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Engineering Division  
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June 28, 2007

John Couvillion, Director of Development  
JRM Real Estate  
1040 South Andreasen Drive, Suite 200  
Escondido, CA 92029

Dear John:

This letter is to advise you that we have reviewed the "Record Drawings" of Rough Grading Plans for Escondido Research and Technology Center (ERTC), Tract No. 834 (GP 1904), submitted to the City on May 16, 2007.

We have reviewed the plans and it does not appear that the grading work was completed according to the approved rough grading plans. Specifically, the grading shown on sheet 3 and 4 of 22 does not include the berm at top of slope on lots 34, 35 and 36. Also, sheets 5, 7, 9, 11, 13 and 14 indicate that the grading along westerly property line does not conform to the approved grading plans in regards with slope set back from property line and maintain a minimum 10 foot high berm. The City can not approve the Record Drawings or final the grading permit for this project until the project grading is completed in conformance with the approved grading plans or a revised Tentative Map that reflects the as built condition has been approved by the Planning Division... We are in the process of reviewing grading plans submitted by Palomar Pomerado Health (PPH) for development on the northwest portion of the site. Prior to approval of these plans, it will be necessary for you to complete the berm as shown on the approved rough grading plans or provide evidence that PPH will be constructing a berm in substantial conformance to the requirements for your project.

We have also reviewed the Report of Rough Grading Observation, Soil Testing and Geotechnical Engineering for ERTC .... Prepared by Geotechnical Exploration, Inc. (GEI) dated February 12, 2007. According to the report, "Occasional rocks up to 1 foot in diameter were placed in the upper 5 feet of fill...." (Page no. 6). Also, the report states that "Some portions of the site were not provided with a minimum 5 feet of fill, particularly at the northwest end of the project" and "Most of the cut areas on Lots 29 through 35 were not undercut 5 feet below the new pad grades". Page 7 of the report states "In general, the fill placed on the property can be considered more as a rock fill than fill soil with a few rocks".

We are concerned that some areas of the site may not conform to the City's rock fill placement requirements as shown on Appendix A in the report. Prior to approval of the final grading for ERTC, and issuance of a grading permit for PPH, we would like to receive clarification on these issues.

Sincerely,

Homi Namdari  
Assistant City Engineer

cc: Patrick Thomas, Director of Public Works  
Antone Oliviera, Construction Projects Manager  
Jon Brindle, Director of Community Development  
Darren Parker, Assistant Planner  
Michael Shanahan, PPH

Lori Holt Pfeiler, Mayor      Sam Abed, Mayor Pro Tem      Ed Gallo      Marie Waldron      Dick Daniels

**RFA No. 24**

**AUTHORIZATION TO PROCEED**

**Mass Excavation/Rock Blasting**


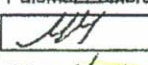
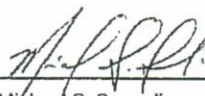
The following is the summary of the bids for the Hospital, Central Plant and Site Work Mass Excavation scope of work:

	Budget	Pinnick, Inc	West-Tech Contracting, Inc	Catrac Construction, Inc (Withdraw)	Erreca's Inc (Withdraw)	Perry & Shaw, Inc (Withdraw)
<b>1. PROPOSAL:</b>						
Mass Excavation/Rock Blasting						
1.1 Hospital	1,642,730	3,298,350	3,100,000			
1.2 Central Plant	392,078	2,298,850	2,300,000			
1.3 Site Work (Budget includes balance to complete)	3,329,463	4,397,800	5,945,750			
1.4 AC Paving (Minus Final Overlay)	699,419	Incl. Above	Incl. Above			
<b>TOTAL BASE BID</b>	<b>6,063,690</b>	<b>9,995,000</b>	<b>11,345,750</b>	<b>0</b>	<b>0</b>	<b>0</b>

Rudolph and Sletten, Inc. recommends Pinnick, Inc as the Mass Excavation and Rock Blasting contractor based on the submitted bids. Please note, that the original budgets excluded rock premiums & remediation, however both are included with the above listed bid amounts. Please provide authorization for this scope of work by April 18, 2007, in order to meet the current mobilization schedule. Further discussion on alternates to be deferred until later.

Budget	6,063,690
Contract Amount	(9,995,000)
	<hr/>
	(3,931,310)
<b>Initial Balance to Complete</b>	
1 Final Grading at Landscape Areas	1,160,000
2	
3	
4	
5	
	<hr/>
	1,160,000

Subtotal	9,995,000
Initial Balance to Complete	1,160,000
<b>Total - Authorization No. 24</b>	<b>11,155,000</b>

  
 Michael B. Shanahan  
 Approved by: Palomar Pomarado Health  
  
 GG 4/13/07 GP  
 Submitted By:   
 Michael S. Samudio  
 Rudolph and Sletten, Inc.

