

Attachment

4

***Stormwater Flood Management Grant Proposal
Santa Barbara County Flood and Water Conservation District
Budget***

Attachment 4 consists of the following items:

- ✓ **Budget.** Attachment 4 provides a budget estimate for each budget category row of the proposed project.

Introduction

This attachment presents detailed budget information and supporting documentation for the Las Vegas and San Pedro Creeks Union Pacific Railroad Bridge Replacement Project (UPRR Bridge Project). The project proposal offers tremendous investment value to the State for a number of reasons including:

- The proposal provides a 50 percent funding match from non-State sources, demonstrating there is a strong commitment from the Santa Barbara County Flood Control and Water Conservation District (District) and its partners to the implementation of this project.
- 82 percent of the grant funding request will be used directly for construction or construction-related activities.
- Construction costs reduced by millions by having Union Pacific Railroad (UPRR) do construction.

Table 4-1 provides a cost breakdown by Work Plan task and sub-task for each section. **Tables 4-2** through **4-8** provide detailed budget breakdowns for each of the budget categories. The cost breakdown for each budget is provided for each of the budget categories included in the sample budget provided in Exhibit B of the Proposition 1E IRWM Proposal Solicitation Package and are consistent with the categories included in the Work Plan (provided in Attachment 3) and Schedule (provided in Attachment 5).

Table 4-1: Total UPRR Bridge Project Budget

Budget Category		(a) Non-State Share* (Match)	(b) Requested Grant Funding	(c) Other State Funds Being Used	(d) Total	(e) % Funding Match
(a)	Direct Project Administration Costs	\$34,884.75	\$34,884.75	\$0	\$69,769.50	50%
(b)	Land Purchase/Easement	\$0.00	\$0.00	\$0	\$0.00	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	\$180,690.50	\$180,690.50	\$0	\$361,381.00	50%
(d)	Construction	\$2,030,541.50	\$2,030,541.50	\$0	\$4,061,083	50%
(e)	Environmental Compliance/ Mitigation/Enhancement	\$25,000.00	\$25,000.00	\$0	\$50,000	50%
(f)	Construction Administration	\$159,750.00	\$159,750.00	\$0	\$319,500	50%
(g)	Other Costs (Including Legal Costs, Permitting and Licenses)	\$0.00	\$0.00	\$0	\$0.00	0%
(h)	Construction Contingency	\$180,984.50	\$180,984.50	\$0	\$361,969	50%
(i)	Grand Total	\$2,611,851.25	\$2,611,851.25	\$0	\$5,223,702.50	
<p><i>* Sources of funding: All of the local contribution funds will be paid by the Santa Barbara County Flood Control and Water Conservation District, using South Coast Flood Zone funds. The District is funded through property tax assessments and benefit assessments. Assessment rates are based upon the proportionate amount of stormwater runoff, which vary from Flood Zone to Flood Zone. The South Coast Flood Zone is one out of nine County-wide flood zones. It spans the southern portion of the county from Refugio Coast to Rincon Point, and is bounded by the Santa Ynez Mountains and the Pacific Ocean.</i></p>						

Table 4-2: Cost Breakdown by Work Plan Task and Subtask

Row/Task	Category	Total
Row (a)	Direct Project Administration Costs	\$69,769.50
<i>Task 1</i>	<i>Project Administration</i>	<i>\$32,000.00</i>
<i>Task 2</i>	<i>Labor Compliance Program</i>	<i>\$34,000.00</i>
<i>Task 3</i>	<i>Reporting</i>	<i>\$3,769.50</i>
Row (b)	Land Purchase Easement	<i>\$0.00</i>
Row (c)	Planning/Design/Engineering/Environmental Documentation	\$361,381.00
<i>Task 4</i>	<i>Assessment and Evaluation</i>	<i>\$79,800.00</i>
<i>Task 5</i>	<i>Final Design</i>	<i>\$279,300.00</i>
<i>Task 6</i>	<i>Environmental Documentation</i>	<i>\$2,281.00</i>
<i>Task 7</i>	<i>Permitting</i>	<i>\$0.00</i>
Row (d)	Construction/Implementation	\$4,061,083.00
<i>Task 8</i>	<i>Construction Contracting</i>	<i>\$47,900.00</i>
<i>Task 9</i>	<i>Construction</i>	<i>\$4,013,183.00</i>
Row (e)	Environmental Compliance/Mitigation/Enhancement	\$50,000.00
<i>Task 10</i>	<i>Environmental Compliance/Mitigation/Enhancement</i>	<i>\$50,000.00</i>
Row (f)	Construction Administration	\$319,500.00
<i>Task 11</i>	<i>Construction Administration</i>	<i>\$319,500.00</i>
Row (g)	Other Costs	<i>\$0.00</i>
Row (h)	Construction/Implementation Contingency	\$361,969.00
Row (i)	Grand Total	\$5,223,702.50

Cost estimates are based on HDR’s cost estimate¹ obtained on December 28, 2012. The District revised the costs (Revised HDR’s cost estimate) and removed the 20 percent contingency and included additional costs for this proposal. The Revised HDR’s cost estimate table is attached in Exhibit 4-1. HDR’s cost estimate table is attached in Exhibit 4-2 for reference purposes only.

¹ HDR cost estimate, "Las Vegas/San Pedro Creek Capacity Improvement Project – UPRR Bridges 358.52 and 358.77, Santa Barbara Subdivision, Goleta, CA – Preliminary Estimate of Probable Project Cost, Revised 12/28/2012"

Row (a) Direct Project Administration Costs

Task 1 – Project Administration:

The project administration cost estimate of \$32,000 (shown in **Table 4-3**) is based on 40 percent of the Revised HDR's cost estimate for the District's administration and construction management (\$80,000). The Revised HDR's cost estimate for the District's administration and construction management is 2 percent of the construction costs (\$3,619,683); therefore, 0.9 percent of the construction costs (without contingency). These costs account for all project administrative activities (reporting tasks, managing planning, environment compliance, review of design plans, coordinating budget) and development of a Memorandum of Understanding with UPRR.

