## MICROFILMED

\* IAN 6 1983

			ESTIMATED QUANTITIES			The second secon		goral and a superior of the contract of	go ( a Tau tau ta
TEM	TOTAL	UNIT	DESCRIPTION	SUPER	PIERS	ABUT.	GEN'L		Logar milyeenig n
5 <i>03</i>	LUMP SUM	LUMP SUM	COFFERDAMS, CRIBS AND SHEETING.	A COMMENT OF THE PROPERTY OF T	in the second se			مد منطقه ما الرواد ا الرواد الرواد الروا	
5 <i>03</i>	909	CU. YDS.	UNCLASSIFIED EXCAVATION.	1	386	523			**************************************
503	538	CD. YDS.	SHALE EXCAVATION.		<i>538</i>		WAR OUR		
Service of the servic	LUMP SUM	LUMPSUM	TEST PILE		discrete resources	The state of the s	LUMP SUM LUMP SUM		
<u>506                                    </u>	LUMP SUM	LUMP SUM Each	PILE TEST LOAD. I SUBSEQUENT PILE TEST LOAD.	V. Company Com		e de la composition della comp		a the South of the	EU TOMBRUS (IS A SETURAL TRANSPORT
		Lnuii		A STATE OF THE STA		<u>- marking and a single particle</u>			e de la companya de l
507	1,370	LIN. FT.	STEEL PILES, HP 10 × 42	i e e e e e e e e e e e e e e e e e e e	<b>.</b>	1,320		•	
509	228,370	LBS.	REINFORGING STEEL.	10,440	190,971	26,959			
511	133	CU. YDS.	CLASS C CONCRETE, DIAPHRAGMS	/33	e Parker on the second				• • • • • • • • • • • • • • • • • • • •
CII	9.00	CA VOC	PLACE "P" CONCRETE PLEDE ADONE FOOTINGE	and the second of the second o	<i>850</i>			·	<u>.</u>
<u>511</u> 511	850 225	CU.YDS. CU.YDS.	CLASS "C" CONCRETE, PIERS ABOVE FOOTINGS. CLASS "C" CONCRETE, ABUTMENTS ABOVE FOOTINGS.		טטט	225			
SII	411	CU.YDS.	CLASS "C" CONCRETE, FOOTINGS.	***	262	149	e de la companya de l		
The state of the s		*	and the control of th	ing contract				e. An en	·
non thermality of the product of the designation of the second of the se	AND THROUGH AND COMMITTING TO THE STATE OF T	THE REPORT OF A STATE OF THE PART OF THE STATE OF THE STA		and the second of the second o				s in including the second seco	gana ang kalang kang kang kang kang kang kang kang k
		4.	en de la companya de La companya de la co			·			
		. 7							11 Marie 1 150M
~			PROTECTO CANADATA RELIGIO NA LA		and the second s			a comment of entire a	According to the
515 <b>515</b>	48 2,544	EAGH SQ YDS	PRESTRESSED CONCRETE BRIDGE MEMBER. I-54 PRECAST PRESTRESSED CONCRETE PANELS.	2 <i>544</i>					
516	754	SQ. FT.	1/2" PREFORMED EXPANSION JOINT FILLER.	754	And the second s	25	and the second s	gradiente de la companya del companya de la companya del companya de la companya del companya de la companya de la companya de la companya del companya de la companya del companya de la companya del companya de la co	· · · · · · · · · · · · · · · · · · ·
516	24	EACH	ABUTMENT BEARINGS	74					
516 516	72 164.04	LAGI	10" *3" * 24" LAMINATED ELASTOMERIC BEARINGS END DAM	16	6 - 4	164.04	.1		
517	the second of the second of the second	LIN. FT.	international control of the second of the control	823.72		76.17	Company of the Compan		ANTE CONTRACTOR OF THE STATE OF
51B	127	CUVDC	POROUS BACKFILL.			127		4	,
518	127 157	CU. YDS. LIN. FT.	6" PERFORATED, HELICAL CORRUGATED STEEL PIPE, 707.01		,	152	: :		
518	76	LIN. FT.	6" NON-PERFORATED, HELICAL CORRUGATED STEEL PIPE INCLUDING SPECIALS, 707.01			96			1
518	40	EACH	SCUPPERS INCLUDING SUPPORTS.		* · · ·				
				,					
601	1,585	SQ.YDS.	CRUSHED AGGREGATE SLOPE PROTECTION.				1,585		
וטש	4,707	00.703.	UNDURED HOUREDATE GEDTE THOTEGITON.						
808	537	UNITS	CHEMICAL ADMIXTURE FOR CONCRETE, TYPE A, B OR D.	537				***************************************	3
<b>838</b>	3	HOURS	SPECIAL TEST PILE	<b>UU</b> /					
PECIAL	155,617	LBS.	EPONY CONTED REINFORGING STEEL (SEE PROPOSAL NOTE)	155,617					
•				07.00					
845	2380	SQ. YDS.	LATEX MODIFIED CONCRETE OVERLAY (1/4 INCHES THICK)	2380 691			4		4
2)511 THE	691 FOLLOWING	ITEMS IA	CLASS "C" CONCRETE, SUPERSTRUCTURE (SEE PROPOSAL NOTE) AND 2A ARE ALTERNATES TO I AND 2. THE CONTRACTOR SHALL BID ON ONE		EMS ONLY:	V AND 2	OR IA ANI	2A	
A) 850	2380	SQ. YDS.	DENSE CONCRETE OVERLAY (13/4 INCHES THICK)	2380					
(A) 511	<i>458</i>	CU. YDS.	CLASS "C" CONCRETE, SUPERSTRUCTURE (SEE PROPOSAL NOTE)	658	,	\			
			FOR LIGHTING QUANTITIES SEE SHEET NO.57						-

