Replacement Medical Center Facility

Eastern Colorado Health Care System Aurora, CO

Revised Feb. 1, 2012

(Better)

	FTP VE List						Worse								
VE #	Proposed VE Item	Proposer	Trade (s)	Building?	Target Cost Impact	Actual Cost	Variance from Acco Target Acco	eptance Action Item	Responsible Party	JVT Con	-2011	Included in DOC #6 CS-1 IFO-3	Included in DOC #7 IFO-1	Remarks (Nov 4, 2011)	
VE-1	Brise Soleil - Except for clinics, remove one of three brise soleil 8,160 L.F. @ \$230 LF (savings of \$70 LF)	КТ	Glass	CON	(258,400)	(127,332)	131,068 A	VA TO VET THE IMPACT ON THE HEAT GAIN/LOSS-som to share sun study w/ VA		JVT will revise. K-T to revise scope to be IBN, IBS, DAT, not CON.	TVL	CS-1 (95% CD 8/19/2011)	YES	n/a	Completed
VE-2	For Zig Zag wall and South portion of CC curtainwall, use interior metal panels (e.g. Alpolic composite panels) in lieu of acoustical perforated wood panels.		Glass	CON	(1,968,000)	(1,811,292)	156,708 A	KT to review new drawings being issued by JVT.	JVT & KT	These revisions were issued as part of the 6/24 DD2 documents. KT to verify pricing accordingly. No Further JVT work on this item.	кт	6/24DD2 Set, CS-1 (95% CD 8/19/2011)	YES	n/a	Completed
VE-3	High level Trellis - Delete openings & convert to flat overhang.	кт	Steel	3,4,5,7,8,9	(440,000)		- A	CHECK WATT OUTPUT WITH GARAGE TRELLIS		JVT will update for IBN, IBS, DAT, CBN,CBC only. Not the CON bldg.	TVL	STR-2 (100% CD, TBD) & CS-1 (95% CD 8/19/2011)	NO	NO	
VE-4	Delete the BIPV at PVN and PVS. This is based upon replacement of BIPV with PV, which provides higher output per SF, at building eyebrows. This eliminates the need for BIPV at garages to meet the required 12% renewable energy contribution to electrical consumption	КТ	PV	PVN, PVS	(1,500,000)		- A	CHECK WATT OUTPUT WITH GARAGE TRELLIS	Highly dependent on BIPV \$/Watt Eyebrows are approx. 26,000 SF and Garage eyebrows are an additional 12,000 SF.	, ,	JVT	CS-1 (95% CD 8/19/2011)	NO	NO	
VE-5	Concourse Elevators - Delete glazing above ground level on elevator shafts (check double layer of glass at walkway of shaft)	КТ	Interior Glass	CON	(1,425,600)		- A		48,000 sf, replace w/shaftwall @ \$20/sf	JVT will prepare documents with this approach as an alternate. The base case will be as shown in DD2.	JVT	IFO-1 (95% CD 11/18/2011)	Yes - Partial	n/a	JVT completed but will add additional information to clarify documents as part of 100% CS1/IFO-3 Submittal
VE-6	Change sliding glass doors for pre-op rooms to curtains	кт	Doors	DAT	(71,500)		- A		13 locations, allowance of \$500/ea for curtains.	JVT will incorporate.	TVL	IFO-1 (95% CD 11/18/2011)	n/a	YES	Completed
VE-7	Reduce parking structure height 7' (needs further discussion) (7' struct. Deduct.) dewatering and comp. fill additional savings.	КТ	Multi Trades	PVS	(309,185)		- A	JVT to review the design / and water table - Verify flow rates and water contamination. KT adjust for caissons depth. KT to provide a cost on flow test to be performed. Provide Add cost for water filtration.	JVT & KT	JVT is research geometry and will advise the team on the acheivable height reductions. Current estimate is +- 2'. KT to verify projected savings based on 2'.	JVT	STR-1, STR-1a, STR-2, CS-1 - JVT to issue sketches with final acheiveable height. TBD	NO	NO	Rejected by the VA - Closed
	Roof - Kynar Finished Standing Seam with Ice & Water Shield in lieu of Zinc.	КТ	Roof	CON	(1,000,000)		- A			JVT will incorporate into the design. KT to confirm warranties relative to using Ice & Water Shield vs. EPDM and advise the JVT and VA.	кт	CS-1 (95% CD 8/19/2011)	Yes-Partial	n/a	Alternate System Proposed in DOC 6 - KT to review and update projected cost savings.
	Change the 6"-8" raised vertical caps/fins @ typical curtainwall to 6" 1.5" raised fins/caps.	кт	Glass	ALL	(100,000)	(187,888)	(87,888) A	KT/JVT NEEDS TO CONFIRM DETAILS	JVT - Bernie (SOM) KT - Tina, DA Sub	JVT to change mullion caps to single projecting fin profile.	JVT	CS-1 (95% CD 8/19/2011)	YES	n/a	Completed
	CW, Use flat composit panel ILO of shape panel.	КТ	Glass	ALL	(100,000)	(87,168)	12,832 A	JVT and KT to conduct further investigation for acceptance.	JVT - Bernie (SOM) KT - Tina, DA Sub	KT to revise VE item to delete "omit shadow box" . JVT will only use flat composite planel ILO shaped panel.		твр	YES	n/a	Completed
VE-11	Use Duracon (by PPG) interior paint on aluminum surfaces in lieu of three coat kynar.	кт	Glass	ALL	(750,000)	(619,812)	130,188 A	JVT and KT to conduct further investigation for acceptance.	JVT - Bernie (SOM) KT - Tina, DA Sub	Agree with Action Item	JVT/KT Silo	твр	NO	n/a	JVT to include in 100% CDs for CS1/IFO-3 Submittal
