




GUIDELINES FOR PLAN PREPARATION

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)										NO SCALE		DATE:	CS:		DRAWING	SHEET
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												FILE:	DESIGN UNIT:	JN:		SECT
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PURPOSE AND APPLICATION

This set of sample plans is intended for use as a guideline for preparing a set of roadway construction plans for the Michigan Department of Transportation. The examples of various sheets illustrate preferred techniques to ensure the uniformity, quality and continuity of plans, but the examples do not necessarily represent a preferred design. Examples of the various plan sheets have been provided, based on commonly occurring situations. However, it is recognized that some projects will have unusual circumstances that may allow for some variations from the preferred techniques contained herein.

This set is not to be considered or used as a single, coordinated plan, but as a collection of individual sheet types. In many cases, copies of actual plan sheets have been used to develop the sheets contained herein. Since modifications have been made to these sheets to develop an appropriate sample, they are not to be considered an official record of the plans from which they were taken.

The guidelines and examples included are not intended to provide policies on the design or construction of roadways. Where the information shown on the sample plan sheets is in conflict with the design standards or practices of the Michigan Department of Transportation as contained in its Standard Specifications for Construction, design manuals or design standards, the standards and practices supersede any sample plan sheet information.

Boxed numbers refer to the plan guidelines located on the Plan Guidelines Sheet at the beginning of each section.


Errors and omissions should be reported to MDOT-CADDSupport@michigan.gov

GUIDELINES FOR PLAN PREPARATION INDEX:

- COVER
- INTRODUCTION
- TITLE SHEET
- PROJECT INFORMATION
- LEGEND
- VICINITY/DRAINAGE MAP
- TYPICAL CROSS SECTIONS
- MISCELLANEOUS DETAILS
- SURVEY INFORMATION
- ALIGNMENT
- REMOVAL & CONSTRUCTION
- DRAINAGE
- PROFILE
- DETAIL GRADES

FULL EXAMPLE PLAN SET LINKS

- 115832_Road (Ramp Reconstruction)
- 116807_Road (Passing Flare)
- 119672_Road (Freeway Rehabilitation)
- 126829_Road (Non-Freeway Rehab)
- 201572_Road (Non-Freeway Recon)


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TITLE SHEET:

1. Show station equations and bridge/culvert numbers within project limits. Place a box around bridge or culvert numbers only if bridge or culvert is part of the project scope of work.
2. When available, show traffic counts, design speed and posted speed for the roadways within the project limits. When design and posted speeds change, show limits.
3. Show the Route, Township, City or Village and County
4. Show section, control section, job number and funding type. Section 1 for road/non-bridge and section 2 for bridge plans. If project includes a log job then road plans are section 1A and log job is section 1B, bridge plans remain section 2. The major control section number based on funding is shown first, with secondary control sections shown in parenthesis. Place the lowest job number first then place job numbers in sequential order.
5. Show north arrow, township and range on map.
6. Describe type of work and provide length of project. Project description shall match scope of work and cover major items.
7. Show State of Michigan map with county or counties project is located in hatched. Add county or county names where the project is located.
8. Consultant Jobs Only – Use consultant box on Title sheet for Prime consultant only. Place consultant logo in title block at bottom of sheet. Sub-consultant work must have their title block or logo on the sheets they are responsible for, no signature required. If consultants do a portion of an MDOT designed project, the consultant must sign the first sheet of work and state "Responsible for sheet # through sheet # ."
9. Design Unit for MDOT designed projects is the name of the design unit performing the work. Design Unit for consultant designed projects is the name of the MDOT Project Manager or Consultant Coordinator. TSC is the TSC where the project is located.
10. Add MGF (Michigan Geographic Framework) version for PR numbers note with correct version number as programmed in MPINS.
11. Make interstates, state routes and major road names legible.
12. Add names of Construction Engineer and Project Manager below signatures.
13. Show POB and POE stations, control section milepoints and PR milepoints.
14. The project map should be large enough to show the entire project limits and other features that will easily identify the project location.
15. Label railroads, streams, rivers, creeks, drains, and lakes on the project map. Be sure all regulated streams within the project influence are shown and identified.
16. Final ROW Revision box should always be displayed. If ROW revision is required, enter date and related information.

SUGGESTED TEXT SIZES

- MDOT Ex: road names, railroads, streams, rivers, creeks, drains, and lakes.
- MDOT PR: station equations, project beginning and ending information, changes in control section, and bridges.
- MDOT PR x 1.5: cities, townships, road names, township and range.

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THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

PHYSICAL ROAD NUMBER (PR#) & MILEPOST (MP) DATA ARE FROM MICHIGAN GEOGRAPHIC FRAMEWORK VERSION # 17.

ROAD	YEAR	TRAFFIC DATA			SPEED DATA		LIMITS
		ADT	DHV	COMM	DESIGN	POSTED	
I-XX	XXXX	XXXXX	XXXX	X%	XX	XX	XXXXX
						**	
I-XX	XXXX	XXXXX	XXXX	X%	XX	XX	XXXXX

MICHIGAN DEPARTMENT OF TRANSPORTATION

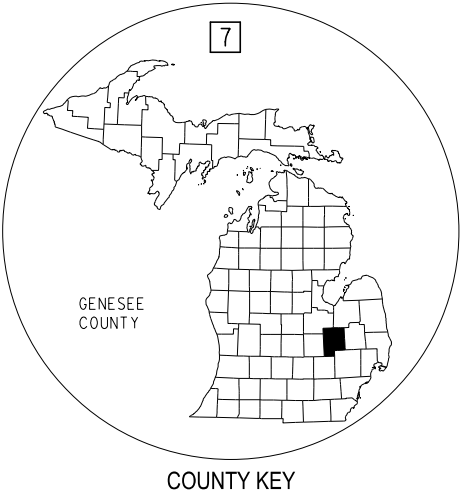
ROUTE: I-XX & M-XX

CITY OF XXXXX

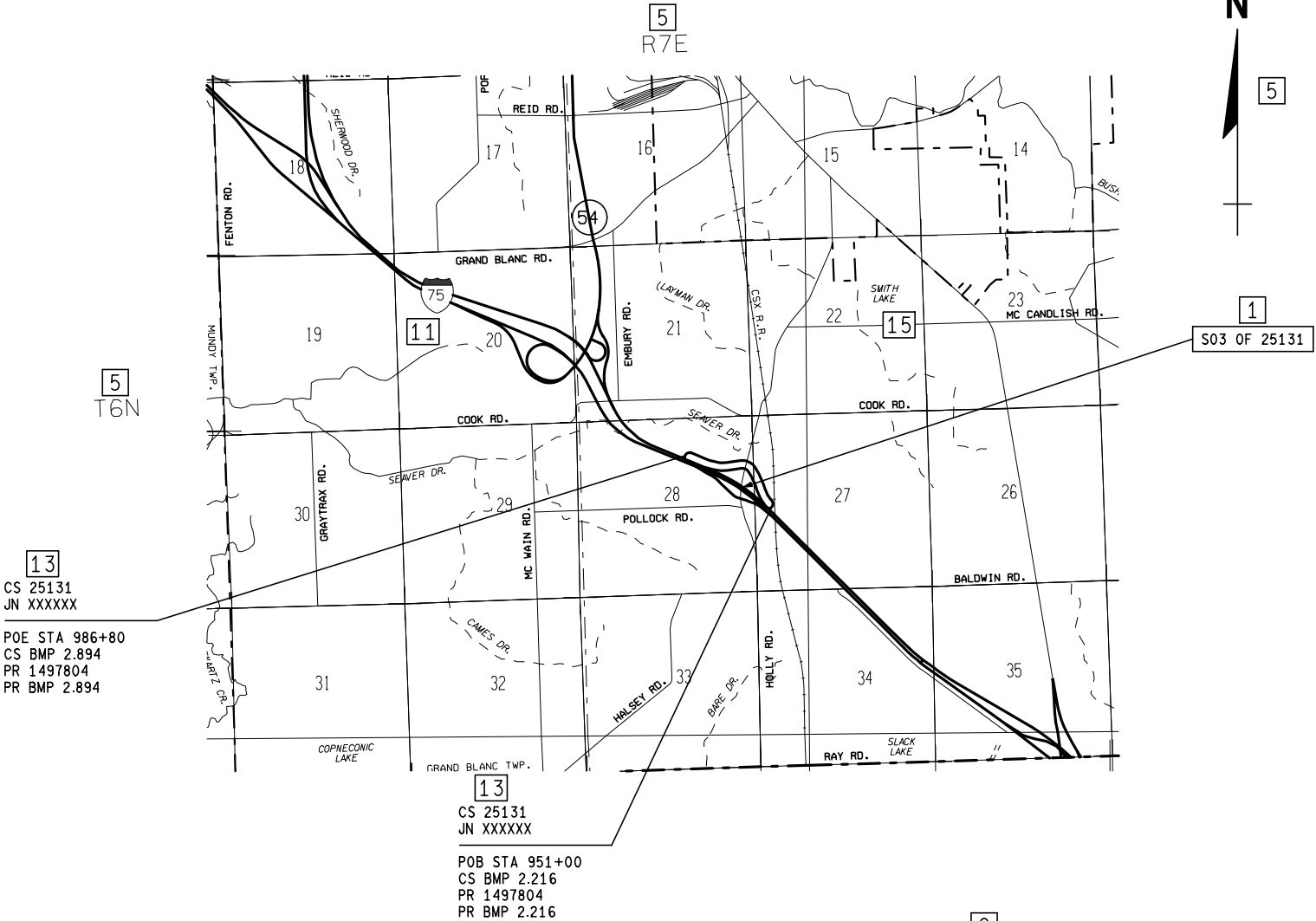
XXXXX TOWNSHIP

XXXXX COUNTY

SECTION	CONTROL SEC	JOB NO.
1	XXXXX	XXXXXX
2	XXXXX	XXXXXX



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THESE PLANS WERE PREPARED FOR THE MICHIGAN DEPARTMENT OF TRANSPORTATION BY

NAME, P.E. - TITLE

COMPANY

ADDRESS 1

ADDRESS 2

PHONE

APPROVALS

RECOMMENDED FOR APPROVAL BY:

, P.E. - PROJECT MANAGER

, P.E. - CONSTRUCTION ENGINEER

MICHIGAN DEPARTMENT OF TRANSPORTATION

MARK A. VAN PORT FLEET, P.E. - DIRECTOR

MILES: XXX

CONTRACT FOR:

NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

8

MDOT Michigan Department of Transportation

NO SCALE

DATE:

DESIGN UNIT:

TSC:

CS:

JN:

TITLE SHEET

DRAWING

SHEET


TITLE

001

1

PROJECT INFO SHEET

- 1. The Sheet Index should always be on sheet 2 ending in the right hand column. Modify the example sheet index to meet requirements of the project.
- 2. Funding categories must follow the guidelines shown in the example section. Bridge categories must show both the Structure # and Structure ID.
- 3. Generate the Notes Applying to Standard Plans utilizing the Standard Plan Index Generator. If length of the list would cause the Sheet Index to move, relocate the table to a separate sheet.
- 4. List all public utility contact information. If the length would cause the Sheet Index to move, relocate the information to a separate sheet.

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PUBLIC UTILITIES

The existing utilities listed below and shown on these plans represent the best information available as obtained on our surveys. This information does not relieve the contractor of the responsibility to be satisfied as to it's accuracy and the location of existing utilities.

Name Of Owner

Utility Company Name

Attention: Contact Name

Address

City, Michigan ZipCode

Phone: (###) ###-####

Fax: (###) ###-####

Email: ###@###.###

Type Of Utility

Utility Type

NOTES APPLYING TO STANDARD PLANS

Where the following items are called for on plans, they are to be constructed according to the standard plan given below opposite each item unless otherwise indicated.

Title	Plan No.
ROAD	
BRIDGE	
PAVEMENT MARKINGS	
WORK ZONE DEVICES	
TRAFFIC SIGNALS	
SIGNING	

* Denotes Special Detail

3

1

SHEET INDEX

Section 1 - Road Plans	
Title	1
Project Information	2
Legend	
Row Vicinity/ Drainage Map	
Note	
Miscellaneous Quantities	
Typical Cross Sections	
Miscellaneous Details	
Survey Information	
Alignment	
Removal, Construction, Drainage & Profile	
Water Main & Sanitary Sewer	
Maintaining Traffic/Construction Staging Plans	
Detail Grades	
Culvert Plans	
Detention Basin Details	
Wetland Mitigation	
Rest Area / Landscape	
Permanent Signing	
Pavement Marking	
Lighting	
ITS	
Signal	
Log of Borings	
Special Details	
Bridge Plans - See Section 2	

2

FUNDING CATEGORIES

JN ##### Project Description
Category 0001 = Road Work Fed
Category 0002 = "Structure #" "Structure ID" Fed


JN ##### Project Description
Category 0001 = Road Work Fed / State
Category 0002 = "Structure #" "Structure ID" Fed / State

JN ##### Project Description
Category 0001 = Road Work Fed / State / Local Municipality
Category 0002 = "Structure #" "Structure ID" Fed / State / Local Municipality

Example:
JN 202864 Project Description
Category 0001 = Road Work Fed / State
Category 0002 = 6441 B03-51021 Fed / State

LEGEND SHEETS:

- 1. All patterns are found in the MDOT pattern cell library. The patterns are to be patterned at the scale of the drawing.
- 2. Any cells or linestyles special to the project will be placed in the lower right corner.
- 3. Proposed and existing linestyles are the same. Proposed linestyles are weight 1 and existing linestyles are weight 0.
- 4. Removing pavement pattern is used to represent the area of pavement removal regardless of underlying material and pay item used.


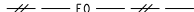
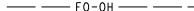








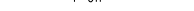



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													LEGEND SHEETS		

UTILITIES









COMBINED SEWER

→→→→→→→→	COMBINED SEWER
→→//→→//→→	COMBINED SEWER - OUT OF SERVICE
→→●→→●→→	COMBINED SEWER - TO BE TAKEN OUT OF SERVICE
→→x→→x→→	COMBINED SEWER - TO BE REMOVED






COMMUNICATION

	FIBER OPTIC
	FIBER OPTIC - OUT OF SERVICE
	FIBER OPTIC - OVERHEAD
	FIBER OPTIC MARKER
	CABLE
	CABLE - OUT OF SERVICE
	CABLE - OVERHEAD
	CABLE MARKER
	CABLE PEDESTAL
	TELEPHONE
	TELEPHONE - OUT OF SERVICE
	TELEPHONE - OVERHEAD
	TELEPHONE BOX
	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL






FUEL / PETROLEUM

	GASOLINE FILLER PIPE
	GASOLINE PUMP
	GASOLINE UNDERGROUND TANK
	PETRO ——— PETROLEUM PIPELINE
	— — — PETRO — — — PETROLEUM PIPELINE - OUT OF SERVICE
	PETROLEUM PIPELINE MARKER
	PETROLEUM WELL
	PROPANE TANK














NATURAL GAS

	GAS LINE
	GAS LINE - OUT OF SERVICE
	MARKER
	VALVE
	WELL

SANITARY SEWER

 MANHOLE WITH COVER (DIA VARIES)
 SEWER
 SEWER - OUT OF SERVICE
 SEWER - TO BE TAKEN OUT OF SERVICE
 SEWER - TO BE REMOVED

WATER

	FIRE HYDRANT
	GATE VALVE AND BOX
	GATE VALVE IN WELL
	IRRIGATION CONTROL VALVE
	IRRIGATION SPRINKLER HEAD
	SERVICE METER
	SERVICE SHUTOFF
	WATER WELL
	IRRIGATION
	WATER MAIN
	WATER MAIN - OUT OF SERVICE
	WATER MAIN - TO BE TAKEN OUT OF SERVICE
	WATER MAIN - TO BE REMOVED

STEAM


















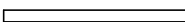


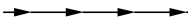
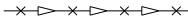
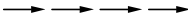

— — STEAM — — — STEAM

// — STEAM — // — STEAM - OUT OF SERVICE

GENERIC EXISTING UTILITIES


  CATCH BASIN COVER
 MANHOLE COVER
 MARKER
 PEDESTAL
 SEWER CLEANOUT ACCESS
 STRUCTURE BOTTOM (DIA VARIES)
 UTILITY BOX
 UTILITY

DRAINAGE

	CATCH BASIN W/ COVER (DIA VARIES)
	
	
	DRAINAGE STRUCTURE NUMBER
	DRAIN CASTING
	DROP INLET
	
	
	
	END SECTION (SIZE VARIES)
	FLOW DIRECTION ARROW
	HEADWALL (SIZE VARIES)
	MANHOLE W/ COVER (DIA VARIES)
	MANHOLE BASE W/ COVER (SIZE VARIES)
	MANHOLE TEE W/ COVER (SIZE VARIES)
	OUTLET HEADWALL (SIZE VARIES)
	CULVERT - EXISTING
	CULVERT (SIZE VARIES)
	DITCH CENTERLINE
	STORM SEWER - EXISTING
	STORM SEWER
	STORM SEWER - TO BE REMOVED
	UNDERDRAIN
	WATER EDGE

NOTE:












EXISTING ITEMS ARE REPRESENTED BY THIN LINE WEIGHTS.
PROPOSED ITEMS ARE REPRESENTED BY HEAVIER LINE WEIGHTS.

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










ELECTRICAL

	CONTROLLER CABINET - PAD MOUNTED
	HANDHOLE
	MANHOLE
○	POLE UTILITY - EXISTING
●	POLE UTILITY
	TRANSFORMER - PAD MOUNTED
	TRANSFORMER - POLE MOUNTED
— — — — E — — — — —	CABLE
— X — — — — E — — — — X — — — —	CABLE - TO BE REMOVED
— — — — E-OH — — — — —	CABLE OVERHEAD
— X — — — — E-OH — — — — X — — — —	CABLE OVERHEAD - TO BE REMOVED
— — — — E — — — — —	CABLE IN CONDUIT
— X — — — — E — — — — X — — — —	CABLE IN CONDUIT - TO BE REMOVED
	CABLE IN CONDUIT - DIRECTIONAL BORE

ARCHITECTURAL

	EXIT SIGN WITH EMERGENCY LIGHT
	LIGHT RECESSED FIXTURE
	MOTOR
	OUTLET BOX
	OUTLET SINGLE
	OUTLET TELEPHONE
	SERVICE DISCONNECT
	SERVICE METER
	SWITCH
	SWITCH THREE WAY
	WALL BRACKET FIXTURE

LIGHTING

	CONTROL PANEL - EXISTING
	CONTROL PANEL
	LIGHT STANDARD EXISTING - TO BE REMOVED & SALVAGED
	LIGHT STANDARD DOUBLE ARM - EXISTING
	LIGHT STANDARD DOUBLE ARM
	LIGHT STANDARD POST TOP - EXISTING
	LIGHT STANDARD POST TOP
	LIGHT STANDARD SINGLE ARM - EXISTING
	LIGHT STANDARD SINGLE ARM
	LIGHT POLE - TEMPORARY
	LUMINAIRE WALL MOUNTED UNDERBRIDGE - EXISTING
	LUMINAIRE WALL MOUNTED UNDERBRIDGE
	TOWER LIGHTING UNIT - EXISTING
	TOWER LIGHTING UNIT

ITS / SIGNALS	
	DYNAMIC MESSAGE SIGN - EXISTING
	DYNAMIC MESSAGE SIGN
	ENVIRONMENTAL SENSOR STATION SITE
	FIBER OPTIC SPLICE CABINET
	HANDHOLE, ROUND, 3 FOOT DIAMETER
	HANDHOLE, ROUND, COMMUNICATIONS
	HANDHOLE, ROUND, ELECTRIC
	HANDHOLE, TYPE D
	ITS CABINET - EXISTING
	ITS CABINET
	MICROWAVE VEHICLE DETECTION SYSTEM - EXISTING
	MICROWAVE VEHICLE DETECTION SYSTEM
	MICROWAVE VEHICLE DETECTION SYSTEM ZONE COVERAGE - EXISTING
	MICROWAVE VEHICLE DETECTION SYSTEM ZONE COVERAGE
	SPUN CONCRETE POLE - EXISTING
	SPUN CONCRETE POLE
	SURVEILLANCE SYSTEM - EXISTING
	SURVEILLANCE SYSTEM
	WIRELESS LINK - EXISTING
	WIRELESS LINK
	COMMUNICATIONS CABLE IN CONDUIT
	COMMUNICATIONS CABLE IN CONDUIT - TO BE REMOVED
	ANTENNA
	CASE SIGN (1-WAY OR 2-WAY)
	CASE SIGN (4-WAY)
	DEDICATED SHORT RANGE COMMUNICATIONS
	CONTROLLER CABINET - POLE MOUNTED
	CONTROL EMERGENCY PREEMPTION OPTICOM
	DILEMMA ZONE DETECTION
	GLOBAL POSITIONING SYSTEM MODULE
	GUY ANCHOR
	PEDESTRIAN PEDESTAL
	PEDESTRIAN PUSHBUTTON
	POLE MAST ARM (LENGTH VARIES) - EXISTING
	POLE MAST ARM (LENGTH VARIES)
	POLE STRAIN
	ROAD SIGN W/ FLASHING SIGN OPTICAL (1-WAY)
	SIGNAL HANDHOLE - POLYMER CONCRETE
	SIGNAL HANDHOLE - 2 FOOT ROUND
	SIGNAL HANDHOLE - 3 FOOT ROUND
	SIGNAL HANDHOLE - 2 FOOT SQUARE
	SIGNAL HANDHOLE - 4 FOOT SQUARE
	SIGNAL HEAD PEDESTRIAN - EXISTING
	SIGNAL HEAD PEDESTRIAN 1-WAY
	SIGNAL HEAD PEDESTRIAN 2-WAY
	SIGNAL HEAD VEHICLE 1-WAY - EXISTING
	SIGNAL HEAD VEHICLE 2-WAY - EXISTING
	SIGNAL HEAD VEHICLE 3-WAY - EXISTING
	SIGNAL HEAD VEHICLE 4-WAY - EXISTING
	SIGNAL HEAD VEHICLE 1-WAY
	SIGNAL HEAD VEHICLE 2-WAY
	SIGNAL HEAD VEHICLE 3-WAY
	SIGNAL HEAD VEHICLE 4-WAY
	SIGNAL HEAD VEHICLE BAGGED
	SIGNAL HEAD VEHICLE PROGRAMMABLE
	VEHICLE DETECTION CAMERA
	VEHICLE DETECTION CAMERA - HEMISPHERICAL
	VEHICLE DETECTION LOOP
	VEHICLE DETECTION - RADAR
	WIRELESS VEHICLE DETECTION RADIO RECEIVER
	WIRELESS VEHICLE DETECTION RADIO REPEATER
	WIRELESS VEHICLE DETECTION SENSOR - EXISTING
	WIRELESS VEHICLE DETECTION SENSOR

CABLING / WIRING DIAGRAM

CIRCUIT BREAKER

COILED WIRE

FUSE

FUSE SWITCH

GROUND

ILLUMINATED CASE SIGN


METER

SERVICE DISCONNECT

SIGNAL HEAD

NOTE:

EXISTING ITEMS ARE REPRESENTED BY THIN LINE WEIGHTS.
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VICINITY MAPS

G1. A vicinity map may be required for projects involving new route locations or significant right-of-way acquisitions. The map may be drawn to any recognized scale which is at least 750 scale (1"=750'), that permits showing the entire project on one plan sheet, whenever possible. A scale smaller than 750 scale is not recommended because of its inability to display detail.

