

Town of Bayfield

Joint Planning Commission and Board of Trustees Work Session

Tuesday, January 17, 2023 – 6:05 – 7:00 pm

1199 Bayfield Parkway – Bayfield Town Hall – Boardroom

Join Zoom Meeting <https://zoom.us/j/92899047820>

Meeting ID: 928 9904 7820

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1. **Opening Work Session Meeting:**

- a. Call Meeting to Order
- b. Introductions
- c. Pledge of Allegiance
- d. Changes/Comments on Agenda

2. **Bayfield East Intersection Update**

- a. 60% Design Update
- b. Oak Drive Alternatives

3. **Other 2023 Project Updates:**

- a. Joe Stephenson Park Concept Plan Update Process
- b. Comprehensive Plan Update Process
- c. Upcoming Land Use Code Amendments
- d. Cinnamon Heights Project
- e. Stormwater Feasibility Study
- f. 2018 International Building Code Adoption

4. **Public Input:**

5. **Adjourn**

Rules of the Work Session: This is a work session between the Board of Trustees, the Planning Commission members and Town staff. During the "Public Input" portion of the work session, the public will have the opportunity to ask questions and provide comments.

**US 160 – EAST BAYFIELD PARKWAY
EAST OAK DRIVE
ALTERNATIVES ANALYSIS REPORT**

**BAYFIELD, CO
LA PLATA COUNTY**



August 30, 2019

Prepared by:
Short Elliott Hendrickson Inc. (SEH®)
934 Main Ave. Unit C
Durango, CO 81301

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- A. PROJECT AREA MAP**
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- C. COST ESTIMATES**
- D. TYPICAL SECTIONS**

1. EXECUTIVE SUMMARY

Russell Planning and Engineering (RPE) was hired by the Town of Bayfield to evaluate possible ways to connect East Oak Drive and the school properties to the proposed development planned for the proposed North Bayfield Parkway. RPE has since merged with Short Elliott Hendrickson Inc. (SEH®), effective August 1, 2019.

SEH (formerly RPE) and The Town of Bayfield developed four alternatives that provide connectivity to the proposed North Bayfield Parkway. An additional alternative (Alt #5) was also discussed, but ultimately determined to be undesirable due to the necessary property acquisitions. For the purposes of providing an exhaustive evaluation report, this alternative is shown in the exhibits; however, a detailed cost estimate was not performed.

The four alternatives evaluated were: (1) a connector from the intersection at N. Cedar Dr. along the existing Intermediate School exit road with a 90 degree turn to the new roundabout on the proposed North Bayfield Parkway; (2) a new alignment of E. Oak Dr. with a connection to the existing neighborhood along the existing school exit; (3) a new alignment of E. Oak Dr. with a connection to the existing neighborhood with two one-way streets; and (4) a new alignment of E. Oak Dr. with a connection to the existing neighborhood on a new alignment. The fifth alternative (5) is an alignment through two properties in the southeast corner of the existing neighborhood.

The alternatives were evaluated based on Right-of-Way impacts, level of service of the roadway, impacts to the existing gas gathering lines and irrigation pipes, anticipated construction cost, and impacts to the school access.

Based on the above criteria, Alternative #4, which provides a new alignment of E. Oak Dr. with a connection to the existing neighborhood via a new alignment, most effectively meets the goals of the project.

2. INTRODUCTION/BACKGROUND

The existing East Oak Drive connects the existing Bayfield Middle School, the new 3-5 Intermediate School, and the existing neighborhood to North Mountain View Drive. North Mountain View Drive provides access to US 160 via Commerce Drive.

A new development is being proposed for the Town of Bayfield that will provide a direct connection to US 160 via the proposed North Bayfield Parkway. Due to congestion created in the area from the school, especially during peak drop-off/pick-up times, a proposed connection to the new North Bayfield Parkway could alleviate traffic and improve safety.

The primary goal of the proposed alternatives is to improve the connectivity and safety of traveling public utilizing a new connection to US 160.

Refer to Appendix A for a map of the project area. The typical section applies to the four alternative alignments analyzed with minor variations or transition sections throughout.

3. ALTERNATIVE #1

A. SUMMARY

The goal of Alternative #1 is to design a through route for East Oak Drive to the proposed North Bayfield roundabout as completely on existing right of way and existing easements as possible.

Alternative #1 utilizes the existing one-way school exit road and converts it to a two-way road. The two-way road continues towards the proposed roundabout connecting the existing East Oak Drive with the proposed North Bayfield parkway. Refer to Appendix B for an exhibit of alternative alignment #1.

B. RIGHT OF WAY ASSESSMENT

The existing one-way school exit connects the Bayfield school property to N. Cedar Drive between the properties at 844 E. Oak and 918 E. Oak Drive. By converting this to a two-way road there will be no additional right of way required since there is a 60' right of way between the properties and the east-west leg is in the previously acquired 140-foot access easement on the north end of the school property. The proposed alignment eliminates the need for additional easements from the Bayfield school property, with the exception of a small encroachment. A wall will need to be constructed to keep the roadway in the right of way.

