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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

D-99-052-17

LOCATION OF SECTION INDICATED THUS: -

PROPOSED HIGHWAY PLANS

FAP 885, ROUTE IL 146 SECTION D9 PATCH 2018-2

SINKHOLE REPAIR HARDIN COUNTY

C-99-052-17

R8E

THE IL 146 IL 34 INTERSECTION 2015

FOR INDEX OF SHEETS, SEE SHEET NO 3

TRAFFIC DATA

IL 146 HARDIN COUNTY

IL-146: MP 4.02 TO 6.35. EAST OF

FOR SUMMARY OF QUANTITIES, SEE SHEET NO 5

PV = 2,630 2, 710 SU = 70 70 50 50 MU = 2,750 ADT = 2,830

TOWNSHIPS: McFARLAN

DESIGN DESIGNATION: NA

COORDINATE SYSTEM: NA

POSTED SPEED: 55 MPH

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

PROJECT ENGINEER CHARLES STEIN 618-351-5210 PROJECT MANAGER DARRYL LEFTWICH .. 618-351-5291

T12S

CONTRACT NO. 78598

SINKHOLE LOCATION

> GROSS LENGTH = 110 FT = 0.021 MILE NET LENGTH = 110 FT = 0.021 MILE

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

Prepared By:

DISTRICT STUDIES & PLANS ENGINEER

Examined By:

Vancy ter

DISTRICT LAND ACQUISITION ENGINEER

Examined By:

DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By:

DISTRICT OPERATIONS ENGINEER

Examined By:

DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By:

DISTRICT CONSTRUCTION ENGINEER

Examined By:

DISTRICT MATERIALS ENGINEER

SHEET NO	DESCRIPTION	
1	COVER SHEET	
2	SIGNATURE SHEET	
3	INDEX OF SHEETS, HI	GHWAY STANDARDS
4	GENERAL NOTES, COMM	MITMENTS & MIX DESIGNS
5	SUMMARY OF QUANTITI	ES
6	TYPICAL SECTION:	IL 146
7	SCHEDULES:	SINK HOLE REPAIR
		PAVEMENT MARKING
8	RESURFACING DETAIL:	PLAN VIEW
9	RESURFACING DETAIL:	PROFILE VIEW
1 O - 1 1	OLD PLAN SHEETS:	FOR INFORMATION ONLY
12	DETAILS:	TEMP HMA TRANSITIONS
	DETAILS:	ROUGH GROOVED SURFACE
	DETAILS:	UNEVEN LANE SIGNS

HIGHWAY STANDARDS

000001-06 STANDARD SYMBOLS ABBREVIATIONS & PATTERNS

001006 DECIMAL OF INCH & FOOT

701001-02 OFF RD OP - 2L2W - 15 FT MIN FROM EOP

701006-05 OFF RD OP - 2L2W - 15 FT TO EOP

701301-04 LN CLOSURE 2L2W - SHORT TIME OP

701306-03 LN CLOSURE 2L2W - SLOW MOVE OP DAY ONLY 45 MPH OR MORE

701311-03 LN CLOSURE 2L2W - MOVING OP DAY ONLY

701901-06 TRAF CNTRL DEVICES

780001-05 TYPICAL PVMT MRKINGS

USER NAME = Leftwichdl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 9/5/2017	DATE -	REVISED -

nents/IDOT Offices/District 9/Projects/78598/CADData/Design/D978598-D4

GENERAL NOTES

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT MIX ASPHALT

2.016 TONS/CU. YD. 2.05 TONS/CU. YD.

ALL AGGREGATE

THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT AND SHOULDER SLOPES SHALL NOT EXCEED <u>8%</u>. THE SHOULDER ON THE OUTSIDE OF SUPERELEVATED CURVES SHALL BE FLATTENED ACCORDINGLY.

THE THICKNESS OF HOT MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT MIX ASPHALT MIXTURE IS PLACED.

THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION EACH FOR THE HMA SURFACE REMOVAL, BINDER COURSE AND SURFACE COURSE.

ATTAINMENT OF PROPER CROWN OR SUPERELEVATION SHALL BE FULLY ACCOMPLISHED WITH THE HOT MIX ASPHALT SURFACE REMOVAL OR HOT MIX ASPHALT BINDER COURSE OR LEVELING BINDER, WHEN SPECIFIED.

AFTER A LIFT OF HOT MIX ASPHALT HAS BEEN PLACED, THE LANE SHALL REMAIN CLOSED TO TRAFFIC UNTIL THE NEW MAT HAS COOLED TO 150 DEGREES FAHRENHEIT

THERE ARE NO AVAILABLE WASTE SITES ON THE EXISTING RIGHT OF WAY WITHIN THE PROJECT LIMITS. DISPOSAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.

