

New & grade Existing &

Observed & Calc. Flood Level 97.5

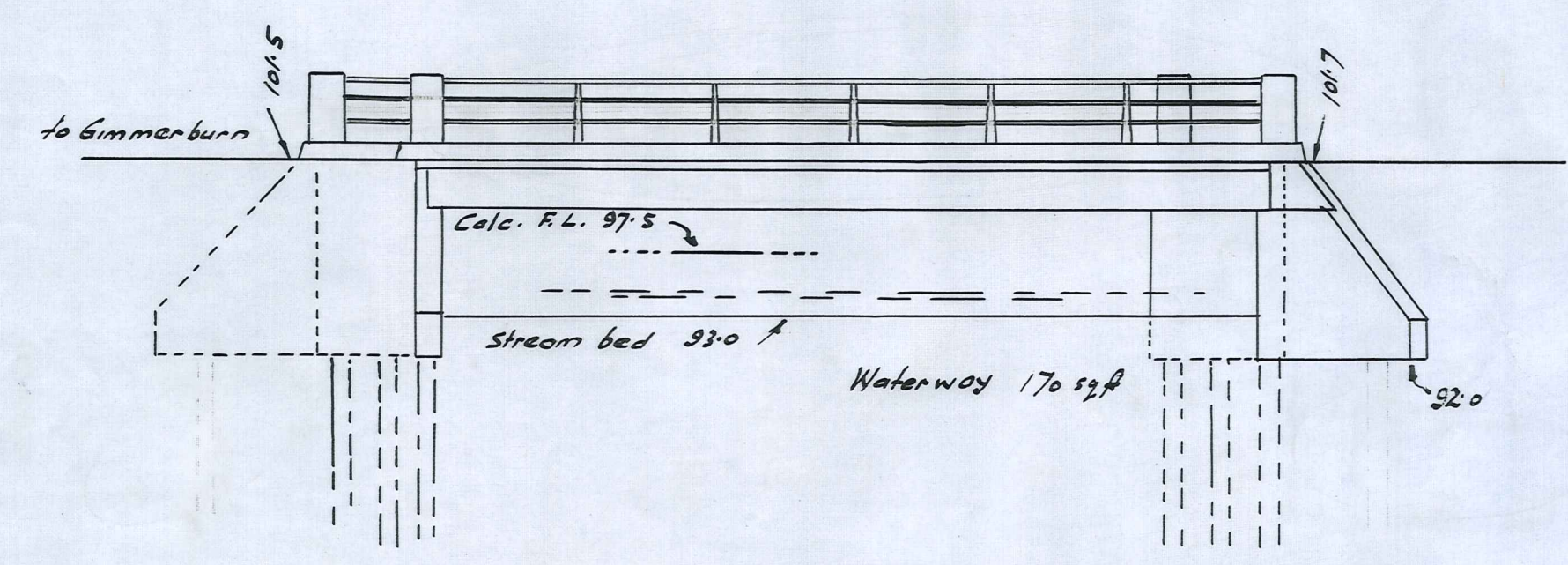
Exist. Bridge

Proposed new bridge

Exist bridge

80' above Datum	Distance	Formation Level	Deck & Level	Existing & Level
	0+00	99.0		99.5
	0+16	99.2		97.4
	0+17	99.4		97.0
	0+18	99.4		96.57
	0+19	100.1		97.0
	0+20	100.5		97.40
	0+21	101.0		97.40
	0+22	101.2		97.40
	0+23	101.5		97.40
	0+24	101.7	(not as drawn)	98.6
	0+25	100.0		98.8
	0+26	100.5		98.0

Longitudinal Section - Sharkey's Road
1" to 1" horiz
10" to 1" vert



Elevation of Bridge
1/8" to 1"

Existing normal WL

Initial WL of diversion (normal)

Final WL of diversion (normal)