	SS
DM	SS

# PMC WEST (ERTC SITE)

PROPOSED PALOMAR MEDICAL CENTER WEST

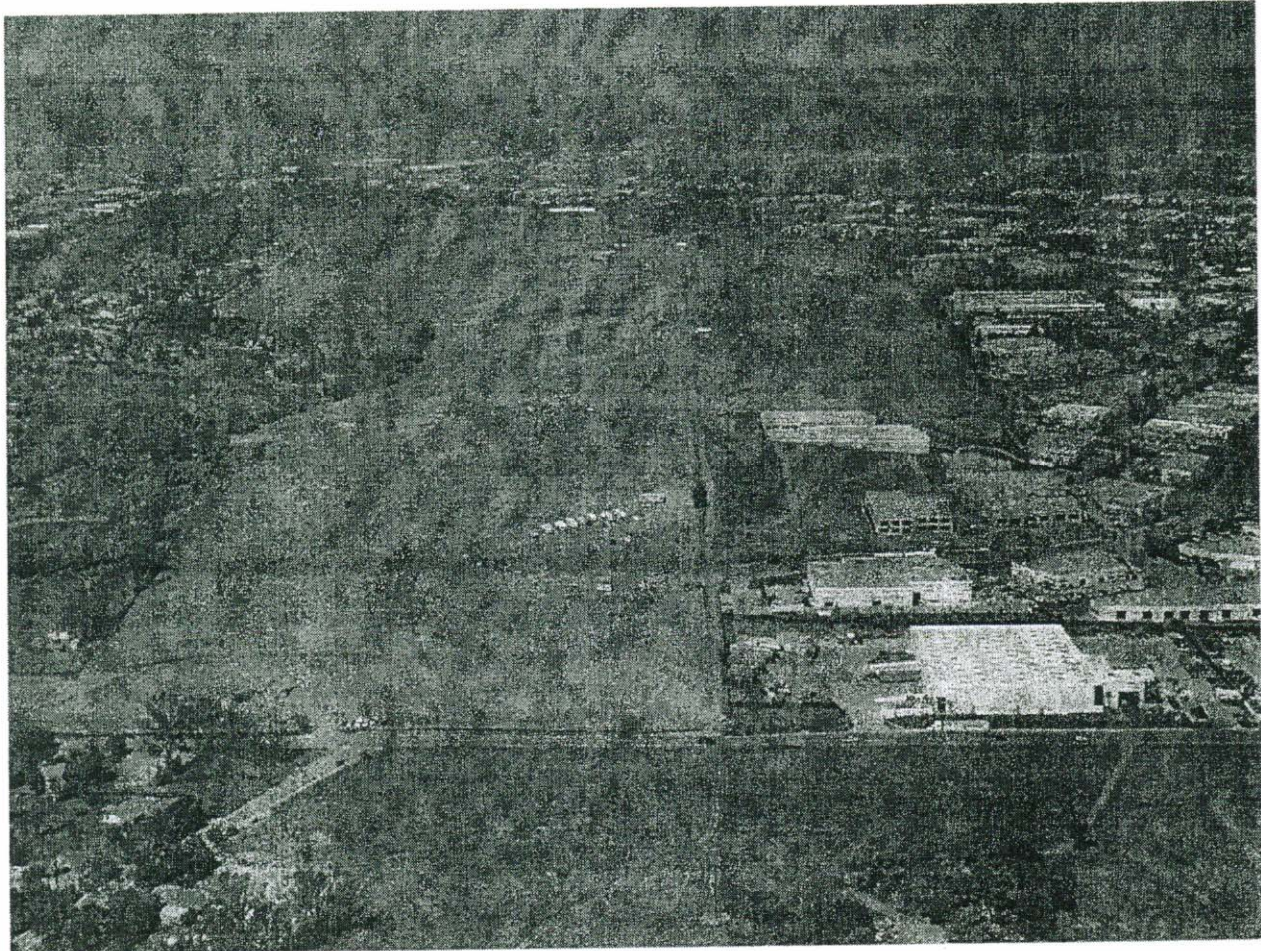
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## GRADING REPORT

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**PALOMAR POMERADO HEALTH CENTER**

