INLAND PROFESSIONAL CORPORATION
Environmental, Construction & Business Management

September 6, 2018

Mark McSharry
McSharry Bros., Inc.
P. O. Box 206
Abington, MA 02370

RE: Executive Summary – Inland Professional Corporation: P.O. # 1841
ASTM Phase I Environmental Site Assessment (ESA) / Excavation Test Pit
Subject Property: Map 76 Lot 18, Winter Street, Hanover, MA 02339 (6.5 acres)

Dear Mr. McSharry,

As requested, Inland Professional Corporation (IPC) performed an ASTM Phase I Environmental Site Assessment (ESA) for the above-described Subject Property located along the west side of Winter Street in the Town of Hanover, Massachusetts, as represented by Joseph V. Polsinello, Principal of IPC, and a Licensed Site Professional (LSP) and by Jennilee Cannucci / Geoscientist / Project Management. The Subject Property is a commercial property that consists of approximately six and one half (6.5) acres of vacant wooded land, and per the attached Assessor's Record Card has the Parcel Identification Number (Parcel ID #: 76-18). As referenced in the attached Aerial Photograph, the Subject Property is bordered to the north and south by light industrial / commercial properties, with up-gradient single / multi-family residences across from Winter Street, to the east, and to the west is vacant undeveloped land that consists of the Torrey Branch River and further west to the Factory Pond. IPC / Polsinello / Cannucci have conducted numerous site specific inspections of the Subject Property throughout August during multiple different site conditions to include heavy and continuous precipitation events, and sunny clear days, which provided IPC with an excellent opportunity for inspection of the Subject Property, drainage, and adjacent surroundings. During these inspections / walk-throughs, IPC took note of five (5) foundations, previously assumed for use as sheds; the first located at the southwest corner of the Subject Property; the other four (4) oriented north-south along the eastern property boundary in line with the 301 Winter Street Building located south of the Property (Reference McKenzie Engineering Site Plan and Photographic Documentation).

On Monday August 13, 2018, subsequent to the IPC's initial inspection of the Property, Joseph V. Polsinello of IPC attended a Public Planning Board Hearing, during which, there were questions, inquiry, and concern as to the historic use of the Subject Property to include the assumed use of magnesium metal as stated by a Town of Hanover resident. Historic information also supported that assumption.

A culmination of information and communications between the interests to include the Town of Hanover's Conservation Commission, Fire Department, and the Massachusetts Department of Environmental Protection (MA DEP) in the identification of potential results of historic use as the Historic National Fireworks Site and a potential site for grinding magnesium. A mutually agreed

upon scope of work to conduct assessment work to include conducting excavation test pits in and around the five (5) foundations at the Subject Property was considered. The scope of work included collecting representative soil samples to be sent to a Massachusetts Certified Laboratory for Magnesium Metal analysis.

A request and review with the Hanover Conservation Commission Agent resulted in approval to conduct the work under a temporary permit. Additional meetings and discussion, and IPC knowledge and research prompted development of a health and safety / environmental protection scope of work to include the Hanover Fire Department Chief Jeffrey Blanchard inclusive of Massachusetts Department of Environmental Protection (MA DEP) South Eastern Regional Office (SERO) providing oversight for the "Fireworks Site(s)". The Hanover Board of Health and Building Department were also advised of the scope of work.

Subsequent to initiating and implementing the IPC scope of work; development of a specific Health and Safety / Environmental Protection Plan and Dig Safe and utility clearance were obtained to commence the work on Tuesday August 21st, 2018.

IPC work to include the ongoing ASTM Phase I ESA / Excavation Test Pit Assessment conducted in coordination with the Fire Chief Blanchard, and the MA DEP's Kendall Walker and Deborah Marshall Hewlitt, on site individuals, conducted Excavation Test Pits the day of Tuesday, August 21, 2018. Previously explained above, there are five (5) foundations located throughout the Subject Property: the first foundation (F1SW) located at the Subject Property's southwest corner, was cleared of any debris and overgrown vegetation, it was noted that it had a concrete floor, therefore IPC conducted the first excavation test pit at the northeast corner of F1SW; then Foundations "2" and "3" located at the southeast corner, adjacent to the 301 Winter Street Building, each had two (2) excavation test pits conducted approximate depths of ten (10) to twelve (12) feet below grade from the foundations bottom; and for foundations "4" and "5", located at the Property's northeastern corner, foundation "4" consisted of a concrete pad and foundation "5" had approximately three (3) concrete pillars that marked its location, one (1) excavation test pit was conducted in between these areas to a depth of approximately (10) feet below grade. During excavations it was noted, that there was no groundwater observed, pits depths range from 12-16 feet below grade; all soils were represented of virgin sandy soils and some silty clay; there were no debris, containers, scrap, soil stains, pockets of suspect materials encountered in any of the areas; by visual observations there was no identification of magnesium metals of any accumulated magnesium metals, white particles, and / or residuals. McKenzie Engineering Engineer, conducted nineteen (19) previous excavation test pits and noted the similar observations of no white powder associated with magnesium, virgin sandy / clay soils, no debris, containers, scrap, soil stains, pockets of suspect materials encountered.

IPC / Polsinello / Cannucci obtained representative soil samples from each of the six (6) Excavation Tests Pits located in and around each of the five (5) foundations; sixteen (16) soil

samples were collected, field analyzed per a Photoionization detector (PID) for DEP Headspace methods resulting in non detectable (ND), prepared, packaged, and sent to a Massachusetts Certified Laboratory per a chain of custody and were tested for Magnesium Metal and RCRA 8 Metals.

IPC / Polsinello has received and comprehensively reviewed the Alpha Analytical report dated August 28, 2018 in conjunction with the MA DEP Massachusetts Contingency Plan (MCP) 310 CMR 40.000, which reports that all RCRA 8 Metal samples resulted in ND, per the minimum detection limits below the S-1 category (residential/institutional MA MCP Reportable Concentration Standards). All the excavation test pits resulted in magnesium metals in the 1320ppm – 1450ppm (parts per million) with one discrete sample at 2720ppm. Samples collected throughout the Property, do not have a reportable quantity (RQ) that exceeds ten (10) pounds. There is no reportable concentration for magnesium for soils or groundwater. The Upper Concentration Limits (UCLs) in soils and groundwater Method 1 Tables resulted in no reference to magnesium metals as a reportable concentration (with the exceptions of RQ 10 pounds not identified).

Based on the above described IPC work conducted and analytical results, in coordination and review with the Town of Hanover's Fire Chief Blanchard, and the MA DEP Kendall Walker and Deborah Marshall Hewlitt, the ASTM Phase I / Excavation Test Pit Assessment Report in the opinion of Inland Professional Corporation (IPC) concludes in support of the business at hand for the development of the Subject Property for commercial with non residential / non institutional use into the foreseeable future.

Joseph V. Polsinello
President / LSP

Jennilee M. Cannucci
Geoscientist / Project Management

CC: Town of Hanover: Board of Health; Conservation Commission; Planning Board
Town of Hanover Fire Chief Jeffery Blanchard
MA DEP: Kendall Walker; Deborah Marshall Hewlitt; Leonard Pinaud; and Gerard Martin
McKenzie Engineering / Al Loomis

Attachments: Aerial Photograph
Site Location Map
MA DEP GIS Phase I GW Site Assessment Map
Assessor's Record Card
Assessor's Map
Photographic Documentation, McKenzie Site Plan Noted by IPC
Pertinent Alpha Laboratory Soil Results, Portions MCP R/C Method 1 Risk UCL

