

Bannerman Road & Reynolds Drive Access Management Study

Prepared for:



Prepared by:



October 2012

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I am a registered professional engineer in the State of Florida practicing with Reynolds, Smith, and Hills, Inc., a Florida corporation authorized to operate as an engineering business (EB No. EB0005620) by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have supervised the preparation and approve the evaluation, findings, opinions, conclusions, and technical advice hereby reported for:

Project: Bannerman Road Corridor Study

Location: Leon County, Florida

Report: Reynolds Drive Access Management Study

Project No.: BC-04-29-09-28 (Supplemental #1)

This report includes a summary of data collection efforts, traffic analysis, design alternatives, cost estimates, and conceptual plans. I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering and planning as applied through professional judgment and experience.

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Florida PE Registration No.: 67530

Signature: _____

Date: _____

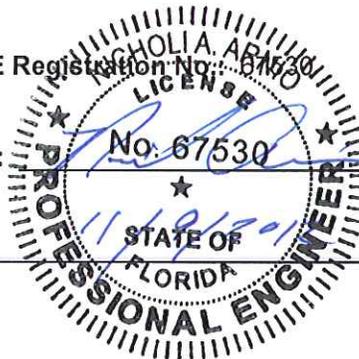


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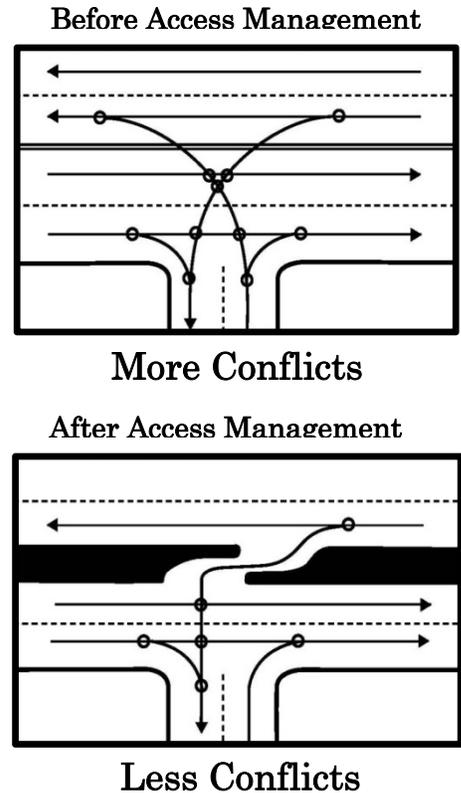
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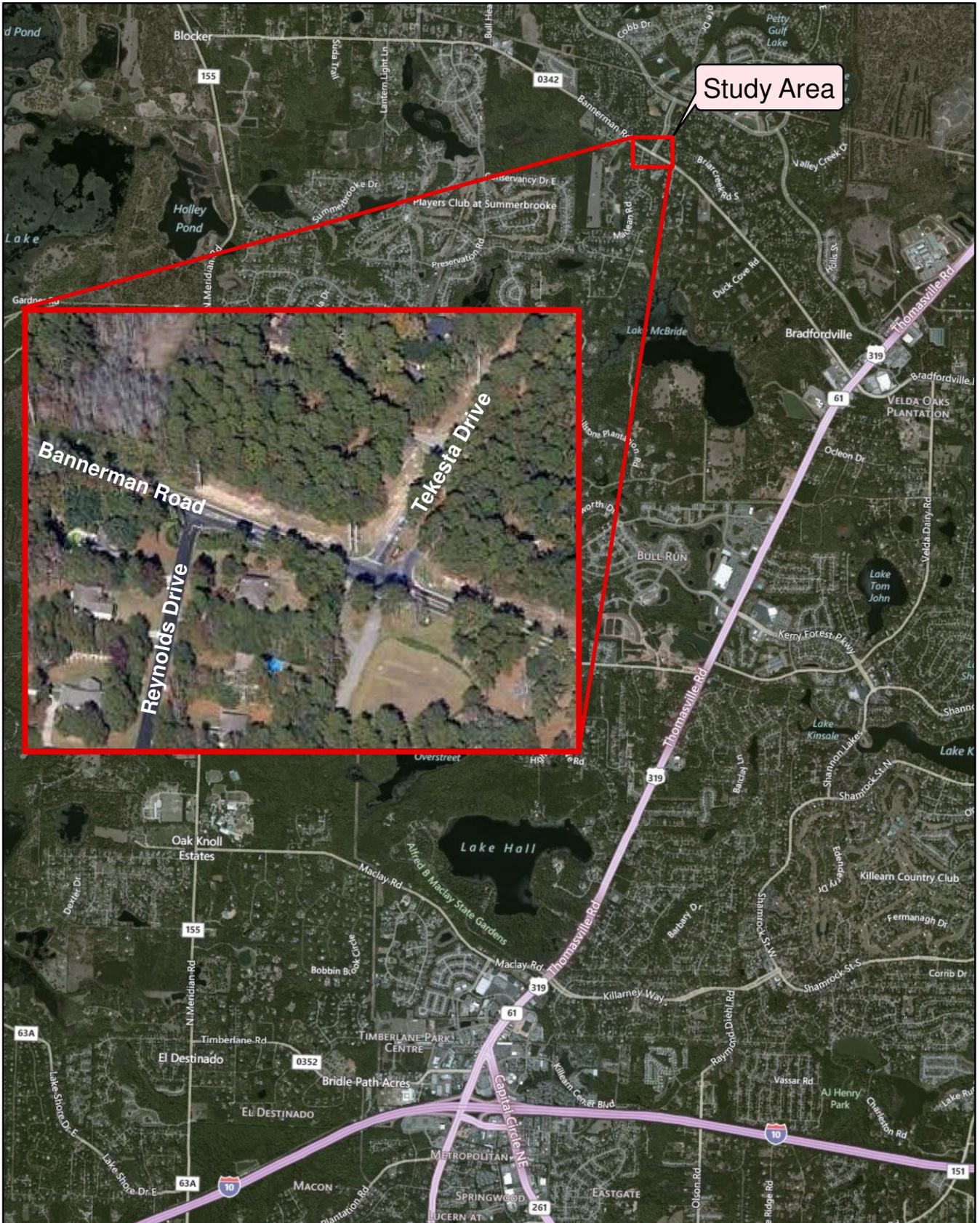
1. Introduction

Bannerman Road is in the northeast area of Leon County, Florida, north of I-10, as seen in **Figure 1.1**. Bannerman Road is a two-lane rural roadway connecting Thomasville Road and North Meridian Road and mainly serves residential homes, neighborhoods, with sporadic businesses. Tekesta Drive is a signalized intersection that serves the 4,000 residential homes to the north in the Killearn Lakes Neighborhood. Reynolds Drive creates a “T-intersection” on the south side of Bannerman Road and is offset about 200 feet west of Tekesta Drive (See Project Area in **Figure 1.1**.) The Bannerman Road Corridor Study proposed capacity improvements from Thomasville Road to the west that terminate at Tekesta Drive. Additional improvements to the access configuration at Reynolds Drive are addressed within this report.

The short distance between Tekesta Drive and Reynolds Drive does not allow for an adequate distance to design adjacent left turn lanes to service left turning vehicles at these intersections. The Florida Department of Transportation (FDOT) has adopted Access Management Standards to address the location, design, and operation of driveways, median openings, interchanges, and street connections. Leon County and the Bannerman Road Citizen’s Advisory Committee (CAC) have generally adopted the FDOT standards for access management to address issues such as this on Bannerman Road.

Access management is practiced to improve the safety of a roadway or corridor by reducing the number of conflict points a vehicle can encounter and balance it with mobility. A conflict point is a location where two vehicles’ paths can legally cross. For example, any time a left turning vehicle must cross an opposing lane to complete its movement, it has the potential to conflict with through moving vehicles. If the number of times a vehicle can come into conflict with another is reduced, the overall roadway will be safer and feel safer.





	<p>Bannerman Road & Reynolds Drive Access Management Study</p>	<p>Project Area Map</p>	<p>Figure 1.1</p>
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The Corridor Study initiated in 2010 for Bannerman Road from North Meridian Road to Thomasville Road (US 319) recommended a 4-lane, median divided roadway east of Tekesta to the existing 4-laned portion west of Thomasville Road. Although Bannerman Road is not a state maintained roadway, the proposed design most closely represents a Class 4 roadway west of Tekesta and a Class 5 roadway east of Tekesta from Rule 14-97 of the Florida Administrative Code (**Table 1.1**).

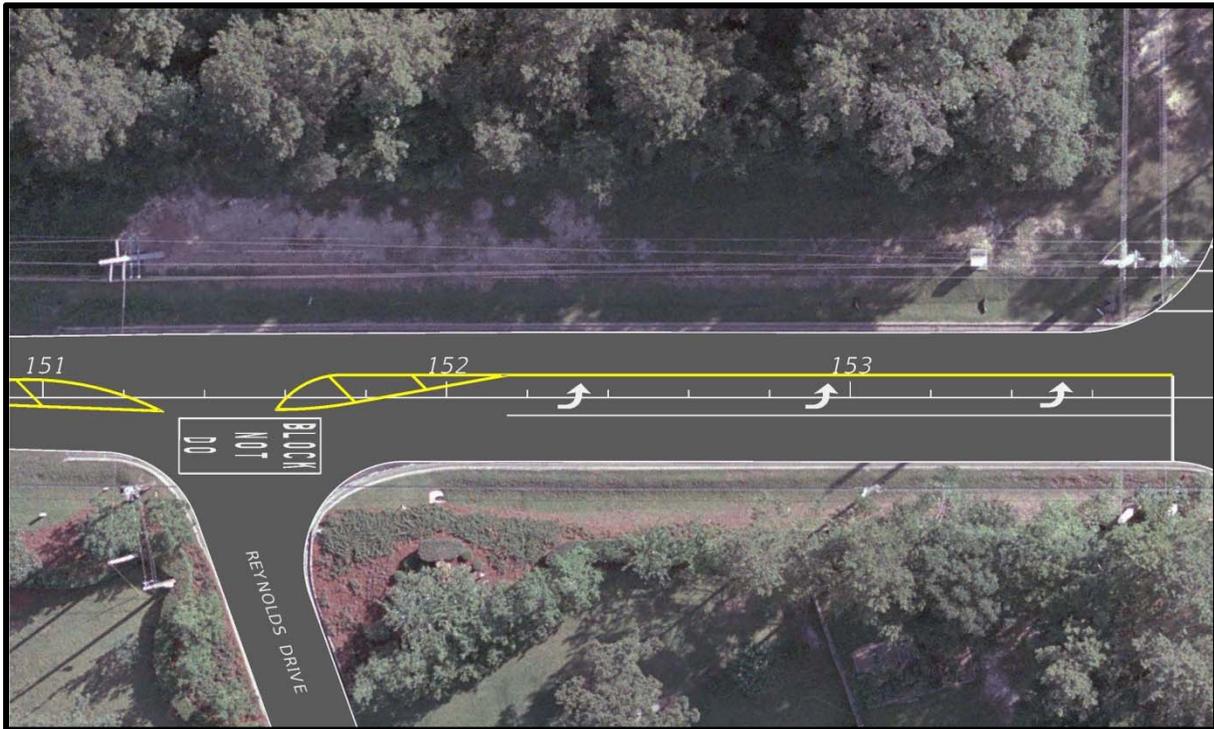
Table 1.1: Rule 14-97 of the Florida Administrative Code

Access Class	Median	Median Opening Spacing Standard (feet)		Signal Spacing Standard (feet)	Connection Spacing Standard (feet)	
		Full	Directional		Posted Speed Greater than 45 MPH	Posted Speed of 45 MPH or Less
2	Restrictive	2,640	1,320	2,640	1,320	660
3	Restrictive	2,640	1,320	2,640	660	440
4	Non-Restrictive	-	-	2,640	660	440
5	Restrictive	2,640 at greater than 45 MPH posted speed	660	2,640 at greater than 45 MPH posted speed	440	245
		1,320 at 45 MPH or less posted speed		1,320 at 45 MPH or less posted speed		
6	Non-Restrictive	-	-	1,320	440	245
7	Both Median Types	660	330	1,320	125	125

2. Existing Conditions

Bannerman Road at Reynolds Drive is a two lane road with an eastbound left turn lane that provides deceleration and queue storage for motorists accessing Killearn Lakes via Tekesta Drive. A painted gore area exists east and west of Reynolds Drive that allows sufficient room for one vehicle to turn left onto Reynolds Drive without impeding westbound through traffic as show in **Figure 2.1**. A recent modification to the intersection also includes a “Do Not Block” pavement marking sign to allow for westbound left turns into Reynolds Drive.

Figure 2.1: Reynolds Drive Existing Conditions



Bannerman Road has a posted speed limit of 45 mph and Reynolds Drive is posted as 25 mph. Reynolds Drive serves the McBride Estates, McBride Hills, and Maclean Hills residential neighborhoods that can also be accessed through McClure Drive, approximately 700 feet east of Tekesta Drive.

Leon County accepted a previous study that recommended an interim solution within the existing roadway footprint. Opposing left turn lanes would serve left turning vehicles at Tekesta Drive and Reynolds Drive. This solution was meant to be a temporary solution until a final conclusion could be recommended through the Corridor Study process. This alternative is explained in further detail later in this report.

2.1 Traffic Data Collection

Traffic counts were taken at the intersections of Reynolds Drive and Bannerman Road, and McClure Drive and Bannerman Road to better understand the volume of traffic at each intersection. The counts were taken on September 26, 2012 from 7am to 9am and from 5pm to 7pm. Data collection was done while school was in session to ensure that normal peak behavior was captured.

Traffic data was collected to determine the appropriate queue length of the left turn lane at McClure Drive in the event that all westbound traffic turning left onto Reynolds Drive would now have to turn left at McClure Drive. Restricting westbound access to Reynolds Drive by placing a raised median from Tekesta Drive past Reynolds Drive is proposed as an alternative. Turning traffic and through traffic on Bannerman Road was recorded at both McClure Drive and Reynolds Drive during peak hours of traffic and is shown in **Appendix A**. The traffic count data was seasonally adjusted based on the FDOT Traffic Information Digital Video Disc (DVD) and those seasonal factors can be found in **Appendix A**.

The maximum number of vehicles turning left from the westbound direction occurred from 5:00 pm to 6:00 pm. McClure Drive saw 44 vehicles turning left from the westbound direction where Reynolds Drive experience 21 during the same period. Additional traffic observed during the period included 13 eastbound vehicles turning right onto Reynolds Drive and 3 vehicles turning right onto McClure. The peak traffic is displayed in **Figure 2.2** and **Figure 2.3** for McClure Drive and Reynolds Drive intersections, respectively.

Figure 2.2: McClure Drive Traffic Count

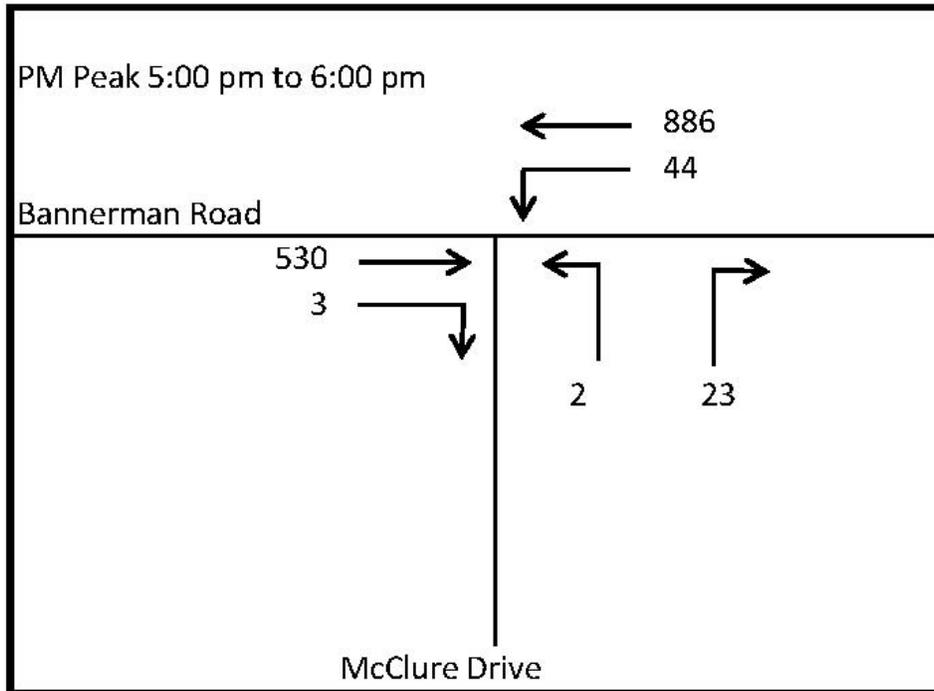
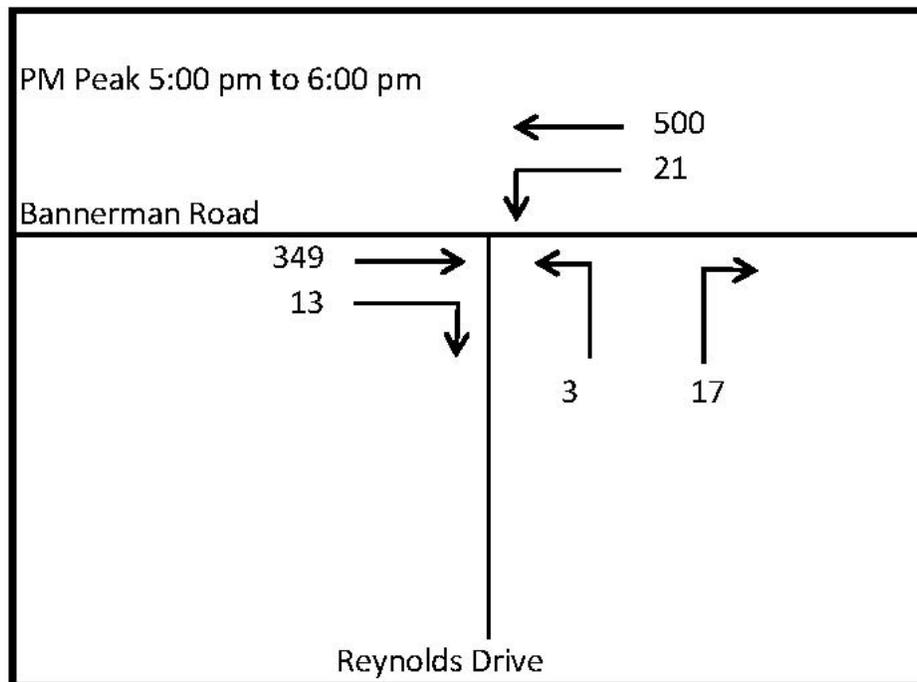


Figure 2.3: Reynolds Drive Traffic Count



3. Design Options Considered

Several design alternatives were considered to provide safe entrance into Reynolds Drive for motorists traveling in the westbound direction on Bannerman Road. The access management guidelines were considered as well as impacts to residential properties, stormwater requirements, and the cost to implement each alternative.

