

# DEPARTMENT OF PUBLIC WORKS

Quality, Excellence, Innovation

Raul M. Rojas

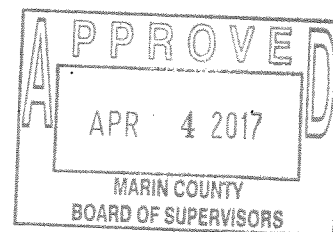
DIRECTOR



Administration  
PO Box 4186  
San Rafael, CA 94913-4186  
415 473 6528 T  
415 473 3799 F  
415 473 3232 TTY  
CRS Dial 711  
[www.marincounty.org/pw](http://www.marincounty.org/pw)

April 4, 2017

Marin County Board of Supervisors  
3501 Civic Center Drive  
San Rafael, CA 94903



**SUBJECT:** Roofing Material Sole Source Procurement  
Marin County Civic Center Roof Replacement  
Project No. CAP 17410-01-411

Dear Board Members:

Accounting

Airport

Building Maintenance

Capital Projects

Certified Unified Program  
Agency (CUPA)

Communications  
Maintenance

County Garage

Disability Access

Engineering & Survey

Flood Control &  
Water Resources

Land Development

Purchasing

Real Estate

Reprographic Services

Road Maintenance

Stormwater Program

Transportation &  
Traffic Operations

Waste Management

**RECOMMENDATION:** Adopt attached resolution finding that, pursuant to Public Contracting Code Section 3400, the proposed sole source roofing material, Sika RoofPro, is 'necessary' to the Marin County Civic Center Roof Replacement Project, and further authorize the County Purchasing Agent to approve sole source procurement of said material or product.

**SUMMARY:** The Civic Center roof was last re-coated in 1999-2000. Over time, the roof has developed multiple leaks and is subject to on-going repairs due to blistering, peeling, and delamination.

Simpson, Gumpertz and Héger (SGH) were commissioned by the County to prepare a Roof Study and Feasibility Analysis. Their April 2013 report recommended that six roofing systems be further evaluated for use in the reroofing project. The SGH report included cost estimates based on either complete or partial removal of existing roofing. Depending on preparation and roofing type, the estimates ranged from \$15.6 million to \$22.1 million for a roof removal and recoating, to \$8.7 million to \$15.3 million for coating over the existing roof.

In 2016, Wiss Janney Elstner (WJE) was commissioned by the County to review the SGH report and conduct additional roof testing and evaluation. WJE evaluated the six systems recommended by SGH and one additional system selected by WJE. The evaluation criteria utilized for product analysis included durability (including seam strength and visibility and exposure of reinforcement fibers); ease of application (including adhesion and level application of the liquid coatings to the roof's curvilinear elements); historic compatibility; color change and stability; cost efficiency; long-term maintenance requirements; extended warranty; and availability of full-time monitoring (during installation) by the manufacturer. WJE recommended and field tested the three systems deemed most compatible based on the established criteria.

Test applications on the roof allowed observation of installation methods and appearance of the three systems. During this testing, WJE confirmed that full

removal of the existing roofing is required. Rough order of magnitude cost estimates for the full removal of the existing roof ranged from \$19.1 million to \$21.6 million. Samples of the three materials were subjected to 500 and 1000 hours of accelerated weathering by an independent laboratory. The December 2016 WJE report recommended the Sika RoofPro system based on the scoring criteria discussed above. The report is available on the Public Works, Capital Projects web site:

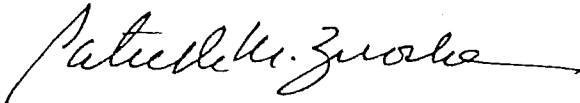
<http://www.marincounty.org/depts/pw/divisions/capital-projects> Also attached is a summary of WJE's review and report.

As part of the project procurement process, staff recommends your Board adopt the attached resolution finding that, pursuant to Public Contracting Code Section 3400, the proposed sole source roofing material, Sika RoofPro, is 'necessary' to the Marin County Civic Center Roof Replacement Project, and further authorize the County Purchasing Agent to approve sole source procurement of said material or product in the project plan and specifications. This action is in compliance with Marin County Municipal Code, Title 3 - Revenue and Finance/Chapter 3.08.040.D Bid Procedure. Staff will bring the approval of final plans and specifications and advertisement for bid to your Board for approval at a future date. That action will allow the roof removal and new system installation activities to be subject to competitive bidding.

