

To whom it may concern:

The purpose of this document is to evaluate the (4) passenger boarding bridges currently installed at Duluth International Airport (DLH). Life expectancy is generally 10-12 years for passenger boarding bridges (PBBs) before some major maintenance will need to be performed: replacing canopies, motors, hydraulic cylinders, and weather seals. Each gate is listed individually with problems found and recommendations.

Gate 1:

Manufacturer: ThyssenKrupp
Model number: TB 43/20 5-3
Serial number: 01202TB4331743
Manufacture date: 12/2012

Problems found:

- 1) There are minor areas where the paint is flaking. This could result in more damages from rusting and corrosion if not addressed.
- 2) Travel warning bell works intermittently. This is a safety issue and needs to be addressed.
- 3) Some minor holes starting to form in the upper corners of the canopy.
- 4) Evidence of a minor leak in the rotunda roof and leaking around the light.
- 5) Ceiling lights throughout the bridge and walkways were not working properly, possibly from the cold weather.

Recommendations:

- 1) Sand, prime, and paint to prevent further degrading of the surface of the bridge.
Option 2: re-paint the entire bridge to have uniform color for aesthetic appearance.
- 2) Inspect the travel warning bell circuit to locate the cause of it working intermittently and replace the bell. This is a safety issue.
- 3) Apply a patch kit to the corners of the canopy. This will prolong the life of the canopy.
- 4) Repair rotunda roof to fix existing leak.
- 5) Upgrade the interior ceiling lights to LED.
- 6) Replace carpet
- 7) Re-paint interior of bridge

Gate 1 is the newest bridge installed, while the bridge has been well maintained and is in excellent shape; some items should be addressed to prolong the life of the bridge. As this bridge is approaching the later stage of life expectancy, with continued maintenance, this bridge should last for another 8+ years.

Gate 2:

Manufacturer: ThyssenKrupp
Model number: TB 33/20.0-2
Serial number: 05095TB3321089
Manufacture date: 12/2004

Problems found:

- 1) There are minor areas where the paint is flaking. This could result in more damages from rusting and corrosion if not addressed.
- 2) Evidence of weather seals leaking from water stains on the floor.
- 3) Holes in the canopy.
- 4) Travel warning bell not working and needs to be replaced. This is a safety issue.
- 5) Carpet is worn.
- 6) Ceiling lights throughout the bridge and walkways were not working properly, possibly from the cold weather.
- 7) Cab roll-up door track is damaged, causing the door to operate slowly.

Recommendations:

- 1) Sand, prime, and paint to prevent further degrading of the surface of the bridge.
Option 2: re-paint the bridge to have uniform color for aesthetic appearance.
- 2) Inspect the travel warning bell circuit to find the cause of it not working and repair or replace the bell. This is a safety issue.
- 3) Apply patch kit to canopy.
- 4) Replace carpet.
- 5) Upgrade interior ceiling lights to LED.
- 6) Replace cab roll-up door.

Gate 2 is the oldest bridge and is showing the most signs of wear. Like the other bridges, this one has been well maintained. Not knowing the repairs performed and its stage in the life cycle; this would be the first bridge to replace with a new or fully refurbished bridge within the next 5 years.

Gate 3:

Manufacturer: ThyssenKrupp
Model number: TB 35/21.0-2
Serial number: 05191TB3521534
Manufacture date: 10/2009

Problems found:

- 1) Interior metal trim at the rotunda to the walkway is coming loose.
- 2) Ceiling lights throughout the bridge and walkways were not working properly, possibly from the cold weather.
- 3) Brush seal on rotunda roof damaged.
- 4) There are minor areas where the paint is flaking. This could result in more damages due from rusting and corrosion if not addressed.

Recommendations:

- 1) Replace interior metal trim at the rotunda to the walkway transition.
- 2) Upgrade light to LED.
- 3) Replace brush seal around the rotunda roof.
- 4) Sand, prime, and paint to prevent further degrading of the surface of the bridge.
Option 2: re-paint the entire bridge to have uniform color for aesthetic appearance.

Gate 3 is in good shape for the age of the bridge. Like the other bridges, this one has been well maintained, and with continued maintenance, should be reliable for 5+ years.

Gate 4:

Manufacturer: ThyssenKrupp
Model number: TB 41/24.5-2
Serial number: 05191TB4121533
Manufacture date: 10/2009

Problems found:

- 1) Interior metal trim from the walkway to the building is coming loose.
- 2) Ceiling lights throughout the bridge and walkways were not working properly, possibly from the cold weather.
- 3) Right side metal wall at the cab curtain is bent.
- 4) There are minor areas where the paint is flaking. This could result in more damages due from rusting and corrosion if not addressed.

Recommendations:

- 1) Replace interior metal trim from the walkway to the building transition.
- 2) Upgrade light to LED.
- 3) Repair right side cab wall.
- 4) Sand, prime, and paint to prevent further degrading of the surface of the bridge.
Option 2: re-paint the entire bridge to have uniform color for aesthetic appearance.

Gate 4 is in good shape for the age of the bridge. Like the other bridges, this one has been well maintained, and with continued maintenance, should be reliable for 5+ years.



