

PLOTTED BY: Nguyen, Khanh 3/23/2023 3:47 PM

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SHEET INDEX

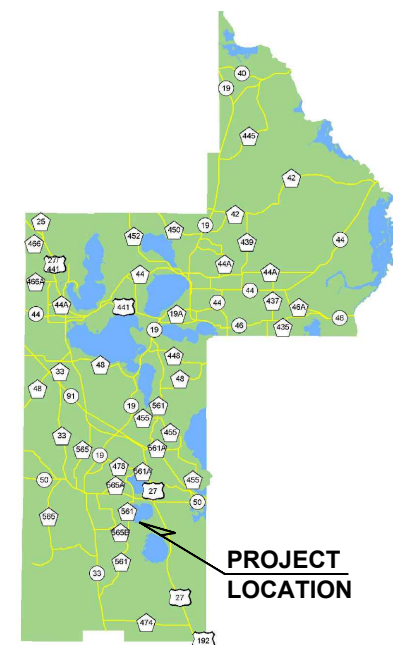
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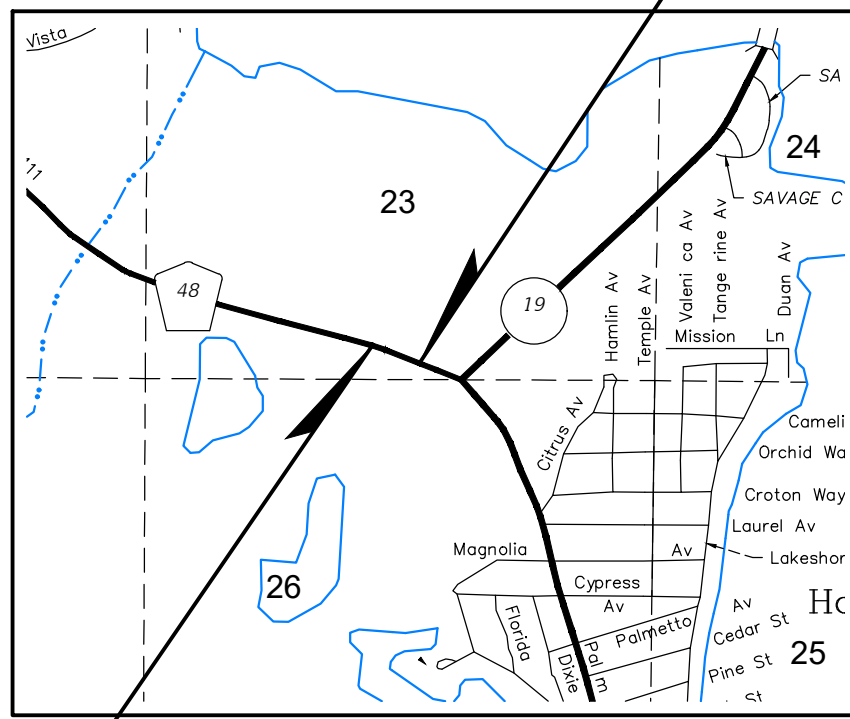
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COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS

PROJECT NO. 19034
MARCH 2023

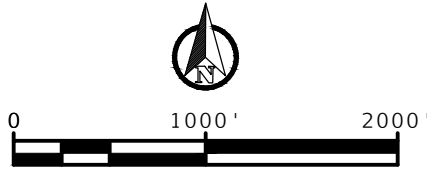


VICINITY MAP
SEC. 23, TWP. 20S, RNG. 25E



BEGIN ROAD
CONSTRUCTION
STA 406+00.00

END ROAD
CONSTRUCTION
STA 414+50.00

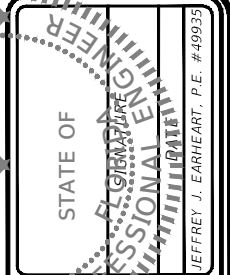


LENGTH OF PROJECT	
	LINEAR FEET
ROADWAY	850
GUARDRAIL	1350

GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY2021-22 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website: <http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>

APPLICABLE DSRs:

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, July 2021 Standard Specifications for Road and Bridge Construction at the following website: <http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks>



DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
LAKE COUNTY, FL
350 N. SINCLAIR AVE., TAVARES, FLORIDA 32778
JEFFREY J. EARHART, P.E. #49935

LAKE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
350 N. SINCLAIR AVENUE
TAVARES, FLORIDA 32778
PHONE: (352) 253-6000

REVISION:	DATE
R. - 25	
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S. - 23	

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COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS
COVER SHEET

JOB NO.:
19034CA
SHEET:
C1

Know what's below.
Call before you dig.



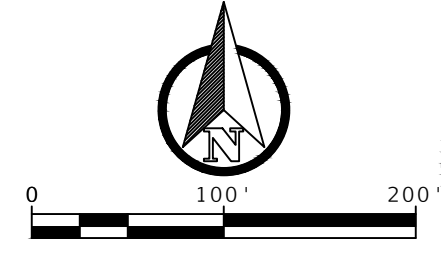
SUNSHINE STATE ONE CALL OF FLORIDA

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALE DATA.



LEGEND

	SHOULDER WIDENING
	MILLING OVERLAY



LAKE COUNTY, FL
ENGINEERING DIVISION

350 N. SINCLAIR AVE., TAVERES, FLORIDA 32778

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JOB NO.:
19034CA

SHEET:
C2

**COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS
AERIAL PHOTO MAP**

GENERAL NOTES

- A. ALL MATERIALS, INSTALLATION, TESTING, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF LAKE COUNTY, FLORIDA AND THE FDOT UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS" COMMONLY KNOWN AS THE "FLORIDA GREENBOOK" 2018 EDITION AND FDOT FY 2021 - 2022 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION. WHERE THE SPECIFICATIONS CONFLICT, THE MAXIMUM REQUIREMENTS OF EITHER SPECIFICATION SHALL APPLY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- B. ALL PROPOSED ELEVATIONS ARE SHOWN WITH A BORDER. (i.e.: XX.XX). ALL OTHER SPOT ELEVATIONS SHOWN ARE EXISTING. ALL VERTICAL DATUM IS N.A.V.D. 1988 DATUM.
- C. PAVEMENT SHALL MEAN ALL ASPHALT AND BASE ASSOCIATED WITH A DRIVING SURFACE AS SHOWN ON THE CONSTRUCTION PLANS.
- D. PAVEMENT REMOVAL SHALL BE REQUIRED ON ALL SIDE STREETS AND DRIVEWAYS THAT ARE WITHIN THE LIMITS OF THE RIGHT OF WAY OF THE COUNTY ROAD, AND CONSTRUCTED PER THE CROSS SECTION SHOWN ON THE CONSTRUCTION PLANS MATCHING EXISTING WIDTH AND ELEVATION UNLESS OTHERWISE NOTED.
- E. A CONSTANT SLOPE SHALL BE MAINTAINED BETWEEN DESIGNATED AREAS OF CUT AND FILL.
- F. ALL FILL INCLUDING SUB GRADE AND/OR SUBBASE PLACED WITHIN PROPOSED ROAD RIGHT-OF-WAY OR EASEMENT SHALL BE COMPACTED AS FOLLOWS:

ROADWAY AREAS (UNDER PAVEMENT AND PAVED SHOULDERS) SHALL BE 98% MAXIMUM DENSITY, AASHTO T-180, MINIMUM LBR 40 FOR EACH LIFT. EACH LIFT SHALL BE A MAXIMUM OF 6".

STABILIZED SHOULDERS SHALL BE TWELVE (12) INCHES DEEP, 98% MAXIMUM DENSITY, AASHTO T-180, MINIMUM LBR 40.

BEYOND THE STABILIZED SHOULDER, ALL FILL SHALL BE COMPACTED TO 95% MINIMUM DENSITY.

FILL VOLUMES SHOWN DO NOT HAVE A COMPACTION MULTIPLIER FACTORED. THE CONTRACTOR SHALL DETERMINE A COMPACTION FACTOR AND APPLY IT FOR FINAL FILL PLACEMENT VOLUMES. FOR SUBGRADE AND/OR SUBBASE REQUIREMENTS, PLEASE REFER TO SPECIFIC CROSS SECTION.
- G. UNLESS OTHERWISE NOTED, THE ESTABLISHED CLEAR ZONE IS (6) FEET FROM NEW EDGE OF TRAVEL WAY. ALL ABOVE GROUND STRUCTURES SUCH AS MAIL BOXES, TRAFFIC CONTROL SIGNS, STREET SIGNS, FENCES, ETC., ARE TO BE REMOVED AND REPLACED OUTSIDE OF THE CLEAR ZONE. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF REMOVAL AND REPLACEMENT OF THESE STRUCTURES. DAILY ACCESS TO MAILBOXES SHALL BE MAINTAINED. ALL FENCES ARE TO BE RELOCATED TO THE RIGHT-OF-WAY LINE. THE ENGINEER OF RECORD MAY WAIVE SOME OF THESE REQUIREMENTS, IF NECESSARY.
- H. ALL WORK SHALL BE PERFORMED IN SUCH A MANNER THAT WILL SUCCESSFULLY ACCOMPLISH THE INTENDED DESIGN WITH MINIMAL IMPACT TO EXISTING CONDITIONS. ANY CONSTRUCTION ACTIVITY PERFORMED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER OF RECORD THAT IS DEEMED EXCESSIVELY DISRUPTIVE TO EXISTING CONDITIONS OF THE SURROUNDING AREA AND/OR SIGNIFICANTLY DEVIATES FROM THE LIMITS OF CONSTRUCTION AS SET FORTH BY THESE CONSTRUCTION PLANS SHALL BE CONSIDERED AS PART OF THE ORIGINAL WORK AND NO ADDITIONAL COMPENSATION SHALL BE GIVEN TO RESTORE THE DISTURBED AREA(S).
- I. APPARENT ERRORS, DISCREPANCIES OR OMISSIONS SHALL BE BROUGHT TO THE ENGINEER OF RECORD'S ATTENTION WITHIN A REASONABLE TIME FRAME, LESS THAN 48 HOURS AFTER DISCOVERED. ADVANTAGE WILL NOT BE TAKEN OF APPARENT ERROR OR OMISSION IN THE DRAWINGS OR SPECIFICATIONS, AND THE ENGINEER SHALL BE PERMITTED TO MAKE CORRECTIONS AND INTERPRETATIONS AS MAY BE DEEMED NECESSARY FOR FULFILLMENT OF THE INTENT OF THE DESIGN.
- J. CONTRACTOR SHALL VERIFY ALL EXISTING ROADWAY CROSS-SLOPES.
- K. DETECTABLE WARNING ON SIDEWALK TERMINATIONS SHALL BE CAST IN PLACE, THERMOPLASTIC, LIQUID APPLIED ADA MATS OR COUNTY APPROVED EQUAL THAT IS LISTED ON THE FDOT APPROVED PRODUCTS LIST (APL). THE COLOR SHALL BE SAFETY BRICK RED.
- K. ALL CHAIN LINK FENCE (CLF) WHEN PROPOSED SHALL BE FDOT TYPE B FENCING, BLACK VINYL COATED PER FDOT INDEX 550-002.

PUBLIC NOTIFICATION

- A. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO ALL RESIDENCES ADJACENT TO THE PROJECT LIMITS. WITHIN A MINIMUM OF 14 CALENDAR DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PROVIDE TO THE COUNTY A COPY OF THE NOTIFICATION WITH A LIST OF THE PARTIES CONTACTED. THIS NOTICE SHALL INCLUDE, AT A MINIMUM, THE ANTICIPATED CONSTRUCTION SCHEDULE, MAINTENANCE OF TRAFFIC PLAN AND ANY IMPACTS, PERMANENT OR TEMPORARY, TO THE SUBJECT RESIDENCE AND ITS ADJACENT AREA. CONTRACTOR SHALL PROVIDE CONTACT INFO INCLUDING NAME OF PROJECT MANAGER AND TELEPHONE NUMBER.
 - B. CONTRACTOR SHALL ALSO INSTALL PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGNS (F.D.O.T. DESIGN MANUAL 2018 INDEX 234) ON COUNTY ROAD IF IMPACTED BY CONSTRUCTION, ONE (1) WEEK PRIOR TO CONSTRUCTION IN ORDER TO INFORM RESIDENTS AND ROADWAY USERS OF THE IMPENDING CONSTRUCTION. THE PCMS SHALL DISPLAY LANE CLOSURE INFORMATION INCLUDING BUT NOT LIMITED TO ANTICIPATED LANES TO BE CLOSED, EXTENT OF LANE CLOSURE (I.E. "NEXT 3 MILES"), DAILY HOURS OF CLOSURE, AND TEMPORARY SPEED RESTRICTIONS.
- ### STRIPING & SIGNING
- A. ALL PAVEMENT MARKING SHALL BE LEAD AND SOLVENT FREE THERMOPLASTIC, UNLESS OTHERWISE NOTED.
 - B. ALL PAVEMENT MARKING SHALL CONFORM TO THE LATEST EDITION OF F.D.O.T. STANDARDS, THE M.U.T.C.D., 2009 R1&R2, AND LAKE COUNTY SPECIFICATIONS. WHERE THE SPECIFICATIONS CONFLICT, THE MAXIMUM REQUIREMENTS SHALL APPLY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
 - C. STRIPING SHALL BE REFLECTORIZED.
 - D. ALL CENTERLINE STRIPING SHALL HAVE REFLECTIVE RAISED PAVEMENT MARKINGS (RPM'S) PER F.D.O.T. STANDARDS INDEX 706-001, UNLESS OTHERWISE NOTED.
 - E. ALL TRAFFIC CONTROL SIGNS THAT ARE DISTURBED SHALL BE REPLACED.
 - F. ALL STRIPING, SIGNING, AND SIGNAL WORK SHALL BE COORDINATED WITH LAKE COUNTY TRAFFIC OPERATIONS. CONTRACTOR SHALL NOTIFY LAKE COUNTY TRAFFIC OPERATIONS (352) 742-1766 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY STRIPING, SIGNING, OR SIGNAL WORK.
 - G. ALL SIGNS AND SIGNAL EQUIPMENT TO BE REMOVED ARE THE PROPERTY OF LAKE COUNTY. THESE ITEMS SHALL BE RETURNED TO LAKE COUNTY TRAFFIC OPERATIONS OR DISPOSED OF BY THE CONTRACTOR AT LAKE COUNTY TRAFFIC OPERATIONS' DIRECTION.
 - H. ALL MATERIALS AND HARDWARE SHALL BE F.D.O.T. APPROVED AND PRE-APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS PRIOR TO INSTALLATION.
 - I. EXISTING STRIPING DESIGNATED FOR REMOVAL SHALL BE MILLED AND RESURFACED IN ACCORDANCE WITH FDOT REQUIREMENTS AND SPECIFICATIONS, SECTION 711.
 - J. ALL PAVEMENT MARKING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE F.D.O.T. STANDARDS INCLUDING BUT NOT LIMITED TO 'STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION', 'DESIGN STANDARDS' AND THE LATEST EDITION OF THE 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES'.



