

HMA RESURFACING WITH MILLING
 NHSN-030-8(49)--2R-16
 LETTING DATE
 01/17/2024

CEDAR COUNTY



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
CEDAR COUNTY
 HMA RESURFACING WITH MILLING
 In Clarence, from WCL to ECL

SCALES: As Noted

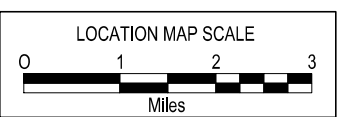
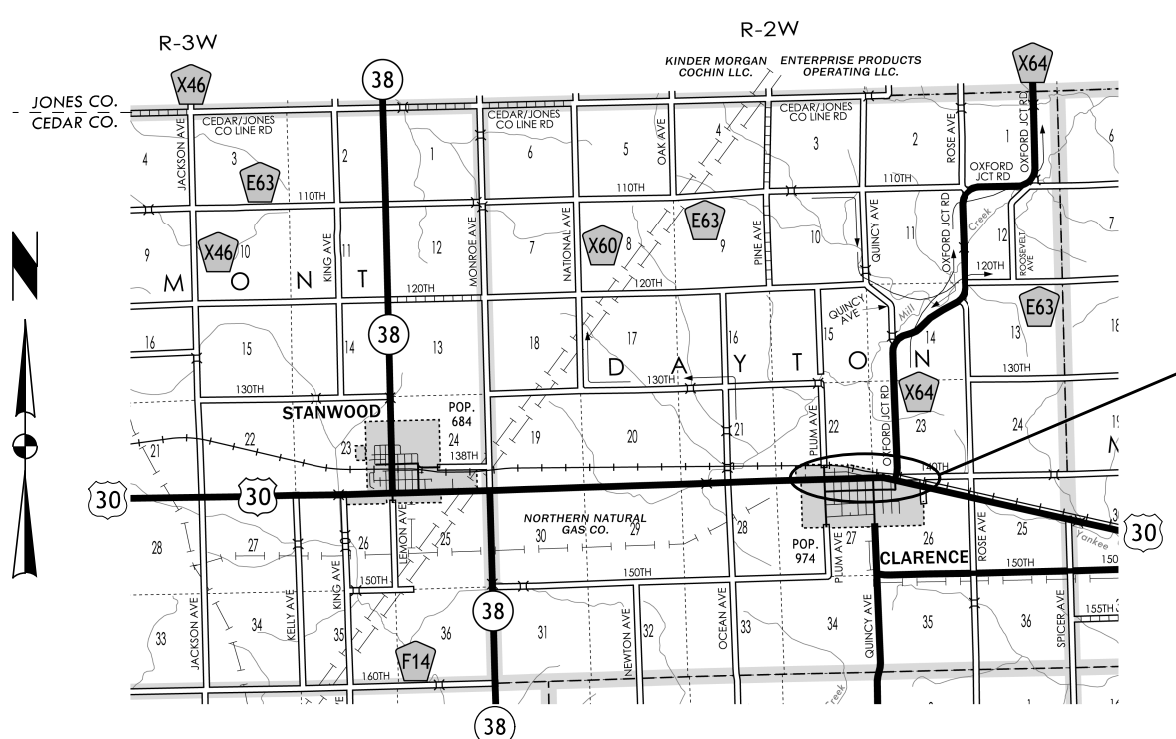
Refer to the Proposal Form for list of applicable specifications.
 Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



REVISIONS

TOTAL	17
PROJECT IDENTIFICATION NUMBER	20-16-030-020
PROJECT NUMBER	NHSN-030-8(49)--2R-16
R.O.W. PROJECT NUMBER	


INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 2	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1 - 2	Item Quantities and Estimate Reference Information
C.3 - 6	Item Tabulations
J Sheet	Traffic Control
J.1	Traffic Control Information
U Sheets	Detail Sheets
* U.1 - 4	Grooving Details for Line Types
U.5 - 6	Pav't Marking Details for Parking Areas
U.7	As-Built Information



DESIGN DATA URBAN		
2022 AADT	4,000	V.P.D.
2042 AADT	5,200	V.P.D.
20 -- DHV	--	V.P.H.
TRUCKS	15	%
Total Design ESALs	2,650,000	

ROADWAY DESIGN

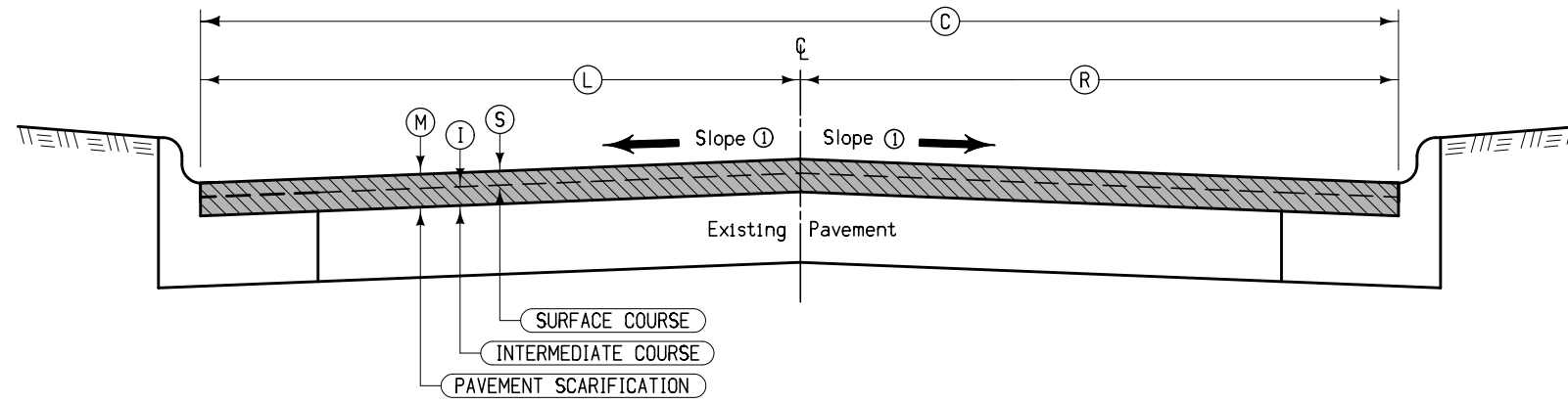
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.


 Signature: *Mark K. Harle* Date: 11-17-23
 Printed or Typed Name: Mark K. Harle
 My license renewal date is December 31, 2023

Pages or sheets covered by this seal: ALL

- = HMA Resurfacing
- = Pavement Scarification

**TYPICAL CROSS SECTION
HMA RESURFACING WITH MILLING** 2602-A
MODIFIED



- Notes:
- ① Finished slope of the driving lanes shall be no less than 2% minimum and no more than 3% maximum.

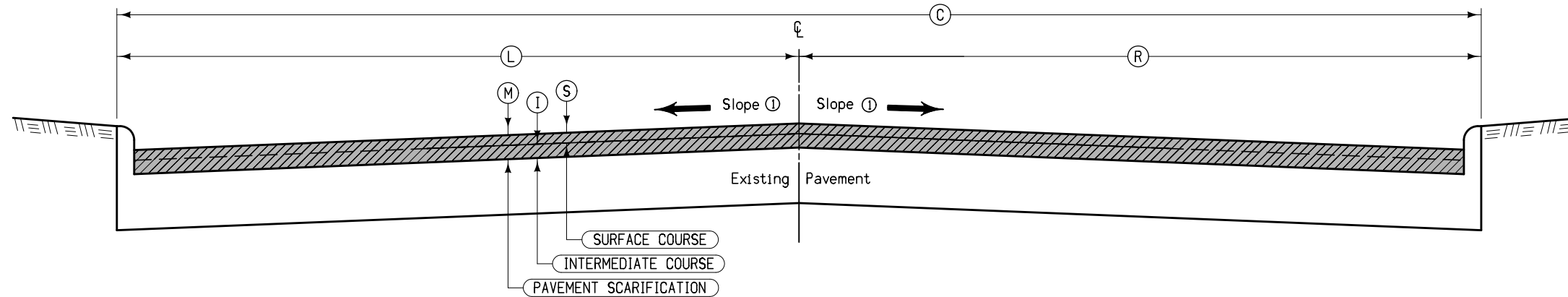
Cross-slope correction shall be done by pavement scarification and shall not reduce the current usable curb and gutter height or reduce thickness of the intermediate or surface course.
 - ② Tack Coat estimated for 2 applications. Not a bid item.

DESIGN RATES	
ITEM	RATE
Surface Course	155 lbs./cu. ft.
Intermediate Course	150 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yds.

TABLE OF DESIGN QUANTITIES Per Station													
Location		(S)	(I)	(M)	(C)	(L)	(R)	Tack Coat Gallons ②	Asphalt Binder Tons	Hot Mix Asphalt (Tons) Surface	Hot Mix Asphalt (Tons) Intermediate	Pavement Scarification Tons	Remarks
Road Id	Station to Station	Inches	Inches	Inches	Feet	Feet	Feet						
US 30	299+00.00 313+67.30	1.5	2.0	3.5	30.0	15.0	15.0	33.33	3.99	29.06	37.50	63.44	

- = HMA Resurfacing
- = Pavement Scarification

**TYPICAL CROSS SECTION
HMA RESURFACING WITH MILLING** 2602-B
MODIFIED





- Notes:
- ① Finished slope of the driving lanes shall be no less than 2% minimum and no more than 3% maximum.

