

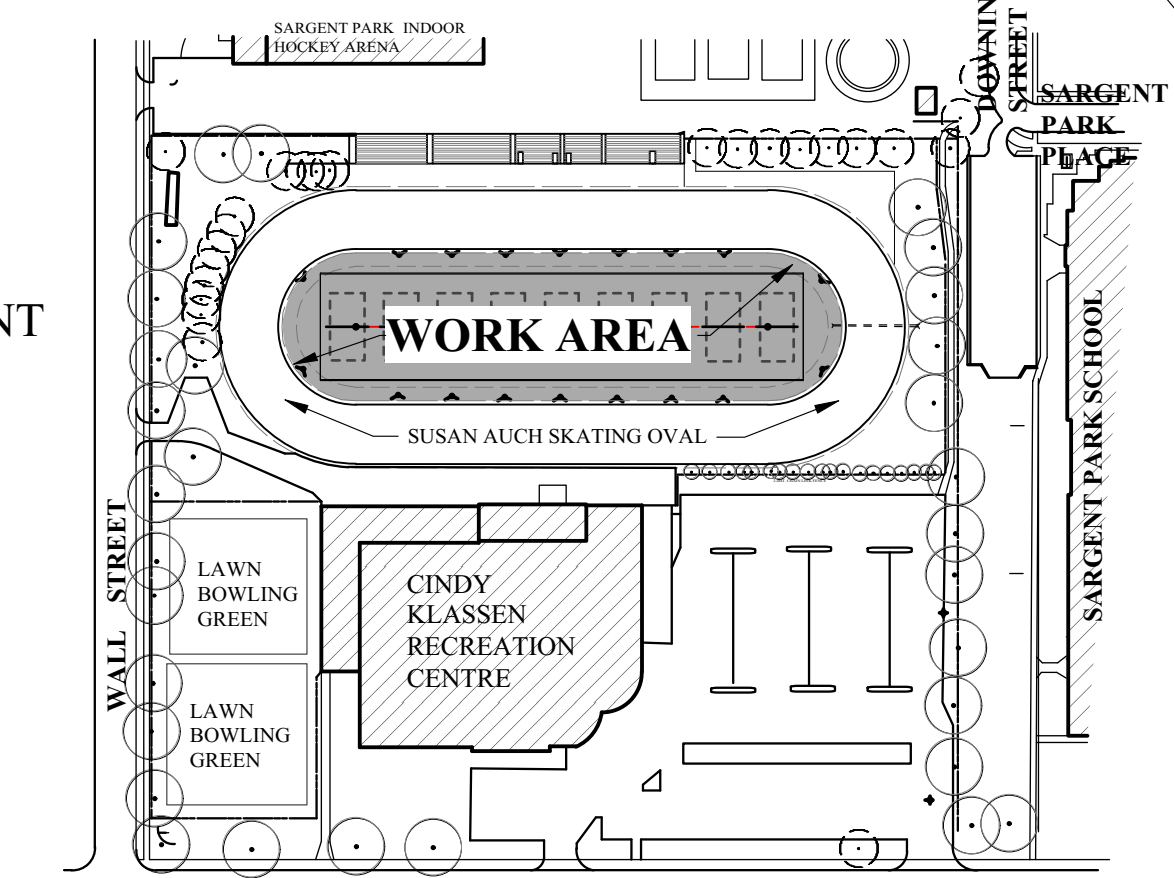
2 GRADING PLAN
Scale: 1:400

GRADING NOTES:

- EXISTING GRADE ELEVATIONS ARE BASED ON SITE SURVEY UNDERTAKEN BY MICHALENKO SURVEYS AND KEN RECH LANDSCAPE ARCHITECTS TAKEN ON NOV. 24, 2015. BASE DRAWING IS BASED ON DRAWINGS FROM THE CITY OF WINNIPEG AND SITE MEASUREMENTS BY KEN RECH. ALL GRADES SHOWN ARE GEODETIC GRADES AND IN METRES AND HUNDRETHS OF A METRE.
- PROTECT 2 SURVEY PINS AND REPLACE 2 RE-BAR RADIUS MARKERS. LOCATE AND PROTECT UNDERGROUND ELECTRICAL AND SPEAKER WIRES, WHICH LOCATION IS SHOWN SCHEMATICALLY. SEE DRAWING 1-1.2 FOR UNDERGROUND WIRING SCHEMATIC LOCATIONS.
- UNLESS NOTED OTHERWISE, ALL NEW GRADES SHALL BE A STRAIGHT LINE FROM ONE GRADE POINT TO ANOTHER.
- ALL LDS SEWERS TO BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS. AUGER IN ALL LINES OPEN TRENCHING IS NOT PERMITTED. PROTECT ADJACENT TREES AND RESTORE GRASS AREAS WITH TOPSOIL AND SOD. OPEN PITS ARE TO BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL TO PREVENT FUTURE SETTLEMENT.
- INSTALL A SECOND WEST WEeping TILE PIPE INTO THE WEST SIDE OF THE NEW CATCH BASIN, MINIMUM 3 METRE LENGTH, TO MAXIMIZE WATER FLOW INTO CATCH BASIN.
- SEE DRAWING L-2 FOR ADDITIONAL DEMOLITION AND GRADING NOTES.

