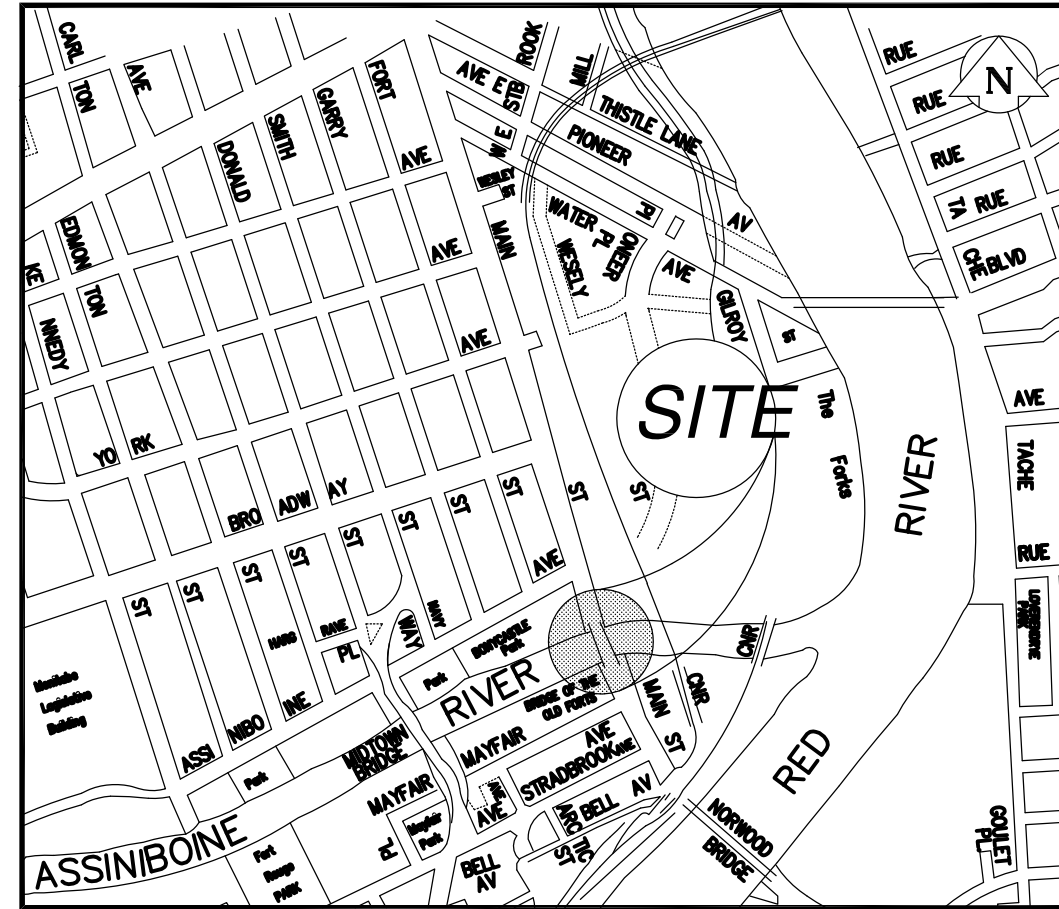


# THE CITY OF WINNIPEG

WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT



KEY PLAN

## MAIN STREET AND NORWOOD BRIDGES PROJECT

### MAIN STREET BRIDGE NORTHBOUND STRUCTURE



### P.D. No. 95 – 87 AS CONSTRUCTED DRAWINGS

RELEASED FOR CONSTRUCTION BY:

L.S.W. LARKIN, P. ENG. DATE  
MANAGER OF BRIDGE ENGINEERING

*DS-Lea Consultants Ltd.*  
Consulting Engineers - Planners - Transportation Consultants  
Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948



DRAWING LIST

GENERAL

CITY OF WINNIPEG No.	CONSULTANT No.	DESCRIPTION
B104 - 95 - 01	4462-01	COVER SHEET
B104 - 95 - 02	4462-02	PRECAST GIRDER ALTERNATIVE DESIGN DATA & DRAWING LIST
B104 - 95 - 03	4462-03	GENERAL ARRANGEMENT OF PROPOSED WORKS PLAN
B104 - 95 - 04	4462-04C	GENERAL ARRANGEMENT OF PROPOSED WORKS ELEVATIONS & SECTIONS
B104 - 95 - 05	4462-05	SITE PLAN AND LIMITS OF WORK
B104 - 95 - 06	4462-06	CONSTRUCTION ACCESS
B104 - 95 - 07	4462-07	HORIZONTAL ALIGNMENT PLAN ELEVATIONS
B104 - 95 - 08	4462-08	BORE HOLE LOCATIONS AND SUMMARY SOIL LOGS
B104 - 95 - 09	4462-09	ASSINIBOINE RIVERWALK DETOUR - PLAN, SECTIONS AND DETAILS
B104 - 95 - 10	4462-10	CONSTRUCTION STAGING
B104 - 95 - 11	4462-11C	NORTH AND SOUTH ABUTMENTS - EXCAVATION PLANS
B104 - 95 - 12	4462-12	NORTH AND SOUTH ABUTMENTS - EXCAVATION SECTIONS
B104 - 95 - 13	4462-13	OUTFALL PLAN, SECTIONS AND DETAILS
B104 - 95 - 14	4462-14	ABUTMENT DRAIN - PLAN AND DETAILS
B104 - 95 - 15	4462-15	NORTH ABUTMENT - FINAL GRADING PLAN
B104 - 95 - 16	4462-16	SOUTH ABUTMENT - FINAL GRADING PLAN
B104 - 95 - 17	4462-17	MISCELLANEOUS SECTIONS AND DETAILS
B104 - 95 - 18	4462-18	

BRIDGE DRAWINGS

CITY OF WINNIPEG No.	CONSULTANT No.	DESCRIPTION
B104 - 95 - 19C	4462-19C	NORTH ABUTMENT - CONCRETE FOUNDATION PLAN
B104 - 95 - 20C	4462-20C	NORTH ABUTMENT - CONCRETE SECTIONAL PLAN
B104 - 95 - 21C	4462-21C	NORTH ABUTMENT - CONCRETE PLAN
B104 - 95 - 22C	4462-22C	NORTH ABUTMENT - CONCRETE SOUTH ELEVATION
B104 - 95 - 23C	4462-23C	NORTH ABUTMENT - CONCRETE WEST ELEVATION
B104 - 95 - 24C	4462-24C	NORTH ABUTMENT - CONCRETE EAST ELEVATION
B104 - 95 - 25C	4462-25C	NORTH ABUTMENT - CONCRETE SECTIONS
B104 - 95 - 26C	4462-26C	NORTH ABUTMENT - CATWALK
B104 - 95 - 27C	4462-27C	NORTH ABUTMENT - CONCRETE DETAILS
B104 - 95 - 28C	4462-28C	NORTH ABUTMENT - CONCRETE STAIRS
B104 - 95 - 29C	4462-29C	NORTH ABUTMENT REINFORCING - SUMP FLOOR AND BASE SLAB
B104 - 95 - 30C	4462-30C	NORTH ABUTMENT REINFORCING - SOUTH WALL
B104 - 95 - 31C	4462-31C	NORTH ABUTMENT REINFORCING SOUTH WALL NORTH WALL AND DIVIDER WALL
B104 - 95 - 32C	4462-32C	NORTH ABUTMENT REINFORCING - WEST WALL AND CAISSONS
B104 - 95 - 33C	4462-33C	NORTH ABUTMENT REINFORCING - EAST WALLS
B104 - 95 - 34C	4462-34C	NORTH ABUTMENT REINFORCING - DECK SLAB BEAMS
B104 - 95 - 35C	4462-35C	NORTH ABUTMENT REINFORCING - DECK SLAB
B104 - 95 - 36C	4462-36C	NORTH ABUTMENT REINFORCING - STAIR AND PILE CAPS
B104 - 95 - 37C	4462-37C	SOUTH ABUTMENT - CONCRETE FOUNDATION PLAN
B104 - 95 - 38C	4462-38C	SOUTH ABUTMENT - CONCRETE SECTIONAL PLAN
B104 - 95 - 39C	4462-39C	SOUTH ABUTMENT - CONCRETE PLAN
B104 - 95 - 40C	4462-40C	SOUTH ABUTMENT - CONCRETE NORTH ELEVATION
B104 - 95 - 41C	4462-41C	SOUTH ABUTMENT - CONCRETE EAST ELEVATION AND STAR
B104 - 95 - 42C	4462-42C	SOUTH ABUTMENT - CONCRETE WEST ELEVATION
B104 - 95 - 43C	4462-43C	SOUTH ABUTMENT - CATWALK
B104 - 95 - 44C	4462-44C	SOUTH ABUTMENT REINFORCING - SUMP FLOOR AND BASE SLAB
B104 - 95 - 45C	4462-45C	SOUTH ABUTMENT REINFORCING - NORTH WALL
B104 - 95 - 46C	4462-46C	SOUTH ABUTMENT REINFORCING - NORTH WALLS AND DIVIDER WALLS
B104 - 95 - 47C	4462-47C	SOUTH ABUTMENT REINFORCING - WEST WALL AND CAISSONS
B104 - 95 - 48C	4462-48C	SOUTH ABUTMENT REINFORCING - EAST WALL AND PILE CAPS
B104 - 95 - 49C	4462-49C	SOUTH ABUTMENT REINFORCING - DECK SLAB BEAMS
B104 - 95 - 50C	4462-50C	SOUTH ABUTMENT REINFORCING - DECK SLAB
B104 - 95 - 51C	4462-51C	PIER CONCRETE
B104 - 95 - 52C	4462-52C	MISCELLANEOUS METAL
B104 - 95 - 53C	4462-53C	PIER AND CAISSONS REINFORCING - PLAN, ELEVATIONS, AND SECTIONS
B104 - 95 - 54C	4462-54C	SPHERICAL BEARINGS
B104 - 95 - 55C	4462-55C	CONCRETE GIRDER LAYOUT
B104 - 95 - 56C	4462-56C	CONCRETE GIRDER MK. G1 AND G4
B104 - 95 - 57C	4462-57C	CONCRETE GIRDER MK. G2 AND G3

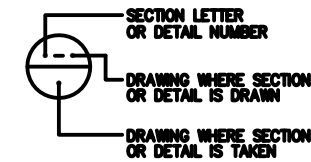
BRIDGE DRAWINGS

CITY OF WINNIPEG No.	CONSULTANT No.	DESCRIPTION
B104 - 95 - 58C	4462-58C	CONCRETE GIRDER SECTIONS DETAILS
B104 - 95 - 59C	4462-59C	GIRDER REINFORCING LAYOUT 1 OF 2
B104 - 95 - 60C	4462-60C	GIRDER REINFORCING LAYOUT 2 OF 2
B104 - 95 - 61C	4462-61C	GIRDER MISCELLANEOUS DETAILS
B104 - 95 - 62C	4462-62C	NOT USED
B104 - 95 - 63C	4462-63C	NOT USED
B104 - 95 - 64C	4462-64C	DECK GEOMETRY SECTIONS AND DETAILS
B104 - 95 - 65C	4462-65C	OVERLOOK GEOMETRY AND DETAILS
B104 - 95 - 66C	4462-66C	DECK SCREED ELEVATIONS
B104 - 95 - 67C	4462-67C	DECK REINFORCING LAYOUT
B104 - 95 - 68C	4462-68C	OVERLOOK SOFFIT REINFORCING LAYOUT
B104 - 95 - 69C	4462-69C	MISCELLANEOUS METAL 1 OF 2
B104 - 95 - 70C	4462-70C	MISCELLANEOUS METAL 2 OF 2
B104 - 95 - 71C	4462-71C	EXPANSION JOINT LAYOUT
B104 - 95 - 72C	4462-72C	EXPANSION JOINT DETAILS
B104 - 95 - 73C	4462-73C	CONCRETE TRAFFIC BARRIER LAYOUT
B104 - 95 - 74C	4462-74C	CONCRETE TRAFFIC BARRIER SECTIONS & DETAILS
B104 - 95 - 75C	4462-75C	ALUMINUM TRAFFIC BARRIER RAIL DETAILS
B104 - 95 - 76C	4462-76C	PEDESTRIAN HANDRAIL LAYOUT
B104 - 95 - 77C	4462-77C	ALUMINUM PEDESTRIAN HANDRAIL DETAILS
B104 - 95 - 78C	4462-78C	PEDESTRIAN HANDRAIL MISCELLANEOUS DETAILS
B104 - 95 - 79C	4462-79C	LIFE PRESERVER ENCLOSURE DETAILS
B104 - 95 - 80C	4462-80C	LIMESTONE HANDRAIL SECTION AND DETAILS
B104 - 95 - 81C	4462-81C	GENERAL ARRANGEMENT PLAN OF FORCEMAINS AND WATERMAINS
B104 - 95 - 82C	4462-82C	FORCEMAIN - SOUTH ABUTMENT PLAN
B104 - 95 - 83C	4462-83C	FORCEMAIN - SOUTH ABUTMENT ELEVATION AND SECTION
B104 - 95 - 84C	4462-84C	FORCEMAIN - NORTH ABUTMENT PLAN
B104 - 95 - 85C	4462-85C	FORCEMAIN - NORTH ABUTMENT ELEVATION AND SECTION
B104 - 95 - 86C	4462-86C	PIPE DETAILS
B104 - 95 - 87C	4462-87C	IRRIGATION SYSTEM - PLAN
B104 - 95 - 88C	4462-88C	IRRIGATION PIPE DETAILS
B104 - 95 - 89C	4462-89C	GENERAL ELECTRICAL SITE SERVICING
B104 - 95 - 90C	4462-90C	NORTH AND SOUTH ABUTMENTS - INTERIOR LIGHTING PLAN
B104 - 95 - 91C	4462-91C	EXTERIOR LIGHTING PLAN
B104 - 95 - 92C	4462-92C	S.L.D. PANEL SCHEDULES AND CONTROL SCHEMATICS
B104 - 95 - 93C	4462-93C	GIRDER LIGHTING AND CONTROL PLAN
B104 - 95 - 94C	4462-94C	NORTH AND SOUTH PLANTER DETAILS
B104 - 95 - 95C	4462-95C	OVERLOOK PLANTER DETAILS
B104 - 95 - 96C	4462-96C	LIGHTING FIXTURES SECTIONS & DETAILS
B104 - 95 - 97C	4462-97C	PAVING DETAILS 1 OF 2
B104 - 95 - 98C	4462-98C	PAVING DETAILS 2 OF 2
B104 - 95 - 99C	4462-99C	REINFORCING EARTH BACKFILL - PLANS, SECTIONS AND DETAILS
B104 - 95 - 100C	4462-100C	REINFORCING STEEL SCHEDULE - 1 OF 22
B104 - 95 - 101C	4462-101C	REINFORCING STEEL SCHEDULE - 2 OF 22
B104 - 95 - 102C	4462-102C	REINFORCING STEEL SCHEDULE - 3 OF 22
B104 - 95 - 103C	4462-103C	REINFORCING STEEL SCHEDULE - 4 OF 22
B104 - 95 - 104C	4462-104C	REINFORCING STEEL SCHEDULE - 5 OF 22
B104 - 95 - 105C	4462-105C	REINFORCING STEEL SCHEDULE - 6 OF 22
B104 - 95 - 106C	4462-106C	REINFORCING STEEL SCHEDULE - 7 OF 22
B104 - 95 - 107C	4462-107C	REINFORCING STEEL SCHEDULE - 8 OF 22
B104 - 95 - 108C	4462-108C	REINFORCING STEEL SCHEDULE - 9 OF 22
B104 - 95 - 109C	4462-109C	REINFORCING STEEL SCHEDULE - 10 OF 22
B104 - 95 - 110C	4462-110C	REINFORCING STEEL SCHEDULE - 11 OF 22
B104 - 95 - 111C	4462-111C	REINFORCING STEEL SCHEDULE - 12 OF 22
B104 - 95 - 112C	4462-112C	REINFORCING STEEL SCHEDULE - 13 OF 22
B104 - 95 - 113C	4462-113C	REINFORCING STEEL SCHEDULE - 14 OF 22

