

**Preliminary Construction Estimate**  
**Hardin County - S.R. 67 and S.R. 235 Intersection**  
**Intersection Safety Improvements**

PID:

Item	Feature		Measurement	Alternative 1: Improve Intersection Angle			Alternative 2: Offset T Intersections			Alternative 3: Roundabout			Alternative 4 - Improve East Approach SR 67 Crest Curve (DS=55 mph)		
				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
1	Concrete Pavement		Sq. Yds.	0	\$90.00	\$0	0	\$90.00	\$0	6,585	\$90.00	\$592,650	0	\$90.00	\$0
2	Asphalt Surface		Cu. Yds.	380	\$170.00	\$64,600	335	\$170.00	\$56,950	365	\$170.00	\$62,050	240	\$170.00	\$40,800
	Asphalt Intermediate		Cu. Yds.	510	\$145.00	\$73,950	465	\$145.00	\$67,425	505	\$145.00	\$73,225	330	\$145.00	\$47,850
	Asphalt Base		Cu. Yds.	1,775	\$135.00	\$239,625	1,620	\$135.00	\$218,700	1,225	\$135.00	\$165,375	1,155	\$135.00	\$155,925
	Aggregate Base		Cu. Yds.	1,830	\$50.00	\$91,500	1,670	\$50.00	\$83,500	2,180	\$50.00	\$109,000	1,190	\$50.00	\$59,500
	Planing		Sq. Yds.	0	\$2.50	\$0	0	\$2.50	\$0	0	\$2.50	\$0	0	\$2.50	\$0
4	Stabilization		Sq. Yds.	11,300	\$9.50	\$107,350	10,300	\$9.50	\$97,850	10,800	\$9.50	\$102,600	7,350	\$9.50	\$69,825
5	Excavation		Cu. Yds.	22,400	\$14.00	\$313,600	25,900	\$14.00	\$362,600	9,800	\$14.00	\$137,200	66,500	\$14.00	\$931,000
6	Embankment		Cu. Yds.	4,100	\$20.00	\$82,000	6,000	\$20.00	\$120,000	3,300	\$20.00	\$66,000	500	\$20.00	\$10,000
7	Curb		Ft.	0	\$15.00	\$0	0	\$15.00	\$0	371	\$15.00	\$5,565	0	\$15.00	\$0
8	Curb and Gutter		Ft.	0	\$20.00	\$0	0	\$20.00	\$0	3,100	\$20.00	\$62,000	0	\$20.00	\$0
9	Walk		Sq. Yds.	0	\$7.50	\$0	0	\$7.50	\$0	0	\$0.00	\$0	0	\$0.00	\$0
10	Concrete Barrier / Median Barrier		Ft.	0	\$100.00	\$0	0	\$100.00	\$0	0	\$100.00	\$0	0	\$100.00	\$0
11	Retaining Wall (Height < 10')		Sq. Ft.	0	\$0.00	\$0	0	\$0.00	\$0	0	\$7.50	\$0	0	\$7.50	\$0
12	Concrete Median		Sq. Yds.	0	\$90.00	\$0	0	\$90.00	\$0	840	\$90.00	\$75,600	0	\$90.00	\$0
SUBTOTAL						\$972,625			\$1,007,025			\$1,451,265			\$1,314,900
13	Erosion Control		% of Items 1-12	2.0%		\$19,500	2.0%		\$20,200	2.0%		\$26,300	2.0%		\$26,300
14	Drainage		% of Items 1-12	15.0%		\$145,900	15.0%		\$151,100	15.0%		\$197,300	10.0%		\$131,500
15	Traffic Control		% of Items 1-12	5.0%		\$48,700	5.0%		\$50,400	5.0%		\$65,800	5.0%		\$65,800
16	Signals		Each	0	\$150,000.00	\$0	0	\$150,000.00	\$0	0	\$150,000.00	\$0	0	\$150,000.00	\$0
17	Maintenance of Traffic		% of Items 1-12	20.0%		\$194,600	20.0%		\$201,500	20.0%		\$263,000	20.0%		\$263,000
18	Lighting		Each Pole	0	\$15,000.00	\$0	4	\$15,000.00	\$60,000	8	\$15,000.00	\$120,000	0	\$15,000.00	\$0
19	Incidentals		% of Items 1-12	5.0%		\$48,700	5.0%		\$50,400	5.0%		\$65,800	5.0%		\$65,800
20	Utilities		% of Items 1-12	0.0%		\$0	0.0%		\$0	0.0%		\$0	10.0%		\$131,500
21	Misc.		% of Items 1-12	15.0%		\$145,900	15.0%		\$151,100	15.0%		\$197,300	15.0%		\$197,300
SUBTOTAL						\$603,300			\$684,700			\$935,500			\$881,200
<b>TOTAL ROADWAY COSTS (Items 1-21)</b>						<b>\$1,575,925</b>		<b>\$1,691,725</b>			<b>\$2,386,765</b>			<b>\$2,196,100</b>	
22	Bridge Removal		Sq. Ft.	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0
23	Approach Slab		Sq. Yds.	0	\$0.00	\$0	0	\$235.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0
24	New Bridge		Sq. Ft.	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0
	One Level		Sq. Ft.	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0
25	Two Level		Sq. Ft.	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0
26	Retaining Wall (Height >10')		Sq. Ft.	0	\$0.00	\$0	0	\$115.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0
27	Structure Incidentals		% of Items 22-26	5.0%		\$0	5.0%		\$0	5.0%		\$0	5.0%		\$0
<b>TOTAL STRUCTURE COSTS (Items 22-27)</b>						<b>\$0</b>		<b>\$0</b>			<b>\$0</b>			<b>\$0</b>	
28	Contingency		% of Items 1-27	20.0%		\$315,000	20.0%		\$338,000	20.0%		\$477,000	20.0%		\$439,000
29	Inflation from Year : 2020 to Construction: 2022			7%		\$274,000	7%		\$294,000	7%		\$415,000	7%		\$382,000
<b>ROAD ALTERNATIVE CONSTRUCTION COST</b>					<b>\$2,164,925</b>		<b>\$2,323,725</b>		<b>\$3,278,765</b>		<b>\$3,017,100</b>				
<b>ROAD ALTERNATIVE RIGHT OF WAY COST</b>					<b>\$145,000</b>		<b>\$185,000</b>		<b>\$40,000</b>		<b>\$75,000</b>				
<b>ROAD ALTERNATIVE TOTAL COST</b>					<b>\$2,309,925</b>		<b>\$2,508,725</b>		<b>\$3,318,765</b>		<b>\$3,092,100</b>				

Date: October 30, 2020