

1. ALL LIGHTING FIXTURES, SWITCHES AND RECEPTACLES, INCLUDING CONDUIT AND WIRE TO BE INSTALLED COMPLETE.
2. CONDUIT TO BE RE-INSTALLED BETWEEN PB #12 AND PB #13. CONDUIT TO BE RE-INSTALLED BETWEEN PB #7 AND PB #8. CONDUIT TO BE RE-INSTALLED BETWEEN PB #7 AND PB #6.
3. CONDUIT BELOW PB #9, EXCEPT TO PB #11, TO BE RE-INSTALLED. CONDUIT BETWEEN PB #10, 2000 AMP SWITCH, 200 AMP SWITCH IS EXISTING.
4. INTERCONNECTING CONDUIT BETWEEN MACHINERY DECK, CAB AND CONTROL HOUSE TO BE RE-INSTALLED AND WIRE TO BE PULLED AND TERMINATED.
5. 4" CONDUIT FROM PB #14 TO PB #13 TO BE RE-INSTALLED AND CONDUIT FROM PB #16 DOWN TO LEG SILL TO BE RE-INSTALLED EXCEPT CONDUIT TO PB #17.
6. ALL WIRING TO BE RE-PULLED FROM PB #6 DOWN EAST LEG AND TERMINATED.
7. ALL WIRING TO BE RE-PULLED FROM PB #12 VIA PB #13 DOWN THE WEST LEG AND TERMINATED.

THE FOREGOING IS BASED ON OUR INTERPRETATION OF THE LETTER TO MR C. HANES FROM MORGAN CRANE. DATED MARCH 31, 1981.

THE ELECTRICAL ESTIMATE DOES NOT INCLUDE ANY MATERIAL (CONDUIT, FIXTURES, ETC), CHECKING OUT THE SYSTEM OR INSTALLING CONNECTING CRANE HOT RAILS, OR ELECTRICAL SERVICE TO ORE BRIDGE CRANE.

PLAINTIFF'S EXHIBIT

MGC-377

BLUE PRINT TRANSMITTAL

SHEET

DATE May 29, 1981

TO Mr. Cliff Schroff - McGraw Field Office

☒ PRINTS TO JOB

FROM Dick Pruett

☐ PRINTS TO DIVISION

SUBJECT Erecting Ore Bridge in Hamilton Plant
Contract No. 1294

☐ PRINTS TO OTHERS

WE ARE SENDING YOU HERewith THE FOLLOWING PRINTS: (DESTROY ALL FORMER PRINTS OF THESE NUMBERS) Drawings from Morgan Engineering

C-385356	C-385383	D-385504 - 2/2
C-385357	D-385392	D-385515
C-385395	D-385400	D-385517
C-385396	D-385410	D-385520
C-385397	D-385412	D-385524
C-385416	D-385413	
C-385552	D-385415	
C-381792	D-385414	
C-385135 - Sh. 1 of 2	D-385475 - 1/2	
C-385135 - Sh. 2 of 2	D-385475 - 2/2	
C-385136 - Sh. 1 of 4	D-385476 - 1/2	
C-385136 - Sh. 2 of 4	D-385476 - 2/2	
C-385136 - Sh. 3 of 4	D-385477 - 1/7	
C-385136 - Sh. 4 of 4	D-385477 - 2/7	
C-385137	D-385477 - 3/7	
C-385138	D-385477 - 4/7	
C-385322	D-385477 - 5/7	
C-385323	D-385477 - 6/7	
C-385324	D-385477 - 7/7	
C-385326	D-385479	
C-385350	D-385496	
C-385380	D-385500	
C-385382	D-385504 - 1/2	