3.1 Alternative A: Realignment of Reynolds Drive

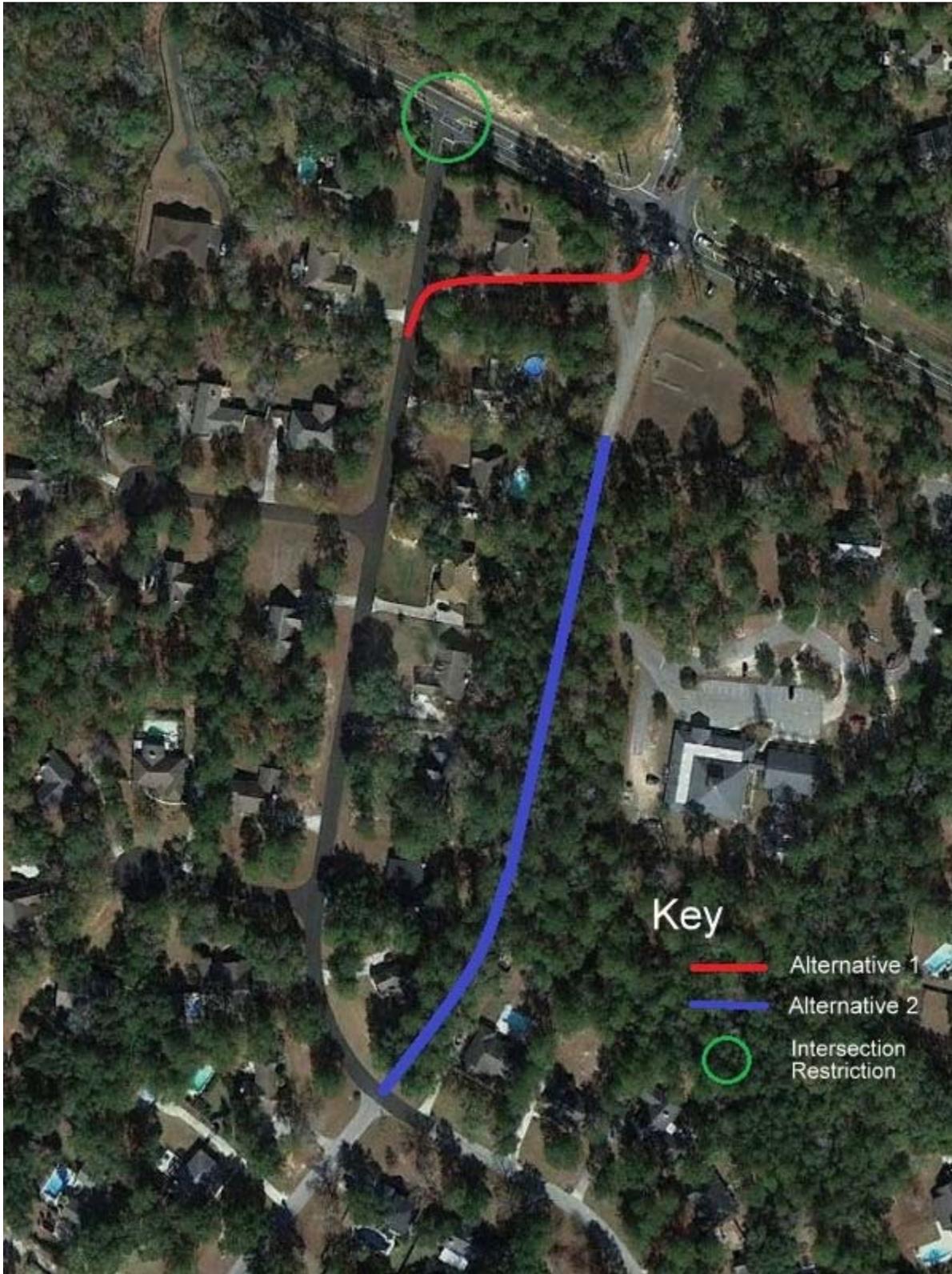
An alternative that was considered included realigning Reynolds Drive to connect at Tekesta Drive creating a four-way intersection with the existing traffic signal. Two separate realignment alternatives were explored for Alternative A. The first (Alternative A1) takes place near the north end of Reynolds Drive and requires the relocation of two residential properties and impacts one additional residential property. The second alternative (Alternative A2) is achieved through an extension of MacLean Road, which would require the relocation of two residential properties and impact an additional seven residential properties, in addition to the Christ Presbyterian Church. **Figure 3.1** depicts the realignments as described above. Additional restrictions to Reynolds Drive at the intersection of Bannerman Road would occur with these alternatives. For instance, further study may recommend Reynolds Drive be granted right-in / right-out access, or it may require a cul-de-sac.

Potential impacts to residential properties are shown in **Table 3.1**. Additional impacts to Christ Presbyterian Church would be expected with both Alternative A1 and Alternative A2, but are not included in this analysis.

Table 3.1: Alternative A Residential Right-of-Way Impacts

	Total Residential Impacts	Residential Relocations
Alternative A1	3	2
Alternative A2	9	2

Figure 3.1: Reynolds Drive Realignment Options



The relocation of home sites is an aggressive approach, one in which strong evidence of the need for realigning the road is necessary. If a realignment option for Reynolds Drive is chosen, it is recommended that a public involvement effort be conducted to inform affected citizens of the alternatives under consideration and to explore additional alternatives to minimize impacts. A complete tabulation of impacts and potential costs related to Alternative A is shown in **Table 3.2**.

Table 3.2: Alternative A Evaluation Matrix

Category	Alternative A1	Alternative A2
Residential Parcels Impacted	3	9
Residential Relocations	2	2
Roadway Construction Cost ^A	\$238,810.83	\$597,027.07
Drainage Construction Cost ^B	\$716,432.49	\$1,791,081.21
ROW Cost ^C	\$825,820.60	\$1,324,742.15
Potential Pond Site ROW Cost ^D	\$500,000	\$1,000,000
Contingency (20%)	\$456,212.78	\$942,570.09
Total Cost^E	\$2,700,000.00	\$5,700,000.00

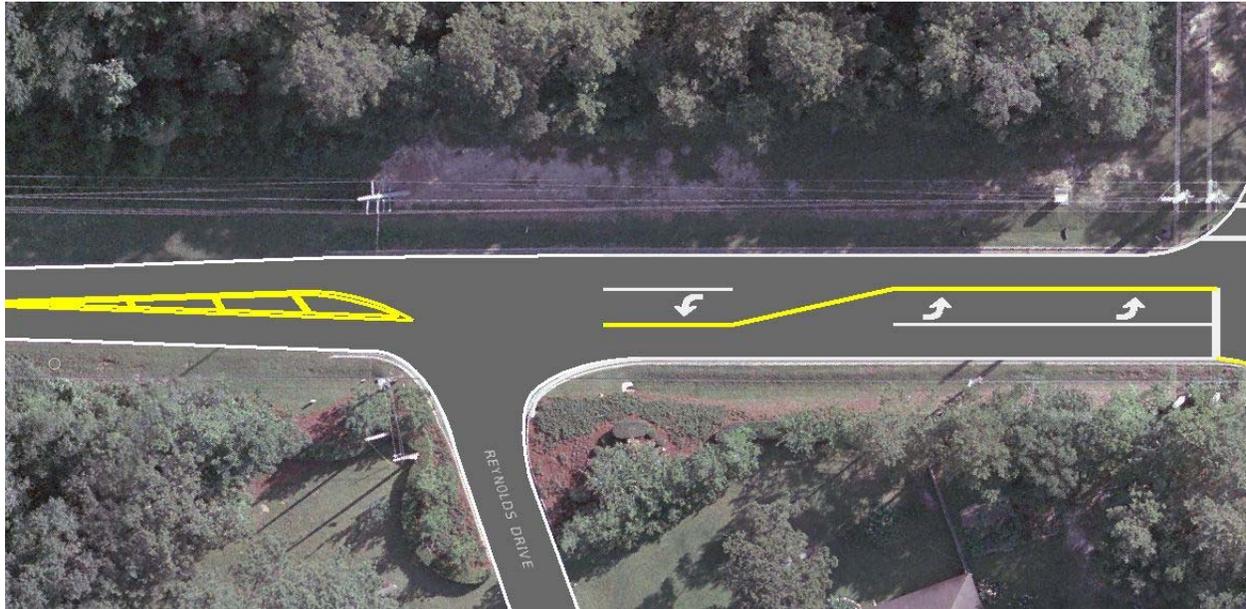
- A. Based on FDOT Generic Cost Per Mile Models, see Appendix B
- B. Estimated based on portion of roadway costs
- C. Estimated based on Leon County Property Appraiser with RIGHT-OF-WAY acquisition fees
- D. Estimated based on 1 acre of pond site for 1 acre of project area
- E. Rounded to the nearest \$100,000

3.2 Alternative B: Modified Left Turn Lanes at Reynolds and Tekesta

Alternative B involves decreasing the storage length of the eastbound left turn lane at Tekesta Drive and adding a westbound left turn lane with a full median opening at Reynolds Drive, shown in **Figure 3.2**. Shortcomings in this design include reduced operating speeds of the travel lanes due to vehicles slowing down before entering the turn lane. The reduced storage lengths for each turn lane are also inadequate to handle its peak demand and can result in vehicles spilling into the through lanes and blocking through traffic. However, providing a left turn lane for Reynolds Drive will remove up to two

vehicles from the westbound travel lane reducing the opportunity for rear end crashes during non-peak periods.

Figure 3.2: Left Turn Lane at Reynolds Drive



Alternative B does not require additional right-of-way or increase the amount of impervious area. The construction impacts for implementing this alternative would include re-striping of the existing pavement, which could be completed during off-peak hours. The cost to implement Alternative B is estimated at \$10,000 to re-stripe the existing pavement. However, this alternative was eliminated from consideration due to the inability to meet minimum design standards for deceleration length and queue storage.

3.3 Alternative C: Median West of Tekesta

Alternative C considers a 4-foot raised median from Tekesta Drive to 100 feet west of Reynolds Drive. Westbound left turn access for properties on Reynolds Drive would be achieved at McClure Drive only. A raised median would continue west of Tekesta Drive, past Reynolds Drive blocking westbound access as seen in **Figure 3.3**. All traffic traveling westbound on Bannerman Road would access Reynolds Drive via McClure Drive.

Figure 3.3: No Median Opening at Reynolds Drive



The addition of a 4 foot wide raised median west of Tekesta would increase the existing amount of impervious pavement by approximately 9,325 square feet. This improvement is being considered in addition to shifting the roadway to achieve a zero degree deflection through the Tekesta intersection. To achieve the zero degree transition, approximately 25 feet of right-of-way is required to the south for roadway improvements and reconstruction of drainage swales. A detailed right-of-way cost estimation was completed for this alternative and can be found in **Appendix D**.

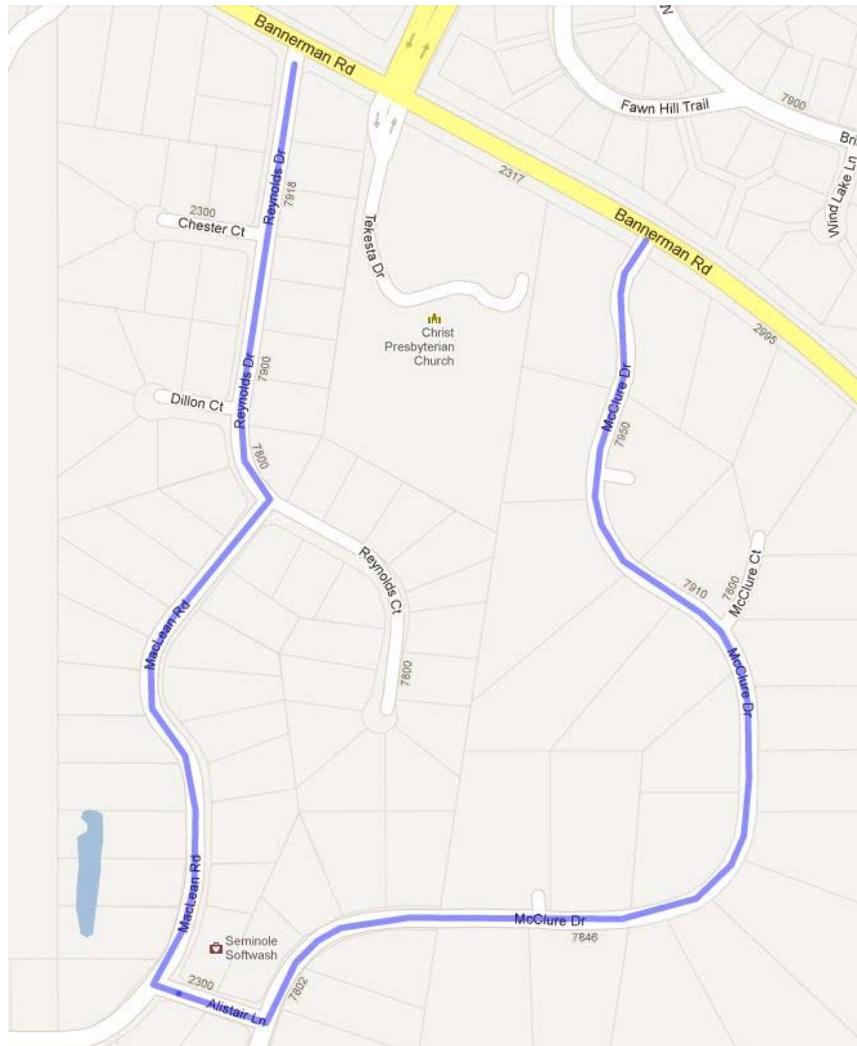
Alternative C would have a minimal impact to the drainage design previously identified in the Bannerman Road Corridor Study. The proposed storm drain outfall would be modified to capture the runoff from the roadway section west of Tekesta Drive and the proposed pond would be enlarged to treat the increase in project area. Ditch inlets would replace the 3 access manholes on the existing outfall. One inlet and a drainage pipe would be added across Bannerman Road to collect the runoff in the westbound roadway ditch and pipe it to the outfall system.

Based on the Leon County - Lake Jackson stormwater requirements, the modification to the roadway makes the entire right-of-way the project area. This would require retention of the full right-of-way width for the length of the roadway modification. The additional project area and impervious area generates additional runoff which increases the required pond size. Utilizing the existing Tekesta Drive geotechnical information and the Leon County

Continuous Simulation procedure, Alternative C increases Basin 3-1 pond volume requirement, as determined in the Corridor Study, by 0.56 Ac-Ft (9.29 Ac-Ft total) and the pond site by 0.24 acres (4.88 ac. total).

McClure Drive connects to Reynolds Drive by means of Alistair Lane and MacLean Road, south of Bannerman Road, shown in **Figure 3.4**. Reynolds Drive would become a right-in right-out only access point. McClure Drive would be provided a channelized left turn lane with adequate queue storage for westbound, left turning vehicles, which is discussed in detail later in this report. There is no significant change to the drainage requirements at McClure Drive other than treating for the extended left turn lane.

Figure 3.4: Access to Reynolds Drive via McClure Drive



Since the westbound vehicles that once turned left onto Reynolds Drive would now have to turn left at McClure Drive, the storage length of the left turn lane at McClure Drive becomes critical. The storage length of the left turn lane at McClure Drive must accommodate the appropriate deceleration and lateral transition into the turn lane length as well as the queue length. The length of a left turn lane on this roadway is 290 feet (FDOT Design Standards Index 301-01) plus the queue length which is determined by conducting a local traffic study.

At unsignalized intersections, the storage length, exclusive of taper, may be based on the number of turning vehicles likely to arrive in an average two minute period within the peak hour (AASHTO Green Book 2004). The sum of left turning vehicles at Reynolds Drive and McClure Drive peaked at 69 vph from 5:00 to 6:00. Therefore the left turn lane at McClure Drive must be able to accommodate a peak of 69 vph in the event that all traffic previously turning left at Reynolds Drive is now turning left at McClure Drive.

$$\begin{aligned} \text{Number of vehicles considered} &= \left(\text{Number of left turning} \right) \left(\text{Average two} \right) \left(\frac{1 \text{ hr}}{60 \text{ minutes}} \right) \\ \text{for queue length} &= \left(\text{vehicles per hour} \right) \left(\text{minute period} \right) \left(\frac{1 \text{ hr}}{60 \text{ minutes}} \right) \\ \text{Number of vehicles considered} &= (69 \text{ vph})(2 \text{ min}) \left(\frac{1 \text{ hr}}{60 \text{ min}} \right) = 2.3 \text{ veh} \approx 3 \text{ veh} \\ \text{for queue length} & \end{aligned}$$

The left turn lane at McClure Drive should accommodate at least 3 vehicles. This results in a queue length of 75 feet when taking the average length of a vehicle to be 25 feet as found in the NCHRP 279 report. The total length of the left turn lane will be 365 feet as shown in **Figure 3.5**.

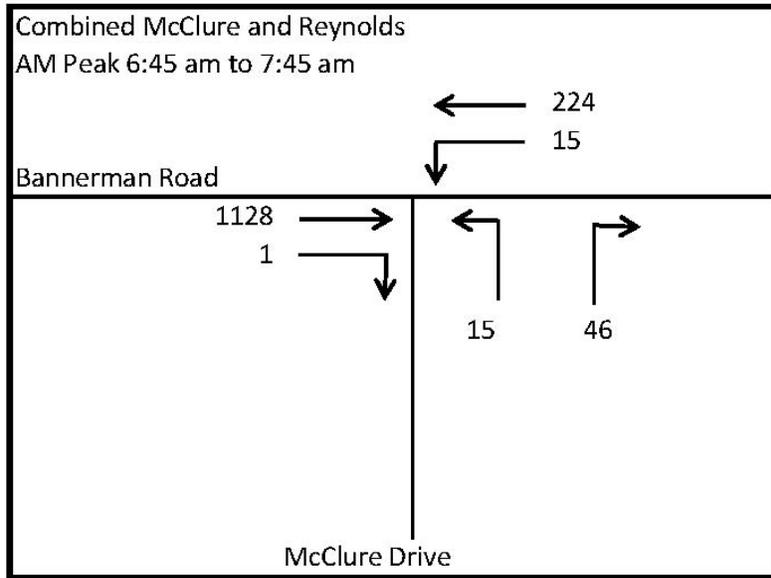
Figure 3.5: McClure Drive - Turn Lane



Motorists traveling north on Reynolds Drive, turning left toward Meridian Road would now be required to access Bannerman Road via McClure Drive. The heaviest northbound left

movement was observed in the AM peak period. The AM peak left turning traffic from Reynolds Drive was combined with the McClure Drive traffic to assess the ease of making a left turn from McClure Drive. Northbound left turns and westbound left turns for both intersections were combined and can be seen in **Figure 3.6**.

Figure 3.6: McClure Drive and Reynolds Drive Combined AM Peak Traffic



During the heaviest AM peak period, only 15 vehicles turned left from Reynolds Drive and McClure Drive, combined. The opposing eastbound traffic during the same one-hour period was observed at 1,128 vehicles.

A micro simulation software, Synchro 7.0, was used to estimate the queuing and delay that would be experienced if Alternative C were implemented. The results, shown in **Appendix C**, show that based on an equal distribution of vehicles approaching Bannerman Road from the south, a 95th queue length would be 23 feet, or about 1 car. This means that during the morning peak hour, about 95% of the time only one vehicle would be waiting to turn left from McClure Drive onto Bannerman Road.

Roadway cost estimates were based on the plan and profile drawings as well as cross section drawings taken every 100 feet. These Preliminary Plans can be found in **Appendix E**. The estimated construction cost for this alternative ranges between \$1.9 million and \$3

million depending on the stormwater pond location. A detailed cost estimate is provided in Appendix F.

