



**City of Riverbank  
Local Redevelopment Authority**

5300 Claus Road, Suite 1  
Modesto, California 95357

Main Phone Line 209.863-8352

**SIDING AND ROOFING MATERIALS  
COMPETITIVE BID (CB)**

<b>Competitive Bid Posting Date::</b>	November 15, 2016	<b>*Bid Opening Date:</b>	December 21, 2016
<b>Commodity Description:</b>	Metal Siding; Steel with Galvanized or painted coating	<b>*Bid Opening Time:</b>	12:00 pm (noon) Pacific Standard Time

AGENCY'S CONTACT INFORMATION			
<b>Name:</b>	City of Riverbank Local Redevelopment Authority	<b>Phone:</b>	(209) 863-8352
<b>Mailing Address:</b>	5300 Claus Road, Suite 1 Modesto, California 95357	<b>Email:</b>	DOlson@riverbanklra.org

**Instructions:**

- Bids should be submitted by the bid opening time and date specified above.
- The vendor should provide the information below.

MAIL BIDS TO:	BID OPENING REVIEW LOCATION:
LOCAL REDEVELOPMENT AUTHORITY 5300 Claus Road, SUITE 1 Modesto, California 95357	LOCAL REDEVELOPMENT AUTHORITY 5300 Claus Road, LRA Office Modesto, California 95357

VENDOR INFORMATION	
Company Name:	_____
Key Contact Name (type or print):	_____ Title: _____
Address:	_____
City:	State: _____ ZIP Code: _____
Telephone Number:	EMAIL: _____
SIGNATURE	_____

**BID FORMAT**

CITY OF RIVERBANK  
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Any statement in this document that contains the word “**will**”, “**must**” or “**shall**” means that compliance with the intent of the statement is mandatory, and failure by the bidder to satisfy that intent will cause the bid to be rejected.

All bid pricing must be United States dollars and cents.

Bids will only be accepted in the English language.

**COST**

All charges **should** be included on the Official Bid Price Sheet(s) which includes all associated costs (including but not limited to delivery, freight etc.) for the goods or services being bid. **Do not include sales taxes** in unit prices. Bid pricing should be valid for 60 days following CB opening to allow sufficient time to tabulate and evaluate bid responses.

**SCOPE**

The City of Riverbank Local Redevelopment Authority (“LRA” or “Agency”) is replacing the existing siding and roofing on several buildings located at the Riverbank Industrial Complex, also known as the former Riverbank Army Ammunition Plant, as part of a government-funded remediation project.

The buildings involved in this project are currently skinned with a corrugated, thick gauge galvanized metal sheeting. The LRA is seeking bids for the replacement sheeting material and associated fasteners, flashing and sealant. The existing siding and roofing material is 10’ x 31” corrugated, galvanized metal sheeting with a 21/2” x 3/8” rib profile.

Replacement sheeting material shall be a standard single-ply metal siding and roofing membrane system with the following characteristics:

- Rib Profile: match the existing profile as closely as possible (see above); specify profile and dimensions of the material bid
- Steel with painted coating or steel with galvanized coating. Bidder may bid one or both options for comparison purposes
- Gauge: minimum of 26
- Paint coating or Galvanized coating: Provide paint specifications, warranties and color options with bid.
- Panel Width: 24” minimum
- Panel Length: 5’ minimum length
- Required trim, flashing, sealant and fasteners provided by vendor

Quantity shall be approximately **320,567 square feet** of metal paneling to re-sheet building walls and approximately **450,473 square feet** for replacement of metal paneling on roof areas.

**TYPE OF CONTRACT**

Cost Plus Pricing/ Unit Cost Pricing

**AWARD CRITERIA AND RESPONSIBILITY**

Bids must meet or exceed all defined specifications. Bids must meet all terms and conditions of this Competitive Bid, the laws of the State of California and of the City of Riverbank.

**DELIVERY: FOB DESTINATION**

City of Riverbank, Local Redevelopment Authority  
5300 Claus Road  
Modesto, California 95357

The agency requests delivery within 30 calendar days after receipt of the order. If this delivery schedule cannot be met, the bidder must state the number of days required to place the commodity in the ordering agency’s designated location. Failure to state the delivery time obligates the bidder to complete delivery by the agency’s requested date. Extended delivery dates may be considered when in the best interest of the Agency.

All deliveries must be made during normal state work hours and within the agreed upon number of days unless otherwise arranged and coordinated with the agency. The vendor shall give the agency immediate notice of any anticipated delays or plant shutdowns that will affect the delivery requirement.

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Loss or damage that occurs during shipping, prior to the order being received by the agency, is the vendor's responsibility. All orders should be properly packaged to prevent damage during shipping.

**NON-MANDATORY PROJECT SITE WALK**

A non-mandatory project site walk is scheduled for interested vendors as follows:

Date: Wednesday, November 30, 2016 &  
Wednesday, December 7, 2016

Time: Anytime between 9:00 am Pacific and 11:00 am Pacific

Place: Riverbank Industrial Complex (former Riverbank Army Ammunition Plant)  
5300 Claus Road  
Modesto, California 95357

Contact: Shawn Songer, Operations Manager  
Phone: 209 765-8243  
Email: [ssonger@sjes.com](mailto:ssonger@sjes.com)

**PAYMENT AND INVOICE PROVISIONS**

All invoices **shall** be forwarded to the:

City of Riverbank, Local Redevelopment Authority  
Attention: Melissa Holdaway  
5300 Claus Road, Suite 1  
Modesto, California 95357

Payment will be made in accordance with applicable City of Riverbank accounting procedures upon acceptance by the Agency. The City of Riverbank or LRA may not be invoiced in advance of delivery and acceptance of any equipment, service or commodity. Payment will be made only after the contractor has successfully satisfied the agency as to the goods and/or services purchased. Vendors should invoice the agency by an itemized list of charges. Purchase Order Number and/or Contract Number should be referenced on each invoice.

## **Vendor Checklist**

1. Read all pages of CB document.
2. Complete and sign page 1 of bid response.
3. Complete Official Pricing Sheet.
4. Complete Affidavit of Non-Collusion

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**OFFICIAL BID PRICE SHEET**

ITEM	DESCRIPTION	QTY	UNIT OF MEASURE	UNIT PRICE	EXTENDED AMOUNT
1.					
2.					
3.					
4.					
5.					
6.					

GRAND TOTAL        \$ \_\_\_\_\_

**EQUAL EMPLOYMENT OPPORTUNITY POLICY**

The successful Bidder will be in compliance with State and federal equal opportunity laws and practices. The successful Bidder is required to ensure that they will not engage in unlawful discriminatory practices prohibited by state or federal law. Such employment practices include, but are not limited to employment, promotion or upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation and selection for training.

