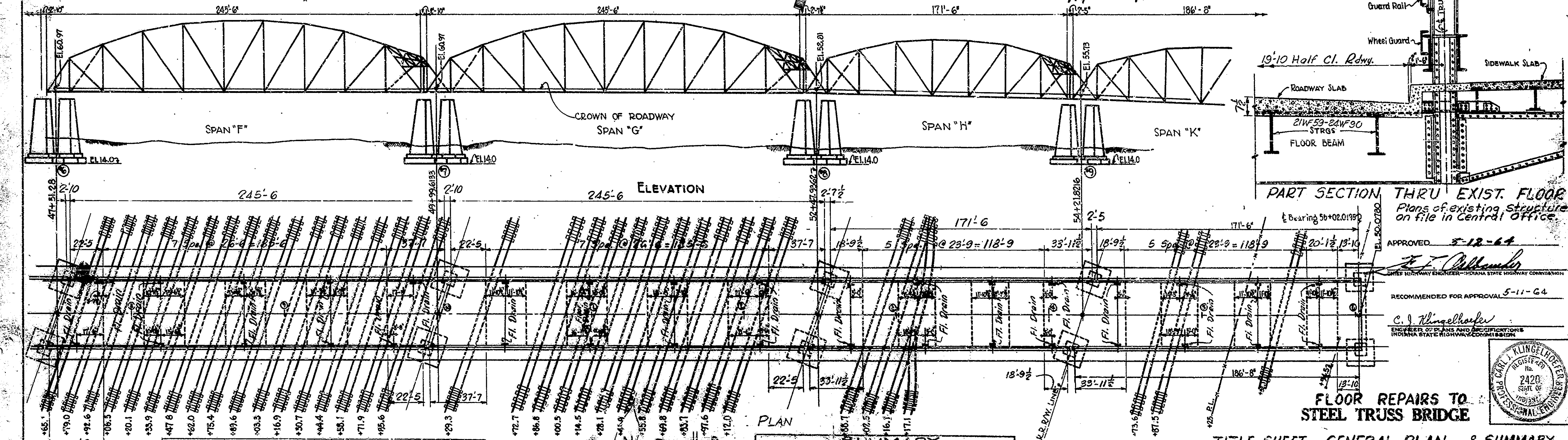
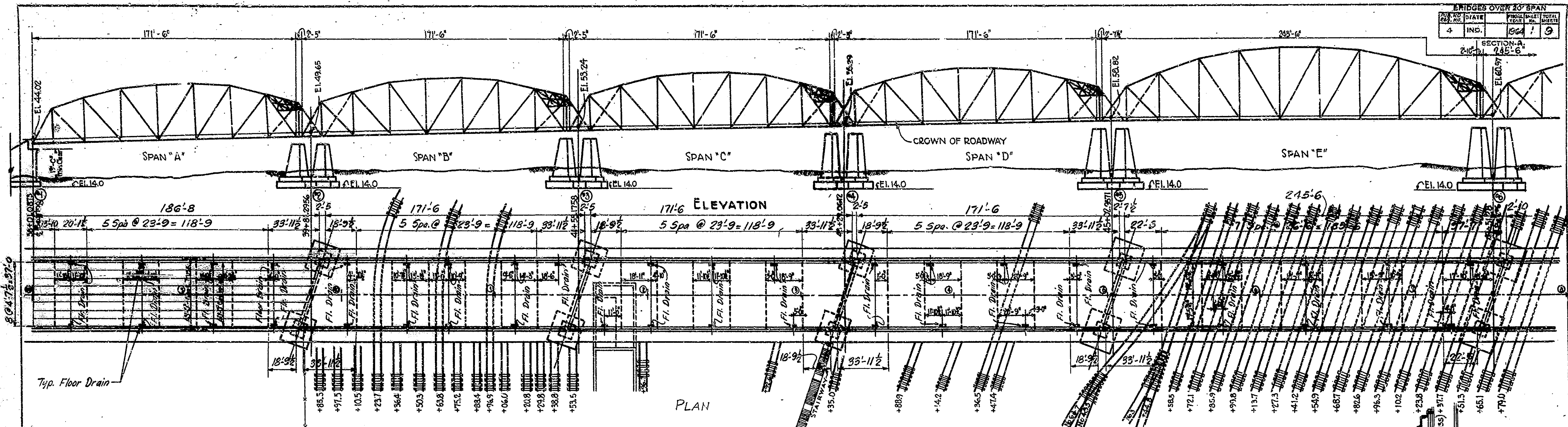
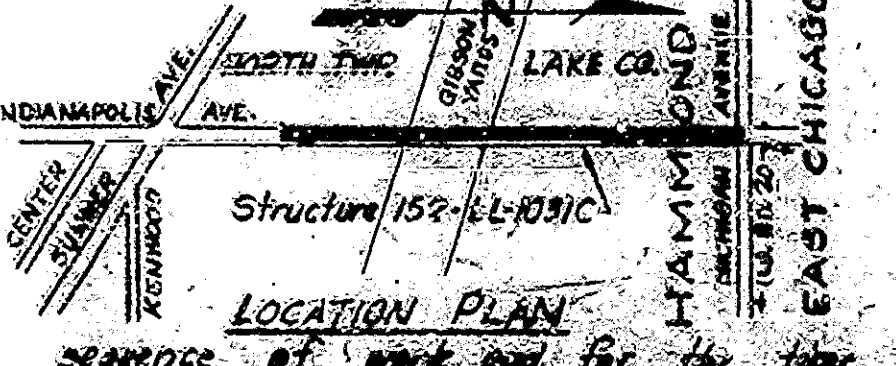


BRIDGES OVER 20' SPAN	
NO. OF SHEETS	OF TOTAL
4	INC. 9
SECTION-A	
245-6	



INDIANA STATE HIGHWAY COMMISSION
STANDARD SPEC'S.
DATED 1963
TO BE USED WITH THESE PLANS

STRUCTURE	TYPE	SPAN	OVER	Contract No.
152-LL-10312	Simple Span Steel Truss	35 SPANS	OVER RR. MC BR. 11 BR	6465
SUBJECT				
TITLE SHEET, GENERAL PLAN, & SUMMARY				
1	One Sheet			
2	RS1	ALTERNATE 'A' FLOOR REPAIRS		
3	R1	ALTERNATE 'B' FLOOR REPAIRS		
4	RR	ALTERNATE 'B' FLOOR REPAIRS		
5	R3	ALTERNATE 'B' FLOOR REPAIRS		
6	Sheet 1	STANDARD DETOUR SIGNS (See 3-8-63)		
7	Sheet 2	STANDARD DETOUR SIGNS (See 3-8-63)		
8	Sheet 3	STANDARD DETOUR SIGNS (See 3-8-63)		
9	Sheet 3A	STANDARD DETOUR SIGNS (See 3-8-63)		



Item	DESCRIPTION	UNIT	Quantity
1	Floor Repairs	Sq. Ft.	23,200
2	Curb Removal & Replacement	Ln. Ft.	3600
3	Grout Holes (1" max)	Each	1186
4	Grout Holes (3/4" max)	Each	565
5	Grout Holes (1/2" max)	Each	565
6	Emberco of Equal	Lbs	14000

