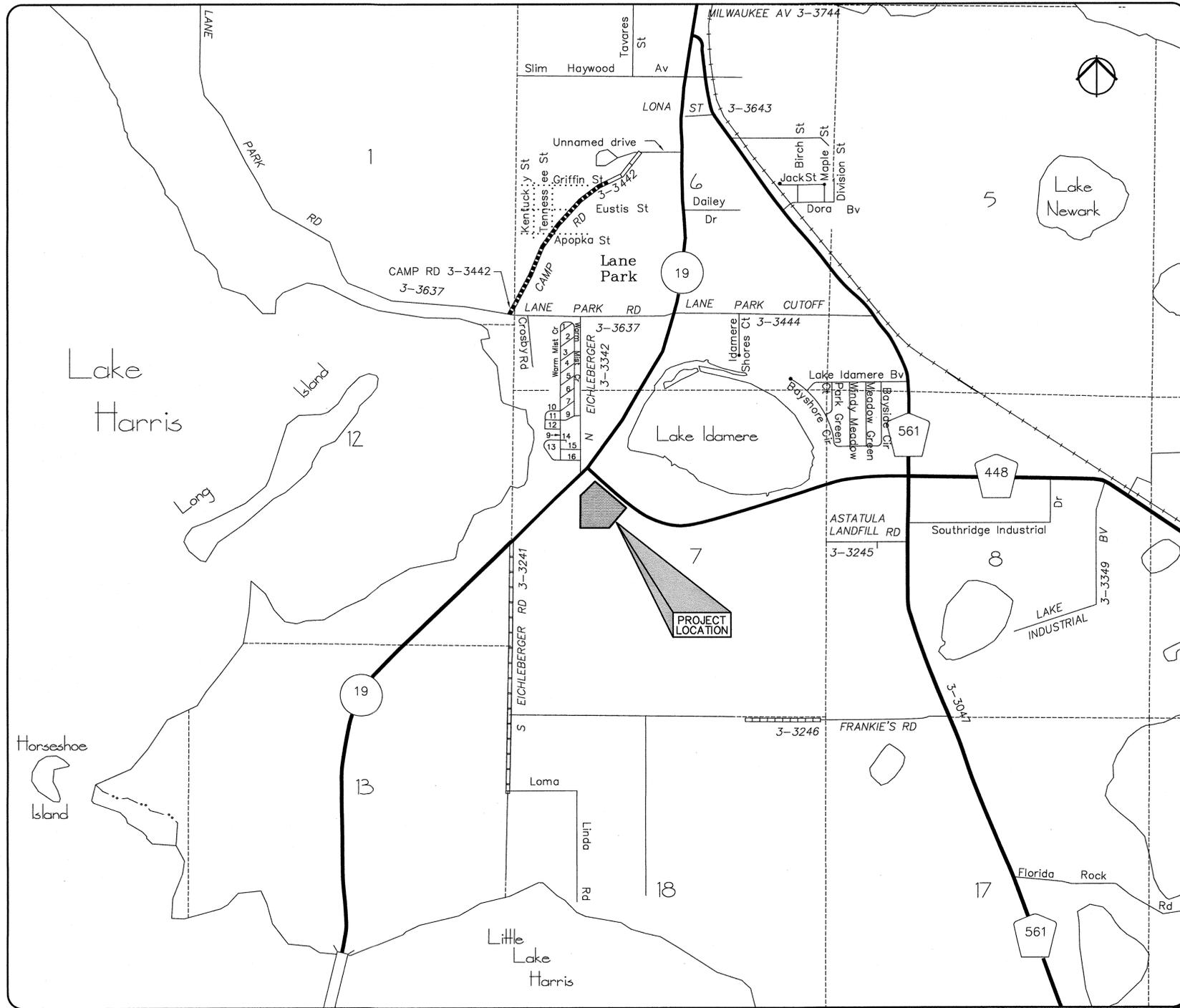


LAKE COUNTY ANIMAL SHELTER

LAKE COUNTY, FLORIDA



SECTION 7, TOWNSHIP 20 SOUTH, RANGE 26 EAST



LOCATION PLAN
SCALE: 1"=1,000'



GENERAL NOTES

- BOUNDARY AND TOPOGRAPHICAL INFORMATION SHOWN ARE PER DRAWINGS PREPARED BY WADE SURVEYING, INC., DATED 12/20/18.
- CONTRACTOR SHALL VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER OR ARCHITECT.
- CONTRACTOR SHALL LOCATE AND MAINTAIN IN GOOD WORKING ORDER ALL ABOVE GROUND AND BELOW GROUND UTILITIES. CONTRACTOR SHALL COORDINATE THE RELOCATION OR ALTERATION OF EXISTING UTILITIES AS MAY BE REQUIRED.
- ALL ON-SITE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF TAVARES, LAKE COUNTY PUBLIC SERVICES, FLORIDA BUILDING CODE, AND ALL OTHER APPLICABLE CODES.
- ALL DISTURBED OPEN AREAS SHALL BE SODED OR SEEDED AND MULCHED IMMEDIATELY FOLLOWING COMPLETION OF THE BUILDING CONSTRUCTION AS SHOWN ELSEWHERE IN THESE PLANS.
- CONTRACTOR SHALL SUPPLY THE ENGINEER WITH "AS-BUILT" CONDITIONS OF ACTUAL CONSTRUCTION.
- CONSTRUCTION SURVEYING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR TO PAY COST OF WET TAPS INTO CITY OF TAVARES WATER MAIN.
- ALL WATER & SEWER LINE CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH CITY OF TAVARES REQUIREMENTS.
- ANY SOIL MATERIAL (EITHER ON-SITE OR IMPORTED) UTILIZED FOR THE CONSTRUCTION OF RETENTION SWALES OR RETENTION PONDS SHALL BE CLEAN FINE SAND (SP) AS DEFINED BY THE UNIFIED SOIL CLASSIFICATION SYSTEM. FINES (MATERIAL PASSING THE NO. 200 SIEVE) SHALL BE LESS THAN 5%.
- THE OWNER WILL OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT AS REGULATED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). CONTRACTOR SHALL BECOME FAMILIAR WITH THE NPDES PERMITTING REQUIREMENTS, DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE CONSTRUCTION SITE IS IN COMPLIANCE WITH NPDES REGULATIONS AND WILL BE RESPONSIBLE FOR ANY VIOLATIONS CITED BY DEP DURING CONSTRUCTION. INFORMATION PERTAINING TO THE NPDES PROGRAM IS AVAILABLE ON LINE AT WWW.DEP.STATE.FL.US/WATER/STORMWATER/NPDES OR BY CALLING FDEP NPDES STORMWATER SECTION AT 850-245-7522.

LEGAL DESCRIPTION

BEING A PORTION OF GOVERNMENT LOT 1, IN SECTION 7, TOWNSHIP 20 SOUTH, RANGE 26 EAST, LAKE COUNTY, FLORIDA. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCE AT THE NORTHWEST CORNER OF GOVERNMENT LOT 1, IN SECTION 7, TOWNSHIP 20 SOUTH, RANGE 26 EAST, LAKE COUNTY, FLORIDA; THENCE S.00°03'09"W, ALONG THE WEST LINE OF SAID GOVERNMENT LOT 1, A DISTANCE OF 1430.20 FEET TO A POINT ON THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD 19, (BEING 100 FEET WIDE), SAID POINT BEING ON A CURVE CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 5779.65 FEET IN WHICH A RADIAL LINE BEARS N.45°02'22"W, SAID POINT BEING THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE FROM SAID POINT OF BEGINNING CONTINUE S.00°03'09"W, ALONG THE WEST LINE OF SAID GOVERNMENT LOT 1, A DISTANCE OF 810.00 FEET; THENCE S.89°56'51"E, DEPARTING FROM THE WEST LINE OF SAID GOVERNMENT LOT 1, A DISTANCE OF 476.62 FEET; THENCE N.40°30'02"E, A DISTANCE OF 427.40 FEET TO THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF COUNTY ROAD 448, (BEING 100 FEET WIDE), SAID POINT ALSO BEING THE POINT OF CURVATURE OF A CURVE CONCAVE NORTHWESTERLY; SAID CURVE RUNS SOUTHEASTERLY; THENCE N.49°22'58"W, ALONG THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF SAID COUNTY ROAD 448, A DISTANCE OF 879.87 FEET TO THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF THE AFORESAID STATE ROAD 19, SAID POINT BEING ON A CURVE CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 5779.65 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE AND SAID RIGHT-OF-WAY LINE, THROUGH A CENTRAL ANGLE OF 01°11'40", SAID CURVE HAVING AN ARC DISTANCE OF 120.49 FEET, AND A CHORD BEARING AND DISTANCE OF S.44°24'57"W, 120.49 FEET TO THE POINT OF BEGINNING.

LESS THE FOLLOWING:
THAT PART OF GOV LOT 1 DESCRIBED AS FOLLOWS: BEG AT INTERSECTION OF W LINE OF GOV LOT 1 WITH S'ELY R/W LINE OF SR 19, SAID POINT BEING ON A CURVE CONCAVE NWLY HAVING A RADIUS OF 5779.65 FT & A RADIAL BEARING OF S 44DEG 24MIN 57SEC E, THENCE NELY ALONG THE ARC OF SAID CURVE & SAID S'ELY R/W LINE OF SR 19 THROUGH A CENTRAL ANGLE OF 03DEG 30MIN 05SEC AN ARC LENGTH OF 544.99 FT RUN S 00DEG 03MIN 42SEC E 305.37 FT TO A POINT ON A CURVE CONCAVE NWLY & HAVING A RADIUS OF 5979.65 FT & A RADIAL BEARING OF S 48DEG 06MIN 50SEC E, THENCE SWLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 04DEG 29MIN 43SEC, AN ARC LENGTH OF 489.13 FT TO END OF SAID CURVE, S 48DEG 22MIN 52SEC W 65.59 FT TO A POINT ON WLY LINE OF GOV LOT 1, N 00DEG 08MIN 42SEC W 277.47 FT TO POB—LESS THAT PART OF LAND LYING WITHIN FOLLOWING DESCRIBED PROPERTY: BEG AT INTERSECTION OF N LINE OF S 1650 FT OF GOV LOT 1 & ELY R/W LINE OF SR 19, RUN S 89DEG 25MIN 38SEC E 800 FT TO WATERS OF LAKE IDAMERE & PT A, RETURN TO POB, SAID POINT BEING ON A CURVE CONCAVE NWLY, HAVING A RADIUS OF 5779.65 FT TO WHICH POINT A RADIAL LINE BEARS S 50DEG 50MIN 57SEC E, THENCE RUN SWLY ALONG SAID CURVE & ALONG SAID S'ELY R/W LINE HAVING A CENTRAL ANGLE OF 03DEG 37MIN 50SEC, AN ARC DIST OF 365.66 FT, THENCE RUN S 49DEG 29MIN 41SEC E 145.11 FT TO A POINT THAT IS 145 FT S'ELY OF WHEN MEASURED PERPENDICULAR TO THE S'ELY LINE OF SR 19, SAID POINT ALSO BEING ON A NON-TANGENT CURVE CONCAVE NWLY, HAVING A RADIUS OF 5924.85 FT TO WHICH POINT A RADIAL LINE BEARS S 47DEG 16MIN 47SEC E, THENCE RUN NELY PARALLEL WITH S'ELY R/W LINE & ALONG SAID CURVE, HAVING A CENTRAL ANGLE OF 40DEG 21MIN 43SEC, AN ARC DIST OF 451.04 FT TO A POINT THAT IS 26 FT S OF N LINE OF S 1650 FT OF GOV LOT 1, S 89DEG 25MIN 38SEC E 636 FT TO WATERS OF LAKE IDAMERE, N'LY ALONG SAID WATERS OF LAKE TO PT A & LESS CR 448—ALL IN SEC 7-20-26, ORB 1276 PG 144

SITE DATA

ON-SITE PROJECT AREA = 389,814 sq.ft. (8.95 ac.)
OFF-SITE PROJECT AREA = 28,125 sq.ft. (0.65 ac.)

EXISTING IMPERVIOUS AREA = 0 sq.ft. (0 ac.)
PROPOSED ON-SITE IMPERVIOUS AREA = 85,291 sq.ft. (1.96 ac.)
TOTAL IMPERVIOUS AREA = 85,291 sq.ft. (1.96 ac.)
PERCENT IMPERVIOUS AREA = 21.9% (of total area)

MINIMUM OPEN SPACE AREA REQUIRED = 20%
OPEN SPACE PROVIDED = 78.1%

FLOOD ZONE = "X"
ZONING = "CFD"

EXISTING USE OF SITE = VACANT
PROPOSED USE OF SITE = ANIMAL SHELTER

PROPOSED BUILDING SQUARE FOOTAGE = 19,141 sq.ft.

PARKING REQUIRED = 1 per 200 sq.ft. = 96 spaces
PARKING PROVIDED = 97 spaces
(INCLUDES 58 PAVED SPACES + 39 GRASSED SPACES)

ELEVATIONS BASED ON N.A.V.D. 1988 VERTICAL DATUM

OWNER

Lake County Board of County Commissioners
315 West Main Street
Tavares, Florida 32778
Phone (352) 343-9800

ARCHITECT

M. Judson Dickerson
Dickerson Architects, Inc.
P.O. Box 492226
Leesburg, Florida 34749

ENGINEER

Keith E. Riddle, P.E.
Riddle - Newman Engineering, Inc.
115 North Canal Street
Leesburg, Florida 34748
Phone (352) 787-7482
Fax (352) 787-7412

SURVEYOR

Ronald W. Herr
Wade Surveying, Inc.
1608 Tracy Avenue
Lady Lake, Florida 32159
Phone (352) 753-6511
Fax (352) 753-0374

SHEET INDEX	
C1.1	COVER SHEET
C1.2	STORMWATER POLLUTION PREVENTION PLAN
C2.1	GEOMETRY PLAN
C3.1-C3.2	GRADING & DRAINAGE PLANS
C4.1-C4.2	UTILITY PLANS
C5.1	DETAILS
C5.2	SOIL BORING PROFILES
C6.1-C6.3	TYPICAL WATER DETAILS
C6.4	TYPICAL SANITARY SEWER DETAILS
C6.5	LIFT STATION DETAILS

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DEVELOPMENT REVIEW

PROJECT # 201905009 APPLICATION REQUEST # 3747
PROJECT NAME: _____
ALTERNATE KEY # 1032024 ORDINANCE # 2013-22
REVIEWER PLEASE SIGN AND DATE BELOW:

ENVIRONMENTAL Spirene - 9/24/19
COMMENTS: See Approval Letter

PUBLIC SAFETY / EMERGENCY 911 Suppl. 9/24/19
COMMENTS: _____

HEALTH DEPARTMENT Subst. 9/24/19
COMMENTS: _____

FIRE 9.24.19 gny
COMMENTS: see comments

CONCURRENCY Mary Harris - 9/24/19
COMMENTS: _____

PUBLIC WORKS 9/24/19
COMMENTS: _____

PLANNING AND ZONING Spirene - 9/25/19
COMMENTS: See Approval Letter

LANDSCAPE Spirene - 9/25/19
COMMENTS: See Approval Letter

APPROVAL 9/25/19 PRELIMINARY/FINAL DEVELOPMENT REVIEW
DATED 9/25/19 DIRECTOR, OFFICE OF PLANNING & ZONING (OR DESIGNEE)

RIDDLE - NEWMAN ENGINEERING, INC.
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FAX (352) 787-7412
keith@riddle-n.com
CA# 00002685

RIDDLE NEWMAN ENGINEERING INC.
ESTABLISHED 1981

REV #1	REV #2	REV #3	REV #4	REV #5

9/13/19
9/5/19
5/23/19

Digitally signed by Keith E. Riddle, P.E.
Date: 2019.09.12 16:23:43 -0400
KEITH E. RIDDLE, P.E.
FLA. REGS. NO. 38800

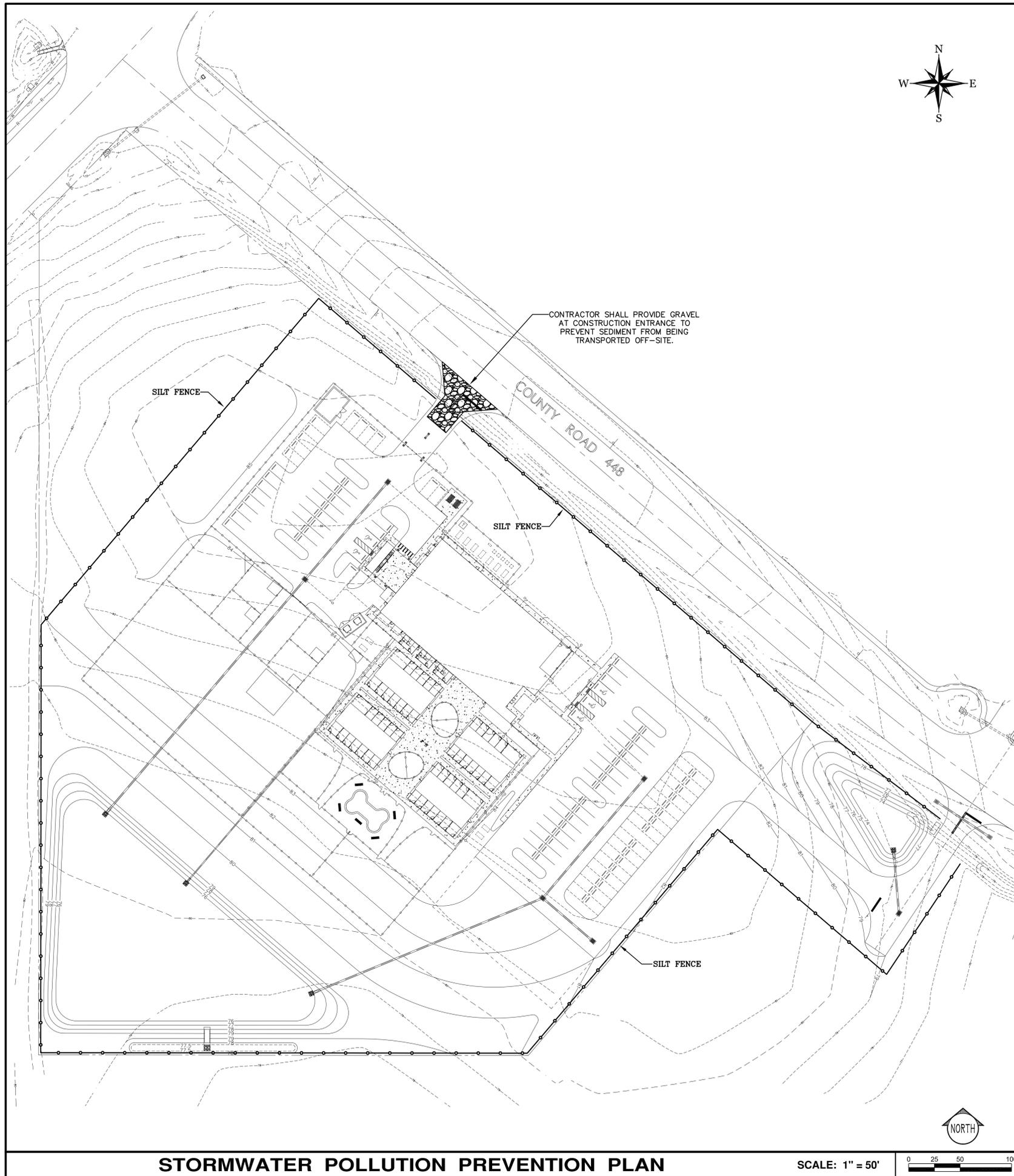
R.S.H.
K.E.R.
SCALE: 1"=1,000'
DATE: 5/6/19
PROJECT NO. 18.30

COVER SHEET

LAKE COUNTY ANIMAL SHELTER
LAKE COUNTY
FLORIDA

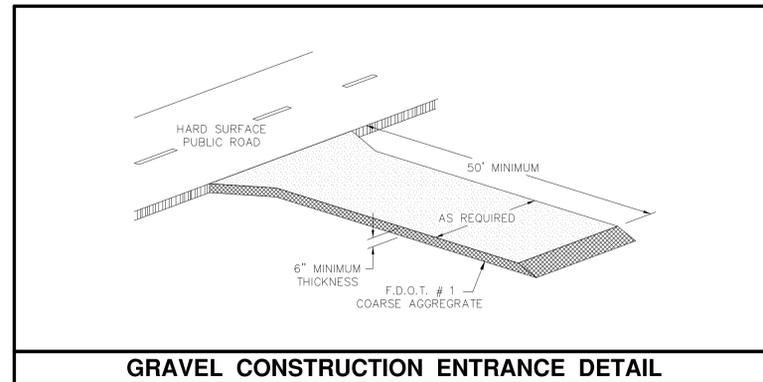
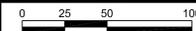
SHEET NO. C1.1

FILE: 18.30\Lake County Animal Shelter © 2019 RIDDLE - NEWMAN ENGINEERING, INC. ALL RIGHTS RESERVED.



