



January 09, 2022

C-004

Mr. Jim Lorenzen  
Project Manger  
KSN, Inc  
1550 Harbor Blvd, Suite 212  
West Sacramento, CA 95691  
PHONE: 916.416.8202  
EMAIL: [jlorenzen@ksninc.com](mailto:jlorenzen@ksninc.com)

RE: Emergency Rebuild Cost Increase  
Knights Landing Mid Valley Site 9 and 10  
CSA-6 Project ID: 4600013795

Mr. Jim Lorenzen:

Due to the extreme weather events saturating the site as the emergency rebuild effort was occurring, the initial estimate for the work will not cover the cost of the rebuild. Odin Environmental Solutions (Odin) is requesting a change order in the increased amount of \$1,290,700.00, not to exceed 10% of this cost based on an estimate that was completed and attached.

This increased cost includes labor, equipment, and overhead of a day and night shift crew moving the approximate 10,000 CY of sand required for the levee rebuild, as well as approximately 7,200 tons of rock that will be brought in to reinforce the haul routes and placed within the fill for hauling and stability.

The rebuild and removal efforts will be billed at the contract established T&M rates, with final billing to include all necessary backup documentation, included but not limited to: daily cost tracking sheets, daily field reports, invoices, and summary cost reports.

This notice does not include any other delays or impacts not yet identified or realized as a result of those described herein. In the event additional delays or impacts are realized Odin shall provide notice thereof upon discovery.

Odin is estimating an increased cost of \$805,900.00 to excavate the levee back to suitable material and removing the rock and sand placed during the emergency rebuild. This construction most likely will take place sometime after April 15<sup>th</sup>.

Sincerely,  
Odin Environmental Solutions, LLC

A handwritten signature in black ink, appearing to read "Osama Kanaan".

Osama Kanaan  
Project Manger

Enclosure: Estimate Cost of Emergency Rebuild and Spring Completion Effort

cc: Mr. Eric Stannard, Vice President of Western Operation, [estannard@odinenv.com](mailto:estannard@odinenv.com)  
Mr. Alex Garcia, Assistant Project Manager, [agarcia@odinenv.com](mailto:agarcia@odinenv.com)  
Ms. Mariah Borelis, CQC Manager, [mborelis@odinenv.com](mailto:mborelis@odinenv.com)

**Direct Cost Report**

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
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**BID ITEM = 9000** Land Item SCHEDULE: 1 100  
 Description = Placing Stockpile Material Unit = CY Takeoff Quan: 10,000.000 Engr Quan: 10,000.000

**9000.01 Earthwork Equipment - Mobilization \ Dem Quan: 1.00 JOB Hrs/Shft: 10.00 Cal: 610 WC: NONE**

FALL BUILD-UP

-----  
 Comp. - CAT 563 - 84 in S.D.-----\$500 x2 (\$1,000)  
 Dozer - CAT D6N XL -----\$750 x2 (\$1,500)  
 Excavator - CAT 330 -----\$750  
 CAT 725 - Haul Truck -----\$750 x5 (\$3,750)  
 JD 200-----\$750  
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Subtotal \$7,750  
 Spring Tear-Down

-----  
 Dozer - CAT D6N XL -----\$750 x2 (\$1,500)  
 Excavator - CAT 336 -----\$750  
 CAT 725 - Haul Truck -----\$750 x5 (\$3,750)  
 JD 200-----\$750  
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One-Way \$6,750 x2 = 13,500

Total: \$21,250

5TRU1.1	Trucking - Each Way	1.00	1.00 LS	7,750.000			7,750			7,750
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**9000.02 Onsite Loading / Hauling / Placing Quan: 6,000.00 CY Hrs/Shft: 12.00 Cal: 712 WC: NONE**