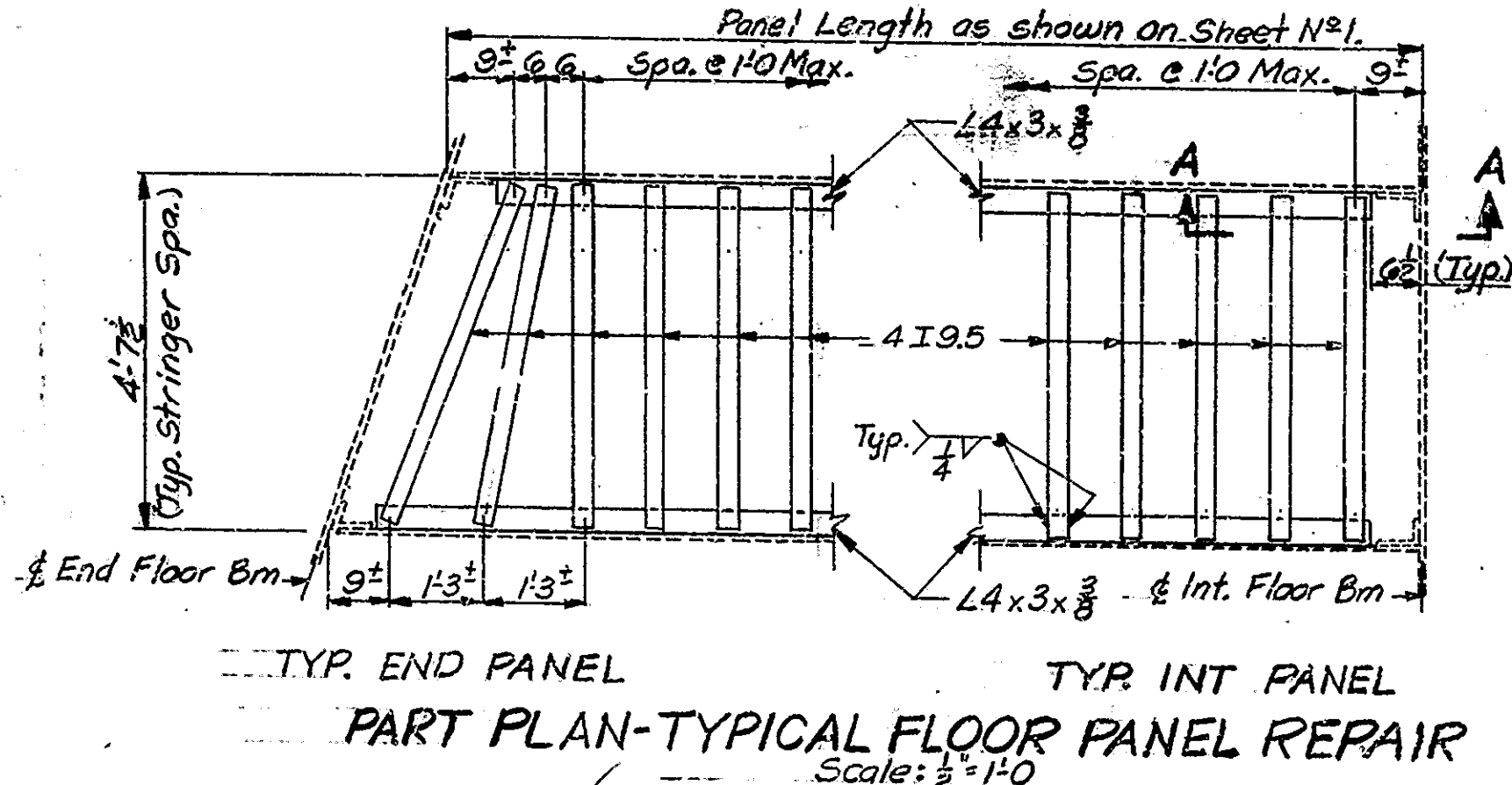
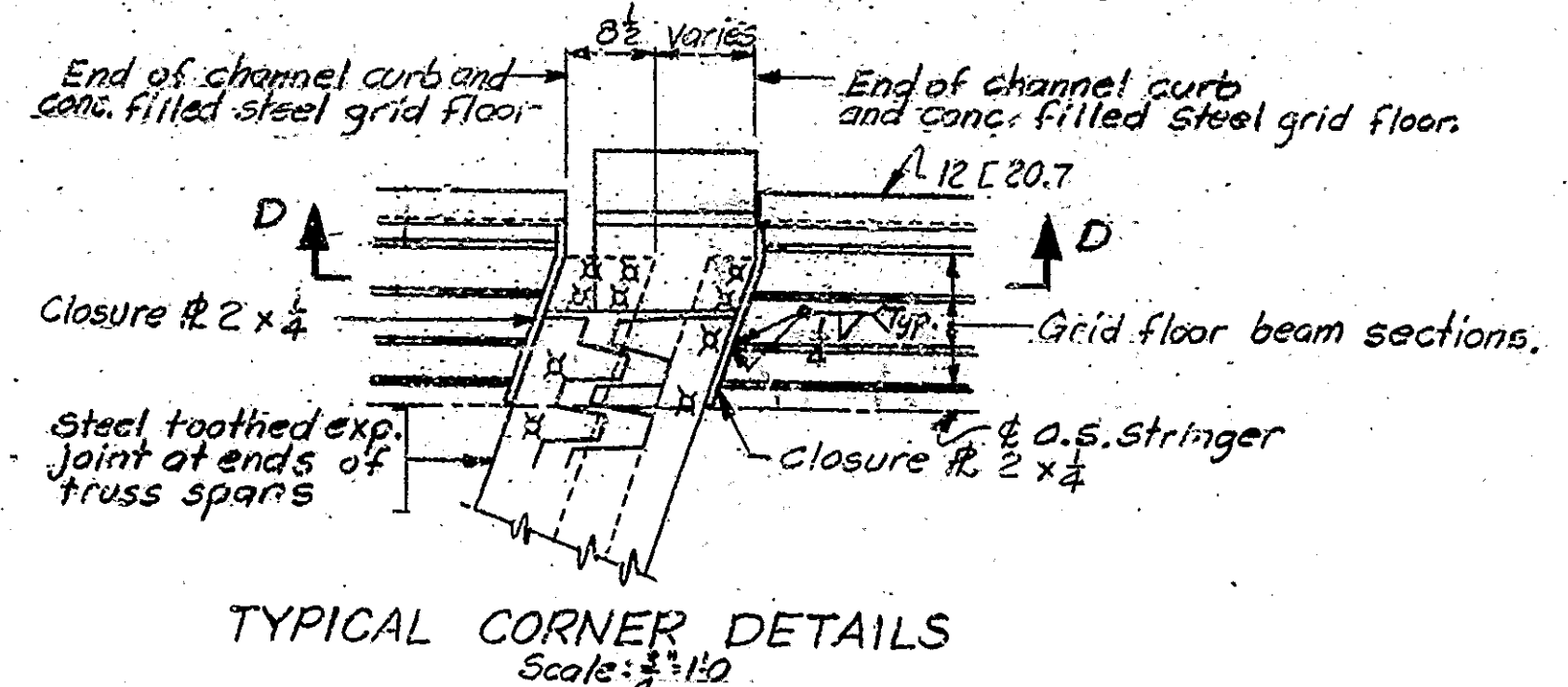
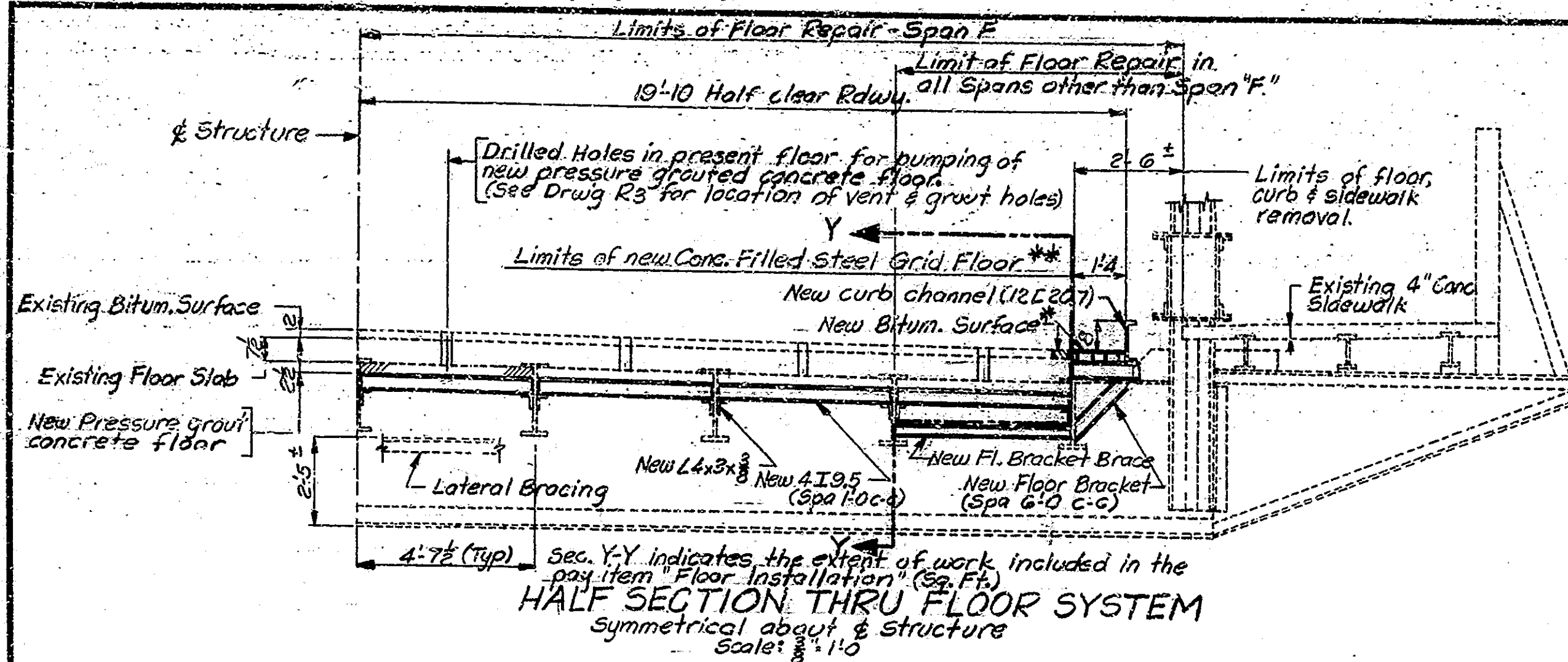
GENERAL NOTES: See Special Provisions for sequence of work and for the time limits during which work may be performed. New floor repairs to be made over the entire floor area in Span F and between the two abutments in all other spans. Curb removal and replacement is to be performed in all spans.

TITLE SHEET, GENERAL PLAN, & SUMMARY
STATE HIGHWAY COMMISSION OF INDIANA
LAKE COUNTY

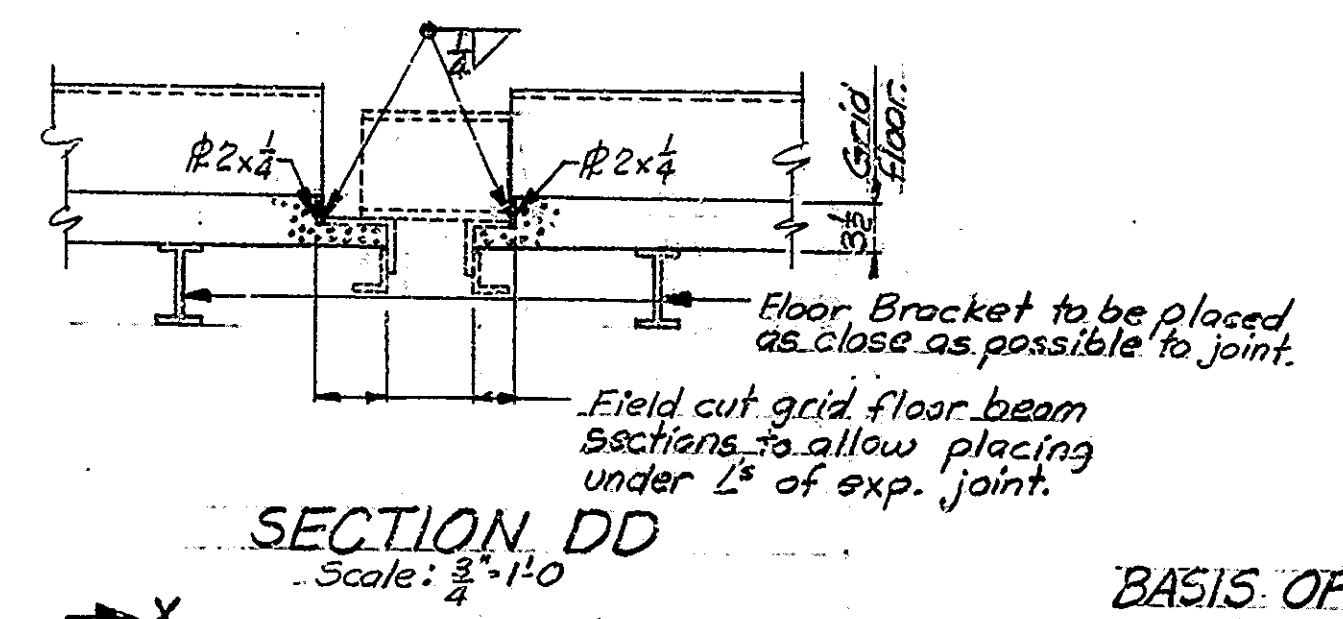
SCALE: 1"=30'
MAY 4, 1964.
RECOMMENDED FOR APPROVAL: [Signature]
PROJECT:
DRAWING:
BRIDGE CONTRACT NO. 6465
BRIDGE FILE: 152-LL-10312



BRIDGES OVER 20' SPAN					
FILE NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.		1964	2	9



- * Surface to be Hot A.C. Surface (Type B) or Hot A.E. Surface (Type III)
- ** Steel Grid Floor to have main reinforcing parallel to stringers. Grid Floor Panels to be continuous over as many Floor Brackets as practical.
- Grid Floor to be 3" U.S.S. I-Beam-Lok or equal.