Task 2 – Labor Compliance Program:

Labor Compliance Program (LCP) costs of \$34,000 (shown in **Table 4-3**) were calculated based on an estimated 58 percent fee of the project construction costs (not including contingency costs). These allocated costs will be used to contract with CS & Associates, Inc, LLC to implement the LCP.

Task 3 – Reporting:

The project manager will prepare and submit quarterly and final progress reports and invoices to DWR. Reporting costs are included under Task 1 Project Administration Costs.

Table 4-3: Row (a) Direct Project Administration Budget

Discipline	Hourly Wage (\$/hr)	Number of Hours	Total
Project Administration			
Project Administration	Lump Sum Estimate	N/A	\$32,000
Labor Compliance Program			
Project Administration	Lump Sum Estimate	N/A	\$34,000
Reporting			
Project Manager	\$125.65	30	\$3,769.50
Total			\$69,769.50

Row (b) Land Purchase/Easement

There is no land purchase needed for this project.

Row (c) Planning/Design/Engineering/Environmental Documentation

Task 4 – Assessment and Evaluation:

Assessment and evaluation activities have already been completed, and include:

- UPRR Bridge Replacement Hydrology and Hydraulic Analysis Report (January 2013)
- Geotechnical Report (January 2013)
- Final Hydrology and Hydraulic Analysis Report, Parts 1 and 2 (HDR Engineering, April, 2008):
- Draft Project Report (Caltrans, October, 2010)

All assessment and evaluation has been completed and \$79,800 was expended (**Table 4-5**).

Task 5 – Final Design:

Final design plans and specifications will be prepared at the final design completion levels. The consultant will perform the design; this is anticipated to cost \$279,300. District staff will work with the consultants during the design process. The level of effort to review consultant’s work for consistency, constructability and concurrence with design standards will be included in Task 1. See **Table 4-5** for a detailed cost breakdown.

Task 6 – Environmental Documentation:

The following environmental documents that have been prepared and completed include approved and adopted CEQA/NEPA documentation (categorical exclusion) and the Mitigated Negative Declaration. Costs for this task include incidental work required to inform regulatory agencies of work progress (since permits have already been completed). The consultant cost to report to regulatory agencies as required and comply with environmental permits is \$2,281 (**Table 4-5**).

Task 7 – Permitting:

The following environmental and regulatory permitting has been completed:

- Section 401 RWQCB Water Quality Certification No. 34212WQ05.
- Section 1600 DFG Streambed Alteration Agreement No. 1600-2012-0155-R5
- Army Corps of Engineers Nationwide Permits 6 and 43

Permitting has been completed for this project.

Table 4-5: Row (c) Planning/Design/Engineering/Environmental Documentation Budget

Discipline	Hourly Wage (\$/hr)	Number of Hours	Total
Assessment and Evaluation			
Engineering Consultants	Lump Sum Estimate	N/A	\$79,800.00
Final Design			
Engineering Consultants	Lump Sum Estimate	N/A	\$279,300.00
Environmental Documentation			
Environmental Documentation – Environmental Planner	\$114.05/hr	14-15	\$2,281.00
Permitting			
Permits (complete)	--	--	\$0
Total			\$361,381.00

Row (d) Construction

Task 8 – Construction Contracting:

The construction contracting for the project will be handled by the UPRR. Tasks include

Costs to advertise and acquire the construction contractor are estimated to be \$47,900. Construction contracting costs are 10% of Plans, Specifications and Estimate Engineering and Bid Support and 10% of District’s Administration and Construction Management (**Table 4-6**).

Task 9 – Construction:

Construction costs are estimated to be \$4,013,183. As shown in **Table 4-6**, costs were broken down by common construction divisions. As the project is at the conceptual design phase, these estimates are from a preliminary engineer’s estimate. Cost for labor is included in equipment and materials. This procedure is based on Caltrans construction cost estimating method that combines these three costs, which are in turn based on averaged prices per bid item as bid by contractors. In other words, each bid item in the bid combines these three items.

Table 4-6: Row (d) Construction Costs¹

Discipline	Hourly Wage (\$/hr)	Number of Hours	Total
Construction Contracting			
Construction Contracting	Lump Sum Estimate	N/A	\$47,900
Construction			
Equipment and Materials			

Materials Used	Unit Costs (\$)	Number of Units	Total
Subtask 9.1 Mobilization and Site Preparation			
Mobilization (7.5% of base construction costs)	\$246,797	1	\$246,797
Construction Survey	\$40,000	1	\$40,000
Fiber Optic Cable Line Relocation	\$150	5,000	\$750,000
2-36" storm drain cut back/reconstruct headwall	\$400	45	\$18,000
SWPPP	\$50,000	1	\$50,000
UPRR Construction Flagging Costs	\$800	180	\$144,000
UPRR Weekend Outage Busing	\$50,000	1	\$50,000
Equipment and Materials			
Materials Used	Unit Costs (\$)	Number of Units	Total
Subtask 9.2 Project Construction			
Las Vegas Creek UPRR Bridge			
30" x 30'-0" P/S Concrete Box Girders	\$20,000	12	\$20,000
Precast Concrete End Cap	\$15,000	4	\$15,000
Precast Concrete Interior Cap	\$15,000	4	\$15,000
Precast Concrete Wing Wall	\$5,000	2	\$5,000
Concrete Curb with Grated Walkway	\$200	450	\$200
Structural Steel (Shear Wall)	\$ 5.50	43000	\$ 5.50
Miscellaneous Steel	\$5.50	6,200	\$ 5.50
A615 Gr60 Reinforcing	\$1.25	72,000	\$1.25
Furnish HP14 Piles	\$50	3,200	\$50
Drive HP 14 Piles	\$2,000	16	\$2,000
Track Replacement	\$ 90	110	\$ 90
Drainage	\$30,000	1	\$30,000
Structural Backfill	\$150	13	\$150
Excavation	\$35	2,000	\$35
Concrete Slope Protection	\$100	200	\$100
Signal Support During Track Replacement on Bridge	\$5,000	1	\$5,000
Remove Existing Bridge,	\$2,000	21	\$2,000

