

REPORT ON NEW EMPLOYEE ENTRANCE WORK PLAN COOPERVISION SCOTTSVILLE, NEW YORK

by Haley & Aldrich of New York Rochester, New York

for CooperVision Scottsville, New York

File No. 129375-002 February 2018

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8 6274 East Avon-Lima Road, Avon, NY 14414-9516 P: (585) 226-5353 | F: (585) 226-8139 www.dec.ny.gov

March 30, 2018

James Mazurowski CooperVision 711 North Road Rochester, NY 14546

Dear Mr. Mazurowski:

Subject: 711 North Road (CooperVision), Site #V00175

New Employee Entrance Work Plan, February 28, 2018

Village of Scottsville, Monroe County

The New York State Departments of Environmental Conservation and Health (the Departments) have reviewed the New Employee Entrance Work Plan dated February 28, 2018 (the Work Plan) for the 711 North Road (CooperVision) site (the site). The documents were provided in support of CooperVision's Notice of Change of Use submitted on September 11, 2017 for demolition of an existing storage structure and subsequent construction of an approximately 2,800-sf building addition.

The Departments have determined that the Work Plan, with modifications, substantially addresses the requirements of the Voluntary Cleanup Agreement. The modifications are outlined as follows:

- 1. **Section 2.3.2:** The Community Air Monitoring Plan data will be sent to the Departments on a weekly basis.
- 2. **Section 3.1:** Well MW-401 will be decommissioned by pulling the riser while tremie grouting from the bottom.
- 3. Section 3.2: The Departments remain concerned that gravity feed to the infiltration gallery may not effectively deliver bioremediation amendments throughout the impacted zone, especially in the deeper intervals. While the certifying design engineer has indicated that gravity distribution may be an advantage as this is similar to the way the contamination was introduced, there are significant differences in the properties of the primary site contaminant (1,1,1-trichloroethane; TCA) and typical bioremediation amendments and these differences may result in different subsurface distribution patterns. Differences in properties include, but are not limited to:
 - Specific gravity: TCA has a specific gravity of 1.34 while bioremediation amendments typically have specific gravities close to 1. This means that TCA is denser than both water and typical bioremediation amendments which allows TCA to more effectively migrate to deeper intervals.
 - Solubility: TCA is less soluble in water than typical bioremediation amendments.
 This also enhances the vertical migration of TCA in groundwater.



 Persistence: Bioremediation amendments are less persistent than TCA in the environment. This means that the amendment may be depleted before it is effectively distributed.

It is the responsibility of the certifying design engineer to design an injection system, select an appropriate bioremediation amendment, and implement post-injection quality assurance/quality control protocols to verify that the bioremediation amendment is effectively distributed in all depth intervals throughout the impacted area and that the remediation objectives are achieved. Corrective measures will be evaluated and implemented, as needed, if these objectives are not achieved.

- 4. Section 3.3: Start-up of the sub-slab depressurization system will not begin until the Departments approve a supplemental Work Plan (certified, signed, and stamped by a Professional Engineer licensed by New York state) that includes an engineering evaluation of the air emissions associated the sub-slab depressurization system along with plans for emission controls, if needed.
- 5. **Section 3.3:** The pressure field extension (PFE) confirmation results will be submitted to the Departments upon collection and will also be included in the Periodic Review Report. Depending on the results of the PFE testing, any modifications/changes will be discussed with the Departments prior to implementation. The new building addition will not be placed into service until the Departments are provided with acceptable documentation that the sub-slab depressurization system design criteria have been achieved.

With the understanding that the above noted modifications are agreed to, the Work Plan is hereby approved.

Please contact me at 585-226-5357 if you have questions or concerns on this matter.

Sincerely,

Frank Sowers, P.E. Professional Engineer 1

ec:

Bernette Schilling
Dusty Tinsley
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28 February 2018 File No. 129375-002

New York State Department of Environmental Conservation Division of Environmental Remediation, Region 8 6274 East Avon-Lima Road Avon, New York 14414

Attention: Mr. Frank Sowers, P.E.