STATE OF FLORIDA
PROFESSIONAL ENGINEER
JEFFREY J. EARHART, P.E. #49935

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

LAKE COUNTY, FL
350 N. SINCLAIR AVE., TAVARES, FLORIDA 32778

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COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS
GENERAL NOTES

JOB NO.: 19034CA
SHEET: **C3**

3/23/2023 12:49 PM PLOTTED BY: Nguyen, Khanh

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EROSION AND SEDIMENT CONTROL

- A. ALL INLETS, MITERED END SECTIONS, AND END WALLS SHALL BE PROTECTED WITH SOD (5' OF SOD IN ALL DIRECTIONS) PER F.D.O.T. DESIGN STANDARDS INDEX NO. 570-001, INDEX 524-001, AND AS SHOWN ON THE CONSTRUCTION PLANS.
- B. THE LOCATION OF THE MINIMUM REQUIRED EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS SILT FENCES AND TURBIDITY BARRIERS, ARE SUMMARIZED ON THE PLAN SHEETS. SEE SHEET C5 FOR TYPICAL INSTALLATION DETAILS.
- C. SOIL TRACKING PREVENTION DEVICES SHALL BE CONSTRUCTED AT POINTS OF EGRESS FROM UNSTABLE AREAS OF THE PROJECT TO ROADS WHERE OFF SITE TRACKING OF MATERIAL COULD OCCUR. SEE SHEET C5 FOR DETAILS.
- D. SOD SHALL BE PLACED IMMEDIATELY AROUND NEW MITERED END SECTIONS AND AREAS SUBJECT TO EROSION PER FDOT INDEX 524-001.
- E. ALL DISTURBED AREAS SHALL BE SODDED, UNLESS OTHERWISE NOTED. CONTRACTOR IS RESPONSIBLE FOR WATERING AND MAINTAINING SOD UNTIL FULLY ESTABLISHED AND AS ADDITIONALLY SHOWN ON THE CONSTRUCTION PLANS.
- F. SOD SHALL BE REPLACED WITH ORIGINAL TYPE ON ALL RESIDENTIAL LOTS AND AS SHOWN ON PLANS.
- G. CONTRACTOR SHALL DE-SILT ALL DRAINS, PIPES AND SWALES WITHIN PROJECT BOUNDARY AT COMPLETION OF CONSTRUCTION.
- H. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE IN WRITING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TO THE COUNTY FOR APPROVAL PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.
- I. EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN SHEETS SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION AND ARE THE MINIMUM REQUIRED. ADDITIONAL CONTROLS SHALL BE FURNISHED AS NEEDED AT NO ADDITIONAL COST. MATERIALS FROM WORK ON THESE PROJECTS SHALL BE CONTAINED AND NOT ALLOWED TO COLLECT ON ANY OFF PERIMETER AREAS OR IN WATERWAYS. SILT FENCES, TURBIDITY BARRIERS, AND OTHER ESSENTIAL EROSION CONTROL MEASURES MUST REMAIN IN PLACE AND IN GOOD CONDITION AT ALL LOCATIONS IN THE CONSTRUCTION PLANS OR AS REQUIRED UNTIL SOILS ARE STABILIZED, VEGETATION HAS BEEN ESTABLISHED AND THE CONTRACT IS COMPLETE. MEASURES SHOWN ARE THE MINIMUM REQUIRED, AND THE CONTRACTOR SHALL ENSURE THAT THERE IS NO DIRECT OR INDIRECT DISCHARGE OF CONSTRUCTION MATERIALS INTO OFF SITE AREAS OR WATERWAYS ETC.. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AT THE COMPLETION OF CONSTRUCTION.
- J. PEGGED SOD SHALL BE PLACED ON ALL SLOPES 3:1 OR STEEPER.

UTILITIES

- A. THE UTILITIES SHOWN IN THE CONSTRUCTION PLANS MAY NOT BE ALL OF THE UTILITIES ON SITE. UNLESS OTHERWISE NOTED, THE LOCATION OF UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. CALL SUNSHINE STATE 1-CALL OF FLORIDA, INC. @ 1-800-432-4770 TO CONFIRM UTILITY LOCATIONS.
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITIES PRIOR TO CONSTRUCTION AND COORDINATING UTILITY RELOCATION WITH THE PROJECT CONSTRUCTION.
- C. ONLY THOSE UTILITIES SHOWN HERON THAT WERE VISIBLE AT THE TIME OF THE SURVEY WERE LOCATED. NO ATTEMPT WAS MADE TO LOCATE UNDERGROUND UTILITIES. AN ASCE QUALITY A OR B DESIGNATION WILL BE NECESSARY BEFORE ANY ONSITE WORK TAKES PLACE. CONTACT SUNSHINE ONE CALL AT 811 FOR FURTHER INFORMATION.

TREES AND LANDSCAPING

- A. ALL TREES WITHIN CONSTRUCTION LIMITS RIGHT-OF-WAY ARE TO BE REMOVED UNLESS OTHERWISE NOTED IN THE PLANS
- B. CONTRACTOR SHALL REPLACE LANDSCAPING THAT IS REMOVED OR DESTROYED WITHIN THE LIMITS OF CONSTRUCTION.
- C. TREES SHALL BE TRIMMED TO RIGHT-OF-WAY LINE OR WITHIN 8' OF EOP TO A HEIGHT OF 18', WHICHEVER IS LESS BY THE CONTRACTORS.

SURVEY

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONTROL AND BENCHMARK DATA BEFORE CONSTRUCTION. DISCREPANCIES IN DATA SHALL BE BROUGHT TO THE ATTENTION OF THE LAKE COUNTY SURVEY MANAGER AT (352) 253-6049.
- B. ALL (P.R.M.'s) IRONS AND MONUMENTS SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
- C. PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED THE COUNTY SURVEYOR SHALL BE IMMEDIATELY NOTIFIED.
- D. CONTRACTOR IS TO PROVIDE TWO (2) SETS OF HARD COPY AS-BUILTS AND ONE ELECTRONIC FILE. THE AS-BUILTS SHALL SHOW DRAINAGE INFORMATION AS WELL AS EDGE OF PAVEMENT SHOTS FOR THE ROADWAY.
- E. THE HORIZONTAL DATUM OF THIS SURVEY IS THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) IN U.S. SURVEY FEET BASED ON ON GLOBAL NAVIGATION SATELLITE SYSTEM TIES TO CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) AS PROCESSED THROUGH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S FLORIDA PERMANENT REFERENCE NETWORK (FPRN). THE EXPECTED HORIZONTAL ACCURACY OF MAPPED FEATURES ARE EXPECTED TO BE LESS THAN 0.07 FEET AT A 95 PERCENT CONFIDENCE LEVEL PLUS A REASONABLE CENTERING ERROR INHERENT TO THE FEATURE BEING MAPPED. THE METHODOLOGY TO DETERMINE SAID ACCURACY WAS AN ERROR PROPAGATION ANALYSIS DONE BY A LEAST SQUARES ADJUSTMENT PROGRAM.

TRAFFIC CONTROLS

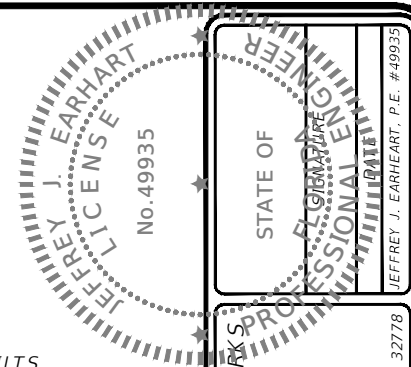
- A. EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS.
- B. CONTRACTOR SHALL SUBMIT DETAILED MAINTENANCE OF TRAFFIC PLANS FOR REVIEW AND APPROVAL. ALL ROADS SHALL BE OPEN TO TRAFFIC WITH NO PERMANENT LANE CLOSURES ALLOWED. CONTRACTOR SHALL CONFORM TO THE LATEST EDITIONS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 102-600 TO 102-680 AS APPLICABLE.
- C. ANY TEMPORARY ROAD CLOSURE REQUIRES AUTHORIZATION REQUEST MADE TO LAKE COUNTY ROAD OPERATIONS AT (352) 343-6439 AND WITH AT LEAST THREE (3) DAYS NOTICE PRIOR TO CLOSURE. CONTRACTOR MUST SUPPLY A DETOUR PLAN WHEN REQUESTING CLOSURE. NO CLOSURE SHALL TAKE PLACE WITHOUT APPROVAL OF THE DETOUR PLAN. CONTRACTOR SHALL SUPPLY ALL SIGNAGE ASSOCIATED WITH CLOSURE AND DETOUR.
- D. IF EXISTING VEHICLE DETECTION LOOPS ARE DAMAGED DURING CONSTRUCTION, CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TEMPORARY DETECTION LOOPS.

DRAINAGE

- A. IN ALL PONDS THAT REQUIRE FILL, THE CONTRACTOR SHALL USE WELL GRADED SAND FILL WITH NO MORE THAN 10% PASSING #200 SIEVE MATERIAL IN THE POND BANKS AND BOTTOM. AT NO TIME SHALL CLAYS/CLAYEY SOILS BE USED UNLESS AUTHORIZED BY THE DIRECTOR OF ENGINEERING OR HIS DESIGNEE. THE CONTRACTOR SHALL NOTIFY THE LAKE COUNTY CONSTRUCTION INSPECTOR 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY POND CONSTRUCTION TO COORDINATE THE INSPECTION OF THE PROPOSED CONSTRUCTION PRACTICES AND MATERIALS TO BE USED.
- B. ALL CURB INLETS, DITCH BOTTOM INLETS, AND MANHOLES WITHIN THE RIGHT-OF-WAY SHALL HAVE TRAFFIC BEARING FRAMES AND COVERS OR GRATES MEETING HS-20 LOADING REQUIREMENTS.
- C. UNLESS OTHERWISE NOTED, ALL EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION ARE TO REMAIN.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT ALL PIPES, PIPE END TREATMENTS, AND DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION IN A DRY CONDITION OR AS APPROVED BY THE DIRECTOR OF ENGINEERING.
- E. CONSTRUCT ALL MITERED END SECTIONS PER F.D.O.T. DESIGN STANDARDS INDEX No. 430-021 FOR CROSS PIPES AND SIDE PIPES, RESPECTIVELY.
- F. SWALES SHOULD BE SODDED.

DRIVEWAYS

- A. DRIVEWAYS SHALL BE PAVED WITHIN THE RIGHT-OF-WAY.
- B. SINGLE RESIDENTIAL DRIVES SHALL MATCH EXISTING WIDTH AND BE A MINIMUM OF 10.0' WIDE WITH AN 8.0' RADIUS FOR ASPHALT OR 4' x 8' WEDGE FOR CONCRETE.
- C. DRIVEWAYS SHALL NOT EXCEED 14% SLOPE.
- D. CONCRETE APRONS SHALL BE CONSTRUCTED AT EXISTING CONCRETE DRIVEWAYS. CONCRETE SHALL BE A MINIMUM OF SIX (6) INCHES THICK, 3,000 P.S.I. REINFORCED CONCRETE.
- E. DRIVEWAY LOCATIONS AND WIDTHS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER OF RECORD.



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COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS
GENERAL NOTES

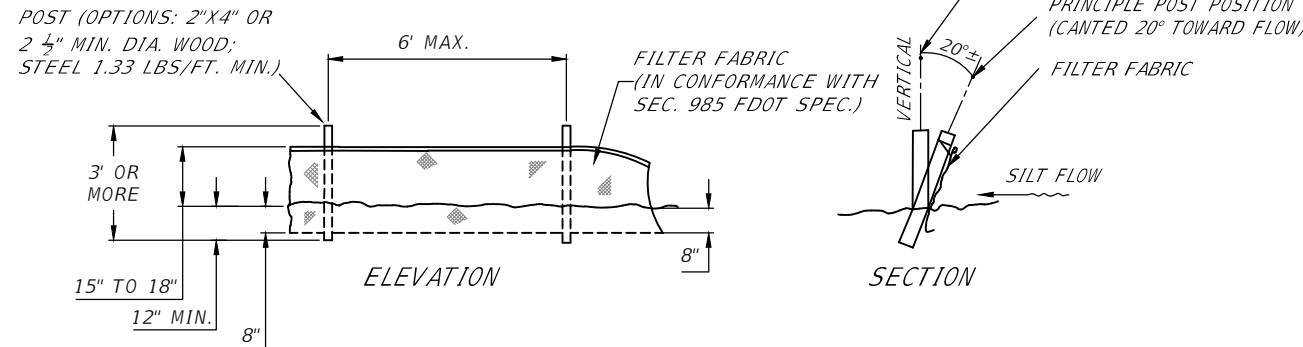
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EROSION AND SEDIMENT CONTROL

