

Notice: Use of this form is required by the DNR for any application to develop at a historic fill site or licensed landfill pursuant to secs. NR 506.085 and NR 500.08(4), Wis. Adm. Code. The Department will not consider your application unless you provide complete information requested. Personally identifiable information collected will be used to process your application and will also be accessible by request under Wisconsin's Open Records law [ss.19.31 - 19.39, Wis. Stats.]

Instructions: See *Development at Historic Fill Sites and Licensed Landfills: What you need to know* (PUB-RR-683, April 2002) for detailed instructions.

- All Exemption Application materials should be sent to the region where the site is located, as listed on page 6.
- Include \$500 fee payment with this application unless a fee was already paid for the review of the remedial design report under the NR 700 process.
- Determine the appropriate exemption type for the site and check appropriate box below.
- Provide complete information requested for each type of exemption. Include the following attachments:
Required: Summary of Existing and Potential Impacts described in Section V as an attachment, under the seal of a professional engineer or geologist registered to practice in Wisconsin.
Optional: Site Visit Summary Comments (Section IX) including any photos, sketches or site visit notes.

Exemption Type

☒ **Remediation and Redevelopment Program NR 700 Rule Series Process Exemption:** Site with remedial actions conducted in accordance with NR 700 series

Required: Sections I - VI

Optional: Sections VII - X

☐ **Case-by-Case Evaluation:** Sites with anticipated environmental impacts or wastes of special concerns

Required: Sections I - VI

Optional: Sections VII - X

☐ **Expedited Exemption:** Site with no expected environmental impact

Required: Sections I - VI and Form 4400-256A Expedited Exemption Application

Optional: Sections VII - X

I. Applicant Information

Owner - Last Name Palermo Villa Inc.	First	MI	Telephone Number (414) 455-0401
Contact Name (if different) Angelo Fallucca			
Street Address 3301 W. Canal street	City Milwaukee	State WI	ZIP Code 53208
Developer - Last Name Same	First	MI	Telephone Number
Street Address	City	State	ZIP Code

II. Site Name and Location

Site Name Palermo Villa Inc.	Location / Address 3301 W. Canal street
Is the site known by another name(s)? ☒ Yes ☐ No ☐ Unknown	☒ City ☐ Town ☐ Village of Milwaukee
If yes, provide name. Menomonee Valley / CMC CMC Wastewater Treatment Plant	ZIP Code 53208
Does the site have a license number? If yes, License Number ☐ Yes ☒ No ☐ Unknown	State WI
	County Milwaukee

A. Attach a map with site location and limits of fill/waste disposal area.

B. Global Positioning System Coordinates See attached fig. Describe method for collecting GPS Coordinates
Latitude: DEG MIN SEC Longitude: DEG MIN SEC
N W
WDNR GIS data base.

Program Lead, Fee Status and Regulatory ID Numbers. (This area for DNR use only)

☐ Waste Management Bureau	☐ Payment Attached
☐ Remediation and Redevelopment Bureau - Exemption is part of remedy under NR 700 program	Amount
☐ Fee already paid for review of remedial design report.	
☐ Review of remedial design report not requested and payment is attached.	\$
Hazardous Waste Facility License ID No. (5 digits)	DNR FID No. (9 digits)
USEPA ID No. (used for both RCRA and CERCLIS #s) (WI+Alpha+9 digits)	
Region	Project Manager
Telephone Number	

Palermo Villa Inc. - Approximate West Expansion Area



Legend

- Open Sites (ongoing cleanups)
- Open Sites (ongoing cleanups) - site boundaries shown
- Closed Sites (completed cleanups)
- Closed Sites (completed cleanups) - site boundaries shown
- County Boundary
- Railroads
- County Roads (WDOT)
- County Trunk Highway
- State and U.S. Highways (WDOT)
- State Trunk Highway
- US Highway
- Interstate Highways (WDOT)
- Interstate Highway
- Local Roads (WDOT)
- Civil Towns
- Civil Town
- 24K Open Water
- 24K Rivers and Shorelines
- Municipalities



0 400 800 1200 ft.

Map created on Sep 8, 2009

Note: Not all RR Sites have been geo-located yet.



Scale: 1:4,184

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

III. Site Ownership History

Attn: Dave Misky

Previous Owner - Last Name

First

MI

Telephone Number

Redevelopment Authority of the City of Milwaukee

(414) 286-8682

Street Address

City

State

ZIP Code

809 N. Broadway

Milwaukee

WI

53202

Responsible Municipal / Private Operator - Last Name (if applicable)

First

MI

Telephone Number

Street Address

City

State

ZIP Code

IV. Evaluation of Existing and Potential Impacts. See Development at Historic Fill Sites and Licensed Landfill: Guidance for Investigation and Development at Historic Fill Sites and Licensed Landfill: Potential Problems and Considerations.

A. Analytical data for the following media have been collected and/or examined before completing this application:

1. Groundwater: ☒ Yes ☐ No
2. Soil: ☒ Yes ☐ No
3. Surface water / sediment: ☒ Yes ☐ No
4. Air: ☐ Yes ☒ No
5. Methane or other explosive gases: ☒ Yes ☐ No

B. Based on known or suspected sources and wastes, their physical characteristics, containment and geologic environment, do you suspect a release of pollutants to the environment?

- ☒ Yes: ☒ Groundwater ☒ Soil ☐ Surface Water / Sediment ☒ Methane or Other Explosive Gases
☐ No

If yes, an expedited exemption is not appropriate unless further investigation shows that a release of pollutants is not likely.

C. If there is NOT a likelihood of a release of pollutants or evidence of a release, would the impact of the proposed development be likely to cause a release to the environment?

- ☐ Yes If yes, be sure to summarize actions to be taken to prevent adverse environmental impacts in V. Part C below.
☐ No

V. Summary of Existing and Potential Impacts. See Development at Historic Fill Sites and Licensed Landfill: Guidance for Investigation and Development at Historic Fill Sites and Licensed Landfill: Potential Problems and Considerations.