STORMWATER POLLUTION PREVENTION PLAN

SCALE: 1" = 50'

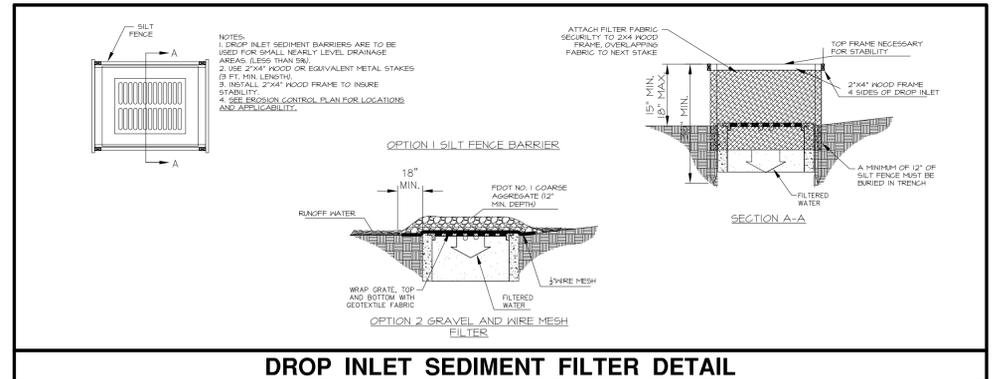


GRAVEL CONSTRUCTION ENTRANCE DETAIL

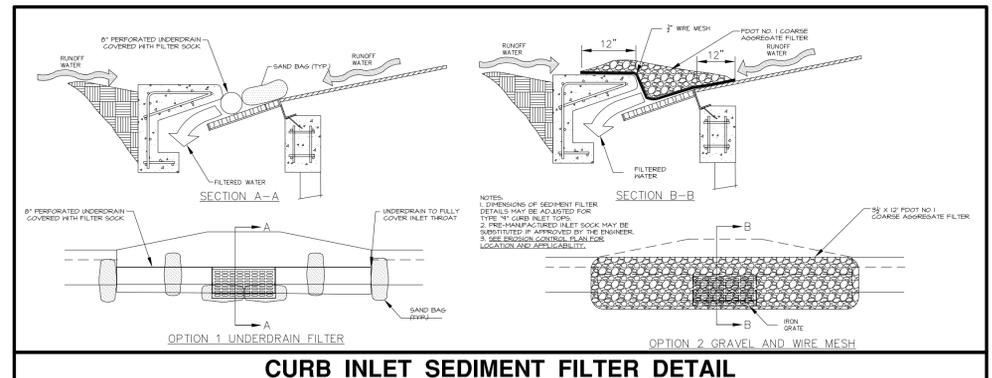
THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH FDEP NPDES STORMWATER POLLUTION PREVENTION PLAN REQUIREMENTS.

CONTRACTOR TO INSTALL DROP INLET SEDIMENT FILTER ON ALL TYPE "F" INLETS.

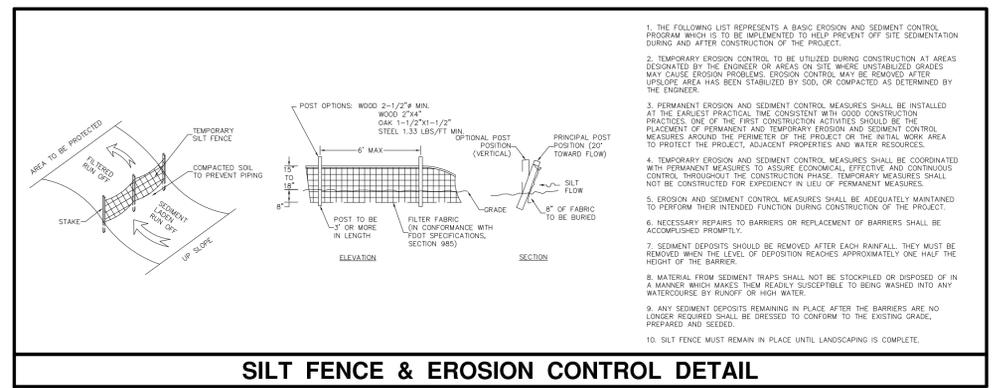
FILTER FABRIC MUST BE INSTALLED UNDER ALL INLET GRATES, AT ALL TIMES WHEN INLETS ARE NOT PROTECTED BY SILT FENCE OR HAY BALES, UNTIL LIMEROCK BASE IS FINISHED AND PRIMED.



DROP INLET SEDIMENT FILTER DETAIL



CURB INLET SEDIMENT FILTER DETAIL



SILT FENCE & EROSION CONTROL DETAIL

NPDES Requirements

- Federal Law prohibits all point source discharge of pollutants, which includes the discharge of stormwater associated with large (greater than 5 acres) construction activities or small (less than 5 acres and greater than 1 acre) construction activities, to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit. Under the State of Florida's authority to administer the NPDES stormwater program, operators that have stormwater discharge associated with large or small construction activities to surface waters of the State, including through a Municipal Separate Storm Sewer System (MS4, i.e. Town, City or County), shall obtain coverage either under a Generic permit or an Individual permit.
- The owner will obtain the NPDES permit during the permitting process.
- The Contractor shall prepare the Storm Water Pollution Prevention Plan (SWPPP). Contractor may obtain information pertaining to the NPDES program online at www.dep.state.fl.us/water/stormwater/npdes. The Contractor shall be responsible for maintenance of the site in accordance with the SWPPP. The Contractor will be required to comply with all requirements of the SWPPP and have it posted on-site along with the Erosion Control Plan, the NPDES permit, and the completed Inspection Report Forms. The Contractor shall be responsible for all erosion control practices defined in the SWPPP and associated penalties for not complying with the NPDES requirements contained in the SWPPP and the NPDES permit. The cost of all compliance related activities shall be included in the bid submitted by the Contractor.
- The NPDES permit requires at least weekly inspections of the site and inspections within 24 hours following any rainfall event exceeding 0.5" inches. The Contractor is responsible for the weekly inspections and post-rainfall event inspections and these inspections are required to be made by a "Qualified" inspector. These inspections must document compliance with the permit and the SWPPP and the inspector shall complete the Stormwater Pollution Prevention Plan Inspection Report Form. The Contractor can obtain a sample copy of the Inspection Report Form from the Engineer. The Contractor can contact the FDEP at (850) 245-7522 for additional information on qualified inspectors or additional information on the NPDES requirements.

NPDES REQUIREMENTS

RIDDLE - NEWMAN ENGINEERING, INC.
 115 NORTH CANAL STREET
 LEESBURG, FLORIDA 34748
 PHONE (352) 787-7482
 FAX (352) 787-7412
 keith@riddlenewman.com
 CA# 0002883

RIDDLE NEWMAN ENGINEERING INC.
 ESTABLISHED 1971

REV #				

KEITH E. RIDDLE, P.E.
 FLA. REGIS. NO. 38800

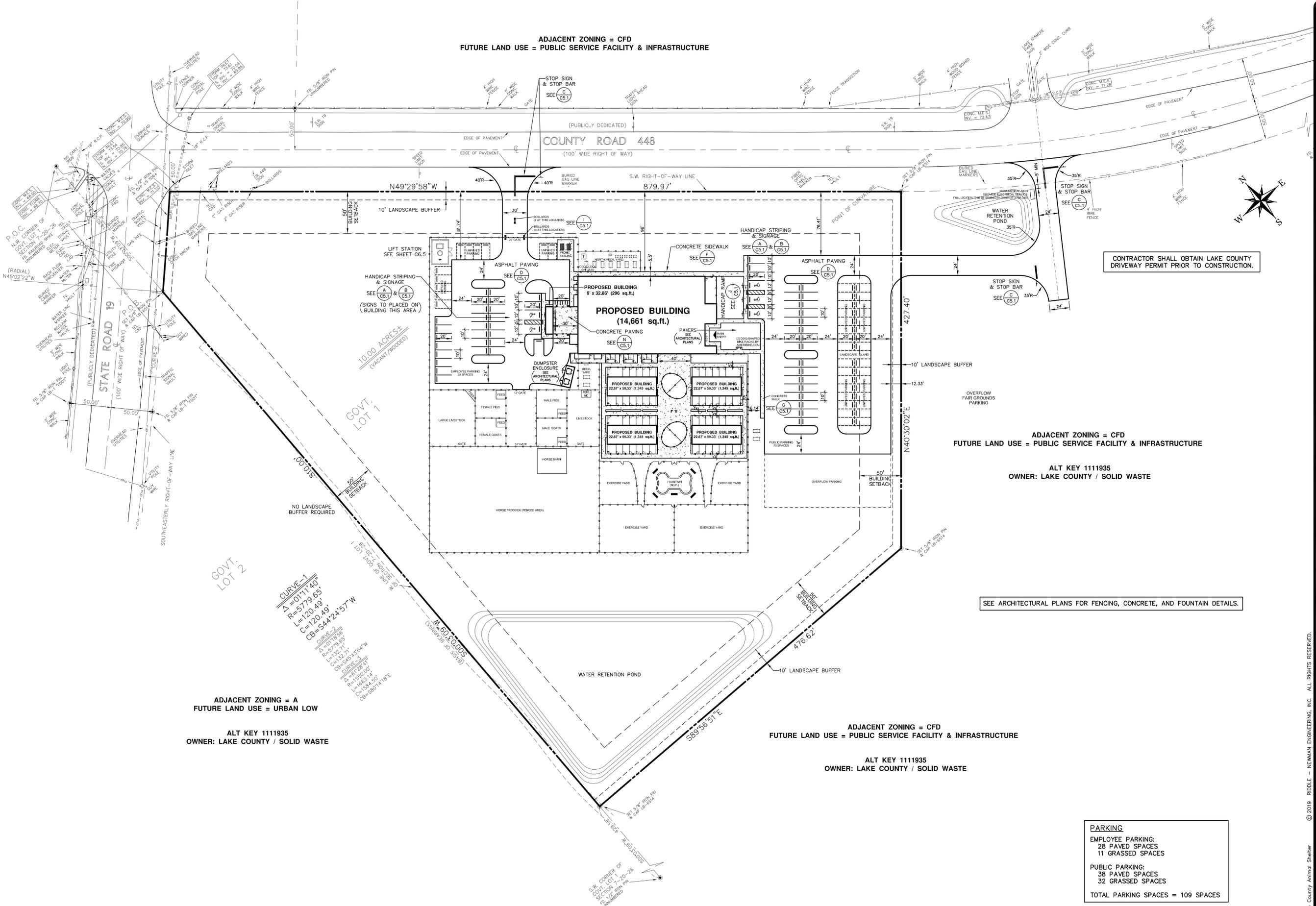
DRAWN: R.S.H.	CHECKED: K.E.R.	SCALE: 1" = 50'
DATE: 5/6/19	PROJECT NO: 18.30	

STORMWATER POLLUTION PREVENTION PLAN
LAKE COUNTY ANIMAL SHELTER
 LAKE COUNTY FLORIDA

SHEET NO.
C1.2

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ADJACENT ZONING = CFD
 FUTURE LAND USE = PUBLIC SERVICE FACILITY & INFRASTRUCTURE



CONTRACTOR SHALL OBTAIN LAKE COUNTY DRIVEWAY PERMIT PRIOR TO CONSTRUCTION.

ADJACENT ZONING = CFD
 FUTURE LAND USE = PUBLIC SERVICE FACILITY & INFRASTRUCTURE

ALT KEY 1111935
 OWNER: LAKE COUNTY / SOLID WASTE

SEE ARCHITECTURAL PLANS FOR FENCING, CONCRETE, AND FOUNTAIN DETAILS.

ADJACENT ZONING = CFD
 FUTURE LAND USE = PUBLIC SERVICE FACILITY & INFRASTRUCTURE

ALT KEY 1111935
 OWNER: LAKE COUNTY / SOLID WASTE

ADJACENT ZONING = A
 FUTURE LAND USE = URBAN LOW

ALT KEY 1111935
 OWNER: LAKE COUNTY / SOLID WASTE

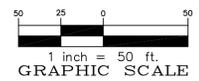
CURVE-1
 Δ = 0111 40'
 R = 5779.65'
 L = 120.49'
 C = S44°24'57" W

CURVE-2
 Δ = 0178.95'
 R = 132.71'
 L = 132.71'
 C = S45°43'54" W

CURVE-3
 Δ = 0152.40'
 R = 163.11'
 L = 163.11'
 C = S89°56'51" E

PARKING	
EMPLOYEE PARKING:	28 PAVED SPACES 11 GRASSED SPACES
PUBLIC PARKING:	38 PAVED SPACES 32 GRASSED SPACES
TOTAL PARKING SPACES = 109 SPACES	

GEOMETRY PLAN
 SCALE: 1" = 50'



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 CA# 0002853

RIDDLE NEWMAN ENGINEERING INC.
 ESTABLISHED 1971

REV #	REV #	REV #	REV #

KEITH E. RIDDLE, P.E.
 FLA. REGIS. NO. 38800

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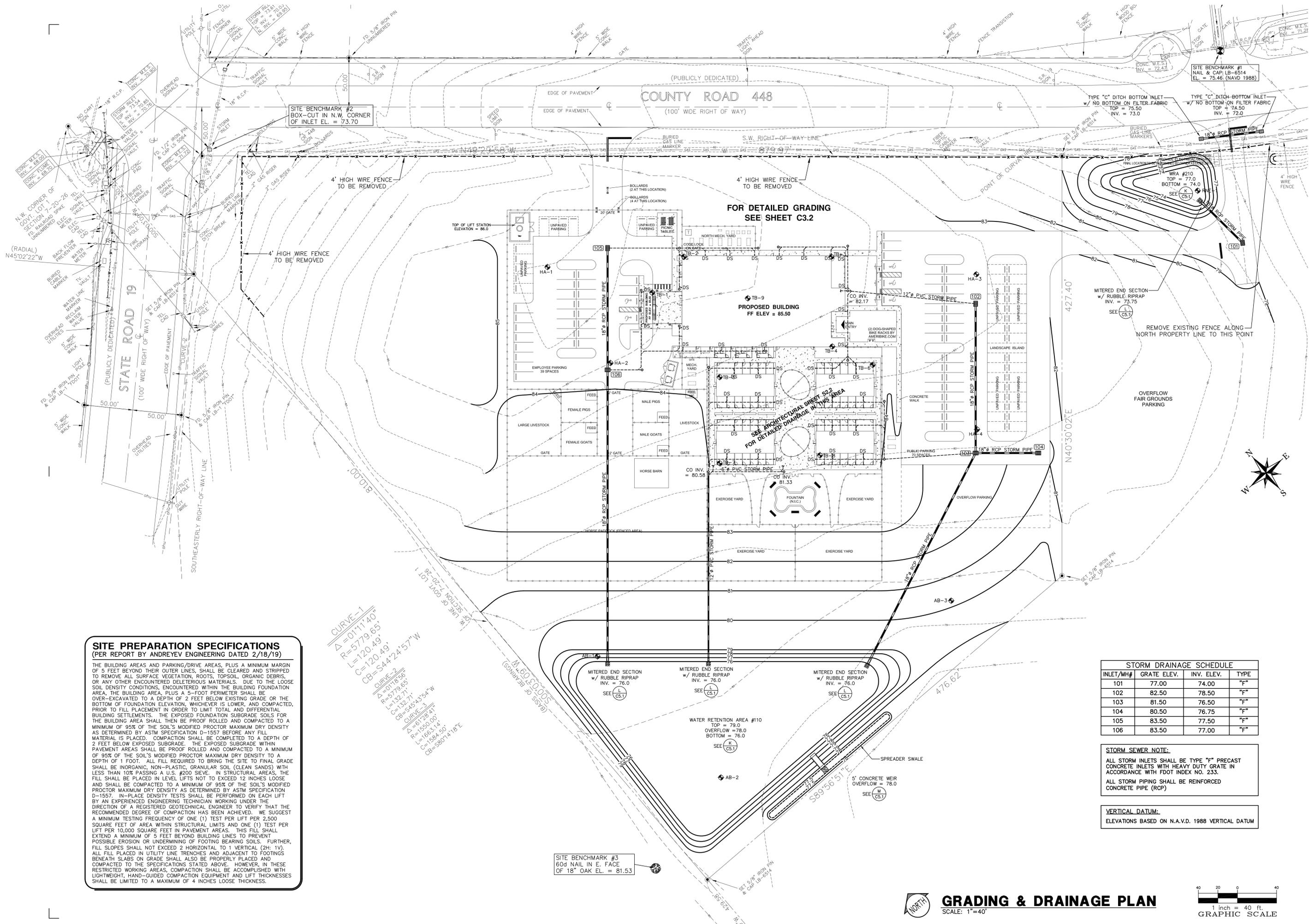
GEOMETRY PLAN
 LAKE COUNTY ANIMAL SHELTER
 FLORIDA
 LAKE COUNTY

SHEET NO.
C2.1

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REV #	REV #	REV #	REV #

KEITH E. RIDDLE, P.E.
 FLA. REGIS. NO. 38800



SITE PREPARATION SPECIFICATIONS
 (PER REPORT BY ANDREYEV ENGINEERING DATED 2/18/19)

THE BUILDING AREAS AND PARKING/DRIVE AREAS, PLUS A MINIMUM MARGIN OF 5 FEET BEYOND THEIR OUTER LINES, SHALL BE CLEARED AND STRIPPED TO REMOVE ALL SURFACE VEGETATION, ROOTS, TOPSOIL, ORGANIC DEBRIS, OR ANY OTHER ENCOUNTERED DELETERIOUS MATERIALS. DUE TO THE LOOSE SOIL DENSITY CONDITIONS, ENCOUNTERED WITHIN THE BUILDING FOUNDATION AREA, THE BUILDING AREA, PLUS A 5-FOOT PERIMETER SHALL BE OVER-EXCAVATED TO A DEPTH OF 2 FEET BELOW EXISTING GRADE OR THE BOTTOM OF FOUNDATION ELEVATION, WHICHEVER IS LOWER, AND COMPACTED, PRIOR TO FILL PLACEMENT IN ORDER TO LIMIT TOTAL AND DIFFERENTIAL BUILDING SETTLEMENTS. THE EXPOSED FOUNDATION SUBGRADE SOILS FOR THE BUILDING AREA SHALL THEN BE PROOF ROLLED AND COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM SPECIFICATION D-1557 BEFORE ANY FILL MATERIAL IS PLACED. COMPACTION SHALL BE COMPLETED TO A DEPTH OF 2 FEET BELOW EXPOSED SUBGRADE. THE EXPOSED SUBGRADE WITHIN PAVEMENT AREAS SHALL BE PROOF ROLLED AND COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY TO A DEPTH OF 1 FOOT. ALL FILL REQUIRED TO BRING THE SITE TO FINAL GRADE SHALL BE INORGANIC, NON-PLASTIC, GRANULAR SOIL (CLEAN SANDS) WITH LESS THAN 10% PASSING A U.S. #200 SIEVE. IN STRUCTURAL AREAS, THE FILL SHALL BE PLACED IN LEVEL LIFTS NOT TO EXCEED 12 INCHES LOOSE AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE SOIL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM SPECIFICATION D-1557. IN-PLACE DENSITY TESTS SHALL BE PERFORMED ON EACH LIFT BY AN EXPERIENCED ENGINEERING TECHNICIAN WORKING UNDER THE DIRECTION OF A REGISTERED GEOTECHNICAL ENGINEER TO VERIFY THAT THE RECOMMENDED DEGREE OF COMPACTION HAS BEEN ACHIEVED. WE SUGGEST A MINIMUM TESTING FREQUENCY OF ONE (1) TEST PER LIFT PER 2,500 SQUARE FEET OF AREA WITHIN STRUCTURAL LIMITS AND ONE (1) TEST PER LIFT PER 10,000 SQUARE FEET IN PAVEMENT AREAS. THIS FILL SHALL EXTEND A MINIMUM OF 5 FEET BEYOND BUILDING LINES TO PREVENT POSSIBLE EROSION OR UNDERMINING OF FOOTING BEARING SOILS. FURTHER, FILL SLOPES SHALL NOT EXCEED 2 HORIZONTAL TO 1 VERTICAL (2H:1V). ALL FILL PLACED IN UTILITY LINE TRENCHES AND ADJACENT TO FOOTINGS BENEATH SLABS ON GRADE SHALL ALSO BE PROPERLY PLACED AND COMPACTED TO THE SPECIFICATIONS STATED ABOVE. HOWEVER, IN THESE RESTRICTED WORKING AREAS, COMPACTION SHALL BE ACCOMPLISHED WITH LIGHTWEIGHT, HAND-GUIDED COMPACTION EQUIPMENT AND LIFT THICKNESSES SHALL BE LIMITED TO A MAXIMUM OF 4 INCHES LOOSE THICKNESS.

