



MEMORANDUM

To: Sandra Moberly, Town of Mammoth Lakes

JN 10-107225

From: Eddie Torres, RBF Consulting

Date: February 22, 2010

Subject: Old Mammoth Place – Visual Simulation Peer Review

Executive Summary

The purpose of evaluating the Old Mammoth Place Visual Simulations is to determine their accuracy and validity for use by others as a tool to study the visual impact the proposed project would have on its environment. The simulations were judged by standard industry practices.

The Clearwater Specific Plan outlines site setbacks related to height and massing and, within these setbacks, establishes 35-foot, 45-foot, and 55-foot height zones, exclusive of building appurtenances, across the project site. Within the Specific Plan, height is defined as “*the vertical distance from existing grade adjacent to the structure to the topmost point of the building*”. In conducting the review, RBF determined that the visual simulations accurately depicted the scale and nature of the proposed project. However, building heights exceeded the Clearwater Specific Plan height limits in the 35-foot and 55-foot height zones.

The applicant has stated that this abovementioned height definition is not appropriate to buildings that sit atop parking structures (as proposed). The applicant has proposed a Specific Plan Amendment that would include revised language to clarify how height is measured for development atop a subterranean parking structure, relative to the adjacent elevation contours. Under the Specific Plan Amendment, height exceedances are accommodated by the proposed adjustment in building height of 10 percent (3.5 feet) for up to 28 percent of the three-story buildings along Old Mammoth Road and six percent of the buildings fronting Laurel Mountain Road (specifically at the southernmost portion). The maximum exceedance would be 3.42 feet along Old Mammoth Road. It should be noted that southern portion of the hotel building includes parapets which exceed the height limit by up to two feet, which is permitted by Section 5.2.6 of the Clearwater Specific Plan allowing for appurtenances to extend two feet above the allowable building height.

RBF Evaluation Criteria

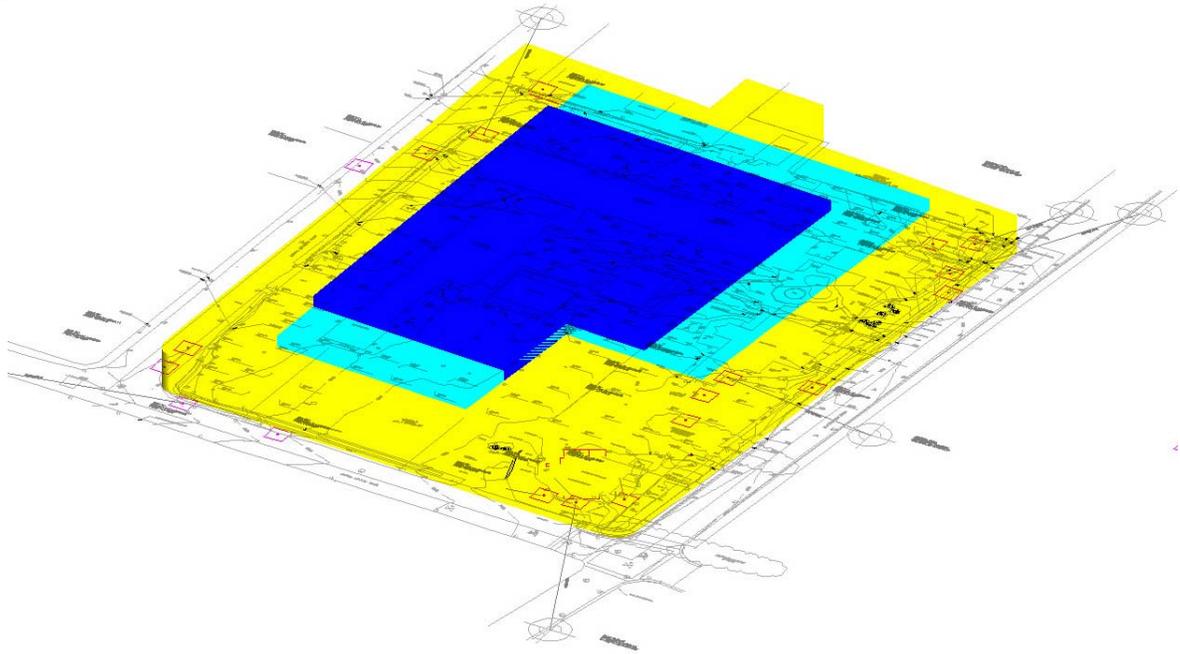
The process outlined below was used to evaluate the Old Mammoth Place simulations. This industry standard process is used to determine the accuracy of a visual simulations depiction of height, massing, and scale.

