R. W. Gillespie & Associates, Inc.

86 Industrial Park Road, Suite 4, Saco, ME 04072 207-286-8008
200 Int'l Drive, Suite 170, Portsmouth, NH 03801 603-427-0244

LETTER OF TRANSMITTAL

Date:	Project No.:
June 10, 2010	557-14

Attention:
Mr. Cuyler Feagles (cmf@portlandmaine.gov)

Re:
In-Place Density Testing
Terminal Enhancement, Portland Int. Jetport
Portland, Maine

City of Portland, Portand Int. Jetport

1001 Westbrook Street

Portland, Maine 04102

We are sending you attached In-Place Density Test Results.

Date(s) Performed:	Test (s) Performed
May 25, 26, 27, 28, 2010	In-Place Density Testing - Nuclear Method ASTM D6938

○ Meets Specification

○ Selected Tests Do Not Meet Specification - Noted with an *

Note: Materials descriptions and maximum laboratory dry density values were transmitted under separate cover and are referenced in the attached summaries by the material number.

Remarks:

Copy To: Roy Williams: rsw@portlandmaine.gov
Jim Stanislaski: jim_stanislaski@gensler.com
Cliff Takara: clifford_takara@gensler.com
Lacey Fogg: Lacey.Fogg@amec.com
Mike Fusco: mfusco@tcco.com
Shaun Winner: swinner@tcco.com
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Elizabeth O'Toole: eotoole@tcco.com
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ldobson@portlandmaine.gov
bcybulski@tcco.com
rdixon@tcco.com
Geoff Mitchell: gemitchell@tcco.com

Signed:

If enclosures are not as noted, kindly notify us at once.

SUMMARY OF IN-PLACE DENSITIES - ASTM D6938
TERMINAL ENHANCEMENT AT THE PORTLAND INTERNATIONAL JETPORT
PORTLAND, MAINE
RWG&A PROJECT NO. 557-14

Client: City of Portland
Test Date: 5/25/2010
Technician: MJK
Gauge Model/Serial Number: L 500

Lab No.	Soil Description	ASTM D1557 Max Density	ASTM D1557 Opt. Moisture
11194	Poorly Graded Sand	111.0	11.4

Report Issue Date:

Test No.	Location	Elevation	ASTM D6938 Dry Density (pcf)	ASTM D6938 Water Content (%)	Percent of Max. (%)	Lab. No.
1	10' N of DMH OA-35 over drain line	TOP +1'	105.8	3	95	11194
2	20' N of DMH OA-35 over drain line	TOP +1'	106.0	4	96	11194
3	30' N of DMH OA-35 over drain line	TOP +1'	114.2	4	100+*	11194
4	30' N of DMH OA-35 over drain line	TOP +2'	106.4	4	96	11194

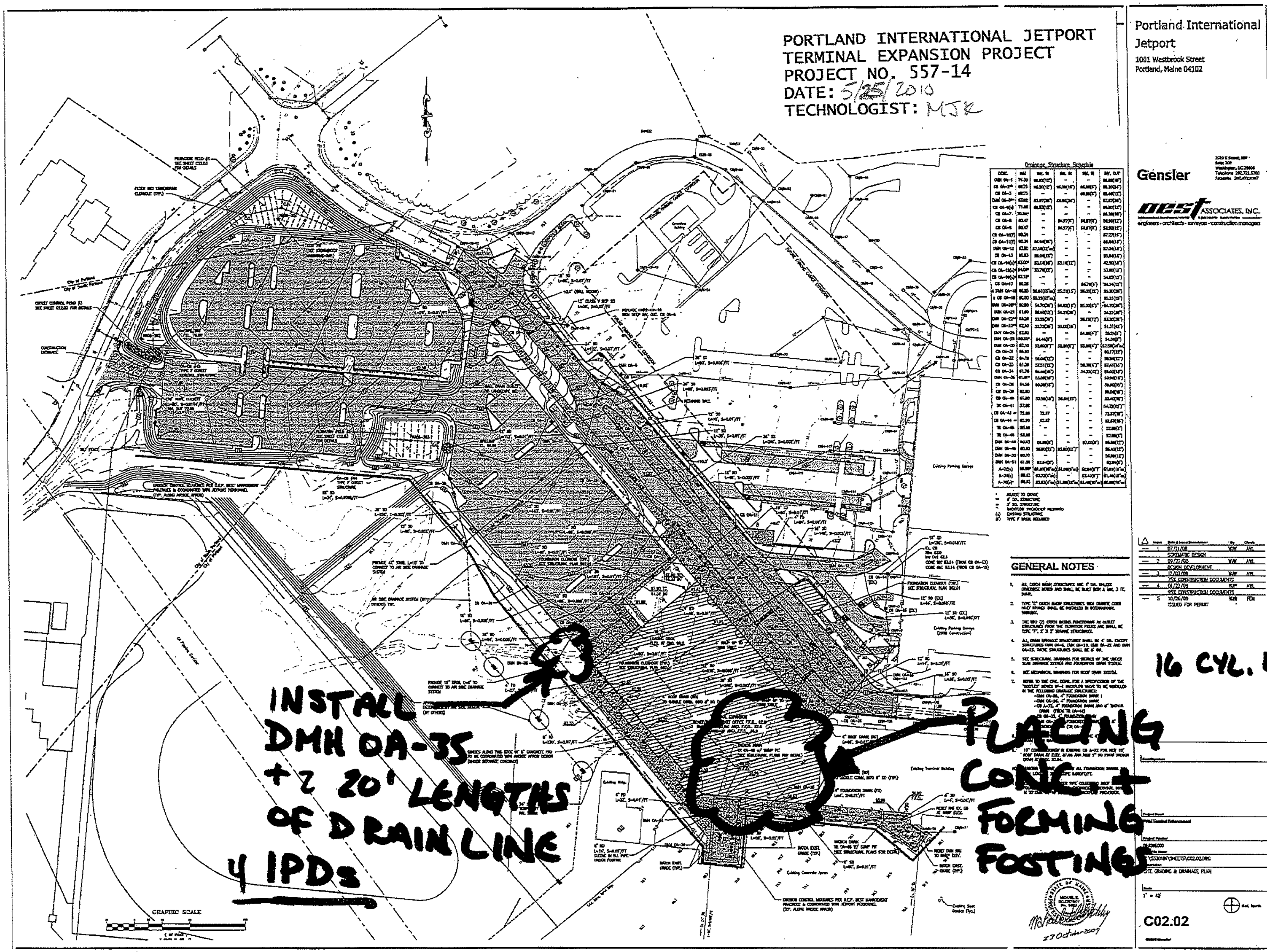
Remarks: *Material tested at location #3 may have been mixed with on-site sand fill. Compaction sufficient.

