Project Manual for:

Renovation of Existing Townhomes

for

West Birch Estates

W Branch Street
Princeton, MN

Commission Number: 616-18

Issued for Construction
June 7th, 2019

Blumentals Architecture

PROJECT DIRECTORY – 00 01 03

Owner:

Willow Grove of North Branch LP/CMHP
c/o Central Minnesota Housing Partnership
37 28th Avenue North, Suite 102
St. Cloud, MN 56303
Attn: Deanna Hemmesch; (320) 259-0393; Deanna@CMHP.net

Architect:

Blumentals / Architecture, Inc.
1600 Marshall St. NE, Suite 1
Minneapolis, MN 55413
Attn: Lori Hunke; (612) 331–2222; Lorih@blumentals.com

CERTIFICATIONS PAGE – 00 01 05

ARCHITECTURAL CERTIFICATION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under laws of State of Minnesota.

Name: James L. Moy

Signature:

_____

Date: June 7th, 2019

Reg. No.: 27036

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00 10 00 - <u>DIVISION 00 – General Requirements</u>

1. PROJECT IDENTIFICATION: West Birch Townhomes is a 24-unit complex.
   1.1. Project Address: W Birch Street Princeton, MN
   1.2. Four (4) two-story townhomes, including:
      a) (8) 2-bedroom / 1-bathroom
      b) (8) 2-bedroom / 2-bathroom
      c) (8) 3-bedroom / 2-bathroom
2. GENERAL CONDITIONS: AIA A201, General Conditions of Construction Contract, shall be included as reference for this project. criteria, provisions, definitions and articles shall be adhered to. Architect will provide a copy of A201 upon written request.
   2.1. Reference Section 00 73 00 Supplementary Conditions for amendments. These Supplementary Conditions amend, and supplement General Conditions defined in AIA A201 “General Conditions” and other provisions of Contract Documents as indicated. Provisions that are not so amended or supplemented remain in full force and effect.
3. EXISTING CONDITIONS
   3.1. Become familiar will existing site conditions. Verify dimensions, existing conditions, and existing electrical, mechanical, plumbing, utility and other site conditions. Notify Architect of discrepancies before proceeding with work or Contract. Discrepancies found must be immediately brought to attention of Architect and Owner in writing.
   3.2. Prior to contracting for or beginning construction of each portion of work carefully verify Contract Documents and supplemental information provided by Owner against existing conditions and notify Owner and Architect in writing of discrepancies. Remediation of said work begun or completed shall be performed to satisfaction of Owner and Architect at no additional cost to Owner.
4. CONTRACTOR'S DUTIES
   4.1. Provide and pay for: labor, materials, and equipment; tools, construction equipment, and machinery; and water, heat and utilities required for construction.
   4.2. Pay legally required sales, consumers and use taxes.
   4.3. As applicable at time of receipt of bids, secure and pay for permits, fees, and licenses necessary for execution and completion of work.
   4.4. Give required notices.
   4.5. Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities, which bear on performance of work.
   4.6. Enforce strict discipline and good order among employees. Do not employ unfit persons or persons not skilled in assigned task.
   4.7. Obtain required government, utility companies and other agency approvals for layout, equipment, etc.
   4.8. Coordination of work with other trades and prompt notification of requirements affecting execution of work.
   4.9. Scheduling, material purchase, installation lead time, Sub-contractor or interdisciplinary coordination, determining working hours, and complete installation of appliance or materials necessary for proper operation of items, including coordinating work with Owners vendors/Contractors who are under separate Contract, shall be responsibility of Contractor. Uncoordinated issues shall be brought to attention of Architect prior to finalizing Contract with Owner.
   4.10. Provide storage containers for construction materials. Ensure materials are stored in a suitable place and in an orderly fashion for project. Coordinate exact location with Owner.

4.11. Construction signage and barricades for work within right-of-way shall conform to latest revisions of Manual of Uniform Traffic Control Devices. This work shall be at no additional cost to Owner.

4.12. Provide supervision, tools, material, labor, services, transportation, etc. necessary for completion of work as it is intended, shown and/or described.

4.13. Do not proceed with work that will alter Contract Sum or Construction Schedule without written consent of Owner and Architect of Change Order price or length of time proposed by Contractor to complete such work. Work completed without prior written approval may be required to be remedied or removed at discretion of Owner and Architect without additional cost to Owner.

4.14. No alcoholic beverages or illegal substances, abusive or profane language, or other disruptive or illegal activities will be tolerated.

4.15. Prior to ordering and installing equipment verify clearances required for proper, warrantied installation of new equipment is either existing or is included in scope of new work to be performed. If required dimensional clearances are not met in existing locations or are illustrated in scope of new work inform Architect immediately in writing.

5. Furnish and install appliances or materials obviously part or required by manufacturer of electrical, mechanical, plumbing, sprinkler and/or alarm work and necessary for its proper operation, although not specifically mentioned or shown on drawings.
6. Items depicted as new and/or called out with words "new", "provide", "complete", "paint", "finish" and/or "install" denote Contractor is to purchase and fully install/complete specified or said item/work, as well as manufacturer recommended accessories and procedures for proper installation and operation of said item/work for project scope of work. Items shown on plans are to be new, provided and completely installed unless explicitly stated otherwise.
7. LOW VOLTAGE: Coordinate telephone, cable and data work with Owner.
8. PERMITS: Complete and file required permits and related fees. Owner will reimburse for cost of permit fees.
9. INSPECTIONS: Requests for clarification or for additional design requirements from inspecting official shall be provided to Architect in writing.
10. SPECIFICATION FORMATS AND CONVENTIONS: Specification Format: Specifications are organized into Divisions and Sections using 2004 CSI/CSC's "Master Format" numbering system.
11. CONTRACT DOCUMENTS: Consist of items listed in AIA Document A201 General Conditions of Contract for Construction, Article 1.1.1.
12. HIERARCHY OF DOCUMENTS: In case of a conflict between drawings, notes and specifications most stringent requirement shall apply.
13. **Blumentals** / Architecture is sole interpreter of Contract Documents and performance in dispute among Owner and Contractor as it pertains to life safety, code or aesthetic issues.
14. DIMENSIONS: Unless noted otherwise, interior dimensions are from face of finished wall to face of finish wall.
15. SCOPE OF WORK: Drawings and Specifications indicate general scope of work and design intent only. Visit site, review construction conditions and, prior to starting work, verify dimensions shown on Drawings, site conditions, and requirements for project.

15.1. The intention of Drawings is to provide for work complete in every detail even though every item involved may not be shown or mentioned.

15.2. Variations or ambiguities between Drawings and actual site and construction conditions shall be brought to attention of Architect in writing and shall be resolved and documented in writing prior to starting construction. Otherwise perform work in accordance with most stringent notation or requirement to properly and functionally execute work as part of his contract.

15.3. Comply fully with General Notes and Specifications. It is not the intent of Owner or Architect to withhold information and reasonably discover-able items should be brought to attention of Owner and Architect prior to contracting. Contractor is responsible for deficiencies in work performed by

Contractor’s employees including but not limited to proper oversight, installation, execution and field verification, etc. of work and existing conditions.

16. QUANTITIES: Verify quantities required for Project's whole and complete Scope of Work. Discrepancies shall be brought to Architect's attention prior to submitting a bid.
17. SITE SUPERINTENDENT: Provide a full-time site superintendent. Site superintendent shall be a representative of General Contractor, shall be present on-site during construction activities, and shall not be provided through Subcontractor. Site superintendent's role shall be supervisory in nature and shall not include day-to-day performance of construction activities. A 24-hour contact phone number shall be provided to Owner and Architect at time of award of Contract.
18. CONSTRUCTION CLEANUP: Construction-related debris and tools shall be kept clear of required ingress/egress walkways, corridors, drive aisles that are used for access to site and work areas. Cleanup shall occur in a timely fashion throughout day and shall be completed at end of each working day. Final cleanup shall occur before unit and/or building turnover, and a final project cleanup shall occur at completion of project.
19. ATTIC STOCK: Verify attic stock requirements with Owner. If Owner requests provide attic stock as follows: Unless specifically called out in individual sections, provide large remaining portions of finishes not used as part of work shall be offered to Owner, including remaining cases, cartons, rolls, etc. Assume an additional 5% of other materials in each finish/texture/sheen/thickness. Deliver attic stock to location designated by Owner.
20. WARRANTY: Guarantee work against defects for a period of (1) year from date of substantial completion or if Substantial Completion date is not issued then at date of issuance of Certificate of Occupancy. Repair or replace portions of work which develop defects during that time.
21. INSURANCE: Carry proper workman and construction liability insurance, and file proper insurance certification when requested by Owner.
22. ACCESSIBILITY
    - 22.1. One (1) Unit shall comply with 2010 ADA ANSI 117.1 Chapter 7 requirements for visual and hearing impaired.
    - 22.2. ACCESSIBILITY COMPLIANCE: It is the intention for work within identified accessible/ADA/UFAS units and common areas to be in compliance with governing accessibility regulations.
        - Items include, but are not limited to, electrical switches, outlets and control devices, thermostats and environmental controls, plumbing fixtures, doors and windows including hardware, common amenities such as washers, dryers and mailboxes.
        - New items shall be installed in compliance with governing accessibility code.
        - Reference typical accessibility mounting heights and clearances within contract documents for new fixture/device/control locations. If an item is not specifically detailed, contact Architect ahead of installation for applicable location.
        - Reference Concrete Paving 32 13 13 specification for replacement of concrete sidewalks scope, site verification and slope design limits.
23. ENERGY REBATE AND TAX CREDIT: Provide assistance, submittals, cut sheets, applicable forms for energy rebate and/or tax credit applications as requested by Owner.
    - 23.1. Local and State sales taxes are eligible for an exemption. Coordinate with Owner to document required information to remain eligible. Failure to coordinate with Owner and comply with requirements of tax exemption will result in responsibility to pay applicable taxes at no additional cost.
24. FINANCING REQUIREMENTS: The intention of this renovation is to comply with building codes and physical building requirements of applicable fair housing laws. If Contractor becomes aware that following criteria may not be met by Project's Scope of Work, immediately notify Architect and Owner in writing.

24.1. Section 8 Housing Quality Standards for Existing Housing contained in 24 CFR 982.401 (https://www.law.cornell.edu/cfr/text/24/982.401)

24.2. Lead-Based Paint Regulations issued by U.S. Department of Housing and Urban Development pursuant to Lead- Based Paint Poisoning Act. (https://www.law.cornell.edu/uscode/text/42/chapter-63)

24.3. Americans with Disabilities Act (42 U.S.C. § 12101) (http://finduslaw.com/americans-disabilities-act-1990-ada-42-us-code-chapter-126)

24.4. Fair Housing Amendments Act of 1988 (42 U.S.C. 3604 (f)(3)(C)(iii)

a) All premises within such dwellings contain following features of adaptive design: an accessible route into and through dwelling; light switches, electrical outlets, thermostats, and other environmental controls in accessible locations; reinforcements in bathroom walls to allow later installation of grab bars; and usable kitchens and bathrooms such that an individual in a wheelchair can maneuver about space.

24.5. Section 504 of 1973 Rehabilitation Act and regulations and promulgations there under. (https://www.dol.gov/oasam/regs/statutes/sec504.htm)

24.6. Clean Air Act, specifically 40 CFR Part 82, Subparts A and F

24.7. Air Conditioning Contractors of America (ACCA) Manuals, Part J and S, or ASHRAE handbooks for HVAC design.

24.8. 2015 Enterprise Green Community Criteria

24.9. 2017 Minnesota Housing Multifamily Rental Housing Design/Construction Standards

24.10. 2017 Minnesota Housing Architect's Guide

25. OWNER SUPPLIED REPORTS: As part of this Project the following documents are included as part of Owner's requirements of Contractor:

25.1. PHASE 1 environmental site assessment, prepared by Braun Intertec, dated February 16, 2018

26. AIR QUALITY REQUIREMENTS: VOC limitations shall be set for by following criteria:

26.1. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.

26.2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.

26.3. SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

26.4. SEALANTS: Provide products having lower volatile organic compound (VOC) content than required by South Coast Air Quality Management District Rule No.1168.

27. REQUIRED BONDS:

27.1. PERFORMANCE BOND REQUIREMENT:

a) Submit:

- On Minnesota Housing's Performance Bond form, a 100% Performance Bond (Dual Obligee) each in draft form, in amounts equal to gross construction cost for review and approval prior to closing.
- A limited partner investor or member investor cannot be listed as an Obligee on bond or bond rider.
- Minnesota Housing requires one pen and ink fully executed original Performance Bond, dated date of closing, delivered at closing.
- If there is a HUD-insured first mortgage loan closing simultaneous with Minnesota Housing's loan(s) then Minnesota Housing will accept HUD's form of performance bond and Minnesota Housing must be listed as a lender-obligee on HUD's form of performance bond

27.2. PAYMENT BOND REQUIREMENT:

a) Submit:

- On Minnesota Housing's Payment Bond form, a 100% Payment Bond each in draft form, in amounts equal to gross construction cost for review and approval prior to closing.
- A limited partner investor or member investor cannot be listed as an Obligee on bond or bond rider.
- Minnesota Housing requires one pen and ink fully executed original Payment Bond, dated date of closing, delivered at closing.
- If there is a HUD-insured first mortgage loan closing simultaneous with Minnesota Housing's loan(s) then Minnesota Housing will accept HUD's form of payment bond and Minnesota Housing must be listed as a lender-obligee on HUD's form of payment bond.

27.3. NDC (INVESTOR) REQUIREMENT:

a) 100% Payment and Performance Bonds

b) Naming NDC CEF as dual obligee

28. BID FORM AND OTHER REQUIRED DOCUMENTS: Provide bid on form per Section 00 41 00, in conjunction with terms and conditions defined in AIA A701-1997 and include following:

28.1. Values and other information input on Section 00 41 00 Bid Form;

28.2. Values input on Section 01 21 00 Allowances;

28.3. Substitution requests being requested by Bidder as allowed per this project manual;

28.4. Schedule of Values (SOV) on form AIA G703-1992 Continuation Sheet or other similar SOV;

28.5. MHFA Contractor Compliance Form;

28.6. MHFA Performance Bond.

29. SMOKE/HEAT ALARMS: Units in compliance with UL 217 are to be provided and installed as per NFPA 101 in following locations; 1) Smoke detectors shall be installed in common areas and work spaces outside living unit, such as exit stairs, egress corridors, lobbies, storage rooms, equipment rooms, and other tenantless spaces in environments that are suitable for proper smoke detector operation. 2) Heat detectors shall be located within each room of living unit. Alarms shall be audible and interconnected in such a way that actuation of one alarm will activate alarms. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and alarms sound upon activation of one alarm. alarm shall be clearly audible in bedrooms over background noise levels with intervening doors closed.

