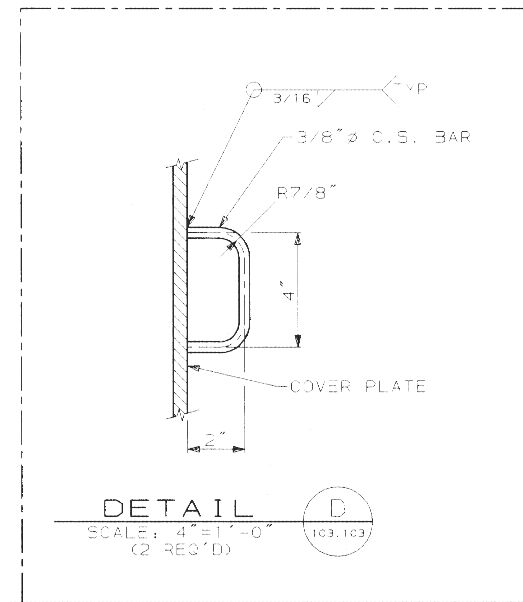
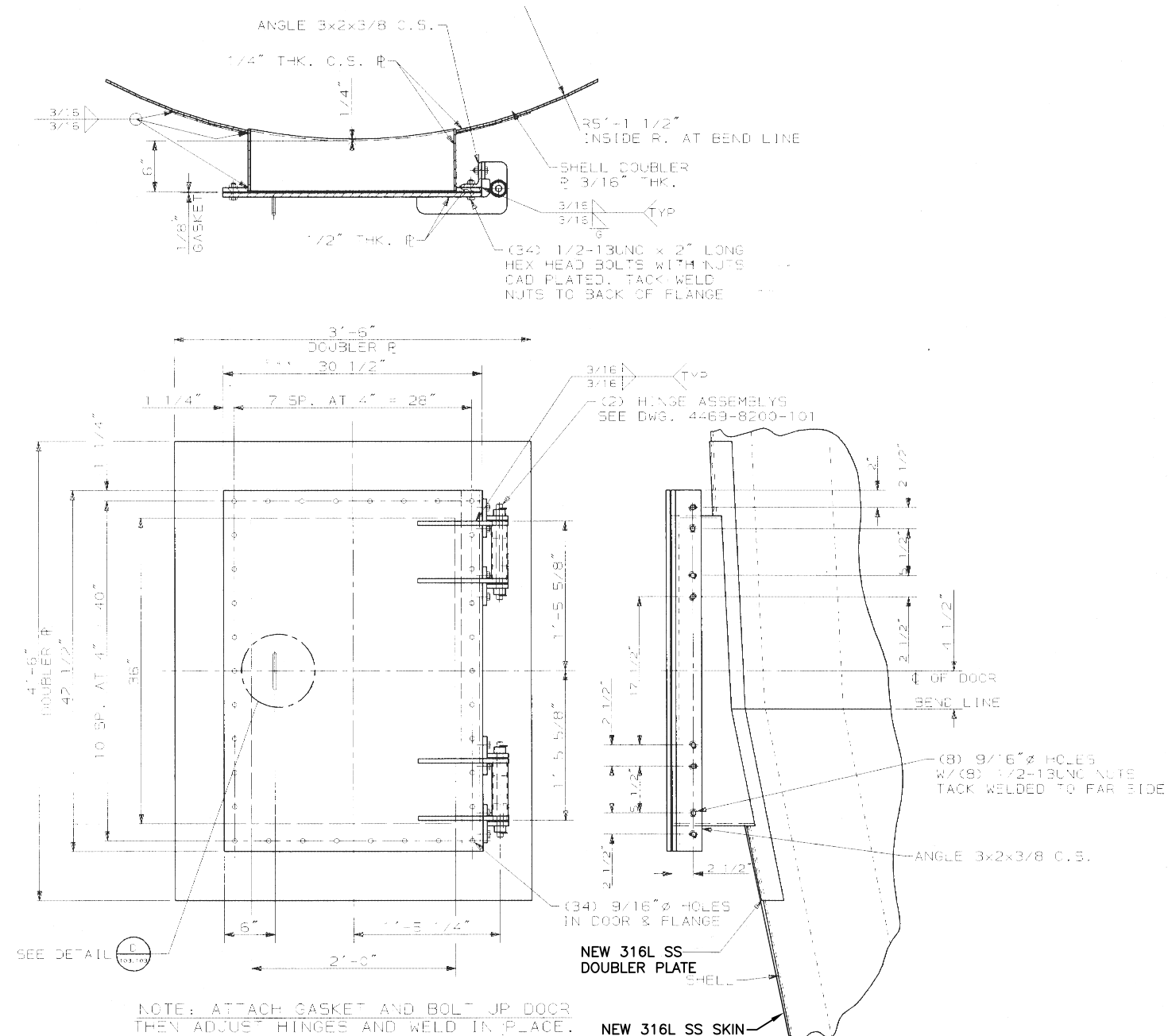


G:\2cad\cbj\Sewer\JDWWTP Incinatorator\JDWWTP Incinatorator-M11.dwg PLOT: October 15, 2010 at: 10:42am Administrator

ACCESS DOOR

- 1) CONTRACTOR SHALL REMOVE THE EXISTING ACCESS DOOR FOR THE 2' BY 3' ACCESS AS SHOWN ON THE DRAWINGS AND REPLACE IT WITH A NEW 316 L STAINLESS STEEL ACCESS DOOR SIMILAR TO THE EXISTING DOOR. SEE DRAWINGS M-11, M-12 AND M-13 FOR THE FABRICATION DETAILS FOR THE EXISTING ACCESS DOOR.
- 2) NEW ACCESS DOOR SHALL BE FABRICATED OF 316 L STAINLESS STEEL INSTEAD OF A-36 STEEL AS SHOWN.
- 3) BOLTS SHALL BE 304 STAINLESS STEEL.
- 4) NEW ACCESS DOOR SHALL BE WELDED TO NEW 316 L STAINLESS STEEL SKIN. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARDS.

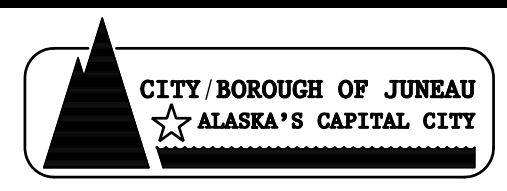


ACCESS HATCH

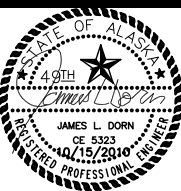
SEE:
MARK 2A ON DWG M-2.

<p>NIRO INC</p> <p>9155 BRANSEY ROAD COLUMBIA, MO 65244-1991 USA PHONE: 314-997-8700 FAX: 314-997-5621</p>		<p>INCINERATOR NOZZLE DETAILS</p> <p>CITY OF JUNEAU, ALASKA SLUDGE TREATMENT</p>	
<p>SCALE: 1 1/2" = 1'-0"</p> <p>DRWN: CAK CHK: AC APP: AC</p>	<p>DATE: 01/09/99 01/09/99 01/09/99</p>	<p>CONTRACT: 045-4469</p>	<p>SHT. 3 OF 9 4469-3450-103</p>

REV	DATE	BY	DESCRIPTION



JUNEAU-DOUGLAS
WASTEWATER TREATMENT PLANT
**SLUDGE INCINERATOR
IMPROVEMENTS**
Project No. E11-032



Carson Dorn Inc.

