

**City of Corpus Christi
Capital Programs
Change Order**



CHANGE ORDER NO.: 14	CHANGE ORDER DATE: 12/17/2014
PROJECT: Bayfront Development Phase 3 - Shoreline Blvd Realignment	PROJECT NUMBER: 6511
CONTRACTOR: Bay, Ltd	CONTRACT TIME: 400 CD
ENGINEER: HDR Engineering	

Make the following additions, modifications or deletions to the work described in the Contract Documents:

1	Street	Multiple Items (Line Items 1-8, 10, 13, 17-18, and 25-35... See Attachments 1 and 2)	1 LS @ \$209,157.55	\$209,157.55
2	Stormwater	Multiple Items (Line Items 3, 7, 14-16, 19-20, 23-24... See Attachment 1 and 2)	1 LS @ \$76,955.71	\$76,955.71
3	Wastewater	Multiple Items (Line Items 6 and 9... See Attachment 1 and 2)	1 LS @ \$42,511.40	\$42,511.40
4	Water	Multiple Items (Line Items 6, 11 and 12... See Attachment 1 and 2)	1 LS @ \$23,151.86	\$23,151.86
Net Total of This Change Order				\$351,776.52

Why was this Change necessary:

Change Order Line Items 1, 3-5) See attachment 1 **Change Order Line Item 2)** See attachment 2

How can similar changes be avoided in the future?

Change Order Line Items 1, 3-5) See attachment 1 **Change Order Line Item 2)** See attachment 2

The compensation agreed upon in this Change Order is full, complete and final payment for all costs the Contractor may incur as a result of or relating to this change whether said costs are known, unknown, foreseen or unforeseen at this time, including without limitation, any cost for delay, extended overhead, ripple or impact cost, or any other effect on changed or unchanged work as a result of this Change Order.

Original Contract Amount	\$	<u>6,552,042.05</u>
Previously Approved Change Order Amount	\$	<u>988,419.59</u>
Proposed Change Order Amount	\$	<u>351,776.52</u>
Revised Contract Amount	\$	<u>7,892,238.16</u>
Percent of Total Change Orders (including this CO)		<u>20.45%</u>
Previous Change Order Contract Time		<u>165 CD</u>
Additional Time on This Change Order		<u>77 CD</u>
Revised Contract Time		<u>242 CD</u>

Recommended by
[CONSULTING FIRM]

Approved by
[CONTRACTOR]

By _____
Date

By _____
Date

CITY OF CORPUS CHRISTI

Recommended by: _____
Philip L. Boehk, P.E. Date
Acting Construction Engineer

Approved or _____
Recommended by: Valerie H. Gray, P.E. Date
Executive Director of Public Works

Recommended by: _____
Jerry Shoemaker, P.E. Date
Acting Director of Capital Programs

Approved or _____
Recommended by: Gustavo Gonzalez, P.E. Date
Assistant City Manager

Recommended by: _____
Eddie Houlihan Date
Budget and Finance

Recommended by: _____
Janet Kellog Date
City Attorney

Approved by: _____
Ronald L. Olson Date
City Manager

DEPARTMENT APPROVALS:

_____	Operating Department (Street)	\$209,157.55
_____	Operating Department (Stormwater)	\$76,955.71
_____	Operating Department (Wastewater)	\$42,511.40
_____	Operating Department (Water)	\$23,151.86

**City of Corpus Christi
Capital Programs
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CHANGE ORDER NO.:	13	CHANGE ORDER DATE:	12/17/2014
PROJECT:	Bayfront Development Phase 3 - Shoreline Blvd Realignment	PROJECT NUMBER:	6511
CONTRACTOR:	Bay, Ltd	CONTRACT TIME:	400 CD
ENGINEER:	HDR Engineering		

Make the following additions, modifications or deletions to the work described in the Contract Documents:

