



**Design Services for:
ADMINISTRATION CENTER & PUBLIC HEALTH
ROOF AND EQUIPMENT REPLACEMENT PROJECTS**

CHANGE ORDER

CHANGE ORDER NO: 02

Distribution to:

INITIATION DATE: December 19, 2016

Owner: ☒

PROJECT #: BOS 16-001

Contractor: ☒

CONTRACT AMT: \$178,380

TO: Interactive Resources, Inc.
117 Park Place
Richmond, CA 94801

NOTICE TO PROCEED DATE: January 5, 2016

You are directed to make the following changes in this Contract:

Additional Design services to include the following scope in the project:

1. Extend the contract time by one year for contract administration phases.
2. Provide additional investigation and design to Replace Old Rooftop HVAC at Public Health & Behavioral Health Building 56.
2. Provide additional design and engineering to include evaluation and modifications to the HVAC systems in Phase B for the East/South Wings of the Admin Center, Building 28.

The amount listed below satisfies all costs associated with the performance of the work with regard to time extension and money.

Not valid until signed by the Owner.

Signature of the Contractor indicates its agreement herewith, including all adjustment in the Contract Sum or Contract Time.

Original Contract Amount:	\$ 178,380
Net change by previously authorized Change Orders:	\$ 23,400
Contract Amount prior to this Change Order:	\$ 201,780
Contract Amount will be Increased <input checked="" type="checkbox"/> /Decreased <input type="checkbox"/> by this Change Order:	\$ 73,420
Revised Contract Amount including this Change Order:	\$ 275,200

The Contract Time will be Increased ☒/Decreased ☐/Unchanged ☐ by: 365 days
The Revised Date of Completion as of the date of this Change Order is: December 31, 2017.

Approved:



Facilities Project Specialist

12.21.16

Date



Facilities & Fleet Division Manager

12.21.16

Date

Contractor

Date

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

DEPARTMENT FISCAL REVIEW:

DEPARTMENT HEAD _____ DATE _____

Budgeted: ☐ Yes ☐ No

Budget Unit: _____

Line Item: _____

Grant: ☐ Yes ☐ No

Grant No.: _____

CONTRACTOR/COMPANY NAME

By: _____

NAME AND ADDRESS OF CONTRACTOR:

COUNTY OF MENDOCINO

By: John McConner
John McConner, Chair
BOARD OF SUPERVISORS **FEB 07 2017**

By signing above, signatory warrants and represents that he/she executed this Agreement in his/her authorized capacity and that by his/her signature on this Agreement, he/she or the entity upon behalf of which he/she acted, executed this Agreement

ATTEST:

CARMEL J. ANGELO, Clerk of said Board

By: [Signature]
Deputy **FEB 07 2017**

I hereby certify that according to the provisions of Government Code Section 25103, delivery of this document has been made.

CARMEL J. ANGELO, Clerk of said Board

By: [Signature] **FEB 07 2017**
Deputy

COUNTY COUNSEL REVIEW:

APPROVED AS TO FORM:

KATHARINE L. ELLIOTT,
County Counsel

By: [Signature]
Deputy

INSURANCE REVIEW:

RISK MANAGER

By: [Signature]
ALAN D. FLORA, Risk Manager

FISCAL REVIEW:

By: [Signature]
Deputy CEO/Fiscal

EXECUTIVE OFFICE REVIEW:

APPROVAL RECOMMENDED

By: [Signature]
CARMEL J. ANGELO, Chief Executive Officer

Signatory Authority: \$0-25,000 Department; \$25,001- 50,000 Purchasing Agent; \$50,001+ Board of Supervisors
Exception to Bid Process Required/Completed ☐ _____



Design Services for:
**ADMINISTRATION CENTER & PUBLIC HEALTH
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Approved:

Facilities Project Specialist

Date

Facilities & Fleet Division Manager

Date



Contractor



Date

Munis Contract Number: BOS 16-001



S T A F F R E P O R T

DATE: 12-21-2016
TO: Christopher Shaver – Deputy CEO, Facilities
FROM: Doug Anderson – Facilities Project Specialist
RE: Major Roof Program Design Contract Modification

Our Major Roof Program design contract with Interactive Resources requires modification on three fronts in order to successfully complete these projects this year.