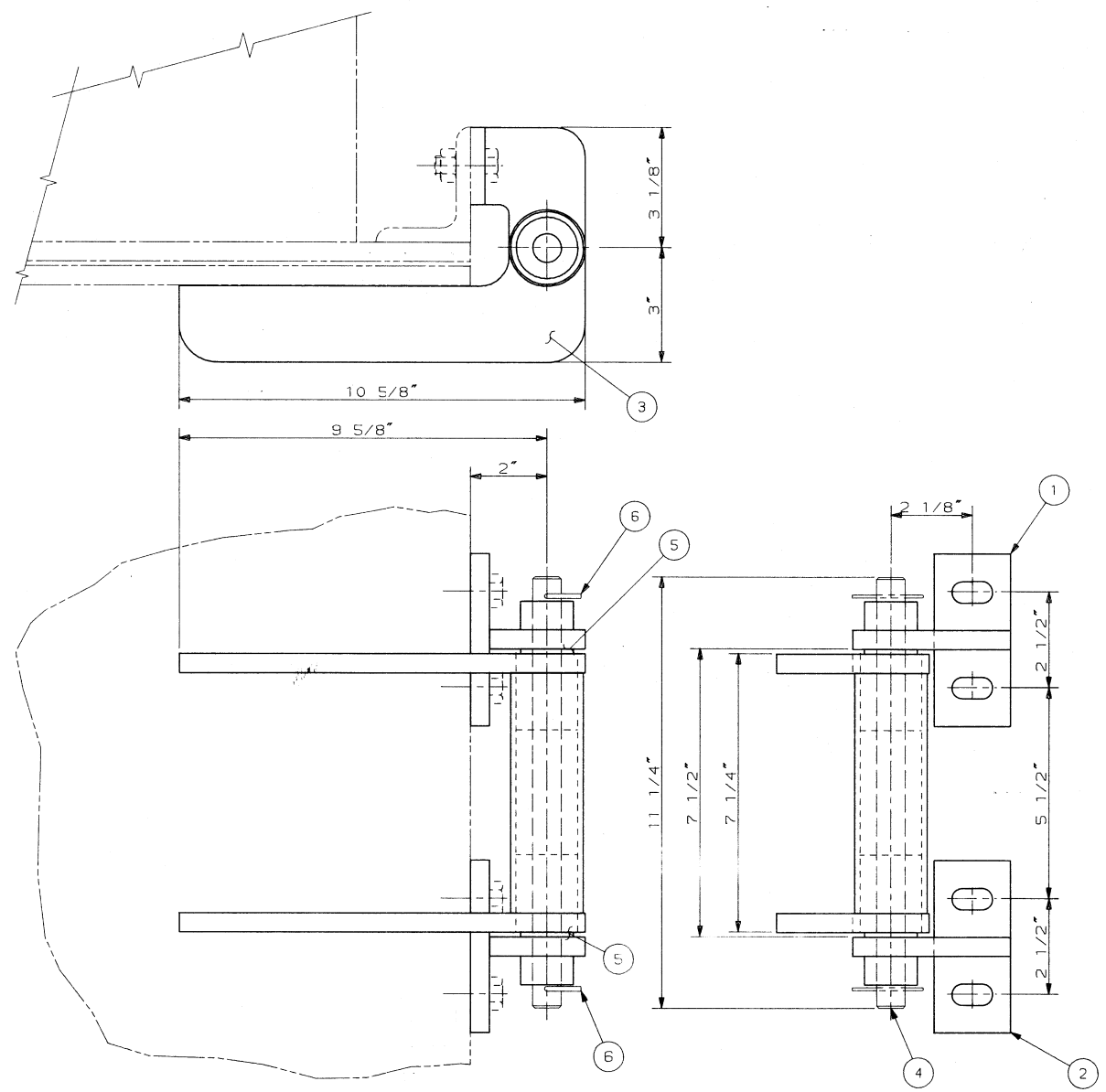
712 WEST 12TH STREET
JUNEAU, ALASKA 99801
(907) 586-4447
www.carsondorn.com

ORIGINAL FABRICATION DRAWING
NIRO INC.
ACCESS DOOR DETAIL 1

DRAWING
M-11
SHEET No.
15 of 24

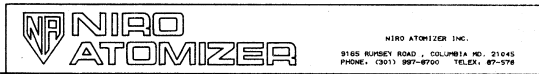
G:\2cad\cbj\Sewer\JDWWTP Incinerator\JDWWTP Incinerator-M12.dwg PLOT: October 15, 2010 at: 10:47am Administrator

BILL OF MATERIAL				
ITEM NO.	QTY	PART NO./ DWG. NO.	DESCRIPTION & SIZE	MAT. OR MFR
1	1		TOP HINGE MOUNTING BRACKET	C.S.
2	1		BOTTOM HINGE MOUNTING BRACKET	C.S.
3	1		HINGE DOOR MOUNTING BRACKET	C.S.
4	1		HINGE PIN	304 SST.
5	2		WASHER	304 SST.
6	2		1/8" DIA COTTER PIN	



ACCESS DOOR HINGE
(4 REQ'D)

NOTE: SEE 4469-8200-102 FOR DETAILS.

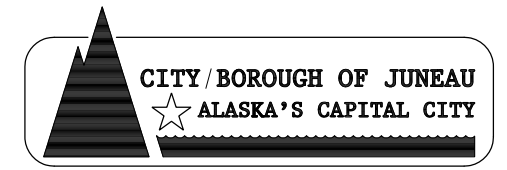


HINGE DETAIL AND ASSEMBLY
INCINERATOR DOOR
CITY OF JUNEAU, ALASKA

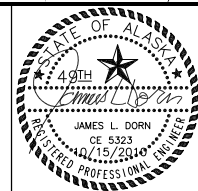
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REVISION RECORD		BY	CHK	APP.	DATE	NO.	APP.

