

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**

3760 KILROY AIRPORT WAY, SUITE 200, LONG BEACH, CALIFORNIA 90806 – TEL. (562) 247-7777 • FAX (562) 247-7090

January 13, 2020

**To:** Parties listed on Exhibit A

**Subject:** Notice of Mutual Agreement No. 2020-1 - Request for Approval under Amended and Restated Alameda Corridor Use and Operating Agreement

**Matter:** Alameda Corridor Proposed Calendar Year 2020 Maintenance of Way and Operations & Maintenance Budgets

Dear Sir or Madam:

Reference is made to that certain Amended and Restated Alameda Corridor Use and Operating Agreement dated as of December 15, 2016 (the "Agreement"), by and among the BNSF Railway Company (BNSF), Union Pacific Railroad Company (UP), the City of Los Angeles, acting by and through its Board of Harbor Commissioners (POLA), the City of Long Beach, acting by and through its Board of Harbor Commissioners (POLB), and the Alameda Corridor Transportation Authority (ACTA).

The Agreement governs the use and operation of the Alameda Corridor and, among other things, contains provisions which require certain decisions to be made from time to time by either Mutual Agreement (as defined in the Agreement) or unanimous consent/approval. In particular, Mutual Agreement requires the approval from at least three of the following parties: BNSF, UP, POLB, and POLA, and unanimous consent/approval requires the approval of each of the same four entities. Pursuant to the terms of the Agreement, ACTA as an entity does not approve or disapprove Mutual Agreement matters.

Attached as Exhibit B is Notice of Mutual Agreement (NMA) No. 2020-1, for which approval by the requisite parties is requested at this time. The matter to be approved is described in the attached NMA (the "Matter"). Following consideration of the Matter, please email to ACTA a signed copy of the attached NMA (or, if such Matter is not approved by your entity, a written statement indicating such disapproval), no later than March 4, 2020. Once all responses are received, ACTA will send a letter to the four entities with the results.

If there are any questions, please advise.

Sincerely,

James P. Preusch  
Interim Chief Executive Officer

**EXHIBIT A**  
**LIST OF PARTIES**

Port of Los Angeles  
425 South Palos Verdes Street  
San Pedro, California 90733  
Attn: Executive Director  
Email: gene\_seroka@portla.org

Port of Long Beach  
415 W. Ocean Blvd., 11th Floor  
Long Beach, CA 90802  
Attn: Executive Director  
Email: mario.cordero@polb.com

BNSF Railway Company  
2500 Lou Menk Drive  
AOG -Garden Level  
Fort Worth, Texas 76131  
Attn: Assistant Vice President - Contracts  
& Joint Facilities  
Email: sarah.bailiff@bnsf.com

Union Pacific Railroad Company  
1400 Douglas Street -Stop 1160  
Omaha, Nebraska 68179  
Attn: Executive Vice President of  
Operations  
Email: jointfacilitycontracts@up.com

Cc:

Email: Brian.Aman@bnsf.com  
Email: Katherine.Sieversen@bnsf.com  
Email: melissagrosz@UP.com  
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Email: Lauren.Misajon@longbeach.gov  
Email: David.Albers@longbeach.gov  
Email: duane.kenagy@polb.com

**EXHIBIT B**

**NOTICE OF MUTUAL AGREEMENT**

**Number: 2020-1**

**Subject: Approval Request for the Alameda Corridor Proposed Calendar Year 2020 Maintenance of Way and Operations & Maintenance Budgets**

**Recommendation:**

1. Approve 2020 Special Capital Items in the amount of \$5,498,578 that will be charged to the Reserve Account and included in the proposed 2020 Maintenance of Way (MOW) Budget.
2. Approve the proposed 2020 MOW Budget in the amount of \$13,351,819.
3. Approve the overall proposed 2020 Operations and Maintenance (O&M) Budget in the amount of \$18,836,841, containing the MOW Budget, other estimated annual O&M expenses, and a \$300,000 contingency.
4. Authorize \_\_\_\_\_

\_\_\_\_\_  
[insert job title(s) or group/division name at Port or Railroad] with delegated authority to provide written approval of the allocation and use of the contingency fund and to provide written approval of the transfer of amounts from one MOW Budget line item to another as needed to accomplish work. Written approval can be in the form of an email affirming its approval.

**Discussion:**

Section 2.5(b) of the Amended and Restated Use and Operating Agreement, dated as of December 15, 2016, (the "Agreement") requires that the Ports and Railroads through Mutual Agreement approve an Annual Maintenance and Capital Improvement Plan and Budget prior to January 1 of each year. Pending approval of the 2020 MOW Budget, as provided in Section 5.2 of the Agreement, the 2019 MOW Budget has been rolled forward for the first 90 days of 2020. The Plan and Budget for 2020 are comprised of two documents.

The first is the Maintenance of Way (MOW) Budget as prepared by the Maintenance Contractor, which includes the projected maintenance and capital costs to be incurred by the Contractor for the coming year. The second is the overall Operations and Maintenance (O&M) Budget, which incorporates the MOW Budget, as well as other estimated O&M expenses, including but not limited to insurance, dispatching, security, utilities, and support costs. Attached for approval is the detail for both budgets for calendar year 2020.

The proposed 2020 MOW Budget was originally prepared in draft form by the Maintenance Contractor and submitted for review by the Railroads, the Ports, and ACTA. A meeting among the staffs of the Railroads, Ports and ACTA was held on November 5, 2019 to review and modify as necessary the draft budget. Discussions during and after that meeting resulted in the attached MOW and O&M Budgets submitted for approval. Major items reviewed included allocation of costs between the Rail and Non-Rail maintenance categories, Capital Expenses made in accordance with the approved definition of Capital Expenses, and proposed Contractor staffing levels. The O&M Budget includes a \$300,000 contingency to be allocated as necessary during the year for unbudgeted, under-budgeted, or unplanned emergency work.

Attachment 1 contains a description of the special 2020 capital expenditures included in the MOW Budget. Attachment 2 is the proposed 2020 MOW Budget spreadsheet and related detail. Attachment 3 is the proposed 2020 O&M Budget spreadsheet. It is recommended that each of these items be approved.

*Summary Comparison - 2020 vs. 2019 MOW and O&M Budgets*

*MOW Budget*

The proposed 2020 MOW Budget of \$13,351,819 is 53.4% higher than the 2019 Amended MOW Budget and 73.2% higher than the original 2019 MOW Budget, primarily due to increased labor rates, additional labor positions, and additional maintenance and capital replacement activity. The funding of the proposed 2020 MOW Budget is split between ACTA fee revenue (about 60%) and payment by the Railroads (about 40%).

The proposed 2020 MOW Budget is divided into three categories: labor positions, operations maintenance, and capital work. The labor category is up 43.2% over the Amended 2019 MOW Budget and 73.2% over the original 2019 MOW Budget, due to an approximate average annual salary increases of 5.2% for non-management positions (by union contract), an approximate average of 2% for management positions, and increased number of personnel. The operations maintenance category is up 21.9% from the 2019 Amended MOW Budget and up 37.9% over the original 2019 MOW Budget, primarily due to increased signal and communications unit rate costs and rail grinding costs.

The capital costs category is up 89.7% over the Amended 2019 MOW Budget. Capital work can vary dramatically from year to year due to replacement needs. See Attachment 1 for 2020 Special Capital Items. The 2020 Capital Costs increase is primarily due to rail, switch and tie replacement as well as additional rail grinding.

<b>MOW Budget Summary</b> <i>(in millions of dollars)</i>			
<b>MOW Budget</b>	<b>Proposed 2020</b>	<b>Amended 2019</b>	<b>% Change</b>
A. Labor	\$3.546	\$2.476	43.2%
B. Operations Maintenance	3.622	2.970	21.9%
C. Capital Costs	6.184	3.260	89.7%
Total MOW	\$13.352	\$8.706	53.4%

*O&M Budget*

The proposed 2020 O&M Budget of \$18,836,841, is the sum of the proposed 2020 MOW Budget of \$13,351,819, a \$300,000 contingency, and \$5,185,023 in other costs. These other costs are about 5% above those in the Amended 2019 O&M Budget. Only about 3% of these other costs is paid from ACTA fee revenue (Reserve Account), and about 97% is paid by the Railroads either directly or from deposits made to ACTA known as M&O charges. The proposed 2020 O&M Budget is 36.0% above the 2019 Amended O&M Budget. Primarily due to the proposed 2020 MOW Budget increase described previously.

<b>O&amp;M Budget Summary</b> <i>(in millions of dollars)</i>			
<b>O&amp;M Budget</b>	<b>Proposed 2020</b>	<b>Amended 2019</b>	<b>% Change</b>
I. MOW Contractor <sup>(1)</sup>	\$7.168	\$5.446	31.6%
II. Capital Costs <sup>(2)</sup>	6.184	3.260	89.7%
Contingency	0.300	0.300	0.0%
III. Operating & Other	5.185	4.840	7.1%
Total O&M	\$18.837	\$13.846	36.0%

<sup>(1)</sup> A+B from MOW Budget

<sup>(2)</sup> C from MOW Budget

**Items of Note:**

1. The proposed 2020 MOW Budget is prepared before the close of the previously approved Amended 2019 MOW Budget, and is based on estimates of where ongoing 2019 work will stand at year's end. Therefore, to the extent that certain 2019 work is not completed to the anticipated level, costs for that work will carry over into 2020 impacting the net 2020 expenditures.