VE-12	Use two coat in lieu of three coat kynar paint (exterior).	КТ	Glass	ALL	(200,000)	(108,271)	91,729 A	JVT and KT to conduct further investigation for acceptance.	JVT - Bernie (SOM) KT - Tina, DA Sub	Agree with Action Item	JVT/KT Silo	TBD	Yes - Partial	n/a	JVT completed but will add additional information to clarify documents as part of 100% CS1/IFO-3 Submittal
VE-13	Omit horizontal bull-nose at intermediate effects. WET	кт	Glass	ALL	(75,000)	(74,182)	818 A	JVT and KT to conduct further investigation for acceptance.	JVT - Bernie (SOM) KT - Tina, DA Sub	Agree with Action Item	JVT/KT Silo	TBD	YES	n/a	Completed
VE-14	CBN & CBC - Total glass area supported by the mullion system of glass to be less than 50 SF.	КТ	Glass	ALL	(275,000)	(76,202)	198,798 A	JVT and KT to conduct further investigation for acceptance.	JVT - Bernie (SOM) KT - Tina, DA Sub	Agree with Action Item	JVT/KT Silo	твр	In Progress	n/a	Topic is being worked on by JVT. K-T Design Assist Subcontractor required to maximize the savings.
VE-15	Use 1/4" monolithic glass in lieu of IG units for all exterior and interior parking garage glass.	КТ	Glass	Garages	(65,000)	(125,192)	(60,192) A	•	JVT - Bernie (SOM) KT - Tina, DA Sub	Agree with Action Item	JVT/KT Silo	TBD	Yes - Partial	n/a	JVT completed but will add additional information to clarify documents as part of 100% CS1/IFO-3 Submittal
VE-16	Change Garage glass wall storefronts adjacent to elevator doors and at interior stair towers to painted drywall. Cameras with LV. {Interiors}	КТ	Glass	Garages	(50,000)	(91,173)	(41,173) A	o 1	JVT - Bernie (SOM) KT - Tina, DA Sub	Agree with Action Item	JVT/KT Silo	TBD	YES	n/a	Completed
VE-17	Omit exterior shelf at Concourse Zig Zag wall.	КТ	Glass	CON	(450,000)	(470,105)	(20,105) A	SOM to review internally with their designers; also SOM may look at deleting the exterior, horizontal metal infills; Permasteelisa to evaluate the cost of triple, in lieu of standard IG unit, for the re-aligned glass; Triple Glazing add is approx \$10-\$11/sf SIMPLIFY ZIG ZAG WALL	DA Sub	JVT notes horizontal metal fins will be deleted. The glass should remain as designed based on building energy calculations. JVT will look at continuing to simplify curtiain wall.	VA	CS-1 (95% CD 8/19/2011) - TBD	Yes - Partial	n/a	JVT deleted the horizontal metal fins. K-T to adjust costs savings to reflect. Balance of design requires K-T Design Assist Subcontractor to maximize the savings.
VE-18	Change shaped glass "non-rectangular" to rectangular.	КТ	Glass	CON	(100,000)	(100,000)	- A	JVT and KT to conduct further investigation of design intent.CONFIRM SCOPE OF GLASS	JVT - Bernie (SOM) KT - Tina, DA Sub	Agree with Action Item - JVT will review extent	JVT/KT Silo	TBD	NO	n/a	K-T Design Assist Subcontractor required to maximize the savings.
	Energy Center -reduce exterior enclosure design Mtl pnls to precast flat pnls.	КТ	Multi Trades	ENC	(150,000)		- A	JVT & KT collaborate on design alternative (schedule impacts/concerns) CONFIRM SCOPE AND PRICE	JVT & KT	JVT to review reducing Metal panels & impacst of precast panel changes on the allready issued STR work. JVT's directvie will be not to change STR documents.	JVT	CS-1 (95% CD 8/19/2011)	NO	n/a	Will be included as part of the ENC Redesign.
VE-20	ALL Bldgs change applied traffic coating @ stairs to sealed concrete.	КТ	Arch	ALL	(300,000)		- A	User group interior design input needed - JVT TO CONFIRM THE TYPE OF TREAD NOSING	VA - Brad	Agree with Action Item	JVT	TBD	NO	n/a	JVT to include in 100% CDs for CS1/IFO-3 Submittal
VE-21	ALL - Dispensers - Delete, furnish & install to be by Owner's vendor.	КТ	Arch	ALL	(414,480)	(414,480)	- A	Update design documents to reflect this scope change. Items will be provided by Hospital Vendors.	JVT	Agree with Action Item	JVT	IFO-1 (95% CD 11/18/2011)	n/a	YES	Completed
VE-22	 Power Distribution Savings - includes but is not limited to the following. Finalize short circuit calculations which may reduce AIC ratings at substations and downstream equipment. Provide some spaces and some spares in lieu of all spares in the major distribution equipment. Re-evaluate all building loads with electrical and mechcanical engineers to determine if any equipment can be reduced in size. 		Elect	ALL	(200,000)		- A	JVT & KT to review. NEED DA SUB FOR INPUT	JVT - Kevin (C/R) KT - Bill Bales	Agree with Action Item - no work will proceed until the revised direction is clear. Written VA approval to vary from guidelines is requried from the VA.	VA	TBD	n/a	YES	Completed