1	<i>Street</i>	1" Planning/Milling	691 SY @ \$3.98 SY	\$2,750.18
2	<i>Street</i>	1-1/2" Overlay Type D	691 SY @ \$13.75 SY	\$9,501.25
3	<i>Various</i>	<i>DEDUCT: Items revised from contract due to change</i>		
	<i>Stormwater</i>	D11 - Concrete Curb & Gutter	253 LF @ \$17.50 LF	\$4,427.50
	<i>Stormwater</i>	DEDUCT: D11 - Concrete Curb & Gutter (TY 2)	569 LF @ \$17.50 LF	(\$9,957.50)
	<i>Street</i>	CO 3-2 Remove Curb & Gutter	110 LF @ \$16.45 LF	\$1,809.50
	<i>Street</i>	DEDUCT: B78 - Concrete Median	88 SY @ \$52.00 SY	(\$4,576.00)
	<i>Street</i>	DEDUCT: B80 - Stamped Concrete	88 SY @ \$18.00 SY	(\$1,584.00)
	<i>Street</i>	DEDUCT: H1 - Street Excavation	761 SY @ \$34.00 SY	(\$25,874.00)
	<i>Street</i>	DEDUCT: H2 - Flex Base (Ty A, Grade 1)	761 SY @ \$12.75 SY	(\$9,702.75)
	<i>Street</i>	DEDUCT: H3 - Prime Coat	615 SY @ \$0.65 SY	(\$399.75)
	<i>Street</i>	DEDUCT: H5 - Geogrid Base Reinforcement (Ty 1)	761 SY @ \$3.30 SY	(\$2,511.30)
	<i>Street</i>	DEDUCT: H10 - Hot Mix Asphalt (Type D, SAC-B, PG 70-22, 2" Lift)	615 SY @ \$21.00 SY	(\$12,915.00)
	<i>Street</i>	DEDUCT: H9 - Hot Mix Asphalt (Type B, PG 64-22, 4" Lift)	615 SY @ \$12.00 SY	(\$7,380.00)
4	<i>Street</i>	<i>New Pay Items</i>		
	<i>Street</i>	Re-Mobilization	1 LS @ \$3,500.00 LS	\$3,500.00
	<i>Street</i>	Traffic Signal Pole 24"	1 EA @ \$5,838.00 EA	\$5,838.00
	<i>Street</i>	Vivids Processor	1 EA @ \$2,950.00 EA	\$2,950.00
	<i>Street</i>	Vivids Camera Assembly	1 EA @ \$1,485.00 EA	\$1,485.00
	<i>Street</i>	Vivids Communication Cable	500 LF @ \$3.80 LF	\$1,900.00
	<i>Street</i>	Aluminum Signs TY A One Way 18 x 6	2 EA @ \$175.00 EA	\$350.00
	<i>Street</i>	Aluminum Signs TY A Street Sign	1 EA @ \$321.00 EA	\$321.00
	<i>Street</i>	Left Turn Yield on Green Ball Sign	2 EA @ \$250.00 EA	\$500.00
	<i>Street</i>	Install Hwy Traffic Signal Isolated	1 EA @ \$3,500.00 EA	\$3,500.00
	<i>Street</i>	Mark up and Bond	1 LS @ \$233.96	\$3,285.56
5	<i>Street</i>	<i>Existing Pay Items</i>		
	<i>Street</i>	B38 - Drilled Shaft (Traffic Signal Poles, 36" Dia)	13 LF @ \$300.00 LF	\$3,900.00
	<i>Street</i>	B41 - Conduit (PVC, Sch 40, 4")	60 LF @ \$14.50 LF	\$870.00
	<i>Street</i>	B45 - Electrical Conductor (#8 Bare)	60 LF @ \$1.45 LF	\$87.00
	<i>Street</i>	B51 - Install 12" Vehicle Signal Section w/ Backplate	2 EA @ \$460.00 EA	\$920.00
	<i>Street</i>	B53 - Traffic Signal Cable (Ty A, 14 AWG, 5 Cond)	80 LF @ \$2.20 LF	\$176.00
	<i>Street</i>	B54 - Traffic Signal Cable (Ty A, 14 AWG, 16 Cond)	200 LF @ \$3.40 LF	\$680.00
	<i>Street</i>	B72 - LED Traffic Signal Module - VEH SEC (12") LED (GRN)	2 EA @ \$170.00 EA	\$340.00
	<i>Street</i>	B73 - LED Traffic Signal Module - VEH SEC (12") LED (YEL)	2 EA @ \$170.00 EA	\$340.00
	<i>Street</i>	B74 - LED Traffic Signal Module - VEH SEC (12") LED (RED)	2 EA @ \$150.00 EA	\$300.00
6	<i>Street</i>	<i>Overrun Line Items</i>		
	<i>Street</i>	K3: 4" Fiber Optic Conduit	120 LF @ \$24.00 LF	\$2,880.00
	<i>Street</i>	H4: 2" Mill and Overlay at Furman Street	811 SY @ \$3.50 SY	\$2,838.50
	<i>Street</i>	H11: Art Center 4" Sewer Redesign (See Sam Email 8/11)	811 SY @ \$12.00 SY	\$9,732.00
	<i>Street</i>	CO 3-2 Remove Curb & Gutter	670 LF @ \$16.45 LF	\$11,021.50
	<i>Street</i>	Hot Mix Between Curb and Sawcut Line	177.5 SY @ \$23.16 SY	\$4,110.90
	<i>Street</i>	Base Under Curb (See Email SS to JW 6/5)	1,039.33 SY @ \$18.44 SY	\$19,165.25
	<i>Street</i>	C11: Concrete Sidewalk Curb (6' Wide)	269 LF @ \$35.00 LF	\$9,415.00
	<i>Street</i>	Additional Cost to Construct Sidewalk Curb at IBC Bank	269 LF @ \$11.38 LF	\$3,061.22
	<i>Street</i>	A10: Erosion Control Logs	140 LF @ \$13.00 LF	\$1,820.00
	<i>Street</i>	B45: Electrical Conductor (#8 Bare) - Coopers Alley	1,096 LF @ \$1.45 LF	\$1,589.20
	<i>Street</i>	B47: Tray Cable (3 Cons, 12 AWG) Coopers Alley	1,697 LF @ \$1.80 LF	\$3,054.60

