



TAYLOR GROUP, INC.
GEOSCIENCE & ENGINEERING CONSULTANTS

January 22, 2015
TGI Project No. 13.00681

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**Subject: Sight Distance Analysis for Proposed Private Street at Watson Way and Woodland Drive
Woodland & Watson Tentative Map, PDS2014-TM-5594**

Dear Mr. Colucci:

At your request and as required by the Scoping Letter for the subject project, TGI has conducted a sight distance analysis for the proposed private street as shown on TM 5594 at two intersections with existing public streets – Woodland Drive on the east and Watson Way on the west. The location of the site and the proposed intersections are illustrated on Figure 1. The purpose of the analysis was to assess whether adequate sight distance is available in accordance with the requirements of the County of San Diego Private Road Standards.

The posted speed limit for both Watson Way and Woodland Drive is 25 miles per hour. Watson Way will have a ROW width of 55' and a paved width of 30 feet along the project frontage. South of the project frontage, Watson Way has a ROW width of 50' and a paved width of 24 feet. Woodland Drive will have a ROW width of 60' and a paved width of 40 feet along the project frontage.

Based on comparison of the existing and planned street geometries and paved widths to the street classifications in Tables 2A and 2B of the County Public Road Standards, both Woodland Drive and Watson Way were analyzed as Residential Collectors with a design speed of 30 mph and a corresponding minimum corner sight distance of 300 feet.

Woodland Drive Intersection

For the proposed intersection of the private street and Woodland Drive, the sight distance analysis was performed at two observation points. Observation Point A1 is located 10' back from a prolongation of the proposed curb line to the north of the proposed private street. Observation Point A2 is located 10' back from the prolongation of the edge of pavement that will remain to the south of the proposed private street. The difference between the two points is due to the required 5' public street dedication along the project frontage. The 300 foot minimum sight lines from both points are illustrated on Figure 2. Line of sight profiles are shown on Figure 3.

Observation Point A1 is judged to be appropriate for analysis of the sight distance for eastbound traffic on Woodland Drive. The sight distance analysis from this Observation Point was based on the proposed finished surface grade of El. 502.5' at the Observation Point on the proposed private street. It is noted that the proposed grade at this point will be approximately 0.5 feet below the current elevation of the Observation Point. The line of sight for the assumed finished surface elevation at the observation point looking northwest on Woodland Drive currently exceeds the 300 foot minimum. To maintain the required

300 foot line of sight distance for the proposed development, a clear space easement should be recorded across an area of proposed Lot 1 as illustrated on Figure 2.

Observation Point A2 is judged to be appropriate for analysis of the sight distance for westbound traffic on Woodland Drive. The sight distance analysis from this Observation Point was based on the proposed finished surface grade of El. 502.25' at the Observation Point on the proposed private street. The proposed grade at this point will be approximately 0.2 feet above the current elevation of the Observation Point. The line of sight for the assumed finished surface elevation at the observation point looking northwest on Woodland Drive currently exceeds the 300 foot minimum.

It is noted that if Observation Point A1 is used for analysis of sight distance for westbound Woodland Drive, the maximum line of sight for the assumed finished surface elevation at the observation point for is 172 feet and does not meet the minimum for a 30 mph design street. Landscaping and a chain link fence on the adjacent parcel to the south (APN 183-131-18-00) creates a lateral obstruction to the line of sight to the NE from Observation Point A1 (see Photograph No. 1). The existing easterly parcel boundary for the parcel to the south extends 5 feet further east than the proposed easterly boundary for TH 5594 as a result of the 5' public street dedication. To mitigate the required 300 foot line of sight distance to the southwest from Observation Point A1, a clear space easement would need to be obtained from the adjacent parcel as illustrated on Figure 2.

Watson Way Intersection

For the proposed intersection of the private street and Watson Way, the sight distance analysis was also performed at two observation points. Observation Point B1 is located 10' back from a prolongation of the proposed curb line to the north of the proposed private street. Observation Point B2 is located 10' back from the prolongation of the edge of pavement that will remain to the south of the proposed private street. The difference between the two points is due to the required 5' public street dedication along the project frontage. The 300 foot minimum sight lines for both points are illustrated on Figures 4A and 4B. Line of sight profiles are shown on Figure 5.

