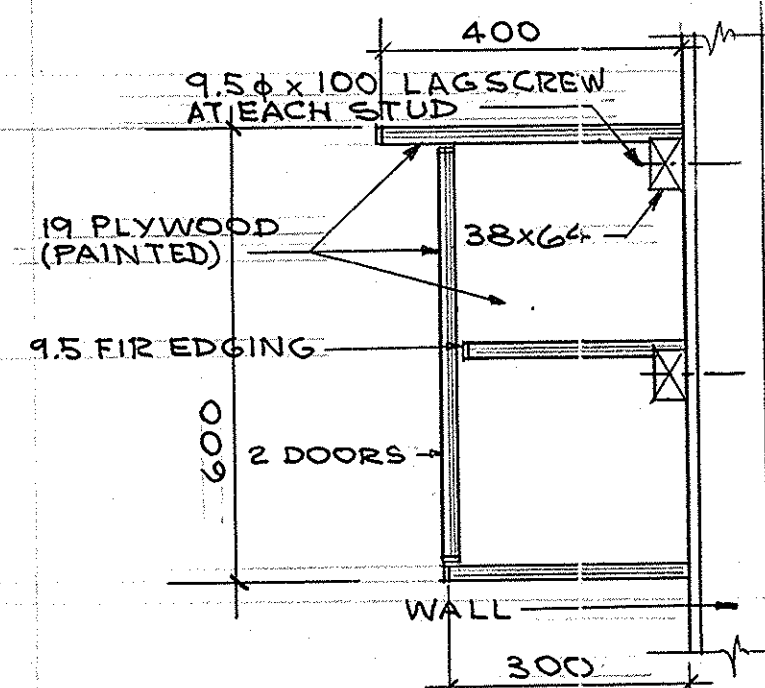


**SOUTH ELEVATION**  
NORTH SIMILAR 1:50



- PROVIDE PRECAST CONCRETE SPLASH BLOCKS DIRECTLY BELOW DOWNSPOUTS. DIMENSIONS: 300 mm W X 700 mm L SLABS, DISHED AWAY FROM BUILDING. ACCEPTABLE MATERIALS: BARNUM CONCRETE SPLASH BLOCKS.
- DOORS AND FRAMES: ARMO STANDARD SINGLE LEAF DOORS, SHOP PRIMED, WASHROOM DOORS 1.2 mm GALVANIZED STEEL FILLED WITH 44 mm RIGID URETHANE INSULATIONS. 800 X 2150; PARKS DOORS, UNINSULATED, 900 X 2150.
- WASHROOM DOOR HARDWARE:  
BUTTS: B6 1279 C15 4-1/2 X 5 NRP (1-1/2 pr.)  
LOCKSET: SUIT WINNIPEG STANDARD KEYING SYSTEM  
CLOSER: LOW 400-AL  
THRESHOLD: ARMO EXTRUDED ALUMINUM WEATHERSTRIPPING; JAMB AND HEAD DS 75.  
DOOR BOTTOM HES DOOR SWEEP.
- PARKS DOOR HARDWARE:  
BUTTS: 1279 C15 4-1/2 X 4 (1-1/2 pr.)  
LATCHSET: SUIT WINNIPEG STANDARD KEYING SYSTEM  
DOOR STOP: HALLIS X C15 FLOOR STOP
- ERECT IN ACCORDANCE WITH REVIEWED SHOP DRAWINGS.
- MAXIMUM DEFLECTION:  
1. ROOF CLADDING UNDER FULL DESIGN LOAD: 1/240 OF CLEAR SPAN.  
2. WALL CLADDING UNDER FULL WIND LOAD AND SUCTION: 1/240 OF CLEAR SPAN.
- ACCEPTABLE MATERIALS: ARMO TEC-LINE 2 "SF" BUILDING. PROPOSED ALTERNATIVE BUILDING TYPES MUST BE SUBMITTED FOR APPROVAL PRIOR TO CLOSE OF TENDERS.
- SUBMIT FOLLOWING DOCUMENTS IN ACCORDANCE WITH CSBI 38.4-32 PARA. 14:  
1. A STRUCTURAL ANALYSIS CERTIFICATION OF BUILDING SYSTEM.  
2. CERTIFICATION STATING DESIGN CRITERIA USED AND LOADS ASSUMED IN DESIGN AND PLACING SOLE RESPONSIBILITY FOR DESIGN OF BUILDING COMPONENTS WITH STEEL BUILDING SYSTEMS MANUFACTURER.  
3. BUILDING ERECTION AND SHOP FABRICATION DRAWINGS UNDER THE SEAL OF A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF MANITOBA.
- MATERIALS:  
1. STRUCTURAL STEEL: TO CANS G40.21-M81, SHOP PRIMED.  
2. BOLTS: TO ASTM A307-82A COMPLETE WITH NUTS AND WASHERS.  
3. WELDING MATERIALS: TO CSA W59-1982.  
4. SHEET STEEL: EXPOSED TO EXTERIOR, TO ASTM A446-76, GRADE A GALVANIZED TO ASTM A525-79 COATING DESIGNATION, FACTORY PRECOATED STELO 5000 SERIES FINISH, COLOURS BONE WHITE.  
5. SCREWS: CANTIMUN PLATED STEEL, PURPOSE MADE, HEAD COLOUR SAME AS EXTERIOR SHEET.  
6. OVERHEAD DOOR: STEEL SECTIONAL, CHAIN HOIST OPERATOR, LATCHING OPENABLE FROM INSIDE ONLY.
- SUPPLY AND INSTALL TWO DOWNSPOUTS PER SIDE, 24 GAUGE, PRECOLOURED TO MATCH CLADDING, WITH 45 DEGREE BEND AT BOTTOM AND 300 mm LONG SPOUT.

