ARMCO PROJECT 600

PLAINTIFF'S EXHIBIT
KEN-92

ENGINEERING REPORT

PROJECT 7114

STEELMAKING AREA & SOUTH AREA

LOCKER ROOMS

MIDDLETOWN WORKS

RETURN TO
KAISER ENGINEERS
RECORDS CENTER
BOX 2334
REQUEST 27060

RECEIVED
DEC 15 1966
R. J. WOLF
Kaiser Engineers
Oakland

PREPARED BY

KAISER ENGINEERS

NO. 7114.1 STEELMAKING AREA & SO. AREA - LOCKER ROOMS

KEN 017098

INTER-OFFICE MEMORANDUM

TO R. F. Boschert
AT Armco
24 North Main Street

DATE December 12, 1966

FROM H. F. Wulfekamp

AT Kaiser Engineers
24 North Main Street

COPIES TO See Distribution

JOB NO. 7114-202

SUBJECT Engineering Report
Locker Rooms 7114

In accordance with your instruction, I am transmitting thirty (30) copies of Engineering Report 7114-1 covering Locker Rooms in the Steelmaking Area and South Area. Also enclosed, is a draft copy of the Request For Appropriation.

HFW:lh
Enc.

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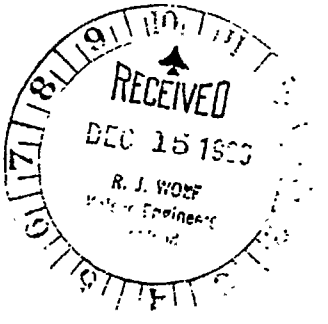
KEN 017099



Engrg Report Est $678,000
Approved Approp 678,000

ENGINEERING REPORT

PROJECT 7114

LOCKER ROOMS

MIDDLETOWN WORKS

DECEMBER 12, 1966

KAISER ENGINEERS, INC.

REPORT NO. 7114-1

Prepared By: H. F. Wulfekamp 11.29.66
H. F. Wulfekamp — Date
Kaiser Project Engineer

Approved By: F. X. Kast 11/29/66
F. X. Kast — Date
Kaiser Engineering Manager

Approved By: R. F. Boschert 11/29/66
R. F. Boschert — Date
Armco Project Engineer

Approved By: L. R. Larson 11/29/66
L. R. Larson — Date
Armco Chief Engineer, Projects

Approved By: Lloyd Nolan 11/29/66
L. Nolan — Date
Task Force Chairman

LOCKER ROOMS

TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY

II. GENERAL DESCRIPTION

III. SCHEDULE

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V. ESTIMATE

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I. INTRODUCTION AND SUMMARY

Two (2) new locker room facilities will be constructed in the current Middletown Works Expansion Program to meet the requirements of additional manpower and the shifting of population centers.

Facility sizes were derived from Industrial Engineering Report M-66-090, as revised by Middletown Works Management.

One (1) facility will serve the Basic Oxygen Shop and Melting Facilities in the Steelmaking Area. The other will serve the 86" Hot Strip Mill, Slab Mill, Soaking Pits, and Finishing Facilities in the South Area.

This Engineering Report defines the scope of these new locker facilities and the period of time required to complete construction.

This Report also includes general and detailed cost estimates, a chart of accounts, and scope drawings of the locker room facilities.

II. GENERAL DESCRIPTION

A. Facility

The locker room facilities will consist of two (2) structures; one (1) in the South Area, and one (1) in the Steelmaking Area. The Steelmaking Area Facility will have an area of 9,605 sq. ft. and will be located approximately 300 ft. south of the Basic Oxygen Shop at the northwest corner of the parking area. The South Area Facility will have an area of 12,069 sq. ft. and will be located approximately 300 ft. east of the 86" Hot Strip Mill at the northwest corner of the parking area.

The basic plan of each facility will consist of an entrance vestibule; central mechanical and service core area, with locker areas on either side of this service core.

The service core will contain toilets, showers, wash areas, and mechanical equipment room. Access to these areas will be from either locker area.

Steel lockers will be furnished in each facility. These lockers will measure 21" wide by 15" deep by 72" high. The South Area Facility will have 820 lockers and the Steelmaking Area Facility will have 632 lockers. Lockers will be in rows of fourteen (14), mounted back to back on an open steel frame base with integral wood benches. Smaller lockers will be provided for rental clothes in each Facility.

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B. Structures and Equipment

2.0 Structure

Structures will utilize Armco M.P.D. prefabricated steel frames, Type BCS-3. Exterior gable end walls will be painted, stack bond concrete block from finish floor line to soffit of roof overhangs. Exterior soffits will be surfaced with cement asbestos panels.

Eave walls will be flat, factory painted, "STEELOX" siding, 6'-0" high, with insulated cement asbestos interior panels. There will be continuous projected steel windows from top of panels to ceiling line (10'-0" above floor line).

Roof will be constructed of flat, aluminized, "STEELOX" panels, sloping to concealed gutters. Vertical gable and eave surfaces from edge of roof overhang to sheetmetal copings will be sculptured, aluminized, "STEELOX" panels.

The vestibule area will be a structural steel frame with "STEELOX" roofing. Standard Armco "Window Wall" units, with glass and cement asbestos wall panels, will be utilized for exterior walls below the soffit line. Sculptured aluminized siding will be above the soffit line.

Shower rooms, drying areas, toilet rooms, and wash areas, will have glazed masonry wall surfaces, cement plaster suspended ceilings, and seamless resilient flooring. Toilet partitions and wash fountains will be stainless steel, and shower rooms

KEN 017104

will be provided with a stainless steel pipe foot rest mounted approximately 18" above the floor.

Balance of Facility will have suspended, cement asbestos, acoustical tile ceiling, hardened concrete floors, and painted wall surfaces.

Glass will be double strength, "B" quality in projected windows, and 1/4" polished plate in "Window Wall" units.

2.1 Building Lighting and Electrical Equipment

Power for lighting and equipment will be obtained from Scale Pit No. 1 for the Facility in the South Area, and from the Pump Room of the Basic Oxygen Shop for the Facility in the Steelmaking Area. A fifteen (15) footcandle lighting level will be maintained in the shower, locker, and drying areas. A thirty-five (35) footcandle lighting level will be maintained in the waiting, vestibule area.