C. TRAFFIC ANALYSIS

The design of this through route from East Oak Drive to North Bayfield parkway will be 15 mph with a stop condition at N. Cedar Drive. The traffic traveling through the existing East Oak Drive onto the proposed two-way road must turn 90 degrees and drive a radius of 75 feet. Westbound traffic exiting the school must turn left across the new through route and come to a stop condition at the N. Cedar intersection. There is not enough right of way along the N. Cedar Drive leg to create a separate left turn lane from the new westbound lane to the existing E. Oak Dr., which could further back up traffic if significant volumes of traffic are turning into the existing neighborhood.

D. UTILITY IMPACTS

The alignment will cross the existing irrigation pipe twice and be along the curb line of the proposed two-way road between these two crossings. A manhole will be in the travel lane. The existing gas service line crosses at the intersection of the two-way road and school exit. The crossing is at the widest part of the curve which will result in an approximately 130-foot crossing.

E. ESTIMATED CONSTRUCTION COST

Construction costs for Alternative #1 are approximately \$500,000. Refer to Appendix C for a more detailed cost estimate. Part of the proposed alignment is along an existing alignment so there will be less excavation and required materials. The anticipated roadway length is approximately half of the cost of the other alternates. An approximately 150' long by 3' high wall will need to be built to keep the roadway in the existing right of way of N. Cedar Dr.

F. IMPACTS TO SCHOOL

Traffic leaving the school to the west will have an additional left turn and a stop condition. Left turns will be battling increased traffic traveling northwest from the roundabout. If traffic backs up at stop condition with existing E. Oak Dr. to the intersection with the school exit, left turns out of the school will be gridlocked. Traffic turning into the school will not be affected. The right turn from the school exit connects traffic to the North Bayfield Parkway allowing easier access to US 160.

4. ALTERNATIVE #2

A. SUMMARY

The goal of Alternative #2 is to design a 30-mph collector road per the Town of Bayfield standards, while utilizing as much existing pavement as possible. Alternative #2 relocates E. Oak Drive road through the northern portion of the Bayfield school property. The relocated East Oak Drive will

connect directly to the roundabout at the proposed North Bayfield parkway. The pavement along the existing East Oak Drive between the start of the new alignment through the school property and the start of the neighborhood will be removed. Access to the middle school is maintained with a new driveway. The neighborhood will connect to the new E. Oak Drive with a proposed two-way road at the school exit. Refer to Appendix B for an exhibit of alternative alignment #2.

B. RIGHT OF WAY ASSESSMENT

The one-way school exit that is being converted into a two-way access to the neighborhood requires no additional right of way because of the existing alignment. The relocated East Oak Drive that goes through the northern portion of the Bayfield school property requires no private property purchases. However, it will require additional easements to be acquired from the school district.

C. TRAFFIC ANALYSIS

The proposed East Oak Drive alignment meets the Town of Bayfield standards for a 30-mph collector road. The relocation of East Oak Drive will promote no through traffic on neighborhood streets. Access to the neighborhood will be through the two-way roadway off the proposed alignment. Traffic at the intersection of E. Oak Drive, N. Cedar Dr., and the school exit intersection could eventually trigger a signal installation if competing left turns result in a backup.

D. UTILITY IMPACTS

The alignment will cross the existing irrigation pipe three times. The crossings near the school exit will be perpendicular to the alignment. The crossing near the entrance will be at a 45-degree angle. The existing gas gathering lines cross the proposed alignment at the intersection of the two-way road and school exit resulting in a 150-foot crossing.

E. ESTIMATED CONSTRUCTION COST

Construction costs for Alternative #2 are approximately \$1,000,000. Refer to Appendix C for a more detailed cost estimate. The pavement removal on the existing East Oak Drive will add to the cost. The roadway length will be twice as long as Alternative #1.

F. IMPACTS TO SCHOOL

Traffic leaving the school to the west will have a conflict point with left turns exiting the neighborhood. Traffic traveling from the proposed North Bayfield parkway will increase the amount of left turns entering the school.

5. ALTERNATIVE #3

A. SUMMARY

The goal of Alternative #3 is to design a 30-mph collector road per the Town of Bayfield standards , while utilizing the existing one-way school exit road. Alternative #3 relocates E. Oak Drive through the northern portion of the Bayfield school property. The relocated East Oak Drive will connect directly to the roundabout at the proposed North Bayfield parkway. Two proposed one-way roads will provide access to the neighborhood off the relocated East Oak Drive. The one-way entrance to the neighborhood is located at the intersection with the school's exit. Traffic will exit the neighborhood at the intersection with the school's entrance. The middle school has a proposed access off the north side of the relocated East Oak Drive. Refer to Appendix B for an exhibit of alternative alignment #3.