2. Decisions regarding the use of the contingency fund were previously approved by the former Alameda Corridor Operating Committee. Because the Operating Committee no longer exists, delegation is sought pursuant to the aforementioned Recommendation No. 4 for a designated individual or designated individuals within each entity to be given authority to approve the allocation and use of contingency funds as needed for the MOW Budget, including unfunded and underfunded work. Further delegation is sought for such designated individual(s) to have authority to approve the shift of amounts from one MOW Budget line item to another as needed, provided that the total MOW Budget (which is the MOW contract value) plus the \$300,000 contingency is not exceeded. Such delegated authority will provide additional budgetary flexibility and efficiency as to not hold up necessary operations work pending Board approval any time an individual estimated line item may be exceeded. Approvals from the designees of at least three of the four parties (BNSF, UP, POLB, and POLA) are required in advance to authorize the allocation and use of contingency funds and the transfer of MOW Budget line items from one line item to another. Note that such delegation was similarly approved for the Amended 2019 MOW and O&M Budgets.

### 3. Budget Flexibility

- Flexibility between line items shall remain within the same category: Labor, OE, or Capital unless otherwise authorized by at least 75% of the delegates.
- Any anticipated overrun in the approved budget for a particular category shall be communicated by RailWorks and shall be authorized by at least 75% of the delegates named in Recommendation 4 of this NMA 2020-1 in advance of any overrun or transfer of budget funds.

In summary, the budget is comprised of 3 sections: labor, OE, and capital. Flexibility between line items must remain within the same section. Finally, if there is an anticipated overrun in any of the three sections, there shall be a written communication by RailWorks to ACTA and a written approval by 75% of the delegates prior to incurring the cost. It is important to allow ACTA the flexibility to administer the RailWorks budget and the intent of these guidelines is to provide that flexibility, while protecting the Railroads and Ports from unexpected budget creep.

### 4. Reporting (Section 13.2 of the Alameda Corridor Maintenance Agreement)

- RailWorks shall generate a quarterly report for budget status and projection
- RailWorks shall develop a rolling 5-year plan for maintenance programs and capital
- RailWorks shall develop a detailed report to support the manpower requirements for the annual budget

**Please provide your acceptance and approval by affixing your signature, name and title below:**

**Port of Los Angeles**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Port of Long Beach**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**BNSF Railway Company**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Union Pacific Railroad Company**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachments:**

- 1 – 2020 Special Capital Items
- 2 – Proposed 2020 MOW Budget and Detail
- 3 – Proposed 2020 O&M Budget



## Attachment 1

### 2020 Special Capital Items

For 2020, the following Special Capital Items totaling \$5,498,578 are budgeted within the \$6,184,281 of Capital Costs, all of which will be charged to the Reserve Account.

#### **1. Rail Grinding, Item 3.f. - \$326,840**

Past rail grinding had been accomplished intermittently using Loram as a subcontractor. This grinding which extends rail life has not previously included switches (approximately 125 in total) and is long overdue. Also, the track grinding (65 miles of track) has been accomplished at relatively high speeds with the Loram equipment. In 2020, it is proposed to grind all the switches and the mainline rail over a more extended period to optimize remaining useful life.

#### **2. Replace 20 Frogs Item 3.h-2 - \$798,761**

There are approximately 125 switches on the Corridor. In 2020, 20 frogs will be replaced.

#### **3. Replace 40 Switch Point and Stock Rail Combinations Item 3.h-3 - \$674,547**

There are approximately 125 switches on the Corridor. In 2020, switch points and stock rail will be replaced at 20 locations.

#### **4. Install Concrete Switch Ties Item 3.h-4. - \$1,120,935**

There are approximately 125 switches on the Corridor. In 2020, 240 concrete switch ties will be replaced

#### **5. Pump Station Upgrades, Item 3.o. - \$213,500**

Maintenance of both pump stations in the trench over the past several years has included phased repair and/or replacement of various components. Each location has 11 pumps: 4 large, 3 medium, and 4 small. Beginning in 2018, in addition to routine maintenance of all pump station components, one large and one medium pump at each location will receive major overhaul or replacement each year.

#### **6. Trench Emergency Ladder Repairs, Item 3.r. - \$129,000**

The 47 trench emergency ladders have and will continue to undergo upgrades to ensure they are in working order. This 2020 amount of \$58,500 is the remaining balance of the \$540,000 originally approved in 2014.

#### **7. Rehab Henry Ford Crossing at CP Dominguez, Item 3.w. - \$415,398**

The single track curved crossing at Pier A Way on the north end of the Henry Ford Viaduct is about 240 feet long and needs replacement due to settlement and deterioration of the underlying wood ties. It is planned to replace the entire crossing with new rail, concrete ties, and new concrete crossing panels. Old panels, which can be salvaged, will be placed in inventory for use at other

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wood tie crossing locations. This work was deferred from 2019, and individual panels will be installed to replace damaged ones in the interim. If required, this work will require permits for closure and detours and must be coordinated with SR-47 consultant.

**8. Replace Signal Batteries, Item 3.y. - \$55,000**

There are approximately 30 signal houses on the Corridor, each containing an average of 30 batteries. The plan for 2020 is to replace about 90 of the 900 batteries. A ten-year plan is in place to incrementally replace all batteries.

**9. Curved Rail Replacement Item 3.gg-3 - \$954,797**

Rail on curves wears faster than rail in straight track, and must be replaced after excessive wear. Approximately 12,000 feet of curves will be replaced, which is about double that budget in recent years.

**10. Fixed Trench Ladders Item 3.ii. - \$420,000**

A prototype fixed stairway was fabricated and installed in 2019 as adjunct emergency egress from the trench. The 47 drop ladders will remain in place. An additional 4 stairways are anticipated to be completed in 2019. An additional 4 will be installed in 2020 between Randolph St. in Vernon and Myrrh St. in Compton. A different design is needed north of Randolph St. due to closer strut spacing, which may necessitate one or two additional fixed stairways.

**11. Compton Creek Bridge Timber Replacement Item 3.nn. - \$183,750**

The three-track open deck, through-girder bridge needs to have the bridge timbers replaced systematically over a 3-year period, replacing one track each year beginning in 2020.

**12. M23A Switch Machines Item 3.oo - \$41,800**

Two machines will be purchased in 2020.

**13. Signal Module Replacements, Item 3.pp. - \$132,000**

There are about 30 control points on the Corridor. It is proposed to replace modules at 5 locations per year over a six-year period. The existing modules are nearly 20 years old, which is near the end of their expected useful life, and the original manufacturer (GE) will stop servicing these modules. Those pulled from service will be use as spares in the event of failures.

**14. Repeater Antennae at Redondo, Item 3.pp.2 - \$32,250**

Radio communications required for operations involving both on-track maintenance vehicles and locomotives are compromised at the north end of the Corridor and can be improved with the installation of repeater antennae in the vicinity of the 25th St. Bridge.

## Alameda Corridor - Draft 2020 Maintenance of Way (MOW) Budget

A. LABOR	Positions	Needed Perbon	EST Hours	2020 Hourly RATE	OT RATE	OT VALUE	DT RATE	DT VALUE	DT** VALUE	R.R. M & O			Reserve Account			2019 Amended			
										Share	Cost	Hours	Share	Cost	Hours	Share	Cost	Hours	Share
<b>MANAGEMENT POSITIONS</b>																			
1.a.i	Contract Manager	1	2000	\$ 152.18	N/A	N/A	N/A	N/A	\$ 304,352	70.0%	\$ 213,046	1,400	25.0%	\$ 76,088	500	5.0%	\$ 15,218	100	\$ 310,149
1.a.ii	Contract Supervisor	1	2000	\$ 120.14	N/A	N/A	N/A	N/A	240,278	75.0%	180,208	1,500	25.0%	47,530	500	0.0%	-	-	177,638
1.a.iii	Safety Supervisor	1	2000	\$ 120.14	N/A	N/A	N/A	N/A	240,278	20.0%	48,056	400	80.0%	192,222	1,600	0.0%	-	-	180,453
1.a.iv	Office Manager	1	2000	\$ 56.06	N/A	N/A	N/A	N/A	112,130	70.0%	78,481	1,400	25.0%	28,032	500	0.0%	-	-	120,510
1.a.v	Bridge Supervisor	1	See 2.d.d below						-	0.0%	-	-	0.0%	-	-	0.0%	-	-	25,096
<b>STAFF POSITIONS</b>																			
1.b	Track Inspector	1	2000	\$ 88.65	\$ 119.25	\$ 9,182.27	\$ 149.85	\$ 3,596.38	\$ 190,081	75.0%	142,561	1,500	25.0%	47,520	500	0.0%	-	-	176,044
1.b.i	Track Foreman	1	2000	\$ 88.65	\$ 119.25	\$ 9,182.27	\$ 149.85	\$ 3,596.38	190,081	75.0%	142,561	1,500	25.0%	47,520	500	0.0%	-	-	176,044
1.b.ii	Assistant Foreman	1	2000	\$ 87.15	\$ 117.00	\$ 9,009.86	\$ 146.85	\$ 3,524.31	186,833	75.0%	140,125	1,500	25.0%	46,708	500	0.0%	-	-	171,833
1.b.iii	Track Laborers	5	2000	\$ 109.74	\$ 147.99	\$ 11,376.01	\$ 134.84	\$ 16,180.21	859,189	75.0%	644,392	4,750	25.0%	141,897	1,250	0.0%	-	-	442,190
1.b.iv	Equipment Operators	1	2000	\$ 109.74	\$ 147.99	\$ 11,376.01	\$ 134.84	\$ 16,180.21	235,335	75.0%	176,501	1,500	25.0%	46,708	500	0.0%	-	-	188,209
1.b.v	Welder	2	2000	\$ 89.95	\$ 114.75	\$ 17,670.89	\$ 143.84	\$ 6,504.49	371,169	100.0%	371,169	2,000	0.0%	-	-	0.0%	-	-	159,110
1.b.vi	Welder Helper	1	2000	\$ 81.14	\$ 107.89	\$ 6,124.40	\$ 134.84	\$ 3,138.04	173,840	100.0%	173,840	2,000	0.0%	-	-	0.0%	-	-	152,183
1.b.vii	Laborer (Grain/Pump Station)	1	2000	\$ 122.18	\$ 166.55	\$ 12,724.41	\$ 210.93	\$ 5,092.21	262,239	0.0%	-	-	100.0%	262,239	2,000	0.0%	-	-	148,740
1.b.viii	Bridge Superintendent	1	See 2.d.d below						-	20.0%	-	-	80.0%	-	-	0.0%	-	-	8,392
<b>SUBTOTAL A:</b>																			
										\$ 3,543,653	\$ 2,314,450	16,200	\$ 1,210,373	9,600	\$ 47,520	200	\$ 20,834	200	\$ 2,475,424
										\$ 2,475,424	\$ 1,696,860	20,237	\$ 1,696,860	8,650	\$ 575,908	210	\$ 821,536	210	\$ 2,475,424
										\$ 1,070,230	\$ 617,477		\$ 453,465		\$ 171,467		\$ (712)		\$ -
										\$ 43.2%	\$ 36.4%		\$ 59.9%		\$ -3.3%		\$ -		\$ -