Including Track			
San Pedro Creek UPRR Bridge			
30" x 30'-0" P/S Concrete Box Girders	\$20,000	8	\$160,000
30" x 34'-0" P/S Concret Box Girders	\$22,500	4	\$90,000
Precast Concrete End Cap	\$15,000	4	\$60,000
Precast Concrete Interior Cap	\$15,000	4	\$60,000
Precast Concrete Wing Wall	\$5,000	2	\$10,000
Concrete Curb with Grated Walkway	\$200	460	\$92,000
Structural Steel (Shear Wall)	\$5.50	43,000	\$236,500
Miscellaneous Steel	\$5.50	6,200	\$34,100
A615 Gr60 Reinforcing	\$1.25	72,000	\$90,000
Furnish HP14 Piles	\$50	3,200	\$160,000
Drive HP 14 Piles	\$2,000	16	\$32,000
Track Replacement	\$90	118	\$10,620
Drainage	\$30,000	1	\$30,000
Structural Backfill	\$150	13	\$1,950
Excavation	\$35	3,000	\$105,000
Concrete Slope Protection	\$100	200	\$20,000
Signal Support During Track Replacement on Bridge	\$5,000	1	\$5,000
Remove Existing Bridge, Including Track	\$2,000	42	\$84,000
<i>Subtask 9.3 Performance Testing and Demobilization</i>			
Demobilization (2.5% of Base Construction Cost)	\$82,266	1	\$40,100
Geotechnical Materials Testing (use 1/2 costs from HDR estimate allocated to "Construction Management, Inspection and Materials Testing")	\$319,000	0.5	\$159,500
		Total	\$4,061,083

¹ This cost estimate is based on preliminary engineering estimate only from HDR cost estimate (Dec 2012, Exhibit 4-2). The numbers are subject to change.

Row (e) Environmental Compliance/Mitigation/Enhancement

Task 10- Environmental Compliance/Mitigation/Enhancement:

Environmental compliance, mitigation and enhancement activities include biology and cultural compliance and assessment. Total costs are \$50,000² and 50 percent is for mitigation. Monitoring and assessment costs after project construction is not included in the budget, per PSP Guidelines, page 33.

Row (f) Construction Administration

Task 11- Construction Administration:

As described in the Work Plan (Attachment 3), District staff will oversee construction related activities and a consultant will be hired to perform construction management services. The District’s level of effort is estimated to be \$40,000 based on the level of effort estimates and the consultant cost is estimated to be \$279,500. The total cost for construction administration is estimated to be \$319,500. The base of the cost are from the Revised HDR cost estimate:

- District Civil Engineering Project Manager is calculated from 50 percent of District’s Administration and Construction Management (row 46 of Revised HDR cost estimate).
- Consultant Engineering cost is from Revised HDR’s Construction Management, Inspection and Materials Testing (row 45 of Revised HDR cost estimate).
- Consultant Design Engineer is from Revised HDR’s Engineering Support during Construction (row 44 of Revised HDR cost estimate).

See **Table 4-7** for details on the cost estimate.

Table 4-7: Row (f) Construction Administration Costs

Discipline	Hourly Wage (\$/hr)	Number of Hours	Total
District Civil Engineering Project Manager	Lump Sum	N/A	\$40,000
Consultant Engineer	Lump Sum	N/A	\$159,500
Consultant Design Engineer	Lump Sum	N/A	\$120,000
Total			\$319,500

Row (g) Other Costs

There are no additional activities and costs.

² Construction monitoring item (row 43) in District’s revised cost of HDR cost estimate, January 2013.

Row (h) Construction Contingency

A 10% construction contingency is being allocated to the project based on a percentage of the raw (equipment and materials portion of) construction costs (Task 9). The 10% contingency was selected because the project is at a 60 percent design level conceptual level design and is the contingency percentage used by the District on similar projects. The total allocated contingency for the project is \$361,969.

The contingency cost covers any unforeseen circumstances out in the field that have not been encountered during the initial design and subsequent design phases. It includes all unforeseen underground utilities, concrete or other items that have to be removed or relocated in order to complete construction. Unforeseen, or changed conditions, are handled via extra work change orders which require approval by deputy public works manager. The amount of monies allocated to the construction contingency is typically 10% of all construction costs, and is an amount approved by the Board of Directors during the award of the construction contract. The construction contingency allows change orders to be processed efficiently and quickly through Public Works accounting without having to approach the Board of Directors for additional monies.

Row (i) Grand Total

The grand total of rows (a) through (h) is \$5,223,702.50 as shown below in **Table 4-8**.

Table 4-8: Row (i) Grand Total Costs

Row	Budget Category	Total Costs
(a)	Direct Project Administration Costs	\$69,769.50
(b)	Land Purchase/Easement	\$0
(c)	Planning/Design/Engineering/ Environmental Documentation	\$361,381.00
(d)	Construction/Implementation	\$4,061,083
(e)	Environmental Compliance/ Mitigation/Enhancement	\$50,000
(f)	Construction Administration	\$319,500
(g)	Other Costs (Includes Permitting)	\$0
(h)	Construction/Implementation Contingency	\$361,969
(i)	Grand Total	\$5,223,702.50

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Exhibit 4-1

Revised HDR's Cost Estimate (January 26, 2013)

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Las Vegas and San Pedro Creeks Cost Estimate - Revised from HDR Cost Estimate (12/28/2012)