- PAINTING**
- GYPSUM WALLBOARD:  
1 COAT DRYWALL PRIMER  
2 COATS SEMI-GLOSS INTERIOR LATEX  
WHITE
  - STEEL DOORS, FRAMES:  
1 COAT PRIMER  
2 COATS EXTERIOR ALKYD ENAMEL  
COLOURS: GREEN
  - WOOD:  
1 COAT PRIMER  
2 COATS SEMI-GLOSS ALKYD ANAMEL  
COLOUR: WHITE
- CAULKING**
- CAULKING: CLEAR SILICONE
  - BACKER: ETHAFOAM "B", OVERSIZED 30%.
- PRE-ENGINEERED BUILDING**
- DO WORK IN ACCORDANCE WITH CSBI STANDARD FOR STEEL BUILDING SYSTEM 38.4-32.
  - DESIGN BUILDING WALLS AND ROOF TO ALLOW FOR THERMAL MOVEMENT OF COMPONENT MATERIALS CAUSED BY AMBIENT TEMPERATURE RANGE OF 80 °C WITHOUT CAUSING BUCKLING, FAILURE OF JOINT SEALS, UNDUE STRESS OF FASTENERS OR OTHER DETRIMENTAL EFFECTS.
  - BUILDING SHALL BE WEATHERTIGHT IN ACCORDANCE WITH PART 5, NBC 1985.
  - PROVIDE FOR POSITIVE DRAINAGE OF CONDENSATION OCCURRING WITHIN ALL CONSTRUCTION AND WATER ENTERING AT JOINTS, TO EXTERIOR FACE OF WALL IN ACCORDANCE WITH NBC "RAIN SCREEN PRINCIPLES".
  - CONTROL AIR LEAKAGE AND VAPOR DIFFUSION IN ACCORDANCE WITH NBC 1985 PART 5, COMPONENTS SUCH AS DOOR FRAMES, MECHANICAL VENTS AND LOUVERS, PIPE PENETRATIONS AND CONCRETE BASE.