REQUISITION	CAT.	DRAWING	SHT. 1 OF 2	REV.
045-4469	4	4469-8200-101		A

REV	DATE	BY	DESCRIPTION



JUNEAU-DOUGLAS
WASTEWATER TREATMENT PLANT
SLUDGE INCINERATOR IMPROVEMENTS
Project No. E11-032

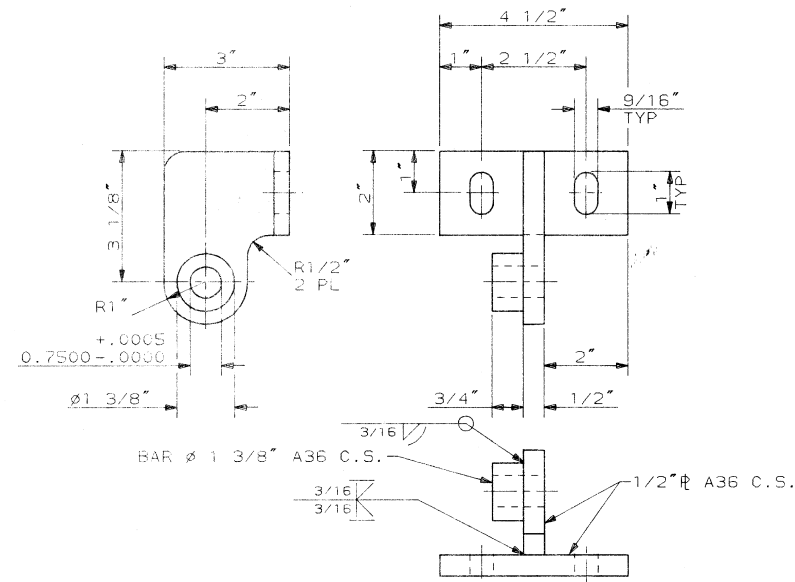


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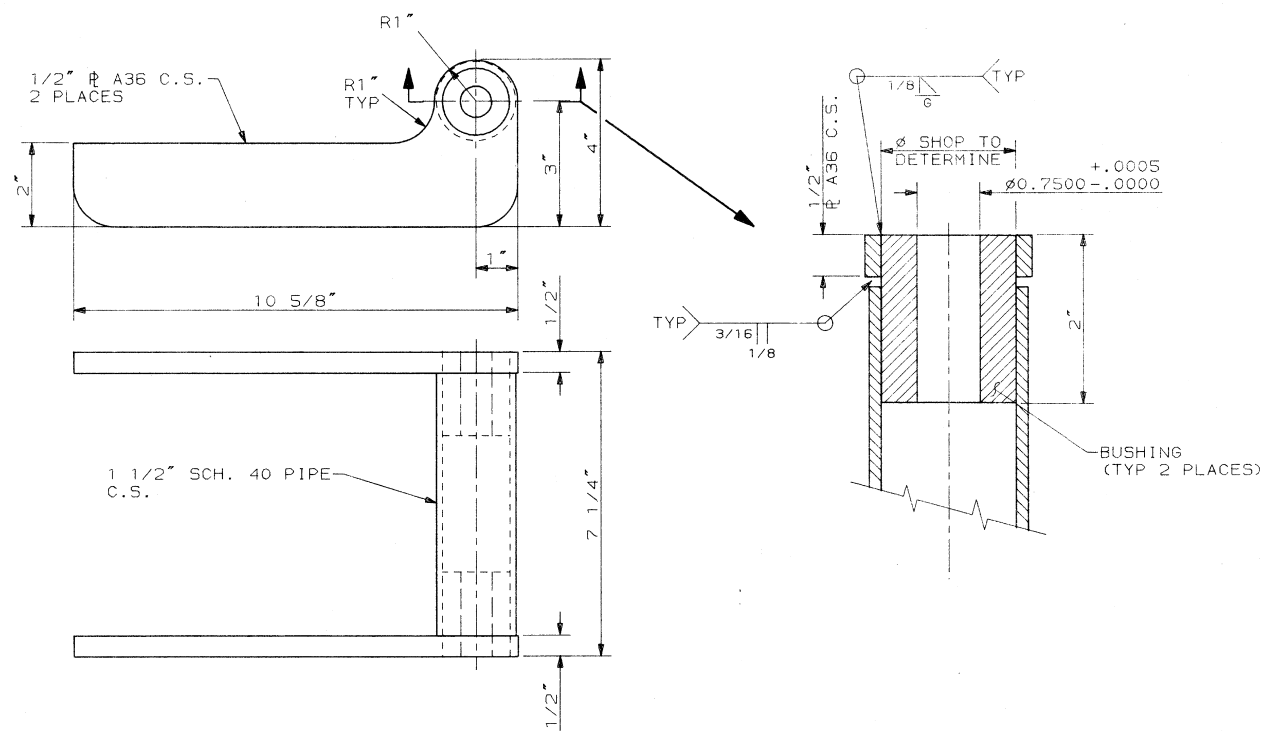
ORIGINAL FABRICATION DRAWING
NIRO INC.
ACCESS DOOR DETAIL 2

DRAWING
M-12
SHEET No.
16 of 24

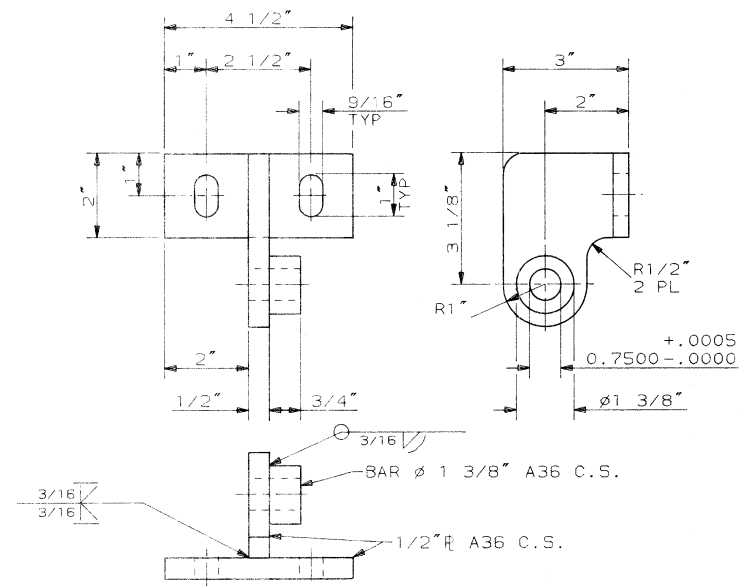
G:\2cad\cbj\Sewer\JDWWTP Incinerator-M13.dwg PLOT: October 15, 2010 at: 10:48am Administrator



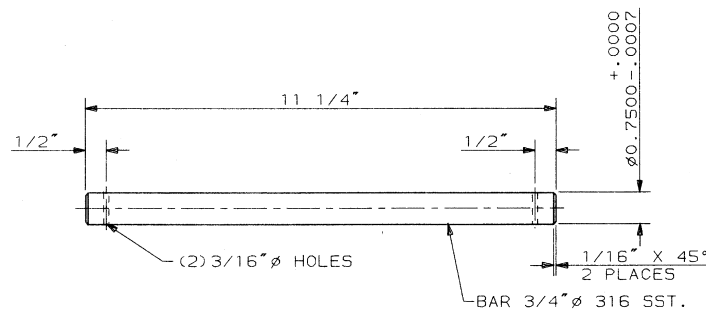
ITEM 1
TOP HINGE MOUNTING BRACKET



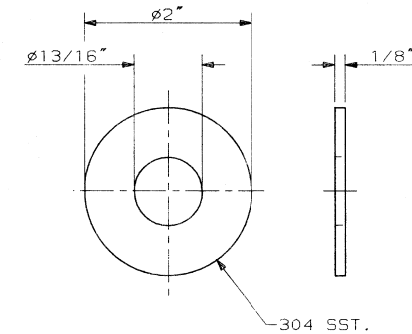
ITEM 3
HINGE DOOR MOUNTING BRACKET



ITEM 2
BOTTOM HINGE MOUNTING BRACKET



ITEM 4
HINGE PIN



ITEM 5
WASHER
(2 REQ'D)

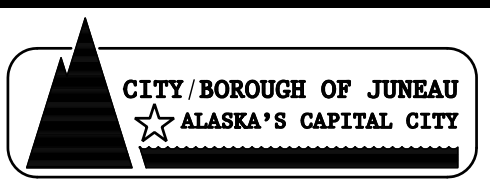
ISSUE FOR APPROVAL		CAK									SCALE: 6"=1'-0"	DO NOT SCALE DRAWING
REVISION RECORD		BY:	CD:	APP:	APP:	DATE	NO.					
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NIRO ATOMIZER
NIRO ATOMIZER INC.
 9160 HUNTER ROAD, COLUMBIA, MD. 21046
 PHONE: (301) 997-4100 TELE: (301) 997-4101

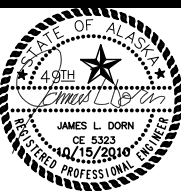
HINGE DETAILS
 INCINERATOR DOOR
 CITY OF JUNEAU, ALASKA

