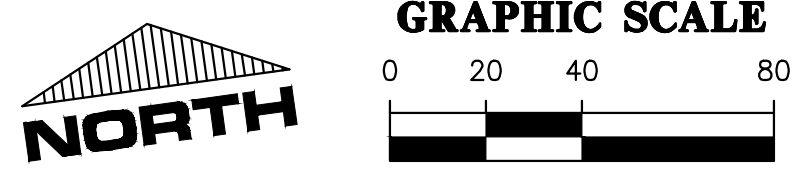
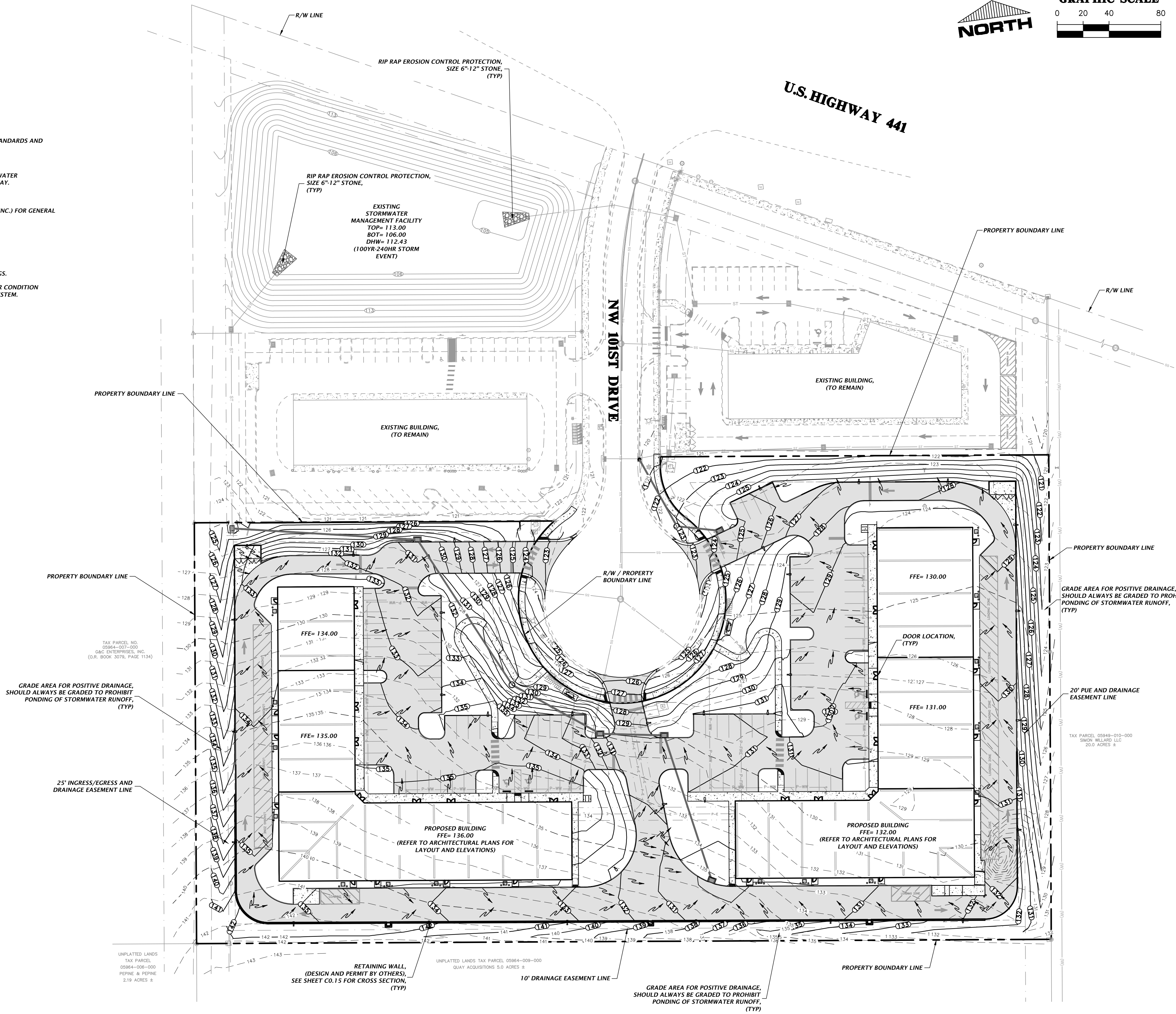


**GENERAL NOTES:**

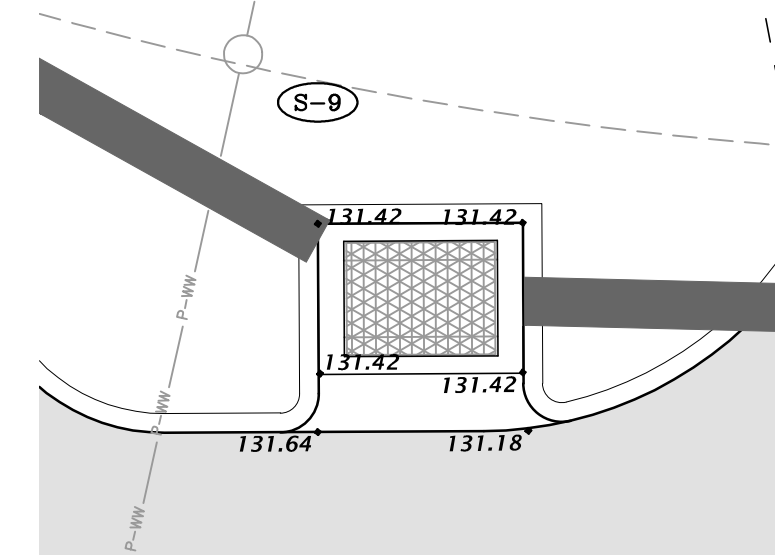
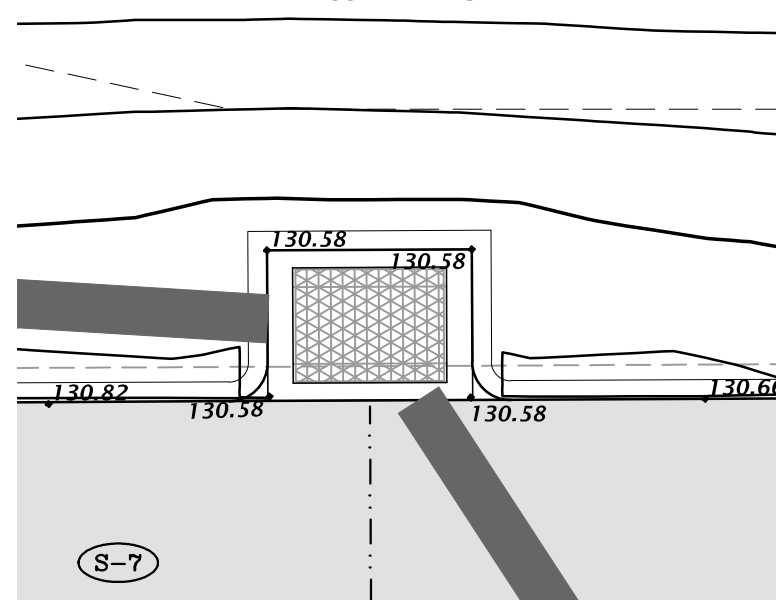
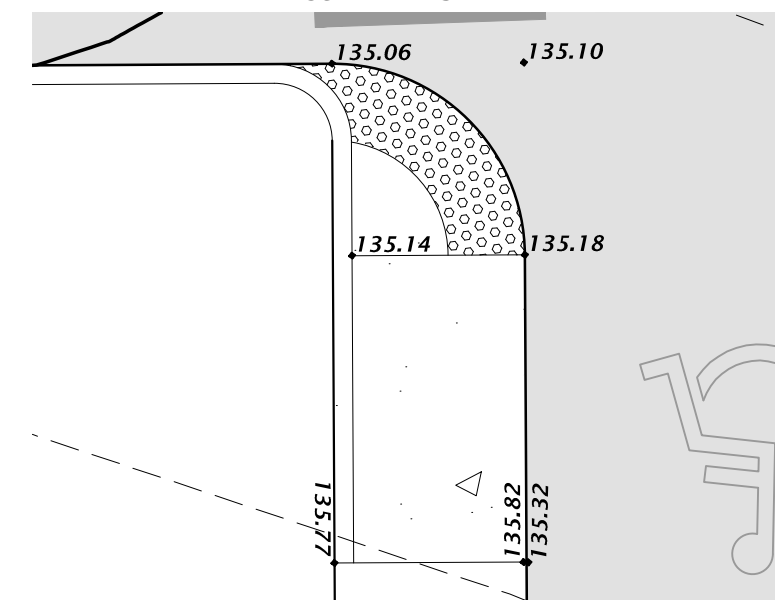
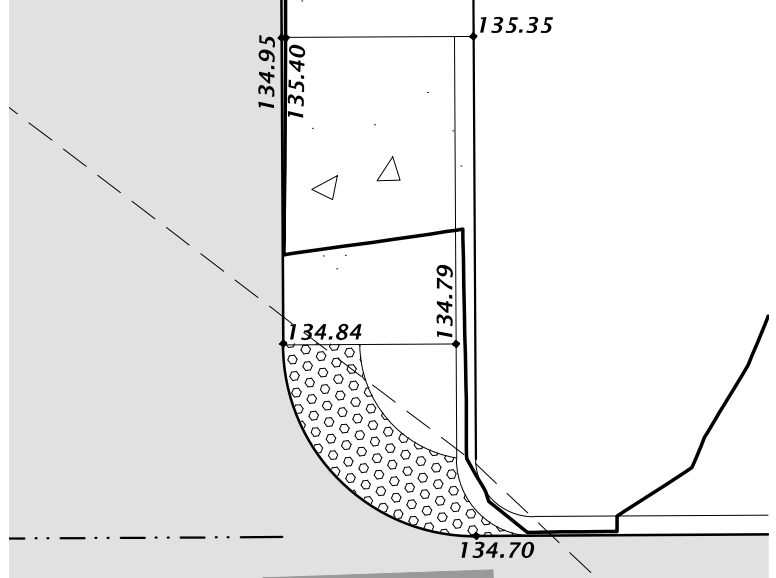
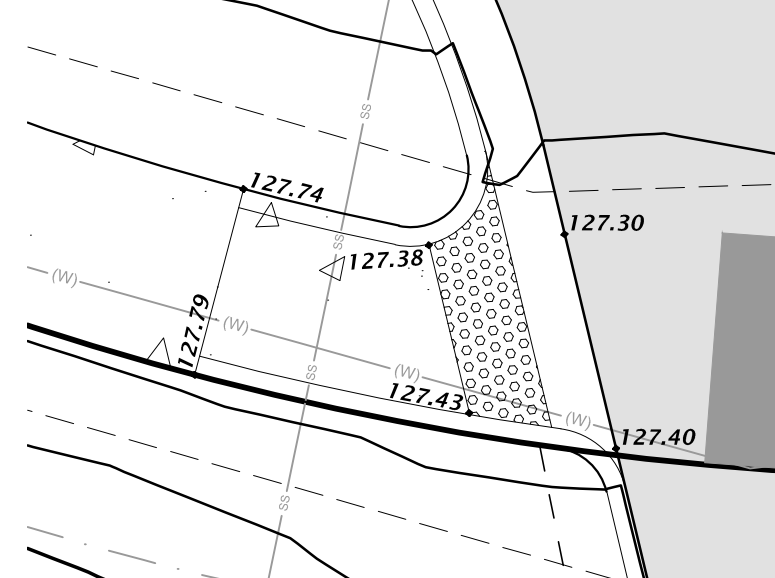
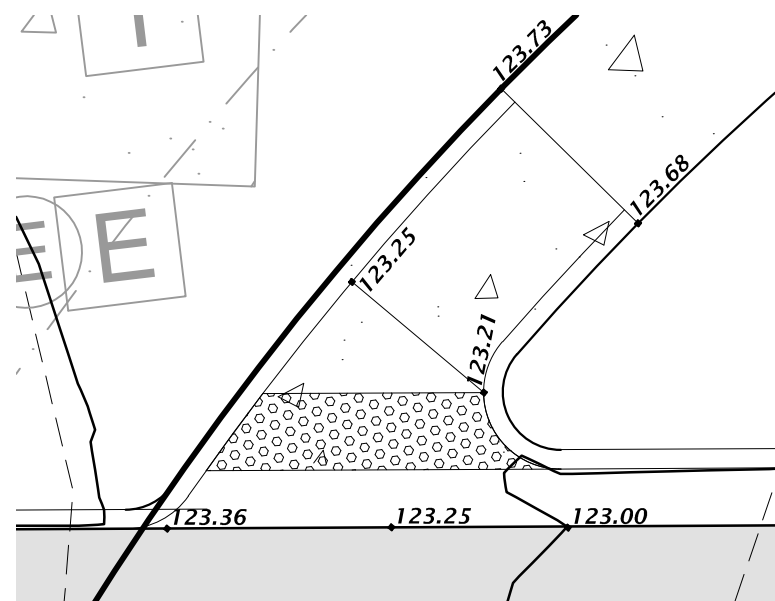
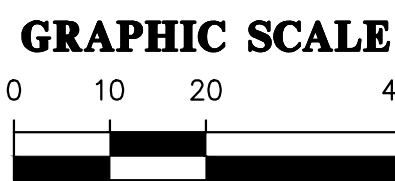
1. ALL OFF-SITE IMPROVEMENTS SHALL MEET FDOT AND CITY OF ALACHUA DESIGN STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR SHALL GRADE TO PROPOSED SPOT ELEVATIONS.
3. STORMWATER RUNOFF FROM THE PROJECT SITE CONNECTS TO A EXISTING STORMWATER MANAGEMENT FACILITY, THEN DISCHARGES TO THE U.S. HIGHWAY 441 RIGHT-OF-WAY.
4. ALL DISTURBED AREAS SHALL BE SEEDED.
5. SEE GEOTECHNICAL ENGINEERING REPORT (BY GSE ENGINEERING AND CONSULTING, INC.) FOR GENERAL REQUIREMENTS AND RECOMMENDATIONS.
6. REFER TO ARCHITECTURAL PLANS FOR EXTERNAL BUILDING CONNECTIONS.
7. CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE PATTERNS.
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9. IN NO CASE SHALL STORMWATER DRAIN TOWARD PROPOSED OR EXISTING BUILDINGS.
10. CONTRACTOR SHALL CONNECT ALL BUILDING ROOF DRAIN DOWN SPOUTS AND AIR CONDITION CONDENSATE DRAIN LINES EXTERNALLY TO PROPOSED STORMWATER DRAINAGE SYSTEM.



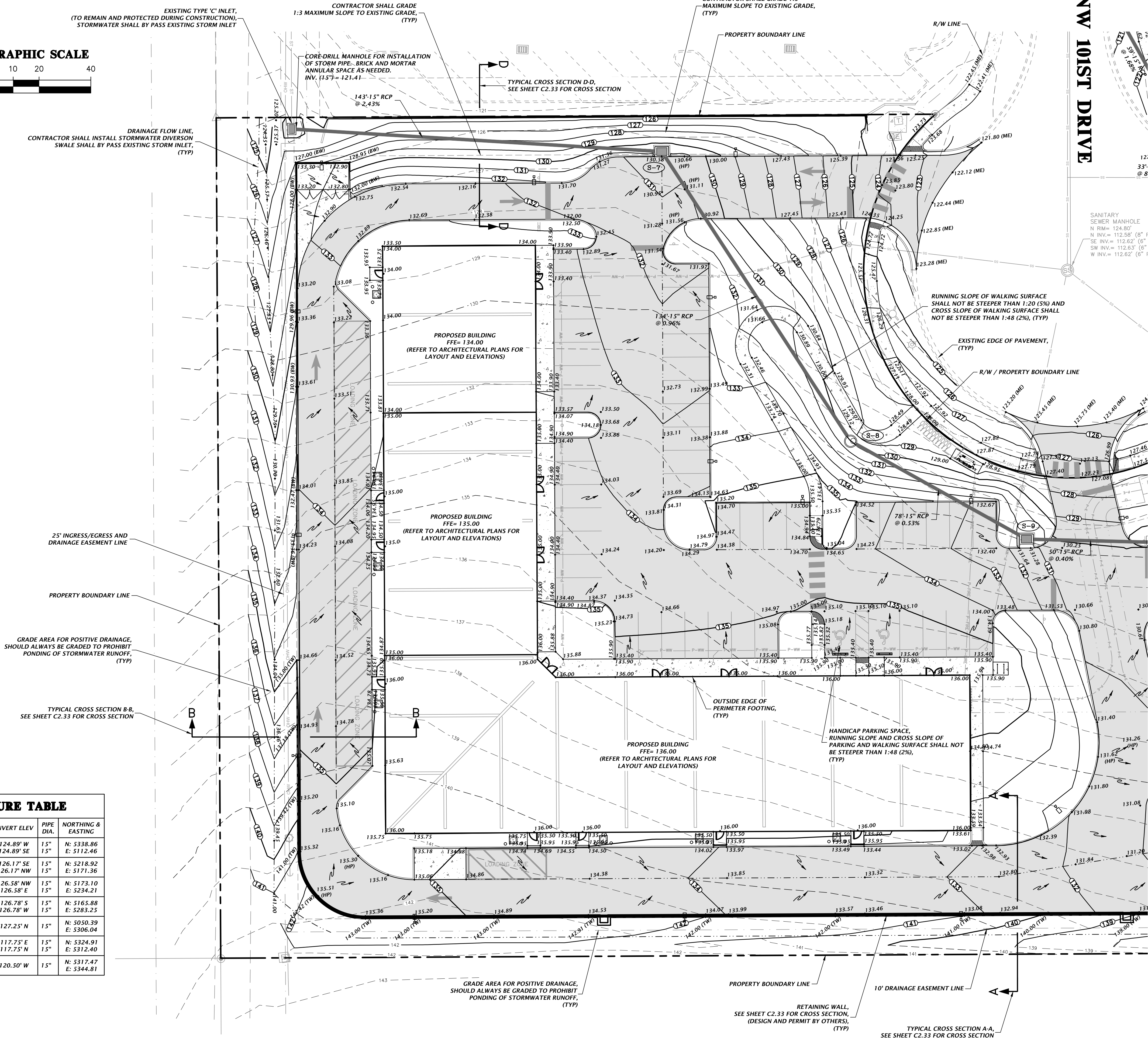
|                                                                                                                                              |                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 11801 Research Drive<br>Alachua, Florida 32615<br>(352) 331-1976<br>www.chw-inc.com                                                          |                                                                                                             |
| est. 1988 <b>FLORIDA</b><br>CA-5075                                                                                                          |                                                                                                             |
| <b>CHW</b><br>Professional Consultants                                                                                                       |                                                                                                             |
| SCALE: 1"=40'                                                                                                                                | VERIFY SCALE<br>BASED ON<br>ORIGINAL DRAWING<br>0" MEASUREMENT<br>THIS SHEET, ADJUST<br>SCALES ACCORDINGLY. |
| CONSTRUCTION/REV. REVISIONS                                                                                                                  |                                                                                                             |
| SUBMITTALS<br>12/21/17 - CITY OF ALACHUA AND SRWMD<br>08/06/18 - CITY OF ALACHUA<br>10/18/18 - CITY OF ALACHUA<br>12/17/18 - CITY OF ALACHUA |                                                                                                             |
| CLIENT: BNW HOLDINGS, LLC                                                                                                                    | PROJECT: INDUSTRIAL PARK LOTS<br>UPLAND 2, 3, 4, AND 5                                                      |
| DRAWN BY: J. THOMAS                                                                                                                          | DESIGNED BY: J. THOMAS                                                                                      |
| CHECKED BY: D. YOUNG                                                                                                                         | QUALITY CONTROL: D. YOUNG                                                                                   |
| SHEET TITLE: MASTER DRAINAGE AND GRADING PLAN                                                                                                |                                                                                                             |
| PROJECT NUMBER: 17-0357                                                                                                                      |                                                                                                             |
| DANIEL H. YOUNG<br>REGISTERED PROFESSIONAL ENGINEER<br>No. 70786<br>Jan 14 2019<br>STATE OF FLORIDA                                          |                                                                                                             |
| FL PE No. 70780                                                                                                                              |                                                                                                             |
| SHEET NO.: C2.00                                                                                                                             |                                                                                                             |

# GENERAL NOTES

1. ALL OFF-SITE IMPROVEMENTS SHALL MEET FDOT AND CITY OF ALACHUA DESIGN STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR SHALL GRADE TO PROPOSED SPOT ELEVATIONS.
3. STORMWATER RUNOFF FROM THE PROJECT SITE CONNECTS TO A EXISTING STORMWATER MANAGEMENT FACILITY, THEN DISCHARGES TO THE U.S. HIGHWAY 441 RIGHT-OF-WAY.
4. ALL DISTURBED AREAS SHALL BE SEED.
5. SEE GEOTECHNICAL ENGINEERING REPORT (BY GSE ENGINEERING AND CONSULTING, INC.) FOR GENERAL REQUIREMENTS AND RECOMMENDATIONS.
6. REFER TO ARCHITECTURAL PLANS FOR EXTERNAL BUILDING CONNECTIONS.
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10. CONTRACTOR SHALL CONNECT ALL BUILDING ROOF DRAIN DOWN SPOUTS AND AIR CONDITION CONDENSATE DRAIN LINES EXTERNALLY TO PROPOSED STORMWATER DRAINAGE SYSTEM.



| STORMWATER STRUCTURE TABLE |                                        |         |                          |           |                          |
|----------------------------|----------------------------------------|---------|--------------------------|-----------|--------------------------|
| STRUCTURE                  | STRUCTURE TYPE                         | TOP     | INVERT ELEV              | PIPE DIA. | NORTHING & EASTING       |
| S-7                        | TYPE F INLET PER FDOT INDEX 425-053    | 130.58' | 124.89' W<br>124.89' SE  | 15"       | N: 5338.86<br>E: 5112.46 |
| S-8                        | 4" DIA. MANHOLE PER FDOT INDEX 425-001 | 130.05' | 126.17' SE<br>126.17' NW | 15"       | N: 5218.92<br>E: 5171.36 |
| S-9                        | TYPE F INLET PER FDOT INDEX 425-053    | 131.42' | 126.58' NW<br>126.58' E  | 15"       | N: 5173.10<br>E: 5234.21 |
| S-10                       | TYPE F INLET PER FDOT INDEX 425-053    | 130.04' | 126.78' S<br>126.78' W   | 15"       | N: 5165.88<br>E: 5283.25 |
| S-11                       | TYPE F INLET PER FDOT INDEX 425-053    | 129.69' | 127.25' N                | 15"       | N: 5050.39<br>E: 5306.04 |
| S-12                       | 4" DIA. MANHOLE PER FDOT INDEX 425-001 | 122.85' | 117.75' E<br>117.75' N   | 15"       | N: 5324.91<br>E: 5312.40 |
| S-13                       | TYPE F INLET PER FDOT INDEX 425-053    | 124.19' | 120.50' W                | 15"       | N: 5317.47<br>E: 5344.81 |



NW 101ST DRIVE

SEE SHEET C2.2 FOR CONTINUATION

SEE SHEET C2.2 FOR CONTINUATION

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Alachua, Florida 32615  
(352) 331-1976  
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SCALE: 1" = 20'  
KEY: SCALE ON ORIGINAL DRAWING  
0 1" = 20' SCALE  
THIS SHEET, ADJUST SCALES ACCORDINGLY.