GRADING LEGEND:

- 234.08 NEW GRADE ELEVATION
- × 234.04 EXISTING GRADE ELEVATION
- INV. SAND BOTTOM OF SAND INVERT ELEVATION
- INV. GRANULAR TRENCH
- INDICATES BOTTOM OF GRANULAR TRENCH INVERT ELEVATION
- ⊕ NEW CATCH BASIN
- subgrade 1.36% SLOPE ON SUBGRADE BELOW SAND
- UNDERGROUND GRANULAR TRENCH
- NEW 200 MM DIA. LDS LEAD



1 WORK AREA LOCATION KEY MAP
Scale: 1:2000

LAND DRAINAGE NOTES:

AREAS

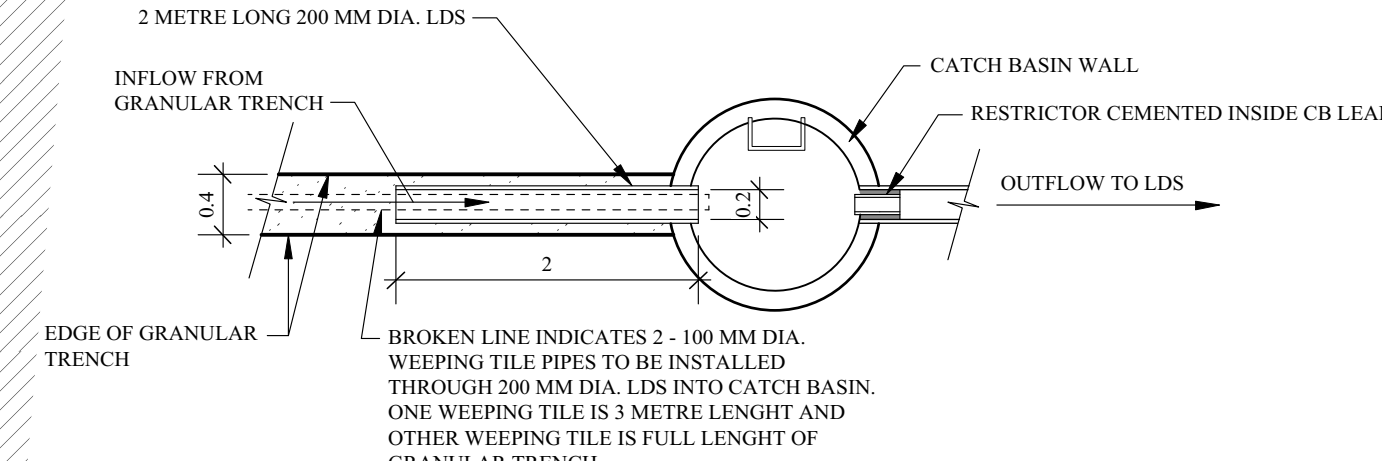
- TOTAL WORK AREA AND DRAINAGE AREA = 1.36 ACRES
- GRASS AREA: 0.48 ACRES
- SAND AREA: 0.88 ACRES
- IMPERVIOUS AREA: 0.00 ACRES

