

To: El Paso County
Planning & Development

From: Brian Horan, PE, PTOE
Cooper Riddell-Brosig
Galloway

Date: May 27, 2026

Re: **The Markets at Bent Grass
Roundabout Analysis Memorandum**



INTRODUCTION

The intent of this memorandum is to respond to a comment provided by El Paso County on The Markets at Bent Grass Master Traffic Impact Study (MTIS) completed in March 2026 by SM Rocha. The comment provided by El Paso County stated “provide roundabout parameters table and exhibits including fastest path speeds and differentials, dimensions, widths, view angles, etc. Discuss specific needs and examples with staff. Include design vehicle and WB-67 tracking exhibits.” The following memorandum will address this comment with a roundabout analysis provided herein.

BACKGROUND

This memorandum provides the results of a roundabout analysis performed in support of the MTIS for The Markets at Bent Grass. MTIS excerpts are provided in Attachment I. The proposed roundabout is located approximately 400 feet north of Woodmen Road along the future Switchgrass Drive. Figure 1 shows the location of this roundabout with a star. The site plan along with roundabout design exhibits are provided in Attachment II.

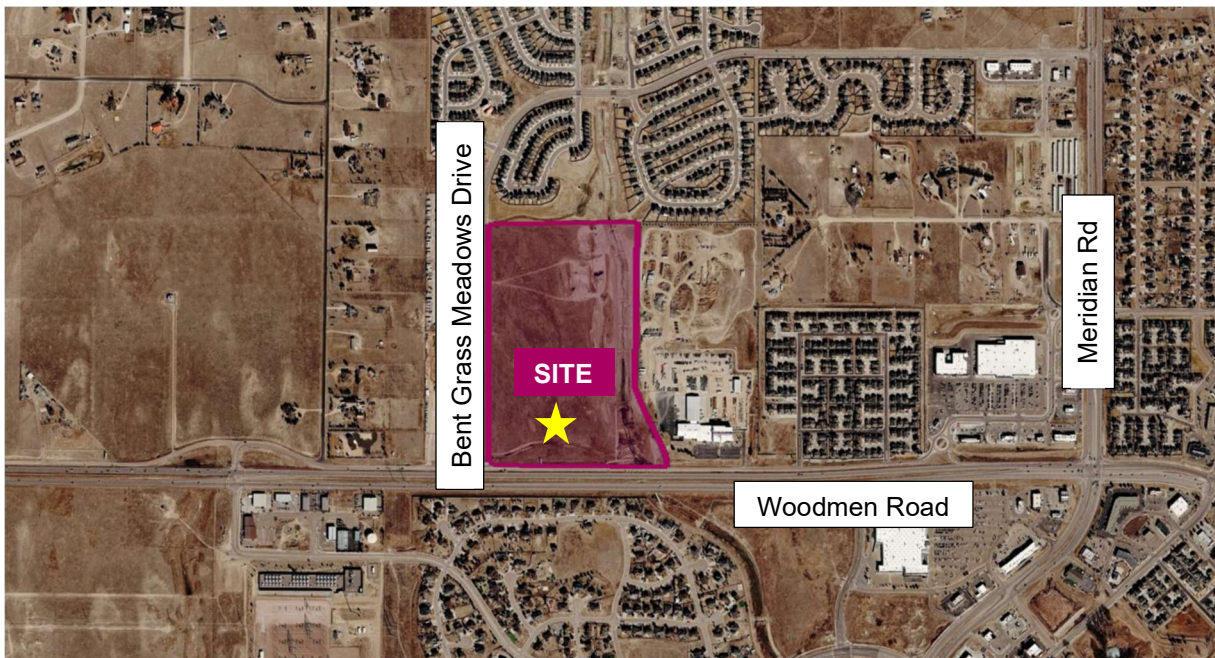


Figure 1 – Site Location

ROUNDABOUT ANALYSIS

Roundabout operations have been confirmed via Sidra and can be seen in Table 1. Sidra results sheets have been provided in Attachment III. The roundabout parameters, fastest path diagrams, and vehicle tracking diagrams are provided in Attachment IV as requested. The roundabout has been evaluated using the WB-67 design vehicle to confirm adequate operations for heavy vehicles within this roundabout for all directions of travel.

Table 1
 The Markets at Bent Grass Roundabout Analysis - El Paso County, CO
 Total Future Intersection Level of Service Summary⁽¹⁾

Intersection	Operating Condition	Street Name	Approach/ Movement	Total Future 2030		Total Future 2045	
				AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1 Bent Grass Meadows Drive & Switchgrass Drive	ROUNDABOUT	Bent Grass Meadows Drive	EBLTR	A [8.8]	B [12.0]	B [10.5]	A [6.8]
		Bent Grass Meadows Drive	WBLTR	A [7.3]	B [11.6]	A [8.3]	B [14.5]
		Switchgrass Drive	NBLT	A [4.9]	A [6.2]	A [5.2]	A [6.8]
		Switchgrass Drive	NBR	A [0.0]	A [0.0]	A [0.0]	A [0.1]
		Switchgrass Drive	SBLTR	A [6.0]	A [9.8]	A [6.6]	B [11.6]
		Overall		A [6.2]	A [7.9]	A [7.0]	A [7.5]

Notes : (1) Numbers in brackets [] represent delay at unsignalized intersections in seconds per vehicle.

CONCLUSION

As shown in Table 1, the proposed intersection of Bent Grass Meadows Drive & Switchgrass Drive is expected to operate with acceptable overall level of service “A” during the 2030 and 2045 weekday AM and PM Peak hours. The proposed roundabout would accommodate the anticipated demand and operate adequately as designed.

We trust that the information contained herein satisfies the comment from El Paso County, CO. If you have any questions or need further information, please contact Brian Horan at BrianHoran@gallowayus.com or 303-770-8884.

The Markets at Bent Grass
El Paso County, CO

Attachment I

MTIS Excerpts

MASTER TRAFFIC IMPACT STUDY

For

The Markets at Bent Grass
El Paso County, Colorado
(EPC No.: CR-26-01, SP-26-02)

March 2026
Revised: May 2026

Prepared for:

Evergreen
2390 East Camelback Road, Suite 140
Phoenix, AZ 85016

Prepared by:



SM ROCHA, LLC

TRAFFIC & TRANSPORTATION ENGINEERING CONSULTANTS

8700 Turnpike Drive, Suite 240
Westminster, Colorado 80031
(303) 458-9798

6 South Tejon Street, Suite 618
Colorado Springs, Colorado 80903
(719) 203-6639

Project Manager/Engineer:
Mike Rocha, Principal
Brandon Wilson, PE

Engineer in Responsible Charge:
Fred Lantz, PE



25-022358



Figure 1
SITE LOCATION

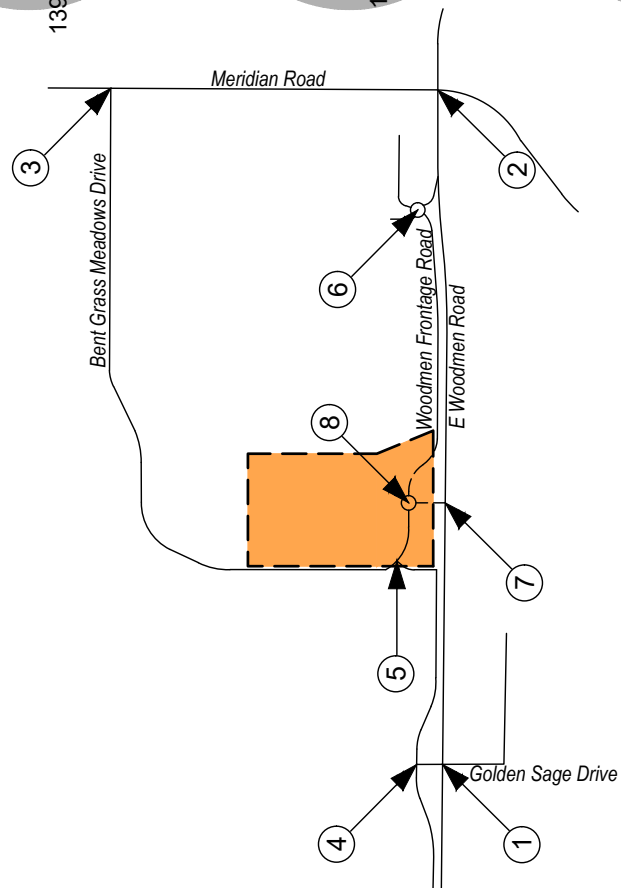
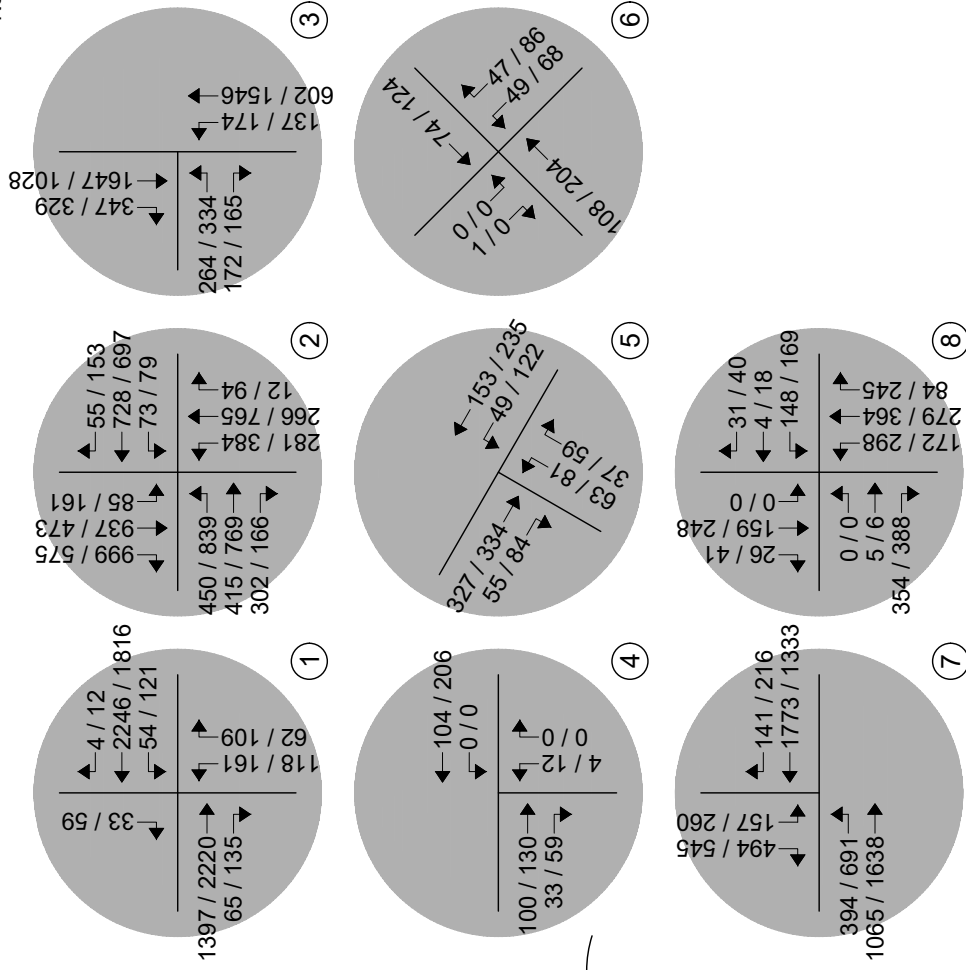
THE MARKETS AT BENT GRASS
Traffic Impact Study