Describe the following in an attached narrative under the signature of a qualified professional. Organize, label and package as listed below.

- A. Existing Site Conditions
 1. existing site conditions including waste types,
 2. potential for impacts, and
 3. evaluation of existing impacts.
- B. Proposed Development Summary. Include explanation for overall site decision.
- C. Summary of actions to be taken and engineering controls that will prevent or minimize adverse environmental impacts and potential threats to human health and welfare, including worker safety.

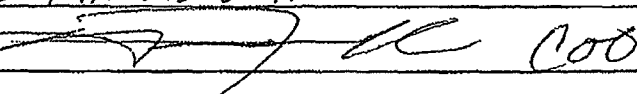
VI. Certification of Application Information

I certify that information in this application and all its attachments is true and correct and in conformity with applicable Wis. statutes.

Print / Type Name of Applicant

Angelo Palermo Villa Inc.

Applicant Signature



Date Signed

9/22/09

Sections VII - IX are optional for all Applicants.

VII. Current and Historic Type of Waste Disposal Site (Check all that apply)

- | | |
|---|--|
| ☐ Licensed Landfill | ☐ One-time Disposal |
| ☐ Non-approved (See s.289.01(3)), Wis Stats. | ☐ Construction / Demolition |
| ☐ Approved | ☒ Historic Fill Site |

Liner

- | | |
|--|---------------------------------------|
| ☒ Unlined | ☐ Clay Liner |
| ☐ Lined | ☐ Unengineered |
| ☐ Composite Liner | |
| ☐ Other Liner (Describe): _____ | |

Total Landfill Volume

- | |
|---|
| ☐ < 50,000 yd ³ |
| ☐ 50,000-500,000 yd ³ |
| ☐ > 500,000 yd ³ |

Does the landfill have a closure plan? ☒ Yes ☐ No ☐ Unknown

Does the landfill have a groundwater monitoring plan? ☒ Yes ☐ No ☐ Unknown

Have groundwater monitoring wells been installed? ☒ Yes ☐ No ☐ Unknown

Was a cover installed? ☒ Yes ☐ No If no, go to Past Land Uses.

- | |
|---|
| ☐ Composite cap |
| ☐ Layered soil cap with clay barrier |
| ☐ Clay cap |
| ☒ Soil cap - not recompacted clay |
| ☐ Other cover |
| ☐ Unknown |

What is the thickness of the cover? ☐ <6 in ☐ 6-12 in ☐ 12-24 in ☒ >24 in ☐ Unknown

Past Land Uses. (Check all that apply)

- | | | |
|--|--|---|
| ☐ Agricultural co-op | ☐ Electroplater | ☐ Salvage yard |
| ☐ Brush pile | ☐ Lagoon | ☐ Service Station |
| ☐ Bulk plant | ☐ Manufacturing Type: _____ | ☐ Tannery |
| ☐ Coal gas manufacturer | ☐ Old burn pit | ☐ Unknown |
| ☐ Deer pit | ☐ Pipeline | ☒ Other: <u>Railroad yard</u> |
| ☐ Dry cleaner | ☐ RCRA generator | |

Date(s) of Site Operation

From: 1850 +/- To: late 1980s

No. of Years

135 +/-

☐ Unknown

VIII. Waste Information & Geologic Environment. See Development at Historic Fill Sites and Licensed Landfills: Guidance for Investigation

A. Known or Suspected Sources/Wastes. (Check all that apply)

- | | | |
|--|--|--|
| ☐ Abandoned containers | ☒ Known or suspected hazardous materials | ☐ Demolition/construction waste |
| ☐ Above ground pipeline or tank | ☐ Municipal waste | ☐ Surface impoundment/lagoons |
| ☐ Animal carcasses | ☐ Paper mill sludge | ☐ Underground pipeline or tank |
| ☐ Buried drums | ☐ Transformer | ☐ Exempted fill (NR 500.08(1) and (2)) |
| ☐ Burning of materials | ☐ Trees/brush | ☐ Unknown |
| ☐ Foundry sand | ☐ Surface spills | ☒ Other: <u>petroleum hydrocarbons</u> |
| ☐ Industrial accident | ☐ Fly ash | |

B. Physical Characteristics of Sources/Wastes

- | | | | |
|---------------------------------|--------------------------------|--|----------------------------------|
| ☐ Liquid | ☐ Solid | ☒ Liquid & Solid | ☐ Unknown |
|---------------------------------|--------------------------------|--|----------------------------------|

VIII. Waste Information & Geologic Environment (continued)

C. Waste Containment ☐ Liner ☐ Unknown ☐ Not applicable

☒ Engineered cover

☒ Maintained ☐ Not maintained

☐ Functioning leachate collection & removal system

☐ Functioning & maintained run-off management system

☒ Functioning groundwater monitoring system

D. Soil Type: Estimate distances or determinations based on regional or site specific information.

☐ Regional ☒ Site specific

Clay, silt or other fine grained soils present? (lacustrine, tills, etc.) ☒ Yes ☐ No

At surface? ☒ Yes ☐ No

At depth? ☒ Yes ☐ No up to 33' to 43' deep feet

Sand & gravel, coarse grained soils present? ☒ Yes ☐ No

At surface? ☒ Yes ☐ No

At depth? ☒ Yes ☐ No ~33' to 43' to at least 56' feet

E. Depth to Groundwater

☐ Regional ☒ Site specific ~10' to 20' feet

F. Direction of Groundwater Flow

☐ Regional ☒ Site specific South direction (toward Menomonee River)

G. Depth to Bedrock

☐ Regional ☒ Site specific > 68' direction

H. Bedrock Type

☒ Regional ☐ Site specific ☐ Sandstone ☒ Limestone/Dolomite ☐ Metamorphic/Igneous

IX. Site Visit

Conduct a site visit to complete site screening and determine general site conditions, on-site activities and adjacent land use encroachment issues. As appropriate to document the site, take photos, sketch the site and prepare a Site Visit Report.