30. CARBON MONOXIDE ALARMS: Units in compliance with UL 2034 are to be provided and installed outside each separate sleeping area in immediate vicinity of bedrooms as a minimum as per manufacturer's recommended height above finished floor.

31. RATED PENETRATIONS: Penetrations semi-into or fully through existing or proposed rated assembly shall be done so in compliance with Underwriters Laboratories for required rating. Submit applicable UL assembly designs for penetrations.

32. SPECIAL INSPECTIONS: Chapter 17 of IBC has specific requirements for special inspections, testing and structural observations. These special inspections are in addition to inspections required by Authority Having Jurisdiction (AHJ) and do not waive requirement for “normal” inspections conducted by AHJ. Schedule “normal” inspections with AHJ in proper sequence and prior to concealment or proceeding with work as required.

32.1. Special inspections are to be made by Special Inspections Agencies approved by AHJ and can include but are not limited to special inspectors, testing labs, and/or fabrication shops. Approved agencies must be employed by Owner and coordinated by Contractor.

32.2. Field Discrepancies: Material and design discrepancies which are not resolved in a timely manner or are about to be incorporated into work must be brought to attention of Professional of

Record (POR) and AHJ. Uncorrected field deficiencies observed by special inspections agency must also be brought to attention of POR and AHJ.

32.3. Special Inspections Agencies shall inspect, observe or test work for which they are responsible, approved construction documents, listed standards and nationally recognized testing methods. A special inspector shall be on site at appropriate times to observe construction operations that require continuous or periodic inspections per tables 1705.2.2, 1705.3, 1705.6, 1705.7 and 1705.8 of IBC.

32.4. Special Inspections Agencies shall complete written reports for each inspection, observation or test and provide report in a timely manner. agency shall furnish these reports directly to POR, Owner and Contractor. Agencies shall bring non-conforming items to immediate attention of Contractor. If such item is not resolved in a timely manner or is about to be incorporated into work, POR and AHJ shall be notified immediately.

32.5. Special Inspection Agencies shall verify that fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of workmanship and fabricator's ability to conform to approved construction documents and referenced standards. special inspector shall review procedures for completeness and adequacy relative to code requirements for fabricator's scope of work.

32.6. Special inspections are not required where work is done on premises of a fabricator registered and approved to perform such work without special inspection. Approval shall be based upon review of fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At completion of fabrication, approved fabricator shall submit a certificate of compliance to AHJ stating that work was performed in accordance with approved construction documents.

32.7. Notify Special Inspections Agencies regarding special inspections required by IBC. Adequate notice shall be provided so that agency has time to become familiar with project. Request required special inspections as well as "normal" inspections conducted by AHJ.

32.8. Providing Special Inspections Agencies with access to approved plans, specifications and approved shop drawings. Construction or work for which special inspection is required shall remain accessible and exposed for special inspection purposes until completion of required special inspections.

32.9. Retaine at job site special inspections reports submitted by Special Inspections Agencies. Provide these reports for review by AHJ.

BID FORM – 00 41 00

THE PROJECT AND PARTIES

1. TO:

   1.1. West Birch Estates of Princeton, LP
   c/o Central Minnesota Housing Partnership
   37 28th Avenue North
   Suite 102
   St. Cloud, MN 56303

   1.2. **Blumentals**/Architecture Inc.
   1600 Marshall Street NE
   Suite #1
   Minneapolis, MN 55413
   Email: Lori Hunke - lorih@blumentals.com

2. For: **WEST BIRCH ESTATES TOWNHOME RENOVATION**

3. DATE: _____ (Bidder to enter Date)

4. SUBMITTED BY: (Bidder to enter Name and Address)

   _____
   Company Name

   _____
   Contact Person

   _____
   Address

   _____
   City, State, Zip

5. OFFER

   5.1. Having examined Place of Work and matters referred to in Instructions to Bidders and Contract Documents prepared by Blumentals/Architecture, Inc. for above mentioned project, we, undersigned, hereby offer to enter into a Contract to perform Work for Sum of:

   _____dollars

   ($_____), in lawful money of United States of America.

   5.2. We have included required security deposit as required by Instruction to Bidders.

   5.3. We have included required performance assurance bonds in Bid Amount as required by Instructions to Bidders.

   5.4. The cost of required performance assurance bonds is _ _____ _dollars ($_____), in lawful money of United States of America.

   5.5. All applicable Federal, State, and Local taxes are included in Bid Sum.

   5.6. The Payment and Performance Bond of ($_____) is included in above Bid Sum.

   5.7. The Builders Risk Insurance of ($_____) is included in above Bid Sum.

5.8. The Building Permit of ($_____) is included in above Bid Sum.

5.9. Contractor visited site on (_____) to review existing conditions.

6. ACCEPTANCE

6.1. This offer shall be open to acceptance and is irrevocable for sixty days from bid closing date.

6.2. If this bid is accepted by Owner within time period stated above, we will:

a) Execute Agreement within seven days of receipt of Notice of Award.

b) Furnish required bonds within seven days of receipt of Notice of Award.

c) Commence work within seven days after written Notice to Proceed of this bid.

7. CONTRACT TIME

7.1. If this Bid is accepted, we:

7.2. Propose to complete work in _____ calendar days from Notice to Proceed.

8. ADDENDA

8.1. All Addenda as listed in Schedule of Addenda listed in this project manual have been received. modifications to Bid Documents noted therein have been considered and costs are included in Bid Sum. Please initial and date here noting acceptance:

_____(initial), _____(date).

9. BID FORM SIGNATURE(S)

9.1. This proposal is submitted after careful study of specifications, and from a personal knowledge of conditions at site and existing buildings as they are currently.

9.2. The undersigned Bidder understands that Owner reserves right to reject and bids, to waive and informalities not involving price, time or changes in work and to negotiate contract terms with successful Bidders, and right to disregard non-conforming, non-responsive, unbalanced or conditional bids. Also, Bidder understands that Owner reserves right to reject bid of Bidders if Owner believes that it would not be in best interest of Project to make an award to that Bidder, whether because bid is not responsive, or Bidder is unqualified or of doubtful financial ability or fails to meet other pertinent standard or criteria established by Owner.

_____

(Signature)

_____

(Bidder - print full name)

_____

(Bidder - Title)

_____

(Bidder - print full name of your firm)

GENERAL CONDITIONS – 00 72 00

Architect will make a copy of the applicable A201-2007 General Conditions available upon request.

SUPPLEMENTARY CONDITIONS – 00 73 00

1. SCOPE AND INTENT: These Supplementary Conditions amend the General Conditions defined in AIA A201 General Conditions, and other provisions of Contract Documents as indicated. Provisions that are not so amended or supplemented remain in full force and effect.

ARTICLE 1 - GENERAL PROVISIONS

1.2.1.1 Add: In event of conflicts or discrepancies among Contract Documents, interpretations will be based on following priorities:

.1 Modifications.

.2 Agreement.

.3 Addenda, with those of later date having precedence over those of earlier date.

.4 Supplementary Conditions.

.5 General Conditions of Contract for Construction.

.6 Division 1 of Specifications.

.7 Drawings and Divisions 2-49 of Specifications.

.8 Other documents specifically enumerated in Agreement as part of Contract Documents.

In case of conflicts or discrepancies between Drawings and Divisions 2-49 of Specifications, or within or among Contract Documents and not clarified by Addendum, Architect will determine which takes precedence in accordance with Sections 4.2.11, 4.2.12, and 4.2.13.

ARTICLE 2 – OWNER: No amendment is made

ARTICLE 3 - CONTRACTOR

Add Section 3.11.1 to Section 3.11:

3.11.1: Wherever manufacturer's printed specifications or instructions are by reference made a part of this specification, Contractor upon demand shall furnish copies of such specifications or instructions to Architect.

Add Section 3.12.11 to Section 3.12:

3.12.11: Architect's review of Contractor's submittals will be limited to examination of an initial submittal and one (1) resubmittals. Owner is entitled to obtain reimbursement from Contractor for amounts paid to Architect for evaluation of additional resubmittals.

ARTICLE 4 – ARCHITECT: Add Section 4.2.2.1 to Section 4.2.2:

4.2.2.1: Owner is entitled to reimbursement from Contractor for amounts paid to Architect for site visits made necessary by fault of Contractor or by defects and deficiencies in work.

ARTICLE 5 – SUBCONTRACTORS: Add 5.5

5.5 SUBCONTRACTURAL AGREEMENTS WITH OWNER OR ARCHITECT

5.5.1 Nothing in the subcontractural agreement shall create contractual relationship between Owner or Architect and Subcontractor or Sub-subcontractor.

ARTICLE 6 - CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS: No amendment is made

ARTICLE 7 - CHANGES IN WORK: Add following Section 7.1.4 to Section 7.1:

7.1.4: combined overhead and profit included in total cost to Owner for a change in Work shall be based on following schedule:

.1 For Contractor, for Work performed by Contractor's own forces, 5 percent of cost.

.2 For Contractor, for Work performed by Contractor's Subcontractors, 5 percent of amount due

Subcontractors.

.3 For each Subcontractor involved, for Work performed by that Subcontractor's own forces, 10 percent of cost.

.4 For each Subcontractor involved, for Work performed by Subcontractor's Subsubcontractors, 10 percent of amount due Sub-subcontractor.

.5 Cost to which overhead and profit is to be applied shall be determined in accordance with Section 7.3.7.

.6 In order to facilitate checking of quotations for extras or credits, proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials and Subcontracts. Labor and materials shall be itemized in manner prescribed above. Where major cost items are Subcontracts, they shall be itemized also. In no case will a change involving over $100 be approved without such itemization.

ARTICLE 8 – TIME: No amendment is made

ARTICLE 9 - PAYMENTS AND COMPLETION: Add following Section 9.3.1.3 to Section 9.3.1

9.3.1.3 Until Work is 100% complete, Owner shall pay 95% of amount due Contractor on account of progress payments. It shall be clarified that 5% retainage will be strictly enforced for subcontracts and suppliers regardless where particular construction activity occurs in construction sequence.

ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY: No amendment is made

ARTICLE 11 - INSURANCE AND BONDS: Article 11 is deleted and substitute with following:

11.1 CONTRACTORS INSURANCE

11.1.1 Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in jurisdiction in which project is located such insurance as will protect Contractor from claims set forth below which may arise out of or result from Contractor's operations and completed operations under Contract and for which Contractor may be legally liable, whether such operations be by Contractor or by a Subcontractor or by anyone directly or indirectly employed by of them or by anyone for whose acts of them by be liable:

11.1.1.1 WORKERS' COMPENSATION AND EMPLOYERS LIABILITY

.1	Coverage A:	Per State Statute
.2	Coverage B:	$100,000 Each Accident
		$500,000 Disease - Policy Limit
		$100,000 Disease - Each Employee

11.1.1.2 COMMERCIAL GENERAL LIABILITY

.1	$3,000,000	General Aggregate
.2	$1,000,000	Products - Completed Operations Aggregate
.3	$1,000,000	Each Occurrence
.4	$1,000,000	Personal Injury

THE COMMERCIAL GENERAL LIABILTY SHALL INCLUDE, BUT NOT BE LIMITED TO FOLLOWING:

.5 Claims for damages because of bodily injury, sickness or disease, or death of person other than Contractor's employees.

.6 Claims for damages insured by usual personal injury liability coverage.

.7 Claims for damages, other than to Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom.

.8 Claims for bodily injury or property damage arising out of completed operations (to be carried for a minimum of five years) and,

.9 Claims involving contractual liability insurance applicable to Contractor's obligations under Section 3.18.

.10 Architect, Engineer and their consultants, and Owner shall be named as Additional Insureds.

.11 General Aggregate shall apply on a Per Project basis.

11.1.1.3 COMPREHENSIVE AUTOMOBILE LIABILTY

.1 $1,000,000. Combined Single Limit Bodily Injury and Property Damage Each Accident

THE COMPREHENSIVE AUTOMOBILE LIABILITY SHALL PROVIDE COVERAGE FOR FOLLOWING AUTOMOBILES:

.2 Owned Automobiles.

.3 Non-Owned Automobiles.

.4 Hired Automobiles.

11.1.1.4 UMBRELLA OR EXCESS LIABILITY

.1 $1,000,000 Each Occurrence

$3,000,000 Annual Aggregate

.2 UMBRELLA / EXCESS LIABILTY SHALL PROVIDE EXCESS LIMITS OVER AND ABOVE COMMERCIAL GENERAL LIABILITY, EMPLOYERS LIABILITY AND COMPREHENSIVE AUTOMOBILE LIABILITY LIMITS AS STATED IN THIS ARTICLE.

11.1.2 Insurance required by 11.1.1 shall be written for limits specified or limits required by law, whichever is greater. coverage shall be maintained without interruption from date of commencement of work until date of final payment and termination of coverage required to be maintained after final payment and with respect to Contractor's completed operations coverage, for a minimum of (5) years following final payment.

11.1.3 CERTIFICATES OF INSURANCE

Certificates of insurance acceptable to Owner shall be filed with Owner prior to commencement of Work and thereafter upon renewal or replacement of each required policy of insurance. These certificates shall contain a provision that coverages afforded under policies as required by this Section 11.1 will not be canceled, allowed to expire, or reduced in limits by endorsement until at least 30 days prior written notice has been given to Owner. An additional certificate evidencing continuation of liability coverage, including coverage for completed operations, shall be submitted with final Application for Payment as required by Section 9.10.2 and thereafter upon renewal or replacement of such coverage until expiration of time required by Section 11.1.2.

11.1.4 Contractor shall cause Commercial General Liability coverage required by Contract Documents to include Owner, Architect and Architects Consultants as additional insureds for claims caused by Contractor's negligent acts or omissions during Contractor's operations or completed operations.

11.2 OWNERS LIABILTY INSURANCE

.1 In lieu of naming Architect, Engineer and their consultants, and Owner as additional insureds, Contractor at his own expense may purchase and maintain, during life of contract an Owners' Protective Liability policy with Owner as insured.

.2 Such insurance shall be written with limits not less than:

$1,000,000 Each Occurrence

$3,000,000 Aggregate

.3 Owners Protective Liability Insurance shall name as an additional insured Architect, Engineer and their consultants.

PROPERTY INSURANCE

11.3.1 Purchase and maintain, in a company or companies lawfully authorized to do business in jurisdiction in which project is located, property insurance written on builder's risk "all-risk" or equivalent policy form in amount of initial Contract sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for entire Project at site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in Contract Documents or otherwise agreed in writing by persons and entities who are beneficiaries o such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than Owner has an insurable interest in property required by this Section 11.3 to be covered, whichever is later. This insurance shall include interests of Owner, Contractor, Subcontractors and Sub-Subcontractors in Project.

