



LSC TRANSPORTATION CONSULTANTS, INC.
2504 East Pikes Peak Avenue, Suite 304
Colorado Springs, CO 80909
(719) 633-2868
FAX (719) 633-5430
E-mail: lsc@lsctrans.com
Website: <http://www.lsctrans.com>

Estates at Cathedral Pines
Trip Generation & Access Technical Memo
(LSC #S224150)
EPC PCD File No. PUDSP2210 & SF2234
January 8, 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.

Elaine Cawfield

1/12/2024

Date



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January 8, 2024

Mr. Bill Guman
William Guman & Associates, Ltd.
731 North Weber Street, Suite 10
Colorado Springs, CO 80903

RE: Estates at Cathedral Pines
El Paso County, CO
Trip Generation & Access Technical Memo
LSC #S224150

Dear Mr. Guman,

LSC Transportation Consultants, Inc. has prepared this “trip generation and access” technical memorandum for the proposed Estates at Cathedral Pines in El Paso County, Colorado. The 35-acre site (El Paso County parcel ID 6200000411) is located northwest of the intersection of Peregrine Way and Winslow Drive. Access is proposed to Winslow Drive about 1,100 feet north of Peregrine Way.

This report presents information regarding the proposed land use, the estimated vehicle-trip generation, and an evaluation of the site-access point relative to County access criteria. The memo is called a “Trip Generation & Access Technical Memo” as the criteria under *Engineering Criteria Manual (ECM)* section B.1.2.D “No TIS Required” is met.

This memo also references a deviation request and a *Land Development Code* waiver.

PROPOSED LAND USE

The 35-acre property is zoned PUD RR-5 is located. The land-use application is for eight lots for single-family homes.

SITE ACCESS

The site access is proposed to Winslow Drive approximately 1,100 feet north of Peregrine Way (centerline distance). This location is about 840 feet south of Saxton Hollow Road in Cathedral Pines. A copy of the site plan is attached for reference. The two subdivision streets are called Windermere Court and Cathedral Spires Heights. These are proposed to be private streets.

Winslow Drive is a Rural Local roadway extending north from Peregrine Way about 1,900 feet to Saxton Hollow Road. The posted speed limit along this paved road is 25 miles per hour (mph).

Intersection Spacing

Winslow Drive is a Rural Local roadway. The proposed subdivision access/entry street (Windermere Court) intersection with Winslow Drive would be at least 840 feet from the nearest intersection. This spacing along Winslow Drive would meet the *ECM* minimum intersection spacing of 330 feet for Rural Local roadways.

The intersection spacing along Windermere Court between Winslow Drive and Cathedral Spires Heights is proposed at 300 feet.

ENTERING SIGHT DISTANCE

Regarding the entering sight distance at the proposed access to Winslow Drive, please refer to the attached sight-distance exhibits prepared by JR Engineering. Sight distance will be required to meet the requirements of *ECM* Section 2.3.6 G.

With a 25-mph posted speed limit on Winslow Drive (assumed 30 mph design speed), the entering sight distance **would exceed** the required 335-foot requirement for entering sight distance, as prescribed in *ECM* Table 2-21. The sight distance was also field checked by LSC.

Provide exhibit of intersection sight distance and state what the sight distance specifically is. The stopping sight distance exhibits do not depict the intersection sight distance.

TRIP GENERATION ESTIMATE

The trip-generation estimates for this proposed development are based on trip-generation rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE). Table 1 shows the results of the trip-generation estimate.

The development is expected to generate about 75 vehicle trips on the site during a 24-hour period, about half entering and half exiting the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 a.m. and 8:30 a.m., about 1 vehicle would enter and 4 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 p.m. and 6:15 p.m., about 5 vehicles would enter and 3 vehicles would exit the site.

"LINK LOS" FOR WINSLOW DRIVE

Winslow Drive is a Rural Local, paved roadway. The *ECM* design ADT for a "Rural Local" roadway is 750 vehicles per day (vpd) average daily traffic (ADT). Given the area road network, it is unlikely that the area buildout traffic volume, including this project, would exceed 750 vpd ADT on Winslow Drive.

EVALUATION AGAINST ECM APPENDIX B

The criteria under *Engineering Criteria Manual (ECM)* section B.1.2.D “No TIS Required” is met. Please refer to the attached worksheet.

DEVIATIONS AND WAIVERS

A **deviation request** has been included with the resubmittal of this application. This deviation request is for intersection spacing and a few other geometric/roadway design elements on Windermere Court.

A **waiver** to section 8.4.4.C of the El Paso County ***Land Development Code*** has also been included with the resubmittal of this application. Section 8.4.4.C reads: *Public Roads Required. Divisions of land, lots, and tracts shall be served by public roads.* The request is to allow the two subdivision roadways, Windermere Drive and Cathedral Spires Heights, to be private instead of public roads.

COUNTY ROAD IMPROVEMENT FEE PROGRAM

This project will be required to participate in the El Paso County Road Improvement Fee Program. The applicant will select the “Opt-out” option (no PID) and would pay the “Full Fee” amount at building permit. The current (2019) fee amount associated with this option is **\$3,850** per dwelling unit (subject to change). Based on 8 lots, the total building permit fee for this plat would be \$28,640.