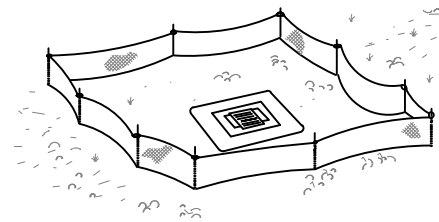
- A. ALL INLETS, MITERED END SECTIONS, AND END WALLS SHALL BE PROTECTED WITH SOD (5' OF SOD IN ALL DIRECTIONS) PER F.D.O.T. DESIGN STANDARDS INDEX NO. 570-001, INDEX 524-001, AND AS SHOWN ON THE CONSTRUCTION PLANS.
- B. THE LOCATION OF THE MINIMUM REQUIRED EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS SILT FENCES AND TURBIDITY BARRIERS, ARE SUMMARIZED ON THE PLAN SHEETS. SEE SHEET C-6 FOR TYPICAL INSTALLATION DETAILS.
- C. SOIL TRACKING PREVENTION DEVICES SHALL BE CONSTRUCTED AT POINTS OF EGRESS FROM UNSTABLE AREAS OF THE PROJECT TO ROADS WHERE OFF SITE TRACKING OF MATERIAL COULD OCCUR. SEE SHEET C-6 FOR DETAILS.
- D. SOD SHALL BE PLACED IMMEDIATELY AROUND NEW MITERED END SECTIONS AND AREAS SUBJECT TO EROSION PER FDOT INDEX 524-001.
- E. ALL DISTURBED AREAS SHALL BE SODDED, UNLESS OTHERWISE NOTED. CONTRACTOR IS RESPONSIBLE FOR WATERING AND MAINTAINING SOD UNTIL FULLY ESTABLISHED AND AS ADDITIONALLY SHOWN ON THE CONSTRUCTION PLANS.
- F. SOD SHALL BE REPLACED WITH ORIGINAL TYPE ON ALL RESIDENTIAL LOTS AND AS SHOWN ON PLANS.
- G. CONTRACTOR SHALL DE-SILT ALL DRAINS, PIPES AND SWALES WITHIN PROJECT BOUNDARY AT COMPLETION OF CONSTRUCTION.
- H. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE IN WRITING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TO THE COUNTY FOR APPROVAL PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.
- I. EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN SHEETS SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION AND ARE THE MINIMUM REQUIRED. ADDITIONAL CONTROLS SHALL BE FURNISHED AS NEEDED AT NO ADDITIONAL COST. MATERIALS FROM WORK ON THESE PROJECTS SHALL BE CONTAINED AND NOT ALLOWED TO COLLECT ON ANY OFF PERIMETER AREAS OR IN WATERWAYS. SILT FENCES, TURBIDITY BARRIERS, AND OTHER ESSENTIAL EROSION CONTROL MEASURES MUST REMAIN IN PLACE AND IN GOOD CONDITION AT ALL LOCATIONS IN THE CONSTRUCTION PLANS OR AS REQUIRED UNTIL SOILS ARE STABILIZED, VEGETATION HAS BEEN ESTABLISHED AND THE CONTRACT IS COMPLETE. MEASURES SHOWN ARE THE MINIMUM REQUIRED, AND THE CONTRACTOR SHALL ENSURE THAT THERE IS NO DIRECT OR INDIRECT DISCHARGE OF CONSTRUCTION MATERIALS INTO OFF SITE AREAS OR WATERWAYS ETC.. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AT THE COMPLETION OF CONSTRUCTION.
- J. PEGGED SOD SHALL BE PLACED ON ALL SLOPES 3:1 OR STEEPER.

SILT FENCE TYPE III

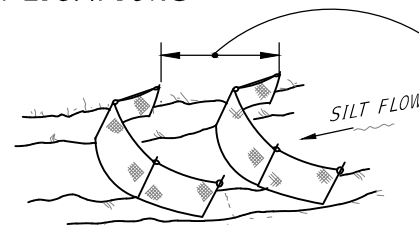
NOTE:
 EROSION, SEDIMENT AND TURBIDITY CONTROL SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION OF THE PROJECT. THESE CONTROL MEASURES ARE ONLY THE MINIMUM REQUIRED AND ADDITIONAL CONTROLS SHALL BE UTILIZED AS NEEDED, DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATIONS.



SILT FENCE APPLICATIONS



TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.



SPACING FOR TYPE III SILT FENCE.

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS.

EROSION & SEDIMENT CONTROL

PRIOR TO INITIATING CONSTRUCTION OF PLANNED IMPROVEMENTS, ALL SWALES WILL BE EXCAVATED AND ROUGH GRADED TO PROVIDE SEDIMENT AND RUNOFF CONTROL DURING CONSTRUCTION.

ALL DISTURBED AREAS WILL BE BROUGHT TO FINAL GRADE AND SODDED AS SOON AS POSSIBLE.

AREAS WHICH MAY ERODE DUE TO SLOPES OR CONCENTRATED RUNOFF DURING CONSTRUCTION WILL BE PROTECTED AT A MINIMUM WITH SILT FENCING AS SHOWN ON THE PLAN SHEETS.

UPON COMPLETION OF SITE IMPROVEMENTS, THE RETENTION PONDS, SWALES, AND OTHER STORM WATER MANAGEMENT DEVICES WILL BE FINAL GRADED AND SODDED AS SPECIFIED IN THE APPROVED CONSTRUCTION PLANS.

ROUTINE MAINTENANCE - STORM WATER

AFTER COMPLETION OF CONSTRUCTION, SWALES WILL BE MOWED AND MAINTAINED AS PART OF THE COUNTY ROAD MAINTENANCE.

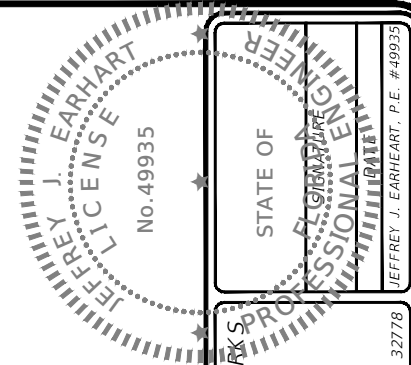
TRASH AND DEBRIS THAT ACCUMULATES WITHIN THE RETENTION PONDS, SWALES, PIPES, AND INLETS WILL BE MANUALLY COLLECTED AND DISPOSED OF WITH OTHER NORMAL SOLID WASTE.

ANY EROSION, LOSS OF GRASS, ETC., WILL BE REPAIRED OR REPLACED ROUTINELY AND AS NEEDED.

FOR 1% SLOPE, 120'

FOR 2.5% SLOPE, 50'

FOR SLOPES STEEPER THAN 2.5%, CONSIDER USING TEMPORARY SOD PER FDOT STANDARD PLANS 570-001



DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION
LAKE COUNTY, FL
 350 N. SINCLAIR AVE., TAVARES, FLORIDA 32780

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S. - 23	

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APPROVED: JE	DATE: 3/23/23

COUNTY ROAD 48
 GUARDRAIL IMPROVEMENTS
 EROSION DETAILS

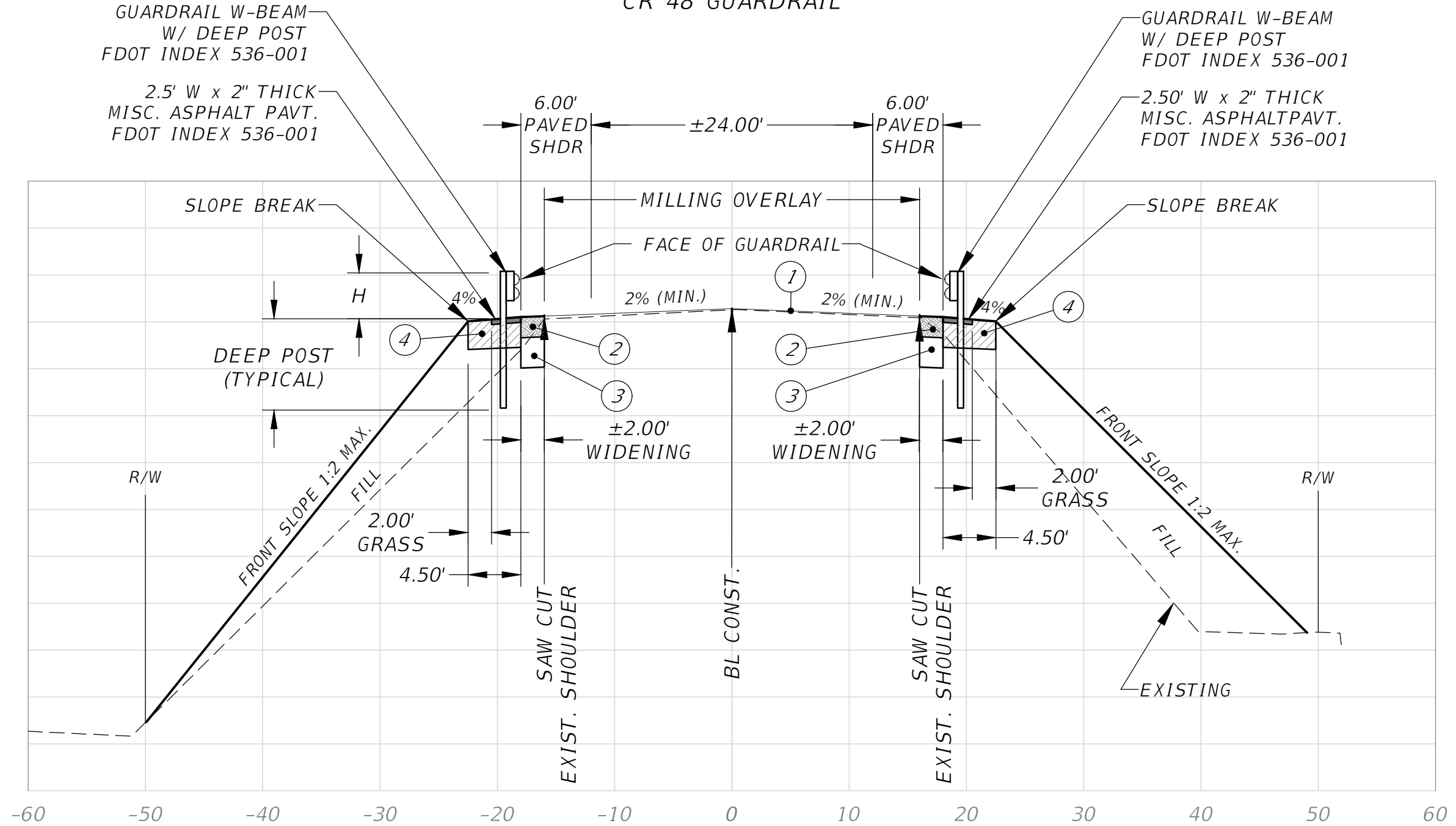
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TYPICAL ROAD/ GUARDRAIL SECTION WIDENING & RESURFACING CR 48 GUARDRAIL



ROADWAY PROJECT LIMITS STA 406+00 - 414+50
GUARDRAIL LIMITS STA 407+00 - STA 413+75

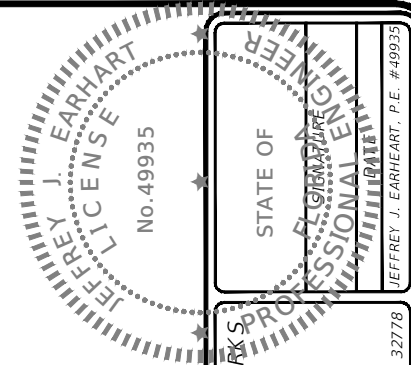
NOTES:

- ALL STRIPING TO BE LEAD & SOLVENT FREE THERMOPLASTIC UNLESS OTHERWISE NOTED.
- SOD ALL DISTURBED AREAS.
- FINISH GRADE OF SHOULDER TO BE BELOW EDGE OF PAVEMENT TO ALLOW FOR SOD PER FDOT INDEX 570-010.
- DESIGN SPEED IS 40 MPH. POST SPEED IS 40 MPH.

KEY:

- 1 ½" FC 12.5 WITH 76-22 ASPHALT TRAFFIC LEVEL C.
- 6" LIMEROCK, 98% COMPACT EACH LIFT, A.A.S.H.T.O. T-180 PRIMED AND SANDED.
- 12" TYPE B STABILIZED SUBGRADE MIN. LBR 40, 98% COMPACTION, A.A.S.H.T.O. T-180.
- 12" STABILIZED SUBGRADE, MIN. 40 LBR, 98% COMPACTION

N.T.S



STATE OF FLORIDA
PROFESSIONAL ENGINEER
JEFFREY J. EARHART, P.E. #49935

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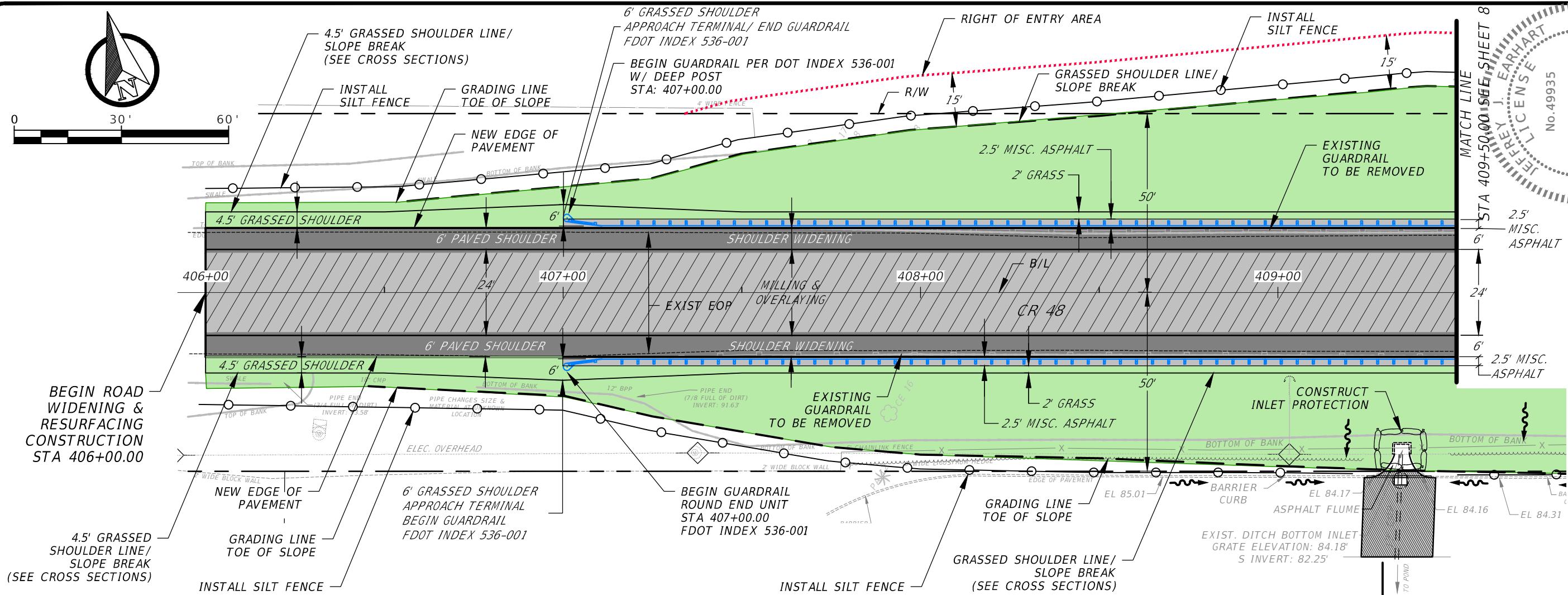
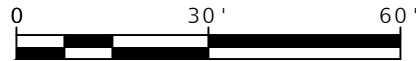
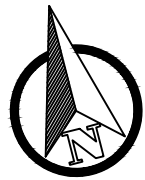
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COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS
TYPICAL ROAD SECTION

