

Oversight / NHS

FHWA REGION VIII OVERSIGHT?  NO  YES

NATIONAL HIGHWAY SYSTEM?  NO  YES

# DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

**Related Projects:**

P. E. UNDER PROJECT:  
Project Number  
Project Code:

**TABULATION OF LENGTH**

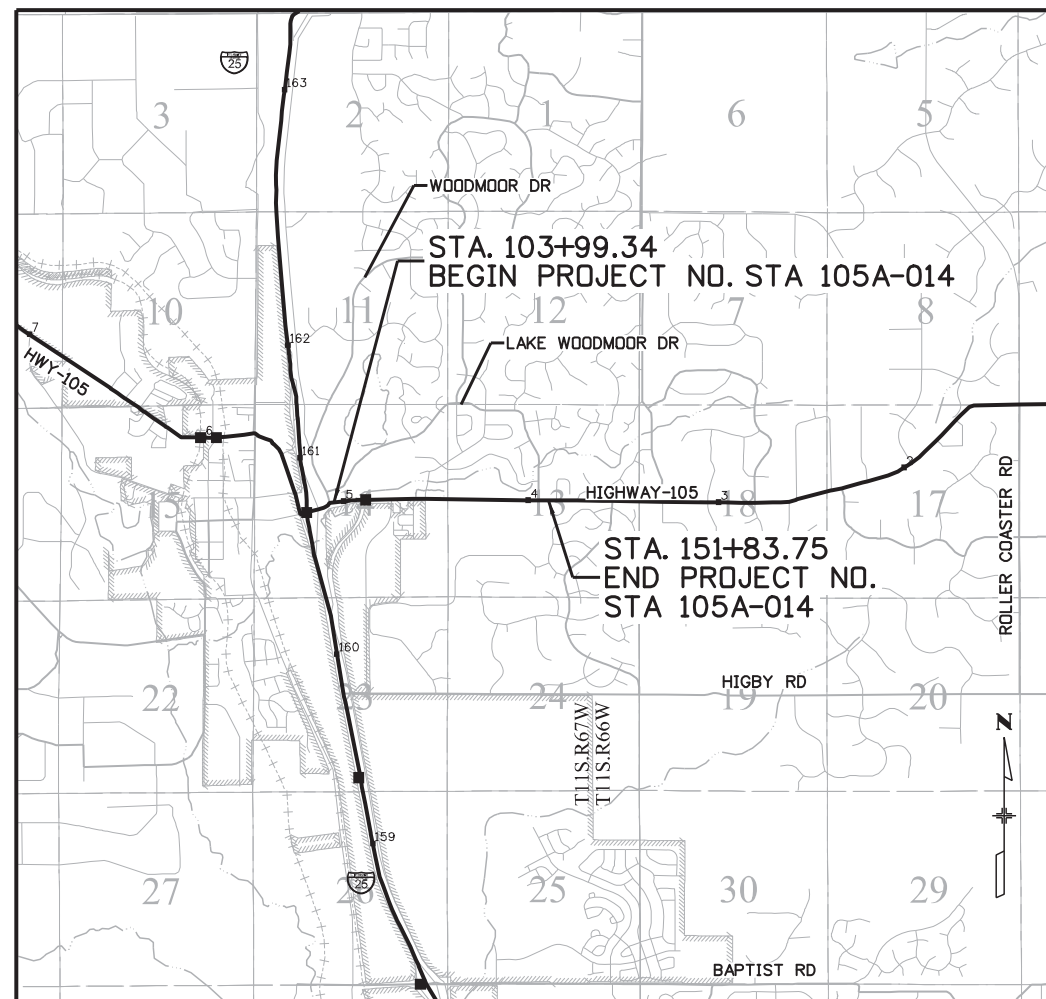
STATION	FEET	
	ROADWAY	HIGHWAY 105
STA 103+99.34 BEGIN PROJECT NO. STA 105A-014		
STA 151+83.75 END PROJECT NO. STA 105A-014		4,783.75
<b>TOTAL</b>		4,783.75
<b>PROJECT GROSS LENGTH</b>		0.91 MI

## HIGHWAY CONSTRUCTION BID PLANS OF PROPOSED FEDERAL AID PROJECT NO. STA 105A-014 HIGHWAY-105 FROM WOODMOOR DRIVE TO LAKE WOODMOOR EL PASO COUNTY CONSTRUCTION PROJECT CODE NO. 19734

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HIGHWAY 105 DESIGN DATA (CRITERIA)	
MAXIMUM RADIUS OF CURVE	930'
MAXIMUM GRADE	6%
MINIMUM S.S.D. HORIZONTAL	425'
MINIMUM S.S.D. VERTICAL	425'
MAXIMUM DESIGN SPEED	50 MPH
CLEAR ZONE DISTANCE	20'

KNOLLWOOD DR & LAKE WOODMOOR DR DESIGN DATA (CRITERIA)	
MAXIMUM RADIUS OF CURVE	565'
MAXIMUM GRADE	8%
MINIMUM S.S.D. HORIZONTAL	305'
MINIMUM S.S.D. VERTICAL	305'
MAXIMUM DESIGN SPEED	35 MPH
CLEAR ZONE DISTANCE	14'



El Paso County:

County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document. Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual, as amended. In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer.

Design Engineer's Statement:

These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. Said plans and specifications meet the purposes for which the particular roadway and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparation of these detailed plans and specifications.

**PROJECT LOCATION MAP**



SUBMITTED FOR AD  
APRIL 26, 2023

*Cory R. Beasley*  
Cory R. Beasley, P.E. # 46437

04/25/2023  
Date

*Josh Palmer*  
Josh Palmer, P.E.  
County Engineer / ECM Administrator

4/25/23  
Date

Print Date: 4/25/2023
File Name: 19734DES_TitleSht-T-01.dgn
Horiz. Scale: 1:1      Vert. Scale:
<b>HDR</b> 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

EL PASO COUNTY COLORADO S.F. Region 02

As Constructed
No Revisions:
Revised:
Void:

Contract Information
Contractor:
Resident Engineer:
Project Engineer: / /
PROJECT STARTED: / /    ACCEPTED: / /
Comments:

Project No./Code
STA 105A-014
19734
Sheet Number 1 of 251

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COLORADO  
DEPARTMENT OF TRANSPORTATION  
M&S STANDARDS PLANS LIST  
July 31, 2019  
Revised on April 14, 2023

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED  
AND REVISED, APPLY TO THIS PROJECT WHEN USED  
BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE  
INDICATED BY A MARKED BOX , AND WILL BE ATTACHED TO THE  
PLANS. ALL OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE FOR USE  
IN CONSTRUCTION IF APPROVED BY AN APPROPRIATE CDOT ENGINEER.

Print Date: 4/25/2023
File Name: 19734DES_STND-ST-01.dgn
Horiz. Scale: 1:1      Vert. Scale: None
 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.



As Constructed
No Revisions:
Revised:
Void:

HIGHWAY 105 PROJECT A STANDARD PLANS LIST			
Designer:	C. BEASLEY	Structure	
Detailer:	J. WILKERT	Numbers	
Sheet Subset:	STANDARD	Subset Sheets:	1 of 1

Project No./Code
19734
STA 105A-014
Sheet Number 2 of 251





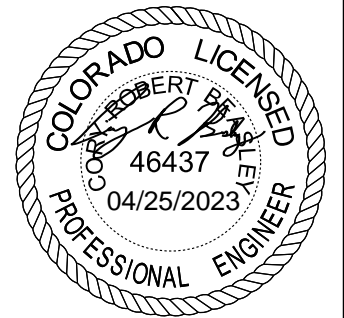
**GENERAL NOTES CONTINUED:**

**ENVIRONMENTAL**

**ENVIRONMENTAL (CONTINUED)**

- 27. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED BEFORE CONSTRUCTION AND GRADING BEGIN. PLASTIC FENCING AS SHOWN IN THE SWMP SHEETS SHALL ALSO BE INSTALLED BEFORE CONSTRUCTION AND GRADING BEGIN.
- 28. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A DUST CONTROL PLAN THAT DETAILS METHODS OF MITIGATION OF FUGITIVE DUST RESULTING FROM THE WORK. THE DUST CONTROL PLAN SHALL BE APPROVED BY THE ENGINEER PRIOR TO WORK COMMENCEMENT.
- 29. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS WILL BE AS DIRECTED BY THE ENGINEER. WATER FOR A DUST PALLIATIVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK. GROUNDWATER CAN NOT BE USED AS A DUST PALLIATIVE.
- 30. DUST CONTROL FOR THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE EARTHWORK ITEM.
- 31. GROUNDWATER WITHIN THE PROJECT LIMITS HAS THE POTENTIAL TO CONTAIN CHEMICAL COMPOUNDS AT CONCENTRATIONS GREATER THAN WHAT IS ACCEPTABLE FOR DIRECT DISCHARGE UNDER A STANDARD COLORADO DISCHARGE PERMIT SYSTEM STORMWATER CONSTRUCTION PERMIT (CDPS-SCP). THE CONTRACTOR IS ADVISED TO LIMIT PUMPING OF GROUNDWATER IN ALL PROJECT EXCAVATIONS, BY CAREFUL SCHEDULING, EXPEDITING THE WORK AND USE OF CONSCIENTIOUS CONSTRUCTION METHODS. THE CONTRACTOR SHALL MINIMIZE THE DISTURBANCE OF CONTAMINATED GROUNDWATER BY AVOIDANCE AND LIMIT INTRUSION OF GROUNDWATER INTO EXCAVATIONS.
- 32. IF DEWATERING IS NECESSARY, GROUNDWATER BROUGHT TO THE SURFACE SHALL BE MANAGED AND PERMITTED ACCORDING TO STANDARD SPECIFICATION SECTION 107.25 WATER QUALITY CONTROL. A GENERAL CONSTRUCTION DEWATERING OPERATIONS PERMIT MUST BE OBTAINED BY THE CONTRACTOR FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) WATER QUALITY CONTROL DIVISION (WQCD) IF GROUNDWATER IS DISCHARGED FROM THE EXCAVATION SITE TO ANY WATER OF THE STATE OR IF KNOWN TO BE CONTAMINATED.
- 33. COSTS INCURRED BY THE CONTRACTOR FOR THE REMOVAL, SAMPLE COLLECTION, ANALYTICAL TESTING, CONTAINERIZATION, TRANSPORTATION, AND DISPOSAL OR TREATMENT OF CONTAMINATED GROUNDWATER WILL BE PAID FOR UNDER FORCE ACCOUNT ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT.
- 34. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS, INCLUDING REPORTS, ASSOCIATED WITH THE APPLICATION FOR AND MAINTENANCE OF THE PERMIT.
- 35. IN THE EVENT THAT PROJECT PERSONNEL ENCOUNTER UNKNOWN SOIL CONTAMINATION, CONSTRUCTION ACTIVITIES SHOULD CEASE IMMEDIATELY AND THE PROCEDURES OUTLINED IN THE CDOT STANDARD SPECIFICATIONS SECTION 250.03 AND 250.05 ENVIRONMENTAL, HEALTH AND SAFETY SHALL BE FOLLOWED.
- 36. THE CONTRACTOR SHALL PERFORM CONSTRUCTION ACTIVITIES TO AVOID UNNECESSARY IMPACTS TO EXISTING VEGETATION, INCLUDING TREES AND SHRUBS. PLASTIC PROTECTIVE FENCING SHALL BE USED TO IDENTIFY THESE AREAS, AS NOTED ON THE EROSION CONTROL PLAN. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT HIS OR HER OWN EXPENSE. THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR EQUIPMENT OR DISTURB ANY AREA NOT APPROVED BY THE ENGINEER.
- 37. IF CONSTRUCTION IS TO OCCUR DURING THE NESTING SEASON FOR MIGRATORY BIRDS (BETWEEN APRIL 1 AND AUGUST 31) CONTRACTOR SHALL FOLLOW THE REVISION OF SECTION 240 PROTECTION OF MIGRATORY BIRDS BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST. THIS PROCEDURE SHALL BE INCLUDED IN THE COST OF WORK AND WILL NOT BE PAID FOR SEPARATELY.
- 38. NOXIOUS WEED MANAGEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND FOLLOW THE PROCEDURES IDENTIFIED IN THE CDOT STANDARD SPECIFICATIONS SECTION 217 HERBICIDE TREATMENT. ONLY COLORADO LICENSED SUPERVISION OR CERTIFIED OPERATOR WILL APPLY HERBICIDES. ALL HERBICIDES SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. COSTS SHALL BE INCLUDED IN THE PAY ITEM 217 - HERBICIDE TREATMENT.
- 39. IF ANY ARCHEOLOGICAL MATERIALS ARE EXPOSED DURING ANY PHASE OF CONSTRUCTION, THE CDOT PALEONTOLOGIST, SHALL BE NOTIFIED. CONSTRUCTION MONITORING WILL LIKELY BE INTERMITTENT, WITH ACTUAL LOCATIONS AND DURATION OF MONITORING DETERMINED ON SITE BY THE CDOT PALEONTOLOGIST AS CONSTRUCTION PROGRESSES. POND EXCAVATION WITH 10 DAYS NOTICE (PER THE ARCHEOLOGICAL CLEARANCE).

- 40. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL FEDERAL, STATE AND LOCAL CONSTRUCTION PERMITS PRIOR TO COMMENCING CONSTRUCTION.
- 41. IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS REVISED SECTIONS 207, 212 AND 217 OF THE CDOT STANDARD SPECIFICATIONS, THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR IN REGARD TO VEGETATION AND SOILS:
  - A. MINIMIZATION OF SOIL DISTURBANCE TO THE EXTENT POSSIBLE;
  - B. STAGING OF EQUIPMENT WILL NOT BE PERMITTED IN WEED-INFESTED AREAS;
  - C. COORDINATION OF WEED MANAGEMENT EFFORTS WITH LOCAL JURISDICTIONAL AGENCIES AND ADJACENT LAND OWNERS TO THE EXTENT POSSIBLE;
  - D. HERBICIDES MAY BE USED IMMEDIATELY ADJACENT TO WETLANDS AND/OR WATER BODIES ONLY IF THE LABEL INDICATES THAT ITS USE IS APPROPRIATE FOR SUCH AREAS;
  - E. NOXIOUS WEEDS OBSERVED IN AND NEAR THE CONSTRUCTION AREA, WITHIN THE PROJECT RIGHT-OF-WAY, WILL BE TREATED WITH HERBICIDES OR MECHANICALLY REMOVED PRIOR TO THE START OF CONSTRUCTION TO MINIMIZE SPREAD;
  - F. RE-SEEDING OF ALL DISTURBED SOIL WITH A CERTIFIED WEED-FREE SEED MIX WITHIN SEVEN DAYS OF COMPLETION OF WORK BETWEEN SEPT. 1 UNTIL CONSISTENT GROUND FREEZE AND FROM SPRING THAW UNTIL JUNE 1;
  - G. WEED-FREE IS DEFINED AND REGULATED BY THE FREE FORAGE ACT, TITLE 35, ARTICLE 27.5, CRS;
  - H. FERTILIZER WILL NOT BE USED IN SEEDED AREAS BECAUSE IT CAN ENHANCE THE GROWTH OF NOXIOUS WEEDS AT THE EXPENSE OF DESIRED VEGETATION;
  - I. USE OF A HORIZON SOIL MATERIAL CURRENTLY SUPPORTING NOXIOUS WEED COVER OF MORE THAN 10% SHOULD NOT BE USED AS TOPSOIL DURING RE-VEGETATION;
  - J. MONITOR ALL AREAS TREATED FOR NOXIOUS WEEDS DURING CONSTRUCTION AND RE-TREAT, IF NECESSARY, TO PREVENT RE-ESTABLISHMENT OF NOXIOUS WEEDS; AND
  - K. IF USED, COMPOST WILL BE WEED-FREE.
- 42. IN COLORADO, MOST NESTING AND REARING ACTIVITIES OCCUR BETWEEN APRIL 1 AND AUGUST 31, BUT RAPTORS MAY NEST AS EARLY AS FEBRUARY 15. THESE DATES ARE GUIDELINES AND NESTING BIRDS ARE PROTECTED AT ALL TIMES. PRECONSTRUCTION SURVEYS FOR NESTING BIRDS SHOULD BE COMPLETED BY A WILDLIFE BIOLOGIST WITH A MINIMUM OF THREE YEARS EXPERIENCE CONDUCTING MIGRATORY BIRD SURVEYS. NO CONSTRUCTION ACTIVITIES MAY OCCUR WITHIN 50 FEET OF AN ACTIVE NEST AND ORANGE CONSTRUCTION FENCING SHOULD BE INSTALLED AROUND ACTIVE NESTS TO PROTECT THEM UNTIL THE NEST FAILS OR THE YOUNG FLEDGE. CONTRACTOR SHALL FOLLOW CONSTRUCTION ACTIVITIES PER THE REVISION OF SECTION 240 PROTECTION OF MIGRATORY BIRDS BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST FOUND IN THE PROJECT SPECIFICATIONS
- 43. IF CONSTRUCTION OCCURS BETWEEN FEB. 15 AND AUG. 31, A PRECONSTRUCTION SURVEY FOR NESTING RAPTORS MUST BE COMPLETED WITHIN THE BUFFER AREA, THEN COLORADO "RECOMMENDED BUFFER ZONES AND SEASONAL RESTRICTIONS FOR COLORADO RAPTORS: GUIDELINES SHOULD BE FOLLOWED. THE CPAW MAY REDUCE THE BUFFER REQUIREMENTS BASED ON SITE CONDITIONS AND TYPE OF WORK BEING DONE, BUT MUST BE CONSULTED FOR APPROVAL PRIOR TO CONSTRUCTION WITHIN THE RECOMMENDED BUFFER ZONE OF AN ACTIVE NEST.



Print Date: 4/18/2023					As Constructed	HIGHWAY 105 PROJECT A		Project No./Code		
File Name: 19734DES_Notes-GN-02.dgn		Date:	Comments		Init.	No Revisions:	GENERAL NOTES		19734	
Horiz. Scale: 1:1    Vert. Scale: None						Revised:	Designer: C. BEASLEY		Structure Numbers	STA 105A-014
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800				S.F.	Region 02	Void:	Sheet Subset: NOTES    Subset Sheets: 2 of 3	Sheet Number 4 of 251		

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**TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:**

Format \*  
 3D Design Modeling Electronic Files \_\_\_\_\_  
 Horizontal Control \_\_\_\_\_  
 Vertical Control \_\_\_\_\_  
 Roadway Alignment \_\_\_\_\_  
 Original Terrain Data \_\_\_\_\_  
 Other: \_\_\_\_\_

\* Specify the information format, ie., plan sheet, computer disk, computer printout, or other. The information marked is either contained on the plans or is available from the Engineer.

**TYPE OF PROJECT**

Landscaping  
 Signalization  
 Safety Improvement  
 Asphalt Overlay  
 Concrete Overlay  
 Minor Widening  
 Major Reconstruction  
 New Roadway Construction  
 Bridge Replacement  
 Bridge Widening  
 New Bridge  
 Other: \_\_\_\_\_

**SURVEY WORK TO BE PERFORMED BY OTHERS:** \_\_\_\_\_

**WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 625:**

- A complete passing Base Line report (completed within 6 months prior to the start of the project)
- An instrument calibration Certification (completed within 6 months prior to the start of the project)
- Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)
- Verification and Maintenance of Horizontal and Vertical Control
- Verify or Determine existing grades and alignments
- Verify or Determine existing topography
- Clearing and Grubbing Limits (Section 201)
- Removal Limits (Section 202)
- Reset Items (Section 210)
- Excavation and Embankment (Section 203)

- Excavation
- Unclassified
  - Stripping
  - Muck
  - Rock
  - Borrow
  - Other: \_\_\_\_\_
  - Potholing

- Embankment
- Site Grading
  - Erosion Control (Perm)
  - Other: \_\_\_\_\_
  - As Staked Earthwork Quantities (See General Notes)

- Landscaping
- Top Soil (Section 207)
  - Seeding (Section 212)
  - Mulching (Section 213)
  - Planting (Section 214)
  - Herbicide (Section 217)
  - Other: \_\_\_\_\_

- Erosion Control (Section 208)
- Seeding (Temp)
  - Silt Fence
  - Erosion Bales
  - Erosion Logs
  - Riprap (Temp)
  - Other: \_\_\_\_\_

- Roadway Bases
- Untreated Subgrade
  - Treated Subgrade
  - Aggregate Base Course (Section 304)
  - Reconditioning
  - PMBB - Plant Mix Bituminous Base
  - Other: \_\_\_\_\_

	Slope Staking (Y/N)	Grid (Y/N)	Grade (Y/N)	Special Interval
Excavation	YES	-	-	50 FT
	-	-	-	-
	-	-	-	-
	-	-	-	-

	Slope Staking (Y/N)	Grid (Y/N)	Grade (Y/N)	Special Interval
Embankment	YES	-	-	50 FT
	-	-	-	-

	Grid (Y/N)	Grade (Y/N)	Special Interval	Special Offset
Roadway Bases	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

- Pavements
- HMA - Hot Mix Asphalt (Section 403)
  - Concrete (Section 412)
  - Heating & Scarifying Treatment
  - Prime Coat, Tack Coat & Rejuvenating Agent (Section 407)
  - Seal Coat or Chip Seal (Section 409)
  - Other: \_\_\_\_\_

	Grid (Y/N)	Special Interval	Special Offset
Pavements	YES	-	50 FT
	-	-	-
	-	-	-
	-	-	-
	-	-	-

- Roadway Elements
- Curb and Gutter (Section 609)
  - Drop inlets - alignment and grades (Section 604)
  - Retaining Walls
  - Guard Rail (Section 606)
  - Sidewalk (Section 608)
  - Overlay Stationing
  - Other: \_\_\_\_\_

	Tangent Interval	Curve Interval	Special Offset
Curb & Gutter	-	-	-
	-	-	-

- Riprap (Perm) (Section 506)
- Slope and Ditch Paving (Section 507)

- Minor Structures
- Structure Excavation limits (Section 206)
  - Culverts (Section 603)
  - Culverts w/ Headwalls and Wingwalls (Section 601)
  - Concrete Box Culverts w/ Headwalls and Wingwalls
  - Pipes (Section 603)
    - Sanitary Sewer
    - Storm Sewer
    - Water
    - Irrigation
    - Miscellaneous
  - Manholes (Section 604)
  - Inlets (Section 604)
  - Permanent Water Quality BMP (Section 208)
  - Other: \_\_\_\_\_

	Left Interval	Center Interval	Right Interval
Stationing	-	-	-
	-	-	-

- Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, Bridges - and all other structures assigned a structure number
- Structure Excavation limits (Section 206)
  - Concrete Box Culverts (Section 603) w/ Headwalls and Wingwalls (Section 601)
  - Piling locations and cut off elevations (Section 502)
  - Caisson locations and elevations (Section 503)
  - Footing locations, alignment, and elevations
  - Abutment/Pier locations, alignment, and elevations
  - Wingwall skew angles/offsets
  - Structural concrete form locations
  - Substructure As-constructed survey required for Bridges (Subsection 601 .12) and Overhead signs (S-614-50)
  - Bridge expansion joint(s) alignment and grade (longitudinal and transverse)
  - Deck grades at Girder 10th or "n" th point locations and elevations
  - Slope and Ditch Paving (Section 507)
  - Other: \_\_\_\_\_

- Fencing (Section 607)
- Temporary
  - Permanent
  - Sound Barrier
  - Other: \_\_\_\_\_

- Delineators (Section 612)
- Temporary
  - Permanent

- Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 614)
- Signal pole locations and elevations
  - Light pole locations and elevations
  - Sign locations
  - Field verify sign post locations, elevations, and lengths before fabrication.
  - Other: \_\_\_\_\_

- Pavement Marking (Section 627)
- Striping (Temp)
  - Striping (Perm)
  - Symbols
  - Other: \_\_\_\_\_
- Temporary Lighting and Construction Traffic Control Devices (Section 630)
- Signal pole locations and elevations (Temp)
  - Light pole locations and elevations (Temp)
  - Sign Locations (Temp)
  - Other: \_\_\_\_\_
- All Easements (Temp Staking by P.L.S. Only)
- Right of Way (Temp Staking by P.L.S. Only)

**WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 629:**

- Monumentation (Section 629)
- Control
  - Right of Way
  - Land corners, Aliquot corners
  - Easements
  - Reference the specified existing monuments: \*\* \_\_\_\_\_
  - Replace the specified existing monuments: \*\* \_\_\_\_\_
  - Locate monuments. It is estimated \_\_\_\_\_ hours are required.


NOTE: All 629 items shall include adequate research, calculations, and evaluations of evidence for monuments to be set.

\*\* A Tabulation of Survey Monuments may be provided on the plans.

**GENERAL NOTES:**

1. Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the CDDT Survey Manual.
2. Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.
3. The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer \_\_\_\_\_ days prior to the Presurvey Conference - Construction Survey.
4. Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.
5. The Contractor shall furnish an As Staked (or 3D Design Modeling Electronic Files) Earthwork Quantity report to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDDT Survey Manual. A printed copy of the As Staked (or 3D Design Modeling Electronic Files) Earthwork data report and a computer disk with that information on it, in the specified format shall be submitted to the Engineer. The Contractor shall field verify original ground cross sections at a maximum 500 feet intervals.
6. Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.
7. The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades into field grades.
8. The Contractor shall coordinate construction staking on the project with any utility work.
9. Fieldbooks shall contain daily records of points set and or measurements observed. The information recorded shall contain: date, crew members' names, point no., description, staking information, and sketches. If the survey information is collected electronically, information recorded shall be provided to the Project Engineer in a hard copy format that is intuitive, clear and related to the supplemental information recorded in the field books. All linear surveys, such as slope stakes and blue tops, shall have the station and offset information related to the measured information. Non-linear surveys such as structures staking shall have sketches relating electronic information, such as point numbers, to the sketch.
10. The Contractor's surveyor shall submit the following fieldbooks to the Engineer:
  - Horizontal Control (Primary & Secondary)
  - Vertical Control (i.e. Benchmarks)
  - Property Pin Ties
  - Horizontal Alignment
  - Grading
  - Slope Staking
  - Minor Structures
  - Major Structures
  - One fieldbook for each work category shown on this sheet
  - Other Fieldbook(s): \_\_\_\_\_
11. The Contractor's surveyor shall submit the following (prior to surveying on the project) to the Engineer:
  - All required Instrument Calibrations

Print Date: 4/18/2023  
 File Name: 19734DES\_Survey Tabulation.dgn  
 Horiz. Scale: 1:1      Vert. Scale: None



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 COLORADO SPRINGS, CO 80919      PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.




S.F.      Region 02

As Constructed	HIGHWAY 105 PROJECT A SURVEY TABULATION		Project No./Code
No Revisions:			19734
Revised:	Designer: C. BEASLEY	Structure Numbers	STA 105A-014
Void:	Detailer: J. WILKERT	Sheet Subset: SURVEY	Sheet Number 6 of 251
		Subset Sheets: 1 of 1	



# EL PASO COUNTY, COLORADO

## PROJECT CONTROL DIAGRAM

PROJECT NO. STA 105A-014

EL PASO COUNTY PROJECT NO. 10-076

HIGHWAY 105 FROM NB I-25 RAMP TO LAKE WOODMOOR DR

Highway 105 MP 3.91 to 4.90, 0.99 miles

Sta 104+00.93 to Sta 156+37.35 (5,236.42 ft)

Section 13 & 14 Township 11 South, Range 67 West

of the 6th Principal Meridian

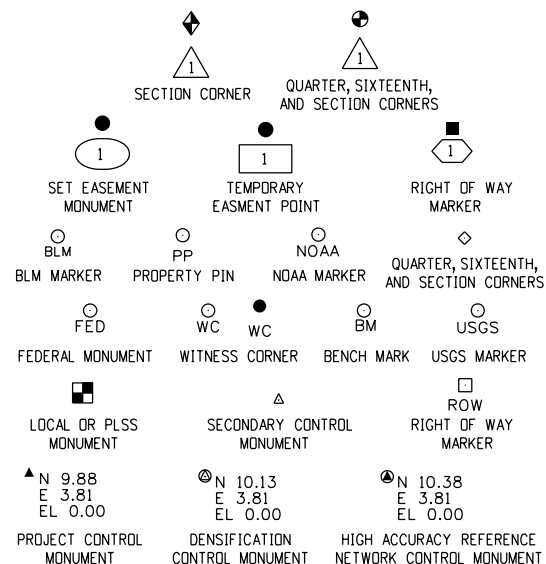
County of El Paso, Colorado

SHEET NO.

3.01  
3.02  
3.03-3.04

INDEX OF SHEETS

(1) Title Sheet  
(1) Monument Coordinate Tables  
(2) Plan Sheet  
(4) Total Sheets

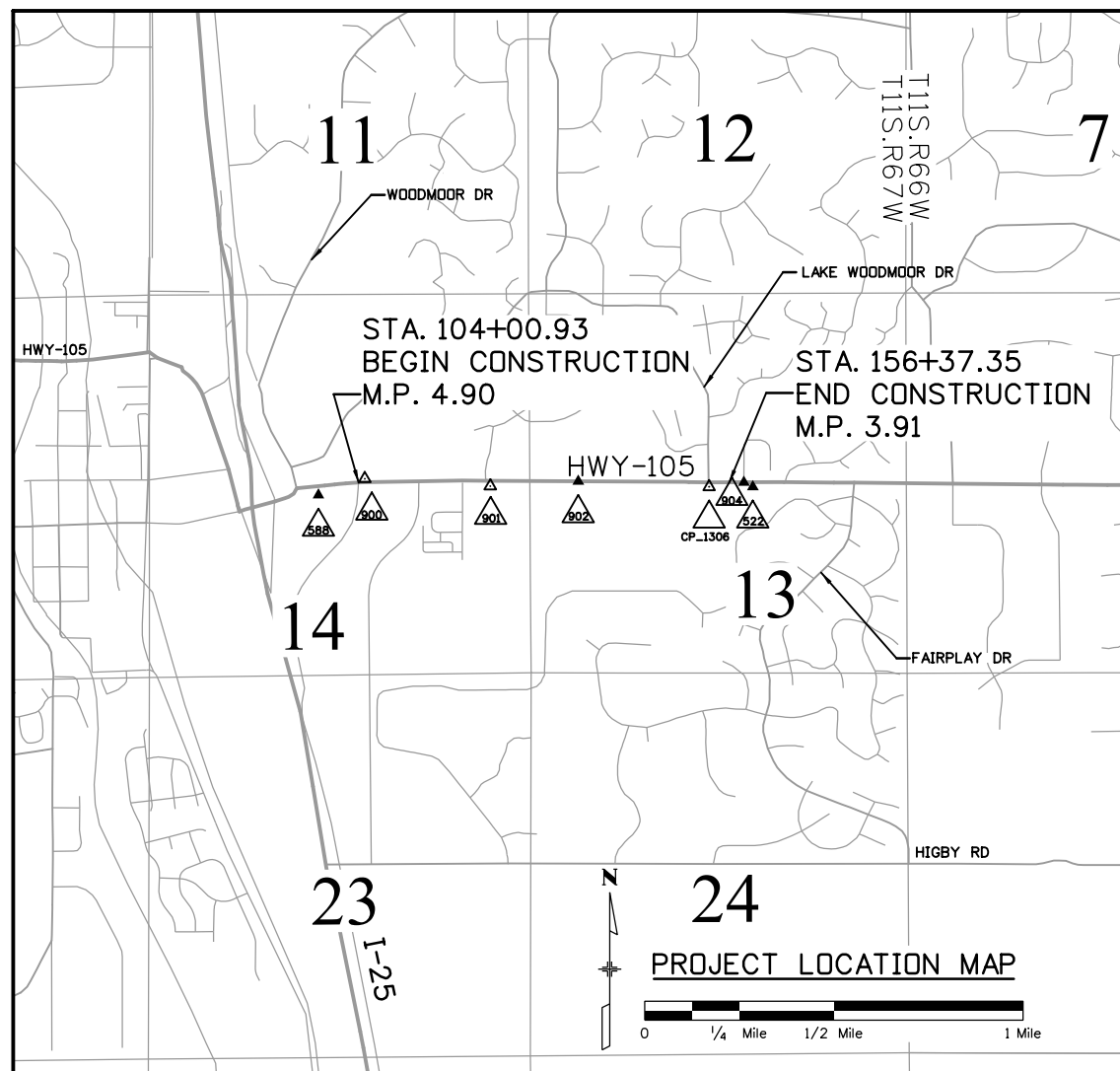


**Note:** For a complete listing of symbology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication. Existing features are shown as screened weight (gray scale), except as noted with the word (existing). Proposed or new features are shown as full weight without screening, except as noted with the word (proposed).

**Notes:**

1. This project Control Diagram is not a boundary survey of the adjoining property and is prepared for El Paso County purposes only. No determination has been made to determine if the found monuments as shown are in proper position or if they are at the corners they are intended to monument.
2. This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with El Paso County that this set is the most current. The information on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.
3. Refer to the M-629-1 Survey Monuments of the Standard Plans dated July 2012, found in the Colorado Department of Transportation, M & S Standards for typical survey monument descriptions.
4. Any person who knowingly removes, alters or defaces any public land survey monument or land monument or accessory, commits a class two (2) misdemeanor pursuant to state statute 18-4-508, CRS.
5. After the date of the survey Farnsworth Group shall not be responsible for resetting or rehabilitating any corner monument or controlling corners shown hereon.

**NOTICE:** According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.



**Basis of Bearings:** Bearings used in the calculations of coordinates are based on a grid bearing of N88°55'53"E 5985.56 feet from Control Point 588 to Control Point 522. Both monuments are CDOT Type II, marked appropriately for their point number and with highway number. The survey data was obtained from a Global Navigation Satellite System (GNSS) static survey and is based on the National Geodetic Survey (NGS) National Spatial Reference System (NSRS).

**Basis of Elevation:** Orthometric elevations are based on benchmark CS 110, PID: DM9842, a stainless steel rod in sleeve with CDOT logo, stamped CD 110 2009, with a NAVD 88 elevation of 6843.25 ft., a Second Order Class II benchmark. GNSS elevations across the project area are Geoid 12A derived and check by conventional total station, trigonometric leveling field methods.

**Coordinate Datum:** Project coordinates are modified Colorado State Plane Central Zone NAD '83/(2011) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.000399720. These coordinates are not truncated, are only scaled, and are based on the CDOT Plans SHE 105A-010, dated 10 February 2003, in order to match the 2011 Western States Surveying photogrammetry project which was found to be on the 2003 project datum.

Project coordinates expressed as U.S. Survey Foot = 3937/1200 meters.

Project Coordinates Northing U.S. Survey Foot = (State Plane Coordinate Northing \* 1.000399720) .  
Project Coordinates Easting U.S. Survey Foot = (State Plane Coordinate Northing \* 1.000399720) .

Date of original field survey: July 30, 2015.  
Date of last subsequent survey: January 30, 2017.

**SURVEYOR STATEMENT (LAND SURVEY CONTROL PLAN)**

I, Steven D. Parker, a professional land surveyor licensed in the State of Colorado, do hereby state to the El Paso County that this Project Control Diagram was prepared and the field survey it represents was performed under my responsible charge and based upon my knowledge, information and beliefs, is in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 38053



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File Name: 51007(A)\SURV_PCD-TitleSht.dgn
Horiz. Scale: 1:1
<b>HDR</b> 1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202 Phone: 303-764-1520 FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

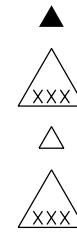
**Farnsworth GROUP**  
4755 Forge Road, Suite 150  
COLORADO SPRINGS, CO 80907  
(719) 590-9194 / (719) 590-9111 Fax  
www.f-w.com

HIGHWAY 105  
NB I-25 RAMP TO LAKE WOODMOOR DR  
RIGHT-OF-WAY PLAN SET  
PROJECT CONTROL TITLE SHEET  
LAST MODIFIED DATE: 08-31-2017

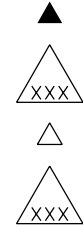
Project No./Code  
STA 105A-014/19734  
SUBSET: 3.01 of 3.04  
SHEET NO.: 7 of 251



NGS GEODETIC COORDINATE SUMMARY TABLE (NOT SHOWN)									
Point No.	Geodetic Coordinates NAD-83(2011)		Elip Height (NAVD88) (m)	Ortho Height (m)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude (N)	Longitude (W)					SP Northing(m)	SP Easting(m)	
4 BB RESET	N 39°04'15.70243"	W 104°45'42.46355"	2290.732	2307.621	0d27'56"	0.999936046	442,453.15	978,281.06	USGA 3.25in BRASS BENCH MARK DISK '4 BB RESET 1984' (Not Shown)
CS 110	N 39°03'27.00423"	W 104°51'09.89599"	2069.426	2085.826	0d24'30"	0.999936197	440,891.51	970,421.41	STAINLESS STEEL DEEP ROD - CDOT LOGO 'CS 110 2009' (Not Shown)
MONUMENT	N 39°02'49.29840"	W 104°50'47.22846"	2047.726	2064.182	0d24'44"	0.999936352	439,732.75	970,974.73	CGS BRASS TRANGULATION STATION DISK 'MONUMENT 1953' (Not Shown)
S0170	N 39°07'45.35831"	W 104°45'59.00936"	2190.817	2207.681	0d27'46"	0.999936031	448,914.70	977,831.15	3 1/4in ROW BRASS DISK ON CONCRETE MONUMENT 'S0107 4' STA 27+75 (Not Shown)
V 395	N 39°07'28.12971"	W 104°51'51.03747"	2222.915	2239.238	0d24'04"	0.999935993	448,319.73	969,380.27	STAINLESS STEEL DEEP ROD - NGS LOGO 'V 395 1983' (Not Shown)




GEODETIC COORDINATE TABLE									
Point No.	Geodetic Coordinates NAD-83(2011)		Elip Height (NAVD88) (ft)	Ortho Height (m)	Mapping Angle	Grid Scale Factor	NAD 83(2011) Zone 0502		Description
	Latitude (N)	Longitude (W)					SP Northing(m)	SP Easting(m)	
522	N 39°05'34.38440"	W 104°50'19.28716"	2,174.665	2,191.150	0d25'01"	0.999935920	444,828.074	971,609.513	CDOT TYPE II MONUMENT '522' M.P. 3.8
588	N 39°05'33.70502"	W 104°51'35.17397"	2,120.829	2,137.172	0d24'14"	0.999935920	444,794.062	969,786.159	CDOT TYPE II MONUMENT '588' M.P. 5.08
900	N 39°05'35.86460"	W 104°51'27.06376"	2,120.142	2,136.501	0d24'19"	0.999935919	444,862.030	969,980.570	2in WSSI ALUMINUM CAP '8'
901	N 39°05'34.73634"	W 104°51'05.14972"	2,139.762	2,156.163	0d24'33"	0.999935920	444,830.981	970,507.394	#5 REBAR AZTEC ORANGE PLASTIC CAP PLS 38064
902	N 39°05'35.30190"	W 104°50'49.76834"	2,149.447	2,165.877	0d24'42"	0.999935919	444,851.068	970,876.871	#5 REBAR WITH 'FARNSWORTH CONTROL POINT' RED PLASTIC CAP
904	N 39°05'35.01503"	W 104°50'20.83072"	2,172.019	2,188.501	0d25'01"	0.999935919	444,847.250	971,572.281	#5 REBAR WITH 'FARNSWORTH CONTROL POINT' RED PLASTIC CAP
CP_1306	N 39°05'34.43382"	W 104°50'26.92194"	2,161.044	2,177.515	0d24'57"	0.999935920	444,828.264	971,426.044	2in ALUMINUM CAP - WSSI PANEL POINT 1306



PROJECT COORDINATE TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
522	1,459,990.13	3,188,963.06	7,188.80	CDOT TYPE II MONUMENT '522' M.P. 3.8
588	1,459,878.50	3,182,978.55	7,011.70	CDOT TYPE II MONUMENT '588' M.P. 5.08
900	1,460,101.58	3,183,616.64	7,009.50	2in WSSI ALUMINUM CAP '8'
901	1,459,999.67	3,185,345.75	7,074.01	#5 REBAR AZTEC ORANGE PLASTIC CAP PLS 38064
902	1,460,065.60	3,186,558.42	7,105.88	#5 REBAR WITH 'FARNSWORTH CONTROL POINT' RED PLASTIC CAP
904	1,460,053.07	3,188,840.86	7,180.11	#5 REBAR WITH 'FARNSWORTH CONTROL POINT' RED PLASTIC CAP
CP_1306	1,459,990.75	3,188,360.89	7,144.07	2in ALUMINUM CAP - WSSI PANEL POINT 1306




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 Horiz. Scale: 1:1



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Sheet Revisions		
Date:	Comments	Init.

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HIGHWAY 105  
 NB I-25 RAMP TO LAKE WOODMOOR DR  
 RIGHT-OF-WAY PLAN SET  
 PROJECT CONTROL TABULATION SHEET

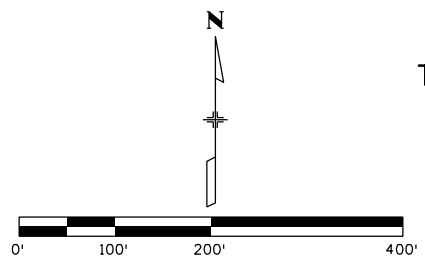
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Project No./Code  
 STA 105A-014/19734

SUBSET: 3.02 of 3.04

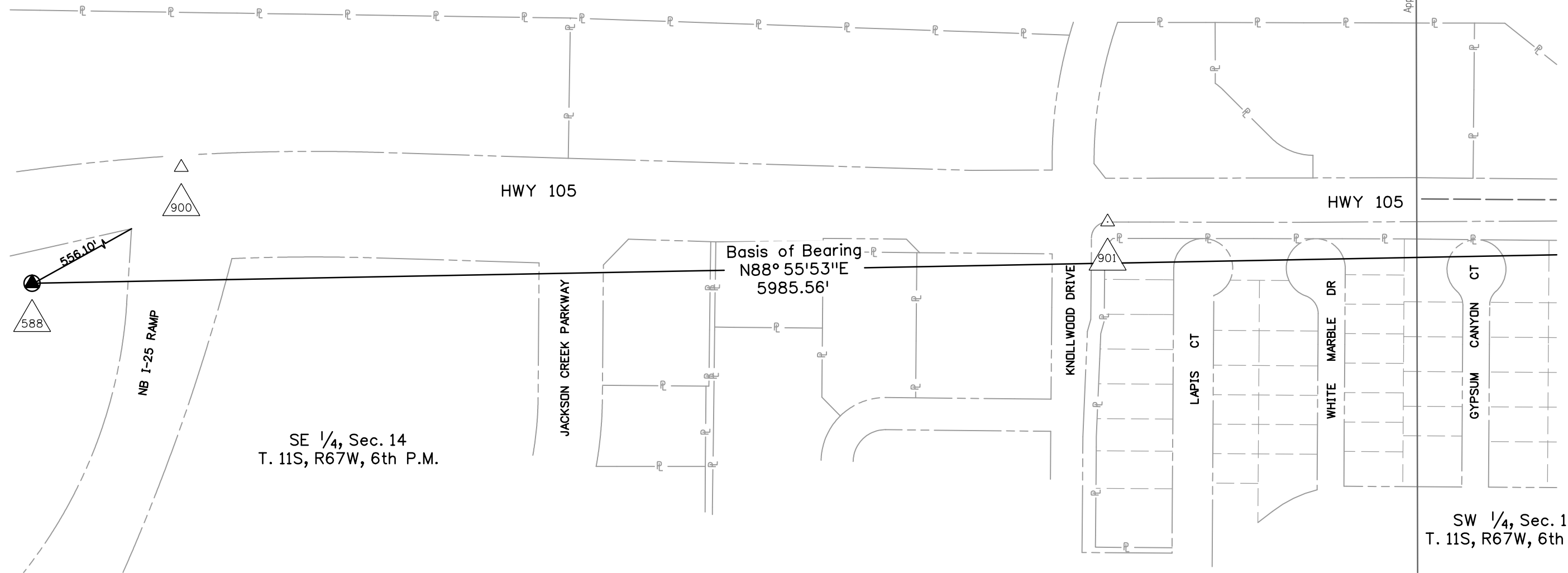
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NE 1/4, Sec. 14  
T. 11S, R67W, 6th P.M.

NW 1/4, Sec. 13  
T. 11S, R67W, 6th P.M.



SE 1/4, Sec. 14  
T. 11S, R67W, 6th P.M.

SW 1/4, Sec. 13  
T. 11S, R67W, 6th P.M.

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Date:	Comments	Init.

**EL PASO COUNTY** COLORADO

**PPRTA**  
 Pikes Peak Rural Transportation Authority  
 CITY OF COLORADO SPRINGS PROJECTS

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 www.fw.com

**HIGHWAY 105  
 NB I-25 RAMP TO LAKE WOODMOOR DR  
 RIGHT-OF-WAY PLAN SET  
 PROJECT CONTROL DIAGRAM**

LAST MODIFIED DATE: 08-31-2017

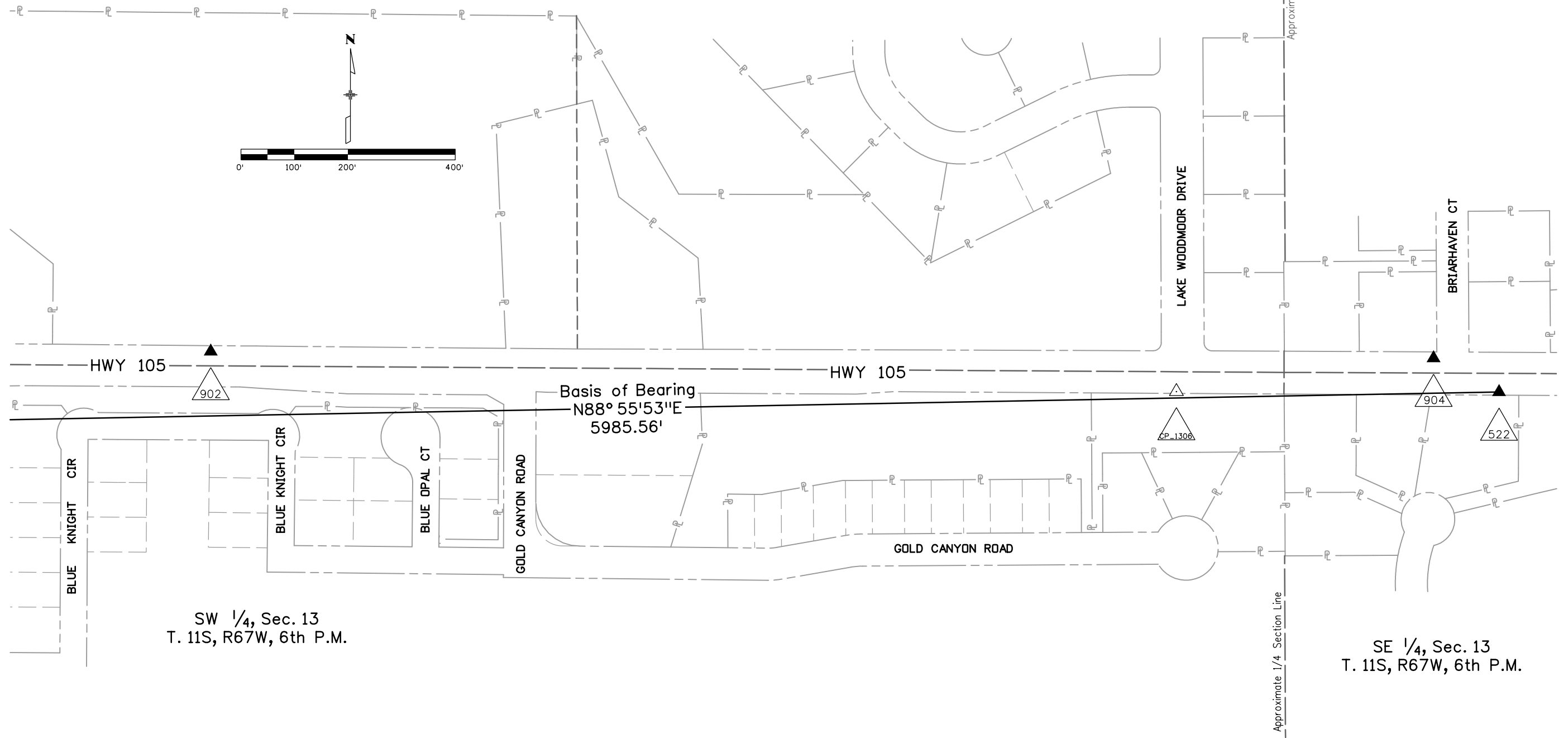
Project No./Code	STA 105A-014/19734
SUBSET:	3.03 of 3.04
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NW 1/4, Sec. 13  
T. 11S, R67W, 6th P.M.

NE 1/4, Sec. 13  
T. 11S, R67W, 6th P.M.


SW 1/4, Sec. 13  
T. 11S, R67W, 6th P.M.

SE 1/4, Sec. 13  
T. 11S, R67W, 6th P.M.






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File Name: 51007(A)\SURV\_PCD-Plan02.dgn  
 Horiz. Scale: 1:200



1670 BROADWAY, SUITE 3400 DENVER, COLORADO 80202  
 Phone: 303-764-1520 FAX: 303-860-7139

Sheet Revisions		
Date:	Comments	Init.

4755 Forge Road, Suite 150  
 COLORADO SPRINGS, CO 80907  
 (719) 590-9194 / (719) 590-9111 Fax  
 www.fw.com

HIGHWAY 105  
 NB I-25 RAMP TO LAKE WOODMOOR DR  
 RIGHT-OF-WAY PLAN SET  
 PROJECT CONTROL DIAGRAM

LAST MODIFIED DATE: 08-31-2017

Project No./Code	STA 105A-014/19734
SUBSET:	3.04 of 3.04
SHEET NO.:	10 of 251






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INDEX			ITEM NO.	CONTRACT ITEM	UNITS	ROADWAY		UTILITIES		DRAINAGE		EROSION		TRAFFIC		WALLS		PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
			208-00045	Concrete Washout Structure	EACH	-	-	-	-	-	-	2	-	-	-	-	-	2	-
			208-00051	Storm Drain Inlet Protection (Type I)	LF	-	-	-	-	-	-	420	-	-	-	-	-	420	-
			208-00052	Storm Drain Inlet Protection (Type II)	LF	-	-	-	-	-	-	8	-	-	-	-	-	8	-
			208-00070	Vehicle Tracking Pad	EACH	-	-	-	-	-	-	2	-	-	-	-	-	2	-
			208-00071	Maintenance Aggregate (Vehicle Tracking Pad)	CY	-	-	-	-	-	-	30	-	-	-	-	-	30	-
			208-00103	Removal and Disposal of Sediment (Labor)	HOURL	-	-	-	-	-	-	40	-	-	-	-	-	40	-
			208-00105	Removal and Disposal of Sediment (Equipment)	HOURL	-	-	-	-	-	-	40	-	-	-	-	-	40	-
			208-00106	Sweeping (Sediment Removal)	HOURL	-	-	-	-	-	-	40	-	-	-	-	-	40	-
			208-00207	Erosion Control Management	DAY	-	-	-	-	-	-	80	-	-	-	-	-	80	-
			209-00000	Water	MGAL	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			210-XXXX1	Reset Wall	LF	70	-	-	-	-	-	-	-	-	-	-	-	70	-
			210-00010	Reset Mailbox Structure	EACH	2	-	-	-	-	-	-	-	-	-	-	-	2	-
			210-00810	Reset Ground Sign	EACH	-	-	-	-	-	-	-	-	24	-	-	-	24	-
			210-00815	Reset Sign Panel	EACH	-	-	-	-	-	-	-	-	5	-	-	-	5	-
			210-04010	Adjust Manhole	EACH	-	-	12	-	1	-	-	-	-	-	-	-	13	-
			210-04015	Modify Manhole	EACH	-	-	1	-	-	-	-	-	-	-	-	-	1	-
			210-04050	Adjust Valve Box	EACH	-	-	18	-	-	-	-	-	-	-	-	-	18	-
			212-00009	Seeding (Temporary)	ACRE	-	-	-	-	-	-	4	-	-	-	-	-	4	-
			212-00700	Organic Fertilizer	LB	-	-	-	-	-	-	1,170	-	-	-	-	-	1,170	-
			212-00701	Com post (Mechanically Applied)	CY	-	-	-	-	-	-	254	-	-	-	-	-	254	-
			212-00703	Humate	LB	-	-	-	-	-	-	780	-	-	-	-	-	780	-
			212-00706	Seeding (Native) Drill	ACRE	-	-	-	-	-	-	4	-	-	-	-	-	4	-
			213-00004	Mulching (Weed Free Straw)	ACRE	-	-	-	-	-	-	6	-	-	-	-	-	6	-
			213-00061	Mulch Tackifier	LB	-	-	-	-	-	-	1,160	-	-	-	-	-	1,160	-
			214-00350	Deciduous Shrub (5 Gallon Container)	EACH	-	-	-	-	-	-	21	-	-	-	-	-	21	-
			216-00101	Soil Retention Blanket (Straw-Coconut) (Photodegradable Class 1)	SY	-	-	-	-	-	-	8,598	-	-	-	-	-	8,598	-
			216-00201	Soil Retention Blanket (Straw-Coconut) (Biodegradable Class 1)	SY	-	-	-	-	1,697	-	-	-	-	-	-	-	1,697	-
			216-00302	Turf Reinforcement Mat (Class 2)	SY	-	-	-	-	1,697	-	864	-	-	-	-	-	2,561	-
			217-00020	Herbicide Treatment	HOURL	80	-	-	-	-	-	-	-	-	-	-	-	80	-
			240-00000	Wildlife Biologist	HOURL	20	-	-	-	-	-	-	-	-	-	-	-	20	-
			240-00010	Removal of Nests	HOURL	20	-	-	-	-	-	-	-	-	-	-	-	20	-
			250-00100	Environmental Health and Safety	LS	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			304-06000	Aggregate Base Course (Class 6)	TON	17,549	-	-	-	408	-	-	-	-	-	-	-	17,956	-
			403-00720	Hot Mix Asphalt (Patching) (Asphalt)	TON	170	-	-	-	-	-	-	-	-	-	-	-	170	-
			403-34751	Hot Mix Asphalt (Grading SX) (75) (PG 64-28)	TON	19,090	-	-	-	-	-	-	-	-	-	-	-	19,090	-
			412-00600	Concrete Pavement (6 Inch)	SY	36	-	-	-	-	-	-	-	-	-	-	-	36	-

Print Date: 4/25/2023  
 File Name: 19734DES\_SDAQ-02.dgn  
 Horiz. Scale: 1:1      Vert. Scale: None



5555 TECH CENTER DRIVE, SUITE 310  
 COLORADO SPRINGS, CO 80919      PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.



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 Region 02

S.F.