G2. The level of detail may vary as needed and might include some of the following items:

- centerline
- right-of-way limits
- topographical features such as county roads, city limits, lakes, rivers, railroads, drainage courses, etc.
- section corners, 1/4 corners, section numbers and lines, township and range, north arrow

G3. The vicinity map may be combined with the drainage map at the discretion of the Designer.

DRAINAGE MAPS

G1. The drainage map should show ditch lines using arrows to show the direction of flow, culverts, bridges, etc., for both existing and proposed conditions. Drainage structure sizes, both upstream and downstream, should also be shown. Show all county drains within the project limits.


G2. When a drainage course is a county drain, it should be indicated on the plans and drainage sheet.

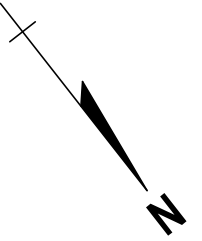
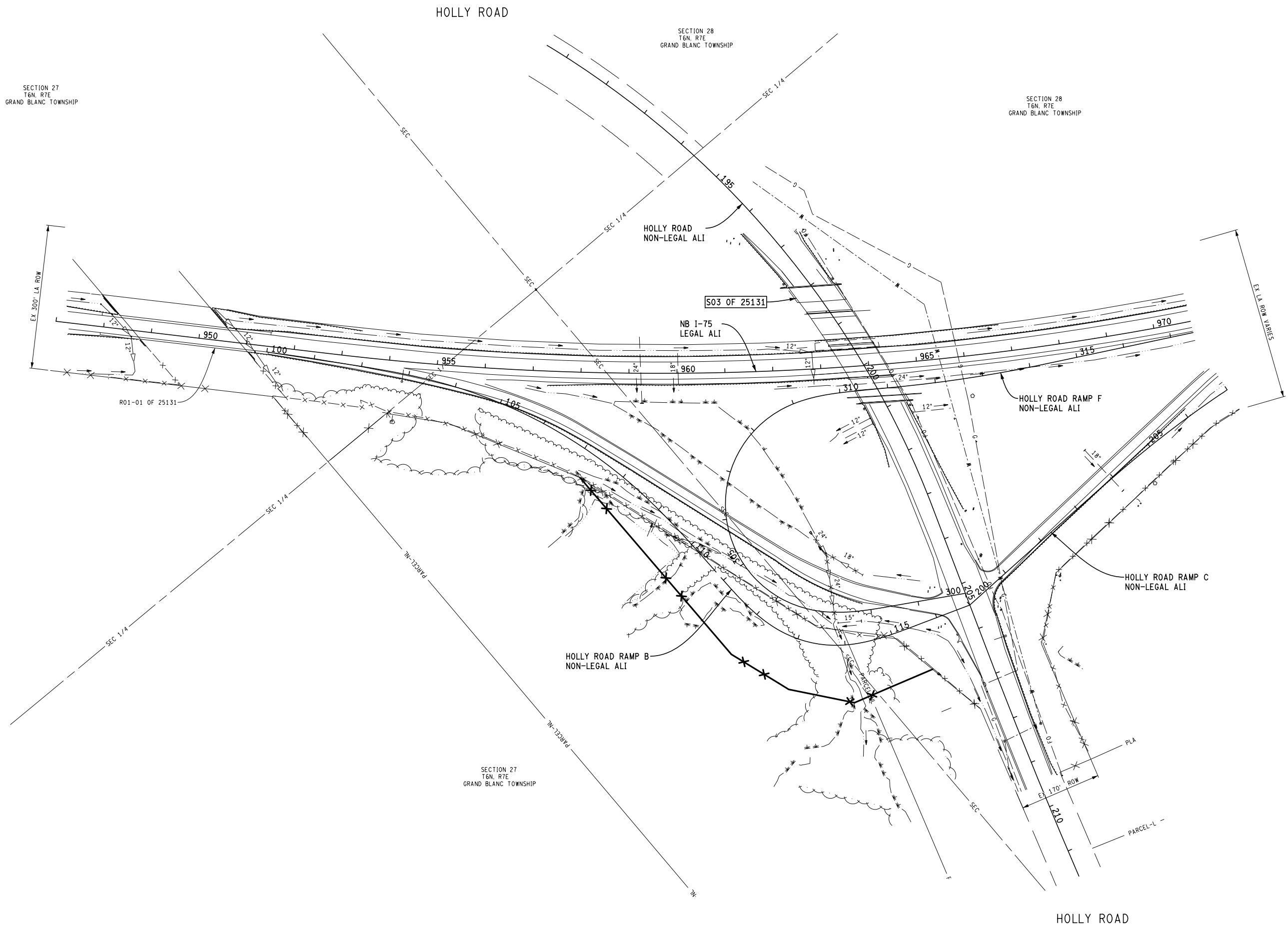
G3. The R.O.W width for the county drain must be shown on the plans.

G4. An additional drainage sheet may be required on urban projects showing existing sewers and structures. Upon completion of the drainage design, proposed sewers, structures, and their quantities may be added to this sheet.

G5. The drainage map should also include the following items or information:

- The direction of flow for all existing and proposed ditches, drains, sewers and culverts
- North Arrow
- Names of streets, highways, county roads, railroads, rivers, etc.
- Outline of the proposed road
- Tabulation of drainage data for all culverts 30" or greater in diameter
- Drainage districts

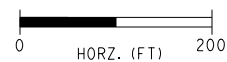
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NB I-75

RAMP C	NB I-75 RAMP F
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
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10	10
11	11
12	12
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FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



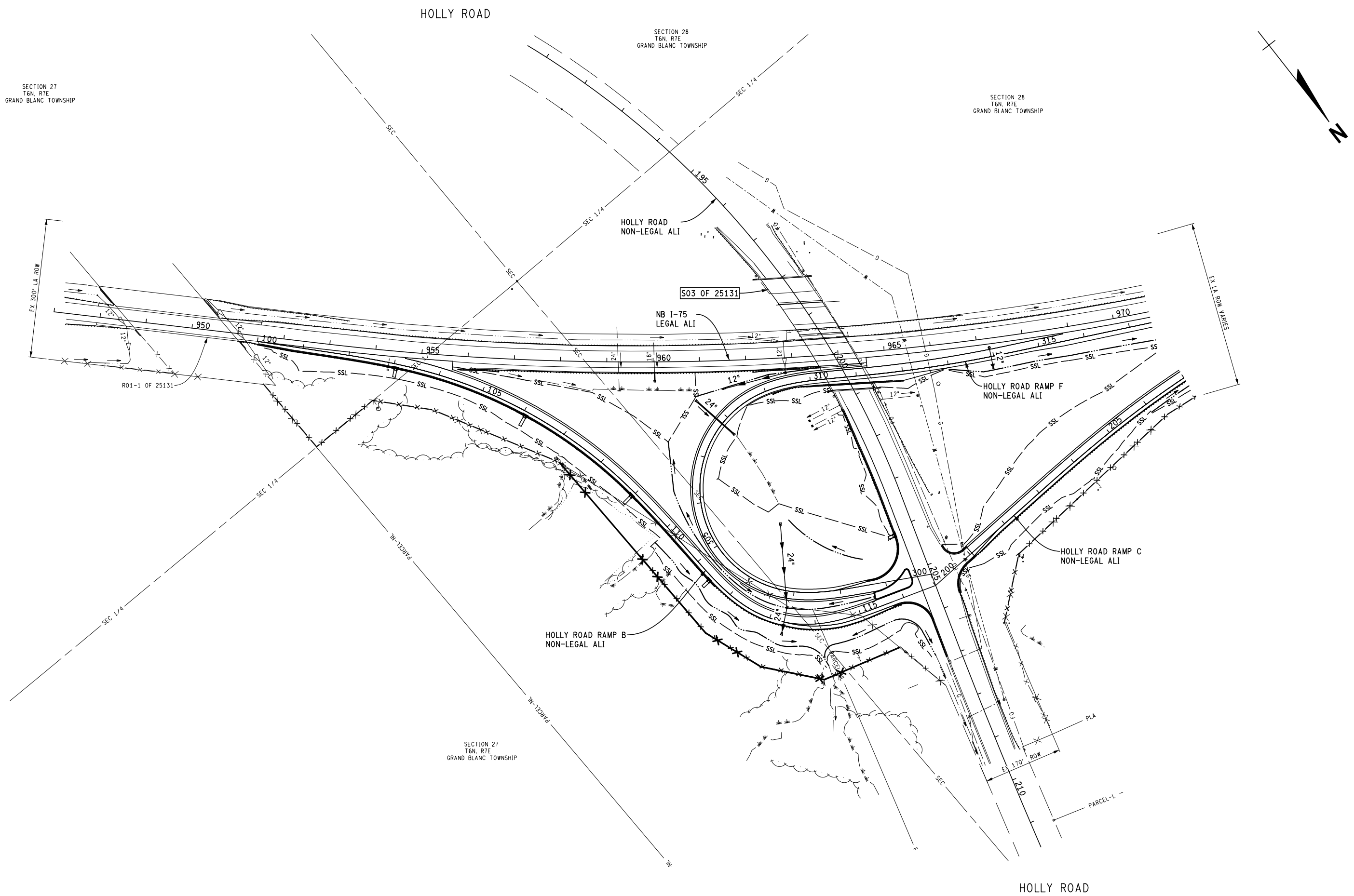
FILE:

DATE:
DESIGN UNIT:
TSC:

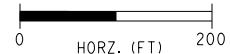
	CS:
	JN:

VICINITY/DRAINAGE MAP
I-75 STA 947+00 TO STA 971+00
EXISTING

DRAWING	SHEET
175 DRNVIC 001	SECT 1



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:	DATE:	CS:
	DESIGN UNIT:	JN:
	TSC:	

VICINITY/DRAINAGE MAP	
I-75 STA 947+00 TO STA 971+00	
PROPOSED	

DRAWING	SHEET
175 DRNVIC 002	SECT 1

G1. All work items on the typical cross sections are to be in capital letters. Use the proper fonts, sizes, levels, weights, etc. Pay items on the typical sections are to match MDOT standard pay items or the pay items from an approved Special Provision.


AGG – Aggregate	PG – Plan Grade
CONC – Concrete	POR – Point of Rotation
CP – Crown Point	PT – Point
EOS – Edge of Shoulder	REINF – Reinforced
EOT – Edge of Travelway	NONREINF – Non-Reinforced
OGDC – Open-Graded Drainage Course	SHLD – Shoulder
Pavt – Pavement	SWLK – Sidewalk



Guardrail Sections	Turn lanes
Shoulder Sections	Lane widening
Crossroads	Ramps
Fill/Cut sections	Crossovers
Curb and gutter sections	Retaining walls

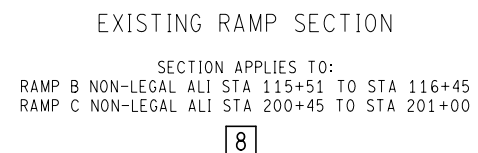
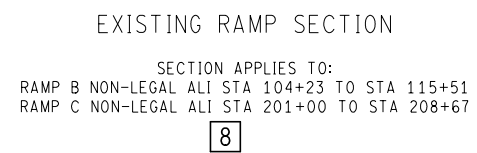
G10. Topsoil stripping will not be shown on typical sections.



1. Existing typical sections will be located before the proposed typical sections and will be grouped together. Existing and proposed typical sections will not be on the same sheet.
2. The removal type lines and the "GRADE TO THIS LINE" call will address how removal items are paid. The "GRADE TO THIS LINE" call is only shown on the existing typical section and should match the bottom line of the coinciding proposed typical section. Items that are not included in the removal type lines or the "GRADE TO THIS LINE" call will be tagged with the removal cell. For special cases, such as non-standard items, include a description of how the item will be paid.

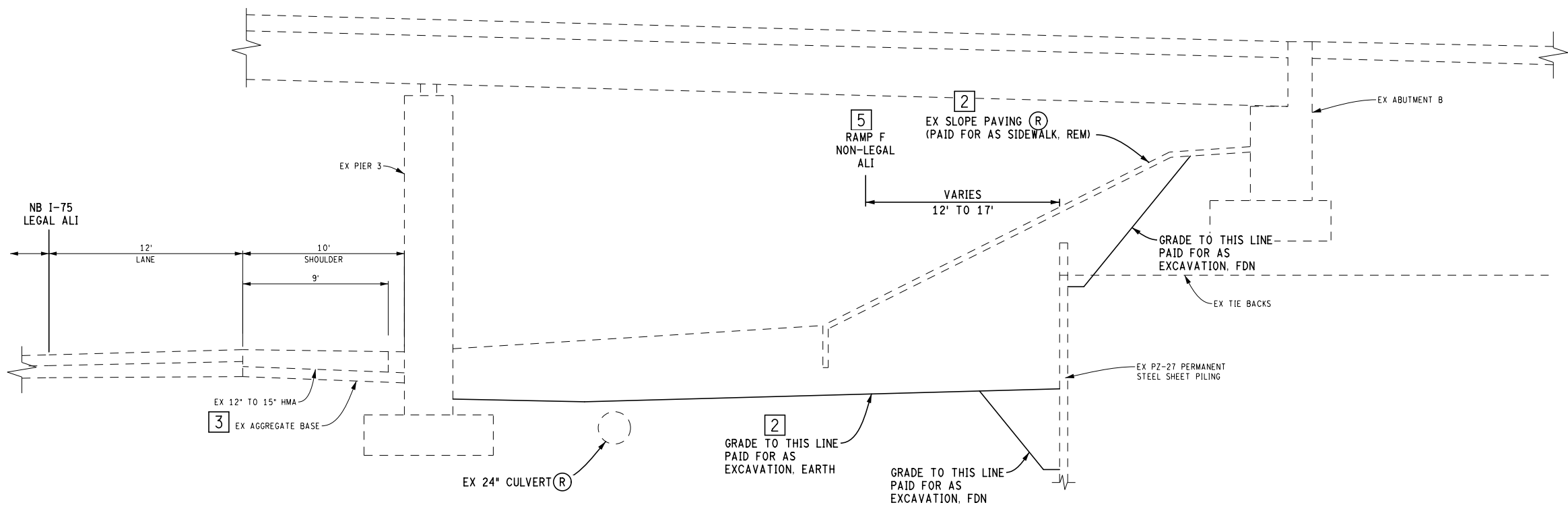
16. Include POB and POE label with station. Do not show stations with trailing zeros (i.e. 15+00, not 15+00.00).

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								 NO SCALE		DATE:	CS:	PLAN GUIDELINES	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			DESIGN UNIT:	JN:	TYPICAL SECTIONS		SECT
									FILE:	TSC:				

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)											DATE:	CS:	EXISTING TYPICAL SECTIONS	DRAWING	SHEET	
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT:	JN:			175 EXTYP 001	SECT 1
												TSC:				



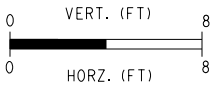
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)												DATE:	CS:	EXISTING TYPICAL SECTIONS	DRAWING 175 EXTYP 002	SHEET SECT 1
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					DESIGN UNIT:	JN:			
												FILE:	TSC:			



EXISTING RAMP F UNDER HOLLY ROAD SECTION

SECTION APPLIES TO:
RAMP F NON-LEGAL ALI STA 310+34 TO STA 311+32

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

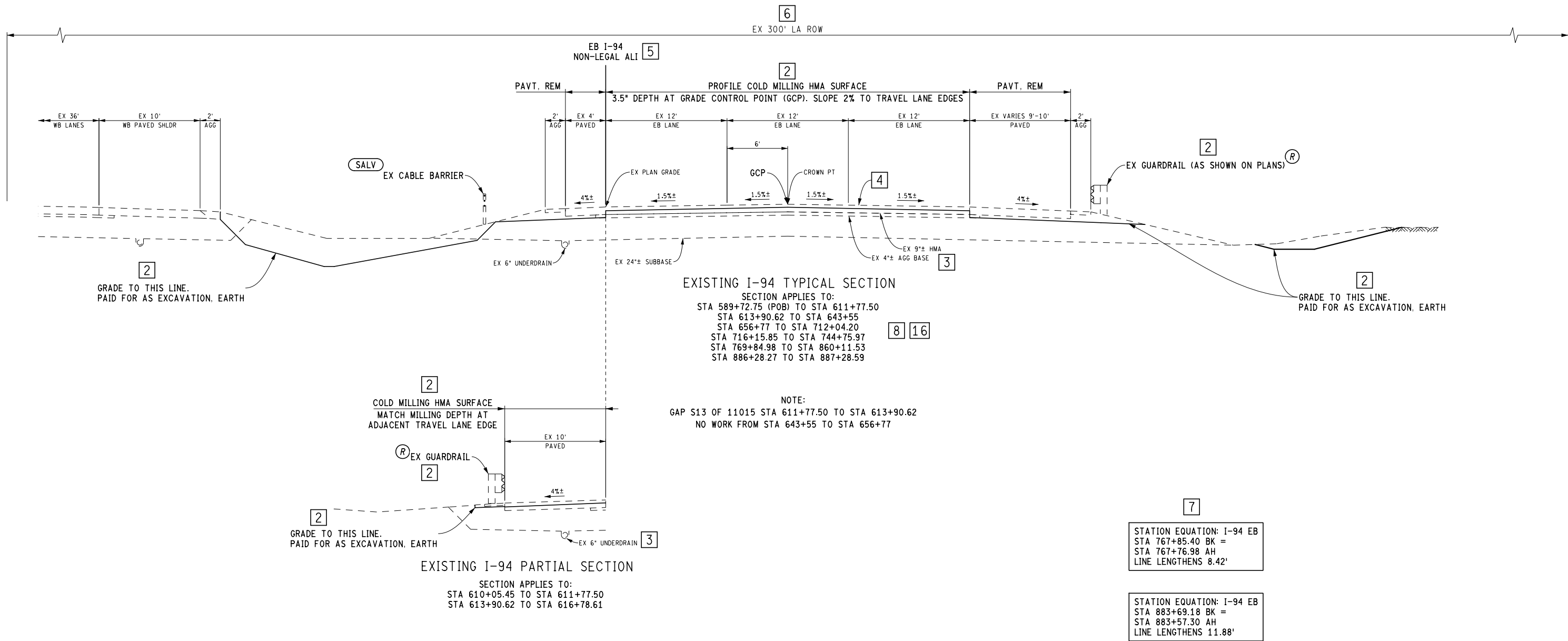


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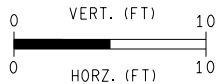
DATE:
DESIGN UNIT:
TSC:

CS:
JN:

EXISTING TYPICAL SECTIONS		DRAWING	SHEET
		175 EXTYP 003	SECT 1



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE



FILE:

DATE:

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TSC:

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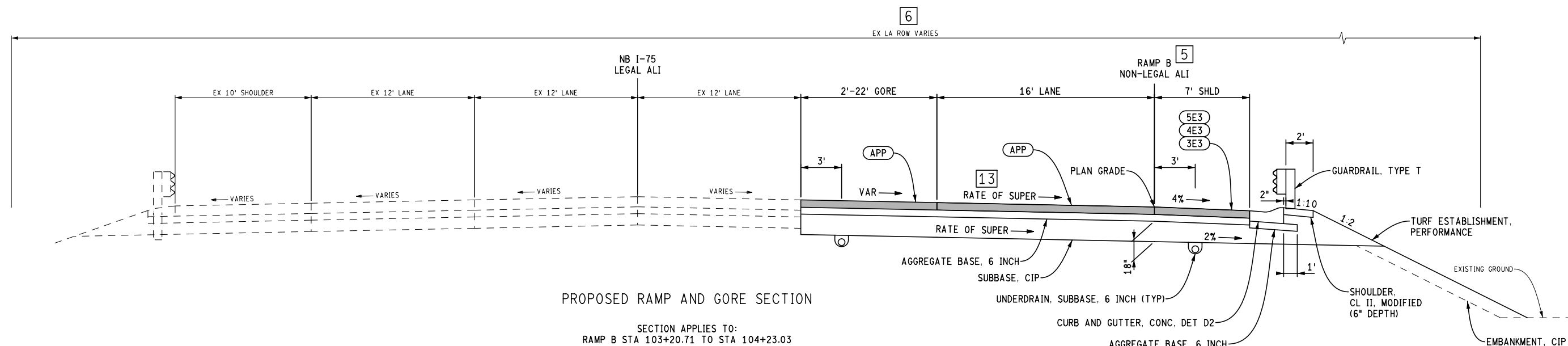
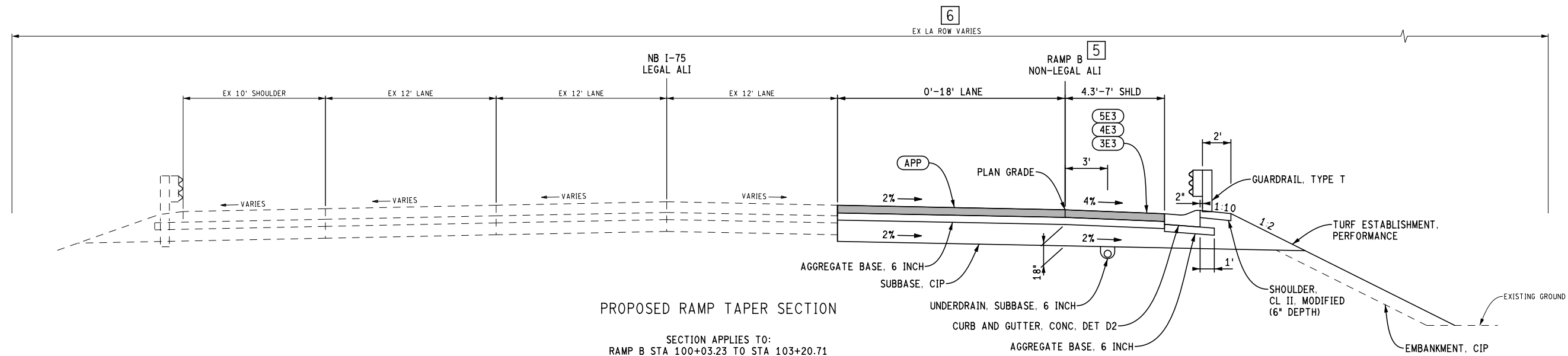
JN:

EXISTING TYPICAL SECTION

I-94 EB

DRAWING	SHEET
I94EB TYP 001	SECT 1

DRAWING	SHEET
I94EB TYP 004	SECT 1

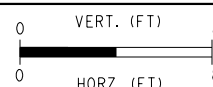


15

IDENT NO	ITEM	RATE (LBS PER SYD)	PERFORMANCE GRADE	REMARKS
5E3	HMA, 5E3	165	64-28	TOP COURSE, AWI=260
4E3	HMA, 4E3	220	64-28	LEVELING COURSE
3E3	HMA, 3E3	330	58-22	BASE COURSE
APP	HMA APPROACH	165	64-28	INTERSECTIONS, TAPERS, AND GORES, HMA, 5E3 (TOP COURSE, AWI=260)
		220	64-28	INTERSECTIONS, TAPERS, AND GORES, HMA, 4E3 (LEVELING COURSE)
		330	58-22	INTERSECTIONS, TAPERS, AND GORES, HMA, 3E3 (BASE COURSE)
APP-2	HMA APPROACH	165	64-28	SHOULDERS FOR MAINTAINING TRAFFIC, HMA, 5E3 (TOP COURSE, AWI=260)
	* BOND COAT	0.05-0.15 GAL		

* FOR INFORMATION ONLY

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)												PROPOSED TYPICAL SECTIONS				DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION									175	SECT 1
																PRTYP	
																001	



FILE:

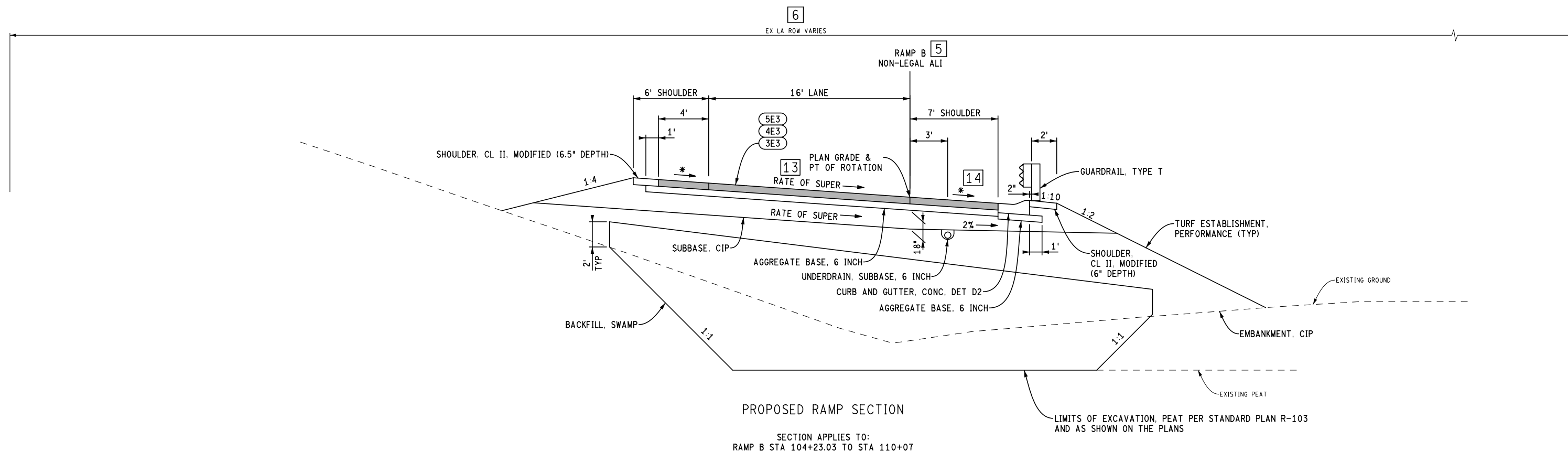
DATE:

DESIGN UNIT:

TSC:

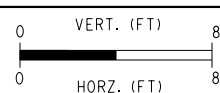
CS:

JN:



14

* FOR SHOULDER SLOPES IN SUPER TRANSITION AND FULL SUPER SEE STANDARD PLAN R-107 SERIES



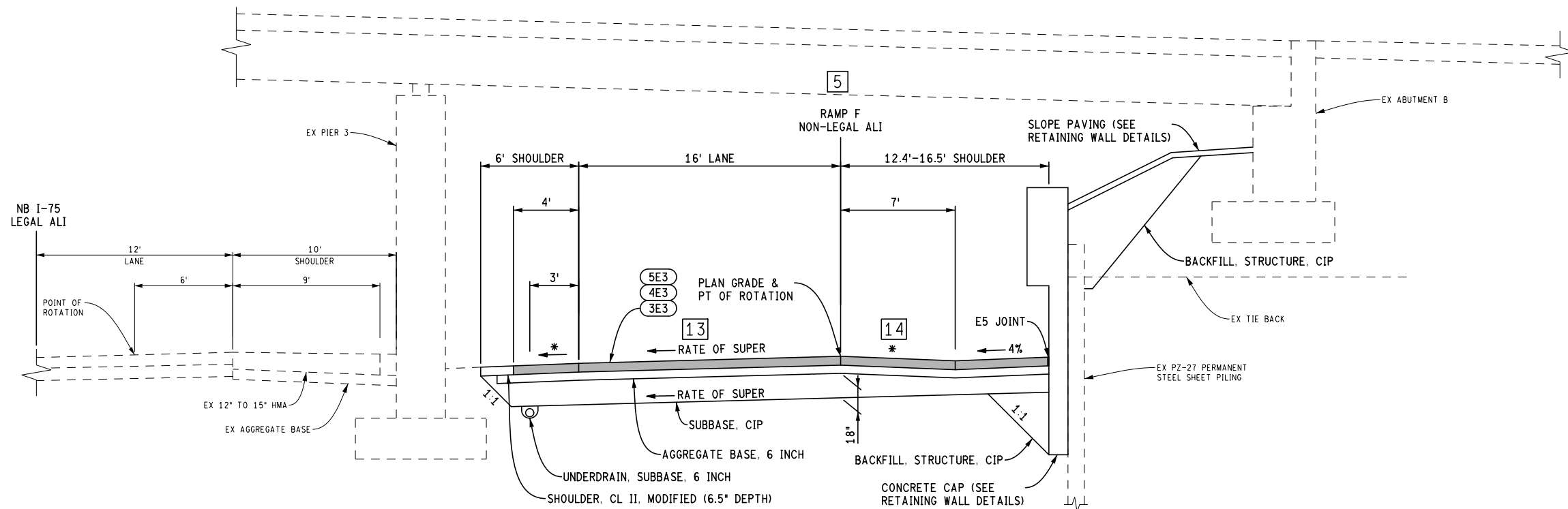
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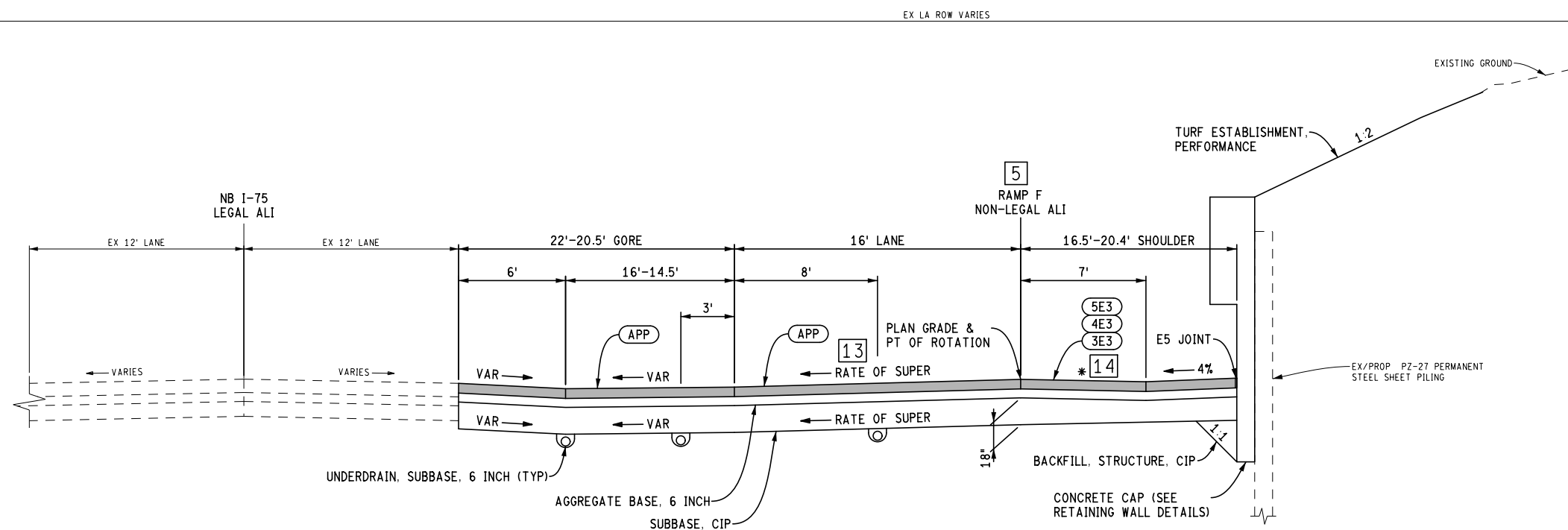
PROPOSED TYPICAL SECTIONS

	DRAWING	SHEET
	175 PRTYP 002	SECT 1



PROPOSED RAMP SECTION UNDER HOLLY ROAD

SECTION APPLIES TO:
RAMP F STA 310+37 TO STA 311+24.44



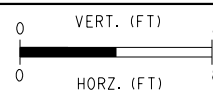
PROPOSED RAMP AND GORE SECTION

SECTION APPLIES TO:
RAMP F STA 311+24.44 TO STA 312+00

14

* FOR SHOULDER SLOPES IN SUPER TRANSITION AND
FULL SUPER SEE STANDARD PLAN R-107 SERIES

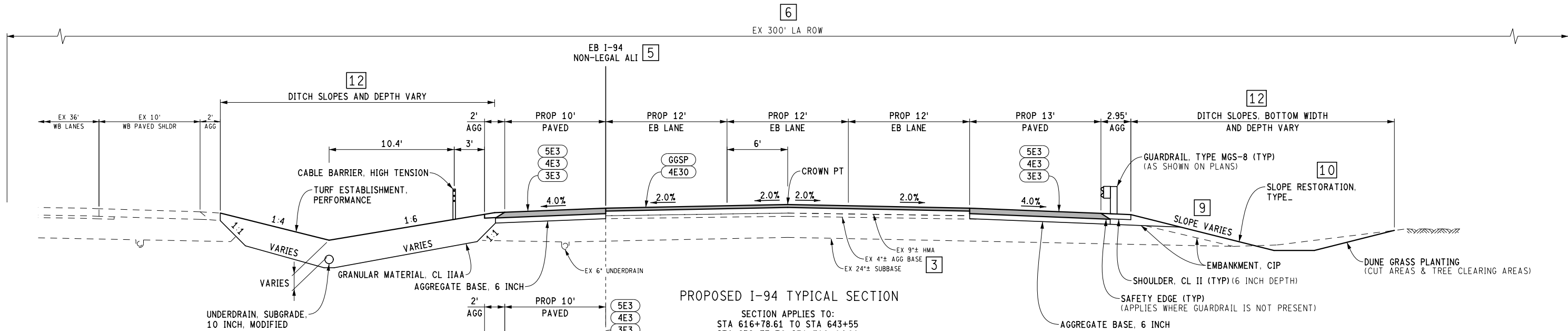
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								PROPOSED TYPICAL SECTIONS		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				
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										PRTYP	
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FILE:

DATE:
DESIGN UNIT:
TSC:

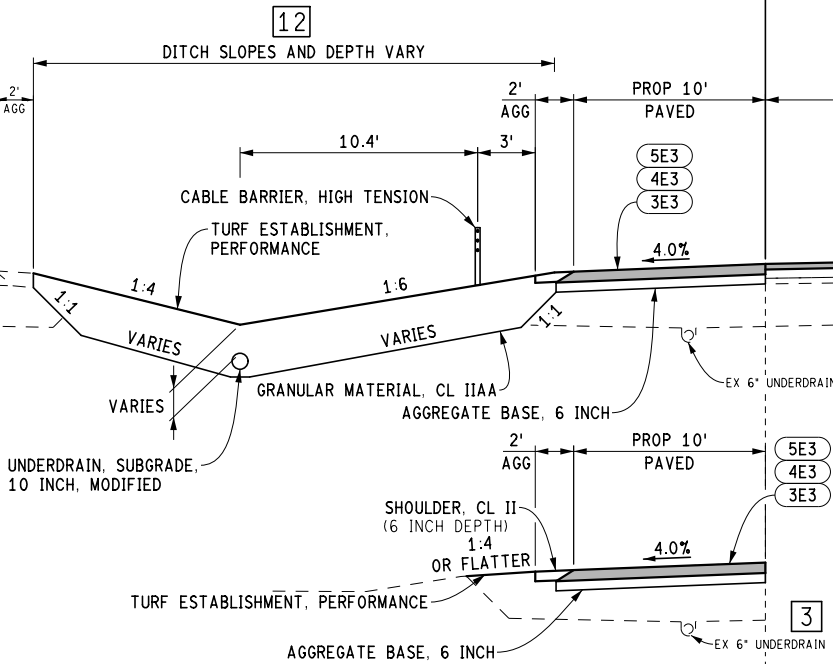
CS:
JN:



PROPOSED I-94 TYPICAL SECTION

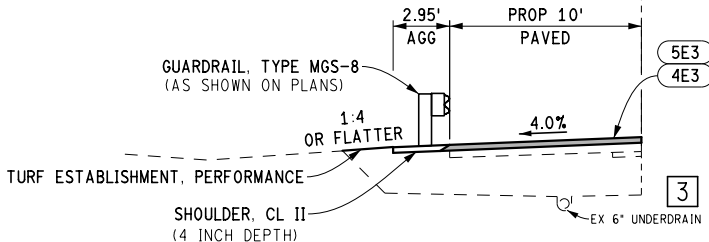
SECTION APPLIES TO:
STA 616+78.61 TO STA 643+55
STA 656+77 TO STA 712+04.20
STA 716+15.85 TO STA 744+75.97
STA 769+84.98 TO STA 860+11.53
STA 886+28.27 TO STA 887+28.59

