

DESIGN NOTES

DESIGN SPECIFICATIONS

IN ACCORDANCE WITH : "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" 5th EDITION.

DESIGN LOADS

PERMANENT LOADS

DC	UNIT WEIGHT OF REINFORCED CONCRETE	0.150 kcf
DW	FUTURE WEARING SURFACE	0.028 ksf
EV	UNIT WEIGHT OF SOIL	xxx kcf
	FILL DEPTH	x.xx ft
EH	ACTIVE PRESSURE	xxx kcf
	AT REST PRESSURE	xxx kcf
ES	EARTH LOAD SURCHARGE AT HEAD WALL	x.xx ft

TRANSIENT LOADS

LL	HL-93
IM	DYNAMIC ALLOWANCE APPLIED TO TRUCK & TANDEM

FOOTING DESIGN LOADS FOR HEADWALLS

STRENGTH LIMIT STATE

NOMINAL BEARING RESISTANCE $q_n = X$ ksf
 EFFECTIVE FOOTING WIDTH $B' = xx$ ft
 EFFECTIVE FOOTING LENGTH $L' = xx$ ft
 RESISTANCE FACTOR $\phi_b = x$
 FACTORED BEARING RESISTANCE $q_R = q_n \phi_b = xx$ ksf
 FACTORED APPLIED LOAD $\gamma Q / (B'L') = xx$ ksf
 SLIDING
 NOMINAL SLIDING RESISTANCE $R_n = X$ kips
 RESISTANCE FACTOR $\phi = xx$
 FACTORED SLIDING RESISTANCE $R_R = R_n \phi = xx$ kips
 FACTORED APPLIED LOAD $\gamma V = xx$ kips

SERVICE LIMIT STATE

PRESUMPTIVE BEARING CAPACITY $q_p = X$ ksf
 BASED UPON FOOTING SETTLEMENT = X inches OR LESS
 EFFECTIVE FOOTING WIDTH $B' = xx$ ft
 EFFECTIVE FOOTING LENGTH $L' = xx$ ft
 RESISTANCE FACTOR $\phi = 1.0$
 FACTORED PRESUMPTIVE BEARING RESISTANCE $\phi q_p = xx$ ksf
 FACTORED APPLIED LOAD $\gamma Q / (B'L') = xx$ ksf

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS

MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STATE OF IDAHO TRANSPORTATION DEPARTMENT, "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", 2004 EDITION, THE PROJECT PLANS AND SPECIFICATIONS.
 THE ENGLISH UNITS SYSTEM OF MEASUREMENT SHALL BE USED AS STANDARD.

MATERIAL

CONCRETE : HEAD WALLS - CLASS 40B $f'c = 4$ ksi
 METAL REINFORCEMENT : AASHTO M31, GRADE 60 $f_y = 60$ ksi

PLAN DIMENSIONS AND ELEVATIONS

ALL EXPOSED EDGES OF CONCRETE SHALL BE BEVELED $\frac{3}{4}$ " UNLESS NOTED OTHERWISE.
 ALL DIMENSIONS TO REINFORCING STEEL ARE TO CENTERLINE OF BAR UNLESS NOTED OTHERWISE.
 CONCRETE COVER MEASURED FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING BAR SHALL BE 2", UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

CONSTRUCTION

CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS SHOWN ON THE PLANS OR AS APPROVED BY THE ENGINEER.
 THE DIFFERENCE IN ELEVATION OF THE BACKFILL MATERIAL ON BOTH SIDES OF THE STRUCTURE SHALL NOT EXCEED 2 FEET DURING BACKFILL OPERATIONS.
 SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH SECTION 504 AND SHALL INCLUDE COMPLETE DIMENSIONS AND DETAILS OF FABRICATION INCLUDING AN ERECTION DIAGRAM. MATERIALS BEING USED SHALL BE CLEARLY SPECIFIED. BEFORE PROJECT COMPLETION, THE CONTRACTOR SHALL FURNISH THE ENGINEER A 22" X 34" REPRODUCIBLE MYLAR COPY OF THE OF THE SHOP DRAWINGS.
 FABRICATION AND INSTALLATION SHALL CONFORM TO SECTION 26 OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS.
 THE ROLLER SHALL BE IN THE STATIC MODE FOR COMPACTING THE ASPHALT WEARING SURFACE OVER THE CULVERT WHEN THE DEPTH OF FILL IS LESS THAN 3'.

INCIDENTAL ITEMS

ALL ITEMS SHOWN OR NOTED ON PLANS WHICH ARE NOT SPECIFICALLY BID ITEMS ARE CONSIDERED INCIDENTAL ITEMS. THE COST OF FURNISHING AND INSTALLING ALL INCIDENTAL ITEMS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS, UNLESS NOTED OTHERWISE.

REVISIONS				DESIGNED	SCALES SHOWN	ORIGINAL SIGNED BY:	IDaho TRANSPORTATION DEPARTMENT	English	DESIGN AND GENERAL NOTES	BRIDGE PLANS	
NO.	DATE	BY	DESCRIPTION	DESIGN CHECKED	ARE FOR 34" X 22" PRINTS ONLY					PROJECT NO.	METAL PIPE
△				DETAILED	CADD FILE NO.						
△				DWG. CHECKED	x:\cadds\std_dgns\ b17_2e.dgn						
△				CORRECTIONS	DRAWING DATE:	DATE SIGNED: DATE					
△					MAR 2011	INTERNAL STORED AT ITD BRIDGE SECTION					