



Mechanical Handling Data Sheet ISSUED BY RPP/WTP POC CM
Top Running, Double Girder

Data Sheet No. 24590-LAW-MOD-LEH-00014
Plant Item No 24590-LAW-MJ-LEH-CRN-00003 Rev. 7

R10737254

Project	RPP-WTP	Description	LEH Crane Export High Bay With Recovery, 10 Ton
Project No.	24590	Supporting Calculation No.	24590-LAW-M0C-LRH-00004
Planning Area	6B	Associated Drawing No.	24590-LAW-M7-LEH-00002002; 24590-LAW-P1-P01T-00009
System No.	LEH	Associated Specification No.	24590-LAW-3PS-MJG-T0001
Building No.	20	Associated MR No.	24590-CM-MRA-MJG-00003
Quality Level	CM-Commercial		
Seismic Criteria	SC-III (UBC Zone 2B)		
Function	Load and transfer ILAW containers		

DESIGN CRITERIA

Design Life	40 years	Safety Class	Non Important To Safety (ITS)		
OPERATING ENVIRONMENT		In-Cave Rm #	NA	Out-Cave Rm #	L-0127
					List All Special Conditions
Temperature	deg F	N/A	N/A	50	113
Relative Humidity	%	N/A	N/A	5	100
Radiological Equip. Dose	gamma	rad/ 40 yrs	N/A	N/A	175
	neutron	rad/ 40 yrs	N/A	N/A	Negligible
Radiological Classification			N/A	N/A	R2
Contamination Classification			N/A	N/A	C1

CRANE REQUIREMENTS

Type of Crane	LEH Crane Export High With Recovery, 10 Ton			Tons	
Service Information	CMAA-70: Class D		Capacity	10	
Crane Operation Indoors?	Yes		Main Hoist	10	
Material Handled	Filled ILAW Product Containers		Auxiliary Hoist	N/A	
Class Information	CMAA-70; Class D		Trolley	10	
No. of Cranes Required	1		Bridge	10	
ASCE Rail Type or Beam Size	104# CR [Buyer (CSA) supplied]				
Lifts	Symbol	(ft)	(in)	Quantity	Main Speed
Maximum Lift - Main Hoist	A	31	0	Lifts/day 5	VAR 0-25 (ft/min) 5
Maximum Lift - Aux. Hoist	N/A	N/A	N/A	Lifts/day N/A	N/A (ft/min) N/A
Average Moves - Bridge	N/A	45	0	Moves/day 10	VAR 0-25 (ft/min) 5
Average Moves - Trolley	N/A	30	0	Moves/day 10	VAR 0-25 (ft/min) 5
Rail Lengths	Symbol	(ft)	(in)		
Runway Length	B	79	0		
Hook Approach - hook C/L to end walls (Maximum)	C	See note 2	See note 2		
Span	D	40	0		
Hook Approach - hook C/L to Rail C/L (Maximum)	E	See note 3	See note 3		

11-14-06	7	Calc reference correction; As-built; CCNs 137017 & 139194; Project closeout & 24590-LAW-MON-LEH-00001.	<i>W Frier</i>	<i>D. Adams</i>	<i>J. LaBryer</i>	<i>P. Snider</i>
12/8/2005	6	Revised "J" IAW 24590-CM-POA-MJKH 00002-01-00024, Incorporated 24590-WTP-SDDR-M-05-00201	WA Frier	N. Darwen	P Snider	J. LaBryer
10/1/2004	5	Revised rail beam attachmet in accordance with CCN 101264	WA Frier	N. Darwen	L. Harrison	D Wilsey
9/17/2004	4	Revised festoon location per Sellers request (CCN 089943)	WA Frier	N Darwen	L. Harrison	D. Wilsey
08/05/04	3	Revised Dim "H" & "G" in accordance with CCN 095329 & 095615 (except span retained as 40'-0"), clarified note 7; and added note 10 due to design evolution	WA Frier	N Darwen	L Harrison	D. Wilsey
06/14/04	2	Revised throughput in accordance with CCN 068365	WA Frier JSH	E Szavay	L Harrison/N Darwen	D. Wilsey
03/15/04	1	Corrected Note in Environmental Conditions Notes 7 & 9 revised for clarification	WA Frier	E Szavay	L Harrison	D. Wilsey
10/07/03	0	Issued For Procurement	WA Frier	A Whitford	J. Weamer/M. Johnson	D. Wilsey
Date	REV	Revisions	By	Checked	Supervisor	Approved
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Rail Positions	Symbol	(ft)	(in)
Top of Rail to Ceiling	F	N/A	N/A
Floor to Top of Rail	G	32	0
Rail Centerline to side wall	H	1	2
Bridge end to wall	N/A	N/A	N/A
Top of Rail to Lowest Obstruction	J	8	5

