

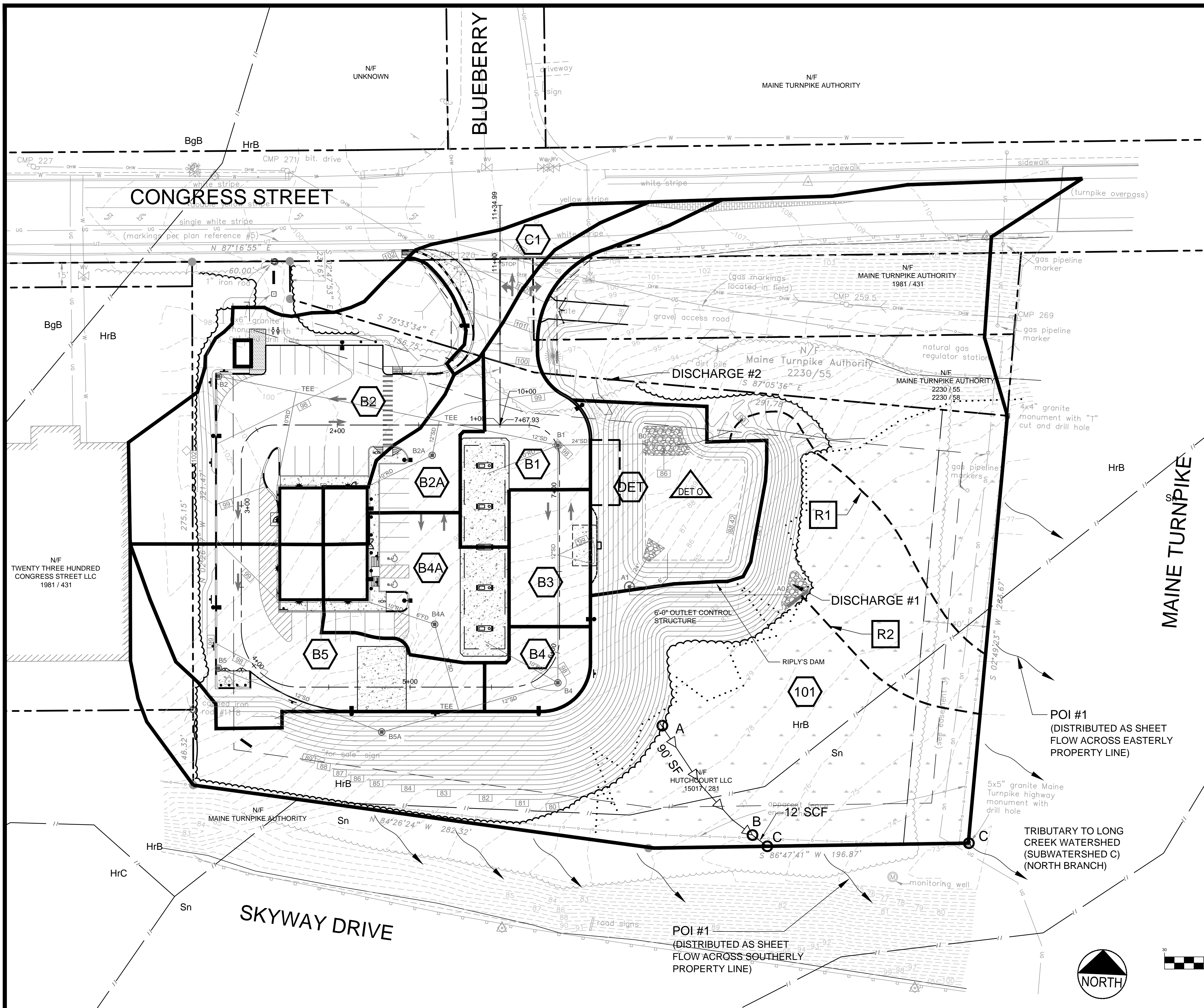
Stormwater Quality Treatment Computation Sheet
Grassed Underdrain Filter - Updated September 4, 2014

Area Tributary to the WQ Treatment Area							
Subcatchment ID	Pervious Area	Impervious Area	Total Area	Onsite Impervious Area	Onsite Developed Area	Offsite Developed Area	Total Adjusted Developed Area
B1	0	8,879	8,879	7,536	7,536	1,343	8,342
B2	9,909	12,204	22,113	12,204	17,346	4,767	18,776
B3	0	4,242	4,242	4,242	4,242	0	4,242
B2A	0	4,562	4,562	4,562	4,562	0	4,562
B4	0	2,843	2,843	2,843	2,843	0	2,843
B4A	266	8,238	8,504	8,238	8,504	0	8,504
B5	4,428	9,780	14,208	9,780	12,403	1,805	12,945
Sub Total (B Series)	14,603	50,748	65,351	49,405	57,436	7,915	60,213
Sub Total (B Series)	0.34	1.17	1.50	1.13	1.32	0.18	1.38
C1	0	4,401	4,401	2,279	2,279	2,122	4,189
Sub Total (C Series)	0	4,401	4,401	2,279	2,279	2,122	4,189
Sub Total (C Series)	0.00	0.10	0.10	0.05	0.05	0.05	0.10
DET (SF)	10,851	0	10,851	0	10,851	0	10,851
DET (AC)	0.25	0.00	0.25	0.00	0.25	0.00	0.25
Treatment Area Total (SF)	25,454	55,149	80,603	51,684	70,566	10,037	75,253
Treatment Area Total (AC)	0.58	1.27	1.85	1.19	1.62	0.23	1.73