Construction Costs					Total Project Cost	Flood Control Costs	Prop 1E Grant Request
Las Vegas Creek Construction							
Item #	Description	Quantity	Units	unit cost			
1	30" x 30'-0" P/S Concrete Box Girders	12	EA	\$ 20,000.00	\$ 240,000.00	\$ 120,000.00	\$ 120,000.00
2	Precast Concrete End Cap	4	EA	\$ 15,000.00	\$ 60,000.00	\$ 30,000.00	\$ 30,000.00
3	Precast Concrete Interior Cap	4	EA	\$ 15,000.00	\$ 60,000.00	\$ 30,000.00	\$ 30,000.00
4	Precast Concrete Wing Wall	2	EA	\$ 5,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00
5	Concrete Curb with Grated Walkway	450	LF	\$ 200.00	\$ 90,000.00	\$ 45,000.00	\$ 45,000.00
6	Structural Steel (Shear Wall)	43000	LB	\$ 5.50	\$ 236,500.00	\$ 118,250.00	\$ 118,250.00
7	Miscellaneous Steel	6200	LB	\$ 5.50	\$ 34,100.00	\$ 17,050.00	\$ 17,050.00
8	A615 Gr60 Reinforcing	72000	LB	\$ 1.25	\$ 90,000.00	\$ 45,000.00	\$ 45,000.00
9	Furnish HP14 Piles	3200	LF	\$ 50.00	\$ 160,000.00	\$ 80,000.00	\$ 80,000.00
10	Drive HP 14 Piles	16	EA	\$ 2,000.00	\$ 32,000.00	\$ 16,000.00	\$ 16,000.00
11	Track Replacement	110	LF	\$ 90.00	\$ 9,900.00	\$ 4,950.00	\$ 4,950.00
12	Drainage	1	LS	\$ 30,000.00	\$ 30,000.00	\$ 15,000.00	\$ 15,000.00
13	Structural Backfill	13	CY	\$ 150.00	\$ 1,950.00	\$ 975.00	\$ 975.00
14	Excavation	2000	CY	\$ 35.00	\$ 70,000.00	\$ 35,000.00	\$ 35,000.00
15	Concrete Slope Protection	200	CY	\$ 100.00	\$ 20,000.00	\$ 10,000.00	\$ 10,000.00
16	Signal Support During Track Replacement on Bridge	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 2,500.00	\$ 2,500.00
17	Remove Existing Bridge, Including Track	21	LF	\$ 2,000.00	\$ 42,000.00	\$ 21,000.00	\$ 21,000.00
Las Vegas Creek Construction Subtotal					\$ 1,191,450.00	\$ 595,725.00	\$ 595,725.00
San Pedro Creek Construction							
Item #	Description	Quantity	Units	unit cost			
18	30" x 30'-0" P/S Concrete Box Girders	8	EA	\$ 20,000.00	\$ 160,000.00	\$ 80,000.00	\$ 80,000.00
19	30" x 34'-0" P/S Concrete Box Girders	4	EA	\$ 22,500.00	\$ 90,000.00	\$ 45,000.00	\$ 45,000.00
20	Precast Concrete End Cap	4	EA	\$ 15,000.00	\$ 60,000.00	\$ 30,000.00	\$ 30,000.00
21	Precast Concrete Interior Cap	4	EA	\$ 15,000.00	\$ 60,000.00	\$ 30,000.00	\$ 30,000.00
22	Precast Concrete Wing Wall	2	EA	\$ 5,000.00	\$ 10,000.00	\$ 5,000.00	\$ 5,000.00
23	Concrete Curb with Grated Walkway	460	LF	\$ 200.00	\$ 92,000.00	\$ 46,000.00	\$ 46,000.00
24	Structural Steel (Shear Wall)	43000	LB	\$ 5.50	\$ 236,500.00	\$ 118,250.00	\$ 118,250.00
25	Miscellaneous Steel	6200	LB	\$ 5.50	\$ 34,100.00	\$ 17,050.00	\$ 17,050.00
26	A615 Gr60 Reinforcing	72000	LB	\$ 1.25	\$ 90,000.00	\$ 45,000.00	\$ 45,000.00
27	Furnish HP14 Piles	3200	LF	\$ 50.00	\$ 160,000.00	\$ 80,000.00	\$ 80,000.00
28	Drive HP 14 Piles	16	EA	\$ 2,000.00	\$ 32,000.00	\$ 16,000.00	\$ 16,000.00
29	Track Replacement	118	LF	\$ 90.00	\$ 10,620.00	\$ 5,310.00	\$ 5,310.00
30	Drainage	1	LS	\$ 30,000.00	\$ 30,000.00	\$ 15,000.00	\$ 15,000.00
31	Structural Backfill	13	CY	\$ 150.00	\$ 1,950.00	\$ 975.00	\$ 975.00
32	Excavation	3000	CY	\$ 35.00	\$ 105,000.00	\$ 52,500.00	\$ 52,500.00
33	Concrete Slope Protection	200	CY	\$ 100.00	\$ 20,000.00	\$ 10,000.00	\$ 10,000.00
34	Signal Support During Track Replacement on Bridge	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 2,500.00	\$ 2,500.00
35	Remove Existing Bridge, Including Track	42	LF	\$ 2,000.00	\$ 84,000.00	\$ 42,000.00	\$ 42,000.00
Subtotal San Pedro Creek Construction					\$ 1,281,170.00	\$ 640,585.00	\$ 640,585.00
Total Base Construction Costs For Las Vegas and San Pedro Creeks					\$ 2,472,620.00	\$ 1,236,310.00	\$ 1,236,310.00
General Construction related Costs							
36	Fiber Optic Cable Line Relocation	5,000.00	LF	\$ 150.00	\$ 750,000.00	\$ 375,000.00	\$ 375,000.00
37	2-36" storm drain cut back/ reconstruct headwall	45.00	LF	\$ 400.00	\$ 18,000.00	\$ 9,000.00	\$ 9,000.00
38	SWPPP	1.00	LS	\$ 50,000.00	\$ 50,000.00	\$ 25,000.00	\$ 25,000.00
Subtotal General Construction Related Costs					\$ 818,000.00	\$ 409,000.00	\$ 409,000.00
Total Base and General Construction Costs For Las Vegas and San Pedro Creeks					\$ 3,290,620.00	\$ 1,645,310.00	\$ 1,645,310.00
Mobilization and Demobilization							
39	Mobilization (7.5% base construction cost)	1.00	LS	\$ 246,797.00	\$ 246,797.00	\$ 123,398.50	\$ 123,398.50
40	Demobilization (2.5% base construction cost)	1.00	LS	\$ 82,266.00	\$ 82,266.00	\$ 41,133.00	\$ 41,133.00
Subtotal Base Construction Costs with Mobilization and Demobilization					\$ 3,619,683.00	\$ 1,809,841.50	\$ 1,809,841.50
Construction Cost Contingency							
41	Construction Contingency (10% Base Construction Costs with Mobilization and Demobilization)	1.00	LS	\$ 361,969.00	\$ 361,969.00	\$ 180,984.50	\$ 180,984.50
Total Construction Costs					\$ 3,981,652.00	\$ 1,990,826.00	\$ 1,990,826.00
Other Project Costs							
42	PS&E Engineering and Bid Support @ 10% (HDR)				\$ 399,000.00	\$ 199,500.00	\$ 199,500.00
43	Construction Monitoring (Permits, Biology, Cultural)	1.0	LS	\$ 50,000.00	\$ 50,000.00	\$ 25,000.00	\$ 25,000.00
44	Engineering Support During Construction @ 3% (HDR)				\$ 120,000.00	\$ 60,000.00	\$ 60,000.00
45	Construction Management, Inspection and Materials Testing @ 8%				\$ 319,000.00	\$ 159,500.00	\$ 159,500.00
46	SBCFCD Administration and Construction Management @ 2%				\$ 80,000.00	\$ 40,000.00	\$ 40,000.00
47	*Labor Compliance Program Oversight and Administration @ 0.57%				\$ 34,000.00	\$ 17,000.00	\$ 17,000.00
48	*Construction Survey @ 1% construction costs				\$ 40,000.00	\$ 20,000.00	\$ 20,000.00
49	UPRR Construction Flagging Cost (180 days)	180	days	\$ 800.00	\$ 144,000.00	\$ 72,000.00	\$ 72,000.00
50	UPRR Weekend Outage Busing	1.0	LS	\$ 50,000.00	\$ 50,000.00	\$ 25,000.00	\$ 25,000.00
Total Other Project Costs					\$ 1,236,000.00	\$ 114,000.00	\$ 114,000.00
Total Project Costs:					\$ 5,217,652.00	\$ 1,923,841.50	\$ 1,923,841.50