EAR010	C&G - Excavator\Dozer		108.00 CH	Prod:	9.0000 S	Lab Pcs:	11.00	Eqp Pcs:	12.00
8RC015	Comp. - CAT 563 - 84 i	2.00	216.00 HR	65.370			14,863		14,863
8RD015	Dozer - CAT D6N XL	2.00	216.00 HR	81.090			18,522		18,522
8RE025	Excavator - CAT 330	1.00	108.00 HR	118.128			13,468		13,468
8RE060	Excavator - JD 200	1.00	108.00 HR	57.455			6,507		6,507
8RH005	Haul Truck - CAT 725	5.00	540.00 HR	225.535			130,706		130,706
8RL015	Loader - CAT 966	1.00	108.00 HR	103.218			11,802		11,802
C118OP3	OP3 - Dozer Operator	2.00	216.00 MH	53.710	29,909				29,909
C120OP3	OP3 - Excavator OP Upto 3	1.00	108.00 MH	53.710	14,954				14,954
C136OP4	OP4 - Gradesetter	1.00	108.00 MH	52.330	14,697				14,697
C142OP4	OP4 - Loader OP < 4CY	1.00	108.00 MH	52.330	14,697				14,697
C154OP5	OP5 - Compactor w/ Dozer	1.00	108.00 MH	51.060	14,459				14,459
C176OP8	OP8A - Articulated Truck O	5.00	540.00 MH	45.250	66,867				66,867
\$351,449.74	0.1980 MH/CY		1,188.00 MH	[ 13.849 ]	155,583		195,867		351,450

**9000.03 Night Shift Onsite Loading / Hauling / P Quan: 4,000.00 CY Hrs/Shft: 12.00 Cal: 712 WC: NONE**

EAR010	C&G - Excavator\Dozer		60.00 CH	Prod:	5.0000 S	Lab Pcs:	11.00	Eqp Pcs:	12.00
8RC015	Comp. - CAT 563 - 84 i	2.00	120.00 HR	65.370			8,257		8,257
8RD015	Dozer - CAT D6N XL	2.00	120.00 HR	81.090			10,290		10,290
8RE025	Excavator - CAT 330	1.00	60.00 HR	118.128			7,482		7,482
8RE060	Excavator - JD 200	1.00	60.00 HR	57.455			3,615		3,615
8RH005	Haul Truck - CAT 725	5.00	300.00 HR	225.535			72,614		72,614
8RL015	Loader - CAT 966	1.00	60.00 HR	103.218			6,556		6,556
CN118OP3	OP3 - Dozer Operator - Nig	2.00	120.00 MH	58.660	17,644				17,644
CN120OP3	OP3 - Excavator OP Upto 3	1.00	60.00 MH	56.160	8,562				8,562
CN136OP4	OP4 - Gradesetter - Night	1.00	60.00 MH	54.600	8,400				8,400
CN142OP4	OP4 - Loader OP < 4CY -	1.00	60.00 MH	54.600	8,400				8,400
CN154OP5	OP5 - Compactor w/ Dozer	1.00	60.00 MH	53.180	8,253				8,253
CN176OP8	OP8A - Articulated Truck O	5.00	300.00 MH	46.620	37,859				37,859
\$197,934.90	0.1650 MH/CY		660.00 MH	[ 12.091 ]	89,120		108,815		197,935

**Direct Cost Report**

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
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**BID ITEM = 9000** Land Item SCHEDULE: 1 100  
 Description = Placing Stockpile Material Unit = CY Takeoff Quan: 10,000.000 Engr Quan: 10,000.000

**9000.04 Rock Repairs** **Quan: 1.00 LS Hrs/Shft: 10.00 Cal: 610 WC: NONE**

20 tons / load  
 5 hour rounds  
 2INCR1 Aggregate Surfa@108.2% 1.00 7,200.00 TN 25.000 194,760 194,760  
 5TRU2.2 Trucking - End Dumps 1.00 1,800.00 HR 135.000 243,000 243,000  
 \$437,760.00 [ ] 194,760 243,000 437,760

**9000.05 SUB Silt Fence Install** **Quan: 4,256.00 LF Hrs/Shft: 10.00 Cal: 610 WC: NONE**

4HYDRO2.1 Silt Fence Supply and Instal 1.00 4,256.00 LF 2.500 10,640 10,640  
 8RE010 ==> Excavator - CAT 315 1.00 20.00 HR 60.410 1,269 1,269  
 C1200P3 ==> OP3 - Excavator OP U 1.00 20.00 MH 53.710 2,463 2,463  
 \$14,371.86 0.0046 MH/LF 20.00 MH [ 0.299 ] 2,463 1,269 10,640 14,372