*SAN DIEGO, CALIFORNIA*



**URS**

December 2005

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OUTLINE

COVER LETTER

OUTLINE

REPORT

FIGURES

Site Grading Location

Grading Plan (drawings from permit)

Actual Grading Plan (based on GEI description)

URS Recommended Grading Plan

PHOTOS

ATTACHMENTS

Appendix A GEOCON Investigation of Raw Site

Appendix B GEI Grading Records

Appendix C City of Escondido Grading Standard

Appendix D URS Recommended Grading

Appendix E URS Site Soil Boring with Plan, Boring Log, Photos, attached  
Geophysical Surveys (both GEOVision and Subsurface Survey)

Appendix F Re-grading Cost Estimate / Joe Hook

Appendix G Grading Permit

Appendix H Grading Plans (approved set 4/1/05)

Appendix I Site Improvement Plans

**REVIEW OF GRADING FILLS at the  
PROPOSED PALOMAR WEST MEDICAL CENTER SITE  
(also referred to as the ERTC Site)**

The following summarizes a systematic review performed by URS Corporation at the request of Palomar Pomerado Health (PPH) in conducting a due diligence assessment of the site grading procedures employed by the developer, JRMC Real Estate, Inc. (JRMC) in preparing the site for future building development. It is our understanding that Palomar Pomerado Health (PPH) intends to construct a multi-story, multi-building hospital facility on the 40 acres shown in the site plan (Figures 1 and 2).

Our geotechnical investigation of the site has revealed that the fill materials placed in the 40 acres currently under acquisition by PPH for the Palomar West Medical Center were placed in a totally different way than was shown on the design drawings or in the recommended grading specifications. Instead of a soil fill with widely spaced rock boulders spread throughout, the contractor has used a rock fill with thin layers of soil on top of 4' thick layers of almost pure rock. The resulting fill material is highly susceptible to water penetration and settlement resulting in both vertical differential movement of the site as well as potential horizontal movement.

The following report provides insight into the differences between what has been shown on the plans and approved by the City of Escondido versus what was actually constructed in the field. It also identifies the remedial measure that would be required to correct the rock fill areas for use in future hospital construction.

## BACKGROUND

JRMC hired a geotechnical firm to perform the necessary geology and soil studies prior to grading the site. This work was done by GEOCON Inc. and is documented in their report which is attached as Appendix A of this report. Figure 3 illustrates the grading concept that GEOCON developed for fill soils at the hospital site. This concept utilizes a series of windrows containing rock boulders that are placed in a well separated fashion to permit fine grained soils to be compacted around the rock. The resulting fill is a predominately well compacted fine grain soil with a few large rocks up to 4' in diameter that are all placed 10' or more below the ground surface.

During the early stages of site review for acquisition by PPH, about late May 2004, URS Corporation was called in to review the grading plans and specifications prepared by GEOCON to see whether they would comply with the requirements that would be imposed by the State hospital licensing agency known as OSHPD (Office of Statewide Health Planning and Development). As part of this review process we had informal discussions with the state agency that OSHPD turns to for assessing geologic and foundation requirements for hospital buildings, California Geological Survey. We spoke directly with Dr. Robert Sydnor, one of the chief geologists in the department to determine the grading approach for a rock site with fill materials that might contain rock boulders. Based on our own experience and his recommendations we modified the GEOCON grading plan and specifications as shown in Figures 4 and 5 and documented in a memorandum in Appendix D.

PPH presented our modified grading plan to JRMC. The grading contractor estimated that implementing the modified URS recommendations would add \$1 to \$1½ Million to

his initial grading costs for the 40 acre site based on the original GEOCON recommendations.

Our recommendations were not incorporated in the design or construction since the property at that time was not in escrow with PPH.

JRMC then hired a new firm, Geotechnical Exploration, Inc. (GEI) to monitor and test the grading activities at the site. Their work is reported in Appendix B. The grading contractor was Fischer Sand and Gravel who followed the plans and specifications prepared by the civil engineering firm, Project Design Consultants. These plans are enclosed in Appendix H. The City of Escondido issued a grading permit for the construction on January 23, 2004, to Diamond Lane Contractor, Inc. (see Appendix G). The plans went through a cycle of evolution to accommodate the cut and fill areas that were erroneously computed by Project Design Consultants. They had underestimated the amount of fine fill materials that would be available for the site and as a result had to cut the rock portion of the site down to a lower elevation than originally planned in order to obtain sufficient materials to fill the site. This resulted in a large amount of rock material in fairly large sizes (up to 4' in diameter) that were placed at the site in a side-by-side fashion as illustrated in Figure 8 to form a rock fill. The design drawings however, remained the same as if the site was to be graded with fine grained soil and widely spaced boulders placed within it, as shown in Figure 6. This is the figure copied from page 2 in the design grading plans in Appendix H. This figure represents the design plans submitted to the City of Escondido. In fact the City of Escondido grading standards, Figure 7, are virtually identical to the drawing in Figure 6. Figure 7 and the Escondido City standards are attached in Appendix C for reference.