B. RIGHT OF WAY ASSESSMENT

The one-way access to the neighborhood requires no additional right of way because it is along the existing alignments of the school exit and East Oak Drive. The relocated East Oak Drive that goes through the northern portion of the Bayfield school property requires no private property purchases. However, it will require additional easements to be acquired from the school district.

C. TRAFFIC ANALYSIS

The proposed East Oak Drive alignment meets the Town of Bayfield standards for a 30-mph collector road. The relocated East Oak Drive does not route school or North Bayfield traffic through the neighborhood. At the school exit, East Oak Drive traffic will also be making left and right turns to access the one-way entrance to the neighborhood. At the school entrance, traffic exiting the neighborhood will be making left and right turns back onto East Oak Drive. Alternative #3 eliminates conflicting lefts exiting the neighborhood that are present in Alternative #2.

D. UTILITY IMPACTS

The existing irrigation pipe will cross the proposed alignment three times. This includes a crossing at the neighborhood access entrance, a crossing at the relocated East Oak Drive, and a crossing at the one-way school entrance. Two of the irrigation pipe crossings will be perpendicular to the alignment. The existing gas service line crossing occurs at the one-way school exit intersection with the one-way neighborhood entrance resulting in a 150-foot crossing.

E. ESTIMATED CONSTRUCTION COST

Construction costs for Alternative #3 are approximately \$1,100,000. Refer to Appendix C for a more detailed cost estimate. The roadway length will be twice as long as Alternative #1. The one-way neighborhood access along with the proposed East Oak Drive relocation will add to the roadway construction.

F. IMPACTS TO SCHOOL

Alternative #3 adds two new intersections between the school and neighborhood. One intersection is at the school exit and neighborhood entrance. Traffic leaving the school to the west will not have to compete with traffic exiting the neighborhood but will have to compete with traffic making the left turn entering the neighborhood. Traffic making the left turn exiting the neighborhood will have to compete with traffic making the left turn entering the school.

6. ALTERNATIVE #4

A. SUMMARY

The goal of Alternative #4 is to design a 30-mph collector road per the Town of Bayfield standards, while moving the neighborhood access to the most efficient location. Alternative #4 relocates E. Oak Drive through the northern portion of the Bayfield school property. The relocated East Oak Drive will connect directly to the roundabout at the proposed North Bayfield parkway. A two-way access to the neighborhood is located at the intersection with the one-way school entrance. The existing one-way school exit road to the neighborhood is converted into a pedestrian path. The one-way school exit connects directly to the relocated East Oak. The middle school has a proposed access off the north side of the relocated East Oak Drive. Refer to Appendix B for an exhibit of alternative alignment #4.

B. RIGHT OF WAY ASSESSMENT

The existing alignment for the school exit is being converted into a pedestrian path so no additional right of way is required. The relocated East Oak Drive that goes through the northern portion of the

Bayfield school property requires no private property purchases. However, it will require additional easements to be acquired from the school district.

C. TRAFFIC ANALYSIS

The relocated East Oak Drive is designed as a 30-mph collector road per the Town of Bayfield standards. The alternative does not route traffic through the neighborhood streets. The neighborhood is accessed by a two-way road that is at the intersection with the one-way school entrance. The old school exit that routed traffic through the neighborhood is converted into a pedestrian path. The one-way school exit now stands alone along the alignment. This alternative is more pedestrian friendly for walking to and from the school along the proposed pedestrian path. A Rapid Flash Beacon could also be installed to increase pedestrian safety. The middle school access and neighborhood access drives will be close together along the proposed East Oak Drive alignment.

D. UTILITY IMPACTS

The existing irrigation pipe and gas service line crossings north of the existing one-way school exit are eliminated. The proposed alignment will cross the irrigation pipe twice, once at a 90-degree angle and once at a 45-degree angle. The existing gas gathering lines cross the alignment at the school exit, but eliminating the north leg, shortens the length by 30 feet.

E. ESTIMATED CONSTRUCTION COST

Construction costs for Alternative #4 are approximately \$1,000,000. Refer to Appendix C for a more detailed cost estimate. The roadway length will be twice as long as Alternative #1.

F. IMPACTS TO SCHOOL

There is a proposed intersection at the one-way school entrance with the two-way neighborhood access. The only conflict will be traffic making the left turn entering the school competing with exiting neighborhood traffic trying to make a left turn towards North Bayfield parkway. Traffic exiting the school to the west will not have to compete with traffic exiting the neighborhood since the road is converted to a proposed pedestrian path. The pedestrian path will promote walking between the neighborhood and school.

