
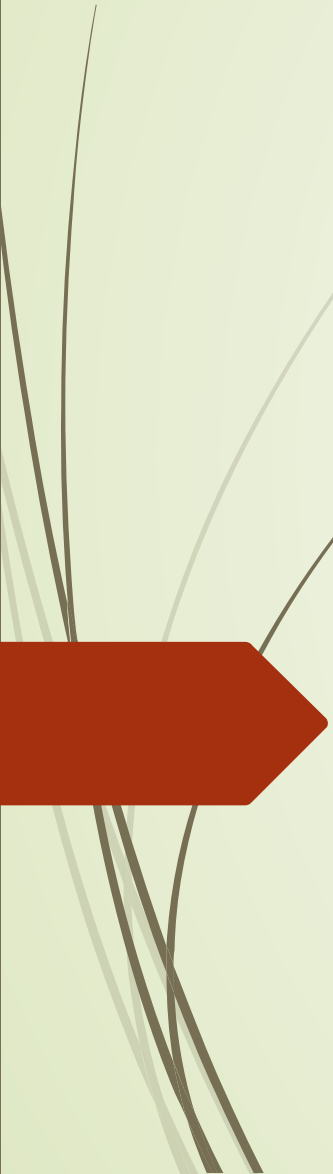



# Preparing an Estimate

Preventative  
Maintenance



There is only one vital piece of information that you need to know from this presentation.



We're from  
Frankfort and  
we're here to  
help...



Frankfort Knows Best

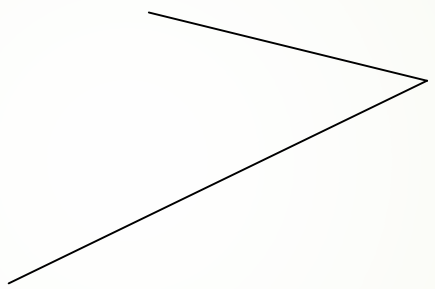




Are there any questions?

# Where to Start

- Maintenance Intranet Page-Division of Roadway Preservation
- <https://intranet.kytc.ky.gov/org/DM/Pages/Roadway-Preservation.aspx>

- Estimate
  - Project Checklist Package
  - Maps
  - Typical Sections
  - Pavement Warrants
  - Links to Standard Drawings, Average Unit Bid Prices, Edge Line Rumble Matrix, ect.
- 
- Minimum for an Estimate

## District Field Assignments

[Brian Gregory](#)

Cell: 502-229-2490

Districts 1, 2, 3, & 5

[Dustin Rowland](#)

Cell: 502-871-0021

Districts 4, 7, 9 & 11

[Wheeler Nevels](#)

Cell: 502-330-4091

Districts 6, 8, 10, & 12

## FEMA-FHWA ER Coordinators

[Disaster Information Page](#)

[Nathan Ridgway](#)

Office: 502-782-5541

## Contracts

[Charlie Briggs](#)

Office: 502-782-5623

[Ken McCarty](#)

502-229-8309

[David Smith](#)

Office: 502-782-5604

Cell: 502-682-9631

[Brian Schroeder](#)

Cell: 502-229-8384



## ESTIMATE PROGRAM RESOURCES

[THE WHEELER NEVELS Estimate Program](#)

[8/16/2021](#)

[Estimate Program](#)

[\(10-9-18\)](#)

[Enabling Macros for the Estimate Program](#)

[Fuel & Asphalt Spreadsheet](#)

[\(10-11-12\)](#)

[PES Project Checklist](#)

[\(7-28-17\)](#)

[Highway Information View and Extract Interface -KYTC](#)

## STANDARD NOTES & DRAWINGS

[Transport Special Provision Notes \(2012\)](#)

[Special Notes](#)

[Typical Sections](#)

[Maintenance Drawings](#)

[Standard Drawings and Active Sepias \(2020\)](#)

[Summary Sheet Templates](#)

[Edgeline Rumble Matrix](#)

## ESTIMATE PREPARATION RESOURCES

[2019 Snow & Ice Maps County Maps \(PDF\)](#)

[2018 Asphalt Warrants](#)

[Warrants of Use for MTV \(09-18-2018\)](#)

[KYTC Road Data](#)

[Planning Loop Locations](#)

[\(9-22-11\)](#)

[KYTC Average Unit Bid Prices](#)

[Kentucky Festivals](#)

[Photolog Viewer](#)