During the grading process at the proposed hospital site, GEI sent technicians out on a regular basis to monitor and test the placement of the fill materials. Photographs were taken which are included in Appendix B that show the actual rock fill construction.

Large boulders and rock were placed side-by-side in 4' thick layers as shown, in Figure 8. Then fine grained fill material was placed on top and watered down to force it in between the rocks. Then another layer of fill material about 2' thick was placed on top of the rock and compacted with the bulldozers and heavy equipment. The rock density was not tested at all, not even to the standards specified by GEOCON for a rock fill (Field Plate Bearing Test, ASTM D1196-93). GEI modified the test procedure as described in their report in Appendix B. Only the soil fill layer between the rock layers was tested for its density. Since the rock layers represented 80% of the graded fill height and the soil layers less than 20%, the soil fill compaction tests are meaningless when attempting to predict the structural behavior in the layers between the rock of a 50' high rock fill embankment.

In April 2005 URS Corporation conducted a preliminary geotechnical investigation of the site with four borings, three of which went into the fill materials. The rock fills were found to be very porous and had large voids which complicated the drilling process extensively. These voids soaked up the drilling mud that was placed in the holes to hold them open while we monitored the dynamic properties of the site. This investigation by URS Corporation and our geophysical consultant, GEOVision, is documented in Appendix F.

It was not until URS Corporation performed the preliminary geotechnical investigation on the site grading that the differences in the grading procedures (from those shown on the plans) became evident. In May 2005, after we encountered serious drilling problems on the site, we interviewed GEI, before they prepared the report in Appendix B, to determine what had transpired during the site grading. They provided us with a full record of the procedures that were followed in grading the site and their methodology for monitoring. They also provided us with photographs from their monitoring of the grading which we have added to their report in Appendix B.



### CONSEQUENCES OF ROCK FILLS

For buildings constructed on the cut rock portion of the site we see no significant problem in terms of using that portion for hospital construction. However, for the portion of the site where rock fill materials have been placed, there will be significant complication in founding hospital buildings on this material.

The problems associated with this rock fill material are as follows: Due to the large number of voids surrounding and under the boulders, and the inability to compact the finer materials between the boulders, there is a high probability that under normal weather conditions, the fill will develop vertical settlement as the finer materials migrate into the voids due to water percolating down through the voids. Under earthquake conditions more fine materials will be shaken down from the soil fills above the rock layer to fill the voids. This would be accelerated by the re-arrangement of the rock layers during the shaking. Lateral instability is anticipated at the interface between the boulders and the natural rock slopes of the site due to the missing compacted soil confinement around the rock boulders. Furthermore, a series of benches should have been placed between the rock interface and the boulder fill. According to GEI, the cut rock benches shown on the plans were never used. Instead, the rock fill was placed on the slopes of the site with a 2 to 5% downhill slope.

For the cut areas in natural rock, we can readily predict what the design ground motion conditions could be in a strong earthquake. However, for this rock fill material loosely constrained by smaller gravel and fine sands, there is no known method for predicting its seismic performance, ground motion characteristics or stability under ground shaking. We would be hard pressed to place our engineering seal of approval on a report recommending construction of a hospital on these rock fill materials at the ERTC site.

## Palomar Pomerado Health Center

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Under these conditions, it will be difficult and probably impossible for us to convince OSHPD to accept the rock fill areas as a viable hospital location. Even GEI, the geotechnical engineer responsible for the grading inspection admits the site has been prepared for industrial purposes, where much less stringent requirements apply, not for high tech facilities such as a hospital.

For buildings constructed on a cut and fill site supported partially on natural rock and partially on a soil fill, a foundation system might normally include piles or caissons socketed into the rock to support the structure over the fill. In this case, it is not only going to be very difficult to core and place the caissons in the fill materials but **there is no assurance that the fills themselves will remain in position during the life of the slope and least of all during an earthquake.** The lateral loads from down-drag and seismic motion could easily exceed any conceived design loads developed by the geotechnical engineer in collaboration with the structural engineer. Thus the fill area of the site is extremely problematic for adapting to the types of requirements that OSHPD would impose to assure structural safety.