7. ALTERNATIVE #5

A. SUMMARY

Alternative #5 was initially identified as a potential option, but ultimately determined to be undesirable due to the need to acquire two existing properties with dwelling units. The goal of Alternative #5 is to design a 30-mph collector road per the Town of Bayfield standards, with the most direct route to the new roundabout with the least amount of disturbance to the gas gathering lines, irrigation pipe, and school traffic. Alternative #5 relocates E. Oak Drive through two properties in the southeast corner of the existing neighborhood and connects to the north side of the proposed roundabout. A two-way access to North Oak Drive will maintain access to the existing neighborhood. Refer to Appendix B for an exhibit of alternative alignment #5.

B. RIGHT OF WAY ASSESSMENT

The proposed alignment relocated E. Oak Dr. would require acquiring the property at 948 E. Oak Dr. and the property at 962 E. Oak Dr. Additionally, a small corner of the property at 918 E. Oak Dr. may need to be acquired depending on the final design of the roadway. The Town of Bayfield is sensitive to the issues associated with private property purchases and, for this reason, this alternative was determined to be undesirable.

C. TRAFFIC ANALYSIS

The relocated East Oak Drive is designed as a 30-mph collector road per the Town of Bayfield standards and will provide a direct access to the new roundabout. A small portion of the existing E. Oak Dr. alignment through the existing neighborhood would be utilized. A connection to the neighborhood would be made off of the new roadway. Increased through traffic from the new North Bayfield development could necessitate a left turn lane into the existing neighborhood.

D. UTILITY IMPACTS

There will be one crossing of the gas gathering lines; however, it will be nearly perpendicular to the road and outside of the footprint of the roundabout. There will be no crossing of the existing irrigation pipe.

E. ESTIMATED CONSTRUCTION COST

Construction costs for Alternative #5 were not estimated. The roadway length will be the shortest of all of the alternatives, although a wall may need to be constructed to eliminate the need to acquire any additional right of way.

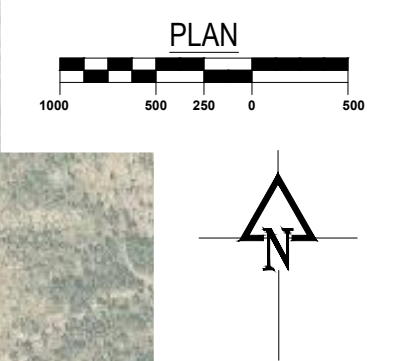
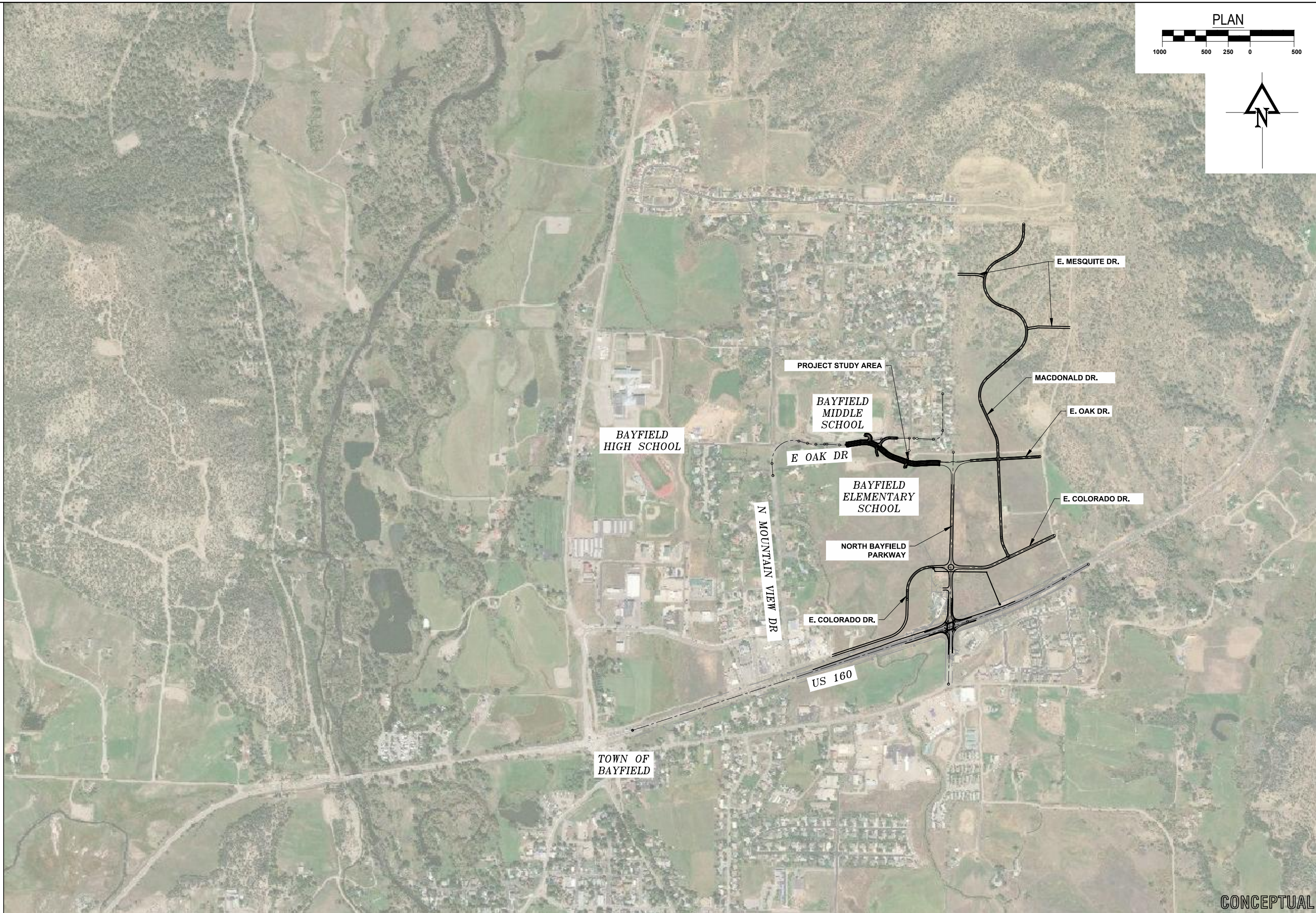
F. IMPACTS TO SCHOOL