FG = Finish Grade
FF = Finish Floor
FGB = Finish Grade of Base
FGSB = Finish Grade of Subbase
FGSG = Finish Grade of Subgrade

TOW = Top of Foundation Wall
BOF = Bottom of Footing
SG = Subgrade
TOP = Top of Pipe

Checked by: Martha J. Gadd

R. W. Gillespie Associates, Inc.
Corporate Office 86 Industrial Park Road, Ste. 4, Saco, ME 04072
Branch Office 200 International Drive, Ste. 170, Portsmouth, NH 03801


PORTLAND INTERNATIONAL JETPORT
TERMINAL EXPANSION PROJECT
PROJECT NO. 557-14
DATE: 5/25/2010
TECHNOLOGIST: MJK
Portland International Jetport
1001 Westbrook Street
Portland, Maine 04102
Gensler
DEST ASSOCIATES, INC.
engineers • architects • surveyors • construction managers
Drainage Structure Schedule
GENERAL NOTES
GRAPHIC SCALE
C02.02
16 CYL. MADE
INSTALL
DMH OA-35
+2 20' LENGTHS
OF DRAIN LINE
4 IPDs
PLACING
CONC +
FORMING
FOOTINGS

SUMMARY OF IN-PLACE DENSITIES - ASTM D6938
TERMINAL ENHANCEMENT AT THE PORTLAND INTERNATIONAL JETPORT
PORTLAND, MAINE
RWG&A PROJECT NO. 557-14

Client: City of Portland
Test Date: 5/26/2010
Technician: MJK
Gauge Model/Serial Number: L 500

Lab No.	Soil Description	ASTM D1557 Max Density	ASTM D1557 Opt. Moisture
11194	Poorly Graded Sand	111.0	11.4

Report Issue Date:

Test No.	Location	Elevation	ASTM D6938 Dry Density (pcf)	ASTM D6938 Water Content (%)	Percent of Max. (%)	Lab. No.
1	105' S of CB #40 - Over drain line	FG -3'	107.7	3	97	11194

Remarks: Material tested on Test #3 may have been mixed with on-site sand fill. Compaction sufficient.

FG = Finish Grade
FF = Finish Floor
FGB = Finish Grade of Base
FGSB = Finish Grade of Subbase
FGSG = Finish Grade of Subgrade

TOW = Top of Foundation Wall
BOF = Bottom of Footing
SG = Subgrade
TOP = Top of Pipe

Checked by: Matthew T. Gladu

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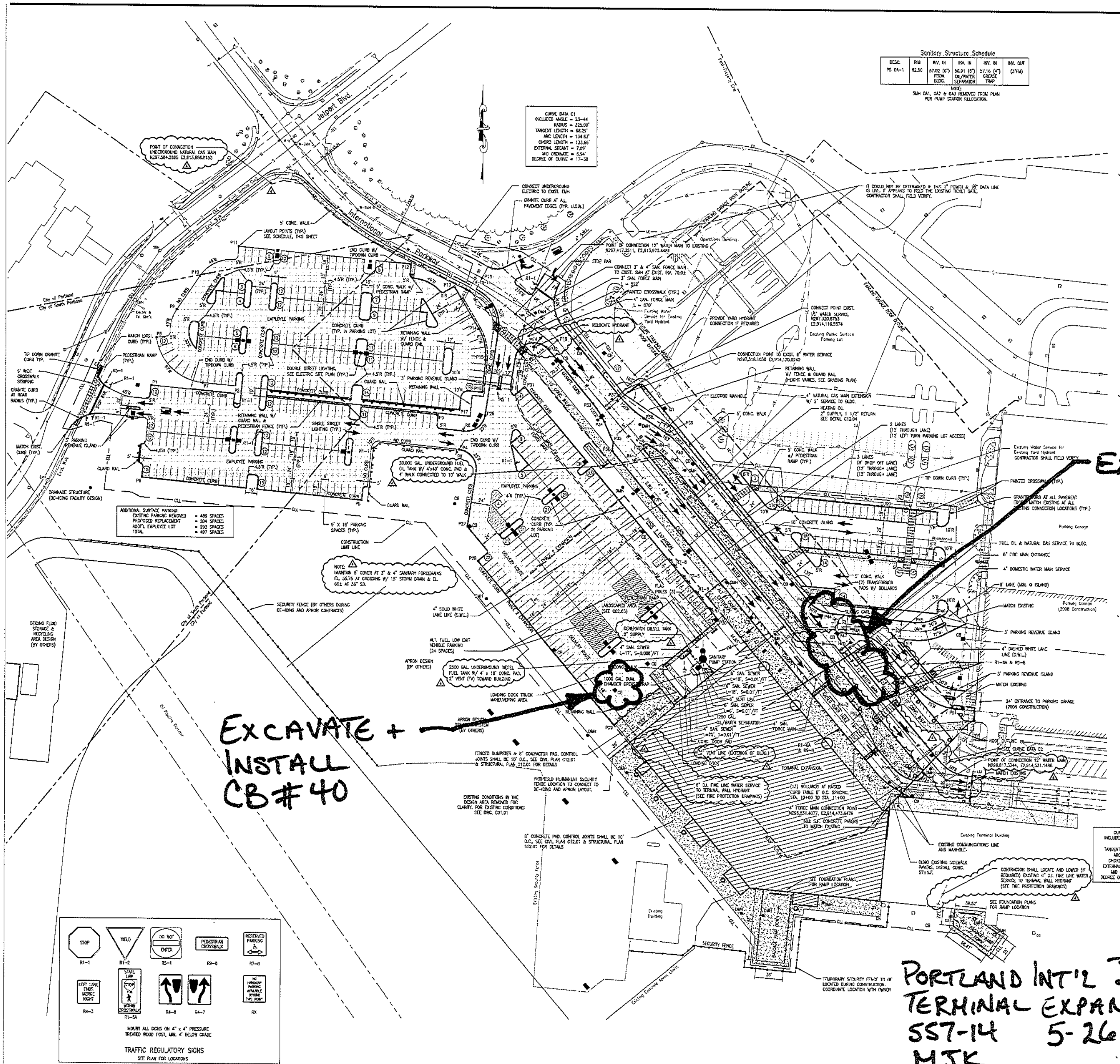
Corporate Office 86 Industrial Park Road, Ste. 4, Saco, ME 04072
Branch Office 200 International Drive, Ste. 170, Portsmouth, NH 03801



Sanitary Structure Schedule

DESC.	RIM	INV. IN	INV. IN	INV. IN	INV. OUT
PS OA-1	62.50	57.02 (6") FROM BLDG.	56.91 (6") OIL/WATER SEPARATOR	57.16 (4") GREASE TRAP	(3"FM)

NOTE:
SMH OA1, OA2 & OA3 REMOVED FROM PLAN PER PUMP STATION RELOCATION.