**PAST PERFORMANCE**

A vendor's past performance on a contract may be used by the Agency to determine whether the bidder is responsible.

**RECORD RETENTION**

The Contractor **shall** be required to maintain all pertinent financial and accounting records and evidence pertaining to the contract in accordance with generally accepted principles of accounting and other procedures specified by the State of California. Access will be granted upon request, to State or Federal Government entities or any of their duly authorized representatives.

Financial and accounting records **shall** be made available, upon request, State or agency designee(s) at any time during the contract period and any extension thereof, and for five (5) years from expiration date and final payment on the contract or extension thereof.

**RESERVATION**

This CB does not commit the City of Riverbank or the LRA to award a contract(s), to pay costs incurred in the preparation of a bid in response to this request, or to procure or contract for commodities or services.

**PRIME CONTRACTOR RESPONSIBILITY**

The selected vendor **will** be required to assume prime contractor responsibility for the contract and will be the sole point of contact with regard to all commodities, services and support.

**CONDITIONS OF CONTRACT**

The successful bidder(s) shall at all times observe and comply with Federal and State laws, local laws, ordinances, orders, and regulations existing at the time of or enacted subsequent to the execution of this contract which in any manner affect the completion of the work. The successful bidder(s) shall indemnify and save harmless the City of Riverbank and the LRA and all its officers, representatives, agents, and employees against any claim or liability arising from or based upon the violation of any such law, ordinance, regulation, order or decree by an employee, representative, or subcontractor of the successful bidder.

**STATEMENT OF LIABILITY**

The City of Riverbank and the LRA will demonstrate reasonable care but shall not be liable in the event of loss, destruction, or theft of contractor-owned items to be delivered or to be used in the installation of deliverables. The vendor(s) is required to retain total liability until the deliverables have been accepted by the "authorized agency official." At no time will the City of Riverbank or the LRA be responsible for or accept liability for any vendor-owned items.

**DELEGATION AND/OR ASSIGNMENT**

The vendor shall not assign the contract in whole or in part or any payment arising therefrom without the prior written consent of the City of Riverbank or the LRA. The vendor shall not delegate any duties under this contract to a subcontractor without prior written consent.

**ACCEPTANCE STANDARDS**

Inspection and acceptance/rejection of product(s) shall be made within 30 days of receipt. The agency shall have the option to return any product(s) within the 30 day timeframe for any reason. Bid must include a "total satisfaction" return policy for all products and shall not impose any liability on the City of Riverbank or the LRA for such returns.

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**STANDARD TERMS AND CONDITIONS**

By submitting a bid, each bidder expressly agrees to and accepts the following conditions:

1. **GENERAL:** Any special terms and conditions included in the invitation for bid override these standard terms and conditions. The standard terms and conditions and any special terms and conditions become part of any contract entered into if any or all parts of the bid are accepted by the Agency.
2. **ACCEPTANCE AND REJECTION:** The Agency reserves the right to accept or reject all or any part of a bid or any and all bids, to waive minor technicalities, and to award the bid to best serve the interest of the City and/or Agency.
3. **BID SUBMISSION:** Bids must be submitted to the LRA on this form, with attachments when appropriate, on or before the date and time specified for bid opening. If this form is not used, the bid may be rejected. The bid must be typed or printed in ink. The signature must be in ink. Unsigned bids will be disqualified. The person signing the bid should show title or authority to bind his firm in a contract. Each bid should be placed in a separate envelope completely and properly identified. Late bids will not be considered under any circumstances. All parts of the instructions to Bidders and specifications will be part of the Contract between the selected bidder and the City
4. **PRICES:** Bid unit price F.O.B. destination. In case of errors in extension, unit prices shall govern. Prices are firm and not subject to escalation unless otherwise specified in the bid invitation. Unless otherwise specified, the bid must be firm for acceptance for thirty days from the bid opening date. "Discount from list" bids are not acceptable unless requested in the bid invitation.
5. **QUANTITIES:** Quantities stated in **term contracts** are estimates only, and are not guaranteed. Bid unit price on the estimated quantity and unit of measure specified. The Agency may order more or less than the estimated quantity on term contracts. Quantities stated on **firm contracts** are actual requirements of the ordering agency.
6. **BRAND NAME REFERENCES:** Any catalog brand name or manufacturer's reference used in the bid invitation is descriptive only, not restrictive, and used to indicate the type and quality desired. Bids on brands of like nature and quality will be considered. If bidding on other than referenced specifications, the bid must show the manufacturer, brand or trade name, and other descriptions, and should include the manufacturer's illustrations and complete descriptions of the product offered. The City of Riverbank or LRA reserves the right to determine whether a substitute offered is equivalent to and meets the standards of the item specified, and the Agency may require the bidder to supply additional descriptive material. The bidder guarantees that the product offered will meet or exceed specifications identified in this bid invitation. If the bidder takes no exception to specifications or reference data in this bid he will be required to furnish the product according to brand names, numbers, etc., as specified in the invitation.
7. **GUARANTY:** All items bid shall be newly manufactured, in first-class condition, latest model and design, including, where applicable, containers suitable for shipment and storage, unless otherwise indicated in the bid invitation. The bidder hereby guarantees that everything furnished hereunder will be free from defects in design, workmanship and material, that if sold by drawing, sample or specification, it will conform thereto and will serve the function for which it was furnished. The bidder further guarantees that if the items furnished hereunder are to be installed by the bidder, such items will function properly when installed. The bidder also guarantees that all applicable laws have been complied with relating to construction, packaging, labeling and registration. The bidder's obligations under this paragraph shall survive for a period of one year from the date of delivery, unless otherwise specified herein.
8. **SAMPLES:** Samples or demonstrators, when requested, must be furnished free of expense to the City of Riverbank or LRA. Each sample should be marked with the bidder's name and address, bid number and item number. If samples are not destroyed during reasonable examination, they will be returned at bidder's expense, if requested, within ten days following the opening of bids. All demonstrators will be returned after reasonable examination.
9. **TESTING PROCEDURES FOR SPECIFICATIONS COMPLIANCE:** Tests may be performed on samples or demonstrators submitted with the bid or on samples taken from the regular shipment. In the event products tested fail to meet or exceed all conditions and requirements of the specifications, the cost of the sample used and the reasonable cost of the testing shall be borne by the bidder.
10. **AMENDMENTS:** The bid cannot be altered or amended after the bid opening except as permitted by regulation.
11. **TAXES AND TRADE DISCOUNTS:** Do not include state or local sales taxes in the bid price. Trade discounts should be deducted from the unit price and the net price should be shown in the bid.
12. **AWARD: Term Contract:** A contract award will be issued to the successful bidder. It results in a binding obligation without further action by either party. This award does not authorize shipment. Shipment is authorized by the receipt of a purchase order from the ordering agency. **Firm Contract:** A written state purchase order authorizing shipment will be furnished to the successful bidder.
13. **LENGTH OF CONTRACT:** The invitation for bid will show the period of time the term contract will be in effect.
14. **DELIVERY ON FIRM CONTRACTS:** The invitation for bid will show the number of days to place a commodity in the ordering agency's designated location under normal conditions. If the bidder cannot meet the stated delivery, alternate delivery schedules may become a factor in an award. The City of Riverbank LRA has the right to extend delivery if reasons appear valid. If the date is not acceptable, the LRA may buy elsewhere and any additional cost will be borne by the vendor.
15. **DELIVERY REQUIREMENTS:** No substitutions or cancellations are permitted without written approval of the LRA. Delivery shall be made during agency work hours only 8:00 a.m. to 4:00 p.m., unless prior approval for other delivery has been obtained from the Agency. Packing memoranda shall be enclosed with each shipment.
16. **STORAGE:** The Agency (LRA) is responsible for storage if the contractor delivers within the time required and cannot accept delivery.
17. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance of the ordering agency after delivery. Back orders, default in promised delivery, or failure to meet specifications authorize the LRA to cancel this contract or any portion of it and reasonably purchase commodities elsewhere and charge full increase, if any, in cost and handling to the defaulting contractor. The contractor must give written notice to the LRA of the reason and the expected delivery date. Consistent failure to meet delivery without a valid reason may cause removal from the bidders list or suspension of eligibility for award.