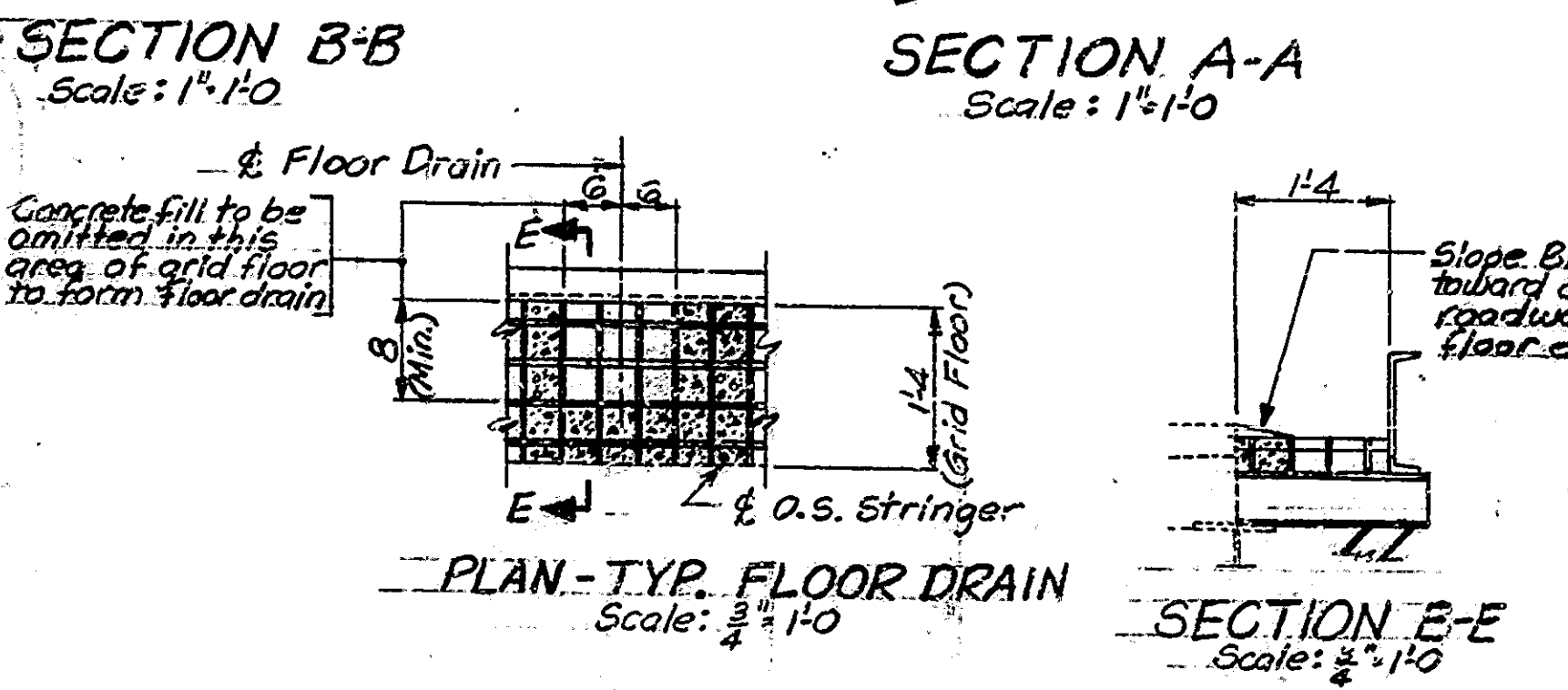
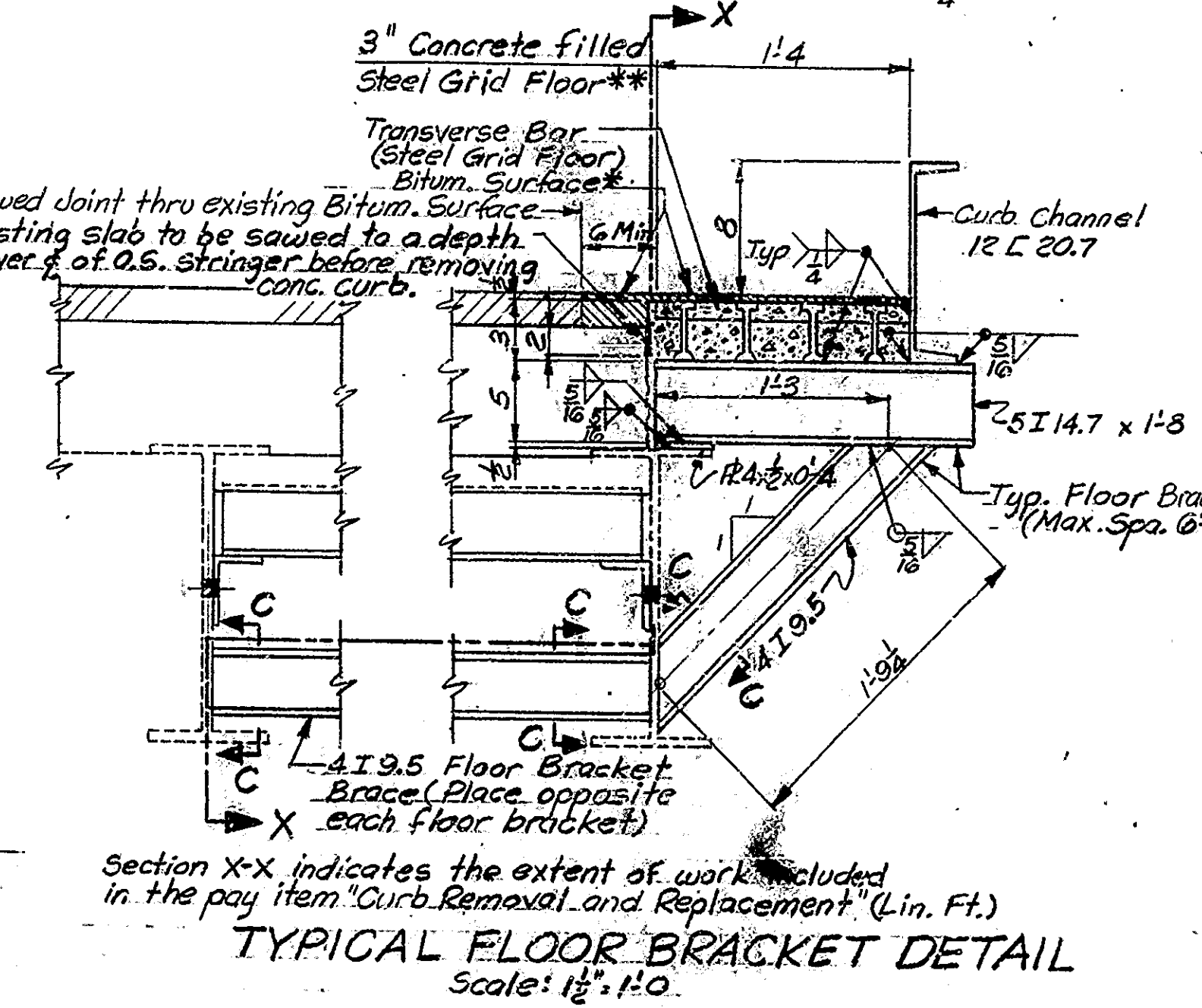
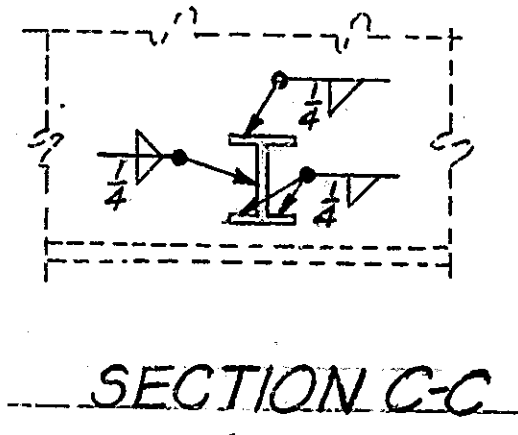
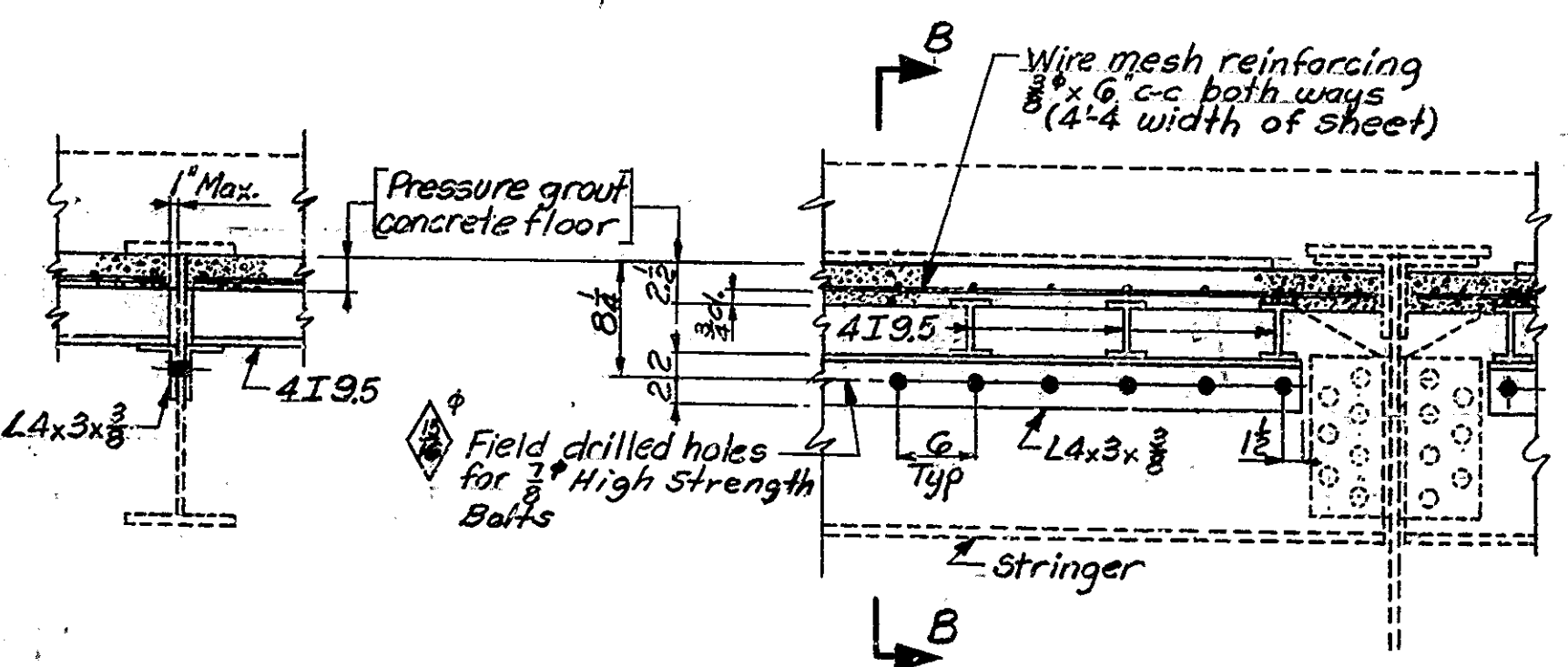
BASIS OF PAYMENT

The cost of 4I9.5 stringers, supporting angles, pressure grout floor, wire mesh, field holes drilled, high strength bolts, field welding, field painting of structural steel and all other items associated with the placing of the new floor, except the cost of Embaco or equal are to be included in the bid price for "Floor Installation".

The cost of the floor brackets, floor bracket braces, conc. filled steel grid floor, curb channel, field welding, forming of new drains, removal of portion of floor, including pavement sawing, curb and portions of sidewalk removal, painting of structural steel and all other items associated with placing of brackets and new curb sections are to be included in the bid price for "Curb Removal and Replacement".

NOTES

- An alternate method of fastening the shelf angles to the stringers may be used subject to the approval of the Engineer.
- Concrete in conc. filled steel grid floor to be Class "F".
- See Special Provisions for composition of special concrete used in the pressure grout concrete floor.
- All structural steel to be A-36.
- All High Strength Bolts to conform to ASTM A325 Specs.
- All new structural steel shall be painted in accordance with current State Highway Specifications.
- Shop Paint: One coat of Red Lead, Type I or II.
- Field Paint: Two coats of Aluminum.
- As soon as the Engineer has approved the field welds, all welds and any surface from which the shop or field coat has been omitted or becomes worn off or has otherwise become defective, shall be thoroughly cleaned of all charred paint or any foreign matter and completely covered with one coat of shop paint.
- Seventy-six (76) Special Floor Drains as detailed on this drawing to be placed in new conc. filled steel grid floor at locations as shown on sheet N2-1.
- See Special Provisions for items included in this contract and for Construction Procedure.
- Where new work is to be fitted to old work the contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the Engineer or assume responsibility for their correctness and the fit of new parts to old.
- Paint bottom of steel grid floor.



