

0042



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

ACT/007/004
#4

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February 16, 1996

Ben Grimes
Sr. Staff Project Engineer
Castle Gate Mine
AMAX Coal Company
P. O. Drawer PMC
Price, Utah 84501

Re: Bond Calculations, Castle Gate Mine, AMAX Coal Company, ACT/007/004,
Folder #4, Carbon County, Utah

Dear Mr. Grimes:

Enclosed are the Division's work sheets for Bond Calculations. For demolition work, the Division uses Means Heavy Construction Cost Guide. For earthwork costs, the Division uses the Caterpillar Performance Handbook and Data Guest's Blue Book. A productivity rate for the earthmoving equipment is determined from the Caterpillar Performance Handbook. Earthwork costs are determined from Blue Book.

The Division uses' Quattro Pro Based Spread Sheets for Bond Calculations. The Spread Sheets are based on bonding methods used in OSM'S Handbook for Calculation of Reclamation Bond Amount.

If you need any additional information on how the Division calculates bonds, please contact me.

Sincerely,

Wayne H. Western
Reclamation Engineer

mt
Enclosures
A:WAYNE.FEB



MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUST COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTITY	UNIT	COST		
1	Oil, Grease and Fuel Storage Shed																							
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF	14	39	12								FT		6552	CF	\$1,376		
	Structure's Volume (Demolished)																			0.1	24	CY		
	Structure's Transport Cost																							
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY														24	CY		
	Subtotal																					\$2,216		
	Equipment's Demolition Cost																							
	Equipment's Dismantle Cost																							
	Equipment's Transport Cost																							
	Equipment's Disposal Cost																							
	Subtotal																							
	Floor's Demolition Cost	Reinforced Concrete Demo	\$0.00			0	0														0	CF	\$0	
	Floor's Site Factor																							
	Floor's Rein. Factor																							
	Floor's Volume (Diminished)																			1.3	0	CY		
	Floor's Transport Cost																							
	Floor's Disposal Fee	For disposal on site, add	\$6.40			\$6.40	/CY														0	CY		
	Subtotal																					\$0		
	Foundation's Demolition Cost																							
	Foundation's Site Factor																							
	Foundation's Rein. Factor																							
	Foundation's Volume (Diminished)																							
	Foundation's Transport Cost																							
	Foundation's Disposal Cost																							
	Subtotal																							
	Floor's Demolition Cost	Reinforced Concrete Demo	\$0.00			\$0.00	0														0	SF	\$0	
	Floor's Site Factor																							
	Floor's Rein. Factor																							
	Floor's Volume (Diminished)																				CF	1.3	0	CY
	Floor's Transport Cost																							
	Floor's Disposal Fee	For disposal on site, add	\$6.40			\$6.40	/CY															0	CY	
	Subtotal																					\$0		
	Total																					\$2,216		

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTIT	UNIT	COST	
2	Water Tanks (A)																						
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF								17500		3	GAL		42109	CF	\$8,843	
	Structure's Dismatle Cost																		0.1	156	CY		
	Structure's Transport Cost																						
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY													156	CY	\$5,460	
	Subtotal																					\$14,303	
	Water Tank 750 gal																						
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF								750		1	GAL		602	CF	\$126	
	Structure's Dismatle Cost																		0.1	2	CY		
	Structure's Transport Cost																						
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY													2	CY	\$70	
	Subtotal																					\$156	
	Concrete Tank Pad w/bar																						
	Floor's Demolition Cost	Reinforced 7" -24"	\$292.00			\$292.00	/CY			0.67			11				3	FT		7	CY	\$2,044	
	Floor's Site Factor																						
	Floor's Rein. Factor																						
	Floor's Volume (Dimolished)																		1.3	9	CY		
	Floor's Transport Cost																						
	Floor's Disposal Fee	For disposal on site, add	\$6.40			\$6.40	/CY													9	CY	\$58	
	Subtotal																					\$2,102	
	Metal Fan Housing																						
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF			12			9				1	FT		763	CF	\$160	
	Structure's Dismatle Cost																		0.1	3	CY		
	Structure's Transport Cost																						
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY													3	CY	\$105	
	Subtotal																					\$265	
	Footing's Demolition Cost	6" Rod Reinforced (yd3)	\$83.40			\$83.40	/CY	2	3	6											36	/CY	\$3,002
	Footing's Site Factor																						
	Footing's Rein. Factor																						
	Footing's Volume (Dimolished)														36						CF	1.3	
	Footing's Transport Cost																						
	Footing's Disposal Fee	For disposal on site, add	\$6.40			\$6.40	/CY														2	CY	\$13
	Subtotal																					\$3,015	
	Total																					\$19,881	

