



April 20, 2021

Rebecca Westover  
Mountain View Whisman School District  
1400 Montecito Ave,  
Mountain View, CA 94043

**RE: Change Order #2 Justification: Mountain View Whisman Solar Photo-Voltaic Project – Engie Services US Inc. – DSA Application No.'s 01-119500 (Bubb), 01-119501 (Landels), 01-119502 (Huff), 01-119503 (Graham), 01-119504 (Castro/Mistral), 01-119533 (Crittenden), 01-119534 (Monta Loma), 01-119535 (Theuerkauf)**

**Item # 1 – Crittenden Middle School Canopy Revision (COR 2)**

This revision is due to a design revision and a District Request. The original design included columns for the solar canopy at the north end of the project placed in existing parking stalls which would result in the loss of approximately eight (8) parking stalls. In order to retain those 8 stalls, the contractor was asked to move the columns back into the planter area. Due to existing utilities in the planter, pushing into the planter was not achievable, however the columns could be moved back into the existing concrete curb and gutter moving them far enough out of stalls to retain those stalls. The relocation results in added demolition and patching of existing concrete curbs as well as restriping of the parking stalls. Item no. 1 includes the labor, materials and equipment required to perform this work. **\$8,760**

**Item # 2 – Revised System Size at Castro/Mistral Elementary School (COR 3)**

This revision is due to an unforeseen condition and a District Request. The original RFP for the project included a 98.3 kWdc system at the Castro-Mistral site. During site investigations by the contractor, a secondary PG&E meter was discovered at the site which will allow the system size to be significantly increased. The new system could be upsized to 177.8 kWdc. The cost of item no. 2 includes all labor, material and equipment required to upsize the system for a cost of \$397,383. Estimated annual savings of the increased system size is \$24,060. **\$397,383**

**Item # 3 – Revised Roof Attachment (COR 4)**

This change is the result of a design revision. The RFP response assumed attachment of the roof mounted arrays at Monta Loma and Theuerkauf to the existing standing seam metal roof panels. However existing standing seam metal roofs could not accommodate this attachment and as a result the arrays would need to be attached to the building framing below. The revised attachment method results in additional labor and materials cost for added site investigations, engineering of revised attachment, installation of blocking and roof patching. **\$38,536**

**Total Change Order No. 2 – \$445,189**

In our capacity as the District's Construction Manager, we have completed a review of Change Order # 2.

The total Change Orders to date: \$751,069

A design contingency of \$886,412 has been budgeted for this project. After change order 2 the balance of the design contingency will be \$135,343.

A construction contingency of \$886,412 has been budgeted for this project. To date, no construction contingency funds have been expended. After change order 2 the balance of the construction contingency remains \$886,412.

Based upon the review of the merit and the compensation, it is our recommendation that you approve this change order. If you have any question, please do not hesitate to call.

Sincerely,  
Greystone West Company

*Jason Cave – GWC*

Jason Cave  
Project Manager



## Change Order No. 02

<b>Customer Contract Title:</b> Contract for Design and Construction – Mountain View Whisman School District	<b>Customer Contract No.</b> N/A
<b>Customer Contract Effective Date:</b> 10-2-2020	<b>Change Order Effective Date:</b> 4-16-2021

Customer Name:	Mountain View Whisman School District
Customer Address:	1400 Montecito Avenue, Mountain View, CA 94043
Contact:	Rebecca Westover
Job Locations:	Crittenden Middle School, Gabriela Mistral – Mariano Castro Elementary School, Monta Loma Elementary School, and Theuerkauf Elementary School

