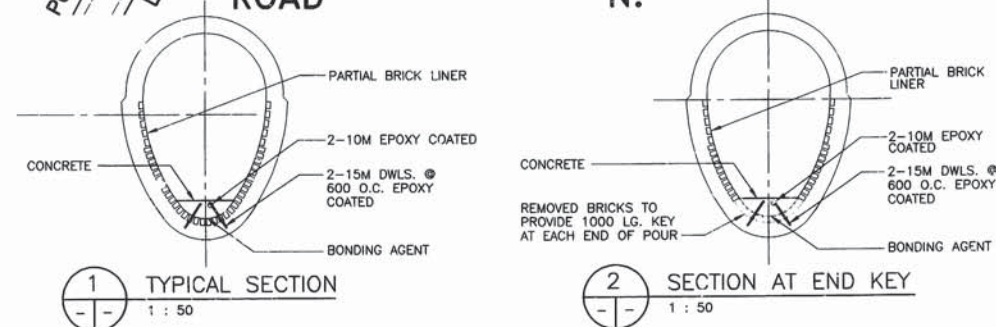


NOTES:
 1. THIS DRAWING PERTAINS TO COMBINED SEWER REHABILITATION ONLY.
 2. REFER TO WARDROP ENGINEERING INC. CONSTRUCTION REPORT FOR EXACT REPAIR LOCATIONS AND DESCRIPTIONS.
 3. CHAINAGE IS ALONG C/L OF COMBINED SEWER.

- LIST OF REPAIR PRODUCTS**
- CONCRETE - PUMP MIX
 MIN. 28 DAY COMPRESSIVE STRENGTH - 30 MPa
 CEMENT (SULPHATE RESISTANT) - TYPE 50
 SLUMP - 100± 25mm
 MAXIMUM AGGREGATE SIZE - 20mm
 - REINFORCING STEEL
 DOWELS - #5W
 BARS - 10M
 GRADE - 30J MPa, EPOXY COATED.
 - BONDING AGENT
 SCP ACRIL - STIX
 - CONCRETE PATCHING
 SIKKA RAPID OV, WITH 20% OF MIX WATER
 SUBSTITUTED WITH BONDING AGENT.
 - DRY SHOTCRETE
 TARGET - 40 MPa, SULPHATE RESISTANT, SILICA
 FUME MODIFIED, "FINE" SHOTCRETE MIX.

CORES						
PURPOSE	No.	DATE TAKEN	LENGTH*	COMMENT	STATION	SIDE
SEWER CONDITION EVALUATION	1	97.01.29	270	SOUND CONCRETE	26+79	WEST
	2	97.01.29	250	SIKA PATCH, SOUND CONCRETE.	26+84	EAST
	3	97.01.29	290	SHOTCRETE PATCH, SOUND CONCRETE.	27+08	WEST
	4	97.01.29	320	SHOTCRETE PATCH, SOUND CONCRETE.	27+35	WEST
	5	97.01.29	330	SOUND CONCRETE	27+67	EAST
SHOTCRETE O.C.	6	97.01.29	230	SOUND CONCRETE	28+26	WEST
	7	97.01.29	N/A	SHOTCRETE PATCH	27+05	EAST
	8	97.01.29	N/A	SHOTCRETE PATCH, SOUND CONCRETE	27+35	EAST
	9	97.02.07	420	SOUND CONCRETE	29+24	WEST
	10	97.02.07	290	SOUND CONCRETE	28+77	EAST
	11	97.03.05	295	SOUND CONCRETE	29+84	WEST
	12	97.03.05	295	SOUND CONCRETE	30+74	EAST
	13	97.03.05	405	SOUND CONCRETE	31+61	EAST
	14	97.03.05	280	SOUND CONCRETE	32+33	WEST
	15	97.03.05	390	SOUND CONCRETE	32+78	EAST

NOTE: * LENGTH EXCLUDES 100mm PARTIAL BRICK LINER, WHERE APPLICABLE.



* - PRIOR TO 1995-1996 CONSTRUCTION PROGRAM, MANHOLE 27 WAS 5th MANHOLE NORTH OF VAN BELLEGHAM.

EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED
150 mm	WATERMAIN	150 mm	HYDRO	M.T.S.	150 mm	WATERMAIN	HYDRANT	VALVE
300 mm	LAND DRAINAGE SEWER	300 mm	CONCRETE	ASPHALT	300 mm	LAND DRAINAGE SEWER	WASTEWATER SEWER	CENTRE LINE
225 mm	WASTEWATER SEWER	225 mm	PROPERTY LINE	SURVEY BAR	225 mm	HYDRO POLE	LIGHT STANDARD	TOP SERVICE
150 mm	MANHOLE	150 mm	JUNCTIONS	CULVERT	150 mm	GAS		

LOCATION APPROVED UNDERGROUND STRUCTURES

DATE: 97.11.18

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.

1	RECORD DRAWING	97.11.18	C.M.D.
NO	REVISIONS	DATE	BY

WARDROP ENGINEERING INC.

DESIGNED BY: D.N.B. CHECKED BY: W.R.D.
 DRAWN BY: G.M.D. APPROVED BY: [Signature]
 HORIZONTAL SCALE: 1:1000
 VERTICAL SCALE: 1:50

DATE: 96.12.12

THE CITY OF WINNIPEG
 WATER AND WASTE DEPARTMENT

COMBINED SEWER REHABILITATION
 DAWSON ROAD N.
 7th MANHOLE* N. OF VAN BELLEGHAM
 AVENUE TO RUE PLINGUET
 1996-1997 CONSTRUCTION PROGRAM

