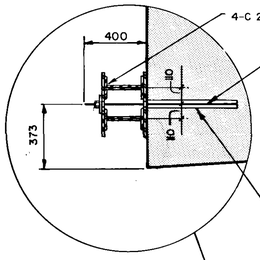
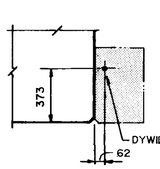


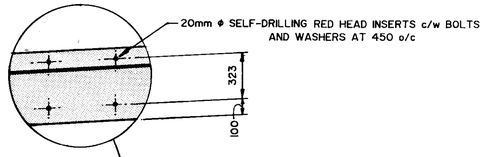
DETAIL AT INSERTS

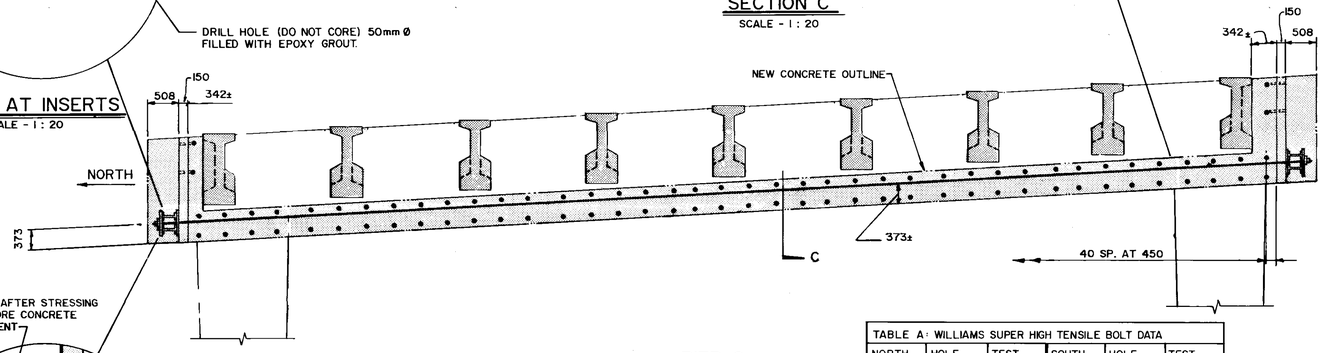
SCALE - 1 : 20



SECTION C

SCALE - 1 : 20

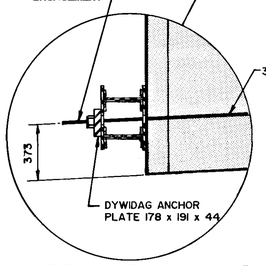




PIER 6

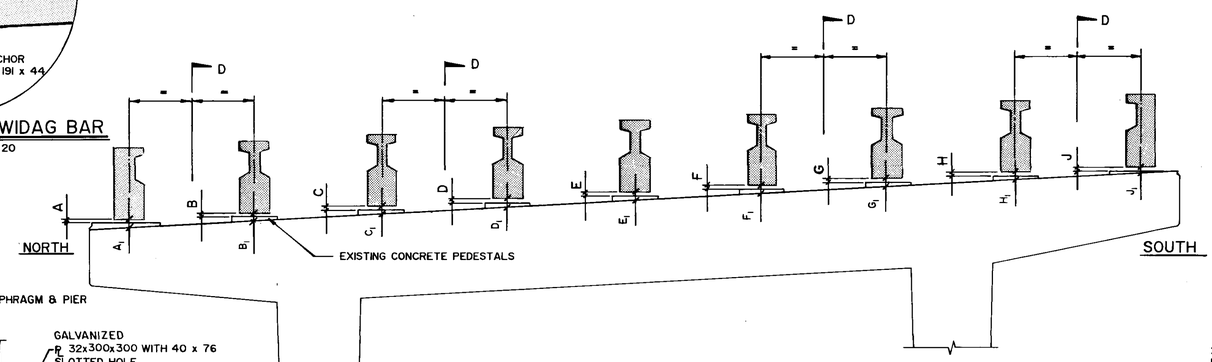
SCALE - 1 : 50

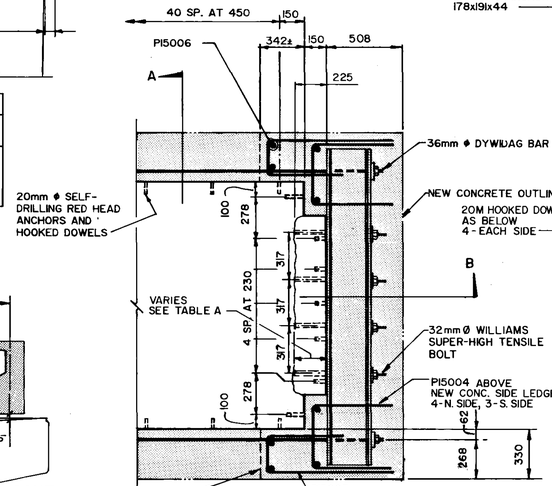
TABLE A - WILLIAMS SUPER HIGH TENSILE BOLT DATA					
NORTH SIDE	HOLE DEPTH(mm)	TEST LOAD (kN)	SOUTH SIDE	HOLE DEPTH(mm)	TEST LOAD (kN)
