RESPONSE ACTION PLAN
SOUTH CENTRAL GRAIN & ENERGY
212 BRYANT AVENUE
HECTOR, MINNESOTA
LEAK #17141

Prepared For:

Dan Filzen
South Central Grain & Energy
PO Box 338
Hector, Minnesota 55342

Date:

March 25, 2009

Prepared By:

Glacial Lakes GLEC
ENVIRONMENTAL CONSULTING INC.
P.O. Box 1082, Willmar, MN 56201
320-235-8370

TABLE OF CONTENTS

Glacial Lakes
GLEC
ENVIRONMENTAL CONSULTING INC.
320-235-8370
P.O. Box 1082, Willmar, MN 56201

RESPONSE ACTION PLAN
SOUTH CENTRAL GRAIN & ENERGY
212 BRYANT AVENUE
HECTOR, MINNESOTA
LEAK #17141

1.0 INTRODUCTION

Glacial Lakes Environmental Consulting, Inc. (GLEC) was retained by Mr. Dan Filzen of South Central Grain & Energy (SCG&E) to conduct a Limited Site Investigation (LSI) for the South Central Grain & Energy maintenance building located at 212 Bryant Avenue in Hector, Minnesota (site). A copy of the Spatial Data Reporting Form (GD1-03a) has been included in Appendix B. The investigation was completed on August 7, 2008. A LSI report was submitted to the MPCA for review on December 11, 2008. As part of the LSI report, recommendations were made to address surficial soil contamination at the site. In a letter dated January 30, 2009, the MPCA approved the LSI report and subsequent surficial soil corrective action design. A copy of the approval letter is included in Appendix B. A site location map depicting the location of the site is included as Figure 1.0 in Appendix A.

Recently, the board at SCG&E has approved plans to construct a grain storage bin on the site. GLEC has prepared this Response Action Plan (RAP) to establish protocol to manage any petroleum-contaminated soils that may be encountered in addition to the soil being excavated for corrective action purposes during the proposed construction excavation activities at the site. The RAP describes how the additional soils will be screened during construction activities for the presence of contamination. The RAP also outlines provisions for the proper handling and on-site management of any additional petroleum-contaminated soil that may be encountered during the construction activities.

2.0 SITE LOCATION

The site is located within the northeast quarter of the northeast quarter of Section 29, Township 115 North, Range 32 West in Hector, Renville County, Minnesota. Refer to Figure 2.0 in Appendix A for a site layout sketch.

3.0 SUMMARY OF PHASE I ESA

A Phase I ESA has not been completed at this site.

4.0 SUMMARY OF PHASE II ESA

A maintenance shop owned by South Central Grain & Energy currently occupies the site. Soil samples collected near the AST earthen containment immediately following the removal of the ASTs indicated target compounds were present in the soil at concentrations above reporting limits. As a result, a Limited Site Investigation was requested by the MPCA and subsequently conducted at the site.

5.0 SUMMARY OF SITE INVESTIGATION ACTIVTIES

During the LSI activities, continuous soil samples were collected from soil borings GP-1 through GP-5 and screened with a photoionization detector (PID). Soil samples were screened with the PID at 2-foot intervals. Elevated organic vapor concentrations were detected in the soil samples collected from near the surface in the source-area soil boring GP-1. No elevated organic vapor concentrations were detected in the soil samples screened with the PID from the remaining soil borings (GP-2 through GP-5). In addition, GLEC collected surficial soil samples outside and immediately adjacent to the secondary containment area. No elevated organic vapor concentrations were detected in the soil samples screened with the PID from the surficial soil borings (SP-1 and SP-2).

In addition to the soil screening activities, soil samples from the apparent water table elevation were collected from each soil boring and submitted to a fixed-base laboratory for analysis of GRO, DRO, BETX, and MTBE. None of the targeted constituents were detected at concentrations above laboratory method detection limits in the GP-1 through GP-5 soil samples submitted for analyses.

Ground water samples were collected for laboratory analyses from all five borings. The ground water samples collected were laboratory analyzed for DRO, GRO and VOCs.

DRO was detected in the GP-1 (570 ppb), GP-2 (110 ppb), and GP-5 (140 ppb) soil borings. DRO was not detected at concentrations greater than laboratory method detection limits in the GP-3 and GP-4 soil borings. In addition, GRO was not detected in any of the ground water samples at concentrations greater than laboratory method detection limits.

