LBFoster
Fabricated Bridge Products

4 1/4" Interlock with Concrete Overfill

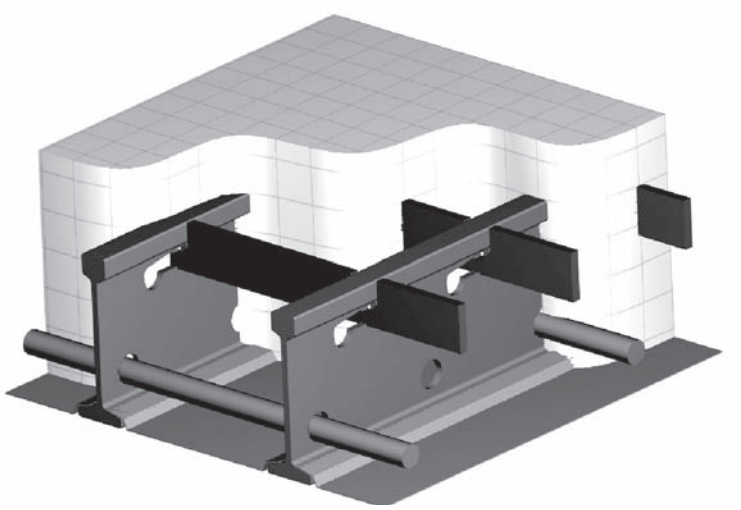
This grid is an excellent choice where dead-load reduction is not a primary goal but speed of construction, long term durability and low cost are key decision making factors.

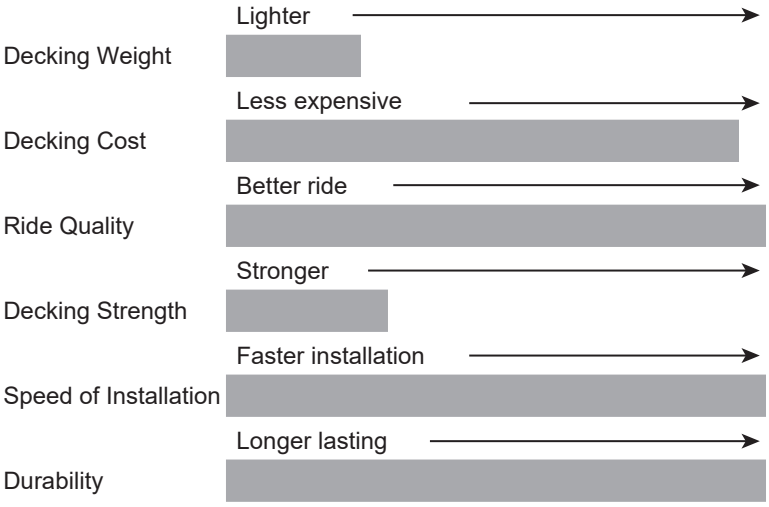
The design table below shows the grid proper-ties including a 1 1/2" monolithic concrete over-pour which is recommended for improved ride quality and added corrosion protection for the steel grid. The additional concrete also increas-es the structural properties of the composite deck section.

As with all grid reinforced concrete bridge decks, we recommend using shear studs for at-taching the decking to the supporting structure for a fully composite system.

4 1/4" grids are commonly supplied with main beam spacing ranging from 6" to 12" c/c so that you can match the strength of the decking to the requirements of the application.

