

## 6. Structures

<i>Classification</i>	<i>Description</i>	<i>Tracs</i>	<i>CO #</i>	<i>Savings</i>
Approach Slab	Contractor proposed eliminating portion of approach slab under the median islands.	H240205C	6	(\$31,372.69)
Architectural Features	Allow the use of wood forms to construct architectural treatments on bridges and walls rather than the more expensive elastomeric urethane form liner specified.	H319003C	5	(\$197,231.29)
Bridge barrier	VE proposal to alter the design of the bridge barrier. A modified version of the standard roadway barrier was constructed.	H586401C	2	(\$30,271.50)
Bridge Type	Revise overpass structures from cast-in-place post tensioned to precast, prestressed AASHTO girder bridges.	H643401C	62	(\$74,595.87)
Concrete Box Culvert	Alter the method of constructing box culvert extensions by use of bituminous coated corrugated metal arch pipe. This resulted in savings associated construction material and construction time.	H502801C	4	(\$69,241.68)
	The structural pavement section over CBC's was to be removed and replaced in conjunction with CBC's repair/replacement. The structural section of 2- 3" lifts of AC and a minimum 6" of Class 2 AB was changed to 1- 3" lift of AC and a minimum of 9" of cement treated base.	H604801C	1	(\$4,741.51)
	The project plans require the extension of headwalls at existing Reinforced Concrete Box Culverts. The intent of the extensions was to maintain a 3:1 or flatter slope between the edge of the roadway and the extended headwalls, to prevent erosion. The contractor proposed to place shotcrete to prevent erosion, instead of extending the headwalls.	H624001C	5	(\$43,644.50)
Drilled Shaft	The additional work that would be necessary to shore existing bridge abutments and protect a power pole, make drilled shafts a less expensive alternative than the spread footings and columns shown in the plans.	H519601C	5	(\$10,138.51)
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Heavy Haul Bridge	The proposed structure was over designed to accommodate dirt haul. An alternative route for the dirt haul eliminated the need to utilize the structure, therefore resulting in a reduced bridge design.	H568604C	20	(\$60,471.50)
	The proposed canal bridge structure was over designed to accommodate dirt haul. An alternative route for the dirt haul eliminated the need for several girders and several intermediate pier and abutment diaphragms. Pipes were placed in the canal and backfilled, creating temporary access over the canal.	H715601C	10	(\$103,404.57)
Retaining Wall	Substitute 32" half-barrier and retaining wall with a 60" concrete barrier.	H395701C	11	(\$249,490.00)

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Retaining Wall	Realign TI on and off ramps in a manner that reduces the surface area of the retaining walls.	H529901C	44	(\$29,664.40)
	Realign TI on and off ramps in a manner that reduces the surface area of the retaining walls. (TI different than that referenced in CO 4.)	H529901C	48	(\$130,756.97)
	Decrease the square footage of retaining walls to be constructed by stepping the wall footings more frequently.	H538501C	5	(\$43,243.30)
	Use of an MSE Terrawall in lieu of a reinforced concrete retaining wall.	H554401C	4	(\$41,510.40)
	Contractor proposed to change from tie back walls to prestressed soil nail system. Also to change the alignment of the cast-in-place retaining walls to parallel traffic in lieu of transitioning back into the cut slopes. This reduced the length of wall needed. Storm drain revisions were developed by the design consultant in conjunction with the change in alignment.	H568603C	14	(\$38,338.49)
	Contractor recognized by raising an existing cast-in-place retaining wall, an adjacent MSE wall could be eliminated and replaced with two smaller cast-in-place walls.	H578201C	24	(\$39,781.70)
	Contractor recognized by raising an existing cast-in-place retaining wall, an adjacent MSE wall could be eliminated and replaced with two smaller cast-in-place walls.	H578201C	32	(\$35,346.30)
	Cast in place concrete retaining wall eliminated as a result of extending the cut slope and placement of a chain link fence.	H578201C	33	(\$36,022.00)
	The contractor realized structural backfill limits behind cantilever retaining walls have been revised from Standard Drawing B-19.40 . A VE was proposed to change these structural backfill limits similar to other projects - a rectangular wedge, 2' - 4' in thickness, running the full height of the wall.	H591301C	9	(\$8,700.96)
The Contractor proposed to substitute soil nail walls for the MSE walls thereby eliminating lane closures that would have been required for the construction of the MSE Wall. This resulted in less traffic flow restrictions to the traveling public during construction.	H650401C	15	(\$6,588.69)	
Sign Structures	Reuse existing cantilever sign structures in lieu of constructing new.	H624001C	4	(\$22,020.00)
Soundwall	Modification to soundwall allowed elimination of a combination barrier/sound wall. As a result the plan's drainage system is revised with most of the new curb and gutter, catch basins, laterals and the existing 24" pipe trunk line being eliminated, and allowing the water to sheet flow off the pccp and down the embankments.	H568604C	15	(\$122,012.89)
	Light weight sound panels were constructed in lieu of a combination masonry wall.	H578201C	27	(\$175,432.91)

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Soundwall	By relocating soundwall away from the roadway and placing on top of an earthen berm, the height of the retaining wall was reduced and concrete barrier was eliminated.	H578301C	13	(\$29,446.94)