A vapor survey was conducted as part of the LSI. Two soil gas samples were collected in the locations depicted on Figure 3.0 in the LSI report and laboratory analyzed for the analytes contained in the EPA's TO-15 scan. A summary of the results is included in Table 17, while a complete laboratory report is included in Appendix B.

As depicted in Table 17, some of the targeted analytes were detected at concentrations above their associated screening values in two vapor samples. Nevertheless, it appears very unlikely that the lone observed receptor is at risk of vapor intrusion.

6.0 PROPOSED REPONSE ACTIONS

6.1 Site Responsibilities and Contacts

Property Owner

South Central Grain and Energy
Contact: Dan Filzen, Site Manager 320-848-2273

Environmental Consultant

Glacial Lakes Environmental Consulting, Inc.
Contact: Terry Sieck, Project Manager 320-235-8370

Analytical Laboratory

Minnesota Valley Testing Laboratories (MVTL)
Contact: Nina Lovell 800-782-3557

Contractor

To be determined.

MPCA

To be determined

6.2 Description of Proposed Site Activities

Site development will require the excavation of soils for the footing beneath the proposed grain storage bin in accordance with the proposed construction plan in Appendix A. The building outlined in red on the proposed construction plan is the same building depicted on Figure 2.0. GLEC will be on-site during excavation activities to monitor soil for petroleum contamination. The excavation contractor will communicate with GLEC on a daily basis, while working at the site, to provide updates on areas that may be impacted by excavation activities. The contractor will immediately contact GLEC in the event that suspect materials are encountered in areas not identified by previous investigations.

Soils will be segregated based on visual or olfactory evidence of soil contamination, or soils that exceed 10 parts-per-million (ppm) on the PID with a 10.6 eV lamp, or soils that are visually saturated or fail the saturation test per MPCA guidance document 3-01. Soils will be screened with the PID meter in accordance with MPCA-approved headspace screening methods. Following the completion of the initial surficial soil excavation,

GLEC will collect sidewall and bottom of excavation (BOE) samples for visual observation and headspace screening with the PID. If petroleum contamination is detected in the sidewalls or BOE samples, GLEC will remove soil in 2-foot intervals and retest the sidewalls or BOE until no contamination is detected. Soils removed from this portion of the excavation will be segregated from the 2-foot surficial soil excavation and stockpiled on-site.

Following completion of the excavation activities. Samples will be collected from the contaminated soil stockpile and for laboratory analysis based on standard MPCA stockpile analyses guidelines. The sample(s) will be collected and analyzed for the presence of DRO, GRO and BETX. Following the receipt of the stockpile analytical results, GLEC will prepare a proposal for the disposal of the contaminated soil. Possibilities include on-site reuse as fill underneath paved areas, land farming or thermal treatment.

Confirmation soil samples will be collected from the sidewalls and BOE of the completed excavation. The confirmation soil samples will be analyzed for the presence of DRO, GRO and BETX.

As this site will only be developed for use as a grain storage facility and no employees will be stationed at the site, no-follow up monitoring is recommended.

7.0 CONTINGENCY PLAN

As the LSI report indicates, contaminated soils are not in contact with ground water at the site, however, if contaminated ground water is encountered during excavation activities GLEC will immediately contact the MPCA to determine if further actions are warranted. In addition, if monitoring limits are exceeded or unexpected conditions are encountered GLEC will immediately contact the MPCA.

Emergency Contacts:

MPCA Emergency :	800-422-0798
Local Emergency:	911
GLEC Number:	320-235-8370

This report was prepared by:

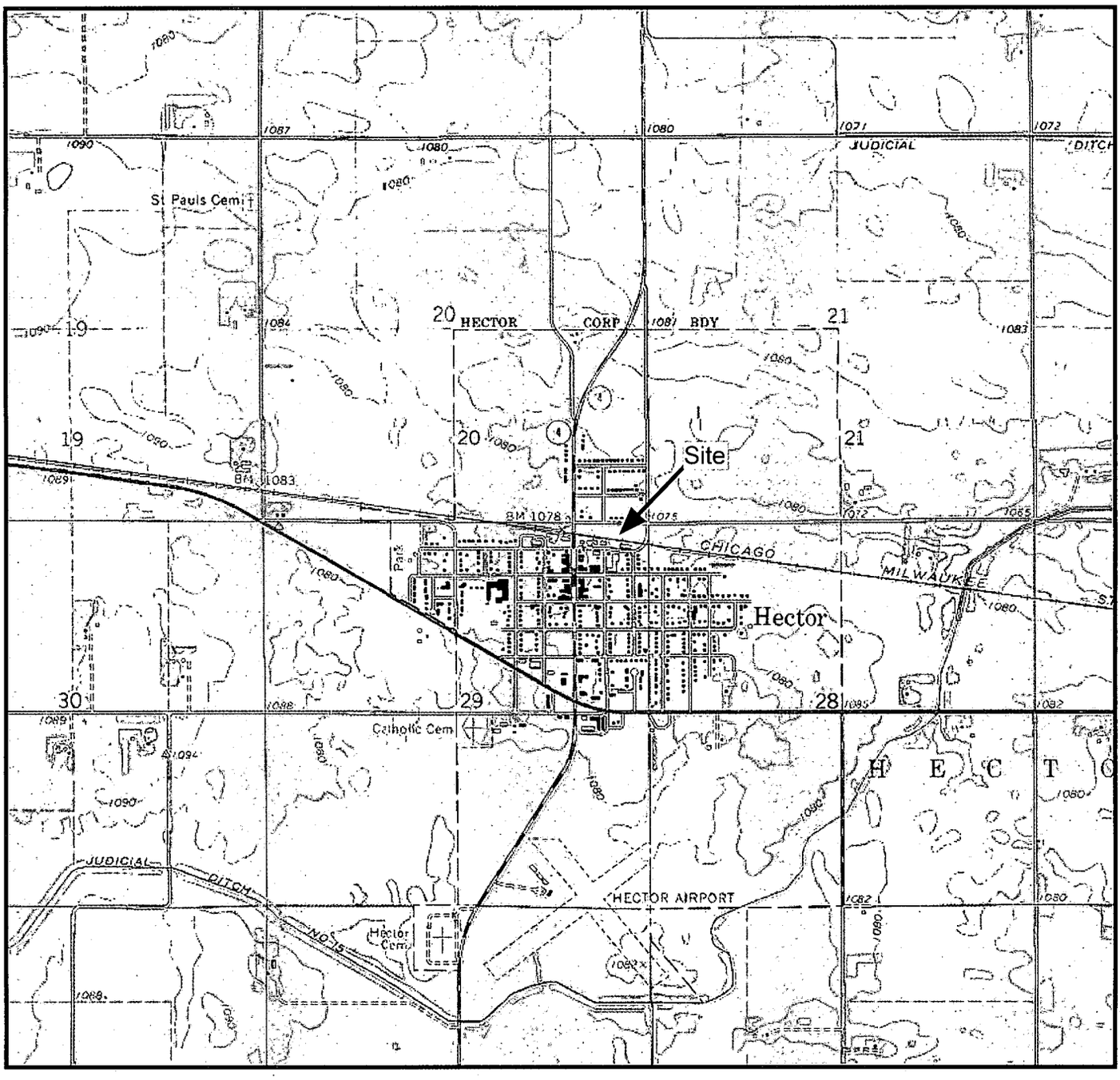
Glacial Lakes Environmental Consulting, Inc.

Terry Sieck
Project Manager

This report was reviewed by:

Glacial Lakes Environmental Consulting, Inc.

Todd Terhaar
Project Manager



Scale for Topo Map (1" = 2,000')

