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**LIST OF STANDARDS:**

- E-100 CONSTRUCTION APPROACH SIGNS 01/02/04
- E-101 CONSTRUCTION SIGN DETAILS 05/30/03
- E-102 CONSTRUCTION SIGN DETAILS 06/30/03
- E-102A CONSTRUCTION SIGN DETAILS 05/01/04
- E-103 MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED 03/01/04
- E-104 MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE ROADWAY CLOSED 02/03/99
- E-104A PAVEMENT MARKING DETAILS-DIVIDED HIGHWAY ONE ROADWAY CLOSED 12/27/96
- E-106 TRAFFIC CONTROL - MISCELLANEOUS DETAILS 03/01/04
- E-107 DELINEATION, BARRICADES AND DETOURS FOR U-TURNS ON DIVIDED HIGHWAYS 06/30/03
- E-107A BREAKAWAY BARRICADE DETAILS 08/08/95
- E-120 STANDARD SIGN PLACEMENT - EXPRESSWAY & FREEWAY 08/08/95
- E-126 TYPICAL FREEWAY INTERCHANGE SIGNING 02/01/00
- E-134 BRIDGE NUMBER PLAQUE 08/08/95
- E-135 INTERSTATE ROUTE MARKER SIGN DETAIL 08/18/95
- E-142 REGULATORY SIGN DETAILS 09/20/95
- E-143 REGULATORY SIGN DETAILS 06/15/04
- E-146 REGULATORY SIGN DETAILS 09/20/95
- E-150 WARNING SIGN DETAILS 05/01/04
- E-151 WARNING SIGN DETAILS 05/01/04
- E-152 WARNING SIGN DETAILS 05/01/04
- E-155 WARNING SIGN DETAILS 05/01/04
- E-160 FLANGED CHANNEL STEEL SIGN POST 05/20/99
- E-164 SQUARE STEEL SIGN POST 05/20/99
- E-191 PAVEMENT MARKING DETAILS 02/01/99
- E-192 PAVEMENT MARKING DETAILS 10/12/00
- E-193 PAVEMENT MARKING DETAILS 08/18/95
- E-197 DELINEATOR PLACEMENT TYPICAL 04/01/05

**LIST OF STANDARDS (CONTINUED):**

- E-198 DELINEATORS AND MILEPOSTS 04/01/05
- G-1 STEEL BEAM GUARDRAIL (50 MPH & OVER) HEAVY DUTY STEEL BEAM RAIL TWISTED END TERMINAL ANCHOR FOR STEEL BEAM RAIL 01/03/00
- G-1D STEEL BEAM GUARDRAIL (40 MPH & LESS) HEAVY DUTY STEEL BEAM RAIL STEEL BEAM MEDIAN BARRIER ANCHOR FOR STEEL BEAM RAIL 01/03/00
- G-19 GENERIC GRADING PLANS FOR GUARDRAIL END TERMINALS 11/15/02

**DESIGN CRITERIA:**

- 1. DESIGN LIVE LOAD AASHTO HS-25
- 2. DESIGN SPAN N/A -  $\bar{C}$  TO  $\bar{C}$  GIRDER SPACING IS 7'-6"
- 3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL N/A ON LEDGE N/A
- 4. ALLOWABLE LOAD FOR PILING N/A TYPE N/A ESTIMATED LENGTH N/A
- 5. STRUCTURAL STEEL N/A
- 6. REINFORCING STEEL GRADE 60
- 7. SPECIAL PROVISION (CONCRETE, HIGH PERFORMANCE CLASS A LOW CEMENT)  $f'_c$  4000 psi CONCRETE, HIGH PERFORMANCE CLASS B  $f'_c$  3500 psi

**TRAFFIC MAINTENANCE:**

- 1. IS TRAFFIC TO BE MAINTAINED? YES
- IF YES, ON EXISTING STRUCTURE? YES
- OR ON TEMPORARY BRIDGE? EXISTING STRUCTURE
- ONE OR TWO-WAY TRAVEL? TWO-WAY
- 2. TRAFFIC CONTROL SIGNALS REQUIRED? NO
- 3. ARE SIDEWALKS REQUIRED? NO
- IF SO, ON WHAT SIDE? \_\_\_\_\_

**LFD LOAD RATING (TONS)**

LOADING LEVELS	TRUCK						
	H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY	45	81					
POSTED	63	114	124		109	110	119
OPERATING		136	148	161	130	131	

COMMENTS:

$$\text{STRENGTH RF} = \frac{\phi M_N - 1.3 M_{DL}}{A \times M_{LL+1}} \quad \text{SERVICEABILITY RF} = B \left[ \frac{.95 F_y S_{LL+1} - M_{DL} \frac{S_{LL+1}}{S_{DL}} - M_{SDL} \frac{S_{LL+1}}{S_{SDL}}}{1.67 M_{LL+1}} \right]$$

**TRAFFIC DATA**

YEAR	ADT	DHV	% D	% T	ADTT
2008 NE	11100	1300	0	13	1700
2028 NE	14700	1800	0	22	4000

20 year ESAL for flexible pavement N/A  
 40 year ESAL for flexible pavement N/A  
 Design speed: 70 mph

PROJECT: <b>BERLIN</b>	PROJECT NO.: <b>IM 089-1 (20)</b>
DESIGN FILE NAME: 99a270\structures\s99a270pi.dgn	PLOT DATE: 05-DEC-2007
IPARM FILE NAME: s99a270pi.i	DRAWN BY: E.L. RUSTAY
DESIGNED BY: G. SPILAK	CHECKED BY: R.S. YOUNG
SQUAD LEADER: C.P. WILLIAMS	
PRELIMINARY INFORMATION SHEET	SHEET: 2 OF 104