\* OT Value Based on Working 80 hours of OT During Calendar Year = 3.85% of Base Hours  
 \*\*DT Value Based on Working 24 Hours of DT During Year = 1.2% of Base Hours

B. OPERATIONS MAINTENANCE	Positions	Needed Perbon	EST Hours	2020 Hourly RATE	OT RATE	OT VALUE	DT RATE	DT VALUE	DT** VALUE	R.R. M&O - Rail			Res. Acct. Non-Rail			ACTA Operating Budget			
										Share	Cost	Hours	Share	Cost	Hours	Share	Cost	Hours	Share
<b>Administrative Burden</b>																			
2.a	Accounting Support (Billing Clerk)	1	2000	\$ 6.82						0.0%	\$ -	-	0.0%	\$ -	-	0.0%	\$ -	-	\$ 32,288
2.a.i	Accounting Support (Billing Clerk)	1	2000	\$ 6.82						0.0%	\$ -	-	0.0%	\$ -	-	0.0%	\$ -	-	\$ 18,750
2.a.ii	Accounting Support (Billing Clerk)	1	2000	\$ 6.82						0.0%	\$ -	-	0.0%	\$ -	-	0.0%	\$ -	-	\$ 9,553
2.b	Pump Station Maintenance	1	2000	\$ 29.163						100.0%	\$ 5,962	500	0.0%	\$ -	-	0.0%	\$ -	-	\$ 5,962
2.c	AEI & Other Misc. Maintenance (Subcontractor)	1	2000	\$ 223,999						0.0%	\$ -	-	0.0%	\$ -	-	0.0%	\$ -	-	\$ 184,562
2.d	Rail Flaw Detection (Subcontractor)	1	2000	\$ 45,075						0.0%	\$ -	-	0.0%	\$ -	-	0.0%	\$ -	-	\$ 40,300
2.e	Gravel Control	1	2000	\$ 17,962						100.0%	\$ 17,962	1,000	0.0%	\$ -	-	0.0%	\$ -	-	\$ 17,962
2.f	Weld Abrasment (Subcontractor)	1	2000	\$ 59,840						20.0%	\$ 11,968	1,128	0.0%	\$ -	-	0.0%	\$ -	-	\$ 47,872
2.g	Safety Training (Subcontractor)	1	2000	\$ 24,098						10.0%	\$ 2,409	240	0.0%	\$ -	-	0.0%	\$ -	-	\$ 21,689
2.h	Safety Management	1	2000	\$ 23,100						15.0%	\$ 3,465	3,465	0.0%	\$ -	-	0.0%	\$ -	-	\$ 20,635
2.i	Vehicles	1	2000	\$ 20,908						25.0%	\$ 5,062	5,062	0.0%	\$ -	-	0.0%	\$ -	-	\$ 15,846
2.ii	Contract Manager Truck	1	2000	\$ 25,452						25.0%	\$ 6,363	6,363	0.0%	\$ -	-	0.0%	\$ -	-	\$ 19,089
2.iii	Welding Truck	1	2000	\$ 70,968						0.0%	\$ -	-	0.0%	\$ -	-	0.0%	\$ -	-	\$ 70,968
2.iiii	Welding Truck	1	2000	\$ 33,066						25.0%	\$ 8,274	8,274	0.0%	\$ -	-	0.0%	\$ -	-	\$ 24,792
2.v	AEI Truck	1	2000	\$ 17,322						25.0%	\$ 5,775	5,775	0.0%	\$ -	-	0.0%	\$ -	-	\$ 11,547
2.vi	AEI Truck	1	2000	\$ 25,452						25.0%	\$ 6,363	6,363	0.0%	\$ -	-	0.0%	\$ -	-	\$ 19,089
2.vii	Track Superintendent Truck	1	2000	\$ 11,724						20.0%	\$ 2,345	2,345	0.0%	\$ -	-	0.0%	\$ -	-	\$ 9,379
2.k	Safety Supervisor Truck	1	2000	\$ 163,572						60.0%	\$ 97,920	1,600	0.0%	\$ -	-	0.0%	\$ -	-	\$ 65,652
2.l	Full Time Equipment	1	2000	\$ 326,540						80.0%	\$ 261,232	2,080	0.0%	\$ -	-	0.0%	\$ -	-	\$ 65,308
2.m	Maintenance Program Rail Grinding - (50% of Total Cost)	1	2000	\$ 303,600						100.0%	\$ 303,600	3,036	0.0%	\$ -	-	0.0%	\$ -	-	\$ 303,600
2.n	Track Materials / Supplies / Rentals	1	2000	\$ 1,407,437						100.0%	\$ 1,407,437	14,074	0.0%	\$ -	-	0.0%	\$ -	-	\$ 1,407,437
2.o	Signal Maintenance (Subcontractor)	1	2000	\$ 295,650						25.0%	\$ 73,913	739	0.0%	\$ -	-	0.0%	\$ -	-	\$ 221,737
2.p	Ledder / Fence / Traffic Support (Subcontractor)	1	2000	\$ 192,700						100.0%	\$ 192,700	1,927	0.0%	\$ -	-	0.0%	\$ -	-	\$ 192,700
2.q	Security - Tranch Cameras	1	2000	\$ 17,941						25.0%	\$ 4,485	448	0.0%	\$ -	-	0.0%	\$ -	-	\$ 13,456
2.r	Security / Yard & Office Maintenance & Support (Subcontractor)	1	2000	\$ 192,700						70.0%	\$ 134,890	1,349	0.0%	\$ -	-	0.0%	\$ -	-	\$ 57,810
2.s	Underwater Bridge Inspection (Not until 2023)	1	2000	\$ 50,460						100.0%	\$ 50,460	504	0.0%	\$ -	-	0.0%	\$ -	-	\$ 50,460
2.t	Trench Ditch Cleaning	1	2000	\$ 54,160						100.0%	\$ 54,160	541	0.0%	\$ -	-	0.0%	\$ -	-	\$ 54,160
2.v	Replace Signal Wire on the Corridor (Subcontractor)	1	2000	\$ 22,000						100.0%	\$ 22,000	220	0.0%	\$ -	-	0.0%	\$ -	-	\$ 22,000
2.w	Railroad Reporting and Record Keeping Software System (Subcontractor)	1	2000	\$ 16,800						100.0%	\$ 16,800	168	0.0%	\$ -	-	0.0%	\$ -	-	\$ 16,800
2.x	Programs Emerging CO & E Exercises	1	2000	\$ 6,300						100.0%	\$ 6,300	63	0.0%	\$ -	-	0.0%	\$ -	-	\$ 6,300
2.y	AEI Budget Uncovered (Subcontractor)	1	2000	\$ 16,800						100.0%	\$ 16,800	168	0.0%	\$ -	-	0.0%	\$ -	-	\$ 16,800
2.z	Vegetation (Finished in 2019)	1	2000	\$ 31,800						20.0%	\$ 6,360	636	0.0%	\$ -	-	0.0%	\$ -	-	\$ 25,440
2.aa	Bridge Management Plan (Finished in 2019)	1	2000	\$ 6,300						80.0%	\$ 5,040	504	0.0%	\$ -	-	0.0%	\$ -	-	\$ 1,260
2.aa	Bridge Inspections (Subcontractor)	1	2000	\$ 31,800						20.0%	\$ 6,360	636	0.0%	\$ -	-	0.0%	\$ -	-	\$ 25,440
<b>SUBTOTAL B:</b>																			
										\$ 3,621,884	\$ 3,029,208	31,800	\$ 519,062	25,200	\$ 73,615	210	\$ 189,493	210	\$ 2,970,478
										\$ 53,970,478	\$ 2,249,611		\$ 651,405		\$ (115,878)		\$ -		\$ -
										\$ 21.9%	\$ 34.7%		\$ -2.3%		\$ -61.2%		\$ -		\$ -

