

August 28, 2019

Mr. Benjamin McPherson, P.E.
NYSDEC Division of Environmental Remediation
270 Michigan Avenue
Buffalo, NY 14203

**Re: Building 1 Interior Investigation Work Plan
170 Jamison Road Site, Elma, NY (Site)
NYSDEC Site No. 915315**

Dear Mr. McPherson:

At the request of the New York State Department of Environmental Conservation (NYSDEC) and on behalf of our client, Moog Inc. (Moog), Benchmark Environmental Engineering and Science, PLLC (Benchmark) has prepared this work plan to investigate beneath the Building 1 footprint at the 170 Jamison Road Brownfield Cleanup Program (BCP) site in Elma, NY (Site, see Figures 1 and 2).

Background

Upon completion of the Interim Remedial Measures (IRM) the NYSDEC previously commented that, based on the soil conditions observed during the IRM, it is likely that impacted soil remains beneath Building 1 and that additional investigation is needed to definitively determine if the soil beneath Building 1 is either a continuing source or would otherwise require remedial action. At that time, Moog communicated to the NYSDEC that they planned to remove and replace the floor slab in Building 1 during redevelopment; therefore, NYSDEC agreed to allow Moog to complete the investigation within Building 1 when the floor is removed, soil is accessible, and the building is not occupied. However, Moog is no longer planning to remove the floors during redevelopment and has recently communicated to NYSDEC that they will complete the requested investigation within the Building 1 footprint.

Interior Soil Borings

Twenty (20) interior soil borings (designated IB-1 through IB-20) will be completed within Building 1 (approximate locations shown on Figure 3) to collect soil samples. A mobile direct-push drill unit will be utilized to core through the floor and advance the interior borings. Soil borings will be completed to bedrock, anticipated to be encountered at depths of 8 to 14 feet below ground surface

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(fbgs), which is the range of depths where bedrock was encountered proximate Building 1 during the RI.

A field engineer/scientist/geologist will observe the soil borings and create a field log (including photographs) for each location. Soil/fill samples will be collected at two-foot intervals for classification, potential laboratory analysis, and field screening with a PID equipped with 11.7eV lamp. A representative aliquot of soil from each two-foot sample interval will be placed in sealed plastic bags with minimal headspace until all sample intervals are collected from that boring location. Upon reaching the completion depth of each investigation location, visual/olfactory results will be reviewed. The sample interval identified as the most impacted (i.e., greatest PID scan result and/or evidence of visual/ olfactory impact) from each soil boring location will be selected for laboratory analysis for volatile organic compounds (VOCs) via USEPA Method 8260. In the absence of visual/olfactory evidence of impacts and PID readings exceeding background levels (i.e., 0.0 ppm) at all sample intervals within a particular soil boring location, soil samples will not be collected for laboratory analysis from that soil boring location; however, in the absence of field evidence of impacts at least two samples will be analyzed to confirm field observations. Removed soil/fill shall be returned to the soil boring in the general order that it was excavated. However, if grossly contaminated material (GCM) is encountered from soil borings, the removed material will be containerized. The concrete floor will be restored with ready-mix concrete patch and the carpet replaced, where applicable.

Field personnel will be prepared to collect additional samples, in consultation with Moog and NYSDEC, if additional potential impacts are noted during the investigation.

Temporary Monitoring Wells

Two temporary monitoring wells (TMWs) will be installed and sampled in the locations shown on Figure 3. TMW locations were chosen to complement the MW locations that surround the existing building; specifically, MW-10, MW-11/11D, MW-12, MW-13/13D and MW-16. TMWs will be constructed of one-inch, flush-joint PVC fitted with a 5- to 10-foot, 0.10-inch well screen, and a riser cap. The TMWs will be installed such that the well screens are set in the bottom of the borehole at the bedrock interface. Each well screen and attached riser will be placed at the bottom of each borehole and a silica sand filter pack will be installed from the base of the well to a maximum of 2 feet above the top of the screen. Water levels will be measured in the TMWs upon completion. If planned well locations do not show evidence of groundwater during soil boring drilling, alternate locations of TMWs will be discussed with the Department prior to installation.

