

Thompson, Jon

From: Chris Ingram [chris@hi-techrockfallconstruction.com]
Sent: Monday, November 29, 2010 8:23 AM
To: Thompson, Jon
Cc: jim@hi-techrockfallconstruction.com
Subject: [POSSIBLE SPAM] Shady Lane and Granite Drive
Attachments: image001.jpg

Importance: Low

Jon,

I have some rough numbers for you to take to your meeting. The Shady Lane situation would be approx \$302,300.00. This includes install and remove temp rock barrier, strapping of the rock prior to removal to control fall and removal of such after rock removed, window protection on 4 existing houses install and remove, removal of the large block itself, final scaling after large block is removed and any breaking, stabilizing or adjust necessary for final stabilization of rocks already fallen. I expect this to take approx 3 weeks.

Granite Drive would be approx \$425,000.00. This would include strapping the rock prior to removal, removal of strapping after block is removed, Protective measures, removal of large block, breaking, stabilizing or adjusting rocks that have already fallen on slope, stabilizing under house so large block does not move, Removal of large rock in house, removal of 2 other large blocks near house, complete demo of house and disposal of debris. I would expect this work ot take 4 weeks.

These numbers should be within 15% to 20% either way. Until I work with Dan at Terracon to determine what exactly is required for strapping and stabilization we can not come up with a final number. Hope this helps with you meeting.

Thanks

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Rims Rockfall

The ring net and cable restraint system proposed by HI-TECH Rockfall Construction to implement the rock block removal is a conceptual “pre-design” based on their experience with similar projects per discussions with Mr. Chris Ingram. Their current design concept for rock removal is generally as follows with the use of the ring net system:

- Shady Lane Site – the cables would be cinched to the rock and the ring nets shackled to the cables to provide controlled restraint as the rock is toppled using air pillows to initiate the release; the cables would be designed to progressively release as the block position changes.
- Granite Drive – the cables would be cinched to the rock and the ring nets shackled to the cables to provide a rockfall barrier as the rock is progressively broken into manageable blocks and removed, ideally from above, or possibly by systematic toppling of blocks following removal/rollback of portions of the ring net panels.

These efforts will require an engineered design which is not included in HI-TECH’s current proposal. This design would necessitate evaluating a number of fall positions for the rock blocks to determine restraint requirements of nets and cables. The evaluation would need to include both static support and dynamic cases as the blocks move from position to position, or experience some assumed free fall slippage built-in as a design precaution. The engineer and contractor would need to closely interact during both the design and construction phases of the project. However, at this point, although the concept appears desirable from a precautionary standpoint with respect to worker and property safety, the technical feasibility of such a restraint system can only be validated by thorough engineering analysis.