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SHEET: C6

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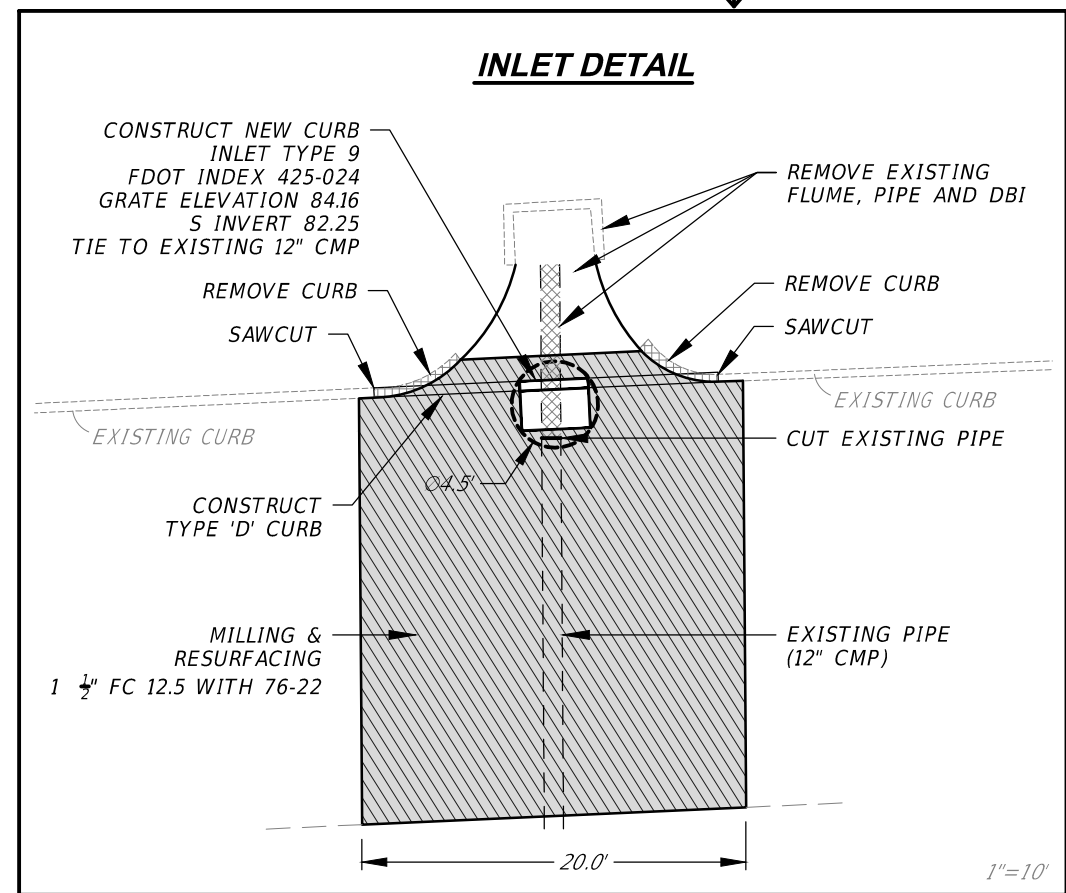
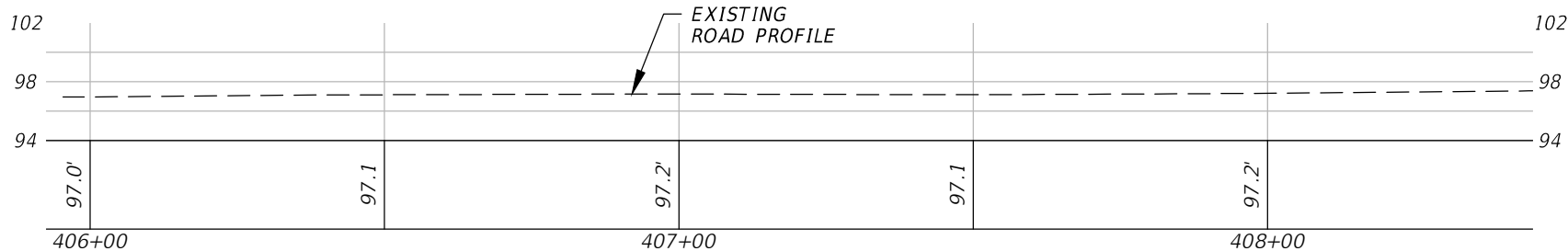
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BEGIN ROAD WIDENING & RESURFACING CONSTRUCTION STA 406+00.00

LEGEND	
	SHOULDER WIDENING
	MILLING OVERLAY
	SOD
	FLOW DIRECTION
	EXISTING ELEVATION

PROFILE SCALE
HORIZ. SCALE 1"=30'
VERT. SCALE 1"=6'



STATE OF FLORIDA
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION
LAKE COUNTY, FL
 350 N. SINCLAIR AVE., TAVERNES, FLORIDA 32778
 PROJECT: COUNTY ROAD 48
 STORMWATER POLLUTION PREVENTION PLAN

REVISION:	DATE
S- 23	3/23/23
T- 20	3/23/23
R- 25	3/23/23

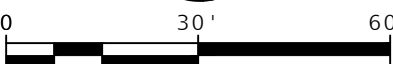
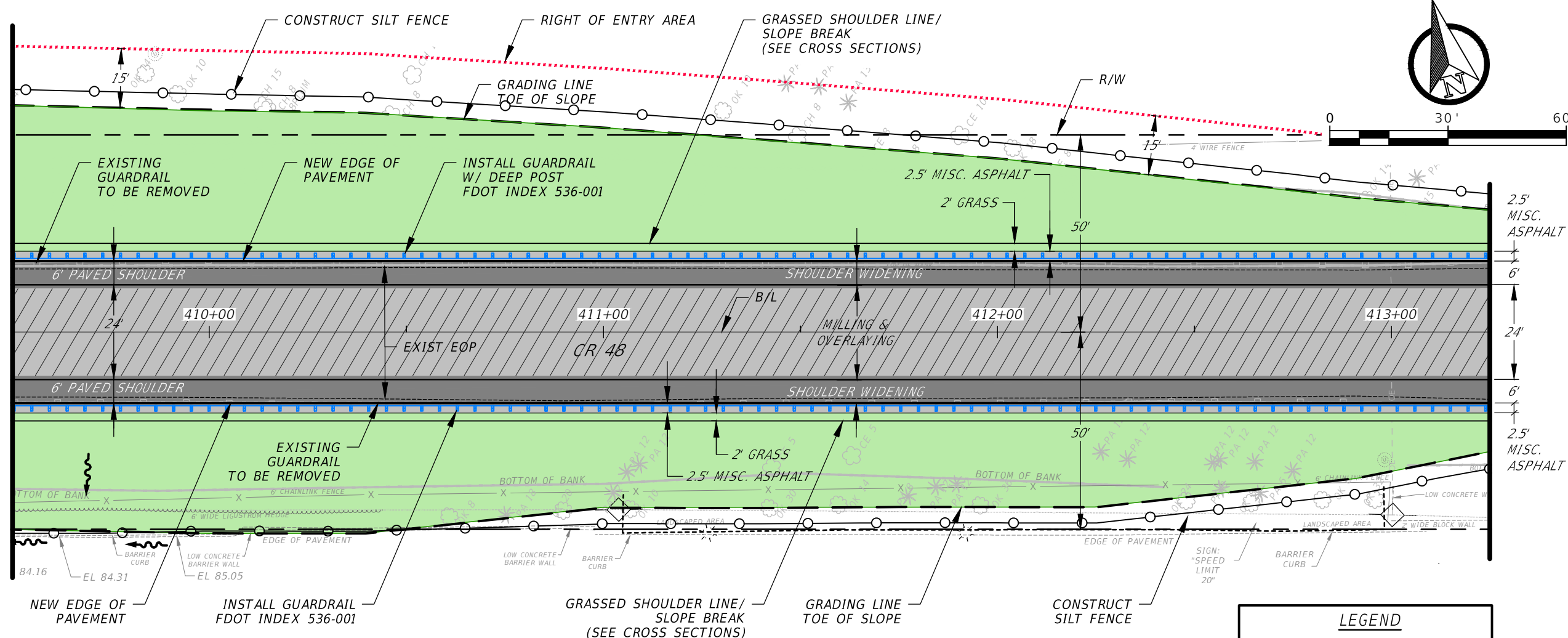
COUNTY ROAD 48
 GUARDRAIL IMPROVEMENTS
 STORMWATER POLLUTION PREVENTION PLAN
 JOB NO.: 19034CA
 SHEET: C7

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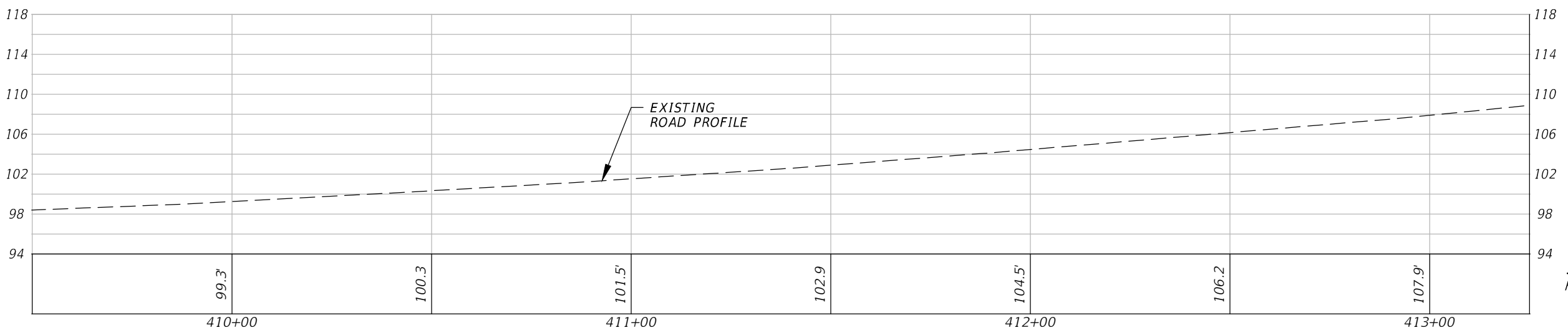
MATCH LINE STA 409+50.00
SEE SHEET 7

MATCH LINE STA 413+25.00
SEE SHEET 9



LEGEND

- SHOULDER WIDENING
- MILLING OVERLAY
- SOD
- FLOW DIRECTION



STATE OF FLORIDA
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ENGINEERING DIVISION

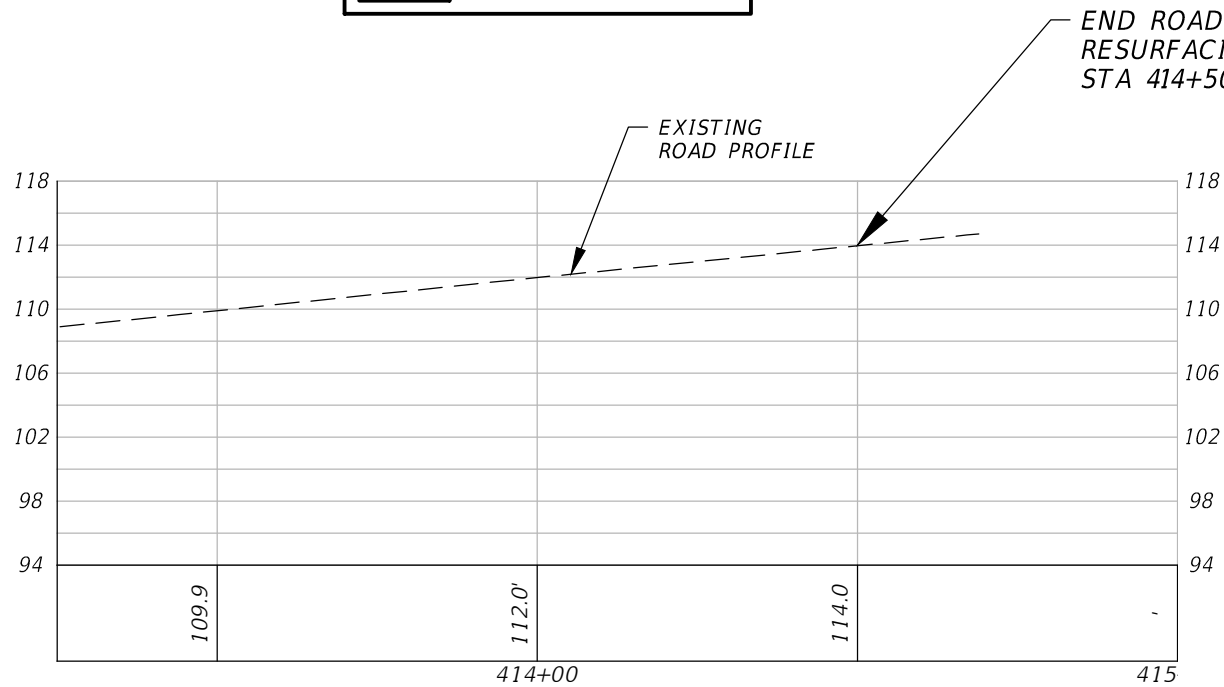
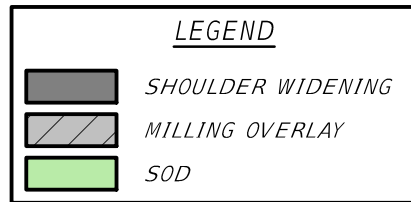
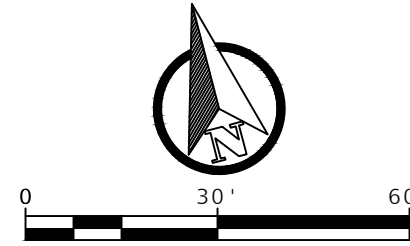
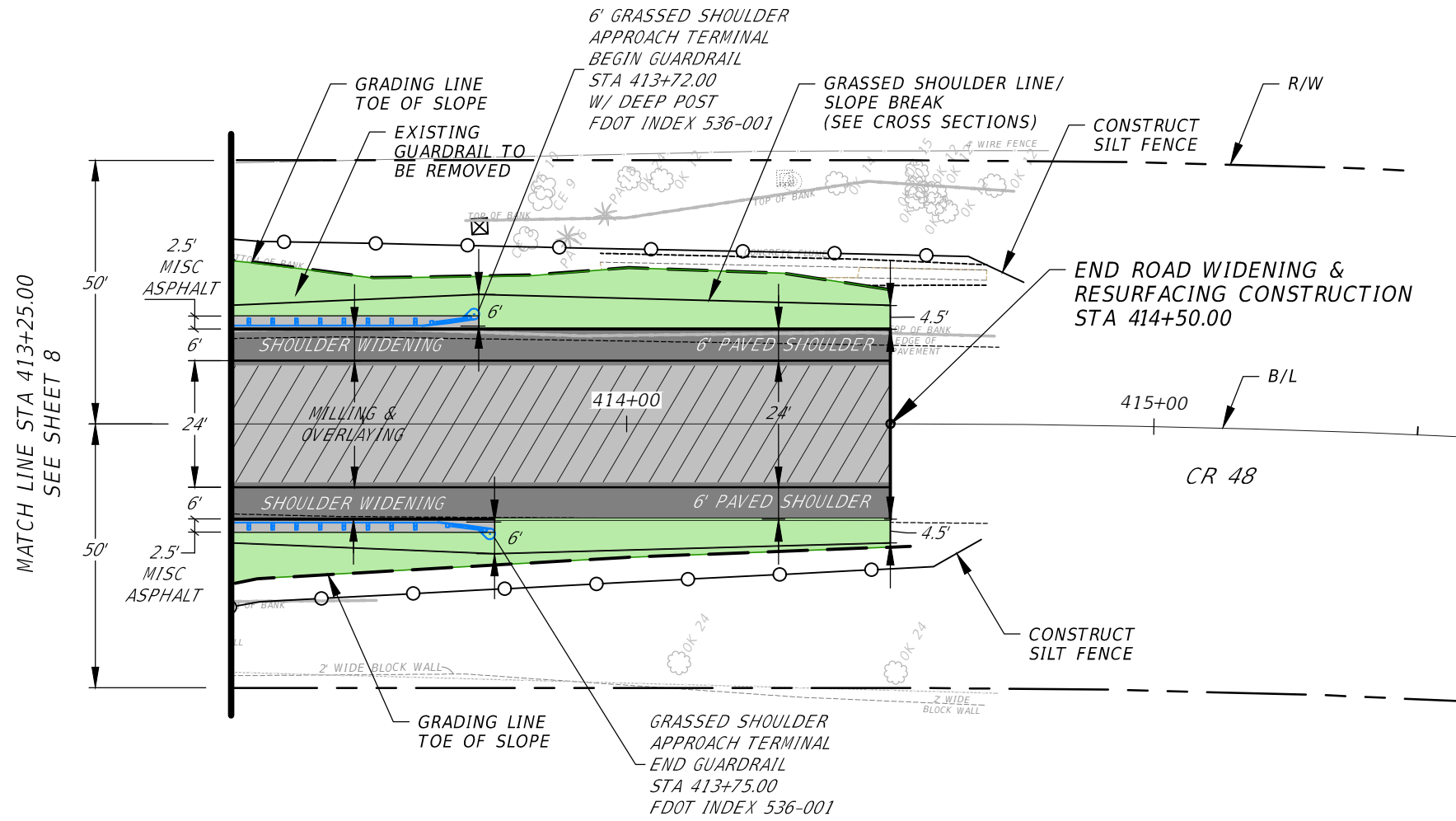
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350 N. SINCLAIR AVE., TAVARES, FLORIDA 32778