2.2 Heating, Cooling, Ventilating, and Plumbing

Heating and Cooling

Facilities will be heated with gas fired air handling units, with variable speed fans. These units will operate on the basis of 100% outside air and will be connected to an underfloor duct distribution system that will supply air through registers at the perimeters of the locker areas. The registers will be approximately six inches (6") above the floor line.

KEN 017105

Ventilating

The space from the tops of lockers to the ceiling will be enclosed with sheetmetal. A hole will be cut in each locker top and fitted with a wire mesh cover. Louvers will be provided in the door of each locker and used as intake grilles for the ventilating system. Air will be exhausted from the space above the lockers by a variable speed exhaust fan and ductwork. This will ventilate the locker contents and the locker room area simultaneously.

Plumbing

Waste piping will be cast iron; vent and water piping will be galvanized. Shower piping will be exposed and fittings will be galvanized industrial type with a mixing valve. Each facility will have a 1000 gallon, gas fired, hot water storage tank with theromostatic controls.

2.3 General Utilities

Utilities will be installed within a line five feet (5') outside the building, as part of this Project. The installation and material from this point to the actual connection of these required utilities, will be performed under the following projects:

- Well Water - 7105
- Natural Gas - 7109
- Sanitary Sewer - 7111
- Storm Sewer - 7112

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III. SCHEDULE

Work covered by this Report will be performed in accordance with the schedule on the following page.

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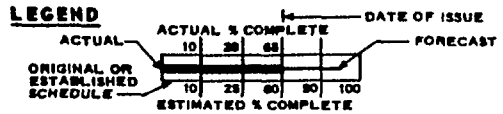


III. PROJECT SCHEDULE

LOCKER ROOMS - STEELMAKING AREA AND SOUTH AREA

ARMCO STEEL CORPORATION, MIDDLETOWN, OHIO

ISSUED: Dec. 12, 1966
REVISED:

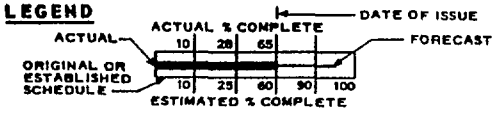
INCREMENTS	1965												1966												1967												1968											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
I. OVERALL PROJECT																																																
II. SUMMARY SCHEDULE																																																
A. ENGINEERING																																																
B. PROCUREMENT																																															
C. CONSTRUCTION																																															

South Area

Steelmaking Area

KEN 017108

PROJECT NO. 7114 KAISER ENGINEERS, INC. REPORT DATE 12/12/66 1 OF 2



PROJECT SCHEDULE

LOCKER ROOMS - STEELMAKING AREA AND SOUTH AREA

ARMCO STEEL CORPORATION, MIDDLETOWN, OHIO

ISSUED: Dec. 12, 1966

REVISION:

INCREMENTS	DWGS.	1965 J F M A M J J A S O N D	1966 J F M A M J J A S O N D	1967 J F M A M J J A S O N D	1968 J F M A M J J A S O N D
III. DETAILED SCHEDULE					
A. ENGINEERING					
1. PROJ ENG THRU APPRO REQUEST			═══		
2. PROJ ENG AFTER APPRO REQUEST				═══	═══
3. DETAIL DESIGN				═══	
a. STRUCTURAL				═══	
b. ARCHITECTURAL				═══	
c. MECHANICAL					
d. CIVIL				═══	
e. PIPING				═══	
f. INSTR					
g. ELECTRICAL				═══	
h. SPECIFICATIONS				═══	

KEN 017109

- 8 -

PROJECT NO. 7114 KAISER ENGINEERS, INC. REPORT DATE 12/12/66 2 OF 2

IV. CHART OF ACCOUNTS

PROJ. SECT.	CONSTR. DETAIL	
201	---	LOCKER ROOM STRUCTURE - SOUTH AREA

This Project Section shall include all costs to construct and equip the Locker Room Facility (approximately 130'-8" x 88'-0" with a vestibule 36'-0" x 16'-0") to serve the Hot Strip Mill, Soaking Pits, and the other Finishing Facilities in the South Area.

The basic structure shall be an Armco structure, type BCS-3, partitioned, and equipped with plumbing, sewer system, heating, ventilating, and all necessary appurtenances for an employees' change house.

This Project Section shall include the circuit breaker located in the Scale Pits 1 and 2 area, and the power distribution costs to the lighting transformer in the Locker Room Structure.

KEN 017110

PROJ. SECT.	CONSTR. DETAIL	
202	---	LOCKER ROOM STRUCTURE - STEELMAKING AREA

This Project Section shall include all costs to construct and equip the Locker Room Facility (approximately 102'-8" x 88'-0" with a vestibule 36'-0" x 16'-0") to serve the Basic Oxygen Shop and related steelmaking facilities.

The basic structure shall be an Armco structure, type BCS-3, partitioned and equipped with plumbing, sewer system, heating, ventilating, and all necessary appurtenances for an employees change house.

This Project Section shall include the costs for power distribution from the Basic Oxygen Facilities Pump House to the Locker Room Structure.

KEN 017111

PROJ. SECT.	CONSTR. DETAIL	
880	---	ELECTRICAL SUBCONTRACTOR'S OVERHEAD AND FEE

This Project Section shall include the estimated allowance for the electrical subcontractor's overhead and fee.

The overhead allowance is based on a percentage of the total direct labor and includes such items as follows:

1. Supervisory and clerical expense including superintendent, assistant superintendent, field engineers, secretarial, and clerical personnel
2. Electrical construction small tools (under $500)
3. Consumable supplies
4. Office supplies

Such items as the following are furnished by Kaiser Engineers and are not included in the subcontractor's overhead and allowance:

1. Construction plant and facilities
2. Construction equipment and equipment usage
3. Service such as reproduction, accounting, cost control, scheduling, purchasing, etc.

KEN 017112

PROJ. SECT.	CONSTR. DETAIL	
880	---	ELECTRICAL SUBCONTRACTOR'S OVERHEAD AND FEE (Continued)
		4. Telegraph, telephone, and utilities consumption.
		The fee for this estimate is based on a percentage of the total direct labor and material.
	500	Overhead and fee

KEN 017113

V. ESTIMATE

PROJECT 7114 APPROPRIATION ESTIMATE NO. 14-1

This estimate covers the cost of the Locker Rooms for the Middletown Works as described in this Report, together with the following additional estimate criteria.