CURVE - 1
 $\Delta = 0^{\circ}11'40''$
 $R = 5779.65'$
 $L = 120.49'$
 $CB = 544^{\circ}24'57''W$

CURVE - 2
 $\Delta = 0^{\circ}18'56''$
 $R = 5779.65'$
 $L = 132.71'$
 $CB = 345^{\circ}43'54''W$

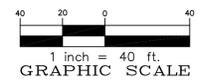
CURVE - 3
 $\Delta = 0^{\circ}17'28.41''$
 $R = 1650.00'$
 $L = 158.50'$
 $CB = 307^{\circ}14'18''E$

STORM DRAINAGE SCHEDULE

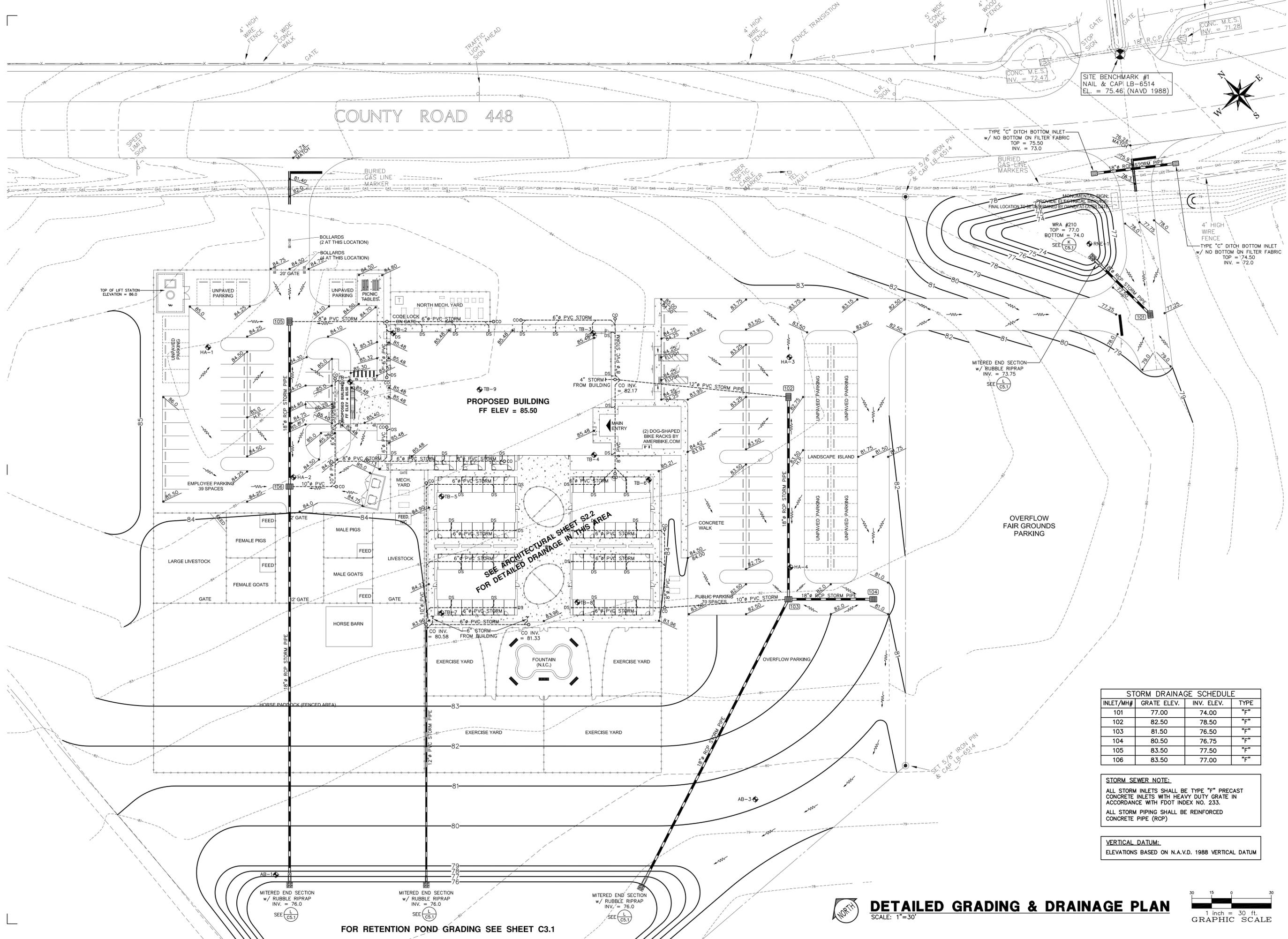
INLET/MH#	GRATE ELEV.	INV. ELEV.	TYPE
101	77.00	74.00	"F"
102	82.50	78.50	"F"
103	81.50	76.50	"F"
104	80.50	76.75	"F"
105	83.50	77.50	"F"
106	83.50	77.00	"F"

STORM SEWER NOTE:
 ALL STORM INLETS SHALL BE TYPE "F" PRECAST CONCRETE INLETS WITH HEAVY DUTY GRATE IN ACCORDANCE WITH FOOT INDEX NO. 233.
 ALL STORM PIPING SHALL BE REINFORCED CONCRETE PIPE (RCP)

VERTICAL DATUM:
 ELEVATIONS BASED ON N.A.V.D. 1988 VERTICAL DATUM



GRADING & DRAINAGE PLAN
 SCALE: 1" = 40'



COUNTY ROAD 448

PROPOSED BUILDING
FF ELEV = 85.50

SEE ARCHITECTURAL SHEET S2.2
FOR DETAILED DRAINAGE IN THIS AREA

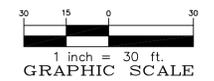
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INLET/MH#	GRATE ELEV.	INV. ELEV.	TYPE
101	77.00	74.00	"F"
102	82.50	78.50	"F"
103	81.50	76.50	"F"
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105	83.50	77.50	"F"
106	83.50	77.00	"F"

STORM SEWER NOTE:
ALL STORM INLETS SHALL BE TYPE "F" PRECAST CONCRETE INLETS WITH HEAVY DUTY GRATE IN ACCORDANCE WITH FDOT INDEX NO. 233.
ALL STORM PIPING SHALL BE REINFORCED CONCRETE PIPE (RCP)

VERTICAL DATUM:
ELEVATIONS BASED ON N.A.V.D. 1988 VERTICAL DATUM

FOR RETENTION POND GRADING SEE SHEET C3.1

DETAILED GRADING & DRAINAGE PLAN
SCALE: 1"=30'



RIDDLE - NEWMAN ENGINEERING, INC.
 115 NORTH CANAL STREET
 LEESBURG, FLORIDA 34748
 PHONE (352) 787-7482
 FAX (352) 787-7412
 keith@riddlenewman.com
 CA# 0002883

RIDDLE NEWMAN ENGINEERING INC.
 ESTABLISHED 1971

REV #	REV #	REV #	REV #

KEITH E. RIDDLE, P.E.
 FLA. REGS. NO. 38800

DRAWN: R.S.H.
 CHECKED: K.E.R.
 SCALE: 1"=30'
 DATE: 5/6/19
 PROJECT NO: 18.30

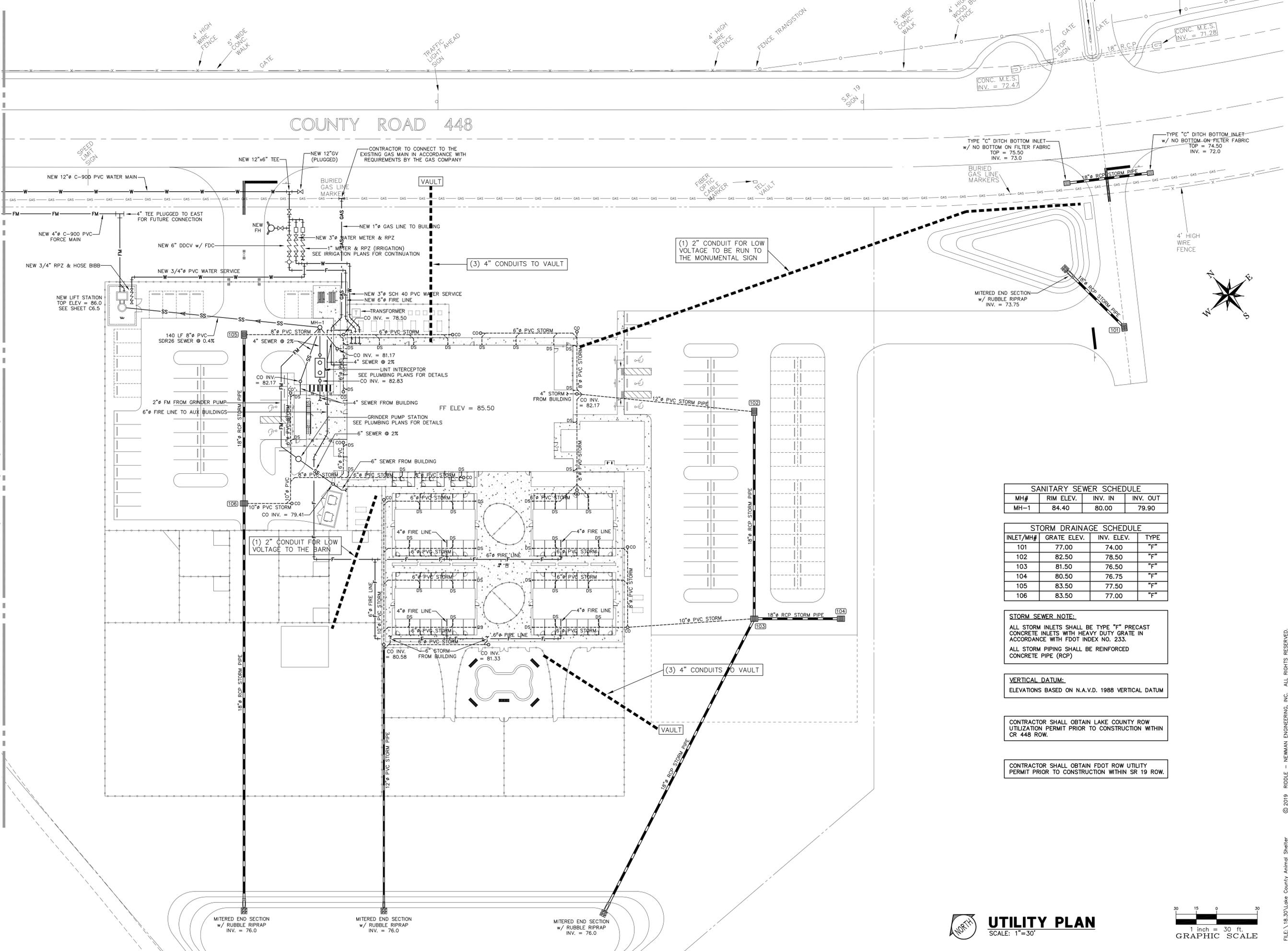
DETAILED GRADING & DRAINAGE PLAN
LAKE COUNTY ANIMAL SHELTER
 FLORIDA
 LAKE COUNTY

SHEET NO.
C3.2

FILE: \18.30\Lake County Animal Shelter © 2019 RIDDLE - NEWMAN ENGINEERING, INC. ALL RIGHTS RESERVED.

MATCH LINE - SEE SHEET C4.2

COUNTY ROAD 448



SANITARY SEWER SCHEDULE

MH#	RIM ELEV.	INV. IN	INV. OUT
MH-1	84.40	80.00	79.90

STORM DRAINAGE SCHEDULE

INLET/MH#	GRATE ELEV.	INV. ELEV.	TYPE
101	77.00	74.00	"F"
102	82.50	78.50	"F"
103	81.50	76.50	"F"
104	80.50	76.75	"F"
105	83.50	77.50	"F"
106	83.50	77.00	"F"

STORM SEWER NOTE:
 ALL STORM INLETS SHALL BE TYPE "F" PRECAST CONCRETE INLETS WITH HEAVY DUTY GRATE IN ACCORDANCE WITH FDOT INDEX NO. 233.
 ALL STORM PIPING SHALL BE REINFORCED CONCRETE PIPE (RCP)

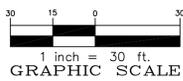
VERTICAL DATUM:
 ELEVATIONS BASED ON N.A.V.D. 1988 VERTICAL DATUM

CONTRACTOR SHALL OBTAIN LAKE COUNTY ROW UTILIZATION PERMIT PRIOR TO CONSTRUCTION WITHIN CR 448 ROW.

CONTRACTOR SHALL OBTAIN FDOT ROW UTILITY PERMIT PRIOR TO CONSTRUCTION WITHIN SR 19 ROW.



UTILITY PLAN
 SCALE: 1"=30'



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 CA# 0002883

RIDDLE NEWMAN ENGINEERING INC.
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| REV # |
|-------|-------|-------|-------|-------|
| | | | | |

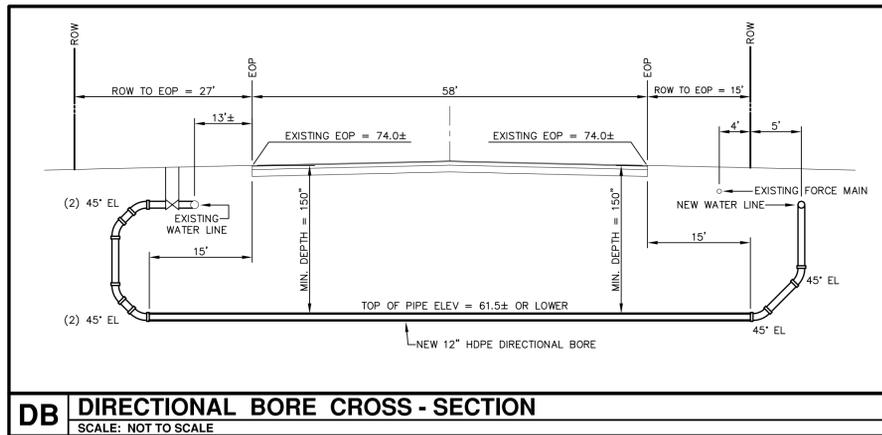
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 CHECKED: K.E.R.
 SCALE: 1"=30'
 DATE: 5/6/19
 PROJECT NO: 18.30

KEITH E. RIDDLE, P.E.
 FLA. REGIS. NO. 38800

UTILITY PLAN
LAKE COUNTY ANIMAL SHELTER
 LAKE COUNTY FLORIDA

SHEET NO.
C4.1

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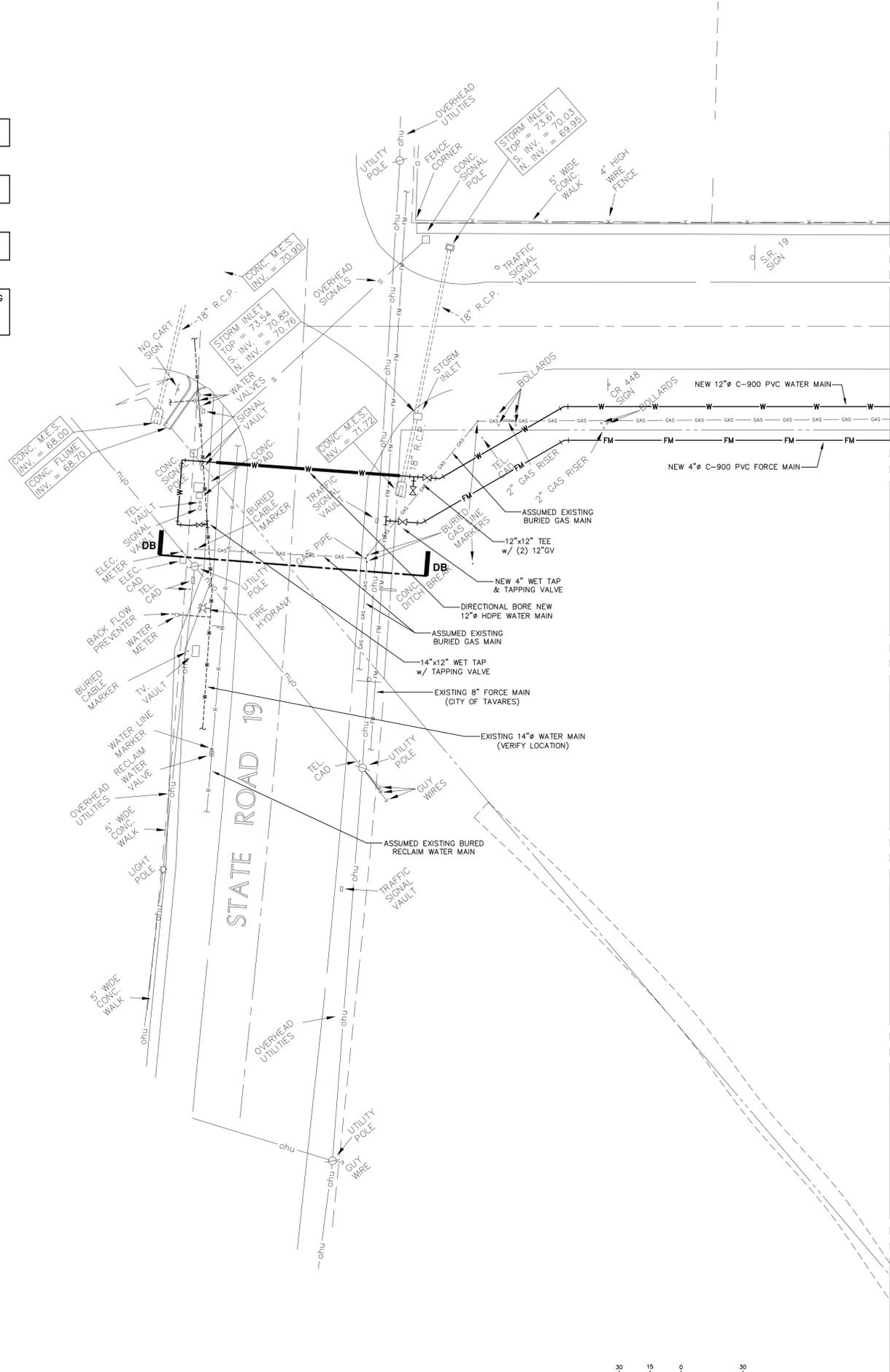


CONTRACTOR SHALL OBTAIN LAKE COUNTY ROW UTILIZATION PERMIT PRIOR TO CONSTRUCTION WITHIN CR 448 ROW.

CONTRACTOR SHALL OBTAIN FDOT ROW UTILITY PERMIT PRIOR TO CONSTRUCTION WITHIN SR 19 ROW.

CONTRACTOR SHALL CALL FOR LOCATES TO ENSURE LOCATION OF ALL EXISTING UTILITIES.

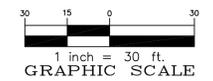
CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY OF TAVARES AND THE ENGINEER TO DISCUSS COST SAVINGS ALTERNATIVE LOCATIONS FOR WATER MAIN CROSSING.



