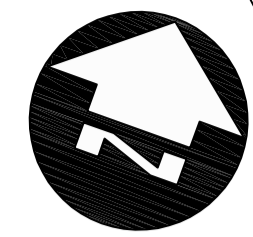


Curve	Radius	Delta	T.C.	L.	L.C.
C1	40.0	29°59'20"	10.714	20.936	20.698
C2	16.0	29°49'43"	4.262	8.330	8.236
C3	32.0	30°24'05"	8.695	16.979	16.781
C4	40.0	26°09'57"	9.296	18.267	18.109
C5	16.0	29°17'16"	4.181	8.179	8.090
C6	32.0	30°24'06"	8.695	16.979	16.781
C7	40.0	36°53'43"	13.343	25.758	25.315
C8	17.0	10°55'37"	1.626	3.242	3.237
C9	35.0	42°21'47"	13.563	25.878	25.293
C10	40.0	38°26'16"	13.944	26.835	26.334
C11	17.0	9°29'55"	1.412	2.818	2.815
C12	35.0	42°35'23"	13.642	26.017	25.422
C13	0.5	173°06'27"	8.303	1.511	0.998
C14	1.0	77°48'44"	0.807	1.358	1.256
C15	0.5	125°05'36"	0.962	1.092	0.887
C16	32.3	16°00'48"	4.543	9.027	8.998
C17	0.5	171°34'48"	6.793	1.497	0.997
C18	1.0	64°16'41"	0.628	1.122	1.064
C19	0.5	130°26'51"	1.083	1.138	0.906
C20	50.3	6°18'14"	2.770	5.534	5.531
C21	0.5	121°21'24"	0.890	1.059	0.872
C22	50.3	4°16'54"	1.880	3.759	3.758
C23	0.5	174°01'14"	9.574	1.519	0.999
C24	50.0	12°14'22"	5.361	10.681	10.661
C25	1.0	81°08'42"	0.856	1.416	1.301
C26	0.5	174°42'30"	10.820	1.525	0.999
C27	50.3	11°01'29"	4.854	9.679	9.664
C28	0.5	122°22'25"	0.909	1.068	0.876
C29	1.0	84°41'40"	0.911	1.478	1.347
C30	50.0	10°45'05"	4.705	9.382	9.369



**ROUNDABOUT CONSTRUCTION NOTES:**

- CONTRACTOR SHALL TAKE PRECAUTIONARY STEPS TO AVOID DAMAGE FROM CONSTRUCTION ACTIVITIES TO EXISTING BOULEVARDS AND TREES WITHIN THE LIMITS OF CONSTRUCTION.
- LOCATION OF EXISTING SERVICES ARE TO BE CONFIRMED IN THE FIELD BY THE CONTRACTOR.
- TIE-INS TO BE VERIFIED IN THE FIELD BY THE CONTRACT ADMINISTRATOR.
- LIMITS OF SIDEWALK RENEWALS TO BE FINALIZED IN THE FIELD BY THE CONTRACT ADMINISTRATOR.
- BOULEVARD REPLACEMENT TO BE FINALIZED IN THE FIELD BY THE CONTRACT ADMINISTRATOR.
- PRIVATE WALKS FROM SIDEWALK TO CURB WITHIN CONSTRUCTION AREA TO BE REMOVED.
- WATER VALVES AND MANHOLES WITHIN CONCRETE PAVEMENT RECONSTRUCTION TO BE ADJUSTED.

