

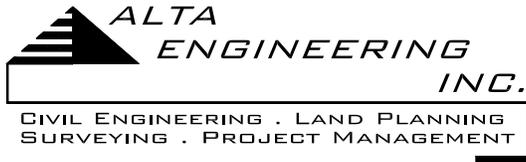
**TREASURE  
EXCAVATION  
MANAGEMENT PLAN**

**PREPARED FOR:  
MPE INC.  
PO BOX 2429  
PARK CITY, UTAH 84060  
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**December 15, 2008**



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December 15, 2008

Park City Municipal Corporation  
Planning Commission  
P.O. Box  
Park City, Utah 84060

**RE: Treasure  
Excavation Management Plan**

Planning Commission and Staff:

This Excavation Management Plan includes the results of the excavation assessment study conducted on pre-development, construction phase, and post-development conditions of the proposed Treasure project. The overall concept of the excavation operations is to manage all excavated materials on site. The excess excavation material will be transported to material placement sites higher on the Sweeney Master Plan open space and adjacent Park City Mountain Resort property via a conveyance system. The conveyance system is a flexible low impact methodology that eliminates transporting excess material over the streets of Park City to remote disposal sites.

Three primary material placement zones have been identified on exhibit E-2.0. The three zones have capacity to accept some of the estimated excess excavated material that will be generated by the construction of the Treasure buildings including parking garages and landscape features. Additional secondary placements zones need to be developed to accept the remaining excess excavated material. The fill placement zones should be chosen carefully to minimize impacts on existing vegetation, preserve important vistas, and to improve and enhance ski run grades.

A material placement protocol is presented that addresses the fill placement, geotechnical design, and placement control measures that will be incorporated into the construction process. The protocol outlines proposed final grading and revegetation methods that are planned for the material placement zones.

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Rob McMahan PE

## SUMMARY

### Predevelopment Site:

A geologic reconnaissance study was conducted on the subject property dated April 22, 1994 prepared by SHB Agra under Project No. E 93-22-67. A Phase 1 Environmental Site Assessment was conducted on the subject property dated October 12, 2005 by AGECE Inc. under Project No. 1051008. The site is comprised of approximately 63.9 acres mostly covered in aspen, fir, oak, and mountain maple. The site is primarily undeveloped with ski runs and lifts traversing the property and evidence for prior minor mining activities. Elevation of the site ranges between 7,080 feet above mean sea level at the Northeast corner to 7,760 feet at the Southwest corner.

The site is characterized as consisting of Permian Park City Formation consisting of pale grey weathered fossiliferous and cherty limestone containing a medial phosphatic shale member and Pennsylvanian Weber Quartzite consisting of pale gray tan weathered quartzite and limy sandstone with some inter bedded gray to white limestone and dolomite.

The majority of the excavation materials from the site are expected to be the weathered quartzite and white limestone and dolomite. These materials are generally easy to process into compactable and workable fill material through the use of conventional earthmoving equipment.

### Construction Phase:

The site can be divided into four main excavation operations as shown on exhibit E-1.0. Listed below are the estimated quantities of total excess excavation material to be exported to the four material placement zones.

Entry Level Site	Buildings 3A,3B3C, 4A	240,000 cy
Mid Level Site	Building 4B	270,000 cy
Upper Level Site	Buildings 5A,5B,5C,5D	275,000 cy
Midstation Site	Buildings 1A,1B,1C	<u>175,000 cy</u>
	Estimated Total	960,000 cy

The four sites can be isolated as separate excavation operations or can operate concurrently. The initial phase would be to establish the entry level site adjacent to Lowell and Empire avenues. This site would serve as the initial staging area and contain the erosion control structures that will be utilized for the subsequent phases. This initial area would implement landscaping and other screening measures to mitigate the excavation impacts on the surrounding neighborhood. Each subsequent excavation operation could follow different phasing schemes.

Three primary material placement zones are identified on exhibit E-2.0. The primary zones will be prioritized and managed to work in conjunction with the project phasing. Secondary potential placement

zones have also been identified as potential deposit sites. These secondary sites are generally defined on Exhibit E-2.0. Placement of the material in these secondary sites provides the opportunity to make a number of terrain improvements. Listed below are the placement zones and the estimated capacities.

	<u>Area</u>	<u>Capacity (CY)</u>
Kings Crown Zone	4.9 Acres	145,000
Creole Zone	5.0 Acres	125,000
Payday Zone	4.5 Acres	145,000
Secondary Zones Combined	Varies	+ 625,000

### **Storm Water Pollution Prevention and Erosion Control:**

A comprehensive Storm Water Pollution Prevention Plan (SWPPP) will be incorporated into each phase and excavation site. Erosion control of the excavation sites will be managed as the excavation progresses. Storm water will be controlled through a series of conveyance channels that feed into a detention basin to be located in the entry level site. Revegetation will be aggressive and take place together with and along side the excavation operations.