Three well volumes will be purged from the TMWs using dedicated disposable polyethylene bailers. Purge water will be containerized and transferred into an existing on-site holding tank that is being used for another remedial task for future treatment and discharge. However, if light non-aqueous phase liquid (LNAPL), dense non-aqueous phase liquid (DNAPL), odors, or sheen are encountered during well purging and/or sampling, water will be containerized in NYSDOT-approved drums and characterized for off-site disposal.

Groundwater samples from each TMW will be collected and analyzed for Target Compound List (TCL) VOCs via USEPA Method 8260 and 1,4-dioxane. Samples collected for 1,4-dioxane analysis will be collected into laboratory-provided containers: two (2) 500 milliliter (ml) unpreserved amber bottles for each well location. The samples will be analyzed via EPA Method 8270 Selective Ion Monitoring (SIM) mode. The method detection limit (MDL) for the 1,4-dioxane analysis will be no higher than 0.28 micrograms per liter ($\mu\text{g}/\text{l}$), assuming there is no sample matrix interference. The samples have a holding time of 7 days till extraction and 40 days for the extract. Standard turnaround time will be used for the analysis.

Field Specific Quality Assurance/Quality Control Sampling

In addition to the soil/fill and groundwater samples described above, field-specific quality assurance/quality control (QA/QC) samples will be collected and analyzed to ensure the reliability of the generated data as described in the RI QAPP and to support the required third-party data usability assessment effort. Site-specific QA/QC samples will include matrix spikes, matrix spike duplicates, blind duplicates, and trip blanks.

Community Air Monitoring/Health and Safety Plan

Soil boring advancement using a mobile direct-push drill unit does not typically generate dust that would require mitigation. Furthermore, Building 1 will be unoccupied, as will nearby buildings, during work activities and the Building 1 heating, ventilation and air conditioning (HVAC) system will remain operational during work activities, providing adequate air exchanges with exterior air. However, as requested by the Department, community air monitoring will be performed.

Community air monitoring will be performed by Benchmark during the work in general accordance with the approved Community Air Monitoring Plan (CAMP) contained within the approved Health and Safety Plan (HASP) for Remedial Investigation Activities. Monitoring equipment will include a continuous recording particulate monitor with data logging capability and a PID for organic vapors;

one unit will be placed within fifty feet laterally of the work area (to be determined each day) and the field technician will have one PID meter with him/her at all times.

If monitoring indicates action limit exceedances (5 ppm organic vapor, 150 micrograms per cubic meter of airborne particulate) the drilling contractor will be informed and corrective actions will be required (e.g., work stoppage). Furthermore, during and subsequent to work activities each day, any visible dust will be removed using hand towels and/or a portable mechanical vacuum unit.

CAMP reports, including daily CAMP data, a figure showing work zones and CAMP monitoring stations and any CAMP exceedances and associated corrective actions, will be communicated to the Department daily.

Reporting

These work activities, including updated tables, figures, soil boring/temporary well logs, analytical and CAMP data will be documented in the revised Remedial Investigation/Alternatives Analysis (RI/AA) Report.

Schedule

We are prepared to complete the Building 1 Interior Investigation upon NYSDEC approval to proceed as described in this letter. Work will be completed in evening hours between approximately 5 pm and 11 pm to minimize business disruption, estimated at 4 field days. Please contact us if you have any questions or require additional information.