All existing ingress/egress connections to the school properties will remain as they currently exist.

8. RECOMMENDATIONS

After evaluating the alternatives, using the evaluation matrix, SEH recommends that Alternative #4 be selected for further development. This option most effectively satisfies the goals of improving the connectivity and safety of traveling public without having to acquire properties.

APPENDIX A – PROJECT AREA MAP



811
Know what's below.
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TWO WORKING DAYS
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REVISIONS:

**U.S. 160 - BAYFIELD EAST
HIGHWAY IMPROVEMENTS
PROJECT AREA MAP**

**Short Elliott
Hendrickson, Inc.**
984 Main Avenue, Unit C
Durango, Colorado 81301
Phone: (970) 385-4546
Fax: (970) 385-4502



Drawn: **AM**
Drafted: **AM**
Checked: **JH**

Date of Submittal
7/12/2019

1 OF ----

C-1

CONCEPTUAL

APPENDIX B – ALTERNATIVE ALIGNMENTS

ALTERNATIVES												
			1	2		3		4		5		
			Convert the school exit drive to a 2-way roadway with a 90 degree curve connecting to the proposed roundabout at North Bayfield Parkway.	Relocate East Oak Dr. through the northern portion of the Bayfield School property. Connect the relocated East Oak to the neighborhood with a two-way street at the school exit.		Relocate East Oak Dr. through the northern portion of the Bayfield School property. Connect the relocated East Oak to the neighborhood with two one-way streets.		Relocate East Oak Dr. through the northern portion of the Bayfield School property. Connect the relocated East Oak to the neighborhood with two-way street at the school entrance.		Relocate East Oak Dr. through two properties in the south east corner of the existing neighborhood and connecting to the proposed roundabout on the north side.		
Evaluation Criteria	Weight	Measure	A	12	B	9	B	9	B	9	F	0
Right-of Way Impacts	3	Subjective	D	3	A	12	A	12	A	12	A	12
Level of Service (Geometry)	3	A= 30 MPH / B= 25 MPH / C= 20 MPH / D= 15 MPH / F= 10 MPH	C	4	C	4	C	4	B	6	B	6
Additional Impacts to Gas Gathering Lines	2	A= 0 Crossings / B= 1 Crossing / C= 2 Crossings / D= 3 Crossings / F= 4 Crossings or Parallel	F	0	D	2	D	2	C	4	A	8
Additional Impacts to Irrigation Pipe	2	A= 0 Crossings / B= 1 Crossing / C= 2 Crossings / D= 3 Crossings / F= 4 Crossings or Parallel	A	8	B	6	C	4	B	6	B	6
Anticipated Construction Cost (Not including ROW)	2	A= \$500,000 / B= \$1,000,000 / C= \$1,500,000 / D= \$2,000,000 / F= 2,000,000+	D	1	C	2	B	3	B	3	A	4
Impacts to School Access	1	Subjective	C	28	B	35	B	34	B	40	B	36
Weighted Point Total												

Evaluation Criteria	Weight	Measure
Right-of Way Impacts	3	Subjective
Level of Service (Geometry)	3	A= 30 MPH / B= 25 MPH / C= 20 MPH / D= 15 MPH / F= 10 MPH
Additional Impacts to Gas Gathering Lines	2	A= 0 Crossings / B= 1 Crossing / C= 2 Crossings / D= 3 Crossings / F= 4 Crossings or Parallel
Additional Impacts to Irrigation Pipe	2	A= 0 Crossings / B= 1 Crossing / C= 2 Crossings / D= 3 Crossings / F= 4 Crossings or Parallel
Anticipated Construction Cost (Not including ROW)	2	A= \$500,000 / B= \$1,000,000 / C= \$1,500,000 / D= \$2,000,000 / F= 2,000,000+
Impacts to School Access	1	Subjective
Weighted Point Total		

