

# MEMO

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From:

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Date:

September 30, 2019

Arcadis Project No.:

30016352 (MI001454.0007)

Subject:

Livonia Transmission Plant  
36200 Plymouth Road, Livonia, Wayne County, Michigan  
EGLE Site ID No. 82002970  
Offsite Interim Preemptive Mitigation Installation Monthly Update

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On behalf of Ford Motor Company (Ford), Arcadis of Michigan, LLC (Arcadis) has prepared this monthly update to the interim preemptive mitigation system installation for the Livonia Transmission Plant (LTP) site (the site) as requested by Michigan Department of Environment, Great Lakes, and Energy (EGLE) via email on May 26, 2019 and on July 26, 2019. As of September 30, 2019, the following progress has been made at 30 residential properties in the Alden Village subdivision:

- 26 of 30 interim preemptive mitigation systems are installed and operating as designed
- 30 of 30 interim preemptive mitigation system are designed
- 1 of 27 interim preemptive mitigation system is installed but requires modification
- 3 of 30 current property owners are unwilling to allow the mitigation systems to be installed at their properties
- 7 of 12 sheds with RetroCoat has been applied to the floor
- 5 of 13 garages with RetroCoat has been applied to the floor

Arcadis continues to work diligently to coordinate and install the interim preemptive mitigation systems. Details are provided below for all 30 locations.

**Interim Preemptive Mitigation Systems Operating as Designed**

- **12088 Brewster** – The system is currently in routine operation and maintenance. The final routine Operation, Maintenance, and Monitoring (OM&M) sampling event will be scheduled with the property owner in the first quarter of 2020. A shed with a concrete floor has been scheduled to have RetroCoat applied the week of October 7th. The resident will be provided a moving container from PODS, and professional movers will empty and replace the contents of the shed before and after the completion of the application.
- **12075 Brewster** – The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The resident requested that Arcadis arrange to have the homes ducts cleaned as the resident felt that dust that was generated during the installation entered into the duct system. Arcadis hired a duct cleaning company to clean the ducts on September 12<sup>th</sup>, 2019. A shed with a concrete floor has been scheduled to have RetroCoat applied the week of October 7th. The resident stores very little in the shed and has declined a moving container or movers.
- **12089 Boston Post** – The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. Prior to adding the RetroCoat, Arcadis had to repair the concrete floor due to many cracks and pits within the concrete. The RetroCoat application on the garage floor was completed on September 27, 2019. Two moving containers from PODS and professional movers were provided to the property owner during the application and Arcadis assisted with disposing of items that the property owner requested Arcadis to dispose of. Before and after photos are shown below showing floor repairs that were completed to enable RetroCoat application.



12089 Boston Post garage concrete repair



12089 Boston Post garage RetroCoat

- **34450 Beacon** - The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application in the garage is scheduled for the week of September 30th. A moving container from PODS will be provided to the property owner during the application and professional movers will empty and replace the contents of the garage before and after the completion of the application.

MEMO

- **34401 Capitol** –The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the garage and shed was completed on September 25, 2019. Two moving containers from PODS and professional movers were provided to the property owner during the application. Before and after photos are shown below.



34401 Capitol garage before



34401 Capitol garage RetroCoat



34401 Capitol shed before



34401 Capitol shed RetroCoat

- **34380 Beacon** - The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the garage and shed was completed on September 20, 2019. During this visit, water was observed on the liner within the crawl space. Approximately 5 gallons of water was removed. It is currently unknown what caused the water on the liner. Arcadis will continue to complete routine visits to determine the cause, pending coordination with the property owner. Three moving containers from PODS and professional movers were provided to the property owner during the application. Before and after photos are shown below.