**FISCAL IMPACT:** There is no impact by the action.

<b>REVIEWED BY:</b>	<input checked="" type="checkbox"/>	County Administrator	<input type="checkbox"/>	N/A
	<input type="checkbox"/>	Department of Finance	<input checked="" type="checkbox"/>	N/A
	<input checked="" type="checkbox"/>	County Counsel	<input type="checkbox"/>	N/A
	<input type="checkbox"/>	Human Resources	<input checked="" type="checkbox"/>	N/A

Respectfully submitted,

408  


Patrick Zuroske  
Capital Projects Division Manager

Attachments: Resolution  
WJE Summary Letter Report dated March 7, 2017

Project String: 41COP20151-PWCOP1-PWMSCSVCS

**RESOLUTION NO. 2017-32**  
**RESOLUTION OF THE MARIN COUNTY BOARD OF SUPERVISORS**  
**REGARDING SOLE SOURCE MATERIAL FOR THE**  
**MARIN COUNTY CIVIC CENTER ROOF REPLACEMENT PROJECT**

**WHEREAS**, The Civic Center roof was last re-coated in 1999-2000, and over time the roof has developed multiple leaks and is subject to on-going repairs due to blistering, peeling, and delamination; and;

**WHEREAS**, Simpson, Gumpertz and Heger (SGH) were commissioned by the County to prepare a Roof Study and Feasibility Analysis and their April 2013 report recommended that six roofing systems be further evaluated for use in the reroofing project; and;

**WHEREAS**, the SGH report included cost estimates based on either complete or partial removal of existing roofing, and depending on preparation and roofing type, the estimates ranged from \$15.6 million to \$22.1 million for a roof removal and recoating, to \$8.7 million to \$15.3 million for coating over the existing roof; and

**WHEREAS**, in 2016, Wiss Janney Elstner (WJE) was commissioned by the County to review the SGH report and conduct additional roof testing and evaluation and WJE evaluated the six systems recommended by SGH and one additional system selected by WJE; and

**WHEREAS**, the evaluation criteria utilized for product analysis included durability (including seam strength and visibility and exposure of reinforcement fibers); ease of application (including adhesion and level application of the liquid coatings to the roof's curvilinear elements); historic compatibility; color change and stability; cost efficiency; long-term maintenance requirements; extended warranty; and availability of full-time monitoring (during installation) by the manufacturer, and WJE recommended and field tested the three systems deemed most compatible based on the established criteria; and

**WHEREAS**, test applications on the roof allowed observation of installation methods and appearance of the three systems, and during this testing, WJE confirmed that full removal of the existing roofing is required; and

**WHEREAS**, rough order of magnitude cost estimates for the full removal of the existing roof ranged from \$19.1 million to \$21.6 million, and samples of the three materials were subjected to 500 and 1000 hours of accelerated weathering by an independent laboratory; and

**WHEREAS**, the December 2016 WJE report recommended the Sika RoofPro system based on the scoring criteria discussed above and the report is available on the Public Works, Capital Projects web site: <http://www.marincounty.org/depts/pw/divisions/capital-projects>; and

**WHEREAS**, in making the finding below, the Board considered the SGH Roof Study and Feasibility Analysis report, the WJE Report (the contents of which are herein incorporated by reference), as well as its summary letter dated March 7, 2017 (attached as Exhibit 1 and herein incorporated), email correspondence to it from Metacrylics, and the testimony of staff and any public comment at the April 4, 2017 Board meeting; and

**WHEREAS**, Marin County Municipal Code, Title 3 - Revenue and Finance/Chapter 3.08.040.D states in relevant part as follows: "Those items for which the purchasing agent determines there is a single or *sole source*, may be purchased on the open market, by the purchasing agent, provided that such purchases, estimated to exceed one hundred thousand dollars, or as specified in Section 25502.5 of the Government Code or its statutory successor, must have prior approval of the board of supervisors" and

**WHEREAS**, California Public Contracting Code Section 3400 generally does not allow a public entity to draft "specifications for bids, in connection with the construction, alteration, or repair of public works,...calling for a designated material, product, thing, or service by specific brand or trade name unless the specification is followed by the words 'or equal'" or unless certain specific circumstances exist, including those in which "the awarding authority, or its designee, makes a finding that is described in the invitation for bids or request for proposals that a particular material, product, thing, or service is designated by specific brand or trade name...[i]n order to obtain a necessary item that is only available from one source;" and

**WHEREAS**, if this Board makes the requisite findings that these specific circumstances exist so as to allow a sole source procurement of said roofing product or material, staff will bring the approval of final plans and specifications and advertisement for bid to your Board for approval at a future date and such action will allow the roof removal and new system installation activities to be subject to competitive bidding.


