

CITY OF FELLSMERE

NAVD 1988

ALL ELEVATIONS DEPICTED HEREON REFERENCE NAVD 1988. THE CONVERSION FACTOR TO NGVD 1929 IS +1.44'

SHEET INDEX

C-1 OVERALL SITE PLAN W/ WETLAND IMPACTS

NORTHEAST GRADING PLAN

SOUTHERN GRADING PLAN

GENERAL NOTES AND DETAILS

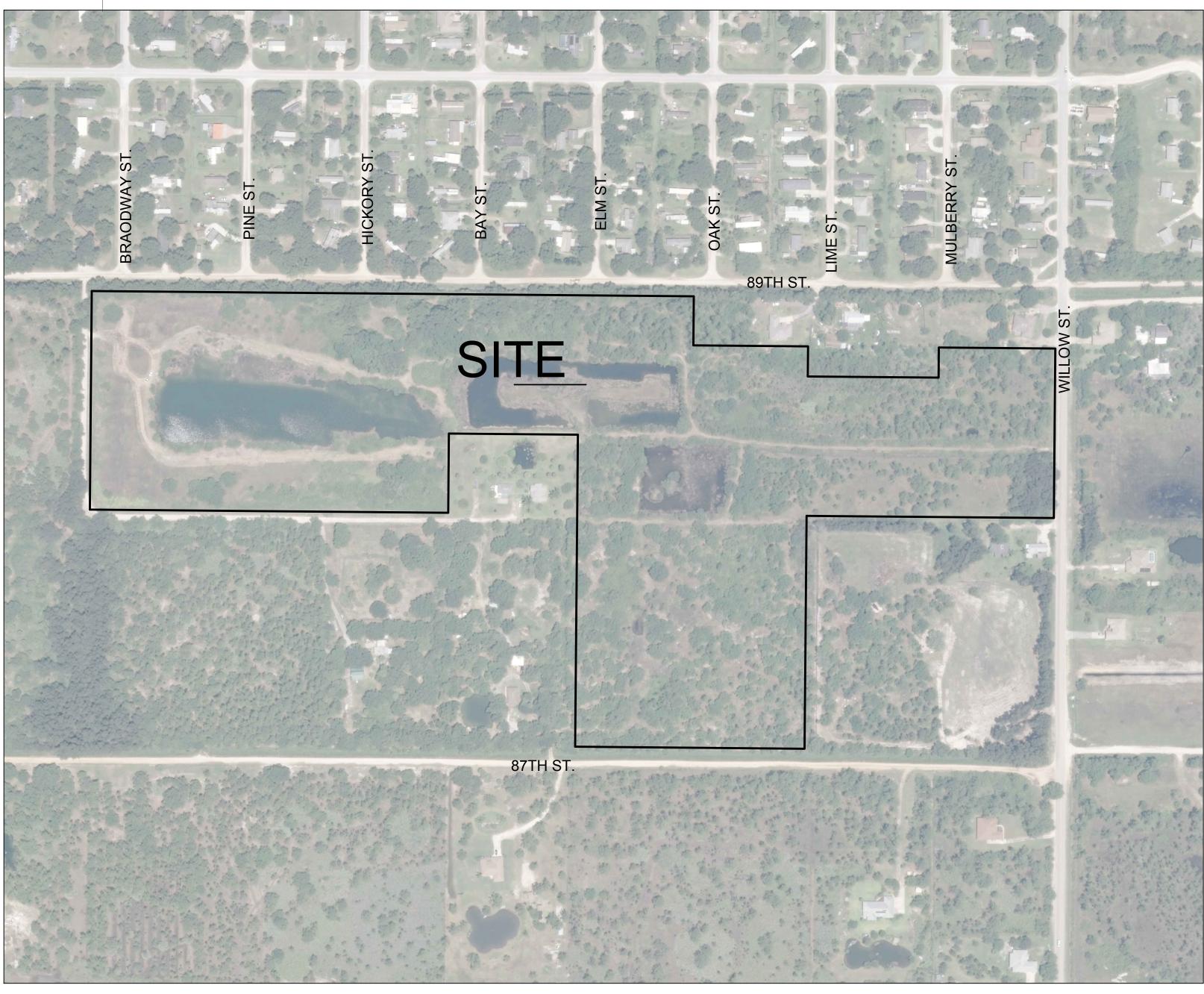
EROSION CONTROL PLAN AND DETAILS

CROSS SECTIONS

NORTHWEST GRADING PLAN AND DETAILS

FELLSMERE SOUTH REGIONAL LAKE





AERIAL IMAGERY 1" = 200'