11.3.1.1 Property insurance shall be written on an "all risk" or equivalent form and shall include without limitation, insurance against perils of fire (with extended coverage), and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, (where applicable), flood (where applicable), windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

11.3.1.2 Deductible amount which may occur as part of Builders Risk policy shall be borne by named insureds making claims in direct proportion as their individual losses bear to total loss and policy deductible will be no more than $25,000.

11.3.1.3 This property insurance shall cover portions of Work stored off site, and portions of Work in transit.

11.3.1.4 Such property insurance shall allow for partial occupancy by Owner prior to completion of project.

11.3.1.5 Prior to exposure to loss, file with Owner a certificate of insurance evidencing Builders Risk coverage. Such certificate shall require 30 days advance written notice to Owner should policy be canceled or non-renewed.

11.3.2 BOILER AND MACHINERY

The Owner shall purchase and maintain boiler and machinery insurance required by Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by Owner; this insurance shall include interests of Owner, Contractor, Subcontractors and Sub-Subcontractors in Work, and Owner and Contractor shall be named insureds.

11.3.3 LOSS OF USE INSURANCE

The Owner, at Owner's option, may purchase and maintain such insurance as will insured Owners against loss of use of Owner's property due to fire or other hazards, however caused. Owner waives rights of action against Contractors for loss of use of Owner's property, including consequential losses due to fire or other hazards however caused.

11.3.4 If during Project construction period Owner insures properties, real or personal or both, at or adjacent to site, Owner shall waive rights in accordance with terms of Section 11.3.5 for damages caused by fire or other causes or loss covered by this property insurance. such policies shall provide this waiver of subrogation by endorsement or otherwise.

11.3.5 Owner and Contractor waive rights against (1) each other and of their subcontractors, sub-subcontractors, agents and employees, each of other and (2) Architects, Architect's consultants, separate contractors described in Article 6, if of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to extent covered by property insurance obtained pursuant to this Paragraph 11.3 or other property insurance applicable to Work, except such rights as they have to proceeds of such insurance held by Owner as fiduciary. Owner or Contractor, as appropriate, shall require of Architect, Architect's consultants, separate contractors described in Article 6, if any, and subcontractors, sub-subcontractors, agents and employees of of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. policies shall provide such waivers of subrogation by endorsement or otherwise. A

waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay insurance premium directly or indirectly, and whether or not person or entity had an insurable interest in property damaged.

11.3.6 Contractor, as trustee, shall have power to adjust and settle loss with insurer unless one of parties in interest shall object in writing within five days after occurrence of loss to Contractor's exercise of this power, and if such objection be made, arbitrators shall be chosen as provided elsewhere in contract. Contractor as trustee shall, in that case, make settlement with insurer in accordance with directions of arbitrators. If distribution of insurance proceeds by arbitration is required, arbitrators will direct such distribution.

11.3.7 ADDITIONAL INSURANCE

The insurance set forth in these documents is minimum insurance required. additional coverage that may be necessary to further protect Contractor are sole responsibility of Contractor.

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK: No amendment is made

ARTICLE 13 - MISCELLANEOUS PROVISIONS: No amendment is made

ARTICLE 14 - TERMINATION OR SUSPENSION OF CONTRACT: No amendment is made

ARTICLE 15 - CLAIMS AND DISPUTES: No amendment is made

PREVAILING WAGE REQUIREMENTS FOR STATE FUNDED PROJECTS - 00 73 43

1. SUMMARY
   1.1. Section Includes:
      a. Wage rate requirements
      b. Prevailing wage rate determination
      c. Posting of wage determination schedules
      d. Enforcement and compliance
2. WAGE RATE REQUIREMENTS
   2.1. Contractor and subcontractors shall be subject to payment of prevailing wage rates for commercial construction determined for Project by Minnesota Department of Labor and Industry. A laborer or mechanic employed directly on the Project site by Contractor or any subcontractor, agent or other person doing or contracting to do all or a part of the Work on the Project shall not be paid a lesser wage rate than prevailing wage rate determined for same or most similar trade or occupation in the Wage Rate Determination Schedule. If a prevailing wage determination is not scheduled for a trade or classification, Contractor is not relieved from responsibility for paying the prevailing wage rate for trade in question. Additional classifications may be requested from the Minnesota Housing Finance Agency (MHFA). Therefore, no inferences may be drawn from the omission of a classification which has local usage. Further, the Owner will not be liable for increased labor costs, or errors or changes to the rates or classifications.
3. PREVAILING WAGE RATE DETERMINATION
   3.1. Copy of the applicable Prevailing Wage Determination Schedule, as provided by the Minnesota Department of Labor and Industry is included for Contractor’s reference.
4. POSTING OF WAGE DETERMINATION SCHEDULES
   4.1. Contractor shall post and maintain at least one copy of the schedule of Prevailing Wage Determination Schedule in a conspicuous location on the construction site until Substantial Completion of Project.
5. ENFORCEMENT AND COMPLIANCE
   5.1. The state prevailing wage statute that applies to the Housing Challenge Program (EDHC) is Minnesota Statutes § 116J.871.
   5.2. 116J.871, provides that the person receiving or benefitting from the financial assistance must

certify to the commissioner of MN Department of Labor and Industry (DLI) that laborers and mechanics at the project site during construction, installation, remodeling, and repairs for which the financial assistance was provided will be paid the prevailing wage rate as defined in section 177.42, subd. 6.

6. Owner (contracting authority/grantee) will collect and maintain certified payroll reports and maintain those records for a minimum of three year after the final payment is made on the project.

   6.1. Certified payroll reports and statement of compliance forms must be received from Contractor not more than 14 days after the end of each pay period.

   6.2. Overtime must be paid for work performed after eight hours in a day or 40 hours in a week. Both overtime laws must be considered. For example: if workers are scheduled for four – 10 hour days, 32 hours is paid at the regular prevailing wage rate and eight hours must be paid as prevailing wage overtime.

7. DLI may demand payroll records from the prime contractor and any subcontractor performing work on this project to ensure compliance. This is the generic certified payroll and statement of compliance form used by many agencies:

   7.1. http://www.doli.state.mn.us/business/employment-practices/prevailing-wage-contracting-agencies

MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PREVAILING WAGES FOR STATE FUNDED CONSTRUCTION PROJECTS

THIS NOTICE MUST BE POSTED ON THE JOBSITE IN A CONSPICUOUS PLACE

Construction Type: Commercial

County Number: 48

County Name: MILLE LACS

Effective: 2018-12-17

This project is covered by Minnesota prevailing wage statutes. Wage rates listed below are the minimum hourly rates to be paid on this project.

All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at a rate of one and one half (1 1/2) times the basic hourly rate.

Violations should be reported to:

Department of Labor and Industry
Prevailing Wage Section
443 Lafayette Road N
St Paul, MN 55155
(651) 284-5091
DLI.PrevWage@state.mn.us

* Indicates that adjacent county rates were used for the labor class listed.

County: MILLE LACS (48)

LABOR CODE AND CLASS			EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)						
101	LABORER, COMMON (GENERAL LABOR WORK)	+$950,000	2018-12-17	27.91	18.44	46.35
			2019-05-01	28.66	19.29	47.95
		-$950,000	2018-12-17	26.16	18.44	44.60
			2019-05-01	26.91	19.29	46.20

102*	LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	+$950,000	2018-12-17	27.91	18.44	46.35
			2019-05-01	28.66	19.29	47.95
		-$950,000	2018-12-17	26.16	18.44	44.60
			2019-05-01	26.91	19.29	46.20
103*	LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)		2018-12-17	23.02	15.99	39.01
			2019-05-01	24.00	16.96	40.96
104*	FLAG PERSON	+$950,000	2018-12-17	27.91	18.44	46.35
		-$950,000	2018-12-17	26.16	18.44	44.60
105*	WATCH PERSON	+$950,000	2018-12-17	24.43	16.79	41.22
		-$950,000	2018-12-17	22.68	16.79	39.47
106*	BLASTER		2018-12-17	28.96	15.13	44.09
107*	PIPELAYER (WATER, SEWER AND GAS)		2018-12-17	29.43	19.12	48.55
			2019-05-01	30.68	20.07	50.75
108	TUNNEL MINER		FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
109*	UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)		2018-12-17	27.63	19.12	46.75
			2019-05-01	28.88	20.07	48.95
110*	SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS; PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND	+$950,000	2018-12-17	26.41	16.79	43.20

	LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15.	-$950,000	2018-12-17	24.66	16.79	41.45
111	TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)		FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			

SPECIAL EQUIPMENT (201 - 204)

201*	ARTICULATED HAULER		FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
202*	BOOM TRUCK		2018-12-17	18.82	4.57	23.39
203*	LANDSCAPING EQUIPMENT, INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM TRACTOR WITH ATTACHMENT SPECIFICALLY SEEDING, SODDING, OR PLANT, AND TWO-FRAMED FORKLIFT (EXCLUDING FRONT, POSIT-TRACK, AND SKID STEER LOADERS), NO EARTHWORK OR GRADING FOR ELEVATIONS		2018-12-17	23.02	15.99	39.01
204*	OFF-ROAD TRUCK		FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
205	PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS); SELF-PROPELLED TRUCK OR TRAILER MOUNTED UNITS.		2018-12-17	12.00	0.00	12.00

HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR

GROUP 2			2018-12-17	30.00	6.76	36.76

306 GRADER OR MOTOR PATROL

308 TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY)

GROUP 3 *	2018-12-17	23.95	5.38	29.33

309 ASPHALT BITUMINOUS STABILIZER PLANT

310 CABLEWAY

312 DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY)

314 DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER

316 LOCOMOTIVE CRANE OPERATOR

320 TANDEM SCRAPER

322 TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY)

GROUP 4	2018-12-17	24.55	6.76	31.31

323 AIR TRACK ROCK DRILL

324 AUTOMATIC ROAD MACHINE (CMI OR SIMILAR) (HIGHWAY AND HEAVY ONLY)

325 BACKFILLER OPERATOR

327 BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER)

328 BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON)

329 BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS

330 CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS

331 CHIP HARVESTER AND TREE CUTTER

332 CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE

334 CONCRETE MOBIL (HIGHWAY AND HEAVY ONLY)

335 CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT

336 CURB MACHINE

337 DIRECTIONAL BORING MACHINE

338 DOPE MACHINE (PIPELINE)

340 DUAL TRACTOR

341 ELEVATING GRADER

345 GPS REMOTE OPERATING OF EQUIPMENT

347 HYDRAULIC TREE PLANTER

348 LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE)

349	LOCOMOTIVE (HIGHWAY AND HEAVY ONLY)				
350	MILLING, GRINDING, PLANNING, FINE GRADE, OR TRIMMER MACHINE				
352	PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE				
354	PIPELINE WRAPPING, CLEANING OR BENDING MACHINE				
356	POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES				
357	PUGMILL				
359	RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS (HIGHWAY AND HEAVY ONLY)				
360	SCRAPER				
361	SELF-PROPELLED SOIL STABILIZER				
362	SLIP FORM (POWER DRIVEN) (PAVING)				
363	TIE TAMPER AND BALLAST MACHINE				
365	TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING (HIGHWAY AND HEAVY ONLY)				
367	TUB GRINDER, MORBARK, OR SIMILAR TYPE				
GROUP 5 *		2018-12-17	25.95	6.76	32.71
370	BITUMINOUS ROLLER (UNDER EIGHT TONS)				
371	CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED)				
372	FORM TRENCH DIGGER (POWER)				
375	HYDRAULIC LOG SPLITTER				
376	LOADER (BARBER GREENE OR SIMILAR TYPE)				
377	POST HOLE DRIVING MACHINE/POST HOLE AUGER				
379	POWER ACTUATED JACK				
381	SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR)				
382	SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER				
383	SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER				
384	STUMP CHIPPER AND TREE CHIPPER				
385	TREE FARMER (MACHINE)				
GROUP 6 *		2018-12-17	20.95	6.76	27.71
387	CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER				
389	DREDGE DECK HAND				
391	GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING)				
393	LEVER PERSON				

395 POWER SWEEPER

396 SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS

397 TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING

COMMERCIAL POWER EQUIPMENT OPERATOR

GROUP 1 *	2018-12-17	41.14	20.30	61.44

501 HELICOPTER PILOT (COMMERCIAL CONSTRUCTION ONLY)

502 TOWER CRANE 250 FEET AND OVER (COMMERCIAL CONSTRUCTION ONLY)

503 TRUCK CRAWLER CRANE WITH 200 FEET OF BOOM AND OVER, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)

GROUP 2 *	2018-12-17	39.70	19.45	59.15

504 CONCRETE PUMP WITH 50 METERS/164 FEET OF BOOM AND OVER (COMMERCIAL CONSTRUCTION ONLY)

505 PILE DRIVING WHEN THREE DRUMS IN USE (COMMERCIAL CONSTRUCTION ONLY)

506 TOWER CRANE 200 FEET AND OVER (COMMERCIAL CONSTRUCTION ONLY)

507 TRUCK OR CRAWLER CRANE WITH 150 FEET OF BOOM UP TO AND NOT INCLUDING 200 FEET, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)

GROUP 3 *	2018-12-17	39.39	20.30	59.69

508 ALL-TERRAIN VEHICLE CRANES (COMMERCIAL CONSTRUCTION ONLY)

509 CONCRETE PUMP 32-49 METERS/102-164 FEET (COMMERCIAL CONSTRUCTION ONLY)

510 DERRICK (GUY & STIFFLEG) (COMMERCIAL CONSTRUCTION ONLY)

511 STATIONARY TOWER CRANE UP TO 200 FEET

512 SELF-ERECTING TOWER CRANE 100 FEET AND OVER MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY)

513 TRAVELING TOWER CRANE (COMMERCIAL CONSTRUCTION ONLY)

514 TRUCK OR CRAWLER CRANE UP TO AND NOT INCLUDING 150 FEET OF BOOM, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)

GROUP 4	2018-12-17	37.95	19.45	57.40

515 CRAWLER BACKHOE INCLUDING ATTACHMENTS (COMMERCIAL CONSTRUCTION ONLY)

516 FIREPERSON, CHIEF BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)

517 HOIST ENGINEER (THREE DRUMS OR MORE) (COMMERCIAL CONSTRUCTION ONLY)

518 LOCOMOTIVE (COMMERCIAL CONSTRUCTION ONLY)

519 OVERHEAD CRANE (INSIDE BUILDING PERIMETER) (COMMERCIAL CONSTRUCTION ONLY)

520 TRACTOR . BOOM TYPE (COMMERCIAL CONSTRUCTION ONLY)

GROUP 5	2018-12-17	38.13	20.30	58.43

521 AIR COMPRESSOR 450 CFM OR OVER (TWO OR MORE MACHINES) (COMMERCIAL CONSTRUCTION ONLY)

522 CONCRETE MIXER (COMMERCIAL CONSTRUCTION ONLY)

523 CONCRETE PUMP UP TO 31 METERS/101 FEET OF BOOM

524 DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL WHEN USED FOR CAISSON FOR ELEVATOR OR BUILDING CONSTRUCTION (COMMERCIAL CONSTRUCTION ONLY)