Table 3.3: Alternative C Evaluation Matrix

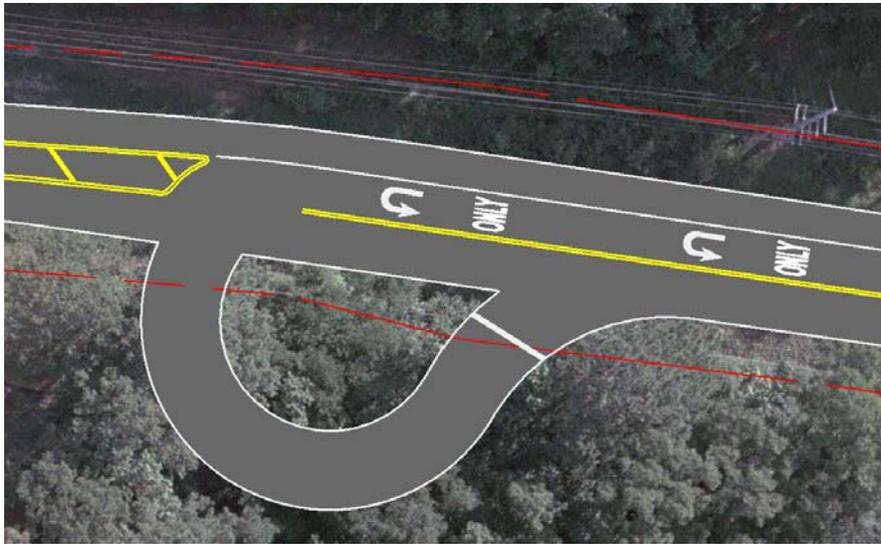
Category	Alternative C
Residential Parcels Impacted	2
Residential Relocations	0
Roadway Construction Cost	\$182,450
Drainage Construction Cost	\$531,200
ROW Cost	\$599,000
Potential Pond Site ROW Cost	\$260,000 - \$1,200,000
Contingency (20%)	\$314,500 - \$502,500
Total Cost ^A	\$1,900,000 - \$3,000,000

A. Rounded to the nearest \$100,000

3.4 Alternative D: Jug Handle (in conjunction with Alternative C)

The proposed Jug Handle turnaround consists of improvements at two locations, the one between Reynolds Drive and the Tekesta intersection and the second at the proposed Jug Handle turnaround area. The Jug Handle is an addition to Alternative C, where a U-turn opportunity would be provided approximately 0.5 miles west of Reynolds Drive. Closing off westbound left turn access to Reynolds Drive with a raised median would improve safety, but may also benefit from an alternate route for residential traffic to access homes on the south side of Bannerman Road through Reynolds Drive. A Jug Handle turn is a unique U-turn lane in the shape of a jug handle, as shown in **Figure 3.7**, that vehicles use in order to safely reverse its direction of travel when adequate road width is unavailable. The U-turn design involved widening Bannerman Road to the north to include a left turn lane for the westbound approach along with a semicircular type lane on the south side of the edge of pavement in order to complete a U-turn.

Figure 3.7: Jug Handle Turn



To adequately perform a safe U-turn, a school bus was chosen as the design vehicle. The additional pavement to the south would increase the amount of impervious area and require the acquisition of additional right-of-way, where the red line in **Figure 3.7** shows the existing right-of-way. The plan and profile drawings are shown in **Appendix G**, along with the cross section drawings shown every 100 feet.

The added Jug Handle loop and transition area for the left turn lane as well as the added pavement for the 4 foot raised median in front of Reynolds Drive increases the impervious pavement by approximately 20,669 square feet. The additional right-of-way for the Jug Handle is approximately 7,689 square feet that impacts 4 parcels. The right-of-way cost for the Jug Handle is estimated at \$73,400. There is additional right-of-way required for the stormwater treatment pond that could range in cost from \$260,000 to \$1.2 million depending on the final location, geotechnical properties of the site, and required size. The detailed cost estimates can be found in **Appendix H**.

The proposed Jug Handle location is outside the basin and drainage way of the Tekesta Drive intersection improvement. This alternative design requires essentially the same retention facility as Alternate C for Basin 3.1 and adds an additional stormwater management facility (SWMF) to serve the jug handle and associated improvements. The additional SWMF must be designed to the same Lake Jackson standards which require retention of runoff from the 50 yr/24 hr storm of the total project area. Bannerman Road between the Reynolds Drive median and the Jug Handle (Station 136+60 and 146+00) is not modified and does not require additional stormwater treatment.

The existing grade along Bannerman currently drains stormwater to the proposed jug handle location. There is a cross-drain culvert which must be extended north and south. In addition the southwest ditch would need to be piped under the jug handle and connected to the cross-drain. Utilizing the Tekesta Drive geotechnical information and the Leon County Continuous Simulation procedure, the turnaround will require a retention pond site of approximately 3.01 acres. The terrain is relatively steep which could potentially require a significantly larger pond site than the 3.01 size which is based on average slope conditions for tie down to existing ground. The design assumes that the pond will be located immediately adjacent to the roadway where ditch conveyance can be used from the jug handle improvements to the SWMF. The estimated drainage and SWMF improvement construction cost not including right-of-way is estimated to be \$198,350. This cost is in addition to the cost to make the modifications at Reynolds Drive (Section 3.3) for a total stormwater estimated cost of \$730,250. A detailed cost estimate is provided in **Appendix H**.

Table 3.4: Alternative D Evaluation Matrix

Category	Alternative D Only	Alternatives C & D
Residential Parcels Impacted	1	3
Residential Relocations	0	0
Roadway Construction Cost	\$357,100	\$539,550
Drainage Construction Cost	\$198,350	\$730,250
ROW Cost	\$73,400.00	\$672,400
Potential Pond Site ROW Cost	\$260,000 - \$1,200,000	\$520,000 - \$2,400,000
Contingency (20%)	\$177,800 - \$365,800	\$492,300 - \$868,300
Total Cost ^A	\$1.1M - \$2.2M	\$3M - \$5.2M

A. Rounded to the nearest \$100,000

4. Summary

A summary of the alternatives considered is provided in **Table 4.1**. This summary is provided for comparative purposes and may be useful in the Final Design phase of the Bannerman Road Corridor Study.

Table 4.1: Summary Evaluation Matrix

Alternative	Residential Impacts	Residential Relocations	Total Cost¹ (shown in millions)
Alternative A1: Realign Reynolds Drive	3	2	\$2.7
Alternative A2: Realign Reynolds Drive	9	2	\$5.7
Alternative B: Two-Left Turn Lanes ²	0	0	\$0
Alternative C: Median west of Tekesta Drive	2	0	\$1.9 - \$3.0
Alternative D: Jug Handle with Reynolds Median	3	0	\$3 - \$5.2

1. Rounded to the nearest \$100,000
2. Does not meet minimum design criteria

Appendix A

Traffic Data

AM Peak Period 7am-9am

	Quarterly							Hourly						
	EBT	EBR	NBL	NBR	WBL	WBT	EBT	EBR	NBL	NBR	WBL	WBT		
Reynolds Drive	7:00	137	1	0	18	1	46	7:00						
	7:15	141	0	4	15	2	50	7:15						
	7:30	117	0	2	5	2	43	7:30						
	7:45	112	0	4	7	3	47	7:45	507	1	10	45	8	186
	8:00	135	2	4	4	2	38	8:00	505	2	14	31	9	178
	8:15	115	0	4	3	1	47	8:15	479	2	14	19	8	175
	8:30	104	4	1	6	1	43	8:30	466	6	13	20	7	175
	8:45	92	1	0	7	1	31	8:45	446	7	9	20	5	159
McClure Drive	Quarterly							Hourly						
	EBT	EBR	NBL	NBR	WBL	WBT	EBT	EBR	NBL	NBR	WBL	WBT		
	7:00	296	0	0	14	2	48	7:00						
	7:15	346	0	2	13	3	63	7:15						
	7:30	252	0	0	9	0	53	7:30						
	7:45	234	1	3	10	2	60	7:45	1128	1	5	46	7	224
	8:00	292	0	0	9	1	63	8:00	1124	1	5	41	6	239
	8:15	224	1	0	9	2	77	8:15	1002	2	3	37	5	253
	8:30	218	1	0	11	2	76	8:30	968	3	3	39	7	276
8:45	202	1	0	6	3	65	8:45	936	3	0	35	8	281	

Time listed is the beginning of the count period

Data collection was completed on Wednesday, September 26, 2012

Data was seasonally adjusted using a factor of 0.99

PM Peak Period 5pm-7pm

	Quarterly							Hourly						
	EBT	EBR	NBL	NBR	WBL	WBT	EBT	EBR	NBL	NBR	WBL	WBT		
Reynolds Drive	17:00	72	2	0	3	7	122	17:00						
	17:15	86	2	1	4	5	151	17:15						
	17:30	82	4	0	3	10	133	17:30						
	17:45	100	1	1	6	4	103	17:45	340	9	2	16	26	509
	18:00	81	6	1	4	2	113	18:00	349	13	3	17	21	500
	18:15	99	0	2	4	9	123	18:15	362	11	4	17	25	472
	18:30	68	0	1	5	10	112	18:30	348	7	5	19	25	451
	18:45	68	1	3	4	4	115	18:45	316	7	7	17	25	463
McClure Drive	Quarterly							Hourly						
	EBT	EBR	NBL	NBR	WBL	WBT	EBT	EBR	NBL	NBR	WBL	WBT		
	17:00	125	1	1	9	8	197	17:00						
	17:15	126	1	0	4	15	252	17:15						
	17:30	133	0	1	4	11	223	17:30						
	17:45	139	0	1	10	9	205	17:45	523	2	3	27	43	877
	18:00	132	2	0	5	9	206	18:00	530	3	2	23	44	886
	18:15	145	3	0	10	5	225	18:15	549	5	2	29	34	859
	18:30	113	1	0	5	8	221	18:30	529	6	1	30	31	857
18:45	101	1	0	4	8	196	18:45	491	7	0	24	30	848	

Time listed is the beginning of the count period

Data collection was completed on Wednesday, September 26, 2012

Data was seasonally adjusted using a factor of 0.99

2011 Peak Season Factor Category Report - Report Type: ALL
 Category: 5500 LEON COUNTYWIDE

MOCF: 0.97

Week	Dates	SF	PSCF
1	01/01/2011 - 01/01/2011	1.04	1.07
2	01/02/2011 - 01/08/2011	1.04	1.07
3	01/09/2011 - 01/15/2011	1.03	1.06
4	01/16/2011 - 01/22/2011	1.02	1.05
5	01/23/2011 - 01/29/2011	1.00	1.03
6	01/30/2011 - 02/05/2011	0.99	1.02
* 7	02/06/2011 - 02/12/2011	0.97	1.00
* 8	02/13/2011 - 02/19/2011	0.96	0.99
* 9	02/20/2011 - 02/26/2011	0.97	1.00
*10	02/27/2011 - 03/05/2011	0.97	1.00
*11	03/06/2011 - 03/12/2011	0.98	1.01
*12	03/13/2011 - 03/19/2011	0.98	1.01
*13	03/20/2011 - 03/26/2011	0.97	1.00
*14	03/27/2011 - 04/02/2011	0.96	0.99
*15	04/03/2011 - 04/09/2011	0.96	0.99
*16	04/10/2011 - 04/16/2011	0.95	0.98
*17	04/17/2011 - 04/23/2011	0.96	0.99
*18	04/24/2011 - 04/30/2011	0.97	1.00
*19	05/01/2011 - 05/07/2011	0.98	1.01
20	05/08/2011 - 05/14/2011	0.99	1.02
21	05/15/2011 - 05/21/2011	1.01	1.04
22	05/22/2011 - 05/28/2011	1.01	1.04
23	05/29/2011 - 06/04/2011	1.01	1.04
24	06/05/2011 - 06/11/2011	1.01	1.04
25	06/12/2011 - 06/18/2011	1.01	1.04
26	06/19/2011 - 06/25/2011	1.01	1.04
27	06/26/2011 - 07/02/2011	1.02	1.05
28	07/03/2011 - 07/09/2011	1.03	1.06
29	07/10/2011 - 07/16/2011	1.03	1.06
30	07/17/2011 - 07/23/2011	1.03	1.06
31	07/24/2011 - 07/30/2011	1.02	1.05
32	07/31/2011 - 08/06/2011	1.02	1.05
33	08/07/2011 - 08/13/2011	1.01	1.04
34	08/14/2011 - 08/20/2011	1.01	1.04
35	08/21/2011 - 08/27/2011	1.00	1.03
36	08/28/2011 - 09/03/2011	1.00	1.03
37	09/04/2011 - 09/10/2011	1.00	1.03
38	09/11/2011 - 09/17/2011	0.99	1.02
39	09/18/2011 - 09/24/2011	0.99	1.02
40	09/25/2011 - 10/01/2011	0.99	1.02
41	10/02/2011 - 10/08/2011	0.98	1.01
42	10/09/2011 - 10/15/2011	0.98	1.01
43	10/16/2011 - 10/22/2011	0.99	1.02
44	10/23/2011 - 10/29/2011	1.00	1.03
45	10/30/2011 - 11/05/2011	1.01	1.04
46	11/06/2011 - 11/12/2011	1.02	1.05
47	11/13/2011 - 11/19/2011	1.03	1.06
48	11/20/2011 - 11/26/2011	1.03	1.06
49	11/27/2011 - 12/03/2011	1.03	1.06
50	12/04/2011 - 12/10/2011	1.04	1.07
51	12/11/2011 - 12/17/2011	1.04	1.07
52	12/18/2011 - 12/24/2011	1.04	1.07
53	12/25/2011 - 12/31/2011	1.03	1.06

* Peak Season

Appendix B

FDOT Generalized Cost Estimates

Generic Cost Per Mile Models

Disclaimer: These models are generic in nature, and not based on actual construction projects. They are for reference purposes only, and are not intended to predict or support future estimates.

	<u>Models</u>	<u>Cost Per Mile</u>	
OTHER	Two Directional 12' Shared Use Path	\$253,118.06	
	Rails to Trails project 12' width	\$237,185.33	
	Sidewalk construction ` 5' one side 4 inch depth	\$120,355.76	
	Mid-Block Crossing	\$91,943.45	
RURAL	New Construction Undivided 2 Lane Rural Road with 5' Paved Shoulders	\$2,388,108.27	
	New Construction Undivided 3 Lane Rural Road with 5' Paved Shoulders Center Turn Lane	\$2,853,217.01	
	New Construction Undivided 4 Lane Rural Road with 5' Paved Shoulders	\$3,424,138.89	
	New Construction 4 Lane Divided Rural Road with 2' Paved Shoulders Inside and 5' Paved Shoulders Outside	\$4,487,908.17	
	New Construction Divided Rural 4 Lane Interstate with Paved Shoulders 10' Outside and 4' Inside	\$5,442,012.86	
	New Construction Undivided 5 Lane Rural Road with 5' Paved Shoulders Center Turn Lane	\$3,970,668.44	
	New Construction 6 Lane Divided Rural Road with 5' Paved Shoulders Inside and Out	\$5,481,183.51	
	New Construction Divided Rural 6 Lane Interstate with 10' Paved Shoulders Inside and Out	\$6,306,585.04	
	New Construction Extra Cost for 1 Single Additional Lane on Rural Arterial	\$582,022.30	
	New Construction Extra Cost for 1 Single Additional Lane on a Rural Interstate	\$643,666.02	
	Milling and Resurfacing 2 Lane Rural Road with 5' Paved Shoulders	\$432,346.91	
	Milling and Resurfacing 3 Lane Rural Road with 5' Paved Shoulders and Center Turn Lane	\$599,748.17	
	Milling and Resurfacing 4 Lane Rural Road with 5' Paved Shoulders	\$990,744.70	
	Mill + Resurface 4 Lane Divided Rural Arterial with 5' Outside Shoulders and 2' Inside	\$1,052,001.97	
	Mill + Resurface 4 Lane Divided Rural Interstate with Paved Shoulders 10' Outside and 4' Inside	\$1,180,187.96	
	Milling and Resurfacing 5 Lane Rural Road with 5' Paved Shoulders and Center Turn Lane	\$1,193,101.86	
	Mill + Resurface 6 Lane Divided Rural Arterial with 5' Paved Shoulders Inside and Out	\$1,480,305.10	
	Mill + Resurface 6 Lane Divided Rural Interstate with 10' Paved Shoulders Inside and Out	\$1,667,205.01	
	Mill + Resurface 1 Additional Lane Rural Interstate	\$275,574.96	
	Mill + Resurface 1 Additional Lane Rural Arterial	\$233,928.30	
	Widen Existing 2 Lane Arterial to 4 Lanes Undivided` Add 1 Lane to Each Side` 5' Paved Shoulders	\$2,029,401.25	
	Widen Existing 2 Lane Arterial to 4 Lane Divided` Resurface Existing 2 Lanes` 5' Paved Shoulders Inside + Out	\$3,003,513.15	
	Widen Existing 4 Lane Divided Arterial to 6 Lane Divided` Resurface Existing 4 Lanes` 5' Paved Shoulders Inside + Out	\$2,274,635.55	
	Widen 4 Lane Interstate to 6 Lanes In Median ` Mill + Resurface Existing` 10' Paved Shoulders Inside + Out	\$3,669,681.57	
	Widen 4 Lane Interstate to 6 Lanes Outside ` Mill + Resurface Existing` 10' Shoulders Outside` Widen Existing 4' Inside Shoulders to 10'	\$3,394,381.34	
	Widen Existing 6 Lane Divided Arterial to 8 Lane Divided` Resurface Existing 4 Lanes` 5' Paved Shoulders Inside + Out	\$2,537,295.86	
	Widen 6 Lane Interstate to 8 Lanes in Median ` Mill + Resurface Existing` 10' Paved Shoulders Inside and Out	\$4,003,201.23	
	Widen Divided Rural 4-Lane for Right Turn Lane 300'	\$168,307.88	
	SUBURBAN	New Construction Suburban 4 Lane with Paved Shoulders Outside and Curb Median	\$4,782,594.03
		Widen Existing Rural Facility to the Inside with Addition of Closed Drainage System and Median Barrier Wall	\$3,062,130.76
		Widen 4 Lane Suburban Roadway with 6~5' Paved Shoulder and Convert to C+G Out` Stripe for Bike Lane	\$2,483,285.23
		Add 2 Lanes with C+G Out to Existing 4 Lane Urban or Suburban Roadway with C+G Out	\$2,573,330.15
URBAN	New Construction 2 Lane Undivided Urban Arterial with 4' Bike Lanes	\$4,793,671.06	
	New Construction 3 Lane Undivided Urban Arterial with Center Lane and 4' Bike Lanes	\$4,768,947.38	
	New Construction Undivided Urban Arterial with 4' Bike Lanes	\$5,132,279.58	
	New Construction 4 Lane Urban Road with 22' Median and 4' Bike Lanes	\$7,122,870.29	

Generic Cost Per Mile Models

Disclaimer: These models are generic in nature, and not based on actual construction projects. They are for reference purposes only, and are not intended to predict or support future estimates.