APPENDIX C – COST ESTIMATE



EAST OAK DRIVE BAYFIELD ALTERNATIVE ALIGNMENT #1

14-Aug-19

BID TABULATION SHEET

NUMBER	CONTRACT ITEM	UNIT	QUANTITY	QUANTITY	UNIT COST	TOTAL COST
201-00000	Clearing & Grubbing	LS	1		\$1,000.00	\$1,000.00
203-00010	Unclassified Excavation (Complete In Place)	CY	2000		\$10.00	\$20,000.00
203-00060	Embankment Material (Complete In Place)	CY	3000		\$12.00	\$36,000.00
207-00205	Topsoil	CY	376		\$15.00	\$5,640.00
208-00002	Erosion Logs (12")	LF	400		\$5.00	\$2,000.00
208-00020	Silt Fence	LF	1000		\$2.00	\$2,000.00
212-00006	Seeding (Native)	ACRE	0.7		\$2,000.00	\$1,400.00
212-00032	Soil Conditioning	ACRE	0.7		\$2,000.00	\$1,400.00
213-00011	Mulching (Hydraulic)	ACRE	0.7		\$2,500.00	\$1,750.00
304-02005	Aggregate Base Course (Class 2) (8 inch)	CY	582		\$50.00	\$29,100.00
304-06007	Aggregate Base Course (Class 6) (4 inch)	CY	287		\$60.00	\$17,220.00
403-34721	Hot Mix Asphalt (6 inch)	TON	869		\$110.00	\$95,590.00
504-XXXXX	Retaining Wall	SF	450		\$100.00	\$45,000.00
608-00000	Concrete Sidewalk	SY	508		\$50.00	\$25,400.00
609-21023	Curb and Gutter Type 2 (Section II-B) (Special)	LF	1250		\$25.00	\$31,250.00
625-00000	Mobilization	LS	1		\$15,000.00	\$15,000.00
603-XXXXX	Storm Drain	LF	562		\$160.00	\$89,920.00
614-XXXXX	Signing	LS	1		\$5,000.00	\$5,000.00
627-00002	Thermoplastic Pavement Marking	SF	835		\$15.00	\$12,518.55
700-70010	F/ A Minor Contract Revisions = 15%	LS	1		\$65,578.28	\$65,578.28
TOTAL CONSTRUCTION COST						\$502,766.83



EAST OAK DRIVE BAYFIELD ALTERNATIVE ALIGNMENT #2

14-Aug-19

BID TABULATION SHEET

NUMBER	CONTRACT ITEM	UNIT	QUANTITY	QUANTITY	UNIT COST	TOTAL COST
201-00000	Clearing & Grubbing	LS	1		\$1,000.00	\$1,000.00
203-00010	Unclassified Excavation (Complete In Place)	CY	3200		\$10.00	\$32,000.00
203-00060	Embankment Material (Complete In Place)	CY	10800		\$12.00	\$129,600.00
207-00205	Topsoil	CY	753		\$15.00	\$11,295.00
208-00002	Erosion Logs (12")	LF	400		\$5.00	\$2,000.00
208-00020	Silt Fence	LF	2500		\$2.00	\$5,000.00
212-00006	Seeding (Native)	ACRE	1.4		\$2,000.00	\$2,800.00
212-00032	Soil Conditioning	ACRE	1.4		\$2,000.00	\$2,800.00
213-00011	Mulching (Hydraulic)	ACRE	1.4		\$2,500.00	\$3,500.00
304-02005	Aggregate Base Course (Class 2) (8 inch)	CY	1356		\$50.00	\$67,800.00
304-06007	Aggregate Base Course (Class 6) (4 inch)	CY	668		\$60.00	\$40,080.00
403-34721	Hot Mix Asphalt (6 inch)	TON	2024		\$110.00	\$222,640.00
608-00000	Concrete Sidewalk	SY	1415		\$50.00	\$70,750.00
609-21023	Curb and Gutter Type 2 (Section II-B) (Special)	LF	3105		\$25.00	\$77,625.00
625-00000	Mobilization	LS	1		\$15,000.00	\$15,000.00
603-XXXXX	Storm Drain	LF	1130		\$160.00	\$180,800.00
614-XXXXX	Signing	LS	1		\$5,000.00	\$5,000.00
627-00002	Thermoplastic Pavement Marking	SF	1830		\$15.00	\$27,447.75
700-70010	F/ A Minor Contract Revisions = 15%	LS	1		\$134,570.66	\$134,570.66
TOTAL CONSTRUCTION COST						\$1,031,708.41