- GENERAL**
- DO NOT SCALE DRAWINGS.
  - CONTRACTOR IS TO VERIFY ALL DIMENSIONS SHOWN PRIOR TO COMMENCING CONSTRUCTION.
  - IT IS CONTRACTOR'S RESPONSIBILITY TO VERIFY HEIGHT AND LOCATION OF ALL MECHANICAL EQUIPMENT ON STRUCTURE AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO CONSTRUCTION.
  - IF OTHER THAN THE BUILDING SPECIFIED IS APPROVED AND USED, THE CONTRACTOR SHALL MAKE ALL NECESSARY CHANGES TO ASSOCIATED WORK INCLUDING FOUNDATIONS WITHOUT ADDITIONAL COST TO THE OWNER.
  - DUE TO THE CLOSE PROXIMITY OF GAS, WATER AND SEWER LINES, SPECIAL CARE SHALL BE TAKEN TO PROTECT THESE EXISTING STRUCTURES. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE EXACT LOCATIONS OF THESE ITEMS AND PROTECT THEM AT ALL TIMES DURING CONSTRUCTION.
  - STRUCTURAL DRAWINGS SHOWING THE COMPLETED STRUCTURE DO NOT INDICATE COMPONENTS WHICH MAY BE NECESSARY FOR SAFETY DURING CONSTRUCTION.

- EARTHWORK**
- EXCAVATE AS REQUIRED AND REMOVE FROM SITE MATERIALS NOT REQUIRED FOR BACKFILL OR GRADING.
  - BACKFILL WITH MATERIALS INDICATED ON DRAWINGS.
  - COMPACTION (STANDARD PROCTOR DRY DENSITY %)  
1. SUBGRADE: 95%  
2. WALLS, BEAMS, ETC.: 98%  
4. GRADE AND FILL SITE TO ELEVATION SHOWN ALLOWING FOR TOPSOIL, PLANTING OR PAVEMENTS.
  - FILL IN 200 mm LIFT (LOOSE) AND COMPACT EACH LIFT TO REQUIRED DENSITY.

- FOUNDATIONS**
- THE FOUNDATION CONTRACTOR SHALL SATISFY HIMSELF AS TO PREVAILING CONDITIONS AT SITE PRIOR TO SUBMITTING BID. NO EXTRAS SHALL BE GRANTED SHOULD ACTUAL SITE CONDITIONS DIFFER FROM THOSE INDICATED.
  - ALL FRICTION PILES ARE DESIGNED ON BASIS OF 14.4 kPa SKIN FRICTION.
  - EFFECTIVE LENGTH OF FRICTION PILE IS LENGTH SHOWN ON DRAWINGS MINUS 3000 mm.
  - PILE REINFORCING TO BE 5-10 M X 6000 mm LONG; 10 M RINGS AT 1200 mm ON CENTRE. (4-10 M RINGS AT 150 mm ON CENTRE AT TOP.) EXTEND VERTICAL REINFORCING 460 mm INTO BEAMS.

- CAST-IN-PLACE CONCRETE**
- ALL CONCRETE TO BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH LATEST EDITION OF CSA A23.1 AND CSA A23.2.
  - CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE ON DRAWINGS.

- PILES:** TYPE 50 CEMENT/WATER/CEMENT RATIO 0.45;  
SLUMP MINIMUM 125 mm;  
AGGREGATE MAXIMUM 40 mm;  
ENTRAINED AIR 4-7%  
**WALLS AND GRADE BEAMS:** 30 MPa;  
SLUMP MAX. 90 mm;  
AGGREGATE MAX. 20 mm;  
ENTRAINED AIR 4-6%  
**STRUCTURAL SLABS:** 30 MPa;  
SLUMP MAX. 90 mm;  
AGGREGATE MAX. 20 mm;  
ENTRAINED AIR 4-6%