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- 18. VARIATION IN QUANTITY:** The City of Riverbank assumes no liability for commodities produced, processed or shipped in excess of the amount specified on the agency's purchase order.
- 19. INVOICING:** The contractor shall be paid upon the completion of all of the following: (1) submission of an original and the specified number of copies of a properly itemized invoice showing the bid and purchase order numbers, where itemized in the invitation for bid, (2) delivery and acceptance of the commodities and (3) proper and legal processing of the invoice by all necessary state agencies. Invoices must be sent to the "Invoice To" point shown on the purchase order.
- 20. CITY AND LRA PROPERTY:** Any specifications, drawings, technical information, dies, cuts, negatives, positives, data or any other commodity furnished to the contractor hereunder or in contemplation hereof or developed by the contractor for use hereunder shall remain property of the Agency or City of Riverbank, be kept confidential, be used only as expressly authorized and returned at the contractor's expense to the F.O.B. point properly identifying what is being returned.
- 21. PATENTS OR COPYRIGHTS:** The contractor agrees to indemnify and hold the City of Riverbank and Agency harmless from all claims, damages and costs including attorneys' fees, arising from infringement of patents or copyrights.
- 22. ASSIGNMENT:** Any contract entered into pursuant to this invitation for bid is not assignable nor the duties thereunder delegable by either party without the written consent of the other party of the contract.
- 23. OTHER REMEDIES:** In addition to the remedies outlined herein, the contractor and the City of Riverbank have the right to pursue any other remedy permitted by law or in equity. However, nothing in any contract shall be deemed or construed as the City's waiver of its right of sovereign immunity.
- 24. LACK OF FUNDS:** The Agency may cancel this contract to the extent funds are no longer legally available for expenditures under this contract. Any delivered but unpaid for goods will be returned in normal condition to the contractor by the City of Riverbank LRA.
- 25. DISCRIMINATION:** In order to comply with laws relating to unfair employment practices, the bidder agrees that: (a) the bidder will not discriminate against any employee or applicant for employment because of race, sex, color, age, religion, handicap, or national origin; (b) in all solicitations or advertisements for employees, the bidder will state that all qualified applicants will receive consideration without regard to race, color, sex, age, religion, handicap, or national origin; (c) the bidder will furnish such relevant information and reports as requested by the City of Riverbank, if necessary, for the purpose of determining compliance with laws and statutes; (d) failure of the bidder to comply with the rules and regulations promulgated thereunder and this nondiscrimination clause shall be deemed a breach of contract and it may be cancelled, terminated or suspended in whole or in part; (e) the bidder will include the provisions of items (a) through (d) in every subcontract so that such provisions will be binding upon such subcontractor or vendor.
- 26. CONTINGENT FEE:** The bidder guarantees that they have not retained a person to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the bidder for the purpose of securing business.
- 27. ANTITRUST ASSIGNMENT:** As part of the consideration for entering into any contract pursuant to this invitation for bid, the bidder named on the front of this invitation for bid, acting herein by the authorized individual or its duly authorized agent, hereby assigns, sells and transfers to the City of Riverbank LRA all rights, title and interest in and to all causes of action it may have under the antitrust laws of the United States or this state for price fixing, which causes of action have accrued prior to the date of this assignment and which relate solely to the particular goods or services purchased or produced by this State pursuant to this contract.
- 28. DISCLOSURE:** Failure to make any disclosure, or any violation of any rule, regulation, or policy adopted pursuant State and Federal procurement rules, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.



NONCOLLUSION DECLARATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I, \_\_\_\_\_ [name], am the \_\_\_\_\_ [describe position] of \_\_\_\_\_ [company], the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_ [date], at \_\_\_\_\_ [city], California.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

Residing and Reroofing Project  
5300 Claus Road  
Modesto, California 95357

### Map of Project Area



 Buildings included in Project Area



**FIGURE 1-2a**  
**SITE LAYOUT**

# Work Plan for Siding and Roof Replacement of Selected Buildings in the Riverbank Army Ammunition Plant

November 2015



**Prepared By**  
**Giuliani & Kull, Inc.**  
440 S. Yosemite Ave, Suite A  
Oakdale, CA 95361  
(209) 847-8726  
Nick W. Prichard, P.E.

**Prepared For**  
**Riverbank Local Redevelopment Agency**  
5300 Claus Road, Suite 1  
Modesto, CA 95357  
209-863-8352

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**Attachments**

Attachment A ..... Project Maps  
Attachment B ..... Building Quantity Summary  
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## Background Information

The Riverbank Army Ammunition Plant is a 145-acre site located on the southeast edge of the City of Riverbank. The Plant was first developed to in 1942 by the Aluminum Company of America for metal production associated with World War II. The plant was closed in 1944 and then reopened by Norris Industries to manufacture steel cartridge cases for joint Army and Navy use in 1951. The plant was designated as a Base Realignment and Closure (BRAC) facility in 2005 and remained in operation until 2009. On April 2010, the Riverbank Local Redevelopment Authority (RLRA) took over maintenance and operations of the Facility.