SM ROCHA, LLC
Traffic & Transportation Engineering Consultants





Not to Scale



LEGEND

- Study Intersection
- Volumes
- Development Site

Figure 7A
TOTAL TRAFFIC - YEAR 2030
 Intersection Volumes
 AM / PM Peak Hour

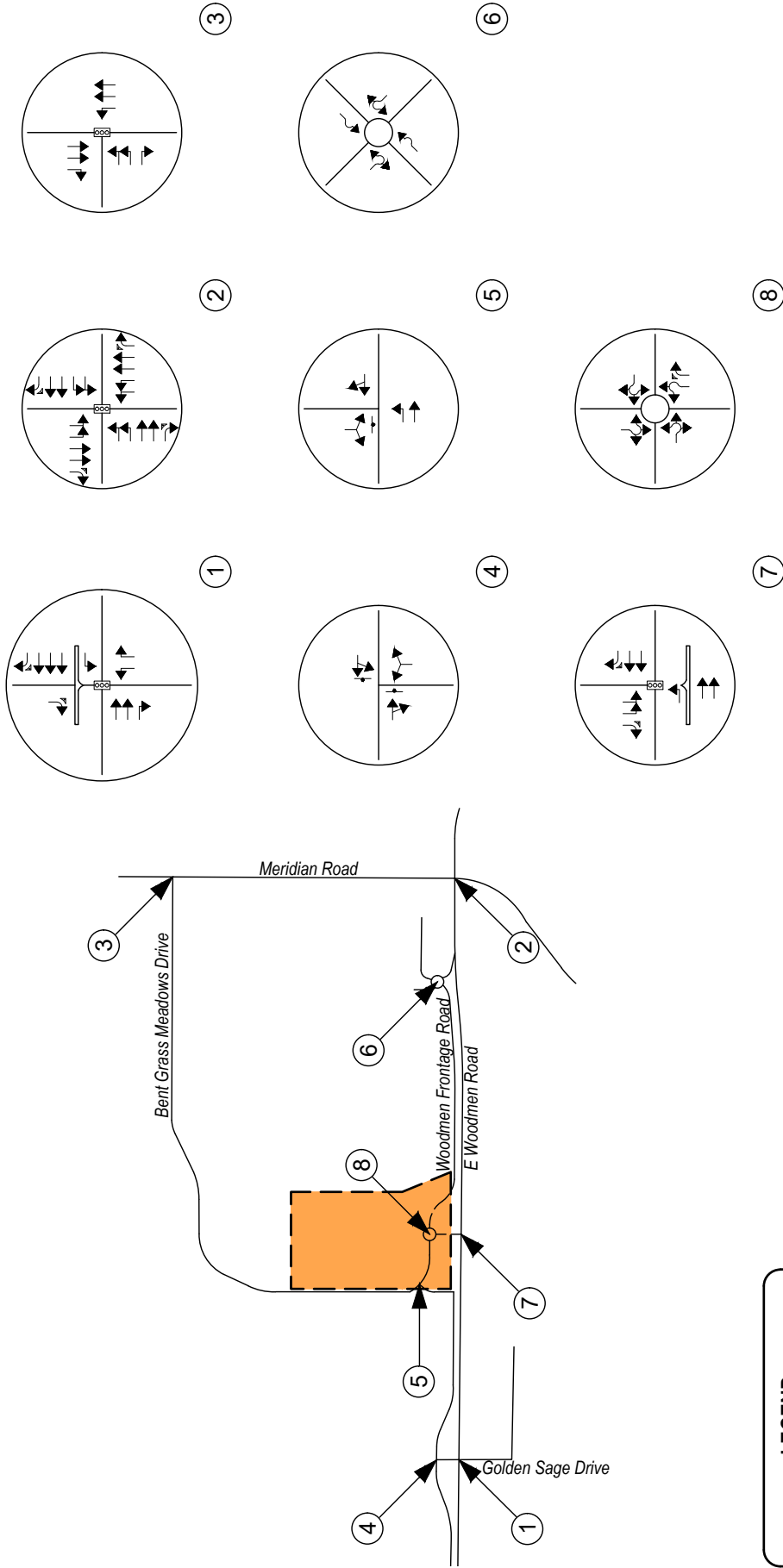
THE MARKETS AT BENT GRASS
 Traffic Impact Study






SM ROCHA, LLC
 Traffic & Transportation Engineering Consultants



Not to Scale



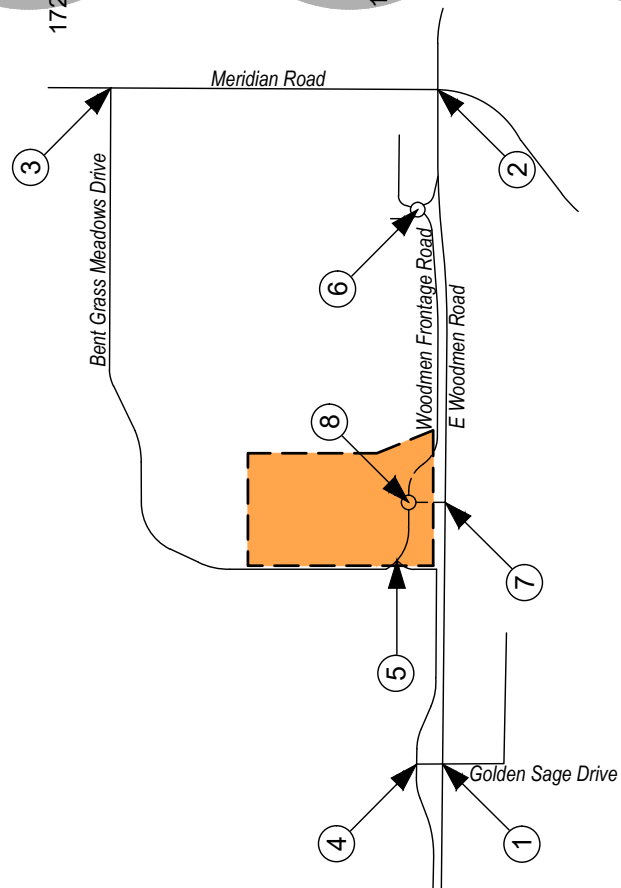
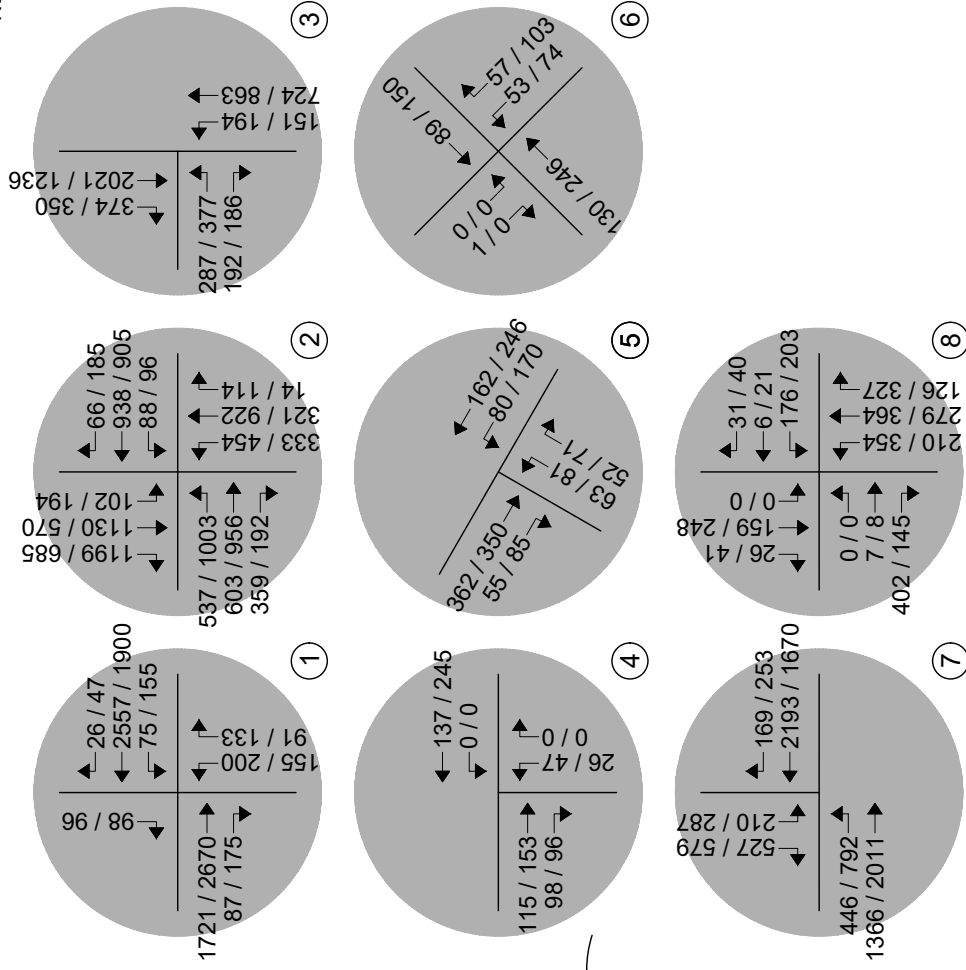
LEGEND