*Added-in costs, not accounted for in HDR estimate

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Exhibit 4-2

HDR's Cost Estimate (December 28, 2012)

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Las Vegas/San Pedro Creek Capacity Improvement Project
UPRR Bridges 358.52 and 358.77, Santa Barbara Subdivision, Goleta, CA
PRELIMINARY ESTIMATE OF PROBABLE PROJECT COST - Revised 12/28/2012
Double Track Bridge



LINE NO.	ITEM	ESTIMATED QUANTITY	UNIT	UNIT PRICE	20%	COST WITH CONTINGENCY (ROUNDED)
					DESIGN COST CONTINGENCY	
BASE CONSTRUCTION						
Las Vegas Creek UPRR Bridge						
<i>SuperStructure</i>						
1.	30" x 30'-0" P/S Concrete Box Girders	12	EA	\$ 20,000	20%	\$ 288,000
<i>SubStructure</i>						
2.	Precast Concrete End Cap	4	EA	\$ 15,000	20%	\$ 72,000
3.	Precast Concrete Interior Cap	4	EA	\$ 15,000	20%	\$ 72,000
4.	Precast Concrete Wing Wall	2	EA	\$ 5,000	20%	\$ 12,000
5.	Concrete Curb with Grated Walkway	450	LF	\$ 200.00	20%	\$ 108,000
6.	Structural Steel (Shear Wall)	43,000	LB	\$ 5.50	20%	\$ 284,000
7.	Miscellaneous Steel	6,200	LB	\$ 5.50	20%	\$ 41,000
8.	A615 Gr60 Reinforcing	72,000	LB	\$ 1.25	20%	\$ 108,000
9.	Furnish HP14 Piles	3,200	LF	\$ 50	20%	\$ 192,000
10.	Drive HP 14 Piles	16	EA	\$ 2,000	20%	\$ 39,000
<i>Civil/Track Work</i>						
11.	Track Replacement	110	TF	\$ 90	20%	\$ 12,000
12.	Drainage	1	LS	\$ 30,000	20%	\$ 36,000
13.	Structural Backfill	13	CY	\$ 150	20%	\$ 3,000
14.	Excavation	2,000	CY	\$ 35	20%	\$ 84,000
15.	Concrete Slope Protection	200	CY	\$ 100	20%	\$ 24,000
<i>Signal</i>						
16.	Signal Support During Track Replacement on Bridge	1	LS	\$ 5,000	20%	\$ 6,000
<i>Demolition</i>						
17.	Remove Existing Bridge, Including Track	21	LF	\$ 2,000	20%	\$ 51,000
San Pedro Creek UPRR Bridge						
<i>SuperStructure</i>						
18.	30" x 30'-0" P/S Concrete Box Girders	8	EA	\$ 20,000	20%	\$ 192,000
19.	30" x 34'-0" P/S Concrete Box Girders	4	EA	\$ 22,500	20%	\$ 108,000
<i>SubStructure</i>						
20.	Precast Concrete End Cap	4	EA	\$ 15,000	20%	\$ 72,000
21.	Precast Concrete Interior Cap	4	EA	\$ 15,000	20%	\$ 72,000
22.	Precast Concrete Wing Wall	2	EA	\$ 5,000	20%	\$ 12,000
23.	Concrete Curb with Grated Walkway	460	LF	\$ 200.00	20%	\$ 111,000
24.	Structural Steel (Shear Wall)	43,000	LB	\$ 5.50	20%	\$ 284,000
25.	Miscellaneous Steel	6,200	LB	\$ 5.50	20%	\$ 41,000
26.	A615 Gr60 Reinforcing	72,000	LB	\$ 1.25	20%	\$ 108,000
27.	Furnish HP14 Piles	3,200	LF	\$ 50	20%	\$ 192,000
28.	Drive HP 14 Piles	16	EA	\$ 2,000	20%	\$ 39,000
<i>Civil/Track Work</i>						
29.	Track Replacement	118	TF	\$ 90	20%	\$ 13,000
30.	Drainage	1	LS	\$ 30,000	20%	\$ 36,000
31.	Structural Backfill	13	CY	\$ 150	20%	\$ 3,000
32.	Excavation	3,000	CY	\$ 35	20%	\$ 126,000
33.	Concrete Slope Protection	200	CY	\$ 100	20%	\$ 24,000
<i>Signal</i>						
34.	Signal Support During Track Replacement on Bridge	1	LS	\$ 5,000	20%	\$ 6,000
<i>Demolition</i>						
35.	Remove Existing Bridge, Including Track	42	LF	\$ 2,000	20%	\$ 101,000