Replacement Medical Center Facility

Eastern Colorado Health Care System Aurora, CO

Revised Feb. 1, 2012

(Better)

F	TP VE List						Worse									
VE #	Proposed VE Item Delete Snubbers FOR STANDARD TRANSFORMERS		Trade (s)	Building?	Target Cost Impact	Actual Cost	Variance from Target	Accceptance	Action Item	Responsible Party JVT - Kevin (C/R) KT - Bill Bales	JVT Con	I-2011	Included in DOC #6 CS-1 IFO-3	Included in DOC #7 IFO-1	Remarks (Nov 4, 2011)	
VE-23 [Elect	ALL	(130,000)		-				Agree with Action Item. Written VA approval to vary from guidelines is requried from the VA.	VA	TBD	n/a	YES	Completed
r	Reduce the level of finish and quantity of light fixtures in public spaces. (Concourse, reception areas, elevator obbies, waiting areas, etc.) (whole project).	КТ	Elect	ALL	(350,000)		-	A	JVT to work w/ DA Subs to review fixture selection and establish a target goal.	JVT & KT, DA Sub	On-Hold pending action items noted. SA will be required from VA prior to commencement of JVT services.	VA	TBD	n/a	YES	Completed
t	Eliminating concrete encasement around the conduit in the Concourse and under the building slabs (just elect.). Conduit will be sch. 40 PVC under buildings and sch. 80 PVC for direct-buried.	КТ	Elect	ALL	(96,000)		-	A	JVT to incorporate into design.	TVL	Agree with Action Item pending written approval of allowance to vary from VA guidelines	VA	STR-1a, IFO-2 - Change Order to already issued CDI documents (100 %CD CDI-2 on 7/15/2011)	YES	n/a	Completed
	Clear definition of NEC 708 designated critical operation areas. Affects electrical.	КТ	Elect	ALL	(500,000)		-	A	Confim our understanding of the MEMO from VACO. RISK ASSEMENT BY TO BE COMPLETED		Agree with Action Item - no work will proceed until the revised direction is clear. Written VA approval to vary from guidelines is requried from the VA.	VA	TBD	YES	n/a	Completed
t	Eliminating concrete encasement around the conduit in the Concourse and under the building slabs. (just elecomm). Conduit will be sch. 40 PVC under buildings and sch. 80 PVC for direct-buried.	КТ	Elect	ALL	(118,000)		-	A	JVT to incorporate into design.	TVT	Agree with Action Item. Written VA approval to vary from guidelinEs is requried from the VA.	VA	STR-1a, IFO-2 - Change Order to already issued CDI documents (100 %CD CDI-2 on 7/15/2011)	YES	n/a	Item was picked up in the CDI No. 2 IFO-2 set and in the Doc No. 6 CS-1 / IFO-3 set. The JVT removed the concrete encasement around the conduit underneath the concourse and the other building slabs, and kept the concrete encasement just on the conduits that are NOT under a building.

