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DEVIATION REVIEW AND DECISION FORM

Procedure # R-FM-051-07
 Issue Date: 12/31/07
 Revision Issued: 00/00/00

DSD FILE NO.:

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General Property Information:

Address of Subject Property (Street Number/Name): Not available

Tax Schedule ID(s) #:5500000135

Legal Description of Property: W2 SEC 9-15-65, EX PT TO RDS

Subdivision or Project Name: **Springs East at Waterview, preliminary plan**

Section of ECM from Which Deviation is Sought: 2.3.7.D.1 Intersections, Turn Lanes Required

Specific Criteria from Which a Deviation is Sought: Turn Lane Design

Proposed Nature and Extent of Deviation: On the northbound approach at the intersection of Bradley Road and "A Street:" The request is to allow a left-turn lane and taper lengths shorter than the ECM standard. The request is to allow the turn lane to consist of adequate storage distance in the proposed dual left-turn lanes, but not include the full-length deceleration distance (as prescribed in the ECM). The northbound approach at the A Street/Bradley Road intersection will likely be Stop-sign controlled, initially, and future change to traffic signal control is proposed. Given that most of the signal green time would be assigned to eastbound/westbound Bradley Road, the northbound approach will be an expected "stop condition" for drivers exiting the subdivision or the commercial. Drivers will negotiate the roundabout to the south at a design speed lower than the standard design speed for a non-residential collector. After negotiating the roundabout, drivers will expect a stop condition at Bradley Road. Also, most of the approach turning movements will be right turns or left turns onto Bradley Road (prior to the development on the north side of Bradley, all vehicles will turn left or right). Given these site-specific conditions, the request to waive the requirement for deceleration distance is reasonable. Also, the request is to allow a custom lane transition taper for the entry into the dual left-turn lanes. This taper will be a reverse-curve bay taper design that will be integrated with the splitter island design of the roundabout. The intent will be to create an appropriate transition for motorists entering the left-turn lanes -- with curvature and an appropriate overall length -- while maximizing the full-width dual left-turn lane length for stacking of left turning vehicles approaching Bradley Road.

The request requires a deviation as the ECM prescribes deceleration length plus vehicle storage distance plus transition taper for left-turn lanes on collector roadways where turn lanes are required per section 2.3.7.D.1.

Applicant Information:

Applicant: Dakota Springs Engineering
 Applicant is: Owner Consultant Contractor
 Mailing Address: 31 N Tejon Street, Suite 500, Colorado Springs State: CO Postal Code: 80903
 Telephone Number: 719-377-0244 Email Address: dse.pak7@gmail.com

Engineer Information:

Engineer: Jeffrey C. Hodsdon, P.E., PTOE
 Company Name: LSC Transportation Consultants, Inc.
 Mailing Address: 545 East Pikes Peak Ave. Suite 210 Colo Springs State: CO Postal Code: 80903
 Registration Number: 31684 State of Registration: CO
 Telephone Number: 719-633-2868 Fax Number: 719-633-5430 Email Address: jeff@LSCTrans.com

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

Section of ECM from Which Deviation is Sought: 2.3.7.D.1

Specific Criteria from Which a Deviation is Sought: Turn Lane Design

Proposed Nature and Extent of Deviation: Please refer to the attached exhibits, which are figures from the TIS. On the northbound approach at the intersection of Bradley Road and "A Street:" The request is to allow a left-turn lane and taper lengths shorter than the ECM standard. The request is to allow the turn lane to consist of adequate storage distance in the proposed dual left-turn lanes, but not include the full-length deceleration distance (as prescribed in the ECM). The northbound approach at the A Street/Bradley Road intersection will likely be Stop-sign controlled, initially, and future change to traffic signal control is proposed. Given that most of the signal green time would be assigned to eastbound/westbound Bradley Road, the northbound approach will be an expected "stop condition" for drivers exiting the subdivision or the commercial. Drivers will negotiate the roundabout to the south at a design speed lower than the standard design speed for a non-residential collector. After negotiating the roundabout, drivers will expect a stop-condition at Bradley Road. Also, most of the approach turning movements will be right turns or left turns onto Bradley Road (prior to the development on the north side of Bradley, all vehicles will turn left or right). Given these site-specific conditions, the request to waive the requirement for deceleration distance is reasonable. Also, the request is to allow a custom lane transition taper for the entry into the dual left-turn lanes. This taper will be a reverse curve bay taper design that will be integrated with the splitter island design of the roundabout. The intent will be to create an appropriate transition for motorists entering the left-turn lanes -- with curvature and an appropriate overall length -- while maximizing the full-width dual left-turn lane length for stacking of left turning vehicles approaching Bradley Road.

