



NOTES:  
 - POWDER COAT SAFETY YELLOW  
 - FIT RAILS, TYP.  
 - GRIND SMOOTH ALL SHARP CORNERS & BURRS.

**ONE - HANDRAIL - 3811HR**

**BILL OF MATERIAL**

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
1	1		HANDRAIL					
1	1		PIPE1-1/2STD	14'-11 13/16"	38			A53, GR.B
1	1	a3014	L3X3X1/4	0'-3"	1			A36
2	2	m3086	PIPE1-1/2STD	1'-10 7/8"	10			A53, GR.B
1	1	m3119	PIPE1-1/2STD	0'-9 7/16"	2			A53, GR.B
3	3	m3120	PIPE1-1/2STD	4'-4"	33			A53, GR.B
1	1	m3121	PIPE1-1/2STD	0'-10 15/16"	2			A53, GR.B
1	1	m3122	PIPE1-1/2STD	0'-9 7/16"	2			A53, GR.B
4	4	m3124	PIPE1-1/2STD	3'-6 7/8"	36			A53, GR.B
1	1	m3174	PIPE1-1/2STD	1'-0 15/16"	3			A53, GR.B
1	1	p3006	FB1/4"X4"	14'-4 5/8"	49			A36
4	4	p3063	FB3/8"X2 1/2"	0'-7 1/2"	8			A572-GR.50
8	8		1/2"Ø A325N BOLT	0'-1 1/2"		Site		
1	1		1/2"Ø A307 BOLT	0'-1 1/4"		Site		
1	1		1/2"Ø A307 BOLT	0'-1 1/2"		Site		

ORACLE STEEL CONSULTANTS LTD		
PC Mark	Int.	Date
FIT - UP		
CRITICAL DIMENSION		
WELD INSPECTION		
COATING INSPECTION		
FINAL INSPECTION		

REF	E3003	PROJECT NAME	COVANTA ESSEX AREA 3
MATERIAL	AS NOTED	LOCATION	183 RAYMOND BLVD, NEWARK, NJ
HOLES	AS NOTED	CONTRACTOR	COVANTA ESSEX CO.
BOLTS	AS NOTED, GALVANIZED	DESCRIPTION	HANDRAIL
ALL COPES AND BLOCKS TO HAVE 1/2 RAD. UN		PHASE	3
WELDS E70XX		DATE	05/16/2013
SURF. PREP: See Covanta Energy Spec SA-550		CHECKED BY	EDG
PAINT NOTE: See Covanta Energy Spec SA-550		DATE	05/21/2013

DATE	NO.	DESCRIPTION	BY
<b>ORACLE STEEL CONSULTANTS LTD</b>			
DRAWN BY	EHS	CHECKED BY	EDG
DATE	05/16/2013	DATE	05/21/2013
JOB No.	13-0794-B		
DRG No.	3811HR		