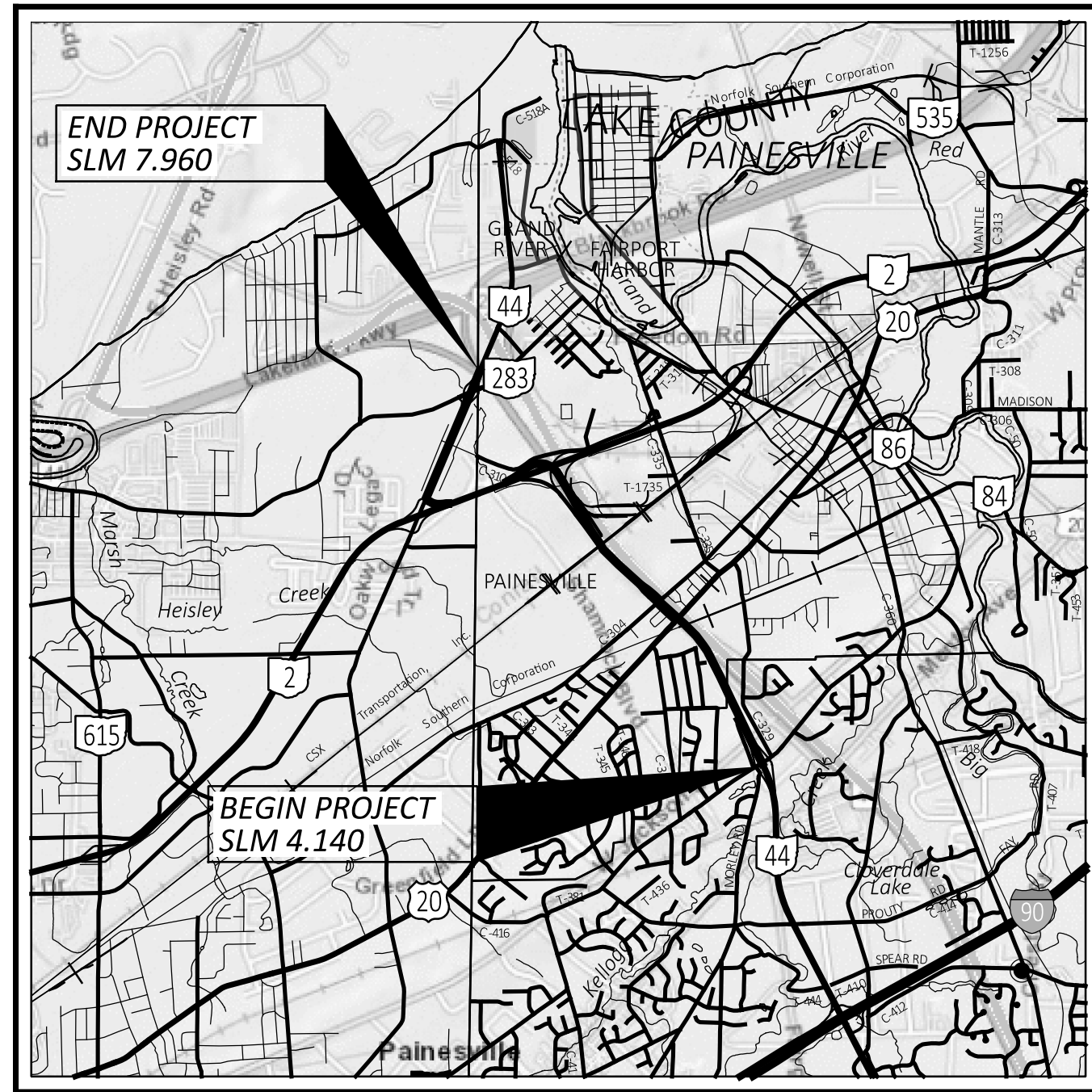


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LAK - SR 44 - 04.14

City of Painesville
City of Mentor
Painesville Township
Concord Township
LAKE COUNTY



LOCATION MAP

LATITUDE: 41°42'28" LONGITUDE: -81°16'00"



PORTION TO BE IMPROVED	
INTERSTATE HIGHWAY	
FEDERAL ROUTES	
STATE ROUTES	
COUNTY & TOWNSHIP ROADS	
OTHER ROADS	

DESIGN DESIGNATION	S.R. 44 SLM 4.26 - 5.10	S.R. 44 SLM 5.10 - 6.20	S.R. 44 SLM 6.98 - 7.96
CURRENT ADT (2024)	23,000	36,000	20,000
DESIGN YEAR ADT (2044)	25,000	38,000	21,000
DESIGN HOURLY VOLUME (2044)	3,200	4,750	2,300
DIRECTIONAL DISTRIBUTION	55.9%	53.8%	54.2%
TRUCKS (24 HOUR B&C)	5%	3%	7%
DESIGN SPEED	60	60	60
LEGAL SPEED	60	60	50
DESIGN FUNCTIONAL CLASSIFICATION:			
Minor Arterial and Other Freeways			
NHS PROJECT	YES		

DESIGN EXCEPTIONS

None

ADA DESIGN WAIVERS

None

UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

OHIO811.org
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
ODOT - District 12
Planning and Engineering
5500 Transportation Blvd.
Garfield Heights, OH 44125

ENGINEER'S SEAL
ROADWAY

INDEX OF SHEETS:

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Schematic Plans	2-4
Typical Sections	5-7
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Pavement Subsummaries	18-20
Pavement Marking Subsummaries	21-23
General Plans	24-33
Pavement Details	34

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-2.5	1/21/22	MT-95.30	7/19/19	TC-41.20	10/18/13	800	1/19/24		
BP-3.1	1/21/22	MT-95.50	7/21/17	TC-41.30	4/21/23	807	1/21/22		
BP-9.1	1/18/19	MT-98.10	1/17/20	TC-41.40	10/18/13	808	1/18/19		
		MT-98.11	1/17/20	TC-42.20	10/18/13	821	4/20/12		
		MT-98.20	4/19/19	TC-52.10	10/18/13	832	7/21/23		
		MT-98.22	1/17/20	TC-52.20	1/15/21	850	7/21/23		
		MT-98.28	1/17/20	TC-65.10	1/17/14	875	1/18/19		
		MT-98.29	1/17/20	TC-65.11	1/19/24	905	4/17/20		
		MT-98.30	7/16/21	TC-71.10	4/21/23	908	10/20/17		
		MT-99.20	4/19/19	TC-72.20	7/21/23	921	4/20/12		
		MT-101.90	7/17/20	TC-73.20	7/21/23				
		MT-104.10	1/19/24	TC-74.10	7/21/23				
		MT-105.10	1/17/20	TC-82.10	7/19/19				

FEDERAL PROJECT NUMBER

E150(728)

RAILROAD INVOLVEMENT

None

PROJECT DESCRIPTION

The project involves the resurfacing of SR-44 from north of SR-84 to north of SR-283 in the City of Painesville, Mentor, and Painesville Township in Lake County.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	N/A
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI not required) *

* Routine Maintenance Project

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

John Picuri, P.E., P.S.
District 12 Deputy Director

Jack Marchbanks, PhD
Director, Department of Transportation

Title Sheet

LAK-44-04.14

MODEL: Sheet_SurvFI PAPER SIZE: 34x42 (in.) DATE: 6/20/2024 TIME: 2:11:28 PM USER: jalbrig1 pvc:\ohiodot-pw-bentley.com\ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\85532\400-Engineering\Roadway\Sheets\85532_G1001.dgn

DESIGN AGENCY



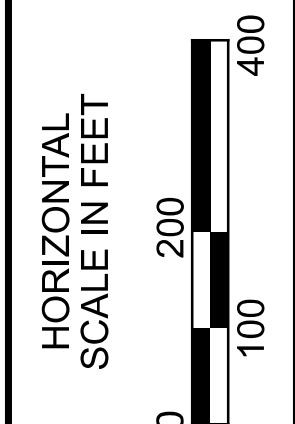
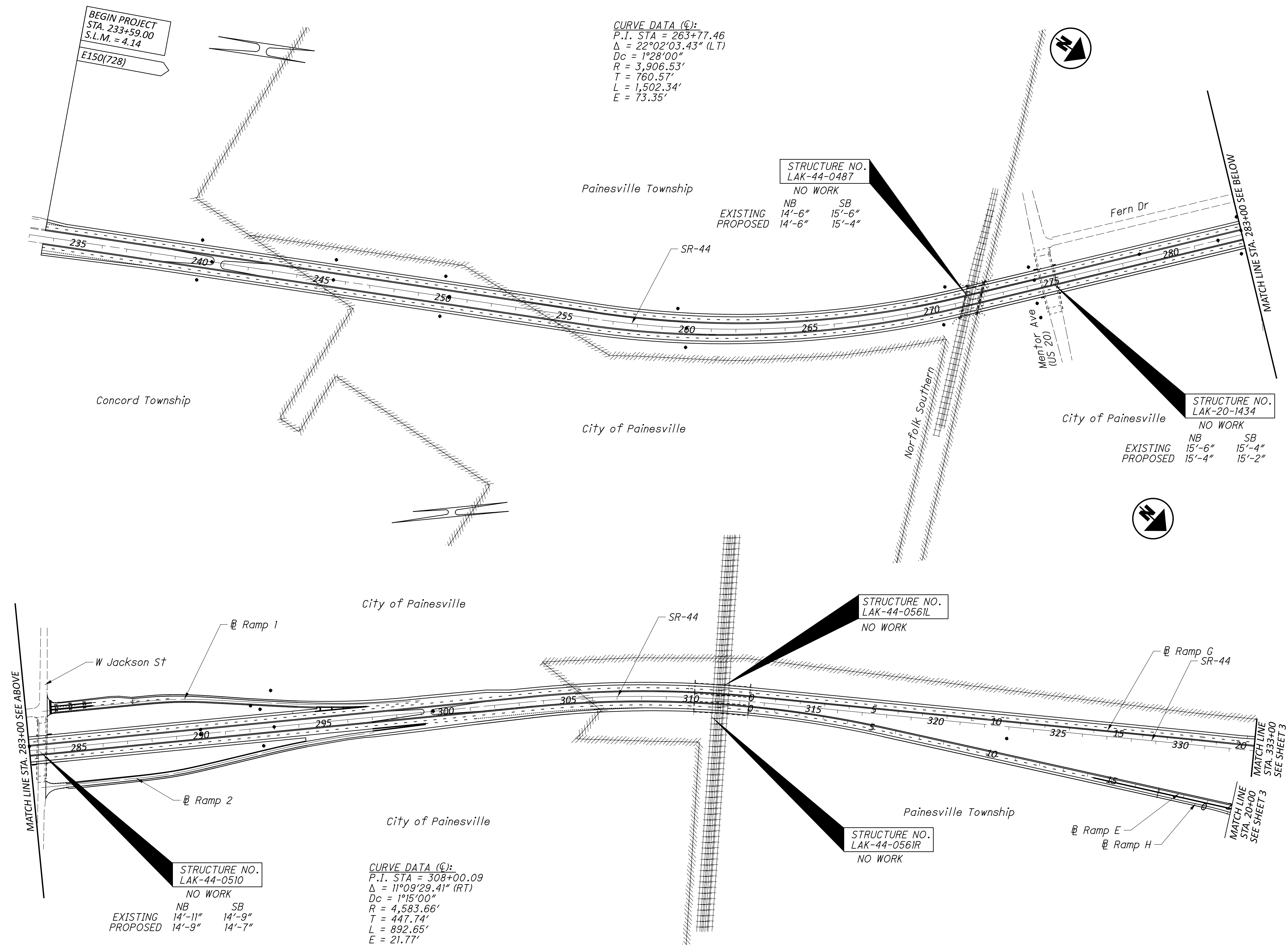
DESIGNER
JDA

REVIEWER
DAB 01/18/24

PROJECT ID

85532

SHEET TOTAL
P.1 34



Schematic Sheet

DESIGN AGENCY

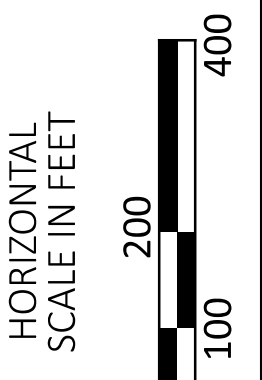
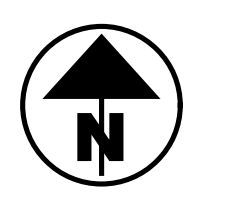
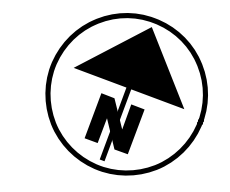
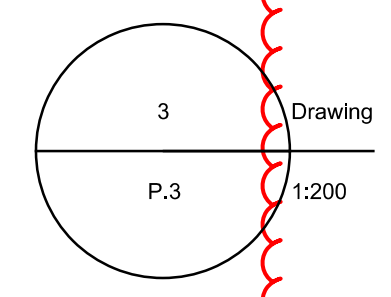
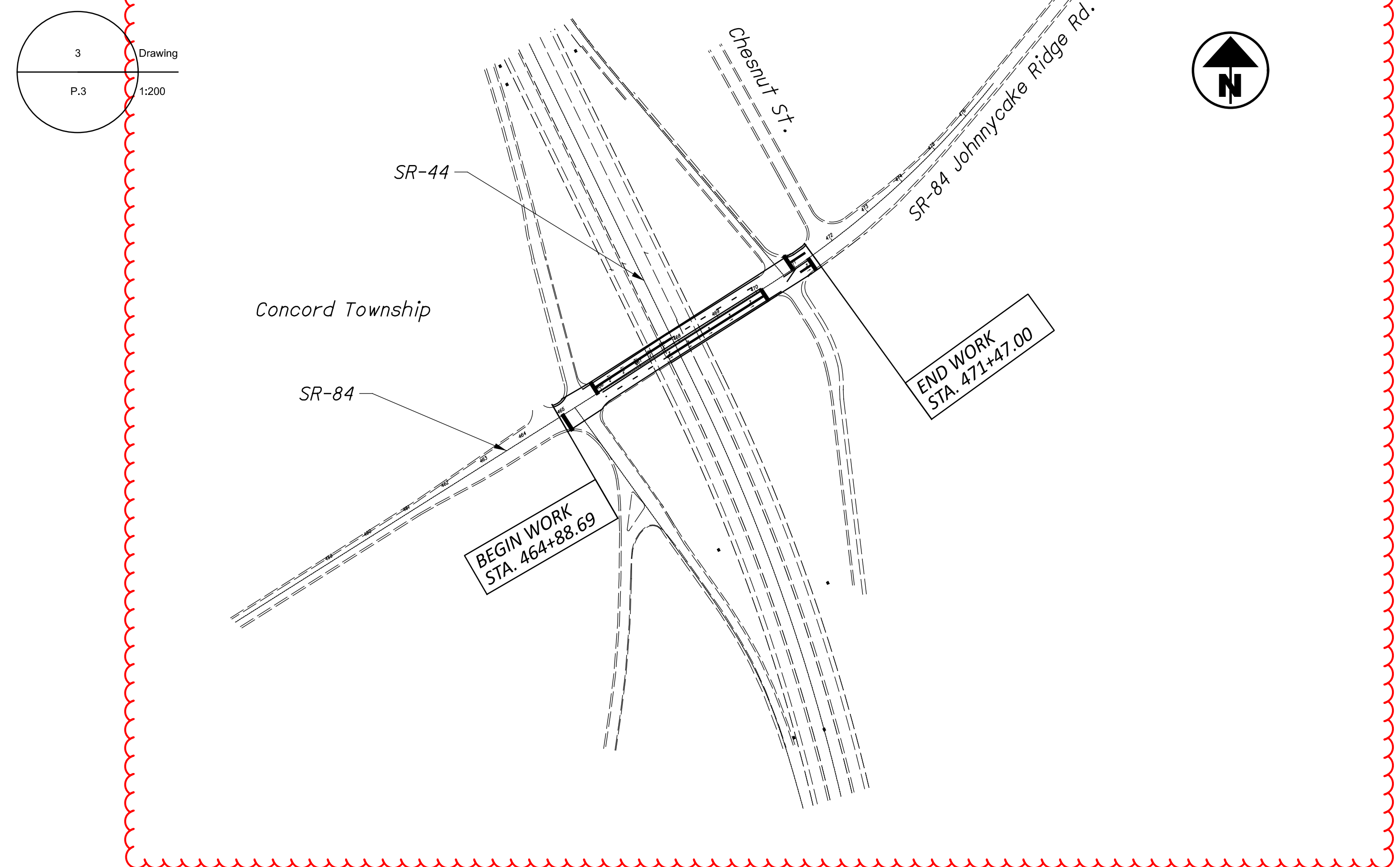
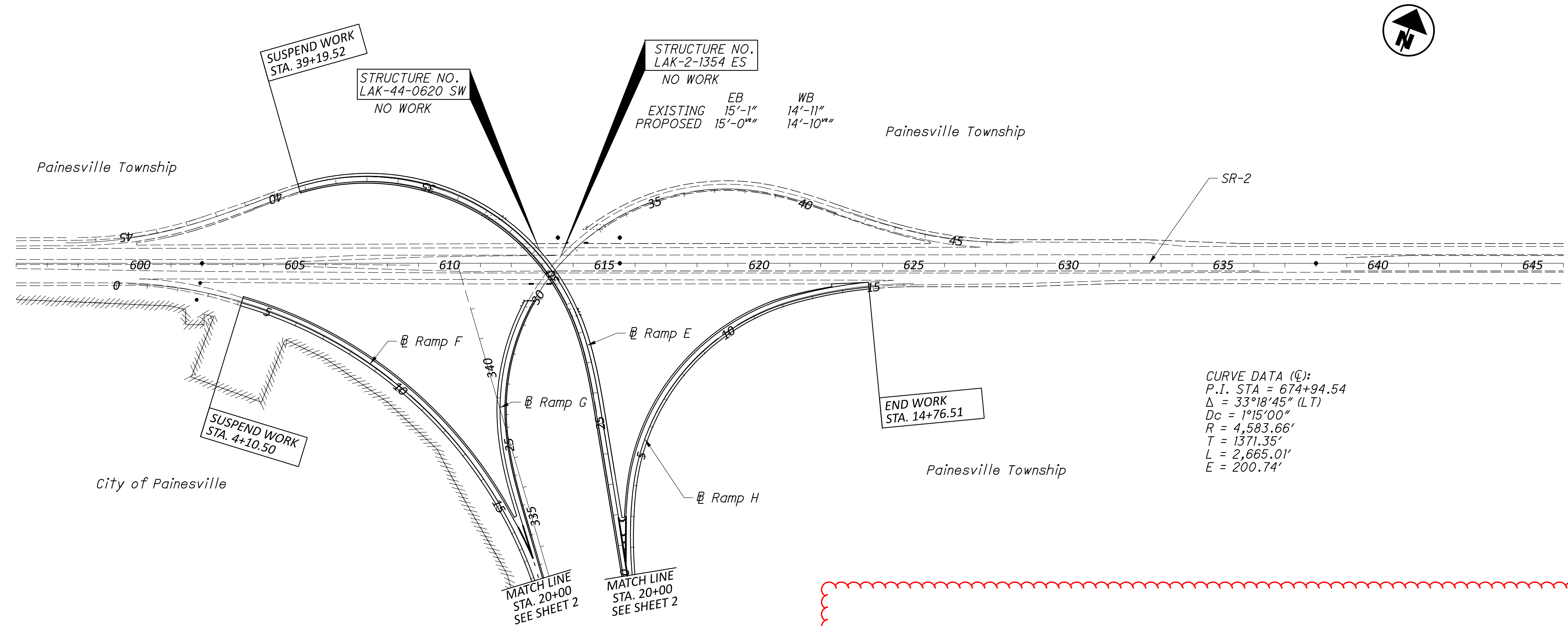


DESIGNER
JDA

REVIEWER
DAB 01/16/24

PROJECT ID
85532

SHEET	TOTAL
P.2	34



Schematic Sheet
Sta. 333+00.00 to End Work / SR-84 Interchange

DESIGN AGENCY

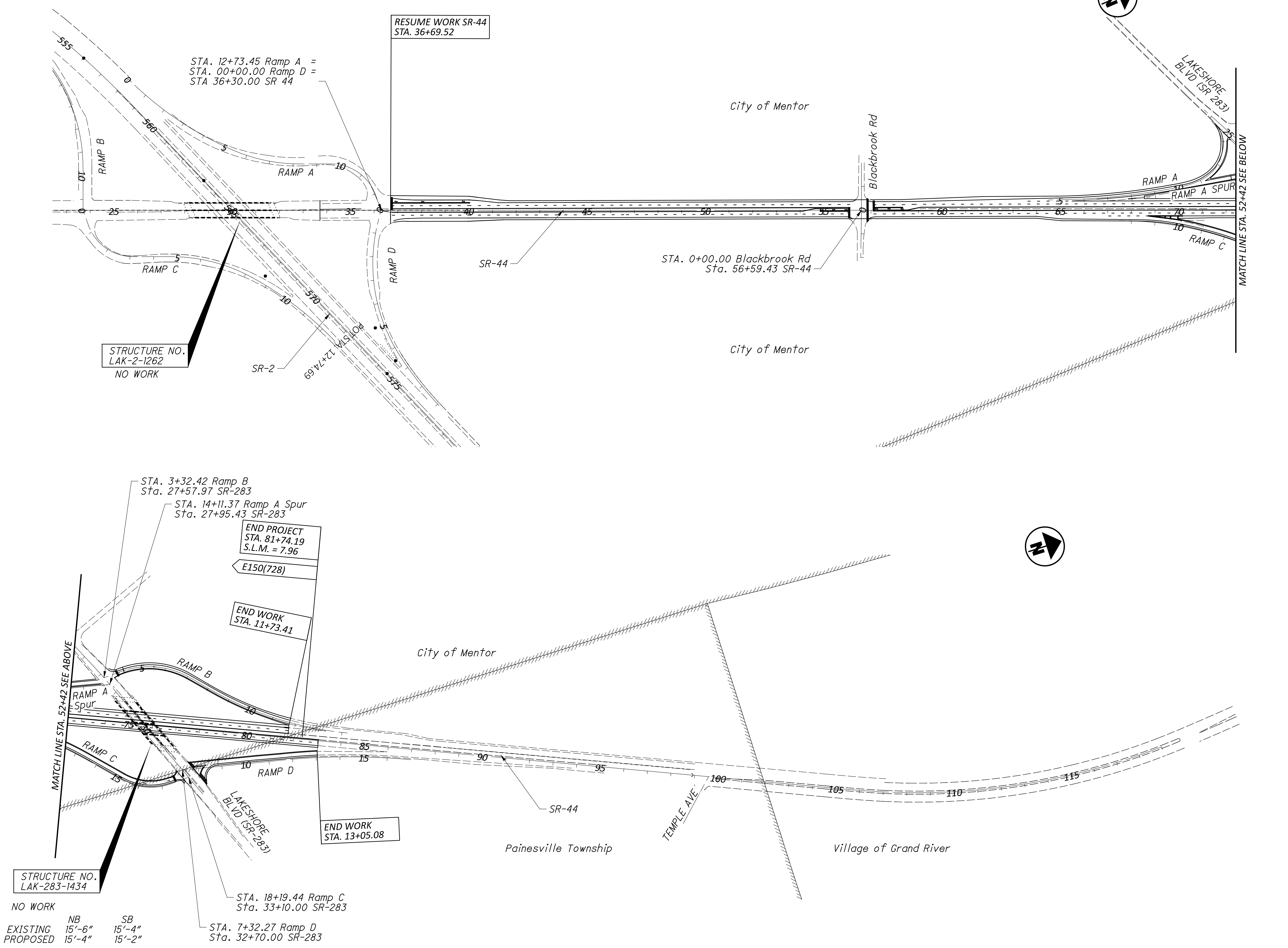


DESIGNER
JDA

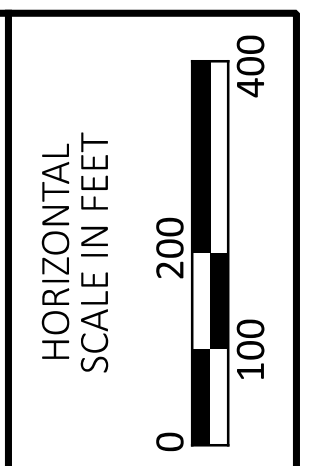
REVIEWER
DAB 01/18/24

PROJECT ID
85532

SHEET	TOTAL
P.3	34



NO WORK	NB	SB
EXISTING	15'-6"	15'-4"
PROPOSED	15'-4"	15'-2"