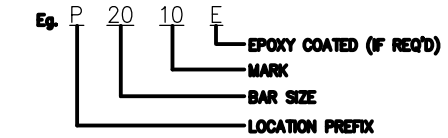
BRIDGE DRAWINGS

CITY OF WINNIPEG No.	CONSULTANT No.	DESCRIPTION
B104 - 95 - 114C	4462-114C	REINFORCING SCHEDULE - 15 OF 22
B104 - 95 - 115C	4462-115C	REINFORCING SCHEDULE - 16 OF 22
B104 - 95 - 116C	4462-116C	REINFORCING SCHEDULE - 17 OF 20
B104 - 95 - 117C	4472-117C	REINFORCING SCHEDULE - 18 OF 20
B104 - 95 - 118C	4462-118C	REINFORCING SCHEDULE - 19 OF 20
B104 - 95 - 119C	4462-119C	REINFORCING SCHEDULE - 20 OF 20
B104 - 95 - 120C	4462-120C	NOT USED
B104 - 95 - 121C	4462-121C	NOT USED

SECTIONS AND DETAILS



CODE FOR REINFORCING STEEL



LOCATION PREFIX

- AS - APPROACH SLAB
- B - BARRIER
- D - DECK
- F - FOUNDATION
- G - GIRDER
- H - HANDRAIL
- OL - OVERLOOK
- P - PIER
- NA - NORTH ABUTMENT, RETAINING WALL
- SA - SOUTH ABUTMENT, RETAINING WALL

DESIGN DATA

DESIGN SPECIFICATION	AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1992
LIVE LOADING	HSS30 TRUCK LOADING HS30-44 LANE LOADING
CONCRETE	$f_c' = 35 \text{ MPa}$ CAST IN PLACE $f_c' = 60 \text{ MPa}$ PRECAST
REINFORCING STEEL	CSA G30.12 GRADE 400 ALL REINFORCING STEEL WITH THE SUFFIX "E" IS EPOXY COATED
PRESTRESSING STRAND	CSA -----
STRUCTURAL STEEL	CSA CAN3 - G40.21 - M92 GRADE 300W
CLEAR COVER TO REINFORCING STEEL	ABUTMENT WALLS = $80 \pm 20$ TOP DECK SLAB = $65 \pm 5$ SIDEWALK & STRUCTURAL APPROACH SLAB = $70 \pm 20$ TRAFFIC BARRIERS = $50 \pm 10$ UNDERSIDE OF DECK = $25 \pm 5$ OTHERS AS SHOWN ON DRAWINGS

LIST OF ABBREVIATIONS

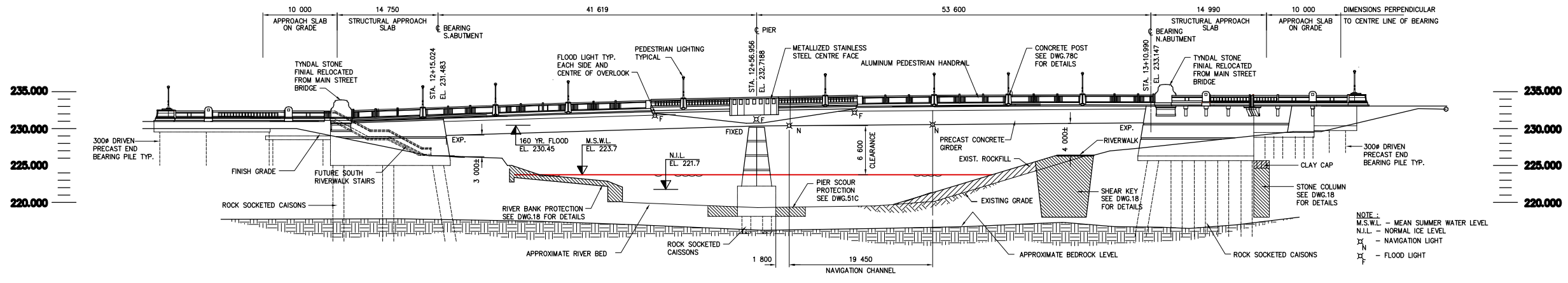
BRG.	BEARING
C/W	COMPLETE WITH
DL	DEAD LOAD
DWL	DOWEL
EF	EACH FACE
EL., ELEV.	ELEVATION
EXP. JT.	EXPANSION JOINT
FF	FAR FACE
LL	LIVE LOAD
NF	NEAR FACE
NSWL	NORMAL SUMMER WATER LEVEL
PL	PLATE
T/O	TOP OF
TH	TEST HOLE
TYP.	TYPICAL
UNO	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
WP	WORKING POINT

REINFORCING NOTES

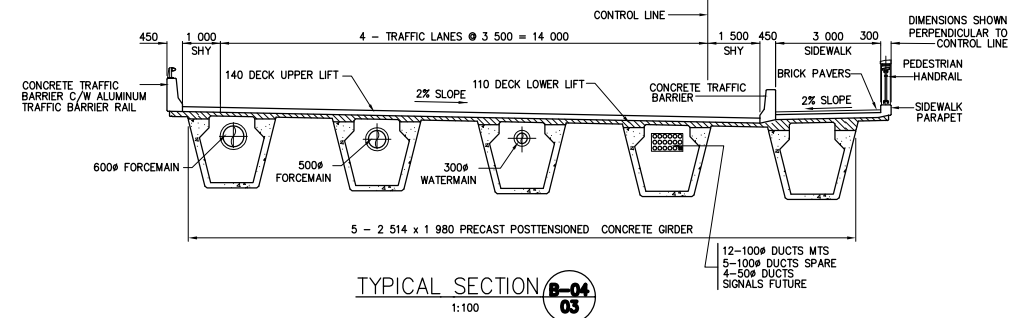
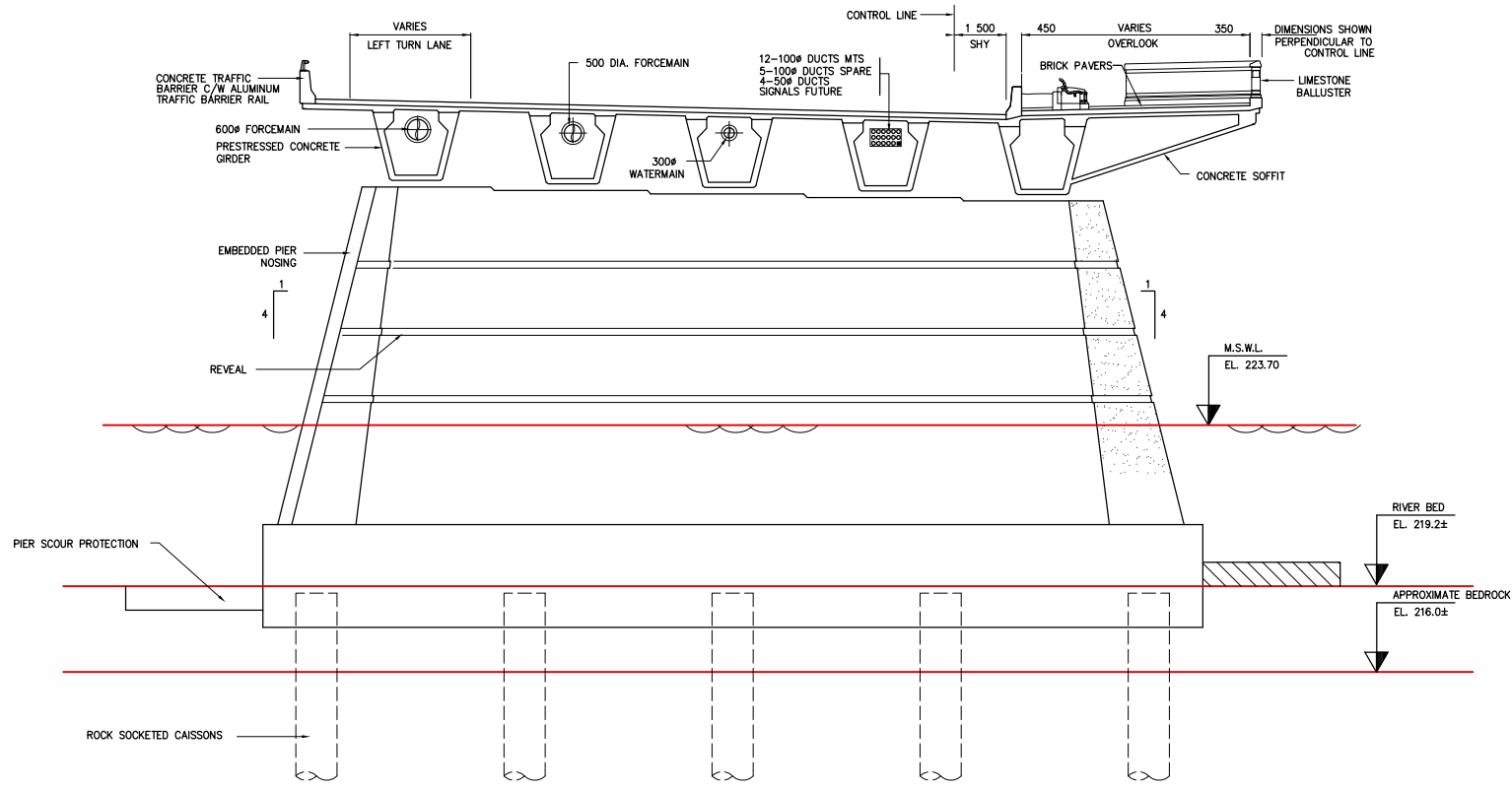
- REINFORCING SHOP DRAWINGS, FABRICATION AND PLACEMENT TO BE IN ACCORDANCE TO THE LATEST EDITION OF THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315.
- BAR SHAPES AND BENDING TOLERANCES ARE AS PER ACI 315 (LATEST EDITION). NO DEDUCTION FOR BENDS IS REQUIRED. ALL LAPS TO BE CLASS C BASIC TENSION LAP SPLICES FOR GRADE 400.
- REINFORCEMENT SHALL BE MARK NUMBERED USING A COLOUR CODED MARKING SYSTEM. NOT LESS THAN 10% IN EVERY GROUP SHALL BE MARKED.
- EACH BUNDLE OF REINFORCEMENT SHALL BE TAGGED WITH THE CONSULTANT DRAWING NUMBER, LOCATION CODE AND BAR MARK. EXAMPLE: TAG NUMBER 4462-10-P2010E

AS-CONSTRUCTED

B.M. - ELEV. -	<b>DS-Lea Consultants Ltd.</b> Consulting Engineers · Planners · Transportation Consultants Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1 Phone   204   943-3178 Facsimile   204   943-4948		ENGINEER'S SEAL	THE CITY OF WINNIPEG WORKS AND OPERATIONS DIVISION STREETS AND TRANSPORTATION DEPARTMENT
DESIGNED BY <b>MH</b>	CHECKED BY <b>JWB</b>	MAIN STREET AND NORWOOD BRIDGES PROJECT CITY DRAWING NUMBER <b>B104-85-02</b>		
DRAWN BY <b>TC</b>	APPROVED BY <b>-</b>	MAIN STREET BRIDGE SHEET <b>02</b> OF <b>121</b>		
B AS CONSTRUCTED DEC 1997 JWB A ISSUED FOR TENDER JUNE 1995 JWB NO. REVISIONS DATE BY	HOR. SCALE <b>-</b> VERTICAL DATE JUNE 1995	AUTHORIZED BY <b>[Signature]</b> DATE <b>1995</b> S.R. SMITH SENIOR PROJECT ENGINEER ACCEPTED BY <b>[Signature]</b> DATE <b>1995</b> B. BEEBANGER BRIDGE ENGINEER	CONSULTANT DRAWING NO. <b>4462-02</b> PRECAST CONCRETE GIRDER ALTERNATIVE DESIGN DATA & DRAWING LIST B	



ELEVATION LOOKING UPSTREAM  
1:300



**AS-CONSTRUCTED NOTES.**

1) THE ORIGINAL DRAWING USED FOR CONSTRUCTION WAS SEALED ON 95 06 16 BY J.W. BOGAN P. ENG. THAT DRAWING HAS BEEN UPDATED WITH CONSTRUCTION REVISIONS.