REQUISITION: 045-4165 CAT: 4 DRAWING: 4463-8200-102 SHEET: 2 OF 2

DESIGNED	JLD
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CHECKED	JLD
DATE	OCT 2010



JUNEAU-DOUGLAS
 WASTEWATER TREATMENT PLANT
**SLUDGE INCINERATOR
 IMPROVEMENTS**
 Project No. E11-032



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ORIGINAL FABRICATION DRAWING
 NIRO INC.
 ACCESS DOOR DETAIL 3

DRAWING
 M-13
 SHEET No.
 17 of 24

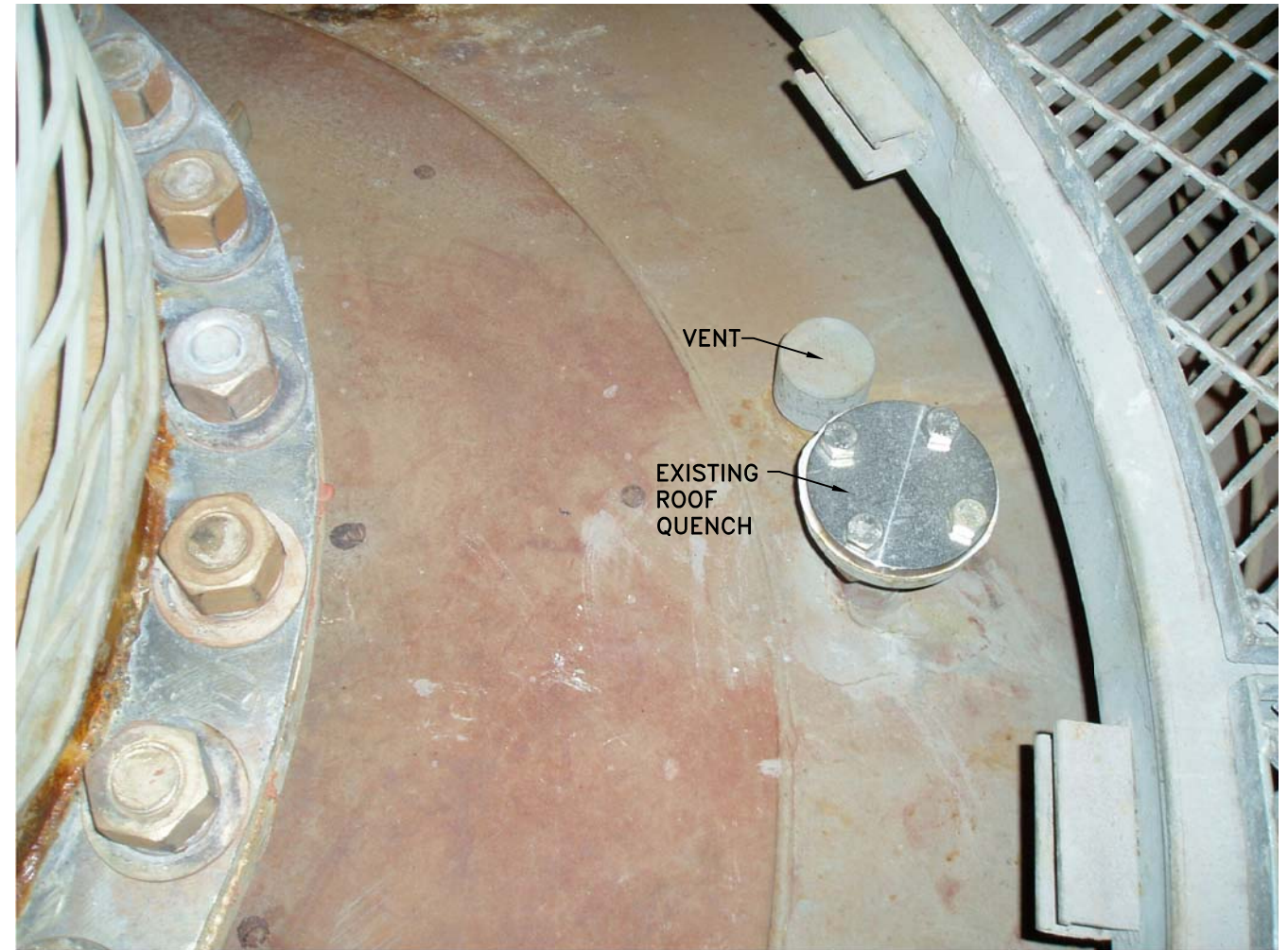
G:\2cad\cbj\Sewer\JDWWTP\Incinerator-M14.dwg PLOT: October 15, 2010 at: 10:49am Administrator



UPPER PLATFORM SUPPORT

PLATFORM SUPPORT

- 1) CONTRACTOR SHALL REMOVE AND REPLACE THE UPPER SUPPORT PLATFORM AS SHOWN ON THE PLANS. SEE DRAWING M-15 IN THIS PLAN SET FOR THE ORIGINAL INCINERATOR MANUFACTURER'S FABRICATION DETAILS FOR THE EXISTING PLATFORM SUPPORT.
- 2) CAREFULLY REMOVE PLATFORM BY CUTTING WELDS ATTACHING IT TO THE EXISTING INCINERATOR SHELL. PROTECT PLATFORM THROUGHOUT CONSTRUCTION.
- 3) UPON COMPLETION OF THE INCINERATOR RE-SKINNING THE PLATFORM SHALL BE WELDED TO THE NEW 316 L STAINLESS STEEL INCINERATOR SKIN. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARDS.



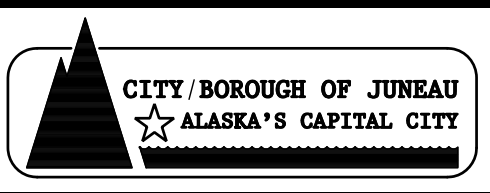
ROOF QUENCH AND VENT CONNECTIONS

ROOF QUENCH AND VENT CONNECTIONS

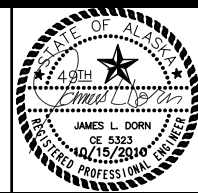
- 1) CONTRACTOR SHALL CUT AND OR GRIND THE 4 (FOUR) EXISTING 1 1/2" DIAMETER ROOF QUENCH CONNECTIONS (SEE MARKS 3, 4, 5, AND 6 ON DRAWING M-2) FLUSH WITH THE ROOF OF THE INCINERATOR SHELL. THE ROOF QUENCH CONNECTIONS WERE PREVIOUSLY ABANDONED AND FILLED WITH KS-4 PLUS CASTABLE REFRACTORY AND CAPPED. IF THE UNELIYING REFRACTORY IS DAMAGED, REPAIR AS FOLLOWS:
 - A. WELD REFRACTORY ANCHORS TO THE INSIDE OF EACH ROOF QUENCH AS IT PASSES THROUGH THE REFRACTORY BRICK.
 - B. FILL EACH ROOF QUENCH CONNECTION WITH KS-4 PLUS CASTABLE REFRACTORY.
- 2) CONTRACTOR SHALL CUT OR GRIND THE 4 (FOUR) EXISTING 2" ROOF VENTS AND 4 (FOUR) EXISTING 2" WALL VENTS (SEE MARKS 33 THROUGH 40 ON DRAWING M-2) FLUSH WITH THE EXTERIOR SHELL OF THE INCINERATOR.