Reason for the Requested Deviation: The deviation supports the proposed intersection spacing (please refer to the separate intersection spacing deviation for the reasons and justification for the proposed intersection spacing). The site-specific conditions would not necessitate the full deceleration length plus vehicle storage distance plus transition taper for left-turn lanes.

Comparison of Proposed Deviation to ECM Standard: Please refer to the attached Deviation Table 1. The ECM standard for a 40-mph design speed limit is 155 feet of full-width lane plus a 160-foot taper plus storage distance. Regarding storage distance, ECM Table 2-30 calls for 250 feet or more of storage for the Stop-sign-controlled intersections; however, the northbound left turn is at a planned future signal-controlled intersection. The projected queue length from the TIS is more appropriate for determining the queue storage needed for this left-turn lane than the general ECM Table 2-30. The projected maximum queue length from the TIS is 204 feet. LSC recommends an approximately 220-foot dual left lane plus 90-foot reverse curve taper. This is about 160 feet less than the ECM standard.

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.

The deviation supports the proposed intersection spacing (please refer to the separate intersection spacing deviation for the reasons and justification for the proposed intersection spacing). The site-specific conditions would not necessitate the full deceleration length plus vehicle storage distance plus transition taper for left-turn lanes. As the upstream intersection to the south is planned as a modern one-lane roundabout, back-to-back left-turn lanes on A Street between Bradley Road and the roundabout will not be required.

- 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.

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.

The deviation supports the proposed intersection spacing (please refer to the separate intersection spacing deviation for the reasons and justification for the proposed intersection spacing).

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

The site-specific conditions would not necessitate the full deceleration length plus vehicle storage distance plus transition taper for left-turn lanes. As the upstream intersection to the south is planned as a modern one-lane roundabout, back-to-back left-turn lanes will not be required. The projected queues could be accommodated by the proposed turn lanes.

The deviation will not adversely affect safety or operations.

The 2040 queueing analysis contained in the TIS indicates that adequate storage will be provided for the northbound left-turn queue on the Non-Residential Collector approaching Bradley Road. As vehicles arriving at this intersection will have come from the proposed one-lane modern roundabout intersection to the south, their approach speed will be less than the typical design speed for a Non-Residential Collector decreasing the need to provide the full deceleration/taper lengths called for by the ECM. The projected maximum queue length from the TIS is 204 feet. LSC recommends an approximately 220-foot dual left lane plus 90-foot reverse curve taper. This is about 160 feet less than the ECM standard.

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

This deviation will not adversely affect the maintenance cost.

The deviation will not adversely affect aesthetic appearance.

This deviation will not change the aesthetic appearance.

Owner, Applicant and Engineer Declaration:

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

Signature of applicant (if different from owner)

Date

Signature of Engineer

Date

Engineer's Seal



Review and Recommendation:
APPROVED by the ECM Administrator

Approved

by Elizabeth Nijkamp
El Paso County Planning and Community Development
on behalf of Jennifer Irvine, County Engineer, ECM Administrator