Invert of diversion after scouring

to meet exist stream bed

Deleted

to meet exist stream bed

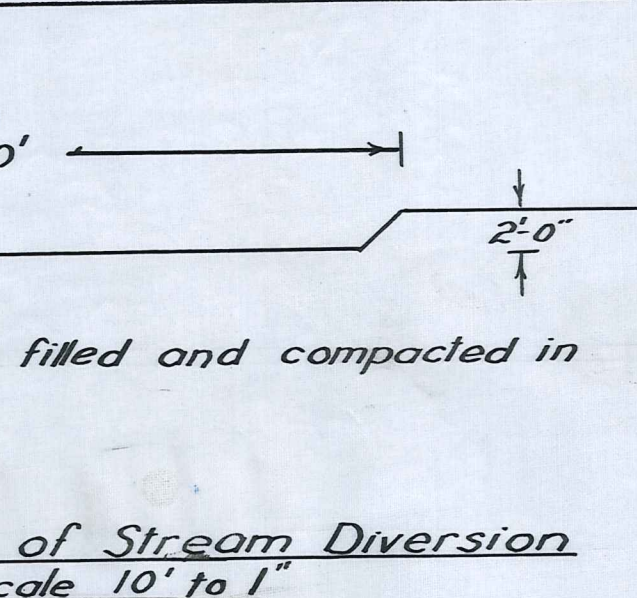
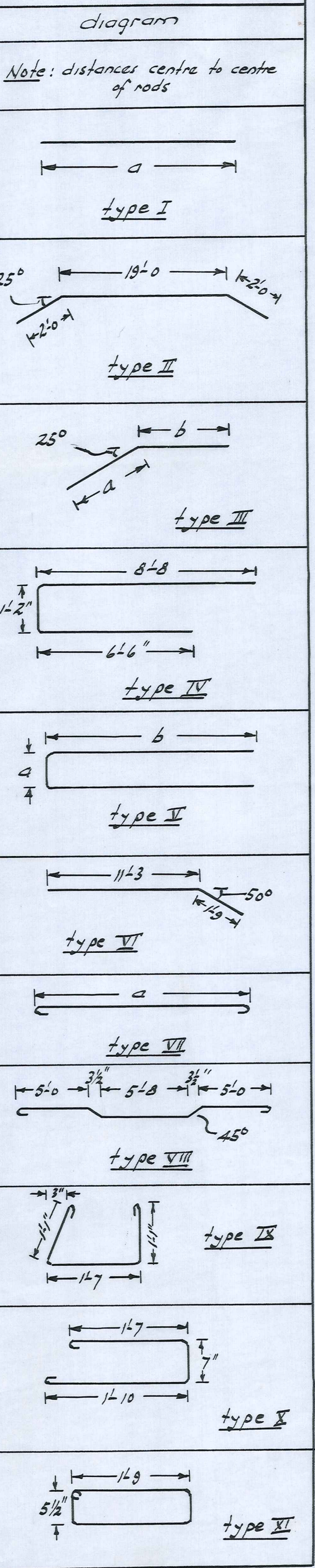
80' above datum	Distance along Exist. Ck	Water level	Final Bed Invert	Final Grade
	0	99.0	96.7	0.004
	10	99.0	96.7	0.004
	12	99.5	96.7	0.004
	14	99.5	96.7	0.004
	16	99.5	96.7	0.004
	18	99.5	96.7	0.004
	20	99.5	96.7	0.004
	22	99.5	96.7	0.004
	24	99.5	96.7	0.004
	26	99.5	96.7	0.004

Wetherburn Stream - Long. Section.
4" to 1" horiz, 10" to 1" vert.