**AS-CONSTRUCTED**

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

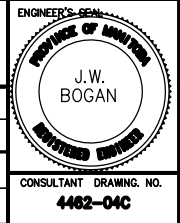
LOCATIONS APPROVED UNDERGROUND STRUCTURES

SUPPLY U/D STRUCTURES COMMITTEE	DATE
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT CONFIRMATION OF DISTANCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION	

B.M. ELEV.	NO.	REVISIONS	DATE	BY
	D	AS CONSTRUCTED	97 12 08	JWB
	C	NORTH STAIRS DELETED	96 04 09	JWB
	B	ISSUED FOR CONSTRUCTION	AUG. 1995	JWB
	A	ISSUED FOR TENDER	JUNE 1995	JWB

**DS-Lea Consultants Ltd.**  
Consulting Engineers · Planners · Transportation Consultants  
Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

DESIGNED BY	CHECKED BY	JWB
DRAWN BY	APPROVED BY	
HOR. SCALE	AUTHORIZED BY	DATE
VERTICAL	S.P. SHU	DATE
DATE	ACCEPTED BY	DATE
JUNE 1995	B. BOGAN	DATE



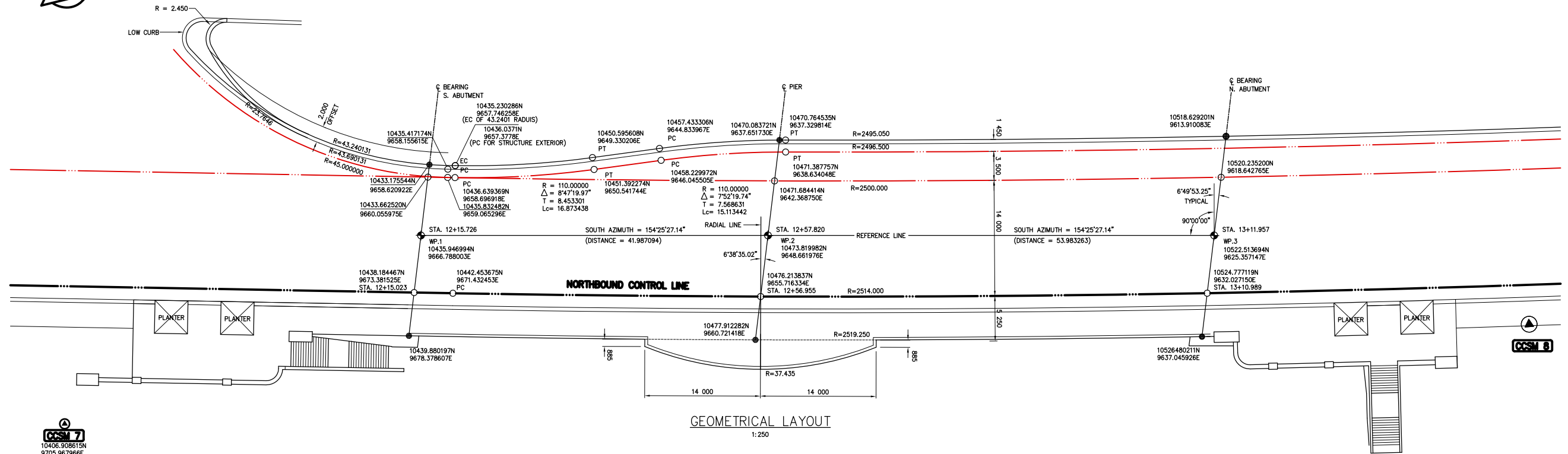
**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
NORTHBOUND STRUCTURE

GENERAL ARRANGEMENT OF PROPOSED WORKS  
ELEVATION AND SECTIONS

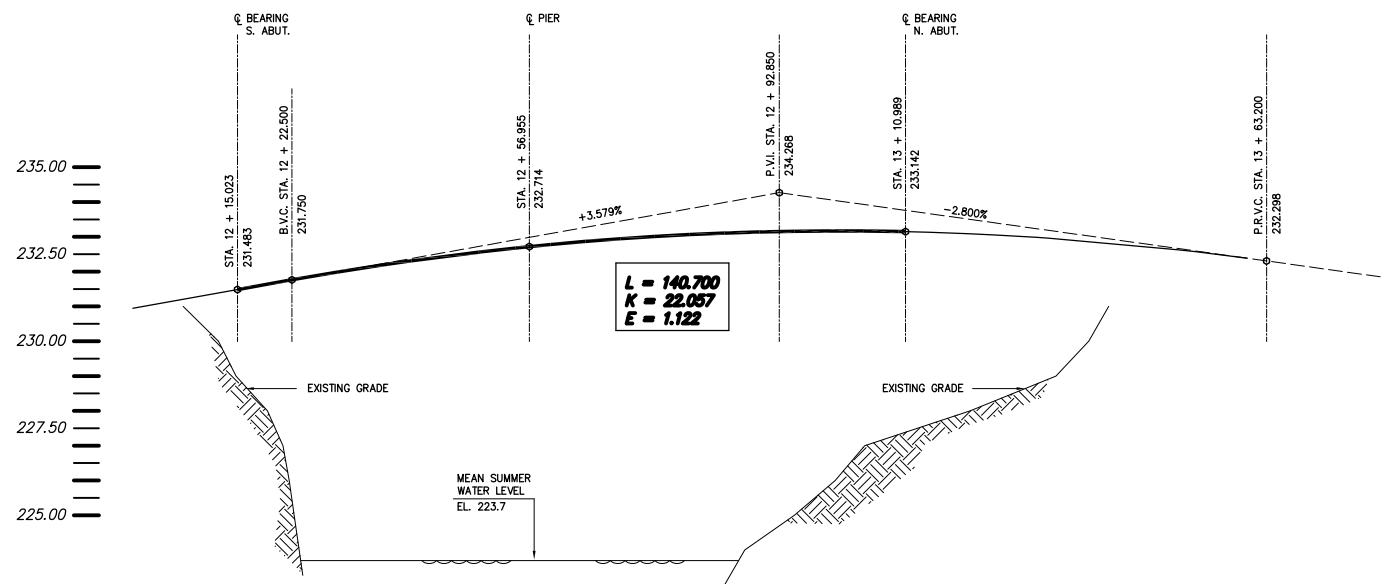
CITY DRAWING NUMBER **8104-85-04C**  
SHEET **04** OF **121**

CONSULTANT DRAWING NO. **4462-04C**



GEOMETRICAL LAYOUT  
1:250

NOTE:  
ALL CHAINAGES SHOWN BASED  
ON NORTHBOUND CONTROL LINE



NORTHBOUND CONTROL LINE VERTICAL CURVE PROFILE

HORIZ. SCALE 1:500  
VERT. SCALE 1:100

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**AS-CONSTRUCTED NOTES:**

- 1) THE ORIGINAL DRAWING USED FOR CONSTRUCTION WAS SEALED ON 95 06 16 M.A.HATCH P.ENG. THAT DRAWING HAS BEEN UPDATED WITH CONSTRUCTION REVISIONS.

**AS-CONSTRUCTED**

**LOCATIONS APPROVED UNDERGROUND STRUCTURES**

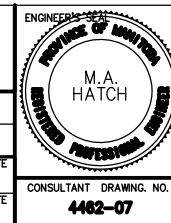
SUPV. U/D STRUCTURES COMMITTEE	DATE

NOTE:  
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL UTILITIES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION

B.M. ELEV.	NO.	AS CONSTRUCTED	ISSUED FOR TENDER	REVISIONS	DATE	BY

**DS-Lea Consultants Ltd.**  
Consulting Engineers · Planners · Transportation Consultants  
Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

DESIGNED BY <b>ERM</b>	CHECKED BY <b>MH</b>
DRAWN BY <b>RCS</b>	APPROVED BY
HOR. SCALE <b>AS SHOWN</b>	AUTHORIZED BY <i>[Signature]</i> DATE
VERTICAL <b>AS SHOWN</b>	G.R. SMITH <b>PROFESSIONAL ENGINEER</b>
DATE <b>JUNE 1995</b>	ACCEPTED BY <i>[Signature]</i> DATE
	<b>B. BRIDGMAN <b>PROFESSIONAL ENGINEER</b></b>



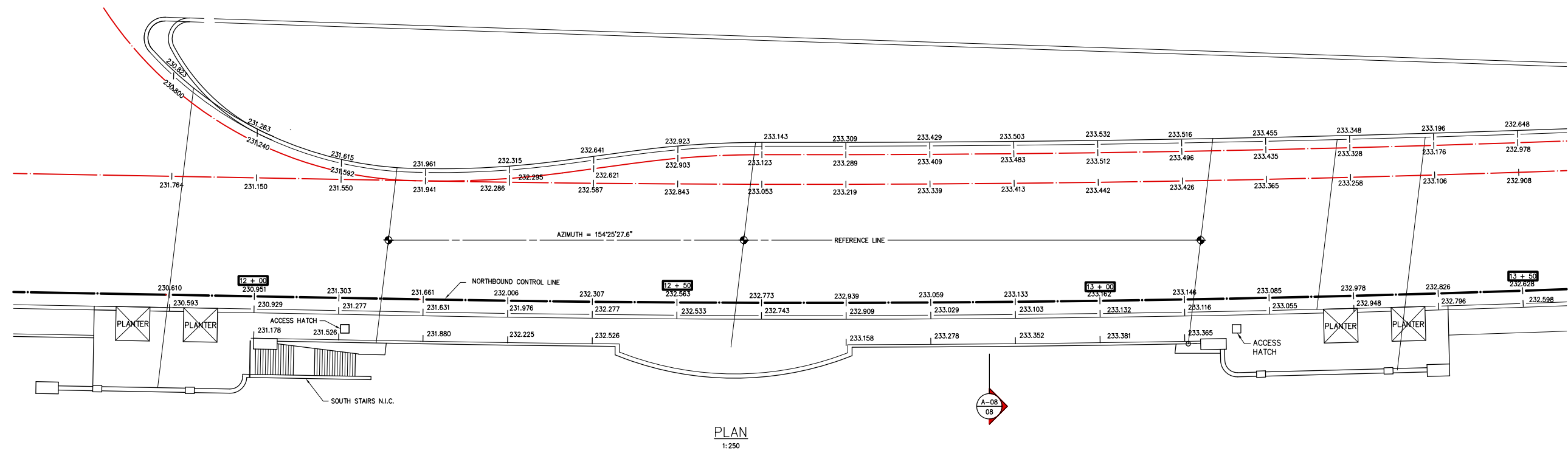
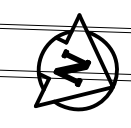
**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
NORTHBOUND STRUCTURE

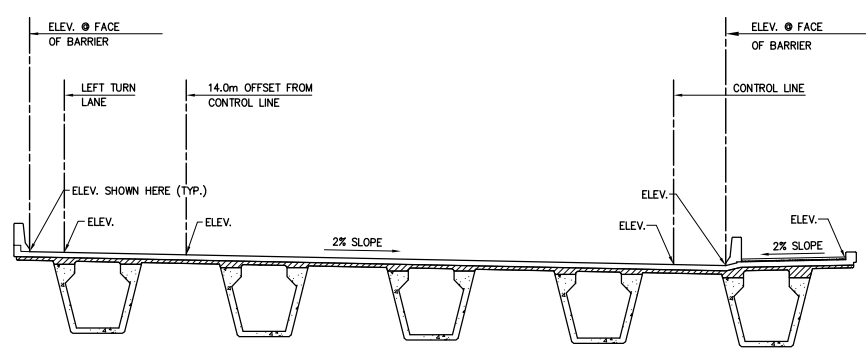
CITY DRAWING NUMBER **B104-95-07**  
SHEET **07** OF **121**

CONSULTANT DRAWING NO. **4482-07**

**HORIZONTAL ALIGNMENT**



PLAN  
1:250



SECTION A-08  
NTS

**AS-CONSTRUCTED NOTES:**  
1) THE ORIGINAL DRAWING USED FOR CONSTRUCTION WAS SEALED ON 05/06/16 M.A. HATCH P. ENG. THAT DRAWING HAS BEEN UPDATED WITH CONSTRUCTION REVISIONS.

**AS-CONSTRUCTED**

C:\120\MC\4462-401\4462296C Time: 11:38:25 Date: 03/04/96

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

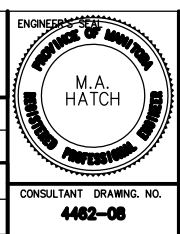
LOCATIONS APPROVED UNDERGROUND STRUCTURES	
SUPV. U/G STRUCTURES COMMITTEE	DATE

**NOTE:**  
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION

B.M. ELEV.	
NO.	REVISIONS

**DS-Lea Consultants Ltd.**  
Consulting Engineers · Planners · Transportation Consultants  
Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

DESIGNED BY <b>ERM</b>	CHECKED BY <b>MH</b>
DRAWN BY <b>RCS</b>	APPROVED BY 
HOR. SCALE <b>AS SHOWN</b>	AUTHORIZED BY <i>[Signature]</i> DATE G.R. SMITH P. ENG. PROPOSED ENGINEER
VERTICAL <b>AS SHOWN</b>	ACCEPTED BY <i>[Signature]</i> DATE B. BRIDGMAN P. BRIDGE ENGINEER
DATE JUNE 1995	DATE JUNE 1995