Schematic Sheet
 Sta. 36+69.52 to End Work

DESIGN AGENCY

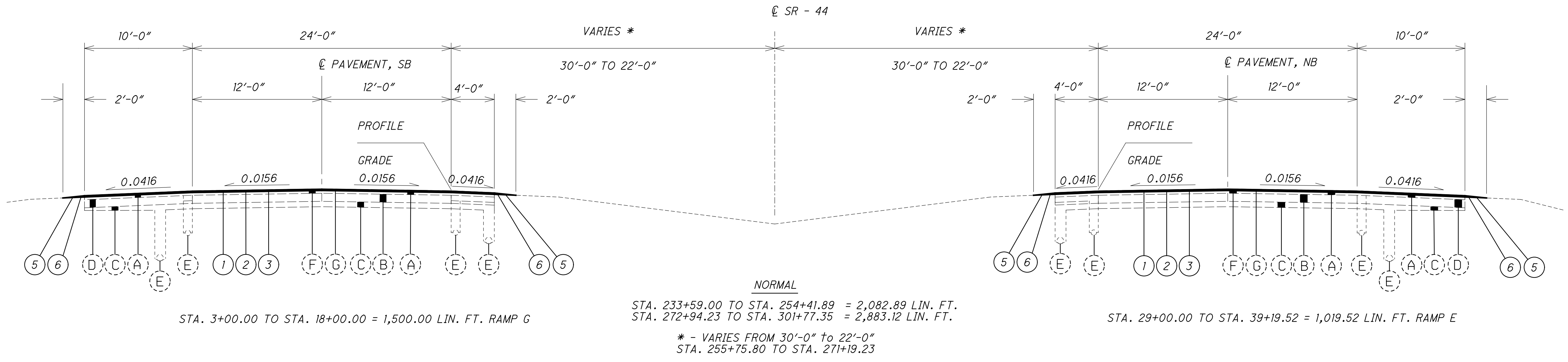


DESIGNER
 JDA

REVIEWER
 DAB 01/18/24

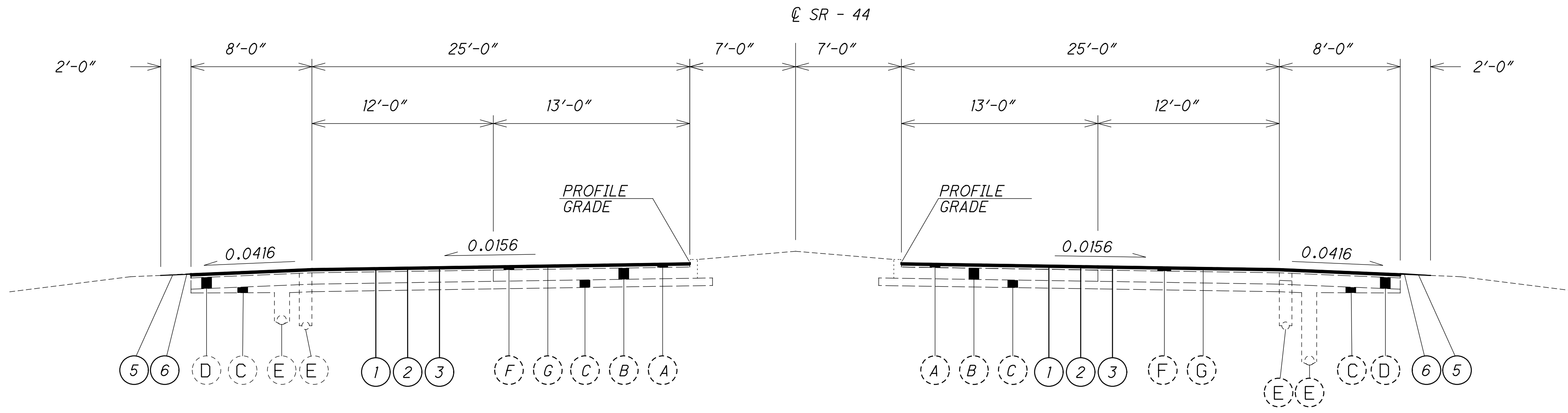
PROJECT ID
 85532

SHEET	TOTAL
P.4	34

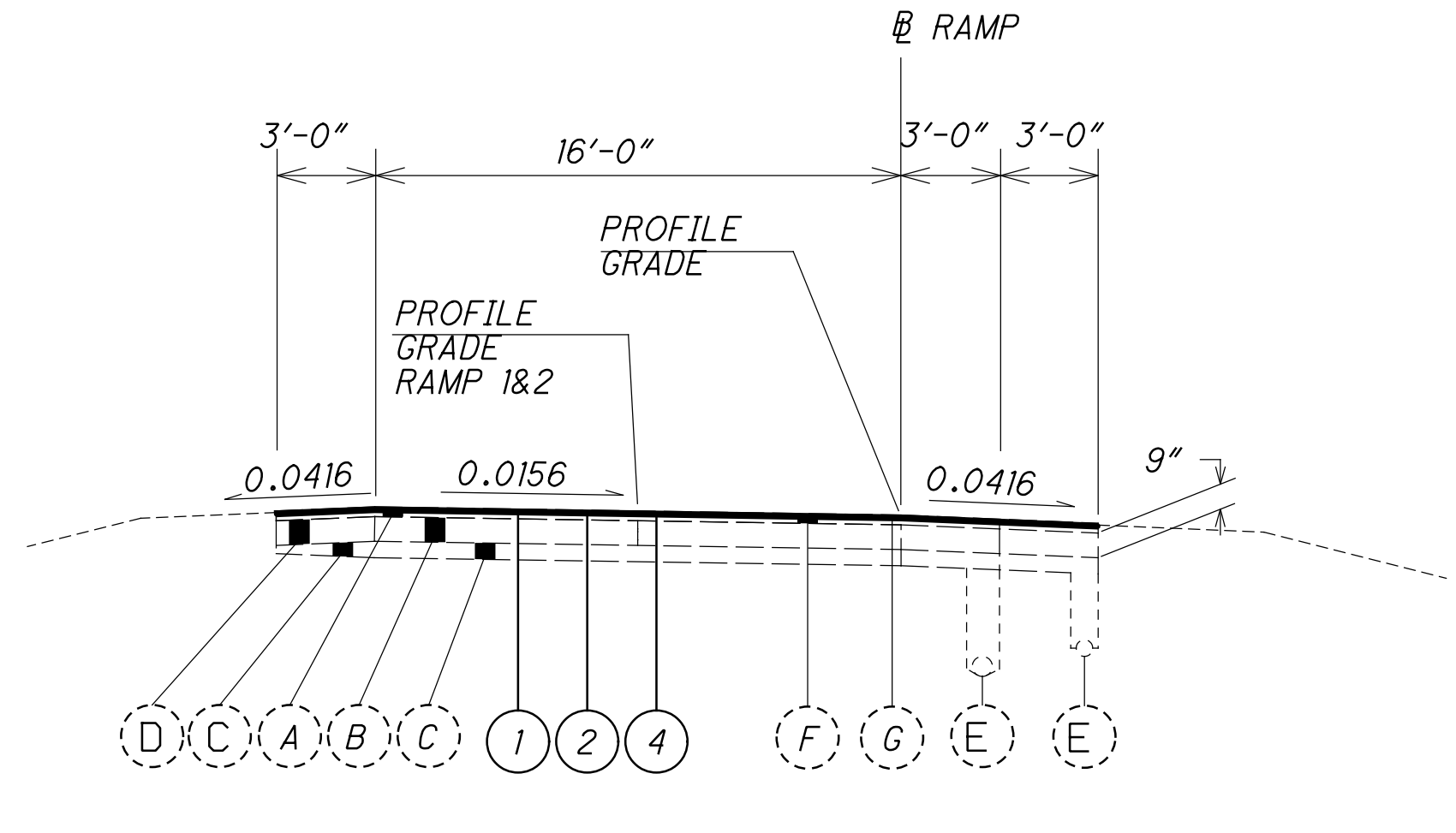


- PROPOSED**
- ① ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN 1.75"
 - ② ITEM 407 - NON-TRACKING TACK COAT PER CMS TABLE 407.606-1
 - ③ ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (447), AS PER PLAN, PG76-22M
 - ④ ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN, PG76-22M
 - ⑤ ITEM 209 - LINEAR GRADING, AS PER PLAN
 - ⑥ ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN
 - ⑦ ITEM 618 - RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN
 - ⑧ ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN 1.5"
 - ⑨ ITEM 441 - 1.5" ASPHALT CONCRETE SURFACE COURSE, Type 1, (449), AS PER PLAN, PG70-22M

- EXISTING LEGEND**
- (A) Asphalt Overlay (5")
 - (B) 9" Reinforced Concrete Base
 - (C) Subbase
 - (D) Bit. Aggregate Base or Aggregate Base
 - (E) Underdrain
 - (F) 3.5" Asphalt Concrete Intermediate Course
 - (G) 1.5" Asphalt Concrete Surface Course
 - (H) Asphalt Overlay (2-1/2" ± To 4-3/4"±)
 - (I) Guardrail
 - (J) Crushed Aggregate
 - (K) Concrete Median

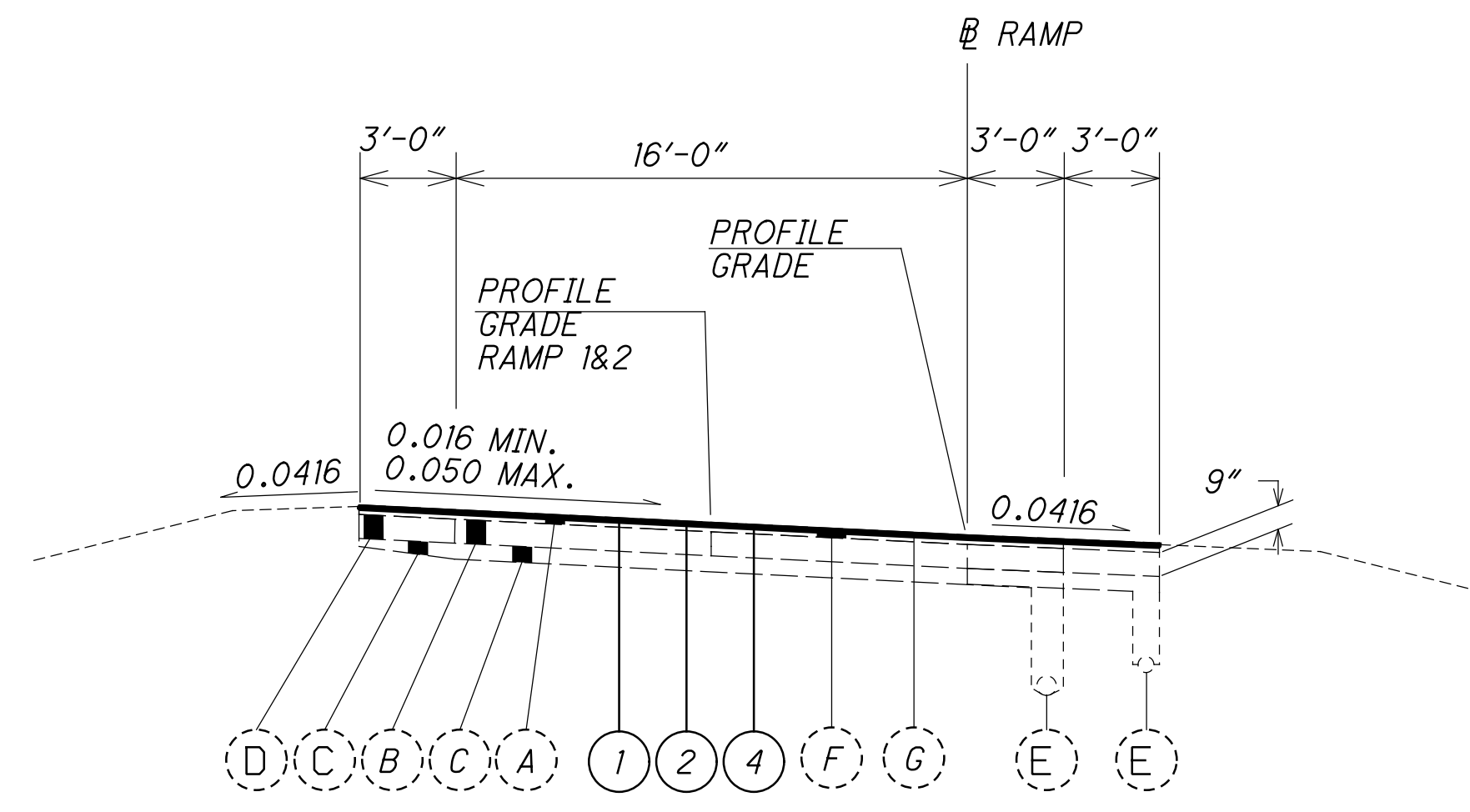


NORMAL
 STA. 36+99.10 TO STA. 102+98.23 = 6,599.13 LIN. FT.
 STA. 123+08.46 TO STA. 157+50.00 = 3,441.54 LIN. FT.



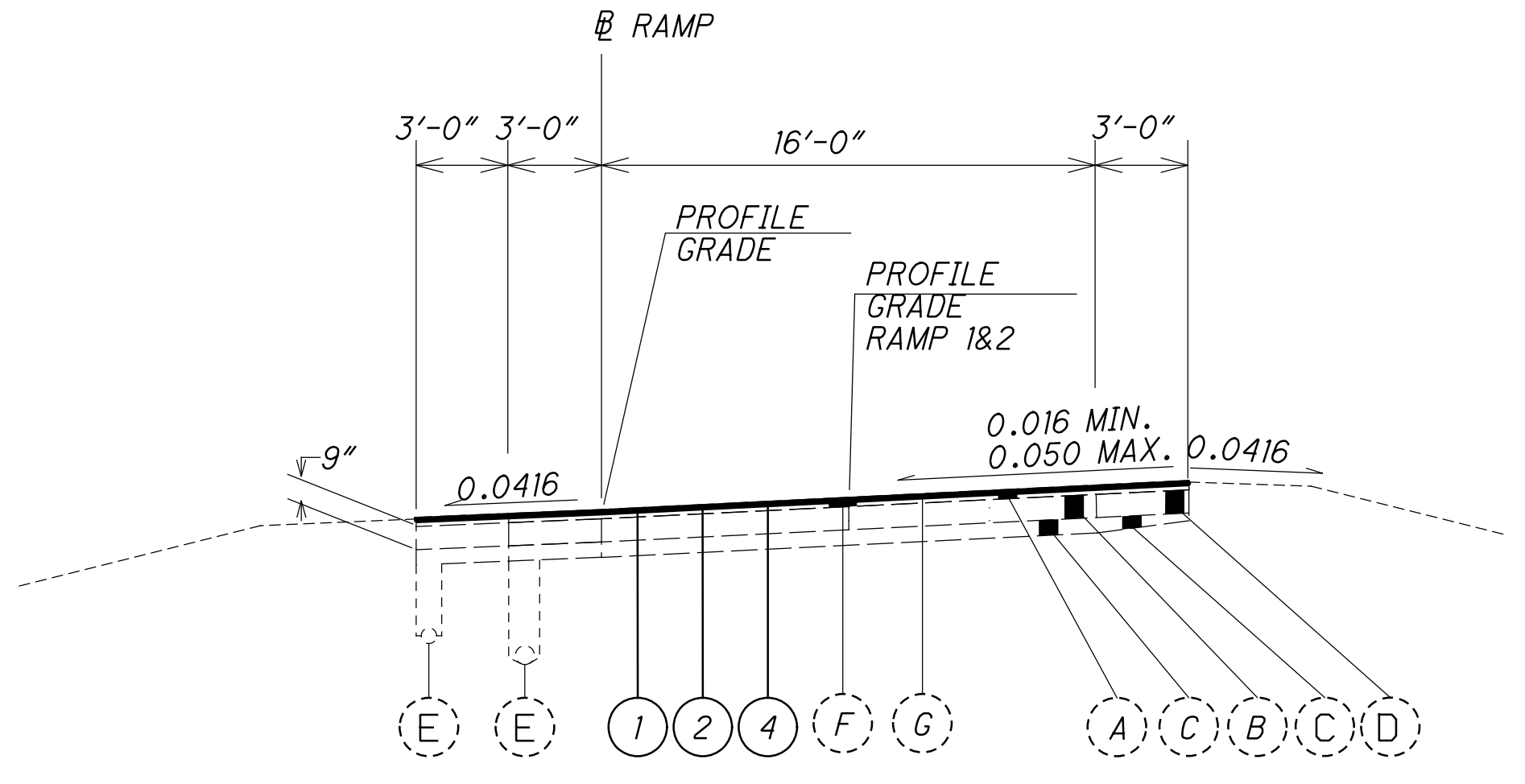
NORMAL RAMP SECTION

STA. 5+18.56 TO STA. 7+05.00 = 186.44 LIN. FT. RAMP 1*
 STA. 3+75.00 TO STA. 6+00.00 = 225.00 LIN. FT. RAMP 2*
 STA. 10+75.00 TO STA. 13+15.34 = 240.34 LIN. FT. RAMP 2*
 STA. 11+43.90 TO STA. 13+54.44 = 210.54 LIN. FT. RAMP A SPUR
 STA. 7+77.68 TO STA. 11+25.00 = 347.32 LIN. FT. RAMP D



SUPERELEVATED RAMP SECTION (RIGHT)