FHWA REGION STATE PROJECT 64
5 CHIO 85

LAKE COUNTY

LAK-20-5.60

## GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS: AS-1-72, SHEET No. 1 OF 2 DATED 6-30-72, FSB-1-62 REVISED 1-15-63, SD-1-69 SHEET 3 OF 4 DATED 6-12-69.

AND TO SUPPLE MENTAL SPECIFICATIONS 808, DATED 1-1-71. 836, DATED 3-12-75, 845 DATED 6-27-77, 850 DATED 6-27-77 AND 927 DATED 1-1-71.

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADDPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICALS, 1973, INCLUDING THE 1974, 1975 AND 1976 INTERIM SPECIFICATIONS AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA:

DESIGN LOADING - HS 20-44 AND THE ALTERNATE MILITARY LOADING
CONCRETE CLASS "C" \[ UNIT STRESS | 1200 PSI FOR SUPERSTRUCTURE \]
UNIT STRESS | 1333 PSI FOR SUBSTRUCTURE

STRUCTURAL STEEL-ASTM A36-UNIT STRESS 20,000 PSI
REINFORCING STEEL-ASTM A615,A616, OR A617 - GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI
CONCRETE FOR PRESTRESSED BEAMS-2,200 PSI COMPRESSION, 444 TENSION (UNIT STRESS)
PRESTRESSING STRANDS - ASTM A416

F's = 270,000 PSI INITIAL STRESS =0.70 f's

DECK PROTECTIVE METHOD- LATEX MODIFIED COUCRETE OR DENSE CONCRETE OVERLAY.

EMBANKMENT CONSTRUCTION: AFTER THE EXCAVATION OF THE MANMADE FILL AROUND THE REAR ABUTMENT, AND THE WET, LOOSE SOILS AROUND THE FORWARD ABUTMENT; THE EMBANKMENT SHALL BE CONSTRUCTED TO THE LEVEL OF THE SUBGRADE FOR A MINIMUM DISTANCE OF 200 FEET BACK OF THE ABUTMENTS. THERE SHALL BE A SIXTY (60) DAY WAITING PERIOD AFTER THE EMBANKMENT HAS BEEN PLACED BEFORE EXCAVATION IS MADE FOR THE ABUTMENTS AND THE PILES DRIVEN.

THE FOOTINGS FOR PIERS I AND 3 SHALL EXTEND A MINIMUM OF 3 INCHES INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

THE FOOTING FOR PIER 2 SHALL BE FOUNDED AT ELEVATION 582.0. THE DIRECTOR SHALL BE CONTACTED IF THE FOOTING WILL NOT BE A MINIMUM OF TWO FEET IN THE SHALE BEDROCK.

CAREFUL CONSTRUCTION IS REQUIRED SO THAT NO DETERIORATION OCCURS DUE TO AIR AND WATER EXPOSURE.

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

PILES SHALL BE DRIVEN TO BEDROCK. THE BEARING CAPACITY SHALL BE CONSIDERED OBTAINED BY REFUSAL ON HARD BEDROCK OR BY PENETRATING SOFT BEDROCK FOR SEVERAL INCHES WITH A MINIMUM RESISTANCE OF 20 BLOWS PER INCH. THE DESIGN LOAD IS 45 TONS PER PILE FOR THE ABUTMENTS.

FRANKLIN CONSULTANTS INC. 3 / 14
Consulting Engineers

ESTIMATED QUANTITIES & GENERAL NOTES

CITY OF WILLOUGHBY CHAGRIN RIVER BRIDGE

DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISED

HM B.B. B.B. PCB F 1/9-77 5.15.78