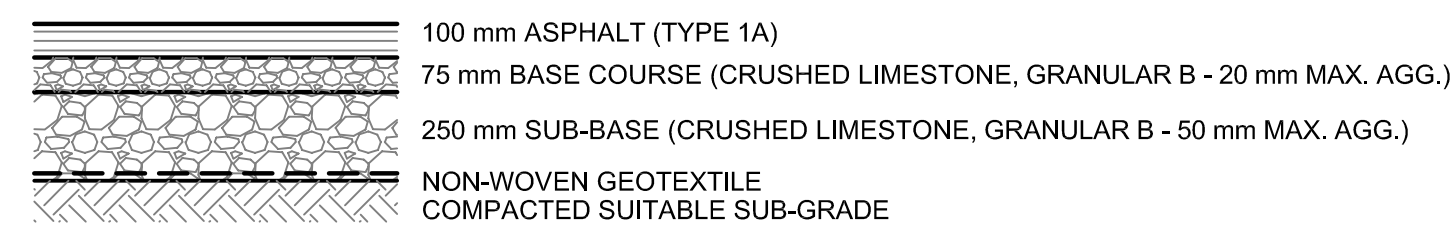


NOTE:
 - REFER TO ARCH. FOR SITE LAYOUT DIMENSIONS
 - REFER TO ARCH. FOR TREE PROTECTION REQUIREMENTS

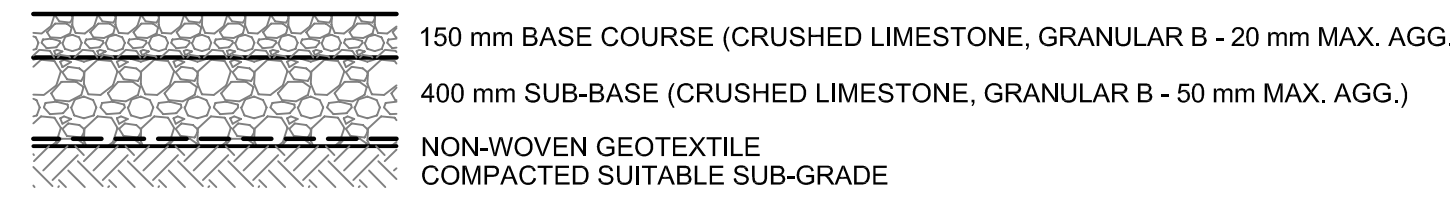
- GENERAL CONSTRUCTION NOTES:**
1. ALL CONSTRUCTION AND MATERIALS INCORPORATED IN THE WORK SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF WINNIPEG "STANDARD CONSTRUCTION SPECIFICATIONS", UNLESS NOTED OTHERWISE.
 2. LOCATIONS OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE, BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE, EXACT LOCATION AND DEPTH OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.
 3. LOCATIONS OF PROPERTY LIMITS AND EXISTING AND/OR PROPOSED FEATURES RELATIVE TO THESE LIMITS AS SHOWN DO NOT REPRESENT A LEGAL SURVEY. SBC INC. MAKES NO REPRESENTATION OR GUARANTEE THAT THE PROPERTY LIMIT INFORMATION SHOWN IS ACCURATE, AND ACCEPTS NO RESPONSIBILITY FOR ANY DAMAGES SUFFERED BY ANY THIRD PARTY AS A RESULT OF DECISIONS OR ACTIONS BASED ON THIS DRAWING.
 4. ALL SURFACES AND ANY EXISTING UTILITIES DAMAGED OR DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER, OR REPLACED, AT THE CONTRACTOR'S EXPENSE.



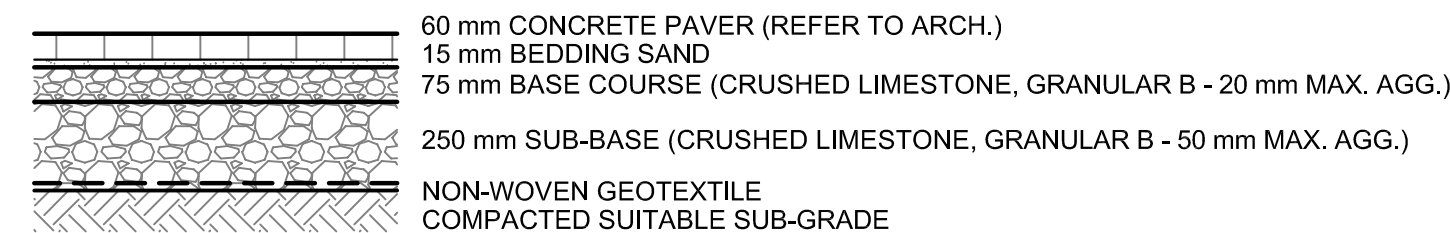
NOTES:
 - BASE COURSE AND SUB-BASE TO EXTEND MIN. 300 mm FROM EDGE OF ASPHALT OR BACK OF CONCRETE CURB

ASPHALT SURFACE STRUCTURE
 N.T.S.