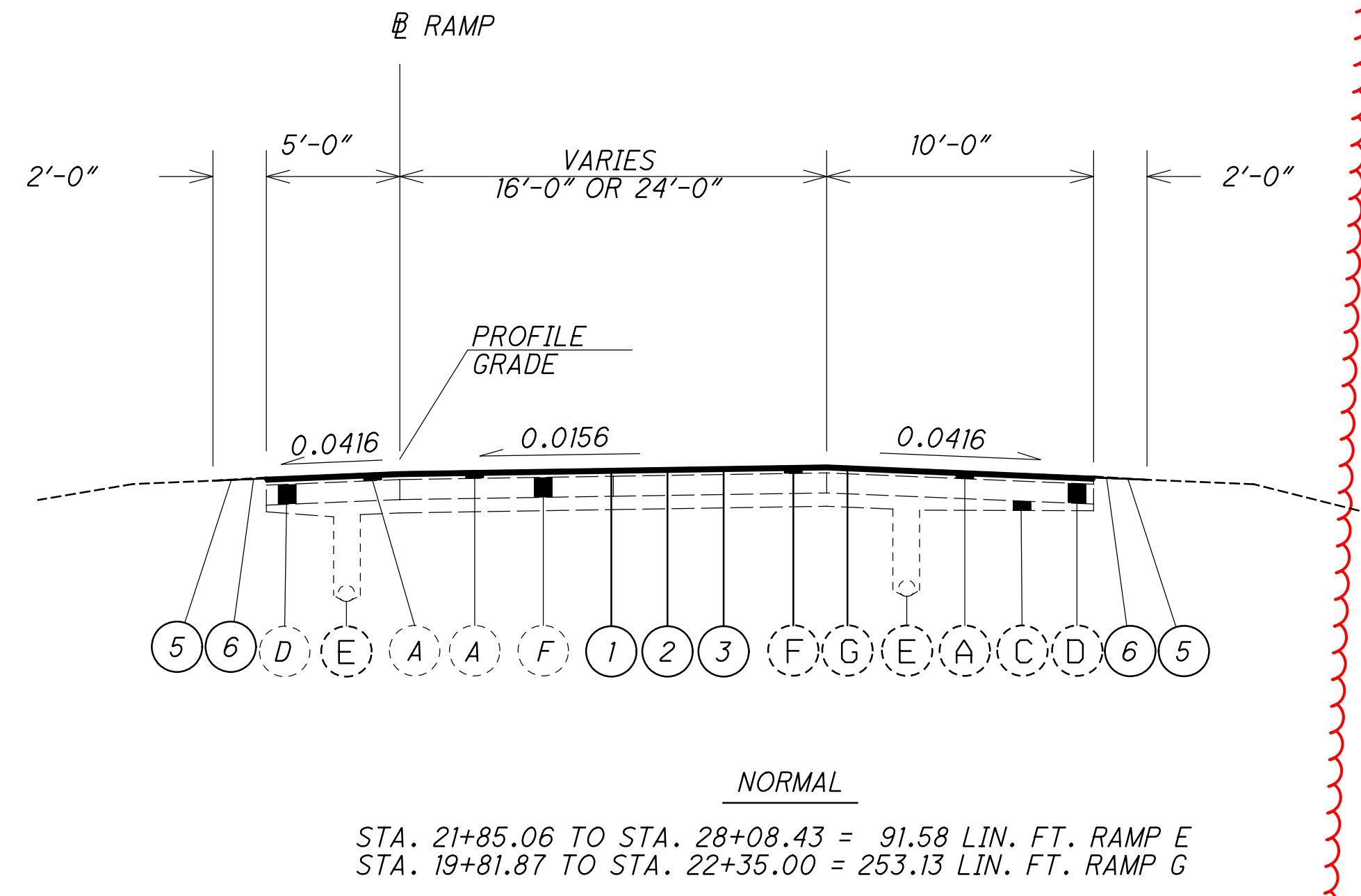
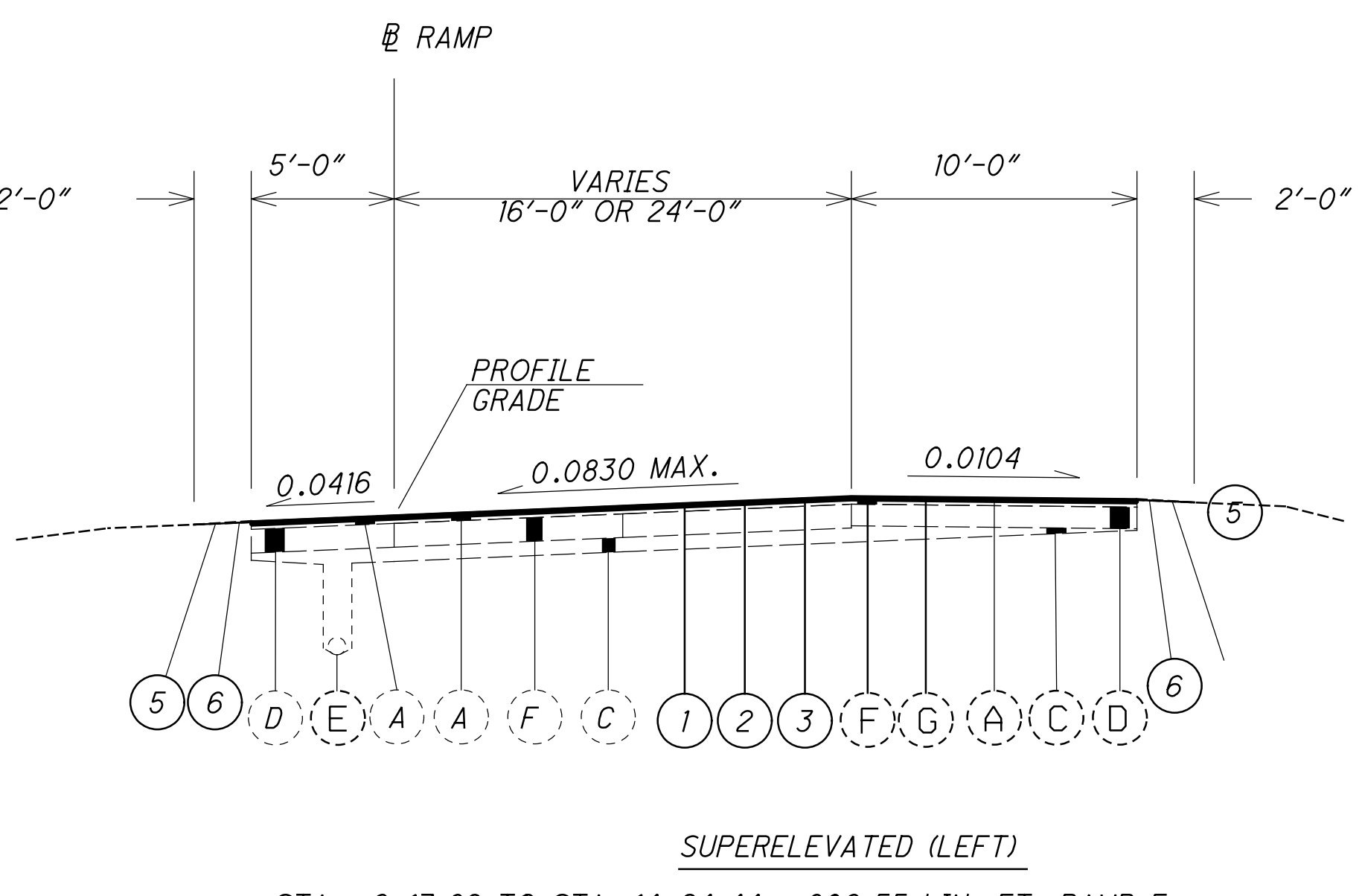
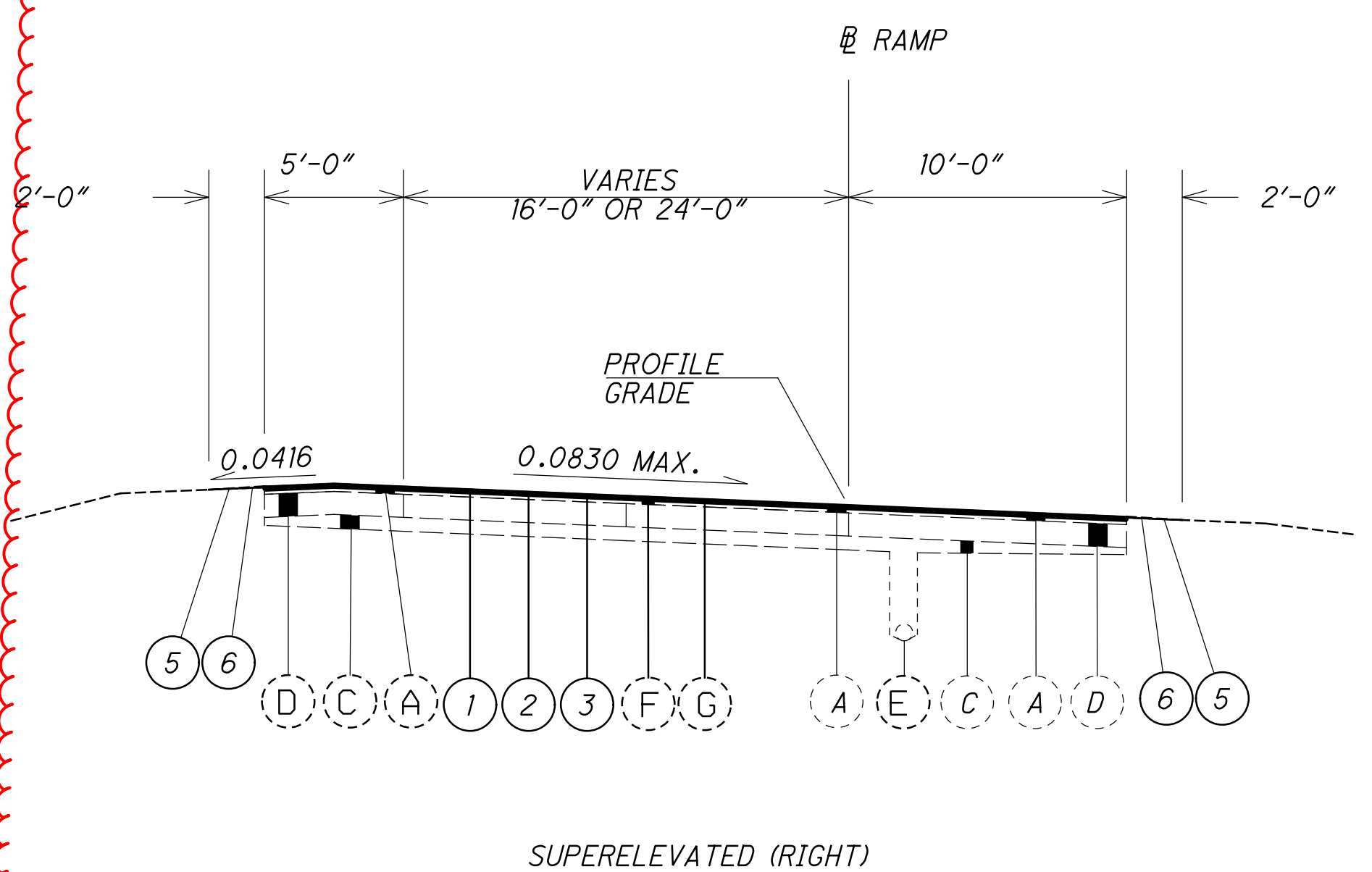
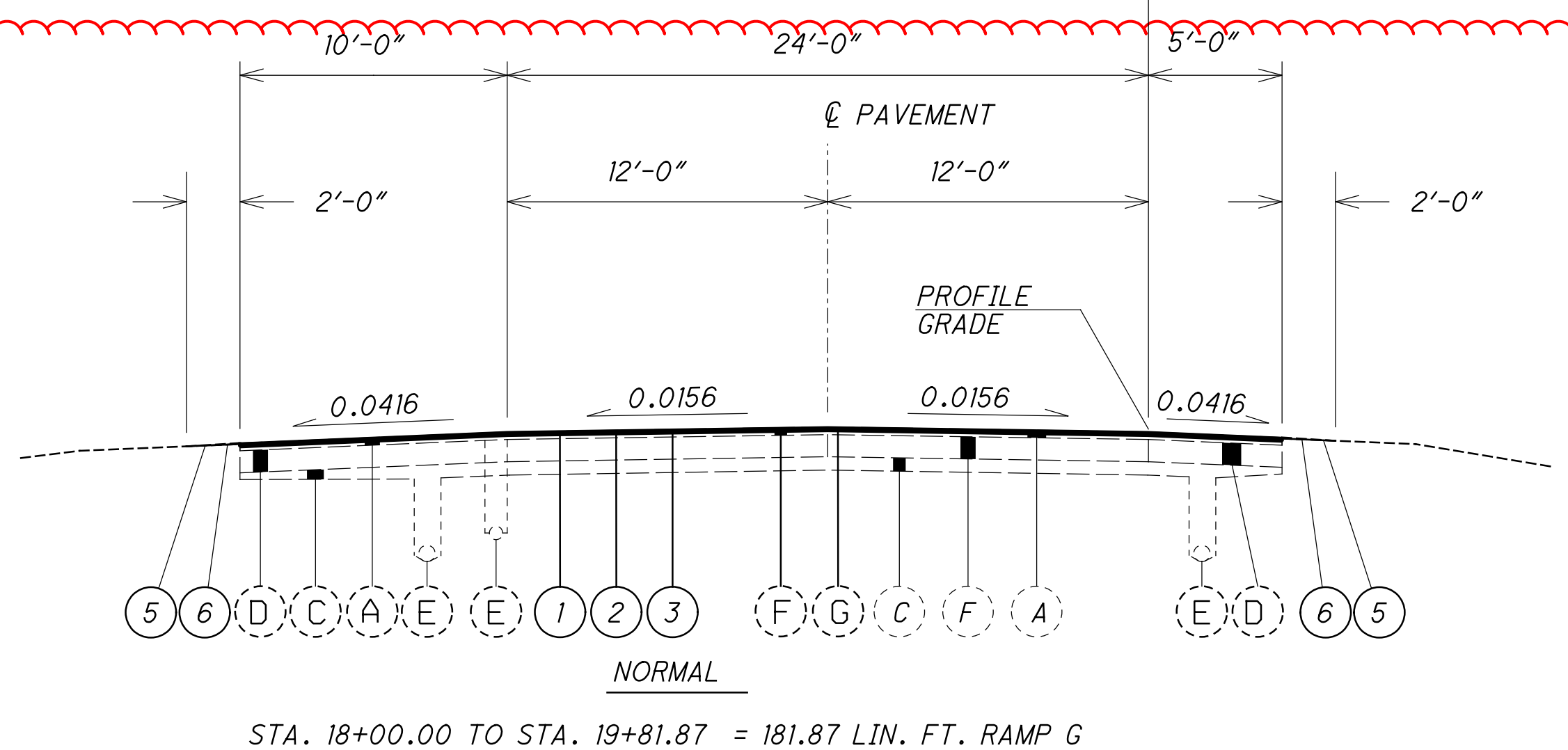
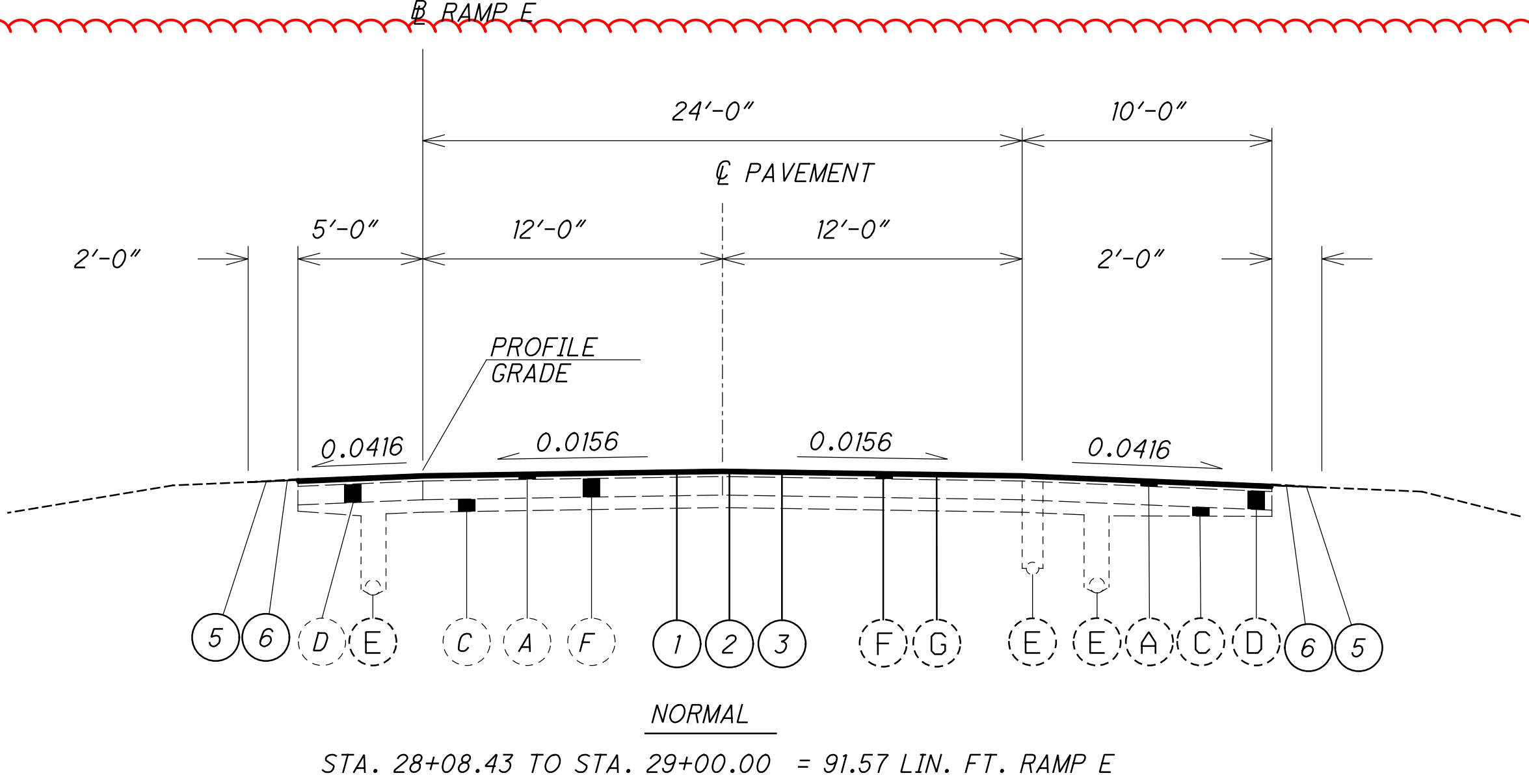
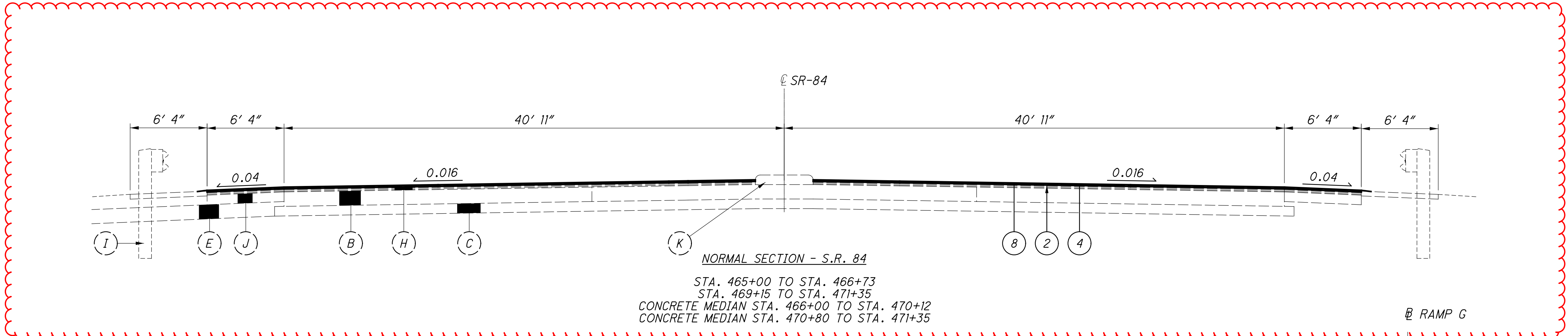
STA. 4+66.67 TO STA. 5+18.56 = 51.89 LIN. FT. RAMP 1*
 STA. 6+00.00 TO STA. 10+75.00 = 475.00 LIN. FT. RAMP 2*
 STA. 6+76.56 TO STA. 13+07.20 = 630.64 LIN. FT. RAMP A
 STA. 3+94.22 TO STA. 7+50.00 = 355.78 LIN. FT. RAMP B
 STA. 10+04.99 TO STA. 14+00.00 = 395.01 LIN. FT. RAMP C
 STA. 11+25.00 TO STA. 13+05.23 = 180.23 LIN. FT. RAMP D



SUPERELEVATED RAMP SECTION (LEFT)

STA. 2+75.00 TO STA. 3+75.00 = 100.00 LIN. FT. RAMP 2*
 STA. 7+50.00 TO STA. 11+70.01 = 420.01 LIN. FT. RAMP B
 STA. 14+00.00 TO STA. 17+41.57 = 341.57 LIN. FT. RAMP C





STA. 1+50.00 TO STA. 6+17.89 = 467.89 LIN. FT. RAMP E
 STA. 4+11.08 TO STA. 16+65.33 = 1,254.25 LIN. FT. RAMP F
 STA. 1+50.00 TO STA. 14+50.00 = 1,300.00 LIN. FT. RAMP H

STA. 6+17.89 TO STA. 14+24.44 = 806.55 LIN. FT. RAMP E
 BRIDGE NO. LAK-44-0620 SW
 STA. 18+16.20 TO STA. 21+85.06 = 368.86 LIN. FT. RAMP E
 STA. 22+35.00 TO STA. 29+83.76 = 748.76 LIN. FT. RAMP G
 BRIDGE NO. LAK-2-1354 ES

For Legend see sheet P.5

Typical Section

DESIGN AGENCY	
DESIGNER	
JDA	
REVIEWER	
DAB 01/18/24	
PROJECT ID	
85532	
SHEET	TOTAL
P.7	34

General

Project Description

This project consists of the Preventive Maintenance Resurfacing in Lake County of S.R.44 from North of SR-84 (SLM 4.140) to North of SR-283 (SLM 7.960) in the Cities of Mentor, Painesville, and Painesville Township.

Existing Typical Sections

Existing typical sections have been taken from the records and are believed to represent the existing pavement, but the State of Ohio does not guarantee the accuracy of the same.

For further information in regard to the existing typical sections and drainage details, the Contractor shall refer to the previous construction plans.

These plans may be reviewed at the following location:

Ohio Department of Transportation
District 12 Office
5500 Transportation Boulevard
Garfield Heights, Ohio 44125

Right of Way

All work shall be performed within the existing right of way or easements.

Work Limits

The work limits shown on these plans are for physical construction only. Provide the installation and operation of all work zone traffic control and work zone traffic control devices required by these plans whether inside or outside these work limits.

Contingency Quantities

The Contractor shall not order materials or perform work for items designated by plan note to be used "As Directed By The Engineer" unless authorized by the Engineer. The actual work locations and quantities used for such items shall be incorporated into the final change order governing completion of this project.

Equipment and Material Storage

In order to provide for the safety of the traveling public the Contractor's attention is directed to 614.03. In addition the following provisions shall apply:

1. Any removed items shall not be stored on the right of way for more than thirty (30) days.
2. The storage of equipment, materials, and vehicles within the highway right of way will be permitted. The number of areas and exact locations shall be approved by the Engineer.
3. All disturbed areas shall be returned to their original condition at no expense to the state.

Cooperation Between Contractors

The Contractor shall cooperate and coordinate his/her operations with the contractors on other projects that may be in force during the life of the contract, specifically PID 111005 (LAK-SR-283-14.34 Deck) and PID 105818 (LAK-SR-44-02.07/VAR Paint). No waiver of any provisions of 105.07 of the Construction and Material Specifications is intended.

Staging Areas

There are no specific areas given in the plans for the Contractor to use as a staging area(s). If the Contractor wants to use an area(s) for staging, regardless if it falls within the project limits or not, the Contractor is to use the Right of Way E-Permitting System at <https://odhcp.bemcorp.net/Accounts/Account/Account> in order to apply for a permit per Section 107.02 of the CMS. For specific permitting questions, the Contractor can contact the District Permitting Office, (Melvin Safford) at 216-584-2137, (Andrew Tomko) at 216-584-2195 or at District12Permits@dot.ohio.gov.

If a permit is granted, all conditions of the permit shall be met in addition to the requirements of 104.04 of the CMS, at no additional cost to the State. If the Project Engineer deems that all the conditions of the permit were not met, then 10% of the Contract bid amount for mobilization shall be withheld until all the conditions of the permit are satisfied.

Protection of Right-of-Way Landscaping

Prior to beginning work, the Contractor, the Project Engineer and a representative of the maintaining agency will review and record all landscaping items within the right-of-way (both within and outside the construction limits). A record of this review will be kept in the Project Engineer's files. Prior to final acceptance, a final review of landscaping items will be made.

Constrict all activities, equipment storage and staging to within the construction limits. Unless otherwise identified in the plans or proposal, the construction limits are identified as 30 feet from the edge of pavement.

Submit a written request to the Project Engineer to use any area outside these limits. The document submitted must clearly identify the area and explain the proposed use and restoration of the area. Use of these areas for disposal of waste material and construction debris, excavation of borrow material and placement of portable plants is prohibited. The request must be approved, in writing, before the Contractor has permission to use the area.

Any items damaged beyond the construction limits, as defined above, will be replaced in kind or as approved by the Project Engineer.

Item 619 – Field Office, Type B, As Per Plan

In addition to the requirements of CMS 619, the Contractor shall furnish and set up a Wi-Fi router meeting the requirements of IEEE 802.11ac for the exclusive use of the Department.

All other field office items supplied shall meet the requirements of a Type B Field Office.

Item 619 – Field Office, Type B, As Per Plan **6 Months**

Item 623 - Construction Layout Stakes and Surveying, As Per Plan

After completion of all work, but prior to final acceptance of the project, an Ohio professional surveyor shall determine the minimum vertical clearances of all existing and new bridges within the project limits. At a minimum, measurements shall be taken along each fascia beam at the edge of shoulders, edge lines, lane lines, and crown of the roadway below. The ODOT district 12 vertical clearance survey form shall be used, where applicable, to document the measurements. Where the ODOT district 12 vertical clearance survey form is not applicable, the measurements shall be documented on a contractor-developed form that closely resembles the ODOT district 12 vertical clearance survey form and accurately depicts the bridge and the lane and shoulder configuration of the roadway that passes below the bridge. The completed form shall bear the stamp or seal of the Ohio professional surveyor who has taken the measurements and shall be submitted to the project engineer prior to final acceptance of the project.

The ODOT district 12 vertical clearance survey form can be downloaded from the following ftp site:

<https://ftp.dot.state.oh.us/pub/contracts/attach/LAK-85532>

DESIGN AGENCY



DESIGNER

JDA

REVIEWER

DAB 01/18/24

PROJECT ID

85532

SHEET TOTAL

P.8 34

Utilities

Listed below are all known utilities located within the project construction limits together with their respective owners. The Ohio Department of Transportation has used the best available information to determine the utility companies serving this area but cannot guarantee that this utility company list is complete.

AT&T
13630 Lorain Ave. 2nd Floor
Cleveland, Ohio 44111
Attn: James Janis
Design Manager
Phone: (216) 476-6142
pj8191@att.com

AQUA Ohio – Lake County
8644 Station Street
Mentor, Ohio 44060-4316
Attn: Bill Bowers
Area Manager
Phone: (440) 255-7280 ext 50611
wmbowers@aquaaamerica.com

Charter Communications
7 Severance Circle
Cleveland Heights, Ohio 44118
Attn: Pat Santoiemmo
Phone: (216) 575-8016
Pat.Santoiemmo@charter.com

Cogent Communications OSP North Central
Attn: Brian Kunter
Engineer, Outside Plant
Phone: (616) 280-0084
bkunter@cogentco.com

Concord Township
7229 Ravenna Road
Concord Twp, Ohio 44077
Attn: Andy Rose
Administrator
Phone: (440) 354-7513
arose@concordtp.com

Dominion East Ohio Gas Co.
320 Springside Dr.
Akron, Ohio 44333
Phone: (330) 664-2409
Relocation@dominionenergy.com

Everstream Solutions
1228 Euclid Avenue, Suite 250
Cleveland, Ohio 44115
Attn: Stacey Dasher, Permit Coordinator
Office: (216) 923-2206
Cell: (216) 408-9205
sdasher@everstream.net
permits@everstream.net

Illuminating Company (First Energy)
6896 Miller Rd, Suite 101
Brecksville, Ohio 441441
Attn: John M. Zassick
Office: (440) 546-8706
Cell: (216) 538-1580
jmzassick@firstenergycorp.com

Lake County – Department of Utilities
105 Main St.
Painesville, Ohio 44077
Attn: Sarah A. Cerovski
Office: (440) 350-2652
Fax: (440) 350-5784
Sarah.Cerovski@lakecountyohio.gov

Lumen for Century Link
400 Chester Ave.
Cleveland, Ohio 44103
Attn: Doug Holloway
OSP Engineer
Phone: (216) 906-9284
Dough.holloway@lumen.com

Northeast Ohio Natural Gas Corp.
9081 State Route 250
Strasburg, Ohio 44680
Attn: Mark Wetzal
Phone: (330) 878-5614
mwetzal@egas.net

Ohio Department of Transportation District 12 – Roadway Services
5500 Transportation Boulevard
Garfield Heights, Ohio 44125
Attn: William Gerber
District Roadway Services manager
Phone: (216) 584-2260
William.Gerber@dot.oh.gov

Ohio Department of Transportation ITS
ODOT Central Office
Attn: Bryan Comber
ITS Engineer
Phone: (614) 387-1253
Bryan.comer@dot.oh.gov

Painesville Township
55 Nye Road
Painesville Township, Ohio 44077
Attn: Michael P. Manary
Phone: (440) 352-1443 ext. 104
mmanary@painesvilletwp.com

Verizon
120 Ravine St.
Akron, Ohio 44303
Attn: Al Guest
OSP Engineer
Phone: (330) 622-5967
Allan.Guest@verizon.com

Roadway and Erosion Control

Item 209 – Linear Grading, As Per Plan

This item of work shall consist of grading along the outside edge of the paved shoulder to eliminate high spots and provide positive sheet flow off the pavement and shoulder into roadside ditches or drainage structures. This item is not intended to be used to excavate a uniform depth to place Item 617 – Compacted Aggregate, As Per Plan.

Any debris collected shall be removed and disposed of as specified in Section 105.16 & 105.17 of the Construction and Material Specifications.

Payment for the above work shall be made at the unit bid price for Item 209, Station, Linear Grading, As Per Plan and shall include all labor, tools, equipment and materials necessary to perform this item of work.