Environmental Engineer 2

Subject: New Employee Entrance

Remediation Construction Work Plan CooperVision Facility – Site #V00175

Dear Mr. Sowers:

As requested in a letter dated January 12, 2018 that CooperVision received from the New York State Department of Environmental Conservation (NYSDEC), Haley & Aldrich of New York (Haley & Aldrich) has prepared this work plan on behalf of CooperVision Inc. for the remediation-related activities to be completed as part of the construction of the new employee entrance for the CooperVision Facility located at 711 North Road in Scottsville, New York.

This work plan has been developed to describe the environmental remedy modifications for the CooperVision VCA Site#V00175 (Site) to be implemented during construction of the new employee entrance and its associated facilities. The environmental remedy modifications include the expansion of the sub-slab depressurization system (SSDS), the installation of an infiltration gallery for the potential future introduction of additional biostimulation amendments (if determined to be required at a future date), and modifications to the existing monitoring well network.

This work plan has been prepared with guidance from NYSDEC's "Technical Guidance for Site Investigation and Remediation" (DER-10 dated May 2010); in response to the NYSDEC's earlier mentioned letter; and based on discussions among CooperVision, NYSDEC and Haley & Aldrich representatives during a site meeting on 1 February 2018.

CooperVision 28 February 2018 Page 2

Please do not hesitate to contact us if there are any questions regarding this submittal or any other aspects of the project.

Sincerely yours,

HALEY & ALDRICH OF NEW YORK

Mark N. Ramsdell, P.E. (NY) Senior Project Manager

Vincent B. Dick

Principal

Enclosures

c: CooperVision; Bob Ooyama; James Mazurowski; Myles Ott Baker Hostetler; Christopher H. Marraro, Esq.



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C-100 Overall Site Plan

C-101 New Employee Entrance Plan

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1. Introduction

1.1 STATEMENT OF PURPOSE

The New Employee Entrance Remediation Construction Work Plan (Work Plan) details remediation activities to be conducted at the CooperVision VCA Site#V00175 (Site) located at 711 North Road in Scottsville, New York. This Work Plan was prepared on behalf of CooperVision, Inc. (CooperVision), and is intended to fulfill the requirements of the NYSDEC letter regarding CooperVision's scheduled building addition construction plans, dated January 12, 2018. This work plan describes the details incorporated in the new building addition design and construction to implement the changes to the environmental remedy associated with this limited change of use of the Site.

1.2 WORK PLAN OBJECTIVES

The primary objectives of this Work Plan include:

- Describe modifications to the monitoring well (MW-205) located within the area of proposed new employee entrance,
- Describe the installation of an infiltration gallery to be constructed beneath the new building addition
- Describe the construction of the sub-slab depressurization system (SSDS) expansion within the new building addition footprint,
- Present the schedule for CooperVision's construction of the building addition, as well as a schedule for updating the Site Management Plan (SMP) to incorporate these additional elements of the Site remedy.



2. Site Description and History

2.1 SITE DESCRIPTION

The CooperVision Facility, located at 711 North Road in Scottsville, New York (Figure 1), has been used for manufacturing (fabrication of contact lenses) since the mid-1970s and includes the original building with additions having a total area of approximately 50,000 square feet. Soil and groundwater on some portions of the Site have been found to contain volatile organic compounds (VOCs), primarily 1,1,1-trichloroethane (1,1,1-TCA).