Observation Point B1 is judged to be appropriate for analysis of the sight distance for southbound traffic on Watson Way. The sight distance analysis from this Observation Point was based on the proposed finished surface grade of El. 569.0' at the Observation Point on the proposed private street. The proposed grade at this point will be approximately 1.2 feet above the current elevation of the Observation Point. Extensive clearing will be required at the intersection for the proposed site improvements, which will result in the removal of trees and brush in this area that currently impair sight distance (see Photograph No. 5). The maximum line of sight for the assumed finished surface elevation at Observation Point B1 looking north on Watson Way is approximately 715 feet. The sight distance to the north significantly exceeds the minimum for a 30 mph design speed.

Observation Point B2 is judged to be appropriate for analysis of the sight distance for northbound traffic on Watson Way. The sight distance analysis from this Observation Point was based on the proposed finished surface grade of El. 569.0' at the Observation Point on the proposed private street. It is noted that the proposed grade at this point will be approximately 1 foot below the current elevation of the Observation Point. The maximum line of sight for the assumed finished surface elevation at the observation point looking south on Watson Way is 250 feet (Figure 4B). The sight distance to the south does not meet the minimum for a 30 mph design speed. We recommend that a traffic-calming device (e.g. speed bump) should be placed on northbound Watson Way south of the proposed private street to aid in controlling vehicular speeds in this area to the posted speed limit. A mail box for the adjacent parcel to the south (APN 183-131-12-00) that is located in the ROW near the NW corner of that parcel (see Figure 4 and Photograph No. 4) should be relocated.

It is noted that the sight distance for northbound Watson Way is also not met from Observation Point B1, but if this point is the basis for compliance with the northbound line of sight requirement, a small (approximately 25 s.f.) clear space easement will need to be obtained from the parcel to the south (APN 183-131-12-00) as illustrated on Figure 4.

Please contact us if you have any questions regarding the analysis and recommendations presented herein or if you require any additional information.