On-site visit conducted? ☒ Yes ☐ No

General site conditions: Document any observed releases and note whether or not you were able to walk the site. Examples of things to be aware of include the following:

- leachate seeps or evidence of seeps such as stained soil/vegetation
- stressed vegetation as a sign of gas migration to the surface or of leachate seeps;
- quality and coverage of vegetation on the cap;
- odors which may indicate gas migration to the atmosphere;
- erosion of the cap;
- maintenance of positive drainage over the capped area;
- visual desiccation cracks in the cap.

Attach the following to your application:

☐ Photographs, regular or digital ☐ Site sketch ☐ Site Visit Report

Name(s) of Person(s) Conducting Site Visit

Adam Roder, The Sigma Group

Date of Site Visit

site visits in
July - September
2009

IX Site Visit (continued)

A. Adjacent Land Uses. Indicate all directions. (Check all that apply)

☐ Agricultural	☐ N	☐ S	☐ E	☐ W	☐ NE	☐ NW	☐ SE	☐ SW
☒ Industrial	☐ N	☐ S	☒ E	☒ W	☒ NE	☒ NW	☐ SE	☐ SW
☐ Recreational	☐ N	☐ S	☐ E	☐ W	☐ NE	☐ NW	☐ SE	☐ SW
☐ Residential	☐ N	☐ S	☐ E	☐ W	☐ NE	☐ NW	☐ SE	☐ SW
☒ Undeveloped (concrete crushing yard)	☒ N	☐ S	☐ E	☐ W	☐ NE	☐ NW	☐ SE	☐ SW
☐ Commercial	☐ N	☐ S	☐ E	☐ W	☐ NE	☐ NW	☐ SE	☐ SW
☒ Other: Menomonee River	☐ N	☒ S	☐ E	☐ W	☐ NE	☐ NW	☐ SE	☐ SW

B. Potential Groundwater Receptors. Estimate distances. (1 mile = 5,280 ft)

Distance to and direction of nearest municipal well: N/A feet ☐ > ½ mile from the waste _____ directionDistance to and direction of nearest other-than-municipal well: N/A feet ☐ > ½ mile from the waste _____ directionDistance to and direction of nearest non-community well: N/A feet ☐ > ½ mile from the waste _____ directionDistance to and direction of nearest private well: N/A feet ☐ > ½ mile from the waste _____ directionDistance to and direction of nearest residence: > 1,000 +/- feet ☐ > ½ mile from the waste south direction

(across Menomonee River)

C. Potential For Gas Migration

0 No. of homes within 300 feet of waste (gas migration potential)0 No. of homes between 300 & 1,000 ft to waste (gas migration potential)Distance to and direction of nearest building: On-site feet ☐ > ½ mile from the waste _____ directionType of building: ☒ On-site building ☐ Municipal ☐ Residential ☒ Commercial ☐ Industrial ☐ Unknown

D. Potential Surface Water Receptors. Estimate distances.

☐ Creek: _____ feet ☐ Drainage ditch: _____ feet ☐ Intermittent stream _____ feet☒ River: 50' +/- feet ☐ Lake: _____ feet ☐ Wetland: _____ feet

(south of site)

E. Based on the site visit, did you visually observe...

- | | | | |
|---------------------------------------|------------------------------|--|----------------------------------|
| 1. a release to a surface water body? | ☐ Yes | ☒ No | ☐ Unknown |
| 2. a leachate seep? | ☐ Yes | ☒ No | ☐ Unknown |
| 3. a release to soils? | ☐ Yes | ☒ No | ☐ Unknown |

X. Comments: Use this section to provide comments on any aspect of the site visit. Attach any information or explanations labeled with the appropriate section number to which the material applies.

Refer to cover letter for additional project details.

Region Map

NORTHERN REGION

Remediation & Redevelopment
Team Supervisor
Department of Natural Resources
107 Sutliff Avenue
Rhineland, WI 54501
(715) 365-8976

OR

Regional Waste Program Manager
Department of Natural Resources
107 Sutliff Avenue
Rhineland WI 54501
(715) 365-8946

NORTHEAST REGION

Remediation & Redevelopment
Team Supervisor
Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54307-0448
(920) 662-5160

OR

Regional Waste Program Manager
Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54307-0448
(920) 662-5120

SOUTHEAST REGION

Remediation & Redevelopment
Team Supervisor
Department of Natural Resources
P.O. Box 12436
Milwaukee, WI 53212-0436
(414) 263-8561 or (414) 263-8714

OR

Regional Waste Program Manager
Department of Natural Resources
P.O. Box 12436
Milwaukee WI 53212-0436
(414) 263-8694 or (414) 263-8697

WEST CENTRAL REGION

Remediation & Redevelopment
Team Supervisor
Department of Natural Resources
1300 Clairemont Avenue
Eau Claire, WI 54701
(715) 839-3710