The following estimated quantities have been carried to the General Summary.

Item 209 – Linear Grading, As Per Plan **548 STA**

Traffic Control

Pavement Markings

Auxiliary markings shall be located and installed as per Standard Drawing TC-71.10

Permanent Pavement Markings on Bridges

Proposed pavement markings on bridges shall be placed on top of existing markings.

Raised Pavement Markers

Install raised pavement markers for lane lines at a spacing of eighty feet (80') center-to-center.

Item 621 – Raised Pavement Marker Removed

This item shall include the removal and disposal of existing RPMs.

The following estimated quantity has been carried to the General Summary:

Item 621 – Raised Pavement Marker Removed..... **396 Each**

General Notes

LAK-44-04.14

MODEL: General Notes 2 PAPER SIZE: 34x22 (in.) DATE: 6/20/2024 TIME: 2:12:42 PM USER: jalbrig1 pvc:\ohiodot-pw-bentley.com\ohiodot-pw-02\Documents\01 Active Projects\District 12\Lake\85532\400-Engineering\Roadway\Sheets\85532_GN001.dgn

DESIGN AGENCY



DESIGNER

JDA

REVIEWER

DAB 01/18/24

PROJECT ID

85532

SHEET TOTAL

P.9 34

Pavement

Profile and Alignment

Place the proposed pavement to follow the alignment of the existing pavement. Previous construction plans showing the original alignment are available for inspection at the ODOT District 12 office. Place the proposed asphalt concrete as shown on the typical sections. The intent of the plans is to maintain the existing profile.

Planing Requirements

The duration of time between planing the asphalt and placing the asphalt overlay shall be kept to a minimum. In no instance shall this time exceed 10 calendar days. The time limit shall begin on the first day of planing and shall continue based on calendar days, minus any weather days, until completion of the asphalt concrete surface course. This is to ensure that the potential degradation of the exposed pavement due to traffic is kept to a minimum. This requirement applies to both mainline and ramps alike.

In the event that the time between exposing the existing pavement and placing the asphalt surface course exceeds 10 calendar days, liquidated damages as per 108.07 of the CMS shall be assessed.

Asphalt Concrete Surface Course Sealing Requirements

In addition to the gutter sealing requirements specified in SCD BP-3.1 and C&MS 401.15, after completion of the surface course, the contractor shall use a certified 702.01 PG binder to seal the following locations:

- All castings including but not limited to monuments, manholes, water valves, catch basins, curb inlets.
- Butt joints and feather joints including bridge approaches.
- Forward joint for driveway asphalt and trailing joint when butting to existing asphalt drive.
- Perimeter of all pavement repairs or other asphalt inlays when pavement repairs /inlays are not overlaid with an asphalt concrete surface course.
- All cold longitudinal joints between paved shoulders and guardrail asphalt.

The material used shall be a certified 702.01 PG binder. The width of the sealer shall be 2-3 inches.

Any additional costs associated with the work identified in this note shall be included in the appropriate asphalt concrete surface course item of work.

Longitudinal Joints (Flexible Pavement)

Longitudinal joints between a pavement lane and adjoining shoulder or speed change lane, and between a speed change lane and the adjoining shoulder shall be made the same day. All longitudinal joints shall be hot with the exception of one cold joint per roadway. Locate the cold joint along the centerline or a lane line. Longitudinal joint locations shall be as approved by the Engineer. Each ramp shall have a maximum of one longitudinal cold joint located approximately halfway across the ramp.

Item 254 – Pavement Planing, Asphalt Concrete, As Per Plan

This item shall be used to remove the existing asphalt overlay full width at an average depth of 1.75" as specified in the plans. Areas which have transverse wedges (butt joints) are to be removed in two passes as required for maintaining traffic. No additional payment shall be made for the second pass. This item shall also include planing 1.75" off the top of the full depth concrete repairs.

Item 255 - Full Depth Rigid Pavement Removal And Rigid Replacement, Class QC MS, As Per Plan A

Item 255 - Full Depth Rigid Pavement Removal And Rigid Replacement, Class QC MS, As Per Plan B

This item shall consist of replacing existing pavement per Item 255 and the notes below and details on sheet 31.

Existing concrete pavement thickness may vary from that shown on the typical sections by plus two inches or minus one inch. No adjustment in payment for this item shall be made providing that the average pavement thickness is within one inch of the thickness shown on the typical sections. Additional compensation shall be made by change order for the material cost of concrete only when the average thickness exceeds the one inch maximum tolerance above. The volume of concrete paid for shall be based upon the amount of concrete additional above the one inch tolerance limit.

The contractor shall saw through the existing overlay and perform the full depth repairs prior to the planning operation. The contractor shall remove the existing overlay and rigid pavement with care so as to not disturb the adjacent remaining concrete pavement and overlay.

If, after removal of the rigid pavement the engineer determines that the subbase or subgrade has failed or is pumping, the engineer will direct the contractor to excavate the unsuitable material and replace it with compacted 304 aggregate. Quantities of Item 203 - Excavation and Item 304 - Aggregate Base have been provided to repair said failed subbase or subgrade areas.

Pavement repair less than or equal to ten (10) feet in length shall be paid for under "Full Depth Rigid Pavement Removal And Replacement, Class QC MS, As Per Plan, A". Pavement repairs greater than ten (10) feet in length shall be paid for under "Full Depth Rigid Pavement Removal And Replacement, Class QC MS, As Per Plan B".

The following estimated quantity has been carried to the General Summary:

Item 255 – Full Depth Rigid Pavement Removal And Rigid Replacement,
Class QC MS,
As Per Plan A **276 Sq Yd**

Item 255 – Full Depth Rigid Pavement Removal And Rigid Replacement,
Class QC MS,
As Per Plan B **14 Sq Yd**

Item 255 – Full Depth Pavement Sawing **4,952 Ft**

Item 203 – Excavation **25 Cu Yd**

Item 304 – Aggregate Base **25 Cu Yd**

Item 442 – Asphalt Concrete Surface Course, 12.5mm, Type A, (447), As Per Plan, PG76-22M

The coarse virgin aggregate for this item shall be limited to a blend of air cooled blast furnace slag (ACBFS) or Trap Rock from Ontario and limestone. The Contractor shall use a minimum 60% of ACBFS or Trap Rock from Ontario with limestone comprising the remaining percentage. At least 50% of the fine virgin aggregate for this item shall be limited to ACBFS or Trap Rock from Ontario.

Table 442.02-2 applies except No. 4 sieve requirements are 52 to 60 Total Percent Passing. For the No. 4 sieve, do not exceed 63 in production.

When ACBFS is used for a fraction of the coarse aggregate, provide a total asphalt binder content greater than or equal to 6.2%. If ACBFS makes up 100% of the coarse aggregate, apply the binder content requirements of CMS 442.

Item 441 – Asphalt Concrete Surface Course, Type 1, (449), As Per Plan, PG70-22M

The coarse virgin aggregate for this item shall consist of a blend of 60% min. air cooled blast furnace slag (ACBFS) or Trap Rock from Ontario with limestone comprising the remaining percentage.

Item 442 – Asphalt Concrete Surface Course, 12.5mm, Type A, (446), As Per Plan, PG76-22M

Joint coring in accordance with 446.04 is not required for cold longitudinal joints placed over Void Reducing Asphalt Membrane (VRAM). Construct cold longitudinal joints over VRAM using the same techniques, equipment, and roller patterns used on the rest of the mat. Obtain 10 mat cores for each lot of material in accordance with 446.04. Pay factors for each lot of material will be determined according to Table 446.04-2.

The coarse virgin aggregate and at least 50% of fine virgin aggregate for this item shall be limited to air cooled blast furnace slag (ACBFS) or Trap Rock from Ontario.

Table 442.02-52 applied except No. 4 sieve requirements are 52 to 60 Total Percent Passing. For the No. 4 sieve do not exceed 63 in production.

Item 617 – Compacted Aggregate, As Per Plan

This item shall be used to place compacted aggregate at a variable depth only where needed to fill in low spots along the shoulder and eliminate drop offs. Material shall be limited to reclaimed asphalt concrete pavement (RAP).

The actual depth of compacted aggregate placed will vary depending upon existing conditions. For estimating purposes, an average depth of one inch (1") has been used. Water, if needed, shall be applied as per 617.05 and included under Item 617 – Compacted Aggregate, As Per Plan.

The following estimated quantity has been carried to the General Summary for use as directed by the Engineer:

Item 617 – Compacted Aggregate, As Per Plan..... **171 Cu Yd**

Item 618 – Rumble Strips, Shoulder (Asphalt Concrete), As Per Plan

For all freeways, the lateral position of edge line rumble strips shown in SCD BP-9.1 is revised as follows:

1. Median and Outside Shoulder Offset for shoulders less than 6':
Dimension A and B are equal to 6"
2. Median and Outside Shoulder Offset for shoulders 6' to 12':
Dimension A and B are equal to half the shoulder width minus 12".
3. Median and Outside Shoulder Offset for shoulders greater than 12':
Dimension A and B are equal to 5'.

The following estimated quantity shall be used to construct Item 618 – Rumble Strips, Shoulder (Asphalt Concrete), As Per Plan as per Standard Drawing BP-9.1 except as noted above:

Item 618 – Rumble Strips, Shoulder (Asphalt Concrete),
As Per Plan..... **10.38 Miles**

General Notes

LAK-44-04.14

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DESIGN AGENCY



DESIGNER

JDA

REVIEWER

DAB 01/18/24

PROJECT ID

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SHEET TOTAL

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General

It is the responsibility of the Contractor to provide through vehicular access in both directions at all times throughout the project area. The project shall be constructed in phases in order to minimize traffic disruption and inconvenience to the general public. The Contractor shall be responsible for providing all equipment, materials and manpower needed to adequately maintain traffic as provided for in the plans and specifications.

The Contractor is reminded that, in the conduct of this project, the sequence of operations shall be planned in a fashion which minimizes the number of lane reductions and/or lane width reductions required to maintain traffic through the project.

Permitted lane closures shall be as shown on the "Schedule of Through Lanes to be Maintained" table. The time limits shown in this table shall be adhered to or road user costs will be assessed.

Construction Sequence

No permanent maintenance of traffic zones are detailed in these plans. Traffic shall be maintained in accordance to the "Schedule of Through Lanes to be Maintained" note. All work zone closures shall comply with the appropriate Standard Construction Drawings.

Prior to opening all lanes to normal traffic, the Contractor shall ensure that the pavement is in a drivable condition with no potholes or dust and that all longitudinal drop-offs greater than 1-1/2" and transverse drop-offs are ramped as per the "Maintaining Traffic and Sequence of Operations" note.

Maintenance of Traffic Control Zones

The Contractor shall be responsible to maintain the signs, drums or cones specified in the Standard Construction Drawings. When the Contractor is notified of deficiencies, he shall correct the deficiencies as soon as possible, preferably within 12 hours and no later than 24 hours. If any noted deficiencies are not corrected within 24 hours the Engineer shall deduct one day pay for Item 614 – Maintaining Traffic, not as a penalty but as road user costs. The Contractor shall be subject to these road user costs for each and every day that these provisions are not met. All costs for maintaining the work zones as described above shall be included under Item 614 – Maintaining Traffic.

Suspension of Work

If the Contractor fails to comply with the provisions for traffic control as set forth in these plans or with provisions of the OMUTCD, the Engineer shall suspend work until the Contractor complies with the necessary requirements.

Lane Closure/Reduction Required

Length and duration of lane closures and restrictions shall be at the approval of the Engineer. It is the intent to minimize the impact to the traveling public. Lane closures or restrictions over segments of the project in which no work is anticipated within a reasonable time frame, as determined by the Engineer, shall not be permitted. The level of utilization of maintenance of traffic devices shall be commensurate with the work in progress.

Payment

All work and traffic control devices shall be in accordance with CMS 614 and other applicable portions of the specifications, as well as the Ohio Manual of Uniform Traffic Control Devices. Payment for all labor, equipment, and materials shall be included in the lump sum contract price for Item 614 – Maintaining Traffic unless separately itemized in the plans.

Schedule of Through Lanes to be Maintained

All lane closures may only be implemented at the times permitted by the "District 12 Permitted Lane Closure Times" list, which is located on the ODOT website:

www.dot.state.oh.us/districts/D12/HighwayManagement/Pages/PermittedLaneClosures.aspx

The latest revision, at 14 days prior to the bid date, shall be in effect for this project.

No lane or shoulder closures shall be in place when no work is being performed. Shoulder closures shall only be allowed at the times specified for lane closures.

Any roadway not listed shall not have any lane closures on weekdays from 6:00am to 9:00am and 3:00pm to 6:00pm. Contact Troy Onesti, District 12 Work Zone Traffic Manager, at (216) 379-5337 if there are any questions.

SR-2 Ramps		
Location	Permitted Ramp Closures, Lane Reductions	
	Short Term Closure	Partial Width Closure (maintain one 11' lane)
One-Lane Ramps	9:00pm – 5:00am *	N/A

Each ramp shall be closed for a maximum of two (2) separate times using an approved detour. Any closure shall be as directed by the Engineer.

Short Duration Ramp Closures

For the purpose of performing the required work or when required by the interstate entrance ramp closure note, ramps may be closed for short durations and detoured in accordance with the ramp closure table if approved by the engineer. Ramp closures are subject to disincentives.

For all service ramp closures lasting more than 12 hours but less than 60 hours and/or, for all system ramp closures lasting more than 12 hours but less than 24 hours the contractor shall provide the following:

- A minimum of two portable changeable message signs (pcms) placed, as directed by the engineer, to warn drivers of the closure and to provide the designated detour route.
- Positive guidance along the detour route with detour signs (m4-9 series) in accordance with the detour signs note.

For all ramp closures lasting less than 12 hours, the contractor shall provide the following:

- A minimum of two portable changeable message signs (pcms) placed, as directed by the engineer, to warn drivers of the closure and to provide the designated detour route.

When closing entrance ramps, corresponding lead-in lanes and turn lanes shall also be closed.

If a designated detour route is not provided in the plans, traffic shall be directed to the next interchange, if available, to turn around. If the use of the next interchange is not possible, an alternative detour route shall be provided by the engineer.

Service ramp: interchange ramps between freeways (or expressways) and non-freeways (or non expressways). These ramps provide access (connections) between freeways/expressways and other principal/minor arterials, collectors or local roads.

System ramp: interchange ramps (or connectors) between freeways (or expressways) and freeways (or expressways).

Ramp Closure Restriction

Ramp Closure Restriction *					
State Route 44 in Lake County					
Secondary Route: State Route 2 SLM along 2: 13.65, SLM along 44: 6.00					
Ramp Designation	Movement	No Closures Allowed		Detour Routes	
		Mon-Fri	Sat-Sun	Primary Detour Route	Secondary Detour Route
E	SR-44 NB to SR-2 WB	5AM-9PM	5AM-9PM	SR-44 EB to SR-283 to SR-2 WB	SR-44 EB to SR-535 to SR-2 WB
F	SR-2 EB to SR-44 SB	5AM-9PM	5AM-9PM	SR-2 EB to SR-283 to SR-2 WB to SR-44 SB	SR-2 EB to SR-535 to SR-2 WB to SR-44 SB
G	SR-2 WB to SR-44 SB	5AM-9PM	5AM-9PM	SR-2 WB to SR-44/Haisley Rd to SR-2 EB to SR-44 SB	SR-2 WB to SR-615 to SR-2 EB to SR-44 SB
H	SR-44 NB to SR-2 EB	5AM-9PM	5AM-9PM	SR-44 NB to SR-2 WB to SR-44/Heisley Rd to SR-2 EB	SR-44 NB to SR-2 WB to SR-615 to SR-2 EB

*The contractor shall avoid closing any ramp that is being utilized as a part of the detour route for different closed ramp.

Item 614, Maintaining Traffic (Notice of Closure Sign)

Notice of Closure signs (W20-H13) shall be erected by the Contractor prior to the scheduled road or ramp closure in accordance with the Notice of Closure Time Table below. [At the approval of the Engineer, portable changeable message signs may be used in lieu of the standard flatsheet sign for closure durations of less than 1 week.]

The signs shall be erected on the right-hand side of the road/ramp facing traffic. They shall be placed so as not to interfere with the visibility of any other traffic control signs. On roadways, they should be erected at or near the point of closure. The signs may be erected anywhere on ramps as long as they are visible to the motorists using the ramp. On entrance ramps, the sign shall be erected well in advance of the merge area to avoid distracting motorists.

Notice of Closure Sign Time Table		
Item	Duration of Closure	Sign Displayed to Public
Ramp &	> 2 weeks	14 calendar days prior to closure
Road	> 12 hours & < 2 weeks	7 calendar days prior to closure
Closures	< 12 hours	2 business days prior to closure

The sign shall display the date of the closure in MMM-DD format and the number of days of the closure. The last line of the W20-H13 sign lists a phone number which a motorist may call for additional information. This is to be a specific office within the District rather than the general switchboard number.

DESIGN AGENCY



DESIGNER
JDA

REVIEWER
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Notification of Traffic Restrictions

Throughout the duration of the project, the Contractor shall notify the project engineer in writing of all traffic restrictions and upcoming maintenance of traffic changes. The Contractor shall ensure the written notification is submitted in a timely manner to allow the project engineer to meet the required time frames set forth in the table below to inform the Special Hauling Permits Section (Hauling.Permits@dot.ohio.gov) and the District Public Information Office (PIO). This notification shall be received by the project engineer prior to the physical setup of any applicable signs or message boards.

Information should include, but is not limited to, all construction activities that impact or interfere with traffic and shall list the specific location, type of work, road status, date and time of restriction, duration of restriction, number of lanes maintained, number of lanes closed, minimum vertical clearance, minimum width of drivable pavement, detour routes, if applicable, and any other information requested by the project engineer.

Any unforeseen conditions not specified in the plans requiring traffic restrictions shall also be reported to the project engineer using the Notification Time Table.

Notification of Traffic Restrictions Time Table		
Item	Duration of Closure	Notice Due to Permits & PIO
Ramp &	≥ 2 weeks	21 calendar days prior to closure
Road	> 12 hours & < 2 weeks	14 calendar days prior to closure
Closures	< 12 hours	4 business days prior to closure
Lane	≥ 2 weeks	14 calendar days prior to closure
Closures & Restrictions	< 2 weeks	5 business days prior to closure
Start of Construction & Traffic Pattern Changes	N/A	14 calendar days prior to implementation

Lane Value Contract Table

Description of Critical Lane/Ramp to be Maintained	Direction	Lanes	Restricted Time Period	Time Unit	Disincentive (per time unit per lane)
SR-44:					
SR-44 South of SR-2	NB/SB	2	As Per the Permitted Lane Closure Schedule	Each Minute	\$130
SR-44 North of SR-2	NB/SB	2	As Per the Permitted Lane Closure Schedule	Each Minute	\$135

The Contractor shall be assessed Disincentives as designated in the Lane Value Contract Table for each unit of time the described Critical Lane/Ramp is restricted from full use by the traveling public within the restricted time period. The Lane Value Contract Table is located in the Plan General Notes. The Disincentives will be assessed for all restrictions of the critical work.

Critical work is shown in the Lane Value Contract Table. Critical work is defined as having the designated sections open to unrestricted traffic as shown in the table, or the entire project if not otherwise listed.

Unrestricted traffic is defined as all traffic lanes being available for use with specified striping and safety features in place..

Maintaining Traffic – General Provisions

- Traffic shall be maintained in accordance with the "Schedule of Through Lanes to be Maintained." the Contractor shall set up and operate his equipment in such a manner as to minimize encroachment upon the traveled width of pavement
- The Contractor shall notify the Engineer, the responsible law enforcement agency and the Ohio Department of Transportation, District 12 Public Information Officer ((216) 584-2007) not less than 24 hours prior to a scheduled disruption of traffic.
- Nighttime work shall be permitted in accordance with these plans and notes. The Contractor shall provide flood lighting of the work area in accordance with CMS 401.15 in order to assure the safest conditions during nighttime work. A lighting plan for nighttime operations shall be presented to and approved by the Engineer.
- The Contractor shall furnish, erect and maintain all warning and information signs necessary for maintaining traffic. The sign faces shall be reflectorized with type G sheeting complying with the requirements of CMS 730.19. The Contractor shall determine what signs are needed and advise the Engineer two weeks in advance of his detailed plans. See the OMUTCD and standard drawings for the minimum signage required.
- Traffic control devices shall be set up prior to the start of construction and shall be properly maintained during the time special conditions exist. They shall remain in place only as long as they are needed and shall be immediately removed thereafter. Where operations are performed in stages, there shall be in place only those devices that apply to the condition present during the stage in progress. All signs with messages which do not apply during a certain period shall be covered or set aside out of the view of traffic.
- Placement of final roadway pavement markings and raised pavement markers shall be accomplished in accordance with the "Schedule of Through Lanes to be Maintained." The Contractor shall provide 2 shadow vehicles as per MT-99.20 following the pavement marking equipment. The shadow vehicles shall travel 500' apart with the remote vehicle traveling on the shoulder (left or right as applicable) where usable shoulder is available. The first shadow vehicle in a traffic lane shall be equipped with a truck mounted attenuator meeting NCHRP 350 requirements. Each shadow vehicle shall have a yellow flashing beacon plus 48" construction warning signs mounted on the back facing traffic with standard type messages advising motorists of the work ahead, advisory warning speed, and which lane is closed.
- During non-working periods, open excavations shall be delineated with warning flashers and/or other approved devices as deemed appropriate by the Engineer.
- Existing signs located within the road work areas which are necessary for interim or permanent traffic control shall be removed and re-erected in locations as approved by the Engineer.
- No stoppage of traffic shall occur without law enforcement personnel at each location to direct traffic.
- Whenever a total closure is implemented, the Contractor shall provide a portable changeable message sign from ODOT's pre-approved list. It shall be placed 1.5 miles to 2 miles in advance of the closure or as directed by the Engineer.
- For any operation not specifically mentioned in these plans, the traffic shall be maintained in accordance with the OMUTCD.

Holiday Closures

No work shall be performed and all existing lanes shall be open to traffic during the following designated holidays or events:

New Year's (observed)	General/Regular election Day (Nov)
Memorial Day	Thanksgiving
Fourth of July (observed)	Christmas (observed)
	Labor Day

The period of time that the lanes are to be open depends on the day of the week on which the holiday or event falls. The following schedule shall be used to determine this period:

Day of the Week	Times All Lanes Must Be Open
Sunday	12 noon Friday Through 6:00AM Monday
Monday	12 noon Friday Through 6:00AM Tuesday
Tuesday	12 noon Monday Through 6:00AM Wednesday
Tuesday (Gen./Reg. Election)	12 noon Tuesday Through 6:00AM Wednesday
Wednesday	12 noon Tuesday Through 6:00AM Thursday
Thursday	12 noon Wednesday Through 6:00AM Monday
Thursday (Thanksgiving Only)	6:00AM Wednesday through 6:00AM Monday
Friday	12 noon Thursday Through 6:00AM Monday
Saturday	12 noon Friday Through 6:00AM Monday

During the same periods, maintain pedestrian access if pedestrian access was present prior to construction.

[Newly constructed lane additions, once completed and initially opened to traffic, shall be open to traffic during all subsequent designated holidays and special events, and related periods of time, specified above.]

Should the Contractor fail to meet any of these requirements, the Contractor shall be assessed a disincentive per the lane value contract (PN 127).

Floodlighting

Floodlighting of the work site for operations conducted during nighttime periods shall be accomplished so that the lights do not cause glare to the drivers on the roadway. To ensure the adequacy of the floodlight placement, the Contractor and the Engineer shall drive through the work site each night when the lighting is in place and operative prior to commencing any work. If glare is detected, the light placement and shielding shall be adjusted to the satisfaction of the Engineer before work proceeds.

Payment for all labor, equipment and materials shall be included in the lump sum contract price for Item 614 – Maintaining Traffic.

Major Work Items

The following major work items will require traffic maintenance which shall be incorporated into the Contractor's sequence of operations.

- Removal of existing RPMs
- Completion of full depth pavement repairs
- Planing of asphalt concrete
- Placing of asphalt concrete
- Placing proposed pavement markings and raised pavement markers
- Placing of rumble strips



Maintaining Traffic and Sequence of Operations

All asphalt concrete operations shall be conducted in a manner that will assure minimum danger and inconvenience to highway users. The procedure for the removal or placement of any existing or proposed asphalt course shall be such that no greater than 1-1/2" discontinuity in the elevation of the traveled surface shall be exposed to traffic.