CONSTRUCTION/REV. REVISIONS

SUBMITTALS  
12/21/17 - CITY OF ALACHUA AND SRWMD  
08/06/18 - CITY OF ALACHUA  
10/18/18 - CITY OF ALACHUA  
12/17/18 - CITY OF ALACHUA

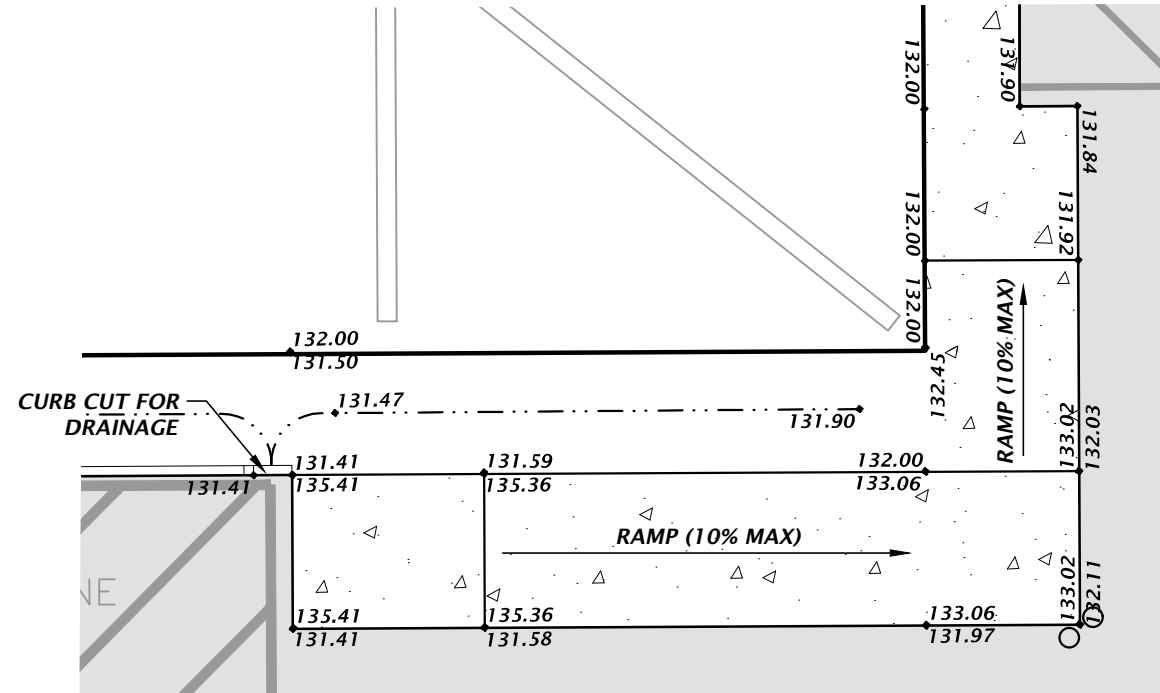
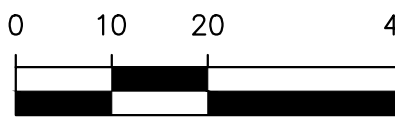
CLIENT: BNW HOLDINGS, LLC  
PROJECT: INDUSTRIAL PARK LOTS  
UPLAND 2, 3, 4, AND 5  
SHEET TITLE: DETAILED DRAINAGE AND GRADING PLAN  
DESIGNED BY: J. THOMAS  
DRAWN BY: J. THOMAS  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 17-0357  
DATE: Jan 14 2019  
STATE OF FLORIDA  
REGISTERED PROFESSIONAL ENGINEER  
FL PE No. 70780  
SHEET NO.: C2.10

# GENERAL NOTES-

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## GRAPHIC SCALE



## LOADING RAMP DETAIL

SCALE: 1" = 10'

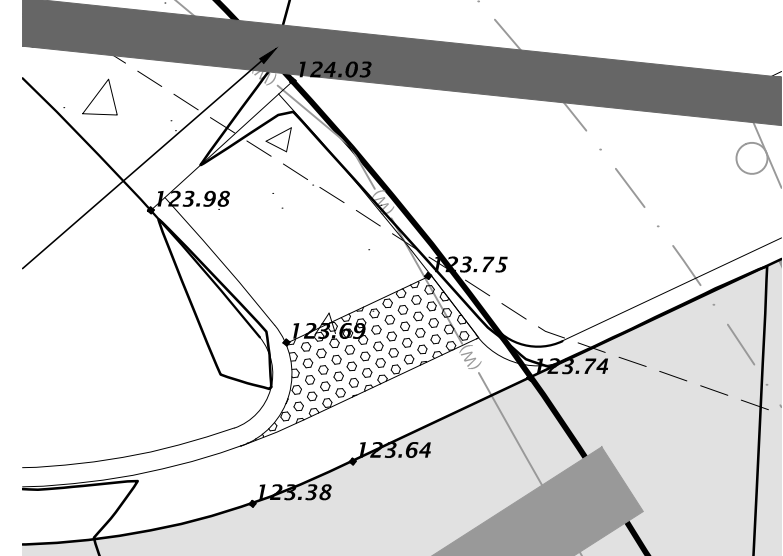
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| S-8       | 4' DIA. MANHOLE PER FDOT INDEX 425-001 | 130.05' | 126.17' SE<br>126.17' NW | 15"       | N: 5218.92<br>E: 5171.36 |
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| S-13      | TYPE F INLET PER FDOT INDEX 425-033    | 124.19' | 120.50' W<br>120.50' W   | 15"       | N: 5317.47<br>E: 5344.81 |



## RAMP 4 DETAIL

SCALE: 1" = 5'



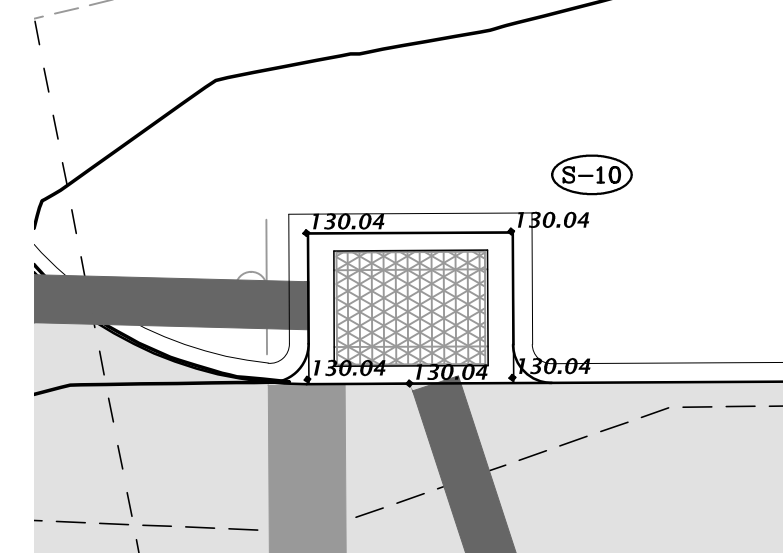
## RAMP 6 DETAIL

SCALE: 1" = 5'



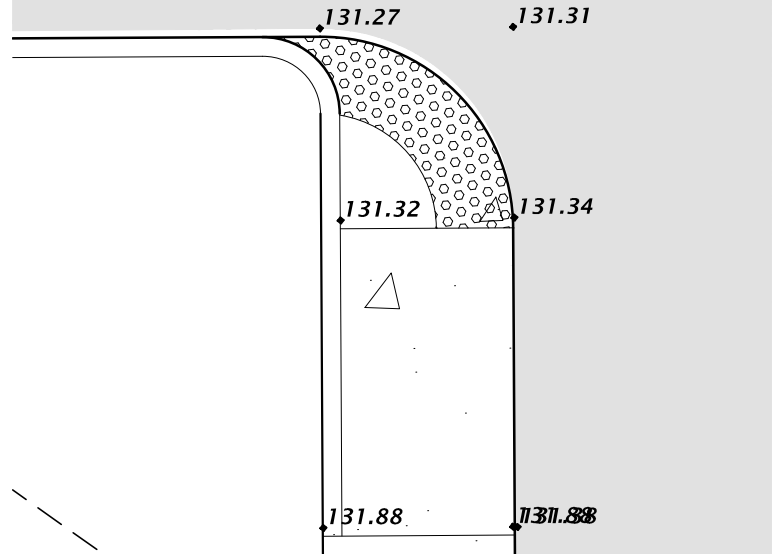
## RAMP 5 DETAIL

SCALE: 1" = 5'



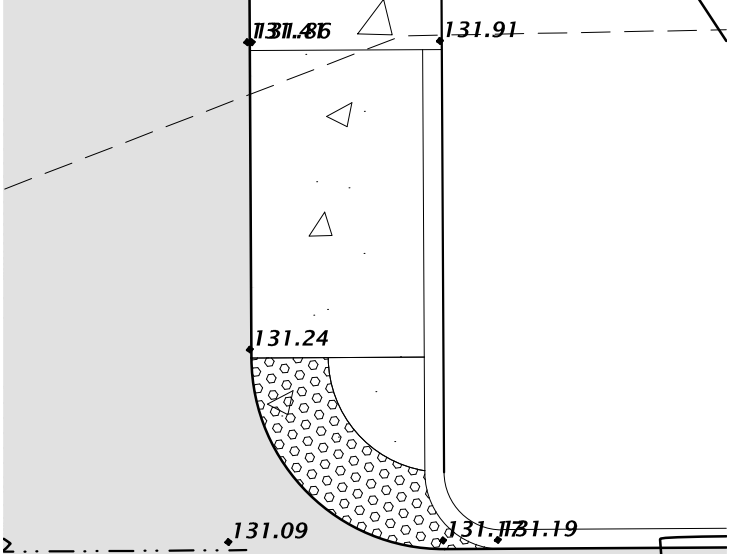
## S-10 CURB DETAIL

SCALE: 1" = 5'



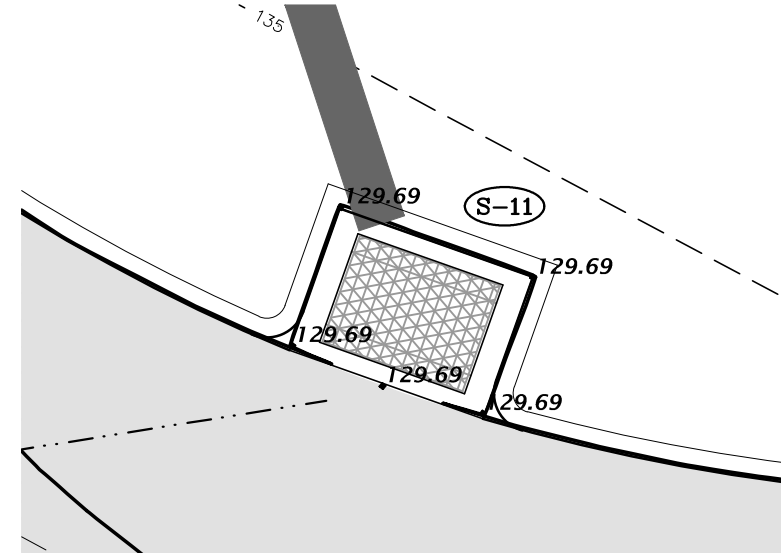
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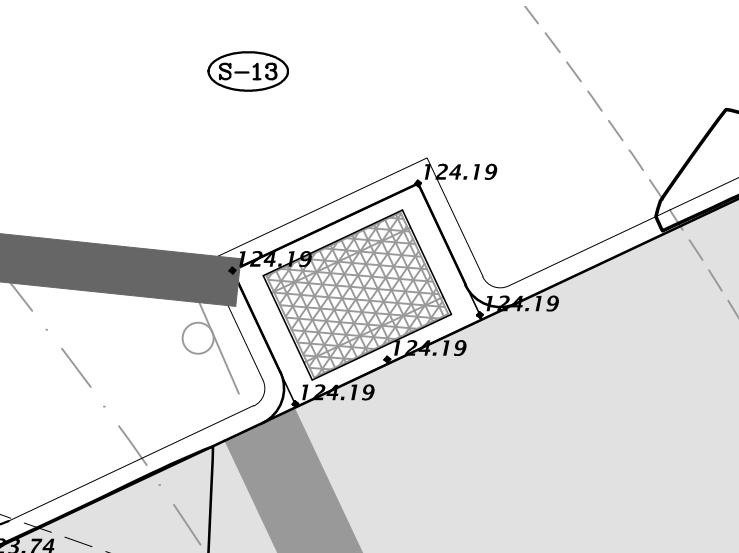
## RAMP 9 DETAIL

SCALE: 1" = 5'



## S-11 CURB DETAIL

SCALE: 1" = 5'

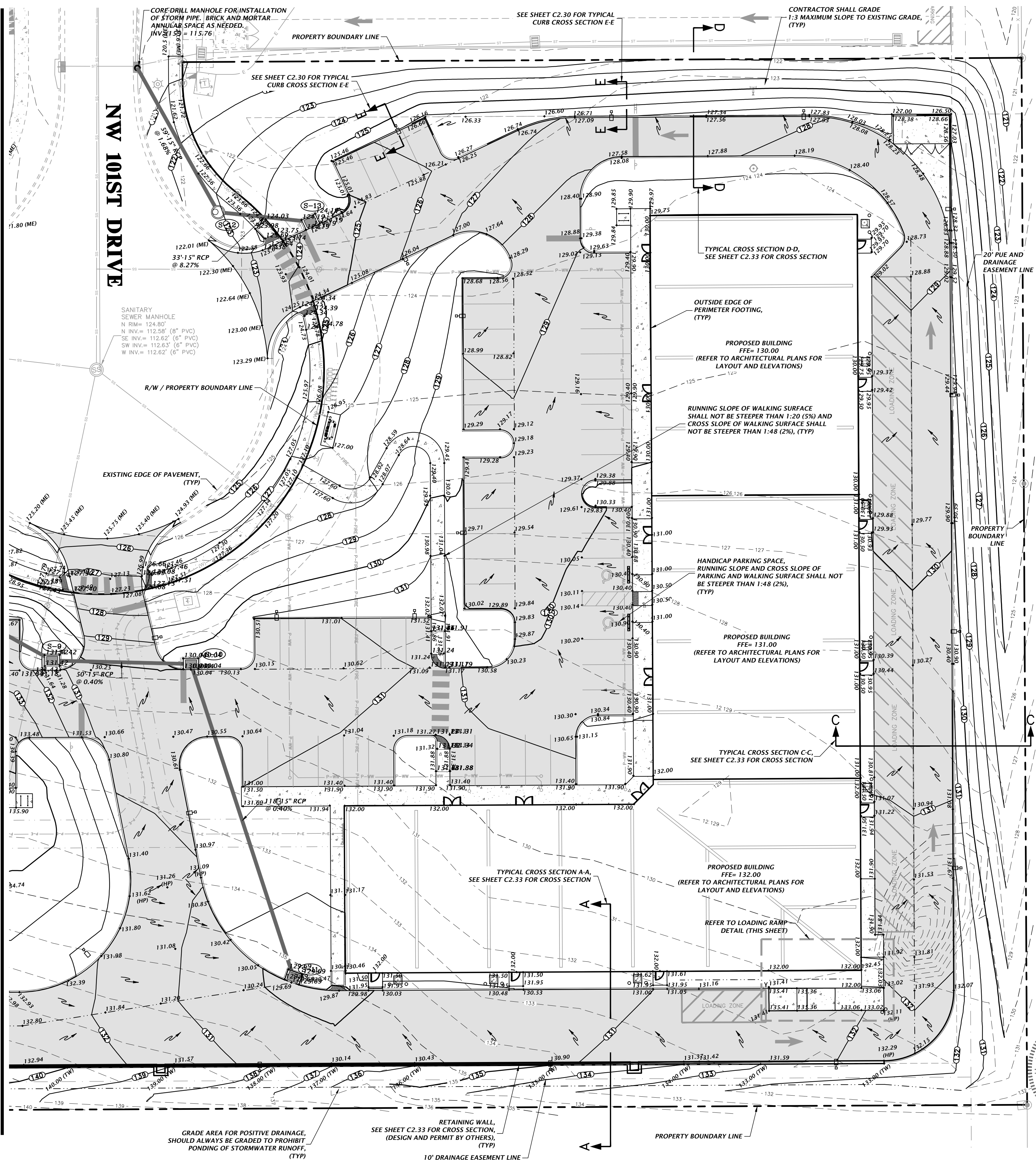


## S-13 CURB DETAIL

SCALE: 1" = 5'

SEE SHEET C2.11 FOR CONTINUATION

SEE SHEET C2.11 FOR CONTINUATION



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(352) 331-1976  
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est. 1988 FLORIDA  
CA-5075

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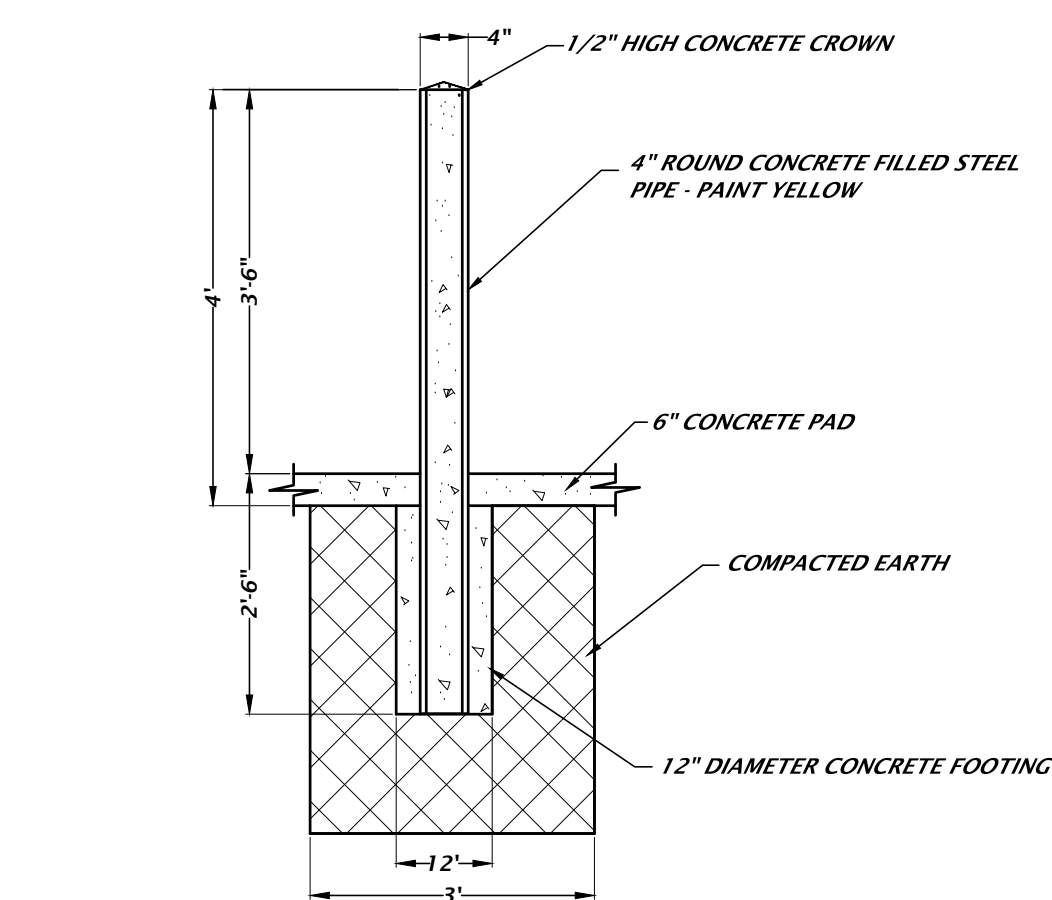
SCALE: 1" = 20'  
VERTICAL SCALE  
BASED ON THE  
ORIGINAL DRAWING  
DO NOT USE HORIZONTAL  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

CONSTRUCTION/REV. REVISIONS

CLIENT: BNW HOLDINGS, LLC  
PROJECT: INDUSTRIAL PARK LOTS  
SHEET TITLE: DETAILED DRAINAGE AND  
GRADING PLAN

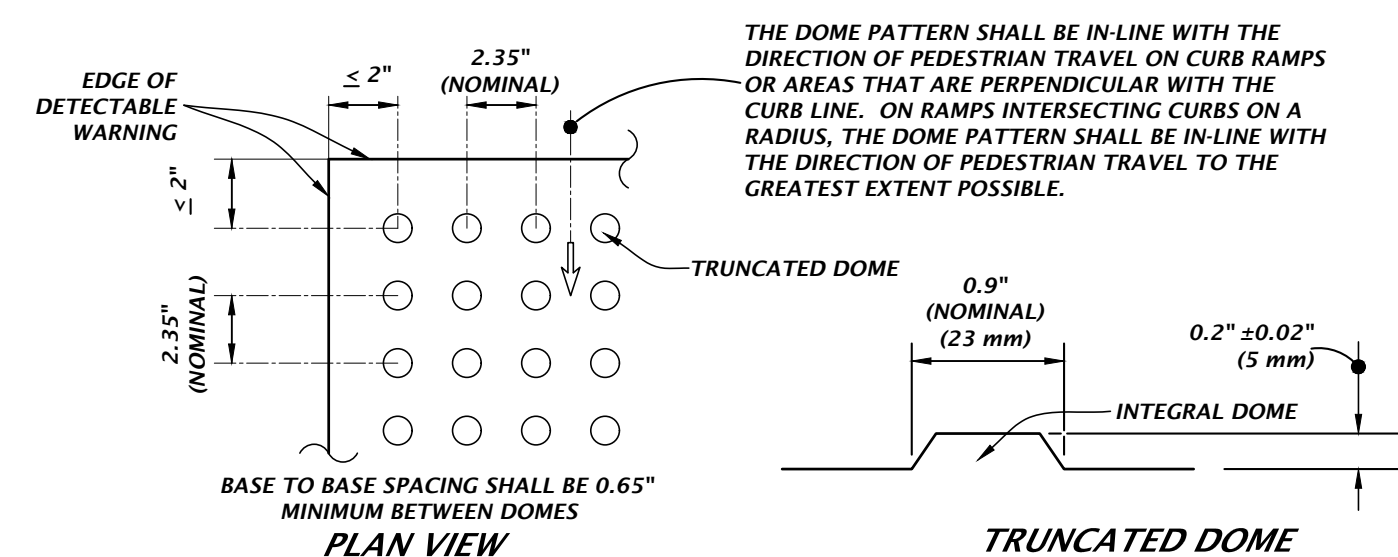
DESIGNED BY: J. THOMAS  
DRAWN BY: J. THOMAS  
CHECKED BY: J. THOMAS  
PROJECT NUMBER: 17-0357  
SHEET NUMBER: 17-0357

FL PE No. 70780  
SHEET NO.:  
C2.11



### PIPE BOLLARD DETAIL

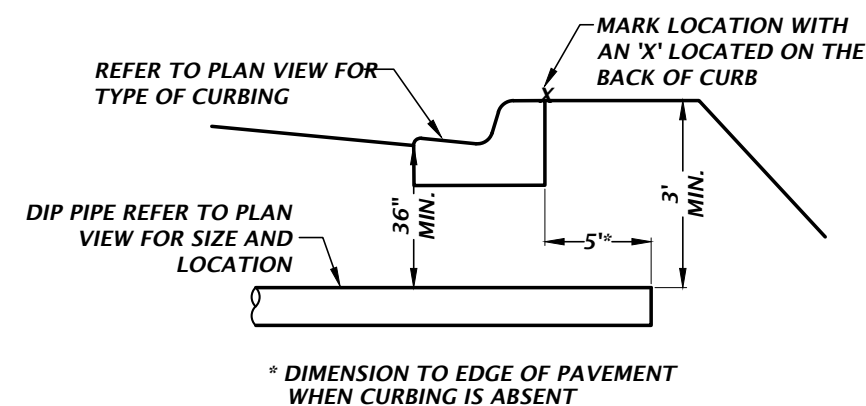
NTS



### DETECTABLE WARNING DETAIL

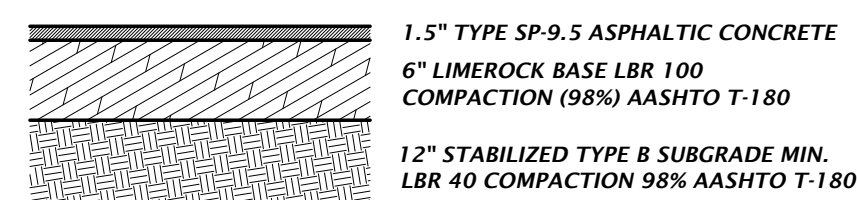
NTS

- PROVIDE DETECTABLE WARNINGS IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) SECTION 4.29-DETECTABLE WARNINGS ON WALKING SURFACES AND THE FLORIDA BUILDING CODE, CHAPTER 11 - FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION PART A, SECTION 11-4.29.
- RAISED TRUNCATED DOMES SHALL HAVE A DIAMETER OF 0.9 INCH (23 mm) NOMINAL, A HEIGHT OF 0.2 INCH (5 mm) NOMINAL, AND CENTER-TO-CENTER SPACING OF 2.35 INCHES (60 mm) NOMINAL. THE TOP WIDTH OF THE DOME SHALL BE 50% MIN. TO 65% MAX. OF THE BASE DIAMETER.
- DETECTABLE WARNING COLOR TO PROVIDE LIGHT/DARK CONTRAST BY AT LEAST 70% OF ADJACENT MATERIAL.
- ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 36 INCHES (915 mm).
- IF MATS ARE TO BE UTILIZED:
  - DETECTABLE WARNING SURFACE SHALL CONSIST OF 3-FT WIDE, SURFACE APPLIED, POLYURETHANE MAT WITH IN-LINE TRUNCATED DOME PATTERN.
  - DETECTABLE WARNING SURFACE SHALL BE SECURED BY ADHESIVE AND STAINLESS STEEL ANCHORS.
  - ACCEPTABLE PRODUCTS ARE THE SURFACE APPLIED REDIMAT MANUFACTURED BY DETECTABLE WARNING SYSTEMS, INC. OR EQUAL LISTED ON THE FDOT QUALIFIED PRODUCTS LIST IN ACCORDANCE WITH SECTION 527-2.4 OF THE FDOT STANDARD SPECIFICATIONS.
  - PRIOR TO INSTALLING DETECTABLE WARNING MAT, SCRUB THE SURFACE WITH A WIRE BRISTLE BRUSH. THE EXISTING CONCRETE SURFACE SHALL BE CLEANED OF ANY LOOSE MATERIAL, DUST, OILS, GREASE, AND SEALERS.
  - ALL INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH THE DETECTABLE WARNING MAT MANUFACTURER'S SPECIFICATIONS.
- IF INTERLOCKING PAVERS ARE TO BE UTILIZED:
  - DETECTABLE WARNING SURFACE FOR THE RAMPS SHALL CONSIST OF INTERLOCKING 4" X 8" ADA DETECTABLE WARNING SURFACE PAVERS HAVING A MINIMUM DEPTH OF 2". CONCRETE PAVERS ARE TO MEET ASTM C902 CLASS SX TYPE 1; AND BRICK PAVERS ARE TO MEET ASTM C55, GRADE N, SOLID BRICK COLOR TO MEET ADA CONTRAST REQUIREMENTS.
  - ALL UNITS SHALL BE SOUND AND FREE OF DEFECTS THAT WOULD INTERFERE WITH THE APPEARANCE OF PROPER PLACEMENT OF THE UNIT OR IMPAIR THE STRENGTH OR LONGEVITY OF THE FINAL STRUCTURE. ANY UNITS THAT ARE STRUCTURALLY DAMAGED DURING THE WORK SHALL BE IMMEDIATELY REMOVED AND REPLACED. THE PAVERS ARE TO BE LAID IN A TWO BY TWO BASKETWEAVE PATTERN. FLUSH WITH THE FINISH GRADE OF THE RAMP SURFACE, AND HAVE GAPS BETWEEN 1/16 AND 1/8 INCH. CUT PAVERS (MASONRY SAW ONLY) SHALL BE NO SMALLER THAN ONE-THIRD OF A WHOLE PAVER.
  - MODIFY FORMWORK OR PROVIDE FORMED GROUT INFILL BEHIND CURVED DROP CURB SECTIONS TO ENSURE STRAIGHT EDGE RESTRAINT FOR PAVERS.
  - CONCRETE EDGE RESTRAINT FOR WARNING AREA, MAXIMUM GAP OF 1/8" BETWEEN PAVERS AND EDGE. USE 1/4" RADIUS ALONG CONCRETE EDGES.
  - WHEN PAVERS ABUT EITHER EARTH/DIRT OR PAVEMENT, A SIX INCH CONCRETE BAND SHALL BE INSTALLED. BAND SHALL BE WITHIN LIMITS OF THE WIDTH OF PROPOSED CONCRETE AND NOT EXTENDED AN ADDITIONAL SIX INCHES.
- OTHER METHODS/MATERIALS MAY BE USED FOR THE DETECTABLE WARNING STRIP, BUT THEY MUST MEET THE ABOVE CRITERIA.
- ALL MATERIALS/METHODS TO BE UTILIZED SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO ORDERING THE MATERIALS/METHODS. FAILURE TO OBTAIN APPROVAL BEFORE ORDERING OR INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR THE PERFORMANCE OF THE ITEM,
- IF FDOT CURB RAMPS ARE SPECIFIED, REFER TO THE FDOT INDEX NO. 304 FOR SPECIFICATIONS CONCERNING THE APPLICABLE DETECTABLE WARNING STRIP TO BE USED WITH FDOT SPECIFIED RAMPS.