Appendix A – *Aerial Photograph*

Appendix A – *Site Location Map*

MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

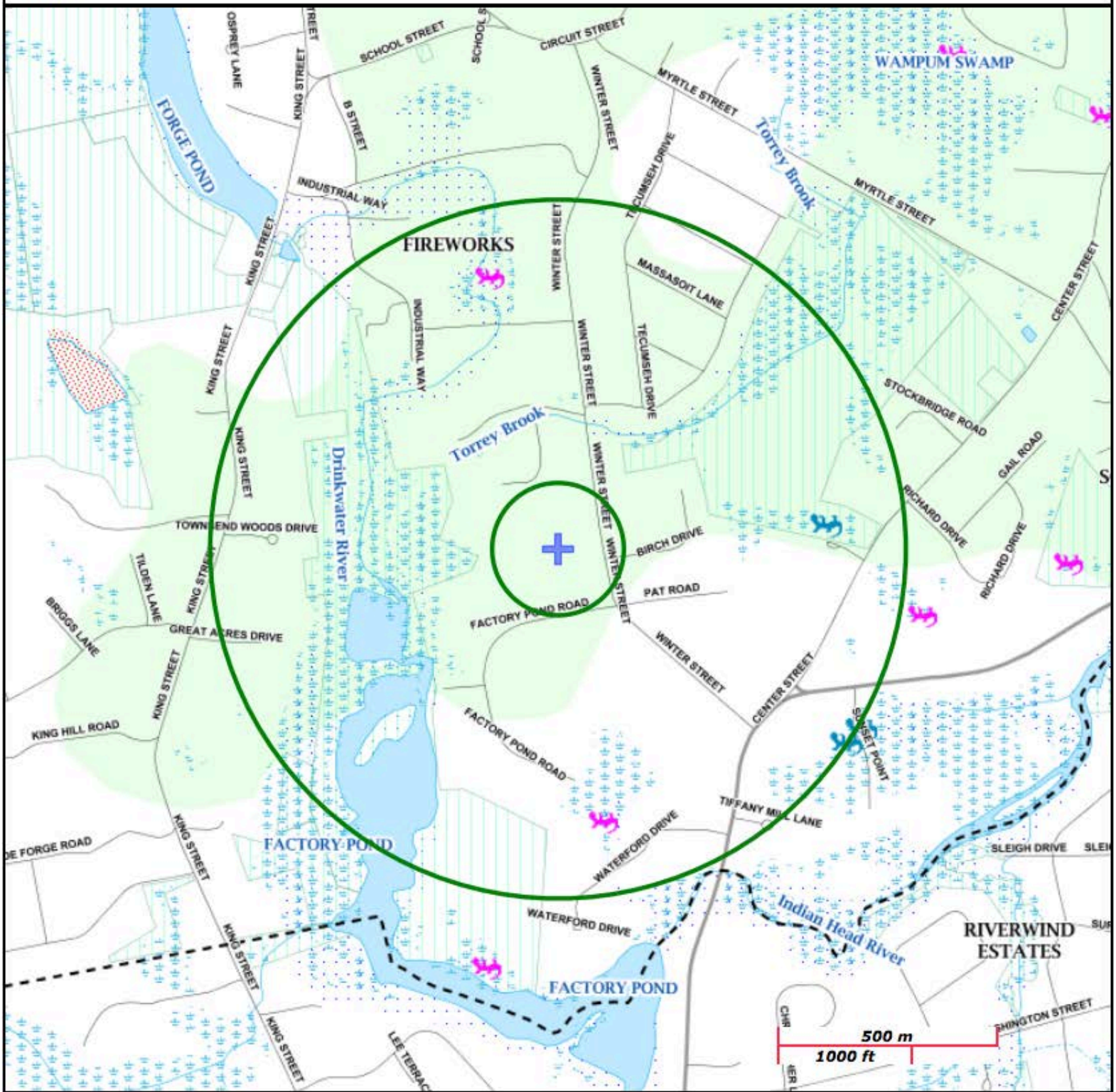
Site Information:

301 WINTER STREET HANOVER, MA

NAD83 UTM Meters:
4662268mN , 345379mE (Zone: 19)
August 8, 2018

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg, Non-Com

WINTER ST REAR

Location	WINTER ST REAR	**Mblu**	76/ / 18/ /
Acct#		**Owner**	SHEFTEL STEVEN J TT
Assessment	$80,600	**Appraisal**	$80,600
PID	3448	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$0	$80,600	$80,600
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$0	$80,600	$80,600

Owner of Record

Owner	SHEFTEL STEVEN J TT
Co-Owner	THE STEVEN J SHEFTEL FAMILY TRUST
Address	2697 N. OCEAN BLVD, #F510 BOCA RATON, FL 33431

Sale Price	$100
Certificate	
Book & Page	34855/ 265
Sale Date	07/25/2007
Instrument	1A

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
SHEFTEL STEVEN J TT	$100		34855/ 265	1A	07/25/2007
SHEFTEL STEVEN J	$0		5165/ 333		06/23/1982

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: $0

Building Percent Good:

Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**
Style	Vacant Land
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	

Building Photo

(http://images.vgsi.com/photos/HanoverMAPhotos//default.jpg

Building Layout

(http://images.vgsi.com/photos/HanoverMAPhotos//Sketches/3

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Land Line Valuation

Use Code	4410	**Size (Acres)**	6.5
Description	IND LD PO	**Frontage**	0
Zone	I	**Depth**	0
Neighborhood	200	**Assessed Value**	$80,600
Alt Land Appr	No	**Appraised Value**	$80,600
Category			

Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$0	$80,600	$80,600
2017	$0	$89,400	$89,400
2016	$0	$89,400	$89,400

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$0	$80,600	$80,600
2017	$0	$89,400	$89,400
2016	$0	$89,400	$89,400


WINTER STREET
AMES WAY
FACTORY POND ROAD
Parcels for Identify
Places
Fire Station
Police Station
Town Hall
Public Library
School
School Library
Buildings
Parcels
MA Highways
Interstate
US Highway
Numbered Routes
Town Boundary
Abutting Town Labels
Abutting Towns
Streets
Waterbodies
Bathymetry
0-5 ft
5-10 ft
10-15 ft
15-20 ft
20-30 ft
30-40 ft
40-50 ft
50-60 ft
60-70 ft
70+ ft
The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.

Appendix B – *Photographic Information*

1.) Foundation # 1 – Southwest, downgradient area of the Subject Property Buffer Area – Result poured concrete floor no evidence of debris, residual magnesium, no PID readings, petroleum / hazardous materials, stain, and olfactory odors. TUESDAY AUGUST 21, 2018

2.) Excavation test pit to sixteen (16) feet below adjacent to existing Foundation # 1 southwest clean virgin soils granular sand, no debris, no olfactory odors, no stains, no PID readings. Note: Sampled for Magnesium and 8 RCRA metals.

3.) Excavation test pits foundation # 3 – eight (8) feet below grade, sand and gravel and silty / clay soils. No debris, no olfactory odors, no stains, no PID readings. Note: Samples for magnesium and 8 RCRA metals.

4.) Excavation test pits foundation # 2 (southeast) eight (8) feet below grade, sand and gravel and silty / clay soils. No debris, no olfactory odors, no stains, no PID readings. Note: sampled for magnesium and 8 RCRA metals.

5.) Concrete foundation # 4 (pad) clean sandy gravel below / no observations of debris, stains, residuals.

6.) Concrete foundation # 5 (Pad) northeast.

7.) Concrete Foundation # 5 (Pad) northeast. Clean sandy gravel below no observations of debris, stains, residuals.