### ESTIMATED FILL REMEDIATION COSTS

Figure 9 depicts the overlay of the existing site elevation contours and the finished grading plan contours presented to the City of Escondido in the permit set of drawings. The computed volume of rock and soil fills is on the order of 1.4 Million cubic yards.

The most rational option for remediating the grading conditions so the entire site may be used for hospital construction would be to remove and replace the rock fill with fine fill materials using the ground-up boulders in the process. In this case the boulders would have to be ground to a very fine material since the city is not permitting fill materials to be trucked onto the site. It might involve cutting the rock surface down even further in order to provide material to fill the void spaces that now exist. The complexity of such a process is further complicated by the limited space to work around since the materials on the site cannot be trucked off during the removal, excavation and replacement cycle.

The second option would be to fill the voids between the rocks using a pressure grout procedure. This approach has been used historically and would require a fairly sophisticated process. We have estimated the costs for both of these options in Appendix F. The option of removing, grinding up the rock materials to fine materials and replacing them in a properly compacted process over the site has been estimated at \$30 Million. To grout the materials in place and stabilize the site is estimated anywhere from \$25 to \$50 Million, depending on conditions encountered. These are significant costs to achieve a usable site and may well exceed the asking price of the property.

**SUMMARY**

We have incorporated all of the documents referred to in the contract between PPH and JRMC in Article 16 of the Seller's obligation. These include the grading permit (see Appendix G), the grading plans in the final form approved April 1, 2005 after 90% of the grading on the site had been completed (see Appendix H) and the Site Improvement Plans P-2398 dated December 29, 2004 (see Appendix I).

Based on the geotechnical and geophysical test programs that URS Corporation has conducted at the proposed Palomar West Medical Center (ERTC) site and the report by GEI on the grading that they monitored, it is evident that a rock fill was used. This is contrary to the design grading plans prepared by the civil engineers, Project Design Consultants; contrary to the City of Escondido's standard for grading; contrary to GEOCON's recommended grading specifications for soil and soil rock fill and contrary to URS's understanding of the proposed grading plans for the site.

The rock fills as constructed represent a major maintenance cost to prevent settlement from water leaching the fine grain surface fills down through the rock voids. They also represent a high added foundation cost for any building constructed on rock fill; and since only the cut rock areas maybe counted on as acceptable, the fills limit the site areas where hospital buildings may be safely constructed under the OSHPD permitting process.

# **APPENDIX F**

Cost Estimate for Remediation  
of Rock Fill Grading at ERTC Site

Joe Hook / Da Wu / Bill Gates

DRAFT

proposed Palomar Medical Center West (PMC West) site

The GEI report and photos of the site grading specifically define the grading as a rock fill. Our soil boring test program failed in this material and we had to use rock fill drilling procedures to test sample the fill. The GEI photographs attached show placement of the rock fill.

The grading plans for the fill areas of the site prepared by Project Design Consultants, call for a fine soil fill with a few rock boulders up to 4' in diameter placed randomly and well spaced in the fill below the top 10 feet of soil fill. These plans were approved by the City of Escondido for construction in April 2005, after all the rock fill had been placed at the site. No sets of drawings approving rock fills at the site could be produced by the City of Escondido from their files.

A grading construction permit for the ERTC site was issued January 23, 2004, well before the actual design drawings for the grading process were approved on April 1, 2005. This approval process for construction plans appears counter to normal building code approval processes.

The use of a rock fill in place of a soil fill appears to have evolved during the grading process. We reviewed a report developed by Geocon which recommended the use of a County-approved soil fill. This was in May of 2004 at the beginning of site grading for the proposed area of the hospital. We made recommendations to improve the soil fill. Our recommendations were intended to assure acceptance of the site grading by OSHPD so hospital buildings could be constructed anywhere on the fills without the need for geo-remediation. James McCann's contractor estimated an added cost of \$1 to \$1½ Million to grade the 40 acre site to our recommendation vs. Geocon's.

The rock fill at the PMC West site is not acceptable for hospital construction and will even require special foundation and soil stabilization under conventional (nonhospital) building construction such as parking structures or MOB's. About 40% of the site is on rock fill. The remaining 60% is on rock cut or shallow soil fills. The major hospital buildings would have to be founded on the natural rock cut areas to satisfy OSHPD.

Remedial (retrofit) measures have been studied to stabilize the rock fills and make them acceptable for hospital construction as well as conventional non-OSHPD construction. The schemes evaluated included:

(see Proposal)

1. Remove rock fill, grind it to a mix of fines and replace with compacted soil fill containing limited rock randomly placed, per URS grading specification.
2. Pressure grout the void space between the rocks in the rock fill to stabilize the site against gross uneven site settlement and slope movement.
3. Combine local grouting and tiebacks with concrete retaining walls.
4. Site reconfiguration in combination with remediation.

#### Remove and Replace Fills

##### Option 1

Remove rock fill, crush rock into fine size stone and replace the fill. This is the scheme that appears the most satisfactory for future site development. The cost is almost double normal removal and replacement procedures using fine imported soil fill. The City of Escondido will not allow importation of fine fills by truck on the city streets according to GEI and the City grading permit reviewers we talked to during our research.

Rudolph & Sletten and URS Corp have concurrently estimated the volume of fill to be removed and replaced. With the input from grading contractors who have worked with the granite rock in the area we have costs for the crushing of 4' diameter rock down to the correct mix of fine.

The total volume of rock fill including void space between the rock was computed from site contour drawings provided in CAD documents by Joe Fogarty of JRMC Realty in February 2005. These drawings were reportedly the final grading plans and match the stamped permit grading drawing we copied at the city building department in Escondido. The volume is 1.39 million cubic yards of fill. There are some uncertainties that could lead to even greater volume for the backfill than we have computed. They are:

- The depth of native soil over rock that will be removed. This could range from 2 to 10 feet based on Geocon's soil boring logs.
- The void volume in the existing fill.
- The percentage of existing fill that will be reuseable without further crushing.

These factors and other unforeseen conditions have led to a range of construction cost from \$20 to \$30 Million for Option 1.

##### Option 2

Pressure grout rock fill voids. There are several pressure grouting procedures proposed by Gary Taylor of Hayward Baker, the geo-remediation contractor we consulted that specializes in the type of work that could be used to stabilize the rock fill in place.

The concept of pressure grouting the voids between the rocks in the rock fill was suggested as an option by OSHPD's reviewer Robert Sydnor of CGS.

The total cost to grout stabilize the rock fills was estimated to range from \$20 to \$40 per square foot of fill plan area. Since the top 10 feet of fill could be fine soils with small rock interspersed randomly, the rock fill's effective surface area was computed from the CAD

drawings at a -10 foot contour below the finished grade of the site. In essence, the top 10 feet of fine soil rock fills does not require grouting. The total surface area of rock fill that requires pressure grouting is calculated at 1.27 Million square feet.

Pressure grouting is estimated to range from \$25.5 Million to \$51 Million. The more probable cost would be on the order of \$25/sq. ft. or \$32 Million.

Option 3

Combination of pressure grout and tie back walls. This scheme would stabilize the slope and rock fill behind using a limited dike of grout and retaining walls that would be tied back to the rock of the site.

The concept was reviewed with Hayward Baker and found to be more costly than the use of pressure grout over the complete area of rock fill.

Option 4

Site reconfiguration in combination with remediation. This is comparing apples with oranges. If PPH is willing to restrict hospital building construction to rock cut areas and extend basements to rock cuts in the existing fill areas, the site stabilization cost could be reduced for Option 1 or Option 2.

If the rock fill is cut back using terraced slopes with Option 1 or 2 remediation, the retrofit stabilization costs could be further reduced.

If buildings are constructed over the rock fills using caissons that are socketed into rock and pressure grout is injected to fill the voids over a plan area equal to twice the building plan, the construction would be stable and could reduce the need for further site stabilization.

All of these variations that are part of Option 4 could lead to reduced site remediation costs, but added building foundation costs.

We agree with Joe Hook of Rudolph & Sletten that restrictions suggested in Option 4 might bring down the estimated cost for total rock fill remediation to somewhere between \$10 and \$15 Million, or half the estimated cost for Option 1.

The next step is to work with the architectural and structural team members to review possible site utilization concepts that would minimize costly site remediation and foundation concepts. Cost estimates for specific schemes could be developed to better assess the rock fill remediation impact.

Summary

Options	Estimated Cost	
	Low	High
1. Remove and replace rock fill	\$20 Million	\$30 Million
2. Pressure grout rock fill	\$25.5 Million	\$51 Million
3. Pressure grout and tie back walls	Not reasonable	Not reasonable
4. Site reconfiguration and special building foundations	\$10 Million	\$15 Million



**PALOMAR POMERADO HEALTH  
ERTC SITE, FILL REMEDIATION ESTIMATE**

8/30/2005



RANGE/ESTIMATES - RECAP	QUANTITIES	RATE	TOTALS RANGE	REMARKS
OPTION 1 - REMOVE & REPLACE FILL	1,390,000 CY	\$14.94	\$20,766,872	\$32,273,781
OPTION 2 - PRESSURE GROUT FILL AREAS > 10' DEEP	1,270,000 SF	\$20.00	\$25,400,000	\$50,800,000
OPTION 3 - REMOVE & RECOMPACT; REDUCE TOP OF FILL ELEVATION	1,794,733 SF	\$9.22	\$16,551,924	\$10,645,773
CITRICADO PKWY - ADDITIVE ALTERNATE	117,000 SF	\$37.34	\$4,369,056	\$4,369,056 PARTIAL R/R
INFRASTRUCTURE UPGRADES				EXCLUDED

OPTION 1 - REMOVE & REPLACE FILL	QUANTITIES	RATE	TOTALS RANGE	REMARKS
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POSSIBLE RANGE OF EXISTING MATERIAL SIZES	QUANTITIES	TOTAL YARDS
4' to 2'	30%	30%
2' to 6"	25%	15%
6" to 3/4"	15%	10%
3/4" -	15%	10%
VOIDS	15%	35%
TOTAL	100%	100%

MOBILIZE	QUANTITIES	RATE	TOTALS RANGE	REMARKS
SITE FENCE	1	\$10,000.00	\$90,000	\$90,000
EQUIPMENT MOVE ON	1	\$50,000.00	\$10,000	\$10,000
EROSION CONTROL	1	\$30,000.00	\$50,000	\$50,000
EXCAVATE FILL AREAS	1,181,500	\$2.78	\$3,287,654	\$2,453,654 NET VOLUMES
REMOVE & STOCKPILE	265,886	\$1.35	\$358,947	\$358,947 TOP 4'
MATERIAL TO CRUSHER	915,614	\$3.00	\$2,746,841	\$1,912,841
SCARIFY AND RECOMPACT FILL AREAS	1,794,733	\$0.08	\$143,579	\$143,579
EROSION CONTROL OF STOCKPILE	478,596	\$0.08	\$38,288	\$38,288 15' HIGH
PROCESS MATERIAL FROM EXISTING FILL	715,614	\$8.06	\$5,767,734	\$4,381,460
SEPARATE SOIL, NET VOLUME	200,000	\$4.00	\$800,000	\$400,000
CRUSHER SET UP	1	\$30,000.00	\$30,000	\$30,000
4' to 2'	143,123	\$5.00	\$715,614	\$537,614
2' to 6" minus	71,561	\$2.50	\$178,903	\$0
6" to 3/4" minus	71,561	\$4.00	\$286,245	\$322,568
3/4" minus to fines	250,465	\$10.00	\$2,504,648	\$2,150,454
PROCESS BALANCE	178,903	\$7.00	\$1,252,324	\$940,824

	FROM	TO
30%	30%	10%
25%	15%	15%
15%	10%	25%
10%	15%	50%

**PALOMAR POMERADO HEALTH  
ERTC SITE, FILL REMEDIATION ESTIMATE**

8/30/2005



OPTION 1, continued	QUANTITIES	RATE	TOTALS RANGE
PLACE MATERIAL FROM EXISTING FILL	1,181,500	\$3.04	\$3,586,862
CRUSHER TO FILL	915,614	\$2.00	\$1,831,227
STOCKPILE TO FILL	265,886	\$1.00	\$265,886
RECOMPACT TO 95% PREMIUM	1,181,500	\$1.00	\$903,500
ROUGH GRADE	2,568,733	\$0.12	\$308,248
<b>MATERIAL FOR VOIDS</b>	<b>486,500</b>	<b>\$29.48</b>	<b>\$13,374,725</b>
AVERAGE DEPTH OF NEW CUT	7.27		
AVERAGE LOWERING OF FINAL GRADES	16.97		
REMOVE & STOCKPILE TOP 4'	5.11		
EROSION CONTROL OF STOCKPILE	114,667	\$1.35	\$154,800
ROCK EXCAVATION	206,400	\$0.08	\$16,512
MATERIAL TO CRUSHER	208,500	\$15.00	\$3,127,500
CRUSHING	208,500	\$3.00	\$625,500
SCARIFY AND RECOMPACT CUT AREAS	208,500	\$5.00	\$1,042,500
CRUSHER TO FILL	774,000	\$0.30	\$232,200
STOCKPILE TO FILL	208,500	\$2.00	\$417,000
RECOMPACT TO 95% PREMIUM	114,667	\$1.00	\$114,667
ROUGH GRADE	323,167	\$1.00	\$323,167
	774,000	\$0.12	\$92,880
<b>CONTINGENCY</b>	<b>\$18,878,974</b>	<b>10%</b>	<b>\$1,887,897</b>
	<b>\$23,052,701</b>	<b>40%</b>	<b>\$9,221,080</b>
<b>OPTION 1 - TOTALS</b>	<b>1,390,000</b>	<b>\$14.94</b>	<b>\$20,766,872</b>
PROJECT AREA & COST/SF	2,685,733	\$7.73	\$20,766,872
FILL AREA & COST/SF	1,794,733	\$11.57	\$32,273,781
			\$32,273,781
<b>OPTION 2 - PRESSURE GROUT FILL AREAS &gt; 10' DEEP</b>			
FILL AREAS, > 10' DEEP	1,270,000	\$20.00	\$25,400,000
<b>OPTION 2 - TOTAL</b>	<b>1,270,000</b>	<b>\$20.00</b>	<b>\$25,400,000</b>
<b>OPTION 3 - REMOVE &amp; RECOMPACT; REDUCE TOP OF FILL ELEVATION</b>			
VOID VOLUME	208,500		
FILL AREA	1,794,733		
	(3.14)		
<b>REDUCE AVERAGE TOP OF FILL ELEVATION</b>			
MOBILIZE	1,181,500	\$2.78	\$90,000
EXCAVATE FILL AREAS	715,614	\$8.06	\$3,287,654
PROCESS MATERIAL FROM EXISTING FILL	1,181,500	\$3.04	\$4,381,460
PLACE MATERIAL FROM EXISTING FILL	903,500	\$3.05	\$2,752,862
MATERIAL FOR VOIDS	\$12,732,249	30%	\$3,819,675
CONTINGENCY	\$9,677,975	10%	\$967,798
<b>OPTION 3 - TOTAL</b>	<b>1,794,733</b>	<b>\$5.93</b>	<b>\$16,551,924</b>
			<b>\$10,645,773</b>
			\$90,000
			\$2,453,654
			\$4,381,460
			\$2,752,862
			NET VOLUMES
			EXCLUDED

**PALOMAR POMERADO HEALTH  
ERTC SITE, FILL REMEDIATION ESTIMATE**  
8/30/2005



		TOTALS RANGE	
<b>CITRICADO PKWY - ADDITIVE ALTERNATE</b>			
CITRICADO PKWY, 96+00 to 97+00	100	LF	\$3,384.44
REMOVE & REPLACE UTILITIES			\$0
12" WATER	100	LF	\$200.00
8" WATER	100	LF	\$150.00
FH NO. 3 & BRANCH PIPING	1	LS	\$7,500.00
ST. LIGHT NO. 5	1	LS	\$4,000.00
DRY UTILITIES, ALLOW	100	LF	\$175.00
SDG&E CABLING & TERMINATIONS			\$0
REMOVE, PROCESS & REPLACE FILL	4,815	CY	\$30.00
REMOVE & REPLACE SURFACE IMPROVEMENTS	13,000	SF	\$10.00
			<b>\$3,156,800</b>
<b>CITRICADO PKWY, 106+00 to 114+00</b>	<b>800</b>	<b>LF</b>	<b>\$3,946.00</b>
REMOVE & REPLACE UTILITIES			\$0
12" SEWER	800	LF	\$75.00
6" SEWER	330	LF	\$40.00
12" WATER	800	LF	\$200.00
2" WATER	900	LF	\$30.00
8" RECLAIMED WATER	800	LF	\$150.00
2" RECLAIMED WATER	470	LF	\$30.00
36" STORM DRAIN	800	LF	\$300.00
24" STORM DRAIN	180	LF	\$200.00
FH & BRANCH PIPING	3	LS	\$7,500.00
ST. LIGHT	6	LS	\$4,000.00
DRY UTILITIES, ALLOW	800	LF	\$175.00
SDG&E CABLING & TERMINATIONS			\$0
REMOVE, PROCESS & REPLACE FILL	42,000	CY	\$30.00
REMOVE & REPLACE SURFACE IMPROVEMENTS	104,000	SF	\$10.00
			<b>\$1,260,000</b>
CONTINGENCY	\$6,990,489	\$0 LS	25%
			<b>\$1,747,622</b>
	<b>117,000</b>	<b>SF</b>	<b>\$37.34</b>
<b>CITRICADO PKWY - TOTAL</b>			<b>\$4,369,056</b>
			<b>\$4,369,056</b>