MEMO



34380 Beacon garage before



34380 Beacon garage RetroCoat



34380 Beacon shed before



34380 Beacon shed RetroCoat

- **12091 Brewster** – The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. On September 5, 2019, the Arcadis Communication Liaison discussed with the property owner the process to apply RetroCoat to the floor of the property owners detached garage. The property owner said thank you very much for this very kind offer, but he will need to decline. He does not want anyone to be in his garage. The property owner said no one is living in his garage nor does he intend to have anybody else live in his garage. On September 16, 2019 the Arcadis Communication Liaison spoke to the property owner while he was in the neighborhood and asked if he had changed his mind about having his garage RetroCoated. The property owner said no thank you, but he will not allow anyone working on his garage.
- **34424 Beacon** – The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the shed was completed on September 20, 2019. A moving container from PODS and professional movers were provided to the property owner during the application. Before and after photos of the shed are shown below.





34424 Beacon shed before



34424 Beacon shed RetroCoat

- **34920 Beacon** – The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the garage is scheduled for the week of September 30th. Two moving containers from PODS will be provided to the property owner during the application and professional movers will empty and replace the contents of the garage before and after the completion of the application.
- **34950 Beacon** – The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the garage is scheduled for the week of September 30th. Two moving containers from PODs will be provided to the property owner during the application and professional movers will empty and replace the contents of the garage before and after the completion of the application.
- **12017 Brewster** – The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat of the shed was completed on September 25, 2019. One moving container from PODS and professional movers were provided to the property owners during the application. Before and after photos are shown below.



12017 Brewster shed before

12017 Brewster shed RetroCoat

- **34600 Beacon** – Interim preemptive mitigation system, consisting of RetroCoat and sump venting, was installed as designed and has been in operation since June 28, 2019, when Arcadis completed the application of RetroCoat on the basement walls and floor and on the attached garage floor. Post mitigation sampling occurred on July 24, 2019. The analytical data package was provided to all parties consistent with the access agreement on September 9, 2019. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020.
- **12131 Boston Post** – The interim preemptive mitigation system was installed as designed and has been in operation since March 13, 2019. An interim air purifier unit was provided for temporary mitigation of the basement area until July 3, 2019, when Arcadis completed the application of RetroCoat on the basement walls, and installation and depressurization of a Cupolex sub-flooring plenum. On July 25, all monitoring points, including the new Cupolex monitoring point, were measured and were meeting the performance metric established by EGLE of -0.02 in wc. Post mitigation sampling was completed on August 1, 2019. The analytical data package was provided to all parties consistent with the access agreement on September 9, 2019. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the garage is scheduled for the week of September 30th. A moving container from PODS will be provided to the property owner during the application and movers will empty and replace the contents of the garage before and after the completion of the application.
- **12101 Brewster** – Interim preemptive system was installed as designed and has been in operation since June 7, 2019. On June 10, 2019, MP-2 was measured at -0.003 in wc. However, the other eleven monitoring points installed at this property meet the performance metric established by EGLE of -0.02 in wc. Post mitigation sampling was completed on August 14, 2019. The analytical data package was provided to all parties consistent with the access agreement on September 25, 2019. On September 10, 2019, contents were removed from the garage areas and placed in moving containers provided by PODS for storage during garage floor sealing. Floor sealing of expansion joints and cracks using polyurethane caulk and hydraulic cement was completed on September 12, 2019. On September 19, 2019, SSMP-2 was replaced with a new vapor pin, SSMP-2R, installed approximately 6-inches away from the original location and was measured at -0.348 in wc. See photo below. All monitoring points now meet the performance metric established by EGLE of -0.02 in wc. Per the property owner's request, on September 20, 2019, an epoxy coating was painted onto the garage floor. See photo below. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020.



12101 Brewster replaced monitoring point



12101 Brewster garage epoxy coating

- **12067 Boston Post** – Interim preemptive mitigation system was installed as designed and has been in operation since July 3, 2019. On July 29, 2019, MP-1 was measured at -0.013 in wc. However, the other three monitoring points installed at this property meet the performance metric established by EGLE of -0.02 in wc. A vacuum transmitter was installed at MP-1 on August 28, 2019. Post mitigation sampling was scheduled for completion in August and then canceled upon arrival by the property owner. The sampling event was rescheduled and completed on September 6, 2019. Once the results have been received, reviewed and validated, the data package will be submitted to all parties as outlined in the access agreement. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the garage was completed on September 27, 2019. Two moving containers from PODS were provided to the property owner during the application. In addition, a 30-yard roll off was provided to the property owner to dispose of unwanted items in the garage. Before and after photos are shown below.