Drives	Volts	Phase	Hz	Control Type
Hook Rotate Drive Type	N/A	N/A	N/A	N/A
Main Hoist Drive Type	460	3	60	Intelligent Drive
Aux. Hoist Drive Type	N/A	N/A	N/A	N/A
Bridge Drive Type	460	3	60	Intelligent Drive
Trolley Drive Type	460	3	60	Intelligent Drive
Slewing Drive Type	N/A	N/A	N/A	N/A

CONDUCTOR TYPE

Bridge	Festoon
Trolley	Festoon

CONTROLS

Method of Control	Combination of Automation/Semi Automatic/manual - Through Integrated Control Network (ICN)
Location of Control	Facility Control Room HMI/ (CMA) Controller / LOI in Operating Area
Type of Control Enclosure	NEMA 12
Main Hoist	ICN
Auxiliary Hoist	N/A
Bridge	ICN
Trolley	ICN
Slewing Drive	N/A
Rotating Hook	N/A

MATERIALS

Item	Material	Grade/Type
	A36	Seller shall designate

ELECTRICAL REQUIREMENTS

Item	HP	HP	HP	HP	HP
Motor Main Hoist	20	Aux. Hoist	N/A	Bridge	(4) 1.75
Hook Rotate	N/A			Trolley	(2)1.75
				Slewing	N/A

Special Wiring Conditions or Codes National Electrical Code
 Motor horsepower estimated for plant electrical load sizing. Seller to provide.



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MAINTENANCE REQUIREMENTS

Retrieval	Bridge, Trolley, and Hoist Drives shall be recoverable in accordance with 24590-LAW-3PS-MJG-T0001, Sec.3.2.10.
Decontamination	N/A

ADDITIONAL REQUIREMENTS

1. Three crane mounted cameras capable of pan, zoom and tilt. One on the East end truck, one mounted to the trolley, and one on the bridge approximately 10 feet from the East rail centerline. (Buyer Supplied)
2. C1 = 15'-0"; C2 = 15'-0"
3. E1 = 4'-0" maximum; E2 = 6'-0" maximum △
4. Provide six crane mounted lights mounted to underside of bridge beams. Three lights shall be equally spaced on each beam. Provide 60-ft candles at 7.5-ft above floor level.
5. Recovery motor size: Hoist 4HP, Bridge (2) 1.75 HP, Trolley 1.75HP. Sizes are approximate and used for plant electrical load sizing. Seller shall verify size.
6. Room L-0127 is classified as R2/R5 when LAW canister is present which occurs less than 20% of time. Exposure is 30 mR/hr. at 4-ft from contact (24590-LAW-Z0C-W13T-00002).
7. The bottom of the festoon loop shall not hang below elevation 18'-0".
8. Provide walkway on south side of crane for maintenance.
9. Seller shall provide crane-mounted walkway for festoon rail inspection. Walkway shall be designed for 100 pounds per square foot.
10. Control and power feed will be from the north wall. Power and control cables will be a maximum of 150-ft length from 24590-LAW-JC-LEH-PNL-00005 to the junction boxes. △
11. Seller shall identify number of bridge festoon wall supports and size common to wall. Festoon supports need not be painted if materials of fabrication are stainless steel. △
12. For LEH-CRN-00003 seismic calculations use $h_r = 48'-0"$.
13. Bridge festoon support (24590-CM-POA-MJG-00003-08-00061) overall length shall be 52". △
14. This data sheet is a lead document that contains input information for Design Basis Event calculations. Modification of the maximum lift height of the main hoist require AB review by the E&NS discipline. Changes to the text of this note require AB review by the E&NS discipline as well. If the changes being made do not alter the maximum lift height of the main hoist or the text of this note, AB review is not required. (A Safety Screening/Evaluation is required because the proposed changes identify these documents as Lead Documents that require E&NS screening when specific parameters are modified.) △