* * * * *

Please contact me if you have any questions.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

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

JCH:jas

Enclosures: Table 1
ECM Appendix B – “No TIS Required” Worksheet
Site Plan Exhibit
Sight Distance Exhibits

Table 1

**Table 1
Trip Generation Estimate
Estates at Cathedral Pines**

| Land Use Code | Land Use Description | Trip Generation Units | Trip Generation Rates ⁽¹⁾ | | | | Total Trips Generated | | | | | |
|---------------|--------------------------------|-----------------------|--------------------------------------|-------------------|------|---------------------|-----------------------|-------------------------|-------------------|-----|---------------------|-----|
| | | | Average Weekday Traffic | Morning Peak Hour | | Afternoon Peak Hour | | Average Weekday Traffic | Morning Peak Hour | | Afternoon Peak Hour | |
| | | | | In | Out | In | Out | | In | Out | In | Out |
| 210 | Single-Family Detached Housing | 8 DU ⁽²⁾ | 9.43 | 0.18 | 0.52 | 0.59 | 0.35 | 75 | 1 | 4 | 5 | 3 |

Notes:
(1) Source: "Trip Generation, 11th Edition, 2021" by the Institute of Transportation Engineers (ITE)
(2) DU = dwelling unit

Source: LSC Transportation Consultants, Inc. 2/28/2023

ECM Appendix B - "No TIS Required" Worksheet



ECM Appendix B – “No TIS Required” Worksheet Estates at Cathedral Pines

ECM Section B.1.2.D. No TIS Required

No TIS is required if all of the criteria below are satisfied:

Vehicular Traffic:

- (1) Daily vehicle trip-end generation is less than 100 or the peak hour trip generation is less than 10;
- (2) There are no additional proposed minor or major roadway intersections on major collectors, arterials, or State Highways;
- (3) the increase in the number of vehicular trips does not exceed the existing trip generation by more than 10 peak hour trips or 100 daily trip ends;
- (4) The change in the type of traffic to be generated (i.e., the addition of truck traffic) does not adversely affect the traffic currently planned for and accommodated within, and adjacent to, the property;
- (5) acceptable LOS on the adjacent public roadways, accesses, and intersections will be maintained;
- (6) no roadway or intersection in the immediate vicinity has a history of safety or accident Problems [LSC is not aware of any problems]; and
- (7) there is no change of land use with access to a State Highway.

Pedestrian Traffic: Paved pedestrian facilities exist or will be constructed on, or adjacent to, the site; or, the proposed use will not generate any new pedestrian traffic.

Bicycle Traffic: Paved bicycle lanes or paths exist or will be constructed on, or adjacent to, the site; or, the proposed use will not generate any new bicycle traffic.

Site Plan Exhibit



A STATEMENT ESTABLISHING THE PURPOSE AND INTENT OF THE PUD ZONING DISTRICT

Authority This PUD is authorized by Chapter 4 of the El Paso County Land Development Code, adopted pursuant to the Colorado Planned Unit Development Act of 1972, as amended.

Applicability The provisions of this PUD shall run with the land. The landowners, their successors, heirs or assigns shall be bound by this Development Plan, as amended and approved by the Planning and Community Development Department Director or Board of County Commissioners.

Adoption The adoption of this development plan shall evidence the findings and decisions of the El Paso County Board of County Commissioners that this Development Plan for Estates at Cathedral Pines is in general conformity with the El Paso County Master Plan, El Paso County Policy Plan and applicable Small Area Plan(s); is authorized under the provision of the El Paso County Land Development Code; and that the El Paso County Land Development Code and this development plan complies with the Colorado Planned Unit Development Act of 1972, as amended.

The provisions of this Development Plan shall prevail and govern the development of Estates at Cathedral Pines, provided, however, that where the provisions of this Development Plan do not address a particular subject, the relevant provisions of the El Paso County Land Development Code, as amended and in effect at the time of the PUD plan approval (or owner acknowledge the PUD changes with the Code), or any applicable resolutions or regulations of El Paso County, shall be applicable.

To further the mutual interest of the residents, occupants, and owners of the PUD and of the public in the preservation of the integrity of this development plan, the provisions of this plan relating to the use of land and the location of common open space shall run in favor of El Paso County and shall be enforceable law or in equity by the County without limitation on any power or regulation otherwise granted by law.

Where there is more than one provision within the development plan that covers the same subject matter, the provision which is most restrictive or imposes higher standards or requirements shall govern.

The total number of dwellings shown on the development plan for development within the specified planning areas is the maximum development requested for platting or construction (plus any approved density transfers). The actual number of dwellings or level of development may be less due to subdivision or Site Development Plan requirements, land carrying capacity, or other requirements of the Board of County Commissioners.

At the time of any final plat application, the applicant shall provide a summary of the development, to date, to Planning and Community Development Department, in order to assure maximum development limits are not exceeded.

The cover sheet shall include any cross reference to the ZCP or previous PUD Development Plan, including any recording references.

Floodplain statement: The parcel is within FEMA Floodplain Map number 0804100315G, effective 12/7/2018. The property is regarded as Zone X, an area of minimal flood hazard.

There shall be no direct lot access to Winslow Drive.

Easements: Unless otherwise indicated, all side, front, and rear lot lines are hereby platted on either side with a 10 foot public utility and drainage easement unless otherwise indicated. All exterior subdivision boundaries are hereby platted with a 20 foot public utility and drainage easement. The sole responsibility for maintenance of the easements is hereby vested with the individual property owners.

LEGAL DESCRIPTION: TR IN SE4 SEC 2-12-66 DES AS FOLS: BEG AT SW COR OF SE4 SEC 2, TH N 00°49'17" 1583.77 FT, N 89°17'56" E 965.20 FT, S 00°49'17" E 1583.77 FT TO A PT ON S LN OF SD SE4, TH S 89°17'56" W 965.20 FT TO POB, TOG WITH INGRESS-EGRESS EASEMENT DES BY REC #200027778. EL PASO COUNTY, COLORADO

TAX SCHEDULE NUMBER: 6200000411
PROPOSED LAND USE: SINGLE-FAMILY RESIDENTIAL
ZONING: PUD RR-5
EXISTING LAND USE: VACANT
PROPOSED DENSITY: .228 DU/AC (Gross), .276 DU/AC (Net)

TOTAL NUMBER OF DWELLING UNITS: 8
SETBACKS: 25' FRONT, 25' SIDE AND 25' REAR
WIDTH AT SETBACK LINE: 200'
MAX. LOT COVERAGE: 25%
MAXIMUM HEIGHT: 30'