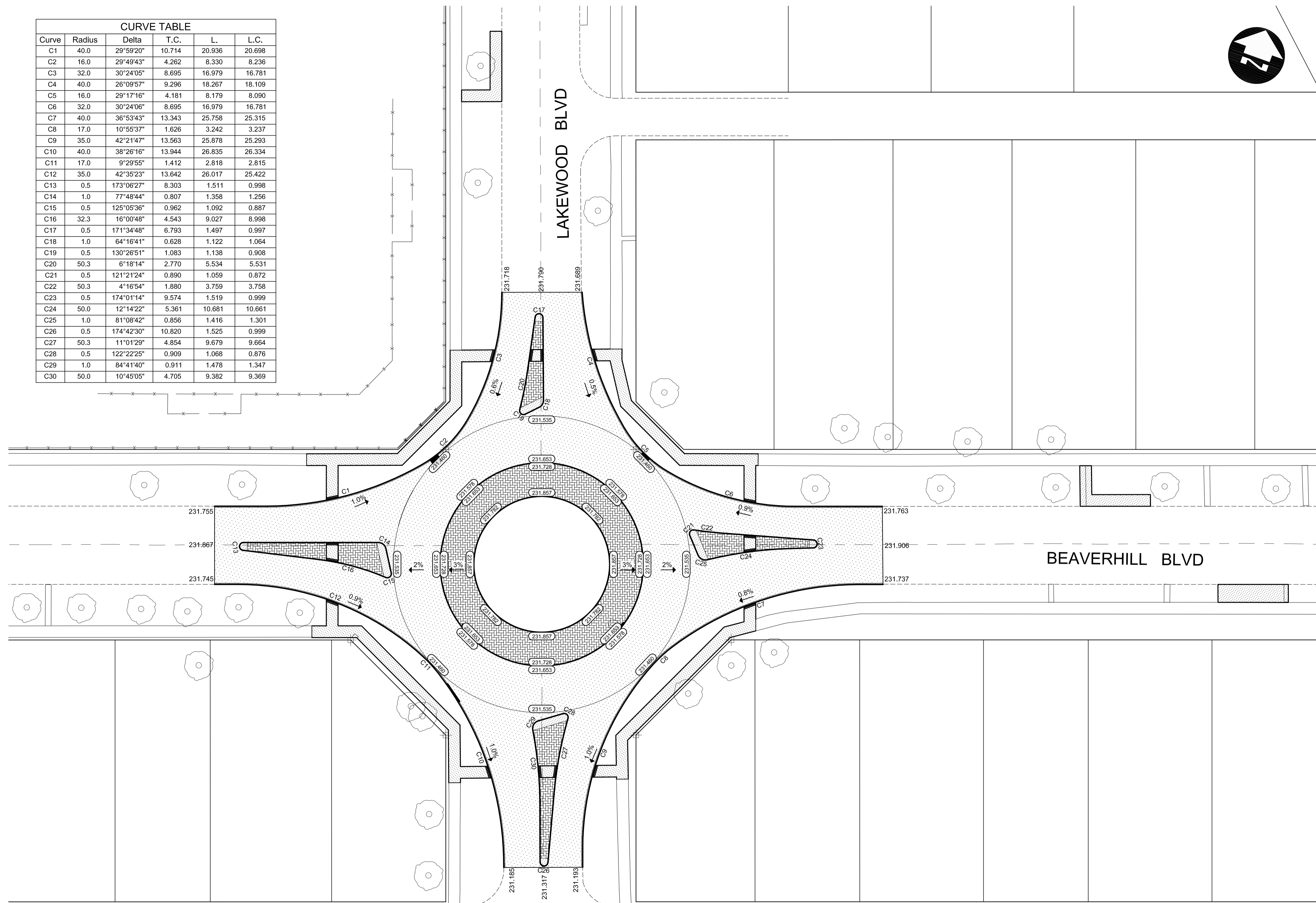
**METRIC**

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**WARNING**

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.



BENCH MARK  
EAST SIDE LAKEWOOD BLVD. N. OF BISHOP GRANDIN BLVD. TBLT IN CENTRE OF N. SIDE OF CONC. HEAD WALL OF BRIDGE OVER NAVIN DRAIN & LAKEWOOD BLVD., 0.2M BELOW TOP OF HEAD WALL

**APEGM**  
Certificate of Authorization  
**Dillon Consulting Limited (MB)**  
No. 1789 Date: \_\_\_\_\_

G:\CAD\081175\Contract\Current\Roadway\081175-ROUNDABOUT-GRADING.dwg

150 WM	150 WM	HYDRO	HYDRO	HYDRO	150 mm W.M.	WATERMAIN	150 mm W.M.
HYDRANT	HYDRANT	MTS	MTS	MTS	+	HYDRANT	+
VALVE	VALVE				+	VALVE	+
300 LDS LAND DRAINAGE SEWER	300 LDS				300 mm L.D.S.	LAND DRAINAGE SEWER	300 mm L.D.S.
250 WWS WASTE WATER SEWER	250 WWS				250 mm W.W.S.	WASTE WATER SEWER	250 mm W.W.S.
MANHOLE	MANHOLE					MANHOLE	
CATCH BASIN	CATCH BASIN					CATCH BASIN	
CURB INLET	CURB INLET					CURB INLET	
JUNCTIONS	JUNCTIONS					JUNCTIONS	
CULVERT	CULVERT					CULVERT	
100 GAS	100 GAS					100 GAS	
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE

UNDERGROUND STRUCTURES  
SUPPLY, 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	DATE	BY
	3	ISSUED FOR TENDER	04-29-09	TJH
	2	ISSUED FOR REVIEW	03-20-09	TJH
	1	ISSUED FOR 50% REVIEW	03-05-09	TJH

DESIGNED BY: TJP  
DRAWN BY: TJH  
CHECKED BY: DBW  
APPROVED BY: DPK  
HOR. SCALE: 1 : 250  
VERTICAL

**DILLON CONSULTING**

ENGINEER'S SEAL  
PROVINCE OF MANITOBA  
REGISTERED PROFESSIONAL ENGINEER  
T.J. PETERS  
04/29/09  
Member 22309  
CONSULTANT PROJECT NUMBER  
08-1175

**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT  
Winnipeg  
BISHOP GRANDIN BLVD - EASTBOUND  
LAKEWOOD TO LAGIMODIERE  
ROUNDABOUT CONSTRUCTION - GRADING  
CITY DRAWING NUMBER  
P-3300-24  
SHEET 24 OF 27  
CONSULTANT DRAWING NUMBER