APPLICATION GUIDELINES





4 1/4" Interlock · HS 25 Load Table

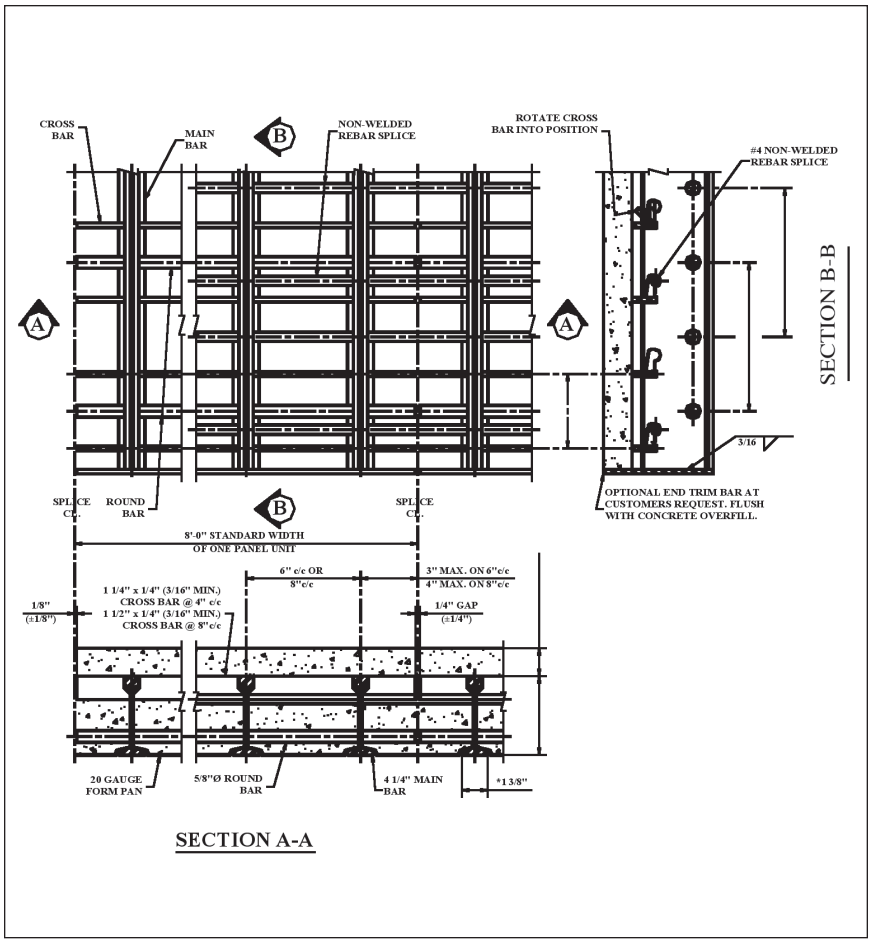
Main Bar Spacing (in)	Minimum Sectional Properties (in^3/ft)						Maxiumum Continuous Clear Span (ft)		Approximate Weight (lbs/sf) Incl 1 1/2 Overfill	
	Steel Only		Composite Section							
	Top Steel	Bottom Steel	Positive		Negative		Transverse	Parallel	Steel Only	Steel & 144#ft^3 Conc
			S_{CONC}	S_{STEEL}	S_{TOP}	S_{BOTTOM}	Gr.50	Gr.50		
6	3.04	3.29	63.82	4.88	52.93	3.20	7.5	6.1	16.8	81.1
8	2.28	2.47	56.78	3.79	44.26	2.43	6.2	4.8	14.3	79.3

Typical Specification

The steel grid bridge flooring shall be 4 1/4" Interlock as manufactured by the L.B. Foster Company, 415 Holiday Drive, Pittsburgh, Pennsylvania 15220 – Phone (412) 928-3455. The deck shall be manufactured from the following steel elements:

Main Beam (MB) @ 6" or 8" c/c	4 1/4" deep special rolled beam x 5#/LF
Cross Bar (C'Bar) @ 4" or 8" c/c	1 1/2" x 1/4" flat bar
Bottom Round Bar @ 8" c/c	5/8" Diameter round bar or #5 Rebar
Steel Specification	All steel shall be 50 ksi (A709 Gr. 50 / A572) or 50 ksi weathering (A709 Gr. 50W / A588)

Typical Details: 4 1/4" Interlock with Concrete Overfill



Request manufacturer's standard 4 part product specification for inclusion with project documents.

The deck shall be assembled such that the tops of all elements are in the same plane and notching of the main beam top flange shall not be permitted.

Grid assembly welding will be per manufacturer's standard welding details.

Finish: Most types of coatings can be provided; common finishes are mill finish for 50 ksi weathering steel and hot dipped galvanized for 50 ksi steel-note that distortion from galvanizing will occur, request manufacturer's tolerances.