Howland Company, LLC

WORLD CLASS ENGINEERS AND ENVIRONMENTAL PROFESSIONALS

To: Ohio Department of Natural Resources (ODNR)
Division of Oil and Gas Resources Management
2045 Morse Road, Building F-2
Columbus, Ohio 43229-6693
Phone (614) 265-6922

Ref. No.: H141054
October 3, 2014

RE: BELMONT SOLIDS CONTROL, LLC, STATE ROUTE 9, CADIZ, HARRISON COUNTY, OHIO
APPLICATION FOR CHIEF'S ORDER PURSUANT TO R.C. 1509.22

The following document is being submitted on behalf of Belmont Solids Control, LLC (BSC) for operation of a solids control facility on State Route 9, Cadiz, Harrison County, Ohio (the facility). The purpose of this document is to provide the ODNR/Division of Oil and Gas Management ("DOGM") with the Chief's Order application requirements.

1. Complete application form signed by the person applying for the permit:
   Application is Attached as Exhibit A

2. Map or aerial photograph of the proposed site:
   Figure H141054-01 - General Site Location is Attached as Exhibit B

3. Radiation Protection Plan is outlined within the Laboratory Safety Practices:
   Guidelines are Attached as Exhibit D

4. A Stormwater Pollution Prevention Plan (SWP3) outlines controls used to prevent storm water that may come in contact with contaminants from being discharged off-site and into the Georgetown Plant Lower Supply Pond.
   SWP3 is Attached as Exhibit E

5. Detailed Explanation of the proposed process to treat and process liquid muds from the oil, gas, and pipeline industries for proper disposal:

   The facility will process up to 100,000-gallons per day (gal/day) of liquid muds from various customers. The facility will consist of two (2) processes: centrifuging; and solidifying. Based on the anticipated variability in the solids content of the liquid muds of 10 to 40 percent (%), a maximum of approximately 80,000 gal/day will be directed to one (1) of the three (3) mud mixing/centrifuge tanks and a maximum of approximately 20,000 gal/day will be directed to the two (2) solidification pits.

   The centrifuge process will process liquid muds containing approximately 10 to 30% solids. The solidification process will process liquid muds with 20 to 40% solids, and not conducive to be processed through the centrifuges. Both processes will decant off excess waters producing a mud with higher solids content and lower leachating characteristics than mud processed, via conventional solidification only. All muds will be disposed of at an Ohio solid waste facility permitted under R.C. 3734 or an appropriately licensed out of state facility. Radium 226 and Radium 228 testing will be conducted regardless of the ultimate disposal location for solids.

TESTING & RECEIVING

All materials will be tested prior to BSC taking receipt to ensure they can be safely processed. Tests for combustibles, total dissolved solids ("TDS") total suspended solids ("TSS") and PH will be conducted. Additionally, said materials will also be scanned for radiation.

All outbound processed mud will be tested for Radium 226 and Radium 228 by an independent laboratory utilizing technology, methodologies and safety practices previously approved by the Ohio Department of Health.

Trucks will be unloaded on concrete pads providing containment for any potential spills.

MUD MIXING/CENTRIFUGE

The incoming liquid muds will be unloaded to either mud mixing tank ("MMT") #1, MMT #2, or MMT #3, depending on available volumes within the respective MMTs. The three (3) MMTs and two (2) centrifuges are located in the southern portion of the facility as indicated on Figure H141054-03 Facility Layout (Exhibit B). The liquid muds will be pumped through a Stage 3 mechanical shaker mounted at the top of each MMT. The mechanical shakers will remove any oversize particles or debris that could plug the outlet on the MMTs. The oversized particles and/or debris will be transferred directly to the water tight 20-cubic yard (yd) steel roll-off boxes used to collect processed mud from the centrifuge.

A series of three (3) fixed mounted, 28-inch (in.) diameter electrical mixers are installed in each of the three (3) MMT to maintain a homogenous mixture. Next, a 4-2 in. pump that draws mud from the base of a MMT, will pump the mud through a tee fitting on top of the pump. The tee fitting directs mud to either a centrifuge or back into the respective MMT preventing overflow or force feeding of the centrifuges. The polymer is injected into the mud stream prior to introduction into the centrifuges. The centrifuge will be Sharples Decanter centrifuges, and are fitted and sized to the desired capacity of the facility. The centrifuge operator will adjust three (3) variables to control the processing of the muds through the centrifuge. The three (3) variables are as follows:

1.) Rate of polymer feed;
2.) Rate of mud feed into the centrifuge; and
3.) Speed of the centrifuge.

The operator will adjust the polymer feed rate, the mud feed rate and then ultimately the speed of the centrifuge to achieve a dewatered mud that exceeds 50% solids. Typically, a cationic polymer is used in the centrifuge process. A copy of the Material Safety Data Sheets for a cationic polymer is included as Exhibit C. The processed mud from each centrifuge is collected in a water tight 20-yd. roll-off box prior to disposing at an off-site permitted landfill. The decanted water from the two (2) Sharples Decanter centrifuge is directed by gravity flow into a water tight, lined 20-yd. open top roll-off box located in the center of the three (3) MMTs.

Once the decanted water reaches approximately 80% of the 20-yd. roll-off box volume, a sump pump equipped with high and low water floats, will transfer the water to two (2) 16,000-gallon water tight, lined water boxes. The water then accumulates until tank trucks are used to collect the water for transport to an offsite permitted disposal facility holding an order or permit issued under R.C.

1509.22, R.C. 1509.06 or R.C. 1509.21 or rules adopted under any of those sections for the storage, recycling, treatment, processing, or disposal of brine or other waste substances associated with the exploration, development, well stimulation, production operations, or plugging of oil and gas resources.

SOLIDIFICATION PITS

The incoming liquid muds that are deemed to be not conducive for centrifuging process will be directed to the solidification pits. The two (2) solidification pits are located in the northern section of the facility as indicated on Figure H141054-03 Facility Layout (Exhibit B). The solidification pits will be 16-feet (ft) wide by 16-ft long, and 8-ft deep. The solidification pits will be constructed of poured reinforced concrete walls and floors. A water sealant will be applied to the cured concrete surface, and then a welded steel insert liner will be installed as an added layer for secondary containment.

The drilling muds will be directly unloaded from the transport vehicles into one (1) of the two (2) solidification pits SP#1 or SP#2. There are two (2) separate procedures, one (1) for tanker trucks and one (1) for vacuum boxes.

- Tanker trucks - a tanker truck pulls up to one (1) of the two (2) solidification pits. Next, a polymer injection cart is attached to the discharge port of the tanker truck and as the drilling mud is transferred to a solidification pit, polymer is added. An anionic polymer is typically used in the solidification process. A copy of the Material Safety Data Sheets for an anionic polymer is included as Exhibit C.

- Vacuum Boxes - a vacuum box is staged on a roll-off truck next to one (1) of the two (2) solidification pits. The access ports on the top of the vacuum box are opened, and any waters that have accumulated on the top of the liquid mud are decanted off through the use of a portable sump pump. The sump pump transfers the water to the trench drain located to the south of the solidification pits, which then leads to a catch basin located south of MMT #3 and just north of the Water Box. The decanted water will then be transferred from the catch basin to the Water Box through use of a sump pump in the catch basin equipped with high and low water level floats.

Once any excess waters have been removed and/or polymers have been added, the solidification pit operator will assess the consistency of the drilling mud, and begin adding quick-lime and/or portland cement to the solidification pit, reducing the moisture content of the drilling mud in the respective pit. The objective is to reach approximately 50% solids content in order for the material to pass a paint filter test at the receiving landfill.

The operator will utilize a hydraulic skid loader to load quick-lime or other desiccant into each of the solidification pits, and a hydraulic excavator to mix in the quick-lime and/or portland cement in order to reduce the moisture content of the drilling mud being processed. Once the drilling mud has achieved approximately 50% solids content, the material is then loaded into a .water tight 20-yd. steel roll-off box or sealed tractor trailer for disposal at an Ohio solid waste facility permitted under R.C. 3734 or an appropriately licensed out of state facility. Radium 226 and Radium 228 testing will be conducted regardless of the ultimate disposal location for solids.

CENTRIFUGE & SOLIDIFICATION PIT WATERS

Waters collected from the two (2) Sharples 3800 centrifuges and the two (2) solidification pits are collected in the water tight, lined 20-yd. water box located in the southern portion of the facility. Through use of a transfer pump, water is then transferred to an enclosure on the southwest portion of the facility where two (2) 16,000-gal water boxes are staged (Figure H141054-03 - Exhibit B).

The two (2) 16,000-gal water boxes WB#2 and WB#3 will be connected in series, and piping on the north end of the two (2) boxes will allow water to be directed into the respective boxes. Water boxes WB#2 and WB#3 will be located on a concrete containment pad, within a weather resistant enclosure. The containment pad will be sized to contain the contents of one (1) 16,000-gal water box plus 10%.

A dead sump will be placed between the WB#2 and WB#3 in order to transfer any residual waters from within the concrete containment into one (1) of the two (2) respective boxes. Outlet ports on the south end of WB#2 and WB#3 will allow for the transfer of water to awaiting tanker trucks for transport of the waters to an offsite permitted disposal facility holding an order or permit issued under R.C. 1509.22, R.C. 1509.06 or R.C. 1509.21 or rules adopted under any of those sections for the storage, recycling, treatment, processing, or disposal of brine or other waste substances associated with the exploration, development, well stimulation, production operations, or plugging of oil and gas resources.

a. General Process Flow Schematic
Attached as Figure H141054-05 - Facility Schematic (Exhibit B)

b. Overall and individual unit design flows and storage capacities:

- Mud mixing tanks - MMT #1, MMT #2, and MMT #3 are 16,000-gal water tight steel, open top boxes;
- Water Box #1 - WB #1 is a 20-yd. (approximately 4,000-gal);
- Water Boxes #2 & #3 - WB #2 and WB #3 are 16,000-gal. water tight steel, open top boxes;
- Solidification Pits - SP #1 and SP #2 are approximately 16-ft wide, by 16-ft long by 8-ft deep (approximately 15,340-gal);
- Processed mud boxes - the roll-off boxes used for the centrifuges and solidification pits will be water tight, steel, open top, 20-yd roll off boxes;
- Centrifuges - Sharples Decanter Centrifuges
- Mechanical shakers - Stage 3 mechanical shakers.

c. Disclosure of chemical reagents and MSDS and a description of their function:

- A water soluble cationic polymer (centrifuge); and
- A premixed anionic polymer (vacuum boxes - solidification pits).

All MSDS sheets for the chemical reagents are attached under Exhibit C.

4. Estimated volume of materials to be managed by the facility daily, monthly, and annually:

- Daily - up to 100,000 gal/day
- Monthly - up to 3,100,000 gal/month
- Annually - up to 36,500,000 gal/annually

5. Methods of Documenting the type and volume of materials received, reused, and the disposition of materials from the facility:

- The raw liquid mud received will be tracked by producer, truck manifest, and a unique load number assigned by BSC on a BSC receiving report.

- As required by state and local regulations, all raw liquid mud will arrive at the facility with a manifest. The manifest will note the type of material, the producer, the transporter, the producing location, and the quantity of material.

- BSC will retain copies of the manifests, BSC receiving reports, and the previously mentioned test results for each load received.

- BSC will ensure that each producer identification number and transporter UIC# is recorded and retained.

- All outbound materials will be manifested noting the type of material, the producer, producing site, destination, and transporter. In the case of solid outgoing muds a copy of the test results for Radium 226 and Radium 228 will be attached to the manifest.

EXHIBIT A

APPLICATION TO OPERATE A FACILITY

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT
2045 MORSE ROAD, BUILDING F-2
COLUMBUS, OHIO 43229-6693
(614) 265-6922

1. Name of Applicant: Belmont Solids Control, LLC. Phone #: 330-853-2393
Address: P.O. Box 253, Minerva, Ohio 44657
Date: 10/3/2014 eMail Address: jefffaloba@yahoo.com
For an Order or a Permit to Operate: ☐ Existing Facility ☒ New Facility

2. **PURPOSE OF FACILITY:** (Check all that Apply) ☐ Storage ☐ Recycling ☒ Treatment ☒ Processing ☐ Disposal

3. **TYPE OF MATERIAL:**
☐ Brine ☐ Drill Cuttings
☐ Drilling Mud ☒ Other Waste Substance (explain) **Liquid muds from oil and gas**

4. **If a Business Entity, list the statutory agent and include a certified copy of their appointment:**
Name: Elizabeth Eshenbaugh
Address: 794 East 5th Street, Salem, OH 44460

5. **Engineer of Record:**
Name: John S. Evan
Address: 7378 Southern Boulevard, Suite 200; Boardman, Ohio 44512
Ohio Professional Engineering License Number: 71366

6. **Address of Facility:**
Address: State Route 9
County: Harrison
Township: Cadiz
Municipal Corporation:
Latitude: 40°13'50.8"N
Longitude: 81°00'16.1"W

7. **Write a brief description of the facility and operations:** The facility will consist of two (2) main processes : the centrifuging and solidifying of liquid muds to a more solid state suitable for proper landfill disposal. Based on the anticipated variances in the solids content of 20 to 40% associated with the liquid muds, up to 80,000 gallons per day will be directed to one (1) of the three(3) mud mixing/ centrifuge tanks. Up to 20,000 gallons per date will be directed to one (1) of the two (2) solidification pits for processing.

8. **Include all information as set forth in the *"Guidelines for Application for Chief's Order"*. Attach Additional Documents**

I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

I certify that the facility will comply with or is currently in compliance with all provisions of Chapter 1509 ORC, Chapter 1501 OAC, and all terms and conditions of orders and permits issued by the Chief, Division of Oil and Gas Resources Management.

Signature of Authorized Agent J Faloba

Name (Type or Print) Jeff Faloba Title Operations Manager

Sworn to and subscribed before me this the 3rd day of Oct, 2014.