- Engineering, manufacturing, and construction personnel will work the standard forty (40) hour week and no allowance has been made in the estimate for scheduled overtime work. If it becomes necessary to work the construction forces an extended work week to man the Project, the premium pay exposure could amount to $15,000. This amount is based on eight (8) hours of overtime per week for the peak two-thirds (2/3) of the Project for Kaiser Engineers Craft Labor, Kaiser Engineers Equipment Usage Labor, and Subcontract Craft Labor, and includes ten percent (10%) Labor Burden applicable to premium pay.

- Construction of the South Area Locker Room is scheduled for April 1967 and the scheduled completion date is September 1967. Construction of the Steelmaking Area Locker Room is scheduled for April 1968 and the scheduled completion date is September 1968.

- Since current labor contracts for the major crafts cover the scheduled major work periods, future wage increases specified in these contracts have been included in the labor estimate. Estimated wage increases for the minor crafts have also been included based on precedent established for the major crafts.

KEN 017114

- Material, Subcontract, and Equipment prices are as of the date of the estimate. Increases due to escalation are not included in the estimate and this exposure is estimated to be approximately as follows:

Item	Total Direct Cost	Estm. Amt. Subject To Escalation	Estm. % Escal.	Estm. Total Escal.
Material -				
Conc. & Related Items	21,000	21,000	5%	1,100
Armco Steel Products	48,000	48,000	5%	2,400
Others	129,300	129,300	10%	12,900
Subcontract -				
Masonry	28,300	28,300	5%	1,400
Painting, Plastering, etc.	28,300	28,300	5%	1,400
Electrical	74,000	74,000	10%	3,700
Others	85,500	85,500	10%	8,600
Total Estimated Escalation Exposure				$31,500

- Material prices include freight costs to the job site.

- Ohio State Use, Sales, and similar taxes are not included in this estimate.

- Indirect costs, which are a pro-rata share of Project 7100, are not included in the estimate total. This pro-rata amount of $26,400 is included as a part of the fee base.

- The estimated fee shown is based upon an average fee for the Middletown and Butler programs and a total estimated fee base for such programs in excess of $400,000,000.

KEN 017115

- Spare Equipment, Spare Parts, and Middletown Works startup costs are not included in the Design and Construction Budget Total.

KEN 017116

Armco Steel Corporation

LOCATION Middletown Works | DATE December 12, 1966 | SHEET 1 OF 12
PROJECT Locker Rooms | PROJECT NO. 7114 | BY
CONTRACTOR Kaiser Engineers, Inc. | ESTIMATE NO. 14-1 | NOTED T.H. Teal Armco

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
		FINAL SUMMARY														
100		YARD WORK	–		–	–	–	–	(SITE WORK INCL. WITH PROJECT TIE)							–
200		STRUCTURES	–		–	–	–	–	23,400	114 700	15 900	20 000	198 300	210 100	–	559 000
300		CRANES AND MOBILE EQUIPMENT	–		–	–	–	–	–	–	–	NOT REQ'D.		–	–	–
400		MECHANICAL & ELECTRICAL EQUIPMENT - MAJOR	–		–	–	–	–	–	–	–	NOT REQ'D.		–	–	–
500		MECHANICAL & ELECTRICAL EQUIPMENT - AUXILIARY	–		–	–	–	–	–	–	–	NOT REQ'D.		–	–	–
600		MECHANICAL & ELECTRICAL EQUIPMENT - AUXILIARY	–		–	–	–	–	–	–	–	NOT REQ'D		–	–	–
700		PIPING	–		–	–	–	–	–	–	–	NOT REQ'D		–	–	–
800		ELECTRICAL	–		–	–	–	–	–	–	–	–	–	6 000	–	6 000
		TOTAL - DIRECT COST	–		–	–	–	–	23,400	114 700	15 900	20 000	198 300	216 100	–	565 000
910		CONSTRUCTION OVERHEAD	–		–	–	–	–	–	–	–	–	–	–	–	14 000
940		ENGINEERING AND STAFF	–		–	–	–	–	–	–	–	–	–	–	–	37 000
		7100 INDIRECT MANAGEMENT COSTS	(26,400)		(PERCENT OF DIRECT COST+LABOR ESCALATION+CONTINGENCY+START-UP AND VENDOR'S ASSISTANCE)											
		TOTAL - INDIRECT COST														51 000
960		ESCALATION - LABOR	–		–	–	–	–	–	–	–	–	–	–	–	INCL. W/LABOR
960		ESCALATION - MATERIAL, SUBCONTRACT & EQUIPMENT	–		–	–	–	–	–	–	–	–	–	–	–	NOT INCL.
970		CONTINGENCY	–		–	–	–	–	–	–	–	–	–	–	–	62 000
		VENDOR'S ASSISTANCE AND CONTRACTOR START-UP	–		–	–	–	–	–	–	–	–	–	–	–	NOT REQ'D.
		PREMIUM TIME ALLOWANCE FOR EXTENDED WORK WEEK	–		–	–	–	–	–	–	–	–	–	–	–	NOT INCL.
		TOTAL - DESIGN AND CONSTRUCTION BUDGET	–		–	–	–	–	–	–	–	–	–	–	–	678 000
		OTHER RELATED COSTS (ARMCO)	–		–	–	–	–	–	–	–	–	–	–	–	NOT REQ'D.
		TOTAL - ESTIMATED APPROPRIATION	–		–	–	–	–	–	–	–	–	–	–	–	678 000
		7100 INDIRECT MANAGEMENT COSTS	(26,400)													
980		FEE (678,000 + 26,400) x 2%	(14,090)													
		TOTAL														

H-4002 - REV. 9/65

KEN 017117

Armco Steel Corporation

LOCATION Middletown Works | DATE December 12, 1966 | SHEET 2 OF 12
PROJECT Locker Rooms | PROJECT NO. 7114 | BY JCZ RTE
CONTRACTOR Kaiser Engineers, Inc. | ESTIMATE NO. 14-1 | NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
		SUMMARY														
200	—	STRUCTURES														
201		LOCKER ROOM STRUCTURE - SOUTH AREA	12,100	SF	(118	100	CF)		12,900	62 800	8 700	10 900	108 500	114 500	—	305 400
202		LOCKER ROOM STRUCTURE - STEEL MAKING AREA	9,600	SF	(93	900	CF)		10,500	51 900	7 200	9 100	89 800	95 600	—	253 600
		TOTAL - 200 STRUCTURES	21,700	SF	—	—	—	—	23,400	114 700	15 900	20 000	198 300	210 100	—	559 000
800	—	ELECTRICAL	—	—	—	—	—	—	—	—	—	—	—	—	—	—
880		ELECTRICAL SUBCONTRACTOR'S OVERHEAD AND FEE	—	—	—	—	—	—	—	—	—	—	—	6 000	—	6 000
885		GENERAL SUBCONTRACTOR'S OVERHEAD AND PROFIT	—	—	—	—	—	—	—	NOT INCLUDED			—	—	—	—
		TOTAL - 800 ELECTRICAL							—	—	—	—	—	6000	—	6000
		TOTAL														