SHEET NOTES

Layout Coordinate Schedule

Symbol	North	East
P1	297322.3702	2913503.1698
P2	297311.8659	2913610.6577
P3	297298.1889	2913873.4061
P4	297241.2754	2913901.1721
P5	297175.2196	2913775.1472
P6	297202.9391	2913491.4984
P7	297326.9201	2913509.6595
P8	297384.0274	2913509.7270
P9	297420.5302	2913535.9136
P10	297463.8152	2913565.9353
P11	297502.2427	2913616.0640
P12	297480.5402	2913836.1418
P13	297462.3289	2913894.3531
P14	297398.3532	2913925.8652
P15	297358.0583	2913934.6865
P16	297316.3831	2913930.6140
P17	297293.5155	2913901.2507
P18	297463.6708	2913930.1528
P19	297383.6682	2914027.7309
P20	297748.5682	2914139.4735
P21	296831.9846	2914483.3207
P22	296818.9077	2914497.8773
P23	296808.2946	2914528.0050
P24	296805.5936	2914556.5679
P25	297395.7746	2913951.9271
P26	297285.7935	2913934.8298
P27	297141.8447	2913912.4516
P28	297097.2439	2913926.2555
P29	296850.8187	2914102.0398
P30	297073.1290	2914235.7431
P31	297377.6801	2913985.8722
P32	297372.1345	2914016.6688
P33	297302.3995	2914074.2370
P34	297278.4116	2914088.9125
P35	297251.8844	2914100.3778
P36	297240.6220	2914099.3013
P37	297311.8196	2914107.9558
P38	297283.3825	2914139.1261
P39	297267.9312	2914169.1185
P40	297243.9731	2914189.8987
P41	297743.1087	2914155.5881
P42	297227.8098	2914172.1206
P43	297049.3951	2914360.6263
P44	297031.4036	2914384.2176
P45	297021.1367	2914489.7924
P46	297031.7476	2914627.3495
P47	297008.2479	2914395.5723
P48	297006.1297	2914417.2276
P49	296998.4225	2914460.7326
P50	296936.8391	2914493.8237
P51	296910.2426	2914644.4563
P52	296902.9914	2914418.5164
P53	296850.3266	2914440.0018
P54	296833.5855	2914461.2515

GENERAL NOTES

1. ALL ENTRANCE ROADWAY, PUBLIC SURFACE PARKING AREAS AND PARKING GARAGE ACCESS CURBING SHALL BE TYPE I GRANITE VERTICAL CURB.
2. CONCRETE CURBING SHALL BE USED IN THE EMPLOYEE PARKING LOTS.
3. DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE INDICATED.
4. SEE ARCHITECTURAL PLANS FOR CONCRETE SIDEWALK JOINT PATTERN AND LAYOUT AT THE 25 FOOT WIDE ENTRANCE WALK.
5. SEE STRUCTURAL PLAN S12.01 FOR RADIANT HEATING DETAILS IN SIDEWALK AND COMPACTOR PAD. SEE MECHANICAL PLAN M02.02.00 FOR RADIANT PIPING LOCATIONS.
6. CONTRACTOR SHALL PROVIDE A TEMPORARY WATER MAIN TO MAINTAIN THE LOOP SYSTEM REQUIRED BY PORTLAND WATER DISTRICT. THE TEMPORARY DESIGN FOR THIS WATER MAIN AND OTHER REQUIRED SERVICES SHALL BE REVIEWED AND APPROVED BY PORTLAND WATER DISTRICT AND THE CITY OF PORTLAND FIRE DEPARTMENT.
7. PEDESTRIAN SIDEWALKS RAMPS SHALL BE PROVIDED AT ALL STREET CORNERS, CROSSWALKS AND DRIVEWAYS.

Portland International Jetport
1001 Westbrook Street
Portland, Maine 04102

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Telephone 202.721.5200
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nest ASSOCIATES, INC.
engineers • architects • surveyors • construction managers

△	Issue	Date & Issue Description	By	Check
--	1	07/11/08 SCHEMATIC DESIGN	WJW	AWL
--	2	09/22/08 DESIGN DEVELOPMENT	WJW	AWL
--	3	12/03/08 75% CONSTRUCTION DOCUMENTS	WJW	AWL
--	4	01/23/09 95% CONSTRUCTION DOCUMENTS	WJW	AWL
--	5	10/26/09 ISSUED FOR PERMIT	WJW	FEM
2	6	11/12/09 ADDENDUM #2	WJW	FEM
4	7	01/12/10 BULLETIN #1	WJW	TM