- PAVEMENT STRUCTURE NOTES:**
1. ASPHALT AND GRAVEL STRUCTURES BASED ON GEOTECHNICAL INVESTIGATION REPORT RECOMMENDATIONS COMPLETED BY TREK GEOTECHNICAL, DATED OCTOBER 8, 2021 AND OCTOBER 22, 2021, RESPECTIVELY.
 2. ORGANIC CLAY ENCOUNTERED IN TEST HOLES IS NOT SUITABLE SUB-GRADE MATERIAL AND SHOULD BE REMOVED IN ITS ENTIRETY. REPLACE WITH SUITABLE SUB-GRADE MATERIAL OR ADDITIONAL SUB-BASE MATERIAL. REFER TO GEOTECHNICAL INVESTIGATION REPORT RECOMMENDATIONS COMPLETED BY TREK GEOTECHNICAL (DATED OCTOBER 8, 2021).



GRAVEL SURFACE STRUCTURE
 N.T.S.



NOTES:
 - BASE COURSE AND SUB-BASE TO EXTEND MIN. 300 mm FROM EDGE OF CONCRETE PAVER OR BACK OF CONCRETE CURB

CONCRETE PAVER SURFACE STRUCTURE
 N.T.S.

STORM WATER MANAGEMENT CRITERIA

RUN-OFF FLOWS DETERMINED BY THE RATIONAL FORMULA METHOD
 $Q = 0.278CIA$, WHERE Q = RATE OF RUNOFF (cms)
 C = COEFFICIENT OF RUNOFF
 I = RAINFALL INTENSITY (mm/hr)
 A = DRAINAGE AREA (ha)

TIME OF CONCENTRATION, $T_c = 10$ min
 RAINFALL INTENSITY, $I = 5$ YEAR DESIGN STORM, $I = 109.5$ mm/hr
 $I = 25$ YEAR DESIGN STORM, $I = 154.3$ mm/hr

AREA OF PROPOSED WORK = 2,797 sq.m.

(NOTE: EXISTING DRAINAGE PATTERN SHALL BE MAINTAINED AND ALL RUNOFF SHALL BE DIRECTED TO RED RIVER VIA SURFACE DRAINAGE THROUGH PARK.)

	TOTAL SITE	TOTAL SITE W/ ALTERNATE SURFACE
IMPERVIOUS AREA	1,652 sq.m.	2,282 sq.m.
PERVIOUS AREA	1,145 sq.m.	515 sq.m.
C - PRE-DEVELOPMENT	0.26	0.26
C - POST-DEVELOPMENT	0.66	0.83
Q - 5Y PRE-DEVELOPMENT	0.022 cms	0.022 cms
Q - 5Y POST-DEVELOPMENT	0.057 cms	0.070 cms
Q - 25Y PRE-DEVELOPMENT	0.031 cms	0.031 cms
Q - 25Y POST-DEVELOPMENT	0.080 cms	0.099 cms
Q - 5Y INCREASE	0.035 cms	0.048 cms
Q - 25Y INCREASE	0.049 cms	0.068 cms

SURVEY INFORMATION AS SHOWN PROVIDED BY PHILLIPS & STEVENS AND DATED AUGUST 2021.

1 SITE GRADING PLAN
 C2.1 1:300

METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

150 WM	WATERMAIN	150 WM
250 WWS	WASTEWATER	150 WWS
300 LDS	LAND DRAINAGE SEWER	300 LDS
⊗	HYDRANT ASSEMBLY	⊗
⊗	GATE VALVE	⊗
⊗	CURB STOP	⊗
⊗	REDUCER	⊗
⊗	MANHOLE	⊗
⊗	CATCH BASIN	⊗
⊗	CATCH PIT	⊗
⊗	CLEAN OUT	⊗
⊗	TESTHOLE	⊗
⊗	SURVEY BAR	⊗
⊗	SIGN	⊗
⊗	UTILITY POLE	⊗
⊗	UTILITY PEDESTAL	⊗
---	HYDRO	---
---	GAS	---
---	MTS	---
---	TREE LINE	---
---	CULVERT	---
---	SWALE	---
---	DIRECTION OF FLOW	---
---	GROUND ELEVATION	---
---	DITCH ELEVATION	---
---	ROAD ELEVATION	---
EXISTING	LEGEND	PROPOSED

NO.	DATE	REVISION / ISSUANCE
4	21.12.10	- ADDENDUM REVISIONS
3	21.11.02	- ISSUED FOR CONSTRUCTION
2	21.09.22	- ISSUED FOR 99% REVIEW
1	21.08.20	- ISSUED FOR 66% REVIEW
0	21.07.05	- ISSUED FOR 33% REVIEW

ENGINEERS GEOSCIENTISTS MANITOBA
 Certificate of Authorization
 Sison Blackburn Consulting Inc.
 No. 5581

DRAWING ORIGINALLY SEALED BY:
 R. CABIGTING
 AND DATED:
 NOV. 2, 2021

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Project
ST. VITAL PARK MAINTENANCE FACILITY
 190 RIVER ROAD

Sheet Title
SITE GRADING PLAN

Project No.	20105	Sheet	
Date	21.12.10		

C2.1-R1