PSC BEAM DESIGN CRITERIA

Designed by DRB Date: 9/29/09
Checked by FAQ Date: 9/29/09

Deck Top Clearance	2.75	in	North of the Fall Line	GDOT Fig. 4-4
Seismic Analysis	not req'd			GDOT Fig. 4-5
Sacrificial Concrete at Top	0.25	in		GDOT 3.12.2.3
Future Wearing Surface	30	psf		GDOT 2.2.1
Metal deck weight	16	psf	When using P/S Beams	GDOT 3.12.2.8
Deck Concrete Strength	3,500	psi		GDOT 3.1.4
Epoxy-Coated Rebar?	Y	[Y/N]	Top Mat & Traffic Side of Barrier	GDOT 3.1.4
Concrete Density for Weight	150	pcf		
Concrete Density for E	145	pcf		GDOT p.3-105
Barrier	2'-8" Jersey			
Barrier Overhang Width	1.625	ft	Measured from Curb to Edge of Deck	
Barrier Weight	410	plf	Individual Barrier scaled in CAD	
Suggested Constant Overhang	3.625	ft	Assumed Starting Point	
Beam and Deck Overhang Design	Load Factor			
Live Load	HS20			
Sidewalk Live Load	0	psf		
Utility	0	plf	Load applied per beam	
Lighting Post				
Sound Wall				
Coping for Dead Load	2.500	in	Assumed for design. 1½" min. Bulb-T	GDOT 3.12.5.1
Stirrup Bar Size	5	#	Disregard the #6 Stirrups at the Ends	Beam Standards
Deck Panels?	N	[Y/N]	Adjusts Calculation of Horizontal Shear	
Default Factor for f'ci	0.800		Multiply by f'c to get Release Strength	
Allowable Tension in Prestress Beams				
Initial at Top End of Beam	3		Value to multiply by Sqrt(f'ci)	AASHTO 9.15.2.1
Final at Top End of Beam	3		Value to multiply by Sqrt(f'c)	AASHTO 9.15.2.2
Final at Bottom Midspan:				
Exposure Criteria	N	[N/S]	Normal or Severe Exposure	GDOT 3.12.2.1
Hold-Down Point of Draped Strands	0.50		Fraction of the Total Span Length "L"	GDOT 3.12.2.2

NOTES:

1. Design is for an Interior Beam. Check Exterior Beam as needed.
2. Default P-Loads are comprised of GDOT Standard Edge Beams & Intermediate Diaphragms, whose criteria is defined in the "Refernce Tables" worksheet
3. Slab Design is in accordance with the GDOT Slab Tables
4. Slab Overhang Design must be completed seperately
5. Utility, etc loading is not included in the design.