Many of the main buildings were constructed or underwent significant external reconfiguration and skinned with Galbestos type siding in 1951. Galbestos is an asbestos protected siding consisting of thick gauge, corrugated galvanized metal sheeting with thin, double-sided asbestos felt-like coating. This material was installed throughout the Plant's main buildings, consisting of the majority of the sloped roofs and building sides. In addition to the siding and roof panels containing asbestos, polychlorinated biphenyls (PCBs) are present in the Galbestos material. PCBs are used in galbestos siding mainly for their flame retardant and waterproofing attributes. The use of PCBs in this manner is not authorized by the Environmental Protection Agency's Toxic Substances Control Act of 1976, and thus, must be removed from the site.

Weston Solutions was contracted in 2009-2010 to sample and evaluate the Plant's galbestos and possible PCB contamination locations. They found that buildings 1 through 8, 11, 12, 33, and 133 have galbestos siding, galbestos roofing, and/or contaminated non-corrugated metal roofing. Many of the buildings have a 10-12 feet tall row of non-galbestos siding located at the ground level, these panels were found to be contaminated with PCBs from galbestos panels located above them. Due to the possible contamination of the non-galbestos siding, this material must be removed and properly disposed.

Under the EPA and Army's agreement for the transfer of the Plant from the U.S. Department of the Army to the City of Riverbank, the Army shall remove and dispose of all galbestos material and any siding and roofing that have been contaminated by PCB's. The Riverbank Local Redevelopment Authority's shall choose an appropriate siding and roofing material to install on all decontaminated buildings. This work plan will review Weston Solutions preliminary findings associated with quantities of siding and roofing material needed, identify appropriate materials, and develop an estimated cost for materials and installation.

## Field Visits and Findings

Giuliani & Kull performed numerous field visits in May of 2013 to locate facilities and perform a topographic survey of buildings. The topographic survey gathered information regarding building positions, elevations, and dimensions. A visual survey was done to all accessible buildings to observed potential of galbestos and/or contaminated siding and roofing. Each building exterior was mapped, notes on characteristics recorded (windows, doors, building connections), and pictures were taken.

Weston Solutions conducted two sampling events in November of 2009 that identified buildings 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 33, and 133 as containing galbestos and/or contaminated with PCBs. The buildings have the presences of galbestos siding in various conditions of disrepair, with many of the buildings having a line of non-galbestos siding with visual signs of rust stains from the above galbestos material. Giuliani & Kull found an additional fifteen small to mid size buildings (34, 35, 36, 37, 38, 45, 46, 47, 48, 49, 50, 80, 82, 83, and 107) that appear to have similar siding and/or roofing material as the buildings that are identified by Weston Solutions as having galbestos. Some of these newly identified buildings have potential galbestos siding and roofing, while others have non-galbestos siding which show signs of being in the potential contamination path of the deteriorating galbestos, however, these buildings were not lab tested by Giuliani & Kull.

Most of the above listed buildings have sloped corrugated roofs that are constructed of the same galbestos material as the building sides. It was found that some roofs, buildings 11, 33, 133, and 107, are flat roofs originally composed of poured gypsum deck with aluminum sealant paint over asphalt felt. Many of these flat roofs have sections that are within the contamination path of deteriorating galbestos roofing or connecting to building siding. Due to their contamination, the roofs have the potential of being removed by the Army during their cleanup.

Below shows the calculated total quantities for replacement siding, sloped roofing, and flat roofing styles.

Total Replacement For All Listed Buildings		
Siding Area (SF)	Metal Roofing Area (SF)	Asphalt Roofing Area (SF)
320,567	462,473	17,635

## Siding and Roof Replacement Strategy

### Metal Siding

#### Material

The material shall be<sup>1</sup>:

- Style: Classic Rib
- Substrate: Steel with Galvanized coating
- Gauge: 26
- Paint Coating: MS Colorfast45
- Minimum panel length: 3', Maximum panel length: 50'
- Required trim, flashing, sealant, and fasteners will be provided by vender

#### Quantity

The quantity shall be approximately 320,500 square feet of metal paneling needed to re-sheet all for the listed building's walls.

Total Metal Siding Installation Per Building							
Building #	Siding Area (SF)	Building #	Siding Area (SF)	Building #	Siding Area (SF)	Building #	Siding Area (SF)
1	32,523	8	52,427	35	2,658	48	1,760
2	18,804	11	12,285	36	2,658	49	1,760
3	18,428	12	9,357	37	2,658	50	1,760
4	32,645			38	2,658	80	2,387
5	29,652	33	3,739	45	902	82	2,140
6	31,983	133	1,979	46	1,760	83	1,210
7	46,591	34	2,658	47	1,760	107	1,430
<b>Total:</b>				<b>320,567</b>			

## Metal Roofing

### Material

The material shall be<sup>1</sup>:

- Style: Classic Rib
- Substrate: Steel with Galvanized coating
- Gauge: 26
- Paint Coating: MS Colorfast45
- Minimum panel length: 3', Maximum panel length: 50'
- Required trim, flashing, sealant, and fasteners will be provided by vender

### Quantity

The quantity shall be approximately 462,500 square feet of metal paneling needed to re-sheet all for the listed building's roofs.

Total Metal Roofing Installation Per Building					
Building #	Metal Roofing Area (SF)	Building #	Metal Roofing Area (SF)	Building #	Metal Roofing Area (SF)
1	66,039	34	2,090	47	6,930
2	64,844	35	2,090	48	6,930
3	65,493	36	2,090	49	9,240
4	65,583	37	2,090	50	9,240
5	64,844	38	2,090	80	2,156
6	64,844	45	8,172	82	1,907
12	8,100	46	6,930	83	770
		<b>Total:</b>	<b>462,473</b>		



Total Metal Siding Installation Per Building							
Building #	Siding Area (SF)	Building #	Siding Area (SF)	Building #	Siding Area (SF)	Building #	Siding Area (SF)
1	32,523	8	52,427	35	2,658	48	1,760
2	18,804	11	12,285	36	2,658	49	1,760
3	16,428	12	9,357	37	2,658	50	1,760
4	32,645	33	3,739	38	2,658	80	2,287
5	29,652	33	3,739	45	902	82	2,140
6	31,983	133	1,979	46	1,760	88	1,210
7	46,591	34	2,658	47	1,760	107	1,430
<b>Total:</b>							<b>320,567</b>

