Ivins City Staff Report
City Council Meeting 12/15/2016

Agenda Item: Approval of expenditure for construction of Tuacahn Drive Trail

Submitted by: Thomas J. Jorgensen, P.E., Assistant Public Works Director

Recommended City Council Action:
Approve expenditure of $291,884.95 for construction of Tuacahn Drive Trail plus an additional $14,000 for contingency for a total of $305,884.95.

BACKGROUND:
Ivins City has plans on constructing a trail along Tuacahn Drive from Snow Canyon Parkway to the property boundary of Sentierre. The City has worked with the County to provide funds for the project and they have agreed to provide a grant of $150,000 and a zero interest loan of up to $150,000 to fund the construction and engineering of the project.

Staff, with assistance from the Alpha Engineering, submitted a request for bids for construction services. Six bids were received on November 29th, 2016. The bid was structured to include four different options, A, B, C, and D. The different options reflected the different combinations possible for different alternatives. The alternatives included the following: pre-cast jersey barrier vs. cast-in-place jersey barrier and 600 feet of curb and gutter along a certain portion of the trail vs. no curb and gutter.

The preferred option, Option D, included a cast-in-place jersey barrier and the 600 feet of curb and gutter. To see what the other options includes please refer to the attached Bid Tabulation.

FINDINGS AND ANALYSIS:
The following bids were received:

	Base Bid Price	Preferred Option D Bid Price
Sunroc Corporation	$386,970.95	$418,964.95
Feller Enterprise	$399,079.30	$444,545.30
JP Excavating	$400,295.25	$447,090.25
Royal T Enterprises	$443,738.75	$480,088.75
Progressive Contracting	$457,133.98	$495,133.48
Interstate Rock	$488,522.55	$539,559.55

The apparent low bidder for the project was Sunroc Corporation. Their base bid price for was $386,970.95, but the preferred option bid price was $418,964.95. With a project budget of $300,000, it is clear that all bids exceeded this budget. Staff has contacted the low bidder, Sunroc Corporation, and has been working with Alpha Engineers to provide some value engineering to reduce the overall cost of the project.

During the value engineering process, the trail was reconfigured to eliminate the necessity for retaining walls. The trail was reconfigured using three methods. The first method was by lowering the trail below the elevation of the road. The second method was by changing the alignment of the trail, moving it closer toward the road is some locations. The third method was by changing the cross-section of the trail, having the trail slope toward the reserve rather than toward the roadway. There were only certain portions of the road that originally required a retaining wall, and by implementing a combination of these methods at those locations the engineer was able to eliminate the wall.

The only cost imposed during the reconfiguration of the trail was additional engineering costs. These costs were paid for using contingency funds allocated during the 7/21/2016 City Council Meeting, where the council approved expenditure for engineering services for the Tuacahn Drive Trail project.

By eliminating the retaining walls we were able to eliminate Bid Item 7 altogether, which totals $127,080.00, thus reducing the overall bid price by that amount.

$418,964.95 (Option D) minus $127,080.00 (Bid Item 7) equals $291,884.95 plus approximately 5% (Contingency) **TOTALS $305,884.95**

With the new coordinated bid price Staff requests that the Council approve the expenditure of $305,884.95 to include a contingency for potential change orders for construction.

SUPPORT MATERIALS:

- Bid Tabulation
- Map

FINANCIAL IMPACT:

The expense has been budgeted and will be funded by three main sources.

The primary source will be from the $150,000 **grant** from the Washington County Funding.

The secondary budgeted source will be from the following General Ledger sources:
GL 10-60-525 (undesignated street funds): $13,000 for curb and gutter
GL 46-40-822 (habitat funds): $26,000 for extension of tortoise crossings

The tertiary budgeted source will be the $150,000 **loan** from the Washington County funding.