KEN 017118

H-4002 - REV. 9/65

Armco Steel Corporation

LOCATION Middletown Works DATE December 12, 1966 SHEET 3 OF 12

PROJECT Locker Rooms PROJECT NO. 7114 BY J C S RMB

CONTRACTOR Kaiser Engineers, Inc. ESTIMATE NO. 14-1 NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
		SUMMARY - VENDOR'S ASSISTANCE AND CONSTRUCTION FORCES START-UP														
600	---	MECHANICAL VENDOR'S ASSISTANCE AND START-UP										NOT REQ'D				—
690	643	Maintenance Spares										"	"			—
691	643	Mechanical Replacement Parts										"	"			—
692	643	Replacement Spares										"	"			—
693	644	Middletown Works Start-Up										"	"			—
694	641	Vendor's Assistance - Mechanical										"	"			—
695	---	Contractor Start-Up - Mechanical										"	"			—
	642	Lubricants - Oil, Grease, and Hydraulic Media -	First Fill									"	"			—
	644	Start-Up										"	"			—
	645	Safety Items - Allowance										"	"			—
		TOTAL - MECHANICAL VENDOR'S ASSISTANCE AND START-UP										NOT REQ'D				—
800	---	ELECTRICAL VENDOR'S ASSISTANCE AND START-UP										NOT REQ'D				—
890	643	Replacement Parts - Electrical										"	"			—
891	643	Spare Motors and Controls										"	"			—
892	643	Maintenance Spares - Electrical										"	"			—
893	644	Middletown Works Start-Up - Electrical										"	"			—
894	641	Vendor's Assistance - Electrical										"	"			—
895	644	Contractor Start-Up - Electrical										"	"			—
		TOTAL - ELECTRICAL VENDOR'S ASSISTANCE AND START-UP										NOT REQ'D				—
		GRAND TOTAL - VENDOR'S ASSISTANCE AND CONSTRUCTION FORCES START-UP										NOT REQ'D				—
		TOTAL														

H-4002 - REV. 9/69

KEN 017119

Armco Steel Corporation

LOCATION Middletown Works
PROJECT Locker Rooms
CONTRACTOR Kaiser Engineers, Inc.

DATE December 12, 1966
PROJECT NO. 7114
ESTIMATE NO. 14-1

SHEET 4 OF 12
BY [illegible] RFB
NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL	
900	—	INDIRECT COST ACCOUNTS															
910	—	CONSTRUCTION OVERHEAD															
	911	Surveying	—						600	2500	500	—	300	—	—	3300	
	958	Small Tools and Consumables	114,700		2.5%	-	4.0%		—	2900	400	—	4600	—	—	7100	
	962	Winter Protection	ALLOW		-	-	-	-	—	200	—	100	100	—	—	400	
	964	Clean-Up	114,700		2.3%	0.1%	0.1%		—	2600	400	100	100	—	—	3200	
		TOTAL - CONSTRUCTION OVERHEAD							—	—	—	—	—	—	—	14000	
940	—	ENGINEERING AND STAFF															
	906	Design Engineering	—						—	—	—	—	—	—	—	31400	
	910	Feasibility Engineering	—						—	—	—	—	—	—	—	4000	
	927	Reproduction	—						—	—	—	—	—	—	—	200	
	953	Permits	—						—	—	—	—	—	—	—	400	
	956	Outside Service and Consultants	—						—	—	—	—	—	—	—	—	
	957	Home Office Overhead	—						—	—	—	—	—	—	—	1000	
		TOTAL - ENGINEERING AND STAFF														37000	
960	—	ESCALATION															
	966	Escalation - Labor	—						—	—	—	—	—	—	—	INCL. W/LABOR	
	966	Escalation - Material, Subcontract and Equipment	—						—	—	—	—	—	—	—	NOT INCL.	
		TOTAL - ESCALATION							—	—	—	—	—	—	—	—	
970	—	CONTINGENCY															
	967	Contingency - Labor, Burden, Equipment Usage,	—						—	10%	10%	10%	10%	10%	—	—	
		Material, Subcontract and Engineered Equipment							—	11600	1700	2100	19900	21600	—	56900	
	967	Contingency - 910 - Construction Overhead	—						—	—	—	—	—	—	—	1400	10%
	967	Contingency - 940 - Engineering and Staff	—						—	—	—	—	—	—	—	3700	10%
		TOTAL - CONTINGENCY							—	—	—	—	—	—	—	62000	
		TOTAL															