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COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS
GEOMETRY PLAN

JOB NO.: 19034CA
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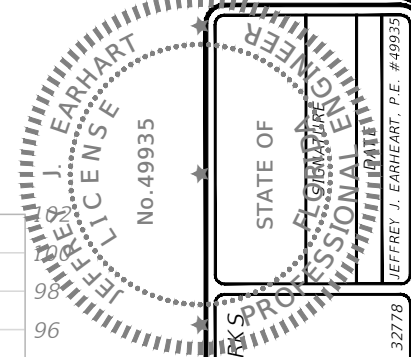
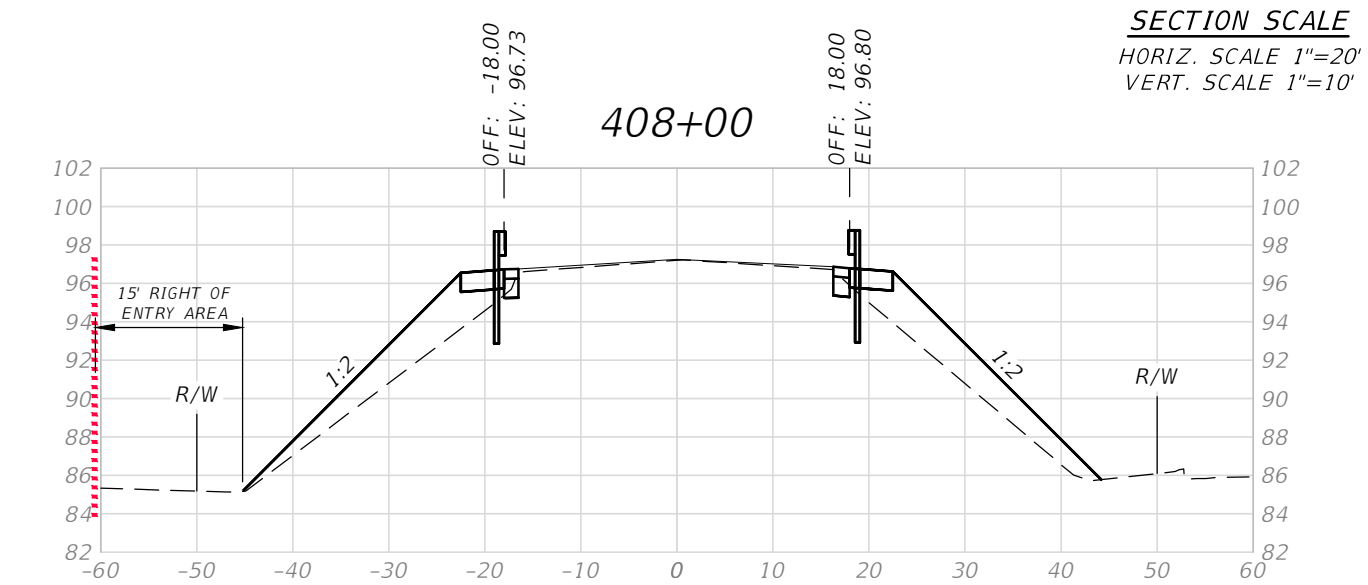
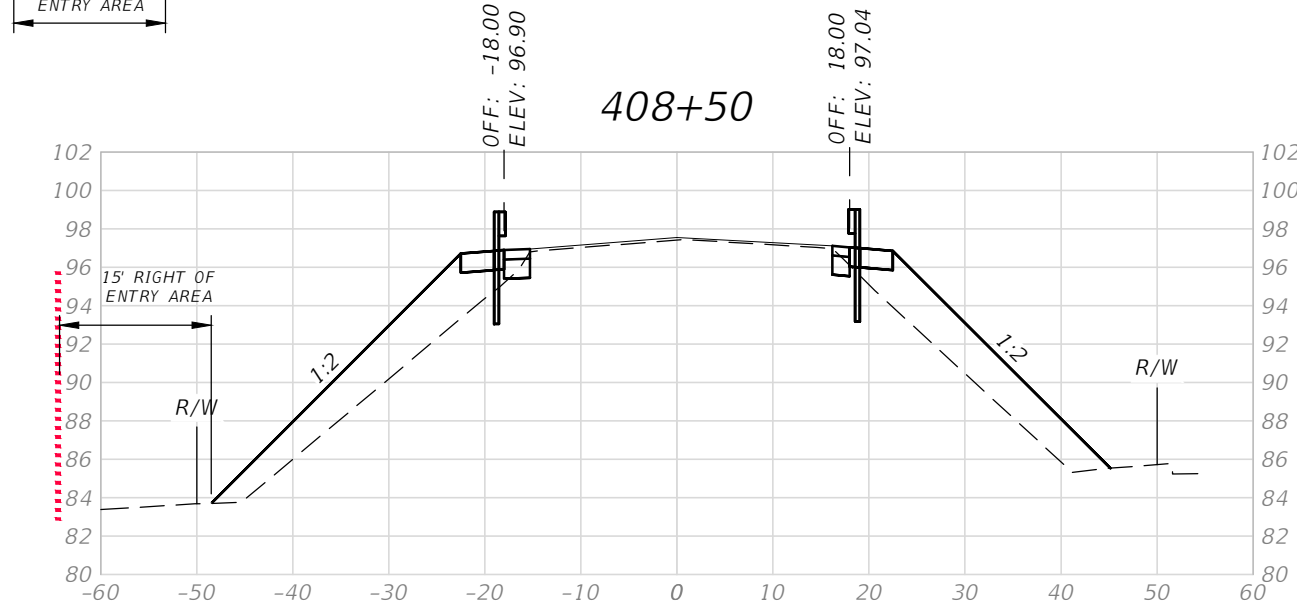
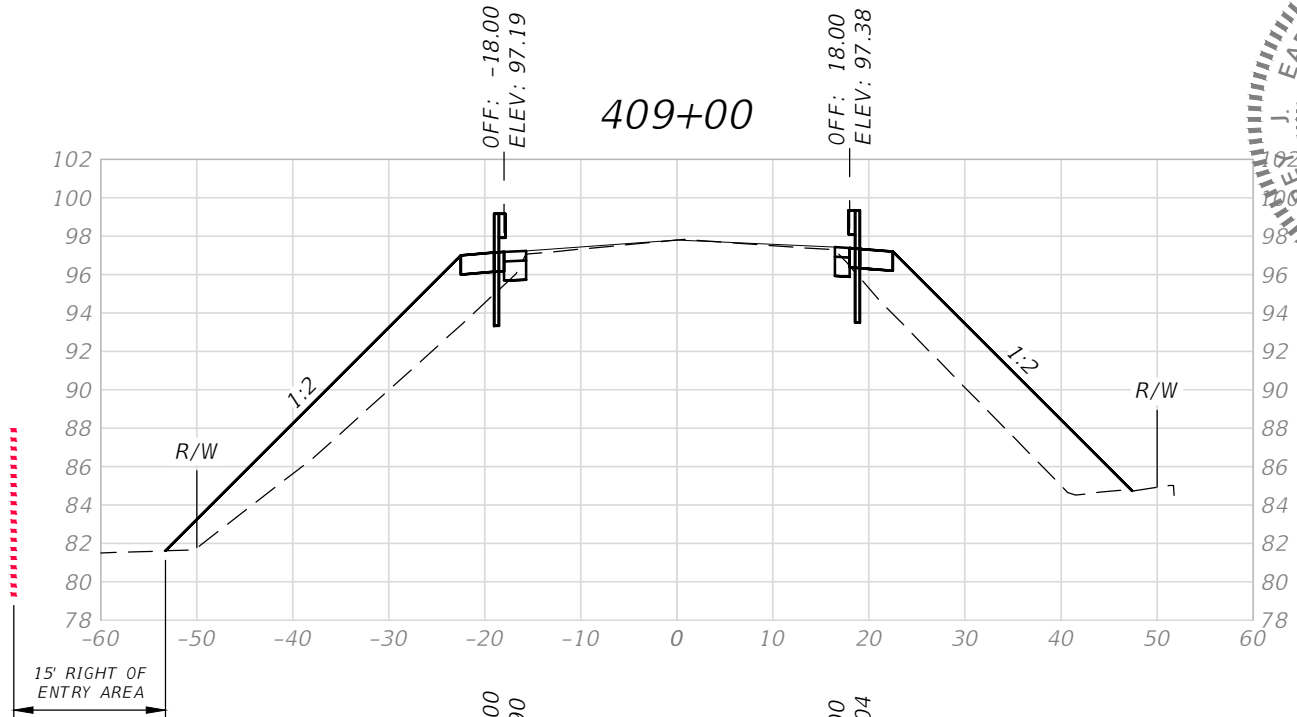
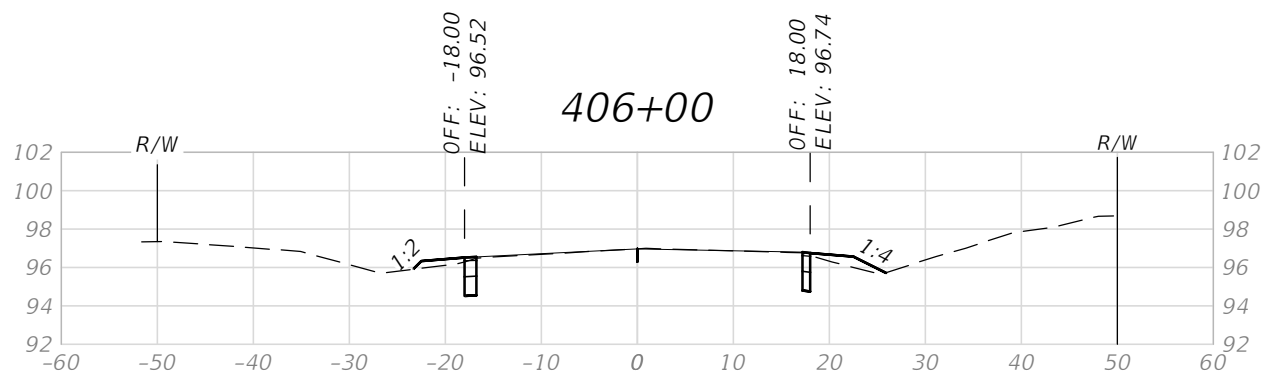
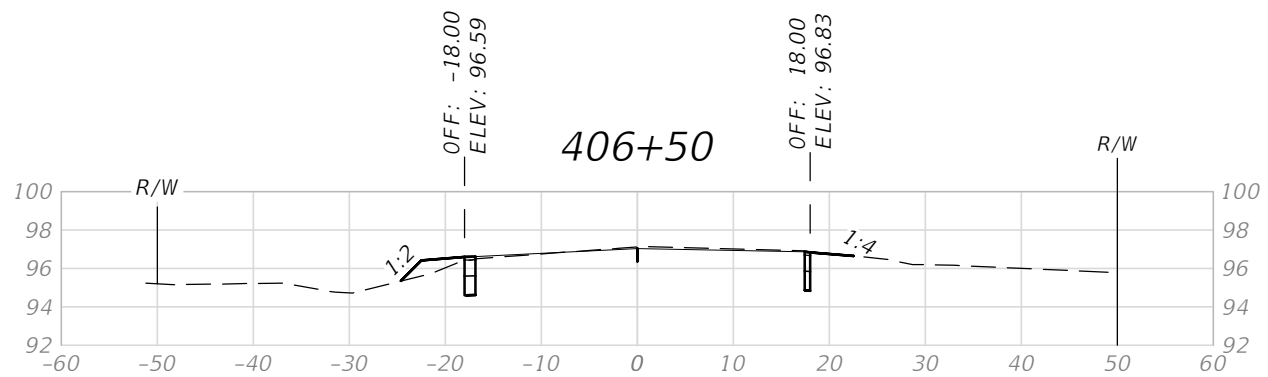
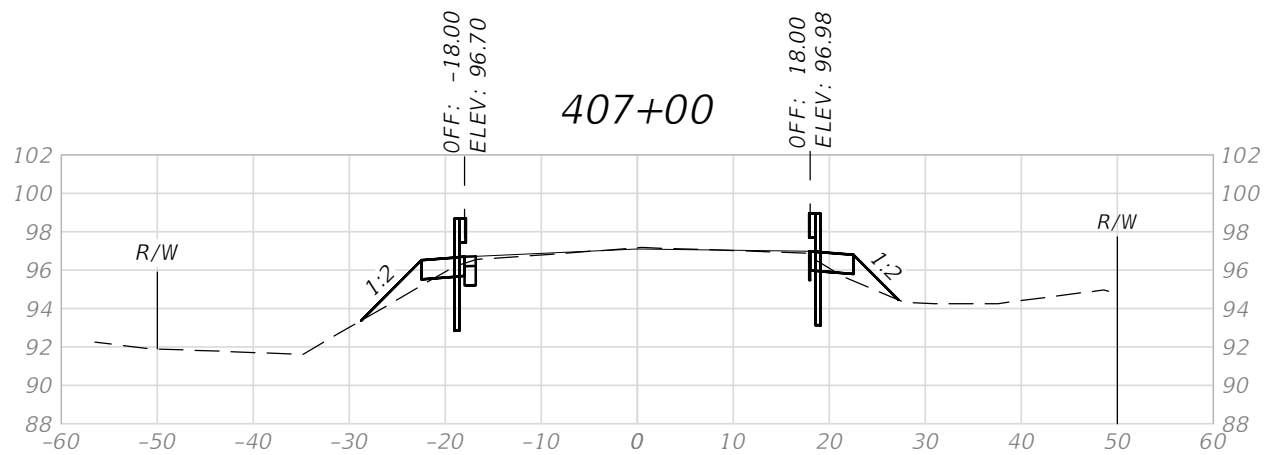
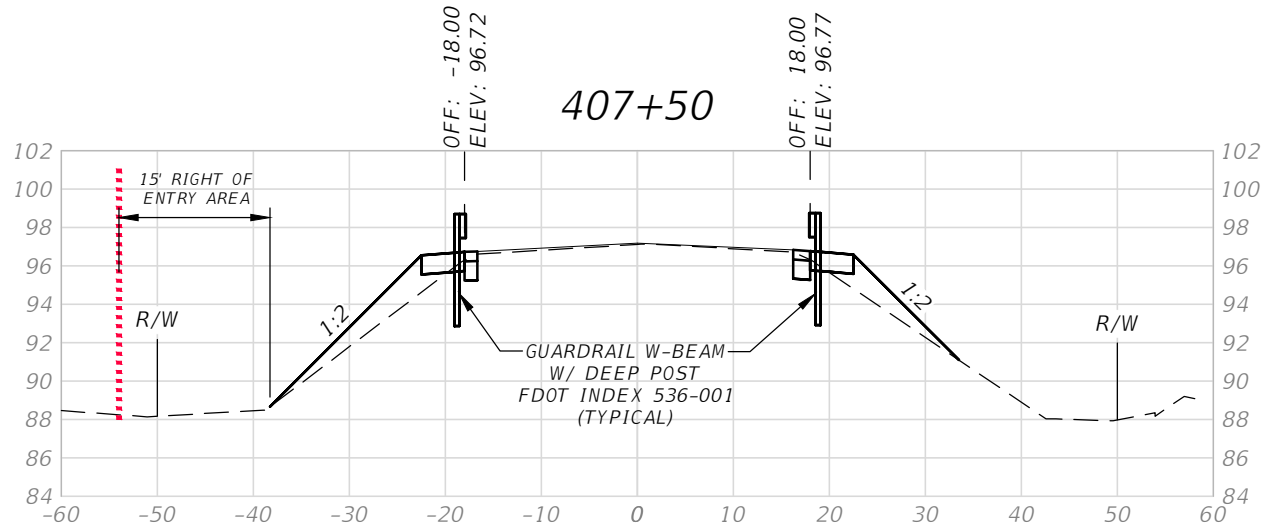