Soil and groundwater investigations were conducted at the Site between 1998 and 2000 as part of the NYSDEC Voluntary Cleanup Program (VCP) completed by CooperVision. Following the site investigation, a remedy was selected for the Site, which consisted of an injection with hydrogen release compound (HRC) to stimulate and enhance intrinsic bioremediation of the VOCs in the soil and groundwater. The remedy selection was approved by the NYSDEC. The HRC injection was conducted in 2001. In 2006, as part of an Interim Remedial Measure (IRM), a sub-slab depressurization system (SSDS) was installed in a portion of the facility as a mitigative measure to prevent potential vapor intrusion to the CooperVision work space in proximity to the remediation area. A second IRM was also completed that consisted of installing soil-bentonite-cement (SBC) trench collars in five (5) locations along existing utilities located on the CooperVision Site and within the adjacent eastern right-of-way. The purpose of the trench collars was to mitigate the potential for Site and nearby utility lines to act as potential preferential pathways for impacted soil vapors and groundwater.

Included as part of the remedy, was the recording of Deed Restrictions. The Deed Restrictions address administrative control requirements of the VCA, including but not limited to continuing the industrial use of the property, preventing use of groundwater at the site without prior NYSDEC approval, and adherence to the Site Management Plan (SMP) for long-term management of the Site to maintain protection of human health and the environment.

Following submittal and approval of a 16 June 2010 Final Engineering Report (FER) and 16 June 2010 SMP, the NYSDEC granted CooperVision a release from liability for the Site on 29 November 2010.

A corrective action plan was developed to address concentrations of Site related compounds observed at MW-202 during the 2012 reporting period which were determined through the SMP trend analysis procedure to constitute an increasing trend in the previous reporting period.

A Remedial Action Work Plan (RAWP) was developed and implemented, which included the installation of an array of injection wells upgradient of monitoring well MW-202. The RAWP was approved by the Department on 18 October 2013 and was implemented in November 2013 with periodic injections of an organic carbon substrate consisting of Emulsified Vegetable Oil (EVO) from December 2013 through October 2014.

The Site has continued to be maintained under the 2010 Site Management Plan, including routine groundwater monitoring, operation of the SSDS and related work under the SMP. This work plan summarizes proposed modifications to selected Site environmental features (SSDS, monitoring wells, construction of a new infiltration gallery) to be completed in concert with the New Employee Entrance



building addition. A modified SMP will be developed and submitted following construction of the addition and will incorporate applicable as-built modifications.

2.2 PROJECT DESCRIPTION

The construction of the new employee entrance for the facility will include demolition of an existing storage structure on the south side of the facility, excavation of shallow soils within previously identified source area of contamination for the Site, and the subsequent construction of an approximate 2,500-square foot building addition that will include the entrance and reception area, a cafeteria area, coat room, and related space (see Drawing C-101).

2.3 REMEDY MODIFICATION DESCRIPTION

The construction of the new addition will include modification of the existing sub-slab depressurization system (SSDS) to mitigate the potential for impacted soil vapor intrusion within the new addition space, the protection and modification of MW-205 to accommodate continued groundwater quality monitoring, and the installation of piping below the new entrance addition that could be used to apply appropriate biostimulation amendments to further promote bioremediation of VOC in the affected area beneath the planned addition in the future, if necessary.

2.3.1 Health and Safety Plan

The Health and Safety Plan (HASP) included as Appendix B of the SMP includes a description of health and safety protocols to be followed by Haley & Aldrich field staff during implementation of this work plan, including monitoring within the work area, along with response actions should impacts be observed. The HASP has been developed in accordance with Occupational Health and Safety Administration (OSHA) 40 CFR Part 1910.120 regulatory requirements for use by Haley & Aldrich field staff that will work at the Site during planned activities. Contractors or other personnel who perform work at the Site are required to develop their own health and safety plan and procedures of comparable or higher content for their respective personnel in accordance with relevant OSHA regulatory requirements for work at hazardous waste sites as well as general industry as applicable based on the nature of work being performed.

2.3.2 Community Air Monitoring Plan

Community air monitoring will be performed according to the NYSDOH generic Community Air Monitoring Plan (CAMP). A copy of the NYSDOH generic CAMP is included as Appendix C of the SMP. This plan requires real-time monitoring of VOCs and particulates at the upwind and downwind perimeter of designated work areas when certain activities are in progress. The CAMP will contain conservative monitoring threshold values established by the NYSDOH and provisions requiring that response actions are promptly implemented, if necessary, to reduce emissions at the work Site perimeter to levels deemed acceptable by NYSDOH and Department.