As Constructed
No Revisions:
Revised:
Void:

**HIGHWAY 105 PROJECT A  
 SUMMARY OF  
 APPROXIMATE QUANTITIES**

Designer: C. BEASLEY  
 Detailer: J. WILKERT

Sheet Subset: SDAQ      Subset Sheets: 2 of 5

Project No./Code
19734
STA 105A-014
Sheet Number 12 of 251






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INDEX			ITEM NO.	CONTRACT ITEM	UNITS	ROADWAY		UTILITIES		DRAINAGE		EROSION		TRAFFIC		WALLS		PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
			605-00040	4 Inch Perforated Pipe Underdrain	LF	-	-	-	-	-	-	-	-	-	-	1,132	-	1,132	-
			606-00301	Guardrail Type 3 (6-3 Post Spacing)	LF	1,373	-	-	-	-	-	-	-	-	-	-	-	1,373	-
			606-01340	End Anchorage Type 3D	EACH	2	-	-	-	-	-	-	-	-	-	-	-	2	-
			606-01385	Transition Type 3J	EACH	2	-	-	-	-	-	-	-	-	-	-	-	2	-
			606-01390	End Anchorage Type 3K	EACH	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			606-02003	End Anchorage (Nonflared)	EACH	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			607-11200	Fence Combination Wire With Metal Posts	LF	898	-	-	-	-	-	-	-	-	-	-	-	898	-
			607-11450	Fence Split Cedar	LF	83	-	-	-	-	-	-	-	-	-	-	-	83	-
			607-11525	Fence (Plastic)	LF	-	-	-	-	-	-	1,504	-	-	-	-	-	1,504	-
			607-53143	Fence Chain Link (Special) (42 Inch)	LF	-	-	-	-	-	-	-	-	-	1,260	-	1,260	-	
			607-6XX01	18' Single Swing Steel Gate	EACH	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			608-00000	Concrete Sidewalk	SY	1,843	-	-	-	-	-	-	-	-	-	-	-	1,843	-
			608-00010	Concrete Curb Ramp	SY	96	-	-	-	-	-	-	-	-	-	-	-	96	-
			609-21010	Curb and Gutter Type 2 (Section I-B)	LF	34	-	-	-	-	-	-	-	-	-	-	-	34	-
			609-21020	Curb and Gutter Type 2 (Section II-B)	LF	8,352	-	-	-	-	-	-	-	-	-	-	-	8,352	-
			609-21021	Curb and Gutter Type 2 (Section II-M)	LF	171	-	-	-	-	-	-	-	-	-	-	-	171	-
			609-24000	Gutter Type 2 (Special)	LF	-	-	-	-	-	-	-	-	-	-	129	-	129	-
			609-24002	Gutter Type 2 (2 Foot)	LF	237	-	-	-	-	-	-	-	-	-	-	-	237	-
			610-00024	Median Cover Material (4 Inch Patterned Concrete)	SF	3,027	-	-	-	-	-	-	-	-	-	-	-	3,027	-
			613-00200	2 Inch Electrical Conduit	LF	-	-	9,288	-	-	-	-	-	-	-	-	-	9,288	-
			613-00208	2 Inch Electrical Conduit (Bored) (Install Only)	LF	-	-	-	-	-	-	-	-	230	-	-	-	230	-
			613-00306	3 Inch Electrical Conduit (Bored)	LF	-	-	736	-	-	-	-	-	1,270	-	-	-	1,270	-
			613-01200	2 Inch Electrical Conduit (Plastic)	LF	-	-	#REF!	-	-	-	-	-	180	-	-	-	916	-
			613-01300	3 Inch Electrical Conduit (Plastic)	LF	-	-	-	-	-	-	-	-	200	-	-	-	200	-
			613-07002	Type Two Pull Box	EACH	-	-	7	-	-	-	-	-	-	-	-	-	7	-
			613-07004	Type Four Pull Box	EACH	-	-	13	-	-	-	-	-	5	-	-	-	18	-
			613-07005	Type Five Pull Box	EACH	-	-	-	-	-	-	-	-	1	-	-	-	1	-
			613-10000	Wring	L S	-	-	1	-	-	-	-	-	1	-	-	-	2	-
			613-13006	Luminare (LED) (6000 Lumens)	EACH	-	-	-	-	-	-	-	-	4	-	-	-	4	-
			613-13018	Luminaire (LED) (18,000 Lumens)	EACH	-	-	7	-	-	-	-	-	-	-	-	-	7	-
			613-30300	Light Standard Aluminum (30 Foot)	EACH	-	-	7	-	-	-	-	-	-	-	-	-	7	-
			613-40000	Concrete Foundation Pad	EACH	-	-	7	-	-	-	-	-	-	-	-	-	7	-
			613-40010	Light Standard Foundation	EACH	-	-	7	-	-	-	-	-	-	-	-	-	7	-
			613-40020	Transformer Base Aluminum	EACH	-	-	7	-	-	-	-	-	-	-	-	-	7	-
			613-50100	Lighting Control Center	EACH	-	-	1	-	-	-	-	-	-	-	-	-	1	-
			613-50109	Meter Power Pedestal	EACH	-	-	1	-	-	-	-	-	-	-	-	-	1	-
			613-81710	Safety Switch NEMA 3R, 100 Ampere, 2-Pole, 240 Volt	EACH	-	-	1	-	-	-	-	-	-	-	-	-	1	-
			614-00011	Sign Panel (Class I)	SF	-	-	-	-	-	-	-	-	248	-	-	-	248	-

Print Date: 4/25/2023  
 File Name: 19734DES\_SDAQ-04.dgn  
 Horiz. Scale: 1:1      Vert. Scale: None



5555 TECH CENTER DRIVE, SUITE 310  
 COLORADO SPRINGS, CO 80919      PHONE: 719-272-8800

Sheet Revisions		
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S.F.      Region 02

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**HIGHWAY 105 PROJECT A  
 SUMMARY OF  
 APPROXIMATE QUANTITIES**

Designer: C. BEASLEY  
 Detailer: J. WILKERT


Sheet Subset: SDAQ      Subset Sheets: 4 of 5

Project No./Code
19734
STA 105A-014
Sheet Number 14 of 251

JWILKERT 4:27:37 PM pw:\P\WAPPDMA001\NorthCentral\_Dmaha\Documents\200716\000000000260510\6\_0\_CAD\_BITMAP.2\_Work\_In\_Progress\Design\Drawings A\19734DES\_SDAQ-05.dgn

INDEX			ITEM NO.	CONTRACT ITEM	UNITS	ROADWAY		UTILITIES		DRAINAGE		EROSION		TRAFFIC		WALLS		PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
			614-00037	Sign Panel (Special)	EACH	-	-	-	-	-	-	-	-	2	-	-	-	2	-
			614-01503	Steel Sign Support (2-Inch Round)(Post and Socket)	EACH	-	-	-	-	-	-	-	-	15	-	-	-	15	-
			614-01573	Steel Sign Support (2-1/2 Inch Round NP-40)(Post & Slipbase)	EACH	-	-	-	-	-	-	-	-	7	-	-	-	7	-
			614-70150	Pedestrian Signal Face (16) (Countdown)	EACH	-	-	-	-	-	-	-	-	8	-	-	-	8	-
			614-70336	Traffic Signal Face (12-12-12)	EACH	-	-	-	-	-	-	-	-	13	-	-	-	13	-
			614-70448	Traffic Signal Face (12-12-12-12)	EACH	-	-	-	-	-	-	-	-	2	-	-	-	2	-
			614-72855	Traffic Signal Controller Cabinet	EACH	-	-	-	-	-	-	-	-	1	-	-	-	1	-
			614-72860	Pedestrian Push Button	EACH	-	-	-	-	-	-	-	-	8	-	-	-	8	-
			614-72863	Pedestrian Push Button Post Assembly	EACH	-	-	-	-	-	-	-	-	5	-	-	-	5	-
			614-72885	Traffic Signal Vehicle Detector (Special)	EACH	-	-	-	-	-	-	-	-	3	-	-	-	3	-
			614-84000	Traffic Signal Pedestal Pole Steel	EACH	-	-	-	-	-	-	-	-	4	-	-	-	4	-
			614-81140	Traffic Signal-Light Pole Steel (1-40 Foot Mast Arm)	EACH	-	-	-	-	-	-	-	-	2	-	-	-	2	-
			614-81145	Traffic Signal-Light Pole Steel (1-45 Foot Mast Arm)	EACH	-	-	-	-	-	-	-	-	1	-	-	-	1	-
			614-81165	Traffic Signal-Light Pole Steel (1-65 Foot Mast Arm)	EACH	-	-	-	-	-	-	-	-	1	-	-	-	1	-
			620-00002	Field Office (Class 2)	EACH	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			620-00011	Field Laboratory (Class 1)	EACH	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			625-00000	Construction Surveying	L S	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			625-00001	Construction Surveying (Hourly)	HOURLY	100	-	-	-	-	-	-	-	-	-	-	-	100	-
			625-00025	Information Sign Board	EACH	-	-	-	-	-	-	-	-	2	-	-	-	2	-
			626-00000	Mobilization	L S	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			627-00003	Thermoplastic Pavement Marking (Inlaid)	SF	-	-	-	-	-	-	-	-	2,310	-	-	-	2,310	-
			627-00009	Modified Epoxy Pavement Marking(Inlaid)	GAL	-	-	-	-	-	-	-	-	119	-	-	-	119	-
			630-00000	Flagging	HOURLY	-	-	-	-	-	-	-	-	500	-	-	-	500	-
			630-00003	Uniformed Traffic Control	HOURLY	-	-	-	-	-	-	-	-	100	-	-	-	100	-
			630-00007	Traffic Control Inspection	DAY	-	-	-	-	-	-	-	-	156	-	-	-	156	-
			630-00012	Traffic Control Management	DAY	-	-	-	-	-	-	-	-	390	-	-	-	390	-
			630-00016	Traffic Control (Special) LS	L S	-	-	-	-	-	-	-	-	1	-	-	-	1	-
			630-80355	Portable Message Sign Panel	EACH	-	-	-	-	-	-	-	-	4	-	-	-	4	-
			630-XXXX1	Snow Removal	HOURLY	500	-	-	-	-	-	-	-	-	-	-	-	500	-
			642-00001	Utility Coordination Meeting	HOURLY	-	-	1,000	-	-	-	-	-	-	-	-	-	1,000	-
			700-70010	F/A Minor Contract Revisions	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			700-70019	F/A Asphalt Cement Cost Adjustment	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			700-70023	F/A On-The-Job Trainee	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			700-70034	F/A Irrigation Restoration	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			700-70082	F/A Furnish & Install Electrical Service	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			700-70380	F/A Erosion Control	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			700-70589	F/A Environmental Health & Safety Management	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			700-XXXX1	Dewatering	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-
			700-XXXX2	Traffic Signal Maintenance	FA	1	-	-	-	-	-	-	-	-	-	-	-	1	-

Print Date: 4/25/2023  
 File Name: 19734DES\_SDAQ-05.dgn  
 Horiz. Scale: 1:1 Vert. Scale: None



5555 TECH CENTER DRIVE, SUITE 310  
 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.



EL PASO COUNTY COLORADO



CDOT  
 CO Region 02

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No Revisions:
Revised:
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**HIGHWAY 105 PROJECT A  
 SUMMARY OF  
 APPROXIMATE QUANTITIES**

Designer: C. BEASLEY  
 Detailer: J. WILKERT  
 Sheet Subset: SDAQ

Structure Numbers  
 Subset Sheets: 5 of 5


Project No./Code
19734
STA 105A-014
Sheet Number 15 of 251



**TABULATION OF ROADWAY REMOVALS**

STATION		ALIGNMENT	SIDE	201-0001		202-0010		202-00155		202-00200		202-00203		202-00210		202-00220		202-01000		202-01035		202-01130		202-01300		210-XXXX1		210-00010	
FROM	TO			Clearing and Grubbing	Removal of Tree		Removal of Wall		Removal of Sidewalk		Removal of Curb and Gutter		Removal of Concrete Pavement		Removal of Asphalt Mat		Removal of Fence		Removal of Gate		Removal of Guardrail Type 3		Removal of End Anchorage		Remove and Reset Wall		Reset Mailbox Structure		
				ACRE		EACH		LF		SY		LF		SY		SY		LF		EACH		LF		EACH		LF		EACH	
				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
10+29.35	13+40.92	KNOLLWOOD NORTH	BOTH													1,935													
10+31.37	13+17.43	KNOLLWOOD NORTH	LT									309																	
10+31.37	12+33.4	KNOLLWOOD NORTH	RT									272																	
10+53.19	10+68.27	KNOLLWOOD NORTH	LT															15		1									
10+31.37	12+30.95	KNOLLWOOD NORTH	RT							142																			
10+81.1	10+88.2	KNOLLWOOD NORTH	LT																8										
12+05.77	12+77.32	KNOLLWOOD NORTH	RT											45															
12+12.93	12+89.19	KNOLLWOOD NORTH	LT																91										
12+18.52	12+26.52	KNOLLWOOD NORTH	RT																								21		
12+49.79	13+04.94	KNOLLWOOD NORTH	LT			20																							
12+61.57	13+12.94	KNOLLWOOD NORTH	RT									123																	
10+84.64	11+63.77	KNOLLWOOD SOUTH	BOTH													494													
10+84.23	11+68.27	KNOLLWOOD SOUTH	LT									94																	
10+84.64	11+67.81	KNOLLWOOD SOUTH	RT									100																	
11+27.27	11+48.82	KNOLLWOOD SOUTH	RT							12																			
10+06.97	13+70.00	LAKE WOODMOOR	BOTH													1,036													
10+33.63	13+60.00	LAKE WOODMOOR	RT			16																							
11+07.03		LAKE WOODMOOR (DRIVEWAY 1)	RT																										1
11+08.61	11+45.89	LAKE WOODMOOR (DRIVEWAY 1)	RT													62													
11+21.73	11+35.93	LAKE WOODMOOR	LT			3																							
11+39.93	11+79.29	LAKE WOODMOOR	RT																								49		
12+10.18		LAKE WOODMOOR (DRIVEWAY 2)	RT																										1
11+90.07	12+08.53	LAKE WOODMOOR (DRIVEWAY 2)	RT											40															
<b>PROJECT TOTALS</b>						7	95		405		865		6,812		902		27,486		1,004		1		845		4		70		2

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Print Date: 4/18/2023  
 File Name: 19734DES\_Roadway Tabs-02.dgn  
 Horiz. Scale: 1:1      Vert. Scale: None  
 5555 TECH CENTER DRIVE, SUITE 310  
 COLORADO SPRINGS, CO 80919      PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

  
**EL PASO COUNTY**  
 COLORADO

  
**CO**  
 Region 02

As Constructed		HIGHWAY 105 PROJECT A ROADWAY TABULATIONS REMOVALS	
No Revisions:		Designer: C. BEASLEY	Structure Numbers
Revised:		Detailer: J. WILKERT	
Void:		Sheet Subset: TABS	Subset Sheets: 2 of 5

**Project No./Code**  
 19734  
 STA 105A-014  
 Sheet Number 17 of 251



JWILKERT 4:27:42 PM pm:\p\WAPPD\MA001\NorthCentral\_Dmaha\Documents\200716\000000000260510\6\_0\_CAD\_BIM\6.2\_Work\_In\_Progress\Design\Drawings\19734DES\_Roadway Tabs-03.dgn

<b>SUMMARY OF EARTHWORK QUANTITIES</b>	
<b>203-00000 - UNCLASSIFIED EXCAVATION</b>	<b>CUBIC YARDS</b>
HIGHWAY 105A	19,165
MAGUIRE POND	395
KNOLLWOOD NORTH	627
KNOLLWOOD SOUTH	237
LAKE WOODMOOR DRIVE	69
<b>TOTAL</b>	<b>20,493</b>
<b>FOR INFORMATION ONLY</b>	
<b>EMBANKMENT MATERIAL (COMPLETE IN PLACE)</b>	<b>CUBIC YARDS</b>
HIGHWAY 105A	1,392
MAGUIRE POND	12
KNOLLWOOD NORTH	11
KNOLLWOOD SOUTH	1
LAKE WOODMOOR DRIVE	3,603
<b>TOTAL</b>	<b>5,019</b>
<b>COMPACTION (AASHTO T 180)</b>	<b>CUBIC YARDS</b>
TOTAL EMBANKMENT (NET) = BASES OF CUTS AND FILLS	5,019
<b>TOTAL</b>	<b>5,019</b>
<b>WETTING</b>	<b>M. GAL</b>
COMPACTION (ROADWAY)	125
<b>TOTAL</b>	<b>125</b>
<b>EARTHWORK QUANTITIES BALANCE</b>	
<b>UNCLASSIFIED EXCAVATION</b>	<b>CUBIC YARDS</b>
TOTAL UNCLASSIFIED EXCAVATION	20,493
<b>SUBGRADE PREPARATION =</b>	
TOTAL SUBGRADE PREPARATION	14,629
<b>EMBANKMENT (NET) =</b>	
TOTAL	5,019
<b>EMBANKMENT (NET) TIMES COMPACTION FACTOR (1.10)</b>	
TOTAL	5,521
<b>EXCESS EXCAVATION</b>	
TOTAL EXCESS EXCAVATION TO BECOME THE PROPERTY OF THE CONTRACTOR	14,972
<b>Additional Information</b>	
Structure Excavation, Structure Embankment and Mechanically Reinforced Soil information can be found on the Structures Tabulation Sheet	
Topsoil information can be found in the SWMP Tabulation Sheet	

Print Date: 4/25/2023
File Name: 19734DES_Roadway Tabs-03.dgn
Horiz. Scale: 1:1      Vert. Scale: None
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Date:	Comments	Init.

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<b>HIGHWAY 105 PROJECT A ROADWAY TABULATIONS EARTHWORK</b>			
Designer:	C. BEASLEY	Structure Numbers	
Detailer:	J. WILKERT		
Sheet Subset:	TABS	Subset Sheets:	3 of 5

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 18 of 251

TABULATION OF GUARDRAIL & FENCING QUANTITIES																			
STATION		ALIGNMENT	SIDE	606-00301		606-01340		606-01385		606-01390		606-02003		607-11200		607-11450		607-60119	
				Guardrail Type 3 (6-3 Post Spacing)		End Anchorage Type 3D		Transition Type 3J		End Anchorage Type 3K		End Anchorage (Nonflared)		Fence Combination Wire With Metal Posts		Fence Split Cedar		18 Foot Gate (Special)	
				FROM	TO	LF		EACH		EACH		EACH		EACH		LF		LF	
				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
111+07.96	119+74.02	HWY 105	LT											866					
130+94.74	138+59.35	HIGHWAY 105	LT	769		1													
138+59.35	138+71.64	HIGHWAY 105	LT					1		1									
145+36.45	150+72.39	HIGHWAY 105	LT	538		1													
150+72.39	151+04.25	HIGHWAY 105	LT					1											
10+68.36	11+32.81	LAKE WOODMOOR	LT	66							1								
10+56.49	10+78.6	KNOLLWOOD NORTH	LT										32						
10+78.6	10+88.18	KNOLLWOOD NORTH	LT													10			
12+05.01	12+55.95	KNOLLWOOD NORTH	LT													55		1	
12+71.7	12+86.77	KNOLLWOOD NORTH	LT													18			
<b>PROJECT TOTALS</b>				1,373		2		2		1		1		898		83		1	

TABULATION OF SURFACING QUANTITIES													
STATION		ALIGNMENT	SIDE	304-06000		403-00720		403-34751		412-00600		412-00800	
				Aggregate Base Course (Class 6)		Hot Mix Asphalt (Patching) (Asphalt)		Hot Mix Asphalt (Grading SX) (75) (PG 64-28)		Concrete Pavement (6 Inch)		Concrete Pavement (8 Inch)	
				FROM	TO	TON		TON		TON		SY	
				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
103+99.34	112+74.90	HIGHWAY 105 (SIDEWALK)	LT	234									
112+72.55	151+82.88	HIGHWAY 105	BOTH	15,072		100		18,177					
138+62.42	139+59.06	HIGHWAY 105 (MORNING CANYON)	RT	119				39					
138+79.21	139+21.45	HIGHWAY 105 (CHURCH WEST)	LT	45				10					
141+64.40	142+38.53	HIGHWAY 105 (CHURCH EAST)	LT	49				16					
151+82.88	154+78.09	HIGHWAY 105 (TEMP PAVEMENT)	BOTH	253				97					
0+00.00	3+30.87	METRO DISTRICT SIDEWALK 1	BOTH	56									
0+00.00	4+17.60	METRO DISTRICT SIDEWALK 2	BOTH	69									
10+45.92	13+40.95	KNOLLWOOD NORTH	BOTH	755		25		343					
12+10.64	12+64.88	KNOLLWOOD NORTH	BOTH									166	
12+46.03	12+68.90	KNOLLWOOD NORTH	LEFT									11	
10+84.46	11+56.57	KNOLLWOOD SOUTH	BOTH	208		10		101					
10+28.93	13+70.00	LAKE WOODMOOR	BOTH	525		35		298					
11+02.00	11+43.00	LAKE WOODMOOR-DRIVEWAY 1	RT	14				9					
11+90.00	12+08.00	LAKE WOODMOOR-DRIVEWAY 2	RT	11						36			
10+28.93	13+70.00	POND ACCESS	BOTH	141									
<b>PROJECT TOTALS</b>				17,549		170		19,090		36		176	

Print Date: 4/18/2023  
 File Name: 19734DES\_Roadway Tabs-04.dgn  
 Horiz. Scale: 1:1 Vert. Scale: None



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Sheet Revisions		
Date:	Comments	Init.



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**HIGHWAY 105 PROJECT A  
 ROADWAY TABULATIONS  
 FENCING & SURFACING**

Designer: C. BEASLEY  
 Detailer: J. WILKERT  
 Sheet Subset: TABS

Structure Numbers  
 Subset Sheets: 4 of 5


Project No./Code
19734
STA 105A-014
Sheet Number 19 of 251

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TABULATION OF SIDEWALK AND C&G QUANTITIES																	
STATION		ALIGNMENT	SIDE	608-00000		608-00010		609-21010		609-21020		609-21021		609-24002		610-00024	
				Concrete Sidewalk		Concrete Curb Ramp		Curb and Gutter Type 2 (Section I-B)		Curb and Gutter Type 2 (Section II-B)		Curb and Gutter Type 2 (Section II-M)		Gutter Type 2 (2 Foot)		Median Cover Material (4 Inch Patterned Concrete)	
				FROM	TO	SY		SY		LF		LF		LF		LF	
				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
103+99.34	119+93.94	HIGHWAY 105	LT	1,068													
110+73.27	113+76.49	HIGHWAY 105	LT														1,871
112+72.37	119+75.91	HIGHWAY 105	LT							704							
112+74.06	119+89.11	HIGHWAY 105	RT							717							
121+19.85	138+79.48	HIGHWAY 105	LT							1,788							
121+23.26	138+94.32	HIGHWAY 105	RT							1,779							
138+71.36	138+93.90	HWY 105 (MORNING CANYON)	RT	13		11											
		HWY 105 (MORNING CANYON)	RT					5									
139+15.90	141+87.27	HIGHWAY 105	LT							280							
	151+20.41	HIGHWAY 105	RT							1,212							
141+80.51	141+87.27	HIGHWAY 105	LT					11									
141+97.30	142+11.58	HIGHWAY 105	LT							49							98
142+20.24	142+29.18	HIGHWAY 105	LT					18									
142+29.18	151+11.12	HIGHWAY 105	LT							901							
0+00.00	3+30.87	METRO DISTRICT SIDEWALK 1	BOTH	187													
0+00.00	4+17.60	METRO DISTRICT SIDEWALK 2	BOTH	231													
0+00.00	3+53.68	METRO DISTRICT SIDEWALK 3	BOTH	195													
10+48.36	12+46.03	KNOLLWOOD NORTH	LT							228							
10+48.49	12+26.63	KNOLLWOOD NORTH	RT							265							
10+48.67	10+64.91	KNOLLWOOD NORTH	LT			16											
10+51.66	10+71.46	KNOLLWOOD NORTH	LT														111
10+48.61	10+71.17	KNOLLWOOD NORTH	RT			20											
10+50.80	10+91.98	KNOLLWOOD NORTH	RT														253
10+64.67	12+31.04	KNOLLWOOD NORTH	RT	121													
12+10.64	12+64.88	KNOLLWOOD NORTH	BOTH									171					
12+26.63	12+31.04	KNOLLWOOD NORTH	RT			7											
12+24.06	12+51.53	KNOLLWOOD NORTH	BOTH							87							594
12+63.15	13+13.23	KNOLLWOOD NORTH	RT							107							
12+68.90	13+12.50	KNOLLWOOD NORTH	LT							51							
10+84.26	11+47.61	KNOLLWOOD SOUTH	LT							86							
10+84.65	11+60.70	KNOLLWOOD SOUTH	RT							98							
11+01.56	11+28.97	KNOLLWOOD SOUTH	LT	20													
11+26.60	11+39.78	KNOLLWOOD SOUTH	RT	7													
11+28.97	11+47.38	KNOLLWOOD SOUTH	LT			22											
11+34.49	11+44.59	KNOLLWOOD SOUTH	LT														56
11+39.78	11+58.86	KNOLLWOOD SOUTH	RT			20											
11+45.85	11+57.59	KNOLLWOOD SOUTH	RT														44
10+65.49	13+00.78	LAKE WOODMOOR	LT											237			
<b>PROJECT TOTALS</b>				<b>1,843</b>		<b>96</b>		<b>34</b>		<b>8,352</b>		<b>171</b>		<b>237</b>		<b>3,027</b>	

Print Date: 4/18/2023  
 File Name: 19734DES\_Roadway Tabs-05.dgn  
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No Revisions: \_\_\_\_\_  
 Revised: \_\_\_\_\_  
 Void: \_\_\_\_\_

**HIGHWAY 105 PROJECT A  
 ROADWAY TABULATIONS  
 SIDEWALK & C&G**

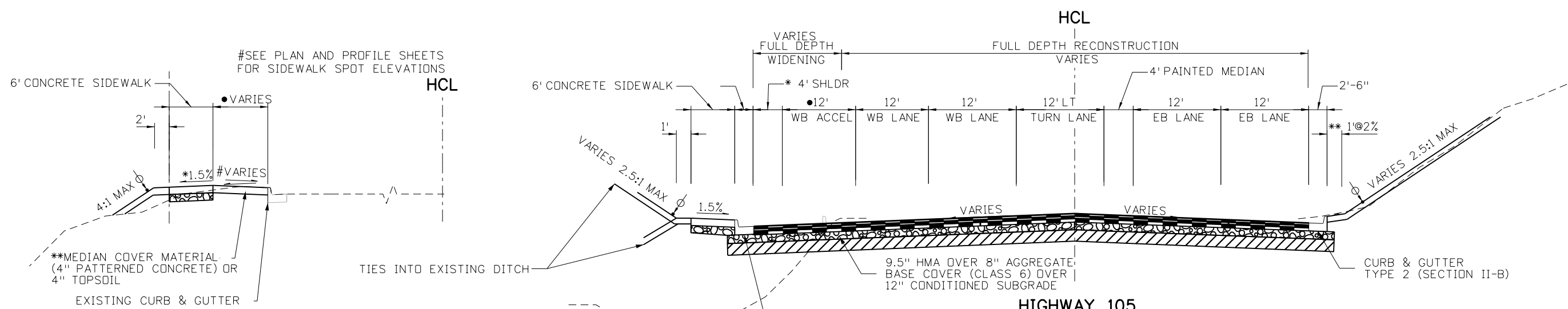
Designer: C. BEASLEY  
 Detailer: J. WILKERT  
 Sheet Subset: TABS

Structure Numbers: \_\_\_\_\_  
 Subset Sheets: 5 of 5

**Project No./Code**

19734  
 STA 105A-014  
 Sheet Number 20 of 251

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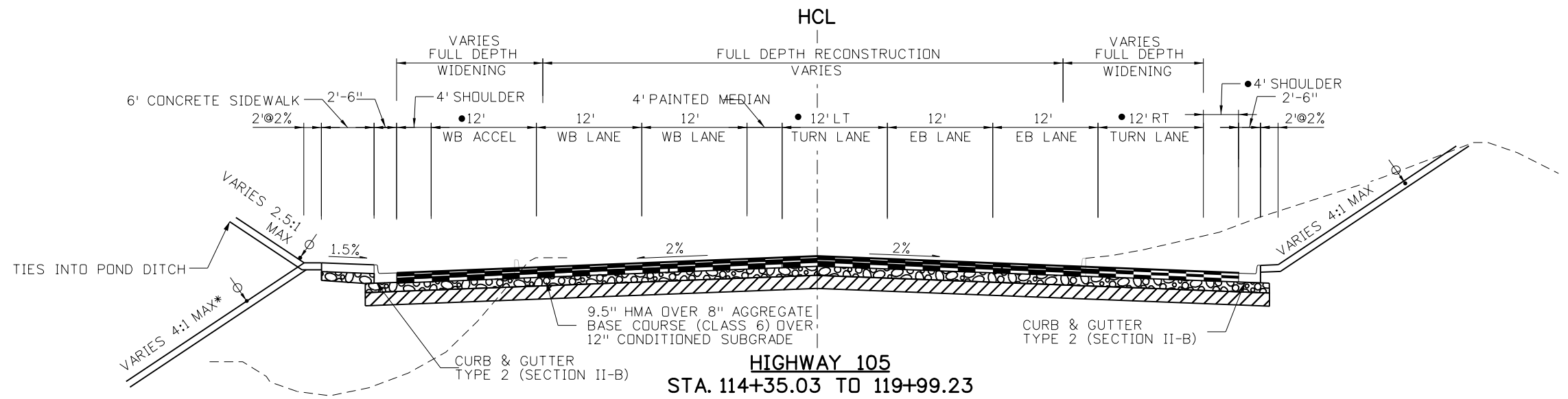


**HIGHWAY 105**  
STA. 104+00.00 TO 112+72.91

- STA 104+00.00 TO 104+46.36 SIDEWALK BUFFER IS 0'
- STA 104+46.36 TO 104+74.89 SIDEWALK BUFFER VARIES FROM 0' TO 7.5'
- STA 104+74.89 TO 112+72.37 SIDEWALK BUFFER IS 7.5'
- STA 112+72.37 TO 113+76.40 SIDEWALK BUFFER VARIES FROM 7.5' TO 0'
- \*\* STA 110+73.27 TO 113+76.49 MEDIAN COVER MATERIAL (4" PATTERNED CONCRETE)
- \* STA 111+73.00 TO 112+73.10 SLOPE VARIES FROM 1.5% TO -1.5%

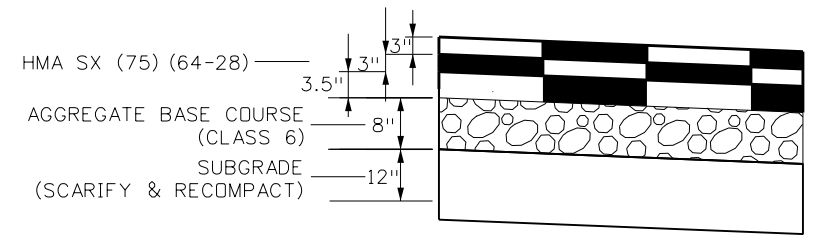
**HIGHWAY 105**  
STA. 112+72.95 TO 114+35.03

- STA 113+15.60 TO 114+35.03 WB ACCELERATION LANE VARIES 0' TO 12'
- \* STA 112+72.37 TO 113+15.60 WB SHOULDER VARIES 0' TO 4'
- \*\* STA 114+10.00 TO 114+20.00 BUFFER VARIES 1' TO 2'



**HIGHWAY 105**  
STA. 114+35.03 TO 119+99.23

- STA 114+23.14 TO 116+22.91 WB LT TURN LANE VARIES 12' TO 0'
- STA 114+23.14 TO 116+22.91 EB LT TURN LANE VARIES 0' TO 12'
- STA 115+18.70 TO 117+559.25 EB RT TURN LANE VARIES 0' TO 12'
- STA 114+28.94 TO 115+18.70 EB RT SHOULDER VARIES 0' TO 4'



**HWY 105 PAVEMENT SECTION**  
(NTS)

**HIGHWAY 105**  
STA. 119+99.23 TO 121+07.08  
FOR KNOLLWOOD INTERSECTION SEE DETAIL SHEETS



**NOTES**  
4" TOPSOIL (OFFSITE), SEEDING, SOIL RETENTION BLANKET OR MULCHING

Print Date: 4/18/2023  
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Horiz. Scale: 1:15      Vert. Scale: None  
**HR** 5555 TECH CENTER DRIVE, SUITE 310  
COLORADO SPRINGS, CO 80919      PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.



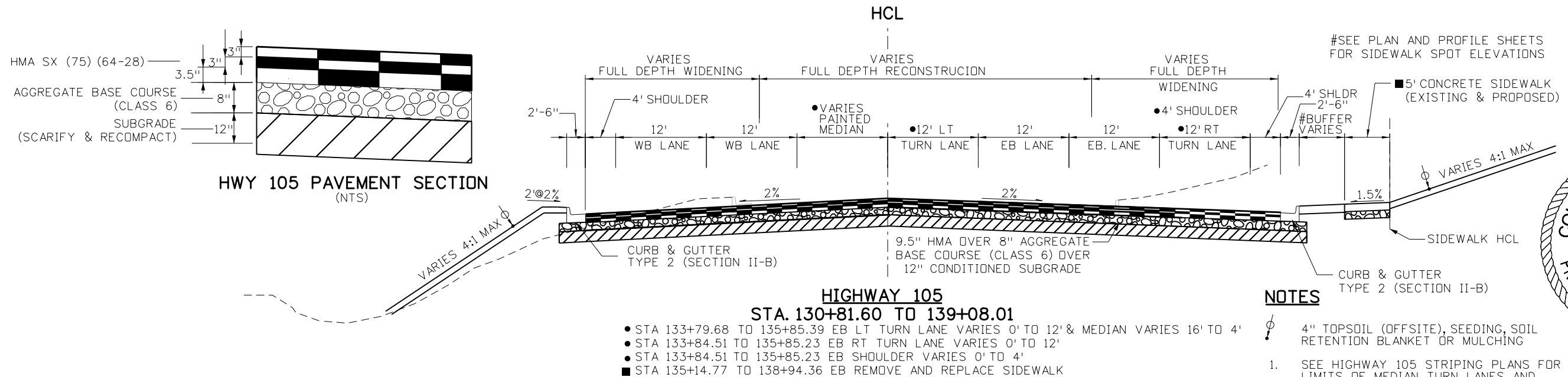
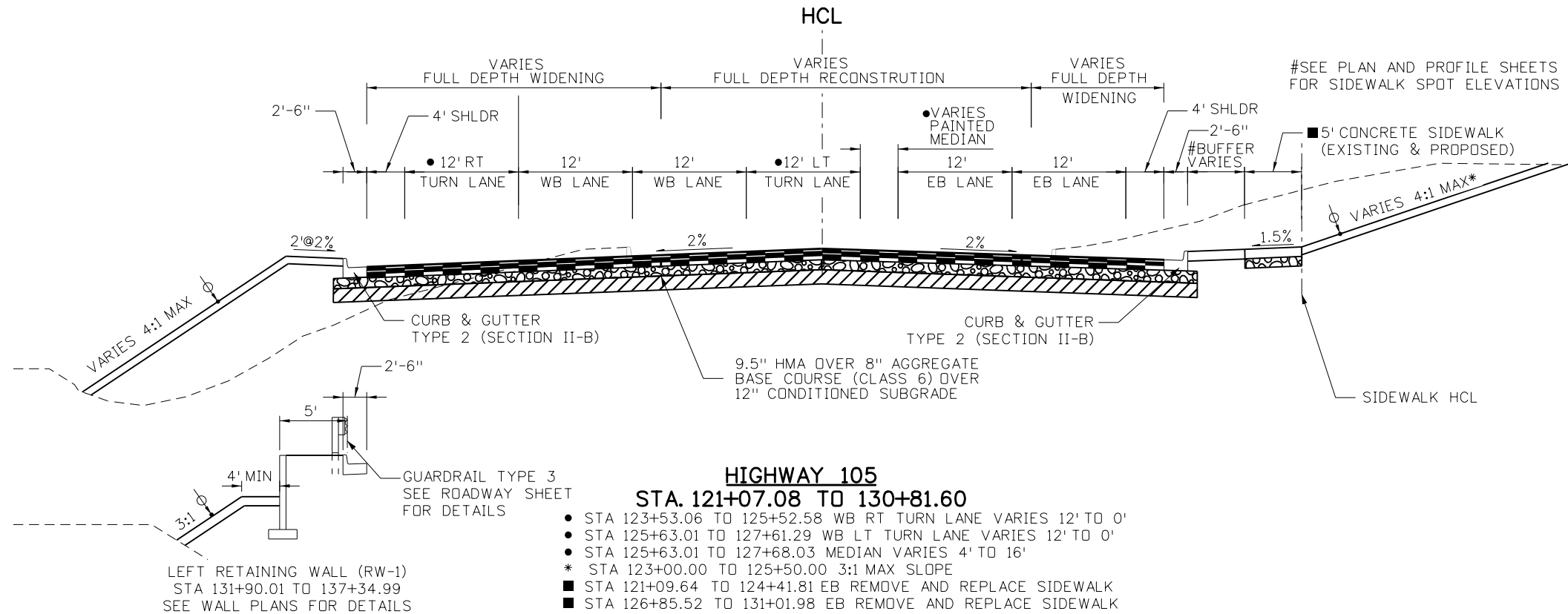
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No Revisions:  
Revised:  
Void:

**HIGHWAY 105 PROJECT A**  
**TYPICAL SECTIONS**  
Designer: C. BEASLEY  
Detailer: J. WILKERT  
Sheet Subset: TYPICALS      Subset Sheets: 1 of 5

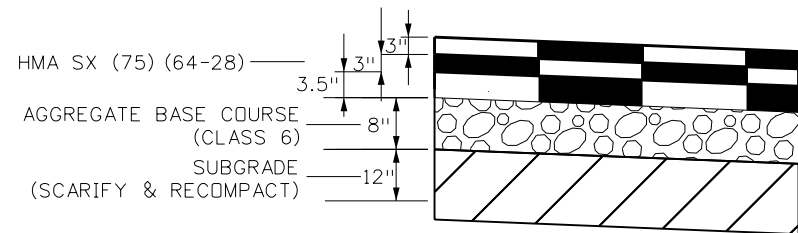
**Project No./Code**  
19734  
STA 105A-014  
Sheet Number 21 of 251



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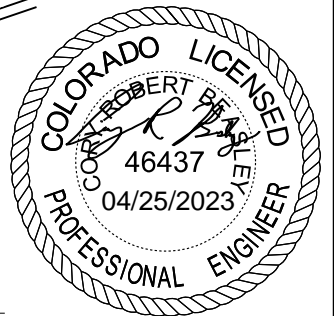


**HWY 105 PAVEMENT SECTION (NTS)**



**NOTES**

- 4" TOPSOIL (OFFSITE), SEEDING, SOIL RETENTION BLANKET OR MULCHING
- 1. SEE HIGHWAY 105 STRIPING PLANS FOR LIMITS OF MEDIAN, TURN LANES AND TAPERS.



Print Date: 4/18/2023
File Name: 19734DES_Typ_TS-02.dgn
Horiz. Scale: 1:15      Vert. Scale: None
<b>HR</b> 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800

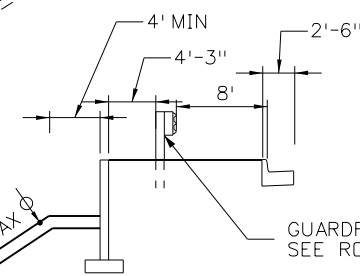
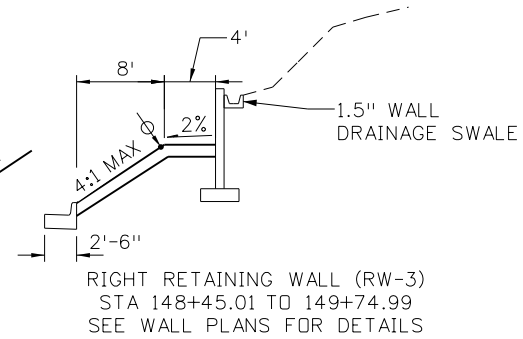
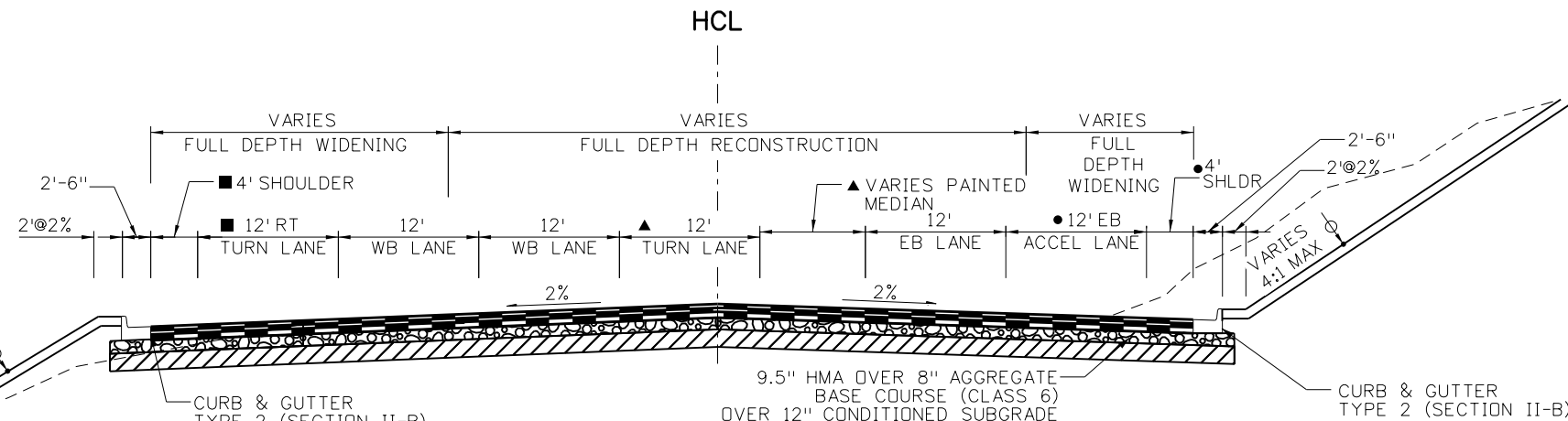
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Date:	Comments	Init.



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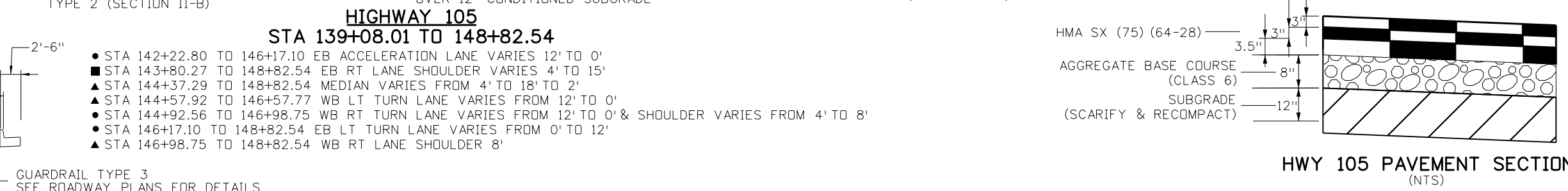
<b>HIGHWAY 105 PROJECT A TYPICAL SECTIONS</b>	
Designer: C. BEASLEY	Structure Numbers
Detailer: J. WILKERT	
Sheet Subset: TYPICALS	Subset Sheets: 2 of 5

<b>Project No./Code</b>
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STA 105A-014
Sheet Number 22 of 251



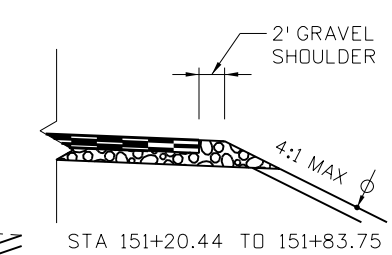
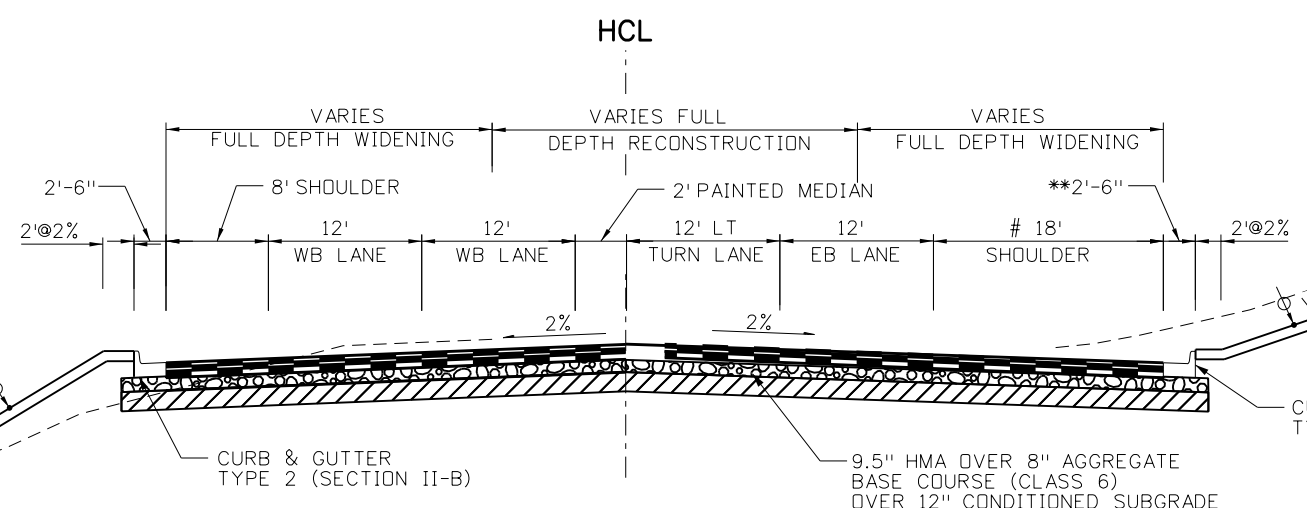
- STA 142+22.80 TO 146+17.10 EB ACCELERATION LANE VARIES 12' TO 0'
- STA 143+80.27 TO 148+82.54 EB RT LANE SHOULDER VARIES 4' TO 15'
- ▲ STA 144+37.29 TO 148+82.54 MEDIAN VARIES FROM 4' TO 18' TO 2'
- ▲ STA 144+57.92 TO 146+57.77 WB LT TURN LANE VARIES FROM 12' TO 0'
- STA 144+92.56 TO 146+98.75 WB RT TURN LANE VARIES FROM 12' TO 0' & SHOULDER VARIES FROM 4' TO 8'
- STA 146+17.10 TO 148+82.54 EB LT TURN LANE VARIES FROM 0' TO 12'
- ▲ STA 146+98.75 TO 148+82.54 WB RT LANE SHOULDER 8'

LEFT RETAINING WALL (RW-2)  
STA 145+53.04 TO 150+83.62  
SEE WALL PLANS FOR DETAILS



**HIGHWAY 105**  
**STA 139+08.01 TO 148+82.54**

**HWY 105 PAVEMENT SECTION**  
(NTS)



**HIGHWAY 105**  
**STA. 148+82.54 TO 151+83.75**  
# STA 148+82.54 TO STA 150+10.39 SHOULDER VARIES 15' TO 18'  
\*\* STA 151+20.29 END CURB & GUTTER

- NOTES**
- 1. SEE HIGHWAY 105 STRIPING PLANS FOR LIMITS OF MEDIAN, TURN LANES AND TAPERS.

Print Date: 4/18/2023  
File Name: 19734DES\_Typ\_TS-03.dgn  
Horiz. Scale: 1:15 Vert. Scale: None

Sheet Revisions		
Date:	Comments	Init.



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No Revisions:  
Revised:  
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**HIGHWAY 105 PROJECT A TYPICAL SECTIONS**  
Designer: C. BEASLEY  
Detailer: J. WILKERT  
Sheet Subset: TYPICALS

**Project No./Code**  
19734  
STA 105A-014  
Sheet Number 23 of 251

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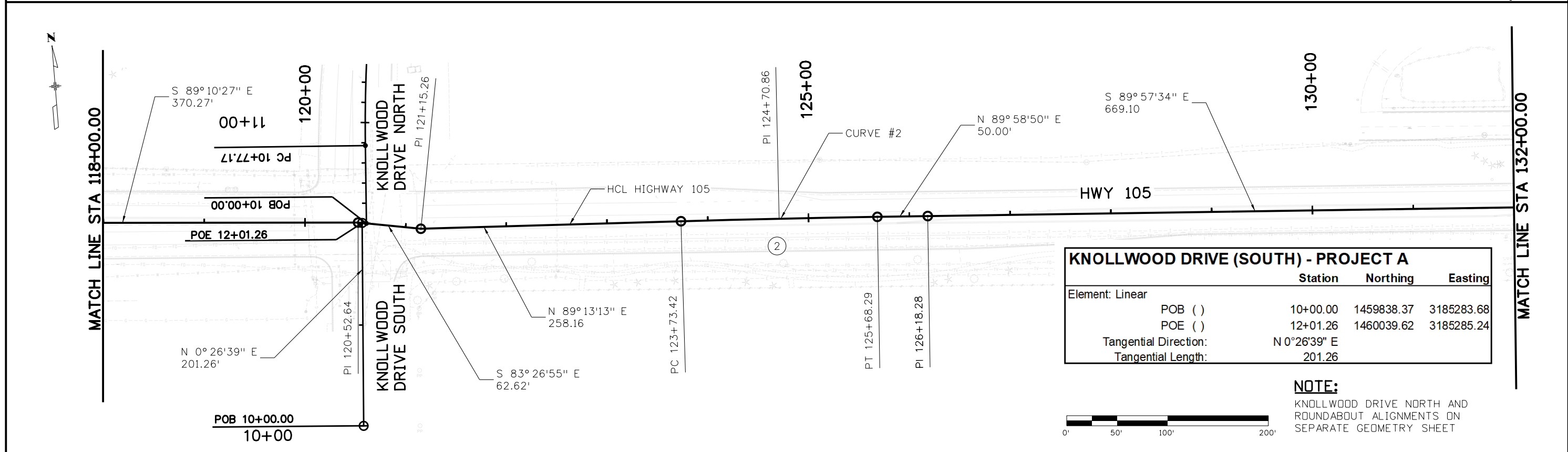
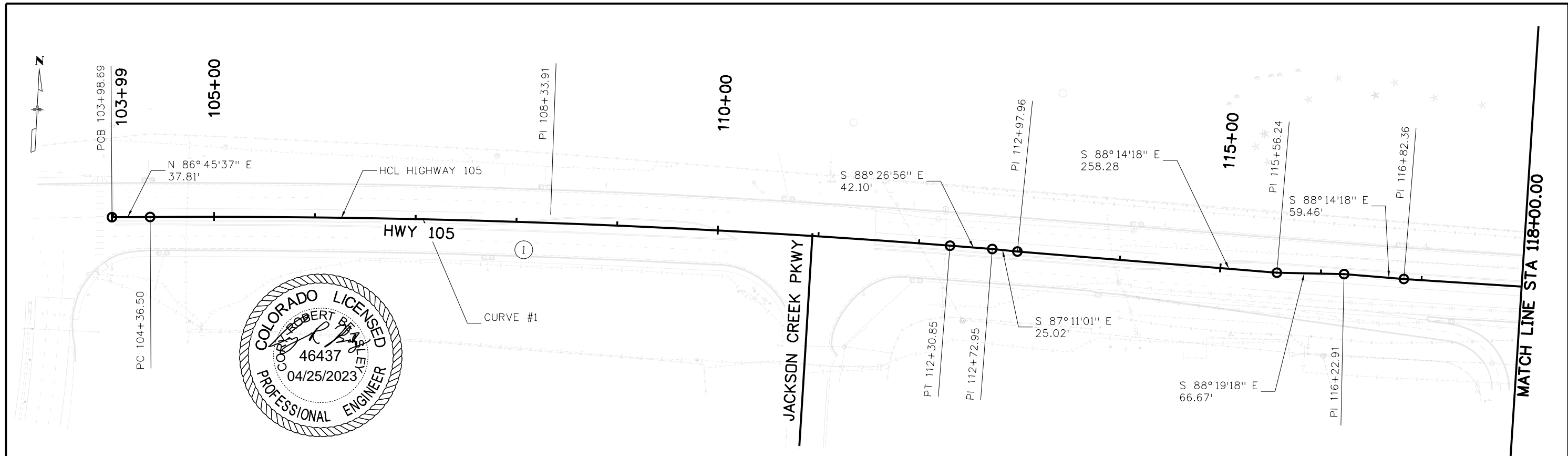






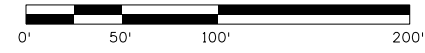


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KNOLLWOOD DRIVE (SOUTH) - PROJECT A			
Element:	Station	Northing	Easting
Linear			
POB ( )	10+00.00	1459838.37	3185283.68
POE ( )	12+01.26	1460039.62	3185285.24
Tangential Direction:	N 0° 26' 39" E		
Tangential Length:	201.26		

**NOTE:**  
KNOLLWOOD DRIVE NORTH AND ROUNDABOUT ALIGNMENTS ON SEPARATE GEOMETRY SHEET



Print Date: 4/18/2023
File Name: 19734DES_Geometry-Main01.dgn
Horiz. Scale: 1:100      Vert. Scale: None
<b>HR</b> 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800

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Date:	Comments	Init.	