PRINTS RELEASED FOR: ☒ CONSTRUCTION ☐ EXCAVATION ☐ STUDY

BLUE PRINT TRANSMITTAL RECEIPT

SHEET

BLUEPRINTS RECEIVED BY _____

DATE _____

THIS RECEIPT TO BE RETURNED TO ARMCO MIDD. WKS. ENGR. OFFICE MIDDLETOWN, OHIO

CRANE #7834 - ELECTRICAL INSTALLATION

1. CONDUIT - RE-INSTALL AND TERMINATE	100 MH	
2. CABLE - RE-PULL AND TERMINATE	337 MH	437
3. PULL BOXES - RE-INSTALL	35 MH	472
4. LIGHTING, RECEPTACLES AND SWITCHES	200 MH	672
5. MISCELLANEOUS	50 MH	722
6. WIRE TAGGING	330 MH	1052
7. CHECKOUT, INCLUDING MEGGERING	115 MH	1167
8. COLLECTOR RAIL (216'-0")	225 MH	1392

25 TON ORE BRIDGE GANTRY
ARMCO - HAMILTON PLANT

RE: ELECTRICAL INSTALLATION SCHEDULE - JULY 29 THRU JULY 31, 1981

- WED. - 7/29 1. COMPLETE HOIST CABLE PULLS
 2. TERMINATE HOIST A2 & S1 SPLICE BARS
- THURS.- 7/30 1. REWORK COLLECTOR (TROLLEY) CONDUIT & SUPPORTS
 2. PULL TROLLEY CABLE
 3. MAKE THROAT FOR HOIST LIMIT.
- FRI. - 7/31 1. PULL MAIN MAG. FEED
 2. TERMINATE MAIN MAG. & TROLLEY FEED

(PROPOSED WORK) - COMPLETE 500 MCM PULL & TERMINATE.
MON. 8-3-81 PULL CONTROLS TO CAB & TERMINATE.
 THRU REPLACE DAMAGE WIRE IN CONT. HOUSE.
WED. 8-5-81 START INSTALLING CROSS OVER RAILS.
 MOUNT TROLLEY SLOW DOWN LIMITS.

25 TON ORE BRIDGE GANTRY

ARMCO - HAMILTON PLANT

RE: ELECTRICAL INSTALLATION SCHEDULE - JULY 21 THRU JULY 23, 1981

<u>TUES. 7/21</u>	1. INSTALL CONDUIT WHERE POSSIBLE (EXCEPT LIGHTING)	<i>IN PROCESS</i>
	2. COMPLETE TERMINATIONS TO COLLECTOR RAILS.	<i>90%</i>
<u>WED. 7/22</u>	1. INSTALL PULL BOX #7 & CONDUIT INTO PULL BOX #7.	<i>COMPLETED</i>
	2. COMPLETE COLLECTOR RAIL INSTALLATION @ "SPLIT" & ALIGN RAILS.	<i>COMPLETED</i>
<u>THUR. 7/23</u>	1. INSTALL PULL BOXES #25 THRU #31 ON MACH. DECK & INSTALL CONDUIT TO BOXES. (EXTRA WORK) (IF CRANE AVAILABLE TO ELECTRICIANS)	<i>COMPLETED</i>
	2. PULL WIRE WHERE POSSIBLE.	<i>IN PROCESS</i>

(PROPOSED)

<u>FRI. 7/24</u> <u>THRU</u> <u>7/28</u>	1. RE-INSTALL MISC. STARTERS, DISC. SWITCHES, ETC. ON EAST SECTION GIRDER.	} <i>NO</i>
	2. RE-INSTALL CONDUIT TO MISC. STARTERS, ETC.	
	3. PULL WIRE.	<i>IN PROCESS</i>
	4. SOME TERMINATIONS.	<i>IN PROCESS</i>