-  Study Intersection
-  Lane Geometry
-  Development Site





Not to Scale



LEGEND

- Study Intersection Volumes
- Development Site

THE MARKETS AT BENT GRASS
Traffic Impact Study

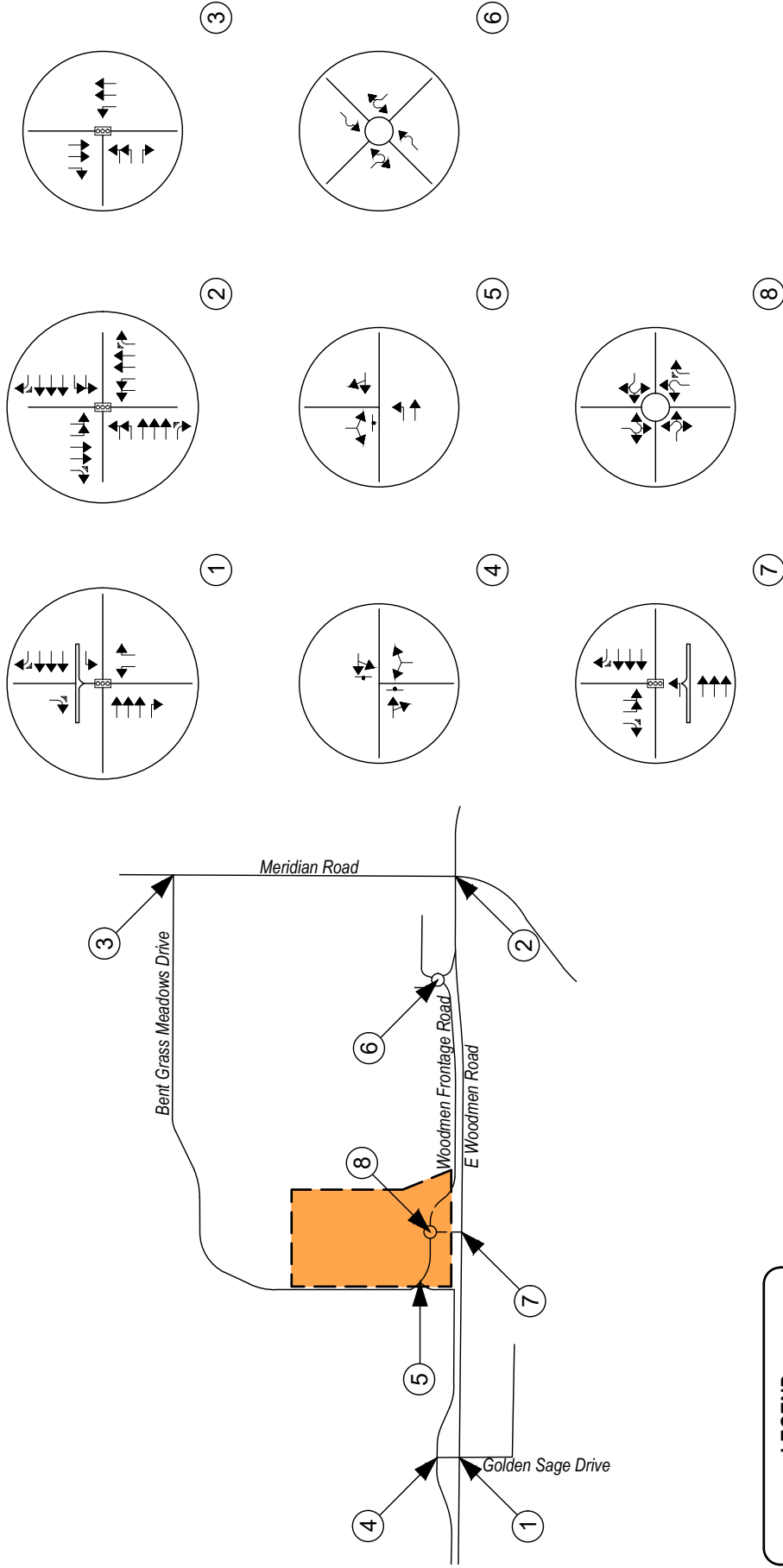


SM ROCHA, LLC
Traffic & Transportation Engineering Consultants


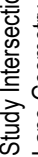

Figure 8A
TOTAL TRAFFIC - YEAR 2045
Intersection Volumes
AM / PM Peak Hour



Not to Scale



LEGEND

-  Study Intersection
-  Lane Geometry
-  Development Site



The Markets at Bent Grass
El Paso County, CO

Attachment II

Site Plan & Roundabout Design Excerpts

THE MARKETS AT BENT GRASS

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 1 TOWNSHIP 13 SOUTH,
RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION



PARCEL AREA TABLE			
PARCEL	AREA (AC)	USE	OWNERSHIP & MAINTENANCE
LOT 1	11.89	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 2	10.33	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 3	1.29	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 4	1.45	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 5	0.94	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 6	0.88	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 7	0.89	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 8	1.28	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 9	1.10	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 10	0.78	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 11	0.72	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 12	2.46	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 13	1.71	COMMERCIAL DEVELOPMENT	LOT OWNER
LOT 14	1.37	COMMERCIAL DEVELOPMENT	LOT OWNER
TRACT A	10.94	DRAINAGE CHANNEL	EL PASO COUNTY
TRACT B	1.00	OPEN SPACE	BENT GRASS METRO DISTRICT #2
TRACT C	1.37	DRAINAGE	BENT GRASS METRO DISTRICT #2
TRACT D	0.44	DRAINAGE/PEDESTRIAN ACCESS	BENT GRASS METRO DISTRICT #2
TRACT E	0.38	PRIVATE ROADWAY	BENT GRASS METRO DISTRICT #2
PR PUBLIC R.O.W.	2.75	PUBLIC R.O.W.	EL PASO COUNTY
TOTAL ACERAGE	53.91		

PROPOSED EASEMENT AREA TABLE		
TYPE	AREA (AC)	OWNERSHIP & MAINTENANCE
GENERAL UTILITY	11.89	BENT GRASS METRO DISTRICT #2
PUBLIC IMPROVEMENT	10.33	BENT GRASS METRO DISTRICT #2
PUBLIC ACCESS	1.29	BENT GRASS METRO DISTRICT #2
WATER UTILITY	1.45	WHD
ELECTRIC UTILITY	0.94	MVEA

LEGEND	
	SIGHT DISTANCE LINE - 35 MPH (POSTED)
	SIGHT DISTANCE LINE - 25 MPH (POSTED)
	PROPERTY BOUNDARY LINE
	ADJACENT PROPERTY BOUNDARY LINE
	RIGHT OF WAY BOUNDARY LINE
	ROAD CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	BUILDING SETBACK LINE
	LANDSCAPE SETBACK LINE
	100YR - EFFECTIVE 100 YEAR FLOOD PLAN
	100YR - CORRECTED 100 YEAR FLOOD PLAN
	PROPOSED PAN FLOWLINE
	PROPOSED CURB AND GUTTER
	EXISTING CURB AND GUTTER
	FUTURE CURB AND GUTTER FLOWLINE
	PUBLIC RIGHT-OF-WAY
	FUTURE SDP DRIVE AISLE

NOTES
TRACT A IS INCLUSIVE OF THE OF THE EXISTING CHANNEL. THIS DEVELOPMENT IS EXCLUSIVE OF ANY IMPROVEMENTS IN TRACT A, WITH THE EXCEPTION OF POTENTIAL STORM DRAIN DISCHARGE LOCATIONS. THIS DEVELOPMENT DOES NOT PROPOSE ANY CHANNEL IMPROVEMENTS OR SIGNIFICANT DISTURBANCE WITHIN THE CHANNEL (TRACT A).

OWNER OF RECORD
LENA GAL CASE
119 N WAINSWORTH AVE
COLORADO SPRINGS, CO 80903

OWNER OF RECORD
CYNTHIA DEYOUNG
10924 E HIGHWAY 24
PEYTON, CO 80831

APPLICANT
EVERGREEN DEVCO, INC.
1873 SOUTH BELLAIRE ST., SUITE 1200
DENVER, CO 80222
TEL: (303) 757-0414

PLAN PREPARER
JEFFREY ODOR
GALLOWAY & CO. LLC
1155 KELLY JOHNSON BLVD., SUITE 305
COLORADO SPRINGS, CO, 80920
TEL: (719) 308-2519

BASED ON SURVEY PERFORMED BY GALLOWAY & COMPANY, LLC ON 07/01/2025

PRELIMINARY PLAN
THE MARKETS AT BENT GRASS
EVERGREEN DEVELOPMENT
EPC FILE #: SP262

NEC OF WOODMEN RD. & BENT GRASS MEADOWS DR.
FALCON, COLORADO

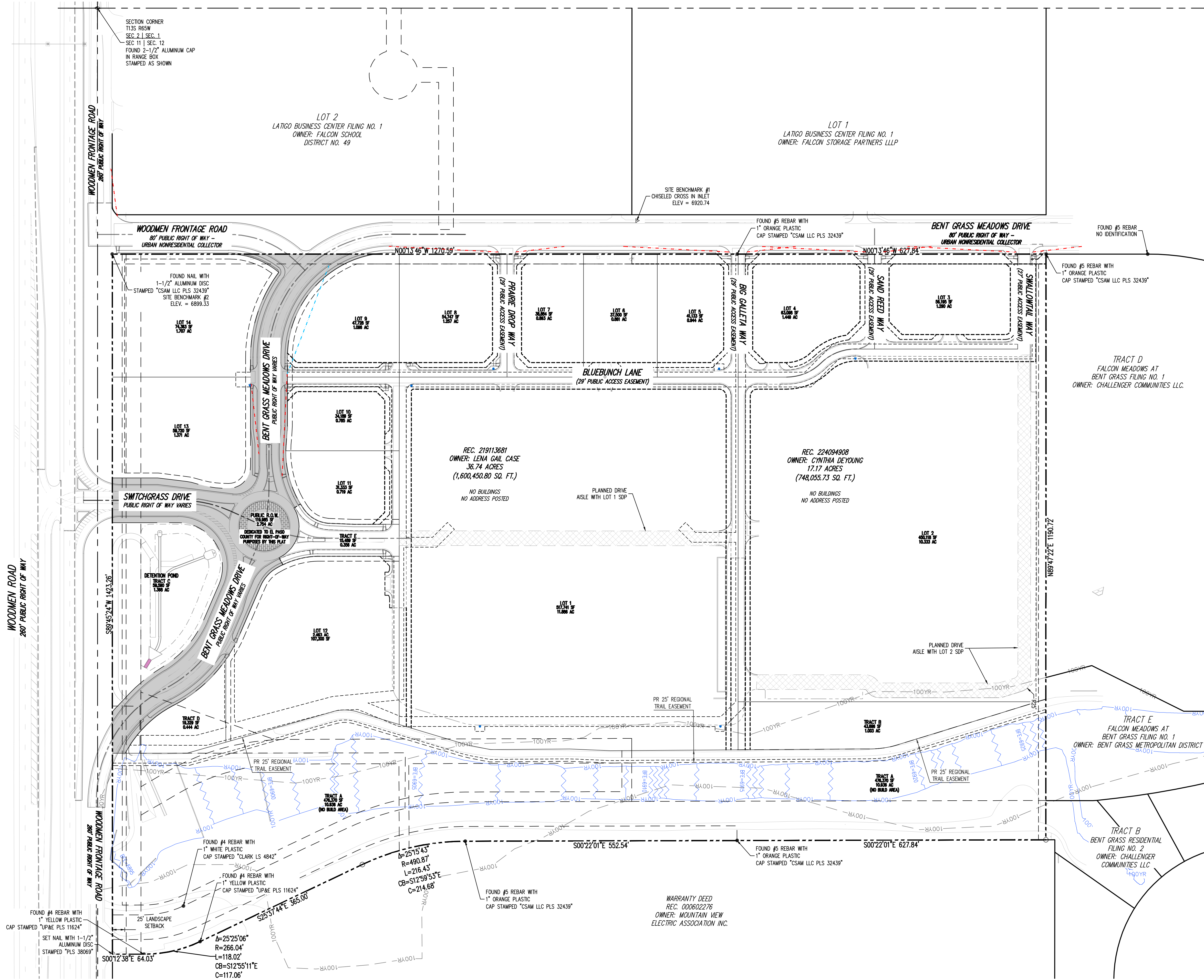
#	Date	Issue / Description	Int.
1	03/04/2025	1ST PRELIMINARY PLAN SUBMITTAL	

