

# Meadowlake Industrial Park Filing No. 1 Preliminary Plan Traffic Impact Study

Prepared for:  
Meadowlake Developments, LLC  
P.O. Box 1385  
Colorado Springs, CO 80901

Contact: Kevin O'Neil

FEBRUARY 1, 2024

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LSC Transportation Consultants  
Prepared by: Jeffrey C. Hodsdon, P.E.

EPC PCD File No. SP236  
LSC #S234040

1



# LSC Responses to TIS Redline Comments

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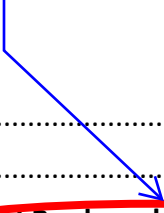
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 Number: 1      Author: Julie Slaughter      Subject: Sticky Note      Date: 11/15/2024 3:08:29 PM


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fix 1



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 Number: 1      Author: Daniel Torres      Subject: Callout      Date: 5/27/2024 8:58:24 PM -06'00'

[fix](#)

 Author: jchodsdon      Subject: Sticky Note      Date: 11/15/2024 3:07:15 PM

LSC Response: This has been fixed in the updated TIS report.

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 Number: 2      Author: jchodsdon      Subject: Oval      Date: 2/1/2024 10:30:14 PM

LSC has calculated the percent increase in traffic for projected site-generated traffic volumes vs. existing traffic volumes. Site-generated trips only include those for Filing 1 only during the short term. Please refer to Appendix A for this analysis.

## LAND USE AND ACCESS

Figure 1 shows the site location relative to the adjacent and nearby roadways. The site is located northwest of the intersection of Falcon Highway/Curtis Road about one-quarter mile north of that intersection. Meadow Lake Airport is located north and west of Meadowlake Industrial Park. The parcel east of Curtis Road is currently vacant. The Saddlehorn Ranch development site is located to the northeast along the east side of Curtis Road.

FYI: please be aware that a condition of approval will be added to this prelim plan. <sup>1</sup>

### Site Land Use

The preliminary plan is shown in Figure 2. The preliminary plan sheets are attached for reference. The site is zoned I-2. The Master TIS had assumed ITE Land Use "130 – Industrial Park" for this preliminary plan area. The anticipated development, for the purpose of this report, is best represented by ITE Land Use "150 – Warehousing."

**Note: The specific uses of this Preliminary Plan site shall be limited to those included in this Filing No. 1 Preliminary Plan traffic impact study (TIS) submitted with EPC PCD File No. SP236. The applicant shall be required to provide a revised traffic impact study to be submitted and approved prior to initiation of any uses beyond those included in this traffic impact study.**

The total Filing No. 1 Preliminary Plan acreage is 36.56. Based on the 0.29 floor area ratio (FAR) assumed in the rezone report, the estimated building square footage of the Filing No. 1 Preliminary Plan is 461,841 square feet (462 KSF).

### Site Access

One access is proposed to initially serve the preliminary plan area. This access, Sagebrush Street, will be a public street, and will intersect Curtis Road one-half mile north of Falcon Highway, consistent with the July 29, 2022 master TIS for the Meadowlake Industrial Park. This half-mile spacing between Curtis/Sagebrush would meet the ECM's access spacing requirement.

In the future, additional access points will be available with the future completion of the overall internal street system within the greater industrial park. These are shown in the July 29, 2022 TIS report.

## INTERSECTION SIGHT DISTANCE


### Entering Sight Distance

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/27/2024 9:27:06 PM -06'00'

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FYI: please be aware that a condition of approval will be added to this prelim plan.

 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:07:09 PM  
LSC Response: Noted.

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### Long-Term (For Reference Only)

The July 29, 2022 TIS included estimates of the overall buildout long-term site-generated traffic volumes for the overall Meadowlake Industrial Park. Figures 7a, 7b, and 7c of that TIS showed those buildout volumes. **Appendix A** of this report includes a copy of the long-term distribution estimate from Figure 5 of that TIS report. Appendix A also includes the long-term site-generated traffic for the Filing No. 1 preliminary plan, based on that Figure 5 from the July 29, 2022 TIS report applied to the current trip-generation estimate (Table 2 of this report).

### **Short Term (2025) Baseline/Background Traffic Volumes**

The 2025 baseline/background traffic-volume estimates are shown in Figure 6. These estimates assume the following:

- A three (3) percent per year growth rate applied to existing volumes (includes minor volume-balancing adjustments to the 2022 Judge Orr Road/Curtis Road counts).
- Additionally, traffic projected for buildout of Saddlehorn Ranch Filing Nos. 1 and 2 has been included in the 2025 baseline volumes.
- A portion of the trips from the Esteban and Davis: Included Jane Davis TAZ 1, and one third of Esteban Rodriguez residential.

Note: the baseline/background volumes are exclusive of any trips to be generated by this preliminary plan area or the overall Meadowlake Industrial Park.

### **Short Term (2025) Baseline Plus Site-Generated Traffic Volumes**


Figure 7 shows the sum of the 2025 short-term total traffic (background traffic volumes from Figure 6 plus site-generated traffic volumes from Figure 5). These volumes represent the projected short-term **total** traffic (assuming buildout of the Filing No. 1 preliminary plan development).

### **Long Term Background and Total Traffic Volumes**

The July 29, 2022 "Master" TIS report included long-term/20-year-horizon projections for the overall Meadowlake Industrial Park, which included this initial preliminary plan development area. Please refer to that TIS report for long-term projected volumes, which assume buildout of the project.


please include  
excerpts of that report <sup>1</sup>

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 Number: 1      Author: Daniel Torres      Subject: Callout      Date: 5/28/2024 4:03:04 PM -06'00'

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[please include excerpts of that report](#)

 Author: jchodsdon    Subject: Sticky Note    Date: 11/15/2024 3:07:02 PM  
LSC Response: Included as requested.

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short-term peak hours: northbound left-turn and southbound through/right, with or without the addition of site-generated traffic.

### All-Way Stop Sign Control

If the intersection of Falcon Highway/Curtis Road were to be converted from TWSC to AWSC, all individual turning movements would operate at LOS C or better during both peak hours of the 2025 Baseline Total traffic scenario.

## **AUXILIARY TURN-LANE ANALYSIS, INTERSECTION CONFIGURATION, AND TRAFFIC CONTROL**

### **Auxiliary Turn-Lane Requirements**

The need for auxiliary left- and right-turn lanes at the study area intersections has been evaluated to determine if lane improvements would be required, based on short-term total, traffic to meet the County's *Engineering Criteria Manual's (ECM)* auxiliary turn criteria.

Deceleration lanes shall meet design criteria specified in El Paso County's *Engineering Criteria Manual (ECM Tables 2-24 and 2-27)* or the Colorado State Highway Access Code (CDOT) for US Hwy 24.

**Table 3 (attached) presents details regarding auxiliary turn lanes at the study-area intersections.**

### **Turn-Lane Criteria**

Table 3 includes peak-hour auxiliary left- and right-turn lane requirements for each roadway classification according to ECM criteria.

- Principal Arterial – Curtis Road, Meridian Road
- Minor Arterial – Judge Orr Road, Falcon Highway

per thresholds an eastbound left is also required. Please include in the narrative. <sup>1</sup>

### **Curtis Road/Sagebrush Street (Site Access)**

The intersection of Sagebrush Street/Curtis Road will require a northbound left-turn deceleration lane.

Please also discuss the long term improvements that may be needed. <sup>2</sup>

### **Judge Orr Road/Curtis Road**

Based on November 2023 traffic counts, the eastbound AM peak-hour right-turn volume exceeds the ECM-threshold right turning volume of 50 vph for which a right-turn lane is prescribed. The current eastbound PM peak-hour volume does not currently exceed this threshold. The short-term baseline-plus-Filing No. 1 site-generated eastbound PM peak-hour volume is projected to exceed this threshold. <sup>3</sup>

Also please indicate whether the existing turn lanes at this intersection require any modifications due to this developments traffic as indicated in the previous review comment. You may also refer to table 3 regarding the existing turn lanes and recommendations/responsibility for improvements.

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☰ Number: 1 Author: Daniel Torres Subject: Callout Date: 5/29/2024 3:59:44 PM -06'00'

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per thresholds an eastbound left is also required. Please include in the narrative.

↩ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:06:54 PM

LSC Response: The updated TIS report shows the eastbound left-turn lane and the narrative has been updated.

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☰ Number: 2 Author: Daniel Torres Subject: Callout Date: 5/28/2024 6:41:13 AM -06'00'

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Please also discuss the long term improvements that may be needed.

↩ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:06:48 PM

LSC Response: Added to the report, as requested. The Improvements Table has also been updated, which references the long term improvements called out in the Master TIS.

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☰ Number: 3 Author: Daniel Torres Subject: Callout Date: 5/29/2024 3:16:15 PM -06'00'

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Also please indicate whether the existing turn lanes at this intersection require any modifications due to this developments traffic as indicated in the previous review comment. You may also refer to table 3 regarding the existing turn lanes and recommendations/responsibility for improvements.

↩ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:06:41 PM

LSC Response: This has been added to the updated report. Revisions/updates have been made to this section of the report, the auxiliary turn-lane table, and the improvements table.

Kevin O'Neil  
Meadowlake Industrial Park

Please clarify as this appears to state that the 150 vph has been exceeded. Also the above provision indicates the 20th year road volumes (i.e. long term) which are exceeded (205 vph right turn and 219 vph thru movement) It appears that the turn lane is triggered by this development. Please revise.

1  
July 1, 2024  
Impact Study  
Highway

Regarding short- or intermediate  
Access Code Section 3.5 (

*"The auxiliary lanes required in the category design standards may be waived when the 20th year predicted roadway volumes conflicting with the turning vehicle are below the following minimum volume thresholds. The right turn deceleration lane may be dropped if the volume in the travel lane is predicted to be below 150 DHV."*

The AM nor PM peak-hour eastbound through-plus-right-turn volume is currently at the 150 vph level. For the short-term total (background plus site) traffic condition, the AM peak-hour eastbound through-plus-right turn lane volume is not shown remain below the 150 vph threshold and the PM peak-hour eastbound right-turn movement is not projected to exceed 50. However, the background intersection traffic movements are expected to increase over time, with either the PM peak-hour right-turn volume increasing to over 50 and/or the AM peak-hour through movement increasing to over 150.

It appears that the turn lane is needed per comment above. Additionally, identify if the other developments such as Saddlehorn are or have provided escrow for this turn lane. Identify the lane lengths needed as done in the previous submittal.

Filing No. 1 should escrow for pro rata share of this

### Falcon Highway/Curtis Road

The intersection of Falcon Highway/Curtis Road could potentially be signed AWSC during the short term once AWSC warrants are met, as all approaches would operate at LOS C or better in the short term with AWSC.

Note: The following auxiliary turn-lane upgrades would not be required if a roundabout were to be constructed at the intersection of Falcon Highway/Curtis Road. Auxiliary turn lanes may ultimately be needed with traffic signal control.

please clearly state whether this is needed due to this preliminary plan developments traffic which it appears it will be per the volume provided in the figure.

**Southbound right-turn deceleration lane (New Lane – would be needed for signal control or if needed for operations – i.e., to maintain an intersection with TWSC or AWSC)**

**Eastbound left-turn deceleration lane (lengthening)** on Falcon Highway would be needed assuming the current TWSC or signal control (if proposed/suggested trigger improvements). Please refer to the **improvements table** for details. Based on traffic projections, the recommended "trigger" of an eastbound left turn pro (percentile) which exceeds 50 feet, is not likely to be met.

please provide queuing analysis showing that it has not been met with this development

Based on the short-term total traffic projections, the **westbound right turn** volume is projected to remain below the threshold of 50 vph for the westbound right turn movement. LSC recommends re-checking at the final plat and with future phases of the project. Meanwhile, fair share escrow amounts will be required with the final plat.

Provide turn lane characteristics of the required turn lanes and modifications

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☰ Number: 1 Author: Daniel Torres Subject: Callout Date: 5/29/2024 3:22:16 PM -06'00'

Please clarify as this appears to state that the 150 vph has been exceeded. Also the above provision indicates the 20th year road volumes (i.e. long term) which are exceeded (205 vph right turn and 219 vph thru movement) It appears that the turn lane is triggered by this development. Please revise.

👉 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:06:34 PM

LSC Response: This section has been revised in the updated report. Revisions/updates have been made to the auxiliary turn-lane table and the improvements table as well.

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📄 Number: 2 Author: Daniel Torres Subject: Highlight Date: 5/28/2024 6:42:55 AM -06'00'

is not shown remain below

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☰ Number: 3 Author: Daniel Torres Subject: Callout Date: 11/15/2024 1:59:26 PM

It appears that the turn lane is needed per comment above. Additionally, identify if the other developments such as Saddlehorn are or have provided escrow for this turn lane. Identify the lane lengths needed as done in the previous submittal.

👉 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:06:24 PM

LSC Response: This section has been revised in the updated report. Revisions/updates have been made to the auxiliary turn-lane table and the improvements table as well.

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☰ Number: 4 Author: Daniel Torres Subject: Callout Date: 6/26/2024 1:39:57 PM -06'00'

please clearly state whether this is needed due to this preliminary plan developments traffic which it appears it will be per the volume provided in the figure.

👉 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:06:18 PM

LSC Response: This section has been revised in the updated report. Revisions/updates have been made to the auxiliary turn-lane table and the improvements table as well.

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☰ Number: 5 Author: Daniel Torres Subject: Callout Date: 5/29/2024 4:58:19 PM -06'00'

please provide queuing analysis showing that it has not been met with this development

👉 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:01:11 PM

LSC Response: A queuing section has been added to the revised report. A deviation request has also been prepared and is included with this resubmittal.

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☰ Number: 6 Author: Daniel Torres Subject: Text Box Date: 5/28/2024 3:18:05 PM -06'00'

Provide turn lane characteristics of the required turn lanes and modifications

👉 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:03:42 PM

LSC Response: Please refer to the updated Table 3, which contains details/characteristics and required modifications to address this comment.

1  
Please state whether or not any improvements are needed to Falcon Hwy due to this developments traffic per previous review comment.

## ROADWAY CLASSIFICATIONS

Primary internal streets within the Preliminary Plan will be classified as Urban, Non-Residential Collector streets. These include the main entry street, Sagebrush Street, and Greenfield Avenue, the main north-south street. The other streets shown on the Preliminary Plan will be Private Local streets. These include Wildflower Court, Mariposa Lily Court, and Wild Iris Way. Individual lot access will be to these private, local streets. The preliminary plan contains the proposed cross section for the Urban, Local (Private) streets.

2  
the deviation approved for Saddlehorn indicated a 72' ROW and w/reservation for the remaining. Is there a reason for the 78'?

## ROADWAY SEGMENT IMPROVEMENTS

### Curtis Road

Please refer to Table 4, Roadway Improvements, for details. Curtis Road should ultimately be improved to a two-lane Principal Arterial. Dedication of right-of-way for one half of a two-lane Principal Arterial (78' from centerline) with ROW reservation for additional width of 90' from centerline for four-lane Principal Arterial corridor preservation would be required. Table 4, Roadway Improvements, calls out specific recommended short-term improvements to Curtis Road, between the south property line and the south terminus of the Saddlehorn Filing No. 1 improvements.

3  
? please revise this statement as it- appears to be copied from another report

## DEVIATIONS AND WAIVERS

### Potential Future Deviation – Not Currently Needed

The following potential deviation is not currently needed. When warrants require improvements, the deviation will be submitted then. Also refer to Filing No. 4 TIS comments in regard to this.

#### Curtis Road & Falcon Highway Intersection - Eastbound Left-Turn Lane Lengthening

A deviation to allow continued use of the existing lane and tapers and defer this improvement (based on short-term turning volumes /associated queue length). There is a drainage channel just to the west. The development would contribute a fair share escrow amount toward a future improvement. An Escrow Calculation Spreadsheet has been prepared and is attached to this report.


The future improvement would encompass bringing the existing turn lane up to ECM standards. The ECM criteria for turn lanes requires elements of deceleration distance plus stacking distance plus taper length. On a roadway with a 60-mph design speed (55 posted), the required full-width, left-turn lane length is 290 feet plus left-turn stacking/queuing distance. The required transition taper is 240 feet. For this turn lane, the stacking requirement would be 50 feet (100 feet based on long-term projections) and the resulting total prescribed turn lane length Redirect tapers as a ratio of 55:1 would also need to be part of the design.

5  
Please explain why a deviation would not be needed as the current lane does not meet ECM standards. see comments above and on table

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/28/2024 3:56:58 PM -06'00'


Please state whether or not any improvements are needed to Falcon Hwy due to this developments traffic per previous review comment.

 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:02:21 PM  
LSC Response: Added as requested.

---

Number: 2 Author: Daniel Torres Subject: Callout Date: 5/28/2024 3:30:25 PM -06'00'


the deviation approved for Saddlehorn indicated a 72' ROW and w/reservation for the remaining. Is there a reason for the 78'?

 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:06:08 PM  
LSC Response: The TIS has been revised to show 72' instead of 78' based on the approved Saddlehorn deviation for Curtis.

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Number: 3 Author: Daniel Torres Subject: Callout Date: 5/28/2024 3:33:05 PM -06'00'

? please revise this statement as it- appears to be copied from another report

 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:05:30 PM  
LSC Response: Revised in the updated TIS.

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Number: 4 Author: Daniel Torres Subject: Highlight Date: 5/28/2024 3:32:41 PM -06'00'

Also refer to Filing No. 4 TIS comments in regard to this

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Number: 5 Author: Daniel Torres Subject: Callout Date: 5/29/2024 5:01:09 PM -06'00'

Please explain why a deviation would not be needed as the current lane does not meet ECM standards. see comments above and on table

 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:06:19 PM  
LSC Response: A deviation request has been prepared and is included with this resubmittal.

traffic control is utilized. The intersection of US Highway 24/Stapleton is projected to continue to have side street levels of service E or F until signalized.

- Please refer to the Improvements Table 4 for a detailed list of roadway system improvements and/or escrow requirements toward future improvements.
- Please refer to the "Auxiliary Turn-Lane Analysis" section above for recommendations.
- The major internal streets within the site will be designed to meet Urban Non-Residential Collector criteria prescribed in the *ECM*. Classifications for the **minor** internal roads will be private, local streets.
- CDOT State Highway Access Permit applications will be submitted at the site development plan stage of development, or in conjunction with the plat.

\* \* \* \* \*

Please contact me if you have any questions regarding this report.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.  
Principal

JCH/JAB:jas

Enclosures: Table 2 and Table 4

Figures 1-7

Traffic Count Reports

Synchro Los Reports

Appendix A

Appendix B

Preliminary Plan Sheets (for reference)

please provide these  
in the report

1

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Number: 1 Author: Daniel Torres Subject: Cloud+ Date: 5/29/2024 5:11:04 PM -06'00'

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[please provide these in the report](#)

Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:06:56 PM  
LSC Response: These have been included in the updated Report.

---



clarify that these are am/pm values

2

**Table 3**  
(page 1 of 3)  
**Auxiliary Turn Lane**  
**Meadowlake Indust**  
**Filing No. 1 Preliminary Plan**

volume thresholds are met. see comments in narrative and revise

1

Judge Orr Rd + Curtis Rd/Stapleton Rd						
Criteria	SBL	WBL	NBL	EBL	EBR	WBR
Existing Traffic Control	Stop		Stop			
Assumed Short-Term Traffic Control	Stop		Stop			
Existing Volume (vph)	5 / 18	24 / 2	40 / 54	3 / 2	73 / 24	14 / 13
2025 Total Volume (vph)	5 / 34	28 / 3	61 / 77	7 / 7	87 / 45	25 / 13
Turn Lane Threshold Warrant (vph)	-	-	-	-	50	50
Volume Exceeds Threshold?	Existing	Existing	Existing	Existing	No**	No
Design Speed (mph)	50	60	50	50	50	60
Existing Turn Lane Lengths						
Total Length (ft)	535	495	520	522	-	-
Deceleration Length (ft)	265	240	265	250	-	-
Storage Length (ft)					-	-
Taper Length (ft)	270	255	255	272	-	-
ECM-Prescribed Turn Lane Lengths						
Total Length (ft)	485	580	535	435	435	530
Deceleration Length (ft)	235	290	235	235	235	290
Storage Length (ft)	50	50	100	0	0	0
Taper Length (ft)	200	240	200	200	200	240
Recommended Turn Lane Lengths						
Total Length (ft)	-	-	Escrow for	-	Escrow for	-
Deceleration Length (ft)	-	-	Future	-	Future	-
Storage Length (ft)	-	-	Improvement	-	Improvement	-
Taper Length (ft)	-	-	-	-	-	-
Notes about ECM Criteria						
Improvements Table Reference #	-	-	7.4	-	7.1	-
Meets ECM Criteria?	No*	No	No	Yes	** Assuming CDOT	-
Additional Notes	However, total length exceeds ECM; Currently a stop-controlled approach	Saddlehorn Filing 3 CD plans call for upgrade	Currently a stop-controlled approach	Storage length not required, as EBL lane not required	Access Code provision as outlined in the report page 13.	
Date: 2/1/2024						

provide justification for not lengthening the turn lane with this prelim plan development as table 4 item 7.4 indicates long term and if signaled. revise as needed.

3

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/29/2024 3:25:50 PM -06'00'

---

volume thresholds are met. see comments in narrative and revise

Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:05:55 PM

LSC Response: This table has been revised in the updated TIS.

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Number: 2 Author: Daniel Torres Subject: Callout Date: 5/29/2024 3:03:59 PM -06'00'

---

clarify that these are am/pm values

Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:05:50 PM

LSC Response: This table has been revised in the updated TIS.

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Number: 3 Author: Daniel Torres Subject: Callout Date: 5/29/2024 3:41:51 PM -06'00'

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provide justification for not lengthening the turn lane with this prelim plan development as table 4 item 7.4 indicates long term and if signalized. revise as needed.

Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:05:42 PM

LSC Response: This table has been revised in the updated TIS - in part to address this comment. The queuing section also speaks to this turn lane.

**Table 3**

(page 2 of 3)

**Auxiliary Turn Lane Analysis**

**Meadowlake Industrial Park**

**Filing No. 1 Preliminary Plan**

<b>Curtis Rd + Sagebrush St</b>				
<b>Criteria</b>	<b>EBL</b>	<b>EBR</b>	<b>NBL</b>	<b>SBR</b>
Existing Traffic Control				
Proposed Short-Term Traffic Control	Stop	Stop		
Existing Volume (vph)				
2025 Total Volume (vph)	8 / 26	10 / 34	38 / 13	22 / 9
Turn Lane Threshold Warrant (vph)	25	50	10	25
Volume Exceeds Threshold?	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>
Design Speed (mph)	40	40	50	50
<b>Existing Turn Lane Lengths</b>				
Total Length (ft)				
Deceleration Length (ft)				
Storage Length (ft)				
Taper Length (ft)				
<b>ECM-Prescribed Turn Lane Lengths (Short-Term)</b>				
Total Length (ft)	365	365	485	435
Deceleration Length (ft)	155	155	235	235
Storage Length (ft)	50	50	50	0
Taper Length (ft)	160	160	200	200
<b>Recommended Turn Lane Lengths</b>				
Total Length (ft)	-	-	485	-
Deceleration Length (ft)	-	-	235	-
Storage Length (ft)	-	-	50	-
Taper Length (ft)	-	-	200	-
<b>Notes about ECM Criteria</b>				
Improvements Table Reference #	-	-	10b.2	10b.1
Meets ECM Criteria?	-	-	Yes	-
Additional Notes	Seperate EB exiting turn lanes not required based on LOS analysis; However, applicant may want to design to accommodate future development	Seperate EB exiting turn lanes not required based on LOS analysis; However, applicant may want to design to accommodate future development	NBL turn lane is required as part of this preliminary plan; However, applicant may want to design for longer stacking length to accommodate future development	SBR turn lane not required, as projected volume is < 25 vph; However, applicant may elect to build with other improvements to accommodate future development
Date: 2/1/2024				

per ECM thresholds for an aux. left turn lane are met and shall be provided.

1

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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/29/2024 4:01:12 PM -06'00'

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per ECM thresholds for an aux. left turn lane are met and shall be provided.

 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:13:43 PM

LSC Response: A deviation request has been prepared and is included with this resubmittal.

see comments on table 3 and revise

1

Table 4  
(page 2 of 3)

Meadowlake Industrial Park  
Filing No. 1 Preliminary Plan  
Roadway Improvements  
El Paso County Off-Site Intersections  
Falcon Highway/Meridian Road Intersection

add: and any required improvements due to future development of the overall Meadowlake Industrial plan

Item #	Improvement	Timing	Responsibility
6.1	Short Term Westbound right-turn deceleration lane	Currently warranted by ECM	Escrow toward improvement with Filing No. 1 (fee program credit per fee)
<b>Judge Orr/Curtis Road Intersection</b>			
7.1	Short Term Eastbound right-turn deceleration lane Escrow funds toward this future improvement.	Financial assurances to be provided as part of the final plat.	Applicant
7.2	Short Term - Traffic Control This TIS indicates the intersection would continue to operate at an acceptable LOS with the current TWSC in the 2025/Short Term based on the Background + Filing No. 1 Site Traffic Scenario.	This TIS indicates the intersection would continue to operate at an acceptable LOS with the current TWSC in the 2025/Short Term based on the Background + Filing No. 1 Site Traffic Scenario.	N/A
7.3	Long Term (or Prior to 2040) - Traffic Control This intersection is likely an eligible intersection for future signalization within the fee program. This TIS indicates the intersection would continue to operate at an acceptable LOS with the current TWSC in the 2025/Short Term. Master Study: Participate on a pro-rata basis with a fair share contribution or upgrade the intersection, potentially including new traffic control, to mitigate anticipated substandard level of service, as necessary.	Once LOS of AWSC drops below acceptable levels, and/or once signal warrants are met. Depends on the pace and intensity of development of this site and the rate of other area development and associated background traffic growth. This TIS indicates the intersection would continue to operate at an acceptable LOS with the current TWSC in the 2025/Short Term based on the Background + Filing No. 1 Site Traffic Scenario.	The applicant will pay fee program traffic impact fees. This intersection is likely an eligible intersection for future signalization within the fee program.
7.4	Long Term (if signalized in the future) Lengthen northbound left-turn deceleration lane.	As needed based on future speed limit and turning volume/stacking length criteria.	Escrow for improvement or construction if warranted at the time of development (fee program credit per fee program provisions).
<b>Adjacent &amp; Access Intersections</b>			
<b>Curtis Road/Falcon Highway</b>			
8.1	From Master Study (for Reference) Short Term/Long Term Change to AWSC traffic control as necessary. Participate on a pro-rata basis with a fair share contribution toward upgrade the intersection, potentially including new traffic control, to mitigate substandard level of service, as necessary. Significant improvements may be needed in the short term if rapid site buildout and area growth occurs. Otherwise, intermediate term.	From Master Study (for Reference) Once LOS of AWSC drops below acceptable levels, and/or once signal warrants are met. Depends on the pace and intensity of development of this site and the rate of other area development and associated background traffic growth.	From Master Study (for Reference) The applicant will pay fee program traffic impact fees and any required intersection improvements (or participation) may be fee-program eligible for credit based on the program guidelines.
8.1a	Short Term This TIS indicates the intersection would operate at LOS F/E (AM/PM) on the northbound approach with the current TWSC based on the in the 2025/Short Term based on the Background + Filing No. 1 Site Traffic Scenario. Consideration for interim conversion to AWSC.	Consider traffic-control change to interim AWSC once warrants for AWSC control are met.	add applicant
8.1b	Long Term (or Prior to 2040) This intersection is likely an eligible intersection for future signalization within the fee program. See above Item 8.1a relative to the Short Term. A roundabout may also be considered. Master Study (for reference.) Participate on a pro-rata basis with a fair share contribution or upgrade the intersection, potentially including new traffic control, to mitigate anticipated substandard level of service, as necessary.	Once LOS of AWSC control (interim change to AWSC in the short term) drops below acceptable levels and/or once signal warrants are met. Depends on the pace and intensity of development of this site and the rate of other area development and associated background traffic growth.	add applicant and/or other developments.
8.2	Short Term (if planned to be signalized in the future) Construct SB right-turn deceleration lane on Curtis Road approaching Falcon Highway. ONLY in the case of a future signalized intersection or reverse of the TWSC stop-sign traffic control orientation, or as needed in the future for acceptable operations. See footnote below.	Only required upon signalization or reversal of the stop-sign traffic control orientation, or as needed in the future for acceptable operations. See footnote below. Escrow funds toward this future improvement with the site development plan /plat.	Applicant - Escrow for pro-rata share of improvement. Responsibility will likely be shared between this project and Saddlehorn Ranch, with the cost shared.
8.3	Short Term Escrow toward the cost of future lengthening of the existing EB left-turn deceleration lane on Falcon Highway approaching Curtis Road.	Note: EPC comments on Saddlehorn Filing No. 4 indicate "construct with Filing 4 if warranted based on 50' queuing length, per conditions of approval." A similar condition likely applies to this development. Previously recommended "trigger" from Saddlehorn Ranch: once projected queue (95th percentile) exceeds 50 feet. LSC suggests the same trigger for this project. When warrants require improvements, a deviation would be submitted. A deviation request, if approved, would allow interim use of the existing lane and taper (based on short term total turning volumes /associated queue length). Deviation not required at this time.	Escrow for pro-rata share of future improvement. Responsibility will likely be shared between this project and Saddlehorn Ranch, with the cost shared.
8.4	Short Term WB right-turn deceleration lane on Falcon Highway approaching Curtis Road. From Master Study (for Reference) Construct WB right-turn deceleration lane on Falcon Highway approaching Curtis Road. This turn lane is not projected to be warranted based on Filing No. 1 Preliminary Plan projected volume. Escrow toward the cost of future WB right-turn deceleration lane on Falcon Highway approaching Curtis Road.	This turn lane is not projected to be warranted based on Filing No. 1 Preliminary Plan projected volume.	Escrow for pro-rata share of improvement please identify who will install this turn lane between the two developments as it is warranted per criteria
8.5	From Master TIS Long Term (if planned to be signalized in the future) Lengthen northbound left-turn deceleration lane This Preliminary Plan is not projected to add to this northbound left turn lane in the short term as no access is planned for Falcon Highway with the Filing No. 1 Preliminary Plan.	N/A with this Preliminary Plan As needed based on future speed limit and turning volume/stacking length criteria	N/A with this Preliminary Plan Escrow for improvement or construction if warranted at the time of development (fee program credit per fee program provisions)

2

3

4

queueing analysis has not been provided to determine whether it is triggered. The existing deficiency shall be installed by either Saddlehorn or this development

5

6

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☰ Number: 1 Author: Daniel Torres Subject: Callout Date: 5/29/2024 3:53:54 PM -06'00'

[see comments on table 3 and revise](#)

↻ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:19:40 PM

LSC Response: The tables have been revised to address this comment. A queuing analysis has also been included.

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☰ Number: 2 Author: Daniel Torres Subject: Callout Date: 5/29/2024 3:57:50 PM -06'00'

[add: and any required improvements due to future development of the overall Meadowlake Industrial plan](#)

↻ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:16:01 PM

LSC Response: Added as requested.

---

☰ Number: 3 Author: Daniel Torres Subject: Text Box Date: 5/29/2024 4:46:26 PM -06'00'

[add applicant](#)

↻ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 3:05:29 PM

LSC Response: Added as requested.

---

☰ Number: 4 Author: Daniel Torres Subject: Text Box Date: 5/29/2024 4:47:21 PM -06'00'

[add applicant and/or other developments.](#)

↻ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:15:28 PM

LSC Response: Added as requested.

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☰ Number: 5 Author: Daniel Torres Subject: Callout Date: 5/29/2024 4:59:14 PM -06'00'

[queueing analysis has not been provided to determine whether it is triggered. The existing deficiency shall be installed by either Saddlehorn or this development](#)

↻ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:18:23 PM

LSC Response: A queuing section has been added to the revised report. A deviation request has also been prepared and is included with this resubmittal.

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☰ Number: 6 Author: Daniel Torres Subject: Callout Date: 5/29/2024 4:53:27 PM -06'00'

[please identify who will install this turn lane between the two developments as it is warranted per criteria](#)

↻ Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:14:34 PM

LSC Response: This table has been revised, including this line item.

**Table 4**  
(page 3 of 3)

**Meadowlake Industrial Park**  
**Filing No. 1 Preliminary Plan**  
**Roadway Improvements**

**Curtis Road/Sagebrush Street (Full Movement Access)**

Item #	Improvement	Timing	Responsibility
	<b>Short Term</b>		
10a.1	<u>Short Term &amp; Long Term</u> Master Study: w/ Roundabout Option - Construct one-lane modern roundabout, expandable to a two-lane roundabout. Roundabout not proposed with the Preliminary Plan.	Roundabout not proposed with the Preliminary Plan.	N/A
<b>OR</b>			
10b.1	<u>Short Term</u> Southbound right-turn deceleration lane on Curtis Rd approaching the site access.	This turn lane is not projected to be warranted based on Filing No. 1 Preliminary Plan projected right turn volume. The applicant may elect (volunteer) to install this turn lane as part of the access construction and required left turn lane improvement. See design notes under item 1.	Applicant
10b.2	<u>Short Term</u> Northbound left-turn deceleration lane on Curtis Rd approaching the site access. See Design notes under item 1.1	With site development plan/plat. This turn lane is projected to be warranted based on Filing No. 1 Preliminary Plan projected volumes.	Applicant
10b.3	<u>Short Term</u> Southbound right-turn acceleration lane on Curtis Rd for right-turning traffic exiting the site access.	This auxiliary lane is not projected to be warranted based on Filing No. 1 Preliminary Plan projected volume.	Applicant
10b.4a	<u>Short Term</u> Construct intersection w/Stop-sign control for the eastbound approach. See design notes under item 1.1.	With site development plan/plat.	Applicant
10b.4b	<u>Long Term</u> From Master TIS: Install traffic signal A signal warrant would not be met based on Filing No. 1 Preliminary Plan projected volume.	Once warranted - with future MUP development, as necessary to maintain acceptable intersection operations.	Applicant
Item # 2 Note: CDDT Formula taken from CDDT review letter US24 & Stapleton: Based on the average AM & PM site-generated passenger cars directly impacting the 4-hour signal warrant, the Meadowlake Industrial Park Filing No. 1 development is required to escrow \$92,000 (8.5 new vehicles / 60 vehicles-to-warrant x \$650K/signal cost) to CDDT for the construction of the traffic signal. Item # 2 Note: The default ECM trigger for this potential right turn lane is 25 vph, and the threshold would be met with 2025 background or site-generated (and total) traffic. However, since the southbound approach is currently Stop-sign controlled, the turn lane is not currently needed due to mitigate speed differential between through traffic and right turning traffic. LSC recommends the following triggers: o Once the intersection is signalized (if as signal is the selected future traffic control instead of a modern roundabout) or o if El Paso County switches the orientation of the stop signs such that Curtis is changed to the "major street" and Falcon Highway is changed to the "minor street" (the intersection remains two-way, stop-sign control). o if or needed for operations - i.e., to maintain an acceptable level of service as an intersection with TWSC or AWSC As none of these triggers are met based on short term total traffic volumes, escrow for pro-rata share of this potential improvement with the plat submittal. LSC suggests escrow in lieu of lane construction as the above triggers are not met and the lane could potentially be "throw away" if a roundabout is selected as the future traffic control. The escrow for the southbound right turn lane could potentially be returned to the applicant, as it would not be necessary with a roundabout. LSC Transportation Consultants, Inc. (2/11/2024)			

you may also add a note similar to 10.b.4.b

2

revise to applicant as the future development of this Meadowlake site would drive this improvement.

1

Please clarify if this change will provide an acceptable LOS at this intersection.

3

---

Number: 1 Author: Daniel Torres Subject: Callout Date: 5/29/2024 4:02:24 PM -06'00'

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revise to applicant as the future development of this Meadowlake site would drive this improvement.

Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:20:32 PM  
LSC Response: Revised as requested.

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Number: 2 Author: Daniel Torres Subject: Callout Date: 5/29/2024 4:10:14 PM -06'00'

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you may also add a note similar to 10.b.4.b

Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:22:06 PM  
LSC Response: Added as suggested.

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Number: 3 Author: Daniel Torres Subject: Callout Date: 5/29/2024 4:50:19 PM -06'00'

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Please clarify if this change will provide an acceptable LOS at this intersection.

Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:26:16 PM  
LSC Response: A TWSC sign orientation is not a recommendation, rather a "what if" scenario.

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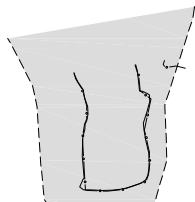
The TIS clarifies that a change to AWSC would result in an acceptable LOS.



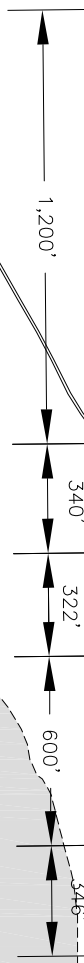


Approximate Scale  
1" = 600'

MEADOW LAKE AIRPORT  
ASSOC.  
SCH. NO. 430000563



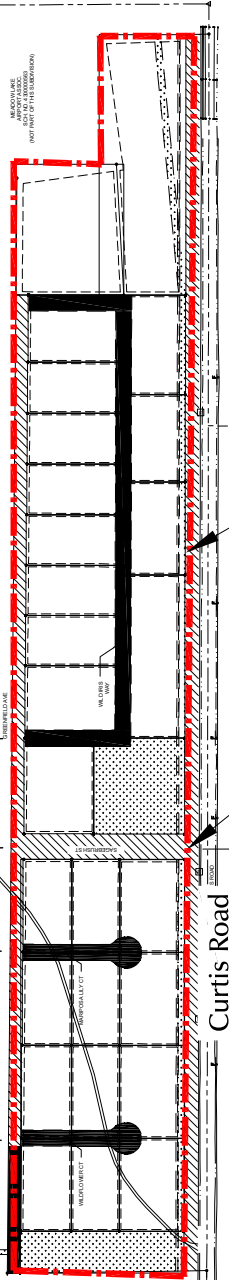
UNNAMED TRIBUTARY



330' is shown on the  
prelim plan. Please  
verify and coordinate  
with the planner to  
ensure the  
intersection distances  
are consistent and  
meet criteria.

1

Center of future  
planned access  
road (not a part of  
this application)



Curtis Road

SADDLEHORN RANCH  
HOMES LLC  
SCH. NO. 4310001001

SADDLEHORN RANCH  
HOMES LLC  
SCH. NO. 4310001002

SADDLEHORN RANCH  
HOMES LLC  
SCH. NO. 4310001003

GORILLA CAPITAL CO  
SADDLEHORN RANCH LLC  
SCH. NO. 4310001019

FAYE REYNOLDS  
SCH. NO. 430000550

Filing 1  
Preliminary  
Plan Site

Proposed Full-  
Movement Access

2,400'

MEADOW LAKE AIRPORT ASSOC.  
SCH. NO. 430000563

Falcon Hwy

MICHAEL E. SANAP  
MIGUELEBANA.P.

GARY L. HANEY

JEANNE L. CORNELL WARDNER  
JANET M. WARDNER

BOBCAT MEADOWS  
PUBLIC FACILITIES TRUST  
SCH. NO. 4315001031

Figure 2  
Site  
Plan




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Number: 1 Author: Daniel Torres Subject: Callout Date: 5/29/2024 5:05:42 PM -06'00'

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330' is shown on the prelim plan. Please verify and coordinate with the planner to ensure the intersection distances are consistent and meet criteria.

 Author: jchodsdon Subject: Sticky Note Date: 11/15/2024 2:26:43 PM  
LSC Response: Corrected on the updated figure.

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