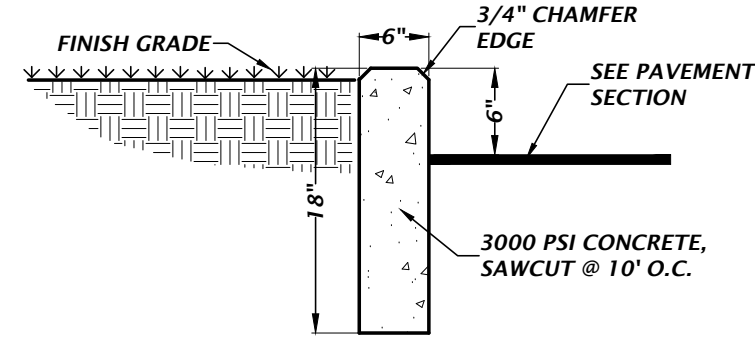
### SLEEVE CROSSING DETAIL

NTS



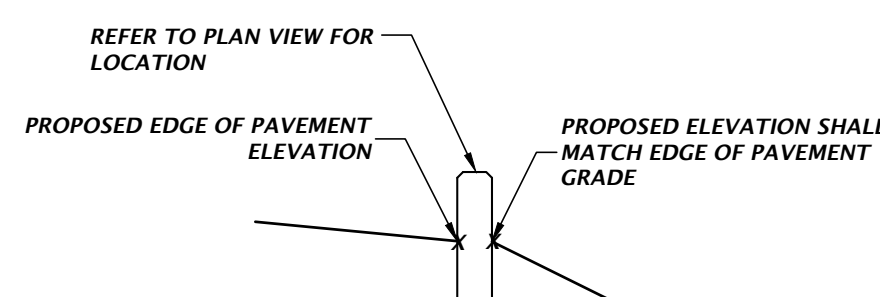
### TYPICAL ASPHALT PAVEMENT DETAIL

NTS



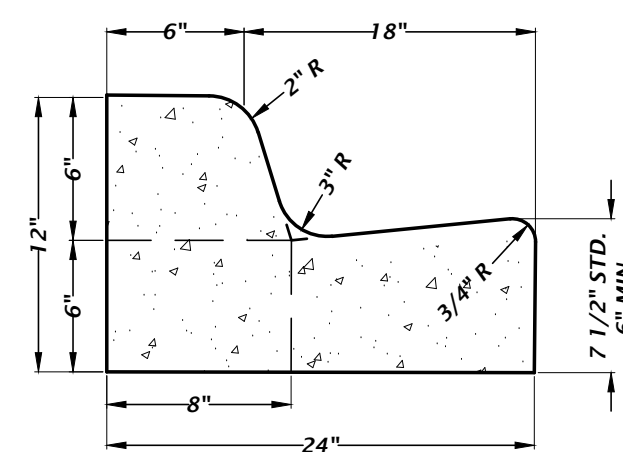
### TYPICAL 6" CURB DETAIL

NTS



### TYPICAL CURB SECTION E-E

NTS

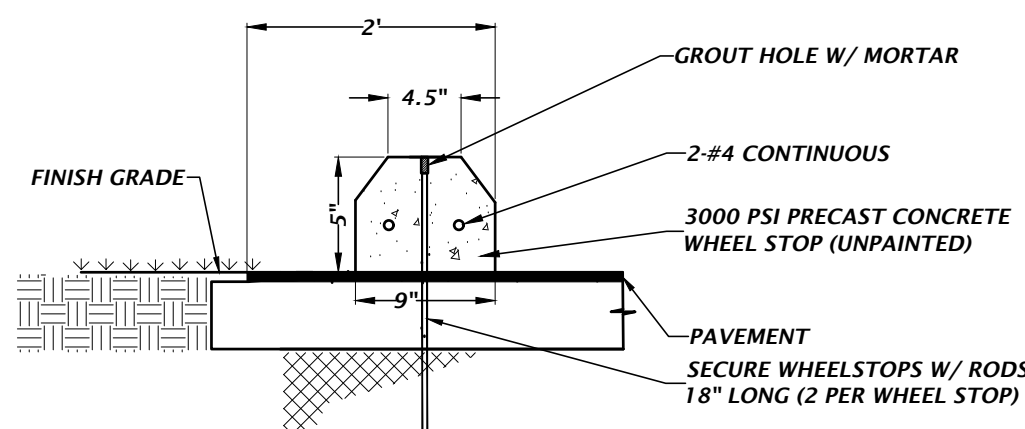


NOTE:

WHEN USED ON THE HIGH SIDE OF ROADWAY, THE CROSS-SLOPE OF THE GUTTER SHALL MATCH THE CROSS-SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6"

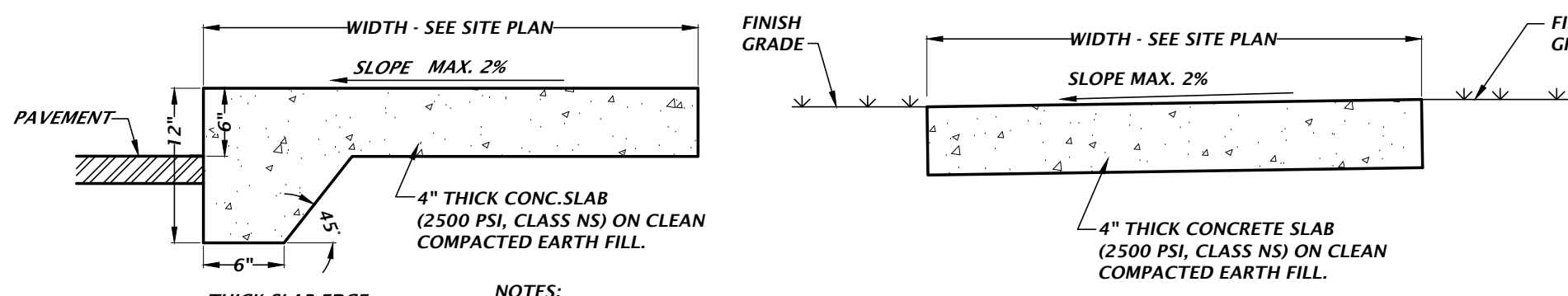
### TYPE 'F' CONCRETE CURB AND GUTTER DETAIL

NTS



### WHEEL STOP DETAIL

NTS

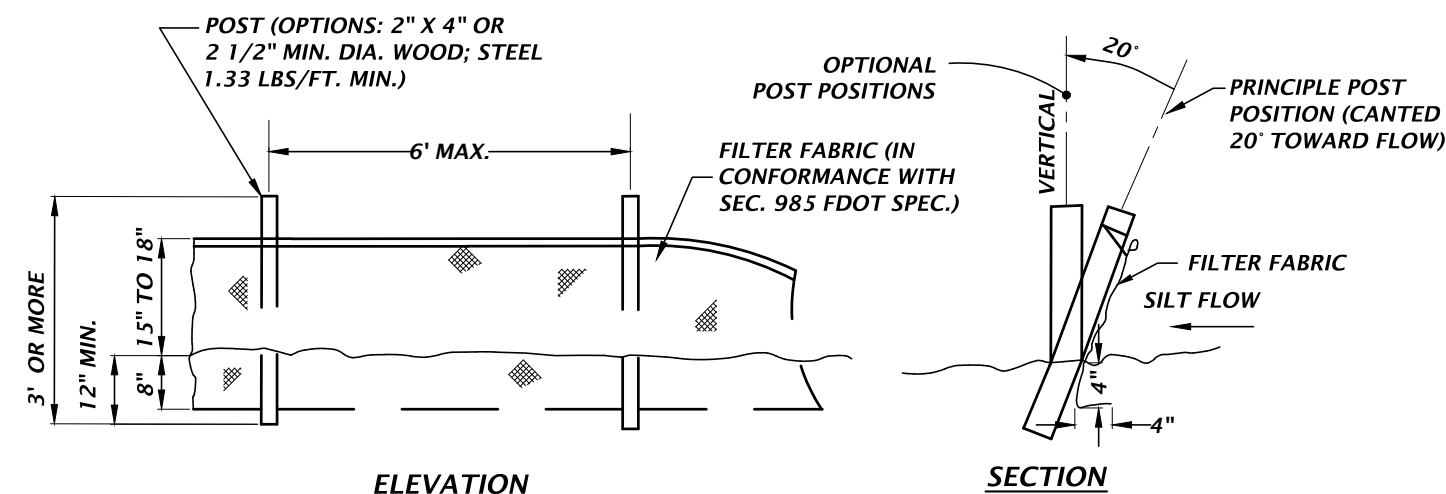


### ADJACENT TO PAVEMENT NOT ADJACENT TO PAVEMENT

NTS

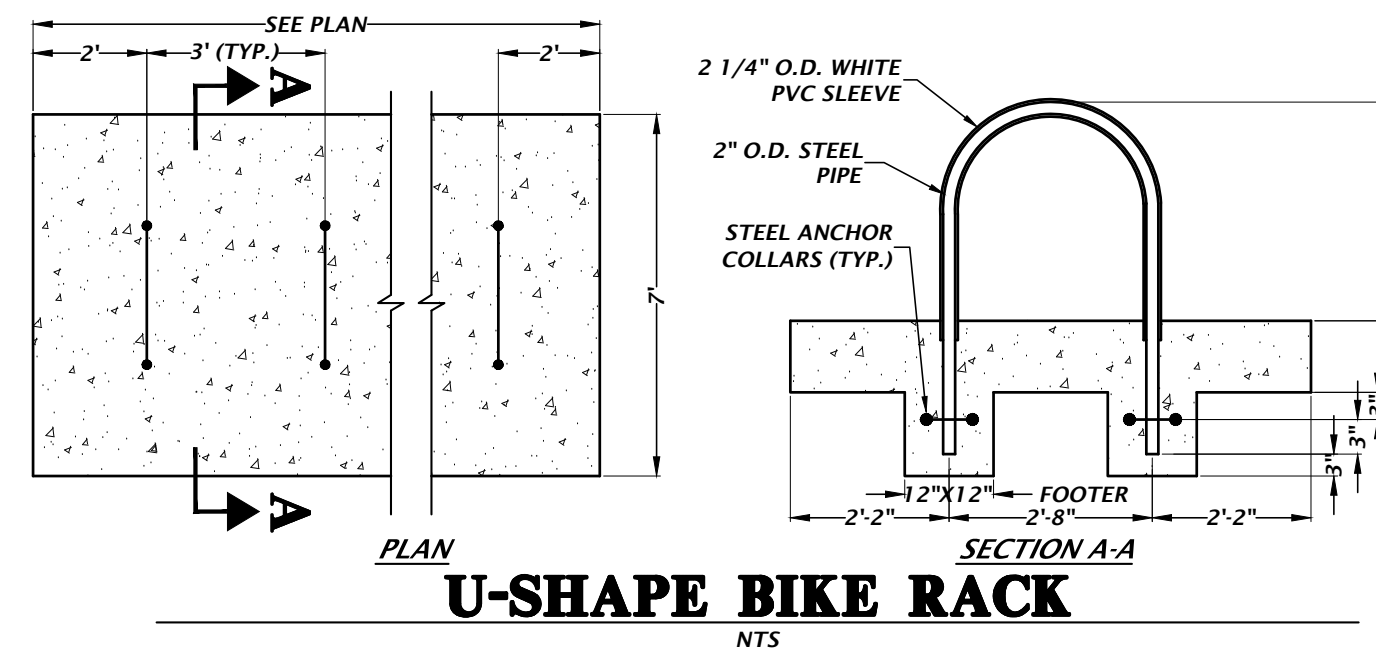
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### CONCRETE SIDEWALK DETAILS



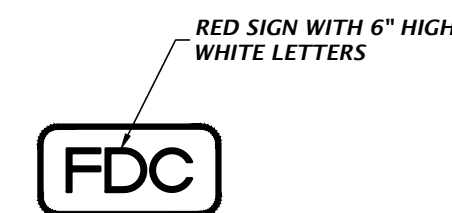
### TYPE III SILT FENCE DETAIL

NTS



### U-SHAPE BIKE RACK

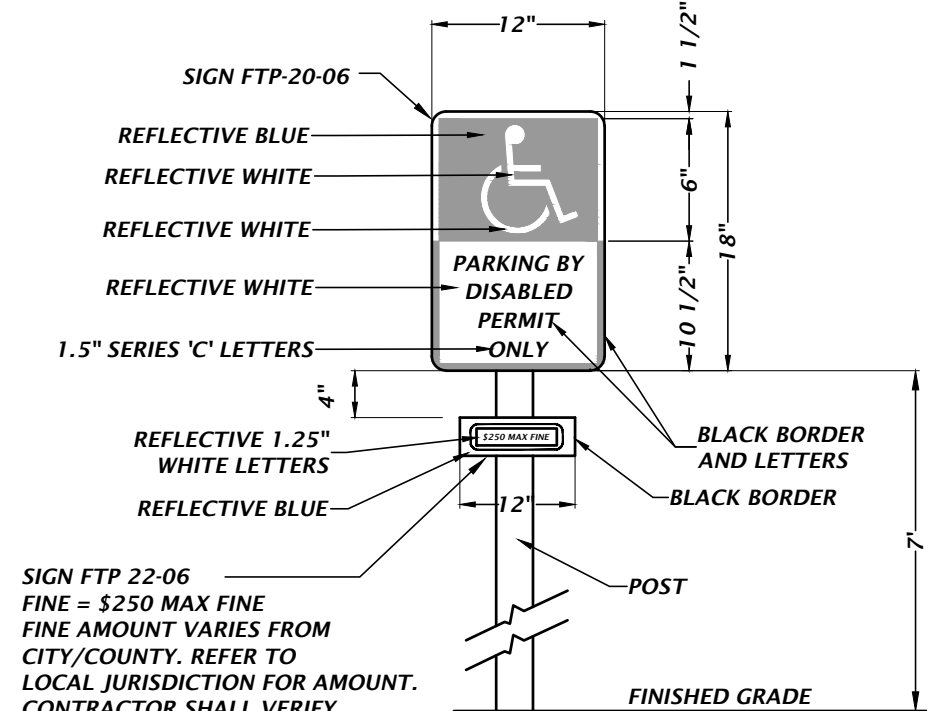
NTS



- NOTES:
- MOUNT SIGN 4' TO 6' HIGH ON BUILDINGS ABOVE THE FIRE DEPARTMENT CONNECTION.
  - FDC SHALL NOT BE OBSTRUCTED BY VEGETATION THAT WOULD PREVENT ACCESS DURING AN EMERGENCY.
  - SIGN DIMENSIONS SHALL COMPLY WITH LOCAL CODE REQUIREMENTS.

### FIRE DEPARTMENT CONNECTION SIGN

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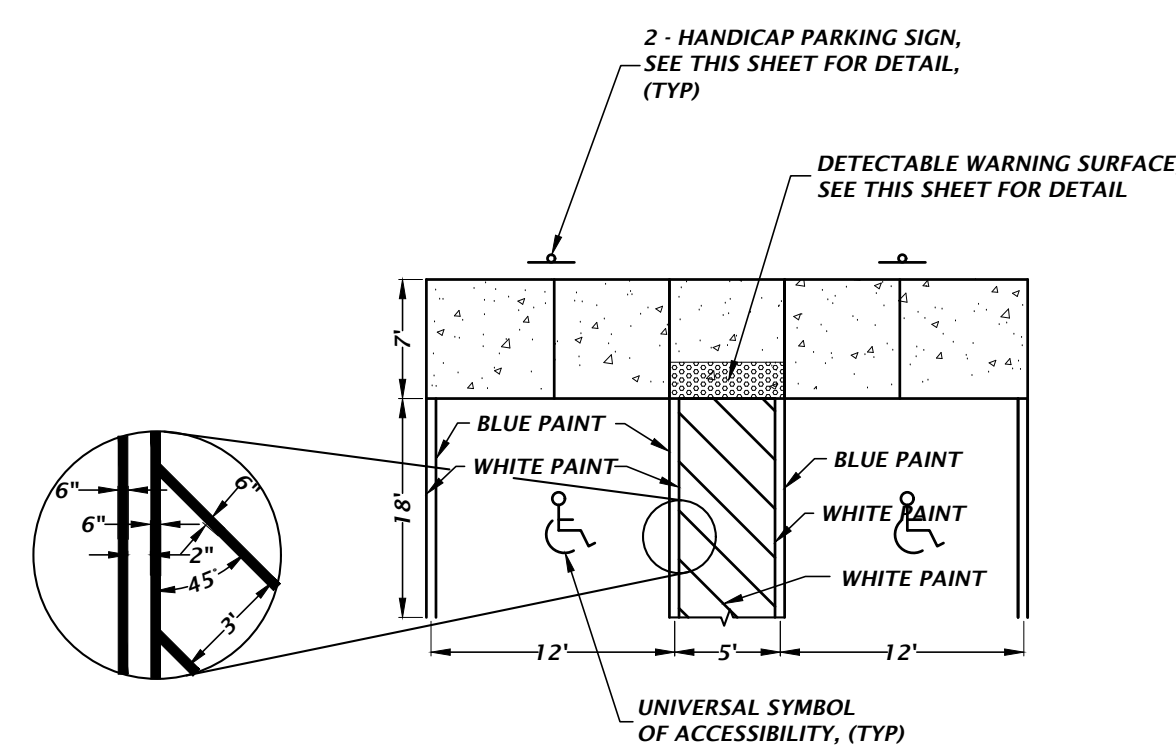


SIGN NOTES:

- SIGN CONSTRUCTION, DESIGN AND PLACEMENT SHALL COMPLY WITH STATE AND LOCAL STATUTES.

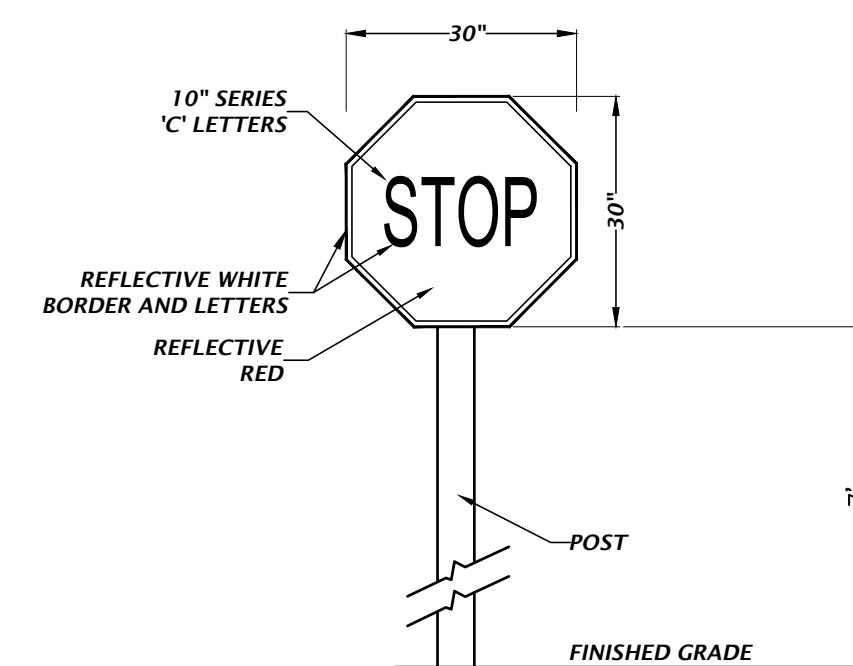
### H.C. PARKING SIGN DETAIL

NTS



### HANDICAP PARKING DETAIL

NTS



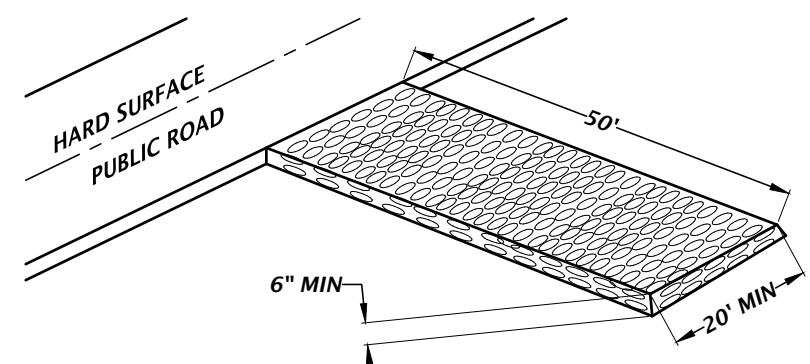
### MUTCD R1-1 (30"x30") STOP SIGN DETAIL

NTS



### BICYCLE PARKING SIGN

NTS

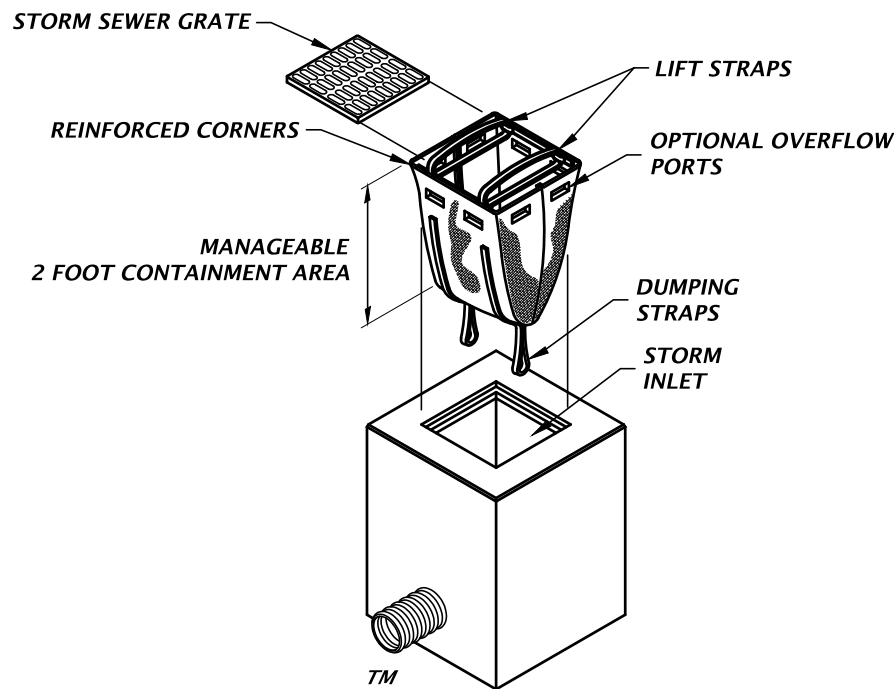


STONE SIZE:  
ASTM D448 SIZE #1 (1-1/2" TO 3-1/2" DIA)  
**STANDARD CONSTRUCTION EXIT**

### TEMPORARY CONSTRUCTION EXIT DETAIL

NTS

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.



### DANDY SACK DETAIL

NTS

#### 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.

### BASIN OPERATION AND MAINTENANCE REQUIREMENTS

#### STORMWATER MANAGEMENT FACILITIES (SMF)

ALL SMF'S PERMITTED BY THE DISTRICT SHALL BE OPERATED AND MAINTAINED IN ACCORDANCE WITH THE DESIGNS, PLANS CALCULATIONS, AND OTHER SPECIFICATIONS THAT ARE SUBMITTED WITH AN APPLICATION, APPROVED BY THE DISTRICT, AND INCORPORATED BY REFERENCE INTO ANY PERMIT ISSUED. SMF'S SHALL BE KEPT FREE OF DEBRIS, TRASH, GARBAGE, OILS AND GREASES, AND OTHER REFUSE THROUGH REGULAR INSPECTION AND MAINTENANCE BY THE PERMITTEE.

#### EROSION CONTROL

THE SYSTEM SHALL BE REGULARLY INSPECTED AND MAINTAINED BY THE PERMITTEE TO INSURE THAT ALL EROSION IS CONTROLLED AND SOIL IS STABILIZED TO PREVENT SEDIMENT DISCHARGE TO WATERS IN THE STATE. ANY VEGETATION ESTABLISHED FOR EROSION CONTROL SHALL BE PROPERLY MAINTAINED FOR FUNCTION. ALL EROSION DAMAGE AT SPILLWAYS, OUTFALL STRUCTURES, AND ALONG BASIN SIDE SLOPES SHALL BE REPAIRED (GRAZING AND GRASSING) AS CONDITIONS OCCUR. ALL SIDE SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED BY SODDING, HYDRO-MULCHING OR OTHER APPROPRIATE VEGETATIVE OR NON-VEGETATIVE EROSION CONTROL MEASURES.

#### PIPES AND STRUCTURES

ALL STRUCTURES WITHIN THE SYSTEM SHALL BE REGULARLY INSPECTED AND MAINTAINED ON A REGULAR BASIS BY THE PERMITTEE TO INSURE THAT THEY DO NOT BECOME CLOGGED OR CHOKED WITH VEGETATIVE OR AQUATIC GROWTH TO SUCH AN EXTENT AS TO RENDER THEM INOPERABLE.

#### FUNCTION

BASINS THAT DO NOT DRAWDOWN PROPERLY AND MAINTAIN STANDING WATER FOR AN EXTENDED PERIOD OF TIME MAY REQUIRE REMEDIAL ACTION. THE ENGINEER SHALL BE NOTIFIED TO HELP COORDINATE REMEDIAL ACTION IN THE EVENT IMPROPER RECOVERY IS NOTED.

#### SINKHOLE

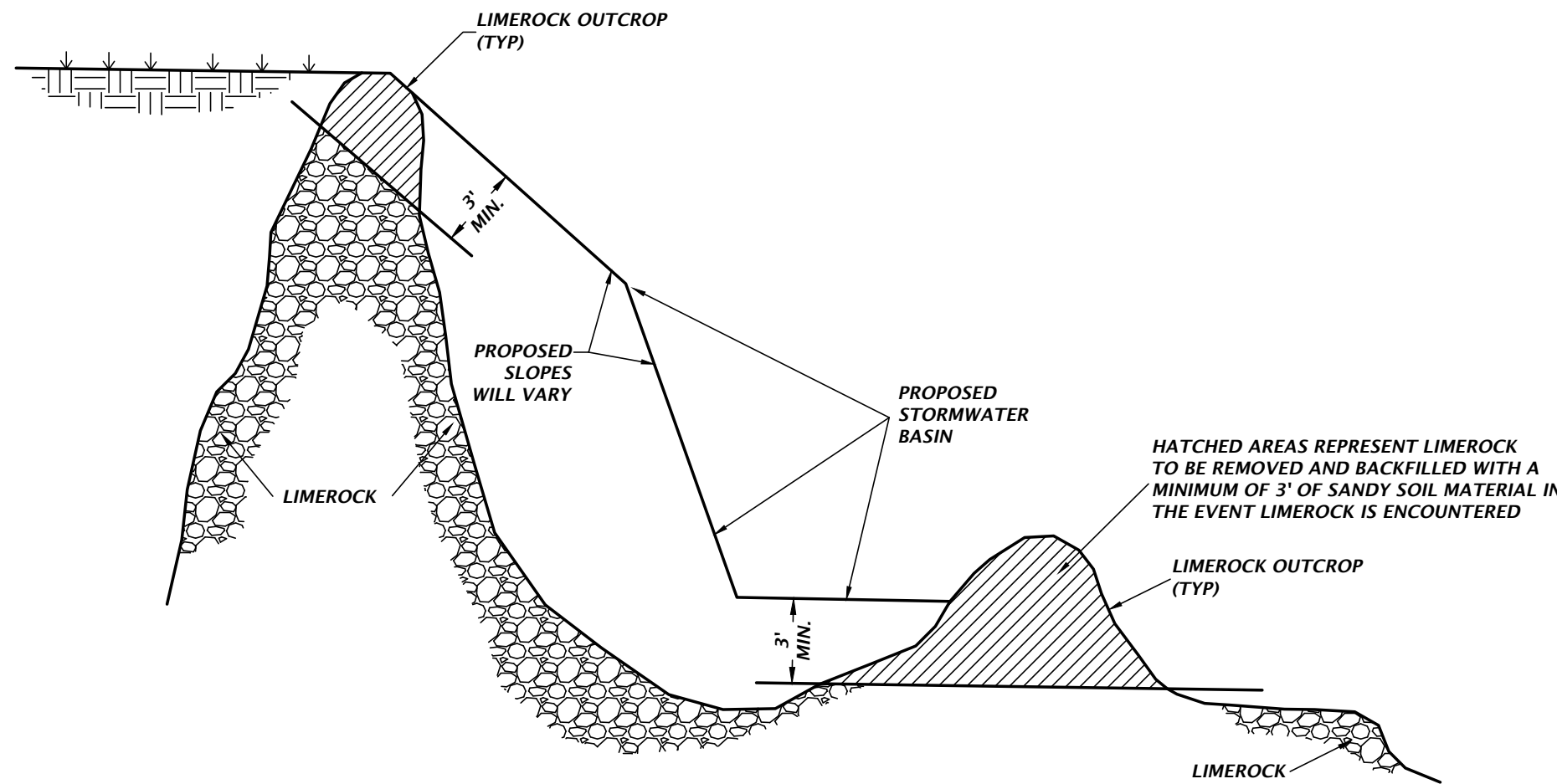
IF A SINKHOLE FORMS IN THE AREA OF A DRAINAGE SWALE/BASIN THE ENGINEER OF RECORD SHALL BE NOTIFIED BY EITHER THE CONTRACTOR OR THE ESTABLISHED OPERATION AND MAINTENANCE ENTITY. THE ENGINEER OF RECORD SHALL INSPECT THE REPAIRED AREA UPON COMPLETION OF THE REPAIR. ALL SWALES/BASINS SHALL BE INSPECTED MONTHLY FOR SINKHOLE OCCURRENCE. SHOULD A SINKHOLE OCCUR, THE AREA SHALL BE REPAIRED AS SOON AS POSSIBLE. REPAIR SHALL INCLUDE FILLING (LIMEROCK SUCH AS ROAD BASE MATERIAL, CLAY/SAND MIXTURE, OR CONCRETE IF NECESSARY). A 3-FOOT DEEP CAP THAT EXTENDS 3 FEET BEYOND THE PERIMETER OF THE SINKHOLE SHALL BE CONSTRUCTED WITH CLAYEY SOILS. THE CLAYEY SOIL SHALL HAVE AT LEAST 20% PASSING THE NO. 200 SIEVE, COMPACTED TO 95% OF STANDARD PROCTOR, AND COMPACTED IN A WET CONDITION WITH MOISTURE 2% - 4% ABOVE OPTIMUM. THE CLAY SOIL CAP SHALL BE RE-GRADED TO PREVENT CONCENTRATION OF WATERS (PONDING) AND RE-VEGETATED.