EL PASO COUNTY COLORADO S.F. Region 02

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HIGHWAY 105 PROJECT A GEOMETRIC LAYOUT 104+00.00 TO 132+00.00			
Designer:	C. BEASLEY	Structure Numbers	
Detailer:	J. WILKERT	Subset Sheets:	1 of 9
Sheet Subset:	GEOMETRY		

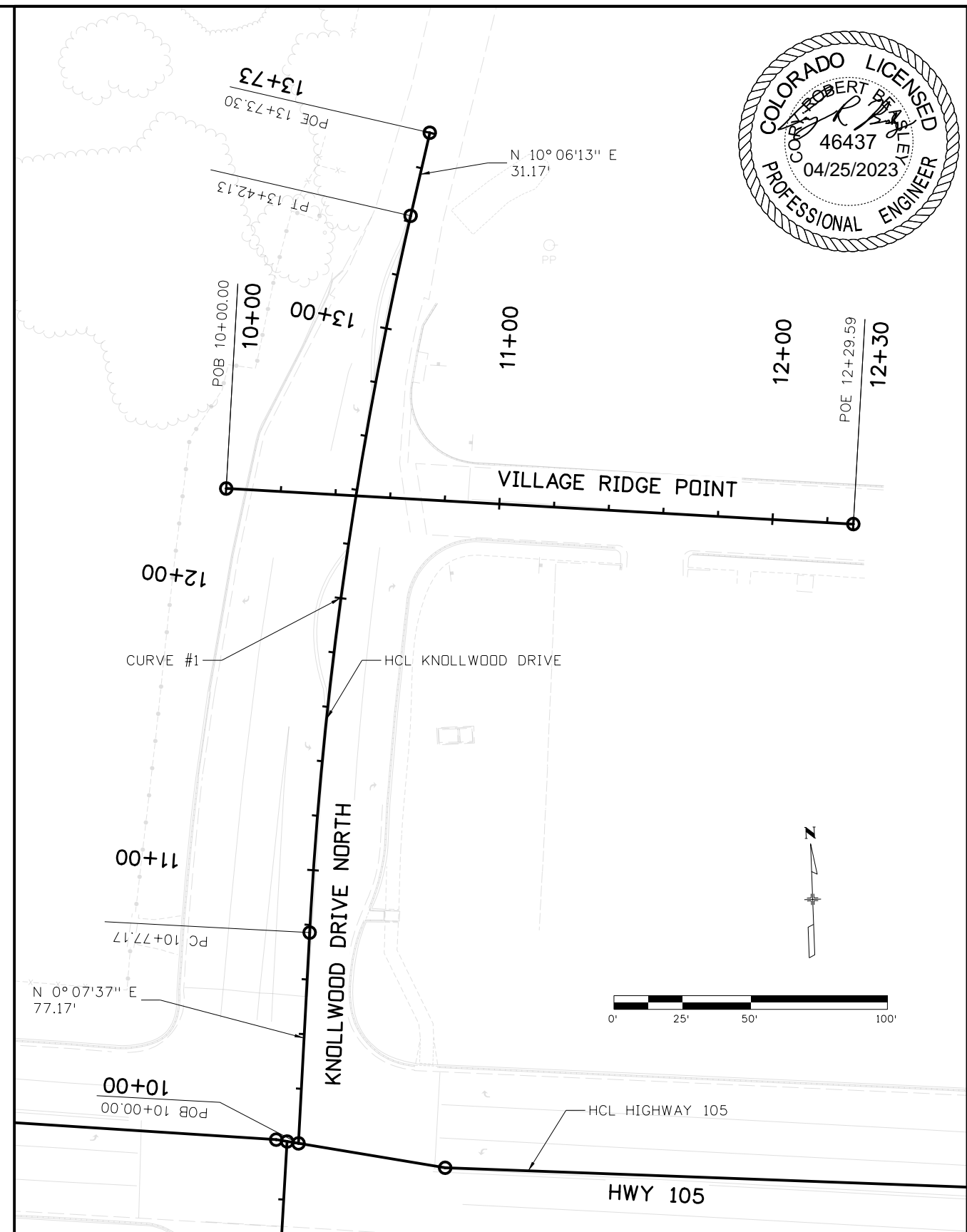
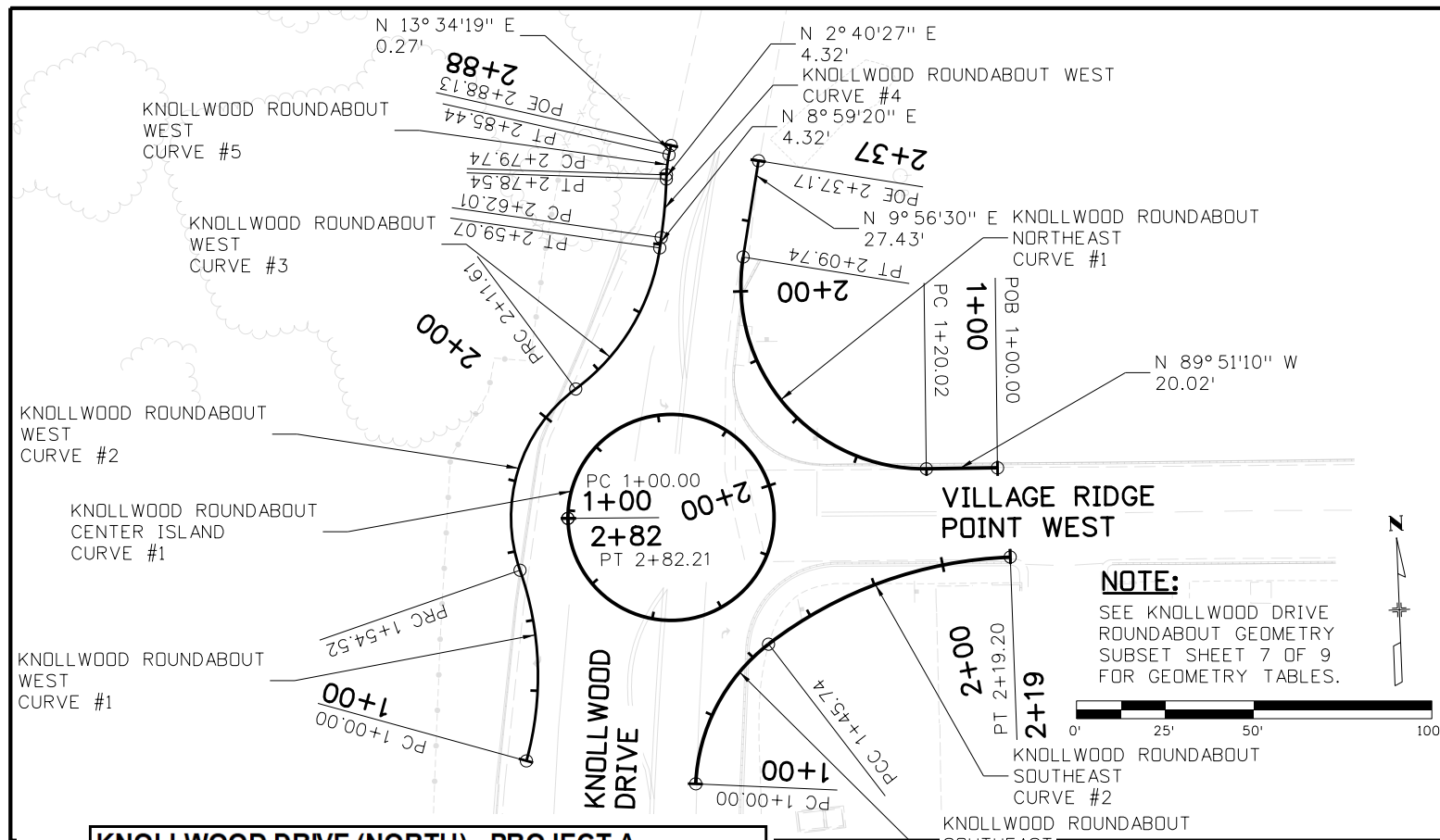
Project No./Code
19734
STA 105A-014
Sheet Number 27 of 251







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**KNOLLWOOD DRIVE (NORTH) - PROJECT A**

Station	Northing	Easting
Element: Linear		
POB ( )	10+00.00	1460039.14
PC ( )	10+77.17	1460116.31
Tangential Direction:	N 0°07'37" E	
Tangential Length:	77.17	

Station	Northing	Easting
Element: Circular		
PC ( )	10+77.17	1460116.31
PI ( )	12+09.98	1460249.12
CC ( )		1460112.93
PT ( )	13+42.13	1460379.88
Radius:	1521.65	
Delta:	9°58'36" Right	
Degree of Curvature (Arc):	3°45'55"	
Length:	264.96	
Tangent:	132.82	
Chord:	264.62	
Middle Ordinate:	5.76	
External:	5.79	
Tangent Direction:	N 0°07'37" E	
Radial Direction:	S 89°52'23" E	
Chord Direction:	N 5°06'55" E	
Radial Direction:	S 79°53'47" E	
Tangent Direction:	N 10°06'13" E	

**KNOLLWOOD DRIVE (NORTH) - PROJECT A**

Station	Northing	Easting
Element: Linear		
PT ( )	13+42.13	1460379.88
POE ( )	13+73.30	1460410.57
Tangential Direction:	N 10°06'13" E	
Tangential Length:	31.17	

**VILLAGE RIDGE POINT WEST- PROJECT A**

Station	Northing	Easting
Element: Linear		
POB ( )	10+00.00	1460276.92
POE ( )	12+29.59	1460275.52
Tangential Direction:	S 89°39'01" E	
Tangential Length:	229.59	

Print Date: 4/18/2023
File Name: 19734DES_Geometry-01.dgn
Horiz. Scale: 1:50      Vert. Scale: None
<b>HR</b> 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

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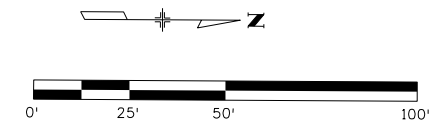
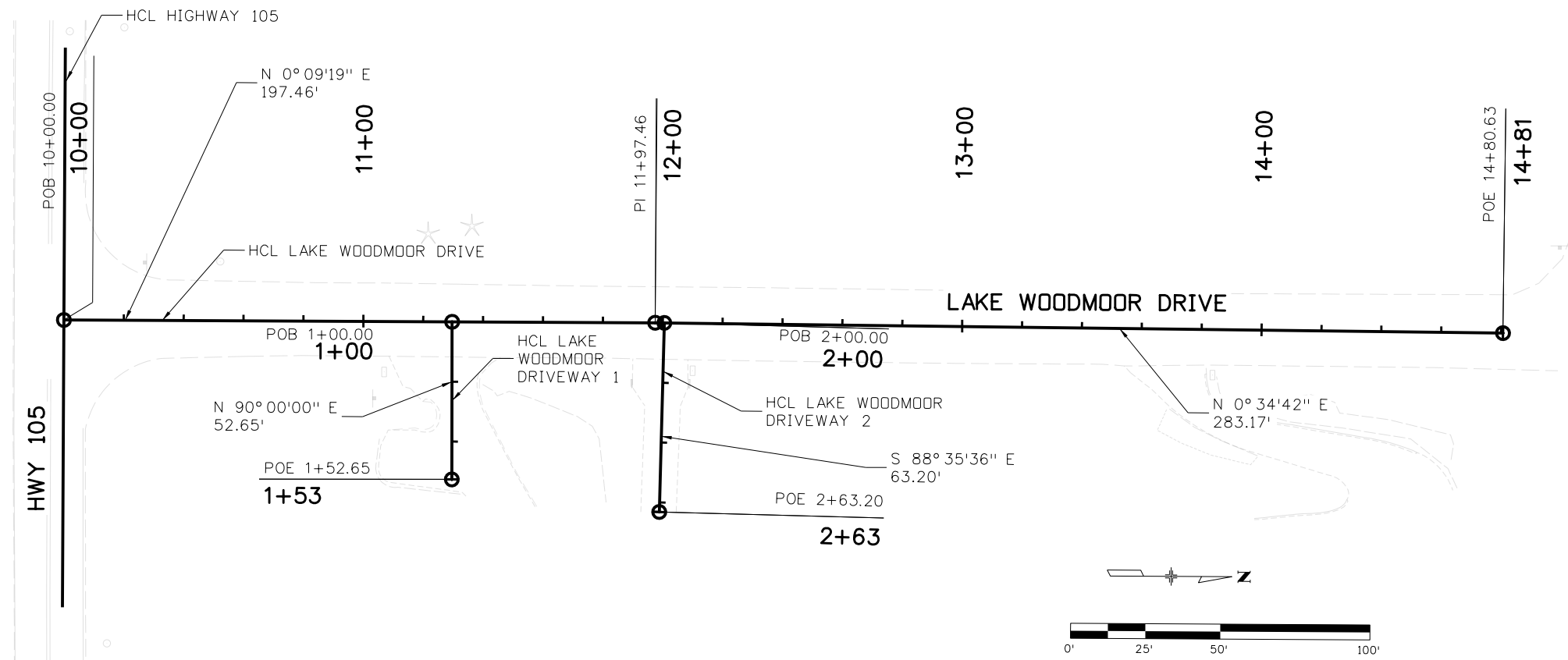
HIGHWAY 105 PROJECT A GEOMETRIC LAYOUT KNOLLWOOD & ROUNDABOUT	
Designer: C. BEASLEY	Structure Numbers
Detailer: J. WILKERT	
Sheet Subset: GEOMETRY	Subset Sheets: 3 of 9

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19734
STA 105A-014
Sheet Number 29 of 251

LAKE WOODMOOR DRIVE - PROJECT A			
	Station	Northing	Easting
Element: Linear			
POB ( )	10+00.00	1460030.39	3188369.11
PI ( )	11+97.46	1460227.85	3188369.65
Tangential Direction:	N 0°09'19" E		
Tangential Length:	197.46		
Element: Linear			
PI ( )	11+97.46	1460227.85	3188369.65
POE ( )	14+80.63	1460511.00	3188372.50
Tangential Direction:	N 0°34'42" E		
Tangential Length:	283.17		

LAKE WOODMOOR DRIVE - DRIVEWAY 1			
	Station	Northing	Easting
Element: Linear			
POB ( )	1+00.00	1460160.05	3188369.46
PI ( )	1+52.65	1460160.05	3188422.11
Tangential Direction:	N 90°00'00" E		
Tangential Length:	52.65		

LAKE WOODMOOR DRIVE - DRIVEWAY 2			
	Station	Northing	Easting
Element: Linear			
POB ( )	2+00.00	1460230.90	3188369.68
PI ( )	2+63.20	1460229.35	3188432.86
Tangential Direction:	S 88°35'36" E		
Tangential Length:	63.20		



Print Date: 4/18/2023				As Constructed	<b>HIGHWAY 105 PROJECT A GEOMETRIC LAYOUT LAKE WOODMOOR</b>	Project No./Code
File Name: 19734DES_Geometry-02.dgn				No Revisions:		19734
Horiz. Scale: 1:50      Vert. Scale: None				Revised:		Designer: C. BEASLEY    Structure Numbers
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800		S.F.      Region 02	Void:	Detailer: J. WILKERT	STA 105A-014	
				Sheet Subset: GEDMETRY	Subset Sheets: 4 of 9	Sheet Number 30 of 251

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HIGHWAY 105 - PROJECT A				
	Station	Northing	Easting	
Element: Linear				
POB ( )	103+98.69	1460041.76	3183627.91	
PC ( )	104+36.50	1460043.90	3183665.66	
Tangential Direction: N 86°45'37" E				
Tangential Length: 37.81				
Element: Circular				
PC ( )	104+36.50	1460043.90	3183665.66	
PI ( )	108+33.91	1460066.36	3184062.43	
CC ( )		1450559.08	3184202.54	
PT ( )	112+30.85	1460055.60	3184459.69	
Radius: 9500				
Delta: 4°47'27" Right				
Degree of Curvature (Arc): 0°36'11"				
Length: 794.34				
Tangent: 397.40				
Chord: 794.11				
Middle Ordinate: 8.30				
External: 8.31				
Tangent Direction: N 86°45'37" E				
Radial Direction: S 3°14'23" E				
Chord Direction: N 89°09'20" E				
Radial Direction: S 1°33'04" W				
Tangent Direction: S 88°26'56" E				
Element: Linear				
PT ( )	112+30.85	1460055.60	3184459.69	
PI ( )	112+72.95	1460054.46	3184501.77	
Tangential Direction: S 88°26'56" E				
Tangential Length: 42.10				
Element: Linear				
PI ( )	112+72.95	1460054.46	3184501.77	
PI ( )	112+97.96	1460053.23	3184526.76	
Tangential Direction: S 87°11'01" E				
Tangential Length: 25.02				
Element: Linear				
PI ( )	112+97.96	1460053.23	3184526.76	
PI ( )	115+56.24	1460045.29	3184784.92	
Tangential Direction: S 88°14'18" E				
Tangential Length: 258.28				
Element: Linear				
PI ( )	115+56.24	1460045.29	3184784.92	
PI ( )	116+22.91	1460047.25	3184851.55	
Tangential Direction: N 88°19'18" E				
Tangential Length: 66.67				
Element: Linear				
PI ( )	116+22.91	1460047.25	3184851.55	
PI ( )	116+82.36	1460045.42	3184910.98	
Tangential Direction: S 88°14'18" E				
Tangential Length: 59.46				
Element: Linear				
PI ( )	116+82.36	1460045.42	3184910.98	
PI ( )	120+52.64	1460040.08	3185281.22	
Tangential Direction: S 89°10'27" E				
Tangential Length: 370.27				

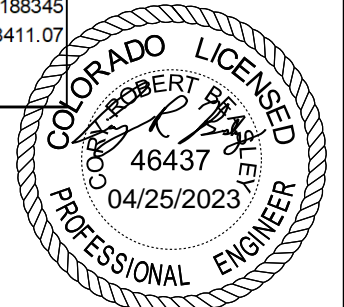
CURVE #1 HWY105 A

HIGHWAY 105 - PROJECT A				
	Station	Northing	Easting	
Element: Linear				
PI ( )	120+52.64	1460040.08	3185281.22	
PI ( )	121+15.26	1460032.94	3185343.43	
Tangential Direction: S 83°26'55" E				
Tangential Length: 62.62				
Element: Linear				
PI ( )	121+15.26	1460032.94	3185343.43	
PC ( )	123+73.42	1460036.45	3185601.57	
Tangential Direction: N 89°13'13" E				
Tangential Length: 258.16				
Element: Circular				
PC ( )	123+73.42	1460036.45	3185601.57	
PI ( )	124+70.86	1460037.78	3185698.99	
CC ( )		1445347.81	3185801.44	
PT ( )	125+68.29	1460037.81	3185796.43	
Radius: 14690				
Delta: 0°45'36" Right				
Degree of Curvature (Arc): 0°23'24"				
Length: 194.87				
Tangent: 97.44				
Chord: 194.87				
Middle Ordinate: 0.32				
External: 0.32				
Tangent Direction: N 89°13'13" E				
Radial Direction: S 0°46'47" E				
Chord Direction: N 89°36'02" E				
Radial Direction: S 0°01'10" E				
Tangent Direction: N 89°58'50" E				
Element: Linear				
PT ( )	125+68.29	1460037.81	3185796.43	
PI ( )	126+18.28	1460037.83	3185846.43	
Tangential Direction: N 89°58'50" E				
Tangential Length: 50.00				
Element: Linear				
PI ( )	126+18.28	1460037.83	3185846.43	
PI ( )	132+87.38	1460037.35	3186515.52	
Tangential Direction: S 89°57'34" E				
Tangential Length: 669.10				
Element: Linear				
PI ( )	132+87.38	1460037.35	3186515.52	
PI ( )	135+85.39	1460033.24	3186813.51	
Tangential Direction: S 89°12'33" E				
Tangential Length: 298.01				
Element: Linear				
PI ( )	135+85.39	1460033.24	3186813.51	
PI ( )	138+55.11	1460031.24	3187083.22	
Tangential Direction: S 89°34'33" E				
Tangential Length: 269.72				
Element: Linear				
PI ( )	138+55.11	1460031.24	3187083.22	
PI ( )	139+32.74	1460022.67	3187160.37	
Tangential Direction: S 83°39'38" E				
Tangential Length: 77.62				

CURVE #2 HWY105 A

HIGHWAY 105 - PROJECT A				
	Station	Northing	Easting	
Element: Linear				
PI ( )	139+32.74	1460022.67	3187160.37	
PI ( )	140+37.59	1460021.89	3187265.22	
Tangential Direction: S 89°34'33" E				
Tangential Length: 104.85				
Element: Linear				
PI ( )	140+37.59	1460021.89	3187265.22	
PC ( )	143+43.42	1460020.91	3187571.05	
Tangential Direction: S 89°48'57" E				
Tangential Length: 305.83				
Element: Circular				
PC ( )	143+43.42	1460020.91	3187571.05	
PI ( )	144+00.49	1460020.73	3187628.12	
CC ( )		1475044.83	3187619.35	
PT ( )	144+57.56	1460020.98	3187685.19	
Radius: 15024				
Delta: 0°26'07" Left				
Degree of Curvature (Arc): 0°22'53"				
Length: 114.14				
Tangent: 57.07				
Chord: 114.14				
Middle Ordinate: 0.11				
External: 0.11				
Tangent Direction: S 89°48'57" E				
Radial Direction: S 0°11'03" W				
Chord Direction: N 89°58'00" E				
Radial Direction: S 0°15'04" E				
Tangent Direction: N 89°44'56" E				
Element: Linear				
PT ( )	144+57.56	1460020.98	3187685.19	
PI ( )	144+66.27	1460021.02	3187693.9	
Tangential Direction: N 89°44'56" E				
Tangential Length: 8.71				
Element: Linear				
PI ( )	144+66.27	1460021.02	3187693.9	
PI ( )	148+82.54	1460032.68	3188110	
Tangential Direction: N 88°23'40" E				
Tangential Length: 416.26				
Element: Linear				
PI ( )	148+82.54	1460032.68	3188110	
PI ( )	151+17.54	1460031.92	3188345	
Tangential Direction: S 89°48'57" E				
Tangential Length: 235.00				
Element: Linear				
PI ( )	151+17.54	1460031.92	3188345	
POE ( )	151+83.75	1460027.71	3188411.07	
Tangential Direction: S 86°21'08" E				
Tangential Length: 66.21				

CURVE #3 HWY105 A



Print Date: 4/18/2023	0000
File Name: 19734DES_GeometryTable-01.dgn	
Horiz. Scale: 1:1      Vert. Scale: None	
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800	

Sheet Revisions		
Date:	Comments	Init.

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Region 02

As Constructed No Revisions:  Revised:  Void:	<b>HIGHWAY 105 PROJECT A GEOMETRY TABLES HIGHWAY 105 A</b>		Project No./Code 19734  STA 105A-014  Sheet Number 32 of 251
	Designer: C. BEASLEY	Structure Numbers	
	Detailer: J. WILKERT	Subset Sheets: 6 of 9	







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**METRO DISTRICT SIDEWALK 2 - PROJECT A**

**CURVE #2 SIDEWALK 2**

	Station	Northing	Easting
Element: Circular			
PC ( )	4+04.41	1459984.54	3186318.87
PI ( )	4+09.49	1459984.40	3186323.95
CC ( )		1459889.58	3186316.17
PT ( )	4+14.57	1459983.71	3186328.99
Radius:	95		
Delta:	6°07'42" Right		
Degree of Curvature (Arc): 60°18'41"			
Length:	10.16		
Tangent:	5.09		
Chord:	10.16		
Middle Ordinate:	0.14		
External:	0.14		
Tangent Direction:	S 88°22'24" E		
Radial Direction:	S 1°37'36" W		
Chord Direction:	S 85°18'33" E		
Radial Direction:	S 7°45'18" W		
Tangent Direction:	S 82°14'42" E		
Element: Linear			
PT ( )	4+14.57	1459983.71	3186328.99
POE ( )	4+15.00	1459983.65	3186329.42
Tangent Direction:	S 82°14'42" E		
Tangent Length:	0.43		

**METRO DISTRICT SIDEWALK 3 - PROJECT A**

**CURVE #1 SIDEWALK 3**


	Station	Northing	Easting
Element: Linear			
POB ( )	0+00.00	1459975.10	3186741.04
PC ( )	0+00.34	1459975.11	3186741.38
Tangential Direction:	N 87°11'34" E		
Tangential Length:	0.34		
Element: Circular			
PC ( )	0+00.34	1459975.11	3186741.38
PI ( )	0+03.41	1459975.27	3186744.44
CC ( )		1459925.17	3186743.83
PT ( )	0+06.47	1459975.04	3186747.50
Radius:	50		
Delta:	7°01'15" Right		
Degree of Curvature (Arc): 114°35'30"			
Length:	6.13		
Tangent:	3.07		
Chord:	6.12		
Middle Ordinate:	0.09		
External:	0.09		
Tangent Direction:	N 87°11'34" E		
Radial Direction:	S 2°48'26" E		
Chord Direction:	S 89°17'49" E		
Radial Direction:	S 4°12'49" W		
Tangent Direction:	S 85°47'11" E		
Element: Linear			
PT ( )	0+06.47	1459975.04	3186747.50
PI ( )	0+79.31	1459969.69	3186820.15
Tangential Direction:	S 85°47'11" E		
Tangential Length:	72.85		
Element: Linear			
PI ( )	0+79.31	1459969.69	3186820.15
PI ( )	1+81.24	1459968.93	3186922.07
Tangential Direction:	S 89°34'33" E		
Tangential Length:	101.92		
Element: Linear			
PI ( )	1+81.24	1459968.93	3186922.07
PI ( )	2+21.41	1459972.64	3186962.07
Tangential Direction:	N 84°42'34" E		
Tangential Length:	40.17		
Element: Linear			
PI ( )	2+21.41	1459972.64	3186962.07
PI ( )	3+10.51	1459971.98	3187051.17
Tangential Direction:	S 89°34'33" E		
Tangential Length:	89.1		
Element: Linear			
PI ( )	3+10.51	1459971.98	3187051.17
PI ( )	3+47.24	1459962.58	3187086.68
Tangential Direction:	S 75°10'22" E		
Tangential Length:	36.74		

**METRO DISTRICT SIDEWALK 3 - PROJECT A**

	Station	Northing	Easting
Element: Linear			
PI ( )	3+47.24	1459962.58	3187086.68
POE ( )	3+52.24	1459962.54	3187091.68
Tangential Direction:	S 89°35'55" E		
Tangential Length:	5		




Print Date: 4/18/2023  
 File Name: 19734DES\_GeometryTable-04.dgn  
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Sheet Revisions		
Date:	Comments	Init.



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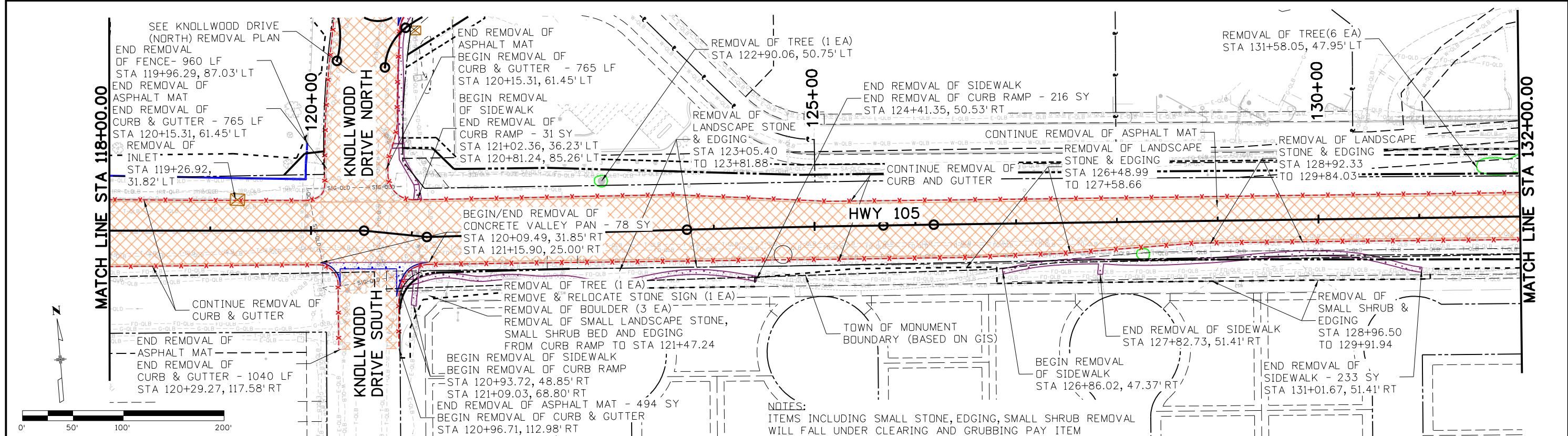
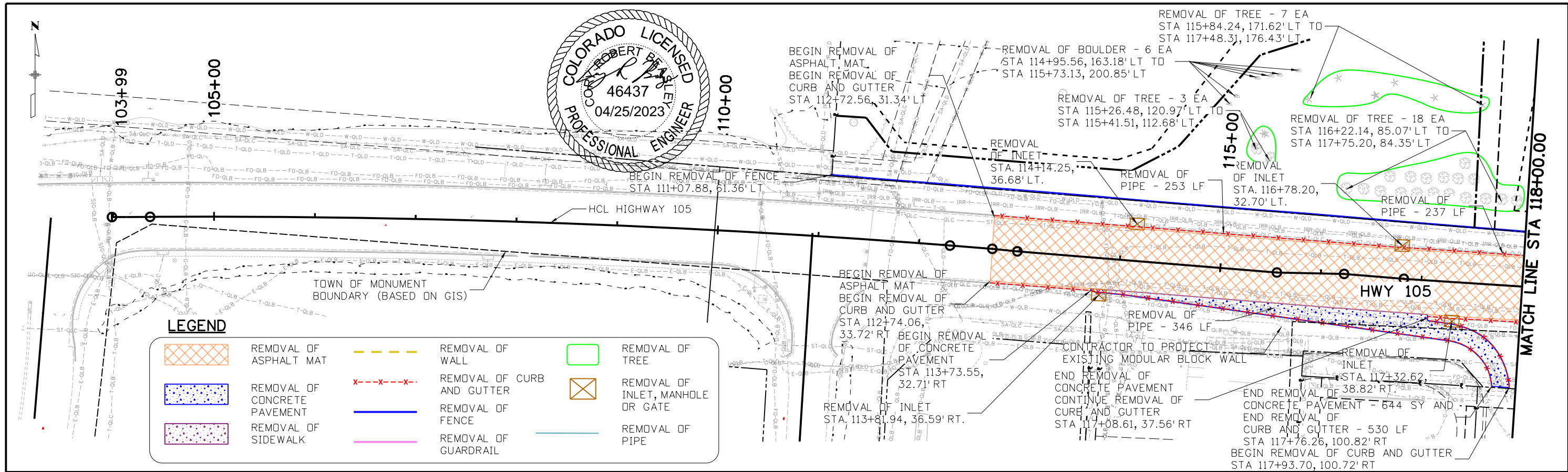
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No Revisions:
Revised:
Void:

<b>HIGHWAY 105 PROJECT A GEOMETRY TABLES SIDEWALK</b>	
Designer: C. BEASLEY	Structure Numbers
Detailer: J. WILKERT	
Sheet Subset: GEOMETRY	Subset Sheets: 9 of 9

<b>Project No./Code</b>
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STA 105A-014
Sheet Number 35 of 251



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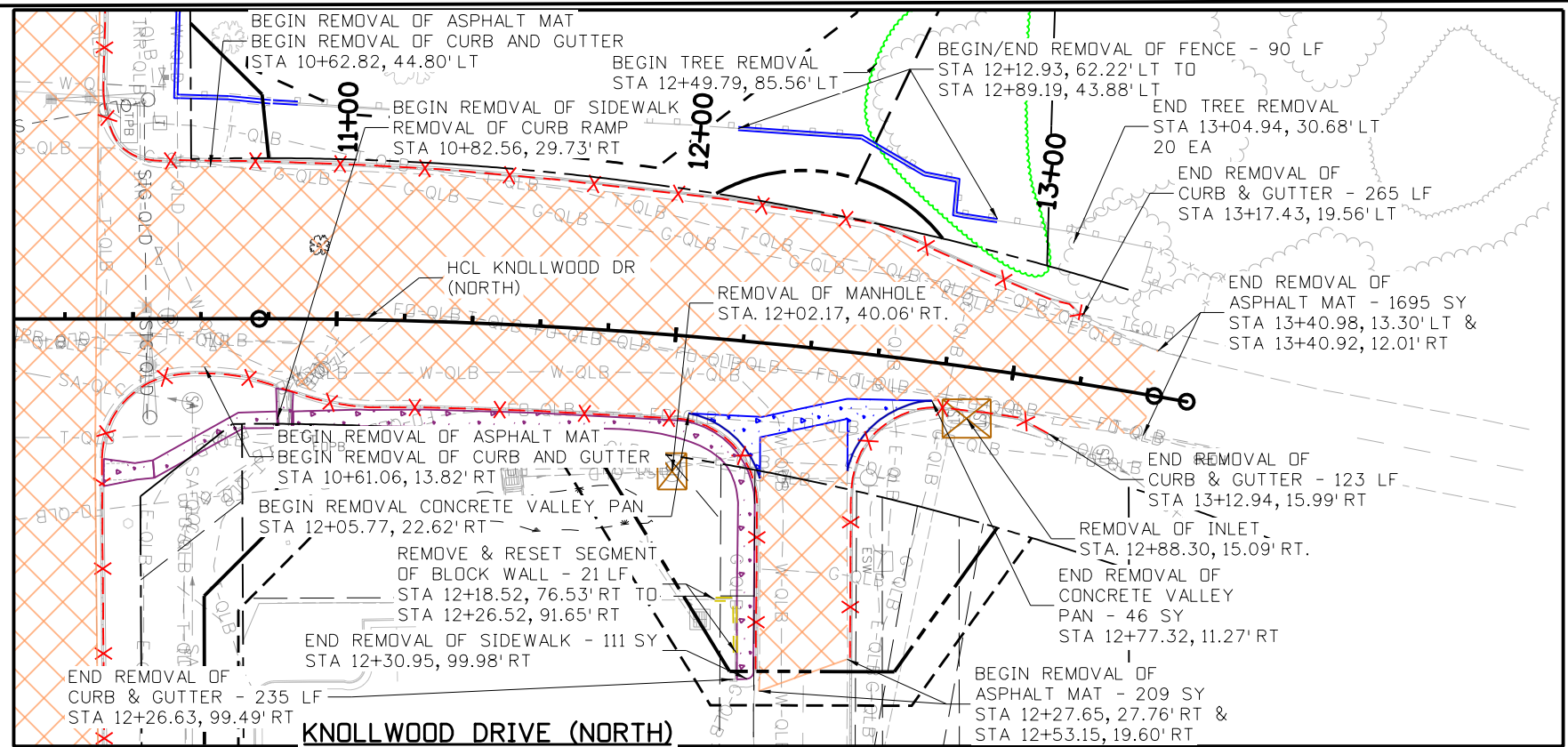


Print Date: 4/18/2023		<b>Sheet Revisions</b>		 <b>EL PASO COUNTY</b> COLORADO S.F. Region 02	<b>As Constructed</b> No Revisions: Revised: Void:	<b>HIGHWAY 105 PROJECT A</b> <b>REMOVAL PLAN</b> <b>STA 104+00 TO STA 132+00</b>		Project No./Code
File Name: 19734DES_ReMOVAL-01.dgn		Date:	Comments			Init.	Designer: C. BEASLEY	Structure Numbers
Horiz. Scale: 1:100		Vert. Scale: None			Revised:	Detailer: J. WILKERT	STA 105A-014	
 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800					Void:	Sheet Subset: REMOVAL	Subset Sheets: 1 of 3	Sheet Number 36 of 251





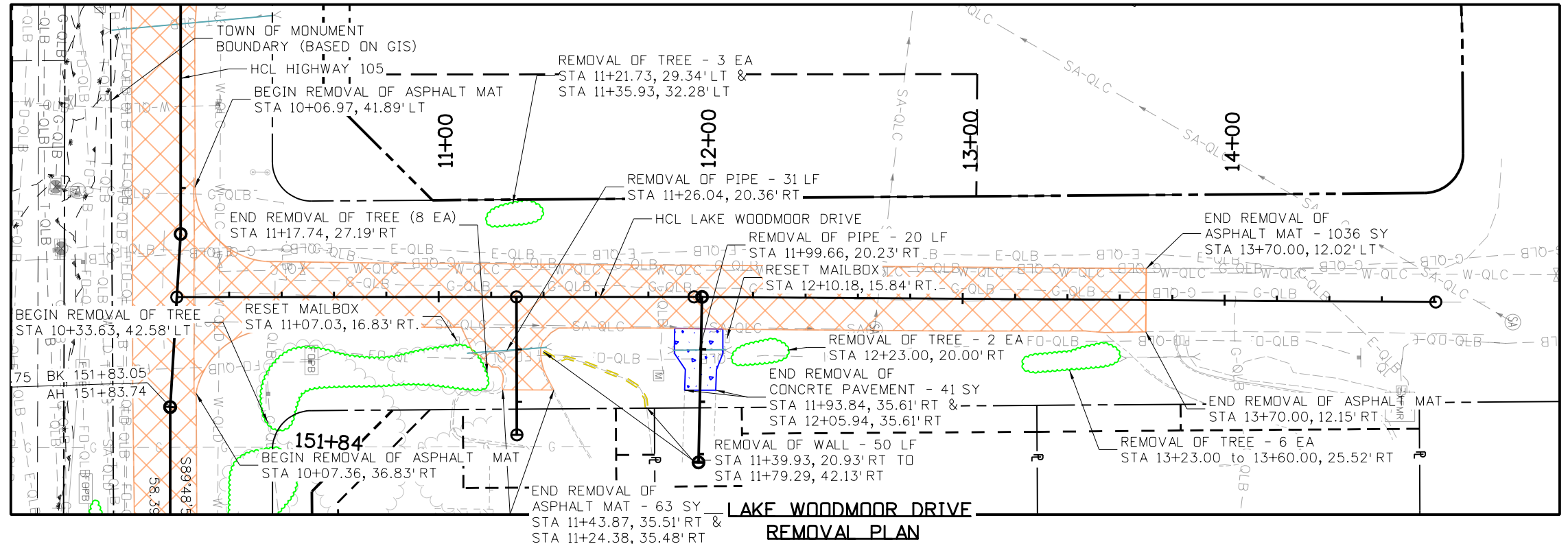
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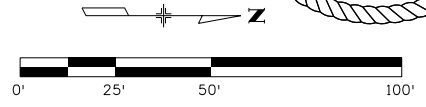
**KNOLLWOOD DRIVE (NORTH)  
REMOVAL PLAN**

**LEGEND**

	REMOVAL OF ASPHALT MAT		REMOVAL OF WALL		REMOVAL OF TREE
	REMOVAL OF CONCRETE PAVEMENT		REMOVAL OF CURB AND GUTTER		REMOVAL OF INLET, MANHOLE OR GATE
	REMOVAL OF SIDEWALK		REMOVAL OF FENCE		REMOVAL OF PIPE
			REMOVAL OF GUARDRAIL		



**LAKE WOODMOOR DRIVE  
REMOVAL PLAN**



Print Date: 4/18/2023  
 File Name: 19734DES\_Removal-03.dgn  
 Horiz. Scale: 1:50.2481 Vert. Scale: None  
**HR** 5555 TECH CENTER DRIVE, SUITE 310  
 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800

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<b>HIGHWAY 105 PROJECT A REMOVAL PLAN KNOLLWOOD &amp; LAKE WOODMOOR</b>	
Designer: C. BEASLEY	Structure Numbers
Detailer: J. WILKERT	
Sheet Subset: REMOVAL	Subset Sheets: 3 of 3

<b>Project No./Code</b>
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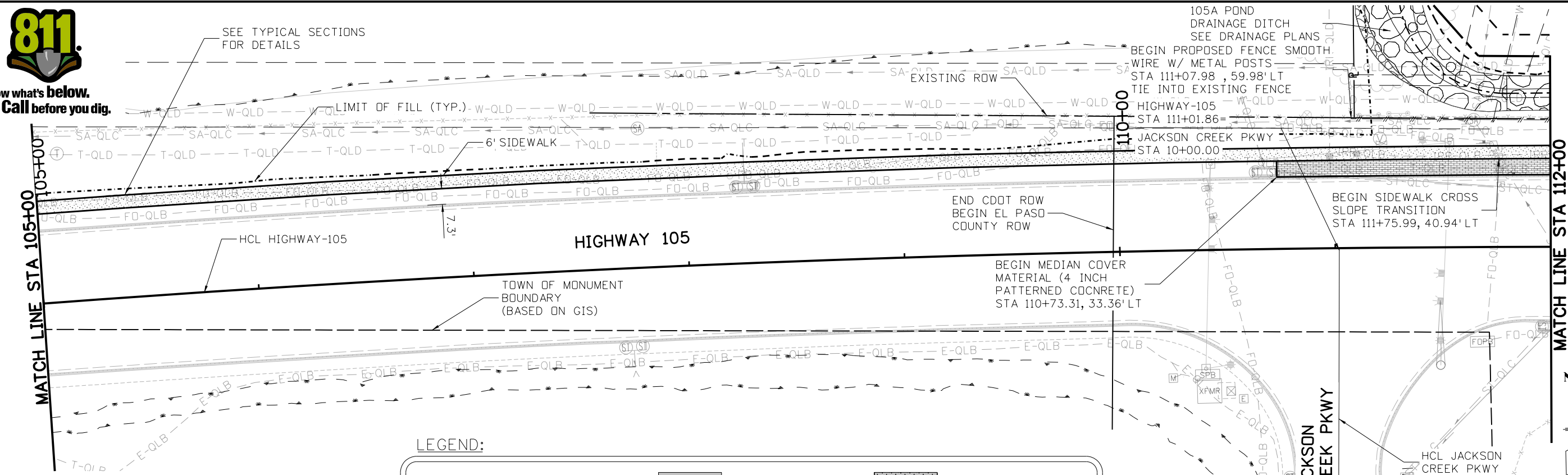






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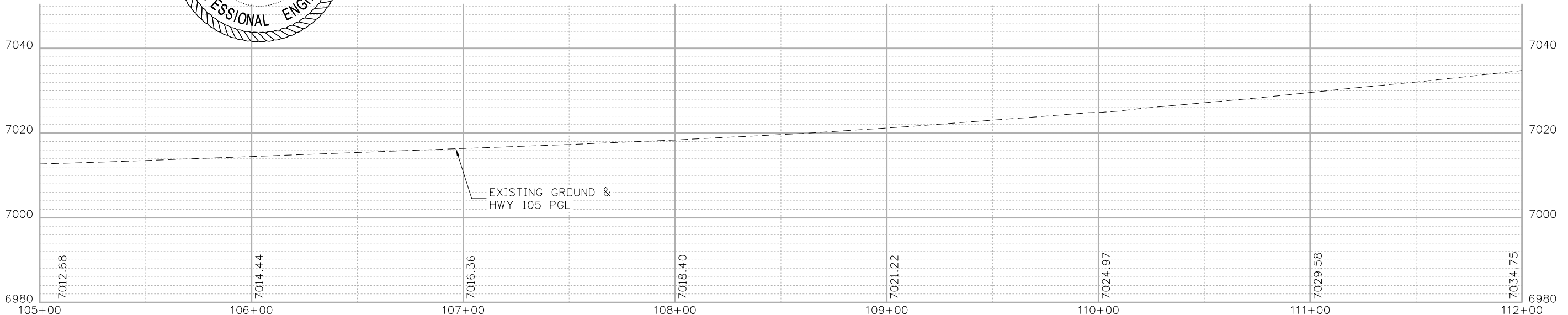


NOTE:  
ROADWAY LABELS ARE TO TOP BACK OF CURB (TBC) UNLESS OTHERWISE NOTED.



LEGEND:

	EXISTING R.O.W.		HOT MIX ASPHALT		CONCRETE PAVEMENT
	EXISTING PROP. LINE		HMA OVERLAY		PATTERNED CONCRETE (SEE EL PASO COUNTY STD DWG SD 2-21)
	EXISTING EASEMENT		CONCRETE SIDEWALK		
	PROPOSED R.O.W.				
	PROPOSED EASEMENT				
	TOP OF CUT				
	TOE OF FILL				



Print Date: 4/18/2023  
 File Name: 19734DES\_PnP-RD-02.dgn  
 Horiz. Scale: 1:50      Vert. Scale: None

**HR** 5555 TECH CENTER DRIVE, SUITE 310  
 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.



<b>As Constructed</b>
No Revisions:
Revised:
Void:

**HIGHWAY 105 PROJECT A  
ROADWAY PLAN AND PROFILE  
HWY 105 STA 105+00 TO 112+00**

Designer: C. BEASLEY  
 Detailer: J. WILKERT  
 Sheet Subset: ROADWAY    Subset Sheets: 2 of 14

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 40 of 251

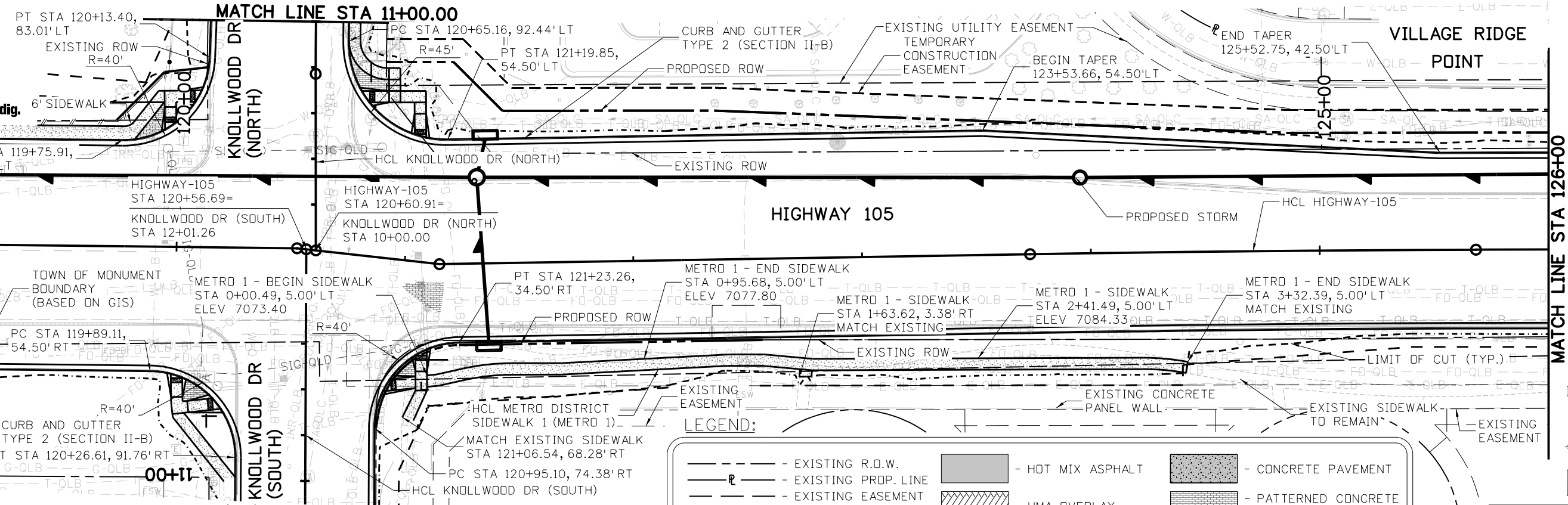
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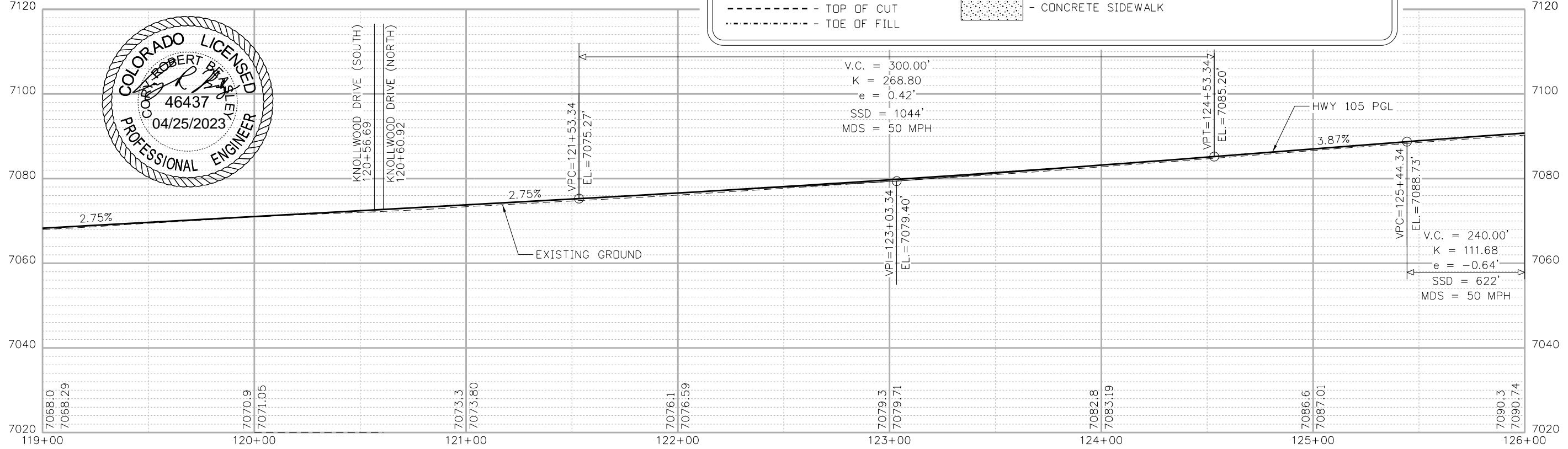
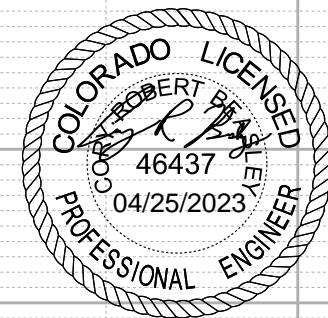
Know what's below.  
Call before you dig.



NOTE:  
ROADWAY LABELS ARE TO TOP BACK OF CURB (TBC)  
UNLESS OTHERWISE NOTED.

**LEGEND:**

- - - - - EXISTING R.O.W.
- - - - - EXISTING PROP. LINE
- - - - - EXISTING EASEMENT
- - - - - PROPOSED R.O.W.
- - - - - PROPOSED EASEMENT
- - - - - TOP OF CUT
- - - - - TOE OF FILL
- [Pattern] - HOT MIX ASPHALT
- [Pattern] - HMA OVERLAY
- [Pattern] - CONCRETE PAVEMENT
- [Pattern] - PATTERNED CONCRETE (SEE EL PASO COUNTY STD DWG SD 2-21)
- [Pattern] - CONCRETE SIDEWALK



Print Date: 4/18/2023  
 File Name: 19734DES\_PnP-RD-04.dgn  
 Horiz. Scale: 1:50      Vert. Scale: None

Sheet Revisions		
Date:	Comments	Init.



**As Constructed**  
 No Revisions:  
 Revised:  
 Void:

**HIGHWAY 105 PROJECT A  
 ROADWAY PLAN AND PROFILE  
 HWY 105 STA 119+00 TO 126+00**

Designer: C. BEASLEY  
 Detailer: J. WILKERT  
 Sheet Subset: ROADWAY      Subset Sheets: 4 of 14

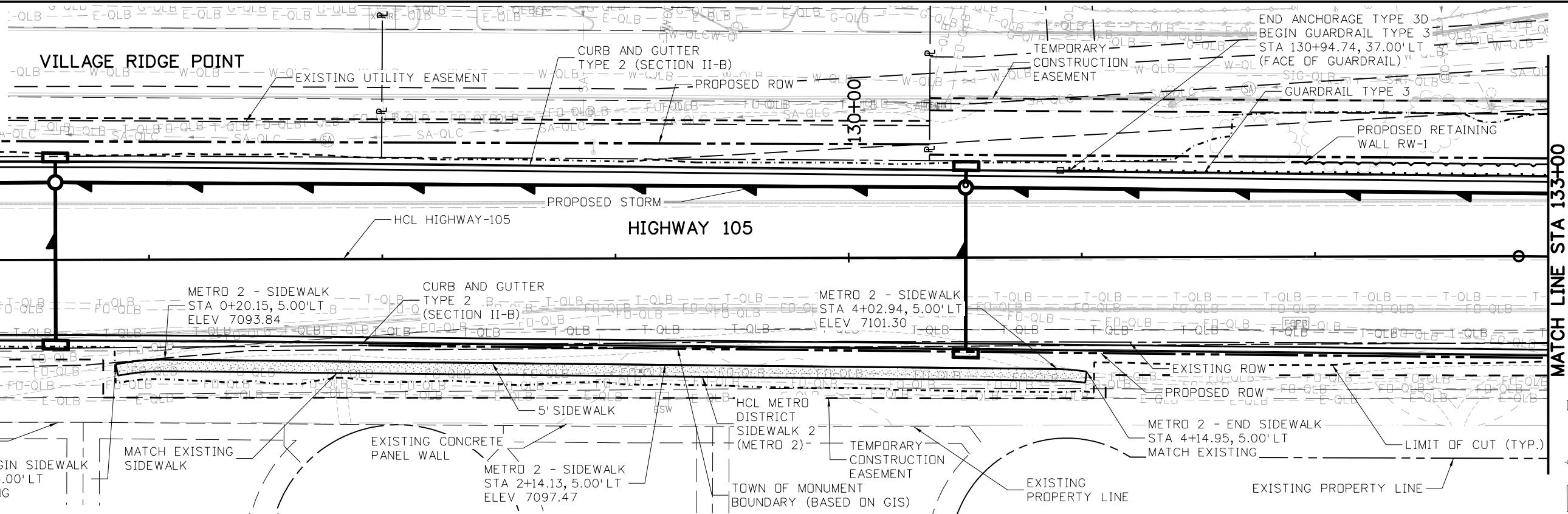
**Project No./Code**  
 19734  
 STA 105A-014  
 Sheet Number 42 of 251

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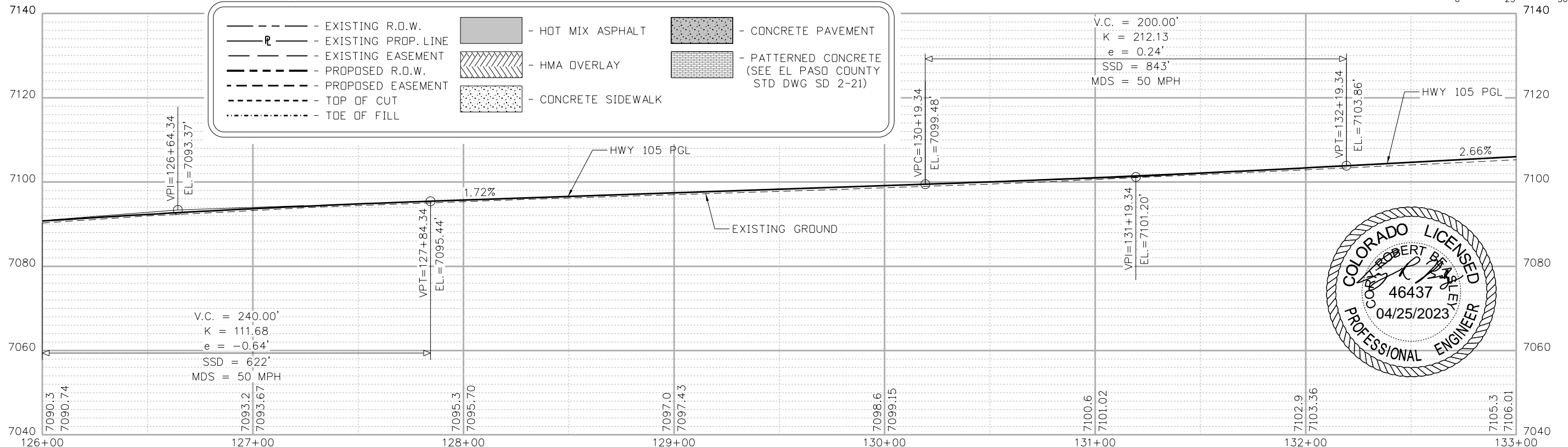
Know what's below.  
Call before you dig.



NOTE: ROADWAY LABELS ARE TO TOP BACK OF CURB (TBC) UNLESS OTHERWISE NOTED.

LEGEND:

	EXISTING R.O.W.		HOT MIX ASPHALT		CONCRETE PAVEMENT
	EXISTING PROP. LINE		HMA OVERLAY		PATTERNED CONCRETE (SEE EL PASO COUNTY STD DWG SD 2-21)
	EXISTING EASEMENT		CONCRETE SIDEWALK		
	PROPOSED R.O.W.				
	PROPOSED EASEMENT				
	TOP OF CUT				
	TOE OF FILL				



Print Date: 4/18/2023  
 File Name: 19734DES\_PnP-RD-05.dgn  
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 5555 TECH CENTER DRIVE, SUITE 310  
 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

EL PASO COUNTY COLORADO  
  
 S.F. Region 02

As Constructed
No Revisions:
Revised:
Void:

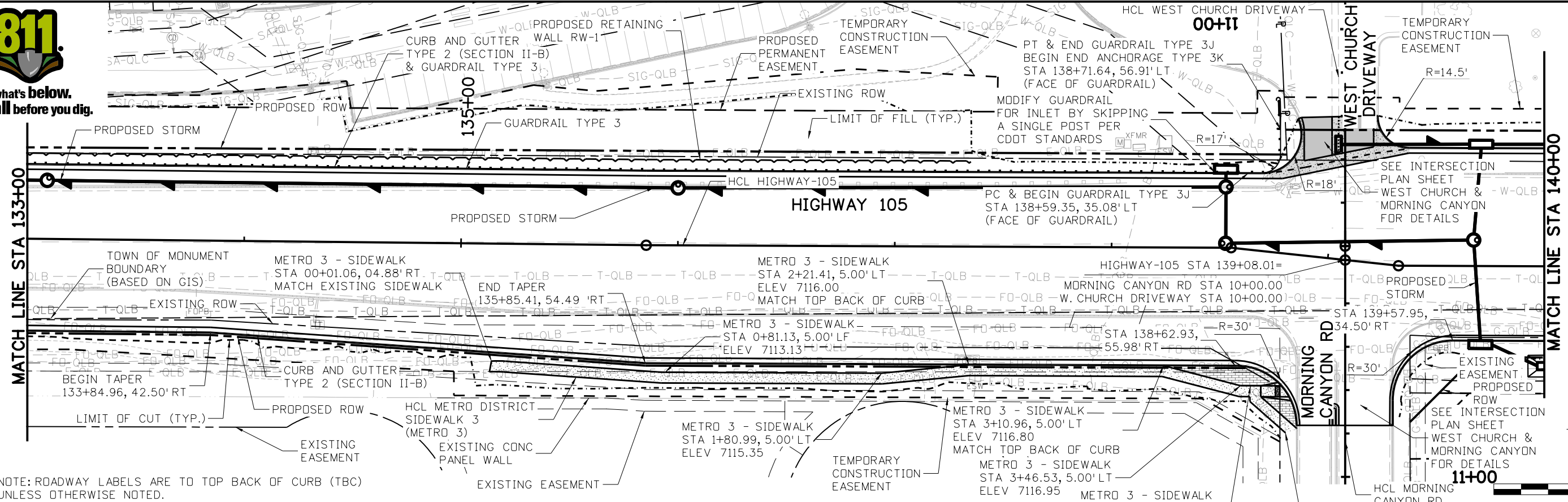
HIGHWAY 105 PROJECT A  
 ROADWAY PLAN AND PROFILE  
 HWY 105 STA 126+00 TO 133+00  
 Designer: C. BEASLEY  
 Detailer: J. WILKERT  
 Sheet Subset: ROADWAY  
 Structure Numbers:       
 Subset Sheets: 5 of 14

Project No./Code	19734
	STA 105A-014
	Sheet Number 43 of 251

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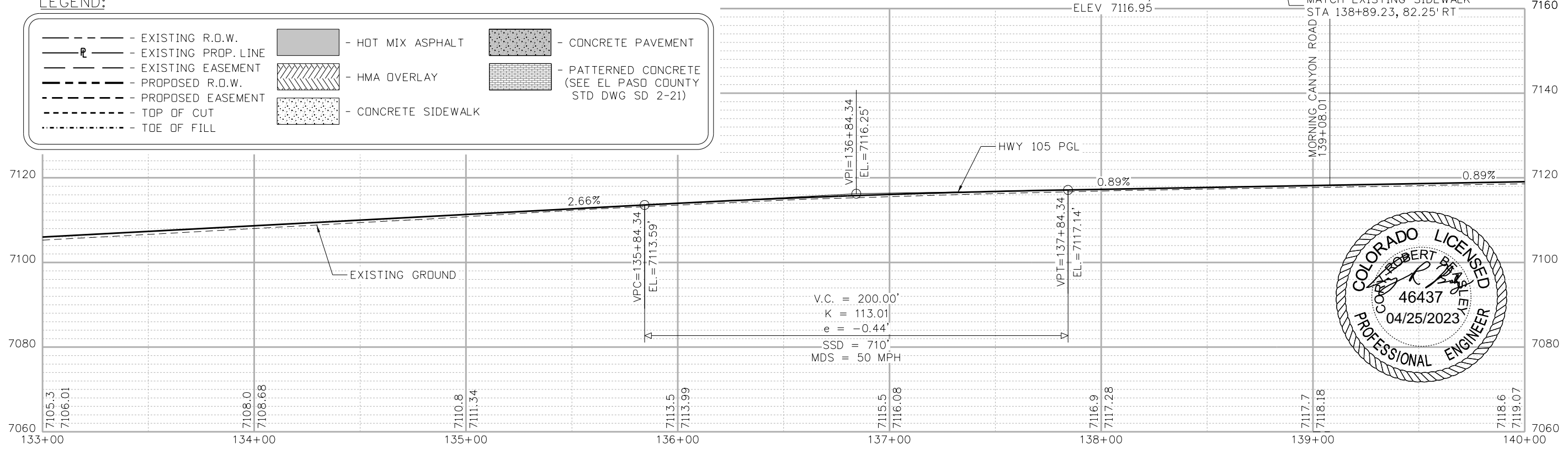
Know what's below.  
Call before you dig.



NOTE: ROADWAY LABELS ARE TO TOP BACK OF CURB (TBC) UNLESS OTHERWISE NOTED.

LEGEND:

	EXISTING R.O.W.		HOT MIX ASPHALT		CONCRETE PAVEMENT
	EXISTING PROP. LINE		HMA OVERLAY		PATTERNED CONCRETE (SEE EL PASO COUNTY STD DWG SD 2-21)
	EXISTING EASEMENT		CONCRETE SIDEWALK		
	PROPOSED R.O.W.				
	PROPOSED EASEMENT				
	TOP OF CUT				
	TOE OF FILL				



Print Date: 4/18/2023  
 File Name: 19734DES\_PnP-RD-06.dgn  
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Sheet Revisions		
Date:	Comments	Init.