MATCH LINE - SEE SHEET C4.1



UTILITY PLAN
SCALE: 1"=30'



FILE: \18.30\Lake County Animal Shelter

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UTILITY PLAN

LAKE COUNTY ANIMAL SHELTER
LAKE COUNTY
FLORIDA

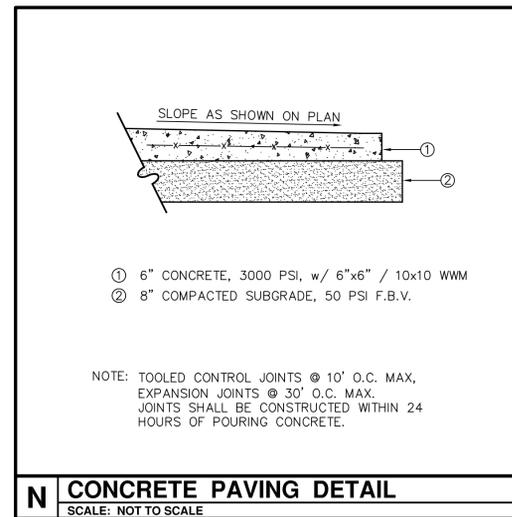
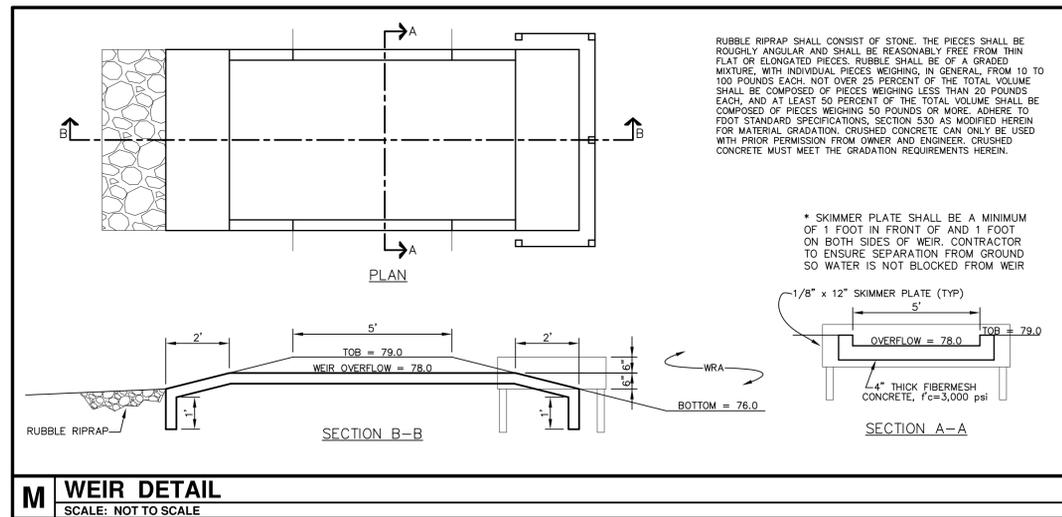
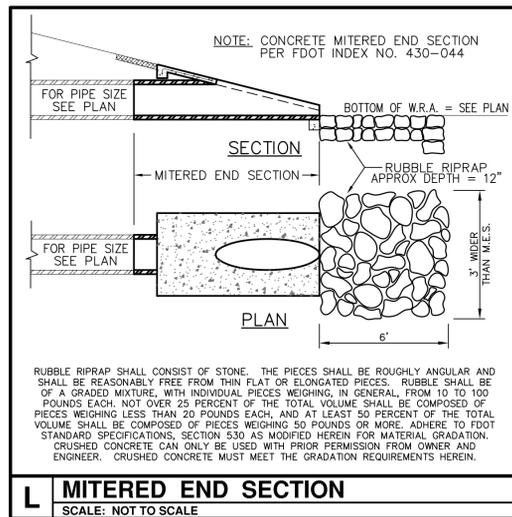
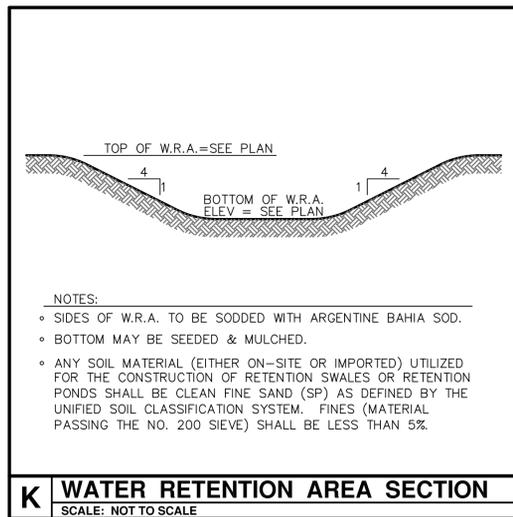
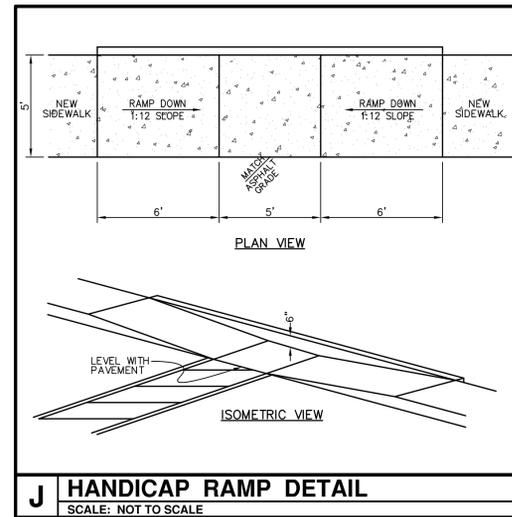
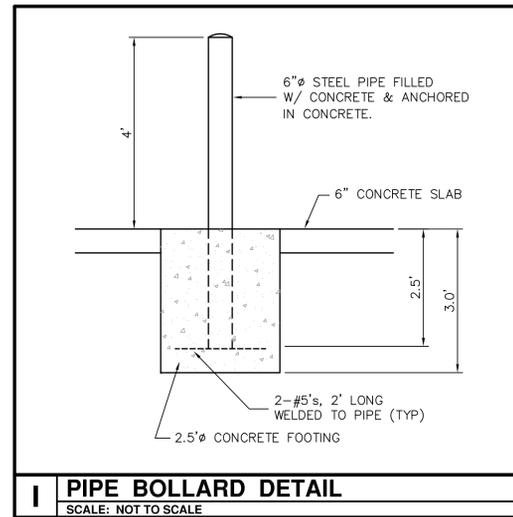
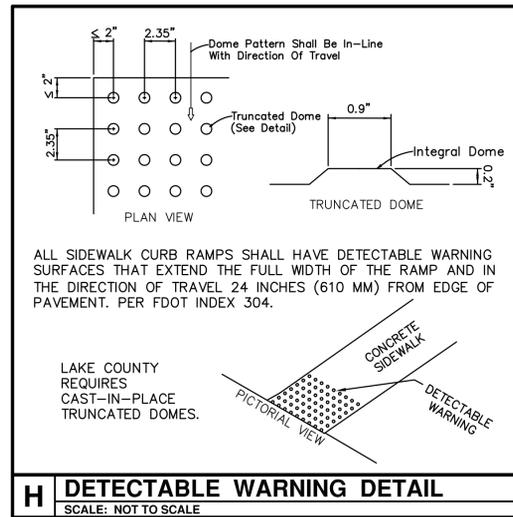
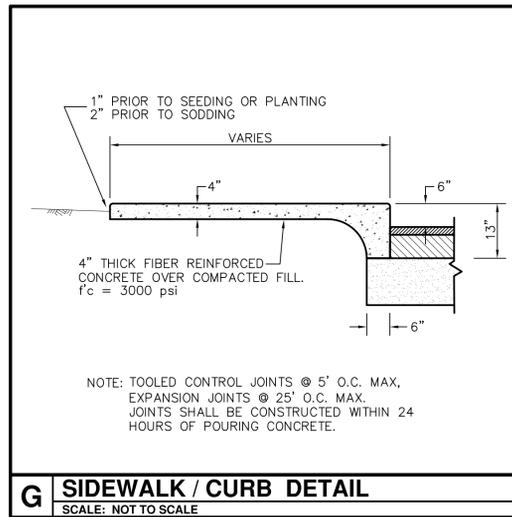
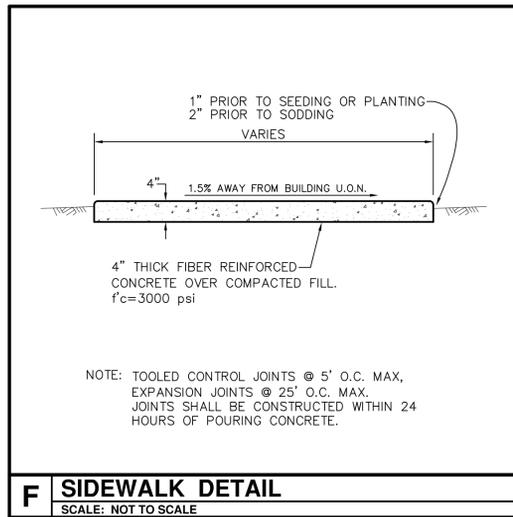
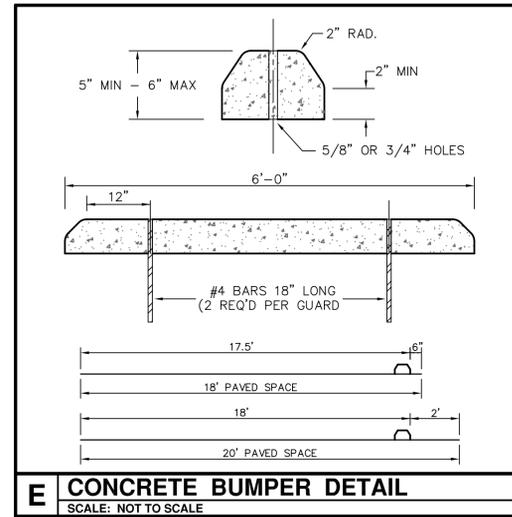
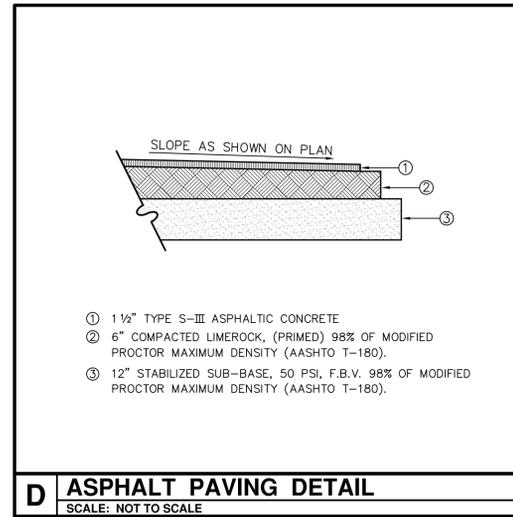
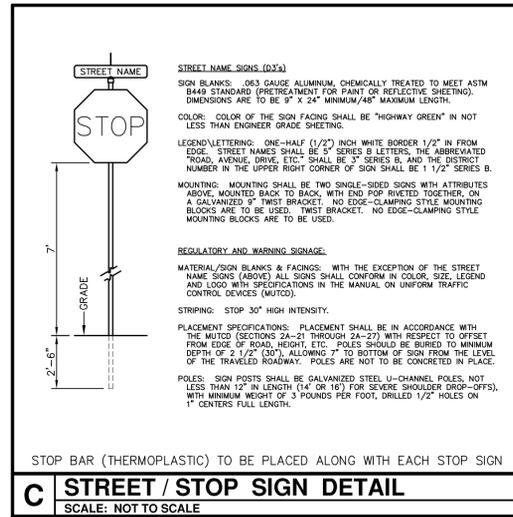
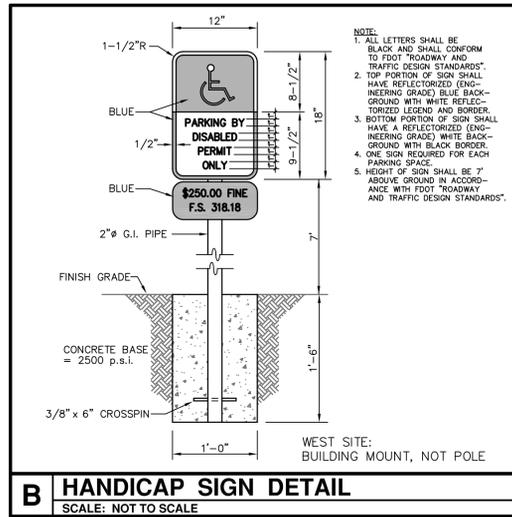
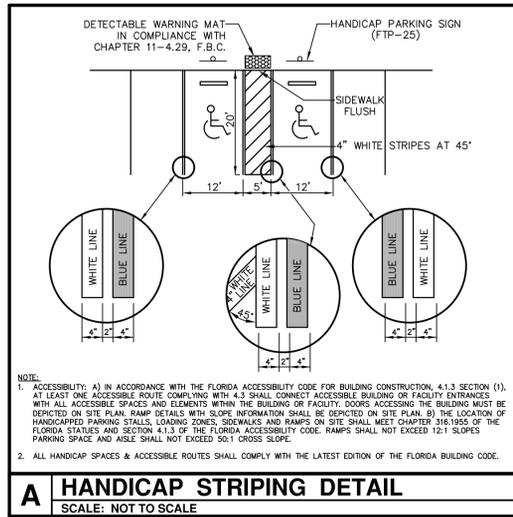
SHEET NO. **C4.2**

DRAWN: R.S.H.	CHECKED: K.E.R.	SCALE: 1"=30'	DATE: 5/6/19	PROJECT NO: 18.30
REV #	REV #	REV #	REV #	REV #

KEITH E. RIDDLE, P.E.
FLA. REGIS. NO. 38800

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keith@riddlenewman.com
CA# 0002883

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ESTABLISHED 1971



DETAIL SHEET

LAKE COUNTY ANIMAL SHELTER
LAKE COUNTY, FLORIDA

C5.1

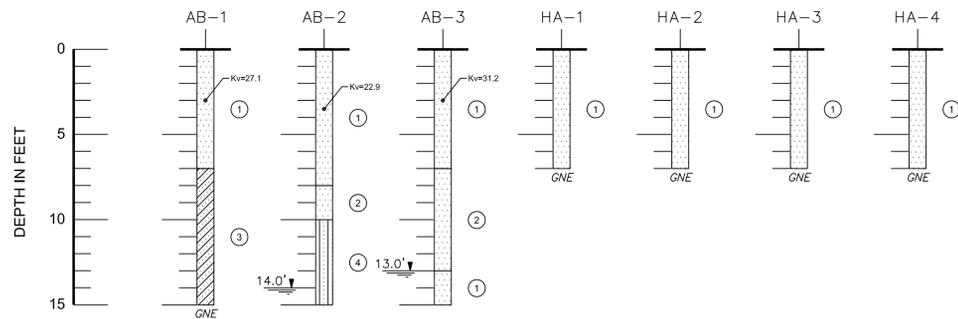
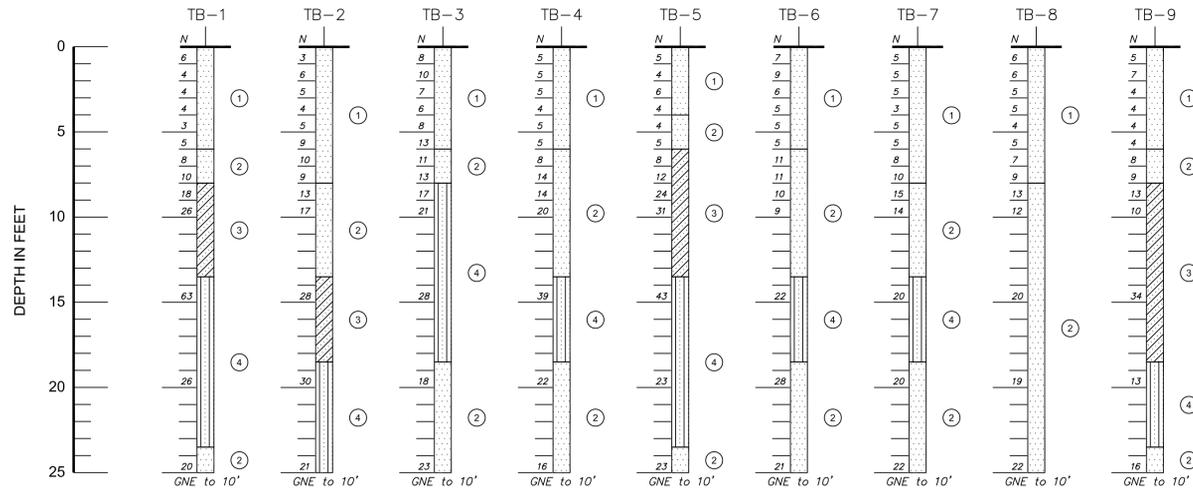
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CA# 0002883

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REV #	REV #	REV #	REV #	REV #

KEITH E. RIDDLE, P.E.
FLA. REGIS. NO. 38800

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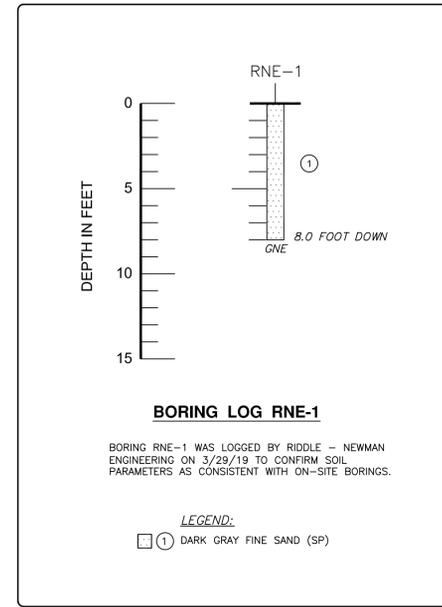
- LEGEND:**
- ① DARK GRAY TO DARK BROWN TO GRAYISH BROWN TO BROWN TO REDDISH BROWN FINE SAND (SP)
 - ② LIGHT YELLOWISH BROWN TO LIGHT GRAY FINE SAND (SP)
 - ③ REDDISH BROWN TO GRAYISH BROWN CLAYEY FINE SAND (SC)
 - ④ YELLOWISH BROWN TO GRAYISH BROWN TO LIGHT GRAYISH BROWN SLIGHTLY SILTY TO SILTY FINE SAND (SP-SM)(SM)
- (SP) UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
- 1.0' ↓ DEPTH TO GROUNDWATER, FEBRUARY 7, 2019
- GNE GROUNDWATER NOT ENCOUNTERED
- N STANDARD PENETRATION RESISTANCE, IN BLOWS PER FOOT
- Kv VERTICAL COEFFICIENT OF PERMEABILITY, IN FEET PER DAY

Andreyev Engineering, Inc.

GEOTECHNICAL INVESTIGATION
PROPOSED BUILDING AREA, STORMWATER
RETENTION AREA, & PAVED PARKING/DRIVE AREAS
LAKE COUNTY ANIMAL SHELTER
TAVARES, LAKE COUNTY, FL

SOIL PROFILES
FIGURE 4

APPROXIMATE SCALE: 1" = 5'
DATE: 02/14/19 ENGINEER: RJ
PN: GPOT-19-005 DRAWN BY: DLS



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REV #	REV #	REV #	REV #

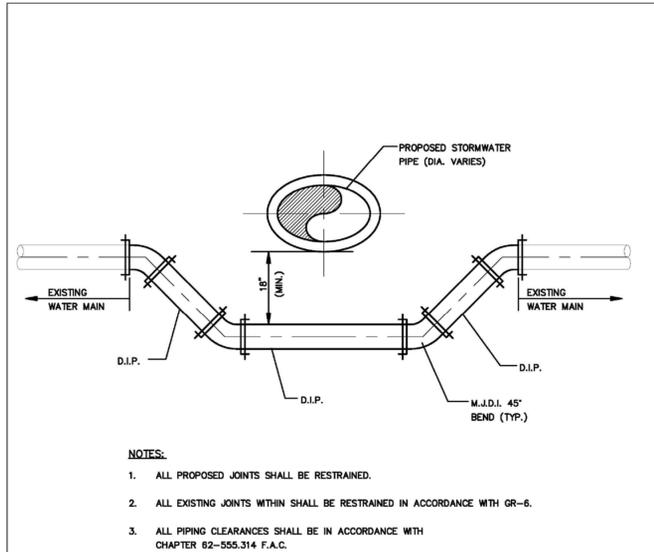
KEITH E. RIDDLE, P.E.
FLA. REGIS. NO. 38800

DRAWN: R.S.H.
CHECKED: K.E.R.
SCALE: 1" = 5'
DATE: 5/6/19
PROJECT NO: 18.30

SOIL BORING PROFILES

LAKE COUNTY ANIMAL SHELTER
LAKE COUNTY
FLORIDA

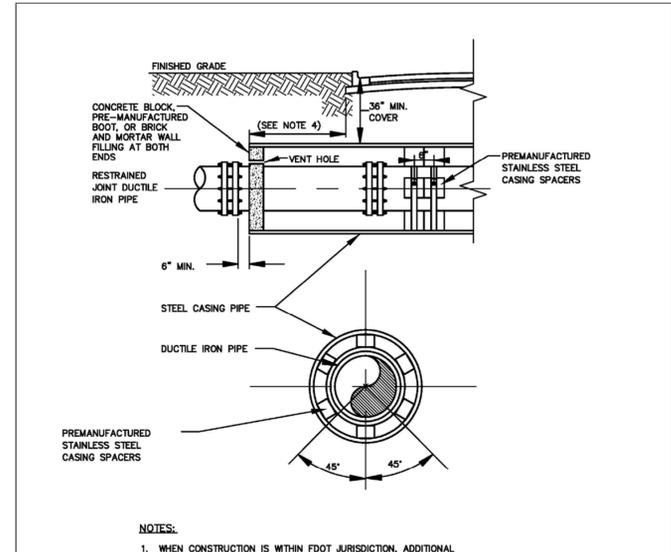
SHEET NO.
C5.2



WATER LINE CROSSING
NOT TO SCALE

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

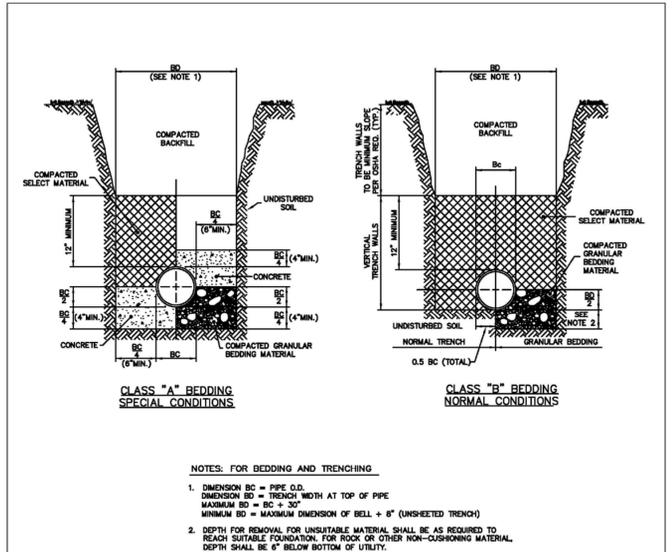
DATE: APRIL 2018
DETAIL GR-5



BORING AND JACKING
SCALE 1/2" = 1'-0"