CITY OF FELLSMERE

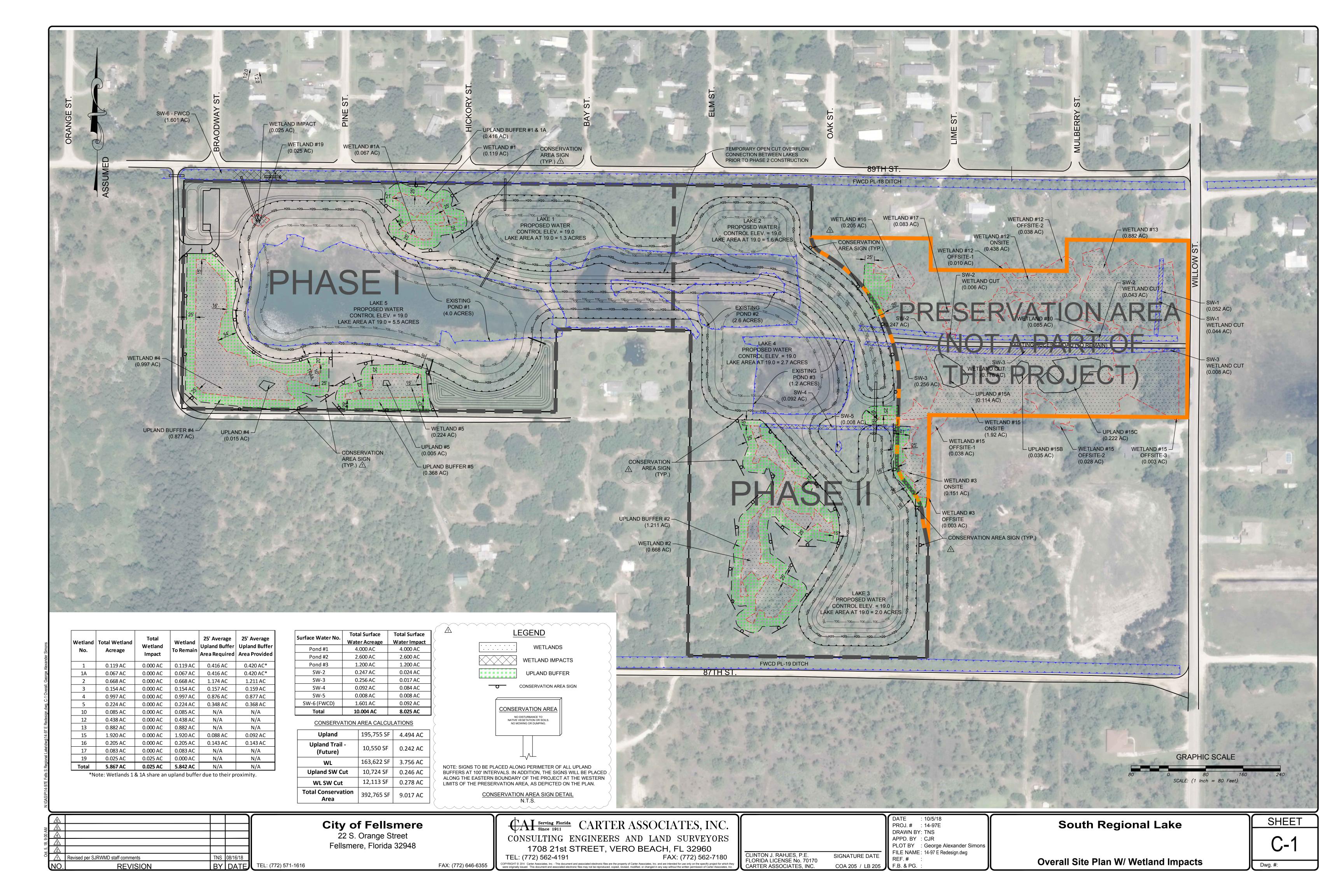
22 S. ORANGE STREET FELLSMERE, FL 32948

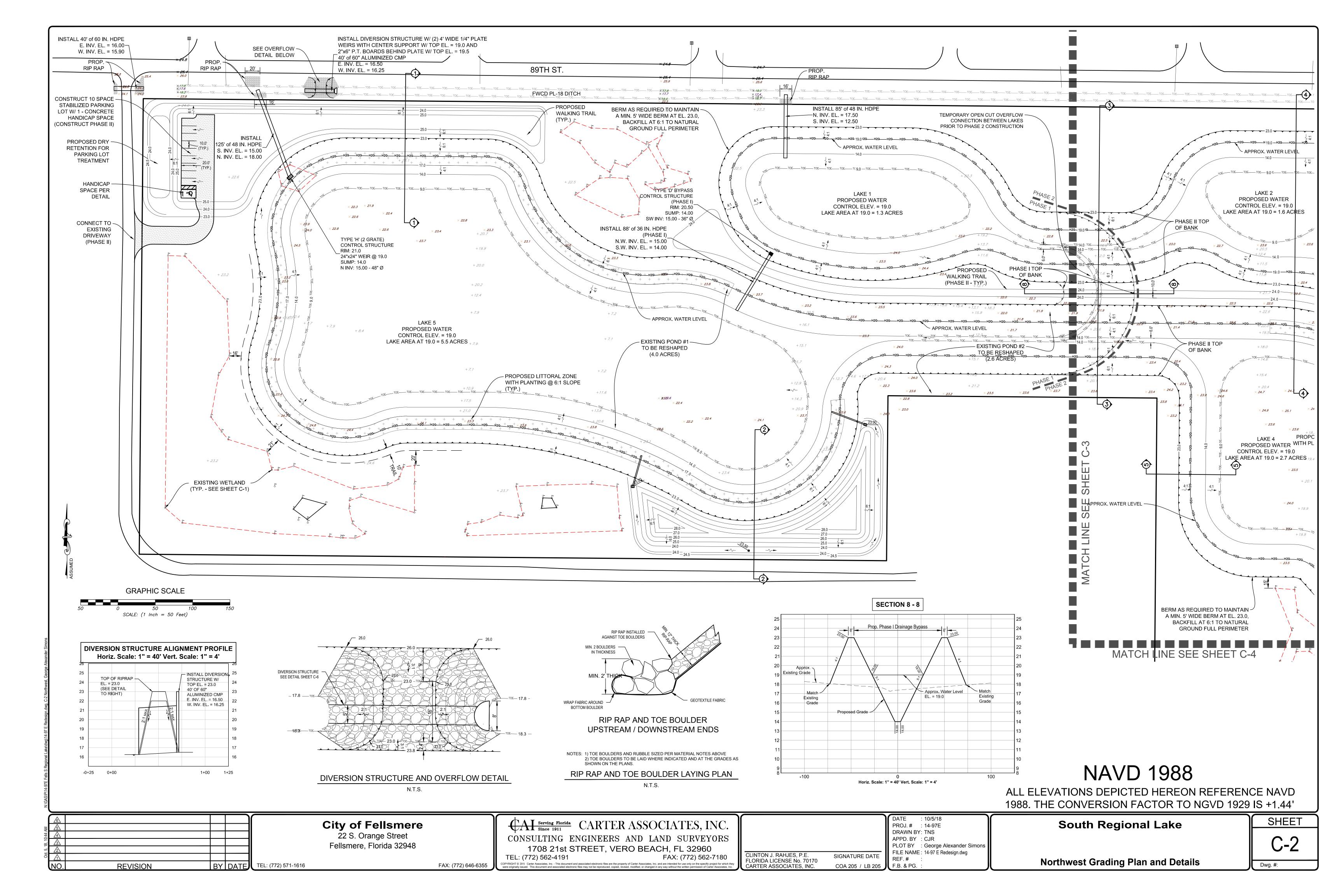
CONSULTING ENGINEERS AND LAND SURVEYORS 1708 21st STREET, VERO BEACH, FL 32960 FAX: (772) 562-7180 TEL: (772) 562-4191