**NOW, THEREFORE, BE IT RESOLVED**, that pursuant to Public Contracting Code Section 3400(c), the Marin County Board of Supervisors hereby finds that Sika RoofPro system is product or material available from a sole source and that is a necessary product or material for the intended Marin County Civic Center Roof Replacement Project and hereby further authorizes the County Purchasing Agent to approve the sole source procurement of said material or product.

**PASSED AND ADOPTED** at a regular meeting of the Board of Supervisors of the County of Marin held on this 4th this day of April, 2017, by the following vote:

AYES: SUPERVISORS Dennis Rodoni, Katie Rice, Damon Connolly, Kathrin Sears, Judy Arnold

NOES: NONE

ABSENT: NONE

  
\_\_\_\_\_  
PRESIDENT, BOARD OF SUPERVISORS

ATTEST:

  
\_\_\_\_\_  
CLERK

Via E-mail: CIsaza@marincounty.org

March 07, 2017

Mr. Cam Isaza  
Chief of Construction  
Marin County, Department Of Public Works  
P.O. Box 4186  
San Rafael, California 94913-4182

Re: Marin County Civic Center  
Review of Roof System Selection Process  
WJE No. 2015.4332

Dear Mr. Isaza:

At the request of Marin County (the County), Wiss, Janney, Elstner Associates, Inc. (WJE) has prepared this review of the process by which a roofing system came to be recommended for use at the Marin County Civic Center. This process is more fully described in WJE's report dated December 23, 2016.

***Simpson, Gumpertz and Heger Roof Study and Feasibility Analysis***

The County engaged Simpson, Gumpertz and Heger (SGH) to evaluate options for reroofing. SGH is a respected engineering firm with several offices around the country and a practice that includes roofing. SGH prepared a report titled, Roof Study and Feasibility Analysis, and dated April 17, 2013. The 145 page report included the following:

- photographs of typical conditions,
- 25 drafted plan drawings showing the location of deteriorated conditions such as blisters, cracking and separation of layers of roofing. Also noted was the location of features and conditions, such as the occurrence of water ponding at horizontal curbs, that are pertinent to the selection of a new roofing system,
- 37 hand drawn sketches of as-built roofing details,
- a leak survey, and
- a report of laboratory testing of existing roofing materials.

Laboratory testing included macro photography and visual microscopy to determine the number of layers of roofing materials present (up to 10 separate layers in one sample). These methods also show the extent of bubbles entrapped in layers of liquid-applied materials and conditions at blisters. Fourier Infrared Spectroscopy (FTIR) was utilized to identify the chemical type of the various layers.

The SGH report recommended "replacing the existing roofing assembly with one of six recommended systems. SGH also recommended consideration of two degrees of removal of existing material -- complete removal down to the concrete substrate or removal of most roofing material but leaving in place the 1969 coating system. We note that SGH had come to believe that the original layers contained asbestos; they based their suggestion to consider leaving the 1960s material in-place was partially due to concerns over abatement of asbestos. (Later, WJE was informed that asbestos is not present in the 1960s roofing material.)

Headquarters & Laboratories—Northbrook, Illinois

Atlanta | Austin | Boston | Chicago | Cleveland | Dallas | Denver | Detroit | Dubai | Honolulu | Houston | Los Angeles  
Minneapolis | New Haven | New York | Princeton | San Francisco | Seattle | South Florida | Washington, DC

Working in conjunction with a contractor, Rainbow Waterproofing & Restoration Co. (Rainbow), SGH developed Rough Order of Magnitude (ROM) cost estimates for the six roofing systems with both full and partial removal of the existing roofing. ROM cost estimates ranged from \$22,173,854 to \$8,704,407.

### ***Wiss, Janney, Elstner Associates Inc. Peer Review***

In July 2015, the County issued a Request for Proposals for Peer Review of (the SGH) 2013 Roof Study & Feasibility Report. The Introduction noted the wide range in ROM cost estimates included with the SGH report and states, "Because of the wide range of estimated costs, the County endeavors to identify the most cost-effective repair strategy that provides long-term material compatibility, constructability and durability. The objective of the peer review is to confirm the validity of the report recommendations and determine next steps in developing a repair strategy."