Traffic shall not be permitted to cross any partial-width removal or resurfacing joint during the actual removal or paving operation except as necessary. Any partial-width longitudinal joints with a discontinuity greater than 1-1/2" which must be exposed to traffic shall be ramped using Item 614 – Asphalt Concrete for Maintaining Traffic at a rate not steeper than 6:1.

Temporary transverse removal or paving joints which must be exposed to traffic shall be ramped using Item 614 – Asphalt Concrete for Maintaining Traffic at a rate not to exceed 1" in 10'.

For removal of existing overlays, a transition may be planed into the existing overlay and may be substituted for the asphalt ramps previously described.

For the longitudinal joint, the contractor may use asphalt ramps or plane a wedge as detailed above to maintain the 1-1/2" max drop off. Payment for any asphalt ramps or planing needed to maintain the 1-1/2" drop off shall be included in the lump sum payment for Item 614 - Maintaining Traffic.

Whenever traffic is subject to partial width removals or overlays prior to full width completion, the Contractor shall provide W8-11-48 "UNEVEN LANES" signs (dual sign installation). Placement shall be as directed by the Engineer and included in the lump sum payment for Item 614 – Maintaining Traffic.

Whenever any part of the traveled surface is closed, the motorists shall be warned and diverted by the Contractor through the use of a flashing arrow, in addition to those provisions set forth in the OMUTCD, the Traffic Engineering Manual and the applicable Standard Construction Drawings.

Approved Maintenance of Traffic (MOT) Policy Exception(s):

Portions of the MOT plans as described below have approved MOT Exception(s) per Traffic Management in Work Zones Policy (21-008(P)) and Standard Procedure (123-001(SP)).

Approved MOT Exception(s) include:

System to system Ramp Closures per the Ramp Closure Restrictions table as shown on sheet 11.

A maintenance of traffic meeting shall be held a minimum of 30 calendar days prior to implementation of each approved MOT Exception. This meeting shall include the District Work Zone Traffic Manager and City of Painesville as well as the Contractor, Worksite Traffic Supervisor (WTS) and any subcontractors involved with temporary traffic control.

In addition to any notifications required in other notes, the Contractor shall notify the Project Engineer at least 3 business days in advance of implementation of the approved MOT Exception(s) referenced above so that the Project Engineer can send email notification to the Office of Roadway Engineering, Statewide TMC, DWZTM and Special Hauling Permits at least 2 business days in advance of the implementation of the approved MOT Exception(s) referenced above. Reference "Exception Request Approval dated [#####] for PID 85532" in the notification and other correspondence.

Any changes to the MOT that impact the previously approved MOT Exception(s) listed above shall be approved in writing by the district 12 deputy director. In the event that such changes are proposed, the request shall be coordinated through the District Work Zone Traffic Manager (DWZTM) a minimum of 30 calendar days

prior to the desired implementation date. If the District agrees with the proposed changes the DWZTM shall seek approval from the MOTEC. In the event the proposed changes are approved in writing, the closures are still subject to notification requirements within this note prior to implementation.

Notifications During Closure Required

A designated on-site point of contact should communicate with the TMC as the status of the closure changes.

Contact the TMC:

- If the closure is postponed or cancelled
- At the time the closure is implemented
- At the time the closure is removed and all lanes restored
- If the closure will not be opening on time

Contact can be made with the TMC in the following ways:

- Phone: 1-614-387-2438 or 1-800-884-4030
- Email: StatewideTMC@dot.ohio.gov
- Radio: XDOT Main

Item 614 – Asphalt Concrete for Maintaining Traffic, As Per Plan

This item shall be used to provide temporary asphalt ramps for transverse discontinuities. Ramping shall be placed at the rate of 1" per 10' or to be used as directed by the Engineer.

Remove temporary asphalt ramps as part of this item. Materials shall be removed prior to the placement of the next course of asphalt.

Item 614 – Asphalt Concrete for Maintaining Traffic,
As Per Plan **50 Cu Yd**

Item 614 – Work Zone Pavement Markings

The following estimated quantities have been carried to the General Summary to be used as directed by the Engineer for work zone pavement markings per the requirements of CMS 614.04 and 614.11. Place temporary markings at the same locations as the proposed permanent pavement markings.

Work zone temporary marking widths shall be as given in CMS 614 or 641.

After the planing is completed, use the following temporary markings:

- Item 614 – Work Zone Lane Line, Class I, 6", 642 Paint..... **6.12 Mile**
- Item 614 – Work Zone Edge Line, Class I, 6", 642 Paint **15.37 Mile**
- Item 614 – Work Zone Channelizing Line, Class I, 12", 642 Paint... **4,422 Ft**
- Item 614 – Work Zone Dotted Line, Class I, 6", 642 Paint **1,199 Ft**
- Item 614 – Work Zone Crosswalk Line, Class I, 6", 642 Paint **324 Ft**
- Item 614 – Work Zone Stop Line, Class I, 6", 642 Paint **342 Ft**
- Item 614 – Work Zone Arrow, Class I, 6", 642 Paint **40 Each**

After the surface course is placed, use the following temporary markings:

- Item 614 – Work Zone Lane Line, Class III, 6", 642 Paint..... **6.12 Mile**
- Item 614 – Work Zone Edge Line, Class III, 6", 642 Paint **15.37 Mile**
- Item 614 – Work Zone Channelizing Line, Class III, 12", 642 Paint.. **4,422 Ft**
- Item 614 – Work Zone Dotted Line, Class III, 6", 642 Paint **1,199 Ft**
- Item 614 – Work Zone Crosswalk Line, Class III, 6", 642 Paint **324 Ft**
- Item 614 – Work Zone Stop Line, Class III, 6", 642 Paint **342 Ft**
- Item 614 – Work Zone Arrow, Class III, 6", 642 Paint **40 Each**

Item 614 – Portable Changeable Message Signs, As Per Plan

The Contractor shall furnish, install, maintain and remove, when no longer needed, a changeable message sign. The sign shall be of a type shown on a list of approved PCMS units available on the Office of Materials Management web

page. The list contains Class A and B units with minimum legibility distances of 800 feet and 650 feet, respectively.

Each sign shall be trailer-mounted and equipped with a functional dimming mechanism, to dim the sign during darkness, and a tamper and vandal proof enclosure. Each sign shall be provided with appropriate training and operation instructions to enable on-site personnel to operate and troubleshoot the unit. The sign shall also be capable of being powered by an electrical service drop from a local utility company. The PCMS shall be delineated in accordance with CMS 614.03.

Placement, operation, maintenance and all activation of the signs by the Contractor shall be as directed by the Engineer. The PCMS shall be located in a highly visible position yet protected from traffic. The Contractor shall, at the direction of the Engineer, relocate the PCMS to improve visibility or accommodate changed conditions. When not in use, the PCMS shall be turned off. Additionally, when not in use for extended periods of time, the PCMS shall be turned away from all traffic.

The Engineer shall be provided access to each sign unit and shall be provided with appropriate training and operation instructions to enable ODOT personnel to operate and troubleshoot the unit, and to revise sign messages, if necessary.

All messages to be displayed on the sign will be provided by the Engineer. A list of all required pre-programmed messages will be given to the Contractor at the project preconstruction conference. The sign shall have the capability to store up to 99 messages. Message memory or pre-programmed displays shall not be lost as a result of power failures to the on-board computer. The sign legend shall be capable of being changed in the field. Three-line presentation formats with up to six message phases shall be supported. PCMS format shall permit the complete message for each phase to be read at least twice.

The PCMS shall contain an accurate clock and programming logic which will allow the sign to be activated, deactivated or messages changed automatically at different times of the day for different days of the week.

The PCMS shall have a Web-Based Communication System that will allow the message board to be changed or programmed remotely. This system shall be password protected and may be operated from a computer or have an application that can be operated from a cell phone, android or I-phone. The Web Based Communication System shall be able show the location of each message board on a map. The PCMS unit shall be maintained in good working order by the Contractor in accordance with the provisions of CMS 614.07. The Contractor shall, prior to activating the unit, make arrangements, with an authorized service agent for the PCMS, to assure prompt service in the event of failure. Any failure shall not result in the sign being out of service for more than 12 hours, including weekends. Failure to comply may result in an order to stop work and open all traffic lanes and/or in the Department taking appropriate action to safely control traffic. The entire cost to control traffic, accrued by the Department due to the Contractor's noncompliance, will be deducted from moneys due, or to become due the Contractor on his contract.

The Contractor shall be responsible for 24-hour-per-day operation and maintenance of these signs on the project for the duration of the phases when the plan requires their use.

Payment for the above described item shall be at the contract unit price. Payment shall include all labor, materials, equipment, fuels, lubricating oils, software, hardware and incidentals to perform the above described work.

The estimated quantity provides for ten PCMS units at 3 months each.

Item 614 – Portable Changeable Message Sign,
As Per Plan **30 SNMT**

DESIGN AGENCY



DESIGNER

JDA

REVIEWER

DAB 01/18/24

PROJECT ID

85532

SHEET TOTAL

P.13 34

Item 614 – Law Enforcement Officer with Patrol Car for Assistance

Use of Law Enforcement Officers (LEOs) by contractors other than the uses specified below will not be permitted at project cost. LEOs should not be used where the OMUTCD intends that flaggers be used.

In addition to the requirements of CMS 614 and the latest edition of the OMUTCD, a uniformed LEO with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) shall be provided for the following traffic control tasks:

- During the entire advance preparation and closure sequence where complete blockage of traffic is required.
- During a traffic signal installation when impacting the normal function of the signal or the flow of traffic or when traffic needs to be directed through an energized traffic signal contrary to the signal display (e.g., directing motorists through a red light).

In addition to the requirement of CMS 614 and the OMUTCD, a uniformed LEO with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) may be provided for the following traffic control tasks as approved by the Engineer:

- For lane closures: during initial set-up periods, tear down periods, substantial shifts of a closure point or when new lane closure arrangements are initiated for long-term lane closures/shifts (for the first and last day of major changes in traffic control setup).
- For operations without positive protection occurring within 10 feet of an open traveled lane that meet all of the following criteria:
 - On a multi-lane divided interstate, other freeway or expressway; and
 - An authorized speed limit of 45 mph or greater that is in effect at the time of the operation; and,
 - An authorized speed limit of 45 mph or greater that is in effect at the time of the operation; and,

“Without positive protection” means use of drums, cones, shadow vehicle, etc, without protection from portable barrier or other rigid barrier along the work area. This phrase does not apply to cases where positive protection is required. Mobile operations are regarded as “without positive protection”. For work zones using a combination of barrier and temporary traffic control devices (cones, drums, etc), the designation shall be based upon the type of devices used in the area that workers are located.

If multiple active localized qualifying work areas occur without positive protection, per mainline traffic direction, provide a uniformed LEO and official patrol car in advance of:

- The first active work area that drivers will encounter; or
- The active work area laterally closest to the open traveled lane; or
- Other location as approved by the Engineer.

The uniformed LEO and official patrol car may relocate among the listed locations as appropriate as the operations proceed in the localized qualifying work areas.

In general, LEOs should be positioned in advance of and on the same side as the lane restriction (or at the point of road closure), and to manually control traffic movements through signalized intersections in work zones.

LEOs should not forgo their traffic control responsibilities to apprehend motorists for routine traffic violations. However, if a motorist’s actions are considered to be reckless, then pursuit of the motorist is appropriate.

The LEOs work at the direction of the Contractor. The Contractor is responsible for securing the services of the LEOs with the appropriate agencies and communicating the intentions of the plans with respect to duties of the LEOs. The Engineer shall have final control over the LEOs’ duties and placement, and will

resolve any issues that may arise between the two parties.

Ensure provided LEOs have been trained appropriate to the job decisions they are required to make while on the project, in accordance with C&MS 614.03.

The LEO shall report in to the Contractor prior to the start of the shift, in order to receive instructions regarding specific work assignments during his/her shift. The LEO is expected to stay at the project site for the entire duration of his/her shift. The LEO shall report to the Contractor at the end of his/her shift. Should it be necessary to leave the project site, the LEO shall notify the Engineer. The Contractor shall provide the LEO with a two-way communication device that shall be returned to the Contractor at the end of his/her shift.

LEOs (with patrol car) required by the traffic maintenance tasks above shall be paid for on a unit price (hourly) basis under Item 614, Law Enforcement Officer (With Patrol Car) for Assistance. The following estimated quantities have been carried to the General Summary.

Item 614 – Law Enforcement Officer
With Patrol Car for Assistance **150 Hours**

The hours paid shall include any minimum show-up time required by the law enforcement agency involved.

Any additional costs (administrative or otherwise) incurred by the Contractor to obtain the services of an LEO are included with the bid price for Item 614, Law Enforcement Officer with Patrol Car for Assistance.

Item 630 – Signing Misc.: Additional Signs, Ground Mounted, As Directed by the Engineer

When additional signing is needed to maintain traffic, the Contractor shall furnish the sign or signs as directed by the Engineer. These signs shall be ground mounted and meet all the specifications of the plan, proposal and current year CMS.

Payment for this item shall include, but not be limited to, the cost to furnish and erect the sign, including driving posts or other approved methods of sign support, maintaining the sign and removal of the sign.

This item of work shall be used to provide signs that are beyond the requirements of the signage detailed in the Standard Construction Drawings and the OMUTCD.

The following estimated quantity has been carried to the General Summary to be used as directed by the Engineer:

Item 630 – Signing Misc.: Additional Signs, Ground Mounted,
As Directed by the Engineer **300 Sq Ft**

Covering of Ground-Mounted Signs--General

When required by other items or incidentally to Item 614 – Maintaining Traffic, cover existing ground-mounted signs with plywood or OSB blanks (1/2” minimum thickness) covering 80% of the sign area and all of the sign legend. The use of low quality materials such as duct tape and black plastic is not permitted.

Item 614 Maintaining Traffic – Work Zone Speed Zone Signs for Freeway Resurfacings

The following Work Zone Speed Zone (WZSZ) Speed Limit Revision(s) have been approved for use on this project when work zone conditions and factors are met as described below:

WZSZ Revision Number	County & Route	Direction
WZ-65269	Lake SR-44	NB & SB

Potential WZSZ locations shall have an original (pre-construction) posted speed limit of ≥55 mph, a qualifying work zone condition of at least 0.5 mile in length, an expected work duration of at least three hours, and a work zone condition in place that reduces the existing functionality of the travel lanes or shoulders (i.e., lane closure, lane shift, crossover, contraflow and/or shoulder closure). The length of the work zone condition is measured from the beginning of the taper for the subject work zone condition impacting the travel lanes and/or shoulder to the end of the downstream taper, where drivers are returned to typical alignment. An expected work duration of at least three hours is required to balance the additional exposure created by installing and removing WZSZ signing with the time needed to complete the work.

If the work zone meets these minimum criteria, it shall be analyzed further using Table 1 below to determine if and when it qualifies for a speed limit reduction. Depending on the original posted speed limit, the type of temporary traffic control used, and whether or not workers are present, a warranted WZSZ will vary in the approved speed limit to be posted over time.

C&MS Item 614, Paragraph 614.02(B), indicates that two directions of a divided highway are considered separate highway sections. Therefore, if the work on a multi-lane divided highway is limited to only one direction, a speed limit reduction in the direction of the work does not automatically constitute a speed limit reduction in the opposite direction. Each direction shall be analyzed independently from each other.

All WZSZs fluctuate between two approved reduced speed limits or between an approved reduced speed limit and the original posted speed limit. Only one of two signing strategies shall be used to implement a WZSZ.

WZSZs using DSL Sign Assemblies shall be in accordance with this note, Approved List, Supplemental Specification (SS) 808 and 908, and Traffic SCD MT-104.10.

When looking up the warranted work zone speed limits, always use the original, preconstruction, posted speed limit. Do not use a prior or current work zone speed limit as a look up value in the table. Positive Protection is generally regarded as portable barrier or other rigid barrier in use along the work area within the subject warranted work zone condition. Without Positive Protection is generally regarded as using drums, cones, shadow vehicle, etc., along the work area within the subject warranted work zone condition. Workers are considered as being present when on-site, working within the subject warranted work zone condition. When the work zone condition reducing the existing functionality of the travel lanes or shoulders is removed, the speed limit displayed shall return to the original posted speed limit.

Table 1: Warranted Work Zone Speed Limits (MPH) for Work Zones on High-Speed (≥55 mph) Multi-Lane Highways

Original Posted Speed Limit	WITH Positive Protection		WITHOUT Positive Protection	
	Workers Present	Workers NOT Present	Workers Present	Workers NOT Present
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

The following estimated quantity has been carried to the General Summary.

Item 614 – Digital Speed Limit (DSL) Sign Assembly **18 SNMT**
Assuming 6 DSL Sign Assemblies for 3 Months

DESIGN AGENCY



DESIGNER
JDA

REVIEWER
DAB 01/18/24

PROJECT ID
85532

SHEET TOTAL
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Item 614 – Work Zone Increased Penalties Sign

R11-H5A-48 signs shall be furnished, erected, and maintained in good condition and/or replaced as necessary and subsequently removed by the Contractor. Signs shall be mounted at the appropriate offsets and elevations as prescribed by the Ohio Manual of Uniform Traffic Control Devices. They shall be maintained on supports meeting current safety criteria.

The signs may be erected or uncovered no more than four hours before the actual start of work. The signs shall be removed or covered no later than four hours following restoration of all lanes to traffic with no restricts, or sooner as directed by the Engineer. Temporary sign covering and uncovering due to temporary lane restorations shall be guided by the four hour limitations stated above. Such lane restorations should be expected to remain in effect for 30 or more consecutive calendar days, such as during winter shut-downs.

The R11-H5a-48 signs shall be mounted on 2 No. 3 posts when located within clear zones.

The Contractor may use signs and supports in used, but good, condition provided the signs meet current ODOT specifications. Sign faces shall be retroreflectorized with Type G sheeting complying with the requirements of C&MS 730.19.

Work Zone Increased Penalties signs and supports will be measured as the number of sign installations, including the sign and necessary supports. If a sign and support combination is removed and re-erected at another location as directed by the Engineer, it shall be considered another unit.

Payment for accepted quantities, complete, in place will be made at the contract unit price. Payment shall be full compensation for all materials, labor, incidentals and equipment for furnishing, erecting, maintaining, covering during suspension of work, and removal of the sign and support.

Item 614 - Work Zone Increased Penalties Sign **6 Each**

Item 614 - Worksite Traffic Supervisor

Subject to approval of the Engineer, the Contractor shall employ and identify (someone other than the superintendent) a certified Worksite Traffic Supervisor (WTS) before starting work in the field. The WTS shall be trained in accordance with CMS 614.03, shall have successfully completed ODOT administered WTS testing (and re-testing when applicable) and be listed on the ODOT prequalified WTS roster. Prequalification expires every 5 years. Re-testing shall be successfully repeated every 5 years to remain prequalified.

The name of the prequalified WTS and related 24-hour contact information shall be provided to the Engineer at the preconstruction conference. If the designated WTS will not be available full time (24/7), the Contractor may designate an alternate (secondary) WTS to be available when the primary is off duty; however the primary WTS shall remain the point of contact at all times. Any alternate (secondary) WTS is subject to the same training, prequalification and other requirements outlined within this plan note. At all times the Engineer, or Engineer's representatives, must be informed of who the primary WTS (and secondary WTS, if applicable) is at the current time.

The WTS position has the responsibility of implementing the Traffic Management Plan (TMP), monitoring the safety and mobility of the entire work zone, and correcting Temporary Traffic Control (TTC) deficiencies for the entire work zone. The WTS, and alternate WTS when on duty, shall have sufficient authority to effectively carry out the identified WTS responsibilities and duties. The duties of the WTS are as follows:

1. Be available on a 24-hour per day basis.
2. Be on site for all emergency TTC needs within one hour of notification by police or project staff, and effect corrective measures immediately on existing work zone TTC devices.
3. Attend preconstruction meeting and all project meetings where TTC management is discussed.
4. Be available on site for meetings or discussions with the Engineer upon request.
5. Be aware of all existing and proposed TTC operations of the contractor, subcontractors and suppliers, and ensure coordination occurs between them to eliminate conflicting temporary and/or permanent traffic control.
6. Coordinate project activities with all Law Enforcement Officers (LEOs). The WTS shall also be the main contact person with the LEOs while LEOs are on the project.
7. Coordinate and facilitate meetings with ODOT personnel, LEOs and other applicable entities before each plan phase switch to discuss work zone TTC for implementing the phase switch. Submit a written detail of MOT operations and schedule of events to implement the switch between phase plans to the Engineer 5 calendar days prior to this meeting.
8. Be present, on site for, and involved with, each TTC set up/take down and each phase change in accordance with CMS 614.03.
9. On a continual basis ensure that the TTC zone and all related devices are installed, maintained, and removed in compliance with the contract documents.
10. On a continual basis, facilitate corrective action(s) necessary to bring deficient TTC zones and all related devices into compliance with contract documents in the timeframe determined by the Engineer.

11. Inspect, evaluate, propose necessary modifications to, and document the effectiveness of, the TTC devices and traffic operations on a DAILY BASIS (7 days a week). In addition, perform one weekly night inspection of the work zone setup for daytime work operations; and one daytime inspection per week for nighttime projects. This shall include (but not be limited to) documentation on the following project events:

- a. Initial TTC setup (day and night review).
- b. Daily TTC setup and removal.
- c. When construction staging causes a change in the TTC setup.
- d. Crash occurrences within the construction area and within the influence area(s) approaching the work zone.
- e. Removal of TTC devices at the end of a phase or project.
- f. All other emergency TTC needs.

12. Complete the Department approved Long Term Inspection form (CA-D-8) after each inspection as required in #11 and submit it to the Engineer the following work day. These reports shall include a checklist of all TTC maintenance items to be reviewed. A copy of the form will be provided at the pre-construction meeting. Any deficiencies observed shall be noted, along with recommended or completed corrective actions and the dates by which such corrections were, or will be, completed. A copy of the current CA-D-8 document can be found on the Office of Construction Administration's Inspection Forms website

13. Have copies of the ODOT Temporary Traffic Control Manual and contract documents available at all times on the project.

14. The Department will deduct:
- A. The prorated daily amount of Item 614 Maintaining Traffic for any day in which the WTS fails to perform the duties set forth above. The prorated daily amount will be equal to the original bid amount for Item 614 Maintaining Traffic divided by the difference between the original completion date and the first day of work, in calendar days.
 - B. 1% of the original bid amount for Item 614 Maintaining Traffic for any day that a TTC issue is identified in the field and is not corrected in the given timeframe per the Engineer. Deduction B shall not apply to situations covered by Deduction C.
 - C. 1% of the original bid amount for Item 614 Maintaining Traffic for any day that a lane or ramp is blocked (fully or partially) without TTC, as determined by the Engineer. This deduction shall be in addition to any other disincentives established for unauthorized lane use.

For days in which more than one deduction listed above occur, the highest deduction amount will apply.

If three or more total days result in TTC issues described in Deduction B or C above, the primary WTS shall be immediately removed from the work in accordance with CMS 108.05. Upon removal the Engineer shall notify ODOT Central Office (WTSPrequalification@dot.ohio.gov) to register a removal against the statewide prequalification for the primary WTS. Three removals shall cause statewide disqualification for any previously prequalified WTS.

Payment for the above requirements, responsibilities, and duties shall be included in the lump sum price bid for Item 614, Maintaining Traffic.