Untreated Site Area					
Subcatchment ID	Pervious Area	Impervious Area	Total Area	Onsite Impervious Area	Onsite Developed Area
101	98,466	8,201	106,667	0	22,869
UnTreated Area Total (SF)	98,466	8,201	106,667	0	22,869
UnTreated Area Total (AC)	2.26	0.19	2.45	0.00	0.53
Totals (SF)	N/A	N/A	N/A	51,684	93,435
Totals (AC)	N/A	N/A	N/A	1.19	2.14

Stormwater Quality Treatment Calculations			
Percent of Impervious Area Treated		106.70%	≥ 95% Required
Total Adjusted Developed Area Treated	Total Onsite Developed Area	80.73%	≥ 80% Required
1.73	2.14		
Water Quality Volume Required (CF)	848	4,596	5,444 CF
Water Quality Volume Provided (CF)			5,444 CF
Underdrain Soil Filter Area Required (SF)			3,267 SF
Underdrain Soil Filter Area Provided (SF)			3,318 SF
Offsite Mitigation Adjustment Factors			
Parking Lot	0.90		
Impervious Area	0.60		
Lawn	0.30		

* Underdrain Soil Filters are required to be 5% of total impervious area + 2% of total pervious area according to Chapter 7.1, Volume III of the Maine Dep Storm Water BMP manual.



LEGEND

- WATERSHED BOUNDARY
- MEDIUM INTENSITY SOIL BOUNDARY
- DRAINAGE FLOW PATH
- SF SHEET FLOW
- SCF SHALLOW CONCENTRATED FLOW
- 1 SUBAREA DESIGNATION

NOTE: WATERSHEDS WITHOUT A TC DRAINAGE FLOW PATH DEFINED ASSUME A MINIMUM 6 MIN TIME OF CONCENTRATION AS RECOMMENDED IN THE TR-55 MANUAL

SOILS LEGEND

ID	DESCRIPTION	SLOPE	HYDROLOGIC SOIL GROUP
HrB	HOLLIS FINE SANDY LOAM	3 - 8% SLOPE	C SOIL WHERE DRAINED D SOIL WHERE UNDERDRAINED (i.e. WETLANDS)
Sn	SCANTIC SILT LOAM	- SLOPE	D

REV	DATE	DESCRIPTION	REV	DATE	DESCRIPTION
6	07.22.14	REVISED POSTDEVELOPMENT AND SUBMITTED AMENDED PLANS TO CITY AND MEDEP	6	07.22.14	REVISED POSTDEVELOPMENT AND SUBMITTED AMENDED PLANS TO CITY AND MEDEP
5	05.21.13	ELIMINATED ONE STORMTREAT AND SUBMITTED CITY APPROVED PLANS TO MEDEP	5	05.21.13	ELIMINATED ONE STORMTREAT AND SUBMITTED CITY APPROVED PLANS TO MEDEP
4	05.03.13	REVISED AND RESUBMITTED TO CITY	4	05.03.13	REVISED AND RESUBMITTED TO CITY
3	04.18.13	REVISED PER CITY STAFF COMMENTS	3	04.18.13	REVISED PER CITY STAFF COMMENTS
2	04.09.13	SUBMITTED TO MEDEP STORMWATER DISCHARGE PERMIT	2	04.09.13	SUBMITTED TO MEDEP STORMWATER DISCHARGE PERMIT
1	03.28.13	SUBMITTED TO CITY OF PORTLAND	1	03.28.13	SUBMITTED TO CITY OF PORTLAND

STATE OF MAINE
STEPHEN R. BUSHEY
REGISTERED PROFESSIONAL ENGINEER
LIC. # 7429

PROJECT: MULTI-USE DEVELOPMENT
2282 CONGRESS ST., PORTLAND, ME
SHEET TITLE: POSTDEVELOPMENT WATERSHED PLAN
CLIENT: CJ DEVELOPERS, INC.
35 PRIMROSE LANE, FREEPORT, MAINE 04032
AND PORTLAND PROPERTY HOLDINGS, LLC
2 MAIN STREET, SUITE 200, TOPSHAM, MAINE 04086

FST 100 YEARS
FAY, SPOFFORD & THORNDIKE
ENGINEERS • PLANNERS • SCIENTISTS
778 MAIN ST., SUITE 8, SOUTH PORTLAND, ME 04106
DRAWN: CMW DATE: OCTOBER 2013
DESIGNED: SRB SCALE: 1" = 30'
CHECKED: SRB JOB NO. 3118
FILE NAME: 3118-SP SHEET C-14.1