

Memorandum			
To:	Mark Witsman, PE Town of McCordsville	Project:	Town of McCordsville, Indiana Mount Comfort Road CSX Railroad Crossing- Preliminary Planning Services
From:	Kenneth Leo Dombroski, PE	cc:	file
Prepared by:	Brian McNamara, Eric Westergren & Noel Amell	Job No.:	6183.1
Date:	1 May 2025		
Subject:	<b>Updated Cost Evaluation of the Dual Underpass</b>		

## 1.0 Dual Underpass Cost Evaluation

### 1.1 Introduction

Delve Underground (formerly known as McMillen Jacobs) submitted on 21 August 2021 a technical memorandum regarding the subject of the Cost Evaluation of the Dual Underpass for Mount Comfort Road under CSX. On 15 January 2025, the Town of McCordsville authorized Delve Underground to prepare an updated version of the previous technical memorandum. The purpose of this version of the cost evaluation is to account for inflation, lingering impacts to construction costs since the Covid-19 lockdown during 2020 and 2021, changes to material costs, the influence construction wage increases since 2021, and finally the change in property values since 2021.

The new elements to this technical memorandum versus the previous 2021 version include a detailed construction schedule and a full map for property acquisition with a detailed cost table.

### 1.2 Costs Evaluated by Category

Project costs fall into the following categories: capital construction, anticipated professional fees, operation and maintenance, and property acquisition.

#### 1.2.1 Opinion of Probable Construction Cost

Capital construction costs are determined through an Opinion of Probable Construction Cost (OPCC). An OPCC has been prepared for the dual underpass alternative. The OPCC is based on the 10% LGT drawings. The total project cost considers direct and indirect costs plus an owner contingency. The direct costs were estimated using bottom-up pricing using detailed quantity

take-offs, material unit costs, equipment and labor costs, and production rates for structures. The indirect costs, including Contractor's overhead and profit, were estimated based upon the duration of activities and the estimate of direct costs. The adjustments to labor, equipment and materials are captured in the detailed OPCC contained in **Exhibit A**.

Besides adjusting price increases for labor, material, and equipment, Delve Underground used this update to further optimize construction sequencing and construction scheduling. The outcome of the optimization analysis identifies an opportunity to shorten the construction duration by building the cast-in-place box culverts at the existing ground surface concurrent with the excavation of the jacking pit. The previous construction cost estimate and schedule assumed the box culverts would be formed and cast in the excavated jacking pits. Forming and casting the box structures at the ground surface requires a heavy-duty crane to set the boxes in the jacking pits, but the additional labor and equipment cost associated with the crane is offset by a reduction in the indirect costs due to six months of schedule reduction. A detailed schedule showing the critical path is contained in **Exhibit B**.

The AACE International recommended practices indicate that Class 4 is the appropriate estimate class for designs at only a 10% maturity level. Therefore, a 35% contingency was applied to the estimate. The likely cost of the project is estimated to be **\$64,125,000**, which is detailed in **Exhibit A**.

The 2025 OPCC is approximately 11 percent greater than the OPCC submitted in August 2021. An increase of this magnitude appears reasonable when compared against an overall inflation rate of approximately three percent per year over 3.5 years since the previous OPCC.

#### **Key Assumptions for Preparing the OPCC**

- Maintenance of Traffic costs covers the installation of barricades and detour signing when Mt Comfort Rd is closed to construct the new road at the intersections at Broadway and CR800N. The cost includes maintaining these MOT devices during the closure. (Cost Estimate Activity No. 002)
- The Utility Relocation includes a cost of \$500k that is meant to cover any secondary impacts that might arise during construction. (Cost Estimate Activity No. 003)
- A lump sum direct cost of \$500,000 for each phase of roadway construction was included for Streetscape and Aesthetic Features that includes street lighting, architectural finishes, decorative fencing, and plantings. (Cost Estimate Activity No. 040, 041, 042)
- Costs associated with Geotechnical Monitoring services and CSX Flagging of \$2,500/shift and \$1,500/day respectively was assumed. (Cost Estimate Activity No. 001 & 002)
- The OPCC prepared for this assignment only addresses the construction of the dual underpasses only. The implementation of the dual underpass project requires enabling

works projects (also known as early action projects) that are not included in the OPCC for this assignment. An example is the cost to demolish buildings on the full parcels identified for full acquisition.

### 1.2.2 Calculation of Fees for Professional Services

At this point of project development, it is appropriate to estimate the necessary professional fees based on a percentage of construction. When using this approach, it is customary that projects with smaller capital construction costs use higher percentages to determine design engineering fees. In the case of fees for construction administration and construction inspection, INDOT recommends using 12.5 percent of the construction cost. The anticipated **fees for design engineering are \$5,771,250 (nine percent of OPCC)** and the **estimated fees for construction administration and inspection are \$8,015,625 (12.5 percent of OPCC)**.

### 1.2.3 Operation and Maintenance Costs

As part of the quantitative analysis, the consultant team estimated the operation and maintenance (O&M) costs associated with each alternative. The key assumptions include the following:

1. Only O&M tasks beyond those currently employed by the Town for the existing condition were evaluated. For example, annual painting of pavement markings was ignored because it is a best management practice the Town is already performing and would not be an additional cost regardless of the alternative.
2. The service life for the dual underpass is 50 years.
3. A significant rehabilitation will occur in the 25<sup>th</sup> year of service.
4. All costs are presented in present value so that they can be included in the total project costs associated with each alternative.
5. Since the original Cost Evaluation Technical Memorandum that was submitted August 13, 2021, an assumption of a yearly inflation rate of 2.9 percent was assumed for the updated O&M Costs.

The O&M costs associated with the dual underpass are shown below in **Table 1-2-3**. It should be noted that the underpass will be serving as a buried structure and have less exposure to the elements. Additionally, in comparison with the previous O&M cost evaluation that was presented to the Town in the 2021 Technical Memo, it should be noted that the overall O&M expense has grown 12 percent while assuming a 2.9 percent inflation rate for all unit pricing that is presented below.

**Table 1-2-3: Operation and Maintenance Cost Based on 50-year Service Life**

Operation and Maintenance Cost Based on 50 Year Service Life				
Description	Quantity	2021 Unit Price	2025 Unit Price*	Present- Day Value of O&M Cost
<b>Dual Underpass</b>				
Catch Basin Cleaning	50	\$ 14,600	\$ 16,370	\$ 818,500
Pump Replacement at Year 20	3	\$ 6,000	\$ 6,730	\$ 20,190
Annual Usage Stormwater	50	\$ 3,718	\$ 4,170	\$ 208,500
Annual Usage Sanitary Sewer	50	\$ 1,859	\$ 2,085	\$ 104,250
Annual Underpass Inspection	50	\$ 10,270	\$ 11,515	\$ 575,750
Structural Rehab at Year 25	2	\$ 200,000	\$ 224,230	\$ 448,460
<b>Total</b>				<b>\$ 2,175,650</b>

\*Based on an assumed 2.9 percent inflation rate compounded annually

## 1.2.4 Property Acquisition Costs

The Hancock County Geographic Information System (GIS) was used to obtain parcel information required for the acquisition of property related to the dual underpass alternative. Property boundary surveys were not performed as part of the preliminary planning services. In addition to information obtained from Hancock County GIS, the Town provided the consultant team in 2021 with records pertaining to right-of-way acquisition for a 2019 project on Mt. Comfort Road at W. Broadway Road. The cost to acquire right-of-way (ROW) for the project was \$610,000 per acre. The cost of \$610,000 per acre was applied for all land acquisition in the 2021 version of the technical memorandum.

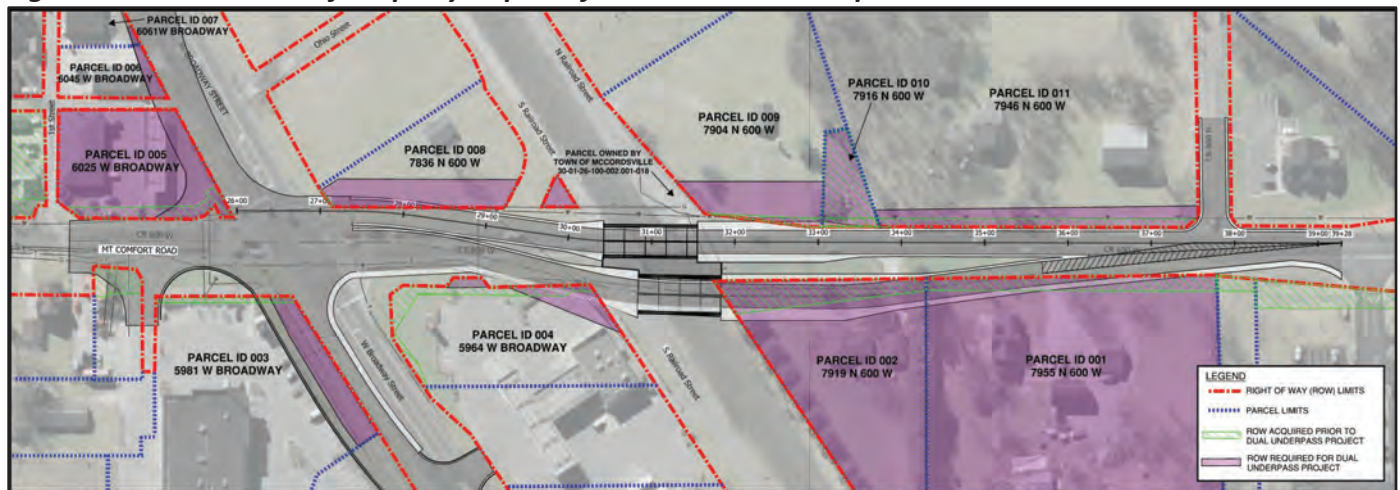
In the updated cost evaluation for 2025, an adjustment was made regarding the land acquisition cost. For the residential properties where the entire parcel would be anticipated to be acquired, a property value assessment was performed through online real estate platforms. It is assumed for the Town to acquire these properties the anticipated cost will be the published fair market value estimate with a 2.0 multiplier to account for just compensation to the homeowner. For the remaining commercial and residential properties where only a fraction of the parcel will be acquired for the right-of-way project requirements, the previous value of \$610,000 per acre from the 2021 version of the technical memorandum was utilized. To assess the current land value appreciation, the Green Street Commercial Property Price Index (CPPI) was incorporated into the current land value appreciation. Based on the Green Street CPPI, since 2022, commercial property land values have appreciated 4.77 percent. This appreciation adjusts the 2021 land value to approximately \$639,097 per acre.

The outlier for land acquisition costs is Parcel ID 005. The entire parcel is identified for acquisition. It is clearly a commercial parcel, and the formula used for acquiring full residential properties does not apply in this case. However, the unit price of \$639,097 per acre would not be appropriate for Parcel ID 005. Therefore, the unit price and total acquisition cost for Parcel ID

005 shown in **Table 1-2-4** and **Exhibit C** is the best budget estimate until the property is fully appraised, and negotiations commence with the property owner.

In addition to adjustments to unit pricing for land acquisition, the Town provided information regarding the probable acquisition of ROW to accommodate the widening and lane additions on Mt. Comfort Road for the upcoming at-grade improvements for the CSX crossing. This information was used to make reductions in the amount of property that needs to be acquired for the dual underpass. **Figure 1-2-4** provides a quick overview of property impacts from the dual underpass with costs summarized in Table 1-2-4. A more detailed ROW and land acquisition map with a summary table is contained in **Exhibit C**.

**Figure 1-2-4: Overview of Property Impacts from the Dual Underpass**



**Table 1-2-4 Land Acquisition Cost Summary**

<b>Dual Underpass Land Acquisition 2025</b>		
<b>Parcel ID Number</b>	<b>Total Land Acquisition for Dual Underpass (ac.)</b>	<b>Land Acquisition Cost</b>
001	3.171	\$1,080,000
002	1.067	\$700,000
003	0.107	\$68,383
004	0.047	\$30,038
005	0.460	\$1,515,000
006	0.021	\$13,421
007	0.003	\$1,917
008	0.193	\$123,346
009	0.137	\$87,556
010	0.0	\$0
011	0.101	\$64,549
<b>Total :</b>		<b>\$3,684,210</b>

### 1.2.5 Summary of Costs for Dual Underpass

The overall estimated cost to design, build, and maintain the dual underpass is approximately \$83,771,735. **Table 1-2-5a** itemizes the category costs for the dual underpass project. The Town of McCordsville is applying for federal funding to assist in the design and construction of the project. **Table 1-2-5b** shows the probable splits between federal and local funding.

**Table 1-2-5a. Summary of All Project Costs**

<b>Project Cost Category Name</b>	<b>Individual Category Cost (\$)</b>
Construction	64,125,000
Design Engineering	5,771,250
Construction Administration and Construction Inspection (CA & CI)	8,015,625
Operation and Maintenance (O & M)	2,175,650
Property Acquisition	3,684,210
<b>Total Project All Costs</b>	<b>\$83,771,735</b>

**Table 2-2-5b. Potential Federal Funding Scenario for Design and Construction**

Cost Category Name	Federal/Local Participation Split	Federal Funding Share (\$)	Local Funding Share (1) (\$)	Project Totals (\$)
Design Engineering	0% / 100%	0	5,771,250	5,771,250
Construction	80% / 20%	51,300,000	12,825,000	64,125,000
CA & CI	80% / 20%	6,412,500	1,603,125	8,015,625
Property Acquisition	0% / 100%	0	3,684,210	3,684,210
	<b>TOTALS:</b>	<b>57,712,500</b>	<b>\$23,883,585</b>	<b>81,596,085</b>

Table Note (1): The Town is the sole local participant in design engineering and property acquisition category costs. The cost for CA & CI will be shared between the Town and Hancock County. The split of the local share for CA & CI will be determined later.



**Exhibit A:     Opinion of Probable Construction Cost**



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## OPINION OF PROBABLE UNESCALATED CONSTRUCTION BID INCLUDING OWNER CONTINGENCY

No.	Item or Group Item Description	Group Item Cost	Item Quantity/Unit	Item Unit Cost	Status	Item Cost
001	Geotechnical Instrumentation		LS			\$685,000
	<b>Geotechnical Instrumentation</b>	<b>\$685,000</b>				
002	Maintenance of Traffic		LS			\$168,460
	<b>Maintenance of Traffic</b>	<b>\$168,460</b>				
003	Utility Relocation		LS			\$2,225,000
	<b>Utility Relocation</b>	<b>\$2,225,000</b>				
004	Mt Comfort Road - Mobilization / Site Setup		LS			\$52,848
	<b>Mt Comfort Road - Mobilization / Site Setup</b>	<b>\$52,848</b>				
005	Mt Comfort Road - Install Temp Dividing Wall		LS			\$968,327
	<b>Mt Comfort Road - Temporary Wall</b>	<b>\$968,327</b>				
006	Mt Comfort Road - Exc & Support NB Jacking Pit		LS			\$1,229,971
007	Mt Comfort Road - Pour NB Jacking Slab		370 cy	\$1,278 /cy		\$472,898
	<b>Mt Comfort Road - NB Jacking / Casting Pit</b>	<b>\$1,702,869</b>				
008	Mt Comfort Road - Jet Grout Headwall		148 cy	\$1,700 /cy		\$251,583
009	Mt Comfort Rd- Exc & Support NB Receiving Pit		LS			\$1,229,971
010	Mt Comfort Road - Pour NB Mud Mat Receiving Pit		185 cy	\$300 /cy		\$55,567
	<b>Mt Comfort Road - NB Receiving Pit</b>	<b>\$1,537,121</b>				
011	Mt Comfort Road - Cast NB Culvert #1		561 cy	\$1,388 /cy		\$778,480
012	Mt Comfort Road - Cast NB Culvert #2		561 cy	\$1,388 /cy		\$778,480
	<b>Mt Comfort Road - Cast NB Culvert Sections</b>	<b>\$1,556,960</b>				
013	Mt Comfort Road - Install Shield		LS			\$76,616
014	Mt Comfort Road - Install Jacking System		LS			\$90,077
015	Mt Comfort Road - Excavate NB Culvert #1		50 ft	\$20,603 /ft		\$1,030,170
016	Mt Comfort Road - Position NB Culvert #2		LS			\$149,458
017	Mt Comfort Road - Excavate NB Culvert #2		50 ft	\$20,603 /ft		\$1,030,170
018	Mt Comfort Road - Remove Jacks & Shield		LS			\$118,430
	<b>Mt Comfort Road - NB Culvert Installation</b>	<b>\$2,494,922</b>				
019	Mt Comfort Road - Excavate & Support NB Wall 2		LS			\$1,746,346
020	Mt Comfort Road - Excavate & Support NB Wall 1		LS			\$975,376
	<b>Mt Comfort Road - Excav &amp; Support NB</b>	<b>\$2,721,723</b>				
021	Mt Comfort Road - Final Wall Facing NB Wall 2		LS			\$742,068
022	Mt Comfort Road - Final Wall Facing NB Wall 1		LS			\$596,533
	<b>Mt Comfort Road - Final Wall Facing NB</b>	<b>\$1,338,601</b>				
023	Mt Comfort Road - Exc & Support SB Jacking Pit		LS			\$1,229,971
024	Mt Comfort Road - Pour SB Jacking Slab		370 cy	\$1,278 /cy		\$472,898
	<b>Mt Comfort Road - SB Jacking / Casting Pit</b>	<b>\$1,702,869</b>				
025	Mt Comfort Road - Jet Grout Headwall		148 cy	\$1,700 /cy		\$251,583
026	Mt Comfort Rd- Exc & Support SB Receiving Pit		LS			\$1,229,971
027	Mt Comfort Road - Pour SB Mud Mat Receiving Pit		185 cy	\$300 /cy		\$55,567
	<b>Mt Comfort Road - SB Receiving Pit</b>	<b>\$1,537,121</b>				
028	Mt Comfort Road - Cast SB Culvert #1		566 cy	\$1,431 /cy		\$809,409
029	Mt Comfort Road - Cast SB Culvert #2		566 cy	\$1,430 /cy		\$809,597
	<b>Mt Comfort Road - Cast SB Culvert Sections</b>	<b>\$1,619,006</b>				
030	Mt Comfort Road - Install Shield		LS			\$74,217
031	Mt Comfort Road - Install Jacking System		LS			\$90,077
032	Mt Comfort Road - Excavate SB Culvert #1		56 ft	\$21,546 /ft		\$1,206,565
033	Mt Comfort Road - Position SB Culvert #2		LS			\$149,458
034	Mt Comfort Road - Excavate SB Culvert #2		56 ft	\$21,546 /ft		\$1,206,565
035	Mt Comfort Road - Remove Jacks & Shield		LS			\$118,430
	<b>Mt Comfort Road - SB Culvert Installation</b>	<b>\$2,845,312</b>				
036	Mt Comfort Road - Excavate & Support SB Wall 2		LS			\$1,498,175
037	Mt Comfort Road - Excavate & Support SB Wall 1		LS			\$710,391
	<b>Mt Comfort Road - Excav &amp; Support SB</b>	<b>\$2,208,566</b>				
038	Mt Comfort Road - Final Wall Facing SB Wall 2		LS			\$806,936
039	Mt Comfort Road - Final Wall Facing SB Wall 1		LS			\$587,499
	<b>Mt Comfort Road - Final Wall Facing SB</b>	<b>\$1,394,435</b>				
040	Mt Comfort Rd - NB Roadway Construction		LS			\$3,221,600
041	Mt Comfort Rd - Broadway Int. Roadway		LS			\$2,023,200
042	Mt Comfort Rd - SB Roadway Construction		LS			\$1,860,800

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## OPINION OF PROBABLE UNESCALATED CONSTRUCTION BID INCLUDING OWNER CONTINGENCY

<b>Mt Comfort Rd - Roadway Construction</b>	<b>\$7,105,600</b>			
043 Mt Comfort Rd - Install Pump Station		LS		\$1,200,000
<b>Mt Comfort Rd - Pump Station</b>	<b>\$1,200,000</b>			
			<b>Subtotal Direct Cost</b>	<b>\$35,064,739</b>
044 Equipment Ownership not in Direct Cost			0.1% directs	\$35,000
045 General Mobilization	1.0 mo		1.0% unesc.bid	\$477,189
046 Demobilization/Punchlist	1.0 mo		0.2% unesc.bid	\$95,838
047 General Plant Operation/Maintenance	36.5 mo		\$3,047 /mo	\$111,215
048 Field Supervision	38.5 mo		\$132,095 /mo	\$5,085,651
049 Overhead Maintenance/Service	38.5 mo		\$9,486 /mo	\$365,220
050 Bonds, Insurance, and Taxes not in General Mobilization			1.9% unesc.bid	\$904,881
051 Contractor Markup			10.7% of cost	\$4,573,643
052 Financing Charges			0.5% unesc.bid	\$260,827
053 Contractor Contingency			1.1% unesc.bid	\$525,971
			<b>Subtotal Indirect Cost</b>	<b>\$12,435,434</b>
054 Escalation-excluded from estimate	\$10,619,082 (22.4% unescalated bid)			-
<b>Jun 2027 NTP: 38.5 mo project duration</b>			<b>Unescalated Construction Bid</b>	<b>\$47,500,173</b>
055 Owner Contingency			35.0% unesc.bid	\$16,625,100
<b>Opinion of Probable Unescalated Construction Bid including Owner Contingency</b>				<b>\$64,125,273</b>

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# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
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<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>001</b>	<b>Geotechnical Instrumentation</b>	<b>1 LS</b>		<b>240 days</b>	<b>240 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$685,000</b>
	Status (Additive)	Work schedule	Other ST pay	Other OT pay	Item Cost
	<b>1.000</b>	<b>8 hr/shift</b>	<b>1 shift/day</b>	<b>5 day/week</b>	<b>0 hr/shift</b>
	Schedule factor (Normal)				
	Install & monitor geotechnical instrumentation	60 days	2 shifts/day	120 shifts	
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor
S	geos	Geotechnical Instr sub		\$135,000 /LS	1.00 LS
		<i>CSX Geotech Monitoring</i>			
S	csxgm	CSX Geotech Monitoring	120.0 sh	\$2,500 /sh	120.0 sh
S	ains	Automated instrumentation		\$250,000 /ls	1.00 LS