Sincerely,

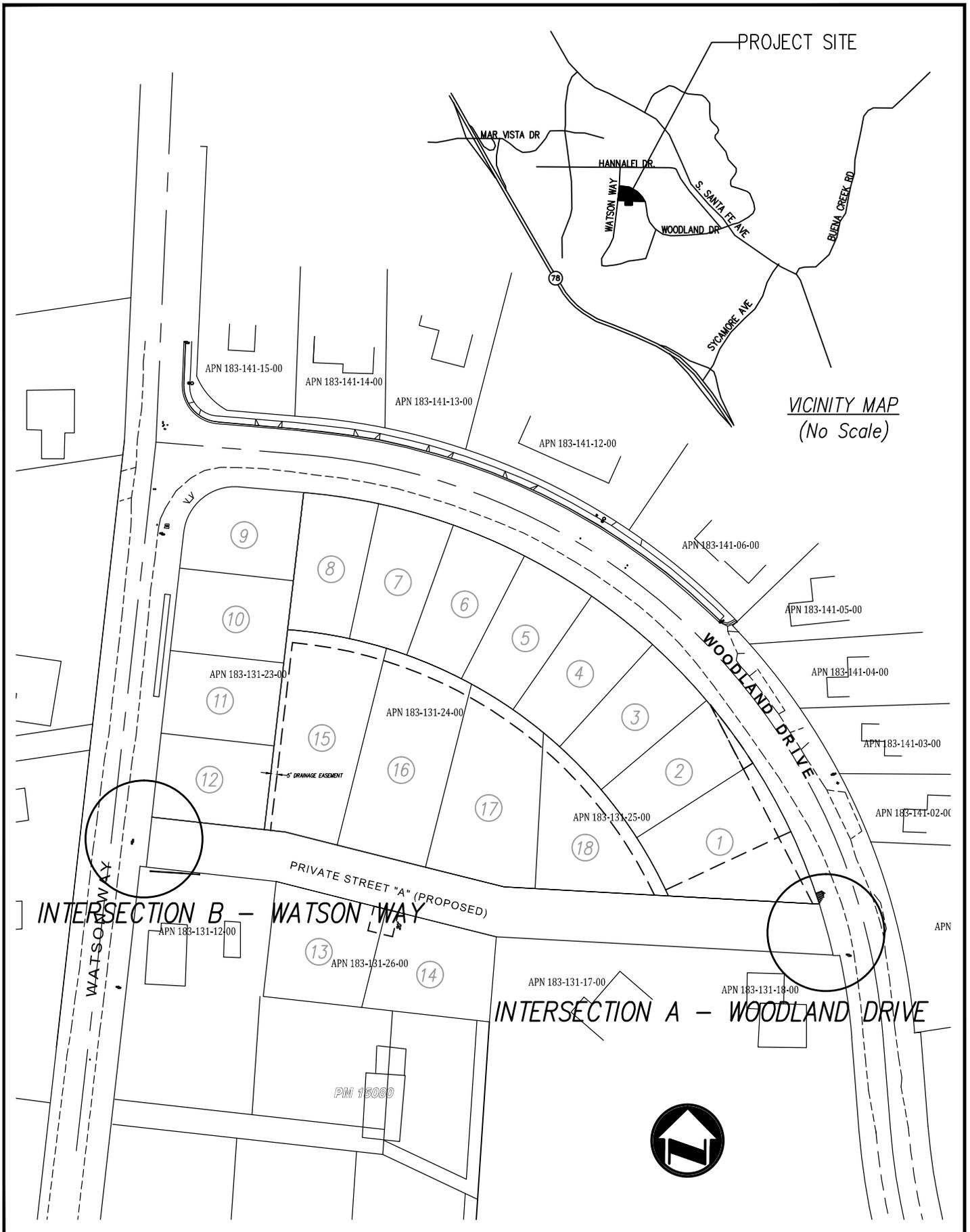