DESIGN AGENCY




DESIGNER
JDA

REVIEWER
DAB 01/18/24

PROJECT ID
85532

SHEET	TOTAL
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SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
8-10	11-15	18	19	20	21						01/NHS/05	EXT	TOTAL				
ROADWAY																	
25											25	203	10000	25	CY	EXCAVATION	9
548											548	209	60201	548	STA	LINEAR GRADING, AS PER PLAN	
EROSION CONTROL																	
											1,000	832	30000	1,000	EACH	EROSION CONTROL	
PAVEMENT																	
4,952											4,952	252	01500	4,952	FT	FULL DEPTH PAVEMENT SAWING	10
				2,757							2,757	254	01001	2,757	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.5"	
		148,919	10,974								159,893	254	01001	159,893	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.75"	
276											276	255	10161	276	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN A	10
14											14	255	10161	14	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC MS, AS PER PLAN B	10
25											25	304	20000	25	CY	AGGREGATE BASE	10
		12,660	932	235							13,827	407	20000	13,827	GAL	NON-TRACKING TACK COAT	
				118							118	441	70101	118	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), AS PER PLAN, PG70-22M	
		4,617	365	116							5,098	442	00100	5,098	CY	ANTI-SEGREGATION EQUIPMENT	
		304	464								768	442	10001	768	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	
		5,932									5,932	442	10301	5,932	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG76-22M	
171											171	617	10101	171	CY	COMPACTED AGGREGATE, AS PER PLAN	10
10.38											10.38	618	40601	10.38	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	10
					13.03						20.52	850	10010	20.52	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					1,199						1,199	850	10110	1,199	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
					2,293						3,908	850	10130	3,908	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
					0.46						0.46	850	20010	0.46	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
		2,181	2,926	417							5,524	872	10000	5,524	FT	VOID REDUCING ASPHALT MEMBRANE (VRAM)	
TRAFFIC CONTROL																	
396					322						528	621	00100	528	EACH	RPM	10
											396	621	54000	396	EACH	RAISED PAVEMENT MARKER REMOVED	
											514	646	10300	514	FT	CHANNELIZING LINE, 8"	
					50						342	646	10400	342	FT	STOP LINE	
											324	646	10510	324	FT	CROSSWALK LINE, 12"	
					134						195	646	10620	195	FT	CHEVRON MARKING	
					9						40	646	20300	40	EACH	LANE ARROW	
					2						6	646	20320	6	EACH	WRONG WAY ARROW	
					9.68						15.39	807	12010	15.39	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6"	
					3.82						6.11	807	12110	6.11	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	
					2,293						3,908	807	12310	3,908	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	
					1,199						1,199	807	12410	1,199	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	

DESIGN AGENCY

 DESIGNER
JDA
 REVIEWER
DAB 01/18/24
 PROJECT ID
85532
 SHEET TOTAL
 P.16 | 34


LAK-44-04.14

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STATION TO STATION	LENGTH	BEGIN WIDTH	ENDING WIDTH	AVERAGE WIDTH	AREA	254	407	442	442	442	872
						PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.75"	NON-TRACKING TACK COAT	ANTI-SEGREGATION EQUIPMENT	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG76-22M	VOID REDUCING ASPHALT MEMBRANE (VRAM)
	FT.	FT.	FT.	FT.	SY	SY	GAL	CY	CY	CY	FT
Ramp A											
8+54.45	9+76.11	121.66	27.5	26.3	26.885	363	31	15	16		122
9+76.11	11+40.65	164.54	26.3	54.5	40.385	738	63	31	31		165
11+40.65	12+88.19	147.54	27.5	27.5	27.5	451	38	19	19		148
12+88.19	13+73.75	85.56	27.5	98.0	62.75	597	51	25	25		86
Ramp A Spur											
11+40.65	12+28.95	88.3	22.0	22.0	22	216	18	9	9		89
Ramp B											
4+21.00	10+67.35	646.35	26	26	26	1867	159	78	78		647
10+67.35	11+74.23	106.88	26	30	28	333	28	14	14		107
Ramp C											
9+98.41	17+49.70	751.29	25	25	25	2087	177	87	87		752
17+49.70	17+97.13	47.43	25	61	43	227	19	9	10		48
Ramp D											
7+79.68	8+84.83	105.15		CADD AREA		529	45	29	23		106
8+84.83	13+05.08	420.25	25.0	25.0	25	1167	99	49	49		421
Intersection Detail Area											
Blackbrook Rd, 56+58.92, RT		104.00		CADD AREA		1109	94		47		104
Highland Way, 56+58.92 LT		56.00		CADD AREA		584	50		25		56
Median U-Turn											
240+57.90	240+87.39	29.49		CADD AREA		174	15		8		25
299+11.58	299+41.48	29.9		CADD AREA		532	45		23		50
TOTALS, LEFT COLUMN						10,974	932	365	464		2,926

STATION TO STATION	LENGTH	BEGIN WIDTH	ENDING WIDTH	AVERAGE WIDTH	AREA	254	407	442	442	442	872
						PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.75"	NON-TRACKING TACK COAT	ANTI-SEGREGATION EQUIPMENT	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN, PG76-22M	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN, PG76-22M	VOID REDUCING ASPHALT MEMBRANE (VRAM)
	FT.	FT.	FT.	FT.	SQ. YD.	SY	GAL	CY	CY	CY	FT
TOTALS, RIGHT COLUMN											
						10,974	932	365	464		2,926
TOTALS CARRIED TO GENERAL SUMMARY						10,974	932	365	464		2,926

Pavement Subsummary

DESIGN AGENCY

 DESIGNER: JDA
 REVIEWER: DAB 01/18/24
 PROJECT ID: 85532
 SHEET: P.19 TOTAL: 34

PLAN SPLIT NO.	STATION TO STATION	LENGTH	BEGIN WIDTH	ENDING WIDTH	AVERAGE WIDTH	AREA	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.5"	407 NON-TRACKING TACK COAT	442 ANTI-SEGREGATION EQUIPMENT	823 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	872 VOID REDUCING ASPHALT MEMBRANE (VRAIM)
		FT.	FT.	FT.	FT.	SY	SY	GAL	CY	CY	FT
	SR-84 (Johnnycake Ridge Rd)										
1	464+88.69 465+78.64	89.95	68.0	62.8	65.375	653	653	56	27	28	90
1	465+78.64 465+98.26	19.62	62.8	60.0	61.375	134	134	11	6	6	20
1	465+98.26 466+73.00	74.74	57.0	57.0	57	473	473	40	20	20	75
	Bridge NO. LAK-84-1613										
1	469+15.00 470+12.00	97	57.0	57.0	57	614	614	52	26	26	97
1	470+12.00 470+80.00	68	60.0	60.0	60	453	453	39	19	19	68
1	470+80.00 471+35.00	55	57.0	57.0	57	348	348	30	15	15	55
1	471+35.00 471+47.00	12	60.0	62.5	61.25	82	82	7	3	4	12
TOTALS, LEFT COLUMN							2,757	235	116	118	417


PLAN SPLIT NO.	STATION TO STATION	LENGTH	BEGIN WIDTH	ENDING WIDTH	AVERAGE WIDTH	AREA					
		FT.	FT.	FT.	FT.	SQ. YD.					
TOTALS, RIGHT COLUMN											
TOTALS, LEFT COLUMN							2,757	235	116	118	417
TOTALS CARRIED TO GENERAL SUMMARY							2,757	235	116	118	417

Pavement Subsummary

DESIGN AGENCY	
DESIGNER	JDA
REVIEWER	DAB 01/18/24
PROJECT ID	85532
SHEET	P.20
TOTAL	34


SHEET NO.	PLAN SPLIT NO.	STATION TO STATION	LENGTH	807	807	807	807	807	646		646	646	646	646	850	850	850	850		621	621
				WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6", WHITE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6", YELLOW	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	CHEVRON MARKING	STOP LINE	LANE ARROW	CROSSWALK LINE, 12"	WRONG WAY ARROW	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)		RPM (WHITE)	RPM (WHITE/RED)	
				FT	FT	FT	FT	FT	FT	FT	EACH	FT	EACH	FT	MILE	FT	MILE		EACH	EACH	
SR-44 NB																					
22	1	233+59.00	237+98.08	439.08	439	439	440								440	1318				6	
22,23	1	237+98.08	294+21.85	5623.77	5624	5624	5624									16872				71	
23,24	1	294+21.85	297+00.00	278.15	556	556	279									1391				4	
24	1	297+00.00	299+12.18	212.18	212	212	213	425								637	425			3	11
24	1	299+12.18	301+22.02	210	210	210	420									840				6	
24,25	1	301+22.02	308+02.62	681	681	681	681								681	2043				9	
25	1	308+02.62	309+93.19	190.57	191	191	191									573				3	
25	1	309+93.19	312+45.00	251.81	252	252	252										756			4	
25	1	0+00.00	14+28.07	1428.07	1428	1,428	1,429									4285				18	
25	1	14+28.07	20+38.79	610.72	611	611		611								1222	611				16
25,28	1	20+38.79	21+88.53	149.74	150	150		300	80							300	300				8
SR-44 SB																					
22	1	233+61.01	234+38.91	77.9	78	78	78								78	234				1	
22,23	1	234+38.91	294+78.47	6039.56	6040	6,040	6,040									18120				76	
23,24	1	294+78.47	296+81.90	203.43	203	203	204	407	54							610	407			3	11
24	1	296+81.90	298+99.36	217	217	217	435									869				6	
24	1	298+99.36	309+95.12	1,096	1,096	1,096	1,096									3288				14	
25	1	309+95.12	312+56.25	261	261	261	262										784			4	
25	1	0+00.00	21+27.64	2,128	2,128	2,128	2,128									6384				27	
27	1	21+27.64	22+34.45	107	107	107		214								214	214				6
27	1	22+34.45	22+72.41	38	76	76										152					
Ramp 1																					
24	1	2+76.98	12+53.66	977	977	977										1954					
Ramp 2																					
24	1	4+19.86	10+22.47	603	603	603										1206					
24	1	10+22.47	12+39.91	217	217	217	218									652				3	
24	1	12+39.91	13+37.75	98	98	98	196									392				3	
24	1	13+37.75	15+05.41	168	168	168		336	50	9		2			336	336					9
Ramp H																					
27	1	2+98.97	14+76.51	1,178	1,178	1,178										2356					
Ramp E																					
27	1	21+88.96	28+45.88	657	657	657										1314					
27	1	28+45.88	32+91.18	445	445	445											890				
27	1	32+91.18	39+19.52	628	628	628										1256					
SUBTOTALS				25531	25531	20186	2293	1199	134		50	9		2	1199	68818	2293	2430		261	61
TOTALS CARRIED TO GENERAL SUMMARY				9.68 MI		3.82 MI	2293	1199	134		50	9		2	1199	13.03 MI	2293	0.46 MI		322	

Pavement Marking Subsummary

DESIGN AGENCY

 DESIGNER: JDA
 REVIEWER: DAB 01/18/24
 PROJECT ID: 85532
 SHEET TOTAL: P.21 | 34

SHEET NO.	PLAN SPLIT NO.	STATION TO STATION		LENGTH	807	807	807	807	807	646		646	646	646	646	850	850	850	850		621	621
					WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6", WHITE	WET REFLECTIVE EPOXY PAVEMENT MARKING, EDGE LINE, 6", YELLOW	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"	WET REFLECTIVE EPOXY PAVEMENT MARKING, DOTTED LINE, 6"	CHEVRON MARKING	STOP LINE	LANE ARROW	CROSSWALK LINE, 12"	WRONG WAY ARROW	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	RPM (WHITE)	RPM (WHITE/RED)		
				FT	FT	FT	FT	FT	FT	FT	EACH	FT	EACH	FT	MILE	FT	MILE	EACH	EACH			
		Ramp G																				
28	1	22+72.58	29+69.73	697	697	697											1394					
		Ramp F																				
28	1	15+55.53	4+10.50	1,145	1,145	1,145											2290					
		SR-44 NB North of SR-2																				
29	1	36+70.79	54+85.71	1,815	1,815	1,815	1,815										5445				23	
29	1	54+85.71	56+07.18	121	121	121	122	243				36	3				364	243			2	7
29,30	1	57+11.95	66+93.90	982	982	982	982										2946				13	
30	1	66+93.90	68+72.95	179	179	179	359										717				5	
30	1	68+72.95	70+02.37	129.42	129	129	130	259									388	259			2	7
30	1	70+02.37	83+01.61	1,299	1,299	1,299	1300		61								3898				17	
		SR-44 SB North of SR-2																				
29	1	36+74.72	40+03.05	328	328	328	329	657				45	3				985	657			5	17
29	1	40+03.05	56+35.59	1,633	1,633	1,633	1633										4899				21	
29	1	57+09.77	58+33.13	123	123	123	124	247				36	3	186			370	247			2	7
29,30	1	58+33.13	63+61.95	529	529	529	529										1587				7	
30	1	63+61.95	65+50.26	188	188	188	377										753				5	
30	1	65+50.26	66+54.68	104	104	104	105	209									313	209			2	6
30	1	66+54.68	68+54.55	200	400	400	200										1000				3	
30	1	68+54.55	81+74.19	1,320	1,320	1,320	1,320										3960				17	
		Ramp A																				
30	1	8+54.09	13+74.30	520	520	520	521										1561				7	
		Ramp A Spur																				
30	1	11+21.76	13+61.52	240	240	240	240										720				3	
		Ramp B																				
30	1	3+70.62	11+73.41	803	803	803	803					20					2409				11	
		Ramp C																				
30	1	9+98.41	18+01.40	803	803	803	803					20					2409				11	
		Ramp D																				
30	1	7+78.44	8+32.46	54	108	108											216					
30	1	8+32.46	13+05.08	473	473	473											946					
SUBTOTALS					13939	13939	11692	1615		61		157	9	324	4		39570	1615			156	44
TOTALS CARRIED TO GENERAL SUMMARY					5.28 MI		2.21 MI	1615		61		157	9	324	4		7.49 MI	1615			200	

Pavement Marking Subsummary


DESIGN AGENCY

 DESIGNER
 JDA
 REVIEWER
 DAB 01/18/24
 PROJECT ID
 85532
 SHEET TOTAL
 P.22 34

LAK-44-04.14

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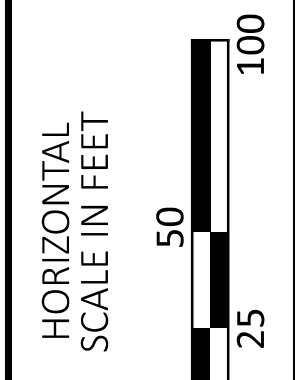
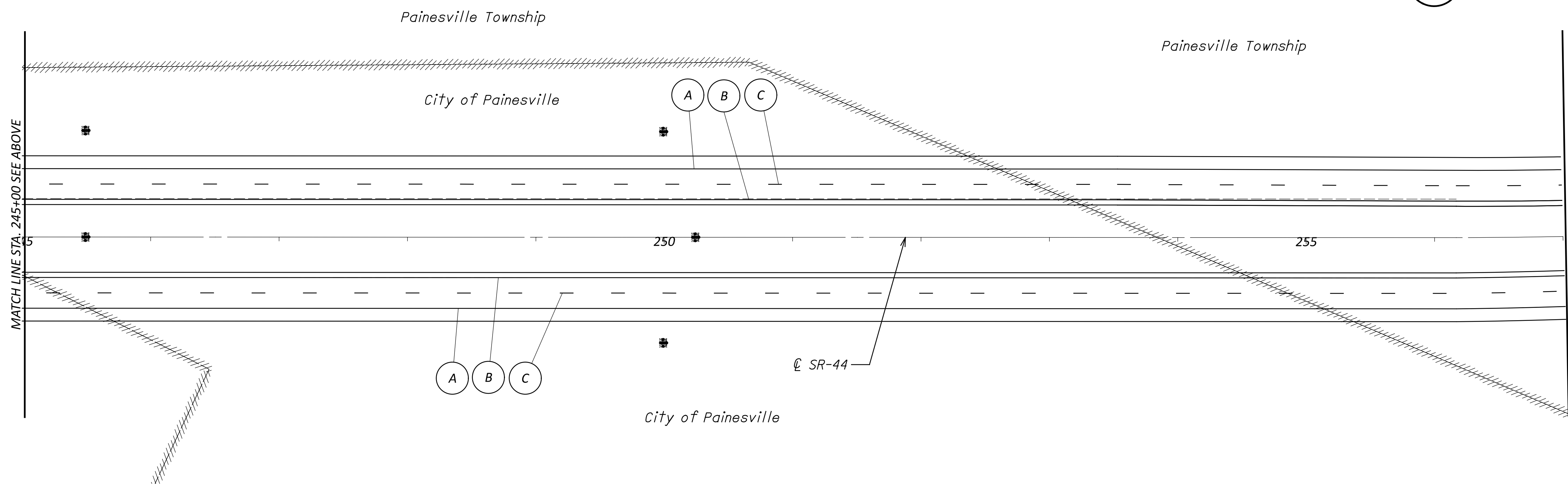
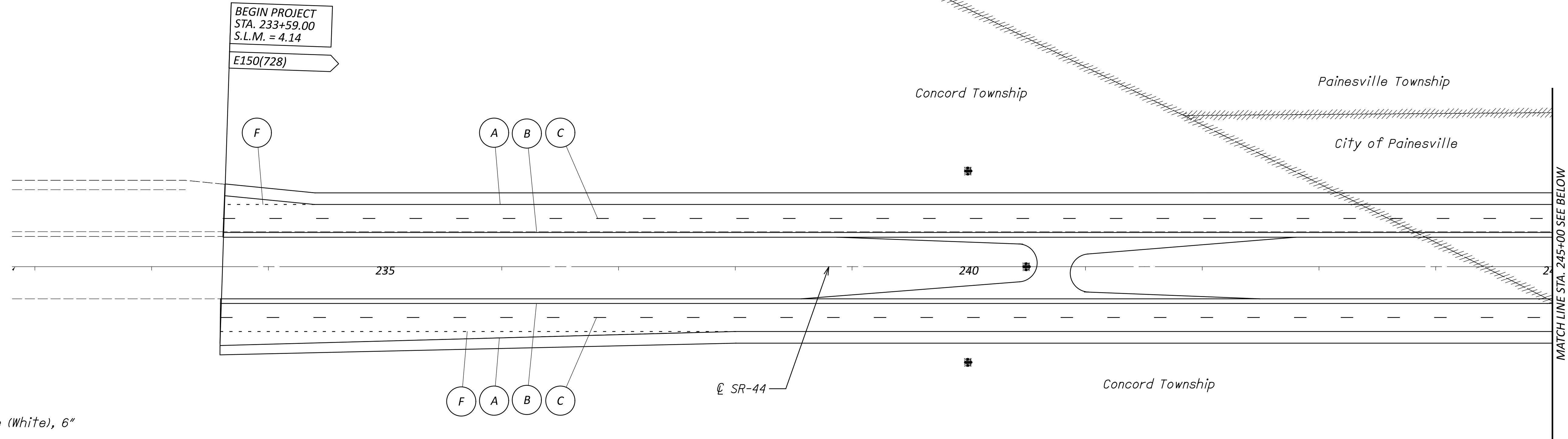
SHEET NO.	PLAN SPLIT NO.	STATION TO STATION		LENGTH		807		807		807		807		807		646		646		646		646		646		850		850		850		850		621		621		
				FT	MILE	MILE	MILE	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT
		SR-84 (Johnnycake Ridge Rd)																																				
	1	464+88.69	465+25.88	37	37	37																																
	1	465+65.95	465+88.39	22	22	22																																
	1	465+88.39	467+61.88	173	347	347	174																															
	1	467+61.88	467+85.97	24	48	48																																
	1	467+85.97	470+10.26	224	449	449	225																															
	1	470+10.26	470+39.64	29	59																																	
	1	470+68.74	471+48.20	79	159	159																																
SUBTOTALS					1121	1062	399																															
TOTALS CARRIED TO GENERAL SUMMARY					0.41 MI		0.08 MI																															

Pavement Marking Subsummary

DESIGN AGENCY

 DESIGNER
 JDA
 REVIEWER
 DAB 01/18/24
 PROJECT ID
 85532
 SHEET TOTAL
 P.23 34

Legend

- (A) Edge Line (White), 6"
- (B) Edge Line (Yellow), 6"
- (C) Lane Line
- (D) Chevron Line
- (E) Channelizing Line, 12"
- (F) Dotted Line, 6" (3' Dash, 9' Gap)
- (I) Crosswalk
- (J) Stopline
- (K) Wrong Way Arrow
- (L) Lane Reduction Arrow
- (M) Lane Arrow

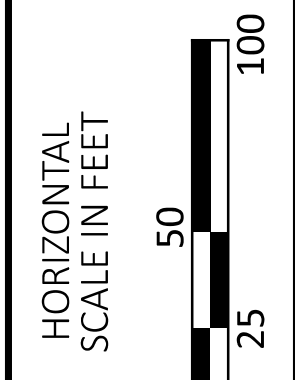
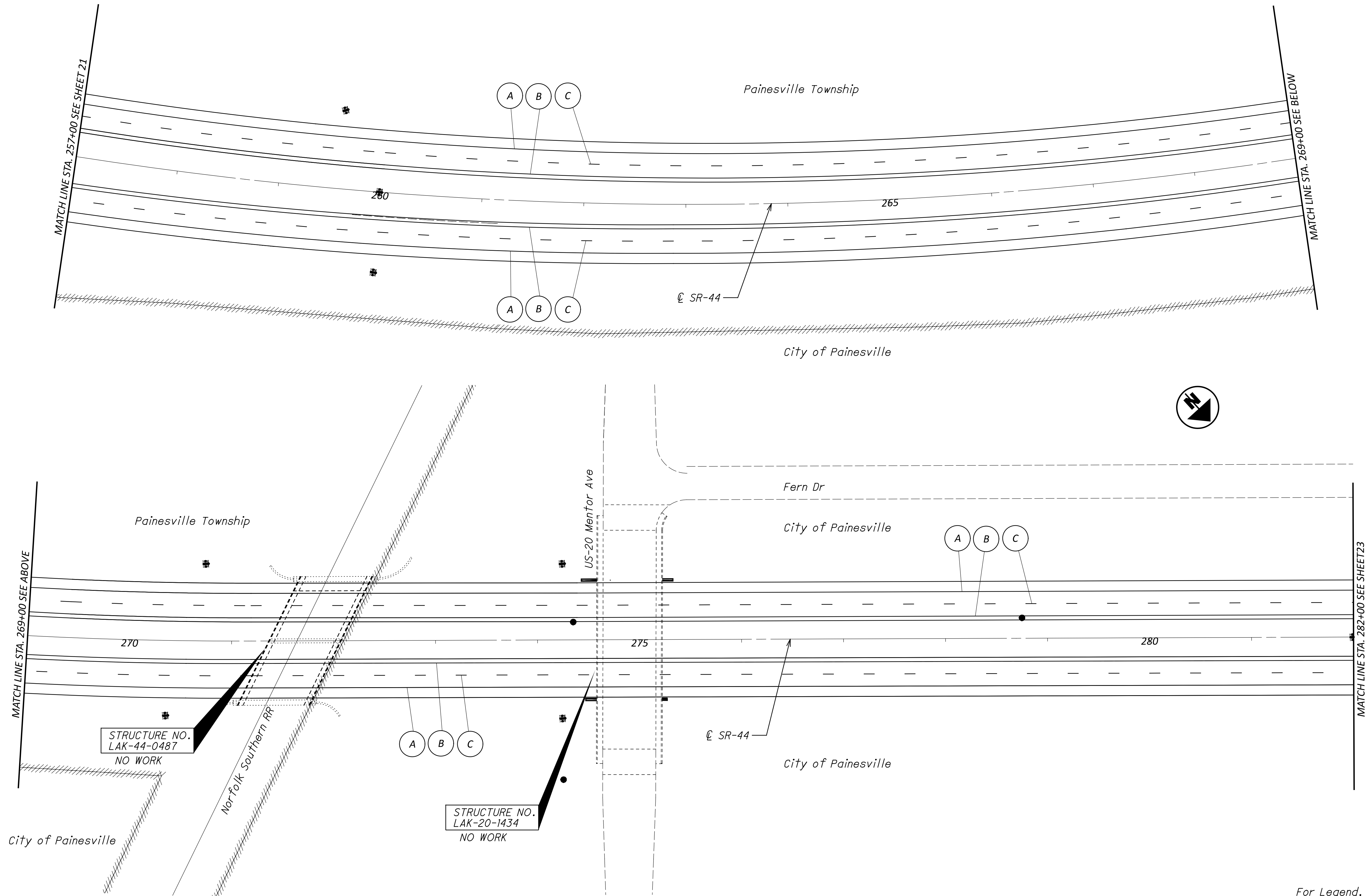