General Construction						
<i>Utilities</i>						
36.	Fiber Optic Line Relocation	5,000	LF	\$ 150	20%	\$ 900,000
37.	2-36" Storm Drain cut back/Reconstruct Headwall	45	LF	\$ 400	20%	\$ 22,000
<i>Right-of-Way</i>						
38.	Temporary Construction Easements	0	SF	\$ 5	20%	\$ -
<i>Other Contractor Costs</i>						
39.	SWPPP	1	LS	\$ 50,000	20%	\$ 60,000
<i>Subtotal Base Construction Cost</i>						\$ 3,954,000
<i>Mobilization/Demobilization</i>						
40.	Mobilization @ 7.5% of Base Construction Cost	1	LS	\$ 296,550		\$ 297,000
41.	Demobilization @ 2.5% of Base Construction Cost	1	LS	\$ 98,850		\$ 99,000
<i>Base Construction Cost with Mob./Demob.</i>						\$ 4,350,000
<i>Construction Cost Contingency</i>						
42.	Construction Contingency @ 10%					\$ 435,000
<i>Total Base Construction Cost</i>						\$ 4,785,000
OTHER PROJECT COSTS						
43.	PS&E Engineering and Bid Support @ 10%					\$ 479,000
44.	Construction Monitoring (Permits, Biology, Cultural)	1	LS	\$ 50,000		\$ 50,000
45.	Engineering Support During Construction @ 3%					\$ 144,000
46.	Construction Management, Inspection and Materials Testing @ 8%					\$ 383,000
47.	SBCFCD Administration and Construction Management @ 2%					\$ 96,000
48.	UPRR Construction Flagging Cost (180 days)	180	DAYS	\$ 800		\$ 144,000
49.	UPRR Weekend Outage Busing	1	LS	\$ 50,000		\$ 50,000
<i>Subtotal Other Project Costs</i>						\$ 1,346,000
Total Project Cost (current dollars)						\$ 6,131,000
<i>Inflation Contingency</i>						
50.	Escalation to Midpoint of Construction (July 2014) @	2.0%	per year for	2	year(s)	\$ 248,000
51.	Escalation to Midpoint of Construction (July 2015) @	4.0%	per year for	3	year(s)	\$ 766,000
52.	Escalation to Midpoint of Construction (July 2016) @	4.0%	per year for	4	year(s)	\$ 1,042,000
53.	Escalation to Midpoint of Construction (July 2017) @	4.0%	per year for	5	year(s)	\$ 1,329,000
54.	Escalation to Midpoint of Construction (July 2018) @	4.0%	per year for	6	year(s)	\$ 1,627,000
Total Project Cost						\$ 6,379,000

Notes:

- This conceptual cost estimate is based on engineering judgment only, and is not based on specific design information.
- Estimate does not include channel work outside of UPRR right-of-way.
- The project costs shown should be utilized for preliminary budget planning purposes only.



Las Vegas/San Pedro Creek Capacity Improvement Project
UPRR Bridges 358.52 and 358.77, Santa Barbara Subdivision, Goleta, CA
PRELIMINARY ESTIMATE OF PROBABLE PROJECT COST - DRAFT
Double Track Bridge + Shoofly