525 FORKLIFT (COMMERCIAL CONSTRUCTION ONLY)

526 FRONT END, SKID STEER 1 C YD AND OVER

527 HOIST ENGINEER (ONE OR TWO DRUMS) (COMMERCIAL CONSTRUCTION ONLY)

528 MECHANIC-WELDER (ON POWER EQUIPMENT) (COMMERCIAL CONSTRUCTION ONLY)

529 POWER PLANT (100 KW AND OVER OR MULTIPLES EQUAL TO 100KW AND OVER) (COMMERCIAL CONSTRUCTION ONLY)

530 PUMP OPERATOR AND/OR CONVEYOR (TWO OR MORE MACHINES) (COMMERCIAL CONSTRUCTION ONLY)

531 SELF-ERECTING TOWER CRANE UNDER 100 FEET MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY)

532 STRADDLE CARRIER (COMMERCIAL CONSTRUCTION ONLY)

533 TRACTOR OVER D2 (COMMERCIAL CONSTRUCTION ONLY)

534 WELL POINT PUMP (COMMERCIAL CONSTRUCTION ONLY)

GROUP 6	2018-12-17	26.05	6.76	32.81

535 CONCRETE BATCH PLANT (COMMERCIAL CONSTRUCTION ONLY)

536 FIREPERSON, FIRST CLASS BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)

537 FRONT END, SKID STEER UP TO 1 C YD

538 GUNITE MACHINE (COMMERCIAL CONSTRUCTION ONLY)

539 TRACTOR OPERATOR D2 OR SIMILAR SIZE (COMMERCIAL CONSTRUCTION ONLY)

540 TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER

GROUP 7 *	2018-12-17	35.50	20.30	55.80

541 AIR COMPRESSOR 600 CFM OR OVER (COMMERCIAL CONSTRUCTION ONLY)

542 BRAKEPERSON (COMMERCIAL CONSTRUCTION ONLY)

543 CONCRETE PUMP/PUMPCRETE OR COMPLACO TYPE (COMMERCIAL CONSTRUCTION ONLY)

544 FIREPERSON, TEMPORARY HEAT SECOND CLASS BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)

545 OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS AND MILLING MACHINES, OR OTHER SIMILAR POWER EQUIPMENT) (COMMERCIAL CONSTRUCTION ONLY)

546 PICK UP SWEEPER (ONE CUBIC YARD HOPPER CAPACITY) (COMMERCIAL CONSTRUCTION ONLY)

547 PUMP AND/OR CONVEYOR (COMMERCIAL CONSTRUCTION ONLY)

GROUP 8 *	2018-12-17	19.46	8.34	27.80

548 ELEVATOR OPERATOR (COMMERCIAL CONSTRUCTION ONLY)

549 GREASER (COMMERCIAL CONSTRUCTION ONLY)

550 MECHANICAL SPACE HEATER (TEMPORARY HEAT NO BOILER LICENSE REQUIRED) (COMMERCIAL CONSTRUCTION ONLY)

TRUCK DRIVERS

GROUP 1 *	2018-12-17	23.65	6.76	30.41

601 MECHANIC . WELDER

602 TRACTOR TRAILER DRIVER

603 TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)

GROUP 2	2018-12-17	19.25	6.76	26.01

604 FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK

GROUP 3 *	2018-12-17	19.00	6.76	25.76

605 BITUMINOUS DISTRIBUTOR DRIVER

606 BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)

607 THREE AXLE UNITS

GROUP 4	2018-12-17	21.00	6.76	27.76

608 BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER)

609 DUMP PERSON

610 GREASER

611 PILOT CAR DRIVER

612 RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS

613 TWO AXLE UNIT

614 SLURRY OPERATOR

615 TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER)

616	TRACTOR OPERATOR, UNDER 50 H.P.				
SPECIAL CRAFTS					
701	HEATING AND FROST INSULATORS	2018-12-17	44.60	24.40	69.00
		2019-06-01	47.10	24.40	71.50
702*	BOILERMAKERS	2018-12-17	37.22	27.14	64.36
		2019-01-01	38.33	27.43	65.76
703	BRICKLAYERS	2018-12-17	35.89	20.84	56.73
704	CARPENTERS	2018-12-17	29.57	19.86	49.43
705*	CARPET LAYERS (LINOLEUM)	2018-12-17	31.95	17.38	49.33
706*	CEMENT MASONS	2018-12-17	38.41	19.67	58.08
707	ELECTRICIANS	2018-12-17	42.28	29.07	71.35
		2019-05-01	45.23	29.07	74.30
708	ELEVATOR CONSTRUCTORS	2018-12-17	48.36	32.65	81.01
		2019-01-01	49.91	35.25	85.16
709	GLAZIERS	2018-12-17	41.19	18.54	59.73
710*	LATHERS	2018-12-17	29.57	19.86	49.43
712	IRONWORKERS	2018-12-17	37.10	27.85	64.95
714*	MILLWRIGHT	2018-12-17	35.13	23.05	58.18
715*	PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2018-12-17	27.41	16.39	43.80
		2019-05-01	29.16	16.39	45.55

716*	PILEDRIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2018-12-17	39.15	19.94	59.09
717	PIPEFITTERS . STEAMFITTERS	2018-12-17	45.82	27.37	73.19
718*	PLASTERERS	2018-12-17	38.96	19.45	58.41
719	PLUMBERS	2018-12-17	46.91	23.79	70.70
		2019-05-01	49.66	23.79	73.45
720	ROOFER	2018-12-17	33.14	17.23	50.37
		2019-06-01	34.74	17.23	51.97
721	SHEET METAL WORKERS	2018-12-17	37.62	23.95	61.57
722*	SPRINKLER FITTERS	2018-12-17	37.58	19.49	57.07
723*	TERRAZZO WORKERS	2018-12-17	39.49	18.82	58.31
724*	TILE SETTERS	2018-12-17	35.81	23.29	59.10
725	TILE FINISHERS	2018-12-17	25.48	17.18	42.66
726*	DRYWALL TAPER	2018-12-17	26.90	17.65	44.55
		2019-06-01	28.35	17.65	46.00
727	WIRING SYSTEM TECHNICIAN	2018-12-17	38.97	17.14	56.11
		2019-07-01	40.17	17.14	57.31
728	WIRING SYSTEMS INSTALLER	2018-12-17	27.30	14.31	41.61
		2019-07-01	28.14	14.31	42.45
729*	ASBESTOS ABATEMENT WORKER	2018-12-17	30.83	18.70	49.53
		2019-01-01	31.78	19.35	51.13

730*	SIGN ERECTOR	2018-12-17	27.10	13.42	40.52

Minnesota Department of Labor and Industry Certified Payroll Form

This is a two part form consisting of Part 1 - Prevailing Wage Payroll Information listed below and the accompany Part 2 - Statement of Compliance. The contractor and subcontractor(s) shall furnish these completed forms every two weeks to the contracting authority. Copies of the Prevailing Wage Payroll Information form and the Statement of Compliance form are available at DLI.MN.GOV/LS/PrevWage.asp

All payrolls must be certified by attaching to each report a completed and executed Statement of Compliance.

Name of Contractor or Subcontractor		Prime Contractor Name			
Address & Telephone Number		Address & Telephone Number			
Contract Purchase Order Number		Pay Period End Date		Project Name and Location	
				Payroll #	

1	2	3	4	5 Day of Week & Date (xx/xx)							6	7	8	9	10						11
Employee Name, Address, & Identifying Number (DO NOT provide Social Security No.)	# of Exemp-tions	Labor Code and ---------------- - Classification Title	OT & ST	Su	M	T	W	Th	F	S	Total Hrs This Job	Hrly Rates of Pay	Gross Amt. Earned This Job	Gross Amt Earned This Pay Period	FICA	Fed Tax	State Tax	Other (Specify)	Other (Specify)	Total Deductions	Total Net Wages Paid
				Hours Worked Each Day																	
			OT																		
			ST																		
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*Pursuant to the Minnesota Government Data Practices Act, all of the data provided hereunder is public data, which is available to anyone upon request. DO NOT provide any confidential data such as social security numbers, in part or whole, on this form. This data is collected pursuant to Minnesota Stat. §177.30 Sub. 4 and 177.43 Sub. 3. If you have questions regarding the Prevailing Wage Laws, contact the Minnesota Department of Labor & Industry, 443 Lafayette Road Nl, St. Paul, MN 55155, Phone (651) 284-5091 or 1-800-DIAL-DLI (1-800-342-53584), TTY (651) 297-4198. The willful falsification of any of the above statements may subject the contractor or subcontractor to civil or criminal prosecution under state and/or federal law.

SAMPLE

MINNESOTA DEPARTMENT OF LABOR & INDUSTRY

Part 2 Statement of Compliance

REPORT NUMBER	STATE PROJECT NAME AND LOCATION	DATE
CONTACTING AUTHORITY	PROJECT	GENERAL CONTRACTOR
CONTRACTOR/SUBCONTRACTOR	PHONE NUMBER	CONTRACT PURCHASE ORDER NUMBER
ADDRESS	CITY/STATE	ZIP
TYPE OF WORK		

(Complete as described on solicitation documents.)

STATEMENT WITH RESPECT TO COMPLIANCE AND WAGES PAID

I, _____ _____ do hereby state:
(Name of signatory party) (Title- Owner or Officer)

(1) That I pay or supervise the payment of the persons employed by _____ on said Contract; that during the payroll period commencing on the _____day of_____ of the year_____, and ending the_____day of_____of the year_____, there were _____employees performing work on said Contract. That all persons performing work under said Contract are listed on the payroll and have been paid the full prevailing wages for all hours worked under said Contract, that no rebates and or deductions have or will be made either directly or indirectly to or on behalf of said_____ (Contractor or Subcontractor) from the full wages earned by any person, other than permissible deductions as defined in Minnesota Statutes 177.24, Subdivision 4, 181.06, and 181.79, issued by the Minnesota Commissioner of Labor and Industry and described below:

DESCRIBE LEGAL DEDUCTIONS

_____

_____

_____

(2) That the payroll submitted under said Contract is complete and accurate; that the wage rate(s) of the laborer(s), mechanic(s), and worker(s) performing work under said Contract is (are) paid according to the wage determination(s) and labor provisions incorporated in said Contract and according to applicable laws; that wages paid to laborer(s) mechanic(s), and worker(s) performing work under said Contract is at least the prevailing wage rate for the most similar classification of labor performed as defined under applicable law; and that the laborer(s), mechanic(s), and worker(s) performing work under said Contract is (are) paid for all hours in excess of the prevailing hours at a rate of at least one and one-halftimes the applicable base rate of pay.

(3) That any apprentices employed during said payroll period are duly registered in a bona fide apprenticeship program registered with the Minnesota Department of Labor and Industry, or are registered with the Bureau of Apprenticeship and Training; United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO ANY APPROVED PLANS, FUNDS, OR PROGRAMS

☐ In addition to the basic hourly wage rates paid to each laborer, worker or mechanic listed on said payroll, payments to current, bona fide fringe benefit programs as set forth in paragraph 4(d), have been or will be made to the program's administrators as set forth in paragraph 4(e) for the benefit of said employees, except as noted in Section 4(c).

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH TO ALL EMPLOYEES

☐ Each laborer, worker, or mechanic listed on said payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic rate plus the fringe rate as listed in the appropriate wage determination incorporated into said Contract.

NOTE- FRINGE BENEFIT SECTIONS C, D, E AND SIGNATURE BLOCK ARE ON NEXT PAGE

SAMPLE

(c) EXCEPTIONS

EMPLOYEE NAME	CLASSIFICATION/OCCUPATION	EXPLANATION

(d) BENEFIT PROGRAM INFORMATION in DOLLARS CONTRIBUTED PER HOUR
(Must be completed if 4(a) is checked.)

PROGRAM TITLE, CLASSIFICATION TITLE, OR INDIVIDUAL EMPLOYEES	HEALTH/ WELFARE	VACATION/ HOLIDAY	APPRENTI-CESHIP TRAINING	PENSION	OTHER INCLUDE TITLE
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$

(e) BENEFIT PROGRAM INFORMATION (Must be completed if 4(a) is checked.)

NAME & ADDRESS OF FRINGE BENEFIT FUND, PLAN, OR PROGRAM ADMINISTRATOR	BENEFIT ACCOUNT NUMBER	THIRD PARTY TRUSTEE AND/OR CONTACT PERSON	TELEPHONE NUMBER

The willful falsification of any of the above statements may subject the contractor or subcontractor to civil or criminal prosecution under federal and/or state law.

NAME AND TITLE OF OWNER OR OFFICER	SIGNATURE

As a representative of the contractor submitting the payroll identified above, I hereby certify that the payroll is true and correct to the best of my knowledge.

NOTE: For information regarding this form, submission of payroll records, or copies of the laws stated above, contact the Minnesota Department of Labor and Industry, 443 Lafayette Road N., St. Paul, MN 55155, Phone: (651) 284-5091 or 1-800-DIAL-DLI (1-800-342-5354), TTY: (651) 297-4198.

DIVISION 01

GREEN COMMUNITIES CRITERIA – 01 10 00

8. WORK COVERED BY THIS SECTION: Items have been included that meet criteria set by Green Communities Criteria.
   8.1. See Section 01 81 13 Sustainable Building Requirements for additional/related requirements.
   8.2. Follow during construction and certify at the end of construction/ construction close-out compliance with the Minnesota Housing Multifamily – Intended Methods Worksheet (IMW) (included at the end of this section) in force at the time of completion.
9. CONTRACTOR'S DUTIES: Coordinate work in this section with other trades. Provide necessary documentation as required per Mandatory and Optional Criteria Items. Certify Green Communities Intended Methods Worksheet that Criteria Items have been completed and incorporated into project at end of construction
10. HIERARCHY OF DOCUMENTS: The complete set of documents in this set includes Project Manual and Drawing Set along with other miscellaneous documents referenced. When these items are in conflict with each other, discrepancies shall be brought to attention of Architect during bid phase, so clarifications can be made prior to bidding.
11. SCOPE OF WORK: This project is located in State of Minnesota and shall follow MN Overlay and Guide to Enterprise Green Communities Criteria (verify version in force at time of construction initiation). This document modifies Criteria to better adapt them to conditions in our region and in conjunction with Minnesota Housing's Rental Housing Design/Construction Standards. This project has also been classified as New Construction per MN Overlay and Guide to Enterprise Green Communities Criteria.