10/01/2018 4:32:40 PM

Date

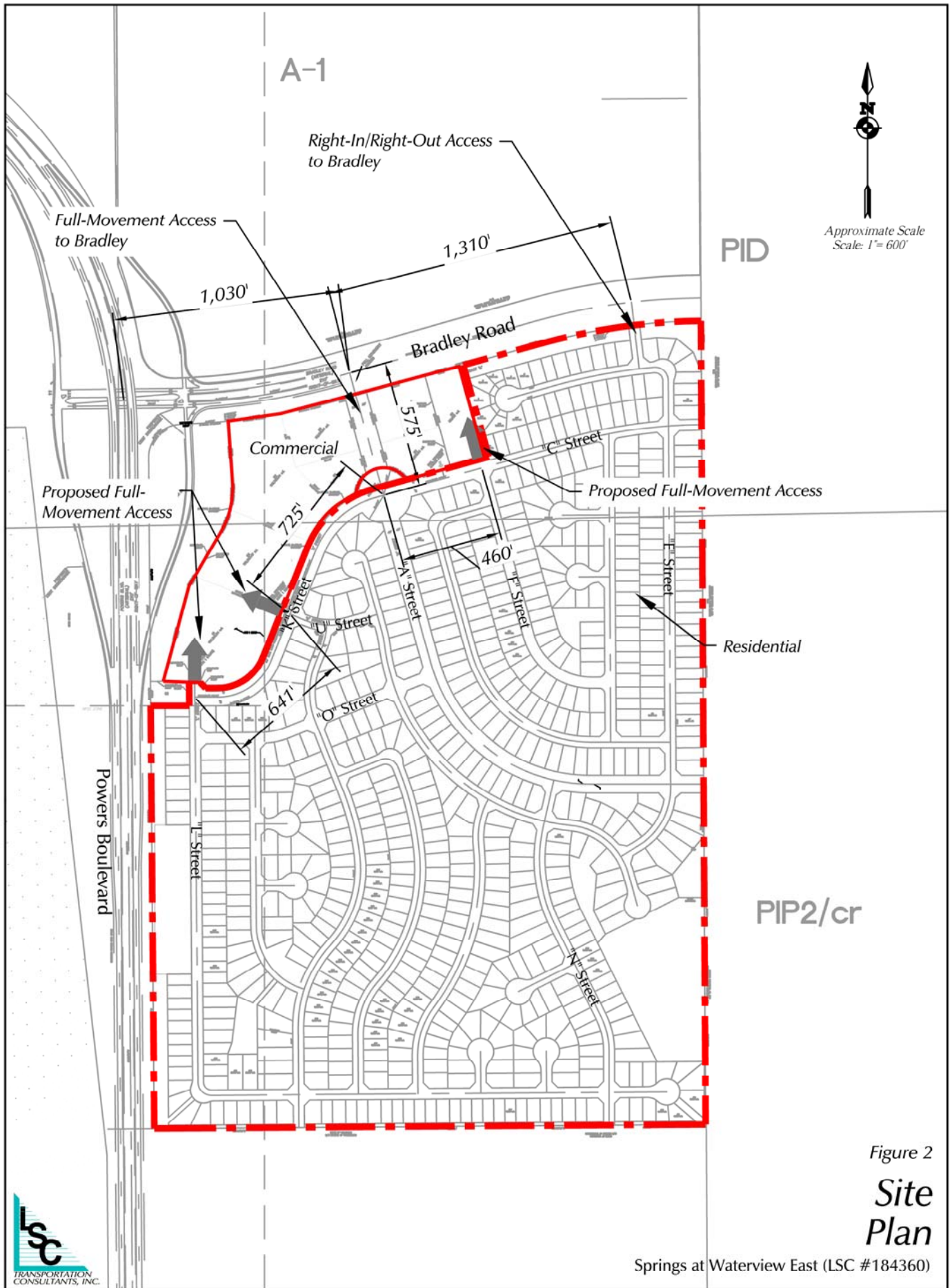
This request has been determined to have met the criteria for approval. A deviation from Section 2.3.7.D1 of ECM is hereby granted based on the justification provided. Comments:

CONDITIONS:

The exact length and transition point of the lane and taper shall be determined through the construction document review process and shall be maximized to the greatest extent possible.

Appropriate sign requirements will be determined at the construction document stage, and shall meet MUTCD standards.

Approval of this deviation is limited to the layout as shown in this preliminary plan. Any changes to this layout or zoning shall void this approval.