CITY DRAWING NUMBER: 04277
 SHEET 1 OF 1

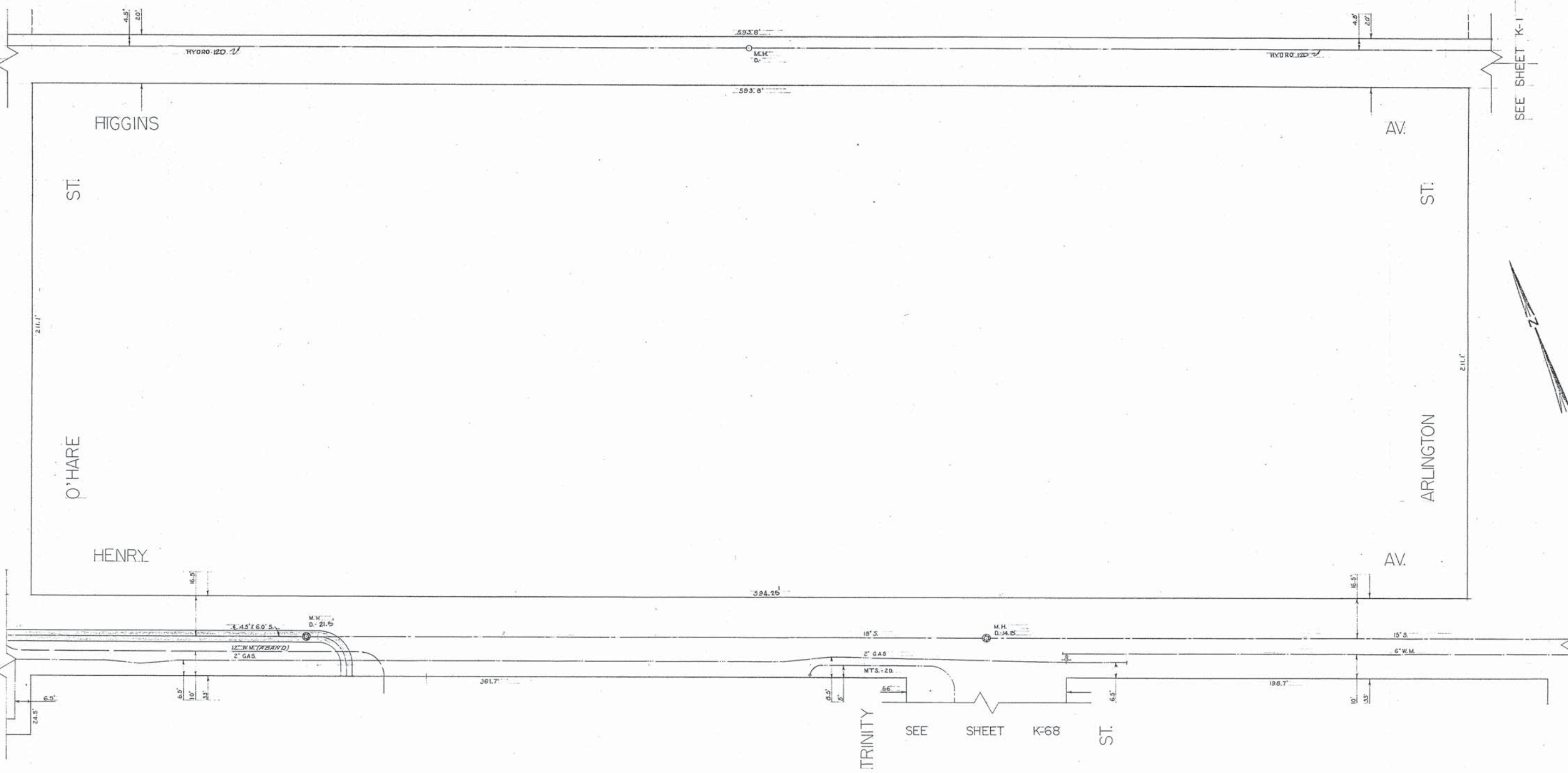
CONSULTANT DRAWING NO. 970012-01-00-3

SEE SHEET K-70

SEE SHEET K-1

SEE SHEET K-70

SEE SHEET K-1



LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON BEST INFORMATION AVAILABLE, BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN AND EXACT LOCATIONS OF ALL UNDERGROUND INCLUDING SERVICE CONNECTIONS MUST BE CHECKED WITH THE UTILITY CONCERNED BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	DATE	DESCRIPTION	BY	CHK'D
1	83-8-10			

MANHOLE DEPTH	HYDRANT	WATER VALVE	SERVICE BOX	CATCH BASIN	STREET LIGHTING POLE	SURVEY BAR	WINNIPEG HYDRO	STREET LIGHTING	MANITOBA HYDRO
								(S.L.)	

MANITOBA TELEPHONE SYSTEM	CITY SIGNALS	SEWER, STORM RELIEF SEWER	WATERMANS	GAS	C.P.R. TELEGRAPHS	C.N.R. TELEGRAPHS	WINNIPEG HYDRO STEAM HEAT	WINNIPEG CENTRAL HTG. CO. STEAM HEAT
(M.T.S.)	(C.S.)	(S), S.R.S.	(W.M.)				(S.H.)	

LEGEND

CITY OF WINNIPEG
 HIGGINS AV.
 HENRY AV.
 W.L. ARLINGTON ST.
 E.L. O'HARE ST.