G. GBUR POLAS
Notary Public - State of Ohio
Recorded in Mahoning County
My Commission Expires 6-17-2019

G. Polas (Notary Public)

6-17-2019 (Date Commission Expires)

DNR 1509.22 (12/2013)

Corporation Details

Corporation Details	
Entity Number	2307383
Business Name	BELMONT SOLIDS CONTROL, LLC
Filing Type	DOMESTIC LIMITED LIABILITY COMPANY
Status	Active
Original Filing Date	06/30/2014
Expiry Date	
Location:	County: State:

Agent / Registrant Information

ELIZABETH ESHENBAUGH
794 E 5TH ST
SALEM,OH 44460
Effective Date: 06/30/2014
Contact Status: Active

Incorporator Information

ELIZABETH ESHENBAUGH

Filings

Filing Type	Date of Filing	Document Number/Image
ARTICLES OF ORGNZTN/DOM. PROFIT LIM.LIAB. CO.	06/30/2014	201418100925

201418100925

DATE	DOCUMENT ID	DESCRIPTION	FILING	EXPED	PENALTY	CERT	COPY
06/30/2014	201418100925	ARTICLES OF ORGNZTN/DOM. PROFIT LIM.LIAB. CO. (LCP)	125.00	100.00	.00	00	.00

Receipt

This is not a bill. Please do not remit payment.

BELMONT SOLIDS CONTROL, LLC
794 E 5TH ST
SALEM, OH 44460

STATE OF OHIO
CERTIFICATE

Ohio Secretary of State, Jon Husted

2307383

It is hereby certified that the Secretary of State of Ohio has custody of the business records for

BELMONT SOLIDS CONTROL, LLC

and, that said business records show the filing and recording of:

Document(s)	Document No(s):
ARTICLES OF ORGNZTN/DOM. PROFIT LIM.LIAB. CO.	**201418100925**

Effective Date: 06/30/2014

Witness my hand and the seal of the Secretary of State at Columbus, Ohio this 30th day of June, A.D. 2014.

United States of America
State of Ohio
Office of the Secretary of State

Jon Husted

Ohio Secretary of State

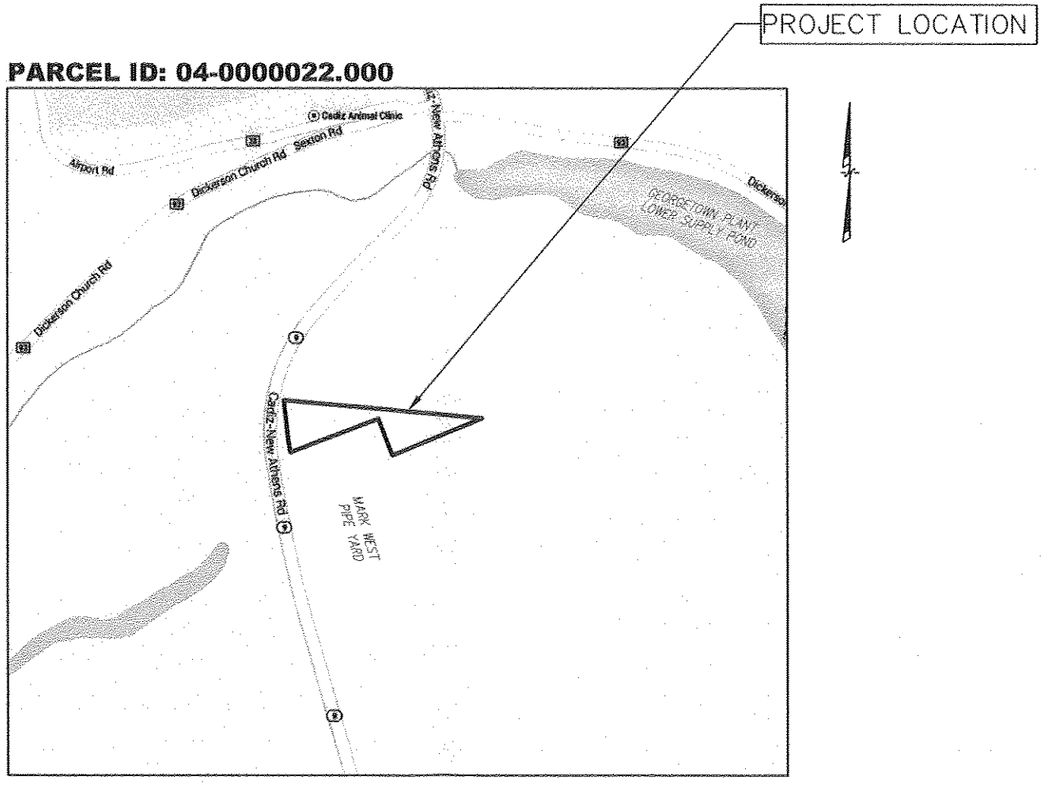
EXHIBIT B

BELMONT SOLIDS CONTROL, LLC
SITE PLAN

STATE ROUTE 9
CADIZ, OHIO 43907
HARRISON COUNTY

TABLE OF CONTENTS

PARCEL ID: 04-0000022.000



REVIEWED:

OHIO DEPARTMENT OF NATURAL RESOURCES — DATE

PREPARED BY:

JOHN S. EVAN, P.E. #71366 — 10/3/14 — DATE

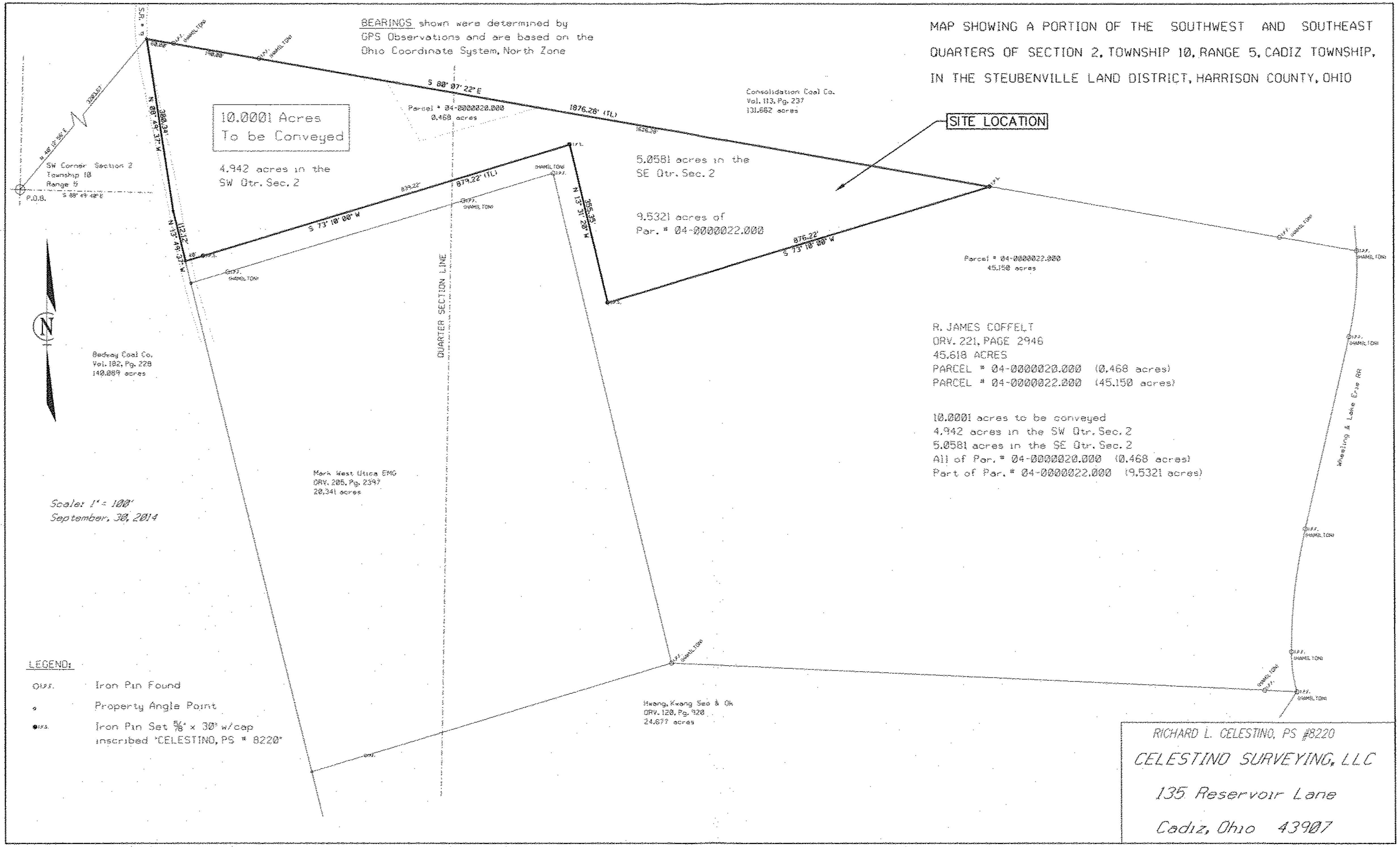
UNDERGROUND UTILITIES

TWO WORKING DAYS
BEFORE YOU DIG
CALL 800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST BE CALLED DIRECT

Howland Company, LLC
WORLD CLASS ENGINEERS AND ENVIRONMENTAL PROFESSIONALS
7378 SOUTHERN BLVD, SUITE 200
BOARDMAN, OH 44512
Ph. (330) 747-3975
Fx. (330) 747-3992

ENGINEER'S SEAL
STATE OF OHIO
JOHN S. EVAN
E-071366
10/3/14
REGISTERED
PROFESSIONAL ENGINEER
SIGNED THIS ___ DAY OF ___ 2014

FIGURE
H141054-00



MAP SHOWING A PORTION OF THE SOUTHWEST AND SOUTHEAST QUARTERS OF SECTION 2, TOWNSHIP 10, RANGE 5, CADIZ TOWNSHIP, IN THE STEUBENVILLE LAND DISTRICT, HARRISON COUNTY, OHIO
BEARINGS shown were determined by GPS Observations and are based on the Ohio Coordinate System, North Zone
SITE LOCATION
10.0001 Acres To be Conveyed
4.942 acres in the SW Qtr. Sec. 2
5.0581 acres in the SE Qtr. Sec. 2
9.5321 acres of Par. # 04-0000022.000
S 80° 07' 22" E
1876.28' (TL)
879.22' (TL)
S 73° 10' 00" W
876.22'
N 13° 31' 20" W
355.35'
N 08° 49' 37" W
N 13° 49' 37" W
SW Corner Section 2 Township 10 Range 5
P.O.B.
S.R. # 9
Parcel # 04-0000020.000 0.468 acres
Consolidation Coal Co. Vol. 113, Pg. 237 131.662 acres
Parcel # 04-0000022.000 45.150 acres
QUARTER SECTION LINE
Bedway Coal Co. Vol. 182, Pg. 228 140.089 acres
Mark West Utica EMG ORV. 205, Pg. 2397 20.341 acres
Hwang, Kwang Seo & Ok ORV. 120, Pg. 920 24.677 acres
Wheeling & Lake Erie RR
R. JAMES COFFELT
ORV. 221, PAGE 2946
45.618 ACRES
PARCEL # 04-0000020.000 (0.468 acres)
PARCEL # 04-0000022.000 (45.150 acres)
10.0001 acres to be conveyed
4.942 acres in the SW Qtr. Sec. 2
5.0581 acres in the SE Qtr. Sec. 2
All of Par. # 04-0000020.000 (0.468 acres)
Part of Par. # 04-0000022.000 (9.5321 acres)
Scale: 1" = 100'
September, 30, 2014
LEGEND:
I.P.F. Iron Pin Found
Property Angle Point
I.P.S. Iron Pin Set 5/8" x 30" w/cap inscribed "CELESTINO, PS # 8220"
RICHARD L. CELESTINO, PS #8220
CELESTINO SURVEYING, LLC
135 Reservoir Lane
Cadiz, Ohio 43907

Howland Company, LLC

WORLD CLASS ENGINEERS & ENVIRONMENTAL PROFESSIONALS

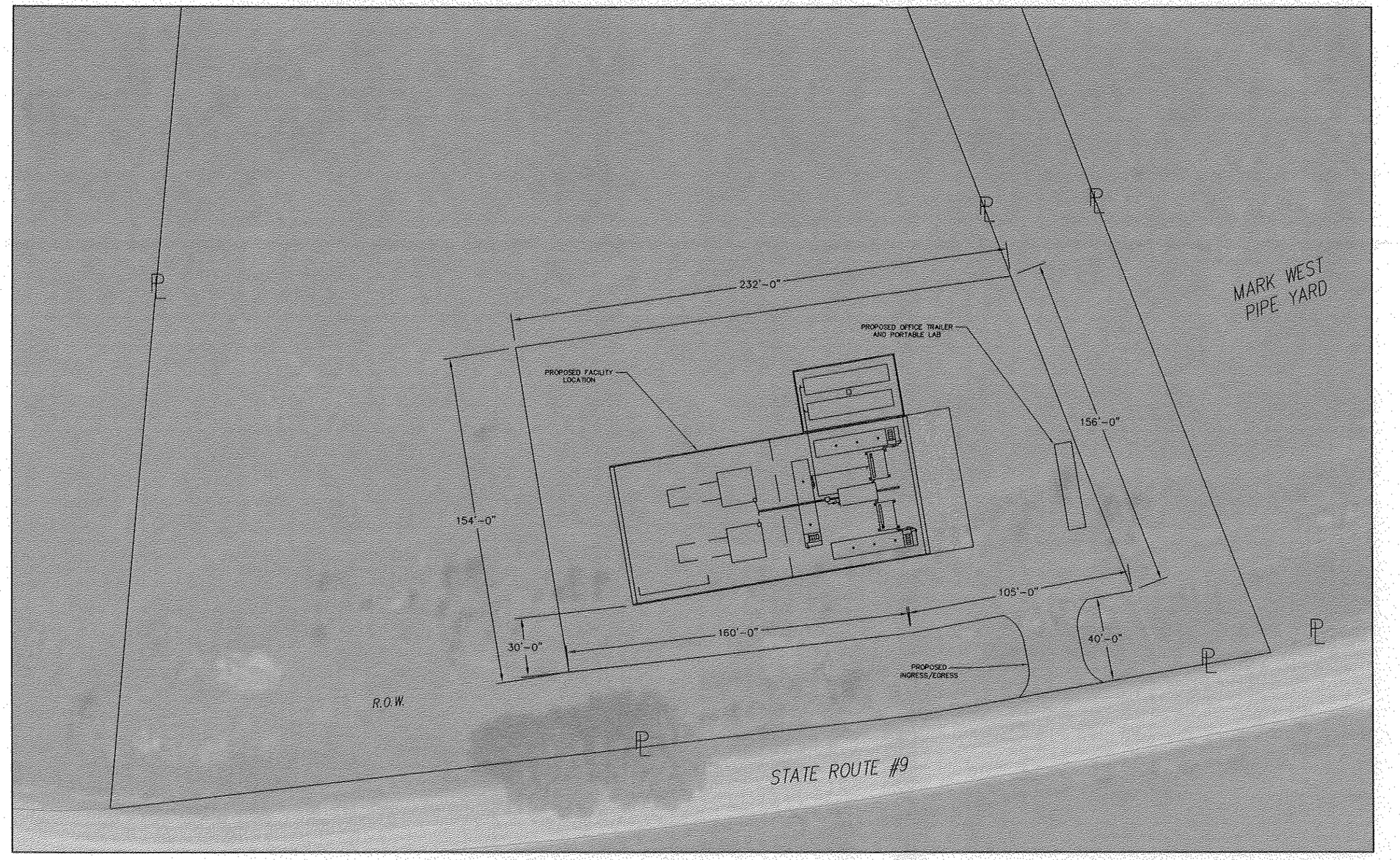
7378 SOUTHERN BOULEVARD, SUITE 200
BOARDMAN, OH 44512
(330) 747-3975