TBLR - Fully Loaded Labor Rate



**Alameda Corridor - 2020 MOW Budget Detail**

**Cost Code**

Cost Code	U of M	QTY	Rate	Split	Total
<b>2.b Pump Station Maintenance</b>					
Vehicle (Split 50/50 between 2.b & 2.e)	Monthly	12	\$ 977.00	50%	\$ 5,862.00
					SUBTOTAL: \$ 5,862.00
					Markup: \$ -
					TOTAL: \$ 5,862.00
<b>2.b.i Pump Station Repairs and Supplies</b>					
Subcontractor - Repairs to Pumps	LS	1	\$ 16,250.00	100%	\$ 16,250.00
Environmental Supplies (Chemicals for water treatment)	LS	1	\$ 11,000.00	100%	\$ 11,000.00
					\$ -
					SUBTOTAL: \$ 27,250.00
					Subcontractor Markup: \$ 812.50
					Supplies Markup: \$ 1,100.00
					TOTAL: \$ 29,162.50
<b>2.c AEI &amp; Other Miscellaneous Maintenance - AAR Unit Count</b>					
AEI / Comm Technician	HR	2000	\$ 101.19	100%	\$ 202,380.00
AEI / Comm Technician - OT (Assumed 80 Hours)	HR	80	\$ 123.00	100%	\$ 9,840.00
AEI / Comm Technician - DT (Assumed 16 Hours)	HR	16	\$ 148.00	100%	\$ 2,368.00
Signal / Comm Supervisor	HR	200	\$ 116.23	100%	\$ 23,246.00
Vehicle - AEI / Comm Technician	Monthly	12	\$ 1,700.00	100%	\$ 20,400.00
Vehicle - Signal / Comm Supervisor	Monthly	12	\$ 170.00	100%	\$ 2,040.00
Equipment - Bucket Truck	Monthly	12	\$ 217.00	100%	\$ 2,604.00
Material Ongoing Purchases Total = LS (RWKS purchase)	LS	1	\$ 12,000.00	100%	\$ 12,000.00
Material - Initial Inventory Purchase	LS	1	\$ 5,000.00	100%	\$ 5,000.00
					SUBTOTAL: \$ 279,878.00
					Subcontractor Markup: \$ 13,143.90
					Materials Markup: \$ 1,700.00
					TOTAL: \$ 294,721.90
<b>2.d Rail Flaw Detection</b>					
Subcontractor - Mobilization	EA	3	\$ 3,500.00	100%	\$ 10,500.00
Subcontractor - Daily Rate (3-day minimums)	EA	3	\$ 11,000.00	100%	\$ 33,000.00
					\$ -
					SUBTOTAL: \$ 43,500.00
					Subcontractor Markup: \$ 2,175.00
					TOTAL: \$ 45,675.00
<b>2.e Graffiti Control</b>					
Vehicle (Split 50/50 between 2.b & 2.e)	Monthly	12	\$ 977.00	50%	\$ 5,862.00
Materials	LS	1	\$ 11,000.00	100%	\$ 11,000.00
					\$ -
					SUBTOTAL: \$ 16,862.00
					Materials Markup: \$ 1,100.00
					TOTAL: \$ 17,962.00
<b>2.f Weed Abatement</b>					
Subcontractor	LS	1	\$ 30,000.00	100%	\$ 30,000.00
Disposal - Dumpsters	EA	12	\$ 900.00	100%	\$ 10,800.00
Specialty Equipment Rental	EA	12	\$ 1,000.00	100%	\$ 12,000.00
					\$ -
					SUBTOTAL: \$ 52,800.00
					Subcontractor Markup: \$ 2,040.00
					Rental Markup: \$ 1,800.00
					TOTAL: \$ 56,640.00
<b>2.g Safety Training</b>					
Subcontractor - Training (Classes and Seminars)	LS	1	\$ 17,000.00	100%	\$ 17,000.00
Instructor Lodging and Meals	Days	5	\$ 2,000.00	100%	\$ 10,000.00
					\$ -
					SUBTOTAL: \$ 27,000.00
					Subcontractor Markup: \$ 1,350.00
					TOTAL: \$ 28,350.00
<b>2.h Safety Management</b>					
Drug Testing - Employees	EA	30	\$ 700.00	100%	\$ 21,000.00
					SUBTOTAL: \$ 21,000.00
					Supplies Markup: \$ 2,100.00
					TOTAL: \$ 23,100.00

2.i	Vehicles	U of M	QTY	Rate	Split	Total
2.i.i	Contract Manager	Monthly	12	\$ 1,684.00	100%	\$ 20,208.00
2.i.ii	Track Supervisor - HiRail	Monthly	12	\$ 2,121.00	100%	\$ 25,452.00
2.i.iii	Welding Truck - HiRail	Monthly	12	\$ 5,914.00	100%	\$ 70,968.00
2.i.iv	Track Foreman - HiRail	Monthly	12	\$ 2,758.00	100%	\$ 33,096.00
2.i.v	Assistant Track Foreman - HiRail	Monthly	12	\$ 1,925.00	100%	\$ 23,100.00
2.i.vi	Track Inspector - HiRail	Monthly	12	\$ 2,121.00	100%	\$ 25,452.00
2.i.vii	Track Superintendent - HiRail	Monthly	12	\$ 2,121.00	100%	\$ 25,452.00
SUBTOTAL:						\$ 223,728.00
Markup:						\$ -
TOTAL:						\$ 223,728.00

2.k	Bridge Superintendent / Safety Vehicle	U of M	QTY	Rate	Split	Total
	Safety Supervisor Vehicle	Monthly	12	\$ 977.00	100%	\$ 11,724.00
SUBTOTAL:						\$ 11,724.00
Markup:						\$ -
TOTAL:						\$ 11,724.00

2.l	Full-Time Equipment	U of M	QTY	Rate	Split	Total
	Hi-Rail Grapple / Boom Truck	Monthly	12	\$ 9,070.00	100%	\$ 108,840.00
	Hi-Rail Bucket Truck	Monthly	0	\$ 2,020.00	100%	\$ -
	Combination Backhoe	Monthly	12	\$ 4,561.00	100%	\$ 54,732.00
SUBTOTAL:						\$ 163,572.00
Markup:						\$ -
TOTAL:						\$ 163,572.00

2.m	Maintenance Program Rail Grinding	U of M	QTY	Rate	Split	Total
	Special Trackwork Grinding Unit Mobilization	LS	1	\$ 84,000.00	100%	\$ 84,000.00
	Special Trackwork Grinding - Interval to be Determined Annually	Day	30	\$ 10,000.00	100%	\$ 300,000.00
	RailWorks EIC	Day	30	\$ 900.00	100%	\$ 27,000.00
	Mainline Grinding Unit Mobilization	LS	1	\$ 20,000.00	100%	\$ 20,000.00
	Mainline Grinding - Every Year	Day	3	\$ 45,208.00	100%	\$ 135,624.00
	Fuel	Gallons	6000	\$ 4.00	100%	\$ 24,000.00
	Pre-Grind Inspection Mobilization	LS	1	\$ 10,066.00	100%	\$ 10,066.00
	Pre-Grinding Inspections	Days	2	\$ 6,431.00	100%	\$ 12,862.00
	Loram Prevailing Wage Contingency	LS	1	\$ 18,000.00	100%	\$ 18,000.00
	RailWorks EIC	Day	5	\$ 900.00	100%	\$ 4,500.00
SUBTOTAL:						\$ 636,052.00
Supplies						15% Markup: \$ 3,600.00
Subcontractor						5% Markup: \$ 14,027.60
TOTAL:						\$ 653,679.60

2.n	Track Materials / Supplies / Rentals	U of M	QTY	Rate	Split	Total
	Equipment Rental	Monthly	12	\$ 3,300.00	100%	\$ 39,600.00
	Program Track Materials - Pads, clips, insulator (non-capital)	Monthly	12	\$ 10,500.00	100%	\$ 126,000.00
	Miscellaneous Track Materials - Bolts, etc.	Monthly	12	\$ 3,200.00	100%	\$ 38,400.00
	Curve Grease - Grease and miscellaneous parts and pieces	Monthly	12	\$ 4,000.00	100%	\$ 48,000.00
	Supplies and Consumables - Welding, etc.	Monthly	12	\$ 2,000.00	100%	\$ 24,000.00
			0	\$ -	100%	\$ -
SUBTOTAL:						\$ 276,000.00
Materials / Supplies / Rentals						10% Markup: \$ 27,600.00
TOTAL:						\$ 303,600.00

2.o	Signal Maintenance	U of M	QTY	Rate	Split	Total
	Signal / Comm Supervisor	HR	1800	\$ 116.23	100%	\$ 209,214.00
	Signal Engineer	HR	500	\$ 116.23	100%	\$ 58,115.00
	Signal Test Maintainer	HR	2000	\$ 101.19	100%	\$ 202,380.00
	Signal Test Maintainer - OT	HR	75	\$ 123.00	100%	\$ 9,225.00
	Signal Test Maintainer - DT	HR	25	\$ 148.00	100%	\$ 3,700.00
	Signal Maintainer	HR	6000	\$ 101.19	100%	\$ 607,140.00
	Signal Maintainer - OT	HR	225	\$ 123.00	100%	\$ 27,675.00
	Signal Maintainer - DT	HR	75	\$ 148.00	100%	\$ 11,100.00
	Vehicle - Signal / Comm Supervisor	Monthly	12	\$ 1,530.00	100%	\$ 18,360.00
	Vehicle - Signal Engineer	Monthly	12	\$ 425.00	100%	\$ 5,100.00
	Vehicle - Signal Test Maintainer	Monthly	12	\$ 5,400.00	100%	\$ 64,800.00
	Vehicle - Signal Maintainers	Monthly	12	\$ 1,800.00	100%	\$ 21,600.00
	Equipment - Bucket Truck	Monthly	12	\$ 1,953.00	100%	\$ 23,436.00
	Material Ongoing Purchases Total = LS (RWKS purchase)	LS	1	\$ 35,000.00	100%	\$ 35,000.00
	Material - Initial Inventory Purchase	LS	1	\$ 40,000.00	100%	\$ 40,000.00
SUBTOTAL:						\$ 1,336,845.00

Subcontractor 5% Markup: \$ 63,092.25  
 Supplies 10% Markup: \$ 7,500.00  
 TOTAL: \$ 1,407,437.25