H-4002 - REV. 9/65

KEN 017120

Armco Steel Corporation

LOCATION Middletown Works | DATE December 12, 1966 | SHEET 5 OF 12
PROJECT Locker Rooms | PROJECT NO. 7114 | BY [illegible] RFB
CONTRACTOR Kaiser Engineers, Inc. | ESTIMATE NO. 14-1 | NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
200	----	STRUCTURES														
201		LOCKER ROOM STRUCTURE - SOUTH AREA	12,100	SF	(118.100 CF)											
	030	Excavation and Backfill														
		Structure	450	CY	0.60	2.00	—	—	—	300	100	900	—	—	—	—
		Electrical	250	CY	1.00	2.00	—	—	—	300	—	500	—	—	—	—
		Ditch														
		Building	100	CY	1.00	2.00	—	—	—	100	—	200	—	—	—	—
		Yard	200	CY	1.00	2.00	—	—	—	200	—	400	—	—	—	—
		Slag (6" Mud Mat Under Slab)	250	CY	0.25	0.80	1.80	—	—	100	—	200	500	—	—	—
		Total 030 Excavation and Backfill							150	1 000	100	2 200	500	—	—	3 800
	170	Concrete in Place														
		Formwork														
		Footers and Piers 37 SF/CY	1650	SF	1.20	0.13	0.20	—	.27 450	2 000	300	200	300	—	—	—
		Grade Beams 60 SF/CY	3000	SF	1.05	0.05	0.20	—	.225 680	3 200	400	200	600	—	—	—
		Slabs on Ground 4.5 SF/CY	1550	SF	2.50	0.12	0.35	—	.54 840	3 900	500	200	500	—	—	—
		Re-Steel	65000	LB	—	—	0.05	0.07	—	—	—	—	3 300	4 600	—	—
		Embedded Metals														
		Footers and Piers 30 #/CY	1400	LB	0.18	0.01	0.20	—	.036 50	300	—	—	300	—	—	—
		Grade Beams 10 #/CY	500	LB	0.23	—	0.17	—	.041 20	100	—	—	100	—	—	—
		Slabs on Ground 6 #/CY	2000	LB	0.30	0.08	0.11	—	.059 120	600	100	100	200	—	—	—
		Concrete														
		Footers and Piers	45	CY	5.00	2.00	12.80	—	1.25 60	200	—	100	500	—	—	—
		Grade Beams	50	CY	10.60	3.50	13.00	—	2.5 120	500	100	200	700	—	—	—
		Slabs on Ground	340	CY	10.00	3.50	13.55	—	2.5 850	3 400	500	1 200	4 600	—	—	—
		Concrete - Electric Ducts - Complete	35	CY	33.00	4.00	23.00	3.50	7.0 250	1 200	200	100	900	100	—	—
		Total 170 Concrete in Place	470	CY					3440	15 400	2 100	2 300	11 900	4 700	—	36 400
	210	Structural Steel														
		Armco Standard Building - BCS-3	11,500	SF	0.55	0.10	1.60	—	1460	6 300	900	1 200	18 400	—	—	—
		Entrance Area	2	T	—	—	—	500.00	—	—	—	—	—	1 000	—	—
		Total 210 Structural Steel							1460	6 300	900	1 200	18 400	1 000	—	27 800
	220	Miscellaneous Steel (5T)	ALLOW		—	—	—	—	—	—	—	—	—	4 100	—	4 100
	250	Armco Purlins (Vestibule Roof)	1	T	—	—	235.00	140.00	—	—	—	—	200	100	—	300
		TOTAL														

KEN 017121

M-4082 - REV. 9/65

Armco Steel Corporation

LOCATION Middletown Works | DATE December 12, 1966 | SHEET 6 OF 12
PROJECT Locker Rooms | PROJECT NO. 7114 | BY [illegible]
CONTRACTOR Kaiser Engineers, Inc. | ESTIMATE NO. 14-1 | NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
200	—	STRUCTURES (Continued)														
201		LOCKER ROOM STRUCTURE - SOUTH AREA (Continued)														
	310	Concrete Block														
		8" Glazed - 2 sides	900	SF	—	—	—	—	—		—	—	—	—	—	—
		8" Glazed - 1 side	2300	SF	—	—	—	—	—		—	—	—	—	—	—
		Subtotal 8" Glazed Block	3200	SF	—	—	—	3.10	—		—	—	—	10 200	—	—
		8" Standard Unglazed Block	1300	SF	—	—	—	1.50	—		—	—	—	2 000	—	—
		12" Standard Unglazed Block	1700	SF	—	—	—	1.75	—		—	—	—	3 000	—	—
		Total 310 Concrete Block							—		—	—	—	15 200	—	15 200
	320	Siding														
		Corrugated Steelox "A"	1250	SF	0.10	0.06	0.30	—	.075 90		500	100	100	400	—	—
		Painted Flat "C"	1650	SF	0.36	0.06	0.35	—	.070 120		600	100	100	600	—	—
		Cement Asbestos Soffit	1200	SF	0.35	0.05	0.50	—	.07 90		400	100	100	600	—	—
		1 1/8" Interior Insulated Cement Asbestos Panels	1650	SF	0.35	0.05	0.45	—	.07 120		600	100	100	700	—	—
		Total 320 Siding							420		2 100	400	400	2 300	—	5 200
	330	Roofing - Aluminized Steelox (1.8#/SF)	13 600	SF	0.36	0.06	0.23	—	.065 890		4 800	700	800	3 100	—	9 400
	340	Ventilators and Sheet Metal Work														
		Gutters (312') and Downspouts (8)	—		ALLOWANCE				—		—	—	—	1 800	—	—
		Ventilators - (Fixed Gable Louvers)	2		ALLOWANCE				—		—	—	—	100	—	—
		Total 340 Ventilators and Sheet Metal Work												1 900		1 900
	350	Suspended Ceiling														
		Cement Plaster	3000	SF	—	—	—	0.88	—		—	—	—	2 600	—	—
		Asbestos Cement Acoustic Tile	9100	SF	—	—	—	0.80	—		—	—	—	7 300	—	—
		Total 350 Suspended Ceiling							—		—	—	—	9 900	—	9 900
	360	Surface Finishes														
		Seamless Resilient Flooring	2150	SF	—	—	—	1.50	—		—	—	—	3 200	—	—
		Painting Walls	13600	SF	—	—	—	0.11	—		—	—	—	1 500	—	—
		Painting - Structural	30	T	—	—	—	20.00	—		—	—	—	600	—	—
		Painting - Floor	(NOT REQ'D - CONCRETE HARDENED, FLOOR, COSTS INCL. WITH CONCRETE)													
		Interior Insulated Cement Asbestos Panels			—	—	—	—	—	SEE CONSTRUCTION DETAIL 320						
		Total 360 Surface Finishes							—		—	—	—	5 300	—	5 300
		TOTAL														