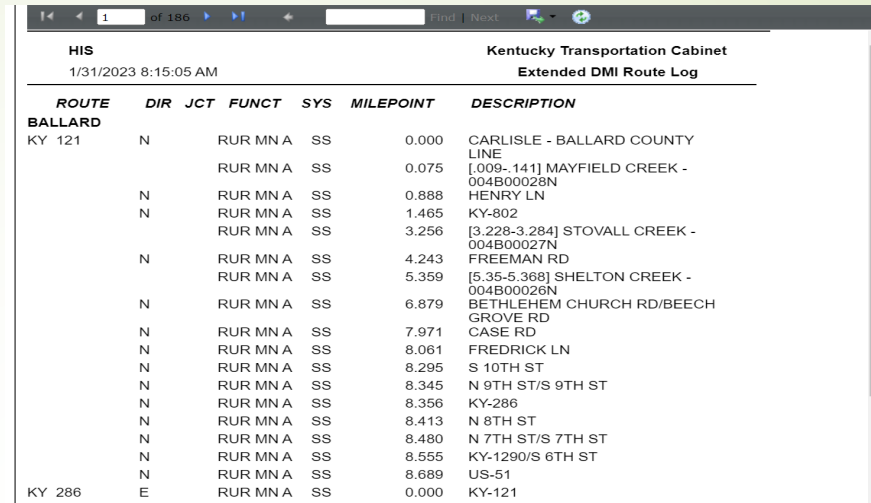
[Training](#)

[Bridge Data Miner](#)



# Before You Hit the Road

- ▶ Make sure you have a measuring wheel
- ▶ Be sure to grab your Route Log
  - ▶ [https://apps.transportation.ky.gov/DMI\\_Reports/](https://apps.transportation.ky.gov/DMI_Reports/)
- ▶ Have a tape measure ready
- ▶ DMI calibrated?



ROUTE	DIR	JCT	FUNCT	SYS	MILEPOINT	DESCRIPTION
BALLARD						
KY 121	N		RUR MNA	SS	0.000	CARLISLE - BALLARD COUNTY LINE
			RUR MNA	SS	0.075	[0.009- 141] MAYFIELD CREEK - 004B00028N
	N		RUR MNA	SS	0.888	HENRY LN
	N		RUR MNA	SS	1.465	KY-802
			RUR MNA	SS	3.256	[3.228-3.284] STOVALL CREEK - 004B00027N
	N		RUR MNA	SS	4.243	FREEMAN RD
			RUR MNA	SS	5.359	[5.35-5.368] SHELTON CREEK - 004B00026N
	N		RUR MNA	SS	6.879	BETHLEHEM CHURCH RD/BEECH GROVE RD
	N		RUR MNA	SS	7.971	CASE RD
	N		RUR MNA	SS	8.061	FREDRICK LN
	N		RUR MNA	SS	8.295	S 10TH ST
	N		RUR MNA	SS	8.345	N 9TH ST/S 9TH ST
	N		RUR MNA	SS	8.356	KY-286
	N		RUR MNA	SS	8.413	N 8TH ST
	N		RUR MNA	SS	8.480	N 7TH ST/S 7TH ST
	N		RUR MNA	SS	8.555	KY-1290/S 6TH ST
	N		RUR MNA	SS	8.689	US-51
KY 286	E		RUR MNA	SS	0.000	KY-121





# Drive the Project

- ▶ Measure the road in several different locations
  - ▶ Tangent Sections only
- ▶ Don't measure in curves, entrances or mailbox turnouts
- ▶ Note any typical changes



# Things to Look For

- ▶ Striping

- ▶ Centerline Striping, Edgeline Striping, Temp. Striping

- ▶ Thermo

- ▶ Have bid item to remove 6" thermo striping, but other thermo will be incidental.

- ▶ Pavement Markers-Remove pavement markers but do not add them back unless on interstate or parkway.

- ▶ HSIP will create a project to add back pavement markers

## **SPECIAL NOTE FOR THERMOPLASTIC PAVEMENT MARKINGS REMOVAL**

---

Remove existing Thermoplastic Pavement Markings just prior to placement of the overlay as directed by the Engineer. The Department will not measure removal of the Thermoplastic Pavement Markings, but shall be incidental to the other items of work. Lane Striping thermo removal will be paid for as indicated by the Bid Item 06531 PAVE STRIPING REMOVAL-6 IN





# Things to Look For

- Milling

- Every road is different but typically don't have to mill as much as normal FD05, 1" overlays
- Fine Milling\*

- Leveling and Wedging

- Will not have as much leveling and wedging. Typically, 10-20%.
- If doing an alternate estimate and you need leveling and wedging, both the thin lay and micro will have to have to have a bid item. Check square yards



# Things to Look For

- ▶ Base Failures

- ▶ If you have base failures, they will have to be repaired by maintenance crews and not set up in estimate.