2.p	Ladder / Fence / Traffic Support	U of M	QTY	Rate	Split	Total
Subcontractor						
	Subcontractor - Ladder Replacement Parts	LS	1	\$ 11,000.00	100%	\$ 11,000.00
	Traffic Support	LS	1	\$ 32,000.00	100%	\$ 32,000.00
	Fence Repair / Replacement	LS	1	\$ 210,000.00	100%	\$ 210,000.00
						\$ -
						SUBTOTAL: \$ 253,000.00
						Subcontractor 5% Markup: \$ 12,650.00
						TOTAL: \$ 265,650.00

2.q	Security - Trench Cameras	U of M	QTY	Rate	Split	Total
Wire Replacement						
	Wire Replacement	LS	1	\$ 5,500.00	100%	\$ 5,500.00
	Motion Detector Replacement Parts	LS	1	\$ 5,800.00	100%	\$ 5,800.00
	Camera Replacement Parts	LS	1	\$ 12,000.00	100%	\$ 12,000.00
						\$ -
						SUBTOTAL: \$ 23,300.00
						Supplies 10% Markup: \$ 2,330.00
						TOTAL: \$ 25,630.00

2.r	Yard / Office Security / Maintenance / Support	U of M	QTY	Rate	Split	Total
Subcontractor						
	Security Guard Services	Monthly	12	\$ 13,000.00	100%	\$ 156,000.00
	Janitorial Services	Monthly	12	\$ 1,400.00	100%	\$ 16,800.00
	HVAC and Building Maintenance (Electrical, Mechanical, Pest)	Monthly	12	\$ 900.00	100%	\$ 10,800.00
						\$ -
						SUBTOTAL: \$ 183,600.00
						Subcontractor 5% Markup: \$ 9,180.00
						TOTAL: \$ 192,780.00

2.s	Underwater Bridge Inspection	U of M	QTY	Rate	Split	Total
Not needed until 2023						
	Not needed until 2023	LS	0	\$ -	100%	\$ -
						\$ -
						SUBTOTAL: \$ -
						Subcontractor 5% Markup: \$ -
						TOTAL: \$ -

2.t	Trench Ditch Cleaning	U of M	QTY	Rate	Split	Total
Track Foreman						
	Track Foreman	Hours	0	\$ 88.65	100%	\$ -
Track Foreman Truck						
	Track Foreman Truck	Hours	0	\$ 16.03	100%	\$ -
Hi-Rail Vac						
	Hi-Rail Vac	Weeks	4	\$ 12,000.00	100%	\$ 48,000.00
Track Laborers						
	Track Laborers	Hours	0	\$ 81.14	100%	\$ -
Flagger						
	Flagger	Days	0	\$ 900.00	100%	\$ -
						\$ -
						SUBTOTAL: \$ 48,000.00
						Subcontractor 5% Markup: \$ 2,400.00
						TOTAL: \$ 50,400.00

2.v	Replace Signal Wire on Corridor	U of M	QTY	Rate	Split	Total
Subcontractor						
	Subcontractor	LS	1	\$ 23,000.00	100%	\$ 23,000.00
						\$ -
						SUBTOTAL: \$ 23,000.00
						Subcontractor 5% Markup: \$ 1,150.00
						TOTAL: \$ 24,150.00

2.w	Railroad Reporting & Record Keeping Software System	U of M	QTY	Rate	Split	Total
Subcontractor						
	Tier Based Management Fee	LS	1	\$ 16,000.00	100%	\$ 16,000.00
	Updates	LS	1	\$ 4,000.00	100%	\$ 4,000.00
	Implementation (in case it is not implemented by end of in 2019)	LS	1	\$ 32,000.00	100%	\$ 32,000.00
						\$ -
						SUBTOTAL: \$ 52,000.00
						Subcontractor 5% Markup: \$ 2,600.00
						TOTAL: \$ 54,600.00

2.x	Railroad Emergency Drill Exercise	U of M	QTY	Rate	Split	Total
	Railroad Emergency Drill Exercise	LS	1	\$ 20,000.00	100%	\$ 20,000.00
						\$ -
						SUBTOTAL: \$ 20,000.00
						Supplies 10% Markup: \$ 2,000.00
						TOTAL: \$ 22,000.00

2.aa	AEI Readers Upgrade	U of M	QTY	Rate	Split	Total
	Subcontractor - Highball Signal	LS	1	\$ 16,000.00	100%	\$ 16,000.00
						SUBTOTAL: \$ 16,000.00
				Subcontractor	5%	Markup: \$ 800.00
						TOTAL: \$ 16,800.00

2.dd	Bridge Inspections	U of M	QTY	Rate	Split	Total
	Subcontractor -	LS	1	\$ 30,000.00	100%	\$ 30,000.00
						SUBTOTAL: \$ 30,000.00
				Subcontractor	5%	Markup: \$ 1,500.00
						TOTAL: \$ 31,500.00

**2020 Capital Program**

Cost Code

3.a	Surfacing Unit - 2 Mobilizations for 46 Days Total	U of M	QTY	Rate	Split	Total
	Mark IV Tamper	Days	46	\$ 1,155.46	100%	\$ 53,151.16
	Ballast Regulator	Days	46	\$ 653.62	100%	\$ 30,066.52
	Tamper Operator Truck	Days	46	\$ 97.92	100%	\$ 4,504.32
	Tamper Operator	Hours	368	\$ 122.19	100%	\$ 44,965.23
	Ballast Regulator Operator	Hours	368	\$ 109.74	100%	\$ 40,384.80
						<b>SUBTOTAL: \$ 173,072.03</b>
						Markup: \$ -
						<b>TOTAL: \$ 173,072.03</b>

3.b	Surfacing Unit Mobilization	U of M	QTY	Rate	Split	Total
	Subcontractor	LS	8	\$ 4,000.00	100%	\$ 32,000.00
	Tamper Operator	Hours	64	\$ 122.19	100%	\$ 7,820.04
	Tamper Operator Truck	Days	8	\$ 97.92	100%	\$ 783.36
						\$ -
						<b>SUBTOTAL: \$ 40,603.40</b>
						Subcontractor 5% Markup: \$ 1,600.00
						<b>TOTAL: \$ 42,203.40</b>

3.c.i	Reballast Program - Labor	U of M	QTY	Rate	Split	Total
	Track Foreman	Hour	128	\$ 88.65	100%	\$ 11,347.37
	Track Laborers (4 each)	Hour	512	\$ 81.14	100%	\$ 41,545.82
						\$ -
						\$ -
						<b>SUBTOTAL: \$ 52,893.19</b>
						Markup: \$ -
						<b>TOTAL: \$ 52,893.19</b>

3.c.ii	Reballast Program - Operated Equipment	U of M	QTY	Rate	Split	Total
	Hi-Rail Dump	Hours	128	\$ 34.40	100%	\$ 4,403.20
	Hi-Rail Dump Mobilization (Subcontractor)	EA	2	\$ 3,500.00	100%	\$ 7,000.00
	Ballast Regulator	Hours	128	\$ 81.70	100%	\$ 10,457.60
	Ballast Regulator Mobilization (Subcontractor)	EA	2	\$ 4,000.00	100%	\$ 8,000.00
	Front End Loader	Hours	128	\$ 35.40	100%	\$ 4,531.20
	Front End Loader Mobilization (Subcontractor)	EA	2	\$ 2,500.00	100%	\$ 5,000.00
	Operator	Hours	384	\$ 109.74	100%	\$ 42,140.67
	Operator Truck	Hours	128	\$ 12.24	100%	\$ 1,566.72
						<b>SUBTOTAL: \$ 83,099.39</b>
						Subcontractor 5% Markup: \$ 1,000.00
						<b>TOTAL: \$ 84,099.39</b>

3.d	Reballast Program - 500 Tons Ballast	U of M	QTY	Rate	Split	Total
	Ballast	Ton	500	\$ 45.00	100%	\$ 22,500.00
						\$ -
						<b>SUBTOTAL: \$ 22,500.00</b>
						Materials 10% Markup: \$ 2,250.00
						<b>TOTAL: \$ 24,750.00</b>

3.f	Capital Program Rail Grinding	U of M	QTY	Rate	Split	Total
	Special Trackwork Grinding Unit Mobilization	LS	1	\$ 84,000.00	100%	\$ 84,000.00
	Special Trackwork Grinding - Interval to be Determined Annually	Day	30	\$ 10,000.00	100%	\$ 300,000.00
	RailWorks EIC	Day	30	\$ 900.00	100%	\$ 27,000.00
						\$ -
	Mainline Grinding Unit Mobilization	LS	1	\$ 20,000.00	100%	\$ 20,000.00
	Mainline Grinding - Every Year	Day	3	\$ 45,208.00	100%	\$ 135,624.00
	Fuel	Gallons	6000	\$ 4.00	100%	\$ 24,000.00
	Pre-Grind Inspection Mobilization	LS	1	\$ 10,066.00	100%	\$ 10,066.00
	Pre-Grinding Inspections	Days	2	\$ 6,431.00	100%	\$ 12,862.00
	Loram Prevailing Wage Contingency	LS	1	\$ 18,000.00	100%	\$ 18,000.00
	RailWorks EIC	Day	5	\$ 900.00	100%	\$ 4,500.00
						\$ -
						<b>SUBTOTAL: \$ 636,052.00</b>
						Supplies 15% Markup: \$ 3,600.00
						Subcontractor 5% Markup: \$ 14,027.60
						<b>TOTAL: \$ 653,679.60</b>