ESTIMATE OF QUANTITIES

ITEM	UNL	Span A	Span B	Span C	Span D	Span E	Span F	Span G	Span H	Span I	Total
4I9.5	1538	145	145	145	145	145	145	145	145	145	1538
4x3x3/8	684	650	650	650	650	650	650	650	650	650	684
Pressure Grout for Floor	127	127	127	127	127	127	127	127	127	127	127
Wire Mesh (3/8"x6")	172	165	165	165	165	165	165	165	165	165	172
Field Holes Drilled	1380	1320	1320	1320	1320	1320	1320	1320	1320	1320	1380
High Strength Bolts	1380	1320	1320	1320	1320	1320	1320	1320	1320	1320	1380
Field Weld	220	222	222	222	222	222	222	222	222	222	220
FLOOR INSTALLATION	Sq. Ft.	1456	1586	1586	1586	2270	2270	2270	1586	1456	33360
5x10	Lin. Ft.	100	97	97	97	140	140	140	97	100	1000
4x8	Lin. Ft.	421	422	422	422	612	612	612	422	421	4200
4x6	Lin. Ft.	265	264	264	264	400	400	400	264	265	2600
4x4	Lin. Ft.	570	563	563	563	820	820	820	563	570	5600
4x3	Lin. Ft.	64	63	63	63	91	91	91	63	64	600
4x2	Lin. Ft.	235	230	230	230	330	330	330	230	235	2300
CURB REMOVAL AND REPLACEMENT	Lin. Ft.	360	349	349	349	490	490	490	349	360	3600
12L20.7	Lin. Ft.	1000	980	980	980	1360	1360	1360	980	1000	10000
4x4	Lin. Ft.	232	229	229	229	320	320	320	229	232	2300
4x3	Lin. Ft.	68	67	67	67	94	94	94	67	68	680
4x2	Lin. Ft.	240	237	237	237	330	330	330	237	240	2400

Alternate B Used

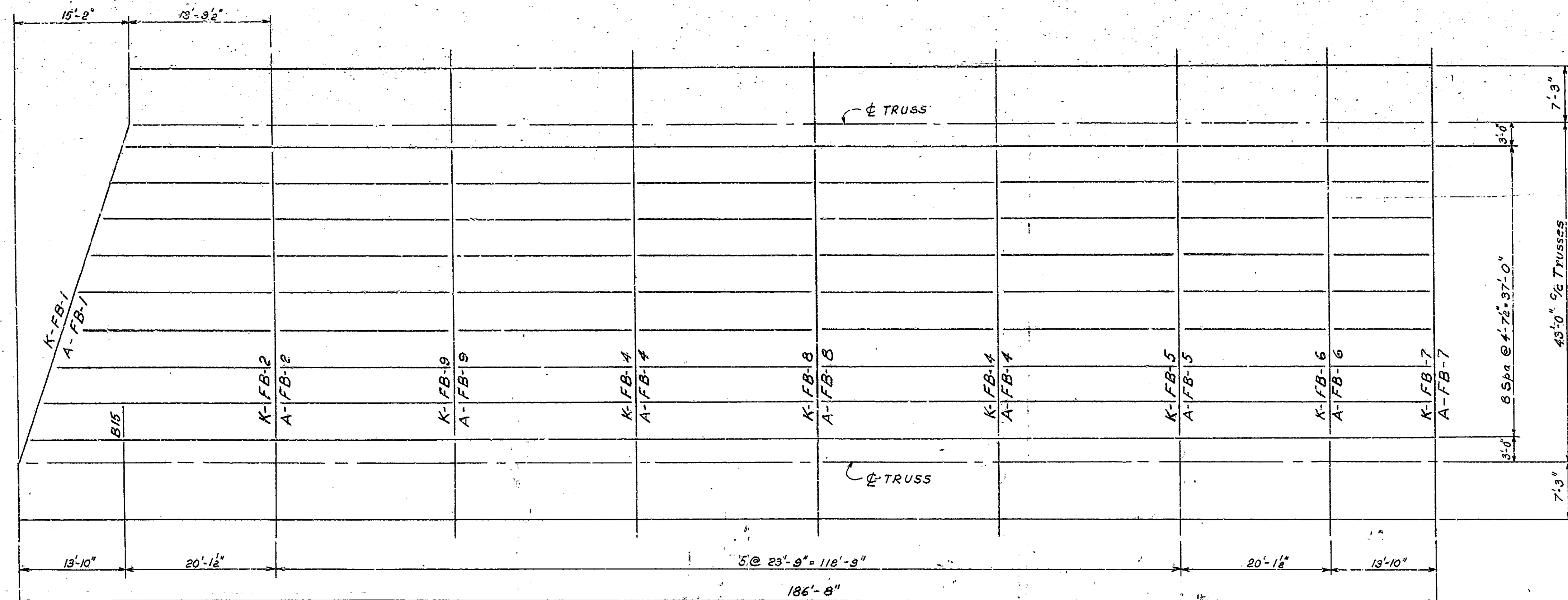
ALTERNATE "A" FLOOR REPAIRS
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED
RECOMMENDED FOR APPROVAL: *C.R. Rummel*
MAY 4, 1964
DRAWING: OF 1
PROJECT:
BRIDGE CONTRACT NO. 6465
BRIDGE FILE: 152-LL-1031G

DESIGNED: CKD
DRAWN: S.L.G. & C.K.D. S.N.S.-4-68
TRACED: CKD

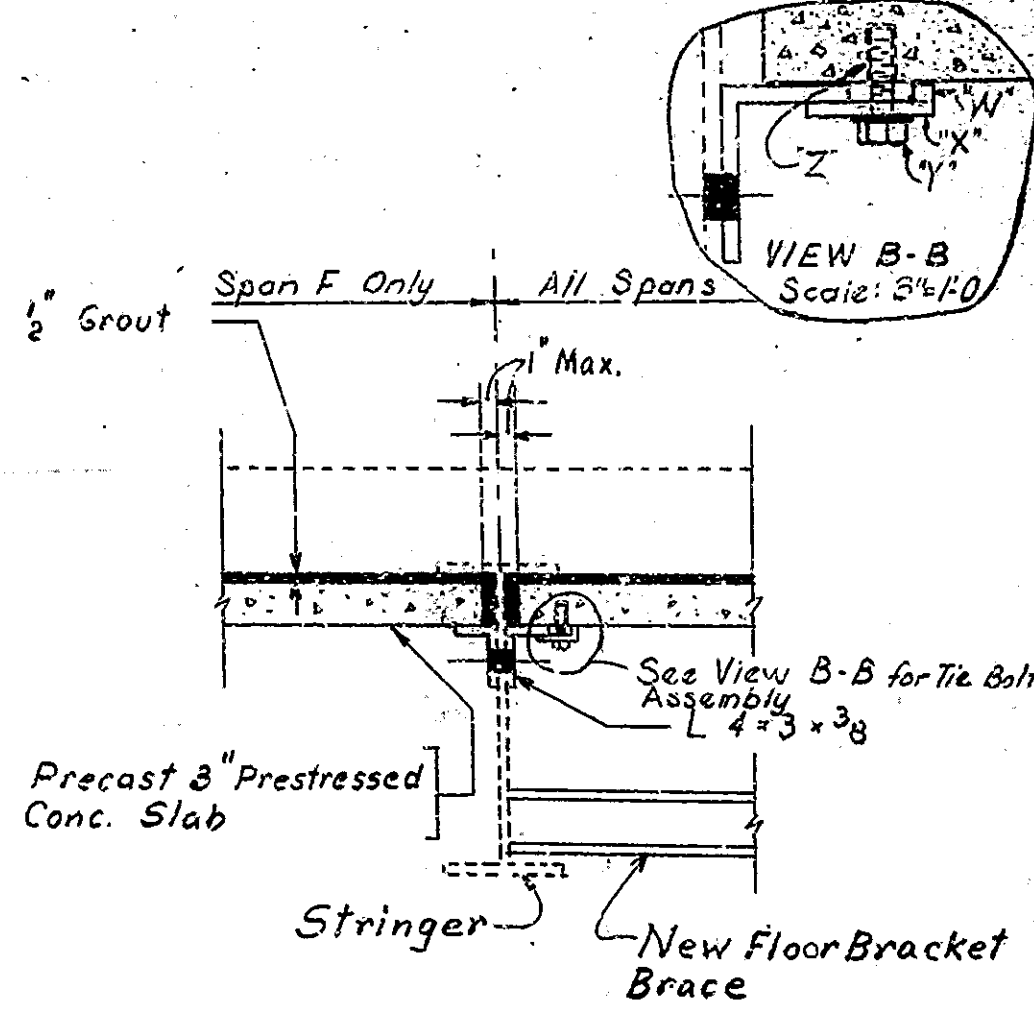
Revised 6-18-64 - Notes
Revised 5-28-64 - Steel Grid Floor
Estimate of Quantities

BRIDGES OVER 20' SPAN					
PROJ. ROAD	STATE	PROJECT	FISCAL	SHEET	TOTAL
NO. AND	NO.	NO.	YEAR	NO.	NO.
4	IND.		1964	3	9



EXISTING FLOORBEAM SCHEDULE SPAN A & K.

MARK	WEB # or WF	L.S.
A-FB-5 & 6	36W182	
A-FB-7	42x8	6x6x1/2
K-FB-6 & 7	42x8	6x6x1/2
All Others	48x8	6x6x1/2
B-15	21 1/4 x 3 3/8	3 1/2 x 3 1/2 x 3 3/8

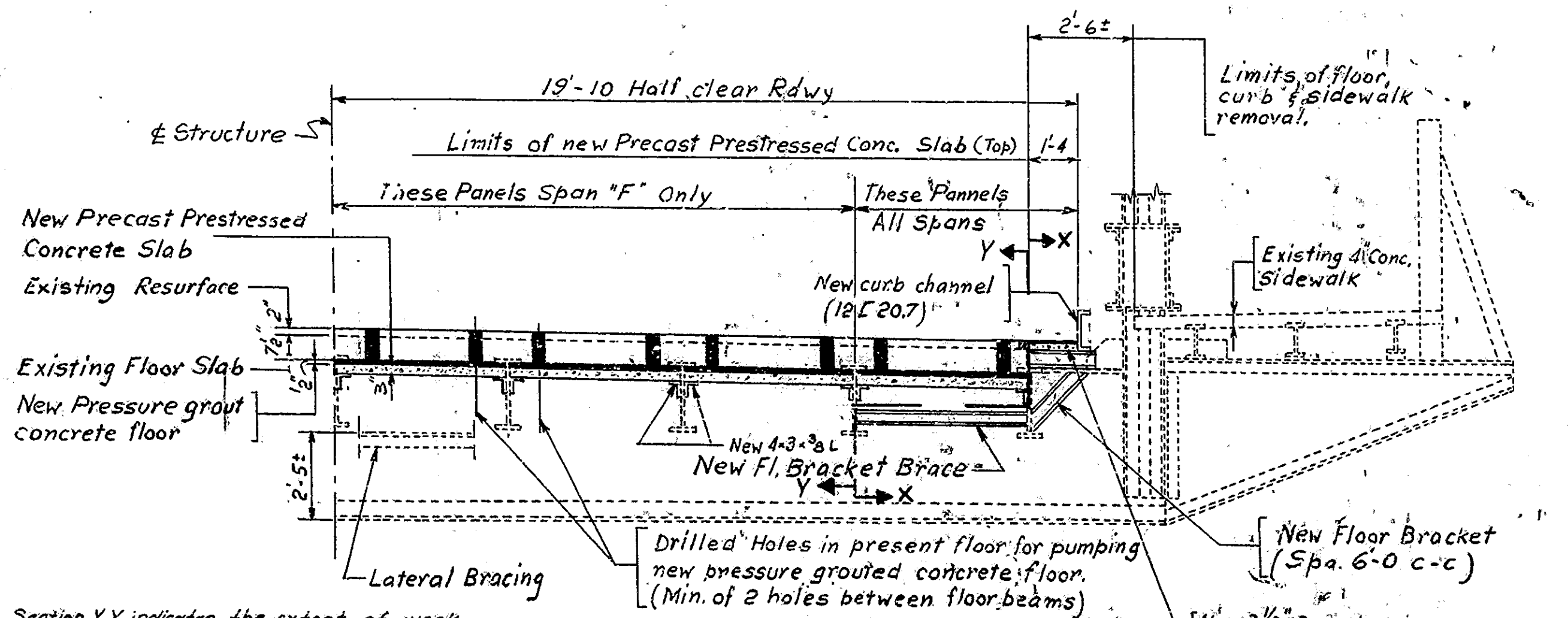


SECTION B-B
Scale: 1/2" = 1'-0"

