

ZONE D
LOW FLOW DISCHARGE D 0.1
INV 7.4 FLARED END WITH BAR RACK

ZONE D
4 STORMTREAT UNITS REQUIRED FOR THIS
PHASE 5 FUTURE STORMTREAT UNITS MAY
BE REQUIRED IN THE SUBSEQUENT PHASES
FOR A TOTAL OF 9 STORMTREATS IN ZONE D)

ZONE D
OVERFLOW DISCHARGE D 0
INV 7.4 FLARED END WITH BAR RACK

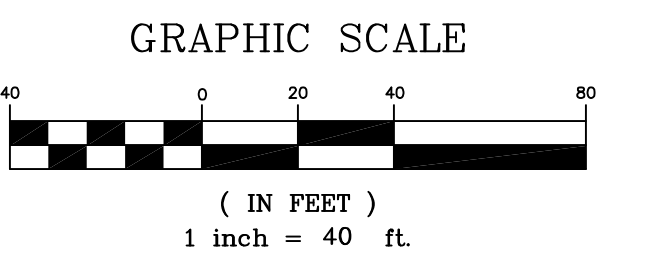
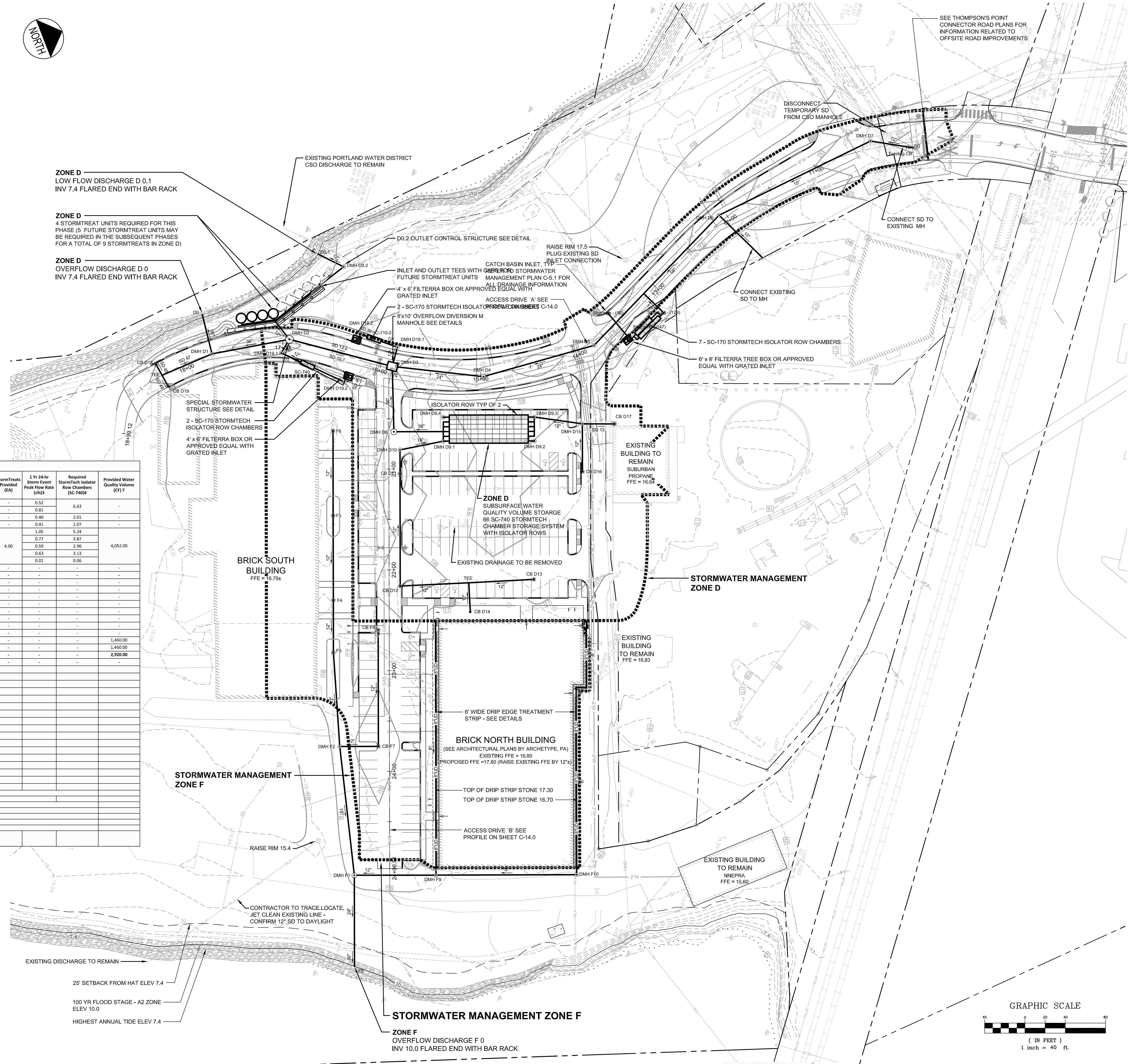
Summary of Water Quality Treatment														
Zone	Inlet ID	Impervious Area (sf)	Pervious Area (sf)	Total Area (sf)	Total Area (Acres) 1	Required Water Quality Volume (CF) 2	Existing Developed Area Mitigation Credits (SF) 3	Treatment Approach 6	Filterra Size Required	StormTreats Required (EA) 5	StormTreats Provided (EA) 5	1 Yr 24-hr Storm Event Peak Flow Rate (cfs) 6	Required StormTech Isolator Row Chambers (SC-740)s	Provided Water Quality Volume (CF) 7
Zone D	D-21	8,280.00	772.00	9,052.00	0.21	715.73	-	Filterra	6"x8"	-	-	0.52	6.63	-
	D-20	12,517.00	3,661.00	16,178.00	0.37	1,165.12	-	Filterra	6"x8"	-	-	0.81	-	-
	D-18	5,763.00	3,841.00	9,604.00	0.22	608.28	-	Filterra	4"x6"	-	-	0.40	2.01	-
	D-19	6,430.00	1,673.00	8,103.00	0.19	591.60	-	Filterra	4"x6"	-	-	0.41	2.07	-
	D-11	16,700.00	1,948.00	18,648.00	0.43	1,409.93	-	Storm Treats	-	1.36	-	1.05	5.24	-
	D-16	12,144.00	2,596.00	14,740.00	0.34	1,098.53	-	Storm Treats	-	0.95	-	0.77	3.87	-
	D-12	9,443.00	1,212.00	10,655.00	0.24	827.32	-	Storm Treats	-	0.72	4.00	0.59	2.96	4,052.00
D-13	7,020.00	1,161.00	8,181.00	0.19	623.70	-	Storm Treats	-	0.54	-	-	0.63	3.13	-
D-14	0.00	921.00	921.00	0.02	30.70	-	Storm Treats	-	0.03	-	-	0.01	0.06	-
Zone D Totals		8,445.00	5,559.00	14,004.00	0.23	7,120.92	-	None	-	-	-	-	-	-
Zone F Developed Area	F-8	2,515.00	808.00	3,323.00	0.08	236.52	-	None	-	-	-	-	-	-