1. The contract needs to be extended for another year to cover the time required to complete the drawings and be available for construction administration through all phases.
2. Our request in change order #1 to include replacing the outdated hydronic heating system for the Public/Mental Health building that serves the southwest addition required additional work to provide service to areas in the rest of the building that were not known to be covered by that unit. In addition the new ductwork and unit locations were complicated by structural support issues and the conditions in the ceiling spaces.
3. The design for the Second Phase of the Administration Center was scoped in the original proposal to include an initial study to determine the most cost effective design for the replacement of the roof and HVAC equipment, but the design fees were estimated based on the design assumptions of the First Phase where the existing HVAC units would simply be replaced in kind. The results of the initial study over the summer indicated that the high cost of removing and replacing the roof top ductwork pushed the project costs to a level that looking at a design that relocated that ductwork into the building could be competitive while realizing significant improvements in HVAC and Roof performance. At that time we authorized an additional site investigation and analysis of interior duct locations and impact to other trades, and in collaboration with county staff prepared estimates to compare various options for modifying the mechanical systems. Through that process we found that there were many significant cost impacts to getting the ductwork off the roof, not the least being the major disruption to county operations required to complete the interior work. Ultimately, we identified the “sweet spot” that included fully redesigning the mechanical zones and distribution ductwork with the ducts remaining on the roof. The added scope included here will address this “Hybrid Option 2C” which provides for fully engineering the building’s HVAC system starting with analyzing the heating and cooling loads and includes adding additional units and re-zoning the systems to optimize performance. Architectural work includes added detailing to accommodate these changes and coordinating the work across the other building trades.

Interactive Resources has been an outstanding partner in our roof replacement program, particularly in their emphasis on designing the projects with a conscious awareness of final construction costs. Designs and details are contractor friendly, and their approach to construction administration leaves the means and methods and opportunities for cost savings with the contractor as long as they meet the performance standards required in the project. The bid results on Phase I have provided us with significant savings under our estimates without compromising the performance standards. In authorizing this additional design work we are ensuring our design team will continue to provide The County with project plans and contract administration to this high standard on the last two phases.

The attached Change Order #2 includes all the design work necessary to complete these projects.



COUNTY OF MENDOCINO
Executive Office
Facilities & Fleet Division
851 Low Gap Road
Ukiah, California 95482

Extra Work Authorization

Project:

Administration and Public Health Roof and
Equipment Replacement Design Contract

Contract Number: BOS 16-001

Contractor:

Interactive Resources

Change Order No: 2

Upon approval by the Board of Supervisors, the Contractor is hereby authorized to proceed with the work noted below:

Public Health:

Complete Mechanical design modifications required to extend distribution ducts beyond the area contemplated in previous scope. New scope includes detailed review of structural supports and evaluating existing and abandoned ducts and raceways above ceiling. Complete Architectural and structural design details to reflect existing conditions in the expanded mechanical scope area as indicated on the attached sheet A100.

Administration Center South East, Option 2C:

Provide research and analysis to determine the cost effectiveness of eliminating roof top ductwork. Include Heating and Cooling load calculation and mechanical design to optimize zoning and sizing for new equipment. Complete investigation, coordination and detailing required for modified equipment and duct locations and penetrations. Provide electrical and structural design consultation to modify the equipment sizes and locations.