TIE BOLT PARTS: (2 Tie Bolts Req. each Slab)
 *W" 3"x 1/2" x 1/2" FB welded to Part X
 *X" 3"x 3/4" B with 1/8" hole in center
 *Y" 1/2" Bolt with Lock Washer
 *Z" 1/2" Threaded Insert preset in Slab

*Note: 4" Leg of 4x3x3/8 Ls shall be coped at ends to miss stringer connecting Ls. 4x3x3/8 Ls to be fabricated in lengths to facilitate erection and shall be dimensioned on shop drawings.

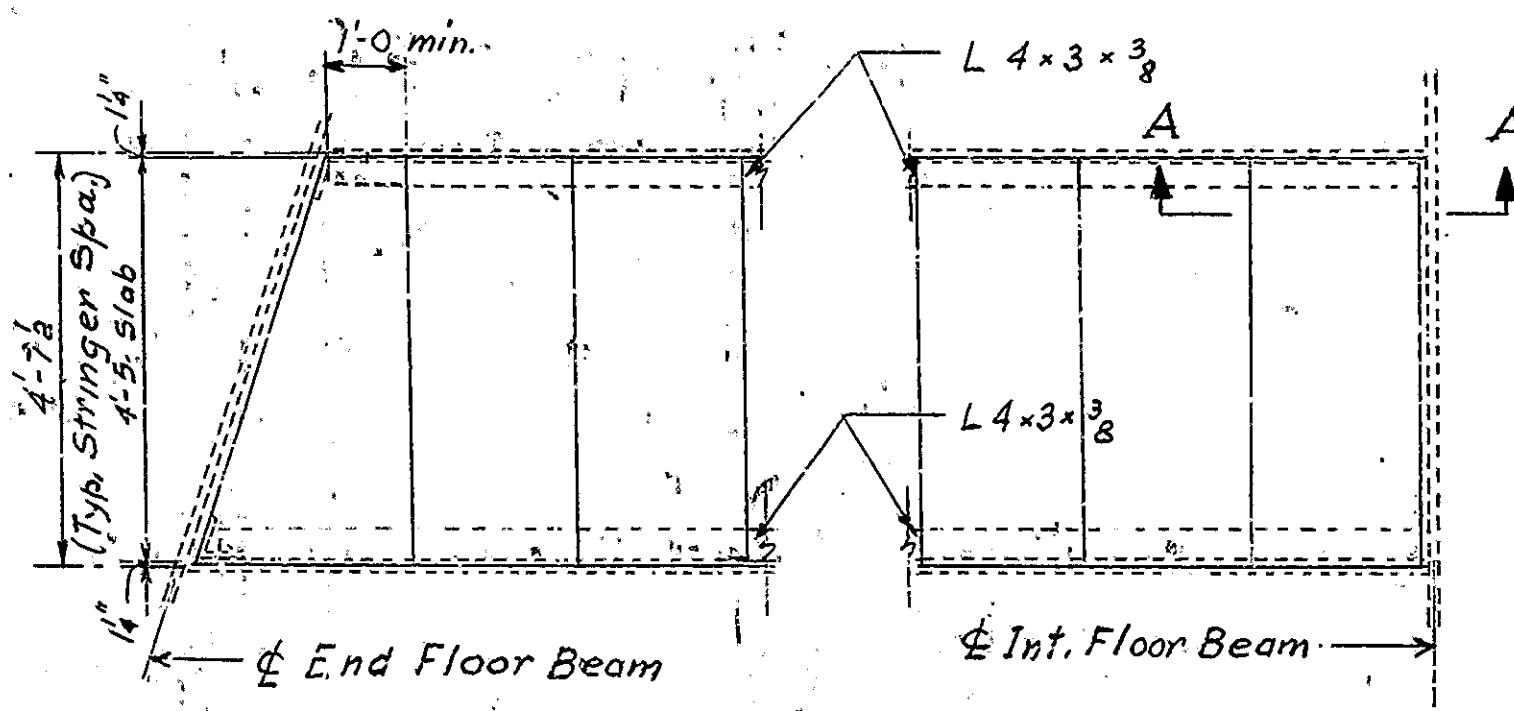
EXISTING FLOOR PLAN - SPAN K
(SPAN A BY ROTATION 180°)
Scale: 1/8" = 1'-0"



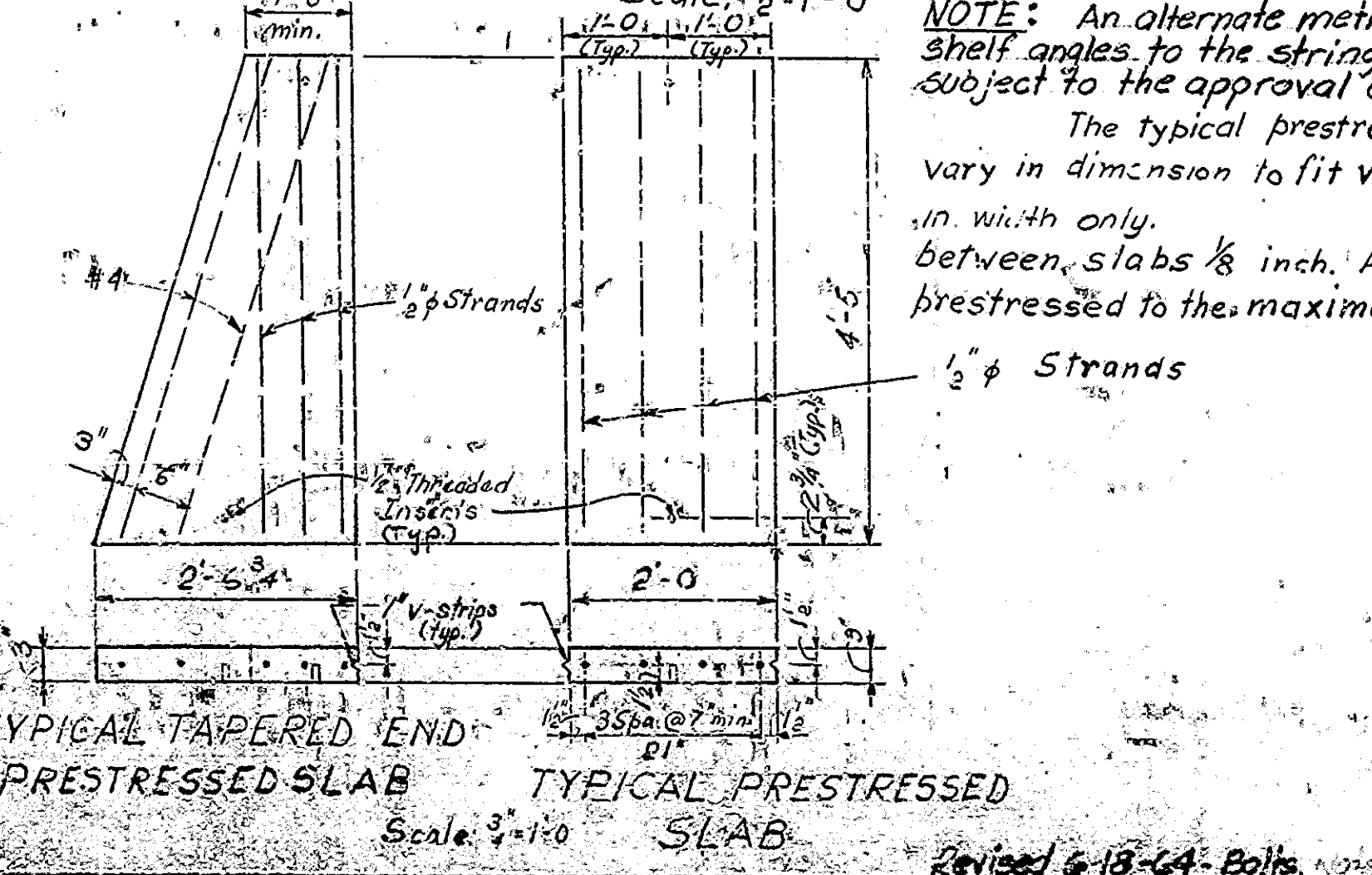
Section Y-Y indicates the extent of work included in the pay item "Floor Installation" (Sq. Ft.)
 Section X-X indicates the extent of work included in the pay item "Curb Removal and Replacement" (Lin. Ft.)

DESIGN DATA:
 Unit stresses in accordance with 1961 AASHTO Specifications.
 Live Load: 1000 #/53' ft.
 Dead Load Increased 35 #/Sq. ft. of Roadway for future wearing surface.