Cross-slope correction shall be done by pavement scarification and shall not reduce the current usable curb and gutter height or reduce thickness of the intermediate or surface course.
 - ② Tack Coat estimated for 2 applications. Not a bid item.

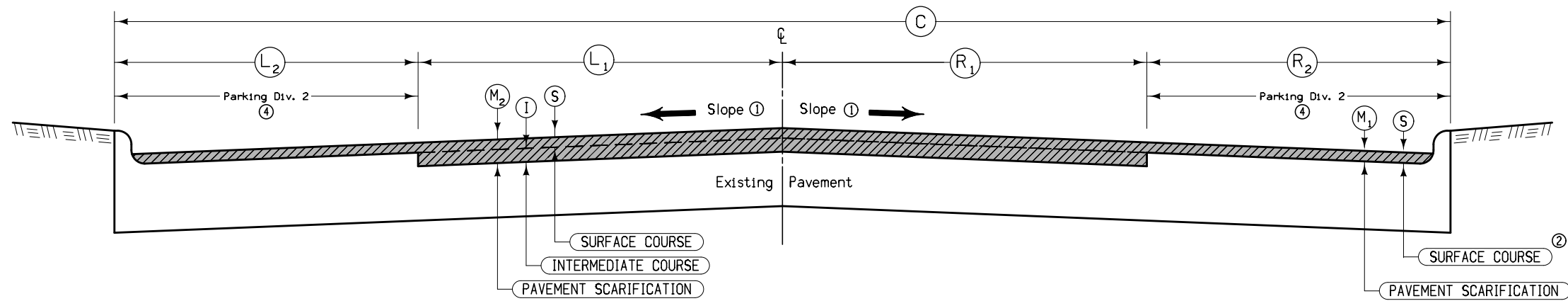
DESIGN RATES	
ITEM	RATE
Surface Course	155 lbs./cu. ft.
Intermediate Course	150 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yds.

TABLE OF DESIGN QUANTITIES Per Station													
Location		(S)	(I)	(M)	(C)	(L)	(R)	Tack Coat Gallons ②	Asphalt Binder Tons	Hot Mix Asphalt (Tons) Surface	Hot Mix Asphalt (Tons) Intermediate	Pavement Scarification Tons	Remarks
Road Id	Station to Station	Inches	Inches	Inches	Feet	Feet	Feet						
US 30	313+67.30 325+20.57	1.5	2.0	3.5	32.0	16.0	16.0	35.56	4.26	31.00	40.00	67.67	
US 30	333+48.50 344+35.94	1.5	2.0	3.5	44.0	22.0	22.0	48.89	5.86	42.63	55.0	93.04	
US 30	344+35.94 345+15.04	1.5	2.0	3.5	44.0-40.0	22.0-20.0	22.0-20.0	44.44	5.33	38.75	50.00	84.58	

-  = HMA Resurfacing
-  = Pavement Scarification



**TYPICAL CROSS SECTION
HMA RESURFACING WITH MILLING** 2602-C
MODIFIED

- Notes:
- ① Finished slope of the driving lanes shall be no less than 2% minimum and no more than 3% maximum.
Cross-slope correction shall be done by pavement scarification and shall not reduce the current usable curb and gutter height or reduce thickness of the intermediate or surface course.
 - ② Pavement scarification and surface course for parking areas shall be 1.5 inches.
 - ③ Tack Coat estimated for 2 applications. Not a bid item.
 - ④ Quantities in Division 2 except where noted otherwise.
 - ⑤ All quantities in Division 1.
 - ⑥ L₂ quantities in Division 1.
 - ⑦ R₂ quantities in Division 1.

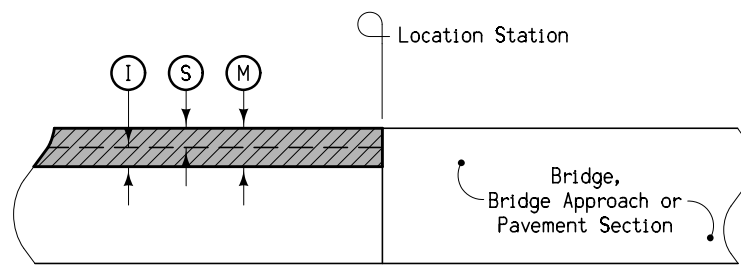


DESIGN RATES	
ITEM	RATE
Surface Course	155 lbs./cu. ft.
Intermediate Course	150 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yds.

Location		(S)	(I)	(M ₁)	(M ₂)	(C)	(L ₂)	(L ₁)	(R ₁)	(R ₂)	Tack Coat Gallons ③	Asphalt Binder Tons	Hot Mix Asphalt (Tons) Surface	Hot Mix Asphalt (Tons) Intermediate	Pavement Scarification Tons	Remarks
Road Id	Station to Station	Inches	Inches	Inches	Inches	Feet	Feet	Feet	Feet	Feet						
US 30	325+20.57 - 325+24.56	1.5	2.0	1.5	3.5	41.0	10.0	15.0	16.0	--	40.00	4.71	39.72	38.75	74.61	⑤
US 30	325+24.56 - 325+67.21	1.5	2.0	1.5	3.5	50.0	10.0	15.0	15.0	10.0	44.44	5.16	48.44	37.50	81.56	⑤
US 30	325+67.21 - 326+06.74	1.5	2.0	1.5	3.5	50.0	10.0	15.0	15.0	10.0	44.44	5.16	48.44	37.50	81.56	⑥
US 30	326+06.71 - 328+62.62	1.5	2.0	1.5	3.5	50.0	10.0	15.0	15.0	10.0	44.44	5.16	48.44	37.50	81.56	
US 30	328+62.62 - 328+95.53	1.5	2.0	1.5	3.5	50.0	10.0	15.0	15.0	10.0	44.44	5.16	48.44	37.50	81.56	⑦
US 30	328+95.53 - 330+08.15	1.5	2.0	1.5	3.5	50.0	10.0	15.0	15.0	10.0	44.44	5.16	48.44	37.50	81.56	⑤
US 30	330+08.15 - 330+33.56	1.5	2.0	1.5	3.5	50.0	10.0	15.0	15.0	10.0	44.44	5.16	48.44	37.50	81.56	⑥
US 30	330+33.56 - 333+09.49	1.5	2.0	1.5	3.5	50.0	10.0	15.0	15.0	10.0	44.44	5.16	48.44	37.50	81.56	
US 30	333+09.49 - 333+48.67	1.5	2.0	1.5	3.5	50.0	10.0	15.0	15.0	10.0	44.44	5.16	48.44	37.50	81.56	⑦

-  = HMA Resurfacing
-  = Pavement Scarification

SURFACE NOTCH FOR DOUBLE COURSE RESURFACING OF MILLED AREAS 7305-A
MODIFIED



Location	(I) Inches	(S) Inches	(M) Inches	Remarks
Mainline				
299+00.00	1.5	2.0	3.5	Beginning of Project
345+15.04	1.5	2.0	3.5	End of Project

- (S) Surface Course
- (I) Intermediate Course
- (M) Milling

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Division 1 : Iowa DOT

Division 2 : City of Clarence

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
1	2212-0475095	CLEANING AND PREPARATION OF BASE	MILE	0.9		0.9	This bid item includes: 0.9 miles of two lane roadway
2	2212-5070310	PATCHES, FULL-DEPTH REPAIR	SY	174		174	Refer to Tabulation 102-6C (Repair).
3	2212-5070330	PATCHES BY COUNT (REPAIR)	EACH	14		14	Refer to Tabulation 102-6C (Repair).
4	2212-5075001	HOT MIX ASPHALT SURFACE PATCHES	TON	50		50	Bid item is for repair of scarified surface. Quantity includes material for temporary HMA wedges for side streets and entrances. Refer to J Sheets for staging notes.
5	2214-5145160	PAVEMENT SCARIFICATION	TON	3,524.6	113.5	3,638.1	Refer to Typical Sections 2602-A, 2602-B, and 2602-C, Typical 7305-A, and Tabulation 102-5. Quantity in Division 2 is for milling the existing pavement designated as parking areas adjacent to the highway through-lanes between the 5th Ave. intersection and 7th Ave. intersection. All milled material shall become property of the contractor.
6	2303-1042500	HOT MIX ASPHALT HIGH TRAFFIC, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	2,057.7		2,057.7	Refer to Typical Sections 2602-A, 2602-B, and 2602-C. Quantity in Division 2 is for resurfacing of the parking areas adjacent to the highway through-lanes between the 5th Ave. intersection and 7th Ave. intersection. Quantity includes an additional 5% to account for irregularities.
7	2303-1043503	HOT MIX ASPHALT HIGH TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, FRICTION L-3	TON	1,641.4	121.3	1,762.7	
8	2303-1258284	ASPHALT BINDER, PG 58-28H, HIGH TRAFFIC	TON	221.9	7.3	229.2	Refer to Typical Sections 2602-A, 2602-B, and 2602-C. Quantity is 6% of all HMA items. Quantity in Division 2 is is for resurfacing of the parking areas adjacent to the highway through-lanes between the 5th Ave. intersection and 7th Ave. intersection.
9	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1		1	
10	2317-7000120	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA PAVEMENT SMOOTHNESS (BY SCHEDULE)	EACH	4,389.8		4,389.8	
11	2435-0600010	MANHOLE ADJUSTMENT, MINOR	EACH	1		1	Refer to Tabulation 104-10.
12	2435-0600110	INTAKE ADJUSTMENT, MINOR	EACH	16		16	Refer to Tabulation 104-10.