Multifamily - Intended Methods Worksheet

MN Overlay to the 2015 Enterprise Green Communities Criteria

Project Name: West Birch Estates Townhomes
Location (City): Princeton
Developer/Owner/Borrower: Central MN Housing Partnership, Inc.
Architect of Record: Blumentals
General Contractor: Lumber One
HERS Rater/Energy Consult: None
This Form Prepared By: **Blumentals /** Architecture
Date Last Updated: 10.26.2018
Issued For Construction - 19-0607

Submittal Phase:	**Construction Type:**
☐ Application	☐ New Construction
☑ Loan Commitment/ Loan Closing	☐ Substantial/ Gut Rehab
☐ End of Construction/ Construction Close-out	☑ Moderate Rehab

1. Multifamily New Construction projects must include all applicable "Mandatory" Criteria and at least (**35**) Optional Criteria Points.
2. Multifamily Substantial, Gut, and Moderate Rehab projects must include all applicable "Mandatory" Criteria and at least (**30**) Optional Criteria Points.
3. The information on this form must reference and reconcile with the 2015 Enterprise Green Communities Criteria as amended with the current/applicable version of the MN Overlay.
4. For developments with scattered sites, different construction types or a combination of low rise and mid/high rise buildings - a separate Intended Methods & Certification form must be provided.
5. Items with text in red as such are MN Overlay items.
6. This document is formatted to be printed in a Landscape (Horizontal) Letter (11" x 8.5") page format.

C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
1. Integrative Design Category									
1.1a	M	**Goal Setting** (Mandatory for all)	Develop an integrative design process that works best for your project team and intentions. At minimum, document: 1. A statement of the overall green development goals of the project and the expected intended outcomes from addressing those goals. 2. A summary of the integrative process that was used to select the green building strategies, systems and materials that will be incorporated into the project. 3. A description of how progress and success against these goals will be measured throughout the completion of design, construction and operation to ensure that the green features are included and correctly installed.	A statement and summary of goals and outcomes with input from all of the integrated design participants will be provided.	☑	☐	☐	☐	

Key to Column Headers:
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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
1.1b	M	**Criteria Documentation** (Mandatory for all)	Create design and construction documentation to include information on implementation of appropriate Enterprise Green Communities Criteria.	Green Criteria compliance will be seamlessly integrated throughout our design and construction documentation. **This is the verbiage used on the Willow Grove IMW…**	☑	☐	☐	☐	
1.1c	9	**Designing for Project Performance**	Identify how the expected performance of your project compares to the actual performance of other projects in your portfolio and/or community.		☐	☑	☐	☐	
1.2a	M or 2	**Resident Health and Wellbeing: Design for Health** (Mandatory for NC) (2 Optional Points for Sub and Mod Rehab)	Identify potential resident health factors and design your project to address resident health and well-being by using the matrix provided on pages 22 and 23 of the 2015 EGCC document.		☐	☑	☐	☐	
1.2b	12	**Resident Health and Wellbeing: Health Action Plan**	At pre-design and continuing throughout the project life cycle, collaborate with public health professionals and community stakeholders to assess, identify, implement and monitor achievable actions to enhance health-promoting features of the project and minimize features that could present health risks. Specifically, create a Health Action Plan and integrate the selected interventions and a plan for monitoring and evaluating progress per the full criterion.		☐	☑	☐	☐	
1.3a	M	**Resilient Communities: Design for Resilience** (Mandatory for NC & Sub Rehab only)	Given your project building type, location and expected resident population, identify a project characteristic that would most likely impact your project's ability to withstand an unexpected weather event or loss of power. Select at least one criterion from the given list that would help mitigate that impact, and incorporate this within your project plans and design. Include a short narrative providing your rationale for selecting this criterion above the others.	Not required for Moderate Rehabilitation.	☐	☐	☑	☐	

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
1.3b	15	**Resilient Communities: Multi-Hazard Risk/Vulnerability Assessment**	Carry out a Vulnerabilities Assessment and implement building elements designed to enable the project to adapt to, and mitigate, climate impacts given the project location, building/construction type and resident population.		☐	☑	☐	☐	

Subtotal Category 1 Selected Optional Points **0**

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
2. Location + Neighborhood Fabric Category									
Criteria 2 Overlay. *New Construction (NC) projects* ***are not*** *required to earn optional points under Criterion 2.8 Access to Public Transportation OR earn 8 optional points through selecting one or more of the following: Criterion 2.7, 2.9, 2.12, 2.13, or 2.14.*									
2.1	M	**Sensitive Site Selection** (Mandatory for NC only)	Do not locate new projects, including buildings, built structures, roads or parking areas, on portions of sites that meet any of the following provisions: 1. Land within 100 feet of wetlands, including isolated wetlands or streams. Maintain or establish riparian buffer using native vegetation where possible. Bike and foot paths are allowed if at least 25 feet from the wetlands boundary. 2. Land on slope greater than 15% 3. Land with prime soils, unique soils or soils of state significance per USDA designations 4. Public parkland 5. Land that is specifically identified as an existing habitat for any species on federal or state threatened or endangered lists 6. Land that is within the Special Flood Hazard Areas (SFHA) as identified by FEMA on the Flood Insurance Rate Map	The existing project is not located within any of the restricted types of land to the Owner's knowledge at this time.	☑	☐	☐	☐	
2.2	M	**Connections to Existing Development and Infrastructure** (Mandatory for NC only) (See criteria for other exceptions)	Locate the project on a site with access to existing roads, water, sewers and other infrastructure within or contiguous to (having at least 25% of the perimeter bordering) existing development. Connect the project to the pedestrian grid.	Not required for communities with a population >10,000. Princeton, MN has a population of 4,694 as per the 2013 Census.	☐	☐	☑	☐	
2.3	M	**Compact Development** (Mandatory for NC only)	At a minimum, build to the residential density (dwelling units/acre) of the census block group in which your project is located.	See 2.4 below for information.	☐	☐	☑	☐	
2.4	5 or 7	**Compact Development**	Exceed the residential density (dwelling units/acre) of the census block group in which your project is located. Exceed by 2x for [5 points]; exceed by 3x for [7 points].	Existing density is 7.66 households per acre which is 2.7x greater than the CNT's calculated density of 2.78 households per acre.	☑	☐	☐	☐	5

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
2.5	M	**Proximity to Services** (Mandatory for NC only)	Locate the project within a 0.5-mile walk distance of at least four, or a 1-mile walk distance of at least seven, of the listed services. For projects that qualify as Rural/Tribal/Small Town, locate the project within 5 miles of at least four of the listed services.	Not required for Moderate Rehabilitation of existing townhomes.	☐	☐	☑	☐	
2.6	M	**Preservation of and Access to Open Space for Rural/Tribal/Small Towns** (Mandatory for applicable NC only)	Set aside a minimum of 10% (minimum of 0.25 acre) of the total project acreage as non-paved open space for use by all residents OR locate the project within a 0.25-mile walk distance of dedicated public non-paved open space that is a minimum of 0.75 acres.	Not required for Moderate Rehabilitation of existing townhomes.	☐	☐	☑	☐	
2.7	6 max	**Preservation of and Access to Open Space**	Set aside a percentage of non-paved open space for use by all residents. 20% [2 points]; 30% [4 points]; 40% + written statement of preservation/conservation policy for set-aside land [6 points].	**The Owner will provide** a statement that at least 40% of the existing site (minimum of 54,563 SF) will be maintained as open space that will not be developed in the future.	☑	☐	☐	☐	6
2.8	8 or 10	**Access to Public Transportation**	Locate projects within a 0.5-mile walk distance of transit services combined (bus, rail and/or ferry), constituting at least 60 or more transit rides per weekday, with some type of weekend ride option. [8 points] For projects that qualify as Rural/Tribal/Small Town, locate the project within a 5-mile distance of at least one of the following transit options: 1) vehicle share program; 2) dial-a-ride program; 3) employer vanpool; 4) park-and-ride; or 5) public–private regional transportation. [8 points] For an additional 2 points: Locate the project along dedicated bike trails or lanes that lead to transit services or stations (bus, rail and ferry) within 3 miles.	The project is determined to be qualified as a Small Town compliant Site. Option #5, Public-Private Regional Transport will be pursued. **Owner will provide a written description and a map of the system.**	☑	☐	☐	☐	8
2.9	1 - 4	**Improving Connectivity to the Community**	Improve access to community amenities through at least one of the transit, auto or biking mobility measures listed.	**NEED: Description of transportation pass system. Will it be reduced fare passes for 2-points or free fare passes for 3-points?**	☑	☐	☐	☐	2

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
2.10	5 max	**Passive Solar Heating/Cooling**	Design and build with passive solar design, orientation and shading that meet specified guidelines.		☐	☑	☐	☐	
2.11	4	**Brownfield Site or Adaptive Reuse Building**	Rehabilitate an existing structure that was not previously used as housing, or locate the project on a brownfield site.		☐	☐	☑	☐	
2.12	6	**Access to Fresh, Local Foods**	Pursue one of three options to provide residents and staff with access to fresh, local foods, including neighborhood farms and gardens; community-supported agriculture; or proximity to farmers markets.		☐	☑	☐	☐	
2.13	4	**LEED for Neighborhood Development Certification**	Locate building(s) in a Stage 2 Pre-Certified or Stage 3 Certified Neighborhood Development.		☐	☑	☐	☐	
2.14	6 max	**Local Economic Development & Community Wealth Creation**	Demonstrate that local preference for construction employment and subcontractor hiring was part of your bidding process [2 points]; OR demonstrate that you achieved at least 20% local employment [3 points]; OR provide physical space for small business, nonprofits, and/or skills and workforce education [3 points].	**Owner to provide** projected local preference procurement and subcontractor set-aside. At least 20% local employment will be pursued. After construction is complete, a list of local contractors will be provided along with a statement of amounts paid to local contractors as a percent total of the construction budget.	☑	☐	☐	☐	5

Subtotal Category 2 Selected Optional Points **26**

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
3. Site Improvements Category									
3.1	M	**Environmental Remediation**	See Minnesota Housing Environmental Standards	Hazardous materials are not anticipated to exist at this site.	☑	☐	☐	☐	
3.2	M	**Erosion and Sedimentation Control** (Mandatory for all, except for infill sites with buildable area smaller than one acre)	Implement EPA's Best Management Practices for Construction Site Stormwater Runoff Control, or local requirements, whichever is more stringent.	**Indicate where in the specs erosion control is required of the contractor**	☑	☐	☐	☐	
3.3	M	**Low Impact Development** (Mandatory only for projects located on greenfields)	Projects located on greenfields must meet the list of low-impact development criteria.	Existing built site is not a greenfield.	☐	☐	☑	☐	
3.4	M	**Landscaping** (Mandatory for all)	If providing plantings, all should be native or adapted to the region, appropriate to the site's soil and microclimate, and none of the new plants is an invasive species. Reseed or xeriscape all disturbed areas.	No additional plantings are included as part of the moderate rehabilitation.	☐	☐	☑	☐	
3.5a	M	**Efficient Irrigation and Water Reuse** (Mandatory if irrigation is used)	If irrigation is used, install an efficient irrigation or water reuse system per the guidelines.	Irrigation system layout is existing to remain.	☐	☐	☑	☐	
3.5b	4 or 8	**Efficient Irrigation and Water Reuse**	Install an efficient irrigation system equipped with a WaterSense-labeled weather-based irrigation controller (WBIC) OR at least 50% of the site's irrigation should be satisfied by reusing water.	No alteration to the existing irrigation system layout is included as part of the moderate rehabilitation but the heads will be replaced with WaterSense labeled units and a new WaterSense labeled weather-based controller will be included. Contractor to provide cut sheets. **WE HAVE NOTHING IN THE SPEC CALLING FOR REPLACEMENT OF SPRINKLER SYSTEM PARTS**	☑	☐	☐	☐	4
3.6	4 or 8	**Surface Stormwater Management**	Retain, infiltrate and/or harvest the first 1.0 inch of rain that falls [4 points]; OR as calculated for a 24-hour period of a one-year (1) storm event, so that no stormwater is discharged to drains/inlets. [8 points] For both options, permanently label all storm drains and inlets.		☐	☑	☐	☐	

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
3.7	1	**Reducing Heat Island Effect: Paving**	Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.		☐	☑	☐	☐	

Subtotal Category 3 Selected Optional Points **4**

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
4. Water Conservation Category									
4.1	M or 6	**Water-Conserving Fixtures** (Mandatory for NC and Sub Rehab only) (Optional/5 points for Mod Rehab)	Install water-conserving fixtures in all units and any common facilities with the following specifications. Toilets: WaterSense-labeled and 1.28 gpf; Urinals: WaterSense-labeled and 0.5 gpf; Showerheads: WaterSense-labeled and 2.0 gpm; Kitchen faucets: 2.0 gpm; Lav faucets: WaterSense- labeled and 1.5 gpm. AND for all single-family homes and all dwelling units in buildings three stories or fewer, the static service pressure must not exceed 60 psi. Optional Mod Rehab points: All Toilets [1] point, All Urinals [1] point, All Showerheads [1] point, All Kitchen Faucets [1] point, and/or All Lavatory Faucets [1] point.	Section 22 00 00 Plumbing Design Criteris, note 1.1.1 indicates WaterSense labeled fixtures are to be provided at replaced toilets, showerheads, and faucets.	☑	☐	☐	☐	4
4.2	6 max	**Advanced Water Conservation**	Reduce water consumption either by installing water-conserving fixtures in all units and all common space bathrooms with the following specifications: Toilets: WaterSense-labeled and 1.1 gpf [1 point]; Showerheads: WaterSense-labeled and 1.5 gpm [1 point]; Kitchen faucets: 1.5 gpm and lav faucets: WaterSense-labeled and 1.0 gpm [1 point] OR Reduce total indoor water consumption by at least 30% compared to the baseline indoor water consumption chart, through a combination of your choosing. [6 points maximum]		☐	☑	☐	☐	
4.3	4	**Leaks & Water Metering**	Conduct pressure-loss tests and visual inspections to determine if there are any leaks; fix any leaks found; and meter or submeter each dwelling unit with a technology capable of tracking water use. Separately meter outdoor water consumption.		☐	☑	☐	☐	