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTIT	UNIT	COST	
2	Water Tank (B)																						
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF	11	12	8								FT		1056	CF	\$222	
	Structure's Volume (Demolished)																		0.1		4	CY	
	Structure's Transport Cost																						
	Structure's Disposal Cost	Bid. Construction Materials	\$35.00			\$35.00	/CY														4	CY	\$140
	Subtotal																					\$362	
	Equipment's Demolition Cost																						
	Equipment's Dismatle Cost																						
	Equipment's Transport Cost																						
	Equipment's Disposal Cost																						
	Subtotal																						
	Floor's Demolition Cost	Reinforced Concrete Demo	\$0.00			\$0.00	0															\$0	
	Floor's Site Factor																						
	Floor's Rein. Factor																						
	Floor's Volume (Dimolished)																						
	Floor's Transport Cost																						
	Floor's Disposal Fee	Add for disposal, on site	\$6.40			\$6.40	/CY															\$0	
	Subtotal																					\$0	
	Foundation's Demolition Cost																						
	Foundation's Site Factor																						
	Foundation's Rein. Factor																						
	Foundation's Volume (Dimolished)																						
	Foundation's Transport Cost																						
	Foundation's Disposal Cost																						
	Subtotal																						
	Footer's Demolition Cost																						
	Footer's Site Factor																						
	Footer's Rein. Factor																						
	Footer's Volume (Dimolished)																						
	Footer's Transport Cost																						
	Footer's Disposal Cost																						
	Subtotal																						
	Total																					\$362	

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTIT	UNIT	COST		
3	Storage Shed																							
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF	50	25	12											15000	CF	\$3,150	
	Structure's Volume (Demolished)																				0.1	56	CF	
	Structure's Transport Cost																							
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY															56	CY	\$1,960
	Subtotal																						\$5,110	
	Equipment's Demolition Cost																							
	Equipment's Volume																							
	Equipment's Transport Cost																							
	Equipment's Disposal Cost																							
	Subtotal																							
	Floor's Demolition Cost	Reinforced 7" -24"	\$292.00			\$292.00	/CY	1	1	75												3	CY	\$876
	Floor's Site Factor																							
	Floor's Rein. Factor																							
	Floor's Volume (Dimolished)																				1.3	4	CY	
	Floor's Transport Cost																							
	Floor's Disposal Fee	Add for disposal, on site	\$6.40			\$6.40	/CY															4	CY	\$26
	Subtotal																						\$902	
	Concrete Wall's Demolition Cost																							
	Concrete Wall's Site Factor																							
	Concrete Wall's Rein. Factor																							
	Concrete Wall's Volume (Dimolished)																							
	Concrete Wall's Transport Cost																							
	Concrete Wall's Disposal Cost																							
	Subtotal																							
	Footer's Demolition Cost																							
	Footer's Site Factor																							
	Footer's Rein. Factor																							
	Footer's Volume (Dimolished)																							
	Footer's Transport Cost																							
	Footer's Disposal Cost																							
	Subtotal																							
	Total																						\$6,012	