Item no.	Item Code	Item	Unit	Quantities			Estimate Reference Notes
				Estimated			
				Division 1	Division 2	Total	
13	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	163.22	5.1	168.32	Refer to Tabulation 108-22. Division 2 quantity is for perpendicular parking space delineation lines.
14	2527-9270111	GROOVES CUT FOR PAVEMENT MARKINGS	STA	86.73	5.1	91.83	Refer to Tabulation 108-22. Division 2 quantity is for perpendicular parking space delineation lines. Replace Standard Specification 2527.03.H.2.a. Groove width with the following: The groove width for lines shall be 8" or the width of the marking plus 1" on each side of the marking, whichever is greater, with a tolerance of plus or minus 0.2". Replace Standard Specification 2527.03.H.2.b. Groove depth with the following: The groove depth shall be 0.08" plus or minus 0.01". Replace the first sentence of Standard Specification 2527.03.H.2.c. Groove length with the following: The groove length shall be the full length of the marking plus 3" on each end.
15	2528-8445110	TRAFFIC CONTROL	LS	1		1	Refer to Traffic Control Plan on Sheet J.1.
16	2528-8445113	FLAGGERS	EACH	0		0	See Proposal.
17	2528-8445115	PILOT CARS	EACH	0		0	
18	2528-9290050	PORTABLE DYNAMIC MESSAGE SIGN (PDMS)	CDAY	0		0	
19	2529-2242304	CD JOINT ASSEMBLY	EACH	4		4	Refer to Tabulation 102-6C.
20	2533-4980005	MOBILIZATION	LS	1		1	--
21	2540-4480507	LONGITUDINAL JOINT REPAIR	LF	7,370		7,370	Refer to Tabulation 106-8. Item is for repair of longitudinal joint after pavement scarification has been completed.
22	2554-0212040	VALVE BOX ADJUSTMENT, MINOR	EACH	10		10	Refer to Tabulation 104-10.

100-1D 10-18-05
PROJECT DESCRIPTION
This project is located on US 30 in Cedar County in Clarence, from WCL to ECL. The work includes pavement scarification, longitudinal joint repair, full-depth patching, HMA resurfacing, and painted pavement markings.
Division 2 is for scarification and resurfacing of the City of Clarence parking areas adjacent to the highway through lanes.
Division 1 is for all other work.

111-25 10-18-11		
INDEX OF TABULATIONS		
Tabulation	Tabulation Title	Sheet No.
C Sheets		
100-1D	PROJECT DESCRIPTION	C.3
100-27	PROPOSED POSTED SPEED LIMIT	C.3
102-5	EXISTING PAVEMENT	C.3
102-5A	EXISTING HMA PAVEMENT FOR RECYCLING	C.4
102-6C	FULL-DEPTH PATCHES	C.4
104-10	ADJUSTMENT OF FIXTURES	C.5
105-4	STANDARD ROAD PLANS	C.3
106-8	LONGITUDINAL JOINT REPAIR	C.4
108-22	PAVEMENT MARKING LINE TYPES	C.6
110-12	POLLUTION PREVENTION PLAN	C.3
111-25	INDEX OF TABULATIONS	C.3

105-4 10-18-11		
STANDARD ROAD PLANS		
The following Standard Road Plans apply to construction work on this project.		
Number	Date	Title
PM-110	MODIFIED	Line Types
PM-230	10-15-19	Transition at Abrupt Changes in Pavement Width
PM-420	10-15-19	Two-Lane Roadway with no Turn Lanes (One-Way Stop Condition)
PM-520	10-15-19	Two-Lane Roadway with no Turn Lanes (Two-Way Stop Condition)
PR-103	10-17-23	Full Depth PCC Patch with Dowels
PR-140	04-21-15	Subbase Patches
PV-101	04-19-22	Joints
SI-881	04-16-19	Special Signs for Workzones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-18-23	Work Within 15 ft of Traveled Way
TC-212	04-18-23	Spot Location Lane Closure with Flaggers
TC-213	04-18-23	Lane Closure with Flaggers
TC-214	04-18-23	Lane Closure with Flaggers for use with Pilot Car
TC-233	10-17-17	Pavement Marking Operations Two-Lane
TC-273	10-15-19	Construction Site Entrance
TC-282	10-15-19	Uneven Lanes

110-12 10-20-20
POLLUTION PREVENTION PLAN
This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP).
For information regarding the Pollution Prevention Plan, refer to the tied project plans for NHSN-030-8(56)--2R-16

100-27 04-17-18						
PROPOSED POSTED SPEED LIMIT						
Road Identification	Begin Station	End Station	Proposed Posted Speed Limit			Remarks
			35 or less	40 - 45	over 45	
US 30	299+00.00	306+64.00		45		
US 30	306+64.00	324+68.00	35			
US 30	324+68.00	339+40.00	25			
US 30	339+40.00	345+15.25	35			

232-3B MODIFIED
EROSION CONTROL (URBAN SEEDING)
Area to be seeded is estimated to be less than 1 acre. If the Contractor determines the area exceeds 2 acres, notify the Engineer. Approved quantity in excess of 2 acres will be paid for as extra work according to Article 1109.03,B of the Standard Specifications.
Following the completion of work and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area as follows:
Place seed and fertilize according to the requirements of Article 2601.03,C,4 and Section 4169 of the Standard Specifications.
Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.
Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are incidental to mobilization and will not be paid for separately.

262-6 10-18-05
UTILITIES (NOT A POINT 25 PROJECT)
This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

102-5 04-18-17																							
EXISTING PAVEMENT																							
No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks		
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type		Durability Class	Type
	Cedar	US 218	Both	284.39	284.7	1994		NHS-30-7(89)--19-57	HMA	2	HMA	2			MIL	2	BALLOU-OLIN	C.LST.					
						1984		FR-30-8(12)--2G-16	HMA	1	HMA	1					ONION GROVE	C.LST.					
						1960		FN-57	HMA	1.5	HMA	1.5					BALLOU-OLIN	C.LST.					
						1954		FN-57(5)	PCC								OTIS QRY.	C.LST.			10" Thick Widening		
						1952		P-1018	HMA	1.5		1.5					OTIS QRY.	C.LST.					
						1928		FA-57	PCC	7							LINWOOD MINE GLO	C.LST.					
	Cedar	US 218	Both	284.7	285.34	1994		NHS-30-7(89)--19-57	HMA	2	HMA	2			MIL	2	BALLOU-OLIN	C.LST.					
						1967		FN-30-8(1)--21-16	HMA	1.5	HMA	3					DEWEES&POTTHOFF	C.LST.					
						1928		FA-57	PCC	7							LINWOOD MINE GLO	C.LST.					

102-5A
10-20-15

EXISTING HMA PAVEMENT FOR RECYCLING

For informational purposes only. When designed RAP is specified, process the RAP to control the uniformity of the final mixture.

Route No.	Location	Year Placed	Layer	Thickness	Asphalt Binder		Description	Quality Type	Size	Content	Mix				% Crushed	% Limestone	
					Grade	Content					% of -4 that is Type 2	% of +4 that is Type 2	% of +4 that is Type 3	% of +4 that is Type 4			
US 30	Clarence	1994	Inter. Surface	2"	AC-10	0.06	3/4" C.	"A"	3/4"	0.1					97.4	Y	0
				1.5"	AC-10	0.06	3/4 to Dust	"A"	3/4"	0.4					Y	0	
							Mansand	"A"	1/4"	0.25					Y	0	
							Nat. Sand	"A"	3/8"	0.25					0.75	0	
WCL to ECL in City of Clarence Iowa																	

106-8
04-19-11

LONGITUDINAL JOINT REPAIR

Begin Station	End Station	Length FT	Side	Width IN	Pay Length LF	Remarks
300+00.00	311+00.00	1100.0	L	6.0	1100.0	WB widening joint
301+50.00	311+00.00	950.0	C	6.0	950.0	Centerline Joint
301+50.00	311+00.00	950.0	R	6.0	950.0	EB widening joint
312+30.00	313+80.00	150.0	R	6.0	150.0	EB widening joint
315+60.00	320+60.00	500.0	C	6.0	500.0	Centerline Joint
325+05.00	345+15.00	2010.0	C	6.0	2010.0	Centerline Joint
336+45.00	345+15.00	870.0	R	6.0	870.0	EB widening joint
336+75.00	345+15.00	840.0	L	6.0	840.0	WB widening joint
Total:					7370.0	

102-6C
04-18-17

FULL-DEPTH PATCHES

Possible Standards: PR-101, PR-102, PR-103, PR-104, PR-105, and PR-140.

