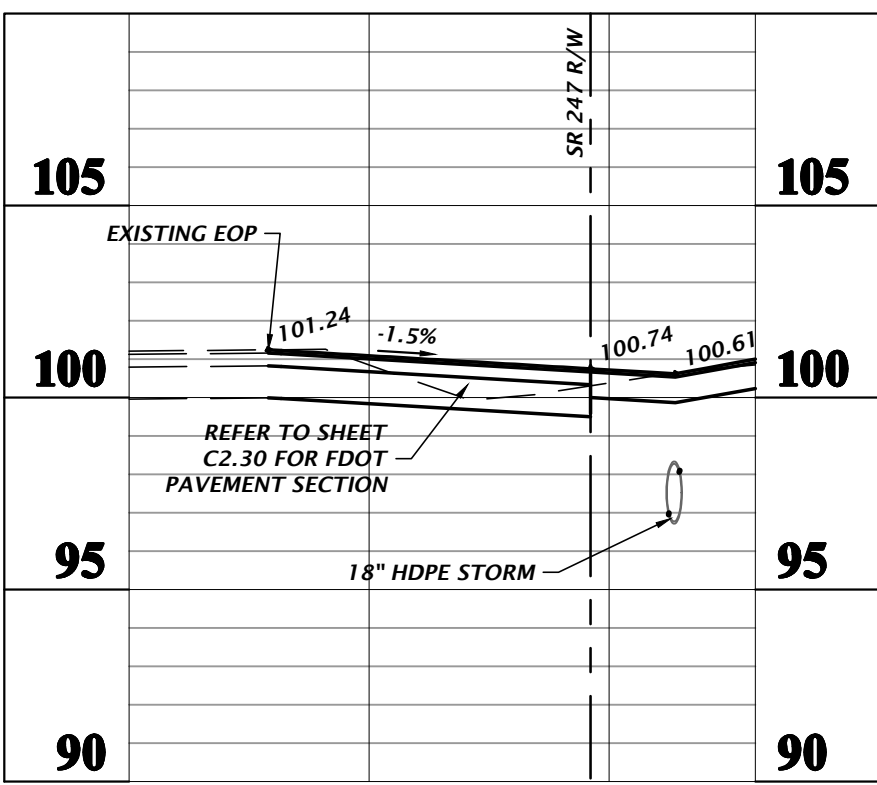
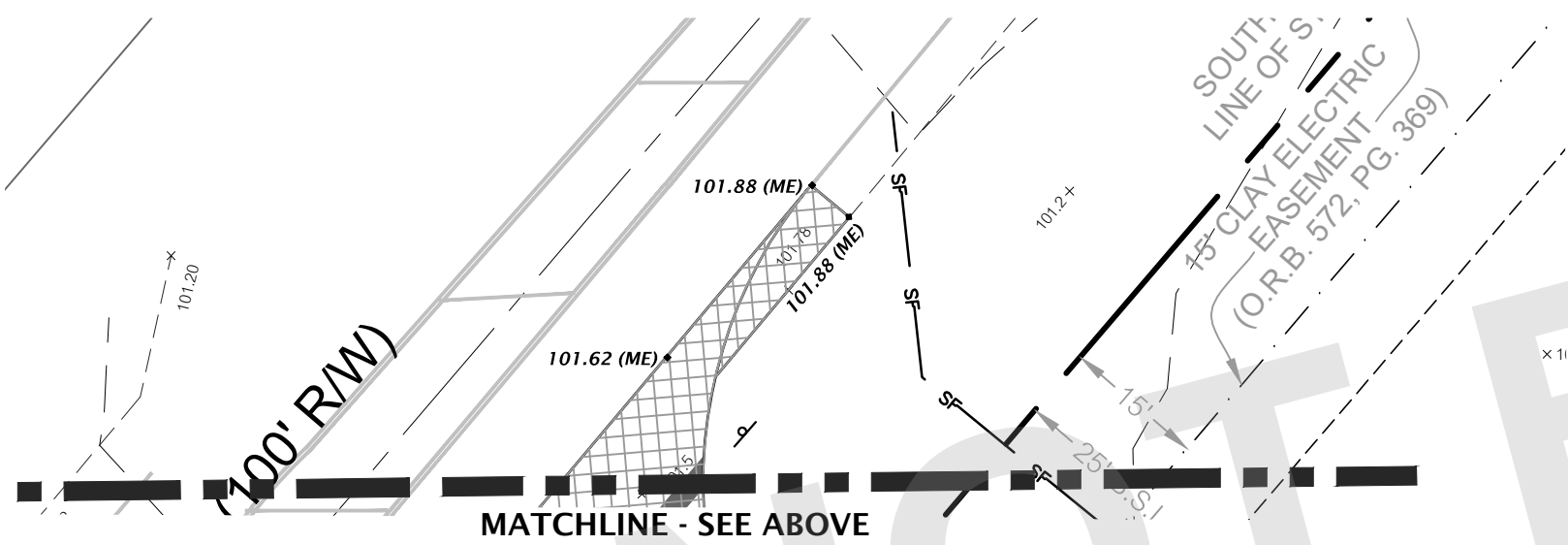
C2.00





STORMWATER STRUCTURE TABLE					
STRUCTURE:	STRUCTURE TYPE	TOP	INVERT ELEV	PIPE DIA.	NORTHING & EASTING
S-1	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	104.19 W	18"	N: 410949.01 E: 2528975.77
S-2	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	103.50 E	18"	N: 410947.06 E: 2528899.76
S-3	TYPE C INLET PER FDOT INDEX 425-052 AND 425-010	100.90	97.00 SW	18"	N: 411298.11 E: 2528908.22
S-4	TYPE C INLET PER FDOT INDEX 425-052 AND 425-010	100.30	96.63 NE 96.63 S	18"	N: 411269.32 E: 2528884.98
S-5	SIDE DRAIN MES PER FDOT INDEX 430-022	N/A	93.00 N	18"	N: 411188.89 E: 2528853.02

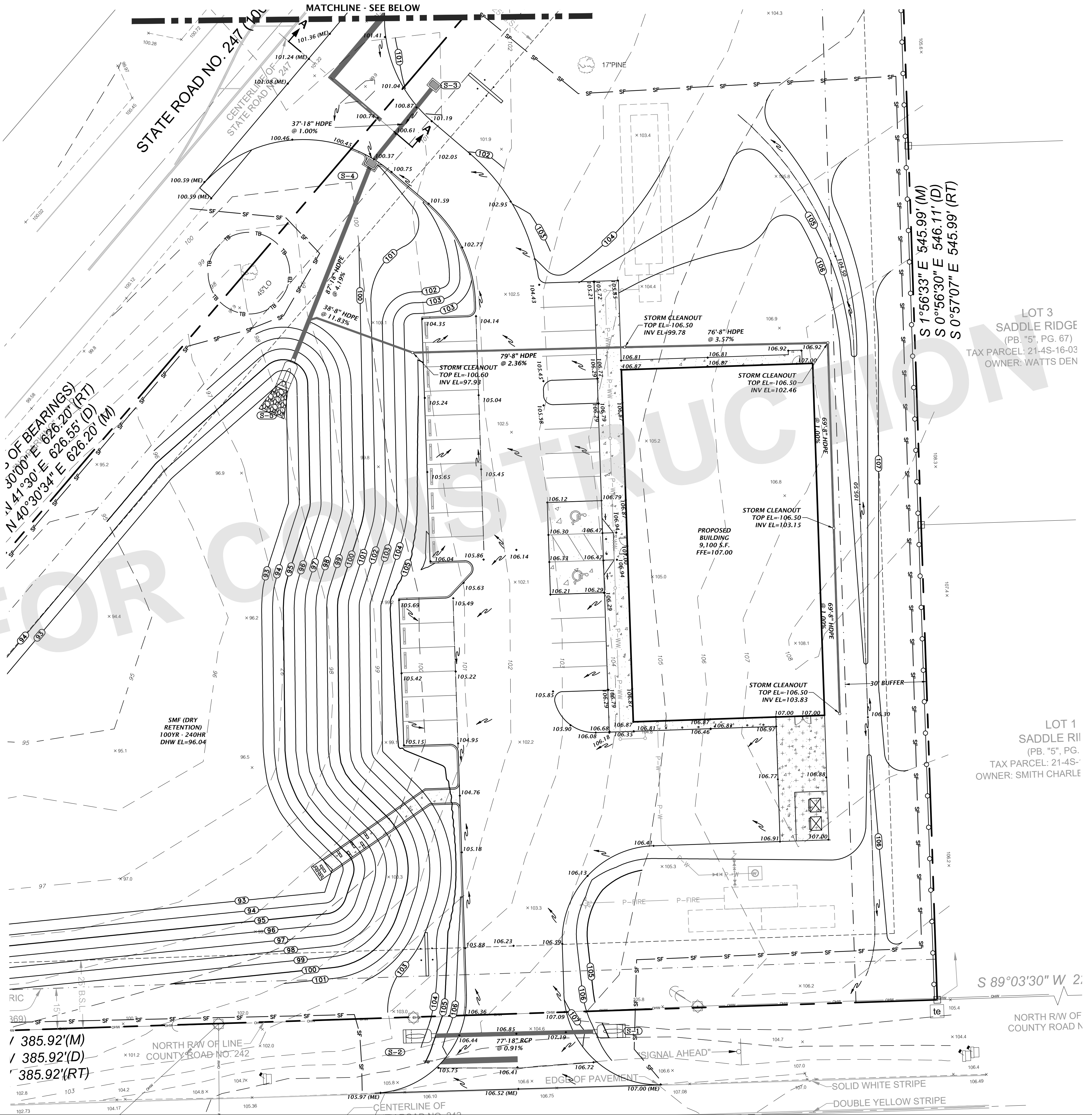
NOTE: CHAIN ALL INLET GRATES PER FDOT INDEX 425-001



SECTION A-A

H: 1"=20'

V: 1"=5'



LOT 3  
SADDLE RIDGE  
(PB. "5", PG. 67)  
TAX PARCEL: 21-4S-16-03  
OWNER: WATTS DEN

LOT 1  
SADDLE RIDGE  
(PB. "5", PG. 67)  
TAX PARCEL: 21-4S-16-03  
OWNER: SMITH CHARLE

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SCALE: 1"=20'

CONSTRUCTION REVISIONS

CLIENT: CONCEPT DEVELOPMENT, INC.  
PROJECT: CRS LAKE CITY - SR 247 AT CR 242  
SHEET TITLE: DETAILED GRADING AND DRAINAGE PLAN

DESIGNER: K. HERRITT  
CHECKER: C. THORNTON  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 20-0425

DANIEL H. YOUNG  
Daniel H. Young, P.E.  
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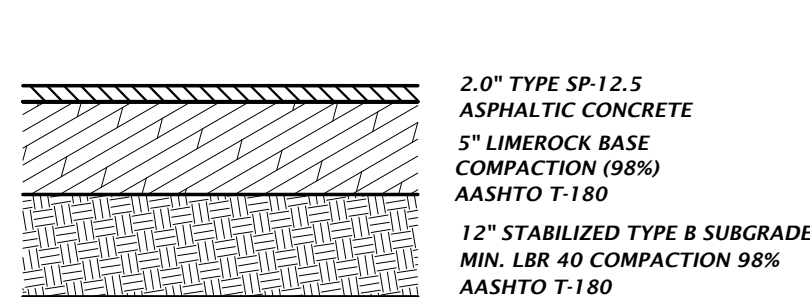
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SHEET NO. C2.10