Respectfully Submitted:

Thomas J. Jorgensen, P.E., Assistant Public Works Director

Content Review:

Dale Coulam, City Manager

Ivins City
Tuacahn Drive Trail Project
Bid Tabulation
November 29, 2016

BID SCHEDULE

				Sunroc Corporation		Feller Enterprise		JP Excavating		Royal T Enterprises		Progressive Contracting		Interstate Rock	
Item	Description	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
1	Mobilization	1	L S	$40,000 00	$40,000 00	$40,000 00	$40,000 00	$25,000 00	$25,000 00	$35,000 00	$35,000 00	$23,940 00	$23,940 00	$23,000 00	$23,000 00
2	Removals	1	L S	$4,600 00	$4,600 00	$5,500 00	$5,500 00	$9,000 00	$9,000 00	$10,000 00	$10,000 00	$6,840 00	$6,840 00	$7,700 00	$7,700 00
3	Clearing and Grubbing	1	L S	$2,450 00	$2,450 00	$4,500 00	$4,500 00	$3,000 00	$3,000 00	$10,000 00	$10,000 00	$3,420 00	$3,420 00	$5,100 00	$5,100 00
4	Excavation and Material Import	1	L S	$28,500 00	$28,500 00	$14,000 00	$14,000 00	$11,000 00	$11,000 00	$37,000 00	$37,000 00	$62,700 00	$62,700 00	$43,700 00	$43,700 00
5	2 5" Asphalt over 4" Roadbase	44,515	S F	$1 60	$71,224 00	$2 00	$89,030 00	$2 00	$89,030 00	$2 05	$91,255 75	$1 89	$84,133 35	$2 25	$100,158 75
6	Landscape Cover	29,183	S F	$0 65	$18,968 95	$1 10	$32,101 30	$1 75	$51,070 25	$1 00	$29,183 00	$1 65	$48,151 95	$0 80	$23,346 40
7	Retaining Wall	720	L F	$176 50	$127,080 00	$150 00	$108,000 00	$145 00	$104,400 00	$170 00	$122,400 00	$159 60	$114,912 00	$216 00	$155,520 00
8	HB30-7 Curb (No Gutter)	49	L F	$21 00	$1,029 00	$27 00	$1,323 00	$20 00	$980 00	$25 00	$1,225 00	$19 52	$956 48	$21 60	$1,058 40
9	A-Curb	50	L F	$20 00	$1,000 00	$26 00	$1,300 00	$20 00	$1,000 00	$25 00	$1,250 00	$19 52	$976 00	$21 60	$1,080 00
10	ADA Ramp	9	Each	$2,300 00	$20,700 00	$2,622 00	$23,598 00	$1,000 00	$9,000 00	$1,500 00	$13,500 00	$2,280 00	$20,520 00	$2,060 00	$18,540 00
11	Adjust Existing Sewer Manhole Rim	1	L S	$815 00	$815 00	$500 00	$500 00	$1,000 00	$1,000 00	$500 00	$500 00	$3,192 00	$3,192 00	$520 00	$520 00
12	15" Area Drain	9	Each	$1,215 00	$10,935 00	$995 00	$8,955 00	$1,400 00	$12,600 00	$1,500 00	$13,500 00	$1,592 44	$14,331 96	$750 00	$6,750 00
13	12" PVC Storm Drain Pipe	233	L F	$35 00	$8,155 00	$25 00	$5,825 00	$25 00	$5,825 00	$25 00	$5,825 00	$41 33	$9,629 89	$43 00	$10,019 00
14	Headwall	6	Each	$910 00	$5,460 00	$592 00	$3,552 00	$4,000 00	$24,000 00	$600 00	$3,600 00	$826 50	$4,959 00	$1,480 00	$8,880 00
15	Tortoise Underpass Extension, Sta 37+00	1	L S	$7,400 00	$7,400 00	$12,300 00	$12,300 00	$12,000 00	$12,000 00	$15,000 00	$15,000 00	$13,680 00	$13,680 00	$15,640 00	$15,640 00
16	Tortoise Underpass Extension, Sta 41+15	1	L S	$25,000 00	$25,000 00	$29,775 00	$29,775 00	$21,000 00	$21,000 00	$35,000 00	$35,000 00	$25,080 00	$25,080 00	$45,920 00	$45,920 00
17	Tortoise Underpass Extension, Sta 50+00	1	L S	$7,400 00	$7,400 00	$12,300 00	$12,300 00	$12,000 00	$12,000 00	$15,000 00	$15,000 00	$13,680 00	$13,680 00	$15,640 00	$15,640 00
18	Extend 36" Culvert	15	L F	$138 00	$2,070 00	$48 00	$720 00	$90 00	$1,350 00	$100 00	$1,500 00	$186 25	$2,793 75	$164 00	$2,460 00
19	Relocate Power Facilities	1	L S	$2,300 00	$2,300 00	$1,000 00	$1,000 00	$5,000 00	$5,000 00	$1,500 00	$1,500 00	$912 00	$912 00	$2,200 00	$2,200 00
20	Signage	6	Each	$314 00	$1,884 00	$800 00	$4,800 00	$340 00	$2,040 00	$250 00	$1,500 00	$387 60	$2,325 60	$215 00	$1,290 00
			Total Bid Schedule		$386,970 95		$399,079 30		$400,295 25		$443,738 75		$457,133 98		$488,522 55