VICINITY MAP:



PARCEL AREA: 35.09 ACRES
TAX STATUS: TAXABLE
OPEN SPACE PERCENTAGE: 10%
LANDSCAPE AREA PERCENTAGE: 19%

OWNER NAME AND ADDRESS: GREGG & ELAINE CAWLFIELD VILLAGREE DEVELOPMENT LLC 5710 VESSEY RD COLORADO SPRINGS, COLORADO 80908 PHONE: (719) 413-6900 EMAIL: gregg@villagree.com Elaine@villagree.com

APPLICANT: GREGG & ELAINE CAWLFIELD VILLAGREE DEVELOPMENT LLC 5710 VESSEY RD COLORADO SPRINGS, COLORADO 80908 PHONE: (719) 413-6900 EMAIL: gregg@villagree.com Elaine@villagree.com

PLAN PREPARER: WILLIAM GUMAN & ASSOC., LTD. 731 N. WEBER STREET COLORADO SPRINGS, COLORADO 80903 PHONE: (719) 633-9700 EMAIL: bill@guman.net

ESTATES AT CATHEDRAL PINES PUD DEVELOPMENT PLAN PRELIMINARY PLAN

A PORTION OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 2, TOWNSHIP 12 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO

El Paso County Parks Dept. 4455 Saxton Hollow Road Colorado Springs, CO 80908 TSN# 6202002005 PUD

Shawn G Ryan 4665 Saxton Hollow Road Colorado Springs, CO 80908 TSN# 6202002003 PUD

Reynaldo Francisco III 13640 Winslow Drive Colorado Springs, CO 80908 TSN# 6202002004 PUD

Robert T Shandy 13595 Winslow Drive Colorado Springs, CO 80908 TSN# 6202003003 PUD

Joe T Pyle 13555 Winslow Drive Colorado Springs, CO 80908 TSN# 6202003002 PUD

Home Court LLC 13515 Winslow Drive Colorado Springs, CO 80908 TSN# 6202003001 PUD

El Paso County Parks D 13510 Milam Road Colorado Springs, CO 80908 TSN# 6202003014 PUD

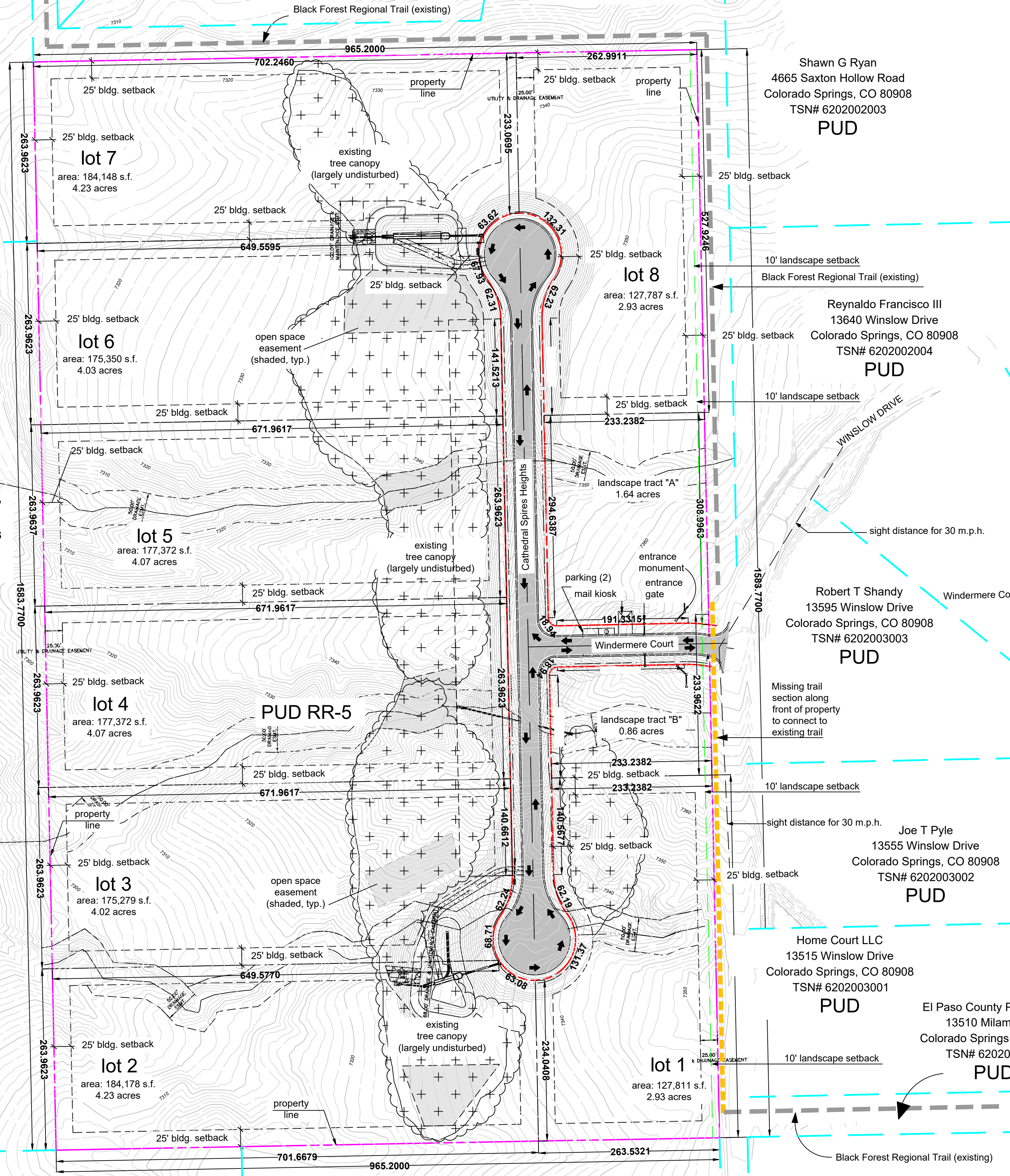
Josephine A. Sorge 13475 Winslow Drive Colorado Springs, CO 80908 TSN# 6211001001 RR-5