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DATE	OCT 2010



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**SLUDGE INCINERATOR
IMPROVEMENTS**
Project No. E11-032

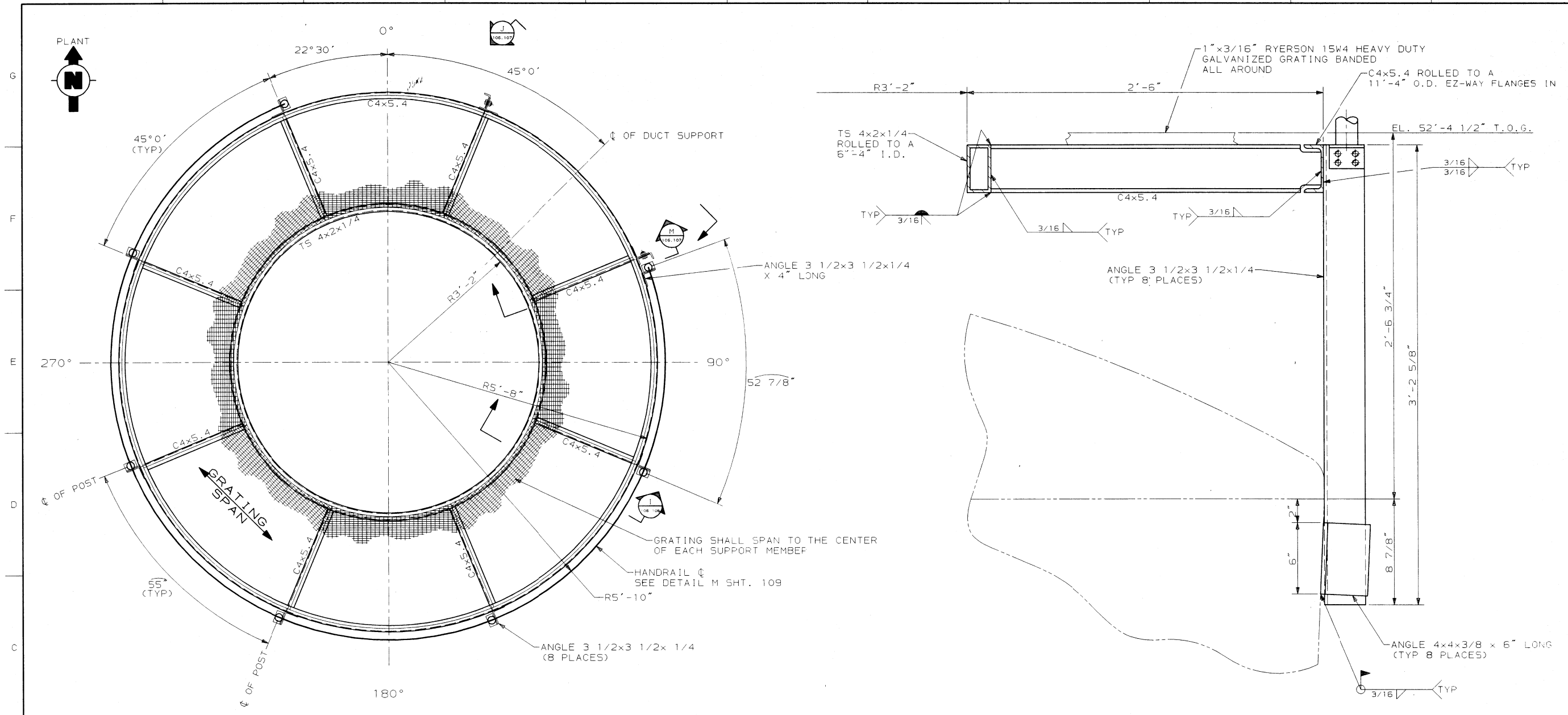


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UPPER PLATFORM SUPPORT, ROOF
QUENCH AND VENT CONNECTIONS

DRAWING	M-14
SHEET No.	18 of 24

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PLATFORM ELEVATION 52'-4 1/2" T.O.G.

PLATFORM SUPPORT

- 1) CONTRACTOR SHALL REMOVE AND REPLACE THE UPPER SUPPORT PLATFORM AS SHOWN ON THE PLANS. SEE DRAWINGS M-15 FOR THE FABRICATION DETAILS FOR THE EXISTING PLATFORM SUPPORT.
- 2) CAREFULLY REMOVE PLATFORM BY CUTTING WELDS ATTACHING IT TO THE EXISTING INCINERATOR SHELL. PROTECT PLATFORM THROUGHOUT CONSTRUCTION.
- 3) UPON COMPLETION OF THE INCINERATOR RE-SKINNING THE PLATFORM SHALL BE WELDED TO THE NEW 316 L STAINLESS STEEL INCINERATOR SKIN. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARDS.

VIEW I
SCALE: 3"=1'-0"

ISSUE FOR CONSTRUCTION						CAK	Ac	5/13/91	0	SCALE: 1"=1'-0"	DO NOT SCALE DRAWING
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NIRO INC
9165 HUNSEY ROAD
 COLUMBIA, MO. 65204-1581, USA
 PHONE (301) 997-8700 FAX (301) 997-9021

INCINERATOR PLATFORM ARRANGEMENT

CITY OF JUNEAU, ALASKA
 SLUDGE TREATMENT

CONTRACT 045-4469 CAT. 1 DRAWING 4469-3450-106 OF 9 REV. 0

REV	DATE	BY	DESCRIPTION

CITY/BOROUGH OF JUNEAU
 ALASKA'S CAPITAL CITY

JUNEAU-DOUGLAS WASTEWATER TREATMENT PLANT SLUDGE INCINERATOR IMPROVEMENTS
 Project No. E11-032

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ORIGINAL FABRICATION DRAWING
 NIRO INC. - INCINERATOR PLATFORM ARRANGEMENT

DRAWING
M-15
 SHEET No.
19 of 24

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TYPICAL WELDED SUPPORTS LOWER BELLY BAND



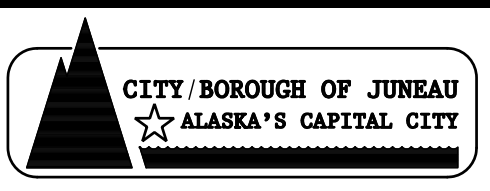
TYPICAL WELDED SUPPORTS UPPER BELLY BAND

WELDED BELLY BAND SUPPORT

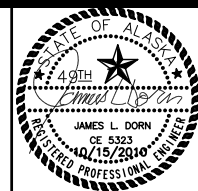
- 1) CONTRACTOR SHALL REMOVE THE PIPE SUPPORTS ATTACHED TO THE UPPER AND LOWER BELLY BAND AS SHOWN ON THE PLANS AND REPLACE WITH NEW STAINLESS STEEL PIPE SUPPORTS. THERE ARE APPROXIMATELY TWENTY SUPPORTS ATTACHED TO THE BELLY BAND.
- 2) CAREFULLY REMOVE SUPPORT BY CUTTING WELDS ATTACHING THEM TO THE EXISTING BELLY BAND. PROTECT AND SUPPORT PIPING AND FITTINGS THROUGHOUT CONSTRUCTION.
- 3) UPON COMPLETION OF THE INCINERATOR RE-SKINNING WITH 316L STAINLESS STEEL, NEW SUPPORTS SHALL BE WELDED TO THE NEW 316 L STAINLESS STEEL INCINERATOR SKIN AND THE PIPES AND FITTINGS REINSTALLED. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARDS.