OR

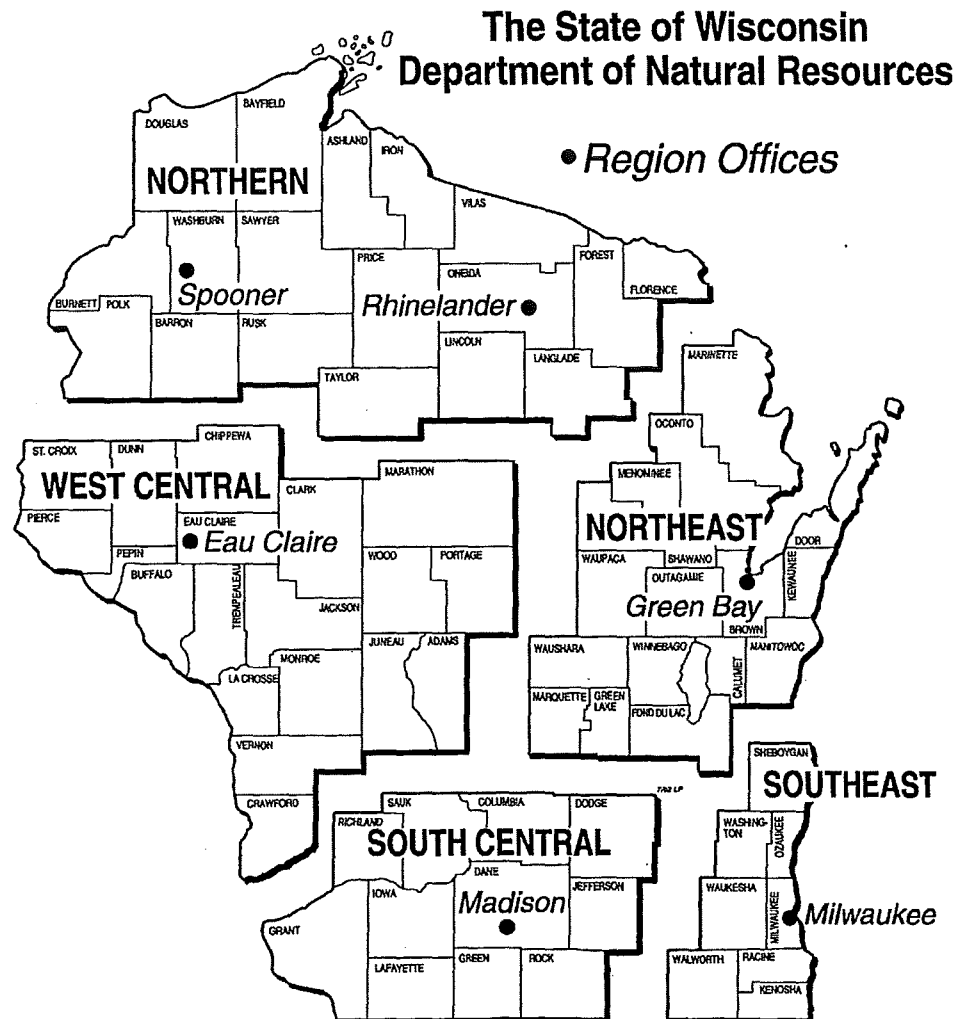
Regional Waste Program Manager
Department of Natural Resources
1300 Clairemont Avenue
Eau Claire WI 54701
(715) 839-3708

SOUTH CENTRAL REGION

Remediation & Redevelopment
Team Supervisor
Department of Natural Resources
3911 Fish Hatchery Rd.
Fitchburg, WI 53711
(608) 275-3241

OR

Regional Waste Program Manager
Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI 53711
(608) 275-3466



September 25, 2009

Project Reference #SD2542

Mr. Tom Wentland
c/o Ms. Victoria Stovall
Wisconsin Department of Natural Resources
2300 N. Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212

**Subject: Request for Extension of Grant of Exemption to NR 506 to Construct on Historic Fill Site and Approval of Methane Abatement System
Palermo Villa Inc. West Expansion
3301 W. Canal Street, Milwaukee, Wisconsin 53208
BRRTS #07-41-543533**

Dear Mr. Wentland:

On behalf of Palermo Villa Inc. (Palermo), The Sigma Group (Sigma) has prepared this letter to request an extension of the previously granted exemption to build at a historic fill site for the above-referenced property (the "site"). Specifically, this extension is requested to construct a building addition and other site improvements on the west side of Palermo's existing pizza factory within the City of Milwaukee's Menomonee Valley Industrial Park (former CMC Shops property). The proposed Palermo expansion is located in the south central portion of the industrial park at the southeast corner of W. Canal Street and W. Roundhouse Road (refer to **Figure 1**).

INTRODUCTION

The Wisconsin Department of Natural Resources (WDNR) originally granted an exemption to s. NR 506.085 in August 2005 for the construction of the current building and site improvements (which were completed in mid-2006)¹. Palermo currently is planning to expand the building to the west in spring 2010 with an approximately 67,260 square-foot addition as shown in **Figure 2**. The building expansion will include additional offices/administrative, employee locker room, pizza production, spiral freezers, hearth room, bakery space in the northern portion and maintenance and packaging areas in the southern portion. (Note that a future building expansion area south of the current building and the proposed west expansion is not part of this extension request. Additional methane investigation work will be done in the future to assess this area.)

BACKGROUND INFORMATION

Prior to the mid-1800s, the west end of the Menomonee Valley was a natural valley with a meandering river and swamp. Beginning around 1850, native silt and clay from neighboring bluffs, dredgings from the river bottom, and industrial fill material was used to fill the swamp and channel the Menomonee River to facilitate construction of the former Milwaukee Road Shops locomotive and railcar manufacturing facility. Since the 1870s,

¹ "Grant of Exemption to Construct on Historic Fill Site, 3401 Canal Street, Milwaukee, Wisconsin" by WDNR (dated August 23, 2005)

this portion of the Menomonee Valley was owned and operated as a rail car and engine construction/repair shop; railroad operations at the facility ceased in the late-1980s.

As a result of the historical deposition of non-native soil and industrial fill material, the entire West Valley Industrial Park is considered a historical fill site. In accordance with WAC Chapter NR 506, Sigma completed several phases of site investigation activities on behalf of the City of Milwaukee between 1999 and the mid-2000s to evaluate subsurface soil and groundwater conditions and assess the potential for methane and other noxious gas generation resulting from imported or natural subsurface material deposited beneath the site. Details of the site investigation activities are presented in the September 2002 *Due Diligence Investigation, CMC Shops and Airline and Hump Yard* report and the May 2004 *Remedial Action Plan Addendum* prepared for the City of Milwaukee. Environmental data pertaining to the site, including a brief summary of soil remediation work (soil excavation and placement of a clean soil cap), were also summarized in the original June 2005 request to building on a historic fill site².