NOTE:
GAP S13 OF 11015 STA 611+77.50 TO STA 613+90.62
NO WORK FROM STA 643+55 TO STA 656+77



PROPOSED I-94 PARTIAL SECTION

SECTION APPLIES TO:
STA 589+72.75 (POB) TO STA 610+05.45



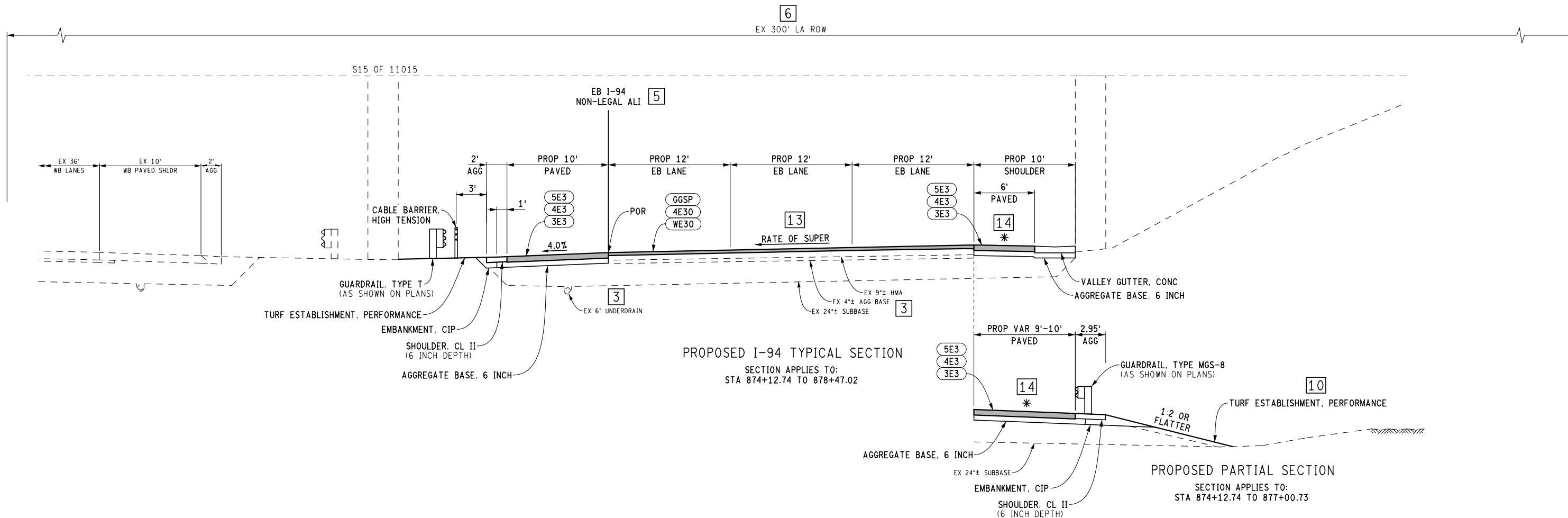
PROPOSED I-94 PARTIAL SECTION

SECTION APPLIES TO:
STA 610+05.45 TO STA 611+77.50
STA 613+90.62 TO STA 616+78.61

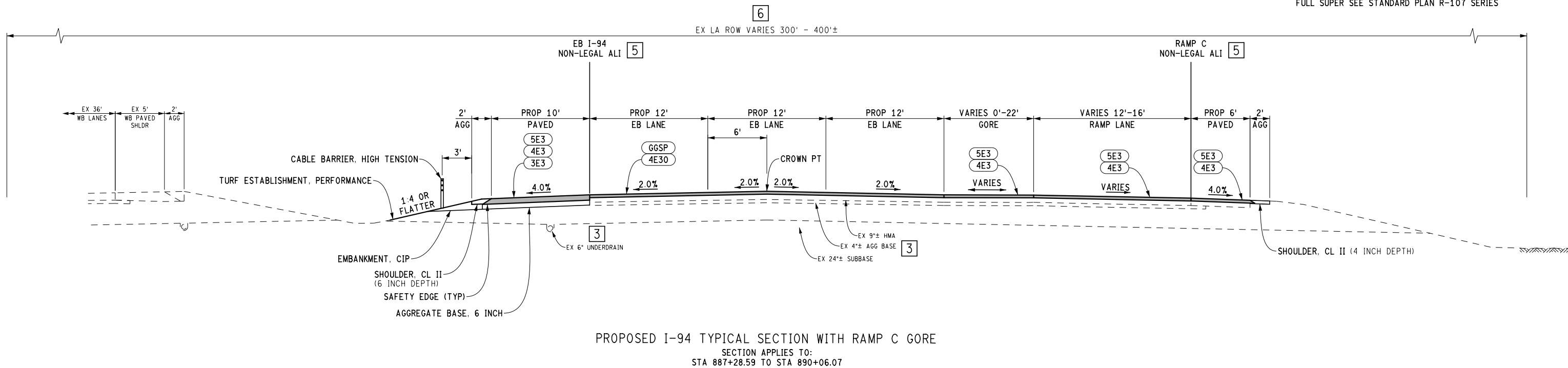
HMA APPLICATION ESTIMATE

IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
GGSP	HMA, GAP GRADED SUPERPAVE	165	PG 70-28P	MAINLINE TOP COURSE - AWI 260
4E30	HMA, 4E30	220	PG 70-28P	MAINLINE LEVELING COURSE
WE30	HMA, 5E30	82.5-220	PG 64-22	MAINLINE WEDGING
5E3	HMA, 5E3	165	PG 64-22	MAINLINE SHLDR & RAMP TOP COURSE
4E3	HMA, 4E3	220	PG 64-22	MAINLINE SHLDR AND RAMP LEVELING COURSE
3E3	HMA, 3E3	330	PG 64-22	MAINLINE SHLDR & RAMP BASE COURSE
WE3	HMA, 5E3	82.5-220	PG 64-22	MAINLINE SHOULDER WEDGING
HA-1	HMA APPROACH	165	PG 64-22	HMA 5E3 - GORE AND CROSSOVER TOP
HA-2	HMA APPROACH	220	PG 64-22	HMA, 4E3 - GORE AND CROSSOVER LEVELING
HA-3	HMA APPROACH	330	PG 64-22	HMA, 3E3 - GORE & CROSSOVER BASE
	* BOND COAT	0.05-0.15 GAL		

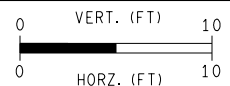
*FOR INFORMATION ONLY



* FOR SHOULDER SLOPES IN SUPER TRANSITION AND FULL SUPER SEE STANDARD PLAN R-107 SERIES



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE



DATE:	CS:
DESIGN UNIT:	JN:
TSC:	


FILE:	
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PROPOSED TYPICAL SECTION	DRAWING	SHEET
I-94 EB	194EB	1
	TYP	
	010	

MISCELLANEOUS DETAILS

G1. Miscellaneous details can be added to address special items or treatments on a project such as:

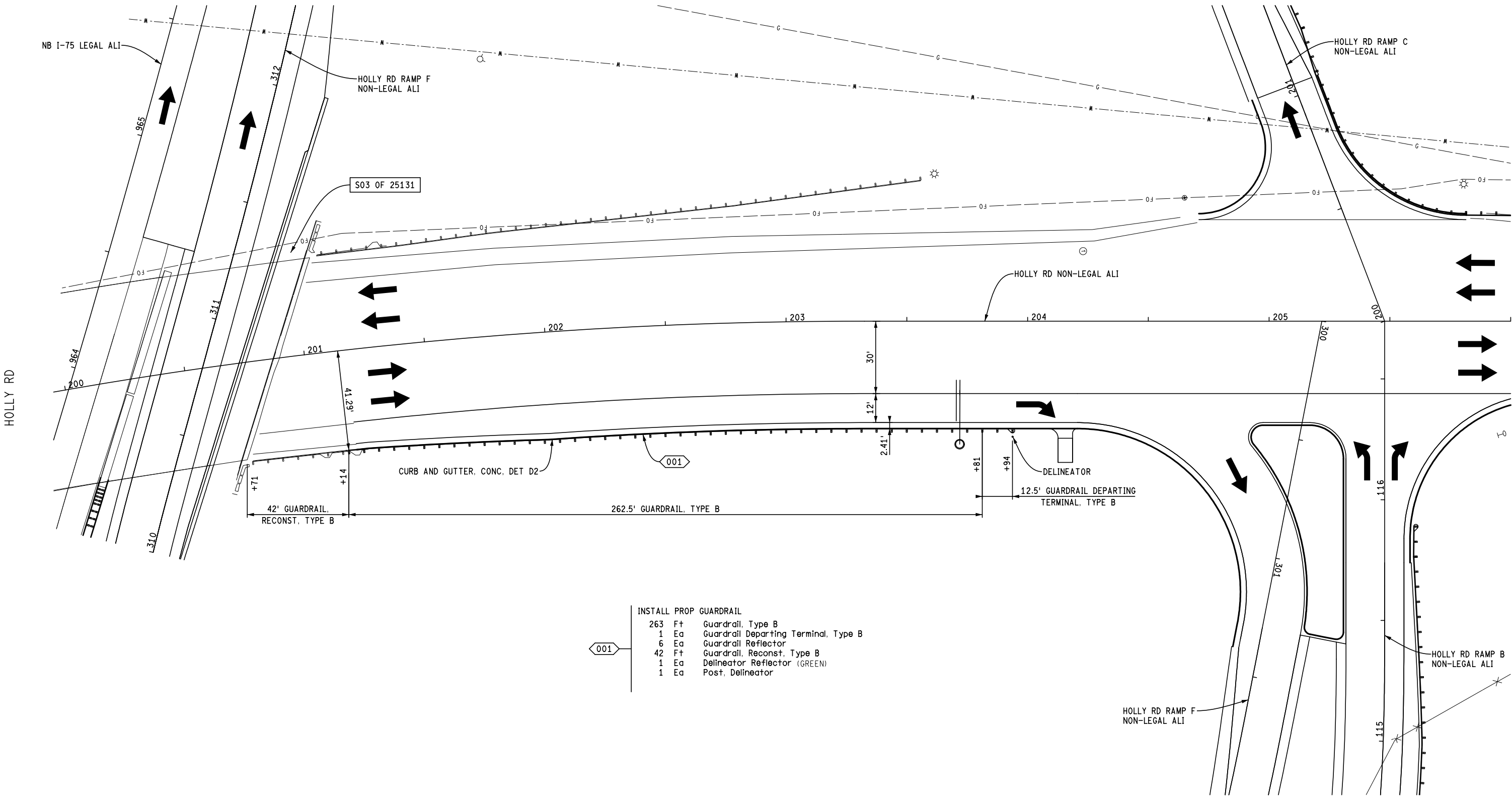
- Guardrail Details
- Non-standard items (ex. Modified Curb & Gutter)
- Project-wide Driveway Details

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)									NO SCALE			DATE:		CS:		PLAN GUIDELINES		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION					DESIGN UNIT:		JN:		MISCELLANEOUS DETAILS			SECT
										FILE:		TSC:							

NB I-75

RAMP F

RAMP C

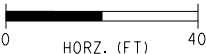


NB I-75 RAMP F

RAMP F

RAMP B

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE:
DESIGN UNIT:
TSC:


CS:
JN:

GUARDRAIL DETAIL SHEET
HOLLY ROAD STA 200+00 TO STA 206+00

DRAWING SHEET
175
CRDET
001
SECT 1

SURVEY INFORMATION SHEETS:

1. NOTES:
 - In the notes section outline the project Coordinate System, Datum, and Units of Measure that were used during the design survey.
2. PRIMARY CONTROL, INTERMEDIATE CONTROL, BENCHMARKS
 - All of the control points found or set for the project will be listed on the sheet under the appropriate section.
 - For all Horizontal and Vertical control points listed on the sheet the following information will be included.
 - i. Description of point and location
 - ii. Station and Offset
 - iii. Coordinate values
 - iv. Standard deviation of the point
 - v. Combined Scale Factor for each point
 - vi. Four witnesses
3. GOVERNMENT CORNERS, ALIGNMENT POINTS
 - For all Government Corners and Alignment Corners listed on the sheet the following information will be included.
 - i. Description of point and location
 - ii. Station and Offset
 - iii. Note stating to Preserve and Protect this corner.
 - iv. Coordinate values
 - v. Combined Scale Factor for each point
 - vi. Four witnesses

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)									NO SCALE		DATE:	CS:	PLAN GUIDELINES		DRAWING	SHEET	
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT:	JN:	SURVEY INFORMATION SHEETS			SECT	
											FILE:	TSC:					

NOTES

COORDINATE SYSTEM: STATE PLANE GRID
ZONE: MICHIGAN SOUTH 2113
ELLIPSOID: GRS 80
HORIZONTAL DATUM: NAD 83 (CORS 2013)
VERTICAL DATUM: NAVD 88
GEOID: GEOID 12A
UNITS: INTERNATIONAL FEET

1

GROUND DISTANCE CONVERSION

THE COMBINED SCALE FACTOR (CSF) FOR EACH CONTROL POINT IS INCLUDED IN THE CONTROL POINT LIST.

AVERAGE COMBINED SCALE FACTOR (ACSF) = (CSF1 + CSF2)/2
GROUND DISTANCE = GRID DISTANCE / ACSF

COMBINED SCALE FACTOR = 1.00005954

INTERMEDIATE CONTROL

2

CP1
DESCRIPTION: SET 5/8" X 36" REBAR WITH MDOT CAP 22.5' NORTH OF NORTH EDGE OF PAVEMENT TO US-12.
WITNESSES:
1. NORTH EDGE OF PAVEMENT. SOUTH 22.5'
2. SW FACE OF POWER POLE #3608 21 N35E 11.5'
3. SOUTH FACE OF 5" WHITE PINE. N32W 76.5'
4. WEST FACE TWIN 6" CEDAR S85E 47.0'
NORTHING: 117293.9845
EASTING: 12504866.4219
ELEV: 643.28
CSF: 1.0000594
STD. DEV.: N: 0.0041 E: 0.0034 ELEV: 0.000
STATION: 259+75.17
OFFSET: -34.92

CP2
DESCRIPTION: SET 5/8" X 36" REBAR WITH MDOT CAP 12' NORTH OF NORTH EDGE OF PAVEMENT TO US-12 ON EAST SIDE OF GRAVEL DRIVEWAY.
WITNESSES:
1. 18" CMP. S40E 8.5'
2. POWER POLE. N65W 33.5'
3. 2" GALVANIZED STEEL POST WITH TEE ON TOP. N25W 15.5'
4. SOUTH FACE OF 14" WHITE PINE. N23E 30.0'
NORTHING: 117301.2997
EASTING: 12504500.3352
ELEV: 641.25
CSF: 1.0000595
STD. DEV.: N: 0.0034 E: 0.0035 ELEV: 0.000004
STATION: 256+09.03
OFFSET: -31.24

CP3
DESCRIPTION: SET 5/8" X 36" REBAR WITH MDOT CAP 13' NORTH OF NORTH EDGE OF PAVEMENT TO US-12, APPROXIMATELY 60' EAST OF ASPHALT DRIVEWAY.
WITNESSES:
1. 12" CMP. WEST 53.5'
2. 30" MAPLE. N45W 38.5'
3. W. FACE OF POWER POLE. N85E 104.0'
4. WEST END OF GUARDRAIL. S80E 59.0'
NORTHING: 117305.2529
EASTING: 12504158.6255
ELEV: 638.48
CSF: 1.00005964
STD. DEV.: N: 0.0041 E: 0.0031 ELEV: 0.000005
STATION: 252+67.36
OFFSET: -24.94

CP4
DESCRIPTION: SET 5/8" X 36" REBAR WITH MDOT CAP APPROXIMATELY 25FT NORTH OF NORTH EDGE OF PAVEMENT TO US-12 AND APPROXIMATELY 95FT WEST OF ASPHALT DRIVEWAY.
WITNESSES:
1. FIBER OPTIC MARKER. N85E 41.5'
2. WEST END 12" CMP. S80E 92.0'
3. EAST FACE POWER POLE. N85E 126.5'
4. NORTH EDGE OF BITUMENOUS PAVEMENT TO US-12. SOUTH 25.5'
5.
NORTHING: 117323.4704
EASTING: 12503985.9711
ELEV: 643.26
CSF: 1.0000594
STD. DEV.: N: 0.0026 E: 0.0035 ELEV: 0.000005
STATION: 250+94.24
OFFSET: -37.97

BENCHMARKS

BM1
DESCRIPTION: SET GIN GEAR IN SOUTH SIDE OF POWER POLE #3608 21 APPROXIMATELY 500FT EAST OF US-12 BRIDGE OVER DEER CREEK.
WITNESSES:
1. CP1, 5/8" X 36" REBAR WITH MDOT. S35W 11.5'
2. W. FACE OF TWIN CEDAR. S75E 42.0'
3. S. FACE OF 6" WHITE PINE. N45W 74.0'
NORTHING: 117302.44
EASTING: 12504873.48
ELEV: 644.27
STD. DEV.: ELEV: 0.000002
STATION: 259+81.98
OFFSET: -43.58

BM2
DESCRIPTION: SET GIN GEAR IN SOUTH SIDE OF POWER POLE #B608-18 ON NORTH SIDE OF US-12, APPROXIMATELY 100FT WEST OF US-12 OVER DEER CREEK BRIDGE.
WITNESSES:
1. END GUARDRAIL POST. S80W 47.0'
2. E. FACE 30" MAPLE N80W 131.0'
3. NW CORNER WINGWALL FOR DEER CREEK BRIDGE. S70E 94.0'
NORTHING: 117319.66
EASTING: 12504262.62
ELEV: 635.55
STD. DEV.: ELEV: 0.000005
STATION: 253+70.88
OFFSET: -42.46

GOVERNMENT CORNERS

3

SCOR: G3 T8S, R20W
POINT: 32500
DESCRIPTION: FOUND 1 ¼ IN IRON ROD IN MONUMENT BOX 1.6 FT NORTH OF CENTERLINE OF US-12 AT CENTERLINE OF SCHWARK RD.
WITNESSES:
1. SET MAG NAIL IN SE FACE OF GUY POLE. S32W 58.05'
2. SW CORNER OF CONCRETE PAD TO TELEPHONE UTILITY BOX #7301. N39W 56.60'
3. SE CORNER OF STEEL I-BEAM OF SOUTH LEG TO BILLBOARD SIGN. N32E 79.34'
4. SET CHISELED "X" ON SW CORNER OF CONCRETE FLARED END SECTION TO WEST END OF 15" RCP.
NORTHING: 117215.71
EASTING: 12506309.55
STATION: 274+20.00
OFFSET: 0.00

QCOR: F-3 T8S, R20W
POINT: 32501
DESCRIPTION: FOUND 1 ¼" IRON ROD IN MONUMENT BOX 3.4 FT NORTH OF CENTERLINE TO US-12 ACROSS FROM DRIVEWAY TO HOUSE #7709.
WITNESSES:
1. FOUND DOUBLE HEADED NAIL NE SIDE OF POWER POLE. N17W 47.18'
2. FOUND DOUBLE HEADED NAIL IN E SIDE OF GUY POLE. S5W 41.28
3. FOUND DOUBLE HEADED NAIL IN W SIDE OF 30" MAPLE. S52E 91.95'
4. FOUND DOUBLE HEADED NAIL IN W SIDE OF 12" BOX ELDER. S14W 51.15'
NORTHING: 117294.71
EASTING: 12503678.73
STATION: 247+88.00
OFFSET: 0.00

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)									NO SCALE		DATE:	CS:	SURVEY INFORMATION SHEET	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT:	JN:		SURVEY 001	SECT 1
										FILE:	TSC:	US-12			

ALIGNMENT/ROW SHEETS:

1. Label all roadway names and county drains at the outside of the sheet using MDOT Pr x 1.5 text size.
2. Label all alignments using current naming convention.
3. Place north arrow in upper right corner.
4. Show section, township and range information, and city, village, township or county.
5. ROW is dimensioned only to the legal alignments. If a legal alignment is not available then the ROW is dimensioned from ROW line to ROW line. Label ROW within the sheet every time it changes. Label and dimension proposed ROW. Proposed R.O.W. within subdivisions should be dimensioned from lot corners. Proposed R.O.W. lines that are not parallel to the legal alignment shall have the bearings and distances indicated or have other ties adequate for writing property descriptions. Proposed R.O.W. ties and dimensions shall be accurate to two decimal places for distances and to the nearest second on bearings.
6. An alignment key is required and should be located in the upper left corner of the first alignment sheet.
7. Show section corners, quarter corners, quarter corners, section lines, bearings of the section lines and distances as shown. The section corner information will only be shown on the alignment sheets.
8. All crossroad alignment ties will only be shown on the alignment sheets.
9. Show tangent bearings on all alignments.
10. Existing and proposed alignment curve data is only shown on the alignment sheets. Show the curve data on the alignment sheet where the PI appears. List existing (if applicable) and proposed superelevation rates below curve data.
11. Dimension the distances between alignments.
12. Show parcel and plat lines on the alignment sheets. Parcel lines are not shown on the removal and construction sheets.
13. Label all subdivisions and plats. Label with proposed text size and on the appropriate level.
14. If a POT is shown at the end/beginning of an alignment, northing and easting shall be included to establish the location.
15. The POB/POE, job number, control section and mile points, and physical reference and mile points need to be shown at the beginning and end of the construction limits.
16. If the existing ROW has been established from survey and it is not dependent on the legal alignment, label the bearing and distance of the existing ROW and the station of the location that the ROW is no longer dependent on the legal alignment.
17. Label and dimension any existing or proposed easements.
18. Use the standard orientation for labeling PC, PI & PT locations whenever possible. These can be modified if readability becomes an issue.
19. Parcel numbers and property boundary information shall be shown on the Alignment/ROW sheets only.
20. Use separate sheets for ramp and/or crossroad alignments as needed, only show the information once.