Reason for/Description of Change Order:	<p>The Scope of Work set forth in Exhibit A to the Contract for Design and Construction referenced above is hereby amended to add the following scope and cost revisions to this Change Order. Further explanation is as follows:</p> <p>Contractual changes include:</p> <ol style="list-style-type: none"> <li>1. Replace Section 1.a. to the Contract with the following:</li> </ol> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: center;">ITEM</th> <th style="text-align: center;">COST</th> </tr> </thead> <tbody> <tr> <td><b>Solar PV System and data acquisition system at School Sites</b></td> <td style="text-align: right;"><b>\$8,864,616</b></td> </tr> <tr> <td><b>Change Order #1 – Total cost for two (2) mobilizations</b></td> <td style="text-align: right;"><b>\$305,880</b></td> </tr> <tr> <td><b>Change Order #2</b></td> <td style="text-align: right;"><b>\$445,189</b></td> </tr> <tr> <td style="padding-left: 20px;"><i>Change Order Request #2 – Crittenden Middle School Canopy</i></td> <td style="text-align: right;"><i>\$8,760</i></td> </tr> <tr> <td style="padding-left: 20px;"><i>Change Order Request #3 – Mistral Castro Elementary School Addition</i></td> <td style="text-align: right;"><i>\$397,893</i></td> </tr> <tr> <td style="padding-left: 20px;"><i>Change Order Request #4 – Roof Attachment Methods</i></td> <td style="text-align: right;"><i>\$38,536</i></td> </tr> <tr> <td><b>Operations &amp; Maintenance (Exhibit B) <u>FIRST YEAR COST ONLY</u></b></td> <td style="text-align: right;"><b>\$43,736</b></td> </tr> <tr> <td style="padding-left: 20px;"><b>Change Order #2 – Mistral Castro Elementary School Addition first year cost adder</b></td> <td style="text-align: right;"><b>\$2,126</b></td> </tr> <tr> <td style="padding-left: 20px;"> <ul style="list-style-type: none"> <li>This is the first year amount</li> <li>Paid annually, in arrears, per Exhibit B,</li> <li>Anticipated <b>25-year</b> cost at an annual 3% escalation rate= <b>\$1,672,092</b></li> </ul> </td> <td></td> </tr> <tr> <td><b>Performance Guarantee (Exhibit G) <u>FIRST YEAR COST ONLY</u></b></td> <td style="text-align: right;"><b>\$16,000</b></td> </tr> <tr> <td style="padding-left: 20px;"><b>Change Order #2 – Mistral Castro Elementary School Addition first year cost adder</b></td> <td style="text-align: right;"><b>\$754</b></td> </tr> <tr> <td style="padding-left: 20px;"> <ul style="list-style-type: none"> <li>This is the first year amount</li> <li>Paid annually per Exhibit G,</li> <li>Anticipated <b>25-year</b> cost at an annual 3% escalation rate= <b>\$610,847</b></li> </ul> </td> <td></td> </tr> <tr> <td><b>GRAND TOTAL (including first year of O&amp;M and Performance Guarantee)</b></td> <td style="text-align: right;"><b>\$9,678,301</b></td> </tr> </tbody> </table> <p style="margin-top: 10px;"><b>Change Order Request #2 – Crittenden Middle School</b></p> <p>At Crittenden Middle School, in order to locate the columns for the canopy array within the parking stalls, ENGIE Services U.S. will not install above-grade concrete bollards at each column, which will be offset from the curb by approximately ten (10) inches at each column. ENGIE Services U.S. will place the bolted array connection approximately six (6) inches below grade and will top this off with concrete tapered to direct water away from pooling at the column base. On a per-column basis, the credit to remove the thirty (30) inch concrete bollard would be approximately \$130, at \$80 for half a cubic yard of concrete and \$50 for the associated rebar. The added cost for the additional 2'-6" of steel column where the concrete bollard otherwise would have been is approximately \$125 per column, including an adder to saw cut, patch back, and add concrete to top off above the bolted connection.</p>	ITEM	COST	<b>Solar PV System and data acquisition system at School Sites</b>	<b>\$8,864,616</b>	<b>Change Order #1 – Total cost for two (2) mobilizations</b>	<b>\$305,880</b>	<b>Change Order #2</b>	<b>\$445,189</b>	<i>Change Order Request #2 – Crittenden Middle School Canopy</i>	<i>\$8,760</i>	<i>Change Order Request #3 – Mistral Castro Elementary School Addition</i>	<i>\$397,893</i>	<i>Change Order Request #4 – Roof Attachment Methods</i>	<i>\$38,536</i>	<b>Operations &amp; Maintenance (Exhibit B) <u>FIRST YEAR COST ONLY</u></b>	<b>\$43,736</b>	<b>Change Order #2 – Mistral Castro Elementary School Addition first year cost adder</b>	<b>\$2,126</b>	<ul style="list-style-type: none"> <li>This is the first year amount</li> <li>Paid annually, in arrears, per Exhibit B,</li> <li>Anticipated <b>25-year</b> cost at an annual 3% escalation rate= <b>\$1,672,092</b></li> </ul>		<b>Performance Guarantee (Exhibit G) <u>FIRST YEAR COST ONLY</u></b>	<b>\$16,000</b>	<b>Change Order #2 – Mistral Castro Elementary School Addition first year cost adder</b>	<b>\$754</b>	<ul style="list-style-type: none"> <li>This is the first year amount</li> <li>Paid annually per Exhibit G,</li> <li>Anticipated <b>25-year</b> cost at an annual 3% escalation rate= <b>\$610,847</b></li> </ul>		<b>GRAND TOTAL (including first year of O&amp;M and Performance Guarantee)</b>	<b>\$9,678,301</b>
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Additional work will be required to demolish the concrete valley gutter at six (6) column locations and re-work the concrete in order to not impact drainage.