	<u>Models</u>	<u>Cost Per Mile</u>
URBAN	New Construction 4 Lane Divided Urban Interstate Closed 22' Median with Barrier Wall 10' Shoulders Inside + Out	\$8,874,542.76
	New Construction 5 Lane Undivided Urban Arterial with Center Turn Lane and 4' Bike Lanes	\$5,813,711.68
	New Construction 6 Lane Urban Road with 22' Median and 4' Bike Lanes	\$7,986,344.62
	New Construction Divided Urban 6 Lane Interstate with 22' Closed Median with Barrier Wall 10' Shoulders Inside + Out	\$9,857,569.70
	New Construction Extra Cost for Additional Lane on Urban Arterial	\$1,664,445.29
	New Construction Extra Cost for Additional Lane on Urban Interstate	\$702,642.35
	Mill + Resurface 2 Lane Urban Road with 4' Bike Lanes	\$420,987.25
	Mill + Resurface 3 Lane Urban Road with Center Turn Lane and 4' Bike Lanes	\$577,610.62
	Mill + Resurface 4 Lane Undivided Urban Roadway with 4' Bike Lanes	\$830,392.43
	Mill + Resurface 4 Lane Divided Urban Roadway with 4' Bike Lanes	\$845,824.40
	Mill + Resurface 5 Lane Urban Roadway with Center Turn Lane and 4' Bike Lanes	\$993,024.34
	Mill + Resurface 6 Lane Divided Urban Arterial with 4' Bike Lanes	\$1,314,565.05
	Mill + Resurface 1 Additional Lane Urban Arterial	\$176,267.54
	Add 2 Lanes to Existing 2 Lane Undivided Arterial 1 Lane Each Side with 4' Bike Lanes	\$3,758,468.12
	Widen 2 Lane Urban Arterial to 4 Lane Divided with 22' Median + 4' Bike Lanes	\$5,119,757.66
	Add 2 Lanes to Existing 3 Lane Undivided Arterial 1 Lane Each Side with Center Turn Lane and 4' Bike Lanes	\$4,128,676.31
	Widen 4 Lane Urban Divided Arterial to 6 Lane Urban Divided with 22' Median and 4' Bike Lanes	\$3,525,726.11
	Widen 4 Lane Urban Interstate with Closed Median to 6 Lanes Outside ` Mill + Resurface Existing ` 10' Shoulders Outside	\$6,008,305.32
	Widen 6 Lane Urban Divided Arterial to 8 Lane Urban Divided with 4' Bike Lanes	\$4,616,596.21
	Widen 6 Lane Urban Interstate with Closed Median to 8 Lanes Outside ` Mill + Resurface Existing ` 10' Shoulders Outside	\$6,504,609.88

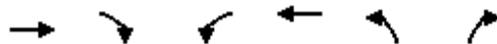
Appendix C

McClure Drive Operations Analysis

HCM Unsignalized Intersection Capacity Analysis

3: Bannerman Road & McClure Drive

10/11/2012



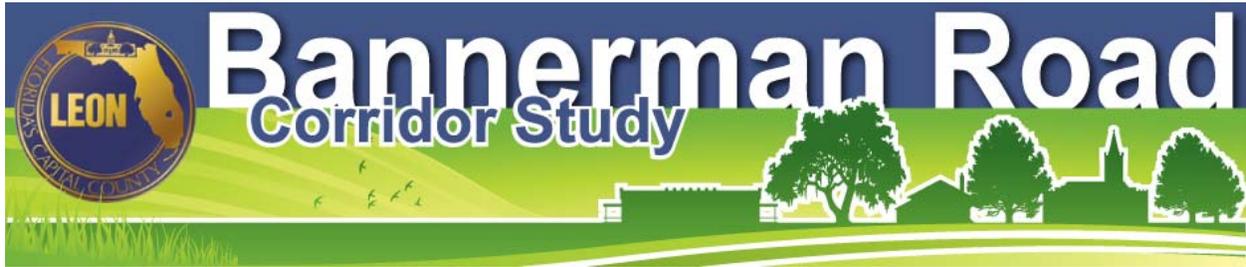
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	
Volume (veh/h)	1128	1	15	224	15	46
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1226	1	16	243	16	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1227		1380	613
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1227		1380	613
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %						
				97	88	89
cM capacity (veh/h)			564		131	435

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	613	613	1	16	122	122	66
Volume Left	0	0	0	16	0	0	16
Volume Right	0	0	1	0	0	0	50
cSH	1700	1700	1700	564	1700	1700	278
Volume to Capacity	0.36	0.36	0.00	0.03	0.07	0.07	0.24
Queue Length 95th (ft)	0	0	0	2	0	0	23
Control Delay (s)	0.0	0.0	0.0	11.6	0.0	0.0	22.0
Lane LOS				B			C
Approach Delay (s)	0.0			0.7			22.0
Approach LOS							C

Intersection Summary			
Average Delay			1.1
Intersection Capacity Utilization	41.5%		ICU Level of Service
Analysis Period (min)	15		A

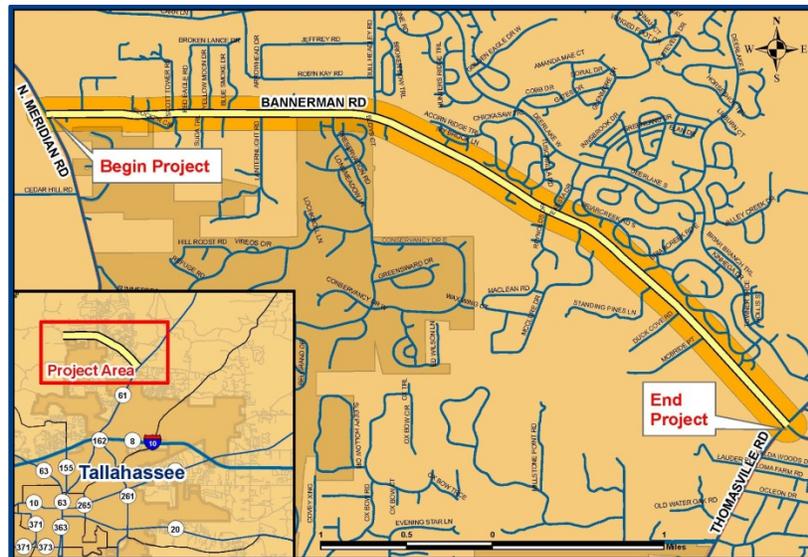
Appendix D

Right-of-way Cost Estimate



SUPPLEMENTAL RIGHT OF WAY COST ESTIMATE

Bannerman Road Corridor Study
From Meridian Road to Thomasville Road
Leon County, Florida



October 2, 2012



October 2, 2012

Mr. Nick Arnio, PE, PTOE
RS&H
1701 Hermitage Boulevard, Suite 101
Tallahassee, Florida 32308

Re: **SUPPLEMENTAL ROW COST ESTIMATE FOR THE BANNERMAN ROAD CORRIDOR STUDY**

Dear Mr. Arnio:

Attached please find our supplemental right of way cost estimate pursuant to our 6/18/2012 Supplemental Agreement Number 1, with Reynolds, Smith and Hills, Inc. for project number 108-1994-0000.

Thank you very much for the opportunity to be of service to your team. We have enjoyed working with you on this important project.

Sincerely,

A handwritten signature in blue ink, appearing to read "JDR", is positioned above the typed name.

Jan Rybak-Matalon, SR/WA
President

SUMMARY

This cost estimate is provided pursuant to the 6/18/2012 Supplemental Agreement Number 1 between Reynolds, Smith and Hills, Inc. and Keystone Field Services, Inc. for project number 108-1994-0000.

Subject to the assumptions and limiting conditions listed below, the right of way cost estimate for the three (3) road segments are as follows:

ITEM	SEGMENT 2 Raised Median Option (8 parcels east of Greystone Drive)	SEGMENT 2 "Jug Handle"	
		Partial Take from Parcel #414	Additional Strip Take from Parcel #129
R/W SUPPORT COST (Phase 41)	\$60,000	\$7,500	Included in prior estimate
R/W OPS (Phase 4B)	\$202,000	\$22,700	Included in prior estimate
R/W LAND COSTS (Phase 43)	\$257,000	\$23,500**	\$9,700
R/W ACQUISITION CONSULTANT (Phase 42)	\$80,000	\$10,000	Included in prior estimate
RELOCATION COSTS (Phase 45)	\$0	\$0	Included in prior estimate
TOTAL ESTIMATE* (All Phases)	\$599,000	\$63,700**	\$9,700

* Excluding pond site costs (see below).

** Excluding severance damages to parcel #414 (with consultation with RS&H, based on current design plan stage). In the event the design plan progresses and impedes future access to the remainder of parcel #414 from Bannerman Road, substantial severance damages may apply. See attached map of parcel #414.

ITEM	SEGMENT 2 Raised Median Option
POND SITE***	\$260,000 - \$1,200,000

*** Per RS&H, a four (4) acre pond site will be required for this option. The location of the pond is unknown at this time. The cost for acquiring the pond site will depend on its exact location and on the number and type of parcels affected by the take. **The range of dollar amounts shown above is for illustration purposes only**, as the actual cost will vary. The lower end of the range depicts a hypothetical acquisition of vacant land for the pond site from one (1) owner. The upper end of the range illustrates the cost that may be associated with total takes of four (4) fully developed residential parcels. **The upper limit of this range may change substantially once the exact location of the pond is determined.**

ASSUMPTIONS AND CONDITIONS

1. **THIS COST ESTIMATE IS NOT AN APPRAISAL** - This cost estimate is based on preliminary data and should be used for planning purposes only. **In no way should this estimate be construed as part of an appraisal.**
2. The accuracy of this cost estimate is subject to the completeness and accuracy of the information upon which it is based. This estimate is prepared based upon limited information as available at the PD&E plan stage, and on information that is public fact as of the date of the estimate only. All dollar amounts are estimates only and may fluctuate.
3. Per FDOT Guidance Document for Right of Way Cost Estimates, a confidence rating of C (on a scale of A to D), is assigned to the estimate based on: a) the completeness and accuracy of the data utilized, b) the time allowed for performing the estimate, and c) the quantity and quality of the market data utilized. The rating scale varies from level A which indicates the most confidence, to D which indicates the least or no confidence.
4. Level C indicates a below average confidence and is defined as follows: *R/W Maps or other exhibits are preliminary and may not identify individual parcels, areas of take and remainders. There is preliminary identification of potential relocations, property management, environmental and business damage concerns. Market data may be limited, but available. Comparable sales data does not need to be confirmed and may be taken from the Property Appraiser's office.*
5. The estimator was provided with an aerial map which generally depicts parcel delineations based on Property Appraiser's information, the new right of way line, and the existing maintenance line as recorded by Leon County on this corridor (recorded on March 29, 2007 in Road Plat Book 3, Page 29). However, there is uncertainty as to the accuracy of portraying the parcel boundaries (specifically for platted subdivisions) in relation to the maintenance lines.
6. All land areas were provided to the estimator by RS&H in tabulated form. These land areas are used in the calculations.
7. No surveys and no title work were available for review by the estimator.
8. The existence of the County's recorded maintenance map for this corridor introduces a few concerns as follows:
 - a) There are locations where the provided aerial map depicts a gap (generally shown on the map with an orange overlay) which suggests a land area gap exists between the frontage of some parcels along Bannerman Road and the recorded maintenance line. Per direction from Leon County and RS&H for planning purposes and for this estimate only, these gap areas were assumed to be included in the area of the take.
 - b) There are locations where the required supplemental take of land appears to be located solely within the gap area. Further title work will be necessary to determine ownerships, and it is assumed the County will have to obtain clear title for these areas of land through Eminent Domain. For reference purposes only, these areas of land are listed under the corresponding ownerships of the adjoining parcel fronting Bannerman Road.
 - c) All future decisions relating to acquisition of property for this project must be supported by current documentation including current right of way maps, current surveys, and current title reports which are in compliance with the Marketable Record Title Act (MRTA).

- d) There is uncertainty as to the impact of the maintenance map during a future acquisition process. Gap areas which may exist between the maintenance line and the frontage of certain properties will necessitate title work and resolution, and property owners who may not be aware of the recorded maintenance line may seek representation by counsel. It could be assumed that a high percentage of property owners may be represented by counsel.
- 9. The estimator was not provided with pond siting information. Land costs for water retention and mitigation is being estimated utilizing a contingency method.
- 10. The cost estimate does not include the parcels which are owned by Leon County.
- 11. Parcels are listed in the Cost Estimate Detail Sheet in geographical order from west to east. Note that parcel numbers which were provided to the estimator and are depicted on the maps do not follow a sequential numeric order. The snapshot of the aerial map included with this estimate is not drawn to scale and is provided solely for the delineation of parcel locations.
- 12. This cost estimate was prepared during a depressed real estate market. The provided future value factors are inflation factors currently used by FDOT. Should market conditions improve, an update to the estimate may be warranted.

Supplemental Cost Estimate Detail Sheet



Project Name: Bannerman Road Corridor Study

County: Leon

Alternate / Segment: Segment 2 - Parcels East of Greystone Drive (Raised Median)

Date: 10/2/2012

Parcel No.	Parcel ID	Owner Name	Use				Zoning	Highest & Best Use	Take					Parcel Value Before										Take, Damages, Cost to Cure										Relocation					Bus. Damages		Haz. Waste Phase 1 Env.	Deduction	Court / Admin Settlement / Additives	Comments
			C	R	S	V			Area Before Take* (sf)	Area Take (sf)	Area of Remainder (sf)	Land Unit Value	Land Value	Bldg & Improv	Special Land Improv	Total Before Value	Take Unit Value (\$/sf)	Land Cost	Bldg & Improv	Special Land Improv	Remainder (sf)	Value of Rem as Part of Whole	Percent Damages	Severance Damages	Cost to Cure	Total (Land + Improv + Spec Imprv + Damages + Cost to Cure)	Business Relocation	Residential (Owner)	Residential (Tenant)	On-Premise Signs	ODA Signs	PPO	# of Claims	Bus. Damages										
			1	2	3=1-2	4			5	6	7	8=5+6+7	9	10=(9)*(2)	11	12	16=8-10-11-12	13/16	13	14	15=10+11+12+13+14																							
357	141621 0002	GREYSTONE HOA**		1			Multiple Zoning Des.	Special	188,549	431	188,119	\$40,000/ac or \$0.92/sf	\$173,465	\$0	\$0	\$173,465	\$0.92	\$396	\$0	\$0	188,119	\$173,069	0%	\$0	\$0	\$500												See Summary	Before area and area of take provided by RS&H. Area of take is in the gap area located between the parcel frontage and the County's maintenance line (existing ROW). Title work should provide ownership and this parcel should be put into Eminent Domain to clear title. Take value rounded to \$500 minimum.					
530	141621 0001	GREYSTONE HOA**				1	Multiple Zoning Des.	Residential	476,778	87	476,691	\$40,000/ac or \$0.92/sf	\$438,636	\$0	\$0	\$438,636	\$0.92	\$80	\$0	\$0	476,691	\$438,556	0%	\$0	\$0	\$500												See Summary	Before area and area of take provided by RS&H. Area of take is in the gap area located between the parcel frontage and the County's maintenance line (existing ROW). Title work should provide ownership and this parcel should be put into Eminent Domain to clear title. Take value rounded to \$500 minimum.					
208	141607 A0020	MAHDAVINEJAD SAIED				1	Lake Protection	Residential	46,319	2,978	43,341	\$40,000/ac or \$0.92/sf	\$42,613	\$0	\$0	\$42,613	\$0.92	\$2,740	\$0	\$0	43,341	\$39,874	0%	\$0	\$0	\$2,740											See Summary	Before area and area of take provided by RS&H. Area of take includes the gap area located between the parcel frontage and the County's maintenance line (existing ROW).						
26	141607 A0030	MATELLA JOSEPH				1	Lake Protection	Residential	44,311	3,861	40,450	\$40,000/ac or \$0.92/sf	\$40,766	\$300,000	\$0	\$340,766	\$0.92	\$3,552	\$0	\$10,000	40,450	\$327,214	0%	\$0	\$5,000	\$18,552											See Summary	Before area and area of take provided by RS&H. Area of take includes the gap area located between the parcel frontage and the County's maintenance line (existing ROW). Special land improvements is an elaborated entrance gate (although appears to be located in the gap); Added cost to cure to bring owner whole to redo the gate (again, assuming the County will offer this monetary benefit although the gate appears to be located in the gap);						
164	141607 A0040	O'KEEFE KEVIN				1	Lake Protection	Residential	35,008	5,943	29,066	\$50,000/ac or \$0.15/sq-ft	\$40,260	\$225,000	\$20,000	\$285,260	\$1.15	\$6,834	\$0	\$8,000	29,066	\$270,425	0%	\$0	\$0	\$14,834											See Summary	Before area and area of take provided by RS&H. Area of take includes the gap area located between the parcel frontage and the County's maintenance line (existing ROW). Special land improvements include landscaping; Accounted for landscaping within the take;						
1008		McBride Estates Road**				1		Private Road	N/A	1,408	N/A	1.03	N/A	\$0	\$16,000	\$16,000	\$1.03	\$1,450	\$0	\$16,000	N/A	N/A	0%	\$0	\$5,000	\$22,450										See Summary	Before area and area of take provided by RS&H. Area of take is in the gap area located between the parcel frontage and the County's maintenance line (existing ROW). Title work should provide ownership and this parcel should be put into Eminent Domain to clear title. Unit value is not "across the fence value" vis-à-vis parcel 164 or 75, it is based on a per acre value of the frontage along Bannerman; Special Land improvements include the McBride Estates monument sign and elaborate landscaping bed; Cost to cure to bring the owner whole to rebuild the sign;							
75	141607 B0010	DANIELS BRUCE E				1	Lake Protection	Residential	31,732	4,857	26,875	\$50,000/ac or \$0.15/sq-ft	\$36,492	\$180,000	\$12,000	\$228,492	\$1.15	\$5,585	\$0	\$6,000	26,875	\$216,907	0%	\$0	\$0	\$11,585											See Summary	Before area and area of take provided by RS&H. Area of take includes the gap area located between the parcel frontage and the County's maintenance line (existing ROW). Special land improvements include fence; Accounted for fence within the take and for cost to cure to bring owner whole to redo the fence;						
458	1416200050000	PRESBYTERIAN CHURCH IN TR**				1	Multiple Zoning Des.	Special	437,831	330	437,500	\$25,000/ac or \$0.57/sf	\$250,000	\$550,000	\$150,000	\$950,000	\$0.57	\$188	\$0	\$0	437,500	\$949,812	0%	\$0	\$0	\$500										See Summary	Before area and area of take provided by RS&H. Area of take is in the gap area located between the parcel frontage and the County's maintenance line (existing ROW). Title work should provide ownership and this parcel should be put into Eminent Domain to clear title. Take value rounded to \$500 minimum.							
Total			0	3	2	3			1,260,528	19,893	1,242,042		\$1,022,232	\$1,255,000	\$198,000	\$2,475,232		\$20,825	\$0	\$40,000		\$2,415,857		\$0	\$10,000	\$71,661	0	0	0	0	0	0	0	0	0									

C=Commercial; R=Residential; S=Special Use; V=Vacant

* Area before take is as provided by RS&H and adjusted based on Leon County maintenance map unless otherwise stated.

** Take appears to be located in the gap area between the parcel frontage and the maintained ROW. Estimator was not provided with title work. Ownership TBD via title work and title to be cleared through Eminent Domain.

COUNTY : **Leon** DISTRICT / CLIENT: **RS&H**
 PROJ. NAME: **Bannerman Road Corridor Study** DATE: **10/02/12**
 ALTERNATE : **Segment 2 - Parcels East of Greystone Drive (Raised Median)**

Parcels:	Gross	Net
Commercial	0	0
Residential	3	3
Special Use	2	2
Vacant/Unimproved	3	3
Total Parcels	8	8

Estimated Relocations:	
Business	0
Residential (Owners + Tenants)	0
On-Premise Signs	0
ODA Signs	0
PPO's	0
Total Relocates	0

R/W SUPPORT COSTS (PHASE 41)

					Amount	
1. Direct Labor Cost	(Parcels)	8	x	\$ 7,500	Rate)	\$ 60,000
2. Indirect Overhead	(Line #1)	8	x	\$ -	Rate)	\$ -
					TOTAL PHASE 41	\$60,000

R/W OPS (PHASE 4B)

						Amount	
4. Appraisal Fees Through Trial		100%	x	8	=	8 Parcels x \$ 10,000 = \$ 80,000	
5. Appraisal Review Fee		100%	x	8	=	8 Parcels x \$ 2,000 = \$ 16,000	
6. Business Damage CPA Fees Through Trial					=	0 Claims x 5% = \$ -	
7. Court Reporter & Process Servers		50%	x	8	=	4 Parcels x \$ 500 = \$ 2,000	
8. Expert Witness		50%	x	8	=	4 Parcels x \$ 8,000 = \$ 32,000	
9. Mediators		50%	x	8	=	4 Parcels x \$ 2,400 = \$ 9,600	
10. Demolition, Asb. Abate., Survey, etc.					=	0 Improvements x \$ 15,000 = \$ -	
11. Move Cost Estimate Fees					=	0 Parcels x \$ 300 = \$ -	
12. Attorney Fees (Outside Counsel)		100%	x	8	=	8 Parcels x \$ 7,500 = \$ 60,000	
13. Title Search		100%	x	8	=	8 Parcels x \$ 300 = \$ 2,400	
14. Hazardous Waste Investigations					=	0 Parcels x \$ 25,000 = \$ -	
15.						TOTAL PHASE 4B	\$202,000

R/W LAND COSTS (PHASE 43)

						Amount	Subtotal
16. Land, Improvements & Severance Damages and Cost to Cure		\$71,661	x	130% * PD&E Stage	=	\$ 93,200	
17. Water Retention and Mitigation					=	\$ -	
18.						SUBTOTAL (Lines 16 and 17) rounded	\$ 93,200
19. Admin. Settlements (Factor)		50%	x	25% of Line 18)	=	\$ 11,700	
20. Litigation Awards (Factor)		50%	x	70% of Line 18)	=	\$ 32,600	
21. Business Damages (Claims)		0			=	\$ -	
22. Bus. Damages Incrs. (Factor)		0%	x	\$0)	=	\$ -	
23. Owner Appr. Fees (Parcels)		8	x	\$10,000)	=	\$ 80,000	
24. Owner CPA Fees (Claims)		0	@	5% of Line 21 + Line 22)	=	\$ -	
25. Defend. Atty Fees (Sum of Lines 19-22 =		\$ 44,300	x	33%)	=	\$ 14,600	
26. Owner Expert Witness (Comm. + Unimproved)		0	+	3 @ \$8,000	=	\$24,000	
27. Other Condmn. Costs (Factor)		1%		of Line 18 - rounded up)	=	\$ 900	
28.						SUBTOTAL (lines 19 thru 27)	\$ 163,800
29.						TOTAL PHASE 43	\$257,000

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date (docs to ROW) - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)

30.	(Parcels)	8	x	\$10,000 per parcel)	=	TOTAL PHASE 42	\$80,000
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RELOCATION COSTS (PHASE 45)

						Amount	
Replacement Housing							
31. Residential Owner		\$22,500	x	0	=	\$ -	
32. Residential Tenant		\$5,250	x	0	=	\$ -	
Move Costs							
33. Residential		\$1,500	x	0	=	\$ -	
34. Business/Farm		\$25,000	x	0	=	\$ -	
35. Personal Property		\$5,000	x	0	=	\$ -	
36. On-Premise Signs		\$5,000	x	0	=	\$ -	
37. ODA Signs		\$30,000	x	0	=	\$ -	
38. (LINES 31 THRU 36)							
39. Relocation Services Cost						\$0	
						TOTAL PHASE 45	\$ -
						TOTAL ESTIMATE (ALL PHASES)	\$599,000

Cost Estimator: Eli Matalon Signed: *Eli Matalon* Date: 10/2/2012 Confidence: C
 Reviewer: Jan Rybak Signed: *JDR* Date: 10/2/2012

THIS ESTIMATE IS NOT AN APPRAISAL

The accuracy of this estimate is subject to the completeness and accuracy of the information upon which it is based. The confidence ratings listed below are assigned to estimates based on: 1) the completeness and accuracy of the data utilized, 2) the time allowed to perform the estimate, and 3) the quantity and quality of the market data utilized. The cost estimate is based on preliminary data and should be used for planning purposes only. In no way should this estimate be construed a part of an appraisal.