EL PASO COUNTY COLORADO  
 S.F. Region 02

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 No Revisions:  
 Revised:  
 Void:

HIGHWAY 105 PROJECT A  
 ROADWAY PLAN AND PROFILE  
 HWY 105 STA 133+00 TO 140+00

Designer: C. BEASLEY  
 Detailer: J. WILKERT  
 Sheet Subset: ROADWAY

Project No./Code  
 19734  
 STA 105A-014  
 Sheet Number 44 of 251

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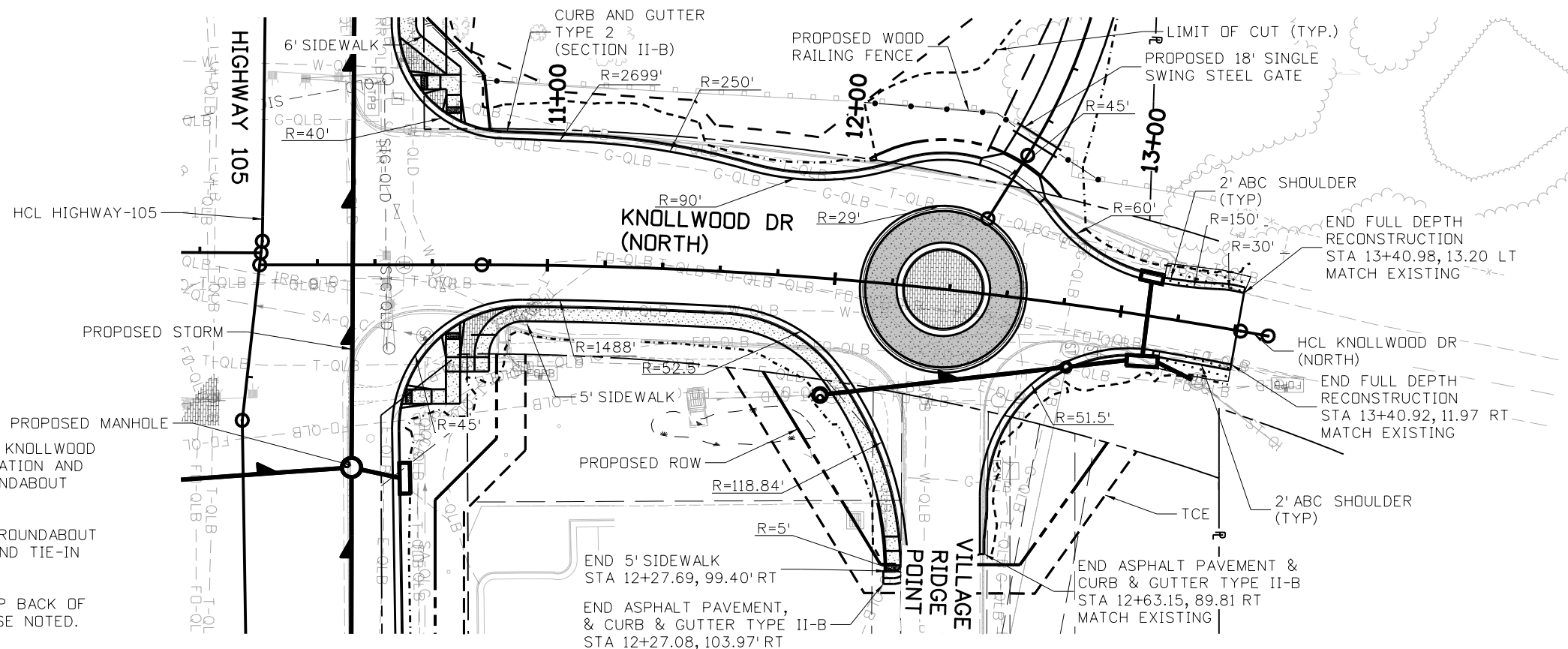








Know what's below.  
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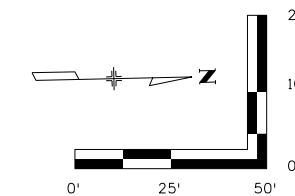
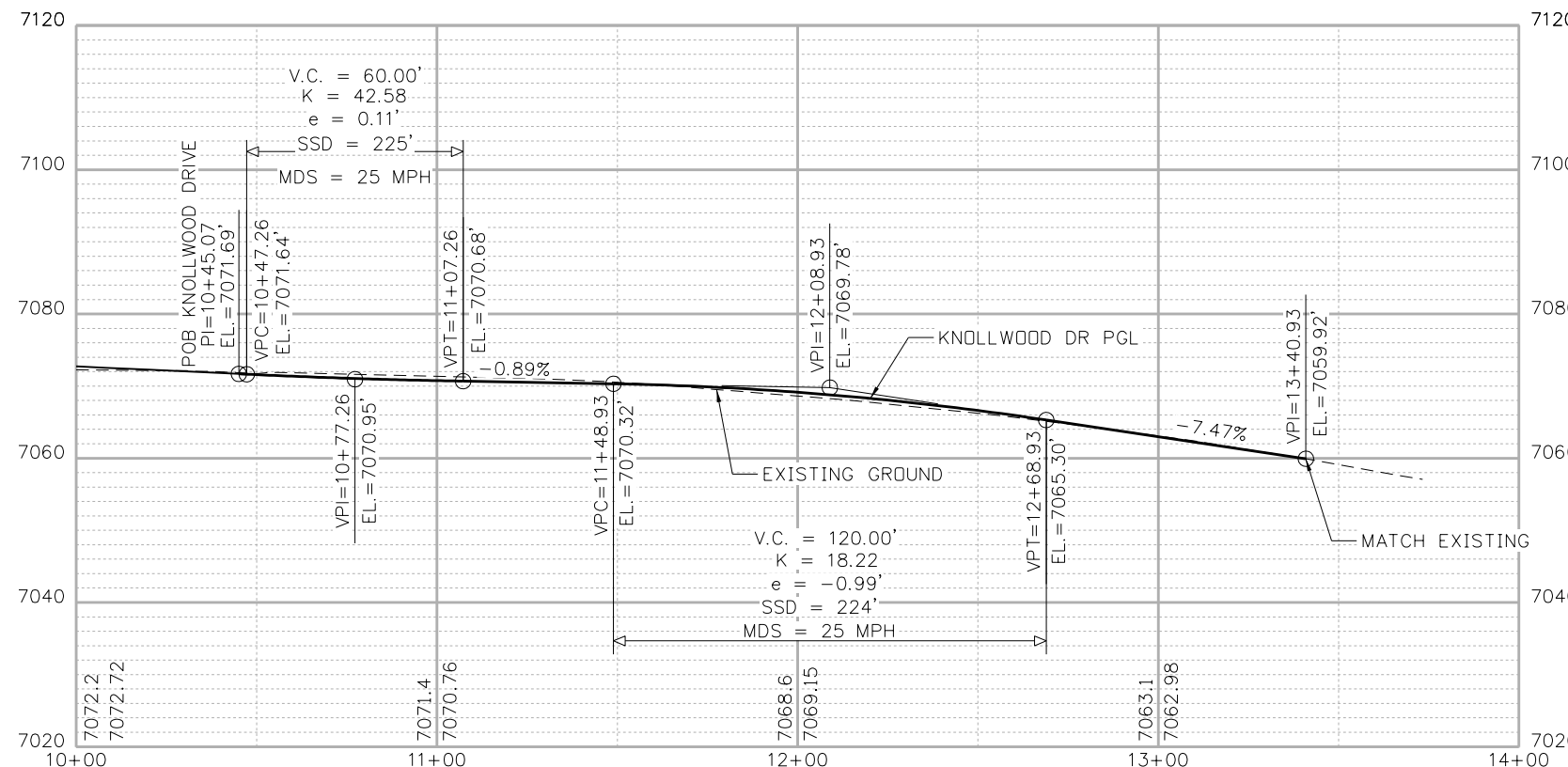


**NOTES:**

- SEE ROADWAY SHEET 12 FOR KNOLLWOOD ROUNDABOUT PROFILE INFORMATION AND GEOMETRY SHEET 3 FOR ROUNDABOUT GEOMETRY INFORMATION.
- SEE ROADWAY SHEET 11 FOR ROUNDABOUT DETAIL SHEET FOR LAYOUT AND TIE-IN INFORMATION.
- ROADWAY LABELS ARE TO TOP BACK OF CURB (TBC) UNLESS OTHERWISE NOTED.

**LEGEND:**

- EXISTING R.O.W.
- EXISTING PROP. LINE
- EXISTING EASEMENT
- PROPOSED R.O.W.
- PROPOSED EASEMENT
- TOP OF CUT
- TOE OF FILL
- HOT MIX ASPHALT
- HMA OVERLAY
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- PATTERNED CONCRETE (SEE EL PASO COUNTY STD DWG SD 2-21)



Print Date: 4/18/2023
File Name: 19734DES_PnP-Knollwood.dgn
Horiz. Scale: 1:50      Vert. Scale: None
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Sheet Revisions		
Date:	Comments	Init.

EL PASO COUNTY COLORADO

S.F. Region 02

CDOT

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No Revisions:
Revised:
Void:

HIGHWAY 105 PROJECT A ROADWAY PLAN AND PROFILE KNOLLWOOD (NORTH)	
Designer: C. BEASLEY	Structure Numbers
Detailer: J. WILKERT	
Sheet Subset: ROADWAY	Subset Sheets: 10 of 14

Project No./Code
19734
STA 105A-014
Sheet Number 48 of 251

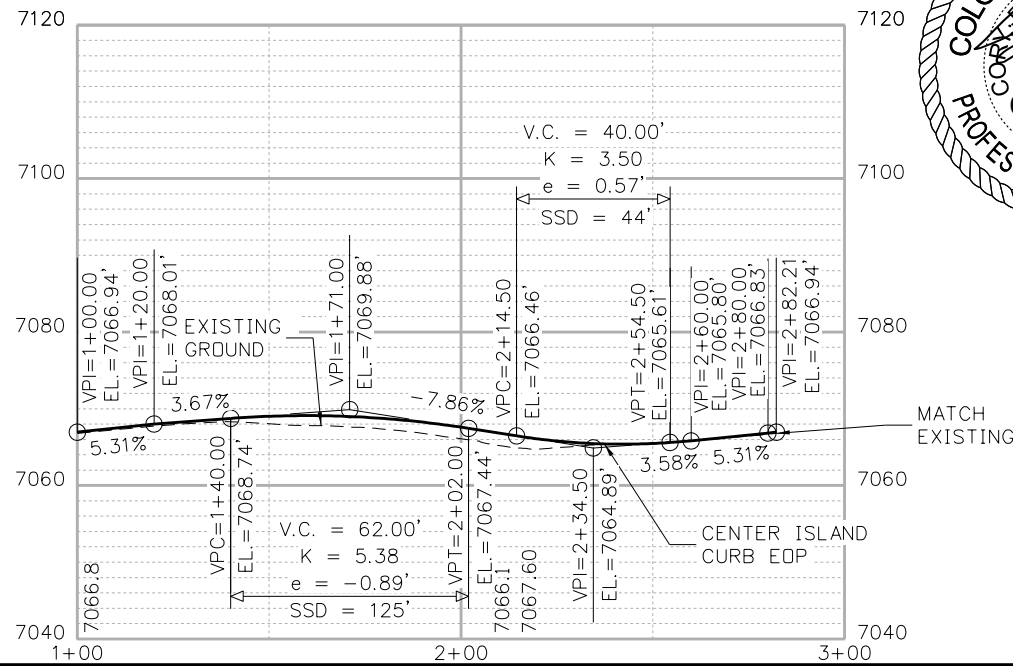
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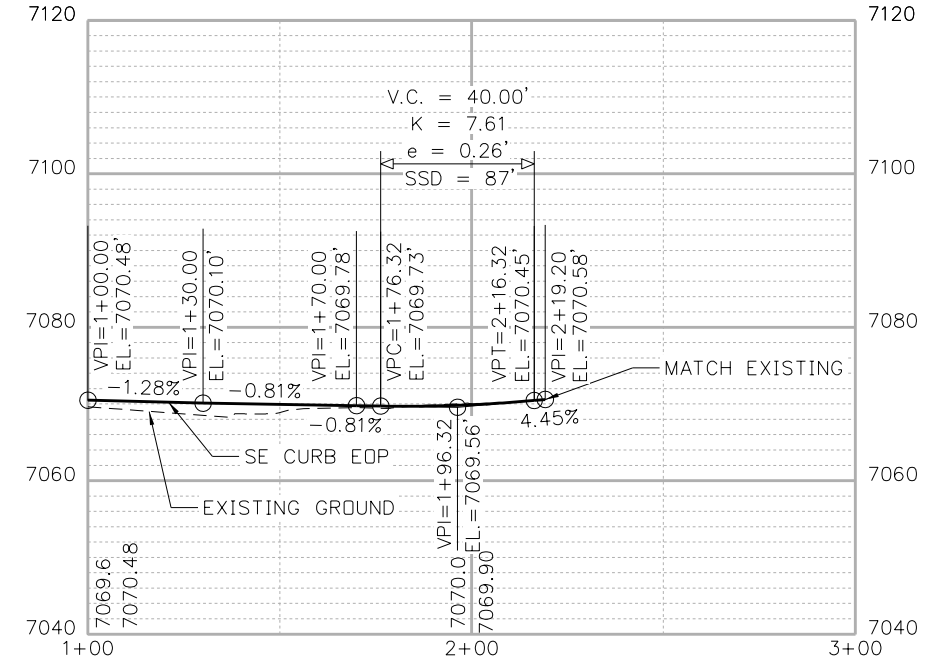




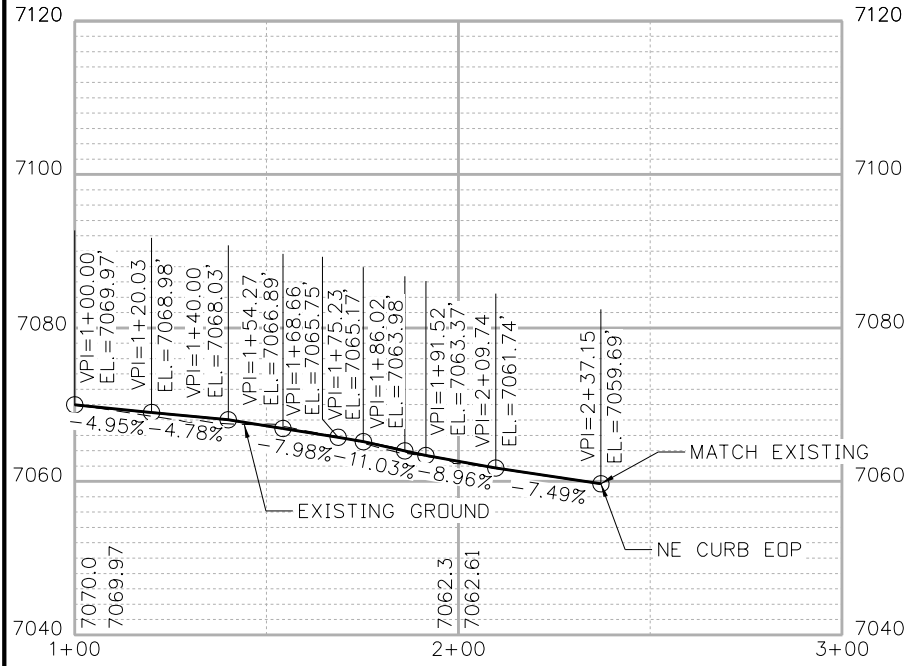
Know what's below.  
Call before you dig.



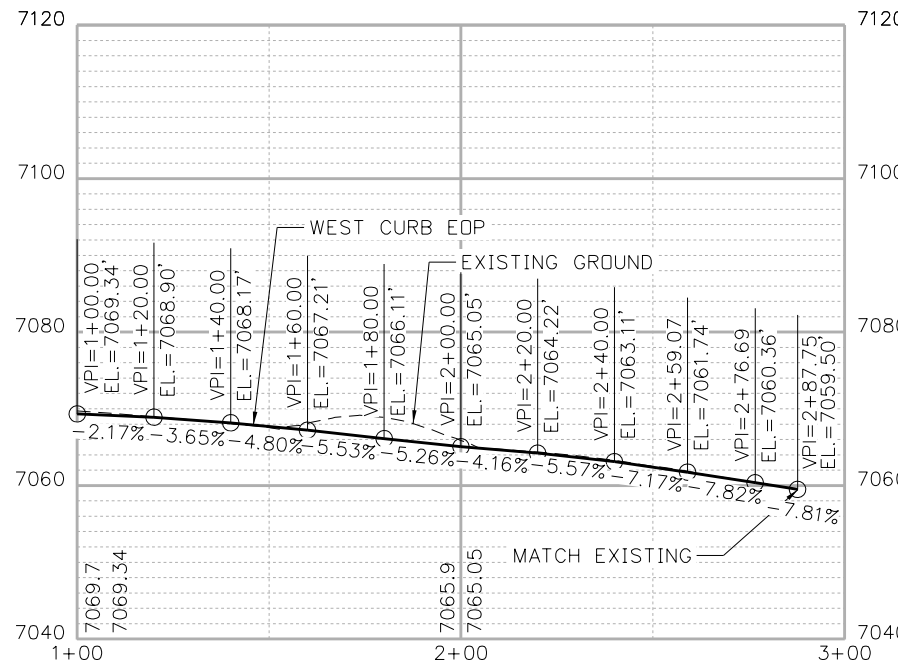
CENTER ISLAND EOP PROFILE



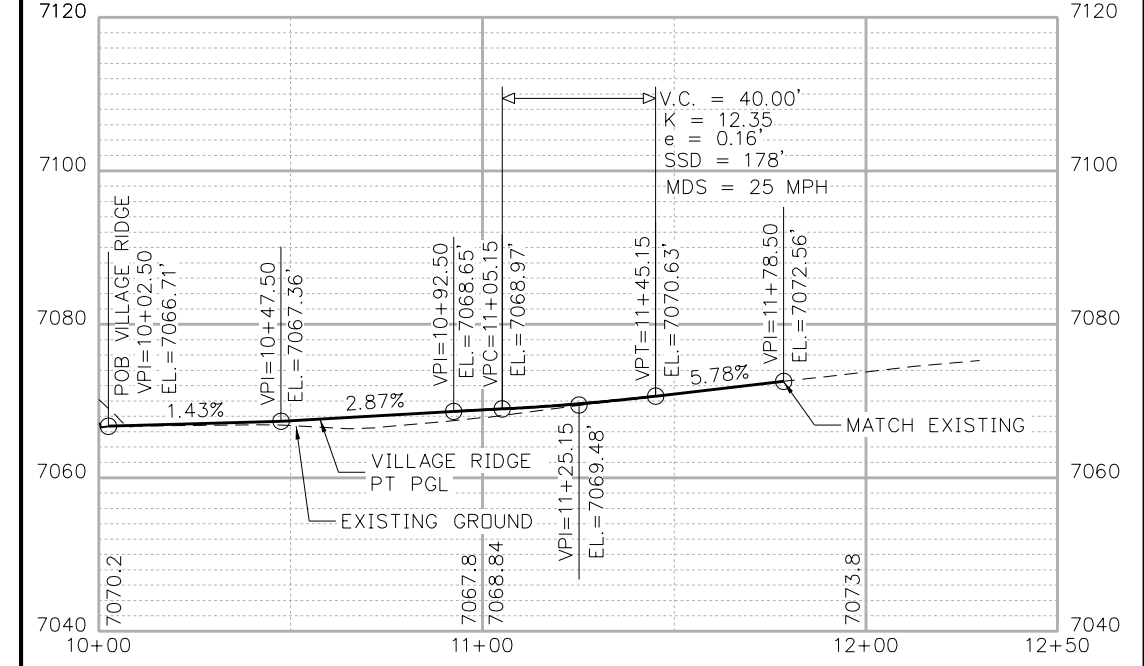
SOUTHEAST CURB EOP PROFILE



NORTHEAST CURB EOP PROFILE



WEST CURB EOP PROFILE



VILLAGE RIDGE POINT PROFILE

Print Date: 4/18/2023  
File Name: 19734DES\_PnP-Roundabout\_Profiles.dgn  
Horiz. Scale: 1:50  
Vert. Scale: None

Sheet Revisions		
Date:	Comments	Init.



As Constructed  
No Revisions:  
Revised:  
Void:

HIGHWAY 105 PROJECT A  
KNOLLWOOD ROUNDABOUT  
PROFILES  
Designer: C. BEASLEY  
Detailer: J. WILKERT  
Sheet Subset: ROADWAY  
Structure Numbers:  
Subset Sheets: 12 of 14

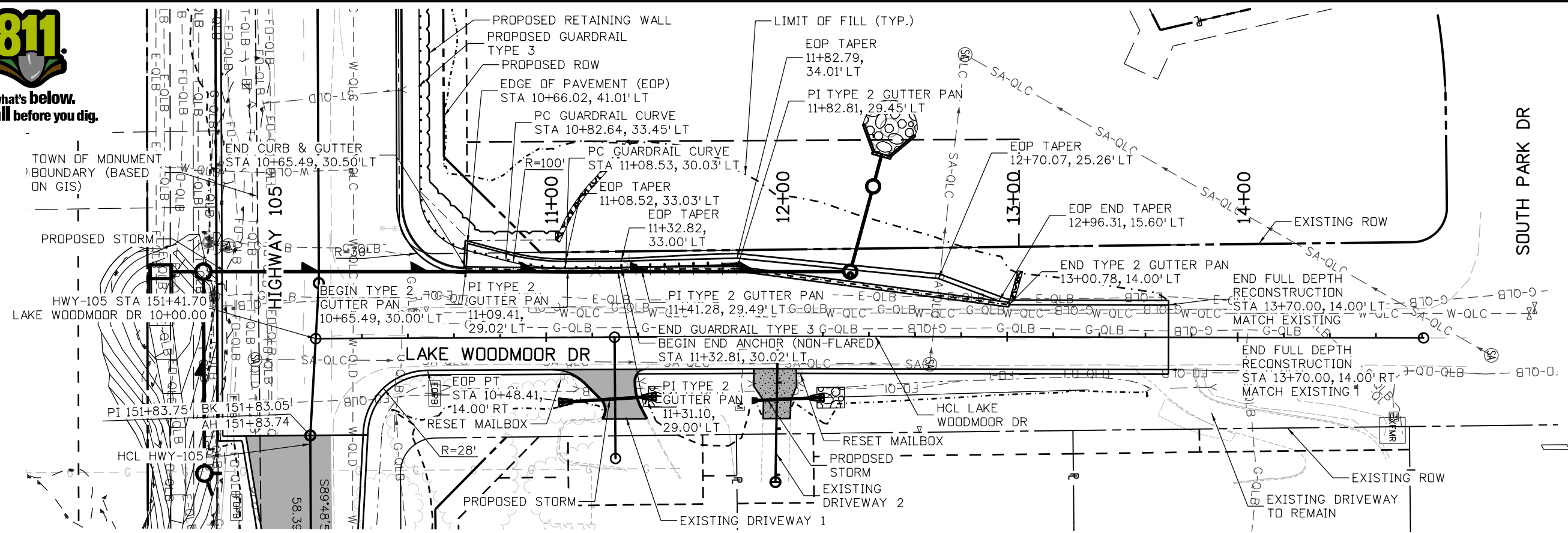
Project No./Code  
19734  
STA 105A-014  
Sheet Number 50 of 251

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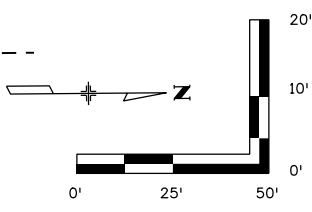




Know what's below.  
Call before you dig.



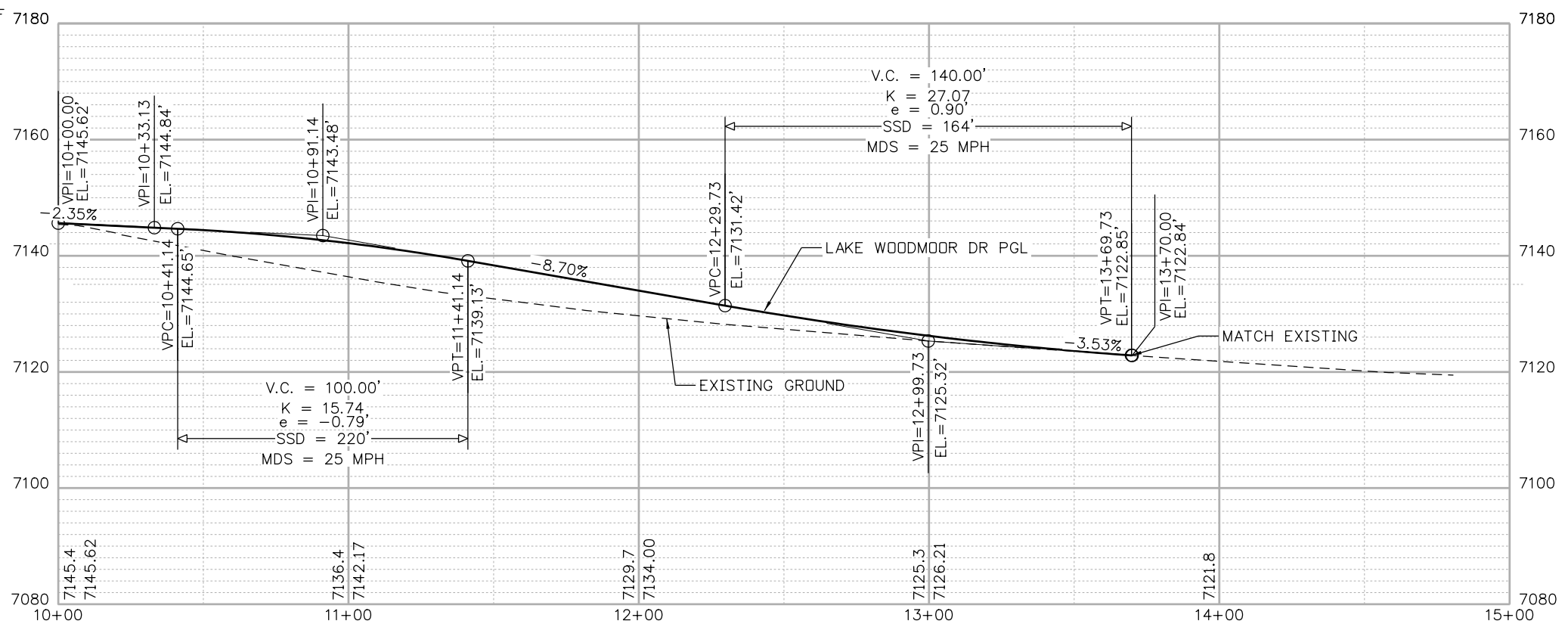
SOUTH PARK DR



- NOTES:
- ROADWAY LABELS ARE TO TOP BACK OF CURB (TBC) UNLESS NOTED OTHERWISE.
  - EDGE OF PAVEMENT WITH NO CURB & GUTTER WILL HAVE MINIMUM 2' ABC SHOULDER UNLESS NOTED OTHERWISE.

LEGEND:

- EXISTING R.O.W.
- P- EXISTING PROP. LINE
- - - EXISTING EASEMENT
- - - PROPOSED R.O.W.
- - - PROPOSED EASEMENT
- - - TOP OF CUT
- - - TOE OF FILL
- [Pattern] - HOT MIX ASPHALT
- [Pattern] - HMA OVERLAY
- [Pattern] - CONCRETE SIDEWALK
- [Pattern] - CONCRETE PAVEMENT
- [Pattern] - PATTERNED CONCRETE (SEE EL PASO COUNTY STD DWG SD 2-21)



Print Date: 4/25/2023  
 File Name: 19734DES\_PnP-Lake\_Woodmoor.dgn  
 Horiz. Scale: 1:50 Vert. Scale: None

Sheet Revisions		
Date:	Comments	Init.

EL PASO COUNTY COLORADO

S.F. Region 02

As Constructed  
 No Revisions:  
 Revised:  
 Void:

HIGHWAY 105 PROJECT A  
 ROADWAY PLAN AND PROFILE  
 LAKE WOODMOOR

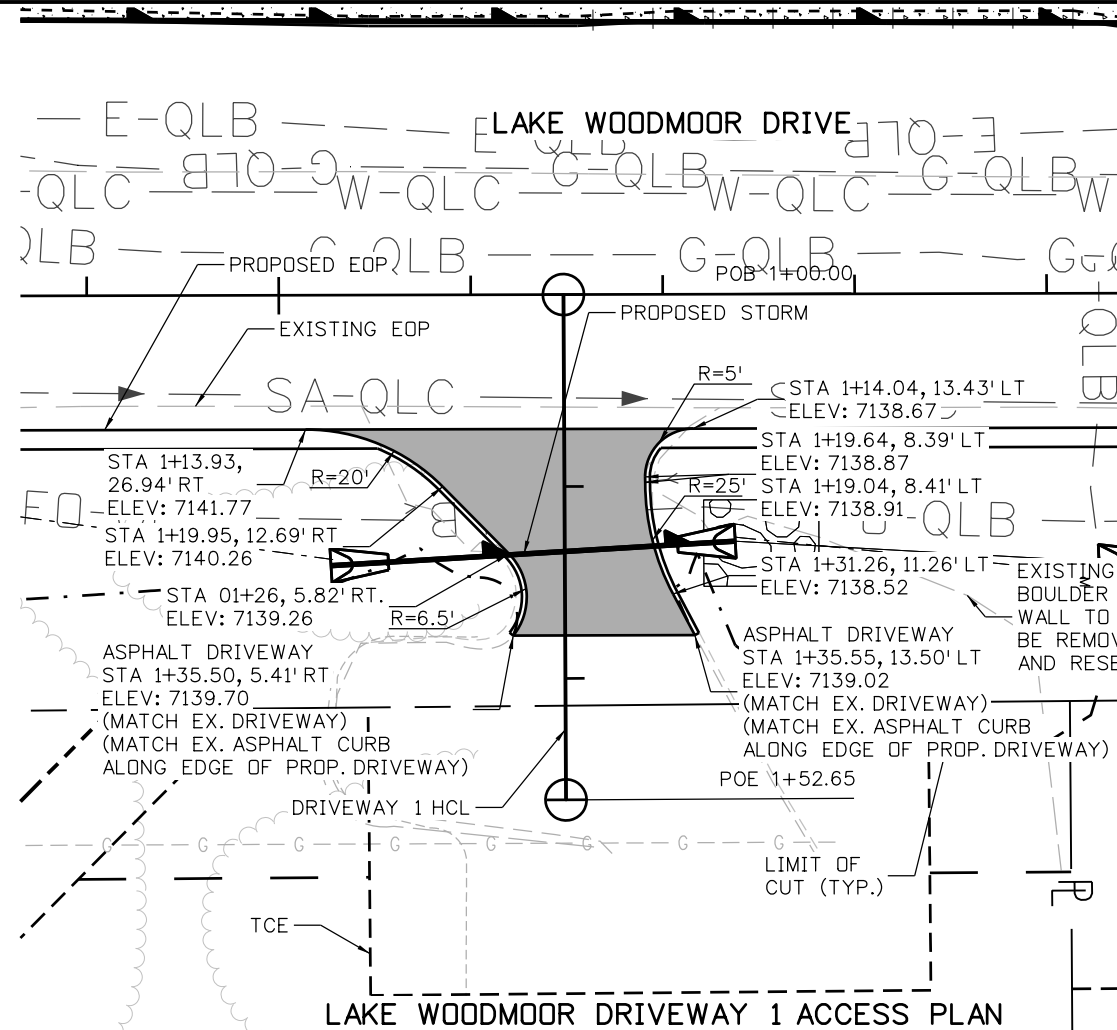
Designer: C. BEASLEY  
 Detailer: J. WILKERT  
 Sheet Subset: ROADWAY

Project No./Code  
 19734  
 STA 105A-014  
 Sheet Number

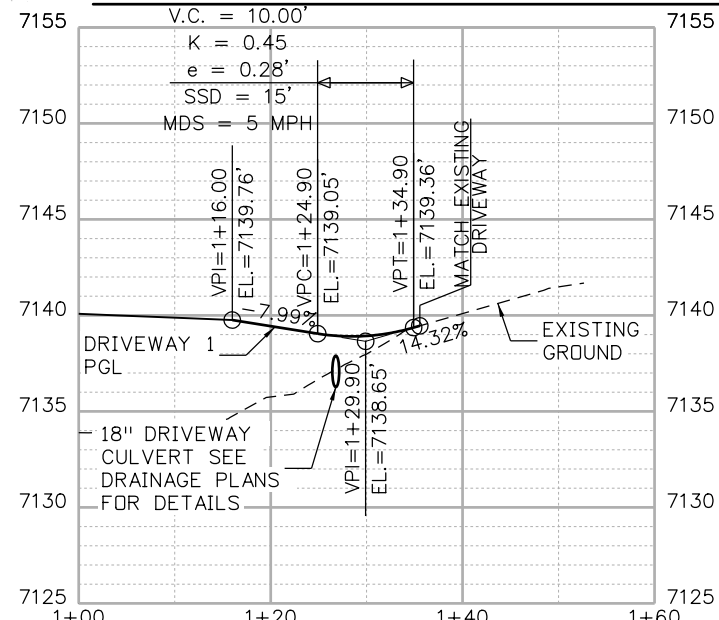
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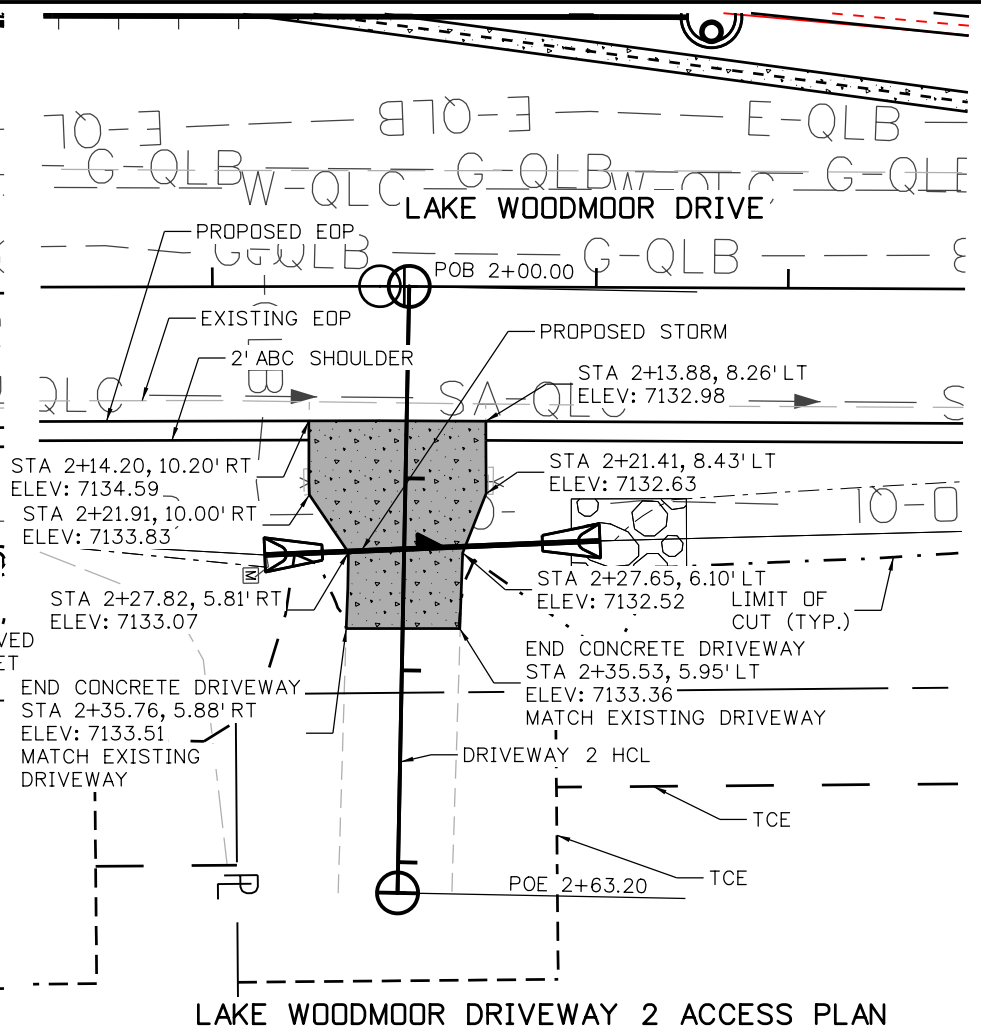
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Call before you dig.



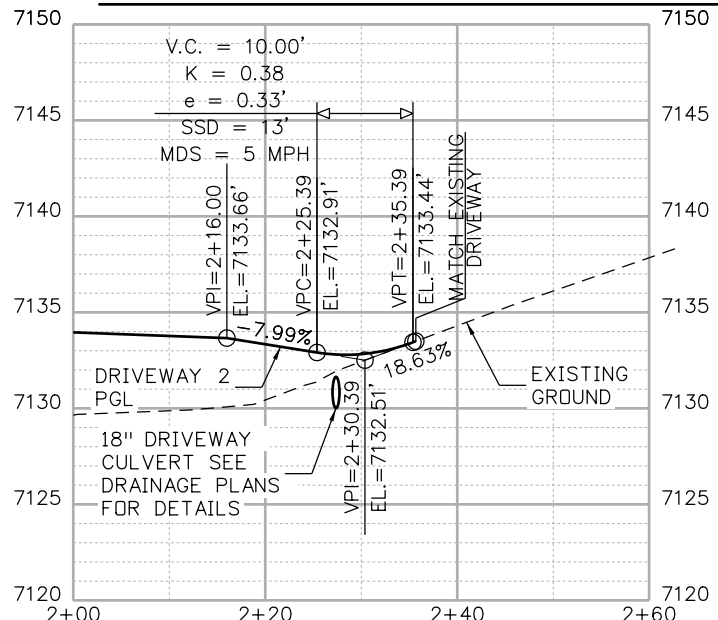
LAKE WOODMOOR DRIVEWAY 1 ACCESS PLAN



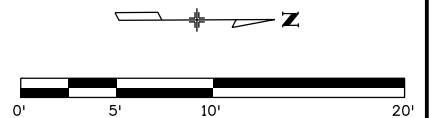
DRIVEWAY 1 PROFILE



LAKE WOODMOOR DRIVEWAY 2 ACCESS PLAN



DRIVEWAY 2 PROFILE



Print Date: 4/25/2023
File Name: 19734DES_Access-Woodmoor.dgn
Horiz. Scale: 1:20      Vert. Scale: None
<b>HR</b> 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

EL PASO COUNTY COLORADO

S.F. Region 02

CDOT

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No Revisions:
Revised:
Void:

HIGHWAY 105 PROJECT A INTERSECTION PLAN SHEET LAKE WOODMOOR DRIVEWAYS	
Designer: C. BEASLEY	Structure Numbers
Detailer: J. WILKERT	
Sheet Subset: INTERSECT	Subset Sheets: 14 of 14

Project No./Code
19734
STA 105A-014
Sheet Number

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**TABULATION OF DRAINAGE STRUCTURES**

DESCRIPTION	DRAINAGE STRUCTURE ID	202-00019	202-00021	202-00035	202-00037	202-04002	210-04010	202-04007	202-04000	216-00201	216-00302	304-06007	420-00133	506-00209	506-00224	506-00409	507-00100	514-00100	601-01025	601-03030	REMARKS	
		Removal of Inlet	Removal of Manhole	Removal of Pipe	Removal of End Section	Clean Culvert	Adjust Manhole	Plug Culvert	Plug Structure	Soil Retention Blanket (Straw-Coconut) (Biodegradable Class 1)	Turf Reinforcement Mat (Class 2)	Aggregate Base Course (Class 6)	Geotextile (Separator) (Class 2)	Riprap (9 Inch)	Riprap (24 Inch)	Soil Riprap (9 Inch)	Concrete Slope and Ditch Paving (Reinforced)	Hand Rail	Concrete Class B	Concrete Class D (Box Culvert)		
		EACH	EACH	LF	EACH	EACH	EACH	CY	EACH	SY	SY	CY	SY	CY	CY	CY	CY	LF	CY	CY		
LINE 138	IN-138L-B																					
LINE 139	IN-138L-A																					
LINE 139	IN-139L-A																					
LINE 139	IN-139R-B																					
LINE 139	IN-139R-C																1.9					Inlet with concrete apron
LINE 140	IN-142L-A																					
LINE 140	IN-146L-A																					
LINE 146	IN-146R-B																					
LINE 146	IN-147R-A																					
LINE 151 / LW-LT	IN-151R-B			62	2	2																
LINE 151 / LW-LT	MH-151R-A																					
LINE 151 / LW-LT	MH-LW-12L-A																					
LINE 151 / LW-LT	MH-LW-12L-B												57		172			37		13		Plan View Area x 1.15 for slope
LINE 51 RT	MH-152R-A								2	414	414											Plan View Area x 1.15 for slope
LINE - LW-RT	FES-LW-11									195	195		8	4	--				1			Plan View Area x 1.15 for slope
LINE - LW-RT	FES-LW-12									386	386		8	4					1			Plan View Area x 1.15 for slope
LINE - KN-RT	MH-K-12-A		1	85																		
LINE - KN-RT	IN-K-13R-B	1		38						18	18											
LINE - KN-RT	MH-K-13-A																			1		
LINE - KN-LT	IN-K-13L-A									22	22											
<b>PROJECT TOTALS</b>	<b>PROJECT TOTALS</b>	<b>5</b>	<b>1</b>	<b>768</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>4,233</b>	<b>2</b>	<b>1,697</b>	<b>1,697</b>	<b>227</b>	<b>836</b>	<b>387</b>	<b>172</b>	<b>3</b>	<b>97</b>	<b>97</b>	<b>6</b>	<b>31</b>		

\* STRUCTURE EXCAVATION, STRUCTURE BACKFILL, UNCLASSIFIED EXCAVATION, AND PIPE BEDDING REQUIRED FOR ALL STORM SEWER PIPES, MANHOLES, INLETS, AND OUTLET STRUCTURES WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK. GRATES, TRASH RACK, STEEL PLATES, AND TRASH SCREEN FOR THE POND OUTLET STRUCTURE WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE WORK.

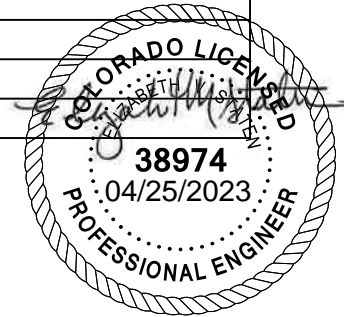


Print Date: 4/12/2023				As Constructed		HIGHWAY 105 PROJECT A DRAINAGE TABULATIONS		Project No./Code		
File Name: 19734HYDR_GENERAL-03.dgn				No Revisions:	Designer: E.STATEN		Structure Numbers		19734	
Horiz. Scale: 1:10    Vert. Scale: None				Revised:	Detailer: E.STATEN		Sheet Subst: DRN-GEN		STA 105A-014	
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800		S.F.	Region 02	Void:	Subset Sheets:    of	Sheet Number				

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### TABULATION OF DRAINAGE STRUCTURES

DESCRIPTION	DRAINAGE STRUCTURE ID	603-01185	603-01245	603-01305	603-01365	603-01485	603-05018	603-05036	604-00505	604-00550	604-19105	604-19205	604-19210	604-16505	604-16550	604-20000	604-30010	604-30015	REMARKS
		18 Inch Reinforced Concrete Pipe (Complete In Place) LF	24 Inch Reinforced Concrete Pipe (Complete In Place) LF	30 Inch Reinforced Concrete Pipe (Complete In Place) LF	36 Inch Reinforced Concrete Pipe (Complete In Place) LF	48 Inch Reinforced Concrete Pipe (Complete In Place) LF	18 Inch Reinforced Concrete End Section EACH	36 Inch Reinforced Concrete End Section EACH	Inlet Type D (5 Foot) EACH	Inlet Type D (Special) EACH	Inlet Type R L 5 (5 Foot) EACH	Inlet Type R L 10 (5 Foot) EACH	Inlet Type R L 10 (10 Foot) EACH	Inlet Type 16 (Double) (5 Foot) EACH	Inlet Type 16 (Double) (Special) EACH	Outlet Structure EACH	Manhole Slab Base (10 Foot) EACH	Manhole Slab Base (15 Foot) EACH	
LINE EX 110L	MH-114A_EX_L																		Existing Line
LINE EX 110L	IN-114L-B		14										1						Connect to existing manhole
POND 115 OUTFALL CHANNEL																			
LINE 115 (POND)	IN-115L-A	95														1			See Pond Details
POND 115 SPILLWAY																			
POND TRICKLE CHANNEL																			
POND FOREBAY																			
POND ACCESS ROAD																			
LINE EX 110R	IN-113R-A										1								Connect to Existing Pipe
LINE EX 110R	IN-117R-C	290									1								
TRUNK LINE	IN-117L-B				54				1			1							
TRUNK LINE	MH-117L-A				17												1		
TRUNK LINE	MH-119L-A																1		
TRUNK LINE	MH-121-A				402												1		
TRUNK LINE	MH-123-A				259												1		
TRUNK LINE	MH-127-A				260												1		
TRUNK LINE	MH-130-A			385													1		
TRUNK LINE	MH-133-A			254													1		
TRUNK LINE	MH-136-A			286													1		
TRUNK LINE	MH-138-C			248													1		
TRUNK LINE	MH-138-A			21													1		
TRUNK LINE	MH-139-D			109													1		
LINE 121	IN-121L-B	14											1						
LINE 121	IN-121R-C	70											1						
LINE 127	IN-127L-B	7											1						
LINE 127	IN-127R-C	66											1						
LINE 133	IN-133L-B	5											1						
LINE 133	IN-133R-C	67											1						



Print Date: 4/12/2023 File Name: 19734HYDR_GENERAL-04.dgn Horiz. Scale: 1:10    Vert. Scale: None	<b>Sheet Revisions</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">Date:</th> <th style="width: 55%;">Comments</th> <th style="width: 30%;">Init.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Date:	Comments	Init.							<b>EL PASO COUNTY</b> COLORADO S.F.	<b>CDOT</b> CO Region 02	As Constructed No Revisions: Revised: Void:	<b>HIGHWAY 105 PROJECT A DRAINAGE TABULATIONS</b> Designer: E.STATEN Detailer: E.STATEN Sheet Subset: DRN-GEN	Structure Numbers Subset Sheets:    of	Project No./Code 19734 STA 105A-014 Sheet Number
Date:	Comments	Init.														

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### TABULATION OF DRAINAGE STRUCTURES

DESCRIPTION	DRAINAGE STRUCTURE ID	603-01185	603-01245	603-01305	603-01365	603-01485	603-05018	603-05036	604-00505	604-00550	604-19105	604-19205	604-19210	604-16505	604-16550	604-20000	604-30010	604-30015	REMARKS
		18 Inch Reinforced Concrete Pipe (Complete In Place) LF	24 Inch Reinforced Concrete Pipe (Complete In Place) LF	30 Inch Reinforced Concrete Pipe (Complete In Place) LF	36 Inch Reinforced Concrete Pipe (Complete In Place) LF	48 Inch Reinforced Concrete Pipe (Complete In Place) LF	18 Inch Reinforced Concrete End Section EACH	36 Inch Reinforced Concrete End Section EACH	Inlet Type D (5 Foot) EACH	Inlet Type D (Special) EACH	Inlet Type R L 5 (5 Foot) EACH	Inlet Type R L 10 (5 Foot) EACH	Inlet Type R L 10 (10 Foot) EACH	Inlet Type 16 (Double) (5 Foot) EACH	Inlet Type 16 (Double) (Special) EACH	Outlet Structure EACH	Manhole Slab Base (10 Foot) EACH	Manhole Slab Base (15 Foot) EACH	
LINE 138	IN-138L-B	4											1						
LINE 139	IN-138L-A	60		130											1				Type 16 Valley Inlet
LINE 139	IN-139L-A			40									1						
LINE 139	IN-139R-B		44										1						
LINE 139	IN-139R-C	24							1										Inlet with concrete apron
LINE 140	IN-142L-A		273									1							
LINE 140	IN-146L-A	333									1								
LINE 146	IN-146R-B	84									1								
LINE 146	IN-147R-A	149										1							
LINE 151 / LW-LT	IN-151R-B				12					1									See Lake Woodmoor Details
LINE 151 / LW-LT	MH-151R-A				276												1		
LINE 151 / LW-LT	MH-LW-12L-A				39													1	
LINE 151 / LW-LT	MH-LW-12L-B					12											1		See Lake Woodmoor Details
LINE 51 RT	MH-152R-A				83												1		Includes 2 Stub pipes at MH
LINE - LW-RT	FES-LW-11	42					2												
LINE - LW-RT	FES-LW-12	35					2												Includes Pipe Saddle
LINE - KN-RT	MH-K-12-A	83																1	Connect to Existing Pipe
LINE - KN-RT	IN-K-13R-B	14											1						
LINE - KN-RT	MH-K-13-A	20																	
LINE - KN-LT	IN-K-13L-A	27												1					
<b>PROJECT TOTALS</b>	<b>PROJECT TOTALS</b>	<b>1,489</b>	<b>331</b>	<b>1,473</b>	<b>1,402</b>	<b>12</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>9</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>14</b>	<b>2</b>	

\* STRUCTURE EXCAVATION, STRUCTURE BACKFILL, UNCLASSIFIED EXCAVATION, AND PIPE BEDDING REQUIRED FOR ALL STORM SEWER PIPES, MANHOLES, INLETS, AND OUTLET STRUCTURES WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK. GRATES, TRASH RACK, STEEL PLATES, AND TRASH SCREEN FOR THE POND OUTLET STRUCTURE WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE WORK.



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Date:	Comments	Init.														





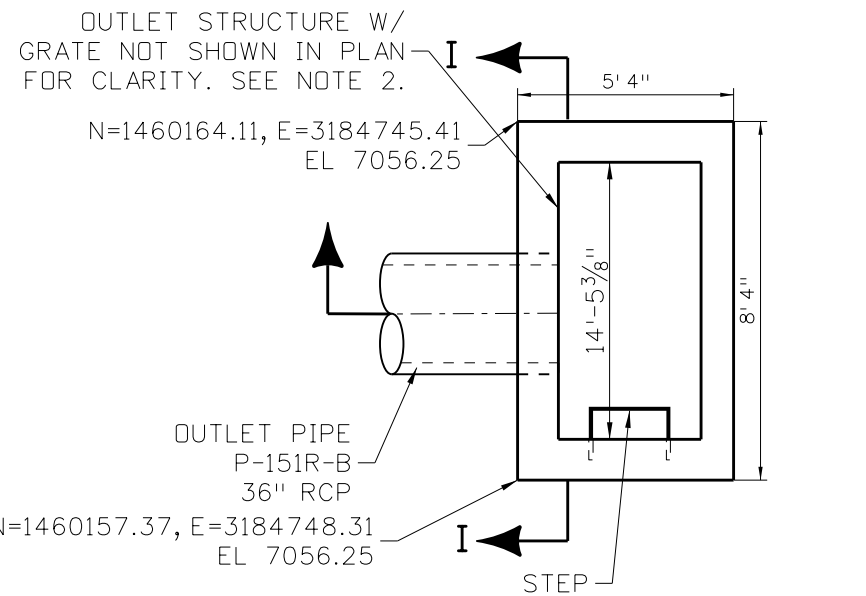






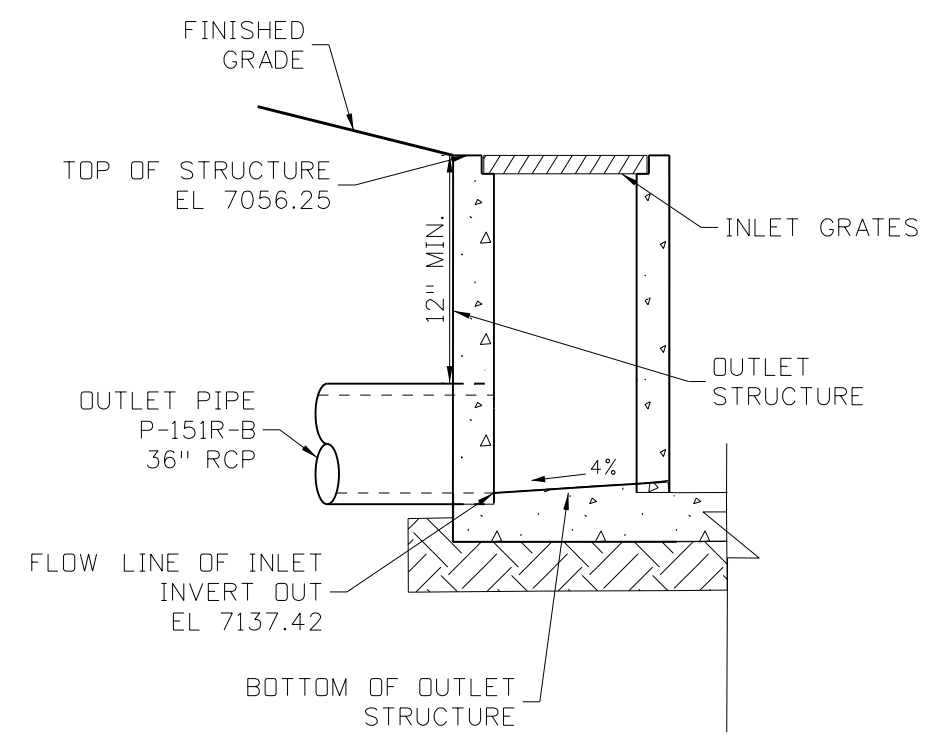






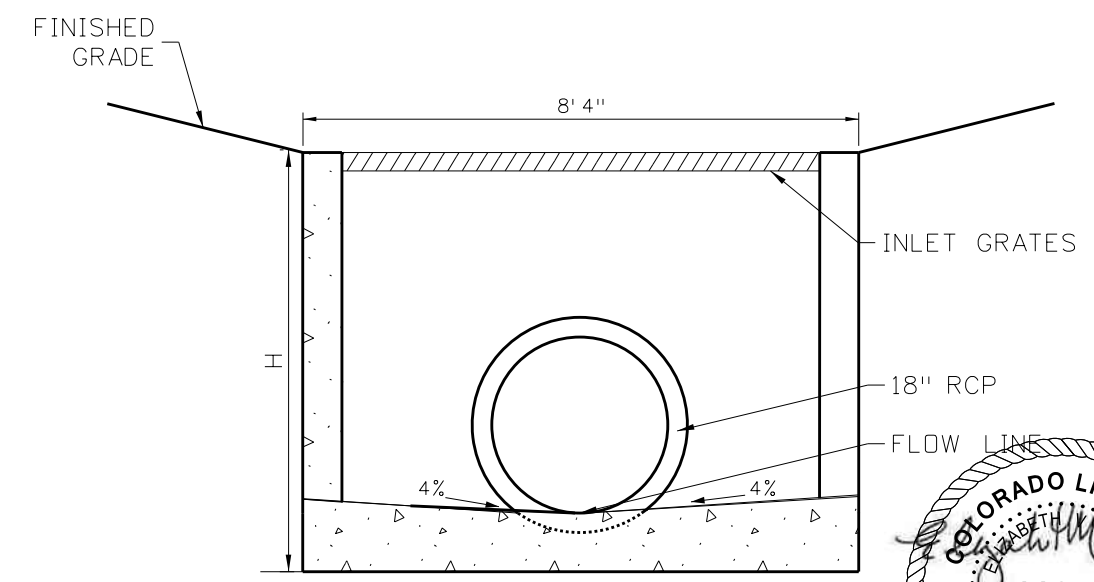
**TYPE D INLET PLAN VIEW**

NTS



**SECTION F-F**

NTS



**SECTION I-I**

NTS

**NOTES:**

1. CONCRETE SHALL BE CLASS B INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. INLET SHALL HAVE A 4 INCH DIA. METAL MEDALLION WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE ON IT. THE MEDALLION SHALL HAVE A FISH SYMBOL WITH A BLUE BACKGROUND. IT SHALL BE FIRMLY ATTACHED TO THE INLETS SURFACE WITH A PERMANENT FASTNER.

**INLET TYPE D (SPECIAL) DETAILS**

NTS



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HIGHWAY 105 PROJECT A DRAINAGE DETAILS TYPE D INLET			
Designer: E. STATEN	Structure Numbers		
Detailer: A.VANCE			
Sheet Subset: DR-DET	Subset Sheets: 5 of 6		

Project No./Code
19734
STA 105A-014
Sheet Number

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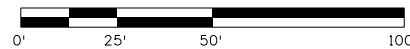








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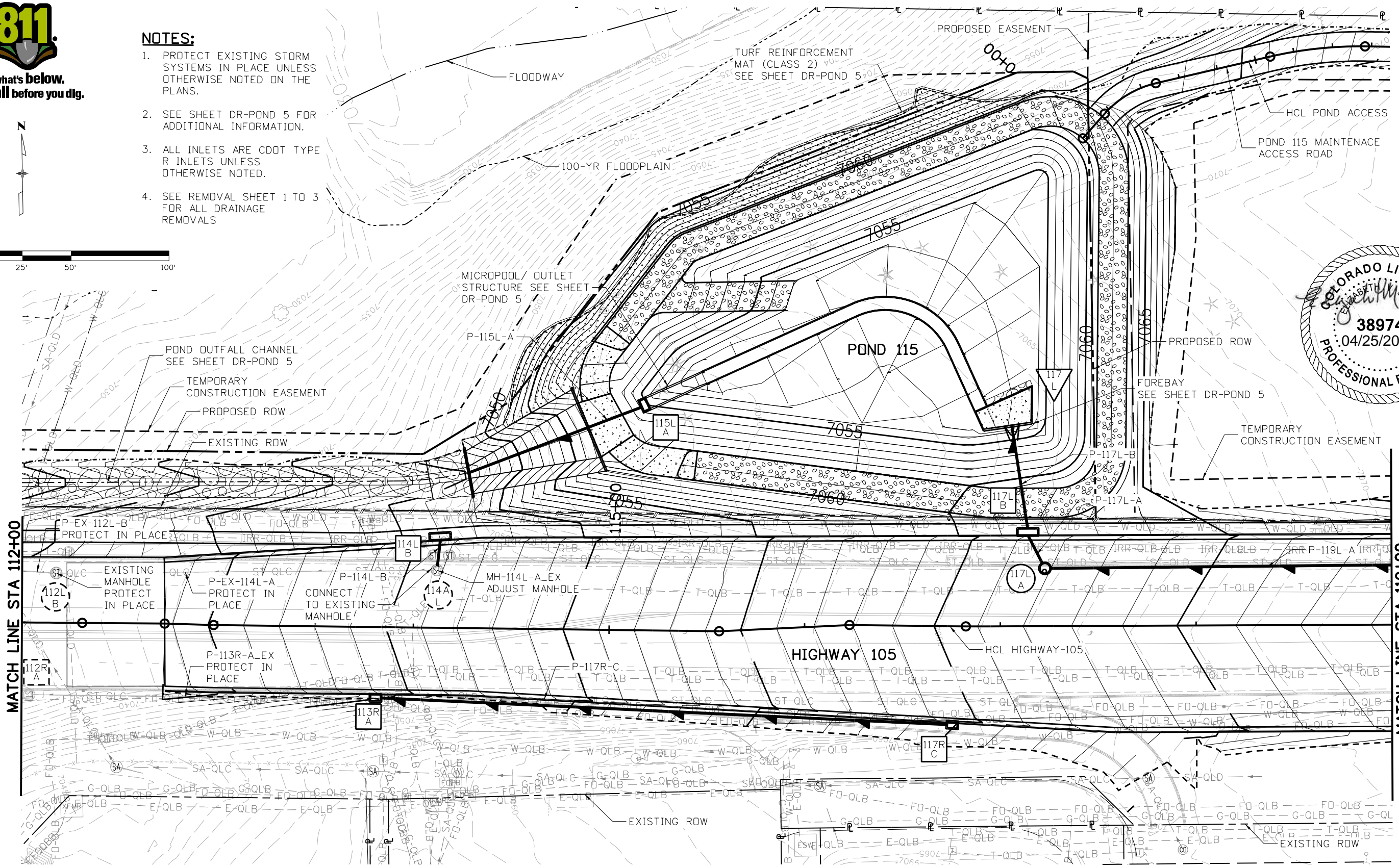
**NOTES:**

1. PROTECT EXISTING STORM SYSTEMS IN PLACE UNLESS OTHERWISE NOTED ON THE PLANS.
2. SEE SHEET DR-POND 5 FOR ADDITIONAL INFORMATION.
3. ALL INLETS ARE CDDT TYPE R INLETS UNLESS OTHERWISE NOTED.
4. SEE REMOVAL SHEET 1 TO 3 FOR ALL DRAINAGE REMOVALS



MATCH LINE STA 112+00

MATCH LINE STA 119+00



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Date:	Comments	Init.