SITE-SPECIFIC SUBSURFACE GAS EVALUATION

In accordance with the WDNR publication PUB-RR-684 entitled "Development at Historic Fill Sites and Licensed Landfills: Guidance for Investigation" dated July 2006, Sigma implemented a methane study within the boundaries of the proposed west building expansion (including both the north and south portions) in July 2009. The study consisted of the installation of three vapor sampling points for evaluating subsurface methane gas generation and accumulation beneath the proposed building floor slab.

Methane Monitoring Point Installation. Sigma oversaw the installation of three monitoring points (VP-1 through VP-3) on July 8, 2009 within the footprint of the west building expansion at the locations depicted on **Figure 2**. The boreholes were each advanced to a depth of 8 feet below ground surface (bgs) with 4.25-inch inside diameter (8.25-inch outside diameter) hollow stem augers by a truck-mounted rotary drill rig. Each vapor monitoring point was constructed with a 5-foot length of two-inch diameter PVC screen (0.010 machine slotted) connected to an appropriate length of two-inch diameter PVC riser pipe. The screen was positioned at the bottom of each borehole and the riser pipe extended approximately 2 feet above the ground surface. The annulus between the PVC screen/riser pipe and borehole wall was filled with filter pack sand to approximately 2.8 feet bgs, and the remaining portion was fill with 3/8-inch bentonite chips and hydrated.

Methane Monitoring Activities & Results. A calibrated landfill gas monitoring device (LANDTEC GA-90 infrared gas analyzer) was used to take daily measurements of percent methane, oxygen, and carbon dioxide gases potentially present within the monitoring points VP-1 through VP-3. Readings were collected under closed cap conditions for a period of five days (July 13 through 17, 2009) and open cap monitoring for a period of five additional days (July 20 through 24, 2009).

² "Proposed Palermo's Development, 3401 Canal Street, Milwaukee, Wisconsin" letter from Reinhart Boerner Van Deuren S.C. to WDNR (dated June 27, 2005)

Based on the gas monitoring results, as summarized in **Table 1**, methane concentrations were all reported at 0.0% during all closed-cap sampling events except for one measurement (2.6%) at well VP-2 on July 15th. Methane was not detected at any of the monitoring points during open cap monitoring activities, indicating that passive venting conditions should adequately prevent the accumulation of methane gas beneath the proposed building floor slab. Therefore, Sigma recommends the implementation of a passive methane venting system to reduce the potential risk for methane accumulation within the proposed building structure.

CONCEPTUAL METHANE ABATEMENT SYSTEM

Sigma recommends the design and installation of a methane abatement system that can be integrated into the proposed building foundation system. Site-specific monitoring data supports that a passive venting system will be sufficient to effectively address potential methane accumulation issues associated with the new building addition.

The proposed passive methane abatement system will consist of a series of vent pipes installed within a permeable gravel/stone layer located beneath the building floor slab as described below and depicted in **Attachment 3**. In general, the methane abatement system consists of the following components:

- A 6-inch thick layer of permeable 1-inch clear stone or gravel placed on top of the existing subgrade for Slab Types 1 through 3 or an 18-inch layer of permeable clear stone or gravel placed on top of the existing subgrade for Slab Type 4 (see **Figure 3**);
- Approximately 2,200 feet of perforated PVC pipe (4-inch diameter Schedule 40) embedded in the clear stone/gravel layer and vented to the atmosphere via at-grade and roof vents;
- A 6-inch layer of compacted granular fill with fines (for Slab Types 1 through 3) or a 6-inch sand/concrete mud layer for a refrigeration system (for Slab Type 4);
- A 15-mil Stego® Wrap vapor barrier; and
- The concrete floor slab, which will be poured directly on the vapor barrier. This will allow for a final inspection (and repair, if necessary) of the vapor barrier immediately before the concrete slab is poured.

The layer of permeable 1-inch clear stone or gravel will allow collection of methane gas beneath the floor slab with venting to the atmosphere through the vent pipes. The vent pipe will be installed at approximately 50-foot intervals (in a north-to-south orientation) beneath the building footprint as shown in **Figure 4**. The new vent system will not tie into the existing roof vents; however, one vent pipe lateral will tie into an existing at-grade vent location near the northwest corner of the current building. The new vent pipe construction will incorporate techniques to prevent potential pest and sediment clogging, as well as to accommodate any minor differential settlement of the floor slab.

PROPOSED SOIL MANAGEMENT PLAN

The soil management activities planned for the site expansion are consistent with the former Shops April 2004 Remedial Action Plan Addendum. The previously implemented remedial work (under the direction of the City of Milwaukee) included the placement of up to 8 feet of "engineered" fill at the site. This engineered fill layer raised the site out of the 100 year flood plain and mitigated the potential for direct contact within underlying impacted soils. The "engineered" fill at the Palermo site generally consists of low-level impacted silty clay/clayey silt covered with two feet of non-impacted soil. The engineered fill was obtained from excavations completed as part of the Marquette Interchange reconstruction activities.

Excavation activities will occur for the purpose of foundation and utility construction for the proposed building expansion. Soil management and impacted soil mitigation will be addressed as follows:

- Reuse of Disturbed Soils. Disturbed soil (engineered fill material as described above) generated through installation of the building foundations and new utilities will be stockpiled and/or direct placed at an appropriate on-site location (under the direction of the City of Milwaukee).
- Engineered Surface Barrier Placement. The concrete and asphalt used for parking, sidewalks, building floor slab, and foundations will be placed as designed by others (site development engineers and architects). No new green spaces (grass, landscaping areas, etc.) are expected to be created by this new construction; however, if green space areas must be repaired, they will be covered by two feet of clean fill and may be covered by clean imported topsoil. All land surfaces within the proposed Palermo expansion project will be covered by one of these two types of engineered barriers.

