October 8, 2006

Mr. ______________ ROOFING CO., INC.
_______________, CA ______

RE: Title 24 Part 6 Roof Cost Information
California, Northern Bay Area North Central Valley South Central Valley Southern
PBC No: P0524

Dear Mr. ______________:

It was a pleasure to speak with you last week and thanks in advance for taking the time to consider assisting us by providing some costing for new construction for steep roofing. The cost information is related to Title 24 Part 6 (T24P6) aka Energy Efficiency Standards Updates and roofing and what might be proposed and coming in the 2008 code.

The typical roof system installation cost information is part of our work with roofing and consulting to ARMA. The cost information for each system needs only to reflect a system total for materials including mark-up for overhead and profit as well as a system total for labor including mark-up. The systems listed below indicate the systems on the attached spreadsheet for the needed cost information for the various different roof systems we are interested in. Please provide typical cost information for as many of the indicated roof systems as you have bidding experience.

The purpose of the costing is to obtain independent and objective approximate costs from contractors for non-cool vs. cool (possible since not defined yet) cost comparisons, ultimately showing if there is a premium or surcharge to go cool on some systems and to be able to share this information with the CEC. Some contractors agreeing to assist us are within the same region but usually not within the same County. The costs will be used to show completed roof price comparison throughout the State (showing the labor and material total, not just the two items separately), with both averaged and by large geographic reference e.g.: So Cal vs. No Cal vs. Valley etc. Contractors names will not be disclosed in the comparisons and no costs will be specifically targeted to individual contractors. At a later time we will present a summary of information, we may do an article, present a paper or other similar announcements on the costs and differentials obtained and will only list the contractors who assisted in the information gathering, if they so desire and agree in writing in advance.

Assume new roof installations, located within 25 mile radius of the contractor's operations, typical residence – DRAWING INCLUDED WITH ALL FEATURES NOTED. Include typical related sheet metal costs BUT do not include any roof attic vents.

Just fill in the B & C columns with costs and D should calculate. Similarly, fill in the cool side columns F & G columns with costs and H should calculate. NOTE: The blue cells are an automatic repeat of non-cool columns. It is important to recognize, that while "cool" for steep slope is not defined yet, our assumption is as indicated on the spreadsheet – so were not trying to test your knowledge or create trick questions for the cool columns.
Selected Definitions

- Since "Cool" for steep roofing is not defined yet, we assume 0.20 to 0.25 reflectance for shingles (*______ assumed for now), .030 reflectance (aged) for wood shake & shingles & 0.40 reflectance (*______ F40 color series) as well as for a cost for a vented counterbatten system for possible convection effect which we assume might be proposed and become a viable alternative. The “cool” costs go in columns F & G on the right side of the forms.
- "Fire Rated" means the system has been tested and qualifies for a Class B or better external fire rating (ASTM E108).
- System install is in standard (not high wind) location.
- House is generally 1 story in height but could include multi-family higher structures and accessible for lift truck, conveyor or forklift.
- **Wood Shakes over spaced sheathing**
  - Std. 24-inch Class B fire treated, mediums
  - Separately price premium grade mediums 24-inch Class B fire treated
  - Separately price standard grade heavy’s 24-inch Class B fire treated,
  - Interlayment is assumed std. No. 30 ASTM D226 Type II, one layer 18-inch wide felt
  - Std. 10-inch exposure
  - Medium starters OK or standard No. 2 wood shingles (fire treated only)
  - Pre-manufactured “B” fire treated hip & ridge
  - Hot dip or stainless nails only
  - Metal valley, pre-painted

- **Wood Shingles over spaced sheathing**
  - Class B fire treated, No. 1, 16-inch
  - No underlayment
  - Std. 5-inch exposure
  - No. 2 starters OK (fire treated only)
  - Pre-manufactured “B” fire treated hip & ridge
  - Hot dip or stainless nails only.
  - Metal valley, pre-painted