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
4.4	4	**Efficient Plumbing Layout & Design**	To minimize water loss from delivering hot water, the hot water delivery system shall store no more than 0.5 gallons of water in any piping/manifold between the hot water source and any hot water fixture.	Alterations to the existing system layout are not included as part of the Moderate Rehabilitation.	☐	☐	☑	☐	
4.5	6 max	**Water Reuse**	Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's total water needs: 10% reuse [3 points]; 20% reuse [4 points]; 30% reuse [5 points]; 40% reuse [6 points].		☐	☑	☐	☐	
4.6	Omit	**Access to Potable Water during Emergencies**	Not allowed if the project receives funding from Minnesota Housing.		☐	☑	☑	☐	

Subtotal Category 4 Selected Optional Points **4**

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C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP
5. Energy Efficiency Category									
5.1a	M	**Building Performance Standard: NC Energy Star for Homes** (Mandatory for NC SF and Low Rise MF)	Certify each dwelling unit in the project through the ENERGY STAR New Homes program.	A report illustrating compliance with ENERGY STAR will be completed by a certified Home Energy Rater. **THIS WOULD BE BY OWNER. WILL ALAN DO THIS?**	☑	☐	☐	☐	
5.1b	M	**Building Performance Standard: NC ASHRAE 90.1/Energy Star MFHR** (Mandatory for NC 4 &5 + NC 6 Story or more)	Follow one of Three Compliance Pathways: 1) Buildings 4 Stories or more WITH Heated Garage. 2) Buildings 4 Stories or more WITHOUT Heated Garage. 3) Buildings with up to 5 Stories (dwelling units with own heating, cooling, and hot water heating) WITH or WITHOUT a Heated Garage.	Not required for Moderate Rehabilitation	☐	☐	☑	☐	
5.1c	M	**Building Performance Standard** (Mandatory for Sub and Mod Rehab: single family and low-rise multifamily)	For Sub Rehab, each dwelling unit, achieve a HERS Index score of 85 or less. For Mod Rehab, Performance Pathway HERS 85 or 100; OR, Overlay Prescriptive Pathway.	A HERS report will be provided by a Certified HERS Rater. **THIS WOULD BE BY OWNER. WILL ALAN DO THIS?**	☑	☐	☐	☐	
5.1d	M	**Building Performance Standard**: (Mandatory for Sub and Mod Rehab: mid-rise and high-rise multifamily)	For Sub Rehab, each dwelling unit, follow a Performance Pathway and demonstrate equivalent performance to ASHRAE 90.1-2010. For Mod Rehab, each dwelling unit, follow Performance Pathway; OR, Prescriptive Pathway.	No Mechanical Engineer is being utilized on this project.	☐	☑	☐	☐	
5.2a	5 - 12	**Additional Reductions in Energy Use**	Design and construct a building that is projected to be at least 5% more efficient than what is required of the project by Criteria 5.1a–d. (Projects may receive points in Criteria 5.2a or 5.2b, but not both)	The project includes replacing most of the existing lighting fixtures with high efficiency fixtures. A minimum of 5% increase in efficiency will be pursued. Specifications for the fixtures will be provided in the design documents. **ARE WE STILL REPLACING BULBS? IF SO INDICATE WHERE IN THE SPEC THIS IS INCLUDED**	☐	☑	☐	☐	12
5.2b	12	**Advanced Certification: Nearing Net Zero**	Certify the project in a program that requires advanced levels of building envelope performance such as PHIUS, Living Building Challenge and/or DOE Zero Energy Ready Home. (Projects receiving points in Criterion 5.2b may not receive points per Criterion 5.2a)		☐	☑	☐	☐	

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					Yes	No	N/A	WR	OP
5.3	M	**Sizing of Heating and Cooling Equipment** (Mandatory for NC and Rehab if scope of work includes HVAC work)	Size and select heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals J and S or ASHRAE handbooks.	No Mechanical Engineer is being utilized on this project.	☐	☑	☐	☐	
5.4	M	**ENERGY STAR Appliances** (Mandatory for NC and for Rehab if new appliances are included in the scope of work)	If providing appliances, install ENERGY STAR clothes washers, dishwashers and refrigerators. If appliances will not be installed or replaced at this time, specify that, at the time of installation or replacement, ENERGY STAR models must be used.	Existing appliances are to remain.	☐	☑	☐	☐	
5.5	M	**Lighting** (Mandatory for NC and for any "new" fixtures at Rehab)	Follow the guidance for high-efficacy lighting controls and other characteristics for any new permanently installed lighting fixtures in project dwelling units, common spaces and exterior.	All newly installed fixtures will comply. Specifications of the fixtures will be provided in the design documents. **ARE WE STILL REPLACING BULBS? IF SO INDICATE WHERE IN THE SPEC THIS IS INCLUDED**	☐	☑	☐	☐	
5.6	M - 6	**Electricity Meter** (Mandatory for NC and Substantial Rehab) (Optional 6 points for Mod Rehab)	Install individual or submetered electric meters for all dwelling units.	Existing metering system is assumed to comply. **Documentation supporting this will be provided by the Owner.**	☑	☐	☐	☐	6
5.7a	4	**Photovoltaic/Solar Hot Water Ready**	Orient, design, engineer, wire and/or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.		☐	☑	☐	☐	
5.7b	10 max	**Renewable Energy**	Install photovoltaic (PV) panels or other electric-generating renewable energy source to provide a specified percentage of the project's estimated total energy demand or water heating energy demand. (Projects may earn points through Criterion 5.7b or 5.8b, but not both.)		☐	☑	☐	☐	
5.8a	8	**Resilient Energy Systems: Floodproofing**	Conduct floodproofing, including perimeter floodproofing (barriers/shields), of lower floors. Design and install building systems as specified by the full criterion so that the operation of those systems will not be grossly affected in case of a flood.		☐	☑	☐	☐	

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					Yes	No	N/A	WR	OP
5.8b	8	**Resilient Energy Systems: Islandable Power**	Provide emergency power through an islandable photovoltaic (PV) system or an efficient and permanent generator that will offer at least limited electricity for critical circuits during power outages per one of the three options listed. (Projects may earn points through Criterion 5.7b or 5.8b, but not both.)		☐	☑	☐	☐	

Subtotal Category 5 Selected Optional Points **18**

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					Yes	No	N/A	WR	OP
6. Materials Category									
6.1	M	**Low/No VOC Paints, Coatings and Primers** (Mandatory for NC and for Rehab if included in scope of work)	All interior paints and primers must have VOC levels, in grams per liter, less than or equal to the thresholds established by South Coast Air Quality Management District (SCAQMD) Rule 1113.	Interior paints will meet SCAQMD requirements. Contractor to provide labels. Specification Section 09 90 00 Paints and Coatings note 5.1 indicates this requirement.	☑	☐	☐	☐	
6.2	M	**Low/No VOC Adhesives and Sealants** (Mandatory for NC and for Rehab if included in scope of work)	All adhesives and sealants (including caulks) must have VOC levels, in grams per liter, less than or equal to the thresholds established by the South Coast Air Quality Management District Rule 1168.	Adhesives and Sealants will meet SCAQMD requirements. Contractor to provide labels. Section 07 90 05 Joint Sealants note 2 indicates this requirement.	☑	☐	☐	☐	
6.3	3 max	**Recycled Content Material**	Incorporate building materials that are composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content. [1 point] Building materials that make up at least 75% of their project component each receive 1 point.		☐	☑	☐	☐	
6.4	4 max	**Regional Material**	Use products that were extracted, processed and manufactured within 500 miles of the project for a minimum of 50%, based on cost of the building materials' value. Select any or all of these options (each material can qualify for 1 point): • Framing materials • Exterior materials (e.g., siding, masonry, roofing) • Flooring materials • Concrete/cement and aggregate material • Drywall/interior sheathing materials		☐	☑	☐	☐	
6.5	1	**Certified, Salvaged and Engineered Wood Products**	For at least 25% of all structural wood products, by cost or value, commit to using either FSC-certified, salvaged products or engineered framing materials without urea formaldehyde.		☐	☑	☐	☐	

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					Yes	No	N/A	WR	OP
6.6	M	**Composite Wood Products that Emit Low/No Formaldehyde** (Mandatory for NC and for Rehab if in scope of work)	All composite wood products must be certified as compliant with California 93120 Phase 2 OR, if using a composite wood product that does not comply with California 93120 Phase 2, all exposed edges and sides must be sealed with low-VOC sealants, per Criterion 6.2.	Any composite wood products that are included in the Moderate Rehabilitation scope of work will comply. Specifications will be included in the design documents. Section 06 10 00 Rough Carpentry, note 4.1, and 06 20 00 Finish Carpentry note 3.2, indicate compliance with this requirement.	☑	☐	☐	☐	
6.7a	M	**Environmentally Preferable Flooring** (Mandatory for NC and for Rehab if new flooring in the scope of work)	Do not install carpets in building entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms or any rooms built on foundation slabs (aka Ground-connected Concrete Slabs). Exceptions: 1) Properly installed vapor barrier, 2) Functioning drain tile, 3) Capillary Break and vapor barrier, or 4) Poly-film test confirmation.	It is assumed that a compliant vapor barrier is installed under all habitable areas that have existing carpet and/or will receive new carpet.	☑	☐	☐	☐	
6.7b	6	**Environmentally Preferable Flooring Throughout**	Use non-vinyl, non-carpet floor coverings throughout each building in the project.		☐	☑	☐	☐	
6.8	M	**Mold Prevention: Surfaces** (Mandatory for all)	Use materials that have durable, cleanable surfaces throughout bathrooms, kitchens and laundry rooms. Materials installed in these rooms should not be prone to deterioration due to moisture intrusion or encourage the growth of mold.	Tile, roll goods, mold-resistant paint, etc. will be installed in all areas that have a water source that are a part of the Moderate Rehabilitation scope of work. Spec section 09 90 05 indicates the finishes used in these areas; mold resistant materials are specified.	☑	☐	☐	☐	
6.9	M	**Mold Prevention: Tub and Shower Enclosures** (Mandatory for NC and Rehab if applicable shower or bathroom work is in the scope of work)	Use moisture-resistant backing materials such as cement board, fiber cement board or equivalent per ASTM #D3273 behind tub/shower enclosures. Projects using a one-piece fiberglass tub/shower enclosure are exempt from this requirement.	All tub and shower enclosures that are a part of the scope of work will be installed in a compliant manner. Mold resistant backer boards, wall finishes, and sealants are provided.	☑	☐	☐	☐	

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					Yes	No	N/A	WR	OP
6.10	12 max	**Asthmagen-free Materials**	Do not install products that contain ingredients that are known to cause or trigger asthma. Key products to avoid are: • Insulation: Do not use spray polyurethane foam (SPF) or formaldehyde-containing fiberglass batts. [4 points] • Flooring: Do not use flexible vinyl (PVC) roll or sheet flooring or carpet-backed with vinyl with phthalates. Do not use fluid applied finish floors. [4 points] • Wall coverings: Do not use wallpaper made from vinyl (PVC) with phthalates or site-applied high-performance coatings that are epoxy or polyurethane based. [4 points] • Composite wood: Use only ULEF products for cabinetry, subflooring and other interior composite wood uses. [4 points]	No wallpaper wall coverings will be installed or are existing.	☑	☐	☐	☐	4
6.11	5	**Reduced Heat-Island Effect: Roofing**	Use an ENERGY STAR–certified roofing product for 100% of the roof area OR install a "green" (vegetated) roof for at least 50% of the roof area and ENERGY STAR–certified roofing product for the remainder of the roof area.		☐	☑	☐	☐	
6.12	M - 6	**Construction Waste Management** (Mandatory minimum requirements for all projects. Optional points are available for projects that go beyond mandatory.)	Commit to following a waste management plan that reduces non-hazardous construction and demolition waste through recycling, salvaging or diversion strategies through one of the three options. Achieve optional points by going above and beyond the requirement [6 points max].	A minimum construction waste management plan will be implemented. Documentation will be provided by the Contractor. Specification Section 01 74 19 Construction Waste Management and Disposal indicates requirements as follows: Note 1.1."Reduce construction and demolition waste on job site. Minimize waste sent to landfills through implementation of Construction Waste Management Plan. Provide a draft of the Waste Management Plan to the Architect for review and approval. Waste Management Plan shall: a) Indicate recycling of 100% of scrap cardboard. b) Indicate recycling of 100% of scrap wood."	☑	☐	☐	☐	

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					Yes	No	N/A	WR	OP
6.13	3	**Recycling Storage for Multifamily Project**	Provide separate bins for the collection of trash and recycling for each dwelling unit and all shared community rooms (if applicable). Additionally, in multifamily buildings, provide at least one easily accessible, permanent and dedicated indoor area for the collection and storage of materials for recycling. In single-family homes, points will be accrued only if curb-side recycling pickup is available. Collected materials should include, at a minimum, paper, cardboard, glass, metals and plastics.	A Recycling Storage system is existing. **Owner to provide written description of system.**	☑	☐	☐	☐	3
								Subtotal Category 6 Selected Optional Points	**7**

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					Yes	No	N/A	WR	OP
7. Healthy Living Environment Category									
7.1	M	**Ventilation** (Mandatory for all including Moderate Rehab)	For each dwelling unit, in full accordance with ASHRAE 62.2-2010, install a local mechanical exhaust system in each bathroom a local mechanical exhaust system in each kitchen and a whole-house mechanical ventilation system. For each multifamily building of four stories and more, in full accordance with ASHRAE 62.1-2010, install a mechanical ventilation system for all hallways and common spaces For all project types, in addition to the above requirements: • All systems and associated ductwork must be installed per manufacturer's recommendations. • All individual bathroom fans must be ENERGY STAR labeled, wired to turn on with the light switch, and equipped with a humidistat sensor, timer or other control (e.g., occupancy sensor, delay off switch, ventilation controller). • If using central ventilation systems with rooftop fans, each rooftop fan must be direct-drive and variable-speed with speed controller mounted near the fan. Fans with design CFM 300-2000 must also have an ECM motor. Exception: If approved by Minnesota Housing, existing, operable, functioning bath fans and kitchen fans may be permitted to remain for compliance with this criteria.	No Mechanical Engineer is being utilized on this project.	☐	☑	☐	☐	
7.2	M	**Clothes Dryer Exhaust** (Mandatory for all)	Clothes dryers must be exhausted directly to the outdoors using rigid-type ductwork (except for condensing dryers, which must be plumbed to a drain).	If flex ductwork is existing it will be replaced with rigid ductwork. Contractor to provide photos of installation.	☑	☐	☐	☐	

