

CONSTRUCTION CONTINGENCY PLAN IMPLEMENTATION REPORT

SUBJECT PROPERTY

FORMER GAS STATION
903 9TH AVENUE NORTH
PRINCETON MN
JAVELIN PROJECT No. 2014-P0188-0090

PREPARED FOR

CITY OF PRINCETON
ECONOMIC DEVELOPMENT AUTHORITY
705 2ND STREET NORTH
PRINCETON, MN 55371

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TABLE OF CONTENTS

1.0	BACKGROUND INFORMATION.....	1
1.1	INTRODUCTION.....	1
1.2	PURPOSE.....	1
1.3	SITE BACKGROUND.....	1
2.0	DEMOLITION ACTIVITIES	2
2.1	SCOPE OF WORK	2
2.2	SUMMARY OF DEMOLITION ACTIVITIES	2
3.0	ENVIRONMENTAL OVERSIGHT	4
4.0	CONCLUSIONS AND RECOMMENDATIONS.....	6
4.1	CONCLUSIONS	6
4.2	RECOMMENDATIONS.....	6
5.0	STANDARD OF CARE.....	7

APPENDICES

APPENDIX A FIGURES

APPENDIX B SITE PHOTOGRAPHS

1.0 BACKGROUND INFORMATION

1.1 INTRODUCTION

The City of Princeton Economic Development Authority authorized the The Javelin Group, Inc. (JAVELIN) to prepare a Construction Contingency Plan (CCP) for site demolition work of a 0.45-acre former gas station site and to conduct oversight for implementation of the CCP. The site is located at 903 9th Avenue North in the City of Princeton, Minnesota, as shown in Figure 1 in Appendix A. During the implementation of the CCP, the former gas station facility was demolished and will eventually be redeveloped. Previous work identified the presence of a former water well at the property, a potential septic tank in the back lot area, and asbestos-containing materials that were addressed during CCP implementation.

1.2 PURPOSE

The purpose of the CCP was to establish actions to take during the demolition work in response to identified potential site conditions, such as encountering contaminated soil or other unanticipated conditions, including:

- ❑ Unreported underground storage tanks,
- ❑ Environmental impacts that could exist in areas not previously explored,
- ❑ Abandoned wells that have not been previously identified, and
- ❑ Other conditions such as buried waste, asbestos-containing materials not previously inventoried, and other special wastes that may be revealed during structure removal work.

1.3 SITE BACKGROUND

The site is a former gas station site located at 903 9th Avenue North in Princeton, Minnesota (Figure 1 in Appendix A). According to a Phase II report prepared by West Central Environmental Consultants, Inc. (WCEC) in 2013, the gas station was built from repurposed farm house components in approximately 1945-1946. The adjacent property to the north was occupied by a cabin, which was later used as a service garage for tractors and other implements. It was believed that the northern property may have shared a septic disposal system with the former gas station, but prior to the CCP implementation the location and nature of a septic system on the site was not determined.

According to the Phase II report, former underground storage tanks (USTs) for the station were located immediately east of the building. The tanks were beneath the (now removed) dispensers and were aligned where a row of tree saplings are currently present, as noted by WCEC during the Phase II ESA investigation. It was also noted that the building interior walls incorporated asbestos-containing Transite panels.

The following CCP was prepared to address unforeseen environmental conditions:

- ❑ Construction Contingency Plan, Former Gas Station, 903 9th Avenue N, Princeton, MN, Prepared by JAVELIN, August 19, 2014.

2.0 DEMOLITION ACTIVITIES

The City of Princeton contracted with West Branch Construction (West Branch) of Princeton, Minnesota, to perform the building demolition, waste removal, and backfilling activities. West Branch Construction provided equipment operators, two (2) trackhoes, a Bobcat, a front-end loader, dump trucks, and roll-off boxes to conduct the demolition activities. JAVELIN environmental scientists were on-site during demolition, excavation, and backfilling activities. Figure 2 in Appendix A provides a site plan of the former service station and associated structures.

2.1 SCOPE OF WORK

The scope of work was to demolish the former gas station building, remove the concrete basement walls, remove a concrete slab (former pump island) along the northeast side of the building, backfill the basement with clean fill, segregate and remove demolition debris for offsite disposal, and grade and seed the site.