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

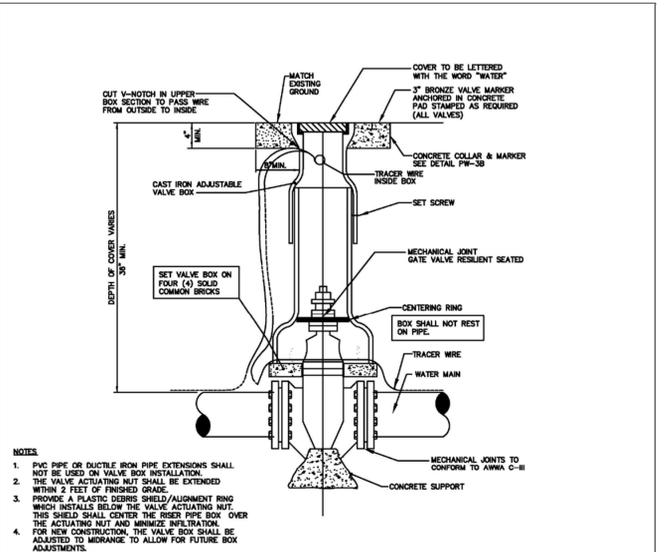
DATE: APRIL 2018
DETAIL GR-7



TRENCHING AND BEDDING
NOT TO SCALE

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

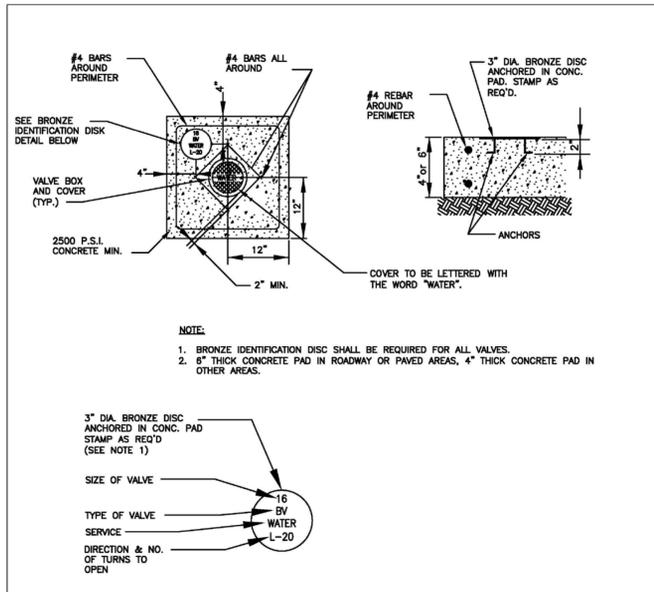
DATE: APRIL 2018
DETAIL PW-2



GATE VALVE AND BOX
NOT TO SCALE

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

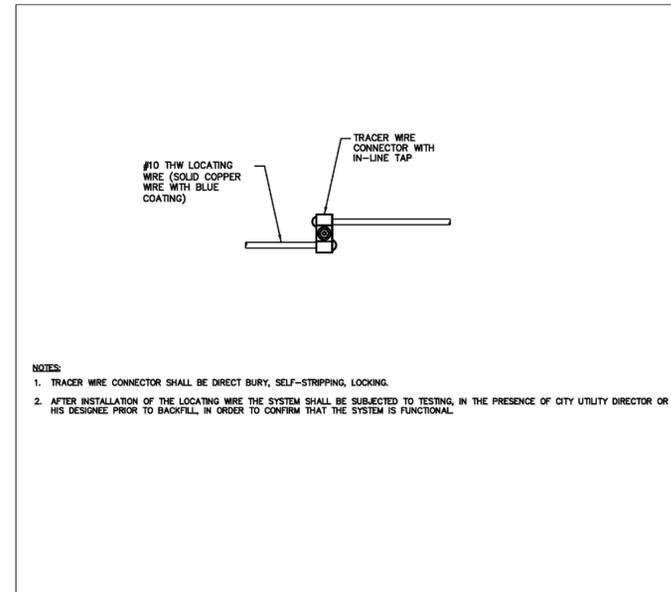
DATE: APRIL 2018
DETAIL PW-3A



BRONZE IDENTIFICATION DISK DETAIL
VALVE COLLAR
NOT TO SCALE

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

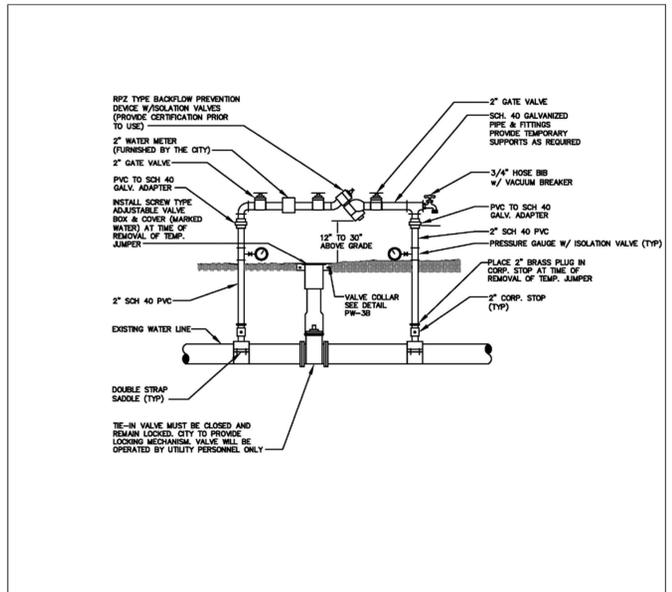
DATE: APRIL 2018
DETAIL PW-3B



LOCATING WIRE SPLICING
NOT TO SCALE

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL PW-5



TEMPORARY JUMPER CONNECTION
NOT TO SCALE

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL PW-6A

TEMPORARY JUMPER CONNECTION NOTES

- A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.
- THE DETAILS TO BE USED FOR FILLING ANY WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR PULLING BACTERIOLOGICAL SAMPLES FROM ANY WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN RECEIVED. THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED. ADEQUATE RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH ANWA C651, LATEST EDITION. THIS TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION II OF ANWA C651, LATEST EDITION.
- FLUSHING OF 10" DIAMETER AND LARGE WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE, IN THE PRESENCE OF THE UTILITY DIRECTOR OR HIS DESIGNEE. THE UTILITY DEPARTMENT WILL NOTIFY IN WRITING 48 HOURS PRIOR TO THE FLUSHING OF SAID MAINS.

THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

- THE TIE-IN VALVES SHALL BE OPERATED AND PRESSURE TESTED IN THE PRESENCE OF THE UTILITY COMPANY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO THE TIE-IN. VALVES WHICH ARE NOT WATER TIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.
- THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN AND FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT.
 - FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAIN.
 - ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO OPENING THE TIE-IN VALVE.
 - PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT. THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 psi.
 - TIE-IN VALVE SHALL BE OPENED A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 psi.
- THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE CITY UNTIL FLUSHING BEGINS.
- THE TIE-IN VALVE SHALL BE OPENED ONLY A FEW TURNS FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DIRECTED BY THE CITY AND OBSERVED BY THE ENGINEER.
- AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSED POSITION BY THE CITY.

- THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE RPZ BACKFLOW PREVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION AND IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A QUALIFIED BACKFLOW PREVENTION TECHNICIAN.
- EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8" IN DIAMETER, THE TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSED POSITION BY THE CITY. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER PERTINENT AGENCIES.
- UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS.
- ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE FITTINGS, VALVE, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL PW-6B

RIDDLE - NEWMAN ENGINEERING, INC.
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RIDDLE NEWMAN ENGINEERING INC.
ESTABLISHED 1971

DRAWN: R.S.H.
CHECKED: K.E.R.
SCALE: N.T.S.
DATE: 5/6/19
PROJECT NO: 18.30

TYPICAL WATER DETAILS
LAKE COUNTY ANIMAL SHELTER
LAKE COUNTY FLORIDA

SHEET NO.
C6.1

FILE: \18.30\Lake County Animal Shelter

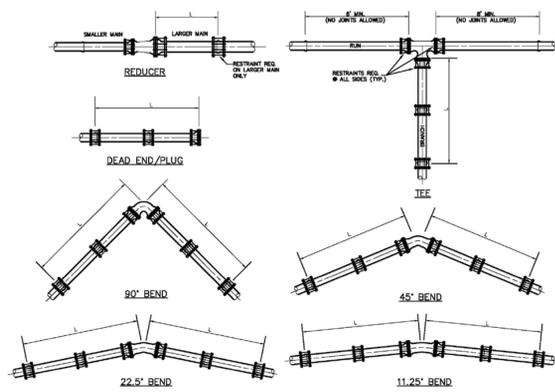


TABLE OF THRUST RESTRAINT LENGTHS

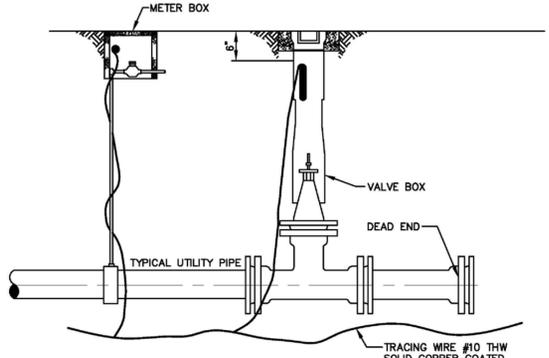
PIPE (INCH)	90°		45°		22.5°		11.25°		TEE		REDUCER	
	P.A.C. (3)	SOFT (4)										
4	20'	18'	6'	7'	4'	3'	2'	2'	15'	10'	45'	29'
6	28'	22'	12'	9'	6'	4'	3'	2'	33'	21'	63'	40'
8	36'	29'	15'	12'	7'	6'	4'	3'	52'	33'	82'	52'
10	43'	34'	18'	14'	9'	7'	4'	3'	68'	43'	98'	63'
12	50'	40'	21'	17'	10'	8'	5'	4'	84'	54'	116'	74'
16	63'	51'	26'	21'	13'	10'	6'	5'	116'	74'	148'	94'
18	70'	56'	29'	23'	14'	11'	7'	6'	131'	83'	163'	105'
20	75'	61'	31'	25'	15'	12'	7'	6'	145'	92'	178'	113'
24	86'	70'	36'	29'	17'	14'	9'	7'	173'	110'	207'	132'

THRUST RESTRAINT DESIGN NOTES

- RESTRAINT JOINTS, FITTINGS, & VALVE REQUIREMENTS CALCULATED BY THE THRUST RESTRAINT DESIGN PROGRAM PROVIDED BY EBBA IRON SALES, INC.
- DATA BASED ON MAX. PRESSURE OF 150 p.s.i., THE UNIFIED SOILS CLASSIFICATION SYSTEM (SOIL TYPE SP), THE PIPE BEDDED IN NATIVE SOIL w/ A MINIMUM OF 2.5' COMPACTED FILL OVER THE PIPE, AND USING A SAFETY FACTOR OF 1.5 FOR THE DATA.
- ALL FITTINGS & VALVES SHALL HAVE RESTRAINED WITH "MEGA-LUG" RESTRAINTS, & ALL BELL & SPIGOT JOINTS TO BE RESTRAINED WITH A RESTRAINING HARNESS WITHIN THE REQUIRED LENGTH OF RESTRAINED PIPE (L).

THRUST RESTRAINT
NOT TO SCALE

City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110
DATE: APRIL 2018
DETAIL PW-7



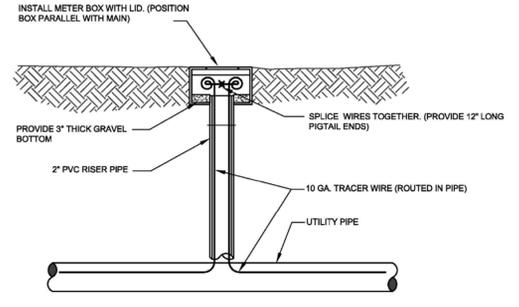
ALL PIPE INSTALLED VIA OPEN CUT SHALL BE INSTALLED WITH #10 THW SOLID COPPER COATED TRACING WIRE. ALL PIPE INSTALLED VIA HDD SHALL BE INSTALLED WITH TWO #10 COPPER CLAD STEEL WIRES.

THE TRACING WIRE MUST BE INSTALLED DIRECTLY BELOW THE PIPE AND BROUGHT TO THE SURFACE AT 500' MINIMUM INTERVALS. WIRE SHALL EXTEND A MINIMUM OF 12" ABOVE GRADE AT EACH INTERVAL AND BE COILED AND PLACED IN A VALVE BOX, METER BOX, MANHOLE, CLEANOUT, LOCATE WIRE BOX, OR OTHER APPLICABLE STRUCTURE.

- COLOR CODING:**
- POTABLE WATER SYSTEM: BLUE
REUSE WATER SYSTEM: PANTONE PURPLE
SANITARY SEWER, FORCE MAINS AND LOW PRESSURE SEWER SYSTEMS: GREEN
- FOR LOW PRESSURE SEWER, POTABLE WATER AND REUSE WATER SYSTEMS: WIRE SHALL BE INSTALLED BELOW ALL MAINS AND SERVICE LINES AND ATTACHED TO VALVES, HYDRANTS AND FITTINGS. WIRE INSTALLED WITH SERVICE LINES SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE CURB STOP.
 - FIRE SPRINKLER LINES: WIRE SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE RISER CONNECTION.
 - SANITARY SEWER FORCE MAINS: WIRE SHALL BE INSTALLED BELOW THE FORCE MAIN AND ATTACHED TO ALL VALVES AND FITTINGS AND BROUGHT TO THE SURFACE AND PLACED IN A METAL CITY OF TAVARES APPROVED, VALVE BOX.
 - DEAD END MAINS: WIRE SHALL BE PLACED IN A PROPERLY IDENTIFIED METAL VALVE BOX AT THE END OF THE RUN.
 - WIRE SHALL NOT BE FASTENED OR COILED TO VALVE OPERATING NUT.
 - UTILITY TRACING WIRE SHALL BE IN ACCORDANCE WITH CITY GSM AND PER CITY'S APPROVED MANUFACTURER LIST.

UTILITY PIPE LOCATION MATERIAL - WIRE
NOT TO SCALE

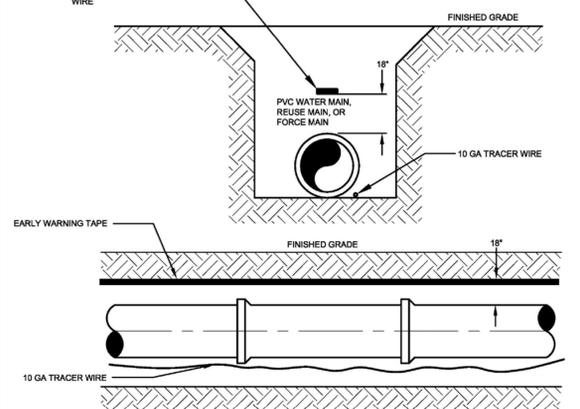
City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Haynes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110
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- NOTES:**
- TRACER WIRE STATION BOX TO BE INSTALLED WHERE THE WIRE CANNOT BE BROUGHT TO GRADE IN A VALVE BOX WITHIN THE MANDATORY 500' FOOT INTERVAL OR WHERE A SPICE MUST BE MADE ON THE TRACER WIRE. NO UNDERGROUND SPICES.
 - BOXES SHALL NOT BE LOCATED IN ROADWAYS OR DRIVEWAYS.
 - BOX AND LID PER DETAIL PW-19.
 - TRAFFIC RATED LID (STANDARD-NON BOLT DOWN)
 - LID COLOR SHALL BE PRE-MANUFACTURED OR PAINTED TO MATCH SERVICE (BLUE= POTABLE WATER, GREEN=WASTEWATER, PANTONE PURPLE=RECLAIMED WATER)

TRACER WIRE BOX
NOT TO SCALE

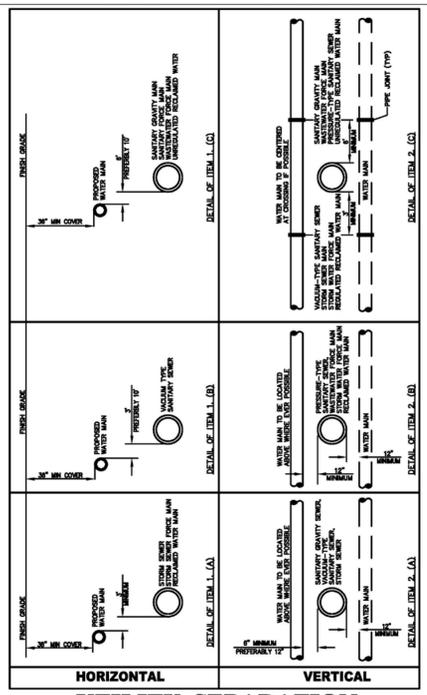
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- NOTES:**
- ALL MAINS INSTALLED BY OPEN CUT SHALL HAVE AN "EARLY WARNING" PROTECTION TAPE AND WIRE INSTALLED CONTINUOUSLY ALONG THE ALIGNMENT. THE PROTECTION TAPE SHALL BE PER THE CITY'S APPROVED MANUFACTURER LIST. TAPE SHALL BE INSTALLED DURING BACKFILLING 18" ABOVE THE PIPE AND SHALL BE CONTINUOUSLY MARKED FOR THE TYPE OF PIPE (EXAMPLE: CAUTION, WATER MAIN BURIED BELOW). THE TAPE SHALL HAVE A METALLIC DETECTABLE STRIP INCLUDED AND COLOR CODED AS FOLLOWS:
BLUE - POTABLE WATER
GREEN - SANITARY SEWER, GRAVITY SEWER, LOW PRESSURE MAIN
PANTONE PURPLE - RECLAIMED WATER
RED - DEDICATED FIRE LINE
 - ALL PVC MAINS SHALL BE A SOLID COLOR AS DESCRIBED ABOVE.
ALL DUCTILE IRON MAINS SHALL BE DIPPED WITH COLOR CODED BAGS
ALL POTABLE WATER PIPE SHALL BEAR THE NATIONAL SANITATION FOUNDATION (NSF) SEAL OF APPROVAL.