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

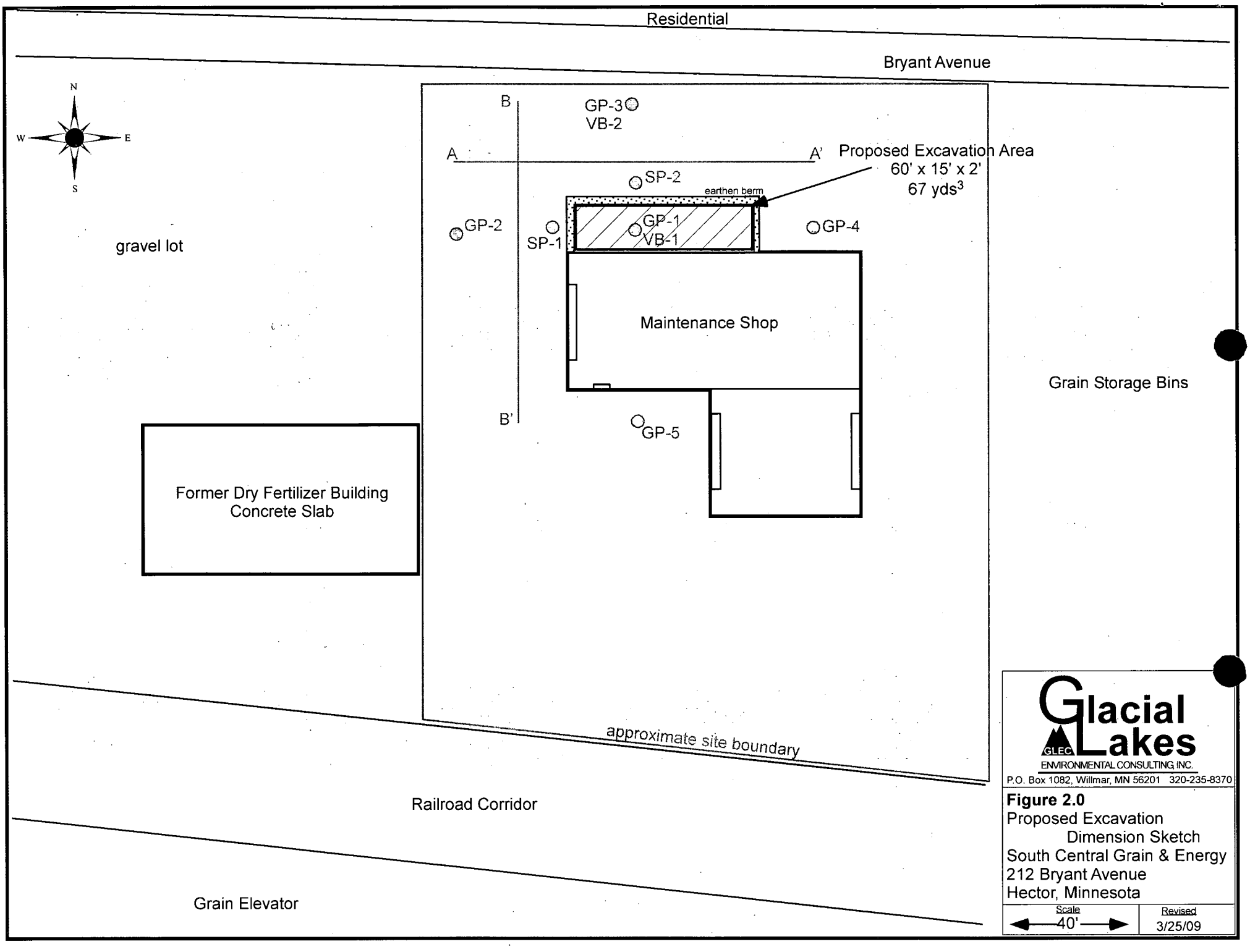
N W E S

Glacial Lakes ENVIRONMENTAL CONSULTING INC.

P.O. Box 1082, Willmar, MN 56201 320-235-8370

Figure 1.0
Property Location Map
South Central Grain & Energy
210 Bryant Avenue
Hector, MN