### BASIN LIMEROCK OUTCROP CONSTRUCTION NOTES

1. IN THE EVENT THAT A CONTINUOUS LIMEROCK FORMATION IS ENCOUNTERED DURING CONSTRUCTION OF THE RETENTION BASINS, THE FOLLOWING TREATMENT SHALL BE PERFORMED. THE LIMEROCK OUTCROP SHALL BE EXCAVATED TO AN ELEVATION OF THREE (3) FEET BELOW THE DESIGN BASIN BOTTOM. THE EXCAVATED AREA SHALL BE BACKFILLED TO THE DESIGN BASIN BOTTOM ELEVATION WITH SANDY SOILS.
2. IN THE EVENT THAT ANY KARST FEATURES, SUCH AS SOLUTION CAVITIES, CHIMNEYS, OR SINKHOLES APPEAR IN THE RETENTION BASIN, THE FOLLOWING ACTIONS SHALL BE REQUIRED.
  - A. ONCE THE FEATURE IS IDENTIFIED, IT SHALL BE ISOLATED BY CREATING A BERM AROUND THE FEATURE A MINIMUM OF 2 FEET HIGH TO PREVENT DIRECT DISCHARGE INTO THE KARST FEATURE.
  - B. THE CIVIL ENGINEER, THE SRWMD, AND THE CITY OF ALACHUA PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED WHEN THE FEATURE IS ENCOUNTERED PRIOR TO REMEDIAL ACTION.
  - C. A LICENSED GEOTECHNICAL ENGINEERING FIRM SHALL BE RETAINED TO EVALUATE THE SIGNIFICANCE OF THE FEATURE AND TO DETERMINE THE REMEDIAL ACTION NECESSARY. SEE SHALLOW AND DEEP SINKHOLE/CAVITY MAINTENANCE REPAIR DETAIL.
  - D. THE GEOTECHNICAL ENGINEERING FIRM SHALL BE REQUIRED TO MONITOR THE REMEDIAL WORK AND SEND A SUMMARY REPORT UPON REPAIR COMPLETION TO THE CIVIL ENGINEER, THE SRWMD, AND THE CITY OF ALACHUA PUBLIC WORKS DEPARTMENT.

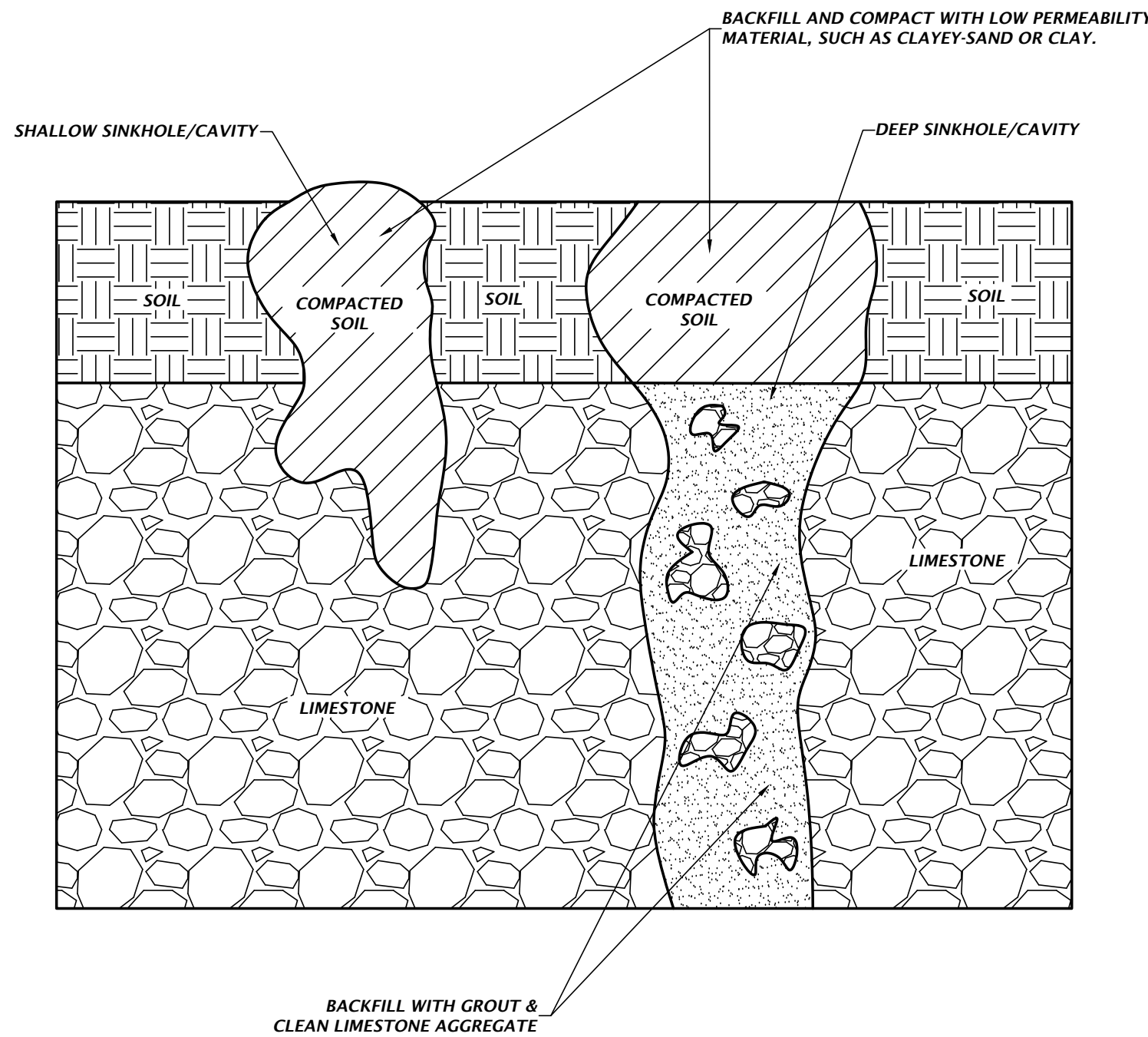
### BASIN EROSION & SEDIMENTATION CONTROL

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 F.D.O.T. FLORIDA EROSION AND SEDIMENT CONTROL MANUAL.
3. THE STORMDRAIN SYSTEM SHALL BE FLUSHED OUT TO REMOVE ALL ACCUMULATED DEBRIS AND SEDIMENT UPON COMPLETION OF CONSTRUCTION.
4. ALL DISTURBED AREAS IN THE CONSTRUCTION AREA SHALL BE COMPLETELY STABILIZED BY COMPLETION OF CONSTRUCTION. GRASS SEEDING RATES AND MIXTURES SHALL BE PER FDOT INDEX NO. 104. EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO FINAL RELEASE.
5. REFER TO THE SWPPP PLAN FOR COMPLETE EROSION CONTROL MEASURES.



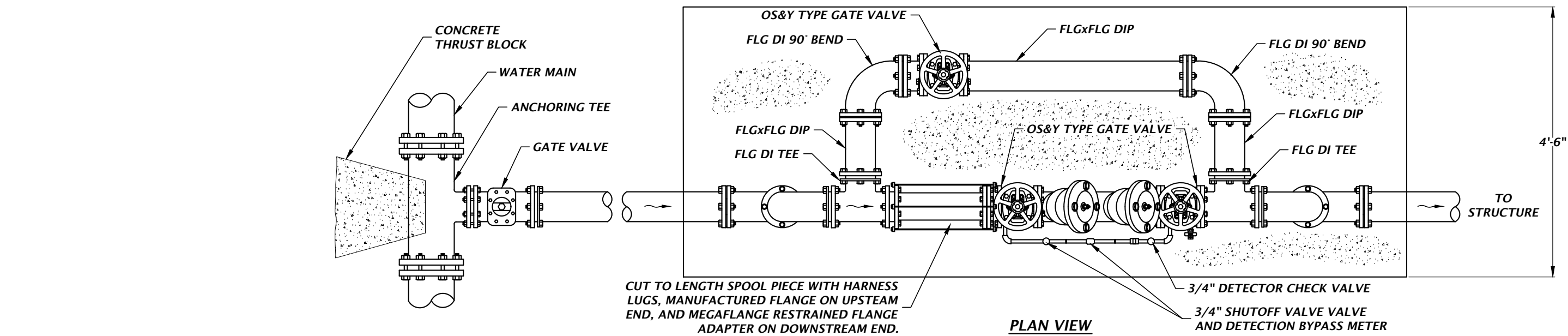
### LIMEROCK OUTCROP REMOVAL DETAIL

NTS

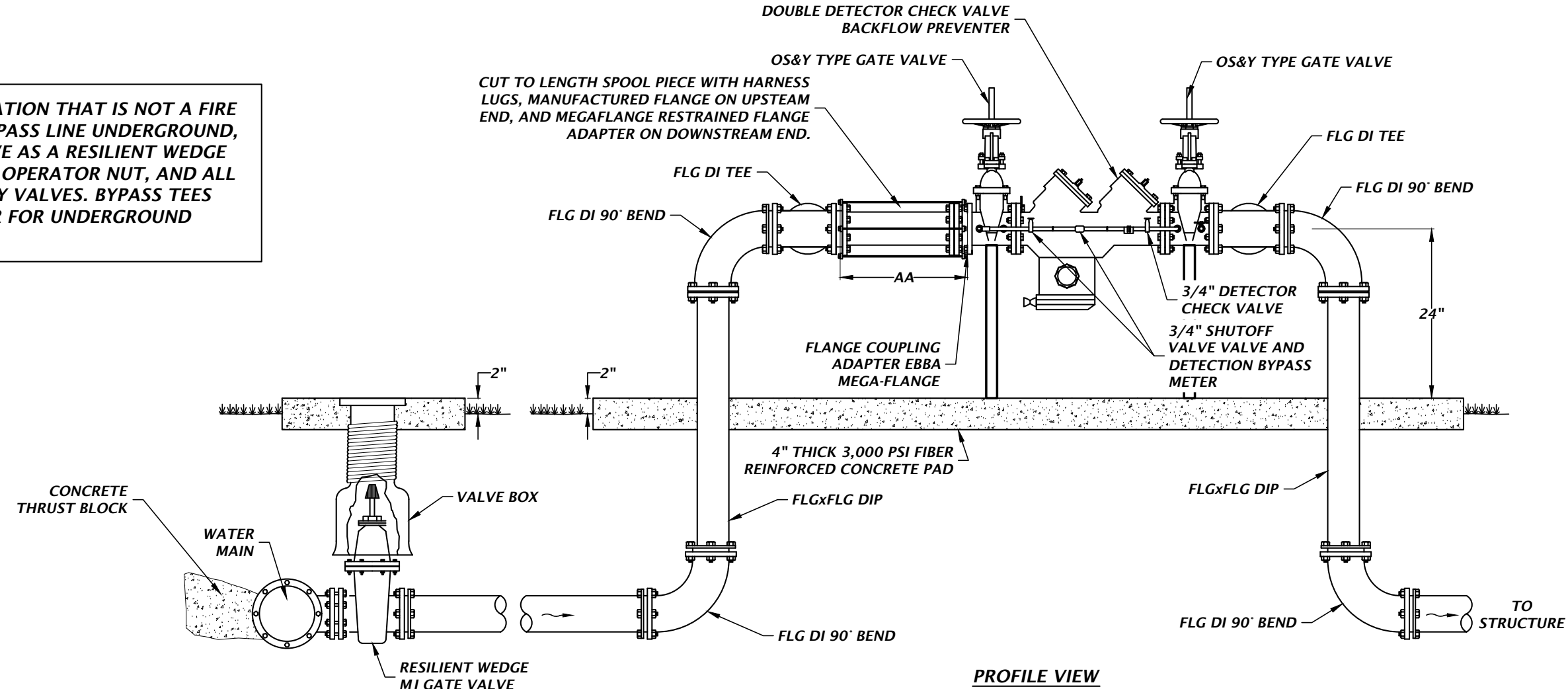


### SHALLOW AND DEEP SINKHOLE/CAVITY MAINTENANCE REPAIR DETAIL

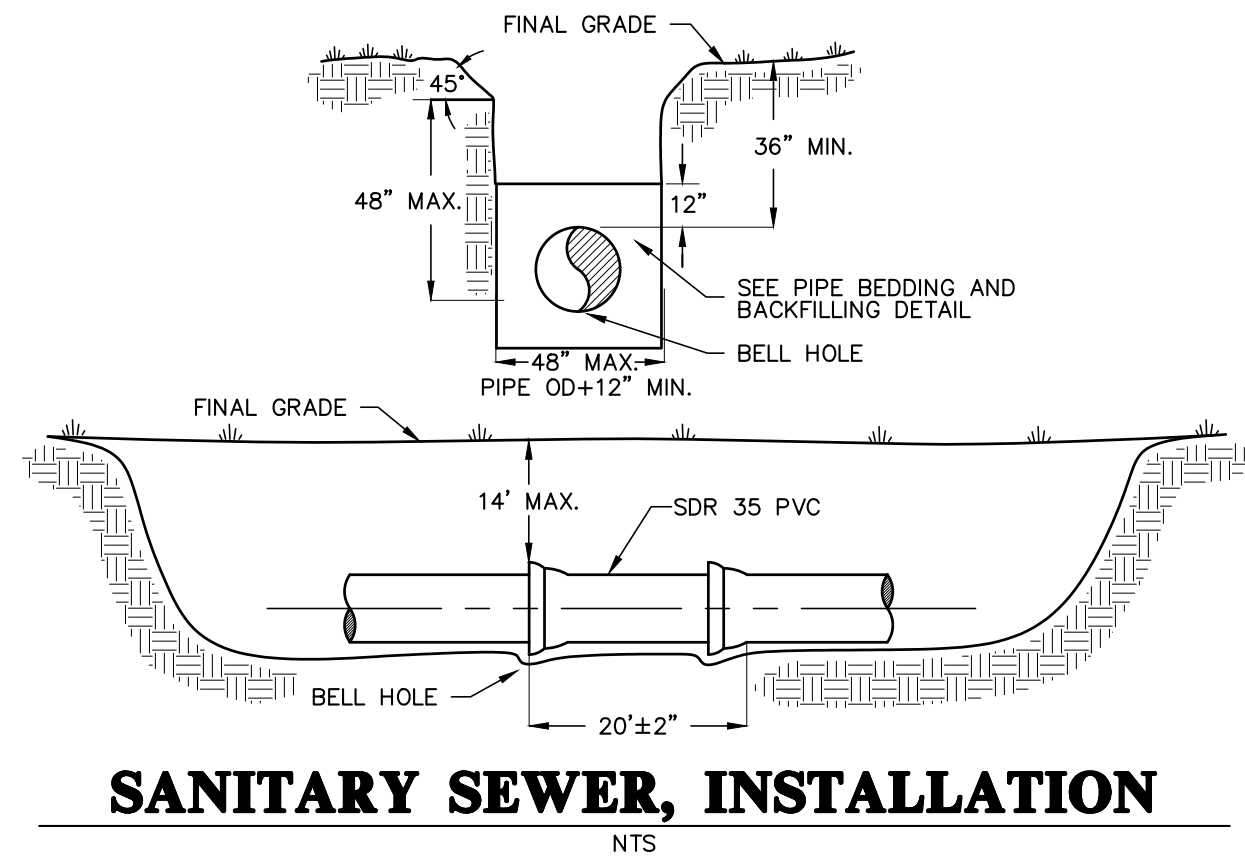
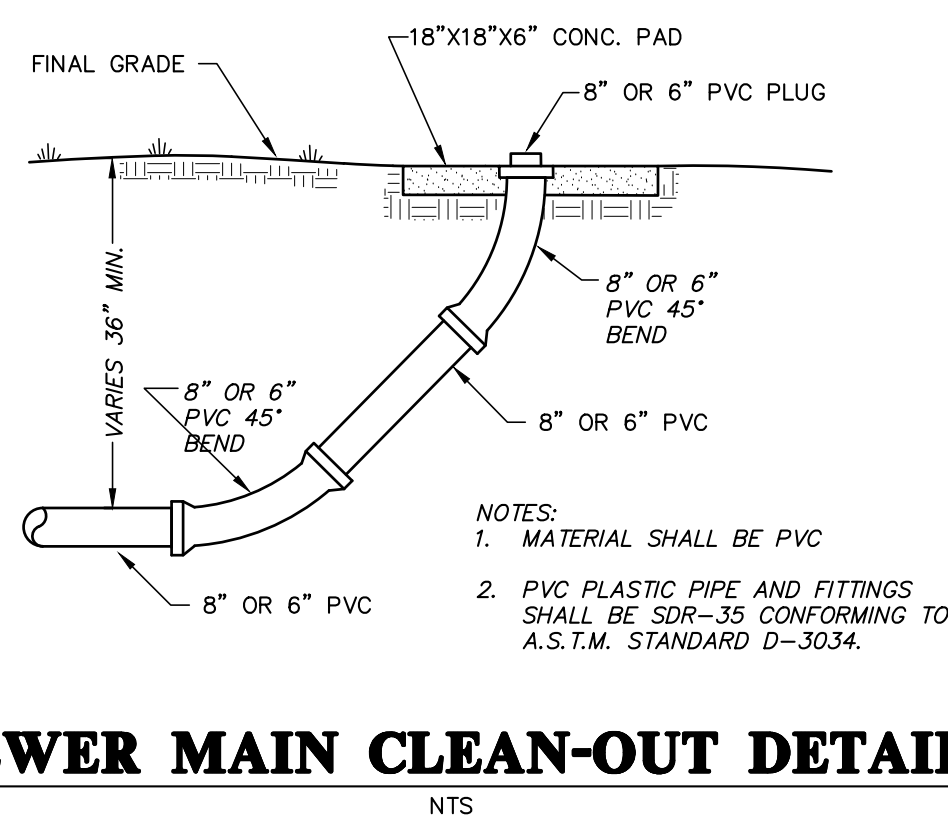
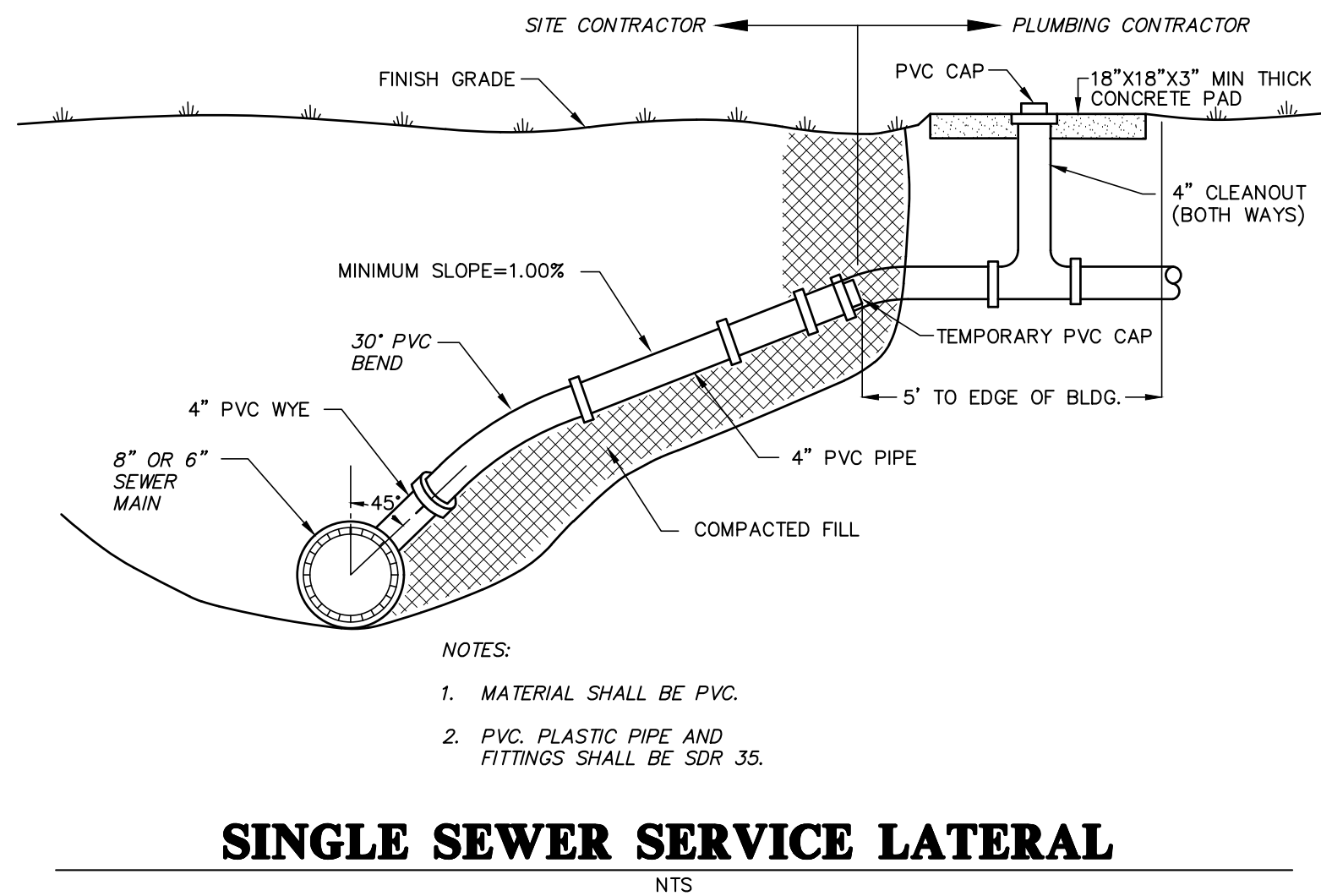
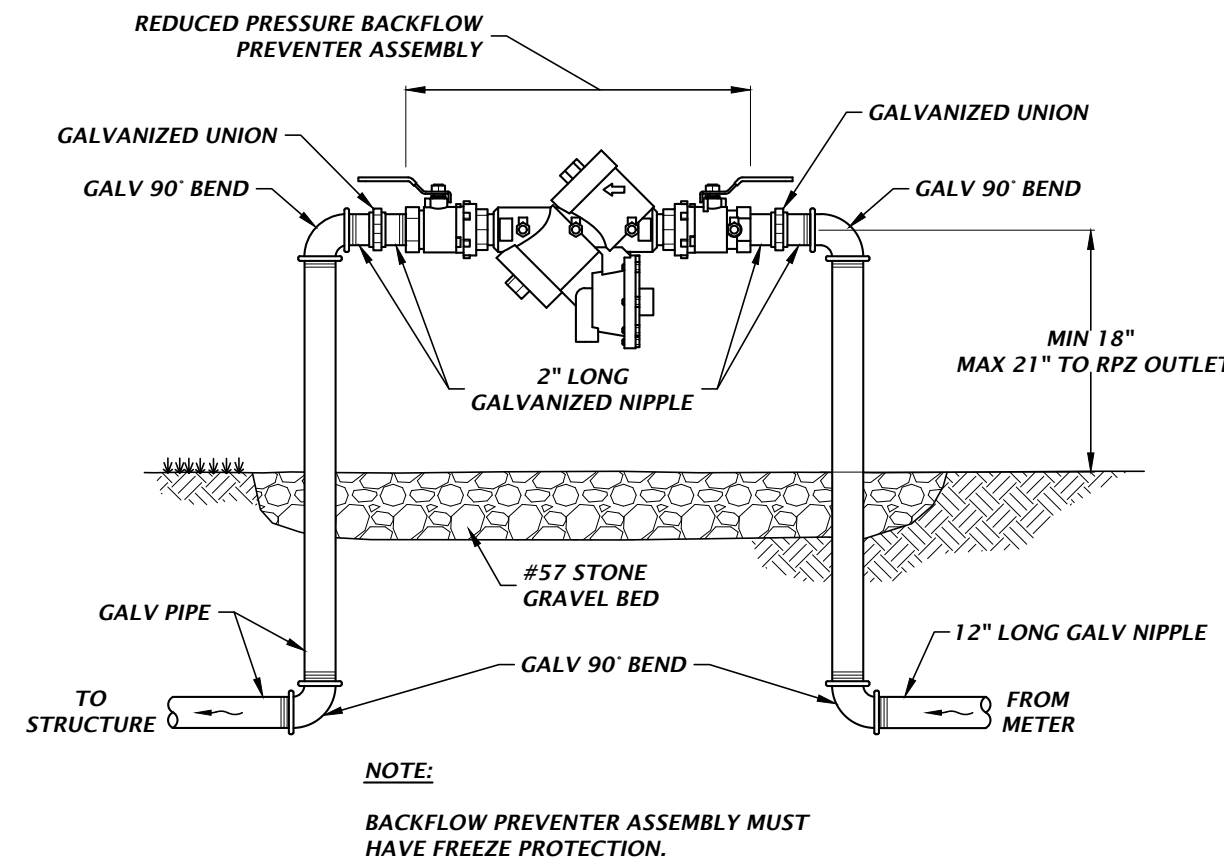
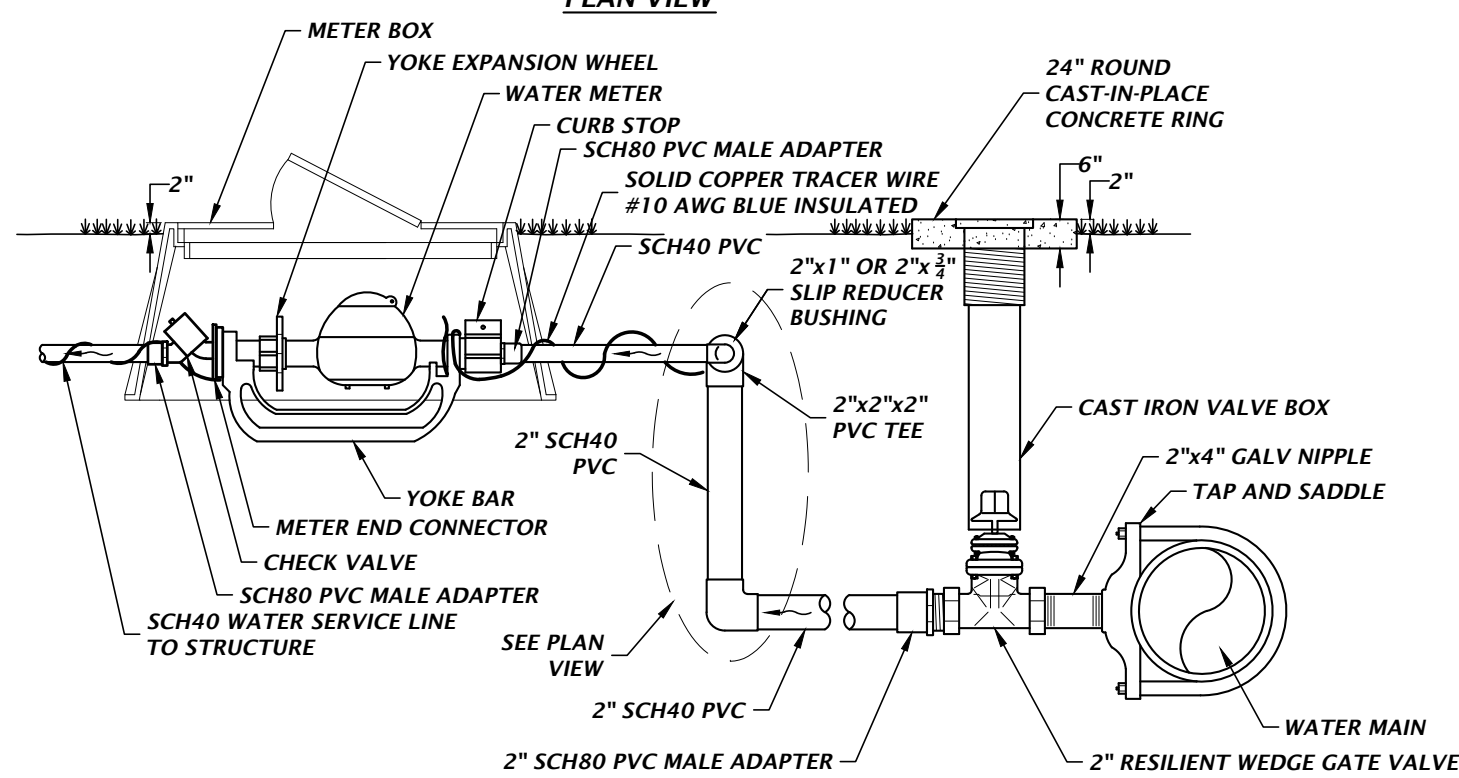
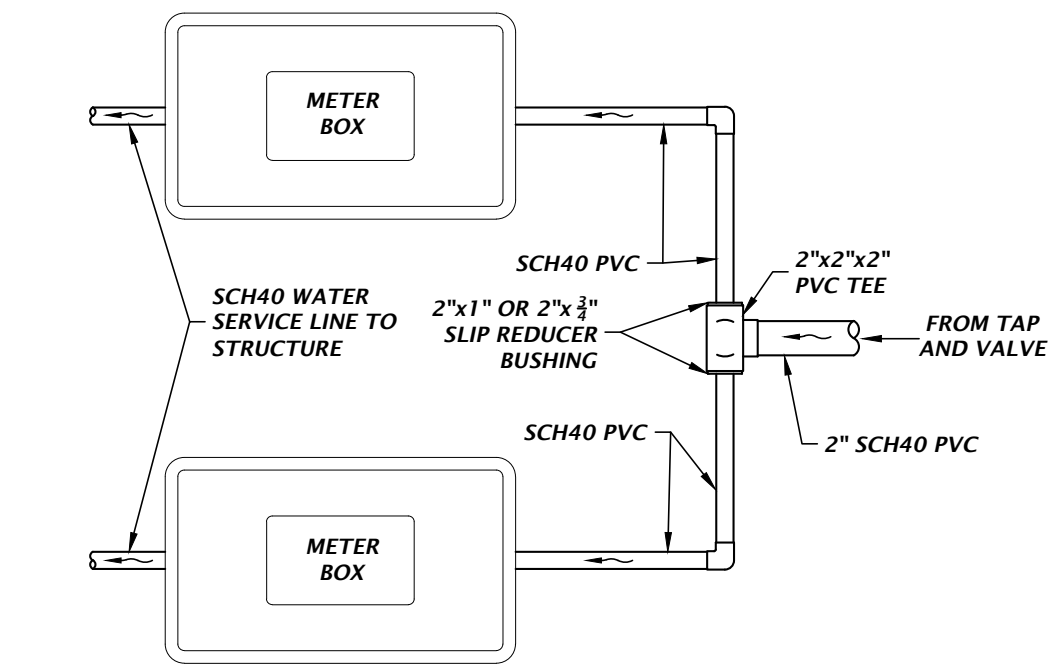
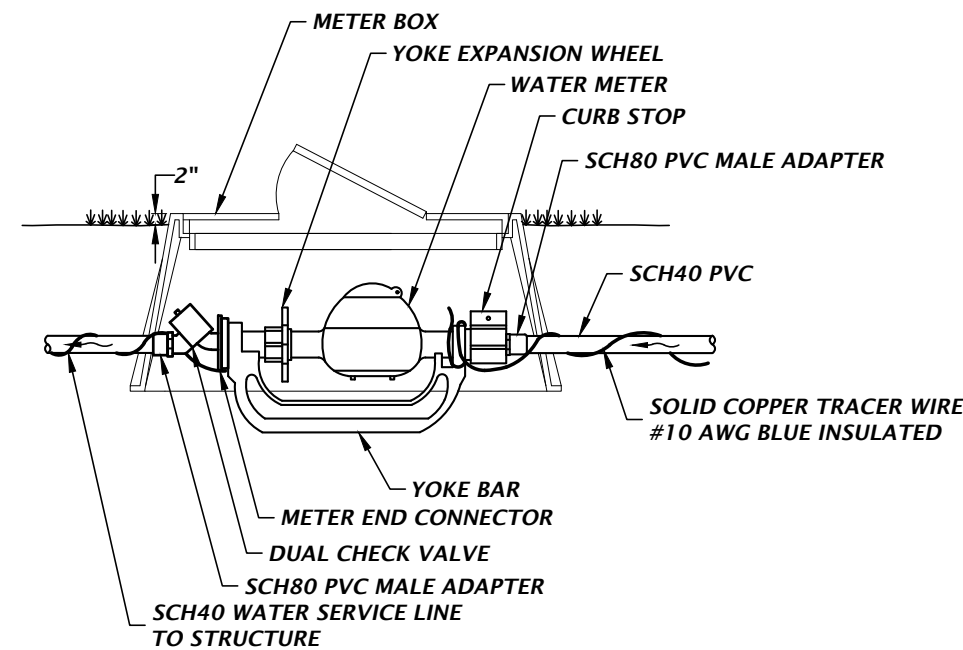
NTS



NOTE: EVERY INSTALLATION THAT IS NOT A FIRE LINE CAN HAVE THE BYPASS LINE UNDERGROUND, WITH THE BYPASS VALVE AS A RESILIENT WEDGE GATE VALVE WITH A 2" OPERATOR NUT, AND ALL OTHER VALVES AS OS&Y VALVES. BYPASS TEES SHALL BE ON THE RISER FOR UNDERGROUND INSTALLATIONS.



**DETAIL No. 265 - FIRE DOUBLE DETECTOR CHECK VALVE BACKFLOW PREVENTER (NO DOWNSTREAM DIESEL FIRE PUMP)**  
NTS



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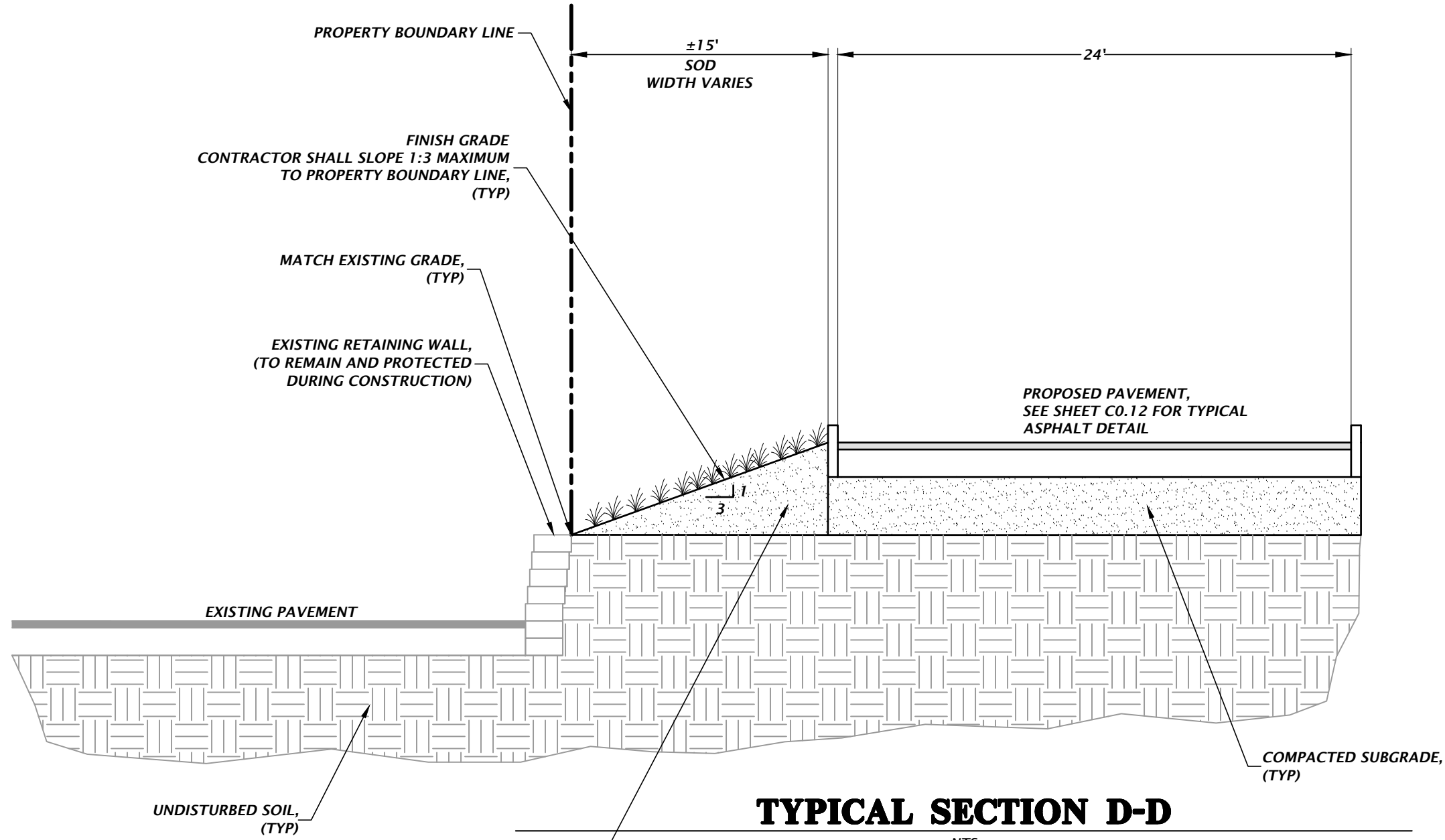
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CONSTRUCTION/BD RELEASE

REVISIONS:  
12/20/17 - CITY OF ALACHUA AND SRWMD  
08/06/18 - CITY OF ALACHUA  
10/18/18 - CITY OF ALACHUA  
12/17/18 - CITY OF ALACHUA

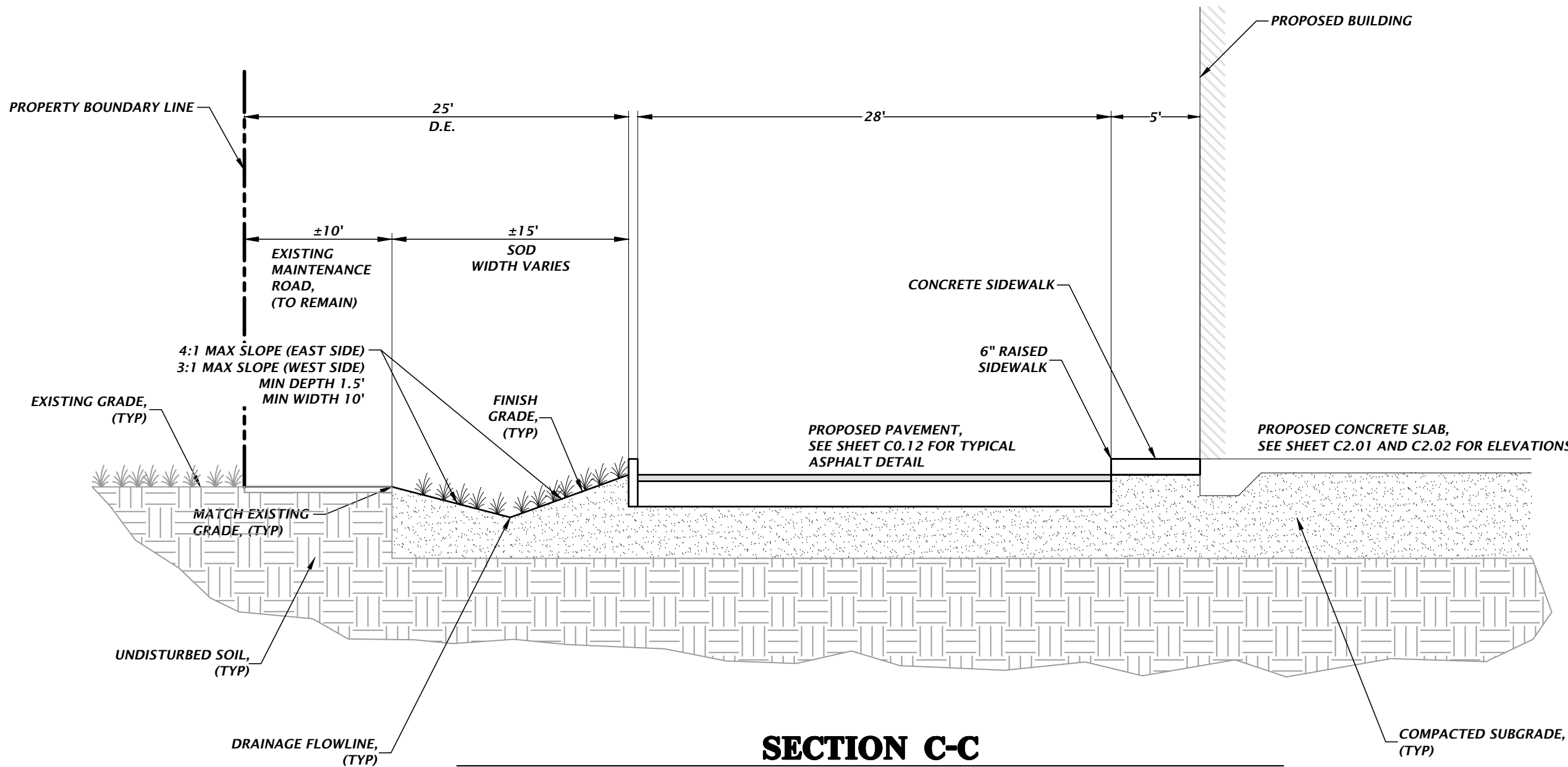
CLIENT: BNW HOLDINGS, LLC  
DESIGNER: J. THOMAS  
PROJECT: INDUSTRIAL PARK LOTS 2, 3, 4, AND 5  
QUALITY CONTROL: D. YOUNG  
SHEET TITLE: CONSTRUCTION DETAILS  
PROJECT NUMBER: 17-0357

DANIEL H. YOUNG  
REGISTERED PROFESSIONAL ENGINEER  
No. 70780  
Jan 14 2019  
STATE OF FLORIDA  
FL PE No. 70780  
SHEET NO: C2.32



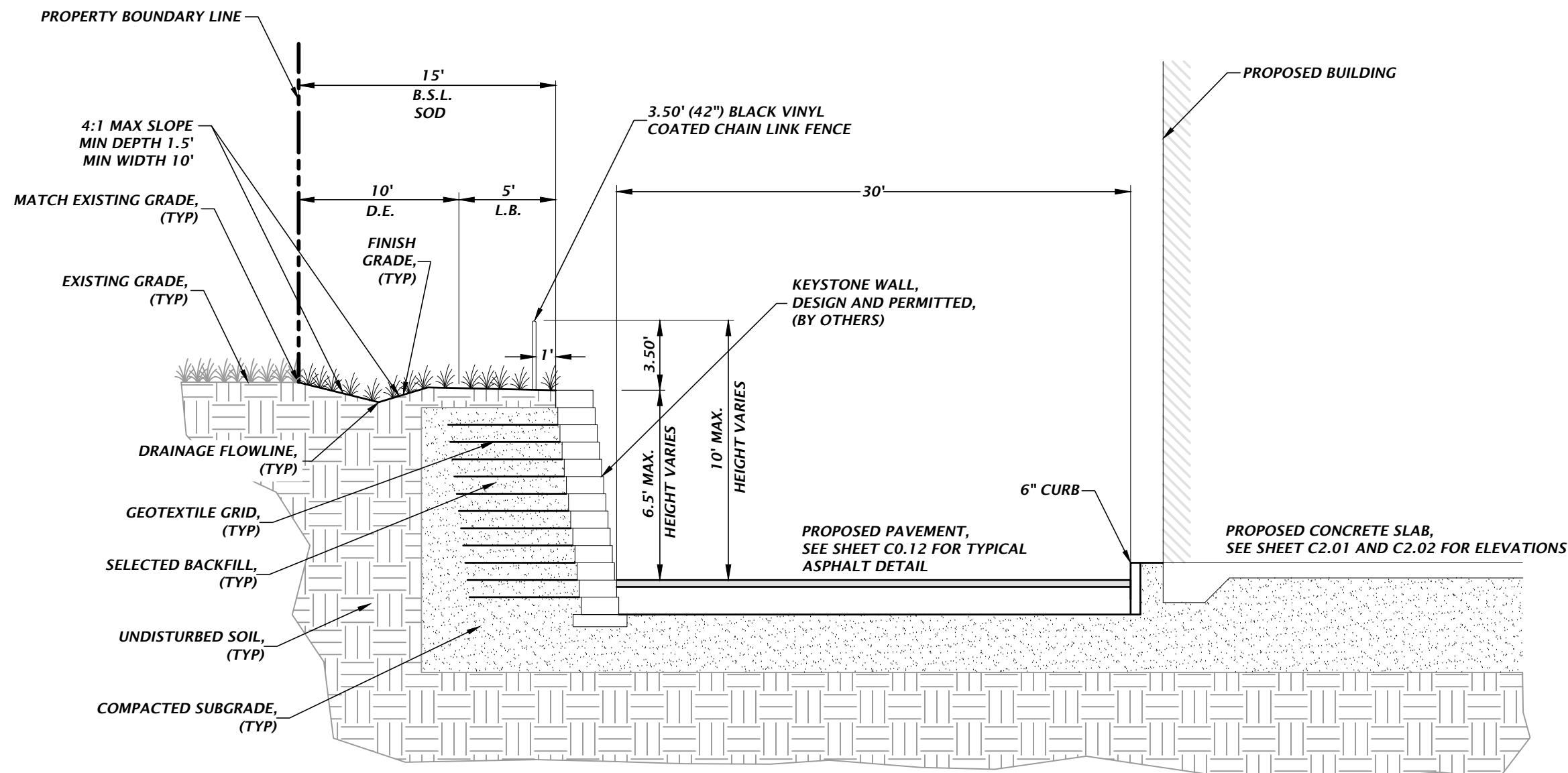
TYPICAL SECTION D-D

GENERAL NOTE:  
SEE SHEET C2.01 AND C2.02 FOR DETAILED GRADING



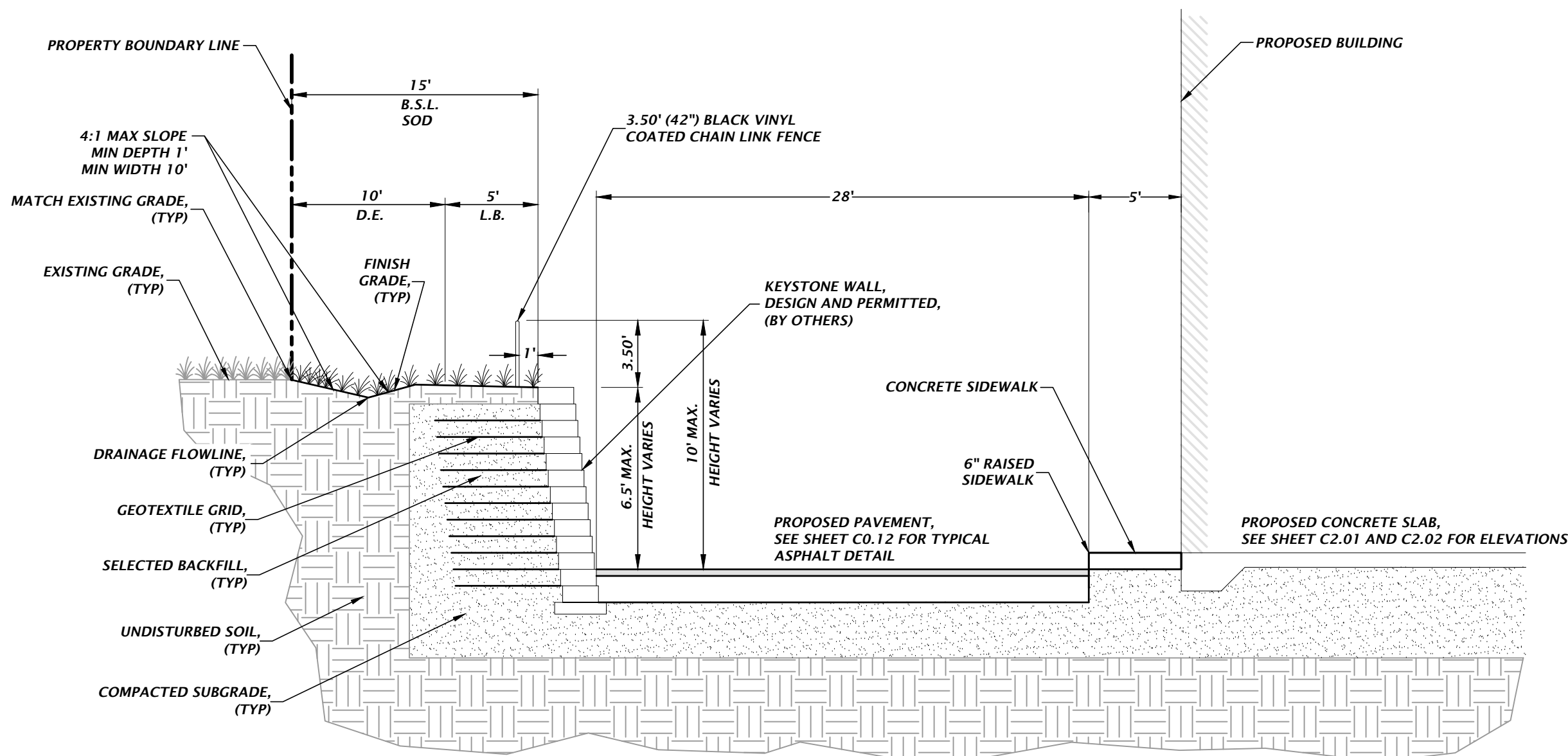
SECTION C-C

GENERAL NOTE:  
SEE SHEET C2.01 AND C2.02 FOR DETAILED GRADING



TYPICAL RETAINING WALL SECTION A-A

GENERAL NOTE:  
SEE SHEET C2.01 AND C2.02 FOR DETAILED GRADING



TYPICAL RETAINING WALL SECTION B-B

GENERAL NOTE:  
SEE SHEET C2.01 AND C2.02 FOR DETAILED GRADING

Test: bryong Plot Date: Dec 19, 2018 8:21 am Filename: L:\2017\17-0357\Engineering\DWG\Production\17-0357\_C015\_01.dwg

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SCALE: N/A  
PERMANENT SCALE ON ORIGINAL DRAWING  
0 1" = 10' MAX. ADJUST THIS SHEET, ADJUST SCALES ACCORDINGLY.