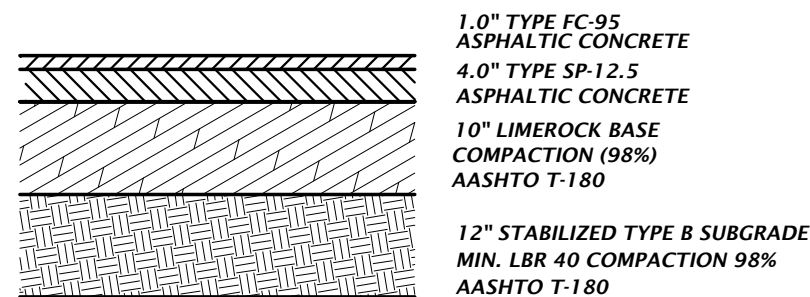




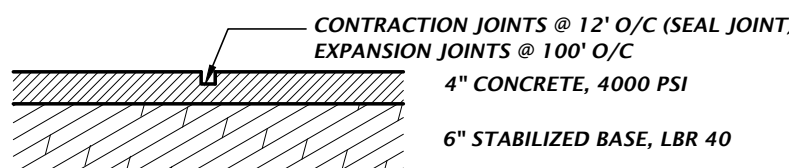
**SHOULDER  
PAVEMENT DETAIL**

**FDOT ASPHALT OPTIONS**

NTS



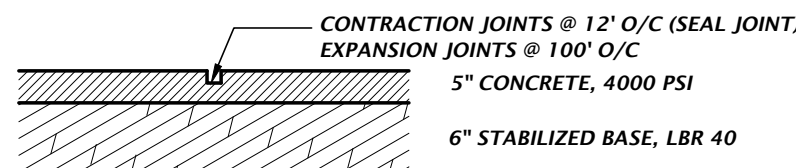
**ASPHALT  
PAVEMENT DETAIL**



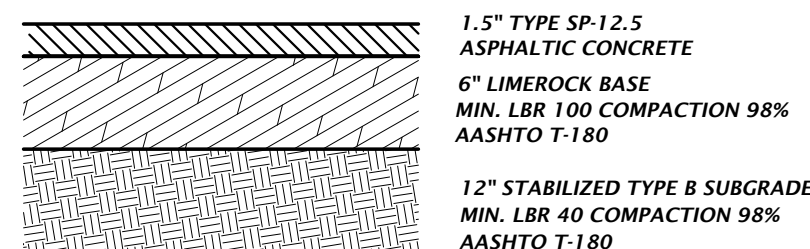
**STANDARD DUTY  
CONCRETE DETAIL**

**PORTLAND CEMENT CONCRETE ALTERNATES**

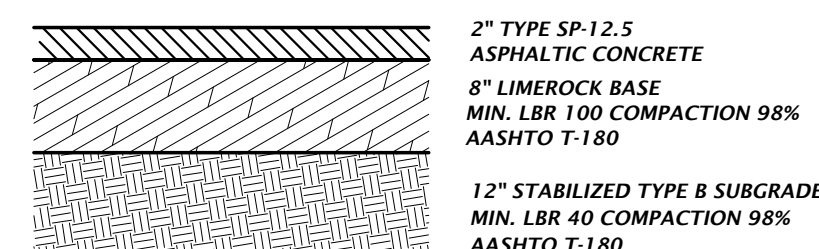
NTS



**HEAVY DUTY  
CONCRETE DETAIL**



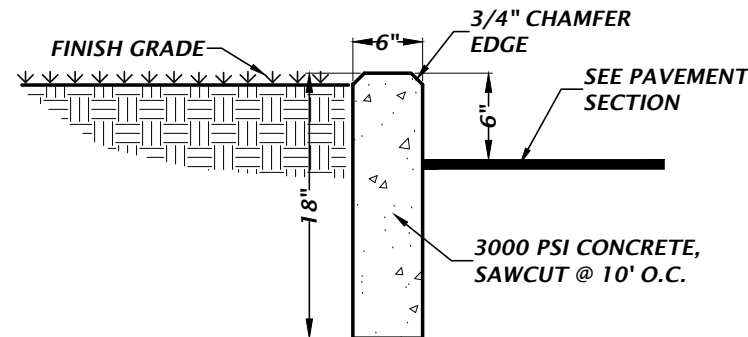
**STANDARD DUTY  
ASPHALT DETAIL**



**HEAVY DUTY  
ASPHALT DETAIL**

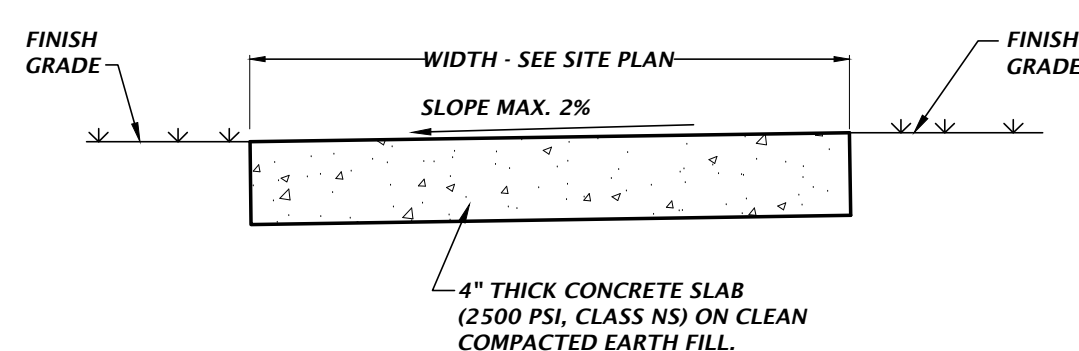
**ASPHALT PAVEMENT DETAILS**

NTS



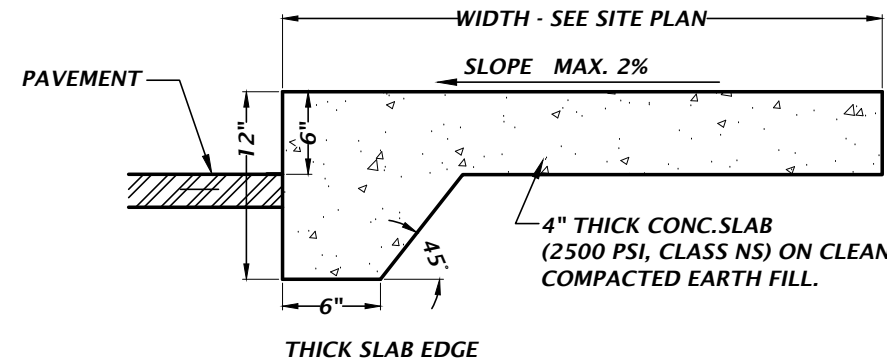
**TYPICAL 6" CURB DETAIL**

NTS



**NOT ADJACENT TO PAVEMENT**

NTS



**ADJACENT TO PAVEMENT**

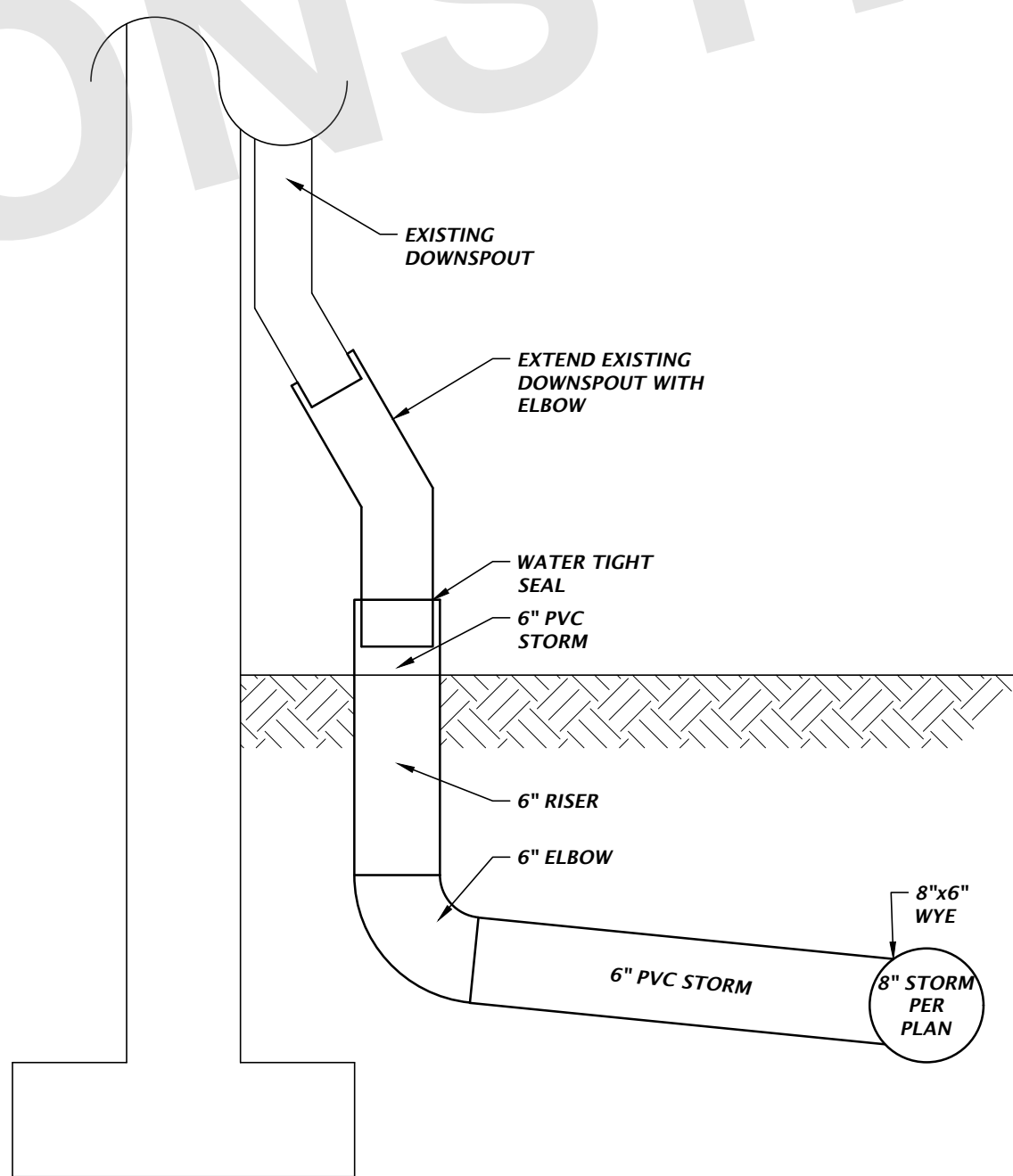
NOTES:

1. SAWCUT CONTROL JOINTS SHALL BE CONSTRUCTED 5 FEET ON CENTER
2. EXPANSION JOINTS WITH PREFORMED JOINT FILLER SHALL BE CONSTRUCTED BETWEEN ALL FIXED OBJECTS AND WALK AND AT CONSTRUCTION JOINTS.

**CONCRETE SIDEWALK DETAILS**

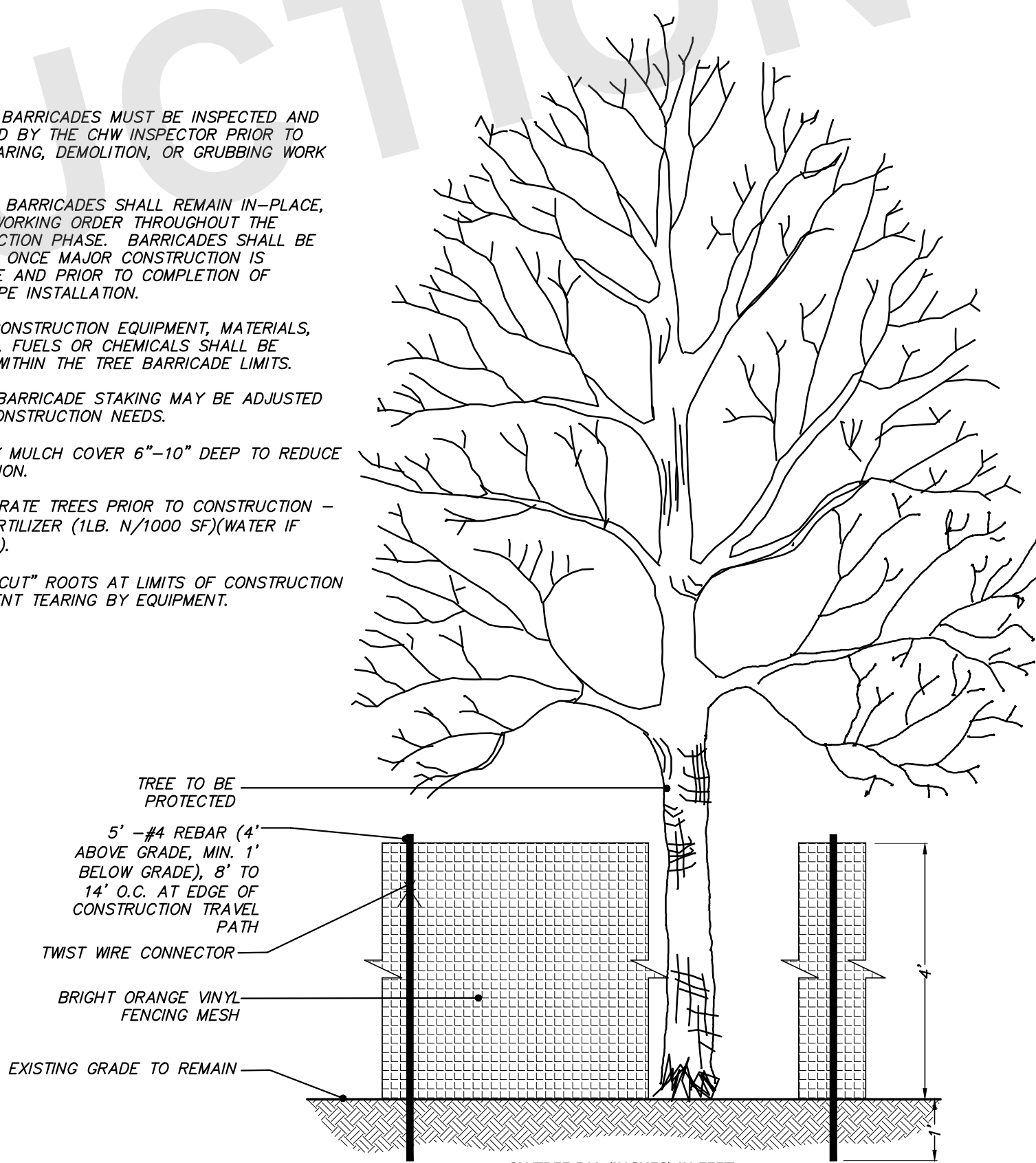
NOTE:

1. TREE BARRICADES MUST BE INSPECTED AND APPROVED BY THE CHW INSPECTOR PRIOR TO ANY CLEARING, DEMOLITION, OR GRUBBING WORK BEGINS.
2. TREE BARRICADES SHALL REMAIN IN-PLACE, AND IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PHASE. BARRICADES SHALL BE REMOVED ONCE MAJOR CONSTRUCTION IS COMPLETE AND PRIOR TO COMPLETION OF LANDSCAPE INSTALLATION.
3. NO CONSTRUCTION EQUIPMENT, MATERIALS, SUPPLIES, FUELS OR CHEMICALS SHALL BE STORED WITHIN THE TREE BARRICADE LIMITS.
4. TREE BARRICADE STAKING MAY BE ADJUSTED TO FIT CONSTRUCTION NEEDS.
5. HEAVY MULCH COVER 6"-10" DEEP TO REDUCE COMPACTION.
6. INVIGORATE TREES PRIOR TO CONSTRUCTION - LIGHT FERTILIZER (1LB. N/1000 SF)(WATER IF POSSIBLE).
7. "PRE-CUT" ROOTS AT LIMITS OF CONSTRUCTION TO PREVENT TEARING BY EQUIPMENT.



