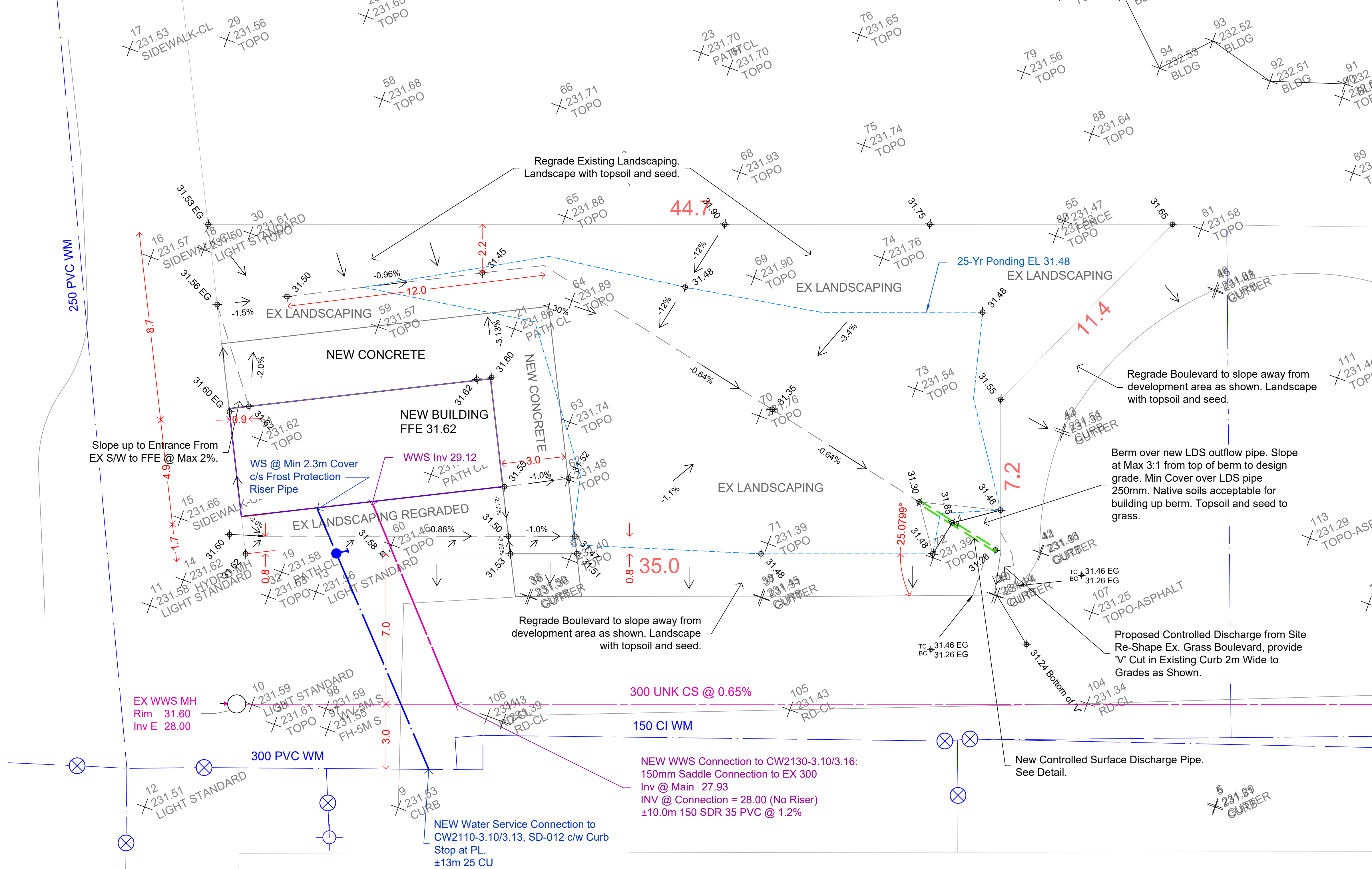




- Construction Specifications**
- All construction to conform to City of Winnipeg, *Standard Construction Specifications* and all references contained herein refer to these specifications. "SD" refers to City of Winnipeg standard details.
 - All materials used for construction must conform to City of Winnipeg, *Approved Products for Underground Use Within the City of Winnipeg* except as indicated otherwise.
- General Design Notes**
- No existing water or wastewater services to the site.
 - Proposed development is non-sprinklered.
 - No sump pits required.
- Service Connections**
- Water Service to CW-2110
 - 25mmØ Copper.
 - WWS & LDS Service
 - To CW2030/2130, Detail SD-014
 - 150mmØ SDR35 PVC
 - Bedding to be Class B according SD-001.
 - Backfill according to SD-002:
 - In paved areas Class 2 or 3.
 - In landscaped areas Class 5.SD-001 Class 'B' Bedding Typical
 - SD-002:
 - Class '5' Backfill in landscaped & untraveled areas
 - Class '2' Backfill in gravel, hard-surfaced & traveled areas
 - Consult Geotechnical Report and geotechnical engineer to confirm the suitability of native soils for backfill.
 - SD-027B for Meter installation
 - Flushing, Disinfection, Chlorination, Sampling & Testing to CW-2125.
- Pre- & Post-Development**