3. AIR ENTRAINING ADMIXTURES SHALL CONFORM TO REQUIREMENTS OF CSA A266.4.

- REINFORCING STEEL**
- ALL REINFORCING STEEL TO BE CSA G30.12 M 400 MPa DEFORMED BARS EXCEPT STIRRUPS WHICH MAY BE 300 MPa GRADE STEEL. ALL REINFORCING TO BE DETAILED IN ACCORDANCE WITH LATEST EDITION OF ACI DETAILING MANUAL, UNLESS OTHERWISE NOTED.
  - REINFORCING STEEL COVER TO CONFORM TO LATEST EDITION OF CSA A23.3 AND AS FOLLOWS:  
SLABS: 25 mm  
GRADE BEAMS: 50 mm; SURFACE POURED AGAINST GROUND 75 mm  
REINFORCEMENT IN CONCRETE BEAMS SHALL BE CONTINUOUS AROUND CORNERS. BOTTOM STEEL IN CONCRETE BEAMS TO BE BUTT SPLICED OVER SUPPORT, TOP STEEL TO BE LAPPED AT CENTRE SPAN.  
ALL REINFORCING TO BE HELD IN PLACE AND TIED WITH PROPER ACCESSORIES, SUCH AS HI-CHAIRS AND SPACERS. THE REINFORCING STEEL FABRICATOR SHALL SUPPLY AND DETAIL ALL ACCESSORIES. HI-CHAIRS TO HAVE 4 LEGS AND TO BE STAPLED OR WAILED TO THE FORMWORK.  
5. ALL OPENINGS THROUGH CAST-IN-PLACE CONCRETE TO BE TRIMMED WITH 2-15 M AROUND BOTH FACES UNLESS NOTED OTHERWISE.  
6. FOR ALL STRUCTURAL SLABS A MINIMUM OF 50% OF BOTTOM STEEL SHALL BE CONTINUED AT LEAST 150 mm INTO SUPPORT. IF KEYS ARE USED BETWEEN SLABS AND WALL BOTTOM DOWELS AT LEAST EQUAL TO BOTTOM REINFORCEMENT SHALL BE PROVIDED OR 10 M AT 300 mm O.C. WHICHEVER IS GREATER.  
7. ALL REINFORCEMENT SHALL BE FREE OF LOOSE RUST, MUD, OIL OR OTHER COATINGS THAT WOULD REDUCE THE CONCRETE BOND.

- FORMWORK**
- 150 mm SHEARMAT SHALL BE USED AS BOTTOM FORM FOR STRUCTURAL SLABS AT GRADE. ACCESSORIES SUCH AS HI-CHAIRS, SPACERS, ETC. SHALL BE SUPPORTED USING PADS OF PLYWOOD OR TEMPERED FIBREBOARD TO PREVENT PUNCTURING SHEARMAT. 150 mm SHEARMAT SHALL BE PROVIDED UNDER ALL GRADE BEAMS IN CONTACT WITH SOIL.
  - ALL CONSTRUCTION JOINTS TO HAVE KEY OF MINIMUM OF 40 mm DEEP.
  - PLACE 0.15 mm POLYETHYLENE UNDER ALL SLABS ON FILL.

- ROUGH CARPENTRY**
- WALL STUDS AND PLATES TO BE GROUP D #2 OR BETTER, (SPF). ALL WOOD TO BE KILN DRIED.
  - BOTTOM PLATE AT MAIN FLOOR TO BE BOLTED TO FOUNDATION WITH MINIMUM OF 13 mm DIAMETER BOLTS X 200 mm LONG SPACED AT 1200 mm O.C. MAXIMUM, (2 PER WALL MINIMUM).
  - NAILING PATTERNS AND LENGTHS TO CONFORM TO REQUIREMENTS OF PART 9 OF NATIONAL BUILDING CODE OF CANADA.

- ARCHITECTURAL WOODWORK**
- DO WORK TO AMMAC, CUSTOM GRADE.
  - MATERIAL: DOUGLAS FIR PLYWOOD, SANDED, PAINT GRADE, G2S.

- RIGID INSULATION**
- MATERIAL: STYROFOAM SM OR APPROVED EQUAL.
  - INSTALL TO MAINTAIN CONTINUITY OF THERMAL BARRIER, FIT TIGHT TO PENETRATIONS, SEAL JOINTS AND JOINTS.
  - INSULATION ON GRADE: LAY ON LEVEL, EVEN SUB-GRADE, SLOPE AWAY FROM BUILDING.