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>002</b>	<b>Maintenance of Traffic</b>	<b>1 LS</b>		<b>14 days</b>	<b>14 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>448</b>	<b>\$25,736</b>	<b>\$0</b>	<b>\$37,724</b>	<b>\$105,000</b>
	Status (Additive)	Work schedule	Other ST pay	Other OT pay	Item Cost
	<b>1.000</b>	<b>8 hr/shift</b>	<b>1 shift/day</b>	<b>5 day/week</b>	<b>0 hr/shift</b>
	Schedule factor (Normal)				
	This item it meant to provide budget over the course of the project to set up and take down MOT as needed				
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor
M	sts	Small tools and supplies		\$3.00 /mhr	448.0 mhr
		<i>MOT Crew - Setup MOT</i>			
L	lfm	Labor FM		\$59.48 /mhr	112.0 mhr
L	lab	General Labor (Grp 1)	2	\$56.77 /mhr	224.0 mhr
L	flag	Flagman (Grp 1)	1	\$56.77 /mhr	112.0 mhr
		<i>MOT Signage / Message Boards, Cones</i>			
M	mot	Maintenace of traffic mat'l	2	\$18,190 /LS	2.00 LS
		<i>CSX Flagging Services</i>			
S	csxfl	CSX Flagging	70.00 day	\$1,500 /day	70.00 day

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>003</b>	<b>Utility Relocation</b>	<b>1 LS</b>		<b>50 days</b>	<b>50 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,225,000</b>
	Status (Additive)	Work schedule	Other ST pay	Other OT pay	Item Cost
	<b>1.000</b>	<b>8 hr/shift</b>	<b>1 shift/day</b>	<b>5 day/week</b>	<b>0 hr/shift</b>
	Schedule factor (Normal)				
	Relocate existing utilities	35 days	concurrent		
	Relocate 20" watermain	3000 ft	30.00 ft/day	50 days	2 crews
	Total Duration	50 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor
S	util	Utility relocation		\$500,000 /LS	1.00 LS
		<i>Utility Relocation Subcontractor</i>			
		<i>For Secondary Impacts</i>			
S	20wm	Relocate 20" Water Main	3000 lf	\$575 /lf	3000 lf
		<i>20" Watermain Relocation Subcontractor</i>			

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>004</b>	<b>Mt Comfort Road - Mobilization / Site Setup</b>	<b>1 LS</b>		<b>5 days</b>	<b>5 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>440</b>	<b>\$30,803</b>	<b>\$10,025</b>	<b>\$12,020</b>	<b>\$0</b>
	Status (Additive)	Work schedule	Other ST pay	Other OT pay	Item Cost
	<b>1.000</b>	<b>8 hr/shift</b>	<b>1 shift/day</b>	<b>5 day/week</b>	<b>0 hr/shift</b>
	Schedule factor (Normal)				
	Mobilize & setup laydown areas	5 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor
M	sts	Small tools and supplies		\$3.00 /mhr	440.0 mhr
		<i>Site Crew</i>			
L	lfm	Labor FM		\$59.48 /mhr	40.00 mhr
L	lab	General Labor (Grp 1)	3	\$56.77 /mhr	120.0 mhr

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<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

E	lp6	Light Plant/Genset, 6kW, 4/1000W	3	\$8.60 /hr	120.0 hr	\$1,032
L	eo3+	Excavator >3.5cy (Grp 8)		\$77.24 /mhr	40.00 mhr	\$3,090
E	he330	SK330LC Exc 77.8/2.1cy		\$138 /hr	40.00 hr	\$5,502
L	flag	Flagman (Grp 1)		\$56.77 /mhr	40.00 mhr	\$2,271
E	cp12	Compressor, trailer 1200cfm		\$81.69 /hr	40.00 hr	\$3,268
E	g10	Generator, trailer 10.0kW		\$5.57 /hr	40.00 hr	\$223
L	comp	Compressorman (Grp 5)		\$74.91 /mhr	40.00 mhr	\$2,996
L	efm	Electrician FM		\$87.29 /mhr	40.00 mhr	\$3,492
L	ejm	Electrician JM	200%	\$84.59 /mhr	80.00 mhr	\$6,767
L	mw	HD Mech/Welder (Grp 1)		\$74.91 /mhr	40.00 mhr	\$2,996
Silt Fence / Fencing / Aggregate Base						
M	xmisc	Miscellaneous material	10.00 lot	\$1,070 /lot	10.00 lot	\$10,700

No.	Item Description		Item Quantity/Unit		Production rate		Other fixed time		Total time	
005	Mt Comfort Road - Install Temp Dividing Wall				1 LS			21 days	21 work days	
		manhours	Labor	Equipment		Material		Subcontract		Item Cost
		712	\$41,693	\$24,498		\$2,136		\$900,000		\$968,327
		Status (Additive)		Work schedule			Other ST pay		Other OT pay	
	1.000	Schedule factor (Normal)		8 hr/shift	1 shift/day	5 day/week		0 hr/shift		0 hr/shift
		Temp wall construction between NB & SB roads (cost includes demolition)								
		Mobilize & set up						2 days		
		Install wall with steel			16000 sf	1000 sf/day	16 days			
		Demo Wall			1000 lf	200 lf/day	5 days			
		Total Duration					21 days			
R/T	Code	Resource Description		Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity		Resource Cost
M	sts	Small tools and supplies					\$3.00 /mhr	712.0 mhr		\$2,136
				Support Crew						
L	lfm	Labor FM					\$59.48 /mhr	168.0 mhr		\$9,992
L	lab	General Labor (Grp 1)				2	\$56.77 /mhr	336.0 mhr		\$19,074
L	flag	Flagman (Grp 1)					\$56.77 /mhr	168.0 mhr		\$9,537
E	cp12	Compressor, trailer 1200cfm					\$81.69 /hr	168.0 hr		\$13,724
E	lp6	Light Plant/Genset, 6kW, 4/1000W				3	\$8.60 /hr	504.0 hr		\$4,336
E	g10	Generator, trailer 10.0kW					\$5.57 /hr	168.0 hr		\$937
				Wall Subcontractor						
S	twm	SOE sub mob		1.00 LS			\$100,000 /LS	1.00 LS		\$100,000
S	tws	SOE wall w/ steel		16000 sf			\$50.00 /sf	16000 sf		\$800,000
				Demo Crew						
L	eo3+	Excavator >3.5cy (Grp 8)		5.00 day	8.00 mhr/day		\$77.24 /mhr	40.00 mhr		\$3,090
E	he330	SK330LC Exc 77.8/2.1cy		5.00 day	8.00 hr/day		\$138 /hr	40.00 hr		\$5,502

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
006	Mt Comfort Road - Exc & Support NB Jacking Pit	1 LS		48 days	48 work days
	manhours	Labor	Equipment	Material	Subcontract
	7,120	\$487,336	\$296,847	\$55,773	\$390,015
					\$1,229,971
	Status (Additive)	Work schedule		Other ST pay	Other OT pay
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift
	Soil nail & shotcrete installation - Two crews NB & SB				
	Excavation per level	1445 bcy	250 cy/day	6	
	Install soil nails per level	18 ea	4 ea/dy	5	
	Shotcrete per level	19 cy	2 cy/hr	1	
	Number of levels	4 ea			
	Total duration			48 days	
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor
L	lp	Labor premium			5.258%
M	sts	Small tools and supplies			\$3.00 /mhr
		Support Crew			
L	lfm	Labor FM			\$59.48 /mhr
L	lab	General Labor (Grp 1)		2	\$56.77 /mhr
L	flag	Flagman (Grp 1)			\$56.77 /mhr
L	c45-	Crane oper. <45t (Grp 9)		2	\$77.24 /mhr

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	480.0 mhr	\$37,075
E	hc40	Hydraulic Crane 40ton/105'		2		\$101 /hr	960.0 hr	\$96,880
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	480.0 hr	\$18,864
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	480.0 hr	\$39,211
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	480.0 hr	\$2,676
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	480.0 mhr	\$35,957
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	1440 hr	\$12,388
S	muck	Muck disposal	8667 lcy			\$45.00 /lcy	8667 lcy	\$390,015
			<i>Soil Nail Crew</i>					
L	lfm	Labor FM				\$59.48 /mhr	480.0 mhr	\$28,548
L	lab	General Labor (Grp 1)	20.00 day	10.00 mhr/day	6	\$56.77 /mhr	1200 mhr	\$68,123
L	drill	Drill operator (Grp 6)	20.00 day	10.00 mhr/day	2	\$77.24 /mhr	400.0 mhr	\$30,895
E	at	Air track 12' feed			2	\$35.63 /hr	960.0 hr	\$34,204
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	960.0 hr	\$17,155
E	gp	Grout Plant, skid	20.00 day	10.00 hr/day	2	\$16.84 /hr	400.0 hr	\$6,734
M	sn	Soil nials	72.00 ea			\$245 /ea	72.00 ea	\$17,640
M	cs	Cement - sack	72.00 ea			\$17.12 /ea	72.00 ea	\$1,233
			<i>Excavation Crew</i>					
L	lab	General Labor (Grp 1)	24.00 day	10.00 mhr/day	2	\$56.77 /mhr	480.0 mhr	\$27,249
L	eo3+	Excavator >3.5cy (Grp 8)	24.00 day	10.00 mhr/day	2	\$77.24 /mhr	480.0 mhr	\$37,075
E	he330	SK330LC Exc 77.8/2.1cy	24.00 day	10.00 hr/day	2	\$138 /hr	480.0 hr	\$66,024
			<i>Shotcrete Crew</i>					
L	lab	General Labor (Grp 1)	4.00 day	10.00 mhr/day	6	\$56.77 /mhr	240.0 mhr	\$13,625
E	sp2	Shotcrete pot Aliva, 2cy/hr	4.00 day	10.00 hr/day	2	\$33.89 /hr	80.00 hr	\$2,711
M	shcrt	Shotcrete	74.00 cy			\$210 /cy	74.00 cy	\$15,540

No.	Item Description		Item Quantity/Unit	Production rate	Other fixed time	Total time		
007	Mt Comfort Road - Pour NB Jacking Slab			370 cy	10 days	10 work days		
		manhours	Labor	Equipment	Material	Subcontract		
		2,100	\$146,955	\$58,110	\$267,833	\$0		
		5.676	\$397.18	\$157.06	\$723.87	\$0.00		
						\$1,278.10		
		Status (Additive)	Work schedule		Other ST pay	Other OT pay		
1.000		Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift		
		Install reinforcement	44400 lb	150 lb/mhr	50 mhr/day	6 days		
		Install jacking support beams				3 days		
		Pour concrete	370 cy			1 days		
		Total duration				10 days		
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$139,614	\$7,341
M	sts	Small tools and supplies				\$3.00 /mhr	2100 mhr	\$6,300
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	100.0 mhr	\$5,948
L	lab	General Labor (Grp 1)		2		\$56.77 /mhr	200.0 mhr	\$11,354
L	flag	Flagman (Grp 1)				\$56.77 /mhr	100.0 mhr	\$5,677
L	c45-	Crane oper. <45t (Grp 9)		2		\$77.24 /mhr	200.0 mhr	\$15,448
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	100.0 mhr	\$7,724
E	hc40	Hydraulic Crane 40ton/105'		2		\$101 /hr	200.0 hr	\$20,183
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	100.0 hr	\$3,930
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	100.0 hr	\$8,169
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	100.0 hr	\$557
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	100.0 mhr	\$7,491
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	300.0 hr	\$2,581
		Slab Crew						
L	lfm	Labor FM				\$59.48 /mhr	100.0 mhr	\$5,948
L	lab	General Labor (Grp 1)		6		\$56.77 /mhr	600.0 mhr	\$34,062
L	ifm	Ironworker FM		1		\$79.11 /mhr	100.0 mhr	\$7,911
L	ijm	Ironworker JM		4		\$76.40 /mhr	400.0 mhr	\$30,562
M	c4	Concrete, 4000psi mix				\$207 /cy	370.0 cy	\$76,590
M	xr	Reinforcing steel mat'l	44400 lb			\$0.20 /lb	44400 lb	\$8,880
M	rp	Reinforcing steel, plain	44400 lb			\$1.10 /lb	44400 lb	\$48,840

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

M	stl12	Steel shapes	57600 lb		\$2.14 /lb	57600 lb	\$123,264
L	conc	Concrete equip.oper. (Grp 2)			\$74.91 /mhr	100.0 mhr	\$7,491
E	cb130	Conc. Pump, truck 130cy/hr			\$192 /hr	100.0 hr	\$19,193
E	vib2	Conc. vibrator, internal, 1.75"	2		\$17.48 /hr	200.0 hr	\$3,497
M	xc	Concrete consumables			\$10.70 /cy	370.0 cy	\$3,959

No.	Item Description	Item Quantity/Unit		Production rate	Other fixed time	Total time
008	Mt Comfort Road - Jet Grout Headwall	148 cy			6 days	6 work days
	manhours	Labor	Equipment	Material	Subcontract	Item Cost
	360	\$24,121	\$21,252	\$1,080	\$205,130	\$251,583
	2.432	\$162.98	\$143.60	\$7.30	\$1,386.01	\$1,699.89
	Status (Additive)	Work schedule			Other ST pay	Other OT pay
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift

	Jet grout headwall at receiving end of jacked box structure					
	Mobilize & setup jet grout operation		3 days			
	Jet grout	148 cy	200 cy/day	1 days		
	Demobilize		2 days			
	Total duration		6 days			

R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$22,916	\$1,205
M	sts	Small tools and supplies				\$3.00 /mhr	360.0 mhr	\$1,080
		<i>Support Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	60.00 mhr	\$3,569
L	lab	General Labor (Grp 1)		2		\$56.77 /mhr	120.0 mhr	\$6,812
L	flag	Flagman (Grp 1)				\$56.77 /mhr	60.00 mhr	\$3,406
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	60.00 mhr	\$4,634
E	hc40	Hydraulic Crane 40ton/105'		2		\$101 /hr	120.0 hr	\$12,110
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	60.00 hr	\$2,358
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	60.00 hr	\$4,901
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	60.00 hr	\$334
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	60.00 mhr	\$4,495
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	180.0 hr	\$1,548
S	muck	Muck disposal	74.00 lcy			\$45.00 /lcy	74.00 lcy	\$3,330
		<i>Jet Grout Subcontractor</i>						
S	jgm	Jet Grouting Mob	1.00 LS			\$150,000 /LS	1.00 LS	\$150,000
S	jg	Jet Grouting				\$350 /cy	148.0 cy	\$51,800

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time	
009	Mt Comfort Rd- Exc & Support NB Receiving Pit	1 LS		48 days	48 work days	
	manhours	Labor	Equipment	Material	Subcontract	Item Cost
	7,120	\$487,336	\$296,847	\$55,773	\$390,015	\$1,229,971
	Status (Additive)	Work schedule		Other ST pay	Other OT pay	
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift

	Soil nail & shotcrete installation - Two crews NB & SB		2 crews			
	Excavation per level	1445 bcy	250 cy/day	6		
	Install soil nails per level	18 ea	4 ea/dy	5		
	Shotcrete per level	19 cy	2 cy/hr	1		
	Number of levels	4 ea				
	Total duration			48 days		

R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$462,992	\$24,344
M	sts	Small tools and supplies				\$3.00 /mhr	7120 mhr	\$21,360
		<i>Support Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	480.0 mhr	\$28,548
L	lab	General Labor (Grp 1)		2		\$56.77 /mhr	960.0 mhr	\$54,499
L	flag	Flagman (Grp 1)				\$56.77 /mhr	480.0 mhr	\$27,249
L	c45-	Crane oper. <45t (Grp 9)		2		\$77.24 /mhr	960.0 mhr	\$74,149
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	480.0 mhr	\$37,075
E	hc40	Hydraulic Crane 40ton/105'		2		\$101 /hr	960.0 hr	\$96,880
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	480.0 hr	\$18,864



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	480.0 hr	\$39,211
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	480.0 hr	\$2,676
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	480.0 mhr	\$35,957
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	1440 hr	\$12,388
S	muck	Muck disposal	8667 lcy			\$45.00 /lcy	8667 lcy	\$390,015
			<i>Soil Nail Crew</i>					
L	lfm	Labor FM				\$59.48 /mhr	480.0 mhr	\$28,548
L	lab	General Labor (Grp 1)	20.00 day	10.00 mhr/day	6	\$56.77 /mhr	1200 mhr	\$68,123
L	drill	Drill operator (Grp 6)	20.00 day	10.00 mhr/day	2	\$77.24 /mhr	400.0 mhr	\$30,895
E	at	Air track 12' feed			2	\$35.63 /hr	960.0 hr	\$34,204
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	960.0 hr	\$17,155
E	gp	Grout Plant, skid	20.00 day	10.00 hr/day	2	\$16.84 /hr	400.0 hr	\$6,734
M	sn	Soil nials	72.00 ea			\$245 /ea	72.00 ea	\$17,640
M	cs	Cement - sack	72.00 ea			\$17.12 /ea	72.00 ea	\$1,233
			<i>Excavation Crew</i>					
L	lab	General Labor (Grp 1)	24.00 day	10.00 mhr/day	2	\$56.77 /mhr	480.0 mhr	\$27,249
L	eo3+	Excavator >3.5cy (Grp 8)	24.00 day	10.00 mhr/day	#####	\$77.24 /mhr	480.0 mhr	\$37,075
E	he330	SK330LC Exc 77.8/2.1cy	24.00 day	10.00 hr/day	2	\$138 /hr	480.0 hr	\$66,024
			<i>Shotcrete Crew</i>					
L	lab	General Labor (Grp 1)	4.00 day	10.00 mhr/day	6	\$56.77 /mhr	240.0 mhr	\$13,625
E	sp2	Shotcrete pot Aliva, 2cy/hr	4.00 day	10.00 hr/day	2	\$33.89 /hr	80.00 hr	\$2,711
M	shcrt	Shotcrete	74.00 cy			\$210 /cy	74.00 cy	\$15,540

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
010	Mt Comfort Road - Pour NB Mud Mat Receiving Pit	185 cy		1 day	1 work day			
		manhours	Labor	Equipment	Material	Subcontract	Item Cost	
		160	\$10,646	\$5,461	\$39,460	\$0	\$55,567	
		0.865	\$57.55	\$29.52	\$213.29	\$0.00	\$300.36	
	Status (Additive)	Work schedule			Other ST pay	Other OT pay		
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
	Pour concrete	185 cy			1 days			
	Total duration				1 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$10,114	\$532
M	sts	Small tools and supplies				\$3.00 /mhr	160.0 mhr	\$480
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	10.00 mhr	\$595
L	lab	General Labor (Grp 1)		2		\$56.77 /mhr	20.00 mhr	\$1,135
L	flag	Flagman (Grp 1)				\$56.77 /mhr	10.00 mhr	\$568
L	c45-	Crane oper. <45t (Grp 9)		#####		\$77.24 /mhr	20.00 mhr	\$1,545
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	10.00 mhr	\$772
E	hc40	Hydraulic Crane 40ton/105'		2		\$101 /hr	20.00 hr	\$2,018
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	10.00 hr	\$393
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	10.00 hr	\$817
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	10.00 hr	\$56
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	10.00 mhr	\$749
E	lp6	Light Plant/Genset, 6kW, 4/1000W		300%		\$8.60 /hr	30.00 hr	\$258
		Slab Crew						
L	lfm	Labor FM				\$59.48 /mhr	10.00 mhr	\$595
L	lab	General Labor (Grp 1)		600%		\$56.77 /mhr	60.00 mhr	\$3,406
M	c3	Concrete, 3000psi mix				\$200 /cy	185.0 cy	\$37,000
L	conc	Concrete equip.oper. (Grp 2)				\$74.91 /mhr	10.00 mhr	\$749
E	cb130	Conc. Pump, truck 130cy/hr				\$192 /hr	10.00 hr	\$1,919
M	xc	Concrete consumables				\$10.70 /cy	185.0 cy	\$1,980



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit		Production rate	Other fixed time	Total time		
011	Mt Comfort Road - Cast NB Culvert #1	561 cy			21 days	21 work days		
		manhours	Labor	Equipment	Material	Subcontract		
		5,080	\$377,436	\$90,868	\$310,176	\$0		
		9.055	\$672.79	\$161.97	\$552.90	\$0.00		
						\$1,387.67		
	Status (Additive)	Work schedule			Other ST pay	Other OT pay		
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
	Set / strip slab forms	480 sf	16 sf/mhr	70 mhr/day	2 days			
	Set / strip wall forms	4200 sf	16 sf/mhr	70 mhr/day	4 days			
	Set / strip roof forms	2626 sf	8 sf/mhr	70 mhr/day	5 days			
	Install reinforcement	67320 lb	150 lb/mhr	80 mhr/day	6 days			
	Concrete pours	4 ea	1 ea/day		4 days			
	Total duration				21 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$358,582	\$18,854
M	sts	Small tools and supplies				\$3.00 /mhr	5080 mhr	\$15,240
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	210.0 mhr	\$12,490
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	420.0 mhr	\$23,843
L	flag	Flagman (Grp 1)				\$56.77 /mhr	210.0 mhr	\$11,922
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	210.0 mhr	\$16,220
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	210.0 mhr	\$16,220
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	210.0 hr	\$21,193
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	210.0 hr	\$8,253
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	210.0 hr	\$17,155
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	210.0 hr	\$1,171
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	210.0 mhr	\$15,731
E	lp6	Light Plant/Genset, 6kW, 4/1000W			300%	\$8.60 /hr	630.0 hr	\$5,420
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	210.0 hr	\$601
E	wtp	Water Treatment Plant				\$87.62 /hr	210.0 hr	\$18,399
		Structure Crew						
L	lfm	Labor FM				\$59.48 /mhr	210.0 mhr	\$12,490
L	lab	General Labor (Grp 1)				\$56.77 /mhr	210.0 mhr	\$11,922
L	cfm	Carpenter FM			100%	\$74.31 /mhr	210.0 mhr	\$15,605
L	cjm	Carpenter JM			600%	\$71.60 /mhr	1260 mhr	\$90,217
L	ifm	Ironworker FM			100%	\$79.11 /mhr	210.0 mhr	\$16,613
L	ijm	Ironworker JM			700%	\$76.40 /mhr	1470 mhr	\$112,314
L	conc	Concrete equip.oper. (Grp 2)	4.00 day	10.00 mhr/day		\$74.91 /mhr	40.00 mhr	\$2,996
E	cb130	Conc. Pump, truck 130cy/hr	4.00 day	10.00 hr/day		\$192 /hr	40.00 hr	\$7,677
E	vib	Concrete vibrators			600%	\$2.77 /hr	1260 hr	\$3,494
M	lumb	Lumber for lagging/forms	7306 sf	1.50 bf/sf		\$4.98 /bf	10959 bf	\$54,527
M	ply1	Plywood MDO 1"	7306 sf			\$2.86 /sf	7306 sf	\$20,873
M	ff	Form fasteners	7306 sf			\$0.43 /sf	7306 sf	\$3,127
M	foil	Form oil	7306 sf			\$0.16 /sf	7306 sf	\$1,173
M	cure	Curing compound	7306 sf			\$0.11 /sf	7306 sf	\$782
M	xf	Misc form supplies	7306 sf			\$0.43 /sf	7306 sf	\$3,127
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	420.0 hr	\$7,505
M	c5	Concrete, 5000psi mix				\$210 /cy	561.0 cy	\$117,810
M	xc	Concrete consumables				\$10.70 /cy	561.0 cy	\$6,003
M	rp	Reinforcing steel, plain	67320 lb			\$1.10 /lb	67320 lb	\$74,052
M	xr	Reinforcing steel mat'l	67320 lb			\$0.20 /lb	67320 lb	\$13,464