Project No: EDI02
Drawn By: ELB, AGC
Checked By: JAO, TJE, CMVJ
Date: 05/22/2025

LOT & TRACT PLAN

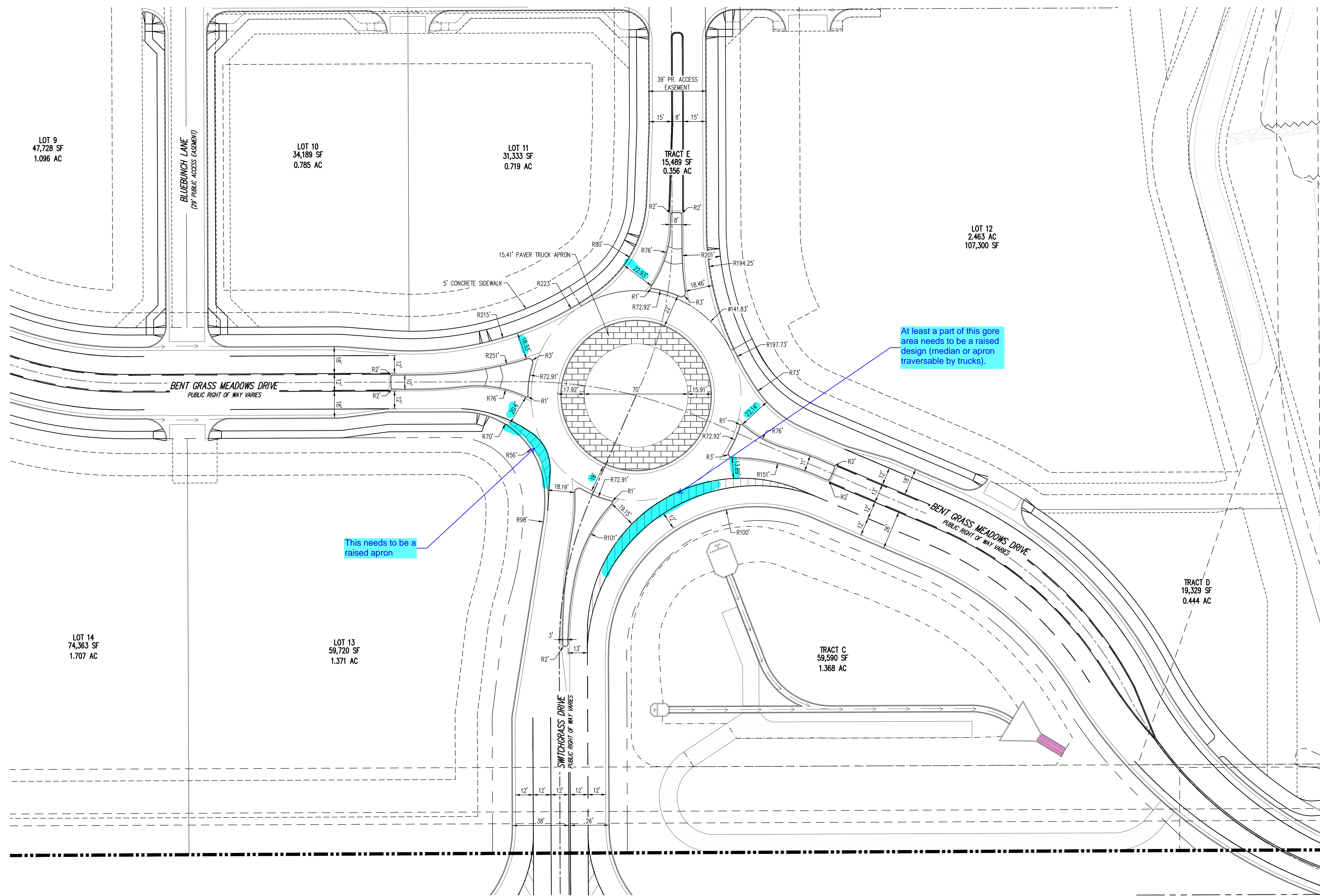
SP262

PP-3
3 OF 12



SITE LEGEND

- OVERALL PROPERTY BOUNDARY LINE
- PROPERTY BOUNDARY LINE
- ADJACENT PROPERTY BOUNDARY LINE
- RIGHT OF WAY BOUNDARY LINE
- ROAD CENTERLINE
- - - EXISTING EASEMENT LINE
- - - PROPOSED EASEMENT LINE
- - - BUILDING SETBACK LINE
- - - LANDSCAPE SETBACK LINE
- - - PROPOSED SAWTOOTH LINE
- - - PROPOSED FLOW PATH
- - - EXISTING TO REMAIN
- - - PROPOSED NEW
- - - PROPOSED EDGE OF ASPHALT
- - - PROPOSED EDGE OF GRAVEL
- - - PROPOSED CURB AND GUTTER
- - - PROPOSED SPILL CURB AND GUTTER
- - - PROPOSED FIRE LANE CURB PAINT
- - - EXISTING CURB AND GUTTER



This needs to be a raised apron

At least a part of this gore area needs to be a raised design (median or apron traversable by trucks).



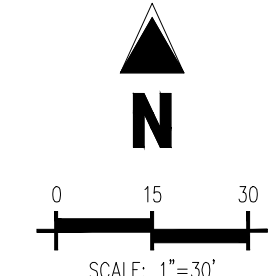
THE MARKETS AT BENT GRASS

EVERGREEN DEVELOPMENT

ROUNABOUT LAYOUT

05/26/2026

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The Markets at Bent Grass
El Paso County, CO

Attachment III

Sidra Results Pages

LANE SUMMARY

Site: [1] Total Future 2030 AM (Bent Grass Meadows Drive & Switchgrass Drive)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout

Site Category: (None)

Roundabout

Site Scenario: 1 | Local Volumes

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						veh/h	v/c				
South: Switchgrass Drive															
Lane 1 ^d	504	2.0	504	2.0	1383	0.364	100	4.9	LOS A	2.2	54.8	Full	1600	0.0	0.0
Lane 2	91	2.0	91	2.0	1642	0.056	100	0.0	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	595	2.0	595	2.0		0.364		4.1	LOS A	2.2	54.8				
East: Bent Grass Meadows Drive															
Lane 1 ^d	199	2.0	199	2.0	792	0.251	100	7.3	LOS A	1.1	28.2	Full	1600	0.0	0.0
Approach	199	2.0	199	2.0		0.251		7.3	LOS A	1.1	28.2				
North: Switchgrass Drive															
Lane 1 ^d	202	2.0	202	2.0	932	0.217	100	6.0	LOS A	1.0	25.1	Full	1600	0.0	0.0
Approach	202	2.0	202	2.0		0.217		6.0	LOS A	1.0	25.1				
West: Bent Grass Meadows Drive															
Lane 1 ^d	418	2.0	418	2.0	950	0.440	100	8.8	LOS A	2.5	63.2	Full	1600	0.0	0.0
Approach	418	2.0	418	2.0		0.440		8.8	LOS A	2.5	63.2				
All Vehicles	1415	2.0	1415	2.0		0.440		6.2	LOS A	2.5	63.2				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Switchgrass Drive											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From S						Cap. veh/h	v/c	%	%		
To Exit:	W	N	E								
Lane 1	187	317	-	504	2.0	1383	0.364	100	NA	NA	
Lane 2	-	-	91	91	2.0	1642	0.056	100	NA	NA	
Approach	187	317	91	595	2.0		0.364				
East: Bent Grass Meadows Drive											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From E						Cap. veh/h	v/c	%	%		
To Exit:	S	W	N								
Lane 1	161	4	34	199	2.0	792	0.251	100	NA	NA	

Approach	161	4	34	199	2.0		0.251			
North: Switchgrass Drive										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From N						Cap. veh/h	v/c	%	%	
To Exit:	E	S	W							
Lane 1	1	173	28	202	2.0	932	0.217	100	NA	NA
Approach	1	173	28	202	2.0		0.217			
West: Bent Grass Meadows Drive										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W						Cap. veh/h	v/c	%	%	
To Exit:	N	E	S							
Lane 1	1	5	412	418	2.0	950	0.440	100	NA	NA
Approach	1	5	412	418	2.0		0.440			
Total %HV Deg.Satn (v/c)										
All Vehicles	1415	2.0		0.440						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	Merge Queue [Veh]	Queue Dist ft
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There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Switchgrass Drive				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Bent Grass Meadows Drive				
Lane 1	0.0	0.0	0.0	0.0
North: Switchgrass Drive				
Lane 1	0.0	0.0	0.0	0.0
West: Bent Grass Meadows Drive				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: [1 (2)] Total Future 2030 PM (Bent Grass Meadows Drive & Switchgrass Drive)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout
Site Category: (None)
Roundabout