Terrance L. Stokka 13420 Peregrine Way Colorado Springs, CO 80908 TSN# 6211002002 RR-5

Josephine A. Sorge 13480 Winslow Drive Colorado Springs, CO 80908 TSN# 6211002001 RR-5

Mary Letha Robison 13855 Highway 83 Colorado Springs, CO 80908 TSN# 6200000304 PUD RR-5

Zonta Partnership LTD LLLP 13580 Bridle Bit Rd. Colorado Springs, CO 80908 TSN# 6200000733 RR-5



A "Soils and Geology Study, Winslow Drive, Estates at Cathedral Pines, El Paso County, Colorado" prepared by RMG - Rocky Mountain Group (July XX, 2023), indicated geologic hazards were not found to be present at this site. Potential geologic constraints were found onsite and include: potentially expansive soils/bedrock, potentially compressible soils, hard bedrock, seasonally shallow groundwater and potentially seasonally wet (psw) areas. The areas indicated as psw are identified as "No Build Areas". The study concluded that the proposed development is feasible, and the geologic conditions identified are typical for the Front Range region of Colorado. Appropriate planning, engineering and suitable construction practices will be implemented to mitigate geologic conditions in areas where avoidance is not possible.

Line Legend

- Setback Line
Black Forest Regional Trail (existing)
Black Forest Regional Trail (proposed connection)
Adjacent Property Lines
10' Landscape Setback
Property Lines
R.O.W.

All property owners are responsible for maintaining proper storm water drainage in and through their property. Public drainage easements as specifically noted on the plat shall be maintained by the individual lot owners unless otherwise indicated. Homebuilders are responsible to ensure proper drainage around structures, including elevations of foundations and window wells in relation to side-lot drainage easements and swales. Homeowners shall not change the grade of the lot or drainage swales within said easements, as constructed by the builder, in a manner that would cause adverse drainage impacts to properties. Structures, fences, materials or landscaping that could impede the flow of runoff shall not be placed in drainage easements.

No driveway shall be established unless an access permit has been granted by El Paso County.

Tracts A & B shall be utilized as landscaped areas / neighborhood parks. Ownership and maintenance of Tracts A&B shall be vested to The Estates at Cathedral Pines Homeowners Association.

The subdivider(s) agree on behalf of him/herself and any developer of builder successors and assigns that subdivider and/or said successors and assigns shall be required to pay traffic impact fees in accordance with the El Paso County Road Impact Fee Program (Resolution No. 19-471), or any amendments thereto, at or prior to the time of building permit submittals. The fee obligation, if not paid at final plat recording, shall be documents on all sales documents and in plat notes to ensure that a title search would find the fee obligation before sale of the property.

Individual wells are the responsibility of each property owner. Permits for individual wells must be obtained from the State Engineer, who by law, has the authority to set conditions for the issuance of these permits.

Sewage treatment is the responsibility of each property owner. The El Paso County Department of Health and Environment must approve each system and, in some cases, the Department may require an engineer designed system prior to permit approval. These systems may cost more to design, install, and maintain.

Except as otherwise noted on the Preliminary Plan, individual lot purchasers are responsible for constructing driveways, including necessary drainage culverts per Land Development Code 6.3.3.C2 and 6.2.2.C.3. Due to their length, some of the driveways must be approved by the Fire District.

The private roads as shown on this plan will not be maintained by El Paso County until and unless the streets are constructed in conformance with El Paso County standards in effect at the date of the request for dedication and maintenance.

SURVEYOR:

JR ENGINEERING 5475 TECH CENTER DR., STE 235 COLORADO SPRINGS, COLORADO 80919 PHONE: (719) 593-2593 EMAIL: info@jrengineering.com

TITLE VERIFICATION:

STEWART TITLE CO. dba UNIFIED TITLE 1710 JET STREAM DR., STE 200 COLORADO SPRINGS, COLORADO 80921 PHONE: (719) 578-5900 EMAIL: LSimon@unifiedtitle.com

BOARD OF COUNTY COMMISSIONERS:

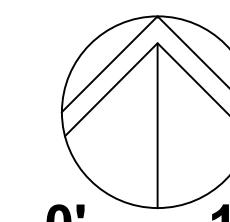
BOCC 200 SOUTH CASCADE AV., STE 100 COLORADO SPRINGS, COLORADO 80903 PHONE: (719) 520-7276 EMAIL: carctb@elpasoco.com

CLERK AND RECORDER

STEVE SCHLEIKER 1675 W. GARDEN OF THE GODS RD., STE 2201 COLORADO SPRINGS, COLORADO 80907 PHONE: (719) 520-6202 EMAIL: steveschleiker@elpasoco.com

PCD DIRECTOR

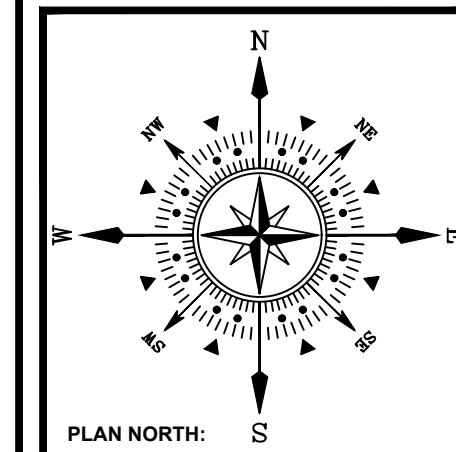
MEGGAN HERINGTON 2880 INTERNATIONAL CIRCLE, STE 110 COLORADO SPRINGS, COLORADO 80910 PHONE: (719) 520-7941 EMAIL: megganherington@elpasoco.com