CONSTRUCTION/REV. RELEASE

REVISIONS  
12/20/17 - CITY OF ALACHUA AND SRWMD  
08/06/18 - CITY OF ALACHUA  
10/18/18 - CITY OF ALACHUA  
12/17/18 - CITY OF ALACHUA

CLIENT: BNW HOLDINGS, LLC  
PROJECT: INDUSTRIAL PARK LOTS  
SHEET TITLE: TYPICAL CROSS SECTIONS

DESIGNED BY: J. THOMAS  
DESIGNED BY: J. THOMAS  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 17-0357

DANIEL H. YOUNG

FLORIDA  
STATE OF  
PROFESSIONAL ENGINEER  
DANIEL H. YOUNG  
No. 70780  
Jan 14 2019

FL PE No. 70780  
SHEET NO: C2.33

A  
B  
C  
D

Test: bryang Plot Date: Dec 20, 2018 2:22pm Filename: L:\2017\17-0357\Engineering\DWG\Production\17-0357\_C3.00\_MUP.dwg

PROPOSED 6" PVC SANITARY SEWER LATERAL,  
SEE SHEET C3.01-3.02 FOR DETAILED VIEW,  
(TYP)

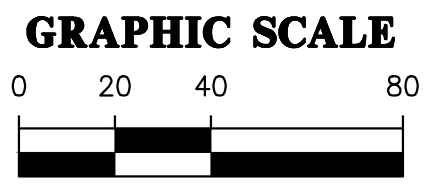
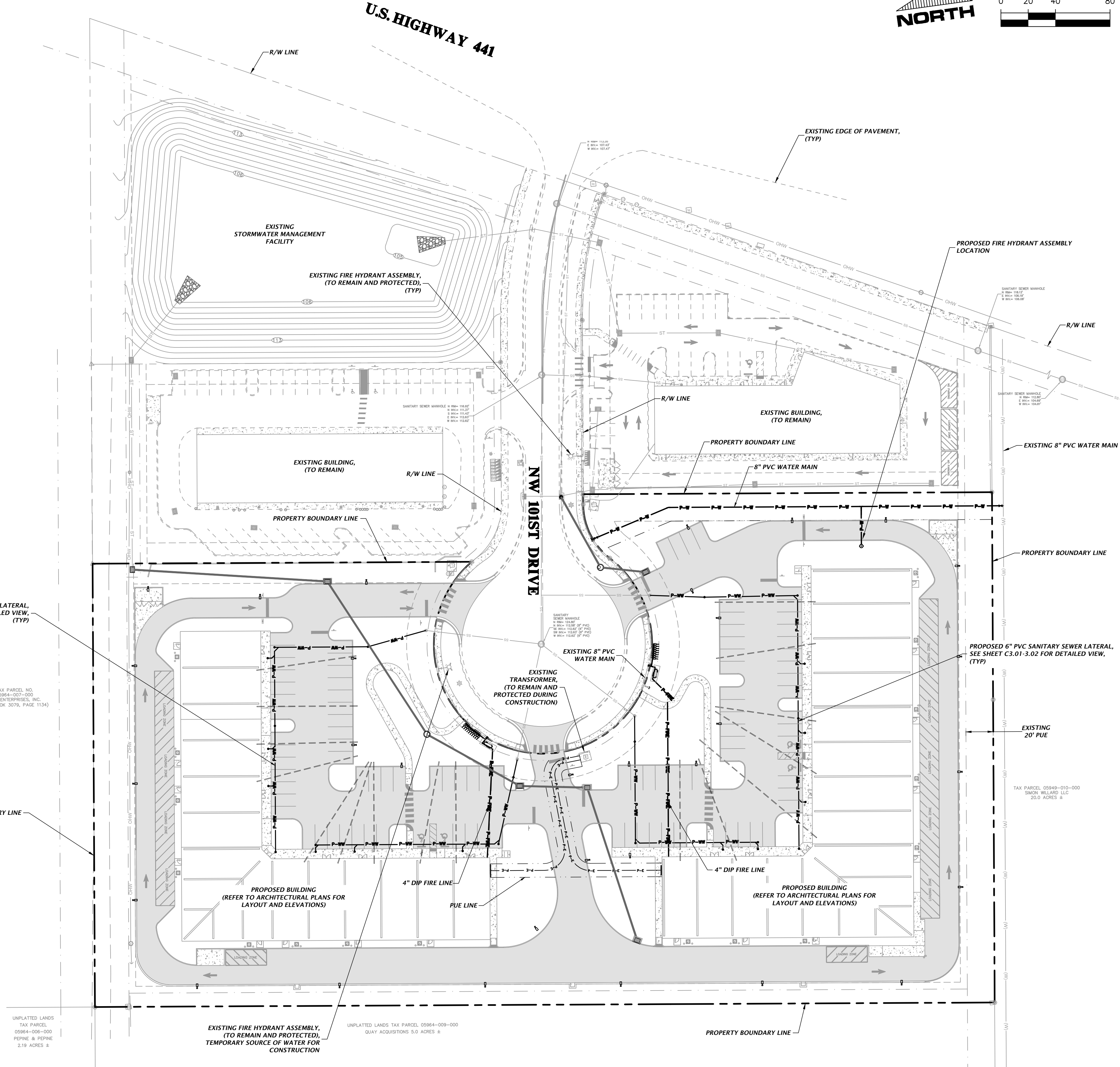
TAX PARCEL NO.  
05964-007-000  
GBC ENTERPRISES, INC.  
(O.R. BOOK 3079, PAGE 1134)

PROPERTY BOUNDARY LINE

EXISTING FIRE HYDRANT ASSEMBLY,  
(TO REMAIN AND PROTECTED),  
TEMPORARY SOURCE OF WATER FOR  
CONSTRUCTION

UNPLATTED LANDS  
TAX PARCEL  
05964-006-000  
PEPINE & PEPINE  
2.19 ACRES ±

UNPLATTED LANDS TAX PARCEL 05964-009-000  
QUAY ACQUISITIONS 5.0 ACRES ±



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**1"=40'**  
PER SCALE  
BASED ON  
ORIGINAL DRAWING  
0 1 2 3 4 5 6 7 8 9 10  
DO NOT SCALE DRAWING  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

CONSTRUCTION/BD RELEASE

REVISIONS

12/20/17 - CITY OF ALACHUA AND SRWMD  
08/06/18 - CITY OF ALACHUA  
10/18/18 - CITY OF ALACHUA  
12/17/18 - CITY OF ALACHUA

CLIENT: BNW HOLDINGS, LLC

PROJECT: INDUSTRIAL PARK LOTS  
UPLAND 2, 3, 4, AND 5

QUALITY CONTROL: D. YOUNG

PROJECT NUMBER: 17-0357

SHEET TITLE: MASTER UTILITY PLAN

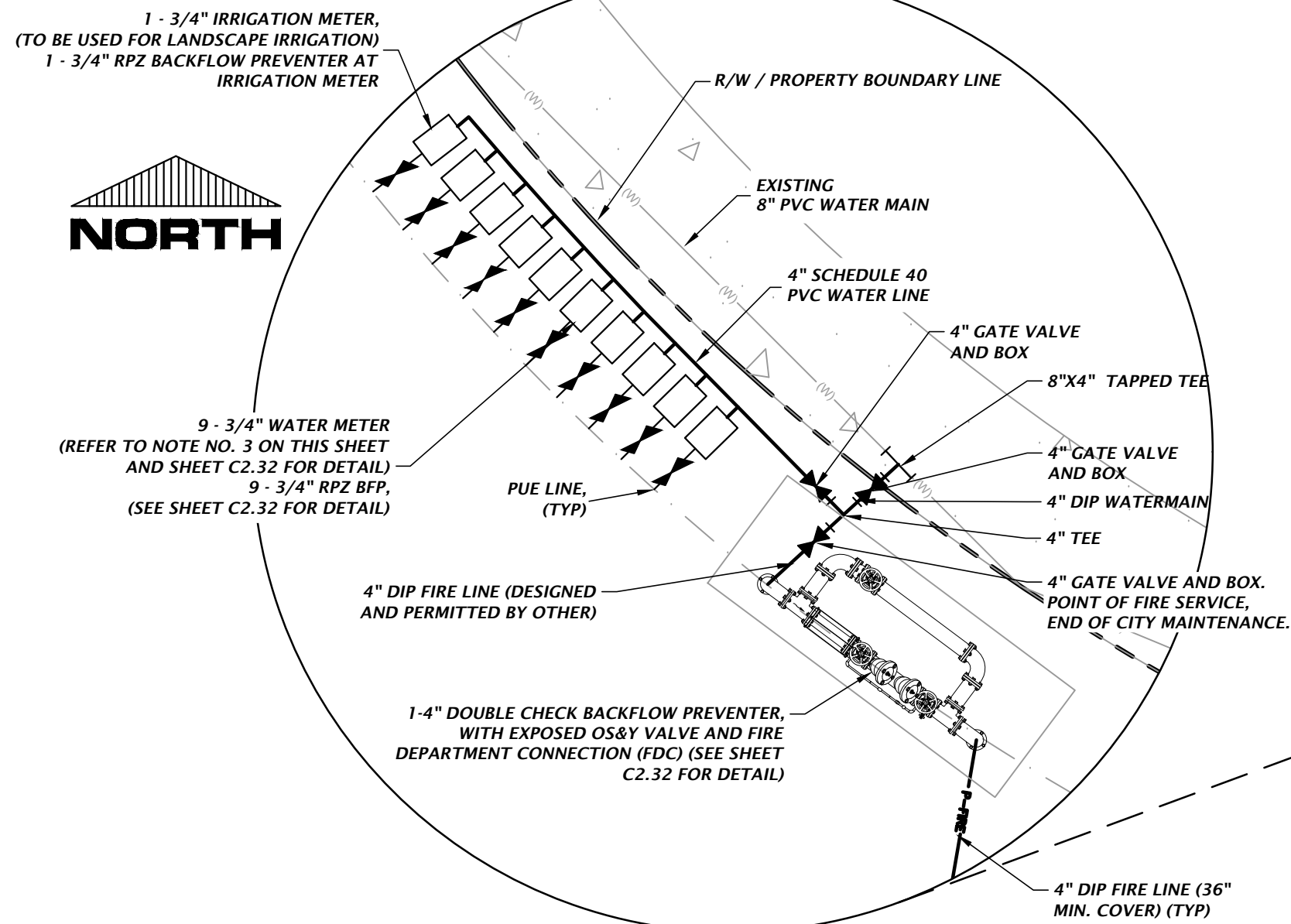
FL PE No. 70780

SHEET NO. 7

C3.00

GENERAL NOTES:

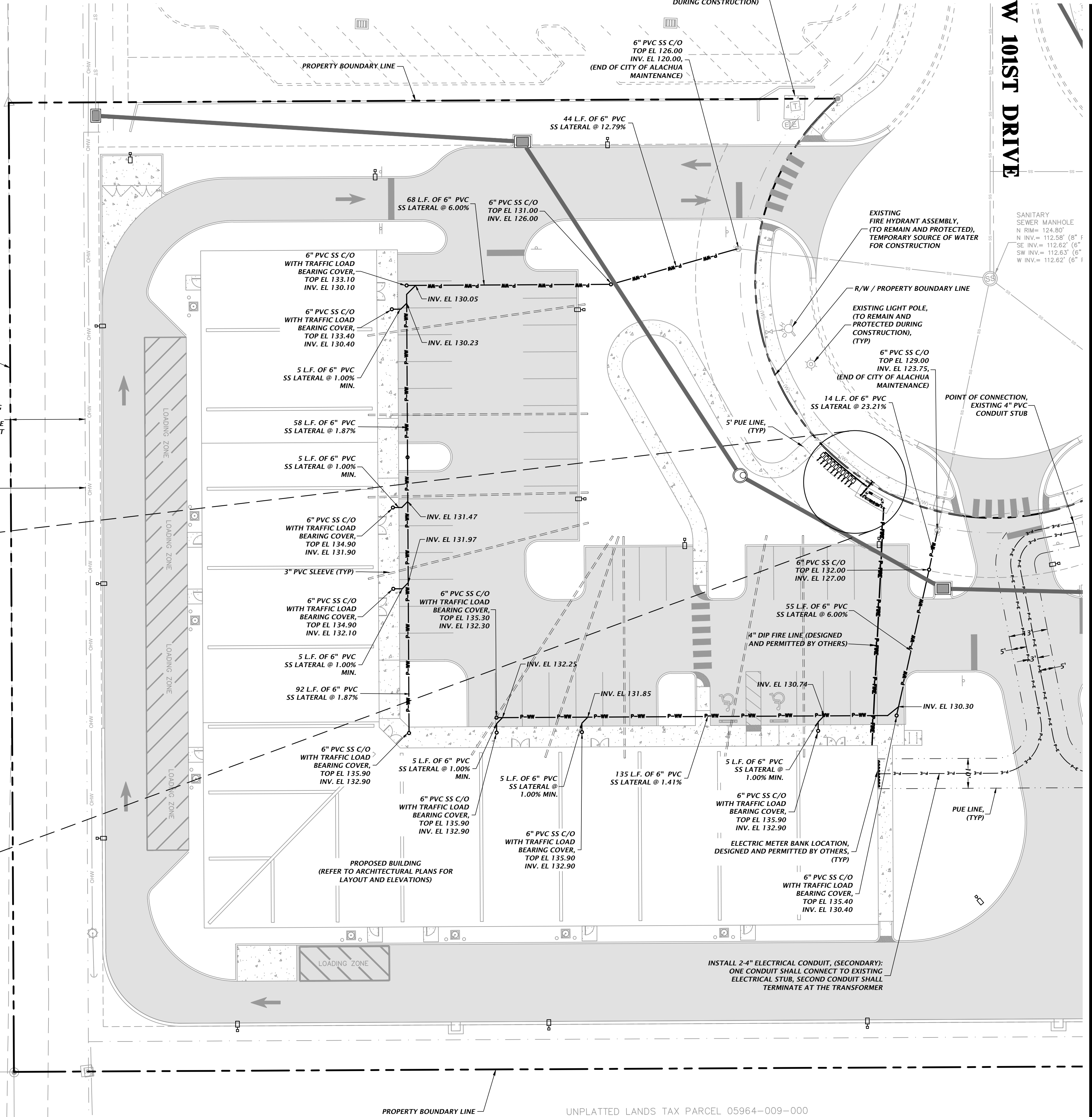
1. WATER AND SEWER SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF ALACHUA UTILITY STANDARDS AND CONSTRUCTION SPECIFICATIONS.
2. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL WORK WITH THE CITY OF ALACHUA ELECTRICAL SYSTEM PERSONNEL.
3. WATER METERS PROVIDED BY THE CITY OF ALACHUA AFTER PAYMENT OF APPLICABLE FEES AND CHARGES BY APPLICANT/DEVELOPER.
4. CONTRACTOR SHALL INSTALL FREEZE PROTECTION AND LOCKING TAMPERING DEVICE FOR THE FIRE LINE BACKFLOW PREVENTER ASSEMBLY. THE FREEZE PROTECTION SYSTEM SHALL NOT IMPEDE ACCESS TO TEST PORTS, VALVES, OR NAME PLATE, IT SHALL NOT TRAP MOISTURE AGAINST THE BACKFLOW PREVENTER AND SHALL PROVIDE PROTECTION AGAINST TEMPERATURE BELOW 40 DEGREES F. THE FREEZE PROTECTION INSULATION SHALL BE PROTECTED WITH A HARD SHELL, REMOVABLE, AND WATERPROOF MATERIAL.
5. ALL DISTURBED AREAS WITHIN R/W SHALL BE SODED.
6. ALL DISTURBED AREAS WITHIN PUE SHALL BE FINE GRADED/RESTORED AS WELL AS SEEDED/MULCHED.
7. CONTRACTOR SHALL INVESTIGATE AND VERIFY OR HAVE VERIFIED THE LOCATION OF UTILITIES BEFORE STARTING WORK. ANY CONFLICTS WITH EXISTING UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AND GRU W/WW ENGINEERING AS SOON AS POSSIBLE IN ORDER TO VERIFY THE ELEVATION AND LOCATION OF THE EXISTING CONDITION.
8. WATER SERVICE INSTALLATION SHALL BE CONSTRUCTED WITH 3 FEET OF COVER BELOW PROPOSED GRADE.
9. REFER TO ARCHITECTURAL AND MEP PLANS FOR INTERNAL UTILITY DESIGN BUILDING CONNECTIONS.
10. ALL AIR CONDITIONING CONDENSATE WATER DRAIN LINES SHALL NOT FLOW TO SANITARY SEWER SYSTEM (NW) AND SHALL DISCHARGE ON TO GRASS AROUND BUILDING.
11. ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED UNLESS OTHERWISE NOTED.
12. ALL SANITARY SEWER LATERAL SHALL MAINTAIN 1% MINIMUM SLOPE.



POTABLE WATER  
CONNECTION AND WATER  
METER DETAIL NO. 1

SCALE: 1"=5'

LANDS  
CEL  
i-000  
EPINE



SEE SHEET C3.02 FOR CONTINUATION

SEE SHEET C3.02 FOR CONTINUATION

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1"=20'  
0' 10' 20' 30' 40' 50' 60' 70' 80' 90' 100'  
1"=20'  
0' 10' 20' 30' 40' 50' 60' 70' 80' 90' 100'

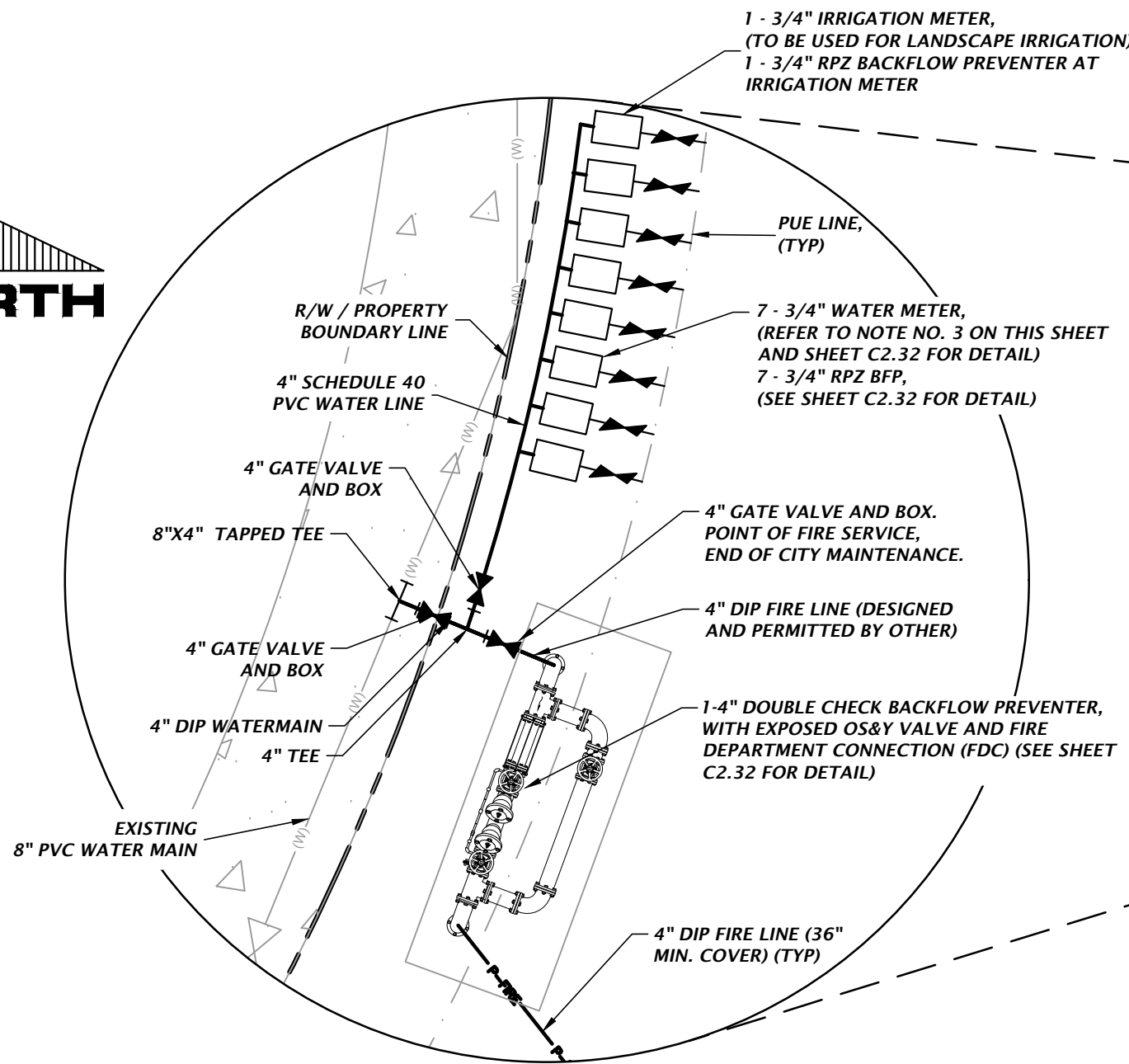
CONSTRUCTION/BBU RELEASES

CLIENT: BNW HOLDINGS, LLC  
PROJECT: INDUSTRIAL PARK LOTS  
SHEET TITLE: DETAILED UTILITY PLAN

DESIGNED BY: J. THOMAS  
CHECKED BY: J. THOMAS  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 17-0357

DANIEL H. YOUNG  
FL PE No. 70780  
JAN 14 2019  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

FL PE No. 70780  
SHEET NO. 7  
C3.10



## POTABLE WATER CONNECTION AND WATER METER DETAIL NO. 2

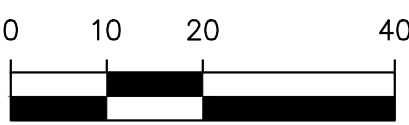
SCALE: 1"=5'

### GENERAL NOTES:

1. WATER AND SEWER SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF ALACHUA UTILITY STANDARDS AND CONSTRUCTION SPECIFICATIONS.
2. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL WORK WITH THE CITY OF ALACHUA ELECTRICAL SYSTEM PERSONNEL.
3. WATER METERS PROVIDED BY THE CITY OF ALACHUA AFTER PAYMENT OF APPLICABLE FEES AND CHARGES BY APPLICANT/DEVELOPER.
4. CONTRACTOR SHALL INSTALL FREEZE PROTECTION AND LOCKING TAMPERING DEVICE FOR THE FIRE LINE BACKFLOW PREVENTER ASSEMBLY. THE FREEZE PROTECTION SYSTEM SHALL NOT IMPEDE ACCESS TO TEST PORTS, VALVES, OR NAME PLATE. IT SHALL NOT TRAP MOISTURE AGAINST THE BACKFLOW PREVENTER AND SHALL PROVIDE PROTECTION AGAINST TEMPERATURE BELOW 40 DEGREES F. THE FREEZE PROTECTION INSULATION SHALL BE PROTECTED WITH A HARD SHELL, REMOVABLE, AND WATERPROOF MATERIAL.
5. ALL DISTURBED AREAS WITHIN R/W SHALL BE SODDED.
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7. CONTRACTOR SHALL INVESTIGATE AND VERIFY OR HAVE VERIFIED THE LOCATION OF UTILITIES BEFORE STARTING WORK. ANY CONFLICTS WITH EXISTING UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AND GRU W/WW ENGINEERING AS SOON AS POSSIBLE IN ORDER TO VERIFY THE ELEVATION AND LOCATION OF THE EXISTING CONDITION.
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9. REFER TO ARCHITECTURAL AND MEP PLANS FOR INTERNAL UTILITY DESIGN BUILDING CONNECTIONS.
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11. ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED UNLESS OTHERWISE NOTED.
12. ALL SANITARY SEWER LATERAL SHALL MAINTAIN 1% MINIMUM SLOPE.

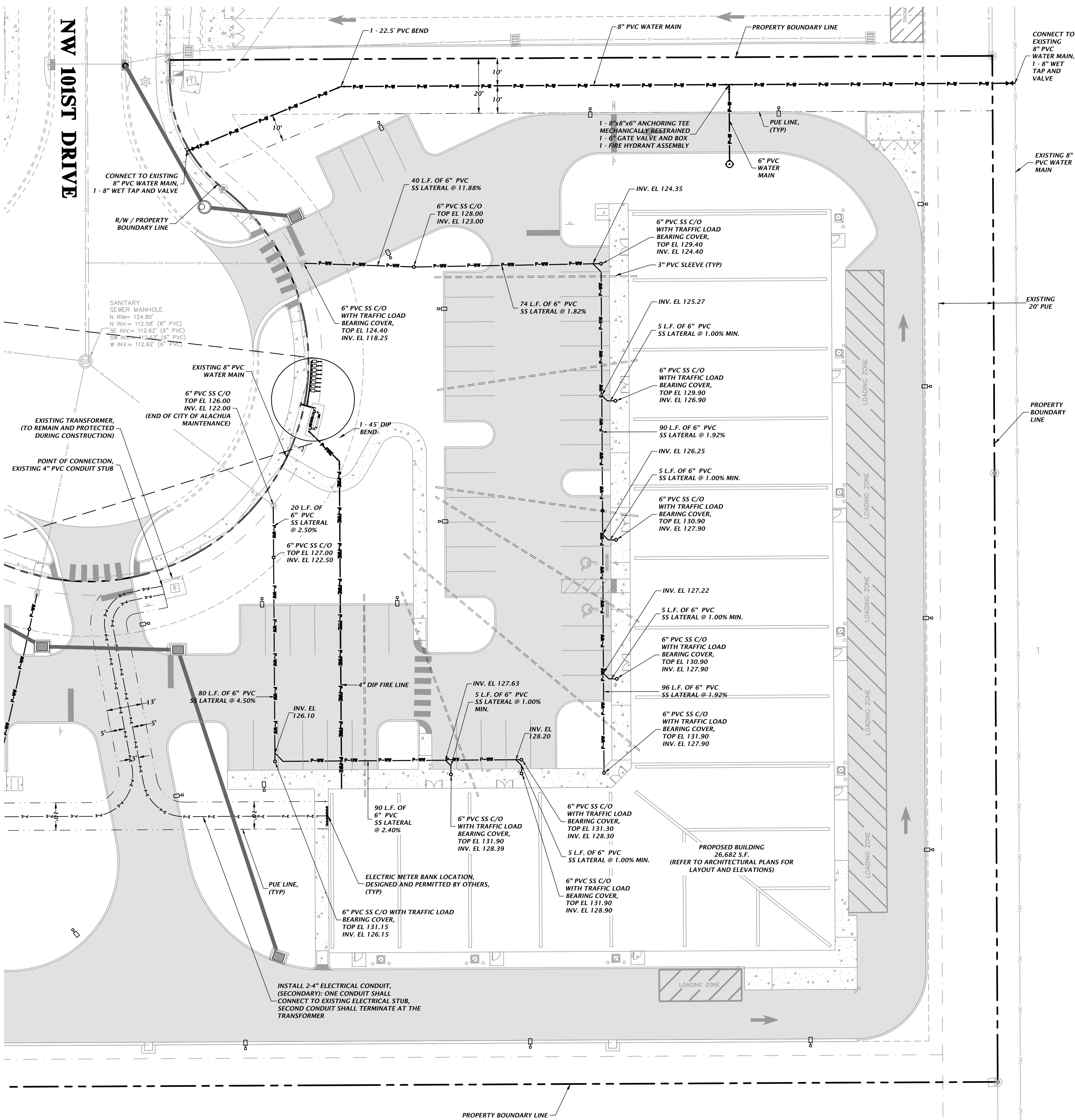


### GRAPHIC SCALE



SEE SHEET C3.01 FOR CONTINUATION

SEE SHEET C3.01 FOR CONTINUATION



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GRAPHIC SCALE  
1"=20'  
DO NOT SCALE DIMENSIONS  
ON THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

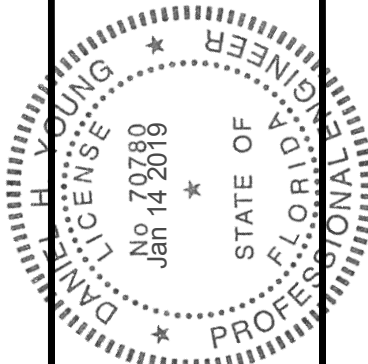
CONSTRUCTION/BDI RELEASES

REVISIONS  
12/20/17 - CITY OF ALACHUA AND SRWMD  
08/06/18 - CITY OF ALACHUA  
10/18/18 - CITY OF ALACHUA  
12/17/18 - CITY OF ALACHUA