RECOMMENDATION

Sigma and Palermo request the WDNR approve the recommended passive methane abatement system and soil management strategy and extend the exemption to WAC s. NR 506.085 for the proposed west building expansion. Based on the data obtained from the three vapor monitoring points, the passive methane abatement system will adequately mitigate the potential risk of methane accumulation beneath the building addition. WDNR form 4400-226 ("Development at Historic Fill Site or Licensed Landfill Exemption Application") has been completed and is included for your review; a check in the amount of \$500 for the review fee is also enclosed.

If you have any questions or comments about this exemption request or the proposed methane abatement system, please contact Sigma at (414) 643-4200. We would greatly appreciate your timely review and written response to this request.

Sincerely,

THE SIGMA GROUP



Adam J. Roder, P.E.
Senior Engineer



Mafizul Islam, P.E.
Senior Engineer

Enclosures:

- \$500 check (WDNR review fee)
- Figure 1 - Site Vicinity Map
- Figure 2 - Proposed Palermo Building Expansion & Methane Monitoring Point Location Map
- Figure 3 - Proposed Subslab Venting Layer Profiles
- Figure 4 - Proposed Methane Abatement System Layout
- Table 1 - Methane Monitoring Data
- Attachment 1 - "Development at Historic Fill Site or Licensed Landfill Exemption Application" Form

cc: Angelo Fallucca, Palermo Villa Inc.
Jim Krizenesky, Excel Engineering Inc.
Ken Kaszubowski, Sigma (letter only)

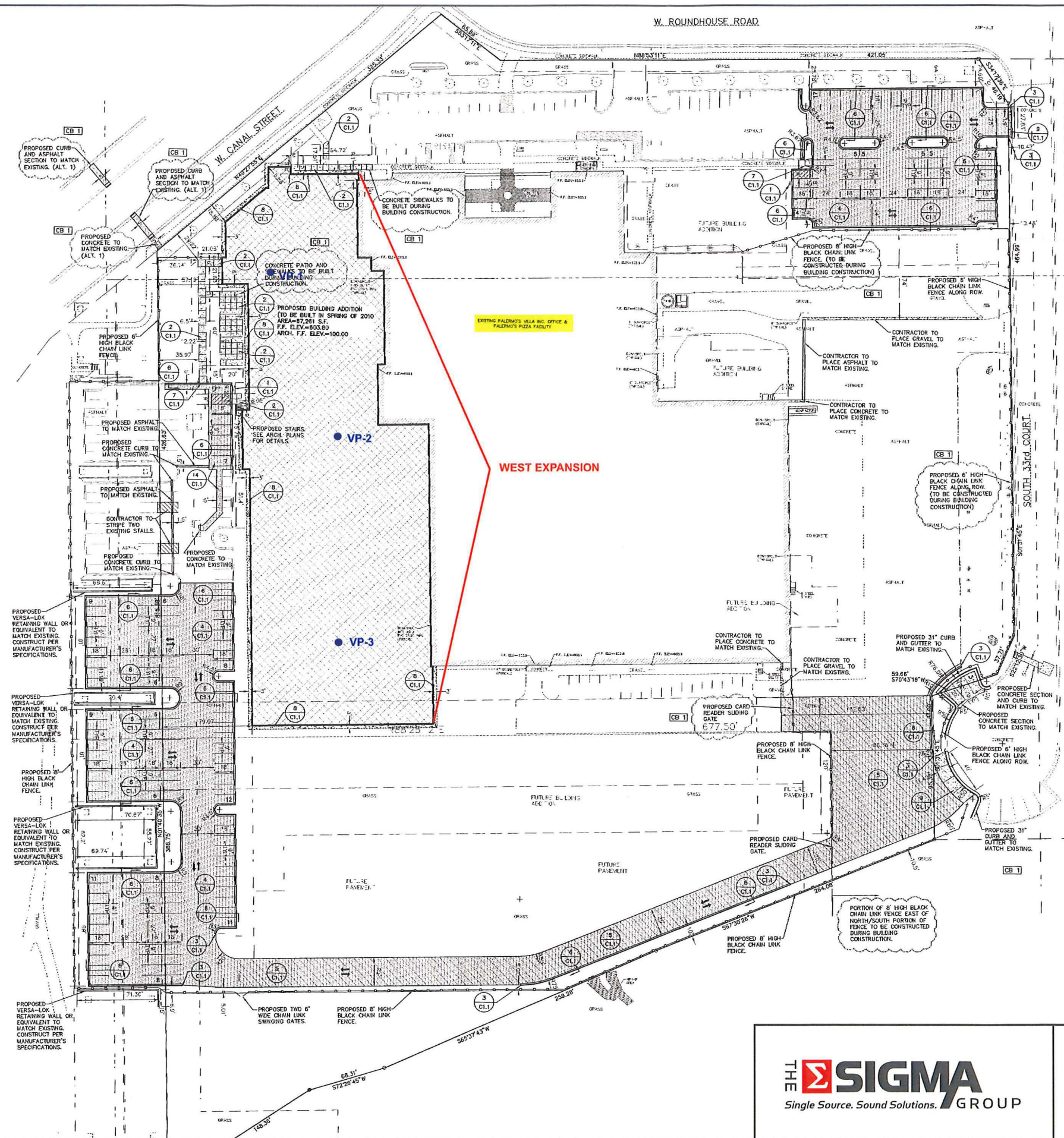


SITE VICINITY MAP

PALERMO VILLA INC.
3301 W. CANAL STREET, MILWAUKEE, WISCONSIN

FIGURE

1



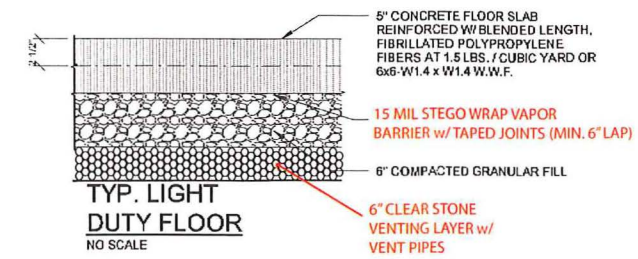
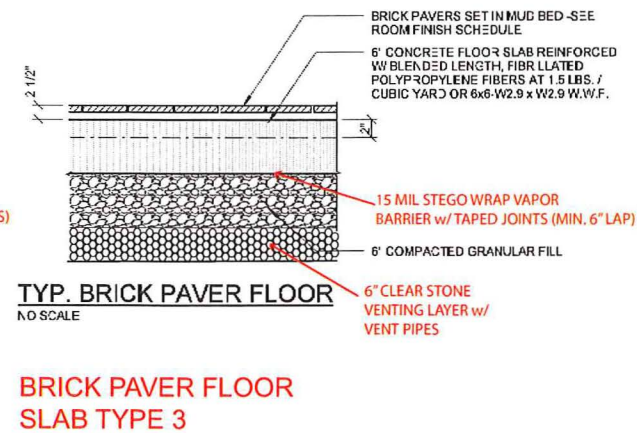
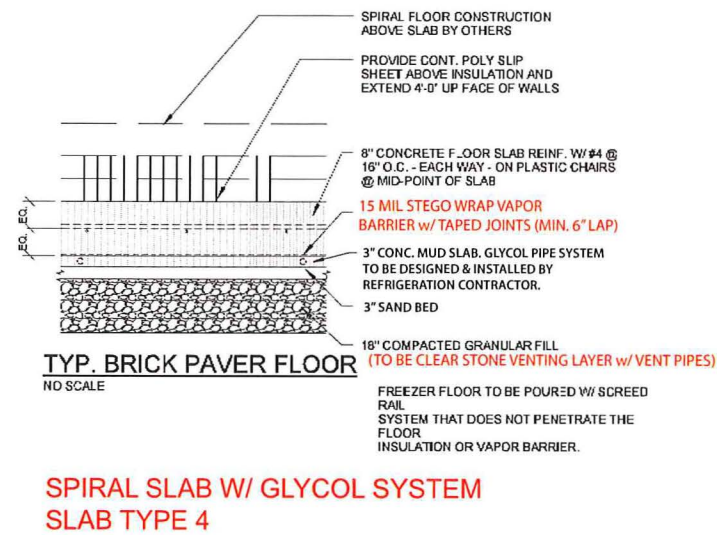
LEGEND

● VP-1 = Vapor Monitoring Probe Location

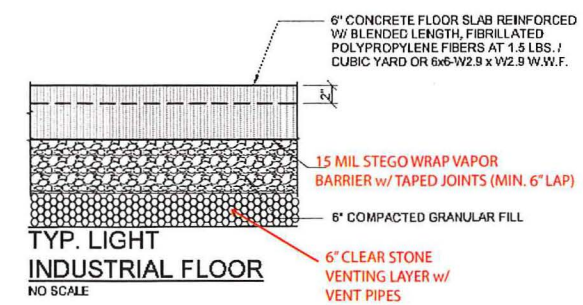


Notes:
1. Site base map adapted from Excel Engineering Inc. drawing C1.1 "Site Plan" dated 09/23/09.

	PROPOSED PALERMO BUILDING EXPANSION & METHANE MONITORING POINT LOCATION MAP	FIGURE
	PALERMO VILLA INC. 3301 W. CANAL STREET, MILWAUKEE, WISCONSIN	2



**LIGHT INDUSTRIAL FLOOR
SLAB TYPE 1**



**LIGHT INDUSTRIAL FLOOR
SLAB TYPE 2**

Notes:
1. Information adapted/modified from Excel Engineering Inc. preliminary drawing S2.0 dated 06/22/09.