Count	Location			Dimension			PCC Patches				HMA Patches	Composite HMA	Subbase Patches	Subbase Patch w/ 'EF' Joint	Patch Subdrain	'CD' Joints	'CT' Joints	'EF' Joints	Anchor Lugs Removal	Remarks	
	Station	Reference Location Sign	Lane	Length	Width	Patch Thickness	With Dowels	Without Dowels	C R C	Ramp with Dowels											
							PR-103	PR-102	PR-104	PR-105											
			L, R, or B	FT	FT	IN	SY	SY	SY	SY	SY	TON	SY	SY	PR-101 or PR-140	No.	No.	No.	No.		
1	300+95.00		R	6.0	11.0	16.0	7.3														
2	310+95.00		B	6.0	24.0	16.0	16.0														
3	315+70.00		R	6.0	12.0	16.0	8.0														
4	319+70.00		B	6.0	22.0	16.0	14.7														
5	324+35.00		L	6.0	12.0	13.0	8.0														
6	327+00.00		B	6.0	22.0	13.0	14.7														
7	327+50.00		R	6.0	12.0	13.0	8.0														
8	329+02.00		R	6.0	12.0	13.0	8.0														
9	331+70.00		L	12.0	12.0	13.0	16.0									1					
10	332+80.00		R	6.0	12.0	13.0	8.0									1					
11	335+70.00		L	10.0	12.0	13.0	13.3									1					
12	339+20.00		B	12.0	22.0	13.0	29.3									1					
12	Subtotal							151.3								3					
2	+15% discretionary																1				
14	Total							174.0								4					

ADJUSTMENT OF FIXTURES

No.	Location Station	Type of Fixture	Adjustment
1	299+06.25 + 17.39' LT	Intake	Minor
2	299+08.37 + 21.13' RT	Intake	Minor
3	302+56.59 + 16.05' RT	Intake	Minor
4	309+37.14 + 16.56' RT	Intake	Minor
5	311+03.83 + 17.03' RT	Intake	Minor
6	311+06.56 + 17.46' LT	Intake	Minor
7	318+95.43 + 17.44' RT	Intake	Minor
8	318+95.80 + 17.74' LT	Intake	Minor
9	320+78.94 + 21.80' LT	Intake	Minor
10	320+79.08 + 21.09' RT	Intake	Minor
11	324+96.64 + 10.36' LT	Manhole	Minor - place HMA wedge after surface milling to provide driveable surface until resurfacing.
12	329+08.47 + 24.63' RT	Intake	Minor
13	329+15.09 + 24.16' RT	Water Valve	Minor
14	329+38.80 + 22.15' RT	Water Valve	Minor
15	329+47.15 + 19.88' RT	Water Valve	Minor
16	333+51.65 + 26.06' LT	Intake	Minor
17	333+58.62 + 25.09' RT	Water Valve	Minor
18	333+61.97 + 26.05' RT	Intake	Minor
19	333+89.10 + 34.34' RT	Water Valve	Minor
20	333+89.25 + 25.71' RT	Water Valve	Minor
21	333+91.97 + 22.16' RT	Water Valve	Minor
22	334+22.35 + 25.88' RT	Intake	Minor
23	336+71.32 + 22.02' RT	Intake	Minor
24	336+73.54 + 25.19' LT	Intake	Minor
25	338+82.38 + 24.39' RT	Water Valve	Minor
26	344+10.32 + 32.23' RT	Water Valve	Minor
27	344+14.77 + 30.13' RT	Water Valve	Minor
	TOTALS:	1	Manhole
		16	Intake
		10	Water Valve
		27	

108-23A
08-01-08

TRAFFIC CONTROL PLAN

US 30 to remain open to traffic at all times.
Temporary HMA wedges shall be placed at all entrances and side streets if surface is milled and not resurfaced on the same day.

108-26A
08-01-08

STAGING NOTES

Refer to NHSN-030-8(056)--2R-16 for additional staging details and traffic control notes.

111-01
04-17-12

COORDINATED OPERATIONS

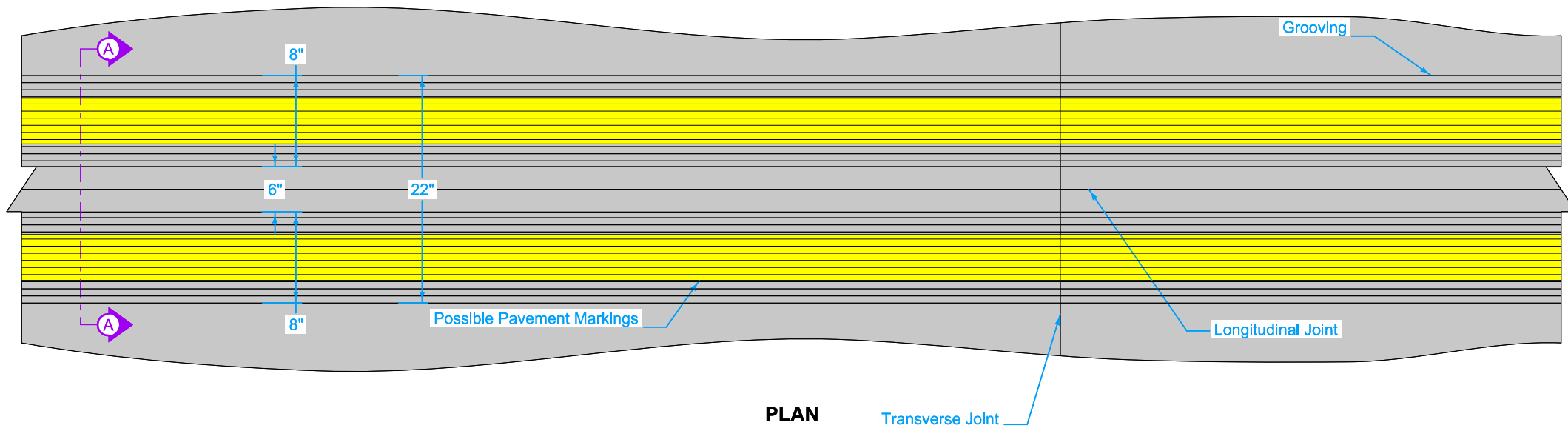
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
City of Clarence	7th Ave. Reconstruction

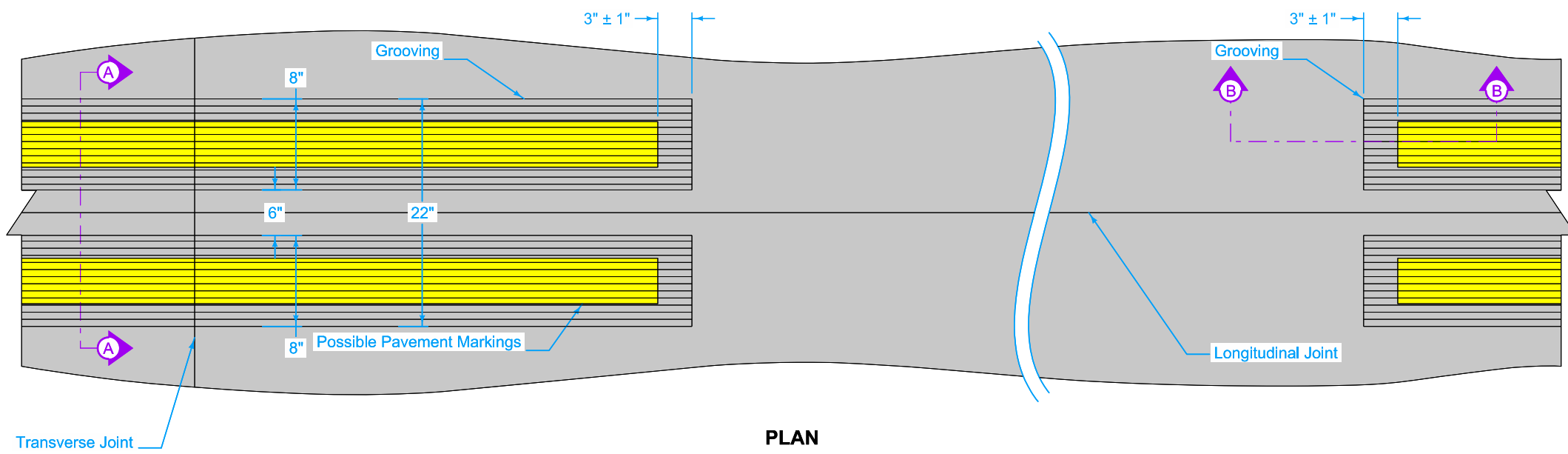
108-25
10-21-14

511 TRAVEL RESTRICTIONS

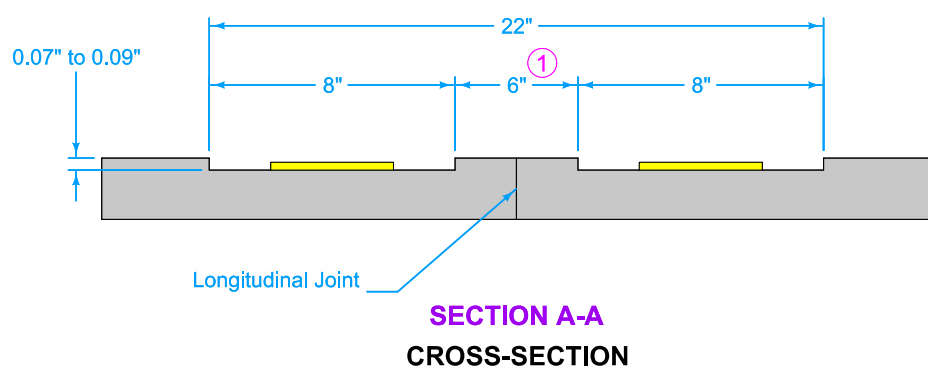
Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
US 30		Cedar	None.									