**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

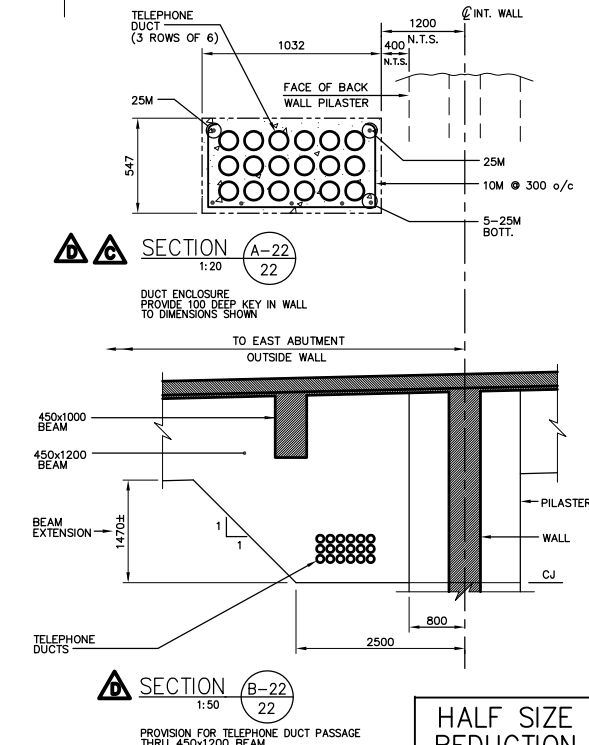
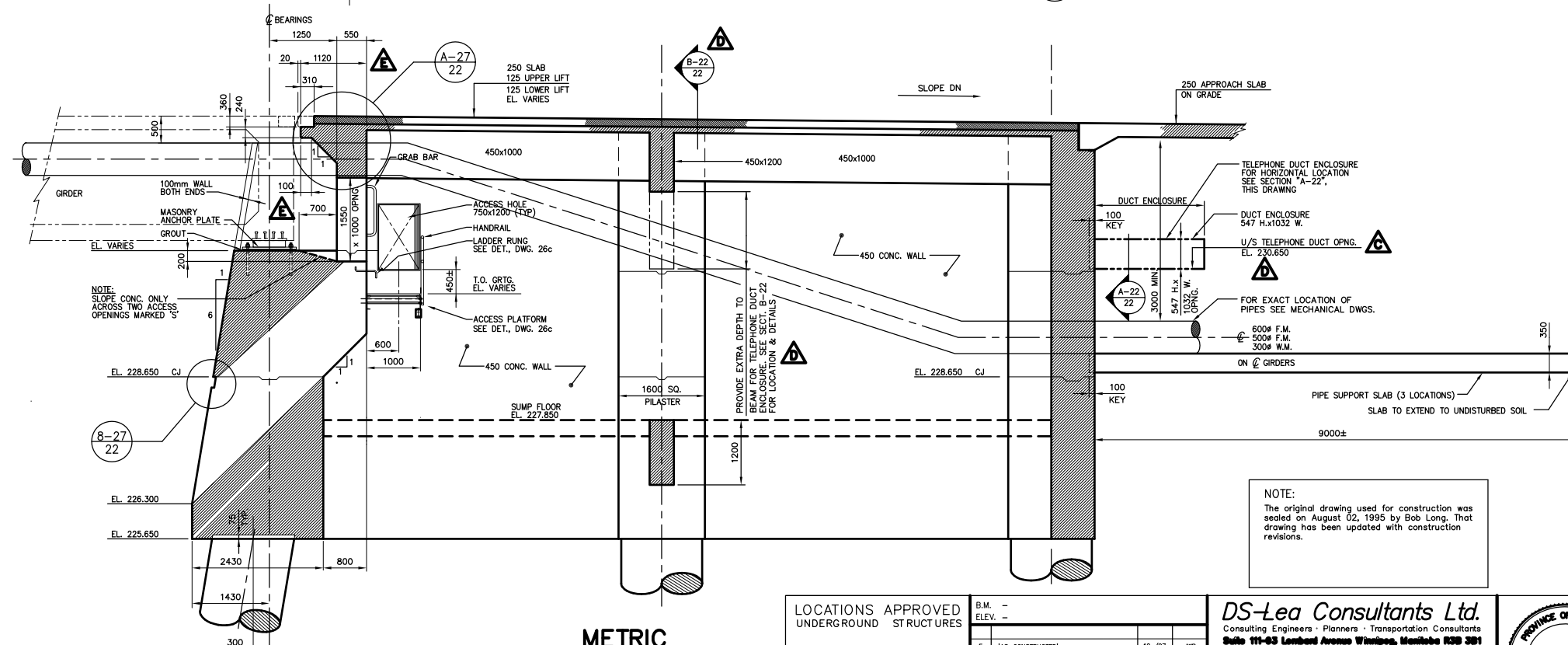
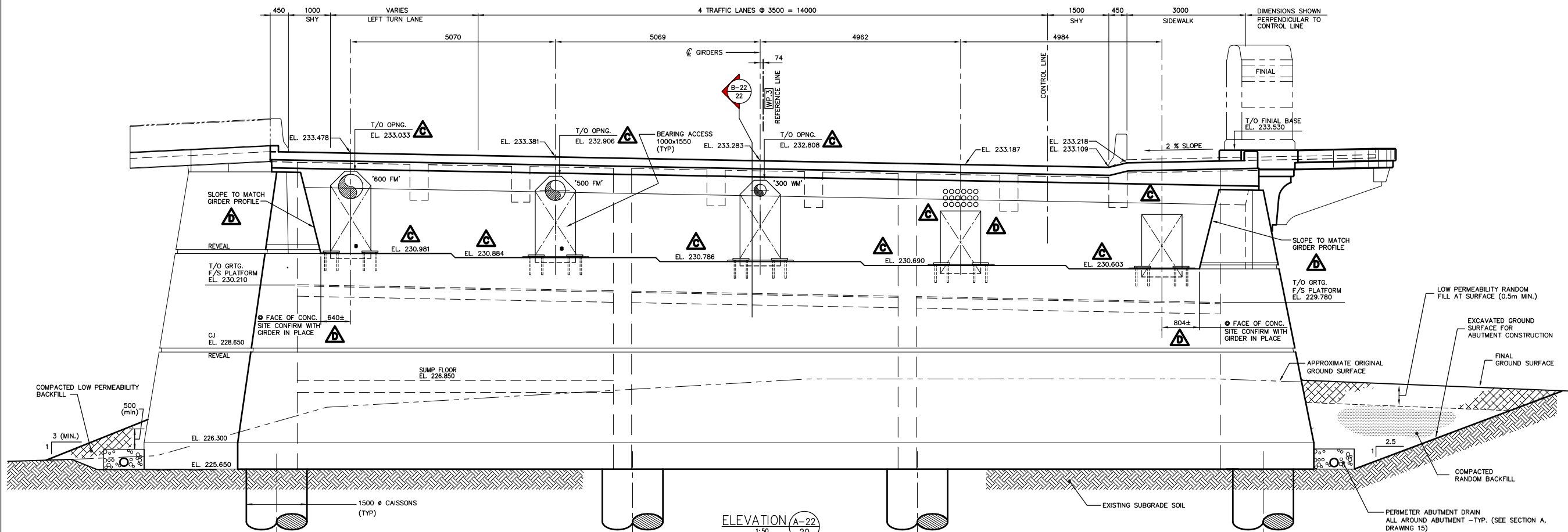
MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
NORTHBOUND STRUCTURE

CONSULTANT DRAWING NO.  
**4462-08**

CITY DRAWING NUMBER  
**8104-85-08**  
SHEET **08** OF **121**

D





**AS-CONSTRUCTED**

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**KGS CONSULTING ENGINEERS & PROJECT MANAGERS**  
WINNIPEG THUNDER BAY

LOCATIONS APPROVED UNDERGROUND STRUCTURES

NOTE: [Illegible text]

NO.	REVISIONS	DATE	BY
1	AS-CONSTRUCTED	12/97	JWB
2	SECTION B-22/20 DIM'S REVISED	04/98	JWB
3	SECTION B-22 ADDED TELEPHONE DUCT ENCL. REVISED ELEVATION A-27 REVISED DIM'S & NOTES ADDED FOR END MARK WALLS	JAN. 1998	JWB
4	ELEVATIONS REVISED - CONC. BEARINGS ELEVATION A-27 REVISED DIM'S & NOTES ADDED FOR END MARK WALLS	NOV. 1995	JWB
5	LOCATION OF TELEPHONE DUCTS REVISED DUCT ENCL. ADDED - BACK WALL	AUG. 1995	JWB
6	ISSUED FOR CONSTRUCTION	06/95	JWB
7	ISSUED FOR TENDER	06/95	JWB

**DS-Lea Consultants Ltd.**  
Consulting Engineers - Planners - Transportation Consultants  
Suite 111-63 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

DESIGNED BY: **R.J.L.** CHECKED BY: **DEB**  
DRAWN BY: **L.J.** APPROVED BY: [Signature]  
HOR. SCALE: **1:50** AUTHORIZED BY: [Signature] DATE: 08/15/95  
VERTICAL SCALE: [Blank] ACCEPTED BY: [Signature] DATE: [Blank]

CONSULTANT DRAWING NO. **4462-22C**  
DATE: JUNE 1995



**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

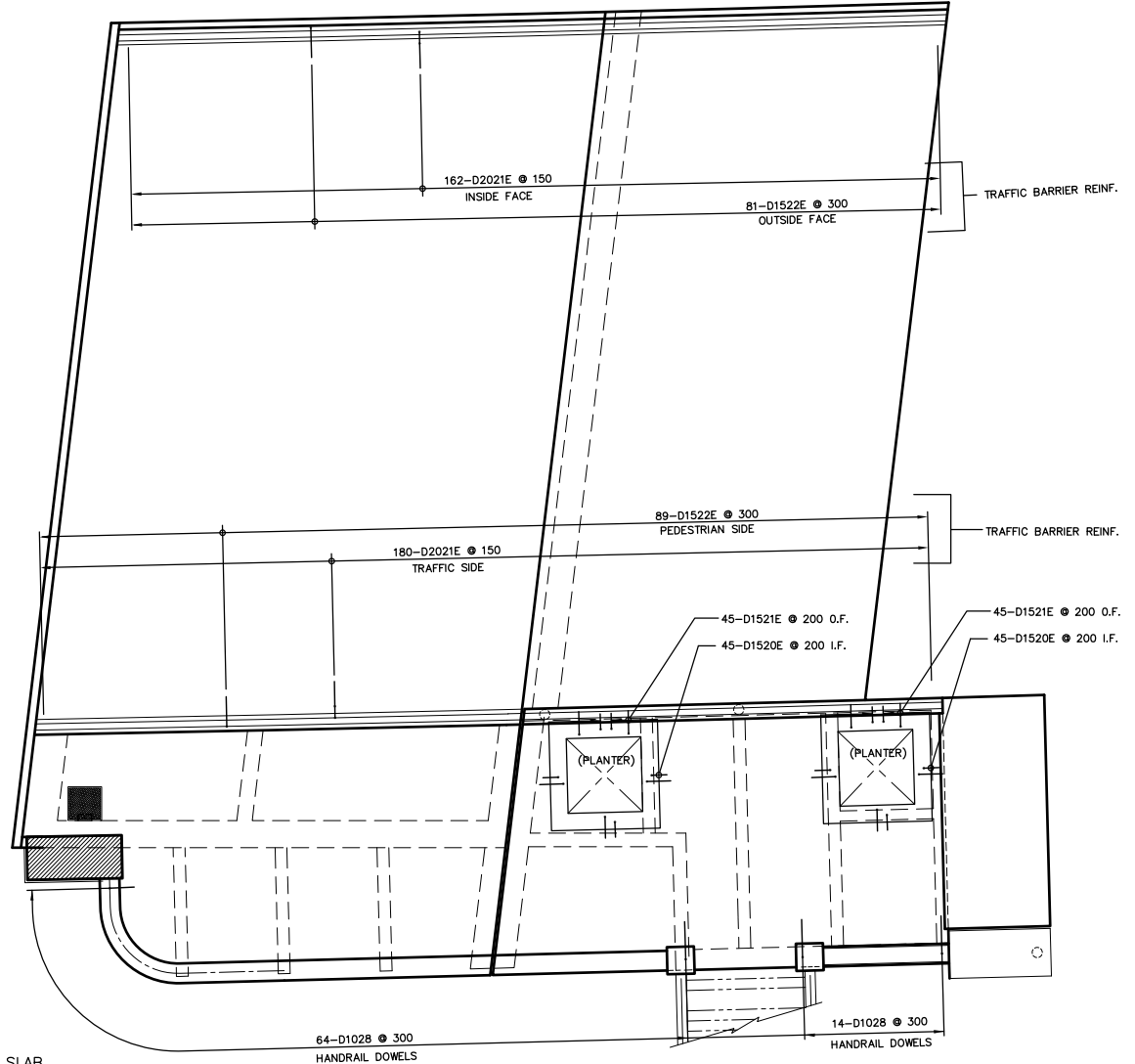
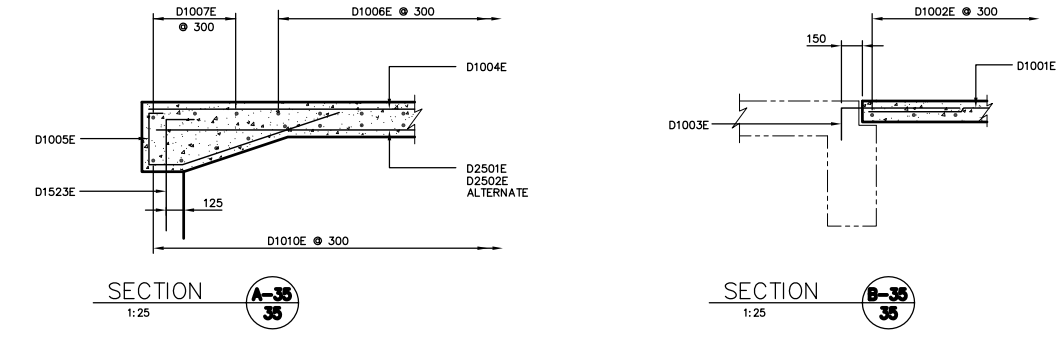
MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
**NORTHBOUND STRUCTURE**

CITY DRAWING NUMBER **8104-85-22C**  
22 OF 121  
**F**

**NORTH ABUTMENT-CONCRETE SOUTH ELEVATION**



PLAN  
1:100  
NORTH ABUTMENT SLAB  
SECTIONAL PLAN SHOWING  
REINFORCING



PLAN  
1:100  
NORTH ABUTMENT SLAB  
PLAN SHOWING DOWEL  
REINFORCING FOR HANDRAIL,  
TRAFFIC BARRIERS & PLANTERS

NOTE:  
The original drawing used for construction was sealed on August 02, 1995 by Bob Long. That drawing has been updated with construction revisions.