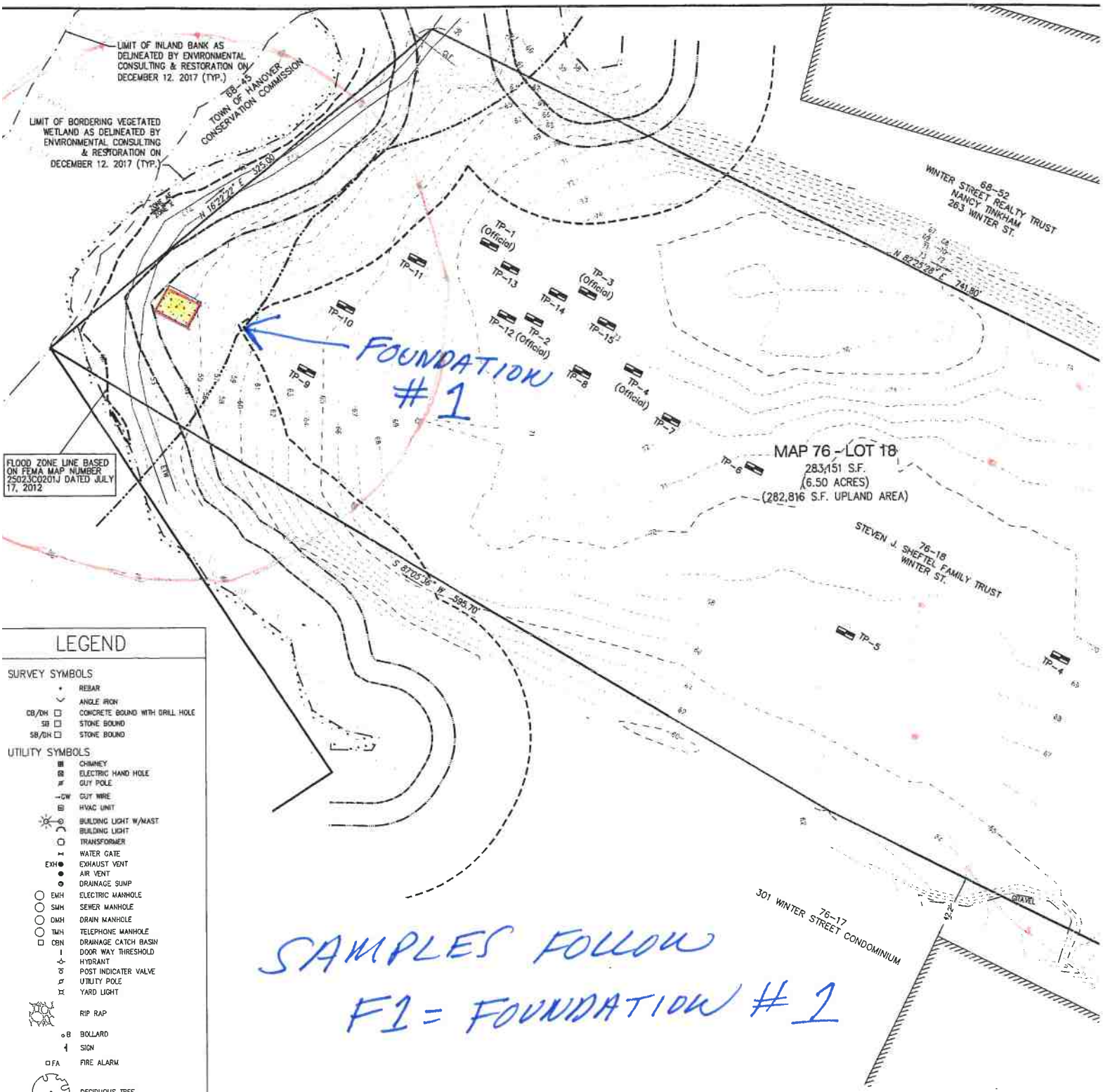
8.) Excavation test pit to sixteen (16) feet below grade, between concrete pad # 4 and # 5 virgin granular gravel and sand evidence of debris, residuals of magnesium, no PID readings, petrolem / hazardous materials stains olfactory odors. Note: Sampled for magnesium and 8 RCRA metals.

Appendix B – *Photographic Information*

9.) View of soil samples collected from the Winter Street Property's Excavation Test Pits 1-6 that have been prepared, packaged, and sent to a Massachusetts Certified Laboratory for Magnesium and RCRA 8 metal analysis.

JOSEPH POLSINELLO

JENNILEE CANNUCCI



LEGEND

SURVEY SYMBOLS

- REBAR
- ANGLE IRON
- CB/DH — CONCRETE BOUND WITH DRILL HOLE
- SB — STONE BOUND
- SB/DH — STONE BOUND

UTILITY SYMBOLS

- CHIMNEY
- ELECTRIC HAND HOLE
- GUY POLE
- GW — GUY WIRE
- HVAC UNIT
- BUILDING LIGHT W/MAST
- BUILDING LIGHT
- TRANSFORMER
- WATER GATE
- EXH — EXHAUST VENT
- AIR VENT
- DRAINAGE SUMP
- EMH — ELECTRIC MANHOLE
- SMH — SEWER MANHOLE
- DMH — DRAIN MANHOLE
- TMH — TELEPHONE MANHOLE
- CBN — DRAINAGE CATCH BASIN
- DOOR WAY THRESHOLD
- HYDRANT
- POST INDICATER VALVE
- UTILITY POLE
- YARD LIGHT
- RIP RAP
- B — BOLLARD
- SIGN
- FA — FIRE ALARM
- DECIDUOUS TREE
- CONIFEROUS TREE

LINE DESIGNATORS

- W — WATER MAIN
- HANDRAIL
- JERSEY BARRIER
- GUARD RAIL
- RAILROAD TRACKS
- OHW — OVERHEAD WIRES
- G — GAS LINE
- WS — WATER SERVICE
- E — UNDERGROUND ELECTRIC
- D — STORM DRAIN LINE
- S — SANITARY SEWER LINE
- DRAINAGE SWALE
- X — CHAIN LINK FENCE

ABBREVIATIONS

FFE	FIRST FLOOR ELEVATION
BIT CONC.	BITUMINOUS CONCRETE PAVEMENT
CCB	CAPE COD BERM
EP	EDGE OF PAVEMENT
BC	BITUMINOUS CONCRETE CURB
(AM)	AS MEASURED
RET WALL	RETAINING WALL
CONC.	CONCRETE
RCP	REINFORCED CONCRETE PIPE
VGC	VERTICAL GRANITE CURB
ETW	EDGE OF TRAVEL WAY
MTL	METAL BERM
VCC	VERTICAL CONCRETE CURB
CMP	CORRUGATED METAL PIPE

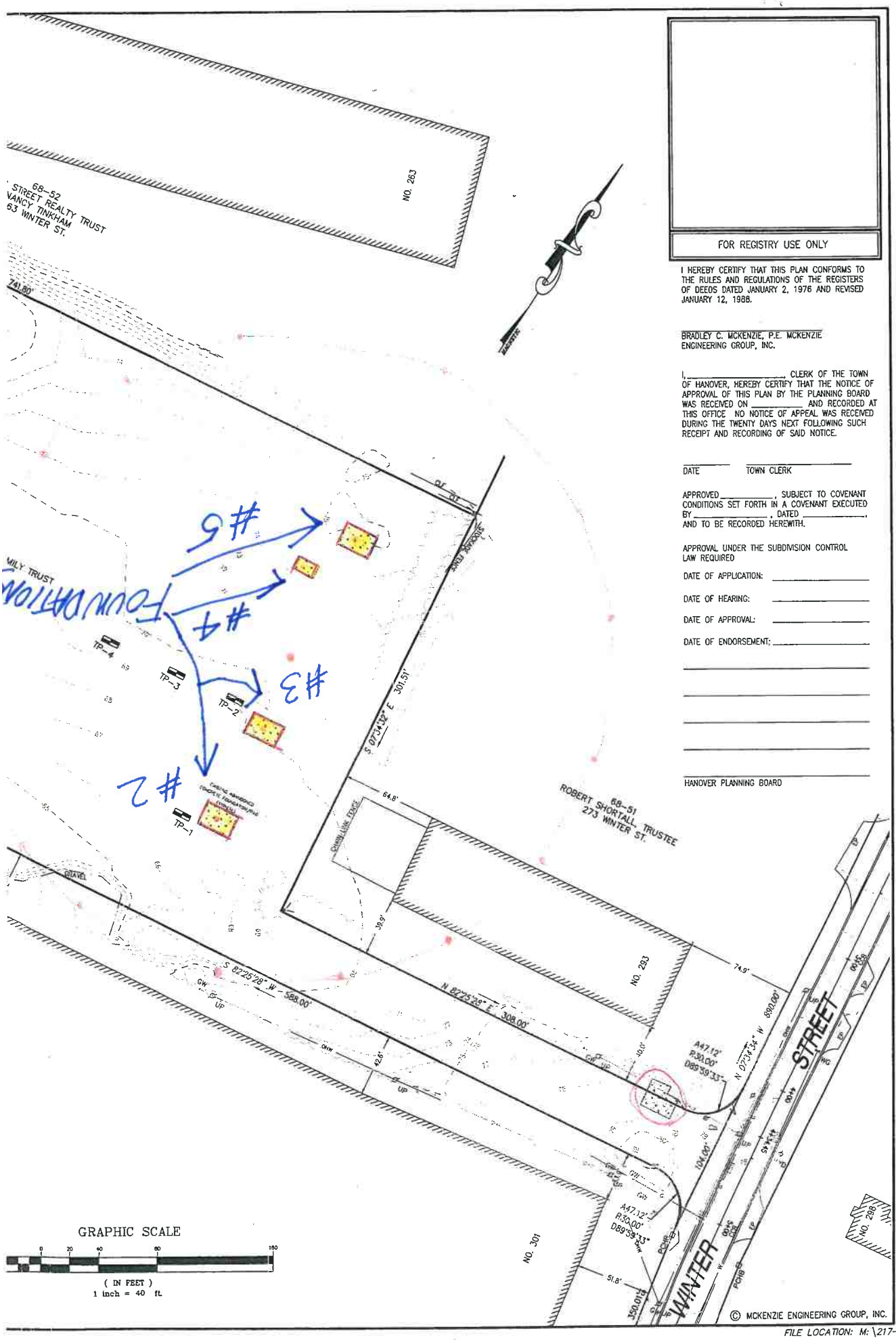
SURVEY NOTES:

1. THIS SURVEY WAS MADE ON THE GROUND IN DECEMBER OF 2017 BY MCKENZIE ENGINEERING GROUP, INC.
2. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988
3. WETLAND RESOURCE AREAS WERE ENCOUNTERED DURING THE FIELD SURVEY.
4. MINIMUM SETBACK REQUIREMENTS:
   ZONING DISTRICT: INDUSTRIAL
   FRONT YARD 75'
   SIDE YARD 25'
   REAR YARD 40'
5. THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE AE & ZONE X OF THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL No. 25023C0201J, WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 2012.
6. UTILITY INFORMATION FROM ABOVE GROUND OBSERVED EVIDENCE IN CONJUNCTION WITH DIG SAFE MARKINGS AND RECORD PLANS. THE LAND SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE LAND SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. BEFORE CONSTRUCTION CALL DIG SAFE SYSTEMS, INC. AT 1-888-344-7233.

GRAPHIC S

40 0 20 40

(IN FEET
1 inch = 40



FOR REGISTRY USE ONLY

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS DATED JANUARY 2, 1976 AND REVISED JANUARY 12, 1988.

BRADLEY C. MCKENZIE, P.E. MCKENZIE ENGINEERING GROUP, INC.

I, _____, CLERK OF THE TOWN OF HANOVER, HEREBY CERTIFY THAT THE NOTICE OF APPROVAL OF THIS PLAN BY THE PLANNING BOARD WAS RECEIVED ON _____ AND RECORDED AT THIS OFFICE NO NOTICE OF APPEAL WAS RECEIVED DURING THE TWENTY DAYS NEXT FOLLOWING SUCH RECEIPT AND RECORDING OF SAID NOTICE.

_____ _____
DATE TOWN CLERK

APPROVED _____, SUBJECT TO COVENANT CONDITIONS SET FORTH IN A COVENANT EXECUTED BY _____, DATED _____, AND TO BE RECORDED HEREWITH.

APPROVAL UNDER THE SUBDIVISION CONTROL LAW REQUIRED

DATE OF APPLICATION: _____

DATE OF HEARING: _____

DATE OF APPROVAL: _____

DATE OF ENDORSEMENT: _____

_____

_____

_____

_____

_____
HANOVER PLANNING BOARD

REV	DATE	DESCRIPTION	BY	APP

MCKENZIE ENGINEERING GROUP
Assinippi Office Park
150 Longwater Drive, Suite 101
Norwell, MA 02061
P: 781.792.3900
F: 781.792.0333
www.mckeng.com

DEFINITIVE SUBDIVISION PLAN
WINTER STREET
(ASSESSOR'S MAP 76, LOT 18)
WINTER STREET
HANOVER, MASSACHUSETTS

REGISTERED PROFESSIONAL SURVEYOR:

COMMONWEALTH OF MASSACHUSETTS
RICHARD J. HOOD
No. 35031
PROFESSIONAL LAND SURVEYOR

PERMIT SET

APPLICANT:
MCSHARRY BROS., INC.
7 LEAH DRIVE
ROCKLAND, MASSACHUSETTS 02370

DRAWN BY:	AWL
DESIGNED BY:	AWL
CHECKED BY:	BCM
APPROVED BY:	BCM
DATE:	JULY 2, 2018
SCALE:	1"=40'
PROJECT NO.:	217-169

DWG. TITLE:
Existing Conditions Plan

DWG. No:
3

FILE LOCATION: M:\217-169\Dwgs\217-169 Definitive.dwg

CHAIN OF CUSTODY

PAGE 1 OF 2

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Inland Professional Corporation
Address: 51 Mill St, Unit 7, Hanover, MA 02339
Phone: 518-463-7800
Email: joe@inlandprofcorp.com

Project Information

Project Name: 1841 Winter St
Project Location: Winter St, Hanover, MA
Project #: 1841
Project Manager: Joseph Polsinelli
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

Report Information - Data Deliverables

☐ ADEx ☑ EMAIL

Billing Information

☑ Same as Client info PO #: 1841

Regulatory Requirements & Project Information Requirements

☑ Yes ☐ No MA MCP Analytical Methods
☐ Yes ☑ No CT RCP Analytical Methods
☑ Yes ☑ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☑ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☑ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

JOSEPH POLSINELLO Joseph Polsinello
Jennilee Cannucci Jennilee Cannucci

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☐ 8260 ☐ 624	SVOC: ☐ 8270 ☐ 625	METALS: ☐ MCP 13 ☐ RCRA5	METALS: ☐ MCP 14 ☐ RCRA8	EPH: ☐ RCP 15 ☐ PP13 ☐ Ranges Only	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Total Solids - SM2540G(TS)	Total Magnesium - EPA 6010D	Sample Comments	TOTAL # BOTTLES
	F1SW-101	8/21/18	10:40am	Soil	JMC/JVP								X	X			2
	F1SW-102	8/21/18	10:42am	Soil	JMC/JVP								X	X			2
	F1SW-103	8/21/18	10:44	Soil	JMC/JVP								X	X			2
	F1SW-104	8/21/18	10:46	Soil	JMC/JVP								X	X			2
	F1SW-105	8/21/18	10:48	Soil	JMC/JVP								X	X			2
	F1SW-106	8/21/18	10:50	Soil	JVP			X									
	F2TPA-101	8/21/18	12:10	Soil	JMC/JVP								X	X			2
	F2TPA-102	8/21/18	12:12	Soil	JMC/JVP			X									
	F2TPB-101	8/21/18	12:14	Soil	JMC/JVP								X	X			2
	F2TPB-102	8/21/18	12:16	Soil	JMC/JVP			X									
					Container Type								P	G			
					Preservative								A	A			

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Jennilee Cannucci	8/22/18 12:15	[illegible] AAL	8/22/18 1215
[illegible]	8/22/18		

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO. 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab:

ALPHA Job #:

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Inhard Professional Corporation
Address: 51 Mill St, Unit 7, Hanover, MA 02339
Phone: 518-463-7800
Email: joe@inhardprofcorp.com

Project Information

Project Name: 1841 Winter St
Project Location: Winter St, Hanover, MA
Project #: 1841
Project Manager: Joseph Polsinello
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due:

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☑ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☑ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☑ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Additional Project Information:

Joseph Polsinello JOSEPH POLSINELLO
Jennifer Cannucci Jennifer Cannucci

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ☐ 8260 ☐ 624 ☐ 524.2	SVOC: ☐ ABN ☐ PAH	METALS: ☐ MCP 13	METALS: ☐ RCRA5 ☑ RCRA8 ☐ MCP 14 ☐ RCP 15	EPH: ☐ Ranges & Targets ☐ Ranges Only ☐ PP13	VPH: ☐ Ranges & Targets ☐ Ranges Only	☐ PCB ☐ PEST	TPH: ☐ Quant Only ☐ Fingerprint	Total Solids - SM2540 (TS)	Total Magnesium - EPA 6010D			Sample Comments	TOTAL # BOTTLES
	F3TPA-101	5/21/18	11:40	Soil	JMC/JVP								X	X					2
	F3TPA-102	5/21/18	11:42	Soil	JMC/JVP			X											
	F3TPB-101	5/21/18	11:44	Soil	JMC/JVP								X	X					2
	F3TPB-102	5/21/18	11:46	Soil	JMC/JVP			X											
	F4-5-TPA-101	5/21/18	12:40	Soil	JMC/JVP								X	X					2
	F4-5-TPA-102	5/21/18	12:42	Soil	JMC/JVP			X											