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					Yes	No	N/A	WR	OP
7.3	M	**Combustion Safety** (Mandatory for all)	At NC, only provide in-unit space and water heating with power-vented or closed (sealed) combustion equipment. At Rehab, replace existing in-unit space and water heating natural draft combustion equipment with new power-vented or closed (sealed) combustion equipment. If existing natural draft combustion equipment is planned to remain, a combustion action plan with post-combustion testing must be provided.	As part of the Moderate Rehabilitation scope of work the existing in-unit HWHs will be replaced with new power vented or sealed combustion equipment. **Specifications for new units will be included in the design documents WHERE?** and/or cut sheets will be provided by the Contractor.	☑	☐	☐	☐	
7.4	9 or 11	**Elimination of Combustion within the Conditioned Space** (Optional points for NC and Rehab)	No combustion equipment may be used for cooking (including, but not limited to, ranges, cooktops, stoves, ovens) as part of the building project for NC or existing combustion equipment replaced with electric equipment [9 points]; OR no combustion equipment may be used as part of the building project [11 points].	No existing appliances are being replaced as part of the scope of this project. It is believed existing cooking appliances are all electric.	☑	☐	☐	☐	9
7.5	M	**Vapor Retarder Strategies** (Mandatory for NC and for Rehab projects with foundation work)	Install vapor barriers that meet specified criteria appropriate for the foundation type.	No foundation work is included as part of the Moderate Rehabilitation scope of work.	☐	☐	☑	☐	
7.6	M	**Water Drainage** (Mandatory for NC and Rehab projects replacing assemblies called out in Criterion only)	Provide drainage of water away from walls, windows and roofs by implementing the list of techniques.	No roof replacement is included as part of the Moderate Rehabilitation scope of work.	☐	☐	☑	☐	
7.7	M	**Mold Prevention: Water Heaters** (Mandatory for all)	Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.	As required, new HWHs will be drained. Contractor to provide photos of installation.	☑	☐	☐	☐	
7.8	M	**Radon Mitigation** (Mandatory for all)	See Minnesota Housing Environmental Standards for Radon requirements.	Mille Lacs County is located in EPA Zone 2	☐	☐	☑	☐	

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					Yes	No	N/A	WR	OP
7.9	M	**Garage Isolation** (Mandatory for all)	• Provide a continuous air barrier between the conditioned space and any garage space to prevent the migration of any contaminants into the living space. • Visually inspect common walls and ceilings between attached garages and living spaces to ensure that they are air-sealed before insulation is installed. • Do not install ductwork or air handling equipment in a garage. • Fix all connecting doors between conditioned space and garage with gaskets or otherwise make substantially airtight with weather stripping. • Install one hard-wired carbon monoxide (CO) alarm with battery backup function for each sleeping zone of the project, placed per National Fire Protection Association (NFPA) 720.	Contractor to provide visual inspection and develop scope of work needed to isolate existing garages from conditioned spaces.	☑	☐	☐	☐	
7.10	M	**Integrated Pest Management** (Mandatory for all)	Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate nontoxic sealing methods to prevent pest entry.	Caulking wall, floor and joint penetrations is included as part of the Moderate Rehabilitation scope of work. Exact extent to be determined in the field and documented by the Contractor.	☑	☐	☐	☐	
7.11a	9	**Beyond ADA: Universal Design** (NC)	Design a minimum of 15% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. Design the remainder of the ground-floor units and elevator-reachable units in accordance with ICC/ANSI A117.1, Type B.		☐	☑	☐	☐	
7.11b	7 or 9	**Beyond ADA: Universal Design** (Substantial and Moderate Rehab only)	Design a minimum of 10% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. [7 points] For an additional 2 points: Design the remainder of the ground-floor units and elevator-reachable units with accessible unit entrances designed to accommodate people who use a wheelchair.		☐	☐	☑	☐	

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					Yes	No	N/A	WR	OP
7.12	M	**Active Design: Promoting Physical Activity within the Building** (Mandatory for all)	Situate at least one building stairway per the criterion to encourage use OR emphasize at least one strategy inside the building designed to increase frequency and duration of physical activity per the criterion.	All units that contain a second floor also contain stairs that are the exclusive access to those upper floors.	☑	☐	☐	☐	
7.13	10	**Active Design: Staircases and Building Circulation**	A staircase must be accessible and visible from the main lobby as well as visible within a 25-foot walking distance from any edge of the lobby. Ensure that no turns or obstacles prevent visibility of or accessibility to the qualifying staircase from the lobby, and that the staircase is encountered before or at the same time as the elevators. From the corridor, accessible staircases should be made visible by: Providing transparent glazing of at least 10 square feet (1 square meter) at all stair doors or at a side light OR providing magnetic door holds on all doors leading to the stairs OR removing door enclosures/vestibules.	No main lobby is provided in the existing townhomes.	☐	☐	☑	☐	
7.14	9	**Interior and Outdoor Activity Spaces for Children and Adults** (Applicable to NC and to Rehab if existing, older, worn equipment replaced)	Provide an on-site dedicated recreation space with exercise or play opportunities for adults and/or children that is open and accessible to all residents; see criterion for specifics.	Specification section 11 68 13 Playground Equipment indicates what replacement equipment is to be provided by the contract as part of this project.	☑	☐	☐	☐	9
7.15	M	**Reduce Lead Hazards** (Mandatory for all Rehab)	See Minnesota Housing Environmental Standards for Lead-Based Paint Hazard requirements.	**Owner to provide** exception from lead risk assessment due to the age of the property. All new paint will comply.	☐	☐	☑	☐	
7.16	10	**Smoke-Free Building**	Implement and enforce a no-smoking policy in all common and individual living areas and within a 25-foot perimeter around the exterior of all residential projects.	An existing Smoke-Free policy is in place and will continue after the Moderate Rehabilitation. **Owner to provide** written description of policy.	☑	☐	☐	☐	10

Subtotal Category 7 Selected Optional Points **28**

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					Yes	No	N/A	WR	OP
8. Operations, Maintenance and Resident Engagement Category									
8.1	M	**Building Maintenance Manual** (Mandatory for all multifamily projects)	Develop a manual with thorough building operations and maintenance guidance and a complementary plan. The manual and plan should be developed over the course of the project design, development and construction stages, and should include sections/chapters addressing the list of topics.	**Owner to provide manual**.	☑	☐	☐	☐	
8.2	M	**Emergency Management Manual** (Mandatory for all multifamily projects)	Provide a manual on emergency operations targeted toward operations and maintenance staff and other building-level personnel. The manual should address responses to various types of emergencies, leading with those that have the greatest probability of negatively affecting the project. The manual should provide guidance as to how to sustain the delivery of adequate housing throughout an emergency and cover a range of topics, including but not limited to: • communication plans for staff and residents • useful contact information for public utility and other service providers • infrastructure and building "shutdown" procedures	**Owner to provide manual.**	☑	☐	☐	☐	
8.3	M	**Resident Manual** (Mandatory for all)	Provide a guide for homeowners and renters that explains the intent, benefits, use and maintenance of their home's green features and practices. The Resident Manual should encourage green and healthy activities per the list of topics.	**Owner to provide manual.**	☑	☐	☐	☐	
8.4	M	**Resident and Property Staff Orientation** (Mandatory for all)	Provide a comprehensive walk-through and orientation for all residents, property manager(s) and buildings operations staff. Use the appropriate manuals (see Criteria 8.1, 8.2, 8.3) as the base of the curriculum, and review the project's green features, operations and maintenance procedures, and emergency protocols.	**Owner to provide staff and residents orientation.**	☑	☐	☐	☐	

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					Yes	No	N/A	WR	OP
8.5	O	**Project Data Collection and Monitoring System: 100% Owner Paid Utility Accounts, 15% Tenant Paid Utility Accounts** (Optional, no points)	For rental properties: Collect and monitor project energy and water performance data for 100% of owner-paid utilities and 15% of tenant-paid utilities for at least 5 years. This data must be maintained in a manner that allows staff to easily access and monitor it, enabling them to make informed operations and capital planning decisions. Also allow Enterprise access to this data. For owner-occupied units: Collect and monitor energy and water performance data in a manner that allows for easy access and review and provides the ability to influence home operations. Also allow Enterprise access to this data.		☐	☑	☐	☐	
8.6	7 or 11	**Project Data Collection and Monitoring System: >15% Tenant Paid Utility Accounts** (Must include Criteria 8.5 requirements as well to claim 8.6 Criteria points)	Collect and monitor project energy and water performance data for at least 5 years. This data must be maintained in a manner that allows staff to easily access and monitor it, enabling them to make informed operations and capital planning decisions. Also allow Enterprise access to this data. 16–60% of units [7 points]; 60–100% of units [11 points].		☐	☑	☐	☐	

Subtotal Category 8 Selected Optional Points **0**

Total Selected Optional Points **87**

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					Yes	No	N/A	WR	OP

Intent to Comply Certification - Initial Application Phase

I/we hereby certify to Minnesota Housing that all applicable Mandatory and selected Optional Point Criteria of the 2015 Enterprise Green Communities Criteria as amended by the current/applicable version of the MN Overlay to the 2015 EGCC (unless exempt by Minnesota Housing approved waiver) are incorporated into the approved contract documents for the above mentioned development.

Borrower/Developer/Owner

Firm/Organization/Company	Signature	Typed/Printed Name of Person Signing	Date

Architect of Record/Borrower's Architect

Firm/Organization/Company	Signature	Typed/Printed Name of Person Signing	Date

Contract Document Compliance Certification - Loan Commitment/Closing (MF Only) Phase

I/we hereby certify to Minnesota Housing that all applicable Mandatory and selected Optional Point Criteria of the 2015 Enterprise Green Communities Criteria as amended by the current/applicable version of the MN Overlay to the 2015 EGCC (unless exempt by Minnesota Housing approved waiver) are incorporated into the approved contract documents and construction contract for the above mentioned development.

Borrower/Developer/Owner

Insert Firm/Organization/Company	Signature	Typed/Printed Name of Person Signing	Date

Architect of Record/Borrower's Architect

Insert Firm/Organization/Company	Signature	Typed/Printed Name of Person Signing	Date

General Contractor

Insert Firm/Organization/Company	Signature	Typed/Printed Name of Person Signing	Date

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					Yes	No	N/A	WR	OP

Compliance Certification - End of Construction/Construction Close-Out Phase

I/we hereby certify to Minnesota Housing that all applicable Mandatory and selected Optional Point Criteria of the 2015 Enterprise Green Communities Criteria as amended by the current/applicable version of the MN Overlay to the 2015 EGCC (unless exempt by Minnesota Housing approved waiver) are incorporated into the approved contract documents and construction contract for the above mentioned development.

Borrower/Developer/Owner

Insert Firm/Organization/Company	Signature	Typed/Printed Name of Person Signing	Date

Architect of Record/Borrower's Architect

Insert Firm/Organization/Company	Signature	Typed/Printed Name of Person Signing	Date

General Contractor

Insert Firm/Organization/Company	Signature	Typed/Printed Name of Person Signing	Date

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N/A = Not Applicable, WR = Waiver Request, OP = Selected Optional Points

ALLOWANCES – 01 21 00

1. Allowances shall be listed on Contractor's bid form as separate line items that are included in base bid.
2. Allowances are described in contract drawings and specifications and may include other items than those listed in schedule below. Review entire specification and drawing set to evaluate allowances as required.
3. Allowances quoted on bid forms will be utilized at Owner's discretion in completing whole and complete work.
4. Costs to be included in allowances are to be: cost of product to contractor and/or subcontractor, less applicable trade discounts, less cost of delivery to site, less applicable taxes.
5. Reference specification section or drawing listed in schedule below for a description of each allowance. allowance scope within specification sections identified as allowances may not include full scope of that specification section.
6. SCHEDULE OF ALLOWANCES:

Playground Equipment	Value: $30,000.00
Landscaping	Value:$10,000.00

ADMINISTRATIVE REQUIREMENTS – 01 30 00

1. ELECTRONIC DOCUMENT SUBMITTAL SERVICE: documents transmitted for purposes of administration of contract are to be in electronic (PDF) format and transmitted via an Internet-based submittal service that receives, logs and stores documents, provides electronic stamping and signatures, and notifies addressees via email. Besides submittals for review, information, and closeout, this procedure applies to requests for information (RFIs), progress documentation, contract modification documents (e.g. supplementary instructions, change proposals, change orders), applications for payment, field reports and meeting minutes, Contractor's correction punchlist, and other document participant wishes to make part of project record.
   1.1. Setup and maintain service.
      a) Receive Owner's and Architect's approval prior to setup.
      b) Include fees associated with service as a part of base bid.
   1.2. Contractor and Architect are required to use this service.
   1.3. Paper document transmittals will not be reviewed; emailed PDF documents will not be reviewed except that electronic document requirements do not apply to samples or color selection charts.
2. PRE-CONSTRUCTION MEETING:
   2.1. Before major work is to begin, hold an on-site pre-construction meeting with representatives from Owner, Architect, General Contractor and Sub-Contractors pertaining to a major portion of work, in particular those performing work on exterior envelope.
   2.2. Agenda to include:
      a) List of key personnel from property management, contractor super intendent, Owner's rep, Architect and other consultants.
      b) Submittal quality, labeling, compliance form, information to be included, distribution and deviation from specified materials.
      c) Request for Information (RFI) quality and procedure.
      d) Electronic submittal service, access, distribution, responsible parties and deadlines.
      e) Sustainable design features, codes and standards to follow, and submittal requirements.
      f) Pay applications, change order procedure and draw schedule.
      g) Construction meeting schedule, minutes by Contractor, 3-week look ahead.

h) Punch list procedure and responsible parties.

i) Certificate of Substantial Completion requirements and anticipated date for issuance.

j) Project close out procedure, required documents and de-mobilization schedule.

k) Site access, staging areas, hours of operation, and construction keys.

3. PROGRESS MEETINGS: Schedule and administer Draw Meetings throughout progress of Work at maximum monthly intervals. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings. Record minutes and distribute electronic copies within two days after meeting, with copies sent to Architect, Owner, participants, and those affected by decisions made.

4. SUBMITTALS FOR REVIEW: When following are specified in individual sections, submit them for review: Product data, Shop drawings, Samples for selection, Samples for verification.

   4.1. Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in contract documents. Samples will be reviewed only for aesthetic, color, or finish selection.

   4.2. Interior finish submission should be provided in a single package including wall, ceiling, flooring, cabinetry, hardware, and other interior finishes as included in Finish Schedule.

   4.3. Exterior finish submission should be provided in a single package including wall siding/paint/stucco, roof, soffit, handrail, fencing, concrete finish, decking, window frame and glass, storefront, stair tread and riser as well as other items that may impact overall exterior aesthetic.

5. SUBMITTALS FOR INFORMATION: When following are specified in individual sections, submit them for information: Design data, Certificates, Test reports, Inspection reports, Manufacturer's instructions, Manufacturer's field reports, Other types indicated.