ALPHA ENGINEERING

Ivins City
Tuacahn Drive Trail Project
Bid Tabulation
November 29, 2016

BID ALTERNATIVE #1

				Sunroc Corporation		Feller Enterprise		JP Excavating		Royal T Enterprises		Progressive Contracting		Interstate Rock	
Item	Description	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
1-1	Landscape Cover	2,070	S F	$0 80	$1,656 00	$1 10	$2,277 00	$1 75	$3,622 50	$2 00	$4,140 00	$1 65	$3,415 50	$0 80	$1,656 00
		Total Bid Alternative #1			$1,656 00		$2,277 00		$3,622 50		$4,140 00		$3,415 50		$1,656 00

BID ALTERNATIVE #2

				Sunroc Corporation		Feller Enterprise		JP Excavating		Royal T Enterprises		Progressive Contracting		Interstate Rock	
Item	Description	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
2-1	3.5" Asphalt over 6" Roadbase	550	S F	$2 20	$1,210 00	$15 00	$8,250 00	$4 50	$2,475 00	$5 00	$2,750 00	$4 45	$2,447 50	$7 50	$4,125 00
2-2	HB30-7 Curb and Gutter	608	L F	$18 00	$10,944 00	$27 00	$16,416 00	$15 00	$9,120 00	$20 00	$12,160 00	$16 10	$9,788 80	$24 00	$14,592 00
		Total Bid Alternative #2			$12,154 00		$24,666 00		$11,595 00		$14,910 00		$12,236 30		$18,717 00