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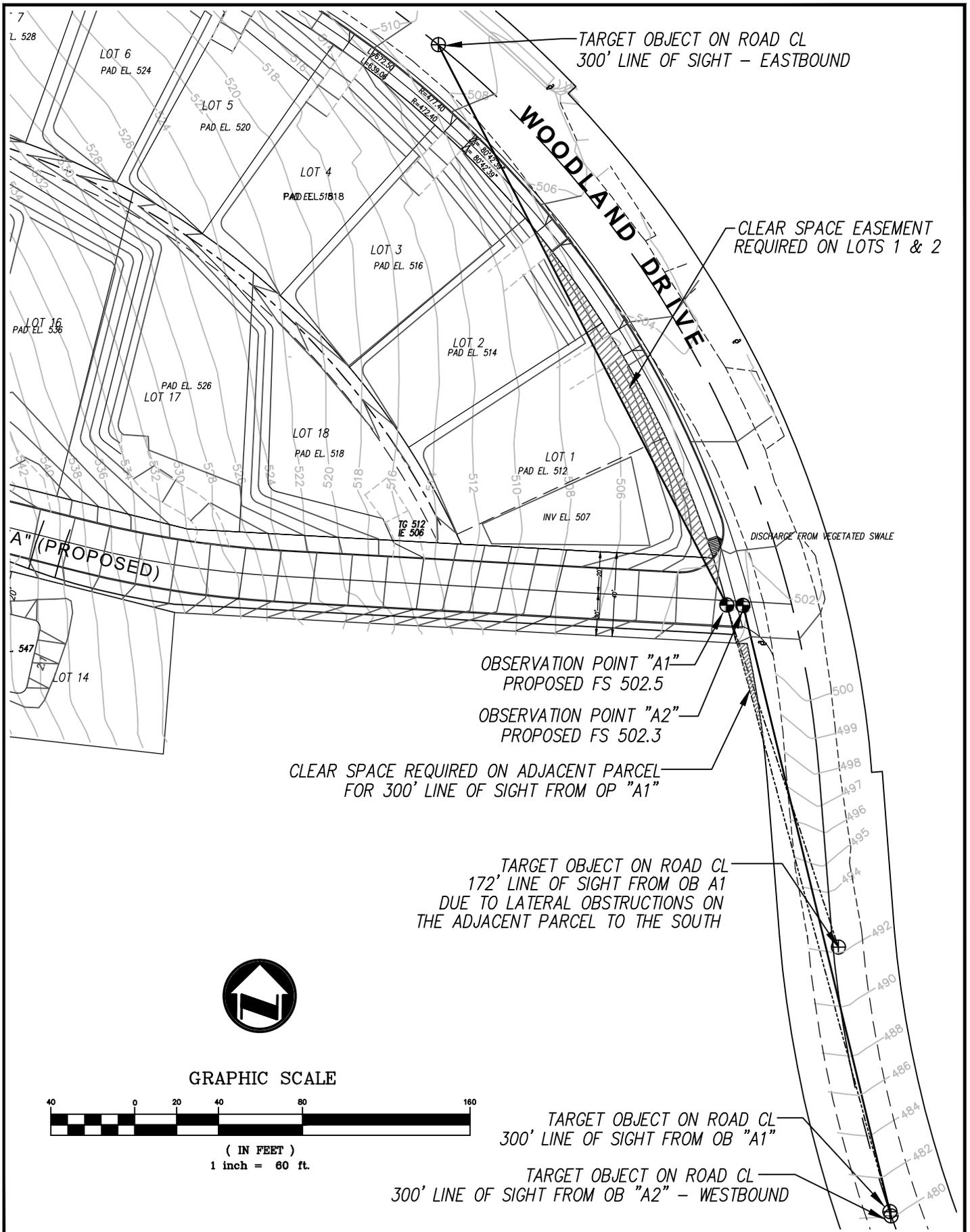