# Estimate Random Thoughts

- For double alternate projects, put both, microsurfacing and thinlay, on the same estimate. Don't have to do separate estimates.
- Microsurfacing is paid by the square yard, Thinlay is paid by the ton.
- Add crack seal to projects when completing Microsurfacing or Thinlay. No crackseal needed for chip seal/cape seal projects.
  - Easy way to calculate crackseal is count # of joints, calculate length of joints in feet, divide by 3 (roughly 0.2 pounds/ft for the material), plus a percentage of randoms.



# Estimate Random Thoughts

- ▶ When estimating a cape seal, use  $5/8''$  when thinlay is used
- ▶ When estimating a double alternate, use  $3/4''$  for thinlay



# Example of Cape Seal with thinlay and micro on same estimate

Compaction Option = B

	DESCRIPTION	RATE APP. LBS/SQ.YD	QUANTITY	UNIT	AVERAGE UNIT PRICE
<input checked="" type="checkbox"/>	TEMPORARY SIGNS		170	SF	\$ 5.68
<input checked="" type="checkbox"/>	MAINTAIN & CONTROL TRAFFIC		1	LS	\$ 5,000.00
<input checked="" type="checkbox"/>	CL2 ASPH SURF NO.4D PG64-22	68.75	1510	TON	\$ 75.00
<input checked="" type="checkbox"/>	CL2 ASPH SURF NO.4D PG64-22	68.75	170	TON	\$ 75.00
<input type="checkbox"/>					
<input checked="" type="checkbox"/>	ASPHALT LEVELING AND WEDGING	55.00	274	TON	\$ 75.00
<input checked="" type="checkbox"/>	MOBILIZATION FOR MILL & TEXT		1.0	LS	\$ 1,672.63
<input checked="" type="checkbox"/>	ASPHALT PAVE MILLING & TEXTURING		30.0	TON	\$ 10.83
<input checked="" type="checkbox"/>	ASPHALT MATERIAL FOR TACK		19	TON	\$ 265.00
<input type="checkbox"/>					
<input checked="" type="checkbox"/>	PAVE STRIPING-PERM PAINT-4 IN		44200	LF	\$ 0.17
<input checked="" type="checkbox"/>	PAVE STRIPING-TEMP PAINT-4 IN		15000.0	LF	\$ 0.09
<input checked="" type="checkbox"/>	POLYMER ASPHALT EMULSION FOR SCRUB SEAL		78.0	TON	\$ 680.00
<input checked="" type="checkbox"/>	SCRUB SEAL AGGREGATE		495	TON	\$ 66.12
<input checked="" type="checkbox"/>	MICROSURFACING-LEVELING COURSE		44802	SQYD	\$ 1.53
<input checked="" type="checkbox"/>	MICROSURFACING-SURFACE COURSE - TYPE D		44802.0	SQYD	\$ 1.42
<input checked="" type="checkbox"/>	OVERBAND CRACK SEALING		4420.0	LB	\$ 1.57



# Example of Calculating Crack Seal

- ▶ 1.5 mile section of roadway with 3 asphalt joints and roughly 25% randoms

1.5 miles x 5280 ft.=7,920 ft.