0' 100' 200' 300' SCALE: 1" = 100' - 0" signature block



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ESTATES AT CATHEDRAL PINES WINSLOW DRIVE BLACK FOREST, CO 80908 PUD DEVELOPMENT PLAN

DATE: 12/13/2022
DESIGNED: GEM
CHECKED: WFG

Table with columns: REVISIONS, DATE, BY, DESCRIPTION

PLAN SCALE: 1" = 100' (OR AS NOTED ON PLAN)

SHEET TITLE: PUD DEVELOPMENT PLAN

SHEET NO. 1 OF 1 SHEETS

FILE NO. PUDSP2210

Sight Distance Exhibits



ESTATES AT CATHEDRAL PINES

STOPPING SIGHT DISTANCE

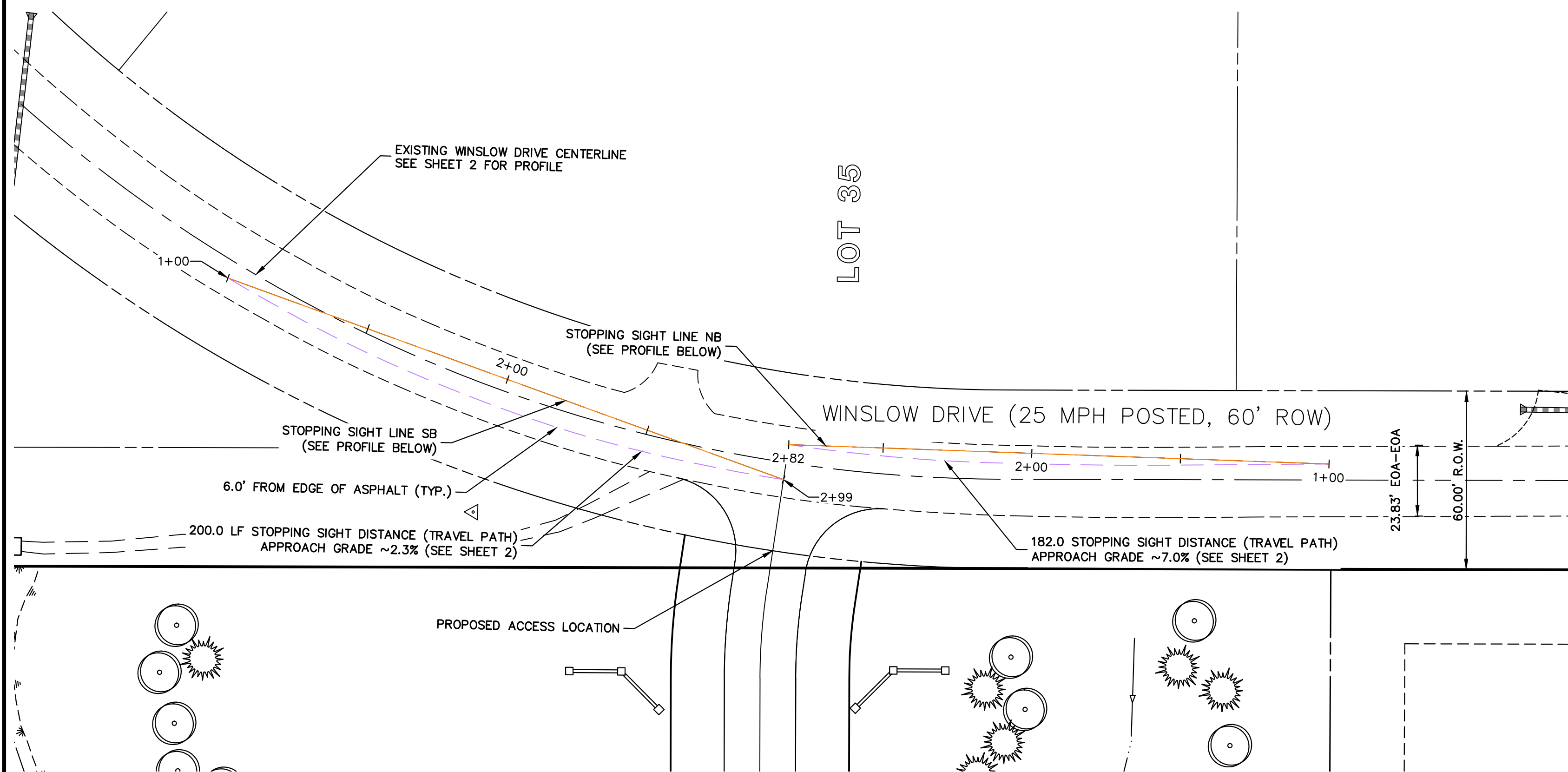


Table 2-17. Stopping Sight Distances

| Design Speed (MPH) | Brake Reaction Distance (feet) ¹ | Braking Distance on Level (feet) | Stopping Sight Distance | |
|--------------------|---|----------------------------------|-------------------------|---------------|
| | | | Calculated (feet) | Design (feet) |
| 25 | 91.9 | 60.0 | 151.9 | 155 |
| 30 | 110.3 | 86.4 | 196.7 | 200 |
| 40 | 147.0 | 153.6 | 300.6 | 305 |
| 50 | 183.8 | 240.0 | 423.8 | 425 |
| 60 | 220.5 | 345.5 | 566.0 | 570 |
| 70 | 257.3 | 470.3 | 727.6 | 730 |

¹ Brake reaction distance predicted on a time of 2.5 seconds; deceleration rate of 11.2 feet/second used to determine calculated sight distance.