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	<i>Street</i>	B39: Conduit (PVC, SCH 40, 2")	60 LF @ \$12.00 LF	\$720.00
	<i>Street</i>	B39: Conduit (PVC, SCH 40, 2") AEP Manhole Coopers Alley/Kinney Street	250 LF @ \$12.00 LF	\$3,000.00
	<i>Street</i>	B44: Electrical Conductor (#6 Insulated) AEP Manhole Coopers Alley/Kinney Street	800 LF @ \$2.40 LF	\$1,920.00
	<i>Street</i>	B39: Conduit (PVC, SCH 40, 2") Overrun	5 LF @ \$12.00 LF	\$60.00
	<i>Street</i>	B46: Electrical Conductor (#8 Insulated)	400 LF @ \$1.55 LF	\$620.00
	<i>Street</i>	B39: Conduit (PVC, SCH 40, 2") ATS 1257 Coopers Alley/Shoreline Signal	160 LF @ \$12.00 LF	\$1,920.00
	<i>Street</i>	B54: Traffic Signal Cable (TY A, 14 AWG, 16 Conductor ATS)	408 LF @ \$3.40 LF	\$1,387.20
	<i>Street</i>	B48: Ground Box TY D with Apron	1 EA @ \$960.00 EA	\$960.00
	<i>Street</i>	C6: Concrete Sidewalk (5' Wide) - Art Center	65.70 SY @ \$47.00 SY	\$3,087.90
	<i>Street</i>	C11: Concrete Sidewalk Curb (6' Wide) - Art Center	1,080.60 LF @ \$35.00 LF	\$37,821.00
	<i>Street</i>	B4: Concrete Driveway (TY C)(6" Thick) - Art Center	237.2 SY @ \$56.00 SY	\$13,283.20
	<i>Wastewater</i>	<i>Overrun Line Items</i>		
	<i>Wastewater</i>	F6: Overrun Sanitary Sewer 8" SDR 26	14 LF @ \$200.00 LF	\$2,800.00
	<i>Wastewater</i>	F8: Trench Saafety	14 LF @ \$5.10 LF	\$71.40
	<i>Wastewater</i>	F9: Sanitary Sewer FM (PVC)(SDR-35)(4")	6 LF @ \$140.00 LF	\$840.00
	<i>Wastewater</i>	F4: Remove 4" Sewer Manhole	2 EA @ \$3,900.00 EA	\$7,800.00
	<i>Stormwater</i>	<i>Overrun Line Items</i>		
	<i>Stormwater</i>	D11 - Concrete Curb & Gutter	670 LF @ \$17.50 LF	\$11,725.00
	<i>Stormwater</i>	D13: Trench Safety	2 EA @ \$510.00 EA	\$1,020.00
	<i>Water</i>	<i>Overrun Line Items</i>		
	<i>Water</i>	E16: Furnish and Install Fire Hydrant	1 EA @ \$4,800.00 EA	\$4,800.00
	<i>Water</i>	E20: Trench Safety for Exvacation (Water Line)	62 LF @ \$2.90 LF	\$179.80
	<i>Water</i>	E15: Remove Existing Fire Hydrant Assembly	1 EA @ \$950.00 EA	\$950.00
8	<i>Street</i>	DEDUCT: L1 - Filabusta Palm, Washington Filifera x Robusta	108 EA @ \$1,800.00 EA	(\$194,400.00)
9	<i>Wastewater</i>	4" Sewer Service (Concrete Encased)	1 LS @ \$31,000.00 LS	\$31,000.00
10	<i>Street</i>	Traffic Signal Controller Unit	2 EA @ \$1,532.02 EA	\$3,064.04
11	<i>Water</i>	<i>New Misc Utilities Items</i>		
	<i>Water</i>	6" DI Sleeve	1 EA @ \$ 380.00 EA	\$380.00
	<i>Water</i>	8" DI 45 Deg Bends	2 EA @ \$ 400.00 EA	\$800.00
	<i>Water</i>	8" DI Sleeve	1 EA @ \$ 425.00 EA	\$425.00
	<i>Water</i>	8" DI 45 Deg Bends	3 EA @ \$ 400.00 EA	\$1,200.00
	<i>Water</i>	6" DI 45 Deg Bends	2 EA @ \$ 375.00 EA	\$750.00
	<i>Water</i>	6" DI Pipe	62 LF @ \$32.65 LF	\$2,024.30
	<i>Water</i>	6" DI 45 Deg Bends	2 EA @ \$ 350.00 EA	\$700.00
	<i>Water</i>	Mark up and Bond	1 LS @ \$ 1,044.11 LS	\$1,044.11
12	<i>Water</i>	Hanson Miscellaneous Water Materials	1 LS @ \$9,898.65 LS	\$9,898.65
13	<i>Street</i>	<i>Eliminate Striping (North End)</i>		
	<i>Street</i>	Eliminate Pavement MRK & MRKS (4")	570 LF @ \$ 0.95 LF	\$541.50
	<i>Street</i>	Eliminate Pavement MRK & MRKS (8")	70 LF @ \$ 1.90 LF	\$133.00
	<i>Street</i>	Eliminate Pavement MRK & MRKS (24")	161 LF @ \$ 5.00 LF	\$805.00
	<i>Street</i>	Eliminate Pavement MRK & MRKS (ARROW")	5 EA @ \$ 45.00 EA	\$225.00
	<i>Street</i>	Eliminate Pavement MRK & MRKS (WORD")	3 EA @ \$ 45.00 EA	\$135.00
14	<i>Stormwater</i>	Demo Existing Curb/Sidewalk/Wall	1 LS @ \$1,607.90	\$1,607.90
15	<i>Stormwater</i>	Replace Concrete Curb	1 LS @ \$772.17	\$772.17
16	<i>Stormwater</i>	Replace Concrete Sidewalk	3.6 SY @ \$641.69	\$2,310.08
17	<i>Street</i>	Demolition for Ramp	35 SY @ \$129.90	\$4,546.50
18	<i>Street</i>	Area Grading to Match Sidewalk	6 CY @ \$254.90	\$1,529.40
19	<i>Stormwater</i>	Sod and Water	18 CY @ \$77.36	\$1,392.48
20	<i>Stormwater</i>	Concrete Header Curb	58 LF @ \$45.25	\$2,624.50
21	<i>Stormwater</i>	Concrete Sidewalk	25.5 SY @ \$177.80	\$4,533.90