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTIT	UNIT	COST	
4	Slope Stabilization																						
	Structure's Demolition Cost	Chain link, remove only, 8' to	\$2.29			\$2.29	/LF	60										51	FT		3060	FT	\$7,007
	Structure's Volume (Demolished)																						
	Structure's Transport Cost																						
	Structure's Disposal Cost						/CY																
	Subtotal																						\$7,007
	Equipment's Demolition Cost																						
	Equipment's Dismantle Cost																						
	Equipment's Transport Cost																						
	Equipment's Disposal Cost																						
	Subtotal																						
	Floor's Demolition Cost																						
	Floor's Site Factor																						
	Floor's Rein. Factor																						
	Floor's Volume (Diminished)																						
	Floor's Transport Cost																						
	Floor's Disposal Fee																						
	Subtotal																						
	Foundation's Demolition Cost																						
	Foundation's Site Factor																						
	Foundation's Rein. Factor																						
	Foundation's Volume (Diminished)																						
	Foundation's Transport Cost																						
	Foundation's Disposal Cost																						
	Subtotal																						
	Footer's Demolition Cost																						
	Footer's Site Factor																						
	Footer's Rein. Factor																						
	Footer's Volume (Diminished)																						
	Footer's Transport Cost																						
	Footer's Disposal Cost																						
	Subtotal																						
	Total																						\$7,007

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTIT	UNIT	COST	
5	Bath House No. 3 Mine																						
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF	15	18	10									FT	2700	CF	\$567	
	Structure's Volume (Demolished)																		0.35	35	CY		
	Structure's Transport Cost																						
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY														35	CY	\$1,225
	Subtotal																					\$1,792	
	Equipment's Demolition Cost																						
	Equipment's Dismantle Cost																						
	Equipment's Transport Cost																						
	Equipment's Disposal Cost																						
	Subtotal																						
	Floor's Demolition Cost	6" Rod Reinforced (yd3)	\$83.40			\$83.40	/CY	15	18	0.5									FT	5	CF	\$417	
	Floor's Site Factor																						
	Floor's Rein. Factor																						
	Floor's Volume (Diminished)																		1.3	7	CY		
	Floor's Transport Cost																				7	CY	
	Floor's Disposal Fee	Add for disposal, on site	\$6.40			\$6.40	/CY														7	CY	\$45
	Subtotal																					\$462	
	Bath House No. 3 Mine																						
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF	75	25	20									FT	37500	CF	\$7,875	
	Structure's Volume (Demolished)																		0.35	486	CY		
	Structure's Transport Cost																						
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY														486	CY	\$17,010
	Subtotal																					\$24,885	
	Floor's Demolition Cost	6" Rod Reinforced (yd3)	\$83.40			\$83.40	/CY	75	25	0.5									FT	35	CF	\$2,919	
	Floor's Site Factor																						
	Floor's Rein. Factor																						
	Floor's Volume (Diminished)																		1.3	46	CY		
	Floor's Transport Cost																				46	CY	
	Floor's Disposal Fee	For disposal on site, add	\$6.40			\$6.40	/CY														46	CY	\$294
	Subtotal																					\$3,213	
	Total																					\$30,362	

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTIT	UNIT	COST		
5	BathB																							
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF	90	6.5	10											5850	CF	\$1,229	
	Structure's Volume (Demolished)																			0.35	76	CF		
	Structure's Transport Cost																							
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY														76	CY	\$2,660	
	Subtotal																						\$3,889	
	Equipment's Demolition Cost																							
	Equipment's Volume																							
	Equipment's Transport Cost																							
	Equipment's Disposal Cost																							
	Subtotal																							
	Floor's Demolition Cost	6" Rod Reinforced (yd3)	\$83.40			\$83.40	/CY	90	6.5	0.5														
	Floor's Site Factor																							
	Floor's Rein. Factor																							
	Floor's Volume (Dimolished)																				1.3	14	CY	
	Floor's Transport Cost																							
	Floor's Disposal Fee	Add for disposal, on site	\$6.40			\$6.40	/CY															14	CY	\$90
	Subtotal																						\$1,007	
	Masonry Foundation																							
	Masonry Found.'s Demolition Cost	6" Rod Reinforced (yd3)	\$83.40			\$83.40	/CY	90	6	0.75														
	Masonry Found.'s Site Factor																							
	Masonry Found.'s Rein. Factor																							
	Masonry Found.'s Volume (Dimolished)																					1.3	20	CY
	Masonry Found.'s Transport Cost																							
	Masonry Found.'s Disposal Cost	For disposal on site, add	\$6.40			\$6.40	/CY															20	CY	\$128
	Subtotal																						\$1,376	
	Footer's Demolition Cost																							
	Footer's Site Factor																							
	Footer's Rein. Factor																							
	Footer's Volume (Dimolished)																							
	Footer's Transport Cost																							
	Footer's Disposal Cost																							
	Subtotal																							
	Subtotal																						\$6,275	