Total Metal Roofing Installation Per Building							
Building #	Metal Roofing Area (SF)	Building #	Metal Roofing Area (SF)	Building #	Metal Roofing Area (SF)	Building #	Metal Roofing Area (SF)
1	66,039	34	2,090	47	6,930		
2	64,844	35	2,090	48	6,930		
3	65,493	36	2,090	49	9,240		
4	65,583	37	2,090	50	9,240		
5	64,844	38	2,090	80	2,156		
6	64,844	45	8,172	82	1,907		
12	8,100	46	6,930	83	770		
<b>Total:</b>							<b>452,473</b>

Total Flat Roof Repair Per Building	
Building #	Asphalt Roofing Area (SF)
11	10,316
33	2,475
133	2,970
107	1,855
<b>Total</b>	<b>17,616</b>



 PROJECT BUILDING  
 METAL SIDING REPLACEMENT  
 METAL ROOF REPLACEMENT  
 FLAT ROOF REPLACEMENT

**GK** **Giuliani & Kull, Inc.**  
 Engineers • Planners • Surveyors  
 440 S. Yosemite Avenue, Suite A, Okdale, CA 95361  
 (209) 847-8726 Fax (209) 847-7323  
 Auburn • Okdale • San Jose

SCALE: 1"=150'  
 DRAWN: NWP  
 CHECKED: WFK  
 JOB NO.: 09121A  
 SHEET: 1 OF 1

**RIVERBANK ARMY  
 AMMUNITION PLANT  
 BUILDING  
 LOCATION MAP**

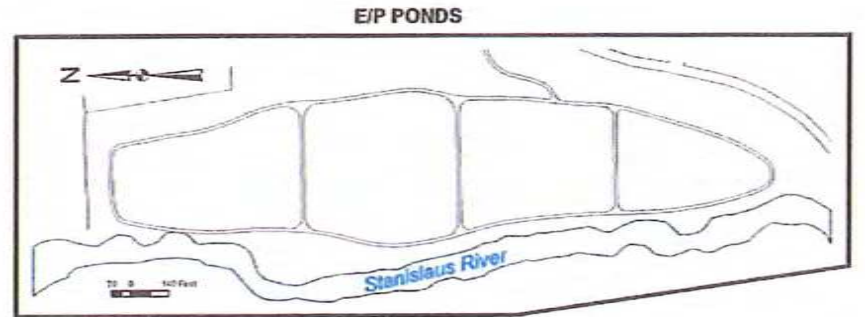
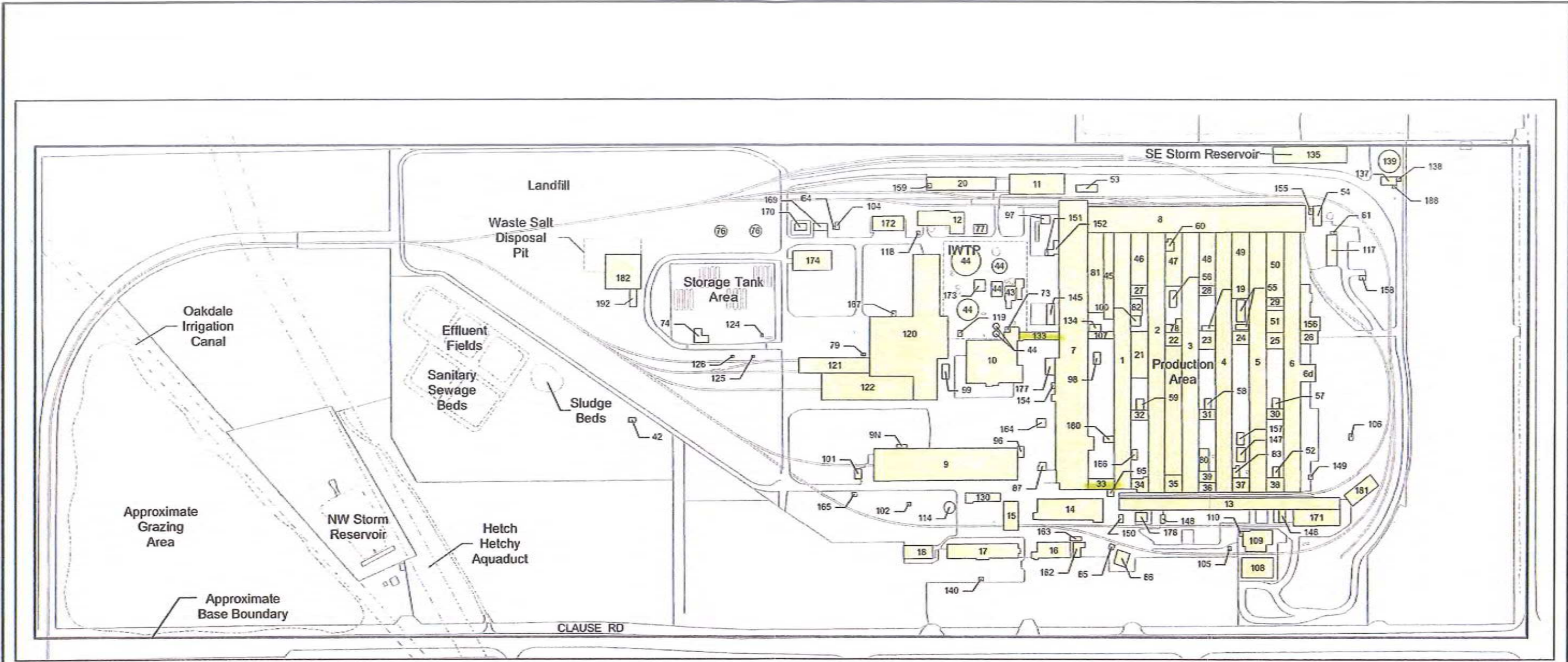
United States • CA • Stanislaus Co.