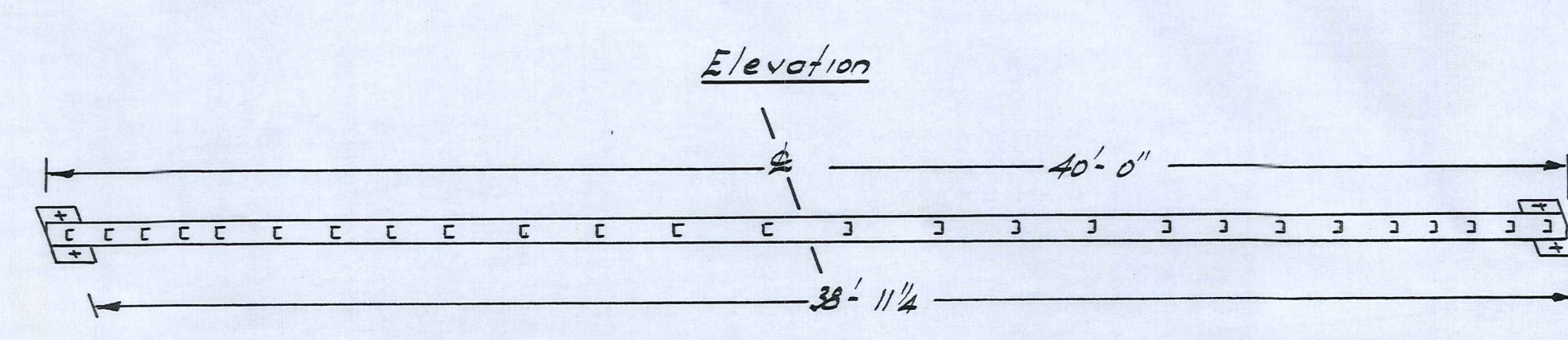
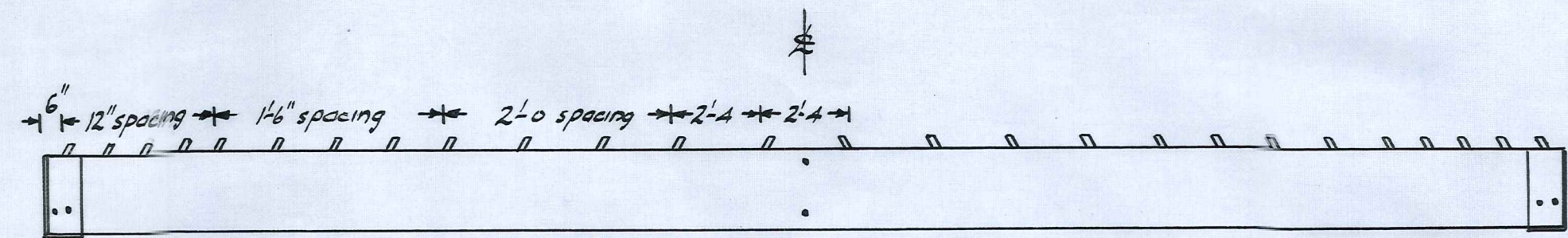
Note: Distances are along Flood grade, Not always normal stream grade.