Sincerely,
Benchmark Environmental Engineering and Science, PLLC



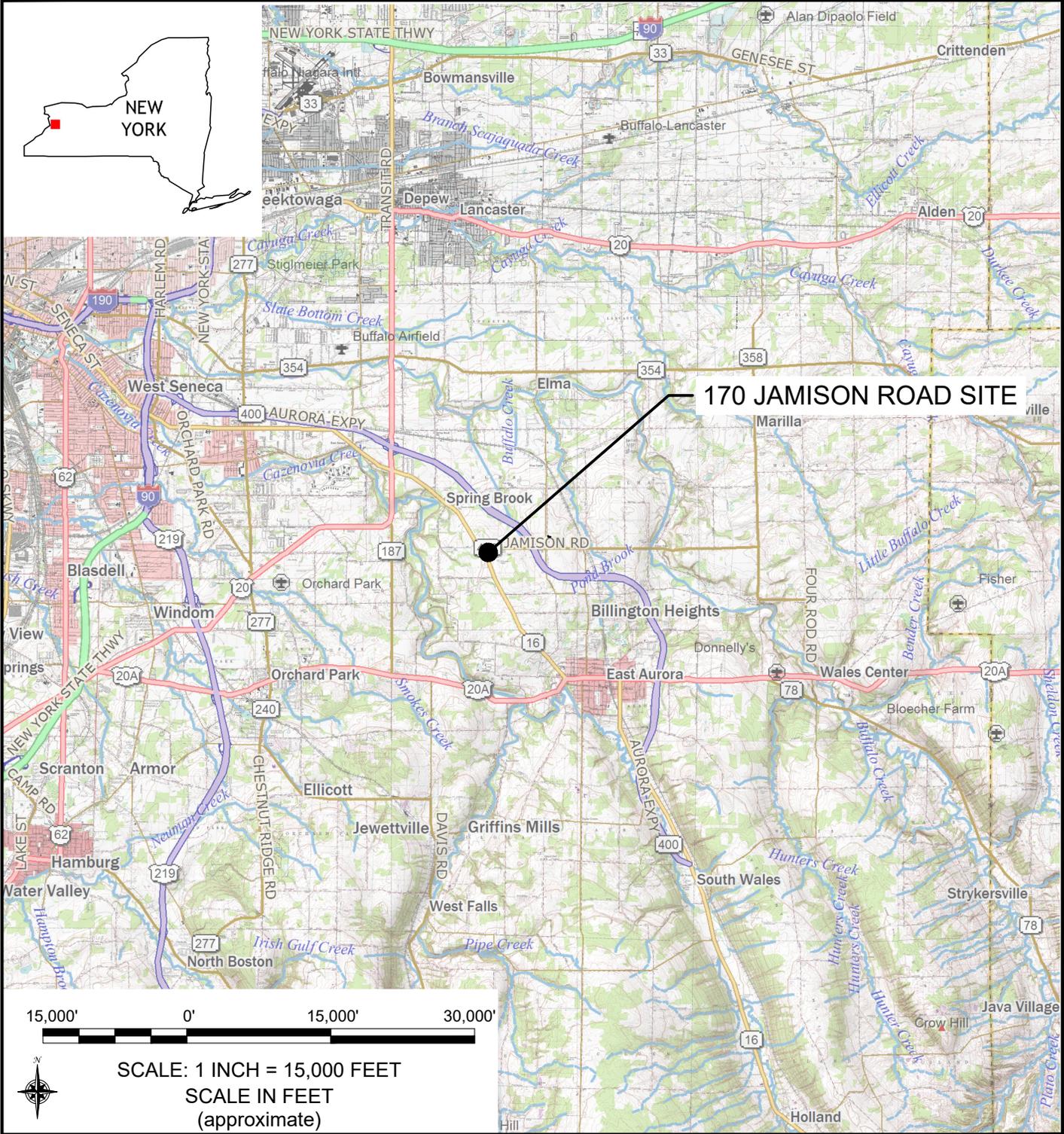
Mike A. Lesakowski
Sr. Project Manager

EC: Meri Scappatura, Moog
Robin Young, Moog
Chad Stanizweski, NYSDEC Region 9

File: 0400-017-001

FIGURE 1

F:\CAD\Benchmark\Moog\170 Jamison Road\10-BLDG 1 INVESTIGATION\Figure 1: Site Location & Vicinity MapREV.dwg, 7/19/2019 11:30:37 PM



170 JAMISON ROAD SITE

SITE LOCATION & VICINITY MAP



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

170 JAMISON ROAD SITE
BCP SITE NO. C915315
ELMA, NEW YORK
PREPARED FOR
MOOG INC.

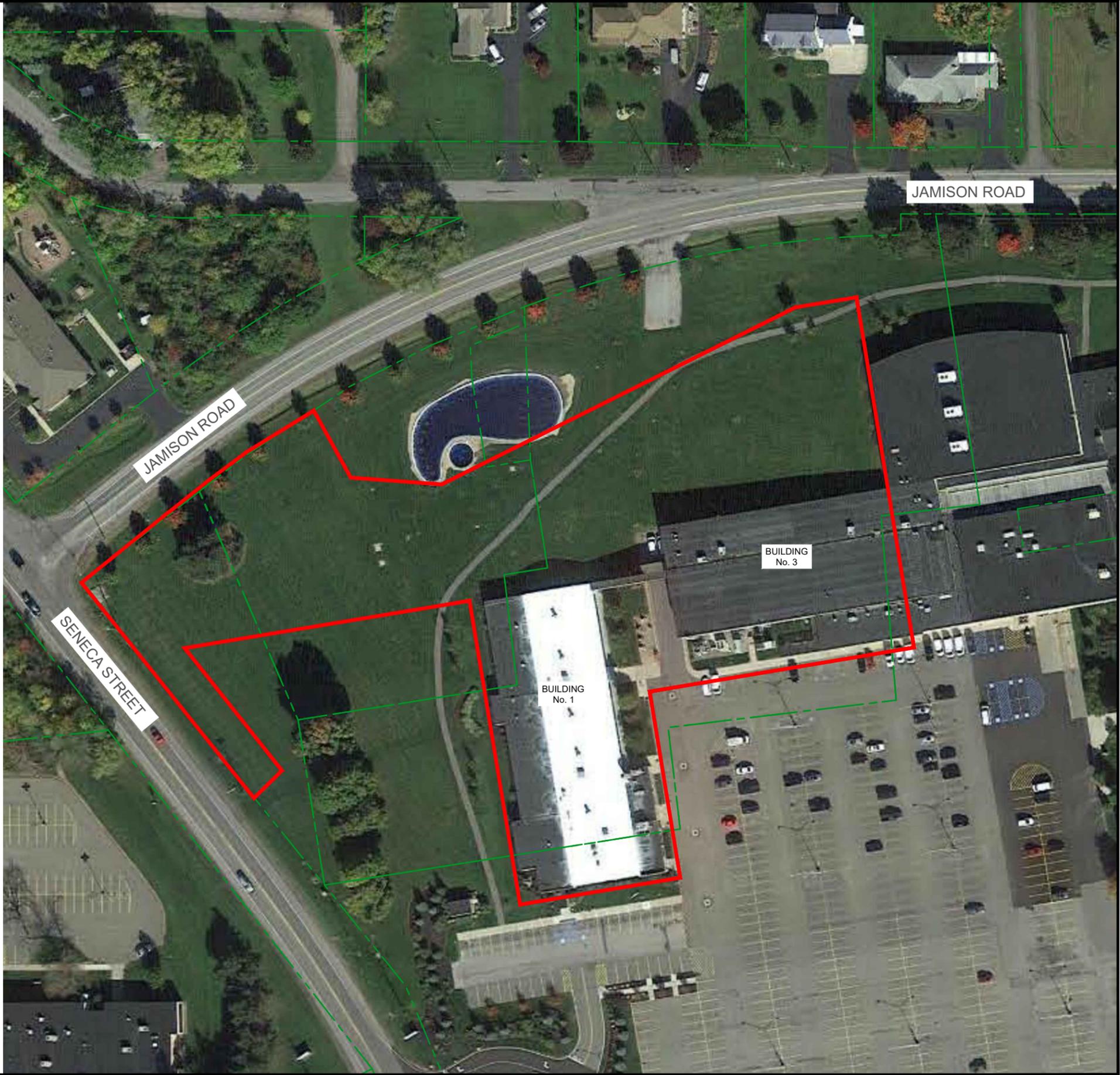
PROJECT NO.: 0400-017-001
DATE: JULY 2019
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LEGEND:
 BCP SITE BOUNDARY
 PARCEL BOUNDARY



SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)



SITE PLAN

170 JAMISON ROAD SITE
BCP SITE NO. C915315
ELMA, NEW YORK
PREPARED FOR
MOOG INC.



2556 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

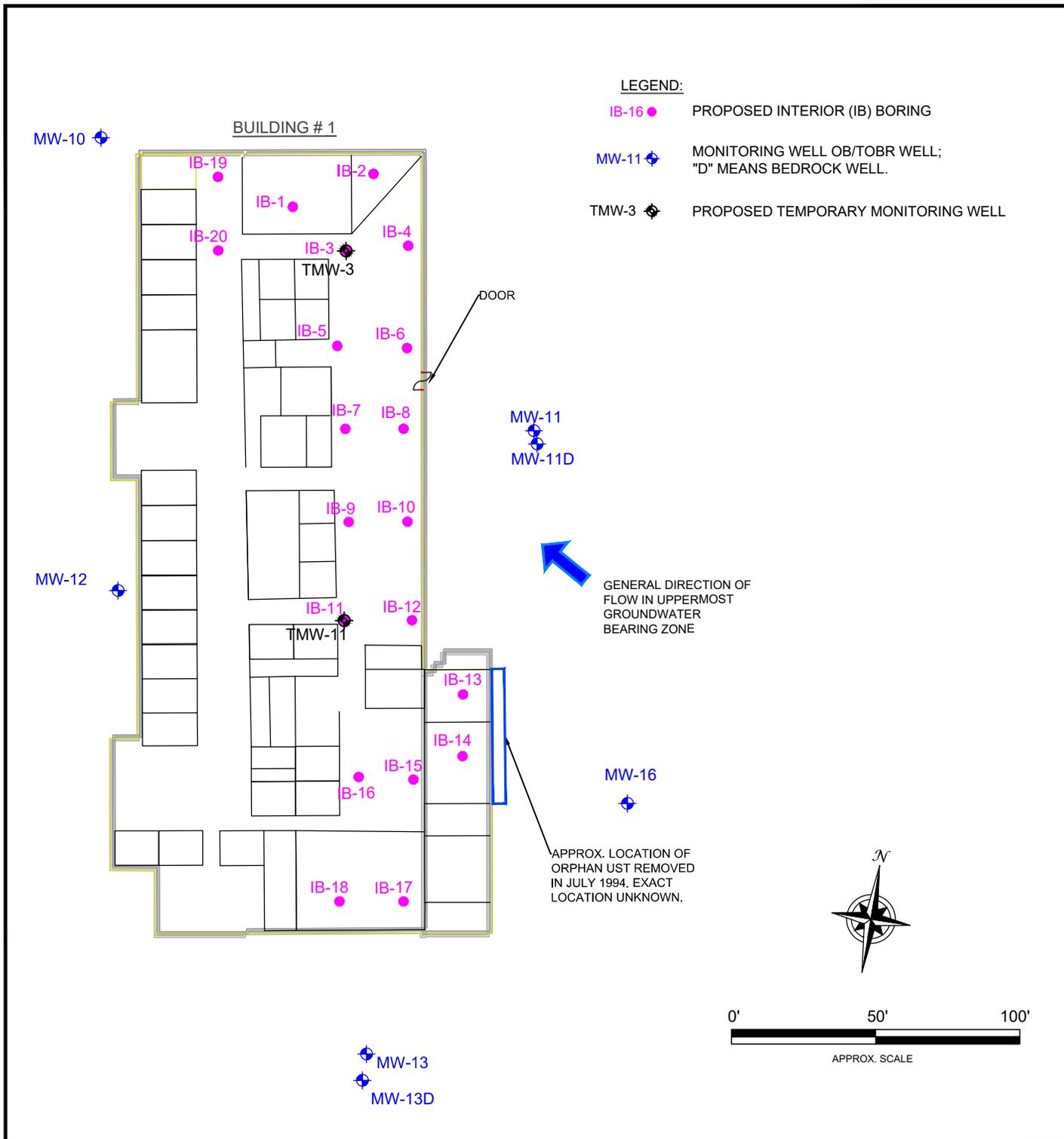
JOB NO.: 0400-017-001

FIGURE 2

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FIGURE 3

F:\CAD\Benchmark\Moog\170 Jamison Road\10-BLDG 1 INVESTIGATION\Figure 3; Bldg 1 Investigation Locations.dwg, 8/15/2019 11:00:19 AM



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ENVIRONMENTAL
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SCIENCE, PLLC

2558 HAMBURG TURNPIKE
SUITE 300
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PROJECT NO.: 0400-017-001

DATE: AUGUST 2019

DRAFTED BY: RFL

**BUILDING 1 INTERIOR
INVESTIGATION LOCATIONS**

170 JAMISON ROAD SITE
BCP SITE NO. C915315
ELMA, NEW YORK
PREPARED FOR
MOOG INC.

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