Larry Taylor, P.E., G.E.
President & Principal Engineer

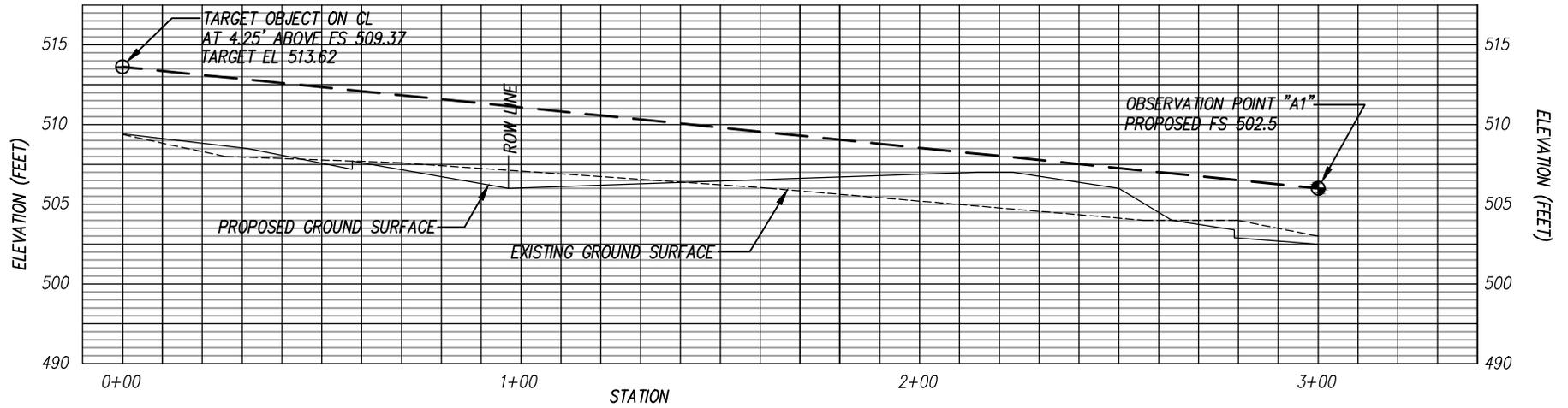


- Attachments: Figure 1 - Site Location Map
Figure 2 - Sight Distance Analysis - Private Street at Woodland Drive
Figure 3 - Line of Sight Profiles - Private Street at Woodland Drive
Figure 4A - Sight Distance Analysis - Private Street at Watson Way (Southbound)
Figure 4B - Sight Distance Analysis - Private Street at Watson Way (Northbound)
Figure 5 - Line of Sight Profiles - Private Street at Watson Way
Photograph No. 1 through 5