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTIT	UNIT	COST			
5	BathC																								
	Structure's Demolition Cost	Steel	\$0.21			\$0.21	/CF	65	10	10											6500	CF	\$1,365		
	Structure's Volume (Dimolished)																			0.35	84	CF			
	Structure's Transport Cost																								
	Structure's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY														84	CY	\$2,940		
	Subtotal																						\$4,305		
	Hand Rail's Demolition Cost	Chain link, remove only, 8' to	\$2.29			\$2.29	/LF	120														120	CF	\$275	
	Hand Rail's Volume																								
	Hand Rail's Transport Cost																								
	Hand Rail's Disposal Cost		0	\$0.00		\$0.00	0																		
	Subtotal																						\$275		
	Floor's Demolition Cost	6" Rod Reinforced (yd3)	\$83.40			\$83.40	/CY	65	10	0.5												12	CY	\$1,001	
	Floor's Site Factor																								
	Floor's Rein. Factor																								
	Floor's Volume (Dimolished)																				1.3	16	CY		
	Floor's Transport Cost																								
	Floor's Disposal Fee	Add for disposal, on site	\$6.40			\$6.40	/CY															16	CY	\$102	
	Subtotal																						\$1,103		
	Sidewalk																								
	Sidewalk's Demolition Cost	6" Rod Reinforced (yd3)	\$83.40			\$83.40	/CY	3	55	0.33												2	CY	\$167	
	Sidewalk's Site Factor																								
	Sidewalk's Rein. Factor																								
	Sidewalk's Volume (Dimolished)																					1.3	3	CY	
	Sidewalk's Transport Cost																								
	Sidewalk's Disposal Cost	For disposal site, add	\$6.40			\$6.40	/CY															3	CY	\$19	
	Subtotal																						\$186		
	Footer's Demolition Cost																								
	Footer's Site Factor																								
	Footer's Rein. Factor																								
	Footer's Volume (Dimolished)																								
	Footer's Transport Cost																								
	Footer's Disposal Cost																								
	Subtotal																								
	Total																						\$5,869		

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGH	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUM	WEIGH	#	UNIT	SWELL FACTO	QUANTIT	UNIT	COST
5	BathD																					
	Metal Stair's Demolition Cost	Steel	\$0.21			\$0.21	/CF	120	4	2								FT		960	CF	\$202
	Metal Stair's Volume (Dimolished)																		0.35	12	CY	
	Metal Stair's Transport Cost																					
	Metal Stair's Disposal Cost	For disposal on site, add	\$6.40			\$6.40	/CY													12	CY	\$77
	Subtotal																					\$279
	Metal Post Total of 34																					
	Equipment's Demolition Cost	Guide posts, remove only	\$15.65			\$15.65	Ea											10	FT	10	EA	\$157
	Equipment's Dismatle Cost																					
	Equipment's Transport Cost																					
	Equipment's Disposal Cost																					
	Subtotal																					\$157
	Floor's Demolition Cost	6" Rod Reinforced (yd3)	\$83.40			\$83.40	/CY	30	50	0.5								FT		28	CY	\$2,335
	Floor's Site Factor																					
	Floor's Rein. Factor																					
	Floor's Volume (Dimolished)																		1.3	36	CY	
	Floor's Transport Cost																					
	Floor's Disposal Fee	Add for disposal, on site	\$6.40			\$6.40	/CY													36	CY	\$230
	Subtotal																					\$2,566
	Retaining Wall Timber																					
	Retaining Wall's Demolition Cost	8" thick	\$1.75			\$1.75	/SF	90	6	0.33								FT		540	SF	\$945
	Retaining Wall's Site Factor																					
	Retaining Wall's Rein. Factor																					
	Retaining Wall's Volume (Dimolished)																		1.3	9	CY	
	Retaining Wall's Transport Cost																					
	Retaining Wall's Disposal Cost	For disposal on site, add	\$6.40			\$6.40	/CY													9	CY	\$58
	Subtotal																					\$1,003
	Footer's Demolition Cost	Reinforced 7" -24"	\$292.00			\$292.00	/CY	2	3	5								FT		1	CY	\$292
	Footer's Site Factor																					
	Footer's Rein. Factor																					
	Footer's Volume (Dimolished)																		1.3	1	CY	
	Footer's Transport Cost																					
	Footer's Disposal Cost	For disposal on site, add	\$6.40			\$6.40	/CY													1	CY	\$6
	Subtotal																					\$298
	Total																					\$4,302