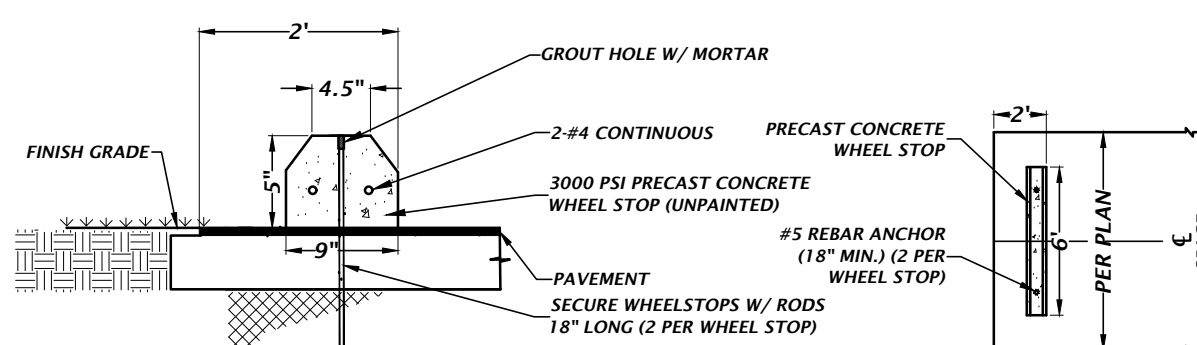
**DOWNSPOUT CONNECTION DETAIL**

NTS



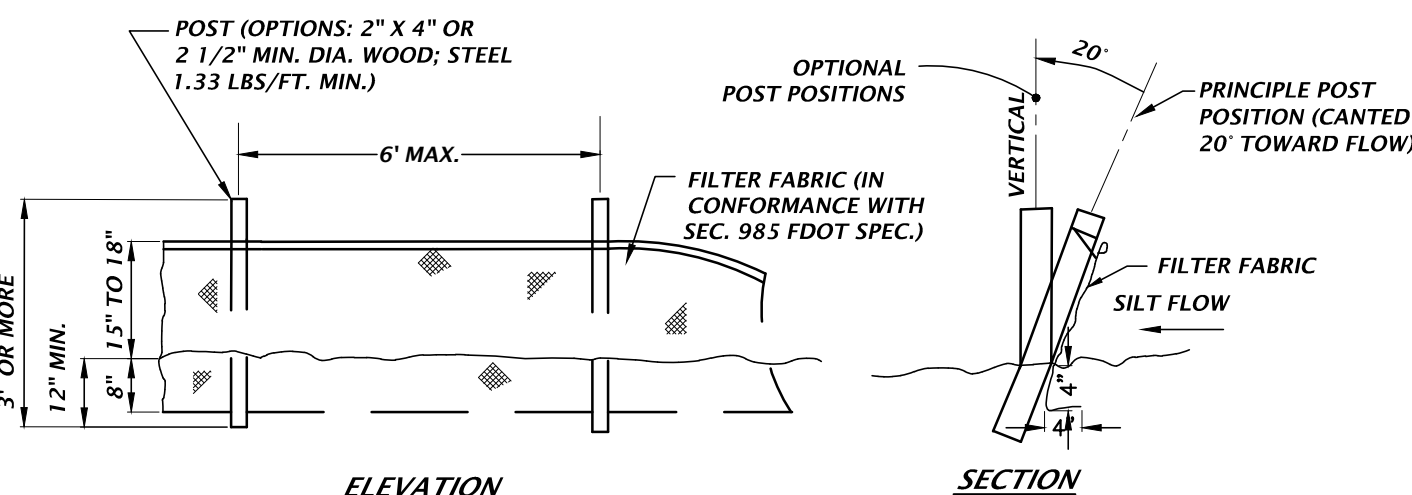
**TREE BARRICADE STAKING**

NTS



**WHEEL STOP DETAIL**

NTS



**TYPE III SILT FENCE DETAIL**

NTS

Tests: kurtm Plot Date: Feb 16, 2021 8:05am Filename: H:\2020\20-0425\Drawings\04\_Engineering\02\_DWG\Production\Fla\20-0425\_C2.30\_DT\_035\_LakeChy.dwg

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2/15/21 - FIRST SUBMITTAL

CLIENT: CONCEPT DEVELOPMENT, INC.  
PROJECT: CRS LAKE CITY - SR 247 AT CR 242

DESIGNER: K. HERRITT  
CHECKER: C. THORNTON  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 20-0425

DANIEL H. YOUNG  
Daniel H. Young, P.E.  
State of Florida, Professional  
Engineer, License No. 70780

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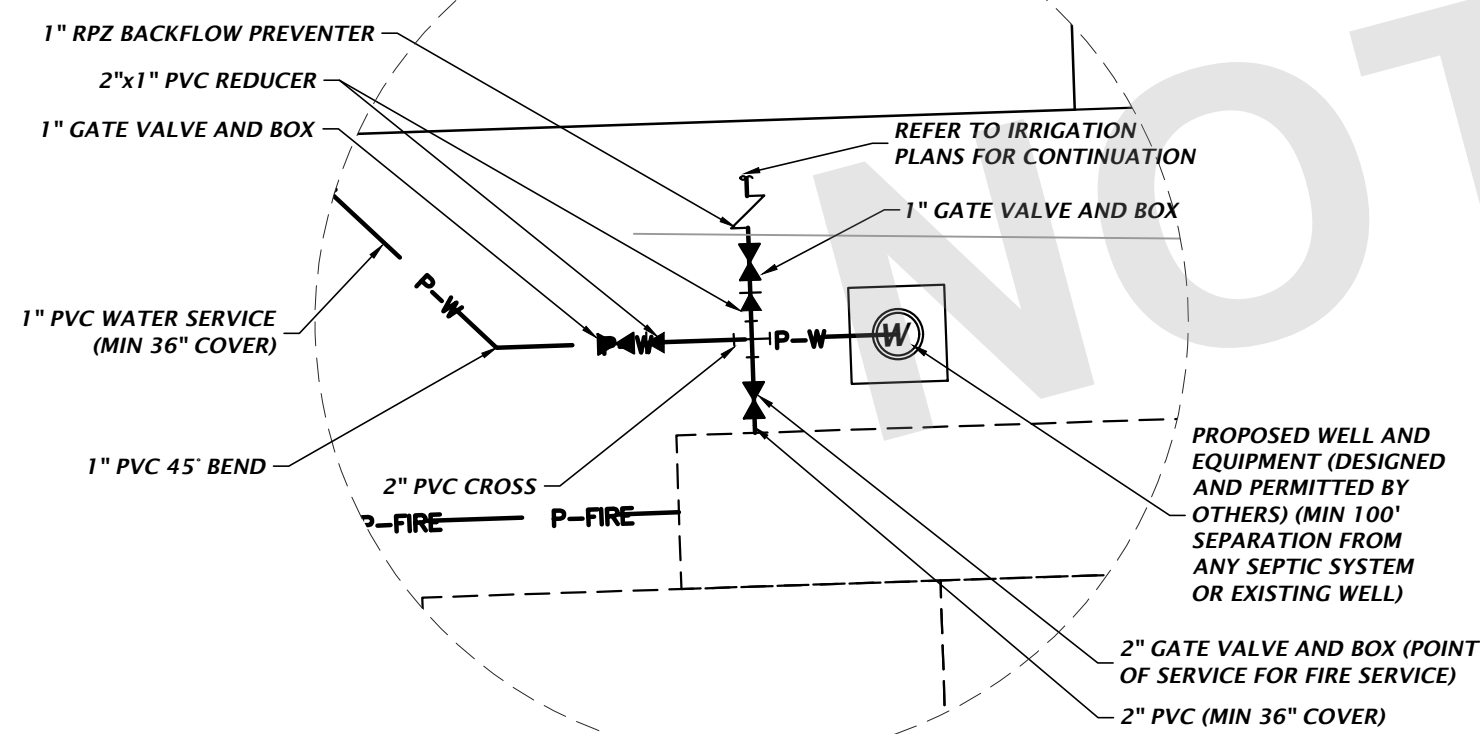
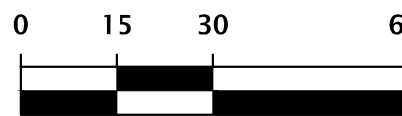
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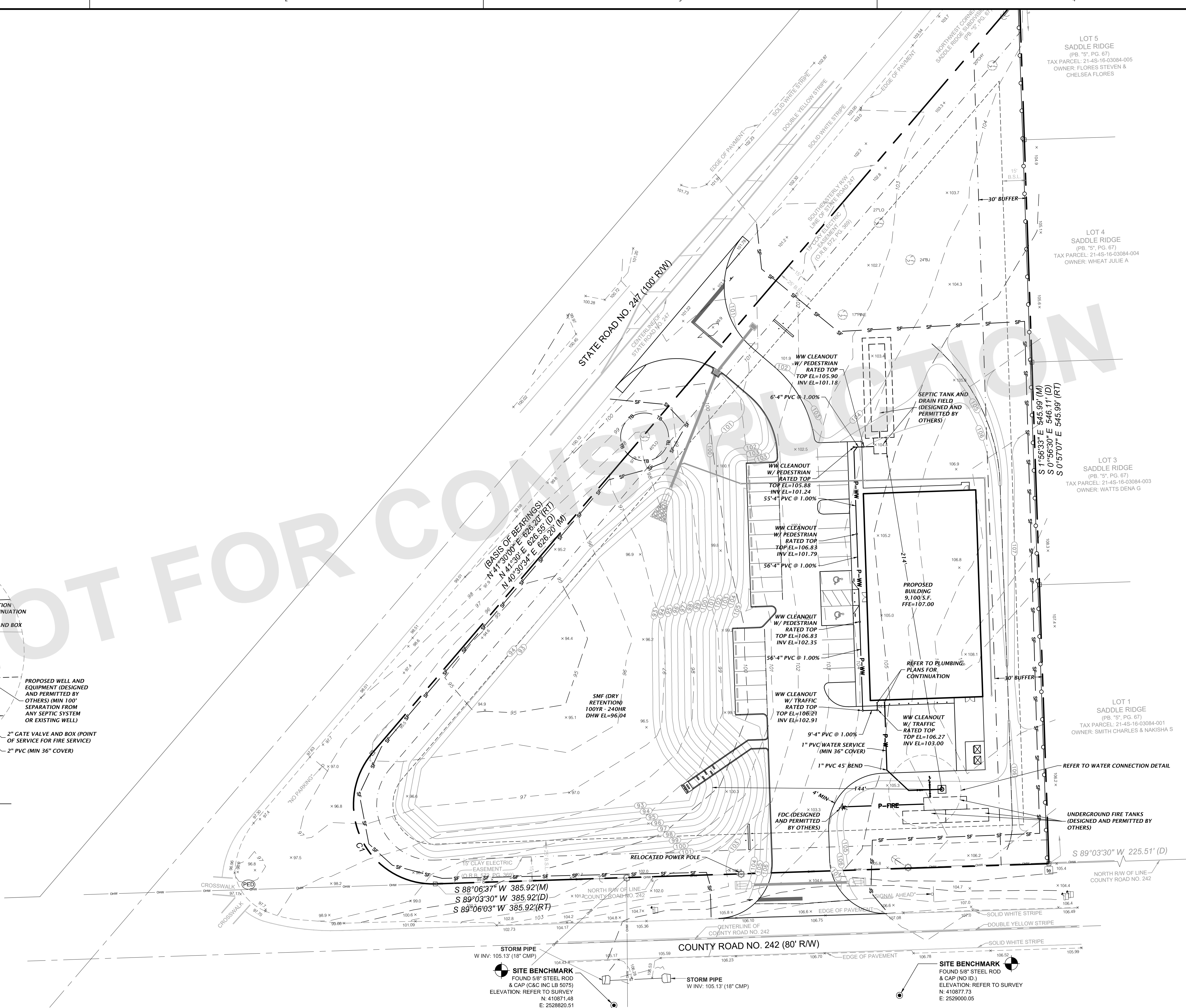