COMMITMENTS NONE

HMA MIXTURE REQUIREMENTS TABLES

The following HMA mixture requirements are applicable for this project

Location(s):	Hot-Mix Asphalt Surface Course and
	Incidental Hot-Mix Asphalt Surfacing
Mixture Use(s):	Hot-Mix Asphalt Surface Course, Mix C, N70
PG:	PG64-22
Design Air Voids:	4.0 %, 70 Gyration Design
Mixture Composition:	IL-9.5mm
(Mixture Gradation)	
Friction Aggregate:	C Surface
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	OCQA
Sublot Size:	TBD
Number of Roller Passes	NA

Location(s):	Hot_Mix Asphalt Binder
Mixture Use(s):	Hot-Mix Asphalt Binder Course, N70, IL-19.0
PG:	PG64-22
Design Air Voids:	4.0 %, 70 Gyration Design
Mixture Composition:	IL-19.0mm
(Mixture Gradation)	
Friction Aggregate:	None
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	ACOA
Sublot Size:	NA
Number of Roller Passes	NA

Location(s):	Hot-Mix Asphalt Shoulders
Mixture Use(s):	Hot-Mix Asphalt Binder Course, N30, IL-19.0L
PG:	PG64-22
Design Air Voids:	4.0 %, 30 Gyration Design
Mixture Composition:	IL-19.0L
(Mixture Gradation)	
Friction Aggregate:	None
Mixture Weight:	112 lbs/Sq Yd/in
Quality Management Program:	QCQA
Sublot Size:	NA
Number of Roller Passes	NA

USER NAME = Leftwichdl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 9/5/2017	DATE -	REVISED -

SCALE:

SHEET

GENERAL NOTES				F.A.P. RTE	SECT	ПОИ		COUNTY	TOTAL SHEETS	SHEET NO.	
MIX DESIGNS		885	D9 PATCH 2018-2			HARDIN	12	4			
IVIIA DESIGNO					CONTRACT NO						3598
OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT						

SUMMARY OF QUANTITIES

COUNTY: HARDIN CO

ROUTE: IL 146

FUNDING: 100% STATE

LOCATION: RURAL

		LOCATION:	RURAL /
CODE	LIEN DESCRIPTION	LINITT	ROADWAY
NUMBER	ITEM DESCRIPTION	UNIT	0005 v
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	223
40600990	TEMPORARY RAMP	SO YD	36
40503005		701	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	47
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	27
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	104
48100100	AGGREGATE SHOULDERS, TYPE A	TON	5
48203100	HOT-MIX ASPHALT SHOULDERS	TON	19
67100100	MOBILIZATION	LSUM	1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	LSUM	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	33
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	11
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	440
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	440
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1

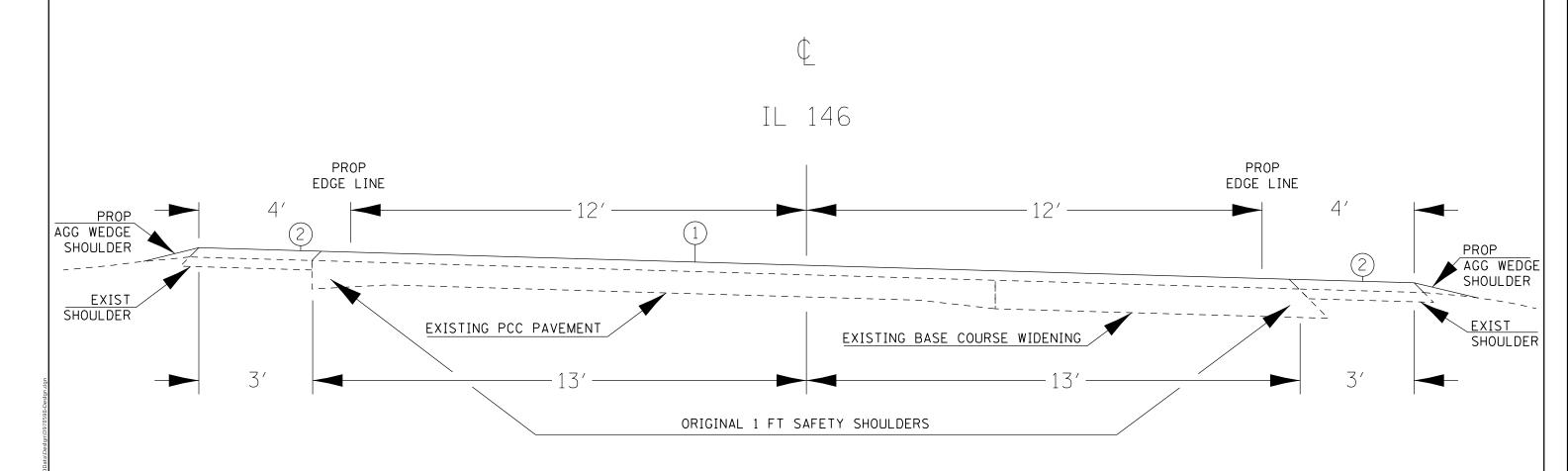
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* SPECIALTY ITEM