SITE DRAINAGE RESTRICTION

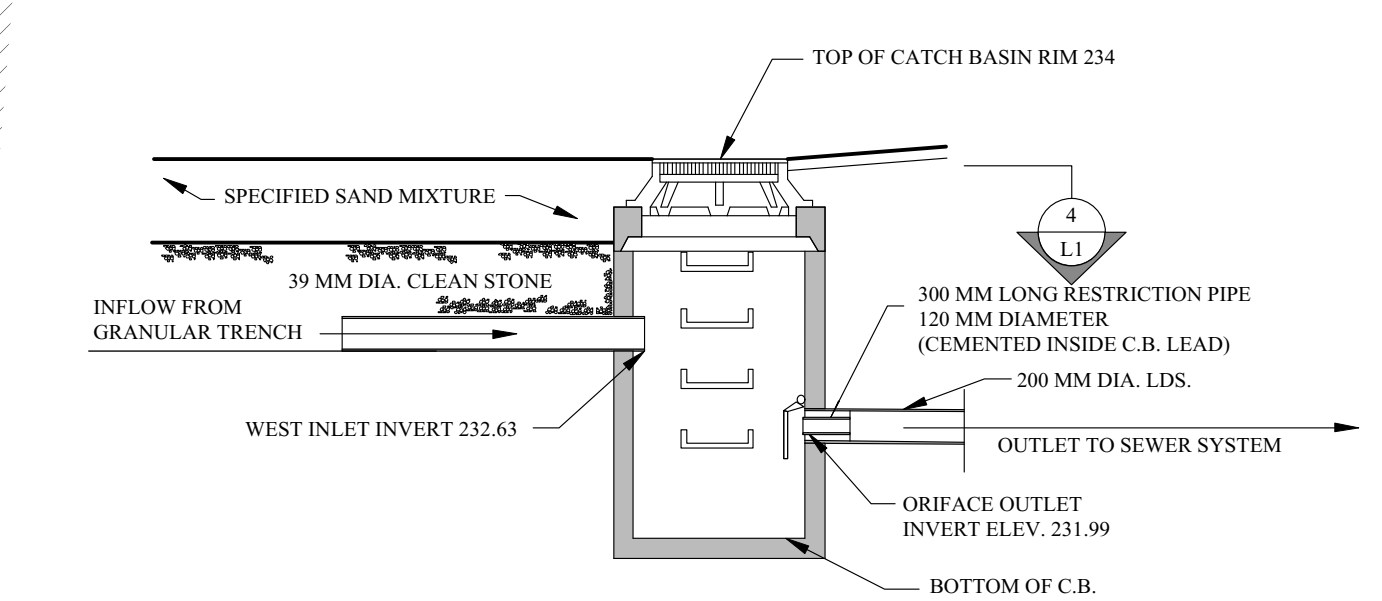
- assigned "C" value for the site 0.25
- runoff restricted to 5 year event and storage on site for 25 year event
- required storage for the 25 year event storm 5,188 cubic feet
- allowable "Q" from site is 1.46 cfs
- assumed void ratio of sand is 0.25. Therefore the volume of void in the sand is based on a depth of 4 m is 12,742 cubic feet
- additional storage of water on top of the sand based on a minimum surrounding shoulder height of 0.75 m is 9,583 cubic feet.
- total water storage of the sand and above sand grade level is 35,067

ORIFICE DESIGN - New Catch Basin No: 1

- Top of water at storage area - 234.00
- $Q = C_d A \sqrt{2gh}$ $C_d = 0.61$ $Q = 0.68$ cfs
- h = Height of water from centre of orifice (6.27 feet)
- Diameter of orifice = 4.67 inches (120 mm)
- Contractor to install a 120 mm pipe gouted inside 200 LDS. See det. "A".

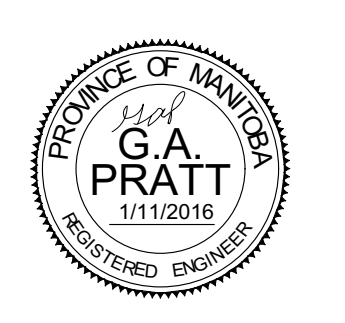


4 CATCH BASIN PLAN VIEW
Scale: 1:50



3 CATCH BASIN DETAIL
Scale: 1:50

APECM
Certificate of Authorization
G. A. Pratt & Associates Inc.
No. 758 Expiry: April 30, 2016



PROJECT TITLE	NO.	REVISIONS	BY	DATE
SARGENT PARK BEACH VOLLEYBALL COURT DEVELOPMENT				
SARGENT AVENUE - WINNIPEG				
DRAWING TITLE	KEN RECH LANDSCAPE ARCHITECTS INC. 1480 Wellington Crescent Winnipeg, Manitoba Email: kenrech@mts.net R3N 0B3 Tel(204) 489-6616			
SITE GRADING PLAN	DRAWN BY K. Rech	SCALE 1:400 metric	DATE Feb. 9, 2016	SHEET NO. 17
	FILE NO. 15-17	REVISION	DATE Jan. 11, 2016	L1