Contractor Change Proposal	Location	Architect	Consultant	Fee	Total
Expanded Mechanical Scope area and complexity	Public Health		\$5,000	\$600	\$5,600
Expanded Architectural Scope area and complexity	Public Health	\$15,220			\$15,220
					\$0
Research and Evaluation of HVAC Options	Admin East	\$2,000	\$2,500		\$4,500
HVAC Engineering to optimize performance	Admin East		\$9,000		\$9,000
Architectural Coordination and Detailing for above	Admin East	\$31,500			\$31,500
Electrical and Structural Engineering Consulting	Admin East	\$3,600	\$4,000		\$7,600

Totals:

\$52,320

\$20,500

\$600

\$73,420


Facilities Project Specialist

12.21.16
Date


Facilities & Fleet Division Manager

12-21-16
Date

INTERACTIVE

R E S O U R C E S

Architecture

Engineering

Planning

• • •

117 Park Place
Richmond, California
94801

510.236.7435

Fax 510.232.5325

www.intres.com

October 18, 2016

Doug Anderson
Facilities Project Specialist II
Mendocino County - GSA
841 Low Gap Road
Ukiah, CA 95482

Subject: Mendocino County - Public Health 2013-084-24
Roof and Mechanical Replacement Project
MOD 2.2 – South Wing HVAC

Dear Mr. Anderson:

Pursuant to our current Modification to our basic services on this project we have encountered a number of unknown site conditions that have resulted in additional work in the preparation of the contract documents. We would like to address this additional scope of work with the attached proposed Modification 2-2 to our contract. Primarily, all has to do with what is referred to the mechanical changes to what is referred to as the South Wing of the building.

Sequence to Expansion of Scope

1. **South Wing - Location of New Units:** Revision to New equipment at South Wing. There was some consultation by Mike as to the location of the chiller units on the roof, we had to move them several times to reduce estimated construction cost for the steel work.
2. **Architectural Coordination: Extent of Alternation Work at Ceiling:** Per attached Drawing A100, extent of work above the ceiling – due to existing conditions – extended significantly in the areas of the South Wing due to the mechanical layout the resulted following uncover of site conditions.
 - a. First expansion of scope at the request of Doug. Per Mikes very rough initial assessment at site on 05/05/2016, there would be “4 foot swaths down a limited distance on either side of the South Wing’s hallway”.
 - b. After negotiation with Doug, Mike determines that the scope of the work is much more extensive and extends into the newer areas of the building. Scope differences shown on diagram. This leads to a need for additional ceiling details, both in suspended gyp board and A.C.T. and structural drawings for these ceiling types.
3. **Design Resolution:** Doug, after chasing you a bit, you’ve politely declined destructive testing of the roof at the former HVAC units where the roof is in-filled. To accommodate the lack of information, we’ve made some speculative details, and hashing out several versions that most likely fit the scenario took a small amount of time.

4. Reconciliation of Conflicting Data: Reconciling two data sets (wrong dimensions of building in as-builts and CAD drawings providing Doug with a markup instead of a site visit actually saved money).

Fee Modification Proposal

We propose to modify the current scope to accommodate the increased effort required to meet the County's goals due to complexity of the existing conditions, that could only be determined once the original Modification 2.1 site work was complete, including HVAC and architectural items. The proposed fee for this modification would be as follows:

Item	Description	time	rate	subtotal
1	Interactive Resources			
	• Site and Design	48	175	8,400
	• Coordination	16	175	2,800
	• Drafting	32	120	3,840
	• Clerical	2	90	180
	Interactive Resources			15,220
2	Lefler Engineering			5,000
	12% Overhead			600
	Lefler total			5,600
	Total MOD 2-2 Fee			20,820

Please contact me if there are any questions or comments.

Sincerely,



Edward J. Anisman, AIA, LEED AP

Attachments:

- Lefler Engineering, Inc., proposal dated 9/19/2016
- Drawing A100 – Existing Floor Plan – Ceiling Access

LEFLER ENGINEERING, INC.

1651 SECOND STREET
SAN RAFAEL, CA 94901
(415) 456-4220
(415) 456-1248 (FAX)
www.leflerengineering.com

September 19, 2016

Mr. Ed Anisman
Interactive Resources, Inc.
117 Park Place
Point Richmond, CA 94801

Re: Mendocino County Public Health Building

Dear Ed,

We would like to propose an increase to hour hourly not-to-exceed budget of \$5,000 to cover the unanticipated complexity of the design of this project.

