

BAY MILLS INDIAN COMMUNITY
"GNOOZHEKAANING" PLACE OF THE PIKE



WEBSITE: BAYMILLS.ORG

BAY MILLS TRIBAL ADMINISTRATION
12140 West Lakeshore Drive
Brimley, Michigan 49715

PHONE: (906) 248-3241
FAX: (906) 248-3283

REQUEST FOR QUOTES

Request for Quotes for Construction of Residential Septic Systems

The Bay Mills Indian Community is requesting quotes from qualified individuals and firms for construction of six (6) residential septic systems to be located on tribal member homesites in Brimley, Michigan. Bay Mills Indian Community has already procured Indian Health Service site designs (attached) from the Indian Health Service, and is ready to proceed with construction. Given that the systems will be installed on Reservation, Chippewa County Health Department permits are not required. A contract award will be made as soon as possible after receipt of bids.

Project Administration

The Bay Mills Indian Community is the owner for this project. The selected firm will contract directly with BMIC for services to be rendered.

Quotes are due by **Wednesday May 29, 2024 at 4:00pm** and can be submitted via email or mail and the following address:

Rachel Lyons, Tribal Manager
Bay Mills Indian Community
12140 W. Lakeshore Drive
Brimley, MI 49715
rlyons@baymills.org

Scope of Work:

The scope of work includes six (6) separate homesites on the Bay Mills Indian Community Reservation. Contractor will be responsible for the following:

1. Contractor shall furnish all materials, equipment, labor and experience skilled supervision necessary to maintain project schedule for performing the work under this contract.
2. Contractor shall perform all operations required to complete the work as described in the approved site plans.
3. Contractor shall replace any existing items destroyed or damaged during the replacement of the residential septic systems, including but not limited to: fence, asphalt, pavement, curb, gutters, rutting, etc.
4. The replacement of the residential septic systems shall comply with good industry practice and applicable safety standards.
5. Contractor shall coordinate work among suppliers and trade workers to insure a complete and satisfactory job at each residence.
6. Procuring all project materials. Should there be increases in material costs at the time of purchase, a change order must be submitted and approved prior to purchase. Contractor is responsible for supplying material according to approved site plans, if Contractor purchases incorrect material, Contractor is fully responsible to replace incorrect material. BMIC will not pay for the replacement of incorrect material.

7. Contractor shall supply copies of delivery tickets or proof of source for imported aggregate or soil to BMIC.
8. Systems must be installed according to the approved Indian Health Services site plan. Contractor shall also ensure work complies to Michigan Plumbing Code, Michigan Residential Code, Michigan Building Code, NFPA 70 National Electrical Code and any other applicable codes for this construction.
9. Schedule final inspection with Indian Health Service 72 hours prior to completion of the system at (906) 635-3620. IHS inspect the installation within 3 working days. Leave the items on the permit exposed for inspection. Do not leave open tanks unattended for safety reasons.
10. After inspection and final approval from Indian Health Service is obtained, backfilling must be completed within 72 hours. Seed and mulch the drain field as soon as possible.
11. Several of the residences have existing septic tanks that must be pumped out, the waste disposed of properly to a treatment facility. Proof of disposal required to be submitted to BMIC Construction Mgr. The existing tanks shall be crushed and filled or removed and properly disposed of. Additionally, any part of the existing drain field encountered during new construction must be also properly removed and disposed of.
12. All parts of new septic must be greater than 75ft away from any surface water per permit.
13. Contractor responsible for excavation and proper disposal of excavated material. Contractor responsible for stump removal as required. Proof of disposal required to be submitted to BMIC Construction Mgr.
14. Contractor shall be responsible for the maintenance of traffic. Residential and emergency access must be maintained at all times during construction.
15. Contractor shall furnish and install effluent pumps which shall be wired by a licensed electrician or by owner under electrical permit. Pump installations must be inspected and approved by an electrical inspector. Proof of licensed electrician for install and proof of approval by electrical inspector to be supplied by Contractor to BMIC Construction Mgr
16. Contractor responsible to supply and maintain portable bathroom dedicated for residence occupants to utilize during septic replacement.
17. Contractor shall supply proof of insurance to BMIC Construction Mgr. prior to starting work onsite.
18. All materials, products, systems and equipment installed on the job require submittal to BMIC Construction Mgr. and approval prior to installation.
19. Contractor shall submit all shop drawings, data sheets, operation and maintenance manuals, charts, certifications for all materials, products, systems and equipment installed on the job.
20. Contractor to restore excavated areas to match existing conditions, stabilize and grade.
21. Contractor responsible for supplying seed and mulch (or sod) to restore excavated areas.
22. Contractor shall remove all trash and debris generated from construction operation from residence upon completion of the work.
23. Contractor shall ensure equipment has the capacity to lift required material.
24. Contractor shall ensure lifts maintain required distances from power lines.
25. Contractor shall verify dimensions in the field before fabrication, procurement and installation of piping, material and equipment.
26. Contractor is responsible for locating all underground utilities in the area of construction
27. Contractor shall be responsible for any special handling and all short term and long-term storage requirements of material necessary to preserve the warranty and to protect the material and/or equipment.
28. Contractor is required to produce a daily report in written form that will include progress, manpower, equipment onsite and testing/inspection performed. Each daily report shall be submitted by 8am the next business day to BMIC Construction Mgr.

Proposal Requirements:

1. Cover letter
2. Please describe the specific experience of the firm in providing services for residential septic systems.
3. Associations: Please provide a description of any associations with other firms or any form of subcontracting that is planned for the project. Please include pertinent information as to subcontracted firms.
4. Certifications and Licenses: Please include a copy of any pertinent licenses or certifications.
5. References: Please include a minimum of three references that can be contacted by the Owner. Provide three references of significant subcontractors as well.
6. Disclosure of Claims: Please disclose any claims, lawsuits, or formal disputes for work or services previously or currently being performed.
7. Itemized quote: Please detail all costs required to assist with these services and required timelines for payments.
8. Timeline: Please provide an estimated timeline for project completion. Preference will be given to bids that can complete construction in 2023.
9. Indian Preference (Optional): Please provide any evidence to demonstrate that the firm is a qualified, Indian-owned enterprise, with at least 51% active ownership by a member of federally recognized Indian tribe.

Evaluation Criteria

	Score Received: 1-5	Weight	Weighted Scores
Demonstrated experience with construction of residential septic systems		20%	
Qualifications- identification of key personnel and experience/capability		25%	
Schedule- timeliness and value for money		25%	
Cost- reasonableness of rate schedule and within grant budget		25%	
Indian Preference		5%	
Total		100%	

Ratings:	
Clearly Outstanding-Above and Beyond Expectations	5
Well qualified	4
Average	3
Weak	2
Unsatisfactory	1
Insufficient Response	0

The Tribe, at its sole discretion, may elect to interview selected firm(s). If a firm is requested to take part in an interview (via Tribal arranged remote means), the key proposed project staff will be expected to take part. The interview will be an opportunity for the Tribe’s selection team to review the firm’s proposal and other matters deemed relevant to the evaluation.

Compensation






The proposal should provide a cost for all work associated with the provision of these services. The final cost of services may be negotiated, prior to award of the contract.

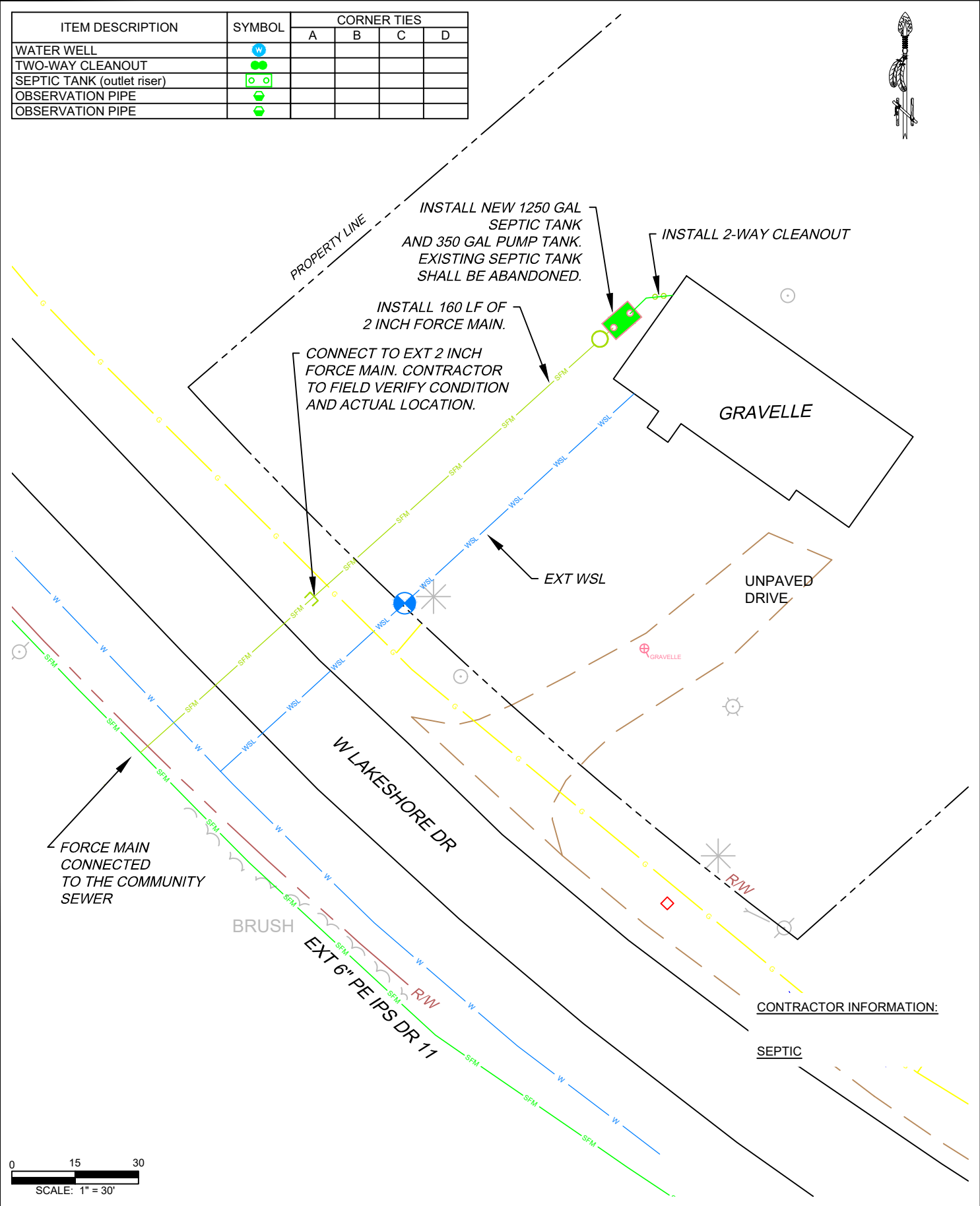
Attachments

- IHS Site Designs
- IHS Supplemental Requirements
- Bid Schedule
- IHS Administrative Requirements
- IHS As-Built Drawing
- IHS Requirements: Photo Documentation

Site Plans


BROWN LEONARD (IHS/BEM) S:\RESERVATION FILES\BAY MILLS\ACTIVE PROJECTS\BE-20-K87 POINTS IMPR PH I\HOMEOWNERS\GRAVELLE_CORRINA\DESIGN\SITE PLANE GRAVELLE_C 7.21.2014

ITEM DESCRIPTION	SYMBOL	CORNER TIES			
		A	B	C	D
WATER WELL					
TWO-WAY CLEANOUT					
SEPTIC TANK (outlet riser)					
OBSERVATION PIPE					
OBSERVATION PIPE					



CONTRACTOR INFORMATION:

SEPTIC

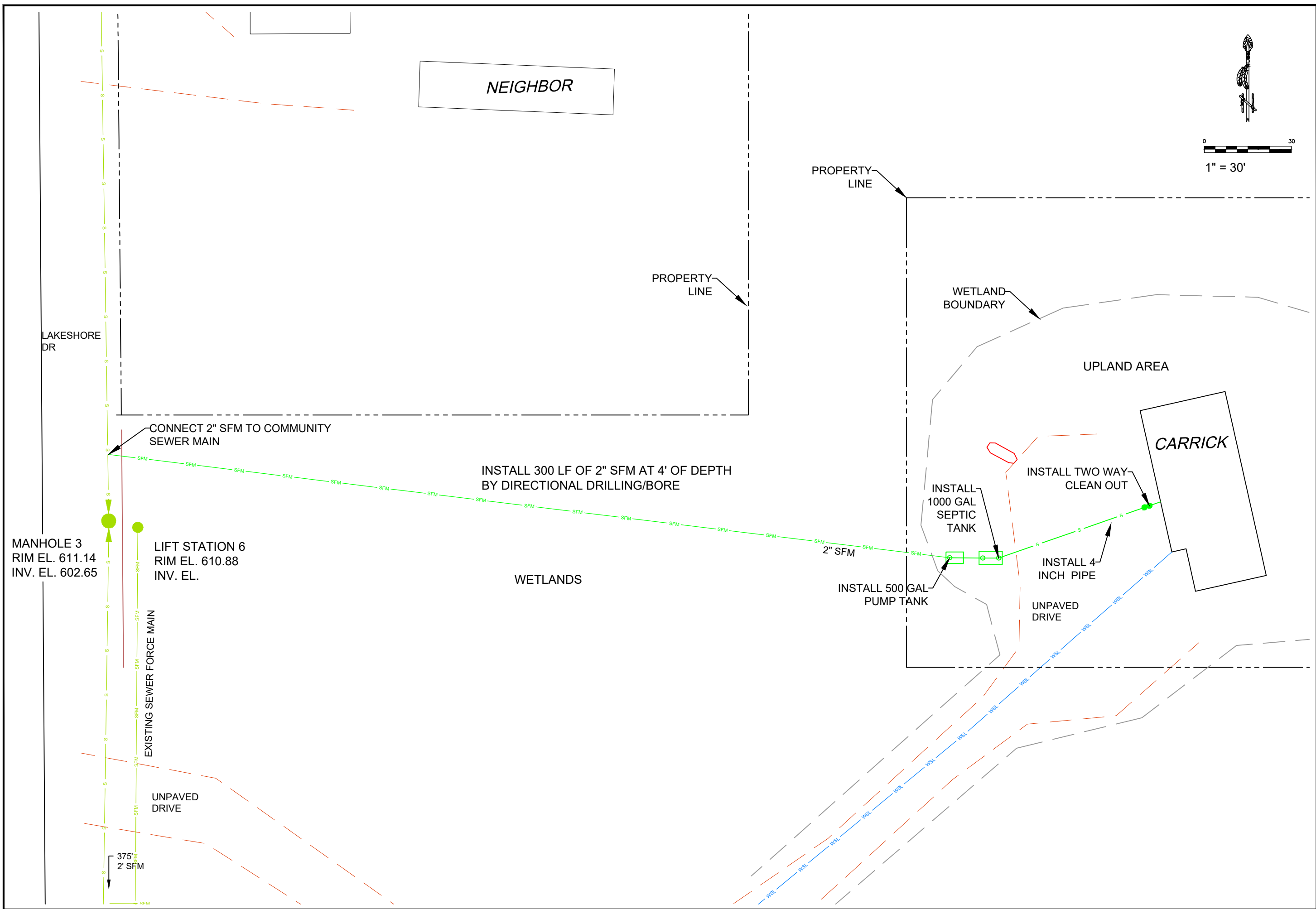


INDIAN HEALTH SERVICE
BEMIDJI AREA
SAULT STE MARIE FIELD OFFICE
 2847 ASHMUN STREET, SUITE 1
 SAULT STE MARIE, MI 49783
 (906) 632-3151

SITE DRAWING
WATER & SEPTIC SYSTEMS

CORRINA GRAVELLE SITE
 12286 W LAKESHORE DR
 BRIMLEY, MI 49715

TRIBE:	BAY MILLS INDIAN COMMUNITY
PROJECT NO.:	20-K87
ENGINEER:	LB
TECHNICIAN:	CCC
DATE:	11/01/2023



NEIGHBOR

PROPERTY LINE

PROPERTY LINE

WETLAND BOUNDARY

UPLAND AREA

CARRICK

CONNECT 2" SFM TO COMMUNITY SEWER MAIN

INSTALL 300 LF OF 2" SFM AT 4' OF DEPTH BY DIRECTIONAL DRILLING/BORE

WETLANDS

INSTALL 1000 GAL SEPTIC TANK

INSTALL TWO WAY CLEAN OUT

INSTALL 500 GAL PUMP TANK

INSTALL 4-INCH PIPE

UNPAVED DRIVE

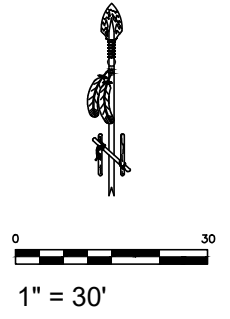
MANHOLE 3
RIM EL. 611.14
INV. EL. 602.65

LIFT STATION 6
RIM EL. 610.88
INV. EL.

EXISTING SEWER FORCE MAIN

UNPAVED DRIVE

375'
2' SFM



DATE	REVISIONS	INT.
02/21/2023		

BEMIDJI AREA
OFFICE OF ENVIRONMENTAL
HEALTH & ENGINEERING

SANITATION FACILITIES CONSTRUCTION
SAULT STE MARIE FIELD OFFICE
906-632-3150



JUSTIN C. CARRICK SITE PLAN
BAY MILLS INDIAN COMMUNITY
JUSTIN C. CARRICK SITE PLAN
PUBLIC LAW 86-121
BE-20-K87

DRAWN BY: CCC FILE NAME: CARRICK, J 11X17
CHECKED BY: LB LAYOUT NAME: 11X17 PLAN
APPROVED BY: LB PROJ ENG: L. BROWN SCALE: 1"=30'

ITEM DESCRIPTION	SYMBOL	CORNER TIE			
		A	B	C	D
WATER WELL					
TWO-WAY CLEAN OUT					
SEPTIC TANK (outlet pipe)					
OBSERVATION PIPE					
OBSERVATION PIPE					



CONTRACTOR INFORMATION:
SEPTIC

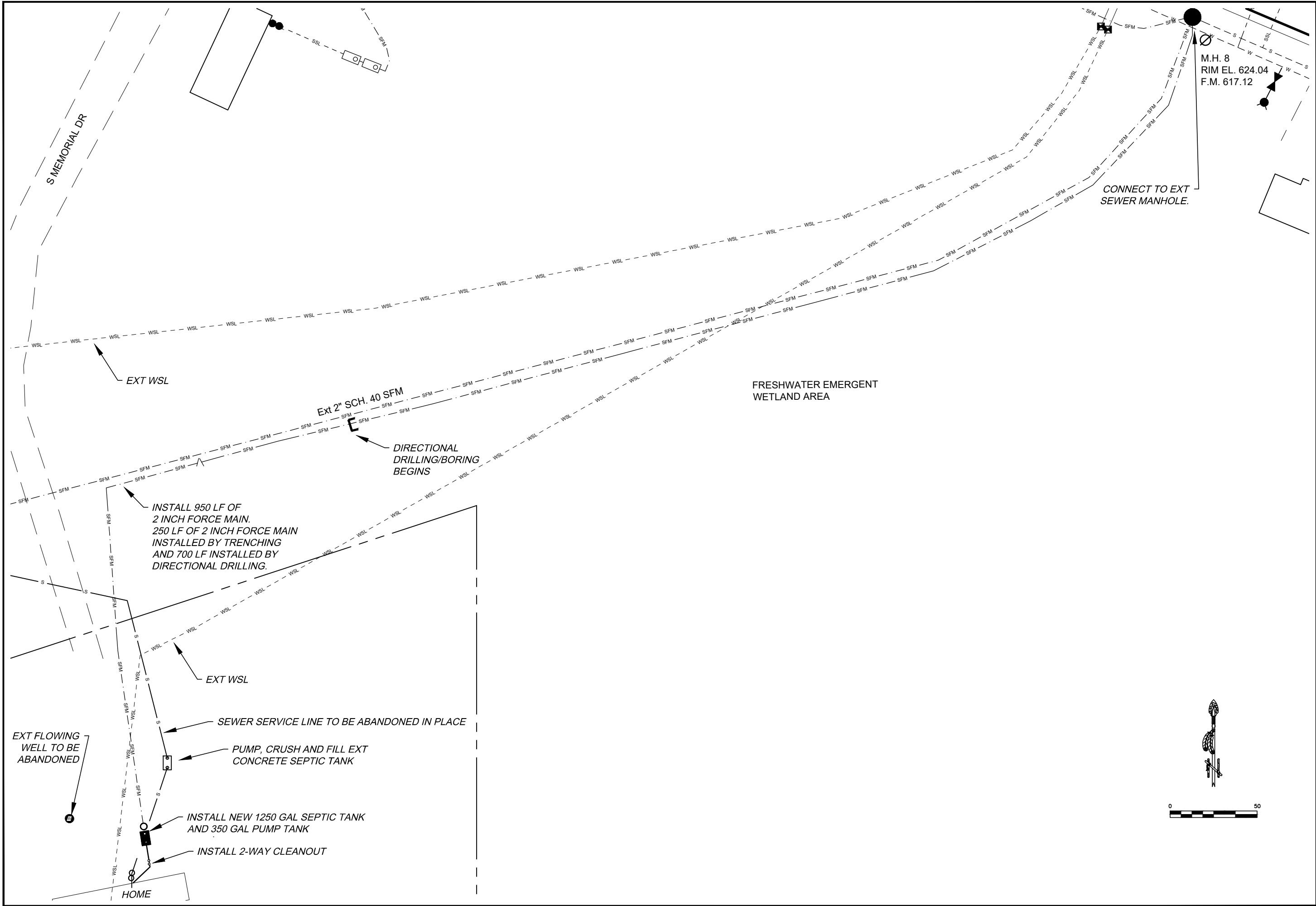


**INDIAN HEALTH SERVICE
BEMIDJI AREA
SAULT STE MARIE FIELD OFFICE**
2847 ASHMUN STREET, SUITE 1
SAULT STE MARIE, MI 49783
(906) 632-3151

**SITE PLAN DRAWING
WATER & SEPTIC SYSTEMS**

THOMAS BIALAND
2903 S LOON LN
BRIMLEY MI 49715

TRIBE:	BAY MILLS INDIAN COMMUNITY
PROJECT NO.	BE-21-M94
ENGINEER:	MZ
TECHNICIAN:	CCC
DATE:	12/14/2023



CONNECT TO EXT SEWER MANHOLE.

M.H. 8
RIM EL. 624.04
F.M. 617.12

EXT WSL

Ext 2" SCH. 40 SFM

DIRECTIONAL DRILLING/BORING BEGINS

INSTALL 950 LF OF 2 INCH FORCE MAIN. 250 LF OF 2 INCH FORCE MAIN INSTALLED BY TRENCHING AND 700 LF INSTALLED BY DIRECTIONAL DRILLING.

EXT WSL

SEWER SERVICE LINE TO BE ABANDONED IN PLACE

PUMP, CRUSH AND FILL EXT CONCRETE SEPTIC TANK

INSTALL NEW 1250 GAL SEPTIC TANK AND 350 GAL PUMP TANK

INSTALL 2-WAY CLEANOUT

HOME

FRESHWATER EMERGENT WETLAND AREA

INIT.	DATE	REVISIONS

BEMIDJI AREA OFFICE
OFFICE OF ENVIRONMENTAL
HEALTH & ENGINEERING

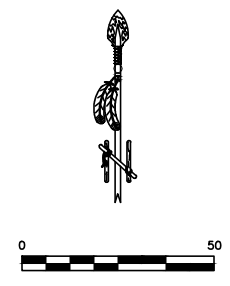
SANITATION FACILITIES CONSTRUCTION
SAULT STE MARIE FIELD OFFICE
906-632-2363






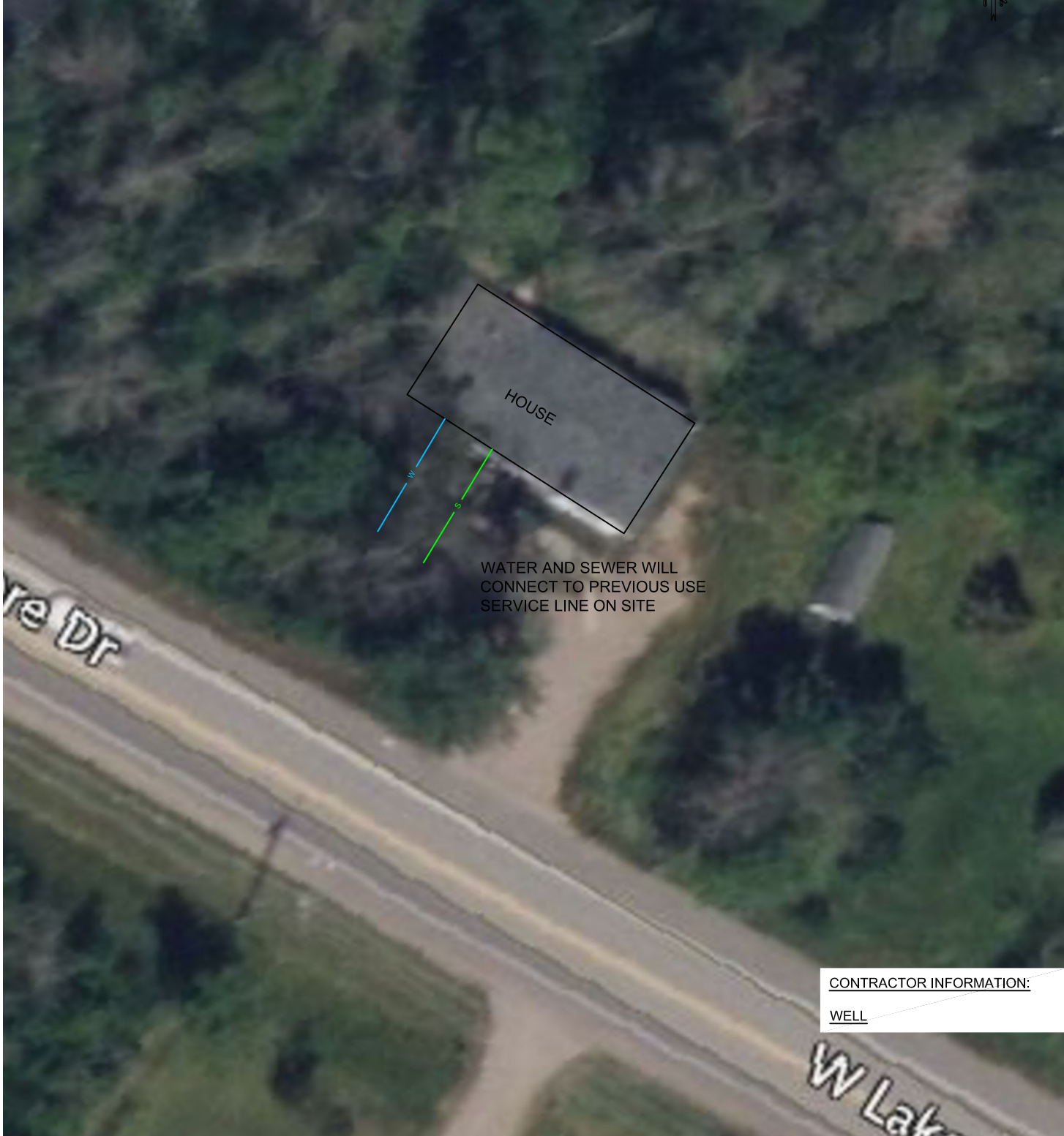
SITE PLAN
BAY MILLS INDIAN COMMUNITY
SEPTIC SYSTEM REPLACEMENT
PUBLIC LAW 86-121
BE 21-M15

FILE NAME: TOUCHSTONE SITE PLAN NEW
LAYOUT NAME: SITE PLAN
PROJ ENG: ENG/MANAGER SCAMIE: 1" = 50'

DRAWN BY: LB
CHECKED BY: LB
APPROVED BY: LB

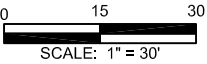


ITEM DESCRIPTION	SYMBOL	CORNER TIES			
		A	B	C	D
WATER WELL					
TWO-WAY CLEANOUT					
SEPTIC TANK (outlet riser)					
OBSERVATION PIPE					
OBSERVATION PIPE					



CONTRACTOR INFORMATION:

WELL








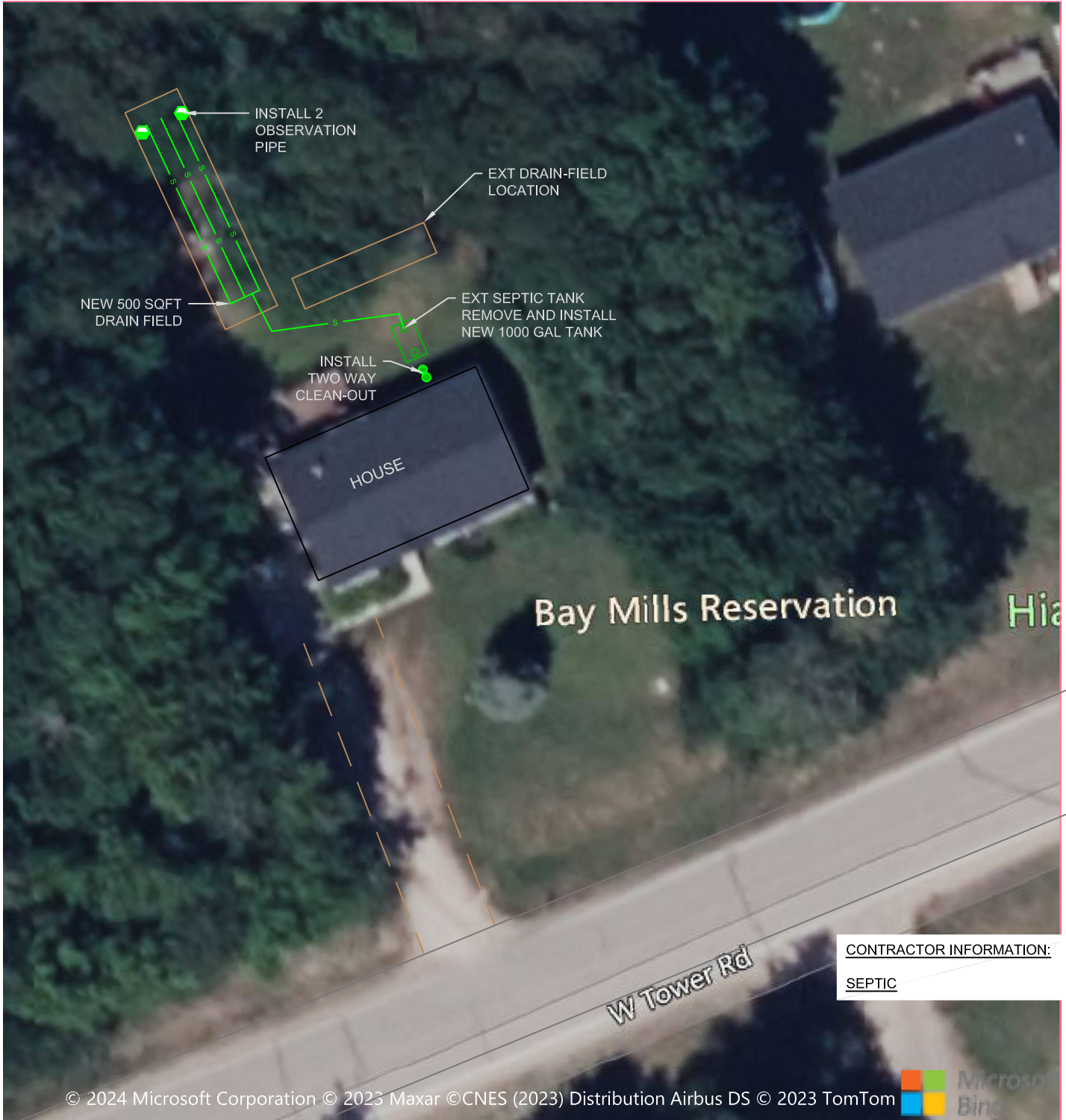
**INDIAN HEALTH SERVICE
BEMIDJI AREA
SAULT STE MARIE FIELD OFFICE**
2847 ASHMUN STREET, SUITE 1
SAULT STE MARIE, MI 49783
(906) 632-3151

**SITE PLAN DRAWING
WATER & SEPTIC SYSTEMS**

BMIC HOUSING
11092 W LAKESHORE DR
BRIMLEY MI 49715

TRIBE:	BAY MILLS INDIAN COMMUNITY
PROJECT NO.	BE-23-M94
ENGINEER:	MZ
TECHNICIAN:	CCC
DATE:	4/29/2024

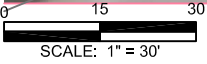
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		A	B	C	D
WATER WELL					
TWO-WAY CLEANOUT					
SEPTIC TANK (outlet riser)					
OBSERVATION PIPE					
OBSERVATION PIPE					



CONTRACTOR INFORMATION:

SEPTIC

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**INDIAN HEALTH SERVICE
BEMIDJI AREA
SAULT STE MARIE FIELD OFFICE**
2847 ASHMUN STREET, SUITE 1
SAULT STE MARIE, MI 49783
(906) 632-3151

**SITE PLAN DRAWING
SEPTIC SYSTEM**

JACQUES LEBLANC
12204 W TOWER RD
BRIMLEY MI 49715

TRIBE:	BAY MILLS INDIAN COMMUNITY
PROJECT NO.	BE-23-M94
ENGINEER:	MZ
TECHNICIAN:	CCC
DATE:	2/6/2024

IHS Supplemental Requirements

SEPTIC SPECIFICATIONS (PUMPED SYSTEMS) IHS SUPPLEMENTAL REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This specification adds sanitary components to the Contractor's scope of work that may not already be included in the County issued permit.
- B. If access to the site requires the removal of trees, the Contractor shall coordinate with and obtain approval from Tribe/IHS prior to start of construction.

PART 2 – PRODUCTS AND EXECUTION

2.01 SOLID SEWER PIPE, CLEANOUT AND FITTINGS

- A. All gravity pipe should be Schedule 40 PVC fittings and caps.
- B. All pressure pipe shall be PVC (160 psi SDR 26 or Schedule 40)
- C. Minimum slope between the house and the septic tank is 1/8-inch per foot or per County Permit, whichever is greater.
- D. There shall be no 90-degree bends in the pipe between the house and the Septic tank.
- G. Install two-way cleanouts approximately 5 feet from the outside wall of home **per attached drawing.**

2.02 SEPTIC TANKS

- A. Provide new Septic tank per County sizing requirements (this includes sites where County allows for possible reuse of the septic tank).
- B. Place tank level **per attached drawing.**
- C. Septic tank shall have 2 manholes and **2 access risers per attached drawing.**
- D. Septic tank manholes and risers should be no less than 24 inches square or 24 inches in diameter, with each single or multiple compartment tanks, situated over the inlet pipe & baffle and outlet pipe & effluent filter.

- E. Extend both septic tank risers per selection the homeowner to either (1) finished grade and mound around septic tank to prevent ponding around riser, or (2) above grade, but by no more than 3-6". Provide suitable stainless steel locking screws or locking device **per attached drawing**.
- F. Septic tank risers shall be cast in place polyethylene with gasketed connections or other approved water-tight material.
- G. Septic tank riser covers shall be of the same material as the riser, with a warning label, printed with information regarding the hazards present when entering a septic tank affixed or supplied by the manufacturer.
- H. Properly seal pipe connections to tanks to prevent groundwater infiltration.
- I. Where County permit allows for the inclusion of the existing tank as a 2nd tank, and where the existing tank is determined to be in good condition for reuse, install two new access risers on the existing tank per Section 2.02 of this specification. This is in addition to the 2 new risers on the new septic tank.

2.03 EFFLUENT FILTER

- A. **Equal to Polylok PL-525 or equal. Filters are intentionally oversized.**
- B. Center filter under the outlet manhole opening. Solvent weld to 4-inch PVC Schedule 40 outlet pipe. Extend a minimum of 12-inches beyond the outside of the septic tank before connecting to SDR 35 pipe. Install filter handle and extend handle to within 6-inches of the top of the access riser for easy access. Conform to manufacturer's installation instructions.

2.04 OBSERVATION PIPE

- A. Observation pipe material shall be Schedule 40 PVC, include perforations at the bottom, secured caps at the top, and should be securely anchored to drainfield.
- B. Install observation pipes on 2 far end corners of drainfield/mound from the bottom of the trench/bed, or mound system to a height of 12 to 24 inches above grade.

2.05 PUMP CHAMBER

- A. Locate pump chamber to allow drainback of forcemain from mound.
- B. Manhole risers and covers
 - 1. Provide at least one manhole opening on Pump Chamber, no less than 24 inches square or 24 inches in diameter, situated over the pump.

2. Manhole riser shall be cast in place polyethylene with gasketed connections or other approved water-tight material.
 3. Extend risers per selection the homeowner to either (1) finished grade and mound around septic tank to prevent ponding around riser, or (2) above grade, but by no more than 3-6". Provide suitable stainless steel locking screws or locking device
- C. Seal all joints between inlet piping, vent pipe, riser, etc. to eliminate ground water infiltration.
- D. Install vent on pump chamber in accordance with codes.

2.06 ELECTRICAL POWER AND WIRING

- A. All work to meet Electrical Code.
- B. Power Supply Requirements: 120/240 volt, single phase, three wire service from one/two pole breaker off lighting panel in the residence on a separate/dedicated circuit.
- C. All wires to be sized in accordance with National Electric Code (NEC). Electrical cable shall be type UF for direct burial. Size underground cable to limit voltage drop from power source to pump motor in accordance with pump manufacturer's recommendations.
- D. Install all electrical wiring between control enclosure and the pump chamber in conduit. Seal conduit to prevent gasses from entering the enclosure.

2.07 EFFLUENT PUMP

- A. Effluent pump motor shall have a built-in thermal overload protection with automatic reset.
- B. Provide means of removing/pulling pump **per attached drawing**.
- C. Place disconnect no more than 24" below grade **per attached drawing**.

2.08 CONTROLS AND ALARM SYSTEM

- A. Install the alarm system outside the residence adjacent to the pump tank.
- B. Use two float switches to detect on-off control levels for the pump.

- C. Use SJE Rhombus Signal Master Control Switch, Liberty SX-Series Simplex Pump Control, or approved equal rated for outdoor use with NEMA 4X enclosure, rated for pump and amp selection.
- D. Install Control panel in weather proof box, secured to a 4"x4" treated post, securely tied into the ground, extending a minimum 3 ft above grade.
- E. Controls: Furnish and install controls to operate the pump based on on-off level control floats using one of the following two options:.

OPTION #1

- 1. A control panel compatible with the pump supplied and housed in a weatherproof enclosure equal to a NEMA Type 4X fiberglass enclosure.
- 2. Provide terminal blocks for connection of on-off level control floats.
- 3. A separate dead front enclosure section shall house a load switching motor contactor with door mounted heavy-duty hand-off-auto switch and a service disconnect mechanism.

OPTION #2

- 1. Pump Switch with Piggy-Back Plug and outlet rated for exterior use and housed in a weatherproof enclosure equal to a NEMA Type 4X fiberglass enclosure.
- 2. Enclosure area shall be a minimum of 1.5 times the area of the piggyback switch, outlet, and folded cables to allow for easy access, removal, and replacement of switch, outlet, and cables.

F. Provide an alarm system on a separate circuit from the pump.

- 1. Alarm system shall consist of a direct acting mechanical float switch, 24-volt control transformer, red alarm light, horn, push-to-test alarm button and a horn silence switch.
 - a. Set up the alarm so that upon the occurrence of an alarm condition, the high alarm sensor will close its circuit, thus energizing the red alarm light and sounding the horn.
 - b. The horn shall continue to sound until reset manually by a button located on the alarm panel.

- c. Provide a switch that when moved from the “normal” to “silence” position will silence the audible alarm, and allow the red alarm light to remain energized.
 - d. The alarm light shall continue to operate until the alarm circuit has been opened, the operating condition has returned to normal, and the silencing switch has been returned to its “normal” position.
- G. Seal all conduit openings entering the control panel and pump chamber with silicone caulk or other appropriate material.

2.09 FORCEMAIN TO MOUND

- A. Install force main piping and union in the pump chamber per attached drawing.
- B. Drill a 1/4-inch weep hole in the bottom elbow of the outlet pipe per attached drawing.
- C. Slope forcemain to allow drainage when pump is not in use.

2.10 MOUND

- A. All permits for pumped mound systems use only PVC pipe headers and laterals. Chambers or Infiltrators shall not be used.
- B. On all IHS designed pressure dosed mound systems, install Orifice Shields on all lateral orifices, SimTech model, or equal.

2.11 SITE RESTORATION

- A. All work necessary for top soiling, fertilizing, seeding and mulching shall be completed by Contractor to ensure adequate re-establishment of vegetation around area of drainfield and sewer service line.
- B. The Contractor is responsible for re-establishing vegetation on all disturbed areas where vegetation existed prior to construction.

2.12 EXISTING SEPTIC TANK ABANDONMENT

- A. Abandon existing septic tanks and drywells. Pump tanks prior to abandonment. Dispose the contents in accordance with state and federal requirements. Backfill interior of the tank with a suitable compactable soil material. Locate abandoned septic tanks on the as-built drawing.

2.13 SUBMITTALS

- A. Contractor shall submit product literature on the following components that were installed on site:
 - a. pump chamber (dimensions, manufacturer)
 - b. effluent pump (brand, model)
 - c. control and alarm package
 - d. float settings for pump operation
 - e. as-built drawing
 - f. septic tank (dimensions, manufacturer)
 - g. risers
 - h. effluent filter

END OF SECTION

**SEPTIC SPECIFICATIONS (GRAVITY SYSTEMS)
IHS SUPPLEMENTAL REQUIREMENTS**

PART 1 - GENERAL

1.01 SUMMARY

- A. This specification adds sanitary components to the Contractor's scope of work that may not already be included in the County issued permit.
- B. If access to the site requires the removal of trees, the Contractor shall coordinate with and obtain approval from Tribe/IHS prior to start of construction.
- C. For projects in the Lower Peninsula, all parties involved in construction activities shall first watch MDNR's "60-Second Snakes: The Eastern Massasauga Rattlesnake" video (available at https://youtu.be/-PFnXe_e02w).
 - 1. Any EMR observations during project implementation shall be reported to the USFWS or IHS Engineer within 24 hours.

1.02 SUBMITTALS

- A. Before construction: Submit for IHS Engineer approval all "or equal" or alternate items.
- B. Submittal Procedures
 - 1. Submit copies of submittals to the Tribal contact and IHS Engineer, unless requested otherwise, utilizing one of the following options:
 - a. An electronic copy in pdf format delivered to Tribal contact and Engineer via email or other means as approved.
 - b. Two (2) hard copies to Tribal contact.

1.03 Contact Information

- A. TJ Waybrant, IHS Engineering Technician
2847 Ashmun St., Suite #1
Sault Sainte Marie, MI 49783
906-632-1997
Tilitha-jane.waybrant@ihs.gov

PART 2 – PRODUCTS AND EXECUTION

2.01 SOLID SEWER PIPE, CLEANOUT AND FITTINGS

- A. All gravity pipe, fittings, and caps shall be Schedule 40 PVC from the house to beyond tanks. SDR 35 PVC may be utilized to connect to drain field.
- B. Minimum slope between the house and the septic tank is 1/8-inch per foot or per County Permit, whichever is greater.
- C. There shall be no 90-degree bends in the pipe between the house and the Septic tank.
- D. Install two-way cleanouts approximately 5 feet from the outside wall of home. An interior cleanout is acceptable if septic tank is not greater than 10 feet from home and pipe contains no bends.

2.02 SEPTIC TANKS

- A. Provide new septic tank per County sizing requirements.**
- B. Place tank level.
- C. Septic tank shall have 2 manholes and **2 access risers.**
- D. Septic tank manholes and risers situated over the outlet pipe & effluent filter shall be no less than 24 inches in diameter.
- E. Septic tank manholes and risers situated over the inlet pipe and baffle shall be no less than 16 inches in diameter.
- F. Extend both septic tank risers to either
 - 1. Finished grade and mound around septic tank to prevent ponding around risers, or
 - 2. Above grade, but by no more than 3"-6" (applicable to low lying areas).
- G. Septic tank risers shall be pre-manufactured with gasketed connections or other approved water-tight material.
- H. Septic tank riser covers shall be of the same material as the riser. Provide suitable stainless steel locking screws or locking device.
- I. All tank joints and connections to tank shall be watertight. A flexible boot shall be provided for piping connections.

2.03 EFFLUENT FILTER

- A. Equal to Polylok PL-122 or equal.**
- B. Center filter under the outlet manhole opening. Solvent weld to 4-inch PVC Schedule 40 outlet pipe. Extend beyond the outside of the septic tank

excavation before connecting to SDR 35 pipe. Install filter handle and extend handle to within 6-inches of the top of the access riser for easy access. Conform to manufacturer's installation instructions.

2.04 INLET TEE OR BAFFLE

- A. Provide an open-end sanitary tee or baffle made of approved material at the inlet.
- B. Center tee or baffle under the inlet manhole opening. Solvent weld to 4 inch PVC Schedule 40 inlet pipe.
- C. Tee or baffle shall extend at least 6 inches above and 9 inches below the liquid level, but not exceed 1/3 of the liquid depth. Provide at least 2 inches of clear space over the top of the tee or baffle.

2.05 OBSERVATION PIPE

- A. Observation pipe material shall be Schedule 40 PVC, include perforations at the bottom, secured caps at the top, and should be securely anchored to drainfield.
- B. Install observation pipes on 2 far end corners of drainfield/mound from the bottom of the trench/bed or mound system.
- C. Install top of observation pipe flush with finished grade. Drive 12 inch length of rebar adjacent to pipe to assist with locating pipe in the future.

PART 3 – SITE RESTORATION

3.01 TOPSOILING, SEEDING, FERTILIZING, AND MULCHING

- A. All work necessary for top soiling, fertilizing, seeding and mulching shall be completed by Contractor to ensure adequate re-establishment of vegetation around area of drain field and sewer service line. This work shall be performed during seeding dates for permanent cover (MDEQ guidelines). This is generally May 1-Oct 1.
- B. Contractor shall strip and stockpile existing topsoil from all planned disturbed areas unless design requires topsoil to remain undisturbed. After grading is complete, spread stockpiled topsoil over all disturbed areas, excluding those where another type of finished surface is being provided. **Contractor shall**

restore topsoil depth to original conditions (minimum) or as needed to provide permanent vegetation.

- C. The Contractor is responsible for re-establishing vegetation on all disturbed areas where vegetation existed prior to construction.

3.02 EXISTING SEPTIC TANK ABANDONMENT

- A. Abandon existing septic tanks and drywells. Pump tanks prior to abandonment. Dispose the contents in accordance with state and federal requirements. Backfill interior of the tank with a suitable compactable soil material. Locate abandoned septic tanks on the as-built drawing.

END OF SECTION

**SECTION 02531
SANITARY SEWER SERVICE LINES**

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes sewer service lines, connection to sewer mains (wyes), service cleanouts, and abandonment of existing septic tanks.

1.02 RELATED WORK (as applicable)

- A. Section 01780 – Closeout Submittals
- B. Section 02315 – Excavation, Trenching and Backfill
- C. Section 02401 – Directional Drilling
- D. Section 02530 – Sanitary Sewer

1.03 REFERENCES

- A. ASTM D 3034 – Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings
- B. ASTM D 3212 – Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
- C. ASTM F 477 – Elastomeric Seals (Gaskets) for Joining Plastic Pipe
- D. ASTM F1336 – PVC Gasketed Sewer Fittings

1.04 SUBMITTALS

- A. Sewer Service Line Pipe and Fittings
- B. Sewer Wyes and Saddles
- C. Tracing Wire, Box, and Splice Materials
- D. PE to PVC Gasketed Coupling for PE to PVC Transitions

1.05 ACCEPTANCE

- A. The work will not be accepted until satisfactory pipe backfilling and clean up is complete.
- B. If the work does not meet the specified requirements of this section and related sections, remove, and replace at no additional cost.

PART 2 - PRODUCTS

2.01 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

- A. Conform to ASTM D 3034
- B. Pipe Class: SDR 35
- C. Bell ended joints conforming to ASTM D 3212
- D. Elastomeric gaskets conforming to ASTM F 477
- E. 4-inch nominal diameter unless otherwise indicated.
- F. Each length of pipe shall be clearly marked with the following:
 - 1. Manufacturer
 - 2. Nominal Pipe Size
 - 3. The PVC Cell Classification
 - 4. Type PSM PVC Sewer Pipe
 - 5. ASTM Designation
 - 6. Pipe Class

2.02 SEWER WYES

- A. Connection to New Sewers:
 - 1. In-line fittings conforming to ASTM F1336.
- B. Connection to Existing Sewers:
 - 1. PVC Sewer Mains:
 - a. PVC conforming to ASTM 3034, watertight with gasket.
 - b. Two stainless steel bands and connectors for securing to the main.
 - c. GPK Products, Fargo, ND, or approved equal.
 - 2. Asbestos-Cement, Concrete, or Vitrified Clay Sewers: Neoprene rubber boot with stainless steel bands for concrete, asbestos-cement or vitrified clay sewer main.
 - a. Submit other saddle wyes to the Engineer for review and approval.

2.03 CLEANOUTS AND FROST SLEEVES

A. Cleanout:

1. SDR 35 PVC riser pipe conforming to ASTM D 1785.
2. SDR 35 PVC pipe and fittings conforming to ASTM D 3034.
3. Inspection port plug shall be Sch. 40 PVC and threaded if installed above ground. Plug shall be cast iron and threaded if installed below ground.

B. Frost sleeve (WI and MI only):

1. Schedule 40 PVC or SDR 35 PVC
2. Cap: Slip on or threaded
3. Diameter: 2-inches bigger than cleanout diameter or sewer service line diameter

C. Minimum length: from ground surface to elbow

2.04 TRACER WIRE AND BOX

A. Wire: Provide #10 AWG jacketed solid copper wire, with 30 mil HDPE coating rated for direct bury or #12 AWG extra-high-strength copper-clad steel tracing wire, insulated with 45 mil HDPE, equal to Copperhead #12 (EHS-CCS) Tracing Wire, or Trace Safe #19 AWG, tin coated CU, SOL, 300V, with Blue 32 mil HDPE jacket, wove UOM:FT, manufactured by NEPTCO or equal.

B. Box: Tracer wire access box with ABS stand and cast iron top and lockable lid. Valvco Tracer Wire Access Box, SnakePit Roadway Box, Trace Safe, Rhino Triview, or equal.

C. Splice Kit: Provide underground waterproof splice materials.

2.05 PIPE HANGERS

A. Shall be made of a material compatible with piping material.

B. Shall be of sufficient strength to support the pipe at full capacity.

C. Shall not affect pipe integrity by either abrading, cutting or bending of pipe.

2.06 PIPE TRANSISTIONS

A. PE to PVC Transition Gaskets shall be equal to GPS Products Schedule 40 PCV Gasketed Coupling for SDR 35/26 PVC to DR 11 IPS/DIPS PE pipe (as applicable)

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that dimensions and elevations are as indicated on the Drawings.
- B. Verify that all products are in new condition.
- C. Inspect pipe and fittings for defects.
- D. Remove materials from the site that are defective, damaged, used, unsound, or that otherwise do not meet the specifications.

3.02 UTILITY CONFLICTS

- A. Refer to Section 02315.

3.03 SEWER SERVICE LINE INSTALLATION

A. Sewer Wyes and Saddles:

- 1. Connection to New PVC: Furnish and install wyes at the locations indicated by the plans or by the Engineer.
- 2. Install a solvent weld cap or a plug and leave in place until service line construction begins.
- 3. Properly reference, record and stake wye locations to permit ready relocation, in accordance with Section 01780, and provide information to the Engineer.
- 4. Connection to Existing PVC:
 - a. Install saddle wyes at the locations indicated by the plans or by the Engineer.
 - b. Repair damage caused during the tapping process at no additional cost.
- 5. Rotate the branch or wye of the saddle no more than 45 degrees from horizontal.

B. Risers:

- 1. Extend riser from sanitary wye to an elevation that will allow for a service line to be laid at specified grades.
- 2. Install riser at an angle equal to or less than 45 degrees measured from horizontal.

3. Risers in Rock Trenches:
 - a. Install riser pipe in the sewer trench.
 - b. Install riser pipe approximately vertical.
 - c. Encase the bottom of riser, wye and 1/8 bend in crushed rock or sand.
 - d. Extend bedding the full width of the trench as excavated and not less than 18 inches in length from either side of the center of the riser.
 - e. Place bedding material to a point 12 inches above centerline of the sewer main at the location of the wye.
4. No separate payment will be made for risers.

C. Service Lines:

1. Furnish and install sewer service lines at the locations on the plans or as directed by the Engineer.
 - a. Connect to the existing home sewer stub out if present underground outside the home.
 - b. For connecting beneath the home, place pipe hangers at a maximum distance of 4 feet apart for horizontal PVC pipe.
 - c. Cap sewer service, and stake if no connection is made.
 - d. Install a frost sleeve for the vertical service line connection beneath the home from 2" above grade to within 6" of the top of the below ground horizontal sewer service line for a mobile home connection.
2. Follow general pipe installations requirements of Section 02315 – Excavation, Trenching and Backfill.
3. Minimum slope for sewer service lines is 1/8-inch per foot (1%).
4. Maximum slope for sewer service lines is 1/2-inch per foot (4 %), unless otherwise specified in Section 01119.
5. Ninety-degree bends are not allowed between the house and the sewer main.
6. Install tracing wire with all pipe.
 - a. Wrap or tape tracing wire to pipe a minimum of every 20 feet.
 - b. Make all splices with an underground, waterproof splice kit.
 - c. Run tracing wire from connection at main and bring tracing wire up along outside of the cleanout, and tape wire to stem of the

cleanout just below cap. Fold wire back down over tape leaving approximately 12" of extra wire.

- d. Terminate the tracing wire in tracing wire box within 3 feet of the home or at the cleanout, as specified by the Engineer.

7. Connection of Sewer Service Lines to Manholes:

- a. Connect to manholes only where permitted and approved by the Engineer.
- b. Conform to Section 02532 – Sanitary Sewer Manholes, concerning channel shape and radius.

D. Sewer Service Line Cleanouts:

1. Two-Way Cleanouts: Install at the locations indicated on the drawings or as directed by the Engineer.
2. One-Way Cleanouts:
 - a. Install one-way cleanouts at a spacing not to exceed 100 feet.
 - b. Install one-way cleanouts so that the service can be rodded or snaked in the direction of flow.
3. Construct as shown on the standard details.
4. Install a 4-inch sewer wye in the sewer service line and connect risers of the same material from the wye to the ground surface.
 - a. Attach a schedule 40 PVC adapter and threaded plug to the end of the riser.
 - b. Install vertically a piece of No. 3 rebar, 1-foot in length, next to each cleanout riser. Bury rebar 6 inches below ground surface.
5. The Engineer may specify that cleanouts be buried 3 to 6 inches below grade and be fit with a threaded cast iron plug.

E. Pipe Transitions:

1. PE and PVC pipe shall have a maximum of 3-inches of space between the ends at location of transition.
2. Center gasketed coupling over transition so PE pipe and PVC pipe are equidistant inside the sleeve.
3. Install gasketed couplings in accordance with manufacturer recommendations.

4. Provide stone bedding material to fill any areas disturbed under the connection area.

3.04 TRACER WIRE

- A. Install tracing wire with all pipe.
 1. Wrap or tape tracing wire to pipe a minimum of every 20 feet.
 2. Make any splices with an underground, waterproof splice kit.
- B. Bring tracing wire up in tracer wire box near two-way cleanout.

3.05 EXISTING SEPTIC TANK ABANDONMENT

- A. Abandon existing septic tanks and/or wet wells where directed by the Engineer.
- B. Pump tanks prior to abandonment. Dispose the contents in accordance with state and federal requirements.
- C. Remove and dispose of any interior pipes, plumbing, or pumps.
- D. Remove and dispose of concrete tank cover, risers, and inspection pipes.
- E. Backfill interior of the tank with suitable, compactable soil material.
- F. Conform to Section 02315 – Excavation, Trenching, and Backfill and Section 02920 – Topsoiling, Seeding, Fertilizing and Mulching.
- C. Locate abandoned septic tanks on the as-built drawing.

3.06 TESTING

- A. Test tracing wire for proper functioning using a conductive/inductive type locator in the presence of the Engineer and/or Owner Representative. Repair and retest, at no additional cost to owner, any section of tracing wire that does not function properly.

3.07 AS-BUILTS

- A. Provide as-built information on each system in accordance with Section 01780. Use standard forms (if supplied) by the Engineer.

END OF SECTION



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Bid Schedule

BID SCHEDULE A - Pumped Septic System					
No.	Item	Qty	Unit	Unit Cost	Total Cost
1	Septic tank (includes risers and inlet tee)	1	LS		
2	Effluent filter	1	EA		
3	Sewer gravity pipe	1	LS		
4	2-way cleanout	1	LS		
5	Pump tank (includes pump, controls, alarm, and all electrical work)	1	LS		
6	Sewer forcemain	1	LS		
7	Elevated mound (includes all sand, gravel, topsoil, header, laterals, observation and flush ports)	1	LS		
8	Septic tank abandonment (if applicable)	1	LS		
9	Finish grading, seed, topsoil, and mulch of all disturbed areas	1	LS		
				Total =	

NOTES

- 1 Costs include all labor and materials for installation of scope as outlined in County Permits, State Codes, and IHS Supplemental Specifications
- 2 Costs must be provided for all line items above otherwise bid will be considered incomplete.
- 3 Changes to quantities listed above **must** be approved in writing (email) by the IHS prior to performing the work.
- 4 Payment will not be made for quantities or changes in scope that are not previously approved.
- 5 Costs associated with site access, clearing, tree/brush removal and offsite disposal offsite are to be included in unit costs above
- 6 Photo documentation required as described in attachment

IHS Administrative Requirements

**SECTION 01300
ADMINISTRATIVE REQUIREMENTS**

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes the administrative notes and requirements for this contract.

1.02 For all contracts:

- A. The Indian Health Service (IHS) is the engineer for this project; however, this is not a federal contract. IHS reserves the right to inspect the work performed by the Contractor or any of its Subcontractors. IHS does not represent the Tribe and the Tribe does not represent IHS regarding any matter related to administration of this Contract.

B. Indian Preference

1. IHS Indian preference requirements apply to the solicitation and award of this contract. Indian Preference will be used in selecting the contractor for this Work. If Bidder is eligible for Indian preference, documentation of tribal affiliation and ownership of the bidding enterprise must be provided with Bid.

Contractor agrees that, to the greatest extent feasible, preferences and opportunities for training and employment in connection with this Agreement shall be given to Indians; and, as reasonable, preference in the award of any subcontracts in connection with this Agreement shall be given to Indian organizations and to Indian-owned economic enterprises as defined in Section 3 of the Indian Financing Act of 1974 (88 Stat. 77).

C. Suspension and Termination of Work

1. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any change proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.
2. If the Contractor fails to perform the work in accordance with the Contract Documents, Owner may declare the Contractor to be in default and give Contractor notice that the Contract is terminated. The termination will not

affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor.

3. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for completed and acceptable work executed in accordance with the Contract Documents prior to the effective date of termination. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.
- D. Contractor shall comply with 41 CFR 60-1.4(b) in accordance with Executive Order 11246, "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity.
- E. Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the government-wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR part 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.
- F. Contractor is required to perform thirty-three and one-third percent of the total amount of the Work using its own employees and equipment. Copies of subcontract agreements may be requested to verify the amount of Work performed.
- G. Contractor is hereby notified that state lien laws do not apply on Federal trust land.
- H. Dispute Resolution: This agreement shall be construed in accordance with and governed by the laws of the Tribe. In the absence of Tribal law on point, Federal law shall apply and, in the absence of Federal law, the laws of the State of Wisconsin shall govern.

1.03 For Contracts Exceeding \$2,000:

- A. The Contractor shall comply with wage and provisions of the Davis-Bacon Act (40 U.S.C. 3141-3148) as supplemented by Department of Labor regulations (29 CFR part 5). In accordance with the statute, Contractors must be required

to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor.

- B. The Contractor shall comply with the Copeland “Anti-Kickback” Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR part 3). The Act provides that each Contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled.

1.04 For Contracts Exceeding \$10,000:

- A. Contractor shall comply with the requirements of 41 CFR 60-4 regarding required notices and procedures to be followed in soliciting for federally assisted construction contracts (including subcontracts). Compliance with Executive Order 11246 and 41 CFR part 60-4 shall be based on implementation of the Equal Opportunity Clause, specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4.3(a) and efforts to meet the goals established for the geographical area where the Contract is to be performed.

1.05 For Contracts Exceeding \$100,000:

- A. The Contractor shall comply with the provisions of the Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Under 40 U.S.C. 3702 of the Act, each Contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous.
- B. The Contractor shall comply with the provisions of the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352), certifying that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award.

END OF SECTION



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IHS As-Built Drawing

AS-BUILT DRAWING



NORTH ARROW

HOMEOWNER:
PROJECT NO:
RESERVATION:
ADDRESS:
LEGAL DESCRIPTION:

USER: jlerden FILE: I:\STANDARD DETAILS\CSI-SPECS\2012\01780-1.dwg 12/14/2012 - 9:20am

ITEM DESCRIPTION	SYMBOLS	MATERIALS			HOUSE CORNER TIES (FT.)				DRAWN BY:
		SIZE	MAT'L	QUANT.	A	B	C	D	DATE:
CURB STOP	⊙	"							COMPANY:
WELL	⊕	"							REMARKS:
SEPTIC TANK	□□	GAL							
COMBINATION SEPTIC/PUMP TANK	□□□	GAL							
	□□-□								
TWO WAY CLEANOUT	••	"							
ONE WAY CLEANOUT	•	"							
FREEZELESS RISER	⊕	"							
WATER SERVICE LINE	— W —	"							
SEWER SERVICE LINE	— S —	"							
DRAIN FIELD	□□□□□	"			DISPOSAL SYSTEM				
PERFORATED PIPE	—	"							TYPE:
SEWER FORCE MAIN	— SFM —					<input type="checkbox"/> IN-GROUND			
INSULATION	▨▨▨▨▨					<input type="checkbox"/> AT-GRADE			
BURIED ELECTRICAL LINE	— E —					<input type="checkbox"/> MOUND			
WATER MAIN	— W/M —	"			MATERIAL:		DRAWING NO. 01780-1		
SEWER MAIN	— S/M —	"			DIMENSIONS:				

IHS Requirements-Photo Documentation

IHS Scattered Sites **Septic Systems**

(Constructed under local County Health Department jurisdiction only)

IHS Requirements

1. Follow photo documentation requirements on next page.
2. Construct system per County Health Department permit, AND
 - Attached Detail drawing(s) and
 - IHS Supplemental Specifications
3. Provide as-built record drawing showing location of key system components with dimensions to these components from at least 2 house corners.
4. After septic system passes inspection with local County Health Department notify Tribe of completion, and provide photo documentation and invoice. Doing so will expedite payment.

Photo Documentation

Contractor shall provide photos to clearly document all underground and above ground facilities have been installed per the IHS Supplemental Requirements. Photos should be taken both during and after construction (following County Final Inspection).

Failure to provide adequate photo documentation may delay Contractor payment.

Photo log should include the following (note that photo examples may not reflect current requirements):



Figure 1: Tie in location to home



Figure 2: Two-way cleanout with frost sleeves



Figure 3: Two-way cleanout with frost sleeves



Figure 4: Two-way cleanout with frost sleeves – rebar not yet cut to grade. Frost sleeves could have been cut to keep cleanout at grade.



Figure 5: Tank placement



Figure 6: Tank placement with risers to be installed on each access port and brought to grade.



Figure 7: Oversized effluent filter. Tank access cover needed to be widened to allow for installation of filter



Figure 8: Oversized effluent filter and tank access riser brought to grade.



Figure 9: Backfilling of drainfield



Figure 10: Backfilling of drainfield



Figure 11: Observation pipe with slits cut into pipe, and rebar installed for stability per drawing.



Figure 12: Finished grade showing all access risers brought to grade. Observation pipes not yet cut down, and extra observation pipes added to each drainfield zone (not required), seeding/mulching not yet completed.