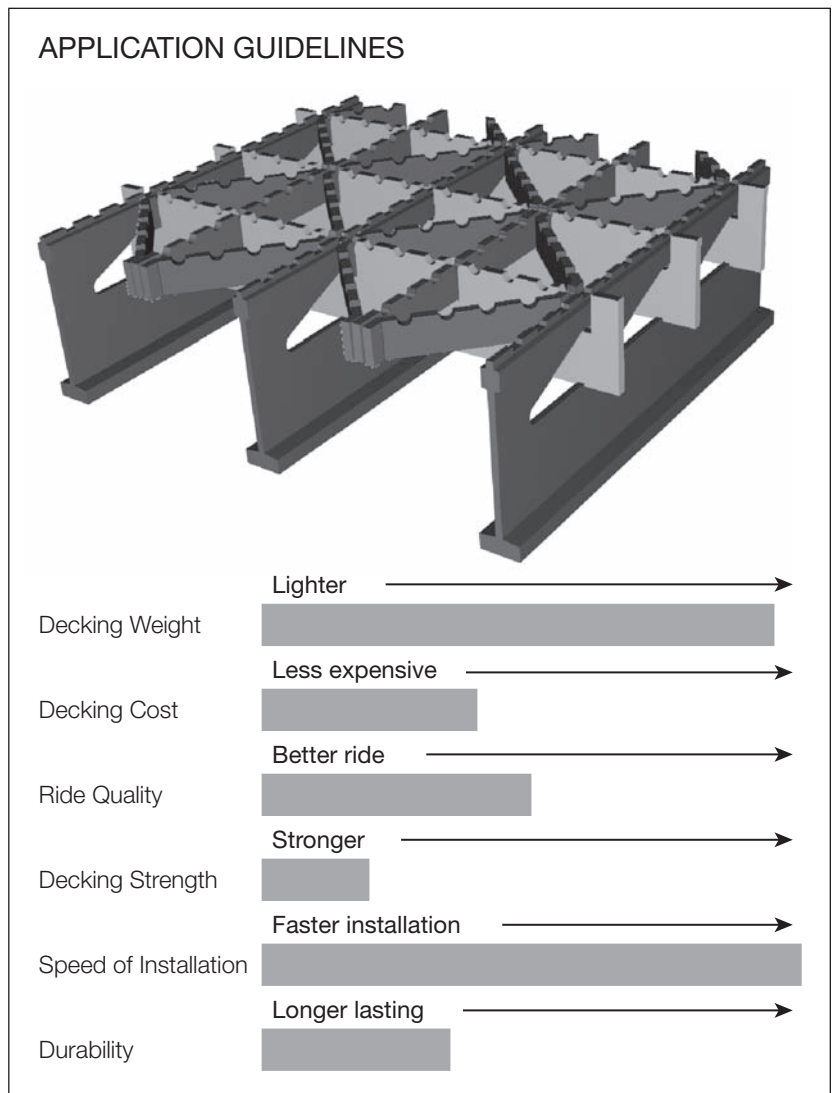


L. B. Foster's 5-Inch 4-Way Modified was developed to meet increasing performance and reliability needs, as highway traffic volumes and truck loadings continue to grow, without adding additional deck dead load. Open grid design durability is linked directly to transverse stiffness — the ability to transmit load from one main beam to adjacent ones. To provide increased transverse stiffness, Foster configured its main beam to permit use of a deeper/stiffer distribution bar.

The modified grid delivers transverse stiffness increases of 50% or more, greatly improving load distribution and reducing localized stresses.

This grid maintains the 4-Way design style so the desirable deck features of fatigue resistance, ride quality and stiffness are maintained or improved. The standard modified grid is available with the 5 3/16" x 5.3# main beam spaced on 7 1/2" centers. Material is either 50-ksi or 50-ksi weathering steel.



5-Inch 4-Way Modified • Properties Table 5.4-M

Style / Main Beam Size & Spacing	Section Modulus (in ³ /ft)*		50 ksi Steel Max Continuous Clear Span HS25 Wheel Load		Approximate** Weight (lbs/SF)
	Top	Bottom	L/800 Deflect	27 ksi Stress	
4 Way M / 5.3# @ 7.5"	4.038	4.321	4.81 ft.	6.71 ft.	18.5

* Section modulus based on 50% of the diagonal bars active.

** The deck weight psf is based on an uncoated standard panel width of 7'-8", actual weights may vary due to panel widths used, coating weight and deck attachments.