- Gross Site Area: 572 m²
 - See Tables for calculations.
 - This is a combined sewer district. *Clause 8 has been satisfied.*

- General Notes**
- Contractor to obtain all necessary permits.
 - Contractor to obtain clearances from all utilities before excavating. Confirm all existing infrastructure information in field before construction. Notify the Engineer immediately of any discrepancies that affect installation or design.
 - Confirm all dimensions before beginning construction.
 - Consult Geotechnical Report and geotechnical engineer to confirm the suitability of native soils for backfill.
 - Topographic Survey by Dixon & Co. 13 Jan 2021. Elevations are Geodetic using GPS Observations to GCVD28.
 - For abbreviated elevations add 200.00 to obtain geodetic elevations.
 - Existing mains information obtained from City of Winnipeg GIS.



PLAN 1:300
SERVICING & GRADING PLAN

Pre- & Post Development Conditions Table		
Wastewater Estimation	Pre-Dev	Post-Dev
ADWF	0.00 l/s	0.04 l/s
Extraneous	0.00 l/s	0.00 l/s
PDWF	0.00 l/s	0.17 l/s

Land Drainage		
Extraneous Flows	Pre-Dev	Post-Dev
Manholes/CBs	0.00 l/s	0.20 l/s

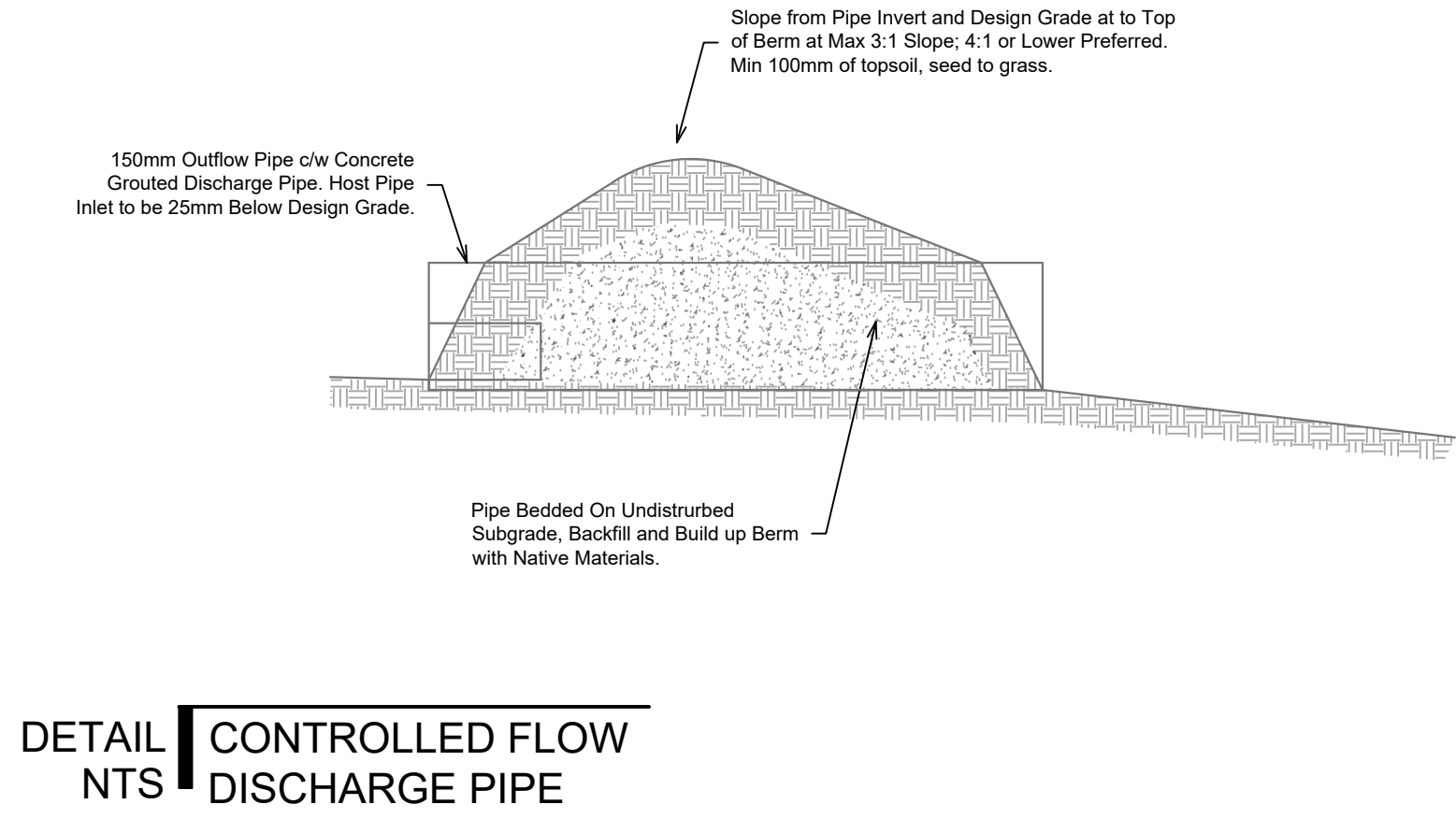
Surface Runoff		
	Pre-Dev	Post-Dev
5-Year Allowable per Isochrone	2.62 l/s	2.62 l/s
Actual Restricted Outflow	2.62 l/s	2.07 l/s