AS-CONSTRUCTED

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMAL NUMBERS INDICATE METRES

**KGS GROUP** CONSULTING ENGINEERS & PROJECT MANAGERS  
WINNIPEG THUNDER BAY

LOCATIONS APPROVED UNDERGROUND STRUCTURES

NO.	REVISIONS	DATE	BY
C	"AS-CONSTRUCTED"	12/97	JWB
B	ISSUED FOR CONSTRUCTION	08/95	JWB
A	ISSUED FOR TENDER	06/95	JWB

NO.	REVISIONS	DATE	BY
C	"AS-CONSTRUCTED"	12/97	JWB
B	ISSUED FOR CONSTRUCTION	08/95	JWB
A	ISSUED FOR TENDER	06/95	JWB

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Suite 111-63 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

DESIGNED BY: <b>R.J.</b>	CHECKED BY: <b>DBM</b>
DRAWN BY: <b>J.F.</b>	APPROVED BY:
HOR. SCALE: <b>1:200</b>	AUTHORIZED BY: <i>[Signature]</i> DATE: <b>10/06/95</b>
VERTICAL:	G.R. SMITH, P. ENGINEER
DATE: JUNE 1995	ACCEPTED BY: <i>[Signature]</i> DATE: <b>10/06/95</b>
	B. EBENHANGER, P. ENGINEER

PROFESSIONAL ENGINEER  
**R.J. LONG**  
CONSULTANT DRAWING NO. **4462-35C**

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

MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
NORTHBOUND STRUCTURE

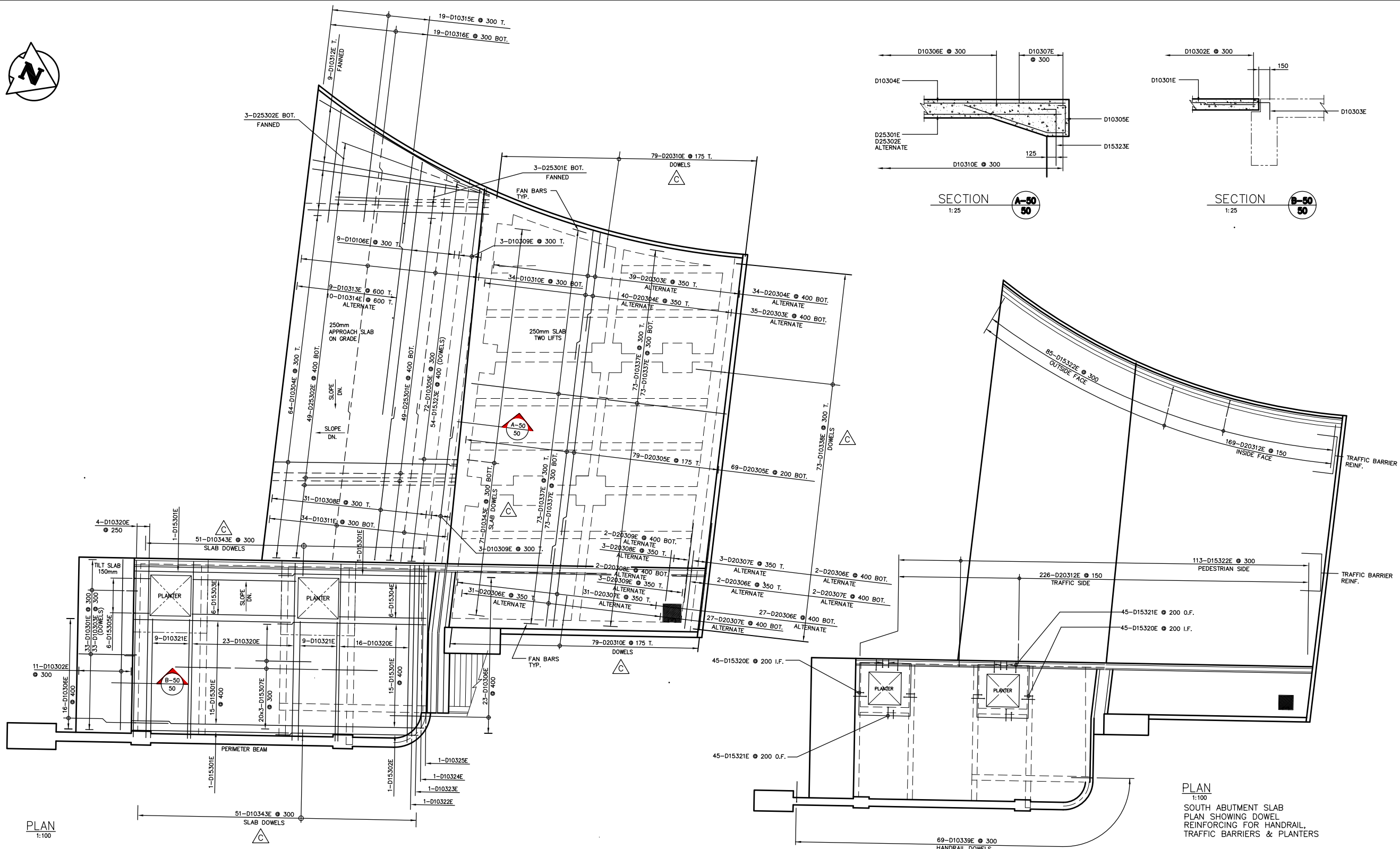
CITY DRAWING NUMBER **8104-85-38C**  
OF **121**  
**35**

**C**

HALF SIZE REDUCTION







PLAN 1:100 SOUTH ABUTMENT SLAB

PLAN 1:100 SOUTH ABUTMENT SLAB PLAN SHOWING DOWEL REINFORCING FOR HANDRAIL, TRAFFIC BARRIERS & PLANTERS

NOTE:  
The original drawing used for construction was sealed on August 02, 1995 by Bob Long. That drawing has been updated with construction revisions.

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**KGS GROUP CONSULTING ENGINEERS & PROJECT MANAGERS**  
WINNIPEG THUNDER BAY

AS-CONSTRUCTED

LOCATIONS APPROVED UNDERGROUND STRUCTURES

NO.	REVISIONS	DATE	BY
D	"AS-CONSTRUCTED"	12/97	JWB
C	SLAB DOWELS ADDED	12/95	JWB
B	ISSUED FOR CONSTRUCTION	08/95	JWB
A	ISSUED FOR TENDER	06/95	JWB

B.M. - ELEV. -

NO.	REVISIONS	DATE	BY
D	"AS-CONSTRUCTED"	12/97	JWB
C	SLAB DOWELS ADDED	12/95	JWB
B	ISSUED FOR CONSTRUCTION	08/95	JWB
A	ISSUED FOR TENDER	06/95	JWB

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Suite 111-63 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

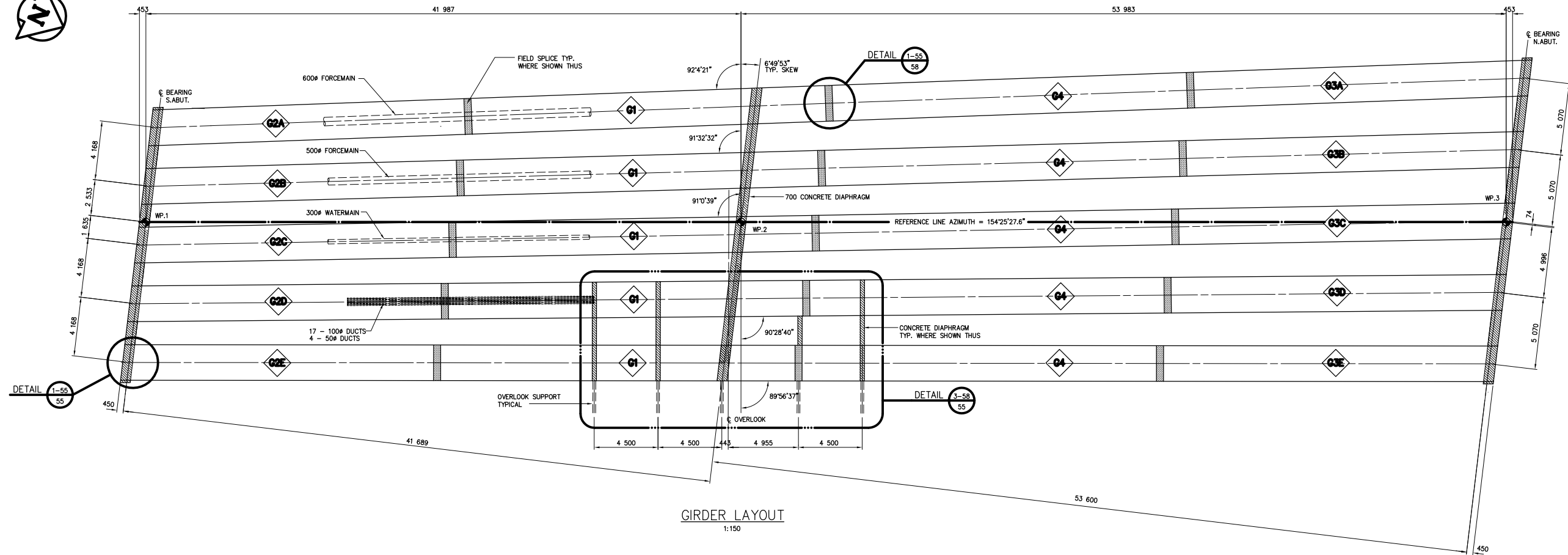
DESIGNED BY	<b>R.J.</b>	CHECKED BY	<b>DBM</b>
DRAWN BY	<b>J.F.</b>	APPROVED BY	
HOR. SCALE	<b>1:100</b>	AUTHORIZED BY	
VERTICAL		DATE	
DATE	JUNE 1995	ACCEPTED BY	
		DATE	



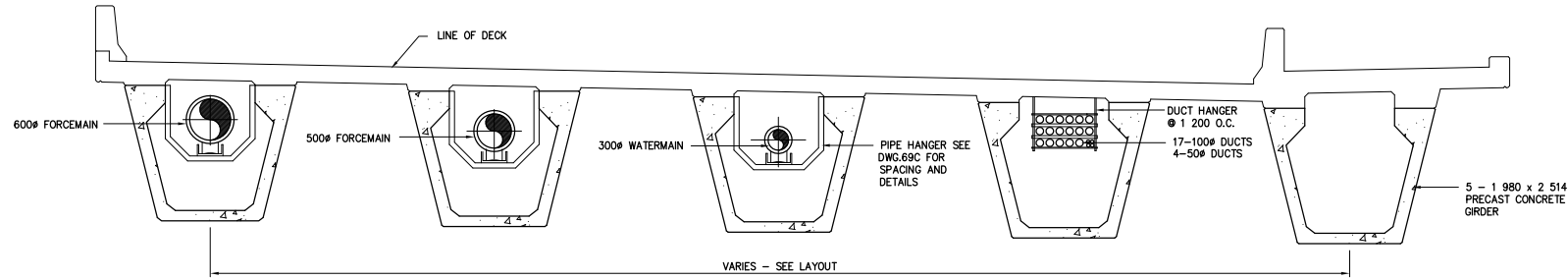
**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

MAIN STREET AND NORWOOD BRIDGES PROJECT	CITY DRAWING NUMBER
MAIN STREET BRIDGE	<b>B104-95-50C</b>
NORTHBOUND STRUCTURE	<b>50 OF 121</b>
<b>SOUTH ABUTMENT - REINFORCING DECK SLAB</b>	<b>D</b>

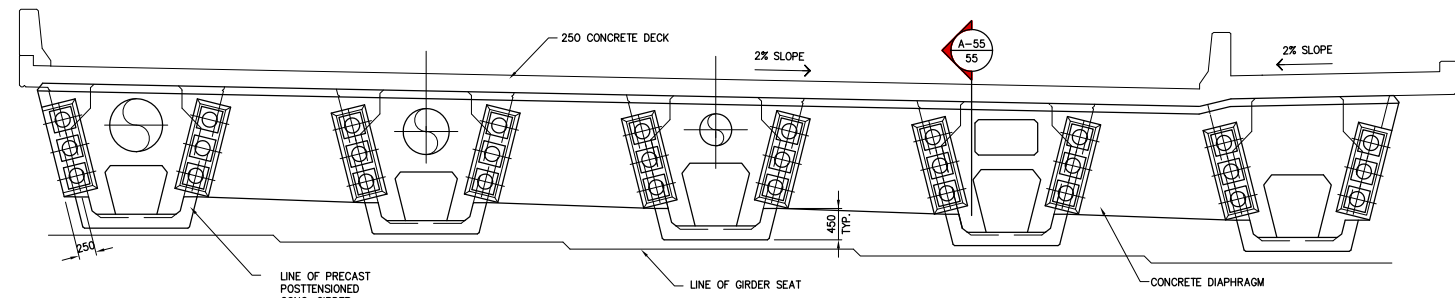
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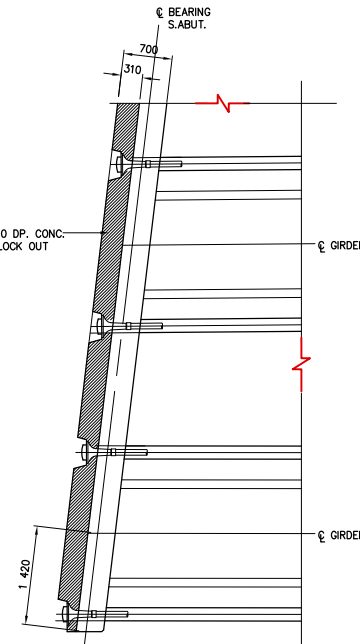
GIRDER LAYOUT  
1:150



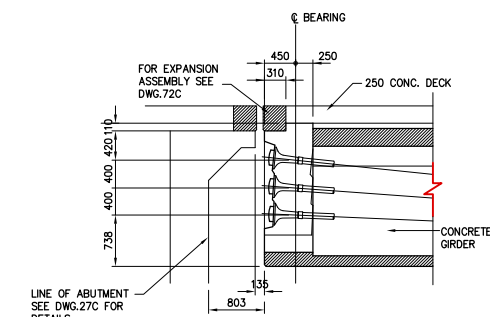
TYPICAL CROSS SECTION  
1:50



CONCRETE DIAPHRAGM ELEVATION  
1:50



DETAIL 1-55/55  
1:50



SECTION A-55/55  
1:50

**AS-CONSTRUCTED NOTES:**  
1) THE ORIGINAL DRAWING USED FOR CONSTRUCTION WAS SEALED ON 95 06 16 M.A.HATCH P.ENG. THAT DRAWING HAS BEEN UPDATED WITH CONSTRUCTION REVISIONS.