Seal/Signature

STATE OF MAINE — MICHAEL S. DELETETSKY No. 5023 — PROFESSIONAL ENGINEER
12 Jan 2010

Project Name
PWM Terminal Enhancement

Project Number
09.6396.000

CAD File Name
T:\5330101\SHEETS\C02.01.DWG

Description
SITE LAYOUT & UTILITIES PLAN

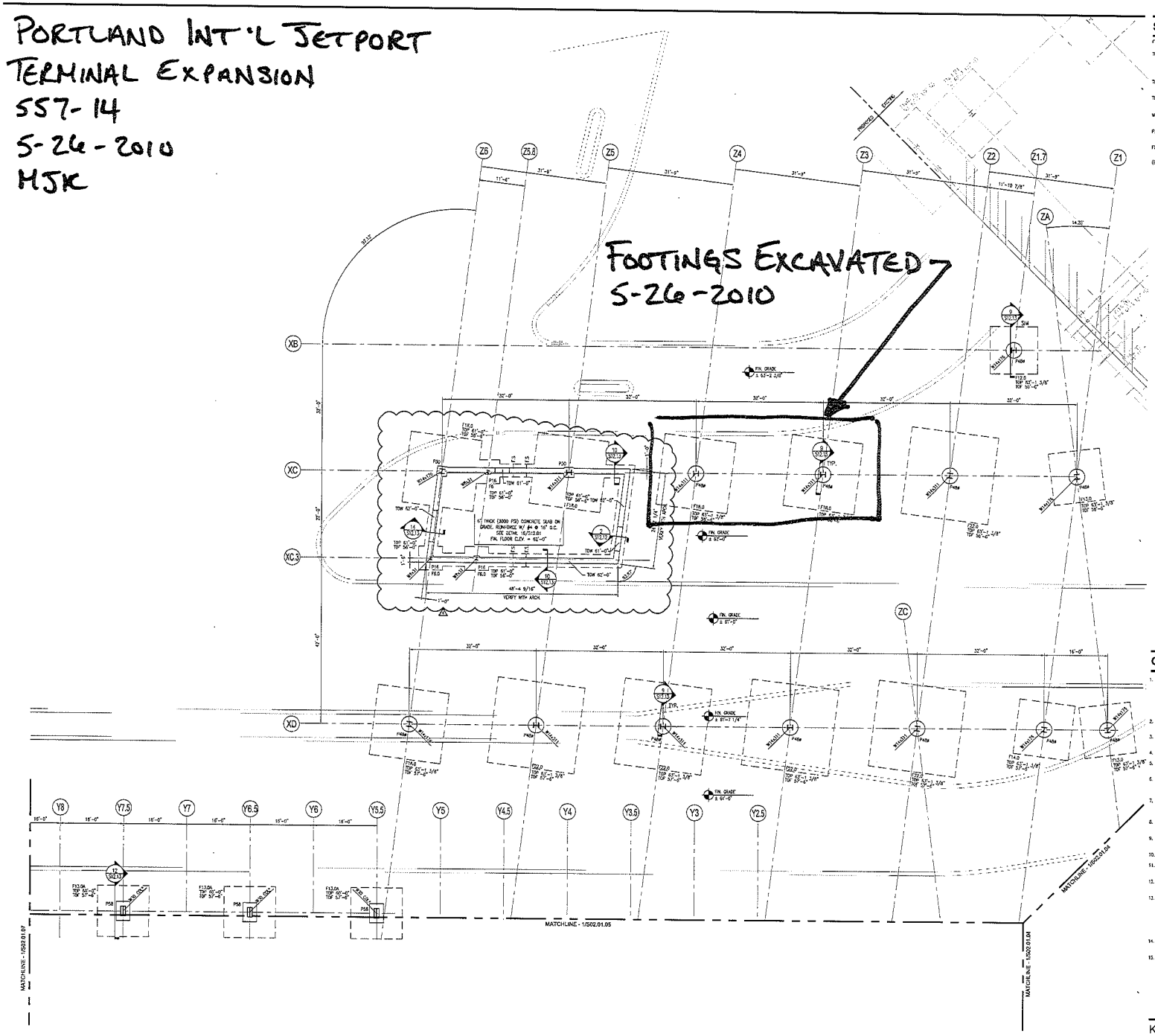
Scale
1" = 40'

Ref. North

C02.01

PORTLAND INT'L JETPORT
TERMINAL EXPANSION
557-14
5-26-2010
MJK

FOOTINGS EXCAVATED 5-26-2010



SHEET NOTES

FTG — INDICATES FOOTING TYPE; SEE DETAIL ON SHEET S12.01

TOF X'-X" (EXAMPLE) INDICATES TOP OF FOOTING ELEVATION. G.C. VERIFY/COORDINATE WITH FINAL GRADES. ALL BOTTOM OF FOOTING ELEVATIONS ARE (-) 4'-0" (MIN.) BELOW FINISHED GRADE.

TOW X'-X" (EXAMPLE) INDICATES TOP OF WALL TOW VARIES SEE DETAILS & COORDINATE W/ ARCH DWGS.

TOP X'-X" (EXAMPLE) INDICATES TOP OF PIER. TOP TO BE 0'-6" (U.N.O.)

W30 COL.# INDICATES W30x191 W/ 8 3/4" WELDED BETWEEN EACH FLANGE- SEE SECTIONS FOR MORE INFORMATION.

PXX INDICATES PIER TYPE. SEE SCHEDULE ON SHEET S02.01.04

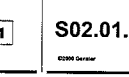
FXX INDICATES FOOTING TYPE. SEE SCHEDULE ON SHEET S02.01.04

(E) INDICATES EXISTING.

GENERAL NOTES

1. ALL EXISTING CONDITIONS SHALL BE VERIFIED in the FIELD PRIOR TO BECOMING OF ANY WORK. IF EXISTING FIELD CONDITIONS ARE NOT AS PER THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY AND PROVIDE A SKETCH OF THE CONDITION WITH PROPOSED MODIFICATION FOR REVIEW BY ARCHITECT.
2. CONTRACTOR TO CONFIRM ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF WORK.
3. SEE SHEET S00.00 FOR GENERAL STRUCTURAL NOTES AND DESIGN LOADS.
4. SEE SHEET S12.01 FOR TYPICAL FOUNDATION DETAILS
5. CONTRACTOR SHALL COORDINATE ALL FLOOR OPENINGS WITH MECHANICAL DRAWINGS.
6. AT ALL LOCATIONS WHERE PIPING RUNS BENEATH SLAB OR CONCRETE WALLS, DEEPEN FOOTINGS AS REQUIRED TO ALLOW 6" (MIN.) CLEARANCE BETWEEN PIPE AND FOOTING.
7. CONTRACTOR SHALL SUBMIT LAY-OUT FOR SLAB ON GRADE CONSTRUCTION AND CONTRACTION JOINTS TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO PLACING CONCRETE.
8. SEE ARCH DWGS FOR DEPRESSED SLAB LOCATIONS AND EXTENTS.
9. PROVIDE (2) #3 x 4'-0" LONG REINFORCING BARS AT ALL RE-ENTRANT SLAB CORNERS. SEE DETAILS ON SHEET S12.01.
10. ALL FOOTINGS TO BE CENTERED ON COL. GRID LINE (U.N.O.).
11. FLOOR SLABS AT THIS LEVEL SHALL BE INSTALLED WITH RADIANT HEAT. COORDINATE W/ ARCH & MECH DWGS.
12. SEE ARCH DWGS FOR WATERPROOFING AND INSULATING REQUIREMENTS AND LOCATIONS.
13. PER GEOTECHNICAL REPORT BY HALEY & ALDRICH (HAA FILE NO. 35024-003 DATED 11 NOVEMBER 2008) FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM ALLOWABLE BEARING PRESSURE OF 2000PSF. CONTRACTOR SHALL ALLOW OWNER'S GEOTECHNICAL ENGINEER TO OBSERVE SUBGRADE CONDITIONS TO CONFIRM BEARING CAPACITY PRIOR TO PLACEMENT OF FORMS OR REINFORCING STEEL.
14. REFERENCE 220.01.00 AND SPECIFICATION SECTION 334600 FOR UNDERSLAB DRAINAGE REQUIREMENTS.
15. OVER-EXCAVATION/REPLACEMENT OF UNSUITABLE SOILS MAY BE REQUIRED BELOW FOUNDATION BEARING LEVELS. SEE SHEET S00.00 AND SPECIFICATION SECTION 312000 FOR ADDITIONAL INFORMATION.