Plan Sheet
 Begin Project to Sta. 257+00.00

DESIGN AGENCY



DESIGNER	JDA
REVIEWER	DAB 01/18/24
PROJECT ID	85532
SHEET	TOTAL
P.24	34



Plan Sheet
Sta 257+00.00 to Sta. 282+00.00

DESIGN AGENCY



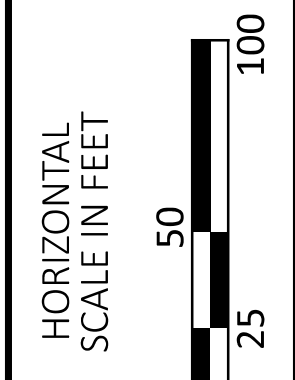
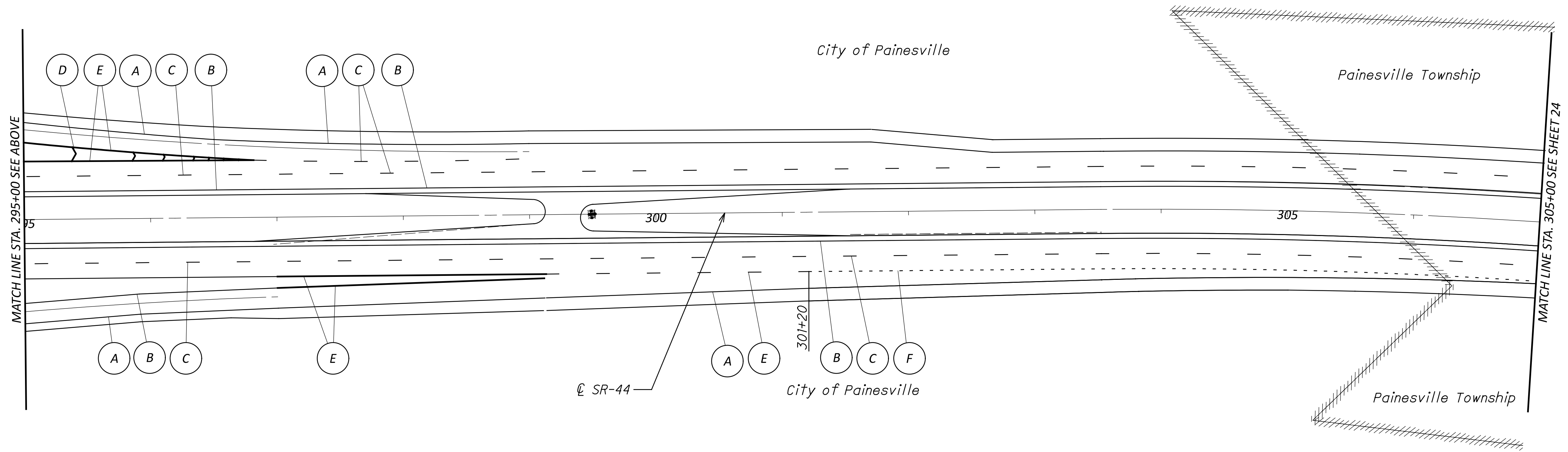
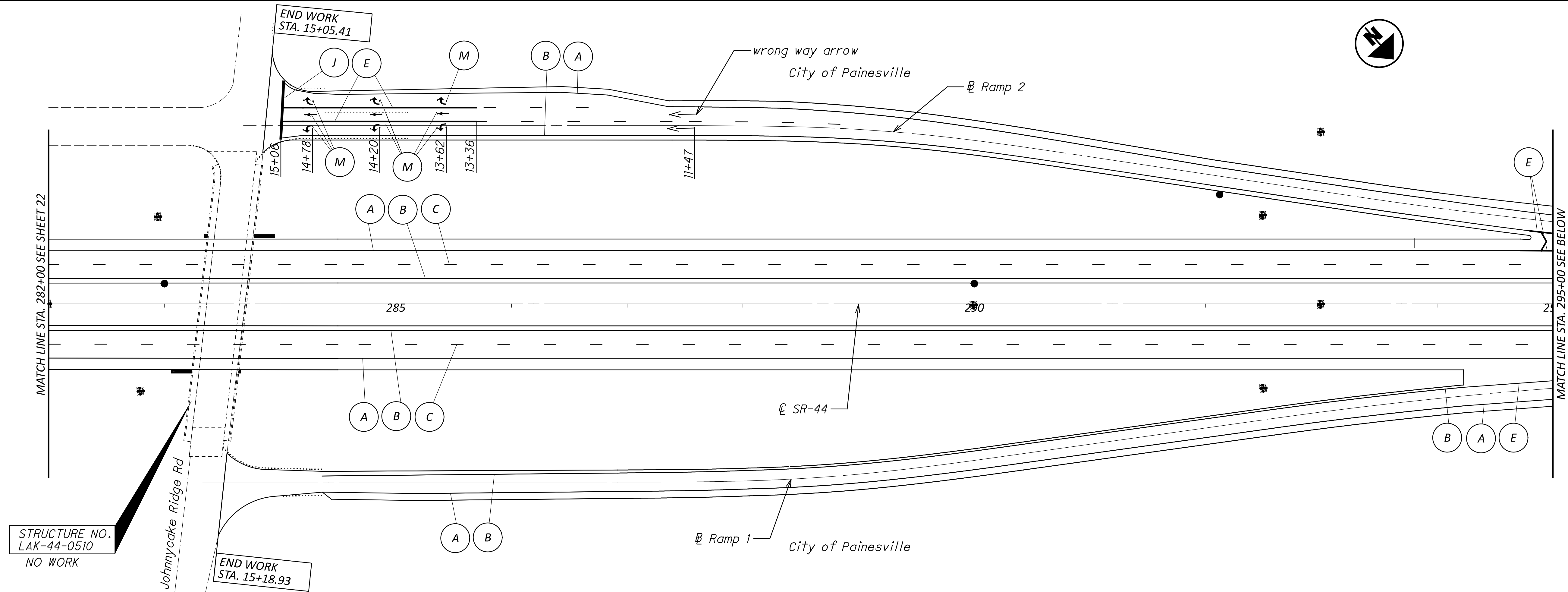
DESIGNER
JDA

REVIEWER
DAB 01/18/24

PROJECT ID
85532

SHEET	TOTAL
P.25	34

For Legend, See Sheet 21



Plan Sheet
Sta. 282+00.00 to 305+00.00

DESIGN AGENCY



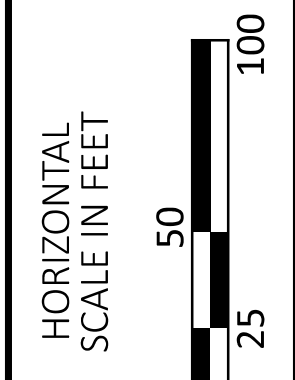
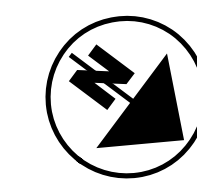
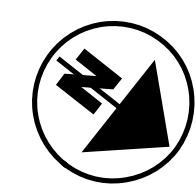
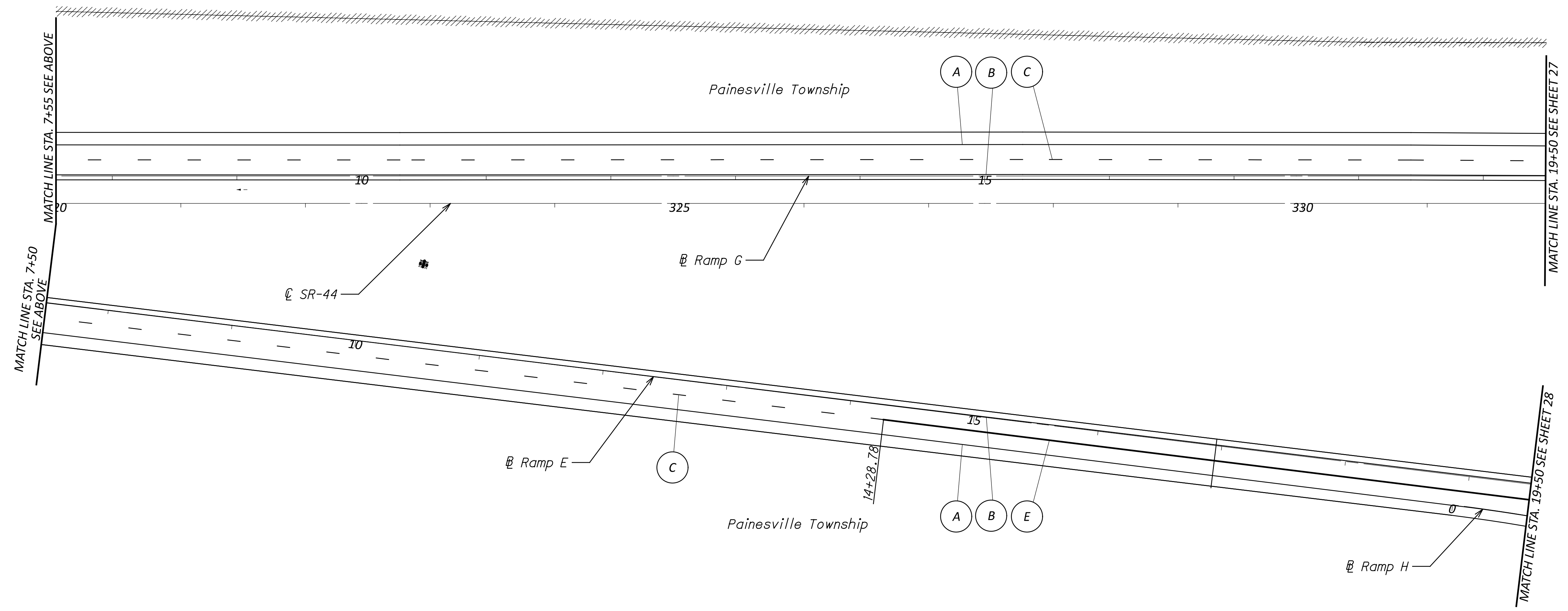
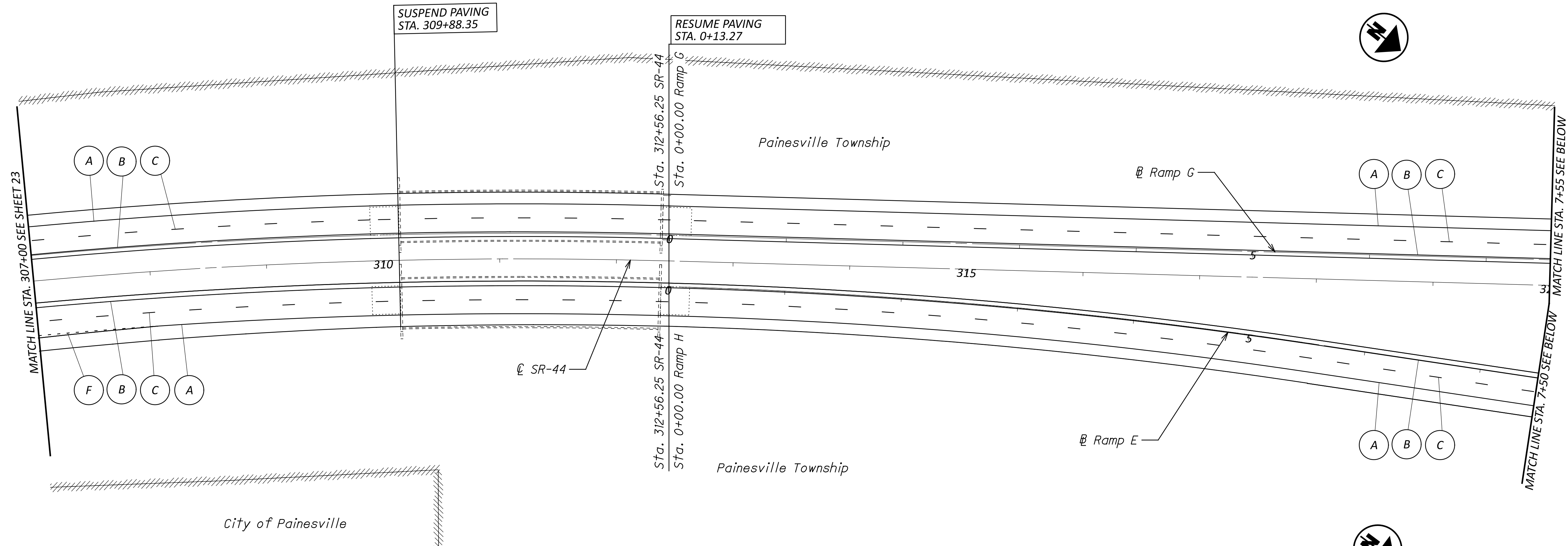
DESIGNER
JDA

REVIEWER
DAB 01/18/24

PROJECT ID
85532

SHEET	TOTAL
P.26	34

For Legend, See Sheet 20



Plan Sheet
 Sta. 305+00.00 to Sta. 19+50.00

DESIGN AGENCY



DESIGNER
 JDA

REVIEWER
 DAB 01/18/24

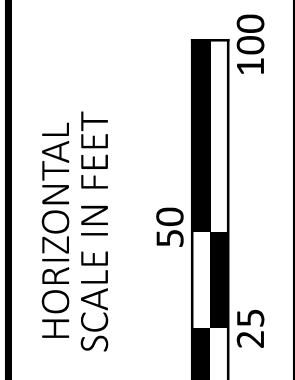
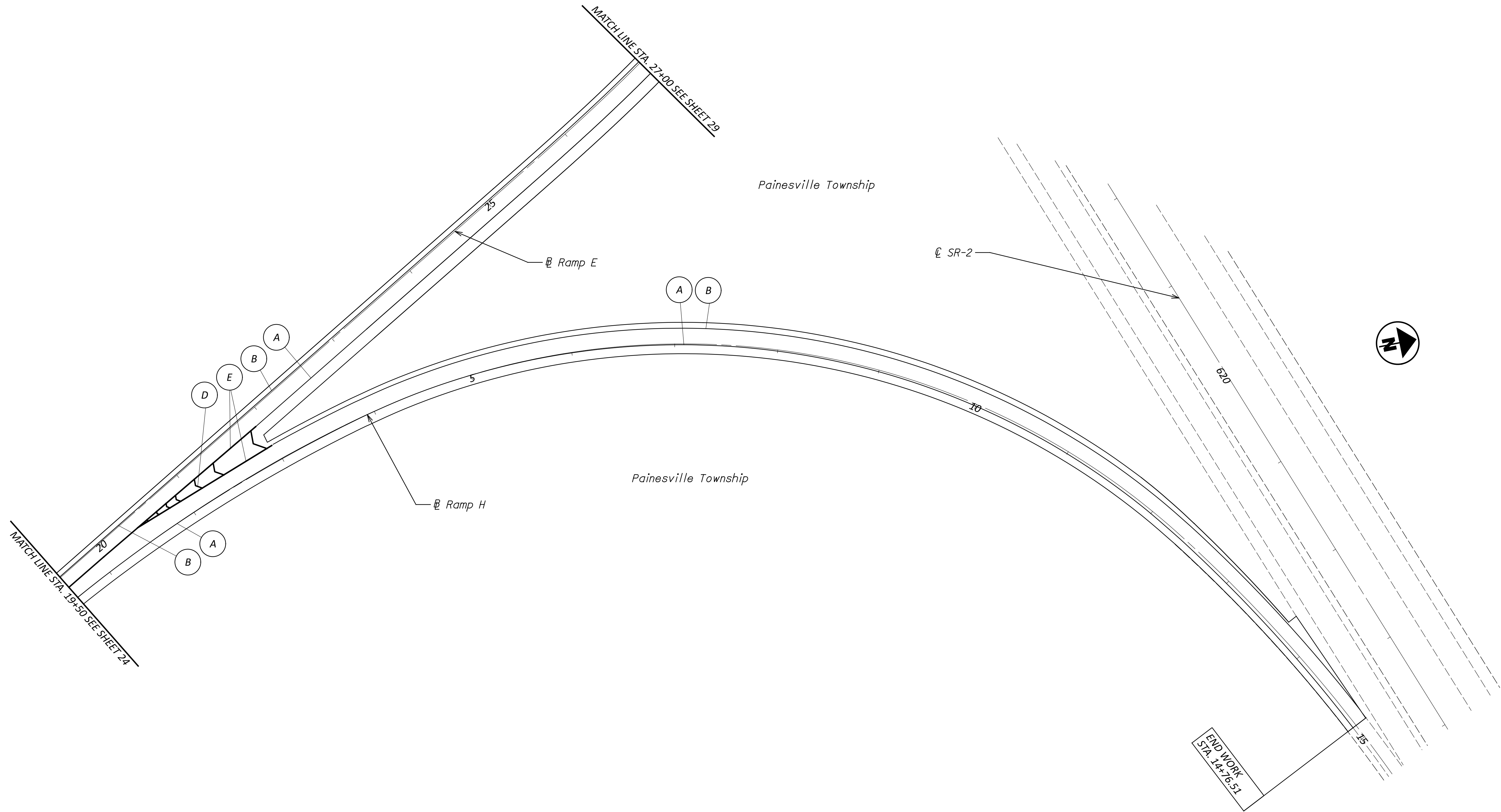
PROJECT ID
 85532

SHEET	TOTAL
P.27	34

For Legend, See Sheet 27

LAK-44-04.14

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Plan Sheet - Ramp H and E
Sta. 19+50 to End Work

DESIGN AGENCY



DESIGNER
JDA

REVIEWER
DAB 01/18/24

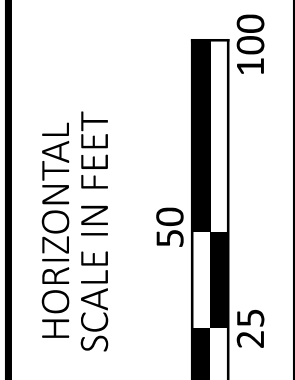
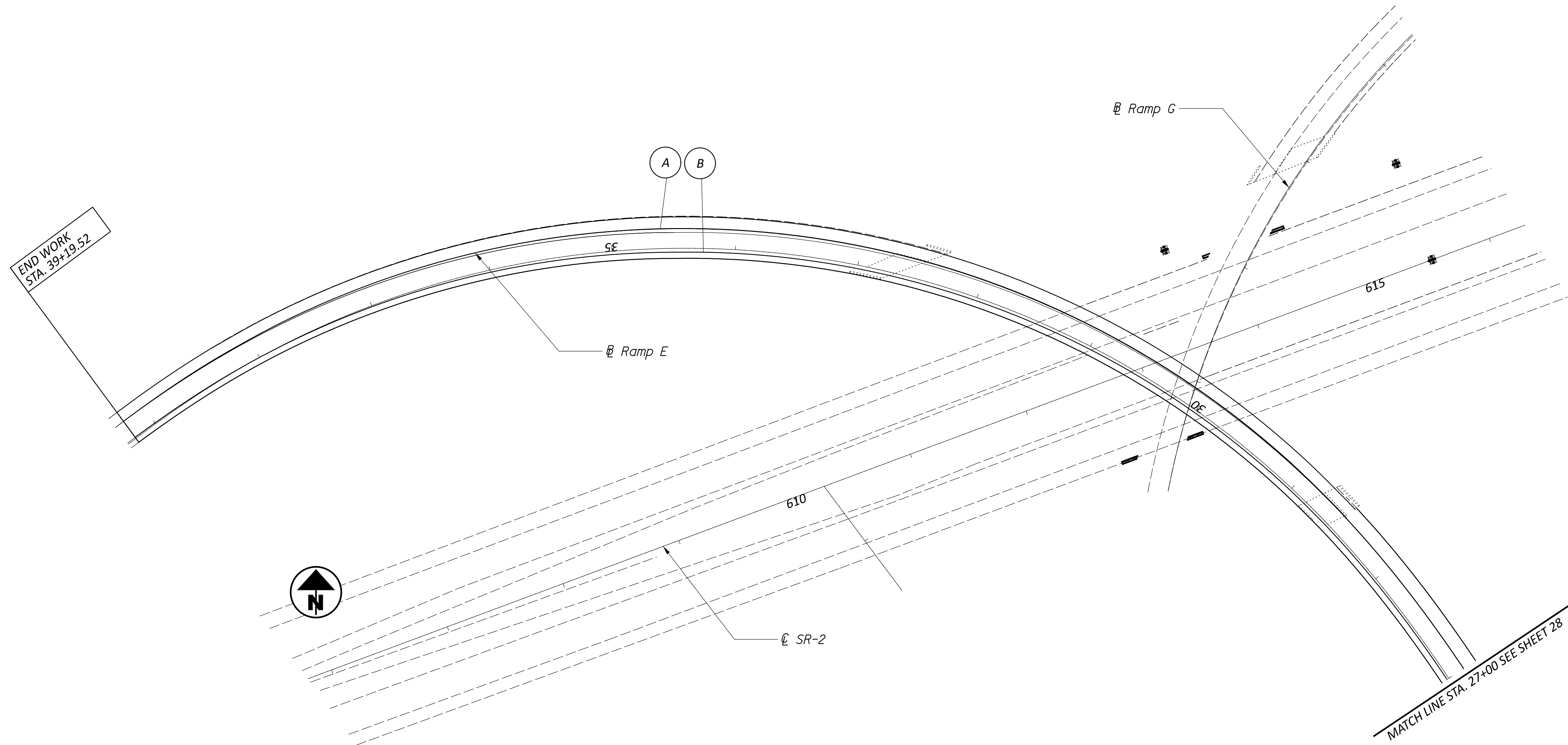
PROJECT ID
85532

SHEET	TOTAL
P.28	34

For Legend, See Sheet 21

LAK-44-04.14

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Plan Sheet - Ramp E - Sta. 27+00.00 to End Work
Intersection Detail

DESIGN AGENCY



DESIGNER
JDA

REVIEWER
DAB 01/18/24

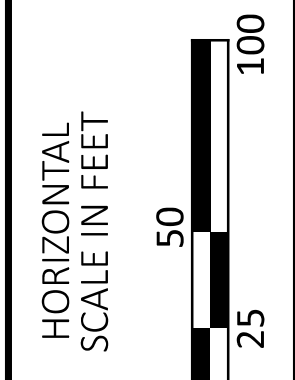
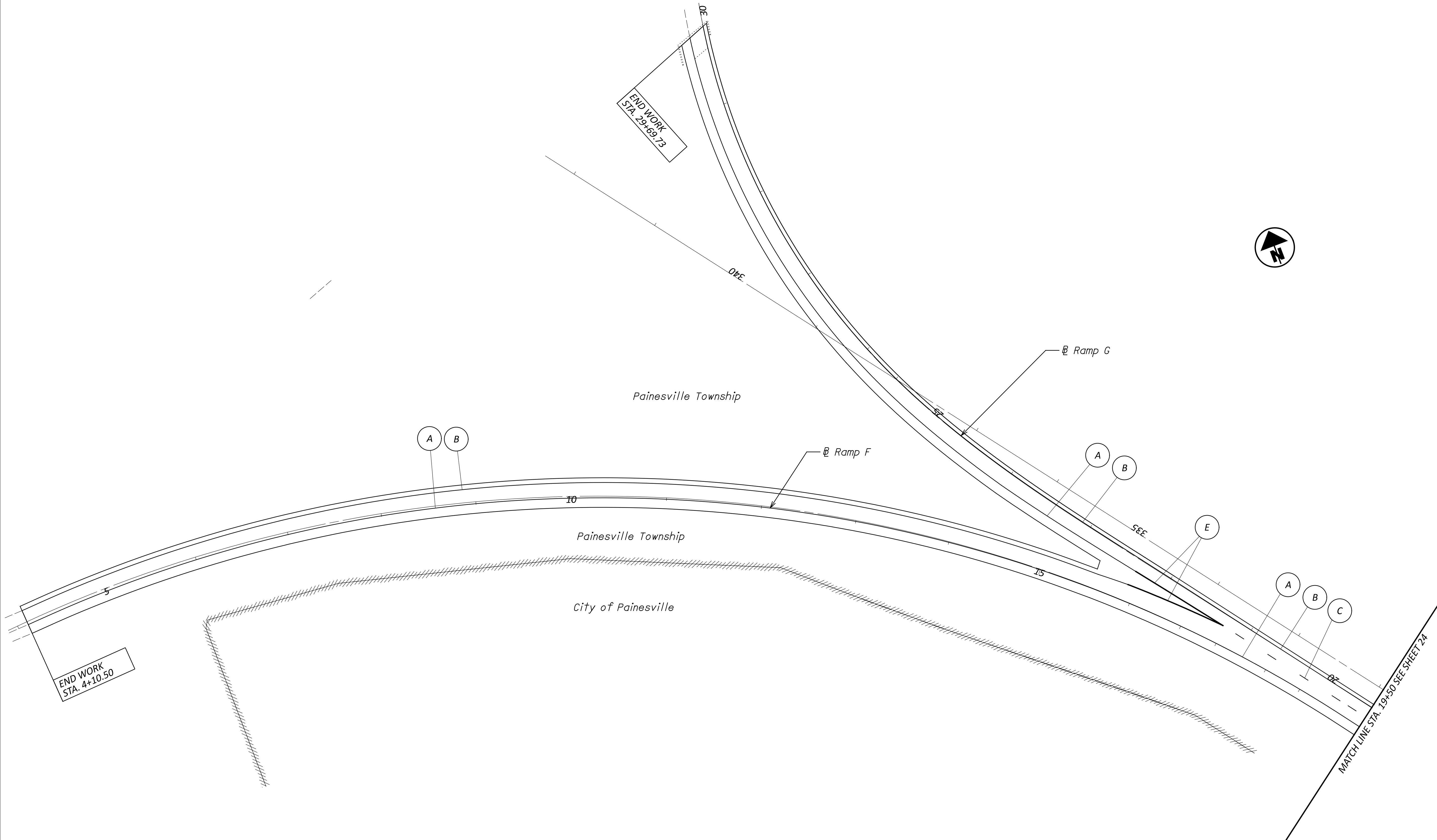
PROJECT ID
85532