1. The 3-D AutoCAD Revit files contained in “OM-Revit.zip” (hereinafter referenced as “Site Plan”), supplied by BSA Architects were opened and utilized to create a rudimentary

ground terrain. The survey poles for each view were modeled according to the data supplied in the Site Plan file. In addition, light poles along Old Mammoth Road, as well as sign posts and the corner of the concrete retaining wall were added to aid in aligning the model to the photographs. The file was then saved as an independent model (hereinafter referenced as “RBF Model”) for use as an independent verification.

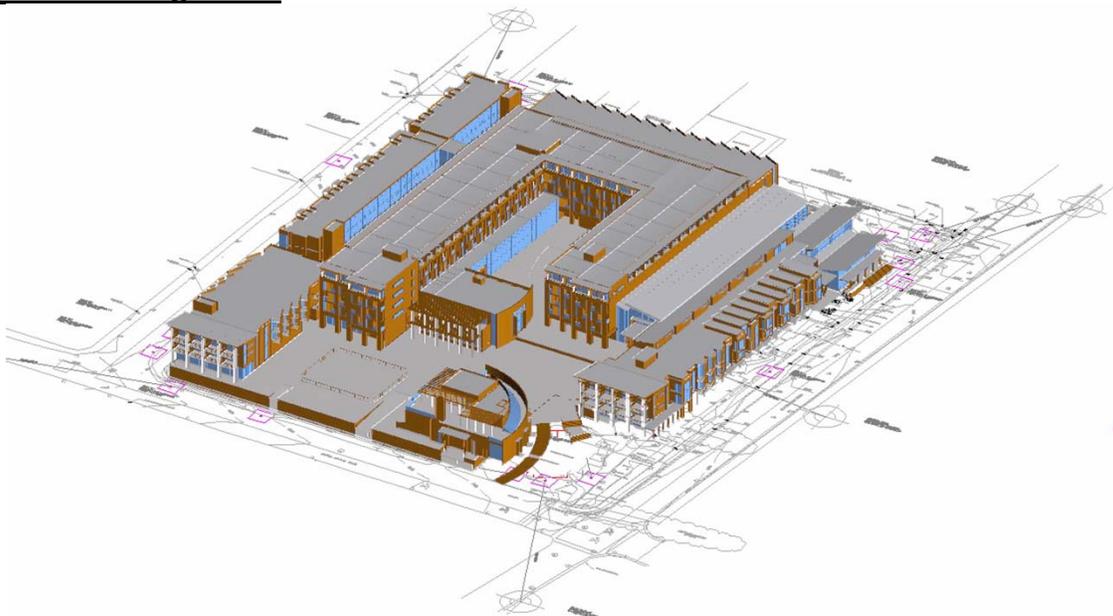
2. The three building envelopes were extruded to their respective heights (35', 45' & 55') as shown in Figure 1 below. The extrusions were derived from a line of intersection of the envelope and a ground plane. The ground plane was created using the elevations along the parameter of property line.

Figure 1: Height and Setback Envelopes



3. The supplied computer model of the building was then added to the alignment model as shown in Figure 2 below.

Figure 2: Building Model



4. The RBF Model was imported into Electric Image Animation System to check the alignment of the photographs to the rendered exhibits. At this point the existing ground plane was modeled and included as an image tilt check. Figures 3 through 6 show the photographs using alignment data with existing reference points (i.e., signs, poles, etc.) and the wireframe overlay. As shown in these view simulations, the applicant's plans are accurately represented.