7,920 ft. x3 joints=23,760 total footage

Add 25% for random cracks-23,760 ft. x 25%=29,700 total feet

Covert to pounds by multiplying: 29,700x0.2= 5940pounds

Round up to 6,000 pounds of crack seal material



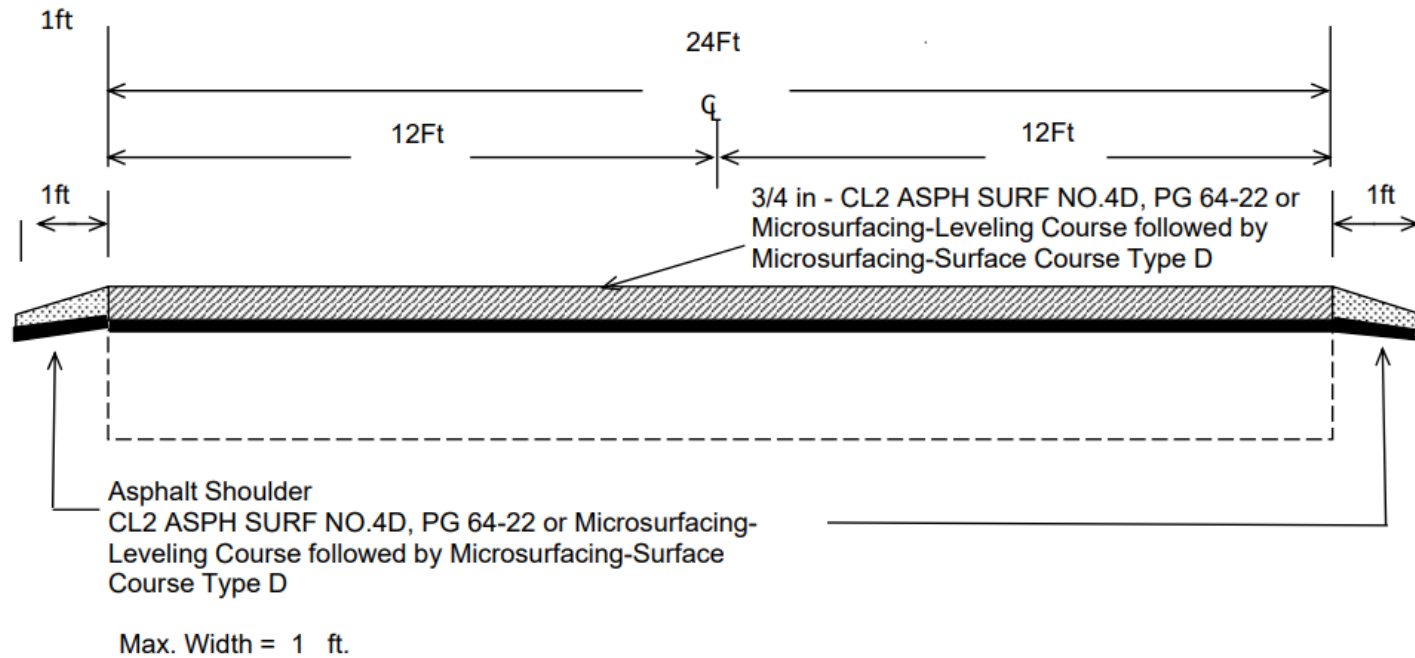
# Typical Section

- ▶ One Complete Typical for Each Section
  - ▶ Show Pavement Type
  - ▶ Thickness
  - ▶ Type of Shoulders-monolithic, pavement wedge, fog seal?
  - ▶ Show any milling required

# Typical Sections

## LEE COUNTY

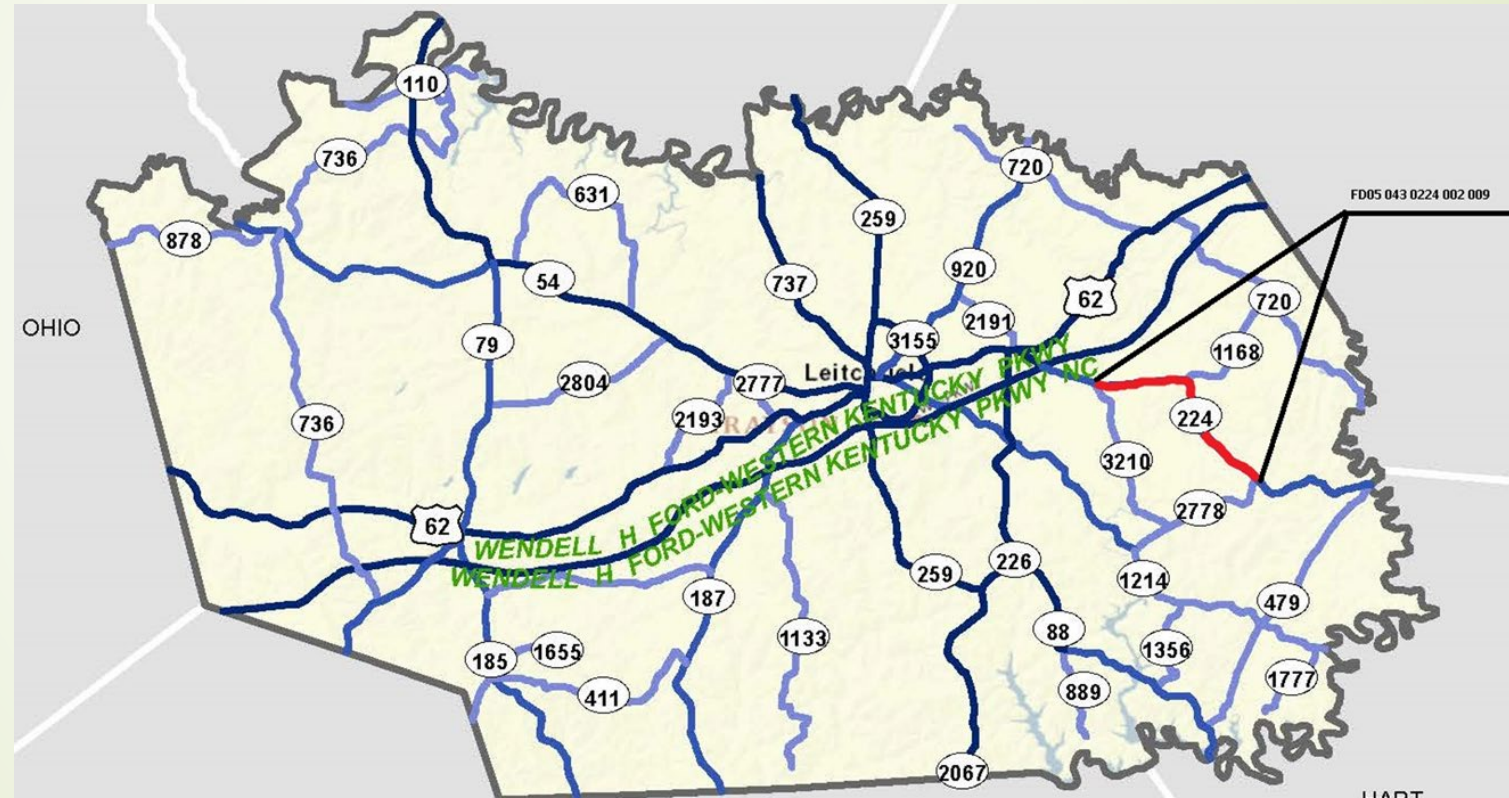
FD05 065 011 012-015  
TYPICAL SECTION  
MILEPOINTS 12.765-14.49