GRAPHIC SCALE



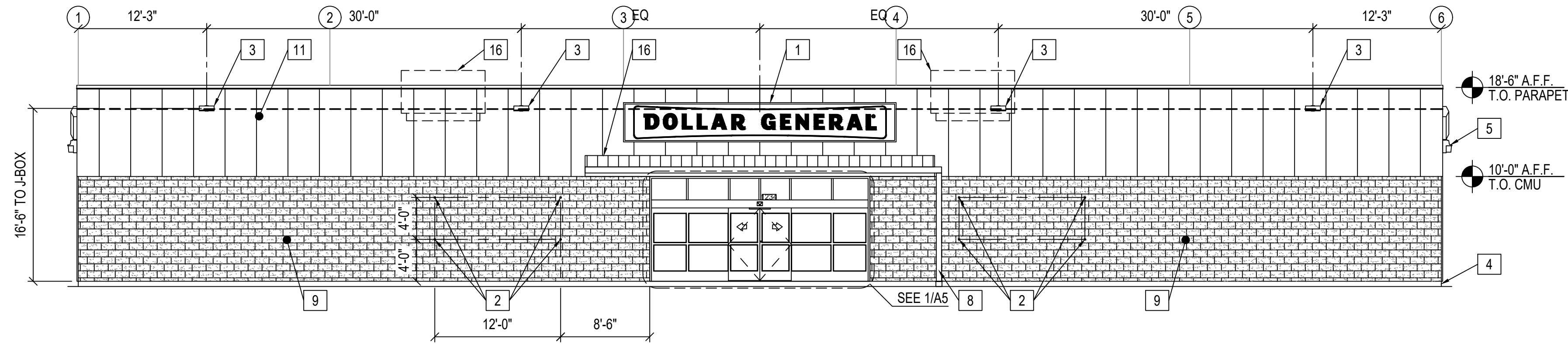
WATER CONNECTION  
DETAIL

NTS

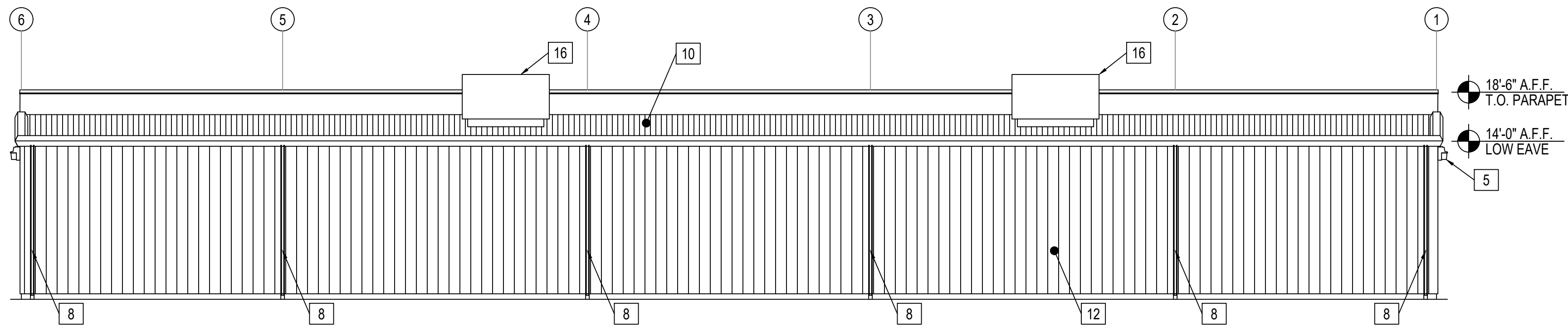


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CONSTRUCTION DIVISION	
DATE: 2/15/21 - FIRST SUBMITTAL	
CLIENT: CONCEPT DEVELOPMENT, INC.	PROJECT: CRIS LAKE CITY - SR 247 AT CR 242
DESIGNER: K. HERRITT	PROJECT NUMBER: 20-0425
EXAMINER: C. THORNTON	QUALITY CONTROL: D. YOUNG
DANIEL H. YOUNG Daniel H. Young, P.E. State of Florida, Professional Engineer, License No. 70780 This item has been digitally signed and sealed by Daniel H. Young, P.E., on the date indicated here: 02/15/2021 Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.	
FL PE No. 70780 SHEET NO. <b>C3.00</b>	

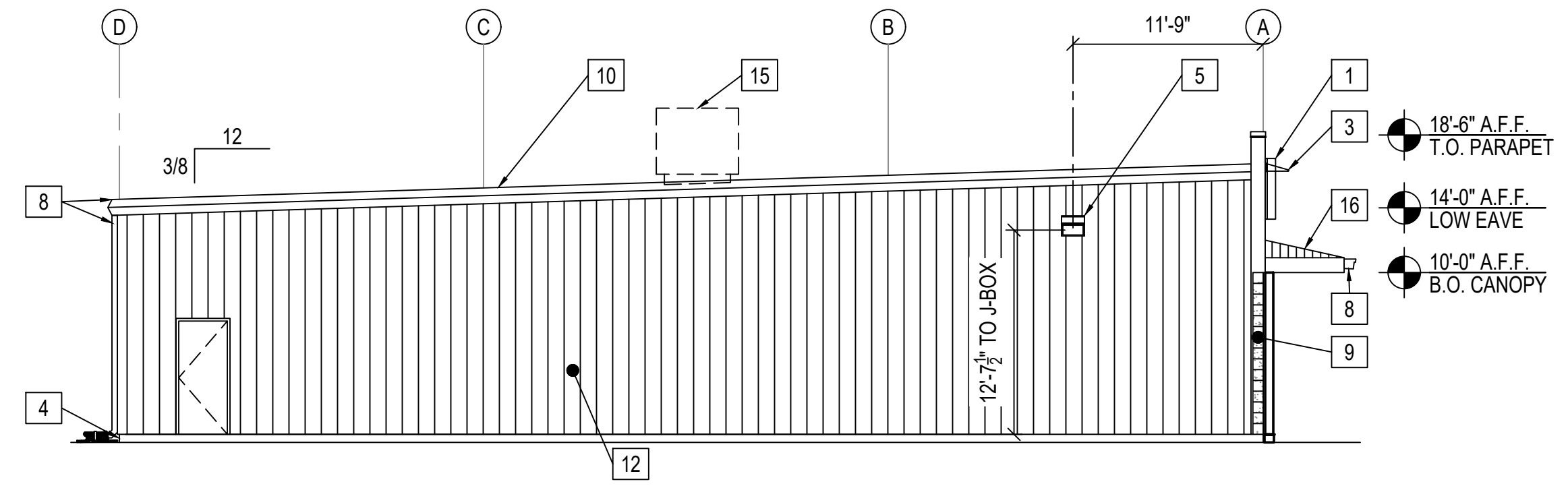




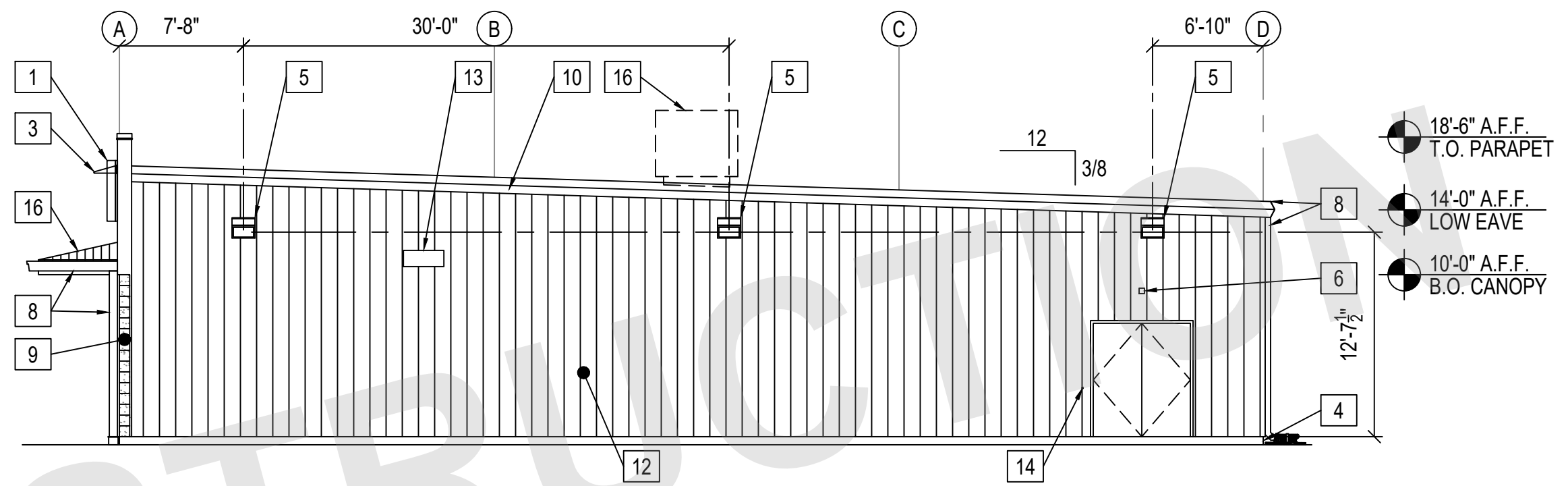
1 FRONT ELEVATION  
A2.0 / SCALE: 1/8" = 1'-0"



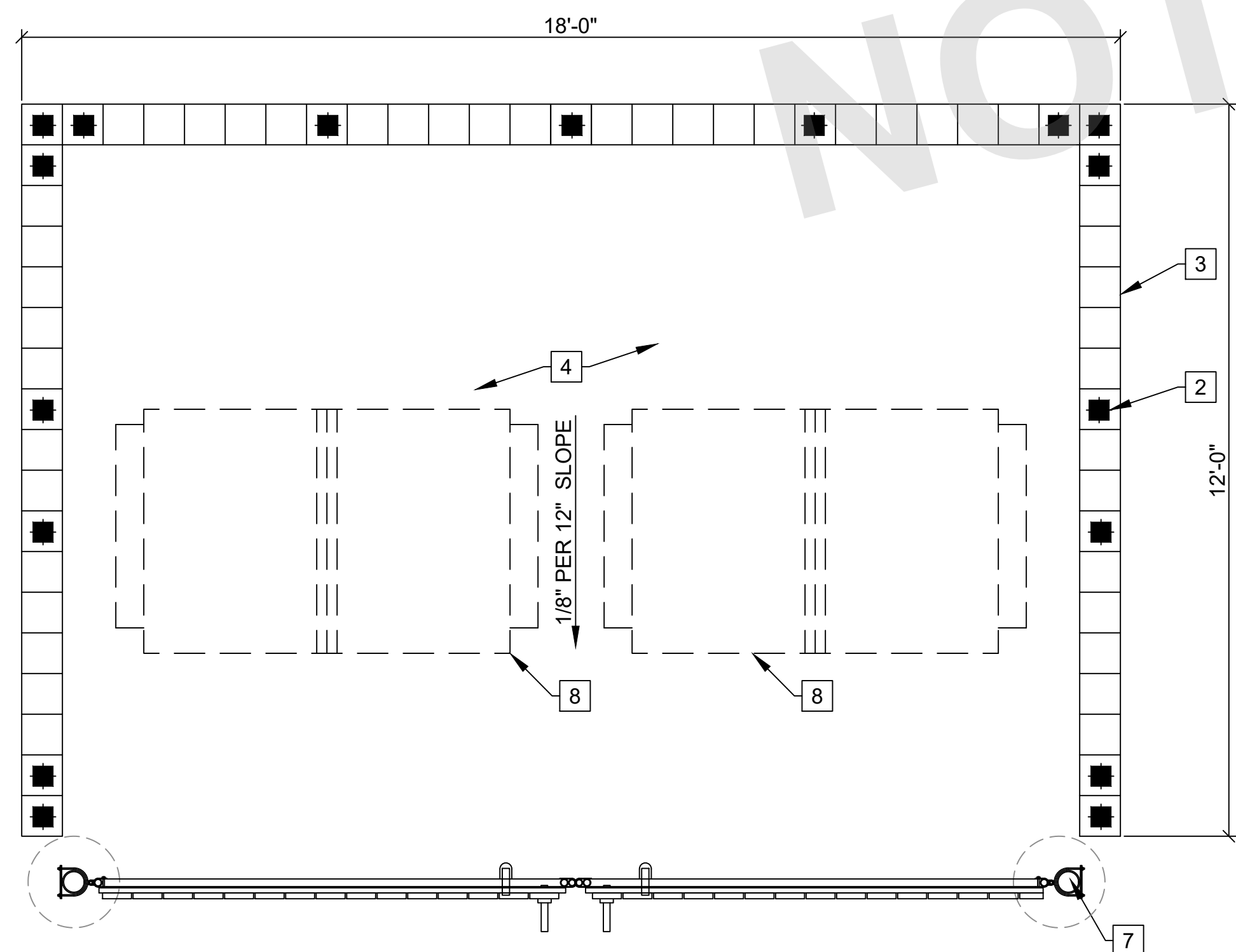
2 REAR ELEVATION  
A2.0 / SCALE: 1/8" = 1'-0"