Figure 3: View 1 Alignment



Figure 4: View 2 Alignment



Figure 5: View 3 Alignment

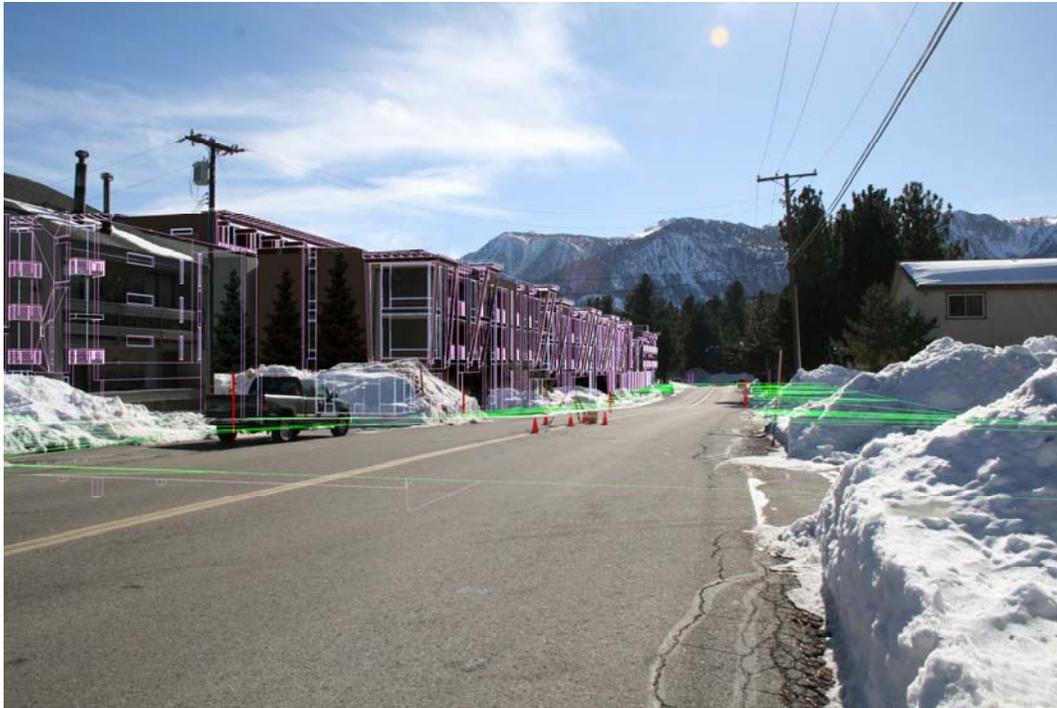


Figure 6: View 4 Alignment



Methodology Utilized by BSA in Preparing the Visual Simulations

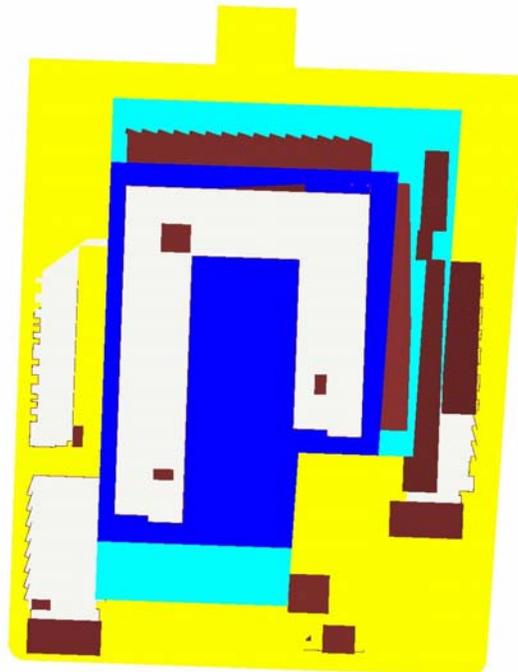
The following is a description of the methodology used to create the Old Mammoth Place visual simulations, which was provided in a memorandum from Michael Woodcox of BSA Architects.