USER NAME = Leftwichd!	DESIGNED -	REVISED -				•				F.A.P.	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	SUMMARY OF QUANTITIES					885	D9 PATCH 2018-2	HARDIN	12 5	
PLOT SCALE = 100.0000 ' / in.	CHECKED -	 REVISED -	DEPARTMENT OF TRANSPORTATION								20 // ((0)) 20 20 2	CONTRACT	NO. 78598
PLOT DATE = 9/5/2017	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS 5	\$TA.	TÓ STA.	-	ILLINOIS FED. A	ND PROJECT	

sa EBIDINTEG. Minois, gov: PW(BOT) (bocuments \tbOT) Offices\ \text{District 9\Projec}

TYPICAL SECTION



STA 197+30 TO STA 198+40

- (1) PROP HMA BINDER (THICKINESS VARIES) AND SURFACE COARSE $1\frac{1}{2}$ "
- (2) PROP HMA SHOULDER THICKNESS VARIES

SEE PLAN SHEET: RESURFACING DETAIL - PLAN VIEW FOR LOCATIONS OF HMA SURFACE REMOVAL $1^{1/2}$ "

USER NAME = Leftwichdl	DESIGNED -	REVISED -								F.A.P. RTF	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS	TYPICAL SECTION						885	D9 PATCH 2018-2	HARDIN	12	6
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO. 78	8598
PLOT DATE = 9/5/2017	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT		

SCHEDULE FOR SINK HOLE RESURFACING

R146 SINK HOLE		SECTION LENGTH (INFO ONLY)	HMA SURF REMOVAL	HMA BIND CSE N70	HMA SURF CSE MIX "C" N70	HMA SHOULDERS		AGGREGATE SHOULDER WEDGE	BIT MATLS TACK CT	TEMPORARY RAMP
			1 1/2"	NOM 4"	1.5"	BINDER NOM 4.5"	SURFACE 1.5"			
	COMMENT	FEET	SQ YD	TON	TON	TON	TON	TON	POUND	SQ YD
						(SHOULDERS)	(SHOULDERS)			
R 146 NEAR ROSICLARE										
197+30.00 BK	Improvement Begins									
STA 197+30.00 TO STA 198+40.00		110.00	104	47	27	12	7	5	223	36
STA 198+40.00	Improvement Ends									
			104	47	27	12	7	5	223	36
* INCLUDES SOME SHOULDER QUANTITY		•			1	9			* *	

** INCLUDES SHOULDERS

SCHEDULE FOR 146 PAVEMENT MARKING

R146		SECTION LENGTH (INFO ONLY)	PAVEMENT MARKING LINE 4"		TEMPORARY PVMT MRK LINE 4''	SHORT TERM PVMT MRK	SHORT TERM PVMT MRK REMOVAL	RAISED REFLECTIVE PVMT MKR
			WHITE	YELLOW		SKIP DASH YELLOW		REMOVAL
	COMMENT	FEET	FOOT	FOOT	FOOT	FOOT	SO FT	EACH
R 146 NEAR ROSICLARE								
197+30.00 BK	Improvement Begins							
STA 197+30.00 TO STA 198+40.00		110.00	220	220	440	33	1 1	1
STA 198+40.00	Improvement Ends							
			220	220	440	33	1 1	1
			44	40				

JSER NAME = Leftwichdl DESIGNED -REVISED -DRAWN -REVISED -CHECKED -REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RESURFACING SCHEDULE D9 PATCH 2018-2 HARDIN 12 7 PAVEMENT MARKING SCHEDULE CONTRACT NO. 78598 OF SHEETS STA.

RESURFACING DETAIL - PLAN VIEW FOR INFORMATION ONLY

APPROXIMATE LOCATIONS OF HMA SURFACE REMOVAL. THERE WILL BE ADDITIONAL SHOULDER MILLING ADJACENT TO THESE PAVEMENT AREAS.