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Replacement Medical Center Facility

Eastern Colorado Health Care System

Aurora, CO

Revised Feb. 1, 2012

(Better)

FTP VE L	Proposed VE Item	Proposer	Trade (s)	Building?	Target Cost Impact	Actual Cost	Worse Variance from	Accceptance	Action Item	Responsible Party	JVT Comments 7-14-2011				Included in DOC #7	Remarks (Nov 4, 2011)
	Allow the use of alum panel and switchboard bussing. (TBC 25% savings over cost)	rioposer	.,			Actual COSt	Target	Acceptance	Action tem					CS-1 IFO-3	IFO-1	Remarks (NOV 4, 2011)
		KI	Elect	ALL	(65,000)		-	- A			Agree with Action Item. Written VA approval to vary from guidelins is requried from the VA.	VA	IFO-1 (95% CD 11/18/2011)	n/a	YES	Completed
29 Allow the savings ov	e use of alum transformer windings. 'TBD 25% ver cost	кт	Elect	ALL	(25,000)			A			Agree with Action Item. Written VA approval to vary from guidelins is requried from the VA.	VA	IFO-1 (95% CD 11/18/2011)	n/a	YES	Completed
	sonable Drainage Channel Stone - Change swale Rip Rap \$5 to \$3 S.F	кт	Land	Site	(40,107)			A			JVT to incorporate the change.	JVT	CS-1 (95% CD 8/19/2011)	YES	n/a	Completed
	llis - Replace stainless steel structure with	кт	Land	Site	(175,797)		-	A			JVT to incorporate the change.	JVT	CS-1 (95% CD 8/19/2011)	YES	n/a	Completed
32 Site - Sand	dstone Pavers - Replace w/Conc. Sidewalks.	КТ	Land	SITE	(52,209)			A	Option is acceptable for all areas except SCI. KT and JVT to review locations and agree.		JVT to incorporate the change.	JVT	CS-1 (95% CD 8/19/2011)	YES	n/a	Completed
	ne Site Walls - Change veneer to cast stone from e. Provide cast stone cap.	КТ	Land	SITE	(547,585)		-	A			JVT to incorporate the change.	JVT	CS-1 (95% CD 8/19/2011)	NO	n/a	In-Progress. Alternate Design S provided by JVT to K-T.
34 Site - Emb w/paint	bedded Pavement Markers - Delete, replace	КТ	Land	SITE	(95,800)		-	A	JVT to incorporate into design.	JVT	Agree with Action Item	JVT	CS-1 (95% CD 8/19/2011)	YES	n/a	Completed
S5 Site - SS B	Bollards - Replace w/painted Steel.	КТ	Land	SITE	(265,000)		-	A	JVT to incorporate into design.	TVI	Agree with Action Item	JVT	CS-1 (95% CD 8/19/2011)	YES	n/a	Completed
	peed actuation on Phoenix Valves in lieu of High here high speed is not necessary per VA tions	КТ	LVS	ALL	(195,000)		-	A	JVT to incorporate into design.	JVT - Chuck (C/R)	JVT has reviewed in more detail and we do not recommend normal speed actuators. This VE item is not acceptable. The lab systems will operate properly. \$195,000 of projected savings has been removed.	N/A	N/A	n/a	YES	Completed
	he overall numbers of data ports in the buildings, conduit and infrastructure. (eliminating 1,000	КТ	LVS	ALL	(152,000)		-	A	CONFIRM REDUCTION GOAL W/ USERS		JVT to incorporate the change pending VA / Medical Center Review. VA to schedule meetings to review reductions	VA	IFO-1 (95% CD 11/18/2011) - TBD	n/a	YES	Completed