	F-7	13,385.00	3,942.00	17,327.00	0.40	1,246.82	-	None	-	-	-	-	-	-
	F-3	186.00	3,302.00	3,488.00	0.08	127.57	-	None	-	-	-	-	-	-
	F-4	256.00	781.00	1,037.00	0.02	47.43	-	None	-	-	-	-	-	-
	F-5	256.00	3,875.00	4,131.00	0.09	150.50	-	None	-	-	-	-	-	-
	F-6	348.00	1,754.00	2,102.00	0.05	87.47	-	None	-	-	-	-	-	-
	Zone F Developed Area Subtotals		0.00	0.00	0.00	0.00	0.00	-	None	-	-	-	-	-
Zone F Existing Buildings		17,000.00	0.00	17,000.00	0.39	1,416.67	10,200.00	Stone Drip Edge	-	-	-	-	-	1,460.00
Zone F Existing Building Subtotal		17,000.00	0.00	17,000.00	0.39	1,416.67	10,200.00	Stone Drip Edge	-	-	-	-	-	1,460.00
Zone F Totals		14,524.00	65,470.00	80,000.00	1.50	4,729.63	20,400.00	-	-	-	-	-	2,920.00	
Developed Area Breakdown														
A.) Total New Developed Area Treated (SF)	96,122.00	Treatment Breakdown		Required	Provided									
B.) Total New Developed Area Untreated (SF)	41,474.00	% of Net Developed Area Treated = F/C		80.00%	84.68%									
C.) Total New Developed Area (SF) = A+B	137,596.00	% of Net Impervious Area Treated = I/I		95.00%	99.01%									
D.) Existing Developed Area Treated (SF)	34,000.00													
E.) Adjusted Existing Developed Area Treated (SF)	20,400.00													
F.) Total Net Developed Area Treated (SF) = A+E	116,522.00													
Impervious Area Breakdown														
G.) Total New Impervious Area Untreated (SF)	78,337.00													
H.) Total New Impervious Area Treated (SF)	21,393.00													
I.) Total New Impervious Area (SF) = G+H	99,730.00													
J.) Existing Impervious Area Treated (SF)	34,000.00													
K.) Adjusted Existing Impervious Area Treated (SF)	20,400.00													
L.) Total Net Impervious Area Treated (SF) = G+K	98,737.00													