KEN 017122

H-6002 - REV. 9/65

Armco Steel Corporation

LOCATION Middletown Works | DATE December 12, 1966 | SHEET 7 OF 12
PROJECT Locker Rooms | PROJECT NO. 7114 | BY J & Z R.F.B
CONTRACTOR Kaiser Engineers, Inc. | ESTIMATE NO. 14-1 | NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
200	—	STRUCTURES (Continued)														
201		LOCKER ROOM STRUCTURE - SOUTH AREA (Continued)														
	370	Doors and Windows														
		Locker Area														
		Steel Projected Sash	800	SF	0.70	—	2.50	—	130	600	100	—	2000	—	—	—
		Personnel Doors (10)	210	SF	3.15	0.15	10.00	—	140	700	100	—	2100	—	—	—
		Vestibule Area - Including Guard Office														
		Personnel Doors (Glass) (4)	84		3.15	0.15	10.00	—	60	300	—	—	800	—	—	—
		Armco Standard Window Wall Units	750	SF	1.25	0.10	1.40	—	150	800	100	100	1100	—	—	—
		Glass														
		Locker Area (D.S.B. Glass)	800	SF	—	—	—	0.70	—	—	—	—	—	600	—	—
		Vestibule Area (¼" Plate Glass)	300	SF	—	—	—	1.25	—	—	—	—	—	400	—	—
		Cement Asbestos Panels for "Window Wall Units"	450	SF	0.60	0.06	0.43	—	60	300	—	—	200	—	—	—
		Total 370 Doors and Windows							540	2700	300	100	6200	1000	—	10300
	380	Roof Insulation														
		Reinforced Fiber Blanket Roof Insulation 1½"	13,500	SF	0.07	0.01	0.28	—	200	900	100	100	3800	—	—	—
		Fiberglass Batts (3")	12,100	SF	0.06	0.01	0.06	—	180	800	100	100	800	—	—	—
		Total 380 Roof Insulation							380	1700	200	200	4600	—	—	6700
	410	Plumbing														
		Roof Drainage 6"	500	LF	—	—	—	—	610	3200	400	1000	1200	—	—	—
		Sanitary Sewer Piping 2", 4", and 6"	1,070	LF	—	—	—	—	650	3400	500	200	2600	—	—	—
		Plumbing Piping ½" through 4"	1,930	LF	—	—	—	—	860	4500	600	300	2500	2500	—	—
		Plumbing Fixtures	45	Fix	—	—	—	—	500	2600	400	200	4400	—	—	—
		Plumbing Accessory Equipment	L.S.		—	—	—	—	360	1900	300	100	6400	400	—	—
		Painting, Color Coding, and Tagging	1,600	LF	—	—	—	—	20	100	—	—	100	400	—	—
		Total 410 Plumbing							3000	15700	2200	1800	17200	3500	—	40200
	430	Heating, Ventilating, and Air Conditioning														
		Heating Piping 1" and 2"	300	LF	—	—	—	—	150	800	100	—	500	—	—	—
		Unit Heaters	1	EA	—	—	—	—	120	600	100	—	7000		—	—
		Ventilating Fans	1	EA	—	—	—	—	40	200	—	—	600		—	—
		Ductwork and Grilles	11.3	T	—	—	—	—	—	—	—	—	—	18600	—	—
		Air Conditioning Equipment	—		—	—	—	—	—	—	—	—	NOT INCLUDED		—	—
		Painting, Color Coding, and Tagging	450	LF	—	—	—	—	10	100	—	—	100	200	—	—
		Total 430 Heating, Ventilating, and Air Conditioning							320	1700	200	—	8200	18800	—	28900
		TOTAL														

KEN 017123

Armco Steel Corporation

LOCATION Middletown Works | DATE December 12, 1966 | SHEET 8 OF 12
PROJECT Locker Rooms | PROJECT NO. 7114 | BY T.C.Z. R.F.B.
CONTRACTOR Kaiser Engineers, Inc. | ESTIMATE NO. 14-1 | NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
200	—	STRUCTURES (Continued)														
201		LOCKER ROOM STRUCTURE - SOUTH AREA (Continued)														
	440	Furnishings														
		Dressing Room Lockers														
		Support Framing (Angle Iron)	13½	T	400.00	50.00	300.00	—	1020	5400	800	700	4100	—	—	—
		Benches (Oak)	5900	BF	0.30	0.03	0.85	—	400	1800	300	200	5000	—	—	—
		Sheet Metal Furring	11800	LB	—	—	—	1.00	—	—	—	—	—	11800	—	—
		Lockers	820	EA	4.50	0.50	21.50	—	770	3700	500	400	17600	—	—	—
		Clothes Rental Lockers	40	EA	5.00	1.50	L/S	—	40	200	—	100	3200	—	—	—
		Mirrors (Stainless Steel)	—	—	—	—	—	—	—	INCLUDED WITH PLUMBING ACCESSORY EQUIPMENT						
		Fire Extinguishers (6 - 2½ Gal Water and 1 CO_2)	7	EA	ALLOWANCE				20	100	—	—	200	—	—	—
		Time Clock w/racks	1	LS	—	—	—	—	—	—	NOT INCLUDED			—	—	—
		Padlocks (Lockers)	820	—	—	—	7.00	—	—	—	—	—	5700	—	—	—
		Total 440 Furnishings							2250	11200	1600	1400	35800	11800	—	61800
	500	Electrical														
		Distribution	LOT	LS	—	—	—	—	—	—	—	100	—	9200	—	—
		Grounding	800	LB	—	—	—	—	50	200	—	—	100	2400	—	—
		Lighting	12,100	SF	—	—	—		—	—	—	400	—	24000	—	—
		Communications	LOT	LS	—	—	—	—	—	—	—	—	—	1800		
		Total 500 Electrical							50	200	—	500	100	37400		38200
		TOTAL - LOCKER ROOM STRUCTURE - SOUTH AREA							12,900	62800	8700	10900	108900	114500	—	305400
		TOTAL														

H-4002 - REV. 9/68

KEN 017124

Armco Steel Corporation

LOCATION Middletown Works
PROJECT Locker Rooms
CONTRACTOR Kaiser Engineers, Inc.