2.2 SUMMARY OF DEMOLITION ACTIVITIES

On the morning of August 21, 2014, demolition work began on the former gas station building. West Branch personnel began by removing trees immediately adjacent to the building. Following the completion of tree removal activities, demolition of the building was started. Photographs documenting site activities are included in Appendix B. A trackhoe was used to dismantle the building, and water was sprayed on the structure to minimize dust during demolition activities. Waste was segregated and placed into one of the roll-off boxes or into temporary stockpiles for later removal from the site. Lucas Advanced Environmental was onsite to provide personnel monitoring and oversee the segregation of asbestos-containing-material (ACM) waste from the interior building walls. Three (3) roll-off boxes were brought onsite for transporting debris from the building demolition.

A water supply well was present in the basement of the former gas station building, near the southern corner of the building. This well was abandoned by JA McAlpine, a licensed water well contractor based in Princeton, MN, prior to building demolition. JAVELIN personnel verified the well was sealed prior to building demolition. Photographs of the well and demolition activities are included in Appendix B. The Executive Director of the Princeton Economic Development Authority, Ms. Carie Fuhrman, stopped by the site during demolition activities on August 21 to observe the progress.

During building demolition activities, a vertical clay pipe was observed behind the building in the area of a suspected septic tank. Excavation revealed a 4-foot deep stone block open cesspool at a depth of approximately 8 feet below grade. No stained soils or odors were noted in the excavation. The clay pipe was removed, photographs were taken, and the cesspool was backfilled with soil.

Upon completion of the building demolition, work began on removal of the concrete basement walls and concrete slab adjacent to the building. Dimensions of the building footprint and thicknesses of the concrete walls and slab were measured by JAVELIN personnel prior to removal, in order to determine the total volume of concrete removed from the site. The concrete apron in front of the station measured 30 feet by 30 feet and

was 6" inches thick. The basement measured 26 feet in length by 21 feet in width by 7 feet 3 inches deep, with walls 8 ½ inches thick.

During removal of the basement's northeastern wall, an underground storage tank (UST) vent pipe was encountered just off the northern corner of the building. The West Branch crew verified the presence of a buried tank using a hand probe, but did not uncover the tank. A photoionization detector (PID) equipped with a 10.6 eV lamp was used to screen the tank. A reading of 42 parts per million (ppm) was obtained in the top of the UST vent pipe, but no evidence of petroleum contamination was encountered in soils adjacent to the fill pipe.

As work continued on removal of the concrete basement walls, West Branch personnel began hauling clean fill material to the site and stockpiling it adjacent to the building area. The basement area of the building underlaid a portion but not all of the former building, as shown on Figure 2 in Appendix A. Basement wall removal exposed soil behind the walls. A sample of soil was collected from each sidewall by JAVELIN personnel for PID headspace screening. No organic vapors were detected in the sidewall samples and no odors or staining were observed.

Once the basement walls were removed, West Branch personnel began backfilling the basement and compacting it by driving over it with heavy equipment. During this timeframe, removal of the adjacent surface concrete slab began. The concrete slab was located along the northeast side of the building, in the area of the former pump island. During removal of the slab, a second UST was encountered adjacent to the first one. The top of one end of the tank was exposed and revealed a small hole in the top of the tank. A PID reading of 0.0 ppm was obtained by JAVELIN personnel through the top of the tank.

Ms. Carie Fuhrman was notified by JAVELIN following the discovery of each UST. JAVELIN personnel recommended that a licensed tank removal contractor be contracted to remove the tanks, as West Branch is not a licensed UST removal contractor. The USTs were left in place and re-covered with soil. The locations of the tanks were marked with a vertical 2x4 left in place along the south side of each tank. Once the basement was mostly filled with clean backfill soil, work was stopped for the day.

Work resumed on the morning of August 22, 2014, with the continuation of backfilling, waste removal, and grading activities. By noon on August 22, all debris had either been placed into onsite roll-off boxes or hauled offsite, and the site had been graded flat in preparation for seeding. After taking final site photographs, JAVELIN personnel departed the site.

3.0 ENVIRONMENTAL OVERSIGHT

JAVELIN environmental scientists were on-site during demolition, excavation, and backfilling activities. The results of environmental screening are summarized below.

- ❑ **Potentially Contaminated Soil.** JAVELIN personnel provided monitoring of soils for potential contamination during demolition work. No contaminated soil was encountered during demolition and debris removal activities. The four sidewall soil samples collected from the basement were screened with a PID using headspace techniques, and all samples had PID headspace readings of 0 ppm. No stained soil or soil with evidence of petroleum contamination was encountered at the site, including soil above and around the tops of the two USTs that were encountered. Therefore, no soil samples were collected for analytical testing.
- ❑ **Asbestos Containing Material (ACM)** – Potential ACM in the walls and floor of the structure was removed under the supervision of Lucas Advanced Environmental, a licensed asbestos abatement contractor. ACM was segregated from other construction debris waste and placed into a separate dumpster for proper offsite disposal at the Vonco Demolition Debris Landfill in Becker, Minnesota. No buried ACM was encountered during removal of the basement walls or concrete slab adjacent to the former building.
- ❑ **USTs** - Two USTs were encountered just off the northern corner of the building. One was identified by the presence of a fill pipe and confirmed by probing, but was not uncovered. The top of a second UST was partially uncovered during site demolition activities. A PID reading of 42 ppm was obtained from the fill pipe of the first tank, and a PID reading of 0 ppm was obtained through a small hole in the top of the second tank. The sizes of the tanks were not determined, and the tanks were re-covered with soil after marking their location. No evidence of contaminated soil was observed adjacent to or overlying the tanks
- ❑ **Water Well** – A water supply well was present in the basement of the former gas station building, near the southern corner of the building. This well was abandoned by JA McAlpine, a licensed water well contractor based in Princeton, MN, prior to demolition of this portion of the building. No other water wells were encountered during the demolition.
- ❑ **Septic System** – A suspected septic system was evidenced by the presence of a vertical clay pipe observed southwest of the building. Excavation revealed a 4-foot deep stone block open cesspool at a depth of approximately 8 feet below the surface. No evidence of stained soils or odors were observed in the cesspool excavation. The clay pipe was removed, photographs were taken, and the cesspool was backfilled.
- ❑ **Lead Based Paint** – Paint on the interior door cases and exterior window frames was previously determined to be lead based paint. However, Minnesota Pollution Control Agency (MPCA) regulations do not require the removal of lead based paint prior to demolition. This material was disposed as demolition debris at the Vonco Demolition Debris Landfill in Becker, Minnesota.

- **Dewatering Of Excavations** - Due to the lack of precipitation during the demolition activities and the short duration of the work, no dewatering activities were necessary.
- **Dust** – Water was sprayed onto the structure during the early stages of demolition to minimize dust, particularly in regards to ACM dust. During demolition of the aboveground portion of the structure, personnel monitoring was conducted by Lucas Advanced Environmental, a licensed asbestos abatement contractor.
- **Concrete** – The concrete slabs and walls of the former gas station were demolished and concrete debris was removed for recycling at Koppendrayner pit, located approximately four miles north of Princeton, Minnesota. This pit is leased by West Branch and is permitted to recycle concrete and asphalt. A total of 55.4 yd³ of concrete demolition debris was generated and hauled offsite. This includes concrete from the basement floor and walls, the first floor of the service station surrounding the basement, and the concrete slab adjacent to the building.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

Site activities occurred from August 21-22, 2014. Activities included demolition of the former gas station building, removal of basement concrete walls and a concrete slab associated with the building, excavation of an adjacent cesspool, abandonment of a water supply well, backfilling and compacting the basement area, and removal and disposal of associated demolition debris. No evidence of soil contamination was encountered during demolition activities, and PID headspace readings on soil samples from the former basement sidewalls were all 0.0 ppm. The concrete and concrete block debris was hauled offsite for recycling at Koppendrayer pit located just north of Princeton, Minnesota. A total of approximately 55 yd³ of concrete demolition debris was generated during demolition activities. The remaining demolition debris (including ACM debris) was hauled offsite for disposal at the Vonco Landfill in Becker, Minnesota.

Two (2) USTs were encountered just off the north corner of the former building. No soil contamination was observed in association with the USTs, but the underlying soil and USTs were not exposed. A PID reading of 42 ppm was measured in the fill pipe of one of the tanks, and a PID reading of 0.0 ppm was measured just inside the top of the other tank. The USTs were re-covered with soil and their locations marked with 2x4s sticking above ground. Upon discovery, the city of Princeton was notified of the existence of the tanks.

A water well located in the basement of the former gas station was abandoned prior to demolition activities. A suspected septic system was determined to be a vertical clay pipe leading to a 4-foot deep stone block cesspool buried 8 feet beneath the surface. No contamination was observed, and after removing the clay pipe the cesspool was backfilled.

4.2 RECOMMENDATIONS

JAVELIN makes the following recommendations regarding the site:

- ❑ A licensed tank removal contractor should be retained by the City of Princeton to excavate and remove the two USTs from the site. Confirmation soil sampling will be required at that time per MPCA regulations, to determine whether or not there is any soil contamination adjacent to or beneath the tanks.
- ❑ If soil contamination is detected, a release should be reported to the Minnesota State Duty Officer by calling 1-800-422-0798.
- ❑ Records of disposal of the demolition debris at the Vonco Landfill should be retained by the City of Princeton.

5.0 STANDARD OF CARE

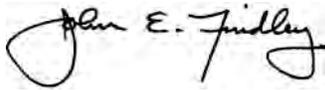
The services performed by JAVELIN on this project have been conducted with that level of care and skill ordinarily exercised by reputable members of the profession, practicing in the same locality, under similar budget and time constraints. No other warranty is expressed or intended.

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We appreciate the opportunity to provide this service. If you have any questions regarding this report, please contact us.

PREPARED BY:

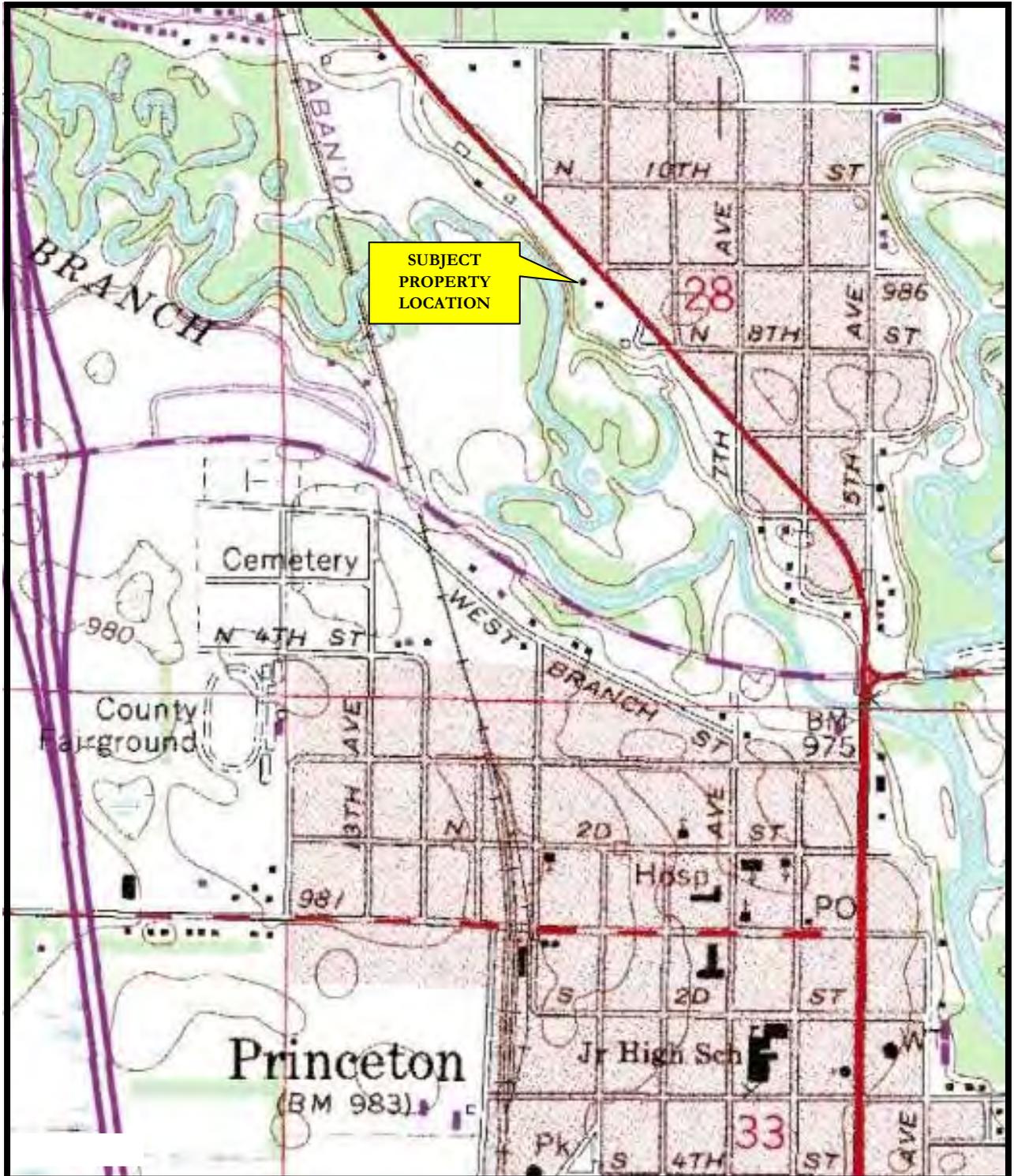
THE JAVELIN GROUP, INC.



JOHN E. FINDLEY M.S.
PRINCIPAL ENVIRONMENTAL PROFESSIONAL

ATTACHMENT A

FIGURES



PROJECT NAME:

FORMER GAS STATION
 903 9TH AVENUE N
 PRINCETON, MN 55371

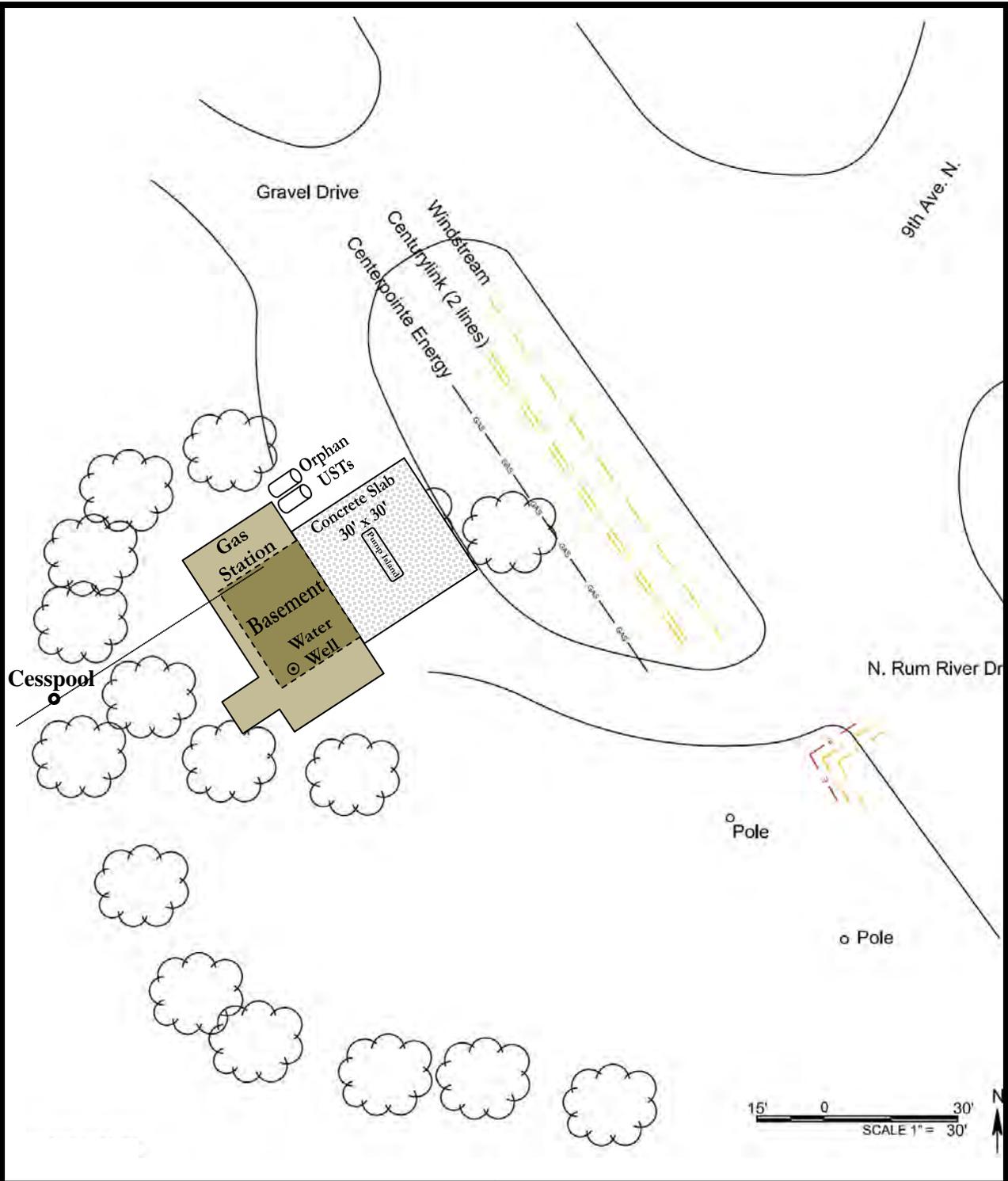


FIGURE 1: SITE LOCATION MAP

PROJECT #

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FIGURE 2: SITE PLAN

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ATTACHMENT B
SITE PHOTOGRAPHS

PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH # 1 –
VIEW OF FORMER GAS STATION
BUILDING PRIOR TO DEMOLITION,
VIEW FACING SOUTH



PHOTOGRAPH # 2 –
VIEW OF ROLL-OFF BINS, FACING WEST



PHOTOGRAPH # 3 –
INSIDE OF THE FORMER GAS STATION
BUILDING, VIEW FACING NORTHWEST



PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH # 4 –
WATER WELL IN BASEMENT AFTER
GROUTING FOR ABANDONMENT



PHOTOGRAPH # 5 –
START OF BUILDING DEMOLITION
ACTIVITIES, VIEW FACING SOUTH



PHOTOGRAPH # 6 –
CONTINUING BUILDING DEMOLITION
ACTIVITIES, VIEW FACING SOUTH



PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH # 7 –
FINAL STAGE OF BUILDING
DEMOLITION, VIEW FACING WEST



PHOTOGRAPH # 8 –
OPEN BASEMENT AFTER BUILDING
DEMOLITION



PHOTOGRAPH # 9 –
VIEW OF EXCAVATED CESSPOOL



PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH # 10 –
VENT PIPE OF INITIAL UST
ENCOUNTERED



PHOTOGRAPH # 11 –
DEMO OF BASEMENT FLOOR AND
WALLS, VIEW FACING NORTHWEST



PHOTOGRAPH # 12 –
LOADING CONCRETE DEBRIS FOR
OFFSITE RECYCLING



PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH # 13 –
TOP OF SECOND UST ENCOUNTERED,
SHOWING SMALL HOLE IN TOP



PHOTOGRAPH # 14 –
SOIL STOCKPILES FOR FINAL
BACKFILLING, VIEW LOOKING NORTH



PHOTOGRAPH # 15 –
SITE CLEANUP PRIOR TO FINAL
BACKFILLING, VIEW TO THE
SOUTHWEST



PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH # 16 –
VIEW OF CESSPOOL AREA AFTER
BACKFILLING



PHOTOGRAPH # 17 –
SITE AFTER FINAL GRADING PRIOR TO
SEEDING, VIEW TO THE NORTHWEST



PHOTOGRAPH # 18 –
MARKING OF BURIED UST'S
REMAINING AT SITE