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit		Production rate	Other fixed time	Total time		
012	Mt Comfort Road - Cast NB Culvert #2	561 cy			21 days	21 work days		
		manhours	Labor	Equipment	Material	Subcontract		
		5,080	\$377,436	\$90,868	\$310,176	\$0		
		9.055	\$672.79	\$161.97	\$552.90	\$0.00		
						\$1,387.67		
	Status (Additive)	Work schedule			Other ST pay	Other OT pay		
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
	Set / strip slab forms	480 sf	16 sf/mhr	70 mhr/day	2 days			
	Set / strip wall forms	4200 sf	16 sf/mhr	70 mhr/day	4 days			
	Set / strip roof forms	2626 sf	8 sf/mhr	70 mhr/day	5 days			
	Install reinforcement	67320 lb	150 lb/mhr	80 mhr/day	6 days			
	Concrete pours	4 ea	1 ea/day		4 days			
	Total duration				21 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$358,582	\$18,854
M	sts	Small tools and supplies				\$3.00 /mhr	5080 mhr	\$15,240
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	210.0 mhr	\$12,490
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	420.0 mhr	\$23,843
L	flag	Flagman (Grp 1)				\$56.77 /mhr	210.0 mhr	\$11,922
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	210.0 mhr	\$16,220
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	210.0 mhr	\$16,220
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	210.0 hr	\$21,193
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	210.0 hr	\$8,253
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	210.0 hr	\$17,155
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	210.0 hr	\$1,171
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	210.0 mhr	\$15,731
E	lp6	Light Plant/Genset, 6kW, 4/1000W			300%	\$8.60 /hr	630.0 hr	\$5,420
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	210.0 hr	\$601
E	wtp	Water Treatment Plant				\$87.62 /hr	210.0 hr	\$18,399
		Structure Crew						
L	lfm	Labor FM				\$59.48 /mhr	210.0 mhr	\$12,490
L	lab	General Labor (Grp 1)				\$56.77 /mhr	210.0 mhr	\$11,922
L	cfm	Carpenter FM			1	\$74.31 /mhr	210.0 mhr	\$15,605
L	cjm	Carpenter JM			6	\$71.60 /mhr	1260 mhr	\$90,217
L	ifm	Ironworker FM			1	\$79.11 /mhr	210.0 mhr	\$16,613
L	ijm	Ironworker JM			7	\$76.40 /mhr	1470 mhr	\$112,314
L	conc	Concrete equip.oper. (Grp 2)	4.00 day	10.00 mhr/day		\$74.91 /mhr	40.00 mhr	\$2,996
E	cb130	Conc. Pump, truck 130cy/hr	4.00 day	10.00 hr/day		\$192 /hr	40.00 hr	\$7,677
E	vib	Concrete vibrators			600%	\$2.77 /hr	1260 hr	\$3,494
M	lumb	Lumber for lagging/forms	7306 sf	1.50 bf/sf		\$4.98 /bf	10959 bf	\$54,527
M	ply1	Plywood MDO 1"	7306 sf			\$2.86 /sf	7306 sf	\$20,873
M	ff	Form fasteners	7306 sf			\$0.43 /sf	7306 sf	\$3,127
M	foil	Form oil	7306 sf			\$0.16 /sf	7306 sf	\$1,173
M	cure	Curing compound	7306 sf			\$0.11 /sf	7306 sf	\$782
M	xf	Misc form supplies	7306 sf			\$0.43 /sf	7306 sf	\$3,127
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	420.0 hr	\$7,505
M	c5	Concrete, 5000psi mix				\$210 /cy	561.0 cy	\$117,810
M	xc	Concrete consumables				\$10.70 /cy	561.0 cy	\$6,003
M	rp	Reinforcing steel, plain	67320 lb			\$1.10 /lb	67320 lb	\$74,052
M	xr	Reinforcing steel mat'l	67320 lb			\$0.20 /lb	67320 lb	\$13,464

No.	Item Description		Item Quantity/Unit	Production rate		Other fixed time	Total time	
013	Mt Comfort Road - Install Shield		1.00 LS			3 days	3 work days	
	manhours	Labor	Equipment	Material	Subcontract		Item Cost	
	420	\$28,925	\$46,431	\$1,260	\$0		\$76,616	
	Status (Additive)		Work schedule		Other ST pay		Other OT pay	
	1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift	
	Install shield & steering jacks		3 days					
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

L	lp	Labor premium		5.258%	\$27,480	\$1,445
M	sts	Small tools and supplies		\$3.00 /mhr	420.0 mhr	\$1,260
<i>Support Crew</i>						
L	lfm	Labor FM		\$59.48 /mhr	30.00 mhr	\$1,784
L	lab	General Labor (Grp 1)	2	\$56.77 /mhr	60.00 mhr	\$3,406
L	flag	Flagman (Grp 1)		\$56.77 /mhr	30.00 mhr	\$1,703
L	c45-	Crane oper. <45t (Grp 9)		\$77.24 /mhr	30.00 mhr	\$2,317
L	lo4+	Loader oper. >4cy (Grp 10)		\$77.24 /mhr	30.00 mhr	\$2,317
E	hc40	Hydraulic Crane 40ton/105'		\$101 /hr	30.00 hr	\$3,028
E	l914	Wheel Loader Cat 914/1.7cy		\$39.30 /hr	30.00 hr	\$1,179
E	cp12	Compressor, trailer 1200cfm		\$81.69 /hr	30.00 hr	\$2,451
E	g10	Generator, trailer 10.0kW		\$5.57 /hr	30.00 hr	\$167
L	comp	Compressorman (Grp 5)		\$74.91 /mhr	30.00 mhr	\$2,247
E	lp6	Light Plant/Genset, 6kW, 4/1000W	300%	\$8.60 /hr	90.00 hr	\$774
E	p205	Pump, trash 205gpm/100ft head		\$2.86 /hr	30.00 hr	\$86
E	wtp	Water Treatment Plant		\$87.62 /hr	30.00 hr	\$2,628
<i>Shield / Jacking Crew</i>						
L	lfm	Labor FM		\$59.48 /mhr	30.00 mhr	\$1,784
L	lab	General Labor (Grp 1)	3	\$56.77 /mhr	90.00 mhr	\$5,109
L	c100+	Crane oper. >100t (Grp 11)		\$77.24 /mhr	30.00 mhr	\$2,317
L	mw	HD Mech/Welder (Grp 1)	2	\$74.91 /mhr	60.00 mhr	\$4,495
E	ml30	Man-Lift 30' articulated boom	2	\$17.87 /hr	60.00 hr	\$1,072
E	we4	Welder 400A, trailer E	2	\$28.46 /hr	60.00 hr	\$1,707
E	cssj	Cutting shield steering jacks		\$640 /hr	30.00 hr	\$19,206
E	cc100	Crawler Crane 100ton/200'		\$471 /hr	30.00 hr	\$14,132

No.	Item Description		Item Quantity/Unit	Production rate	Other fixed time	Total time		
014	Mt Comfort Road - Install Jacking System			1 LS	3 days	3 work days		
		manhours	Labor	Equipment	Material	Subcontract	Item Cost	
		450	\$31,596	\$46,431	\$12,050	\$0	\$90,077	
		Status (Additive)	Work schedule		Other ST pay	Other OT pay		
	1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift	
Assemble & setup jacking system			3 days					
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$30,018	\$1,578
M	sts	Small tools and supplies				\$3.00 /mhr	450.0 mhr	\$1,350
			Support Crew					
L	lfm	Labor FM				\$59.48 /mhr	30.00 mhr	\$1,784
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	60.00 mhr	\$3,406
L	flag	Flagman (Grp 1)				\$56.77 /mhr	30.00 mhr	\$1,703
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	30.00 mhr	\$2,317
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	30.00 mhr	\$2,317
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	30.00 hr	\$3,028
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	30.00 hr	\$1,179
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	30.00 hr	\$2,451
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	30.00 hr	\$167
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	30.00 mhr	\$2,247
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	90.00 hr	\$774
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	30.00 hr	\$86
E	wtp	Water Treatment Plant				\$87.62 /hr	30.00 hr	\$2,628
			Jacking System Crew					
L	lfm	Labor FM				\$59.48 /mhr	30.00 mhr	\$1,784
L	lab	General Labor (Grp 1)			3	\$56.77 /mhr	90.00 mhr	\$5,109
L	c100+	Crane oper. >100t (Grp 11)				\$77.24 /mhr	30.00 mhr	\$2,317
L	mw	HD Mech/Welder (Grp 1)			2	\$74.91 /mhr	60.00 mhr	\$4,495
L	ejm	Electrician JM				\$84.59 /mhr	30.00 mhr	\$2,538
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	60.00 hr	\$1,072
E	we4	Welder 400A, trailer E			200%	\$28.46 /hr	60.00 hr	\$1,707
E	cssj	Cutting shield steering jacks				\$640 /hr	30.00 hr	\$19,206
E	cc100	Crawler Crane 100ton/200'				\$471 /hr	30.00 hr	\$14,132

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

M	xmisc	Miscellaneous material	10.00 lot	\$1,070 /lot	10.00 lot	\$10,700
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No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>015</b>	<b>Mt Comfort Road - Excavate NB Culvert #1</b>	<b>50 ft</b>		<b>10 days</b>	<b>10 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>4,320</b>	<b>\$350,307</b>	<b>\$509,593</b>	<b>\$23,660</b>	<b>\$146,610</b>
	86.400	\$7,006.13	\$10,191.87	\$473.20	\$2,932.20
					Item Cost
					<b>\$1,030,170</b>
					\$20,603.40

	Status (Additive)	Work schedule	Other ST pay	Other OT pay
1.000	Schedule factor (Normal)	8 hr/shift 3 shift/day 7 day/week	0.5 hr/shift	0 hr/shift

	Excavate culvert	2172 cy	171 cy/day	10 days
	Jack culvert	50 ft	5 ft/day	

R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				18.221%	\$296,315	\$53,992
M	sts	Small tools and supplies				\$3.00 /mhr	4320 mhr	\$12,960
		<i>Support Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	240.0 mhr	\$14,274
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	480.0 mhr	\$27,249
L	flag	Flagman (Grp 1)				\$56.77 /mhr	240.0 mhr	\$13,625
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	240.0 mhr	\$18,537
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	240.0 mhr	\$18,537
L	ejm	Electrician JM				\$84.59 /mhr	240.0 mhr	\$20,301
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	240.0 hr	\$24,220
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	240.0 hr	\$9,432
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	240.0 hr	\$19,605
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	240.0 hr	\$1,338
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	240.0 mhr	\$17,979
E	lp6	Light Plant/Genset, 6kW, 4/1000W			300%	\$8.60 /hr	720.0 hr	\$6,194
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	240.0 hr	\$687
S	muck	Muck disposal	3258 lcy			\$45.00 /lcy	3258 lcy	\$146,610
		<i>Excavation &amp; Jacking Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	240.0 mhr	\$14,274
L	lab	General Labor (Grp 1)			3	\$56.77 /mhr	720.0 mhr	\$40,874
L	ofm	Operating Engineer				\$77.24 /mhr	240.0 mhr	\$18,537
L	eo3-	Excavator <3.5cy (Grp 5)			200%	\$77.24 /mhr	480.0 mhr	\$37,075
L	lo4-	Loader oper. <4cy (Grp 5)				\$77.24 /mhr	240.0 mhr	\$18,537
L	mw	HD Mech/Welder (Grp 1)				\$74.91 /mhr	240.0 mhr	\$17,979
E	he320	320 Excavator 43.8k/1.5cy				\$190 /hr	240.0 hr	\$45,577
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	240.0 hr	\$9,432
E	cssj	Cutting shield steering jacks				\$640 /hr	240.0 hr	\$153,648
E	tjack	Thrust jack & frame				\$439 /hr	240.0 hr	\$105,375
M	xmisc	Miscellaneous material	10.00 lot			\$1,070 /lot	10.00 lot	\$10,700
E	wtp	Water Treatment Plant				\$87.62 /hr	240.0 hr	\$21,028
L	c100+	Crane oper. >100t (Grp 11)				\$77.24 /mhr	240.0 mhr	\$18,537
E	cc100	Crawler Crane 100ton/200'				\$471 /hr	240.0 hr	\$113,057

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>016</b>	<b>Mt Comfort Road - Position NB Culvert #2</b>	<b>1 LS</b>		<b>2 days</b>	<b>2 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>720</b>	<b>\$51,031</b>	<b>\$90,917</b>	<b>\$7,510</b>	<b>\$0</b>
					Item Cost
					<b>\$149,458</b>

	Status (Additive)	Work schedule	Other ST pay	Other OT pay
1.000	Schedule factor (Normal)	8 hr/shift 3 shift/day 5 day/week	0.5 hr/shift	0 hr/shift

	Position & prepare culvert for jacking	2 days
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R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				6.250%	\$48,029	\$3,002
M	sts	Small tools and supplies				\$3.00 /mhr	720.0 mhr	\$2,160
		<i>Support Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	48.00 mhr	\$2,855
L	lab	General Labor (Grp 1)			200%	\$56.77 /mhr	96.00 mhr	\$5,450
L	flag	Flagman (Grp 1)				\$56.77 /mhr	48.00 mhr	\$2,725
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	48.00 mhr	\$3,707

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

L	lo4+	Loader oper. >4cy (Grp 10)		\$77.24 /mhr	48.00 mhr	\$3,707
L	ejm	Electrician JM		\$84.59 /mhr	48.00 mhr	\$4,060
E	hc40	Hydraulic Crane 40ton/105'		\$101 /hr	48.00 hr	\$4,844
E	l914	Wheel Loader Cat 914/1.7cy		\$39.30 /hr	48.00 hr	\$1,886
E	cp12	Compressor, trailer 1200cfm		\$81.69 /hr	48.00 hr	\$3,921
E	g10	Generator, trailer 10.0kW		\$5.57 /hr	48.00 hr	\$268
L	comp	Compressorman (Grp 5)		\$74.91 /mhr	48.00 mhr	\$3,596
E	lp6	Light Plant/Genset, 6kW, 4/1000W	3	\$8.60 /hr	144.0 hr	\$1,239
E	p205	Pump, trash 205gpm/100ft head		\$2.86 /hr	48.00 hr	\$137
E	wtp	Water Treatment Plant		\$87.62 /hr	48.00 hr	\$4,206
<b>Culvert Crew</b>						
L	lfm	Labor FM		\$59.48 /mhr	48.00 mhr	\$2,855
L	lab	General Labor (Grp 1)	3	\$56.77 /mhr	144.0 mhr	\$8,175
L	mw	HD Mech/Welder (Grp 1)	2	\$74.91 /mhr	96.00 mhr	\$7,191
E	cssj	Cutting shield steering jacks		\$640 /hr	48.00 hr	\$30,730
E	tjack	Thrust jack & frame		\$439 /hr	48.00 hr	\$21,075
M	xmisc	Miscellaneous material	5.00 lot	\$1,070 /lot	5.00 lot	\$5,350
L	c100+	Crane oper. >100t (Grp 11)		\$77.24 /mhr	48.00 mhr	\$3,707
E	cc100	Crawler Crane 100ton/200'		\$471 /hr	48.00 hr	\$22,611

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
017	Mt Comfort Road - Excavate NB Culvert #2	50 ft		10 days	10 work days			
	manhours	Labor	Equipment	Material	Subcontract			
	4,320	\$350,307	\$509,593	\$23,660	\$146,610			
	86.400	\$7,006.13	\$10,191.87	\$473.20	\$2,932.20			
					\$20,603.40			
	Status (Additive)	Work schedule		Other ST pay	Other OT pay			
1.000	Schedule factor (Normal)	8 hr/shift	3 shift/day	7 day/week	0.5 hr/shift			
	Excavate culvert	2172 cy	171 cy/day					
	Jack culvert	50 ft	5 ft/day	10 days				
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				18.221%	\$296,315	\$53,992
M	sts	Small tools and supplies				\$3.00 /mhr	4320 mhr	\$12,960
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	240.0 mhr	\$14,274
L	lab	General Labor (Grp 1)		200%		\$56.77 /mhr	480.0 mhr	\$27,249
L	flag	Flagman (Grp 1)				\$56.77 /mhr	240.0 mhr	\$13,625
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	240.0 mhr	\$18,537
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	240.0 mhr	\$18,537
L	ejm	Electrician JM				\$84.59 /mhr	240.0 mhr	\$20,301
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	240.0 hr	\$24,220
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	240.0 hr	\$9,432
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	240.0 hr	\$19,605
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	240.0 hr	\$1,338
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	240.0 mhr	\$17,979
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	720.0 hr	\$6,194
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	240.0 hr	\$687
S	muck	Muck disposal	3258 lcy			\$45.00 /lcy	3258 lcy	\$146,610
		Excavation & Jacking Crew						
L	lfm	Labor FM				\$59.48 /mhr	240.0 mhr	\$14,274
L	lab	General Labor (Grp 1)		3		\$56.77 /mhr	720.0 mhr	\$40,874
L	ofm	Operating Engineer				\$77.24 /mhr	240.0 mhr	\$18,537
L	eo3-	Excavator <3.5cy (Grp 5)		2		\$77.24 /mhr	480.0 mhr	\$37,075
L	lo4-	Loader oper. <4cy (Grp 5)				\$77.24 /mhr	240.0 mhr	\$18,537
L	mw	HD Mech/Welder (Grp 1)				\$74.91 /mhr	240.0 mhr	\$17,979
E	he320	320 Excavator 43.8k/1.5cy				\$190 /hr	240.0 hr	\$45,577
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	240.0 hr	\$9,432
E	cssj	Cutting shield steering jacks				\$640 /hr	240.0 hr	\$153,648
E	tjack	Thrust jack & frame				\$439 /hr	240.0 hr	\$105,375
M	xmisc	Miscellaneous material	10.00 lot			\$1,070 /lot	10.00 lot	\$10,700
E	wtp	Water Treatment Plant				\$87.62 /hr	240.0 hr	\$21,028



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

L	c100+	Crane oper. >100t (Grp 11)		\$77.24 /mhr	240.0 mhr	\$18,537
E	cc100	Crawler Crane 100ton/200'		\$471 /hr	240.0 hr	\$113,057

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
018	Mt Comfort Road - Remove Jacks & Shield	1 LS		5 days	5 work days			
	manhours	Labor	Equipment	Material	Subcontract			
	850	\$63,678	\$52,202	\$2,550	\$0			
	Status (Additive)	Work schedule		Other ST pay	Other OT pay			
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0.5 hr/shift			
	Remove jacks & shields	5 days						
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				10.258%	\$57,754	\$5,924
M	sts	Small tools and supplies				\$3.00 /mhr	850.0 mhr	\$2,550
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	50.00 mhr	\$2,974
L	lab	General Labor (Grp 1)		2		\$56.77 /mhr	100.0 mhr	\$5,677
L	flag	Flagman (Grp 1)				\$56.77 /mhr	50.00 mhr	\$2,838
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	50.00 mhr	\$3,862
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	50.00 mhr	\$3,862
L	ejm	Electrician JM				\$84.59 /mhr	50.00 mhr	\$4,229
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	50.00 hr	\$5,046
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	50.00 hr	\$1,965
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	50.00 hr	\$4,084
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	50.00 hr	\$279
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	50.00 mhr	\$3,746
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	150.0 hr	\$1,290
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	50.00 hr	\$143
E	wtp	Water Treatment Plant				\$87.62 /hr	50.00 hr	\$4,381
		Removal Crew						
L	lfm	Labor FM				\$59.48 /mhr	50.00 mhr	\$2,974
L	lab	General Labor (Grp 1)		3		\$56.77 /mhr	150.0 mhr	\$8,515
L	mw	HD Mech/Welder (Grp 1)		2		\$74.91 /mhr	100.0 mhr	\$7,491
L	c100+	Crane oper. >100t (Grp 11)				\$77.24 /mhr	50.00 mhr	\$3,862
L	eo3-	Excavator <3.5cy (Grp 5)				\$77.24 /mhr	50.00 mhr	\$3,862
L	lo4-	Loader oper. <4cy (Grp 5)				\$77.24 /mhr	50.00 mhr	\$3,862
E	he320	320 Excavator 43.8k/1.5cy				\$190 /hr	50.00 hr	\$9,495
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	50.00 hr	\$1,965
E	cc100	Crawler Crane 100ton/200'				\$471 /hr	50.00 hr	\$23,554

No.	Item Description	Item Quantity/Unit		Production rate	Other fixed time	Total time		
019	Mt Comfort Road - Excavate & Support NB Wall 2	1 LS			70 days	70 work days		
		manhours	Labor	Equipment	Material	Subcontract		
		8,288	\$538,061	\$345,254	\$99,809	\$763,223		
						\$1,746,346		
	Status (Additive)	Work schedule			Other ST pay	Other OT pay		
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
	Soil nail & shotcrete installation - Two crews NB & SB				2 crews			
	Excavation per level		3769 bcy	500 cy/day	8 days			
	Install soil nails per level		68 ea	4 ea/dy	9 days	2 crews		
	Shotcrete per level		34 cy	2 cy/hr	3 days			
	Number of levels		3 ea					
	Total duration				60 days			
	Additional Time to Break into Pit				10 days			
	Total Duration				70 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts	Small tools and supplies				\$3.00 /mhr	8288 mhr	\$24,864
			Support Crew					
L	lfm	Labor FM				\$59.48 /mhr	560.0 mhr	\$33,307
L	lab	General Labor (Grp 1)		2		\$56.77 /mhr	1120 mhr	\$63,582
L	flag	Flagman (Grp 1)				\$56.77 /mhr	560.0 mhr	\$31,791
L	c45-	Crane oper. <45t (Grp 9)		2		\$77.24 /mhr	1120 mhr	\$86,507