SER NAME = Leftwichdl

DESIGNED

HECKED

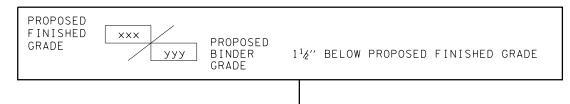
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REVISED

REVISED

REVISED

APPROXIMATE LOCATION OF HMA BINDER COURSE PLACEMENT: NOMINAL 4"
DEEPER TOWARDS THE CENTER, FEATHERED TOWARDS BOTH ENDS



ALL STATIONING, ELEVATIONS, SLOPES AND GRADES SHOWN ON THE DETAIL ARE APPROXIMATE. THE EXACT LOCATION OF THE REPAIR, THE PROPOSED ELEVATIONS, SLOPES AND GRADES SHALL BE DETERMINED BY THE ENGINEER AFTER LAYOUT OF THE REPAIR LOCATION. THE RESURFACING IS LOCATED IN A HORIZONTAL CURVE WITH TRANSITIONING SUPER ELEVATION RATES AND IN THE MIDST OF A SLIGHT VERTICAL CURVE ON AN UPHILL GRADE. IN ORDER TO BEST MATCH THE ORIGINAL PAVEMENT ELEVATIONS (BEFORE SINK HOLE DEVELOPMENT,) THE PROPOSED PROFILE GRADE OF THE LEFT EDGE OF PAVEMENT SHALL BE A LINEAR TRANSITION FROM THE EXISTING ELEVATION AT POINT LTEP A TO THE EXISTING ELEVATION AT POINT LTEP B. THE PROPOSED PROFILE GRADE OF THE CENTER LINE SHALL BE A LINEAR TRANSITION FROM THE EXISTING ELEVATION AT POINT CL_A TO THE EXISTING ELEVATION AT POINT CL_B. THE PROPOSED PROFILE GRADE OF THE RIGHT EDGE OF PAVEMENT SHALL BE A LINEAR TRANSITION FROM THE EXISTING ELEVATION AT POINT RTEP_A TO THE EXISTING ELEVATION AT POINT RTEP_B. HMA SURFACE REMOVAL, $1\frac{1}{2}$ " SHALL BE USED TO TO REMOVE ALL EXISTING HMA IN THE PROPOSED RESURFACING AREA THAT IS WITHIN $1\frac{1}{2}$ " OF THE PROPOSED FINISHED GRADE.

RESURFACING DETAIL

PLAN VIEW

SHEET

SHEETS STA.