SAMPLE INFO
Filtration ☐ Field ☐ Lab to do
Preservation ☐ Lab to do

Container Type													P	G					
Preservative													A	A					

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

MA DEP CAM Compliant

Relinquished By:	Date/Time	Received By:	Date/Time
Jennifer Cannucci	5/22/18 12:15	[signature] AM	5/23/18 12:15

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

INLAND PROFESSIONAL CORPORATION
Environmental, Construction & Business Management

Tuesday August 10, 2018 Via Email

To: Sandra McFarlane, Agent for the Commission
Hanover Conservation Commission
CC: Michaela Shoemaker, Town Planner
Hanover Planning Board

RE: Adjacent to 301 Winter Street, Hanover – Assessors Map 76, Lot 18
Applicant: Mark and John McSharry, McSharry Brothers, Inc.
Alan W. Loomis, Civil Engineer – MEG Engineering Group
IPC Project # 1841 – MA DEP 21E Environmental Site Assessment
Request for Approval to Conduct Limited Assessment Buffer Area

Dear Conservation Commission Agent:

Inland Professional Corporation (IPC) represented by Joseph V. Polsinello, A MA DEP Licensed Site Professional (LSP) is conducting a MA DEP Chapter 21 E / ASTM Standard Environmental Site Assessment for the above referenced Subject Property further identified and referenced on *MEG Engineering Group* "Definitive Subdivision Plan, Winter Street, Hanover, MA dated July 2, 2018.

Based on the recent Hanover Planning Board meeting Monday August 13, 2018 we request your assistance in providing direction and opportunity to conduct a scope of work proposed for Tuesday August 21, 2018 to conduct excavation test pits in and around historic abandoned concrete foundations indicated on the yellow highlighted / red lined MEG plan. Specific to the foundation indicated at the southwestern corner and depicted on photographic documentation by Polsinello inspected August 14, 2018 AM; that area the only foundation located in your jurisdictional buffer area. As inspected by Polsinello, there is a clear at least fifty (50) foot up land area between the foundation and down gradient wetland. Prior to commencing work IPC will ensure erosion control is installed. IPC does not anticipate any significance disturbance to the upland area below the foundation.

IPC / LSP and the Project Manager with IPC Geoscientist Jennilee Cannucci will be conducting the scope of work on Tuesday August 21st. Specific to the southwestern foundation the plan subsequent to implementing the on site health & safety / environmental protection plan is to carefully remove all debris and move well above inside and beyond the upland area. Subsequent to removal of all the debris, excavation test pits will be conducted within the poured concrete foundation area for the purposes

of visual, olfactory, MA DEP headspace screening PID (photo ionization detector) assessment by Polsinello and Cannucci. Additionally, numerous representative soil samples will be obtained within the excavation test pits for laboratory analysis for the selected constituents of concern. Those samples a field noted for location and elevation will be packaged, preserved, documented on a chain of custody record by Polsinello / Cannucci and transported to the Massachusetts certified laboratory.

Subsequent to conducting the assessment at the foundation located in the jurisdictional upland area, IPC / Polsinello will ensure the area is secured and maintain consideration for erosion and soil / silt migration to the buffer up land to the delineated and marked upland (divide and separation of upland versus wetland is clear and defined as there is an upland "bank" to wetland).

Subsequent to first conducting the southwestern foundation, other foundations depicted on the plan located on the MEG plan will be assessed in the same scope of work process.

Please feel free to contact me at anytime Joe Polsinello 518 463 7800 mobile direct / Jennilee Cannucci 508 813 4888.

Thank you for your time and consideration.

Joseph Polsinello

Joseph V. Polsinello
President / LSP
518 463 7800 mobile direct

Attachments

Town of Hanover, MA

Conservation Commission Permit

550 Hanover Street Hanover, MA 02339
Phone: 781-826-6505 Fax: 781-826-5950

Permit No #: C-18-72

Date Recieved: **8/15/2018**

8/15/2018
Date

SECTION 1 : SITE INFORMATION

1.1 Property Address	1.2 Assessors Map & Parcel Number
0 WINTER ST REAR	**76-018**
Applicant: Joseph Polsinello, LSP. Inland Prof. Corp.	1.4 Property Dimensions **283140** Lot Area / Frontage (ft)

1.5 Buidling Setbacks (ft)

Front Yard		Side Yard		Rear Yard	
Required	Provided	Required	Provided	Required	Provided
0.00	0.00	0.00	0.00	0.00	0.00

SECTION 2: PROPERTY OWNERSHIP/AUTHORIZED AGENT

Owner of Record

Name	Address	Signature
SHEFTEL STEVEN J TT	**2697 N. OCEAN BLVD, #F510BOCA RATON FL**	

SECTION 3: Description of Proposed Work

Permit For: **Minor Activities Application/Permit**

Brief Description of Proposed Work:

Applicant: Joseph Polsinello, LSP, Inland Professional Corp.

Work Description: Soils and related site testing under MGL c. 21E / ASTM Standard Environmental Site Assessment

SECTION 4: Estimated Construction Costs

Total Project Cost : **$0.00**	Payment #:
Total Permit Fee:	Payment Type:

INLAND PROFESSIONAL CORPORATION
HEALTH & SAFETY PROGRAM

SITE-SPECIFIC HEALTH & SAFETY PLAN (HASP)

FOR:

SOILS AND RELATED SITE TESTING UNDER
M.G.L c. 21E/ASTM STANDARD ENVIRONMENTAL SITE ASSESSMENT

WINTER STREET, ASSESSOR'S MAP 76 LOT 18
HANOVER, MASSACHUSETTS 02339

PROJECT/FILE No. 1841

SCHEDULED START OF FIELD WORK: August 21, 2018

Ken 617 201-0866

INITIAL PLAN PREPARED BY:
Joseph V. Polsinello, Principal IPC/LSP
August 20, 2018

781 706 2366 Chief

APPROVALS

The following signatures constitute approval of this Health & Safety Plan. This plan will not be deviated from without prior written or verbal approval.

Approved:

H&S Representative/Director	Date: August 20, 2018
Site Health and Safety Officer	Date: August 20, 2018
Project Manager / Competent Person	Date: August 20, 2018
Assistant Project Manager/Geologist	Date: August 20, 2018
Excavator Operator	Date: Aug 20, 2018

NOTE:

Personnel involved with and/or supporting this work have received appropriate training to include an initial Forty Hour Hazardous Waste Operations Training Course (HAZWOPER), Eight Hour Supervisors Training and Annual Eight Hour Refresher Training as needed. Site Specific Briefing/Training to address special hazards will be provided prior to commencement of site activities. Personal protective equipment (PPE), instruments required for exposure monitoring, decontamination procedures and site control measures are identified in this site specific Health and Safety Plan (HASP).

PRE-SITE HEALTH & SAFETY BRIEFING

I have read, understand and agree to follow this Health & Safety Plan.