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<b>HIGHWAY 105 PROJECT A DRAINAGE PLAN STA 112+00 TO 119+00</b>	
Designer: E. STATEN	Structure Numbers
Detailer: A. VANCE	
Sheet Subset: DRAINAGE	Subset Sheets: 3 of 21

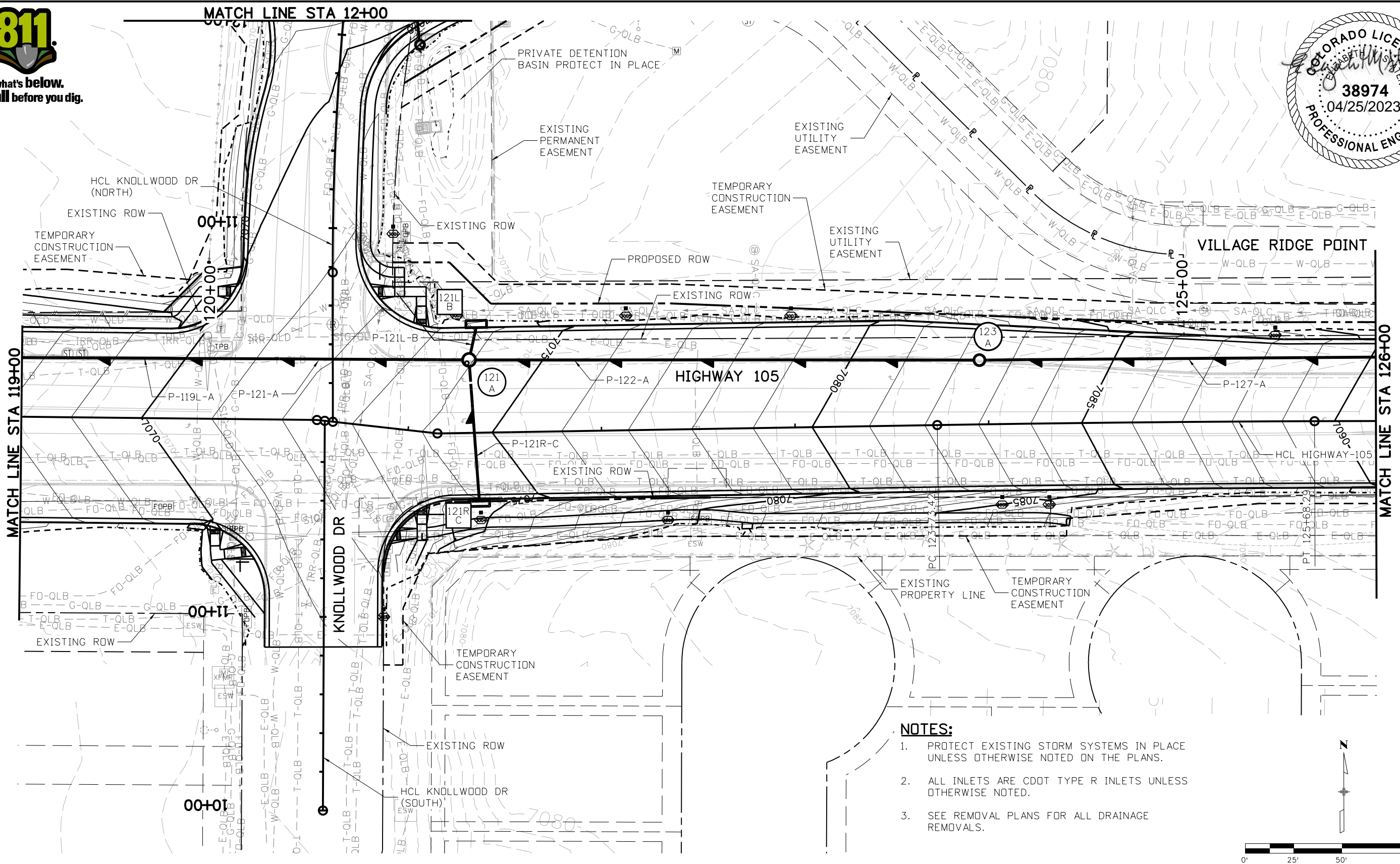
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19734
STA 105A-014
Sheet Number

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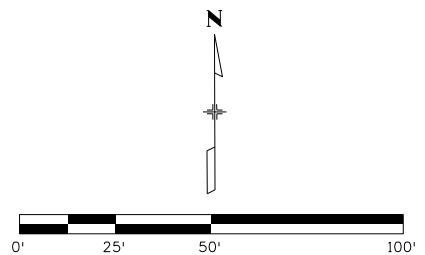


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Call before you dig.



**NOTES:**

1. PROTECT EXISTING STORM SYSTEMS IN PLACE UNLESS OTHERWISE NOTED ON THE PLANS.
2. ALL INLETS ARE CDDT TYPE R INLETS UNLESS OTHERWISE NOTED.
3. SEE REMOVAL PLANS FOR ALL DRAINAGE REMOVALS.



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Sheet Revisions			
Date:	Comments	Init.	



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<b>HIGHWAY 105 PROJECT A DRAINAGE PLAN STA 119+00 TO 126+00</b>			
Designer:	E. STATEN	Structure Numbers	
Detailer:	A. VANCE	Subset Sheets:	4 of 21
Sheet Subset:	DRAINAGE		

<b>Project No./Code</b>
19734
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Sheet Number

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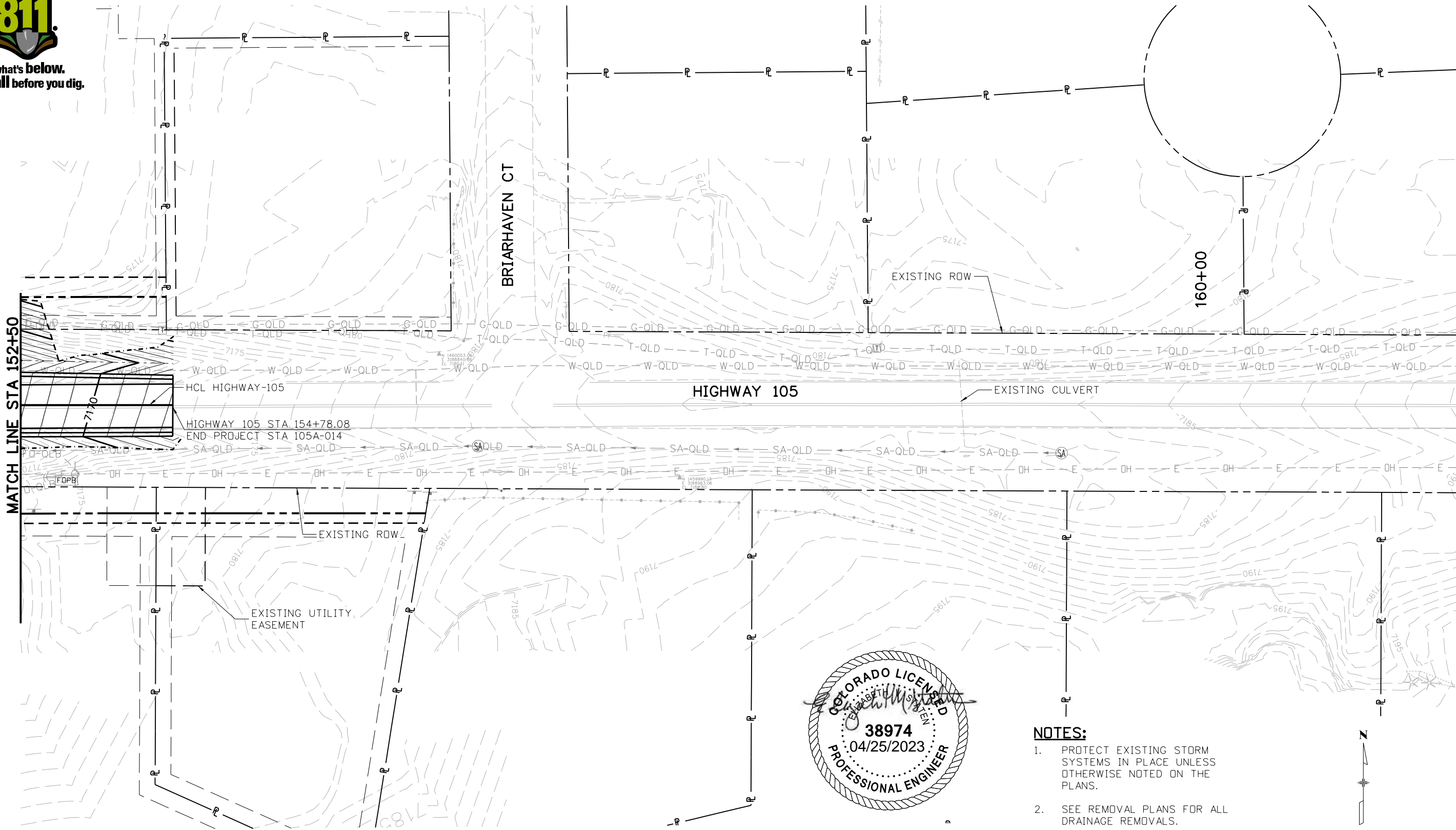






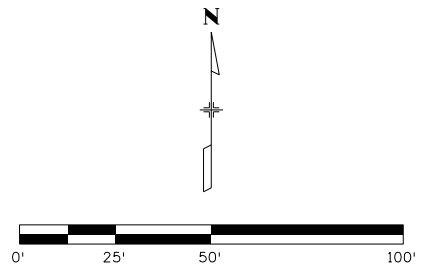


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NO DRAINAGE PROFILES THIS SHEET

- NOTES:**
1. PROTECT EXISTING STORM SYSTEMS IN PLACE UNLESS OTHERWISE NOTED ON THE PLANS.
  2. SEE REMOVAL PLANS FOR ALL DRAINAGE REMOVALS.



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Print Date: 4/12/2023  
 File Name: 19734HYDR\_PLAN-09.dgn  
 Horiz. Scale: 1:50 Vert. Scale: None

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Date:	Comments	Init.

EL PASO COUNTY COLORADO

S.F. Region 02

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HIGHWAY 105 PROJECT A DRAINAGE PLAN STA 154+00 TO 161+00			
Designer:	E. STATEN	Structure Numbers	
Detailer:	A. VANCE	Subset Sheets:	9 of 21
Sheet Subset:	DRAINAGE		

Project No./Code
19734
STA 105A-014
Sheet Number













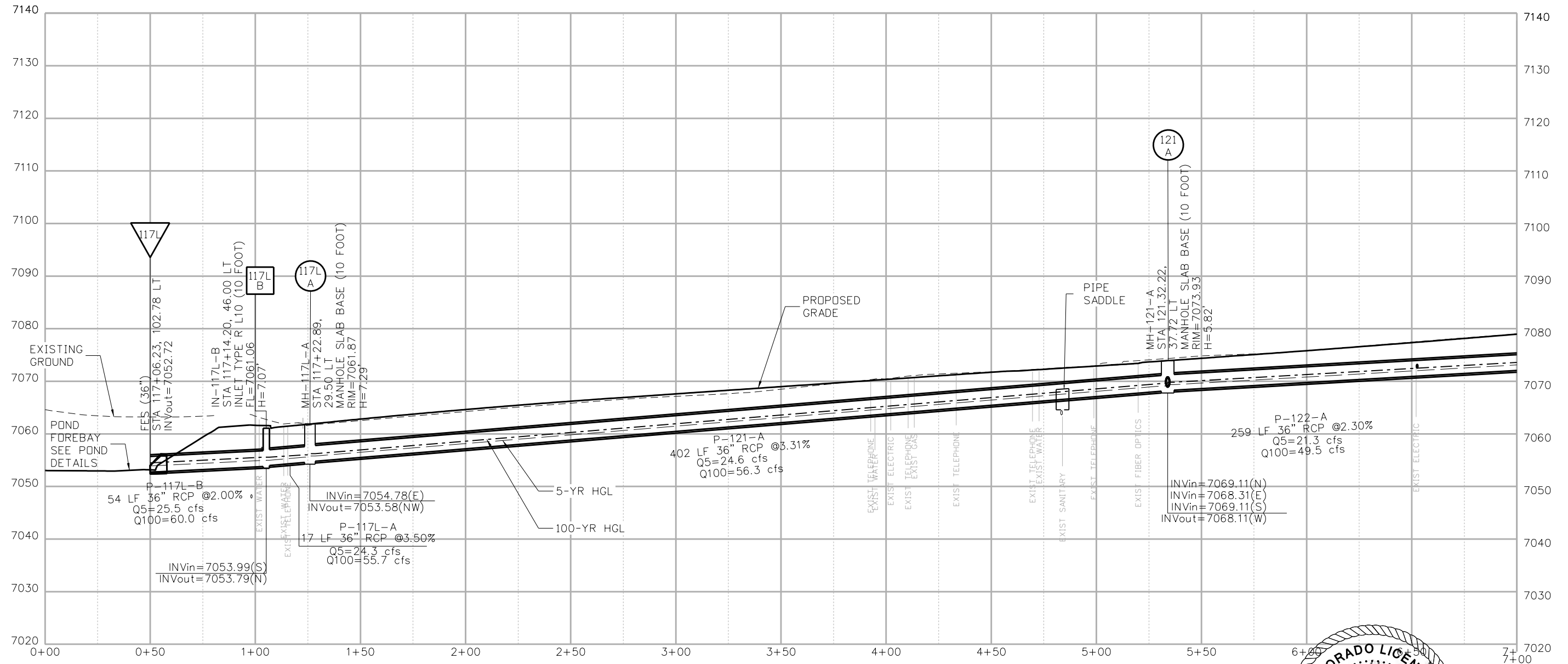




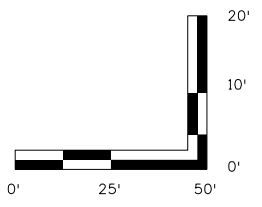
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**NOTES:**

1. STATIONS AND OFFSET FOR DRAINAGE STRUCTURES REFERENCE HWY 105 HCL.
2. STATION LABELS FOR PROPOSED TYPE R INLETS ARE TO MIDPOINT OF INLET AT FLOWLINE AND OFFSETS ARE TO MIDPOINT OF INLET AT FLOWLINE OF INLETS.
3. STATION LABELS FOR PROPOSED TYPE 16 INLETS ARE TO MIDPOINT OF INLET AT FLOWLINE AND OFFSETS ARE TO MIDPOINT OF INLET AT FLOWLINE OF INLETS.
4. STATION LABELS FOR PROPOSED MANHOLES ARE TO CENTER OF SECTION AND OFFSETS ARE TO CENTER OF SECTION OF MANHOLES.



**TRUNK LINE**



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<b>HIGHWAY 105 PROJECT A DRAINAGE PROFILE</b>			
Designer:	E. STATEN	Structure Numbers:	
Detailer:	A. VANCE	Subset Sheets:	14 of 21
Sheet Subset:	DRAINAGE		

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number

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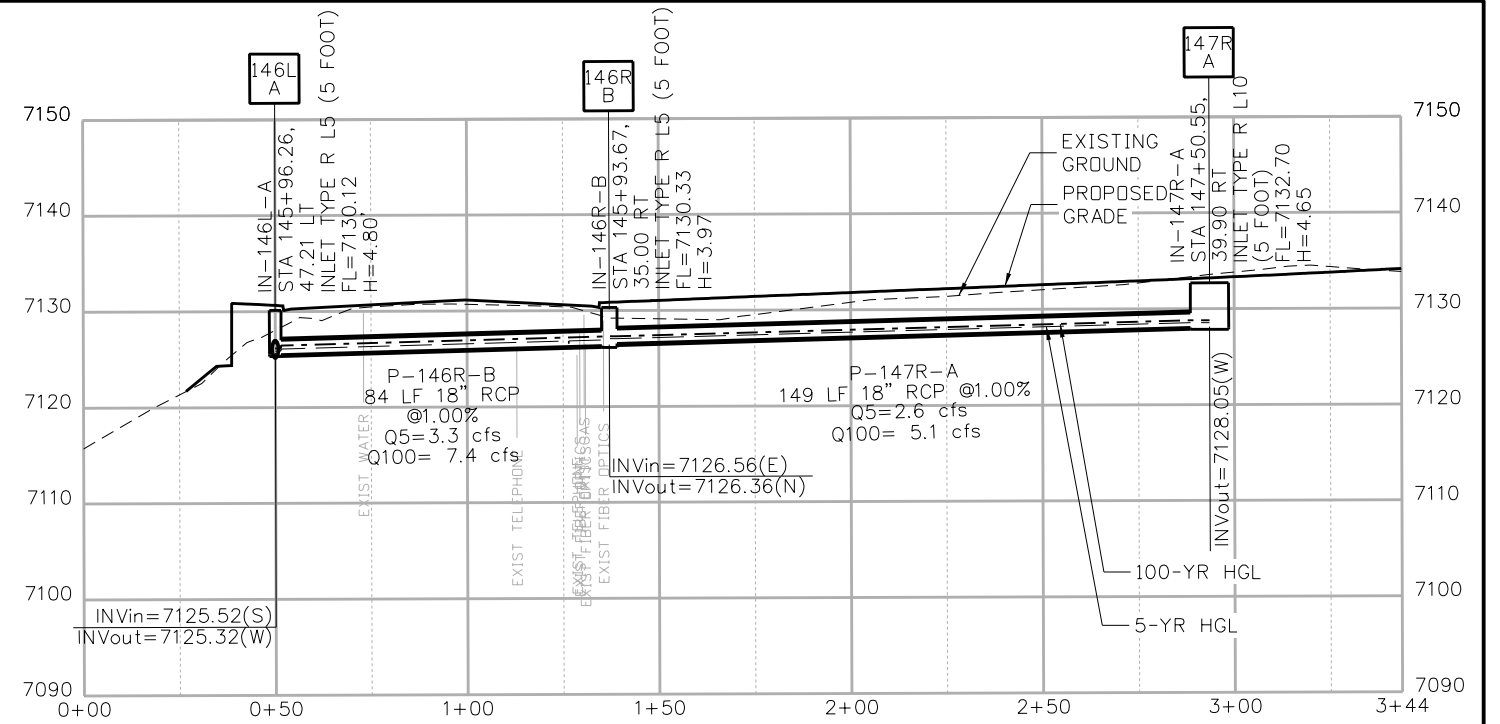




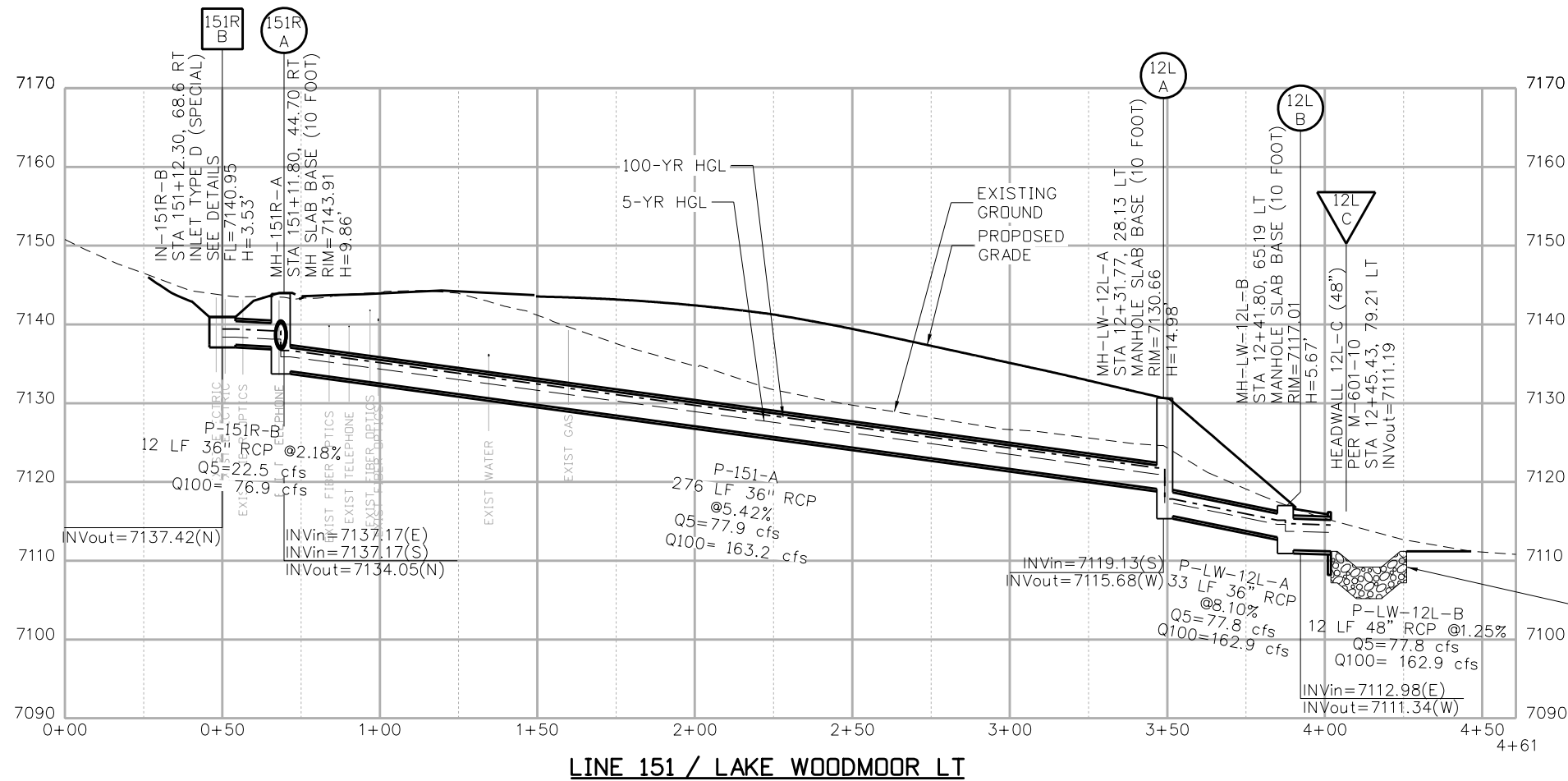
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**NOTES:**

- STATIONS AND OFFSET FOR DRAINAGE STRUCTURES RELATED TO LINE 146 REFERENCE TO HWY 105 HCL.  
STATIONS AND OFFSET RELATED TO LAKE WOODMOOR LT REFERENCE TO HCL LAKE WOODMOOR.
- STATION LABELS FOR PROPOSED TYPE R INLETS ARE TO MIDPOINT OF INLET AT FLOWLINE AND OFFSETS ARE TO MIDPOINT OF INLET AT FLOWLINE OF INLETS.
- STATION LABELS FOR PROPOSED TYPE 16 INLETS ARE TO MIDPOINT OF INLET AT FLOWLINE AND OFFSETS ARE TO MIDPOINT OF INLET AT FLOWLINE OF INLETS.
- STATION LABELS FOR PROPOSED MANHOLES ARE TO CENTER OF SECTION AND OFFSETS ARE TO CENTER OF SECTION OF MANHOLES.



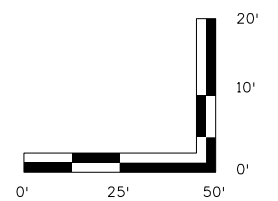
**LINE 146**



**LINE 151 / LAKE WOODMOOR LT**



RIPRAP PLUNGE POOL  
D50 = 2'  
DEPTH = 4'  
INITIAL WIDTH = 23'  
LENGTH = 24'  
SEE SHEET DD-04



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Horiz. Scale: 1:50
Vert. Scale: None
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Date:	Comments	Init.

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<b>HIGHWAY 105 PROJECT A DRAINAGE PROFILE</b>	
Designer: E. STATEN	Structure Numbers
Detailer: A. VANCE	Subset Sheets: 20 of 21
Sheet Subset: DRAINAGE	

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number

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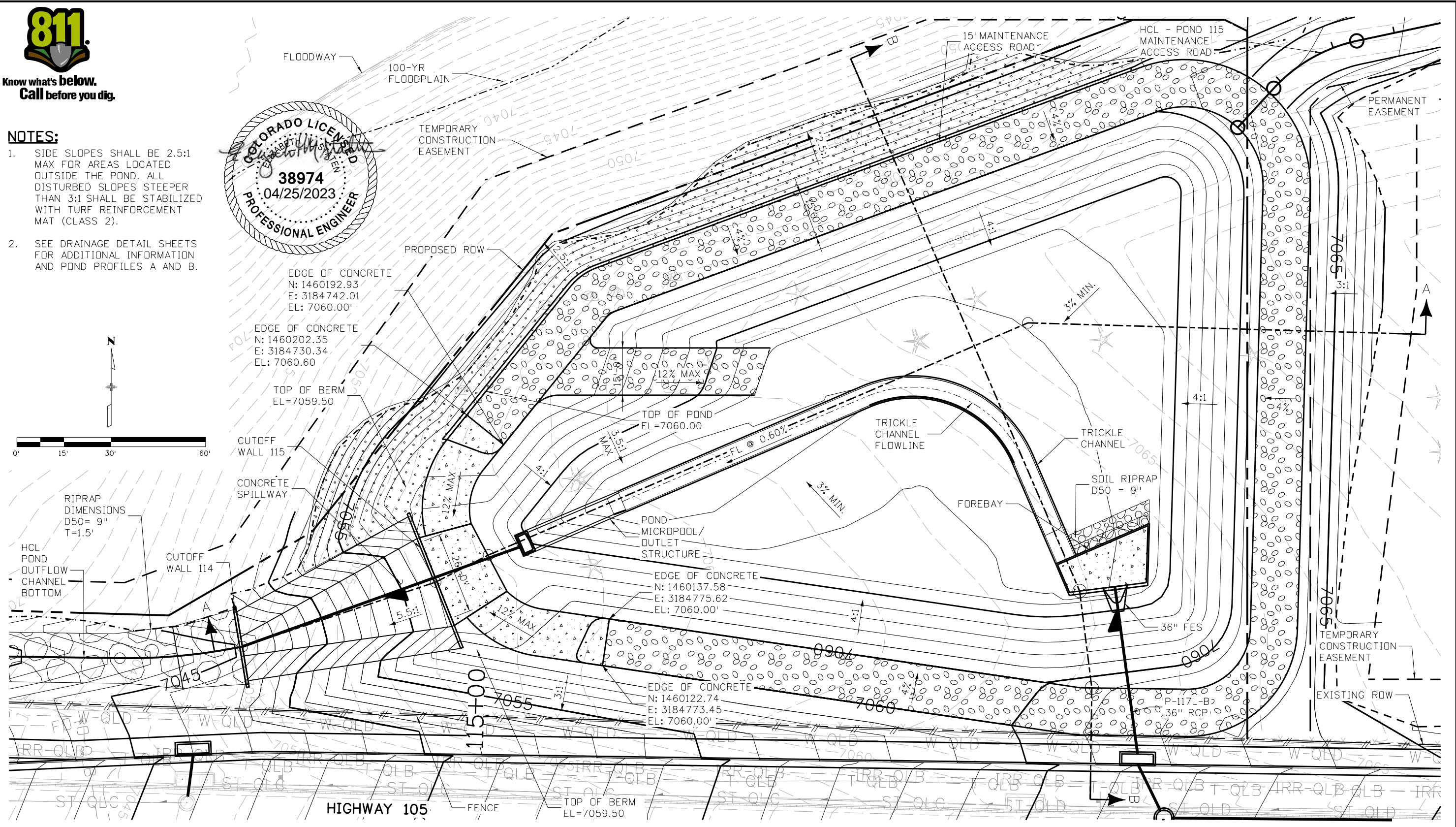
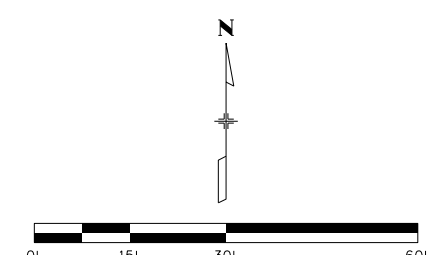




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**NOTES:**

- SIDE SLOPES SHALL BE 2.5:1 MAX FOR AREAS LOCATED OUTSIDE THE POND. ALL DISTURBED SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH TURF REINFORCEMENT MAT (CLASS 2).
- SEE DRAINAGE DETAIL SHEETS FOR ADDITIONAL INFORMATION AND POND PROFILES A AND B.



**POND 115**

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 Horiz. Scale: 1:30 Vert. Scale: None

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<b>HIGHWAY 105 PROJECT A DRAINAGE POND DETAIL POND 115</b>			
Designer:	E. STATEN	Structure Numbers:	
Detailer:	A. VANCE	Subset Sheets:	1 of 13
Sheet Subset:	DR-POND		

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number

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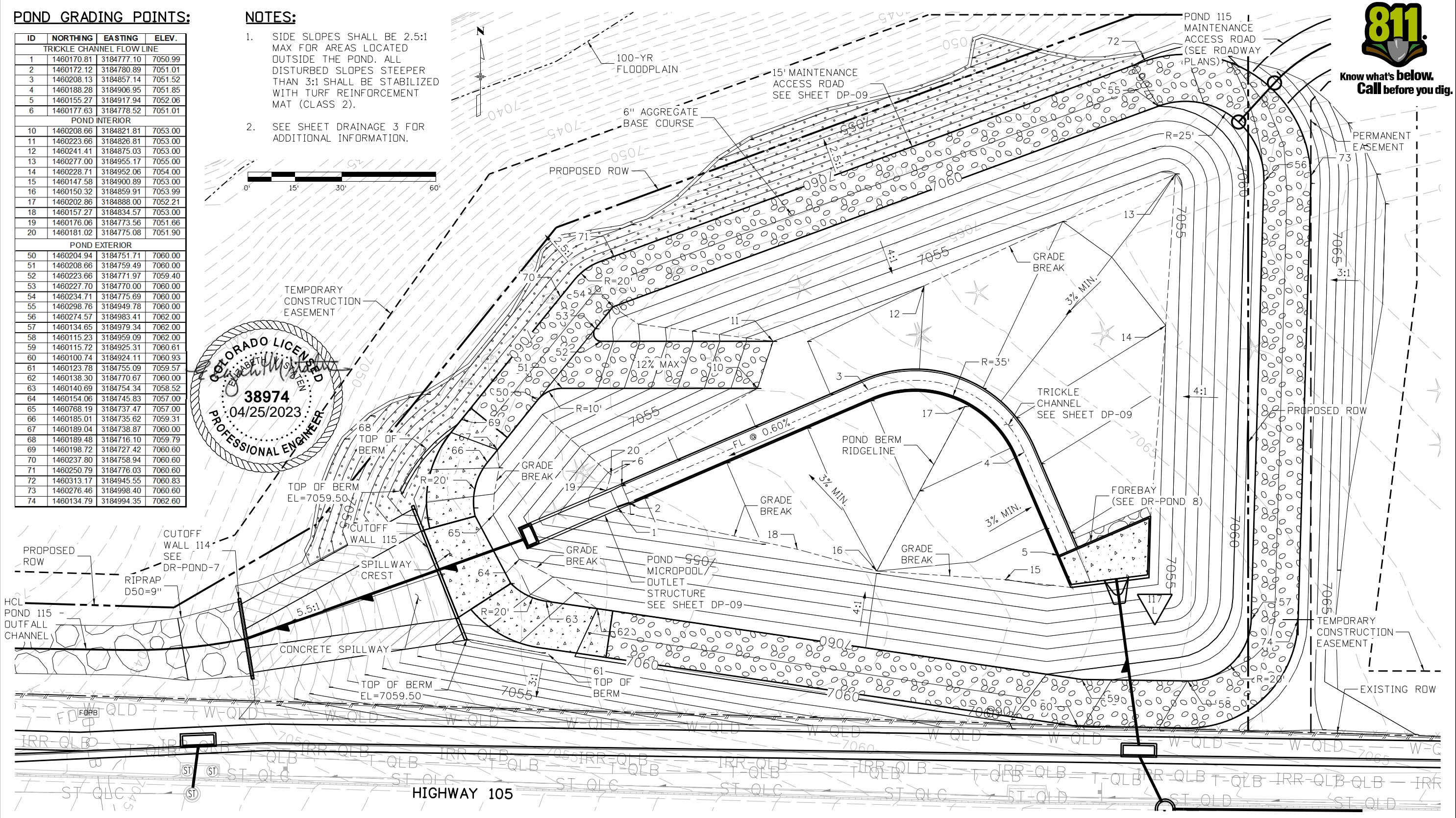
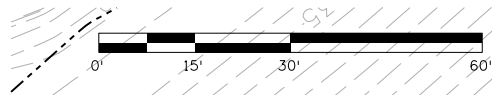


**POND GRADING POINTS:**

ID	NORTHING	EASTING	ELEV.
<b>TRICKLE CHANNEL FLOW LINE</b>			
1	1460170.81	3184777.10	7050.99
2	1460172.12	3184780.89	7051.01
3	1460208.13	3184857.14	7051.52
4	1460188.28	3184906.95	7051.85
5	1460155.27	3184917.94	7052.06
6	1460177.63	3184778.52	7051.01
<b>POND INTERIOR</b>			
10	1460208.66	3184821.81	7053.00
11	1460223.66	3184826.81	7053.00
12	1460241.41	3184875.03	7053.00
13	1460277.00	3184955.17	7055.00
14	1460228.71	3184952.06	7054.00
15	1460147.58	3184900.89	7053.00
16	1460150.32	3184859.91	7053.99
17	1460202.86	3184888.00	7052.21
18	1460157.27	3184834.57	7053.00
19	1460176.06	3184773.56	7051.66
20	1460181.02	3184775.08	7051.90
<b>POND EXTERIOR</b>			
50	1460204.94	3184751.71	7060.00
51	1460208.66	3184759.49	7060.00
52	1460223.66	3184771.97	7059.40
53	1460227.70	3184770.00	7060.00
54	1460234.71	3184775.69	7060.00
55	1460298.76	3184949.78	7060.00
56	1460274.57	3184983.41	7062.00
57	1460134.65	3184979.34	7062.00
58	1460115.23	3184959.09	7062.00
59	1460115.72	3184925.31	7060.61
60	1460100.74	3184924.11	7060.93
61	1460123.78	3184755.09	7059.57
62	1460138.30	3184770.67	7060.00
63	1460140.69	3184754.34	7058.52
64	1460154.06	3184745.83	7057.00
65	1460768.19	3184737.47	7057.00
66	1460185.01	3184735.62	7059.31
67	1460189.04	3184738.87	7060.00
68	1460189.48	3184716.10	7059.79
69	1460198.72	3184727.42	7060.60
70	1460237.80	3184758.94	7060.60
71	1460250.79	3184776.03	7060.60
72	1460313.17	3184945.55	7060.83
73	1460276.46	3184998.40	7060.60
74	1460134.79	3184994.35	7062.60

**NOTES:**

- SIDE SLOPES SHALL BE 2.5:1 MAX FOR AREAS LOCATED OUTSIDE THE POND. ALL DISTURBED SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH TURF REINFORCEMENT MAT (CLASS 2).
- SEE SHEET DRAINAGE 3 FOR ADDITIONAL INFORMATION.



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Date:	Comments	Init.

EL PASO COUNTY COLORADO

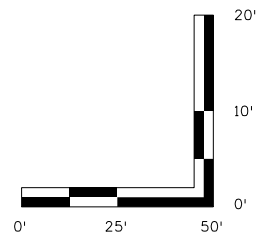
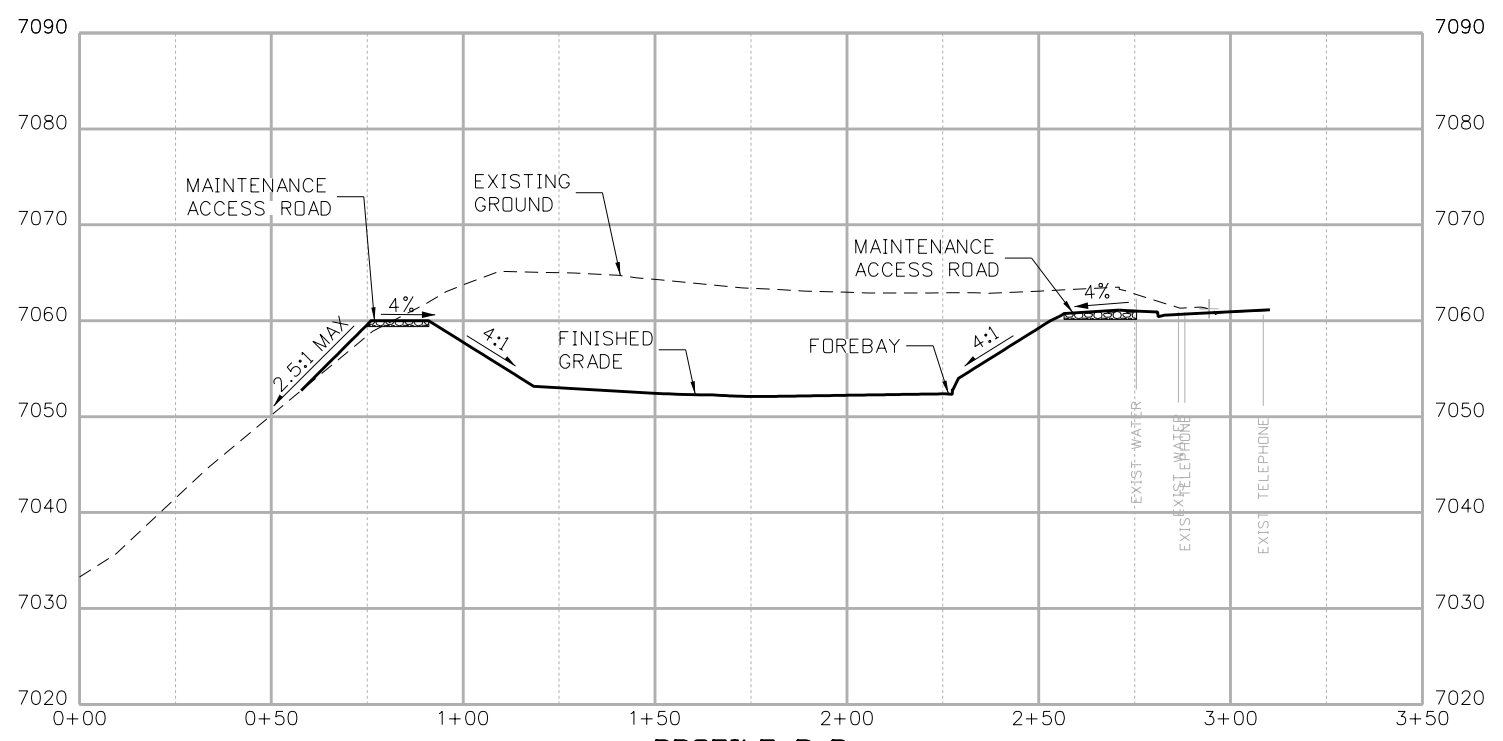
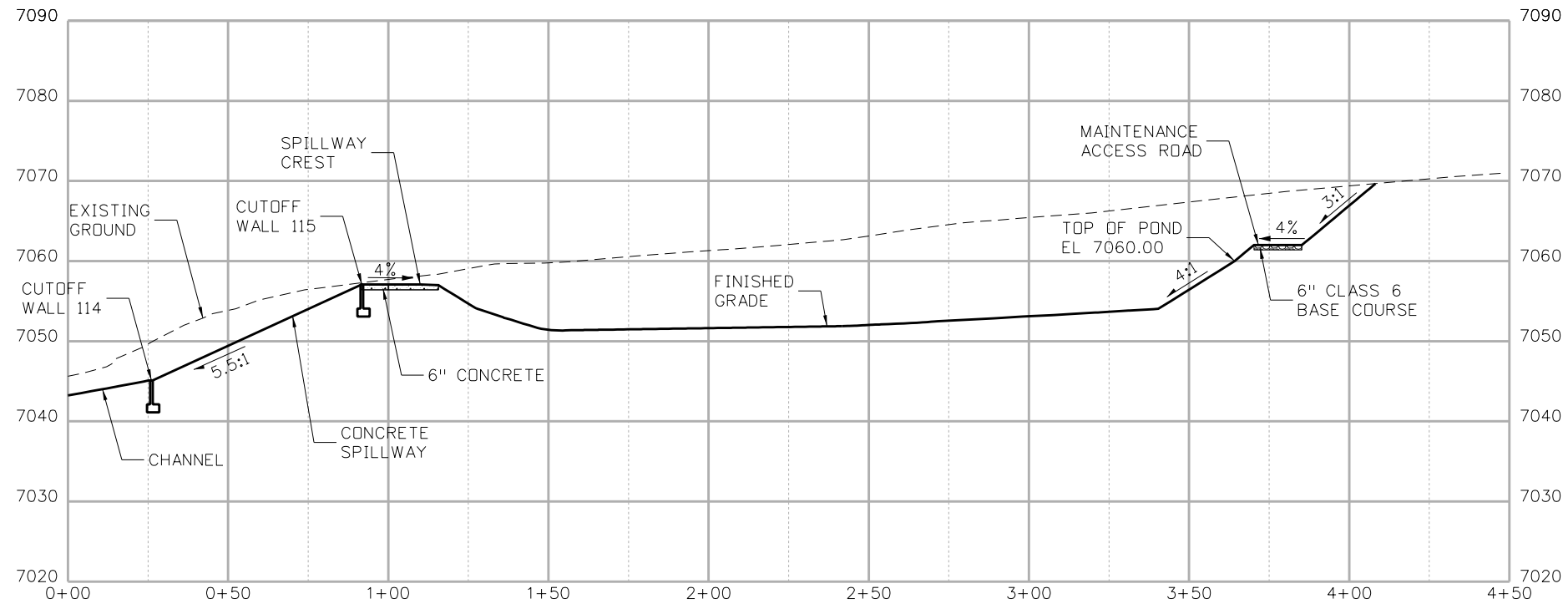
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Revised:
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<b>HIGHWAY 105 PROJECT A DRAINAGE POND DETAIL</b>	
Designer: E. STATEN	Structure Numbers
Detailer: A. VANCE	
Sheet Subset: DR-POND	Subset Sheets: 2 of 13

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number

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<b>HR</b> 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.



<b>As Constructed</b>
No Revisions:
Revised:
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<b>HIGHWAY 105 PROJECT A DRAINAGE POND DETAIL POND 115 PROFILES</b>	
Designer: E. STATEN	Structure Numbers
Detailer: A. VANCE	
Sheet Subset: DR-POND	Subset Sheets: 3 of 13

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number

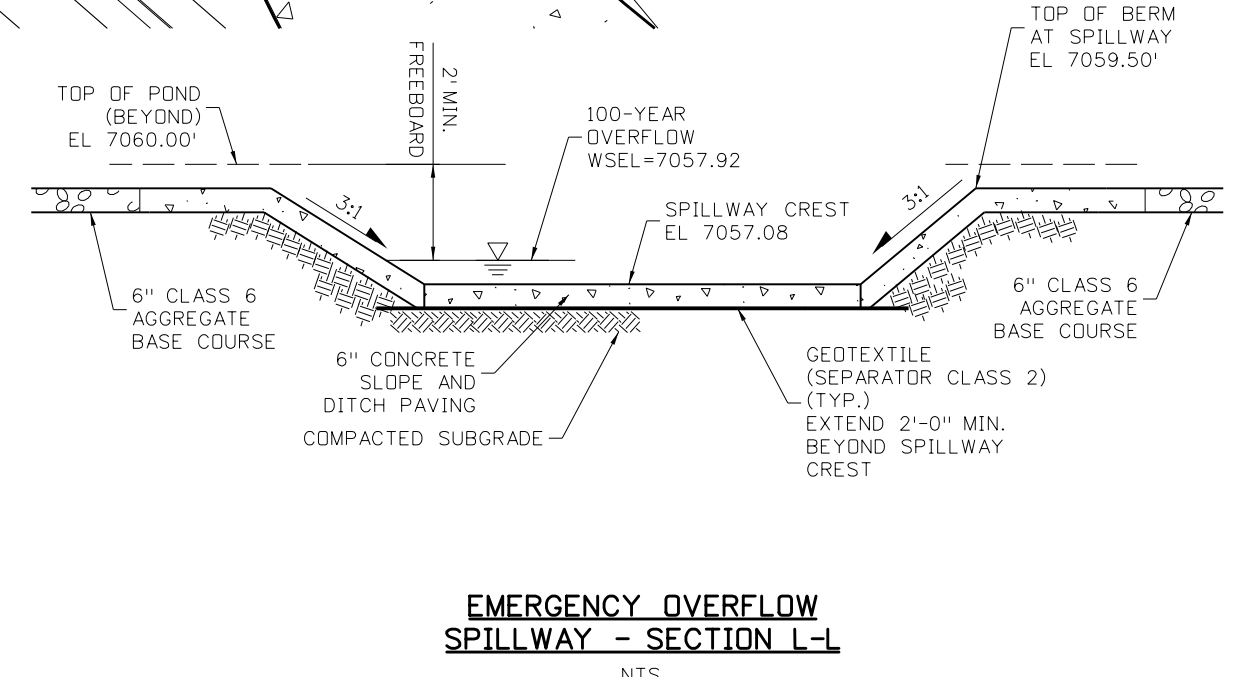
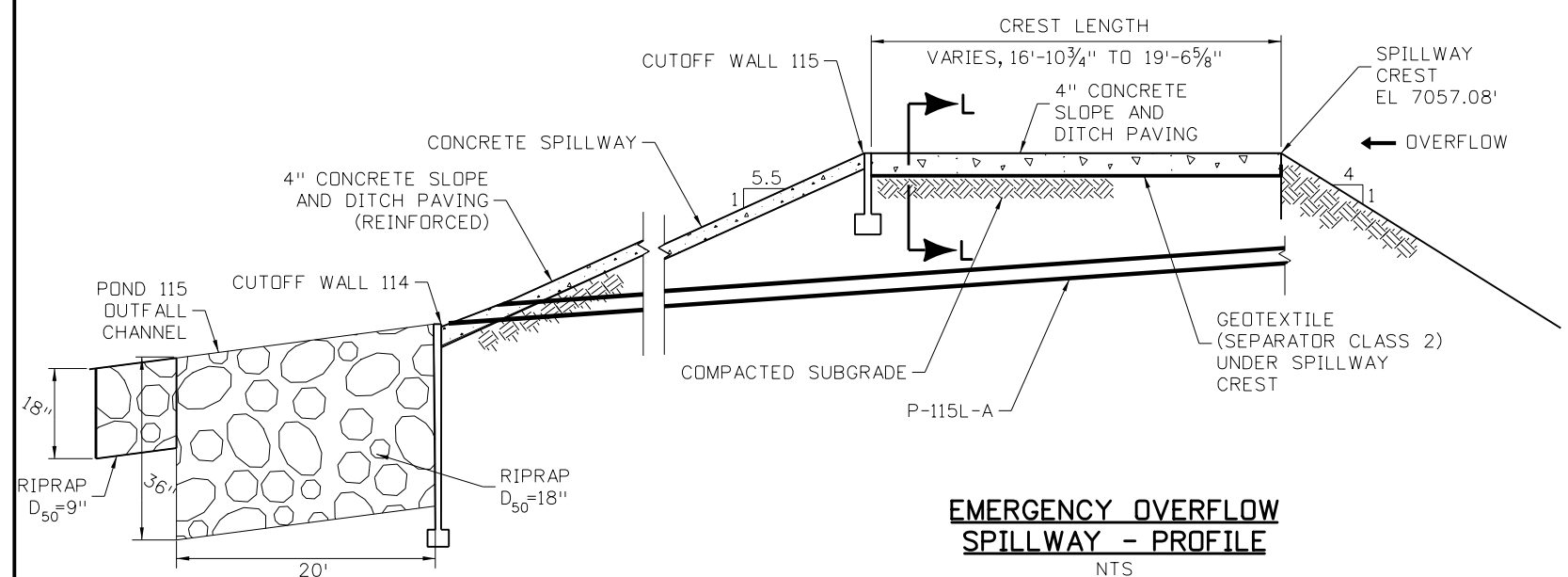
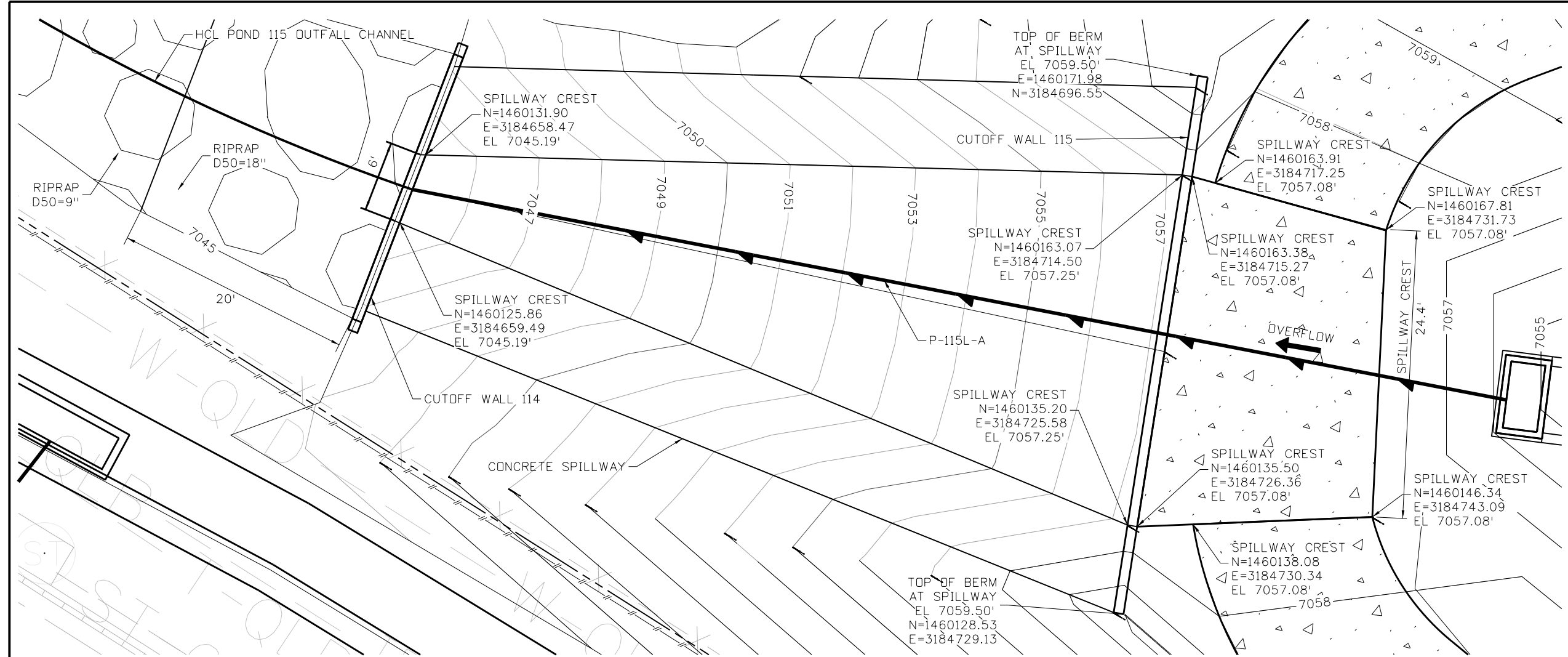
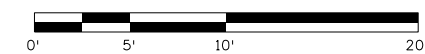
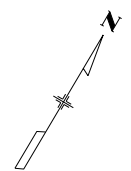






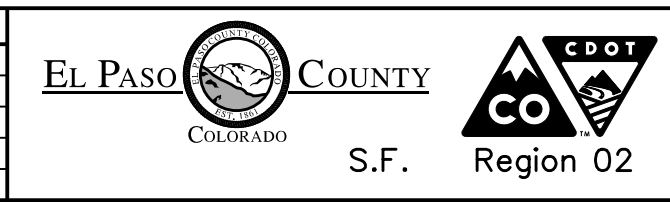


Know what's below. Call before you dig.



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Sheet Revisions		
Date:	Comments	Init.



As Constructed  
No Revisions:  
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HIGHWAY 105 PROJECT A  
DRAINAGE POND DETAIL  
POND 115 SPILLWAY  
Designer: E. STATEN  
Detailer: A. VANCE  
Sheet Subset: DR-POND

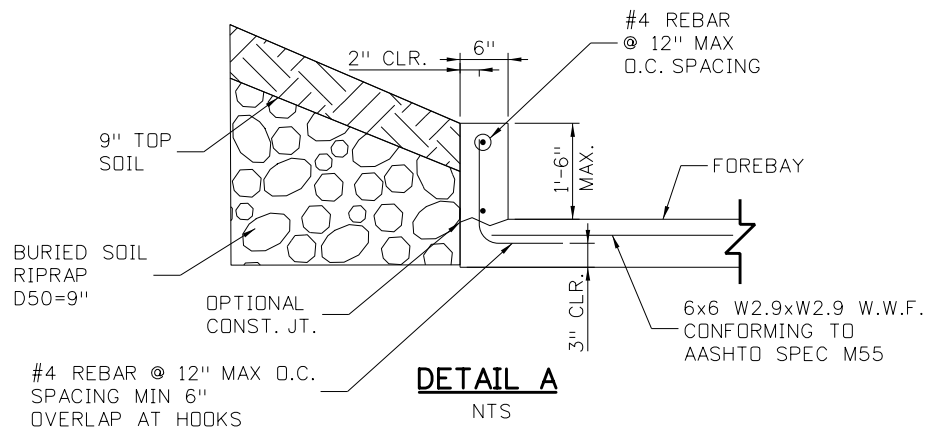
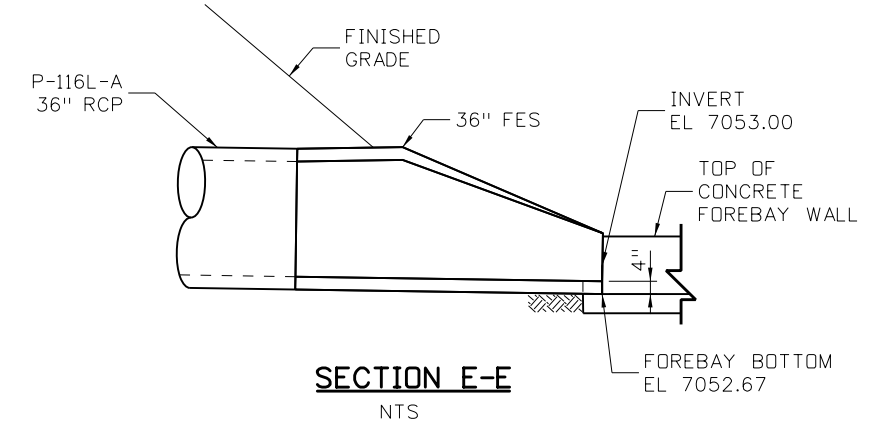
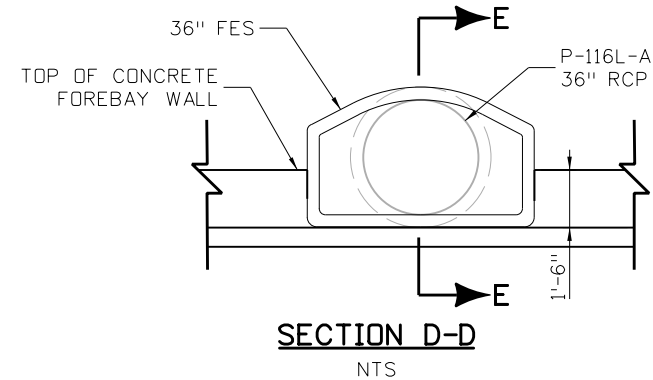
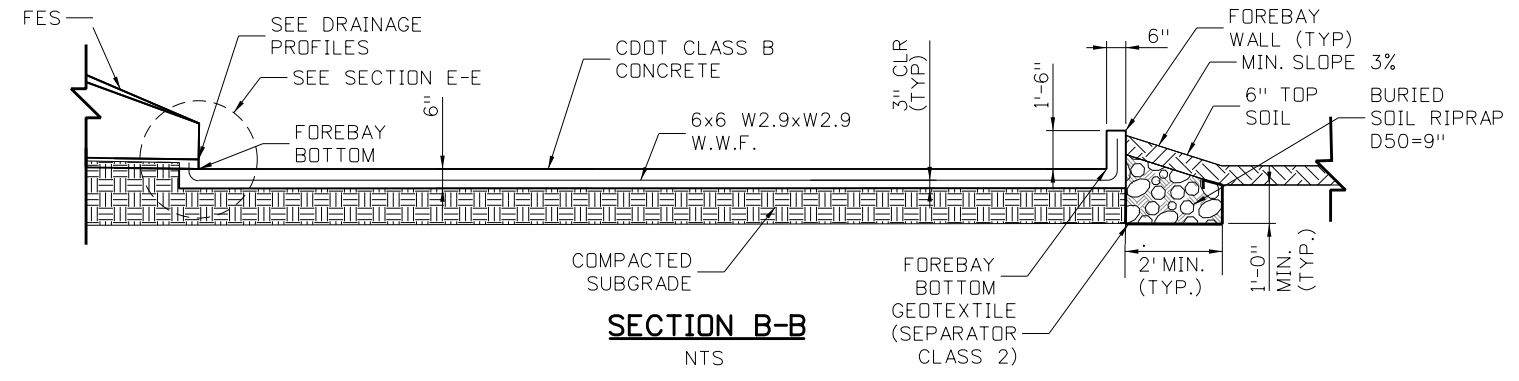
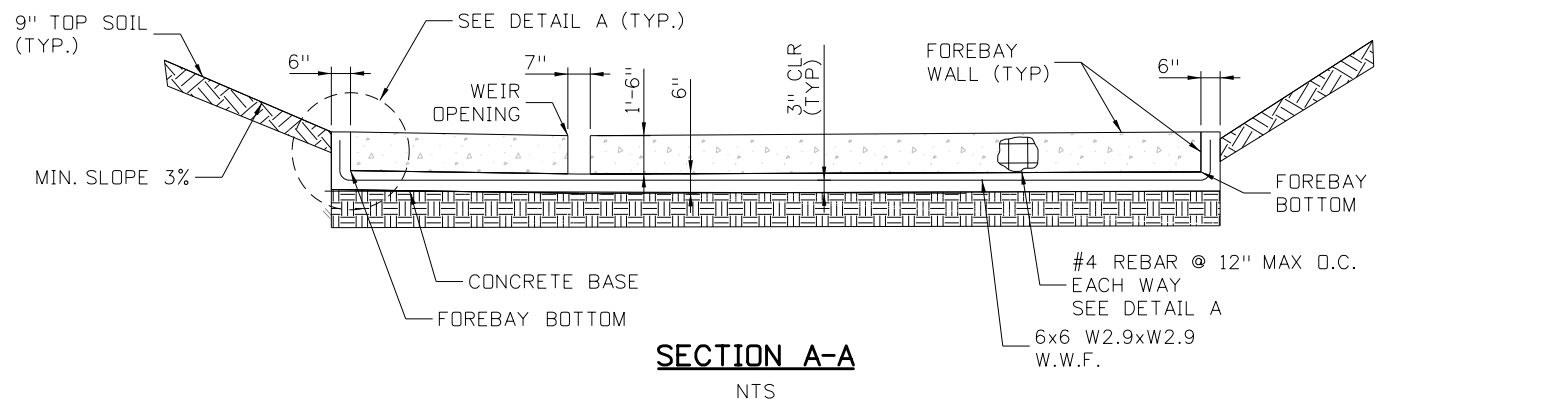
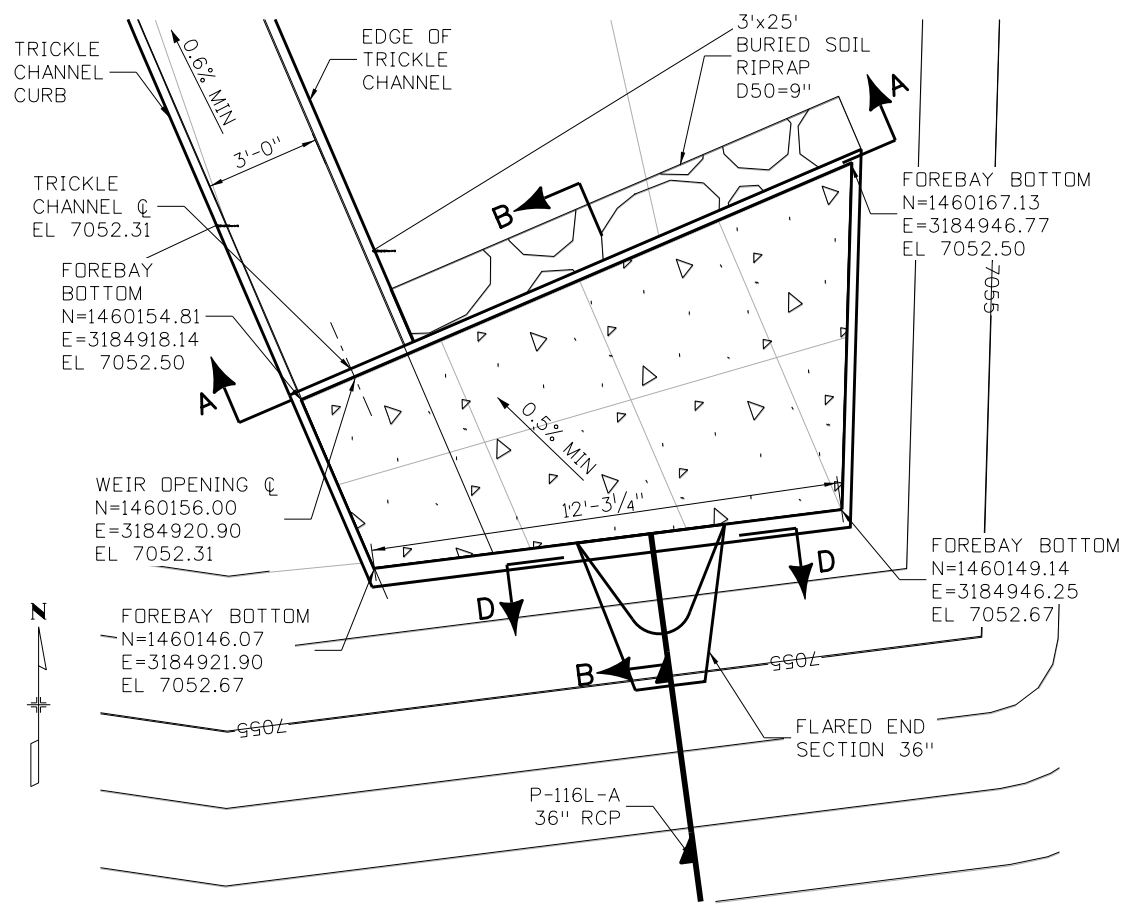
Project No./Code  
19734  
STA 105A-014  
Sheet Number

Structure Numbers  
Subset Sheets: 6 of 13





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**NOTES:**

- ALL FOREBAY AND TRICKLE CHANNEL CONCRETE SHALL BE CDOT CLASS B WITH A MIN. 2" COVER ON ALL REINFORCEMENT, UNLESS OTHERWISE NOTED.
- FOREBAY AND TRICKLE CHANNEL SHALL BE PAID FOR UNDER ITEM 507-00100 CONCRETE SLOPE AND DITCH PAVING (REINFORCED).