- **Synthetic (cement fiber) Wood Shake and / or Shingle look and cool if available**
  - Underlayment is assumed std. No. 15 ASTM D226 Type I, one layer 36-inch wide felt.
  - Electro-galv nails or staples
  - Std hip/ridge
  - Pre-painted 26 gage metal valley
  - Cost separately – also indicate any “cool” series cost in the right column not adjacent to anything on the left.
  - Two fasteners per piece or as required
• **Asphalt Shingles**
  - Underlayment is assumed std. No. 15 ASTM D226 Type I, one layer 36-inch wide felt.
  - Electro-galv nails or staples
  - Std hip/ridge
  - California Cut valley
  - 20 year, 25 year and 30 year Metric 3-tab and 40 dimensional and 50 dimensional as indicated, cost separately – *_____ “cool” in the right column cool across from the 40 year dimensional and also indicate the high end *________ non & “cool” series cost with the cool in the in the right column
  - Four fasteners per shingle (or 5 or 6 or 7 as required by manufacturer for dimensional)

• **Concrete interlocking S-Tile and separately Slate or Shake over battens & solid sheathing**
  - Standard S-tile and slate or shake installation, both for standard weight and lightweight and, 1 x 2 treated or redwood battens (or without battens if local practice), roof section perimeter fastening, every other field course fastening on standard weight, all tile fastened for lightweight, 3-inch tile overlap
  - **Separately price an elevated batten system and note it in the “cool” column to the right of the std. s-tile & slate/shake install** – Install Monier 1 x 3 elevated counter batten system anchored with nails through each support block and into every truss/rafter positioned so blocks align over truss top chords), utilize vented eave riser and at hip & ridge use a ventilating flexible flashing sheet (small one-way directional holes near gap at hip/ridge board) similar TRI ICC#: ESR-1787 (alum. or copper) or MonierLifetile Figaroll,
  - Underlayment is assumed std. No. 30 ASTM D226 Type II, one layer 36-inch wide felt, wrapped over rake edges. Underlayment under and over hip & ridge nailers creating a dry hip & ridge system,
  - Std. matching hip and ridge trim tile fastened into nailer providing a cross-bead of mastic in overlap at nail over a flexible flashing sheet (utilize transitions lead at eave offsets, at ridge to hip/ridge to rake end etc.
  - All roof to wall 26 gage J flashing, 4 lb. lead head wall flashing, 26 gage double “W” valley flashing
  - Batten extenders at valleys, J flashings
  - Double metal “jack” system – one flashing interwoven at underlayment and flexible flashing, formed at tile level
  - Assume no gutter, eave board is flush with deck, install 2 x 2 nosing and eave riser metal sealed at nail locations
  - Small pieces adhered to previous tile course or wired

• **Clay S-Tile and Cap & Pan Tile over solid sheathing**
  - Standard clay S-tile & cap and pan installation, all tile wired, 3-inch tile overlap
  - **Separately price *_____ F40 “cool” system in the right columns**
  - Underlayment is assumed std. No. 30 ASTM D226 Type II, one layer 36-inch wide felt, wrapped over rake edges. Underlayment under and over hip & ridge nailers,
October 8, 2006

- Std. matching pre-water soaked hip and ridge trim tile pieces fastened into nailer and Type M mortar trimming wind block, utilize transitions lead at eave offsets, at ridge to hip/ridge to rake end etc.
- All roof to wall 26 gage roof to wall flashing, 4 lb. lead head wall flashing, 26 gage double “W” valley flashing
- Double “jack” system – one interwoven at underlayment and flexible flashing, formed at tile level
- Assume no gutter, eave board is flush with deck, install 2 x 2 nosing and eave riser bird stop or metal, sealed at nail locations
- Small pieces adhered to previous tile course or wired

The yellowed cells are for metal roofing – if you do these and can cost them, it would also be greatly appreciated.

After you get a chance to review this information, feel free to call and ask for further clarifications, and confirm your willingness to possibly provide the requested information for the [Northern - Bay Area] [Southern – LA Region North to Valencia South to San Diego & east] [Central Valley – Bakersfield to Merced] [Northern Central Valley Turlock to Auburn] [Far North – Redding-Shasta] California geographic regions. If possible we would like the information back as soon as possible but no later than the end of October 2006. I recognition of the value of your time, expertise and cooperation in agreeing to provide these services we are paying the sum of $400, assuming you complete costs on at least all the items in rows 2-16 (and hopefully the lower sections also).

Thank you for the opportunity to be of assistance. Please call if you would like additional information, or wish to discuss the services in more detail.

Respectfully,

PACIFIC BUILDING CONSULTANTS, INC.

John A. Goveia, President
Principal, Senior Consultant

JAG/

enclosure: Originally scaled and quantity/size annotated Roof Plan System spreadsheet