SHEET	TOTAL
P.29	34

For Legend, See Sheet 27

LAK-44-04.14

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Plan Sheet - Ramp G and F
Sta. 18+50.00 to End Work

DESIGN AGENCY



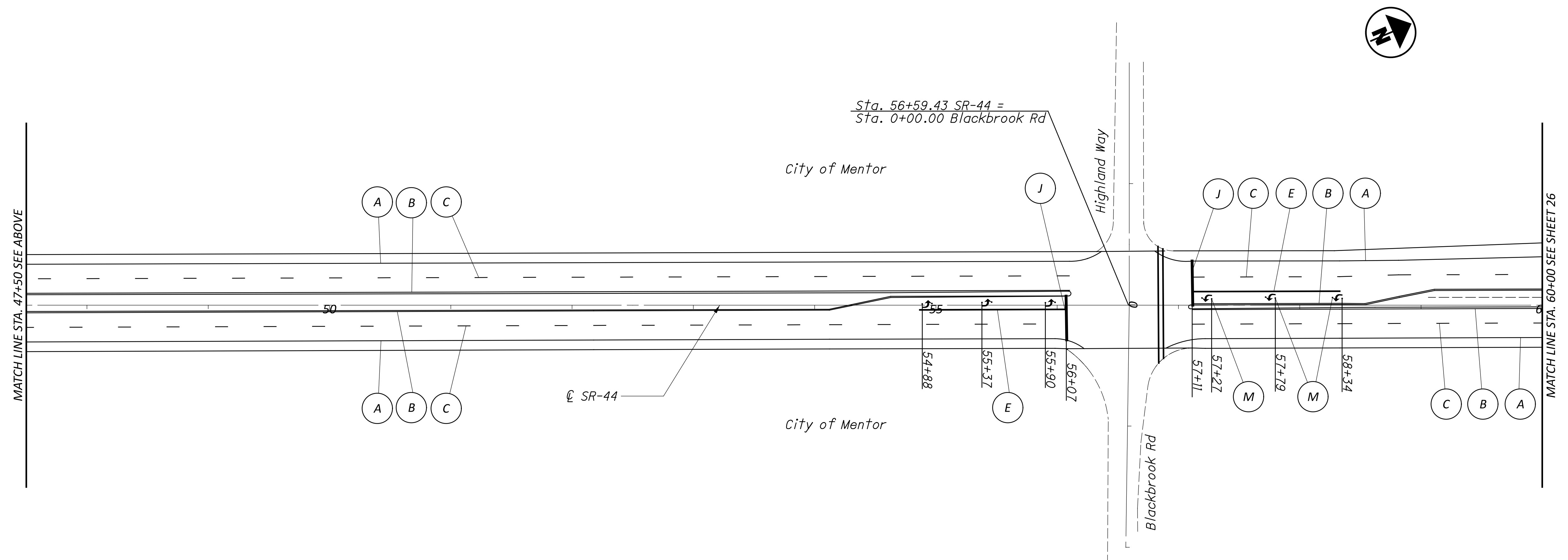
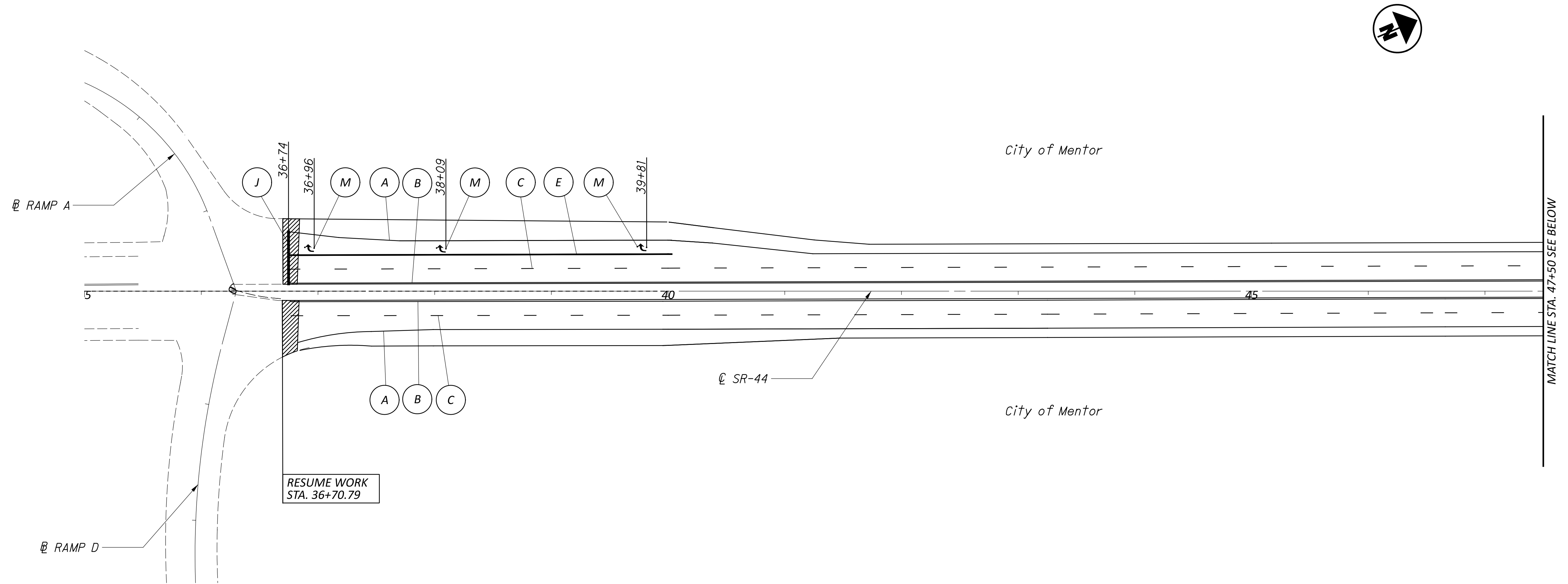
DESIGNER
JDA

REVIEWER
DAB 01/18/24

PROJECT ID
85532

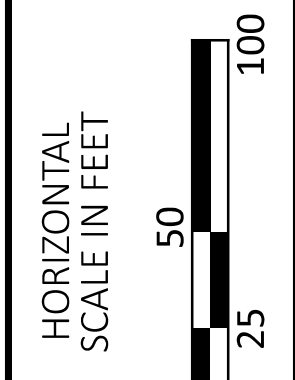
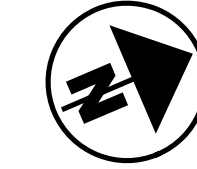
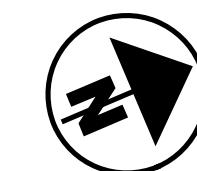
SHEET	TOTAL
P.30	34

For Legend, See Sheet 24



Sta. 56+59.43 SR-44 =
 Sta. 0+00.00 Blackbrook Rd

 Butt Joint, For details, See Sheet P.31
 For Legend, See Sheet 2



Plan Sheet
 Sta. 36+69.52 to Sta. 60+00.00

DESIGN AGENCY

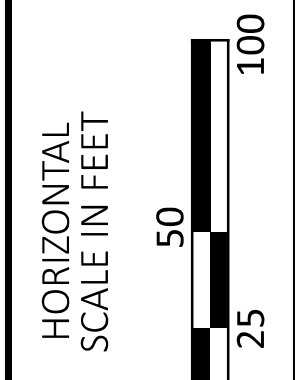
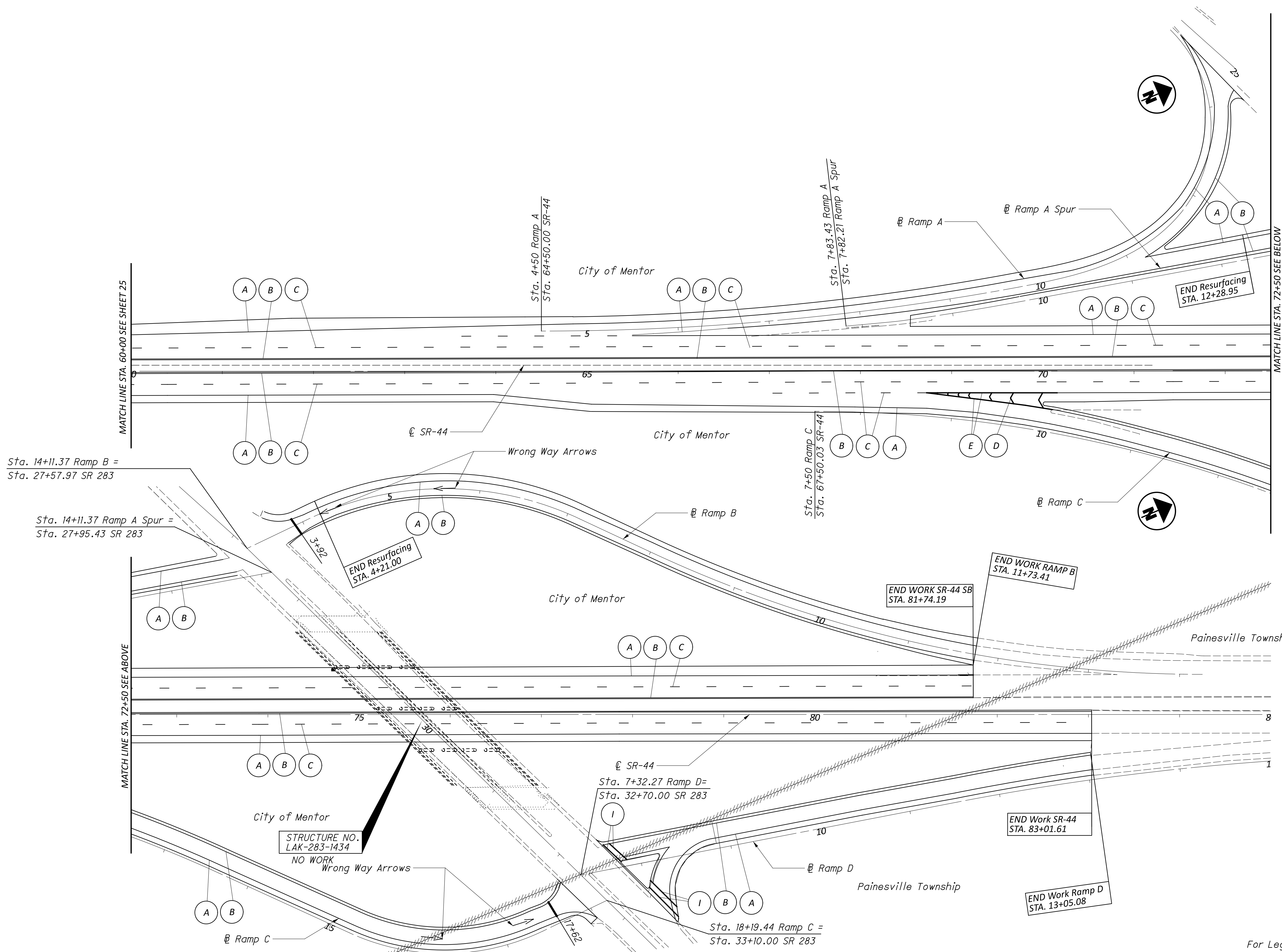


DESIGNER
 JDA

REVIEWER
 DAB 01/18/24

PROJECT ID
 85532

SHEET	TOTAL
P.31	34



Plan Sheet
Sta. 60+00.00 to End Project

DESIGN AGENCY



DESIGNER
JDA

REVIEWER
DAB 01/18/24

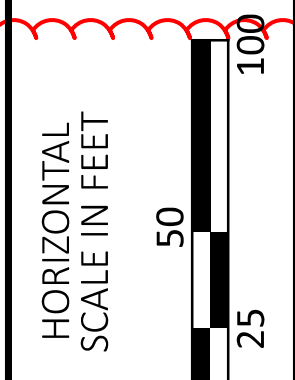
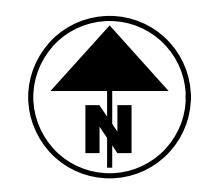
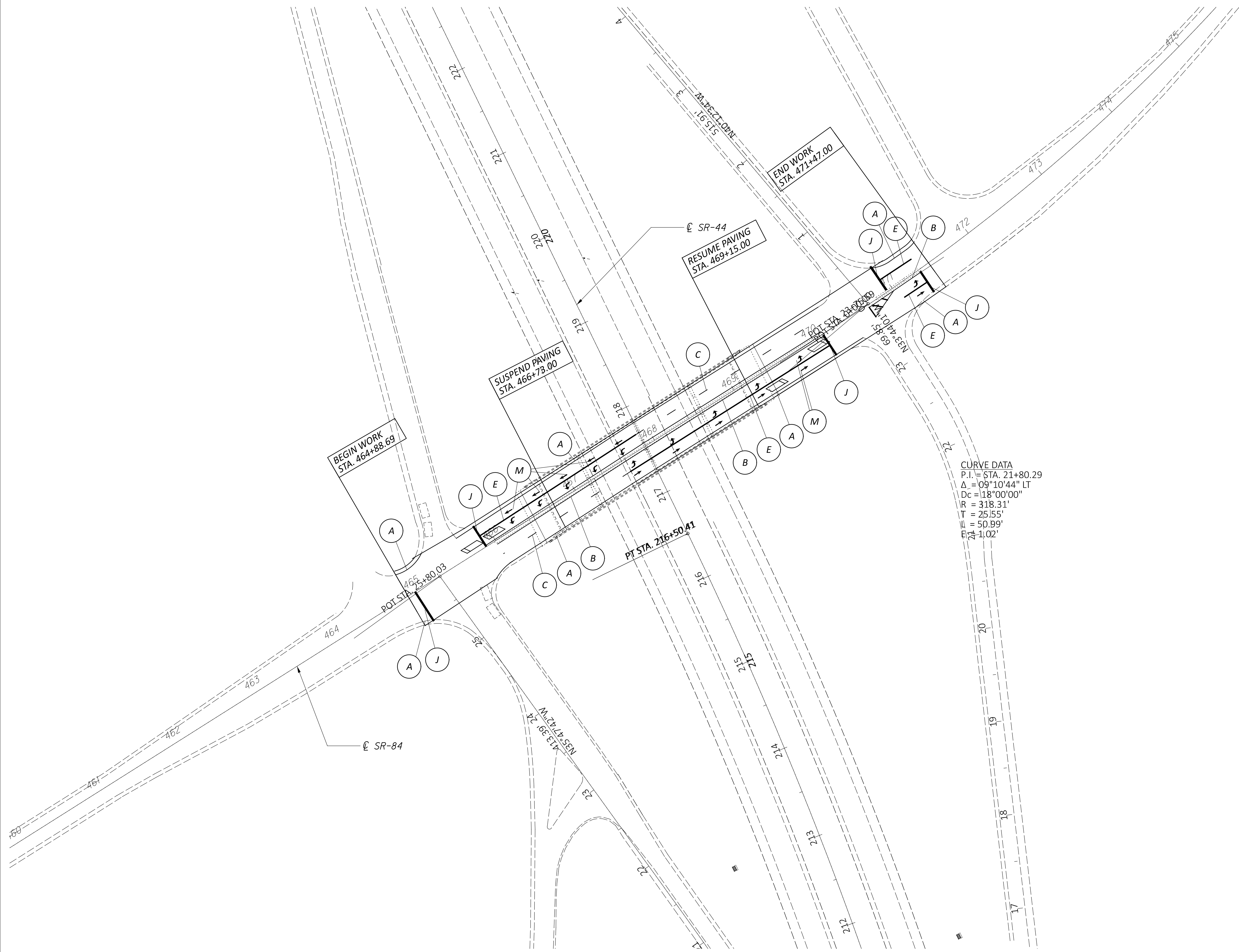
PROJECT ID
85532

SHEET	TOTAL
P.32	34

For Legend, See Sheet 21

LAK-44-04-14

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Plan Sheet - SR-84 Interchange
 Intersection Detail

DESIGN AGENCY



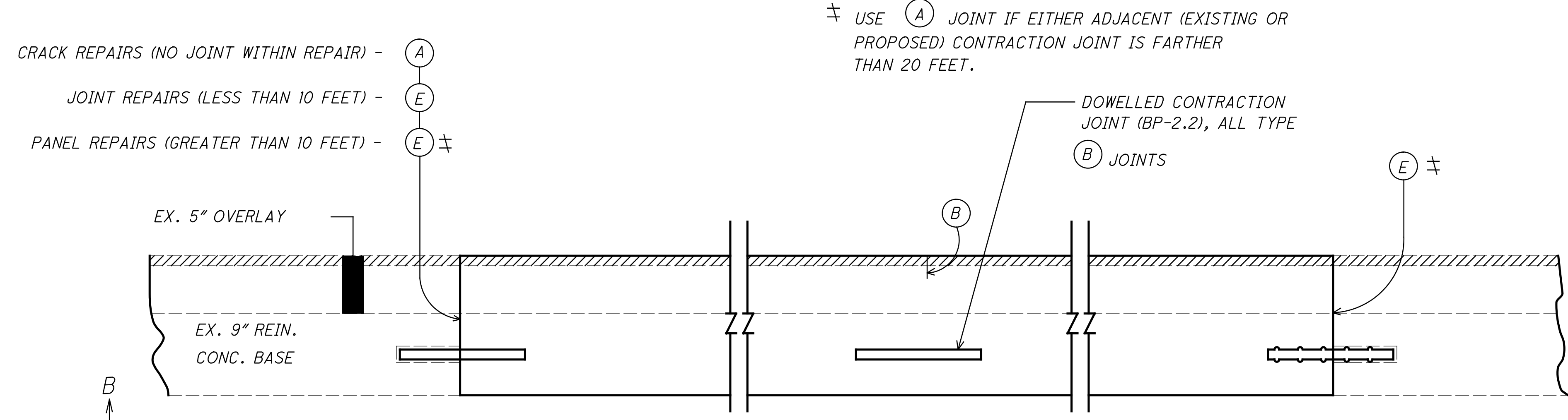
DESIGNER
 JDA

REVIEWER
 DAB 01/18/24

PROJECT ID
 85532

SHEET TOTAL
 P.33 34

For Legend, See Sheet 12



ITEM 255 - FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT

SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

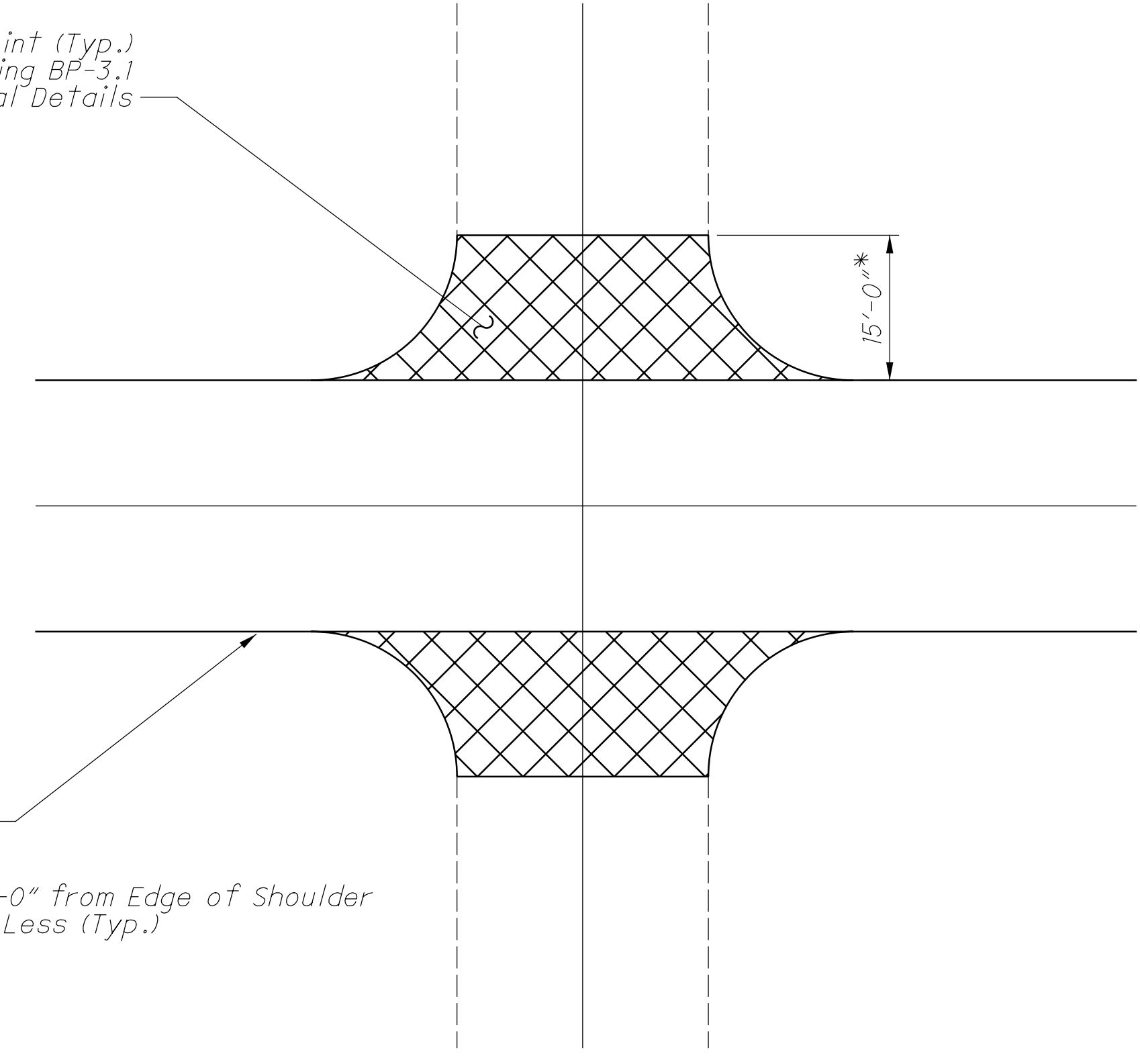
LEGEND

- (A) TYPE Y DOWELLED REPAIR JOINTS, AS PER BP-2.5
- (B) SAWED CONTRACTION JOINT AS PER BP-2.2, WITH DOWELS, MAX. SPACING 20' C/C FOR ONE LANE REPLACEMENTS ALIGN JOINT WITH EXISTING CRACKS IN THE ADJACENT LANE WHENEVER POSSIBLE. (EX. CRACKS OCCUR APPROX. 15' C/C)
- (C) LONGITUDINAL BUTT JOINT AS PER BP-2.1 (USING HOOK BOLTS)
- (D) TYPE D JOINT AS PER BP-2.1 FOR PATCHES 10' OR GREATER IN LENGTH
- (E) TYPE T TIED REPAIR JOINT, AS PER BP-2.5

PAVEMENT PLANING, ASPHALT CONCRETE, 1.75"

± USE (A) JOINT IF EITHER ADJACENT (EXISTING OR PROPOSED) CONTRACTION JOINT IS FARTHER THAN 20 FEET.

Butt Joint (Typ.)
 See Standard Drawing BP-3.1 for Additional Details



Edge of Pavement

* Butt Joint Shall Extend 15'-0" from Edge of Shoulder or To R/W Line, Whichever is Less (Typ.)

TYPICAL ASPHALT INTERSECTION DETAIL

DESIGN AGENCY



DESIGNER
JDA

REVIEWER
DAB 01/18/24

PROJECT ID
85532

SHEET	TOTAL
P.34	34