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	560.0 mhr	\$43,254
E	hc40	Hydraulic Crane 40ton/105'		2		\$101 /hr	1120 hr	\$113,027
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	560.0 hr	\$22,008
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	560.0 hr	\$45,746
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	560.0 hr	\$3,122
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	560.0 mhr	\$41,950
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	1680 hr	\$14,453
S	muck	Muck disposal	16961 lcy			\$45.00 /lcy	16961 lcy	\$763,223
<i>Soil Nail Crew</i>								
L	lfm	Labor FM				\$59.48 /mhr	560.0 mhr	\$33,307
L	lab	General Labor (Grp 1)	27.00 day	8.00 mhr/day	6	\$56.77 /mhr	1296 mhr	\$73,573
L	drill	Drill operator (Grp 6)	27.00 day	8.00 mhr/day	2	\$77.24 /mhr	432.0 mhr	\$33,367
E	at	Air track 12' feed			2	\$35.63 /hr	1120 hr	\$39,904
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	1120 hr	\$20,014
E	gp	Grout Plant, skid	27.00 day	8.00 hr/day	2	\$16.84 /hr	432.0 hr	\$7,273
M	sn	Soil nials	205.0 ea			\$245 /ea	205.0 ea	\$50,225
M	cs	Cement - sack	205.0 ea			\$17.12 /ea	205.0 ea	\$3,510
<i>Excavation Crew</i>								
L	lab	General Labor (Grp 1)	34.00 day	8.00 mhr/day	200%	\$56.77 /mhr	544.0 mhr	\$30,883
L	eo3+	Excavator >3.5cy (Grp 8)	34.00 day	8.00 mhr/day	#####	\$77.24 /mhr	544.0 mhr	\$42,018
E	he330	SK330LC Exc 77.8/2.1cy	34.00 day	8.00 hr/day	2	\$138 /hr	544.0 hr	\$74,827
<i>Shotcrete Crew</i>								
L	lab	General Labor (Grp 1)	9.00 day	8.00 mhr/day	6	\$56.77 /mhr	432.0 mhr	\$24,524
E	sp2	Shotcrete pot Aliva, 2cy/hr	9.00 day	8.00 hr/day	2	\$33.89 /hr	144.0 hr	\$4,881
M	shcrt	Shotcrete	101.0 cy			\$210 /cy	101.0 cy	\$21,210

No.	Item Description		Item Quantity/Unit	Production rate	Other fixed time	Total time		
020	Mt Comfort Road - Excavate & Support NB Wall 1		1.00 LS		43 days	43 work days		
		manhours	Labor	Equipment	Material	Subcontract		
		5,048	\$327,916	\$214,366	\$54,217	\$378,878		
						Item Cost		
						\$975,376		
		Status (Additive)	Work schedule		Other ST pay	Other OT pay		
1.000		Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift		
		Soil nail & shotcrete installation - Two crews NB & SB						
				2 crews				
		Excavation per level	1871 bcy	500 cy/day	4 days			
		Install soil nails per level	35 ea	4 ea/dy	5 days	2 crews		
		Shotcrete per level	18 cy	2 cy/hr	2 days			
		Number of levels	3 ea					
		Total duration			33 days			
		Additional Time to Break into Pit			10 days			
		Total Duration			43 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts	Small tools and supplies				\$3.00 /mhr	5048 mhr	\$15,144
			Support Crew					
L	lfm	Labor FM				\$59.48 /mhr	344.0 mhr	\$20,460
L	lab	General Labor (Grp 1)		2		\$56.77 /mhr	688.0 mhr	\$39,057
L	flag	Flagman (Grp 1)				\$56.77 /mhr	344.0 mhr	\$19,529
L	c45-	Crane oper. <45t (Grp 9)		2		\$77.24 /mhr	688.0 mhr	\$53,140
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	344.0 mhr	\$26,570
E	hc40	Hydraulic Crane 40ton/105'		2		\$101 /hr	688.0 hr	\$69,431
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	344.0 hr	\$13,519
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	344.0 hr	\$28,101
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	344.0 hr	\$1,918
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	344.0 mhr	\$25,769
E	lp6	Light Plant/Genset, 6kW, 4/1000W		300%		\$8.60 /hr	1032 hr	\$8,878
S	muck	Muck disposal	8420 lcy			\$45.00 /lcy	8420 lcy	\$378,878
			Soil Nail Crew					
L	lfm	Labor FM				\$59.48 /mhr	344.0 mhr	\$20,460
L	lab	General Labor (Grp 1)	15.00 day	8.00 mhr/day	600%	\$56.77 /mhr	720.0 mhr	\$40,874
L	drill	Drill operator (Grp 6)	15.00 day	8.00 mhr/day	2	\$77.24 /mhr	240.0 mhr	\$18,537
E	at	Air track 12' feed			2	\$35.63 /hr	688.0 hr	\$24,513



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

E	ml30	Man-Lift 30' articulated boom		2	\$17.87 /hr	688.0 hr	\$12,294
E	gp	Grout Plant, skid	15.00 day	8.00 hr/day	2	\$16.84 /hr	\$4,041
M	sn	Soil nials	105.0 ea		\$245 /ea	105.0 ea	\$25,725
M	cs	Cement - sack	105.0 ea		\$17.12 /ea	105.0 ea	\$1,798
<i>Excavation Crew</i>							
L	lab	General Labor (Grp 1)	22.00 day	8.00 mhr/day	200%	\$56.77 /mhr	\$19,983
L	eo3+	Excavator >3.5cy (Grp 8)	22.00 day	8.00 mhr/day	200%	\$77.24 /mhr	\$27,188
E	he330	SK330LC Exc 77.8/2.1cy	22.00 day	8.00 hr/day	2	\$138 /hr	\$48,417
<i>Shotcrete Crew</i>							
L	lab	General Labor (Grp 1)	6.00 day	8.00 mhr/day	6	\$56.77 /mhr	\$16,350
E	sp2	Shotcrete pot Aliva, 2cy/hr	6.00 day	8.00 hr/day	2	\$33.89 /hr	\$3,254
M	shcrt	Shotcrete	55.00 cy		\$210 /cy	55.00 cy	\$11,550

No.	Item Description	Item Quantity/Unit		Production rate	Other fixed time	Total time	
021	Mt Comfort Road - Final Wall Facing NB Wall 2	1 LS			24 days	24 work days	
		manhours	Labor	Equipment	Material	Subcontract	Item Cost
		4,992	\$352,315	\$96,088	\$293,665	\$0	\$742,068

	Status (Additive)	Work schedule			Other ST pay	Other OT pay
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift
	Final wall facing					
	Install reinforcement	20880 lb	150 lb/mhr	56 mhr/day	3	
	Set / strip wall forms	11250 sf	16 sf/mhr	72 mhr/day	10	
	Concrete pours	6 ea	1 ea/day		6	
	Place aggregate base	1350 ton			2	
	Slope stability				3	
	Total duration				24	

R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts	Small tools and supplies				\$3.00 /mhr	4992 mhr	\$14,976
<i>Support Crew</i>								
L	lfm	Labor FM				\$59.48 /mhr	192.0 mhr	\$11,419
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	384.0 mhr	\$21,799
L	flag	Flagman (Grp 1)				\$56.77 /mhr	192.0 mhr	\$10,900
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	192.0 mhr	\$14,830
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	192.0 mhr	\$14,830
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	192.0 hr	\$19,376
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	192.0 hr	\$7,546
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	192.0 hr	\$15,684
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	192.0 hr	\$1,070
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	192.0 mhr	\$14,383
E	lp6	Light Plant/Genset, 6kW, 4/1000W			300%	\$8.60 /hr	576.0 hr	\$4,955
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	192.0 hr	\$550
<i>Structure Crew</i>								
L	lfm	Labor FM				\$59.48 /mhr	192.0 mhr	\$11,419
L	lab	General Labor (Grp 1)				\$56.77 /mhr	192.0 mhr	\$10,900
L	cfm	Carpenter FM			1	\$74.31 /mhr	192.0 mhr	\$14,267
L	cjm	Carpenter JM			8	\$71.60 /mhr	1536 mhr	\$109,978
L	ifm	Ironworker FM			1	\$79.11 /mhr	192.0 mhr	\$15,189
L	ijm	Ironworker JM			6	\$76.40 /mhr	1152 mhr	\$88,017
L	conc	Concrete equip.oper. (Grp 2)				\$74.91 /mhr	192.0 mhr	\$14,383
E	cb130	Conc. Pump, truck 130cy/hr				\$192 /hr	192.0 hr	\$36,850
E	vib	Concrete vibrators			600%	\$2.77 /hr	1152 hr	\$3,194
M	lumb	Lumber for lagging/forms	11250 sf	1.50 bf/sf		\$4.98 /bf	16875 bf	\$83,962
M	ply1	Plywood MDO 1"	11250 sf			\$2.86 /sf	11250 sf	\$32,140
M	ff	Form fasteners	11250 sf			\$0.43 /sf	11250 sf	\$4,815
M	foil	Form oil	11250 sf			\$0.16 /sf	11250 sf	\$1,806
M	cure	Curing compound	11250 sf			\$0.11 /sf	11250 sf	\$1,204
M	xf	Misc form supplies	11250 sf			\$0.43 /sf	11250 sf	\$4,815
M	rp	Reinforcing steel, plain	20880 lb			\$1.10 /lb	20880 lb	\$22,968
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	384.0 hr	\$6,862
M	c5	Concrete, 5000psi mix	348.0 cy			\$210 /cy	348.0 cy	\$73,080

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

M	aggc	Coarse aggregate	1350 ton	\$32.00 /ton	1350 ton	\$43,200
		<i>Slope Stability Material</i>				
M	xmisc	Miscellaneous material	10.00 lot	\$1,070 /lot	10.00 lot	\$10,700

No.	Item Description	Item Quantity/Unit		Production rate	Other fixed time		Total time	
022	Mt Comfort Road - Final Wall Facing NB Wall 1		1 LS		20 days	20 work days		
		manhours	Labor	Equipment	Material	Subcontract	Item Cost	
		4,160	\$293,596	\$80,073	\$222,863	\$0	\$596,533	
	Status (Additive)	Work schedule			Other ST pay	Other OT pay		
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
	Final wall facing							
	Install reinforcement	15360 lb	150 lb/mhr	56 mhr/day	2			
	Set / strip wall forms	7500 sf	16 sf/mhr	72 mhr/day	7			
	Concrete pours	6 ea	1 ea/day		6			
	Place aggregate base	1350 ton			2			
	Slope stability				3			
	Total duration				20			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts	Small tools and supplies				\$3.00 /mhr	4160 mhr	\$12,480
			Support Crew					
L	lfm	Labor FM				\$59.48 /mhr	160.0 mhr	\$9,516
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	320.0 mhr	\$18,166
L	flag	Flagman (Grp 1)				\$56.77 /mhr	160.0 mhr	\$9,083
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	160.0 mhr	\$12,358
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	160.0 mhr	\$12,358
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	160.0 hr	\$16,147
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	160.0 hr	\$6,288
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	160.0 hr	\$13,070
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	160.0 hr	\$892
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	160.0 mhr	\$11,986
E	lp6	Light Plant/Genset, 6kW, 4/1000W			300%	\$8.60 /hr	480.0 hr	\$4,129
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	160.0 hr	\$458
			Structure Crew					
L	lfm	Labor FM				\$59.48 /mhr	160.0 mhr	\$9,516
L	lab	General Labor (Grp 1)				\$56.77 /mhr	160.0 mhr	\$9,083
L	cfm	Carpenter FM			1	\$74.31 /mhr	160.0 mhr	\$11,889
L	cjm	Carpenter JM			8	\$71.60 /mhr	1280 mhr	\$91,649
L	ifm	Ironworker FM			1	\$79.11 /mhr	160.0 mhr	\$12,658
L	ijm	Ironworker JM			6	\$76.40 /mhr	960.0 mhr	\$73,348
L	conc	Concrete equip.oper. (Grp 2)				\$74.91 /mhr	160.0 mhr	\$11,986
E	cb130	Conc. Pump, truck 130cy/hr				\$192 /hr	160.0 hr	\$30,709
E	vib	Concrete vibrators			600%	\$2.77 /hr	960.0 hr	\$2,662
M	lumb	Lumber for lagging/forms	7500 sf	1.50 bf/sf		\$4.98 /bf	11250 bf	\$55,974
M	ply1	Plywood MDO 1"	7500 sf			\$2.86 /sf	7500 sf	\$21,427
M	ff	Form fasteners	7500 sf			\$0.43 /sf	7500 sf	\$3,210
M	foil	Form oil	7500 sf			\$0.16 /sf	7500 sf	\$1,204
M	cure	Curing compound	7500 sf			\$0.11 /sf	7500 sf	\$803
M	xf	Misc form supplies	7500 sf			\$0.43 /sf	7500 sf	\$3,210
M	rp	Reinforcing steel, plain	15360 lb			\$1.10 /lb	15360 lb	\$16,896
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	320.0 hr	\$5,718
M	c5	Concrete, 5000psi mix	256.0 cy			\$210 /cy	256.0 cy	\$53,760
M	aggc	Coarse aggregate	1350 ton			\$32.00 /ton	1350 ton	\$43,200
			Slope Stability Material					
M	xmisc	Miscellaneous material	10.00 lot			\$1,070 /lot	10.00 lot	\$10,700

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
023	Mt Comfort Road - Exc & Support SB Jacking Pit	1 LS		48 days	48 work days			
	manhours	Labor	Equipment	Material	Subcontract			
	7,120	\$487,336	\$296,847	\$55,773	\$390,015			
					\$1,229,971			
	Status (Additive)	Work schedule		Other ST pay	Other OT pay			
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift			
					0 hr/shift			
	Soil nail & shotcrete installation - Two crews NB & SB		2 crews					
	Excavation per level	1445 bcy	250 cy/day	6 days				
	Install soil nails per level	18 ea	4 ea/dy	5 days				
	Shotcrete per level	19 cy	2 cy/hr	1 days				
	Number of levels	4 ea						
	Total duration			48 days				
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$462,992	\$24,344
M	sts	Small tools and supplies				\$3.00 /mhr	7120 mhr	\$21,360
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	480.0 mhr	\$28,548
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	960.0 mhr	\$54,499
L	flag	Flagman (Grp 1)				\$56.77 /mhr	480.0 mhr	\$27,249
L	c45-	Crane oper. <45t (Grp 9)			200%	\$77.24 /mhr	960.0 mhr	\$74,149
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	480.0 mhr	\$37,075
E	hc40	Hydraulic Crane 40ton/105'			200%	\$101 /hr	960.0 hr	\$96,880
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	480.0 hr	\$18,864
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	480.0 hr	\$39,211
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	480.0 hr	\$2,676
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	480.0 mhr	\$35,957
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	1440 hr	\$12,388
S	muck	Muck disposal	8667 lcy			\$45.00 /lcy	8667 lcy	\$390,015
		Soil Nail Crew						
L	lfm	Labor FM				\$59.48 /mhr	480.0 mhr	\$28,548
L	lab	General Labor (Grp 1)	20.00 day	10.00 mhr/day	6	\$56.77 /mhr	1200 mhr	\$68,123
L	drill	Drill operator (Grp 6)	20.00 day	10.00 mhr/day	2	\$77.24 /mhr	400.0 mhr	\$30,895
E	at	Air track 12' feed			2	\$35.63 /hr	960.0 hr	\$34,204
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	960.0 hr	\$17,155
E	gp	Grout Plant, skid	20.00 day	10.00 hr/day	2	\$16.84 /hr	400.0 hr	\$6,734
M	sn	Soil nials	72.00 ea			\$245 /ea	72.00 ea	\$17,640
M	cs	Cement - sack	72.00 ea			\$17.12 /ea	72.00 ea	\$1,233
		Excavation Crew						
L	lab	General Labor (Grp 1)	24.00 day	10.00 mhr/day	2	\$56.77 /mhr	480.0 mhr	\$27,249
L	eo3+	Excavator >3.5cy (Grp 8)	24.00 day	10.00 mhr/day	2	\$77.24 /mhr	480.0 mhr	\$37,075
E	he330	SK330LC Exc 77.8/2.1cy	24.00 day	10.00 hr/day	2	\$138 /hr	480.0 hr	\$66,024
		Shotcrete Crew						
L	lab	General Labor (Grp 1)	4.00 day	10.00 mhr/day	6	\$56.77 /mhr	240.0 mhr	\$13,625
E	sp2	Shotcrete pot Aliva, 2cy/hr	4.00 day	10.00 hr/day	2	\$33.89 /hr	80.00 hr	\$2,711
M	shcrt	Shotcrete	74.00 cy			\$210 /cy	74.00 cy	\$15,540

No.	Item Description		Item Quantity/Unit	Production rate	Other fixed time	Total time		
024	Mt Comfort Road - Pour SB Jacking Slab		370 cy		10 days	10 work days		
		manhours	Labor	Equipment	Material	Subcontract		
		2,100	\$146,955	\$58,110	\$267,833	\$0		
		5.676	\$397.18	\$157.06	\$723.87	\$0.00		
						\$1,278.10		
		Status (Additive)	Work schedule		Other ST pay	Other OT pay		
	1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift		
						0 hr/shift		
		Install reinforcement	44400 lb	150 lb/mhr	50 mhr/day	6 days		
		Install jacking support beams				3 days		
		Pour concrete	370 cy			1 days		
		Total duration				10 days		
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$139,614	\$7,341
M	sts	Small tools and supplies				\$3.00 /mhr	2100 mhr	\$6,300

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

			Support Crew			
L	lfm	Labor FM		\$59.48 /mhr	100.0 mhr	\$5,948
L	lab	General Labor (Grp 1)	2	\$56.77 /mhr	200.0 mhr	\$11,354
L	flag	Flagman (Grp 1)		\$56.77 /mhr	100.0 mhr	\$5,677
L	c45-	Crane oper. <45t (Grp 9)	200%	\$77.24 /mhr	200.0 mhr	\$15,448
L	lo4+	Loader oper. >4cy (Grp 10)		\$77.24 /mhr	100.0 mhr	\$7,724
E	hc40	Hydraulic Crane 40ton/105'	200%	\$101 /hr	200.0 hr	\$20,183
E	l914	Wheel Loader Cat 914/1.7cy		\$39.30 /hr	100.0 hr	\$3,930
E	cp12	Compressor, trailer 1200cfm		\$81.69 /hr	100.0 hr	\$8,169
E	g10	Generator, trailer 10.0kW		\$5.57 /hr	100.0 hr	\$557
L	comp	Compressorman (Grp 5)		\$74.91 /mhr	100.0 mhr	\$7,491
E	lp6	Light Plant/Genset, 6kW, 4/1000W	3	\$8.60 /hr	300.0 hr	\$2,581
			Slab Crew			
L	lfm	Labor FM		\$59.48 /mhr	100.0 mhr	\$5,948
L	lab	General Labor (Grp 1)	6	\$56.77 /mhr	600.0 mhr	\$34,062
L	ifm	Ironworker FM	1	\$79.11 /mhr	100.0 mhr	\$7,911
L	ijm	Ironworker JM	4	\$76.40 /mhr	400.0 mhr	\$30,562
M	c4	Concrete, 4000psi mix		\$207 /cy	370.0 cy	\$76,590
M	xr	Reinforcing steel mat'l	44400 lb	\$0.20 /lb	44400 lb	\$8,880
M	rp	Reinforcing steel, plain	44400 lb	\$1.10 /lb	44400 lb	\$48,840
M	stl12	Steel shapes	57600 lb	\$2.14 /lb	57600 lb	\$123,264
L	conc	Concrete equip.oper. (Grp 2)		\$74.91 /mhr	100.0 mhr	\$7,491
E	cb130	Conc. Pump, truck 130cy/hr		\$192 /hr	100.0 hr	\$19,193
E	vib2	Conc. vibrator, internal, 1.75"	2	\$17.48 /hr	200.0 hr	\$3,497
M	xc	Concrete consumables		\$10.70 /cy	370.0 cy	\$3,959

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
025	Mt Comfort Road - Jet Grout Headwall	148 cy		6 days	6 work days			
	manhours	Labor	Equipment	Material	Subcontract	Item Cost		
	360	\$24,121	\$21,252	\$1,080	\$205,130	\$251,583		
	2.432	\$162.98	\$143.60	\$7.30	\$1,386.01	\$1,699.89		
	Status (Additive)	Work schedule		Other ST pay	Other OT pay			
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
Jet grout headwall at receiving end of jacked box structure								
Mobilize & setup jet grout operation			3 days					
Jet grout		148 cy	200 cy/day	1 days				
Demobilize			2 days					
Total duration			6 days					
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$22,916	\$1,205
M	sts	Small tools and supplies				\$3.00 /mhr	360.0 mhr	\$1,080
			Support Crew					
L	lfm	Labor FM				\$59.48 /mhr	60.00 mhr	\$3,569
L	lab	General Labor (Grp 1)		2		\$56.77 /mhr	120.0 mhr	\$6,812
L	flag	Flagman (Grp 1)				\$56.77 /mhr	60.00 mhr	\$3,406
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	60.00 mhr	\$4,634
E	hc40	Hydraulic Crane 40ton/105'		2		\$101 /hr	120.0 hr	\$12,110
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	60.00 hr	\$2,358
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	60.00 hr	\$4,901
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	60.00 hr	\$334
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	60.00 mhr	\$4,495
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	180.0 hr	\$1,548
S	muck	Muck disposal	74.00 lcy			\$45.00 /lcy	74.00 lcy	\$3,330
			Jet Grout Subcontractor					
S	jgm	Jet Grouting Mob	1.00 LS			\$150,000 /LS	1.00 LS	\$150,000
S	jg	Jet Grouting				\$350 /cy	148.0 cy	\$51,800

# DELVE UNDERGROUND

Project **Mt Comfort Road** Client **Town of McCordsville, IN** Job No. **6183.1** Estimator **RLR/BM** Rev **0** Computed on **2/20/2025**  
**Dual Underpass Construction - 10% Estimate** **1:48 PM**

## DIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit		Production rate	Other fixed time	Total time		
026	Mt Comfort Rd- Exc & Support SB Receiving Pit	1 LS			48 days	48 work days		
		manhours	Labor	Equipment	Material	Subcontract		
		7,120	\$487,336	\$296,847	\$55,773	\$390,015		
						Item Cost		
						\$1,229,971		
	Status (Additive)	Work schedule			Other ST pay	Other OT pay		
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
	Soil nail & shotcrete installation - Two crews NB & SB			2 crews				
	Excavation per level		1445 bcy	250 cy/day	6 days			
	Install soil nails per level		18 ea	4 ea/day	5 days			
	Shotcrete per level		19 cy	2 cy/hr	1 days			
	Number of levels		4 ea					
	Total duration				48 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$462,992	\$24,344
M	sts	Small tools and supplies				\$3.00 /mhr	7120 mhr	\$21,360
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	480.0 mhr	\$28,548
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	960.0 mhr	\$54,499
L	flag	Flagman (Grp 1)				\$56.77 /mhr	480.0 mhr	\$27,249
L	c45-	Crane oper. <45t (Grp 9)			2	\$77.24 /mhr	960.0 mhr	\$74,149
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	480.0 mhr	\$37,075
E	hc40	Hydraulic Crane 40ton/105'			2	\$101 /hr	960.0 hr	\$96,880
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	480.0 hr	\$18,864
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	480.0 hr	\$39,211
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	480.0 hr	\$2,676
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	480.0 mhr	\$35,957
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	1440 hr	\$12,388
S	muck	Muck disposal	8667 lcy			\$45.00 /lcy	8667 lcy	\$390,015
		Soil Nail Crew						
L	lfm	Labor FM				\$59.48 /mhr	480.0 mhr	\$28,548
L	lab	General Labor (Grp 1)	20.00 day	10.00 mhr/day	6	\$56.77 /mhr	1200 mhr	\$68,123
L	drill	Drill operator (Grp 6)	20.00 day	10.00 mhr/day	2	\$77.24 /mhr	400.0 mhr	\$30,895
E	at	Air track 12' feed			2	\$35.63 /hr	960.0 hr	\$34,204
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	960.0 hr	\$17,155
E	gp	Grout Plant, skid	20.00 day	10.00 hr/day	2	\$16.84 /hr	400.0 hr	\$6,734
M	sn	Soil nials	72.00 ea			\$245 /ea	72.00 ea	\$17,640
M	cs	Cement - sack	72.00 ea			\$17.12 /ea	72.00 ea	\$1,233
		Excavation Crew						
L	lab	General Labor (Grp 1)	24.00 day	10.00 mhr/day	2	\$56.77 /mhr	480.0 mhr	\$27,249
L	eo3+	Excavator >3.5cy (Grp 8)	24.00 day	10.00 mhr/day	2	\$77.24 /mhr	480.0 mhr	\$37,075
E	he330	SK330LC Exc 77.8/2.1cy	24.00 day	10.00 hr/day	2	\$138 /hr	480.0 hr	\$66,024
		Shotcrete Crew						
L	lab	General Labor (Grp 1)	4.00 day	10.00 mhr/day	6	\$56.77 /mhr	240.0 mhr	\$13,625
E	sp2	Shotcrete pot Aliva, 2cy/hr	4.00 day	10.00 hr/day	2	\$33.89 /hr	80.00 hr	\$2,711
M	shrt	Shotcrete	74.00 cy			\$210 /cy	74.00 cy	\$15,540

No.	Item Description		Item Quantity/Unit	Production rate	Other fixed time	Total time		
027	Mt Comfort Road - Pour SB Mud Mat Receiving Pit		185 cy		1 day	1 work day		
		manhours	Labor	Equipment	Material	Subcontract		
		160	\$10,646	\$5,461	\$39,460	\$0		
		0.865	\$57.55	\$29.52	\$213.29	\$0.00		
						\$300.36		
		Status (Additive)	Work schedule		Other ST pay	Other OT pay		
1.000		Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift		
		Pour concrete	185 days	1 days				
		Total duration		1 days				
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$10,114	\$532
M	sts	Small tools and supplies				\$3.00 /mhr	160.0 mhr	\$480
L	lfm	Labor FM				\$59.48 /mhr	10.00 mhr	\$595



Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

L	lab	General Labor (Grp 1)	2	\$56.77 /mhr	20.00 mhr	\$1,135
L	flag	Flagman (Grp 1)		\$56.77 /mhr	10.00 mhr	\$568
L	c45-	Crane oper. <45t (Grp 9)	2	\$77.24 /mhr	20.00 mhr	\$1,545
L	lo4+	Loader oper. >4cy (Grp 10)		\$77.24 /mhr	10.00 mhr	\$772
E	hc40	Hydraulic Crane 40ton/105'	2	\$101 /hr	20.00 hr	\$2,018
E	l914	Wheel Loader Cat 914/1.7cy		\$39.30 /hr	10.00 hr	\$393
E	cp12	Compressor, trailer 1200cfm		\$81.69 /hr	10.00 hr	\$817
E	g10	Generator, trailer 10.0kW		\$5.57 /hr	10.00 hr	\$56
L	comp	Compressorman (Grp 5)		\$74.91 /mhr	10.00 mhr	\$749
E	lp6	Light Plant/Genset, 6kW, 4/1000W	300%	\$8.60 /hr	30.00 hr	\$258
Slab Crew						
L	lfm	Labor FM		\$59.48 /mhr	10.00 mhr	\$595
L	lab	General Labor (Grp 1)	6	\$56.77 /mhr	60.00 mhr	\$3,406
M	c3	Concrete, 3000psi mix		\$200 /cy	185.0 cy	\$37,000
L	conc	Concrete equip.oper. (Grp 2)		\$74.91 /mhr	10.00 mhr	\$749
E	cb130	Conc. Pump, truck 130cy/hr		\$192 /hr	10.00 hr	\$1,919
M	xc	Concrete consumables		\$10.70 /cy	185.0 cy	\$1,980

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# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

M	ff	Form fasteners	7894 sf		\$0.43 /sf	7894 sf	\$3,379
M	foil	Form oil	7894 sf		\$0.16 /sf	7894 sf	\$1,267
M	cure	Curing compound	7894 sf		\$0.11 /sf	7894 sf	\$845
M	xf	Misc form supplies	7894 sf		\$0.43 /sf	7894 sf	\$3,379
E	ml30	Man-Lift 30' articulated boom		2	\$17.87 /hr	440.0 hr	\$7,863
M	c5	Concrete, 5000psi mix			\$210 /cy	565.5 cy	\$118,755
M	xc	Concrete consumables			\$10.70 /cy	565.5 cy	\$6,051
M	rp	Reinforcing steel, plain	67860 lb		\$1.10 /lb	67860 lb	\$74,646
M	xr	Reinforcing steel mat'l	67860 lb		\$0.20 /lb	67860 lb	\$13,572

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>029</b>	<b>Mt Comfort Road - Cast SB Culvert #2</b>	<b>566 cy</b>		<b>22 days</b>	<b>22 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>5,320</b>	<b>\$395,259</b>	<b>\$94,829</b>	<b>\$319,508</b>	<b>\$0</b>
	9.399	\$698.34	\$167.54	\$564.50	\$0.00
					\$1,430.38

Status (Additive)	Work schedule	Other ST pay	Other OT pay
1.000 Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week
			0 hr/shift
			0 hr/shift
Set / strip slab forms	480 sf	16 sf/mhr	70 mhr/day
Set / strip wall forms	4914 sf	16 sf/mhr	70 mhr/day
Set / strip roof forms	2500 sf	8 sf/mhr	70 mhr/day
Install reinforcement	67920 lb	150 lb/mhr	80 mhr/day
Concrete pours	4 ea	1 ea/day	
Total duration			22 days

R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$375,515	\$19,744
M	sts	Small tools and supplies				\$3.00 /mhr	5320 mhr	\$15,960
		<i>Support Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	220.0 mhr	\$13,085
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	440.0 mhr	\$24,978
L	flag	Flagman (Grp 1)				\$56.77 /mhr	220.0 mhr	\$12,489
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	220.0 mhr	\$16,992
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	220.0 mhr	\$16,992
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	220.0 hr	\$22,202
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	220.0 hr	\$8,646
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	220.0 hr	\$17,972
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	220.0 hr	\$1,226
L	comp	Compressor (Grp 5)				\$74.91 /mhr	220.0 mhr	\$16,480
E	lp6	Light Plant/Genset, 6kW, 4/1000W			300%	\$8.60 /hr	660.0 hr	\$5,678
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	220.0 hr	\$630
E	wtp	Water Treatment Plant				\$87.62 /hr	220.0 hr	\$19,276
		<i>Structure Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	220.0 mhr	\$13,085
L	lab	General Labor (Grp 1)				\$56.77 /mhr	220.0 mhr	\$12,489
L	cfm	Carpenter FM			1	\$74.31 /mhr	220.0 mhr	\$16,348
L	cjm	Carpenter JM			6	\$71.60 /mhr	1320 mhr	\$94,513
L	ifm	Ironworker FM			1	\$79.11 /mhr	220.0 mhr	\$17,404
L	ijm	Ironworker JM			7	\$76.40 /mhr	1540 mhr	\$117,662
L	conc	Concrete equip.oper. (Grp 2)	4.00 day	10.00 mhr/day		\$74.91 /mhr	40.00 mhr	\$2,996
E	cb130	Conc. Pump, truck 130cy/hr	4.00 day	10.00 hr/day		\$192 /hr	40.00 hr	\$7,677
E	vib	Concrete vibrators			6	\$2.77 /hr	1320 hr	\$3,660
M	lumb	Lumber for lagging/forms	7894 sf	1.50 bf/sf		\$4.98 /bf	11841 bf	\$58,915
M	ply1	Plywood MDO 1"	7894 sf			\$2.86 /sf	7894 sf	\$22,552
M	ff	Form fasteners	7894 sf			\$0.43 /sf	7894 sf	\$3,379
M	foil	Form oil	7894 sf			\$0.16 /sf	7894 sf	\$1,267
M	cure	Curing compound	7894 sf			\$0.11 /sf	7894 sf	\$845
M	xf	Misc form supplies	7894 sf			\$0.43 /sf	7894 sf	\$3,379
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	440.0 hr	\$7,863
M	c5	Concrete, 5000psi mix				\$210 /cy	566.0 cy	\$118,860
M	xc	Concrete consumables				\$10.70 /cy	566.0 cy	\$6,056
M	rp	Reinforcing steel, plain	67920 lb			\$1.10 /lb	67920 lb	\$74,712



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

M	xr	Reinforcing steel mat'l	67920 lb	\$0.20 /lb	67920 lb	\$13,584
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No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
030	Mt Comfort Road - Install Shield	1 LS		3 days	3 work days			
	manhours	Labor	Equipment	Material	Subcontract	Item Cost		
	390	\$27,133	\$45,915	\$1,170	\$0	\$74,217		
	Status (Additive)	Work schedule	Other ST pay	Other OT pay				
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
	Install shield & steering jacks		3 days					
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$25,777	\$1,355
M	sts	Small tools and supplies				\$3.00 /mhr	390.0 mhr	\$1,170
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	30.00 mhr	\$1,784
L	lab	General Labor (Grp 1)				\$56.77 /mhr	30.00 mhr	\$1,703
L	flag	Flagman (Grp 1)				\$56.77 /mhr	30.00 mhr	\$1,703
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	30.00 mhr	\$2,317
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	30.00 mhr	\$2,317
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	30.00 hr	\$3,028
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	30.00 hr	\$1,179
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	30.00 hr	\$2,451
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	30.00 hr	\$167
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	30.00 mhr	\$2,247
E	lp6	Light Plant/Genset, 6kW, 4/1000W				\$8.60 /hr	30.00 hr	\$258
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	30.00 hr	\$86
E	wtp	Water Treatment Plant				\$87.62 /hr	30.00 hr	\$2,628
		Shield / Jacking Crew						
L	lfm	Labor FM				\$59.48 /mhr	30.00 mhr	\$1,784
L	lab	General Labor (Grp 1)		3		\$56.77 /mhr	90.00 mhr	\$5,109
L	c100+	Crane oper. >100t (Grp 11)				\$77.24 /mhr	30.00 mhr	\$2,317
L	mw	HD Mech/Welder (Grp 1)		2		\$74.91 /mhr	60.00 mhr	\$4,495
E	ml30	Man-Lift 30' articulated boom		2		\$17.87 /hr	60.00 hr	\$1,072
E	we4	Welder 400A, trailer E		2		\$28.46 /hr	60.00 hr	\$1,707
E	cssj	Cutting shield steering jacks				\$640 /hr	30.00 hr	\$19,206
E	cc100	Crawler Crane 100ton/200'				\$471 /hr	30.00 hr	\$14,132

No.	Item Description		Item Quantity/Unit	Production rate	Other fixed time	Total time		
031	Mt Comfort Road - Install Jacking System		1 LS		3 days	3 work days		
		manhours	Labor	Equipment	Material	Subcontract	Item Cost	
		450	\$31,596	\$46,431	\$12,050	\$0	\$90,077	
		Status (Additive)	Work schedule		Other ST pay	Other OT pay		
	1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift	
Assemble & setup jacking system			3 days					
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				5.258%	\$30,018	\$1,578
M	sts	Small tools and supplies				\$3.00 /mhr	450.0 mhr	\$1,350
			Support Crew					
L	lfm	Labor FM				\$59.48 /mhr	30.00 mhr	\$1,784
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	60.00 mhr	\$3,406
L	flag	Flagman (Grp 1)				\$56.77 /mhr	30.00 mhr	\$1,703
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	30.00 mhr	\$2,317
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	30.00 mhr	\$2,317
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	30.00 hr	\$3,028
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	30.00 hr	\$1,179
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	30.00 hr	\$2,451
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	30.00 hr	\$167
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	30.00 mhr	\$2,247
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	90.00 hr	\$774
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	30.00 hr	\$86
E	wtp	Water Treatment Plant				\$87.62 /hr	30.00 hr	\$2,628

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

			<i>Jacking System Crew</i>			
L	lfm	Labor FM		\$59.48 /mhr	30.00 mhr	\$1,784
L	lab	General Labor (Grp 1)	3	\$56.77 /mhr	90.00 mhr	\$5,109
L	c100+	Crane oper. >100t (Grp 11)		\$77.24 /mhr	30.00 mhr	\$2,317
L	mw	HD Mech/Welder (Grp 1)	2	\$74.91 /mhr	60.00 mhr	\$4,495
L	ejm	Electrician JM		\$84.59 /mhr	30.00 mhr	\$2,538
E	ml30	Man-Lift 30' articulated boom	2	\$17.87 /hr	60.00 hr	\$1,072
E	we4	Welder 400A, trailer E	200%	\$28.46 /hr	60.00 hr	\$1,707
E	cssj	Cutting shield steering jacks		\$640 /hr	30.00 hr	\$19,206
E	cc100	Crawler Crane 100ton/200'		\$471 /hr	30.00 hr	\$14,132
M	xmisc	Miscellaneous material	10.00 lot	\$1,070 /lot	10.00 lot	\$10,700

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>032</b>	<b>Mt Comfort Road - Excavate SB Culvert #1</b>	<b>56 ft</b>		<b>12 days</b>	<b>12 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>5,184</b>	<b>\$420,368</b>	<b>\$611,512</b>	<b>\$26,252</b>	<b>\$148,433</b>
	92.571	\$7,506.57	\$10,919.86	\$468.79	\$2,650.58
					<b>\$1,206,565</b>
					\$21,545.80

	Status (Additive)	Work schedule	Other ST pay	Other OT pay
1.000	Schedule factor (Normal)	8 hr/shift	0.5 hr/shift	0 hr/shift
	Excavate culvert	2199 cy	171 cy/day	7 day/week
	Jack culvert	56 ft	5 ft/day	12 days

R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				18.221%	\$355,578	\$64,790
M	sts	Small tools and supplies				\$3.00 /mhr	5184 mhr	\$15,552
			<i>Support Crew</i>					
L	lfm	Labor FM				\$59.48 /mhr	288.0 mhr	\$17,129
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	576.0 mhr	\$32,699
L	flag	Flagman (Grp 1)				\$56.77 /mhr	288.0 mhr	\$16,350
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	288.0 mhr	\$22,245
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	288.0 mhr	\$22,245
L	ejm	Electrician JM				\$84.59 /mhr	288.0 mhr	\$24,361
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	288.0 hr	\$29,064
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	288.0 hr	\$11,318
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	288.0 hr	\$23,526
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	288.0 hr	\$1,606
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	288.0 mhr	\$21,574
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	864.0 hr	\$7,433
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	288.0 hr	\$825
S	muck	Muck disposal	3299 lcy			\$45.00 /lcy	3299 lcy	\$148,433
			<i>Excavation &amp; Jacking Crew</i>					
L	lfm	Labor FM				\$59.48 /mhr	288.0 mhr	\$17,129
L	lab	General Labor (Grp 1)			3	\$56.77 /mhr	864.0 mhr	\$49,049
L	ofm	Operating Engineer				\$77.24 /mhr	288.0 mhr	\$22,245
L	eo3-	Excavator <3.5cy (Grp 5)			2	\$77.24 /mhr	576.0 mhr	\$44,489
L	lo4-	Loader oper. <4cy (Grp 5)				\$77.24 /mhr	288.0 mhr	\$22,245
L	mw	HD Mech/Welder (Grp 1)				\$74.91 /mhr	288.0 mhr	\$21,574
E	he320	320 Excavator 43.8k/1.5cy				\$190 /hr	288.0 hr	\$54,692
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	288.0 hr	\$11,318
E	cssj	Cutting shield steering jacks				\$640 /hr	288.0 hr	\$184,377
E	tjack	Thrust jack & frame				\$439 /hr	288.0 hr	\$126,450
M	xmisc	Miscellaneous material	10.00 lot			\$1,070 /lot	10.00 lot	\$10,700
E	wtp	Water Treatment Plant				\$87.62 /hr	288.0 hr	\$25,234
L	c100+	Crane oper. >100t (Grp 11)				\$77.24 /mhr	288.0 mhr	\$22,245
E	cc100	Crawler Crane 100ton/200'				\$471 /hr	288.0 hr	\$135,669

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

No.	Item Description		Item Quantity/Unit	Production rate	Other fixed time	Total time		
033	Mt Comfort Road - Position SB Culvert #2		1 LS		2 days	2 work days		
		manhours	Labor	Equipment	Material	Subcontract	Item Cost	
		720	\$51,031	\$90,917	\$7,510	\$0	\$149,458	
		Status (Additive)	Work schedule		Other ST pay	Other OT pay		
	1.000	Schedule factor (Normal)	8 hr/shift	3 shift/day	5 day/week	0.5 hr/shift	0 hr/shift	
		Position & prepare culvert for jacking		2 days				
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				6.250%	\$48,029	\$3,002
M	sts	Small tools and supplies				\$3.00 /mhr	720.0 mhr	\$2,160
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	48.00 mhr	\$2,855
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	96.00 mhr	\$5,450
L	flag	Flagman (Grp 1)				\$56.77 /mhr	48.00 mhr	\$2,725
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	48.00 mhr	\$3,707
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	48.00 mhr	\$3,707
L	ejm	Electrician JM				\$84.59 /mhr	48.00 mhr	\$4,060
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	48.00 hr	\$4,844
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	48.00 hr	\$1,886
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	48.00 hr	\$3,921
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	48.00 hr	\$268
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	48.00 mhr	\$3,596
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	144.0 hr	\$1,239
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	48.00 hr	\$137
E	wtp	Water Treatment Plant				\$87.62 /hr	48.00 hr	\$4,206
		Culvert Crew						
L	lfm	Labor FM				\$59.48 /mhr	48.00 mhr	\$2,855
L	lab	General Labor (Grp 1)			3	\$56.77 /mhr	144.0 mhr	\$8,175
L	mw	HD Mech/Welder (Grp 1)			2	\$74.91 /mhr	96.00 mhr	\$7,191
E	cssj	Cutting shield steering jacks				\$640 /hr	48.00 hr	\$30,730
E	tjack	Thrust jack & frame				\$439 /hr	48.00 hr	\$21,075
M	xmisc	Miscellaneous material	5.00 lot			\$1,070 /lot	5.00 lot	\$5,350
L	c100+	Crane oper. >100t (Grp 11)				\$77.24 /mhr	48.00 mhr	\$3,707
E	cc100	Crawler Crane 100ton/200'				\$471 /hr	48.00 hr	\$22,611

No.	Item Description	Item Quantity/Unit		Production rate	Other fixed time	Total time		
034	Mt Comfort Road - Excavate SB Culvert #2	56 ft			12 days	12 work days		
		manhours	Labor	Equipment	Material	Subcontract	Item Cost	
		5,184	\$420,368	\$611,512	\$26,252	\$148,433	\$1,206,565	
		92.571	\$7,506.57	\$10,919.86	\$468.79	\$2,650.58	\$21,545.80	
	Status (Additive)	Work schedule			Other ST pay	Other OT pay		
1.000	Schedule factor (Normal)	8 hr/shift	3 shift/day	7 day/week	0.5 hr/shift	0 hr/shift		
	Excavate culvert	2199 cy	171 cy/day					
	Jack culvert	56 ft	5 ft/day	12 days				
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				18.221%	\$355,578	\$64,790
M	sts	Small tools and supplies				\$3.00 /mhr	5184 mhr	\$15,552
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	288.0 mhr	\$17,129
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	576.0 mhr	\$32,699
L	flag	Flagman (Grp 1)				\$56.77 /mhr	288.0 mhr	\$16,350
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	288.0 mhr	\$22,245
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	288.0 mhr	\$22,245
L	ejm	Electrician JM				\$84.59 /mhr	288.0 mhr	\$24,361
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	288.0 hr	\$29,064
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	288.0 hr	\$11,318
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	288.0 hr	\$23,526
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	288.0 hr	\$1,606
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	288.0 mhr	\$21,574
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	864.0 hr	\$7,433

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

E	p205	Pump, trash 205gpm/100ft head		\$2.86 /hr	288.0 hr	\$825
S	muck	Muck disposal	3299 lcy	\$45.00 /lcy	3299 lcy	\$148,433
			<i>Excavation &amp; Jacking Crew</i>			
L	lfm	Labor FM		\$59.48 /mhr	288.0 mhr	\$17,129
L	lab	General Labor (Grp 1)	3	\$56.77 /mhr	864.0 mhr	\$49,049
L	ofm	Operating Engineer		\$77.24 /mhr	288.0 mhr	\$22,245
L	eo3-	Excavator <3.5cy (Grp 5)	2	\$77.24 /mhr	576.0 mhr	\$44,489
L	lo4-	Loader oper. <4cy (Grp 5)		\$77.24 /mhr	288.0 mhr	\$22,245
L	mw	HD Mech/Welder (Grp 1)		\$74.91 /mhr	288.0 mhr	\$21,574
E	he320	320 Excavator 43.8k/1.5cy		\$190 /hr	288.0 hr	\$54,692
E	I914	Wheel Loader Cat 914/1.7cy		\$39.30 /hr	288.0 hr	\$11,318
E	cssj	Cutting shield steering jacks		\$640 /hr	288.0 hr	\$184,377
E	tjack	Thrust jack & frame		\$439 /hr	288.0 hr	\$126,450
M	xmisc	Miscellaneous material	10.00 lot	\$1,070 /lot	10.00 lot	\$10,700
E	wtp	Water Treatment Plant		\$87.62 /hr	288.0 hr	\$25,234
L	c100+	Crane oper. >100t (Grp 11)		\$77.24 /mhr	288.0 mhr	\$22,245
E	cc100	Crawler Crane 100ton/200'		\$471 /hr	288.0 hr	\$135,669