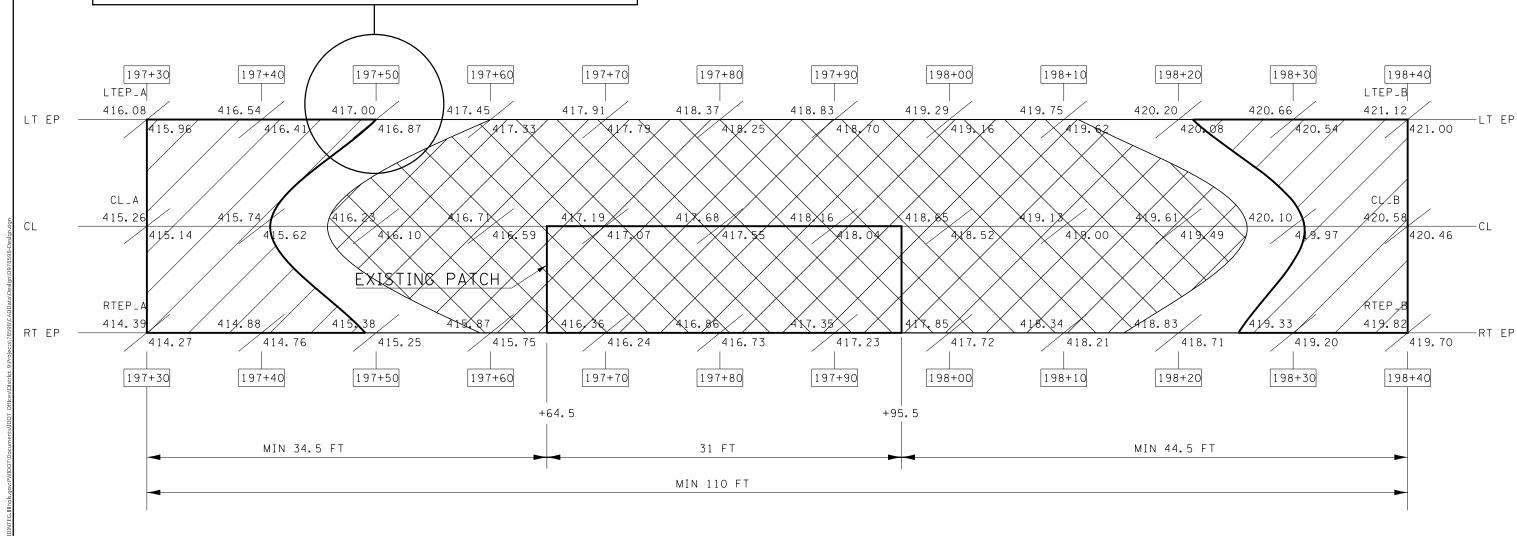
SECTION

D9 PATCH 2018-2

HARDIN

12

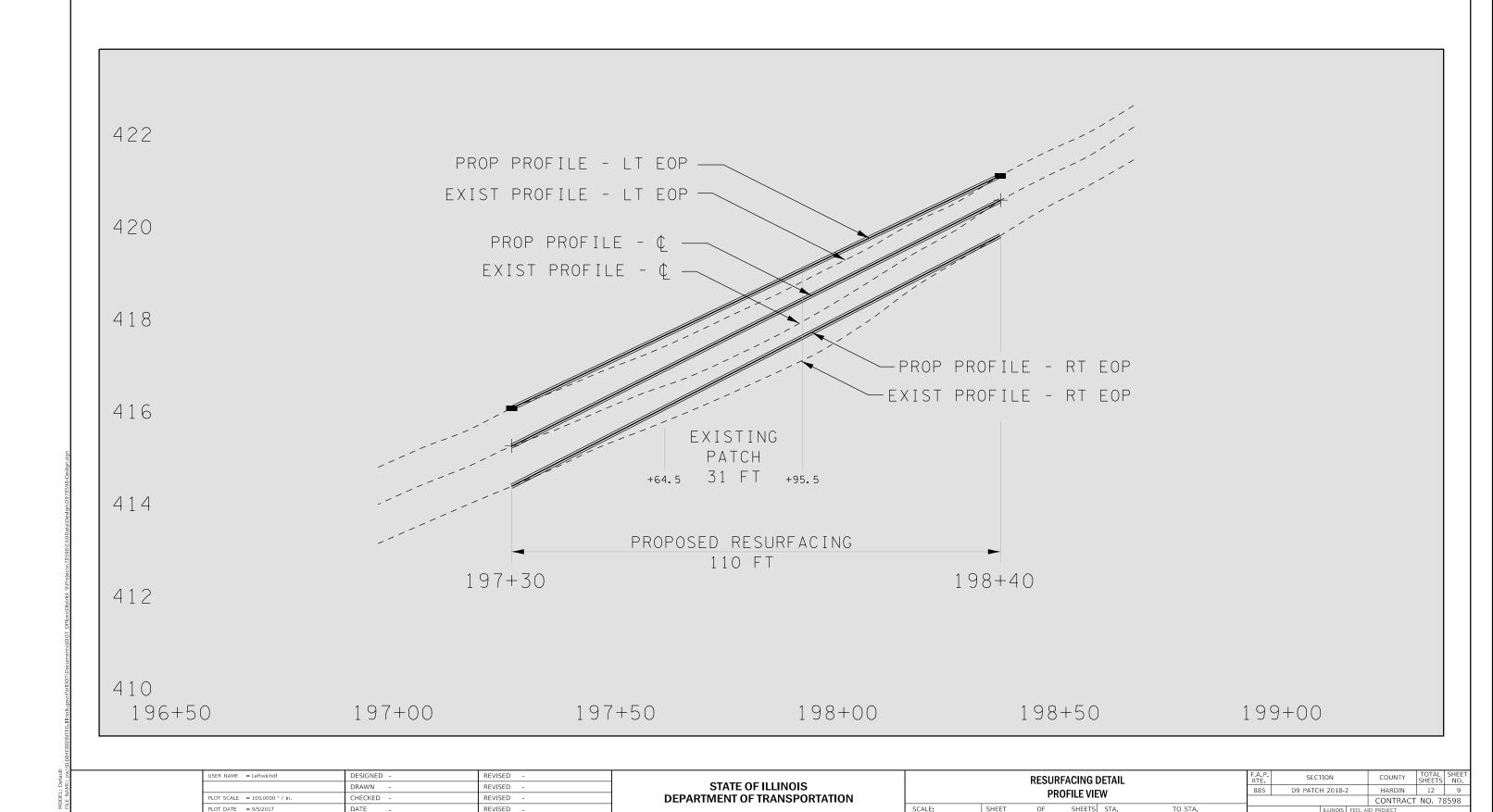
CONTRACT NO. 78598

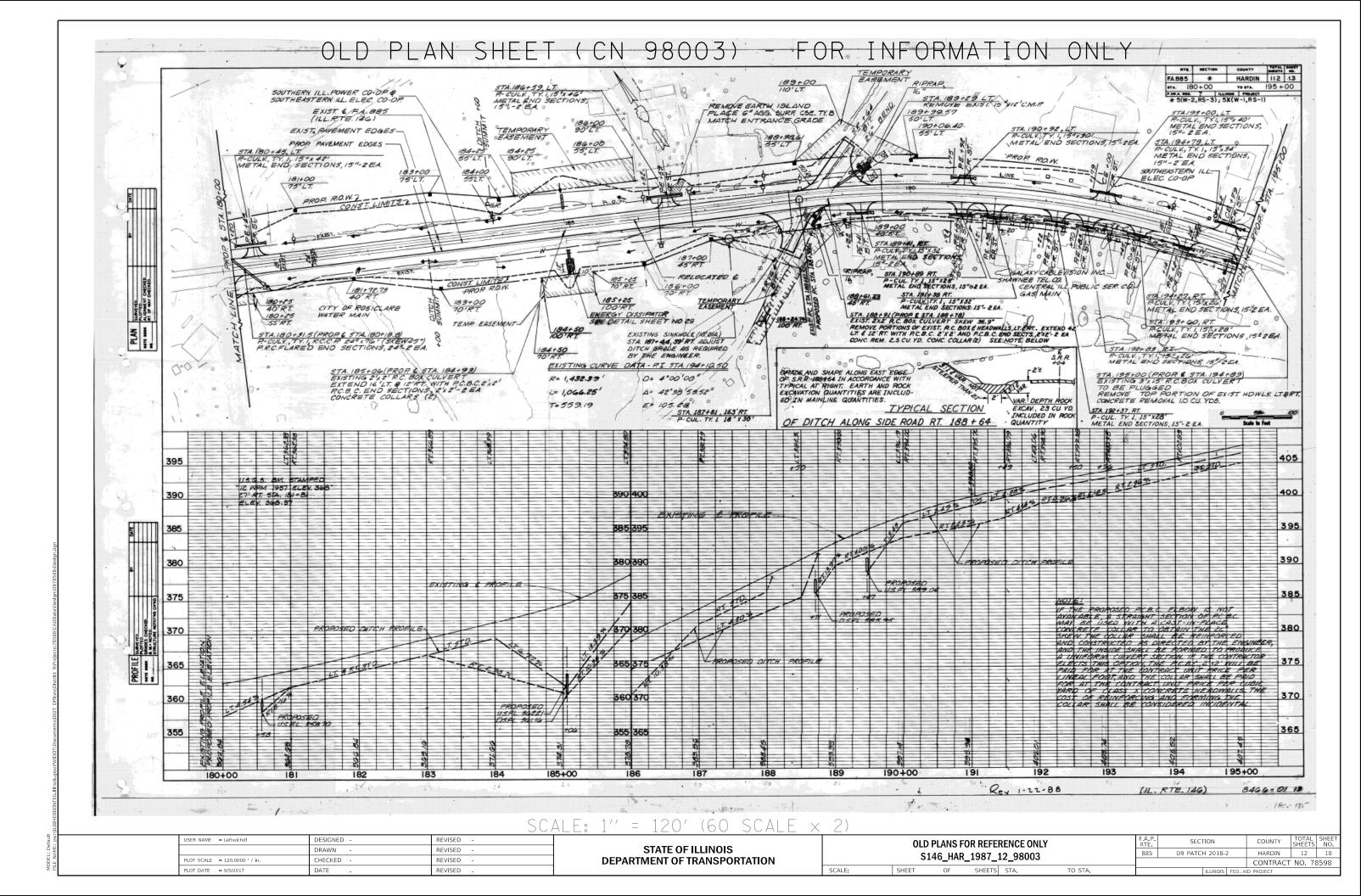


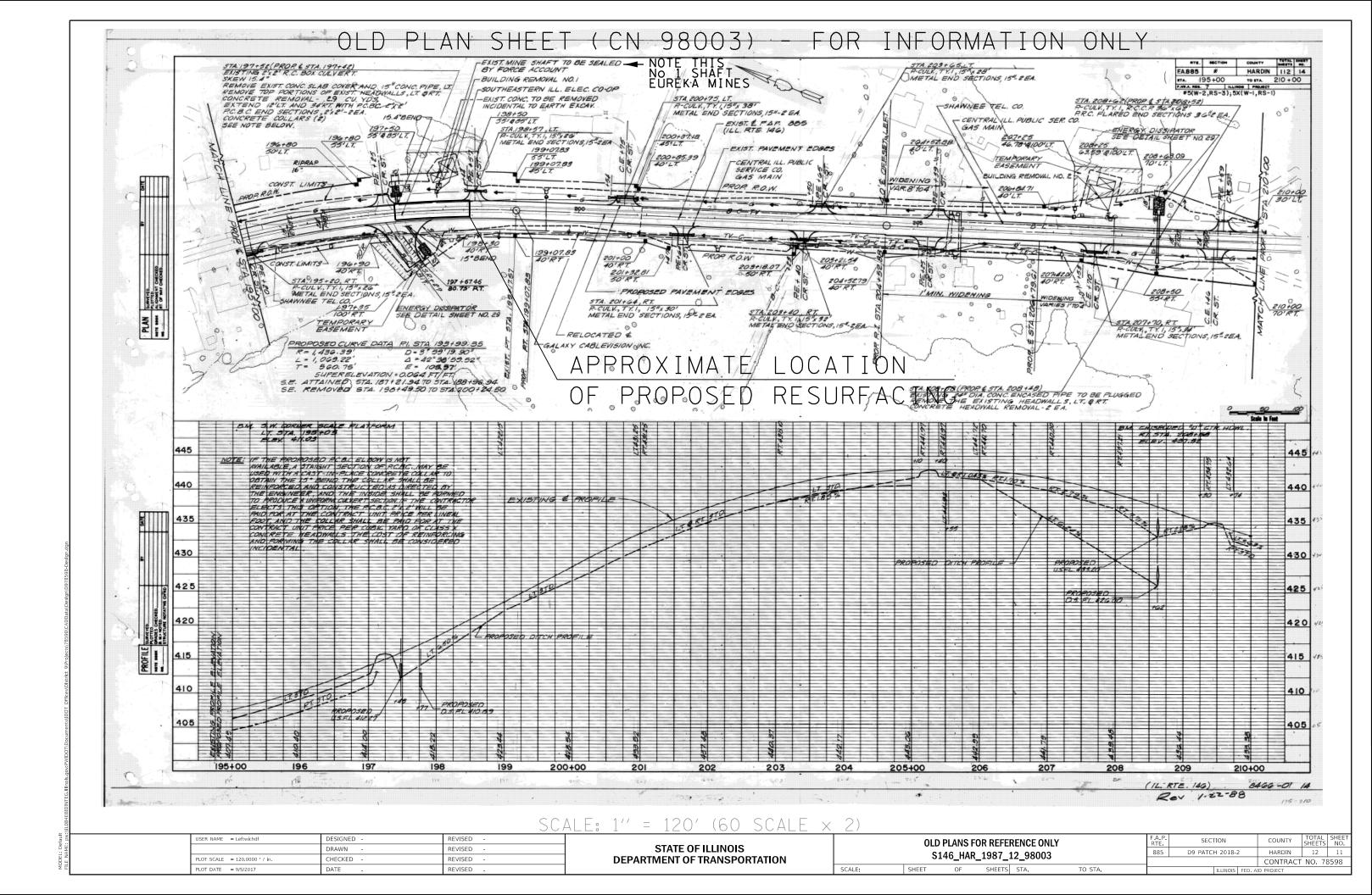
STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

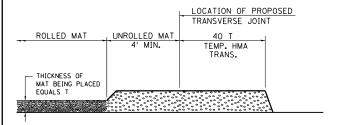
RESURFACING DETAIL - PROFILE VIEW FOR INFORMATION ONLY





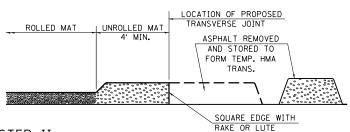


TEMPORARY HOT-MIX ASPHALT TRANSITIONS