DATE December 12, 1966
PROJECT NO. 7114
ESTIMATE NO. 14-1

SHEET 9 OF 12
BY [illegible] R&B
NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
200	—	STRUCTURES (Continued)														
202		LOCKER ROOM STRUCTURE - STEEL MAKING AREA	(9600 S.F.)			(93	900	CF)								
	030	Excavation and Backfill														
		Structure	375	CY	0.60	2.00	—		50	200	—	800	—	—	—	—
		Electrical	325		0.60	2.00	—		50	200	—	700	—	—	—	—
		Ditch	—		—		—		—	—	—	—	—	—	—	—
		Building	50		1.00	2.00	—		20	100	—	100	—	—	—	—
		Yard	100		1.00	2.00	—		30	100	—	200	—	—	—	—
		Slag (6" Mud Mat Under Slab)	200		0.55	0.80	1.40		30	100	100	200	400	—	—	—
		Total 030 Excavation and Backfill	—		—		—		180	700	100	2000	400	—	—	3200
	170	Concrete in Place														
		Formwork														
		Footers and Piers 37 SF/C.Y.	1300	SF	1.20	0.13	0.20	—	.27 350	1600	200	200	300	—	—	—
		Grade Beams 60 SF/C.Y.	2500	SF	1.05	0.05	0.20	—	.225 560	2600	400	100	500	—	—	—
		Slabs on Ground 4.5 SF/C.Y.	1100	SF	2.50	0.12	0.35	—	.54 600	2800	400	100	400	—	—	—
		Re-Steel	48,000	LB	—		0.05	0.07	—	—	—	—	2400	3400	—	—
		Embedded Metals														
		Footers and Piers 30#/C.Y.	1,100	LB	0.18	0.01	0.26	—	.036 40	200	—	—	200	—	—	—
		Grade Beams 10#/C.Y.	400	LB	0.20	—	0.17	—	.041 20	100	—		100	—	—	—
		Slabs on Ground 6#/C.Y.	1500	LB	0.30	0.03	0.11	—	.059 90	500	100	100	200	—	—	—
		Concrete														
		Footers and Piers	35	CY	5.00	2.00	12.00	—	1.25 40	200	—	100	400	—	—	—
		Grade Beams	40	CY	10.00	3.50	13.00	—	2.5 100	400	100	100	500	—	—	—
		Slabs on Ground	245	CY	10.00	3.50	13.50	—	2.5 610	2500	400	900	3300	—	—	—
		Concrete - Electric Ducts - Complete	50		33.00	4.00	23.00	3.50	9.0 350	1700	300	200	1200	200	—	—
		Total 170 Concrete in Place	370		—		—		2760	12600	1900	1800	9500	3600	—	29400
	210	Structural Steel														
		Armco Standard Building BCS-3	9000	SF	0.55	0.10	1.40		1050	5000	700	900	14400	—	—	—
		Entrance Area	2	T	—	—		500.00	—	—	—	—	—	1000	—	—
		Total 210 Structural Steel	—		—		—		1050	5000	700	900	14400	1000		22000
	220	Miscellaneous Steel	ALLOW		—		—		—	—	—	—	—	3000	—	3000
	250	Armco Purlins (Vestibule Area Roof)	1	T	—		235.00	140.00	—	—	—	—	200	100	—	300
		TOTAL														

H-6002 - REV. 8/65

KEN 017125

Armco Steel Corporation

LOCATION Middletown Works | DATE December 12, 1966 | SHEET 10 OF 12
PROJECT Locker Rooms | PROJECT NO. 7114 | BY T.E.S. R.T.P.
CONTRACTOR Kaiser Engineers, Inc. | ESTIMATE NO. 14-1 | NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
200	—	STRUCTURES (Continued)														
202		LOCKER ROOM STRUCTURE - STEEL MAKING AREA (Continued)														
	310	Concrete Block														
		8" Glazed - 2 sides	900	SF	—		—	—	—					—		—
		8" Glazed - 1 side	1900	SF	—		—	—	—					—		—
		Subtotal 8" Glazed Block	2800	SF	—		—	3.22	—					9 000		—
		8" Standard Unglazed Block	700	SF	—		—	1.50	—					1 100		—
		12" Standard Unglazed Block	1700	SF	—		—	1.75	—					3 000		—
		Total 310 Concrete Block			—		—	—	—					13 100		13 100
	320	Siding														
		Sculptured Steelox "A"	1050	SF	0.40	0.06	0.38	—	.075 80		400	100	100	300	—	—
		Painted Flat	1250	SF	0.06	0.06	0.38	—	.070 90		500	100	100	400	—	—
		Cement Asbestos Soffit	1400	SF	0.08	0.03	0.50	—	.090 100		500	100	100	700	—	—
		1 1/8" Interior Insulated Cement Asbestos Panels	1250	SF	0.08	0.05	0.05	—	.070 90		400	100	100	600	—	—
		Total 320 Siding	—		—		—	—	360		1 800	400	400	2 000	—	— 4 600
	330	Roofing - Aluminized Steelox	11000	SF	0.08	0.06	0.23	—	.023 720		3 900	500	700	2 500	—	— 7 600
	340	Ventilators and Sheet Metal Work														
		Gutters (250') Downspouts (8')	—		ALLOW			—	—		—	—	—		1 400	— —
		Ventilators (Fixed Gable Louvers)	—		—		—	—	—		—	—	—		100	— —
		Total 340 Ventilators and Sheet Metal Work							—		—	—	—		1 500	— 1 500
	350	Suspended Ceiling														
		Cement Plaster	2900	SF	—			0.33	—		—	—	—	2 000		— —
		Asbestos Cement Acoustic Tile	7200	SF	—			0.40	—		—	—	—	5 800		— —
		Total 350 Suspended Ceiling							—		—	—	—	7 800		— 7 800
	360	Surface Finishes														
		Seamless Resilient Flooring	2150	S/Y	—	—		1.50	—		—	—	—	3 200		— —
		Painting Walls	13,600	S/F	—	—		0"	—		—	—	—	1 500		— —
		Painting - Structural	30	T	—	—		20.00	—		—	—	—	600		— —
		Painting - Floor	(NOT REQ'D. CONCRETE HARDENED FLOOR COSTS INCL. WITH CONCRETE													
		Interior Insulated Cement Asbestos Panels				—	—			SEE CONST. DETAIL 920				—	—	— —
		Total 360 Surface Finishes	—			—	—		—		—	—	—	5 300	—	— 5 300
		TOTAL														

M-6661 - REV. 9/65

KEN 017126

Armco Steel Corporation

LOCATION Middletown Works | DATE December 12, 1966 | SHEET 11 OF 12
PROJECT Locker Rooms | PROJECT NO. 7114 | BY [illegible] R.T.B
CONTRACTOR Kaiser Engineers, Inc. | ESTIMATE NO. 14-1 | NOTED