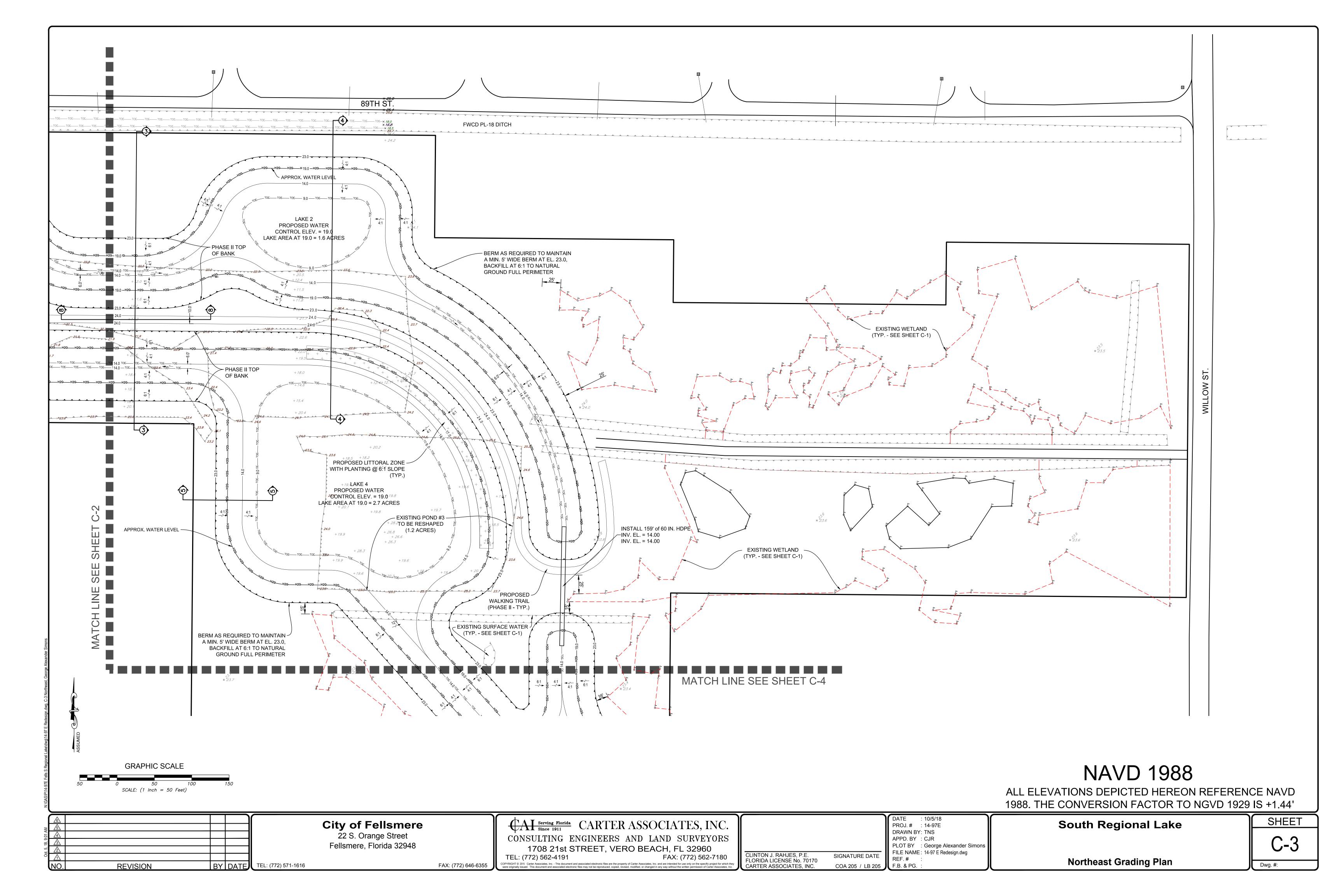
CARTER ASSOCIATES, INC.