3. Remedy Modifications

3.1 MONITORING WELLS

Selective modifications to the monitoring well network under the SMP will be made to accommodate the new building addition. Refer to Drawing C-100 for overall site plan. These were discussed with NYSDEC during the site meeting on February 1, 2018 and conform with acceptable options reviewed at that meeting. The modifications include the following items:

- Decommissioning MW-401 located just inside the proposed new employee entrance. MW-401 is only used for groundwater elevation measurements as part of the groundwater elevation monitoring under the SMP. Since the nearby well OW-302D provides groundwater elevation information from the same monitoring interval and will remain in place (because it is located outside the proposed footprint of the addition), MW-401 will be decommissioned in accordance with the guidance provided by the Commissioner's Policy CP-43.
- MW-205 is located within the footprint of the construction area and has been used to monitor groundwater conditions for the former source area of the Site over more than a decade.
 NYSDEC has requested MW-205 remain a part of the monitoring well network due to the historical I levels of 1,1,1- TCA and 1,1-DCA detected at this location. Modifications to MW-205 will include the removal of the existing well vault, installation of a PVC extender to the existing well riser to the proposed interior finished floor surface elevation, and the installation of a well vault designed for indoor placement.

Please note that this well will be located in a primary indoor foot traffic area of the new building addition and the sampling for the full suite of analytes under the current SMP would constitute a significant interference with routine building access and operations, as well as require maintaining the well open for an extended period of time and handling purge water in this indoor space. To reduce the time required to sample, potential for exposure while the well is open for sampling, and need to handle purge water, this well will be converted to a Passive Diffusion Bag (PDB) sampler method. Subsequent sampling under routine SMP procedures will be the subject to the modified SMP to be submitted to NYSDEC for approval following the construction activities.

 Monitoring wells OWS-302 and MW-502 are currently positioned outside of the building addition footprint and will remain in place.

3.2 INFILTRATION GALLERY

An infiltration gallery will be constructed underneath the planned new building addition to enable the potential introduction of additional biostimulation amendments in this area of the Site. The infiltration gallery will be installed after the demolition of the current structure and in coordination with excavation of shallow soils for the new building addition foundation. The infiltration gallery piping will be placed within three (3) horizontal trenches installed at the top of groundwater table (invert depth is planned to be 5-ft below ground surface (bgs) – see Drawing C-101) with an access point within a flush mount traffic-rated road box located to the south and outside of the new employee entrance. The infiltration gallery piping network will be constructed of 4-inch solid and perforated HDPE pipe. The pipe will be



placed within the open trenches and backfilled with compacted select fill for the length of solid piping from the building exterior to approximately halfway north under the building addition, and then with washed stone throughout the 20 feet of perforated piping length to enable delivery of biostimulation fluids throughout the length of the gallery piping at a future date if required based on SMP monitoring and procedures.

Four vertical boreholes will also be installed in a portion of the perforated horizontal piping section of two trenches closer to the MW-205. Boreholes will be drilled using an air rotary drill rig to a depth of 25 ft bgs. Because past sampling and soil stratigraphic sampling has already been done in this area associated with past Site investigation, no split-spoon or similar sampling is necessary or will be performed. Two locations in each of two horizontal trenches proximate to well MW-205 have been selected for these vertical elements of the infiltration gallery. Each pair of vertical boreholes is spaced approximately 7-ft on center within each trench and the two pairs are offset from one another in a cross-gradient direction to provide broad coverage across the former source area if future addition of a bio-amendment is deemed necessary. Boreholes will be back filled with washed stone to enable the delivery of biostimulation fluids beneath the horizontal piping. The horizontal infiltration piping will be connected with a tee fitting into the borehole. The spacing of the vertical boreholes matches that of the original HRC injection in the source area approved by NYSDEC under the original site remediation work plan.