12067 Boston Post garage before



12067 Boston Post garage RetroCoat

- **34550 Beacon** – Interim preemptive mitigation system was installed as designed and has been in operation since July 3, 2019. Post mitigation sampling was rescheduled for the week of September 3 and completed on September 5, 2019, as the resident declined to keep the windows closed during the sampling event. Once the results have been received, reviewed and validated; the data package will be submitted to all parties as outlined in the access agreement. The system is currently in routine

operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020.

- **34940 Beacon** – The interim preemptive mitigation system has been in operation since March 27, 2019. An interim air purifier unit was provided for temporary mitigation of the basement area until July 24, 2019, when Arcadis completed the application of RetroCoat on the basement walls and floor. Post mitigation sampling was completed on August 28, 2019. Once the results have been received, reviewed and validated, the data package will be submitted to all parties as outlined in the access agreement. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020.
- **12141 Boston Post** – Interim preemptive mitigation system was installed as designed and has been in operation since April 9, 2019 for both the home and the attached garage. Post mitigation sampling was conducted in the garage and the home during the week of May 20, 2019. The analytical data package was provided to all parties consistent with the access agreement on August 9, 2019.

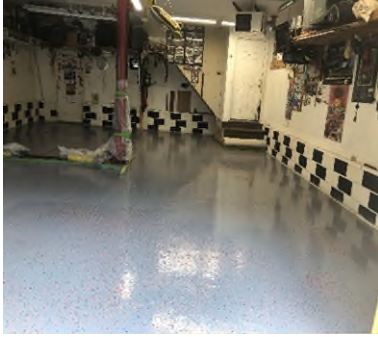
On May 20, 2019, sub-membrane monitoring point MP-1 was measured at -0.012 in wc and sub-slab monitoring point SSMP-01 (located in the attached garage) was measured at -0.005 in wc. However, the other three monitoring points installed at this property met the performance metric established by EGLE of -0.02 in wc.

On August 31, 2019, contents were removed from the attached garage and placed in PODs for storage during garage floor sealing. Floor sealing of expansion joints and cracks using polyurethane caulk and hydraulic cement was completed on September 4, 2019. Per the property owner's request, on September 5, 2019, an epoxy coating was painted onto the garage floor. See photo below. Also, on September 5, 2019, the SSD system valves were adjusted, resulting in the following readings: MP-1: -0.017 in wc, MP-2: -0.016 in wc, MP-3: -0.022 in wc, MP-4: -0.012 in wc, and SSMP-1: -0.024 in wc. On September 6, 2019 a vacuum transmitter was installed at monitoring point MP-4, which had the least vacuum influence.

On September 8, 2019, contents were removed from the detached garage and placed in PODs for storage during Retrocoat application. Retrocoat application was complete on September 19, 2019. Color chips were included in the final layer of RetroCoat per the property owner's request. See photo below.

Thus far, performance metrics have not been collected for the interim preemptive mitigation system within the slab on grade portion of the home. Monitoring points have not been installed in the finished spaces (e.g., through carpeted and/or finished floors) per the property owner's request, as documented in the March 29, 2019 field notes. Indoor air samples will be collected and analyzed within 90 days after the initial post mitigation sampling event to verify performance in areas that do not currently have a monitoring points installed. Indoor air sampling is currently being scheduled with the property owner and will be completed pending access. Multiple attempts were made to schedule the sampling events. The property owner has stated that due to multiple scheduling conflicts due to prior commitments with the family, indoor air sampling will not be able to schedule until mid-October. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020.





12141 Brewster attached garage epoxy coating



12141 Brewster detached garage Retrocoat with color chips

- 12066 Boston Post** - Interim preemptive mitigation system was installed as designed and has been in operation since March 17, 2019. Post mitigation sampling was performed on May 31, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 11, 2019. On August 2, 2019, an additional crawlspace suction point was added and connected to the existing mitigation system, resulting in all monitoring points meeting the EGLE's recommend vacuum of -0.02 in wc. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the garage was completed on September 20, 2019. Three PODs were provided to the property owner during the application. Before and after photos are shown below.