WJE and others responded to the RFP. Following submission of proposals, WJE was one of the firms invited to be interviewed and was ultimately awarded the contract for the peer review.

To more fully represent the range of available reinforced liquid-applied roofing materials, WJE considered one system in addition to the six previously recommended by SGH. WJE reviewed the seven systems with respect to durability, constructability, and historic suitability.

Based upon a review of the SGH report, observation of conditions at the Civic Center roof and analysis of the seven roofing systems, WJE recommended a short list of three systems for further consideration. These were all fully-reinforced liquid applied membranes, so they had capacity to conform to the precast concrete ornament, which is important for historic compatibility. All three recommended for additional investigation have a track record as a stand-alone roofing membrane and are not mainly marketed as a coatings over an older existing membrane.

WJE proposed an additional evaluation that became the basis for the County's authorization for additional services. These services included evaluation of options for roofing termination at the metal fascia, adhesion, and accelerated weather testing.

### ***Wiss, Janney, Elstner Associates Inc. Additional Evaluation***

#### ***Roof Top Testing and Demonstrations***

At three locations on the Administration Building roof and three locations on the Hall of Justice roof, existing roofing material was removed both fully and partially. The three roofing systems recommended for additional evaluation were installed at their designated locations on both buildings, at deck areas with full and partial removal of the existing roofing. The roofing material manufacturers provided technical representatives to instruct and support Rainbow with installation of the roofing materials. The manufacturers, in some cases, provided different primer or adhesion methods in different locations to determine their best recommendation for the Civic Center roof. Installation was observed by WJE and field adhesion testing was conducted. Based on the adhesion testing it became clear that partial removal of the existing roofing was not a feasible option. What appeared to be well-bonded remnants of 1960s coating came up off the concrete deck readily when they were covered with new roofing materials and then subjected to adhesion testing.

### *Roofing Material Removal Demonstrations*

WJE observed the results of removal of existing roofing by hand-scraping, grinding, chemical paint stripper, and two types of abrasive blast. The County's hazardous materials consultant also made observations and took measurements pertaining to the engineering controls necessary during removal of existing material.

### *Metal Fascia Investigation*

With the assistance of workers provided by Rainbow, WJE directed the removal of sections of metal fascia at both the Administration Building and the Hall of Justice. As agreed to with the County, WJE evaluated factors such as possible methods of reinstallation that would eliminate the necessity of removing the fascia in future reroofing efforts.

### *Accelerated Weathering Testing*

The manufacturers for the three roofing systems recommended for additional investigation provided mortar blocks of the full system (including blue finish) they recommended for use at the Civic Center. For each system three specimens, each three inches by three inches, were obtained and provided to an independent laboratory for testing. For each set of three specimens, two were placed in a weathering chamber and one was held back as a reference specimen. Specimens were subjected to a standard cycle of exposure to a high-output lamp and water spray for 1000 hours. Following the exposure specimens were evaluated by the laboratory for color stability, chalking, and exposure of reinforcing fibers.

### *Evaluation*

WJE developed an approach for summarizing our findings and assigning a numeric score to each of the three systems that were evaluated. Ten factors for evaluation were identified: adhesion, maintenance required to maintain warranty coverage, ease of installation, duration of odor, color change over time, chalking, exposure of reinforcement fibers, seam strength and visibility, warranty, and availability of full-time monitoring by the manufacturer. WJE did not include estimated cost in this evaluation.

On the basis of this evaluation the Sika RoofPro system was recommended.

### *ROM Cost Estimate*

WJE worked with Rainbow to develop revised cost estimates for the three systems studied in depth. Field experience confirmed that partial removal of existing roofing was not a viable option, so cost estimates were based on full removal of existing roofing. An allowance for skylight repair was carried over from previous estimates. For pricing purposes, WJE developed a schematic detail for treating the Hall of Justice metal fascia. The specific components of the three roofing systems were adjusted based on field experience, for example using one type of primer rather than another.

The result of the ROM cost estimating process was that Sika RoofPro was the least expensive roofing system.

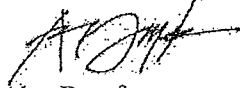
Please let us know if we can provide further clarification of the process by which we WJE developed its recommendation for the roofing system to be used at the Civic Center.

Sincerely,

WISS, JANNEY, ELSTNER ASSOCIATES, INC.



Strong, James C.  
Associate Principal



Alan Dreyfuss  
Project Manager