CLIENT: BNW HOLDINGS, LLC  
PROJECT: INDUSTRIAL PARK LOTS  
UPLAND 2, 3, 4, AND 5  
SHEET TITLE: DETAILED UTILITY PLAN

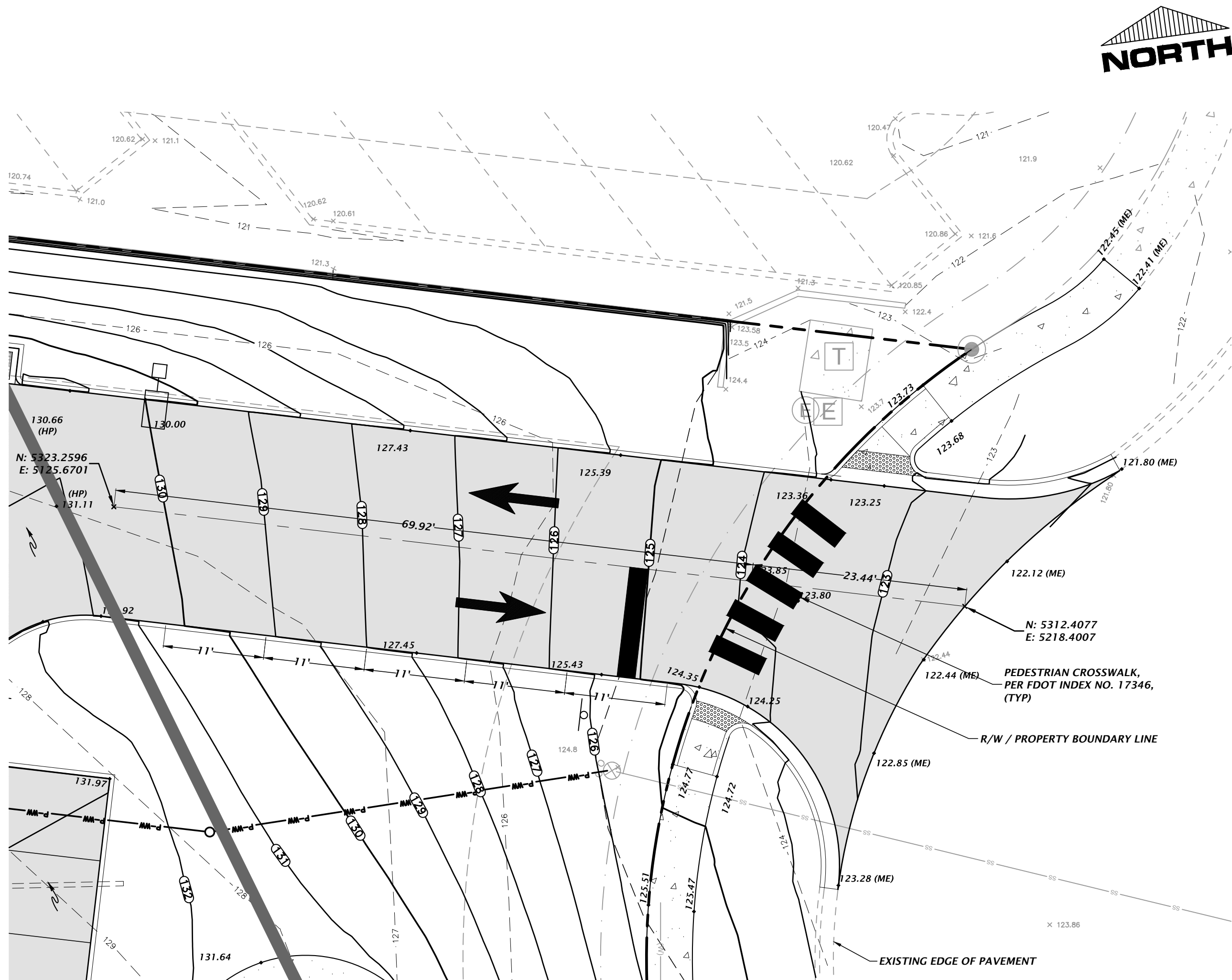
DESIGNED BY: J. THOMAS  
CHECKED BY: J. THOMAS  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 17-0357

DANIEL H. YOUNG



FL PE No. 70780

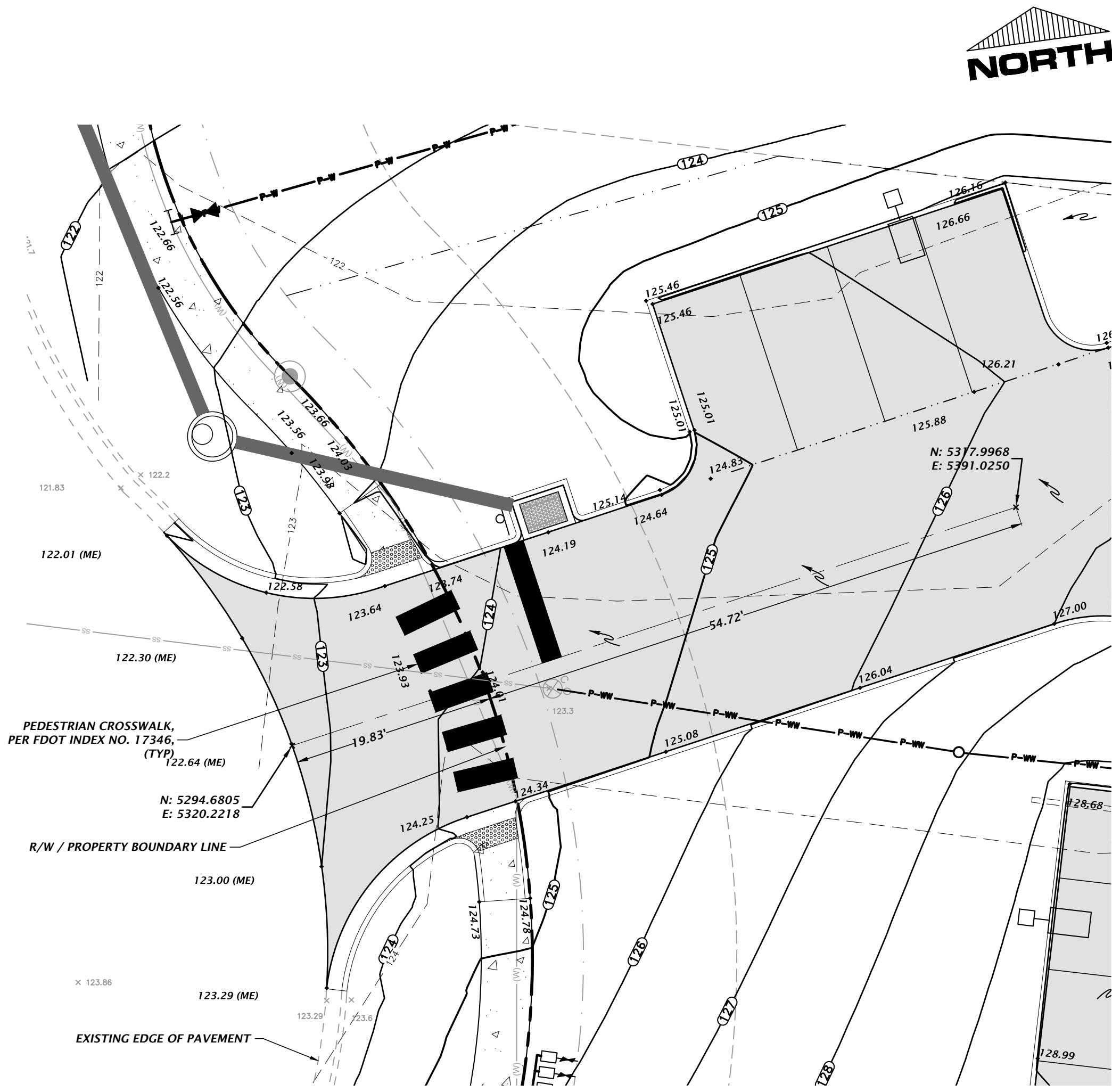
SHEET NO. C3.11



DRIVEWAY CONNECTION  
PLAN VIEW A-A

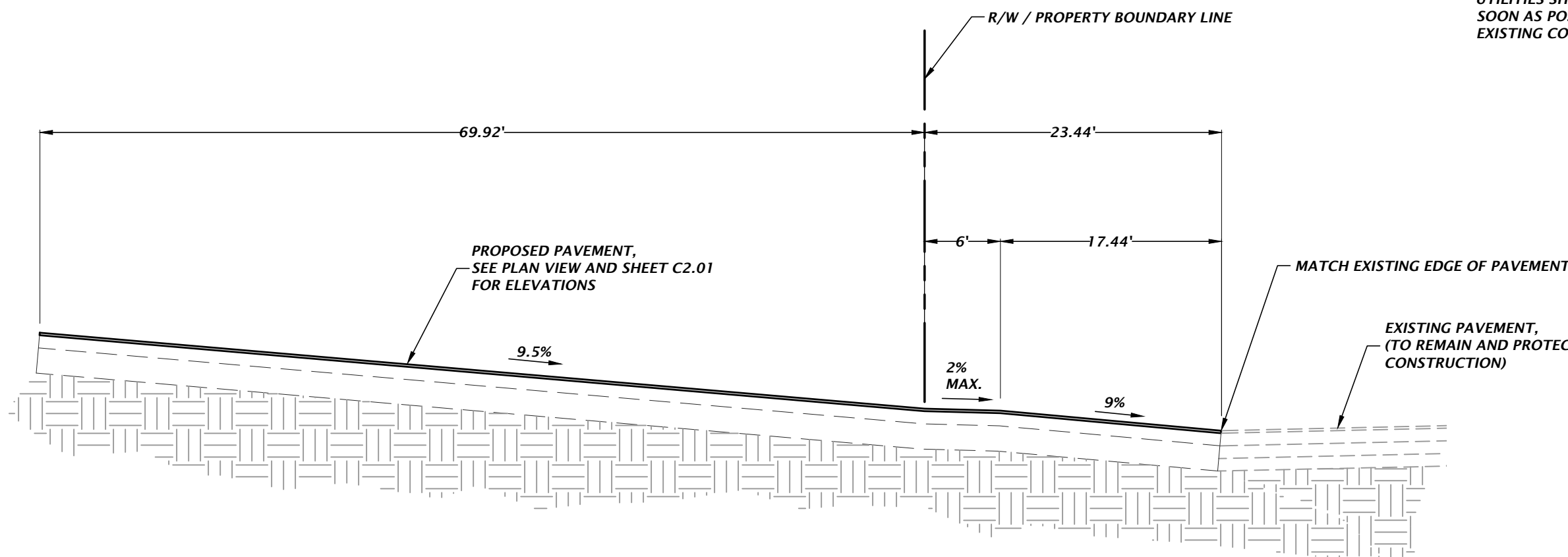
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NW 76TH DRIVE



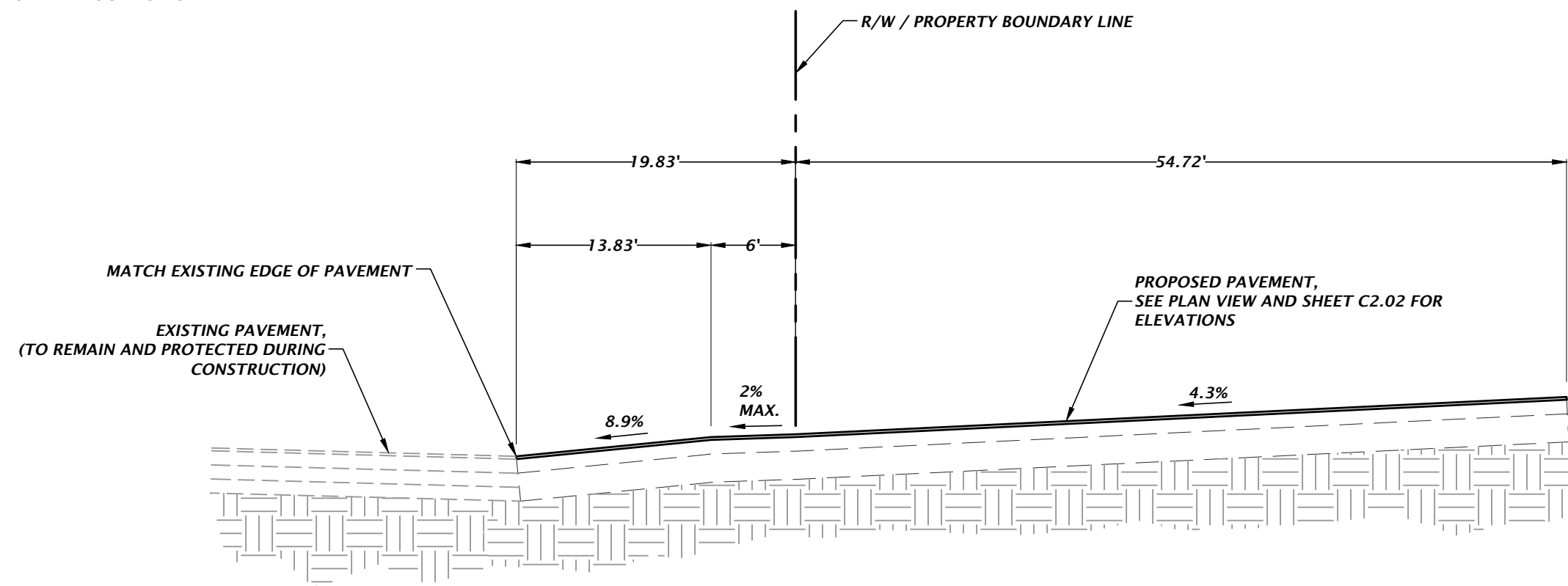
DRIVEWAY CONNECTION  
PLAN VIEW B-B

SCALE: 1"=10'



DRIVEWAY CONNECTION  
PROFILE VIEW A-A

SCALE: 1"=10'



DRIVEWAY CONNECTION  
PROFILE VIEW B-B

SCALE: 1"=10'

LEGEND:

LIMITS OF PROPOSED PAVEMENT,  
SEE SHEET C2.30 FOR DETAIL

GENERAL NOTES:

1. ALL DISTURBED AREAS TO BE SODDED WITH COMMON BERMUDA, FINE GRADE PRIOR TO SODDING.
2. REMOVE AND REPLACE EXISTING PAVEMENT MARKINGS AS NEEDED.
3. ALL TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. CONTRACTOR SHALL INVESTIGATE AND VERIFY OR HAVE VERIFIED THE LOCATION OF EXISTING UTILITIES BEFORE STARTING WORK, AND CONFLICT WITH EXISTING UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AS SOON AS POSSIBLE IN ORDER TO VERIFY THE ELEVATION AND LOCATION OF THE EXISTING CONDITION.

11801 Research Drive  
Alachua, Florida 32615  
(352) 331-1976  
www.chw-inc.com  
est. 1988 FLORIDA  
CA-5075

CHW  
Professional Consultants

SCALE: 1"=10'  
VERIFY SCALE  
BASED ON  
ORIGINAL DRAWING  
0. IF ANY SCALE MISMATCH  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

CONSTRUCTION/BD RELEASE

REVISIONS  
12/20/17 - CITY OF ALACHUA AND SRWMD  
08/06/18 - CITY OF ALACHUA  
10/18/18 - CITY OF ALACHUA  
12/17/18 - CITY OF ALACHUA

CLIENT: BNW HOLDINGS, LLC  
PROJECT: INDUSTRIAL PARK LOTS  
UPLAND 2, 3, 4, AND 5

DESIGNER: J. THOMAS  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 17-0357

DANIEL H. YOUNG

STATE OF FLORIDA

PROFESSIONAL ENGINEER

FL PE No. 70780

SHEET NO: C5.00

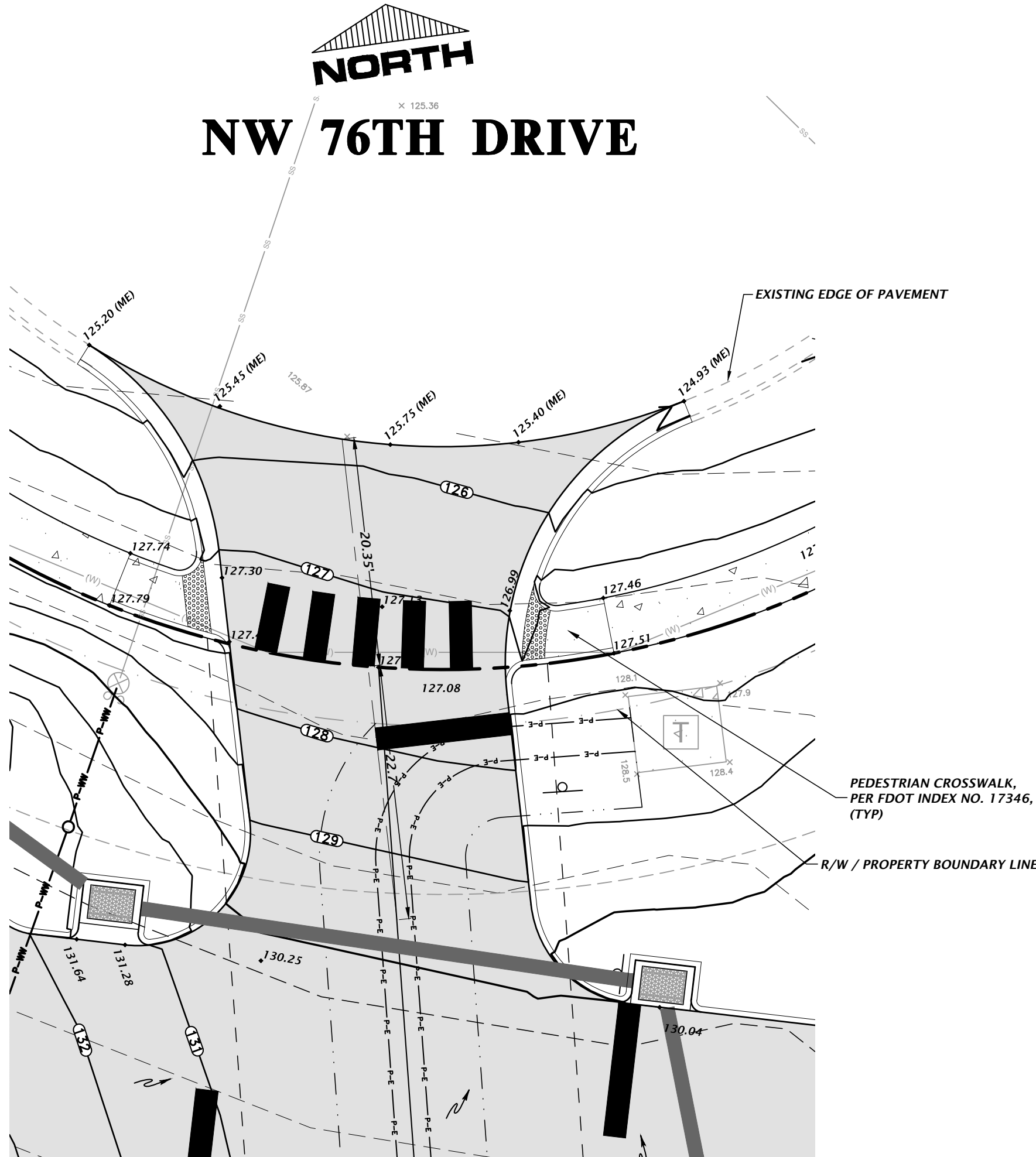
A

B

C

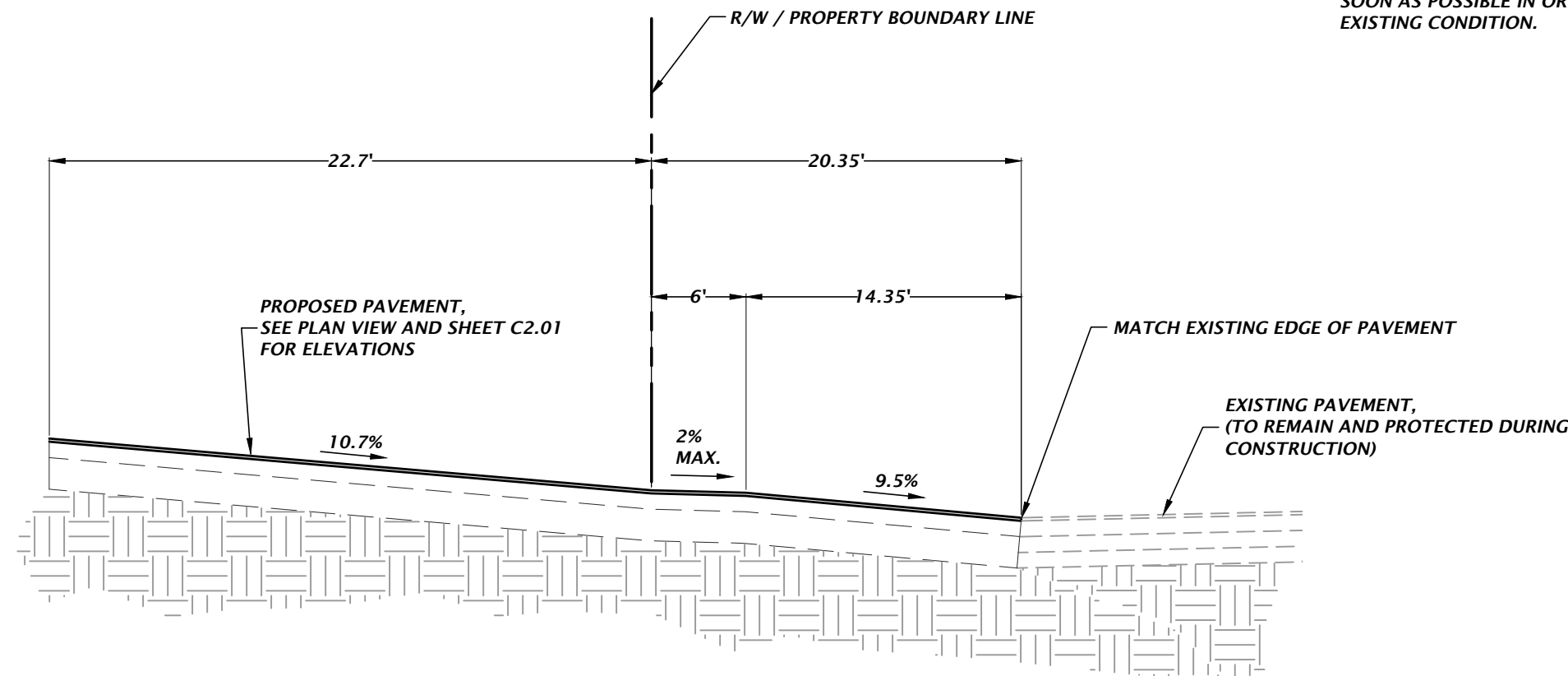
D

Test: bryong Plot Date: Dec 19, 2018 8:21am Filename: L:\2017\17-0357\Engineering\DWG\Production File\A\17-0357\_C5.00\_C5.dwg



### DRIVEWAY CONNECTION PLAN VIEW C-C

SCALE: 1"=10'



### DRIVEWAY CONNECTION PROFILE VIEW C-C

SCALE: 1"=10'

#### LEGEND:

LIMITS OF PROPOSED PAVEMENT,  
SEE SHEET C2.30 FOR DETAIL

#### GENERAL NOTES:

1. ALL DISTURBED AREAS TO BE SODDED WITH COMMON BERMUDA, FINE GRADE PRIOR TO SODDING.
2. REMOVE AND REPLACE EXISTING PAVEMENT MARKINGS AS NEEDED.
3. ALL TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. CONTRACTOR SHALL INVESTIGATE AND VERIFY OR HAVE VERIFIED THE LOCATION OF EXISTING UTILITIES BEFORE STARTING WORK, AND CONFLICT WITH EXISTING UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD AS SOON AS POSSIBLE IN ORDER TO VERIFY THE ELEVATION AND LOCATION OF THE EXISTING CONDITION.