BID ALTERNATIVE #3

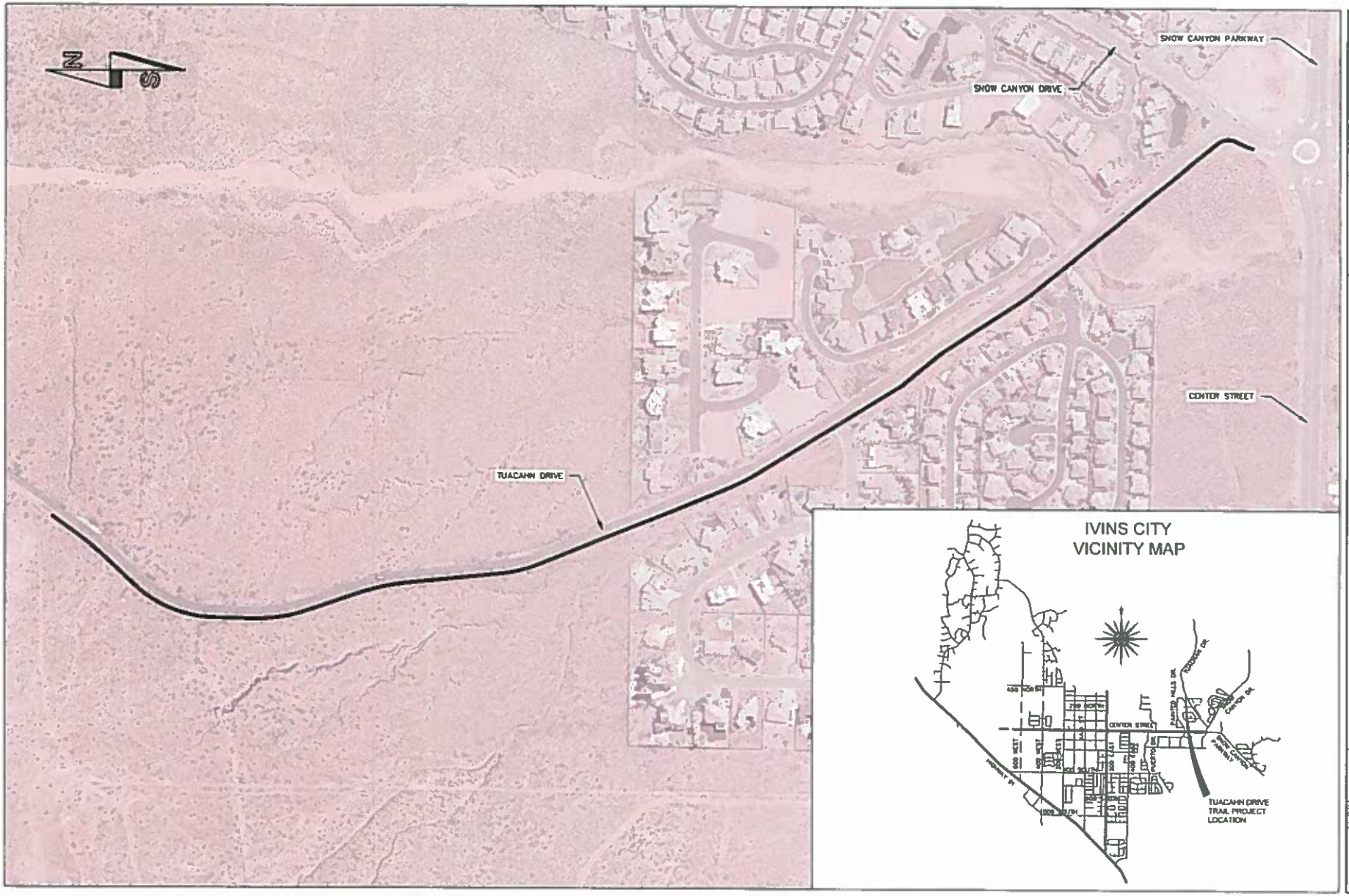
				Sunroc Corporation		Feller Enterprise		JP Excavating		Royal T Enterprises		Progressive Contracting		Interstate Rock	
Item	Description	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
3-1	Precast Jersey Barrier	320	L F	$52 50	$16,800 00	$72 00	$23,040 00	$59 00	$18,880 00	$60 00	$19,200 00	$93 55	$29,936 00	$87 00	$27,840 00
		Total Bid Alternative #3			$16,800 00		$23,040 00		$18,880 00		$19,200 00		$29,936 00		$27,840 00

BID ALTERNATIVE #4

				Sunroc Corporation		Feller Enterprise		JP Excavating		Royal T Enterprises		Progressive Contracting		Interstate Rock	
Item	Description	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
4-1	Cast-in-Place Jersey Barrier	320	L F	$62 00	$19,840 00	$65 00	$20,800 00	$110 00	$35,200 00	$67 00	$21,440 00	$80 51	$25,763 20	$101 00	$32,320 00
		Total Bid Alternative #4			$19,840 00		$20,800 00		$35,200 00		$21,440 00		$25,763 20		$32,320 00

OPTION A TOTAL BID INCLUDING ALTERNATIVE #1 & #3	$405,426.95	$424,396.30	$422,797.75	$467,078.75	$490,485.48	$518,018.55
OPTION B TOTAL BID INCLUDING ALTERNATIVE #1 & #4	$408,466.95	$422,156.30	$439,117.75	$469,318.75	$486,312.68	$522,498.55
OPTION C TOTAL BID INCLUDING ALTERNATIVE #2 & #3	$415,924.95	$446,785.30	$430,770.25	$477,848.75	$499,306.28	$535,079.55
OPTION D TOTAL BID INCLUDING ALTERNATIVE #2 & #4	$418,964.95	$444,545.30	$447,090.25	$480,088.75	$495,133.48	$539,559.55

ALPHA ENGINEERING



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SCALE
PAPER UNITS 1"
DRAWING UNITS 500'

TUACAHN DRIVE TRAIL CONCEPT PLAN

EXHIBIT 1 - OVERVIEW AND PROJECT LOCATION

DATE
DRAWN BY
CHECKED BY CRG

SHEET NO
1
TOTAL SHEETS 4