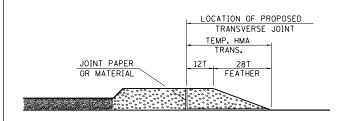
STEP :

- PLACE HOT-MIX ASPHALT MAT, LENGTH 40 TIMES THE THICKNESS OF THE MAT BEING PLACED PAST THE PROPOSED TRANSVERSE JOINT LOCATION USING NORMAL OPERATING PROCEDURES.
- 2. EXTREME CARE SHOULD BE TAKEN TO MAINTAIN ENOUGH MATERIAL IN FRONT OF THE SCREED TO MAINTAIN REQUIRED PAVING DEPTH.



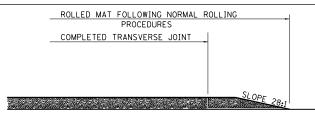
STEP II

- 1. MOVE THE PAVER OUT OF THE WAY AND REMOVE THE ASPHALT FROM THE AREA OF THE PROPOSED TEMPORARY HOT-MIX ASPHALT TRANSITION.
- 2. SQUARE UP THE END OF THE MAT WITH A RAKE OR LUTE.
- 3. NOTE THAT THE MAT WITHIN 4' OF THE END OF JOINT IS NOT TO BE ROLLED AT THIS TIME.



STEP III

- 1. JOINT PAPER OR OTHER PRESELECTED JOINT MATERIAL IS THEN PLACED IN THE CLEARED AREA AND THE EXCESS ASPHALT USED TO HAND FORM A TRANSITION TO THE DIMENSIONS SHOWN ABOVE.
- 2. NOTE THAT IN CONSTRUCTING THE TRANSITION, THE MAT DEPTH IS CONTINUED AS PART OF THE TRANSITION BEFORE FORMING THE FEATHER.