UTILITY PIPE LOCATION MATERIAL - TAPE
NOT TO SCALE

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UTILITY SEPARATION
NOT TO SCALE

City of Tavares Standard Details
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- GENERAL WATER NOTES**
- WATER SYSTEM COMPONENTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS, CLEANED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND CHAPTER 62-555 FLORIDA ADMINISTRATIVE CODE.
 - ALL PIPES SHALL BEAR THE "NSF" MARK FOR POTABLE WATER.
 - WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". PIPES 14" OR LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION, FOR LAYING, SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS.
 - DEPTH OF WATER LINES TO BE 36" MINIMUM COVER FROM FINISH GRADE.
 - WATER MAINS TO BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
 - ALL WATER MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON.
 - ALL CASINGS UNDER PAVEMENT SHALL EXTEND 9' BEYOND THE BACK OF CURB.
 - DISINFECTING: FOLLOWING THE PRESSURE TESTING, THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE NEW WATER DISTRIBUTION SYSTEM. DISINFECTANT SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA STANDARD C601 "CONNECTING WATER MAINS" AND ALL APPROPRIATE AGENCY APPROVAL.
 - ALL HYDROSTATIC TESTS SHALL BE IN ACCORDANCE WITH AWWA C600 FOR DUCTILE IRON PIPE AND C605M23 FOR PVC PIPE.
 - ALL WATER MAINS SHALL BE INSTALLED, PRESSURE AND LEAK TESTED IN ACCORDANCE WITH AWWA C900, 62-555.3002(1)B1 AND 62-555.330, F.A.C. ALL INSTALLATION, TESTING AND FIELD PROCEDURES MUST BE PROVIDED AND MUST CONFORM TO THE APPLICABLE AWWA STANDARDS.
 - ALL PIPING MATERIALS AND SPECIFICATIONS COVERING PIPES, JOINTS AND PACKING MATERIALS, INTERNAL COATING AND LININGS, FITTINGS, SPECIALS AND APPURTENANCES SHALL ALL BE IN ACCORDANCE WITH THE CORRESPONDING AWWA STANDARDS AND BE CONFORMING TO NSF REQUIREMENTS, AS MAY BE APPLICABLE, WITH EXCEPTIONS ALLOWED ONLY IF DOCUMENTATION AND ASSURANCES ARE PROVIDED IN COMPLIANCE WITH PARAGRAPHS 62-555.320(1) (D), 62-555.320 (1) (E), AND 62-555.320 (1) (C), F.A.C. THE LEAD USE PROHIBITION IN RULE 62-555.322, F.A.C. SHALL ALSO APPLY. POLYETHYLENE TUBING SHALL BE PER AWWA C901. UNDERGROUND SERVICE LINES AND VALVES SHALL BE PER AWWA C800.
- COLOR CODING:**
- ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(2)B3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPES DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90 DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.) [FAC 62-555.320(2)B3]
- UNLESS DESCRIBED IN THE CITY CSM ELSEWHERE, ALL WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH CHAPTER 62-555.314, F.A.C., AND ANY UPDATES TO THE F.A.C., AND IN CONFORMANCE WITH ALL SEPARATION REQUIREMENTS AS FOUND THEREIN.
- 62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS.**
- FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.
- HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
(A) NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
(B) NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
(C) NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

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- GENERAL WATER NOTES**
- (D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.006(5)(2), F.S., AND RULE 64E-6.002, F.A.C.
 - VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS AND RECLAIMED WATER PIPELINES.
(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID 90 THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
(B) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE. WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THIS REQUIREMENT (I.E., WHERE THERE IS A CONFLICT IN THE ROUTING OF A WATER MAIN AND A STORM SEWER AND WHERE ALTERNATIVE ROUTING OF THE WATER MAIN OR THE STORM SEWER IS NOT TECHNICALLY FEASIBLE OR IS NOT ECONOMICALLY SENSIBLE), THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT (I.E., THE DEPARTMENT SHALL ALLOW CONSTRUCTION OF CONFLICT MANHOLES), BUT SUPPLIERS OF WATER OR PERSONS PROPOSING TO CONSTRUCT CONFLICT MANHOLES MUST FIRST OBTAIN A SPECIFIC PERMIT FROM THE DEPARTMENT AND MUST PROVIDE IN THE PRELIMINARY DESIGN REPORT OR DRAWINGS, SPECIFICATIONS, AND DESIGN DATA ACCOMPANYING THEIR PERMIT APPLICATION THE FOLLOWING INFORMATION:
1. TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH CONFLICT MANHOLE.
2. A STATEMENT IDENTIFYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT MANHOLE.
3. ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS IN SUB-PARAGRAPHS A. THROUGH D. BELOW. - 361
A. EACH WATER MAIN PASSING THROUGH A CONFLICT MANHOLE SHALL HAVE A FLEXIBLE, WATERTIGHT JOINT ON EACH SIDE OF THE MANHOLE TO ACCOMMODATE DIFFERENTIAL SETTLING BETWEEN THE MAIN AND THE MANHOLE.
B. WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASING PIPE HAVING HIGH IMPACT STRENGTH (I.E., HAVING IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE).
C. EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.
D. GRATINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.
 - SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
(A) NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.006(5)(2), F.S., AND RULE 64E-6.002, F.A.C.

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1000 Captain Haynes Road Tavares, FL 32778
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- GENERAL WATER NOTES**
- (B) EXCEPTIONS WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS IN SUBSECTION (1) OR (2) ABOVE, THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THESE REQUIREMENTS IF SUPPLIERS OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH EXCEPTION AND PROVIDE ALTERNATIVE CONSTRUCTION FEATURES THAT AFFORD A SIMILAR LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION. ACCEPTABLE ALTERNATIVE CONSTRUCTION FEATURES INCLUDE THE FOLLOWING:
(A) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE:
1. USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS INCORPORATED INTO RULE 62-555.330, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY- OR VACUUM-TYPE PIPELINE.
2. USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE; OR
3. USE OF WATER-TIGHT CASING PIPE OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE.
(B) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE:
1. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE WATER MAIN; AND
2. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

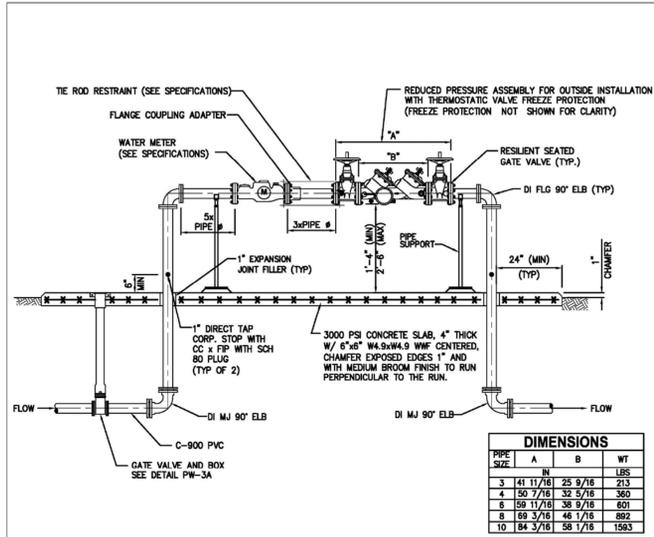
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DATE: APRIL 2018
DETAIL PW-11D

RIDDLE - NEWMAN ENGINEERING, INC.
115 NORTH CANAL STREET
LEESBURG, FLORIDA 34748
PHONE (352) 787-7482
FAX (352) 787-7412
keith@riddlenewman.com
CA# 0002853

RIDDLE NEWMAN ENGINEERING INC.
ESTABLISHED 1971

TYPICAL WATER DETAILS
LAKE COUNTY ANIMAL SHELTER
LAKE COUNTY FLORIDA

DATE: APRIL 2018
PROJECT NO: 18.30
SHEET NO: C6.2



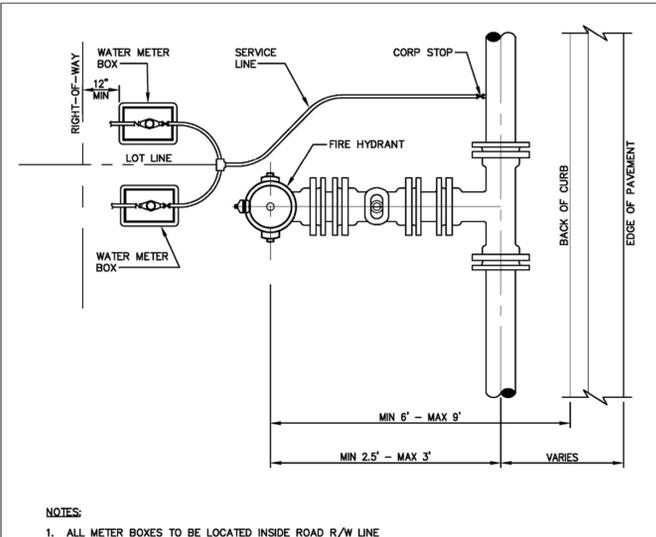
REDUCED PRESSURE BACKFLOW PREVENTER W/ WATER METER DETAIL

NOT TO SCALE



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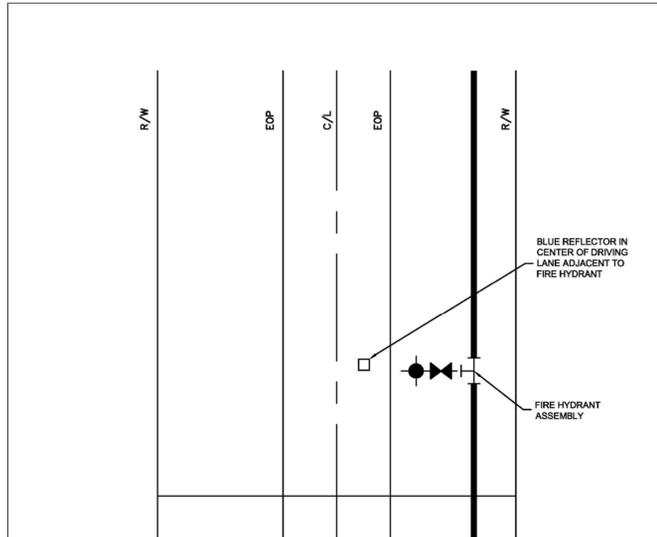
TYPICAL WATER SERVICE AND HYDRANT LOCATION

NOT TO SCALE



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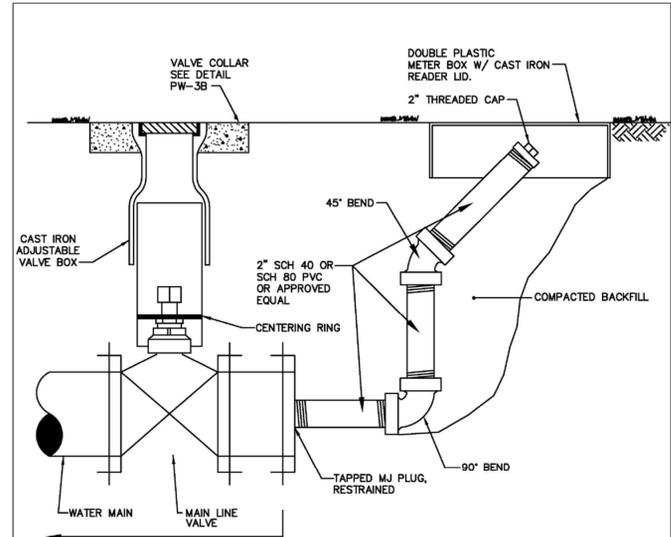
FIRE HYDRANT REFLECTOR

NOT TO SCALE



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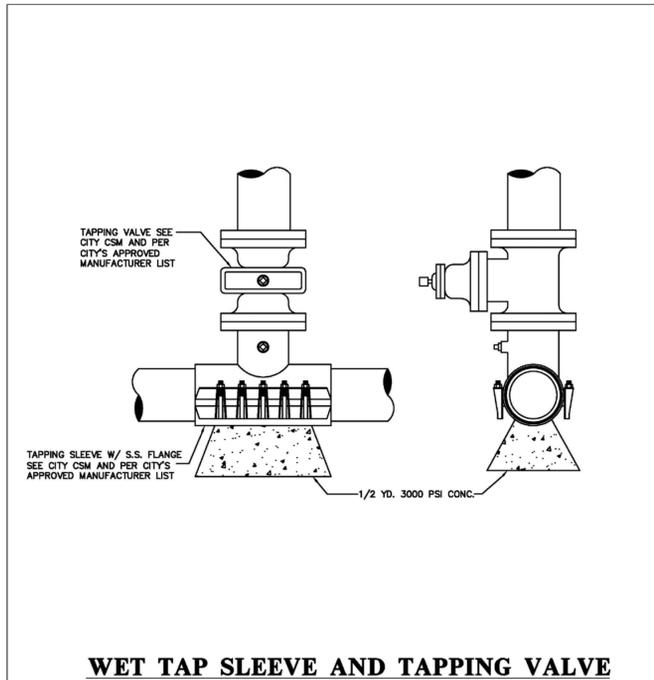
BLOWOFF VALVE

NOT TO SCALE



City of Tavares Standard Details
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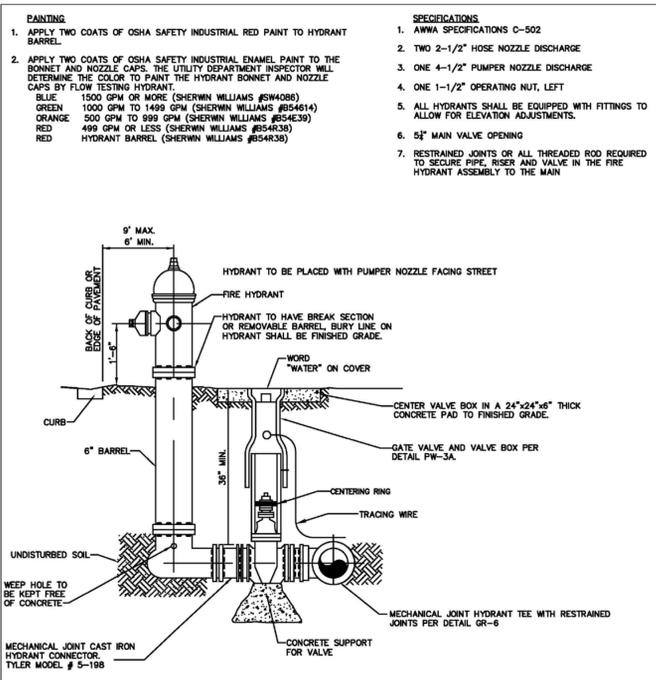
WET TAP SLEEVE AND TAPPING VALVE

NOT TO SCALE



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FIRE HYDRANT WITH VALVE

NOT TO SCALE (STANDARD FIRE HYDRANT ASSEMBLY)



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NDS METER BOXES
STANDARD COMMERCIAL GRADE
NDS D1200 Meter Boxes (cont.)

Part Number	Description - Marking	Color (Box/Cover)	Full Qty	Weight (lb)	Product Class
D1200-DICRSP	14x19x12 Standard Box, Drop-in Meter Reader, Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Purple/Purple	72	19.30	20M6
D1200-DULSB	14x19x12 Standard Box, Overlapping Solid Plastic Cover - Water Meter	Black/Black	72	9.20	20M6
D1200-DULSBL	14x19x12 Standard Box, Overlapping Solid Plastic Cover - Water Meter	Black/Black	72	9.20	20M6
D1200-DULSDB	14x19x12 Standard Box, Overlapping Solid Plastic Cover - Water Meter	Black/Black	72	9.40	20M6
D1200-DULSCL	14x19x12 Standard Box, Overlapping Solid Plastic Cover - Water Meter	Black/Black	72	10.00	20M6
D1200-DULSD	14x19x12 Standard Box, Overlapping Solid Plastic Cover - Water Meter	Black/Purple	72	9.20	20DV
D1200-DULSP	14x19x12 Standard Box, Overlapping Solid Plastic Cover - Reclaimed Water	Black/Purple	72	9.20	20DV
D1200-DULSR	14x19x12 Standard Box, Overlapping Solid Plastic Cover - Reclaimed Water	Black/Black	72	9.20	20M6
D1200-DULSL	14x19x12 Standard Box, Overlapping Solid Plastic Cover - Reclaimed Water	Black/Black	72	9.20	20M6
D1200-DICR	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Water Meter	Black/Black	72	10.30	20M6
D1200-DICRSP	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black/Black	72	10.30	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.20	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.20	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Blue	216	2.20	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Purple	216	2.20	20DV
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.20	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Blue	216	2.20	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Purple	216	2.20	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.40	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.40	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.69	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.40	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.40	20DV
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	12.20	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	2.40	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Blue	216	2.40	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	216	3.80	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	72	6.80	20M6
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Purple	72	6.80	20DV
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	72	6.80	20DV
D1200-DICRBL	14x19x12 Standard Box, Overlapping Meter Reader Plastic w/ Cast Iron Reader Cover - Reclaimed Water	Black	72	6.80	20DV

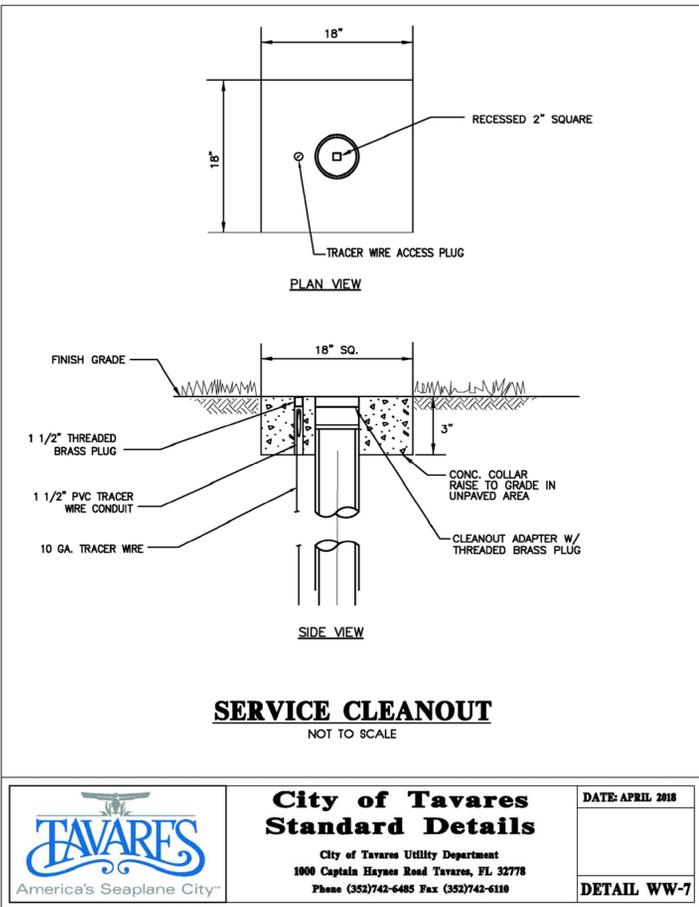
SINGLE PLASTIC METER BOX

NOT TO SCALE



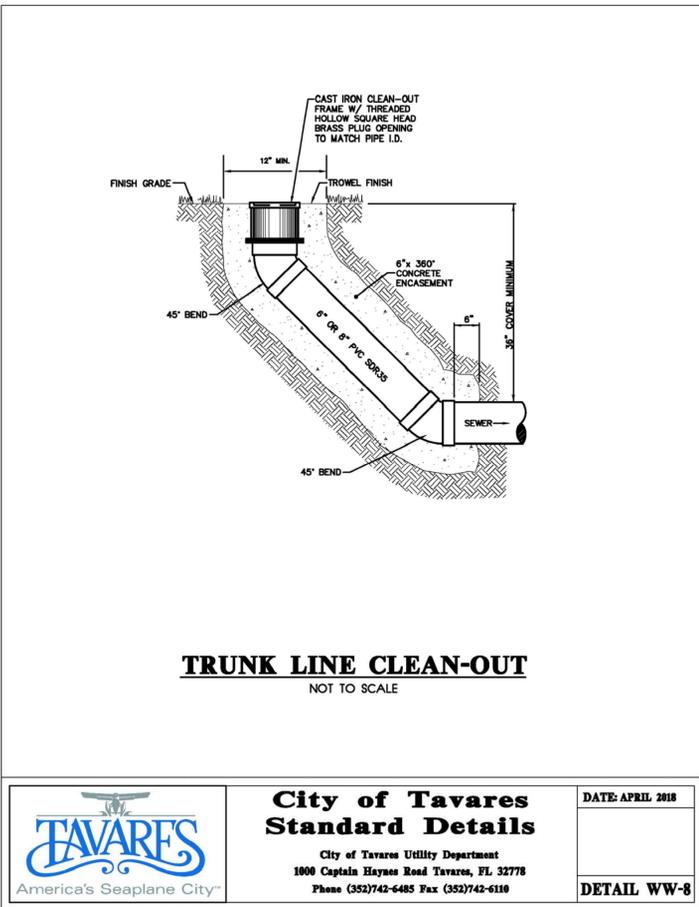
City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Hayes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL PW-19



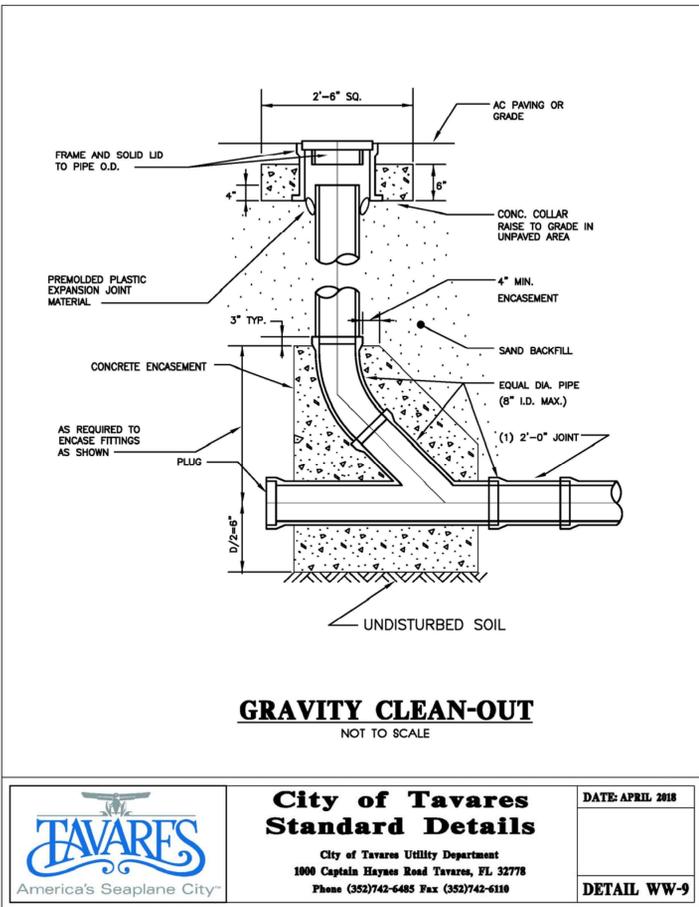
City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Hayes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL WW-7