Name (please print)	Signature	Date
Joseph V. Polsinello		Aug 21, 18
Jennilee M. Cannucci		8-21-18
Kelsey Kosak		8-21-18
Maggie Huang		8-21-18
Captain Fred Freeman		
Fire Chief Blanchard		8/21/18
Kendall Walker, SERO		8/21/18
John McSharry		8/21/18
Mark McSharry		
Alan W. Loomis		8/21/18
Brian McSharry		8/21/18
Mike Bean		

INLAND PROFESSIONAL CORPORATION
Environmental, Construction & Business Management

SIGN IN SHEET
INLAND PROFESSIONAL CORPORATION
DATE: Tuesday August 21, 2018
PROPERTY: Winter Street, Hanover, MA

Print Name	Sign Name
Jay Nuss	
Joe Kenney	
Deb Marshall-Hewlitt	

Comments (Please initial comment):

METALS

WINTER STREET
HANOVER, MA
AUGUST 21, 2018
Joe Polsinello
JOSEPH POLSINELLO

INLAND PROFESSIONAL CORPORATION
Environmental, Construction & Business Management

Joseph V. Polsinello
Principal, Licensed Site Professional
BOSTON

Greater Boston Area
51 Mill Street, Unit 7
Hanover, MA 02339
Office: (781) 826-4520
New Cell: (518) 463-7800
Email: joe@inlandprofcorp.com
www.inlandprofcorp.com

Port of Albany
241 Riverside Ave.
Rensselaer, NY 12144
Office: (518) 465-3535

IPC PROJECT # 1841

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-01
Client ID: F1SW-101
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 10:40
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1450		mg/kg	4.48	--	1	08/27/18 16:40	08/27/18 23:48	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-02
Client ID: F1SW-102
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 10:42
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1340		mg/kg	4.24	--	1	08/27/18 16:40	08/28/18 00:01	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-03
Client ID: F1SW-103
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 10:44
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1240		mg/kg	4.16	--	1	08/27/18 16:40	08/28/18 00:06	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-04
Client ID: F1SW-104
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 10:46
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1320		mg/kg	4.35	--	1	08/27/18 16:40	08/28/18 00:28	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-05
Client ID: F1SW-105
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 10:48
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1430		mg/kg	4.11	--	1	08/27/18 16:40	08/28/18 00:33	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-06
Client ID: F1SW-106
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 10:50
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 89%

S-1 MCP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	3.74	20	mg/kg	0.442	--	1	08/27/18 16:40	08/28/18 00:37	EPA 3050B	97,6010D	AB
Barium, Total	10.9	1,000	mg/kg	0.442	--	1	08/27/18 16:40	08/28/18 00:37	EPA 3050B	97,6010D	AB
Cadmium, Total	ND	70	mg/kg	0.442	--	1	08/27/18 16:40	08/28/18 00:37	EPA 3050B	97,6010D	AB
Chromium, Total	5.34	100	mg/kg	0.442	--	1	08/27/18 16:40	08/28/18 00:37	EPA 3050B	97,6010D	AB
Lead, Total	3.78	200	mg/kg	2.21	--	1	08/27/18 16:40	08/28/18 00:37	EPA 3050B	97,6010D	AB
Mercury, Total	ND	20	mg/kg	0.070	--	1	08/24/18 05:30	08/24/18 19:29	EPA 7471B	97,7471B	EA
Selenium, Total	ND	400	mg/kg	2.21	--	1	08/27/18 16:40	08/28/18 00:37	EPA 3050B	97,6010D	AB
Silver, Total	ND	100	mg/kg	0.442	--	1	08/27/18 16:40	08/28/18 00:37	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-07
Client ID: F2TPA-101
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 12:10
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1410		mg/kg	4.52	--	1	08/27/18 16:40	08/28/18 00:42	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-08
Client ID: F2TPA-102
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 12:12
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
		S-1 MCP									
MCP Total Metals - Mansfield Lab											
Arsenic, Total	2.05	20	mg/kg	0.434	--	1	08/27/18 16:40	08/28/18 00:51	EPA 3050B	97,6010D	AB
Barium, Total	12.0	1,000	mg/kg	0.434	--	1	08/27/18 16:40	08/28/18 00:51	EPA 3050B	97,6010D	AB
Cadmium, Total	ND	70	mg/kg	0.434	--	1	08/27/18 16:40	08/28/18 00:51	EPA 3050B	97,6010D	AB
Chromium, Total	5.56	100	mg/kg	0.434	--	1	08/27/18 16:40	08/28/18 00:51	EPA 3050B	97,6010D	AB
Lead, Total	3.92	200	mg/kg	2.17	--	1	08/27/18 16:40	08/28/18 00:51	EPA 3050B	97,6010D	AB
Mercury, Total	ND	20	mg/kg	0.071	--	1	08/24/18 05:30	08/24/18 19:30	EPA 7471B	97,7471B	EA
Selenium, Total	ND	400	mg/kg	2.17	--	1	08/27/18 16:40	08/28/18 00:51	EPA 3050B	97,6010D	AB
Silver, Total	ND	100	mg/kg	0.434	--	1	08/27/18 16:40	08/28/18 00:51	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-09
Client ID: F2TPB-101
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 12:14
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1320		mg/kg	4.34	--	1	08/27/18 16:40	08/28/18 00:55	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-10
Client ID: F2TPB-102
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 12:16
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 92%

S-1 MCP

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	2.24	20	mg/kg	0.416	--	1	08/27/18 16:40	08/28/18 01:00	EPA 3050B	97,6010D	AB
Barium, Total	11.8	1,000	mg/kg	0.416	--	1	08/27/18 16:40	08/28/18 01:00	EPA 3050B	97,6010D	AB
Cadmium, Total	ND	70	mg/kg	0.416	--	1	08/27/18 16:40	08/28/18 01:00	EPA 3050B	97,6010D	AB
Chromium, Total	5.47	100	mg/kg	0.416	--	1	08/27/18 16:40	08/28/18 01:00	EPA 3050B	97,6010D	AB
Lead, Total	3.56	200	mg/kg	2.08	--	1	08/27/18 16:40	08/28/18 01:00	EPA 3050B	97,6010D	AB
Mercury, Total	ND	20	mg/kg	0.070	--	1	08/24/18 05:30	08/24/18 19:32	EPA 7471B	97,7471B	EA
Selenium, Total	ND	400	mg/kg	2.08	--	1	08/27/18 16:40	08/28/18 01:00	EPA 3050B	97,6010D	AB
Silver, Total	ND	100	mg/kg	0.416	--	1	08/27/18 16:40	08/28/18 01:00	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-11
Client ID: F3TPA-101
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 11:40
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1560		mg/kg	4.61	--	1	08/27/18 16:40	08/28/18 01:04	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-12
Client ID: F3TPA-102
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 11:42
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	3.42	20	mg/kg	0.473	--	1	08/27/18 16:40	08/28/18 01:22	EPA 3050B	97,6010D	AB
Barium, Total	15.5	1,000	mg/kg	0.473	--	1	08/27/18 16:40	08/28/18 01:22	EPA 3050B	97,6010D	AB
Cadmium, Total	ND	70	mg/kg	0.473	--	1	08/27/18 16:40	08/28/18 01:22	EPA 3050B	97,6010D	AB
Chromium, Total	7.11	100	mg/kg	0.473	--	1	08/27/18 16:40	08/28/18 01:22	EPA 3050B	97,6010D	AB
Lead, Total	4.97	200	mg/kg	2.36	--	1	08/27/18 16:40	08/28/18 01:22	EPA 3050B	97,6010D	AB
Mercury, Total	ND	20	mg/kg	0.075	--	1	08/24/18 05:30	08/24/18 19:34	EPA 7471B	97,7471B	EA
Selenium, Total	ND	400	mg/kg	2.36	--	1	08/27/18 16:40	08/28/18 01:22	EPA 3050B	97,6010D	AB
Silver, Total	ND	100	mg/kg	0.473	--	1	08/27/18 16:40	08/28/18 01:22	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-13
Client ID: F3TPB-101
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 11:44
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	1400		mg/kg	4.55	--	1	08/27/18 16:40	08/28/18 01:27	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-14
Client ID: F3TPB-102
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 11:46
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	2.77	20	mg/kg	0.438	--	1	08/27/18 16:40	08/28/18 01:31	EPA 3050B	97,6010D	AB
Barium, Total	15.2	1,000	mg/kg	0.438	--	1	08/27/18 16:40	08/28/18 01:31	EPA 3050B	97,6010D	AB
Cadmium, Total	ND	70	mg/kg	0.438	--	1	08/27/18 16:40	08/28/18 01:31	EPA 3050B	97,6010D	AB
Chromium, Total	7.09	100	mg/kg	0.438	--	1	08/27/18 16:40	08/28/18 01:31	EPA 3050B	97,6010D	AB
Lead, Total	4.76	200	mg/kg	2.19	--	1	08/27/18 16:40	08/28/18 01:31	EPA 3050B	97,6010D	AB
Mercury, Total	ND	20	mg/kg	0.072	--	1	08/24/18 05:30	08/24/18 19:36	EPA 7471B	97,7471B	EA
Selenium, Total	ND	400	mg/kg	2.19	--	1	08/27/18 16:40	08/28/18 01:31	EPA 3050B	97,6010D	AB
Silver, Total	ND	100	mg/kg	0.438	--	1	08/27/18 16:40	08/28/18 01:31	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-15
Client ID: F4-5-TPA-101
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 12:40
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Magnesium, Total	2720		mg/kg	4.62	--	1	08/27/18 16:40	08/28/18 01:36	EPA 3050B	97,6010D	AB