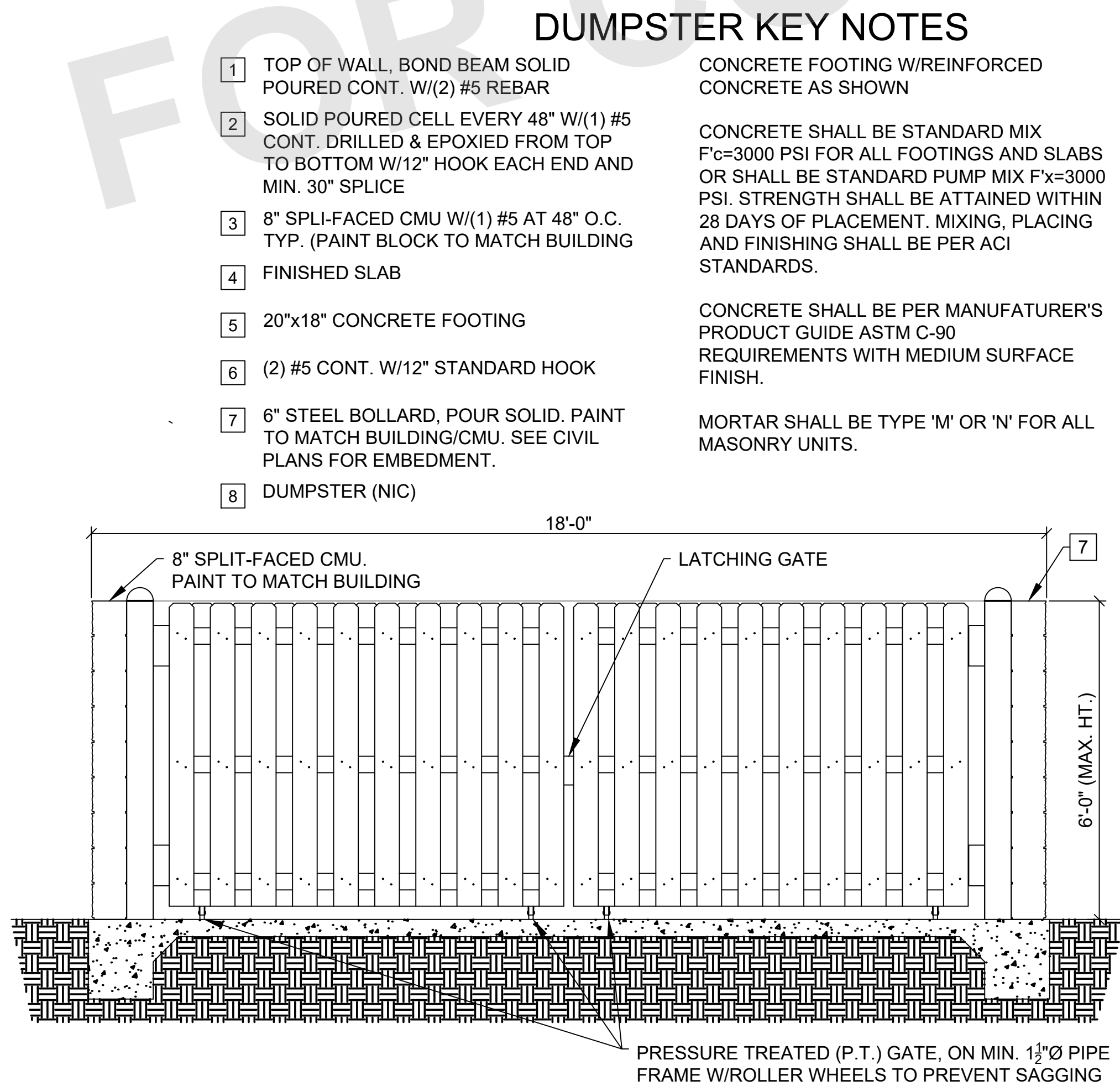
3 LEFT ELEVATION  
A2.0 / SCALE: 1/8" = 1'-0"



4 RIGHT ELEVATION  
A2.0 / SCALE: 1/8" = 1'-0"



4A DUMPSTER ENCLOSURE PLAN  
C1 / SCALE: 1/2" = 1'-0"



4B DUMPSTER ENCLOSURE ELEVATION  
C1 / SCALE: 1/2" = 1'-0"

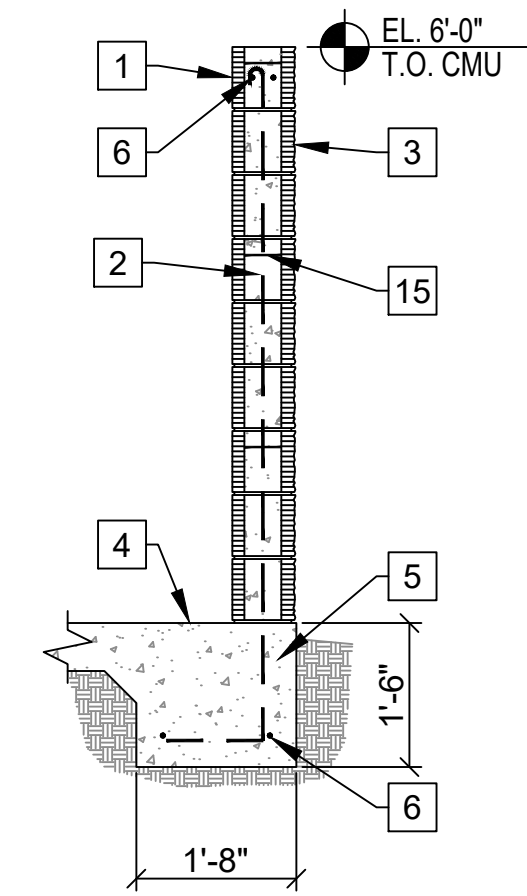
#### DUMPSTER ENCL. CONCRETE SPECS:

CONSTRUCT FOOTING w/REINFORCED CONCRETE AS SHOWN.

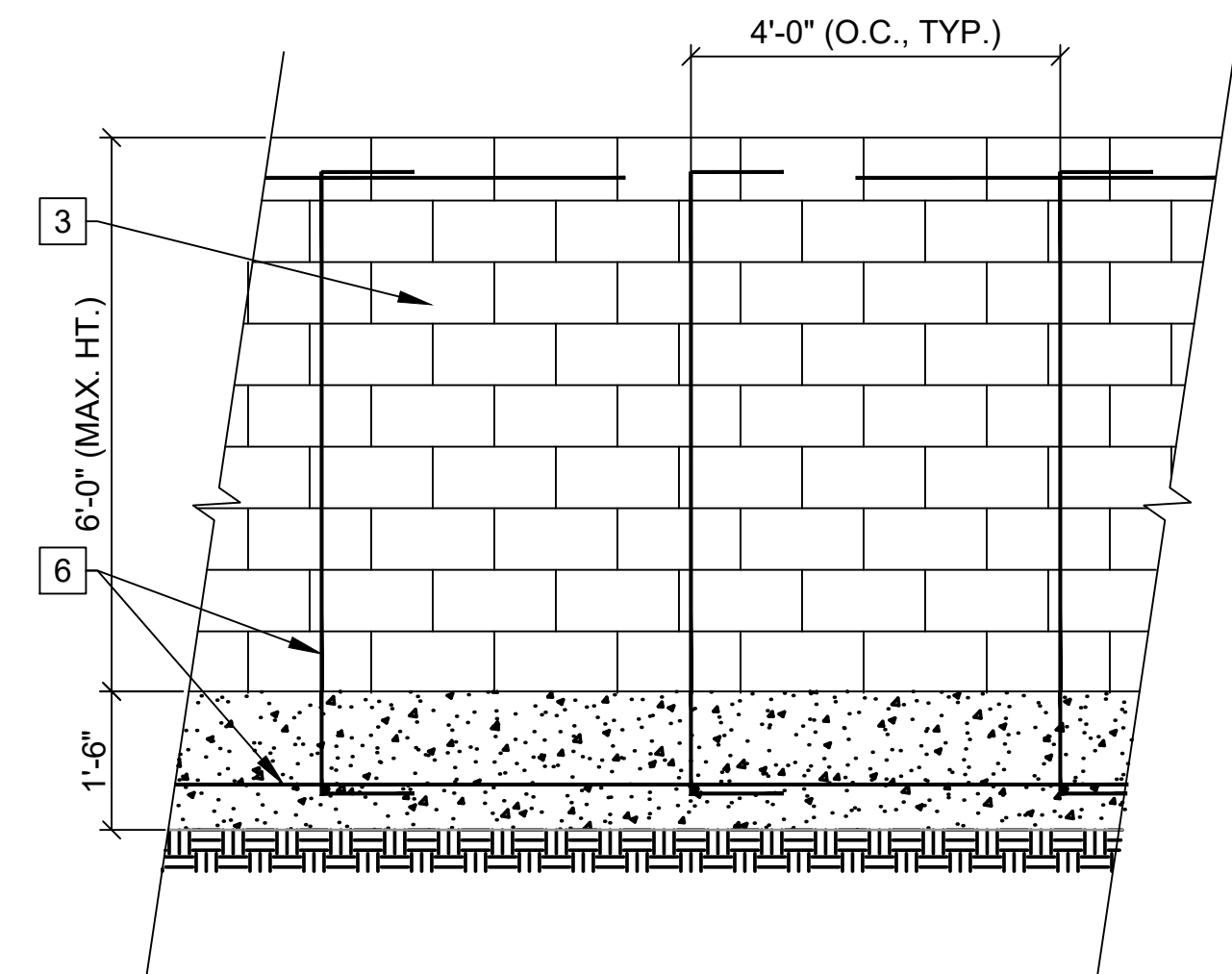
CONCRETE SHALL BE STANDARD MIX F'c = 3000 PSI FOR ALL FOOTINGS AND SLABS OR SHALL BE STANDARD PUMP MIX F'x = 3000 PSI. STRENGTH SHALL BE ATTAINED WITHIN 28 DAYS OF PLACEMENT. MIXING, PLACING AND FINISHING SHALL BE PER ACI STANDARDS.

CONCRETE BLOCK PER ASTM C-90 REQUIREMENTS WITH MEDIUM SURFACE FINISH. SEE SPECS ON A-12.

USE TYPE 'M' OR 'N' MORTAR TO LAY UP CONCRETE MASONRY BLOCK.



4C TYP. SECTION  
C1 / SCALE: 1/2" = 1'-0"



4D REBAR ELEVATION  
C1 / SCALE: 1/2" = 1'-0"

#### DUMPSTER KEY NOTES




- 1 TOP OF WALL, BOND BEAM SOLID POURED CONT. W/(2) #5 REBAR
- 2 SOLID POURED CELL EVERY 48" W/(1) #5 CONT. DRILLED & EPOXIED FROM TOP TO BOTTOM W/12" HOOK EACH END AND MIN. 30" SPLICE
- 3 8" SPLIT-FACED CMU W/(1) #5 AT 48" O.C. TYP. (PAINT BLOCK TO MATCH BUILDING)
- 4 FINISHED SLAB
- 5 20"x18" CONCRETE FOOTING
- 6 (2) #5 CONT. W/12" STANDARD HOOK
- 7 6" STEEL BOLLARD, POUR SOLID. PAINT TO MATCH BUILDING/CMU. SEE CIVIL PLANS FOR EMBEDMENT.
- 8 DUMPSTER (NIC)

CONCRETE FOOTING W/REINFORCED CONCRETE AS SHOWN

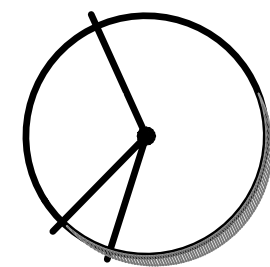
CONCRETE SHALL BE STANDARD MIX F'c = 3000 PSI FOR ALL FOOTINGS AND SLABS OR SHALL BE STANDARD PUMP MIX F'x = 3000 PSI. STRENGTH SHALL BE ATTAINED WITHIN 28 DAYS OF PLACEMENT. MIXING, PLACING AND FINISHING SHALL BE PER ACI STANDARDS.

CONCRETE SHALL BE PER MANUFACTURER'S PRODUCT GUIDE ASTM C-90 REQUIREMENTS WITH MEDIUM SURFACE FINISH.

MORTAR SHALL BE TYPE 'M' OR 'N' FOR ALL MASONRY UNITS.

Trees					
Quantity	Abbr.	Botanical Name /	Size / Caliper	Spacing	Comments
5	see tree id key	<i>Quercus virginiana</i> live oak	4'ht.	per plan	
4		<i>Ulmus alata</i> winged elm	4'ht.	per plan	
2		<i>Lagerstroemia indica</i> 'Natchez' crape myrtle	4'ht., std.	per plan	
Shrubs					
87	vo	<i>Viburnum odoratissimum</i> sweet viburnum	4"ht. X 4"spr.	6'o.c.	
58	vs	<i>Viburnum suspensum</i> sandankwa viburnum	18"ht.	3'o.c.	
9		<i>Paspalum quadrifarium</i> crowngrass	18"ht.	4'o.c.	
Groundcovers					
2,747sf x 3" thick		<i>Pine Bark Nuggets</i> 3" layer			
38,454sf		<i>Paspalum notatum</i> 'Argentine' bahia grass			
60,264sf		<i>Paspalum notatum</i> 'Argentine' bahia grass seed on basin bottom covered in pinestraw			
60,264sf	not shown	<i>Pinestraw</i> Apply over seeded areas			