NOTES AND ASSUMPTIONS:

- All areas are based on the 1977 Flood Damage Reduction Act.
- The required water quality volume has been computed based on Section 7.4, 7.5 and 7.6 of the Water Quality Management Manual. The volume is computed to be "F" times the adjusted impervious area and "D" times the adjusted pervious area. Existing buildings are not required to be treated.
- The 1-year peak flow rate has been computed using the Rational Method. The runoff coefficient is based on the City of Portland's Stormwater Management Manual.
- Subsurface storage system using a 12-inch diameter pipe. All isolator rows have been computed per section 7.3.1 of the Water Quality Management Manual. One chamber is required for each 12.5 ft of the computed volume of a year peak flow.
- The required number of stormwater treatment units has been computed based on Section 7.3.1 of the Water Quality Management Manual. The number of units is computed to be the required volume divided by the volume of a unit.
- The volume of a unit is based on the Water Quality Management Manual.
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NOTES:

- THIS PROJECT IS THE FIRST PHASE OF A LARGE MULTI PHASED PROJECT SUBJECT TO A MAINE DEP SITE LOCATION OF DEVELOPMENT PERMIT, MEDEP NATURAL RESOURCE PROTECTION AGENCY (NRPA) PERMIT ARMY CORPS OF ENGINEERS (ACOE) AND (VRAP). THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS OF APPROVAL STATED IN THESE PERMITS. THIS PHASE REDEVELOPS AC OF IMPERVIOUS AND TREATED AC. THE SUMMARY TABLE ABOVE SHOW HOW THIS PHASE MEETS THE CITY OF PORTLAND'S SECTION 5 - STORMWATER MANAGEMENT REGULATIONS.
- REFER TO THE STORMWATER MANAGEMENT OPERATION AND MAINTENANCE MANUAL PREPARED FOR THIS PROJECT FOR ALL MAINTENANCE PROCEDURES AND FREQUENCIES.



PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT: BRICK NORTH BUILDING AT THE FOREFRONT AT THOMPSON'S POINT			DESIGNED: BEK		DATE: JUNE 2014
SHEET TITLE: STAND ALONE BRICK NORTH STORMWATER MANAGEMENT PLAN			CHECKED: SRB	JOB NO. 2982.05	
CLIENT: FOREFRONT PARTNERS LP		P.E. BO KENNEDY		FILE NAME: 2982.05-BN GRADING	
REV 1 06.30.14 AMENDED PHASE 1A SITE PLAN SUBMITTED TO CITY		LIC. #11994		SHEET C-5.1	