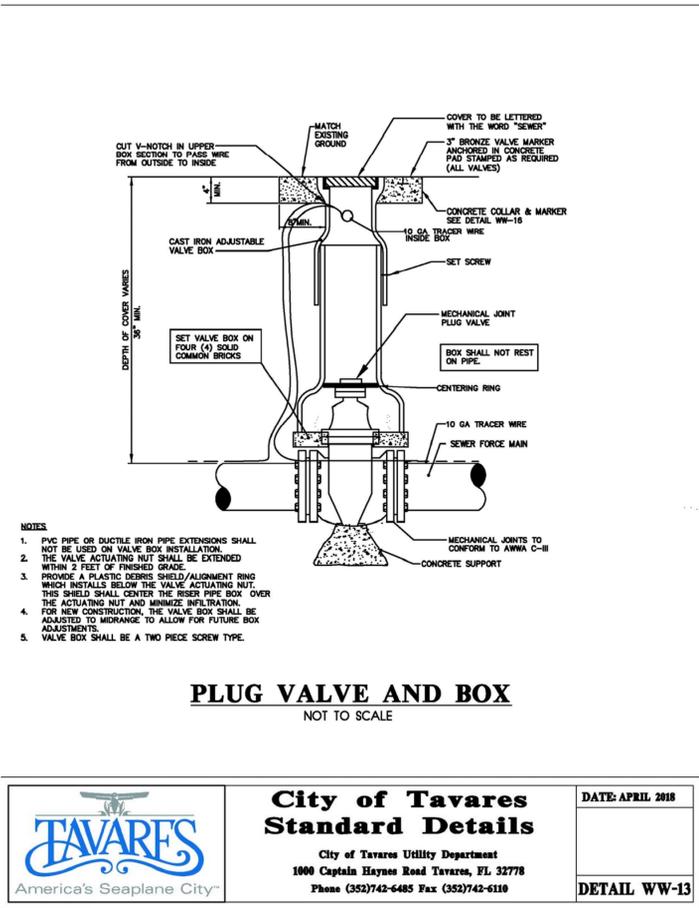
City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Hayes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL WW-8



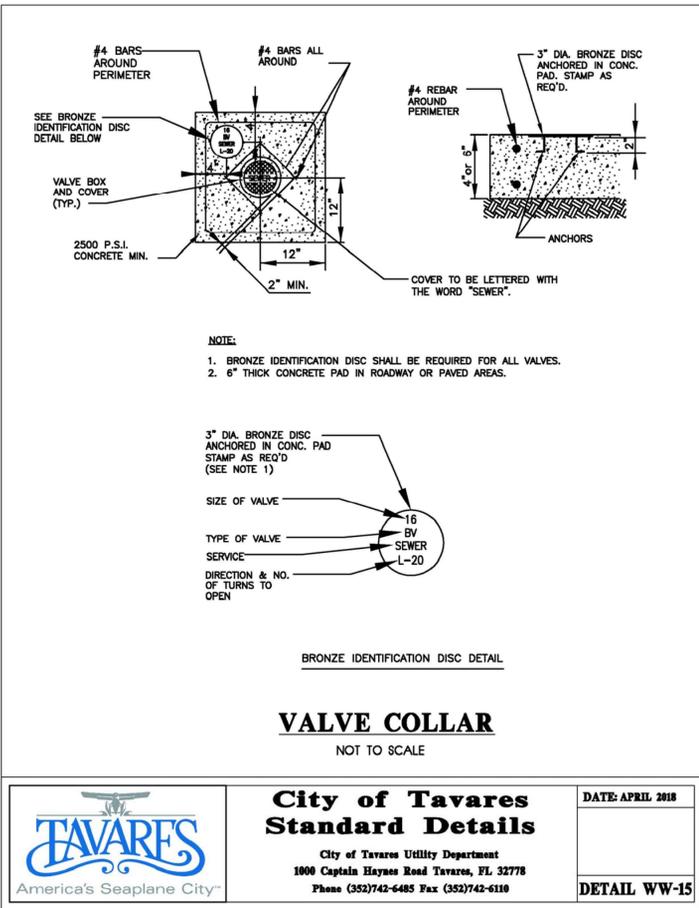
City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Hayes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL WW-9



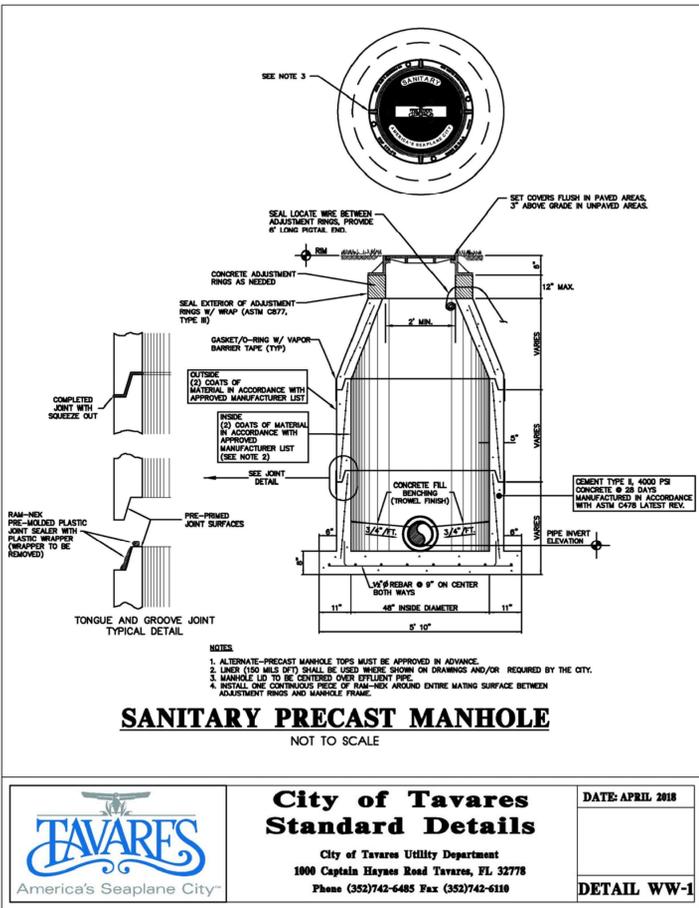
City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Hayes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL WW-13



City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Hayes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL WW-15



City of Tavares Standard Details
City of Tavares Utility Department
1000 Captain Hayes Road Tavares, FL 32778
Phone (352)742-6485 Fax (352)742-6110

DATE: APRIL 2018
DETAIL WW-1

RIDDLE - NEWMAN ENGINEERING, INC.
115 NORTH CANAL STREET
LEESBURG, FLORIDA 34748
PHONE (352) 787-7482
FAX (352) 787-7412
keith@riddlenewman.com
CA# 00002853

RIDDLE NEWMAN ENGINEERING INC.
ESTABLISHED 1971

REV #
REV #
REV #
REV #

KEITH E. RIDDLE, P.E.
FLA. REGIS. NO. 38800

DRAWN: R.S.H.
CHECKED: K.E.R.
SCALE: N.T.S.
DATE: 5/6/19
PROJECT NO: 18.30

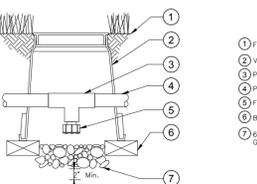
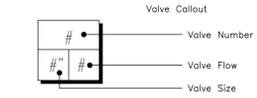
TYPICAL SANITARY SEWER DETAILS
LAKE COUNTY ANIMAL SHELTER
LAKE COUNTY FLORIDA

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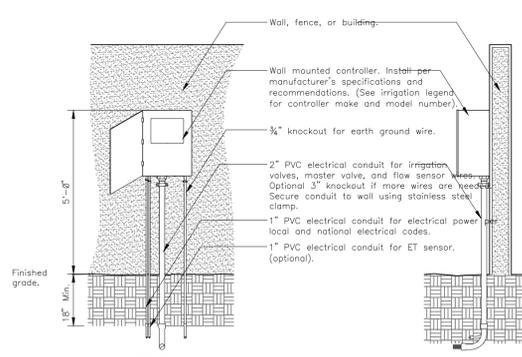
SHEET NO.
C6.4

IRRIGATION SCHEDULE

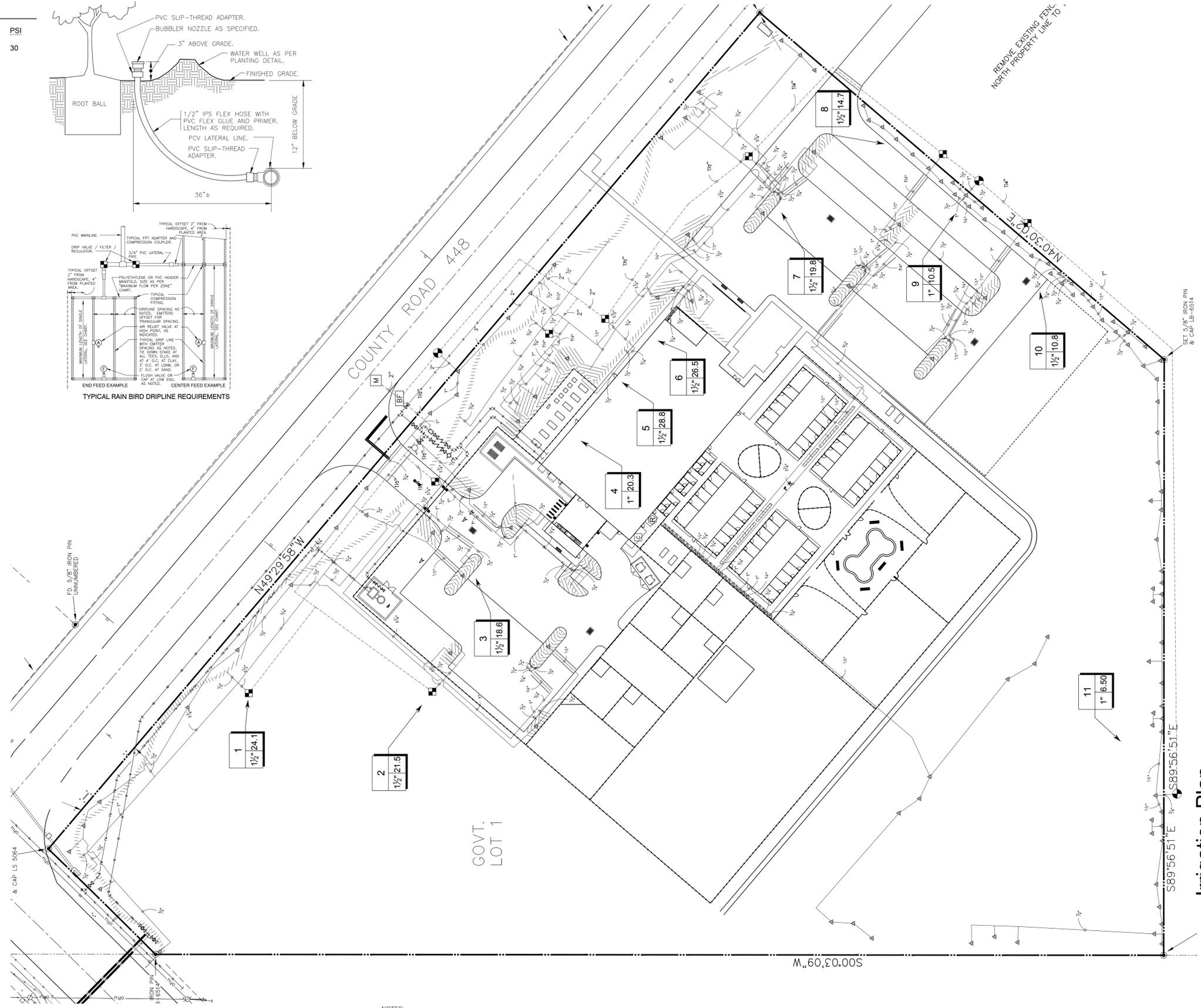
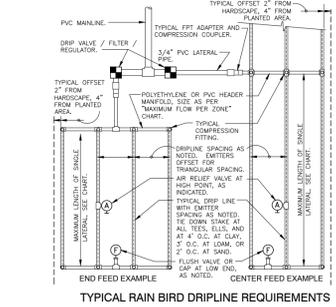
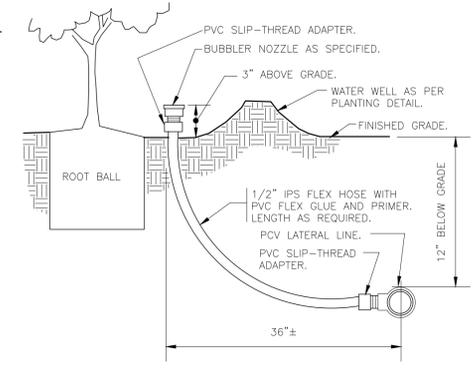
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1800-1400 Flood 1401 Fixed flow rate (0.25-2.0GPM), full circle bubbler, 1/2" FIPT.	149	30
	Rain Bird X CZ-150-PRB-COM 1-1/2" High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2" PESB Valve with two 1" Pressure Regulating (40psi) Quick-Check Basket Filters. Flow range: 15-40gpm.	8	
	Area to Receive Dripline Rain Bird XFD-09-12-NP XFD On-Surface Pressure Compensating Landscape Dripline. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	10,992 l.f.	
	Rain Bird PESBR-PRS-D 1" 1", 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, Purple Flow Control Handle, and Pressure Regulator Module.	3	
	Febco 765 1" Pressure Vacuum Breaker, brass with ball valve SOV. Install 12" (305MM) above highest downstream outlet and the highest point in the downstream piping.	1	
	Rain Bird ESP12LXMEF-LXMM 12 Station Commercial Controller. Powder-coated Metal Cabinet. Flow Sensing	1	
	Rain Bird WR2-RFC Wireless Rain and Freeze Sensor Combo, includes 1 receiver and 1 rain/freeze sensor transmitter.	1	
	Water Meter 1"	1	
	Irrigation Lateral Line: PVC Class 160 SDR 26 1/2"	4,465 l.f.	
	Irrigation Lateral Line: PVC Class 160 SDR 26 3/4"	1,056 l.f.	
	Irrigation Lateral Line: PVC Class 160 SDR 26 1"	554.0 l.f.	
	Irrigation Lateral Line: PVC Class 160 SDR 26 1 1/4"	1,060 l.f.	
	Irrigation Lateral Line: PVC Class 160 SDR 26 1 1/2"	306.8 l.f.	
	Irrigation Lateral Line: PVC Class 160 SDR 26 2"	107.6 l.f.	
	Irrigation Mainline: PVC Schedule 40 1"	509.8 l.f.	
	Irrigation Mainline: PVC Schedule 40 1 1/4"	298.4 l.f.	
	Irrigation Mainline: PVC Schedule 40 1 1/2"	637.1 l.f.	
	Irrigation Mainline: PVC Schedule 40 2"	291.3 l.f.	
	Pipe Sleeve: PVC Schedule 80 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeve material. Extend sleeves 18 inches beyond edges of paving or construction.	355.5 l.f.	



- 1 FINISH GRADE/TOP OF MULCH
- 2 VALVE BOX WITH COVER: RAIN BIRD VB-6RND
- 3 PVC SCH 40 TEE
- 4 PVC LATERAL PIPE
- 5 FILTERED DRINK VALVE: RAIN BIRD 16A-FDV-075
- 6 BRICK (1 OF 2)
- 7 6-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL



Notes:
 1- Common and controller wire to be bundled using electrical tape at 10"-0" on center.
 2- Grounding rods shall be located between 8"-0" to 12"-0" away from the controller. Grounding rods shall be 3/8" in diameter x 8' in length. Connect the grounding rod to the controller using 6 gauge bare copper wire or per the manufacturer's specifications. See grounding rod detail.
 3- ET Station shall be installed no further than 90' away from the controller and a minimum of 15' off of the ground, out from under any overhead obstructions such as, but not limited to, building overhangs, trees, or utility lines. TREE FOUNDATION ©2014 OPEN SOURCE FREE TO USE



NOTES:
 PIPE ROUTING AND VALVE LOCATIONS ARE DIAGRAMMATICAL ONLY.
 IRRIGATION CONTRACTOR IS TO AVOID ANY CONFLICT WITH THE TREE AND SHRUB PLANTINGS.
 ALL MAINLINES ARE TO BE 2" sch. 40 P.V.C.
 ALL LATERALS ARE TO BE sch. 160 P.V.C. OF THE SIZE NOTED.
 ALL HEADS TO HAVE RECLAIMED WATER USE INDICATORS.
 ALL PIPES SHALL BE PURPLE IN COLOR TO DENOTE USE OF RECLAIMED WATER.
 ALL PAVEMENT CROSSINGS ARE TO BE MADE IN SLEEVES THAT ARE TWO PIPE SIZES LARGER THAN THE CROSSING.
 NO IRRIGATION HEADS TO BE LOCATED WITHIN 24" OF ANY BUILDING.
 EXACT LOCATION OF UNDERGROUND UTILITIES SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.

Irrigation Plan

Lake County Animal Shelter
 Lake County, Florida



Green Consulting Group, Inc.
 Landscape Architecture ■ Land Planning ■ Development Assistance
 4070 United Avenue, Mount Dora, Florida 32757
 352-357-9241 ■ Fax 352-357-9278 ■ LC26000288

Drawing Number: 142-1-06
 Originated From: 142-1-05
 Date: May 6, 2019
 Scale: 1" = 40'
 Drawn By: JMA
 Layout: 24"x36"



SPECIFICATIONS (PS-275-S)

1. 4" inlet/outlet Sch. 40. (No-Hub)
2. Liquid capacity: 250 Gallons
3. Solids capacity: 210 Gallons
4. Unit weight w/std. covers: 270 lbs. w/ cast iron covers: 386 lbs.
5. Highway rated composite cover, 16,000 lbs load.
6. Maximum operating temperature 140 °F continuous.

NOTES

1. For gravity drainage applications only. Do not use for pressure applications.
2. 3/8" thick seamless polyethylene walls.
3. Unit supplied with built-in adapter(s) for up to 6" of adjustability. Additional riser(s) are also available for deeper burial depth.
4. Cover placement allows full access to tank. For proper maintenance.
5. Designed narrow footprint allows clearance through doorways and down stairwells.
6. Internal components are removable for easy maintenance.
7. For on-the-floor or buried applications.