Tree identification key

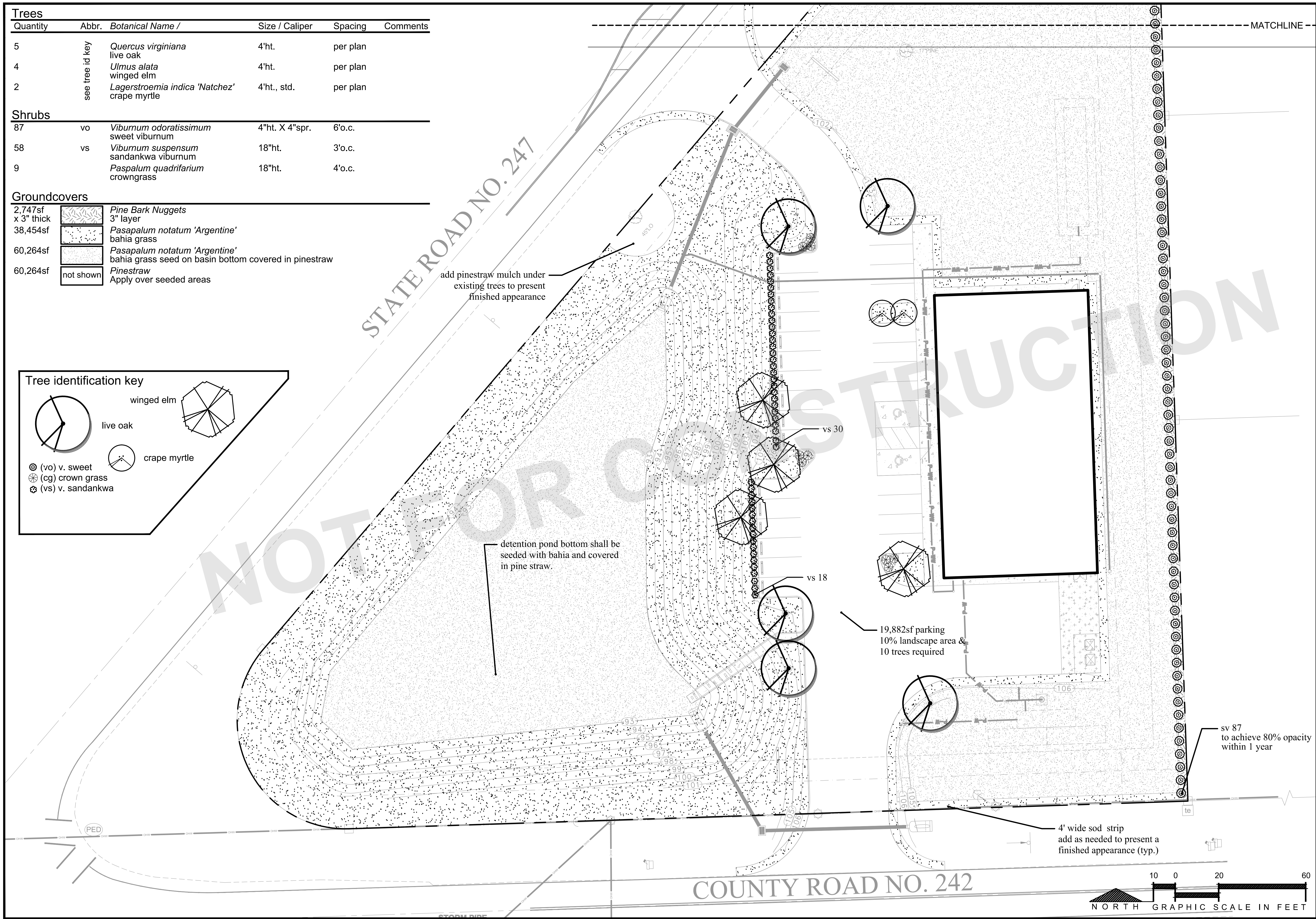


winged elm

live oak

crape myrtle

⊙ (vo) v. sweet  
⊕ (cg) crown grass  
⊠ (vs) v. sandankwa



BORTON Design INC

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CERT. OF AUTH. # LC20000403  
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LANDSCAPE PLAN

COMMERCIAL RETAIL STORE - LAKE CITY SR 247  
PREPARED FOR  
CONCEPT DEVELOPMENT, LLC.

PLANS PREPARED BY

BRIAN DAVID BORTON FL  
NO. LA6667028

REVISIONS:

21126  
BDB  
BDB  
BDB  
02/11/2021

DESIGNED BY:

BDB

CHECKED BY:

BDB

DATE:

02/11/2021

LS-01

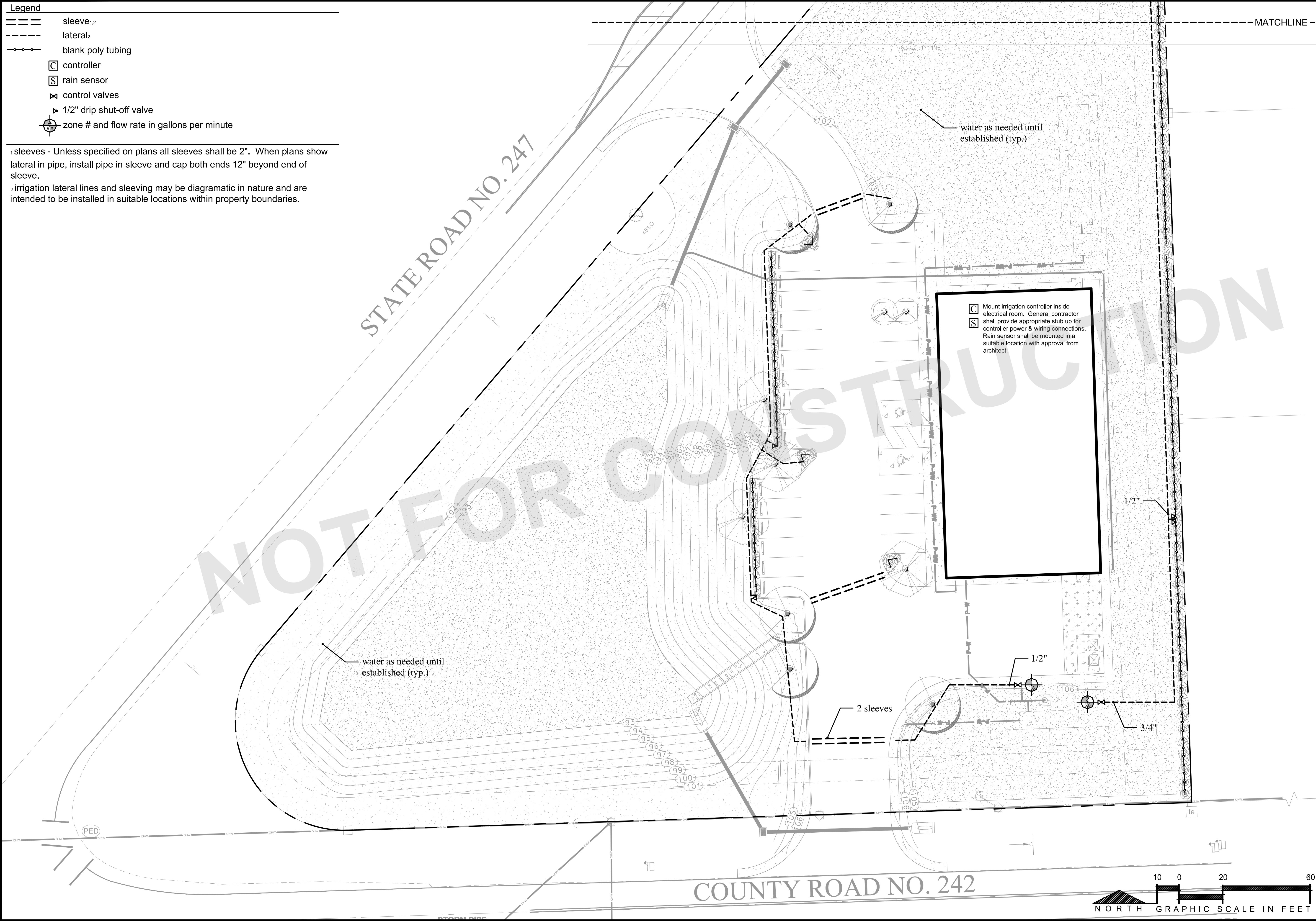


Legend

- == sleeve<sup>1,2</sup>
- - - lateral<sup>2</sup>
- - - blank poly tubing
- ☐ controller
- ☐ rain sensor
- ✕ control valves
- ▶ 1/2" drip shut-off valve
- ⊙ zone # and flow rate in gallons per minute

<sup>1</sup>sleeves - Unless specified on plans all sleeves shall be 2". When plans show lateral in pipe, install pipe in sleeve and cap both ends 12" beyond end of sleeve.

<sup>2</sup>irrigation lateral lines and sleeving may be diagrammatic in nature and are intended to be installed in suitable locations within property boundaries.



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# IRRIGATION PLAN

COMMERCIAL RETAIL STORE - LAKE CITY SR 247  
PREPARED FOR  
CONCEPT DEVELOPMENT, LLC.

BDI NO.	21126	REVISIONS:
DRAWN BY:	BDB	
DESIGNED BY:	BDB	
CHECKED BY:	BDB	
DATE:	02/11/2021	

PLANS PREPARED BY  
BRIAN DAVID BORTON FL.  
NO. LA6667028

## LS-02



- Irrigation Notes**
1. Dripline. Drip shall be installed on top of soil and covered with mulch.
  2. Control Valves & Regulators. Control valves shall be installed and set 5% over proposed flow.
  3. Pipe. 1/2" pipe shall be Class 315 PVC. Piping larger than 1/2" shall use Class 200 PVC.
  4. Irrigation materials not identified on irrigation schedule or in specifications as to brand and model # shall be either Rainbird, Nelson, or Hunter and sized appropriately by contractor to meet requirements by the manufacturer. Contractor shall include all materials including quantity, model, size, and installed price for each item on bid form.
  5. All irrigation revisions shall be submitted to Columbia County for review and approval prior to installation.
  6. No irrigation to be provided at sod. Contractor shall irrigate with a water truck as needed for the first two weeks.
  7. Pipe shall not be installed within 50% of any existing tree dripline UNLESS piping is installed via a trenchless installation method.

**Watering Schedule for Zone 1 & 2**

Water all plants listed once per day for 60 minutes during the first month and every other day until established afterwards. Shrub drip valves may be shut-off after 3 months. After one year trees should be sufficiently rooted into existing soil for shutdown; however, it is recommended that a review be performed by a certified arborist before shutting off the system. After establishment irrigation should be turned on IF a drought occurs. Bahia grass shall be temporarily watered via hand moved sprinklers for two weeks if rainfall is not occurring as needed.

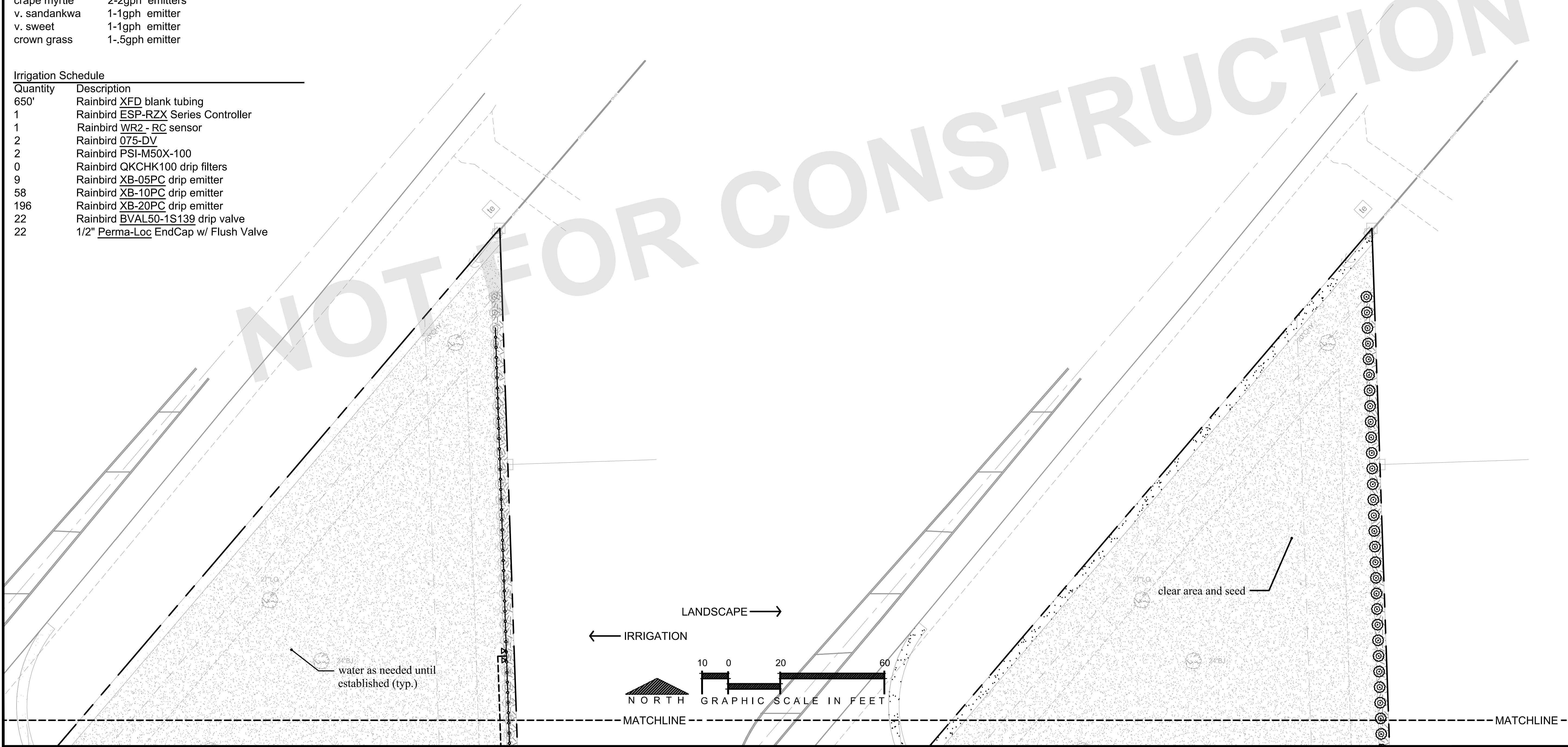
Number of emitters per tree/shrub	
live oak	2-2gph emitters
winged elm	2-2gph emitters
crape myrtle	2-2gph emitters
v. sandankwa	1-1gph emitter
v. sweet	1-1gph emitter
crown grass	1-5gph emitter

Irrigation Schedule	
Quantity	Description
650'	Rainbird XFD blank tubing
1	Rainbird <u>ESP-RZX</u> Series Controllor
1	Rainbird <u>WR2</u> - RC sensor
2	Rainbird 075-DV
2	Rainbird PSI-M50X-100
0	Rainbird QKCHK100 drip filters
9	Rainbird XB-05PC drip emitter
58	Rainbird XB-10PC drip emitter
196	Rainbird XB-20PC drip emitter
22	Rainbird <u>BVAL50-1S139</u> drip valve
22	1/2" <u>Perma-Log</u> EndCap w/ Flush Valve

- Landscape General Notes**
1. Contractor shall provide proposed soil amendment quantities on bid form to ensure healthy vigorous growth of plant material, lateral movement of irrigation water within soil, & soil nutrient holding capacity.
  2. Any vegetation planted adjacent to a parking stall where it may interfere with a vehicles door opening shall be offset 2' from back of curb. Trim plant material as needed to keep a 6" clearance from back of curb in these areas.
  3. ALL mulched areas adjacent to edge of curb, pavement, shall be composed of a compressed 3" thick layer of mulch. Top of mulch shall be 1/2" below edge of adjacent surface so mulch has a containment edge.
  4. ALL proposed sod areas adjacent to edge of curb/pavement shall be excavated so the sod does not impede water runoff into the pervious areas.
  5. All revisions shall be submitted to the Columbia County for review and approval prior to installation.

