

**From:** Beggs, Tauren R - DNR  
**Sent:** Wednesday, June 23, 2021 11:26 AM  
**To:** Nicole L. LaPlant  
**Subject:** RE: Jagemann Plating - BRRTS #02-36-555544

Hi Nicole,

Thanks for the update. I have forwarded this information on to the DNR vapor staff. The sub-slab vapor concentrations are extremely high, but glad to see it is not translating to industrial VAL exceedances in indoor air. I will let you know what the vapor staff say after they have looked at the data. It is likely this information will be provided to Department of Health Services (DHS), so will see what they have to say as well.

Regards,

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**Tauren R. Beggs**

Phone: (920) 510-3472

[Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov) (preferred contact method during work at home)

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**From:** Nicole L. LaPlant <[nlaplant@releeinc.com](mailto:nlaplant@releeinc.com)>  
**Sent:** Monday, June 21, 2021 4:24 PM  
**To:** Beggs, Tauren R - DNR <[Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov)>  
**Subject:** RE: Jagemann Plating - BRRTS #02-36-555544

Hi Tauren –

Just wanted to provide you a brief update prior to submitting the next written update report.

We completed the proposed indoor air and vapor sampling on March 27, 2022. The three (3) indoor air samples collected from the office area and basement at previously sampled locations had no detections of CVOCs above the VAL, thus it appears the vapor mitigation system is effective. We also collected sub-slab vapor samples from the three (3) existing vapor pins that were already in place at the locations of SSV-1, SSV-2, and SSV-3. An overall reduction of CVOc concentrations was observed in SSV-1, SSV-2, and SSV-3. Specifically, no VRSL exceedances of CVOcs were recorded at SSV-1 and SSV-3, while CVOcs remain in excess of the VRSL at SSV-2. The two newly installed vapor pins at locations SSV-4 and SSV-5 within the southern manufacturing area within the boundaries of the groundwater contaminant plume showed elevated concentrations of CVOcs in excess of the VRSLs at both locations. Attached is an update vapor analytical table and maps for you reference.

Due to the elevated concentrations of CVOcs detected at the new locations of SSV-4 and SSV-5, REL began coordinating resampling of vapor at those locations paired with indoor air sampling, and sanitary sewer vapor sampling. REL returned to the Site on May 19, 2021 to collect another sample from both of those locations to confirm the initial results and to collect paired indoor air samples (IA-7 and IA-8) from those locations, as well, to determine if the vapor at those locations were impacting the indoor air quality. The May 2021 results indicated that CVOcs were present in excess of the VRSLs at both SSV-4

and SSV-5 again. However, CVOCs were not detected in excess of the VAL in the paired indoor air samples on that day. On this same day we also conducted the in-pipe sanitary sewer investigation to evaluate potential vapor migration through the utility. We collected vapor samples for three sanitary manholes ( 1 upgradient manhole MH8-130, the source manhole MH8-78 connected to the sewer line located on the south side of the building, and 1 downgradient manhole MH8-77). REL followed the procedures for in-pipe sanitary sewer sampling that are present on the WDNR website. No CVOCs were detected in the upgradient and down gradient manholes, and very low levels of CVOCs; which are less than the calculated Industrial and Residential Sanitary Sewer Gas Screening Levels (SSGSLs) presented in new WDNR guidance document RR-649 dated June 2021.

We plan to complete groundwater sampling from select monitoring wells. The wells that have been selected for sampling this event are MW-1, MW-2, MW-3, MW-8, MW-14, and MW-15 for VOC analysis (which are all CVOC impacted monitoring wells).

Feel free to give me a call to discuss upon review. Upon receipt of the groundwater sampling results, REL will prepare a written report with a fee for a technical assistance request as the next step. The report will document further historical operations in the southern manufacturing area (REL is working on gathering this information at this time). Also, we are working to coordinate the annual inspection of the Vapor mitigation system; however, we have not received a response from the most recent contractor to complete the inspection. We are looking for another potential contractor to complete the annual inspection.