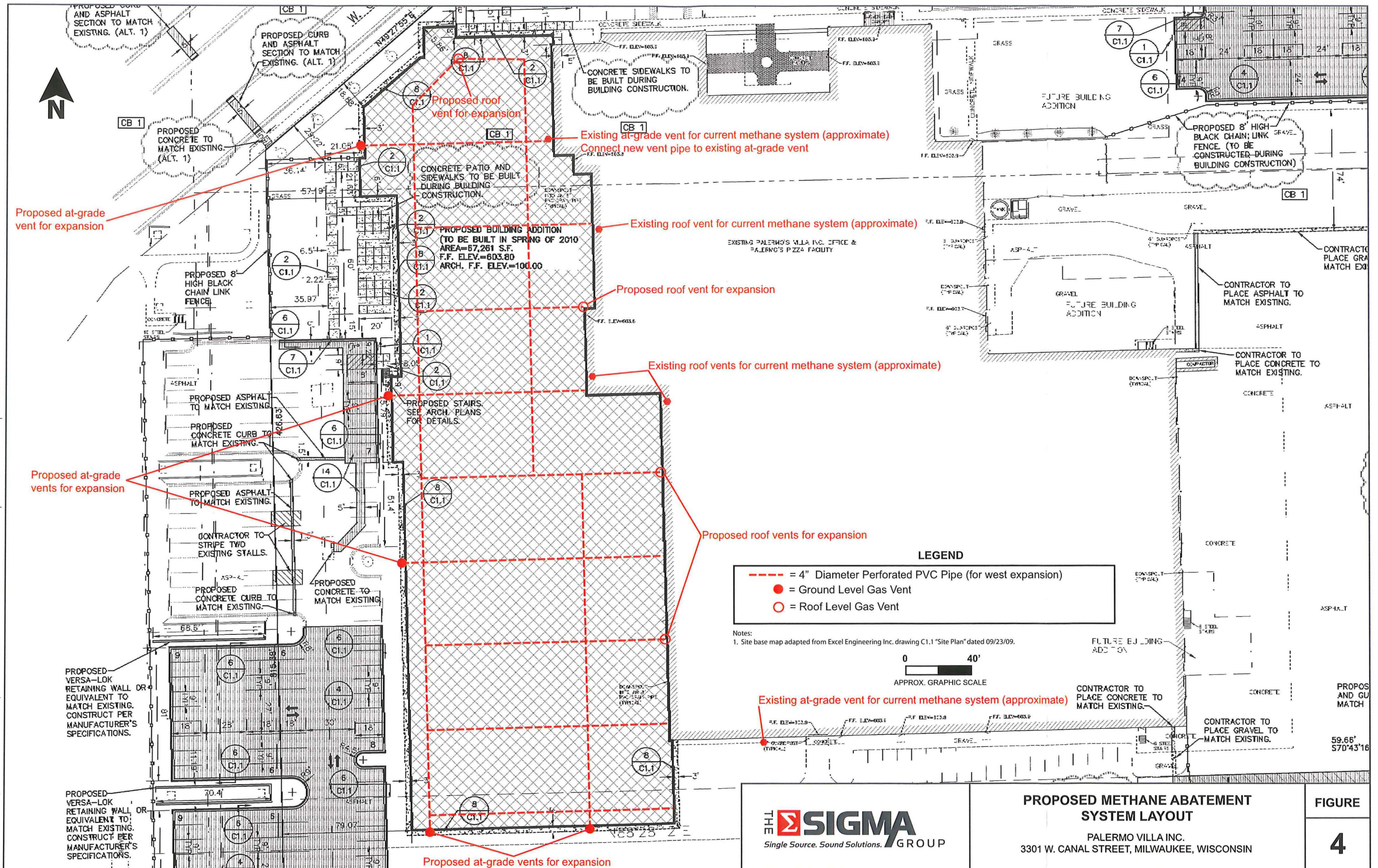


Table 1
Methane Monitoring Data
Palermo Villa Inc. - West Expansion Project
3301 W. Canal Street, Milwaukee, Wisconsin
Sigma Project Reference #SD2542

Methane Monitoring Point	Methane	Carbon Dioxide	Oxygen	LEL	Atmospheric Pressure	Date	Comments
Units	%	%	%	%	inches Hg	-	-
VP-1	0.0	0.0	15.9	0	29.4	Monday 7/13/09	Closed cap
	0.0	0.0	16.3	0	29.5	Tuesday 7/14/09	Closed cap
	0.0	0.0	15.9	0	29.2	Wednesday 7/15/09	Closed cap
	0.0	0.0	16.1	0	29.2	Thursday 7/16/09	Closed cap
	0.0	0.0	16.5	0	29.2	Friday 7/17/09	Closed cap
	0.0	0.0	20.7	0	29.5	Monday 7/20/09	Open cap
	0.0	0.0	20.3	0	29.4	Tuesday 7/21/09	Open cap
	0.0	0.0	20.7	0	29.3 - 29.4	Wednesday 7/22/09	Open cap
	0.0	0.0	20.6	0	29.2	Thursday 7/23/09	Open cap
	0.0	0.0	20.5	0	29.2	Friday 7/24/09	Open cap
VP-2	0.0	0.0	8.3	0	29.4	Monday 7/13/09	Closed cap
	0.0	0.0	8.7	0	29.5	Tuesday 7/14/09	Closed cap
	2.6	0.0	11.5	52	29.2	Wednesday 7/15/09	Closed cap
	0.0	0.0	11.8	0	29.2	Thursday 7/16/09	Closed cap
	0.0	0.0	11.5	0	29.2	Friday 7/17/09	Closed cap
	0.0	0.0	12.8	0	29.5	Monday 7/20/09	Open cap
	0.0	0.0	13.1	0	29.4	Tuesday 7/21/09	Open cap
	0.0	0.0	10.9	0	29.3	Wednesday 7/22/09	Open cap
	0.0	0.0	11.5	0	29.2	Thursday 7/23/09	Open cap
	0.0	0.0	13.0	0	29.2	Friday 7/24/09	Open cap
VP-3	0.0	0.0	14.0	0	29.4	Monday 7/13/09	Closed cap
	0.0	0.0	14.8	0	29.5	Tuesday 7/14/09	Closed cap
	0.0	0.0	14.4	0	29.2	Wednesday 7/15/09	Closed cap
	0.0	0.0	15.8	0	29.2	Thursday 7/16/09	Closed cap
	0.0	0.0	15.1	0	29.2	Friday 7/17/09	Closed cap
	0.0	0.0	15.8	0	29.5	Monday 7/20/09	Open cap
	0.0	0.0	15.7	0	29.4	Tuesday 7/21/09	Open cap
	0.0	0.0	15.6	0	29.3	Wednesday 7/22/09	Open cap
	0.0	0.0	16.4	0	29.2 - 29.3	Thursday 7/23/09	Open cap
	0.0	0.0	15.8	0	29.2	Friday 7/24/09	Open cap
Background (ambient air)	0.0	0.0	20.5	0	29.4	Monday 7/13/09	Closed cap
	0.0	0.0	20.9	0	29.5	Tuesday 7/14/09	Closed cap
	0.0	0.0	21.1	0	29.2	Wednesday 7/15/09	Closed cap
	0.0	0.0	20.9	0	29.2	Thursday 7/16/09	Closed cap
	0.0	0.0	21.3	0	29.2	Friday 7/17/09	Closed cap
	0.0	0.0	20.9	0	29.5	Monday 7/20/09	Open cap
	0.0	0.0	21.0	0	29.4	Tuesday 7/21/09	Open cap
	0.0	0.0	20.9	0	29.4	Wednesday 7/22/09	Open cap
	0.0	0.0	21.4	0	29.2 - 29.3	Thursday 7/23/09	Open cap
	0.0	0.0	20.8	0	29.2	Friday 7/24/09	Open cap

Notes:

1. LEL = Lower Explosive Limit (5% for methane)
2. **Bold** = methane gas greater than 1.25%

ATTACHMENT 1

**"DEVELOPMENT AT HISTORIC FILL SITE OR LICENSED LANDFILL EXEMPTION
APPLICATION" FORM**