# 1	438	0.645	# 1	610	1.392
# 2	508	1.165	# 2	685	1.357
# 3	508	1.165	# 3	381	0.645
# 4	457	0.778	# 4	381	0.614



DETAIL AT DYWIDAG BAR

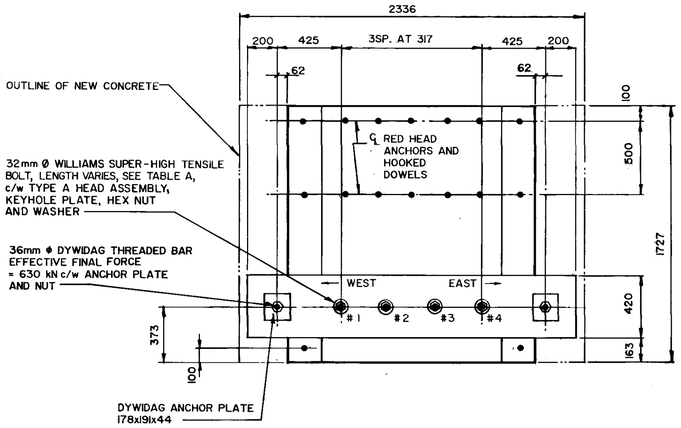
SCALE - 1 : 20





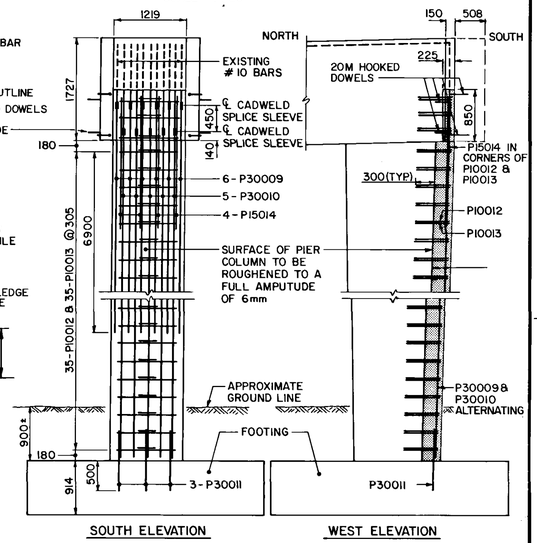
PLAN AT END OF PIER 6

SCALE - 1 : 20

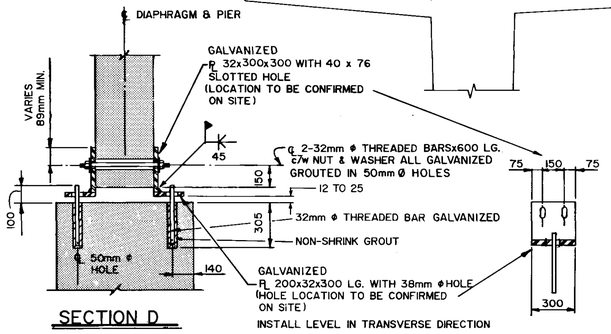


SOUTH END VIEW OF PIER 6

(NORTH END SIMILAR)
SCALE - 1 : 20



SOUTH ELEVATION — WEST ELEVATION



SECTION D

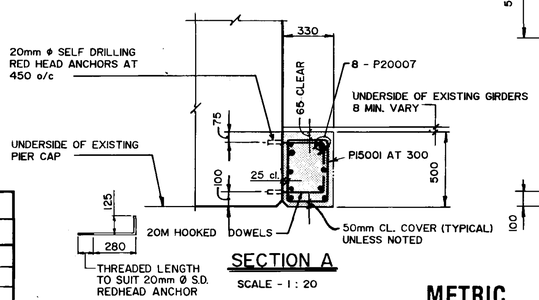
TYPICAL AT PIERS 1, 2, 5, 7, 9 & 10
SCALE - 1 : 20