**9000.09 On-Site Management** **Quan: 1.00 LS Hrs/Shft: 12.00 Cal: 512 WC: NONE**

IND015 Indirects - Site Management 168.00 CH **Prod: 14.0000 S** Lab Pcs: 4.50 Eqp Pcs: 15.50  
 8R0075 GPS - Base Station & R 1.00 168.00 HR 20.682 3,749 3,749  
 8R0115 Misc - Gator/Kubota RT 1.00 168.00 HR 9.290 1,655 1,655  
 8R0140 Misc - Light Plant 9.00 1,512.00 HR 3.545 5,783 5,783  
 8Z0120 Ford F-150 Pickup Truc 3.50 588.00 HR 16.016 9,417 9,417  
 8Z0140 Ford Explorer - H&S 1.00 168.00 HR 12.480 2,097 2,097  
 9MIS005 Cell Phone Allowance 4.00 4.00 MO 75.000 300 300  
 A115CM .Construction Manager - Sit 0.50 84.00 MH 72.115 5,586 5,586  
 A120PM .Project Manager - JV 1.00 168.00 MH 72.240 10,877 10,877  
 A125S .Superintendent - Earthwork 1.00 168.00 MH 57.970 9,185 9,185  
 A152CQC .CQC Manager 1.00 168.00 MH 53.918 8,383 8,383  
 B110HSO .H&S Officer 1.00 168.00 MH 42.310 6,986 6,986  
 \$64,018.04 756.0000 MH/LS 756.00 MH [ 29401.01 ] 41,018 300 22,700 64,018

====> **Item Totals: 9000 - Placing Stockpile Material**  
 \$1,073,284.54 0.2624 MH/CY 2,624.00 MH [ 16.213 ] 288,184 194,760 251,050 328,651 10,640 **1,073,285**  
 107.328 10000 CY 28.82 19.48 25.11 32.87 1.06 107.33

**BID ITEM = 9010** Land Item SCHEDULE: 1 100  
 Description = Removing Emergency Levee Material Unit = CY Takeoff Quan: 10,000.000 Engr Quan: 10,000.000

**9010.1 Earthwork Equipment - Mobilization \ Dem** **Quan: 1.00 JOB Hrs/Shft: 10.00 Cal: 610 WC: NONE**

FALL BUILD-UP  
 -----  
 Comp. - CAT 563 - 84 in S.D.-----\$500 x2 (\$1,000)  
 Dozer - CAT D6N XL -----\$750 x2 (\$1,500)  
 Excavator - CAT 330 -----\$750  
 CAT 725 - Haul Truck -----\$750 x5 (\$3,750)  
 Motorgrader-----\$750  
 -----  
 Subtotal \$7,750  
 Spring Tear-Down  
 -----  
 Dozer - CAT D6N XL -----\$750 x2 (\$1,500)  
 Excavator - CAT 336 -----\$750  
 CAT 725 - Haul Truck -----\$750 x5 (\$3,750)  
 Motorgrader-----\$750  
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\*\*Unreviewed

**Direct Cost Report**

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Perm Labor	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
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**BID ITEM = 9010** Land Item SCHEDULE: 1 100  
 Description = Removing Emergency Levee Material Unit = CY Takeoff Quan: 10,000.000 Engr Quan: 10,000.000  
 One-Way \$6,750 x2 = 13,500

Total: \$21,250

5TRU1.1	Trucking - Each Way	1.00	1.00 LS	13,500.000		13,500			13,500
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**9010.2 Levee Excavation** **Quan: 13,100.00 CY Hrs/Shft: 10.00 Cal: 610 WC: NONE** **\*\*Unreviewed**

<u>EAR03</u>	Levee Degrade		80.00 CH	<b>Prod: 8.0000 S</b>		Lab Pcs: 3.00	Eqp Pcs: 3.00		3.00
8R0080	GPS - Blade/Dozer Cont	1.00	80.00 HR	20.682		1,785			1,785
8RD015	Dozer - CAT D6N XL	1.00	80.00 HR	81.090		6,860			6,860
8RE030	Excavator - CAT 336	1.00	80.00 HR	137.680		11,605			11,605
C118OP3	OP3 - Dozer Operator	1.00	80.00 MH	53.710	9,852				9,852
C120OP3	OP3 - Excavator OP Upto 3	1.00	80.00 MH	53.710	9,852				9,852
C136OP4	OP4 - Gradesetter	1.00	80.00 MH	52.330	9,693				9,693
\$49,647.98	0.0183 MH/CY	240.00 MH		[ 1.154 ]	29,398		20,250		49,648