JULY 21, 1981

<u>DESCRIPTION OF WORK</u>	<u>EST. START DATE</u>	<u>EST. TIME</u>	<u>PCT. COMPL</u>	<u>COMPL DATE</u>	<u>ACTUAL TIME</u>
1. REINSTALL P.B., DISC, ETC ON EAST LEG (#8, #9, & #10)	6/15	8 DAYS	100%		
2. REINSTALL CONDUIT ON EAST LEG TO P.B. #7 COMPLETE	6/15	15 DAYS	100%		
3. REINSTALL MISC STARTERS & DISC. ON EAST SECT. GIRDER & REINSTALL CONDUIT	6/26	10 DAYS		7-31-81	
4. LIGHTING - REINSTALL CONDUIT, P.B. SWITCHES, ETC ON GIRDER BEFORE ERECTION	6/26	10 DAYS		8-5-81	
5. AFTER ERECTION, ALIGN COLL. RAILS	7/20	7 DAYS	100%	7-24-81	
6. INSTALL COLL. SHOES @ BASE EAST LEG	7/10	6 DAYS	100%		
7. COMPLETE CONDUIT AT GIRDER SPLICE	7/20	7 DAYS	100%	7-21-81	
8. INSTALL LIGHTING FIXTURES	7/20	10 DAYS		8-10-81	
9. PULL CABLE & WIRE	7/27	10 DAYS	55%	8-4-81	
10. TERMINATE WIRE & CABLE	8/4	9 DAYS	25%	8-14-81	
11. CHECK-OUT ELECTRICS	8/17	5 DAYS			
12. <i>INSTALL PULL BOXES #25 THRU #31 ON WALK DECK & INSTALL Conduit to Boxes</i>	7/21		100%	7-23-81	

Punch List As Of 17 Aug.

FAIR

MCGRAW

1-Add 2 Cross Over Rails

2. Complete Trolley Slowdown & Final Limits. ✓
2a. Weld "Trips" AFTER BRAKES ARE SET

1/5-Complete Slide Pin System. ✓ *
SA.-MAKE CHANGES IN BRIDGE CABINET ✓ *

③ 3. Complete Jib Rotate. ✓

4/3 4. Complete Jib Hoist. ✓

-INSTALL FIXTURES IN GIRDERS & LEGS. *

6. INSTALL 1000 W MERC. FIXTURES. *

-INSTALL ANEMOMETER RECORDER *

② 8. INSTALL MORSE CABLE ON MAIN MAG. *

-REPAIR YOUNGSTOWN LIMIT - ARCSHIELDS *
FROM RUBY GIBBS

12. SET HOIST LOW LIMIT & CHECK YOUNGSTOWN LIMIT.

-INSTALL RUBBER - EAST LEG - GIRDER TROLLEY *
& RESISTOR RACKS.

13. SET ANEMOMETER ALARM PPS (35 MPH) *

1-INSTALL RED LIGHT ON TROLLEY PUR. RAILS. ✓
15a. INSTALL HIGH VOLTAGE SIGNS ON SAME.

P2 21. TAP & PAINT TROLLEY, HOIST, BRAKES. *

-INSTALL 2000 A FUSES IN BOLT LOC. *
MAIN.

26. WIRE BRIDGE TRAVEL ALARM. Comp. 8/17

26. REPLACE COVERS ON BOXES. ~~Comp 8/17~~

-COMPLETE JOHNSON HYD. SYSTEM & ADD *
TEMP. P.B. FOR CHECK OUT ✓

-REPAIR & INSTALL COVER FOR JIB HOIST. *

-CUT WEBS ON UPPER MAIN COLLECTOR STAFFS. *

-COMPLETE COVER ON YOUNGSTOWN LIMIT. *

-REPAIR DAMAGED RESISTOR WIRE *

-INSTALL PHONOTIC LABELS ALL OVER *

25 TON ORE BRIDGE GANTRY

ARMCO - HAMILTON PLANT

RE: ELECTRICAL INSTALLATION SCHEDULE - JULY 21 THRU JULY 23, 1981

- TUES. 7/21
1. INSTALL CONDUIT WHERE POSSIBLE (EXCEPT LIGHTING)
 2. COMPLETE TERMINATIONS TO COLLECTOR RAILS.

- WED. 7/22
1. INSTALL PULL BOX #7 & CONDUIT INTO PULL BOX #7.
 2. COMPLETE COLLECTOR RAIL INSTALLATION @ "SPLIT" & ALIGN RAILS.

- THUR. 7/23
1. INSTALL PULL BOXES #25 THRU #31 ON MACH. DECK & INSTALL CONDUIT TO BOXES. (EXTRA WORK)
(IF CRANE AVAILABLE TO ELECTRICIANS)
 2. PULL WIRE WHERE POSSIBLE.

(PROPOSED)

- FRI. 7/24
THRU
7/28
1. RE-INSTALL MISC. STARTERS, DISC. SWITCHES, ETC.
ON EAST SECTION GIRDER.
 2. RE-INSTALL CONDUIT TO MISC. STARTERS, ETC.
 3. PULL WIRE.
 4. SOME TERMINATIONS.

JULY 21, 1981

DESCRIPTION OF WORK	EST.	EST.	PCT.	COMPL	ACTUAL
	START DATE	TIME	COMPL	DATE	TIME
1. REINSTALL P.B., DISC, ETC ON EAST LEG (#8, #9, & #10)	6/15	8 DAYS	100%		
2. REINSTALL CONDUIT ON EAST LEG TO P.B. #7 COMPLETE	6/15	15 DAYS	100%		
3. REINSTALL MISC STARTERS & DISC. ON EAST SECT. GIRDER & REINSTALL CONDUIT	6/26	10 DAYS		7-31-81	
4. LIGHTING - REINSTALL CONDUIT, P.B. SWITCHES, ETC ON GIRDER BEFORE ERECTION	6/26	10 DAYS		8-5-81	
5. AFTER ERECTION, ALIGN COLL. RAILS	7/20	7 DAYS		7-24-81	
6. INSTALL COLL. SHOES @ BASE EAST LEG	7/10	6 DAYS	100%		
7. COMPLETE CONDUIT AT GIRDER SPLICE	7/20	7 DAYS	100%	7-21-81	
8. INSTALL LIGHTING FIXTURES	7/20	10 DAYS		8-10-81	
9. PULL CABLE & WIRE	7/27	10 DAYS	45%	8-4-81	
0. TERMINATE WIRE & CABLE	8/4	9 DAYS	5%	8-14-81	
1. CHECK-OUT ELECTRICS	8/17	5 DAYS			

25 TON ORE BRIDGE GANTRY
ARMCO - HAMILTON PLANT

RE: ELECTRICAL INSTALLATION SCHEDULE - JULY 16 THRU 20

THUR. 7/16 TERMINATING 500 MCM CABLES IN MAIN LINE (2000A) DISC SWITCH. — *Compl. 100%*
INSTALL PULL BOX #7 AND CONDUIT INTO PULL BOX #7. *(NO) - 0*

FRI 7/17 INSTALL (7) PULL BOXES (#25 THRU #31) ON TROLLEY MACHINERY DECK *(NO) PULLED IN WHERE POSS.*
IF CRANE IS AVAILABLE (SEE NOTE #1); TERMINATE FEEDERS TO COLL. RAILS.

MON 7/20 PULL WIRE ON EAST LEG - COMPLETE CONDUIT ON WEST LEG - *Complete 100%*
COMPLETE TERMINATIONS TO COLLECTOR RAILS *50%*

PROPOSED WORK - 7/21 THRU 24

1. COMPLETE ALL CONDUIT EXCEPT LIGHTING
2. SOME TERMINATIONS
3. INSTALL COLLECTOR RAILS AND ALIGN

NOTE #1. AS PER ITEM #15-A IN LETTER SUBMITTED BY MORGAN TO ARMCO - PULL BOXES
#25 THRU #31 AND CONDUIT TO BOXES ON MACH. DECK WERE NOT INSTALLED
AS STATED.
(2) 100 HP TROLLEY MOTORS AND (1) 275 HP HOIST MOTOR WERE NOT INSTALLED
(MCGRAW ELECTRIANS INSTALLED)

NOTE #2. AS PER ITEM 13 (LETTER) PULL BOX #14 AND CONDUIT WERE NOT INSTALLED
AS STATED.



CONSTRUCTION COMPANY, INC. / ENGINEERS & CONSTRUCTORS

POST OFFICE BOX 369 • MIDDLETOWN, OHIO 46042 • TELEPHONE 513 / 422-4521

25 TON ORE BRIDGE GANTRY
ARMCO - HAMILTON PLANT

RE: PROPOSED ELECT. INSTALLATION SCHEDULE - AUG. 5 THRU AUG. 7, 1981

- WED. 8/5/81 -
1. TERMINATE LEGS - EAST & WEST
 2. REPLACE DAMAGED WIRE IN CONTROL HOUSE
 3. MOUNT LIMIT SWITCHES
 4. TERMINATE TROLLEY SHOES
 5. TERMINATE MAIN SHOES
- THUR. 8/6/81 -
1. START CROSSOVER RAILS INSTALLATION
 2. MOUNT ASSOCIATED GEAR FOR CAB, SIREN, H.W. LIGHT, H.D. HEATER
- FRI. 8/7/81 -
1. INSTALLATION OF CROSSOVER RAILS
 2. RUN CONDUIT & WIRE FOR BLOWER MOTOR

16,800

8.04
3.29

11.43

25 TON ORE BRIDGE GANTRY
ARMCO - HAMILTON PLANT

RE: ELECTRICAL INSTALLATION SCHEDULE - JULY 29 THRU JULY 31, 1981

WED. - 7/29	1. COMPLETE HOIST CABLE PULLS	COMPLETE
	2. TERMINATE HOIST A2 & S1 SPLICE BARS	IN PROGRESS
THURS. - 7/30	1. REWORK COLLECTOR (TROLLEY) CONDUIT & SUPPORTS	COMPLETE
	2. PULL TROLLEY CABLE	COMPLETE
	3. MAKE THROAT FOR HOIST LIMIT.	>
FRI. - 7/31	1. PULL MAIN MAG. FEED	COMPLETE
	2. TERMINATE MAIN MAG. & TROLLEY FEED	IN PROGRESS

(PROPOSED WORK) - COMPLETE 500 MCM PULL & TERMINATE.
MON. 8-3-81 PULL CONTROLS TO CAB & TERMINATE.
THRU REPLACE DAMAGE WIRE IN CONT. HOUSE.
WED. 8-5-81 START INSTALLING CROSS OVER RAILS.
MOUNT TROLLEY SLOW DOWN LIMITS.

Aug. 5, 1981

DESCRIPTION OF WORK	EST. START DATE	EST. TIME	PCT. COMPL	COMPL DATE	ACTUAL TIME
1. REINSTALL P.B., DISC, ETC ON EAST LEG (#8, #9, & #10)	6/15	8 DAYS	100%		
2. REINSTALL CONDUIT ON EAST LEG TO P.B. #7 COMPLETE	6/15	15 DAYS	100%		
3. REINSTALL MISC STARTERS & DISC. ON EAST SECT. GIRDER & REINSTALL CONDUIT	6/26	10 DAYS	30%	7/31	
4. LIGHTING - REINSTALL CONDUIT, P.B. SWITCHES, ETC ON GIRDER BEFORE ERECTION	6/26	10 DAYS		8/5	
5. AFTER ERECTION, ALIGN COLL. RAILS	7/20	7 DAYS	100%	7/29	
6. INSTALL COLL. SHOES @ BASE EAST LEG	7/10	6 DAYS	100%		
7. COMPLETE CONDUIT AT GIRDER SPLICE	7/20	7 DAYS	100%	7/24	
8. INSTALL LIGHTING FIXTURES	7/20	10 DAYS		8/10	
9. PULL CABLE & WIRE	7/27	10 DAYS	80%	8/4	
10. TERMINATE WIRE & CABLE	8/4	9 DAYS	40%	8/14	
11. CHECK-OUT ELECTRICS	8/17	5 DAYS			



McGRAW CONSTRUCTION COMPANY, INC. / ENGINEERS & CONSTRUCTORS

MEMORANDUM

CONT. NO.

DATE: August 4, 1981

TO: Q. R. Reeder
FROM: N. R. Patel
SUBJECT: Contract No. 1294
Erection of Ore Bridge
Armco Inc.
Hamilton, Ohio

Please bill Armco Inc. 90 per cent as of August 1, 1981. We are attaching a Schedule as a supporting document.

A handwritten signature in cursive script, appearing to read "N. R. Patel", written over a horizontal line.

N. R. Patel

NRP:hr



CONSTRUCTION COMPANY, INC./ENGINEERS & CONSTRUCTORS

POST OFFICE BOX 369 • MIDDLETOWN, OHIO 45042 • TELEPHONE 513 / 422-4521

November 11, 1981

Armco Inc.
East Works Engineering
Middletown, Ohio 45043

Attention: Mr. Clyde E. Hanes

Subject: One (1) 25-Ton Morbox Ore
Bridge Gantry Crane Installation
McGraw Contract No. 1294
Armco Purchase Order No. 541-280-12950

Gentlemen:

We respectfully request that subject Purchase Order be adjusted, based upon the following considerations.

The additional amounts to be added to the basic Purchase Order for the additional work performed by McGraw should be as follows:

1. McGraw Proposal No. 4091, Addendum No. 1, dated May 26, 1981 - The amount for this item was approved by Armco Inc. prior to the start of the work - FIVE THOUSAND SEVEN HUNDRED TWENTY DOLLARS (\$5,720.00).
2. Work performed by McGraw to rework the Morgan Equipment was approved by Armco's representative during the course of construction. All time cards for such work were approved and signed by your representative. The accumulated craft hours to perform this work were 126. The total amount for this item, including fringe benefits and profit, is THREE THOUSAND TWO HUNDRED EIGHTY-EIGHT DOLLARS AND TWENTY CENTS (\$3,288.20).

McGCon 11992



Armco Inc.
November 11, 1981
Page - 2

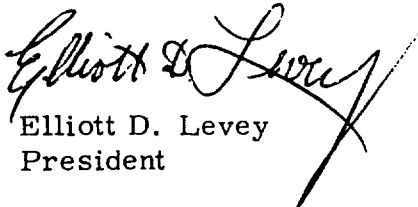
The total addition of Nine Thousand Eight Dollars and Twenty Cents (\$9,008.20) to the original Purchase Order of TWO HUNDRED NINETY-FOUR THOUSAND DOLLARS (\$294,000.00) adjusts the final Contract Amount to THREE HUNDRED THREE THOUSAND EIGHT DOLLARS AND TWENTY CENTS (\$303,008.20).

We are enclosing the Invoice for final payment.

Should you need any further information, please let us know.

Sincerely yours,

McGRAW CONSTRUCTION COMPANY, INC.



Elliott D. Levey
President

EDL:hr

Enclosure



McGRAW CONSTRUCTION COMPANY, INC./ENGINEERS & CONSTRUCTORS

POST OFFICE BOX 369 MIDDLETOWN, OHIO 45042 • TELEPHONE 513 / 422-4521

CHARGE TO

Armco Inc.
P. O. Box 1000
Middletown, Ohio 45043

DATE **November 11, 1981**

INVOICE NUMBER **11-2**

CONT. NUMBER **M01294**

Terms: **Net 15 Days**

PAY TOTAL
AMOUNT SHOWN
IN THIS COLUMN

Re: Your Purchase Order No. 54128012950
Dated June 26, 1981
Final Charge 282-1989-0171-1254

Furnish all supervision, labor, tools, construction equipment and incidental supplies required to receive, unload, assemble, erect and put into operation one (1) Morgan 25-ton capacity Morbox Ore Bridge Gantry Crane.

Total Contract Price: **\$ 294,000.00**

Construction Completed to Date: 100%

294,000.00

Less: Amount Previously Billed

(264,600.00)

TOTAL AMOUNT DUE ON THIS INVOICE

\$ 29,400.00

Certified correct as of this billing date.
McGRAW CONSTRUCTION COMPANY, INC.

By: Q. R. Reeder, Adm. Vice President

abs

McGCon 11994