12066 Boston Post garage before



12066 Boston Post garage RetroCoat

- 12036 Brewster** - Interim preemptive mitigation system was installed and began operation on April 2, 2019. An interim air purifier unit was provided on March 17, 2019 for temporary mitigation of the basement area until August 12, 2019, when Arcadis completed the application of RetroCoat on the basement walls and floor. Modifications to the sub-slab depressurization system were completed on July 3, 2019, and a vacuum transmitter was installed at sub-slab monitoring point SSMP-2, located in the attached garage, on August 7, 2019. Post mitigation sampling was completed on September 5, 2019. Once the results have been received, reviewed and validated, the data package will be submitted to all parties as outlined in the access agreement. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the shed was completed on September 27, 2019. A moving container from PODS was provided to the property owner during the application. Before and after photos are shown below.



12036 Brewster shed before



12036 Brewster shed RetroCoat

- 34990 Beacon** – The interim preemptive mitigation system was installed as designed and has been in operation since May 9, 2019. An interim air purifier unit was provided for temporary mitigation of the basement area until August 30, 2019, when Arcadis completed the application of RetroCoat on the basement walls and floor. On August 28, 2019 a vacuum transmitter was installed at Monitoring Point MP-7, where with the current valve setting the vacuum influence was -0.016 in wc., and the other six sub-membrane monitoring points installed at this property all meet the performance metric established by EGLE of -0.02 in wc.

The application of RetroCoat to the concrete floor of the shed that is present on the property was completed on August 28, 2019. The property owner denied the application of RetroCoat in the detached garage, since the floor has an existing epoxy coating.

Vapor Intrusion sampling was completed on July 31st. The analytical data package was provided to all parties consistent with the access agreement on September 4, 2019. Post mitigation sampling is scheduled for the week of September 30, 2019. Once the results have been received, reviewed and validated, the data package will be submitted to all parties as outlined in the access agreement. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020.

- 34591 Beacon** – Interim preemptive mitigation system was installed as designed and has been in operation since April 19, 2019. Post mitigation sampling was completed the week of May 22, 2019. The analytical data package was provided to all parties consistent with the access agreement on August 30, 2019. On August 6, 2019, Arcadis installed an additional suction point under the slab area which was connected to the current mitigation system. The sub-slab monitoring point SSMP-1 (located in the slab addition) was measured at -0.009 in wc. However, the three sub-membrane monitoring points all meet the performance metric established by EGLE of -0.02 in wc.

On September 16, 2019, a vacuum transmitter was installed at SSMP-1. Final monitoring point readings, after making system adjustments were SSMP-1: -0.008 in wc, MP-1: -0.010 in wc, MP-2: -0.008 in wc, and MP-3: -0.022 in wc. Additional system adjustments may be made during future O&M events to further balance flow and resume operation at higher vacuum levels at the crawlspace monitoring points. During this visit, water was observed on the liner within the crawl space. Approximately 20 gallons of water was removed. It is currently unknown what caused the water on the liner. Arcadis will continue to complete routine visits to determine the cause, pending coordination with

the property owner. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020.

- **34367 Capitol** –The interim preemptive mitigation system was installed as designed and has been in operation since August 30, 2019. Vapor intrusion sampling was completed the week of August 8th, 2019. The analytical data package was provided to all parties consistent with the access agreement on September 3, 2019. Post mitigation sampling will be scheduled for approximately 30 days after system completion when access is provided by the property owner's tenants. The tenants are currently preparing for a wedding in late September and the property owner has stated that access to the house will not be granted until after the wedding. Arcadis will continue to work with the property owner and the tenants to schedule the sampling event. The RetroCoat application of the garage is scheduled for the week of October 7, 2019. A moving container from PODS will be provided to the property owner during the application and movers will empty and replace the contents of the garage before and after the completion of the application.
- **34480 Capitol** – Interim preemptive mitigation system was installed as designed and has been in interim operation since June 11, 2019. On August 15, 2019, the interior of the ductwork located under the slab-on-grade portion of the home was sealed with a spray on coating by a licensed HVAC contractor, and the sub-slab monitoring point SSMP-02 (located in the slab area) was measured at -0.003 in wc. However, the three of the sub-membrane monitoring points all meet the performance metric established by EGLE of -0.02 in wc. Post mitigation sampling was completed on August 13, 2019. The analytical data package was provided to all parties consistent with the access agreement on September 25, 2019.