ENGIE Services U.S. will also re-stripe the existing parking stalls to better align the parking stall striping with the columns.

**Change Order Request #3 – Gabriela Mistral – Mariano Castro Elementary School**

At Gabriela Mistral – Mariano Castro Elementary School, due to new information about an additional site electric utility meter and additional electric load, the system size shall be increased from 98.3 kWdc to 177.8 kWdc as shown in the site layout below. Expected 1<sup>st</sup> year PV output shall increase from 157,661 kWh to 275,565 kWh. The existing interconnection application shall be modified to include meter 1010282516 as a NEM-A benefitting meter in order to partially offset the load on this meter.

1. Replace Section 1.b. to the Contract with the following:
  - i. The assessment, engineering, design, permitting, procurement, construction management, installation, construction, training, monitoring, verification, maintenance, operation, and repair of PV systems with Expected Energy Production of 2.65 Million kilowatt-hours (2,653,797 kWh) of energy in year one of system operation, produced through the following systems:

Site	System Size (kWdc)	System Type (e.g., Parking, Shade, etc.)	Expected 1 <sup>st</sup> year; PV Output (kWh) ("Expected Energy")
1. Benjamin Bubb ES	118.4	Shade Canopy	185,411
2. Crittenden MS - Main	N/A	N/A	N/A
3. Crittenden MS - Secondary	173.9	Parking Canopy & Roof	285,911
4. Edith Landels ES	121.4	Shade Canopy	187,632
5. Frank L Huff ES	109.6	Shade Canopy	171,912
6. Graham MS - Main	275.5	Parking Canopy & Shade Canopy	445,065
7. Graham MS -Secondary	71.4	Parking Canopy	115,614
8. Gabriela Mistral - Mariano Castro ES	177.8	Parking Canopy & Shade Canopy	275,565
9. Monta Loma ES - Main	75.6	Roof	120,156
10. Monta Loma ES - Secondary	71.4	Shade Canopy	115,870
11. Stevenson ES - District Office	166.3	Parking Canopy & Shade Canopy	269,672
12. Theuerkauf ES	224.3	Shade Canopy & Roof	356,654
13. Vargas ES	83.2	Shade Canopy	124,335
<b>TOTAL</b>	<b>1,668.8</b>		<b>2,653,797</b>