**9010.3 Haul to Stockpile** **Quan: 10,000.00 CY Hrs/Shft: 10.00 Cal: 610 WC: NONE** **\*\*Unreviewed**

30 min rounds  
 1,200 CY per day  
 20 CY per load

<u>EAR011</u>	C&G - Dozer Only		80.00 CH	<b>Prod: 8.0000 S</b>		Lab Pcs: 2.00	Eqp Pcs: 1.00		1.00
5TRU3.1	Trucking - Ten Wheelers (O	8.00	400.00 HR	165.000		66,000			66,000
8RD015	Dozer - CAT D6N XL	1.00	80.00 HR	81.090		6,860			6,860
C118OP3	OP3 - Dozer Operator	1.00	80.00 MH	53.710	9,852				9,852
C194GR3	GR3 - General Laborer	1.00	80.00 MH	34.800	7,078				7,078
\$89,790.05	0.0160 MH/CY	160.00 MH		[ 0.833 ]	16,930	66,000	6,860		89,790

**9010.4 Repair Aggregate Purchase and Haul** **Quan: 3,200.00 TN Hrs/Shft: 10.00 Cal: 610 WC: NONE** **\*\*Unreviewed**

30 min each way  
 15 min load  
 15 min onsite

1.5 hour rounds  
 18 tons per load  
 89 loads

2INCR1	Aggregate Surfa@108.2%	1.00	3,200.00 TN	14.730		51,001			51,001
5TRU2.3	Trucking - Semi-Bottoms	1.00	267.00 HR	145.000		38,715			38,715
\$89,716.15				[ ]		51,001	38,715		89,716

**9010.5 Repair Aggregate Placement and Compactio** **Quan: 3,200.00 TN Hrs/Shft: 10.00 Cal: 610 WC: NONE** **\*\*Unreviewed**

352 CY \* 1.5 = 528 Tns - 1,022 LF, STA 1+93 to STA 12+15

<u>AGG01</u>	Aggregate Base Crew		80.00 CH	<b>Prod: 8.0000 S</b>		Lab Pcs: 3.00	Eqp Pcs: 3.00		3.00
8R0080	GPS - Blade/Dozer Cont	1.00	80.00 HR	20.682		1,785			1,785
8RC015	Comp. - CAT 563 - 84 i	1.00	80.00 HR	65.370		5,505			5,505
8RM020	Motorgrader - CAT 14H	1.00	80.00 HR	102.627		8,691			8,691
C114OP2	OP2 - Motorgrader Operato	1.00	80.00 MH	55.190	10,024				10,024
C136OP4	OP4 - Gradesetter	1.00	80.00 MH	52.330	9,693				9,693
C168OP7	OP7 - Compactor w/o Doze	1.00	80.00 MH	48.600	9,262				9,262
\$44,958.55	0.0750 MH/TN	240.00 MH		[ 4.618 ]	28,978		15,981		44,959

**9010.6 Road Repairs** **Quan: 1.00 LS Hrs/Shft: 10.00 Cal: 610 WC: NONE** **\*\*Unreviewed**

4ASPC1	Asphalt Subcontractor Mobi	1.00	1.00 LS	6,500.000				6,500	6,500
4ASPC2	Asphalt Paving Subcontract	1.00	3,200.00 TN	107.500				344,000	344,000