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
035	Mt Comfort Road - Remove Jacks & Shield	1 LS		5 days	5 work days			
	manhours	Labor	Equipment	Material	Subcontract			
	850	\$63,678	\$52,202	\$2,550	\$0			
	Status (Additive)	Work schedule		Other ST pay	Other OT pay			
1.000	Schedule factor (Normal)	10 hr/shift	1 shift/day	5 day/week	0.5 hr/shift			
	Remove jacks & shields	5 days						
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	lp	Labor premium				10.258%	\$57,754	\$5,924
M	sts	Small tools and supplies				\$3.00 /mhr	850.0 mhr	\$2,550
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	50.00 mhr	\$2,974
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	100.0 mhr	\$5,677
L	flag	Flagman (Grp 1)				\$56.77 /mhr	50.00 mhr	\$2,838
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	50.00 mhr	\$3,862
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	50.00 mhr	\$3,862
L	ejm	Electrician JM				\$84.59 /mhr	50.00 mhr	\$4,229
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	50.00 hr	\$5,046
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	50.00 hr	\$1,965
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	50.00 hr	\$4,084
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	50.00 hr	\$279
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	50.00 mhr	\$3,746
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	150.0 hr	\$1,290
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	50.00 hr	\$143
E	wtp	Water Treatment Plant				\$87.62 /hr	50.00 hr	\$4,381
		Removal Crew						
L	lfm	Labor FM				\$59.48 /mhr	50.00 mhr	\$2,974
L	lab	General Labor (Grp 1)			3	\$56.77 /mhr	150.0 mhr	\$8,515
L	mw	HD Mech/Welder (Grp 1)			2	\$74.91 /mhr	100.0 mhr	\$7,491
L	c100+	Crane oper. >100t (Grp 11)				\$77.24 /mhr	50.00 mhr	\$3,862
L	eo3-	Excavator <3.5cy (Grp 5)				\$77.24 /mhr	50.00 mhr	\$3,862
L	lo4-	Loader oper. <4cy (Grp 5)				\$77.24 /mhr	50.00 mhr	\$3,862
E	he320	320 Excavator 43.8k/1.5cy				\$190 /hr	50.00 hr	\$9,495
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	50.00 hr	\$1,965
E	cc100	Crawler Crane 100ton/200'				\$471 /hr	50.00 hr	\$23,554

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
036	Mt Comfort Road - Excavate & Support SB Wall 2	1 LS		67 days	67 work days			
		manhours	Labor	Equipment	Material			
		8,072	\$522,777	\$321,789	\$110,018			
					Subcontract			
					\$543,591			
					Item Cost			
					\$1,498,175			
	Status (Additive)	Work schedule		Other ST pay	Other OT pay			
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift			
	Soil nail & shotcrete installation - Two crews NB & SB			2 crews				
	Excavation per level	2684 bcy		500 cy/day	6 days			
	Install soil nails per level	77 ea		4 ea/day	10 days			
	Shotcrete per level	40 cy		2 cy/hr	3 days			
	Number of levels	3 ea						
	Total duration				57 days			
	Additional Time to Break into Pit				10 days			
	Total Duration				67 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts	Small tools and supplies				\$3.00 /mhr	8072 mhr	\$24,216
			Support Crew					
L	lfm	Labor FM				\$59.48 /mhr	536.0 mhr	\$31,879
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	1072 mhr	\$60,857
L	flag	Flagman (Grp 1)				\$56.77 /mhr	536.0 mhr	\$30,428
L	c45-	Crane oper. <45t (Grp 9)			2	\$77.24 /mhr	1072 mhr	\$82,800
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	536.0 mhr	\$41,400
E	hc40	Hydraulic Crane 40ton/105'		200%		\$101 /hr	1072 hr	\$108,183
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	536.0 hr	\$21,065
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	536.0 hr	\$43,785
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	536.0 hr	\$2,988
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	536.0 mhr	\$40,152
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	1608 hr	\$13,833
S	muck	Muck disposal	12080 lcy			\$45.00 /lcy	12080 lcy	\$543,591
			Soil Nail Crew					
L	lfm	Labor FM				\$59.48 /mhr	536.0 mhr	\$31,879
L	lab	General Labor (Grp 1)	30.00 day	8.00 mhr/day	6	\$56.77 /mhr	1440 mhr	\$81,748
L	drill	Drill operator (Grp 6)	30.00 day	8.00 mhr/day	2	\$77.24 /mhr	480.0 mhr	\$37,075
E	at	Air track 12' feed			2	\$35.63 /hr	1072 hr	\$38,194
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	1072 hr	\$19,156
E	gp	Grout Plant, skid	30.00 day	8.00 hr/day	2	\$16.84 /hr	480.0 hr	\$8,081
M	sn	Soil nials	232.0 ea			\$245 /ea	232.0 ea	\$56,840
M	cs	Cement - sack	232.0 ea			\$17.12 /ea	232.0 ea	\$3,972
			Excavation Crew					
L	lab	General Labor (Grp 1)	28.00 day	8.00 mhr/day	200%	\$56.77 /mhr	448.0 mhr	\$25,433
L	eo3+	Excavator >3.5cy (Grp 8)	28.00 day	8.00 mhr/day	2	\$77.24 /mhr	448.0 mhr	\$34,603
E	he330	SK330LC Exc 77.8/2.1cy	28.00 day	8.00 hr/day	2	\$138 /hr	448.0 hr	\$61,622
			Shotcrete Crew					
L	lab	General Labor (Grp 1)	9.00 day	8.00 mhr/day	6	\$56.77 /mhr	432.0 mhr	\$24,524
E	sp2	Shotcrete pot Aliva, 2cy/hr	9.00 day	8.00 hr/day	2	\$33.89 /hr	144.0 hr	\$4,881
M	shcrt	Shotcrete	119.0 cy			\$210 /cy	119.0 cy	\$24,990



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time			
037	Mt Comfort Road - Excavate & Support SB Wall 1	1 LS		34 days	34 work days			
		manhours	Labor	Equipment	Material	Subcontract	Item Cost	
		3,968	\$258,523	\$172,122	\$47,358	\$232,389	\$710,391	
	Status (Additive)	Work schedule			Other ST pay	Other OT pay		
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift		
	Soil nail & shotcrete installation - Two crews NB & SB				2 crews			
	Excavation per level	1148 bcy	500 cy/day	3 days				
	Install soil nails per level	32 ea	4 ea/day	4 days	2 crews			
	Shotcrete per level	16 cy	2 cy/hr	1 days				
	Number of levels	3 ea						
	Total duration	24 days						
	Additional Time to Break into Pit	10 days						
	Total Duration	34 days						
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts	Small tools and supplies				\$3.00 /mhr	3968 mhr	\$11,904
		Support Crew						
L	lfm	Labor FM				\$59.48 /mhr	272.0 mhr	\$16,177
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	544.0 mhr	\$30,883
L	flag	Flagman (Grp 1)				\$56.77 /mhr	272.0 mhr	\$15,441
L	c45-	Crane oper. <45t (Grp 9)			2	\$77.24 /mhr	544.0 mhr	\$42,018
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	272.0 mhr	\$21,009
E	hc40	Hydraulic Crane 40ton/105'			2	\$101 /hr	544.0 hr	\$54,899
E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	272.0 hr	\$10,690
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	272.0 hr	\$22,219
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	272.0 hr	\$1,516
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	272.0 mhr	\$20,376
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	816.0 hr	\$7,020
S	muck	Muck disposal	5164 lcy			\$45.00 /lcy	5164 lcy	\$232,389
		Soil Nail Crew						
L	lfm	Labor FM				\$59.48 /mhr	272.0 mhr	\$16,177
L	lab	General Labor (Grp 1)	12.00 day	8.00 mhr/day	6	\$56.77 /mhr	576.0 mhr	\$32,699
L	drill	Drill operator (Grp 6)	12.00 day	8.00 mhr/day	2	\$77.24 /mhr	192.0 mhr	\$14,830
E	at	Air track 12' feed			2	\$35.63 /hr	544.0 hr	\$19,382
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	544.0 hr	\$9,721
E	gp	Grout Plant, skid	12.00 day	8.00 hr/day	2	\$16.84 /hr	192.0 hr	\$3,233
M	sn	Soil nials	96.00 ea			\$245 /ea	96.00 ea	\$23,520
M	cs	Cement - sack	96.00 ea			\$17.12 /ea	96.00 ea	\$1,644
		Excavation Crew						
L	lab	General Labor (Grp 1)	19.00 day	8.00 mhr/day	200%	\$56.77 /mhr	304.0 mhr	\$17,258
L	eo3+	Excavator >3.5cy (Grp 8)	19.00 day	8.00 mhr/day	2	\$77.24 /mhr	304.0 mhr	\$23,481
E	he330	SK330LC Exc 77.8/2.1cy	19.00 day	8.00 hr/day	2	\$138 /hr	304.0 hr	\$41,815
		Shotcrete Crew						
L	lab	General Labor (Grp 1)	3.00 day	8.00 mhr/day	6	\$56.77 /mhr	144.0 mhr	\$8,175
E	sp2	Shotcrete pot Aliva, 2cy/hr	3.00 day	8.00 hr/day	2	\$33.89 /hr	48.00 hr	\$1,627
M	shcrt	Shotcrete	49.00 cy			\$210 /cy	49.00 cy	\$10,290

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>038</b>	<b>Mt Comfort Road - Final Wall Facing SB Wall 2</b>	<b>1 LS</b>		<b>26 days</b>	<b>26 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>5,408</b>	<b>\$381,675</b>	<b>\$104,095</b>	<b>\$321,166</b>	<b>\$0</b>
	Status (Additive)	Work schedule		Other ST pay	Other OT pay
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift
	Final wall facing				
	Install reinforcement	22980 lb	150 lb/mhr	56 mhr/day	3
	Set / strip wall forms	12700 sf	16 sf/mhr	72 mhr/day	12
	Concrete pours	6 ea	1 ea/day		6
	Place aggregate base	1350 ton			2
	Slope stability				3
	Total duration				26

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts	Small tools and supplies				\$3.00 /mhr	5408 mhr	\$16,224
		<i>Support Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	208.0 mhr	\$12,371
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	416.0 mhr	\$23,616
L	flag	Flagman (Grp 1)				\$56.77 /mhr	208.0 mhr	\$11,808
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	208.0 mhr	\$16,066
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	208.0 mhr	\$16,066
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	208.0 hr	\$20,991
E	l914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	208.0 hr	\$8,174
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	208.0 hr	\$16,991
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	208.0 hr	\$1,160
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	208.0 mhr	\$15,581
E	lp6	Light Plant/Genset, 6kW, 4/1000W			3	\$8.60 /hr	624.0 hr	\$5,368
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	208.0 hr	\$596
		<i>Structure Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	208.0 mhr	\$12,371
L	lab	General Labor (Grp 1)				\$56.77 /mhr	208.0 mhr	\$11,808
L	cfm	Carpenter FM			1	\$74.31 /mhr	208.0 mhr	\$15,456
L	cjm	Carpenter JM			8	\$71.60 /mhr	1664 mhr	\$119,143
L	ifm	Ironworker FM			1	\$79.11 /mhr	208.0 mhr	\$16,455
L	ijm	Ironworker JM			6	\$76.40 /mhr	1248 mhr	\$95,352
L	conc	Concrete equip.oper. (Grp 2)				\$74.91 /mhr	208.0 mhr	\$15,581
E	cb130	Conc. Pump, truck 130cy/hr				\$192 /hr	208.0 hr	\$39,921
E	vib	Concrete vibrators			600%	\$2.77 /hr	1248 hr	\$3,461
M	lumb	Lumber for lagging/forms	12700 sf	1.50 bf/sf		\$4.98 /bf	19050 bf	\$94,783
M	ply1	Plywood MDO 1"	12700 sf			\$2.86 /sf	12700 sf	\$36,283
M	ff	Form fasteners	12700 sf			\$0.43 /sf	12700 sf	\$5,436
M	foil	Form oil	12700 sf			\$0.16 /sf	12700 sf	\$2,038
M	cure	Curing compound	12700 sf			\$0.11 /sf	12700 sf	\$1,359
M	xf	Misc form supplies	12700 sf			\$0.43 /sf	12700 sf	\$5,436
M	rp	Reinforcing steel, plain	22980 lb			\$1.10 /lb	22980 lb	\$25,278
E	ml30	Man-Lift 30' articulated boom			2	\$17.87 /hr	416.0 hr	\$7,434
M	c5	Concrete, 5000psi mix	383.0 cy			\$210 /cy	383.0 cy	\$80,430
M	aggc	Coarse aggregate	1350 ton			\$32.00 /ton	1350 ton	\$43,200
		<i>Slope Stability Material</i>						
M	xmisc	Miscellaneous material	10.00 lot			\$1,070 /lot	10.00 lot	\$10,700

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>039</b>	<b>Mt Comfort Road - Final Wall Facing SB Wall 1</b>	<b>1 LS</b>		<b>20 days</b>	<b>20 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>4,160</b>	<b>\$293,596</b>	<b>\$80,073</b>	<b>\$213,830</b>	<b>\$0</b>
	Status (Additive)	Work schedule		Other ST pay	Other OT pay
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift
	Final wall facing				
	Install reinforcement	14640 lb	150 lb/mhr	56 mhr/day	2
	Set / strip wall forms	7000 sf	16 sf/mhr	72 mhr/day	7
	Concrete pours	6 ea	1 ea/day		6
	Place aggregate base	1350 ton			2
	Slope stability				3
	Total duration				20

R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts	Small tools and supplies				\$3.00 /mhr	4160 mhr	\$12,480
		<i>Support Crew</i>						
L	lfm	Labor FM				\$59.48 /mhr	160.0 mhr	\$9,516
L	lab	General Labor (Grp 1)			2	\$56.77 /mhr	320.0 mhr	\$18,166
L	flag	Flagman (Grp 1)				\$56.77 /mhr	160.0 mhr	\$9,083
L	c45-	Crane oper. <45t (Grp 9)				\$77.24 /mhr	160.0 mhr	\$12,358
L	lo4+	Loader oper. >4cy (Grp 10)				\$77.24 /mhr	160.0 mhr	\$12,358
E	hc40	Hydraulic Crane 40ton/105'				\$101 /hr	160.0 hr	\$16,147



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

E	I914	Wheel Loader Cat 914/1.7cy				\$39.30 /hr	160.0 hr	\$6,288
E	cp12	Compressor, trailer 1200cfm				\$81.69 /hr	160.0 hr	\$13,070
E	g10	Generator, trailer 10.0kW				\$5.57 /hr	160.0 hr	\$892
L	comp	Compressorman (Grp 5)				\$74.91 /mhr	160.0 mhr	\$11,986
E	lp6	Light Plant/Genset, 6kW, 4/1000W		3		\$8.60 /hr	480.0 hr	\$4,129
E	p205	Pump, trash 205gpm/100ft head				\$2.86 /hr	160.0 hr	\$458
<i>Structure Crew</i>								
L	lfm	Labor FM				\$59.48 /mhr	160.0 mhr	\$9,516
L	lab	General Labor (Grp 1)				\$56.77 /mhr	160.0 mhr	\$9,083
L	cfm	Carpenter FM		1		\$74.31 /mhr	160.0 mhr	\$11,889
L	cjm	Carpenter JM		8		\$71.60 /mhr	1280 mhr	\$91,649
L	ifm	Ironworker FM		1		\$79.11 /mhr	160.0 mhr	\$12,658
L	ijm	Ironworker JM		6		\$76.40 /mhr	960.0 mhr	\$73,348
L	conc	Concrete equip.oper. (Grp 2)				\$74.91 /mhr	160.0 mhr	\$11,986
E	cb130	Conc. Pump, truck 130cy/hr				\$192 /hr	160.0 hr	\$30,709
E	vib	Concrete vibrators		600%		\$2.77 /hr	960.0 hr	\$2,662
M	lumb	Lumber for lagging/forms	7000 sf	1.50 bf/sf		\$4.98 /bf	10500 bf	\$52,243
M	ply1	Plywood MDO 1"	7000 sf			\$2.86 /sf	7000 sf	\$19,998
M	ff	Form fasteners	7000 sf			\$0.43 /sf	7000 sf	\$2,996
M	foil	Form oil	7000 sf			\$0.16 /sf	7000 sf	\$1,124
M	cure	Curing compound	7000 sf			\$0.11 /sf	7000 sf	\$749
M	xf	Misc form supplies	7000 sf			\$0.43 /sf	7000 sf	\$2,996
M	rp	Reinforcing steel, plain	14640 lb			\$1.10 /lb	14640 lb	\$16,104
E	ml30	Man-Lift 30' articulated boom		2		\$17.87 /hr	320.0 hr	\$5,718
M	c5	Concrete, 5000psi mix	244.0 cy			\$210 /cy	244.0 cy	\$51,240
M	aggc	Coarse aggregate	1350 ton			\$32.00 /ton	1350 ton	\$43,200
<i>Slope Stability Material</i>								
M	xmisc	Miscellaneous material	10.00 lot			\$1,070 /lot	10.00 lot	\$10,700

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>040</b>	<b>Mt Comfort Rd - NB Roadway Construction</b>	<b>1 LS</b>		<b>80 days</b>	<b>80 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,221,600</b>
	Status (Additive)	Work schedule	Other ST pay	Other OT pay	
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift
Construct roadway North & South of North Bound Underpass					
80 days					
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor
S	roadN	NB Roadway Construction		\$2,721,600 /LS	1.00 LS
<i>Streetscape &amp; Aesthetic Features</i>					
S	land	Streetscaping	1.00 LS	\$500,000 /LS	1.00 LS

No.	Item Description	Item Quantity/Unit	Production rate	Other fixed time	Total time
<b>041</b>	<b>Mt Comfort Rd - Broadway Int. Roadway</b>	<b>1 LS</b>		<b>40 days</b>	<b>40 work days</b>
	manhours	Labor	Equipment	Material	Subcontract
	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,023,200</b>
	Status (Additive)	Work schedule	Other ST pay	Other OT pay	
1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift
Construct roadway at Broadway Intersection					
40 days					
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor
S	roadB	Broadway Roadway Construction		\$1,523,200 /LS	1.00 LS
<i>Streetscape &amp; Aesthetic Features</i>					
S	land	Streetscaping	1.00 LS	\$500,000 /LS	1.00 LS

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## DIRECT COST DETAIL

No.	Item Description		Item Quantity/Unit		Production rate	Other fixed time		Total time
042	Mt Comfort Rd - SB Roadway Construction		1 LS			70 days		70 work days
		manhours	Labor	Equipment	Material	Subcontract		Item Cost
		0	\$0	\$0	\$0	\$1,860,800		\$1,860,800
		Status (Additive)	Work schedule			Other ST pay		Other OT pay
	1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift		0 hr/shift
Construct roadway North & South of South Bound Underpass					70 days			
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
S	roadS	SB Roadway Construction	Roadway Construction			\$1,360,800 /LS	1.00 LS	\$1,360,800
S	land	Streetscaping	Streetscape & Aesthetic Features 1.00 LS			\$500,000 /LS	1.00 LS	\$500,000

No.	Item Description		Item Quantity/Unit		Production rate	Other fixed time		Total time
043	Mt Comfort Rd - Install Pump Station		1 LS			50 days		50 work days
		manhours	Labor	Equipment	Material	Subcontract		Item Cost
		0	\$0	\$0	\$0	\$1,200,000		\$1,200,000
		Status (Additive)	Work schedule			Other ST pay		Other OT pay
	1.000	Schedule factor (Normal)	8 hr/shift	1 shift/day	5 day/week	0 hr/shift		0 hr/shift
Install pump station			3 ea	50 days				
R/T	Code	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
		Pump Station Subcontractor						
S	psta	Pump Station	3.00 LS			\$400,000 /LS	3.00 LS	\$1,200,000

# DELVE UNDERGROUND

Project  
**Mt Comfort Road**  
**Dual Underpass Construction - 10% Estimate**

Client  
**Town of McCordsville, IN**

Job No.  
**6183.1**

Estimator  
**RLR/BM**

Rev  
**0**

Computed on  
**2/20/2025**  
**1:48 PM**

## INDIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit									
044 Equipment Ownership not in Direct Cost											
Equipment spread to Directs			Labor	Equipment	Material		Subcontract		Item Cost		
\$2,164,523			\$0	\$22,500	\$12,500		\$0		\$35,000		
Notes:				Payment via Equipment Mobilization Bid Item							\$0
- Source Code: <u>F</u> leet, <u>P</u> urchase, <u>M</u> obilization pay item, or <u>R</u> ental/lease.				Fleet Equipment		Purchased Equipment		Fleet + Purchase		Rental	
- Ownership cost/hr is based on actual equipment months on-site at a utilization-factored single-shift rate of 173 hours/month.				Value	W/O	Value	W/O	Value	W/O	Amount	
				\$5,575K	39%	\$0K		\$5,575K	39%	\$0K	
R/T	Resource Description	Source Code	Number of Units or Rental Period	Unit Purchase cost, Unit Book value, or Rental Rate per period	Project Write off	Unit Freight & Erection (carried in Mob/Demob) Freight in/out E/D mhr		Ownership Cost/hr	Equip. mos	Project Cost excluding freight/erection	
M	Sales Tax			\$0	7.0%	on purchases/rentals					
Major Equipment: \$2,164,523											
E	320 Excavator 43.8k/1.5cy	F	2 ea	\$223,150	40%	\$2,000	16	\$154	1.9	in directs	
E	SK330LC Exc 77.8/2.1cy	F	2 ea	\$351,945	40%	\$2,000	16	\$77.18	18.8	in directs	
E	Wheel Loader Cat 914/1.7cy	F	2 ea	\$120,000	40%	\$2,000	16	\$11.88	33.0	in directs	
E	Hydraulic Crane 40ton/105'	F	2 ea	\$439,507	40%	\$4,000		\$32.27	51.4	in directs	
E	Crawler Crane 100ton/200'	F	1 ea	\$1,303,969	40%	\$2,000		\$380	2.7	in directs	
E	Conc. vibrator, internal, 1.75"	F	6 ea	\$1,191	90%	\$200		\$16.08	1.8	in directs	
E	Shotcrete pot Aliva, 2cy/hr	F	2 ea	\$25,000	40%			\$26.60	4.0	in directs	
E	Conc. Pump, truck 130cy/hr	F	1 ea	\$324,346	40%			\$118	5.9	in directs	
E	Compressor, trailer 1200cfm	F	2 ea	\$133,173	40%	\$2,000		\$14.94	32.3	in directs	
E	Generator, trailer 10.0kW	F	2 ea	\$9,884	60%	\$400		\$1.66	32.3	in directs	
E	Light Plant/Genset, 6kW, 4/1000V	F	6 ea	\$12,491	60%	\$200		\$2.11	96.6	in directs	
E	Welder 400A, trailer E	F	3 ea	\$3,128	60%	\$400		\$23.46	1.1	in directs	
E	Water Treatment Plant	F	1 ea	\$350,000	45%	\$2,000	24	\$70.56	6.6	in directs	
E	Pump, trash 205gpm/100ft head	F	2 ea	\$1,486	85%	\$400		\$0.86	10.8	in directs	
E	Man-Lift 30' articulated boom	F	1 ea	\$43,590	40%	\$400		\$1.64	54.9	in directs	
E	Concrete vibrators	F	3 ea	\$2,000	100%			\$0.63	48.8	in directs	
E	Grout Plant, skid	F	1 ea	\$57,500	35%	\$400		\$6.84	15.2	in directs	
E	Air track 12' feed	F	1 ea	\$220,000	45%			\$13.63	37.5	in directs	
E	Cutting shield steering jacks	F	1 ea	\$250,000	25%	\$2,000		\$49.14	2.2	in directs	
E	Thrust jack & frame	F	1 ea	\$180,000	25%	\$2,000		\$39.06	1.6	in directs	
General Plant: \$22,500											
E	Mechanic's Truck	F	2 ea	\$25,000	25%			\$0.99	73.0	\$12,500	
E	Pickup Truck	F	1 ea	\$40,000	25%			\$1.58	36.5	\$10,000	
Other Plant: \$12,500											
M	Survey Equipment	F	1 LS	\$50,000	25%	\$200	8			\$12,500	