Print Date: 4/12/2023	<b>0000</b>
File Name: 19734HYDR_DP-08.dgn	
Horiz. Scale: 1:10      Vert. Scale: None	
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919    PHONE: 719-272-8800	

Sheet Revisions		
Date:	Comments	Init.

EL PASO COUNTY COLORADO  
 S.F.      Region 02

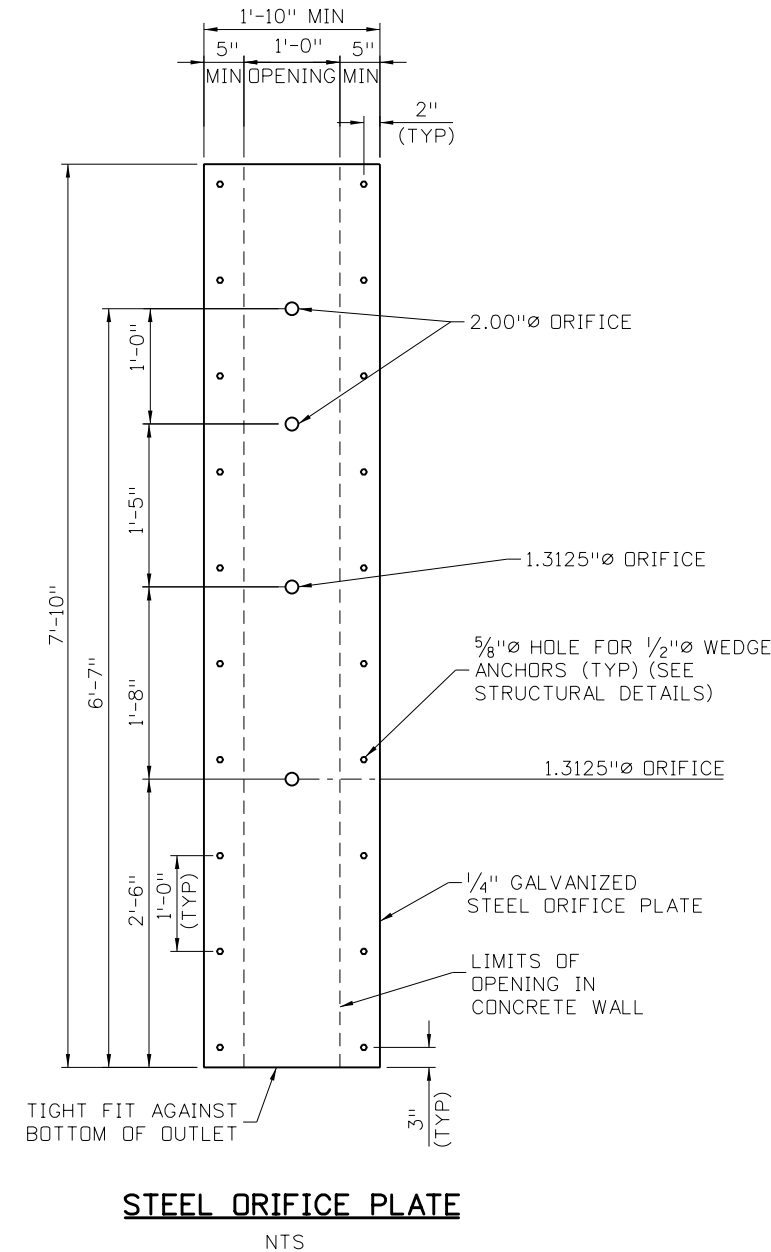
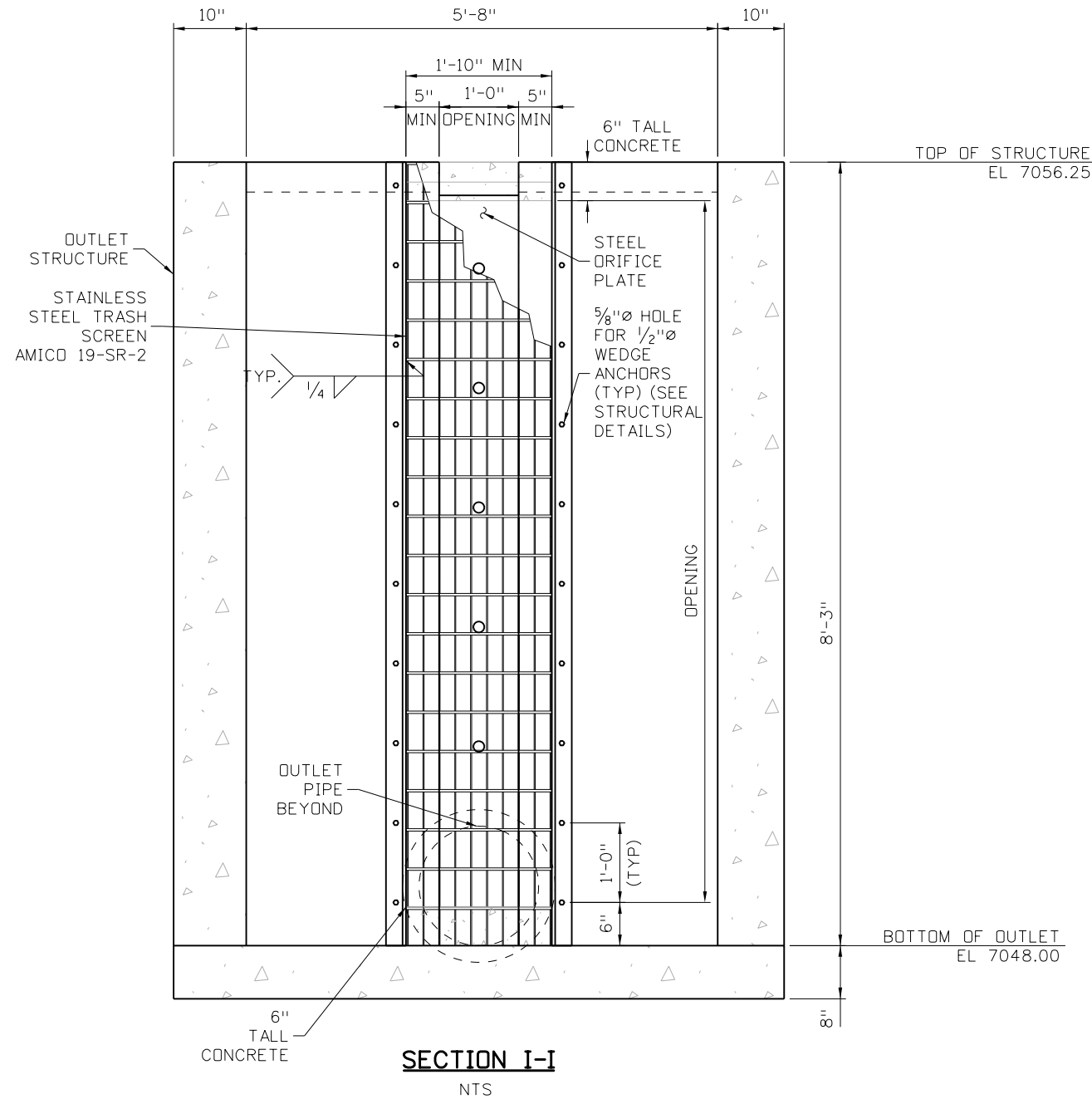
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	Designer: E. STATEN	Structure Numbers	19734
	Detailer: A. VANCE	Sheet Subset: DR-POND	STA 105A-014
	Subst Sheets: 8 of 13	Sheet Number	





**NOTES:**

1. SEE DRAINAGE SHEETS FOR CONTROLLING GEOMETRY ELEVATIONS.
2. PROVIDE GASKET BETWEEN ORIFICE PLATE AND CONCRETE TO CREATE WATERTIGHT SEAL.



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Horiz. Scale: 1:4      Vert. Scale: None	
<b>HR</b> 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919      PHONE: 719-272-8800	

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EL PASO COUNTY COLORADO

S.F. Region 02

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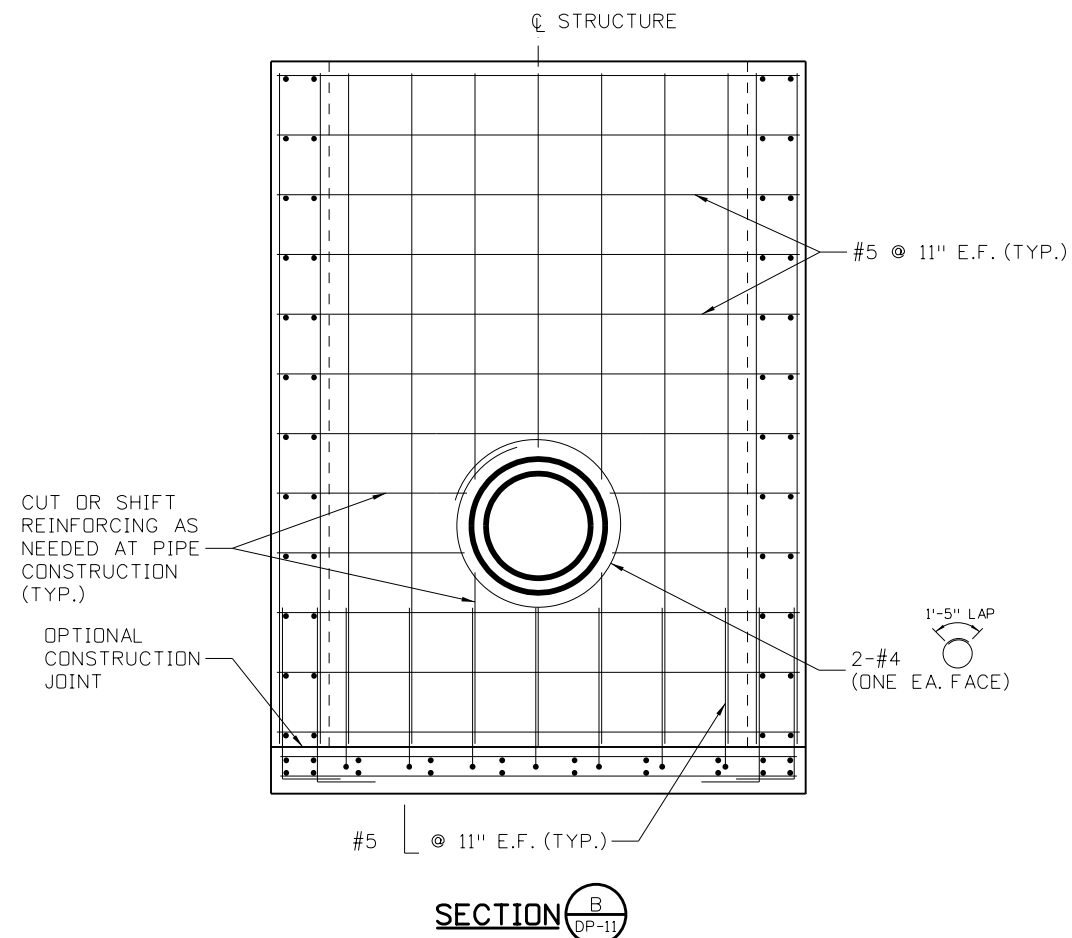
HIGHWAY 105 PROJECT A DRAINAGE POND DETAIL OUTLET STRUCTURE	
Designer: E. STATEN	Structure Numbers
Detailer: A. VANCE	
Sheet Subset: DR-POND	Subset Sheets: 10 of 13

Project No./Code
19734
STA 105A-014
Sheet Number

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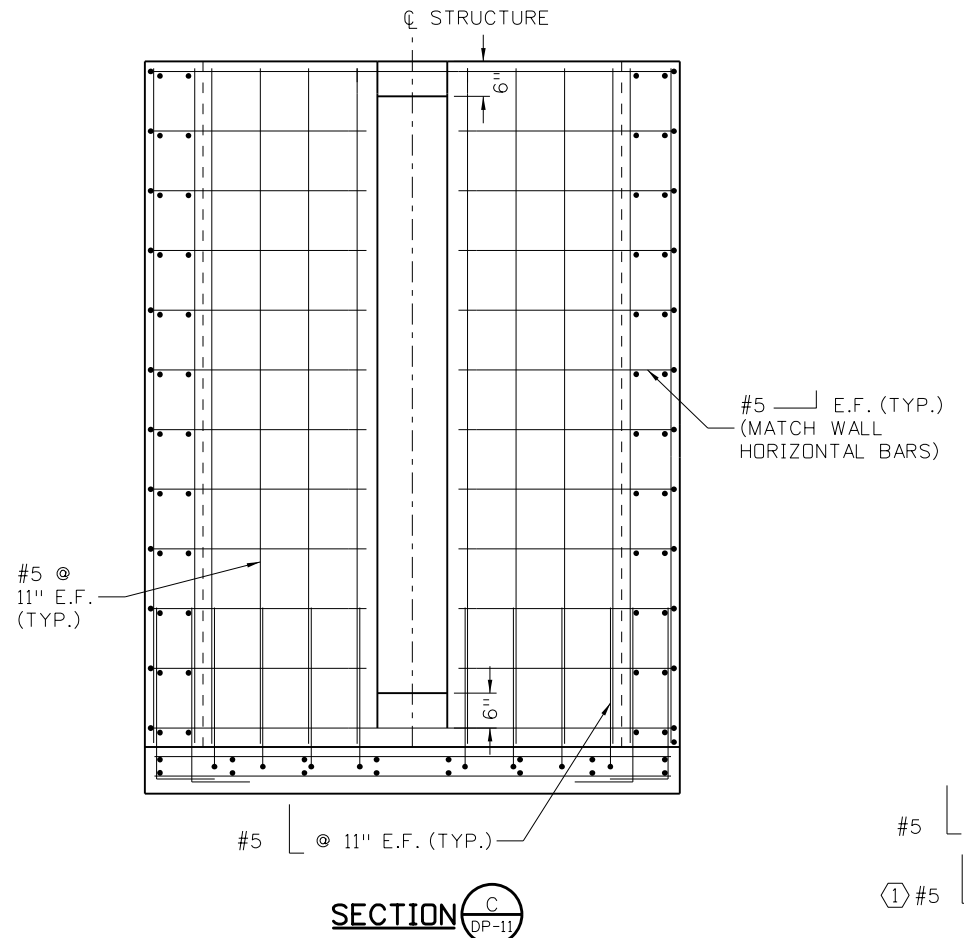


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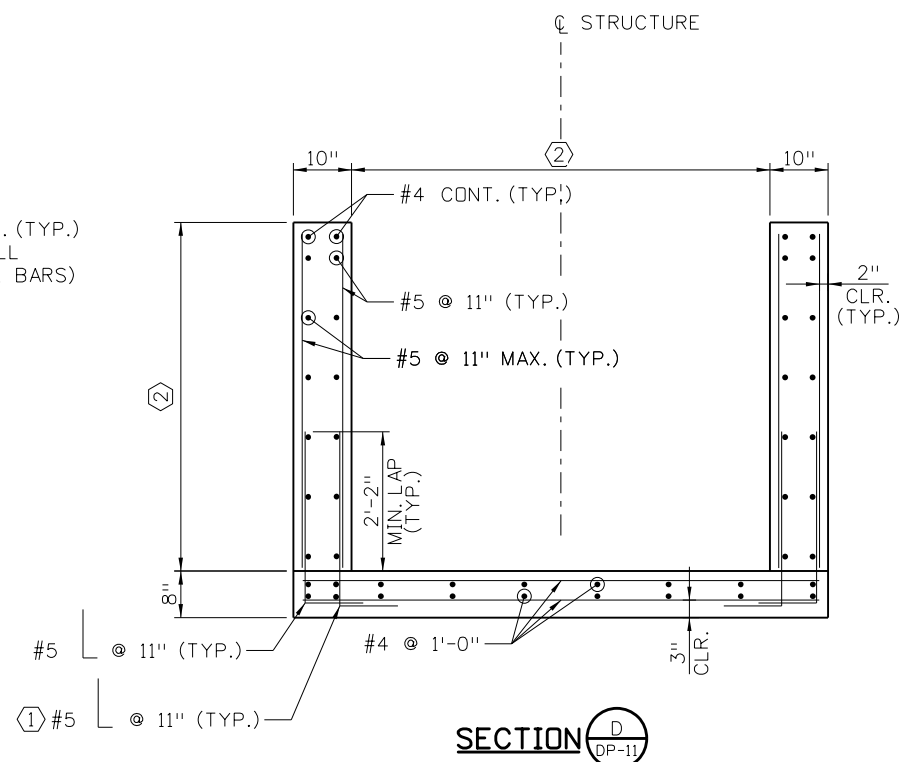
**SECTION B**  
DP-11

SEE SECTION D FOR REINFORCING SIZES AND SPACING NOT SHOWN



**SECTION C**  
DP-11

SEE SECTION D FOR REINFORCING SIZES AND SPACING NOT SHOWN  
ORFICE PLATE AND TRASH SCREEN NOT SHOWN FOR CLARITY



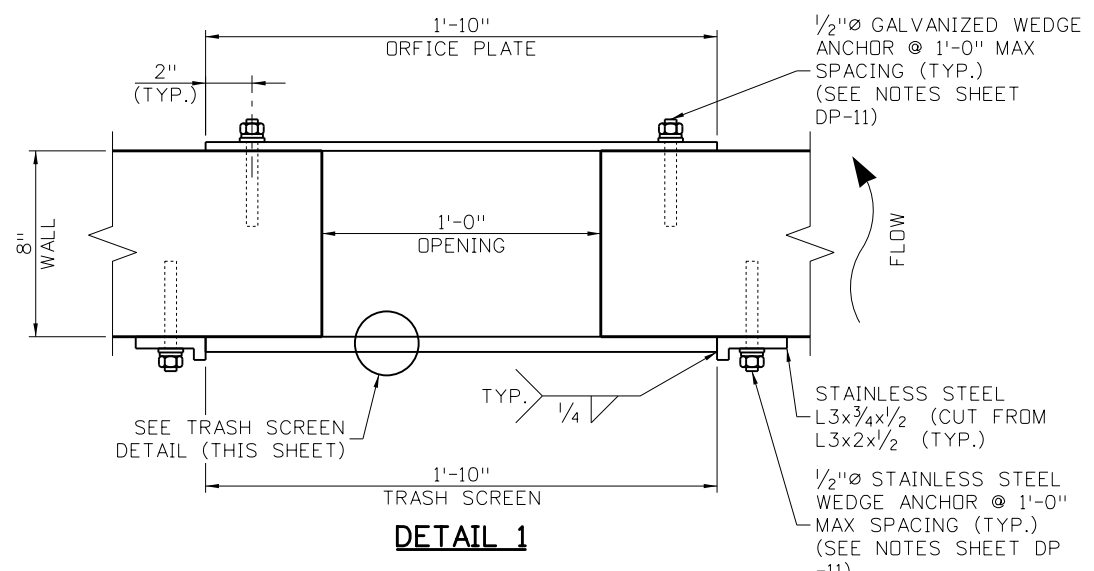
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DP-11

REINFORCING SHOWN IN THIS SECTION IS SIMILAR FOR SECTIONS B AND C

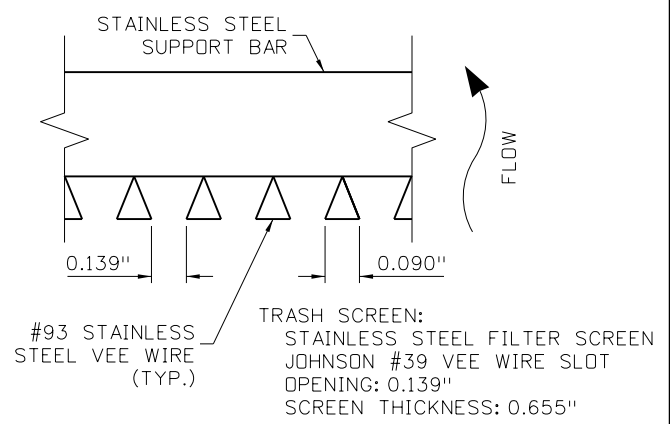


**KEYNOTES:**

- ① OMIT THIS BAR WHEN WALL HEIGHT IS 2'-4" OR LESS.
- ② SEE DRAINAGE PLANS FOR CONTROLLING DIMENSIONS, ELEVATIONS, AND GRADES.



**DETAIL 1**



**TRASH SCREEN DETAIL**  
NTS

Print Date: 4/12/2023
File Name: 19734HYDR_DP-12.dgn
Horiz. Scale: 1:2.75      Vert. Scale: None
<b>HR</b> 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919      PHONE: 719-272-8800

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<b>HIGHWAY 105 PROJECT A DRAINAGE POND DETAIL OUTLET STRUCTURE</b>	
Designer: E.CHAN	Structure Numbers
Detailer: E.SCHAWO	Subset Sheets: 12 of 13
Sheet Subset: DR-POND	

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number











**General Notes**

- G1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- G2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- G3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON-SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- G4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- G5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- G6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- G7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- G8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- G9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- G10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- G11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- G12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF-SITE.
- G13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.

- G14. DURING DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER MAY BE DISCHARGED ON-SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- G15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- G16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- G17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- G18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- G19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- G20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- G21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- G22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- G23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- G24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- G25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- G26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- G27. A WATER SOURCE SHALL BE AVAILABLE ON-SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- G28. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:  
  
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
  
WATER QUALITY CONTROL DIVISION  
  
WQCD – PERMITS  
  
4300 CHERRY CREEK DRIVE SOUTH  
  
DENVER, CO 80246-1530  
  
ATTN: PERMITS UNIT

Print Date: 6/24/2022  
 File Name: 19734DES\_SWMP\_Specifications.dgn  
 Horiz. Scale: Vert. Scale: None  
  
 5690 DTC Boulevard, Suite 330W  
 Greenwood Village, CO 80111  
 Phone: 303-221-2330  
 Fax: 303-221-2331  
 www.stolfusandassociates.com

Sheet Revisions		
Date:	Comments	Init.

  
**EL PASO COUNTY**  
 COLORADO  
 S.F.

  
**CDOT**  
 CO  
 Region 02

<b>As Constructed</b>
No Revisions:
Revised:
Void:

**HIGHWAY 105 PROJECT A  
 STORMWATER MANAGEMENT PLAN  
 GENERAL NOTES**

Designer: S. PARASPATKI	Structure Numbers
Detailer: S. PARASPATKI	Subset Sheets: 01 of 01

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 104 of 251

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**1. SITE DESCRIPTION**

The Contractor shall comply with all CDOT contractual requirements, and all requirements associated with the CDPS-SCP on this project. The SWMP Administrator for Construction shall update the SWMP to reflect current project site conditions.

- A. **PROJECT SITE LOCATION:** The project is located at CO 105 in El Paso County, Colorado. The limits begin approximately at the intersection of CO 105 and the northbound I-25 off-ramp at Monument and extend to the east to Briarhaven Court.  
Location or address of construction office: \_\_\_\_\_
- B. **PROJECT SITE DESCRIPTION:** This project involves the reconstruction of approximately one mile of CO 105. Roadway improvements include widening and milling/overlaying existing pavement. In general, the westbound section will be constructed while maintaining traffic on the existing roadway. Then, the eastbound section will be constructed while traffic uses the new westbound section. Activities will include clearing and grubbing, earthwork and grading, utility installations, drainage improvements, paving, ADA improvements, and signal improvements. Final surfacing will be asphalt pavement on the roadway, concrete curb, gutter, and sidewalk, and native seeding on other disturbed areas.
- C. **PROPOSED SCHEDULE FOR SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES:** There will be two major construction phases. Each phase will involve the following sequence of activities: installation of initial control measures, clearing, grubbing, earthwork, grading, installation of interim control measures, utility work, drainage improvements, paving, ADA improvements, signal improvements, and seeding. Stabilize all areas that are not paved or landscaped through establishment of vegetation cover.
- D. **ACRES OF DISTURBANCE:**
  1. Total area of construction site (LOC (PERMITTED AREA)): 17.5 acres
  2. Total area of proposed disturbance (LDA): 15.7 acres
  3. Total area of seeding: 3.9 acres
  4. Total area of pre-project impervious surface: 357,286 sq. ft.
  5. Total area of final impervious surface: 501,496 sq. ft.

E. **EXISTING SOIL DATA:**

K Factor (Soil Erodibility Factor)	Composite K Factor (Soil Erodibility Factor)	Percent Within Area	Surface Texture Rating
0.20	0.18	45.7%	Loam
0.17		51.3%	Loamy Sand

Data Source(s): <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

F. **EXISTING VEGETATION, INCLUDING PERCENT OF VEGETATIVE COVER:**

During design, the SWMP Administrator for Design in consultation with the Engineer will determine if the SWMP Administrator for Design or the SWMP Administrator for Construction will conduct the Vegetation Transects. If the site is disturbed, an Adequate Reference Site(s) may be utilized, refer to the permit.

Pre-Construction Date of survey: \_\_\_\_\_ Percent Existing Vegetative Cover: \_\_\_\_\_

Description of existing vegetation: \_\_\_\_\_

Method for determining percent vegetative cover: \_\_\_\_\_

Include a map or table showing transect locations, photos documenting pre-Construction vegetative cover, and methodology used to determine existing vegetative cover to SWMP tab 17:

Post-Construction Date of survey: \_\_\_\_\_ Percent Vegetative Cover: \_\_\_\_\_

Description of vegetation: \_\_\_\_\_

The method used to determine pre-construction percent cover shall be used to determine post construction percent cover.

Include map or table showing transect locations, photos documenting post-Construction vegetative cover, and methodology used to determine existing vegetative cover to SWMP tab 17:

G. **POTENTIAL POLLUTANTS SOURCES:**

Refer to Potential Pollutant Sources in SWMP Section 4A. The SWMP Administrator for Construction shall prepare

a list of all potential pollutants and their locations in accordance with subsection 107.25.

H. **DRAINAGE PATTERNS AND RECEIVING WATER(S):**

1. Description of drainage patterns from the Site: To the north of Highway 105 within the project vicinity, runoff flows north and west and is collected in Dirty Woman Creek. The creek crosses Highway 105 west of the I-25 ramp, outside of the project limits. Within most of the Project A limits for areas south of Highway 105, runoff generally flows to the south and west towards Interstate 25 except for small areas of right-of-way or undeveloped property along the highway. Drainage patterns for the basin areas south of Highway 105 begin to change near the Lake Woodmoor Drive intersection then continue throughout Project B as the landscape changes from urban to rural. Runoff from the southern basin areas instead flows north overland or in local ditches until it reaches Highway 105. Stormwater runoff then crosses under the highway in a series of culvert pipes which begin just west of Lake Woodmoor Drive. These flows also converge in Dirty Woman Creek on the north side of Highway 105.
2. Names of immediate receiving water(s) on site: Dirty Woman Creek  
Identify if designated as outstanding waters. Does the on-site receiving water(s) have 303d impaired designation: Dirty Woman Creek does not have 303d impaired designation.
3. Description of all stream crossings located within the Construction Site Boundary: There are no stream crossings within the limits of construction.

Location	Stream Name	Description Of Any Disturbed Upland Areas
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

I. **ALLOWABLE NON-STORMWATER DISCHARGES:**

Discharge Description	Site Map #	Method Statement (Location)
Uncontaminated Springs		
Concrete Washout Water (in-ground washout structure) #		
Landscape Irrigation Return Flows		
Discharges from Diversions of State Waters		
Emergency Fire Fighting		


#Concrete washout water associated with the washing of concrete tools and concrete mixer chutes can be discharged to the ground if site is managed accordingly to prevent the water from leaving the site as surface runoff or reaching receiving waters.

J. **DIVERSION CRITERIA:**


1. Is a diversion planned for the Site? No.
2. If yes, complete information below:
  - a. What is the 2-year peak flow for the waterway being diverted (cubic feet per second)?
  - b. What are the monthly averages if available? (provide averages for Jan- Dec if available)
  - c. What is the upstream contributing drainage area and imperviousness?
  - d. A method statement must be prepared by the Contractor and approved by CDOT for each diversion. Diversion structures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion and meet the conditions in the SCP.
  - e. If the conditions in the SCP cannot be met and an alternative is required, CDOT must approve the alternative and then it must be submitted and approved by CDPHE's Water Quality Control Division prior to implementation.

K. **ALTERNATIVE TEMPORARY STABILIZATION SCHEDULE:**

[If applicable, provide a description of the alternative temporary stabilization schedule. If temporary stabilization exceeds the 14-day schedule, then the SWMP must document the constraints necessitating the alternative schedule, provide the alternative schedule, and identify all the locations where the alternative schedule is applicable on the site map.  
Alternative temporary stabilization schedules must be approved by CDOT prior to implementation]

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EL PASO COUNTY COLORADO S.F.  Region 02

**As Constructed**  
 No Revisions:  
 Revised:  
 Void:

**HIGHWAY 105 PROJECT A STORMWATER MANAGEMENT PLAN**

Designer: B. TIMBERS  
 Detailer: S. PARASPATKI  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: 01 of 08

**Project No./Code**  
 19734  
 STA 105A-014  
 Sheet Number 105 of 251



**2. SITE MAP COMPONENTS:**

Pre-construction

- A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES: See SWMP Site Maps
- B. FLOW ARROWS THAT DEPICT STORMWATER FLOW DIRECTIONS ON-SITE, RUN-ON AND RUNOFF DIRECTION: See SWMP Site Maps
- C. ALL AREAS OF GROUND SURFACE DISTURBANCE: See SWMP Site Maps
- D. AREAS OF CUT AND FILL: See Roadway Cross-Sections
- E. AREAS USED FOR STORING AND STOCKPILING OF MATERIALS, STAGING AREAS (field trailer, fueling, etc.) and LOCATIONS OF ALL WASTE ACCUMULATION and BATCH PLANTS INCLUDING MASONRY MIXING STATIONS: Shall be shown and identified on SWMP Site Maps by SWMP Administrator for Construction.
- F. LOCATION OF ALL STRUCTURAL CONTROL MEASURES IDENTIFIED IN THE SWMP: See SWMP Site Maps
- G. LOCATION OF NON-STRUCTURAL CONTROL MEASURES AS APPLICABLE IN THE SWMP: See SWMP Site Maps
- H. SPRINGS, STREAMS, WETLANDS, DIVERSIONS, AND OTHER STATE WATERS, INCLUDING AREAS THAT REQUIRE PRE-EXISTING VEGETATION BE MAINTAINED WITHIN 50 FEET OF A RECEIVING WATER: See SWMP Site Maps
- I. LOCATIONS OF ALL STREAM CROSSING LOCATED WITHIN THE CONSTRUCTION SITE BOUNDARY: Not applicable within the limits of construction
- J. PROTECTION OF TREES, SHRUBS, SENSITIVE HABITAT, AND CULTURAL RESOURCES: See SWMP Site Maps
- K. LOCATIONS WHERE ALTERNATIVE TEMPORARY STABILIZATION SCHEDULES APPLY: N/A

**3. QUALIFIED STORMWATER MANAGERS:**

- A. SWMP ADMINISTRATOR FOR DESIGN:  
CDOT Certified Individual responsible for developing SWMP Plan Sheets and SWMP Site Maps during the design phase.

Name/Title	Contact Information	Certification #
Shantanu Parasparki	303-221-2330, shantanu@stolfusandassociates.com	1DB33082

- B. SWMP ADMINISTRATOR FOR CONSTRUCTION: (As defined in Section 208) The Contractor shall designate a SWMP Administrator for Construction upon accepting co-permittee of the permit. The SWMP Administrator for Construction shall become the operator for the SWMP and assume responsibility for all design changes to the SWMP implementation and maintenance in accordance to 208.03, the SWMP shall remain the property of CDOT. The SWMP Administrator for Construction shall be responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the SWMP Administrator for Construction shall address all aspects of the project's SWMP. (Update the information below for each new SWMP Administrator for Construction) (A copy of TECS Certification must be included in the SWMP.)

Name/Title	Contact Information (phone & email)	Certification #	Start Date	Engineer Approval

- C. EROSION CONTROL INSPECTOR: (As defined in Section 208) The Contractor may designate an Erosion Control Inspector. The Erosion Control Inspector shall complete duties in accordance with subsection 208.03 (c) (Copy of TECS Certification must also be included in the SWMP.)

Name/Title	Contact Information (phone & email)	TECS Certification #	Start Date	Engineer Approval

- D. PERMANENT STABILIZATION SUBJECT MATTER EXPERT: This qualified individual will be either a Regional Environmental Staff member, or an Independent Contractor Controller (Independent Assurance Program). This expert is a project team leader responsible for ensuring project adherence to requirements of the 207 and 212 Project Special Provisions as follows and will be available for questions regarding permanent stabilization requirements.

1. Review the Topsoil Management Plan and the Permanent Stabilization Site Maps.
2. Attend the Environmental Pre-Construction Conference.
3. Coordinate the Site Pre-Vegetation Conference.
4. Review and recommend approval of products.
5. Review and recommend approval of the Quantities Verification Prerequisite.
6. Attend the Partial Landscape Completion Walkthrough.
7. Attend the Final Landscape Completion Walkthrough.

Name/Title	Contact Information

**4. STORMWATER MANAGEMENT CONTROLS FOR FIRST CONSTRUCTION ACTIVITIES**

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

- A. POTENTIAL POLLUTANT SOURCES:  
Evaluate, identify, locate and describe all potential sources of pollutants at the site in accordance with subsection 107.25, CDPS-SCP and place in the SWMP. All control measures related to potential pollutants shall be shown on the SWMP Site Map by the Contractor's SWMP Administrator for Construction.
- B. OFFSITE DRAINAGE (RUN ON WATER):  
Describe and record control measures on the SWMP Site Map that have been implemented to address off site run-on water in accordance with subsection 208.03.
- C. VEHICLE TRACKING CONTROL:  
Control measures shall be implemented in accordance with subsection 208.04.
- D. PERIMETER CONTROL:
  1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters. Perimeter control shall be in accordance with subsection 208.04
  2. Perimeter control may consist of berms, silt fence, erosion logs, existing landforms, or other control measures as approved.

**5. DURING CONSTRUCTION**

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR FOR CONSTRUCTION: Considered a "living document", the SWMP is continuously reviewed and modified throughout the construction phases. During construction, SWMP Administrator for Construction shall add, update, or amend the items A-G below as needed in accordance with subsection 208.03.

During construction, indicate how items that were not addressed during design are being handled in construction. If items are covered in other sections of the SWMP, indicate below what section the discussion takes place.

- A. MATERIALS HANDLING AND SPILL PREVENTION AND RESPONSE PLAN: Prior to construction commencing the Contractor shall submit a Spill Response Plan. Materials handling and Spill Response Plan shall be in accordance with subsection 208.06.
- B. OTHER CDPS PERMITS: List applicable CDPS permits associated with the permitted site and activities.

Print Date: 4/11/2023	<b>Sheet Revisions</b>	<b>EL PASO COUNTY</b> COLORADO	<b>CDOT</b>	<b>As Constructed</b>	<b>HIGHWAY 105 PROJECT A STORMWATER MANAGEMENT PLAN</b>	<b>Project No./Code</b>
File Name: 19734DES_SWMP-2.dgn	Date:      Comments      Init.	<b>Stolfus</b> 5690 DTC Boulevard, Suite 330W Greenwood Village, CO 80111 Phone: 303-221-2330 Fax: 303-221-2331 www.stolfusandassociates.com	<b>CO</b>	No Revisions:	Designer: B. TIMBERS	19734
Horiz. Scale: N.T.S.      Vert. Scale: None		S.F.	Region 02	Revised:	Detailer: S. PARASPATKI	STA 105A-014
				Void:	Sheet Subset: SWMP	Sheet Number 106 of 251
					Structure Numbers	
					Subset Sheets: 02 of 08	

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- C. STOCKPILE MANAGEMENT: Shall be done in accordance with subsections 107.25 and 208.07.
- D. CONCRETE WASHOUT: Concrete washout water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.
- E. SAW CUTTING: Shall be done in accordance with subsections 107.25, 208.04, 208.05
- F. STREET SWEEPING: Shall be done in accordance with subsection 208.04.

**6. INSPECTIONS**

- A. Water Quality Inspections shall be in accordance with subsection 208.03(c).
- B. Permanent Stabilization Inspections shall be in accordance with subsections 208.04(e)4 and 208.10.

**7. CONTROL MEASURE MAINTENANCE**

Maintenance shall be in accordance with subsection 208.04(f).

**8. RECORD KEEPING**

Records shall be kept in accordance with subsection 208.03(d).

**9. INTERIM, PERMANENT STABILIZATION and LONG-TERM STORMWATER MANAGEMENT**

The Contractor shall comply with all interim stabilization and permanent stabilization requirements in accordance with subsection 208.04(e).

A. SEEDING PLAN:

The following seed mix(es) and rates are for drill seeding method as shown on the Permanent Stabilization Site Maps shall be used:

**PMJM Habitat Area Seeding:**

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
Sideoats grama	Bouteloua curtipendula var. Vaughn	2.0
Blue grama	Bouteloua gracilis var. Hachita	1.5
Little bluestem	Schizachyrium scoparium var. Pastura	3.0
Western wheatgrass	Pascopyrum smithii var. Ariba	5.0
Green needlegrass	Stipa viridula	2.0
Junegrass	Koeleria macrantha	0.3
Indiangrass	Sorghastrum nutans var. Holt	3.0
Switch grass	Panicum virgatum v. Nebraska 28	2.0
Smooth aster	Symphotrichum laeve	0.1
Purple prairie clover	Dalea purpurea	0.5
Blanketflower	Gaillardia aristata	1.0
Blue flax	Linum lewsi	1.0
Woods' rose	Rosa woodsii	1.0
Rabbitbrush	Ericameria nauseosa	0.1
Threelobed sumac	Rhus trilobata	0.5
Snowberry	Symphoricarpos albus	0.5
Chokecherry	Prunus virginiana	0.5
Winter wheat (sterile)	Triticum aestivum	3.0
Common oat (sterile)	Avena sativa	3.0
<b>Total</b>		<b>30.0</b>

B. SEEDING APPLICATION METHOD:

The following seeding methods shall be used for all areas shown on the Permanent Stabilization Site Maps. Soil compaction shall be minimized for areas where permanent stabilization will be achieved through vegetative cover.

Pay Item	Seeding Method (subsection 212.05)	Acre
212-00706	Seeding (Native) Drill	3.9
	Total	3.9

C. SOIL STABILIZATION METHODS:

Minimum soil stabilization methods (attached mulch) for all disturbances to receive seeding.

1. Apply a minimum of 2 tons/ac certified weed free hay or 2 ½ tons/ac of certified weed free straw and mechanically crimp into the soil in combination with natural mulch tackifier in accordance with Section 213. Prior to winter shutdown or the summer seeding window closure: Uncompleted slopes shall be mulched with 2 tons of mulching (weed free) per acre, mechanically crimped into the topsoil in combination with an organic mulch tackifier in accordance with Sections 208 and 213.

D. SPECIAL REQUIREMENTS:

1. Soil amendments, seedbed preparation, and permanent stabilization mulching shall be accomplished within four working days of placing the topsoil on the de-compacted civil subgrades. If placed topsoil is not mulched with permanent stabilization mulch within four working days, the Contractor shall complete interim stabilization methods in accordance with subsection 208.04(e) at no additional cost to the Department.
2. Complete permanent stabilization mulching within 24 hours of hydraulic application of native seed.
3. The Contractor shall submit a proposed Permanent Stabilization Phasing Plan to the Engineer for approval showing how implementation of SWMP Permanent Stabilization Plans will minimize damage to seeded areas.

E. SOIL AMENDMENT REQUIREMENTS: Minimum amendment material requirements for all disturbances to receive seeding.

**3.90 Total Acres of Seeding (Native) Drill With Topsoil Generated From: Topsoil (Onsite)**

Seeding (Native) Drill Pay Item 212-00706	Pay Item	Description	Amount/Acre	Units	Total For This Method
	212-00700	Organic Fertilizer High or Low N	300	Pounds	1170
	212-00701	Compost (Mechanically Applied)	65	CY	254
	212-00703	Humate	200	Pounds	780

F. Permanent Stabilization Application Under Structures:


Under structures shade patterns should be considered and the use of Median Cover Material (Stone) or other stabilized options with an approved Project Special Provision should be used. See SWMP Site Map for locations.

G. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION:



Prior to stormwater construction work partial acceptance.

1. All seeded areas shall be reviewed by the SWMP Administrator for Construction and or Erosion Control Inspector for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be re-graded, seeded, and have the designated mulching applied as necessary, at no additional cost to the project.
2. The Contractor shall maintain seeding/mulch/tackifier/blanket/TRM, mow to control weeds or apply herbicide to control weeds in the seeded areas, at no additional cost to the project.

H. LOCATION AND DESCRIPTION OF PLANNED PERMANENT CONTROL MEASURES: Is Permanent Water Quality Required. No

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 EL PASO COUNTY COLORADO S.F. Region 02

As Constructed	HIGHWAY 105 PROJECT A STORMWATER MANAGEMENT PLAN	
No Revisions:	Designer: B. TIMBERS	Structure Numbers
Revised:	Detailer: S. PARASPATKI	
Void:	Sheet Subset: SWMP	Subset Sheets: 03 of 08

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19734
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**10. PRIOR TO PROJECT FINAL ACCEPTANCE**

- A. When directed by the Engineer, removal and disposal of temporary control measures shall be included in the cost of work.
- B. At the end of the project, all ditch checks shall consist of either temporary erosion logs (or equivalent) or permanent riprap.
- C. All storm drains shall be cleaned prior to the Final Acceptance of the project. If required, include work in 202-04002 Clean Culvert.
- D. Refer to subsection 208.10 for Items to be completed prior to requesting partial acceptance of water quality work.

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 5690 DTC Boulevard, Suite 330W Greenwood Village, CO 80111 Phone: 303-221-2330 Fax: 303-221-2331 www.stolfusandassociates.com				Void:	Sheet Subset: SWMP	Subset Sheets: 04 of 08	Sheet Number 108 of 251					

**11. NARRATIVES**

**Control Measure Matrixes During Construction:**

- Control measure narratives have been included for the CDOT Standard Specifications and Standard Plan M-208 and M-216 along with any non-standard control measures approved during the design process. If a Non-Standard Control Measure not included in the SWMP is proposed and approved by the Engineer the SWMP Administrator for Construction shall do the following: Place an "X" in the column for non-standard and complete a Non-Standard Control Measure Specification and Narrative covering the what, when, where and why the control measure is being used shall be added to the SWMP. The appropriate "X" shall also be added to the implementation phase(s).
- The SWMP Administrator for Construction shall place an "X" in the column In Use On Site when the control measure has been installed.
- A "B" in the Initial Activities Column indicates that the control measure shall be installed **before** construction activity starts. Locations and quantities will be discussed during the Environmental Pre-Construction Conference with the Regional Water Pollution Control Manager.

**STRUCTURAL Control Measures** that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to the following:

APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
PROTECTION OF EXISTING WETLANDS <i>Fence (plastic) and erosion logs</i>	Fence (plastic) shall be placed in combination with erosion logs to prevent encroachment of construction traffic and sediment into state waters prior to start of construction disturbances. Fence (plastic) shall be placed adjacent to the wetlands; erosion logs shall be placed between the plastic fence and disturbance area. Logs shall be placed to direct flows away from or filter water running into wetlands from disturbance areas.			B	X	
PROTECTION OF EXISTING TREES/LANDSCAPING <i>Fence (plastic)</i>	Fence (plastic) shall be used in areas indicated in the plans to prevent encroachment of construction traffic and sediment for the protection of sensitive habitat, mature trees and/or existing landscaping prior to start of construction disturbances.			B	X	
CHECK DAM/DITCH CHECK <i>Erosion log, silt berm, silt dike, rock check dam</i>	Placed in ditches immediately upon completion of ditch grading to reduce velocity of runoff in ditch. For existing ditches, place prior to start of construction disturbances.	M-208				
Storm Drain Inlet Protection In Paved Roadways (Type 1, 2 and 3 as shown on M-208-1, sheet 5 of 11)	Manufactured storm drain inlet protection placed prior to construction disturbances as detailed in M-208-1, to protect existing inlets or immediately upon completion of new inlets to prevent sediment from entering the inlet throughout construction.	M-208		B	X	
Storm Drain Inlet Protection In Native Seed Areas (M-604 Standard Inlets Type C and D)	Erosion logs or aggregate bags placed around inlet grate to prevent sediment from entering inlet. Place prior to construction disturbances to protect existing inlets or immediately upon completion of new inlets.	M-208			X	
CULVERT INLET/OUTLET PROTECTION <i>Erosion logs, aggregate bags</i>	Placed at mouth of culvert inlets and over top of culvert at inlet and outlet where disturbance may be occurring adjacent to pipe to prevent sediment laden water from entering pipe or drainage. Place prior to the start of construction disturbances.	M-208		B	X	
TYPE C, TYPE D AND TYPE 13 PROTECTION <i>Erosion logs, aggregate bags, erosion bales</i>	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to the start of construction disturbances.	M-208		B or X	X	X
Type R Inlet Protection	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to the start of construction disturbances.	M-208		B	X	X
STOCKPILE PROTECTION <i>Temporary berm, erosion logs, aggregate bags*</i>	Placed within specified distance, in accordance with subsection 208.06, from toe to contain sediment around stockpile. *Aggregate bags are easily moved and replaced for access during the work day. Place prior to start of stockpiling, increase control as the stockpile increases size.	M-208			X	
TOE OF FILL PROTECTION <i>Erosion logs, temporary berm, silt fence, topsoil windrow*</i>	Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.	M-208		B	X	
PERIMETER CONTROL <i>Erosion logs, silt fence, temporary berm, topsoil windrow*</i>	Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.	M-208		B	X	
SLOPE CONTROL <i>Silt fence, erosion logs</i>	Placed on the contour of a slope to contain and slow down construction runoff. Place prior to the start of construction disturbances.	M-208		B	X	
TEMPORARY SEDIMENT TRAP	Used to capture sediment laden runoff from disturbed areas < 5 acres during construction. Place prior to the start of construction disturbances. Outlets that withdraw water from or near the surface may be installed when discharging from basins and impoundments.	M-208		B	X	
TEMPORARY SLOPE DRAIN OUTLET PROTECTION <i>Riprap, or approved other</i>	Placed as a conduit or chute to drain runoff down slope and to prevent erosion of slope. Material placed as an energy dissipater to prevent erosion at outlet structure.	M-208 M-601-12			X	X

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**HIGHWAY 105 PROJECT A  
STORMWATER MANAGEMENT PLAN**

Designer: B. TIMBERS

Detailer: S. PARASPATKI

Sheet Subset: SWMP

Structure

Numbers

Subset Sheets: 05 of 08

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**NON-STRUCTURAL Control Measures** that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to: Erosion control devices are used to limit the amount of soil loss on site. Sediment control devices are designed to capture sediment on the project site. Construction controls are control measures related to construction access and staging. Control Measure locations are indicated on the SWMP Site Map.

**\* Use of vegetative buffer strip requirements.** The CDPHE Water Quality Control Division Technical Memorandum dated August 27, 2015 clarifies the requirements for utilization of existing vegetation as a buffer type of sediment control measure, while maintaining compliance with the CDPS permit for Stormwater Discharges Associated with Construction Activity – CDPS Permit No. COR4000000. In general, the division does not recommend that vegetated buffers be implemented as a sediment removal control measure for runoff from disturbed areas at construction sites, unless implemented as a “finishing” component of a treatment train comprised of additional, adequate up-gradient Control Measures. The entire memorandum can be found at: <https://www.colorado.gov/pacific/sites/default/files/Vegetative%20Buffer%20Memo.pdf>

APPLICATION, CONTROL MEASURE	NARRATIVE	M-STANDARD or "For NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITY	INTERIM ACTIVITIES	PERMANENT STABILIZATION
* VEGETATIVE BUFFER STRIP	Finishing component for filtering sediment-laden runoff from disturbance area. Area within CDOT ROW or temporary easement to be identified on SWMP prior to construction starting.					
GRADING APPLICATIONS (LANDFORM)	Existing or created landforms may be used as a control measure if they prevent sediment from entering or leaving the disturbance area. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion. Area to be identified on SWMP prior to construction starting.	M-208				
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE Stockpile	Prior to any site disturbance work commencing, existing topsoil shall be scraped to a depth six inches or as specified, and placed in stockpiles or windrows. Upon completion of final grading, topsoil shall be evenly distributed over embankment to a depth of six inches or as specified.	M-208		X	X	
SURFACE ROUGHENING / GRADING TECHNIQUES	Temporary stabilization of disturbance and to minimize wind and erosion.				X	
SEEDING (TEMPORARY)	Temporary stabilization used for over wintering of disturbance or used to control erosion for areas scheduled for future construction.				X	
BONDED FIBER MATRIX or MULCHING (HYDRAULIC)	Not to be used in areas of concentrated flows, i.e. ditch lines. To be for either Interim or Permanent Stabilization placed as a surface cover for erosion control. May be used as surface cover when work is temporarily halted and as approved by the Engineer for stockpiles.					
Straw or Hay MULCH/MULCH TACKIFIER	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as Interim Stabilization as a surface cover when work is temporarily halted and as approved by the Engineer				X	
SPRAY-ON MULCH BLANKET (Not to be used in areas of concentrated flows, i.e. ditch lines.)	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer				X	
SEEDING PERMANENT (NATIVE PMJM Habitat Seeding)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.					X
SOIL RETENTION BLANKET (SRB)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.	M-216			X	X
TURF REINFORCEMENT MAT (TRM)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas. Placed in channels or on slopes for erosion control, channel liner and seeding establishment.	M-216				
Sweeping	Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.			X	X	
OTHER						

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HIGHWAY 105 PROJECT A  
 STORMWATER MANAGEMENT PLAN  
 Designer: B. TIMBERS  
 Detailer: S. PARASPATKI  
 Sheet Subset: SWMP  
 Structure Numbers  
 Subset Sheets: 07 of 07

Project No./Code	19734
	STA 105A-014
	Sheet Number 111 of 251

**12. TABULATION OF STORMWATER QUANTITIES**

- A. Control Measure sediment removal and disposal shall be paid for as: 208 Removal and Disposal of Sediment (Equipment) and 208 Removal and Disposal of Sediment (Labor). All other control measure maintenance shall be included in the cost of the control measure.
- B. It is estimated that 40 hours of blading (140-250 horsepower), dozing (130-250 horsepower) and/or combination loader (80-125 horsepower) may be required for miscellaneous erosion control work as directed by the Engineer. Work shall be paid for as: 203 Blading, 203 Dozing and/or 203 Combination Loader

PSP Spec.	Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
	203-01500	Blading	Hour		40		40
	203-01550	Dozing	Hour		40		40
X	203-01594	Combination Loader	Hour		40		40
	207-00700	Topsoil (Onsite)	CY		2273		2273
	208-00002	Erosion Log Type 1 (12 inch)	LF	5637	300		5937
	208-00020	Silt Fence	LF	4187			4187
	208-00033	Sediment Trap	Each		1		1
	208-00046	Pre-fabricated Concrete Washout Structure (Type 1)	Each	2			2
	208-00051	Storm Drain Inlet Protection (Type I)	LF	140	280		420
	208-00052	Storm Drain Inlet Protection (Type II)	LF		8		8
	208-00070	Vehicle Tracking Pad	Each	2			2
	208-00071	**Maintenance Aggregate (Vehicle Tracking Pad)	CY	30			30
	208-00103	Removal and Disposal of Sediment (Labor)	Hour		40		40
	208-00105	Removal and Disposal of Sediment (Equipment)	Hour		40		40
	208-00106	Sweeping (Sediment Removal)	Hour		40		40
	208-00207	Erosion Control Management (ECM)	Day		80		80
	212-00700	Organic Fertilizer High or Low N	LB			1170	1170
	212-00701	Compost (Mechanically Applied)	CY			254	254
	212-00703	Humate	LB			780	780
	212-00706	Seeding (Native) Drill	Acre			3.9	3.9
	212-00009	Seeding (Temporary)	Acre		3.9		3.9
	213-00004	Mulching (Weed Free Straw)	Acre		3.9	1.9	5.8
	213-00061	Mulch Tackifier	LB		780	380	1160
	214-00350	Deciduous Shrub (5 Gallon Container)	Each			21	21
	216-00101	Soil Retention Blanket (Straw/Coconut) (Biodegradable Class 1)	SY			8598	8598
	216-00302	Turf Reinforcement Mat (Class 2)	SY			864	864

PSP Spec.	Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
	607-11525	Fence (Plastic)	LF	1504			
X	700-70380	F/A Erosion Control	FA				
X	700-70310	F/A Landscaping	FA				

Note: Refer to drainage tabulation for soil retention blanket and turf reinforcement mat quantities.


\*It is anticipated that additional control measures and control measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsections 208.03 and 208.04. **Quantities for all control measures shown above are estimated and have been increased for unforeseen conditions and normal control measure life expectancy.** Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.  
 \*\*Pay Item 208-00071 is included for anticipated maintenance of vehicle tracking pads based on the service life of the control measure in the field. The use of the material shall be directed and approved by the Engineer.  
 \*\*\* F/A refers to CDOT's Force Account Pay Items.

**13. BIOLOGICAL IMPACTS and DEWATERING**

- A. ENVIRONMENTAL IMPACTS:
  1. Wetland Impacts: YES
  2. Stream Impacts: NO
  3. Threatened and Endangered Species:
    - a. Amphibians: (i) Northern leopard frog, *Rana pipiens*
    - b. Mammals: (i) Preble's meadow jumping mouse, *Zapus hudsonius preblei*
    - (ii) Northern pocket gopher, *Thomomys talpoides*
 (using seeding mix compatible with wetlands area and Preble's meadow jumping mouse habitat)
- B. DEWATERING:  
 (Not covered under the CDPHE guidance document Low Risk Discharge Guidance Discharges of Uncontaminated Groundwater to Land):  
<https://www.colorado.gov/pacific/sites/default/files/WQ%20LOW%20RISK%20GW.pdf>
  1. Dewatering: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in Tab 16 of the SWMP.
  2. If groundwater does not meet water quality standards for receiving water a separate CDPS Dewatering Permit shall be obtained by the Contractor from CDPHE in accordance with subsections 107.02 and 107.25.