**Soil Testing**

Existing soil composition has not been tested. Contractor excavate 2' depth all material used in construction of parking lots and buildings inside plant beds and infill with suitable soil and amendments to support healthy growth.



PLANS PREPARED BY	BDI NO.	REVISIONS:			
		DRAWN BY:	DESIGNED BY:	CHECKED BY:	DATE:
	21126	BDB	BDB	BDB	02/11/2021

BRIAN DAVID BORTON FL.  
NO. LA6667028



#### LANDSCAPE PART 1 GENERAL NOTES

Scope. This section includes all planting of shrubs, trees, ground covers, and other landscape supplementary work shown on the drawings and specified herein, complete.

Applicable Documents. The following publications, specifications, and standards of the issues listed in this paragraph (including the amendments and addenda designated), but referred to hereinafter by basic designation only, form a part of this specification to the extent required by the references thereto.

Publication of Reference. Publications as herein listed shall be held in basic reference: Grades and Standards for Nursery Plants, Parts I and II, State Department of Agriculture and/or State Plant Board of Florida, Seagle Building, Gainesville, Florida.  
State of Florida Fertilizer Law, Office of the Secretary of State, Tallahassee, Florida.  
American Standard for Nursery Stock (ANSIZ60.1-), American Association of Nurserymen.  
Standards for Tree Care Operations (ANSI A300)  
Guideline Specifications to Sodding, America Sod Producers Association (ASPA)

Plant Quantities. All plant quantities shown in the plans are approximate based on the plan locations. The Contractor shall be fully responsible for determining all final plant quantities and shall submit a revised plant schedule with final plant quantities as part of the contract and prior to construction.

Substitutions of Plant Material. If a plant is found to be unavailable, submit proof of non-availability and a proposal for use of equivalent material. When authorized, adjustment of contract amount will be made. No substitutions will otherwise be authorized. To prove non-availability, The Contractor must provide at least eight (8) letters from growers or dealers from the States of Florida and Georgia explaining the non-Availability of the plant material.

On-Site Conditions and Adjustments. The locations of plants, as shown on the plans, are fairly accurate. Planting shall be adjusted only when necessary to accommodate actual as-built conditions on the site and any changes in locations caused thereby shall be made without additional cost to the Owner, Owner's Representative, or Landscape Architect. The Contractor shall immediately notify the Owner's Representative when conditions detrimental to plant growth are encountered, such as rubble fill, lime rock, or obstructions; and when field conditions are different than portrayed on the plans prior to planting. The owner or Owner's Representative may adjust the layout or location of specified plant materials to avoid these areas without additional costs.

Coordination of Plantings. Coordinate all landscape work with the Owner's Representative and other contractors. Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise directed by the Owner's Representative.

Fine Grading. Provide fine grading necessary to establish finish grade in all landscape areas. Fine grading shall include only minor grading to correct random or infrequent grade irregularities of 12" or less, unless otherwise noted on plans.

Liability of Contractor. The Contractor shall be liable for any and all damages to property that result from his performance. He shall, without extra cost, restore to original condition any areas and/or construction damaged, defaced, disturbed, or destroyed by him or his workmen.

Tree Tagging. A tree tagging trip may be requested by Owner's Representative prior to approval of plant material. The Contractor shall be responsible for providing transportation and accommodations if necessary.

Inferior Materials. Contractor shall reject inferior materials. The Owner's Representative reserves the right to reject any or all materials not meeting the criteria specified herein or determined to be damaged or unhealthy.

Onsite Debris. Contractor shall be responsible for removing and disposing of offsite all stones over 1" in diameter, sticks, roots, and other extraneous matter in planted areas to a depth of 2'. If debris is excessive and results from construction waste please contact Owner's Representative for appropriate actions.

#### LANDSCAPE PART 2 SUBMITTALS

Soil Testing for Plant Material. The Contractor shall be responsible for testing soils in planted areas to confirm that soil is suitable for healthy plant growth and shall submit a report to the Owner's Representative prior to construction showing test data and any conflicts determined by the contractor.

Seed Certification. All seed must comply with regulatory agencies for fertilizer and herbicide composition.

Inspection Certificates, Manufacturer's Data. Upon request of Representative copies of inspection certificates or manufacturer's data shall be provided for any material used onsite or for existing materials found onsite.

#### LANDSCAPE PART 3 MATERIALS

General Plant Material Requirements. Provide state inspected, nursery grown plants, and according to the plant schedule unless otherwise specified. Conform to the, "Florida Department of Agriculture Grades and Standards For Nursery Plants", local landscape ordinance, and, where applicable, to ANSI Z60.1 All plant materials shall be Nursery grown, Florida No. 1 stock. All materials shall be healthy, vigorous, free of diseases and insects, pruned for best shape without appearance of "die-heading", and without symptoms of nutritional deficiency. Furnish plants grown under climatic conditions must measure according to sizing required detailed on the drawings. Plants must be naturally bushy, dense, in good foliage, well branched, and of good appearance. The nursery/nurseries from which plants are derived shall be under regulatory inspection by the Florida State Department of Agriculture and/or the Florida State Plant Board, or an equivalent agency if derived from outside the State of Florida. Plants entering from outside the State of Florida must bear the entry certificate of the State Department of Agriculture of the State of Florida. All plant materials will be subject to approval of the Owners or Owner's Representative for quality, size and color.

Soil Additives. Contractor shall be responsible for adding peat, humus, fertilizer, manure, pH adjusters or any other commercially accepted soil additive to ensure normal, healthy plant growth or as noted on the plans.

Balled and Bur lapped Trees. Ensure that field grown material follows local industry standards for root pruning, digging, balling and bur lapping, etc. All balled and bur lapped materials must be hardened off before shipment. All materials are subject to approval by the Owner's Representative prior to shipping to project site. The top 5 inches of natural burlap shall be removed and completely remove any synthetic burlap wrapping or wire cages before installation.

Spaded Trees. Trees shall have been spaded from a commercial nursery field that has been inspected by the Department of Agriculture and Consumer Services within the last 9 months. The Contractor shall provide a copy of the most recent Nursery, Stock dealer and Special Inspection Report for verification upon Owner's Representative request. Ball size shall be at least one size greater than recommended by ANSI Z60.1, American Standard for Nursery Stock, unless otherwise specified. Spaded material is subject to approval and tagging by the Owner's Representative prior to shipping to project site.

Container Plants. Provide container-grown plants with sufficient roots to hold the container soil together after removal from the container. Root bound plants and plants with inadequate root systems are not acceptable.

Surface Mulch. Use mulch type specified in plans. Mulch shall be in a non-decomposed state; not more than one (1) season old.

Herbicides, Insecticides. Chemical sprays, dusts, or gaseous compounds used on or around plant materials, including but not limited to trees, shall be approved for such uses by the Environmental Protection Agency and the Florida Department of Agriculture, and Consumer Services. Such materials as may be used shall not constitute a hazard to human health or interfere with site working conditions and habitation.

Seed Requirements General. Where seeding may be required on the plans, the seed required shall comply with all minimum provisions of the Florida Seed Certification and Testing Law. Noxious weed seeds shall be non-existent and foreign materials shall not exceed two percent. Sod Requirements General. See plan for specified sod. All sod shall be healthy, strongly rooted and not less than two (2) years old, free of weeds and undesirable native grasses in 16" x 24" pads, 1-1/2" thick. Sod shall conform to "Nursery Grown" grade as established by American Sod Producers Association (ASPA). Sod shall be considered free of weeds if less than 5 weeds are found per 100 square feet of area. Brown, dry irregularly smooth, and/or unrefresh sod will be rejected.

#### LANDSCAPE PART 4 PLANTING PROCEDURES

General. Prior to commencement of any work, the Landscape Contractor shall inspect the site, locate planting areas, placement of guying devices, locate electrical cables, conduits, and other underground and above utilities so that proper precautions and procedures may be followed during and throughout construction. The Contractor shall become familiar with other job trade activity which has an impact upon his work or upon which his work has an impact and shall arrange to carefully coordinate his work with other trades through the Owner's Representative. All planting practices listed herein shall ensure healthy plant growth.

Layout. The location of plants, planting beds and plant quantities, are approximate. The

locations and bed lines shall be staked on the project site by the Contractor and approved by the Owner's Representative before any plant pits or beds are dug. The Owner's Representative may adjust plant material locations to meet field conditions. Contractor shall make minor adjustment without additional cost to the Owner.

Finish Grades. The Landscape Contractor is responsible for all fine grading and preparation for planting. Finish grades (top of soil) for all sod areas after settlement shall be one-half inch below the top of abutting curbs, walks, walls and abutments. The finish grade of all plant beds prior to mulching shall be three inches below finish grade of sod, abutting curbs, walks and walls. Three inches of mulch shall be added to all plant beds after planting.

Planting Seasons/Times. The planting of plant materials and lawns may proceed at any time, period, or season agreed upon by the Contractor and Owner or Owner's Representative  
Plant Installation. All plants existing rootball top shall be 0-1" above finished grade. Area surrounding tree shall excavated/loosened to 3X the width and 1X depth prior to installation. Plants shall be set plumb and straight. When backfilling lightly tamp layers in 6" lifts. Do not over compact. A 1/4" probe should be able to penetrate to a depth of the rootball with hand pressure. A 3" mulch layer shall be applied over rootball excluding the area 6" from the trunk/stem. Stake and install trees according to details. Trees shall be secured loosely and allow trunk to sway. Sod. All areas to be either seeded, sprigged, or sodded shall be prepared in a manner to ensure normal, vigorous and healthy growth.

Fine grade lawn areas to smooth, even surface with with loose, uniformly fine texture. Roll, rake and drag lawn areas, remove ridges and fill depressions with topsoil as required to meet finish grades. In areas to be sodded, allow for sod thickness.

Sod Installation. Lay sod in straight, parallel rows to form a solid mass with tightly fitted joints, without overlap. Stagger strips to offset joints. Work topsoil into minor cracks. On 1:3 slopes or greater, lay sod with long dimension of pads parallel to contours and stake sod as necessary to stabilize. Drive sod stakes flush with top of sod.  
Sprigging and Seeding. Sprigging/seeding shall be done in a manner to ensure a quick grow-in period achieving a uniform green lawn prior to final acceptance.

#### LANDSCAPE PART 5 MAINTENANCE

Plant Material. Maintain all plant materials until Final Acceptance. Maintenance shall include all required watering, cultivation, weeding, mowing, pruning, wound dressing, immediate replacement of dead and unacceptable material, straightening plants which lean or sag, adjustment of plants which are planted too low, and any other procedure consistent with good horticultural practice necessary to ensure normal, vigorous and healthy growth of all planting under the Contract.

Lawn. Maintain lawns until Final Acceptance. Reset settled or eroded sod areas to proper grade. Fill open joints with topsoil. Keep sod free of insects and disease.

#### LANDSCAPE PART 6 FINAL INSPECTION AND ACCEPTANCE

Final Cleanup. Upon final completion of work and before inspection and acceptance, all aspects of the project site shall be thoroughly and completely cleaned of debris, stains, materials, defacements, and temporary facilities. Likewise, any repairs which are the obligation of this Contractor shall be completed.

Initial Inspection and Acceptance. Inspection shall be made by the Owner or Owner's Representative within (10) ten days of written notification from the Contractor that installation is complete. If all work and materials meet specifications, project will be accepted as is. Materials and work not in compliance with specifications shall be rejected by Owner's Representative and replaced by the contractor within (15) fifteen days of notification by Owner's Representative. Notification will graphically depict all rejected material on plans. Upon replacement of all rejected work and materials by the Contractor, the Owner's Representative shall conduct a final inspection within ten (10) days of written notification from the Contractor that all rejected work has been replaced according to specifications. Approval will be granted upon the acceptance of all replaced material noted on plans. After final acceptance, the Contractor will not be responsible for damage to work resulting from: neglect by Owner, conditions such as floods, excessive wind, severe freezing or abnormal rains; or other activities clearly beyond the Landscape Contractor's control.