A. Originally Unanticipated Design Tasks:

1. The design of the new air conditioning system for the North Wing was more involved due to extra field work that was necessary due to the inaccuracy and varying information of the old drawings.
2. The design of the roof overflow drains and equipment flashing and modification requirements due to amount of roof insulation that was added to create the roof slope.

B. Revised Not To Exceed Fee:

1. Total..... \$19,500.00

Please let me know if you have any questions and if the proposed fee increases are acceptable.

Sincerely,

LEFLER ENGINEERING, INC.



Michael J. Lefler, PE
mike@leflerengineering.com

MJL/lc

/Mendocino County Public Health Building Reroof Fee Revision 2

INTERACTIVE

R E S O U R C E S

December 2, 2016

• • •
Architecture Doug Anderson
Engineering Facilities Project Specialist II
Planning Mendocino County - GSA
841 Low Gap Road
Ukiah, CA 95482

117 Park Place
Richmond, California
94801
510.236.7435
Fax 510.232.5325
www.intres.com

Subject: Mendocino County – Administration Center 2013-084-01
South Wing Roof and Mechanical Replacement – Study
MOD 1B – HVAC Study “Hybrid” Proposal C

Dear Mr. Anderson:

My understanding is that following site work and conceptual design work by both our firm and Lefler Engineering, there appear to be two primary options to pursue in designing the roof and mechanical equipment replacement for the Administration Center South Wing Roof: Replacement-in-Kind and Complete Redesign. Emphasis for the former is on initial cost (both design and construction), the latter on system performance (with respect to both user comfort and energy savings).

Although the current scope of work does include evaluation of both options, it was primarily intended to address a general approach of removing as much of the ducting currently running exposed on the roof as possible without extensive impact to the space below the roof, both in terms of construction scope and impact to the on-going use of the space. This is essentially covered by **Option 1 – Replacement-in-Kind**, below. **Option 2C – Hybrid Redesign** goes beyond Option 1 by taking into account the following;

- **Current Building Knowledge:** Our current knowledge of the structure (based on completing the site work already included in our scope of work),
- **Document Review:** Review of existing documents (and particularly the lack of detailed information until just recently, and the verification of the drawings of the 1991 HVAC improvements you found and have provided us.)), and our understanding that the County now would like a more detailed look at a better long term solution.

Option 1 – Replacement-in-Kind: This option – current within the scope of work - includes removal and replacement of the aging mechanical equipment in kind; existing rooftop ducting will be reduced where possible without significant impact to the construction or occupants below. This option addresses energy efficiency through more efficient, newer equipment plus reducing rooftop ducting insulation costs by routing it under the roof deck. It also addresses roof deficiencies such as lack of proper drainage by added tapered insulation directly flow to roof drainage facilities. However, in minimizing the overall design and construction costs, existing inefficiencies in how the mechanical system respond to user needs will also be minimized.

Brief Study and RCP: We have, at your request, expended roughly 2,500 on a study by Lefler engineering and 2,000 on drafting the existing reflected ceiling plans.

Option 2 – Hybrid Redesign: This option builds upon our current knowledge of the existing construction and limitations of being able to significantly alter the routing, controls and zoning of existing systems. It also recognizes that the County would like to take an approach that would consider a long term user comfort and energy efficiency. An above deck redesign offers the potential to address the following:

- **User Comfort:** Provide a system that provides HVAC performance throughout the space to ensure user comfort.
- **HVAC Efficiency:** Provide an energy efficient HVAC system designed to complement the building layout and exposure.

The resulting design provides for less impact on the building occupants than attempting to run all ducting below the roof deck, while, within those constraints, providing performance and efficiency improvements. Option 2, we propose the additional scope to include:

Item	Description	time	rate	subtotal
1	Interactive Resources			
	• Site and Design	82	175	14,405
	• Coordination	29	175	5,025
	• Drafting	61	120	7,370
	• Clerical	74	90	6,700
	• Structural Eng.	21	175	3,600
	Interactive Resources			37,100
2	Electrical Engineer			4,000
3	Lefler Engineering			11,500
	Total Proposed Fee			52,600

Note: Acceptance of the recommendation of Option 2 portion of the study will impact the construction cost of the project.