Drawing C-200 presents design details for the infiltration piping. Excavated soil will be managed under the existing protocol presented in the Excavation Plan Section (Section 2.5) of the SMP.

3.3 SUB SLAB DEPRESSURIZATION

One suction pit (S-3R) and two vapor monitoring points (T-5R and T-6R) will be installed within the new addition. The suction pit is designed based on the guidelines in the Environmental Protection Agency's (EPA) design document entitled "Radon Prevention in the Design and Construction of Schools and Other Buildings". The existing SSDS fan (Fan S-3) currently installed and operating within the area of the building proposed for demolition will be modified and reused to mitigate the potential for soil vapor intrusion within the new additional space. The modified and expanded SSD system will be monitored in accordance with the SMP.

Confirmation of the design criteria of sub-slab vacuum of at least 0.002 inches of water column (in.w.c.) will be verified after construction completion to document that the floor slab of the newly built addition is depressurized. Routine inspection of the SSDS will be continued per the SMP.

Drawings C-101 and C-200 presents construction details and the planned location of the additional suction pit and sub-slab vacuum monitoring point locations that will be installed as part of the construction activity.



3.4 SITE MANAGEMENT PLAN

The current SMP was approved by the NYSDEC in June 2010. A revised SMP will be submitted to the NYSDEC within 60 days after construction completion. Revisions to the SMP will include the modifications to the groundwater monitoring well network, and the SSDS.



4. Schedule

CooperVision has tentatively scheduled to begin construction of the new employee entrance on 1 April 2018. The monitoring procedures and construction activities described herein will be implemented promptly upon approval of this work plan by the NYSDEC.



5. Reporting

The Periodic Review Report (PRR) for the 16 May 2017 through 16 May 2018 will document work plan activities and include a certification that the activities completed within the PRR reporting period were conducted in accordance with the NYSDEC and NYSDOH approved work plan.

Any Site environmental activities, including any construction activities that occur after 16 May 2018 will be summarized and reported in the subsequent year PRR.

The PRR and revised SMP to be submitted following the completion of construction activities will include the elements that would be normally included in Construction Completion Report (CCR) as prescribed within DER-10. The PRR will include:

- descriptions of the modifications to the final remedy;
- soil management activities completed;
- the results of the CAMP monitoring conducted during the implementation of intrusive activities;
- soil disposal documentation; and
- final design drawings of the remedy modifications.



Certification 6.

I, Mark N. Ramsdell, P.E. certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER "Technical Guidance for Site Investigation and Remediation" (DER-10).