KEY PLAN



FOUNDATION PLAN - LEVEL 1&2 - ZONE 6
SCALE: 1/8" = 1'-0"

1

Portland International Jetport
1001 Westbrook Street
Portland, Maine 04102

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Suite 200
Washington, DC 20006
Telephone 202.371.0100
Facsimile 202.872.8537

oest ASSOCIATES, INC.
engineers · architects · surveyors · construction managers

No.	Date & Issue Description	By	Check
--- 01	07/31/08 SCHEMATIC DESIGN	JDE	---
--- 02	09/22/08 DESIGN DEVELOPMENT	JDE	--
--- 03	12/03/08 75% CONSTRUCTION DOCUMENTS	JDE	--
--- 04	01/23/09 95% CONSTRUCTION DOCUMENTS	JDE	--
--- 05	10/26/09 ISSUED FOR PERMIT	JDE	--
06	01/12/10 BULLETIN #1	GL	---

Seal/Signature

Project Name
PWM Terminal Enhancement

Project Number
09.6395.000

CAD File Name
T:\6330101\SHEETS\S02.01.06.DWG

Description
FOUNDATION PLAN - LEVEL 1&2 - ZONE 6

Scale
1/8" = 1'-0"

Ref. North

S02.01.06

SUMMARY OF IN-PLACE DENSITIES - ASTM D6938
TERMINAL ENHANCEMENT AT THE PORTLAND INTERNATIONAL JETPORT
PORTLAND, MAINE
RWG&A PROJECT NO. 557-14

Client: City of Portland
Test Date: 5/27/2010
Technician: MJK
Gauge Model/Serial Number: L 500

Lab No.	Soil Description	ASTM D1557 Max Density	ASTM D1557 Opt. Moisture
11194	Poorly Graded Sand	111.0	11.4
11151	3" Minus Type D Material	133.0	7.3

Report Issue Date:

Test No.	Location	Elevation	ASTM D6938 Dry Density (pcf)	ASTM D6938 Water Content (%)	Percent of Max. (%)	Lab. No.
1	15' South of CB #40 above drain line	FG -2'	106.1	3	96	11194
2	15' North of CB #40 above drain line	FG -2'	105.6	2	95	11194
3	Northwest side of footing @ XD/Z6	TOF -1'	128.4	4	97	11151
4	Southwestsideof footing @ XD/Z5	TOF -1'	126.9	7	95	11151
5	XD/ halfway between Z4 and Z5	TOF -1'	129.3	7	97	11151
6	XD/ halfway between Z5 and Z6	TOF -1'	127.6	5	96	11151
7	XD/ halfway between Z3 and Z4	TOF -1'	131.6	5	99	11151
8	XD/ halfway between Z2 and Z3	TOF -1'	135.8	5	100+	11151
9	XD/ halfway between Z4 and Z5	TOF	126.2	4	95	11151
10	XD/ halfway between Z5 and Z6	TOF	127.1	4	96	11151
11	15' North of CB OA-34 above drain line	FG -1'	105.7	3	95	11194
12	Northwest side of footing @ XD/Z6	TOF	129.2	4	97	11151

Remarks:

FG = Finish Grade
FF = Finish Floor
FGB = Finish Grade of Base
FGSB = Finish Grade of Subbase
FGSG = Finish Grade of Subgrade

TOW = Top of Foundation Wall
BOF = Bottom of Footing
SG = Subgrade
TOP = Top of Pipe
TOF = Top of Footing

Checked by: _____

R. W. Gillespie Associates, Inc.
Corporate Office 86 Industrial Park Road, Ste. 4, Saco, ME 04072
Branch Office 200 International Drive, Ste. 170, Portsmouth, NH 03801

SUMMARY OF IN-PLACE DENSITIES - ASTM D6938
TERMINAL ENHANCEMENT AT THE PORTLAND INTERNATIONAL JETPORT
PORTLAND, MAINE
RWG&A PROJECT NO. 557-14

Client: City of Portland
Test Date: 5/27/2010
Technician: MJK
Gauge Model/Serial Number: L 500

Lab No.	Soil Description	ASTM D1557 Max Density	ASTM D1557 Opt. Moisture
11194	Poorly Graded Sand	111.0	11.4
11151	3" Minus Type D Material	133.0	7.3

Report Issue Date:

Test No.	Location	Elevation	ASTM D6938 Dry Density (pcf)	ASTM D6938 Water Content (%)	Percent of Max. (%)	Lab. No.
13	Southeast side of footing @ XD/Z2	TOF -1'	127.1	3	96	11151
14	XD/ halfway between Z3 and Z4	TOF	128.3	4	97	11151
15	Southwestsideof footing @ XD/Z5	TOF +1'	127.6	4	96	11151
16	Northwest side of footing @ XD/Z6	TOF +1'	128.3	4	97	11151
17	25' North of CB OA-34 above drain line	FG -1'	126.0	2	95	11194

Remarks:

FG = Finish Grade
FF = Finish Floor
FGB = Finish Grade of Base
FGSB = Finish Grade of Subbase
FGSG = Finish Grade of Subgrade

TOW = Top of Foundation Wall
BOF = Bottom of Footing
SG = Subgrade
TOP = Top of Pipe
TOF = Top of Footing