17

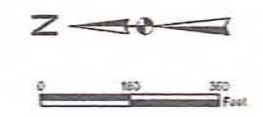
Claus Rd

17





**LEGEND**  
 BUILDINGS



**FIGURE 1-2a**  
**SITE LAYOUT**  
 Riverbank Army Ammunition Plant  
 Riverbank, California

## Building Quantity Summary

Building #	Siding Area (SF)	Metal Roofing Area (SF)	Asphalt Roofing Area (SF)
1	32,523	66,039	
2	18,804	64,844	
3	18,428	65,493	
4	32,645	65,583	
5	29,652	64,844	
6	31,983	64,844	
7	46,591		
8	52,427		
11	12,285		10,336
12	9,357	8,100	
33	3,739		2,475
133	1,979		2,970
34	2,658	2,090	
35	2,658	2,090	
36	2,658	2,090	
37	2,658	2,090	
38	2,658	2,090	
45	902	8,172	
46	1,760	6,930	
47	1,760	6,930	
48	1,760	6,930	
49	1,760	9,240	
50	1,760	9,240	
80	2,387	2,156	
82	2,140	1,907	
83	1,210	770	
107	1,430		1,855
<b>Total</b>	<b>320,567</b>	<b>462,473</b>	<b>17,635</b>

## Building # 1



Site Details	
Building Siding Panel Dimensions	Feet
Length	741
Width	50
Height	27
Roof Pitch Hight	11.8

Building Details	
Building Sides	Total Area
North	19,872
South	19,872
East	-
West	1,645
Connected Structures	
Building 166	990
Building 180	1,230
Voids	
Windows	-
Access doors	-
Large Doors	348
Building Connections	13,695
Calculated Siding Area	
	29,566
Contingency	10%
<b>Total Siding Area</b>	<b>32,523</b>

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	58,875
Connected Building Roof	
Building 166	540
Building 180	620
Contingency	10%
<b>Total Roofing Area</b>	<b>66,039</b>

## Building # 2



Site Details	
Building Siding Panel Dimensions	Feet
Length	741
Width	50
Height	27

Building Details	
Building Sides	Total Area
North	19,872
South	19,872
East	-
West	1,635
Connected Structures	-
Voids	
	Total Area
Windows	-
Access doors	-
Large Doors	128
Building Connections	24,157
Calculated Siding Area	17,094
Contingency	10%
<b>Total Siding Area</b>	<b>18,804</b>

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	58,949
Connected Building Roof	-
Contingency	10%
<b>Total Roofing Area</b>	<b>64,844</b>

### Building # 3

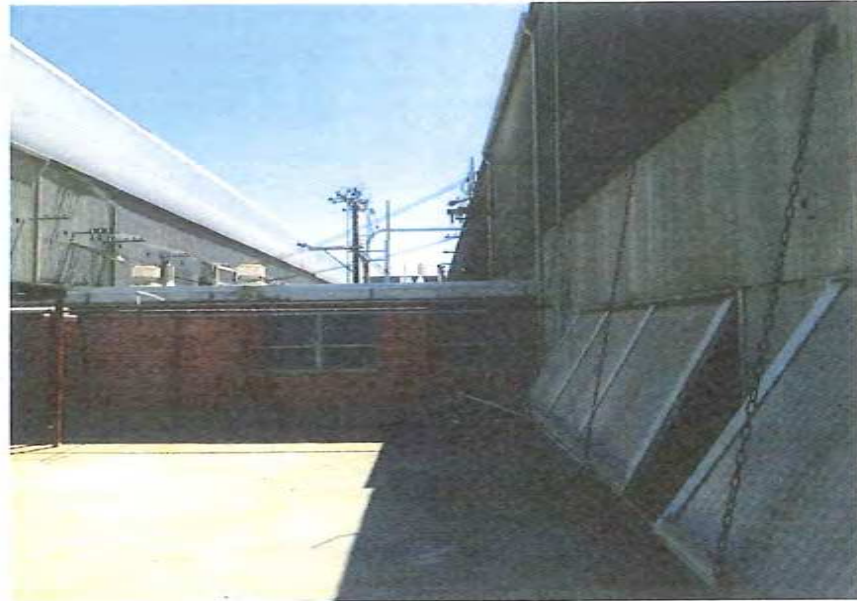


Site Details	
Building Siding Panel Dimensions	Feet
Length	741
Width	50
Height	27

Building Details	
Building Sides	Total Area
North	19,872
South	19,872
East	-
West	1,635
Connected Structures	
Building Misc.	1,200
Voids	
Windows	-
Access doors	-
Large Doors	128
Building Connections	25,699
Calculated Siding Area	16,752
Contingency	10%
<b>Total Siding Area</b>	<b>18,428</b>

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	58,949
Connected Building Roof	
Building Misc.	590
Contingency	10%
<b>Total Roofing Area</b>	<b>65,493</b>

## Building # 4



Site Details	
Building Siding Panel Dimensions	Feet
Length	741
Width	50
Height	27

Building Details	
Building Sides	Total Area
North	19,872
South	19,872
East	-
West	1,635
Connected Structures	
Building 83	1,260
Voids	
Windows	-
Access doors	-
Large Doors	176
Building Connections	12,786
Calculated Siding Area	29,677
Contingency	10%
<b>Total Siding Area</b>	<b>32,645</b>

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	58,949
Connected Building Roof	
Building 83	672
Contingency	10%
<b>Total Roofing Area</b>	<b>65,583</b>



## Building # 5



### Site Details

Building Siding Panel Dimensions	Feet
Length	741
Width	50
Height	27

### Building Details

Building Sides	Total Area
North	19,872
South	19,872
East	-
West	1,635
Connected Structures	-
Voids	
Total Area	
Windows	-
Access doors	-
Large Doors	128
Building Connections	14,295
Calculated Siding Area	26,956
Contingency	10%
Total Siding Area	29,652

### Roof Details

Roof Type	Sloped Metal
Roof Sheeting Area	58,949
Connected Building Roof	-
Contingency	10%
Total Roofing Area	64,844

## Building # 6



Site Details	
Building Siding Panel Dimensions	Feet
Length	741
Width	50
Height	27

Building Details	
Building Sides	Total Area
North	19,872
South	19,872
East	-
West	1,635
Connected Structures	-
Voids	
	Total Area
Windows	-
Access doors	42
Large Doors	272
Building Connections	11,990
Calculated Siding Area	29,075
Contingency	10%
<b>Total Siding Area</b>	<b>31,983</b>

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	58,949
Connected Building Roof	-
Contingency	10%
<b>Total Roofing Area</b>	<b>64,844</b>

## Building # 7



Site Details	
Building Siding Panel Dimensions	Feet
Length	840
Width	82
Height	31

Building Details	
Building Sides	Total Area
North	26,740
South	26,040
East	2,952
West	2,542
Connected Structures	
Building Misc. 1	430
Building Misc. 2	1,350
Voids	
Windows	4,840
Access doors	105
Large Doors	2,457
Building Connections	10,297
Calculated Siding Area	42,355
Contingency	10%
<b>Total Siding Area</b>	<b>46,591</b>