21. The scale of the Alignment/ROW sheets is at the discretion of the designer. Due to the amount of information shown on these sheets it may be beneficial to use the same scale as the removal and construction sheets.
22. Show all station equations.
23. Show LA terminator cell signifying the change from LA ROW to ROW.
24. The alignment(s), stationing and curve data used to construct the roadway (the ones shown on typicals, removal, and construction sheets) will be shown as weight 1. All other alignments will be weight 0.
25. Consents to Grade shall be dimensioned from the proposed or existing R.O.W. lines. Consents to Grade are normally stationed to the nearest increment of 5 feet and widths in increments of 5 feet. Consents to Grade should be varied to avoid obstacles and the obstacles should be labeled as AVOID.

ALIGNMENT/ROW SHEETS – GENERAL ITEMS

- G1. Alignment types (As-Constructed, Construction, or Survey) of existing alignments are determined by their historic origin and are provided by the surveyor. The description of the proposed alignments are developed by the designer.
- G2. Annotation of alignments are as follows: ROADWAY + LEGAL or NON-LEGAL + ALI.
Use a sequential letter designation that coincides with the alignment key where there are recurring alignments. Example alignment annotations are as follows:


M-3 LEGAL ALI
M-3 NON-LEGAL ALI
M-3 NON-LEGAL (A) ALI
M-3 NON-LEGAL (B) ALI
- G3. Alignment definitions/descriptions provided in the Alignment Key must include the following:

Retraced Alignments (provided with survey deliverables):

- Route Name
- Origin Name, Origin Year and Origin Job Number
- "as retraced for" Job Number
- Year of retracement

Proposed Construction Alignments (developed by the designer):

- "Construction"
- "Alignment for" + Job Number
- Description of what the alignment is for and/or how it was produced

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)					NO SCALE		DATE:	CS:	PLAN GUIDELINES	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT:	JN:	ALIGNMENT / ROW SHEETS		SECT
										FILE:	TSC:				

6

ALIGNMENT KEY

NB I-75 LEGAL ALI: NB I-75 LEGAL ALIGNMENT AS SURVEYED IN 2014 FOR JN 115832 BY WADE TRIM
HOLLY ROAD LEGAL ALI: HOLLY ROAD LEGAL ALIGNMENT AS SURVEYED IN 2014 FOR JN 115832 BY WADE TRIM
HOLLY ROAD NON-LEGAL ALI: HOLLY ROAD CONSTRUCTION ALIGNMENT AS PROPOSED FOR JN 115832
HOLLY ROAD RAMP B NON-LEGAL ALI: HOLLY ROAD RAMP B CONSTRUCTION ALIGNMENT AS PROPOSED FOR JN 115832
HOLLY ROAD RAMP C NON-LEGAL ALI: HOLLY ROAD RAMP C CONSTRUCTION ALIGNMENT AS PROPOSED FOR JN 115832
HOLLY ROAD RAMP F NON-LEGAL ALI: HOLLY ROAD RAMP F CONSTRUCTION ALIGNMENT AS PROPOSED FOR JN 115832
RAMP B NORTH DITCH ALI: HOLLY ROAD RAMP B DITCH CONSTRUCTION ALIGNMENT AS PROPOSED FOR JN 115832
RAMP B SOUTH DITCH ALI: HOLLY ROAD RAMP B DITCH CONSTRUCTION ALIGNMENT AS PROPOSED FOR JN 115832
RETAINING WALL NON-LEGAL ALI: CONSTRUCTION ALIGNMENT AS PROPOSED FOR JN 115832

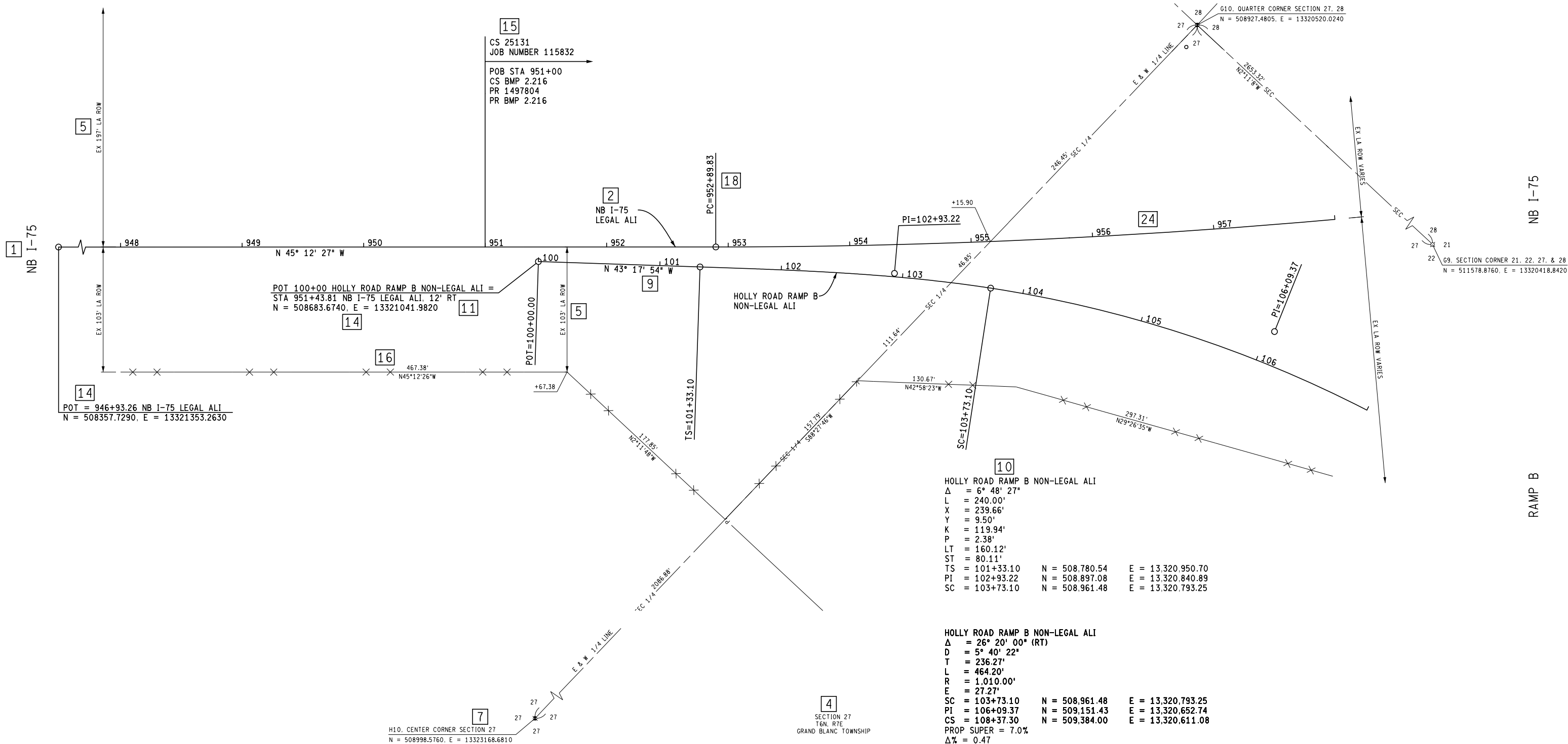
4

SECTION 27
T6N, R7E
GRAND BLANC TOWNSHIP

3

NB I-75

RAMP B



15

CS 25131
JOB NUMBER 115832
POB STA 951+00
CS BMP 2.216
PR 1497804
PR BMP 2.216

2

NB I-75
LEGAL ALI

18

PC=952+89.83

PI=102+93.22

G10, QUARTER CORNER SECTION 27, 28
N = 508927.4805, E = 13320520.0240

2653.32'
N2°11'19"W SEC

EX LA ROW VARIES

G9, SECTION CORNER 21, 22, 27, & 28
N = 511578.8760, E = 13320418.8420

11

POT 100+00 HOLLY ROAD RAMP B NON-LEGAL ALI =
STA 951+43.81 NB I-75 LEGAL ALI, 12' RT
N = 508683.6740, E = 13321041.9820

14

16

467.38'
N45°12'26"W

+67.38

TS=101+33.10

130.67'
N42°58'23"W

10

HOLLY ROAD RAMP B NON-LEGAL ALI

Δ = 6° 48' 27"
L = 240.00'
X = 239.66'
Y = 9.50'
K = 119.94'
P = 2.38'
LT = 160.12'
ST = 80.11'
TS = 101+33.10 N = 508,780.54 E = 13,320,950.70
PI = 102+93.22 N = 508,897.08 E = 13,320,840.89
SC = 103+73.10 N = 508,961.48 E = 13,320,793.25

HOLLY ROAD RAMP B NON-LEGAL ALI

Δ = 26° 20' 00" (RT)
D = 5° 40' 22"
T = 236.27'
L = 464.20'
R = 1,010.00'
E = 27.27'
SC = 103+73.10 N = 508,961.48 E = 13,320,793.25
PI = 106+09.37 N = 509,151.43 E = 13,320,652.74
CS = 108+37.30 N = 509,384.00 E = 13,320,611.08
PROP SUPER = 7.0%
Δ% = 0.47

7

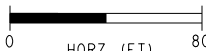
H10, CENTER CORNER SECTION 27
N = 508998.5760, E = 13323168.6810

4

SECTION 27
T6N, R7E
GRAND BLANC TOWNSHIP

21

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								ALIGNMENT SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION	NB I-75 STA 949+00 TO STA 958+00		175 ALI 001	SECT 1
								RAMP B STA 100+00 TO STA 107+00			



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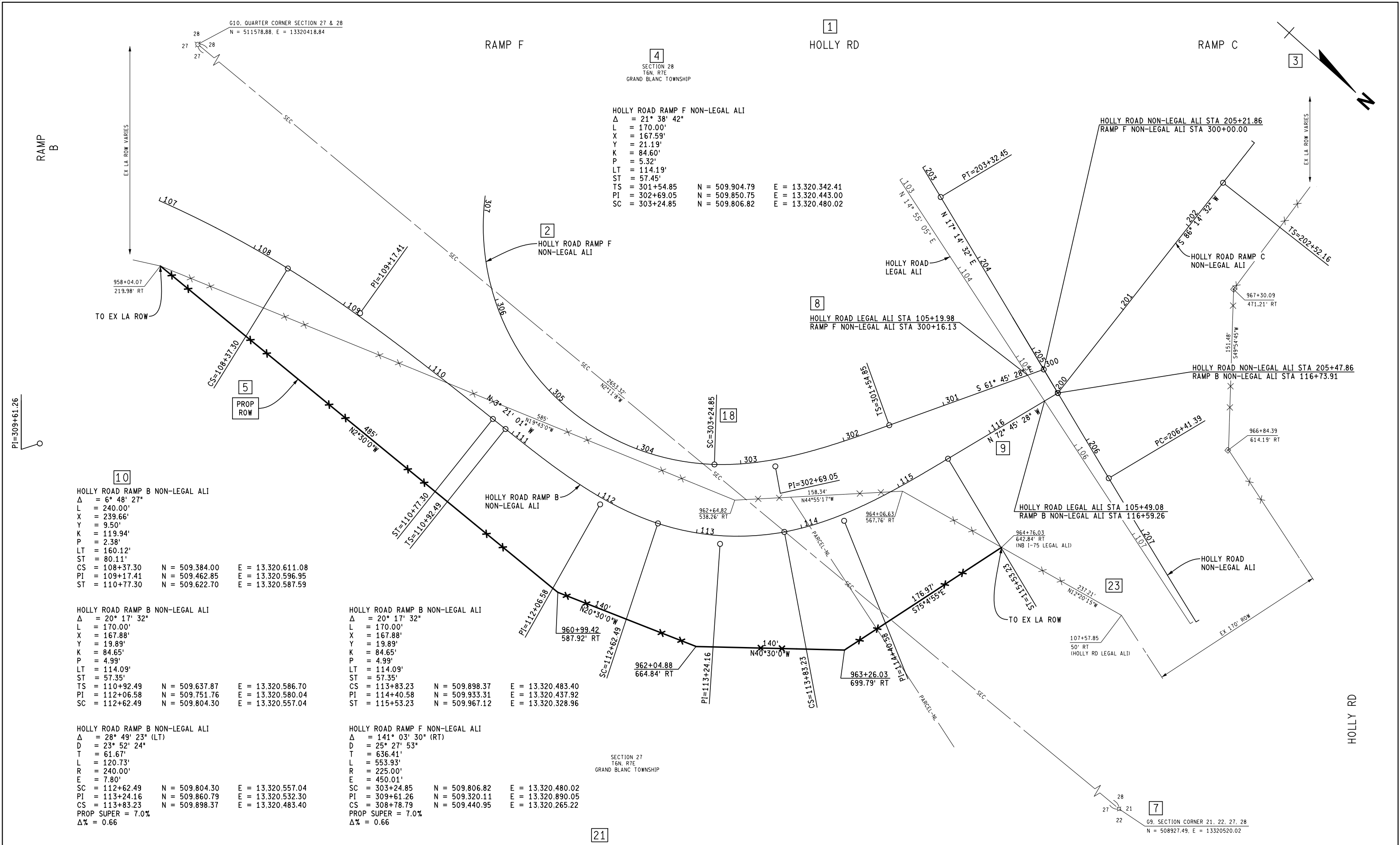
DATE:

DESIGN UNIT:

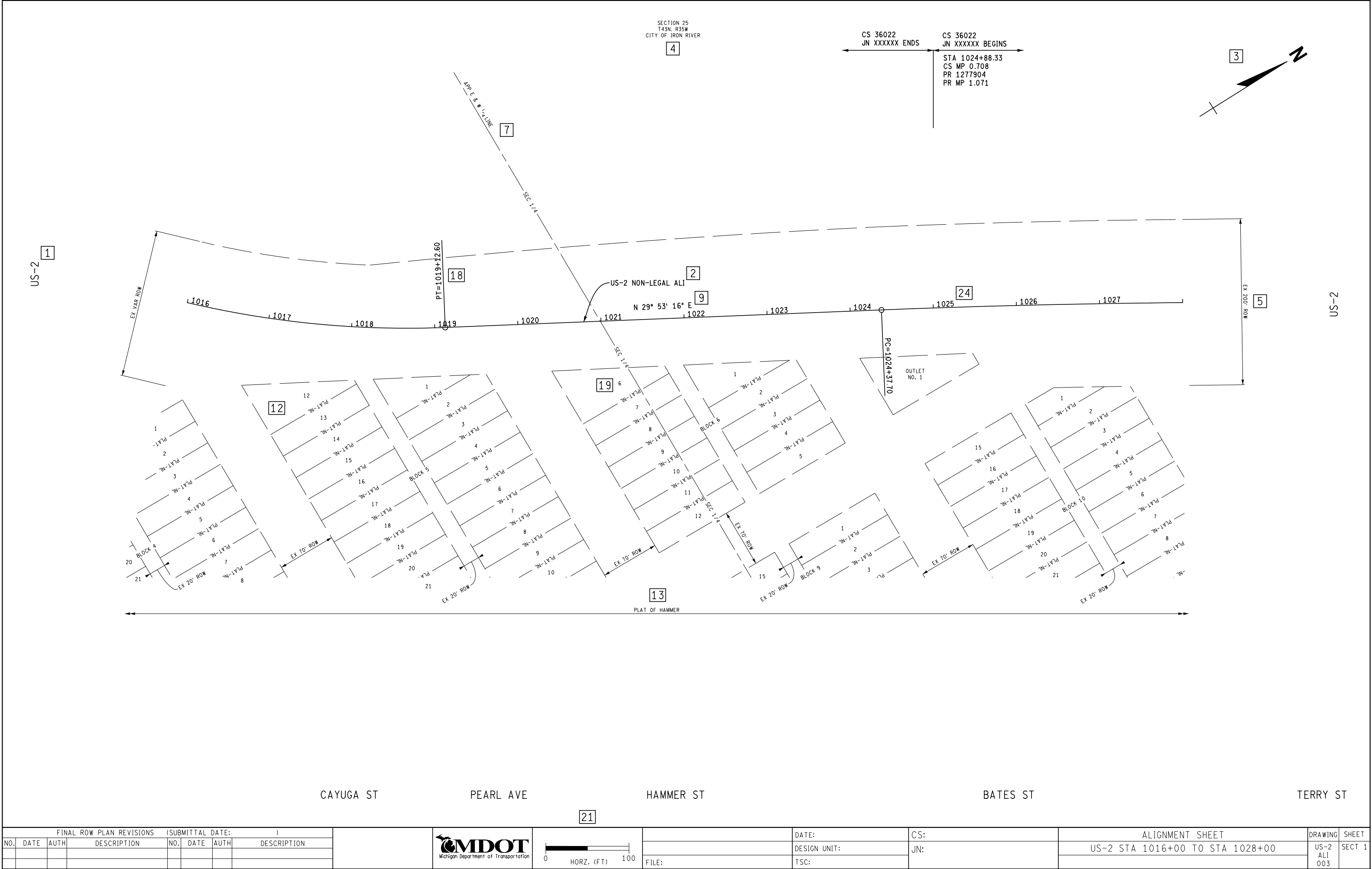
TSC:

CS:

JN:




FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)										ALIGNMENT SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			RAMP B STA 107+00 TO STA 114+00		RAMP B	SECT
										RAMP C 200 TO 203 / RAMP F 300 TO 307		ALI	001
												001	