#### LANDSCAPE PART 7 GUARANTEE

Guarantee. All plant materials and trees installed by the Contractor shall be guaranteed for 365 days from the date of final acceptance. The Contractor shall replace at no additional cost to the Owner, all plant materials which die and/or which are not healthy and in a good growing condition during the guarantee period. Replacement of such material shall occur within ten (10) days from Owner's written notification to the Contractor. The 365-day guarantee period for replaced plant materials shall commence on the date of acceptance of the replaced item or items of plant material. The Contractor shall not be required to replace, repair, or restore any portion of the work that is damaged, defaced, disturbed, improperly maintained, and/or destroyed by others after final acceptance.

#### IRRIGATION PART 1 GENERAL NOTES

Scope. This section includes irrigation and supplementary work shown on the drawings and specified herein, complete.

Applicable Documents. The following publications, specifications, and standards of the issues listed in this paragraph (including the amendments and addenda designated), but referred to hereinafter by basic designation only, form a part of this specification to the extent required by the references thereto.

Publication of Reference. Publications as herein listed shall be held in basic reference:

- HANDBOOK OF TECHNICAL IRRIGATION INFORMATION by Hunter Industries Inc. - 1996
- THE COMPLETE IRRIGATION WORKBOOK by Larry Keesen - 1995
- PUBLICATIONS, NOTES, AND PAPERS by The Center of Irrigation Technology, California State University - Fresno, California
- PUBLICATIONS AND STANDARDS by The Florida Irrigation Society - Orlando, Florida
- PUBLICATIONS by The Irrigation Association - Falls Church, Virginia INSTALLATION GUIDE FOR PVC

Irrigation Quantities. All irrigation material quantities shown in the plans are approximate. The Contractor shall be fully responsible for determining all quantities. The Contractor shall submit a revised irrigation schedule with final irrigation quantities as part of the contract and prior to construction.

On-Site Conditions and Adjustments. Irrigation equipment shown on the plans is approximate. Irrigation shall be adjusted to fit actual as-built conditions on the site and any changes in locations caused thereby shall be made without additional cost to the Owner, Owner's Representative, or Landscape Architect.

Liability of Contractor. The Contractor shall be liable for any and all damages to property that result from his performance. He shall, without extra cost and by licensed contractors, restore to original condition any areas and/or construction damaged, defaced, disturbed, or destroyed by him or his workmen.

Substitution of Materials. Any substitution from the specified brands, models or sizes shall be submitted to the owner or the owner's representative for approval. Material substitutions or design changes must be shown to comply with the system design intent and rectify any necessary performance changes and be in compliance with all city, state, and federal regulations.

#### IRRIGATION PART 2 INSTALLATION PROCEDURES

General. Prior to commencement of any work the Irrigation Contractor shall obtain all necessary permits and licenses, inspect the site and locate electrical cables, conduits, and other underground and above utilities so that proper precautions and procedures may be followed during and throughout construction. The Contractor shall become familiar with other job trade activity which has an impact upon his work or upon which his work has an impact and shall arrange to carefully coordinate his work with other trades through the Owner's Representative.

Backflow Prevention. Backflow preventer shall be installed according to manufacturer's recommendations.

Filters and Strainers. Filter/Strainers shall be installed per manufacturer's recommendations.

Irrigation Controller. The irrigation controller shall be UL listed, conform to the provisions of the National Electric Code, and properly grounded in accordance with manufacturer's recommendations.

Rainfall Shutoff Device. A rain sensor shall be installed as close as possible to the control equipment and per manufacturer's recommendations. Install the first 18 inches of rain sensor wire below ground level and all wire above ground in conduit. When systems are pressurized by a pump, provision shall be made to ensure shutoff device does not allow pump to activate.

#### Pipe.

- Pipe shall be installed at sufficient depth below ground to protect it from hazards such as vehicular traffic. Landscape vehicular traffic areas are those landscaped areas subject to vehicular use such as traffic crossings, parking areas, etc. Depths of cover shall conform to NRCS-FL- 430-DD, Water Conveyance, as follows:
  - Landscape Vehicular Traffic Areas - Landscaped areas subject to routine automotive or heavy equipment traffic.

Pipe Size (Inches)	Depth of Cover* (inches)
1/2" - 2-1/2"	18"
3"-5"	24"
6" and larger	36"
  - Non-Traffic and Non-Cultivated Areas

Pipe Size (Inches)	Depth of Cover* (inches)
1/2" - 1-1/2"	6"
2"-3"	12"
4"-6"	18"
More than 6"	24"
- The trench bottom must be uniform, free of debris, and of sufficient width to properly place pipe and support it over its entire length. Make all pipe joints and connections according to the material manufacturer's recommendations. Perform all solvent-weld connections in accordance with ASTM D-2855. Contractor shall install all piping and related materials in accordance with the manufacturer's specifications and the following standards: ASTM D-1785-99, ASTM D-2241-00, ASTM D-2466-01, ASTM D-2464-99, ASTM D-2239-99, ASTM D-2564-96a, ASTM F-656-96a, ASAE S435.
- Thrust blocks are required on all fittings at dead ends and whenever the line changes direction of 30 degrees or more. Thrust blocks shall be installed in a manner to ensure no pipe shifting occurs. Size thrust blocks in accordance with ASAE Standard S-376.2.
- Contractor shall flush irrigation system installation at the appropriate stages based on commercially accepted methods.
- After installation, flushing, and inspection or testing, contractor shall backfill the pipe trench with soil free from rocks or stones larger than 1-inch in diameter in a commercially accepted manner.

Pipe Sleeving. Pipe sleeves shall be at least two pipe sizes larger than the carrier pipe or twice the diameter of the wire bundle to be placed under the paving or roadway, and extending a distance at least equal to its installed depth beyond the paved area. Schedule 40 PVC pipe shall be used for sleeves.

Valves. Valve installation shall allow enough clearance for proper operation and maintenance. Where valves are installed underground, they shall be provided with a valve box with cover extending from grade to the body of the valve. The top of the valve body should have a minimum of 6 inches of cover in non-traffic and non-cultivated areas and 18 inches of cover in traffic areas.

Locate manually operated control valves so they can be operated without wetting the operator.

Valve Boxes. Contractor shall install valve boxes according to the manufacturer's recommendations.

Wire. Electrical control wire shall be sized in accordance with the valve manufacturer's specifications. Install only UL listed direct burial low voltage wire (30 volts or less) with a minimum depth of cover of 12 inches. Provide a sufficient length of wire at each connection to allow for thermal expansion/shrinkage. As a minimum, provide a 12-inch diameter loop at all splices and connections. Terminations at valves will have 24" minimum free wire. Provide common wires with a different color than the power wires (white shall be used for common wires). Use wire connectors that are approved for direct burial. A valve box shall be used for all underground wire splices. Install all above-ground wire runs and wire entries into buildings in conduit.

Sprinklers. Install sprinklers plumb unless they are installed on slopes where they can be tilted as required to prevent erosion. Sprinklers shall be adjusted to avoid unnecessary discharge on pavements and structures. Provide a minimum separation of 4 inches between sprinklers and pavement and 12 inches between sprinklers and vertical structures or as local codes dictate. Riser-mounted sprinklers shall be supported. Swing joints shall be constructed to provide a flexible, leak-free connection between the sprinkler and lateral pipeline to allow movement in any direction and to prevent equipment damage.

Micro Irrigation. Micro-irrigation equipment shall be installed according to the manufacturer's recommendations for the specific application. Stake all surface tubing every three to six feet depending on site conditions and manufacturer's recommendations with eight inch staples.

#### IRRIGATION PART 3 TESTING, SUBMITTALS, FINAL INSPECTION AND ACCEPTANCE

Testing. All mainlines and laterals shall be tested to be free of leaks. Rainfall shutoff device shall be tested to ensure proper shut-off of control equipment.

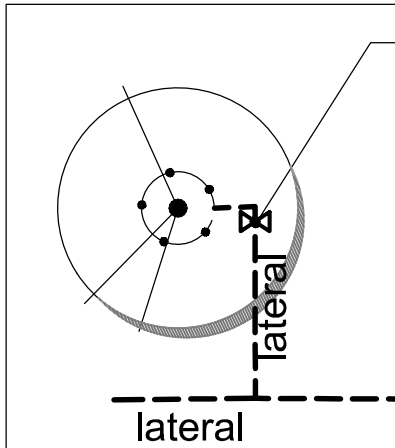
Cleanup. Upon final completion of work and before inspection and acceptance, all aspects of the project site shall be thoroughly and completely cleaned of debris, stains, materials, defacements, and temporary facilities. Likewise, any repairs which are the obligation of this Contractor shall be completed.

Inspections and Acceptance. Inspection shall be made by the Owner or Owner's Representative within (10) ten days of written notification from the Contractor that installation is complete. If all work and materials meet specifications, project will be accepted as is. Materials and work not in compliance with specifications shall be rejected by Owner's Representative and replaced by the contractor within (15) fifteen days of notification by Owner's Representative. Notification will graphically depict all rejected material on plans. Upon replacement of all rejected work and materials by the Contractor, the Owner's Representative shall conduct a final inspection within ten (10) days of written notification from the Contractor that all rejected work has been replaced according to specifications. Approval will be granted upon the acceptance of all replaced material noted on plans.

Post Construction Documentation & Instruction. The Contractor shall provide manufacturer's product literature, operation manuals, testing and inspection certificates, and record drawings to the owner or owner's representative. Record drawings shall show all changes in the design to indicate the actual installation sizes, types, and locations of all equipment and materials with the application for final payment. Contractor shall provide minimal instruction to owner, if applicable, describing any need to know information regarding the daily operation of the system.

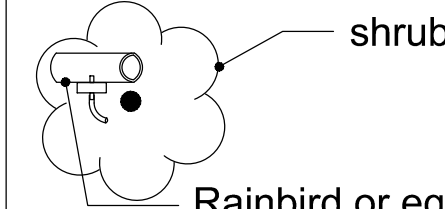
#### IRRIGATION PART 4 GUARANTEES

The irrigation system contractor shall assume full responsibility for the proper installation of the system. Contractor shall guarantee the installation workmanship for a minimum period of one (1) year from date of final acceptance. The irrigation system contractor shall make all necessary, reasonable efforts to handle any warranty claims within the guarantee period in a reasonable time period. The Contractor shall not be required to replace, repair, or restore any portion of the work without additional service fees that are damaged, defaced, disturbed, and/or destroyed by others after final acceptance. Repairs made by other licensed contractors during the guarantee period shall not void the guarantee.



Install Rainbird BVAL50-1S139 or equal shut-off valve at all trees. Install Rainbird or equal XFD blank tubing around each tree with appropriate amount of equally spaced drip emitters. Quantity of Rainbird XB-#PC or equal emitters per tree are specified on the irrigation sheet. Drip shall encircle tree and be offset 2" from edge of rootball. Terminate drip encircling each tree with a compression hose end cap.

Detail for individual tree drip  
Not To Scale

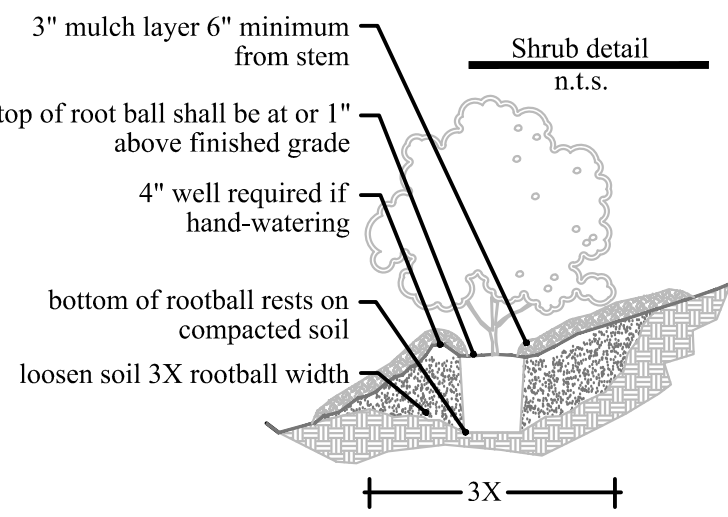


shrub

Rainbird or equal XFD blank tubing with Rainbird XB-#PC or equal emitter at same precipitation rate installed overtop of rootball or attach 1/4" tubing to emitter with bug cap to reach plant rootball off of 1/2" tubing when applicable. Use ground staples to secure emitter locations. Start all drip runs with a Rainbird BVAL50-1S139 shut-off valve. Terminate all drip runs with a compression hose end flush cap.

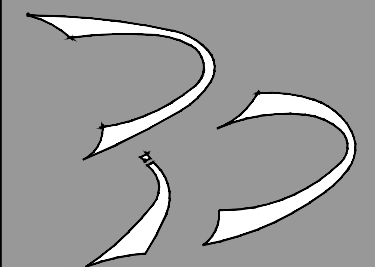
Detail for shrub emitters  
Not To Scale

Use ground staples to secure emitter locations. Pressure regulators shall be used in appropriate locations so all emitters receive pressures between 20-50 psi.



#### BORTON Design INC.

1154 N KYLE WAY SAINT JOHNS, FLORIDA  
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## LANDSCAPE PLAN

### Specifications/Details

COMMERCIAL RETAIL STORE - LAKE CITY SR 247  
PREPARED FOR  
CONCEPT DEVELOPMENT, LLC.

BDI NO. 21126 REVISIONS:

DRAWN BY: BDB

DESIGNED BY: BDB

CHECKED BY: BDB

DATE: 02/11/2021

PLANS PREPARED BY

BRIAN DAVID BORTON FL  
NO. LA6667028

# LS-04