**14. NOTES**

The project does not rely on any control measures owned or operated by another entity.

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No Revisions:	Designer: B. TIMBERS	Structure Numbers
Revised:	Detailer: S. PARASPATKI	
Void:	Sheet Subset: SWMP	Subset Sheets: 08 of 08

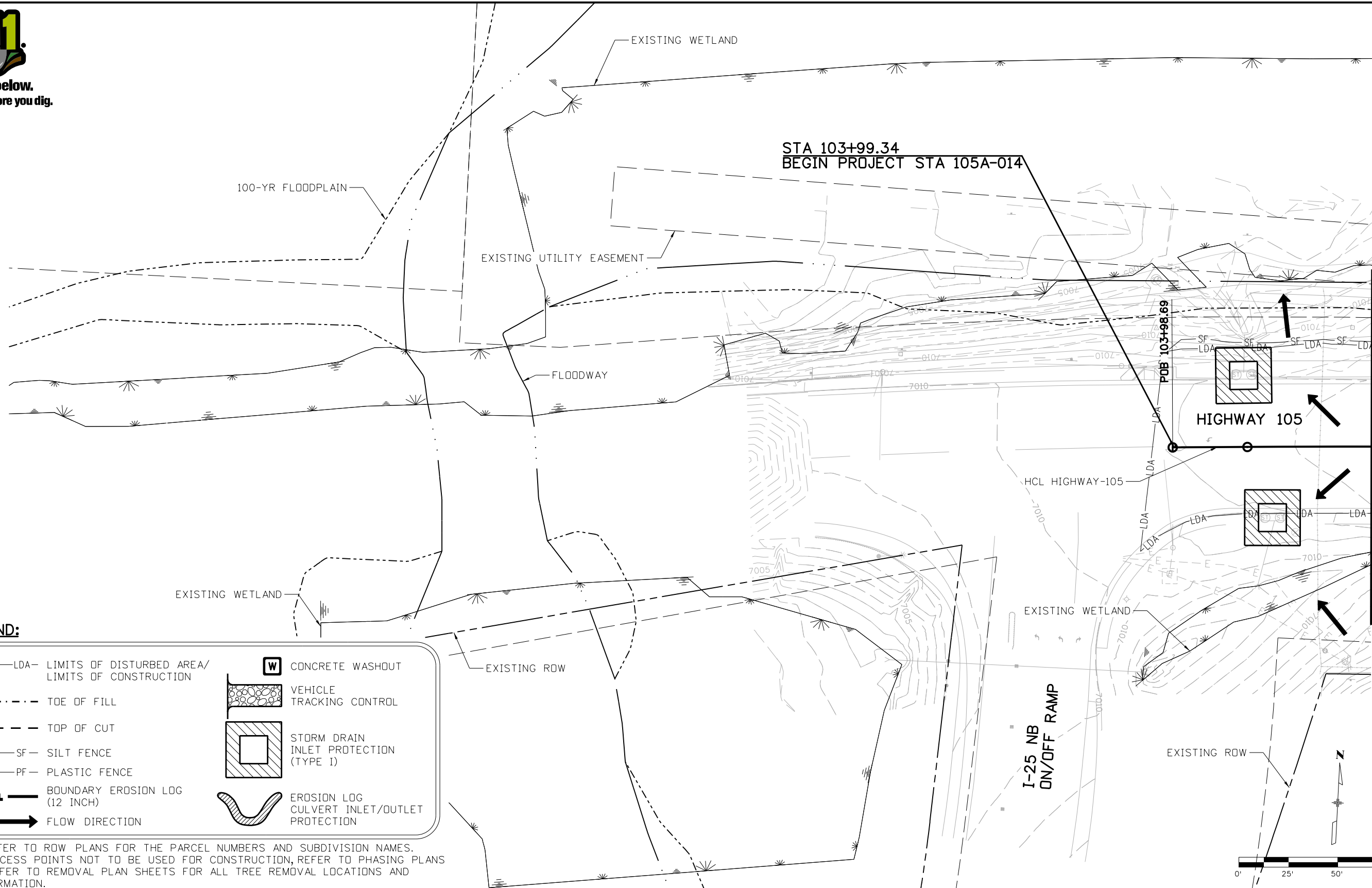
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19734
STA 105A-014
Sheet Number 112 of 251

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**LEGEND:**

- LDA- LDA- LIMITS OF DISTURBED AREA/  
LIMITS OF CONSTRUCTION
- TOE OF FILL
- - - TOP OF CUT
- SF- SF- SILT FENCE
- PF- PF- PLASTIC FENCE
- BOUNDARY EROSION LOG  
(12 INCH)
- FLOW DIRECTION
- W** CONCRETE WASHOUT
- VEHICLE TRACKING CONTROL
- STORM DRAIN INLET PROTECTION (TYPE I)
- EROSION LOG CULVERT INLET/OUTLET PROTECTION

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
2. ACCESS POINTS NOT TO BE USED FOR CONSTRUCTION, REFER TO PHASING PLANS  
3. REFER TO REMOVAL PLAN SHEETS FOR ALL TREE REMOVAL LOCATIONS AND INFORMATION.

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**HIGHWAY 105 PROJECT A  
 INITIAL SWMP SITE MAP  
 STA 100+00 TO 105+00**

Designer: B. TIMBERS  
 Detailer: S. PARASPATKI

Structure Numbers  
 Sheet Subset: SWMP  
 Subset Sheets: EI 1 of 9

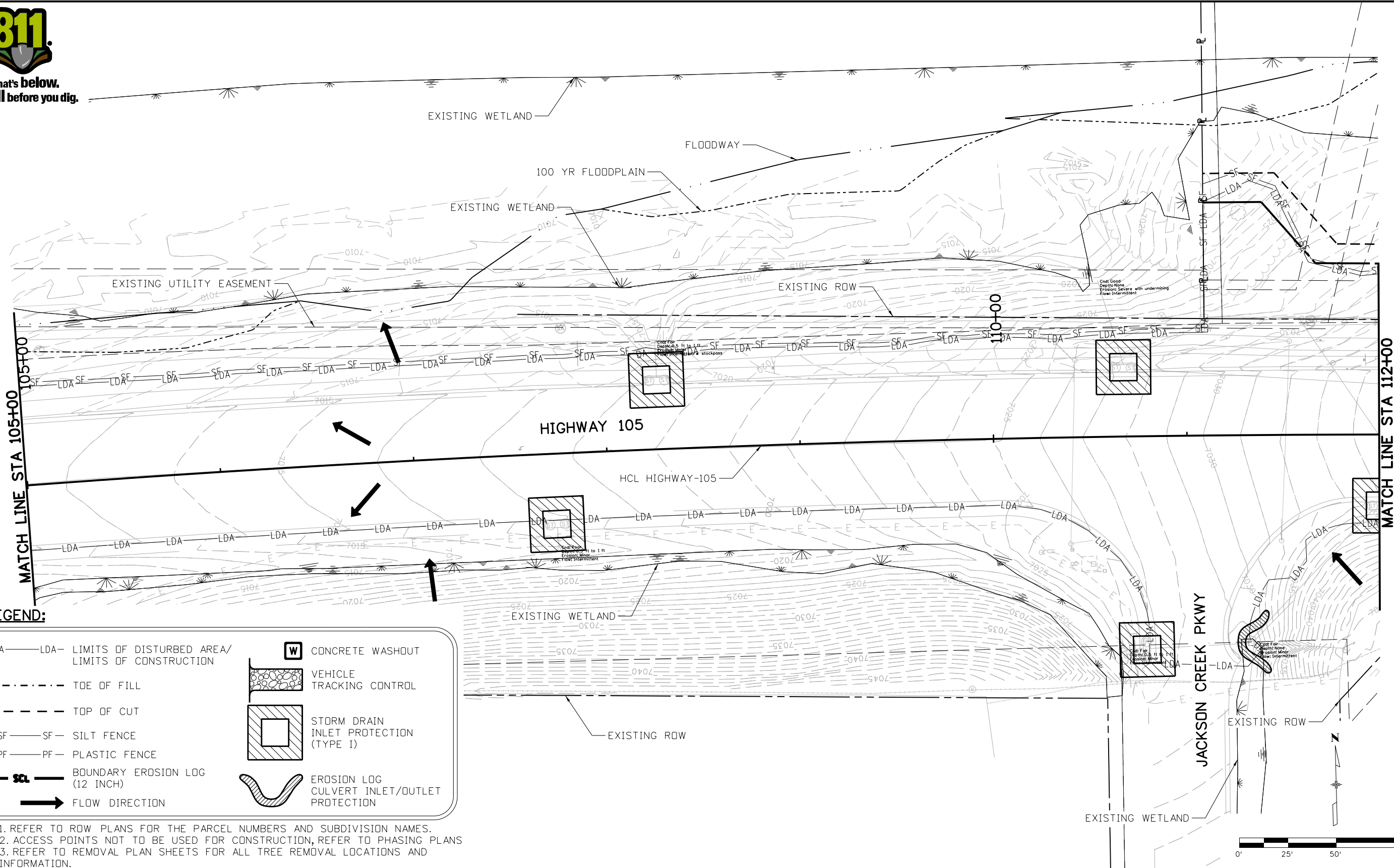
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Sheet Number 113 of 251

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LIMITS OF CONSTRUCTION
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- - - - - TOP OF CUT
- SF—SF— SILT FENCE
- PF—PF— PLASTIC FENCE
- E—E— BOUNDARY EROSION LOG  
(12 INCH)
- FLOW DIRECTION
- W** CONCRETE WASHOUT
- VEHICLE TRACKING CONTROL
- STORM DRAIN INLET PROTECTION (TYPE I)
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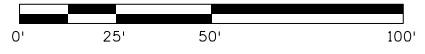
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**HIGHWAY 105 PROJECT A  
 INITIAL SWMP SITE MAP  
 STA 105+00 TO 112+00**

Designer: B. TIMBERS  
 Detailer: S. PARASPATKI

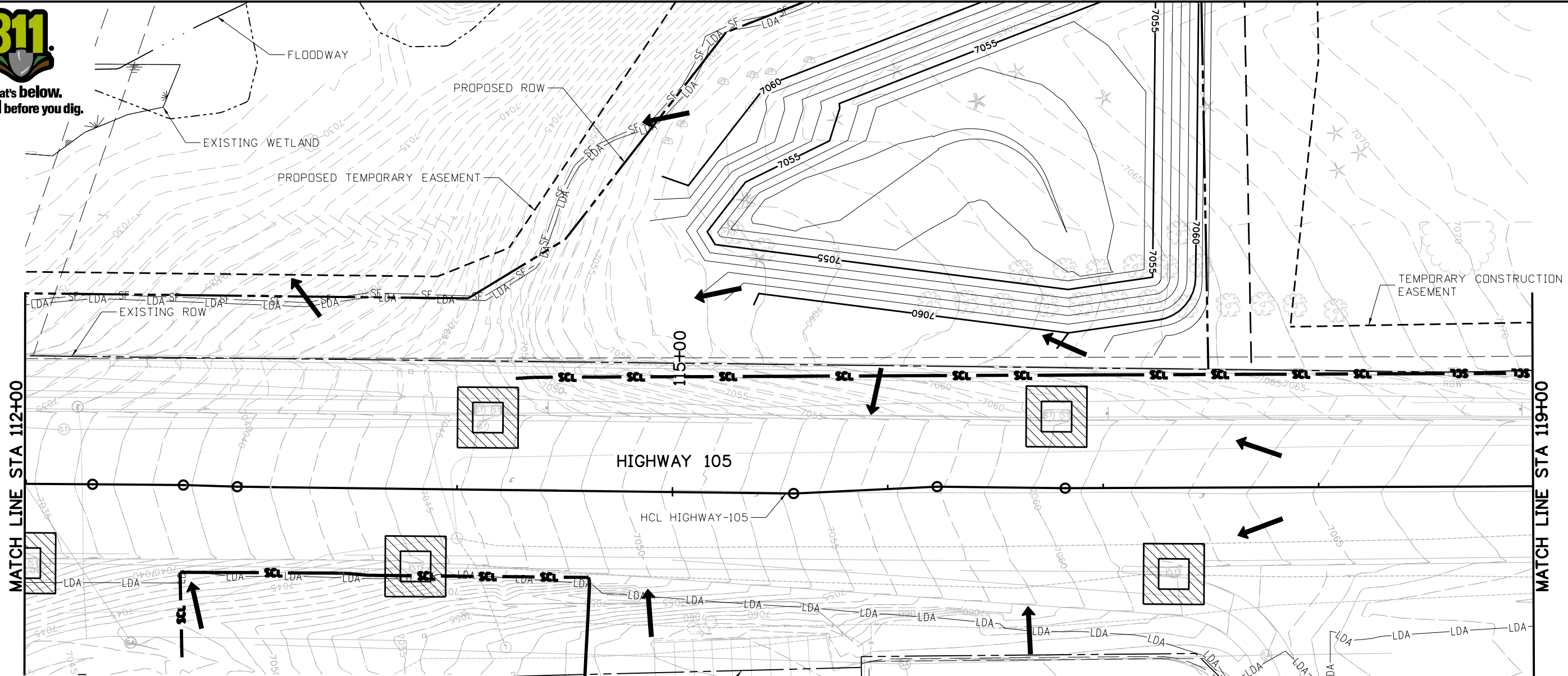
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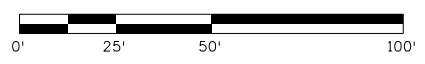
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LIMITS OF CONSTRUCTION
- ..... TOE OF FILL
- - - - - TOP OF CUT
- SF- SF- SILT FENCE
- PF- PF- PLASTIC FENCE
- SCL- BOUNDARY EROSION LOG  
(12 INCH)
- FLOW DIRECTION
- W** CONCRETE WASHOUT
- VEHICLE TRACKING CONTROL
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**HIGHWAY 105 PROJECT A  
 INITIAL SWMP SITE MAP  
 STA 112+00 TO 119+00**

Designer: C. BEASLEY	Structure Numbers
Detailer: B. TIMBERS	
Sheet Subset: SWMP	Subset Sheets: EI 3 of 9

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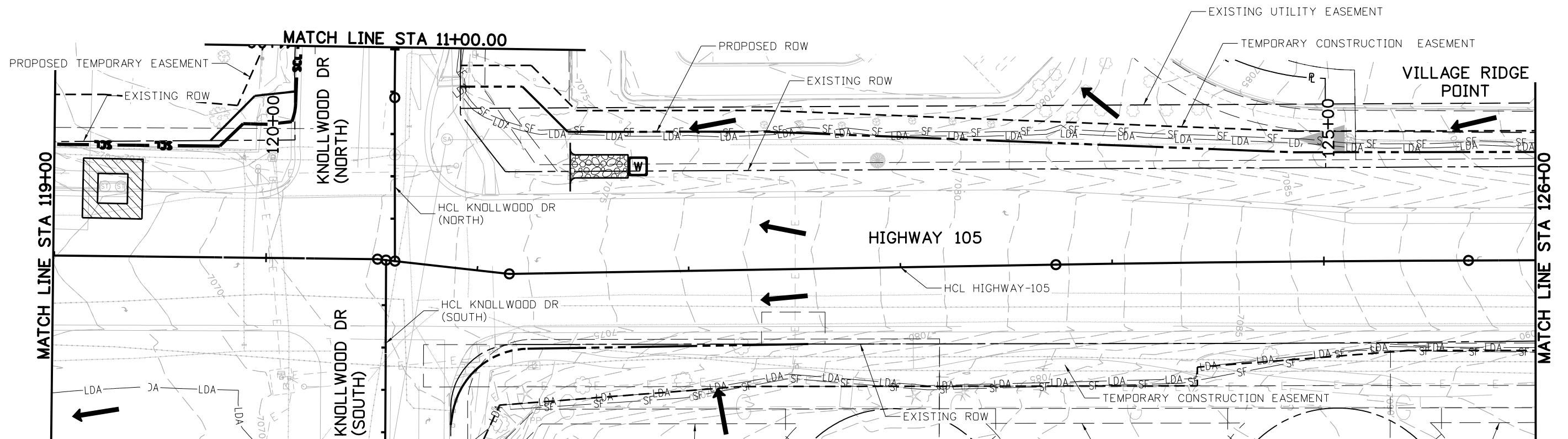
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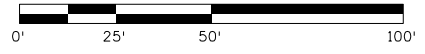
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—SF—SF—	SILT FENCE		EROSION LOG CULVERT INLET/OUTLET PROTECTION
—PF—PF—	PLASTIC FENCE		
	BOUNDARY EROSION LOG (12 INCH)		
	FLOW DIRECTION		

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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**HIGHWAY 105 PROJECT A  
 INITIAL SWMP SITE MAP  
 STA 119+00 TO 126+00**

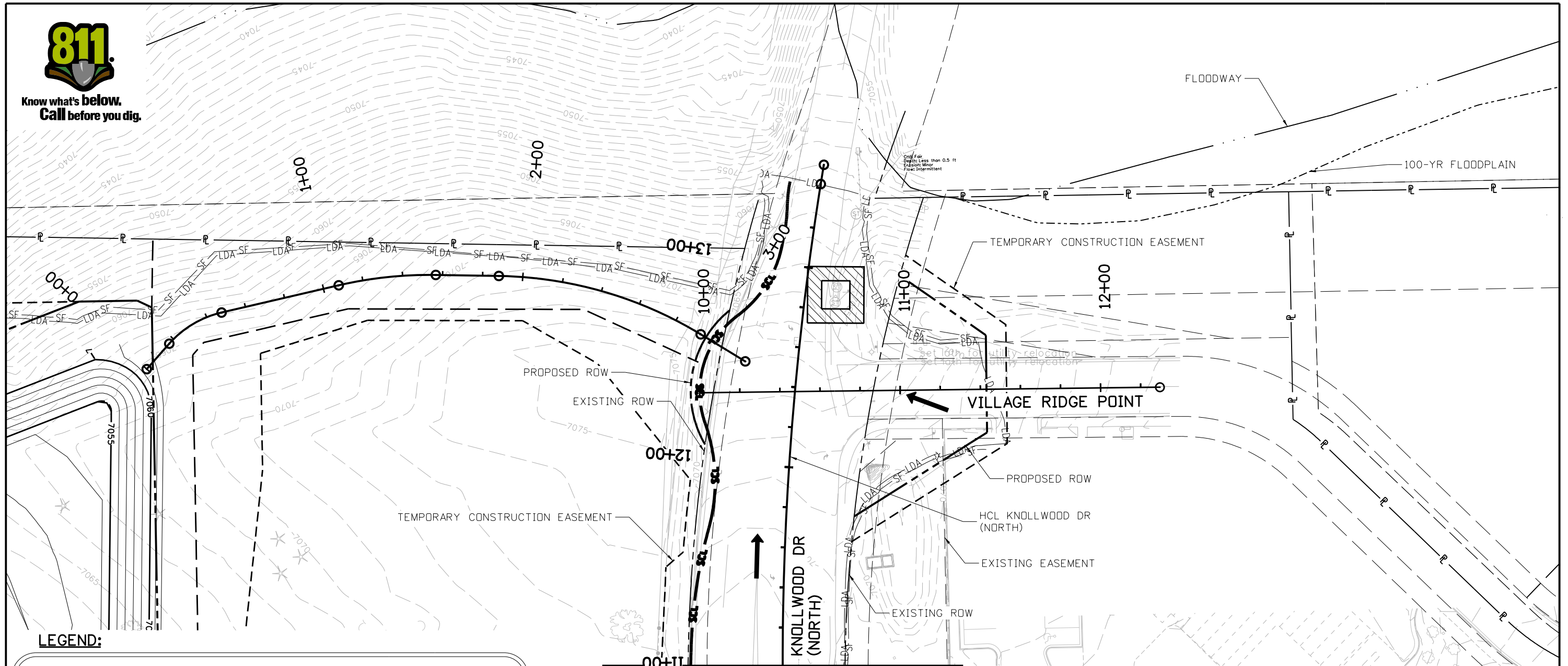
Designer: C. BEASLEY  
 Detailer: B. TIMBERS

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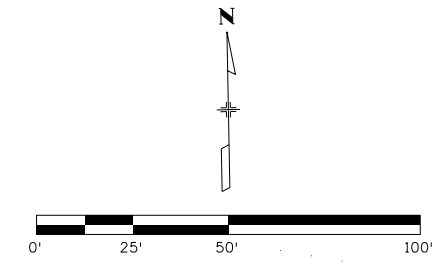
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- - - - -	TOP OF CUT		STORM DRAIN INLET PROTECTION (TYPE I)
—SF—SF—	SILT FENCE		EROSION LOG CULVERT INLET/OUTLET PROTECTION
—PF—PF—	PLASTIC FENCE		
—SCL—	BOUNDARY EROSION LOG (12 INCH)		
→	FLOW DIRECTION		

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**HIGHWAY 105 PROJECT A  
 INITIAL SWMP SITE MAP  
 KNOLLWOOD DR (NORTH)**

Designer:	B. TIMBERS
Detailer:	B. TIMBERS
Sheet Subset:	SWMP

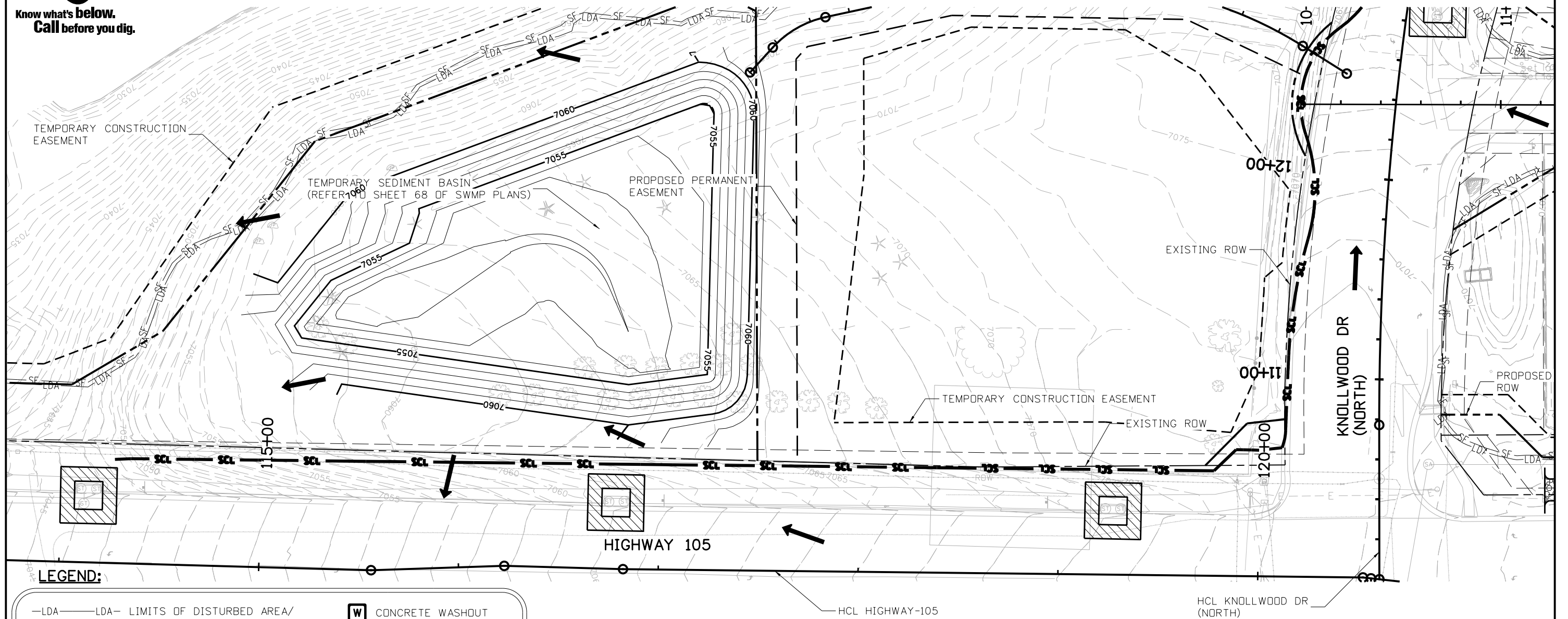
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STA 105A-014
Sheet Number 117 of 251

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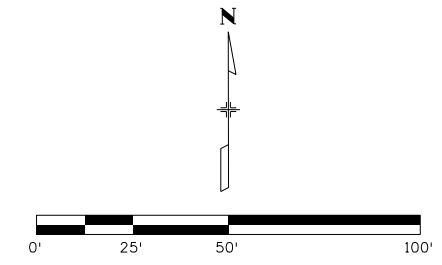
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-----	TOP OF CUT		STORM DRAIN INLET PROTECTION (TYPE I)
—SF—SF—	SILT FENCE		EROSION LOG CULVERT INLET/OUTLET PROTECTION
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—SCL—	BOUNDARY EROSION LOG (12 INCH)		
→	FLOW DIRECTION		

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**HIGHWAY 105 PROJECT A  
 INITIAL SWMP SITE MAP  
 DETENTION POND**

Designer: B. TIMBERS  
 Detailer: B. TIMBERS  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: EI 4B of 9

Project No./Code	19734
	STA 105A-014
Sheet Number	118 of 251

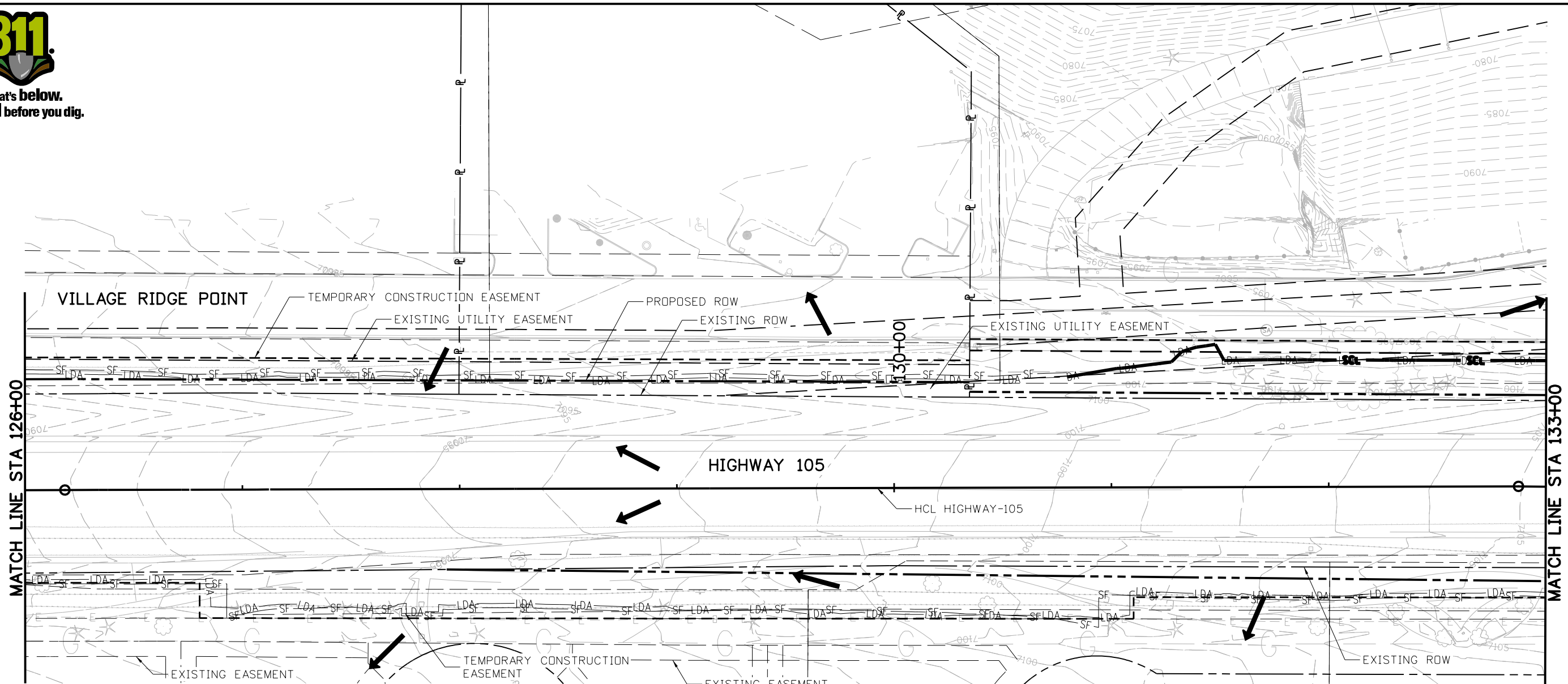
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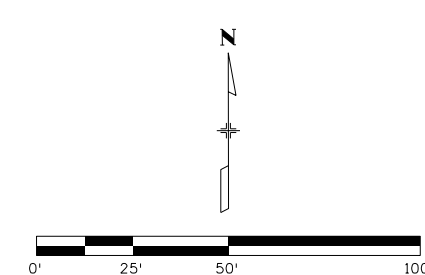
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.....	TOE OF FILL		VEHICLE TRACKING CONTROL
- - - - -	TOP OF CUT		STORM DRAIN INLET PROTECTION (TYPE I)
—SF— SF—	SILT FENCE		EROSION LOG CULVERT INLET/OUTLET PROTECTION
—PF— PF—	PLASTIC FENCE		
	BOUNDARY EROSION LOG (12 INCH)		
	FLOW DIRECTION		

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**HIGHWAY 105 PROJECT A  
INITIAL SWMP SITE MAP  
STA 126+00 TO 133+00**

Designer: B. TIMBERS	Structure Numbers
Detailer: B. TIMBERS	
Sheet Subset: SWMP	Subset Sheets: EI 5 of 9

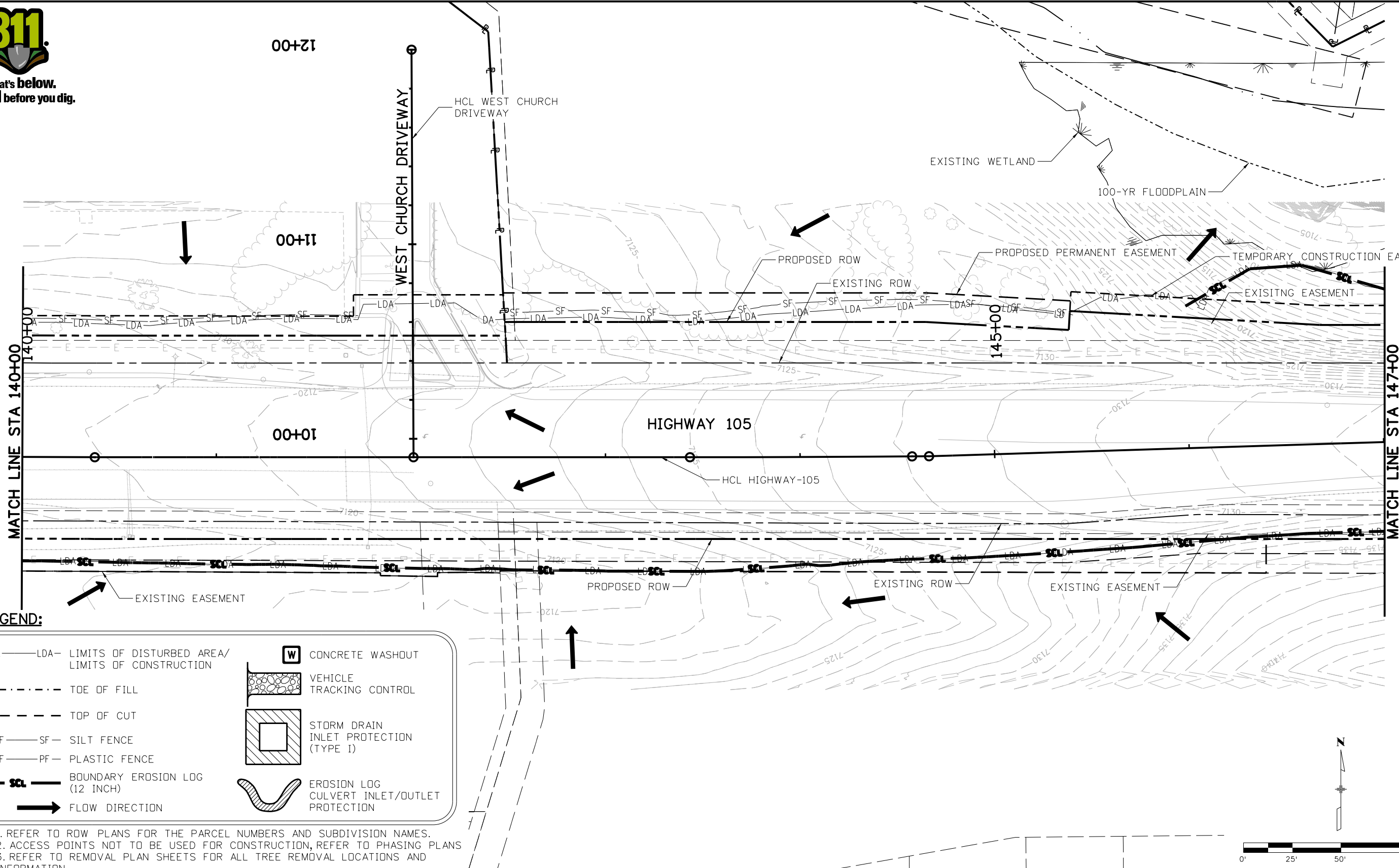
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STA 105A-014
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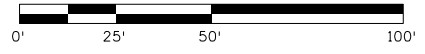
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LIMITS OF CONSTRUCTION
- ..... TOE OF FILL
- - - - - TOP OF CUT
- SF—SF— SILT FENCE
- PF—PF— PLASTIC FENCE
- SCL— BOUNDARY EROSION LOG  
(12 INCH)
- FLOW DIRECTION
- CONCRETE WASHOUT
- VEHICLE TRACKING CONTROL
- STORM DRAIN INLET PROTECTION (TYPE I)
- EROSION LOG CULVERT INLET/OUTLET PROTECTION

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
 2. ACCESS POINTS NOT TO BE USED FOR CONSTRUCTION, REFER TO PHASING PLANS  
 3. REFER TO REMOVAL PLAN SHEETS FOR ALL TREE REMOVAL LOCATIONS AND INFORMATION.



Print Date: 4/12/2023  
 File Name: 19734DES\_SWMP\_Initial-07.dgn  
 Horiz. Scale: 1:50 Vert. Scale: None

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**HIGHWAY 105 PROJECT A  
 INITIAL SWMP SITE MAP  
 STA 140+00 TO 147+00**

Designer: B. TIMBERS  
 Detailer: B. TIMBERS  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: EI 7 of 9

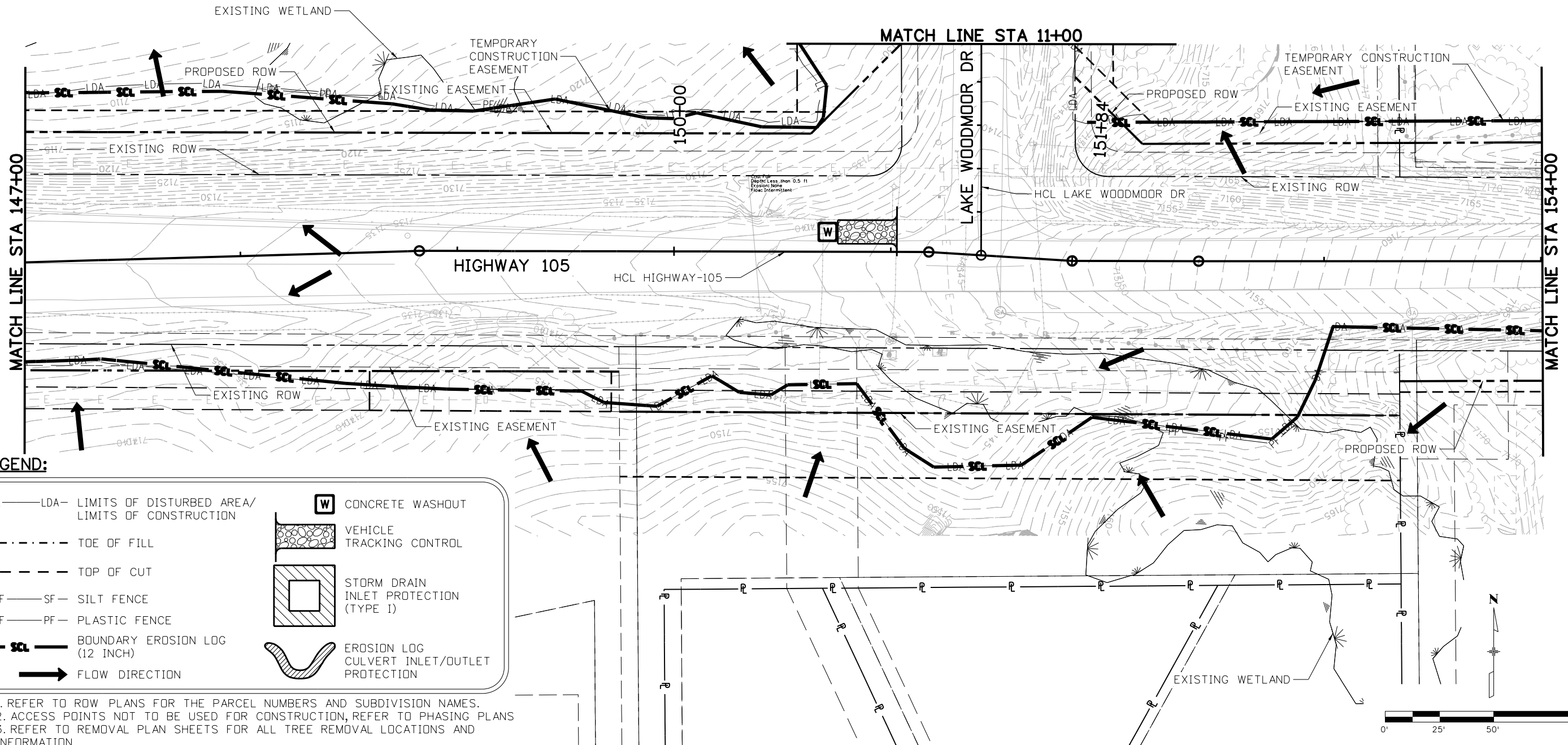
<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 121 of 251





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Grizzly 1:28:27 PM pw:\WPAPPD\MA001\NorthCentral\Omaha\Documents\EL\_Paso\_County\EL\_Paso\_TD\_2\_Hwy\_105\_Prelim\_De\6.0\_CAD\_BIM\6.2\_Work\_In\_Progress\Environmental\Drawings A - SWMP\_19734DES\_SWMP\_Initial-08.dgn



**LEGEND:**

—LDA—	LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION		CONCRETE WASHOUT
.....		TOE OF FILL		VEHICLE TRACKING CONTROL
---		TOP OF CUT		STORM DRAIN INLET PROTECTION (TYPE 1)
—SF—	SF—	SILT FENCE		EROSION LOG CULVERT INLET/OUTLET PROTECTION
—PF—	PF—	PLASTIC FENCE		
—SCL—		BOUNDARY EROSION LOG (12 INCH)		
→		FLOW DIRECTION		

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
 2. ACCESS POINTS NOT TO BE USED FOR CONSTRUCTION, REFER TO PHASING PLANS  
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Print Date: 4/12/2023

File Name: 19734DES\_SWMP\_Initial-08.dgn

Horiz. Scale: 1:50

Vert. Scale: None

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Date:	Comments	Init.



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**HIGHWAY 105 PROJECT A  
INITIAL SWMP SITE MAP  
STA 147+00 TO 154+00**

Designer:	B. TIMBERS	Structure Numbers	
Detailer:	B. TIMBERS	Subset Sheets:	EI 8 of 9

**Project No./Code**

19734

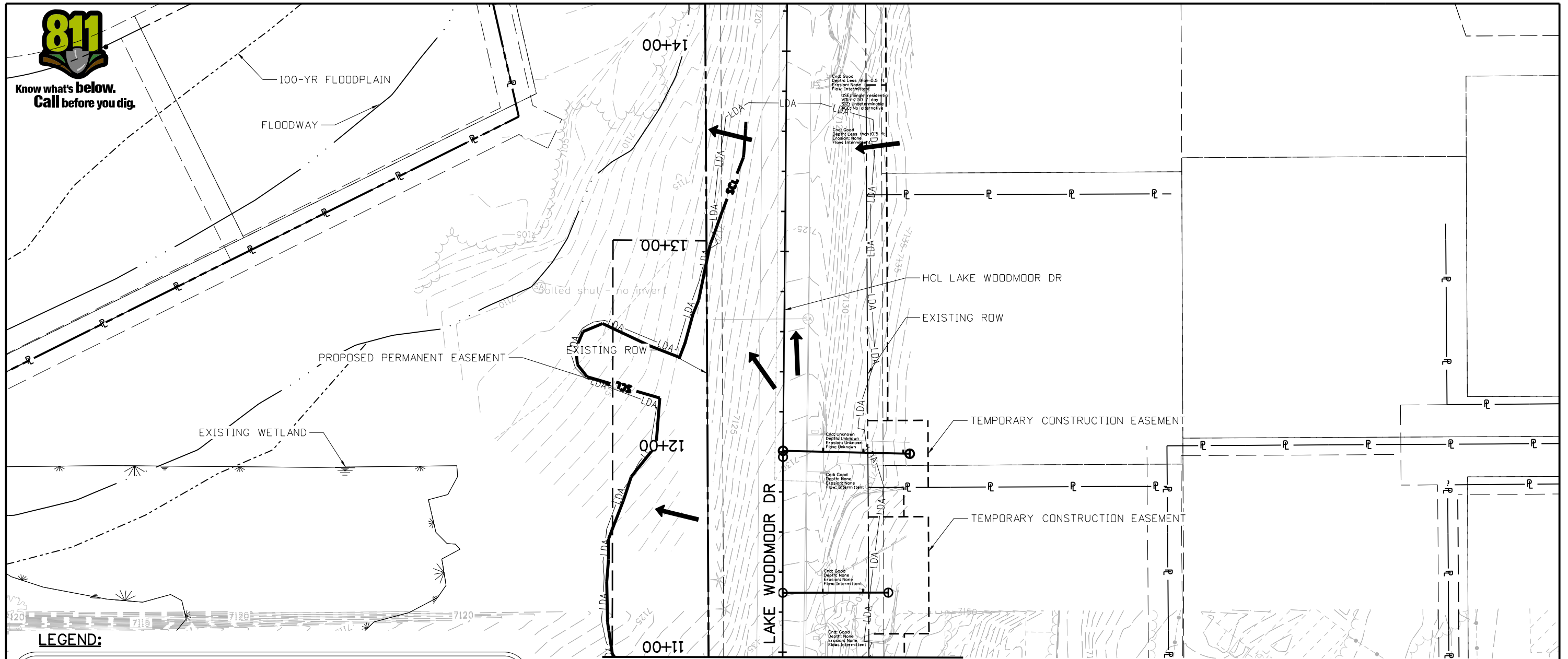
STA 105A-014

Sheet Number 122 of 251

Grizzly 1:28:38 PM pw:\WPAPP\MA001\NorthCentral\Omaha\Documents\EL\_Paso\_County\EL\_Paso\_T0\_2\_Hwy\_105\_Prelim\_De\6.0\_CAD\_BIM\6.2\_Work\_In\_Progress\Environmental\Drawings A - SWMP\_19734DES\_SWMP\_Initial-08A.dgn



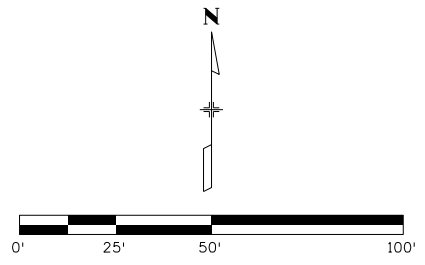
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION		CONCRETE WASHOUT
.....	TOE OF FILL		VEHICLE TRACKING CONTROL
- - - - -	TOP OF CUT		STORM DRAIN INLET PROTECTION (TYPE I)
—SF—SF—	SILT FENCE		EROSION LOG CULVERT INLET/OUTLET PROTECTION
—PF—PF—	PLASTIC FENCE		
—E—E—	BOUNDARY EROSION LOG (12 INCH)		
→	FLOW DIRECTION		

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
2. ACCESS POINTS NOT TO BE USED FOR CONSTRUCTION, REFER TO PHASING PLANS  
3. REFER TO REMOVAL PLAN SHEETS FOR ALL TREE REMOVAL LOCATIONS AND INFORMATION.



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**HIGHWAY 105 PROJECT A  
INITIAL SWMP SITE MAP  
LAKE WOODMOOR DR**

Designer:	B. TIMBERS	Structure Numbers	
Detailer:	B. TIMBERS		
Sheet Subset:	SWMP	Subset Sheets:	EI 8A of 9

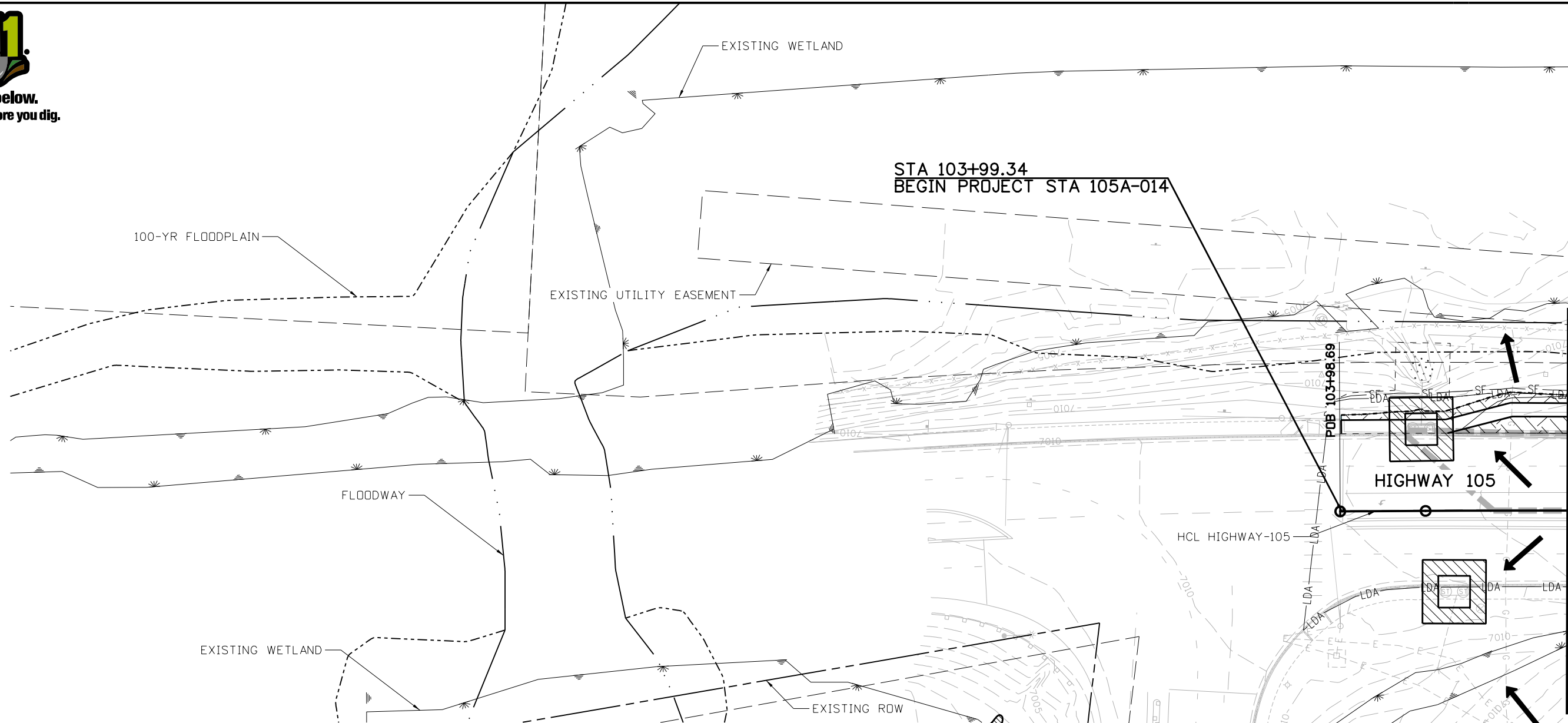
<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 123 of 251







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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION		FLOW DIRECTION		STORM DRAIN INLET PROTECTION (TYPE I)		EROSION LOG CULVERT INLET/OUTLET PROTECTION
.....	TOE OF FILL		BOUNDARY EROSION LOG (12 INCH)		STORM DRAIN INLET PROTECTION (TYPE III)		ROUGHENING, MULCH, TEMPORARY SEED
---	TOP OF CUT		CONCRETE WASHOUT		SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		
—SF—SF—	SILT FENCE		VEHICLE TRACKING CONTROL				
—PF—PF—	PLASTIC FENCE						
	PROPOSED STORM DRAIN						

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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S.F. Region 02

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**HIGHWAY 105 PROJECT A  
INTERIM SWMP SITE MAP  
STA 100+00 TO 105+00**

Designer: B. TIMBERS  
 Detailer: B. TIMBERS  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: EN 1 of 9

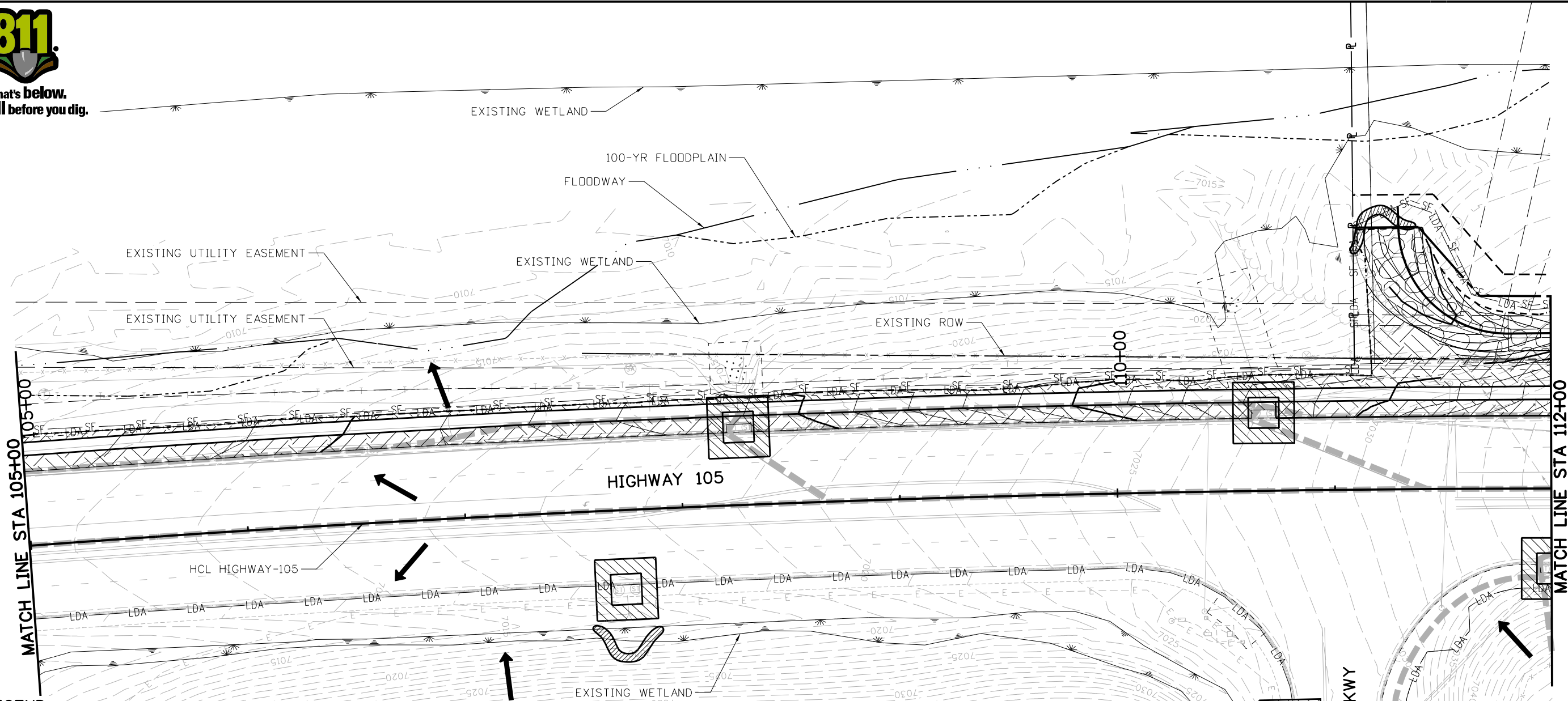
Project No./Code
19734
STA 105A-014
Sheet Number 125 of 251

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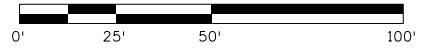
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**LEGEND:**

-LDA- LDA-	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		STORM DRAIN INLET PROTECTION (TYPE I)		EROSION LOG CULVERT INLET/OUTLET PROTECTION
---	TOE OF FILL	—SCL—	BOUNDARY EROSION LOG (12 INCH)		STORM DRAIN INLET PROTECTION (TYPE III)		ROUGHENING, MULCH, TEMPORARY SEED
- - -	TOP OF CUT	W	CONCRETE WASHOUT		SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		
-SF- SF-	SILT FENCE		VEHICLE TRACKING CONTROL				
-PF- PF-	PLASTIC FENCE						
	PROPOSED STORM DRAIN						

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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3. REFER TO REMOVAL PLAN SHEETS FOR ALL TREE REMOVAL LOCATIONS AND INFORMATION.



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**HIGHWAY 105 PROJECT A  
INTERIM SWMP SITE MAP  
STA 105+00 TO 112+00**

Designer: B. TIMBERS  
Detailer: B. TIMBERS  
Sheet Subset: SWMP

Structure Numbers  
Subset Sheets: EN 2 of 9

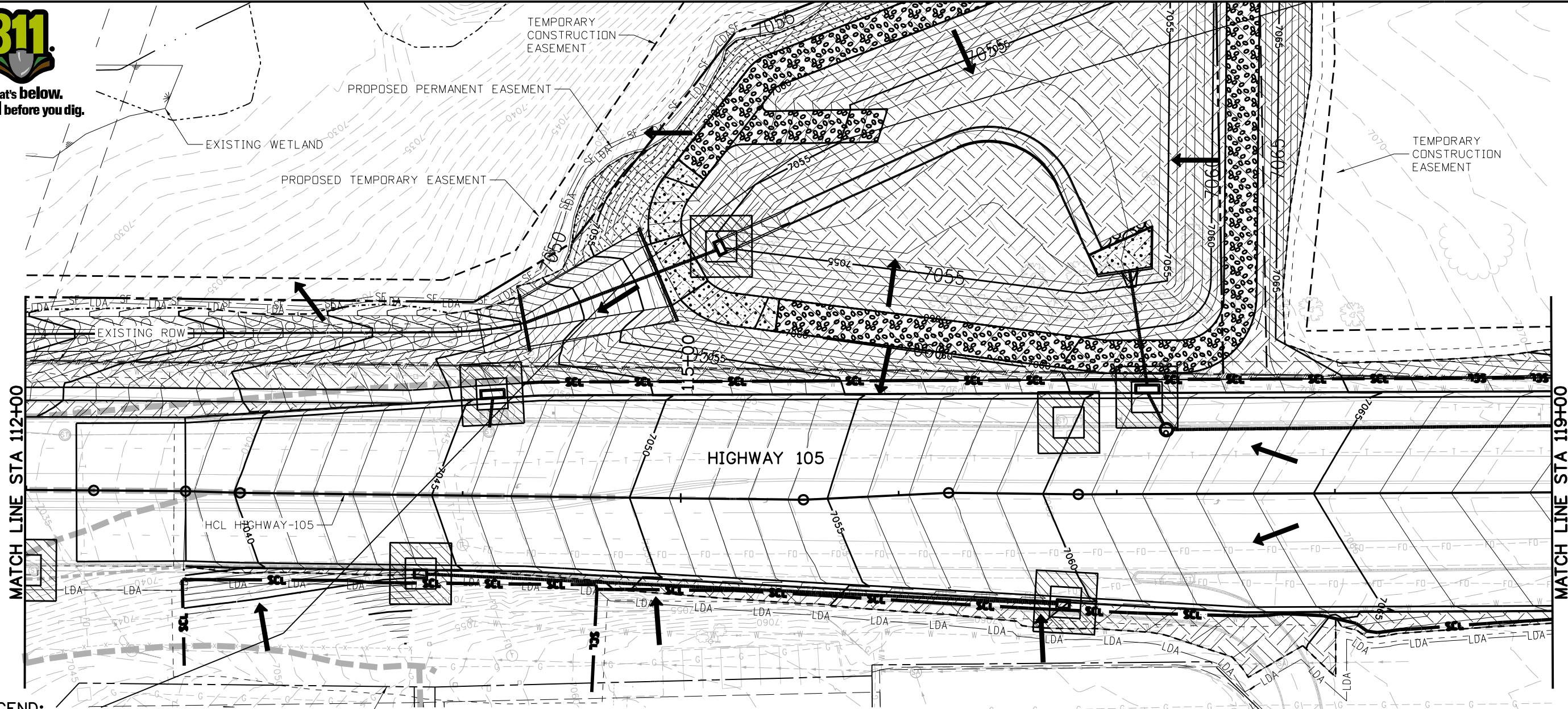
<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 126 of 251





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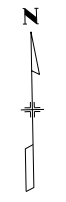
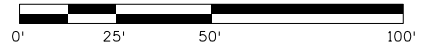
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION		FLOW DIRECTION		STORM DRAIN INLET PROTECTION (TYPE I)		EROSION LOG CULVERT INLET/OUTLET PROTECTION
.....	TOE OF FILL		BOUNDARY EROSION LOG (12 INCH)		STORM DRAIN INLET PROTECTION (TYPE III)		ROUGHENING, MULCH, TEMPORARY SEED
---	TOP OF CUT		CONCRETE WASHOUT		SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		
—SF—SF—	SILT FENCE		VEHICLE TRACKING CONTROL				
—PF—PF—	PLASTIC FENCE						
	PROPOSED STORM DRAIN						

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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3. REFER TO REMOVAL PLAN SHEETS FOR ALL TREE REMOVAL LOCATIONS AND INFORMATION.