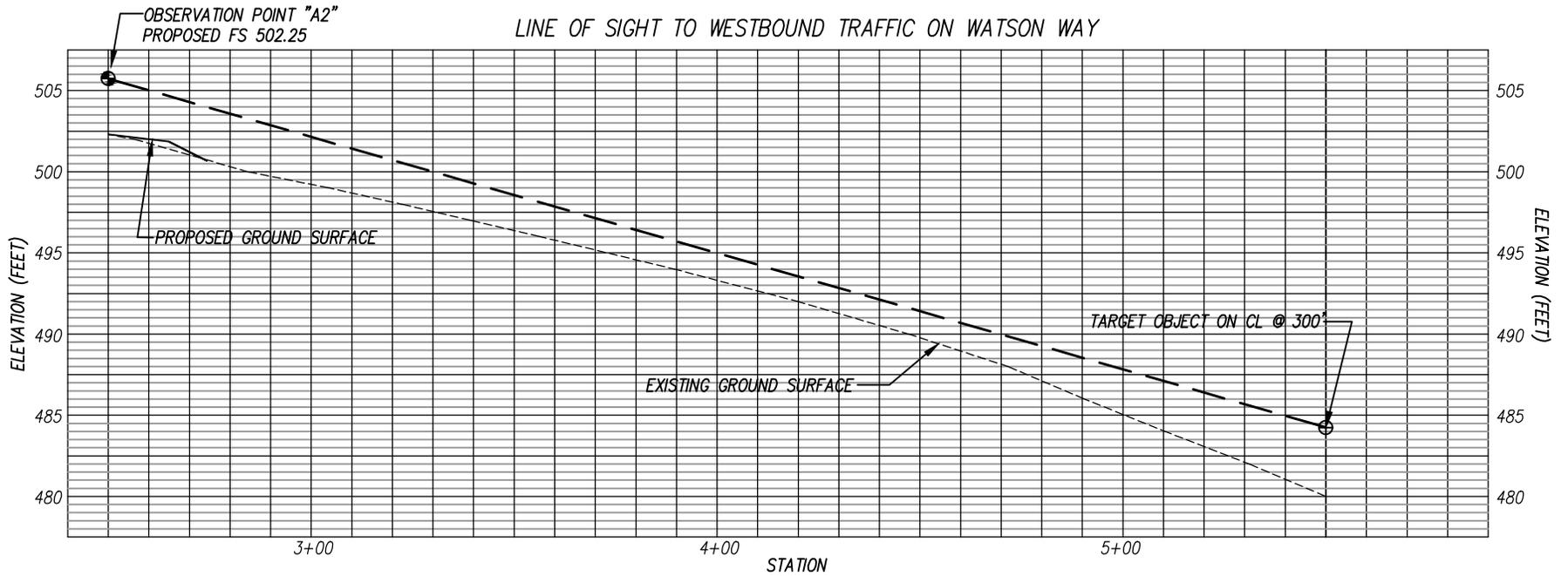




LINE OF SIGHT TO EASTBOUND TRAFFIC ON WATSON WAY

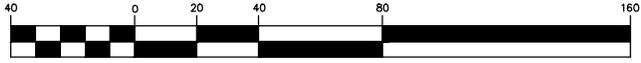


LINE OF SIGHT TO WESTBOUND TRAFFIC ON WATSON WAY





GRAPHIC SCALE

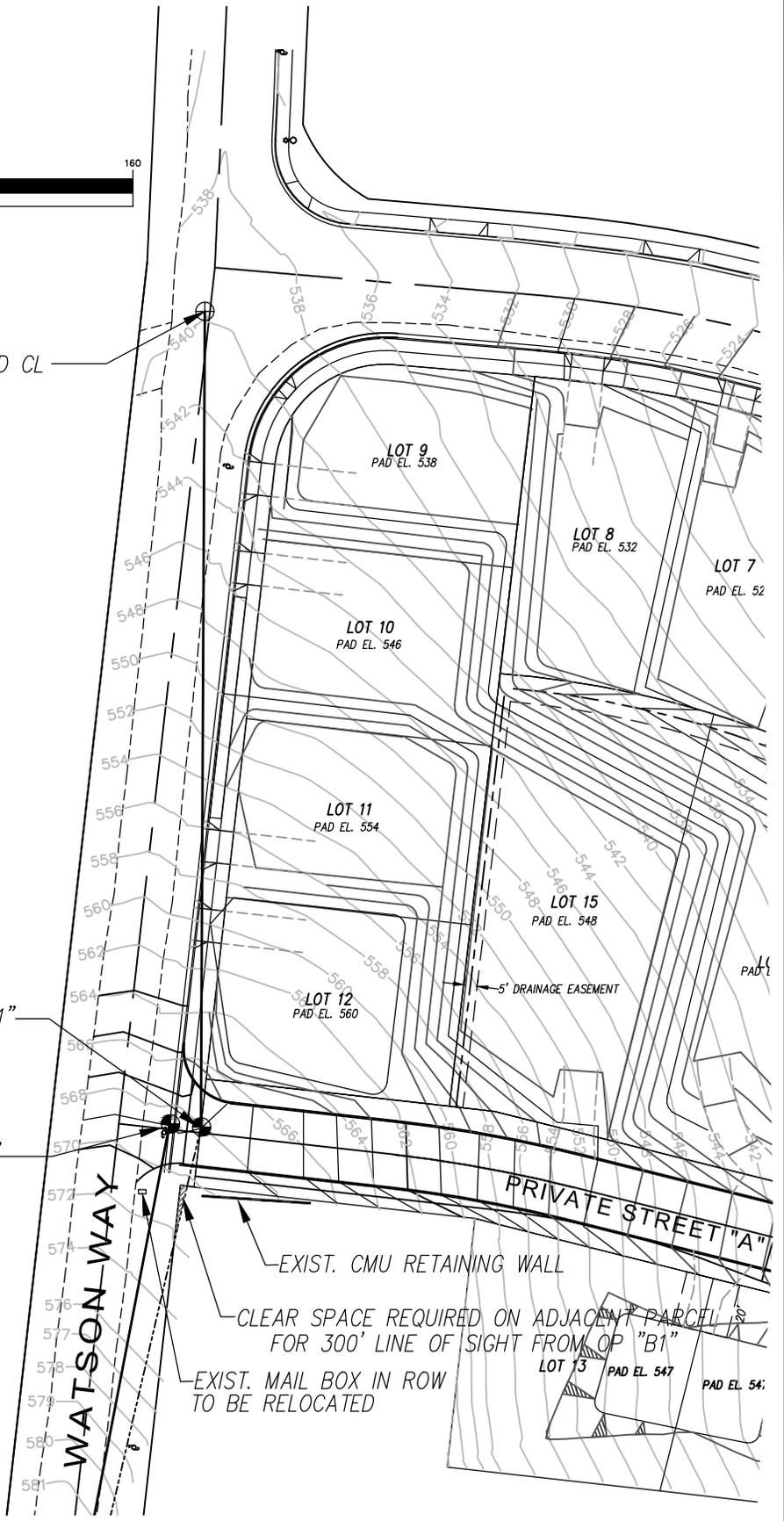


(IN FEET)
1 inch = 60 ft.