DRAWN: EJB	JOB NO.: H141054	REVISIONS:	
CHECKED: JSE	SCALE: N/A		
DATE: 10/03/14			

BELMONT SOLIDS CONTROL, LLC
STATE ROUTE 9, CADIZ
HARRISON COUNTY, OHIO

GENERAL SITE LOCATION & SURVEY

FIGURE H141054-01



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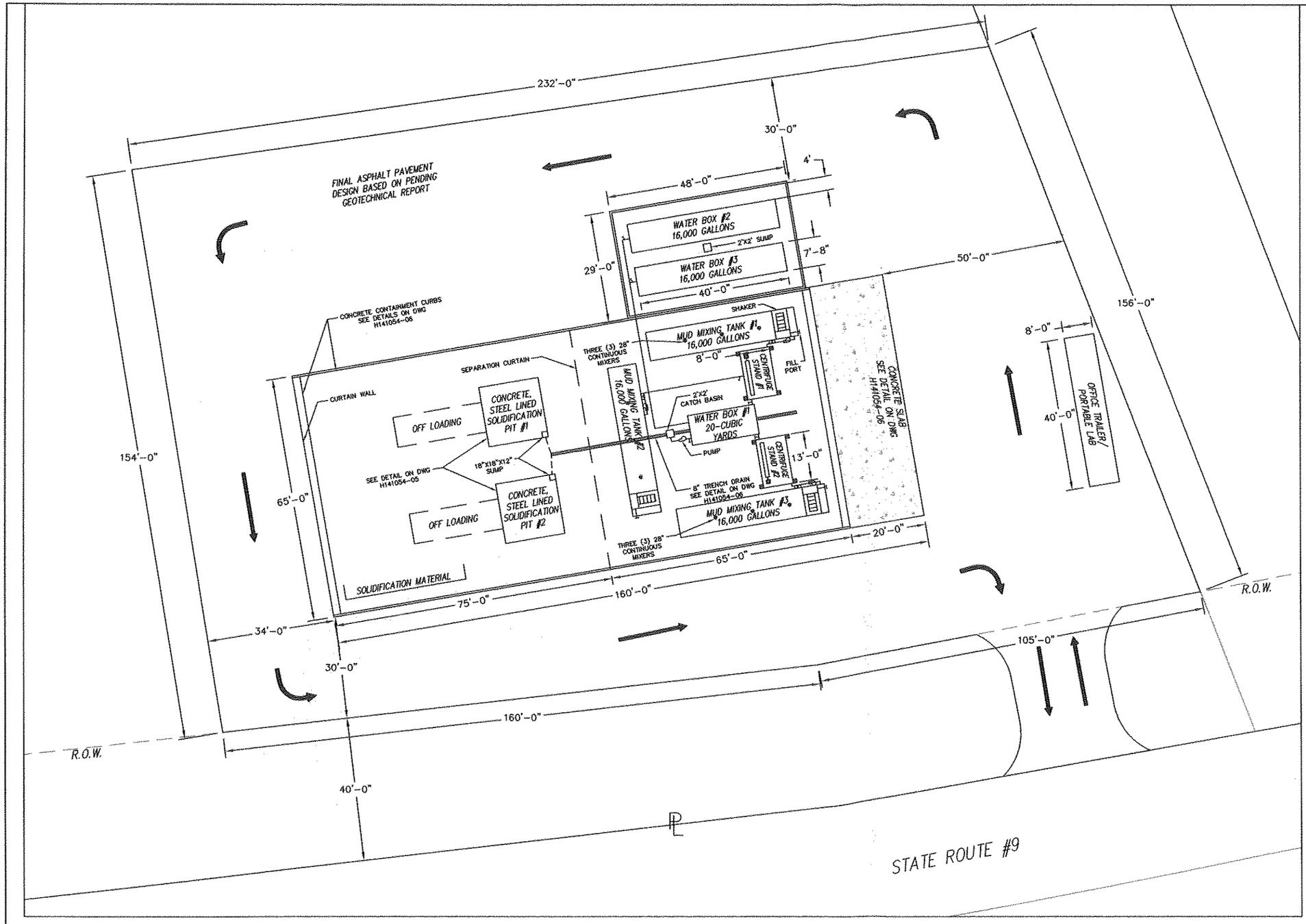
BELMONT SOLIDS CONTROL, LLC
STATE ROUTE 9, CADIZ
HARRISON COUNTY, OHIO

SITE LAYOUT

FIGURE
H141054-02



= TRAFFIC FLOW

NOTES:

1. FACILITY TO CONSIST OF POLE BARN TYPE STRUCTURE WITH CURTAIN WALLS AND A OFFICE TRAILER/PORTABLE LAB.
2. ALL SUMPS NOT ASSOCIATED WITH THE TRENCH DRAIN TO BE PUMPED OUT USING A PORTABLE PUMP AS NEEDED.
3. BUILDING TO BE SURROUNDED BY CONCRETE CONTAINMENT CURBING.
4. ANY SPARE PARTS, EQUIPMENT, AND MATERIAL NEEDING TO BE STORED OUTSIDE OF BUILDING SHALL BE STORED ON SECONDARY CONTAINMENT PADS.

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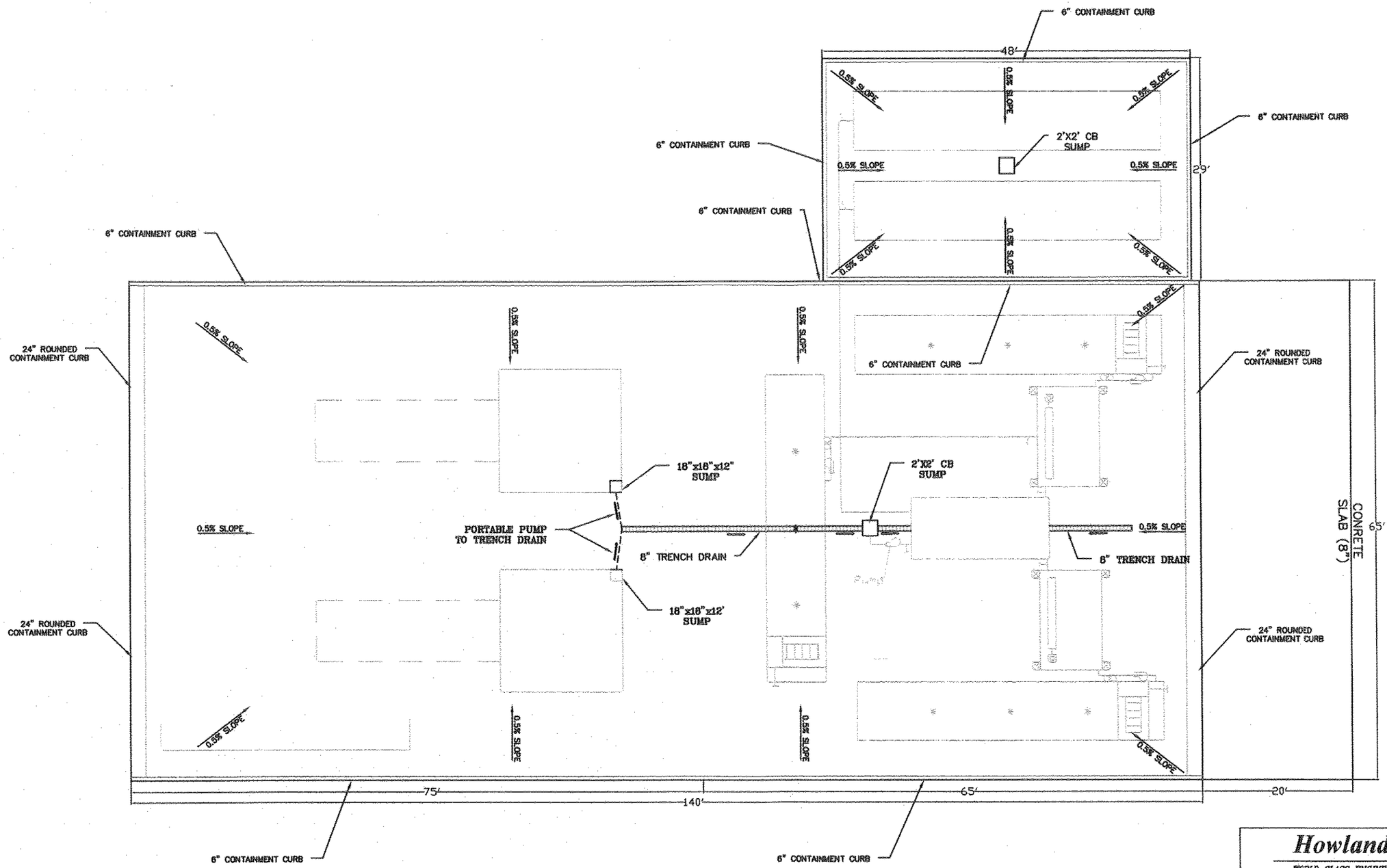
BELMONT SOLIDS CONTROL, LLC
STATE ROUTE 9, CADIZ
HARRISON COUNTY, OHIO

FACILITY LAYOUT

FIGURE
H141054-03



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BOARDMAN, OH 44512
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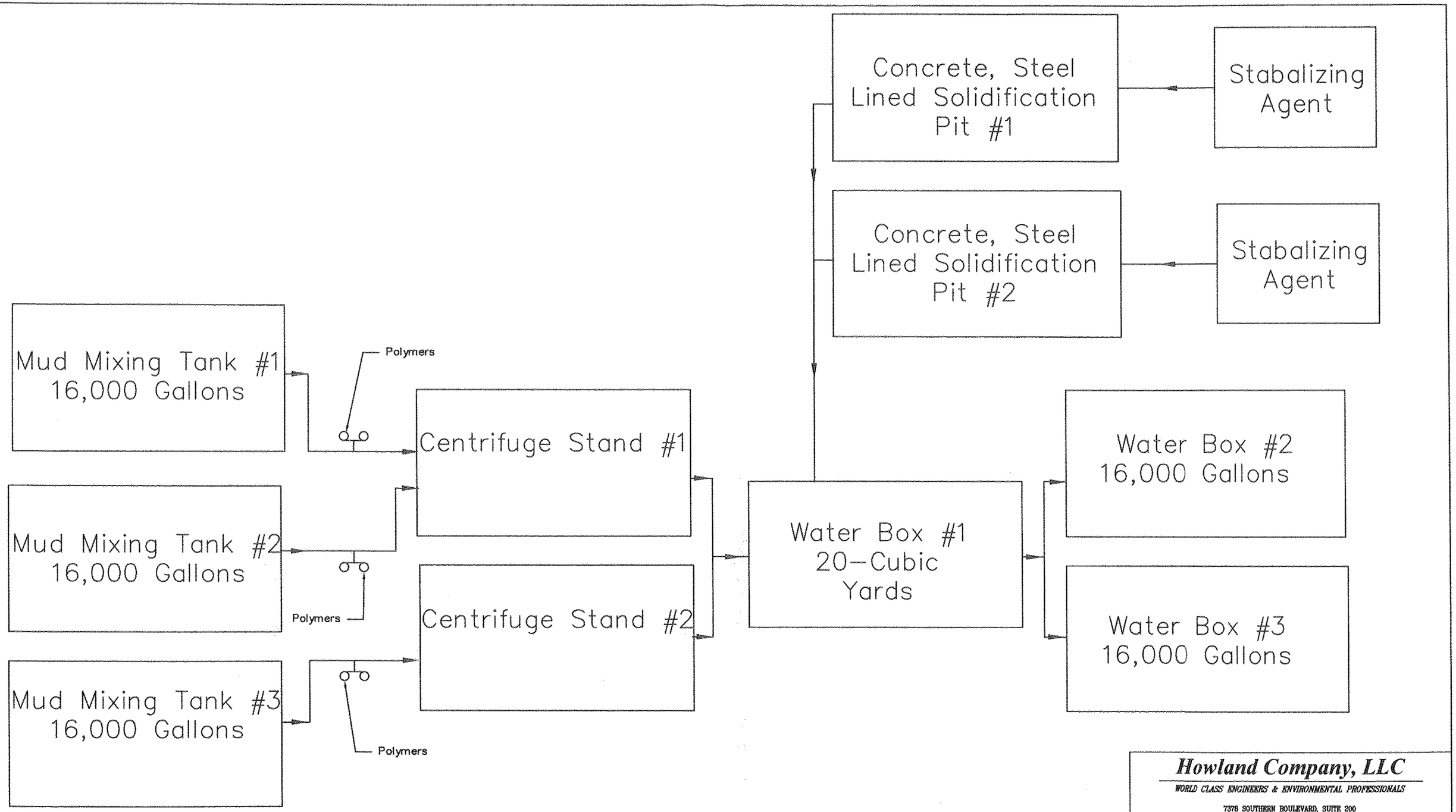
CHECKED: JSE	SCALE: N/A		
DATE: 10/03/14			