Project Name: 1841 WINTER ST.
Project Number: 1841

Lab Number: L1833031
Report Date: 08/28/18

SAMPLE RESULTS

Lab ID: L1833031-16
Client ID: F4-5-TPA-102
Sample Location: WINTER ST., HANOVER, MA

Date Collected: 08/21/18 12:42
Date Received: 08/22/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Mansfield Lab											
Arsenic, Total	4.82	20	mg/kg	0.464	--	1	08/27/18 16:40	08/28/18 01:40	EPA 3050B	97,6010D	AB
Barium, Total	31.5	1,000	mg/kg	0.464	--	1	08/27/18 16:40	08/28/18 01:40	EPA 3050B	97,6010D	AB
Cadmium, Total	ND	70	mg/kg	0.464	--	1	08/27/18 16:40	08/28/18 01:40	EPA 3050B	97,6010D	AB
Chromium, Total	14.1	100	mg/kg	0.464	--	1	08/27/18 16:40	08/28/18 01:40	EPA 3050B	97,6010D	AB
Lead, Total	5.91	200	mg/kg	2.32	--	1	08/27/18 16:40	08/28/18 01:40	EPA 3050B	97,6010D	AB
Mercury, Total	ND	200	mg/kg	0.074	--	1	08/24/18 05:30	08/24/18 19:38	EPA 7471B	97,7471B	EA
Selenium, Total	ND	400	mg/kg	2.32	--	1	08/27/18 16:40	08/28/18 01:40	EPA 3050B	97,6010D	AB
Silver, Total	ND	100	mg/kg	0.464	--	1	08/27/18 16:40	08/28/18 01:40	EPA 3050B	97,6010D	AB

MASSACHUSETTS OIL AND HAZARDOUS MATERIAL LIST
TABLE 1 ALPHABETICAL ORDER

CHEMICAL NAME	CAS NUM.	DEP RQ (Pounds)	NAME SOURCES	Reportable Concentrations GW1 (mg/l)	GW2 (mg/l)	S1 (mg/kg)	S2 (mg/kg)
LYE	01310-73-2	50	1,3,6,8	(See RCs of any listed constituents)			
MCPA	00094-74-6	10	5	1	10	100	1000
MCPB	00094-81-5	1	5	0.1	1	10	100
MAGNESIUM	07439-95-4	10	6	(Not Applicable)			
MALATHION	00121-75-5	10	1,3,6	1	10	100	1000
MALEIC ACID	00110-16-7	100	1,3,6	10	100	1000	10000
MALEIC ANHYDRIDE	00108-31-6	100	2,3,5,8,6	10	100	1000	10000
MALEIC HYDRAZIDE	00123-33-1	100	1,2,3,6	10	100	1000	10000
MALONONITRILE	00109-77-3	50	1,2,3,4,8	5	50	500	5000
MANEB	12427-38-2	5	8,6,1	0.5	5	50	500
MANGANESE, TRICARBONYL METHYLCYCLOPENTADIENYL	12108-13-3	1	4,6	0.1	1	10	100
MANGANESE, TRICARBONYL[(1,2,3,4,5-.ETA.)-1-METH...	12108-13-3	1	4,6	0.1	1	10	100
MARLATE	72-43-5	1	1,2,3,6,8	0.01	0.01	200	400
MARSH GAS	00074-82-8	10	6,1	1	10	100	1000
MATTING ACID	07664-93-9	50	1,3,4,5,6,8	(See RCs of any listed constituents)			
MECHLORETHAMINE	00051-75-2	1	4,6,8	0.1	1	10	100
MEDROXYPROGESTERONE ACETATE	00071-58-9	1	6,7	0.1	1	10	100
MEGESTROL ACETATE	00595-33-5	1	6,7	0.1	1	10	100
MELPHALAN	00148-82-3	1	2,3,6	0.1	1	10	100
MEPHOSFOLAN	00950-10-7	1	4,1	0.1	1	10	100
MERCAPTOACETIC ACID	00068-11-1	100	6	10	100	1000	10000
MERCAPTODIMETHUR	02032-65-7	5	1,3,4,6	0.5	5	50	500
2-MERCAPTOETHANOL	00060-24-2	100	6	10	100	1000	10000
MERCURATE(2-), ETHYL[PHOSPHATO(3-)-O]-, DIHYDROGEN	02235-25-8	5	7	0.5	5	50	500
MERCURIC ACETATE	01600-27-7	1	1,4	(See RCs of any listed constituents)			
MERCURIC CHLORIDE	07487-94-7	1	1,4	(See RCs of any listed constituents)			
MERCURIC CYANIDE	00592-04-1	1	6,1,3	(See RCs of any listed constituents)			
MERCURIC NITRATE	10045-94-0	5	1,3,6	(See RCs of any listed constituents)			
MERCURIC OXIDE	21908-53-2	1	4,1	(See RCs of any listed constituents)			

* Name Sources: 1 = DOT; 2 = RCRA; 3 = CERCLA HSL; 4 = SARA EHSL; 5 = DEP; 6 = MSL; 7 = 9CI; 8 = RTK

40.0996: continued

310 CMR 40.0996(6): **TABLE 6** ††

MCP Method 3: UPPER CONCENTRATION LIMITS (UCLs) IN GROUNDWATER AND SOIL

Oil and/or Hazardous Material	CAS Number	UCLs IN GROUNDWATER µg/L (ppb)	UCLs IN SOIL µg/g (ppm)
DICHLOROMETHANE	75-09-2	100,000	7,000
DICHLOROPHENOL, 2,4-	120-83-2	100,000	8,000
DICHLOROPROPANE, 1,2-	78-87-5	100,000	10,000
DICHLOROPROPENE, 1,3-	542-75-6	2,000	9,000
DIELDRIN	60-57-1	80	30
DIETHYL PHTHALATE	84-66-2	100,000	10,000
DIMETHYL PHTHALATE	131-11-3	100,000	10,000
DIMETHYLPHENOL, 2,4-	105-67-9	100,000	10,000
DINITROPHENOL, 2,4-	51-28-5	100,000	8,000
DINITROTOLUENE, 2,4-	121-14-2	100,000	800
DIOXANE, 1,4-	123-91-1	100,000	5,000
ENDOSULFAN	115-29-7	100	5,000
ENDRIN	72-20-8	50	200
ETHYLBENZENE	100-41-4	100,000	10,000
ETHYLENE DIBROMIDE	106-93-4	100,000	400
FLUORANTHENE	206-44-0	2,000	10,000
FLUORENE	86-73-7	400	10,000
HEPTACHLOR	76-44-8	20	100
HEPTACHLOR EPOXIDE	1024-57-3	70	10
HEXACHLOROBENZENE	118-74-1	60,000	8
HEXACHLOROBUTADIENE	87-68-3	30,000	1,000
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	2,000	600
HEXACHLOROETHANE	67-72-1	100,000	2,000
HMX	2691-41-0	100,000	10,000
INDENO(1,2,3-cd)PYRENE	193-39-5	1,000	3,000
LEAD	7439-92-1	150	6,000
MERCURY	7439-97-6	200	300
METHOXYCHLOR	72-43-5	400	4,000
METHYL ETHYL KETONE	78-93-3	100,000	10,000
METHYL ISOBUTYL KETONE	108-10-1	100,000	10,000
METHYL MERCURY	22967-92-6	200	80
METHYL TERT BUTYL ETHER	1634-04-4	100,000	5,000
METHYLNAPHTHALENE, 2-	91-57-6	100,000	5,000
NAPHTHALENE	91-20-3	100,000	10,000
NICKEL	7440-02-0	2,000	10,000
PENTACHLOROPHENOL	87-86-5	2,000	700
PERCHLORATE	-	10,000	50
PETROLEUM HYDROCARBONS			
TOTAL PETROLEUM HYDROCARBON †	NA	50,000	10,000
ALIPHATIC HYDROCARBONS			
C5 through C8 Aliphatic Hydrocarbons	NA	100,000	5,000
C9 through C12 Aliphatic Hydrocarbons	NA	100,000	20,000
C9 through C18 Aliphatic Hydrocarbons	NA	100,000	20,000
C19 through C36 Aliphatic Hydrocarbons	NA	100,000	20,000
AROMATIC HYDROCARBONS			
C9 through C10 Aromatic Hydrocarbons	NA	100,000	5,000
C11 through C22 Aromatic Hydrocarbons	NA	100,000	10,000
PHENANTHRENE	85-01-8	100,000	10,000
PHENOL	108-95-2	100,000	10,000
POLYCHLORINATED BIPHENYLS (PCBs)	1336-36-3	100	100
PYRENE	129-00-0	600	10,000
RDX	121-82-4	100,000	4,000
SELENIUM	7782-49-2	1,000	7,000