EAST OAK DRIVE BAYFIELD ALTERNATIVE ALIGNMENT #3

14-Aug-19

BID TABULATION SHEET

NUMBER	CONTRACT ITEM	UNIT	QUANTITY	QUANTITY	UNIT COST	TOTAL COST
201-00000	Clearing & Grubbing	LS	1		\$1,000.00	\$1,000.00
203-00010	Unclassified Excavation (Complete In Place)	CY	3550		\$10.00	\$35,500.00
203-00060	Embankment Material (Complete In Place)	CY	11000		\$12.00	\$132,000.00
207-00205	Topsoil	CY	807		\$15.00	\$12,105.00
208-00002	Erosion Logs (12")	LF	400		\$5.00	\$2,000.00
208-00020	Silt Fence	LF	3000		\$2.00	\$6,000.00
212-00006	Seeding (Native)	ACRE	1.5		\$2,000.00	\$3,000.00
212-00032	Soil Conditioning	ACRE	1.5		\$2,000.00	\$3,000.00
213-00011	Mulching (Hydraulic)	ACRE	1.5		\$2,500.00	\$3,750.00
304-02005	Aggregate Base Course (Class 2) (8 inch)	CY	1473		\$50.00	\$73,650.00
304-06007	Aggregate Base Course (Class 6) (4 inch)	CY	726		\$60.00	\$43,560.00
403-34721	Hot Mix Asphalt (6 inch)	TON	2199		\$110.00	\$241,890.00
608-00000	Concrete Sidewalk	SY	1406		\$50.00	\$70,300.00
609-21023	Curb and Gutter Type 2 (Section II-B) (Special)	LF	3882		\$25.00	\$97,050.00
625-00000	Mobilization	LS	1		\$15,000.00	\$15,000.00
603-XXXXX	Storm Drain	LF	1130		\$160.00	\$180,800.00
614-XXXXX	Signing	LS	1		\$5,000.00	\$5,000.00
627-00002	Thermoplastic Pavement Marking	SF	1678		\$15.00	\$25,170.75
700-70010	F/ A Minor Contract Revisions = 15%	LS	1		\$142,616.36	\$142,616.36
TOTAL CONSTRUCTION COST						\$1,093,392.11



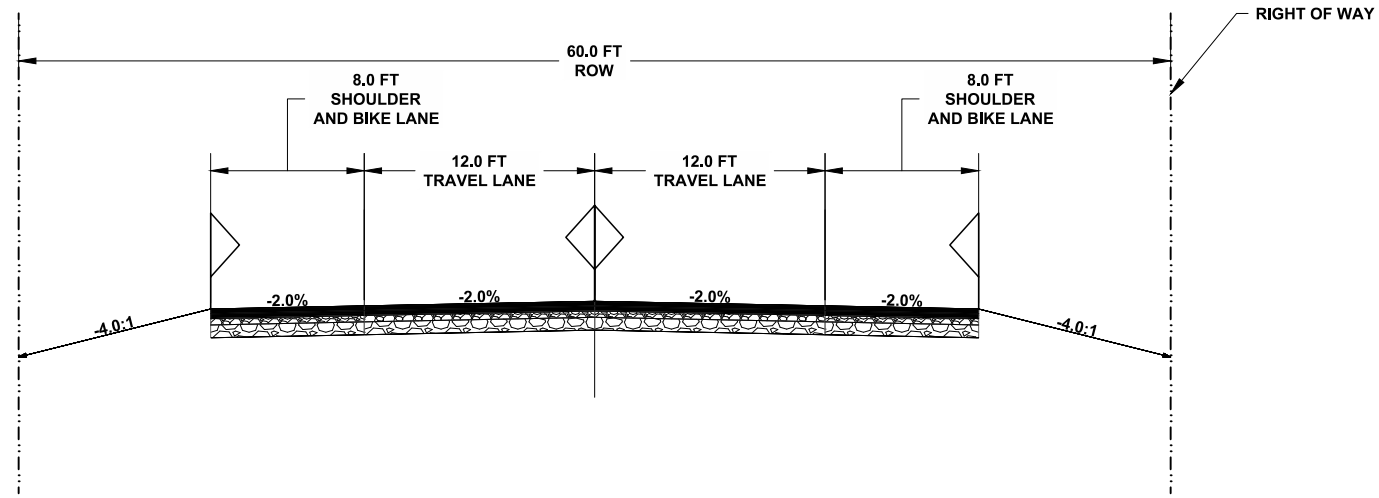
EAST OAK DRIVE BAYFIELD ALTERNATIVE ALIGNMENT #4