Checked by: Matthew G. Gould

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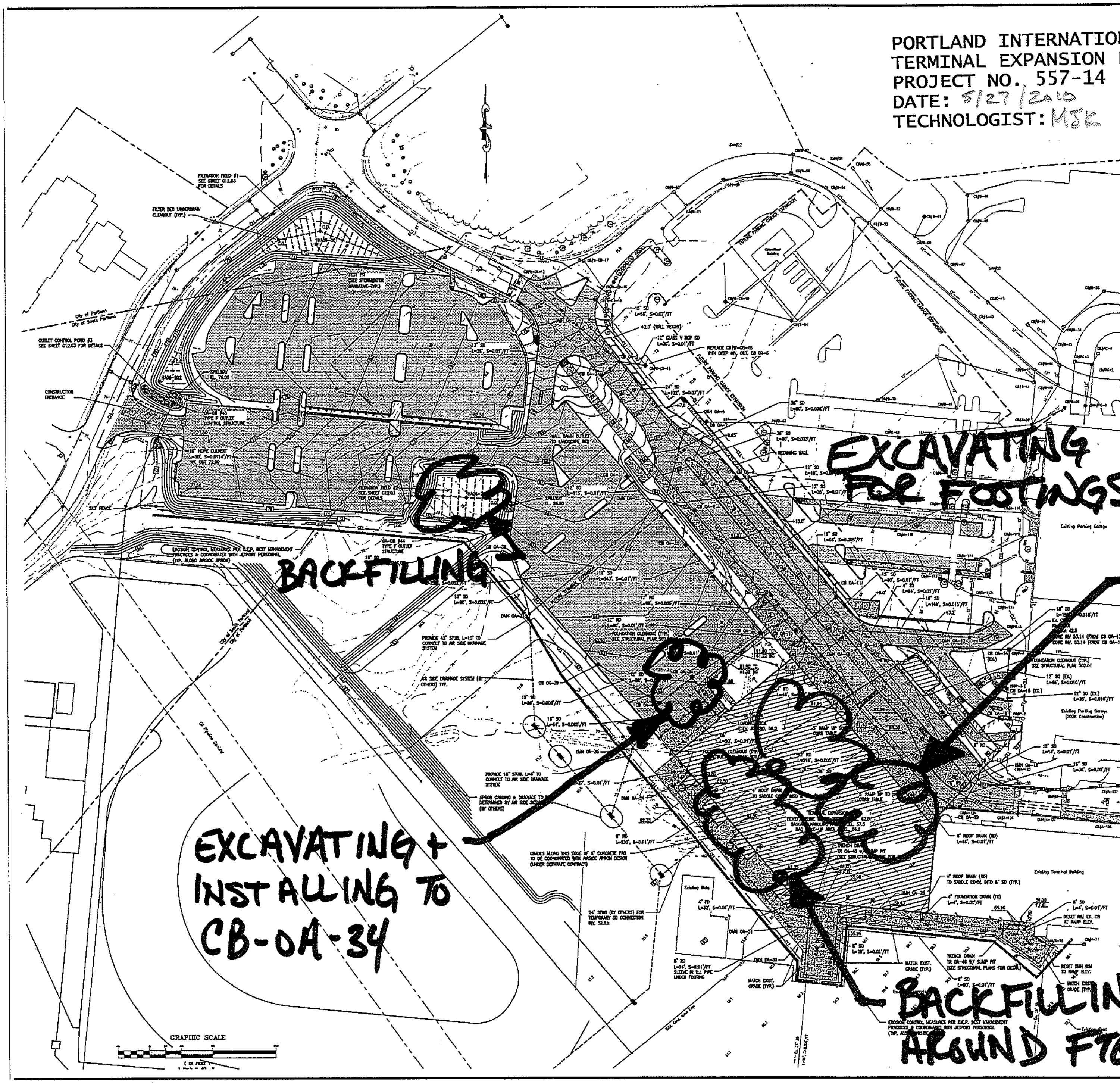
Branch Office 200 International Drive, Ste. 170, Portsmouth, NH 03801

PORTLAND INTERNATIONAL JETPORT
TERMINAL EXPANSION PROJECT
PROJECT NO. 557-14
DATE: 5/27/2010
TECHNOLOGIST: MSK



Drainage Structure Schedule

DESC.	RIM	INV. IN	INV. IN	INV. IN	INV. OUT
DMH OA-1	74.30	69.92(12")	-	-	69.82(15")
CB OA-2**	69.75	66.20(12")	66.20(15")	66.50(6")	66.10(24")
CB OA-3	69.75	-	-	66.50(6")	65.40(12")
DMH OA-5**	63.02	53.87(36")	56.56(24")	-	53.87(36")
CB OA-6(x)	71.36	66.53(12")	-	-	65.50(12")
CB OA-7	70.86*	-	-	-	65.30(18")
CB OA-8	60.47	-	56.97(6")	56.97(6")	56.90(12")
CB OA-9	60.47	-	56.97(6")	56.97(6")	56.50(12")
CB OA-10(F)	60.24	-	-	-	57.27(15")
CB OA-11(F)	60.24	56.94(15")	-	-	56.84(15")
DMH OA-12	63.50	57.14(12"ex)	-	-	57.04(18")
CB OA-13	60.53	56.04(15")	-	-	55.94(18")
CB OA-14(x)*	63.00*	53.14(18")	53.14(12")	-	42.50(18")
CB OA-15(x)*	64.00*	53.70(12")	-	-	53.60(12")
CB OA-16(x)*	63.18*	-	-	-	54.05(12")
CB OA-17	60.26	-	-	58.78(6")	58.14(12")
x DMH OA-18	60.95	55.61(15"ex)	55.21(15")	56.00(12")	55.20(36")
x CB OA-19	60.60	55.21(12"ex)	-	-	55.21(15")
DMH OA-20***	60.80	54.70(36")	54.82(18")	55.00(6")^	54.70(36")
DMH OA-21	61.00	56.40(12")	54.21(36")	-	54.21(36")
DMH OA-22**	65.20	53.25(36")	-	56.15(12")	53.20(36")
DMH OA-23**	62.10	52.75(36")	57.00(15")	-	51.31(42")
DMH OA-24	62.00	-	-	54.86(4")^	55.24(8")
DMH OA-25	60.00*	54.44(8")	-	-	54.00(8")
DMH OA-30	57.10	52.80(8")^	52.80(8")^	55.86(4")^	52.50(24"ex)
CB OA-31	66.30	-	-	-	60.17(12")
CB OA-32	64.19	59.04(12")	-	-	58.94(12")
CB OA-33	61.26	57.61(12")	-	58.35(4")^	57.41(15")
CB OA-34	61.76	56.40(15")	-	54.22(12")	54.00(18")
DMH OA-35	61.61*	53.06(18")	-	-	53.00(18")
CB OA-38	64.50	60.00(15")	-	-	59.80(15")
CB OA-39	62.80	-	-	-	58.06(15")
CB OA-40	61.80	53.50(18")	58.61(15")	-	53.40(18")
TR OA-41	57.88	-	-	-	54.72(12")^
CB OA-43 **	75.50	72.67	-	-	72.57(18")
CB OA-44 **	65.90	62.67	-	-	62.67(15")
TR OA-45	55.88	-	-	-	52.88(8")
TR OA-46	55.88	-	-	-	52.88(8")
DMH OA-48	60.83	56.68(8")	-	57.00(6")	56.58(12")
DMH OA-49	60.80	55.50(12")	55.50(12")^	-	55.40(12")
DMH OA-50	60.77	-	-	-	55.99(12")
DMH OA-51	61.20	52.84(8")	-	-	52.84(8")
A-72(x)	65.96*	51.01(18"ex)	51.06(8"ex)	52.84(8")^	51.01(18"ex)
A-74(x)	58.13	53.73(4"ex)	-	53.40(8")^	51.40(15"ex)
A-70(x)*	64.53	52.53(4"ex)	51.08(18"ex)	51.40(15"ex)	50.68(18"ex)

* ADJUST TO GRADE
** 6' DIA. STRUCTURE
*** 2' SQ. STRUCTURE
^ BACKFLOW PREVENTER REQUIRED
(x) EXISTING STRUCTURE
(F) TYPE "F" [illegible]