PIERS 1 TO 5 & 7 TO 10

SCALE - 1 : 50

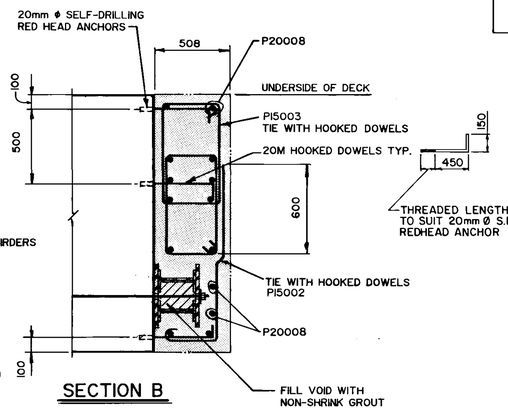
DEPTH	DISTANCE AT ℄ PIERS					
	1	2	5	7	9	10
A	25	25	25	25	25	25
B	25	25	25	25	25	25
C	25	25	25	25	25	25
D	25	25	25	25	25	25
E	25	25	25	25	25	25
F	25	25	25	25	25	25
G	25	25	25	25	25	25
H	25	25	25	25	25	25
J	25	25	25	25	25	25

DEPTH	DISTANCE AT ℄ PIERS		
	3	4	5
A_1	161	161	161
B_1	150	150	150
C_1	150	150	150
D_1	150	150	150
E_1	150	150	150
F_1	150	150	150
G_1	150	150	150
H_1	150	150	150
J_1	161	161	161



SECTION A

SCALE - 1 : 20



SECTION B

SCALE - 1 : 20

PIER 6 - SOUTH COLUMN STRENGTHENING

SCALE - 1 : 50

NOTES:

1. POST-TENSIONING BARS SHALL BE 36mm Ø DYWIDAG THREADED BARS WITH AN ULTIMATE STRESS OF 1230 MPa.
2. FINAL PRESTRESS FORCE PER DYWIDAG BAR TO BE 630 kN.
3. POST-TENSIONING OFTHE DYWIDAG BARS WILL NOT BE ALLOWED UNTIL THE GROUT FOR THE 32mmØ BOLTS HAS ATTAINED A COMPRESSIVE STRENGTH OF 40MPa.
4. DYWIDAG BARS ON EACH SIDE OF THE PIER BEAM SHALL BE STRESSED SIMULTANEOUSLY.
5. CONCRETE FOR THE ENCASEMENT SHALL BE PLACED ONLY AFTER THE DYWIDAG BARS HAVE BEEN STRESSED AND ANCHORED.
6. MINIMUM CONCRETE CYLINDER STRENGTH AT 28 DAYS FOR CONCRETE ENCASEMENT SHALL BE 45MPa.
7. ALL STRUCTURAL STEEL TO BE IN CONFORMANCE WITH THE REQUIREMENTS OF CSA STANDARD G40.21 GRADE 300W.
8. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS CONSISTING OF THREE (3) SETS OF PRINTS AND ONE (1) SET OF REPRODUCIBLE SEPIAS FOR THE POST-TENSIONING INCLUDING ANCHORAGE ASSEMBLIES TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
9. COLOUR MATCH NEW CONCRETE WITH EXISTING.

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

RECORD DRAWING

B-5572

NO	REVISIONS	DATE	APP.
1	RECORD DRAWING	NOV.86	

ENGINEER'S SEAL

PROVINCE OF MANITOBA — K.S. UPPAL — REGISTERED ENGINEER

the uma group — Underwood McLellan Ltd. — Consulting Engineers and Planners

DESIGNED BY:	DRAWN BY:
K.U.	BH
CHECKED BY:	DATE: APRIL 1985
J.T.	JOB No. 0265-216-01-03
APPROVED BY:	DATE:

THE CITY OF WINNIPEG
WORKS & OPERATIONS DIVISION
STREETS & TRANSPORTATION DEPARTMENT

NAIRN AVENUE OVERPASS
DECK REHABILITATION, STRUCTURAL STRENGTHENING AND RELATED WORKS

PIER MODIFICATIONS

AUTHORIZED BY: STREETS & BRIDGES ENGINEER	DATE	1985-04-16
ACCEPTED BY: BRIDGE ENGINEER	DATE	85 04 16
SCALE: AS NOTED	DRAWING NO.	B121-85-06