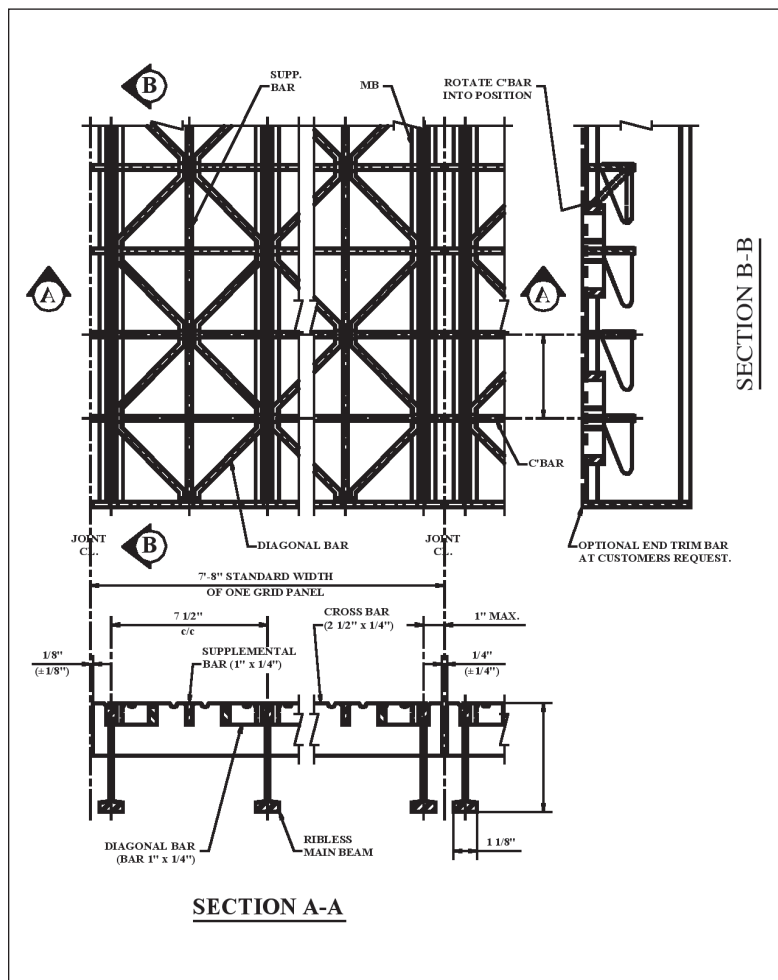
NOTE: The information contained herein has been prepared in accordance with generally accepted engineering principles. However, L.B. Foster Company is not responsible for any errors that may be contained herein. The user of the information provided herein should check the information supplied and make an independent determination as to its applicability to any particular project or application.

Typical Specification

The welded open steel grid bridge flooring shall be 5-Inch 4-Way Modified as manufactured by the L.B. Foster Company, 1016 Greentree Road, Pittsburgh, Pennsylvania 15220 – Phone (412) 928-3452 & Fax (412) 928-3514. The deck shall be manufactured from the following steel elements:

Main Beam (MB) @ 7.5" c/c	5 ³ / ₁₆ " deep special rolled beam x 5.3#/LF
Cross Bar (C'Bar) @ 4" c/c	2 1/2" x 1/4" flat bar
Diagonal Bar (2 between each main bar)	1" x 1/4" (minimum) flat bar
Supplemental Bar @ 7.5" c/c	1" x 1/4" (minimum) flat bar
Steel Specification	All steel shall be 50 ksi (A709 Gr. 50 / A-572) or 50 ksi weathering (A709 Gr. 50W / A-588)

Typical Details: 5-Inch 4-Way Modified



All elements shall be serrated on their top surfaces. Serration pattern shall be @ 1" c/c (max.), where possible. The new uncoated deck shall provide a skid resistance number (SN) of 53 @ 40mph-when tested in accordance with ASTM E274.

The deck shall be assembled such that the tops of all elements are in the same plane and notching (other than serration) of the main bar top flange shall not be permitted. Two tertiary diagonal bars shall be provided between each grid main beam to provide a diagonal style riding surface. Notching the bottom of the cross bar or substitution of a rectangular patterned grid is not permitted.

The grid shall be welded at all intersections using the manufacturer's standard welding process. The grid shall be manufactured and designed to provide the properties indicated in the 5-Inch 4-Way Properties Table 5.4-M.

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.

WARNING: Uncoated-weathering steel provides the best skid resistant open grid surface. Galvanized or painted coatings can reduce the skid resistance. Vertical and/or horizontal curves on the bridge decking can increase lateral forces on vehicles, further reducing skid resistance efficiency. It is recommended that lane changes be prohibited and appropriate speed limits be strictly enforced to promote safety. Various studies are available upon request.