February 6, 2019

Pico Canyon, LLC
1435 Reynolds Court
Thousand Oaks, CA. 91362

Attn: Mr. Jonathan Friedman

Subj: Canyon View Estates: Analysis to Evaluate Visibility from Interstate 5

Dear Mr. Friedman:

Per your request, Envicom Corporation (Envicom) has prepared an analysis to evaluate the potential visibility of the Canyon View Estates Project (Project) from Interstate 5, or I-5. The following evaluation provides a description of our methodology and the results of the analysis.

METHODOLOGY

The analysis was performed using GlobalMapper software, v.19.1 (Blue Marble Geographics).

Datasets:

The Digital Elevation Model data was obtained from the United States Geological Survey (USGS) [National Elevation Data (NED), 10m resolution], Vector data (shapefile) of the I-5 [Los Angeles County Geographic Information System (GIS) Data Portal, extracted from Roads data], Vector data (shapefile) of the Project Parcels (Los Angeles County GIS Data Portal, extracted from Parcel data), Vector data (CAD) of the proposed Grading Plan (Civil Design and Drafting, 2017).

Analysis:

Viewshed

Using GlobalMapper's Viewshed Analysis tool, a series of 12 'transmitter' points (or View Points) along the I-5 (6 southbound, or SB, and 6 northbound, NB) were selected. The average spacing of these transmitter points was 1,100 feet (ft) (ranging from 900 to 1,300 ft, depending on road elevation). Each transmitter point was assigned the average height of a passenger traveling by vehicle (3 ft) and set to a maximum view distance of 2 miles before running the Viewshed tool. The results produced a polygon associated with each point that illustrates what can be viewed from that location within a 2-mile radius. Ultimately the analysis produced 12 such polygons, which were then merged into a singular polygon. This output illustrates a comprehensive viewshed for the stretch of the I-5 in the Project vicinity (i.e. between NB1 and SB1), which is provided in the enclosed figure.

Sightline

Using GlobalMapper's Sightline Analysis tool, the same 12 transmitter points were used as a starting point for drawing sightlines to the Project Site. The lowest elevations around the Project Site were bisected in order to determine the worst-case scenario for visibility. The same tool

parameters as for the Viewshed tool (vehicle passenger height of 3 ft) were used. The output for each sightline analysis is an elevation profile that shows the angle of the sightline (red line), illustrating where the terrain is 'blocking' a direct view to the Project Site (the little black circles indicate the cross section of CAD lines on the Project Site).

RESULTS

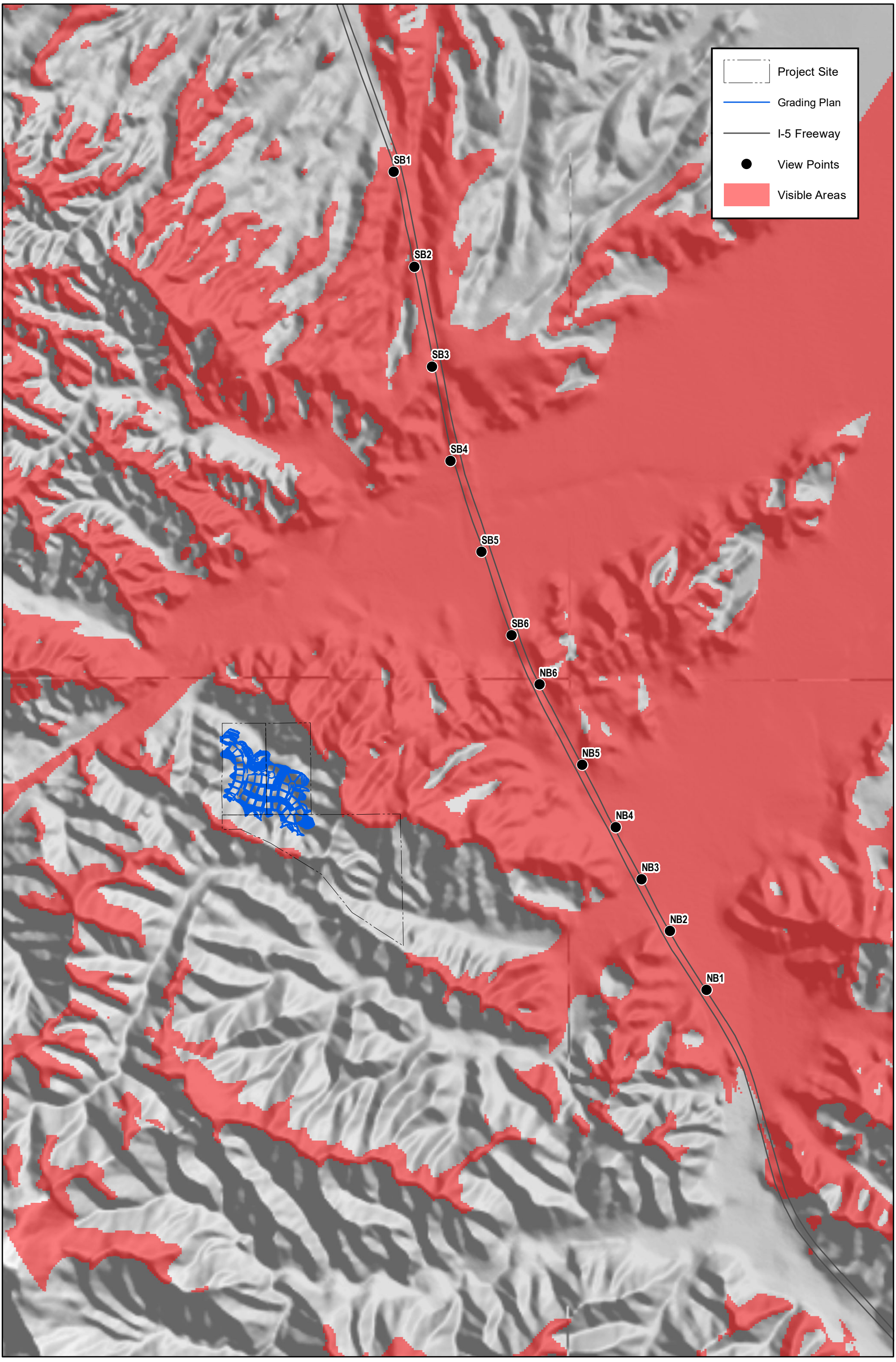
The Project site is located in a region with undulating terrain and has significant peaks and ridgelines. The I-5 runs through the lowest north-south valley within this landscape. The Project site sits at a higher elevation than the I-5 and lies in a depression within the terrain that is surrounded on all sides by ridgelines. The results of both the viewshed and the sightline analysis illustrate that the Project Site is not visible from the 12 View Points (and is therefore not visible from the entire segment of the I-5 between View Points NB1 and SB1). It is evident that the ridgelines that surround the Project's development footprint are blocking direct lines of sight from the I-5 Freeway to the Project Site.

Data Limitations

The NED dataset from the USGS is a 'bare earth' digital elevation model (DEM), and thus does not account for the elevations and subsequent view-blockage of any vegetation present on the ground. As such, it provides a 'worst case scenario' in terms of visibility.

Sincerely,

Amanda Miner
Environmental/GIS Analyst



CANYON VIEW ESTATES: VISIBILITY FROM INTERSTATE 5

1 inch = 1,250 feet

0 630 1,260 Feet