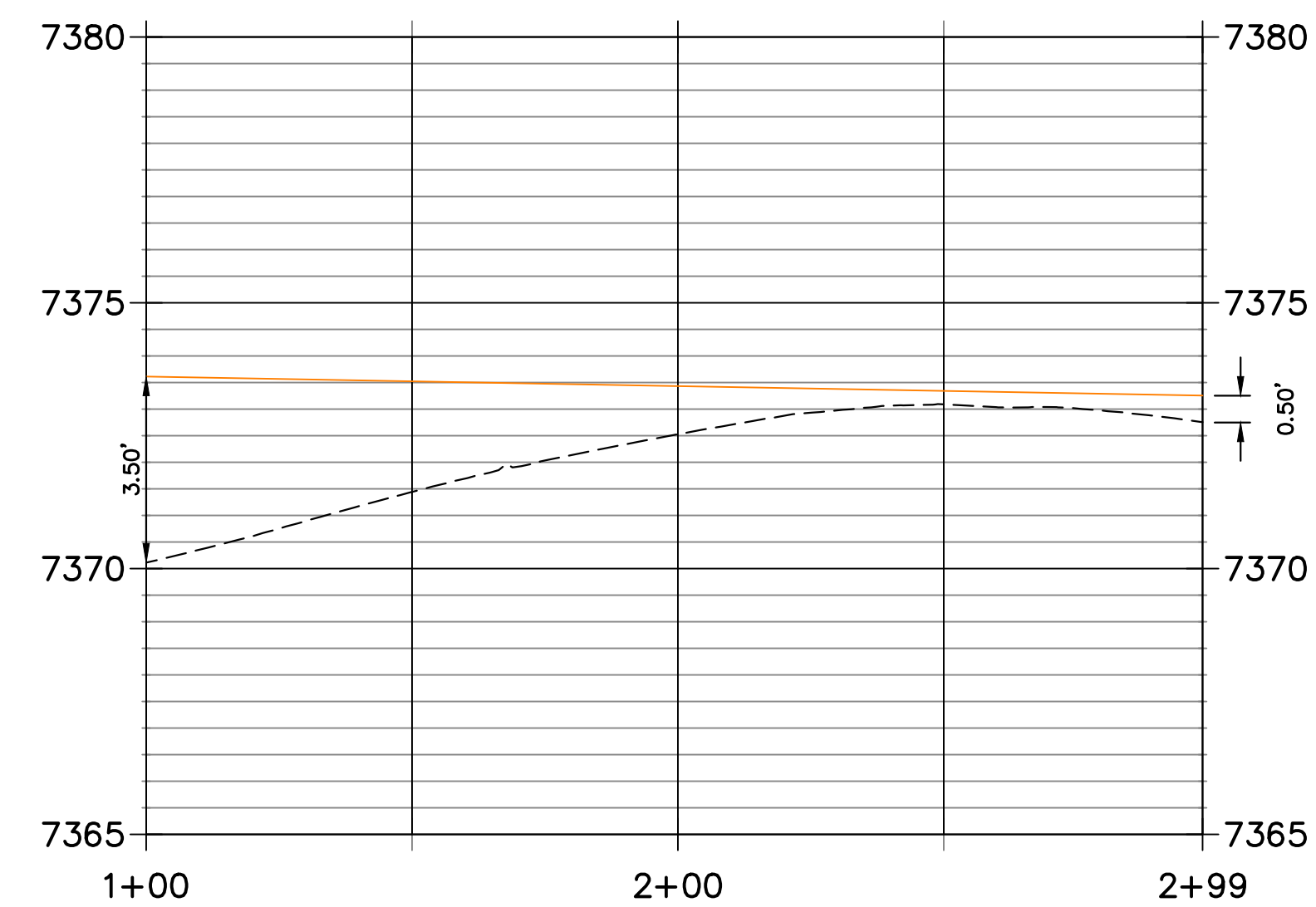
Table 2-18. Stopping Distance at Grade

| Design Speed (MPH) | Downgrades | | | Design Speed (MPH) | Upgrades | | |
|--------------------|--------------------------|-----|-----|--------------------|--------------------------|-----|-----|
| | Stopping Distance (feet) | | | | Stopping Distance (feet) | | |
| | 3% | 6% | 9% | | 3% | 6% | 9% |
| 25 | 158 | 165 | 173 | 25 | 147 | 143 | 140 |
| 30 | 205 | 215 | 227 | 30 | 200 | 184 | 179 |
| 40 | 315 | 333 | 354 | 40 | 289 | 278 | 269 |
| 50 | 446 | 474 | 507 | 50 | 405 | 388 | 375 |
| 60 | 598 | 638 | 686 | 60 | 538 | 515 | 495 |
| 70 | 771 | 825 | 891 | 70 | 690 | 658 | 631 |