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGHT	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUME	WEIGHT	#	UNIT	SWELL FACTOR	QUANTIT	UNIT	COST	
5	BathE	Steel	\$0.21			\$0.21	/CF	4	75	1								FT		300	CF	\$63	
	Metal Stair's Demolition Cost																						
	Metal Stair's Volume (Demolished)																		1.3	14	CY		
	Metal Stair's Transport Cost																						
	Metal Stair's Disposal Cost	For disposal on site, add	\$6.40			\$6.40	/CY													14	CY	\$90	
	Subtotal																					\$153	
	Equipment's Demolition Cost																						
	Equipment's Dismatle Cost																						
	Equipment's Transport Cost																						
	Equipment's Disposal Cost																						
	Subtotal																						
	Floor's Demolition Cost	Reinforced 7" -24"	\$292.00			\$292.00	/CY	4	10	2								3 FT		9	CY	\$2,628	
	Floor's Site Factor																						
	Floor's Rein. Factor																						
	Floor's Volume (Dimolished)																		1.3	12	CY		
	Floor's Transport Cost																						
	Floor's Disposal Fee	For disposal on site, add	\$6.40			\$6.40	/CY													12	CY	\$77	
	Subtotal																					\$2,705	
	Foundation's Demolition Cost	Reinforced 7" -24"	\$292.00			\$292.00	/CY	4	10	2											3	CY	\$876
	Foundation's Site Factor																						
	Foundation's Rein. Factor																						
	Foundation's Volume (Dimolished)																		1.3	4	CY		
	Foundation's Transport Cost																						
	Foundation's Disposal Cost	Add for disposal, on site	\$6.40			\$6.40	/CY													4	CY	\$26	
	Subtotal																					\$902	
	Footer's Demolition Cost																						
	Footer's Site Factor																						
	Footer's Rein. Factor																						
	Footer's Volume (Dimolished)																						
	Footer's Transport Cost																						
	Footer's Disposal Cost																						
	Subtotal																						
	Total																					\$3,766	