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JUNEAU-DOUGLAS
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**SLUDGE INCINERATOR
IMPROVEMENTS**
Project No. E11-032



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TYPICAL WELDED SUPPORTS
UPPER AND LOWER BELLY BAND

DRAWING
M-16
SHEET No.
20 of 24

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CONDUIT WITH UNISTRUT SUPPORT

- 1) CONTRACTOR SHALL REMOVE AND REPLACE ALL OF THE CONDUIT UNISTRUT SUPPORTS ATTACHED TO THE INCINERATOR (APPROXIMATELY 20) SUPPORTS ATTACHED TO THE INCINERATOR. UNISTRUT SHALL BE REPLACED WITH STAINLESS STEEL UNISTRUT.
- 2) CAREFULLY REMOVE SUPPORT BY CUTTING WELDS ATTACHING THEM TO THE EXISTING INCINERATOR. PROTECT AND SUPPORT CONDUIT AND FITTINGS THROUGHOUT CONSTRUCTION.
- 3) UPON COMPLETION OF THE INCINERATOR RE-SKINNING, NEW STAINLESS STEEL UNISTRUT SUPPORTS SHALL BE WELDED TO THE NEW 316 L STAINLESS STEEL INCINERATOR SKIN AND THE CONDUITS AND FITTINGS REINSTALLED. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STANDARDS.

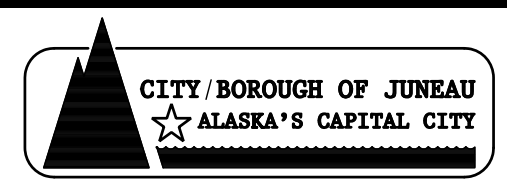


VIEW PORT

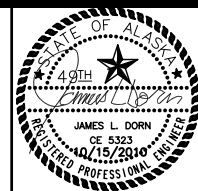
- 1) CONTRACTOR SHALL CUT AND OR GRIND EXISTING 4" DIAMETER VIEW PORT (SEE MARK 2 ON DRAWING M-2) FLUSH WITH THE ROOF OF THE INCINERATOR SHELL. THE VIEW PORT WAS PREVIOUSLY ABANDONED AND FILLED WITH KS-4 PLUS CASTABLE REFRACTORY AND CAPPED. IF THE UNDERLYING REFRACTORY IS DAMAGED, REPAIR AS FOLLOWS:
 - A. WELD REFRACTORY ANCHORS TO THE INSIDE OF THE VIEW PORT AS IT PASSES THROUGH THE REFRACTORY BRICK.
 - B. FILL THE VIEW PORT WITH KS-4 PLUS CASTABLE REFRACTORY

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Project No. E11-032

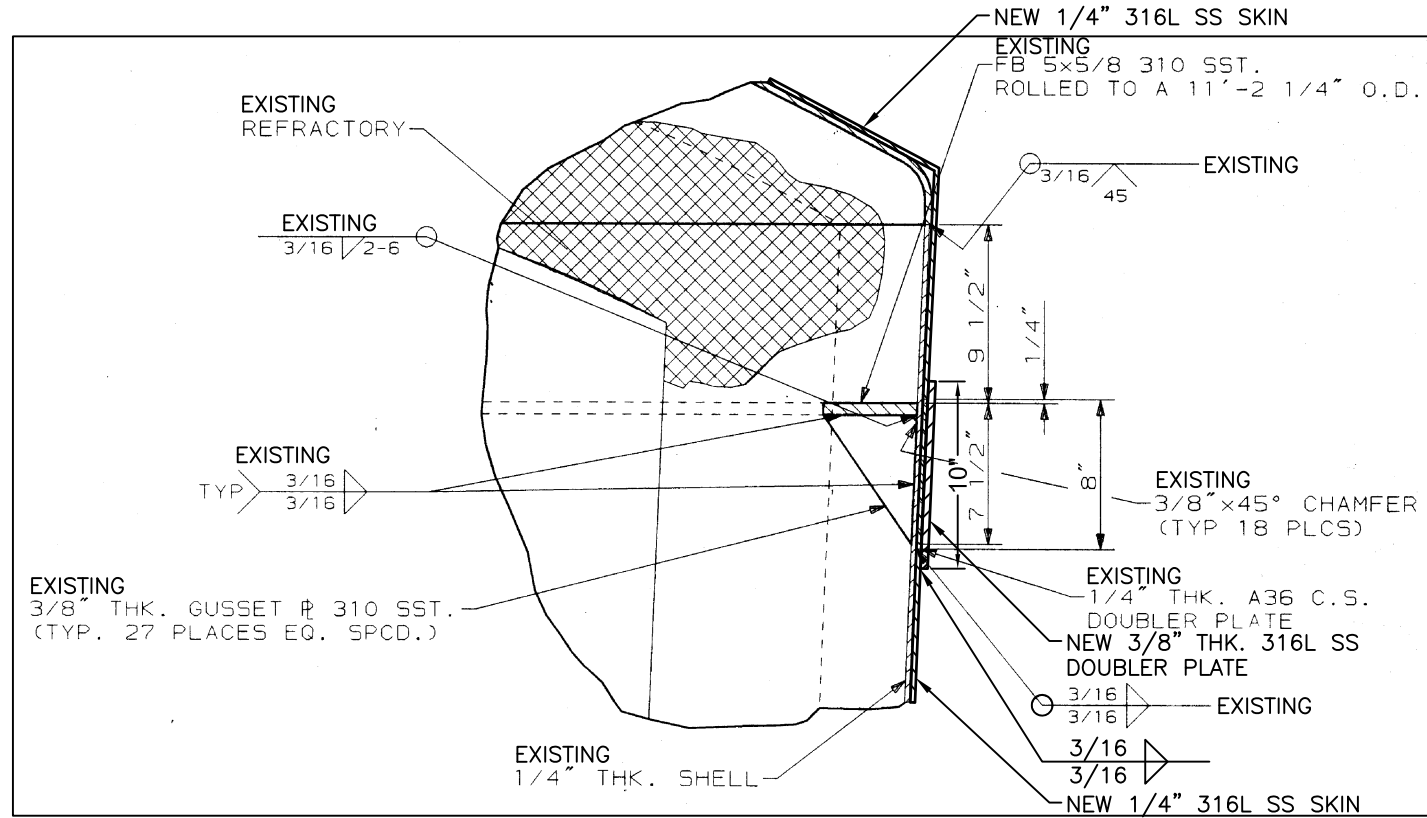


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CONDUIT WITH UNISTRUT, VIEW PORT

DRAWING
M-17
SHEET No.
21 of 24

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ROOF DOME SUPPORT RING
RESKIN DETAIL



LIFTING EYE

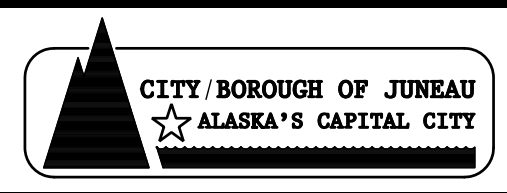


PATCHES

PATCHES AND LIFTING EYES

- 1) CONTRACTOR SHALL REMOVE THE LIFTING EYES BY CUTTING AND OR GRINDING THE 8 (EIGHT) EXISTING LIFTING EYES FROM THE INCINERATOR SHELL. THE BASE FOR EACH LIFTING EYE IS APPROXIMATELY 8" BY 8".
- 2) CONTRACTOR SHALL REMOVE PATCHES ADDED TO THE INCINERATOR SHELL TO REPAIR THIN SPOTS BY CUTTING OR GRINDING THE PATCHES FROM THE INCINERATOR SHELL. PATCHES COVER APPROXIMATELY 100 SQUARE FEET. OF THE INCINERATOR SHELL.
- 3) EACH SITE SHALL BE LEFT FLUSH WITH THE EXISTING INCINERATOR SHELL.