Reinforcing Schedule

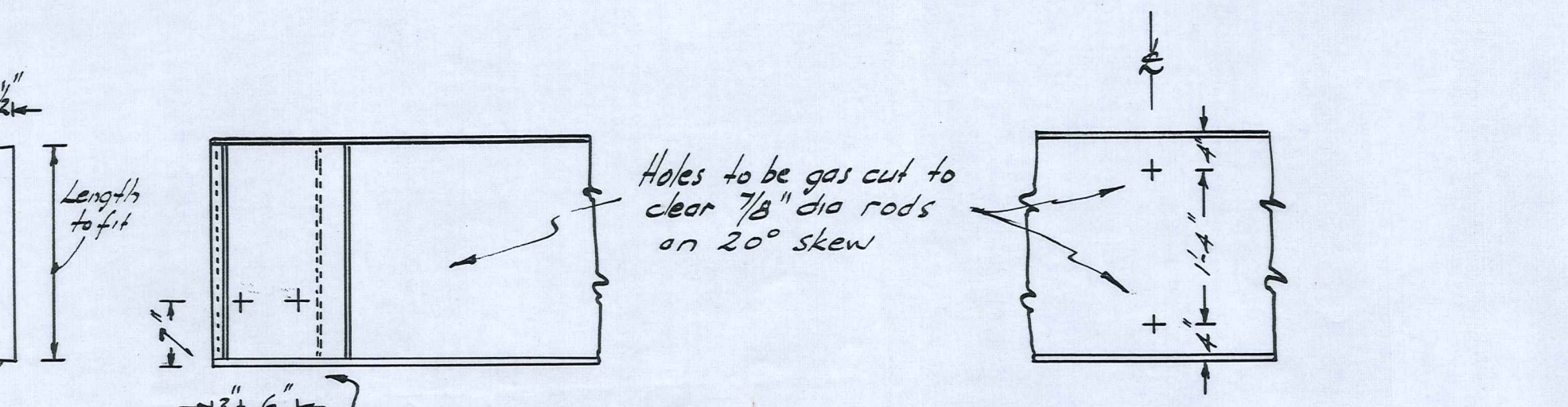
Mark	Dia	Type	No. Off	a	b	Cut Length
A1	1/2	II	14			23'-0"
A2	1/2	I	18	16'-0"		16'-4"
A3	5/8	III	16	1'-3"	1'-3"	2'-6"
A4	5/8	III	28	2'-3"	2'-3"	4'-6"
A5	5/8	IV	32			16'-4"
A6	5/8	V	8	8"	8'-0"	18'-4"
A7	6.00	I	140	bend on site		3'-0"
W1	5/8	VI	4			13'-0"
W2	1/2	I	4	8'-9"		8'-9"
W3	"	"	"	8'-0"		8'-0"
W4	"	"	"	7'-3"		7'-3"
W5	"	"	"	6'-3"		6'-3"
W6	"	"	"	5'-6"		5'-6"
W7	"	"	"	4'-9"		4'-9"
W8	"	"	"	3'-9"		3'-9"
W9	"	"	"	3'-0"		3'-0"
W10	"	"	"	7'-6"		7'-6"
W11	5/8	I	4	3'-3"		3'-3"
W12	"	"	"	4'-6"		4'-6"
W13	"	"	"	5'-6"		5'-6"
W14	"	"	"	6'-9"		6'-9"
W15	"	"	"	8'-0"		8'-0"
W16	"	"	"	8'-9"		8'-9"