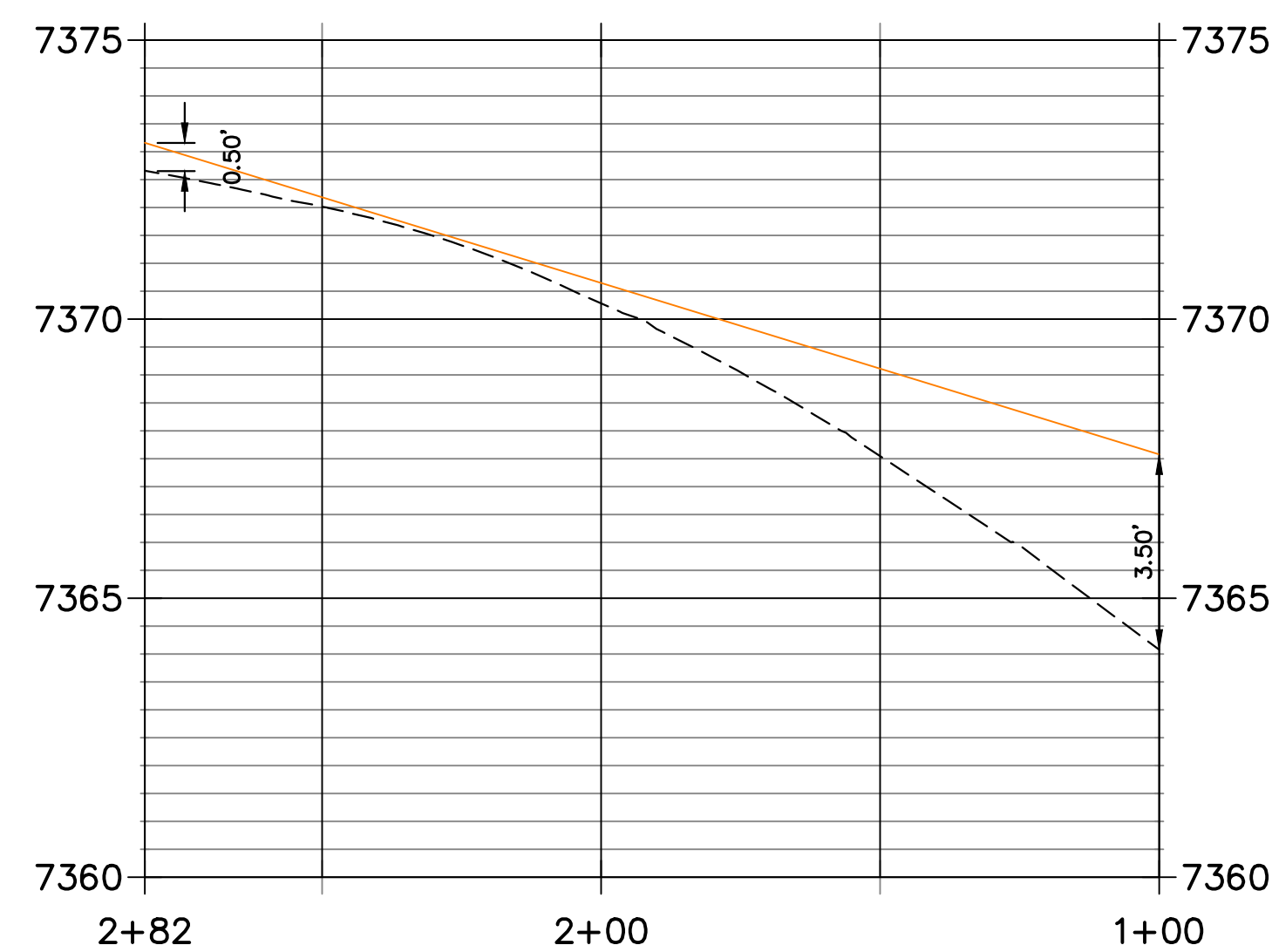
NOTES

- POSTED SPEED ON WINSLOW DRIVE IS 25 MPH. A DESIGN SPEED OF 30 MPH WAS USED IN SIGHT DISTANCE ANALYSIS.

STOPPING SIGHT SB PROFILE STA 1+00.00 TO 2+98.67



STOPPING SIGHT NB PROFILE STA 1+00.00 TO 2+81.77



30 15 0 30 60
 HORIZONTAL
 ORIGINAL SCALE: 1" = 30'
 VERTICAL
 ORIGINAL SCALE: 1" = 3'

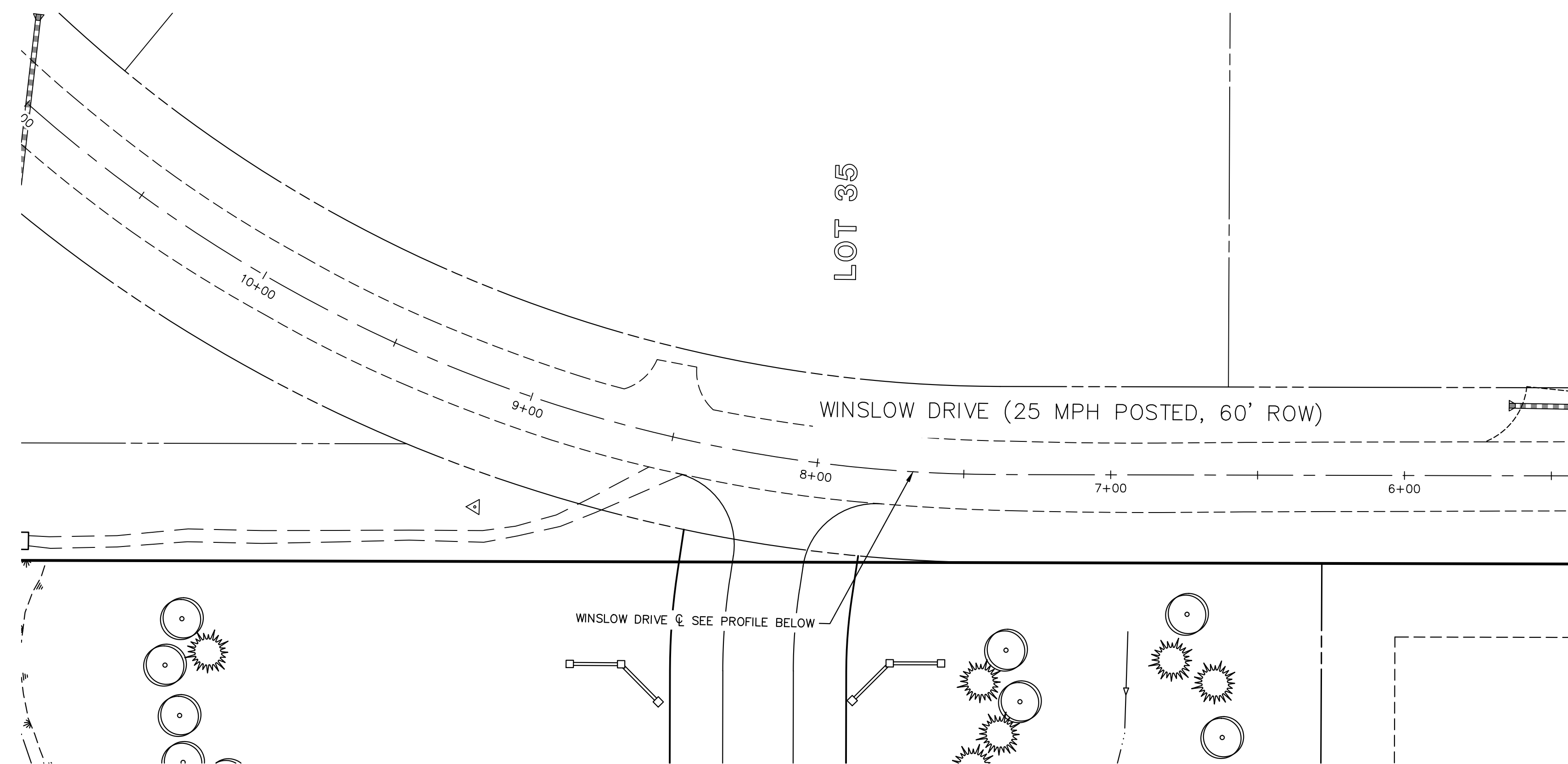
STOPPING SIGHT DISTANCE
 ESTATES AT CATHEDRAL PINES
 JOB NO. 25260.00
 8/22/2023
 SHEET 1 OF 3