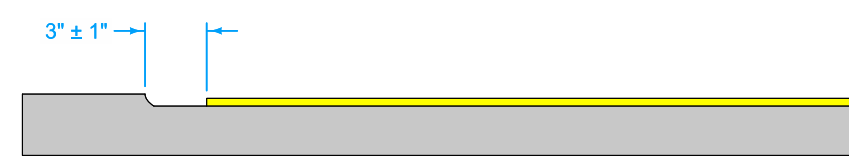
Do not groove temporary pavement markings
 ① Center 6 inch gap over longitudinal joint.



Possible Contract Item:
 Grooves Cut for Pavement Markings
 Possible Tabulation:
 108-22



SECTION A-A
CROSS-SECTION

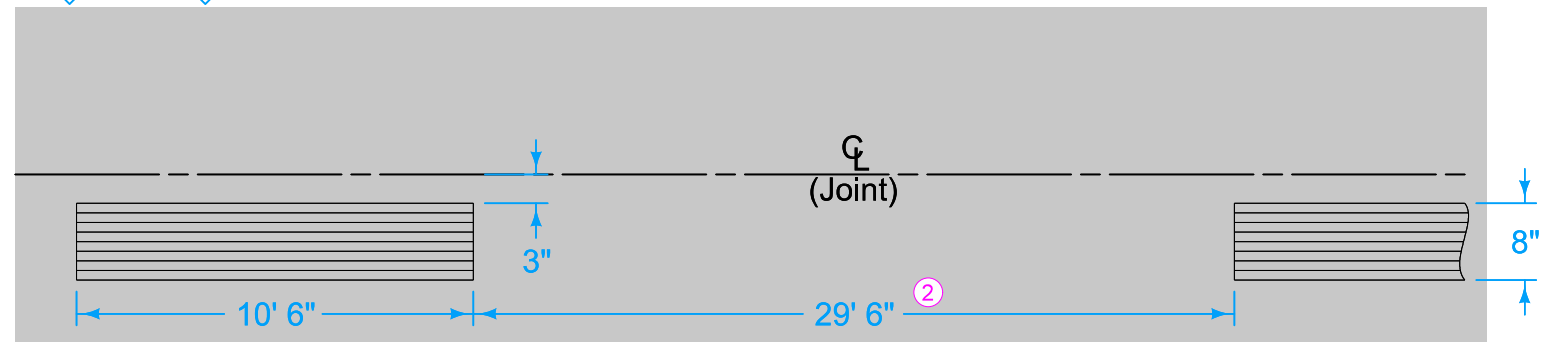


SECTION B-B
PROFILE

GROOVING DETAILS FOR LINE TYPES

BCY# BLW#

BROKEN CENTERLINE

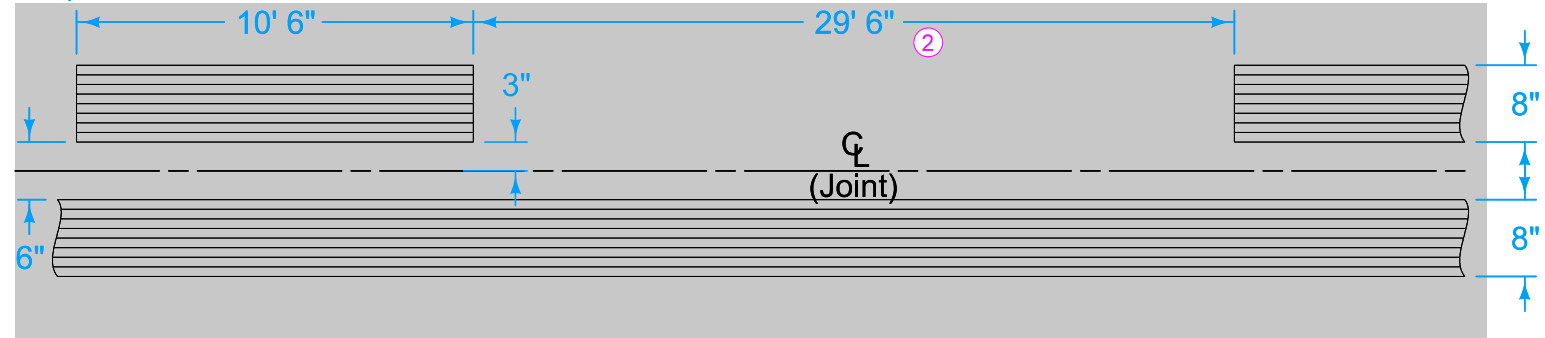


SLW# SOLID LANE LINE

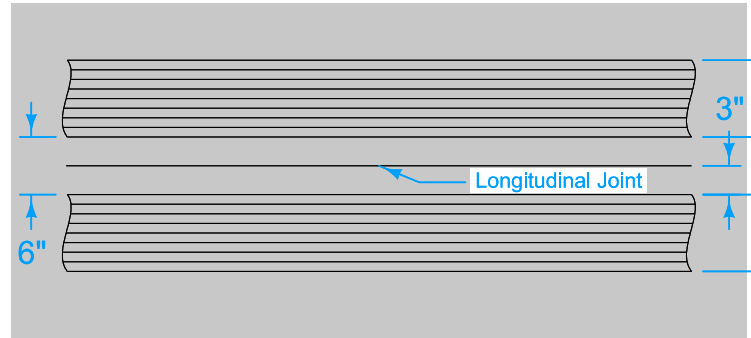


② Do not continuously groove broken, dashed or dotted line styles.