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22	Stormwater	Additional dewatering on Stormwater Manhole	1 LS @ \$56,217.44 LS	\$56,217.44
23	Stormwater	Washed aggregate concrete	1 LS @ \$282.24 LS	\$282.24
24	Street	Additional Traffic Control	15 days @ \$ 1,980.65 day	\$29,709.75
25	Street	<i>Overrun Line Items</i>		
	Street	CO 3-2: Remove Curb and Gutter	120 LF @ \$16.45 LF	\$1,974.00
	Street	C11: Concrete Sidewalk Curb (6" Wide)	140 LF @ \$ 35.00 LF	\$4,900.00
	Street	D11: Concrete Curb and Gutter (TY 2)	240 LF @ \$17.50 LF	\$4,200.00
	Street	CO 9-1: Additional Hot Mix Between Curb and Sawcut Line	14 SY @ \$ 23.16 SY	\$324.24
	Street	B4: Concrete Driveway (TY C)(6" Thick)	372 SY @ \$ 56.00 SY	\$20,832.00
26	Street	Install Topsoil and Sodding	4,600 SY @ \$ 14.79 SY	\$68,034.00
27	Street	Furnish and Install Bollards	52 EA @ \$ 933.20 EA	\$48,526.40
28	Street	Furnish and Install Gate	4 EA @ \$ 1,721.92	\$6,887.68
29	Street	Additional Materials Cost Allowance for Bollards and Gates	1 LS @ \$10,000.00 EA	\$10,000.00
30	Street	Additional ADA Ramps at John Sartain and Art Center	2 EA @ \$ 13,000.00	\$26,000.00
31	Street	Additional Art Center and Misc. Improvements Allowance	2 EA @ \$ 14,627.15	\$29,254.30
32	Street	Additional Allowance Traffic Signs and Markings	1 LS @ \$25,000.00 LS	\$7,500.00
33	Street	PENDING ITEM: Green Bicycle Panel	16 EA @ \$1,200.00	\$19,200.00
34	Street	Parking Lot HMA Fill and Curb Modification at the Art Center Parking Lot N/S	1 LS @ \$ 3,486.88	\$3,486.88
35	Street	L2: Mexican Feather Grass	100 EA @ \$11.75 EA	\$1,175.00
36	Street	DEDUCT: H1: Street Excavation	95.71 SY @ \$34.00 SY	(\$3,254.31)
Net Total of This Change Order				\$351,776.52