40.0975: continued

310 CMR 40.0975(6)(a): **TABLE 2** ††

MCP Method 1: SOIL CATEGORY S-1 STANDARDS
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:

Oil and/or Hazardous Material	CAS Number	S-1 SOIL & GW-1 µg/g (ppm)	S-1 SOIL & GW-2 µg/g (ppm)	S-1 SOIL & GW-3 µg/g (ppm)
DICHLOROETHANE, 1,1-	75-34-3	0.4	9	500
DICHLOROETHANE, 1,2-	107-06-2	0.1	0.1	20
DICHLOROETHYLENE, 1,1-	75-35-4	3	40	500
DICHLOROETHYLENE, CIS-1,2-	156-59-2	0.3	0.1	100
DICHLOROETHYLENE, TRANS-1,2-	156-60-5	1	1	500
DICHLOROMETHANE	75-09-2	0.1	4	400
DICHLOROPHENOL, 2,4-	120-83-2	0.7	60	40
DICHLOROPROPANE, 1,2-	78-87-5	0.1	0.1	30
DICHLOROPROPENE, 1,3-	542-75-6	0.01	0.4	20
DIELDRIN	60-57-1	0.08	0.08	0.08
DIETHYL PHTHALATE	84-66-2	10	200	300
DIMETHYL PHTHALATE	131-11-3	0.7	50	600
DIMETHYLPHENOL, 2,4-	105-67-9	0.7	100	500
DINITROPHENOL, 2,4-	51-28-5	3	50	50
DINITROTOLUENE, 2,4-	121-14-2	0.7	2	2
DIOXANE, 1,4-	123-91-1	0.2	6	20
ENDOSULFAN	115-29-7	0.5	300	1
ENDRIN	72-20-8	10	10	10
ETHYLBENZENE	100-41-4	40	500	500
ETHYLENE DIBROMIDE	106-93-4	0.1	0.1	1
FLUORANTHENE	206-44-0	1,000	1,000	1,000
FLUORENE	86-73-7	1,000	1,000	1,000
HEPTACHLOR	76-44-8	0.3	0.3	0.3
HEPTACHLOR EPOXIDE	1024-57-3	0.1	0.1	0.1
HEXACHLOROBENZENE	118-74-1	0.7	0.7	0.7
HEXACHLOROBUTADIENE	87-68-3	30	30	30
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	0.003	1	0.5
HEXACHLOROETHANE	67-72-1	0.7	3	50
HMX	2691-41-0	2	100	1,000
INDENO(1,2,3-cd)PYRENE	193-39-5	7	7	7
LEAD	7439-92-1	200	200	200
MERCURY	7439-97-6	20	20	20
METHOXYCHLOR	72-43-5	200	200	200
METHYL ETHYL KETONE	78-93-3	4	50	400
METHYL ISOBUTYL KETONE	108-10-1	0.4	50	400
METHYL MERCURY	22967-92-6	4	4	4
METHYL TERT BUTYL ETHER	1634-04-4	0.1	100	100
METHYLNAPHTHALENE, 2-	91-57-6	0.7	80	300
NAPHTHALENE	91-20-3	4	20	500
NICKEL	7440-02-0	600	600	600
PENTACHLOROPHENOL	87-86-5	3	3	3
PERCHLORATE	-	0.1	3	3

40.0975: continued

310 CMR 40.0975(6)(b): **TABLE 3** ††

MCP Method 1: SOIL CATEGORY S-2 STANDARDS
APPLICABLE TO SOIL WHERE THE COMBINATION OF SOIL & GROUNDWATER CATEGORIES ARE:

Oil and/or Hazardous Material	CAS Number	S-2 SOIL & GW-1 µg/g (ppm)	S-2 SOIL & GW-2 µg/g (ppm)	S-2 SOIL & GW-3 µg/g (ppm)
DICHLOROMETHANE	75-09-2	0.1	4	700
DICHLOROPHENOL, 2,4-	120-83-2	0.7	60	40
DICHLOROPROPANE, 1,2-	78-87-5	0.1	0.1	100
DICHLOROPROPENE, 1,3-	542-75-6	0.01	0.4	90
DIELDRIN	60-57-1	0.5	0.5	0.5
DIETHYL PHTHALATE	84-66-2	10	200	300
DIMETHYL PHTHALATE	131-11-3	0.7	50	600
DIMETHYLPHENOL, 2,4-	105-67-9	0.7	100	1,000
DINITROPHENOL, 2,4-	51-28-5	3	50	100
DINITROTOLUENE, 2,4-	121-14-2	0.7	10	10
DIOXANE, 1-4-	123-91-1	0.2	6	90
ENDOSULFAN	115-29-7	0.5	500	1
ENDRIN	72-20-8	20	20	20
ETHYLBENZENE	100-41-4	40	1,000	1,000
ETHYLENE DIBROMIDE	106-93-4	0.1	0.1	5
FLUORANTHENE	206-44-0	3,000	3,000	3,000
FLUORENE	86-73-7	3,000	3,000	3,000
HEPTACHLOR	76-44-8	2	2	2
HEPTACHLOR EPOXIDE	1024-57-3	0.9	0.9	0.9
HEXACHLOROBENZENE	118-74-1	0.8	0.8	0.8
HEXACHLOROBUTADIENE	87-68-3	100	100	100
HEXACHLOROCYCLOHEXANE, GAMMA (gamma-HCH)	58-89-9	0.003	2	0.5
HEXACHLOROETHANE	67-72-1	0.7	3	200
HMX	2691-41-0	2	100	1,000
INDENO(1,2,3-cd)PYRENE	193-39-5	40	40	40
LEAD	7439-92-1	600	600	600
MERCURY	7439-97-6	30	30	30
METHOXYCHLOR	72-43-5	400	400	400
METHYL ETHYL KETONE	78-93-3	4	50	400
METHYL ISOBUTYL KETONE	108-10-1	0.4	50	400
METHYL MERCURY	22967-92-6	8	8	8
METHYL TERT BUTYL ETHER	1634-04-4	0.1	100	500
METHYLNAPHTHALENE, 2-	91-57-6	1	80	500
NAPHTHALENE	91-20-3	4	20	1,000
NICKEL	7440-02-0	1,000	1,000	1,000
PENTACHLOROPHENOL	87-86-5	3	20	10
PERCHLORATE	-	0.1	5	5
PETROLEUM HYDROCARBONS				
TOTAL PETROLEUM HYDROCARBON †	NA	1,000	3,000	3,000
ALIPHATIC HYDROCARBONS				
C5 through C8 Aliphatic Hydrocarbons	NA	500	500	500
C9 through C12 Aliphatic Hydrocarbons	NA	3,000	3,000	3,000
C9 through C18 Aliphatic Hydrocarbons	NA	3,000	3,000	3,000
C19 through C36 Aliphatic Hydrocarbons	NA	5,000	5,000	5,000
AROMATIC HYDROCARBONS				
C9 through C10 Aromatic Hydrocarbons	NA	300	500	500
C11 through C22 Aromatic Hydrocarbons	NA	1,000	3,000	3,000