Total is split 50/50 between R.R. M&O Cost and Capital

3.g	Track Reballast (As part of surfacing program)	U of M	QTY	Rate	Split	Total
	Hi-Rail Dump	Hours		\$ 34.40	100%	\$ -
	Hi-Rail Dump Mobilization (Subcontractor)	EA		\$ 3,500.00	100%	\$ -
	Front End Loader	Hours		\$ 35.40	100%	\$ -
	Front End Loader Mobilization (Subcontractor)	EA		\$ 2,500.00	100%	\$ -
	Equipment Operator	Hours		\$ 107.73	100%	\$ -
	Track Foreman	Hours		\$ 89.17	100%	\$ -
	Track Laborers (1 each)	Hours		\$ 81.62	100%	\$ -
						\$ -
						<b>SUBTOTAL: \$ -</b>



Rail Saw	Hour	480	\$	9.49	300%	\$	13,665.60
Mobile Power Pack	Hour	480	\$	9.49	400%	\$	18,220.80
Clipping Machine WB	Hour	480	\$	12.24	500%	\$	29,376.00
Signal (Subcontractor Highball Signal)	Day	60	\$	900.00	100%	\$	54,000.00
Chase Tamper	Hour	480	\$	67.55	100%	\$	32,424.00
Chase Tamper Mobilization (3 Trips = 6 each) (Subcontractor)	EA	6	\$	1,500.00	100%	\$	9,000.00
Weld Kits (30 Locations)	EA	60	\$	120.00	100%	\$	7,200.00
		0	\$	-	100%	\$	-

SUBTOTAL: \$ 1,089,065.18  
 Subcontractor 5% Markup: \$ 3,150.00  
 Materials 10% Markup: \$ 48,720.00  
**TOTAL: \$ 1,120,935.18**

**3.o Pump Station Upgrades**

	U of M	QTY	Rate	Split	Total
Replace 2 Pumps at Greenleaf (Subcontractor)	LS	1	\$ 130,000.00	100%	\$ 130,000.00
Parts and Materials	LS	1	\$ 70,000.00	100%	\$ 70,000.00
		0	\$ -	100%	\$ -

SUBTOTAL: \$ 200,000.00  
 Subcontractor 5% Markup: \$ 6,500.00  
 Materials 10% Markup: \$ 7,000.00  
**TOTAL: \$ 213,500.00**

**3.r Trench Emergency Ladder, Stair Study, & Repairs**

	U of M	QTY	Rate	Split	Total
Subcontractor	LS	1	\$ 60,000.00	100%	\$ 60,000.00
Parts & Materials	LS	1	\$ 60,000.00	100%	\$ 60,000.00

SUBTOTAL: \$ 120,000.00  
 Subs 5% Markup: \$ 3,000.00  
 Materials 10% Markup: \$ 6,000.00  
**TOTAL: \$ 129,000.00**

**3.w Rehab Henry Ford Crossing**

	U of M	QTY	Rate	Split	Total
136RE, HH Rail (6 @ 80')	Tn	10.88	\$ 1,400.00	100%	\$ 15,232.00
10' Wood Ties (240' @ 19.5" C-C = 130 each)	Ea	148	\$ 100.00	100%	\$ 14,800.00
Cast Pandrol Plates (Need to know curvature through crossing & MGT)	Ea	300	\$ 28.00	100%	\$ 8,400.00
Screw Spikes	Ea	1250	\$ 4.50	100%	\$ 5,625.00
Galvanized E-Clips	Ea	650	\$ 5.50	100%	\$ 3,575.00
Ballast (\$45/tn)	Tn	360	\$ 45.00	100%	\$ 16,200.00
Concrete Crossing Panels	TF	140	\$ 300.00	100%	\$ 42,000.00
Weld Kits	Ea	14	\$ 120.00	100%	\$ 1,680.00
Panel Handling Chains	Ea	1	\$ 2,500.00	100%	\$ 2,500.00
Signal Conduit	LS	1	\$ 3,000.00	100%	\$ 3,000.00
Fabric	SF	2640	\$ 5.00	100%	\$ 13,200.00

**RailWorks Outside Labor**

**Construct Panel**

Track Foreman	Hour	24	\$ 88.65	100%	\$ 2,127.63
Assistant Foreman	Hour	24	\$ 87.15	100%	\$ 2,091.60
Welder	Hour	24	\$ 85.65	100%	\$ 2,055.56
Welder Helper	Hour	24	\$ 81.14	100%	\$ 1,947.46
Track Laborers	Hour	96	\$ 81.14	100%	\$ 7,789.84
Equipment Operators	Hour	48	\$ 109.74	100%	\$ 5,267.58
Rental Excavator	Week	0.5	\$ 4,423.68	100%	\$ 2,211.84
Front End Loader	Hour	24	\$ 36.11	100%	\$ 866.64
Foreman Truck	Hour	24	\$ 16.03	100%	\$ 384.72
Welding Truck	Hour	24	\$ 34.38	100%	\$ 825.12
Assistant Foreman Truck	Hour	24	\$ 11.19	100%	\$ 268.56

**Install During Outage**

Track Foreman	Hour	24	\$ 90.43	100%	\$ 2,170.32
Assistant Foreman	Hour	24	\$ 88.92	100%	\$ 2,134.08
Welder	Hour	24	\$ 87.41	100%	\$ 2,097.84
Welder Helper	Hour	24	\$ 82.88	100%	\$ 1,989.12
Track Laborers	Hour	96	\$ 82.88	100%	\$ 7,956.48
Equipment Operators	Hour	48	\$ 108.93	100%	\$ 5,228.64
Rental Excavator	Week	0.5	\$ 4,423.68	100%	\$ 2,211.84
Front End Loader	Hour	24	\$ 36.11	100%	\$ 866.64
Assistant Foreman Truck	Hour	24	\$ 16.03	100%	\$ 384.72
Welding Truck	Hour	24	\$ 34.38	100%	\$ 825.12
Assistant Foreman Truck	Hour	24	\$ 11.19	100%	\$ 268.56

**Return to Tamp / Destress / Clean-Up Site**

Track Foreman	Hour	8	\$ 90.43	100%	\$ 723.44
Assistant Foreman	Hour	8	\$ 88.92	100%	\$ 711.36
Welder	Hour	8	\$ 87.41	100%	\$ 699.28
Welder Helper	Hour	8	\$ 82.88	100%	\$ 663.04
Track Laborers	Hour	32	\$ 82.88	100%	\$ 2,652.16
Equipment Operators	Hour	16	\$ 108.93	100%	\$ 1,742.88
Rental Excavator	Week	0.5	\$ 4,423.68	100%	\$ 2,211.84
Front End Loader	Hour	8	\$ 36.11	100%	\$ 288.88
Foreman Truck	Hour	8	\$ 16.03	100%	\$ 128.24

Welding Truck	Hour	8	\$	34.38	100%	\$	275.04
Asst. Foreman Truck	Hour	8	\$	11.19	100%	\$	89.52
<b>Return to Tamp / Install &amp; Weld Panels / Demobilization</b>							
Track Foreman	Hour	8	\$	90.43	100%	\$	723.44
Assistant Foreman	Hour	8	\$	88.92	100%	\$	711.36
Welder	Hour	8	\$	87.41	100%	\$	699.28
Welder Helper	Hour	8	\$	82.88	100%	\$	663.04
Track Laborers	Hour	32	\$	82.88	100%	\$	2,652.16
Equipment Operators	Hour	16	\$	108.93	100%	\$	1,742.88
Rental Excavator	Week	0.5	\$	4,423.68	100%	\$	2,211.84
Front End Loader	Hour	8	\$	36.11	100%	\$	288.88
Foreman Truck	Hour	8	\$	16.03	100%	\$	128.24
Welding Truck	Hour	8	\$	34.38	100%	\$	275.04
Assistant Foreman Truck	Hour	8	\$	11.19	100%	\$	89.52
<b>Surfacing Crew</b>							
Surfacing Crew	Day	6	\$	3,771.16	100%	\$	22,626.96
Flagger	Hour	64	\$	88.65	100%	\$	5,673.68
Flagger Truck	Hour	64	\$	12.24	100%	\$	783.36
<b>Ballast Disposal Trucking (3 Hours per Load, 12 tn per load)</b>							
Ballast Disposal Trucking	Hour	60	\$	150.00	100%	\$	9,000.00
Ballast Disposal	Tn	240	\$	45.00	100%	\$	10,800.00
Asphalt Disposal Trucking (3 Hours per Load, 12 tn per load)	Hour	48	\$	150.00	100%	\$	7,200.00
Asphalt Disposal	Tn	230	\$	45.00	100%	\$	10,350.00
Saw Cut Sub	LF	280	\$	10.00	100%	\$	2,800.00
Concrete Panel Disposal (\$1000 per Load @ 5 Loads)	LS	1	\$	5,000.00	100%	\$	5,000.00
Wood Tie Disposal	EA	150	\$	20.00	100%	\$	3,000.00
Paving Contractor (Assume 140' L x 10' each side x 1' Depth)	Tn	230	\$	185.00	100%	\$	42,550.00
Road Closure and Detours	LS	1	\$	40,000.00	100%	\$	40,000.00
Engineering as Needed	LS	1	\$	20,000.00	100%	\$	20,000.00
Front End Loader	Month	1	\$	6,500.00	100%	\$	6,500.00
Mobilizations - Loader	Ea	2	\$	2,400.00	100%	\$	4,800.00
Mobilizations - Excavator	Ea	2	\$	2,400.00	100%	\$	4,800.00
<b>Material Subtotal</b>							<b>\$ 126,212.00</b>
<b>Labor &amp; Equipment Subtotal</b>							<b>\$ 72,341.28</b>
<b>Subcontractor Subtotal</b>							<b>\$ 166,800.00</b>

<b>SUBTOTAL:</b>				\$	394,437.28
Subcontractor	5%	Markup:	\$	8,340.00	
Materials	10%	Markup:	\$	12,621.20	
<b>TOTAL:</b>				\$	415,398.48