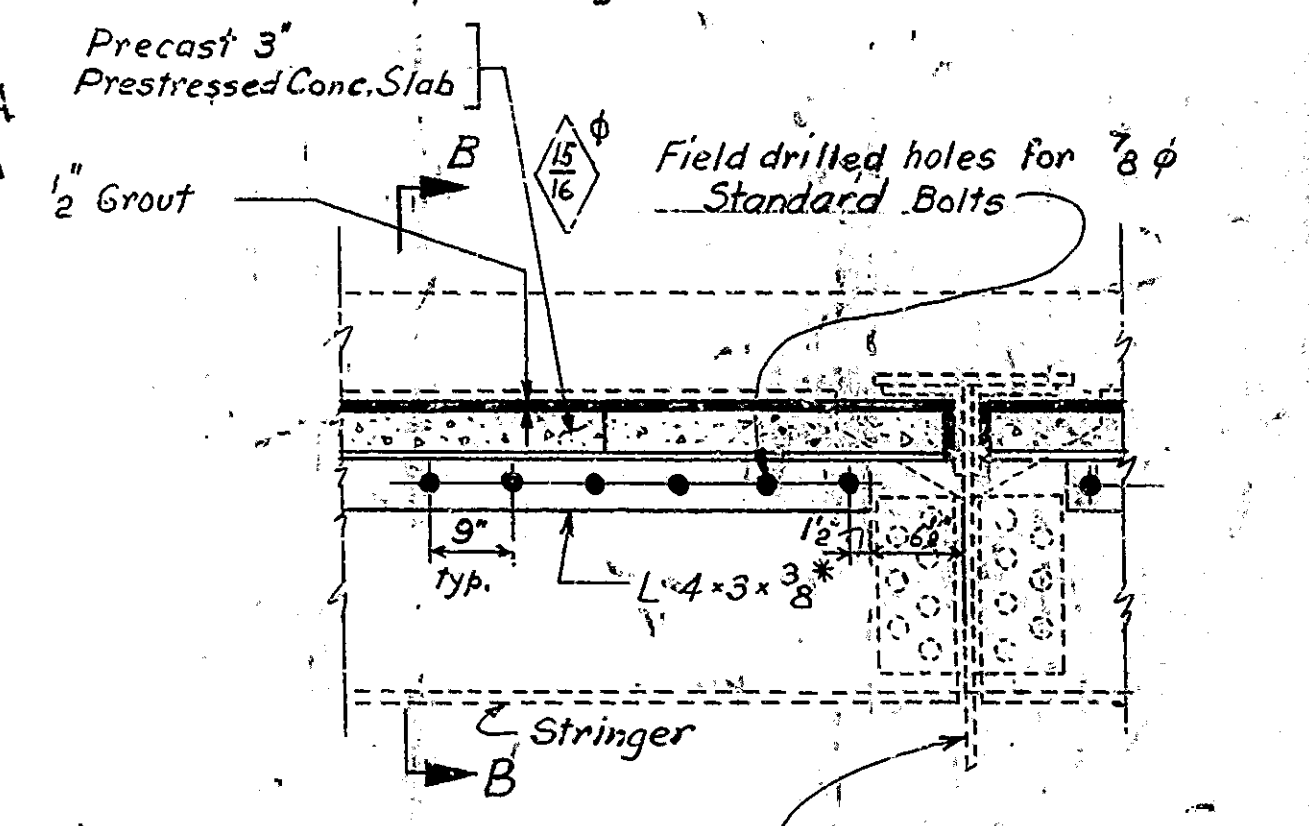
DESIGNED: CKD
 DRAWN: W. J. 428 MCKD WEG 4-27-64
 TRACED: CKD



PLAN, TYPICAL FLOOR PANEL REPAIR
Scale: 1/2" = 1'-0"



TYPICAL TAPERED END PRESTRESSED SLAB
Scale: 3/4" = 1'-0"

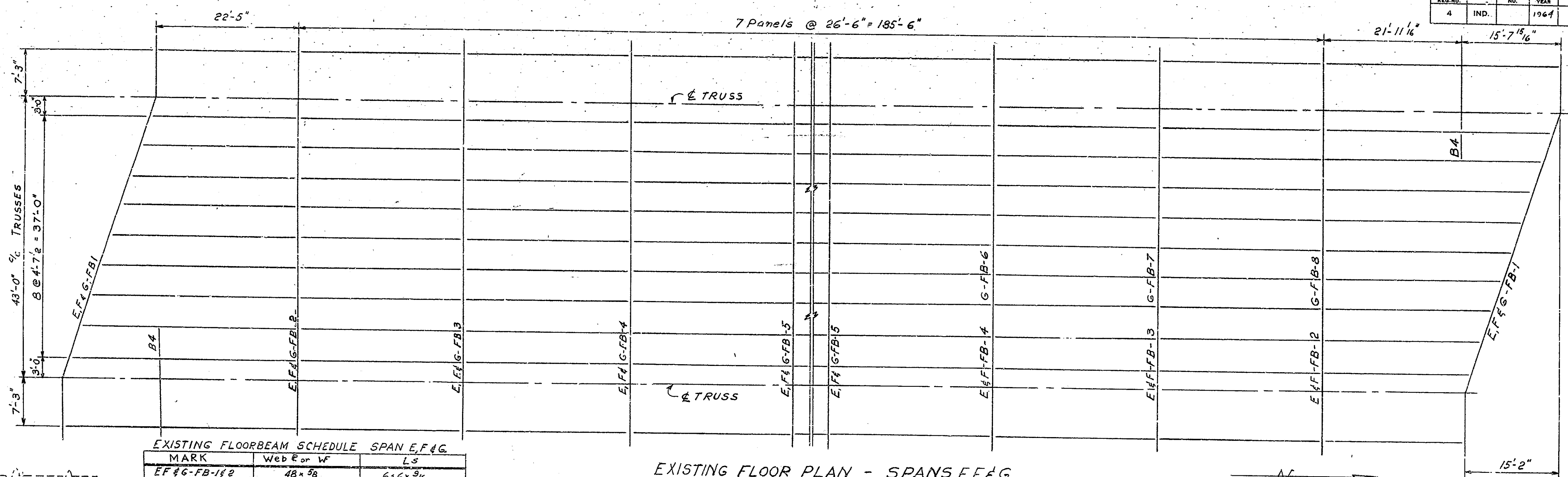


SECTION A-A
Scale: 1/2" = 1'-0"

ALTERNATE "B" FLOOR REPAIRS
INDIANA STATE HIGHWAY COMMISSION

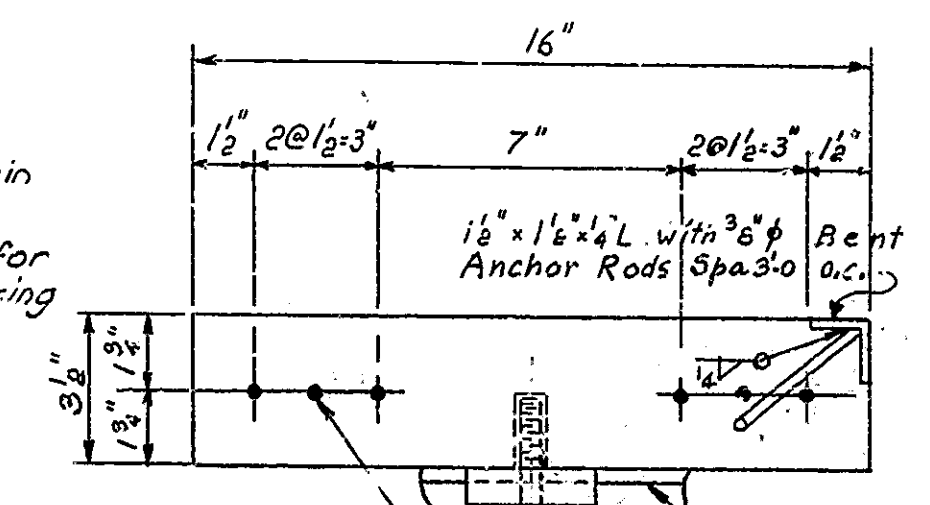
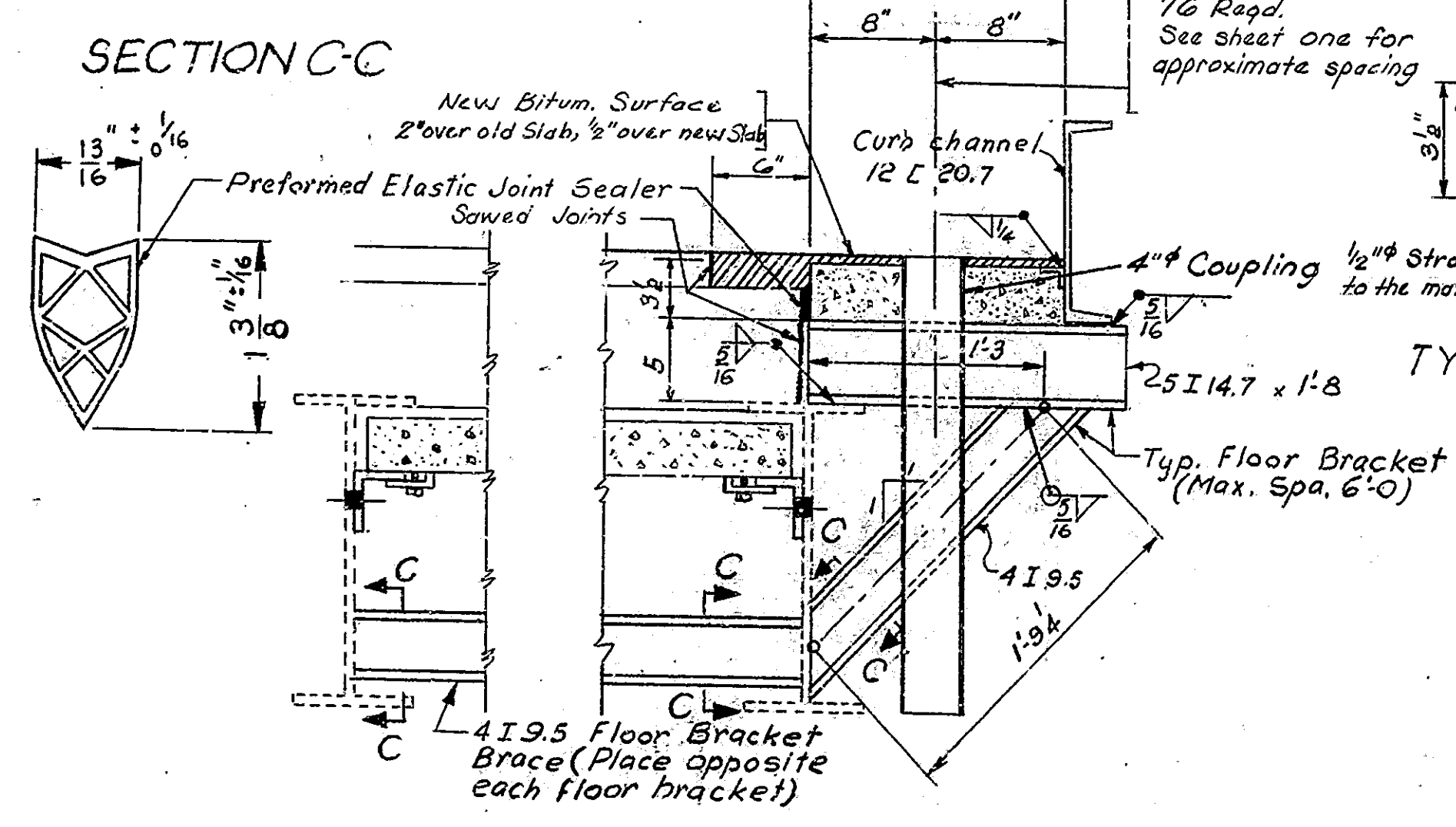
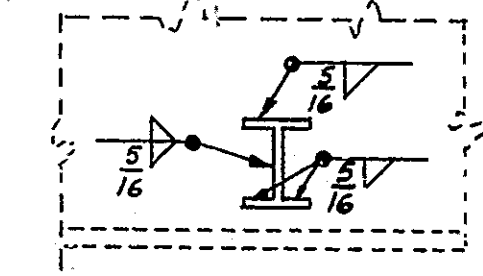
SCALE: AS NOTED
 MAY 4, 1964
 RECOMMENDED FOR APPROVAL: C.R. Rimmer
 DRAWING: R1 OF 3
 PROJECT: BRIDGE CONTRACT NO. 6465
 BRIDGE FILE: 152-LL-1031 C

BRIDGES OVER 20' SPAN					
PUB. ROAD	STATE	PROJECT	FISCAL	EST.	TOTAL
NO.		NO.	YEAR	NO.	DIRECT
4	IND.		1964	4	9



EXISTING FLOORBEAM SCHEDULE SPAN E, F & G.