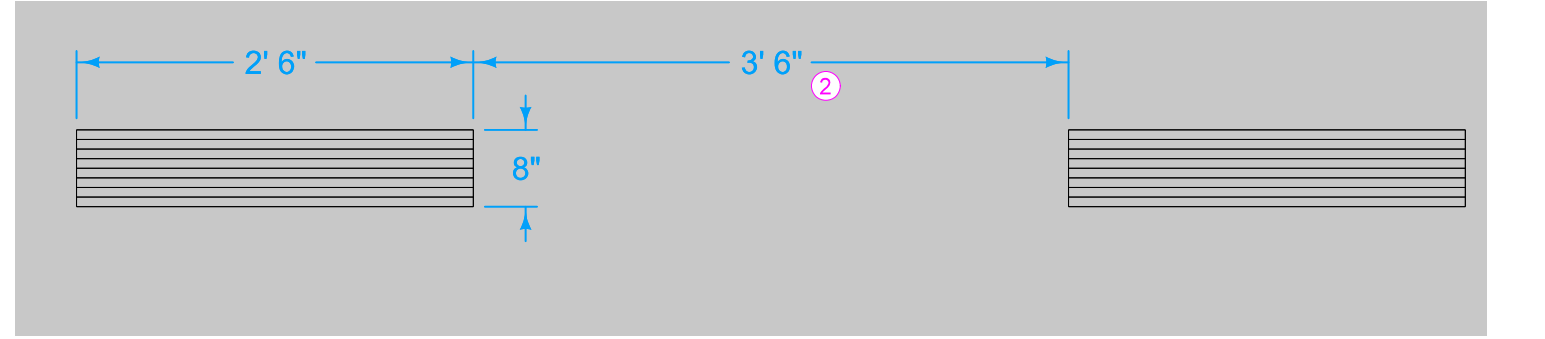
NPY# NO PASSING ZONE LINE



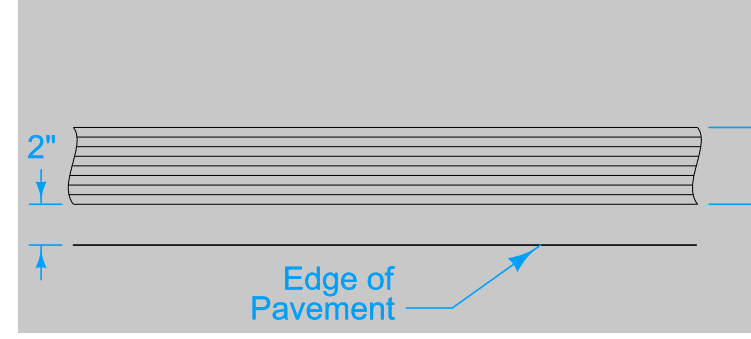
DCY# DOUBLE CENTERLINE



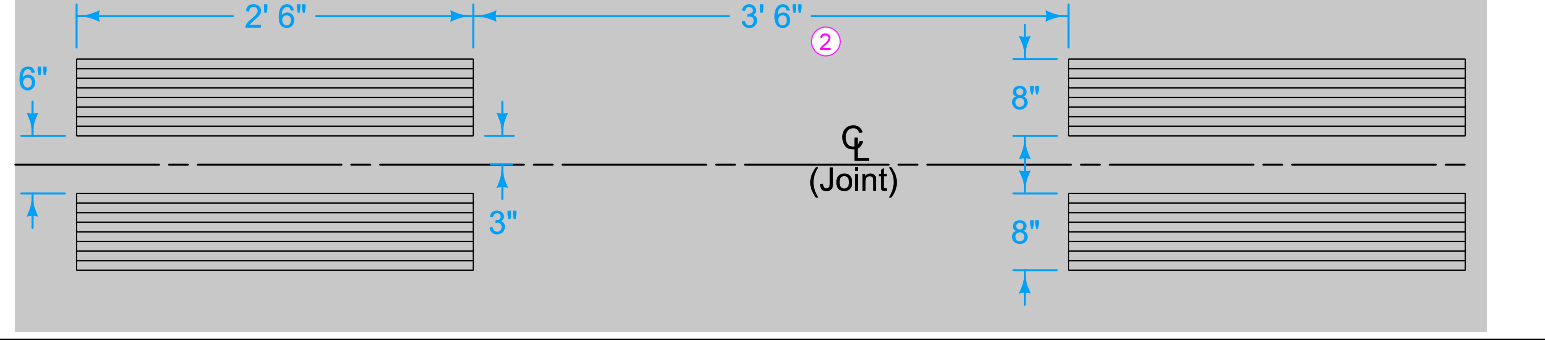
DLY# DLW# DOTTED LINE



RLW# ELW# ELY# RLY# EDGE LINE

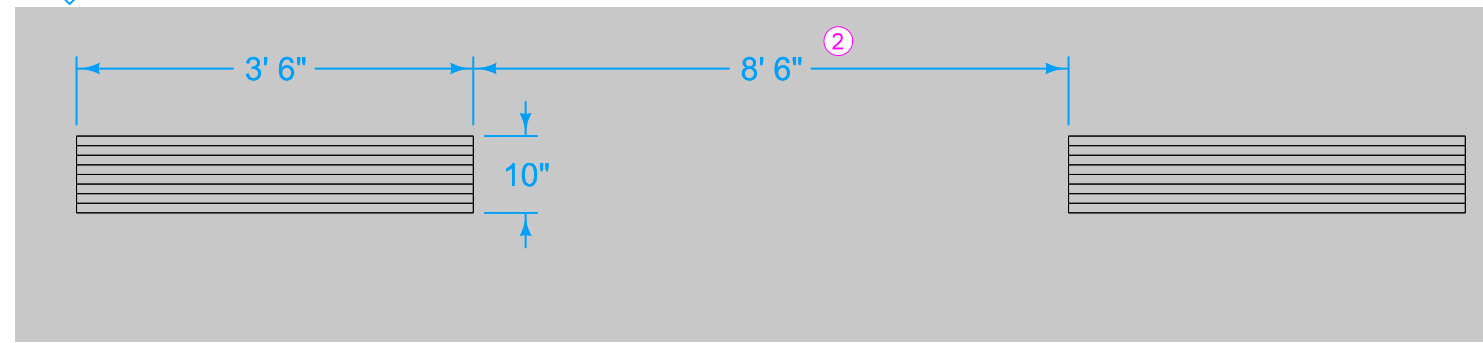


DDY# DOUBLE DOTTED LINE



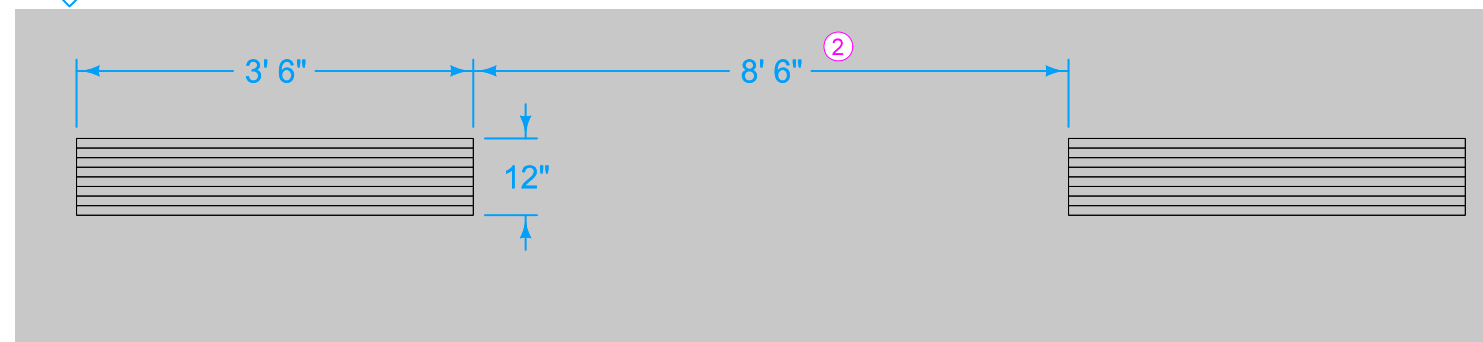
GROOVING DETAILS FOR LINE TYPES

LDW8 LANE DROP

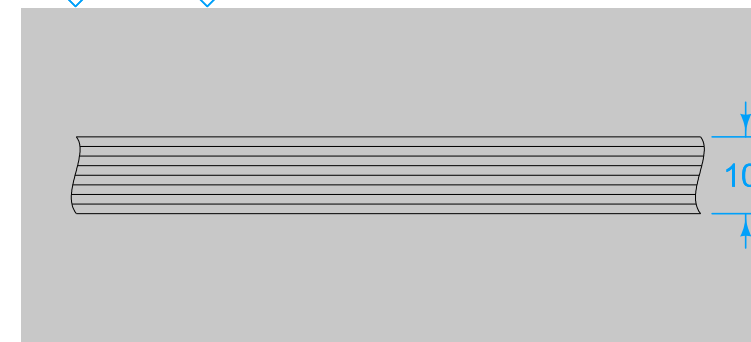


② Do not continuously groove broken, dashed or dotted line styles.