No.	Item Description	Item Quantity/Unit			Mob/demob paid as scheduled. Bond paid at NTP.		
045 General Mobilization		1.0 mo					
	manhours	Labor	Equipment	Material	Subcontract	Item Cost	
	728	\$36,350	\$14,804	\$426,035	\$0	\$477,189	
		Work schedule			Other ST pay	Other OT pay	
\$97,188 excluding adjustments		8 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift	
R/T	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts Small tools and supplies				\$3.00 /mhr	728 mhr	\$2,184
M	Freight-see equipment ownership	50% of total (balance in Demobilization)			\$38,200 (1.7% of equip. cost)		\$19,100
L	Erection-see equipment ownership	128 mhr			\$35.55 /mhr	128 mhr	\$4,550
M	Transfer from cost item 050 Bonds, Insurance, and Taxes not in General Mobilization				LS		\$380,001
M	Field office trailer	1 bldg	400 sf/bldg		\$20.00 /sf	400 sf	\$8,000
M	Field office furniture	1 bldg			\$1,750 /bldg	1 bldg	\$1,750
M	Field office computer / printers	1 bldg			\$5,000 /bldg	1 bldg	\$5,000
L	Labor all office setups	1 bldg	150 mhr/bldg	4	\$53.00 /mhr	600 mhr	\$31,800
E	Equipment all office setups	2 bldg	50 hr/bldg	2	\$74.02 /hr	200 hr	\$14,804
M	Project signs	1 ea			\$10,000 /ea	1 ea	\$10,000

# DELVE UNDERGROUND

Project **Mt Comfort Road** Client **Town of McCordsville, IN** Job No. **6183.1** Estimator **RLR/BM** Rev **0** Computed on **2/20/2025**  
**Dual Underpass Construction - 10% Estimate** **1:48 PM**

## INDIRECT COST DETAIL

No.	Item Description	Item Quantity/Unit	Mob/demob paid as scheduled. Bond paid at NTP.				
<b>046</b>	<b>Demobilization/Punchlist</b>	<b>1.0 mo</b>					
	manhours	Labor	Equipment	Material	Subcontract	Item Cost	
	<b>692</b>	<b>\$36,676</b>	<b>\$25,611</b>	<b>\$33,551</b>	<b>\$0</b>	<b>\$95,838</b>	
		Work schedule		Other ST pay	Other OT pay		
		8 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift	
R/T	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	sts Small tools and supplies				\$3.00 /mhr	692 mhr	\$2,076
M	Freight-see equipment ownership	50% of total (balance in Mobilization)			\$38,200 total		\$19,100
L	Demobilization labor		4		\$53.00 /mhr	692 mhr	\$36,676
E	Demobilization equipment		2		\$74.02 /hr	346 hr	\$25,611
M	Demobilization material	1 LS	0.5		\$24,750 /LS	0.5 LS	\$12,375

No.	Item Description	Item Quantity/Unit	The duration is from the end of mob to the start of demob.				
<b>047</b>	<b>General Plant Operation/Maintenance</b>	<b>36.5 mo</b>					
	manhours	Labor	Equipment	Material	Subcontract	Item Cost	
	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$103,915</b>	<b>\$7,300</b>	<b>\$111,215</b>	
	0.000	\$0.00	\$0.00	\$2,846.99	\$200.00	\$3,046.99	
		Work schedule		Other ST pay	Other OT pay		
		8 hr/shift	1 shift/day	5 day/week	0 hr/shift	0 hr/shift	
R/T	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	Power costs not in equipment rates				\$1,000 /mo	36.5 mo	\$36,500
M	Cell phones / radio fees		4 umo/mo		\$90.00 /umo	146 umo	\$13,140
M	Drinking water supplies				\$150 /mo	36.5 mo	\$5,475
M	Fire protection Supplies				\$100 /mo	36.5 mo	\$3,650
M	First aid supplies				\$150 /mo	36.5 mo	\$5,475
S	Job sanitary system maintenance				\$100 /mo	36.5 mo	\$3,650
S	Office cleaning				\$100 /mo	36.5 mo	\$3,650
M	Office supplies				\$100 /mo	36.5 mo	\$3,650
M	Health & Safety program				\$100 /mo	36.5 mo	\$3,650
M	Personal protective equipment	1 LS			\$5,000 /LS	1 LS	\$5,000
M	Job light / power supplies				\$500 /mo	36.5 mo	\$18,250
M	Fuel / lube facility				\$250 /mo	36.5 mo	\$9,125

No.	Item Description	Item Quantity/Unit	The duration is from NTP to project completion.				
<b>048</b>	<b>Field Supervision</b>	<b>38.5 mo</b>					
	man-months	Labor	Equipment	Material	Subcontract	Item Cost	
	<b>424</b>	<b>\$5,085,651</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,085,651</b>	
	11.006	\$132,094.82	\$0.00	\$0.00	\$0.00	\$132,094.82	
		Vehicles	5 ea	184 vmo	Relocations	2 ea	

See the 'Resources' sheet for an explanation of field supervisory class codes, and associated labor burdens.

'R?' and 'V?' codes denote if relocation expenses (both ways) are paid or a vehicle assigned, respectively - see cost item 049.

34.25 Major work									
R/T	Class	Resource Description	R? V?	Personnel	Duration	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
L	-	Labor burden for personnel below - see the 'Resources' sheet					33.1% weighted average		\$1,263,588
L	KP	Project Manager	Y Y	1 ea			\$13,000 /mmo	38.5 mmo	\$500,500
L	KP	Project Engineer	Y	1 ea			\$10,000 /mmo	38.5 mmo	\$385,000
L	EP	Safety Manager	Y	1 ea	34.3 mmo/ea		\$10,000 /mmo	34.25 mmo	\$342,500
L	EP	Field Engineer		3 ea	34.3 mmo/ea		\$6,000 /mmo	102.75 mmo	\$616,500
L	KP	Gen Superintendent	Y Y	1 ea			\$12,000 /mmo	38.5 mmo	\$462,000
L	EP	Party Chief		1 ea	34.3 mmo/ea		\$10,000 /mmo	34.25 mmo	\$342,500
L	NL	Instrument Man		1 ea	34.3 mmo/ea		\$9,250 /mmo	34.25 mmo	\$316,813
L	EP	Scheduling Engineer		1 ea	34.3 mmo/ea		\$6,000 /mmo	34.25 mmo	\$205,500
L	EP	Busniess Manager		1 ea	34.3 mmo/ea		\$8,000 /mmo	34.25 mmo	\$274,000
L	KP	Field Superindendent	Y	1 ea	34.3 mmo/ea		\$11,000 /mmo	34.25 mmo	\$376,750

No.	Item Description	Item Quantity/Unit	The duration is from NTP to project completion.				
<b>049</b>	<b>Overhead Maintenance/Service</b>	<b>38.5 mo</b>					
		Labor	Equipment	Material	Subcontract	Item Cost	
		<b>\$0</b>	<b>\$165,600</b>	<b>\$199,620</b>	<b>\$0</b>	<b>\$365,220</b>	
		\$0.00	\$0.00	\$5,184.92	\$0.00	\$9,486.22	

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## INDIRECT COST DETAIL

R/T	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	Payroll processing, wage labor	725 mmo	4.33 chk/mmo		\$5.50 /chk	3141 chk	\$17,276
M	Payroll processing, salary labor	424 mmo	2 chk/mmo		\$5.50 /chk	848 chk	\$4,664
M	Drug tests	30 test			\$500 /test	30 test	\$15,000
M	Relocation expenses	2 move	2 ea/move		\$5,000 /ea	4 ea	\$20,000
M	Temporary living, salary labor	2 move	2 mo/move		\$12,520 /mo	4 mo	\$50,080
E	Supervisory vehicle O&M	184 vmo			\$900 /vmo	184 vmo	\$165,600
M	Submittal preparation support	2 mo			\$5,000 /mo	2 mo	\$10,000
M	Audit fees	3.2 yr			\$2,000 /yr	3.2 yr	\$6,400
M	Legal fees	3.2 yr			\$2,000 /yr	3.2 yr	\$6,400
M	Personnel recruiting	3.2 yr			\$2,000 /yr	3.2 yr	\$6,400
M	Design department charge	3.2 yr	Home Office Overhead items: 0.1% of bid.		\$1,000 /yr	3.2 yr	\$3,200
M	IT/EDP department charge	3.2 yr			\$2,000 /yr	3.2 yr	\$6,400
M	Equipment department charge	3.2 yr			\$2,000 /yr	3.2 yr	\$6,400
M	Accounting department charge	3.2 yr			\$2,000 /yr	3.2 yr	\$6,400
M	HR department charge	3.2 yr			\$2,000 /yr	3.2 yr	\$6,400
M	Corporate department charge	3.2 yr			\$2,000 /yr	3.2 yr	\$6,400
M	Job photographs/video				\$200 /mo	38.5 mo	\$7,700
M	Pre-construction survey	1 LS			\$12,500 /LS	1 LS	\$12,500
M	Post-construction survey	1 LS			\$8,000 /LS	1 LS	\$8,000

No.	Item Description	Item Quantity/Unit				
	<b>050 Bonds, Insurance, and Taxes not in General</b>	<b>LS</b>				
		Labor	Equipment	Unclassified Material	Subcontract	Item Cost
	\$1,284,882 excluding adjustments	\$0	\$0	\$904,881	\$0	\$904,881

Items which are specified to be paid under General Mobilization are calculated here and flagged 'Y' in the 'Xfer to Mob?' field.

Basis of contractor's equipment insurance is \$5,575K fleet book value + \$0K new purchases.

R/T	Resource Description	Xfer to Mob?	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	Credit for items specified to be transferred to cost item 045, General Mobilization					LS		-\$380,001
M	Performance bond	Y	\$47.5 M unescalated bid			\$8.00 /K Bid	\$47,500 K bid	\$380,001
M	Builder's risk		\$47.5 M cost	3.3 yr		\$3.00 /K-yr	\$156,750 K-yr	\$470,251
M	Automobile/pickup insurance		184.0 vmo			\$70.00 /vmo	184 vmo	\$12,880
M	Excess liability umbrella		1 LS			\$250,000 /LS	1 LS	\$250,000
M	Incident deductibles		1 LS			\$150,000 /LS	1 LS	\$150,000
M	State/Local business tax		1 LS			\$5,000 /LS	1 LS	\$5,000
M	Permits and licenses		1 LS			\$10,000 /LS	1 LS	\$10,000
M	Personal property tax		1 yr	\$1,000 k/yr	0.45	\$15.00 /k	450 k	\$6,750

No.	Item Description	Item Quantity/Unit				
	<b>051 Contractor Markup</b>	<b>LS</b>				
		Labor	Equipment	Unclassified Material	Subcontract	Item Cost
		\$0	\$0	\$4,573,643	\$0	\$4,573,643

R/T	Resource Description	Resource Quantity	Markup	10.7% of cost	Resource Cost
M	Direct Labor	\$8,887,917	25%	5.2%	\$2,221,979
M	Field Supervision	\$5,085,651	25%	3.0%	\$1,271,413
M	Equipment	\$6,118,984	2%	0.3%	\$122,380
M	Material	\$6,127,594	2%	0.3%	\$122,552
M	Subcontract	\$16,706,385	5%	1.9%	\$835,319

No.	Item Description	Item Quantity/Unit				
	<b>052 Financing Charges</b>	<b>LS</b>				
		Labor	Equipment	Unclassified Material	Subcontract	Item Cost
	Status (Additive)	\$0	\$0	\$260,827	\$0	\$260,827

Invoices	Securities ROR	Cost of capital	Progress payments	Retained earnings
Net 30 days	1.0%	4.25%	30 days	10% reduced to 5% at 75% of earned value

Calculate finance charges on the time elapsed from expenditures to perform the work to revenue received from progress payments.

R/T	Description	Resource Quantity	Average Financing Period	Project Allocation	Notes	Resource Cost
M	Direct labor payroll/add-ons	\$7,691,710	43 days	100%	based on 4 payroll periods/mo	\$39,143
M	Field supervision payroll/add-ons	\$5,085,651	38 days	100%	based on 2 payroll periods/mo	\$22,865

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## INDIRECT COST DETAIL

M	Material purchases/tax	\$4,435,915	30 days	100% of cost items 001-049	\$15,737
M	First retention release	\$1,781,254	25 mo	0% cash; 100% securities; net 3.3% rate	\$103,010
M	Last retention release	\$593,751	39 mo	0% cash; 100% securities; net 3.3% rate	\$80,071

No.	Item Description	Item Quantity/Unit				
053 Contractor Contingency		LS				
		Labor	Equipment	Unclassified Material	Subcontract	Item Cost
	Status (Additive)	\$0	\$0	\$525,971	\$0	\$525,971

R/T	Resource Description	Resource Qty/Unit	Production rate	Factor	Resource Unit Cost	Resource Quantity	Resource Cost
M	General Conditions / Labor Market	1 LS		0.015	\$35,064,739 /LS	0.015 LS	\$525,971

No.	Item Description	Item Quantity/Unit				
054	Escalation-excluded from estimate		LS			
N	Status (Non-Additive)	Labor	Equipment	Material	Subcontract	Item Cost
	Escalation up to June 1, 2027 NTP	\$2,956,070	\$1,294,454	\$950,855	\$3,534,190	\$8,735,570
	Escalation after NTP	\$543,035	\$208,588	\$225,425	\$906,464	\$1,883,512
	Total Escalation	\$3,499,105	\$1,503,042	\$1,176,280	\$4,440,654	\$10,619,082

Escalation is applied from the base dates given below to NTP, and from there is calculated to the midpoint of each schedule activity for direct costs and on a yearly basis over the project duration for indirect costs. The average composite annual escalation rate is 3.3%.

R/T	Resource Description	Unescalated Cost	Escalation Rate/Year	Compounding Periods	Base Date	Escalated Cost
L	Direct Labor	\$8,887,917	3.3%	1 (annually)	3/25/2021	\$2,193,684
L	Field Supervision	\$5,085,651	3.3%	1 (annually)	3/25/2021	\$1,305,421
E	Equipment	\$6,118,984	3.3%	1 (annually)	3/25/2021	\$1,503,042
M	Material (including unclassified)	\$10,701,236	3.3%	4 (quarterly)	3/25/2021	\$1,176,280
S	Subcontracts	\$16,706,385	3.3%	1 (annually)	3/25/2021	\$4,440,654

No.	Item Description	Item Quantity/Unit				
055 Owner Contingency		LS				
		Labor	Equipment	Unclassified Material	Subcontract	Item Cost
	Status (Additive)	\$0	\$0	\$16,625,100	\$0	\$16,625,100

C/T	Type of Contingency	Amount	Contingency Level	Resource Cost
T	Owner contingency	\$47,500,173	35.0% of total	\$16,625,100



# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## RESOURCE RATE AND USAGE DETAIL

### DIRECT LABOR

Basis: Prevailing Wage Rates - Hancock County 1/31/2025

Employer Insurance Add-ons	Ind. Rate	EMR	Eff. Rate	Memo: Estimate Total	Employer Payroll Tax Add-ons	Tax Rate	Annual Inc. Cap
Worker Compensation	15.0%		15.0%	\$690,119	Fed. Social Security Tax	6.200%	\$137,700
Commercial General Liability	10.0%		10.0%	\$460,079	Fed. Medicaid Tax	1.450%	
CIGA/Terrorism/Other Add-ons	1.0%		1.0%	\$46,008	Fed. Unemployment Tax	0.600%	\$7,000
					Unemployment Tax	2.900%	\$7,000
					SDI	0.010%	\$122,909

Overtime	Rate	
General/Saturday overtime	1.5x	
Sunday/Holiday overtime	2.0x	
Misc. General overtime	2.0%	built in rates
		\$122,486
		Weighted average: \$34.00 /mhr Base+Vac
		\$32.22 /mhr Fringes/Ins/Taxes

Code	Resource/Group Description	Hourly Base+Vac	Hourly Fringes	Daily Subsistence/Travel	Ins & Taxes	Misc. Gen'l OT	Adjusted Rate/mhr	Total mhrs	Total Cost
<b>Laborers</b>									
lfm	Labor FM	\$30.50	\$17.72		\$10.39	\$0.87	\$59.48	14,048	\$835,519
lab	General Labor (Grp 1)	\$28.50	\$17.72		\$9.72	\$0.83	\$56.77	36,170	\$2,053,346
flag	Flagman (Grp 1)	\$28.50	\$17.72		\$9.72	\$0.83	\$56.77	7,244	\$411,237
<b>Operating Engineers</b>									
ofm	Operating Engineer	\$40.55	\$21.80		\$13.77	\$1.12	\$77.24	1,056	\$81,564
c100+	Crane oper. >100t (Grp 11)	\$40.55	\$21.80		\$13.77	\$1.12	\$77.24	1,372	\$105,971
c45-	Crane oper. <45t (Grp 9)	\$40.55	\$21.80		\$13.77	\$1.12	\$77.24	10,656	\$823,054
eo3+	Excavator >3.5cy (Grp 8)	\$40.55	\$21.80		\$13.77	\$1.12	\$77.24	3,648	\$281,766
eo3-	Excavator <3.5cy (Grp 5)	\$40.55	\$21.80		\$13.77	\$1.12	\$77.24	2,212	\$170,852
lo4+	Loader oper. >4cy (Grp 10)	\$40.55	\$21.80		\$13.77	\$1.12	\$77.24	6,924	\$534,800
lo4-	Loader oper. <4cy (Grp 5)	\$40.55	\$21.80		\$13.77	\$1.12	\$77.24	1,156	\$89,288
mw	HD Mech/Welder (Grp 1)	\$38.83	\$21.80		\$13.19	\$1.09	\$74.91	1,728	\$129,446
conc	Concrete equip.oper. (Grp 2)	\$38.83	\$21.80		\$13.19	\$1.09	\$74.91	1,100	\$82,402
drill	Drill operator (Grp 6)	\$40.55	\$21.80		\$13.77	\$1.12	\$77.24	2,944	\$227,390
<b>Tunnel Labors/Operators</b>									
comp	Compressorman (Grp 5)	\$38.83	\$21.80		\$13.19	\$1.09	\$74.91	6,964	\$521,679
<b>Electricians</b>									
efm	Electrician FM	\$44.15	\$26.88		\$14.98	\$1.28	\$87.29	40	\$3,492
ejm	Electrician JM	\$42.15	\$26.88		\$14.31	\$1.25	\$84.59	1,392	\$117,743
<b>Carpenters</b>									
cfm	Carpenter FM	\$36.04	\$24.91		\$12.25	\$1.10	\$74.31	1,580	\$117,405
cjm	Carpenter JM	\$34.04	\$24.91		\$11.58	\$1.07	\$71.60	10,920	\$781,878
<b>Ironworkers</b>									
ifm	Ironworker FM	\$38.70	\$26.09		\$13.15	\$1.17	\$79.11	1,780	\$140,817
ijm	Ironworker JM	\$36.70	\$26.09		\$12.48	\$1.14	\$76.40	11,140	\$851,141
lp	Labor premium						Overall average 5.1% of labor		\$454,100
	Mobilization Labor	\$26.25	\$14.03	\$0.00	\$8.92	\$0.72	\$49.93	728	\$36,350
	Demobilization Labor	\$27.87	\$14.89	\$0.00	\$9.47	\$0.77	\$53.00	692	\$36,676
	Craft Labor Escalation						\$2,193,684 (excluded from estimate)		
<b>Total Craft Labor</b>				<b>\$4,266,408 unesc. payroll</b>		<b>125,494 mhrs</b>			<b>\$8,887,917</b>

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## RESOURCE RATE AND USAGE DETAIL

### FIELD SUPERVISORY LABOR (see cost item 048)

Employer Insurance Add-ons	Ind. Rate	Exp. Mod	Eff. Rate	<i>Memo: Estimate Total</i>	Employee Benefits	Rate	Applied to classifications
Workers' Compensation	1.8%		1.8%	\$68,797	Key empl. bonus plan	8.0%	KP
Commercial Gen'l Liability	5.0%		5.0%	\$191,103	Employee medical plan	10.0%	KP, EP, EL, NP, NL
					Retirement/Pension plan	5.0%	KP, EP, NP
					Non-exempt salaried OT	2.0%	NP, NL

Employer Payroll Tax Add-ons

7.9% payroll tax rate based on \$9,020/mmo weighted base salary.