Why was this Change necessary:

- 1-5)** The revision at Lawrence & Williams will accommodate the traveling public better than original design **6-11)** Some of the overruns
- 6-11)** Overruns (Hanson MOH) was due to the major outfall check valves no sealing property preventing a dry work area for the Contractor to tie into. Some of the items (Base Under Curb) were overrun due to the unforeseen soil instability. The Fire Hydrant was requested by the City. The remainder of the utility items were overrun due to unforeseen utility conflicts and/or services
- 12)** Materials deleted per plan revisions
- 13)** Milling pattern revisions were required to accommodate exact field conditions resulting in eradication of some striping
- 14-20)** Wall added during construction by Engineer included drainage features which uncovered soil erosion issues. Modification was required to mitigate the soil characteristics
- 21)** See Attachment 2
- 22-23)** Items were needed to match the existing finish of the sidewalk
- 24)** Additional Traffic Control for daily closure on
- 25)** Overruns are required to add Parking Lot entrances to existing lots
- 26)** Topsoil and sodding is required in areas where parking access
- 27-29)** Bollards and Gates are to restrict access to abandoned portion of Shoreline
- 30-31)** Additional ADA ramps were required but were
- 32)** Additional Signage/Markings are required to assure public safety
- 33)** Added to accommodate Bike Route Requirements
- 34)** Modification required to provide drainage after wall installation
- 35)** Additional grass was requested to fill area near new northbound Shoreline transition area
- 36)** Deduct of quantities that were not needed for the project
- How can similar changes be avoided in the future?**
- 1-5)** Better reiew of existing conditions and coordination during the design process
- 6-11)** A combination of improved record drawing tracking and development combined with good recordkeeping processes would help alleviate these conflicts. Additional S.U.E. research and location services could minimize these conflicts.
- 12-20)** When widening an urban pavement section that does not contain drainage structures, consider expanding the scope of work to add drainage features
- 21)** Staff should instruct contractor to demobilize completely in lieu of having equipment on site not being utilized
- 22-36)** Better coordination between design team, City Staff and existing conditions at the site