TARGET OBJECT ON ROAD CL
AT 250' LINE OF SIGHT

OBSERVATION POINT "B1"
PROPOSED FS 569.0

OBSERVATION POINT "B2"
PROPOSED FS 568.8



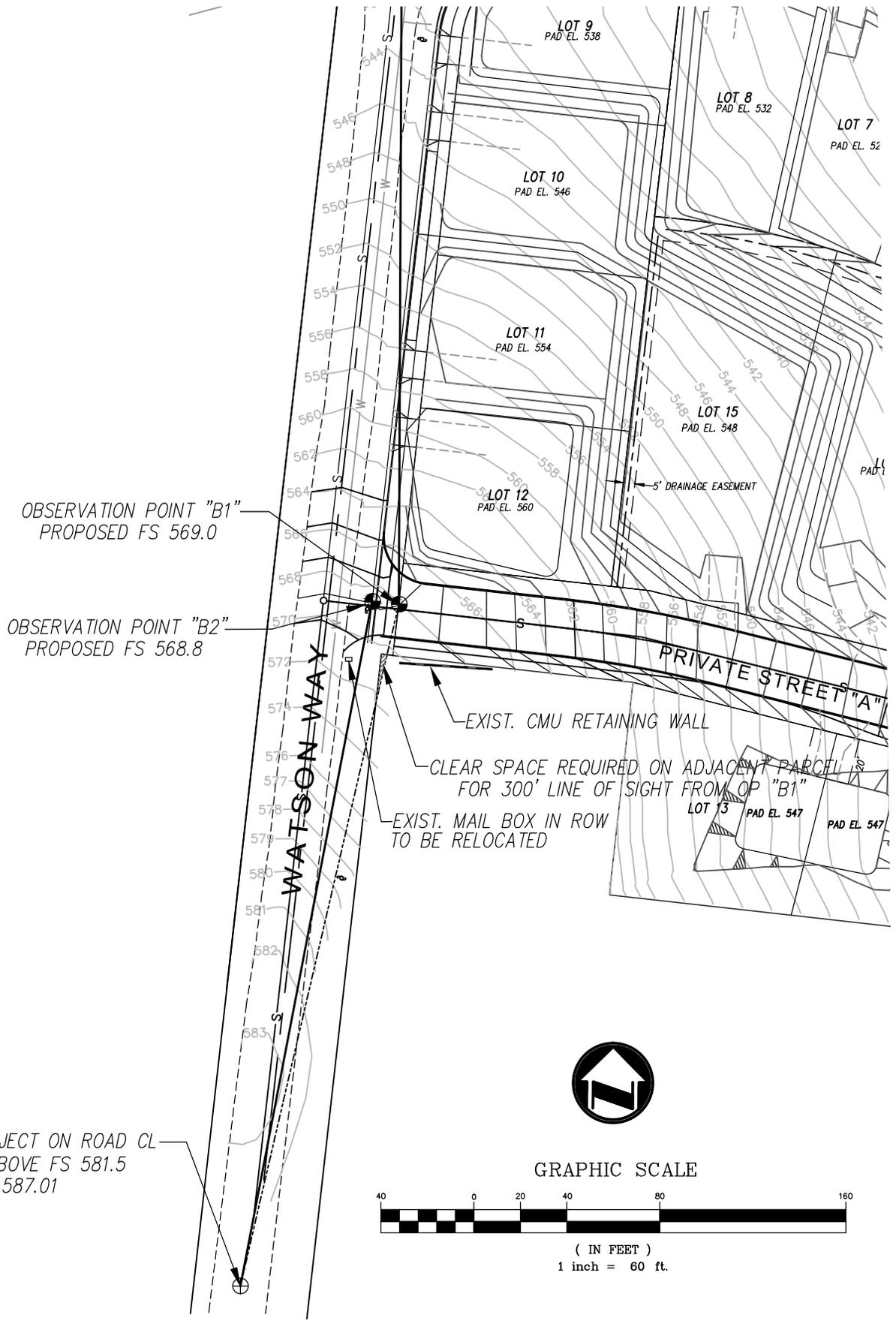
EXIST. CMU RETAINING WALL

CLEAR SPACE REQUIRED ON ADJACENT PARCELS
FOR 300' LINE OF SIGHT FROM OP "B1"