- BATT INSULATION**
- MATERIAL: FIBREGLASS, FRICTION FIT, UNFACED, RSI = 2.1.
  - VAPOUR BARRIER: .15 mm POLYETHYLENE. TAPE SEAL ALL JOINTS AND JOINTS.
  - INSTALL INSULATION TO MAINTAIN CONTINUITY OF THERMAL BARRIER, FIT TIGHT TO PENETRATIONS, DO NOT COMPRESS.
  - INSTALL VAPOUR BARRIER ON WARM SIDE OF INSULATION COMPLETELY SEAL BY TAPING JOINTS AND PATCHING TEARS AND PENETRATIONS.

- WINDOWS**
- EXTERIOR: METAL FRAMES, WITH SINGLE GLAZING UNITS. COVER WITH GALVANIZED, FLATENED 1.9 mm THICK EXPANDED STEEL MESH, WITH 25 mm WIDE X 70 mm LONG OPENINGS.

- DRYWALL**
- MATERIAL: CSA A82-27, PLAIN, SQUARE CUT ENDS, TAPERED EDGES, PAPER FACED, 16 mm THICK, TYPE "X".
  - INSTALL HORIZONTALLY IN WALLS.
  - SCREW SPACING: 175mm O/C IN CEILING, 200 mm O/C IN WALLS. SCREW 40 mm LONG DRYWALL SCREWS.
  - TAPE AND FILL JOINTS, FILL SCREW HEAD, TO PROVIDE SMOOTH FINISHED SURFACE.

## RECORD DRAWING

P-3038-64

**LOCATION APPROVED UNDERGROUND STRUCTURES**

DATE: 10/10/12

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.

**REVISIONS**

NO.	REVISIONS	DATE	BY
1	REV. TO RECORD DWG.	Jan. 91	RN

**UMA Engineering Ltd.**  
Engineers & Planners  
1479 Buffalo Place, Winnipeg, Manitoba, Canada R3T 1L7

DESIGNED BY: D. TOWELLS  
CHECKED BY: K.R.D.  
DRAWN BY: J.R.C.  
APPROVED BY: [Signature]  
HORIZ. SCALE: AS NOTED  
VERTICAL: AS NOTED  
AUTHORIZED BY: [Signature]  
DATE: 10/10/12  
BRIDGE ENGINEER

**ENGINEER'S SEAL**  
PROVINCE OF MANITOBA  
D.B. TOWELLS  
REGISTERED PROFESSIONAL ENGINEER  
CONSULTANT DRAWING NO. 41 09 0265 240 07

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

BISHOP GRANDIN BLVD. EXTENSION  
WAVERLEY STREET TO RED RIVER  
ROADWORKS PART - B

PARKS BUILDING  
BUILDING DETAILS

CITY DRAWING NUMBER  
U230-90-R188

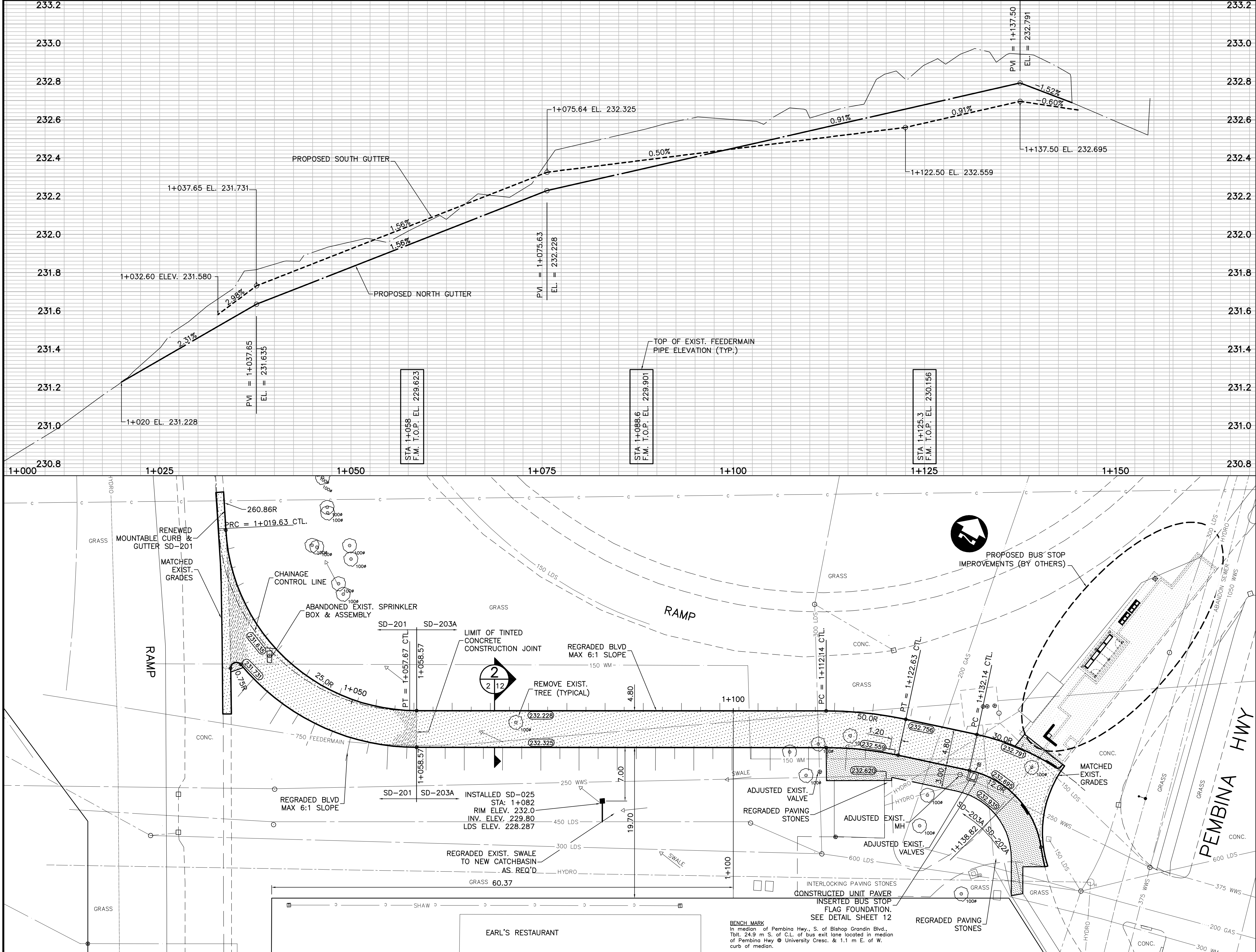
65

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





## 66



- NOTES:
1. BASELINE = CHAINAGE CONTROL LINE (CTL.) AS SHOWN ON DRAWING. STA 1+100 = 30.37 m EAST OF NORTHWEST CORNER OF EARL'S RESTAURANT PROPERTY.
  2. JOINT CONCRETE PAVEMENT AS DIRECTED BY CONTRACT ADMINISTRATOR.
  3. CONCRETE PAVEMENT TO BE TINTED RED TO LIMITS SHOWN.
  4. CLEAR AND GRUB TREES AS DIRECTED BY CONTRACT ADMINISTRATOR.
  5. CONTRACTOR TO REVIEW AND COMPLY WITH OPERATING CONSTRAINTS FOR WORK WITHIN 5 m OF CENTERLINE OF THE 750 FEEDERMAIN DETAILED IN BID OPPORTUNITY SPECIFICATIONS.
  6. CONTRACTOR TO REVIEW LOADING LIMIT OVER THE 750 mm FEEDERMAIN IN APPENDIX A OF THE BID OPPORTUNITY SPECIFICATIONS

RECORD DRAWING

ORIGINAL SIGNED BY: DAVID WIEBE  
APPROVED BY: JAN 22/08  
DATE:

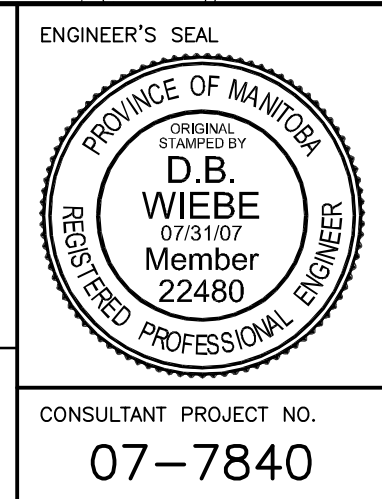
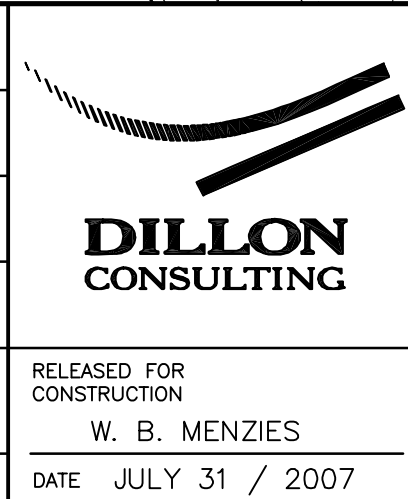
150 mm W.M.	WATER MAIN	150 mm W.M.	HYDRO	150 mm W.M.	WATER MAIN	150 mm W.M.
HYDRANT	HYDRANT	HYDRANT	M.T.S.	HYDRANT	HYDRANT	HYDRANT
VALVE	VALVE	VALVE	CONCRETE	VALVE	VALVE	VALVE
LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	ASPHALT	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER
WASTE WATER SEWER	WASTE WATER SEWER	WASTE WATER SEWER	PLANING	WASTE WATER SEWER	WASTE WATER SEWER	WASTE WATER SEWER
MANHOLE	MANHOLE	MANHOLE	SIDEWALK	MANHOLE	MANHOLE	MANHOLE
CATCH BASIN	CATCH BASIN	CATCH BASIN	PAVING STONES	CATCH BASIN	CATCH BASIN	CATCH BASIN
CURB INLET	CURB INLET	CURB INLET	PARTIAL DEPTH REPAIR	CURB INLET	CURB INLET	CURB INLET
JUNCTIONS	JUNCTIONS	JUNCTIONS	PROPERTY LINE	JUNCTIONS	JUNCTIONS	JUNCTIONS
CULVERT	CULVERT	CULVERT	SURVEY BAR	CULVERT	CULVERT	CULVERT
GAS	GAS	GAS	PARAPLEGIC RAMP	GAS	GAS	GAS
EXISTING	LEGEND-PLAN	PROPOSED	LEGEND-PLAN	PROPOSED	LEGEND-PROFILE	PROPOSED

UNDERGROUND STRUCTURES  
ORIGINAL SIGNED BY:  
JIM HORNE AUG 27/07 FOR  
SUPPLY, U/G STRUCTURES  
COMMITTEE

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.	76-074 233.165
DESIGNED BY	R.T.P.
DRAWN BY	P.M.W./A.J.P.
CHECKED BY	D.B.W.
APPROVED BY	
HOR. SCALE	1:250
VERTICAL	1:10
RELEASED FOR CONSTRUCTION	W. B. MENZIES
DATE	JULY 31 / 2007
CONSULTANT PROJECT NO.	07-7840

DESIGNED BY	R.T.P.
DRAWN BY	P.M.W./A.J.P.
CHECKED BY	D.B.W.
APPROVED BY	
HOR. SCALE	1:250
VERTICAL	1:10
RELEASED FOR CONSTRUCTION	W. B. MENZIES
DATE	JULY 31 / 2007
CONSULTANT PROJECT NO.	07-7840