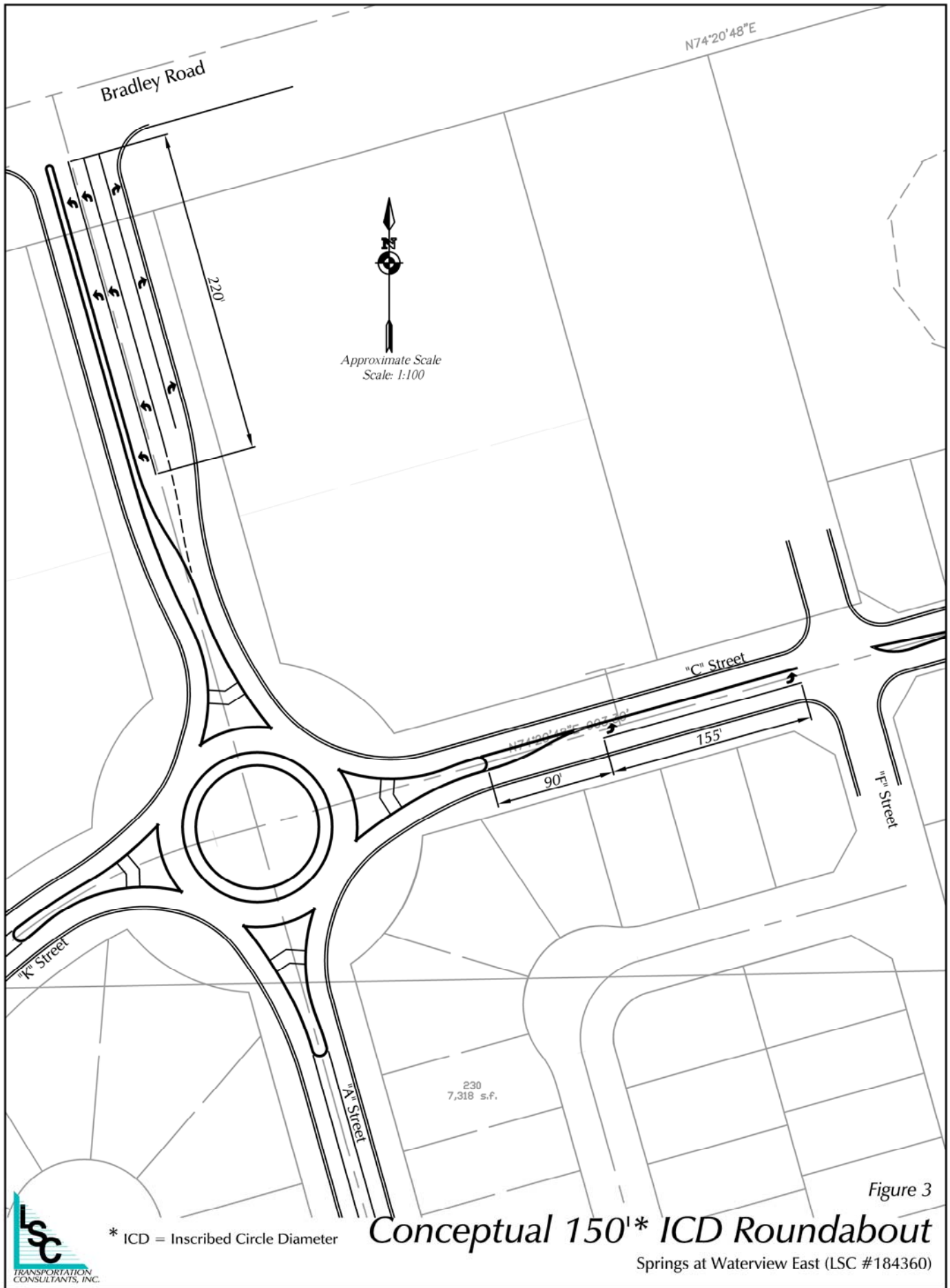


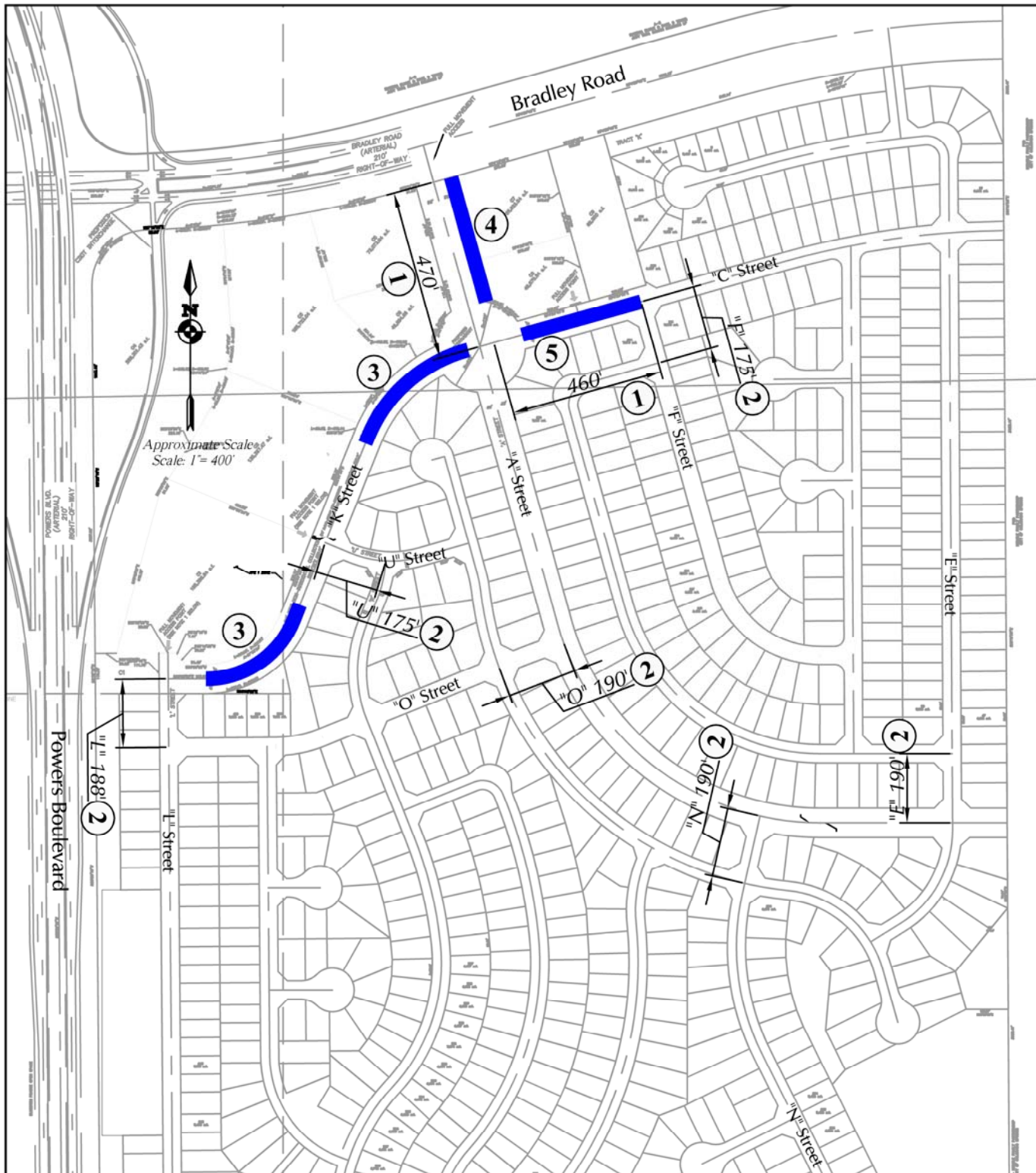
Figure 3

* ICD = Inscribed Circle Diameter

Conceptual 150' * ICD Roundabout

Springs at Waterview East (LSC #184360)





Legend

- ① Intersection spacing along a Non-Residential Collector
- ② Intersection spacing along an Urban Local
- ③ Center-line radius on a Non-Residential Collector
- ④ Reduction in auxiliary turn lane lengths - "A" Street s/o Bradley Rd.
- ⑤ Reduction in auxiliary turn lane lengths - "C" Street w/o "F" Street

Figure 4

Deviation Requests

Springs at Waterview East (LSC #184360)