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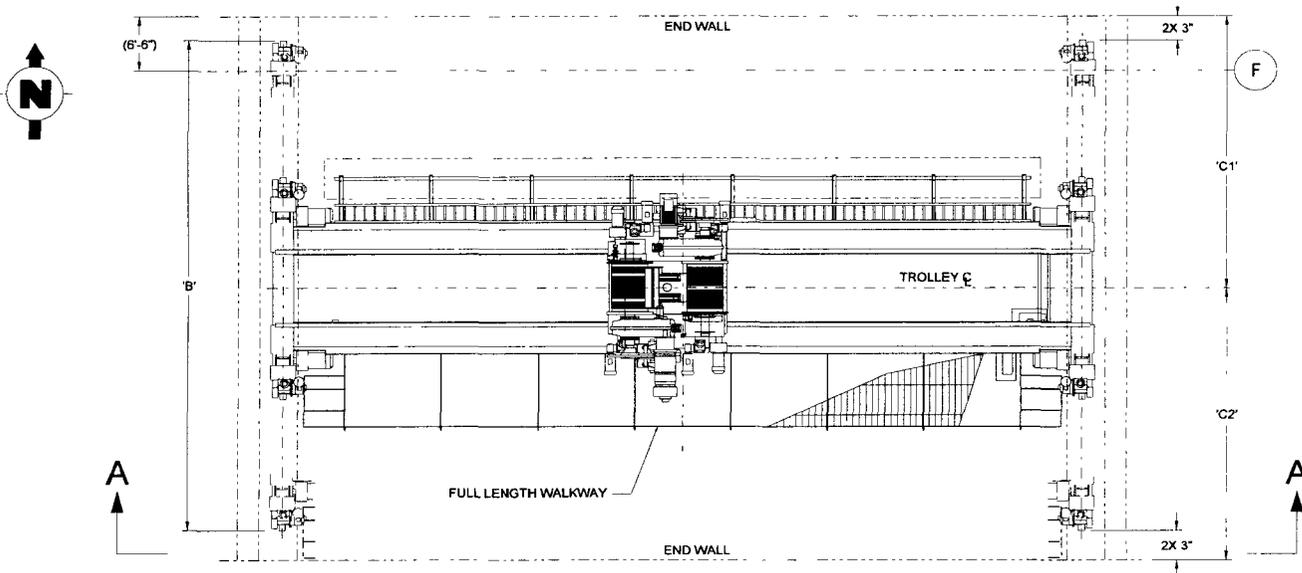
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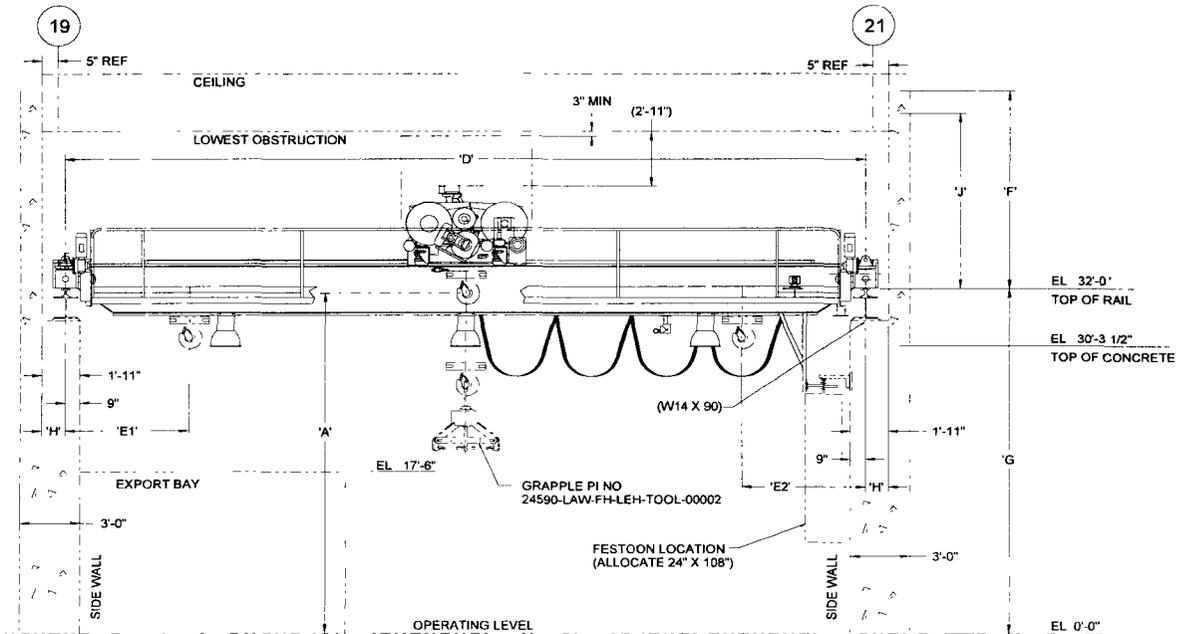
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THIS DRAWING PROVIDED BASIC OUTLINES, DESIGN OBJECTIVES, AND BOUNDING DIMENSIONS TO CONTRACTED DESIGN OR FABRICATION SUPPLIER(S) AND SHALL NOT BE USED TO CONFIRM THE AS BUILT WTP STRUCTURE, SYSTEM OR COMPONENT IDENTIFIED HEREIN, SEE VENDOR INFORMATION FOR FINAL CONFIGURATION PROVIDED IN CONFORMANCE TO PURCHASE ORDER.



PLAN VIEW AT ELEV. 35'-0"



VIEW A-A



CRANE GRAPHICS UPDATED WITH VENDOR'S AS-BUILT CRANE