BELMONT SOLIDS CONTROL, LLC
CHANEY ROAD, FLUSHING
BELMONT COUNTY, OHIO

CONSTRUCTION & CONTAINMENT DETAIL

FIGURE H141054-04



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CHECKED: JSE	SCALE: N/A		
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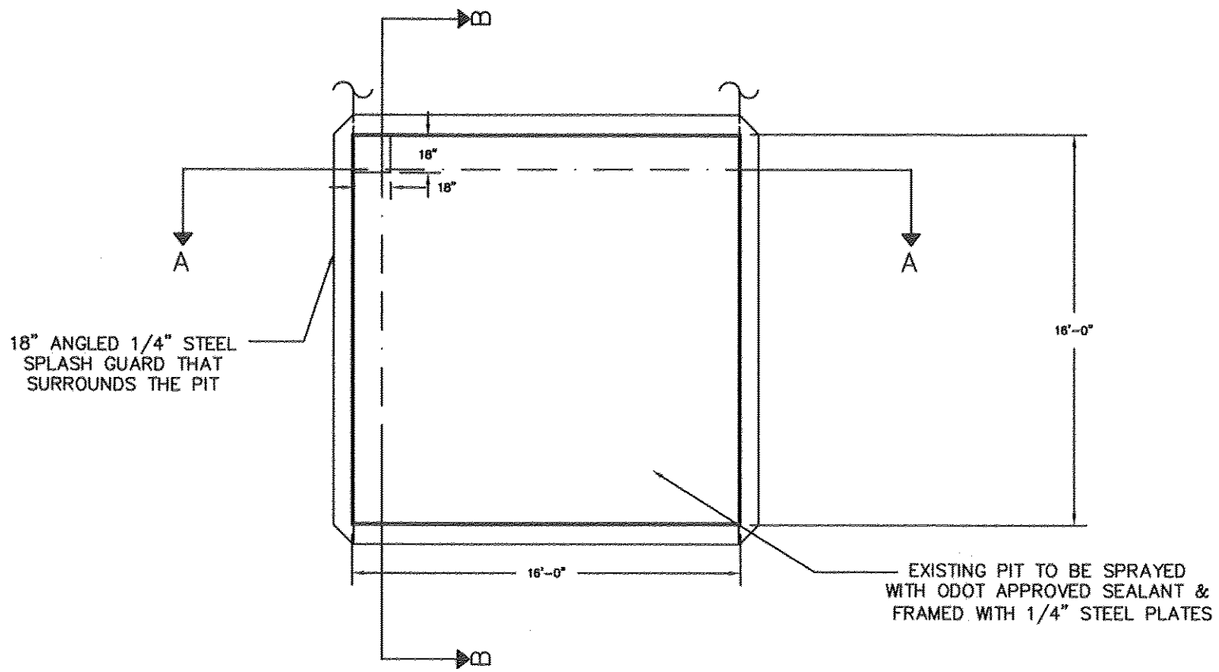
BELMONT SOLIDS CONTROL, LLC
CHANEY ROAD, FLUSHING
BELMONT COUNTY, OHIO

FACILITY SCHEMATIC

FIGURE
H141054-05

TOP VIEW



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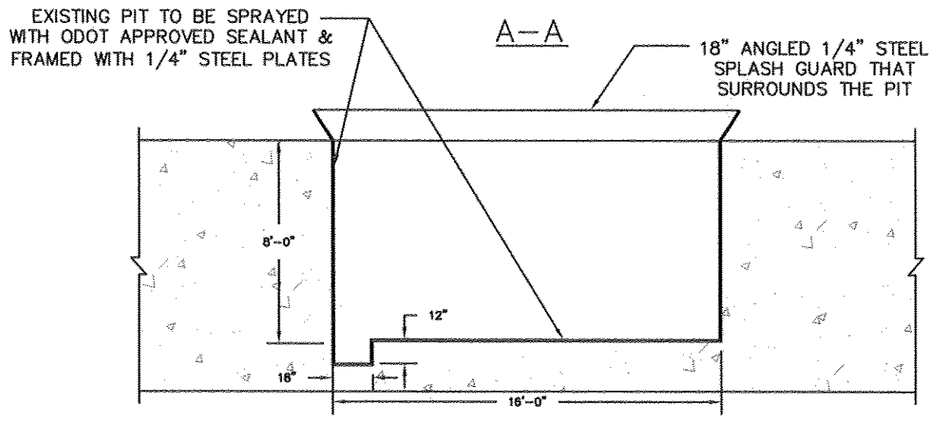

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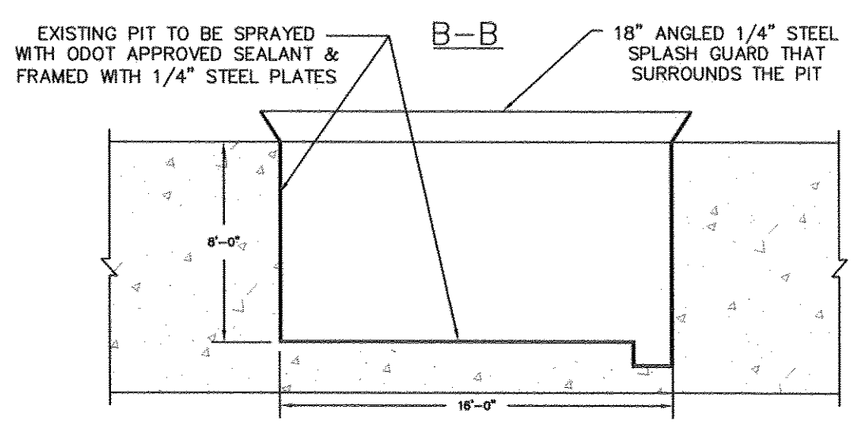

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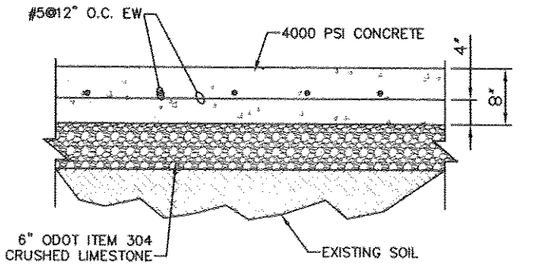
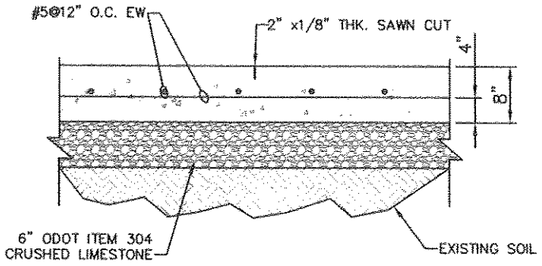
BELMONT SOLIDS CONTROL, LLC
CHANEY ROAD, FLUSHING
BELMONT COUNTY, OHIO

SOLIDIFICATION PIT DETAIL

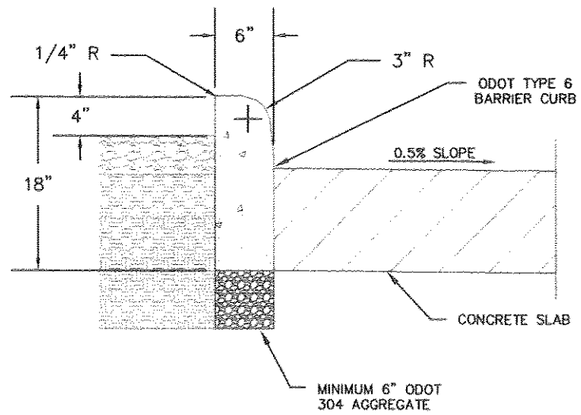
FIGURE
H141054-06

CONCRETE SLAB DETAIL





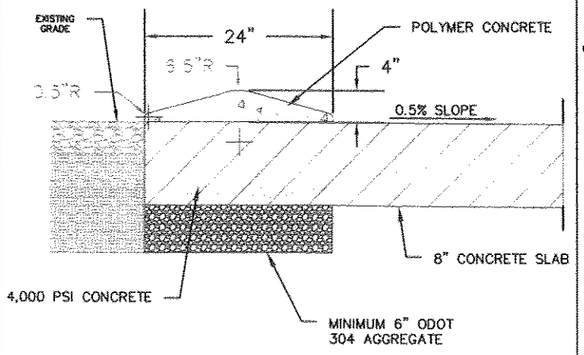
6" CONTAINMENT CURB DETAIL



NOTE:

CONCRETE SLAB TO SLOPE 0.5% AWAY FROM CONTAINMENT CURB TOWARDS THE TRENCH DRAIN LOCATED IN THE MIDDLE OF THE FACILITY.

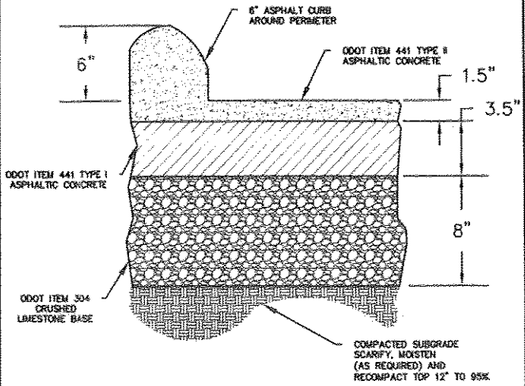
ROUNDED CONTAINMENT CURB DETAIL



NOTE:

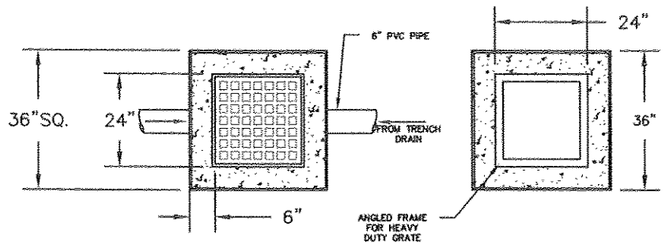
1. ROUNDED CONTAINMENT CURBS TO BE UTILIZED ON ENDS OF BUILDING WHERE VEHICLE ACCESS IS NECESSARY.
2. CONCRETE SLAB TO SLOPE 0.5% AWAY FROM CONTAINMENT CURB TOWARDS THE TRENCH DRAIN LOCATED IN THE MIDDLE OF THE FACILITY.
3. A CHEMICAL RESISTANT GROUT OR TWO-PART ADHESIVE SUITABLE FOR THE APPLICATION IS REQUIRED TO SET CURBS IN PLACE AND SEAL JOINTS.

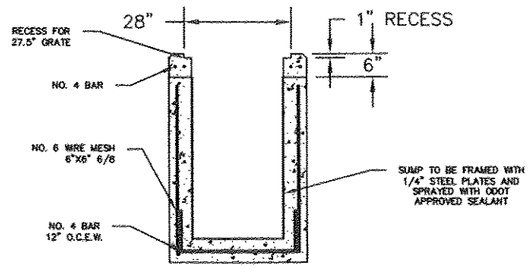
HEAVY DUTY ASPHALT PAVING SECTION



NOTE:
FINAL PAVING SECTION MAY VARY DEPENDING ON FIELD ANALYSIS OF ESTABLISHED SUBGRADE COORDINATE STRUCTURAL PAVEMENT SECTION WITH SOILS REPORT.

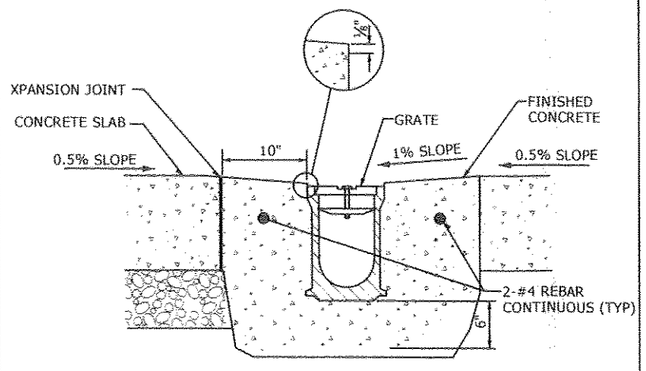
CONTAINMENT SUMP





NOTES:
1. *STANDARD ODOT 2'X2' CATCH BASIN*
2. *MUST CONFORM TO ODOT DESIGN CB 2-2-B.*
3. *HOLES FOR PIPE ARE 2" LARGER THAN PIPE O.D.*
4. *CONCRETE 4,000 PSI AT 28 DAYS MINIMUM.*
5. *USE E.C. BABBERT, INC. 2'X2' PRECAST CONCRETE CATCH BASINS WITH HEAVY DUTY GRATE OR APPROVED EQUAL CATCH BASIN UNITS.*

8" TRENCH DRAIN



Howland Company, LLC

WORLD CLASS ENGINEERS & ENVIRONMENTAL PROFESSIONALS

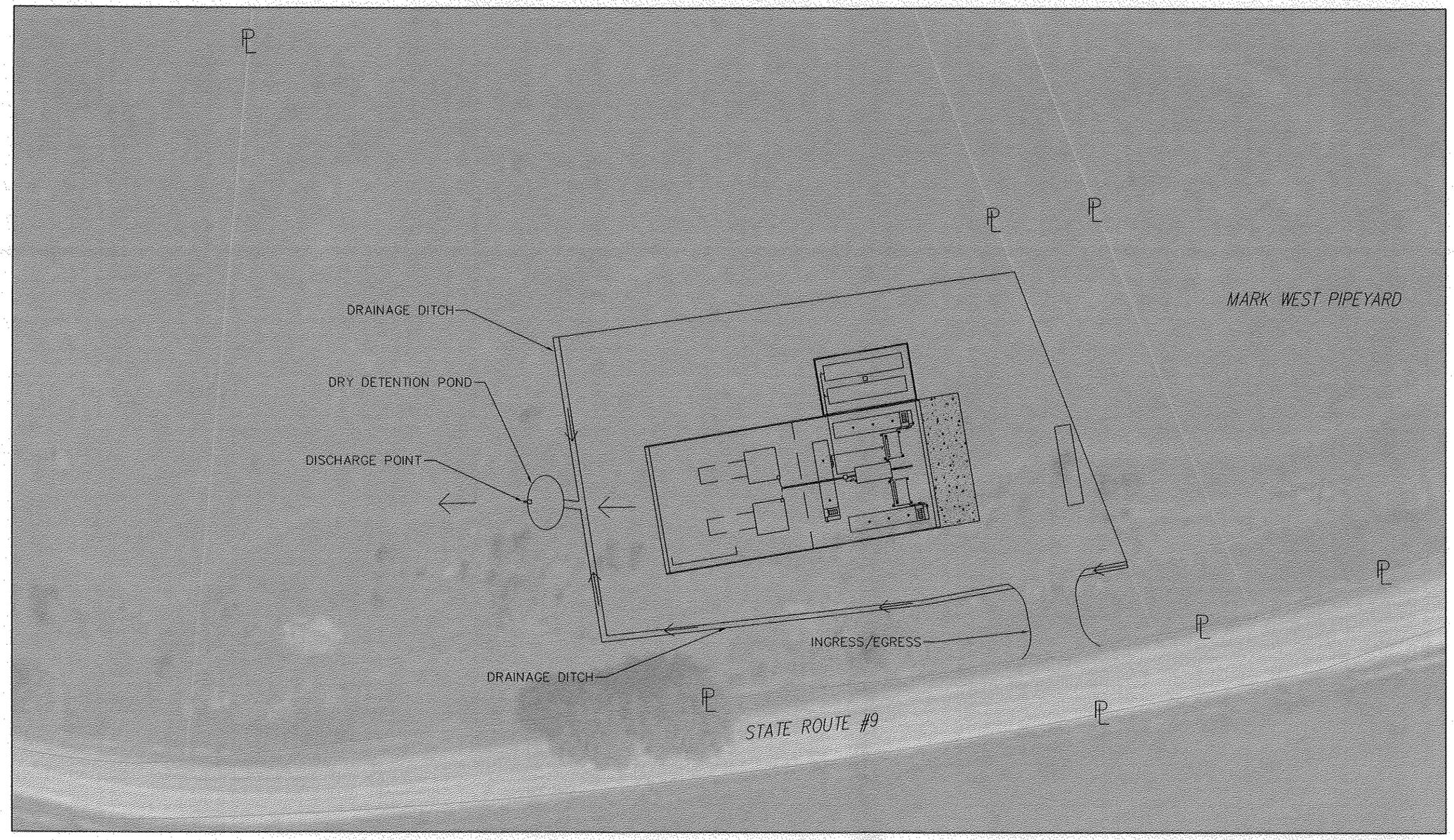
7378 SOUTHERN BOULEVARD, SUITE 200
BOARDMAN, OH 44512
(330) 747-3975

DRAWN: EJB	JOB NO.: H141054	REVISIONS:	
CHECKED: JSE	SCALE: N/A		
DATE: 10/03/14			

BELMONT SOLIDS CONTROL, LLC
CHANEY ROAD, FLUSHING
BELMONT COUNTY, OHIO

CONSTRUCTION DETAIL

FIGURE
H141054-07



KEY

← = NATURAL SHEET FLOW

℄ = PROPERTY LINE

Howland Company, LLC

WORLD CLASS ENGINEERS & ENVIRONMENTAL PROFESSIONALS

7378 SOUTHERN BOULEVARD, SUITE 200
BOARDMAN, OH 44512
(330) 747-3975

DRAWN: EJB	JOB NO.: H141054		
CHECKED: JSE	SCALE: N/A	REVISIONS:	
DATE: 10/03/14			

BELMONT SOLIDS CONTROL, LLC
STATE ROUTE 9, CADIZ
HARRISON COUNTY, OHIO

POST CONSTRUCTION DRAINAGE

FIGURE
H141054-08

EXHIBIT C

Belmont Solids Control, LLC.
State Route 9
Howland Company, LLC

Job No.: H141054
Cadiz, Ohio

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ANIONIC POLYMER
SYNONYMS: None
CHEMICAL FAMILY: WasteWater Treatment

NFPA - HEALTH HAZARD 1
FIRE HAZARD 0
REACTIVITY HAZARARD 0

NFPA Scale Key: 4 = extreme 3 = High 2 = Moderate 1 = Slight 0 = Insignificant
NA = Not Applicable ND = Not Determined

SECTION 2. HAZARD(s) IDENTIFICATION

Chemical Name(s)	Cas. No.	% WT	TLV-TWA	PEL	SEC.313	Carcinogen?
None	NA		NA	NA	No	NA

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS NO	Amount

Non Hazardous Components:

1) SALT
2) Anionic Polyacrylamide Solution Polymer.

SECTION 4. FIRST-AID MEASURES

SKIN: Remove contaminated clothing and flush exposed skin with soap and water. If irritation persists or develops get medical attention. Launder contaminated clothing before reuse.
EYES: Immediately flush eyes with large amounts of water for 15 minutes and get medical attention.
INGESTION: If swallowed, DO NOT INDUCE VOMITING. Get medical attention immediately. Never give anything by mouth to and unconscious person.
INHALATION: Move to fresh air. Aid in breathing, if necessary, get medical attention.

ENVIRONMENTAL DATA

SPILL OR LEAK PROCEDURES	Avoid skin contact. Flush with water to sanitary sewer. Product is extremely slippery when spilled.
WASTE DISPOSAL METHOD	Dispose of in accordance with all federal, state and local regulations.
HAZARDOUS WASTE 40CFR261	No.
CONTAINER DISPOSAL	Empty containers may contain residuals. Thoroughly clean, then offer for recycling, reuse or disposal in accordance with all regulations.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION	NIOSH/MSHA approved filter type mask for dusts, fumes and mists as needed to maintain P.E.L.

SECTION 5. FIRE-FIGHTING MEASURES

FLASH POINT: (Test Method)	NA
AUTOIGNITION TEMP:	NA
FLAMMABILITY LIMITS IN AIR (%V)	NA
EXTINGUISHING MEDIA	Not Combustible
SPECIAL FIRE FIGHTING PROCEDURES	NA
UNUSUAL FIRE & EXPLOSION HAZARDS	No Unusual Hazards

SECTION 6. ACCIDENTAL RELEASE MEASURES

STEPS TOP BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: USE ABSORBENT MATERIAL TO COLLECT AND CONTAIN. WASH WITH CLEAR WASTER ONLY.

PERSONAL PROTECTIVE EQUIPMENT.

EYES: USE PROPER PROTECTION: SAFETY CLASSES AS A MINIMUM.
SKIN: WASHING AT MEALTIME AND END OF SHIFT IS ADEQUATE.
INHALATION: NO RESPIRATORY PROTECTION IS NEEDED UNLESS PRODUCT FORMS MIST.

WASTE DISPOSAL METHOD: MUST CONFORM WITH LOCAL STATE AND FEDERAL; REGULATING CONCERNING HEALTH AND POLLUTION.

D.O.T. (49CFR 171.8)/E.P.A. (40CFR 117) SPILL REPORTING INFORMATION:

HAZARDOUS SUBSTANCE:	NONE
REPORTABLE QUANTITY:	NOT APPLICABLE
CONCENTRATION OF HAZARDOUS SUBSTANCE:	NOT APPLICABLE
REPORTABLE QUANTITY OF PRODUCT:	NOT APPLICABLE.

SECTION 7. HANDLING AND STORAGE

THESE PRECAUTIONS ARE FOR ROOM TEMPERATURE HANDLING. USE AT ELEVATED TEMPERATURES OR AEROSOL/SPRAY APPLICATIONS MAY REQUIRE ADDED PRECAUTIONS.

*GOOD PRACTICE REQUIRES THAT GROSS AMOUNT OF ANY CHEMICAL BE REMOVED FROM THE SKIN AS SOON AS PRACTICAL, ESPECIALLY BEFORE EATING OR SMOKING.

PRECAUTIONS TO BE TAKEN IN STORAGE AND HANDLING: USE REASONABLE CARE AND CAUTION. STORE BETWEEN 0 %C AND 49 %C.

COMMENTS: AVOID EYE CONTACT.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION	Local and/or mechanical exhaust to maintain exposure below P.E.L.
PROTECTIVE CLOTHING	Neoprene gloves, apron, boots – as necessary to prevent skin contact.
EYE PROTECTION	Chemical goggles.
OTHER PRECAUTIONS	Safety shower and eyewash fountains should be easily accessible.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

BOILING/FREEZING POINT @760 mmHg	212•F (100•C) / No
pH	7.0
VAPOR PRESSURE mm Hg @20• C	ND
VAPOR DESITY (Air =1)	<1
PERCENT VOLATILE BY WEIGHT (%)	<1
SPECIFIC GRAVITY @20•c	1.07
SOLUBILITY IN WATER	Complete
EVAPORATION RATE	(Water=1) <1
APPERANCE AND ODOR	Clear Liquid with Characteristic Odor.

ECTION 10. STABILITY & REACTIVITY

PRODUCT STABILITY	Stable
Conditions to Avoid	None Known
CHEMICAL INCOPATIBILITY	None Known
HAZARDOUS DECOPOSTION	None Known
HAZARDOUS POLYMERIZATION	Will Not Occur

SECTION 11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS

Ingestion: Ingestion may cause irritation of the mucous membranes, esophagus and stomach. May cause nausea, vomiting and diarrhea. Large amounts may cause liver and kidney effects.

Inhalation: Inhalation of mists may cause irritation of the nose, throat and upper respiratory tract.

Eye: May cause moderate to severe irritation with pain and tearing. Corneal damage is possible.

Skin: May cause irritation on prolonged or repeated contact.

Sensitization: This material is not known to cause sensitization

Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

Mutagenicity: None currently known.

Medical Conditions Aggravated by Exposure: Employees with pre-existing eye, skin and respiratory disease may be at risk from exposure.

Acute Toxicity values: No data available.

SECTION 12. ECOLOGICAL INFORMATION

LC50 determinations without added suspended solids overestimate the true toxicity of polymers. Suspended solids and other dissolved organic materials like humic acid are present in natural waters and reduce the effective concentration of the polymer thereby its toxicity.

LC50

Ceriodaphnia dubia 48 hour:	>1.8 g/L
Daphnia magna 48 hour:	>5.0 g/L
Pimephales Promelas 96 hour:	>12.0 g/L

SECTION 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.

SECTION 14. TRANSPORT INFORMATION

D.O.T. PROPER SHIPPING NAME	NA
D.O.T. HAZARD CLASS	NA
D.O.T. LABELS REQUIRED	NA
UN/NA I.D. NUMBER	NA
PACKAGING GROUP	NA
NON-BULK SHIPPING NAME	Compound, Industrial Process Water Treating
BULK SHIPPING NAME	Same

SECTION 15. REGULATORY INFORMATION

CERCLA: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III. Section 313 (40 CFR 372): None

SECTION 15. REGULATORY INFORMATION (cont.)

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

CANADA: This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

Canadian CEPA: All the components of this product are listed on the Canadian DSL.

Canadian WHMIS Classification: Class D-2_B (Toxic material causing other chronic effects).

SECTION 16. OTHER INFORMATION

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of manufacturer. The data on this sheet relates only to the specific material designated herein. Manufacturer assumes no legal responsibility for use or reliance upon this date.

Revision Date: 5.20.2013

SECTION 1. IDENTIFICATION

Product Name: CATIONIC POLYMER

SECTION 2. HAZARD(S) IDENTIFICATION

Emergency Overview: Aqueous solutions or powders that become wet render surfaces extremely slippery.

Appearance/Odor

Form:	Viscous liquid
Color:	Milky
Odor:	Aliphatic

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Identification of the Preparation: Cationic water-soluble polymer in emulsion.

SECTION 4. FIRST-AID MEASURES

Inhalation:	Move to fresh air.
Skin Contact:	Wash off immediately with soap and plenty of water. In case of persistent skin irritation, consult a physician.
Eye Contact:	Rinse thoroughly with plenty of water, also under the eyelids. In case of persistent eye irritation, consult a physician.
Ingestion:	The product is not considered toxic based on studies on laboratory animals.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Water, water spray, foam, carbon dioxide (CO2), dry powder.
Special Fire-Fighting Precautions:	Spills produce extremely slippery surfaces.
Protective Equipment for Firefighters:	No special protective equipment required.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: No special precautions required.

Environmental Precautions: Do not contaminate water.

Methods for Cleaning Up
Do not flush with water. Dam up. Soak up with inert absorbent material. If liquid has been spilled in large quantities clean up promptly by scoop or vacuum. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

SECTION 7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. When preparing the working solution ensure there is adequate ventilation. When using do not smoke.

Storage: Keep in a dry, cool place. (0 - 30°C). Keep away from heat and sources of ignition. Freezing will affect the physical condition and may damage the material.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

Personal Protection Equipment

- **Respiratory Protection:** In case of insufficient ventilation wear suitable respiratory equipment.
- **Hand Protection:** Rubber gloves.
- **Eye Protection:** Safety glasses with side-shields. Do not wear contact lenses.
- **Skin Protection:** Chemical resistant apron or protective suit if splashing or contact with solution is likely.

Hygiene Measures: Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	viscous liquid
Color:	milky
Odor:	aliphatic
pH:	3-7 @ 5 g/l for product series. See Technical Bulletin for specific value.
Flash Point (°C):	Does not flash
Autoignition Temperature (°C):	Does not ignite
Vapor Pressure (mm Hg):	0.13 @ 20°C
Bulk Density:	approx. 1.04
Water Solubility:	See Technical Bulletin
Viscosity (mPa s):	See Technical Bulletin

SECTION 10. STABILITY AND REACTIVITY

Stability:	Product is stable, No hazardous polymerization will occur.
Materials to avoid:	Oxidizing agents may cause exothermic reactions.
Hazardous Decomposition Products:	Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity

- Oral:	LD50/oral/rat > 5000 mg/kg.
- Dermal:	The results of testing on rabbits showed this material to be non-toxic even at high dose levels.
- Inhalation:	The product is not expected to be toxic by inhalation.

Irritation

- Skin:	May cause skin irritation with susceptible persons.
- Eyes:	May cause eye irritation with susceptible persons.
Sensitization:	The results of testing on guinea pigs showed this material to be non-sensitizing.
Chronic Toxicity:	A two-year feeding study on rats did not reveal adverse health effects. A one-year feeding study on dogs did not reveal adverse health effects. Prolonged skin contact may defat the skin and produce dermatitis.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity:

The effects of this product on aquatic organisms are rapidly and significantly mitigated by the presence of dissolved organic carbon in the aquatic environment.

- Fish:	LC50/Danio rerio/96 hr > 10 - 100 mg/L (OECD 203) (Based on the toxicity of the components using the Conventional Method.) LC50/Pimephales promelas (fat Head Minnow)/96 hr 3.28 mg/L (Toxicity of the actual product).
- Algae:	Algae inhibition tests are not appropriate. The flocculating characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
- Daphnia:	EC50/Daphnia magna/48 hr > 50 mg/L (OECD 202) (Based on the toxicity of the components using the Conventional Method.) LC50/Ceriodaphnia dubia/48hour .051mg/L (Toxicity of the actual product)

Environmental Fate:
The product is rapidly eliminated from the aquatic medium through irreversible adsorption onto suspended matter and dissolved organics.

Bioaccumulation:	Does not bioaccumulate.
Persistence / Degradability:	Not readily biodegradable.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products:	In accordance with federal, state and local regulations.
Contaminated Packaging:	Rinse empty containers with water and use the rinse water to prepare the working solution. Can be landfilled or incinerated, when in compliance with local regulations.

SECTION 14. TRANSPORT INFORMATION
Not regulated by DOT, IATA, IMDG

SECTION 15. REGULATORY INFORMATION
All components of this product are on the TSCA and DSL inventories.

RCRA Status:	Not a hazardous waste.
Hazardous Waste Number:	Not applicable.
Reportable Quantity (40 CFR 302):	Not applicable.
Threshold Planning Quantity (40 CFR 355):	Not applicable.
California Proposition 65 Information:	*The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986:* This product contains a chemical(s) known to the State of California to cause cancer: residual Acrylamide.

HMIS & NFPA Ratings	**HMIS**	**NFPA**
Health:	1	1
Flammability:	1	1
Reactivity:	0	0
Personal Protection/Special:	B	

SECTION 16. OTHER INFORMATION

Person to Contact:	Regulatory Affairs Manager

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The information related only tot the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

Revision Date: 7/30/2013

EXHIBIT D

Appendix B

Laboratory Safety Guidelines

LABORATORY SAFETY PRACTICES

- Never pipette by mouth.
- No smoking or eating permitted in the work area.
- Gloves and laboratory coat required when using radioisotopes.
- Prescribed personal monitors must be worn.
- Hands, shoes and clothing should be frequently monitored.
- Work with radioactive materials in an approved hood or glove box when radioactive material can become airborne (heating, boiling, aerosols, gases, etc.).
- Radioisotope work should be conducted in an impervious tray or pan and lined with absorbent paper.
- Utilize time, distance and shielding whenever possible.
- Dispose of liquid and solid radioactive waste in the approved containers provided.
- Refrigerators containing isotopes shall not be used for storing food.
- Monitor radioisotope work areas at least once daily for contamination and make notation of this survey in laboratory records.
- Thoroughly wash hands after manipulating isotopes and on completion of work.
- No eating, drinking, smoking, chewing, or application of cosmetics around radioactive material use and storage areas.
- Maintain records of receipt, use, transfer, and disposal of radioactive materials.
- Report accidental inhalation, injury, or spills to your supervisor and the Radiation Safety Officer.
- Review pertinent safety practices frequently, especially before using a new radionuclide.

The Radiation Safety Officer is: Charles A. Brannon

If you have any questions or need assistance contact: RSO: (571) 420-8411

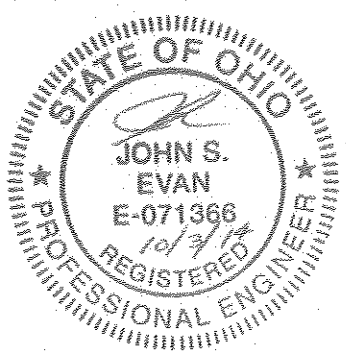
EXHIBIT E

Howland Company, LLC

WORLD CLASS ENGINEERS AND ENVIRONMENTAL PROFESSIONALS

Stormwater Pollution Prevention Plan

Belmont Solids Control
State Route 9
Cadiz, Harrison County, Ohio 43907



Prepared By:
Howland Company, LLC.
7378 Southern Boulevard, Suite 200
Youngstown, Ohio 44512

Stormwater Pollution Prevention Plan (SWPPP)

For Construction Activities At:

Parcel # 04-0000020.000
Part of Parcel # 04-0000022.000
Located along State Route 9
Cadiz, Harrison County, Ohio

SWPPP Prepared For:

Belmont Solids Control
P.O. Box 253
Minerva, Ohio 44657
Phone: 330-853-2393

SWPPP Prepared By:

Howland Company, LLC
7378 Southern Blvd, Suite 200
Boardman, Ohio 44512
Phone: 330-747-3975
Fax: 330-747-3992

SWPPP Preparation Date:

10/03/2014

Estimated Project Dates:

Project Start Date: 10/13/2014
Project Completion Date: 01/04/2015

Contents

SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Operator(s) / Subcontractor(s)

Subcontractor(s):

Howland Company
7378 Southern Blvd, Suite 200
Boardman, OH 44512
John Evan
Phone: 330-747-3975

Woodford Excavating
291 Diehl South Road
Leavittsburg, OH 44430
John Woodford
Phone: 330-395-3478

Emergency 24-Hour Contact:

Belmont Solids Control
Jeff Faloba
Phone #: 330-853-2393

1.2 Stormwater Team

Stormwater Inspection
John S. Evan, P.E.
Ph: 330-747-3975
Mobile: 330-518-4614
JEvan@HowlandCompany.net

Stormwater Inspection
Kristin Vratkovich
330-747-3975
Vratkovich@HowlandCompany.net

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 *Project/Site Information*

Project Name and Address

Project/Site Name: Belmont Solids Control
Project Street/Location: State Route 9, Harrison County, Ohio
City: Cadiz
State: Ohio
ZIP Code: 43907
County or Similar Subdivision: Harrison County

Project Latitude/Longitude

(Use **one** of three possible formats, and specify method)

Latitude: Longitude:
1. 40 ° 13 ' 50.8" N (deg, min, sec) 1. 81 ° 00 ' 16.1" W (deg, min, sec)

Method for determining latitude/longitude:
☐ USGS topographic map (specify scale: _____) ☐ EPA Web site ☒ GPS

Additional Project Information

Is the project/site located on Indian country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ Yes ☒ No

If yes, provide the name of the Indian tribe associated with the area of Indian country (including the name of Indian reservation if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property:

If you are conducting earth-disturbing activities in response to a public emergency, document the cause of the public emergency *(e.g., natural disaster, extreme flooding conditions)*, information substantiating its occurrence *(e.g., state disaster declaration)*, and a description of the construction necessary to reestablish effective public services:

Are you applying for permit coverage as a "federal operator" as defined in Appendix A of the 2012 CGP? ☐ Yes ☒ No

2.2 *Discharge Information*

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☒ No

Are there any surface waters that are located within 50 feet of your construction disturbances?
☐ Yes ☒ No

Table 1 – Names of Receiving Waters

Name(s) of the first surface water that receives stormwater directly from your site and/or from the MS4 (note: multiple rows provided where your site has more than one point of discharge that flows to different surface waters)
1. Georgetown Plant Lower Supply Pond
2.
3.
4.

[Include additional rows as necessary.]

Table 2 – Impaired Waters / TMDLs (Answer the following for each surface water listed in Table 1 above)

	Is this surface water listed as "impaired"?	If you answered yes, then answer the following:			
		What pollutant(s) are causing the impairment?	Has a TMDL been completed?	Title of the TMDL document	Pollutant(s) for which there is a TMDL
1.	☐ YES ☒ NO		☐ YES ☐ NO		
2.	☐ YES ☐ NO		☐ YES ☐ NO		
3.	☐ YES ☐ NO		☐ YES ☐ NO		
4.	☐ YES ☐ NO		☐ YES ☐ NO		

[Include additional rows as necessary.]

Describe the method(s) you used to determine whether or not your project/site discharges to an impaired water:

Table 3 – Tier 2, 2.5, or 3 Waters (Answer the following for each surface water listed in Table 1 above)

	Is this surface water designated as a Tier 2, Tier 2.5, or Tier 3 water? (see Appendix F)	If you answered yes, specify which Tier (2, 2.5, or 3) the surface water is designated as?
1.	☐ YES ☒ NO	
2.	☐ YES ☐ NO	
3.	☐ YES ☐ NO	
4.	☐ YES ☐ NO	

2.3 Nature of the Construction Activity

General Description of Project

Provide a general description of the construction project:

Development and construction of a site to provide a fully enclosed treatment facility to process drilling fluids created during Oil and Gas well construction.

Size of Construction Project

What is the size of the property (in acres), the total area expected to be disturbed by the construction activities (in acres), and the maximum area expected to be disturbed at any one time?

SIZE OF PROPERTY: 10.001 Acres

TOTAL AREA OF CONSTRUCTION DISTURBANCES: Approx. 1.7 Acres

Construction Support Activities (only provide if applicable)

Describe any construction support activities for the project (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas)

There will be staging areas for equipment, material storage, and excavated material.

2.4 Sequence and Estimated Dates of Construction Activities

Phase I

INSTALLATION OF STORM WATER CONTROL

- Installation Begins: October 2014
- Filter Fabric to be installed in October 2014 before the project begins
- Stormwater controls to be removed after Development.

Phase II

CONSTRUCTION OF BELMONT SOLIDS CONTROL

- Construction to begin in October 2014
- Construction ends in January 2015

2.5 *Allowable Non-Stormwater Discharges*

List of Allowable Non-Stormwater Discharges Present at the Site

Type of Allowable Non-Stormwater Discharge	Likely to be Present at Your Site?
Discharges from emergency fire-fighting activities	☒ YES ☐ NO
Fire hydrant flushings	☐ YES ☒ NO
Landscape irrigation	☐ YES ☒ NO
Waters used to wash vehicles and equipment	☐ YES ☒ NO
Water used to control dust	☒ YES ☐ NO
Potable water including uncontaminated water line flushings	☐ YES ☒ NO
Routine external building wash down	☐ YES ☒ NO
Pavement wash waters	☒ YES ☐ NO
Uncontaminated air conditioning or compressor condensate	☐ YES ☒ NO
Uncontaminated, non-turbid discharges of ground water or spring water	☐ YES ☒ NO
Foundation or footing drains	☒ YES ☐ NO
Construction dewatering water	☒ YES ☐ NO

(Note: You are reminded of the requirement to identify the likely locations of these allowable non-stormwater discharges on your site map. See Section 2.6, below, of the SWPPP Template.)

2.6 *Site Maps*

SEE APPENDIX A

SECTION 3: DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS

3.1 Endangered Species Protection

Eligibility Criterion

Under which criterion listed in Appendix D are you eligible for coverage under this permit?

☒ **A** ☐ **B** ☐ **C** ☐ **D** ☐ **E**

For reference purposes, the eligibility criteria listed in Appendix D are as follows:

Criterion A. No federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's "action area" as defined in Appendix A of this permit.

Criterion B. The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your action area under eligibility Criterion A, C, D, E, or F and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the "action area". To certify your eligibility under this Criterion, there must be no lapse of NPDES permit coverage in the other operator's certification. By certifying eligibility under this Criterion, you agree to comply with any effluent limitations or conditions upon which the other operator's certification was based. You must include in your NOI the tracking number from the other operator's notification of authorization under this permit. If your certification is based on another operator's certification under Criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in Criterion C in your NOI form.

Criterion C. Federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or near your site's "action area," and your site's discharges and discharge-related activities are not likely to adversely affect listed threatened or endangered species or critical habitat. This determination may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect listed species and critical habitat. To make this certification, you must include the following in your NOI: 1) any federally listed species and/or designated habitat located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles). You must also include a copy of your site map with your NOI.

Criterion D. Coordination between you and the Services has been concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and must have resulted in a written concurrence from the relevant Service(s) that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Criterion E. Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat. The result of this consultation must be either:

i. a biological opinion that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or

ii. written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activities are not likely to adversely affect federally-listed species or federally-designated habitat.

You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Criterion F. Your construction activities are authorized through the issuance of a permit under section 10 of the ESA, and this authorization addresses the effects of the site's discharges and discharge-related activities on federally-listed species and federally-designated critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

For criterion A, indicate the basis for your determination that no federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's action area (as defined in Appendix A of the permit). Check the applicable source of information you relied upon:

- ☐ Specific communication with staff of the U.S. Fish & Wildlife Service or National Marine Fisheries Service.
- ☒ Publicly available species list. Ohio EPA Website
- ☐ Other source:

3.2 Historic Preservation

Appendix E, Step 1

Do you plan on installing any of the following stormwater controls at your site? Check all that apply below, and proceed to Appendix E, Step 2.

- ☐ Dike
- ☒ Berm
- ☐ Catch Basin
- ☐ Pond
- ☒ Stormwater Conveyance Channel (e.g., ditch, trench, perimeter drain, swale, etc.)
- ☐ Culvert
- ☒ Other type of stormwater control: ODOT Filter Fabric & Sand Filled Filter Socks

(Note: If you will not be installing any ground-disturbing stormwater controls, no further documentation is required for Section 3.2 of the Template.)

Appendix E, Step 2

If you answered yes in Step 1, have prior surveys or evaluations conducted on the site already determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties? ☒ YES ☐ NO

- If yes, no further documentation is required for Section 3.2 of the Template.
- If no, proceed to Appendix E, Step 3.

Appendix E, Step 3

If you answered no in Step 2, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? ☐ YES ☐ NO

3.3 Safe Drinking Water Act Underground Injection Control Requirements

Do you plan to install any of the following controls? Check all that apply below.

- ☐ Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

- ☐ Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow

- ☐ Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

SECTION 4: EROSION AND SEDIMENT CONTROLS

4.1 Natural Buffers or Equivalent Sediment Control

Buffer Compliance Alternatives

Are there any surface waters within 50 feet of your project's earth disturbances? ☐ YES ☒ NO
(Note: If no, no further documentation is required for the SWPPP Template.)

4.2 Perimeter Controls

General

- Will install ODOT filter fabric silt fencing around the site perimeter.
- Will make use of temporary drainage swales along the north and east edges of the property to direct all storm water to a temporary sediment basin located in the northeast corner of the property (See Appendix A).
- Will install a construction entrance on site to prevent sediment and materials to leave the site via truck and vehicle tires.

Specific Perimeter Controls

Perimeter Control # 1
Perimeter Control Description

- ODOT filter fabric silt fencing.
- SEE EXHIBIT A (Site Drawings)

Installation

- October 2014 before construction begins.

Maintenance Requirements

- REQUIRES REMOVAL OF SEDIMENT "before it has accumulated to one-half of the above-ground height of any perimeter control."

Perimeter Control # 2
Perimeter Control Description

- Drainage swale and sediment basin.
- SEE EXHIBIT A (Site Drawings)

Installation

- October 2014 before construction begins.

Maintenance Requirements

- Requires daily inspection to make sure it is clear of sediment build-up & should be cleaned as needed.

Perimeter Control # 3
Perimeter Control Description

- Construction Entrance.
- SEE EXHIBIT A (Site Drawings)

Installation

- October 2014 before construction begins.

Maintenance Requirements
- Requires daily inspection to make sure it is clear of sediment build-up & should be cleaned as needed

Perimeter Control # 4
Perimeter Control Description
- Constructed soil berm on the northern and western portion of the site. Berm will increase in size and width based on existing site topography.
- SEE EXHIBIT A (Site Drawings)

Installation
- October 2014 before construction begins.

Maintenance Requirements
- Requires daily inspection to make sure it is clear of sediment build-up & should be cleaned as needed

4.3 Sediment Track-Out

General
- Construction entrance to be installed before construction begins on site to prevent tracking of sediments and materials off of the site.

4.4 Stockpiled Sediment or Soil

General
- Will be stockpiled in a designated location within the site perimeter. Excess soils from the site will be used to construct a soil berm. See Appendix A. Refer to Section 4.7 Topsoil and Section 4.8 Soil Compaction for procedures to be employed regarding stock piled soils.

4.5 Minimize Dust

General
- Water will be used throughout the construction process to control and minimize the generation of dust.

Specific Dust Controls

Dust Control # 1
Dust Control Description
- Water

Maintenance Requirements
- Use water to control dust accumulation as needed throughout the remediation of the facility.

4.6 Minimize the Disturbance of Steep Slopes

General
- No Steep slopes will be disturbed at this site.

4.7 Topsoil

General

- Will be staged at a specific location within the site perimeter, and be utilized to construct the soil berm in the southwest portion of the site. Soil compaction will be utilized to construct the berm.

4.8 Soil Compaction

General

- Excavated soils used to construct the soil berm in the north and west portion of the site will be placed in 8 to 12-inch controlled lifts. The combination of a track excavator's tracks and excavation bucket will be utilized to compact the soil berm in between each controlled lift. Once the soil berm is complete, the exposed faces will be seeded and covered with straw to prevent soil erosion and promote growth of vegetation.

4.9 Storm Drain Inlets

General

- NONE

Specific Storm Drain Inlet Controls
NONE

4.10 Constructed Stormwater Conveyance Channels

General

- None on Site

4.11 Sediment Basins

General

- Located at the northeast corner of the site and will utilize hay bales and rock check dams to filter out any sediment before releasing water. See Appendix A.

Soil Types
List all the soil types (including soil types expected to be found in fill material) that are expected to be exposed during construction and that will be discharged to locations where chemicals will be applied:

None

4.12 Treatment Chemicals

List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics: NONE

Describe the dosage of all treatment chemicals you will use at the site or the methodology you will use to determine dosage: NONE

Provide information from any applicable Material Safety Data Sheets (MSDS): NONE

Describe how each of the chemicals will stored: NONE ON SITE

Include references to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems: NONE

4.13 Dewatering Practices

General

- NONE ON SITE

4.14 Other Stormwater Controls

General

- No other Stormwater controls on site.

4.15 Site Stabilization

- See Appendix A.

SECTION 5: POLLUTION PREVENTION STANDARDS

5.1 Potential Sources of Pollution

Construction Site Pollutants

- Sediment, diesel, hydraulic oil, & oils from heavy equipment.

5.2 Spill Prevention and Response

- Notify Project Supervisor immediately, contact Howland Company, LLC, and report Major spills to the EPA. Minor spills must be reported and cleaned up immediately.

5.3 Fueling and Maintenance of Equipment or Vehicles

General

- Fueling must occur on-site in designated areas where cleanup materials are easily accessed in case of spill. Follow Spill Prevention & Response procedures from previous section.

5.4 Washing of Equipment and Vehicles

General

- The contractor shall construct a wash-down station on site to prevent tracking of sediment and debris onto the streets. Any dust, debris on vehicles and tires shall also be washed off before the vehicle leaves the site.

5.5 Storage, Handling, and Disposal of Construction Products, Materials, and Wastes

5.5.1 Building Products

(Note: Examples include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures.)

General

- All products will be stored on site in designated staging areas only.

5.5.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

General

- NONE ON SITE

5.5.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

General

- There will be diesel equipment and trucks operating on-site. Based on the intended duration of the project, on-site fueling of equipment will be through the use of portable containers and stored in the designated fueling area.

5.5.4 Hazardous or Toxic Waste

(Note: Examples include paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids.)

General

- NONE STORED ON SITE.

5.5.5 Construction and Domestic Waste

(Note: Examples include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, Styrofoam, concrete, and other trash or building materials.)

General

- All materials generated as a result of the construction of the site will be loaded into staged containers. These containers will be transported off-site for disposal. The staged containers will be placed within perimeter of the site and only be loaded at that point.

5.5.6 Sanitary Waste

General

- NONE ON SITE

5.6 Washing of Applicators and Containers used for Paint, Concrete or Other Materials

General

- NONE ON SITE

5.7 Fertilizers

General

- NONE ON SITE

5.8 Other Pollution Prevention Practices

General

- NO OTHER PRACTICES

SECTION 6: INSPECTION AND CORRECTIVE ACTION

6.1 Inspection Personnel and Procedures

Personnel Responsible for Inspections

Qualified Civil Engineers & Level II Civil Engineering Technician

Note: All personnel conducting inspections must be considered a "qualified person." CGP Part 4.1.1 clarifies that a "qualified person" is a person knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the skills to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

Inspection Schedule

Specific Inspection Frequency

- Minimum of 1 day per week & 24 Hours after any major rain (Rain event exceeding 0.50 inches or greater of precipitation in a 24-hour period).

Rain Gauge Location (if applicable)
Wintersville,OH (KOHWINTE1) (Can be found on "Weather Underground's" website)

Inspection Report Forms

- SEE APPENDIX B

6.2 Corrective Action

Personnel Responsible for Corrective Actions

- Belmont Solids Control is responsible for any corrective actions on site during soil removal, backfill operations and/or any other construction related activities.

6.3 Delegation of Authority

Duly Authorized Representative(s) or Position(s):

Howland Company
7378 Southern Blvd, Suite 200
Youngstown, Ohio 44512
Phone: 330-747-3975
John Evan

SECTION 7: CERTIFICATION AND NOTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: John S Evan Title: Consultant

Signature: _____ Date: 10/3/14

SWPPP APPENDICES

Attach the following documentation to the SWPPP:

Appendix A – Site Maps

Appendix B – Inspection Form

Appendix C– SWPPP Amendment Log

Appendix D – Subcontractor Certifications/Agreements

Appendix E – Grading and Stabilization Activities Log

Appendix F – Training Log

Appendix G – Delegation of Authority

APPENDIX A

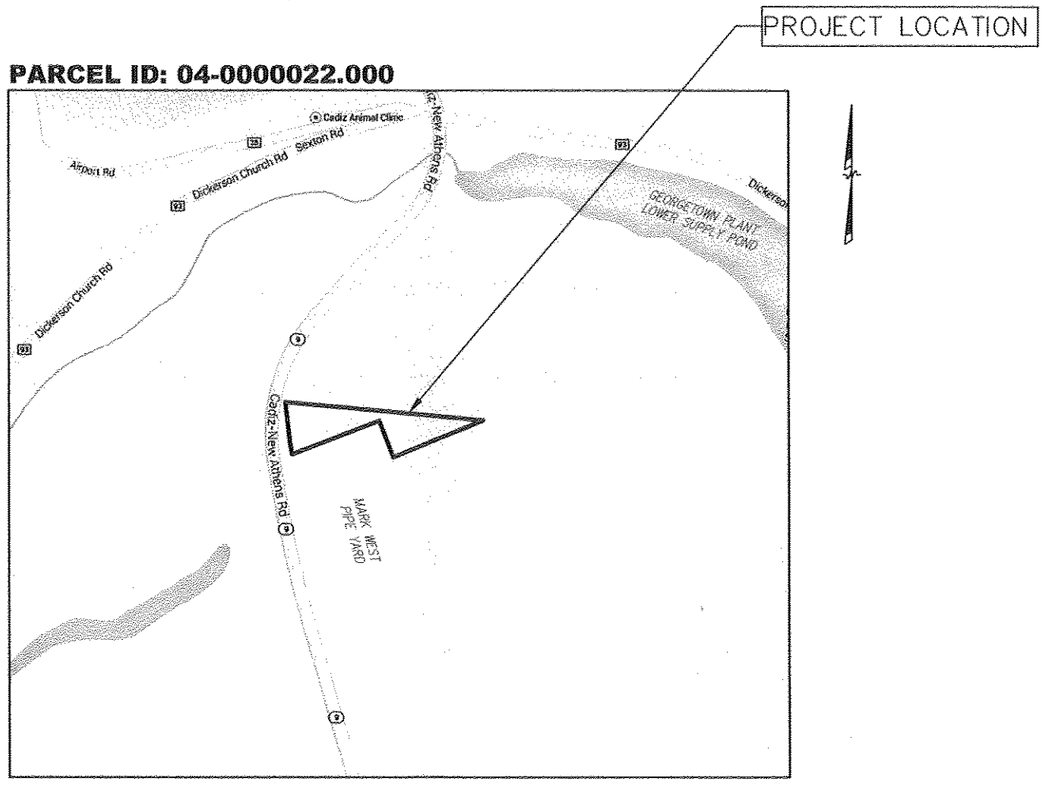
SITE MAPS

BELMONT SOLIDS CONTROL, LLC
SITE PLAN

STATE ROUTE 9
CADIZ, OHIO 43907
HARRISON COUNTY

TABLE OF CONTENTS

PARCEL ID: 04-0000022.000



PREPARED BY:

JOHN S. EVAN, P.E. #71366 *DATE*

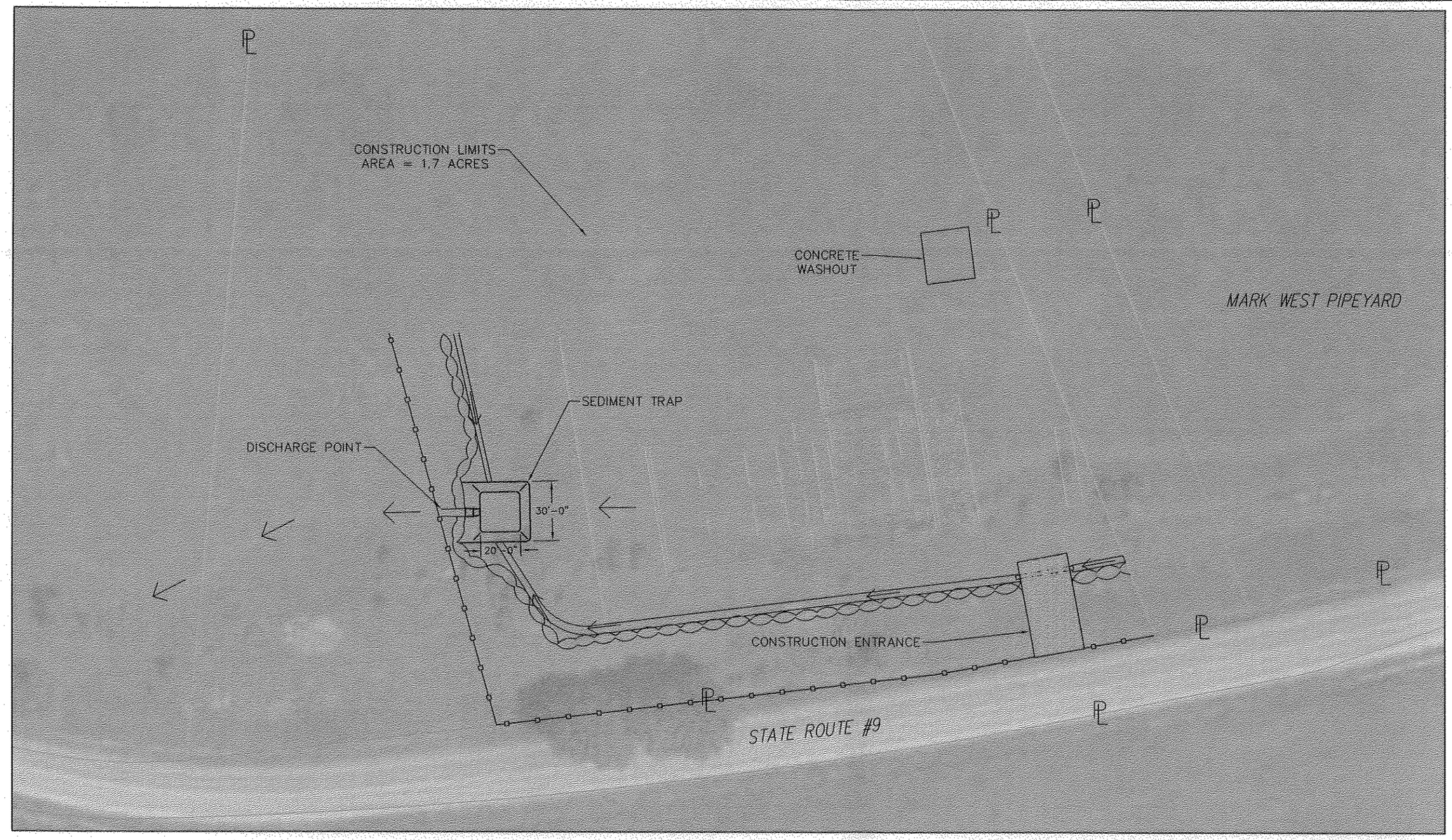
UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST BE CALLED DIRECT

Howland Company, LLC
WORLD CLASS ENGINEERS AND ENVIRONMENTAL PROFESSIONALS
7378 SOUTHERN BLVD, SUITE 200
BOARDMAN, OH 44512
Ph. (330) 747-3975
Fx. (330) 747-3992

ENGINEERS SEAL:

SIGNED
THIS ____ DAY OF _____, 2014

FIGURE
H141054-00



NOTES:

1. EXCAVATED SOILS WILL BE USED TO CONSTRUCT TEMPORARY DIVERSION BERM.
2. 1.7 ACRES OF TOTAL DISTURBANCES
3. GEORGETOWN PLANT LOWER SUPPLY POND IS MAIN RECEIVING WATER.

KEY

= NATURAL SHEET FLOW

= PROPERTY LINE

= SILT FENCING

= TEMPORARY DIVERSION BERM

Howland Company, LLC
WORLD CLASS ENGINEERS & ENVIRONMENTAL PROFESSIONALS
7378 SOUTHERN BOULEVARD, SUITE 200
BOARDMAN, OH 44512
(330) 747-3975

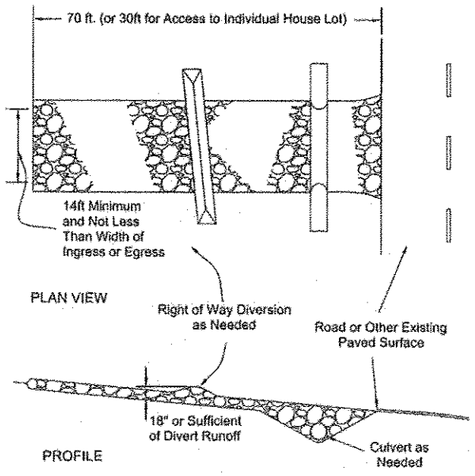
DRAWN: EJB	JOB NO.: H141054		
CHECKED: JSE	SCALE: N/A	REVISIONS:	
DATE: 10/03/14			

BELMONT SOLIDS CONTROL, LLC
STATE ROUTE 9, CADIZ
HARRISON COUNTY, OHIO

SWPPP

FIGURE
H141054-01

STABILIZED CONSTRUCTION ENTRANCE

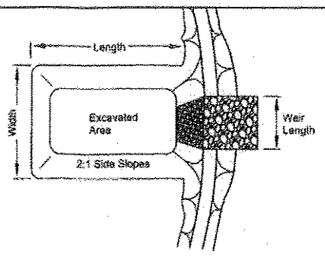


CONSTRUCTION SPECIFICATIONS:

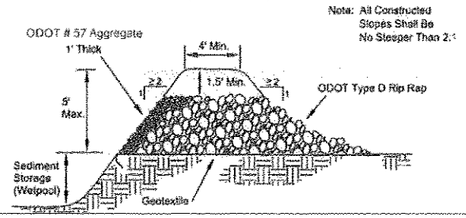
1. STONE – ODOT #2 STONE (1.5"-2.5") OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS EFFECTIVE BUT NOT LESS THAN 70'.
3. THICKNESS – NOT LESS THAN 10" FOR HEAVY DUTY USE.
4. WIDTH – NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS (14ft MINIMUM).
5. WASHING – WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC R.O.W. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY DITCH THROUGH USE OF SILT FENCE.
6. MAINTENANCE – TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
7. GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE AND SHALL MEET THE GIVING SPECIFICATIONS.
8. CONSTRUCTION ENTRANCE SHALL BE INSTALLED BEFORE MAJOR GRADING ACTIVITIES.
9. A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
10. A WATER BAR SHALL BE CONSTRUCTED IF NECESSARY TO PREVENT RUNOFF FROM FLOWING INTO THE ROADWAY.
11. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION-SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
12. THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE	
MINIMUM TENSILE STRENGTH	200 LBS
MINIMUM PUNCTURE STRENGTH	80 PSI
MINIMUM TEAR STRENGTH	50 LBS
MINIMUM BURST STRENGTH	320 PSI
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS < 0.6 mm.
PERMITTIVITY	1x10-3 cm/sec.

SEDIMENT TRAP



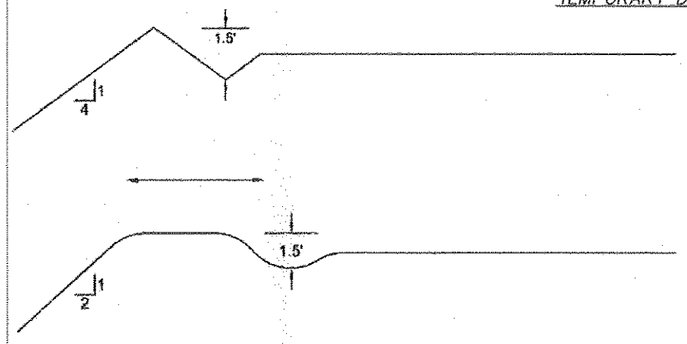
PLAN VIEW
(Not to Scale)



SPECIFICATIONS:

1. WORK SHALL CONSIST OF THE INSTALLATION, MAINTENANCE AND REMOVAL OF ALL SEDIMENT TRAPS AT THE LOCATIONS DESIGNATED ON THE DRAWINGS.
2. SEDIMENT TRAPS SHALL BE CONSTRUCTED TO THE DIMENSIONS SPECIFIED ON THE DRAWINGS AND OPERATIONAL PRIOR TO UPSLOPE LAND DISTURBANCE.
3. THE AREA BENEATH THE EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF VEGETATION TO A MINIMUM DEPTH OF SIX (6) INCHES. THE POOL SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT.
4. FILL USED FOR THE EMBANKMENT SHALL BE EVALUATED TO ASSURE ITS SUITABILITY AND IT MUST BE FREE OF ROOTS OR OTHER WOODY VEGETATION, LARGE ROCKS, ORGANICS OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL SHALL BE PLACED IN SIX (6) INCH LIFTS AND SHALL BE COMPACTED BY TRAVERSING WITH A SHEEPSFOOT OR OTHER APPROVED COMPACTION EQUIPMENT. FILL HEIGHT SHALL BE INCREASED FIVE (5) PERCENT TO ALLOX FOR STRUCTURE/FOUNDATION SETTLEMENT, CONSTRUCTION SHALL NOT BE PERMITTED IF EITHER THE EARTHFILL OR COMPACTION SURFACE IS FROZEN.
5. THE MAXIMUM HEIGHT OF EMBANKMENT SHALL BE FIVE (5) FEET. ALL CUT AND FILL SLOPES SHALL BE 2:1 (h:v) OR FLATTER.
6. A MINIMUM STORAGE VOLUME BELOW THE CREST OF THE OUTLET OF 67yd³ FOR EVERY ACRE OF CONTRIBUTING DRAINAGE AREA SHALL BE ACHIEVED AT EACH LOCATION NOTED ON THE DRAWINGS WITH ADDITIONAL SEDIMENT STORAGE VOLUME PROVIDED BELOW THIS ELEVATION.
7. TEMPORARY SEEDING SHALL BE ESTABLISHED AND MAINTAINED OVER THE USEFUL LIFE OF THE PRACTICE.
8. THE OUTLET FOR THE SEDIMENT TRAP STRUCTURE SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN ON THE DRAWINGS.
9. THE OUTLET SHALL BE CONSTRUCTED USING MATERIAL SPECIFIED ON THE DRAWINGS. WHERE GEOTEXTILE IS USED, ALL OVER LAPS SHALL BE A MINIMUM OF TWO (2) FEET OR AS SPECIFIED BY THE MANUFACTURER, WHICHEVER IS GREATER. ALL OVERLAPS SHALL BE MADE WITH THE UPPER MOST LAYER PLACED LAST. GEOTEXTILE SHALL BE KEYED IN AT LEAST 6" ON THE UPSTREAM SIDE OF THE OUTLET.
10. WARNING SIGNS AND SAFETY FENCE SHALL BE PLACED AROUND THE TRAPS AND MAINTAINED OVER THE LIFE OF THE PRACTICE.
11. AFTER ALL SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, THE STRUCTURE AND ALL ASSOCIATED SEDIMENT SHALL BE REMOVED. STABILE EARTH MATERIALS SHALL BE PLACED IN THE SEDIMENT TRAP AREA AND COMPACTED. THE AREA SHALL BE GRADED TO BLEND IN WITH THE ADJOINING LAND SURFACES AND HAVE POSITIVE DRAINAGE. THE AREA SHALL BE IMMEDIATELY SEEDED.

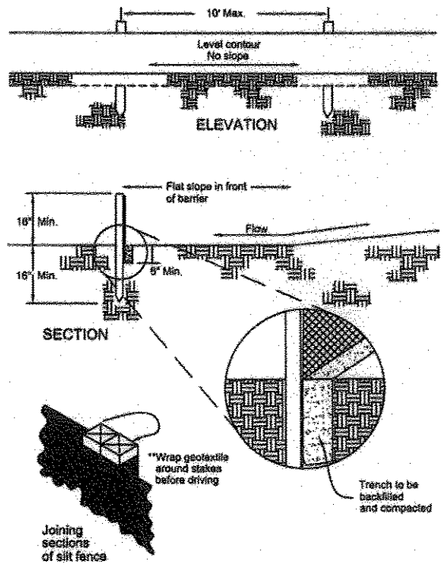
TEMPORARY DIVERSION BERM



SPECIFICATIONS:

1. DRAINAGE AREA SHALL NOT EXCEED 10 AGRESAND THE CHANNEL CROSS SECTION MAY BE PARABOLIC OR TRAPEZOIDAL. DISC THE BASE OF THE DIKE BEFORE PLACING FILL. BUILD THE DIKE 10% HIGHER THAN DESIGNED FOR SETTLEMENT. THE DIKE SHALL BE COMPACTED BY TRAVERSING WITH TRACKED EARTH-MOVING EQUIPMENT.
2. THE MINIMUM CROSS SECTION OF THE LEVEE OR DIKE WILL BE AS FOLLOWS: TRAPEZOIDAL WILL HAVE 0ft TOP WIDTH, 1.5ft HEIGHT AND 4:1 SIDE SLOPES WHILE THE PARABOLIC WILL HAVE A 4ft TOP WIDTH, 1.5ft HEIGHT AND 2:1 SIDE SLOPES.
3. THE GRADE MAY BE VARIABLE DEPENDING UPON THE TOPOGRAPHY, BUT MUST HAVE A POSITIVE DRAINAGE TO THE OUTLET AND BE STABILIZED TO BE NON-EROSIVE.
4. TEMPORARY DIVERSION STABILIZATION TREATMENT FOR THIS SITE WHICH HAS A NATURAL 1.33% DIVERSION SLOPE WILL BE STABILIZED WITH SEED AND STRAW.
5. OUTLET RUNOFF WILL BE DIRECTED TOWARDS THE SITE'S SEDIMENT TRAP FEATURE.
6. DIVERSIONS SHALL BE SEEDED & MULCHED IN ACCORDANCE WITH THE REQUIREMENTS IN PRACTICE STANDARDS "TEMPORARY SEEDING AND MULCHING" AS SOON AS THEY ARE CONSTRUCTED IN ACCORDANCE WITH THE RAINWATER & LAND DEVELOPMENT MANUAL.

SILT FENCING DETAIL



FABRIC PROPERTIES	VALUES	TEST METHOD
MIN TENSILE STRENGTH	120 LBS. (535 N)	ASTM D 4632
MAX ELONGATION AT 60 LBS.	50%	ASTM D 4632
MIN PUNCTURE STRENGTH	50 LBS. (220 N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS. (180 N)	ASTM D 4533
APPARENT OPENING SIZE	≤ 0.84 mm	ASTM D 4751
MINIMUM PERMITTIVITY	1X10-2 SEC. -1	ASTM D 4491
UV EXPOSURE STRENGTH RETENTION	70%	ASTM D 4355

CONSTRUCTION NOTES:

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. FENCE POST SHALL BE 2"X2" WOOD POSTS WITH A MINIMUM LENGTH OF 32".
3. ALL SPECIFICATIONS SHALL BE MET IN COMPLIANCE WITH THE RAINWATER AND LAND DEVELOPMENT MANUAL (2006 EDITION).

Howland Company, LLC

WORLD CLASS ENGINEERS & ENVIRONMENTAL PROFESSIONALS

7378 SOUTHERN BOULEVARD, SUITE 200
BOARDMAN, OH 44512
(330) 747-3975

DRAWN: EJB	JOB NO.: H141054	REVISIONS:	
CHECKED: JSE	SCALE: N/A		
DATE: 10/03/14			

BELMONT SOLIDS CONTROL, LLC
STATE ROUTE 9, CADIZ
HARRISON COUNTY, OHIO

SWPPP DETAILS

FIGURE
H141054-02

APPENDIX B

INSPECTION FORM

Storm Water Demolition Site Inspection Report

General Information			
Project Name	Belmont Solids Control	**Report Number**	
NPDES Tracking No.	NONE	**Location**	State Route 9, Cadiz, OH
Date of Inspection		**Start / End Time**	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information	Ph. (330) 747-3975; Fax (330) 747-3992;		
Inspector's Qualifications			
Describe present Phase of construction			
Type of Inspection: ❑ Regular ❑ Pre-storm event ❑ During storm event ❑ Post-storm event			

Weather Information
Has there been a storm event since the last inspection? ❑Yes ❑No **If yes, provide:** Storm Start Date & Time: Storm Duration (hrs): Approximate Amount of Precipitation (in):
Weather at time of this inspection? ❑ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snow ❑ High Winds ❑ Other: Temperature:
Have any discharges occurred since the last inspection? ❑Yes ❑No **If yes, describe:**
Are there any discharges at the time of inspection? ❑Yes ❑No **If yes, describe:**

SITE-SPECIFIC BEST MANAGEMENT PRACTICES (BMP'S)

BMP	BMP Installed?	Maintenance Required?	Corrective Action Needed and Notes
Minimization of Disturbed Area	❑Yes ❑No	❑Yes ❑No	
Phasing of Construction Activities	❑Yes ❑No	❑Yes ❑No	
Geotextile Inlet Protection	❑Yes ❑No	❑Yes ❑No	

BMP	BMP Installed?	Maintenance Required?	Corrective Action Needed and Notes
Perimeter Controls and Sedimentation Barriers including silt fence	❑Yes ❑No	❑Yes ❑No	
Dust Control	❑Yes ❑No	❑Yes ❑No	

OVERALL SITE ISSUES

BMP/Activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	❑Yes ❑No	❑Yes ❑No	
Are discharge points and receiving waters free of any sediment deposits?	❑Yes ❑No	❑Yes ❑No	
Are storm drain inlets properly protected?	❑Yes ❑No	❑Yes ❑No	
Is trash/litter from work areas collected and placed in covered dumpsters?	❑Yes ❑No	❑Yes ❑No	
Are vehicle areas free of spills, leaks, or any other deleterious material?	❑Yes ❑No	❑Yes ❑No	

	BMP/Activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
	Are materials that are potential storm water contaminants stored inside or under cover?	❑Yes ❑No	❑Yes ❑No	
	(Other)	❑Yes ❑No	❑Yes ❑No	

NON-COMPLIANCE: Describe any incidents of non-compliance not described above:

_____

_____

_____

_____

_____

CERTIFICATION STATEMENT

"*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*"

Print name and title: _____

Signature: _____

Date: _____

Appendix C –SWPPP Amendment Log

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Appendix D –Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

Appendix E –Grading and Stabilization Activities Log

Date Grading Activity Initiated	Description of Grading Activity	Description of Stabilization Measure and Location	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures Initiated

Appendix F –SWPPP Training Log

Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ❑ **Sediment and Erosion Controls**
- ❑ **Emergency Procedures**
- ❑ **Stabilization Controls**
- ❑ **Inspections/Corrective Actions**
- ❑ **Pollution Prevention Measures**

Specific Training Objective:_____

_____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		

Appendix G –Delegation of Authority Form

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix I.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____