1. Photos and reference were markers provided by Triad/Holmes Associates. All photos were taken with an 18mm Canon lens mounted on a Canon Rebel EOS with an effective lens focal length of 28.8.
2. Camera locations and visual marker locations were produced in an AutoCAD file provided by Triad/Holmes Associates. Camera reference markers and site markers were graphically located in relation to the site and building footprint.
3. The building was modeled in Autodesk Revit, which is a CADD based wireframe computer model. All site reference points were imported to align the model to the correct survey markers.
4. The site photographs provided by Triad/Holmes were linked into the wireframe model with the 3DStudioMax computer program. The model was aligned to the photographs.
5. Each photo was edited in Adobe Photoshop to reposition foreground imagery (trees, cars, etc.) as required to produce the final composites.

RBF Evaluation of Views

1. The computer model provided by BSA Architects was compared to the site parameters and dimensions contained in "20904 Architectural Set.pdf" of the Applicant teams CUP Application. RBF also created a setback/step back and height (dimensions per the Clearwater Specific Plan) 3D model with planes. The wireframe was superimposed over the 3-D model and site photos. The computer model was found to be an accurate representation of the plan set.
2. The photo locations and camera specifications were provided by BSA. The supplied data was used in a parallel project setup created by RBF Consulting. The camera locations were found to be very close to the cameras ultimately created in RBF model. The placement of the computer model provided by BSA was found to be sufficient.
3. The building envelopes were penetrated by the building in height and parameter as illustrated by Figures 7 through 9 below.

Figure 7: Site Plan View



- Yellow = indicates the 35 foot high building envelope.
- Teal = indicates the 45 foot high building envelope.
- Blue = indicates the 55 foot high building envelope.
- White = roof surfaces.
- Dark Brown = parapets, vertical surfaces of buildings, and elevator or stairway overruns.

Figure 8: Isometric view from the southeast

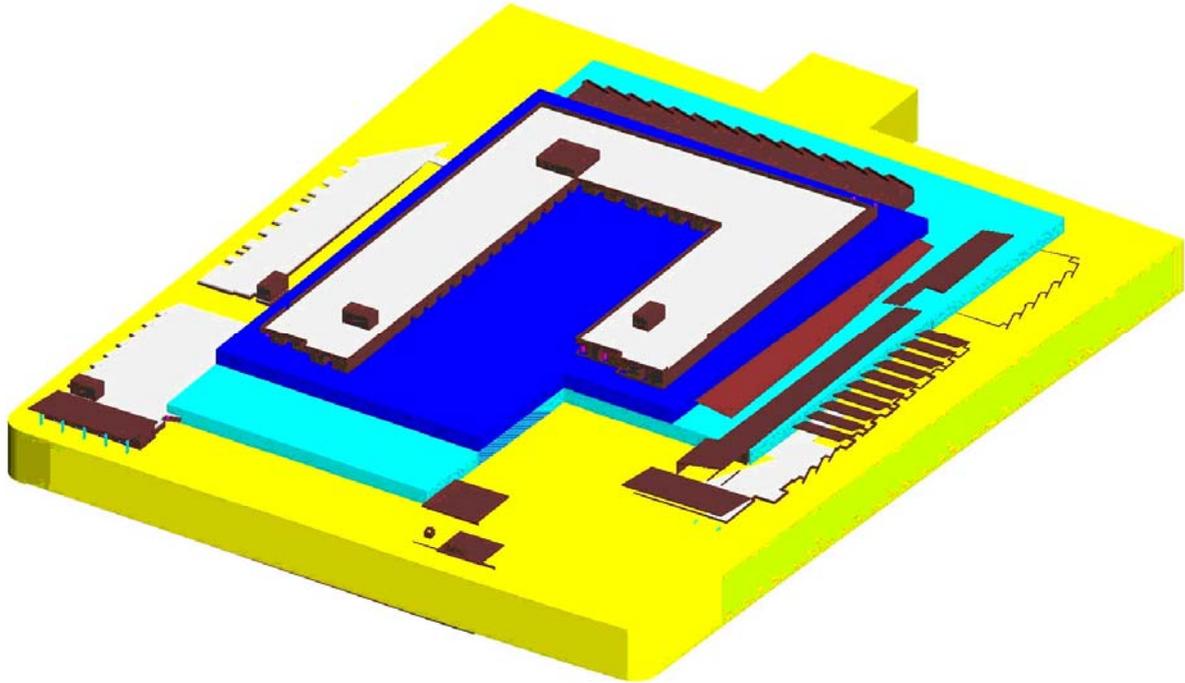
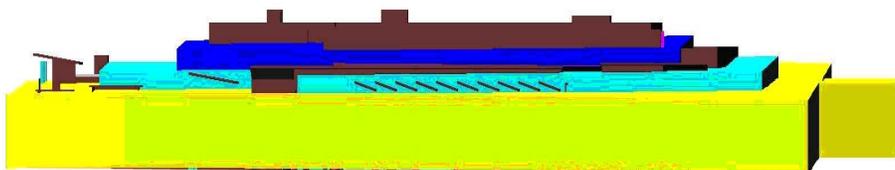


Figure 9: East Elevation



Evaluation of Views with the Specific Plan Amendment

The Clearwater Specific Plan outlines site setbacks related to height and massing and, within these setbacks, establishes 35-foot, 45-foot, and 55-foot height zones, exclusive of building appurtenances, across the project site. Within the Specific Plan, height is defined as “*the vertical distance from existing grade adjacent to the structure to the topmost point of the building*”. The applicant has stated that this definition is not appropriate to buildings that sit atop parking structures (as proposed). The applicant has proposed a Specific Plan Amendment that would include revised language to clarify how height is measured for development atop a subterranean parking structure, relative to the adjacent elevation contours. The proposed language revisions are as follows:

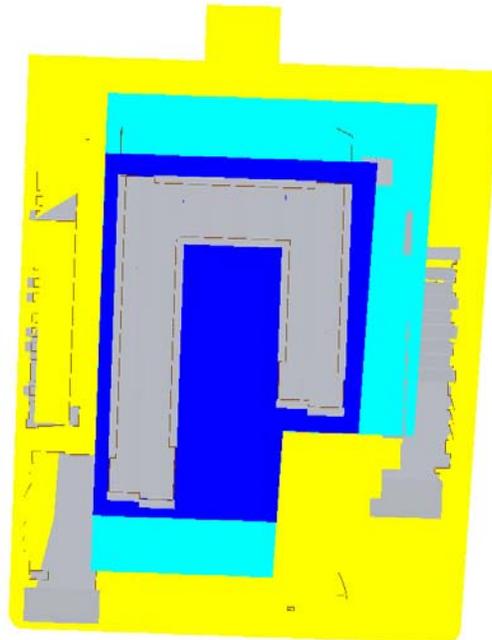
“The height of any building located above structured parking shall be measured from the top of the podium to the topmost point of the building, provided that maximum podium height is based on existing grade adjacent to the structure on at least two sides and is no more than nine feet six inches above any other adjacent existing grade. The height of elevator and/or stairway overruns required for standard building operation and code required ADA and rooftop access shall be excluded from the height calculations, as are solar energy and water conservation devices.

For buildings located on grade, the height of buildings shall be measured using the average grade using the outermost corners of any distinct building mass defined by physical separation between building elements or significant plan offsets greater than ten feet.”

In accordance with the Town’s Municipal Code Section 17.76, *Adjustments and Reasonable Accommodation*, the project also proposes an adjustment in building height of 10 percent (3.5 feet) for up to 28 percent of the three-story buildings along Old Mammoth Road and six percent of the buildings fronting Laurel Mountain Road (specifically at the southernmost portion). The proposed areas of adjustment include the sloped shed portions that are situated within the 35-foot height zones within the Specific Plan. The intent of this proposed adjustment is to allow for visual variety and articulation of the building eave heights.

The following outlines the results of the evaluation of the views taking into account the Zone Code Amendment outlined above. The methodology used to evaluate the views is the same as that outlined previously under “RBF Evaluation Criteria”. However, Step 2 was modified to take into account the modified requirements from where the building heights should be measured from (i.e., podium level or average grade using the outermost corners of any distinct building mass). Figures 10 through 12 reflect the proposed project with the building envelopes measured per the Specific Plan Amendment specifications outlined above.

Figure 10: Site Plan



- Yellow = indicates the 35 foot high building envelope.
- Teal = indicates the 45 foot high building envelope.
- Blue = indicates the 55 foot high building envelope.
- Grey = roof surfaces.
- Dark Brown = parapets, vertical surfaces of buildings, and elevator or stairway overruns.