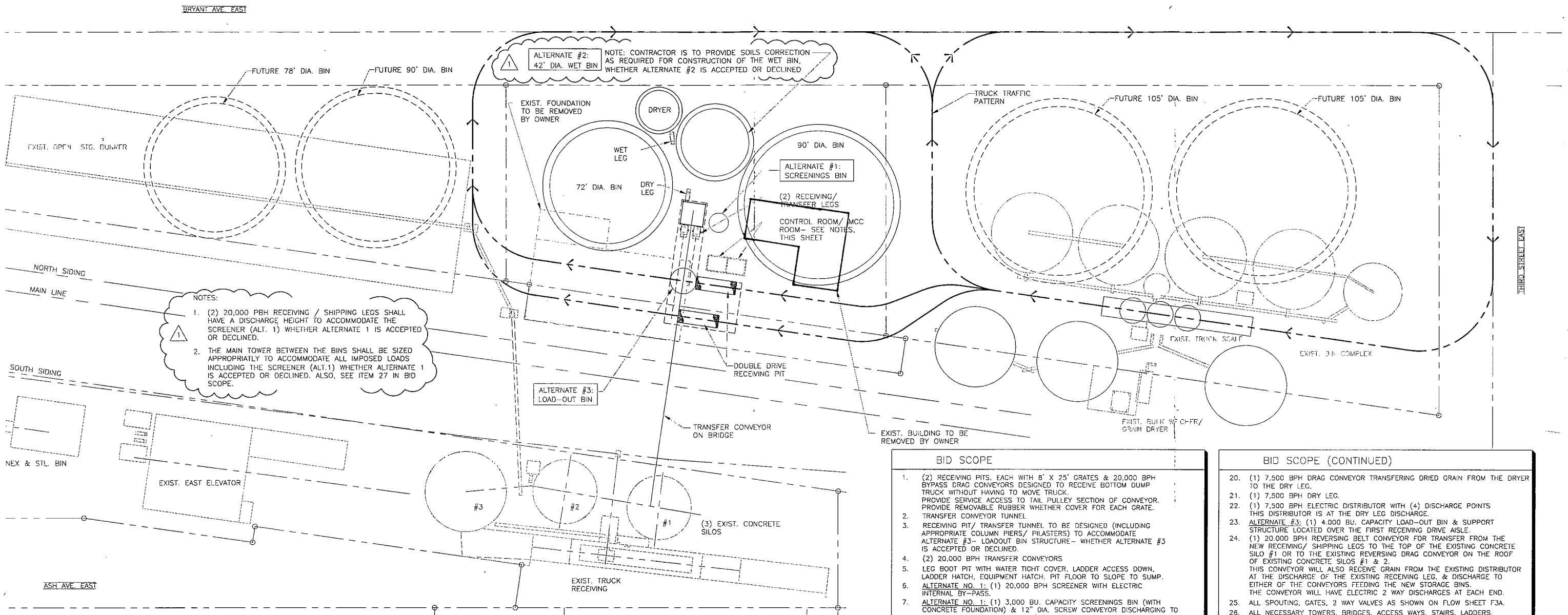
Date	Created by
3/25/09	TJS



Glacial Lakes
GLEC ENVIRONMENTAL CONSULTING INC.
P.O. Box 1082, Willmar, MN 56201 320-235-8370

Figure 2.0
Proposed Excavation
Dimension Sketch
South Central Grain & Energy
212 Bryant Avenue
Hector, Minnesota

Scale 40'
Revised 3/25/09



NOTES:

1. (2) 20,000 PBH RECEIVING / SHIPPING LEGS SHALL HAVE A DISCHARGE HEIGHT TO ACCOMMODATE THE SCREENER (ALT. 1) WHETHER ALTERNATE 1 IS ACCEPTED OR DECLINED.
2. THE MAIN TOWER BETWEEN THE BINS SHALL BE SIZED APPROPRIATLY TO ACCOMMODATE ALL IMPOSED LOADS INCLUDING THE SCREENER (ALT.1) WHETHER ALTERNATE 1 IS ACCEPTED OR DECLINED. ALSO, SEE ITEM 27 IN BID SCOPE.

MCC BUILDING SHALL BE CONSTRUCTED AT A LOCATION ACCEPTABLE TO THE OWNER. THE BUILDING SHALL INCLUDE THE FOLLOWING:

1. BUILDING OF ADEQUATE SIZE TO ACCOMMODATE ALL OF THE REQUIRED ELECTRICAL EQUIPMENT & CONTROLS FOR THIS EXPANSION AS WELL AS FOR FUTURE EXPANSIONS AS SHOWN. IN ADDITION, THERE MUST BE MINIMUM OF 10'x12' AREA FOR MOISTURE TESTING EQUIPMENT & TEMPORARY REST AREA FOR EMPLOYEES.
2. METAL STUD WALLS & METAL PREFINISHED SIDING.
3. STEEL FRAMED METAL ROOF, SLOPED AT MINIMUM 1" IN 12". PROVIDE MININUM 10'-0" CLEAR HEADROOM.
4. CONCRETE FOUNDATION AND FLOOR AND MINIMUM OF 4'-0" LONG CONCRETE STOOPS OUTSIDE OF DOORS. STOOPS SHALL BE THE WIDTH OF OUTSIDE DIMENSION OF DOOR FRAMES.
5. FLUSH HOLLOW METAL EQUIPMENT ACCESS DOOR OR DOUBLE DOORS IN HOLLOW METAL FRAME OF ADEQUATE SIZE TO ACCOMMODATE EQUIPMENT INSTALLATION OR REPAIR/REPLACEMENT.
6. 3'-0"x7'-0" FLUSH HOLLOW METAL DOOR WITH HOLLOW METAL FRAME FOR MAN ACCESS.
7. DOORS TO HAVE KEYED LOCKSETS.
8. HEATING, AIR CONDITIONING, LIGHTING, ELECTRICAL AS REQUIRED FOR PROPER FUNCTIONING OF EQUIPMENT AND FOR EQUIPMENT SERVICE AND MAINTENANCE.
9. THE ROOM SHALL BE PRESSURIZED WITH AN AIR FILTER AT THE FAN INLET.

NOTE: CONTRACTOR TO INCLUDE ALL ELECTRICAL WORK AS REQUIRED FOR A COMPLETE, OPERATIONAL PROJECT

N

1 SP-2A PROPOSED EXPANSION PLAN

1"=30'-0"

0' 30' 60' 90'

PRELIMINARY
NOT FOR CONSTRUCTION

BID SCOPE

1. (2) RECEIVING PITS, EACH WITH 8' X 25' GRATES & 20,000 BPH BYPASS DRAG CONVEYORS DESIGNED TO RECEIVE BOTTOM DUMP TRUCK WITHOUT HAVING TO MOVE TRUCK. PROVIDE SERVICE ACCESS TO TAIL PULLEY SECTION OF CONVEYOR. PROVIDE REMOVABLE RUBBER WHETHER COVER FOR EACH GRATE.
2. TRANSFER CONVEYOR TUNNEL
3. RECEIVING PIT/ TRANSFER TUNNEL TO BE DESIGNED (INCLUDING APPROPRIATE COLUMN PIERS/ PILASTERS) TO ACCOMMODATE ALTERNATE #3- LOADOUT BIN STRUCTURE- WHETHER ALTERNATE #3 IS ACCEPTED OR DECLINED.
4. (2) 20,000 BPH TRANSFER CONVEYORS
5. LEG BOOT PIT WITH WATER TIGHT COVER, LADDER ACCESS DOWN, LADDER HATCH, EQUIPMENT HATCH. PIT FLOOR TO SLOPE TO SUMP.
6. ALTERNATE NO. 1: (1) 20,000 BPH SCREENER WITH ELECTRIC INTERNAL BY-PASS.
7. ALTERNATE NO. 1: (1) 3,000 BU. CAPACITY SCREENINGS BIN (WITH CONCRETE FOUNDATION) & 12" DIA. SCREW CONVEYOR DISCHARGING TO EITHER OF THE TWO RECEIVING/ SHIPPING LEGS.
8. (1) DUAL INLET ELECTRIC DISTRIBUTOR W/ (6) DISCHARGE POSITIONS.
9. (1) 40,000 BPH BELT CONVEYOR TO THE 90' DIA. BIN. THIS CONVEYOR TO HAVE A ELECTRIC 2 WAY DISCHARGE HEAD.
10. (1) 90' DIA., APPROX. 515,000 BU. CAPACITY STEEL STORAGE BIN WITH FOUNDATION & RECLAIM TUNNEL. THIS BIN TO BE FITTED WITH (1) 12,000 BPH TRUCK LOAD OUT SIDE TAP.
11. (1) 20,000 BPH BELT CONVEYOR FOR BIN RECLAIM (FROM THE 90' DIA. BIN) WITH GATES AS SHOWN ON THE FLOW SHEET F3A. THIS CONVEYOR WILL DISCHARGE TO EITHER OF THE TWO RECEIVING/ SHIPPING LEGS.
12. (1) 40,000 BPH BELT CONVEYOR TO THE 72' DIA. BIN. THIS CONVEYOR TO HAVE A ELECTRIC 2 WAY DISCHARGE HEAD.
13. (1) 72' DIA., APPROX. 300,000 BU. CAPACITY STEEL STORAGE BIN WITH FOUNDATION & RECLAIM TUNNEL. THIS BIN TO BE FITTED WITH (1) 12,000 BPH TRUCK LOAD OUT SIDE TAP.
14. (1) 20,000 BPH BELT CONVEYOR FOR BIN RECLAIM (FROM THE 72' DIA. BIN) WITH GATES AS SHOWN ON THE FLOW SHEET F3A. THIS CONVEYOR WILL DISCHARGE TO EITHER OF THE TWO RECEIVING/ SHIPPING LEGS.
15. (1) 7,500 BPH DRAG CONVEYOR FROM THE 72' DIA. BIN RECLAIM CONVEYOR TO THE WET LEG. NOTE: THIS CONVEYOR NOT REQUIRED IF ALTERNATE #2 IS ACCEPTED.
16. ALTERNATE #2 (WET BIN): (1) 42' DIA., APPROX. 90,000 BU. CAPACITY STEEL STORAGE BIN WITH FOUNDATION & RECLAIM TUNNEL.
17. ALTERNATE #2: (1) 7,500 BPH WET BIN RECLAIM DRAG CONVEYOR WITH GATES AS SHOWN ON FLOW SHEET F3A.
18. (1) 7,500 BPH WET LEG.
19. (1) 5000 BPH DRYER & FOUNDATION

