

TO: STRUCTURES DEVELOPMENT SECTION

(May 2014)

FROM: KL Engineering, INC.

SUBJECT: Structure Inventory Data (Complete all data fields applicable) (Complete only changed **DATA** for Rehab.)

STRUCTURE NO. B-16-38	Municipality Duluth	Section 08	Town 49N	Range 14W	Maintaining Agency	Owner
Replaced Structure No.	Historical Sig. 5	Latitude 464432.63	Longitude 920913.28	10-State 30-County	40-Town 41-City	42-Vil

ABUTMENT DATA

1. Abutment Type
☐ Sill, Rect. ☐ Full Retaining
☐ Sill, Rect., Semi Exp. ☐ Pile Encased
☐ Semi Retaining ☐ Other _____
2. Pile Type
☐ Timber ☐ Steel ☐ Cast in Place
3. Pile Size
☐ 8" ☐ 10" or 10 3/4"
☐ 12" ☐ 14" ☐ Other _____
4. Slope Protection Type
☐ Rip Rap ☐ Heavy Rip Rap
☐ Asphalt over Stone ☐ Solid Concrete
5. Rdwy. Width _____ ft. (Face to face of curb or rail)
6. Deck Width _____ ft. (Outside edge to outside edge of concrete.)
- 7.A Wing Type
☐ Parallel to Rdwy. ☐ Skewed-
☐ Perpendicular to Rdwy.
- 7.B Applicable for INTEGRAL WINGS
South or West Direction North or East direction
Wing1 - Length.....ft. Wing3- Length..... ft
Wing2 - Length.....ft. Wing4 - Length..... ft.

GEOMETRIC DATA

8. Structure Length _____ ft. (Back to Back Abuts. Along Rdwy. Centerline)
9. No. Lanes On _____
10. No. Lanes Under _____
11. L. Sdk. Width On _____ ft.
12. R. Sdk. Width On _____ ft.
13. Median Type _____
14. Median Width _____ ft.
15. Skew Angle _____ Deg.
16. Direction Skew Angle: ☐ None ☐ Left ☐ Right
17. Horizontal Curve _____ Radius, ft.
18. Dir.-Hor. Curve: ☐ Left ☐ Right
19. NBI Bridge Length Met (Y if over 20') between front faces of abutments along skew ☐ Yes ☐ No

APPROACH DATA

20. App. Pavement Width _____ ft.
21. Rt. Shoulder Width _____ ft.
22. Left Shoulder Width _____ ft.
23. Total Width (Sum Above) _____ ft.
24. Guardrail Termination: Y
25. Guardrail Adequacy: Y
26. Railing Attachment Type:
☐ No Appr. Grdrl. ☐ 5-7/8" Bolts
☐ Other _____
27. Rail Design Year-1965 AASHTO
28. Left Outer Railing Type _____
29. Right Outer Railing Type _____
30. Left Inner Railing Type _____
31. Right Inner Railing Type _____
Conc. LF (91) Concrete HF (92)
Type M (93) Other _____

CAPACITY DATA

32. Design HS /HL _____
33. Inventory HS /RF _____
34. Operating HS/RF _____
35. Max. Veh. Wt. ☐ 250 Kips ☐ _____ Kips
36. Load Rating Basis – LFR/LRFR (Check One)
37. Load Governing Member
☐ Deck Girder ☐ Slab
☐ Other _____
38. Deck Composition ☐ Concrete ☐ Bituminous
☐ Other _____
39. Deck Membrane ☐ Yes ☐ None
Deck Surface ☐ Concrete ☐ Bituminous

HYDRAULIC DATA

40. Design Flood Frequency _____ yrs.
41. Design Discharge _____ cu.-ft./sec.
42. Max. Velocity _____ ft/sec
43. Drainage Area _____ sq. miles
44. High Water Elev. _____ ft.
45. Scour Critical Code _____
46. Scour Calculated? ☐ YES ☐ NO

STRUCTURE SERVICE DATA

47. Hwy. On Detour Length _____ mile
48. Hwy. Under Detour Length _____ mile
49. Type Service On
☐ Highway ☐ RR ☐ Pedestrian
☐ Other _____
49. Type Service Under
☐ Highway ☐ RR
☐ Waterway ☐ Bike Trail
☐ Other _____

PLANNING DATA

50. Functional Classification On _____
51. Functional Classification Under _____
- Interstate Rural (1) Interstate Urban (11)
Other Art-Rural (2) Other Art.-Urban (14)
Local-Rural (9) Local Urban (19)
52. Traffic On: ☐ None ☐ 1-Way ☐ 2-Way
53. Traffic Under: ☐ None ☐ 1-Way ☐ 2-Way

CONSTRUCTION DATA

54. Plans Completed YR 2024 MO 12 DAY 19
55. WORK Performed
☐ New Structure (1) ☒ Other Replace STR
56. Designer
Bridge Section: ☐ Unit 1 ☐ Unit 2 ☐ Unit 3
☒ Consultant KL Engineering
57. Contractor _____
58. Letting Date 5-13-24
59. Project ID 8680-00-74 _____
60. Construction Cost _____

UNDER CARDINAL CLEARANCE

For North & East Bound Rdwys.