PROFILE SCALE
 HORIZ. SCALE 1"=30'
 VERT. SCALE 1"=6'

STATE OF FLORIDA		PROFESSIONAL ENGINEER		JEFFREY J. EARHART, P.E. #49935	
DEPARTMENT OF PUBLIC WORKS		ENGINEERING DIVISION		LAKE COUNTY, FL	
COUNTY ROAD 48		GUARDRAIL IMPROVEMENTS		GEOMETRY PLAN	
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STATE OF FLORIDA

PROFESSIONAL ENGINEER

JEFFREY J. EARHART

No. 49935

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

LAKE COUNTY, FL

350 N. SINCLAIR AVE., TAVARES, FLORIDA 32780

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COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS
CROSS SECTIONS

JOB NO.:
19034CA

SHEET:
C10

LEGEND

ASPH = ASPHALT	(P) = PLAT DIMENSION
BWF = BARBED WIRE FENCE	PB = PLAT BOOK
(C) = CALCULATED DIMENSION	PC = POINT OF CURVATURE
C# = CURVE NUMBER (SEE CURVE TABLE)	PCC = POINT OF COMPOUND CURVATURE
CL = CENTERLINE	PG = PAGE
CCR = CERTIFIED CORNER RECORD	PI = POINT OF INTERSECTION
CLF = CHAIN LINK FENCE	POB = POINT OF BEGINNING
CM = CONCRETE MONUMENT	POC = POINT OF COMMENCEMENT
CMP = CORRUGATED METAL PIPE	PRC = POINT OF REVERSE CURVATURE
CONC = CONCRETE	PT = POINT OF TANGENCY
(D) = DESCRIPTION DIMENSION	PVC = POLY VINYL CHLORIDE
DB = DEED BOOK	PVCFN = POLY VINYL CHLORIDE FENCE
DWG = DRAWING	R = RANGE
IR = IRON ROD	RCP = REINFORCED CONCRETE PIPE
IRC = IRON ROD AND CAP	RMB = ROAD MAP BOOK
L# = LINE NUMBER (SEE LINE TABLE)	RT = RIGHT
LT = LEFT	R/W = RIGHT-OF-WAY
FB = FIELD BOOK	SEC = SECTION
FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION	STA = STATION
FND = FOUND	T = TOWNSHIP
HDPE = HIGH DENSITY POLYETHYLENE PIPE	VCP = VITRIFIED CLAY PIPE
N&D = NAIL AND DISK	WFF = WIRE FIELD FENCE
ORB = OFFICIAL RECORDS BOOK	WBF = WOOD BOARD FENCE
O/S = OFFSET	WRF = WOOD RAIL FENCE

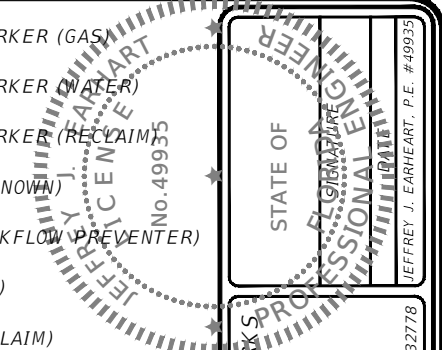
	= AIR CONDITIONER		= METER (ELECTRIC)		= UTILITY MARKER (GAS)
	= BENCH		= METER (GAS)		= UTILITY MARKER (WATER)
	= BOLLARD		= METER (WATER)		= UTILITY MARKER (RECLAIM)
	= CLEAN OUT		= MONITOR WELL		= VALVE (UNKNOWN)
	= CABLE TV JUNCTION BOX		= PEDESTRIAN SIGNAL		= VALVE (BACKFLOW PREVENTER)
	= DELINEATOR POST		= PILLAR OR COLUMN		= VALVE (GAS)
	= ELECTRICAL JUNCTION BOX		= POST		= VALVE (RECLAIM)
	= ELECTRICAL OUTLET		= POWER POLE		= VALVE (SANITARY)
	= ELECTRICAL TRANSFORMER		= PUMP		= VALVE (WATER)
	= FIRE HYDRANT		= SIGN		= VAULT (CABLE TV)
	= FLAG POLE		= SIGNAL PEDESTAL		= VAULT (COMMUNICATIONS)
	= GUY POLE		= SIGNAL CONTROL CABINET		= VAULT (ELECTRICAL)
	= GUY WIRE		= SIGNAL MAST ARM		= VAULT (TELEPHONE)
	= HANDICAP PARKING		= SIGNAL SPAN WIRE POLE		= VAULT (TRAFFIC SIGNAL)
	= LIGHT POLE		= SOIL BORING		= WATER FAUCET
	= MAIL BOX		= SPRINKLER HEAD		= WELL
	= MANHOLE (UNKNOWN)		= TELEPHONE PEDESTAL		
	= MANHOLE (COMMUNICATIONS)		= TELEPHONE CABINET		
	= MANHOLE (DRAINAGE)		= UTILITY MARKER (CABLE TV)		
	= MANHOLE (ELECTRICAL)		= UTILITY MARKER (FIBER OPTIC)		
	= MANHOLE (SANITARY)		= UTILITY MARKER (ELECTRICAL)		
	= MANHOLE (TELEPHONE)		= UTILITY MARKER (TELEPHONE)		

STANDARD ABBREVIATIONS

A	F	N	S
AC. ACRE	F.G. FINISHED GRADE	N NORTH	S SOUTH
ALT. ALTERNATE	FND FOUND	N&C NAIL & CAP	SHT. SHEET
A/U AERIAL UTILITIES	FUT FUTURE	N&D NAIL & DISK	SQ SQUARE
		NIC NOT IN CONTRACT	STD. STANDARD
B	G	O	T
BL BASE LINE	GND. GROUND	OPNG. OPENING	T&B TOP & BOTTOM
BM BENCH MARK	GP GRADE POINT	OPT. OPTION	TBM TEMPORARY BENCH MARK
BOC BACK OF CURB	GW GUY WIRE	ORB OFFICIAL RECORD BOOK	TEL. TELEPHONE
BOT. BOTTOM			TOB TOP OF BANK
BW BARBED WIRE	H	P	TOS TOE OF SLOPE
	HOG HOG WIRE	PC POINT OF CURVE	T.P. TELEPHONE POLE
	H.W. HIGH WATER	PCC POINT OF COMPOUND CURVE	
C	I	P.C.M. PERMANENT CONTROL MONUMENT	U
(C) CALCULATED DIMENSION	INT. INTERSECTION	P.R.L.C.F PUBLIC RECORDS OF LAKE COUNTY, FLORIDA	U.G. UNDERGROUND
CCR CERTIFIED CORNER RECORD	I.P. IRON PIPE		U.G.P. UNDERGROUND POWER
CLR. CLEAR / CLEARANCE			U.O.N. UNLESS OTHERWISE NOTED
CM CONCRETE MONUMENT	J	Q	U.T.C. UNDERGROUND TELEPHONE CABLE
CMP CORRUGATED METAL PIPE	JT. JOINT	PG PAGE	UTIL. UTILITY
CL CHAIN LINK FENCE		PK CASE HARDENED NAIL	
CP COMBINATION POLE	L	PI POINT OF INTERSECTION	V
CPP CORRUGATED PLASTIC PIPE	LMRK LIME ROCK	PL PROPERTY LINE	VAR. VARIES
CONST. CONSTRUCT / CONSTRUCTION	L.P. LIGHT POLE	POB POINT OF BEGINNING	
CULV CULVERT	LTD LIGHTED	PP POWER POLE	
	L.W. LOW WATER	PROP. PROPOSED	
D		PRC POINT OF REVERSE CURVE	
DET. DETAIL		PT POINT OF TANGENCY	
D/W DRIVEWAY			
E	M	R	W
E EAST	MATL. MATERIAL	R REINFORCED CONCRETE	W WEST
ELLIP ELLIPTICAL	(M) MEASURED DIMENSION	RCP REINFORCED CONCRETE PIPE	W/ WITH
ENGR. ENGINEER	MEG MATCH EXIST. GRADE	RD. ROAD	W/O WITH OUT
EOC EDGE OF CONCRETE	MFR. MANUFACTURER	RLS REGISTERED LAND SURVEYOR	W.E. WATER'S EDGE
EOM EDGE OF MAINTENANCE	MON. MONUMENT	REV. REVISION	W.M. WATER MAIN
EOT EDGE OF TRAVEL		RPM REFLECTIVE PAVEMENT	W.R.A. WATER RETENTION AREA
ESMT. EASEMENT		RND ROUND	W.S. WATER SURFACE
		RR RAIL ROAD	W.S.EL. WATER SURFACE ELEVATION

BA	= BAY TREE	CR	= CAMPHOR TREE	MY	= CREPE MYRTLE TREE
BS	= BUSH	CT	= CITRUS TREE	NS	= NON-SPECIFIC TREE
CD	= CEDAR TREE	CY	= CYPRESS TREE	OK	= OAK TREE
CE	= CHERRY TREE	ER	= EAR TREE	PA	= PALM TREE
CH	= CHINABERRY TREE	MG	= MAGNOLIA TREE	PN	= PINE TREE
				SY	= SYCAMORE TREE

	= FOUND AXLE		= FOUND IRON ROD (SIZE AND MARKINGS AS NOTED)
	= BENCHMARK		= SET 5/8" IRON ROD WITH CAP "LAKE COUNTY LS6329"
	= CALCULATED CORNER		= FOUND METAL PLATE (STAMPED AS NOTED)
	= FOUND BOX CUT OR SCRIBED "X"		= FOUND NAIL (MARKINGS AS NOTED)
	= FOUND CONCRETE MONUMENT (SIZE AND MARKINGS AS NOTED)		= SET NAIL AND DISK MARKED "LAKE COUNTY LS6329"
	= HUB AND TACK		= FOUND RAILROAD SPIKE
	= FOUND IRON PIPE (SIZE AND MARKINGS AS NOTED)		