Feel free to give me a call to discuss upon review.

Thank you, Nicole



Nicole L. LaPlant - Robert E. Lee & Associates, Inc.  
920-662-9641 [nlaplant@releeinc.com](mailto:nlaplant@releeinc.com)

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**From:** Beggs, Tauren R - DNR <[Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov)>  
**Sent:** Wednesday, March 24, 2021 1:37 PM  
**To:** Nicole L. LaPlant <[nlaplant@releeinc.com](mailto:nlaplant@releeinc.com)>  
**Subject:** RE: Jagemann Plating - BRRTS #02-36-555544

Hi Nicole,

These revised locations look to be in much better locations for assessing the sub-slab vapors in the area of known VOC contamination. As we discussed, additional sub-slab locations may or may not be needed depending on the additional results received from the existing vapor pins and the new proposed vapor pin locations that are planned to be sampled as part of this upcoming work.

Regards,

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**Tauren R. Beggs**

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**TABLE A.4  
VAPOR ANALYTICAL TABLE  
JAGEMANN PLATING COMPANY, 1324 SOUTH 26TH STREET, MANITOWOC, WI**

Sample ID	Sample Location	Sample Type	Date Collected	Relevant VOCs (µg/m <sup>3</sup> )				
				1,1-DCE	Cis-1,2 DCE	Trans-1,2 DCE	TCE	Vinyl Chloride
Large Commercial/Industrial Sub-Slab Vapor Risk Screening Level (VRSL) -- µg/m <sup>3</sup>				88,000	---	---	880	2,800
Industrial Land Use - Sanitary Sewer Gas Screening Level (SSGSL) -- µg/m <sup>3</sup>				29,333	---	---	293	933
Residential Land Use - Sanitary Sewer Gas Screening Level (SSGSL) -- µg/m <sup>3</sup>				7,000	---	---	70	57
Large Commercial/Industrial Indoor Air Vapor Action Level (VAL) -- µg/m <sup>3</sup>				880	---	---	8.8	28
SSV-1	Former Waste Water Treatment Plant Room	Sub-slab vapor	2/9/2014	26.9	540	57.5	<b>1,530</b>	86.7
			3/27/2021	9.9 J	1,100	68.3	461	7.2 J
IA-1		Indoor air	2/9/2014	ND	ND	ND	0.89	0.39
SSV-2	East Side Chromium Dip Line Area	Sub-slab vapor	2/9/2014	ND	1,050	67.8	<b>6,080</b>	17.8
			3/27/2021	14.9 J	965	39.3	<b>2,920</b>	4.6 J
IA-2		Indoor air	2/9/2014	ND	ND	ND	1.7	ND
SSV-3	West Side Chromium Dip Line and Pickling Line Area	Sub-slab vapor	2/9/2014	ND	25.3	ND	57.7	21.1
			3/27/2021	<0.19	8.6	<0.24	8.4	<0.12
IA-3		Indoor air	2/9/2014	ND	ND	ND	ND	ND
SSV-4	Central portion of South Manufacturing Area	Sub-slab vapor	3/27/2021	23,900	3,210,000	65,400	<b>15,300,000</b>	<b>8,880</b>
			5/19/2021	<b>94,100</b>	6,330,000	162,000	<b>31,700,000</b>	<b>117,000</b>
IA -6/8		Indoor air	5/19/2021	<0.21	0.56 J	<0.26	3.5	<0.13
SSV-5	West portion of South Manufacturing Area	Sub-slab vapor	3/27/2021	478	1,290	344	<b>9,870</b>	1,070
			5/19/2021	522	1,060	294	<b>5,850</b>	1,450
IA-7		Indoor air	5/19/2021	<0.22	0.35 J	<0.27	0.46 J	0.43
IA-4	First Floor Office Area	Indoor air	2/9/2014	ND	5.2	ND	<b>9.2</b>	ND
			3/27/2021	<0.22	<0.22	<0.26	0.56 J	<0.13
IA-5	Basement Storage Area Adjacent to Mechanical Room	Indoor air	2/9/2014	ND	9.0	ND	<b>14.4</b>	ND
			3/27/2021	<0.19	<0.21	<0.25	<0.32	<0.13
IA-6	Basement Office Area	Indoor air	2/9/2014	ND	8.3	ND	<b>13.9</b>	ND
			3/27/2021	<0.19	<0.21	<0.25	<0.32	<0.13
OA-1	Southwest of Chromium Dip Line Building (upwind)	Outdoor air	2/9/2014	ND	ND	ND	ND	ND
MH8-130	Upgradient Sanitary Sewer Manhole (S.26th Street)	Vapor within Utility Main	5/19/2021	<0.19	<0.27	<0.23	<0.27	<0.12
MH8-78	Jagemann Plating Sanitary Sewer Discharge Manhole (S. 26th Street)	Vapor within Utility Main	5/19/2021	0.53 J	5.7	<0.23	4.5	4.3
MH8-77	Downgradient Sanitary Sewer Manhole (S. 26th Street)	Vapor within Utility Main	5/19/2021	<0.20	<0.28	<0.24	<0.28	<0.12