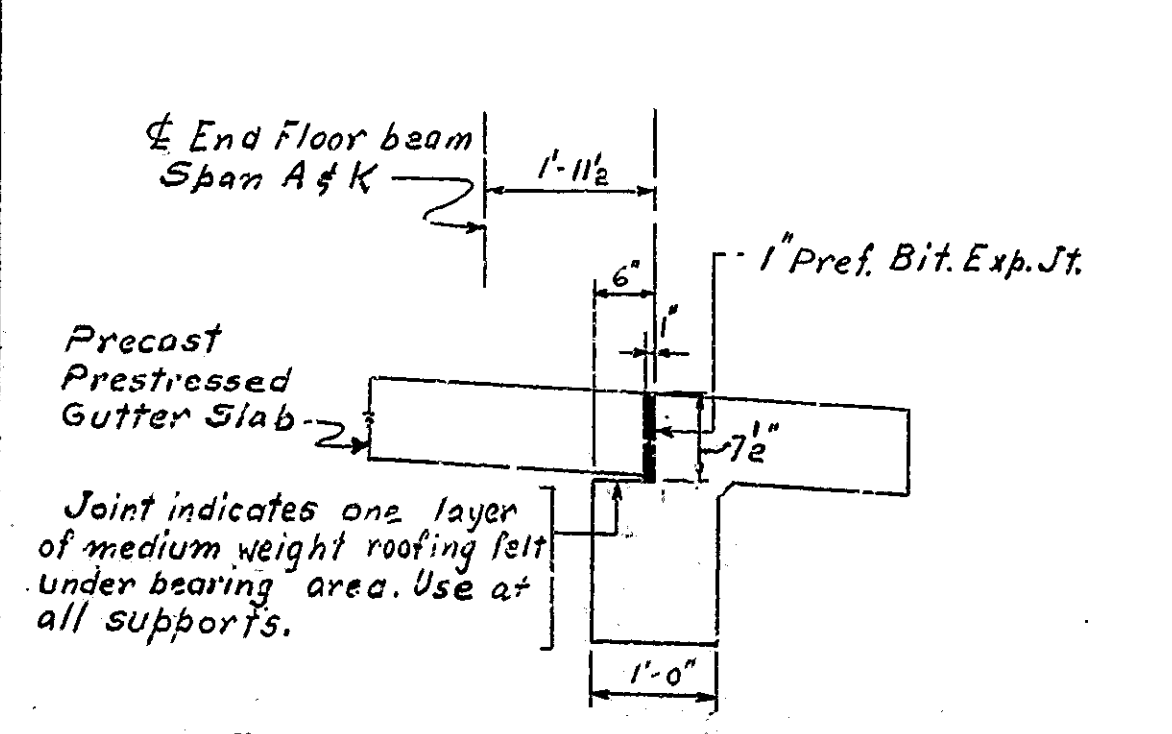
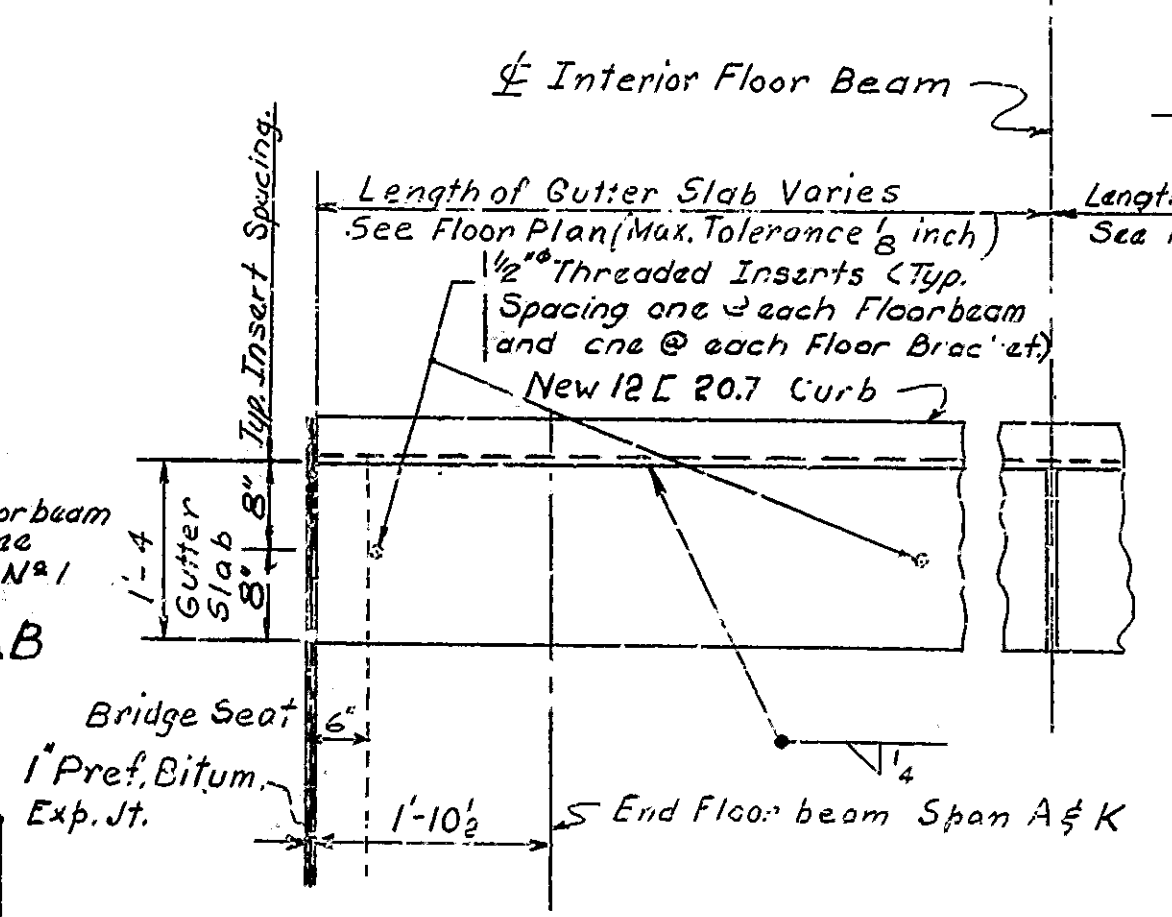
MARK	Web E or W	L _s
E, F & G-FB-1 & 2	48 x 38	6'-6" x 3/16
G-FB-6 to 8	36 W 102	
B-4	21 1/2 x 38	3 1/2 x 3 1/2 x 3/8
All others	48 x 38	6' x 6" x 1/8



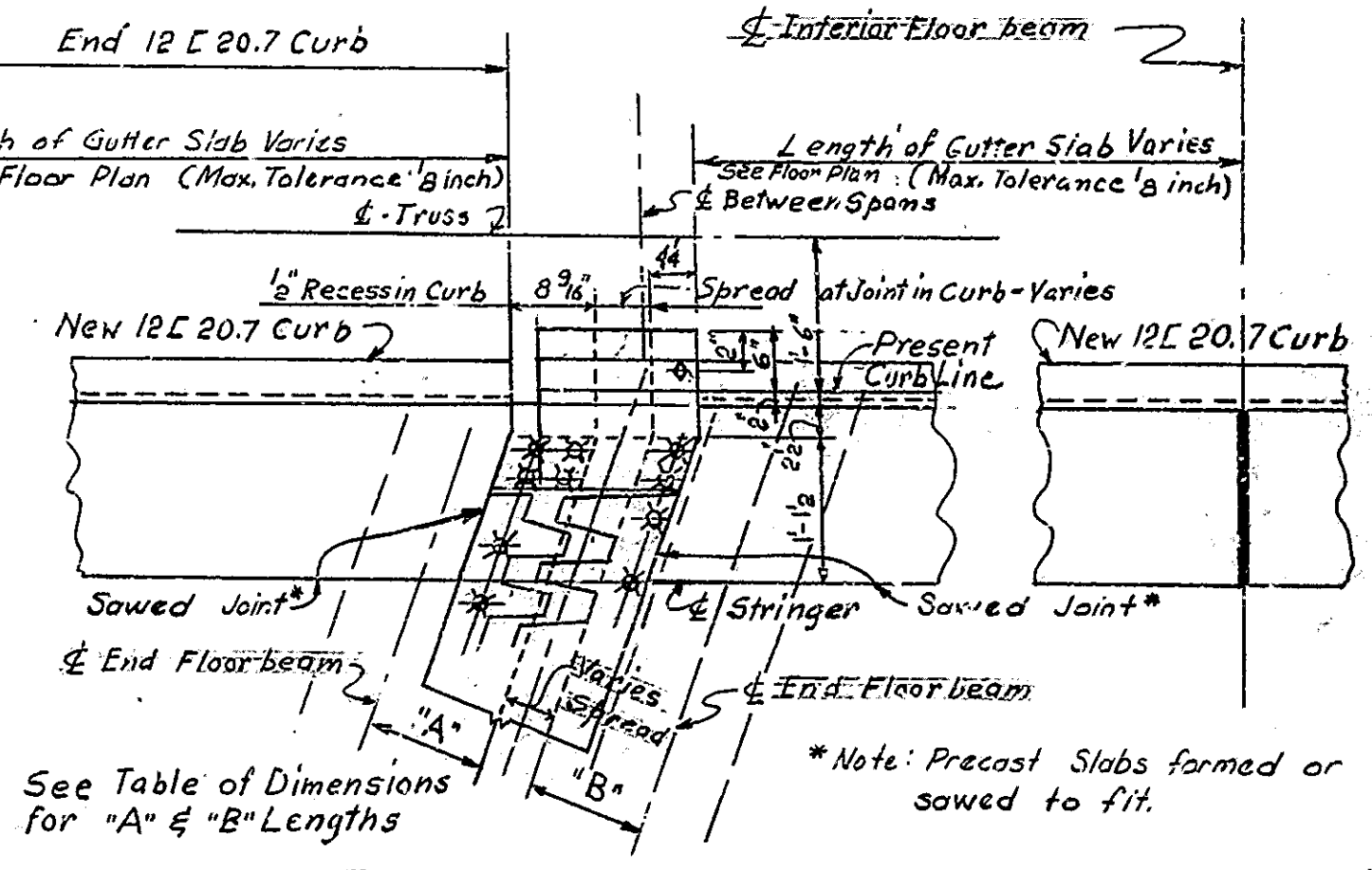
TYPICAL SECTION THRU GUTTER SLAB
Scale: 3/8" = 1'-0"

TABLE OF DIMENSIONS
Floor beam to Nose L on Exp. Devise
Exp. Jt. @ Span

	"A"	"B"
A to B	11' 31/32	11' 31/32
B to C	11' 1/4	11' 1/4
C to D	11' 31/32	11' 31/32
D to E	1-0' 7/8	1-0' 7/8
E to F	1-2' 3/32	1-2' 3/32
F to G	1-2' 3/32	1-2' 3/32
G to H	1-1' 1/8	1-1' 1/8
H to K	11' 31/32	11' 31/32



SECTION THRU GUTTER SLAB
PIER No. 10 (FOR PIER No. 1 ROTATE 180°)
Scale: 3/4" = 1'-0"
Rev. 5-28-64 Tie Bolt Assembly on Gutter Slab



PLAN TYPICAL GUTTER SLAB
Scale: 3/4" = 1'-0"