**AS-CONSTRUCTED**

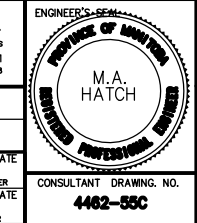
**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

NO.	REVISIONS	DATE	BY
D	AS CONSTRUCTED	DEC. 1997	JWB
C	ISSUED FOR CONSTRUCTION	AUG. 1995	JWB
B	ADDENDUM NO. 1	95 06 30	JWB
A	ISSUED FOR TENDER	JUNE 1995	JWB

NO.	REVISIONS	DATE	BY
D	AS CONSTRUCTED	DEC. 1997	JWB
C	ISSUED FOR CONSTRUCTION	AUG. 1995	JWB
B	ADDENDUM NO. 1	95 06 30	JWB
A	ISSUED FOR TENDER	JUNE 1995	JWB

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Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

DESIGNED BY **MH** CHECKED BY **JPL**  
DRAWN BY **RCS** APPROVED BY **[Signature]**  
HOR. SCALE **AS SHOWN**  
VERTICAL **AS SHOWN**  
DATE **JUNE 1995**

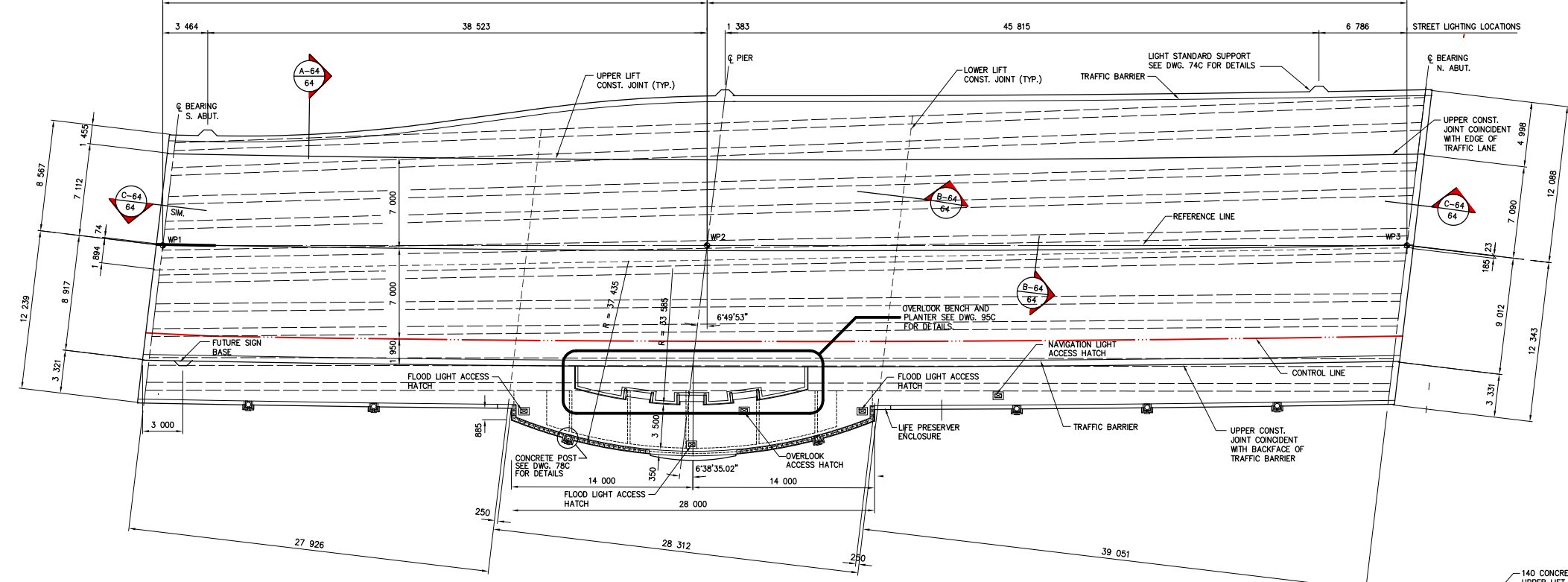


**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
**NORTHBOUND STRUCTURE**

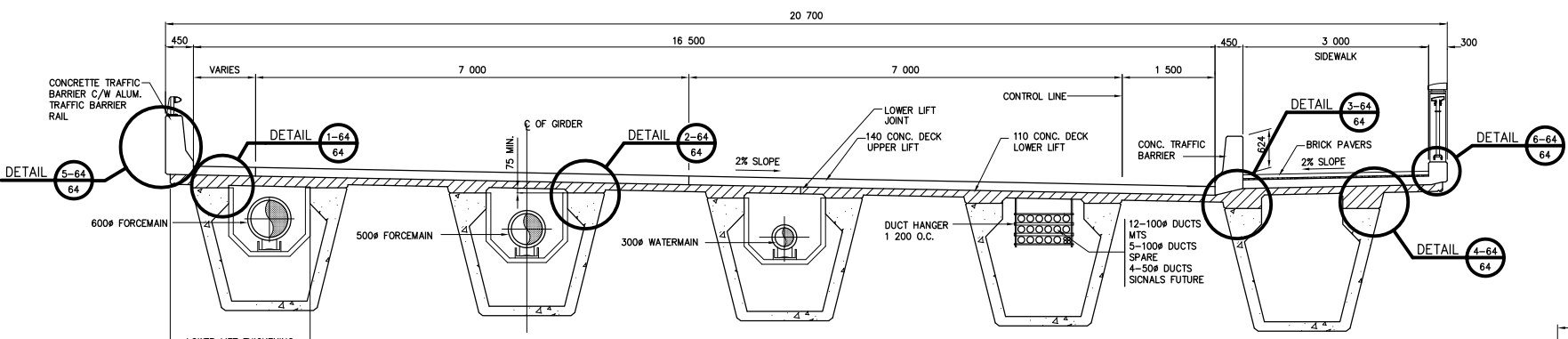
CITY DRAWING NUMBER **B104-05-58C**  
SHEET **55** OF **121**

CONSULTANT DRAWING NO. **4462-55C**

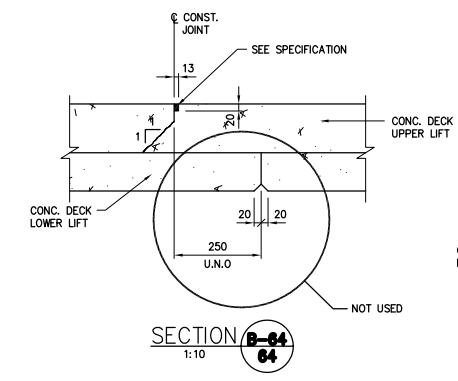


- NOTES:**
1. FALSEWORK TO REMAIN IN PLACE UNTIL ALL CONCRETE IN DECK, CONCRETE BARRIERS AND SIDEWALK HAS REACHED A STRENGTH OF 30 MPa.
  2. CONCRETE PLACEMENT OPERATION FOR THE LOWER LIFT DECK CONCRETE SHALL PROGRESS IN A DIRECTION PARALLEL TO THE SKEW OF THE STRUCTURE.
  3. CONCRETE DECK UPPER LIFT, CONCRETE BARRIERS AND SIDEWALK SHALL NOT BE PLACED UNTIL CONCRETE DECK LOWER LIFT HAS REACHED A STRENGTH OF 30 MPa.
  4. THE TOP SURFACE OF THE LOWER LIFT OF DECK CONCRETE SHALL BE GIVEN A ROUGH TEXTURE FINISH AS PER SPECIFICATIONS.
  5. CONCRETE DECK UPPER LIFT PLACING AND FINISHING EQUIPMENT MUST BE SUPPORTED DIRECTLY BY A GRIDER OR BY FALSEWORK DESIGNED FOR THAT PURPOSE.

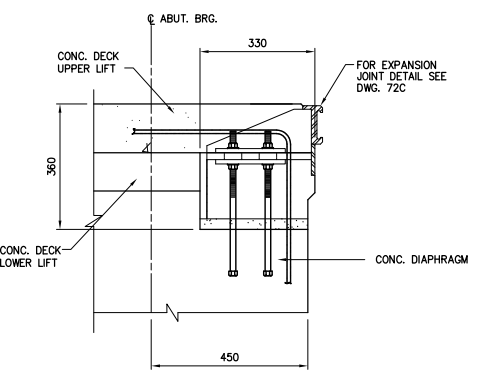
DECK LAYOUT  
1:200



SECTION A-64  
1:50

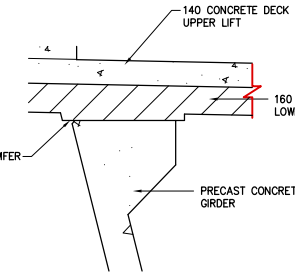


SECTION B-64  
1:10

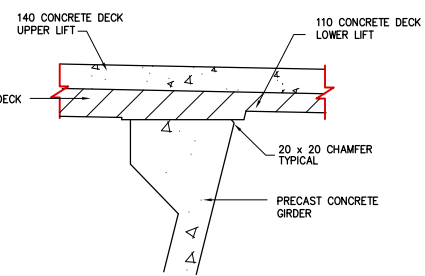


SECTION C-64  
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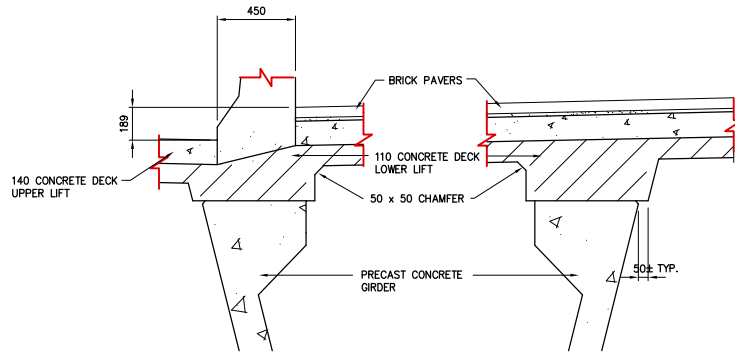
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WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



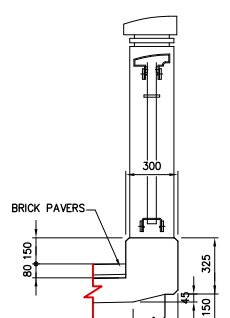
DETAIL 1-64  
1:20



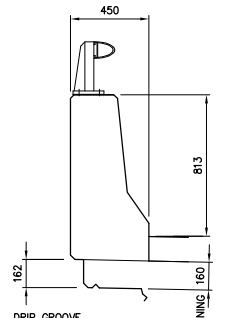
DETAIL 2-64  
1:20



DETAIL 3-64  
1:20



DETAIL 4-64  
1:20



DETAIL 5-64  
1:20

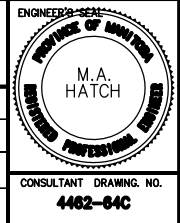
**LOCATIONS APPROVED UNDERGROUND STRUCTURES**

SUPV. U/D STRUCTURES COMMITTEE	DATE
NOTE:	
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT CONFIRMATION OF EXISTING AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION	

B.M. ELEV.	NO.	REVISIONS	DATE	BY
	F	AS CONSTRUCTED	DEC. 1997	JWB
	E	REVISED WEST SIDE LOWER LIFT THICKNESS	MAR. 1998	JWB
	D	REVISED JOINT DIMENSION	MAR. 1998	JWB
	C	REVISED DECK JOINTS	NOV. 1995	JWB
	B	ISSUED FOR CONSTRUCTION	AUG. 1995	JWB
	A	ISSUED FOR TENDER	JUNE 1995	JWB

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Consulting Engineers · Planners · Transportation Consultants  
Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

DESIGNED BY **MH** CHECKED BY **JPL**  
DRAWN BY **RCS** APPROVED BY **-**  
HOR. SCALE **AS SHOWN** VERTICAL **AS SHOWN**  
DATE JUNE 1995



**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
NORTHBOUND STRUCTURE

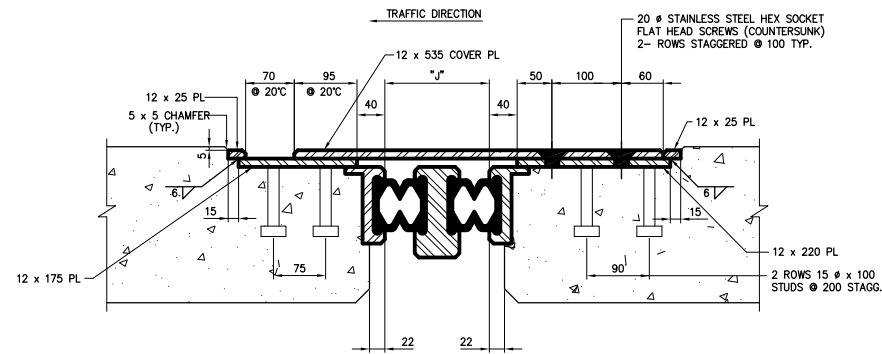
DECK GEOMETRY SECTIONS AND DETAILS

CITY DRAWING NUMBER **B104-85-64C**  
SHEET **64** OF **121**

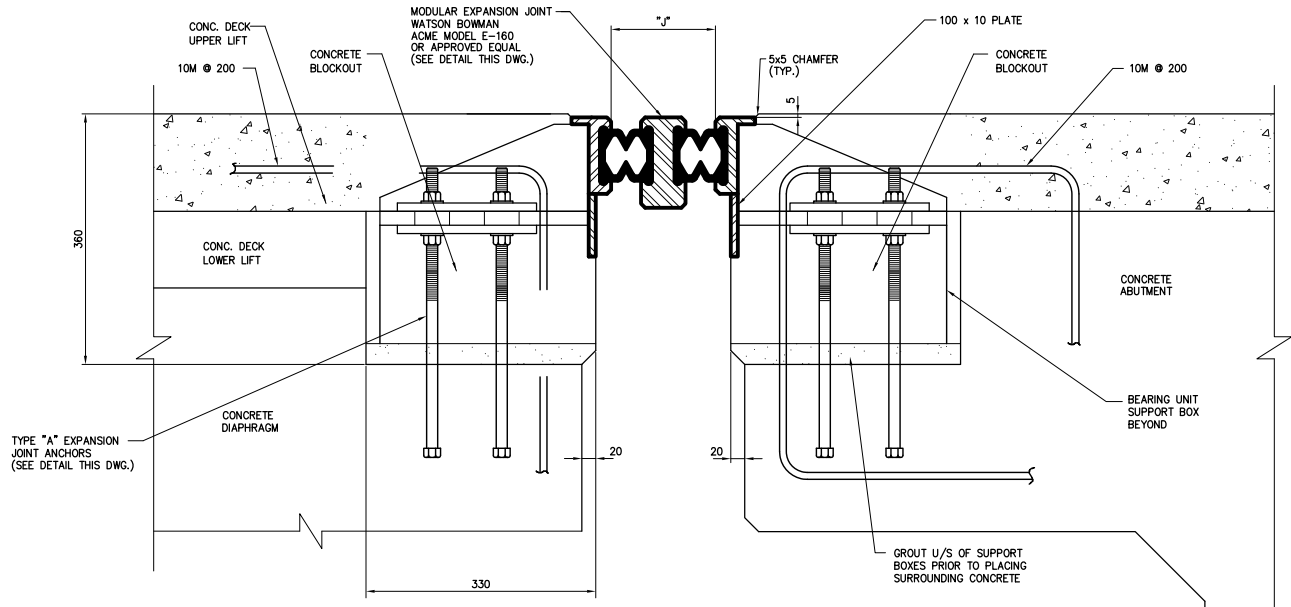
CONSULTANT DRAWING NO. **4462-64C**

**AS-CONSTRUCTED**

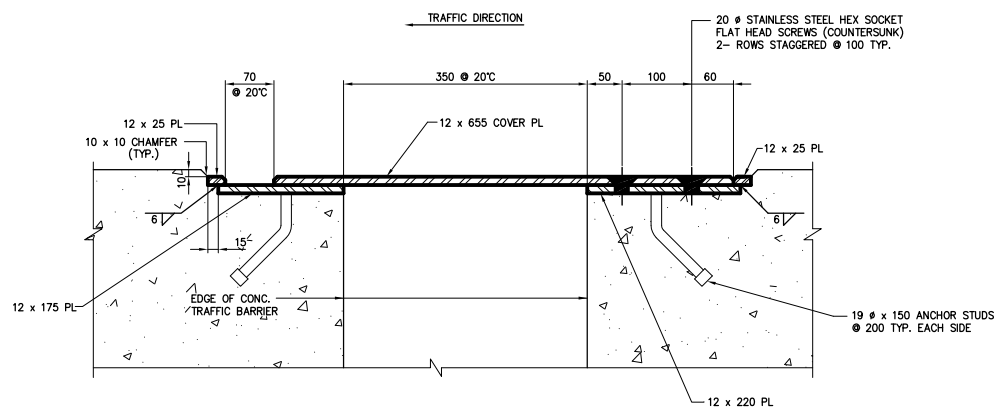
- AS-CONSTRUCTED NOTES:**
- 1) THE ORIGINAL DRAWING USED FOR CONSTRUCTION WAS SEALED ON 95 11 23 M.A.HATCH P.ENG. THAT DRAWING HAS BEEN UPDATED WITH CONSTRUCTION REVISIONS.