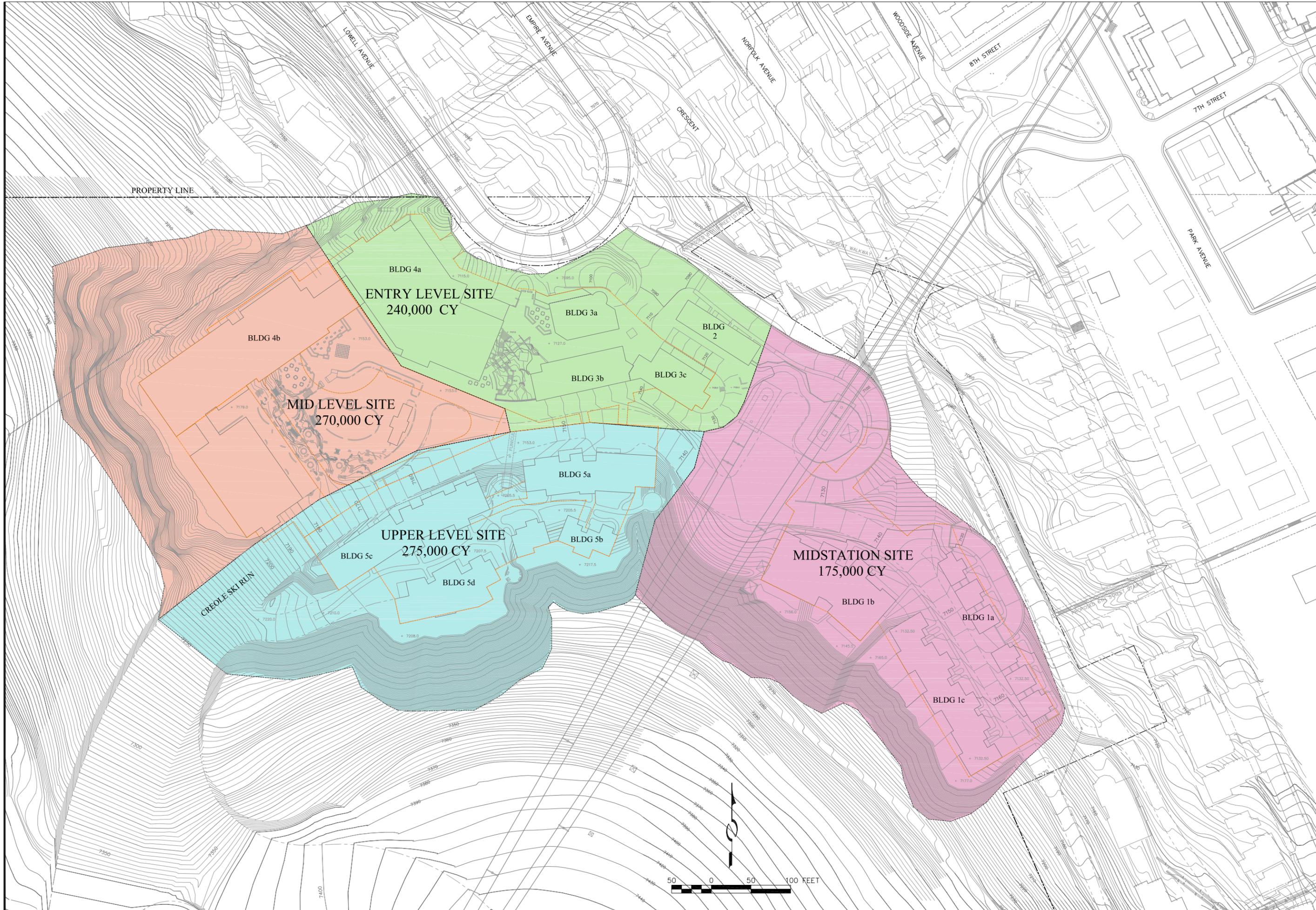
Stockpiled material will be contained within the smallest area feasible. Best management practices will be employed to prevent erosion and the generation of airborne dust. Surface water will be diverted around the stockpiling operations to the detention basin. The stockpiles will be kept small and managed to be transported to the material disposal sites as the excess material is produced.

### **Material Placement Protocol & Post Development Mitigation:**

A study of the placement of the excavated material was conducted by AGEC Geotechnical consultants summarized in an opinion letter dated October 7, 2003 under project No. 1030820. From the geotechnical and geological perspective, Placement of the excess material in the placement zones can be successful and will be managed with practical engineering solutions resulting in stable disposal areas.

The transporting of the excess excavated material will employ a conveyor system. The location of the conveyance operations can be moved to be close to the source of the excavation thus eliminating unnecessary handling of the materials and dust generation.

Placement of the excavated material in the waste area zones will be done in accordance and under supervision of geotechnical consultants. On site inspection will be provided to assure fill placement will be an engineered stabilized area. Revegetation and erosion control measures will utilize current industry standards and follow methods that are to be outlined in the comprehensive SWPPP. The stabilization methods will proceed as the fill areas are constructed with aggressive revegetation efforts to promote rapid growth of vegetative mats. The primary focus of the erosion control effort on the fill areas will be to prevent unprotected fill areas to exist and become exposed to the erosion elements.



DATE:  
DEC. 15, 2008

PROJECT NO.:  
01-01-01

FILE:  
TREASURE HILL

REVISIONS	DATE



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**TREASURE**  
**EXCAVATION MANAGEMENT PLAN**  
**EXCAVATION SITES & VOLUMES**

FOR: MPE INC.

SHEET NO:  
**E1.0**

DATE:	DEC. 15, 2008
PROJECT NO.:	01-01-01
FILE:	TREASURE HILL
REVISIONS	DATE



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**TREASURE**  
**EXCAVATION MANAGEMENT PLAN**  
**MATERIAL PALCEMENT ZONES**

FOR: MPE INC.

SHEET NO:  
**E2.0**