LINE NO.	ITEM	ESTIMATED QUANTITY	UNIT	UNIT PRICE	UPDATED UNIT PRICE	DESIGN COST CONTINGENCY	COST WITH CONTINGENCY (ROUNDED)	NOTES
BASE CONSTRUCTION								
Las Vegas Creek UPRR Bridge								
<i>SuperStructure</i>								
1.	30" x 30'-0" P/S Concrete Box Girder w/ Curbs	12	EA	\$ 35,000	\$ 20,000	30%	\$ 312,000	SMRB - 28' Box Girders \$12,950 avg 207.6 - 28' Box Girders \$18,000
<i>SubStructure</i>								
2.	Precast Concrete End Cap	4	EA	\$ 15,000		30%	\$ 78,000	
3.	Precast Concrete Wing Walls	4	EA	\$ 5,000		30%	\$ 26,000	
4.	Precast Concrete Interior Cap (4'-0"D x 4'-6"W x 25'-0" L)	2	EA	\$ 15,000		30%	\$ 39,000	
5.	Cast-in-Place Concrete Interior Cap (4'-0"D x 4'-6"W x 25'-0" L)	2	EA	\$ 20,000		30%	\$ 52,000	SMRB - 3,900 CY Struct. Conc. at \$907.25 avg 207.6 - 477 CY Struct. Conc. at \$1,210
6.	Miscellaneous Steel	6,200	LB	\$ 5.50	\$ 5.50	30%	\$ 45,000	SMRB - 46,300 LB at \$5.23 avg 207.6 - 24,930 LB at \$6.00
7.	A615 Gr60 Reinforcing	72,000	LB	\$ 2.00	\$ 1.00	30%	\$ 94,000	SMRB - 1,755,100 LB at \$0.64 avg 207.6 - 136,661 LB at \$1.50
8.	4-ft CIDH Piles	600	LF	\$ 1,200	\$ 850	30%	\$ 663,000	SMRB - 930 FT at \$672.5 avg
9.	CSL Testing of CIDH Piles	12	EA	\$ 1,200		30%	\$ 19,000	
<i>Civil/Track Work</i>								
10.	Track Remove/Replace	120	TF	\$ 150	\$ 90	30%	\$ 15,000	207.6 - 600 TF at \$75
11.	Drainage	1	LS	\$ 30,000		30%	\$ 39,000	
12.	Structural Backfill	13	CY	\$ 265	\$ 150	30%	\$ 3,000	SMRB - 640 CY at \$104.25 avg C3098-09 - 213 CY at \$32.00 C3101-09 - 23 CY at \$385
13.	Excavation	1,000	CY	\$ 35		30%	\$ 46,000	SMRB - 1,050 CY Struct. at \$82.50 avg SMRB - 16,000 CY to Embankmnt at \$16.56 avg 207.6 - 79 CY Struct. at \$100
14.	Concrete Slope Protection	200	CY	\$ 100		30%	\$ 26,000	
<i>Signal</i>								
15.	Signal Support During Track Replacement on Bridge	1	LS	\$ 5,000		30%	\$ 7,000	
<i>Demolition</i>								
16.	Remove Existing Bridge, Including Track	21	LF	\$ 1,000	\$ 2,000	30%	\$ 55,000	207.6 - 554 LF at \$800



**Las Vegas/San Pedro Creek Capacity Improvement Project
UPRR Bridges 358.52 and 358.77, Santa Barbara Subdivision, Goleta, CA
PRELIMINARY ESTIMATE OF PROBABLE PROJECT COST - DRAFT
Double Track Bridge + Shoofly**



LINE NO.	ITEM	ESTIMATED QUANTITY	UNIT	UNIT PRICE	UPDATED UNIT PRICE	DESIGN COST CONTINGENCY	COST WITH CONTINGENCY (ROUNDED)	NOTES
San Pedro Creek UPRR Bridge								
<i>SuperStructure</i>								
17.	30" x 30'-0" P/S Concrete Box Girder w/ Curbs	8	EA	\$ 35,000	\$ 20,000	30%	\$ 208,000	SMRB - 28' Box Girders \$12,950 avg 207.6 - 28' Box Girders \$18,000
18.	30" x 34'-0" P/S Concrete Box Girder w/ Curbs	4	EA	\$ 40,000	\$ 22,500	30%	\$ 117,000	SMRB - 28' Box Girders \$12,950 avg 207.6 - 28' Box Girders \$18,000
<i>SubStructure</i>								
19.	Precast Concrete End Cap	4	EA	\$ 15,000		30%	\$ 78,000	
20.	Precast Concrete Wing Walls	4	EA	\$ 5,000		30%	\$ 26,000	
21.	Cast-in-Place Concrete Interior Cap (4'-0" D x 4'-6" W x 25'-0" L)	2	EA	\$ 20,000		30%	\$ 52,000	SMRB - 3,900 CY Struct. Conc. at \$907.25 avg 207.6 - 477 CY Struct. Conc. at \$1,210
22.	4-ft CIDH Piles	630	FT	\$ 1,200	\$ 850	30%	\$ 697,000	SMRB - 930 FT at \$672.5 avg
23.	A615 Gr60 Reinforcing	75,900	LB	\$ 2	\$ 1.00	30%	\$ 99,000	SMRB - 1,755,100 LB at \$0.64 avg 207.6 - 136,661 LB at \$1.50
24.	Miscellaneous Steel	6,200	LB	\$ 5.50	\$ 5.50	30%	\$ 45,000	SMRB - 46,300 LB at \$5.23 avg 207.6 - 24,930 LB at \$6.00
25.	CSL Testing of CIDH Piles	9	EA	\$ 1,200		30%	\$ 15,000	
<i>Civil/Track Work</i>								
26.	Track Remove/Replace	120	TF	\$ 150	\$ 90	30%	\$ 15,000	207.6 - 600 TF at \$75
27.	Drainage	1	LS	\$ 30,000		30%	\$ 39,000	
28.	Structural Backfill	13	CY	\$ 265	\$ 150	30%	\$ 3,000	SMRB - 640 CY at \$104.25 avg C3098-09 - 213 CY at \$32.00 C3101-09 - 23 CY at \$385
29.	Excavation	1,500	CY	\$ 35		30%	\$ 69,000	SMRB - 1,050 CY Struct. at \$82.50 avg SMRB - 16,000 CY to Embankmnt at \$16.56 avg 207.6 - 79 CY Struct. at \$100
30.	Concrete Slope Protection	200	CY	\$ 100		30%	\$ 26,000	
<i>Signal</i>								
31.	Signal Support During Track Replacement on Bridge	1	LS	\$ 5,000		30%	\$ 7,000	
<i>Demolition</i>								
32.	Remove Existing Bridge, Including Track	42	LF	\$ 1,000	\$ 2,000	30%	\$ 110,000	207.6 - 554 LF at \$800



**Las Vegas/San Pedro Creek Capacity Improvement Project
UPRR Bridges 358.52 and 358.77, Santa Barbara Subdivision, Goleta, CA
PRELIMINARY ESTIMATE OF PROBABLE PROJECT COST - DRAFT
Double Track Bridge + Shoofly**