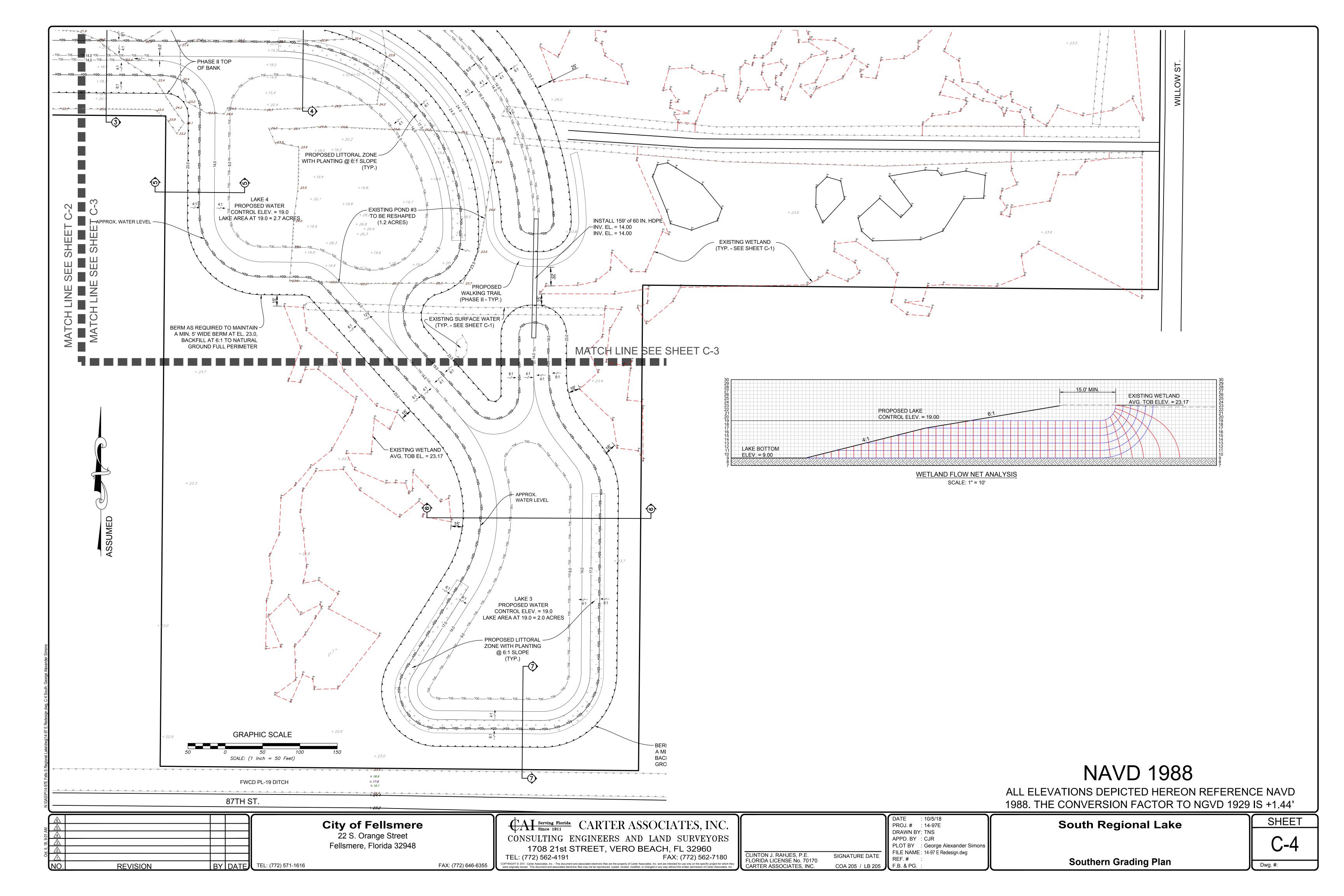
CLINTON J. RAHJES, P.E. FLORIDA LICENSE No. 70170 CARTER ASSOCIATES, INC.

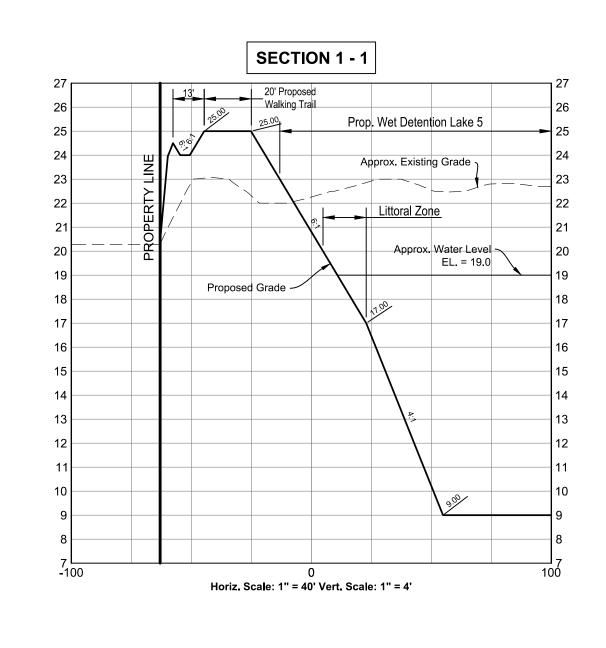
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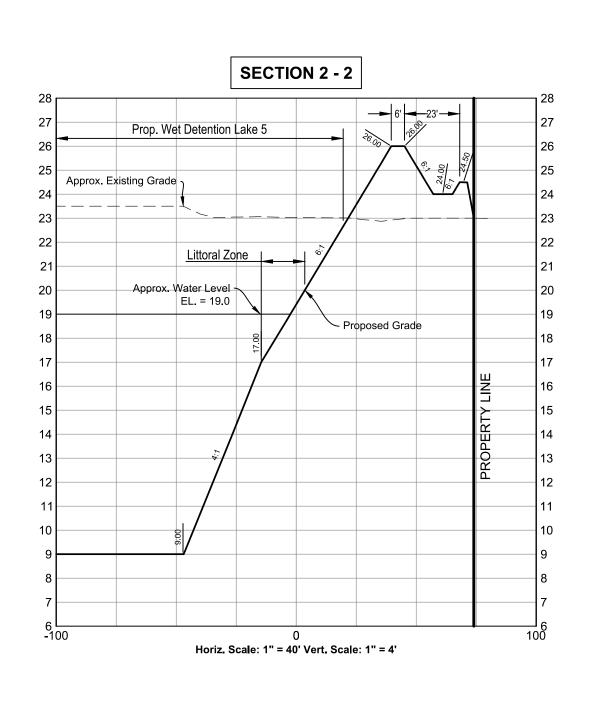