Please contact me if there are any questions or comments.

Sincerely,



Brant Fetter, AIA

Attachments:

- Lefler Engineering, Inc., proposal dated 12/13/16
- Updated Project Fee Summary Spread Sheet, dated 12/15/16

LEFLER ENGINEERING, INC.

1651 SECOND STREET
SAN RAFAEL, CA 94901
(415) 456-4220
(415) 456-1248 (FAX)
www.leflerengineering.com

December 13, 2016 (Revised)

Mr. Brant Fetter
Interactive Resources, Inc.
117 Park Place
Point Richmond, CA 94801

Re: Mendocino County Administration Building, Phase B Fee

Dear Brant,

We would like to request a revision to our original fees for this project. This revised fee includes the complete redesign of the mechanical systems for the Phase B, South wing of the administration building. Fees for services are presented on a "time and material" basis with the following as Not-to-Exceed amounts. We propose the following mechanical engineering fees, totaling \$35,000:

- A. Site Visit and Schematic Design: (Total Revised Fee For This Phase: \$7,500)
1. Original Scope of Work: (Original Fee: \$5,000)
 - a. Attend a maximum of two (2) design/coordination meetings. It assumed that all meetings will be in Point Richmond.
 - b. Visit the site to review the existing conditions.
 - c. Analyze the roof drainage piping and downspout systems.
 - d. Prepare schematic plumbing design drawings to show the intended scope of work and for cost estimating.
 - e. Assess the condition and age of the existing mechanical equipment in order to recommend if it should be replaced or reinstalled after the roof is replaced.
 - f. Prepare schematic mechanical design drawings to show the intended scope of work and for cost estimating.
 2. Additional Scope Items: (Additional Fee: \$2,500)
 - a. Attend one meeting in Ukiah.
 - b. Survey the interior spaces, ceiling clearances, and general duct locations.
 - c. Prepare a report that outlines the work associated with revising the duct systems to move as much ductwork as possible to be below the roof.

B. Construction Documents: (Total Revised Fee For This Phase: \$19,500)

1. Original Scope of Work: (Original Fee: \$12,500)

- a. Prepare plumbing design drawings, details, and specifications. The work will address deficiencies in the roof drainage piping systems as well as details for pipe supports and penetrations.
- b. Prepare HVAC design drawings, details, and specifications. The work will address the replacement or reinstallation of the HVAC equipment as well as details for equipment supports.
- c. Title 24 energy compliance documentation (for MECH only).
- d. No work will occur below the roof level and zoning revisions and HVAC system size changes will not be addressed.

2. Additional Scope Items: (Additional Fee: \$7,000)

- a. Provide additional survey work to identify the existing duct routing and some sizes, register locations, thermostat locations, etc. This will be used to assess zoning and equipment sizing.
- b. Survey building construction, window sizes, ceiling heights, etc. as required for calculations.
- c. Run heating and cooling calculations.
- d. Select and design new air conditioning systems to address actual calculated heating and cooling loads, zoning requirements, available duct space, etc.
- e. Prepare mechanical drawings of the existing interior duct layouts, register layouts, thermostat locations, etc. Drawings will show revised air flows for balancing. This fee proposal is based on all of the existing interior ductwork and registers remaining as is.

C. Bidding and Construction Administration: (Total Revised Fee For This Phase: \$4,000)

1. Original Scope of Work: (Original Fee: \$2,000)

- a. Respond to questions during the bid phase and prepare clarifications as required.
- b. Review the contractor's submittals.
- c. Respond to the contractor's questions and RFI's.
- d. Make one (1) site visit/inspection and prepare punch list reports.
- e. Prepare As Built Drawings based on the contractor's mark ups.