MAP REF.	DESCRIPTION	MATERIALS	UNIT COST	INFL-ATIO RATE	# YR	ADJUSTE COST	UNIT	LENGHT	WIDTH	HEIGHT	TIME	PERIM.	DIA.	AREA	VOLUME	WEIGHT	#	UNIT	SWELL FACTOR	QUANTIT	UNIT	COST	
6	No. 3 Mine Portal																						
	Steel Building's Demolition Cost	Steel	\$0.21			\$0.21	/CF	28	65	7							1	FT		12740	CF	\$2,675	
	Steel Building's Volume (Demolished)																		0.05	24	CY		
	Steel Building's Transport Cost																						
	Steel Building's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY														24	CY	\$840
	Subtotal																					\$3,515	
	Steel Bridge																						
	Bridge's Demolition Cost	Concrete	\$0.30			\$0.30	/CF	25	30	5							1	FT		3750	CF	\$1,125	
	Bridge's Dismatle Cost																		0.05	7	CY		
	Bridge's Transport Cost																						
	Bridge's Disposal Cost	Bld. Construction Materials	\$35.00			\$35.00	/CY														7	CY	\$245
	Subtotal																					\$1,370	
	Masonry Bld.																						
	Bld.'s Demolition Cost	Masonry	\$0.23			\$0.23	/CF	25	30	5							1	FT		3750	CF	\$863	
	Bld.'s Dismatle Cost																		0.35	49	CY		
	Bld.'s Transport Cost																						
	Bld.'s Disposal Cost	For disposal site, add	\$6.40			\$6.40	/CY														49	CY	\$314
	Subtotal																					\$1,177	
	Footing																						
	Footing's Demolition Cost	Reinforced 7" -24"	\$292.00			\$292.00	/CY	52	1	0.75							1	FT		39	CF	\$11,388	
	Footing's Dismatle Cost																		1.3	2	CY		
	Footing's Transport Cost																						
	Footing's Disposal Cost	For disposal site, add	\$6.40			\$6.40	/CY														2	CY	\$13
	Subtotal																					\$11,401	
	Footer's Demolition Cost																						
	Footer's Site Factor																						
	Footer's Rein. Factor																						
	Footer's Volume (Dimolished)																						
	Footer's Transport Cost																						
	Footer's Disposal Cost																						
	Subtotal																						
	Total																					\$17,463	