**Key:**

--- = No screening level established  
 ND = Not detected above laboratory detection limits  
 µg/m<sup>3</sup> = Micrograms per cubic meter  
 1,1-DCE = 1,1-Dichloroethene  
 TCE = Trichloroethene  
 Cis-1,2 DCE = Cis-1,2 Dichloroethene  
 Trans-1,2 DCE = Trans-1,2 Dichloroethene

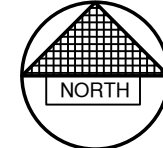
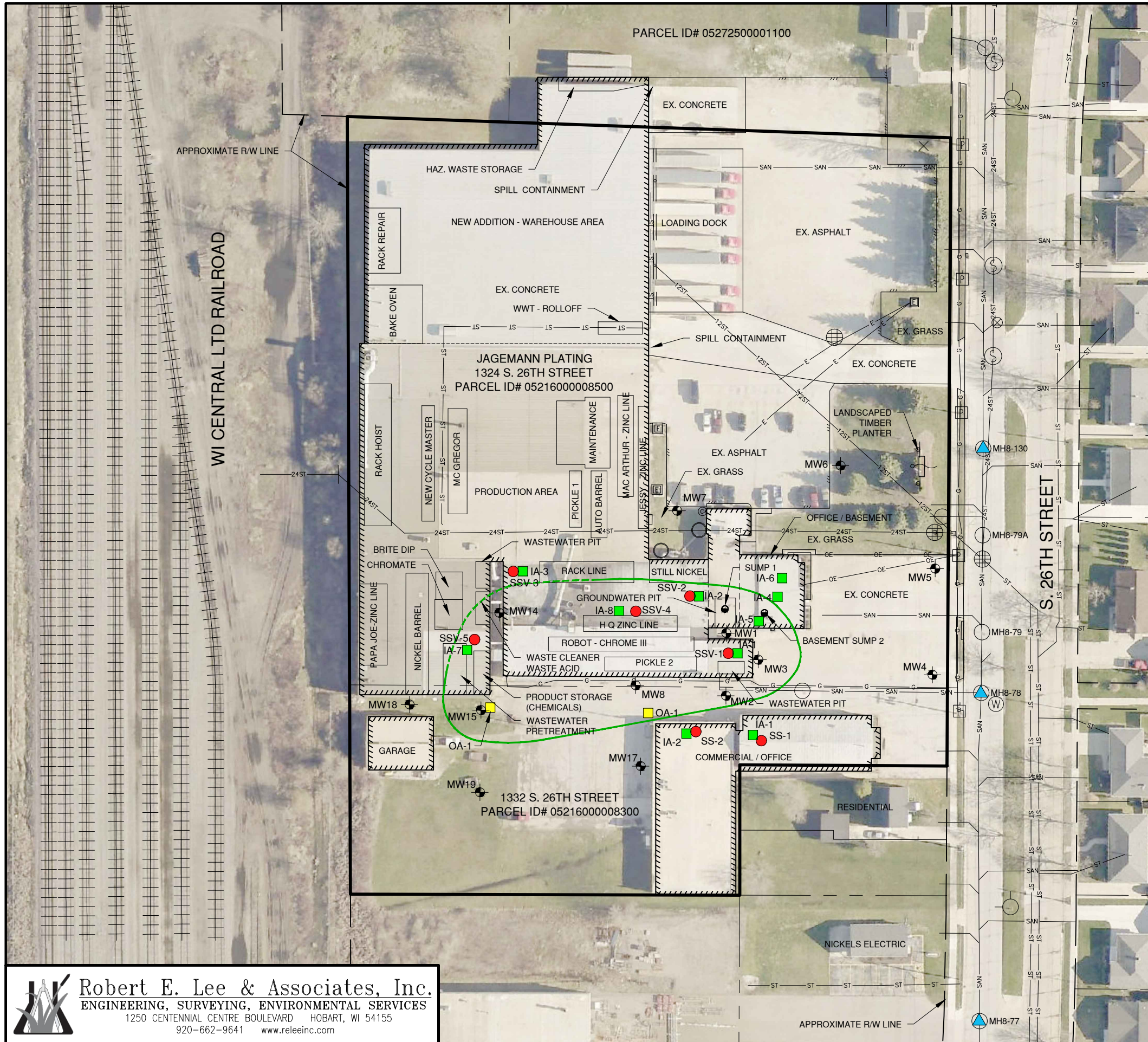
**138** = Vapor Risk Screening Level (VRSL) exceeded