## Building # 8



Site Details	
Building Siding Panel Dimensions	Feet
Length	642
Width	77
Height	57

Building Details	
Building Sides	Total Area
North	4,389
South	4,158
East	34,695
West	34,695
Connected Structures	-
Voids	
	Total Area
Windows	5,120
Access doors	-
Large Doors	3,044
Building Connections	22,113
Calculated Siding Area	47,661
Contingency	10%
<b>Total Siding Area</b>	<b>52,427</b>

## Building # 11



Site Details	
Building Siding Panel Dimensions	Feet
Length	162
Width	58
Height	27

Building Details	
Building Sides	Total Area
North	1,566
South	1,566
East	4,374
West	4,374
Connected Structures	-
Voids	
	Total Area
Windows	-
Access doors	42
Large Doors	670
Building Connections	-
Calculated Siding Area	11,168
Contingency	10%
<b>Total Siding Area</b>	<b>12,285</b>

Roof Details	
Roof Type	Flat Asphalt
Roof Sheeting Area	9,396
Connected Building Roof	-
Contingency	10%
<b>Total Roofing Area</b>	<b>10,336</b>

## Building # 12



Site Details	
Building Siding Panel Dimensions	Feet
Length	140
Width	62
Height	43

Building Details	
Building Sides	Total Area
North	2,201
South	2,301
East	3,136
West	3,136
Connected Structures	-
Voids	
Voids	Total Area
Windows	2,040
Access doors	84
Large Doors	144
Building Connections	-
Calculated Siding Area	8,506
Contingency	10%
<b>Total Siding Area</b>	<b>9,357</b>

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	7,364
Connected Building Roof	-
Contingency	10%
<b>Total Roofing Area</b>	<b>8,100</b>

## Building # 33



Site Details	
Building Siding Panel Dimensions	Feet
Length	75
Width	30
Height	26

Building Details	
Building Sides	Total Area
North	-
South	-
East	1,950
West	1,950
Connected Structures	-
Voids	
	Total Area
Windows	225
Access doors	-
Large Doors	276
Building Connections	-
Calculated Siding Area	3,399
Contingency	10%
<b>Total Siding Area</b>	<b>3,739</b>

Roof Details	
Roof Type	Flat Asphalt
Roof Sheeting Area	2,250
Connected Building Roof	-
Contingency	10%
<b>Total Roofing Area</b>	<b>2,475</b>

**Building # 34, 35, 36, 37, 38**



Site Details	
Building Siding Panel Dimensions	Feet
Length	50
Width	38
Height	26

Building Details	
Building Sides	Total Area
North	-
South	-
East	1,300
West	1,300
Connected Structures	
Voids	Total Area
Windows	120
Access doors	-
Large Doors	64
Building Connections	-
Calculated Siding Area	2,416
Contingency	10%
<b>Total Siding Area</b>	<b>2,658</b>

Roof Details	
Roof Type	Flat Asphalt
Roof Sheeting Area	1,900
Connected Building Roof	-
Contingency	10%
<b>Total Roofing Area</b>	<b>2,090</b>



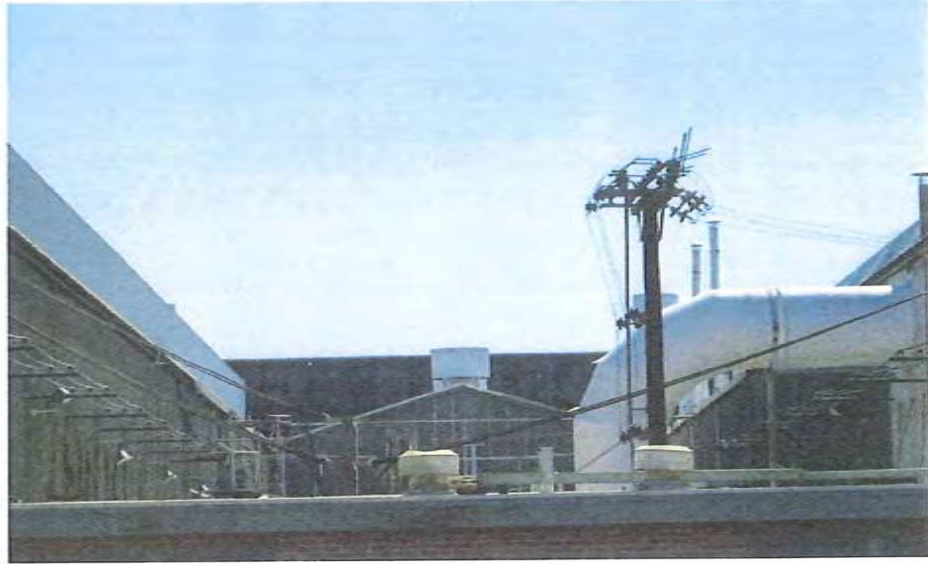
## Building # 45

Site Details	
Building Siding Panel Dimensions	Feet
Length	250
Width	30
Height	20

Building Details	
Building Sides	Total Area
North	400
South	-
East	-
West	600
Connected Structures	-
Voids	
	Total Area
Windows	-
Access doors	-
Large Doors	180
Building Connections	-
Calculated Siding Area	820
Contingency	10%
Total Siding Area	902

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	7,429
Connected Building Roof	-
Contingency	10%
Total Roofing Area	8,172

## Building # 46, 47, 48

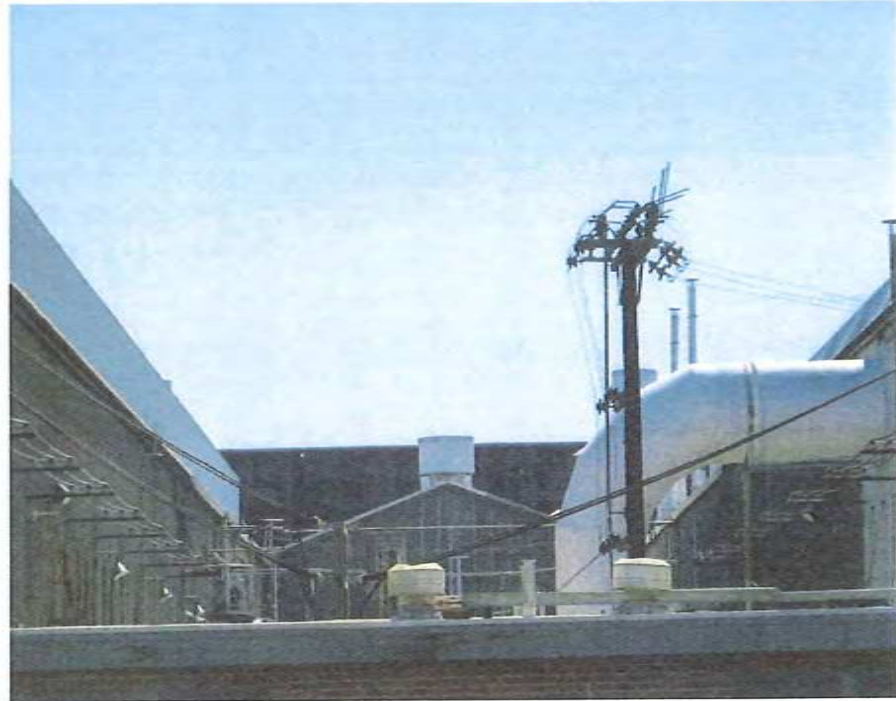


Site Details	
Building Siding Panel Dimensions	Feet
Length	150
Width	50
Height	38

Building Details	
Building Sides	Total Area
North	-
South	-
East	-
West	1,600
Connected Structures	-
Voids	
Voids	Total Area
Windows	-
Access doors	-
Large Doors	-
Building Connections	-
Calculated Siding Area	1,600
Contingency	10%
Total Siding Area (Each)	1,760

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	6,300
Connected Building Roof	-
Contingency	10%
Total Roofing Area (Each)	6,930

## Building # 46, 47, 48

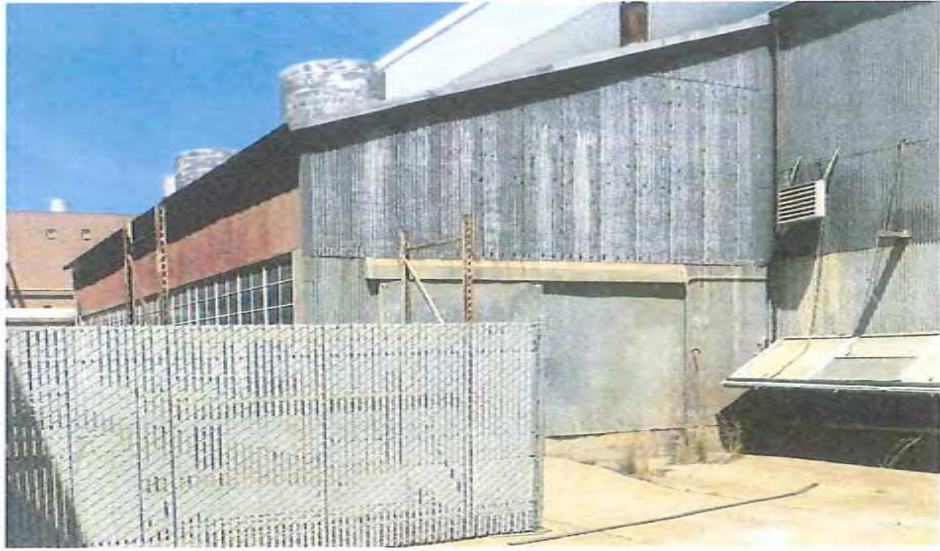


Site Details	
Building Siding Panel Dimensions	Feet
Length	200
Width	50
Height	38

Building Details	
Building Sides	Total Area
North	-
South	-
East	-
West	1,600
Connected Structures	-
Voids	
	Total Area
Windows	-
Access doors	-
Large Doors	-
Building Connections	-
Calculated Siding Area	1,600
Contingency	10%
<b>Total Siding Area</b>	<b>1,760</b>

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	8,400
Connected Building Roof	-
Contingency	10%
<b>Total Roofing Area</b>	<b>9,240</b>

## Building # 80



Site Details	
Building Siding Panel Dimensions	Feet
Length	70
Width	28
Height	20

Building Details	
Building Sides	Total Area
North	-
South	1,400
East	560
West	560
Connected Structures	-
Voids	
Voids	Total Area
Windows	350
Access doors	-
Large Doors	-
Building Connections	-
Calculated Siding Area	2,170
Contingency	10%
Total Siding Area	2,387

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	1,960
Connected Building Roof	-
Contingency	10%
Total Roofing Area	2,156

## Building # 82

Site Details	
Building Siding Panel Dimensions	Feet
Length	50
Width	34
Height	20

Building Details	
Building Sides	Total Area
North	-
South	765
East	590
West	590
Connected Structures	-
Voids	Total Area
Windows	-
Access doors	-
Large Doors	-
Building Connections	-
Calculated Siding Area	1,945
Contingency	10%
Total Siding Area	2,140

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	1,734
Connected Building Roof	-
Contingency	10%
Total Roofing Area	1,907

## Building # 83

Site Details	
Building Siding Panel Dimensions	Feet
Length	35
Width	20
Height	20

Building Details	
Building Sides	Total Area
North	-
South	700
East	400
West	-
Connected Structures	-
Voids	
	Total Area
Windows	-
Access doors	-
Large Doors	-
Building Connections	-
Calculated Siding Area	1,100
Contingency	10%
Total Siding Area	1,210

Roof Details	
Roof Type	Sloped Metal
Roof Sheeting Area	700
Connected Building Roof	-
Contingency	10%
Total Roofing Area	770

## Building # 107

Site Details	
Building Siding Panel Dimensions	Feet
Length	75
Width	25
Height	15

Building Details	
Building Sides	Total Area
North	-
South	-
East	1,125
West	1,125
Connected Structures	
Voids	Total Area
Windows	240
Access doors	-
Large Doors	200
Building Connections	510
Calculated Siding Area	1,300
Contingency	10%
Total Siding Area	1,430

Roof Details	
Roof Type	Flat Asphalt
Roof Sheeting Area	1,686
Connected Building Roof	-
Contingency	10%
Total Roofing Area	1,855

## Building # 133



Site Details	
Building Siding Panel Dimensions	Feet
Length	82
Width	25
Height	15

Building Details	
Building Sides	Total Area
North	-
South	-
East	1,230
West	1,230
Connected Structures	
Voids	Total Area
Windows	640
Access doors	21
Large Doors	-
Building Connections	-
Calculated Siding Area	1,799
Contingency	10%
<b>Total Siding Area</b>	<b>1,979</b>

Roof Details	
Roof Type	Flat Asphalt
Roof Sheeting Area	2,700
Connected Building Roof	
Contingency	10%
<b>Total Roofing Area</b>	<b>2,970</b>