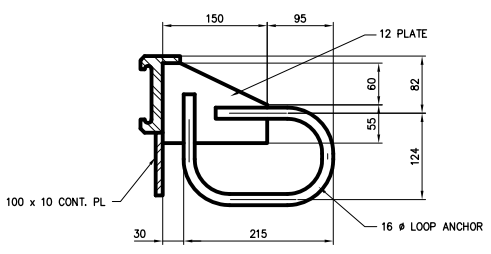
SECTION **A-72**  
1:5  
TYPICAL SECTION THROUGH SIDEWALK



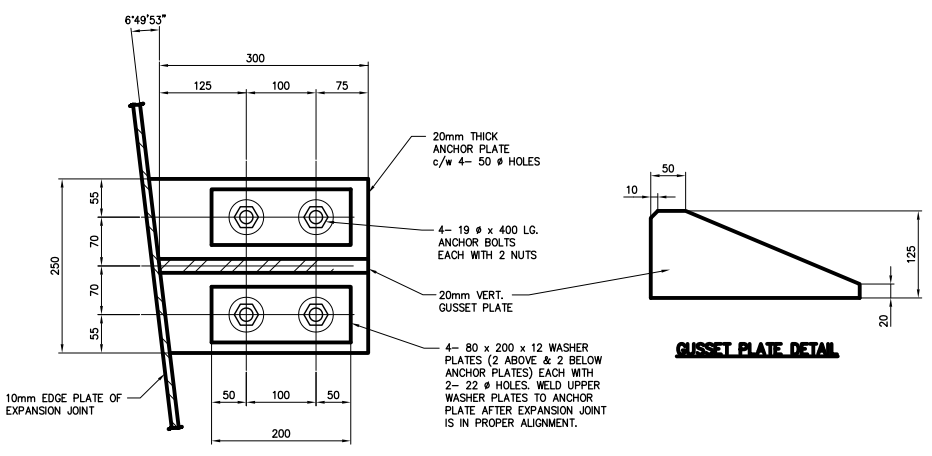
SECTION **C-72**  
1:5  
TYPICAL SECTION THROUGH ROADWAY



SECTION **B-72**  
1:5  
TYPICAL SECTION THROUGH TRAFFIC BARRIER



ANCHOR TYPE 'B'  
1:5



ANCHOR TYPE 'A'  
1:5

**GAP SETTING TABLE (DIM'N. "J")**

TEMP. (C)	-40	-30	-20	-10	0	+10	+20	+30	+40
NORTH ABUT.	182	177	172	166	161	155	150	145	139
SOUTH ABUT.	175	171	167	163	158	154	150	146	142

**AS-CONSTRUCTED NOTES**

1) THE ORIGINAL DRAWING USED FOR CONSTRUCTION WAS SEALED ON 95 06 16 BY J.W. BOGAN P.ENG. THAT DRAWING HAS BEEN UPDATED WITH CONSTRUCTION REVISIONS.

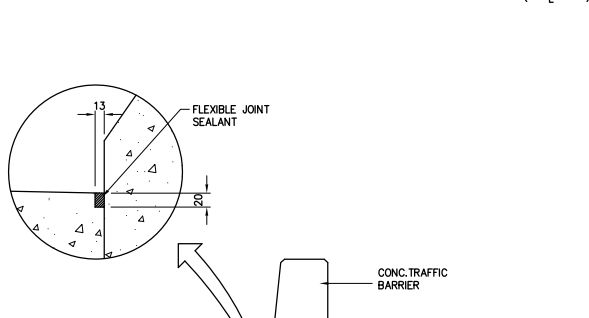
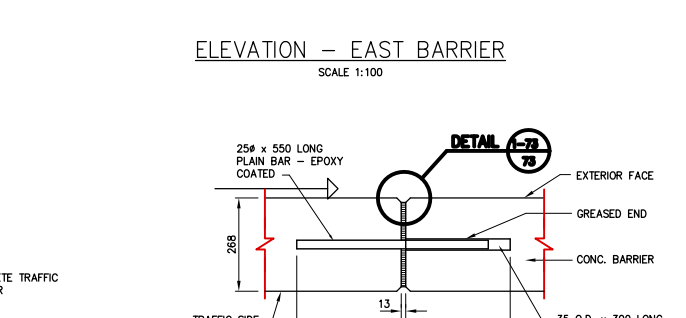
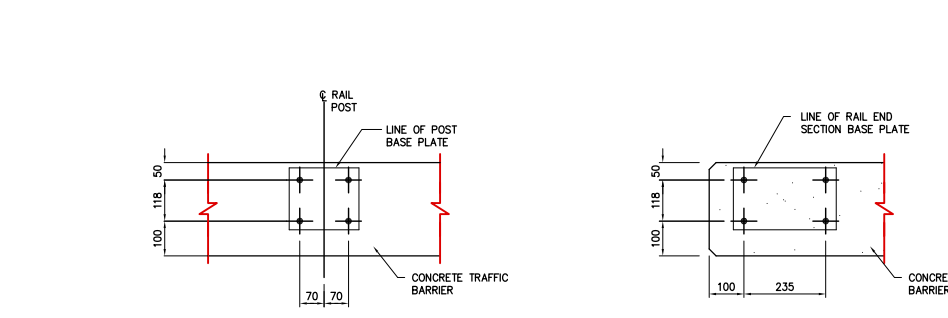
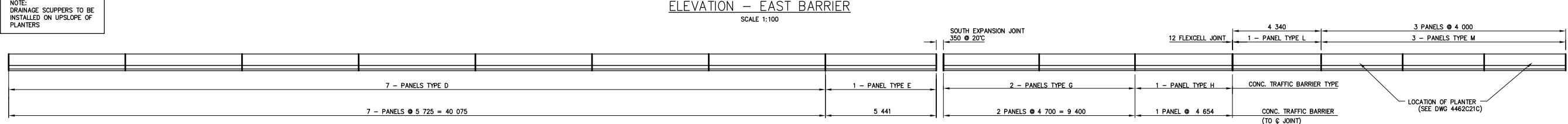
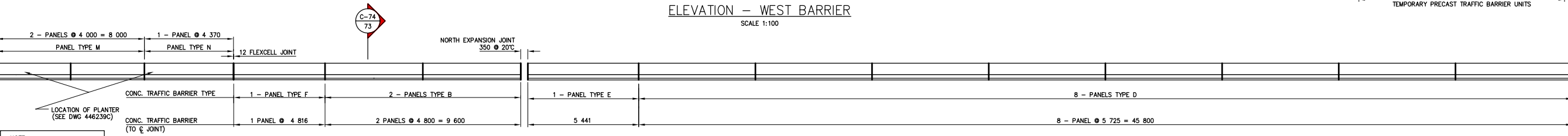
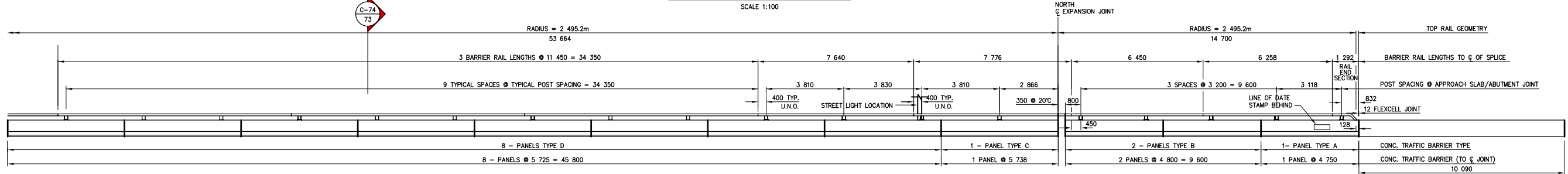
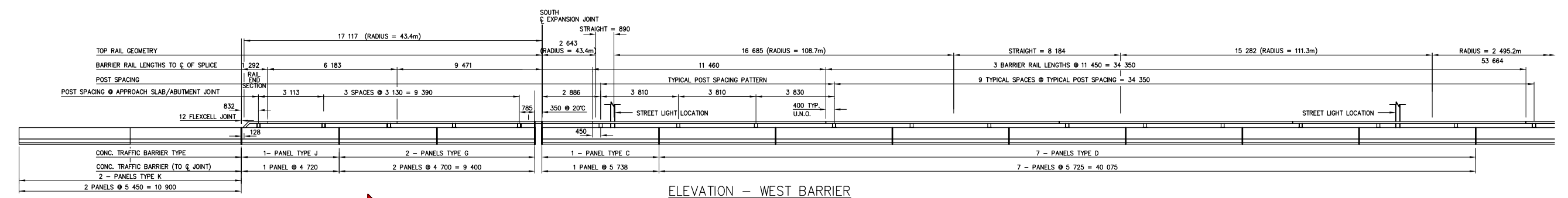
**AS-CONSTRUCTED**

C:\220WMS\4462\4462-72C Time: 07:54:55 Date: 06/15/95

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

LOCATIONS APPROVED UNDERGROUND STRUCTURES	B.M. - ELEV. -	<b>DS-Lea Consultants Ltd.</b> Consulting Engineers · Planners · Transportation Consultants Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1 Phone   204   943-3178 Facsimile   204   943-4948		<b>THE CITY OF WINNIPEG</b> WORKS AND OPERATIONS DIVISION STREETS AND TRANSPORTATION DEPARTMENT	MAIN STREET AND NORWOOD BRIDGES PROJECT MAIN STREET BRIDGE NORTHBOUND STRUCTURE	CITY DRAWING NUMBER <b>B104-85-72C</b>
SUPV. U/S STRUCTURES COMMITTEE DATE						CONSULTANT ACAD DWG. NO. <b>4462-72C</b>
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION	DESIGNED BY <b>JPL</b> CHECKED BY <b>MH</b> DRAWN BY <b>AGE</b> APPROVED BY HOR. SCALE <b>AS SHOWN</b> VERTICAL	DATE <b>JUNE 1995</b>	DATE	DATE	DATE	B

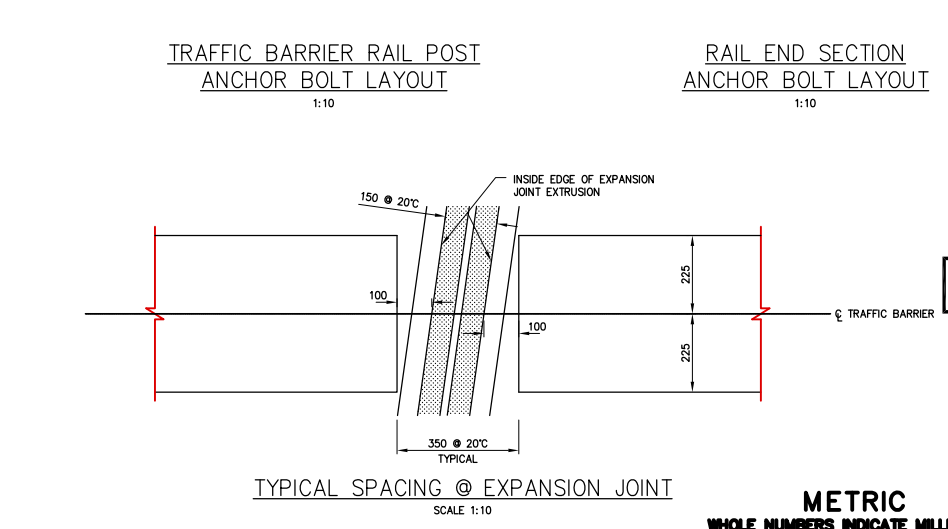




COMPONENT	QUANTITY
RAIL END SECTION	2
11 430 RAIL SECTION	7
6 163 RAIL SECTION	1
9 441 RAIL SECTION	1
7 620 RAIL SECTION	1
7 746 RAIL SECTION	1
6 430 RAIL SECTION	1
6 238 RAIL SECTION	1
SPLICE BAR 700mm	2
SPLICE BAR 460mm	12
RAIL CLAMP BAR	70
CAP SCREW	192
WASHER	192
TRAFFIC BARRIER RAIL POST	35
SHIMS	74
STRAIGHT ANCHOR BOLTS	AS REQUIRED
BENT ANCHOR BOLTS	74

PANEL TYPE	No. REQUIRED		LENGTH
	WEST SIDE	EAST SIDE	
A	1	-	4 750
B	2	2	4 800
C	2	-	5 738
D	15	15	5 725
E	-	2	5 441
F	-	1	4 816
G	2	2	4 700
H	-	1	4 654
J	1	-	4 720
K	2	-	5 450
L	-	1	4 340
M	-	5	4 000
N	-	1	4 370

NOTE:  
ALL DIMENSIONS GIVEN ARE PLAN DIMENSIONS UNLESS NOTED OTHERWISE.



**AS-CONSTRUCTED NOTES:**  
1) THE ORIGINAL DRAWING NOTES FOR CONSTRUCTION WAS SEALED ON 95 06 16 BY J.P. LUKASHENKO P.ENG. THAT DRAWING HAS BEEN UPDATED WITH CONSTRUCTION REVISIONS.