**14.5** = Vapor Action Level (VAL) exceeded

**Notes:**

- 1.) Sub-slab samples collected using Vapor Pin.
- 2.) The Sanitary Sewer Gas Screening Level (SSGSL) was calculated by dividing the buildings served by the sanitary sewer by an attenuation factor of 0.03 in accordance with WDNR guidance document RR-649.





**LEGEND**

- MW1 MONITORING WELL LOCATION
- PZ1 PIEZOMETER LOCATION
- IA-1 INDOOR AIR SAMPLE LOCATION
- OA-1 OUTDOOR AIR SAMPLE LOCATION
- SSV-1 SUB-SLAB VAPOR SAMPLE LOCATION
- MH8-78 IN-PIPE SANITARY SEWER VAPOR SAMPLE
- SUMP
- EX. SANITARY MANHOLE
- EX. STORM SEWER MANHOLE
- EX. STORM SEWER CATCH BASIN
- EX. FIRE HYDRANT
- EX. WATER VALVE
- EX. WATER MANHOLE
- EX. ELECTRIC PEDESTAL
- EX. POWER POLE
- EX. STORM SEWER
- EX. SANITARY SEWER
- EX. WATERMAIN
- EX. GAS LINE
- EX. ELECTRIC LINE
- EX. TELEPHONE LINE
- EX. FIBER OPTICS LINE
- PROPERTY LINE
- RIGHT OF WAY LINE
- SITE BOUNDARY LINE
- ESTIMATED EXTENT OF GROUNDWATER CONTAMINATION IN EXCESS OF ENFORCEMENT STANDARD (DASHED WHERE INFERRED)