5425 Poindexter Drive; Indianapolis, IN 46235
 Phone: (317) 826-2000; Fax: (317) 826-2005

Quote # 4989

12-Mar-21

Short Elliott Hendrickson Inc.
 3535 Vadnais Center Drive
 Saint Paul, MN 55110
 Attn: Mattew Stewart

Re: Passenger Boarding Bridge Inspections
 Duluth International Airport (DLH)

Dear Mr. Stewart,

We propose to furnish materials, labor, trucks, tools, & equipment to perform the following scope of work:

Item No.	Scope of Work:	Quantity	Unit Price	Extended Price
	Gate 1			
1	SAND, PRIME, PAINT; FIX TRAVEL WARNING BELL; APPLY CANPOY REPAIR KIT; REPAIR ROTUNDA LEAK; UPGRADE TO LED LIGHTING; REPLACE CARPET	1	\$ 60,960	\$ 60,960
	Gate 2			
2	SAND, PRIME, PAINT; FIX TRAVEL WARNING BELL; APPLY CANPOY REPAIR KIT; REPLACE ROLL-UP DOOR; UPGRADE TO LED LIGHTING; REPLACE CARPET	1	\$ 54,060	\$ 54,060
	Gate 3			
3	SAND, PRIME, PAINT; REPLACE BRUSH SEAL AROUND ROTUNDA; REPLACE INTERIOR METAL FLASHING @ BUILDING TO WALKWAY AND WALKWAY TO ROTUNDA; UPGRADE TO LED LIGHTING; REPLACE CARPET	1	\$ 43,093	\$ 43,093
	Gate 4			
4	SAND, PRIME, PAINT; REPAIR RIGHT SIDE CAB WALL; REPLACE INTERIOR METAL FLASHING @ BUILDING TO WALKWAY AND WALKWAY TO ROTUNDA; UPGRADE TO LED LIGHTING; REPLACE CARPET	1	\$ 62,382	\$ 62,382
	Mobilization & Demobilization	1	\$ 5,717	\$ 5,717
	SUB-TOTAL			\$ 220,494
2	ADDED for Estimated Taxes (if required - subject to change)	1	\$ 15,435	\$ 15,435
	TOTAL (including taxes)			\$ 235,928

Assumptions:

Work to be performed during normal business hours.

Exclusions:

Bond; Retainage; Permits; Engineers calculations or stamp; Submittal drawings; Liquidated damages; Barricades; Escorts; Building electrical upgrades; Foundation work; Concrete analysis; Surveying; Night work; Prevailing wage rates; Union labor; Anything not specifically included

Quotation valid for 30 (thirty) days.

Sincerely,

Jeff Lotshaw
 Director of Sales & Estimating
 Office: (317) 826-2000 Ext. 101
 Mobile: (317) 362-1172



5425 Poindexter Drive; Indianapolis, IN 46235
 Phone: (317) 826-2000; Fax: (317) 826-2005

29-Apr-21

Quote #4989

Short Elliott Hendrickson Inc.
 3535 Vadnais Center Drive
 Saint Paul, MN 55110
 Attn: Matthew Stewart
 Email: mstewart@sehinc.com

Re: Passenger Loading Bridge Replacement
 Duluth International Airport (DHL)
 Duluth, MN 55811

Dear Matthew,

We propose to furnish materials, labor, tools, trucks, and equipment for the following listed items:

ITEM NO.	BASE BID: SCOPE OF WORK	QTY	UNIT PRICE DOLLARS	TOTAL AMOUNT DOLLARS
1	MOBILIZATION/DEMobilIZATION/BADGING/FIELD SUPPLIES	1	\$ 13,014	\$ 13,014
2	REMOVE/INSTALL EXISTING GPU UNIT	1	\$ 5,156	\$ 5,156
3	REMOVE/INSTALL EXISTING PCA UNIT	1	\$ 5,567	\$ 5,567
4	REMOVE AND SCRAP EXISTING PBB/PROVIDE FULLY REFURBISHED PBB/TRANSPORT/INSTALL FULLY REFURBISHED PBB	1	\$ 509,310	\$ 509,310
5	DESIGN/ENGINEERING PLB LAYOUT	1	\$ 9,006	\$ 9,006
6	TAXES (if required - subject to change)		\$ 43,400	
Total Base Bid(Includes taxes)				\$ 542,053

Assumptions:

Work to be performed during normal business hours.
 Pricing based on a A3 - 58/110 JBT bridge

Exclusions:

Bonds; Retainage; Permits; Engineers calculations or stamp; Submittal drawings; Liquidated damages; Barricades; Escorts; Building electrical upgrades; Foundation work; Concrete analysis; Surveying; Night work; Prevailing wage rates; Union labor; Anything not specifically included

Note:

Refurbished bridges will have the same one(1) warranty as new.

Quotation valid for 30 (thirty) days.

Sincerely,

Jeff Lotshaw
 Director of Sales & Estimating
 Office: (317) 826-2000 Ext. 101
 Mobile: (317) 362-1172