	Eq.	Hours	Hourly	Hourly	Eq. &	Oper.	Number	Total		Non-Eq. +	Non-Eq. +		Escal.	# of	Escalated				Production		Equip. +		
	Costs	Rental	Eq.	Oper.	Mat.	Hourly	of Men	Eq. & Lab.	Units	Lab. Base	Lab. Base	Units	Factor	Years	Equip. Labor	Units	Quantity	Units	Rate	Units	Time/Dis.	Units	Cost
	Costs	Period	Costs	Costs	O.H.	Rate	or Eq.	Costs		Cost	Cost + O&			Escal.	Material Cost								
BELINA EXCAVATION & GRADIN																							
235D	\$14,010	176	\$79.60	\$30.50	10.00%	\$38.70	1	\$159.81	/HR				2.01%	0	\$159.81	/HR	317500	CY	415	CY/HR	765	HR	\$122,255
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	317500	CY	415	CY/HR	765	HR	\$11,842
769C	\$9,350	176	\$53.13	\$30.75	10.00%	\$31.50	3	\$371.30	/HR				2.01%	0	\$371.30	/HR	317500	CY	474	CY/HR	765	HR	\$284,045
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	317500	CY	474	CY/HR	765	HR	\$11,842
D8N U Blade	\$11,025	176	\$62.64	\$28.90	10.00%	\$38.70	1	\$139.39	/HR				2.01%	0	\$139.39	/HR							\$106,633
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR							\$11,842
Subtotal																							\$548,459
RELOCATE AND SPREAD VEGE SUPPORTING MATERIAL (VSM)																							
Relocate VSM																							
235D	\$14,010	176	\$79.60	\$30.50	10.00%	\$38.70	1	\$159.81	/HR				2.01%	0	\$159.81	/HR	2622	CY	415	CY/HR	6	HR	\$959
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	2622	CY	415	CY/HR	6	HR	\$93
769C	\$9,350	176	\$53.13	\$30.75	10.00%	\$31.50	3	\$371.30	/HR				2.01%	0	\$371.30	/HR	2622	CY	474	CY/HR	6	HR	\$2,228
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	2622	CY	474	CY/HR	6	HR	\$93
D8N U Blade	\$11,025	176	\$62.64	\$28.90	10.00%	\$38.70	1	\$139.39	/HR				2.01%	0	\$139.39	/HR							\$836
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR							\$93
Spread VSM over Site																							
235D	\$14,010	176	\$79.60	\$30.50	10.00%	\$38.70	1	\$159.81	/HR				2.01%	0	\$159.81	/HR	15134	CY	415	CY/HR	36	HR	\$5,753
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	15134	CY	415	CY/HR	36	HR	\$557
769C	\$9,350	176	\$53.13	\$30.75	10.00%	\$31.50	3	\$371.30	/HR				2.01%	0	\$371.30	/HR	15134	CY	474	CY/HR	36	HR	\$13,367
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	15134	CY	474	CY/HR	36	HR	\$557
D8N U Blade	\$11,025	176	\$62.64	\$28.90	10.00%	\$38.70	1	\$139.39	/HR				2.01%	0	\$139.39	/HR							\$5,018
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR							\$557
Subtotal																							\$30,111
REGRADE DITCH VDD-4 & VDD-75 H.P., 50' haul, Sand & Gravel																							
								\$1.80	/CY				2.01%	0	\$1.80	/CY	324	LCY					\$583
Subtotal																							\$583
BELINA HAUL ROAD ROCK LIFT																							
235D	\$14,010	176	\$79.60	\$30.50	10.00%	\$38.70	1	\$159.81	/HR				2.01%	0	\$159.81	/HR	6000	CY	288	CY/HR	29	HR	\$4,634
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	6000	CY	288	CY/HR	29	HR	\$449
769C	\$9,350	176	\$53.13	\$30.75	10.00%	\$31.50	3	\$371.30	/HR				2.01%	0	\$371.30	/HR	6000	CY	207	CY/HR	29	HR	\$10,768
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	6000	CY	207	CY/HR	29	HR	\$449
Subtotal																							\$16,300
BELINA HAUL ROAD EARTHWO																							
Excavator Pulls Up Existing Fill On The Outside Of The Road																							
235D	\$14,010	176	\$79.60	\$30.50	10.00%	\$38.70	1	\$159.81	/HR				2.01%	0	\$159.81	/HR	55188	CY	236	CY/HR	234	HR	\$37,396
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	55188	CY	236	CY/HR	234	HR	\$3,622
Excavator loads trucks from Belina Upper Fill, big Fill, Eccles Junction hauling and dumping along side th																							
235D	\$14,010	176	\$79.60	\$30.50	10.00%	\$38.70	1	\$159.81	/HR				2.01%	0	\$159.81	/HR	55187	CY	415	CY/HR	133	HR	\$21,255
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	55187	CY	415	CY/HR	133	HR	\$2,059
769C	\$9,350	176	\$53.13	\$30.75	10.00%	\$31.50	3	\$371.30	/HR				2.01%	0	\$371.30	/HR	55187	CY	476	CY/HR	133	HR	\$49,383
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	55187	CY	476	CY/HR	133	HR	\$2,059
Cat 235D	\$14,010	176	\$79.60	\$30.50	10.00%	\$38.70	1	\$159.81	/HR				2.01%	0	\$159.81	/HR	12500	CY	415	CY/HR	30	HR	\$4,794
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	12500	CY	415	CY/HR	30	HR	\$464
769C	\$9,350	176	\$53.13	\$30.75	10.00%	\$31.50	3	\$371.30	/HR				2.01%	0	\$371.30	/HR	12500	CY	476	CY/HR	30	HR	\$11,139
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	12500	CY	476	CY/HR	30	HR	\$464
Subtotal																							\$132,635
VALCAM EARTHWORK																							
Belina Excavation and Grading																							
235D	\$14,010	176	\$79.60	\$30.50	10.00%	\$38.70	1	\$159.81	/HR				2.01%	0	\$159.81	/HR	116625	CY	415	CY/HR	281	HR	\$44,907
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	116625	CY	415	CY/HR	281	HR	\$4,350
769C	\$9,350	176	\$53.13	\$30.75	10.00%	\$31.50	3	\$371.30	/HR				2.01%	0	\$371.30	/HR	116625	CY	476	CY/HR	281	HR	\$104,335
Common Building Laborers						\$30.95	0.5	\$15.48	/HR				2.01%	0	\$15.48	/HR	116625	CY	476	CY/HR	281	HR	\$4,350