COST ACCOUNT SECT.	COST ACCOUNT DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	UNIT PRICE EU	UNIT PRICE M	UNIT PRICE SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
200	---	STRUCTURES (Continued)														
202		LOCKER ROOM STRUCTURE - STEEL MAKING AREA (Continued)														
	370	Doors and Windows														
		Locker Area														
		Steel Projected Sash	600	SF	0.70	-	2.50		80		400	100	-	1500	-	-
		Personnel Doors (10)	210	SF	3.15	0.15	10.00		140		700	100	100	2100	-	-
		Vestibule Area														
		Personnel Doors (4)	84	SF	3.15	0.13	10.00		60		300	-	-	900	-	-
		Armco Standard Window Wall Units	750	SF	1.03	0.10	1.40		160		800	100	100	1100	-	-
		Glass														
		Locker Area (D.S.B. Glass)	600	SF	-	-	-	0.70	-		-	-	-	-	400	-	-
		Vestibule Area (¼" Plate Glass)	300	SF	-	-	-	1.23	-		-	-	-	-	400	-	-
		Cement Asbestos Panels for Window Wall Units	450	SF	0.60	0.06	0.43	-	60		300	-	-	200	-	-	-
		Total 370 Doors and Windows							500		2500	300	200	5800	800	-	9600
	380	Roof Insulation														
		Reinforced Fiber Blanket Roof Insulation 1½"	10,900	SF	0.07	0.01	0.28		170		800	100	100	3100	-	-	-
		Fiberglass Batts (3")	9,700	SF	0.06	0.01	0.06		120		600	100	100	600	-	-	-
		Total 380 Roof Insulation							290		1400	200	200	3700	-	-	5500
	410	Plumbing														
		Roof Drainage 6"	380	LF					430		2400	300	300	900	-	-	
		Sanitary Sewer Piping 2", 4", and 6"	670	LF					530		2900	400	200	2100	-	-	
		Plumbing Piping 1" through 4"	1,270	LF					570		3100	400	200	1700	1700	-	
		Plumbing Fixtures	34	Fix					390		2100	300	100	3600	-	-	
		Plumbing Accessory Equipment	L.S.						300		1600	200	100	5500	400	-	
		Painting, Color Coding, and Tagging	1,040	LF					10		100	-	-	100	200	-	
		Total 410 Plumbing							2,230		12200	1600	1400	13900	2300	-	31400
	430	Heating, Ventilating, and Air Conditioning														
		Heating Piping 1" and 2"	300	LF					140		800	100	-	500	-	-	
		Unit Heaters	1	EA					130		700	100	-	7000	-	-	
		Ventilating Fans	1	EA					40		200	-	-	600	-	-	
		Duct Work and Grilles	11.3	T					-		-	-	-	-	18400	-	
		Air Conditioning Equipment	-						-		-	NOT	INCLUDED		-	-	
		Painting, Color Coding, and Tagging	450	LF					10		100	-	-	100	200	-	
		Total 430 Heating, Ventilating, and Air Conditioning							320		1800	200	-	8200	18600	-	28800
		TOTAL														

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Armco Steel Corporation

LOCATION: Middletown Works
PROJECT: Locker Rooms
CONTRACTOR: Kaiser Engineers, Inc.

DATE: December 12, 1966
PROJECT NO.: 7114
ESTIMATE NO.: 14-1

SHEET 12 OF 12
BY: [illegible] R.F.B.
NOTED:

COST ACCOUNT SECT.	DET.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE L	EU	M	SC	LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
200	—	STRUCTURES (Continued)														
202		LOCKER ROOM STRUCTURE - STEEL MAKING AREA (Continued)														
	440	Furnishings														
		Dressing Room Lockers														
		Support Framing (Angle Iron)	11½	T	4.80	52.50	3.00	-	980	4 800	700	600	3 500	-	-	-
		Benches (Oak)	4500	BF	0.35	0.00	0.55	-	340	1 500	200	100	3 800	-	-	-
		Sheet Metal Furring	9000	LB	-	-	-	1.00	-	-	-	-	-	9 400	-	-
		Lockers	632		5.50	0.50	21.50	-	640	3 200	400	300	13 600	-	-	-
		Clothes Rental Lockers	30		5.00	1.50	LS	-	50	200	-	100	3 600	-	-	-
		Mirrors (Stainless Steel)	-		-					INCLUDED		WITH	PLUMBING	ACCESSORY	EQUIPMENT	
		Fire Extinguishers (6 - 2½ Gal. Water and 1 CO_2)	7	EA	LS	-	LS	-	30	100	-	-	200	-	-	-
		Time Clock w/racks	1	LOT	-		-		-	-	NOT	INCLUDED		-		
		Padlocks (Lockers)	632				7.50		-	-	-	-	4 400	-		
		Total 440 Furnishings							2040	9 800	1 300	1 100	29 100	9 400	-	50 700
	500	Electrical														
		Distribution	LOT	LS	-	-	-	-	-	-	-	100	-	7 000	-	-
		Grounding	800	LB	-	-	-	-	50	200	-	-	100	2 300	-	-
		Lighting	10,244	SF	-	-	-	-	-	-	-	800	-	18 000	-	-
		Communications	LOT	LS	-	-	-	-	-	-	-	-	-	1 800	-	-
		Total 500 Electrical							50	200	-	400	100	29 100		29 800
		TOTAL - LOCKER ROOM STRUCTURE - STEEL MAKING AREA	-		-		-		10,500	51 900	7 200	9 100	89 800	95 600		253 600
680	—	ELECTRICAL SUBCONTRACTOR'S OVERHEAD AND FEE														
	500	Overhead	-		-		-		-	-	-	-	-	3 700	-	-
	500	Fee	-		-		-		-	-	-	-	-	2 300	-	-
									-	-	-	-	-	6 000	-	6 000
		TOTAL - ELECTRICAL SUBCONTRACTOR'S OVERHEAD AND FEE														
885		GENERAL SUBCONTRACTOR'S OVERHEAD AND PROFIT														
	800	Overhead and Profit	-		-	-	-	-	-	-	NOT	INCLUDED	-	-	-	-
		TOTAL - GENERAL SUBCONTRACTOR'S OVERHEAD AND PROFIT							-	-	-	-	-	-	-	-
		TOTAL														

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VI. SCOPE DRAWINGS

A. General

The following drawings outline the scope of this Project:

Drawing No.	Title
PR3297-1671-A	Locker Room - Steelmaking Area
PR3297-1672-A	Locker Room - South Area
PR3297-1673-C	Plot Plan - South Area
PR3297-1674-C	Plot Plan - Steelmaking Area

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RETURN TO
KAISER ENGINEERS
RECORDS CENTER
BOX 2334
REQUEST 27060

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Engineering Report 7114-1
Steelmaking Area & So. Area
Locker Rooms

KEN 017095