LINE NO.	ITEM	ESTIMATED QUANTITY	UNIT	UNIT PRICE	UPDATED UNIT PRICE	DESIGN COST CONTINGENCY	COST WITH CONTINGENCY (ROUNDED)	NOTES
General Construction								
Shoofly Track								
33.	New Shoofly-Track (wood ties, 136# CWR, ballast)	2,390	TF	\$ 250	\$ 225	10%	\$ 592,000	C3098-09- 4503TF ballast/sub-/OTM only at \$88 C3101-09- 7009TF ballast/sub-/OTM only - \$130
34.	Shift Track	750	TF	\$ 50	\$ 40	10%	\$ 33,000	SMRB - 6,990 TF at \$34 avg C3098-09 - 985 TF Struct. at \$41 C3101-09 - 1046 TF Struct. at \$38
35.	Remove Shoofly Track	2,390	TF	\$ 40	\$ 25	10%	\$ 66,000	C3101-09 - 1329 TF Remove and Scrap at \$18
36.	Unclassified Excavation	4,020	CY	\$ 35		30%	\$ 183,000	SMRB - 1,050 CY Struct. at \$82.50 avg SMRB - 16,000 CY to Embankmnt at \$16.56 avg 207.6 - 79 CY Struct. at \$100
37.	Compacted Embankment (shoofly-track)	5,550	CY	\$ 50	\$ 35	30%	\$ 253,000	
38.	Subballast	1,170	CY	\$ 80	\$ 65	30%	\$ 99,000	SMRB - 9,420 CY at \$51.55 avg
39.	No.11 Turnout	1	EA	\$ 160,000		10%	\$ 176,000	
40.	Industry Spur - Track Rehabilitation	300	TF	\$ 100		30%	\$ 39,000	
Retaining Wall								
41.	Steel Sheet Piling	4,320	SF	\$ 80	\$ 55	30%	\$ 309,000	C3098-09 - 8,821 SF at \$46.60
Utilities								
42.	Fiber Optic Line Relocation	5,000	LF	\$ 150		30%	\$ 975,000	
43.	2-36" Storm Drain cut back/Reconstruct Headwall	45	LF	\$ 400		30%	\$ 24,000	SMRB - Remove Culvert EA at \$2,715 avg. SMRB - Remove Headwall EA at \$2,306.25 avg.
Right-of-Way								
44.	Temporary Construction Easements	5,000	SF	\$ 5		30%	\$ 33,000	
Other Contractor Costs								
45.	SWPPP	1	LS	\$ 50,000		30%	\$ 65,000	
46.	<i>Subtotal Base Construction Cost</i>						\$ 5,972,000	previously \$7,532,000
47.	<i>Construction Phasing Contingency @ 20% of Base Constr. Cost</i>						\$ 1,195,000	previously \$1,507,000
48.	<i>Subtotal Base Construction Cost</i>						\$ 7,167,000	previously \$9,039,000
Mobilization/Demobilization								
49.	Mobilization @ 7.5% of Base Construction Cost	1	LS	\$ 447,900			\$ 538,000	previously \$678,000
50.	Demobilization @ 2.5% of Base Construction Cost	1	LS	\$ 149,300			\$ 180,000	previously \$226,000
	<i>Base Construction Cost with Mob./Demob.</i>						\$ 7,885,000	previously \$9,943,000
Construction Cost Contingency								
51.	Construction Contingency @ 10%						\$ 789,000	previously \$995,000
	Total Base Construction Cost						\$ 8,674,000	previously \$10,938,000
OTHER PROJECT COSTS								
52.	PS&E Engineering and Bid Support @ 10%						\$ 868,000	previously \$1,094,000



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Double Track Bridge + Shoofly**



LINE NO.	ITEM	ESTIMATED QUANTITY	UNIT	UNIT PRICE	UPDATED UNIT PRICE	DESIGN COST CONTINGENCY	COST WITH CONTINGENCY (ROUNDED)	NOTES
53.	Construction Monitoring (Permits, Biology, Cultural)	1	LS	\$ 50,000			\$ 50,000	previously \$50,000
54.	Engineering Support During Construction @ 3%						\$ 261,000	previously \$329,000
55.	Construction Management, Inspection and Materials Testing @ 8%						\$ 694,000	previously \$876,000
56.	SBCFCD Administration and Construction Management @ 2%						\$ 174,000	previously \$219,000
57.	UPRR Construction Flagging Cost (240 days)	240	DAYS	\$ 800			\$ 192,000	previously \$192,000
	<i>Subtotal Other Project Costs</i>						\$ 2,239,000	previously \$2,760,000
	Total Project Cost (current dollars)						\$ 10,913,000	previously \$13,698,000
	<i>Inflation Contingency</i>							
58.	Escalation to Midpoint of Construction (July 2010) @	4.0%	per year for	2		year(s)	\$ 891,000	previously \$2,280,000
59.	Escalation to Midpoint of Construction (July 2011) @	4.0%	per year for	3		year(s)	\$ 1,363,000	previously \$3,558,000
60.	Escalation to Midpoint of Construction (July 2012) @	4.0%	per year for	4		year(s)	\$ 1,854,000	previously \$4,938,000
61.	Escalation to Midpoint of Construction (July 2013) @	4.0%	per year for	5		year(s)	\$ 2,365,000	previously \$6,429,000
62.	Escalation to Midpoint of Construction (July 2014) @	4.0%	per year for	6		year(s)	\$ 2,896,000	previously \$8,040,000
	Total Project Cost						\$ 11,804,000	previously \$15,978,000

Notes:

- This conceptual cost estimate is based on engineering judgment only, and is not based on specific design information.
- Estimate does not include channel work outside of UPRR right-of-way.
- The project costs shown should be utilized for preliminary budget planning purposes only.
- Costs from "SMRB" are taken from Santa Margarita River Bridge Project Bid Comparison, and consists of the average value from 4 contractor bids - 8/39/2009
- Cost from "207.6" are taken from NCTD Bridge 207.6 Bridge Replacement Engineers Estimate - 9/1/2009
- Cost from "C3098-09" taken from SCRRA Keller Yard Layout Facility Contractor Bid: Los Angeles Engineering - 4/24/2009
- Cost from "C3101-09" taken from SCRRA Metrolink Expansion and OC Grade X-ing Improvements Contractor Bid: Herzog - 3/27/2009