**AS-CONSTRUCTED**

NO.	REVISIONS	DATE	BY
B	AS CONSTRUCTED	DEC 1997	JWB
A	ISSUED FOR TENDER	JUNE 1995	JWB

**DS-Lea Consultants Ltd.**  
Consulting Engineers · Planners · Transportation Consultants  
Suite 111-93 Lombard Avenue Winnipeg, Manitoba R3B 3B1  
Phone | 204 | 943-3178 Facsimile | 204 | 943-4948

DESIGNED BY: **JPL** CHECKED BY: **MH**  
DRAWN BY: **TC** APPROVED BY: **-**  
HOR. SCALE: **AS SHOWN** VERTICAL: **AS SHOWN**  
DATE: **JUNE 1995**

ENGINEER: **J.P. LUKASHENKO**  
REGISTERED PROFESSIONAL ENGINEER  
CONSULTANT DRAWING NO. **4462-73C**

**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

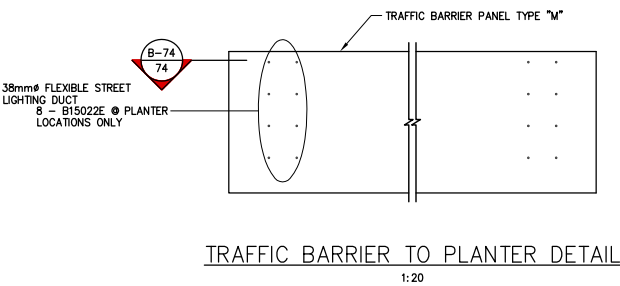
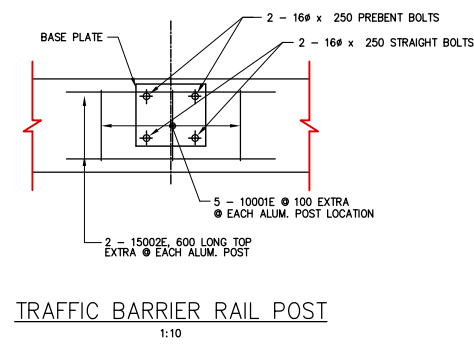
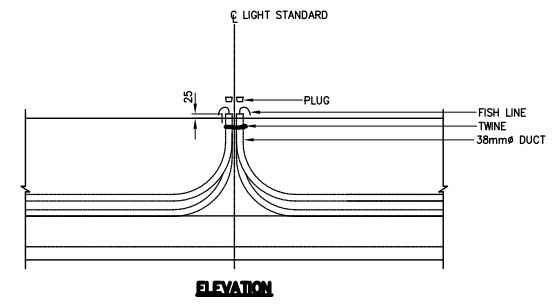
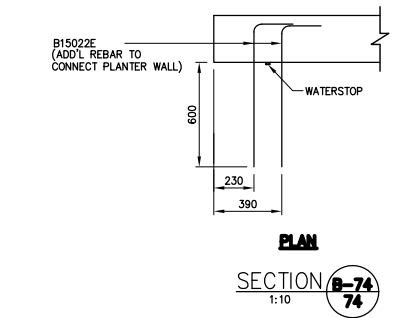
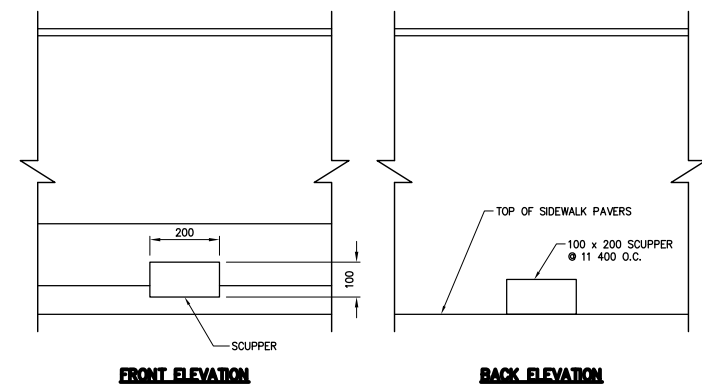
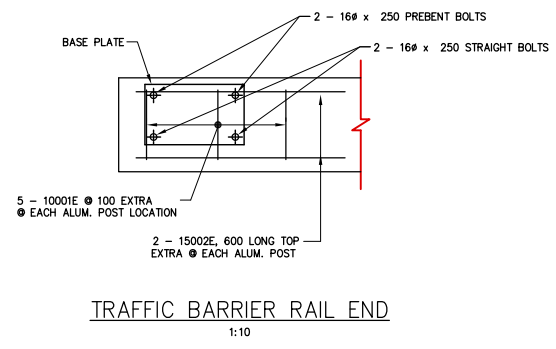
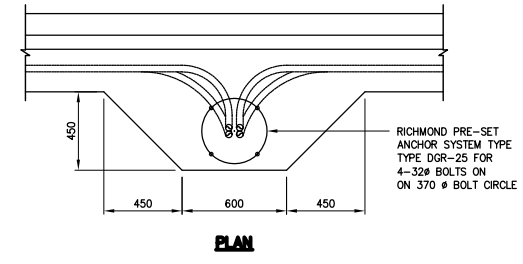
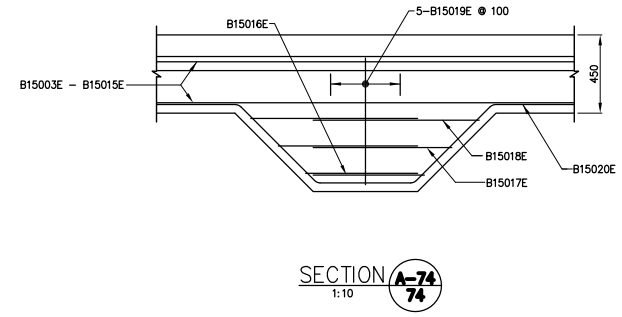
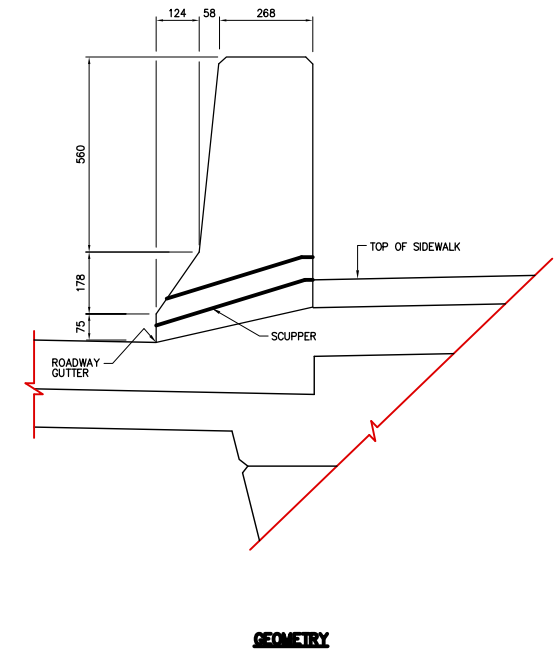
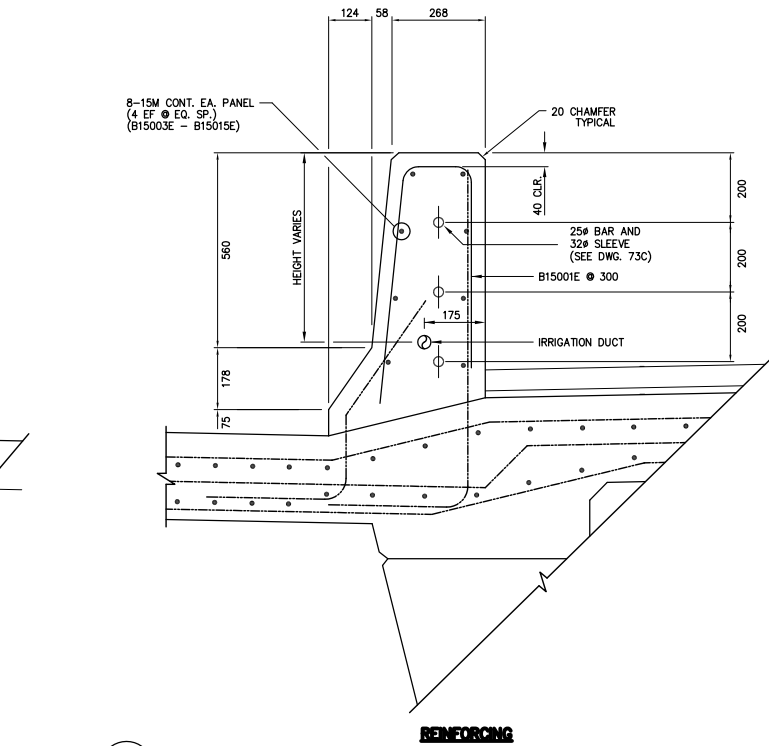
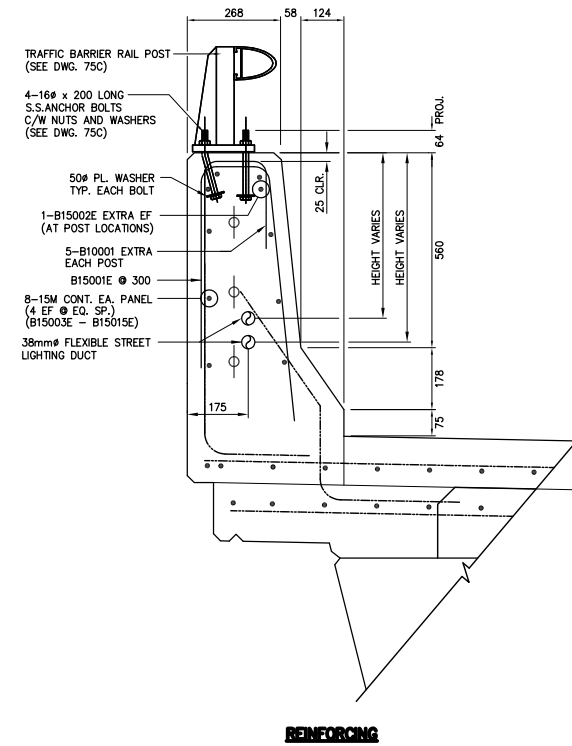
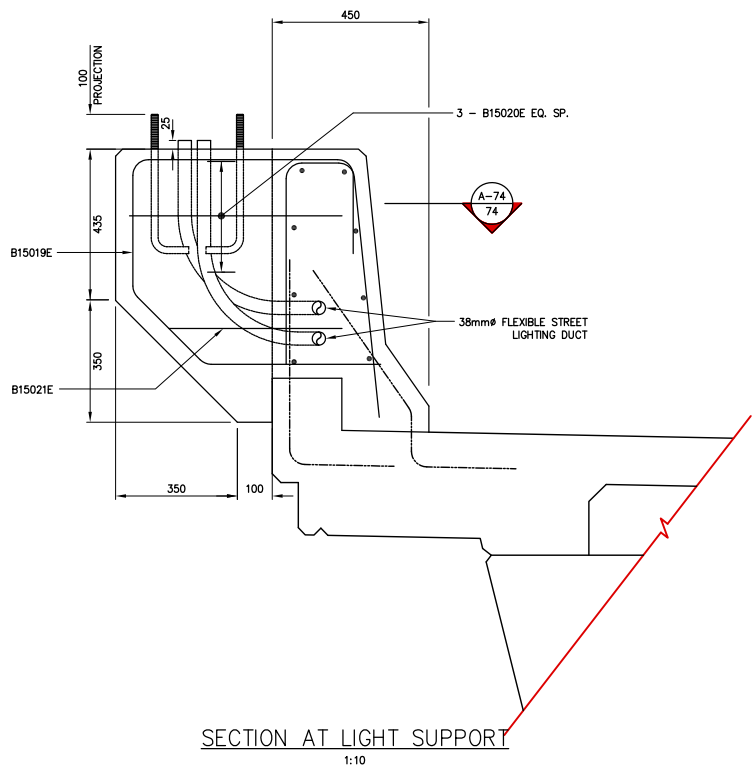
MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
**NORTHBOUND STRUCTURE**

CITY DRAWING NUMBER **8104-95-73C**  
SHEET **73** OF **121**

CONCRETE TRAFFIC BARRIER LAYOUT

C:\2006\4462\446273C Date: 06/14/95 Time: 18:05:30





STREET LIGHT DUCT DETAIL 1:20

TRAFFIC BARRIER RAIL POST 1:10

**CONCRETE BARRIER NOTES**

1. ALL REBAR IN BARRIERS SHALL BE EPOXY COATED
2. K.B. BOARD FORM LINER SHALL BE USED FOR ALL EXPOSED CONCRETE SURFACES EXCEPT WHERE ARCHITECTURAL FINISH IS SHOWN.
3. CHAMFER ALL EXPOSED EDGES 13mm UNLESS OTHERWISE SHOWN.
4. FOR CONCRETE BARRIER PANEL TYPE & LAYOUT SEE DRAWING 73C

**AS-CONSTRUCTED NOTES:**

- 1) THE ORIGINAL DRAWING USED FOR CONSTRUCTION WAS SEALED ON 95 06 16 BY J.P. LUKASHENKO P.ENG. THAT DRAWING HAS BEEN UPDATED WITH CONSTRUCTION REVISIONS.

**AS-CONSTRUCTED**

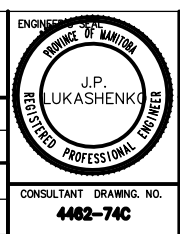
**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

LOCATIONS APPROVED UNDERGROUND STRUCTURES		B.M. ELEV.
SUPV. U/G STRUCTURES COMMITTEE	DATE	
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT CONFIRMATION OF EXISTING AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION		

NO.	REVISIONS	DATE	BY
B	AS CONSTRUCTED	DEC. 1997	JWB
A	ISSUED FOR TENDER	JUNE 1995	JWB

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DESIGNED BY <b>JPL</b>	CHECKED BY <b>MH</b>
DRAWN BY <b>TC</b>	APPROVED BY
HOR. SCALE <b>AS SHOWN</b>	AUTHORIZED BY <i>[Signature]</i> DATE
VERTICAL	S.R. SMITH, P. ENG. PROJECT ENGINEER
DATE JUNE 1995	ACCEPTED BY <i>[Signature]</i> DATE
	B. EISENBERGER, P. ENG. BRIDGE ENGINEER



**THE CITY OF WINNIPEG**  
WORKS AND OPERATIONS DIVISION  
STREETS AND TRANSPORTATION DEPARTMENT

MAIN STREET AND NORWOOD BRIDGES PROJECT  
MAIN STREET BRIDGE  
**NORTHBOUND STRUCTURE**

CITY DRAWING NUMBER **B104-85-74C**  
SHEET **74** OF **121**

CONSULTANT DRAWING NO. **4462-74C**

**CONCRETE TRAFFIC BARRIER SECTIONS AND DETAILS**

B