14-Aug-19

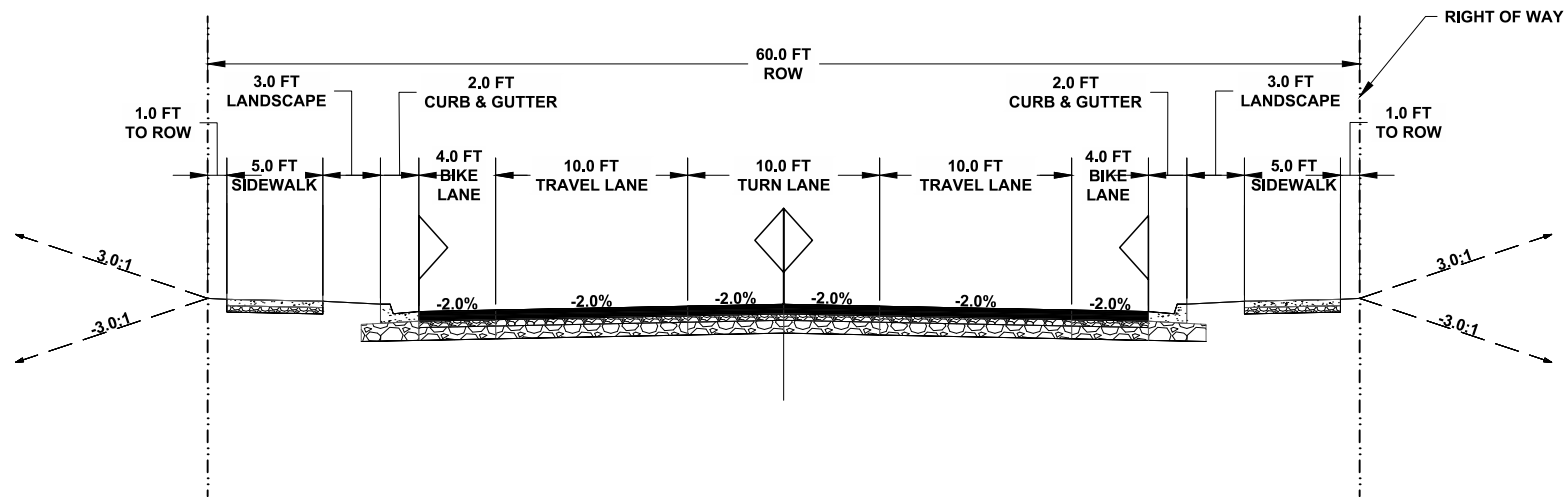
BID TABULATION SHEET

NUMBER	CONTRACT ITEM	UNIT	QUANTITY	QUANTITY	UNIT COST	TOTAL COST
201-00000	Clearing & Grubbing	LS	1		\$1,000.00	\$1,000.00
203-00010	Unclassified Excavation (Complete In Place)	CY	3450		\$10.00	\$34,500.00
203-00060	Embankment Material (Complete In Place)	CY	10500		\$12.00	\$126,000.00
207-00205	Topsoil	CY	753		\$15.00	\$11,295.00
208-00002	Erosion Logs (12")	LF	400		\$5.00	\$2,000.00
208-00020	Silt Fence	LF	2500		\$2.00	\$5,000.00
212-00006	Seeding (Native)	ACRE	1.4		\$2,000.00	\$2,800.00
212-00032	Soil Conditioning	ACRE	1.4		\$2,000.00	\$2,800.00
213-00011	Mulching (Hydraulic)	ACRE	1.4		\$2,500.00	\$3,500.00
304-02005	Aggregate Base Course (Class 2) (8 inch)	CY	1345		\$50.00	\$67,250.00
304-06007	Aggregate Base Course (Class 6) (4 inch)	CY	663		\$60.00	\$39,780.00
403-34721	Hot Mix Asphalt (6 inch)	TON	2008		\$110.00	\$220,880.00
608-00000	Concrete Sidewalk	SY	1286		\$50.00	\$64,300.00
609-21023	Curb and Gutter Type 2 (Section II-B) (Special)	LF	3074		\$25.00	\$76,850.00
625-00000	Mobilization	LS	1		\$15,000.00	\$15,000.00
603-XXXXX	Storm Drain	LF	1130		\$160.00	\$180,800.00
614-XXXXX	Signing	LS	1		\$5,000.00	\$5,000.00
627-00002	Thermoplastic Pavement Marking	SF	1830		\$15.00	\$27,447.75
700-70010	F/ A Minor Contract Revisions = 15%	LS	1		\$132,930.41	\$132,930.41
TOTAL CONSTRUCTION COST						\$1,019,133.16

APPENDIX D – TYPICAL SECTIONS



EAST OAK DR- EXISTING SECTION



EAST OAK DR - PROP 3-LANE SECTION

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG



REVISIONS:

U.S. 160 - BAYFIELD EAST
HIGHWAY IMPROVEMENTS
EAST OAK DR - TYPICAL SECTIONS

Short Elliott
Hendrickson, Inc.
994 Main Avenue, Unit C
Durango, Colorado 81301
Phone: (970) 385-4546
Fax: (970) 385-4502



Drawn: AM
Drafted: AM
Checked: JH

Date of Submittal
8/14/2019

1 OF ----

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CONCEPTUAL