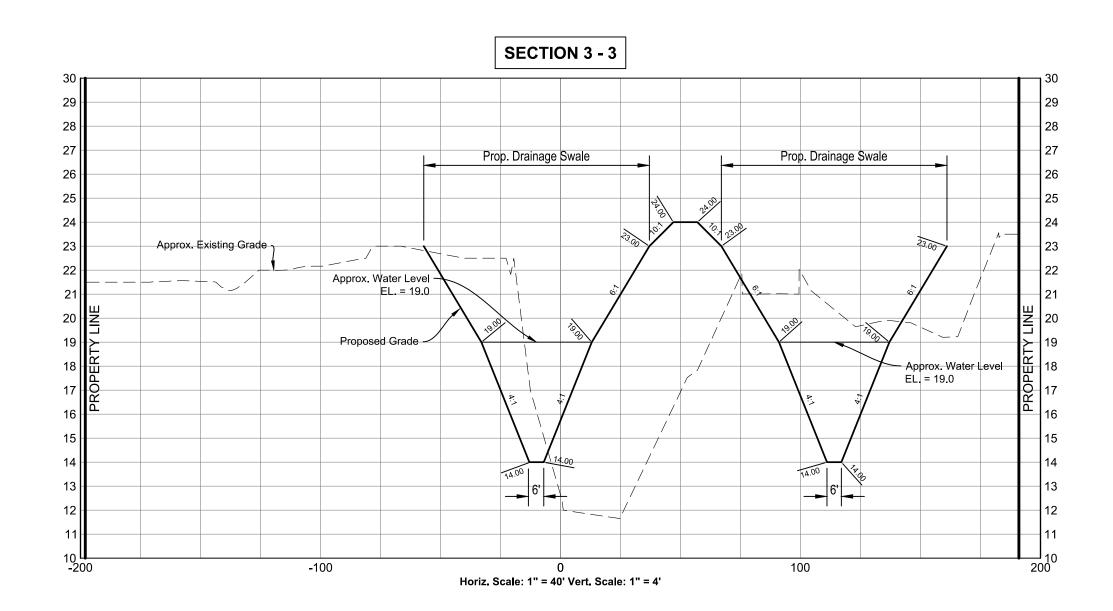


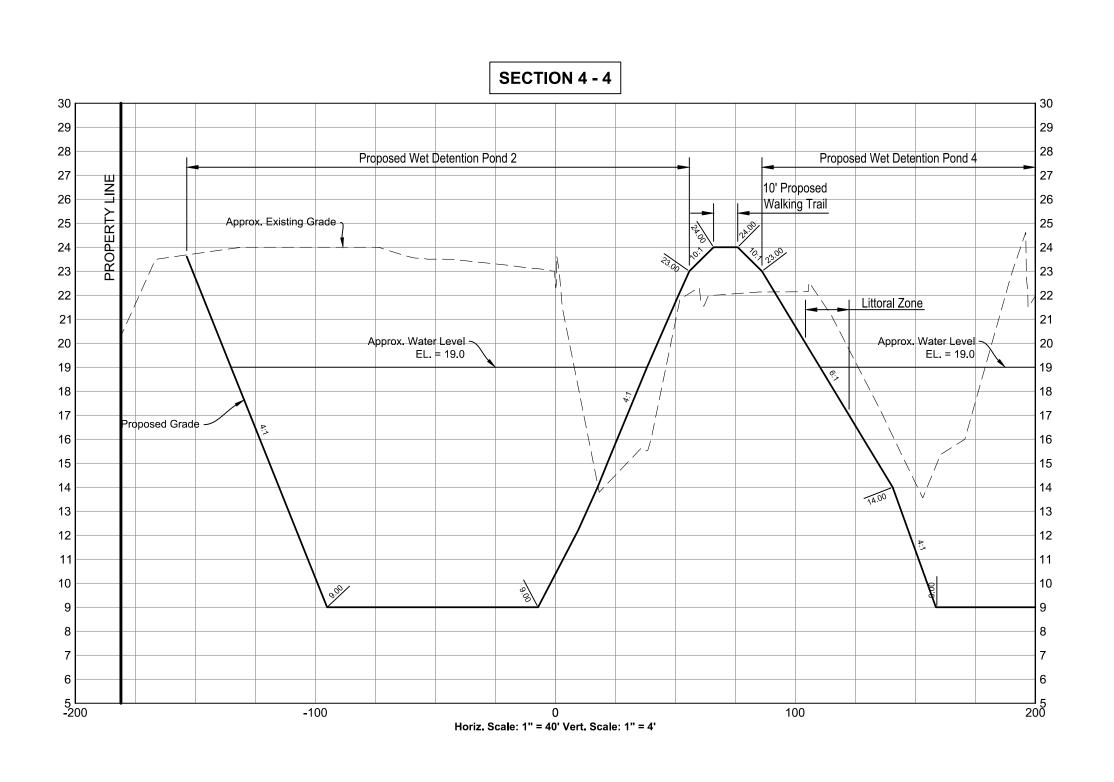


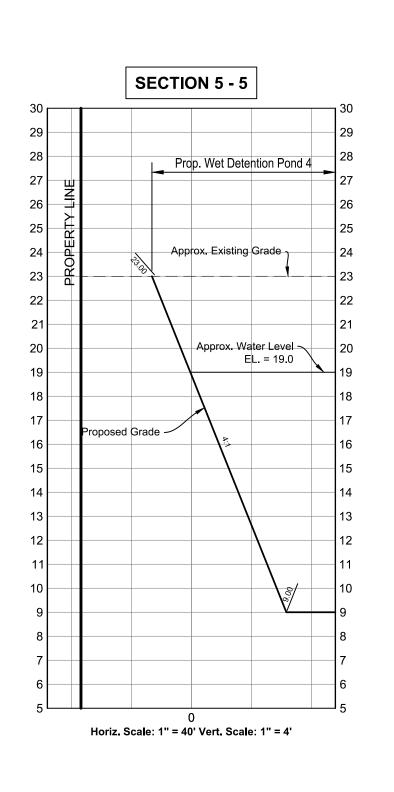


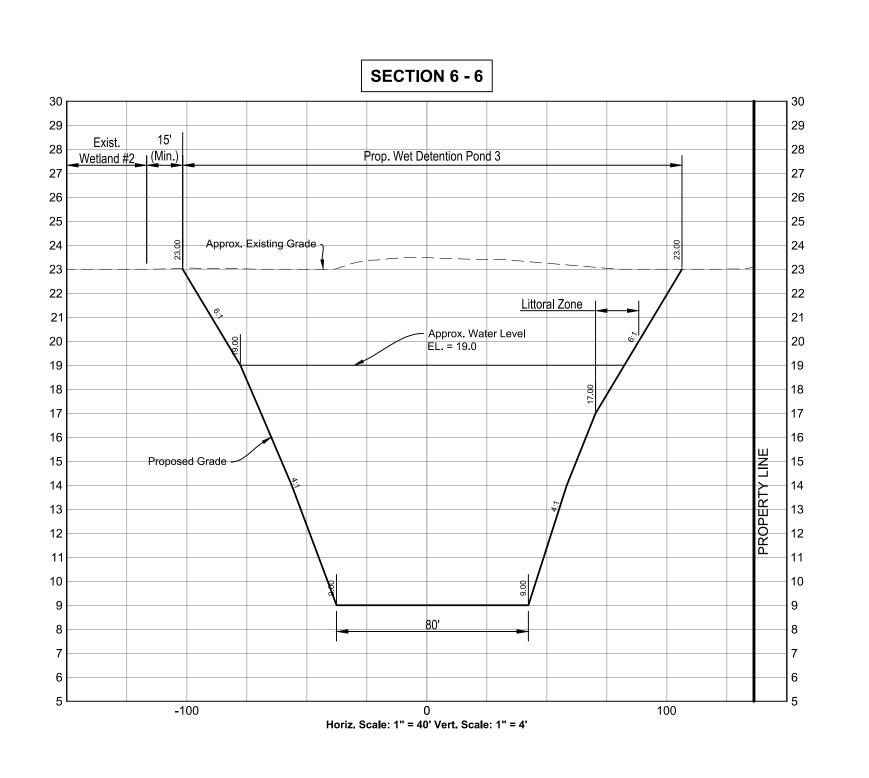


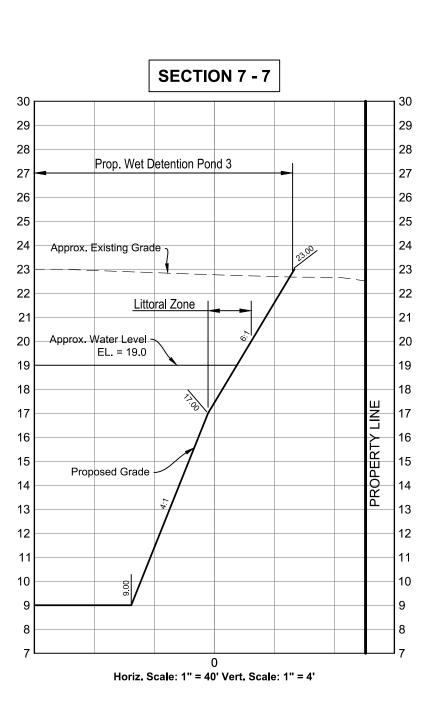






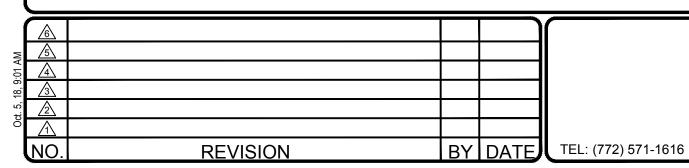






NAVD 1988

ALL ELEVATIONS DEPICTED HEREON REFERENCE NAVD 1988. THE CONVERSION FACTOR TO NGVD 1929 IS +1.44'



City of Fellsmere
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DATE : 10/5/18
PROJ. # : 14-97E
DRAWN BY: TNS
APPD. BY : CJR
PLOT BY : George Alexander Simons
FILE NAME: 14-97 E Redesign.dwg
REF. # :
F.B. & PG. :
F.B. & PG. :

South Regional Lake

Cross Sections

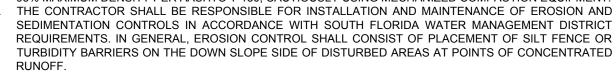
SHEET C-5

GENERAL NOTES

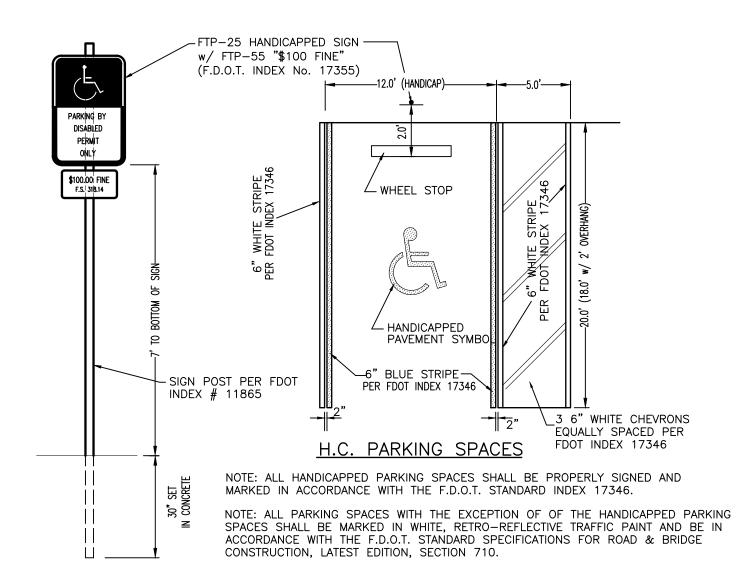
- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO ANY EXCAVATIONS. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL AT 1-800-432-4770 AND THE UTILITY OWNERS AT LEAST 48 HOURS PRIOR TO DIGGING NEAR UNDERGROUND UTILITIES.
- 2. A PRE-CONSTRUCTION MEETING IS REQUIRED BETWEEN OWNER, ENGINEER, GRANT CONSULTANT (IF APPLICABLE) AND CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 3. ENGINEER, OR OWNER'S REPRESENTATIVE WHERE LATER DETERMINED, SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR ANY INSPECTION. SEE BELOW FOR REQUIREMENTS AND LIST OF MINIMUM ENGINEERING INSPECTIONS.
- 4. ALL DENSITY AND PROCTOR TESTS SHALL BE PERFORMED AND CERTIFIED BY AN INDEPENDENT GEOTECHNICAL TESTING LAB AND SHALL BE PAID FOR BY THE CONTRACTOR. PROCTOR TEST(S) SHALL BE PERFORMED FOR EACH INHERENTLY DIFFERENT TYPE OF BACKFILL AND/OR FOUNDATION MATERIAL. DENSITY TESTS SHALL BE PERFORMED PER AASHTO T-180 METHOD. DENSITY TEST SHALL BE PERFORMED ON PIPE BACKFILL AT TWO LOCATIONS ON EACH SIDE OF PIPE, WHERE