Field Supervisory Labor Classification	Class	Total Burden
Key permanent employee	KP	37.7%
Exempt permanent employee	EP	29.7%
Exempt local hire employee	EL	24.7%
Non-exempt permanent employee	NP	31.7%
Non-exempt local hire employee	NL	26.7%

Supervisory Salaries

Total mmos	Total Cost
424	\$5,085,651

Supervisory Labor Escalation \$1,305,421 (excluded from estimate)

<b>Total Supervisory Labor</b>	<b>\$3,822,063 unesc. payroll</b>	<b>424 mmos</b>	<b>\$5,085,651</b>
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# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## RESOURCE RATE AND USAGE DETAIL

### EQUIPMENT (see Cost Item 044 for development of hourly ownership costs)

Basis: COE Rates, Year 2024

Region 2

Fuel/Power Factor Normal

Unit Cost

Electricity \$0.20 /kWh

Diesel \$3.67 /gal

Gas \$2.97 /gal

Memo: Total including General Plant Mob/O&M

295,096 kWh \$59,019

275,588 gal \$1,011,410

39,068 gal \$116,031

Code	Resource/Group Description	Air Diesel Elec Gas	HP/CFM	HPF	Equipment Value	Parts Cost/hr	Elec/Fuel Cost/hr	Ownership Cost/hr	Total Cost/hr	Total hrs	Total Cost
<b>Excavators/Muckers/TBMs</b>											
he320	320 Excavator 43.8k/1.5cy	D	128	65	\$255,000	\$19.77	\$15.70	\$154.43	\$189.90	1,156	\$219,527
he330	SK330LC Exc 77.8/2.1cy	D	238	65	\$400,000	\$31.17	\$29.20	\$77.18	\$137.55	3,648	\$501,780
<b>Loaders</b>											
L914	Wheel Loader Cat 914/1.7cy	D	89	65	\$150,000	\$16.50	\$10.92	\$11.88	\$39.30	8,080	\$317,544
<b>Lift Units</b>											
cc100	Crawler Crane 100ton/200'	D	265	40	\$1,100,000	\$70.90	\$20.01	\$380.17	\$471.07	1,372	\$646,312
hc40	Hydraulic Crane 40ton/105'	D	152	65	\$750,000	\$50.00	\$18.65	\$32.27	\$100.92	10,896	\$1,099,592
<b>Concrete Equipment</b>											
vib2	Conc. vibrator, internal, 1.75"	E	3	65	\$1,250	\$1.11	\$0.30	\$16.08	\$17.48	400	\$6,994
sp2	Shotcrete pot Aliva, 2cy/hr	E	7	75	\$25,000	\$6.50	\$0.80	\$26.60	\$33.89	752	\$25,488
cb130	Conc. Pump, truck 130cy/hr	D	310	50	\$350,000	\$44.73	\$29.26	\$117.94	\$191.93	1,100	\$211,122
<b>Plant Equipment</b>											
cp12	Compressor, trailer 1200cfm	D	360	75	\$133,173	\$15.79	\$50.96	\$14.94	\$81.69	7,132	\$582,603
g10	Generator, trailer 10.0kW	D	23	65	\$9,884	\$1.09	\$2.82	\$1.66	\$5.57	7,132	\$39,759
lp6	Light Plant/Genset, 6kW, 4/10	D	12	85	\$12,491	\$4.57	\$1.93	\$2.11	\$8.60	21,336	\$183,549
we4	Welder 400A, trailer E	E	35	80	\$3,128	\$0.74	\$4.26	\$23.46	\$28.46	240	\$6,829
wtp	Water Treatment Plant	E	15	90	\$350,000	\$15.00	\$2.05	\$70.56	\$87.62	2,232	\$195,560
p205	Pump, trash 205gpm/100ft he	E	10	90	\$1,486	\$0.64	\$1.37	\$0.86	\$2.86	2,952	\$8,454
<b>Utility Equipment</b>											
ml30	Man-Lift 30' articulated boom	D	80	65	\$43,590	\$6.42	\$9.81	\$1.64	\$17.87	10,664	\$190,562
vib	Concrete vibrators	E	10	75	\$2,000	\$1.00	\$1.14	\$0.63	\$2.77	9,480	\$26,287
gp	Grout Plant, skid	A	60	50	\$57,500	\$10.00		\$6.84	\$16.84	2,944	\$49,565
at	Air track 12' feed	A	900	80	\$220,000	\$22.00		\$13.63	\$35.63	7,264	\$258,808
cssj	Cutting shield steering jacks	E	10	70	\$250,000	\$590.00	\$1.06	\$49.14	\$640.20	1,272	\$814,333
tjack	Thrust jack & frame				\$180,000	\$400.00		\$39.06	\$439.06	1,152	\$505,800
Equipment Ownership (excludes \$2,164,523 component spread to Direct Costs)											\$22,500
Mobilization Equipment											200
Demobilization Equipment											346
Overhead Maintenance/Service Equipment											6,182
Equipment Escalation											\$1503,042 (excluded from estimate)
<b>Total Equipment</b>						<b>107,932 hrs</b>			<b>\$6,118,984</b>		

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					
<b>1:48 PM</b>					

## RESOURCE RATE AND USAGE DETAIL

### MATERIALS

Code	Resource/Group Description	Unit Cost/Measure	Notes	Add Tax (-/N)?	Unit Cost F.O.B Job	Total Quantity	Total Cost
<b>Add-ons</b>							
tax	Sales Tax	7.000%	Memo: Tax on Material				\$81,844
			...and Equipment Purchases/Rentals				\$0
sts	Small tools and supplies	\$3.00 mhr	(5.3% of raw direct labor rate)		\$3.00	125,494	\$376,482
aggc	Coarse aggregate	\$32.00 ton		n	\$32.00	5,400	\$172,800
c3	Concrete, 3000psi mix	\$200.00 cy		n	\$200.00	370	\$74,000
c4	Concrete, 4000psi mix	\$207.00 cy		n	\$207.00	740	\$153,180
c5	Concrete, 5000psi mix	\$210.00 cy		n	\$210.00	3,485	\$731,745
xc	Concrete consumables	\$10.00 cy			\$10.70	3,364	\$35,989
lumb	Lumber for lagging/forms	\$4.65 bf			\$4.98	103,275	\$513,845
ply1	Plywood MDO 1"	\$2.67 sf			\$2.86	68,850	\$196,698
ff	Form fasteners	\$0.40 sf			\$0.43	68,850	\$29,468
foil	Form oil	\$0.15 sf			\$0.16	68,850	\$11,050
cure	Curing compound	\$0.10 sf			\$0.11	68,850	\$7,367
xf	Misc form supplies	\$0.40 sf			\$0.43	68,850	\$29,468
rp	Reinforcing steel, plain	\$1.10 lb		n	\$1.10	433,080	\$476,388
xr	Reinforcing steel mat'l	\$0.20 lb		n	\$0.20	359,220	\$71,844
stl12	Steel shapes	\$2.00 lb	Skyline Steel		\$2.14	115,200	\$246,528
<b>Miscellaneous</b>							
cs	Cement - sack	\$16.00 ea			\$17.12	926	\$15,853
mot	Maintenace of traffic mat'l	\$17,000 LS			\$18,190	2	\$36,380
shcrt	Shotcrete	\$210.00 cy		n	\$210.00	620	\$130,200
sn	Soil nials	\$245.00 ea		n	\$245.00	926	\$226,870
xmisc	Miscellaneous material	\$1,000 lot			\$1,070	120	\$128,400
Equipment Ownership not in Direct Cost Materials and Taxes							\$12,500
Mobilization Freight and Materials							\$423,851
Demobilization Freight and Materials							\$31,475
General Plant Operation/Maintenance Materials							\$103,915
Overhead Maintenance/Service Materials							\$199,620
Bonds, Insurance, and Taxes not in General N (unclassified)							\$904,881
Contractor Markup (unclassified)							\$4,573,643
Financing Charges (unclassified)							\$260,827
Contractor Contingency (unclassified)							\$525,971
Material Escalation							\$1,176,280 (excluded from estimate)
<b>Total Material</b>							<b>\$10,701,236</b>

# DELVE UNDERGROUND

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## RESOURCE RATE AND USAGE DETAIL

### SUBCONTRACTS

Code	Resource/Group Description	Unit Cost/Measure	Notes		Total Quantity	Total Cost
muck	Muck disposal	\$45.00	lcy		\$45.00	90,553 \$4,074,885
geos	Geotechnical Instr sub	\$135,000.00	LS		\$135,000	1 \$135,000
util	Utility relocation	\$500,000.00	LS		\$500,000	1 \$500,000
jgm	Jet Grouting Mob	\$150,000.00	LS		\$150,000	2 \$300,000
jg	Jet Grouting	\$350.00	cy		\$350.00	296 \$103,600
land	Streetscaping	\$500,000.00	LS		\$500,000	3 \$1,500,000
roadN	NB Roadway Construction	\$2,721,600.00	LS		\$2,721,600	1 \$2,721,600
psta	Pump Station	\$400,000.00	LS		\$400,000	3 \$1,200,000
twm	SOE sub mob	\$100,000.00	LS		\$100,000	1 \$100,000
tw	SOE wall w/ steel	\$50.00	sf		\$50.00	16,000 \$800,000
roadB	Broadway Roadway Construc	\$1,523,200.00	LS		\$1,523,200	1 \$1,523,200
roadS	SB Roadway Construction	\$1,360,800.00	LS		\$1,360,800	1 \$1,360,800
20wm	Relocate 20" Water Main	\$575.00	lf		\$575.00	3,000 \$1,725,000
csxgm	CSX Geotech Monitoring	\$2,500.00	sh		\$2,500	120 \$300,000
ains	Automated instrumentation	\$250,000.00	ls		\$250,000	1 \$250,000
csxfl	CSX Flagging	\$1,500.00	day		\$1,500	70 \$105,000
General Plant Operation/Maintenance Subcontracts						\$7,300
Subcontract Escalation					\$4,440,654 (excluded from estimate)	
Total Subcontract						\$16,706,385
Unescalated Construction Bid						\$47,500,173

# **DELVE UNDERGROUND**

Project	Client	Job No.	Estimator	Rev	Computed on
<b>Mt Comfort Road</b>	<b>Town of McCordsville, IN</b>	<b>6183.1</b>	<b>RLR/BM</b>	<b>0</b>	<b>2/20/2025</b>
<b>Dual Underpass Construction - 10% Estimate</b>					<b>1:48 PM</b>

## **RESOURCE RATE AND USAGE DETAIL**

### **SUMMARY BY RESOURCE TYPE**

Cost Type	Labor	Equipment	Material	Subcontract	Total
Direct Cost	\$8,814,890	\$5,890,469	\$3,660,295	\$16,699,085	\$35,064,739
Indirect Cost	\$5,158,677	\$228,515	\$775,620	\$7,300	\$12,435,434
Indirect Cost -unclassified material	-	-	\$6,265,321	-	-
Owner Allowances	-	-	-	-	-
Escalation-excluded from est	-	-	-	-	-
<b>Unescalated Construction Bid</b>	<b>\$13,973,567</b>	<b>\$6,118,984</b>	<b>\$10,701,236</b>	<b>\$16,706,385</b>	<b>\$47,500,173</b>
	29%	13%	23%	35%	
		(13% unclassified)			

### **SUMMARY BY COST TYPE**

Cost Type	Total	% Total Estimate	% Direct, Equipment and Plant Cost	Applicable Cost Items
Mobilization/Demobilization	\$573,027	1.2%	1.6%	045 - 046
Directs, Equipment, and Plant	\$35,210,954	74.1%	100.0%	001 - 044, 047 -
Overhead/Profit/Contingency	\$11,716,191	24.7%	33.3%	048 - 053
Owner Allowances	-			
<b>Unescalated Construction Bid</b>	<b>\$47,500,173</b>		<b>134.9%</b>	

### **UNESCALATED TIME-RELATED INDIRECT COST BREAKDOWN**

Cost Type	Average Cost/month	Exclude?
Lineal/Other Plant Equipment CFC	\$45 /mo	
GP operation/maintenance	\$3,122 /mo	
Weekend maintenance		
Field supervision	\$135,337 /mo	
OH maintenance/service	\$9,719 /mo	
<b>Total</b>	<b>\$148,223 /mo (excluding markup)</b>	

Monthly costs include adjustments totalling 2.5% for:

- bonds, insurance, and taxes
- financing charges

but exclude contractor contingency

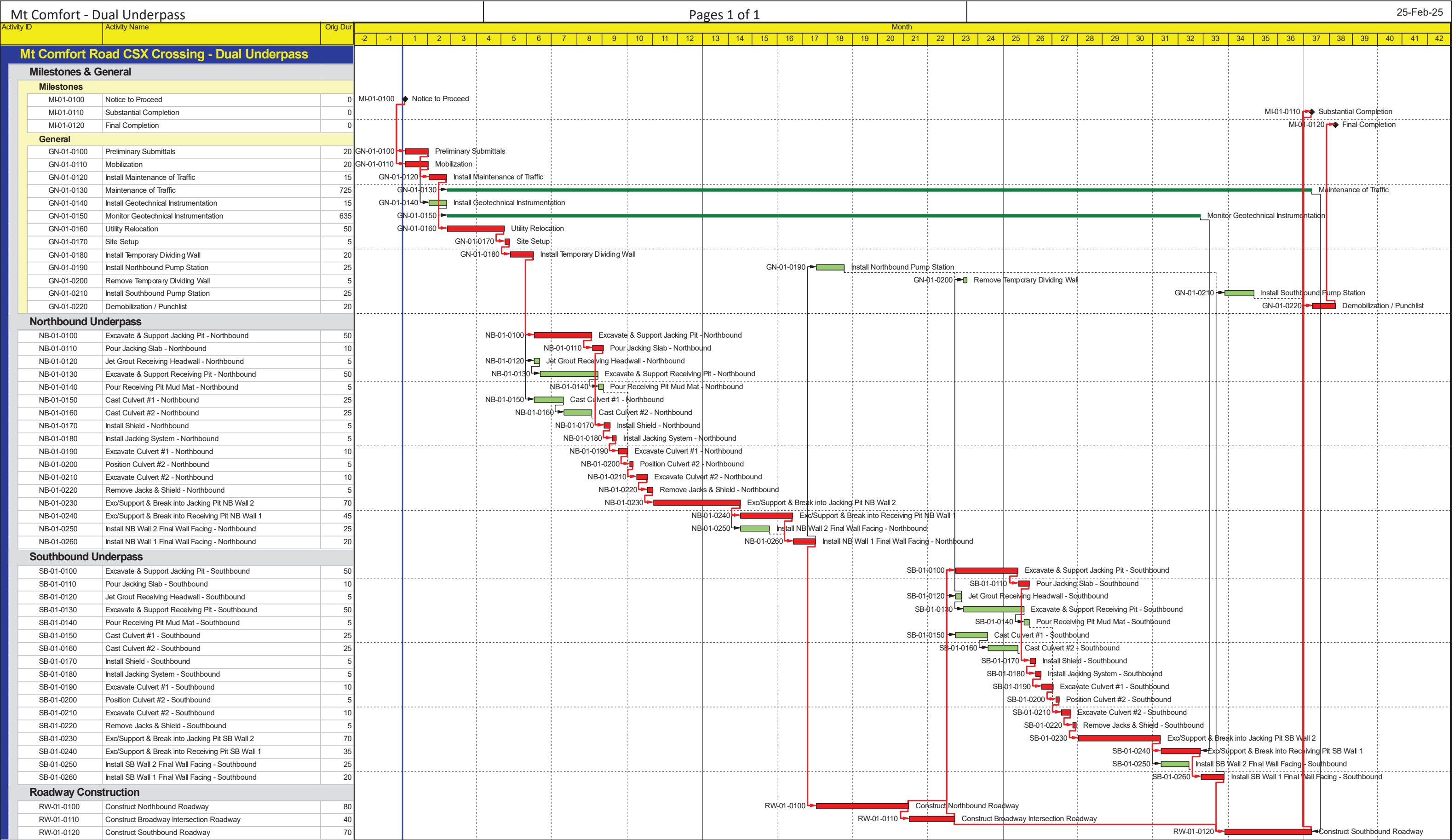
**\$182,310 /mo (including markup)**

### **DISTRIBUTION OF PROJECT NON-WORKDAYS**

Type of non-workday	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Calendar Year	Total Project
Holiday		1	1	0	0	1	0	1	0	1	0	2	2	9
Inclement Weather Day		5	5	2	2	1	0	0	0	0	0	5	20	60
<b>Total</b>		<b>6</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>7</b>	<b>29</b>
														<b>88</b>



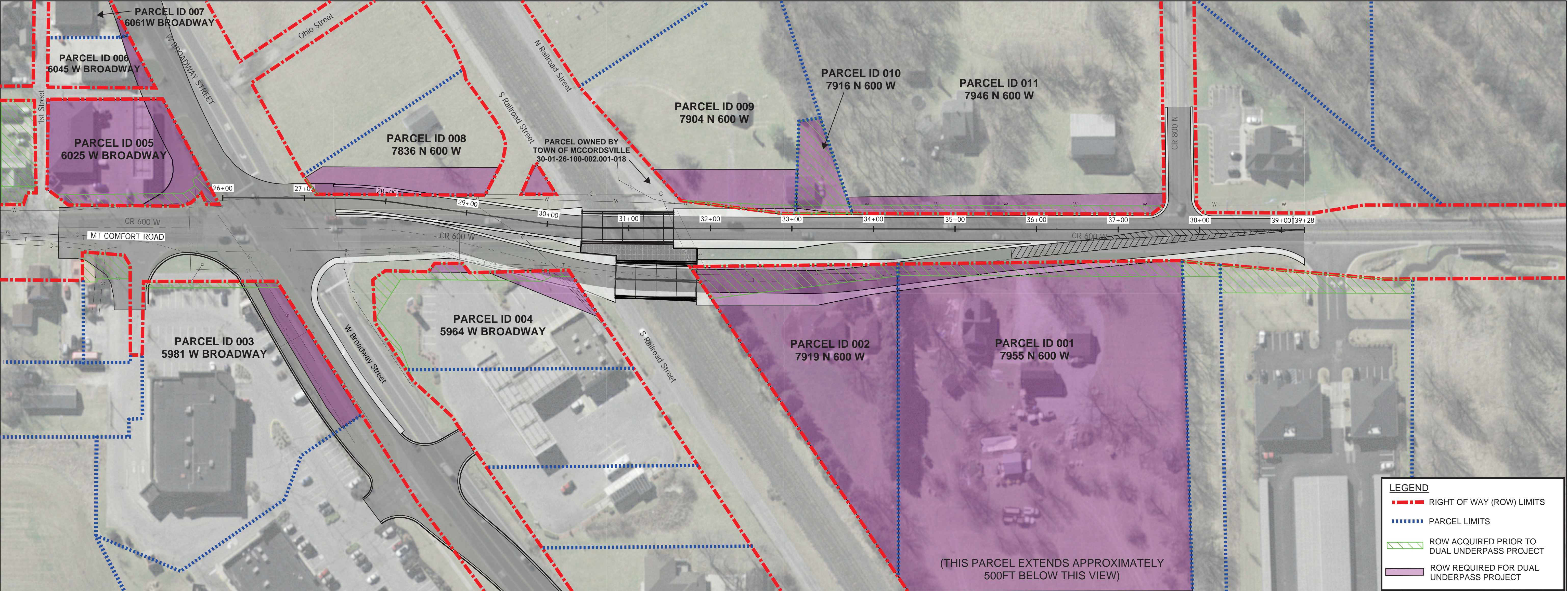
**Exhibit B: Construction Schedule**



**Exhibit C: Detailed Right-of-Way and Land Acquisition Map with Summary Table**



C:\USERS\BRIEN\DCV\ACCORDS\DELVE UNDERGROUND\COMFORT ROAD\PROJECT FILES\03 DRAWINGS\TEST\_SHEET 4 SB V2.DWG Created By: Date Created: 3/26/2018



Dual Underpass Land Acquisition 2025										
Parcel ID Number	Property Intended Use	Address	Total Parcel Size (1) (ac.)	ROW and Land Acquisition Required for Dual Underpass (ac.)	ROW to be Acquired by Town for At-Grade Improvements (ac.)	Net Remaining ROW and Land Acquisition for Dual Underpass (ac.)	Approximate Unit Price (\$ per acre)	Assumed Entire Residential Parcel Land Acquisition Cost (2)	Assumed Entire Commercial Parcel Land Acquisition Cost (2)	ROW Acquisiton Cost (4)
001	Residential	7955 N 600 W	6.010	3.331	0.160	3.171	\$ 179,700	\$1,080,000		
002	Residential	7919 N 600 W	1.769	1.217	0.150	1.067	\$ 395,704	\$700,000		
003	Commercial	5981 W Broadway	1.811	0.127	0.020	0.107	\$ 639,097			\$68,383
004	Commercial	5964 W Broadway	2.557	0.081	0.090	0.047	\$ 639,097			\$30,038
005	Commercial	6025 W Broadway	0.606	0.52	0.060	0.460	\$ 2,500,000		\$1,515,000	
006	Commercial	6045 W Broadway	0.210	0.02	0.0	0.021	\$ 639,097			\$13,421
007	Commercial	6061 W Broadway	0.150	0.003	0.0	0.003	\$ 639,097			\$1,917
008	Residential	7836 N 600 W	0.651	0.193	0.0	0.193	\$ 639,097			\$123,346
009	Residential	7904 N 600 W	1.449	0.153	0.016	0.137	\$ 639,097			\$87,556
010	Residential	7916 N 600 W	0.186	0.190	0.190	0.000		\$0 (5)		
011	Agricultural	7946 N 600 W	35.985	0.193	0.092	0.101	\$ 639,097			\$64,549
Total :			6.03		0.778	5.25	Total Cost:		\$3,684,210	

(1) Total Pancel size is based on online Hancock County records

(2) Unit Pricing based on fair market value with a 2.0 multiplier

(3) Commercial outlier is for budget purpose only

(4) The unit price for small ROW acquisition is based on the \$610,000 provided by the Town in 2021 but adjusted for land appreciation into 2025.

(5) Based on document 2022-0062 RW BASE FOR TOWN PLANNING-Model, the total parcel will be acquired by Town for At-Grade Improvements



RECOMMENDED FOR APPROVAL \_\_\_\_\_

DESIGN ENGINEER DATE

DESIGNED: NRZ

DRAWN: KGR

CHECKED: ASM

CHECKED: KLD

TOWN OF MCCORDSVILLE  
MT COMFORT RD UNDER CSX

HORIZONTAL SCALE

1" = 60'

VERTICAL SCALE

1" = 15'

SURVEY BOOK

CONTRACT

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BRIDGE FILE

N/A

DESIGNATION

SHEETS

5

of

9

PROJECT

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