

Improvements Options for USR22-0018 Proposed Haul Routes

LRM Preferred Haul Route (Route #1) Proposed Improvements – WCR 48.5 to WCR 17 to WCR 54 to WCR 13:

Immediate Off-Site Improvements:

- Pave CR 48.5 from 50 feet east of the site access point to CR 17 (may require a widening of the roadway to meet a 26' width prior to paving) {Weld County / Town of Johnstown jurisdictions}
- Upgrade and install the bridge rail on CR 48.5 to meet the Manual of Assessing Safety Hardware (MASH) strength and height requirements, to be accepted by the county {Weld County jurisdiction}
- Upgrade/Improve RR crossing safety at CR 48.5/CR 17 {Town of Johnstown jurisdiction – will require coordination with the Great Western Railroad (GWRR)}
- Design and construct southbound left turn lane on CR 17 {Weld County jurisdiction}
- Design and construct a westbound right turn deceleration lane on CR 48.5 {Town of Johnstown jurisdiction}
- Design and construct a northbound right acceleration lane on CR 17 {Weld County jurisdiction}
- Install Conflict Warning System, per Weld County standards, at the intersection of CR 17 / CR 50 – all three legs. {Weld County jurisdiction}

Triggered (Future) Off-Site Improvements (not included in estimate):

- Driveway Access / turn lane improvements to include triggered auxiliary lanes on CR 48.5.

Route #1: WCR 48.5 to WCR 17 to WCR 54 to WCR 13				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
HMA (S MIX)(6" THICK)	TON	8950	\$ 110	\$ 984,500
HMA (SX MIX)(2" THICK)	TON	3950	\$ 125	\$ 493,750
ABC (CLASS 6)	TON	8060	\$ 35	\$ 282,100
SHOULDERING	TON	3050	\$ 45	\$ 137,250
BRIDGE RAIL (MASH COMPLIANT)	LF	125	\$ 250	\$ 31,250
RR CROSSING UPGRADE (CONCRETE PANELS & ARMS)	EACH	1	\$ 350,000	\$ 350,000
CONFLICT WARNING SYSTEM	EACH	1	\$ 120,000	\$ 120,000
MOBILIZATION	LS	1	\$ 70,000	\$ 70,000
TRAFFIC CONTROL	LS	1	\$ 37,000	\$ 37,000
				\$ 2,505,850

Weld County Preferred Haul Route (Route #2) Proposed Improvements – WCR 48.5 to SH 257 to WCR 54 to WCR 13:

Immediate Off-Site Improvements:

- Pave CR 48.5 from 50 feet west of the site access to SH 257 (may require a widening of the roadway to meet a 26' width prior to paving) {Weld County jurisdiction}
- Construct auxiliary turn lane on CR 48.5 at the intersection of CR 48.5 / SH 257, specifically an east to northbound left turn lane {Weld County / Town of Milliken jurisdictions}
- Construct auxiliary turn lane on SH 257 at the intersection of CR 48.5 / SH 257, specifically a right turn deceleration lane and a northbound acceleration lane (CDOT has approved and issued a design waiver which will allow for reduced speed change lengths for a left-turn acceleration lane. The waiver allows the acceleration lane to be built to a 45-mph speed limit standard in a 55-mph zone which negates the need to widen the bridge on SH 257.) {CDOT / Town of Milliken jurisdictions}

Triggered (Future) Off-Site Improvements (not included in estimate):

- Driveway Access / turn lane improvements to include triggered auxiliary lanes on CR 48.5.
- Per CDOT, a proportional share of future auxiliary lanes at the intersection of SH 257 / CR 54.

Route #2: WCR 48.5 to St. Hwy. 257 to WCR 54 to WCR 13				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
HMA (S MIX)(6" THICK)	TON	3010	\$ 110	\$ 331,100
HMA (SX MIX)(2" THICK)	TON	2280	\$ 125	\$ 285,000
ABC (CLASS 6)	TON	2770	\$ 35	\$ 96,950
SHOULDERING	TON	970	\$ 45	\$ 43,650
MOBILIZATION	LS	1	\$ 60,000	\$ 60,000
TRAFFIC CONTROL	LS	1	\$ 30,000	\$ 30,000
				\$ 846,700

All Right Turns for Safety Haul Route (Route #3) Proposed Improvements – WCR 48.5 to SH 257 to SH 60 to WCR 13 to WCR 54:

Immediate Off-Site Improvements:

- Pave CR 48.5 from 50 feet west of the site access to SH 257 (may require a widening of the roadway to meet a 26' width prior to paving) {Weld County jurisdiction}
- Construct auxiliary turn lane on SH 60 at the intersection of SH 60 / SH 257, specifically a westbound right acceleration lane {CDOT / Town of Milliken jurisdiction}
- Construct auxiliary turn lane on SH 60 at the intersection of SH 60 / WCR 13, specifically a westbound right deceleration lane {CDOT / Town of Johnstown jurisdiction}
- Construct auxiliary lane on CR 13 at the intersection with SH 60, specifically a northbound acceleration lane {Town of Johnstown jurisdiction}
- Construct auxiliary turn lane on SH 257 at the intersection of SH 257 / WCR 48.5, specifically a southbound right deceleration lane {CDOT / Town of Milliken jurisdiction}

Triggered (Future) Off-Site Improvements (not included in estimate):

- Driveway Access / turn lane improvements to include triggered auxiliary lanes on CR 48.5
- Per CDOT, a proportional share of future auxiliary lanes at the intersection of SH 257 / CR 54

Route #3: WCR 48.5 to St. Hwy. 257 to St. Hwy. 60 to WCR 13 to WCR 54				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL
HMA (S MIX)(6" THICK)	TON	2520	\$ 110	\$ 277,200
HMA (SX MIX)(2" THICK)	TON	1340	\$ 125	\$ 167,500
PCCP (9" THICK)	SY	280	\$ 120	\$ 33,600
ABC (CLASS 6)	TON	2320	\$ 35	\$ 81,200
SHOULDERING	TON	1240	\$ 45	\$ 55,800
RELOCATE HYDRANT	EACH	1	\$ 5,500	\$ 5,500
RELOCATE SIGNAL POLE	EACH	2	\$ 20,000	\$ 40,000
RELOCATE SIGNAL CONTROLLER	EACH	1	\$ 30,000	\$ 30,000
INSTALL NEW MAST ARM	EACH	1	\$ 20,000	\$ 20,000
RELOCATE INLET	EACH	1	\$ 10,000	\$ 10,000
TREE REMOVAL	EACH	19	\$ 750	\$ 14,250
MOBILIZATION	LS	1	\$ 120,000	\$ 120,000
TRAFFIC CONTROL	LS	1	\$ 90,000	\$ 90,000
				\$ 945,050