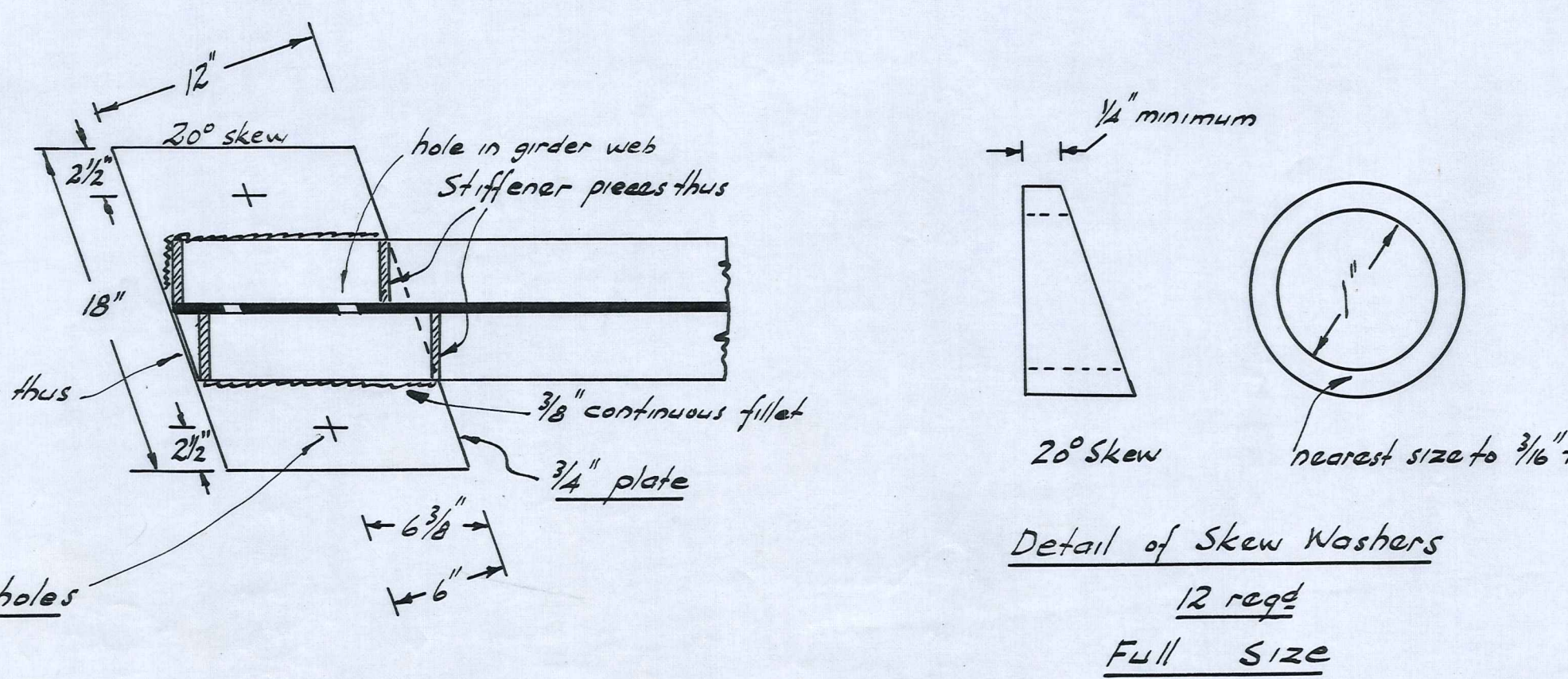
For Long-Section see 2787/1



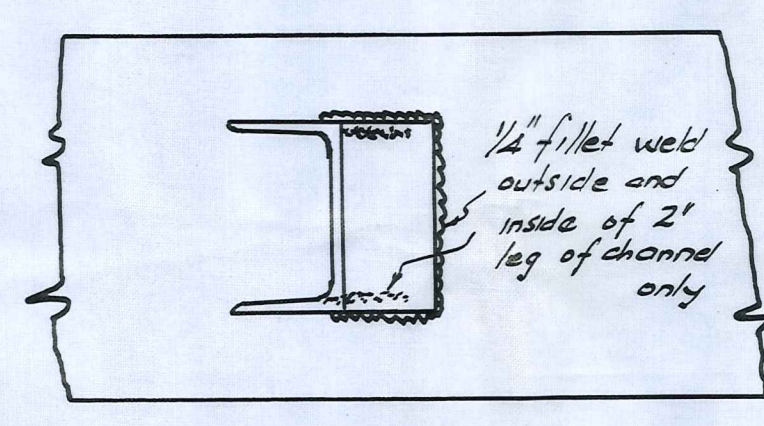
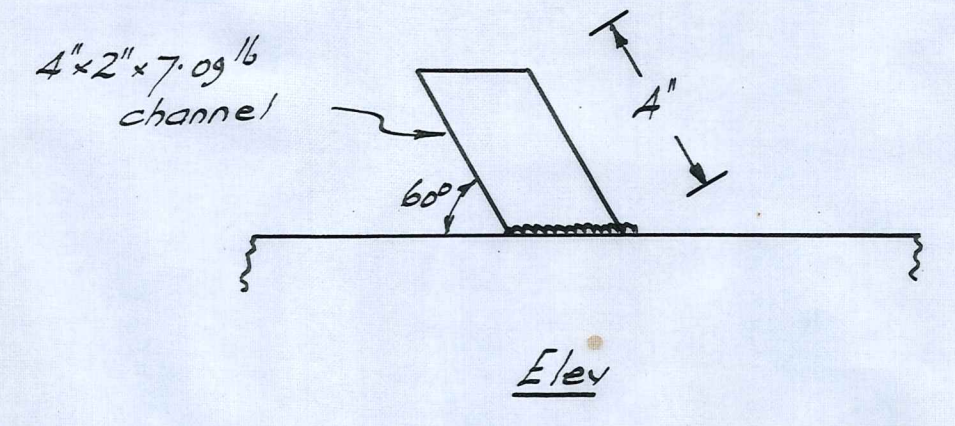
Plan of 40', 24" x 7 1/2" x 35 1/6" R.S.J. - 2 reqd. 1/2" in to 1'



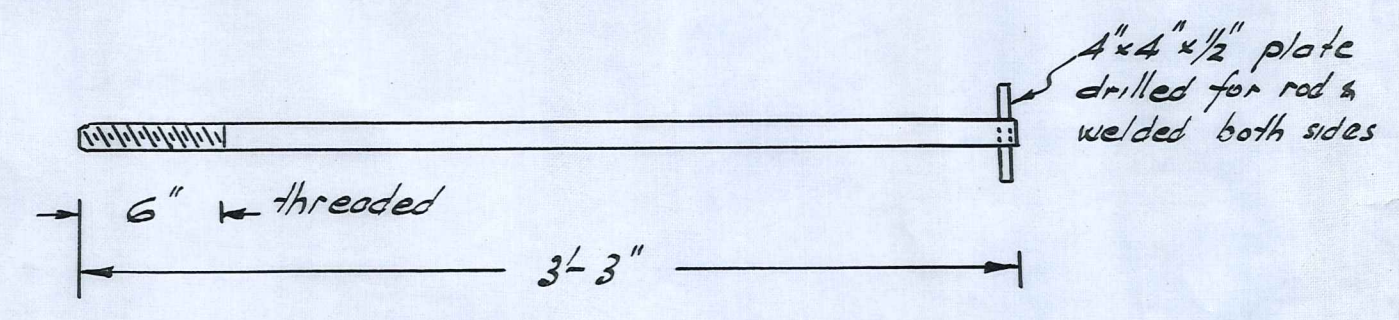
Stiffener Pieces - 1/2" plate 2 reqd each side of each end i.e. 8 per girder



Detail of Skew Washers 12 reqd Full Size. Shows 20 degree skew and 1/4" minimum thickness. Nearest size to 3/16" thick.



Detail of Shear Connectors 26 per girder 3" in to 1'



8 thus, 1 1/4" dia, with 2 nuts & 2 1/4" plate washers to each bolt

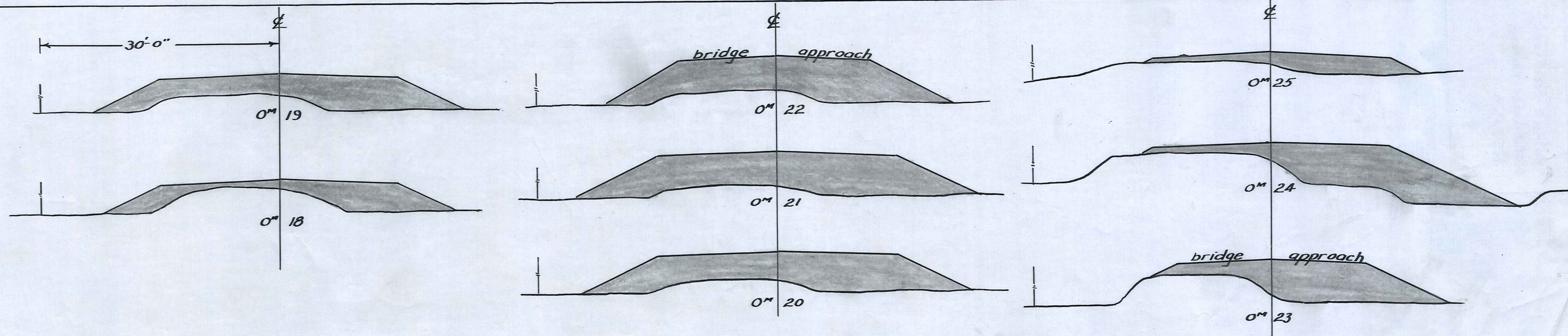
Detail of Stiffener bolts 1/2" in to 1'



6 thus, 7/8" dia, with 2 nuts & 2 round washers to each bolt

Detail of Stiffener bolts 1/2" in to 1'

Structural Steelwork Scales as shown



MANIOTOTO COUNTY COUNCIL

WETHERBURN STREAM SHARKEY'S ROAD BRIDGE.

DUFFILL, WATTS & KING CIVIL ENGINEERS AND SURVEYORS DUNEDIN and INVERCARGILL		SURVEYED BY: [Signature] DRAWN: [Signature] CALCULATED: [Signature] CHECKED: [Signature] TRACED: [Signature]	DATE: Dec 7 Feb 58 Feb 58	JOB NO. 2787/3 F.B.K. 136 FILE NO: 5/25
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