**Direct Cost Report**

Activity Resource	Desc	Quantity Pcs	Unit	Unit Cost	Labor	Perm Material	Constr Matl/Exp	Equip Ment	Sub-Contract	Total
<b>BID ITEM = 9010</b>										
Description =	Removing Emergency Levee Material		Land Item Unit =	SCHEDULE: 1 100			Takeoff Quan: 10,000.000	Engr Quan: 10,000.000		
4TRA3.3	Typ. T13 - Flagging 2 Man	1.00	2.00 DY	1,400.000				2,800		2,800
\$353,300.00				[ ]				353,300		353,300
<b>9010.9 On-Site Management</b>										
<b>Quan: 1.00 LS Hrs/Shft: 12.00 Cal: 512 WC: NONE</b>										
IND015	Indirects - Site Management		96.00 CH	Prod: 8.0000 S		Lab Pcs: 4.00		Eqp Pcs: 5.00		**Unreviewed
8R0075	GPS - Base Station & R	1.00	96.00 HR	20.682				2,142		2,142
8Z0120	Ford F-150 Pickup Truc	3.00	288.00 HR	16.016				4,613		4,613
8Z0140	Ford Explorer - H&S	1.00	96.00 HR	12.480				1,198		1,198
9MIS005	Cell Phone Allowance	4.00	4.00 MO	75.000		300				300
A120PM	.Project Manager - JV	1.00	96.00 MH	72.115	6,206					6,206
A125S	.Superintendent - Earthwork	1.00	96.00 MH	72.115	6,384					6,384
B110HSO	.H&S Officer	1.00	96.00 MH	43.269	4,069					4,069
C202GA2	Construction Intern	1.00	96.00 MH	25.000	4,242					4,242
\$29,154.11	384.0000 MH/LS		384.00 MH	[ 15000.61 ]	20,901		300	7,953		29,154
<b>=====&gt; Item Totals: 9010 - Removing Emergency Levee Material</b>										
\$670,066.84	0.1024 MH/CY		1,024.00 MH	[ 5.323 ]	96,207	51,001	118,515	51,044	353,300	<b>670,067</b>
67.007	10000 CY				9.62	5.10	11.85	5.10	35.33	67.01
<b>\$1,743,351.38 *** Report Totals *** 3,648.00 MH 384,391 245,761 369,565 379,694 363,940 1,743,351</b>										

>>> indicates Non Additive Activity

-----Report Notes:-----

The estimate was prepared with TAKEOFF Quantities.  
 This report shows TAKEOFF Quantities with the resources.

"Unreviewed" Activities are marked.

Bid Date: Owner: Engineering Firm:  
 Estimator-In-Charge:

**JOB NOTES**

Estimate created on: 01/11/2019 by User#: 0 - Sean L. Rhodes  
 Source estimate used: C:\HEAVYBID\EST\ESTMAST  
 Labor Setup copied from: C:\Master Templates  
 Equipment Setup copied from: C:\Master Templates  
 Crew Setup copied from: C:\HEAVYBID\EST\917-008  
 Material/Other Resources Setup copied from: C:\HEAVYBID\EST\917-008  
 Overtime Rules Setup copied from: C:\HEAVYBID\EST\1-BRIDGE

\*\*\*\*\*Estimate created on: 10/07/2021 by User#: 1 - Sean Rhodes  
 Source estimate used: J:\HEAVYBID\EST\920-OCSMAS-2

\*\*\*\*\*Estimate created on: 02/10/2022 by User#: 1 - Sean Rhodes  
 Source estimate used: J:\HEAVYBID\EST\OCS\_MASTER3

\*\*\*\*\*Estimate created on: 05/25/2022 by User#: 9 - Spencer Gil  
 Source estimate used: J:\HEAVYBID\EST\OCS\_MASTER4

\*\*\*\*\*Estimate created on: 01/02/2023 by User#: 9 - Spencer Gil  
 Source estimate used: J:\HEAVYBID\EST\922-026

\* on units of MH indicate average labor unit cost was used rather than base rate.

[ ] in the Unit Cost Column = Labor Unit Cost Without Labor Burdens

In equipment resources, rent % and EOE % not = 100% are represented as XXX%YYY where XXX=Rent% and YYY=EOE%

**Direct Cost Report**

Activity	Desc	Quantity	Unit	Unit	Perm	Constr	Equip	Sub-	Total
Resource		Pcs	Unit	Cost	Labor	Material	Matl/Exp	Ment	Contract

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**BID ITEM = 9010** Land Item SCHEDULE: 1 100  
 Description = Removing Emergency Levee Material Unit = CY Takeoff Quan: 10,000.000 Engr Quan: 10,000.000

- Calendar Codes-----
- 508 5 days/week - 08 hrs/day
  - 509 5 days/week - 09 hrs/day
  - 510 5 days/week - 10 hrs/day
  - 511 5 days/week - 11 hrs/day
  - 512 5 days/week - 12 hrs/day
  - 608 6 days/week - 8 hrs/day
  - 609 6 days/week - 9 hrs/day
  - 610 6 days/week - 10 hrs/day (Default Calendar)**
  - 611 6 days/week - 11 hrs/day
  - 612 6 days/week - 12 hrs/day
  - 708 7 days/week - 08 hrs / day
  - 709 7 days/week - 09 hrs/day
  - 710 7 days/week - 10 hrs/day
  - 711 7 days/week - 11 hrs/day
  - 712 7 days/week - 12 hrs/day