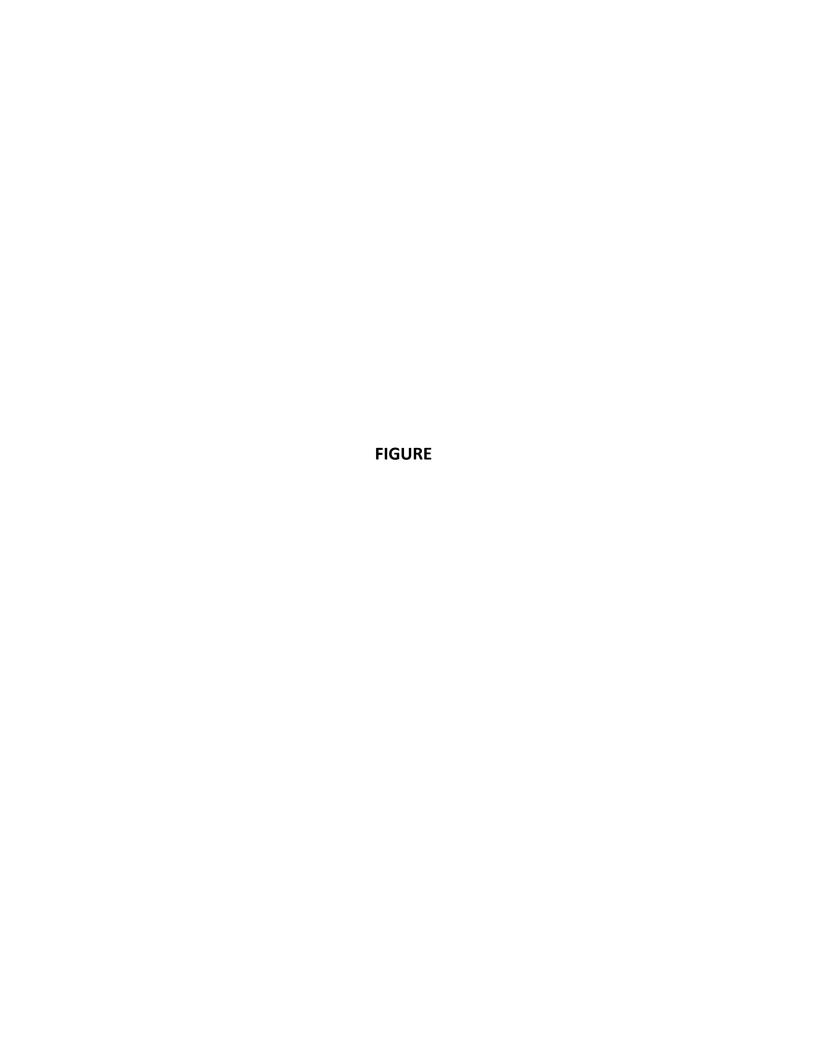
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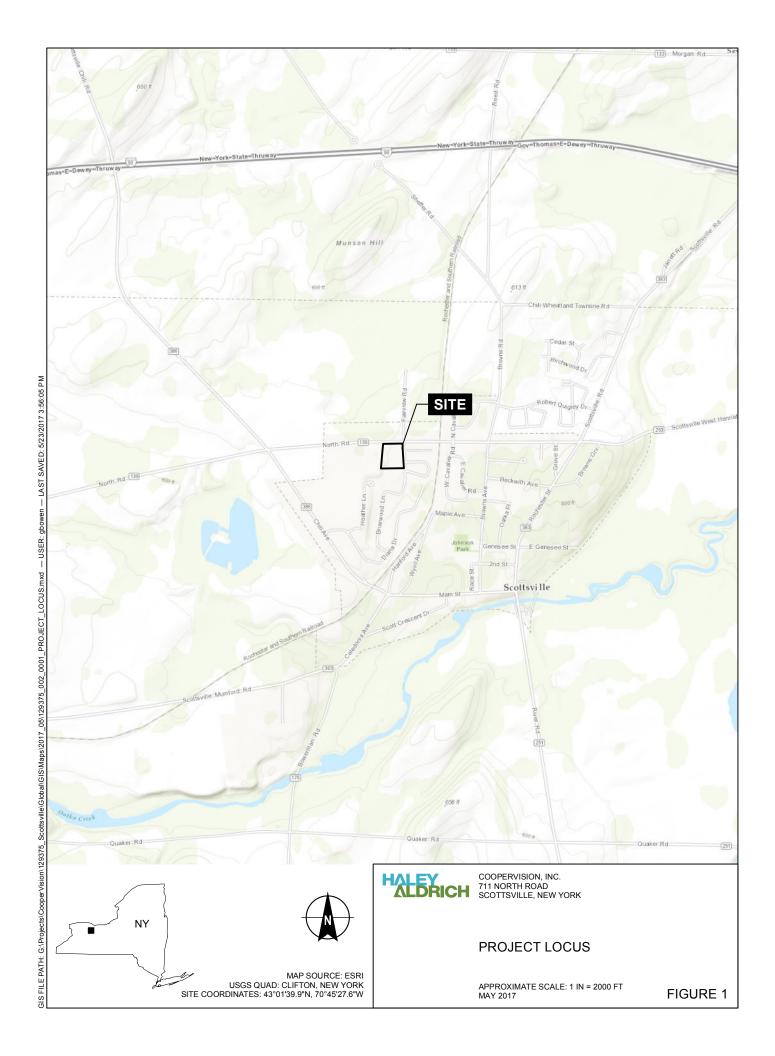
References

- New York State Department of Environmental Conservation, January 12, 2018; 711 North Road (CooperVision), Site #V001075 Building Addition Construction Plans, November 3, 2017 Village of Scottsville, Monroe County.
- 2. Haley & Aldrich of New York, 3 November 2017; 711 North Road (CooperVision), NYSDEC Site ID: V00175, Village of Scottsville, Monroe County, Building Addition Contraction Plans.
- 3. New York State Department of Environmental Conservation, October 3, 2017; 711 North Road (CooperVision), Site #V001075, Change of Use Notification; September 11, 2017, Village of Scottsville, Monroe County.
- 4. Haley & Aldrich of New York, 11 September 2017; CooperVision Notification of Demolition and Construction, 711 North Road (CooperVision), NYSDEC Site ID: V00175.
- 5. Haley & Aldrich of New York, 1 October 2013; Remedial Action Work Plan (RAWP) Well MW-202 Area, Emulsified Vegetable Oil Injection, CooperVision, Inc., Scottsville, New York.
- 6. Haley & Aldrich of New York, 16 June 2010; Revised Site Management Plan, CooperVision, Inc., Scottsville, New York, VCA Site #V00157-8.
- 7. Haley & Aldrich of New York, 16 June 2010; Revised Final Engineering Report, CooperVision Inc., Scottsville, New York.

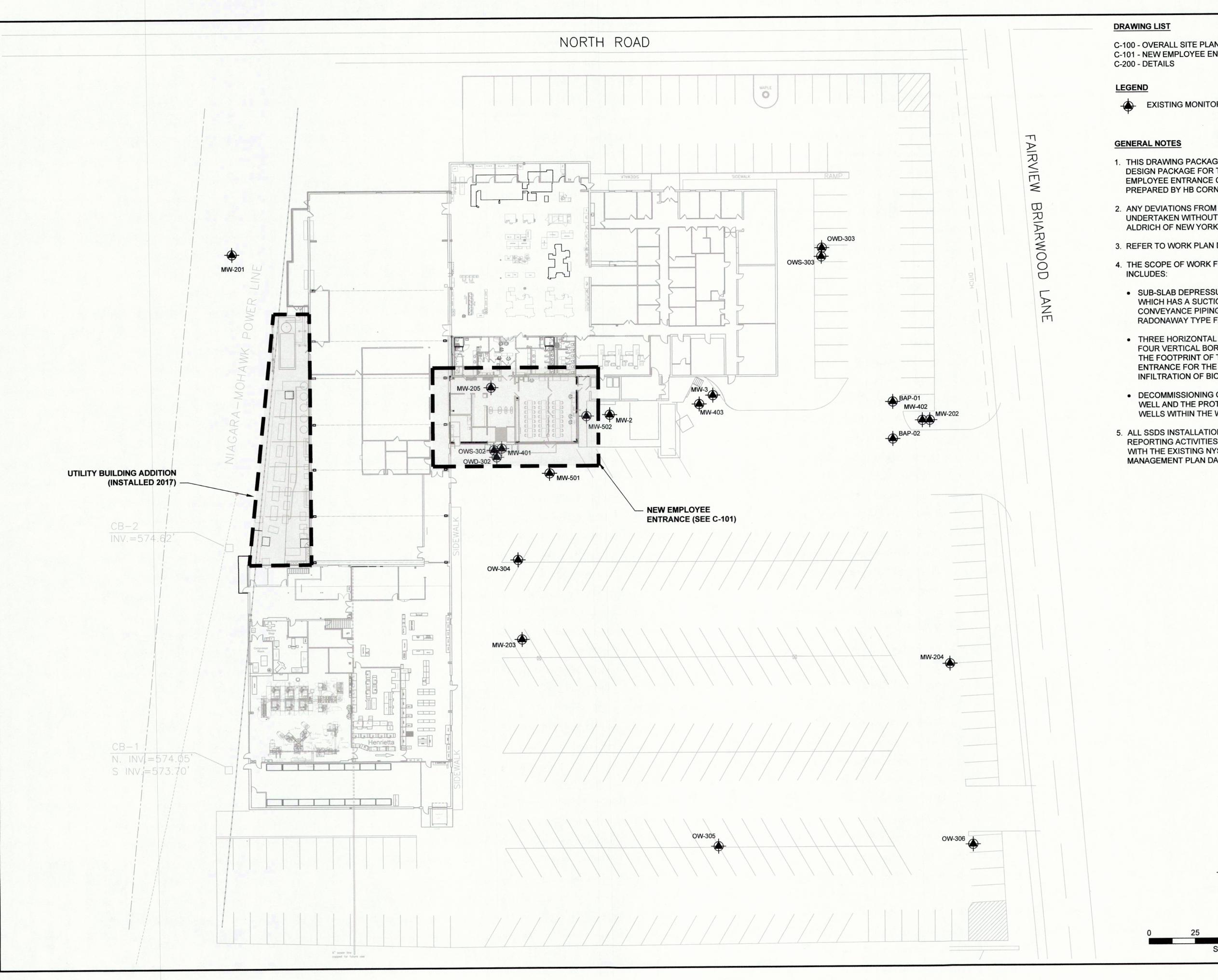
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C-100 - OVERALL SITE PLAN C-101 - NEW EMPLOYEE ENTRANCE PLAN

EXISTING MONITORING WELL LOCATIONS

- THIS DRAWING PACKAGE IS PART OF THE OVERALL DESIGN PACKAGE FOR THE COOPERVISION NEW EMPLOYEE ENTRANCE CONSTRUCTION DRAWINGS PREPARED BY HB CORNERSTONE.
- 2. ANY DEVIATIONS FROM THESE PLANS MUST NOT BE UNDERTAKEN WITHOUT FIRST NOTIFYING HALEY & ALDRICH OF NEW YORK.
- REFER TO WORK PLAN DATED 28 FEBRUARY 2018.
- 4. THE SCOPE OF WORK FOR THIS DRAWING PACKAGE
- SUB-SLAB DEPRESSURIZATION SYSTEM INSTALL WHICH HAS A SUCTION PIT, TEST POINTS, CONVEYANCE PIPING THROUGH THE ROOF TO A RADONAWAY TYPE FAN.
- THREE HORIZONTAL PERFORATED PIPES AND FOUR VERTICAL BOREHOLES LOCATED BENEATH THE FOOTPRINT OF THE NEW EMPLOYEE ENTRANCE FOR THE POTENTIAL FOR FUTURE INFILTRATION OF BIOSTIMULATION SOLUTIONS.
- DECOMMISSIONING OF ONE EXISTING MONITORING WELL AND THE PROTECTION OF FOUR EXISTING WELLS WITHIN THE WORK AREA.
- ALL SSDS INSTALLATION, TESTING, OPERATIONS & REPORTING ACTIVITIES ON THE SITE MUST COMPLY WITH THE EXISTING NYSDEC APPROVED SITE MANAGEMENT PLAN DATED 16 JUNE 2010.

HALEY

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Project No.:	129375-002	
Scale:	SHOWN	
Date:	OCTOBER 2017	
Drawn By:	JO	
Designed By:	MNR	
Checked By:	MNR	
Approved By:	HA	



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2	WORK PLAN SUBMITTAL	MNR	02/2
1	ISSUE TO NYSDEC APPROVAL	MNR	11/0
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COOPERVISION NEW EMPLOYEE ENTRANCE

711 NORTH ROAD SCOTSVILLE, NEW YORK

OVERALL SITE PLAN

C-100

SCALE IN FEET Sheet: 1 of 3