PLANS: Conceptual Drawings

The following indicates the estimator's confidence in the above estimate:

- Type A - indicates the most confidence
- Type B - indicates above average confidence
- x** Type C - indicates below average confidence
- Type D - indicates the least or no confidence

Future Value Factors

Year	Phase	%	Phase	%
2013	41, 4B, 42, 45	3%	43	2%
2014	41, 4B, 42, 45	3%	43	2%
2015	41, 4B, 42, 45	3%	43	3%
2016	41, 4B, 42, 45	3%	43	4%
2017	41, 4B, 42, 45	3%	43	4%

COUNTY : **Leon** DISTRICT / CLIENT: **RS&H**
 PROJ. NAME: **Bannerman Road Corridor Study** DATE: **10/02/12**
 ALTERNATE : **Segment 2 - Supplemental (semi-circle take from parcel #414 on the South side)**

Parcels:	Gross	Net
Commercial	0	0
Residential	0	0
Special Use	0	0
Vacant/Unimproved	1	1
Total Parcels	1	1

Estimated Relocations:	
Business	0
Residential (Owners + Tenants)	0
On-Premise Signs	0
ODA Signs	0
PPO's	0
Total Relocatees	0

R/W SUPPORT COSTS (PHASE 41)

					Amount	
1. Direct Labor Cost	(Parcels)	1	x	\$ 7,500	Rate)	\$ 7,500
2. Indirect Overhead	(Line #1)	1	x	\$ -	Rate)	\$ -
3.						TOTAL PHASE 41
						\$7,500

R/W OPS (PHASE 4B)

						Amount
4. Appraisal Fees Through Trial		100%	x	1	= 1 Parcels	x \$ 10,000 = \$ 10,000
5. Appraisal Review Fee		100%	x	1	= 1 Parcels	x \$ 2,000 = \$ 2,000
6. Business Damage CPA Fees Through Trial					0 Claims	x 5% = \$ -
7. Court Reporter & Process Servers		50%	x	1	= 1 Parcels	x \$ 500 = \$ 500
8. Expert Witness		0%	x	1	= 0 Parcels	x \$ 8,000 = \$ -
9. Mediators		50%	x	1	= 1 Parcels	x \$ 2,400 = \$ 2,400
10. Demolition, Asb. Abate., Survey, etc.					0 Improvements	x \$ 15,000 = \$ -
11. Move Cost Estimate Fees					0 Parcels	x \$ 300 = \$ -
12. Attorney Fees (Outside Counsel)		100%	x	1	= 1 Parcels	x \$ 7,500 = \$ 7,500
13. Title Search		100%	x	1	= 1 Parcels	x \$ 300 = \$ 300
14. Hazardous Waste Investigations					0 Parcels	x \$ 25,000 = \$ -
15.						TOTAL PHASE 4B
						\$22,700

R/W LAND COSTS (PHASE 43)

						Amount	Subtotal
16. Land, Improvements & Severance Damages and Cost to Cure		\$6,335	x	130% * PD&E Stage	=	\$ 8,200	
17. Water Retention and Mitigation (No additional land)		0%	x	\$8,200	=	\$ -	
18.							SUBTOTAL (Lines 16 and 17) rounded
							\$ 8,200
19. Admin. Settlements (Factor)		50%	x	25% of Line 18)	=	\$ 1,000	
20. Litigation Awards (Factor)		50%	x	70% of Line 18)	=	\$ 2,900	
21. Business Damages (Claims)		0			=	\$ -	
22. Bus. Damages Incrs. (Factor)		0%	x	\$0)	=	\$ -	
23. Owner Appr. Fees (Parcels)		1	x	\$10,000)	=	\$ 10,000	
24. Owner CPA Fees (Claims)		0	@	5% of Line 21 + Line 22)	=	\$ -	
25. Defend. Atty Fees (Sum of Lines 19-22 =		\$ 3,900	x	33%)	=	\$ 1,300	
26. Owner Expert Witness (Comm. + Unimproved)		0	+	0 @ \$8,000	=	\$0	
27. Other Condmn. Costs (Factor)		1%		of Line 18 - rounded up)	=	\$ 100	
28.							SUBTOTAL (lines 19 thru 27)
							\$ 15,300
29.							TOTAL PHASE 43
							\$23,500

* Design contingency for design plan stage:

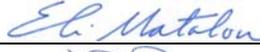
(1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date (docs to ROW) - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)

30. (Parcels)	1	x	\$10,000 per parcel)	=	TOTAL PHASE 42	\$10,000
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RELOCATION COSTS (PHASE 45)

Replacement Housing		# of Relos	Amount
31. Residential Owner	\$22,500	x 0	= \$ -
32. Residential Tenant	\$5,250	x 0	= \$ -
Move Costs			
33. Residential	\$1,500	x 0	= \$ -
34. Business/Farm	\$25,000	x 0	= \$ -
35. Personal Property	\$5,000	x 0	= \$ -
36. On-Premise Signs	\$5,000	x 0	= \$ -
37. ODA Signs	\$30,000	x 0	= \$ -
38. (LINES 31 THRU 36)			
39. Relocation Services Cost			\$0
40.			
			TOTAL PHASE 45
			\$ -
			TOTAL ESTIMATE (ALL PHASES)
			\$63,700

Cost Estimator: Eli Matalon Signed:  Date: 10/2/2012 Confidence: C
 Reviewer: Jan Rybak Signed:  Date: 10/2/2012

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The accuracy of this estimate is subject to the completeness and accuracy of the information upon which it is based. The confidence ratings listed below are assigned to estimates based on: 1) the completeness and accuracy of the data utilized, 2) the time allowed to perform the estimate, and 3) the quantity and quality of the market data utilized. The cost estimate is based on preliminary data and should be used for planning purposes only. In no way should this estimate be construed a part of an appraisal.

PLANS: Conceptual Drawings

The following indicates the estimator's confidence in the above estimate:

- Type A - indicates the most confidence
- Type B - indicates above average confidence
- x** Type C - indicates below average confidence
- Type D - indicates the least or no confidence

Future Value Factors

Year	Phase	%	Phase	%
2013	41, 4B, 42, 45	3%	43	2%
2014	41, 4B, 42, 45	3%	43	2%
2015	41, 4B, 42, 45	3%	43	3%
2016	41, 4B, 42, 45	3%	43	4%
2017	41, 4B, 42, 45	3%	43	4%

COUNTY : **Leon** DISTRICT / CLIENT: **RS&H**
 PROJ. NAME: **Bannerman Road Corridor Study** DATE: **10/02/12**
 ALTERNATE : **Segment 2 - Supplemental (additional strip take from parcel #129)**

Parcels:	Gross	Net
Commercial	0	0
Residential	0	0
Special Use	0	0
Vacant/Unimproved	1	1

Estimated Relocations:	
Business	0
Residential (Owners + Tenants)	0
On-Premise Signs	0
ODA Signs	0
PPO's	0
Total Relocatees	0

Total Parcels **1** **0** (Most additives for this parcel were included in the prior estimate)

R/W SUPPORT COSTS (PHASE 41)

					Amount	
1. Direct Labor Cost	(Parcels)	0	x	\$ 7,500	Rate)	\$ -
2. Indirect Overhead	(Line #1)	0	x	\$ -	Rate)	\$ -
					TOTAL PHASE 41	\$0

R/W OPS (PHASE 4B)

						Amount	
4. Appraisal Fees Through Trial		100%	x	0	=	0 Parcels x \$ 10,000 = \$ -	
5. Appraisal Review Fee		100%	x	0	=	0 Parcels x \$ 2,000 = \$ -	
6. Business Damage CPA Fees Through Trial					=	0 Claims x 5% = \$ -	
7. Court Reporter & Process Servers		50%	x	0	=	0 Parcels x \$ 500 = \$ -	
8. Expert Witness		50%	x	0	=	0 Parcels x \$ 8,000 = \$ -	
9. Mediators		50%	x	0	=	0 Parcels x \$ 2,400 = \$ -	
10. Demolition, Asb. Abate., Survey, etc.					=	0 Improvements x \$ 15,000 = \$ -	
11. Move Cost Estimate Fees					=	0 Parcels x \$ 300 = \$ -	
12. Attorney Fees (Outside Counsel)		50%	x	0	=	0 Parcels x \$ 7,500 = \$ -	
13. Title Search		100%	x	0	=	0 Parcels x \$ 300 = \$ -	
14. Hazardous Waste Investigations					=	0 Parcels x \$ 25,000 = \$ -	
15.						TOTAL PHASE 4B	\$0

R/W LAND COSTS (PHASE 43)

						Amount	Subtotal
16. Land, Improvements & Severance Damages and Cost to Cure		\$4,525	x	130% * PD&E Stage	=	\$ 5,900	
17. Water Retention and Mitigation (No additional land)		0%	x	\$5,900	=	\$ -	
18.						SUBTOTAL (Lines 16 and 17) rounded	\$ 5,900
19. Admin. Settlements (Factor)		50%	x	25% of Line 18)	=	\$ 700	
20. Litigation Awards (Factor)		50%	x	70% of Line 18)	=	\$ 2,100	
21. Business Damages (Claims)		0			=	\$ -	
22. Bus. Damages Incrs. (Factor)		0%	x	\$0)	=	\$ -	
23. Owner Appr. Fees (Parcels)		0	x	\$10,000)	=	\$ -	
24. Owner CPA Fees (Claims)		0	@	5% of Line 21 + Line 22)	=	\$ -	
25. Defend. Atty Fees (Sum of Lines 19-22 =		\$ 2,800	x	33%)	=	\$ 900	
26. Owner Expert Witness (Comm. + Unimproved)		0	+	0 @ \$8,000	=	\$0	
27. Other Condmn. Costs (Factor)		1%		of Line 18 - rounded up)	=	\$ 100	
28.						SUBTOTAL (lines 19 thru 27)	\$ 3,800
29.						TOTAL PHASE 43	\$9,700

* Design contingency for design plan stage:
 (1) PD&E plans - 130% (2) 30% plans - 125% (3) 60% plans - 120% (4) 90% plans - 115% (5) 268 Date (docs to ROW) - 110%

R/W ACQUISITION CONSULTANT (PHASE 42)

30. (Parcels)	0	x	\$10,000 per parcel)	=	TOTAL PHASE 42	\$0
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RELOCATION COSTS (PHASE 45)

Replacement Housing		# of Relos	Amount		
31. Residential Owner	\$22,500	x 0	= \$ -		
32. Residential Tenant	\$5,250	x 0	= \$ -		
Move Costs					
33. Residential	\$1,500	x 0	= \$ -		
34. Business/Farm	\$25,000	x 0	= \$ -		
35. Personal Property	\$5,000	x 0	= \$ -		
36. On-Premise Signs	\$5,000	x 0	= \$ -		
37. ODA Signs	\$30,000	x 0	= \$ -		
38. (LINES 31 THRU 36)					
39. Relocation Services Cost			\$0		
				TOTAL PHASE 45	\$ -
				TOTAL ESTIMATE (ALL PHASES)	\$9,700

Cost Estimator: **Eli Matalon** Signed: *Eli Matalon* Date: 10/2/2012 Confidence: C
 Reviewer: **Jan Rybak** Signed: *JDR* Date: 10/2/2012

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PLANS: **Conceptual Drawings**

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- _____ Type A - indicates the most confidence
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- x** _____ Type C - indicates below average confidence
- _____ Type D - indicates the least or no confidence

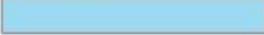
Future Value Factors

Year	Phase	%	Phase	%
2013	41, 4B, 42, 45	3%	43	2%
2014	41, 4B, 42, 45	3%	43	2%
2015	41, 4B, 42, 45	3%	43	3%
2016	41, 4B, 42, 45	3%	43	4%
2017	41, 4B, 42, 45	3%	43	4%

BANNERMAN ROAD CORRIDOR SEGMENT 2: BULL HEADLEY TO TEKESTA DRIVE



Legend

	Gap Take
	Parcel Take
	GAP
	Existing ROW
	PARCEL





315 S. Calhoun St
Tallahassee, FL 32301

Bert Hartsfield, CFA
Leon County Property Appraiser



Phone - (850) 488-6102
www.leonpa.org



Parcel_414 ID1409206120000

Legend

Land Parcels

Aerial Imagery Date: 2009



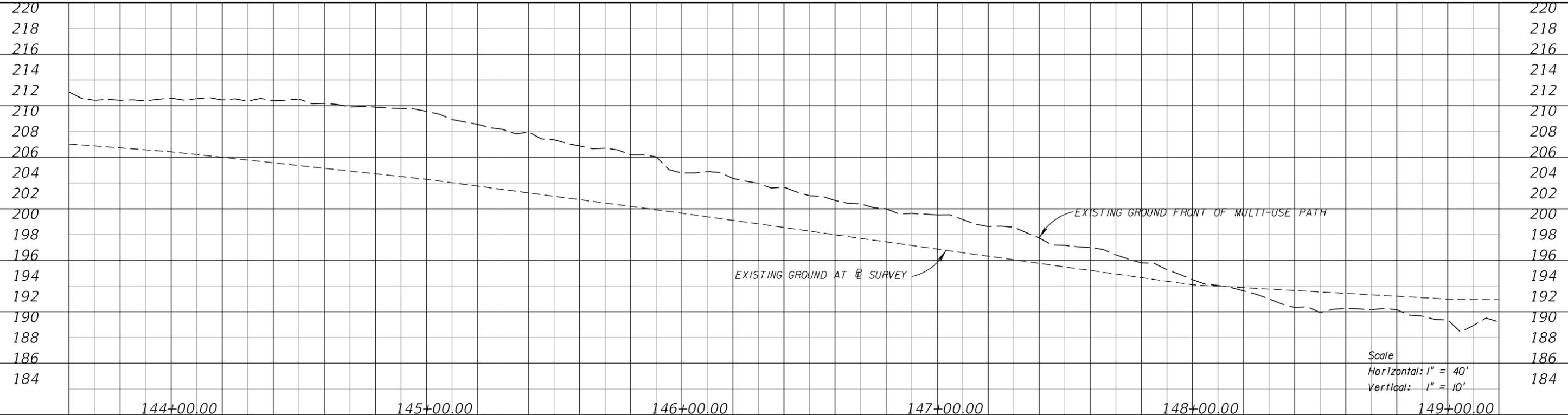
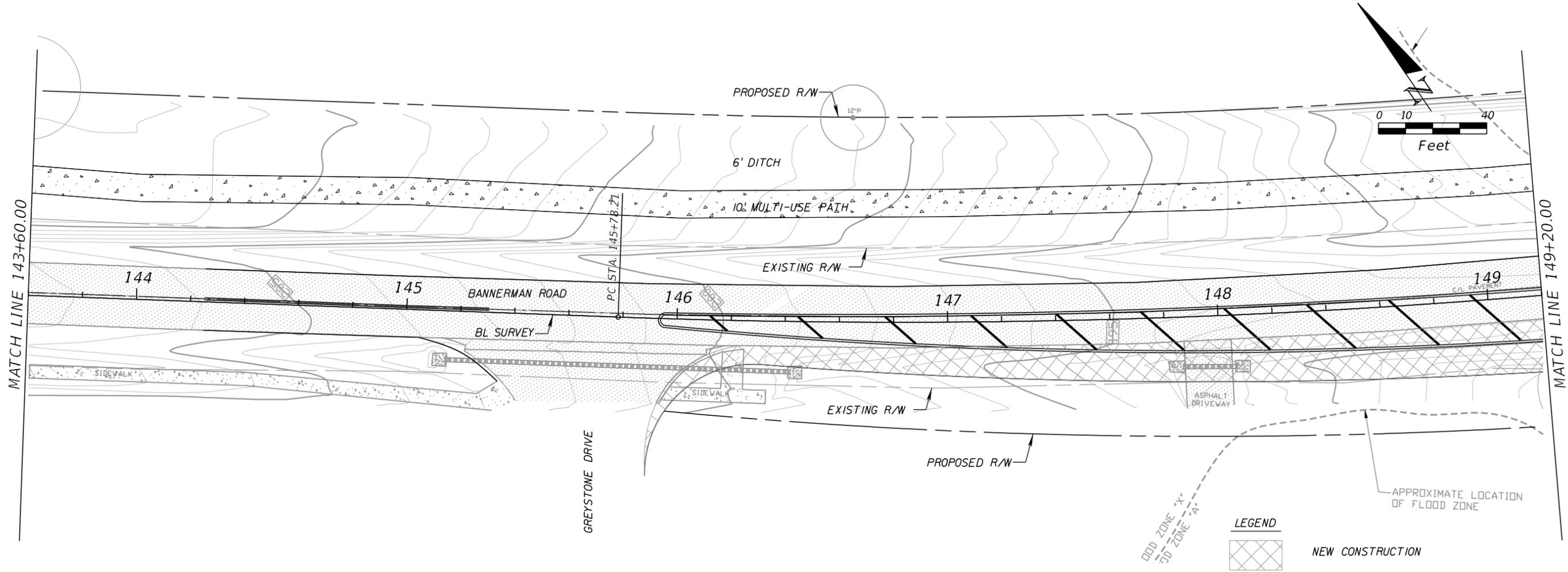
0 462.5 925 1,850 Feet

DISCLAIMER: This product has been compiled from the most accurate source data from Leon County, the City of Tallahassee, and the Leon County Property Appraiser's Office. However, this product is for reference purposes only and is not to be construed as a legal document or survey instrument. Any reliance on the information contained herein is at the user's own risk. Leon County, the City of Tallahassee, and the Leon County Property Appraiser's Office assume no responsibility for any use of the information contained herein or any loss resulting therefrom.