STEP IV

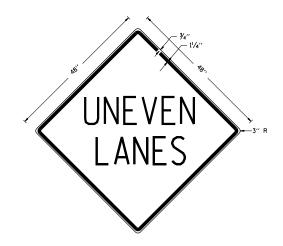
- 1. COMPLETE TEMPORARY TRANSITION BY ROLLING.
- 2. TO RESUME PAVING, AT THE JOINT, REMOVE TEMPORARY TRANSITION AND DISPOSE OF THE MATERIAL ACCORDING TO ART. 202.03 OF THE STD. SPECS. (COST INCLUDED IN THE CONTRACT).
- 3. CONSTRUCTING THE TEMPORARY TRANSITIONS WILL NOT BE PAID FOR SEPARATELY IN ACCORDANCE WITH ARTICLE 406.14 OF THE STANDARD SPECIFICATIONS.

REDRAWN 2-15-89 REVISED 8-16-94 REVISED 01-09-07 RESIZED 05-8-08 REVISED 05-16-13

REVISIONS

UNEVEN LANES SIGN

W8-11 (48" × 48")



COLORS:

LEGEND AND BORDER - BLACK NON-REFLECTORIZED BACKGROUND - ORANGE REFLECTORIZED

NOTE: PRIOR TO ALLOWING TRAFFIC ON ANY PORTION OF THE ROADWAY THAT HAS BEEN COLDMILLED OR BEFORE RESURFACING OPERATIONS BEGIN, THE CONTRACTOR SHALL HAVE ERECTED "UNEVEN PAVEMENT" SIGNS THAT CONFORM TO THE ABOVE DETAILS. A MINIMUM OF ONE SIGN AT EACH END OF THE IMPROVEMENT WILL BE REQUIRED. THE CONTRACTOR SHALL MAINTAIN THE "UNEVEN PAVEMENT" SIGNS UNTIL THE RESURFACING OPERATIONS ARE COMPLETED.

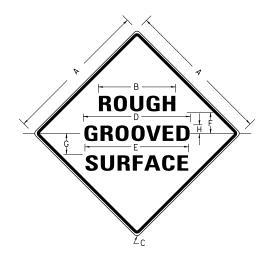
> IF AT ANY TIME THE SIGNS ARE IN PLACE BUT NOT APPLICABLE, THEY SHALL BE TURNED FROM THE VIEW OF MOTORISTS OR COVERED AS DIRECTED BY THE ENGINEER.

THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE REQUIRED SIGNS SHALL BE INCLUDED IN THE CONTRACT.

STD.

	REVISIONS			
	DRAWN	2-15-89		
	REVISED	4-06-93		
	REDSIGNED	7-23-04		
	RESIZED	5-08-08		
9-41	REVIEWED	5-17-13		

ILLINOIS STANDARD



COLORS:

LEGEND AND BORDER- BLACK NON-REFLECTORIZED BACKGROUND- ORANGE REFLECTORIZED

SIGN	DIMENSIONS							
SIZE	Α	В	С	D	Ε	F	G	Н
48X48	48.0	24.1	3.0	34.0	33.0	6.0	13.0	3.5

SIGN	SERIES LINES			MAR-		BLANK
SIZE	1	2	3	GIN	DER	STD.
48X48	7C	7C	7C	0.8	1.2	B4-48D
ALL DIMENSIONS IN INCHES						

NOTES:

SCALE:

SHEET

PRIOR TO ALLOWING TRAFFIC ON ANY PORTION OF THE ROADWAY THAT HAS BEEN COLDMILLED, THE CONTRACTOR SHALL HAVE ERECTED "ROUGH GROOVED SURFACE" SIGNS THAT CONFORM TO THE ABOVE DETAILS. A MINIMUM OF ONE SIGN AT EACH END OF THE IMPROVEMENT WILL BE REQUIRED. THE CONTRACTOR SHALL MAINTAIN THE "ROUGH GROOVED SURFACE" SIGNS UNTIL THE COLDMILLED SURFACE IS COVERED WITH LEVELING BINDER OR SURFACE COURSE.

IF AT ANY TIME THE SIGNS ARE IN PLACE BUT NOT APPLICABLE, THEY SHALL BE TURNED FROM THE VIEW OF MOTORISTS OR COVERED AS DIRECTED BY THE ENGINEER.

THE COST OF FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE REQUIRED SIGNS SHALL BE INCLUDED IN THE CONTRACT.

	REVISIONS					
	REDRAWN	2-15-89				
	REVISED	4-6-93				
	REVISED	3-27-08				
-39	REVIEWED	5-17-13				

JSER NAME = Leftwichdl DESIGNED -REVISED DRAWN REVISED HECKED REVISED PLOT DATE = 9/5/2017 DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION COUNTY **DISTRICT STANDARDS** HARDIN 885 D9 PATCH 2018-2 12 12 CONTRACT NO. 78598 OF SHEETS STA. TO STA.