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**HIGHWAY 105 PROJECT A  
INTERIM SWMP SITE MAP  
STA 112+00 TO 119+00**

Designer: B. TIMBERS  
Detailer: B. TIMBERS  
Sheet Subset: SWMP

Structure Numbers  
Subset Sheets: EN 3 of 9

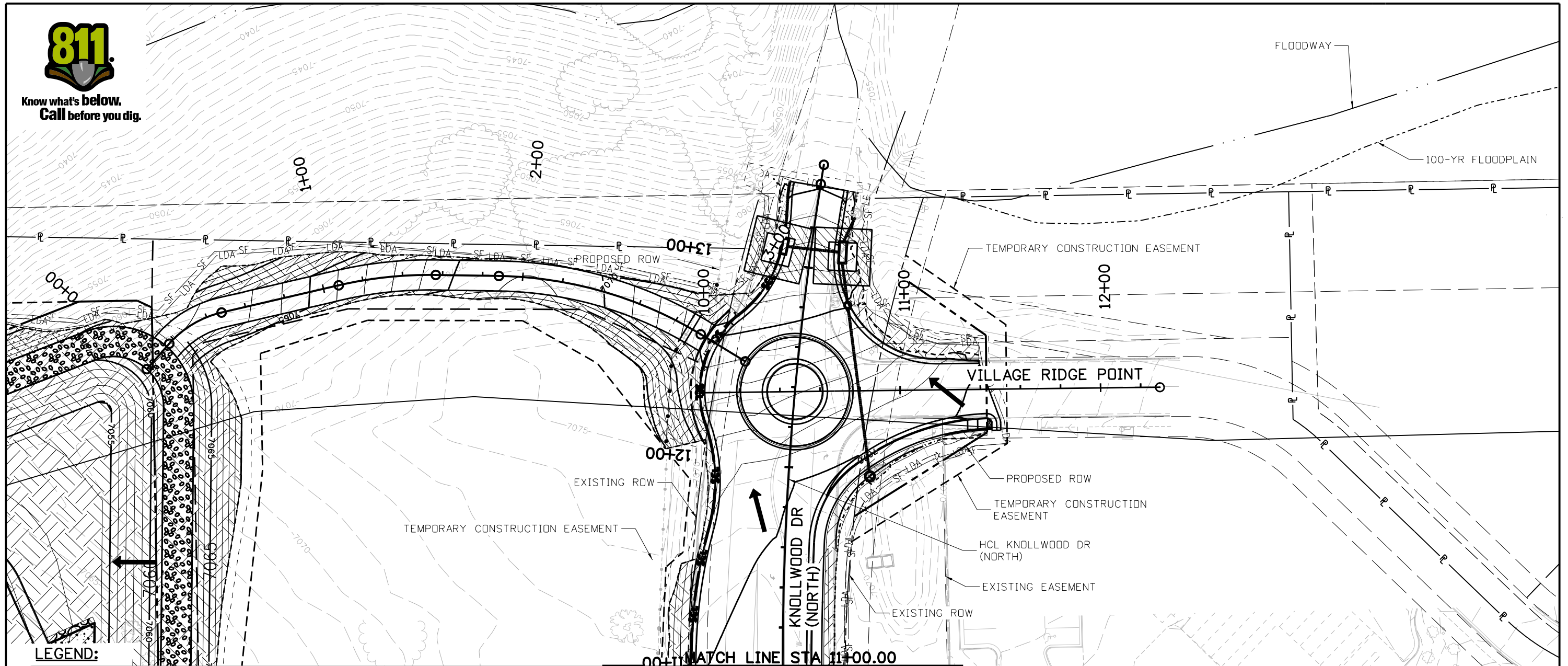
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19734
STA 105A-014
Sheet Number 127 of 251







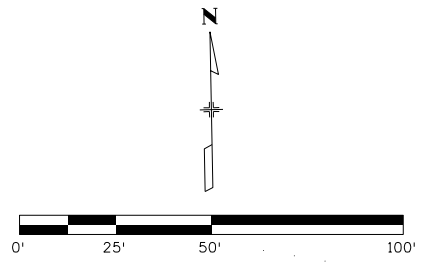
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION		FLOW DIRECTION		STORM DRAIN INLET PROTECTION (TYPE I)		EROSION LOG CULVERT INLET/OUTLET PROTECTION
.....	TOE OF FILL		BOUNDARY EROSION LOG (12 INCH)		STORM DRAIN INLET PROTECTION (TYPE III)		ROUGHENING, MULCH, TEMPORARY SEED
---	TOP OF CUT		CONCRETE WASHOUT		STORM DRAIN INLET PROTECTION (TYPE III)		SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)
—SF—SF—	SILT FENCE		VEHICLE TRACKING CONTROL				
—PF—PF—	PLASTIC FENCE						
	PROPOSED STORM DRAIN						

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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Print Date: 4/12/2023  
 File Name: 19734DES\_SWMP\_Interim-04A.dgn  
 Horiz. Scale: 1:50      Vert. Scale: None

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**HIGHWAY 105 PROJECT A  
 INTERIM SWMP SITE MAP  
 KNOLLWOOD DR (NORTH)**

Designer: B. TIMBERS  
 Detailer: B. TIMBERS  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: EN 4A of 9

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 129 of 251

Grizzly 1:29:31 PM pw:\PWAPP\DMA001:NorthCentral\_Dmaha\Documents\El\_Paso\_County\El\_Paso\_TD\_2\_Hwy\_105\_Prelim\_De\6.0\_CAD\_BIM\_6.2\_Work\_In\_Progress\Environmental\Drawings A - SWMP\19734DES\_SWMP\_Interim-04A.dgn





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100-YR FLOODPLAIN

TEMPORARY  
CONSTRUCTION  
EASEMENT

PROPOSED PERMANENT  
EASEMENT

DETENTION POND

PROPOSED ROW

EXISTING ROW

TEMPORARY CONSTRUCTION EASEMENT

EXISTING ROW

KNOLLWOOD DR  
(NORTH)

HCL KNOLLWOOD DR  
(NORTH)

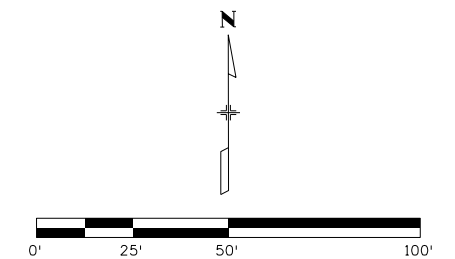
HIGHWAY 105

HCL HIGHWAY-105

LEGEND:

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION		FLOW DIRECTION		EROSION LOG CULVERT INLET/OUTLET PROTECTION
.....	TOE OF FILL		BOUNDARY EROSION LOG (12 INCH)		STORM DRAIN INLET PROTECTION (TYPE I)
----	TOP OF CUT		CONCRETE WASHOUT		ROUGHENING, MULCH, TEMPORARY SEED
—SF—SF—	SILT FENCE		VEHICLE TRACKING CONTROL		SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)
—PF—PF—	PLASTIC FENCE				
	PROPOSED STORM DRAIN				

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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HIGHWAY 105 PROJECT A INTERIM SWMP SITE MAP DETENTION POND		
Designer:	B. TIMBERS	Structure Numbers
Detailer:	B. TIMBERS	
Sheet Subset:	SWMP	Subset Sheets: EN 4B of 9

Project No./Code
19734
STA 105A-014
Sheet Number 130 of 251

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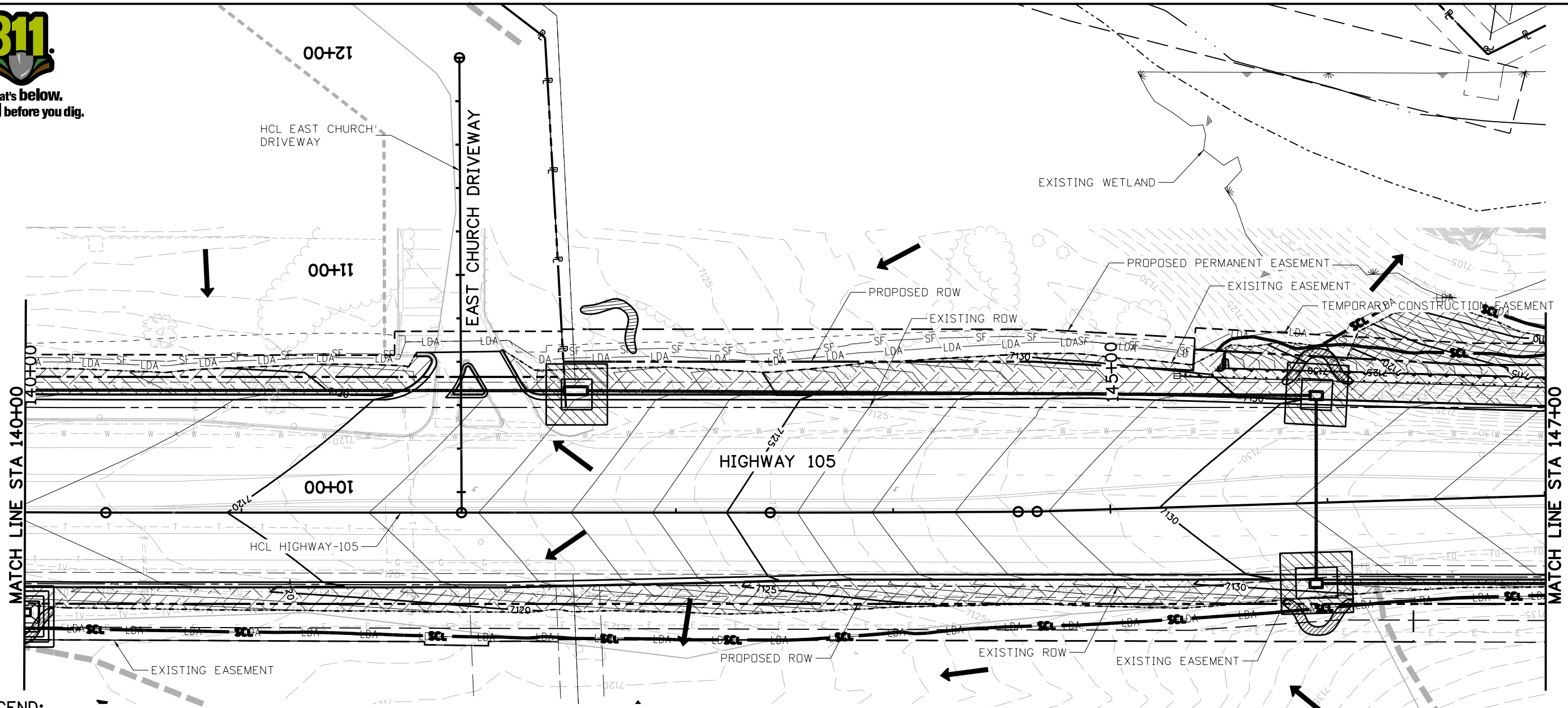






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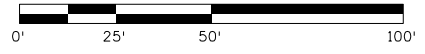
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION		FLOW DIRECTION		STORM DRAIN INLET PROTECTION (TYPE I)		EROSION LOG CULVERT INLET/OUTLET PROTECTION
.....	TOE OF FILL		BOUNDARY EROSION LOG (12 INCH)		STORM DRAIN INLET PROTECTION (TYPE III)		ROUGHENING, MULCH, TEMPORARY SEED
---	TOP OF CUT		CONCRETE WASHOUT				SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)
—SF—SF—	SILT FENCE		VEHICLE TRACKING CONTROL				
—PF—PF—	PLASTIC FENCE						
	PROPOSED STORM DRAIN						

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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Void:

**HIGHWAY 105 PROJECT A  
INTERIM SWMP SITE MAP  
STA 140+00 TO 147+00**

Designer:	B. TIMBERS	Structure Numbers	
Detailer:	B. TIMBERS	Subset Sheets:	EN 7 of 9

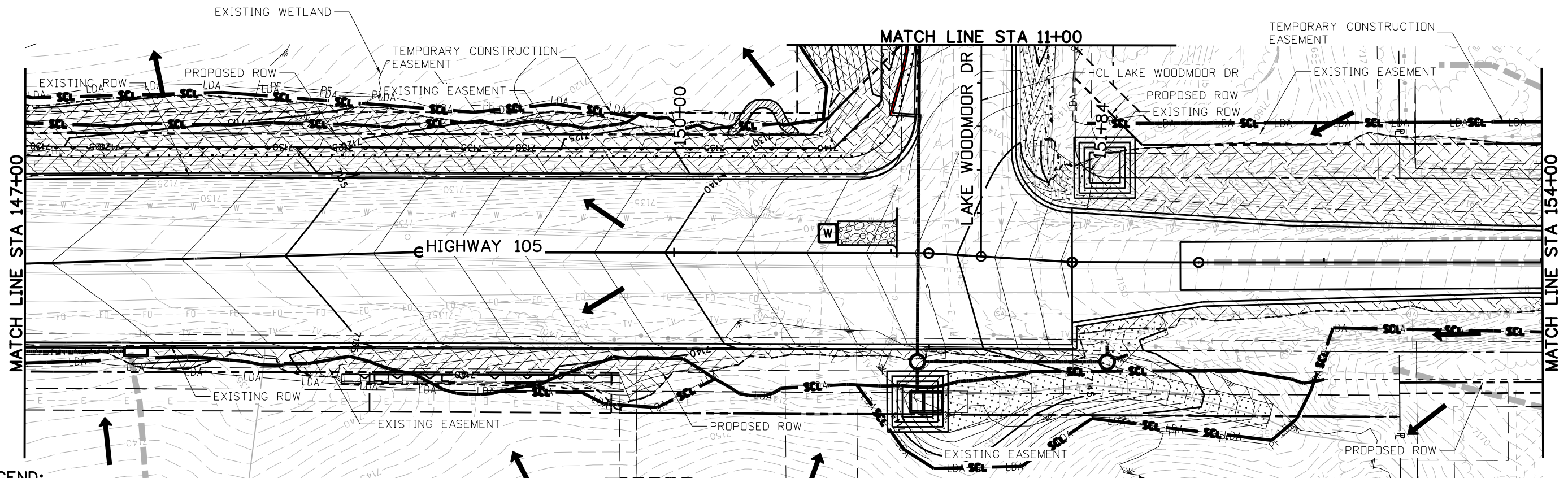
<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 133 of 251





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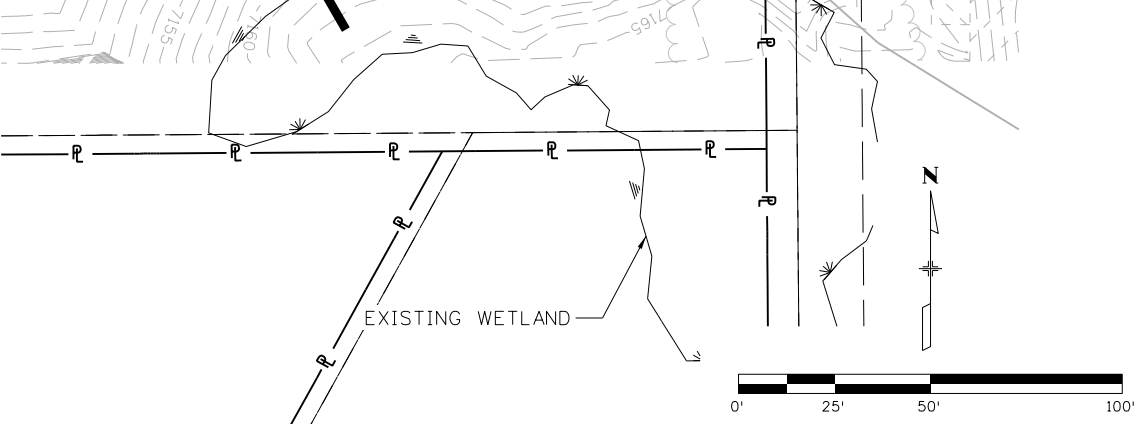
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION		FLOW DIRECTION		STORM DRAIN INLET PROTECTION (TYPE I)		EROSION LOG CULVERT INLET/OUTLET PROTECTION
.....	TOE OF FILL		BOUNDARY EROSION LOG (12 INCH)		STORM DRAIN INLET PROTECTION (TYPE III)		ROUGHENING, MULCH, TEMPORARY SEED
---	TOP OF CUT		CONCRETE WASHOUT		VEHICLE TRACKING CONTROL		SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)
—SF—SF—	SILT FENCE		PLASTIC FENCE		PROPOSED STORM DRAIN		

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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 File Name: 19734DES\_SWMP\_Interim-08.dgn  
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**HIGHWAY 105 PROJECT A  
 INTERIM SWMP SITE MAP  
 STA 147+00 TO 154+00**

Designer: B. TIMBERS  
 Detailer: B. TIMBERS  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: EN 8 of 9

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 134 of 251







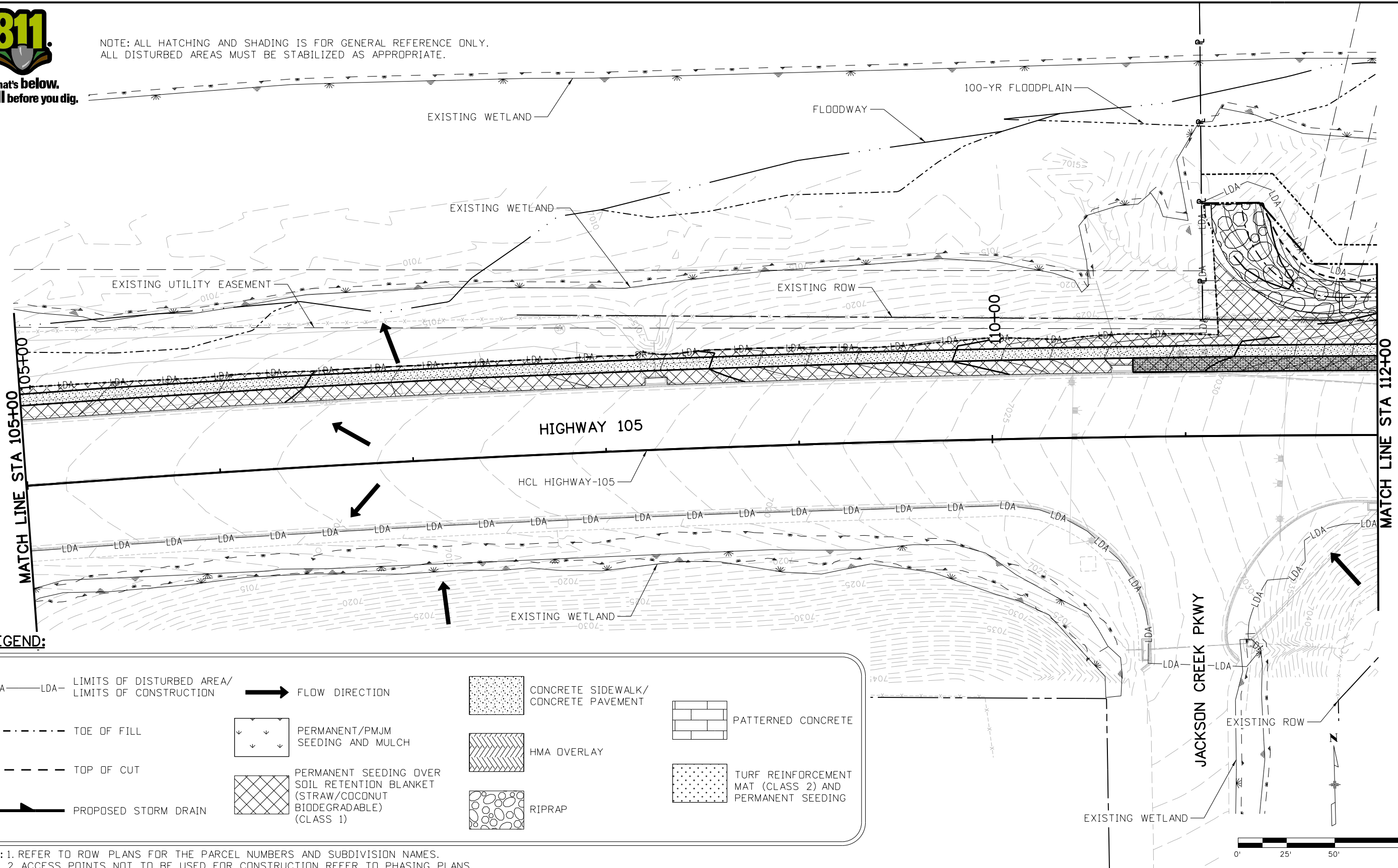






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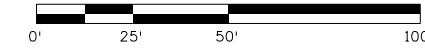
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT		PATTERNED CONCRETE
---	TOE OF FILL		PERMANENT/PMJM SEEDING AND MULCH		HMA OVERLAY		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING
- - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		RIPRAP		
	PROPOSED STORM DRAIN						

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
2. ACCESS POINTS NOT TO BE USED FOR CONSTRUCTION, REFER TO PHASING PLANS.



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EL PASO COUNTY COLORADO

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CDOT

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Revised:
Void:

**HIGHWAY 105 PROJECT A  
FINAL SWMP SITE MAP  
STA 105+00 TO 112+00**

Designer: B. TIMBERS  
 Detailer: B. TIMBERS  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: EF 2 of 9

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 138 of 251

Grizzly 1:30:57 PM p:\WPAPPD\MA001\NorthCentral\Omaha\Documents\EL\_Paso\_County\EL\_Paso\_T0\_2\_Hwy\_105\_Prelim\_De\6.0\_CAD\_BIM\6.2\_Work\_In\_Progress\Environmental\Drawings A - SWMP\19734DES\_SWMP\_Final-02.dgn

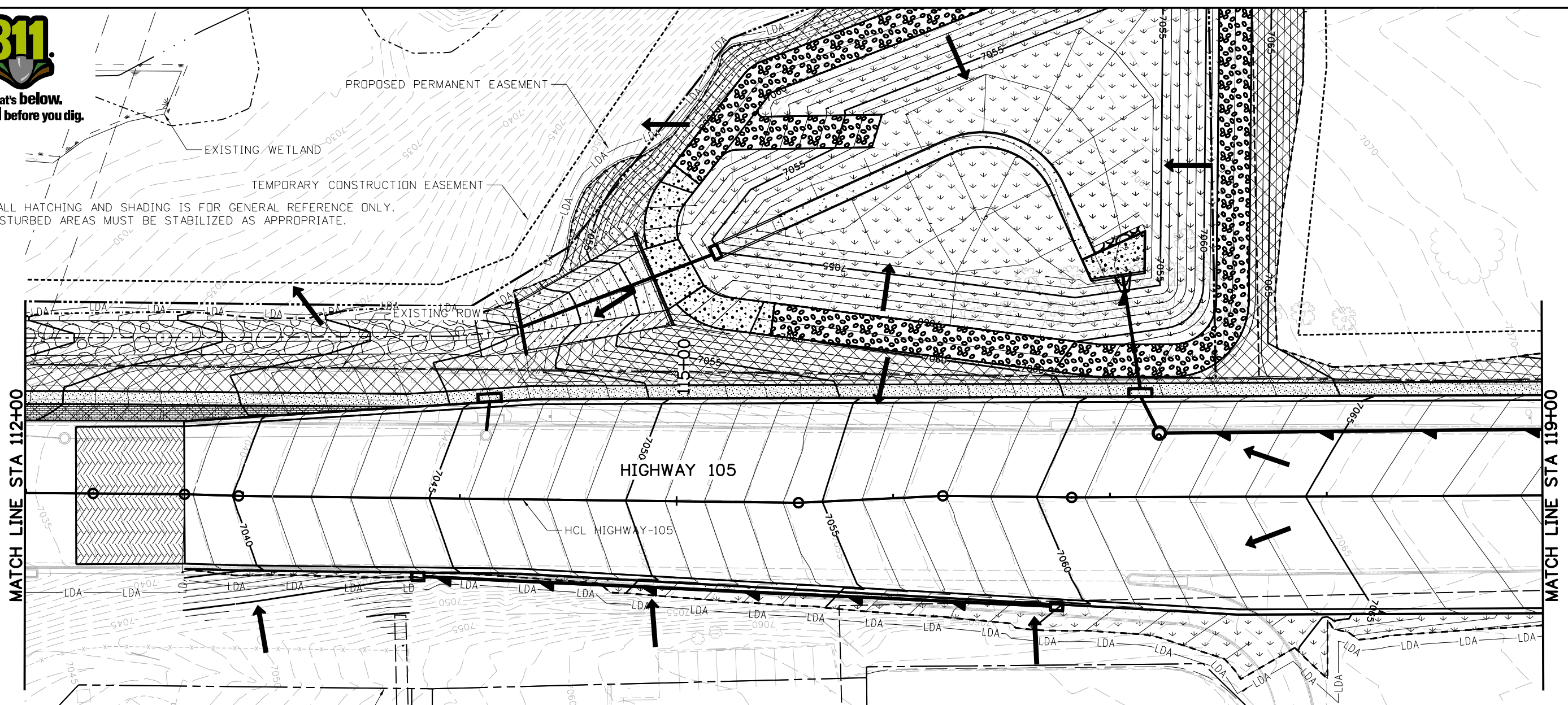




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Grizzly 1:31:06 PM pw:\P\WAPPDMA001\NorthCentral\_Dmaha\Documents\El\_Paso\_County\El\_Paso\_T0\_2\_Hwy\_105\_Prelim\_De\6.0\_CAD\_BIM\_6.2\_Work\in\_Progress\Environmental\Drawings A - SWMP\19734DES\_SWMP\_Final-03.dgn

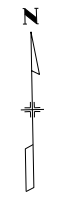
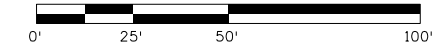
NOTE: ALL HATCHING AND SHADING IS FOR GENERAL REFERENCE ONLY.  
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT
- - - - -	TOE OF FILL	↓ ↓ ↓	PERMANENT/PMJM SEEDING AND MULCH		PATTERNED CONCRETE
- - - - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING
	PROPOSED STORM DRAIN		RIPRAP		

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
2. ACCESS POINTS NOT TO BE USED FOR CONSTRUCTION, REFER TO PHASING PLANS.



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Void:

**HIGHWAY 105 PROJECT A  
FINAL SWMP SITE MAP  
STA 112+00 TO 119+00**

Designer: B. TIMBERS  
Detailer: B. TIMBERS  
Sheet Subset: SWMP

Structure Numbers  
Subset Sheets: EF 3 of 9

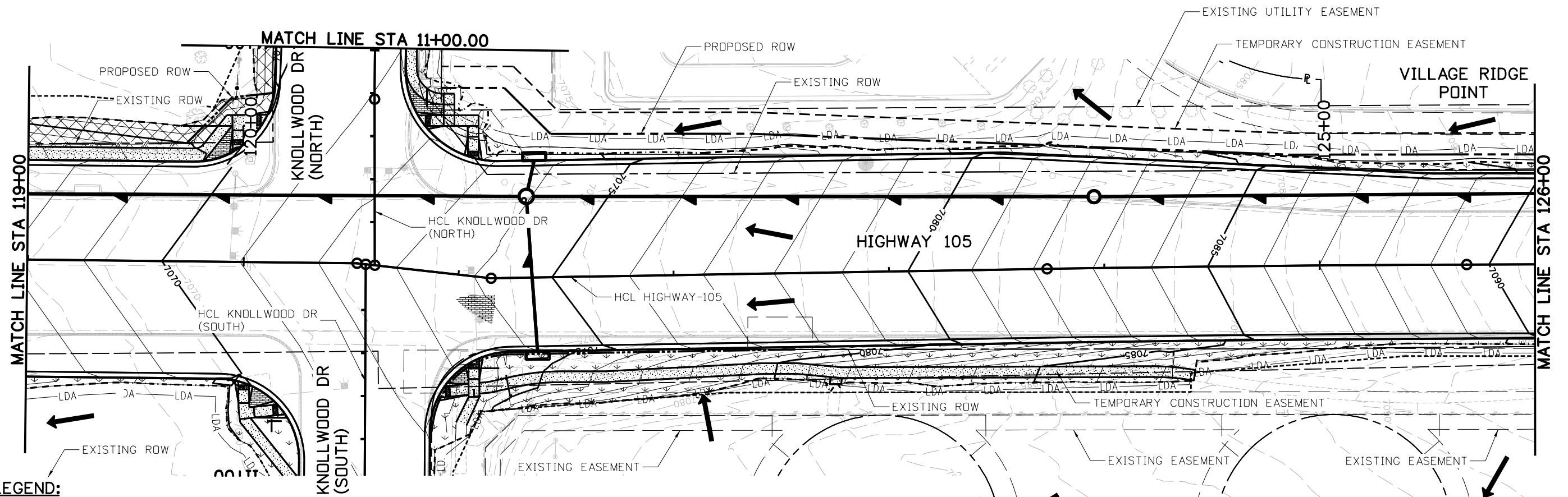
<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 139 of 251





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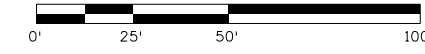
NOTE: ALL HATCHING AND SHADING IS FOR GENERAL REFERENCE ONLY.  
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT
· · · · ·	TOE OF FILL		PERMANENT/PMJM SEEDING AND MULCH		PATTERNED CONCRETE
- - - - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		HMA OVERLAY
	PROPOSED STORM DRAIN		RIPRAP		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING

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Void:

**HIGHWAY 105 PROJECT A  
 FINAL SWMP SITE MAP  
 STA 119+00 TO 126+00**

Designer: B. TIMBERS  
 Detailer: B. TIMBERS  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: EF 4 of 9

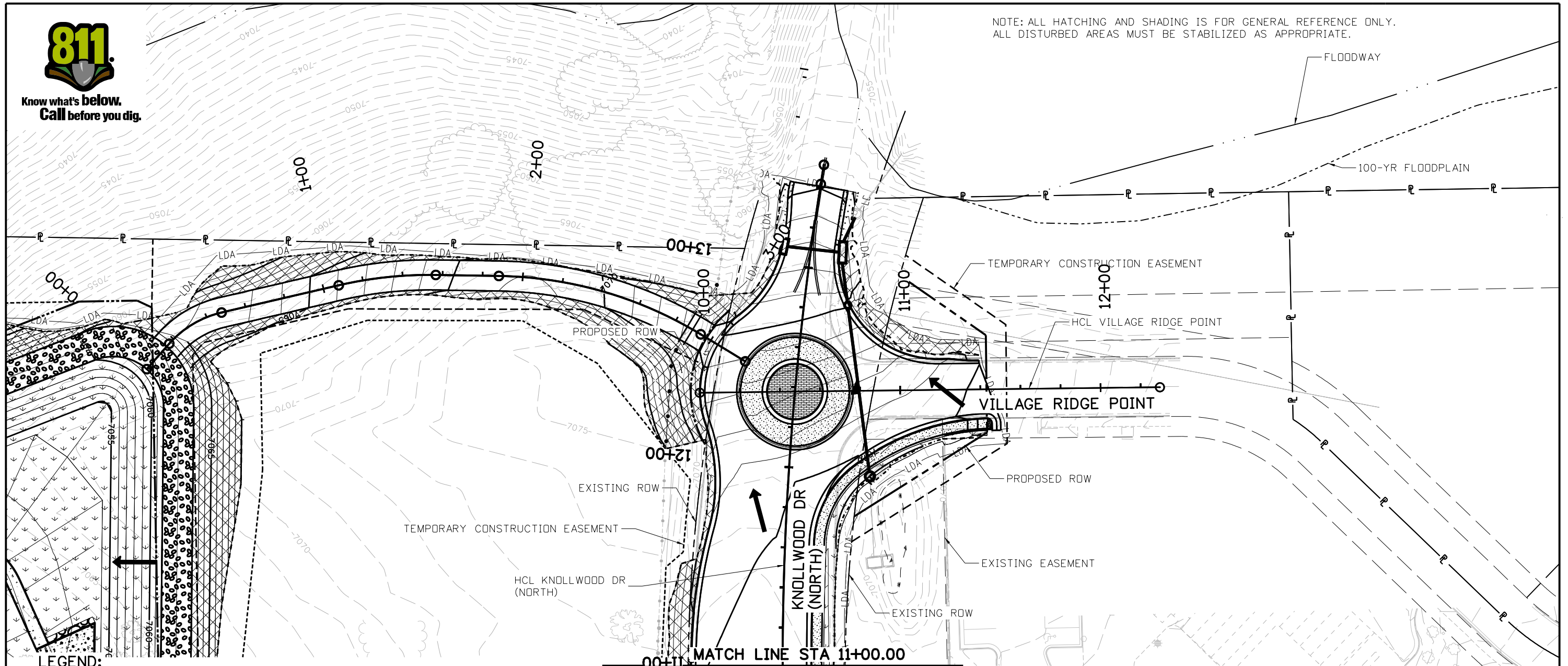
<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 140 of 251

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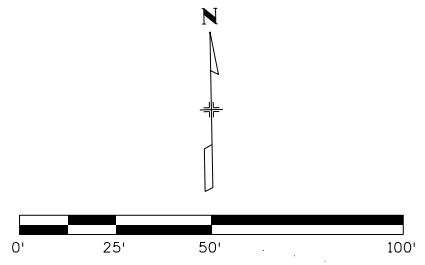
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LEGEND:

-LDA- LDA-	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT
- - - - -	TOE OF FILL		PERMANENT/PMJM SEEDING AND MULCH		PATTERNED CONCRETE
- - - - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		HMA OVERLAY
	PROPOSED STORM DRAIN		RIPRAP		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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HIGHWAY 105 PROJECT A  
FINAL SWMP SITE MAP  
KNOLLWOOD DR (NORTH)

Designer: B. TIMBERS  
Detailer: B. TIMBERS  
Sheet Subset: SWMP

Project No./Code	19734
Structure Numbers	STA 105A-014
Subset Sheets	EF 4A of 9
Sheet Number	141 of 251

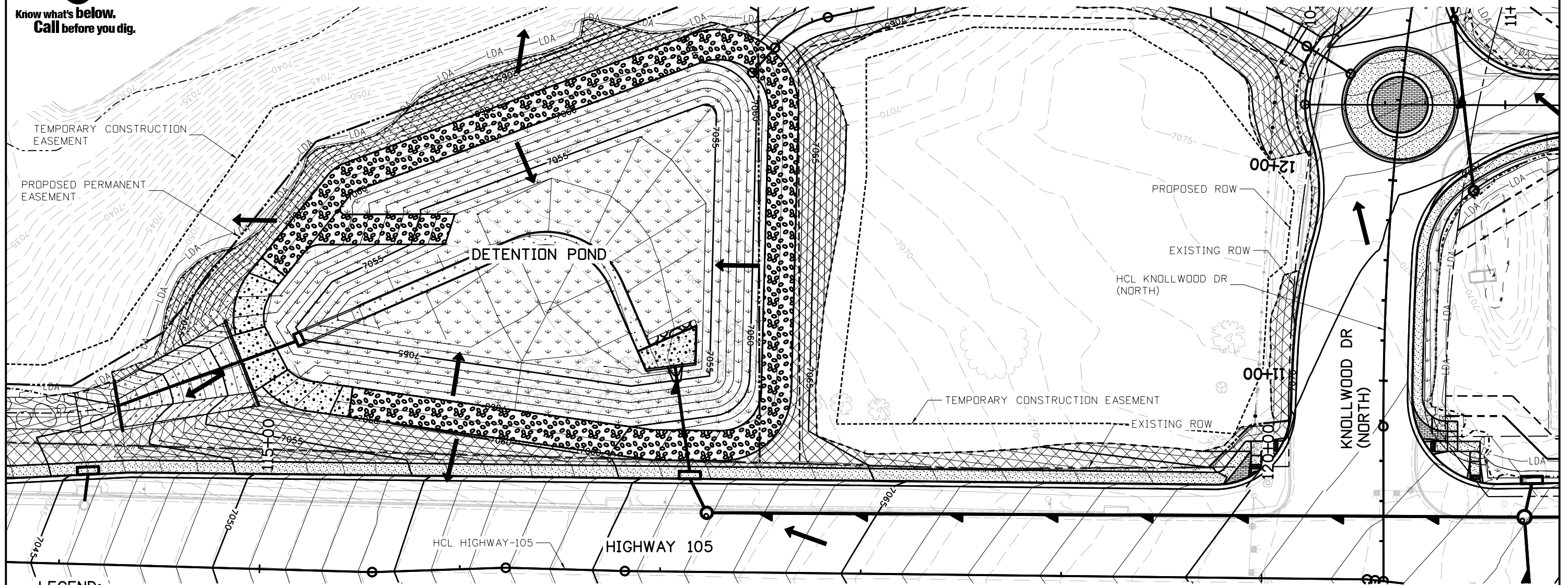
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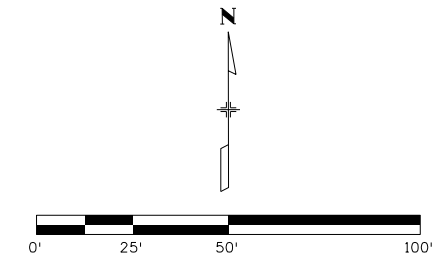
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT
- - - - -	TOE OF FILL	↓ ↓ ↓ ↓	PERMANENT/PMJM SEEDING AND MULCH		PATTERNED CONCRETE
- - - - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		HMA OVERLAY
	PROPOSED STORM DRAIN		RIPRAP		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING

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**HIGHWAY 105 PROJECT A  
 FINAL SWMP SITE MAP  
 DETENTION POND**

Designer: B. TIMBERS  
 Detailer: B. TIMBERS  
 Sheet Subset: SWMP

Structure Numbers  
 Subset Sheets: EF 4B of 9

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 142 of 251

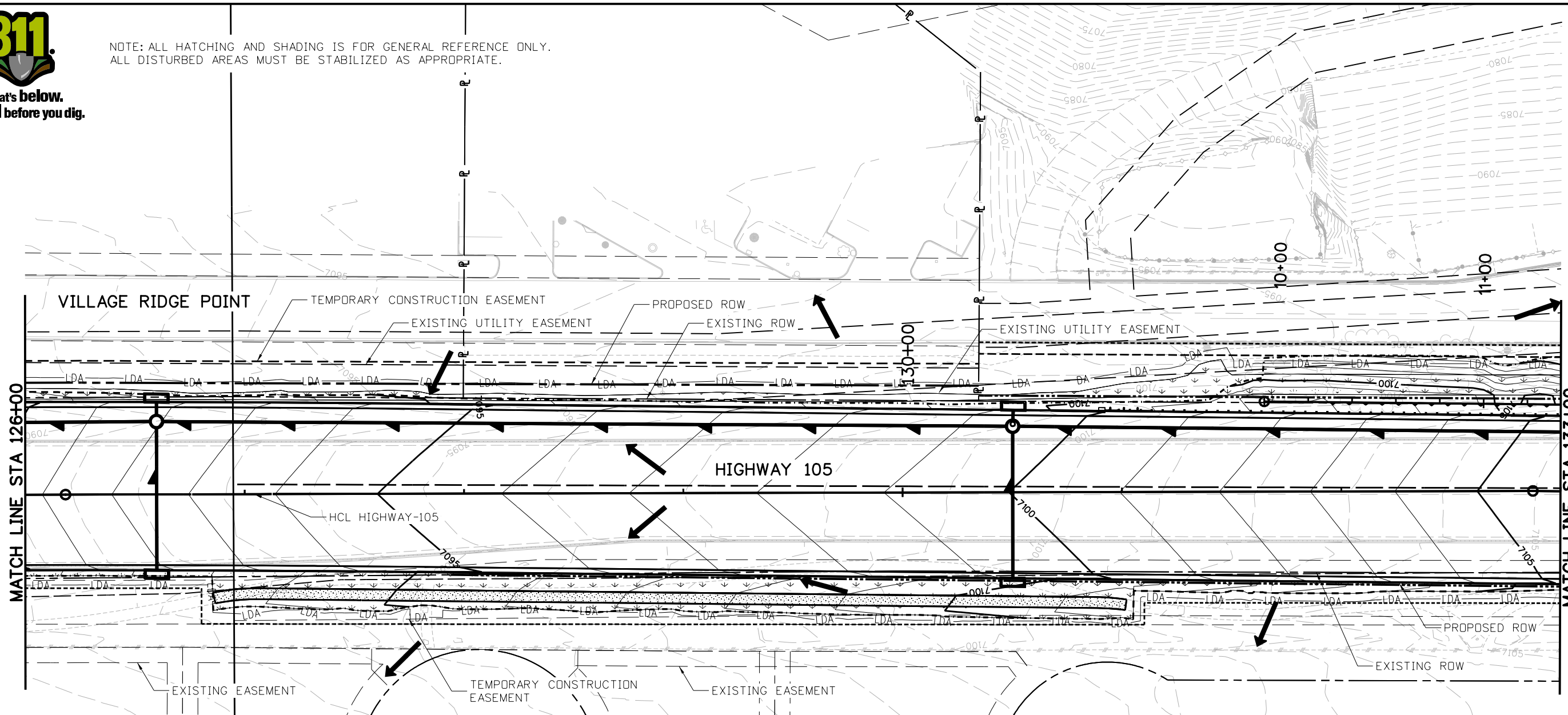
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**LEGEND:**

-LDA- LDA-	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT
· · · · ·	TOE OF FILL	↓ ↓ ↓ ↓	PERMANENT/PMJM SEEDING AND MULCH		PATTERNED CONCRETE
- - - - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		HMA OVERLAY
	PROPOSED STORM DRAIN		RIPRAP		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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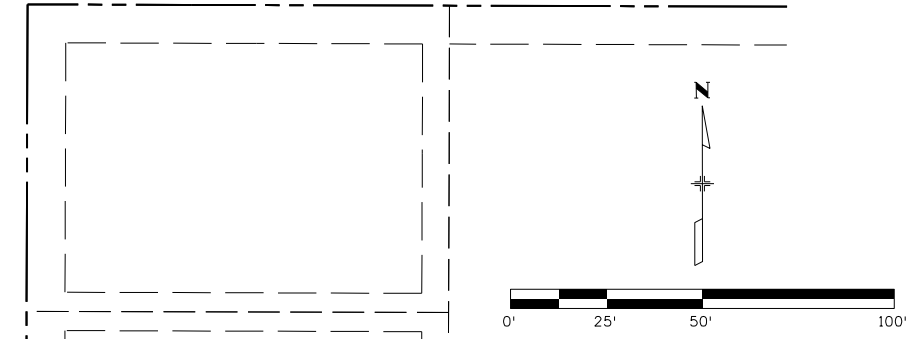
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**HIGHWAY 105 PROJECT A  
FINAL SWMP SITE MAP  
STA 126+00 TO 133+00**

Designer: B. TIMBERS  
Detailer: B. TIMBERS  
Sheet Subset: SWMP

Structure Numbers  
Subset Sheets: EF 5 of 9

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 143 of 251



Grizzly 1:31:42 PM pw:\P\WAPPD\MA001\NorthCentral\Omaha\Documents\El\_Paso\_County\El\_Paso\_105\_Prelim\_De\6.0\_CAD\_BIM\6.2\_Work\In\_Progress\Environmental\Drawings A - SWMP\19734DES\_SWMP\_Final-05.dgn

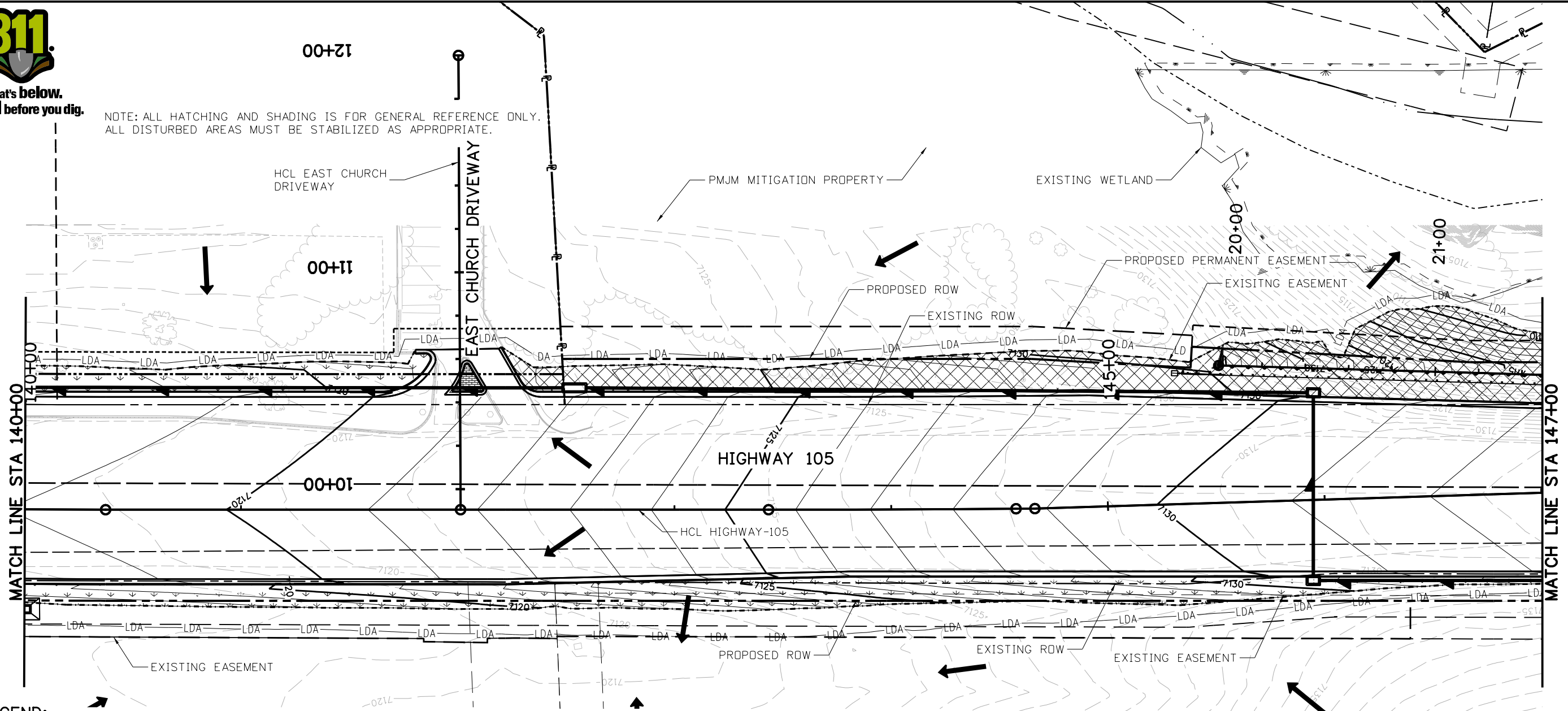






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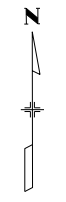
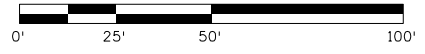
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**LEGEND:**

—LDA—LDA—	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT
· · · · ·	TOE OF FILL		PERMANENT/PMJM SEEDING AND MULCH		PATTERNED CONCRETE
- - - - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		HMA OVERLAY
	PROPOSED STORM DRAIN		RIPRAP		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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Void:

**HIGHWAY 105 PROJECT A  
FINAL SWMP SITE MAP  
STA 140+00 TO 147+00**

Designer: B. TIMBERS  
Detailer: B. TIMBERS  
Sheet Subset: SWMP

Structure Numbers  
Subset Sheets: EF 7 of 9

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 145 of 251

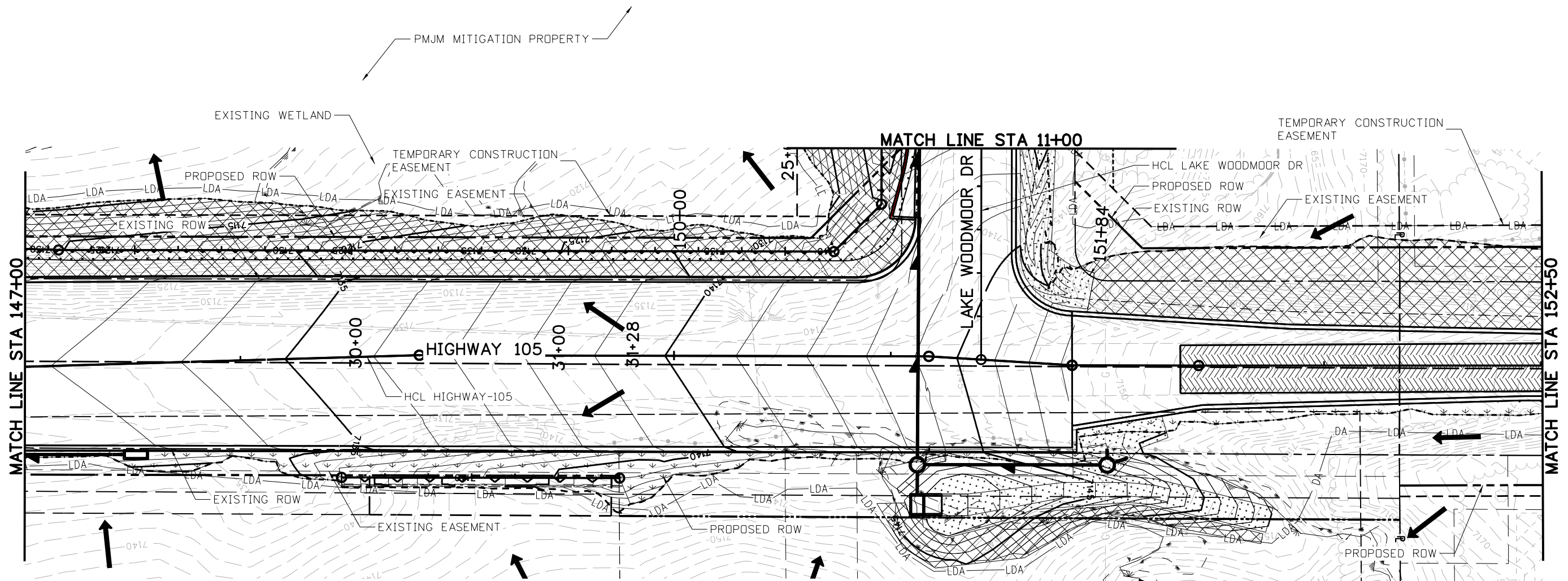
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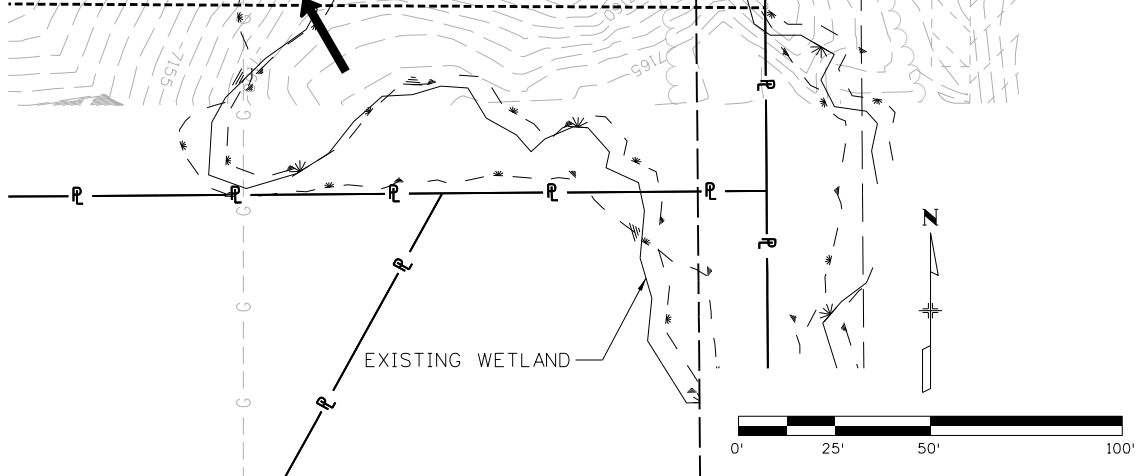
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**LEGEND:**

-LDA- LDA-	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT		PATTERNED CONCRETE
- - - - -	TOE OF FILL	↓ ↓ ↓	PERMANENT/PMJM SEEDING AND MULCH		HMA OVERLAY		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING
- - - - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		RIPRAP		
	PROPOSED STORM DRAIN						



NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
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No Revisions:
Revised:
Void:

**HIGHWAY 105 PROJECT A  
FINAL SWMP SITE MAP  
STA 147+00 TO 154+00**

Designer: B. TIMBERS  
Detailer: B. TIMBERS  
Sheet Subset: SWMP

Structure Numbers  
Subset Sheets: EF 8 of 9

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 146 of 251

Grizzly 1:52:26 PM pw:\PWPAPPD\MA001\NorthCentral\Omaha\Documents\El\_Paso\_County\El\_Paso\_De\6.0\_CAD\_BIM\6.2\_Work\In\_Progress\Environmental\Drawings A - SWMP\19734DES\_SWMP\_Final-08.dgn

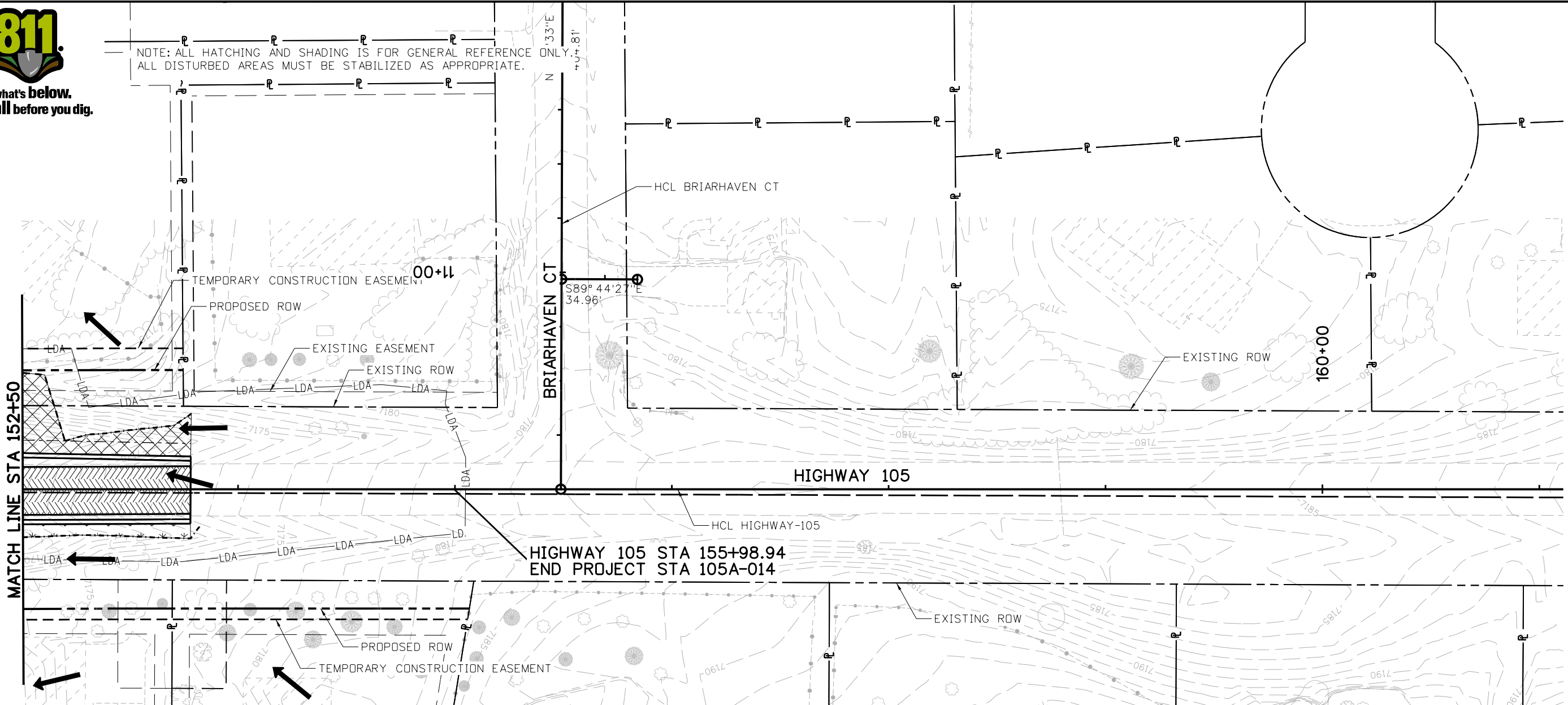






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**LEGEND:**

-LDA- LDA-	LIMITS OF DISTURBED AREA/ LIMITS OF CONSTRUCTION	→	FLOW DIRECTION		CONCRETE SIDEWALK/ CONCRETE PAVEMENT		PATTERNED CONCRETE
- - - - -	TOE OF FILL		PERMANENT/PMJM SEEDING AND MULCH		HMA OVERLAY		TURF REINFORCEMENT MAT (CLASS 2) AND PERMANENT SEEDING
- - - - -	TOP OF CUT		PERMANENT SEEDING OVER SOIL RETENTION BLANKET (STRAW/COCONUT BIODEGRADABLE) (CLASS 1)		RIPRAP		
	PROPOSED STORM DRAIN						

NOTE: 1. REFER TO ROW PLANS FOR THE PARCEL NUMBERS AND SUBDIVISION NAMES.  
2. ACCESS POINTS NOT TO BE USED FOR CONSTRUCTION, REFER TO PHASING PLANS.

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 File Name: 19734DES\_SWMP\_Final-09.dgn  
 Horiz. Scale: 1:50      Vert. Scale: None

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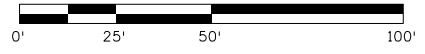
<b>As Constructed</b>
No Revisions:
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**HIGHWAY 105 PROJECT A  
FINAL SWMP SITE MAP  
STA 154+00 TO 161+00**

Designer:	B. TIMBERS
Detailer:	B. TIMBERS
Sheet Subset:	SWMP

Structure Numbers:      Subset Sheets: EF 9 of 9

<b>Project No./Code</b>
19734
STA 105A-014
Sheet Number 148 of 251



Grizzly 1:32:25 PM pw:\WPAPP\MA001\NorthCentral\Omaha\Documents\El\_Paso\_County\El\_Paso\_T0\_2\_2\_Hwy\_105\_Prelim\_De\6.0\_CAD\_BIM\6.2\_Work\_In\_Progress\Environmental\Drawings A - SWMP\19734DES\_SWMP\_Final-09.dgn