BID SCOPE (CONTINUED)

20. (1) 7,500 BPH DRAG CONVEYOR TRANSFERING DRIED GRAIN FROM THE DRYER TO THE DRY LEG.
21. (1) 7,500 BPH DRY LEG.
22. (1) 7,500 BPH ELECTRIC DISTRIBUTOR WITH (4) DISCHARGE POINTS THIS DISTRIBUTOR IS AT THE DRY LEG DISCHARGE.
23. ALTERNATE #3: (1) 4,000 BU. CAPACITY LOAD-OUT BIN & SUPPORT STRUCTURE LOCATED OVER THE FIRST RECEIVING DRIVE AISLE.
24. (1) 20,000 BPH REVERSING BELT CONVEYOR FOR TRANSFER FROM THE NEW RECEIVING/ SHIPPING LEGS TO THE TOP OF THE EXISTING CONCRETE SILO #1 OR TO THE EXISTING REVERSING DRAG CONVEYOR ON THE ROOF OF EXISTING CONCRETE SILOS #1 & 2. THIS CONVEYOR WILL ALSO RECEIVE GRAIN FROM THE EXISTING DISTRIBUTOR AT THE DISCHARGE OF THE EXISTING RECEIVING LEG, & DISCHARGE TO EITHER OF THE CONVEYORS FEEDING THE NEW STORAGE BINS. THE CONVEYOR WILL HAVE ELECTRIC 2 WAY DISCHARGES AT EACH END.
25. ALL SPOUTING, GATES, 2 WAY VALVES AS SHOWN ON FLOW SHEET F3A.
26. ALL NECESSARY TOWERS, BRIDGES, ACCESS WAYS, STAIRS, LADDERS, & EQUIPMENT SUPPORTS AS REQUIRED FOR A COMPLETE OPERATING SYSTEM.
27. MAIN TOWER TO HAVE WRAP AROUND OR SWITCH BACK STAIR FROM GRADE TO BRIDGES OVER STORAGE BINS.
28. BIN STEM WALLS TO BE 8'-0" HIGH
29. PROVIDE 1/7 CFM/BU. AERATION ON STORAGE BINS
30. PROVIDE ALL FOUNDATIONS AS REQUIRED FOR ITEMS LISTED ABOVE.
31. SPECIFICATIONS ISSUED 2-9-09 WILL APPLY TO THIS BID PACKAGE.

