

December 2, 2021

El Paso County Planning and Community Development Department  
Elizabeth Nijkamp, Engineering Manager  
2880 International Circle, Suite 110  
Colorado Springs, CO 80910

### **Corvallis Development – Pennycress Drive**

Dear Elizabeth:

Matrix Design Group (Matrix) was tasked with providing a technical justification for whether Pennycress Drive is necessary for either the Corvallis Development or the Glen at Widefield development to the south of Corvallis from a traffic capacity standpoint as well as respond to other comments made by El Paso County on the Phase 1 Preliminary Plat and 30% Construction Plans in a letter received from the City of Fountain dated November 2, 2021. The two comments received from El Paso County on the traffic impact study are as follows:

1. *Update the TIS to calculate the dollar amount of the developer's fair share contribution for future signal at Mesa Ridge and Spring Glen Drive intersection and Marksheffel/Peaceful Valley Rd intersection. County requests the City include a condition of approval for the developer to escrow for the benefit of El Paso County the Developer's fair share contribution for these two future signal. LOOK AT TRAFFIC STUDY FOR THESE INTERSECTIONS*
2. *Update the background traffic to account of the traffic from Glen at Widefield using Pennycress to Lorson Blvd in order to go northbound on Marksheffel Road.*

It was determined in a joint meeting with Matrix, El Paso County and City of Fountain on November 18, 2021 that the intersection of Marksheffel Road/Peaceful Valley Road will not likely ever need a traffic signal. Therefore, we are eliminating the need to calculate a fair share contribution for that intersection.

The Corvallis development contributes approximately 16.5% of the daily trips through the intersection of Mesa Ridge Parkway and Spring Glen Drive in 2040 with the full buildout of the Corvallis development. This was determined by calculating the percentage of project trips to total trips through the intersection in both the AM peak hour and PM peak hour and applying a weighted average.

2040 AM Peak Hour:  $(386 \text{ project trips} \div 2,288 \text{ total trips}) \times 100 = 16.2\%$

2040 PM Peak Hour:  $(458 \text{ project trips} \div 2,827 \text{ total trips}) \times 100 = 16.9\%$

2040 Weighted Average:

$((386 \text{ project trips} + 458 \text{ project trips}) \div (2,288 \text{ total trips} + 2,827 \text{ total trips})) \times 100 = 16.5\%$

The cost of a new traffic signal is estimated to be \$350,000 dollars. Therefore, the Corvallis development should contribute \$57,750 dollars towards the future traffic signal at the intersection of Mesa Ridge Parkway and Spring Glen Drive (16.5% of \$350,000).

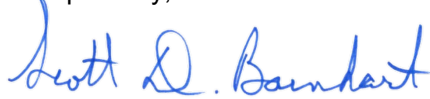
El Paso County asked Matrix to show the distribution of traffic both with and without Pennycress Drive connecting the Corvallis development with the Glen at Widefield development. The *Corvallis Traffic Impact Study*, dated June 14, 2021 shows a token amount of traffic traveling along Pennycress Drive (33 trips during the AM peak hour and 7 trips during the PM peak hour. The 33 AM Peak Hour trips and 7 PM peak hour trips can easily be handled by the rest of the roadway network without the Pennycress Drive connection and no additional analysis should be necessary to demonstrate this. The *Glen at Widefield*

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*Filing 11 Updated Transportation Memo* dated July 9, 2021 does not show any project trips using Pennycress Drive to access Marksheffel Road. The memo shows Pennycress Drive as a long-term future access, but no project traffic is assigned to it. All project trips from Filings 10 and 11 are shown using Poa Annua Street, Peaceful Valley Road and Spring Glen Drive to access the external roadway network. The results from the *Glen at Widefield Filing 11 Updated Transportation Memo* assume no Pennycress Drive connection exists in how the project trips are distributed. Therefore, it is Matrix's conclusion that neither the Corvallis Development or the Glen at Widefield development need to have the Pennycress Drive connection to function and we recommend eliminating the roadway from both developments. No additional analysis should be necessary to demonstrate this point given the low volume of Corvallis traffic assigned to Pennycress Drive and the fact that no Glen at Widefield traffic is assigned to Pennycress Drive.

If you have any questions, please feel free to contact me at [Scott.Barnhart@matrixdesigngroup.com](mailto:Scott.Barnhart@matrixdesigngroup.com) or at (719) 575-0100. Thank you.

Respectfully,



Scott D. Barnhart, PE, PTOE  
Senior Associate of Transportation Services

Attach:

- Mesa Ridge Parkway/Spring Glen Drive fair share calculation
- Glen at Widefield Assignment of Filing No. 10 Site-Generated Traffic
- Glen at Widefield Assignment of Filing No. 11 Site Generated Traffic

cc: City of Fountain

# Mesa Ridge Pkwy/Spring Glen Dr 2040 Total Traffic Volumes

## AM Peak Hour

VOLUME SETTINGS	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lanes and Sharing (#RL)	1	2	1	1	2	1	1	2	1	1	2	1
Traffic Volume (vph)	116	367	19	4	911	40	56	2	12	77	2	296
Development Volume (vph)	23	125	0	0	102	16	0	0	0	31	0	89
Combined Volume (vph)	139	492	19	4	1013	56	56	2	12	108	2	385
Future Volume (vph)	139	492	19	4	1013	56	56	2	12	108	2	385
Conflicting Peds. (#/hr)	0	—	0	0	—	0	0	—	0	0	—	0
Conflicting Bicycles (#/hr)	—	—	0	—	—	0	—	—	0	—	—	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adjusted Flow (vph)	151	535	21	4	1101	61	61	2	13	117	2	418
Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Parking Lane?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parking Maneuvers (#/hr)	—	—	—	—	—	—	—	—	—	—	—	—
Traffic from mid-block (%)	—	0	—	—	0	—	—	0	—	—	0	—
Link OD Volumes	EB	—	—	WB	—	—	—	—	—	SB	—	—
Traffic in shared lane (%)	—	—	—	—	—	—	—	—	—	—	—	—
Lane Group Flow (vph)	151	535	21	4	1101	61	61	15	0	117	420	0

386

2,288

## PM Peak Hour

VOLUME SETTINGS	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lanes and Sharing (#RL)	1	2	1	1	2	1	1	2	1	1	2	1
Traffic Volume (vph)	361	857	63	13	517	141	37	5	8	100	5	262
Development Volume (vph)	74	117	0	0	154	30	0	0	0	23	0	60
Combined Volume (vph)	435	974	63	13	671	171	37	5	8	123	5	322
Future Volume (vph)	435	974	63	13	671	171	37	5	8	123	5	322
Conflicting Peds. (#/hr)	0	—	0	0	—	0	0	—	0	0	—	0
Conflicting Bicycles (#/hr)	—	—	0	—	—	0	—	—	0	—	—	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adjusted Flow (vph)	473	1059	68	14	729	186	40	5	9	134	5	350
Heavy Vehicles (%)	2	2	2	2	2	2	2	2	2	2	2	2
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Parking Lane?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parking Maneuvers (#/hr)	—	—	—	—	—	—	—	—	—	—	—	—
Traffic from mid-block (%)	—	0	—	—	0	—	—	0	—	—	0	—
Link OD Volumes	EB	—	—	WB	—	—	—	—	—	SB	—	—
Traffic in shared lane (%)	—	—	—	—	—	—	—	—	—	—	—	—
Lane Group Flow (vph)	473	1059	68	14	729	186	40	14	0	134	355	0

458

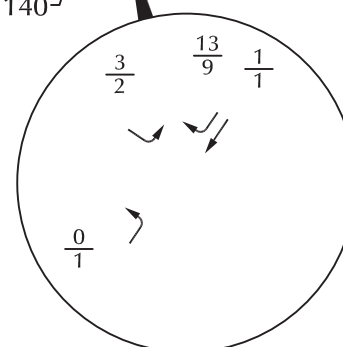
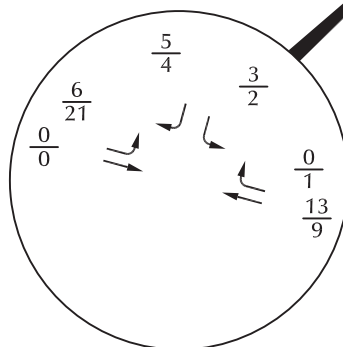
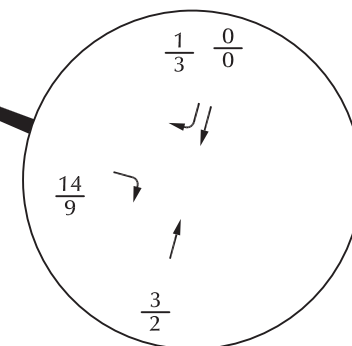
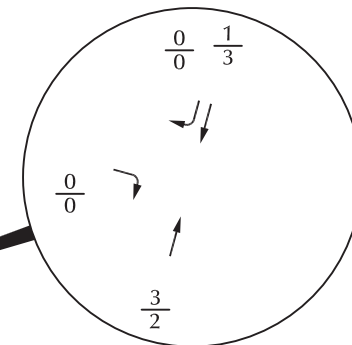
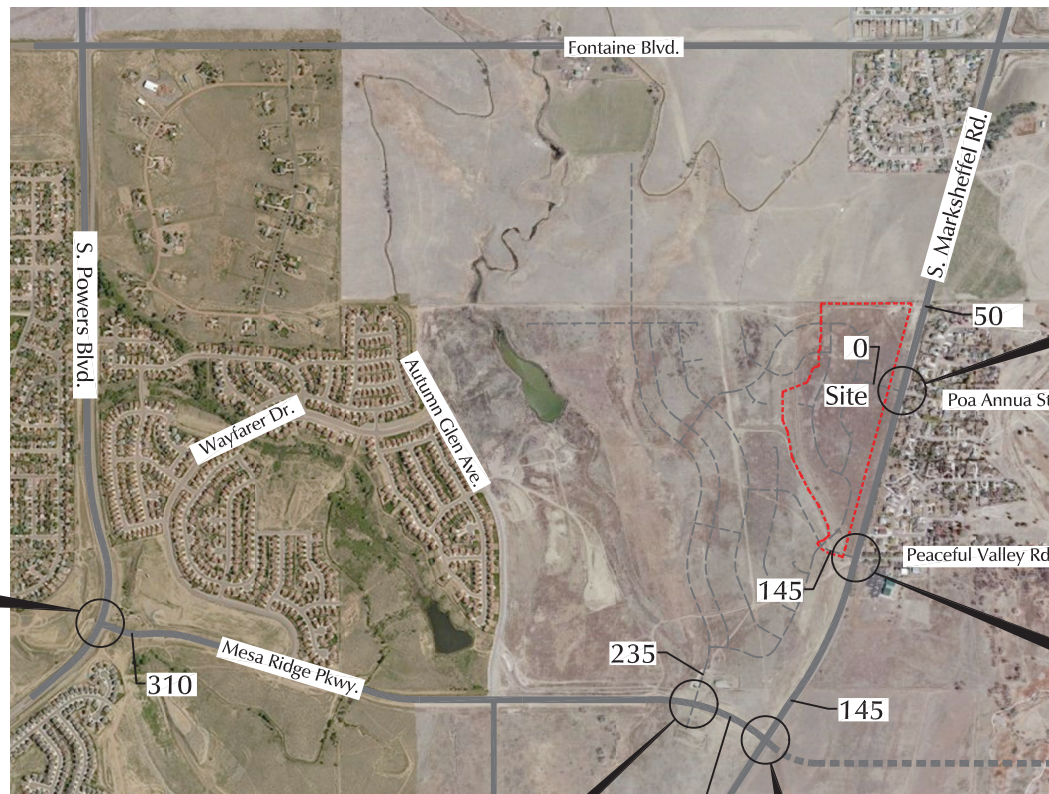
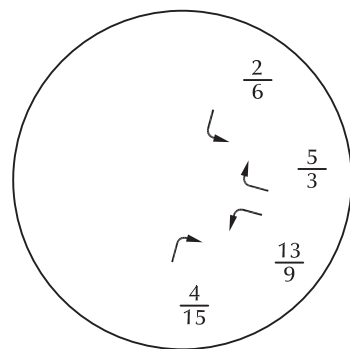
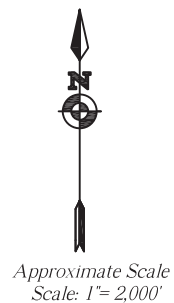
2,827

$$AM: \frac{386}{2,288} * 100 = 16.9\%$$

$$PM: \frac{458}{2,827} * 100 = 16.2\%$$

$$w + d. Avg. \frac{(386 + 458)}{(2,288 + 2,827)} * 100 = 16.5\%$$





LEGEND:

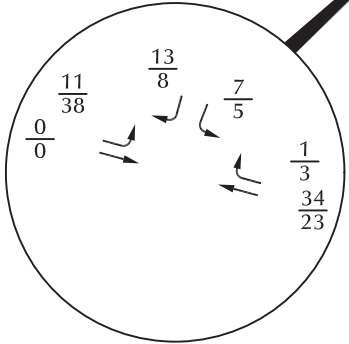
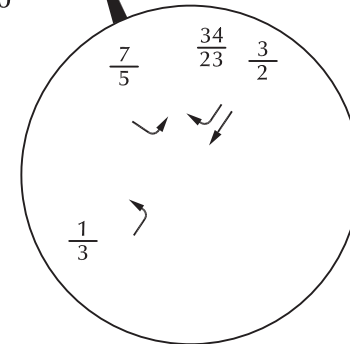
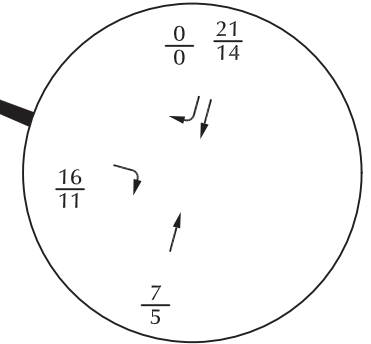
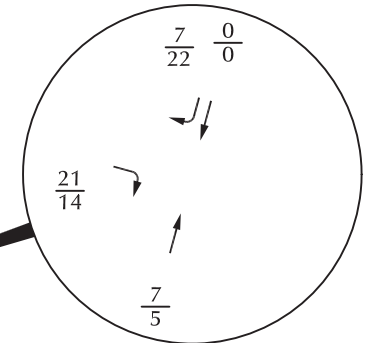
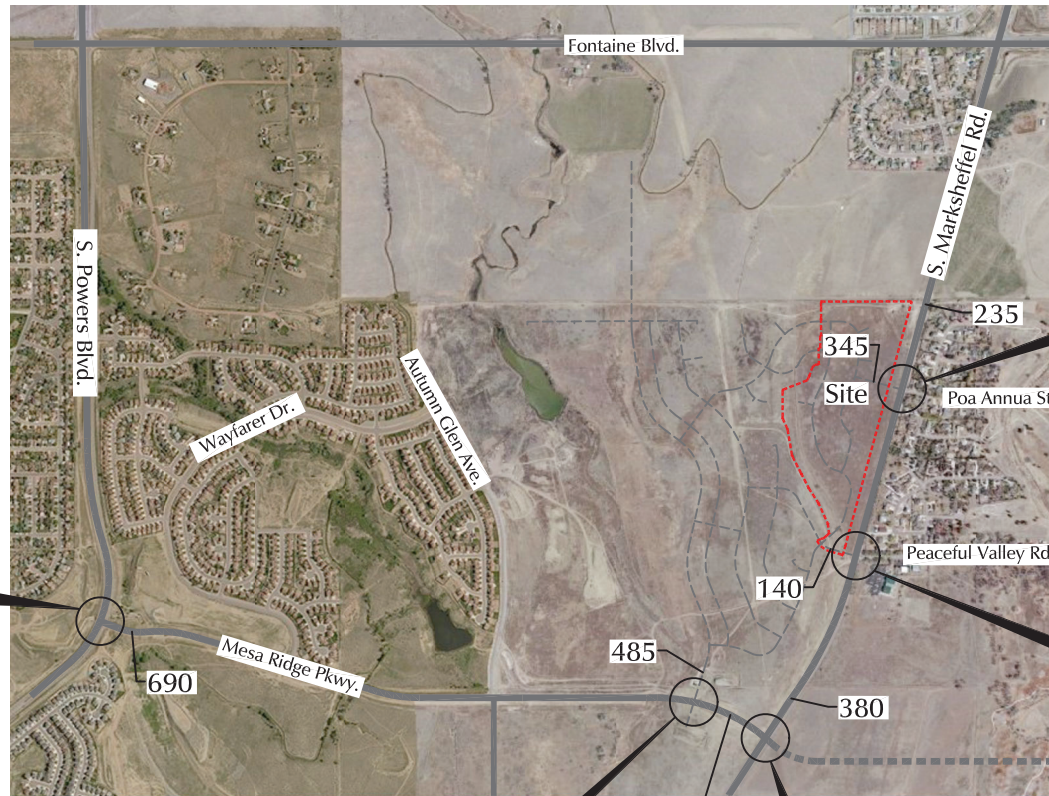
$\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)  
 $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (vehicles per hour)

XXX = Average Weekday Traffic (vehicles per day)

Figure 6  
**Assignment of  
 Filing 10 Site-Generated Traffic**

The Glen at Widefield Fil. 11 (LSC #194800)

Approximate Scale  
Scale: 1"= 2,000'



LEGEND:  
 $\frac{XX}{XX}$  = AM Weekday Peak-Hour Traffic (vehicles per hour)  
 $\frac{XX}{XX}$  = PM Weekday Peak-Hour Traffic (vehicles per hour)  
 XXX = Average Weekday Traffic (vehicles per day)



Figure 7  
**Assignment of  
 Filing 11 Site-Generated Traffic**  
 The Glen at Widefield Fil. 11 (LSC #194800)