Date Drawn: Sep 30, 2012

Appendix E

Alternative C Preliminary Plans



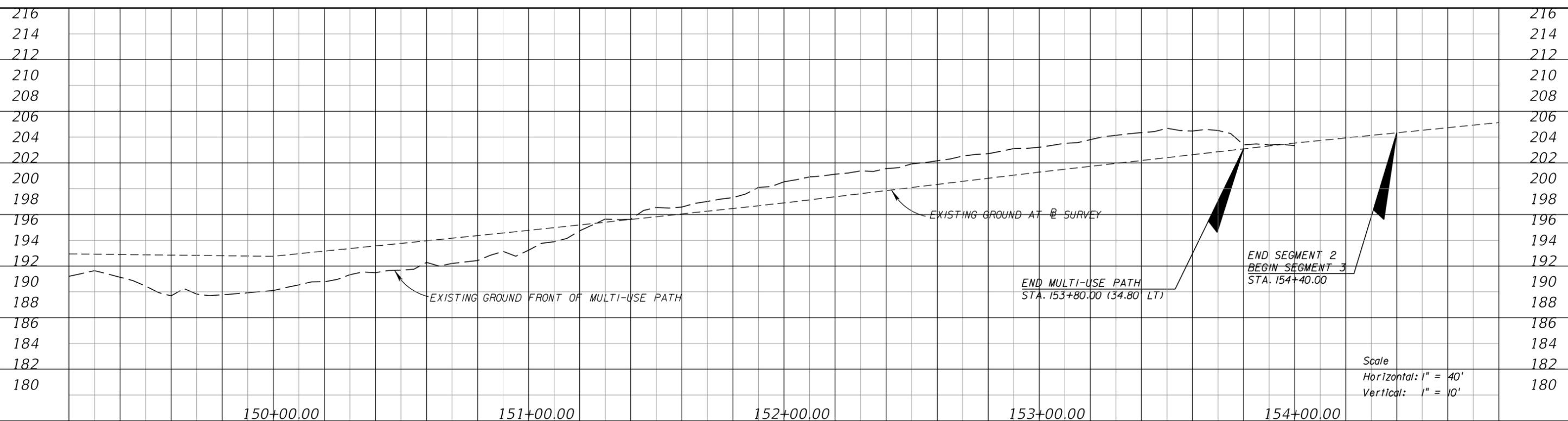
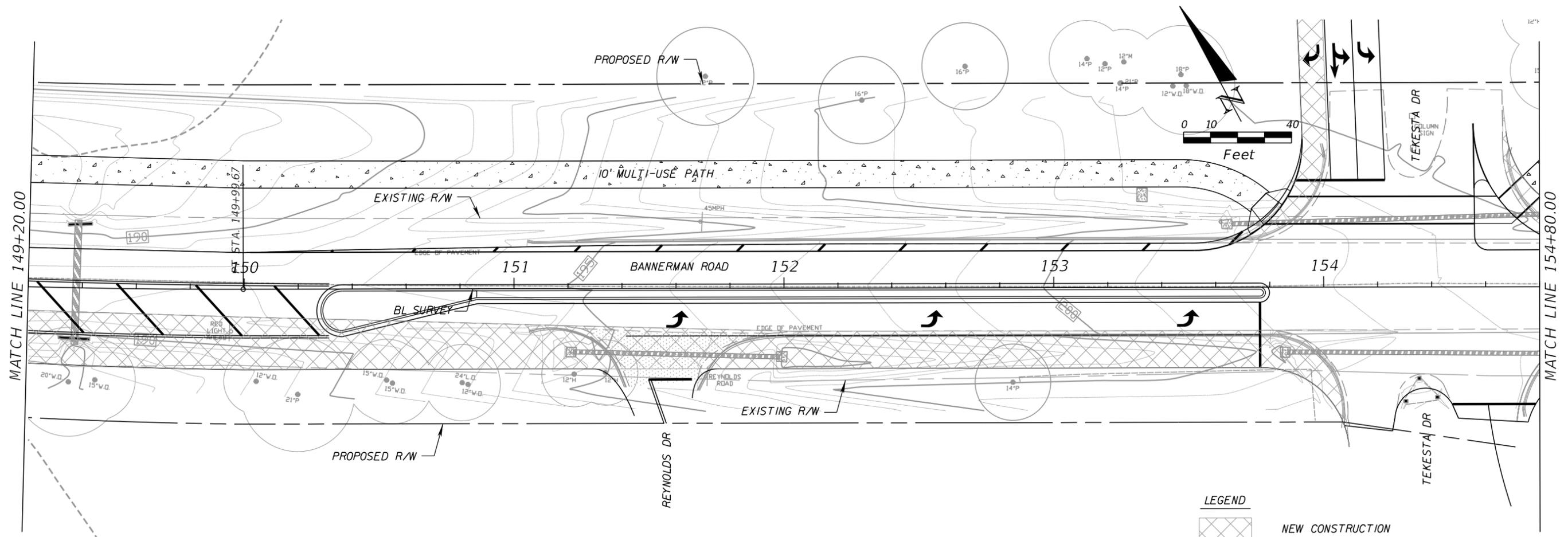
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

RSH
Reynolds, Smith and Hills, Inc.
1715 N. Westshore Boulevard, Suite 500
Tampa, Florida 33607-3999
813-289-5550
Certificate of Authorization No. 5620
Architectural, Engineering, Planning and Environmental Services

LEON COUNTY
LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (850) 606-1500 * FAX (850) 606-1501

PLAN AND PROFILE
ALTERNATIVE "C"

SHEET NO.
1



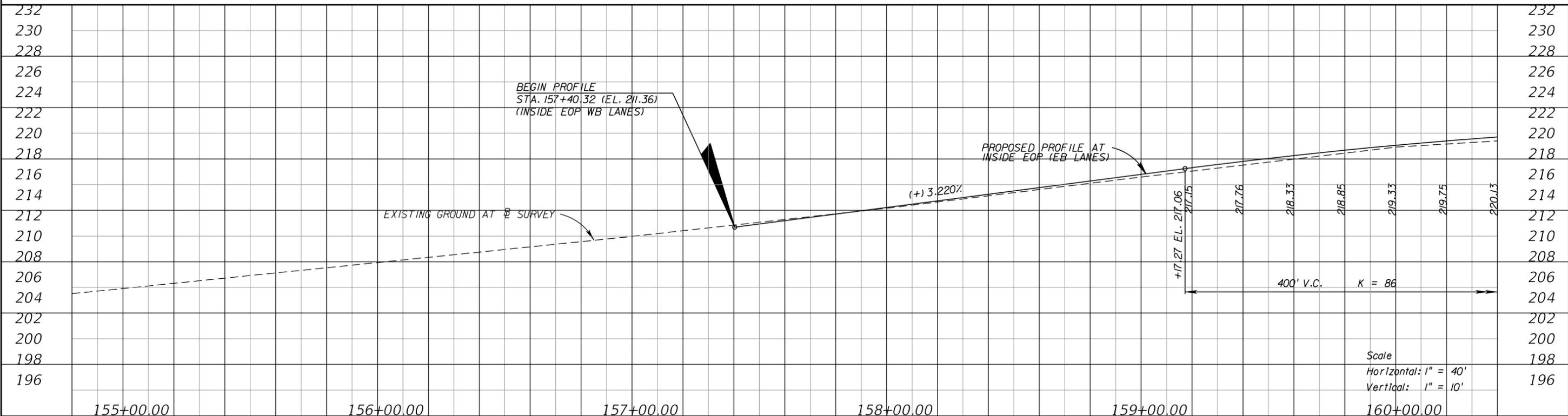
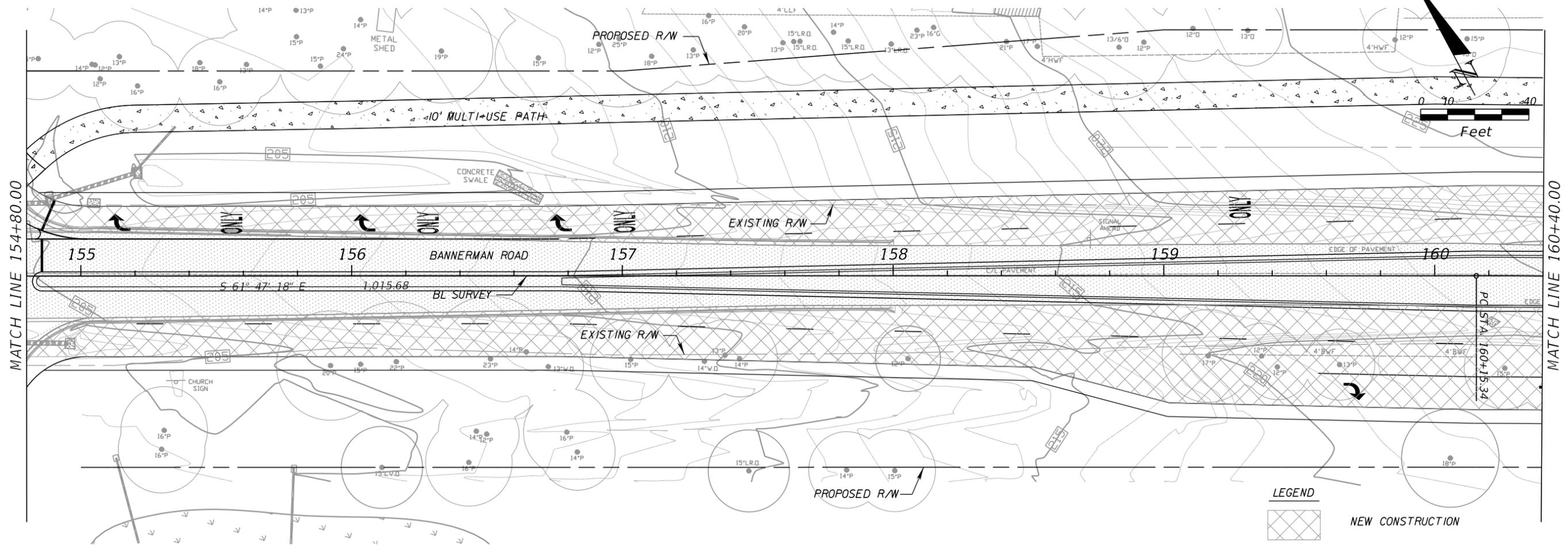
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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**PLAN AND PROFILE
 ALTERNATIVE "C"**

SHEET NO.
 2



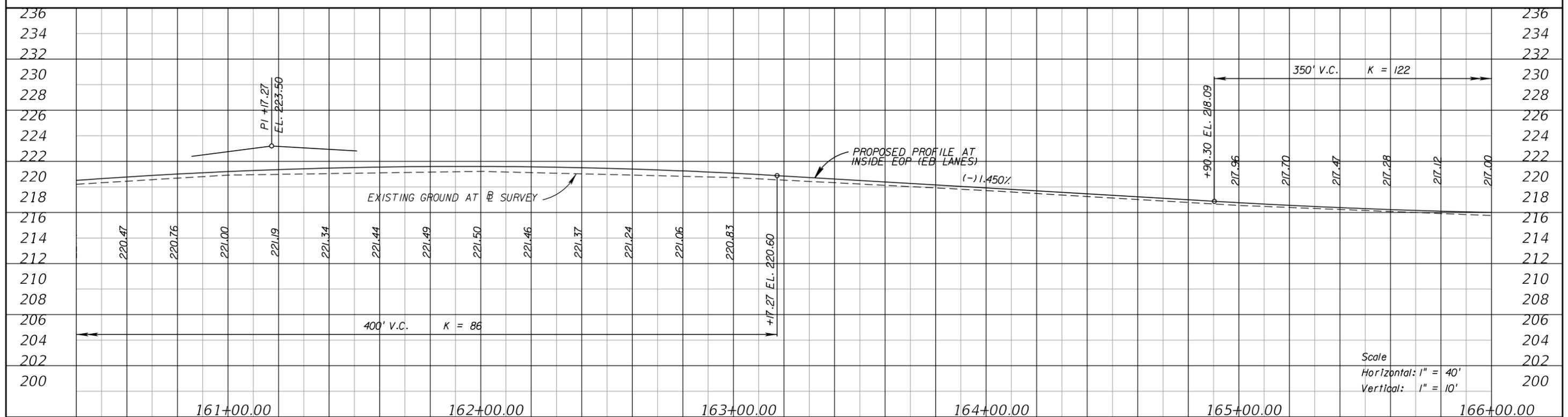
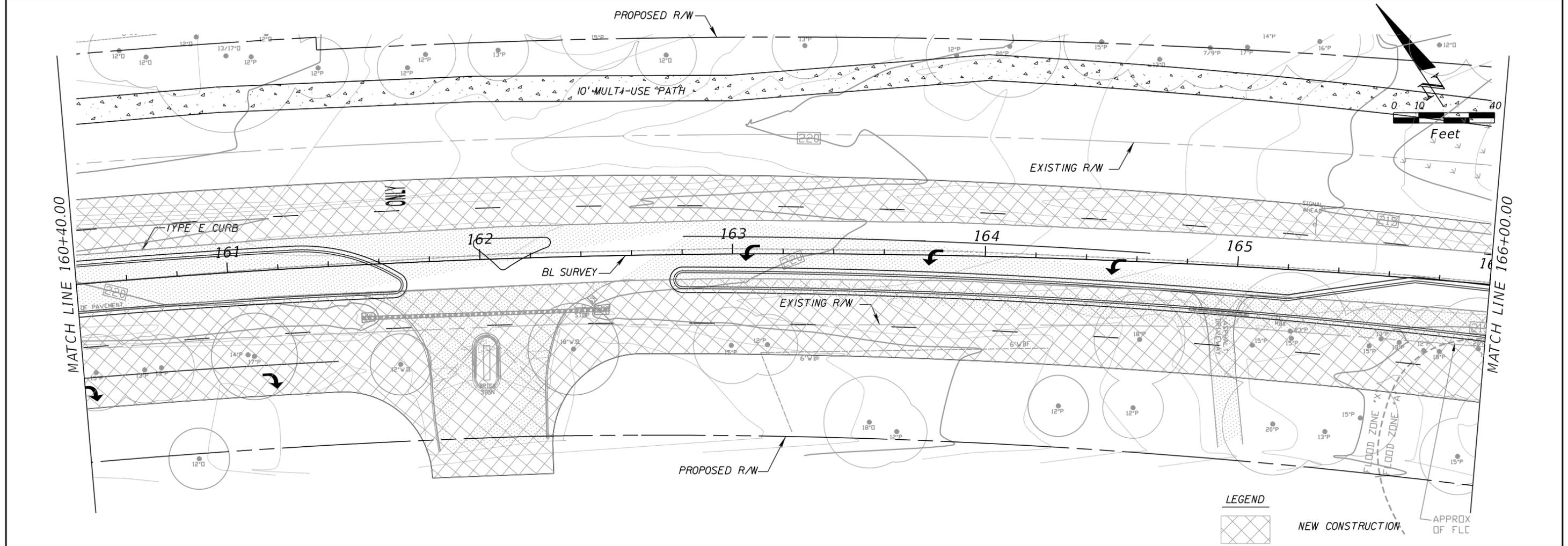
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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1715 N. Westshore Boulevard, Suite 500
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813-289-5550
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PHONE (850) 606-1500 * FAX (850) 606-1501

**PLAN AND PROFILE
ALTERNATIVE "C"**

SHEET NO.
3



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

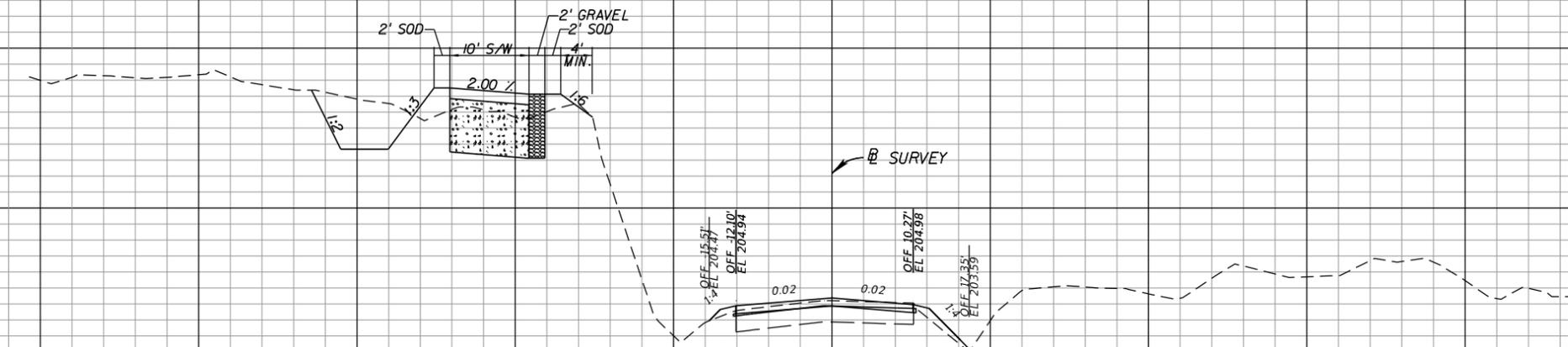
RSH
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 Certificate of Authorization No. 5620
 Architectural, Engineering, Planning and Environmental Services

LEON COUNTY
 LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 606-1500 * FAX (850) 606-1501

PLAN AND PROFILE
ALTERNATIVE "C"

SHEET NO.
 4

216
214
212
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140 120 100 80 60 40 20 0 20 40 60 80 100

144+54.69

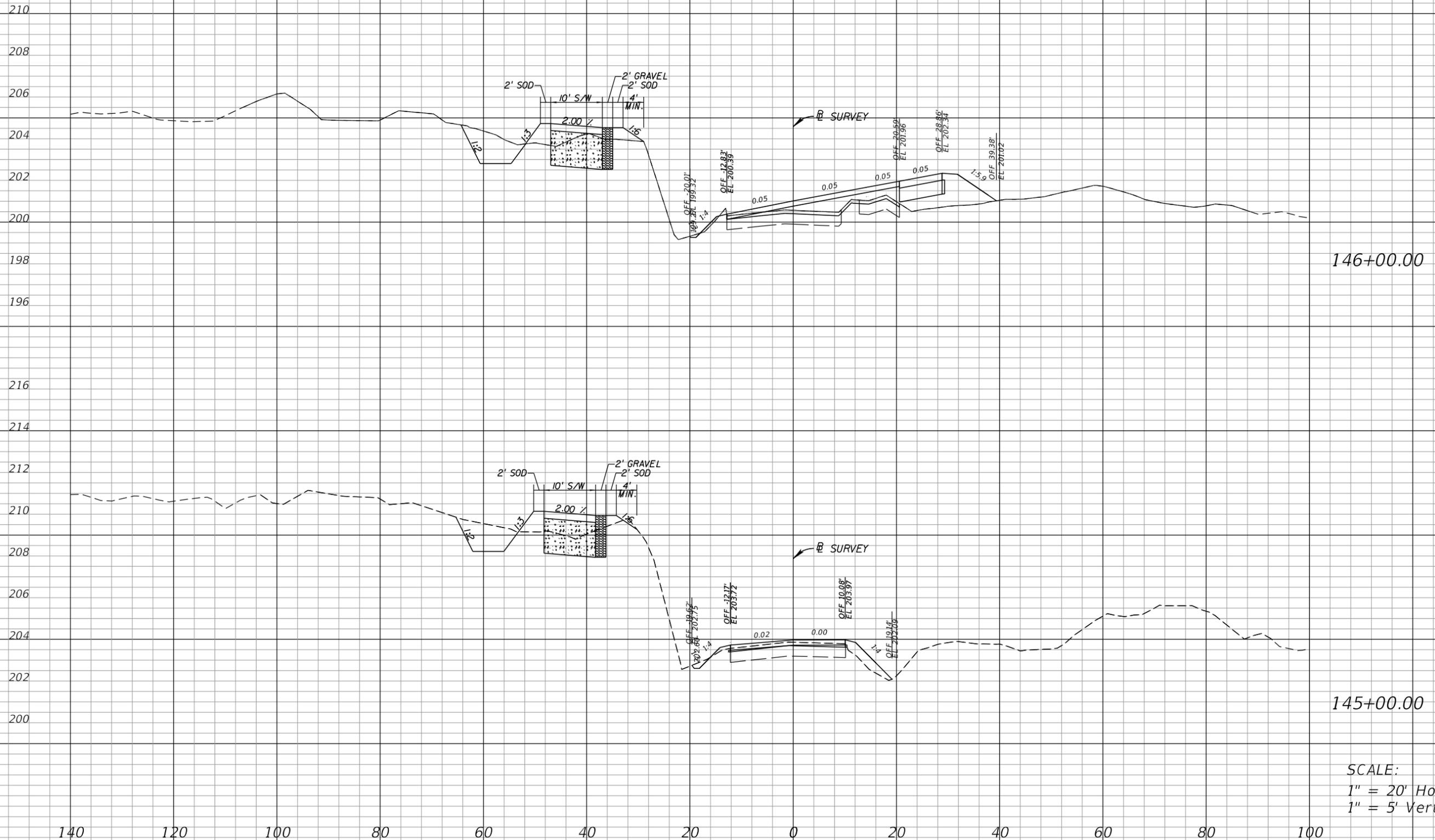
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