REV	DATE	BY	DESCRIPTION



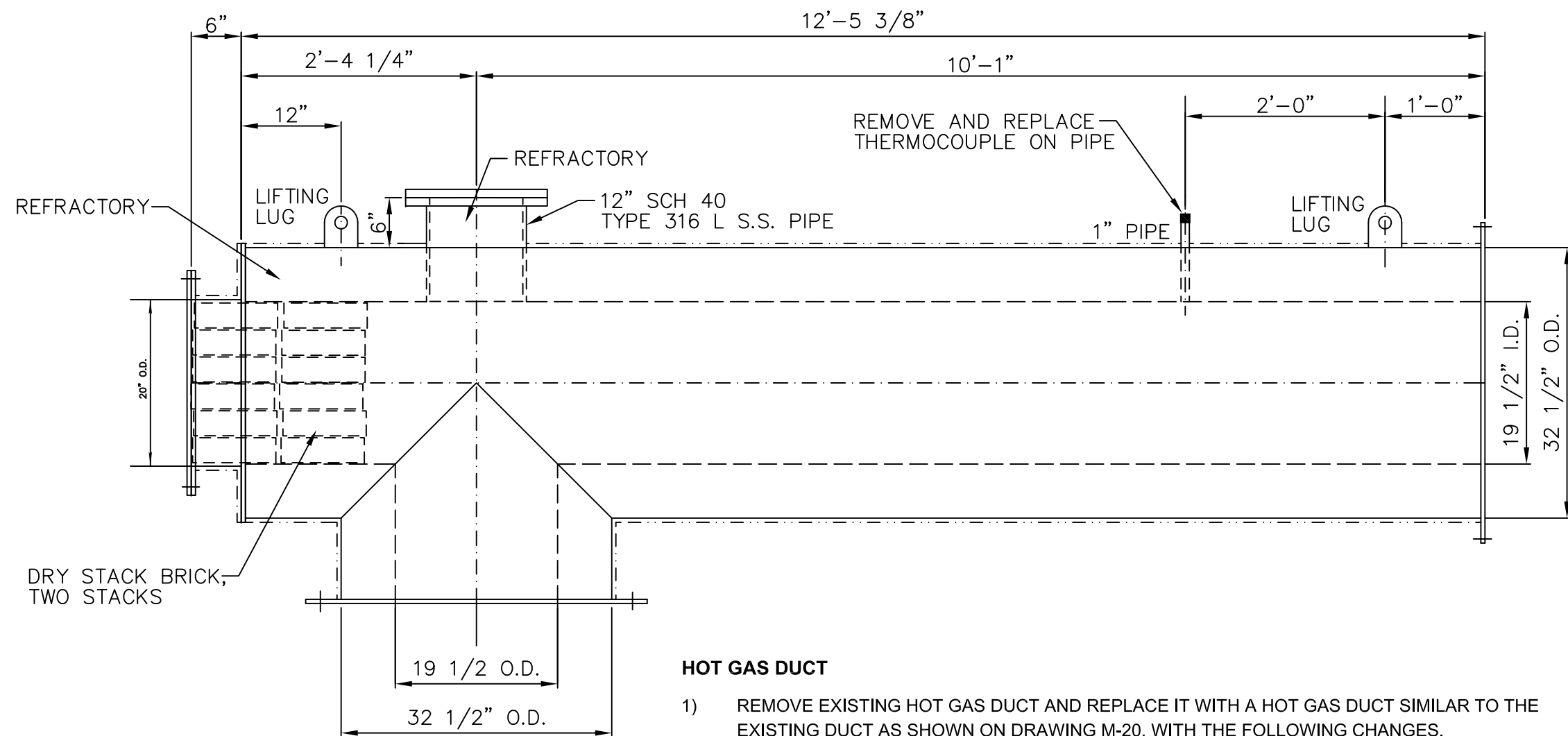
JUNEAU-DOUGLAS
WASTEWATER TREATMENT PLANT
**SLUDGE INCINERATOR
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Project No. E11-032



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PATCHES, LIFTING EYE,
ROOF DOME SUPPORT RING

DRAWING
M-18
SHEET No.
22 of 24



HOT GAS DUCT

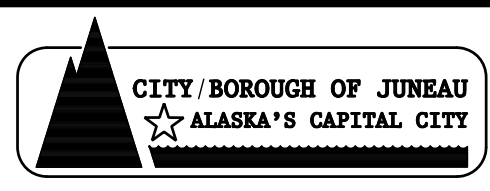
- 1) REMOVE EXISTING HOT GAS DUCT AND REPLACE IT WITH A HOT GAS DUCT SIMILAR TO THE EXISTING DUCT AS SHOWN ON DRAWING M-20, WITH THE FOLLOWING CHANGES.
- 2) FABRICATE NEW DUCT FROM 316 L STAINLESS STEEL.
- 3) DELETE 4" FLANGED STAINLESS STEEL PIPE ON THE TOP OF THE DUCT AND REPLACE IT WITH A 12" FLANGED STAINLESS STEEL PIPE AS SHOWN.
- 4) INSTALL INSULATION, INSBLOK AND CERAMIC FIBER PAPER SUCH THAT THE SKIN TEMPERATURE OF THE METAL WILL BE LESS THAN 200 DEGREES F WHEN THE INTERIOR GAS TEMPERATURE IS 1400 DEGREES F.
- 5) THE MANUFACTURER'S ORIGINAL FABRICATION DRAWING IS INCLUDED IN THIS PLAN SET ON DRAWING M-20. CONTRACTOR TO FIELD CONFIRM ALL DIMENSIONS FOR FABRICATION OF THE NEW HOT GAS DUCT.

NEW HOT GAS DUCT

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JUNEAU-DOUGLAS
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**SLUDGE INCINERATOR
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Project No. E11-032