DIRECTED BY THE ENGINEER, FOR EACH TWO FEET OF LIFT. DENSITY TESTS SHALL BE PERFORMED ON COMPACTED RISER FOUNDATION MATERIAL UNDER EACH RISER LOCATION, WHERE DIRECTED BY THE ENGINEER, FOR EACH ONE FOOT OF LIFT. CONTRACTOR SHALL SUPPLY COPIES OF SIGNED SEALED DENSITY TESTS PERFORMED.
- 5. ALL PIPING SHALL BE INSTALLED IN THE DRY. CONTRACTOR IS RESPONSIBLE FOR OBTAINING PERMITS FOR OFF-SITE DEWATERING IF NECESSARY.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RESTORATION OF EXISTING CANAL BANKS DAMAGED OR DISTURBED DURING CONSTRUCTION AS A RESULT OF THE CONTRACTOR'S OPERATIONS AND/OR THOSE OF HIS SUB-CONTRACTOR'S, AND SHALL RESTORE THEM PROMPTLY.
- 7. EXCEPT FOR THE INSTALLED STABILIZED PARKING AREA, ALL OTHER NON-SUBMERGED AREAS DISTURBED BY CONSTRUCTION SHALL BE FULLY SEEDED AND MULCHED WITHIN SEVEN (7) DAYS OF FINAL GRADING. SURFACE AREAS WITH SLOPES GREATER THAN 1:6 SHALL BE SODDED (INCLUDING DITCH BANKS TO NORMAL WATERLINES SHOWN ON THE DRAWINGS.
- 8. ALL NON-COHESIVE SOILS OR OTHER UNACCEPTABLE BACKFILL MATERIALS EXCAVATED SHALL BE STOCKPILED AND LATER USED FOR IMPERVIOUS BARRIER OR HAULED OFF-SITE AT CONTRACTOR'S
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS IN ACCORDANCE WITH THE ST JOHNS RIVER WATER MANAGEMENT DISTRICT REQUIREMENTS. THESE DETAILS HAVE GENERALLY BEEN INCLUDED ON THIS PLAN FOR REFERENCE BUT MAY BE REQUIRED TO BE EXPANDED IF CONDITIONS WARRANT.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A ST. JOHNS RIVER WATER MANAGEMENT DISTRICT CONSUMPTIVE USE PERMIT FOR THE CONTRACTOR'S DE-WATERING OPERATIONS, IF WATER IS
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NPDES NOI PERMIT DURING CONSTRUCTION. ENGINEER MAY ASSIST IN PROVIDING STORMWATER POLLUTION PREVENTION PLAN AT THE COST OF THE CONTRACTOR.