UNDERGROUND STRUCTURES COMMITTEE

DRAWN BY R.D.
 TRACED BY
 CHECKED BY H Oct/78
 DATE: APRIL 10/75

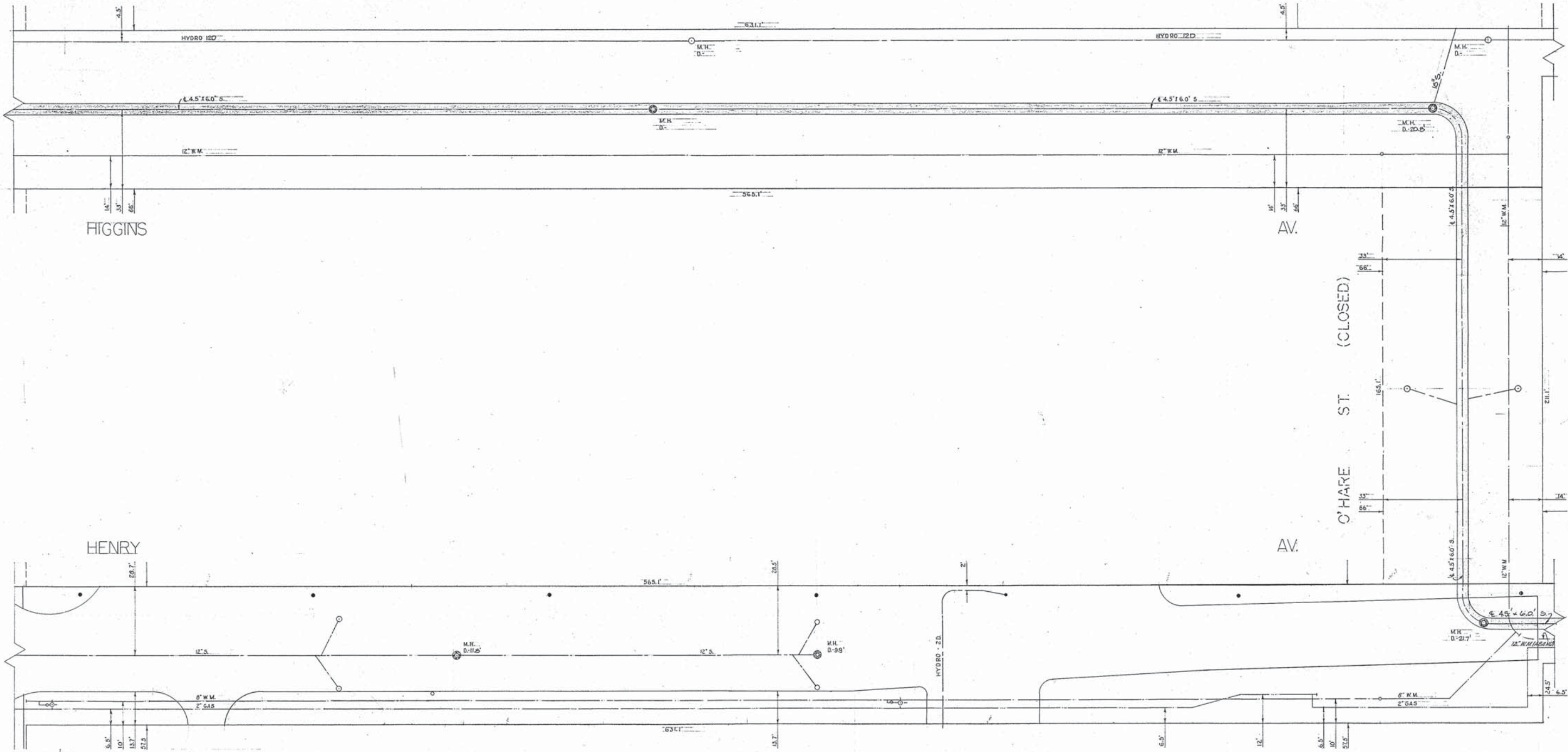
SCALE: 1" = 20'
 SHEET NO. K-69

SEE SHEET K-72

SEE SHEET K-71

SEE SHEET K-69

SEE SHEET K-69



MAUDE ST

HENRY

HIGGINS

AV.

AV.

O'HARE ST. (CLOSED)



LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON BEST INFORMATION AVAILABLE, BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN AND EXACT LOCATIONS OF ALL UNDERGROUND INCLUDING SERVICE CONNECTIONS MUST BE CHECKED WITH THE UTILITY CONCERNED BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	DATE	DESCRIPTION	BY	CHK'D
8				
7				
6				
5				
4				
3	05-07-07		N.S.	
2	23-07-07		W.M.	
1	21-05-07		W.M.	

DESCRIPTION	BY	CHK'D
MANHOLE DEPTH		
HYDRANT		
WATER VALVE		
SERVICE BOX		
CATCH BASIN		
STREET LIGHTING POLE		
SURVEY BAR		
WINNIPEG HYDRO		
STREET LIGHTING (S.L.)		
MANITOBA HYDRO		

DESCRIPTION	BY	CHK'D
MANITOBA TELEPHONE SYSTEM		
CITY SIGNALS		
SEWER, STORM RELIEF SEWER		
WATERMANS		
GAS		
C.P.R. TELEGRAPHS		
C.N.R. TELEGRAPHS		
WINNIPEG HYDRO STEAM HEAT		
WINNIPEG CENTRAL HTG. CO. STEAM HEAT		

CITY OF WINNIPEG
 HIGGINS AV.
 HENRY AV.
 O'HARE ST.
 E.L. MAUDE ST.

UNDERGROUND STRUCTURES COMMITTEE
 DRAWN BY R.D.
 TRACED BY
 CHECKED BY H+ Oct/75
 DATE APRIL 15/75
 SCALE: 1" = 20'
 SHEET NO. K-70

LEGEND