ALTERNATE "B" FLOOR REPAIRS
INDIANA STATE HIGHWAY COMMISSION

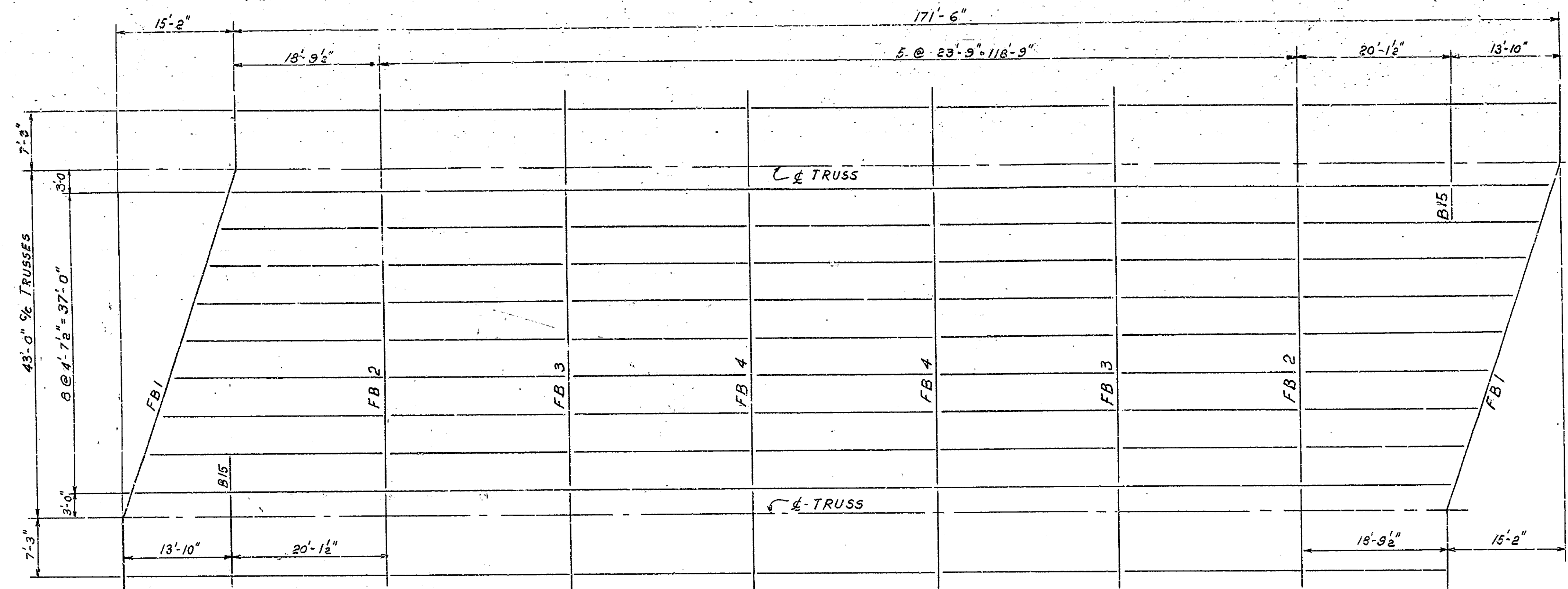
SCALE: AS NOTED. MAY 4, 1964

RECOMMENDED FOR APPROVAL: *[Signature]*
ENGINEER OF BRIDGE DESIGN

DRAWING: R2 OF 3
PROJECT: BRIDGE CONTRACT NO. 6465
BRIDGE FILE: 152-LL-1031 C

DESIGNED: C.W.D.
DRAWN: W.S.S. 1-64 C.W.D. 4/16/64
TRACED: C.W.D.

BRIDGES OVER 20' SPAN					
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.		1964	5	9



EXISTING FLOORBEAM SCHEDULE SPAN B, C, D & H

MARK	WEB R or WF	L-S
B15	21 1/4 x 3/8	3 1/2 x 3 1/2 x 3/8
All others	48 x 8	6 x 6 x 1/2

EXISTING FLOOR PLAN - SPANS B, C, D & H

Scale: 1/8" = 1'-0"

NOTES

See Special Provisions for composition of special concrete used in the pressure grout concrete floor. All structural steel to be A-36. All High Strength Bolts to conform to ASTM A325 Specs. All new Structural Steel shall be painted in accordance with current State Highway Specifications. Shop Paint: One coat of Red Lead Type I or II. Field Paint: Two coats of Aluminum.

As soon as the Engineer has approved the field welds, all welds and any surface, from which the shop or field coat has been omitted or becomes worn off or has otherwise become defective, shall be thoroughly cleaned of all charred paint or any foreign matter and completely covered with one coat of shop paint.

Seventy-six (76) Special Floor Drains as detailed on this drawing to be placed in new Prestressed Slab floor at locations as shown on Sheet No. 1.

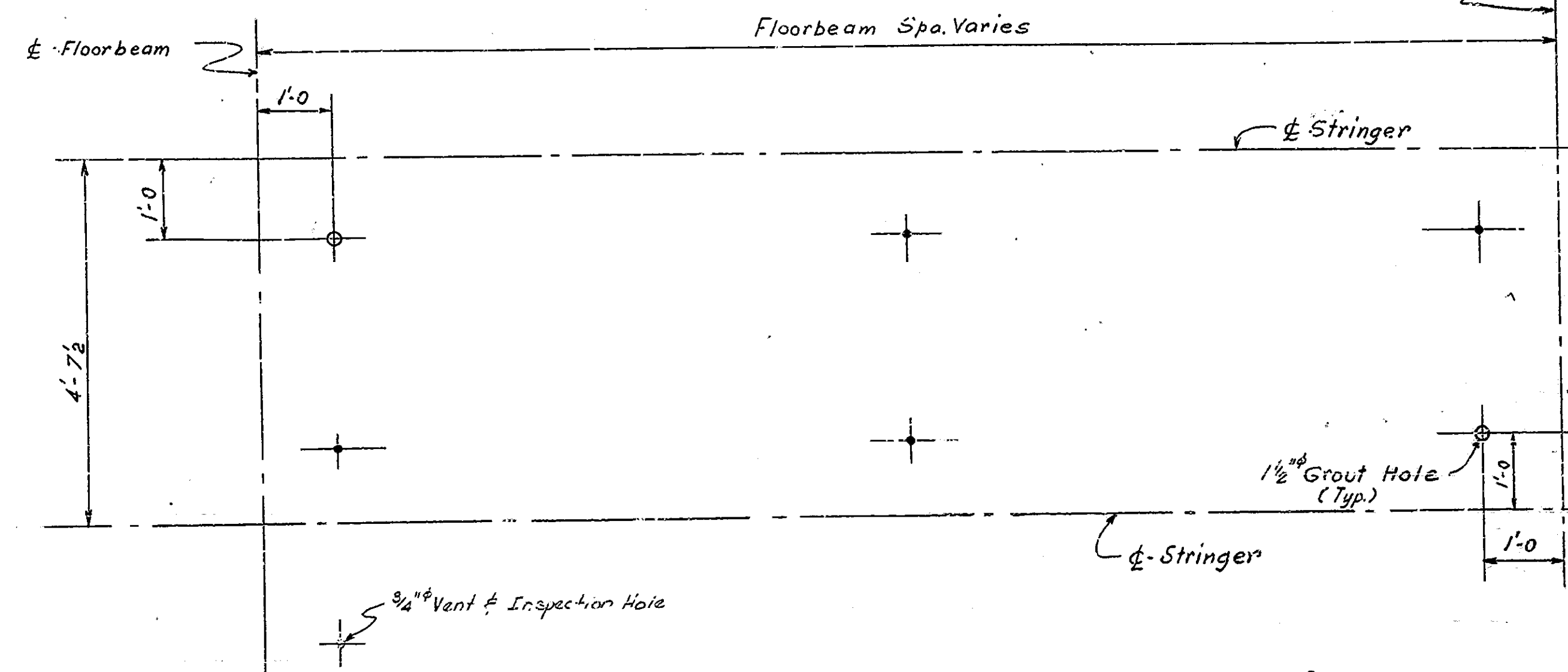
See Special Provisions for items included in this contract and for Construction Procedure.

Where new work is to be fitted to old work the contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the Engineer or assume responsibility for their correctness and the fit of new parts to old.

BASIS OF PAYMENT

The cost of prestressed slabs, supporting angles, 2" x 4" standard bolts, 1/2" x bolts and tie assembly, pressure grout, field holes drilled, field welding, and all other items associated with the placing of the new floor except the cost of Embed or equal and the drilled holes existing floor slabs are to be included in the bid price for "Floor Installation".

The cost of the floor brackets, floor bracket braces, prestressed slab, curb channel, field welding, forming of new drains, removal of portion of floor, (including pavement sawing), curb and portions of sidewalk removal, painting of structural steel, preformed elastic joint, 4" drain and all other items associated with placing of brackets and new curb section are to be included in the bid price for "Curb Removal and Replacement".



FLOORBEAM - STRINGER PANEL TYPICAL GROUT HOLE DETAIL

Scale: 3/4" = 1'-0"

ESTIMATE OF QUANTITIES

ITEM	UNIT	Span A	Span B	Span C	Span D	Span E	Span F	Span G	Span H	Span K	Total
L4x3x3/8	Lin. Ft.	684	658	658	658	976	3784	946	658	684	9676
Pressure Grout for Floor	Cu. Yds.	3.1	3.0	3.0	3.0	4.3	16.3	4.3	3.0	3.1	43.6
Field Holes Drilled	Each	1350	1328	1328	1328	1920	4194	1320	1328	1380	16106
3/4" Standard Bolts*	Each	925	890	890	890	1285	2210	1285	890	925	10780
Prestressed Conc. Slab	Sq. Ft.	1580	1515	1515	1515	2170	3675	2170	1515	1580	22235
FLOOR INSTALLATION	Sq. Ft.	1656	1586	1586	1586	2270	3084	2270	1584	1656	23280
5x14.7	Lin. Ft.	106	97	97	97	140	140	140	97	106	1020
4x12.5	Lin. Ft.	451	422	422	422	612	612	612	422	451	4426
12L 20.7	Lin. Ft.	368	344	344	344	492	492	492	344	368	3588
Field Weld	Lin. Ft.	500	570	570	570	820	820	820	570	600	5940
Prestressed Conc. Slab	Sq. Ft.	500	463	463	463	660	660	660	463	500	4832
CURB REMOVAL & REPLACEMENT	Lin. Ft.	360	348	348	348	436	496	496	348	360	3600
EMBED OR EQUAL	Lbs.	645	615	615	615	875	3300	875	615	645	9000
BITUMINOUS SURFACE	Tons	5.2	5.0	5.0	5.0	7.1	7.1	7.1	5.0	5.2	51.7
VENT & INSPECTION HOLES	Each	68	64	64	64	80	384	80	64	68	1136
GROUT HOLES	Each	34	32	32	32	40	292	40	32	34	552

* Bolts are to be Standard Bolts (ASTM A7, A307, A378) with one cut washer and self locking type nut. Locking nut shall be "Jay-Lok" as made by Screw and Bolt Corporation of America, Gary, Ind. or an approved equal.

ALTERNATE "B" FLOOR REPAIRS
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED
RECOMMENDED FOR APPROVAL: *Ch. Rumrill*
MAY 4, 1964

DRAWING: R3 OF 3
PROJECT:
BRIDGE CONTRACT NO. 6465
BRIDGE FILE: 152-LL-1031 C

Revised 6-13-64 Bolts Notes

DESIGNED: CKD
DRAWN: W.J. 4.30.64 CKD/MEG S-1-64
TRACED: CKD