3.y	Signal Battery Replacement (10 Year Program)	U of M	QTY	Rate	Split	Total
	Materials	Ea	1	\$ 50,000.00	100%	\$ 50,000.00
<b>SUBTOTAL:</b> \$ 50,000.00						
	Materials			10%	Markup:	\$ 5,000.00
<b>TOTAL:</b> \$ 55,000.00						

3.gg-3	Curve Rail Replacement (12,000 LF)	U of M	QTY	Rate	Split	Total
	Rail - 12,000 LF (added 5% for waste cut-offs and consumption)	Ton	285.6	\$ 1,400.00	100%	\$ 399,840.00
	Pads and Fasteners	Ea	12000	\$ 13.60	100%	\$ 163,200.00
<b>RailWorks Outside Labor</b>						
	Track Foreman	Hour	184	\$ 88.65	100%	\$ 16,311.84
	Assistant Foreman	Hour	184	\$ 87.15	100%	\$ 16,035.58
	Welder	Hour	184	\$ 85.65	100%	\$ 15,759.32
	Welder Helper	Hour	184	\$ 81.14	100%	\$ 14,930.53
	Laborers	Hour	1104	\$ 81.14	100%	\$ 89,583.18
	Operators	Hour	360	\$ 109.74	100%	\$ 39,506.87
	Pettibone	Hour	184	\$ 42.06	100%	\$ 7,739.04
	Front End Loader	Hour	184	\$ 36.11	100%	\$ 6,644.24
	Foreman Truck	Hour	184	\$ 16.03	100%	\$ 2,949.52
	Welding Truck	Hour	184	\$ 34.38	100%	\$ 6,325.92
	Asst. Foreman Truck	Hour	184	\$ 11.19	100%	\$ 2,058.96
	CWR Rail Heater / Vibrator	Hour	96	\$ 54.16	100%	\$ 5,199.36
	Rail Puller Hyd	Hour	96	\$ 9.49	200%	\$ 1,822.08
	Rail Saw	Hour	96	\$ 9.49	300%	\$ 2,733.12
	Mobile Power Pack	Hour	96	\$ 9.49	400%	\$ 3,644.16
	Clipping Machine WB	Hour	96	\$ 12.24	500%	\$ 5,875.20
	Flagger	Hour	184	\$ 88.65	100%	\$ 16,311.84
	Flagger Truck	Hour	184	\$ 12.24	100%	\$ 2,252.16
	Flash Weld Sub (Assume \$7500 mobe)	LS	1	\$ 7,500.00	100%	\$ 7,500.00
	Flash Weld Sub (\$350 per weld)	Ea	154	\$ 350.00	100%	\$ 53,900.00
	Signal - Highball Signal	Day	12	\$ 900.00	100%	\$ 10,800.00
	Weld Kits - Two kits needed at each rail install location. Assume 30, 12 Days for install, 6 days to weld, 1 day mobe plant, 3 days move and stage rail Single location but will have to be welded and move in on a mini-rail train	Ea	30	\$ 120.00	100%	\$ 3,600.00
						\$ -

SUBTOTAL: \$ 894,522.92  
 Materials 10% Markup: \$ 56,664.00  
 Subcontractor 5% Markup: \$ 3,610.00  
 TOTAL: \$ 954,796.92

3.kk	Upgrade and Refurbish Maintenance Facility (Kitchen Upgrade)	U of M	QTY	Rate	Split	Total
Subcontractor						
	New Countertop and Lower Cabinets	EA	1	\$ 5,000.00	100%	\$ 5,000.00
	New Upper Cabinets	EA	1	\$ 5,000.00	100%	\$ 5,000.00
	New Refrigerator	EA	1	\$ 1,200.00	100%	\$ 1,200.00
	New Laminate Flooring	EA	1	\$ 2,500.00	100%	\$ 2,500.00
	Extra Lighting	EA	1	\$ 1,000.00	100%	\$ 1,000.00
	Hot Water Heaters	EA	1	\$ 5,000.00	100%	\$ 5,000.00
	Plumbing Repairs	EA	1	\$ 10,000.00	100%	\$ 10,000.00
						SUBTOTAL: \$ 29,700.00
						Subcontractor 5% Markup: \$ 1,485.00
						TOTAL: \$ 31,185.00

3.ii	Fixed Trench Ladders	U of M	QTY	Rate	Split	Total
Subcontractor Labor, Equipment & Materials						
		LS	4	\$ 100,000.00	100%	\$ 400,000.00
						\$ -
						SUBTOTAL: \$ 400,000.00
						Subcontractor 5% Markup: \$ 20,000.00
						TOTAL: \$ 420,000.00

3.mm	Miscellaneous Trench Structure Repairs	U of M	QTY	Rate	Split	Total
Subcontractor - Labor, Equipment & Materials						
		LS	1	\$ 60,000.00	100%	\$ 60,000.00
						\$ -
						SUBTOTAL: \$ 60,000.00
						Subcontractor 5% Markup: \$ 3,000.00
						TOTAL: \$ 63,000.00

3.nn	Compton Bridges - Replace Deck Ties	U of M	QTY	Rate	Split	Total
Labor, Equipment & Materials						
		EA	250	\$ 700.00	100%	\$ 175,000.00
						\$ -
						SUBTOTAL: \$ 175,000.00
						Subcontractor 5% Markup: \$ 8,750.00
						TOTAL: \$ 183,750.00

3.oo	Replacement of M23A Swltches	U of M	QTY	Rate	Split	Total
Subcontractor - Highball Signal - M23A Swltches						
		EA	2	\$ 19,000.00	100%	\$ 38,000.00
						\$ -
						SUBTOTAL: \$ 38,000.00
						Material 10% Markup: \$ 3,800.00
						TOTAL: \$ 41,800.00

3.pp	Signal Module VHLC Replacements to XLC	U of M	QTY	Rate	Split	Total
Materials - New XLC Module						
		Ea	3	\$ 32,000.00	100%	\$ 96,000.00
Design Changes and Prints						
		Ea	3	\$ 3,000.00	100%	\$ 9,000.00
Software + Engineering						
		Ea	3	\$ 5,000.00	100%	\$ 15,000.00
Ongoing for life of contract to complete 18 locations						
						SUBTOTAL: \$ 120,000.00
						Materials 10% Markup: \$ 12,000.00
						TOTAL: \$ 132,000.00

3.pp-2	Install Repeater Antennae at Redondo	U of M	QTY	Rate	Split	Total
Subcontractor - Highball Signal						
						\$ -
Design & Engineering						
		EA	1	\$ 15,000.00	100%	\$ 15,000.00
Materials						
		EA	1	\$ 15,000.00	100%	\$ 15,000.00
						SUBTOTAL: \$ 30,000.00
						Subcontractor 5% Markup: \$ 750.00
						Materials 10% Markup: \$ 1,500.00
						TOTAL: \$ 32,250.00