RSH
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1715 N. Westshore Boulevard, Suite 500
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**CROSS SECTIONS
ALTERNATIVE "C"**

SHEET
NO.
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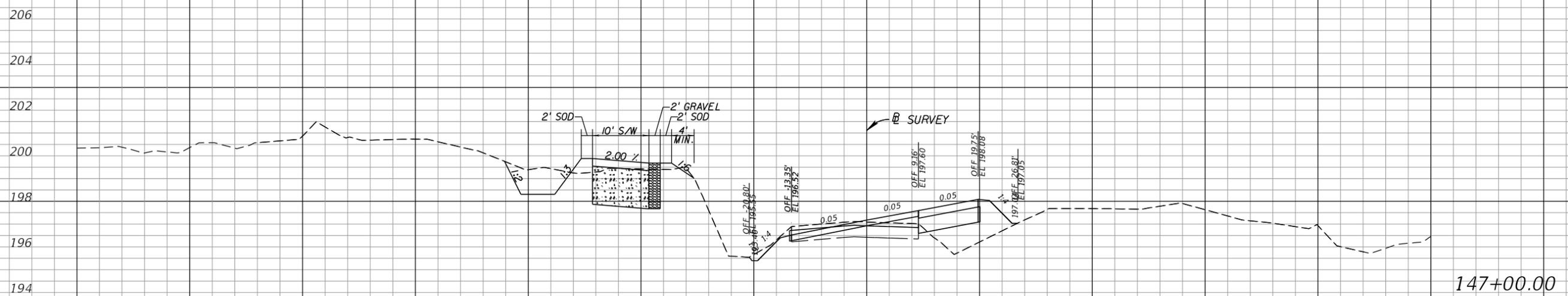
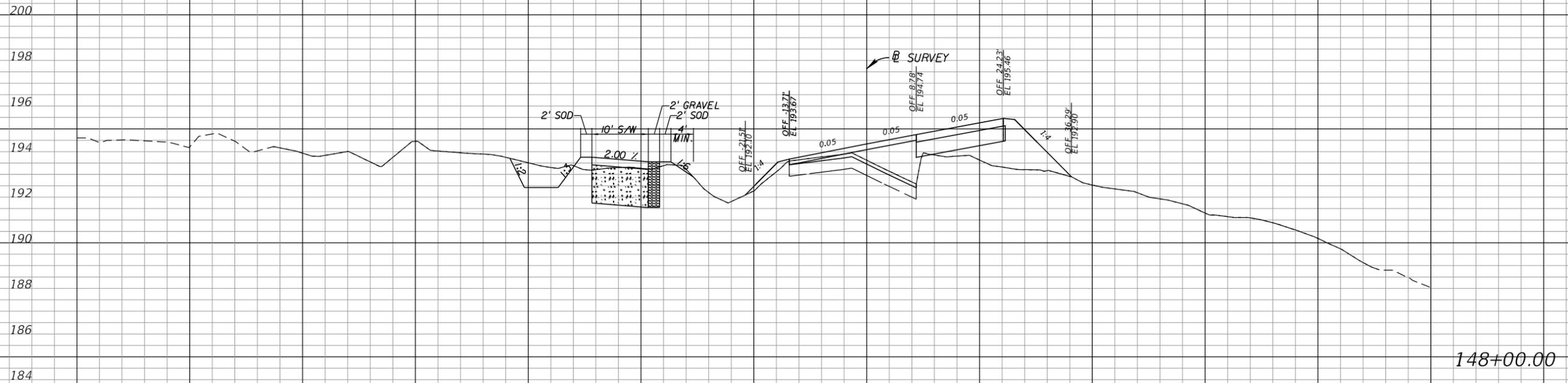


REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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**CROSS SECTIONS
 ALTERNATIVE "C"**

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6



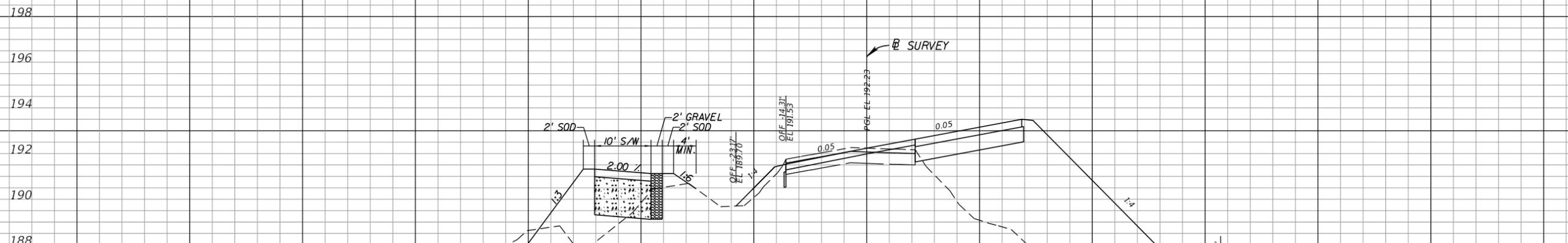
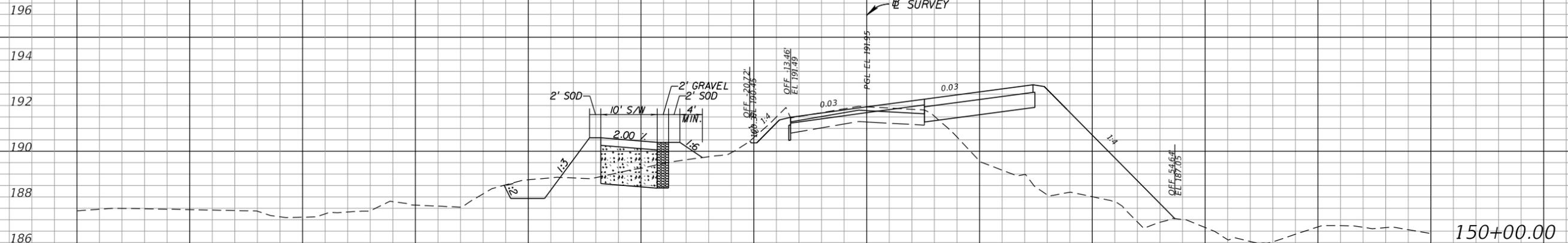
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**CROSS SECTIONS
 ALTERNATIVE "C"**

SHEET
 NO.
 7



SCALE:
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 1" = 5' Vertical

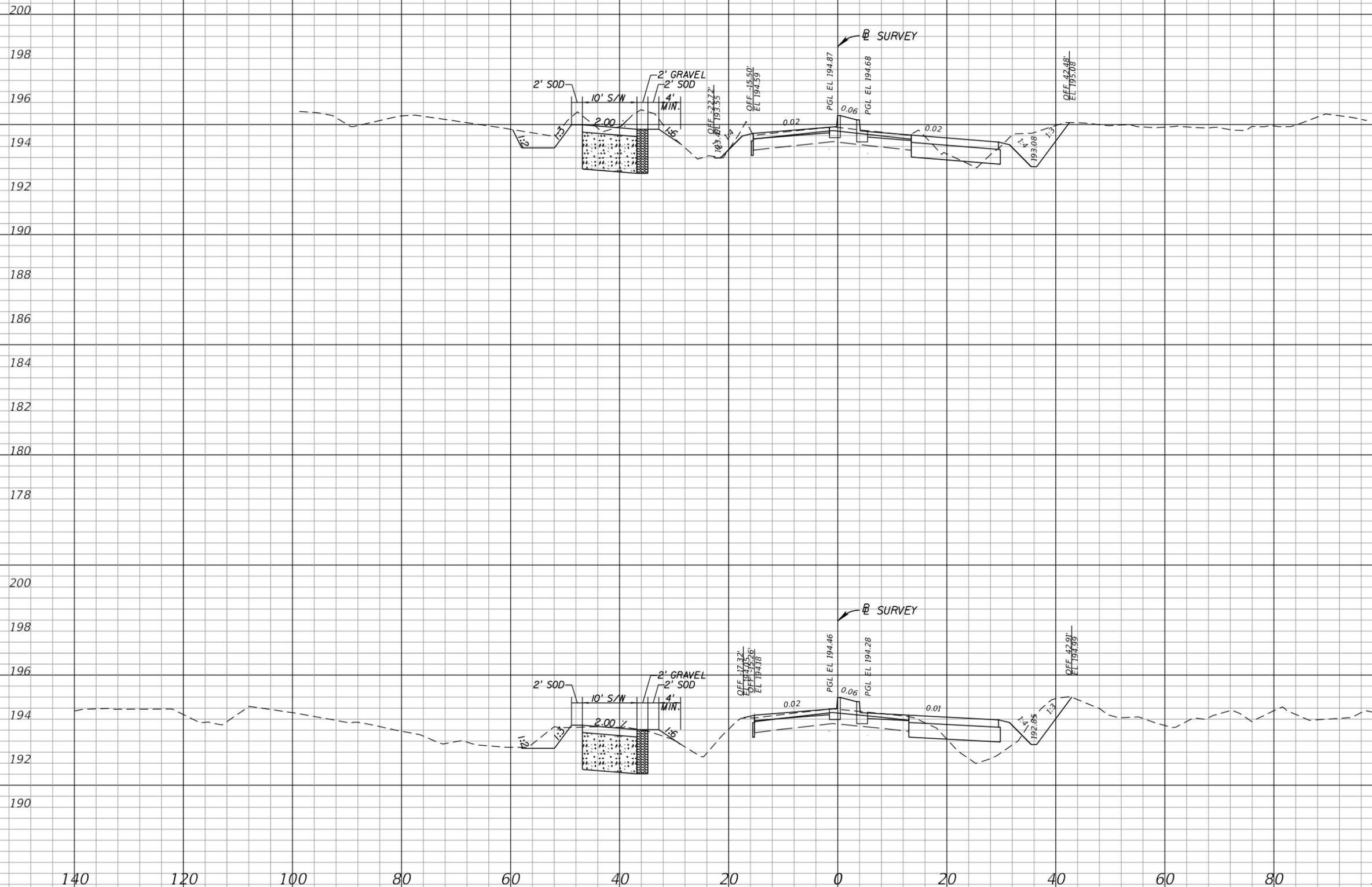
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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**CROSS SECTIONS
 ALTERNATIVE "C"**

SHEET
 NO.
 8



151+15.83

151+00.00

SCALE:
 1" = 20' Horizontal
 1" = 5' Vertical

REVISIONS			
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**CROSS SECTIONS
 ALTERNATIVE "C"**

SHEET
 NO.
 9

Appendix F

Alternative C Cost Estimate

Alternative C
Roadway Components

PAY ITEM NUMBER	PAY ITEM DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	COST (\$)
	ROADWAY				
0104-10-3	SEDIMENT BARRIER	LF	1878	\$ 1.75	\$ 3,286.50
0110-1-1	CLEARING & GRUBBING	LS / AC	0.81	\$ 20,000.00	\$ 16,186.41
0120-1	REGULAR EXCAVATION	CY	846	\$ 3.50	\$ 2,961.00
0120-6	EMBANKMENT	CY	1298	\$ 5.50	\$ 7,139.00
0160-4	TYPE B STABILIZATION	SY	1371	\$ 3.02	\$ 4,140.42
0285-706	OPTIONAL BASE, BASE GROUP 06	SY	1371	\$ 14.70	\$ 20,153.70
0327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	SY	2703	\$ 0.55	\$ 1,486.65
0334-1-22	SUPERPAVE ASPH CONC, TRAF B, PG76-22	TN	450	\$ 87.85	\$ 39,532.50
0337-7-40	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC B, FC-9.5, PG76-22	TN	225	\$ 92.42	\$ 20,794.50
0520-1-7	CONCRETE CURB & GUTTER, TYPE E	LF	132	\$ 11.11	\$ 1,466.52
0520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	613	\$ 16.54	\$ 10,139.02
0520-70	CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH	SY	228	\$ 44.29	\$ 10,098.12
0570-1-1	PERFORMANCE TURF	SY	1995	\$ 0.32	\$ 638.40
0570-1-2	PERFORMANCE TURF, SOD	SY	346	\$ 3.00	\$ 1,038.00
0710-11111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	NM	0.38	\$ 1,032.44	\$ 392.33
0710 11122	PAINTED PAVT MARK,STD,WHITE,SOLID, 8"	LF	407	\$ 0.53	\$ 215.71
0710 11124	PAINTED PAVT MARK,STD,WHITE,SOLID, 18"	LF	41	\$ 1.37	\$ 56.17
0710-11125	PAINTED PAVT MARK,STD,WHITE,SOLID,24"	LF	24	\$ 1.60	\$ 38.40
0710-11211	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	NM	0.51	\$ 1,064.71	\$ 543.00
0710-11224	PAINTED PAVT MARK,STD,YELLOW,SOLID,18"	LF	293	\$ 1.01	\$ 295.93
	SUBTOTAL:				\$ 106,888.95
0101-1	MOBILIZATION (10%)	LS	1	\$ 10,688.89	\$ 10,688.89
0102-1	MAINTENANCE OF TRAFFIC (10%)	LS	1	\$ 11,757.78	\$ 11,757.78
	CONTINGENCY (15%)	LS	1	\$ 19,400.34	\$ 19,400.34
	TOTAL ESTIMATED PROJECT COST:				\$ 182,449.30

current 12 month moving area (Area 3) averages

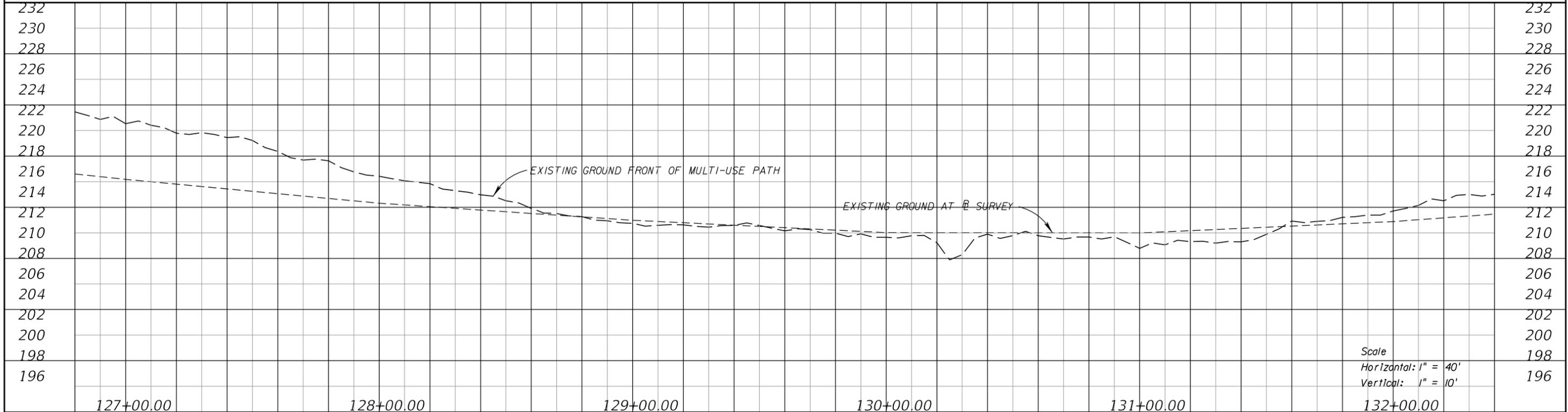
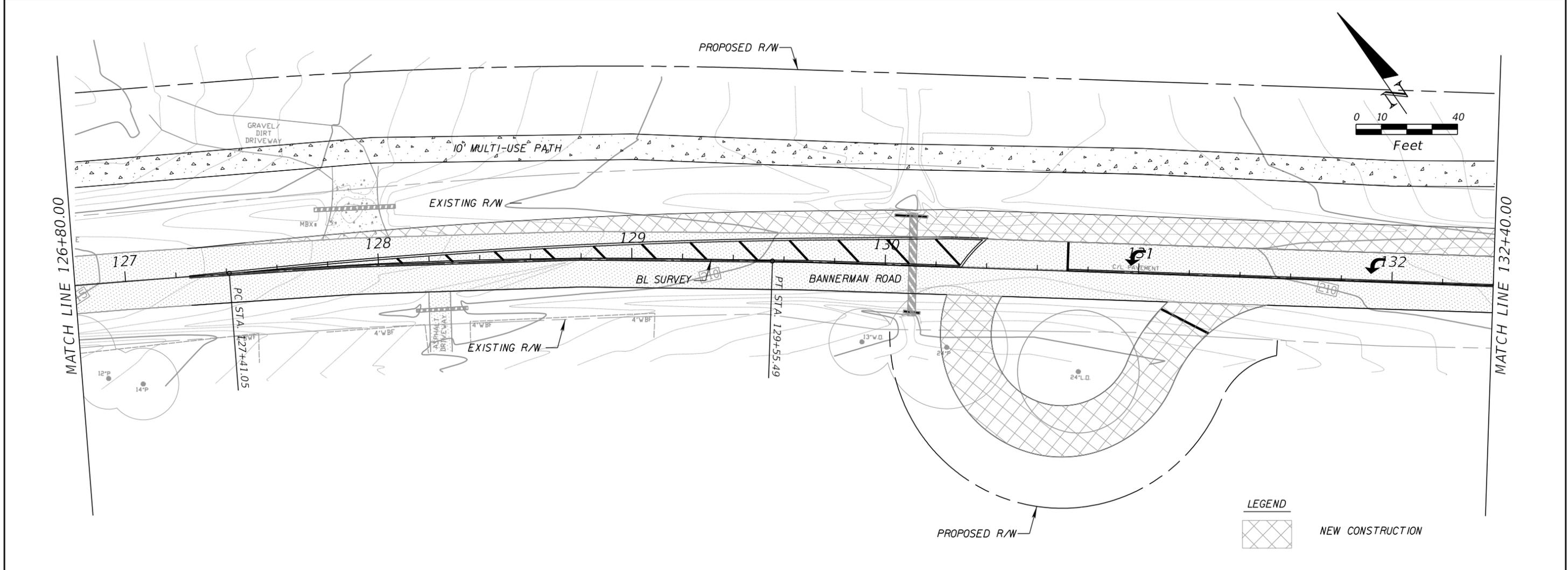
Stormwater Management Facility COST ESTIMATE
EXCLUDES R/W COST

Drainage Components

Alternative C	Basin 3-1 SWMF and Storm Drain Pipe Pond size increased to address raised median section					
	4.88	Clearing & Grubbing	Ac	\$20,000.00	\$97,600.00	Total Pond Site
	14988	Excavation	CY	\$3.50	\$52,458.00	Volume Req'd./ (9.29 ac-ft x 43560/27)
	4.88	Grading	Ac	\$15,000.00	\$73,200.00	Total Pond Site
	23619	Sod	SY	\$3.00	\$70,857.00	Total Pond Site
	1956	Fencing	LF	\$15.00	\$29,340.00	Site perimeter; vinyl coated w/l gate
	1	Outlet Structure	EA	\$6,000.00	\$6,000.00	Emergency spillway
	1920	24" Storm Drain Outfall Pipe	LF	\$51.00	\$97,920.00	750' SWMF Outfall, 20' WB Collector, 1150' Offsite bypass
	5	Type P Manhole < 10'	EA	\$2,800.00	\$14,000.00	3 on Outfall to SWMF; 2 on Offsite system
	5	Ditch Inlet Type E < 10'	EA	\$3,500.00	\$17,500.00	Ditch Collectors @ Tekesta
	4	Modified "C" Under sidewalk Inlets	EA	\$6,000.00	\$24,000.00	Offsite system includes handrail
				Subtotal	\$482,875.00	
				Contingency @ 10%	\$48,287.50	
		Total Stormwater Management and Roadway Drainage Cost			\$531,162.50	