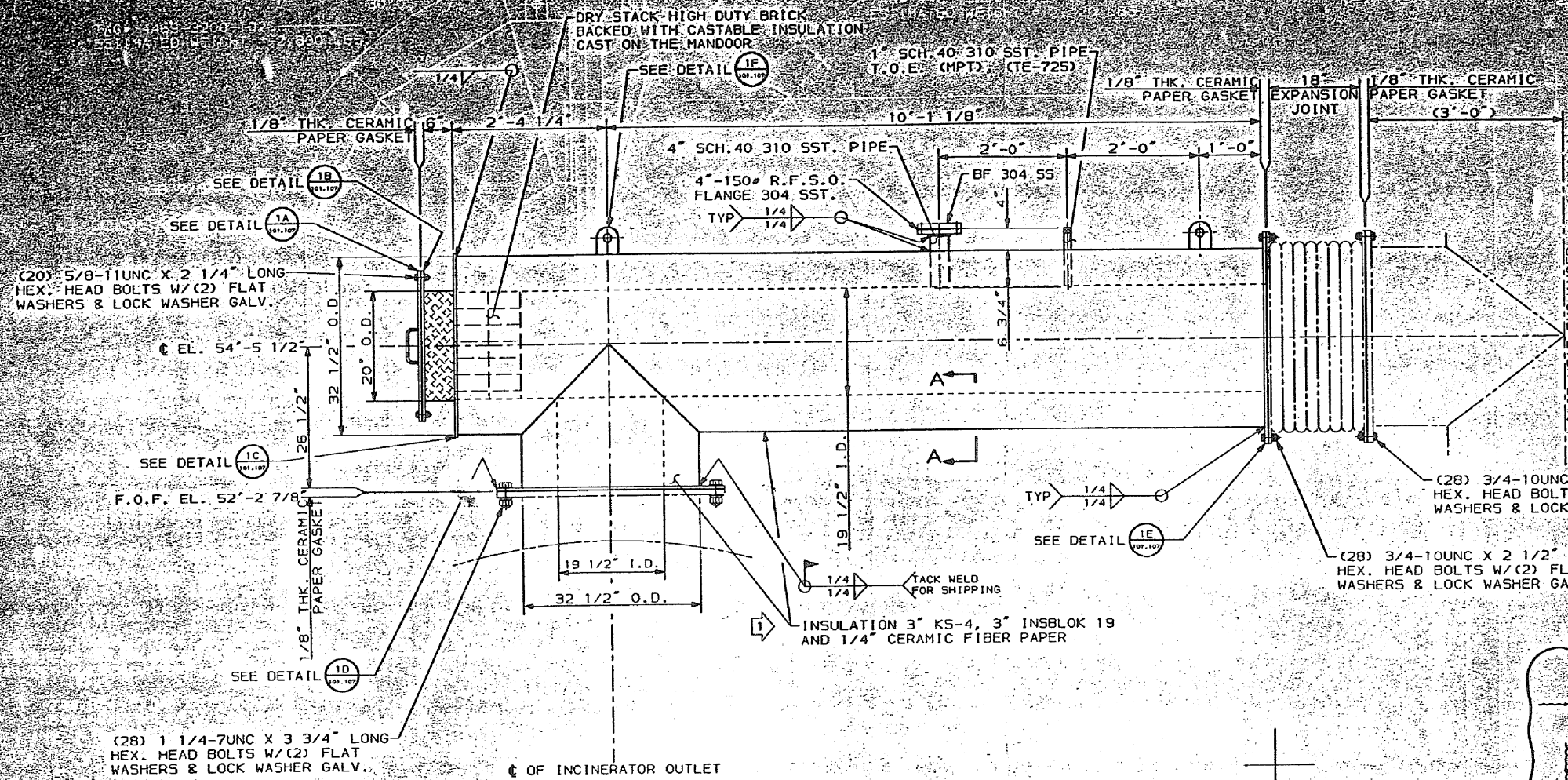


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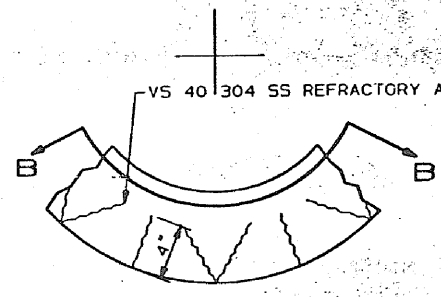
NEW HOT GAS DUCT

DRAWING
M-19
SHEET No.
23 of 24

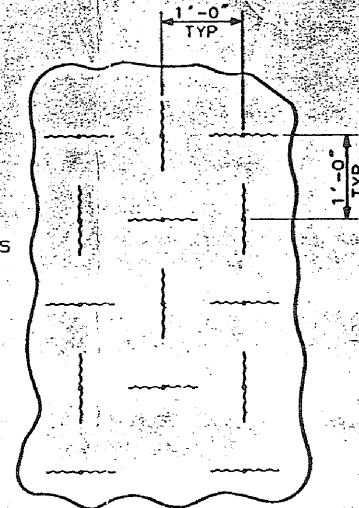
G:\2cad\cbj\Sewer\DWTP\Incinerator-M20.dwg PLOT: October 15, 2010 at: 10:54am Administrator



HOT GAS DUCT
ELEVATION
TAG# 4469-3200-101
ESTIMATED WEIGHT = 5,400 LBS.



SECTION A - A
TYPICAL INSIDE REFRACTORY LINED DUCTS AND MANDORS



SECTION B - B

- NOTES:**
- MATERIALS:**
PLATE- ASTM A-36 1/4" THICK (U.O.N.).
FLANGES- ASTM A-36 1/2" THICK (U.O.N.).
GASKETS- 1/8" THK INSWOOL PAPER GASKETS.
PIPE- AS DETAILED.
 - FABRICATION:**
ALL WORK SHALL CONFORM TO LATEST AWS AND ASME STANDARDS.
FULL WELD PENETRATION WELDS THROUGHOUT.
 - SUPPLY ALL BOLTS, NUTS, WASHERS, AND LOCK WASHERS.**
ALL DUCTWORK FLANGES TO BE DOUBLE NUTTED.
 - PAINT ALL DUCTS AS FOLLOWS:**
A. PREP.-SSPS SP10 NEAR WHITE METAL BLAST CLEANING.
B. PAINT- USE WATER BASED, SELF CURING, ETHYL SILICATE INORGANIC ZINC PAINT, WITH 85% ZINC BY WEIGHT, PRIME AND FINISH COATS FOR DFT- 3 MILS. USE DIMEETCOTE 12 OR ENGARD 511 OR KOPPERS P-1500 OR TUENEC 90-92.
 - PROVIDE 1 GALLON OF PAINT FOR FIELD TOUCH UP.**
LABEL THE CONTAINER FOR EASY IDENTIFICATION.

REVISION	DATE	BY	APP.	DATE	BY	APP.	SCALE	NO. OF SHEETS
REVISED AS NOTED		CAK	AC	04/24/91	1	0	SCALE: 1" = 1'-0"	04/24/91
ISSUED FOR CONSTRUCTION		CAK	AC	07/01/91	0	0		04/24/91
REVISION RECORD		DR.	DES.	APP.	DATE	BY		04/24/91

NIRO INC

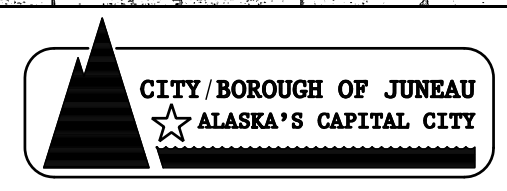
1405 PARKWAY ROAD
JUNEAU, ALASKA 99801
PHONE (907) 586-4447 FAX (907) 586-4447

HOT GAS DUCT
INCINERATOR TO HEAT EXCHANGER
CITY OF JUNEAU, ALASKA
SLUDGE TREATMENT

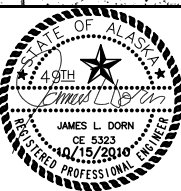
CONTRACT 045-4469 CAT. 1 SHEETS 1 OF 1

PROJECT SIZE 4469-3200-101 1

REV	DATE	BY	DESCRIPTION
DESIGNED	JLD		
DRAWN	GDM		
CHECKED	JLD		
DATE	OCT 2010		



JUNEAU-DOUGLAS
WASTEWATER TREATMENT PLANT
SLUDGE INCINERATOR IMPROVEMENTS
Project No. E11-032



Carson Dorn Inc.

712 WEST 12TH STREET
JUNEAU, ALASKA 99801
(907) 586-4447
www.carsondorn.com

ORIGINAL FABRICATION DRAWING
NIRO INC. - HOT GAS DUCT

DRAWING
M-20
SHEET No.
24 of 24