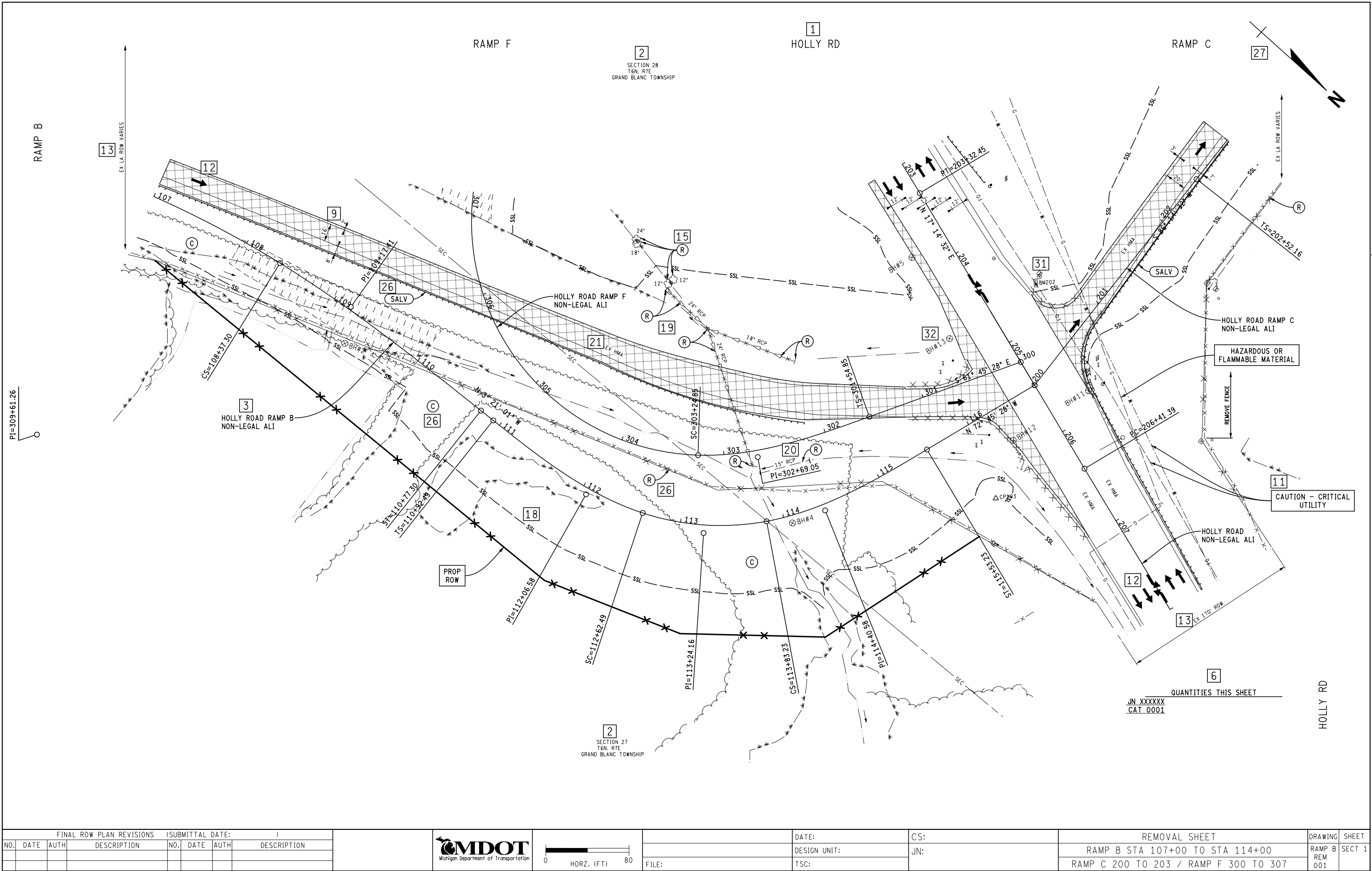


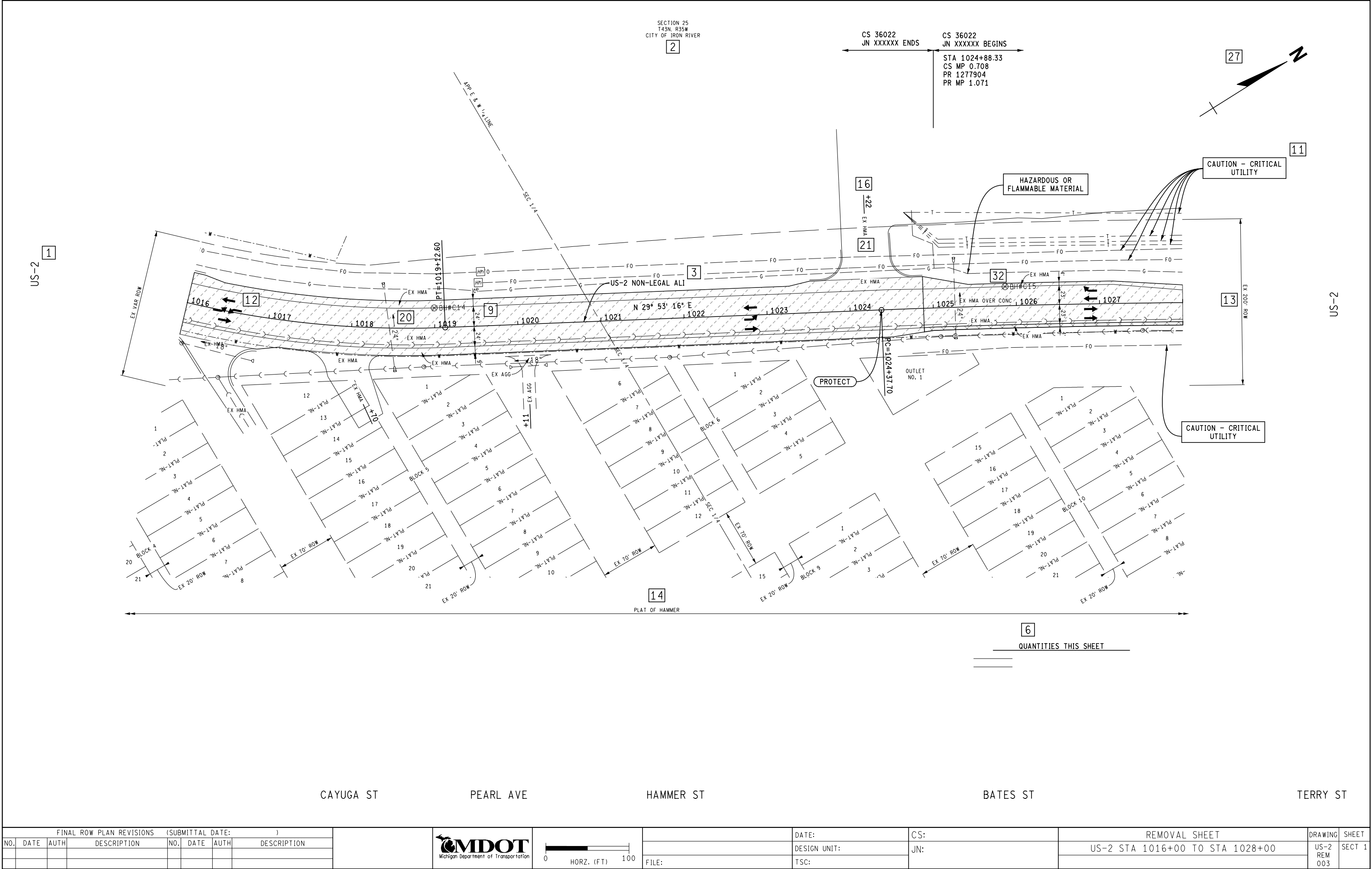
REMOVAL AND CONSTRUCTION SHEETS:

1. Label all roadway names and county drains at the outside of the sheet using MDOT Pr x 1.5 text size.
2. Show city limits, township, range and section info. Section corner information is not shown.
3. Only show the alignments that are necessary to construct the roadway. Include stations, bearings and curve points.
4. Curve data is not to be shown on these sheets. Curve data is only shown on the alignment sheets.
5. If there are numerous driveways, sewers or guardrail, use summary tables. Do not duplicate quantities in tables into 'Quantities This Sheet'. The pay items in the tables are to match the MDOT standard pay items and/or the specifications book. If the project has more than one funding category, specify the category number for the quantities.
6. Show all 'Quantities This Sheet' in the lower right hand corner if possible for all quantities not shown in individual tables. If the project has more than one funding category, include the category number above the quantity for which they are included.
7. Show pay items and leaders to specific work types.
8. All bridges/culverts with proposed work will be labeled with a box around the bridge/culvert number. Existing bridges/culverts with no proposed work will only have the bridge/culvert number without the box.
9. Dimension lane and paved shoulder widths within the sheet and when changes in width occur. Do not label widths at the end of the sheet limits.
10. Dimension limits of work on crossroads in proposed text size on the removal sheet only. If crossroad has an alignment, label with station. For crossroads without alignments, label distance from mainline alignment.
11. Show all existing underground utilities. Label underground telephone, water main and fiber optic lines with the 'Caution - Critical Utility' cell. Label underground gas and electric with the 'Hazardous or Flammable Material' cell. Ex sewer, sanitary sewer/sanitary force main only need to be labeled without flagging of a critical utility cell. Overhead utilities are not typically shown. Exceptions would be for high voltage electric transmission lines and other utilities that would impact how the work is completed. Label with the 'Hazardous or Flammable Material' or 'Caution - Critical Utility' cell as appropriate.
12. Include traffic flow arrows to delineate roadway lanes and movements.
13. Label overall ROW dimensions including cross road ROW at the ends of the sheet. Label proposed ROW and all areas where a consent to grade (drive, sidewalk, etc) or an easement is needed.
14. The plat/subdivision lines are shown on these sheets. The parcel lines are not shown. Label the subdivision, plat names and plat numbers on both the removal and construction sheets. House numbers and current business names are desired.
15. If existing trees are to be removed, label with the removal cell and the existing tree size and type if known.
16. On the removal sheet label all driveways with a station to the nearest foot.
17. Use the SAVE symbol on the removal and construction sheets to identify important items that need to be saved that are close to the slope stake line or that need to be saved within the construction limits.

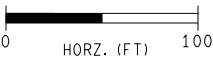
18. Show the slope stake line.
19. Drainage structures, sewers, culverts and/or end sections being removed will be tagged with the removal cell. If end section is part of a culvert/sewer that is being removed, it does not need to be tagged separately.
20. Show existing and proposed storm and sanitary sewers with sizes and flow arrows. Show existing culverts with sizes, flow arrows and material type. In areas where there are several drainage structures an additional drainage sheet may be required to clarify the details of the proposed drainage system. If a separate drainage sheet is used, it will follow the construction sheet in the plan set. When additional drainage sheets are used the proposed storm sewer size labels can be omitted from the construction sheets. Flow arrows on existing and proposed ditch bottoms are required.
21. Label the existing roadway and driveway pavement materials on the removal sheets and outside the limits of work on the construction sheets. If text cannot fit within the pavement then a leader may be used.
22. Label and station all proposed lane and shoulder tapers and changes in width.
23. Label the 2' and 22' gore points and equate the ramp and mainline alignments at the specified locations.
24. Tag utilities that need to be relocated with the REL B/O cell. These cells should show up on the removal and construction sheet in the same location if possible.
25. Structures that need to be adjusted will need to be tagged with the ADJ or ADJ B/O cells. These cells should show up only on the construction sheets.
26. Only tag items with the removal cell that are not included in a removal hatching pattern. Fence and guardrail are examples of items that should be tagged with the removal cell on the removal sheets. If the item is identifiable by a line style or a cell, only the removal cell is required.
27. Place north arrow in upper right corner.
28. Saw cut locations are not labeled on the removal sheets.
29. The proposed driveway slopes shown in the driveway table are per MDOT Standard Plan/Special Detail R-29 series.
30. The proposed driveway width is measured along the back of the driveway where proposed ties into existing.
31. Show benchmarks and control points (cell and number) on both the removal and construction sheets.
32. Show soil borings and pavement cores on the removal sheets only.
33. Label all government corners, property corners and legal alignment monuments within the work limits or that have the potential to be disturbed with the "Protect Corners" cell. These should be shown on both removal and construction sheets.
34. Identify erosion control measures on the construction sheet with the 'Erosion Control Number' cell. Pay for erosion control items in the main list of 'Quantities This Sheet'. Do not show key number next to pay item.

FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)					NO SCALE		DATE:	CS:	PLAN GUIDELINES		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT:	JN:	REMOVAL AND CONSTRUCTION SHEETS			SECT
											FILE:	TSC:				





FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE

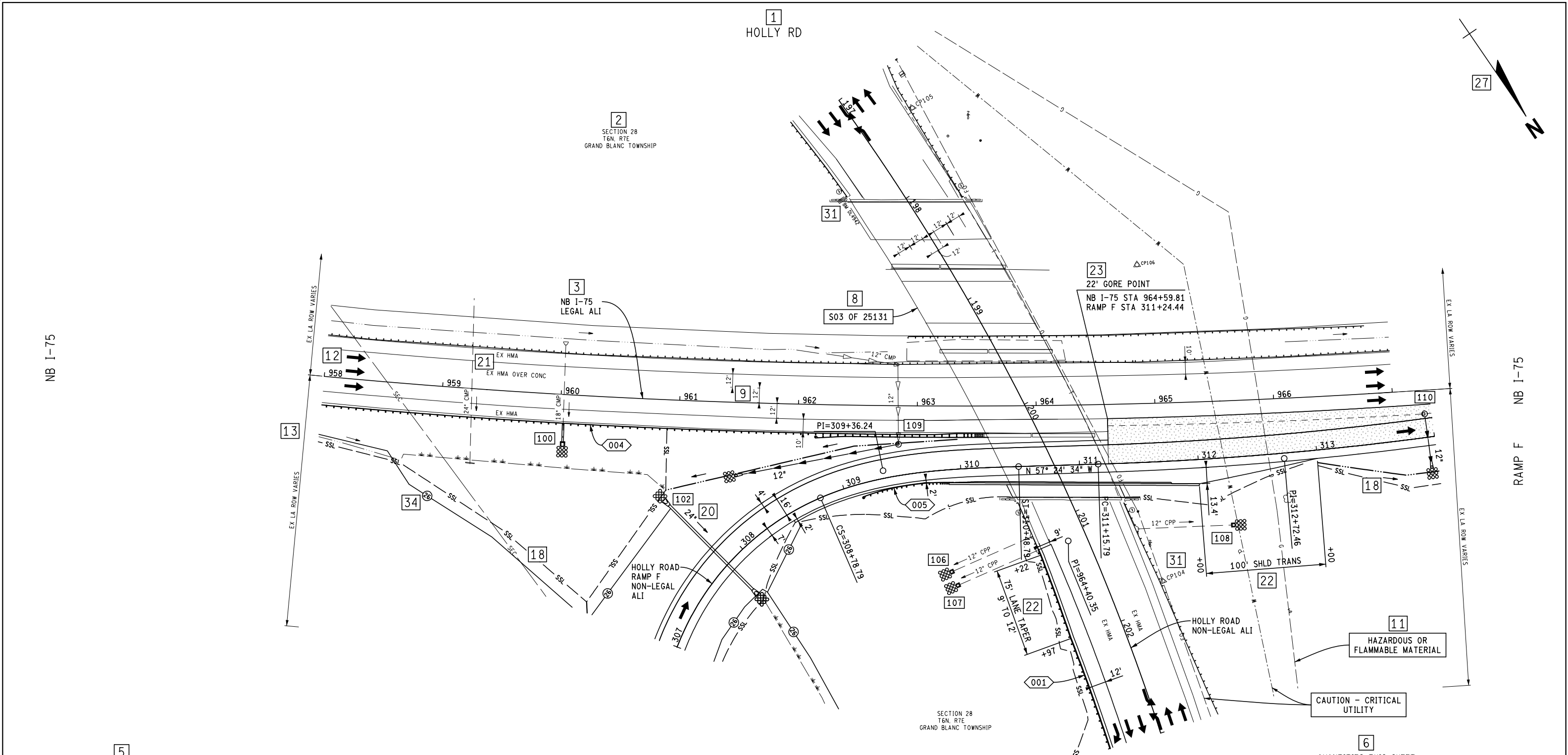


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REMOVAL SHEET		DRAWING	SHEET
US-2 STA 1016+00 TO STA 1028+00		US-2 REM 003	SECT 1



5

DRAINAGE TABLE					Culv. End Sect, 12 inch	Culv. End Sect, Metal, 24 inch	Culv. CI A, CSP, 18 inch	Culv. CI A, CSP, 24 inch, Polymer Coated	Sewer Tap, 12 inch	Sewer Tap, 18 inch	Sewer, CI A, CSP, 12 inch, Polymer Coated, Tr Det B	Dr Structure Cover, Type DX	Dr Structure Cover, Type G	Dr Structure, 48 inch dia	Conc. Grade S2	Reinforcement, Steel, Culv and Headwall	Riprap, Plain
STRUCT NO.	ALIGNMENT	STATION	OFFSET	RIM ELEV	Ea	Ea	Ft	Ft	Ea	Ea	Ft	Ea	Ea	Ea	Cyd	Lb	Syd
			FT														
100	NB I-75	960+02.00	36.00 RT	--	--	--	16	--	--	1	--	--	--	--	1	50	2
102	RAMP F	307+80.00		--	--	2	--	100	--	--	--	--	--	--	--	--	8
106	HOLLY	201+04.65	114.00 RT	--	--	--	--	--	1	--	--	--	--	--	1	40	2
107	HOLLY	201+17.70	114.00 RT	--	--	--	--	--	1	--	--	--	--	--	1	40	2
108	HOLLY	201+60.50	117.00 LT	--	--	--	--	--	1	--	--	--	--	--	1	40	2
109	RAMP F	309+51.30	26.00 LT	892.90	1	--	--	--	1	--	134	--	1	1	--	--	2
110	RAMP F	313+94.16	16.86 LT	881.32	1	--	--	--	--	--	40	1	--	1	--	--	2
TOTAL					2	2	16	100	4	1	174	1	1	2	4	170	20

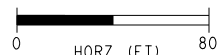
6

QUANTITIES THIS SHEET

JN XXXXXX
CAT 0001

SEE GUARDRAIL DETAIL SHEETS FOR GUARDRAIL DETAILS AND LAYOUT
SEE DETAIL GRADE SHEETS FOR DETAILED GRADING

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



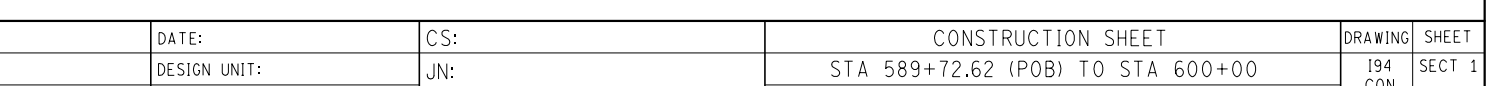
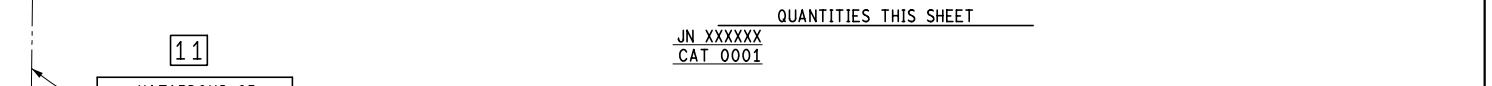
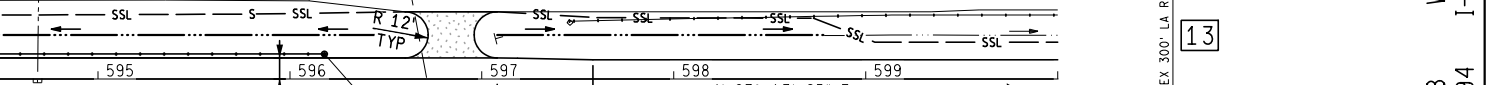
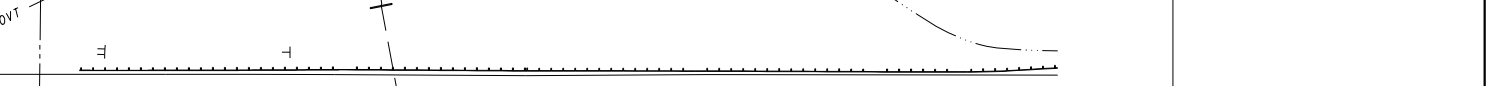
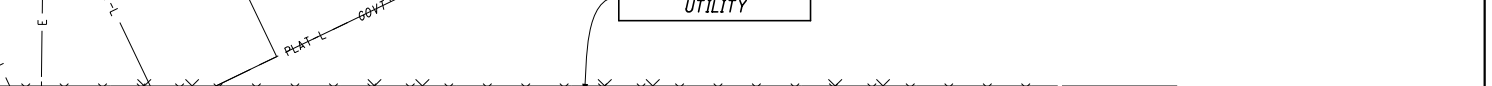
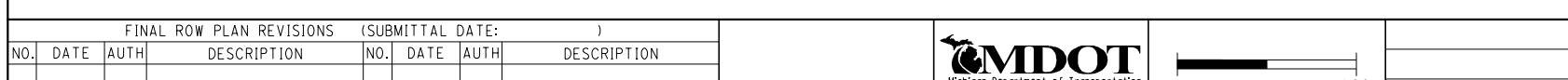
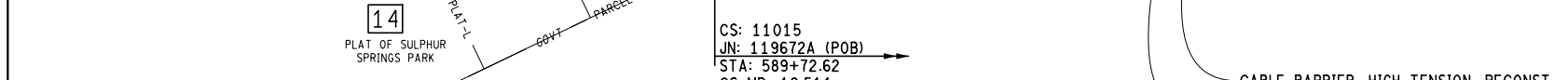
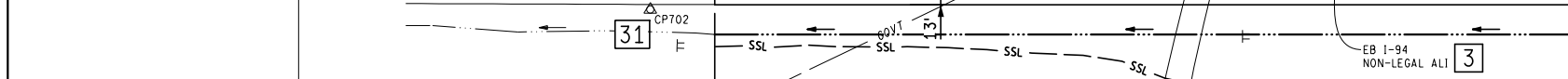
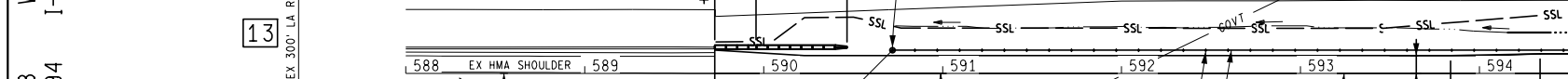
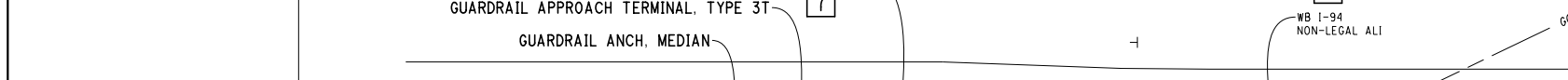
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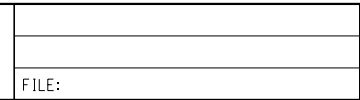
CS:
JN:

CONSTRUCTION SHEET
NB I-75 STA 958+00 TO STA 967+00
RAMP F STA 307+00 TO STA 314+00

DRAWING
SHEET
175
CON
002
SECT 1

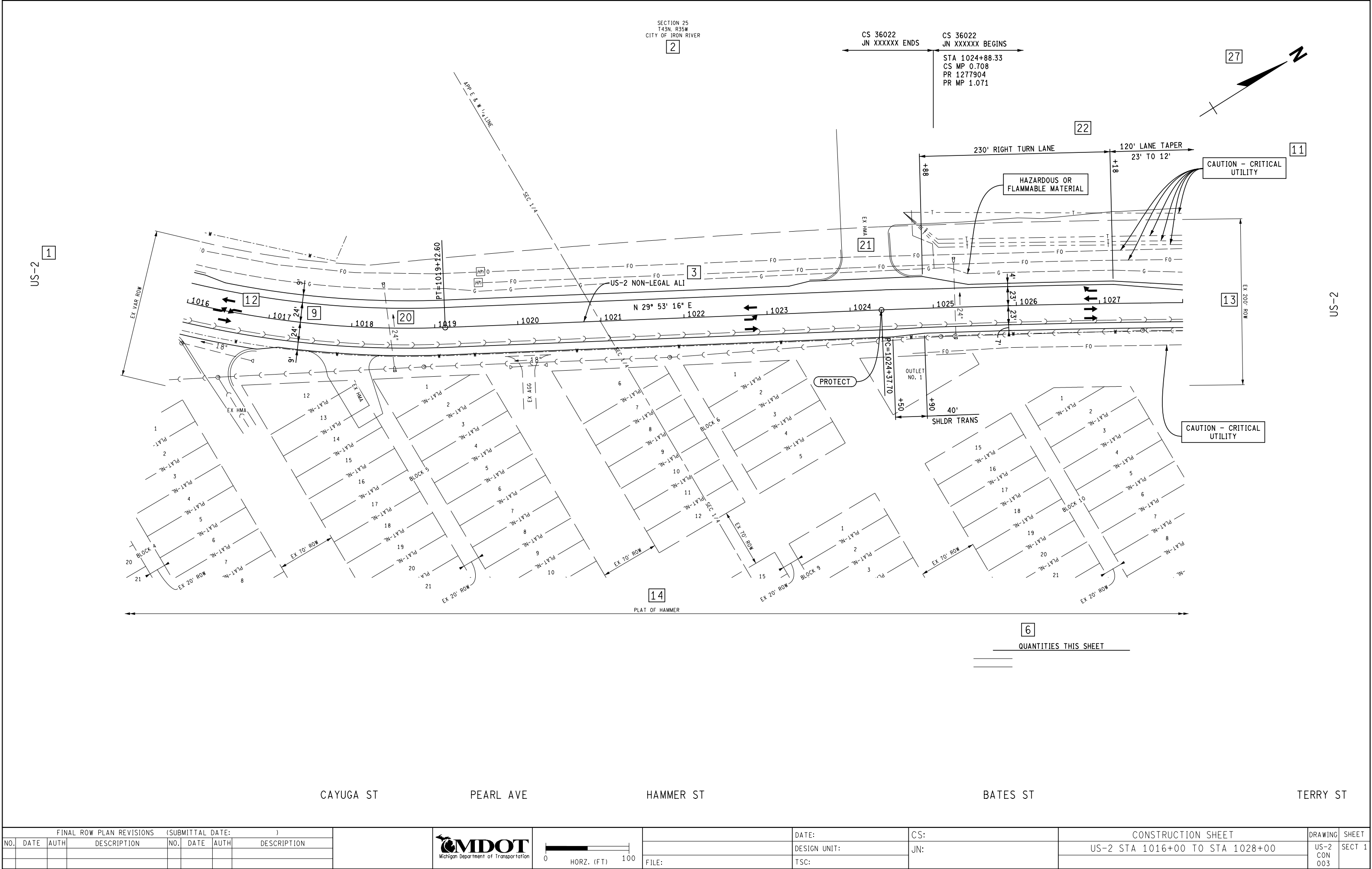


	 Michigan Department of Transportation
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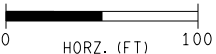


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CONSTRUCTION SHEET	DRAWING	SHEET
STA 589+72.62 (POB) TO STA 600+00	194 CON 001	SECT 1



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE



FILE:


DATE:
DESIGN UNIT:
TSC:

CS:
JN:

CONSTRUCTION SHEET		DRAWING	SHEET
US-2 STA 1016+00 TO STA 1028+00		US-2 CON 003	SECT 1

DRAINAGE SHEETS:

1. Label all roadway names and county drains at the outside of the sheet using MDOT Pr x 1.5.
2. Show north arrow in upper right corner.
3. Label overall ROW dimensions including cross road ROW at the ends of the sheet. These labels and dimensions should be in the same location as the construction sheet.
4. Show city limits, township, range and section info. Section corner information is not shown.
5. Only show the alignments that are necessary to construct the roadway and drainage. Include stations, bearings and curve points.
6. Show all existing underground utilities. Label underground telephone, water main and fiber optic lines with the 'Caution Critical Utility' cell. Label underground gas and electric with the 'Hazardous or Flammable Material' cell. Ex sewer, sanitary sewer/sanitary force main only need to be labeled without flagging of a critical utility cell. Overhead utilities are not typically shown. Exceptions would be for high voltage electric transmission lines and other utilities that would impact how the work is completed. Label with the 'Hazardous or Flammable Material' or 'Caution Critical Utility' cell as appropriate.
7. Structure numbers are required on all proposed drainage structures. Existing drainage structures will require a structure number if the proposed drainage system is connecting into the existing system.
8. Show the proposed drainage layout and the existing drainage that is remaining including existing drainage that is being abandoned in place. Do not show any existing drainage systems that are being removed.
9. Show existing and proposed pipes with sizes and flow arrows.
10. A drainage table is needed for each drainage sheet and includes all drainage related pay items and quantities. If the drainage table is too large then an additional sheet may be required to display all information. The drainage table sheet follows the corresponding drainage sheet.
11. Show the slope stake line.
12. Adjusting drainage structure covers within the roadway are considered part of the paving operation and should be shown and paid for on the construction sheet.
13. The plat/subdivision lines are shown on these sheets. The parcel lines are not shown. Label the subdivision, plat names and plat numbers on both the removal and construction sheets. House numbers and current business names are desired.

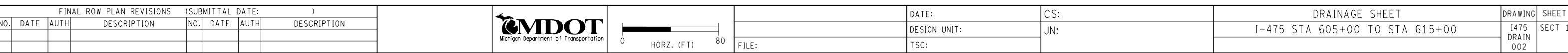
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)								 NO SCALE		DATE:	CS:	PLAN GUIDELINES	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION			DESIGN UNIT:	JN:	DRAINAGE SHEETS		SECT
									FILE:	TSC:				

CARPENTER RD

SECTION 19
T8N, R7E
GENESEE TWP

SECTION 30
T8N, R7E
CITY OF FLINT

SECTION 19
T8N, R7E
GENESEE TWP




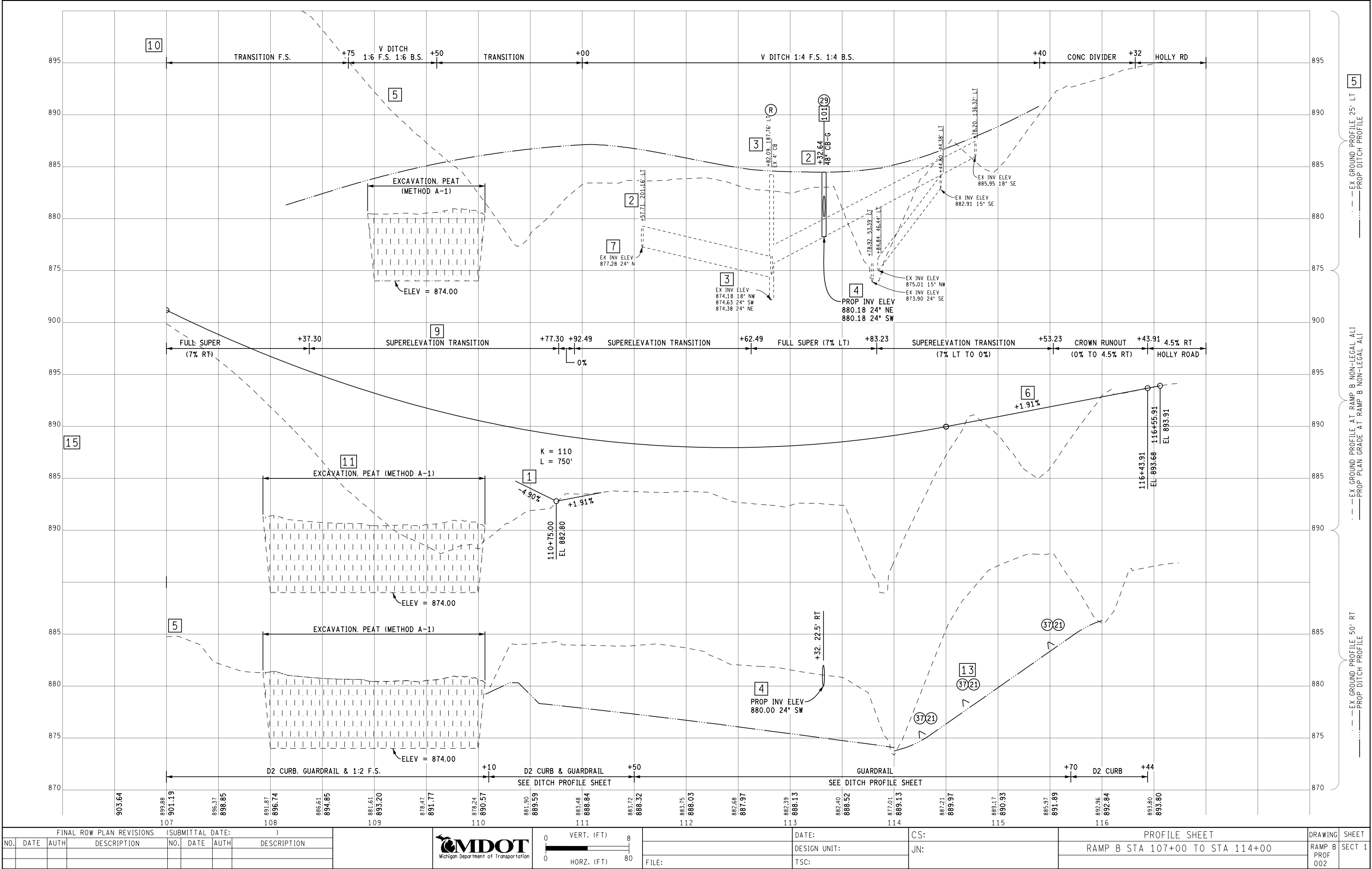
DRAINAGE STRUCTURE AND SEWER TABLE					Sewer, CI A, 12 inch, Tr Det B	Sewer, CI A, 15 inch, Tr Det B	Sewer, CI A, 18 inch, Tr Det B	Sewer, CI A, 24 inch, Tr Det B	Sewer, CI A, 54 inch, Tr Det B	Sewer, CI A, 60 inch, Tr Det B	Sewer, CI B, 12 inch, Tr Det B	Video Taping Sewer and Culv Pipe	Dr Structure Cover, Type B	Dr Structure Cover, Type DX
STRUCT NO.	ALIGNMENT	STATION	OFFSET	RIM ELEV	F+	F+	F+	F+	F+	F+	F+	F+	Ea	Ea
			FT											
25	SB I-475 NL	612+85.00	8.33 RT	741.40	75	--	--	--	--	--	--	75	--	--
26	SB I-475 NL	612+10.00	7.46 RT	741.17	--	--	--	73	--	--	--	73	--	--
27	SB I-475 NL	611+93.00	6.75 RT	741.18	18	--	--	--	--	--	--	18	--	--
28	SB I-475 NL	609+50.00	8.33 RT	742.13	--	60	--	--	--	--	--	60	--	--
29	SB I-475 NL	607+30.00	8.33 RT	743.52	--	--	83	--	--	--	--	83	--	--
73	NB I-475 NL	612+85.07	8.33 LT	741.40	8	--	--	--	--	--	--	8	--	--
74	NB I-475 NL	612+10.07	7.46 LT	741.17	--	--	11	--	--	--	--	11	--	--
75	NB I-475 NL	611+93.07	6.75 LT	741.18	11	--	--	--	--	--	--	11	--	--
76	NB I-475 NL	609+50.00	8.33 LT	742.13	--	8	--	--	--	--	--	8	--	--
77	NB I-475 NL	607+30.00	8.33 LT	743.52	--	8	--	--	--	--	--	8	--	--
107	SB I-475 NL	612+35.00	38.41 LT	741.08	--	--	--	--	76	--	--	--	--	1
108	SB I-475 NL	611+60.00	41.41 LT	740.94	--	--	--	--	--	76	--	--	--	1
109	SB I-475 NL	609+50.00	46.84 LT	741.85	--	--	--	--	--	268	--	--	--	1
110	RAMPC P NL	713+38.80	6.00 LT	742.89	--	--	--	--	--	50	--	--	--	1
141	NB I-475 NL	612+45.36	44.97 RT	740.98	76	--	--	--	--	--	--	76	--	1
142	NB I-475 NL	611+70.36	46.12 RT	740.84	--	--	69	--	--	--	--	69	--	1
143	NB I-475 NL	610+95.36	47.28 RT	740.98	76	--	--	--	--	--	--	76	--	1
144	NB I-475 NL	609+50.00	49.51 RT	741.79	60	--	--	--	--	--	--	60	--	1
145	NB I-475 NL	607+30.00	50.90 RT	742.84	--	61	--	--	--	--	--	61	--	1
147	SB I-475 NL	610+85.00	44.00 LT	741.10	--	--	--	--	--	135	--	--	--	1
261	SB I-475 NL	609+90.80	119.80 LT	761.78	41	--	--	--	--	--	--	41	--	--
264	RAMPC P NL	711+09.00	6.00 LT	745.16	30	--	--	--	--	--	--	30	--	1
265	RAMPC P NL	711+09.00	20.00 RT	745.61	15	--	--	--	--	--	--	15	--	1
299	SB I-475 NL	605+28.00	32.00 LT	744.81	--	--	--	--	--	73	--	--	--	1
300	RAMPC P NL	712+88.80	6.00 LT	742.68	--	--	--	--	--	25	--	--	--	1
302	RAMPC P NL	712+63.80	6.00 LT	742.72	--	--	--	--	--	85	--	--	--	1
345	SB I-475 NL	609+70.40	85.50 LT	--	--	--	--	--	--	--	41	41	1	--
TOTAL					410	137	163	73	76	712	41	824	1	15

DRAINAGE STRUCTURE AND SEWER TABLE					Dr Structure Cover, Type E	Dr Structure Cover, Type VG	Dr Structure, 48 inch dia	Dr Structure, 72 inch dia	Dr Structure, 84 inch dia	Dr Structure, Add Depth of 84 inch dia, 8 foot to 15 foot	Dr Structure, 96 inch dia	Dr Structure, Add Depth of 96 inch dia, 8 foot to 15 foot	Dr Structure, 108 inch dia	Dr Structure, Add Depth of 108 inch dia, 8 foot to 15 foot	Dr Structure, 120 inch dia	Dr Structure, Add Depth of 120 inch dia, 8 foot to 15 foot	Dr Structure, Add Depth of 48 inch dia, 8 foot to 15 foot
STRUCT NO.	ALIGNMENT	STATION	OFFSET	RIM ELEV	Ea	Ea	Ea	Ea	Ea	F+	Ea	F+	Ea	F+	Ea	F+	F+
			FT														
25	SB I-475 NL	612+85.00	8.33 RT	741.40	--	1	1	--	--	--	--	--	--	--	--	--	--
26	SB I-475 NL	612+10.00	7.46 RT	741.17	--	1	--	--	1	--	--	--	--	--	--	--	--
27	SB I-475 NL	611+93.00	6.75 RT	741.18	--	1	1	--	--	--	--	--	--	--	--	--	--
28	SB I-475 NL	609+50.00	8.33 RT	742.13	--	1	1	--	--	--	--	--	--	--	--	--	--
29	SB I-475 NL	607+30.00	8.33 RT	743.52	--	1	1	--	--	--	--	--	--	--	--	--	--
73	NB I-475 NL	612+85.07	8.33 LT	741.40	--	1	1	--	--	--	--	--	--	--	--	--	--
74	NB I-475 NL	612+10.07	7.46 LT	741.17	--	1	1	--	--	--	--	--	--	--	--	--	--
75	NB I-475 NL	611+93.07	6.75 LT	741.18	--	1	1	--	--	--	--	--	--	--	--	--	--
76	NB I-475 NL	609+50.00	8.33 LT	742.13	--	1	1	--	--	--	--	--	--	--	--	--	--
77	NB I-475 NL	607+30.00	8.33 LT	743.52	--	1	1	--	--	--	--	--	--	--	--	--	--
107	SB I-475 NL	612+35.00	38.41 LT	741.08	--	--	--	--	1	2	--	--	--	--	--	--	--
108	SB I-475 NL	611+60.00	41.41 LT	740.94	--	--	--	--	--	--	--	--	--	--	1	3	--
109	SB I-475 NL	609+50.00	46.84 LT	741.85	--	--	--	--	--	--	--	--	1	4	--	--	--
110	RAMPC P NL	713+38.80	6.00 LT	742.89	--	--	--	--	--	--	--	--	--	--	1	5	--
141	NB I-475 NL	612+45.36	44.97 RT	740.98	--	--	1	--	--	--	--	--	--	--	--	--	--
142	NB I-475 NL	611+70.36	46.12 RT	740.84	--	--	--	1	--	--	--	--	--	--	--	--	--
143	NB I-475 NL	610+95.36	47.28 RT	740.98	--	--	1	--	--	--	--	--	--	--	--	--	--
144	NB I-475 NL	609+50.00	49.51 RT	741.79	--	--	1	--	--	--	--	--	--	--	--	--	--
145	NB I-475 NL	607+30.00	50.90 RT	742.84	--	--	1	--	--	--	--	--	--	--	--	--	--
147	SB I-475 NL	610+85.00	44.00 LT	741.10	--	--	--	--	--	--	1	3	--	--	--	--	--
261	SB I-475 NL	609+90.80	119.80 LT	761.78	1	--	1	--	--	--	--	--	--	--	--	--	4
264	RAMPC P NL	711+09.00	6.00 LT	745.16	--	--	1	--	--	--	--	--	--	--	--	--	--
265	RAMPC P NL	711+09.00	20.00 RT	745.61	--	--	1	--	--	--	--	--	--	--	--	--	--
299	SB I-475 NL	605+28.00	32.00 LT	744.81	--	--	--	--	--	--	1	7	--	--	--	--	--
300	RAMPC P NL	712+88.80	6.00 LT	742.68	--	--	--	--	--	--	1	5	--	--	--	--	--
302	RAMPC P NL	712+63.80	6.00 LT	742.72	--	--	--	--	--	--	1	5	--	--	--	--	--
345	SB I-475 NL	609+70.40	85.50 LT	--	--	--	1	--	--	--	--	--	--	--	--	--	8
TOTAL					1	10	17	1	2	2	4	20	1	4	2	8	12

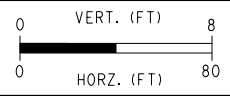
PROFILE SHEETS:

- 1. Show vertical curve PI stations and elevations, curve lengths, tangent grades, high points, low points, and K values. Use standard labeling.
- 2. Show all existing and proposed drainage features.
- 3. Show all existing drainage structures with +STA, size, type, and structure number, if applicable. Label structures to be removed with removal cell. Show all proposed drainage structures with +STA, size, cover, and structure number. If a drainage table is not used, add offset and rim elevation to proposed structure label.
- 4. Show the invert, station, and offset at proposed storm sewer or culvert outlets. Station and offset should represent the end of the pipe not end section.
- 5. Show existing ground profile and existing ground points both left and right (space existing ground points at 50' increments for all scales except 200 scale profiles use 100' increments). Rural sections should show existing ground profiles at an offset that closely represents the location of the existing ditch bottom, and existing ground points at an offset that closely represents the location of the existing ROW. Urban sections should show existing ground profiles at an offset that closely represents the location of the existing or proposed top of curb and gutter, and existing ground points at an offset that closely represents the location of the existing ROW. Show proposed top of curb profile for urban sections. Show proposed sidewalk profile if independent.
- 6. Show proposed plan grade line to nearest 0.01%.
- 7. Show existing and proposed invert elevations to the nearest 0.01 ft.
- 8. Show plan, ditch and sewer grades as +% or -% in the direction of stationing.
- 9. Show location of superelevation including transition and crown run out locations on type line directly above the plan grade.
- 10. Show type lines describing the proposed grading of the ditches, fore slopes, or back slopes. Show these type lines directly above the right and left edge profiles.
- 11. Show rock, peat, muck and undercut limits and treatments.
- 12. Show water table elevations, if known.
- 13. Show erosion control items that apply on the profile sheet. Items are paid for on the construction sheet.
- 14. Show existing or proposed bridge or box/slab culvert profile if applicable and underclearances.
- 15. Show elevations along the side of the profile grid at 5' increments (use 10' increments if using 200 scale). Show existing and proposed strip grade elevations at 50' increments (use 100' increments for 200 scale). Show proposed stationing at 100' intervals.
- 16. Label station equations on profile sheets.
- 17. Quantities are not shown on profile sheets. Excavation quantities are shown on the removal sheet, and embankment and subbase quantities are shown on the construction sheet.
- 18. Critical private or municipal utilities should be shown in the profile. These would be utilities that require protection, temporary support, or monitoring during construction.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)									NO SCALE	DATE:	CS:	PLAN GUIDELINES	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION							
								FILE:		TSC:		PROFILE SHEETS		SECT