INSTALLATION NOTES:

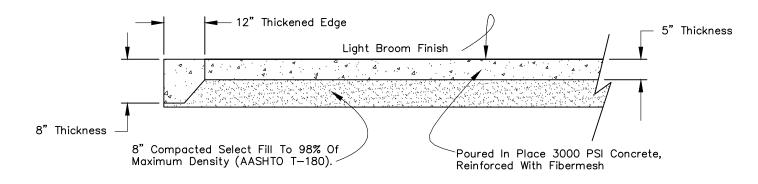
- 1. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED (OR SODDED WHERE SPECIFIED), MULCHED AND WATERED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS. 2. MECHANIZED COMPACTION EQUIPMENT SHALL NOT BE ALLOWED WITHIN 2 FEET OF PIPE IN TRENCH OR
- WITHIN 1 FOOT ABOVE PIPE CROWN INSTALLATION. 3. CONTRACTOR TO PROVIDE TRENCH REINFORCING IN ACCORDANCE WITH THE "FLORIDA TRENCH SAFETY ACT" AND PER OSHA STANDARDS. THE COST FOR PROPER TRENCHING SHALL BE INCLUDED IN
- 4. CONTRACTOR SHALL LAY NEW PIPE AND RISERD IN THE DRY. THE WATER TABLE SHALL BE LOWERED TO A POINT 6" (MIN.) BELOW THE NEW PIPE FOUNDATION BASE DURING INSTALLATION, BACKFILL AND
- 5. THE CONTRACTOR SHALL TAKE SPECIAL CARE IN SELECTING BACKFILL MATERIALS PLACED AGAINST THE NEW RISERS AND PIPE INSTALLATIONS. ONLY CLEAN COHESIVE SOILS CONTAINING NO ROCKS, CLODS, LUMPS, ORGANICS OR OTHER OBJECTIONABLE MATERIALS SHALL BE PLACED WITHIN 2 FEET OF THE NEW RISERS OR PIPES.
- 6. ALL BACKFILL PLACED WITHIN 2 FEET OF THE SIDES AND 1 FOOT ABOVE THE CROWN OF THE NEW CULVERT PIPE SHALL BE COMPACTED TO 98% MAXIMUM DENSITY PER AASHTO T-180, BY MEANS OF A WALK BEHIND VIBRATING PLATE TAMPER. OUTSIDE THESE LIMITS, BACKFILL SHALL BE COMPACTED TO 95% MAXIMUM DENSITY PER AASHTO T-180, CAUTIOUSLY USING MECHANIZED COMPACTION EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS IN ACCORDANCE WITH SOUTH FLORIDA WATER MANAGEMENT DISTRICT



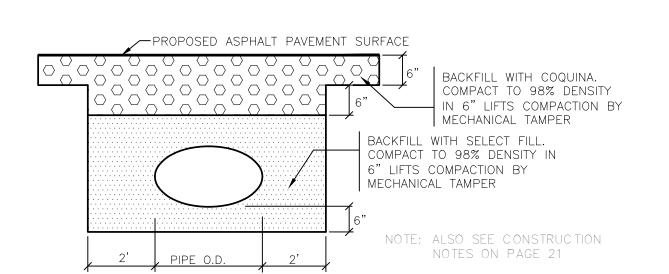
EXISTING GRADE OR RAISE AS REQUIRED TO PROVIDE A - MINIMUM 1 FT OF COVER OVER PIPE AT ROAD CROSSINGS



PARKING SPACE DETAILS



PARKING SPACE PAVEMENT DETAIL



PIPE BACKFILL DETAIL

(UNPAVED AREAS)

PROVIDE TRENCH SLOPE AS REQ'D

NOTE: ALSO SEE CONSTRUCTION NOTES ON PAGE 21

BACKFILL WITH APPROVED FILL. COMPACT TO REQUIRED

SHOULDERS: 98% COMPACTION BY MECHANICAL TAMPER

UNDER UNPAVED OTHER AREAS: 95% COMPACTION BY

MECHANICAL TAMPER OR OTHER APPROVED METHOD

DENSITY IN 12" LIFTS UNDER UNPAVED ROADS AND

MAINTAIN TRENCH WIDTH

2' ABOVE TOP OF PIPE

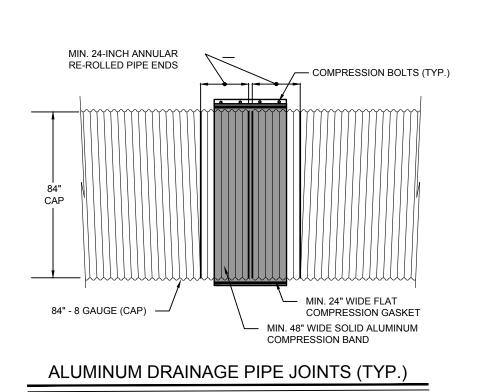
PIPE BACKFILL DETAIL (PAVED AREAS W/ MORE THAN 18" COVER)

N.T.S.

Woven Or Non-Woven Filter Fabric Type D-3 ☐ (See FDOT Index 199) Securing Device ISOMETRIC VIEW PIPE SECTION VIEW

FILTER FABRIC JACKET FOR DRAINAGE PIPE JOINTS (FDOT INDEX 280)

N.T.S.



FAX: (772) 646-6355

L8" STABILIZED SUBGRADE

© 98% DENSITY PER AASHTO T-180, LBR = 40 TYPICAL STABILIZED DRIVEWAY

4000 PSI Concrete Reinforced With 4 #3 Reinforcing Rods __#4 Reinforcing Bar (18" Length) CONCRETE WHEEL STOP

2" _____ 3.75" ____

∠ 3.75"x 3"x 0.25" I−BEAM

∠ CONT. FILLET WELD (BOTH SIDES)

SECTION A-A

PLAN VIEW

3.75"x 3"x 0.25" | BEAM

CROWS FEET BEHIND

INTERIOR CROSS BRACE, WELDED

TO DOWNSTREAM SIDE OF I BEAM

RISER (DO NOT BLOCK GATE LIFT)

INSTALLED 1-1/4" BELOW RISER.

−3.75"x 3"x 0.25" | BEAM FRAME,

ON BOTH SIDES & CENTER, TOP

AND CROSS BRACING BETWEEN

- RISER CORRUGATIONS WELDED TO INSIDE EDGE OF I-BEAM WEB

2.75"x 2"x 0.25" CHANNEL GATE

SIDE RAILS AND SEAT. WELDED TO INTERIOR FLANGES OF I BEAM

2 - 3.75"x 3"x 0.25" | BEAM CROSS BRACE, FRONT INTERIOR

2 - 3.75"x 3"x 0.25" | BEAM CROSS BRACE, FRONT INTERIOR

ALL ALUMINUM RISER SURFACES BELOW THE PIPE INVERT SHALL BE BITUMINOUS COATED AFTER RISER ASSEMBLY, BY THE MANUFACTURER.

2"x 2"x 0.250" ANGLE BOTTOM CROSS BRACE, INSTALLED FLUSH WITH INTERIOR LEADING EDGE OF

I BEAM FLANGES

PL-18 DIVERSION STRUCTURE DETAIL

N.T.S.

-60" - 10 GAUGE (CAP)

- 2.75"x 2"x 0.25" SLIDE CHANNEL

∠ 3.75"x 3"x 0.25" I−BEAM

___ I BEAM CONTINUATION

- INTERIOR I BEAM BRACE

- 96" – 10 GAUGE (CAP)

MIN. 4"x 4"x 0.25" WIDTH ALUMINUM L SECTIONS

WELDED TO 2 CORRUGATION TOPS AND CROWS FOOT. FOR BOLTED WALKWAY CONNECTION.

- 2"x 2"x 0.25" ANGLE BRACE ONE ON EACH SIDE

— 60" – 12 GAUGE (CAP)

SIDE EL. VIEW

ANNULAR END

— 8' STUB LENGTH —

─ 9"x 6'x 1/4" RECTANGULAR PLATE

WELDED TO A MINIMUM OF 3

CORRUGATIONS OF PIPE (TYP.)

SECTION B-B

PLAN VIEW

FRAME ELEV. = +26.0 -1" FIBERGLASS GRATING INSTALLED ON TOP OF BRACING RISER TOP = +23.0 _____ 96" - 10 GAUGE (CAP) -2 - 2"X6" P.T. STOP BOARDS -TYP. TOP OF STOP BOARDS = +19.5 → TOP OF WELDED PLATE = +19.0 _ 1/4" THICK PLATE, APPROXIMATELY -8'-0"W X 5'-0"H. FULLY WELDED TO ALL EXTERIOR EDGES OF FRONT FRAMING AND TO INTERIOR EDGES OF CROSS BRACES ALONG TOP & BOTTOM FLANGES. INVERT = +16.5 ____ BOTTOM 18" TO BE FILLED-W/ 3000 PSI CONCRETE BY INSTALLATION CONTRACTOR BOTTOM = +14.0

REVISION

22 S. Orange Street Fellsmere, Florida 32948

CARTER ASSOCIATES, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 1708 21st STREET, VERO BEACH, FL 32960

PROJ. # : 14-97E DRAWN BY: TNS APPD. BY: CJR PLOT BY : George Alexander Simons FILE NAME: 14-97 E Redesign.dwg CLINTON J. RAHJES, P.E. SIGNATURE DATE REF.# FLORIDA LICENSE No. 70170 CARTER ASSOCIATES, INC. F.B. & PG. COA 205 / LB 205

FRONT EL. VIEW

South Regional Lake

SHEET Dwg. #:

City of Fellsmere

TEL: (772) 562-4191 FAX: (772) 562-7180

General Notes and Details

FOR ALL PIPE TYPES - CONCRETE PIPE SHOWN

TEL: (772) 571-1616

