[redacted]

STANDARD EXODERMIC BRIDGE DECK – DATA INPUT SHEET

Variables are in drop down boxes or are shown in red

(Additional Input Variables on Cantilever Sheet)

Project Title	VT - Richmond Truss		
Grid Component	WT 4 x 5		
Main Bearing Bar Spacing	12		

Concrete Component

Concrete type	Normal weight	Cast-in-place	
Concrete thickness (in.)	5		
Top portion of concrete to ignore for future resurfacing	0.5	in.	
Weight of proposed or future wearing surface	25	lbs/sf	
Weight of additional dead load (sidewalks, barriers, etc.)	0	lbs/sf	(Distributed across deck)
Concrete weight	145		MODULAR RATIO, N= 8
Concrete strength (f'c)	4000	psi	(See discussion on sheet "Section")
Steel strength (f's)	50,000	psi	Specify ASTM A992 (or ASTM A588 for weathering steel)
top rebar #	4	@ 4	in. o-c
bottom rebar #	4	@ 6	in. o-c
Rebar strength	60,000	psi	
Maximum Allowable Stress in Rebar	24,000	psi	20,000 per AASHTO 10.58.2.1 (20,000 for Grade 40, 24,000 for Grade 60 - AASHTO 8.15.2.2)
Shear Hole height	0.75	in. @ 2 in. c-c	Weld length = 0.5 in.
			Location of top of welds relative to bottom of main bars = 2.945
			(Assumes top of weld located at top of distribution bar)
Height of Main Bar embedded in concrete	1	in.	Form Pan Thickness 20 gauge

Deck Continuity	Continuous	**Design Load**	HS-25
Pedestrian Uniform Load	85	PSF	(Generally 85 PSF, AASHTO 3.14.1.3)
Main Bar Direction	transverse to traffic	**Impact** 30%	(30% for Trucks, 0% for Pedestrian)
ALLOWABLE LIVELOAD STRESS RANGE FOR FATIGUE	10	ksi	AASHTO 10.3.1
ALLOWABLE LIVE LOAD DEFLECTION <= L /	800		800 for Trucks (1000 for Pedestrian) AASHTO 8.9.3 & 10.6.2

Panel Layout

Length (direction Main Bars)	21.1667	ft.
Width	8	ft.
Number of composite supporting beams	4	

Superstructure

Description of supporting beam – beam is perpendicular to main bearing bars, and can be a stringer, floorbeam, or girder, depending on the application.

Beam Size	W24 x 76		W24 x 76
Beam Spacing	6	ft.	
Flange Width	8.99	in.	
Haunch Width	8.99	in.	
Haunch Height	4.445	in.	assumes a 1.5 inch actual haunch

(from the top of the girder to the bottom of the concrete slab)

Beam Depth	23.92	
Beam Area	22.40	
Beam Centroid	11.96	
Beam Moment of Inertia	2,100.00	
Beam Length (L – ft.)	0.00	ft.
Top Cover Plate Width	0.00	
Top Cover Plate Thickness	0.00	
Bottom cover plate width (in.)	0.00	
Bottom cover plate thickness (in.)	0.00	

FOR PRE-CAST DECKS:

Field Placed Concrete weight	145	lbs/cu.ft.

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