Site Scenario: 1 | Local Volumes

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						veh/h	v/c				
South: Switchgrass Drive															
Lane 1 ^d	738	2.0	738	2.0	1381	0.534	100	6.2	LOS A	4.3	108.9	Full	1600	0.0	0.0
Lane 2	266	2.0	266	2.0	1642	0.162	100	0.0	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1004	2.0	1004	2.0		0.534		4.6	LOS A	4.3	108.9				
East: Bent Grass Meadows Drive															
Lane 1 ^d	247	2.0	247	2.0	618	0.400	100	11.6	LOS B	2.0	51.7	Full	1600	0.0	0.0
Approach	247	2.0	247	2.0		0.400		11.6	LOS B	2.0	51.7				
North: Switchgrass Drive															
Lane 1 ^d	315	2.0	315	2.0	774	0.407	100	9.8	LOS A	2.2	57.0	Full	1600	0.0	0.0
Approach	315	2.0	315	2.0		0.407		9.8	LOS A	2.2	57.0				
West: Bent Grass Meadows Drive															
Lane 1 ^d	459	2.0	459	2.0	836	0.549	100	12.0	LOS B	4.4	112.5	Full	1600	0.0	0.0
Approach	459	2.0	459	2.0		0.549		12.0	LOS B	4.4	112.5				
All Vehicles	2025	2.0	2025	2.0		0.549		7.9	LOS A	4.4	112.5				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Switchgrass Drive											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From S						Cap. veh/h	v/c	%	%		
To Exit:	W	N	E								
Lane 1	324	414	-	738	2.0	1381	0.534	100	NA	NA	
Lane 2	-	-	266	266	2.0	1642	0.162	100	NA	NA	
Approach	324	414	266	1004	2.0		0.534				
East: Bent Grass Meadows Drive											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From E						Cap. veh/h	v/c	%	%		
To Exit:	S	W	N								
Lane 1	184	20	43	247	2.0	618	0.400	100	NA	NA	

Approach	184	20	43	247	2.0		0.400			
North: Switchgrass Drive										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From N						Cap. veh/h	v/c	%	%	
To Exit:	E	S	W							
Lane 1	1	270	45	315	2.0	774	0.407	100	NA	NA
Approach	1	270	45	315	2.0		0.407			
West: Bent Grass Meadows Drive										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W						Cap. veh/h	v/c	%	%	
To Exit:	N	E	S							
Lane 1	1	7	451	459	2.0	836	0.549	100	NA	NA
Approach	1	7	451	459	2.0		0.549			
Total %HV Deg.Satn (v/c)										
All Vehicles	2025	2.0		0.549						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	Merge Queue [Veh]	Queue Dist [ft]
------------------	----------------------	------------------------	--------------------------	-------	------------------	-----------------------	----------------------	----------------	---------------	----------------	-----------------	---------------------	-------------------

There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Switchgrass Drive				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Bent Grass Meadows Drive				
Lane 1	0.0	0.0	0.0	0.0
North: Switchgrass Drive				
Lane 1	0.0	0.0	0.0	0.0
West: Bent Grass Meadows Drive				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: [1 (3)] Total Future 2045 AM (Bent Grass Meadows Drive & Switchgrass Drive)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout
Site Category: (None)
Roundabout

Site Scenario: 1 | Local Volumes

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						[Veh	Dist]				
	veh/h	%	veh/h	%	veh/h	v/c	%	sec			ft		ft	%	%
South: Switchgrass Drive															
Lane 1 ^d	545	2.0	545	2.0	1380	0.395	100	5.2	LOS A	2.5	62.3	Full	1600	0.0	0.0
Lane 2	137	2.0	137	2.0	1642	0.083	100	0.0	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	682	2.0	682	2.0		0.395		4.2	LOS A	2.5	62.3				
East: Bent Grass Meadows Drive															
Lane 1 ^d	232	2.0	232	2.0	758	0.305	100	8.3	LOS A	1.4	35.0	Full	1600	0.0	0.0
Approach	232	2.0	232	2.0		0.305		8.3	LOS A	1.4	35.0				
North: Switchgrass Drive															
Lane 1 ^d	202	2.0	202	2.0	862	0.235	100	6.6	LOS A	1.1	26.8	Full	1600	0.0	0.0
Approach	202	2.0	202	2.0		0.235		6.6	LOS A	1.1	26.8				
West: Bent Grass Meadows Drive															
Lane 1 ^d	476	2.0	476	2.0	920	0.518	100	10.5	LOS B	4.0	101.5	Full	1600	0.0	0.0
Approach	476	2.0	476	2.0		0.518		10.5	LOS B	4.0	101.5				
All Vehicles	1592	2.0	1592	2.0		0.518		7.0	LOS A	4.0	101.5				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Switchgrass Drive											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From S						Cap. veh/h	v/c	%	%		
To Exit:	W	N	E								
Lane 1	228	317	-	545	2.0	1380	0.395	100	NA	NA	
Lane 2	-	-	137	137	2.0	1642	0.083	100	NA	NA	
Approach	228	317	137	682	2.0		0.395				
East: Bent Grass Meadows Drive											
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.	
From E						Cap. veh/h	v/c	%	%		
To Exit:	S	W	N								
Lane 1	191	7	34	232	2.0	758	0.305	100	NA	NA	

Approach	191	7	34	232	2.0		0.305			
North: Switchgrass Drive										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From N						Cap. veh/h	v/c	%	%	
To Exit:	E	S	W							
Lane 1	1	173	28	202	2.0	862	0.235	100	NA	NA
Approach	1	173	28	202	2.0		0.235			
West: Bent Grass Meadows Drive										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W						Cap. veh/h	v/c	%	%	
To Exit:	N	E	S							
Lane 1	1	8	467	476	2.0	920	0.518	100	NA	NA
Approach	1	8	467	476	2.0		0.518			
Total %HV Deg.Satn (v/c)										
All Vehicles	1592	2.0		0.518						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	Merge Queue [Veh]	Queue Dist ft
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There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Switchgrass Drive				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Bent Grass Meadows Drive				
Lane 1	0.0	0.0	0.0	0.0
North: Switchgrass Drive				
Lane 1	0.0	0.0	0.0	0.0
West: Bent Grass Meadows Drive				
Lane 1	0.0	0.0	0.0	0.0

LANE SUMMARY

Site: [1 (4)] Total Future 2045 PM (Bent Grass Meadows Drive & Switchgrass Drive)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Roundabout
Site Category: (None)
Roundabout

Site Scenario: 1 | Local Volumes

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg. Satn	Lane Util.	Aver. Delay	Level of Service	95% Back Of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	[Total	HV]	[Total	HV]						veh/h	v/c				
South: Switchgrass Drive															
Lane 1 ^d	798	2.0	798	2.0	1378	0.579	100	6.8	LOS A	5.1	130.2	Full	1600	0.0	0.0
Lane 2	355	2.0	355	2.0	1642	0.216	100	0.1	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1154	2.0	1154	2.0		0.579		4.7	LOS A	5.1	130.2				
East: Bent Grass Meadows Drive															
Lane 1 ^d	287	2.0	287	2.0	579	0.496	100	14.5	LOS B	2.9	72.7	Full	1600	0.0	0.0
Approach	287	2.0	287	2.0		0.496		14.5	LOS B	2.9	72.7				
North: Switchgrass Drive															
Lane 1 ^d	315	2.0	315	2.0	695	0.454	100	11.6	LOS B	2.7	67.7	Full	1600	0.0	0.0
Approach	315	2.0	315	2.0		0.454		11.6	LOS B	2.7	67.7				
West: Bent Grass Meadows Drive															
Lane 1 ^d	178	2.0	178	2.0	804	0.222	100	6.8	LOS A	1.0	24.5	Full	1600	0.0	0.0
Approach	178	2.0	178	2.0		0.222		6.8	LOS A	1.0	24.5				
All Vehicles	1934	2.0	1934	2.0		0.579		7.5	LOS A	5.1	130.2				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.

LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglach M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

^d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)											
South: Switchgrass Drive											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From S						Cap.	Satn	Util.	SL Ov.	Lane	
To Exit:	W	N	E			veh/h	v/c	%	%	No.	
Lane 1	385	414	-	798	2.0	1378	0.579	100	NA	NA	
Lane 2	-	-	355	355	2.0	1642	0.216	100	NA	NA	
Approach	385	414	355	1154	2.0		0.579				
East: Bent Grass Meadows Drive											
Mov.	L2	T1	R2	Total	%HV		Deg.	Lane	Prob.	Ov.	
From E						Cap.	Satn	Util.	SL Ov.	Lane	
To Exit:	S	W	N			veh/h	v/c	%	%	No.	
Lane 1	221	23	43	287	2.0	579	0.496	100	NA	NA	

Approach	221	23	43	287	2.0		0.496			
North: Switchgrass Drive										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From N						Cap. veh/h	v/c	%	%	
To Exit:	E	S	W							
Lane 1	1	270	45	315	2.0	695	0.454	100	NA	NA
Approach	1	270	45	315	2.0		0.454			
West: Bent Grass Meadows Drive										
Mov.	L2	T1	R2	Total	%HV		Deg. Satn	Lane Util.	Prob. SL Ov.	Ov. Lane No.
From W						Cap. veh/h	v/c	%	%	
To Exit:	N	E	S							
Lane 1	1	9	169	178	2.0	804	0.222	100	NA	NA
Approach	1	9	169	178	2.0		0.222			
Total %HV Deg.Satn (v/c)										
All Vehicles	1934	2.0		0.579						

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Merge Analysis

Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec	Merge Queue [Veh]	Queue Dist ft
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There are no Exit Short Lanes for Merge Analysis at this Site.