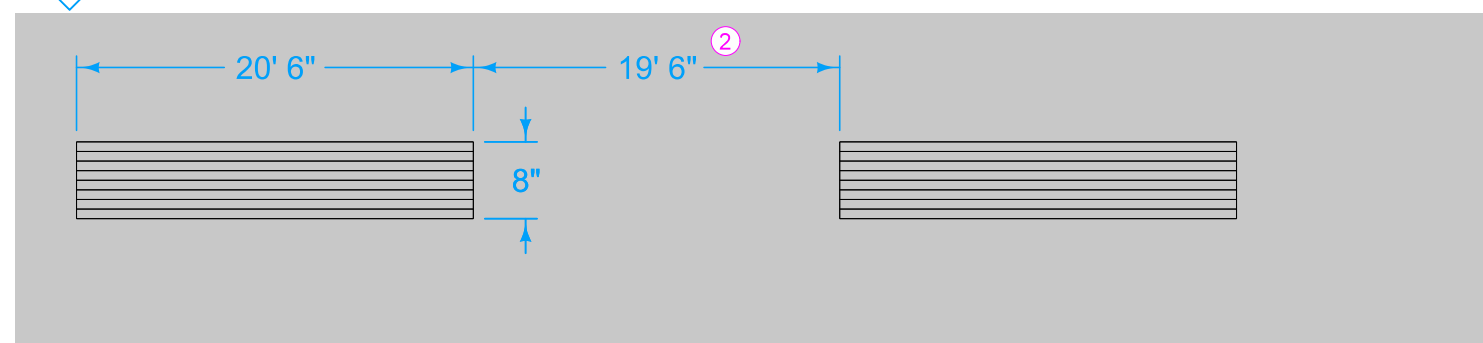
LDW10 LANE DROP



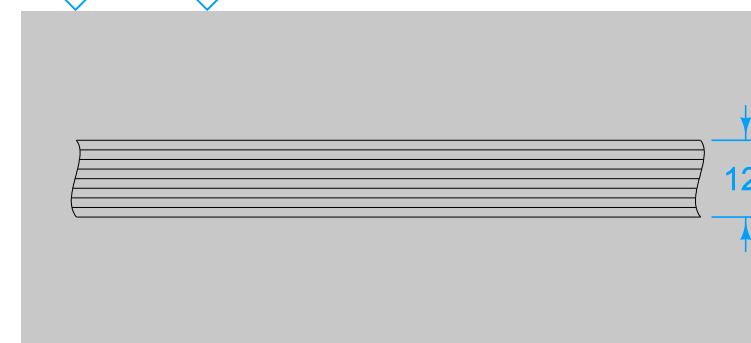
CHY8 **CHW8** CHANNELIZING LINE



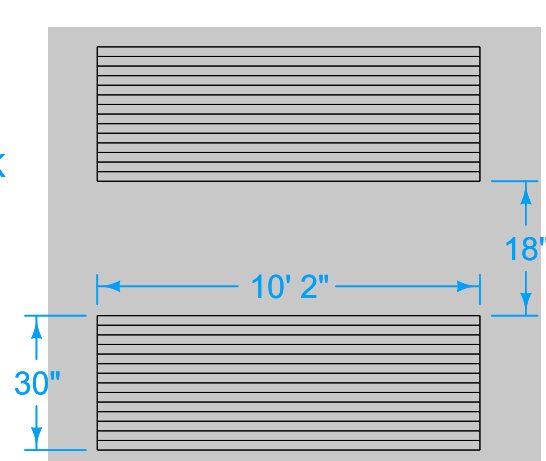
BLC6 BROKEN LANE LINE



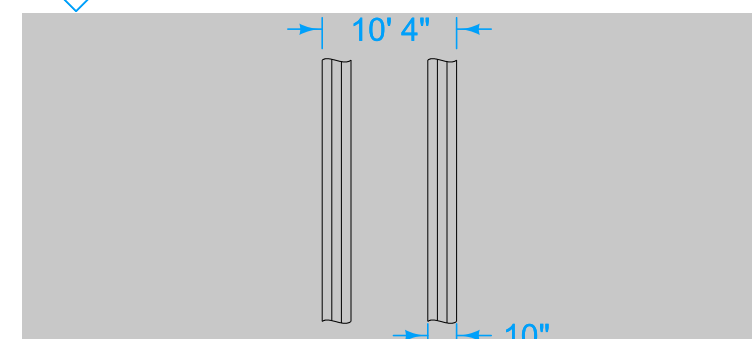
CHY10 **CHW10** CHANNELIZING LINE



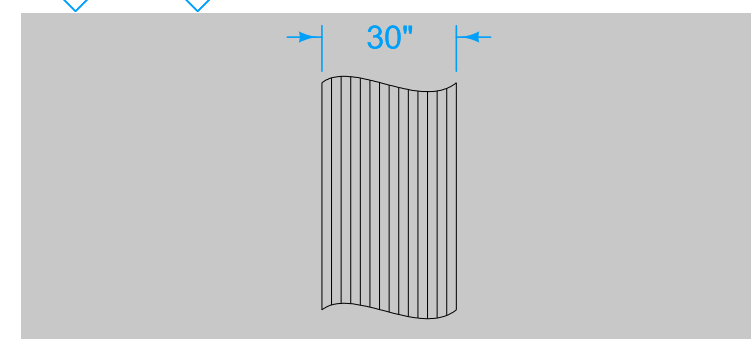
CBW6
CROSSWALK
BAR



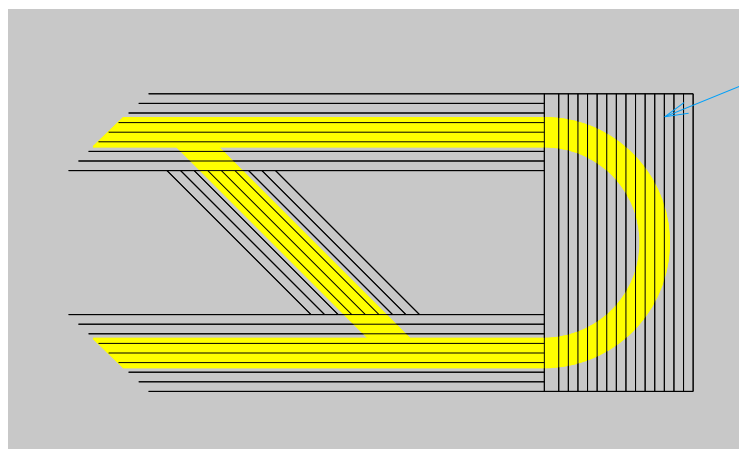
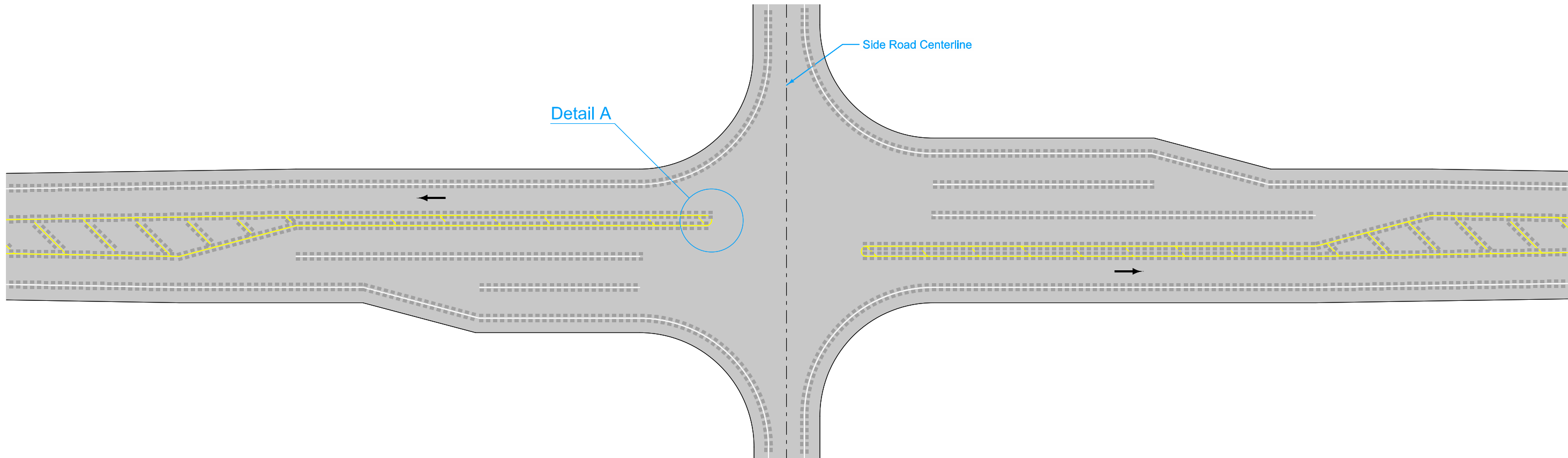
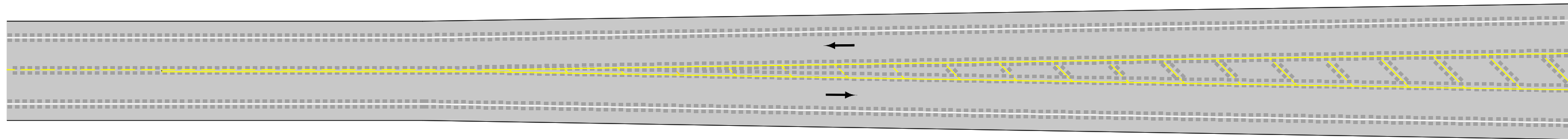
CLW6 CROSSWALK LINE