LDS Peak Flow		
	Pre-Dev	Post-Dev
LDS Peak Flow	2.62 l/s	2.27 l/s

Total Site Discharge		
	Pre-Dev	Post-Dev
WWS & LDS Flow Condition	2.62 l/s	2.44 l/s
Clause 8	Combined	Satisfied

WWS Flow Estimation - Post-Development			
Proposed Uses: Public Washroom			
Project Details			
Persons	300	users	
Site Area	0.05790	Ha	
Manholes	0	Each	
Weeping Tile	0	Each	
Wastewater Flow Estimates			
ADWF	0.04	lps	
Extraneous	0.00	lps	
Harmon PF	4.08		
PDWF	0.17	lps	
Design Criteria			
Wastewater Flow	12	l/cu/Day	0.00014 l/user/s
Occupancy	300	User/Day	
Extraneous Flows	4.5	L/MH/Min	0.075 L/Connect/s
Weeping Tile	12	L/MH/Min	0.200 L/MH/s
Groundwater	2200	L/Ha/Day	0.025 L/Ha/s
Sources			
Metcal & Eddy, Wastewater Engineering: Treatment & Resource Recovery			

WWS Flow Estimation - Pre-Development			
Previous Uses: grassed, vacant land.			
Project Details			
Number of Units	0	Site	
Persons	0	Site Area	0.0572
Manholes	0	Weeping Tile	0
Wastewater Flow Estimates			
ADWF	0.00	lps	
Extraneous	0.0015		
Harmon PF	4.50		
PDWF	0.0015		



EX LEGEND PROP

Slope Direction	0.64%
Topo Grade	100
150 WM	Watermain 150 WM
250 WWS	Wastewater Sewer 250 WWS
300 LDS	Land Drainage Sewer 300 LDS
Hydrant	Hydrant
Curb Stop	Curb Stop
Valve	Valve
Manhole	Manhole
Catch Basin	Catch Basin
Ponding Area	Ponding Area

UNITS: Whole numbers are millimetres (mm)
Decimal numbers are metres (m)
Convert Metric to Standard: 1.0m = 3.2808ft
scale

designed: DH
drawn: DH
approved: DH

project code: 21-001
sheet title: Lot Grading & Servicing Plan
As Shown



ENGINEERS
GEOSCIENTISTS
MARTHOVA
Certificate of Authorization
7078788 Manitoba Inc.
of a Sandbox Design & Consulting
No. 7281

R4 24 FEB 21
CONSTRUCTION
R3 27 JAN 21
CONSTRUCTION
R2 23 JAN 21
CONSTRUCTION
R1 20 JAN 21
FOR REVIEW