DESIGN NOTES

DESIGN SPECIFICATIONS

"AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" XX EDITION AND (MONTH)(YEAR) ITD BRIDGE DESIGN LRFD MANUAL.

DESIGN LOADS

PERMANENT LOADS

DC	UNIT WEIGHT OF REINFORCED CONCRETE	0.150 kcf
DW	FUTURE SURFACING	X.XX ksf
EV	UNIT WEIGHT OF SOIL	XXX kcf
	FILL DEPTH - MAX.	** ft
	FILL DEPTH - MIN.	** ft
EH	ACTIVE PRESSURE	xxx kcf
	AT REST PRESSURE	xxx kcf
	SOIL-STRUCTURE INTERACTION FACTOR (F_e OR F_t)	**
ES	EARTH LOAD SURCHARGE	** ft

TRANSIENT LOADS

LL	HL-93	
IM	DYNAMIC ALLOWANCE APPLIED TO TRUCK & TANDEM	
LS	LIVE LOAD SURCHARGE AT BARREL	** feet
	LIVE LOAD SURCHARGE AT WINGWALL	** feet

** DETERMINED BY PRECAST CONCRETE BOX CULVERT SUPPLIER BASED ON GEOTECHNICAL ENGINEERING REPORT.

GENERAL NOTES

MATERIALS, CONSTRUCTION AND WORKMANSHIP IN ACCORDANCE WITH THE STATE OF IDAHO TRANSPORTATION DEPARTMENT: (YEAR) STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, (YEAR) SUPPLEMENTAL SPECIFICATIONS, SPECIAL PROVISIONS, AND THE PROJECT PLANS.

MATERIAL

CONCRETE: DECK SLAB AND EDGE BEAM - CLASS 40A ..... f'c = 4.0 ksi
BARREL WALLS, FOOTINGS AND WINGWALLS - CLASS 40A ..... f'c = 4.0 ksi

METAL REINFORCEMENT: AASHTO M31, GRADE 60 ..... fy = 60 ksi

PLAN DIMENSIONS AND ELEVATIONS

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.
DIMENSIONS TO REINFORCING STEEL ARE TO CENTERLINE OF BAR UNLESS NOTED OTHERWISE.
PROVIDE 2" CONCRETE COVER MEASURED FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING BAR, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
PROVIDE REINFORCING STEEL SPLICE LENGTHS IN ACCORDANCE WITH AASHTO SPECIFICATIONS.

CONSTRUCTION

PROVIDE CONSTRUCTION JOINTS AT THE LOCATIONS SHOWN ON THE PLANS OR AS APPROVED.
APPLY CONCRETE WATERPROOF SYSTEM TYPE D TO THE TOP SLAB.
DO NOT EXCEED A DIFFERENCE OF 2 FEET IN ELEVATION OF THE BACKFILL MATERIAL ON BOTH SIDES OF THE STRUCTURE DURING BACKFILL OPERATIONS.
SET THE ROLLER IN THE STATIC MODE FOR COMPACTING THE ASPHALT WEARING SURFACE OVER THE CULVERT WHEN THE DEPTH OF FILL IS LESS THAN 3'.
ELEVATIONS BASED ON NAVD 88 DATUM.

INCIDENTAL ITEMS

WORK NECESSARY TO FULFILL THE CONTRACT THAT IS NOT MEASURED OR PAID FOR SEPARATELY.

FOOTING DESIGN LOADS

STRENGTH LIMIT STATE - BEARING

NOMINAL BEARING RESISTANCE q_n = X ksf
RESISTANCE FACTOR Φ_b = X
FACTORED BEARING RESISTANCE $q_R = q_n\Phi_b$ = xx ksf

SERVICE LIMIT STATE

PRESUMPTIVE BEARING CAPACITY q_p = X ksf
BASED UPON FOOTING SETTLEMENT = X inches OR LESS
RESISTANCE FACTOR Φ = 1.0
FACTORED PRESUMPTIVE BEARING RESISTANCE Φq_p = xx ksf

REVISIONS				DESIGNED	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT	*ENGLISH*	DESIGN AND GENERAL NOTES	BRIDGE PLANS	
NO.	DATE	BY	DESCRIPTION	DESIGN CHECKED	CADD FILE NAME	YOUR Safety→YOUR Mobility→YOUR Economic Opportunity	PROJECT NO.	BOX CULVERT/STIFFLEG BRIDGE (PRECAST) BRIDGE LRFD DESIGN MABUAL, B17.2B	BRIDGE KEY NO.	
△				DETAILED	Standards/Bridge Standard Drawings/ B17_2B.DGN	APPROVED BY: BRIDGE ENGINEER MICHAEL T. JOHNSON DATE:			COUNTY	KEY NO.
△				DWG. CHECKED	DRAWING DATE: DEC 2024				BRIDGE DWG. NO.	SHEET OF
△				CORRECTIONS						
△										