Attachment 1

Secondary Containment Upgrade

ATTACHMENT 1

MEMORANDUM

TO:	Mr. Lyle Salsbury – Usher Oil Company	***DATE:***	*June 11, 2008* ***Revised:*** October 23, 2008
FROM:	Mr. Jesse L. Kolb, P.E. Mr. Dave Lomas, P.E.	***PROJECT NO:***	23-000425-00
SUBJECT:	Engineer's Opinion of Probable Cost for Grand River Containment Improvements		

NTH Consultants, Ltd. (NTH) has developed an engineer's opinion of probable costs to design and construct containment for two above-ground storage tanks at the Usher Oil – Grand River Avenue facility. Our opinion addresses the major items NTH believes will be required in completing the installation of the containment system as detailed herein.

Engineering Design Phase

Tasks:

1. Surveying the site and developing a base map.
2. Engineering design and preparation of up to a three-sheet set of design plans for the containment area and simple construction specifications.
3. Assisting with contractor selection including meetings with and answering questions from potential bidders.

Note: Engineering fees related to regulatory approval are not included in this estimate.

NTH Consultants, Ltd. ɣ 39555 Hills Tech Drive ɣ Farmington Hills, MI 48331 ɣ (248) 553-6300 ɣ fax (248) 324-5179

Construction Phase

These costs were developed based on a containment area of approximately 27,000 square-feet with a six-foot high perimeter berm (see attached aerial photograph and calculations). Construction of the containment system includes the following items and associated costs:

1. Contractor mobilization.
2. Grading containment area base to drain to storm water removal sump and reshaping berm, as needed to meet secondary containment volume.
3. Purchase and installation of liner material.
4. Installing storm water removal sump, two catch basins and piping.
5. Construction engineering, including site inspections to insure installation is in conformance with design requirements, and review of supplied materials.
6. Construction contingency.

USHER OIL – GRAND RIVER AVENUE

ENGINEER'S OPINION OF PROBABLE COST FOR CONTAINMENT CONSTRUCTION

[illegible]	
[illegible]	$2,000
[illegible]	$3,700
[illegible]	$600
[illegible]	$6,300
[illegible]	$1,000
[illegible]	$59,000
[illegible]	$3,200
[illegible]	n/a
[illegible]	$5,000
[illegible]	$68,200
[illegible]	$4,600
[illegible]	$7,700
[illegible]	$12,300

CONTACTS:

- **Surveyors:**

  Spalding DeDecker Associates
  Mike DeDecker
  (248) 844-5400

  Milletics and Associates
  Mike Milletics
  (248) 473-7880

- **Earthwork:**

  B & V
  Dave Rogers
  (810) 560-6054

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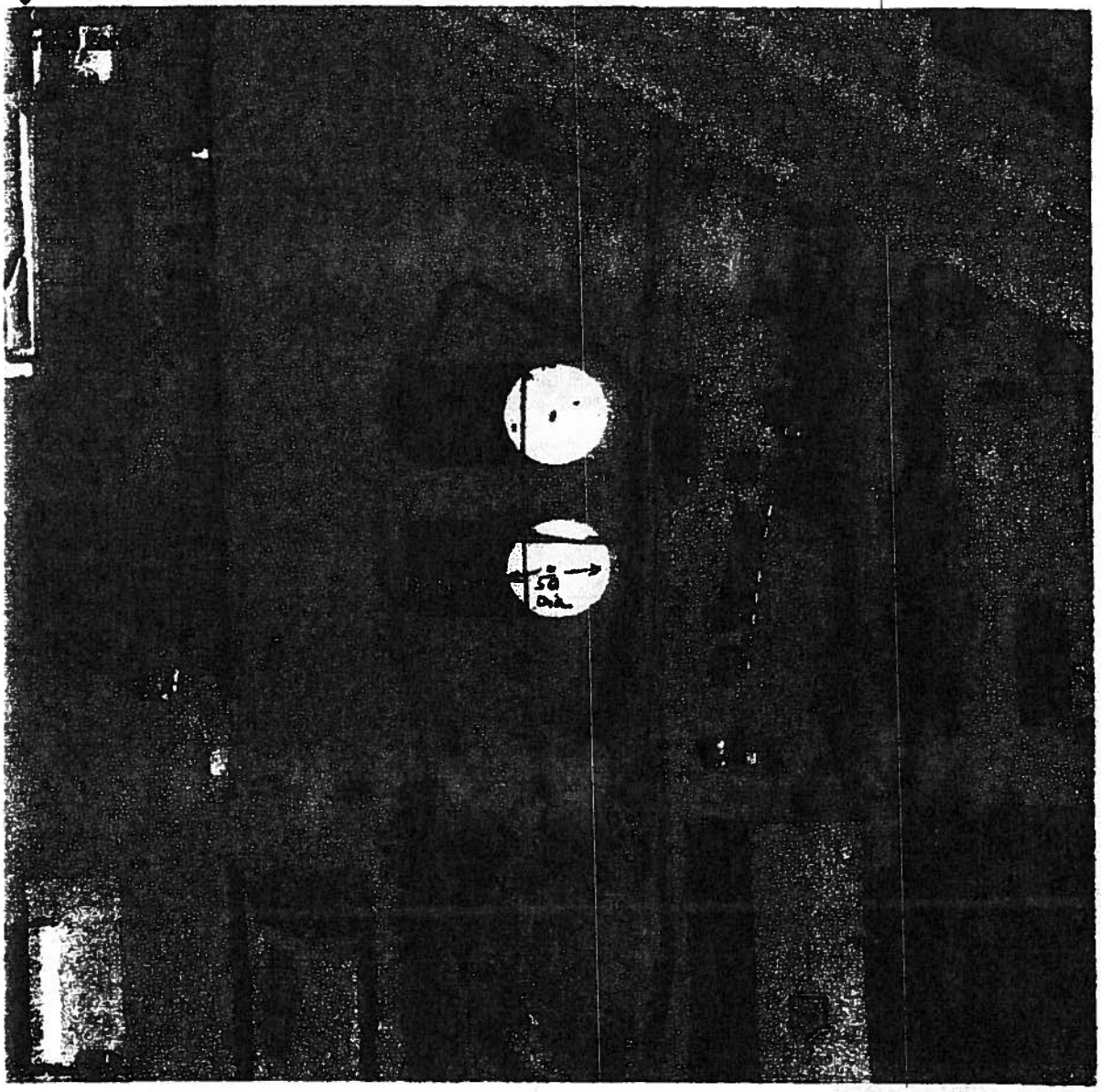
Live Search Maps

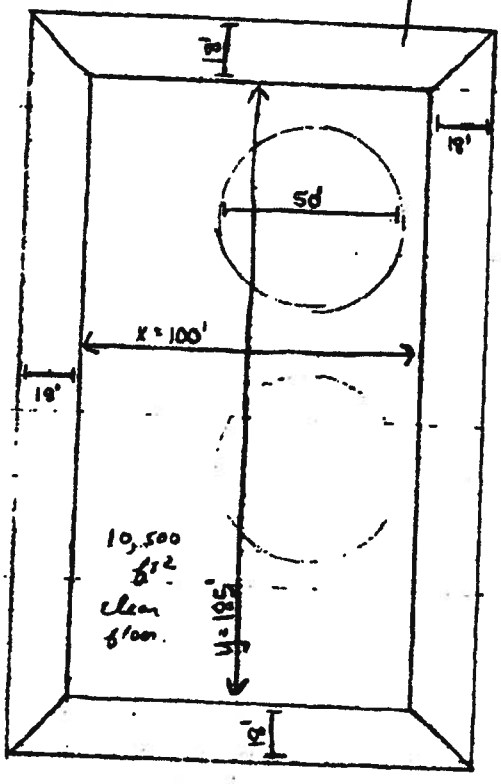
10571 Grand River Ave, Detroit, MI 48204-2007



NTH Consultants, Ltd.
Infrastructure Engineering and Environmental Services

Job Usher Oil - Grand River Project No. 23-000425-00 Sheet No. 1
Subject Containment Area + Berm Coatings By BMS Date 2/27/08
Checked By Date

Containment Area



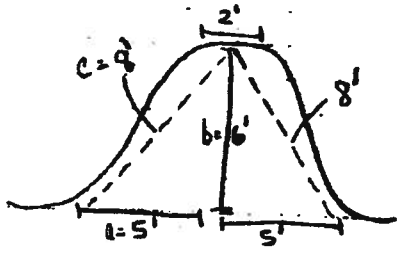
(x + 36) × (y + 36) = Containment Area
(100 + 36) × (185 + 36) =
136 × 221 = 30,056 ft² - Tank Area

Tank Area

πr^2
$\pi 25^2 = 1,962.5$ ft² per tank
≈ 2,000 ft²/tank
× 2
4,000 ft² Tank Area

30,056 ft²
− 4,000 ft²
26,056 ft² ~ 27,000 ft²

Berm Detail



$a^2 + b^2 = c^2 \rightarrow \sqrt{5^2 + 6^2} = c$
$c = 7.81 \approx 8'$

= 18' Berm

Attachment 2

Concrete Vault
with High Level Switch
and Remote Wireless Terminal

ATTACHMENT 2

MEMORANDUM

TO:	Mr. Lyle Salsbury – Usher Oil Company	***DATE:***	October 23, 2008
FROM:	Mr. Jesse L. Kolb, P.E. JLK Mr. Dave Lomas, P.E. DL	***PROJECT NO:***	23-000425-00
SUBJECT:	Grand River Facility, Secondary Containment Area, Level Sensor and Remote Alarm		

NTH Consultants, Ltd. (NTH) has developed an Engineer's Opinion of Probable Cost for a high level alarm and remote wireless terminal for the Grand River facility secondary containment stormwater management. The project includes a concrete vault, high level switch, remote wireless terminal (alarm), installation, electrical, engineering design and construction observation. These items are detailed in the following table.

Item	Cost
Engineering design	$4,800
6' x 6' x 6' concrete storm water vault (1,600 gallons)	$10,000
High level float, remote wireless terminal and installation	$7,300
Electric supply and connections	$5,200
Construction Oversight and Start-up/Testing	$2,800
Total	$30,000

Attachment 3

Tank Installation Process

USHER OIL – ROSELAWN FACILITY

ATTACHMENT 3 - TANK INSTALLATION PROCESS

- Tanks will be built to UL 142 standard, single wall steel tanks compatible with oil with flashpoints of >200 degree Fahrenheit.
- The product being stored has a flashpoint of >200 degree Fahrenheit, thus the tanks are not regulated by the state of Michigan under the NFPA.
- The tanks will be primed at the factory and later painted on site with the facility colors.
- The containment floor is to be level within tank operating tolerances recommended by the manufacturer. Note: containment is drained of accumulated precipitation on a on an as needed basis.
- The tanks will be lifted and placed within the containment on rubber mats to mitigate corrosion and mechanical abrasion between the tank and the containment floor, as the tank is placed in position. Tanks will be placed at least three feet apart.
- Proper sized vents and overflow controls will be installed, along with a direct read mechanical float gage for depicting product volume.
- Piping from the tanks will be tied into the facility header system for unloading and loading operations.