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 Fort Collins 970-491-9888 • www.jrengineering.com

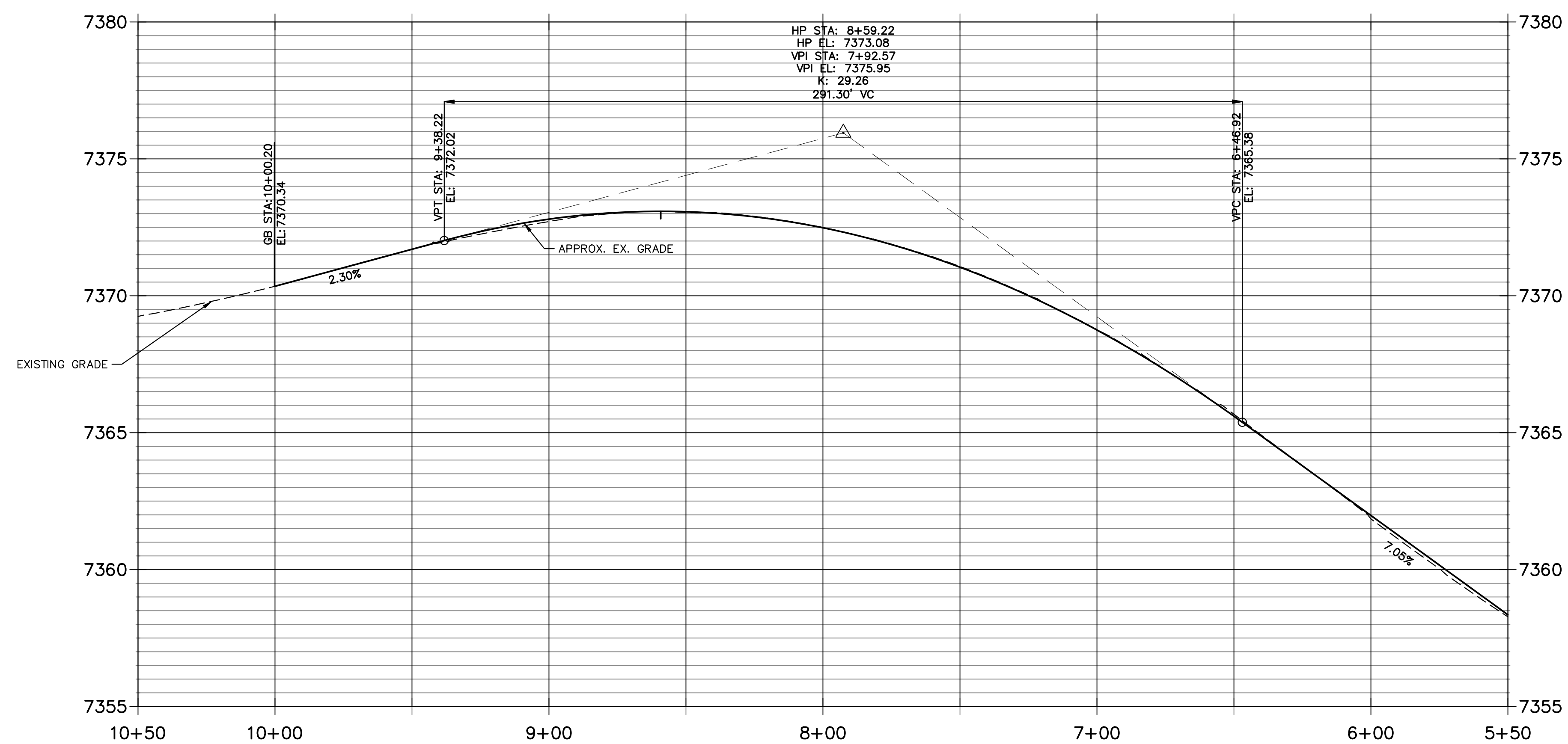
ESTATES AT CATHEDRAL PINES

STOPPING SIGHT DISTANCE



Provide exhibit that shows intersection sight distance Per Table 2-21 and Figure 2-33

**WINSLOW DR PROFILE
STA 5+50.00 TO 10+50.00**



30 15 0 30 60
 HORIZONTAL
 ORIGINAL SCALE: 1" = 30'
 VERTICAL
 ORIGINAL SCALE: 1" = 3'

STOPPING SIGHT DISTANCE
 ESTATES AT CATHEDRAL PINES
 JOB NO. 25260.00
 8/18/2023
 SHEET 1 OF 1



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