infrastruc This value 276 patier	lumber of PA Speakers and associated cture (conduit and cable) e is based on eliminating 282 office speakers and ent room speakers throughout the complex for a 58 speakers to be eliminated.	КТ	LVS	ALL	(237,806)		-	A	JVT & KT Provide variation with fewer speakers. KT to quantify speaker layouts as shown on DD2.	JVT - John (R/R) KT - Bill Bales	JVT to incorporate the change pending VA / Medical Center Review. VA to schedule meetings to review reductions	VA	IFO-1 (95% CD 11/18/2011) - TBD	n/a	YES	Completed
	inition of NEC 708 designated critical operation fects low-voltage systems. EMT in lieu of IMC for ns.	КТ	LVS	ALL	(2,000,000)		-	A	KT TO VERIFY FINAL CREDIT AMOUNT	JVT - John (R/R) KT - Bill Bales	JVT to incorporate the change.	JVT	IFO-1 (95% CD 11/18/2011)	n/a	YES	Completed
0 PVC Vents	s for Buildings (Not Parking Garages).	кт	Mech	PVN/PSN/PVS	(137,232)			A	JVT to incorporate into design.	ΤΛΓ	Agree with Action Item. Written VA approval to vary from guidelines is requried	VA	IFO-1 (95% CD 11/18/2011)	n/a	YES	Completed
L Reduction	n of fuel oil tanks from 6 to 4.	КТ	Mech	ENC/Site	(568,780)		- ,	A	JVT to incorporate into design.	JVT	Agree with Action Item	JVT	CS-1 (95% CD 8/19/2011)	n/a	YES	Completed
2 Revise Cro Floor.	oss-Loop DCW, DHW, and HWC Mains on Each	КТ	Mech	ALL	(200,000)		-	A	This item rejected with the variation of this item to be reviewed by JVT (C/R). TARGET VALUE	JVT - Chuck (C/R) KT - Bill Bale	JVT to incorporate the change.	JVT	IFO-1 (95% CD 11/18/2011)	n/a	Yes - Partial	JVT is attempting however the will not be fully attainable
3 Design/Bu fees)	uild - Cast in Place Garages* (not including design	КТ	Struct	PVN,PSN	(6,000,000)	-	6,000,000	A	KT to investigate DA package for garages (4-6 weeks). KT & JVT to discuss potential concerns.		Design team will complete 95% on STR-2 and CS-1 on Precast Garage. Design team will not start on this until an SA is received from the VA. JVT recommends that both	VA	Separate Package for CIP as alternate	NO	NO	
	e the precast lattice facing on the garage exterior. pandrel panel to have an architectural finish.	Rocky Mountain Prestress	Struct Precast	PVN,PSN	(250,000)	(1,095,360)	(845,360)	A	Review less expensive materials. SET UNIT COST TO \$10 LESS FROM THE CURRENT 46.	JVT - Tom Fromm (SOM)	It was noted that the alternate system must also fuction as a vehicular barrier or another barrier will be required. Open issie - BIC- JVT to review design.	JVT	TBD	NO	NO	
	Vest Elevation Entry Monumental Stone walls to Ietal screen wall.	КТ	Struct / Arch	CON	(500,000)	-	500,000	A	KT & JVT collaborate on details.	JVT - Bernie (SOM) KT - Tina, DA Sub	, It was agreed to look at reducing the height of the wall, not change to a metal screen wall.	JVT	CS-1 (95% CD 8/19/2011), TBD	NO	NO	
6 Provide 5, thick glass	5/16" thick outerlite for all glass in lieu of 3/8"	кт	Glass		(110,000)	(120,797)	(10,797)	A	JVT TO STUDY THE WIND LOAD REQMTS	JVT - Bernie (SOM) KT - Tina, DA Sub	, Glass thickness is performance based by the curtainwall contractor.	JVT	CS-1 (95% CD 8/19/2011)	YES	n/a	Completed

TOTALS

(23,013,481) (5,509,254)

4) 6,156,626