(Specify if Railroad)

61. Clearance Direction: ☐ North ☐ East
62. Minimum Vertical _____ ft. (Top of Rdwy. under or
Top of Rail to low point on structure).
63. Minimum Vertical Date (YYYY-MM-DD) _____
64. Minimum Horizontal _____ ft. (Total of lane widths plus
lateral widths).
65. Right Min. Lateral _____ ft. (Outside edge of lane
under or C/L Tracks to pier face or toe of slope).
66. Left Min. Lateral _____ ft. (Outside edge of lane
under or C/L Tracks to pier face or toe of slope).
67. Railroad Right Minimum Lateral _____ ft.
68. Railroad Left Minimum Lateral _____ ft.
69. Railroad Vertical Distance _____ ft.
70. Railroad Horizontal Distance _____ ft.

UNDER NON CARDINAL CLEARANCEFor South & West Bound Rdwys. (Same as Cardinal for 2
Lane Hwys.)

71. Clearance Direction: ☐ South ☐ West
72. Minimum Vertical _____ ft.
73. Minimum Vertical Date (YYYY-MM-DD) _____
74. Minimum Horizontal _____ ft.
75. Right Min. Lateral _____ ft.
76. Left Min. Lateral _____ ft.
77. Railroad Right Minimum Lateral _____ ft.
78. Railroad Left Minimum Lateral _____ ft.
79. Railroad Vertical Distance _____ ft.
79. Railroad Horizontal Distance _____ ft.

**ROUTE
ON**80. Enter All Route Numbers, or CTH Numbers, or Town Road
Name, and directions or RR:

Direction: ☐ North ☐ East
☐ South ☐ West
Designation: ☐ Mainline ☐ Other _____

Inventory Route: ☐ On NHS ☐ Not on NHS
Route Location: _____

UNDER81. Enter all Route Numbers, or CTH Numbers, or Town Road
Name, and directions, or RR or Waterway name.

Direction: ☐ North ☐ East
☐ South ☐ West
Designation: ☐ Rdwy. ☐ Waterway
☐ RR ☐ Other _____

Inventory Route: ☐ On NHS ☐ Not on NHS
Route Location: _____

PIER DATA

82. Number of Consecutive Pier Types _____
83. Type
☐ Hammerhead ☐ Round Column Bent
☐ Pile Bent ☐ Piles Encased
☐ Other _____
84. Pile Type
☐ Timber ☐ Steel ☐ Cast in Place
☐ Other _____
85. Pile Size
☐ 8" ☐ 10" or 10 3/4"
☐ 12" ☐ 14" ☐ Other _____

SPAN DATA

86.	Span No/Nos ¹					
87.	Span Type ²					
88.	Length, Ft. ³					
89.	Configuration ⁴					
90.	Material ⁵					
91.	Girder or Truss Height (In.)					
92.	Girder or Truss Spacing (Ft.)					

¹ Add spans as needed ,²Type Approach (A)/ Main(M)³ CL Bearing to CL Bearing

⁴ Configuration = Haunch Slab (1) ⁵ Material Concrete(1)
Flat Slab (2) Cont. Conc. (2)
Deck Girder (3) Steel (3)
Deck Girder PS Wide (4) Cont. Steel (4)
Other _____ Prest. Conc. (5)
Cont. Prest. (6)
Timber(7)

EXPANSION JOINT

93.	LOCATION	JOINT TYPE

Modular Jt. (MODULAR JT.)

Strip Seal (STRIP SEAL) _____

TRAFFIC DATA

	<u>ON</u>	<u>UNDER</u>
94. ADT	_____	_____
95. ADT-Year	_____	_____
96. Truck ADT %	_____	_____
97. Future ADT	_____	_____
98. Future ADT-Year	_____	_____

SPECIAL COMPONENT

99. Type _____
Description _____
CHECK
DECK: ☐ SUPER ☐ SUB ☐

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