ENGINEER SPECIFICATION GUIDE

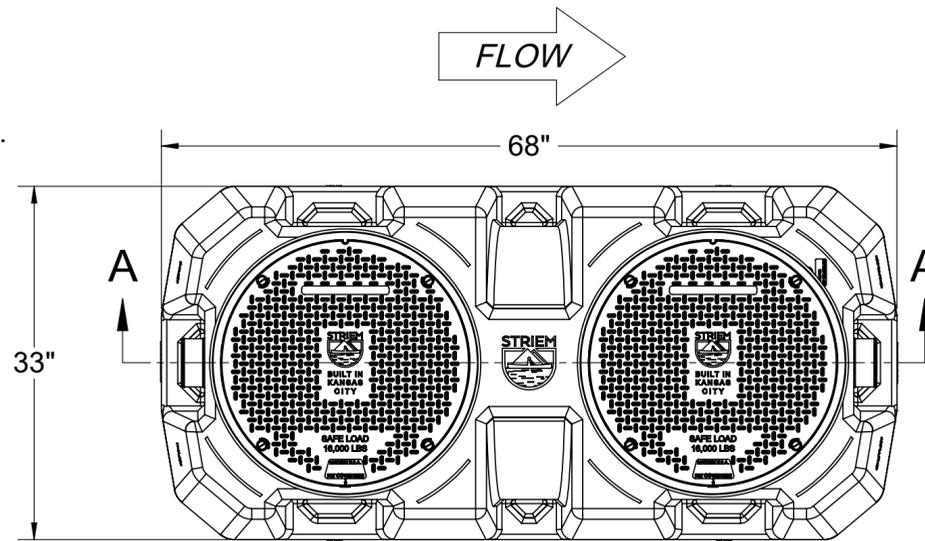
Striem Prospector™ solids interceptor model PS-275-S shall be lifetime guaranteed and Made in USA of seamless, rotationally-molded Medium Density Polyethylene with minimum 3/8" uniform wall thickness. Interceptor shall be furnished for above or below-grade installation. Interceptor shall be furnished with filter screen and connection for extending handle for deep burials. Cover shall provide water/gas-tight seal and have a maximum 16,000 lbs load capacity

OPTIONS

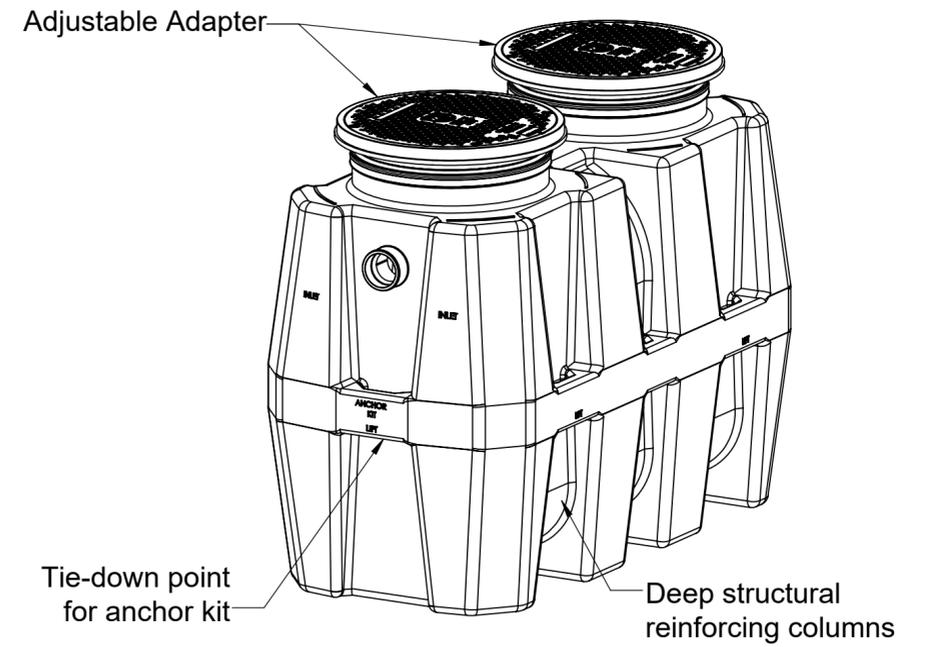
- 4M** - 4" Male thread inlet / outlet
- 6P** - 6" Plain end inlet / outlet
- C24-HP (2)** - H2O rated pickable cast iron covers
- AK-1** - High water table 304 stainless steel anchor kit
- C** - Coarse filter with .30" x .27" openings
- M** - Medium filter with .10" x .08" openings
- F** - Fine filter with .03" x .025" openings

TeleGlide RISER OPTIONS

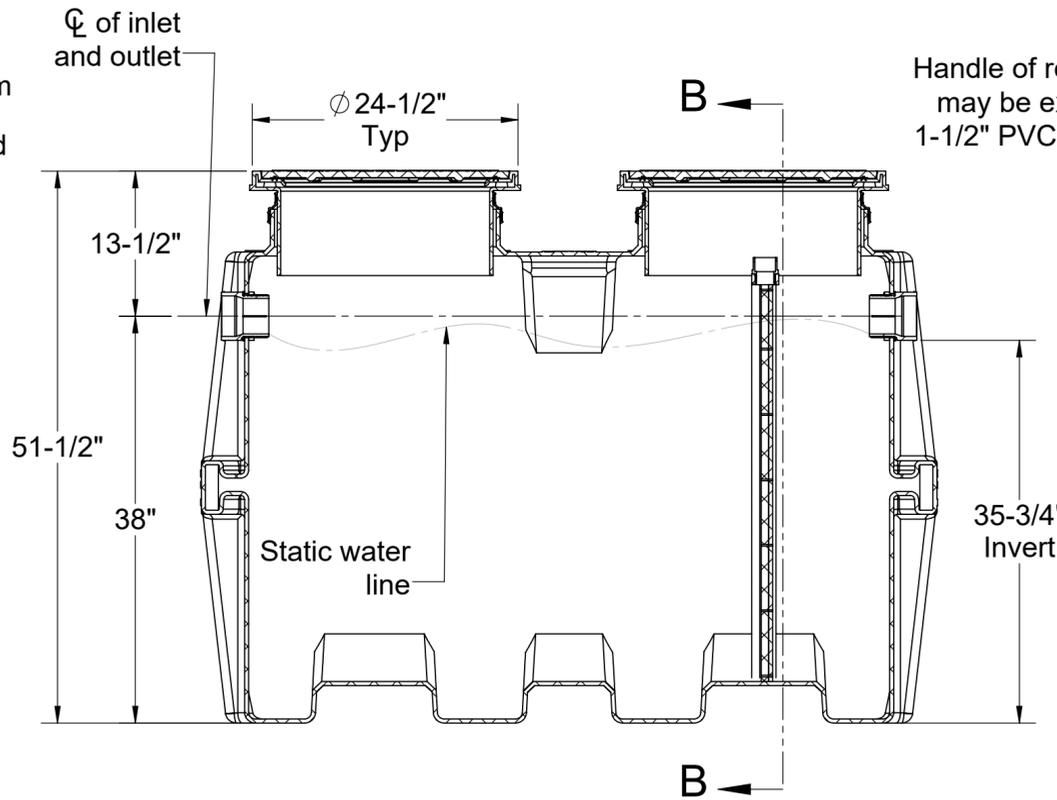
- SR24 (2)** - >6"-24"
- LR24 (2)** - >24"-39"
- SR24 (4)** - >39"-43"
- SR24 (2) + LR24 (2)** - >43"-58"
- LR24 (4)** - >58"-72"



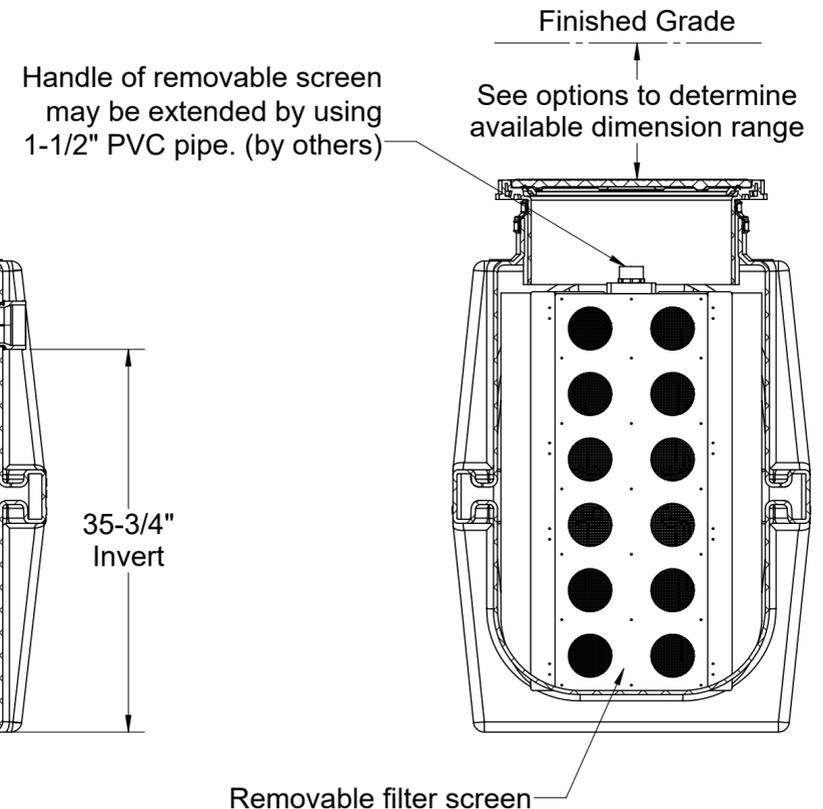
TOP VIEW



ISOMETRIC VIEW



SECTION A-A



SECTION B-B

MODEL NUMBER: PS-275-S	
DESCRIPTION: PROSPECTOR SERIES POLYETHYLENE SCREEN STYLE SOLIDS INTERCEPTOR 250 LIQUID GALLON CAPACITY	
DWG BY: MJ	DATE: 01/24/19
REV: 0	ECO:

SPECIFICATION SHEET

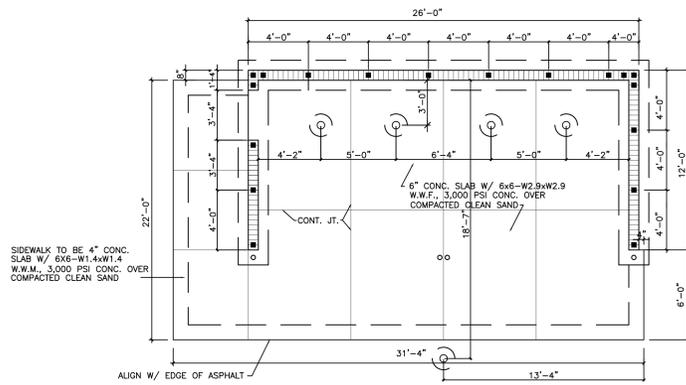
Striem
3100 Brinkerhoff
Kansas City, KS 66115
Tel: 913-222-1500
Fax: 913-291-0457
www.striemco.com



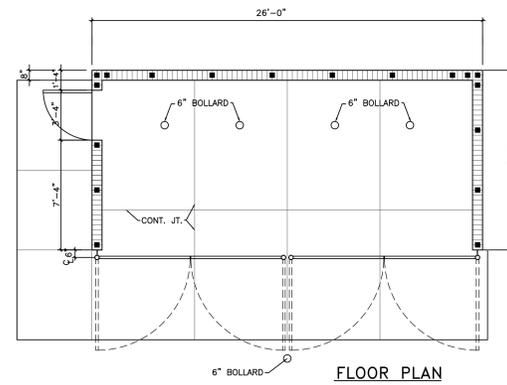
Made in the U.S.A

PROPRIETARY AND CONFIDENTIAL

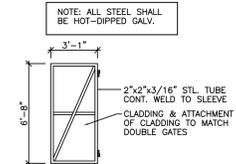
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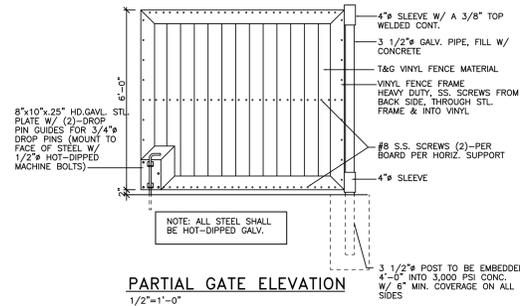
FOUNDATION PLAN
1/4"=1'-0"



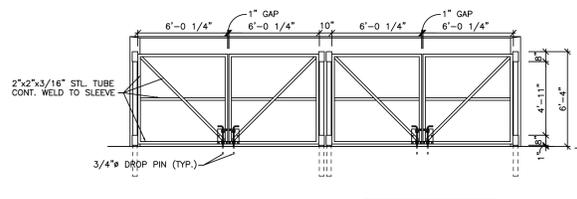
FLOOR PLAN
1/4"=1'-0"



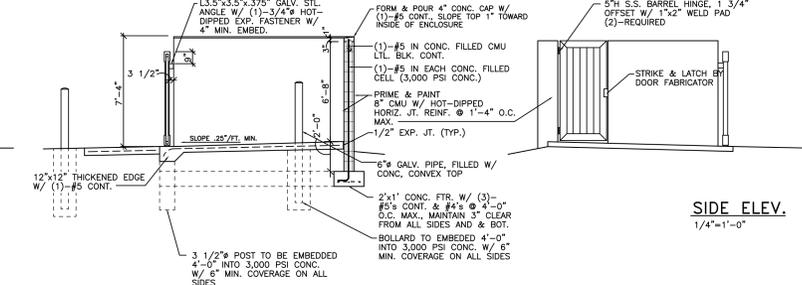
DOOR FRAME ELEV.
1/4"=1'-0"



PARTIAL GATE ELEVATION
1/2"=1'-0"



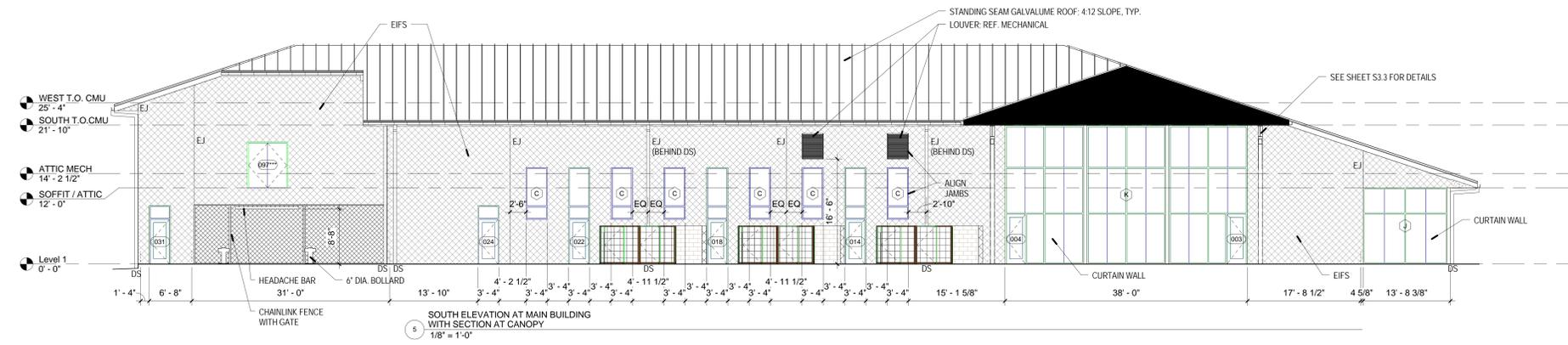
GATE FRAME ELEVATION
1/4"=1'-0"



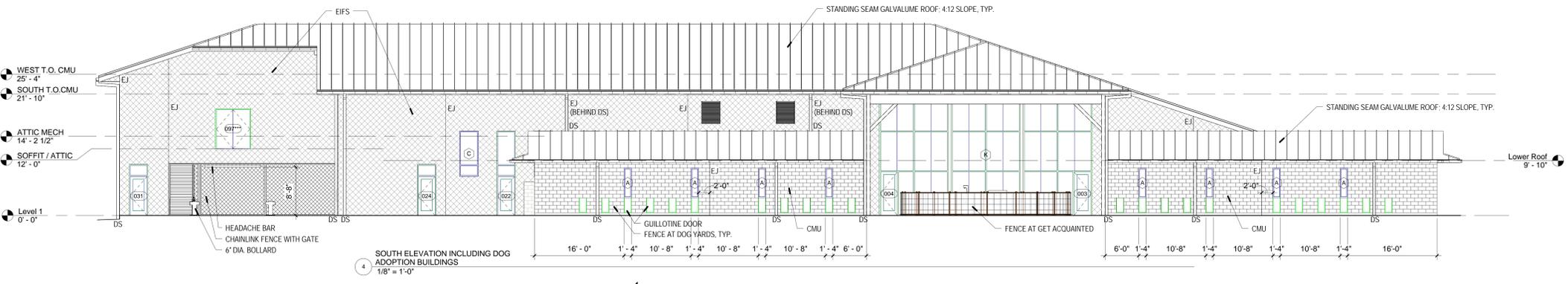
SECTION
1/4"=1'-0"

DUMPSTER ENCLOSURE

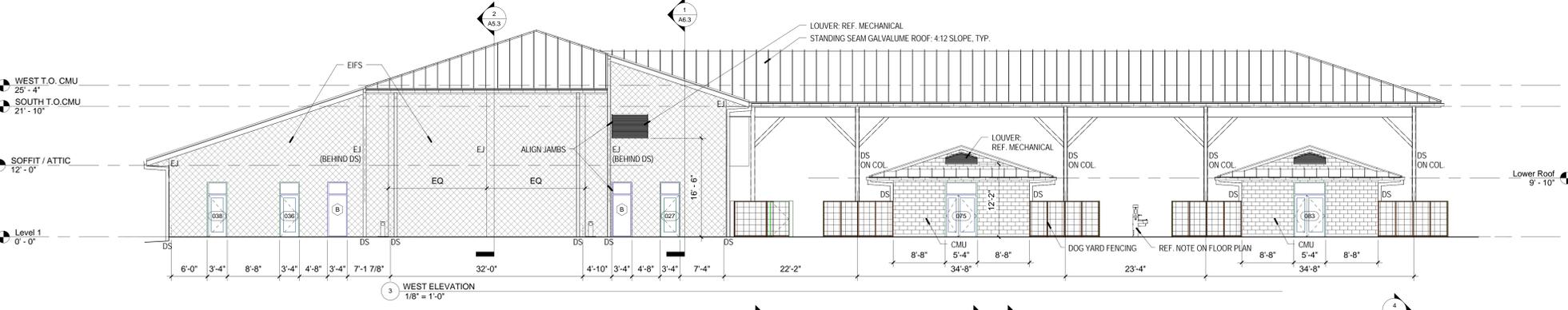




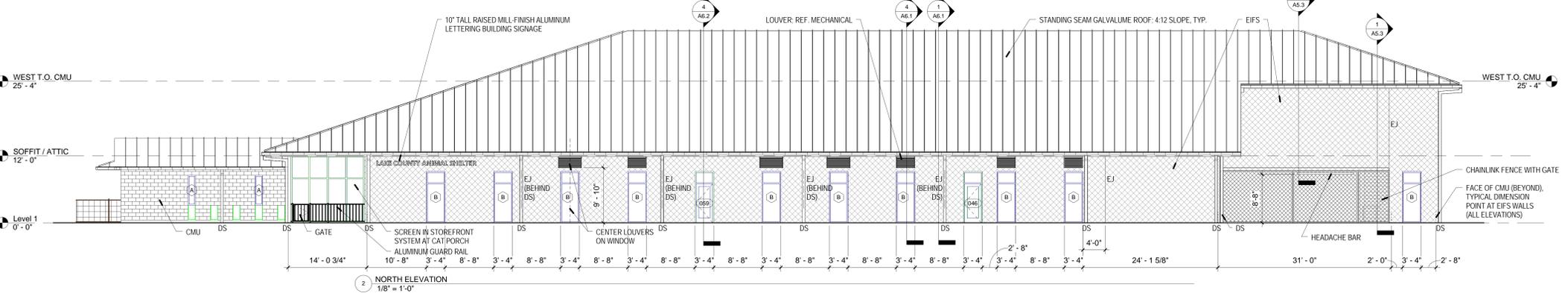
3 SOUTH ELEVATION AT MAIN BUILDING WITH SECTION AT CANOPY
1/8" = 1'-0"



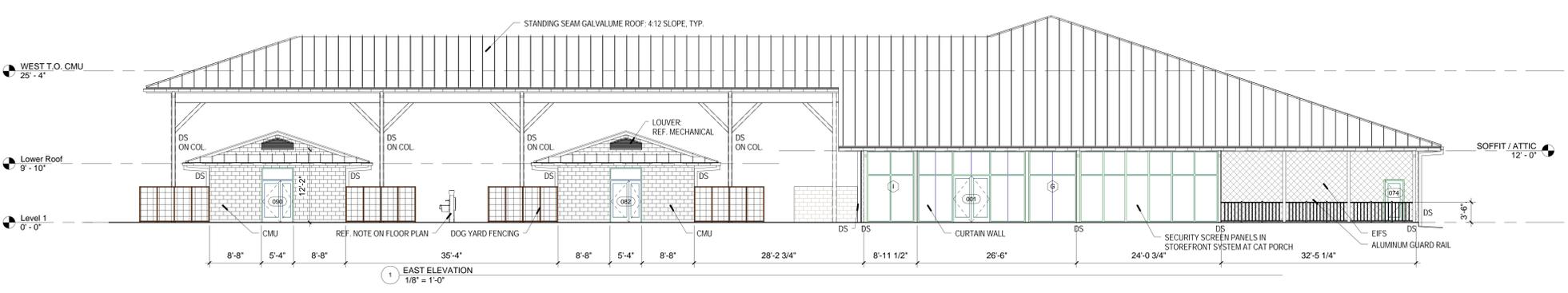
4 SOUTH ELEVATION INCLUDING DOG ADOPTION BUILDINGS
1/8" = 1'-0"



5 WEST ELEVATION
1/8" = 1'-0"



2 NORTH ELEVATION
1/8" = 1'-0"



1 EAST ELEVATION
1/8" = 1'-0"