\*Where Existing Site Conditions Permit



# Map



# Checklist

## TRANS\*PORT PROJECT NOTES CHECKLIST USE WITH MAINTENANCE ESTIMATE PROGRAM

COUNTY:  ROUTE:  PROJECT NUMBER:

### General PES Notes

- 0-110 Road and/or Bridge Plans (**FULL SIZE PLAN SHEETS NOT 8½ X 11**)\*\*
- 1-121 Deferred Payment (**ALL FD05 PROJECTS LET JAN-MAY**)
- 1-122 Expedite Work Order
- 1-125 National Highway System
- 1-126 Project Traffic Coordinator (PTC) (**SIGNIFICANT PROJECTS ONLY**)
- 1-131 Surfacing Areas (**WILL BE COMPLETED BY DIVISION OF MAINTENANCE**)
- 1-132 Asphalt Mixture
- 1-134 DGA Base
- 1-136 DGA Base Shoulders
- 1-137 Aggregate for Mailbox Turnouts
- 1-138 Slag Alternates (**BOYD, GREENUP, LAWRENCE, & LEWIS COUNTIES ONLY**)
- 1-140 Incidental Surfacing
- 1-145 Initial Treatment
- 1-150 JPC Ride Quality
- 1-152 JPC Pavement Thickness
- 1-155A Asphalt Ride Quality Category A (**SEE SECTION 410 IN 2012 SPECIFICATIONS**)
- 1-155B Asphalt Ride Quality Category B (**SEE SECTION 410 IN 2012 SPECIFICATIONS**)
- 1-170 Material Transfer Vehicle-MTV (**SEE WARRANTS**)
- 1-157 Fuel and Asphalt Pay Adjustment (**SEE SPREADSHEET FOR THRESHOLDS & CALCULATIONS, ATTACH SPREADSHEET TO ESTIMATE PACKAGE**)\*\*
- 1-160 Compaction Option A (**SEE WARRANTS FOR SELECTING ASPHALT MIXTURES**)
- 1-165 Compaction Option B (**SEE WARRANTS FOR SELECTING ASPHALT MIXTURES**)
- 1-201 Special Notes Applicable to Project (**PROJECT SPECIFIC NOTES**)\*\*
- 1-220 Liquidated Damages (**PROJECT SPECIFIC LIQUIDATED DAMAGES**)\*\*



# Traffic Control

- ▶ Are there days that you don't want work to be going on?
  - ▶ Festivals, Holidays, Night time work only?
- ▶ Traffic Control for Thinlays are very similar to 1" overlays
- ▶ Microsurfacing-have to keep traffic off of intersections as much as possible
- ▶ Chip Seal-slow traffic down to reduce loss of aggregate.



# Don't forget

- ▶ For 3 lane typical sections don't forget to add message boards and arrow panels.



Are there  
any  
Questions