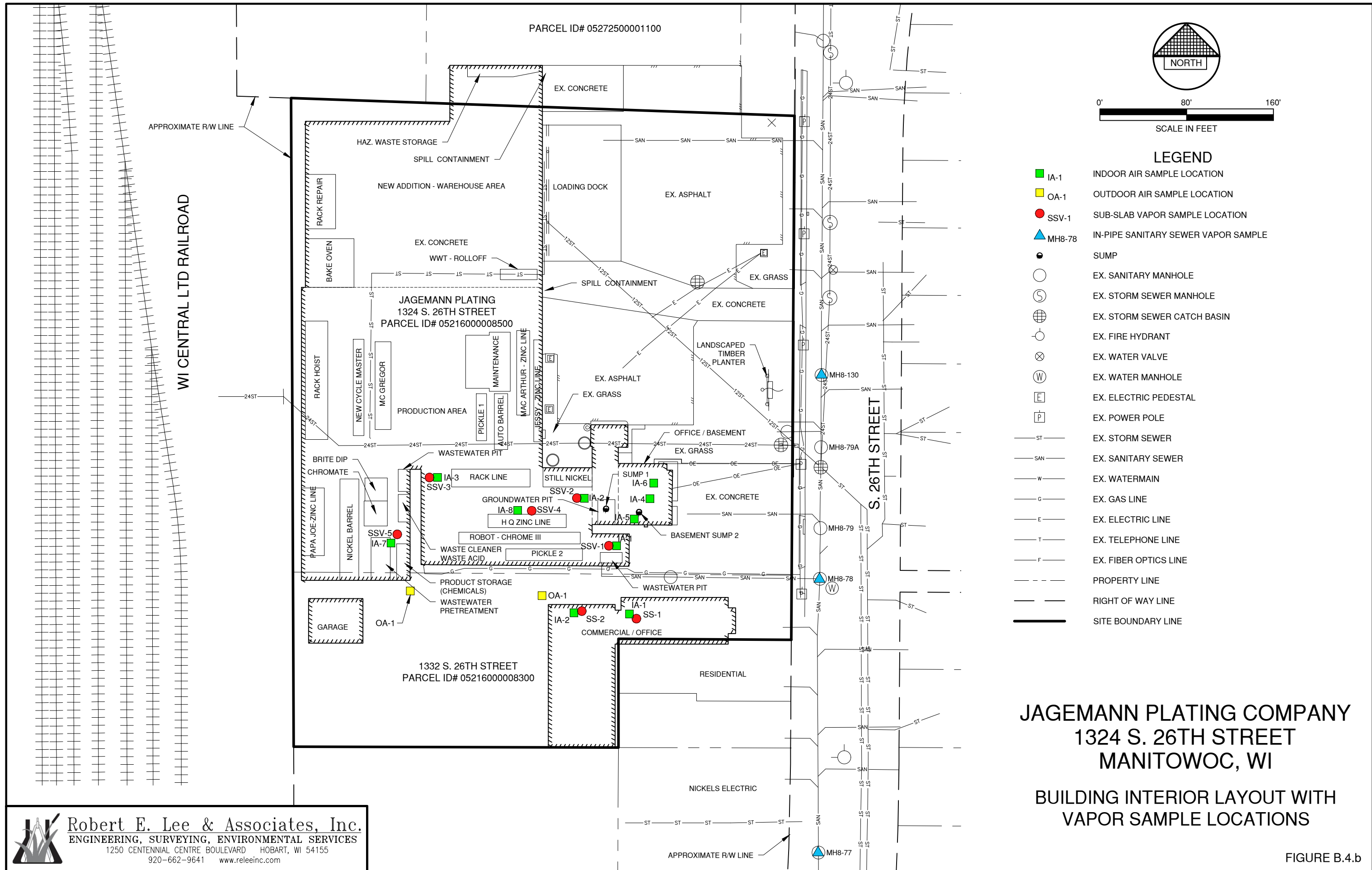
**JAGEMANN PLATING COMPANY**  
**1324 S. 26TH STREET**  
**MANITOWOC, WI**

**VAPOR INTRUSION MAP**

FIGURE B.4.a

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**JAGEMANN PLATING COMPANY**  
**1324 S. 26TH STREET**  
**MANITOWOC, WI**

**BUILDING INTERIOR LAYOUT WITH**  
**VAPOR SAMPLE LOCATIONS**

FIGURE B.4.b

**Robert E. Lee & Associates, Inc.**  
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