STATE OF FLORIDA
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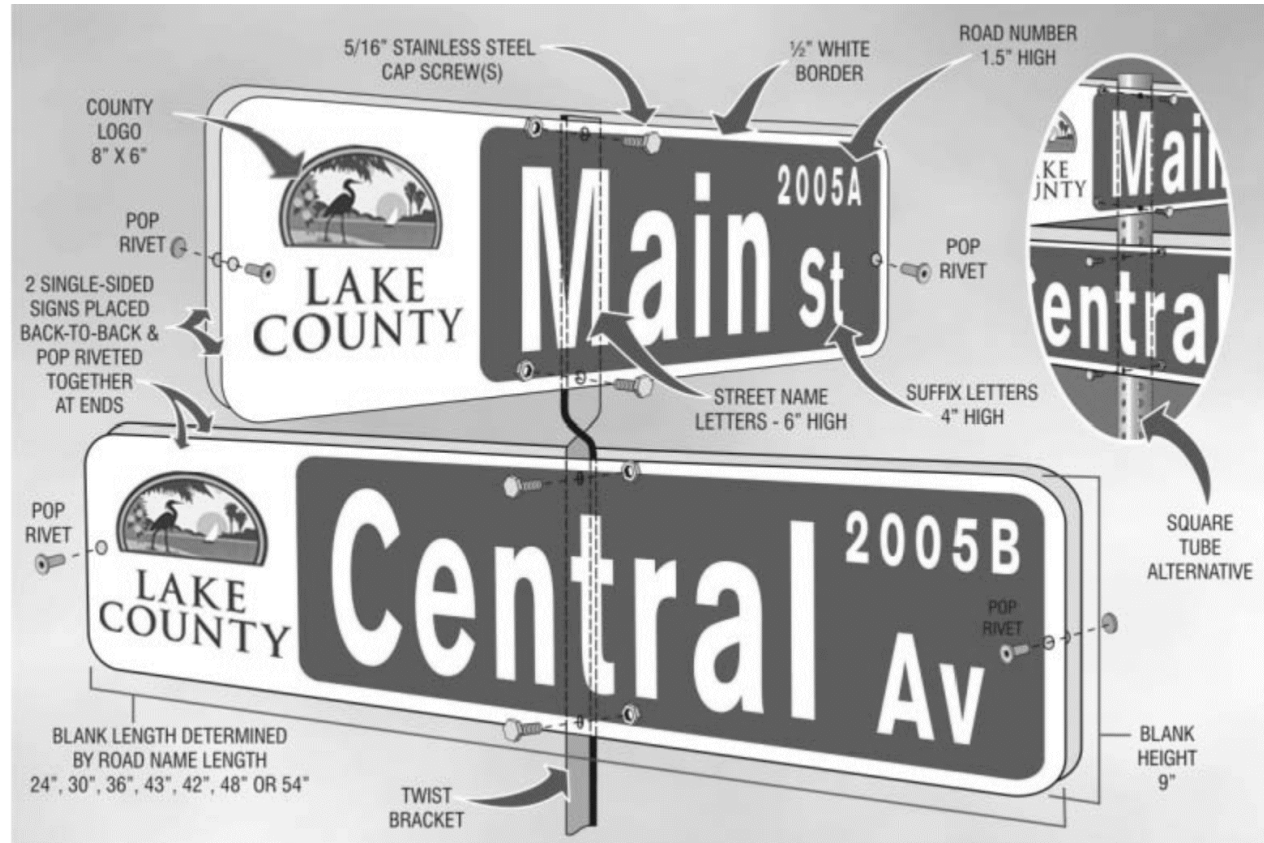
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COUNTY ROAD 48
 GUARDRAIL IMPROVEMENTS
 LEGENDS

JOB NO.: 19034CA
SHEET: C13

LAKE COUNTY SIGN SPECIFICATIONS FOR COUNTY MAINTAINED ROADS FOR BUILDERS/CONTRACTORS/DEVELOPERS



STREET NAME SIGNS (D3's)

SIGN BLANKS

- 0.063" THICK ALUMINUM
- ALUMINUM CHEMICALLY TREATED TO MEET ASTM B499 STANDARD (PRETREATMENT FOR PAINT OR REFLECTIVE SHEETING).
- DIMENSIONS ARE TO BE 9" HEIGHT x 24" MINIMUM / 54" MAXIMUM LENGTH.

COLOR

- THE BACKGROUND SHALL BE HIGH INTENSITY PRISMATIC OR GREATER WHITE SHEETING, WITH GREEN TRANSPARENT OVERLAY FILM.

LEGEND / LETTERING

- ONE-HALF INCH (1/2") WHITE BORDER, 1/2" FROM THE EDGE.
- STREET NAMES SHALL BE 6" SERIES B LETTERS.
- THE ABBREVIATED SUFFIX "Rd" , "Av" , "Dr" , ETC., SHALL BE 4" SERIES B.
- THE DISTRICT NUMBER IN THE UPPER RIGHT CORNER OF THE SIGN SHALL BE 1 1/2" SERIES B.

MOUNTING

- MOUNTING SHALL BE TWO SINGLE SIDED SIGNS WITH ATTRIBUTES ABOVE, MOUNTED BACK TO BACK, WITH ENDS POP-RIVETED TOGETHER, ON A GALVANIZED 9" TWIST BRACKET. NO EDGE-CLAMPING STYLE MOUNTING BLOCKS ARE TO BE USED.

REGULATORY AND WARNING SIGNAGE

MATERIAL/SIGN BLANKS & FACINGS

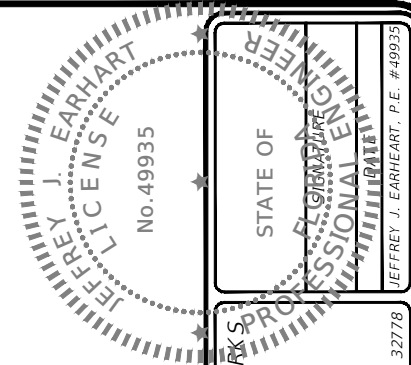
- 0.080 GAUGE
- WITH THE EXCEPTION OF THE STREET NAME SIGNS, ALL SIGNS SHALL CONFORM IN COLOR, SIZE, LEGEND AND LOGO WITH SPECIFICATION IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- STOP SIGN MINIMUM 30" x 30", MINIMUM HIGH INTENSITY PRISMATIC SHEETING OR GREATER. SHEETING FOR ALL SIGNS SHALL BE HIGH INTENSITY PRISMATIC OR GREATER.

PLACEMENT SPECIFICATIONS

- PLACEMENT SHALL BE IN ACCORDANCE WITH THE MUTCD (SECTIONS 2A-21 THROUGH 2A-27) WITH RESPECT TO OFFSET FROM EDGE OF ROAD, HEIGHT, ETC.
- POLES SHOULD BE BURIED TO A MINIMUM DEPTH OF 2 1/2' (30"), ALLOWING 7' TO BOTTOM OF SIGN FROM THE LEVEL OF THE TRAVELED ROADWAY.
- POLES ARE NOT TO BE CONCRETED IN PLACE.

POLES

- SIGN POSTS SHALL BE GALVANIZED STEEL U-CHANNEL POLES, NOT LESS THAN 12' IN LENGTH (14' OR 16' FOR SEVERE SHOULDER DROP-OFFS), WITH MINIMUM WEIGHT OF 3 LBS. PER FOOT, OR SQUARE TUBE, MINIMUM 1 3/4" GALVANIZED STEEL, MINIMUM 14 GAUGE, DRILLED 1/2" HOLES ON 1" CENTERS FULL LENGTH.



STATE OF FLORIDA
JEFFREY J. EARHART
 PROFESSIONAL ENGINEER
 LICENSE No. 49935

DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION
LAKE COUNTY, FL
 350 N. SINCLAIR AVE., TAVARES, FLORIDA 32780

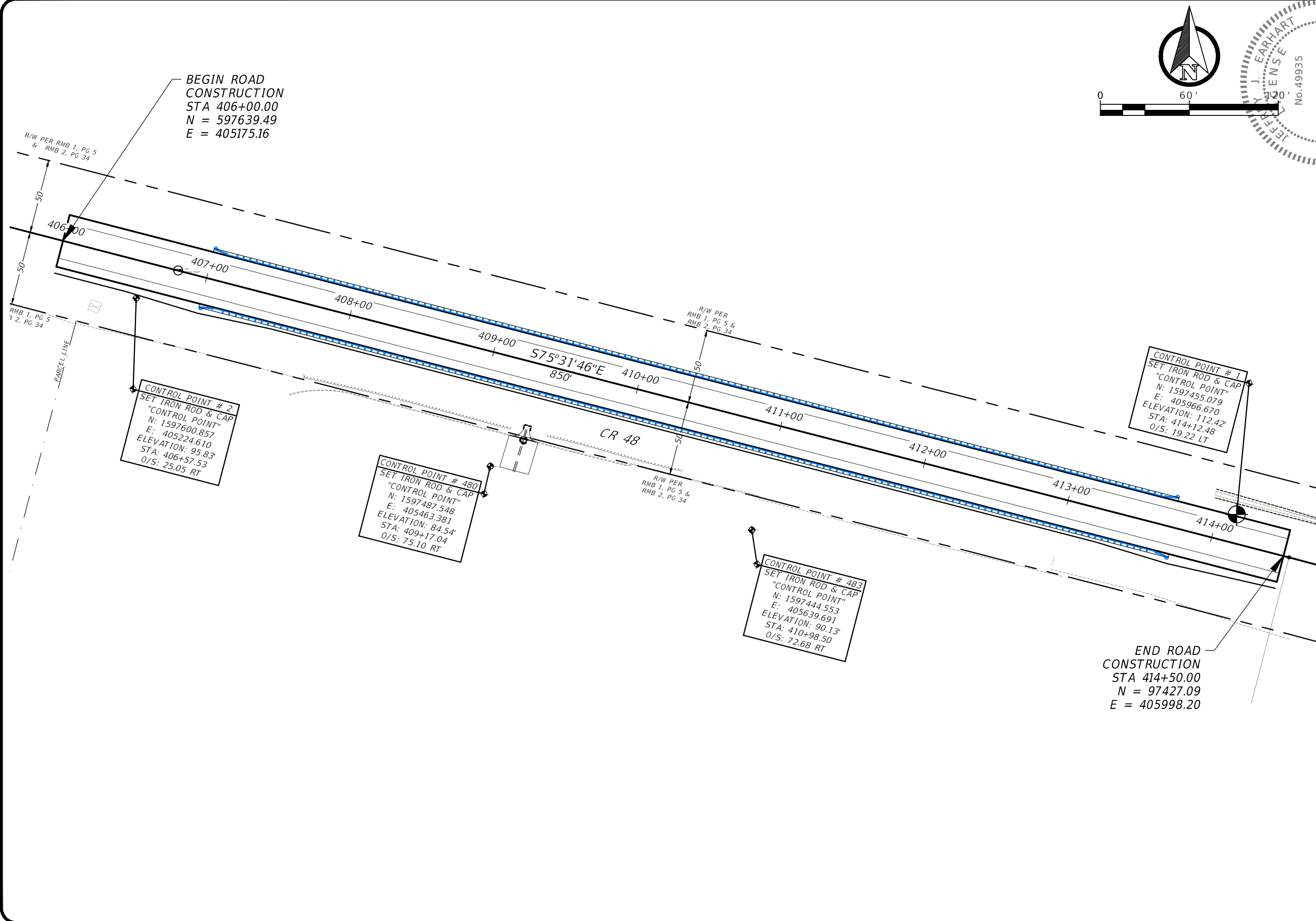
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FIELD BOOK: 228/23	PAGE: -	DATE: 3/23/23
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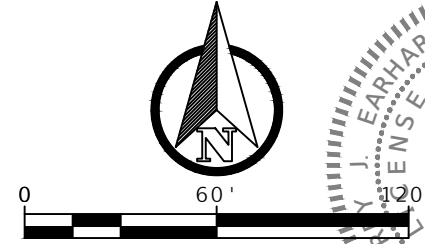
COUNTY ROAD 48
 GUARDRAIL IMPROVEMENTS
 STREET SIGN DETAILS

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BEGIN ROAD
CONSTRUCTION
STA 406+00.00
N = 597639.49
E = 405175.16



CONTROL POINT # 2
SET IRON ROD & CAP
"CONTROL POINT"
N: 1597600.857
E: 405224.610
ELEVATION: 95.83'
STA: 406+57.53
O/S: 25.05 RT

CONTROL POINT # 480
SET IRON ROD & CAP
"CONTROL POINT"
N: 1597487.548
E: 405463.381
ELEVATION: 84.54'
STA: 409+17.04
O/S: 75.10 RT

CONTROL POINT # 483
SET IRON ROD & CAP
"CONTROL POINT"
N: 1597444.553
E: 405639.691
ELEVATION: 90.13'
STA: 410+98.50
O/S: 72.68 RT

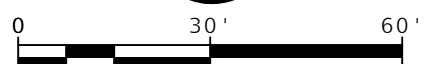
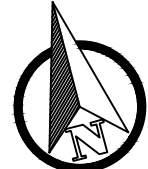
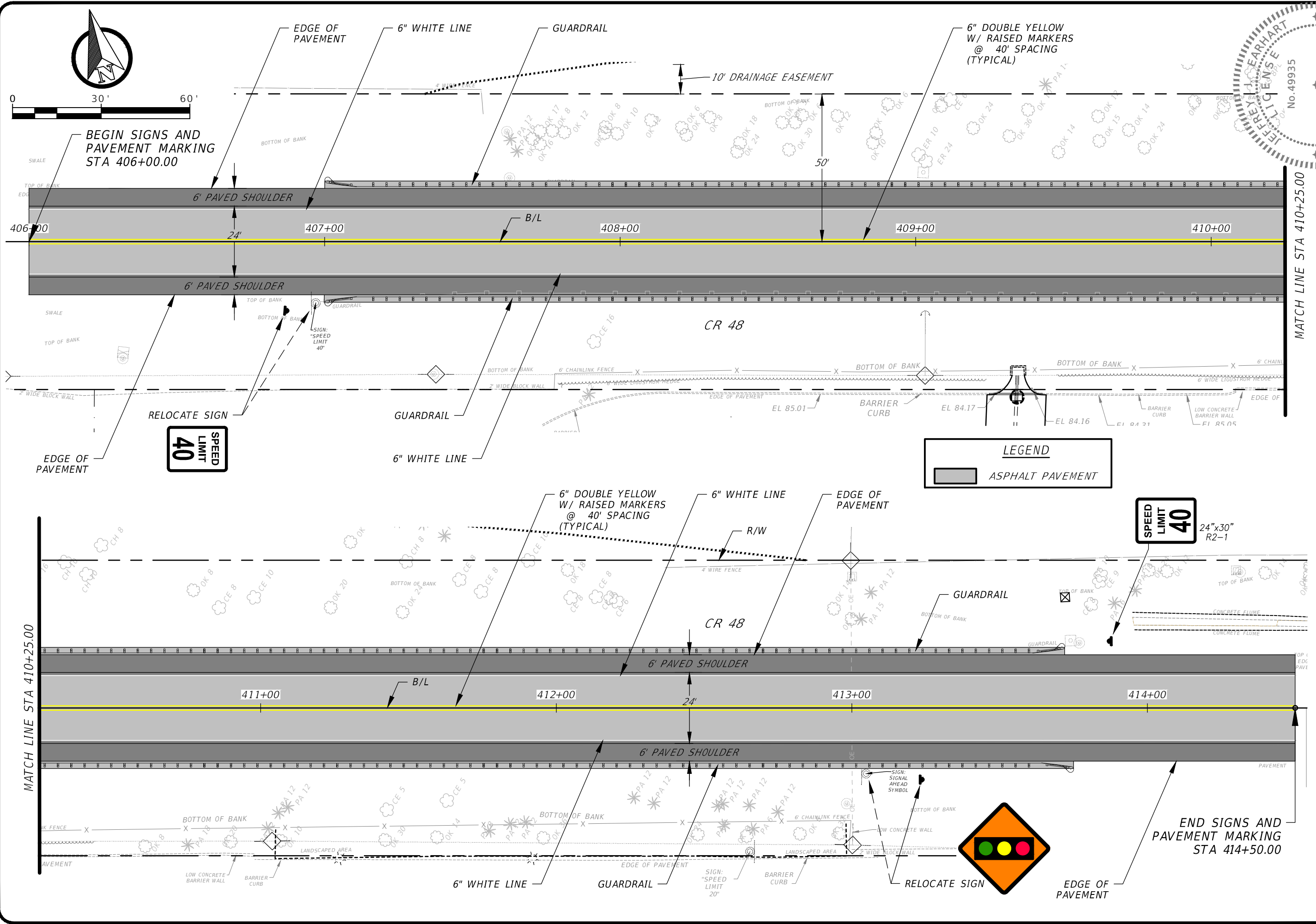
CONTROL POINT # 1
SET IRON ROD & CAP
"CONTROL POINT"
N: 1597455.079
E: 405966.670
ELEVATION: 112.42'
STA: 414+12.48
O/S: 19.22 LT

END ROAD
CONSTRUCTION
STA 414+50.00
N = 97427.09
E = 405998.20

STATE OF FLORIDA		PROFESSIONAL ENGINEER		JEFFREY J. EARHART, P.E. #49935	
DEPARTMENT OF PUBLIC WORKS		ENGINEERING DIVISION		LAKE COUNTY, FL	
COUNTY ROAD 48		GUARDRAIL IMPROVEMENTS		CONTROL POINTS	
REVISION:	DATE:	REVISION:	DATE:	REVISION:	DATE:
S. - 23	T. - 20	R. - 25	DATE: -	DATE: -	DATE: -
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JOB NO.: 19034CA					
SHEET: C15					

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STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 JEFFREY J. EARHEART, P.E. #49935

DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION
LAKE COUNTY, FL
 350 N. SINCLAIR AVE., TAVARES, FLORIDA 32778

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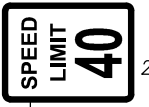
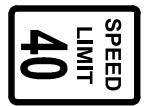
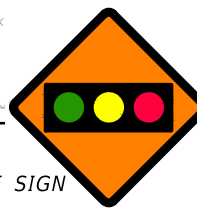
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COUNTY ROAD 48
 GUARDRAIL IMPROVEMENTS
 SIGNS & PAVEMENT MARKING

JOB NO.: 19034CA
 SHEET: C16

LEGEND

ASPHALT PAVEMENT



END SIGNS AND PAVEMENT MARKING STA 414+50.00

BEGIN SIGNS AND PAVEMENT MARKING STA 406+00.00

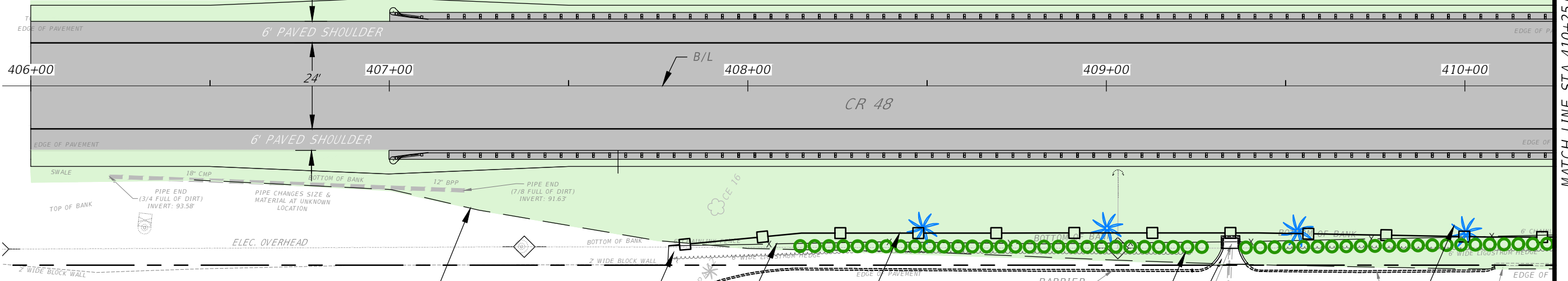
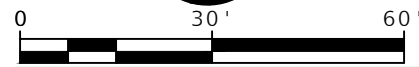
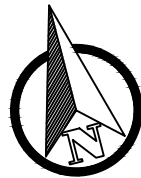
END SIGNS AND PAVEMENT MARKING STA 414+50.00

MATCH LINE STA 410+25.00

MATCH LINE STA 410+25.00

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MATCH LINE STA 410+25.00
THIS SHEET

LEGEND

- VIBURNUM
- SABAL PALM
- SOD
- ASPHALT PAVEMENT

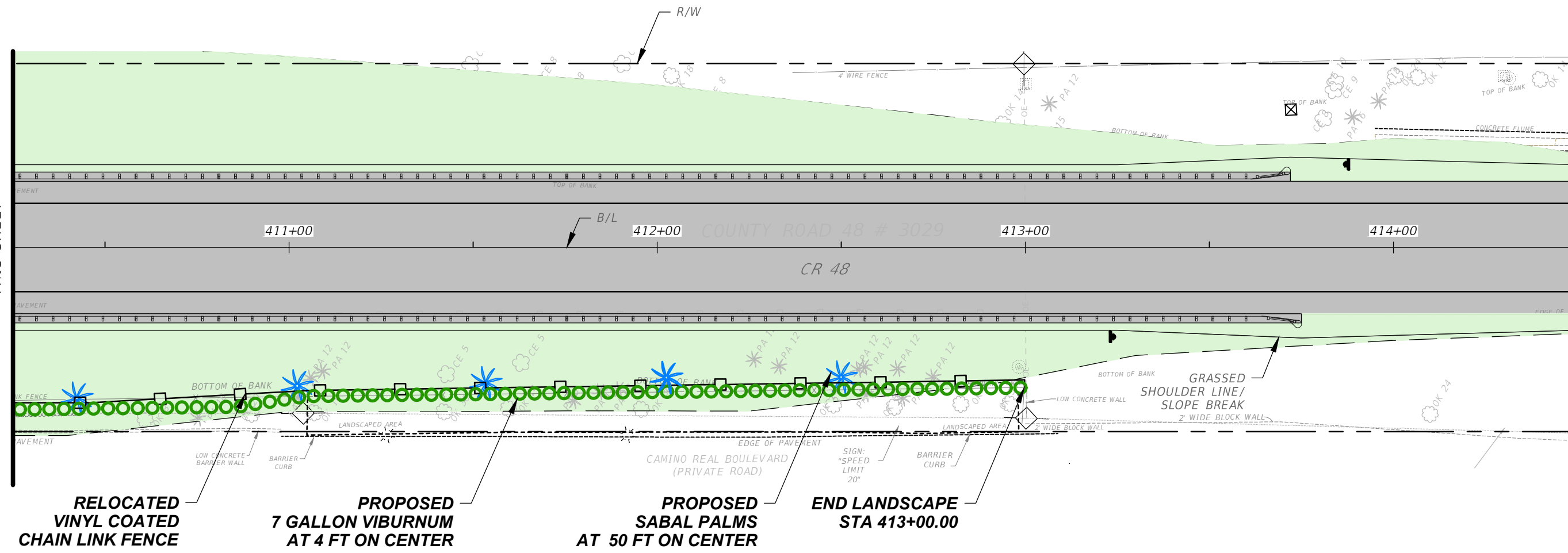
CONTRACTOR WILL BE INSTRUCTED TO SAVE AS MUCH OF THE EXISTING VIBURNUM HEDGE AS POSSIBLE

RELOCATED VINYL COATED CHAIN LINK FENCE

PROPOSED 7 GALLON VIBURNUM AT 4 FT ON CENTER

PROPOSED SABAL PALMS AT 50 FT ON CENTER

MATCH LINE STA 410+25.00
THIS SHEET



RELOCATED VINYL COATED CHAIN LINK FENCE

PROPOSED 7 GALLON VIBURNUM AT 4 FT ON CENTER

PROPOSED SABAL PALMS AT 50 FT ON CENTER

END LANDSCAPE STA 413+00.00

SIGNATURE
DATE
JEFFREY J. EARHEART, P.E. #49935

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
LAKE COUNTY, FL
350 N. SINCLAIR AVE., TAVARES, FLORIDA 32778

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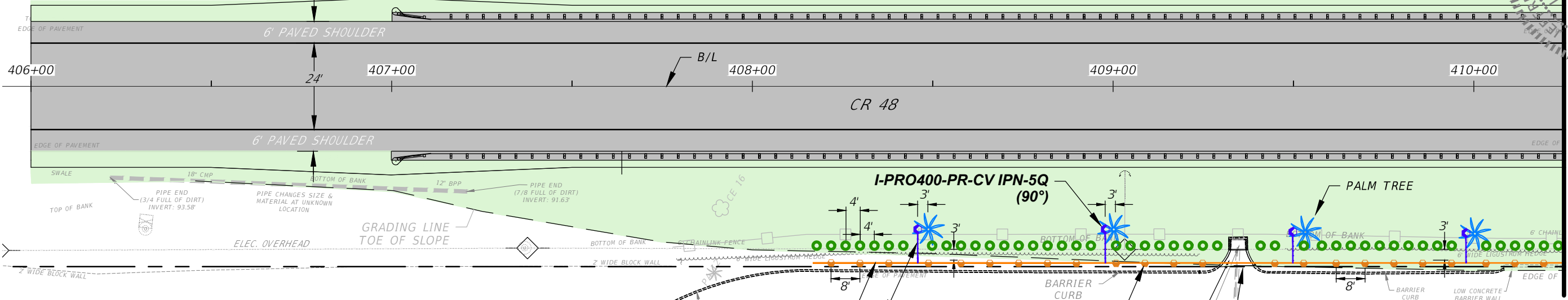
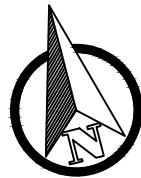
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COUNTY ROAD 48
GUARDRAIL IMPROVEMENTS
LANDSCAPE PLAN

JOB NO.: 19034CA
SHEET: C17

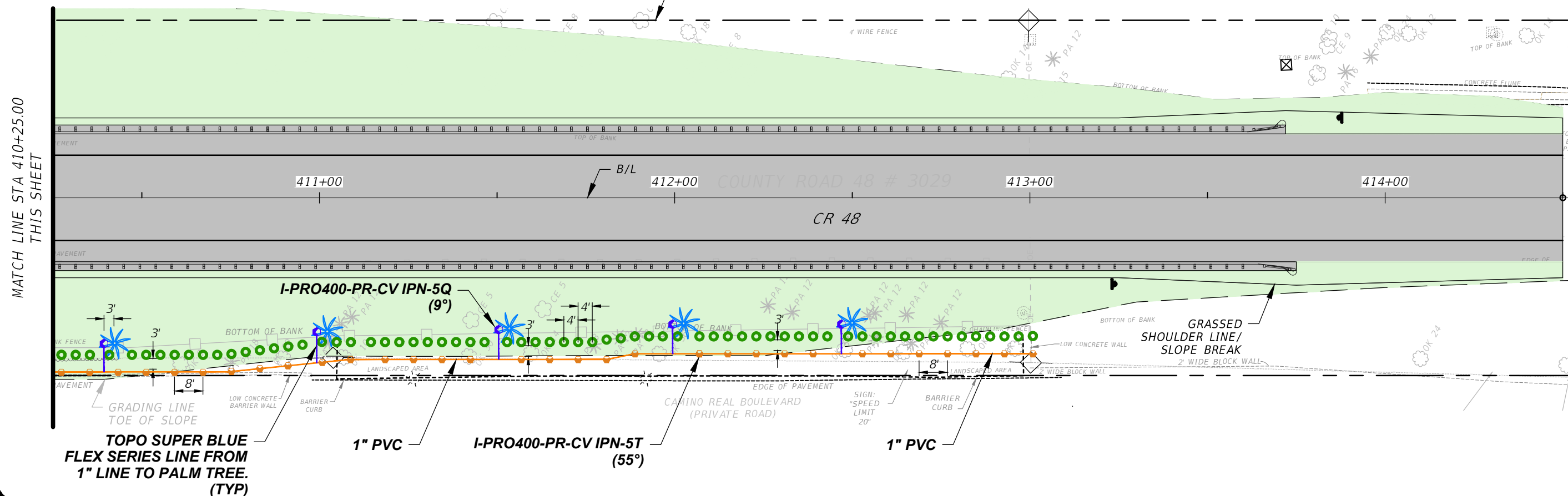
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LEGEND

- Toro I-PRO400-PR-CV IPN-5T (55°)
- Toro I-PRO400-PR-CV IPN-5Q (9°)
- VIBURNUM
- SOD
- ASPHALT PAVEMENT



MATCH LINE STA 410+25.00 THIS SHEET

MATCH LINE STA 410+25.00 THIS SHEET

STATE OF FLORIDA
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COUNTY ROAD 48
 GUARDRAIL IMPROVEMENTS
 IRRIGATION PLAN

JOB NO.: 19034CA
 SHEET: C18