

STRUCTURAL GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS(S):

AS-1-81 DATED	11-27-81
ICD-1-82 DATED	8-1-84
PCB-91 DATED	4-24-92

AND TO SUPPLEMENTAL SPECIFICATION:

820 DATED	3-18-92
944 DATED	5-2-94

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1992, INCLUDING THE 1993 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS20-44, CASE I AND THE ALTERNATE MILITARY LOADING.

CONCRETE CLASS S - COMPRESSIVE STRENGTH 4500 P.S.I. (SUPERSTRUCTURE)

CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 P.S.I. (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615, A616 OR A617 GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615.

STRUCTURAL STEEL ASTM A572 - YIELD STRENGTH 50,000 P.S.I.

DECK PROTECTION METHOD: EPOXY COATED REINFORCING STEEL AND 2 1/2" CONCRETE COVER.

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

PILE DESIGN LOADS (SAFE BEARING CAPACITY):

THE DESIGN LOAD FOR THE ABUTMENT PILES IS 50 TONS PER PILE AND THE DESIGN LOAD FOR THE PIER PILES IS 30 TONS PER PILE.

UTILITY LINES:

ALL EXPENSE INVOLVED IN RELOCATING THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE UTILITY(IES). THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN:

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH ITEM 503 EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 GRANULAR MATERIAL PLACED IN LIFTS NOT TO EXCEED A THICKNESS OF SIX (6) INCHES.

ITEM 510 - DOWEL HOLES

THIS ITEM SHALL INCLUDE THE DRILLING OF HOLES INTO CONCRETE OR MASONRY AND THE FURNISHING AND PLACING OF GROUT INTO HOLES. NON SHRINKING EPOXY GROUT SHALL BE USED IN ACCORDANCE WITH SPECIFICATION 510. ANCHORING SHALL CONFORM TO SPECIFICATION 510. PAYMENT SHALL BE INCLUDED WITH ITEM 510.

CONCRETE PARAPETS:

WITHIN 24 HOURS AFTER PLACEMENT OF PARAPET CONCRETE SAWCUT 1 INCH DEEP JOINTS INTO THE CONCRETE PARAPET AT LOCATIONS AS DETAILED IN THE PLANS. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK, AND THE COMPLETED SAWCUT SHALL BE FILLED WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E. THE BOTTOM HALF INCH OF THE ONE INCH DEEP SAWEED JOINT IN BOTH THE INSIDE AND OUTSIDE FACES OF THE PARAPET SHOULD BE LEFT UNSEALED TO ALLOW ANY WATER WHICH MAY ENTER THE JOINT TO ESCAPE.

ITEM SPECIAL - BEARING JOINT SEAL

INSTALL A 3 FOOT WIDE STRIP, 3/32 INCH THICK, GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT AT LOCATIONS SHOWN IN THE PLANS. SECURE THE 3 FOOT WIDE NEOPRENE SHEETING TO THE CONCRETE WITH 1 1/4" X 3/32" X 1/4" (length x shank diameter x head diameter) #10 GALVANIZED SCREWS THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. OTHER SIMILAR GALVANIZED DEVICES WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES (+/-) FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES (+/-) FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES CENTER TO CENTER ACROSS THE TOP HALF OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE NEOPRENE STRIP AS THE SINGLE VERTICAL ROW OF FASTENERS.

THE VERTICAL NEOPRENE STRIPS SHOULD COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAPS IN THE LENGTH OF THE HORIZONTAL STRIPS DUE TO MATERIAL MANUFACTURING SHALL BE AT LEAST 1 FOOT IN LENGTH, IF NOT VULCANIZED OR ADHESIVED, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

IN ADDITION, INSTALL A 3 INCH THICKNESS OF POLYSTYRENE SHEETING BETWEEN THE ABUTMENT BACKWALL AND THE POROUS BACKFILL AT LOCATIONS AS SHOWN IN THE PLANS.

PAYMENT FOR LABOR, MATERIALS AND INSTALLATION OF THESE ITEMS SHALL BE INCLUDED IN ITEM SPECIAL - BEARING JOINT SEAL, PER LINEAR FOOT.

HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE (DECK):

THIS ITEM SHALL BE IN ACCORDANCE WITH THE PROPOSAL NOTE EXCEPT THAT THE CONCRETE SHALL CONSIST OF MIX 4.

ITEM 514 - FIELD PAINTING OF NEW STEEL, SYSTEM IZEU

THE URETHANE FINISH COAT FOR THIS ITEM SHALL BE BLUE IN COLOR, MEETING FEDERAL STANDARD NUMBER FS-595-A-15450.

ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN:

CORRUGATED PIPE USED IN ABUTMENT DRAINAGE SHALL BE 6 INCH DIAMETER, PLASTIC CORRUGATED AS PER SUPPLEMENTAL SPECIFICATION 944, AASHTO M294, TYPE S. THIS ITEM SHALL INCLUDE ALL ELBOWS, TEES AND END CAPS REQUIRED TO COMPLETE THE ABUTMENT DRAINAGE SYSTEM.

ITEM 518 - 6" PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN:

CORRUGATED PIPE USED IN ABUTMENT DRAINAGE SHALL BE 6 INCH DIAMETER, PLASTIC CORRUGATED AS PER SUPPLEMENTAL SPECIFICATION 944, AASHTO M294, TYPE SP.

ITEM SPECIAL - SEALING OF CONCRETE SURFACES:

A CONCRETE SEALER SHALL BE APPLIED TO THE CONCRETE SURFACES SHOWN ON SHEETS 12/24, 14/24, 18/24. SEE PROPOSAL NOTE FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES.

MECHANICAL CONNECTORS:

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED WHERE REQUIRED. INSTALLATION OF THE CONNECTOR SHALL CONFORM WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES. IF A DOWEL BAR SPLICE TYPE OF CONNECTOR IS FURNISHED, THE MINIMUM DOWEL BAR LENGTH TO BE FURNISHED WITH THE CONNECTOR SHALL BE GIVEN BY THE DIMENSION "L" SHOWN ON THE PLANS. CONNECTORS SHALL BE EPOXY COATED AND THE COATING SHALL CONFORM TO THE SAME SPECIFICATIONS AS THE REINFORCING STEEL. COATINGS WHICH HAVE BEEN DAMAGED SHALL BE REPAIRED ACCORDING TO 709.00 OF THE CMS. CONNECTORS SHALL CONFORM WITH AND BE INCLUDED FOR PAYMENT WITH ITEM 509.

COFFERDAMS, CRIBS, AND SHEETING, AS PER PLAN:

TEMPORARY SHORING SHALL BE USED TO ACCOMPLISH THE PROPOSED CONSTRUCTION IN STAGES. THE DESIGN OF THE TEMPORARY SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER, AND CONFORM WITH 501.05. FOR APPROVAL, FIVE COPIES OF THE DRAWINGS SHALL BE SUBMITTED TO THE DIRECTOR AND CONCURRENTLY, ONE COPY TO THE BUREAU OF BRIDGES AND STRUCTURAL DESIGN. CONSTRUCTION OF THE SHORING SHALL NOT BEGIN UNTIL AFTER WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE DIRECTOR. PORTIONS OF THE TEMPORARY SHORING COMPOSED OF STEEL OR CONCRETE MAY BE LEFT IN PLACE AT THE DISCRETION OF THE ENGINEER. PORTIONS COMPOSED OF OTHER MATERIALS SHALL BE REMOVED PRIOR TO COMPLETION OF THE WORK.

PILE DRIVING CONSTRAINTS:

PRIOR TO DRIVING PILES IN EACH CONSTRUCTION PHASE, THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE APPROPRIATE PORTIONS OF THE ABUTMENTS SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND THAT PORTION OF EACH ABUTMENT. THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES SHALL NOT BEGIN UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW :

BM =	BEAM
BOTT. OR BOT. =	BOTTOM
CL OR C =	CENTERLINE
CLR =	CLEAR
C.J. =	CONSTRUCTION JOINT
CPP =	CORRUGATED PLASTIC PIPE
E.F. =	EACH FACE
EB =	EASTBOUND
EL OR ELEV =	ELEVATION
EXIST. =	EXISTING
EXP. =	EXPANSION
F.F. =	FAR FACE
F.S. =	FIELD SPLICE
FTG =	FOOTING
JT. =	JOINT
LT. =	LEFT
N.F. =	NEAR FACE
PVC =	POLY-VINYL CHLORIDE
PCB =	PORTABLE CONCRETE BARRIER
PEJF =	PREFORMED EXPANSION JOINT FILLER
PROP. =	PROPOSED
RT. =	RIGHT
SPA =	SPACES
STA. =	STATION
TYP. =	TYPICAL
WB =	WESTBOUND

adache-cituni-lynn
associates
CONSULTING ENGINEERS

DATE 6/94
REVIEWED A.J.M.
STRUCTURE FILE NUMBER

DRAWN M.J.L.
CHECKED L.P.C.

STRUCTURAL GENERAL NOTES
BRIDGE NUMBER LAK - 2 - 0955 L/R
OVER STATE ROUTE 615

LAK - 2 - 9.46

3/24

50
71