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est. 1988 **FLORIDA**  
CA-5075

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SCALE: 1"=10'

VERIFY SCALE ON  
PAPER SCALE ON  
ORIGINAL DRAWING  
0 1"=10' 2"=10' 4"=10' 8"=10'  
DO NOT SCALE DRAWING  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

CONSTRUCTION/BD RELEASE

12/20/17 - CITY OF ALACHUA AND SRWMD  
08/06/18 - CITY OF ALACHUA  
10/18/18 - CITY OF ALACHUA  
12/17/18 - CITY OF ALACHUA

CLIENT: BNW HOLDINGS, LLC  
PROJECT: INDUSTRIAL PARK LOTS  
2, 3, 4, AND 5  
SHEET TITLE: DRIVEWAY CONNECTION

DESIGNER: J. THOMAS  
QUALITY CONTROL: D. YOUNG  
PROJECT NUMBER: 17-0357

DANIEL H. YOUNG  
LICENSED PROFESSIONAL ENGINEER  
NO. 70780  
JAN 14 2019  
STATE OF FLORIDA

FL PE No. 70780  
SHEET NO: C5.01

30% LANDSCAPED AREA REQUIREMENT  
PER CITY OF ALACHUA COMPREHENSIVE PLAN FUTURE LAND USE  
ELEMENT, OBJECTIVE 2.4, POLICY 2.4.A

|                                           |                      |
|-------------------------------------------|----------------------|
| TOTAL SITE AREA.....                      | 209,959 S.F.         |
| TOTAL PROPOSED LANDSCAPED AREA.....       | 67,274 S.F.          |
| LANDSCAPED AREA % OF TOTAL SITE AREA..... | 32.04%<br>(MIN. 30%) |

PARKING AREA LANDSCAPE REQUIREMENTS [Sec. 6.2.2(D)(2)(a) & (b)]

| DESCRIPTION                      | LANDSCAPE REQUIRED                                                                                                                                                                                                         | LANDSCAPE PROVIDED                                                                           |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| PARKING AREA PERIMETER LANDSCAPE | PARKING PERIMETER = 414 L.F.<br>4 CANOPY TREES PER 100 L.F.<br>2 UNDERSTORY/ORNAMENTAL PER 100 L.F.<br>CONTINUOUS ROW OF SHRUBS<br><br>17 CANOPY TREES REQUIRED<br>8 UNDERSTORY TREES REQUIRED<br>CONTINUOUS ROW OF SHRUBS | 17 CANOPY TREES PROVIDED<br>8 UNDERSTORY TREES PROVIDED<br>CONTINUOUS ROW OF SHRUBS PROVIDED |
| INTERIOR PARKING AREA LANDSCAPE  | PARKING AREA = 30,631 S.F.<br>1 CANOPY TREE REQUIRED PER 2,000 S.F.<br>10 SHRUBS REQUIRED PER CANOPY TREE REQUIRED<br><br>16 CANOPY TREES REQUIRED<br>160 SHRUBS REQUIRED                                                  | 16 CANOPY TREES PROVIDED<br>160 SHRUBS PROVIDED                                              |

SITE LANDSCAPE CALCULATIONS [Sec. 6.2.2(D)(1)(c)]

| DESCRIPTION                            | TREE REQUIREMENTS                                                                                                                                                                  | TREES PROVIDED                                                                                                                                                     |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRIMARY SIDE CANOPY TREES (NORTH SIDE) | 3 TREES PER ACRE X 4.82 ACRES = 15 CANOPY TREES REQUIRED                                                                                                                           | 45 CANOPY TREES PROVIDED                                                                                                                                           |
| REAR SIDE CANOPY TREES (SOUTH SIDE)    | 2 TREES PER ACRE X 4.82 ACRES = 10 TREES REQUIRED                                                                                                                                  | 13 CANOPY TREES PROVIDED                                                                                                                                           |
| EAST SIDE CANOPY TREES                 | 2 TREES PER ACRE X 4.82 ACRES = 10 TREES REQUIRED                                                                                                                                  | 10 CANOPY TREES PROVIDED                                                                                                                                           |
| WEST SIDE CANOPY TREES                 | 2 TREES PER ACRE X 4.82 ACRES = 10 TREES REQUIRED                                                                                                                                  | 10 CANOPY TREES PROVIDED                                                                                                                                           |
| SITE UNDERSTORY TREES                  | 6 UNDERSTORY TREES PER ACRE X 4.82 ACRES = 29 TREES REQUIRED<br><br>50% IN FRONT = 15 TREES REQUIRED<br>25% ON EAST SIDE = 7 TREES REQUIRED<br>25% ON WEST SIDE = 7 TREES REQUIRED | FRONT SIDE<br>15 UNDERSTORY TREES PROVIDED<br>EAST SIDE<br>7 UNDERSTORY TREES PROVIDED<br>WEST SIDE<br>7 UNDERSTORY TREES PROVIDED<br>29 UNDERSTORY TREES PROVIDED |
| BUILDING FACADE                        | 647 LINEAR FEET<br>4 CANOPY TREES PER 100 LIN. FT. REQUIRED = 26 CANOPY TREES REQUIRED + ROW OF SHRUBS                                                                             | 26 CANOPY TREES PROVIDED                                                                                                                                           |

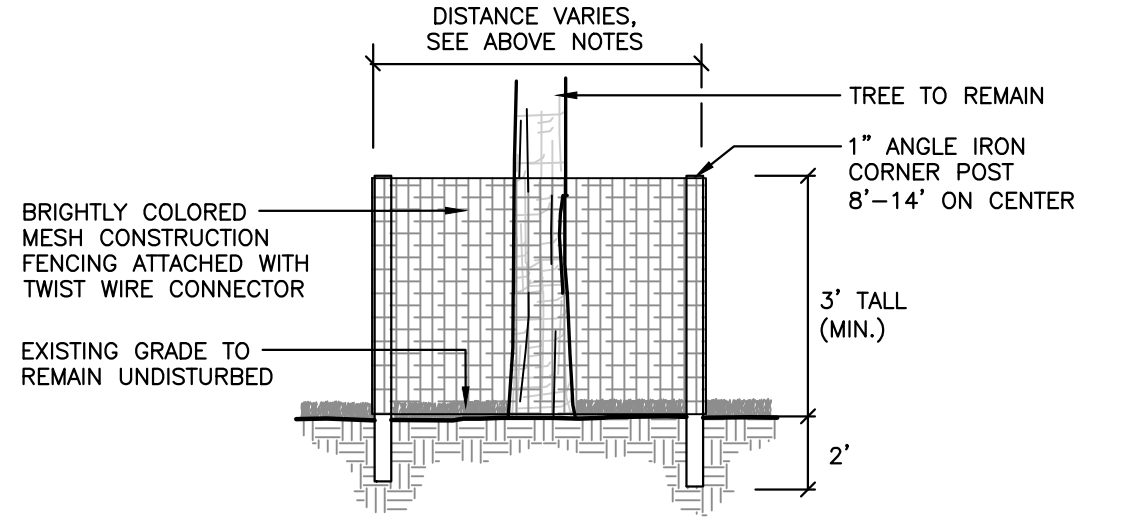
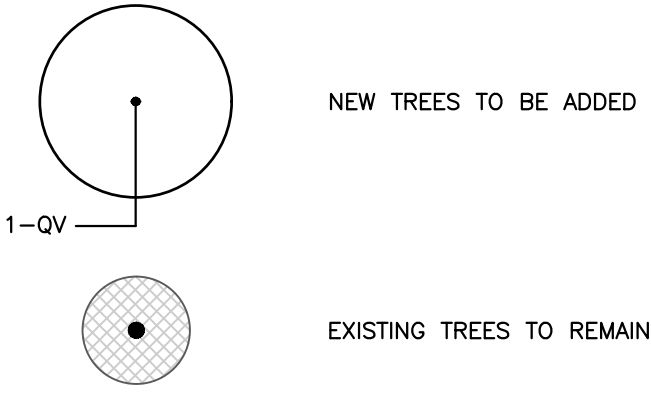
PERIMETER BUFFER LANDSCAPE REQUIREMENTS [Section 6.2.2(D)(3)]

| LOCATION           | BUFFER LENGTH & TYPE        | LANDSCAPE REQUIRED                                                                                                       | LANDSCAPE PROVIDED                                       |
|--------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| NORTHERN PERIMETER | 578 L.F.<br>BUFFER TYPE 'B' | ONE CANOPY TREE PER 40 LIN. FT. + CONTINUOUS HEDGE = 15 CANOPY TREES REQUIRED PLUS CONTINUOUS HEDGE                      | 15 CANOPY TREES PROVIDED<br>CONTINUOUS HEDGE PROVIDED    |
| WESTERN PERIMETER  | 325 L.F.<br>BUFFER TYPE 'B' | ONE CANOPY TREE PER 50 LIN. FT. + ONE UNDERSTORY TREE PER 40 LIN. FT. = 7 CANOPY TREES AND 8 UNDERSTORY TREES REQUIRED   | 7 CANOPY TREES PROVIDED<br>8 UNDERSTORY TREES PROVIDED   |
| SOUTHERN PERIMETER | 660 L.F.<br>BUFFER TYPE 'B' | ONE CANOPY TREE PER 50 LIN. FT. + ONE UNDERSTORY TREE PER 40 LIN. FT. = 13 CANOPY TREES AND 17 UNDERSTORY TREES REQUIRED | 13 CANOPY TREES PROVIDED<br>17 UNDERSTORY TREES PROVIDED |
| EASTERN PERIMETER  | 374 L.F.<br>BUFFER TYPE 'A' | ONE CANOPY TREE PER 60 LIN. FT. + ONE UNDERSTORY TREE PER 60 LIN. FT. = 7 CANOPY TREES AND 7 UNDERSTORY TREES REQUIRED   | 7 CANOPY TREES PROVIDED<br>7 UNDERSTORY TREES PROVIDED   |

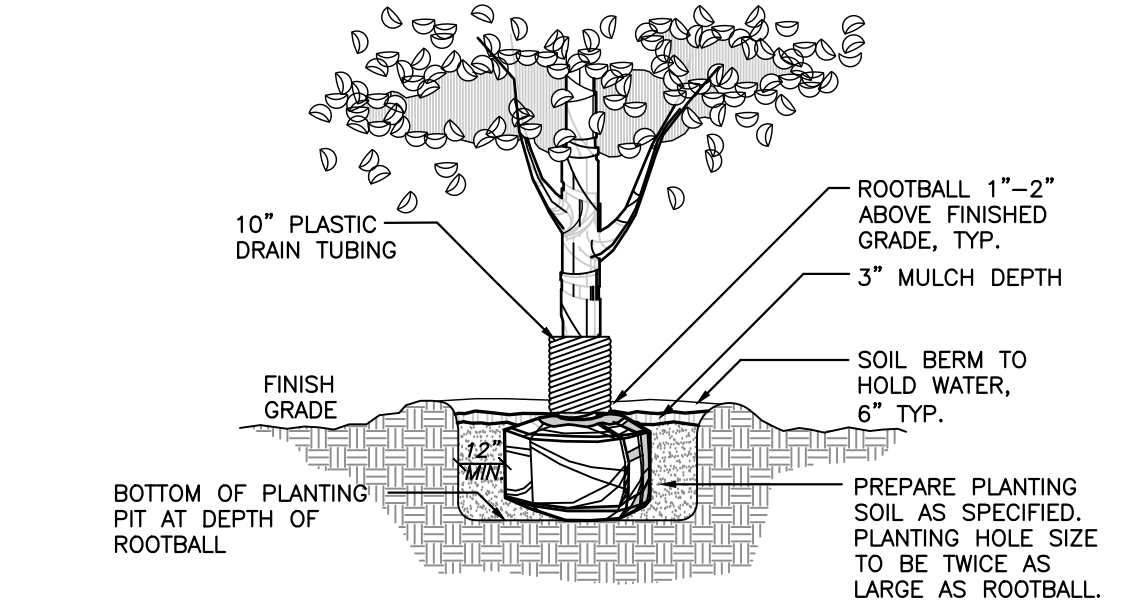
PLANT SCHEDULE

| TREES    | QTY | BOTANICAL NAME                                | COMMON NAME                     | SIZE                         |
|----------|-----|-----------------------------------------------|---------------------------------|------------------------------|
| INS      | 6   | ILEX X 'NELLIE R. STEVENS'                    | NELLIE R. STEVENS HOLLY         | 1.5" CALIPER, MIN.           |
| LIN      | 22  | LAGERSTROEMIA INDICA 'NATCHEZ'                | NATCHEZ CRAPE MYRTLE            | 1.5" CALIPER, MIN.           |
| LIT      | 12  | LAGERSTROEMIA INDICA 'TUSKEGEE'               | TUSKEGEE CRAPE MYRTLE           | 1.5" CALIPER, MIN.           |
| LT       | 13  | LIRIODENDRON TULIPIFERA                       | TULIP TREE                      | 8' HEIGHT, MIN.              |
| MGB      | 39  | MAGNOLIA GRANDIFLORA 'BRACKEN'S BROWN BEAUTY' | BRACKEN'S BROWN BEAUTY MAGNOLIA | 8' HEIGHT, MIN.              |
| MGL      | 24  | MAGNOLIA GRANDIFLORA 'LITTLE GEM'             | LITTLE GEM MAGNOLIA             | 8' HEIGHT, MIN.              |
| PA       | 8   | PRUNUS ANGUSTIFOLIA                           | CHICKASAW PLUM                  | 1.5" CALIPER, MIN.           |
| QA       | 15  | QUERCUS AUSTRINA                              | BLUFF OAK                       | 8' HEIGHT, MIN.              |
| QVC      | 13  | QUERCUS VIRGINIANA 'CATHEDRAL'                | CATHEDRAL LIVE OAK              | 8' HEIGHT, MIN.              |
| SHRUBS   | QTY | BOTANICAL NAME                                | COMMON NAME                     | SIZE                         |
| IDB      | 345 | ILEX CORNUTA 'DWARF BURFORDII'                | DWARF BURFORD HOLLY             | 3 GAL, 24" HT X 16" SPR      |
| PM       | 53  | PODOCARPUS MACROPHYLLUS                       | PODOCARPUS                      | 3 GAL, 24" HT X 12" SPR      |
| VOS      | 399 | VIBURNUM OBOVATUM 'MRS. SCHILLER'S DELIGHT'   | MRS. SCHILLERS DELIGHT VIBURNUM | 3 GAL, 18" HT X 18" SPR      |
| SOD/SEED |     | BOTANICAL NAME                                | COMMON NAME                     | SIZE                         |
| SOD      |     | PASPALUM NOTATUM 'ARGENTINE'                  | BAHIA GRASS                     | WEED FREE AND SAND GROWN SOD |

LEGEND



1 TREE PROTECTION DETAIL  
SCALE: N.T.S.



2 TREE PLANTING DETAIL  
SCALE: N.T.S.

**GENERAL NOTES**  
ALL ASPHALT, LIMEROCK, AND CONSTRUCTION DEBRIS TO BE REMOVED FROM PLANTING BEDS AND AREAS TO BE SODDED PRIOR TO LANDSCAPE INSTALLATION. PLANTING DEPTH OF SOIL IN SUCH AREAS SHOULD BE AT LEAST 3'. IF FILL MUST BE ADDED, IT MUST BE FLORIDA CLEAN DEEP FILL (FREE OF WEED SEEDS) SANDY LOAM WITH pH 5.5-6.5.  
  
CANOPY TREES SHALL BE A MINIMUM OF EIGHT (8) FEET IN HEIGHT AND ORNAMENTAL OR UNDERSTORY TREES SHALL HAVE A MINIMUM CALIPER OF ONE AND A HALF (1.5) INCHES, UNLESS OTHERWISE SPECIFIED BY THE LANDSCAPE ARCHITECT.  
  
ALL TREES TO BE PLANTED 1"-2" ABOVE FINISHED GRADE.  
  
ALL LANDSCAPED AREAS TO BE MULCHED WITH 3" THICKNESS OF MULCH. PINE BARK MULCH SHALL BE USED IN ALL AREAS.  
  
LEADER SHOOTS AND MAIN STRUCTURAL LIMBS OF TREES WILL NOT BE TOPPED OR PRUNED. TREES TO BE STAKED AS NEEDED, GUYLINES TO BE NON-SYNTHETIC BIODEGRADABLE MATERIAL.  
  
OWNER SHALL BE RESPONSIBLE FOR (1) THE SURVIVAL OF THE LANDSCAPING ELEMENTS AND (2) REMOVAL OF ALL STAKING SYSTEMS WITHIN ONE YEAR. TREES WILL BE STAKED ONLY IF NECESSARY, AND IF STAKED, BIODEGRADABLE TWINE WILL BE USED.  
  
**GRASSING**  
ALL DISTURBED AND UNPAVED AREAS TO BE GRASSED WITH NOXIOUS WEED AND TROPICAL SODA APPLE FREE SOD OR SEEDED AND MULCHED. SEE CIVIL SITE PLANS FOR ADDITIONAL RELATED INFORMATION.  
  
**PLANT MATERIAL**  
ALL PLANT MATERIAL TO BE FLORIDA NO.1 OR BETTER, GRADED IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS PUBLISHED BY THE STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE.  
  
**10% OPEN SPACE REQUIREMENT**  
CITY OF ALACHUA LDR SECTION 6.7.3 (A) STATES THAT THE MINIMUM OPEN SPACE SET ASIDE SHALL BE 10% OF THE DEVELOPMENT SITE. SEE CIVIL PLANS FOR OPEN SPACE CALCULATIONS.  
  
**IRRIGATION**  
LANDSCAPE IRRIGATION TO BE PROVIDED BY AUTOMATIC IRRIGATION SYSTEM IN ACCORDANCE WITH CITY OF ALACHUA LDR SECTION 6.2.2(D)(6)(B)(V). SEE SHEET IR-1 FOR IRRIGATION DIAGRAM.



UNP  
1-MGB  
LANDS TAX PARCEL 05964-009  
QUAY ACQUISITIONS 5.0 ACRES ±

**GRAPHIC SCALE**

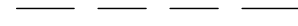
0 15 30 60



A horizontal scale bar with a total length of 60 units. It is divided into four equal segments of 15 units each. The segments alternate in color: black, white, black, and white, starting from the left. Numerical labels 0, 15, 30, and 60 are placed above the bar at their respective positions.

|                           |                                                                                                                         |                                                                                                                                    |                                                                                                                  |                            |        |                                                                                                                                |                                                                                                                                                                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SHEET NO.:<br><b>LS-2</b> | TECHNICIAN<br>SK<br>DESIGNER<br>SK<br>PLANT MATERIAL<br>CT<br>QUALITY CONTROL<br>CT<br>PROJECT NUMBER<br><b>17-0357</b> | CLIENT<br>BNW HOLDINGS, LLC<br>PROJECT: URBAN TOWNHOMES PARK<br>LOTS 2/3 AND 4/5A ALACHUA,<br>FL<br>SHEET TITLE:<br>LANDSCAPE PLAN | COMMENTS:<br>12-21-17 - CITY OF ALACHUA AND S.W.M.D.<br>08-19-18 - CITY OF ALACHUA<br>12-20-18 - CITY OF ALACHUA | CONSTRUCTION AND REVISIONS | SCALE: | 1" = 30'<br>VERY SCALED<br>BAR IS ONE INCH ON<br>DRAWING. DIMENSIONS<br>1"<br>0<br>THIS SHEET, INDUSTRY<br>SCALES ACCORDINGLY. |  Professional Consultants<br>11801 Research Drive<br>Alachua, Florida 32615<br>(850) 351-1100<br>www.ch2m-hill.com<br>est. 1988 <b>FLORIDA</b><br>LC26010664 |
|                           |                                                                                                                         |                                                                                                                                    |                                                                                                                  |                            |        |                                                                                                                                |                                                                                                                                                                                                                                                 |

IRRIGATION\_SCHEDULE

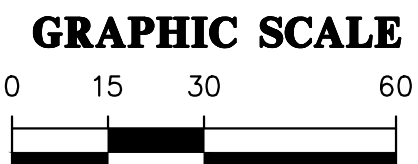
| SYMBOL                                                                            | MANUFACTURER/MODEL/DESCRIPTION          |
|-----------------------------------------------------------------------------------|-----------------------------------------|
|  | Wilkins 975XL 1-1/2" Backflow Preventer |
|  | Hunter IC-1600-PL                       |
|  | Hunter Solar Sync                       |
|  | Water Meter 1-1/2"                      |
|  | Irrigation Mainline: PVC 2" Class 200   |
|  | Pipe Sleeve: PVC Schedule 40            |



TAX PARCEL NO.  
05964-007-000  
C&C ENTERPRISES, INC.  
(O.R. BOOK 3079, PAGE 1134)

UNPLATTED LANDS  
TAX PARCEL  
05964-006-000  
PEPINE & PEPINE  
2.19 ACRES ±

UNPLATTED LANDS TAX PARCEL 05964-009-000  
QUAY ACQUISITIONS 5.0 ACRES ±



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est. 1988 FLORIDA  
LC26000564

**CHW**  
Professional Consultants

SCALE: 1"=30'  
FOR SCALE  
ON  
ORIGINAL DRAWING  
0"=1" SCALE MUST BE  
USED FOR ALL  
THIS SHEET, ADJUST  
SCALES ACCORDINGLY.

CONSTRUCTION/REV. RELEASES

SUBMITTALS  
12-21-17 - CITY OF ALACHUA AND S.W.M.D.  
08-06-18 - CITY OF ALACHUA  
08-18-18 - CITY OF ALACHUA  
12-25-18 - CITY OF ALACHUA

CLIENT: BNW HOLDINGS, LLC  
PROJECT: UPLAND INDUSTRIAL PARK -  
LOTS 2/3 AND 4/5, ALACHUA,  
FL  
SHEET TITLE: IRRIGATION DIAGRAM  
PROJECT NUMBER: 17-0357

DESIGNER: SK  
QUALITY CONTROL: SK  
PROJECT NUMBER: CT

SHEET NO.: IR-1

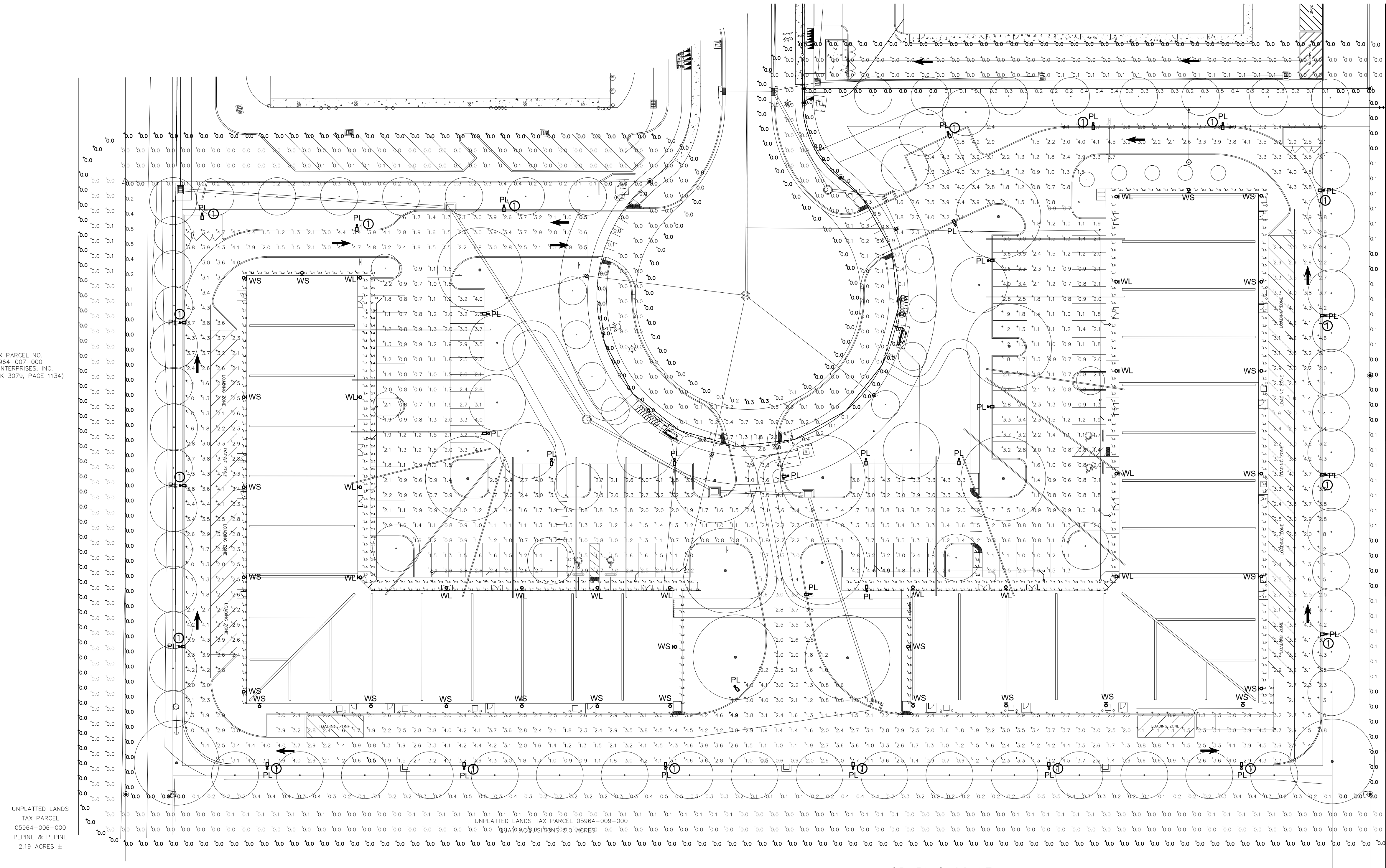
Test: wrok Plot Date: Dec 12, 2018 6:20pm Filename: L:\2017\17-0357\Design\03\_Production\02\_SRF\02\_Current\17-0357 IR Base.dwg

| LUMINAIRE SCHEDULE FOR PHOTOMETRICS |       |     |              |                          |                                                                                               |                                            |                                |        |      |       |    |
|-------------------------------------|-------|-----|--------------|--------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------|--------|------|-------|----|
| Symbol                              | Label | Qty | Manufacturer | Catalog Number           | Description                                                                                   | Lamp                                       | File                           | Lumens | LLF  | Watts | MH |
| ⬢                                   | PL    | 32  | LEOTEK       | AR13-10M2-MV-NW-3-XX-530 | Leotek Electronics - Pole arm mount roadway luminaire. Product ID: ARXX-10M2-MV-NW-3-XX-530 S |                                            | ARXX-10M2-MV-NW-3-XX-530 S.ies | 7780   | 0.81 | 124   | 15 |
| ⊖                                   | WS    | 25  | GARDCO       | 122L-4-55LA-NW           | 122 SlenderForm LED Sconce                                                                    | (1) LIGHT ARRAY OF 32 LEDs DRIVEN AT 530mA | 122-4-55LA-NW.IES              | 4090   | 0.81 | 50    | 15 |
| ⊖                                   | WL    | 15  | GARDCO       | 122L-4-75LA-NW           | 122 SlenderForm LED Sconce                                                                    | (1) LIGHT ARRAY OF 32 LEDs DRIVEN AT 700mA | 122-4-75LA-NW.IES              | 5276   | 0.81 | 70    | 15 |

| PHOTOMETRIC STATISTICS    |        |        |        |        |         |
|---------------------------|--------|--------|--------|--------|---------|
| Description               | Symbol | Avg    | Max    | Min    | Max/Min |
| 25FT BEYOND PROPERTY LINE | +      | 0.0 fc | 0.3 fc | 0.0 fc | N / A   |
| PROPERTY LINE             | +      | 0.2 fc | 2.8 fc | 0.0 fc | N / A   |
| DRIVEWAYS/LOADING         | +      | 2.7 fc | 4.9 fc | 0.5 fc | 9.8:1   |
| PARKING LOT               | +      | 1.8 fc | 4.9 fc | 0.5 fc | 8.2:1   |
| WEST BUILDING WALKWAYS    | +      | 2.5 fc | 4.1 fc | 1.4 fc | 2.9:1   |
| EAST BUILDING WALKWAYS    | +      | 2.4 fc | 6.2 fc | 0.7 fc | 8.9:1   |

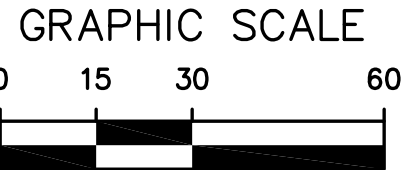
FIXTURE & PHOTOMETRICS NOTES

- PROPOSED POLE LIGHTS SHALL BE MOUNTED AT 15FT AFG, IN ACCORDANCE WITH 6.4.5(A)(1). MAXIMUM LUMENS COMPLY WITH 6.4.4(D)(2). FIXTURES ARE FULL CUT-OFF IN ACCORDANCE WITH 6.4.4(F)(1).
- PROPOSED WALL MOUNT ARE FULL CUT-OFF IN ACCORDANCE WITH 6.4.4(F)(1).
- CALCULATED LIGHT VALUES COMPLY WITH 6.4.4(C)(2) AND 6.4.4(E).



SITE PHOTOMETRIC PLAN

SCALE: 1" = 30'-0"



GENERAL NOTES

- HIGHLIGHTED POINTS REPRESENT MAXIMUM/MINIMUM VALUE FOR EACH AREA.
- FIXTURES WILL BE CONTROLLED WITH PHOTOCELL AND OPERATE DUSK-TO-DAWN.
- FIXTURES SHALL BE LOCATED MINIMUM 24" BEHIND FACE OF CURB.

PLAN NOTES

- THIS FIXTURE TO BE PROVIDED WITH HOUSE-SIDE SHIELD TO PREVENT LIGHT TRESPASS.

HUNTER DESIGN AND CONSULTING, INC.  
735 ARLINGTON AVE N, STE 308  
ST PETERSBURG, FL 33701  
352-238-6366  
FLORIDA CA #31946, PE #76961

UPLAND INDUSTRIAL PARK  
SITE PHOTOMETRIC PLAN  
ALACHUA, FLORIDA

| PROJECT INFORMATION |           |
|---------------------|-----------|
| PROJECT NUMBER:     | 17096     |
| DRAFTED:            | K. HUNTER |
| DESIGNED:           | K. HUNTER |
| REVIEWED:           | K. HUNTER |
| ISSUE DATE:         | 12/20/18  |
| REVISIONS           |           |
|                     |           |
|                     |           |
|                     |           |

SHEET NUMBER

E-1