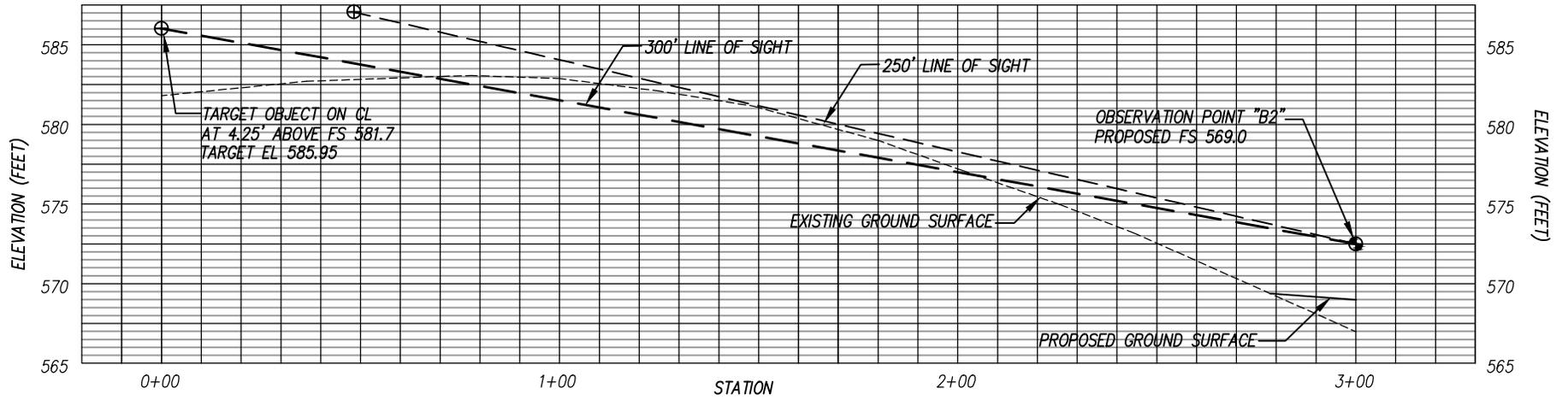
EXIST. MAIL BOX IN ROW
TO BE RELOCATED

WATSON WAY

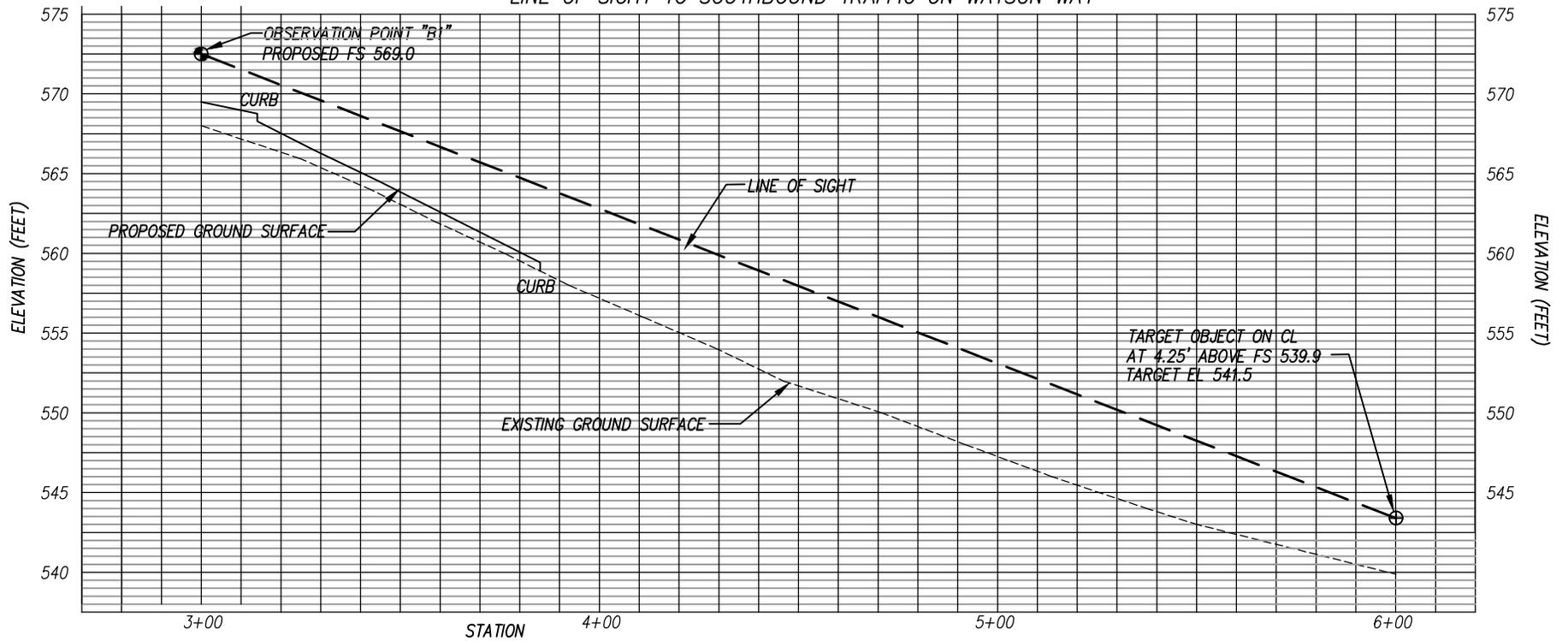
PRIVATE STREET "A"



LINE OF SIGHT TO NORTHBOUND TRAFFIC ON WATSON WAY



LINE OF SIGHT TO SOUTHBOUND TRAFFIC ON WATSON WAY





Photograph No. 1 - Existing Sight Line from Observation Point A1 - Westbound Woodland Drive. OP A2 is located easterly of the point where vegetation of the adjacent parcel obstructs the line of sight.



Photograph No. 2 - Existing Sight Line from Observation Point A1 - Eastbound Woodland Drive.



Photograph No. 3 - Existing Sight Line from Near Observation Point B1 - Southbound Watson Way



Photograph No. 4 - Existing Sight Line from Observation Point B2 - Northbound Watson Way. Mail box in ROW to be relocated.



Photograph No. 5 – Dense vegetation to be removed at proposed intersection of proposed private street and Watson Way. OPs B1 and B2 are to north and east of utility pole (to be removed).