SLW2 **YLW2** STOP LINE / YIELD LINE



GROOVING DETAILS FOR LINE TYPES



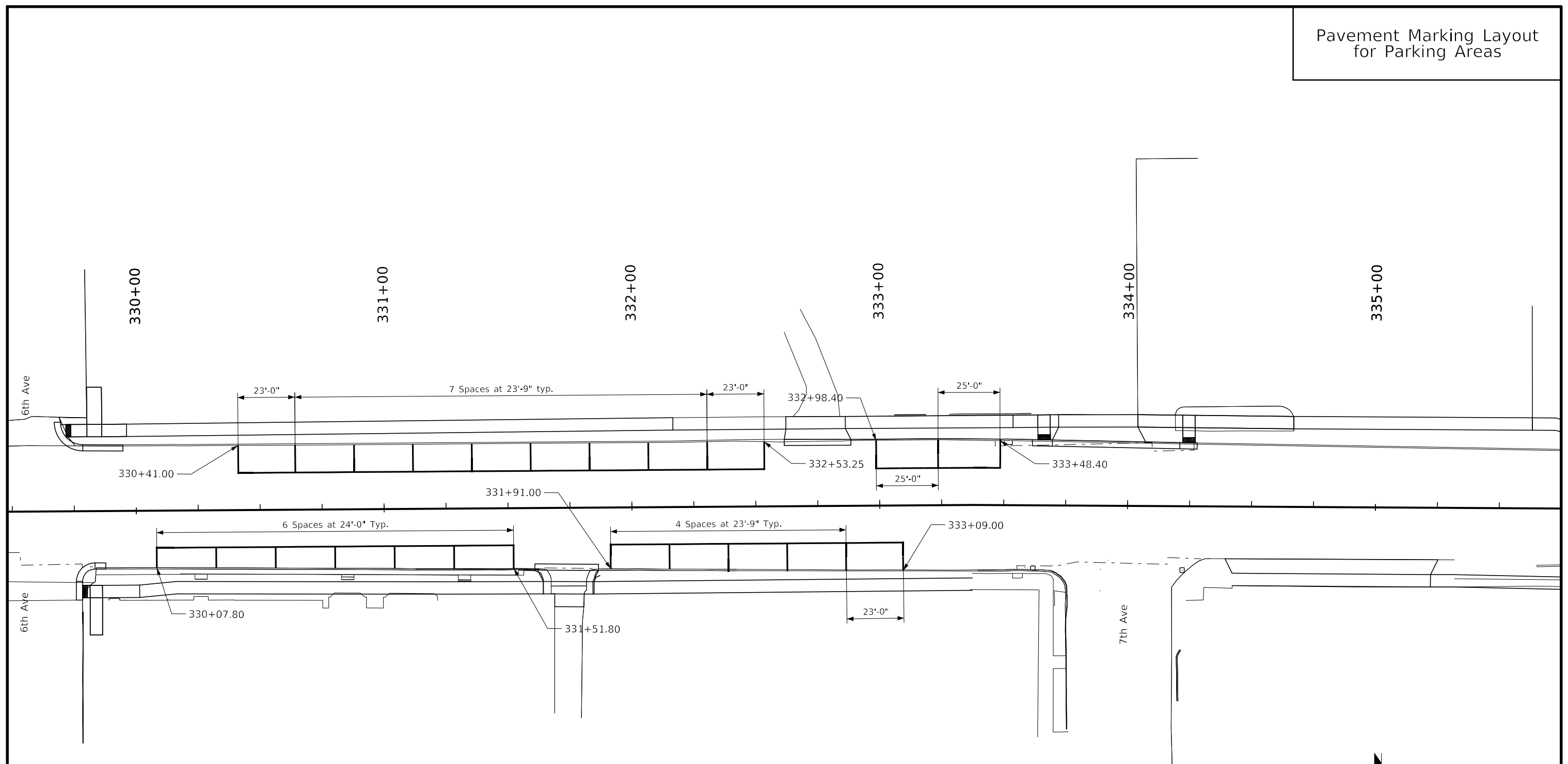
Detail A

PAINTED MEDIAN

Grooving

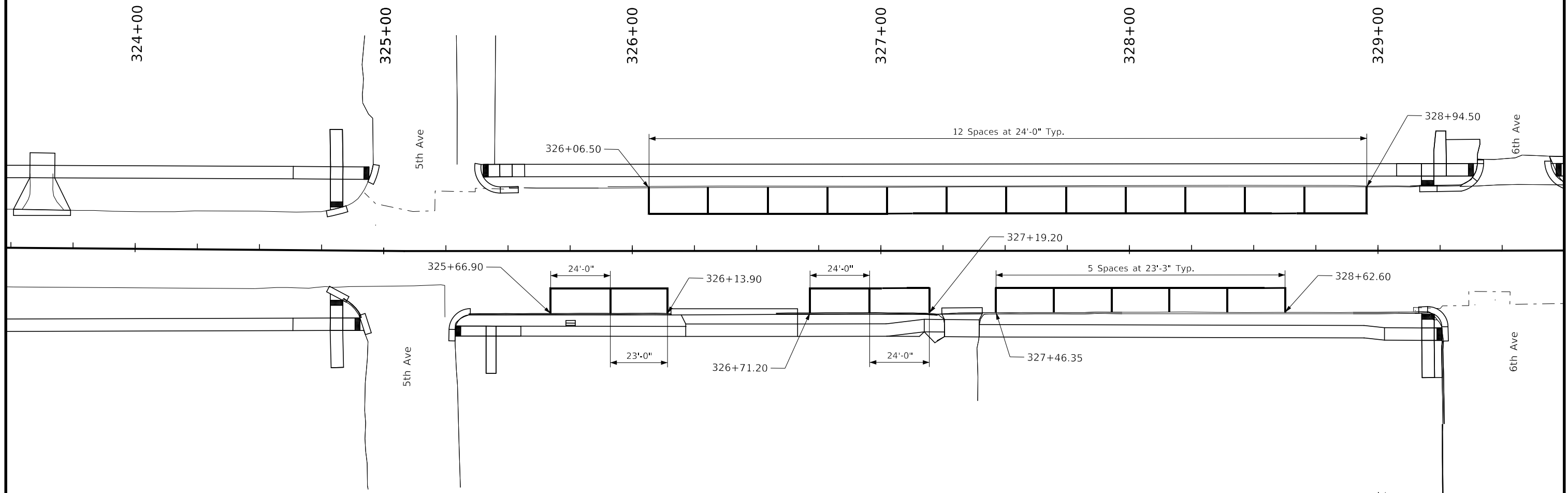
GROOVING DETAILS FOR LINE TYPES

Pavement Marking Layout
for Parking Areas



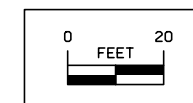
NOTES:
1. Parking space width shall be 10'-0".

Pavement Marking Layout
for Parking Areas

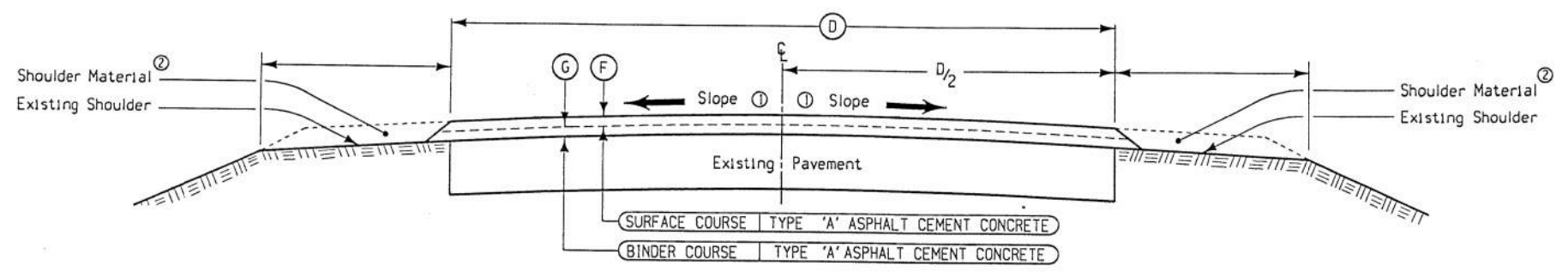


NOTES:

1. Parking Space width shall be 10'-0".



2602
MODIFIED



- Notes:
- ① Finished slope shall match existing pavement except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the engineer through areas of special shaping. Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
 - ② Shoulder material as specified elsewhere in these plans; refer to typical 7135 for "Type 'B' Granular Surfaced Shoulders".

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu.ft
Binder Course	145 lbs./cu.ft
Tack Coat	0.05 gal./sq.yd.

LOCATION		DIMENSIONS			PRIME AND TACK COAT		ASPHALT CEMENT		ASPHALT CEMENT CONCRETE Tons	
ROAD IDENTIFICATION	STATION TO STATION	①	②	③	Gallons	Tons	SURFACE	BINDER		
U.S. 30	814+00 - 295+00	24'	2"	3"	40.88	4.05	29.20	44.40		
U.S. 30	295+00 - 315+00	24'	(1) 2"	3"	40.88	4.19	29.20	44.40		
U.S. 30	315+00 - 825+00	24'	2"	3"	40.88	4.05	29.20	44.40		
U.S. 30	825+00 - 885+00	24'	(1) 2"	3"	40.88	4.19	29.20	44.40		

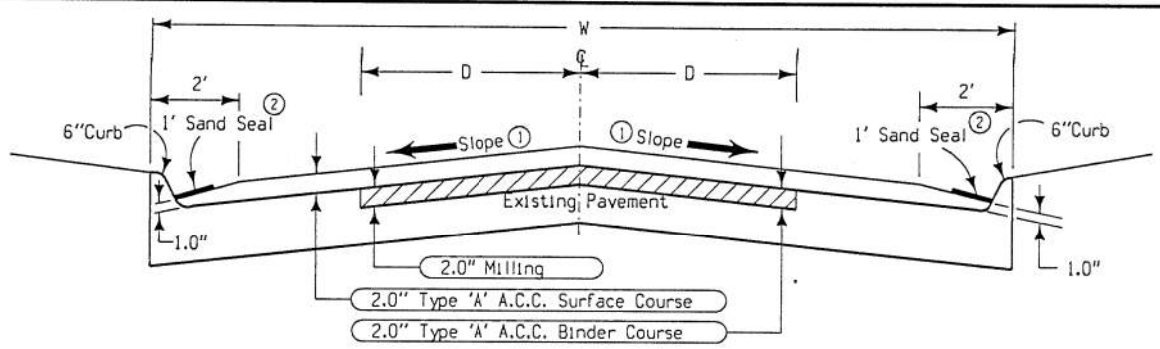
EQUATION :

$$\frac{\text{Sta. } 860+77.0 \text{ (Back)}}{= \text{Sta. } 8+20.8 \text{ (Ahead)}}$$

(1) Use 1/2" mix.

TYPICAL CROSS SECTION
ASPHALT CEMENT CONCRETE RESURFACING

2209
MODIFIED



- Notes:
- ① Finished slope shall match existing pavement except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the engineer through areas of special shaping. Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
 - ② At the edge of the ACC surface course runoff, place a one foot wide strip of sand seal. Sand seal is included in the quantity for primer or tack coat bitumen. Sand used shall be incidental to primer or tack coat bitumen.
 - ③ Estimated for 2 applications.

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu.ft
Binder Course	145 lbs./cu.ft
Tack Coat	0.05 gal./sq.yd.
Sand Seal	0.15 gal./sq.yd.
Milling	145 lbs./cu.ft

LOCATION		DIMENSIONS		PRIME AND TACK COAT		ASPHALT CEMENT		ASPHALT CEMENT CONCRETE Tons	
ROAD IDENTIFICATION	STATION TO STATION	①	②	Gallons ③	Tons	SURFACE	BINDER		
U.S. 30	885+00 - 895+00	44.5'	12'	37.50	4.75	(1) 52.58	29.00		

(1) Use 1/2" mix.

TYPICAL CROSS SECTION
ASPHALT CEMENT CONCRETE RESURFACING

FOR REFERENCE ONLY
NOT FOR CONSTRUCTION