On September 5, 2019, a vacuum transmitter was installed at sub-slab monitoring point SSMP-02. Final monitoring point readings, after making system adjustments, were SSMP-02: -0.013 in wc, MP-1: -0.030 in wc, MP-2: -0.026 in wc, and MP-3: -0.016 in wc. Additional system adjustments were made on September 11, 2019 to reduce noise generated by air leakage around the slab area (which is not accessible for sealing) resulting in the following monitoring point readings, SSMP-02: -0.002 in wc, MP-1: -0.039 in wc, MP-2: -0.030 in wc, and MP-3: -0.018 in wc. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The RetroCoat application of the garage is scheduled for the week of October 7th. A moving container from PODS will be provided to the property owner during the application and movers will empty and replace the contents of the garage before and after the completion of the application.

- **12070 Boston Post** – Interim preemptive mitigation system was installed as designed within the crawlspace and attached garage portions of the home, with an interim air purifier unit for the basement, and has been in operation since March 13, 2019. The basement portion of the system was completed on September 20, 2019 in accordance with state of Michigan construction codes and with approval from the City of Livonia. All monitoring points are meeting the performance metric established by EGLE of -0.02 in wc. The work completed in the basement included filling in the basement with gravel to raise the elevation and pouring of a new concrete floor slab at the higher elevation. The existing water heater was replaced with a tankless model to facilitate this work. The existing floor drain and sump were also abandoned and replaced at the higher elevation, and concrete was poured around the existing support post to prevent future deterioration under the new floor. See photos below. Vapor intrusion sampling is scheduled for the week of October 21, 2019. Once the results have been received, reviewed and validated, the data package will be submitted to all parties as outlined in the access agreement. The

system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020.



12070 Boston Post gravel fill



12070 Boston Post sump in new floor slab



12070 Boston Post tankless water heater



12070 Boston Post sump in new floor slab

- 34682 Beacon** - Interim preemptive mitigation system was installed as designed with an interim air purifier and has been in operation since May 3, 2019. Arcadis contacted the property owner via telephone on July 25 and 30, 2019, and via email/telephone and/or in person on August 8, 9, 22, 23, and 26, 2019 to schedule the vapor intrusion sampling event. Multiple attempts have been made to schedule the post mitigation sampling event. The property owner has not scheduled, saying his work schedule does not accommodate the sampling events. Arcadis will continue to work with the property owner to schedule a sampling event. The sub-slab monitoring points (located in the slab/former attached garage area) SSMP-01 and SSMP-04 were measured at -0.007 in wc and 0.000 in wc respectively. However, both of the sub-membrane monitoring point (MP-4 and MP-5) and the sub-slab monitoring points in the attached garage (SSMP-02 and SSMP-03) meet the performance metric established by EGLE of -0.02 in wc. The slab in the former garage area currently cannot be accessed for crack sealing. However, the property owner indicated on April 17, 2019, that the former garage living space is potentially going to be remodeled in 2019. Arcadis contacted the resident on June 18, 2019 to inquire about when a potential remodel would occur. The property owner indicated that there is no set date for when, or if, the remodeling will occur, therefore Arcadis anticipates moving forward with additional measures.