⚠ BID DEDUCT ALTERNATES

1. (SEE ITEMS 6 & 7 IN BID SCOPE) SCREENER & SCREENINGS BIN & ALL ASSOCIATED EQUIPMENT & SPOUTING.
2. (SEE ITEMS 16 & 17 IN BID SCOPE) WET BIN & ALL ASSOCIATED EQUIPMENT & SPOUTING. NOTE: CONTRACTOR IS TO PROVIDE SOIL CORRECTION AS REQUIRED FOR CONSTRUCTION OF THE WET BIN, WHETHER ALTERNATE #2 IS ACCEPTED OR DECLINED.
3. (SEE ITEM 23 IN BID SCOPE) LOAD-OUT BIN & ALL ASSOCIATED EQUIPMENT & SPOUTING. NOTE: THE TRUCK RECEIVING FOUNDATION IS TO BE CONSTRUCTED TO ACCOMMODATE THE LOAD-OUT BIN STRUCTURE WHETHER ALTERNATE #3 IS ACCEPTED OR DECLINED.
4. 6'-0" HIGH STEM WALLS ON STORAGE BINS IN LIEU OF 8'-0".

BID ADD/ DEDUCT ALTERNATE

5. 1/8 CFM/BU. AERATION IN LIEU OF 1/7 CFM/BU.

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Signature:_____ Date:_____

Printed name:_____ Reg. No.:_____

My license renewal date is:_____

Pages or sheets covered by this seal:

NO.	DATE	ISSUE/REVISION	DRWN	CHKD	NO.	DATE	ISSUE/REVISION	DRWN	CHKD
A	3/6/09	ISSUED FOR BID	BL						
1	3/9/09	REVISED, ISSUED FOR BID	BL						

DATE: 3/6/09
SCALE: 1"= 30'-0"
DRAWN: BL
DESIGNED: BAJ
CHECKED:
APPROVED:
PRINTED:

VAA, LLC
Van Sickle, Allen & Associates
2955 Xenium Ln N, Suite 10 Plymouth, MN 55441
Phone: (763) 559-9100 Facsimile: (763) 559-8023
Website: www.vaaeng.com

PROJECT
REC'G, STORAGE & DRYER ADD'N
HECTOR, MINNESOTA

CLIENT
SOUTH CENTRAL GRAIN & ENERGY
FAIRFAX, MINNESOTA

DRAWING TITLE
PROPOSED EXPANSION PLAN
NORTH SITE PLAN

PROJECT NO. 208177.6

DRAWING NO. SP-2A

APPENDIX B

Spatial Data Reporting Form

Petroleum Remediation Program
Minnesota Pollution Control Agency
http://www.pca.state.mn.us/programs/lust_p.html

Spatial Data Reporting Form

Guidance Document 1-03a
(For complete instructions, see Guidance Document 1-03.)

Part 1. Background

Has a site location data point been submitted for this site (circle/highlight)? YES or NO
If yes, you do not need to complete Part 2 of this form but should complete Part 3 if there are additional site features to report. This form can be submitted electronically if desired (e.g., as an e-mail attachment to the project manager).

MPCA Site ID: **LEAK00017141**
Site Name: **South Central Grain & Energy**
Data Collection Date: **8/7/08**
Name of Person Who Collected Data: **Terry Sieck**
Organization Name: **Glacial Lakes Environmental Consulting, Inc.**
Organization Type: **Consultant**

Part 2. Site Location (use one of the three spatial data reporting formats provided)

Point Description: **Center of Plume**
Collection Method: **GPS**
Datum (circle/highlight): WGS84 **NAD83**
1) Longitude (dd mm ss.ss): **94° 42.808' W** Latitude (dd mm ss.ss): **44° 44.746' N**
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): UTM - Y (Northing):
UTM Zone:

Part 3. Other Site Features

Point Description:
Collection Method:
Datum (circle/highlight): WGS84 NAD83
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): UTM - Y (Northing):
UTM Zone:

Point Description:
Collection Method:
Datum (circle/highlight): WGS84 NAD83
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): UTM - Y (Northing):
UTM Zone:

Point Description:
Collection Method:
Datum (circle/highlight): WGS84 NAD83
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): UTM - Y (Northing):
UTM Zone:

Point Description:
Collection Method:
Datum (circle/highlight): WGS84 NAD83
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): UTM - Y (Northing):
UTM Zone:

Point Description:
Collection Method:
Datum (circle/highlight): WGS84 NAD83
1) Longitude (dd mm ss.ss): Latitude (dd mm ss.ss):
2) Longitude (dd.dddddd): Latitude (dd.dddddd):
3) UTM - X (Easting): UTM - Y (Northing):
UTM Zone: