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# *Treasure Hill Traffic Opinion Summary*

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Prepared For:

**MPE INC.**

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## Introduction

The Treasure Hill development is proposed to be a hillside resort complex similar to the Town Lift Base area. The complex anticipates a combination of hotel, timeshare, condominium, and commercial uses. Commercial uses include a café, a formal restaurant, a sports shop, and retail stores. Other amenities are a pool and waterfall complex, spa facilities, and convention space.

The traffic portion of this development has been previously studied in two reports. The first report was prepared by CRS Group Engineers, Inc. in the early 1980's for the proposed Silver Mountain Development. This report showed a development nearly twice the size than proposed today. The Silver Mountain Plan did receive conceptual access approval in the early 1980's. A second report was commissioned for the Park City Village in 1998. This report included anticipated Treasure Hill trips in baseline traffic volumes and those trips were a small contributor to the overall numbers.

Currently, Project Engineering Consultants, Ltd. (PEC) is under contract with Mr. Pat Sweeney of MPE, Inc. to prepare an updated analysis. This report is a summary of prior traffic reports and updated calculations of estimated trips generated by the Treasure Hill development. This report is not intended to analyze local intersections nor provide level of service analysis.

## Trip Generation

Trip Generation is defined as the number of vehicle trips a development will generate during the peak hours of the day. Peak hours usually occur one hour in the morning between 7:00 – 9:00 AM and then one hour in the evening between 4:00 – 6:00 PM. These are typically the highest volumes of the day and used for analysis purposes to create a “worst-case” scenario.

Using approximate residential and commercial units from the proposed plan, trip generation can be estimated. However, based on the type of development and Park City's unique character, standard trip generation rates will need to be adjusted based on engineering judgment and City experience.

Trip Generation is the raw number of vehicle trips going to and from a site. From this raw number, two other numbers can be deducted to create a more realistic trip generation picture. These numbers consist of Internal Trips and Pass-by Trips.

## Pass-by/Internal Trips

These trips are vehicle or pedestrian trips that stop at more than one place in the same complex. For example a driver might pull into the hotel to stay for the night and want dinner and walk across the parking lot to the restaurant. There is only one vehicle trip generated, however, the complex sees two customers, one at the hotel and another at the restaurant. From a traffic perspective this is counted as one trip and only shows in the traffic volumes once.



## Estimated Trips

PEC used the ITE Trip Generation manual (6<sup>th</sup> Edition) to determine the Project traffic forecasts. Hotel type uses are assumed to consist of 264 units, and both condominium/townhouse and commercial uses are estimated at 19 units each. Based on these unit numbers, the Treasure Hill development would be expected to generate the following vehicle trips:

### *Raw Trip Generation Estimates:*

Type of Facility	AM Trip Rate	AM Trips	PM Trip Rate	PM Trip
Hotel (264 units)	0.67	177	0.71	187
Condominium/Townhouse (19 units)	0.44	8	0.54	10
Commercial (19 units)	0	0	2.59	49
<b>Total</b>		<b>185</b>		<b>246</b>

These trip generation totals assume full occupancy. However, according to the Economic Report to the Governor, 2002, occupancy rates in Park City average 41%. May has the lowest rate at 18% and the highest is in February at 76%. Therefore, numbers shown are at least 40% high and would create a worst-case scenario for traffic volumes to and from the Project.

Internal trips to the commercial units could easily be estimated to be 50% of the raw trip generation. Therefore, 50% of those trips take into account that the vehicle is parked, and the driver or occupant walks over to another store or shop. The commercial is oriented to support residents within the Project as opposed to attracting new vehicular customers. Therefore, the commercial trips shown are a worst-case scenario. If we estimate trip generation based on a 41% occupancy rate and 50% internal trips applied to commercial uses, trip generation would be as follows:

### *Adjusted Trip Generation Estimates:*

Type of Facility	AM Trip Rate	AM Trips	PM Trip Rate	PM Trips
Hotel (264 units @ 41% occupancy)	0.27	71	0.29	77
Condominium/Townhouse (19 units @ 41% occ.)	0.18	3	0.22	4
Commercial (19 units @ 50%)	0	0	1.30	25
<b>Total</b>		<b>74</b>		<b>106</b>



## Mitigations

The following is a list of proposed mitigations by the Treasure Hill development:

- Repairs/reconstruction of Lowell and Empire Avenues
- Impact fees
- Placement of excess fill onsite, eliminating a number of heavy truck trips back and forth to the site
- Onsite parking for construction workers
- Main Street gondola
- Pedestrian connections between the Project and the following locations: Sixth Street Stairs, the Crescent Walkway, Lowell/Empire

## Conclusion

The projected 106 new vehicle trips in the PM peak hour should have minimal impact on the existing street system. Based on prior studies compared with what is currently being proposed, the Treasure Hill development will generate significantly fewer trips than what was originally reported in the Silver Mountain traffic study. The City Council granted Master Plan approval based on this study in October of 1986. In conclusion, with the proposed mitigations, the traffic impacts of Treasure Hill should be minimal and should not cause significant changes to vehicular delay or level of service.