2. Replace Section A, Article 2 Section 2.3. with the following:
 

Design, Installation, and Construction of a 1,668.8 kWdc (first year energy production of 2,653,797 kilowatt hours) Photovoltaic Entire System at the Sites, as further described hereinbelow, and similar in size, appearance, and structure as indicated in Exhibit F:
3. Replace the Gabriela Mistral / Mariano Castro Elementary School section of Section A, Article 2 with the following:

**Gabriela Mistral/ Mariano Castro Elementary School**

System Size (DC kW): 177.8kWdc Site Total

System Size (AC kW): 146.0kWac Site Total

System Locations: Parking lot and playground at the Gabriela Mistral / Mariano Castro Elementary School campus, with shade structures in Parking Lot A and in the playground area southwest of the Library.

Modules: LG 450N2W-E6; three hundred ninety-five (395) PV modules or better

Expected Energy: Year 1 Total = 275,565kWh  
25-Year Total = 6,491,196 kWh

Inverter: Chint Power Systems: One (1) SCA36KTL-DO/US-480, one (1) SCA50KTL-DO/US-480 and one (1) SCA60KTL-DO/US-480, or equivalent

Two (2) fixed tilt single-cantilever carport DSA pre-checked structures or better. Expected characteristics: (i) 8 feet depth piers with no de-watering, benching, shoring, or casing; (ii) eleven (11) exposed concrete bollards above grade; (iii) 115 degree azimuth; (iv) up to 7 degree tilt; and (v) 12 foot clearance.

One (1) fixed tilt dual-cantilever carport DSA pre-checked structure or better. Expected characteristics: (i) 8 feet depth piers with no de-watering, benching, shoring, or casing; (ii) four (4) exposed concrete bollards above grade; (iii) 207 degree azimuth; (iv) up to 7 degree tilt; and (v) 12 foot clearance.

Provide and install twelve (12) new LED light fixtures (RAB PRT42N or equivalent) underneath the canopies one per bay, to be controlled by photocells, provided there is also a timer to override, for example to shut off lights at midnight or another predetermined time.

Point of Interconnection: Electrical Meter# 1009512210 ("**Delivery Point**")

Electric Vehicle Charging Station: One (1) bollard style commercial dual-port Level 2 electric vehicle charging station installed in Parking Lot A underneath Array 2 and one (1) bollard style commercial dual-port Level 2 electric vehicle charging station installed in Parking Lot C. EV charging stations shall be mounted to existing hardscape. In the event a charging station is placed in a location without existing hardscape, Designer/Builder will be responsible for installing pad or pier for mounting at no additional cost to the District.



Remove six (6) light poles and demolish light pole bases as required. Bases shall be taken to 6" below grade and patched to match the surrounding areas.

Remove one (1) tree from north of Array 2 and one (1) tree west of Array 3, as clouded in red in the layout below. In place of the trees that are being removed, Designer/Builder will plant two (2) new trees in a location to be mutually agreed upon by the District and Designer/Builder. District will be responsible for maintaining the new trees.

In order to maintain trees as much as possible and ensure maximum and guaranteed solar photovoltaic system generation, District will be responsible for regular tree trimming and maintenance of the trees southwest of Array 1, as clouded in orange in the layout below, to not grow above 30 feet in height. However, Designer/Builder is responsible for any initial trimming required at the time of array or EV Charging installation.