Variable Demand Analysis

	Initial Queued Demand veh	Residual Queued Demand veh	Time for Residual Demand to Clear sec	Duration of Oversatn sec
South: Switchgrass Drive				
Lane 1	0.0	0.0	0.0	0.0
Lane 2	0.0	0.0	0.0	0.0
East: Bent Grass Meadows Drive				
Lane 1	0.0	0.0	0.0	0.0
North: Switchgrass Drive				
Lane 1	0.0	0.0	0.0	0.0
West: Bent Grass Meadows Drive				
Lane 1	0.0	0.0	0.0	0.0

Attachment IV

Roundabout Parameters, Fastest Path Diagrams, and Vehicle Tracking Exhibits

Roundabout Critical Design Parameters

Bent Grass Meadows Drive & Switchgrass Drive
El Paso County, Colorado

Exit widths shouldn't be less than entry widths and entry widths shouldn't be greater than circulating width

Design Parameters	N Leg	S Leg	E Leg	W Leg
Entry Width, ft *	23	19	22	21
Exit Width, ft *	18	18	14	18
Inscribed Circle Diameter, ft *	109	105	106	108
Circulating Roadway Width Upstream of Entry, ft *	21	19	21	18
Truck Apron Width Upstream of Entry, ft **	17	17	16	18

* Widths are measured from curb flange to curb flange

** Width is measured from back of circulatory roadway curb to face of central island curb

Truck apron should be a consistent width

Fastest Speed Path

R ₁ , Radius/Speed, ft/mph	131	19	106	17	217	24	151	20
R ₂ , Radius/Speed, ft/mph	70	14	61	13	60	13	79	15
R ₃ , Radius/Speed, ft/mph	531	38	367	31	340	30	209	24
R ₄ , Radius/Speed, ft/mph	58	13	58	13	58	13	58	13
R ₅ , Radius/Speed, ft/mph	86	15	81	15	90	16	51	12

Stopping Sight Distance

Approach Design Speed, mph	30		30		30		30	
Approach, ft	195		195		195		195	
Circulating, ft/mph	60	13	60	13	60	13	60	13
Crosswalk on Exit, ft/mph	N/A		210	31	200	30	N/A	

Intersection Sight Distance

Vehicle at Entry								
Circulatory Roadway (b2), ft/mph	90	13	90	13	90	13	90	13
Vehicle 50' in Advance of Entry								
Immediate Upstream Entry, ft	120		109		136		128	

Additional Design Parameters

Design Vehicle	WB-67
Circulating Roadway Cross-Slope	-2%
Bicycle & Pedestrian Accommodations	Pedestrian ramps/crossings on north and west leg of roundabout

Fastest Path Summary Table

No.	Eastbound		Westbound		Southbound		Northbound	
	Radius (ft)	Speed (mph)	Radius (ft)	Speed (mph)	Radius (ft)	Speed (mph)	Radius (ft)	Speed (mph)
R1	151	20	217	24	131	19	106	17
R2	79	15	60	13	70	14	61	13
R3	209	24	340	30	531	38	367	31
R4	58	13	58	13	58	13	58	13
R5	51	12	90	16	86	15	81	15

Arm 2 - WOODMEN ACCESS RD.

R1	79	15
R2	79	15
R3	79	15
R4	79	15
R5	79	15
R6	79	15
R7	79	15
R8	79	15
R9	79	15
R10	79	15
R11	79	15
R12	79	15
R13	79	15
R14	79	15
R15	79	15
R16	79	15
R17	79	15
R18	79	15
R19	79	15
R20	79	15
R21	79	15
R22	79	15
R23	79	15
R24	79	15
R25	79	15
R26	79	15
R27	79	15
R28	79	15
R29	79	15
R30	79	15
R31	79	15
R32	79	15
R33	79	15
R34	79	15
R35	79	15
R36	79	15
R37	79	15
R38	79	15
R39	79	15
R40	79	15
R41	79	15
R42	79	15
R43	79	15
R44	79	15
R45	79	15
R46	79	15
R47	79	15
R48	79	15
R49	79	15
R50	79	15
R51	79	15
R52	79	15
R53	79	15
R54	79	15
R55	79	15
R56	79	15
R57	79	15
R58	79	15
R59	79	15
R60	79	15
R61	79	15
R62	79	15
R63	79	15
R64	79	15
R65	79	15
R66	79	15
R67	79	15
R68	79	15
R69	79	15
R70	79	15
R71	79	15
R72	79	15
R73	79	15
R74	79	15
R75	79	15
R76	79	15
R77	79	15
R78	79	15
R79	79	15
R80	79	15
R81	79	15
R82	79	15
R83	79	15
R84	79	15
R85	79	15
R86	79	15
R87	79	15
R88	79	15
R89	79	15
R90	79	15
R91	79	15
R92	79	15
R93	79	15
R94	79	15
R95	79	15
R96	79	15
R97	79	15
R98	79	15
R99	79	15
R100	79	15

Deflection: 7.50 ft

Arm 2 - BENTGRASS MEADOWS DR.

R1	17	12
R2	17	12
R3	17	12
R4	17	12
R5	17	12
R6	17	12
R7	17	12
R8	17	12
R9	17	12
R10	17	12
R11	17	12
R12	17	12
R13	17	12
R14	17	12
R15	17	12
R16	17	12
R17	17	12
R18	17	12
R19	17	12
R20	17	12
R21	17	12
R22	17	12
R23	17	12
R24	17	12
R25	17	12
R26	17	12
R27	17	12
R28	17	12
R29	17	12
R30	17	12
R31	17	12
R32	17	12
R33	17	12
R34	17	12
R35	17	12
R36	17	12
R37	17	12
R38	17	12
R39	17	12
R40	17	12
R41	17	12
R42	17	12
R43	17	12
R44	17	12
R45	17	12
R46	17	12
R47	17	12
R48	17	12
R49	17	12
R50	17	12
R51	17	12
R52	17	12
R53	17	12
R54	17	12
R55	17	12
R56	17	12
R57	17	12
R58	17	12
R59	17	12
R60	17	12
R61	17	12
R62	17	12
R63	17	12
R64	17	12
R65	17	12
R66	17	12
R67	17	12
R68	17	12
R69	17	12
R70	17	12
R71	17	12
R72	17	12
R73	17	12
R74	17	12
R75	17	12
R76	17	12
R77	17	12
R78	17	12
R79	17	12
R80	17	12
R81	17	12
R82	17	12
R83	17	12
R84	17	12
R85	17	12
R86	17	12
R87	17	12
R88	17	12
R89	17	12
R90	17	12
R91	17	12
R92	17	12
R93	17	12
R94	17	12
R95	17	12
R96	17	12
R97	17	12
R98	17	12
R99	17	12
R100	17	12

Deflection: 5.00 ft

Arm 1 - BENTGRASS MEADOWS DR.

R1	17	12
R2	17	12
R3	17	12
R4	17	12
R5	17	12
R6	17	12
R7	17	12
R8	17	12
R9	17	12
R10	17	12
R11	17	12
R12	17	12
R13	17	12
R14	17	12
R15	17	12
R16	17	12
R17	17	12
R18	17	12
R19	17	12
R20	17	12
R21	17	12
R22	17	12
R23	17	12
R24	17	12
R25	17	12
R26	17	12
R27	17	12
R28	17	12
R29	17	12
R30	17	12
R31	17	12
R32	17	12
R33	17	12
R34	17	12
R35	17	12
R36	17	12
R37	17	12
R38	17	12
R39	17	12
R40	17	12
R41	17	12
R42	17	12
R43	17	12
R44	17	12
R45	17	12
R46	17	12
R47	17	12
R48	17	12
R49	17	12
R50	17	12
R51	17	12
R52	17	12
R53	17	12
R54	17	12
R55	17	12
R56	17	12
R57	17	12
R58	17	12
R59	17	12
R60	17	12
R61	17	12
R62	17	12
R63	17	12
R64	17	12
R65	17	12
R66	17	12
R67	17	12
R68	17	12
R69	17	12
R70	17	12
R71	17	12
R72	17	12
R73	17	12
R74	17	12
R75	17	12
R76	17	12
R77	17	12
R78	17	12
R79	17	12
R80	17	12
R81	17	12
R82	17	12
R83	17	12
R84	17	12
R85	17	12
R86	17	12
R87	17	12
R88	17	12
R89	17	12
R90	17	12
R91	17	12
R92	17	12
R93	17	12
R94	17	12
R95	17	12
R96	17	12
R97	17	12
R98	17	12
R99	17	12
R100	17	12

Deflection: 7.00 ft

Arm 1 - WOODMEN ACCESS RD.

R1	17	12
R2	17	12
R3	17	12
R4	17	12
R5	17	12
R6	17	12
R7	17	12
R8	17	12
R9	17	12
R10	17	12
R11	17	12
R12	17	12
R13	17	12
R14	17	12
R15	17	12
R16	17	12
R17	17	12
R18	17	12
R19	17	12
R20	17	12
R21	17	12
R22	17	12
R23	17	12
R24	17	12
R25	17	12
R26	17	12
R27	17	12
R28	17	12
R29	17	12
R30	17	12
R31	17	12
R32	17	12
R33	17	12
R34	17	12
R35	17	12
R36	17	12
R37	17	12
R38	17	12
R39	17	12
R40	17	12
R41	17	12
R42	17	12
R43	17	12
R44	17	12
R45	17	12
R46	17	12
R47	17	12
R48	17	12
R49	17	12
R50	17	12
R51	17	12
R52	17	12
R53	17	12
R54	17	12
R55	17	12
R56	17	12
R57	17	12
R58	17	12
R59	17	12
R60	17	12
R61	17	12
R62	17	12
R63	17	12
R64	17	12
R65	17	12
R66	17	12
R67	17	12
R68	17	12
R69	17	12
R70	17	12
R71	17	12
R72	17	12
R73	17	12
R74	17	12
R75	17	12
R76	17	12
R77	17	12
R78	17	12
R79	17	12
R80	17	12
R81	17	12
R82	17	12
R83	17	12
R84	17	12
R85	17	12
R86	17	12
R87	17	12
R88	17	12
R89	17	12
R90	17	12
R91	17	12
R92	17	12
R93	17	12
R94	17	12
R95	17	12
R96	17	12
R97	17	12
R98	17	12
R99	17	12
R100	17	12

Deflection: 15.00 ft

Apron may be needed to slow entry down

speed differential is high

Dimension the offsets used

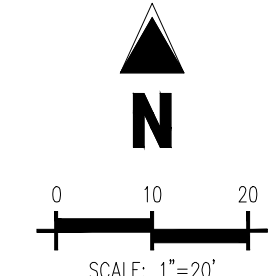


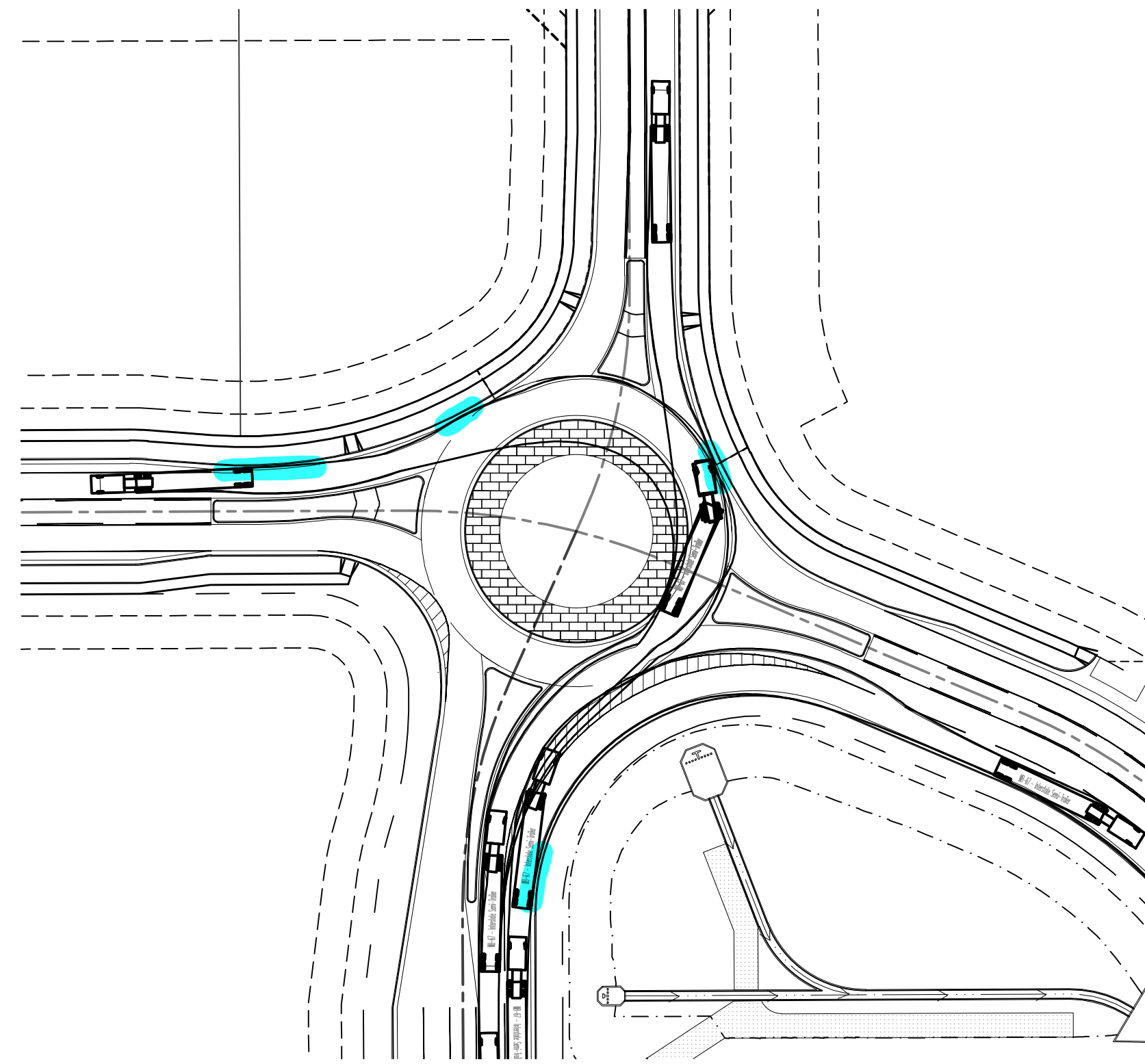
THE MARKETS AT BENT GRASS FASTEST PATH ANALYSIS

EVERGREEN DEVELOPMENT

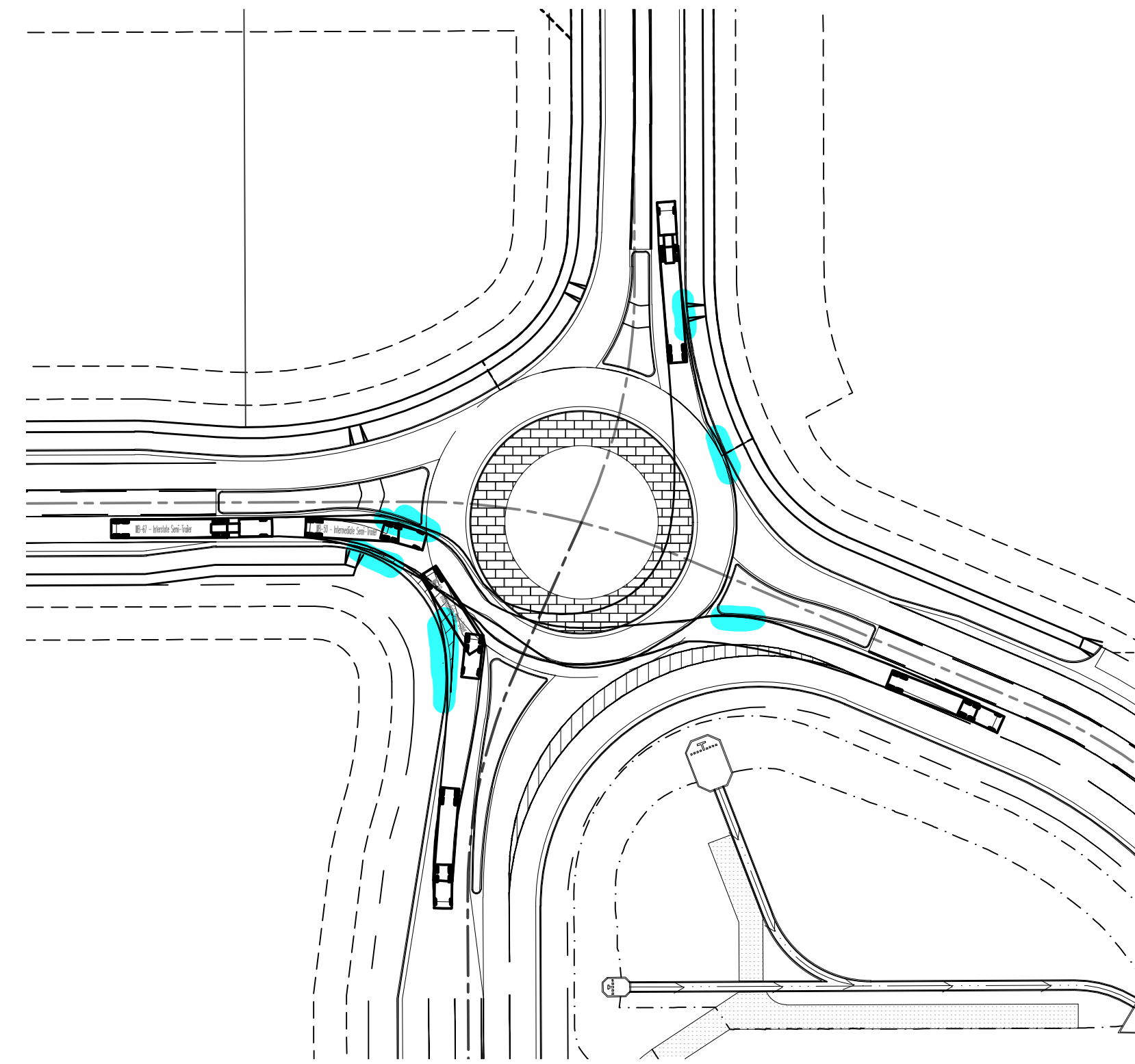
This information is copyrighted by Galloway & Company, Inc. All rights reserved.

05/26/2026



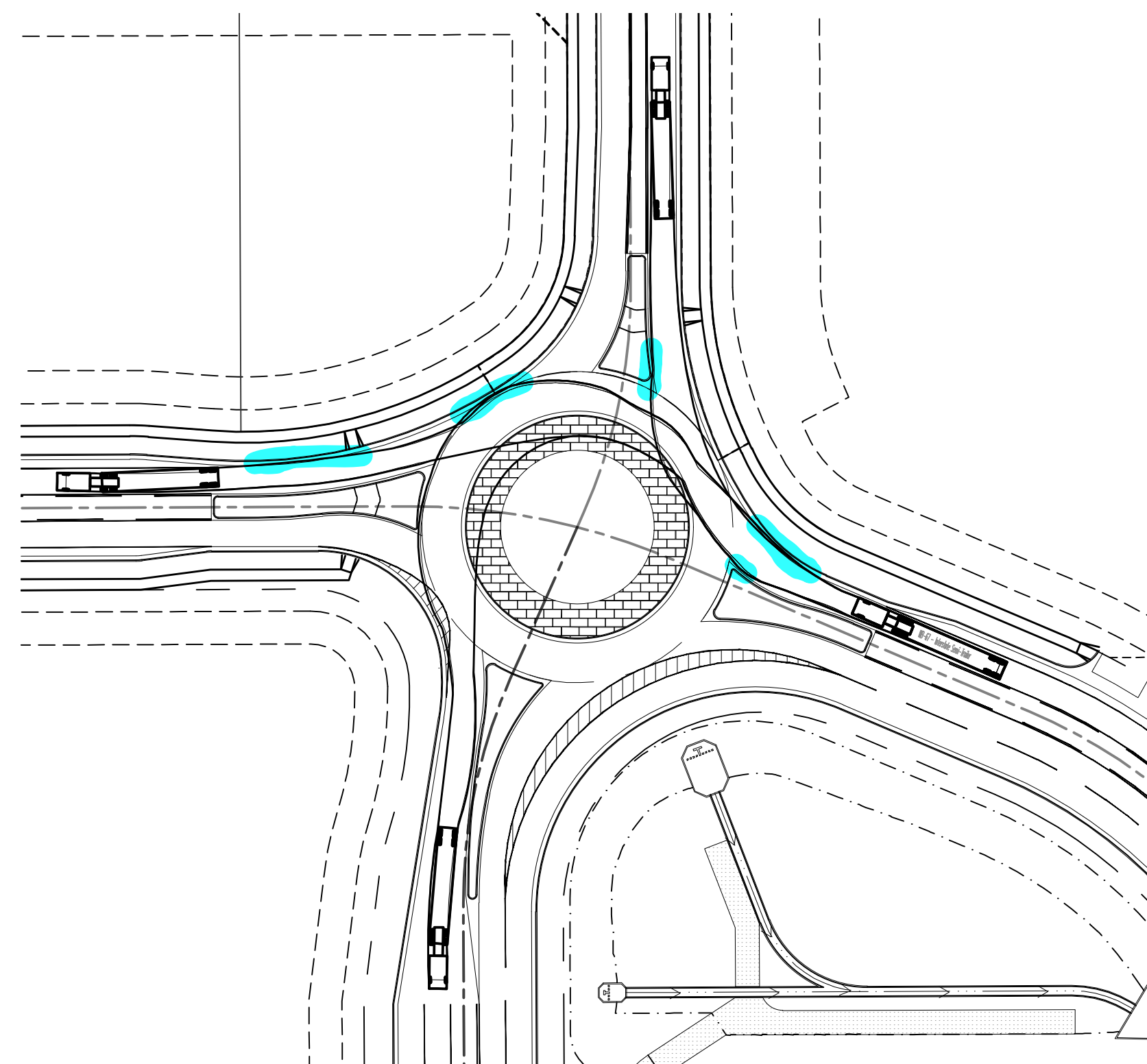


NORTHBOUND VEHICLE TRACKING PATH (WB-67)
SCALE: 1"=60'