Appendix G

Alternative D Preliminary Plans



REVISIONS			
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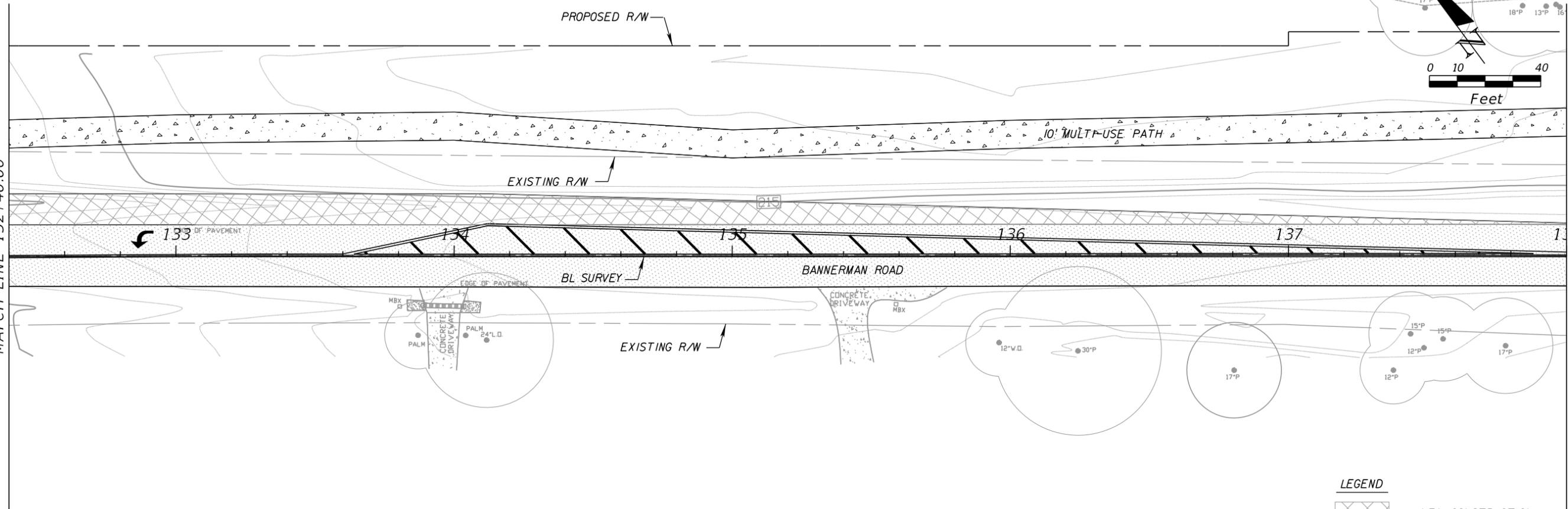
LEON COUNTY
 LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 606-1500 * FAX (850) 606-1501

**PLAN AND PROFILE
 ALTERNATIVE "D"**

SHEET NO.
 1

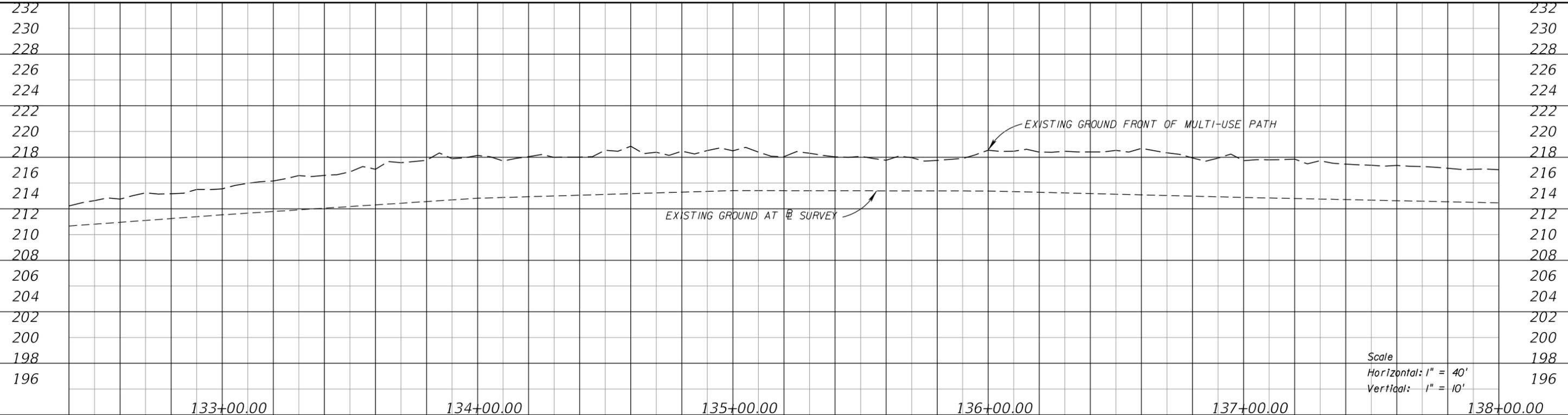
MATCH LINE 132+40.00

MATCH LINE 138+00.00



LEGEND

 NEW CONSTRUCTION



Scale
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 Vertical: 1" = 10'

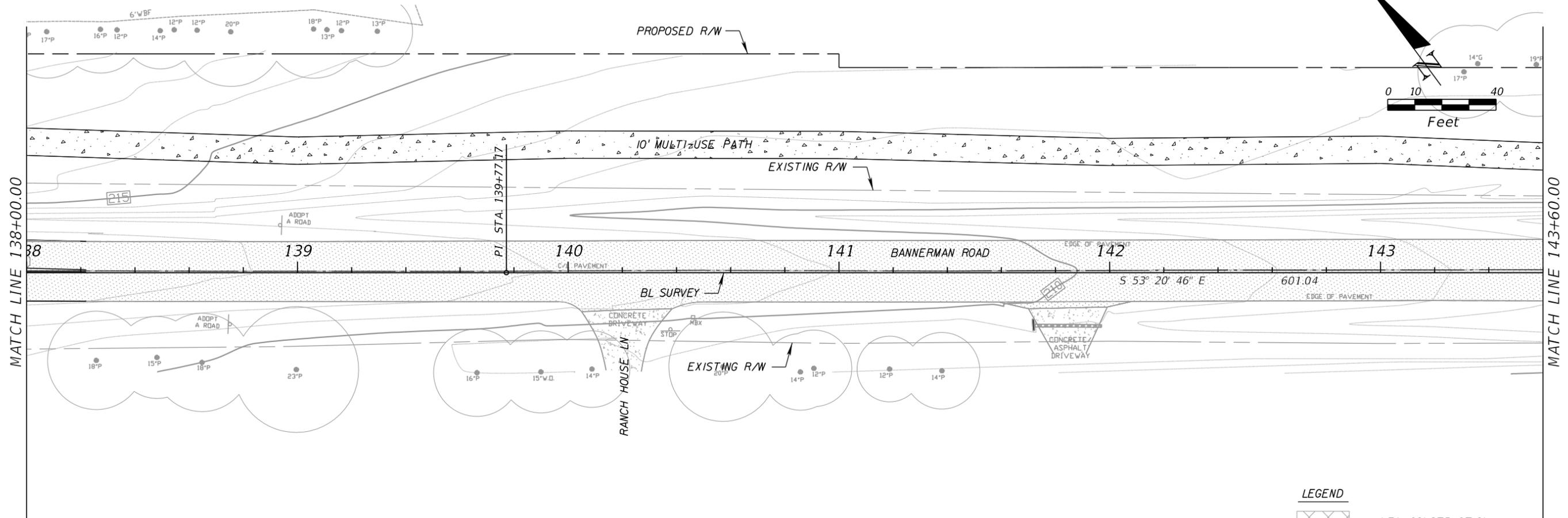
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 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 606-1500 * FAX (850) 606-1501

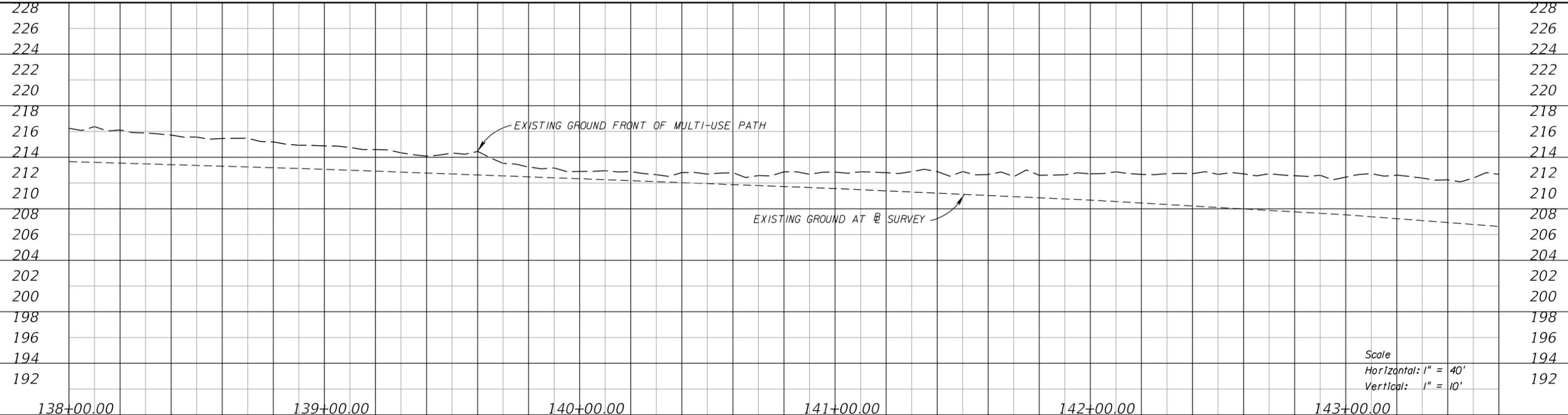
**PLAN AND PROFILE
 ALTERNATIVE "D"**

SHEET NO.
 2



LEGEND

NEW CONSTRUCTION



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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Architectural, Engineering, Planning and Environmental Services

LEON COUNTY
LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (850) 606-1500 * FAX (850) 606-1501

**PLAN AND PROFILE
ALTERNATIVE "D"**

SHEET NO.
3



127+00.00

126+19.61

SCALE:
 1" = 20' Horizontal
 1" = 5' Vertical

REVISIONS			
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**CROSS SECTIONS
 ALTERNATIVE "D"**

SHEET
 NO.
 4



129+00.00

128+00.00

SCALE:
 1" = 20' Horizontal
 1" = 5' Vertical

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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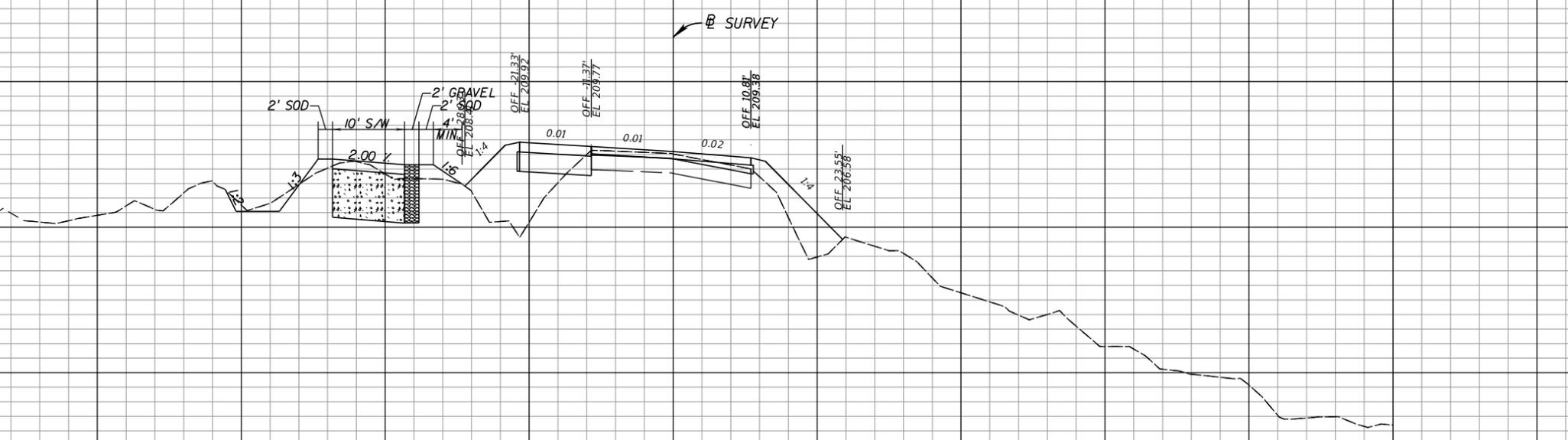
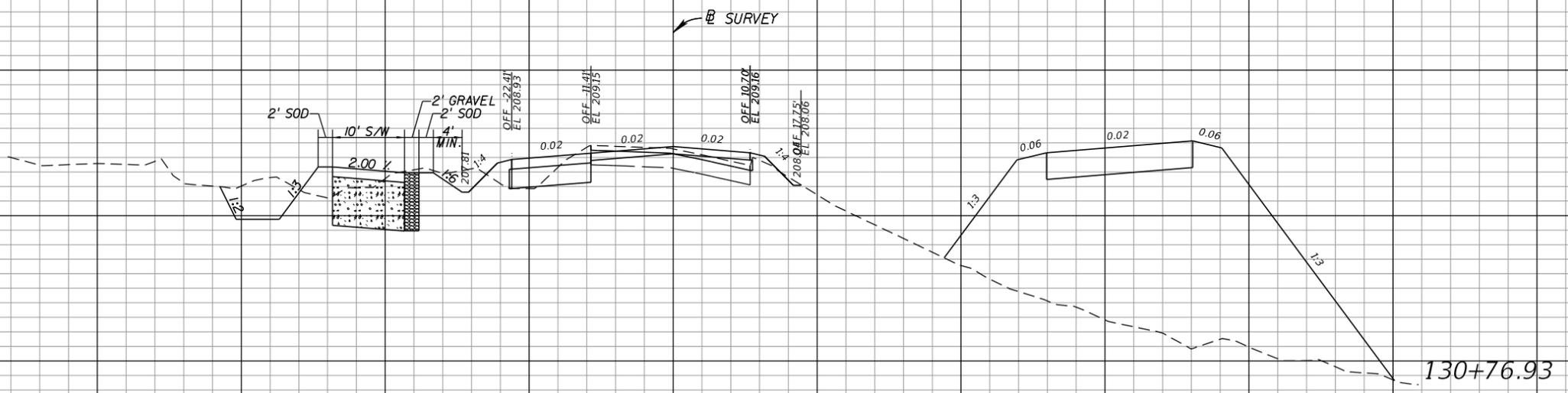
**CROSS SECTIONS
 ALTERNATIVE "D"**

SHEET
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 5

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200
198
196

140 120 100 80 60 40 20 0 20 40 60 80 100



130+76.93

130+00.00

SCALE:
1" = 20' Horizontal
1" = 5' Vertical

B SURVEY

B SURVEY

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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**CROSS SECTIONS
 ALTERNATIVE "D"**

SHEET
 NO.
 6

Appendix H

Alternative D Cost Estimate

Alternative D
Roadway Components

PAY ITEM NUMBER	PAY ITEM DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	COST (\$)
	ROADWAY				
0104-10-3	SEDIMENT BARRIER	LF	4069	\$ 1.75	\$ 7,120.75
0110-1-1	CLEARING & GRUBBING	LS / AC	1.30	\$ 20,000.00	\$ 26,000.00
0120-1	REGULAR EXCAVATION	CY	1905	\$ 3.50	\$ 6,667.50
0120-6	EMBANKMENT	CY	2373	\$ 5.50	\$ 13,051.50
0160-4	TYPE B STABILIZATION	SY	2624	\$ 3.02	\$ 7,924.48
0285-706	OPTIONAL BASE, BASE GROUP 06	SY	2624	\$ 14.70	\$ 38,572.80
0327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	SY	6901	\$ 0.55	\$ 3,795.55
0334-1-22	SUPERPAVE ASPH CONC, TRAF B, PG76-22	TN	1048	\$ 87.85	\$ 92,066.80
0337-7-40	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC B, FC-9.5, PG76-22	TN	524	\$ 92.42	\$ 48,428.08
0520-1-7	CONCRETE CURB & GUTTER, TYPE E	LF	132	\$ 11.11	\$ 1,466.52
0520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	613	\$ 16.54	\$ 10,139.02
0520-70	CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH	SY	228	\$ 44.29	\$ 10,098.12
0570-1-1	PERFORMANCE TURF	SY	2349	\$ 0.32	\$ 751.68
0570-1-2	PERFORMANCE TURF, SOD	SY	1352	\$ 3.00	\$ 4,056.00
0710-11111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	NM	1.11	\$ 1,032.44	\$ 1,146.01
0710 11122	PAINTED PAVT MARK,STD,WHITE,SOLID, 8"	LF	407	\$ 0.53	\$ 215.71
0710 11124	PAINTED PAVT MARK,STD,WHITE,SOLID, 18"	LF	41	\$ 1.37	\$ 56.17
0710-11125	PAINTED PAVT MARK,STD,WHITE,SOLID,24"	LF	57	\$ 1.60	\$ 91.20
0710-11211	PAINTED PAVT MARK,STD,YELLOW,SOLID,6"	NM	1.42	\$ 1,064.71	\$ 1,511.89
0710-11224	PAINTED PAVT MARK,STD,YELLOW,SOLID,18"	LF	544	\$ 1.01	\$ 549.44
	SUBTOTAL:				\$ 212,944.99
0101-1	MOBILIZATION (10%)	LS	1	\$ 21,294.50	\$ 21,294.50
0102-1	MAINTENANCE OF TRAFFIC (10%)	LS	1	\$ 23,423.95	\$ 23,423.95
	CONTINGENCY (15%)	LS	1	\$ 38,649.52	\$ 38,649.52
	TOTAL ESTIMATED PROJECT COST:				\$ 357,077.18

current 12 month moving area (Area 3) averages

Stormwater Management Facility COST ESTIMATE
EXCLUDES R/W COST

Drainage Components

Alternative D	This alternate used the Alternate 4.3 pond and adds a second facility to address the widening and pond at the Jug Handle						
		1	Cost for SWMF Basin 3-1 Total) =	EA	\$531,162.50	\$531,162.50	Alt 4.3 SWMF facility - 4.88 ac.
		1	Cost for SWMF Basin 2-8 (2.76 ac) =	EA	\$198,356.95	\$198,356.95	Includes Outlet Structure
		50	38"x 24" ERCP	LF	\$85.00	\$4,250.00	Extend existing Cross-drain, 18' north, 32' south
		2	38"x 24" ERCP Cross-drain MES	EA	\$1,500.00	\$3,000.00	
					Subtotal	\$729,519.45	Includes SWMF contingency
					Contingency @ 10%	\$725.00	Additional Roadway Items Only
			Total Stormwater Management and Roadway Drainage Cost			\$730,244.45	

Estimating Cost for Additional 3.01 Ac SWMF							
		2.76	Clearing & Grubbing	Ac	\$20,000.00	\$55,200.00	Total Pond Site
		4453	Excavation	CY	\$ 3.50	\$15,585.50	Volume Req'd./ (2.76 ac-ft x 43560/27
		2.76	Grading	Ac	\$ 15,000.00	\$41,400.00	Total Pond Site
		13358	Sod	SY	\$ 3.00	\$40,074.00	Total Pond Site
		1471	Fencing	LF	\$ 15.00	\$22,065.00	Site perimeter; vinyl coater w/l gate
		1	Emergency Outlet Structure	EA	\$ 6,000.00	\$6,000.00	Emergency spillway
					Subtotal	\$180,324.50	
					Contingency @ 10%	\$18,032.45	
			Total Stormwater Management Cost			\$198,356.95	