**Alameda Corridor - Draft CY2020 Operations & Maintenance (O&M) Budget**

		Calendar Year 2020				Amended Calendar Year 2019											
		Basis of Apportionment		R.R. M & O Rail Cost		Reserve Account Non-		ACTA Operating Budget		Total							
GR Ton MI	T/Train MI	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)						
<b>I. Labor &amp; Operations Maintenance:</b>																	
1.a	Contract Manager	GTM	TM	\$	213,046	\$	76,088	\$	15,218	\$	304,332						
1.b	Track Supervisor	GTM			180,208		60,060		240,278		235,825						
1.c	Safety Supervisor	GTM			48,056		192,222		240,278		160,343						
1.d	Office Manager	GTM	TM		78,491		28,032		5,606		120,570						
1.e	Bridge Supervisor	GTM			-		-		-		25,499						
1.f	Track Inspector	GTM			142,461		47,420		190,081		176,044						
1.g	Track Foreman	GTM			142,461		47,420		190,081		171,145						
1.h	Assistant Foreman	GTM			140,125		46,708		186,833		163,104						
1.i	Track Laborers	GTM	TM		651,899		217,200		869,198		442,380						
1.j	Equipment Operators	GTM			176,502		58,834		235,335		188,346						
1.k	Welder	GTM			367,169		-		367,169		169,110						
1.l	Welder Helper	GTM			173,840		-		173,840		152,188						
1.m	Laborer (Graffiti/Pump Station)	GTM	TM		173,840		-		173,840		148,740						
1.n	Track Superintendent	GTM			262,239		-		262,239		40,000						
1.o	Bridge Inspector	GTM			-		-		-		8,382						
2.a	Administrative Burden (included in FBLR for new contractor)	TM			-		-		-		32,288						
2.a.i	Accounting Support (Billing Clerk) (included in FBLR for new contractor)	TM			-		-		-		1,614						
2.b	Pump Station Maintenance	TM			5,862		-		5,862		18,750						
2.b.i	Pump Station Repairs and Supplies (Subcontractor)	TM			29,163		-		29,163		9,553						
2.c	AEI & Other Misc. Maintenance (Subcontractor)	TM			322,399		-		322,399		28,771						
2.d	Rail Flaw Detection (Subcontractor)	GTM			45,675		-		45,675		184,582						
2.e	Graffiti Control	TM			17,962		-		17,962		21,261						
2.f	Weed Abatement (Subcontractor)	TM			45,312		-		45,312		5,650						
2.g	Safety Training (Subcontractor)	TM			24,098		-		24,098		3,968						
2.h	Safety Management	TM			19,635		-		19,635		2,771						
2.i	Vehicles	TM			165,439		-		165,439		18,475						
2.j	Safety Supervisor Truck	TM			2,345		-		2,345		22,713						
2.k	Maintenance Program Rail Grinding - (50% of Total Cost)	GTM			130,858		-		130,858		149,185						
2.l	Track Materials / Supplies / Rentals	GTM			326,840		-		326,840		83,475						
2.m	Signal Maintenance (Subcontractor)	GTM			503,600		-		503,600		279,595						
2.n	Ladder / Fence / Traffic Support (Subcontractor)	GTM			1,407,437		-		1,407,437		1,070,869						
2.o	Security / Yard & Office Maintenance & Support (Subcontractor)	TM			265,650		-		265,650		245,875						
2.p	Security / Yard & Office Maintenance (Not until 2025)	TM			17,941		-		17,941		3,854						
2.q	Underwater Bridge Inspection (Subcontractor)	TM			192,780		-		192,780		1,171						
2.r	Trench Ditch Cleaning	TM			50,400		-		50,400		88,332						
2.s	Replaces Signal Wire on the Corridor (Subcontractor)	TM			24,150		-		24,150		21,667						
2.t	Railroad Reporting and Record Keeping Software System (Subcontractor)	TM			54,600		-		54,600		17,875						
2.u	Railroad Emergency Drill Exercise	TM			22,000		-		22,000		20,000						
2.v	PTC Support at CPW & E Redondo	TM			-		-		-		2,000						
2.w	AEI Readers Upgrade (Subcontractor)	TM			16,800		-		16,800		15,750						
2.x	Mobilization (Finished in 2019)	TM			-		-		-		85,000						
2.y	Bridge Management Plan (Finished in 2019)	GTM			6,300		-		6,300		20,560						
2.z	Bridge Inspections	GTM			-		-		-		25,700						
Subtotal Labor & Operations Maintenance										\$	5,343,664	\$	1,729,435	\$	94,439	\$	7,167,538
Subtotal R.R. M & O Rail Cost										\$	217,104	\$	77,537	\$	15,507	\$	310,149
Subtotal Reserve Account Non-Rail Cost (B)										\$	176,869	\$	58,056	\$	-	\$	235,825
Subtotal ACTA Operating Budget (C)										\$	33,669	\$	128,274	\$	6,029	\$	160,343
Subtotal R.R. M & O Rail Cost (A)										\$	84,399	\$	30,143	\$	-	\$	120,570
Subtotal Reserve Account Non-Rail Cost (B)										\$	5,099	\$	20,397	\$	-	\$	25,499
Subtotal ACTA Operating Budget (C)										\$	132,033	\$	44,011	\$	-	\$	176,044
Subtotal R.R. M & O Rail Cost (A)										\$	130,968	\$	45,636	\$	-	\$	176,604
Subtotal Reserve Account Non-Rail Cost (B)										\$	122,328	\$	40,776	\$	-	\$	163,104
Subtotal ACTA Operating Budget (C)										\$	331,935	\$	110,645	\$	-	\$	442,580
Subtotal R.R. M & O Rail Cost (A)										\$	141,260	\$	47,087	\$	-	\$	188,346
Subtotal Reserve Account Non-Rail Cost (B)										\$	169,110	\$	-	\$	-	\$	169,110
Subtotal ACTA Operating Budget (C)										\$	152,188	\$	-	\$	-	\$	152,188
Subtotal R.R. M & O Rail Cost (A)										\$	148,740	\$	-	\$	-	\$	148,740
Subtotal Reserve Account Non-Rail Cost (B)										\$	1,676	\$	6,705	\$	-	\$	8,382
Subtotal ACTA Operating Budget (C)										\$	22,601	\$	8,072	\$	1,614	\$	32,288
Subtotal R.R. M & O Rail Cost (A)										\$	13,125	\$	4,688	\$	938	\$	18,750
Subtotal Reserve Account Non-Rail Cost (B)										\$	9,553	\$	-	\$	-	\$	9,553
Subtotal ACTA Operating Budget (C)										\$	28,771	\$	-	\$	-	\$	28,771
Subtotal R.R. M & O Rail Cost (A)										\$	40,000	\$	-	\$	-	\$	184,582
Subtotal Reserve Account Non-Rail Cost (B)										\$	21,261	\$	5,650	\$	-	\$	40,000
Subtotal ACTA Operating Budget (C)										\$	22,600	\$	3,968	\$	-	\$	21,261
Subtotal R.R. M & O Rail Cost (A)										\$	22,483	\$	2,771	\$	-	\$	26,450
Subtotal Reserve Account Non-Rail Cost (B)										\$	15,704	\$	-	\$	-	\$	18,475
Subtotal ACTA Operating Budget (C)										\$	172,863	\$	38,014	\$	1,188	\$	213,064
Subtotal R.R. M & O Rail Cost (A)										\$	119,348	\$	29,837	\$	-	\$	149,185
Subtotal Reserve Account Non-Rail Cost (B)										\$	83,475	\$	-	\$	-	\$	83,475
Subtotal ACTA Operating Budget (C)										\$	279,595	\$	-	\$	-	\$	279,595
Subtotal R.R. M & O Rail Cost (A)										\$	1,070,869	\$	-	\$	-	\$	1,070,869
Subtotal Reserve Account Non-Rail Cost (B)										\$	16,392	\$	245,875	\$	1,171	\$	245,875
Subtotal ACTA Operating Budget (C)										\$	197,584	\$	-	\$	-	\$	197,584
Subtotal R.R. M & O Rail Cost (A)										\$	88,332	\$	-	\$	-	\$	88,332
Subtotal Reserve Account Non-Rail Cost (B)										\$	21,667	\$	-	\$	-	\$	21,667
Subtotal ACTA Operating Budget (C)										\$	17,875	\$	-	\$	-	\$	17,875
Subtotal R.R. M & O Rail Cost (A)										\$	20,000	\$	-	\$	-	\$	20,000
Subtotal Reserve Account Non-Rail Cost (B)										\$	2,000	\$	-	\$	-	\$	2,000
Subtotal ACTA Operating Budget (C)										\$	15,750	\$	-	\$	-	\$	15,750
Subtotal R.R. M & O Rail Cost (A)										\$	85,000	\$	-	\$	-	\$	85,000
Subtotal Reserve Account Non-Rail Cost (B)										\$	5,140	\$	-	\$	-	\$	5,140
Subtotal ACTA Operating Budget (C)										\$	20,560	\$	-	\$	-	\$	20,560
Subtotal R.R. M & O Rail Cost (A)										\$	-	\$	-	\$	-	\$	-
Subtotal Reserve Account Non-Rail Cost (B)										\$	-	\$	-	\$	-	\$	-
Subtotal ACTA Operating Budget (C)										\$	-	\$	-	\$	-	\$	-
Subtotal R.R. M & O Rail Cost (A)										\$	3,946,591	\$	1,288,283	\$	211,028	\$	5,445,903

Calendar Year 2020

GR-Ton MI	Train MI	Basis of Apportionment		Reserve Account Non-		ACTA Operating Budget		Total
		R.R. M & O Rail Cost	Rail Cost (B)	(A)	Cost (C)	R.R. M & O Rail Cost	Rail Cost (B)	
<b>II. Capital Costs</b>								
3.a	GTM	\$	\$	173,073	\$	-	\$	173,073
3.b				42,303				42,303
3.c				52,893				52,893
3.c.i				84,099				84,099
3.d				24,750				24,750
3.f	GTM			326,840				326,840
3.g				214,500				214,500
3.h				798,761				798,761
3.b-2				674,547				674,547
3.b-3				1,120,935				1,120,935
3.b-4				213,500				213,500
3.o	GTM			129,000				129,000
3.f				415,398				415,398
3.w				55,000				55,000
3.y				-				-
3.a.a				-				-
3.a.e				-				-
3.a.g-2				954,797				954,797
3.ges-3				-				-
3.b.h				-				-
3.i				-				-
3.j				-				-
3.k				31,185				31,185
3.l				420,000				420,000
3.m				63,000				63,000
3.n				183,750				183,750
3.o				41,800				41,800
3.p				132,000				132,000
3.p-2				32,250				32,250
Subtotal Capital Costs		\$	\$	6,184,281	\$	-	\$	6,184,281
Subtotal of I, II, & III		\$	\$	5,343,664	\$	994,439	\$	6,338,103
Multiple use contingency for 2020, not in MOW Budget but included in O&M Budget								
<b>III. Operating &amp; Other Costs</b>								
	TM	\$	\$	1,600,000	\$	-	\$	1,600,000
	(9)			643,093				643,093
	(9)			1,399,150				1,399,150
	(9)			276,020				276,020
	TM			198,709				198,709
	TM			30,000				30,000
	TM			3,000				3,000
	TM			384,038				384,038
	TM			20,000				20,000
	TM			40,000				40,000
	TM			100,000				100,000
	TM			100,000				100,000
	TM			243,000				243,000
	Special Apportionment			-				-
	TM			10,000				10,000
Subtotal Operating & Other Costs		\$	\$	5,017,010	\$	168,013	\$	5,185,023
Total of I, II, & III		\$	\$	10,360,674	\$	894,439	\$	11,255,113
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
Total of I, II, & III		\$	\$	10,528,687	\$	1,062,452	\$	11,591,139
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
Total of I, II, & III		\$	\$	10,528,687	\$	1,062,452	\$	11,591,139
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
Total of I, II, & III		\$	\$	10,528,687	\$	1,062,452	\$	11,591,139
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
Total of I, II, & III		\$	\$	10,528,687	\$	1,062,452	\$	11,591,139
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
Total of I, II, & III		\$	\$	10,528,687	\$	1,062,452	\$	11,591,139
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
Total of I, II, & III		\$	\$	10,528,687	\$	1,062,452	\$	11,591,139
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
Total of I, II, & III		\$	\$	10,528,687	\$	1,062,452	\$	11,591,139
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
Total of I, II, & III		\$	\$	10,528,687	\$	1,062,452	\$	11,591,139
Subtotal of I, II, & III		\$	\$	168,013	\$	894,439	\$	1,062,452
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