Figure 11: Isometric view from the southeast

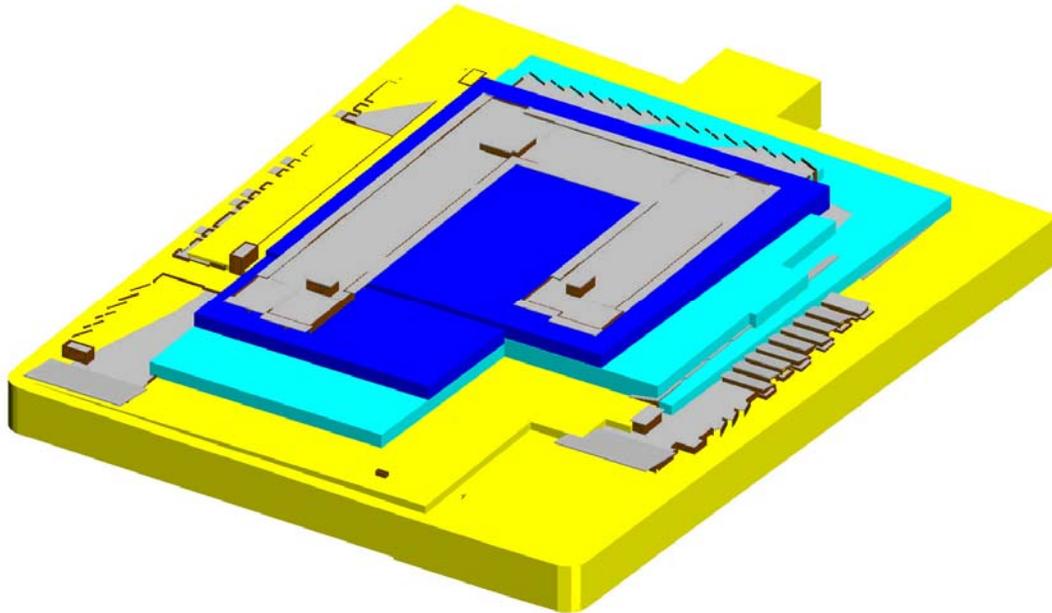
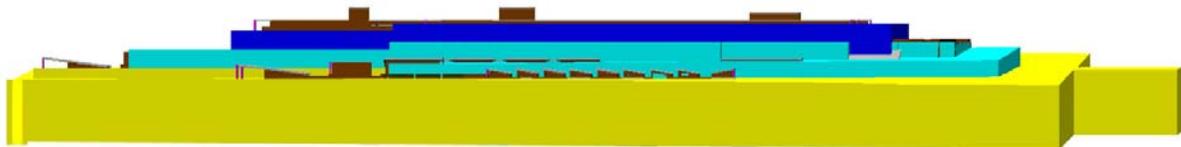


Figure 12: East Elevation



RBF Peer Review Summary

Although portions of the roof protrude from the building envelope, these exceedances are accommodated by the proposed adjustment in building height of 10 percent (3.5 feet) for up to 28 percent of the three-story buildings along Old Mammoth Road and six percent of the buildings fronting Laurel Mountain Road (specifically at the southernmost portion). As previously stated, the proposed areas of adjustment include the sloped shed portions that are situated within the 35-foot height zones within the Specific Plan. The maximum exceedance would be 3.42 feet along Old Mammoth Road. In the east elevation (Figure 12), height exceedances illustrated in dark brown are attributable to parapets, vertical surfaces of buildings, and elevator or stairway overruns. It should be also be noted that southern portion of the hotel building includes parapets that exceed the height limit by up to two feet, which is permitted by Section 5.2.6 of the Clearwater Specific Plan allowing for appurtenances to extend two feet above the allowable building height.

The following exhibits outline the final simulations from the four selected key viewpoints. It is the opinion of RBF that the simulations have been created with industry standard methodologies and accurately reflect the proposed development.

Figure 13: View 1



Figure 14: View 2



Figure 15: View 3



Figure 16: View 4