4. Replace Section 4 of Exhibit B with the following table:

Year	O&M Fee
1	\$45,861.92
2	\$47,237.78
3	\$48,654.91
4	\$50,114.56
5	\$51,618.00
6	\$53,166.54
7	\$54,761.54
8	\$56,404.39
9	\$58,096.52
10	\$59,839.42
11	\$61,634.60
12	\$63,483.64
13	\$65,388.15
14	\$67,349.79
15	\$69,370.28
16	\$71,451.39
17	\$73,594.93
18	\$75,802.78
19	\$78,076.86
20	\$80,419.17
21	\$82,831.75
22	\$85,316.70

23	\$87,876.20
24	\$90,512.49
25	\$93,227.86
<b>Total</b>	<b>\$1,672,092.17</b>

5. Replace the Gabriela Mistral – Mariano Castro Elementary School table in Exhibit E with the following:

<b>GABRIELA MISTRAL/ MARIANO CASTRO ELEMENTARY SCHOOL</b>			
<b>Schedule of Values</b>			
<b>Activity Name</b>		<b>Percent of Total</b>	<b>Price</b>
Pre-Contract Work	Labor, Insurance, Bonds	3%	\$ 34,258
Preconstruction Work	Design Development	3%	\$ 34,258
	100% Design Completed	4%	\$ 45,678
	DSA Approval	3%	\$ 34,258
	PV Module Procurement	5%	\$ 57,097
	Management Labor	1%	\$ 11,419
Construction	Foundations	5%	\$ 57,097
	Structural Install	12%	\$ 137,034
	PV Module Delivery	7%	\$ 79,936
	BOS Equipment Delivery	8%	\$ 91,355
	Electrical installation	31%	\$ 354,001
	Interconnection	3%	\$ 34,258
	Commissioning	3%	\$ 34,258
	Testing	3%	\$ 34,258
	ADA Upgrades	3%	\$ 34,258
	Management Labor	3%	\$ 34,258
Final Completion	Training	1%	\$ 11,419
	Punch List	1%	\$ 11,419
DSA Closeout	DSA Certification	1%	\$ 11,419
		100%	\$ 1,141,938

6. Replace Section 6.2 of Exhibit G with the following table:

<b>Year</b>	<b>PeGu Fee</b>
1	\$16,754.24
2	\$17,256.86
3	\$17,774.57
4	\$18,307.81
5	\$18,857.04
6	\$19,422.75
7	\$20,005.44
8	\$20,605.59



9	\$21,223.76
10	\$21,860.48
11	\$22,516.29
12	\$23,191.78
13	\$23,887.53
14	\$24,604.16
15	\$25,342.28
16	\$26,102.56
17	\$26,885.63
18	\$27,692.20
19	\$28,522.96
20	\$29,378.65
21	\$30,260.02
22	\$31,167.81
23	\$32,102.85
24	\$33,065.93
25	\$34,057.92
<b>Total</b>	<b>\$610,847.14</b>

7. Replace Attachment A of Exhibit G with the following:

<b>Guarantee Year</b>	<b>Utility Avoided Cost Rate</b>	<b>Avoided Energy Price (\$/kWh)</b>
1	\$0.268	\$0.223
2	\$0.280	\$0.233
3	\$0.293	\$0.244
4	\$0.306	\$0.254
5	\$0.320	\$0.266
6	\$0.334	\$0.278
7	\$0.351	\$0.255
8	\$0.367	\$0.266
9	\$0.383	\$0.278
10	\$0.401	\$0.291
11	\$0.419	\$0.304
12	\$0.437	\$0.318
13	\$0.457	\$0.332
14	\$0.478	\$0.347
15	\$0.499	\$0.363
16	\$0.522	\$0.379
17	\$0.545	\$0.396
18	\$0.570	\$0.414

19	\$0.595	\$0.432
20	\$0.622	\$0.452
21	\$0.650	\$0.472
22	\$0.679	\$0.493
23	\$0.710	\$0.516
24	\$0.742	\$0.539
25	\$0.775	\$0.563

8. Replace the Gabriela Mistral – Mariano Castro Elementary School table in Attachment B of Exhibit G with the following:

*Gabriela Mistral/ Mariano  
Castro Elementary School*

<i>Guarantee Year</i>	<i>Annual kWh</i>	<i>Guarantee kWh</i>
1	275,565	261,787
2	274,187	260,478
3	272,816	259,175
4	271,452	257,880
5	270,095	256,590
6	268,744	255,307
7	267,401	254,031
8	266,064	252,761
9	264,733	251,497
10	263,410	250,239
11	262,093	248,988
12	260,782	247,743
13	259,478	246,504
14	258,181	245,272
15	256,890	244,045
16	255,606	242,825
17	254,328	241,611
18	253,056	240,403
19	251,791	239,201
20	250,532	238,005
21	249,279	236,815
22	248,033	235,631
23	246,792	234,453
24	245,558	233,281
25	244,331	232,114
<b>Total</b>	<b>6,491,196</b>	<b>6,166,636</b>

9. Replace the Gabriela Mistral – Mariano Castro Elementary School table in Attachment C of Exhibit G with the following:

***Gabriela Mistral / Mariano  
Castro Elementary School***

<i>Time Range</i>	<i>Daylight Hours</i>	<i>Gh (kWh/m<sup>2</sup>/day)</i>	<i>Ipoa (kWh/m<sup>2</sup>/day)</i>	<i>AC Energy (kWh)</i>
<i>Jan</i>	265	2.25	2.46	11,395
<i>Feb</i>	296	2.95	3.16	13,304
<i>Mar</i>	359	3.45	3.57	16,443
<i>Apr</i>	374	6.07	6.22	27,694
<i>May</i>	410	7.31	7.38	33,687
<i>Jun</i>	420	8.10	8.13	35,622
<i>Jul</i>	428	7.72	7.76	35,220
<i>Aug</i>	385	6.93	7.07	32,051
<i>Sep</i>	350	5.67	5.90	26,143
<i>Oct</i>	322	4.07	4.33	19,849
<i>Nov</i>	291	2.70	2.96	13,180
<i>Dec</i>	286	2.17	2.41	10,976
<b>Year 1</b>	<b>4,186</b>	<b>59.39</b>	<b>61.35</b>	<b>275,565</b>

**Change Order Request #4 – Monta Loma Elementary School and Theuerkauf Elementary School**

At Monta Loma Elementary School and Theuerkauf Elementary School, ENGIE Services U.S. will provide roof framing attachments for roof-mounted solar racking structures. The mounting method was changed from standing seam roof attachments to roof framing attachments at the direction of Mountain View Whisman School District, due to the age of the roofs and lack of sufficient roof manufacturer documentation to determine if the racking structures could be attached to the metal roofs directly without substantial roof modifications and upgrades. The price for the two impacted sites has been revised to include the cost of additional site visits and drafting performed to obtain roofing information, tracked on a time and materials basis, as well as additional labor and material costs required for the roof framing attachment method during construction. A credit was simultaneously applied for the slight reduction in roof system sizes resulting from these changes. There is no change to system production or Production Guarantees.

<b>Original Contract Amount:</b>	\$8,864,616
<b>Prior Change Order(s) Will Add (Deduct):</b>	\$305,880
<b>This Change Order Will Add (Deduct) Not To Exceed:</b>	\$445,189
<b>Revised Contract Amount Not To Exceed:</b>	\$9,615,686

The changes within are hereby authorized, subject to the terms and conditions of that certain Customer Contract referenced above by and between **ENGIE Services U.S. Inc.**, and **Customer**. Except as set forth herein, the Customer Contract is not amended, modified, impaired or otherwise affected, and is hereby confirmed in full force and effect.

**MOUNTAIN VIEW WHISMAN SCHOOL DISTRICT**

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

Print Name: \_\_\_\_\_

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

**ENGIE SERVICES U.S. INC.**

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

Print Name: \_\_\_\_\_

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

RETURN EXECUTED COPY TO: ENGIE Services U.S. Inc., 500 Twelfth Street, Suite 300, Oakland, CA 94607, Attn.: Contract Administrator