FINAL ROW PLAN REVISIONS				(SUBMITTAL DATE:)			
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION

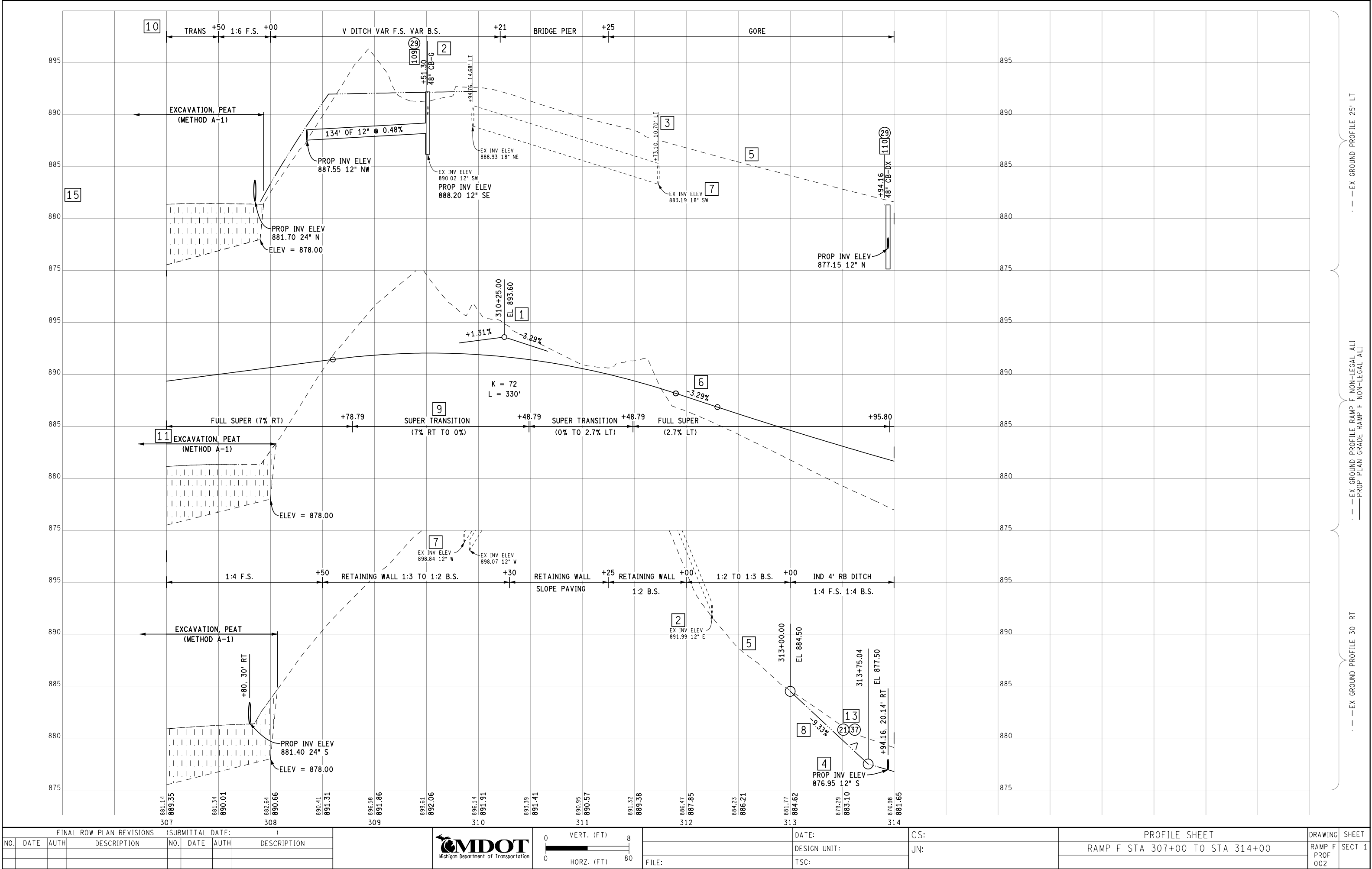


DATE: _____
DESIGN UNIT: _____
TSC: _____

CS: _____
JN: _____

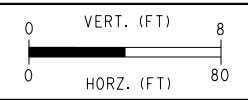
PROFILE SHEET
RAMP B STA 107+00 TO STA 114+00

DRAWING	SHEET
RAMP B PROF 002	SECT 1



FINAL ROW PLAN REVISIONS					
NO.			DATE		
AUTH			DESCRIPTION		

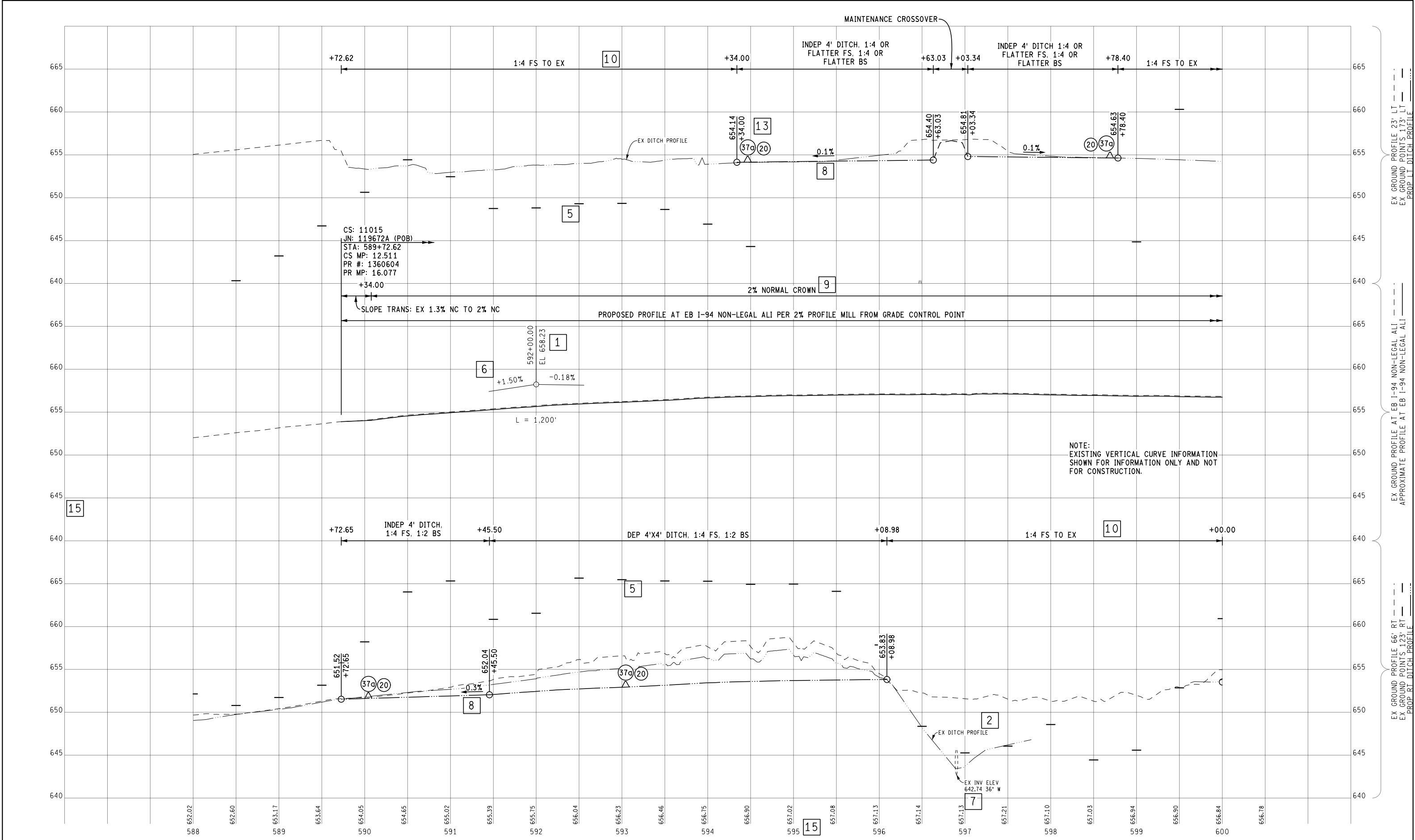
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AUTH			DESCRIPTION		



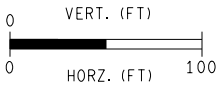
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DESIGN UNIT:	JN:
TSC:	

PROFILE SHEET	
RAMP F STA 307+00 TO STA 314+00	

DRAWING	SHEET
RAMP F	SECT 1
PROF	
002	



FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)							
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION



FILE:

DATE:

DESIGN UNIT:

TSC:

CS:

JN:

PROFILE SHEET

STA 589+72.62 (POB) TO STA 600+00

DRAWING

194

PROF


001

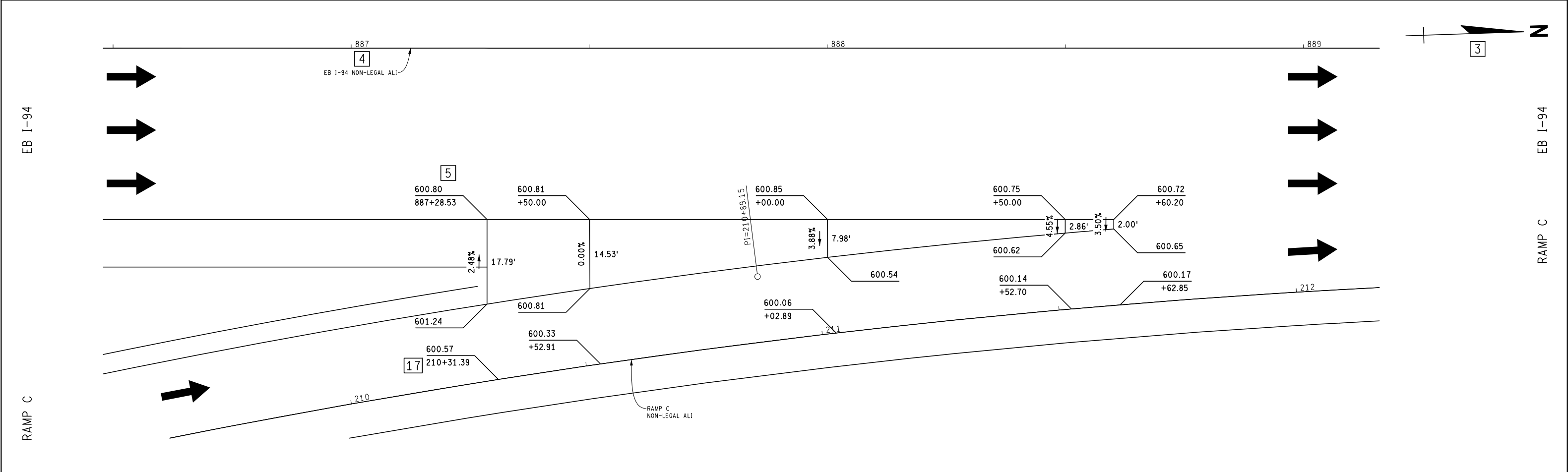
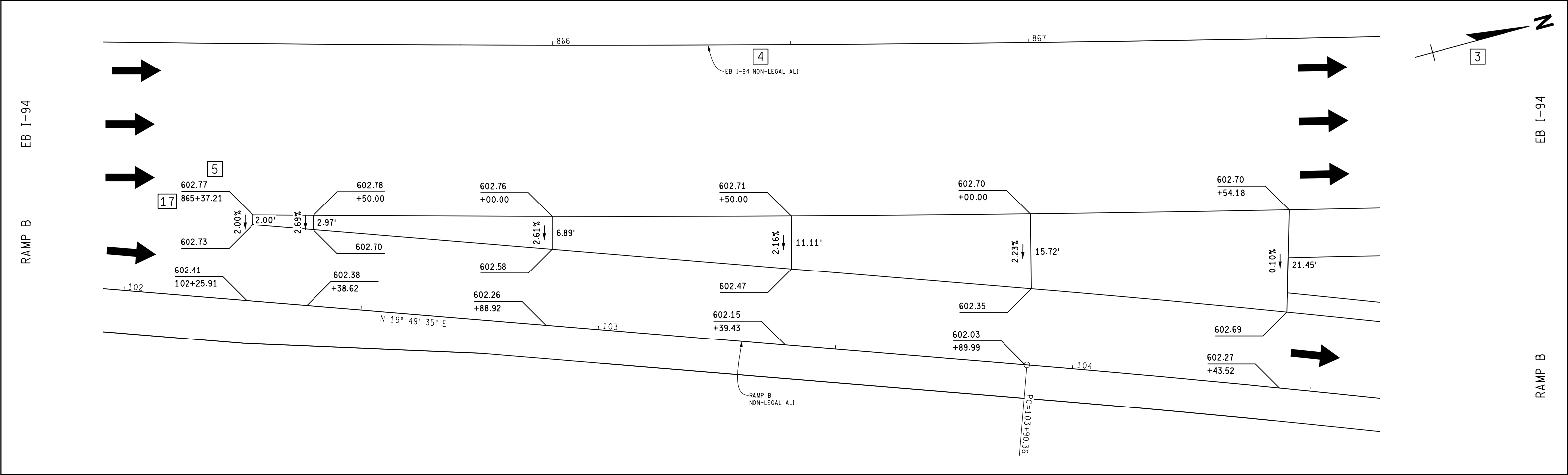
SHEET



1

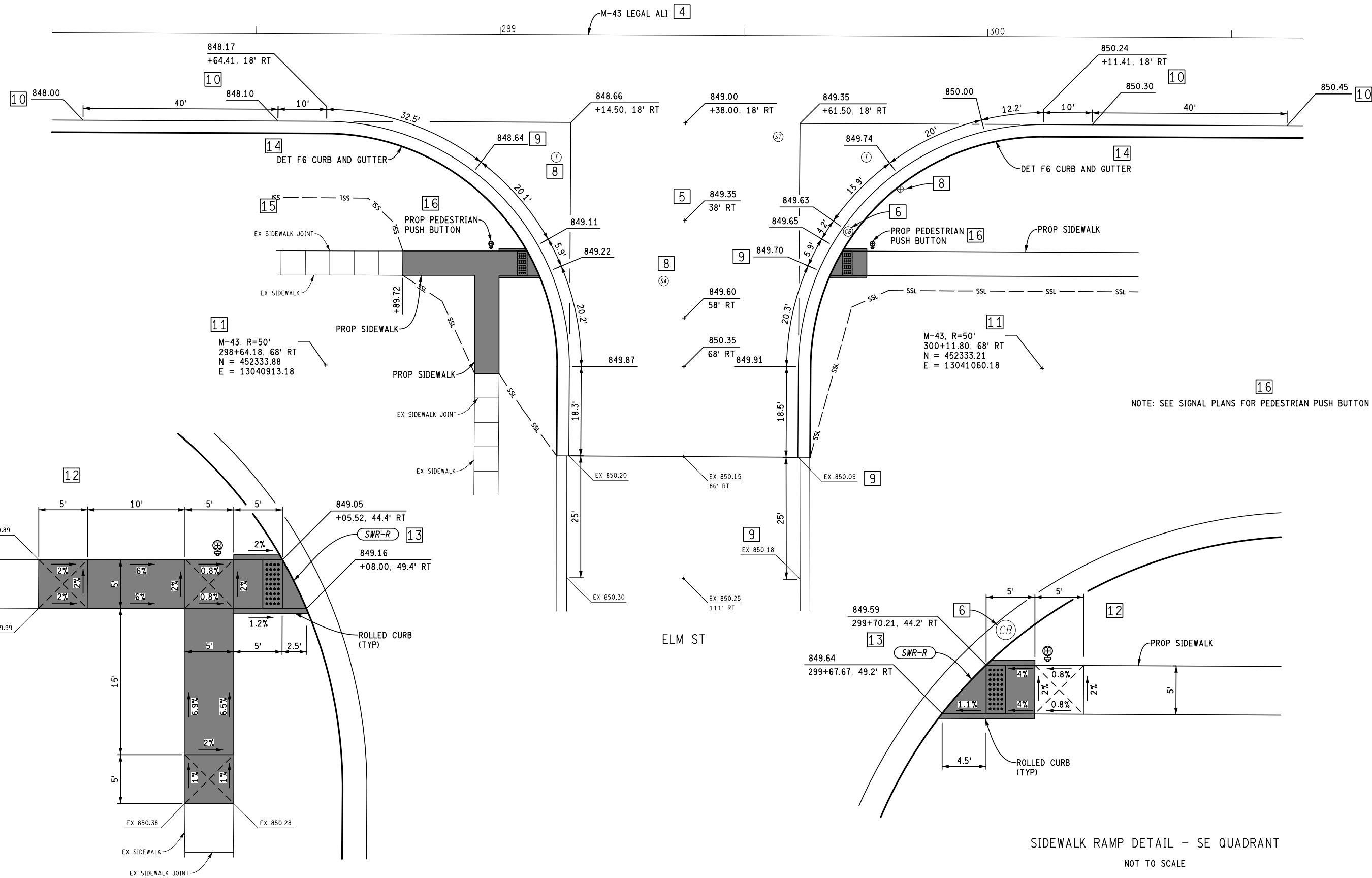
DETAIL GRADE AND SIDEWALK RAMP SHEETS:

- 1. If possible combine the intersection detail grades and sidewalk ramp details.
- 2. If a stand-alone CPM project or a sidewalk ramp project, the sidewalk details may be combined with the removal and construction sheets.
- 3. Place north arrow in upper right corner.
- 4. Show mainline roadway alignment with stationing only, bearings and curve points are not needed.
- 5. Show elevations and offsets along the alignment of the crossroad\ramps at key locations such as pavement joint lines or wherever necessary to accurately convey the intent of the design.
- 6. Show all sanitary and storm manholes and catch basins, but not the sewer pipes.
- 7. Show existing sidewalk joints if available.
- 8. Show all utilities.
- 9. Dimension and give proposed elevations around proposed radii. Include grade elevations at sidewalk ramp locations. Provide existing elevations at the tie in locations, and an additional elevation 10'-20' beyond to show the existing slope of the road.
- 10. Provide mainline roadway station, offset and elevation at radii spring points. Show at least one elevation beyond the spring point to show the proposed slope of the road.
- 11. At the center point of the radius identify the roadway name, radius, station, offset and the northing and easting.
- 12. If sidewalk ramps are present, show each quadrant at large scale to provide details with elevations, slopes and dimensions to ensure they comply with ADA standards. Show details by quadrant and at a larger scale than the detail sheet to show the sidewalk ramp details.
- 13. Label sidewalk ramp type with appropriate cell.
- 14. Label proposed curb type.
- 15. Show the slope stake line.
- 16. Show pedestrian signals and push buttons. Detail push button locations or reference signal plans if applicable.
- 17. For the first station/elevation label in a row, use the whole station to help identify the corresponding alignment.

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)									NO SCALE	DATE:	CS:	DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION						
								FILE:		TSC:			SECT



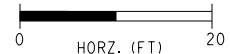
FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)											DATE:	CS:	DETAIL GRADE SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION				DESIGN UNIT:	JN:	I-94 AT JOHN BEERS RD INTERCHANGE		194 DETGRD 001	SECT 1
											FILE:	TSC:				



SIDEWALK RAMP DETAIL - SW QUADRANT
NOT TO SCALE

SIDEWALK RAMP DETAIL - SE QUADRANT
NOT TO SCALE

FINAL ROW PLAN REVISIONS (SUBMITTAL DATE:)					
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE



DATE:	CS:
DESIGN UNIT:	JN:
TSC:	

DETAIL GRADES	
M-43	

DRAWING	SHEET
M43 DETGRD 001	SECT 1