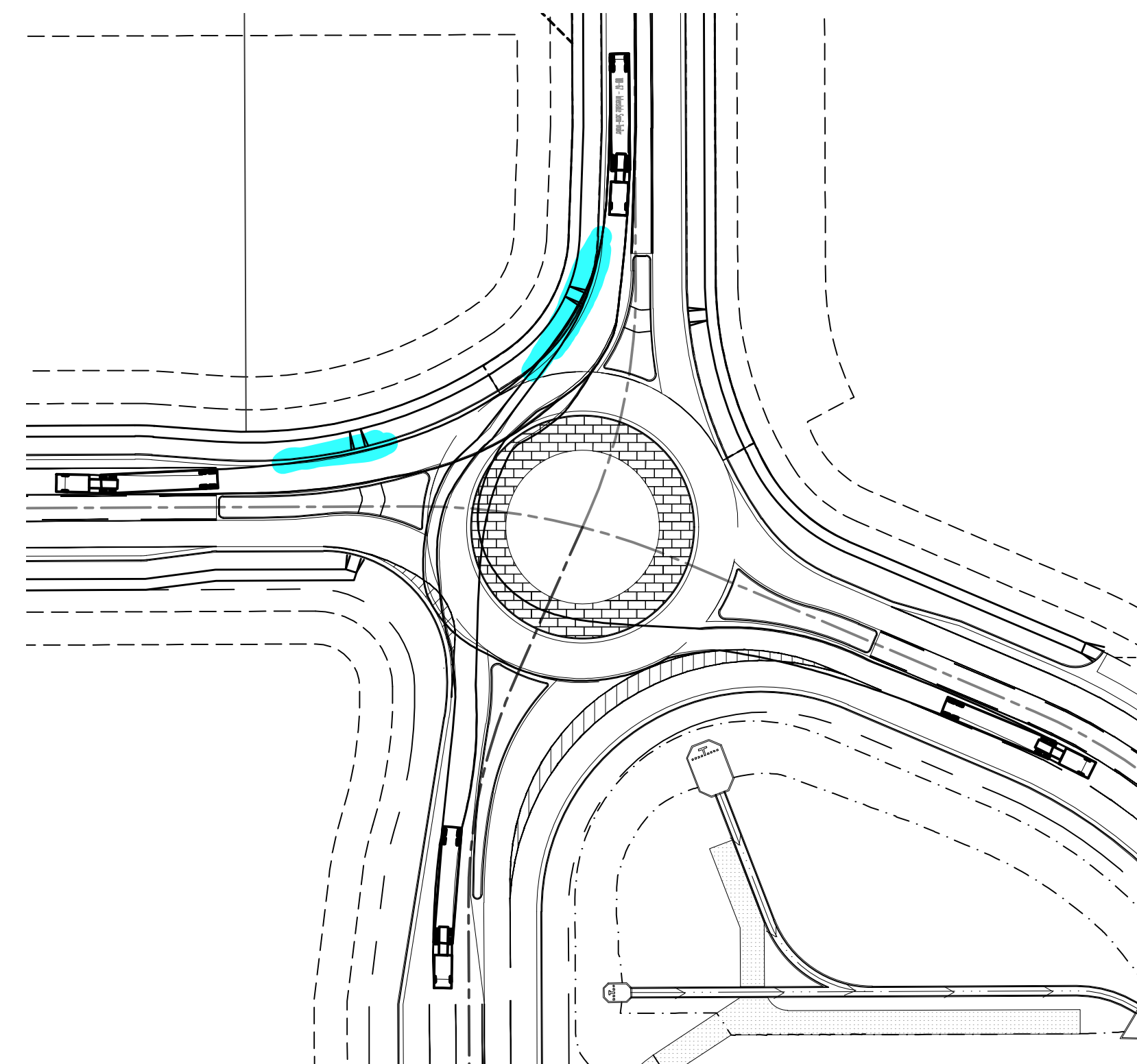


EASTBOUND VEHICLE TRACKING PATH (WB-67)
SCALE: 1"=60'

Highlighted areas appear not to meet tracking offset requirements and need to be adjusted.



WESTBOUND VEHICLE TRACKING PATH (WB-67)
SCALE: 1"=60'

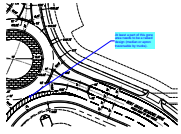


SOUTHBOUND VEHICLE TRACKING PATH (WB-67)
SCALE: 1"=60'



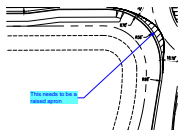
V2_Preliminary Roundabout Report.pdf Markup Summary

Callout (6)



Subject: Callout
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 6/12/2026 9:47:33 AM
Status:
Color: ■
Layer:
Space:

At least a part of this gore area needs to be a raised design (median or apron traversable by trucks).



Subject: Callout
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:32:26 AM
Status:
Color: ■
Layer:
Space:

This needs to be a raised apron

Exit widths shouldn't be less than entry widths and entry widths shouldn't be greater than circulating width

W Exit	W Entry	W Circ	W Leg
20	20	20	20
24	24	24	24
28	28	28	28
32	32	32	32

Subject: Callout
Page Label: 24
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:35:55 AM
Status:
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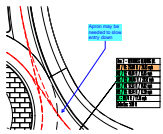
Exit widths shouldn't be less than entry widths and entry widths shouldn't be greater than circulating width

Truck apron should be a consistent width

W Exit	W Entry	W Circ	W Leg
20	20	20	20
24	24	24	24
28	28	28	28
32	32	32	32

Subject: Callout
Page Label: 24
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:40:37 AM
Status:
Color: ■
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Space:

Truck apron should be a consistent width



Subject: Callout
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:53:02 AM
Status:
Color: ■
Layer:
Space:

Apron may be needed to slow entry down

speed differential is high

no (meters)	radius (m)	speed (km/h)	radius (ft)
20	237	24	331
24	260	30	394
28	340	30	531
32	58	13	58
32	90	16	89

Subject: Callout
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:53:46 AM
Status:
Color: ■
Layer:
Space:

speed differential is high

Text Box (2)

Highlighted areas appear not to meet tracking offset requirements and need to be adjusted.

Subject: Text Box
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 6/12/2026 9:46:43 AM
Status:
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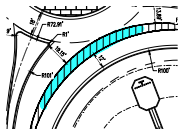
Highlighted areas appear not to meet tracking offset requirements and need to be adjusted.

Dimension the offsets used

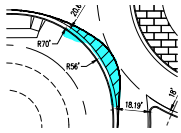
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Dimension the offsets used

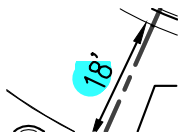
(42)



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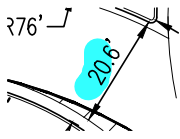
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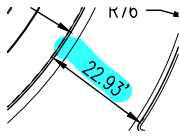
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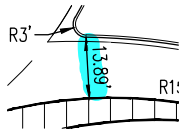
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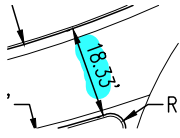
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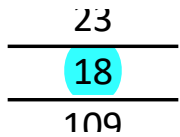
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Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:38:12 AM
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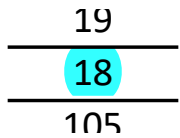


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Subject:
Page Label: 24
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:38:52 AM
Status:
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18



Subject:
Page Label: 24
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:38:54 AM
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18

22
14
106

Subject:
Page Label: 24
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14

21
18
108

Subject:
Page Label: 24
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:39:00 AM
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18

109
21
17

Subject:
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Date: 6/4/2026 11:39:08 AM
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21

106
21
16

Subject:
Page Label: 24
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21

IV LEG
23
18

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Page Label: 24
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23

L LEG
22
14


Subject:
Page Label: 24
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:39:19 AM
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22

VV LCG

21

18


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Author: Jeff Rice - EPC Engineering Review
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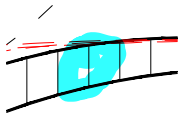
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18

18

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18




Subject:
Page Label: [1] Layout1
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Date: 6/4/2026 11:41:59 AM
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CCU PMP

24


17

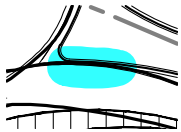
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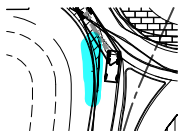
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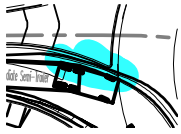
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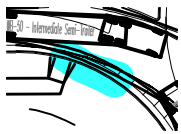
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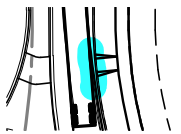
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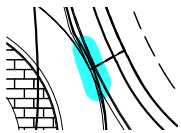
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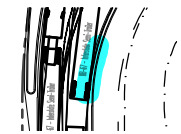
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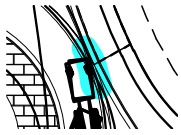
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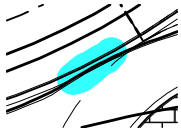
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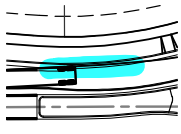
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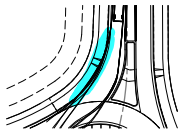
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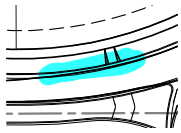
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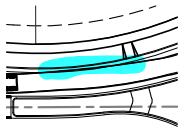
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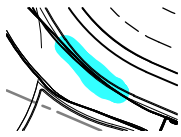
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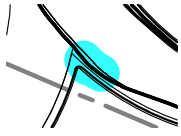
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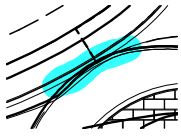
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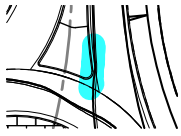
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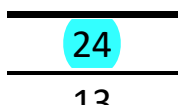
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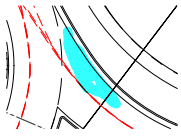
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Author: Jeff Rice - EPC Engineering Review
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Color: ■
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Space:



Subject:
Page Label: 24
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:51:01 AM
Status:
Color: ■
Layer:
Space:



Subject:
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:52:24 AM
Status:
Color: ■
Layer:
Space:

Item 2 - BEINGRASS W/ADAMS DR
101 / 16: 216.94 ft / 24.05 mph
102 / 16: 60.04 ft / 43.05 mph
103 / 16: 340.06 ft / 28.52 mph
104 / 16: 57.53 ft / 14.82 mph

Subject:
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 6/4/2026 11:53:14 AM
Status:
Color: ■
Layer:
Space:

Item 1 - BEINGRASS W/ADAMS DR
101 / 16: 89.74 ft / 17.38 mph
Reflection: 5.00 ft

Subject:
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 6/12/2026 9:48:37 AM
Status:
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Space: