

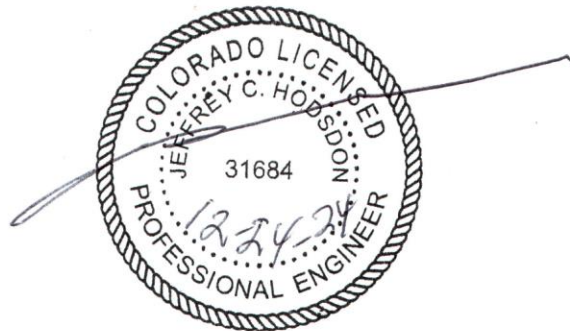


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Waterbury Filing No. 1
Traffic Impact Analysis
SF237
(LSC #204222)
December 24, 2024

Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

Owner sign

1

Date

LSC Responses to TIS Redline Comments

Page: 1

 Number: 1 Author: eschoenheit Subject: Text Box Date: 1/23/2025 15:47:19

[Owner sign](#)


 Author: kdfer Subject: Sticky Note Date: 2/6/2025 09:41:13
LSC Response: The updated TIS includes the owner signature

Figure 3b presents a stopping sight-distance analysis for proposed Lot Nos. 21, 22, and 186. This has been provided due to the proximity of these driveways adjacent to the corresponding departure legs of the Saybrook roundabout. The analysis also shows an entering sight-distance analysis for Lot No. 21. LSC recommends the driveway for Lot 21 be configured with a “hammerhead” type design, if possible, to allow vehicles to turn around on the property to minimize backing maneuver into the street.

Pedestrian and Bicycle Accommodations

There are two existing schools located within two miles of the site, Falcon High School and Meridian Ranch Elementary. A future K-8 school site is located just north of Falcon High School. These schools are located north of Londonderry Drive and west of Eastonville Road. There is also a regional park located northwest of the site.

Figure 4 shows the school pedestrian routes. There are currently no sidewalks on Stapleton Drive and on Eastonville Road. Eastonville Road is planned to be improved in the short term as part of a Pikes Peak Rural Transportation Authority (PPRTA) project. The proposed cross section for the section of Eastonville Road between Stapleton Drive and Londonderry Drive includes sidewalks. Sidewalks will be constructed on Stapleton Drive when it is reconstructed to its final Principal Arterial cross section.

The following is a list of known and planned multi-modal and pedestrian accommodations in the vicinity of the site:

- A park n’ ride facility is planned for a site near Meridian Road and US Highway 24.
- The Rock Island Regional Trail passes near to the site.
- Many of the area County roads have been or will be upgraded to provide paved shoulders for cyclists. Stapleton is shown as a future “bike route.”
- The El Paso County Parks, Trails and Open Space Master Plan shows a future primary regional trail along Eastonville Road. Another future primary regional trail is shown extending west from Eastonville Road through Meridian Ranch.
- The *Highway 24 PEL Study* also includes multi-modal elements.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site’s vicinity are shown in Figure 1 and are described below. Copies of the 2016 *El Paso County Major Transportation Corridors Plan (MTCP) 2040 Roadway Plan*, and 2016 *MTCP 2060 Corridor Preservation Plan (CPP)* with the site location identified on them have been attached to this report.

US Highway 24 (US Hwy 24) is generally a two-lane State Highway extending east/west across Colorado connecting the Buena Vista, Colorado Springs, and Limon areas. US Hwy 24 is planned to be widened to four lanes through the Falcon area. The US Hwy 24 PEL identifies this widening as a

functions like an SIA. The 2024 *MTCP* also appears to show some changes from the 2016 *MTCP*, which may affect the timing and/or cross section.

h) Other offsite impacts as identified in any new/updated traffic impact analysis for this development.

See Table 3 for a summary of the recommended improvements

CDOT PROCESS AND REQUIREMENTS

CDOT comments have indicated: ***As part of the CDOT Access Permit, the escrow in the amount of \$40,430 will be collected for future intersection improvements.***

LSC Note: There are a number of developments – in progress and future/planned – in the area which will also add traffic to this intersection and impact the four-hour warrant. As CDOT collects escrow for other developments, LSC recommends that as the collective impact trips (directly impacting the 4-hour warrant volumes) by area developments begins to exceed the 60-vehicle-per-hour denominator from either side street, fair-share recalculation of pro-rata share escrow amounts and credit be provided to developments according to updated fair-share calculations and considering the relative side-street approach impacts to the warrants. Also, once the signal is installed, credit should be provided from the Countywide Fee Program based on a ratio of fee-program-unit signal cost divided by the \$700K signal cost.

DEVIATION REQUESTS

Current

- A deviation request to the criteria for the typical Urban Residential Collector Cross Section contained in the *El Paso County Engineering Criteria Manual (ECM)* criteria will be submitted for Saybrook Road as part of this application. The deviation request is to allow partial turn-movement direct access for lots adjacent to Saybrook Road. The proposed modified cross section will allow for needed access while preserving operation of through movements.

STATUS: SUBMITTED LAST YEAR-UNDER REVIEW; Resubmitted on Updated Form



Prior Approved

- A deviation for traffic is requested and approved for a modification of the Saybrook Road (Urban Residential Collector) to allow left- and right-turn bays on southbound Saybrook (approaching Stapleton) to be designed for required stacking/storage plus a compact-bay taper design.


STATUS: PRIOR APPROVED; Resubmitted on updated form per County request.




- A deviation to allow a proposed full-movement intersection on Stapleton Road about 2,200 feet from US Highway 24 and 1,345 feet from **Dumont (future)**.

STATUS: PRIOR APPROVED; Resubmitted on updated form per County request.





 Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: File Attachment Date: 1/24/2025 14:50:48
Approved deviation request


 Author: kdfer Subject: Sticky Note Date: 2/6/2025 09:55:02
LSC Response: The text has been revised to indicate that the deviation request has been approved

 Number: 2 Author: eschoenheit Subject: Highlight Date: 1/23/2025 17:38:45

 Number: 3 Author: eschoenheit Subject: Highlight Date: 1/23/2025 17:38:52

 Number: 4 Author: eschoenheit Subject: Highlight Date: 1/23/2025 17:38:51

 Number: 5 Author: Jeff Rice - EPC Engineering Review Subject: File Attachment Date: 1/24/2025 14:50:04
Approved deviation request

 Author: kdfer Subject: Sticky Note Date: 2/6/2025 09:45:01
LSC Response: The text has been revised to indicate that the deviation request has been approved

**Table 3
Waterbury Filing No. 1 Roadway Improvements**

Item #	Improvement	Trigger	Timing	Responsibility
Roadway Segment Improvements				
1	Eastonville Road: Stapleton to Londonderry final grading and paving	dependent on PPRTA funding priorities	TBD by EPC; PPRTA "A-List" Project	PPRTA
2	Eastonville Road: Londonderry to Rex final grading and paving	With Grandview Reserve development	With Grandview Reserve Phase 1	Grandview Reserve
3	Falcon Regional Trail: Construct east of Eastonville Road along the Phase 1 frontage	With Grandview Reserve development	With Grandview Reserve Phase 1	Grandview Reserve
4	Eastonville: Road Rex to Latigo initial grading and paving	Average Daily Traffic > 200 vehicles per day (ECM); Average Daily Traffic > 300 vehicles per day (fee study trigger)	Existing Deficiently; TBD by EPC; PPRTA list shows as an "A-List" project, however, this segment is shown as a future "Phase II" in the Wilson Eastonville Study	PPRTA and/or with funds from developer escrows, and/or Fee Program funds or bonds
5	Eastonville Road: Rex to Latigo upgrade to a Rural Major Collector	Average Daily Traffic > 600 vehicles per day ⁽¹⁾	TBD by EPC; PPRTA Phase II (Per Wilson Study)	PPRTA and/or with funds from developer escrows, and/or Fee Program funds or bonds
6	Eastonville Road: Stapleton to Grandview Reserve south boundary upgrade to a Rural Major Collector	average daily traffic > 20,000 vehicles per day	dependent on PPRTA funding priorities	Grandview Reserve
7	Stapleton Drive: Meridian Road to Eastonville Road complete southern (eastbound) half	average daily traffic > 18,000 vehicles per day	Shown in the MTCP	El Paso County/PPRTA
8	Stapleton Drive: Eastonville Road to US 24 complete southern (eastbound) half	average daily traffic > 18,000 vehicles per day	Beyond 2045 and/or Prior to full-buildout of developments within the Waterbury Metro District *See Note below	Waterbury Metro District
Stapleton Drive/US Highway 24 Intersection				
9	Convert from Two-Way, Stop-Sign Control to Signal Control	When Traffic Signal Warrant(s) are met. The decision on timing of traffic signal installation rests with the Colorado Department of Transportation	Anticipated in the short-term. It is our understanding that this is on the CDOT list of intersections planned for signalization.	Per CDOT comments: \$40,430 will be collected for future intersection improvements.
10	Add northeast-bound dual left-turn lane	As needed with future developments (Will require Stapleton Drive to be widened to two westbound through lanes between US Hwy 24 and Dumont Dr)	Anticipated in the short-term	
11	Add other dual left-turn lanes	As needed with future developments (Will require Items Stapleton and US Hwy 24 widened to two through lanes in all directions)	Future	
12	Potential long-term capacity upgrades (jughandle, a JI Interchange, etc.)	When level of service degrades below acceptable levels	Shown in US Highway 24 PEL Study;	
Eastonville Road/Stapleton Drive				
13	Reconstruct as modern roundabout	Short-Term (under design as part of the Eastonville PPRTA Phase 1 project)		PPRTA Eastonville Phase 1 Project/El Paso County
14	Expand to multi-lane modern roundabout	With Improvement #8: Stapleton Drive - Eastonville Road to US Hwy 24 complete southern (eastbound) half		El Paso County
Stapleton Drive/Saybrook Road Intersection				
15	Construct an eastbound left-turn lane on Stapleton Dr approaching Saybrook. This lane should be 335 feet long plus a 200-foot taper.	eastbound left-turn volume > 10 vph	With Waterbury Filing No. 1	Waterbury
16	Construct a westbound right-turn deceleration lane on Stapleton Dr approaching Saybrook. This lane should be 340 feet plus a 96 foot bay taper.	westbound right-turn volume > 25 vph	With Waterbury Filing No. 1	Waterbury
17	Construct a westbound right-turn acceleration lane on Stapleton Dr at Saybrook. This lane should be 760 feet long plus a 180-foot taper.	southbound right-turn volume > 50 vph	With Future Waterbury Filings (Not anticipated to be met with Waterbury Filing 1)	Waterbury
18	Convert from Two-Way, Stop-Sign Control to Signal Control	When Traffic Signal Warrant(s) are met. The decision on timing of traffic signal installation rests with El Paso County	Future (Likely with development on the south side of Stapleton)	4 Way Ranch Metro District

*Note: The 2045 Roadway Plan in the 2024 update to the MTCP shows this segment of Stapleton as a two-lane, Urban Principal Arterial. However, the completion of the southern half/two eastbound lanes will be required as needed based on total traffic demand (combination of metro-district parcel-generated traffic plus through traffic and other area development traffic). Please refer to the background traffic section of this report and Appendix A.

or roundabout


2

Waterbury should have shared escrow responsibility for this signal PUDSP215 TIS indicated Waterbury

1


Number: 1 Author: eschoenheit Subject: Callout Date: 1/23/2025 18:22:50

[Waterbury should have shared escrow responsibility for this signal PUDSP215 TIS indicated Waterbury](#)

 Author: kdfer Subject: Sticky Note Date: 2/6/2025 09:55:28
LSC Reponse: Revised as requested

Number: 2 Author: Jeff Rice - EPC Engineering Review Subject: Callout Date: 1/24/2025 13:09:43

[or roundabout](#)

 Author: kdfer Subject: Sticky Note Date: 2/6/2025 10:10:36
LSC Response: Revised as requested

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section _____ of the ECM is hereby granted based on the justification provided.

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L J

Denied by the ECM Administrator


This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.


Γ Γ

L J

ECM ADMINISTRATOR COMMENTS/CONDITIONS:



 Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: File Attachment Date: 1/24/2025 14:49:49
Approved deviation request

 Author: kdfer Subject: Sticky Note Date: 2/6/2025 10:13:30
LSC Response: A copy of the approved deviation request has been included with the updated TIS



Development Services Department
2880 International Circle
Colorado Springs, Colorado 80910

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Website www.elpasoco.com

DEVIATION REVIEW AND DECISION FORM

Procedure # R-FM-051-07
Issue Date: 12/31/07
Revision Issued: 00/00/00
DSD FILE NO.:

Table with 7 empty cells for DSD FILE NO.

General Property Information:

Address of Subject Property (Street Number/Name): 0 Eastonville Road
Tax Schedule ID(s) #: 4200000367, 4200000366, 4200000349, 4200000326
Legal Description of Property: See Attached
Subdivision or Project Name: Waterbury (formerly 4 Way Ranch)

Section of ECM from Which Deviation is Sought: 2.3.7.E.1 & 2 Intersections - Turn Lane Design Elements.
Specific Criteria from Which a Deviation is Sought: The design elements for a left turn lane are the bay taper, lane length, storage length, which in combination makes up the left turn lane. The design elements for a right turn and deceleration lanes are the approach taper, lane length, storage length, which in combination makes up the right turn lane.

Proposed Nature and Extent of Deviation: The requested deviation is to allow left and right turn bays on the southbound Saybrook approach to Stapleton to be designed for required stacking/storage distance plus a compact bay taper design in order to minimize the impact to on-street parking and lots fronting Saybrook (see attached exhibit)

Applicant Information:

Applicant: 4 Way Ranch Joint Venture, LLC (Peter Martz) Email Address: pmartzlrg@comcast.net
Applicant is: [X] Owner [] Consultant [] Contractor
Mailing Address: P.O. Box 50223 Colorado Springs State: CO Postal Code: 80949
Telephone Number: (719) 491-3150 Fax Number: []

Engineer Information:

Engineer: Jeffrey C. Hodsdon Email Address: jeff@lscs.com
Company Name: LSC Transportation Consultants, Inc.
Mailing Address: 516 N. Tejon St., Colorado Springs State: CO Postal Code: 80903
Registration Number: 31684 State of Registration: CO
Telephone Number: 719-633-2868 Fax Number: 719-633-5430

Explanation of Request (Attached diagrams, figures and other documentation to clarify request):

Section of ECM from Which Deviation is Sought: 2.3.7.E.1 & 2 Intersections - Turn Lane Design Elements.
Specific Criteria from Which a Deviation is Sought: The design elements for a left turn lane are the bay taper, lane length, storage length, which in combination makes up the left turn lane. The design elements for a right turn and deceleration lanes are the approach taper, lane length, storage length, which in combination makes up the right turn lane.


Proposed Nature and Extent of Deviation: The requested deviation is to allow left and right turn bays on the southbound Saybrook approach to Stapleton to be designed for required stacking/storage distance plus a compact bay taper design.

Reason for the Requested Deviation: The deviation is requested in order to minimize the impact to on-street parking and lots fronting Saybrook (see attached exhibit).

Comparison of Proposed Deviation to ECM Standard: The ECM requires turn lanes to include deceleration distance plus stacking distance plus taper length. Based on a design speed of 30 mph (posted speed would also be 30 mph) and the turning volumes, the ECM criteria for turn lanes requires a southbound right-turn lane length of 165 to 190 feet (115 feet of deceleration distance plus 50 to 75 feet of storage) plus a 120-foot taper and a southbound left-turn lane length of 165 to 190 feet plus a 120-foot taper. LSC's judgment is that given the particular situation, these lane lengths could be shortened to provide stacking distance only. Note: The traffic simulation actually indicates a 2035 need for about 100 feet of stacking to accommodate the projected queues, rather than 50 to 75 per ECM

 Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: Text Box Date: 1/24/2025 13:29:52

[Remove this](#)

 Author: kdfer Subject: Sticky Note Date: 2/6/2025 10:22:03
LSC Response: Removed as requested

requirements. The right turn lane stacking need would be 50 to 75 feet
Applicable Regional or National Standards used as Basis:

Application Consideration:

CHECK IF APPLICATION MEETS CRITERIA FOR CONSIDERATION

JUSTIFICATION

The ECM standard is inapplicable to a particular situation.

Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship on the applicant, and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.

A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

The deviation is requested in order to minimize the impact to on-street parking and lots facing Saybrook. Deceleration distance is not necessary as explained below. Compact tapers are also reasonable and preferred on this planned urban street.

If at least one of the criteria listed above is not met, this application for deviation cannot be considered.

Criteria for Approval:

PLEASE EXPLAIN HOW EACH OF THE FOLLOWING CRITERIA HAVE BEEN SATISFIED BY THIS REQUEST

The request for a deviation is not based exclusively on financial considerations.

This request is not based on cost. The request is being made to minimize the impact to on-street parking and lots fronting Saybrook.

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

Most southbound vehicles will be turning left or right at Stapleton, and with either a Stop-sign on the southbound approach, or a future traffic signal, southbound motorists will expect a stop condition at Stapleton. The side street will likely have limited signal green time. Given this combined with the 30 mph speed limit, the urban development along Saybrook, and the fact that the street was approved through deviation as a lower speed collector street with on-street parking, deceleration distance should not be needed.

The deviation will not adversely affect safety or operations.

All these factors make this situation different from an access or intersection along a higher speed collector or arterial where a deceleration length component is important. The Preliminary Plan shows both southbound left- and right-turn bays on Saybrook on the approach to Stapleton. The southbound left-turn lane would have sufficient stacking length to accommodate over 95 percent of the southbound left vehicle queues during the peak hour. The southbound right-turn lane would have sufficient stacking length to accommodate the southbound right-turn vehicle queues. Both lanes would be of sufficient length such that the entry to the lanes would not be blocked by the southbound through lane queue except perhaps in an unusual situation.

The deviation will not adversely affect maintenance and its associated cost.

Not Applicable.

The deviation will not adversely affect aesthetic appearance.


Not Applicable.

Owner, Applicant and Engineer Declaration:

El Paso County Procedures Manual
Procedure # R-FM-051-07
Issue Date: 12/31/07
Revision Issued: 00/00/00
DSD File No. _____

 Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: Text Box Date: 1/24/2025 13:30:02

[Remove this](#)

 Author: kdfer Subject: Sticky Note Date: 2/6/2025 10:22:12
LSC Response: Removed as requested

DEVIATION REVIEW AND DECISION
Page 3 of 3

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Signature of owner (or authorized representative) _____ Date 6/26/13

Signature of applicant (if different from owner) _____ Date _____

Signature of Engineer _____ Date _____

Engineer's Seal



Review and Recommendation:

APPROVED by the ECM Administrator

Signature of ECM Administrator _____ Date 7-16-13

This request has been determined to have met the criteria for approval. A deviation from Section 2.3.7.E.1+2 of ECM is hereby granted based on the justification provided. Comments:

____ Additional comments or information are attached.

DENIED by the ECM Administrator


Date _____

This request has been determined not to have met criteria for approval. A deviation from Section _____ of ECM is hereby denied. Comments:

____ Additional comments or information are attached.

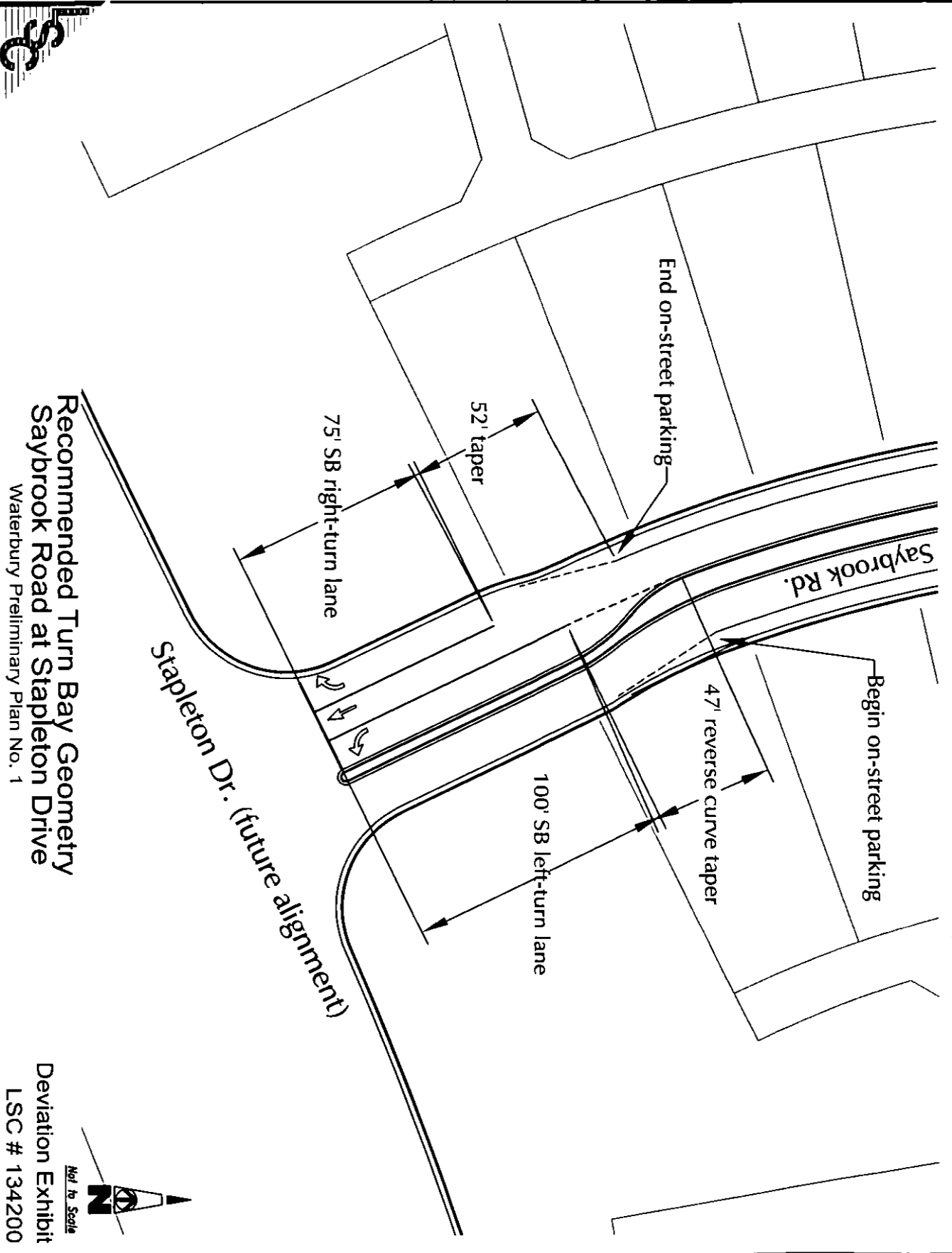
 Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: Text Box Date: 1/24/2025 13:30:07

[Remove this](#)

 Author: kdfer Subject: Sticky Note Date: 2/6/2025 10:22:18
LSC Response: Removed as requested

Remove this

1



Recommended Turn Bay Geometry
Saybrook Road at Stapleton Drive

Waterbury Preliminary Plan No. 1


Deviation Exhibit
LSC # 134200

TRANSPORTATION
CONSULTANTS, INC.



 Number: 1 Author: Jeff Rice - EPC Engineering Review Subject: Text Box Date: 1/24/2025 13:30:13

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 Author: kdfer Subject: Sticky Note Date: 2/6/2025 10:22:24
LSC Response: Removed as requested