Arcadis discussed modifications to the current mitigation system with EGLE vapor intrusion expert (Matt Williams) on July 22, 2019. Based on that discussion, Arcadis has revised the design to include a second mitigation system to provide additional vacuum influence under the slab area. The new design was presented to the property owner, and on August 22, 2019, the property owner told Arcadis he does not want a second system installed on his house. On September 7, 2019, a vacuum transmitter was



installed at sub-membrane monitoring point MP-5 in response to the property owner's request that the transmitter not be connected to monitoring point in the slab on grade portion of the home (SSMP-01 or 04). Access to the inside of the home was granted on September 18, 2019, and system adjustments were made resulting in the following monitoring point readings, SSMP-1: -0.107 in wc, SSMP-2: -0.053 in wc, SSMP-3: -0.073 in wc, SSMP-4: -0.007 in wc, SSMP-5: -0.022 in wc, MP-4: -0.013 in wc, and MP-5: -0.009 in wc. The system is currently in routine operation and maintenance. The final routine OM&M sampling event will be scheduled with the property owner in the first quarter of 2020. The property owner has requested that Arcadis try to reduce the vibration noise emanating from the fan. Arcadis observed a large hornets nest residing in the roof line above the fan. Arcadis hired a professional pest control specialist with the property owner's consent to remove the nest so that work on the fan could proceed in a safe manner. Pictures of the nest and removal which took place on September 26<sup>th</sup> are provided below.



34682 Beacon Hornet nest above fan



34682 Beacon removal of hornet nest

### **Interim Preemptive Mitigation System Currently Being Designed**

Initial designs for the interim preemptive mitigations systems have been completed for the 30 properties. Modifications to the design and construction of the systems installed at a few residential properties are ongoing to accommodate property owner requests, and as deviations from target performance metrics are identified in the field.

### **Interim Preemptive Mitigation System is Designed and Currently Being Installed or is Scheduled**

Mitigation systems at 1 of the 30 properties require additional mitigation activities. Details are provided below regarding the status of the work at this property.

- **12100 Boston Post** – Interim preemptive mitigation system was installed as designed and has been in operation since March 25, 2019. Post mitigation sampling was completed on May 3, 2019. The analytical data package was provided to all parties consistent with the access agreement on July 13, 2019.

A vacuum transmitter was installed on the monitoring point located in the attached garage addition on May 4, 2019, to continuously monitor vacuum levels at SSMP-04 and confirm that vacuum is being

maintained, since the vacuum level was less than the performance metric established by EGLE of -0.02 in wc.

On June 11, 2019, sub-slab monitoring point SSMP-01 (located in the slab addition) was measured at -0.002 in wc. However, both of the sub-membrane monitoring point (MP-1 and MP-2) and the sub-slab monitoring points in the attached garage (SSMP-01 and SSMP-03) meet the performance metric established by EGLE of -0.02 in wc. Arcadis contacted the property owner on a weekly basis throughout September inquiring on their availability to gain access for a HVAC professional to investigate the duct system and for Arcadis to conduct further system evaluations. On September 23, 2019, Arcadis, along with a HVAC professional, evaluated if the ducts in the slab addition are affecting the vacuum influence. Based on observations and discussions with the property owner, the ducts appear to be embedded within the concrete slab, and therefore not affecting vacuum influence. Therefore, lining of the ducts is not warranted. System modifications will be proposed to enhance vacuum coverage in the slab area pending property access. The property owner indicated that they are very busy and do not have time to provide Arcadis access to their home prior to November. Arcadis will continue to contact the property owner on a regular basis to determine the earliest time access can be arranged.

On September 16 2019 the property owner called Arcadis and said that Arcadis will not be able to RetroCoat the floor of her shed. The shed has a concrete floor; however, the shed is not structurally sound. The roof needs to be repaired. It is not safe at this time for anyone to enter it.

#### **Interim Preemptive Mitigation Systems Declined – Extension Requested**

- **12121 Boston Post** –The property owner was presented with an air purifier on March 21, 2019 as part of the initial preemptive mitigation approach. The air purifier remained on the front porch until March 24, 2019, when an Arcadis employee retrieved the unit. The air purifier was retrieved from the location, so damage did not occur to the unit from being outside and exposed to the weather. The draft design for the preemptive mitigation system was provided on March 29, 2019. On April 16, 2019, the property owners sent an email indicating that Ford nor Arcadis had access to the property any longer. A complaint was filed on July 10, 2019 in the Michigan state court to gain access to this home to complete the installation of the interim preemptive mitigation system.
- **12124 Boston Post** – This property was scheduled for installation of the preemptive mitigation system on March 23, 2019. On March 19, 2019, Arcadis received an email from the property owner declining the installation of the preemptive mitigation system. The property owner indicated that he wanted to discuss in further detail with his attorney. The property owner also declined the air purifier on March 18, 2019, citing the purifier would make too much noise and take up too much space. As of April 16, 2019, Arcadis has been unable to schedule further the installation of the interim preemptive mitigation system. However, the property owner is allowing Arcadis to perform vapor intrusion sampling which was completed on August 7, 2019. The analytical data package was provided to all parties consistent with the access agreement on September 3, 2019. A complaint was filed on July 10, 2019 in the Michigan state court to gain access to this home to complete the installation of the interim preemptive mitigation system.
- **34644 Beacon** - The interim preemptive mitigation system was tentatively scheduled to begin on May 15, 2019. However, the property owner has refused the installation of the interim preemptive mitigation system until the noise of the fans at the adjacent neighbor's property is reduced. In addition, the property owner is only allowing construction activities to occur when they are home,

which is after 4:00 PM. The property owner has requested a white liner instead of the black liner in the past.

Arcadis has been working with the property owner to address their concerns, but on June 1, 2019 the property owner contacted Arcadis via telephone indicating that he is not ready to have the system installed and needs to think it over. On July 10, 2019, Arcadis contacted the property owner and again indicated he is not ready for the installation of the interim preemptive mitigation system and asked Arcadis send him the design again so his friend who owns a radon business can review. On July 10, 2019, Arcadis sent the property owner the design, as requested. On July 25, 2019, Arcadis's Community Liaison met with the property owner to determine if he had any further questions or concerns regarding the design. The property owner indicated that he sent our design to his friend who was a radon installer. Based on the radon installers evaluation of the Arcadis design, the property owner indicated that the interim mitigation system will not do anything to remove vapors and he feels it is unnecessary. The property owner indicated that he does not want his home to be tore up for a system that is not needed, does not work, and indicated that Arcadis will not be installing one in his home. Arcadis contacted the property owner via telephone on July 29 and 31, 2019 to schedule the sampling event. The property owner has not allowed access to Arcadis to conduct any additional rounds of indoor air sampling.

Because the property owners have now rejected the installation of an interim preemptive mitigation system, Ford's outside counsel plans to amend the complaint seeking access to the properties at 12121 Boston Post and 12124 Boston Post to also seek access to 34644 Beacon to complete the installation of an interim preemptive mitigation system. The suit seeking access to the properties at 12121 Boston Post and 12124 Boston Post has been removed by those property owners to federal court. Ford has moved to remand that lawsuit to federal court and, once that issue is resolved, will seek to amend the complaint to include access to 34644 Beacon if necessary.

In the July 26, 2019 letter EGLE requested an update for the property located at 12034 Brewster. On April 19, 2019, Arcadis provided EGLE documentation based on groundwater data that had been collected from a newly installed shallow monitoring well MW-192S. Monitoring well MW-192S analytical results showed no presence of vinyl chloride or any other constituent of concern. Based upon that data the 100-foot buffer was moved to the north. Subsequently, 12034 Brewster no longer resided in the 100-foot buffer; therefore, the installation of the interim preemptive mitigation system was put on hold. Although the interim preemptive mitigation system installation was put on hold vapor intrusion sampling continues.

Arcadis continues to work diligently to continue to schedule the additional work at 12100 Boston Post. As indicated above the property owner will not allow any work in the home prior to November 2019. Based on the current schedule, Arcadis anticipates that the completion of the application of RetroCoat to the garage and shed floors will be completed by the week of October 7, 2019 for property owners that have allowed access. Arcadis will continue to coordinate and complete OM&M activities as necessary to evaluate the performance of the operating preemptive mitigation systems.