2. Additional Scope Items: (Additional Fee: \$2,000)

- a. Additional time for question and RFI's during construction.
- b. Additional time to review the contractor's submittals.

- c. Make one (1) additional site visit/inspection and prepare a punch list report.
- d. Additional time to prepare As Built Drawings based on the contractor's mark ups.

D. Totals:

- 1. Original Scope of Work:
 - a. \$19,500
- 2. Additional Scope Items:
 - a. Study \$2,500
 - b. Enhanced Design Work: \$9,000
- 3. Revised Total Fee (Original Plus Additional Scope Amounts)
 - a. \$31,000

Our fees do not include printing costs, messenger fees, or value engineering revisions. If you have any questions or comments, don't hesitate to contact us.

Sincerely,

LEFLER ENGINEERING, INC.



Michael J. Lefler, PE
mike@leflerengineering.com

Mendocino County - ROOF PROGRAM - FEE SUMMARY - MOD 2 Proposal C bsf 161219.xlsx

YELLOW	Submitted Mod 1
GREEN	See Attached Mod 2

1A - Adm Ctr - North Wing	Arch	Structural	Mech	Elect	Cost Est	Total
Site & Schematic	0	700	4,900	1,600	700	7,900
CD's	11,300	2,500	8,500	1,400	5,600	29,300
BID/CA	4,000	1,200	2,000	300	0	7,500
Total (BASE)	15,300	4,400	15,400	3,300	6,300	44,700
Mod 1A.1: stor, T-24, AC8	3,400	0	4,000	0	0	7,400
Total (MOD 1-1A)	18,700	4,400	19,400	3,300	6,300	52,100

1B - Adm Ctr - South Wing	Arch	Structural	Mech	Elect	Cost Est	Total
Site & Schematic	14,500	700	5,000	3,480	1,000	24,680
CD's	28,000	2,500	12,500	1,800	3,360	48,160
BID/CA	5,000	1,200	2,000	300	0	8,500
Subtotal (Original Scope)	47,500	4,400	19,500	5,580	4,360	81,340
Mod 1B.2C Hybrid	33,500	3,600	11,500	4,000		52,600
Total (MOD 2-2)	81,000	8,000	31,000	9,580	4,360	133,940

2 - Public Health	Arch	Structural	Mech	Elect	Cost Est	Total
Site & Schematic	8,500	1,400	5,000	1,200	700	16,800
CD's	17,000	5,000	1,500	800	2,240	26,540
BID/CA	3,500	1,200	2,000	200	0	6,900
Total (BASE)	29,500	7,600	8,000	2,200	2,940	50,240
Mod 2.1 - "S. Wing" HVAC	5,000	0	6,000	4,800	200	16,000
Total (MOD 1-2)	34,500	7,600	14,000	7,000	3,140	66,240
Mod 2.2 - "S. Wing" HVAC	15,820	0	5,000	0	0	20,820
Total (MOD 2-2)	49,720	7,600	19,500	7,000	3,140	87,060

REIMBURSABLES	Arch	Structural	Mech	Elect	Cost Est	Total
Project 1A (___ site visits)	300	0	200	100	0	600
Project 1B (5 site visits)	450	0	200	100	0	750
Project 2 (___ site visits)	300	150	200	100	0	750
	1,050	150	600	300	0	2,100

TOTAL PROPOSED REVISED FEE \$ 275,200.00

Mendocino County - ROOF PROGRAM - FEE SUMMARY - MOD 2 Proposal C bsf 161219.xlsx

CONSTRUCTION COST/FEE REVIEW

CONSTRUCTION COST/FEE @10	SF	\$/SF	Total \$	Fee @ 10%	Actual Fee	%
1A - Adm Ctr - North Wing	30,000	27	810,000	81,000	52,100	6%
1B - Adm Ctr - South Wing	30,000	50	1,500,000	150,000	133,940	9%
2 - Public Health	50,000	25	1,250,000	125,000	87,060	7%
Travel & Reimbursables					2,100	
			3,560,000	356,000	275,200	8%