**THE CITY OF WINNIPEG**  
TRANSIT DEPARTMENT

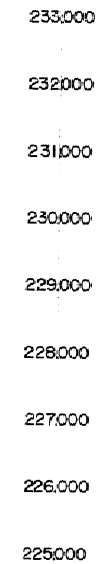
ON STREET TRANSIT  
PRIORITY IMPROVEMENTS - PHASE 1

PEMBINA CORRIDOR  
PEMBINA HWY @  
BISHOP GRANDIN BLVD E/B OFF RAMP

CITY DRAWING NUMBER

SHEET 2 OF 14





**NOTE**  
CHAINAGE RUNS PERPENDICULAR  
TO PUBLIC STREET NO. 1

CONNECTED TO EXISTING PLUGGED  
WWS & LDS, AND VALVED WM. AT  
PROPERTY LINE

HARAMBEE HOUSING CO-OP LTD  
SITE SERVICES BY OTHERS

EMERGENCY ACCESS AND  
DRIVE OVER BOLLARDS  
INSTALLED BY OTHERS

SEE DRAWING NO.  
91-041-01-4

**LOCATION APPROVED**  
**UNDERGROUND STRUCTURES**

SUPV U/G STRUCTURES \_\_\_\_\_ DATE \_\_\_\_\_  
 COMMITTEE \_\_\_\_\_

**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	76-016.
ELEV	233.337

2	INFORMATIC
1	REVISED T

**GA PRATT** & ASSOCIATES INC.  
ENGINEERING CONSULTANTS

DESIGNED BY	GAP	CHECKED BY	GAP
DRAWN BY	KS	APPROVED BY	
HOR SCALE	1:500	RELEASED FOR	CONSTRUCTION
VERTICAL	1:50		

EE:W GIMMER, RD 5. SEAL

[illegible]

**THE CITY OF WINNIPEG**  
**WORKS AND OPERATIONS DIVISION**  
OPERATIONS DEPARTMENT - DISTRICT NO. 6

HARAMBEE HOUSING CO-OP LTD

LDS &amp; WWS SERVICES

PUBLIC STREET NO. 1 (135m NORTH OF  
CHANCELLOR DRIVE ) TO PEMBINA  
HIGHWAY

CITY DRAWING NUMBER
SHEET OF

AG 406 / 90

## MATERIAL LIST

WATER PIPE	PVC C-900 SCEPTER EMCO
LDS PIPE	CONCRETE SUPERCRETE
WWS PIPE	SDR 35 SCEPTER EMCO
HYDRANTS	McAVITY
VALVES	McAVITY-COUNTER CLOCKWISE TO OPEN
VALVE BOX	WDVB
CAST IRON FITTINGS	McAVITY
MANHOLES	CONCRETE SUPERCRETE

65-2786

SECRET

150 mm W.M.	WATERMAIN	150 mm W.M.	HYDRO	150 mm W.M.	WATERMAIN	150 mm W.M.	WATERMAIN	150 mm W.M.	WATERMAIN
	HYDRANT		M.T.S.		HYDRANT		HYDRANT		HYDRANT
	VALVE		CONCRETE		VALVE		VALVE		VALVE
300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.	ASPHALT	300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.	LAND DRAINAGE SEWER
250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.	PROPERTY LINE	250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.	WASTE WATER SEWER
	MANHOLE		SURVEY BAR		MANHOLE		MANHOLE		MANHOLE
	CATCH BASIN		PULL PIT		CATCH BASIN		CATCH BASIN		CATCH BASIN
	CURB INLET		SIGN		CURB INLET		CURB INLET		CURB INLET
	TURF STONE		LIGHT STANDARD		TURF STONE		TURF STONE		TURF STONE
	CULVERT		DRIVE OVER BOLLARD		CULVERT		CULVERT		CULVERT
	GAS		DITCH		GAS		GAS		GAS
EXISTING	LEGEND-PLAN	PROPOSED	LEGEND-PLAN	PROPOSED	EXISTING	PROPOSED	LEGEND-PROFILE	PROPOSED	LEGEND-PROFILE

24w

	S Scale						
1970-2000	50	100	150	200	250	300	350
1950-0	5	10	15	20	25	30	35