GENERAL NOTES

1. ALL CATCH BASIN STRUCTURES ARE 4' DIA. UNLESS OTHERWISE NOTED AND SHALL BE BUILT WITH A MIN. 3 FT. SUMP.
2. TYPE "E" CATCH BASIN STRUCTURES WITH GRANITE CURB INLET STONES SHALL BE INSTALLED IN INTERNATIONAL PARKWAY.
3. THE TWO (2) CATCH BASINS FUNCTIONING AS OUTLET STRUCTURES FROM THE FILTRATION FIELDS ARE SHALL BE TYPE "F", 2' X 2' SQUARE STRUCTURES.
4. ALL DRAIN MANHOLE STRUCTURES SHALL BE 4' DIA. EXCEPT STRUCTURES DMH OA-5, DMH OA-20, DMH OA-22 AND DMH OA-23. THESE STRUCTURES SHALL BE 6' DIA.
5. SEE STRUCTURAL DRAWINGS FOR DETAILS OF THE UNDER SLAB DRAINAGE SYSTEM AND FOUNDATION DRAIN SYSTEM.
6. SEE MECHANICAL DRAWINGS FOR ROOF DRAIN SYSTEM.
7. REFER TO THE CIVIL DETAIL FOR A SPECIFICATION OF THE "TIDEFLEX" SERIES TF-1 BACKFLOW VALVE TO BE INSTALLED IN THE FOLLOWING DRAINAGE STRUCTURES:
   - DMH OA-25, 4" FOUNDATION DRAIN I
   - DMH OA-24, 4" FOUNDATION DRAIN
   - CB A-72, 4" FOUNDATION DRAIN AND 8" TRENCH DRAIN (FROM TR OA-46)
   - CB OA-33, 4" FOUNDATION DRAIN
   - DMH OA-30, 4" FOUNDATION DRAIN AND 8" TRENCH DRAIN (TR OA-45)
8. PROVIDE BACKFLOW PREVENTER ON THE 4" FOUNDATION DRAIN IN CB OA-20.
9. 10" CORE REQUIRED IN EXISTING CB A-72 FOR NEW 10" ROOF DRAIN AT ELEV. 51.06 AND NEW 8" SD FROM TRENCH DRAIN AT ELEV. 52.84.
10. MAINTAIN POSITIVE GRADE ON ALL FOUNDATION DRAINS & RAIN LEADERS, MIN. SLOPE 0.005FT/FT.
11. 12" ROOF DRAIN HEADER PIPE COLLECTING ROOF DRAINS & FOUNDATION DRAINS ALONG ENTRANCE OF TERMINAL INVERT IN TO DMH OA-49 REQUIRES A BACKFLOW PREVENTER.

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oest ASSOCIATES, INC.
engineers · architects · surveyors · construction managers

Issue	Date & Issue Description	By	Check
1	07/11/08 SCHEMATIC DESIGN	WJW	AWL
2	09/22/08 DESIGN DEVELOPMENT	WJW	AWL
3	12/03/08 75% CONSTRUCTION DOCUMENTS	WJW	AWL
4	01/23/09 95% CONSTRUCTION DOCUMENTS	WJW	AWL
5	10/26/09 ISSUED FOR PERMIT	WJW	FEM

Seal/Signature

STATE OF MAINE · MICHAEL R. DELOREY · PROFESSIONAL ENGINEER
23 October 2009

Project Name
PWM Terminal Enhancement

Project Number
09.8365.000

CAD File Name
T:\5330101\SHEETS\C02.02.DWG

Description
SITE GRADING & DRAINAGE PLAN

Scale
1" = 40'

Ref. North

C02.02

SUMMARY OF IN-PLACE DENSITIES - ASTM D6938
TERMINAL ENHANCEMENT AT THE PORTLAND INTERNATIONAL JETPORT
PORTLAND, MAINE
RWG&A PROJECT NO. 557-14

Client: City of Portland
Test Date: 5/28/2010
Technician: MJK
Gauge Model/Serial Number: L 500

Lab No.	Soil Description	ASTM D1557 Max Density	ASTM D1557 Opt. Moisture
11194	Poorly Graded Sand	111.0	11.4
11151	3" Minus Type D Material	133.0	7.3

Report Issue Date:

Test No.	Location	Elevation	ASTM D6938 Dry Density (pcf)	ASTM D6938 Water Content (%)	Percent of Max. (%)	Lab. No.
1	10' from CB #40 Toward CB OA-39 Over drain line	FG -1'	104.9	2	95	11194
2	30' from CB #40 Toward CB OA-39 Over drain line	FG -1'	106.5	4	96	11194
3	50' from CB #40 Toward CB OA-39 Over drain line	FG -1'	107.6	3	97	11194
4	XD/ halfway between Z3 & Z4	TOF	126.9	4	96	11151
5	XD/Z5 East side	ToF +1'	128.3	4	97	11151
6	XD/Z4 East side	ToF +1'	128.6	4	97	11151
7	XD/Z2 Southwest corner	TOF	126.7	3	95	11151
8	XD/North corner @ Z3	TOF +1'	132.5	4	100	11151
9	XD/ halfway between Z2 & Z3	TOF	128.3	4	97	11151
10	XD/Z2 East side	TOF	125.8	4	95	11151
11	North side of CB OA-39	Top of MH -1'	105.4	3	95	11194
12	North side of CB OA-39	Top of MH	105.5	2	95	11194

Remarks:

FG = Finish Grade
FF = Finish Floor
FGB = Finish Grade of Base
FGSB = Finish Grade of Subbase
FGSG = Finish Grade of Subgrade

TOW = Top of Foundation Wall
BOF = Bottom of Footing
SG = Subgrade
TOP = Top of Pipe
TOF = Top of Footing

Checked by: Matthew T. Gray

R. W. Gillespie Associates, Inc.
Corporate Office 86 Industrial Park Road, Ste. 4, Saco, ME 04072
Branch Office 200 International Drive, Ste. 170, Portsmouth, NH 03801

SUMMARY OF IN-PLACE DENSITIES - ASTM D6938
TERMINAL ENHANCEMENT AT THE PORTLAND INTERNATIONAL JETPORT
PORTLAND, MAINE
RWG&A PROJECT NO. 557-14

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11194	Poorly Graded Sand	111.0	11.4
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Report Issue Date:

Test No.	Location	Elevation	ASTM D6938 Dry Density (pcf)	ASTM D6938 Water Content (%)	Percent of Max. (%)	Lab. No.
13	XD/Z2 East corner	TOF +1'	126.9	3	96	11151
14	XD/Z2 West corner	TOF +1'	126.4	4	95	11151

Remarks:

FG = Finish Grade
FF = Finish Floor
FGB = Finish Grade of Base
FGSB = Finish Grade of Subbase
FGSG = Finish Grade of Subgrade

TOW = Top of Foundation Wall
BOF = Bottom of Footing
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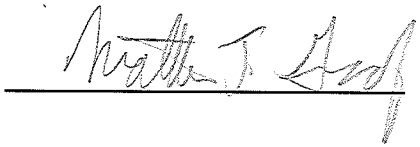
Checked by: 

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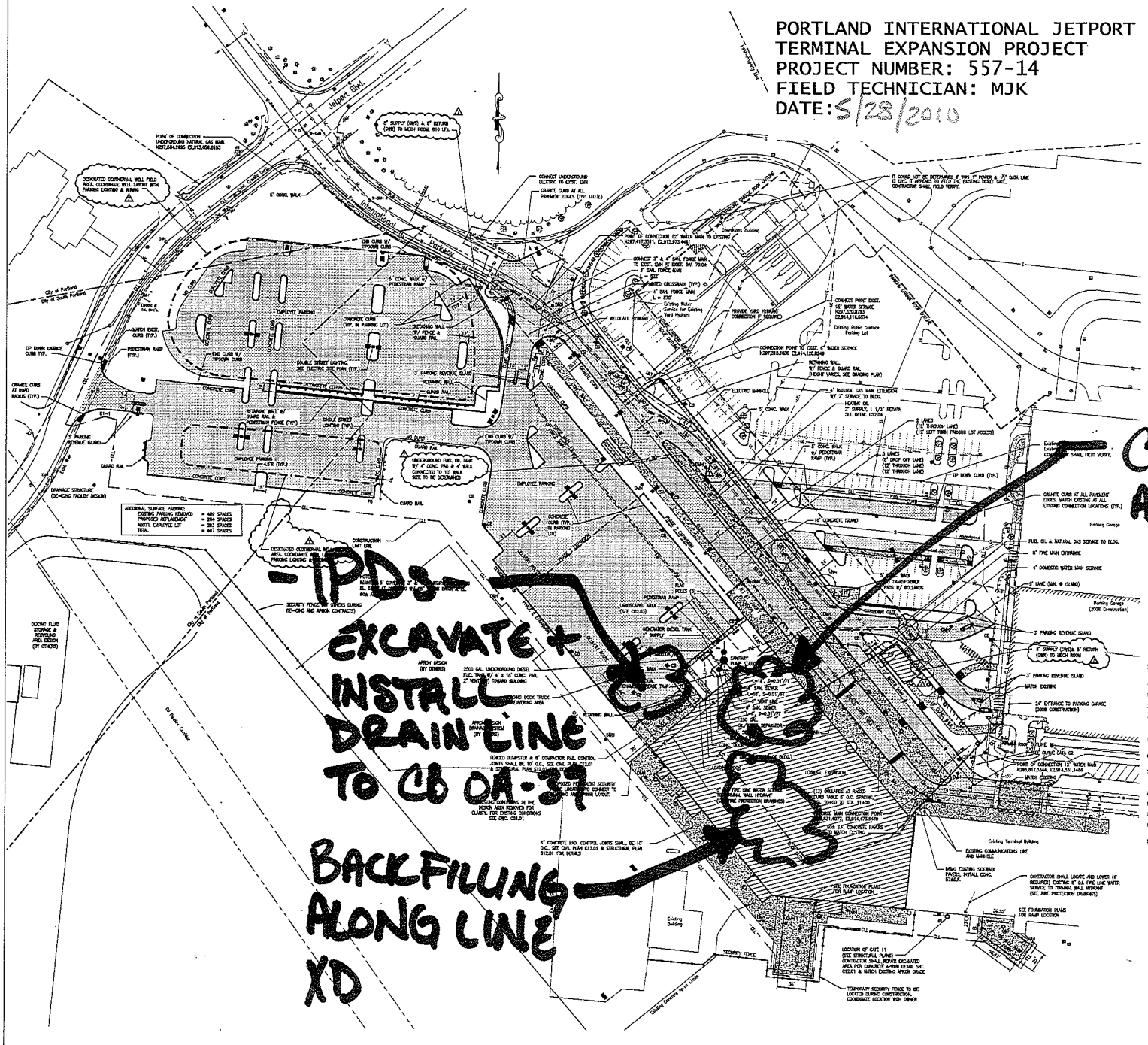
PORTLAND INTERNATIONAL JETPORT
TERMINAL EXPANSION PROJECT
PROJECT NUMBER: 557-14
FIELD TECHNICIAN: MJK
DATE: 5/28/2010



SHEET NOTES

GENERAL NOTES

SCOPE DELINEATION AND GENERAL WORK SEQUENCING

1. SITE CONTRACTOR (SC) CLEARS, GRUBS AND STOCKPILES TOPSOIL.
2. SC INSTALLS RETENTION POND AND CONSTRUCTS RETAINING WALL.
3. SC INSTALLS SILT FENCE/HAY BALES TO PROTECT RETENTION POND
4. SC EXCAVATES EXISTING SOIL (WEST AND CENTRAL PORTION OF WELL FIELD) AND PLACES FILL (EAST PORTION OF WELL FIELD) TO A LEVEL 2 FEET BELOW FINISH PAVEMENT GRADE
5. SC TURNS WELL FIELD/PARKING LOT AREA OVER TO GEOTHERMAL SUBCONTRACTOR (GSC)
6. GSC INSTALLS WELLS, MANAGES DRILLWATER AND MANAGES DRILL CUTTINGS
7. GSC EXCAVATE TRENCHES, INSTALLS PIPE GROUTS, TESTS, BACKFILLS AND COMPACTS TRENCH BACKFILL TO A LEVEL 2 FEET BELOW FINISH PAVEMENT GRADE
8. GSC TURNS WELL FIELD/PARKING LOT AREA BACK OVER TO SC
9. SC INSTALLS ELECTRICAL FEEDS
10. SC PROOFROLLS SUBGRADE
11. SC PLACES AND COMPACTED SUBBASE AND BASE MATERIALS, SETS CURBS
12. SC PLACES PAVEMENT BINDER AND TOP COURSES, TEMPORARY STRIPPING

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Issue	Date & Issue Description	By	Check
1	01/15/10 BULLETIN #4	WW	FDM

Project Name: PWM Terminal Enhancement

Project Number: 06.0061.000

CAD File Name: T:\533101\SHEETS\C02.01.GTDWG.DWG

Description: GEOTHERMAL LAYOUT PLAN

Scale: 1" = 40'

C02.01.GTDWG