   5.1. Submit for Architect's knowledge as contract administrator or for Owner. No action will be taken.

6. SUBMITTALS FOR PROJECT CLOSEOUT: Submit Correction Punch List for Substantial Completion, Submit Final Correction Punch List for Substantial Completion. When following are specified in individual sections, submit them at project closeout: Project record documents, Operation and maintenance data, Warranties, Bonds, Other types as indicated. Submit for Owner's benefit during and after project completion.

7. SAMPLES: Provided at no additional cost to Owner.

8. PRODUCT DATA SUBMITTALS: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

   8.1. Sample Submittals: Illustrate functional and aesthetic characteristics of product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

9. SUBMITTAL PROCEDURES

   9.1. Substitutions that are submitted without being specifically identified as a substitution will not be reviewed.

   9.2. Shop Drawing / Submittals Procedures:

   a) Complete and utilize Submittal Compliance Form for each shop drawing and submittal issued. Items issued without a complete and accurate Compliance Form will be rejected without review.

   b) Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting Contract Documents and coordinating related Work.

   c) Do not reproduce Contract Documents to create shop drawings.

   d) Generic, non-project specific information submitted as shop drawings do not meet requirements for shop drawings.

   e) Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and

appliances.

9.3. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of Work and Contract Documents.

9.4. For each submittal for review, allow 15 days excluding delivery time to and from Contractor for Architect's initial comments. Due dates, or review by dates setup in Electronic Document Submittal Service shall not be set for a shorter duration.

9.5. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of completed Work.

10. REQUESTS FOR INFORMATION (RFI): Questions requiring a written response must be submitted in form of an RFI. RFIs shall go through same electronic document submittal service as Submittals.

10.1. For each RFI, allow 15 days for Architect's initial comments.

11. PUNCHLIST, PERIODIC DURING CONSTRUCTION: It is sole responsibility of General Contractor to have work completed as shown in Contract Documents. It is also sole responsibility of General Contractor to make sure work that is completed meets requirements of documents and expectations of Owner and Architect.

11.1. The process of generating a punch list shall be responsibility of General Contractor unless Owner hires a third-party to generate punch list.

12. PUNCHLIST, SUBSTANTIAL COMPLETION: As per A201 section 9.8 SUBSTANTIAL COMPLETION, prepare a thorough Punchlist (Inspection or Correction List) for Owner's and Architect's review prior to Substantial Completion. Punchlist should be compiled prior to site visits are scheduled to review project for Substantial Completion. Exclusion of deficient items from Punchlist does not relieve Contractor of compliance if required in particular or in general by Contract Documents or Owner.

13. PUNCHLIST, PRCEDURE: items on punch list shall be corrected by responsible contractor and then re-inspected by General Contractor to ensure work is complete and to approved standards and quality. Once Punch List has been verified and signed off by General Contractor, Architect will conduct a random inspection of work. If work is approved, then Architect will sign off on work as being complete. If Architect finds incomplete work that was on list, or other items that do not meet set standards, then work in question will not be signed-off until corrected. Exclusion of deficient items from Punch list does not relieve General Contractor of compliance if required in particular or in general by Contract Documents or Owner.

14. ARCHITECTS RESPONSE TO RFIs AND SUBMITTALS: response to an RFI or Submittal does not give approval for change in construction cost or schedule. change to construction cost or schedule as a result of Architect's response shall be documented by Contractor, issued as a Change Order and approved by Owner and Architect prior to proceeding with work or ordering materials.

QUALITY REQUIREMENTS – 01 40 00

1. CONTROL OF INSTALLATION: Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality. Comply with manufacturers' instructions, including each step in the sequence. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding. Comply with specified standards as minimum quality for Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship. Have Work performed by persons qualified to produce required and specified quality. Verify that field measurements are as indicated on shop drawings or as instructed by manufacturer. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

2. DEFECT ASSESSMENT: Replace Work or portions of Work not conforming to specified requirements.

TEMPORARY FACILITIES AND CONTROLS – 01 50 00

1. TEMPORARY UTILITIES: Provide and pay for electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes. Existing facilities may not be used.
2. TELECOMMUNICATIONS SERVICES: Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
3. TEMPORARY SANITARY FACILITIES: Provide and maintain required facilities and enclosures. Provide at time of project mobilization. Maintain daily in clean and sanitary condition.
4. BARRIERS: Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or public, to allow for Owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition. Provide protection for plants designated to remain. Replace damaged plants.
5. FENCING: Construction fencing shall be placed as required and coordinated with on-site management as well as Owner.
6. EXTERIOR ENCLOSURES: Provide temporary insulated weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.
7. SECURITY: Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
8. VEHICULAR ACCESS AND PARKING: Coordinate access and haul routes with governing authorities and Owner. Provide and maintain access to fire hydrants, free of obstructions.
9. FIELD OFFICES: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack and drawing display table. Provide space for Project meetings, with table and chairs to accommodate 6 persons.

PRODUCT REQUIREMENTS – 01 60 00

1. EXISTING PRODUCTS: Do not use materials and equipment removed from existing premises unless specifically required or permitted by Contract Documents. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to Owner, or otherwise indicated as to remain property of Owner, become property of Contractor; remove from site.
2. NEW PRODUCTS: Provide new products unless specifically required or permitted by Contract Documents.
3. SUBSTITUTION PROCEDURES: Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. A request for substitution constitutes a representation that submitter:
    - 3.1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
    - 3.2. Agrees to provide same warranty for substitution as for specified product.
    - 3.3. Agrees to coordinate installation and make changes to other Work that may be required for Work to be complete with no additional cost to Owner.
    - 3.4. Waives claims for additional costs or time extension that may subsequently become apparent.
    - 3.5. Agrees to reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
    - 3.6. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to Contract Documents.
    - 3.7. No substitutions of materials, equipment, quality standards, etc. specified will be accepted or approved unless deviation is brought explicate attention of Owner and Architect prior to

purchase or change and written approval is issued by Owner and Architect.

EXECUTION AND CLOSEOUT REQUIREMENTS – 01 70 00

1. SUBMITTALS FOR CUTTING AND PATCHING: Submit written request in advance of cutting or alteration that affects: Structural integrity of element of Project, Integrity of weather exposed or moisture resistant element, Efficiency, maintenance, or safety of operational element.
2. PROJECT CONDITIONS: Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
    2.1. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.
    2.2. Noise Control: Provide methods, means, and facilities to minimize noise produced by construction operations.
    2.3. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.
3. PATCHING MATERIALS: New Materials shall be as specified in product sections; match existing products and work for patching and extending work. Existing Products shall be of a type and quality determined by inspecting and testing products where necessary, referring to existing work as a standard.
4. GENERAL INSTALLATION REQUIREMENTS: Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and to avoid waste due to necessity for replacement. Make vertical elements plumb and horizontal elements level, unless otherwise indicated. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated. Make neat transitions between different surfaces, maintaining texture and appearance.
5. CUTTING AND PATCHING: Whenever possible, execute work by methods that avoid cutting or patching. Perform whatever cutting and patching is necessary to: Complete work, Fit products together to integrate with other work, Provide openings for penetration of mechanical, electrical, and other services, Match work that has been cut to adjacent work, Repair areas adjacent to cuts to required condition, Repair new work damaged by subsequent work, Remove samples of installed work for testing when requested, Remove and replace defective and non-conforming work.
    5.1. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
    5.2. Patching: Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
6. PROGRESS CLEANING: Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
7. PROTECTION OF INSTALLED WORK: Protect installed work from damage by construction operations. Provide special protection where specified in individual specification sections. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.
8. FINAL CLEANING: Use cleaning materials that are nonhazardous. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces. Remove labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to surface and material being cleaned.
9. CLOSEOUT PROCEDURES: Make submittals that are required by governing or other authorities. Notify

Architect when work is considered ready for Architect's Substantial Completion inspection. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion inspection. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final inspection. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL – 01 74 19

1. SUMMARY

   1.1. Reduce construction and demolition waste on job site. Minimize waste sent to landfills through implementation of Construction Waste Management Plan as required by Enterprise Green Communities criterion 6.12 and as outlined within this Section and in Sections referenced herein.

2. REGULATORY REQUIREMENTS: Comply with applicable Federal, State, and Local requirements for handling, removal, reuse, recycling and disposal of construction waste. Remove debris from site as required by local ordinance, and to satisfaction of Owner.

3. CONSTRUCTION WASTE AND RECYCLING MANAGER: A single entity responsible for managing and documenting volume of construction waste and recycling for project. Entity shall: Implement waste management and recycling plan. Compile monthly waste disposal and recycling reports, Coordinate with Owner in identifying materials to be salvaged, or reused.

4. SUBMITTALS

   4.1. Construction and Demolition Waste Management (CWM) Plan: Prior to waste removal and within 30 days of Contract award, submit for approval a detailed CWM Plan in accordance with this Section:

      a) Analysis of estimated job-site waste to be generated, including types and quantities of compostable, recyclable, and salvageable materials.
      b) Description of means and methods to achieve mandatory requirement documented under 1.1C.
      c) Identification of recycling contractors and haulers proposed for use in project and locations accepting construction waste materials or entities providing related services.

   4.2. Waste Management Progress Reports: Submit monthly, concurrent with each Application for Payment.

      a) Project title, name of party completing report, and dates of period covered by report.
      b) Amount (by weight or volume) of project waste material landfilled to date and identity of landfill(s).

   4.3. Final Waste Management Report: Submit at completion of construction and prior to contract close-out, in electronic format.

      a) All information required in Waste Management Progress Reports.
      b) Legible copies of on-site logs, manifests, weight tickets, and receipts.

   4.4. Final calculations and/or summaries that demonstrate compliance with mandatory and optional pathways chosen under Criterion 6.12 as detailed in Section 018113.WASTE MANAGEMENT: Implement waste management procedures in accordance with approved construction waste management and recycling plan. Maintain procedures throughout life of this Contract.

5. SITE STORAGE: non-hazardous construction waste may be co-mingled in a single dumpster; on site separation is not required. Remove waste materials from work area to dumpsters daily.

   5.1. Keep construction site clear and prevent contamination of materials. Provide empty dumpsters in exchange for loaded dumpsters as demand requires. Deliver loaded dumpsters to approved off - site recycling facility.

6. DELIVERY RECORDS: Maintain a record of waste material leaving site, including: Driver tickets for loaded dumpsters removed from site, Scale tickets for dumpsters delivered from site to off-site recycling facility, Scale tickets for material delivered from off-site recycling facility to receive entities for recyclable

material and landfills.

7. WASTE MANAGEMENT PLAN IMPLEMENTATION

7.1. Training and Coordination

a) Provide copies of approved CWM Plan to on-site supervisors, each subcontractor, Owner, and Architect.
   (i) Contractors, sub-contractors, and other entities responsible for implementing CWM Plan must return a signed agreement stating that they will comply.
b) Instruction: Provide on-site instruction of appropriate separation, handling, recycling, salvage, reuse, and return methods to be used by entities at appropriate stages of project.
c) Meetings: Include construction waste management on agenda of required regularly scheduled construction meetings.

7.2. Facilities: Provide designated facilities for co-mingling or separation and storage of materials for recycling, salvage, reuse, return, and waste disposal, per approved CWM Plan for use by contractors and installers.

a) Provide signage in English (Spanish, Vietnamese, etc.) and graphics to indicate recycling procedure.
b) Provide materials for barriers and enclosures that are non-hazardous, recyclable, or reusable to maximum extent possible; reuse project construction waste materials if possible.
c) Provide adequate space, convenient to subcontractors, for pickup and delivery.
d) Keep recycling and waste bin areas neat and clean to avoid contamination of materials.

7.3. Methods of waste disposal that are not acceptable for meeting this criterion include:

a) Burning or incinerating on or off project site.
b) Burying on project site, other than fill.
c) Dumping or burying on other property, public or private, other than official landfill.
d) Illegal dumping or burying.

7.4. Recycling Procedures:

a) Co-mingle or separate, store, protect, and handle at site identified recyclable waste products in order to prevent contamination of materials and to maximize recyclability of identified materials. Arrange for timely pickups from site or deliveries to recycling facility in order to prevent contamination of recyclable materials.
b) Coordinate work of recycling, composting, and salvaging waste haulers with other trades.
c) Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.

SAMPLE

Construction Waste Management (CWM) Plan

Note: This sample form may be used to assist in documenting compliance with the waste management plan.

Project Name: _____

Job #: _____

Project Manager:_____

Waste Hauling Company:_____

Contact Name: _____

All Subcontractors shall comply with the project's Construction Waste Management Plan.
All Subcontractor foremen shall sign the CWM Plan Acknowledgment Sheet.

Subcontractors who fail to comply with the Waste Management Plan will be subject to backcharges or withholding of payment, as deemed appropriate. For instance, Subcontractors who contaminate debris boxes that have been designated for a single material type will be subject to backcharge or withheld payment, as deemed appropriate.

1. The project's overall rate of waste diversion will be ____ %.
2. This project shall generate the least amount of waste possible by planning and ordering carefully, following all proper storage and handling procedures to reduce broken and damaged materials and reusing materials whenever possible. The majority of the waste that is generated on this jobsite will be diverted from the landfill and recycled for other use.
3. Spreadsheet 1, enclosed, identifies the waste materials that will be generated on this project, the diversion strategy for each waste type and the anticipated diversion rate.
4. Waste prevention and recycling activities will be discussed at the beginning of weekly subcontractor meetings. As each new subcontractor comes on-site, the WMP Coordinator will present him/her with a copy of the CWM Plan and provide a tour of the jobsite to identify materials to be salvaged and the procedures for handling jobsite debris. All Subcontractor foremen will acknowledge in writing that they have read and will abide by the CWM Plan. Subcontractor Acknowledgment Sheet enclosed. The CWM Plan will be posted at the jobsite trailer.
5. Salvage: Excess materials that cannot be used in the project, nor returned to the vendor, will be offered to site workers, the owner, or donated to charity if feasible.
6. [HAULING COMPANY] will provide a commingled drop box at the jobsite for most of the construction waste. These commingled drop boxes will be taken to [Sorting Facility Name and Location]. The average diversion rate for commingled waste will be ____%. As site conditions permit, additional drop boxes will be used for particular phases of construction (e.g., concrete and wood waste) to ensure the highest waste diversion rate possible.
7. In the event that the waste diversion rate achievable via the strategy described in (6) above, is projected to be lower than what is required , then a strategy of source-separated waste diversion and/or waste stream reduction will be implemented. Source separated waste refers to jobsite waste that is not commingled but is instead allocated to a debris box designated for a single material type, such as clean wood or metal.

   Notes:

   1. Waste stream reduction refers to efforts taken by the builder to reduce the amount of waste generated by the project to below four (4) pounds per square foot of building area.
   2. When using waste stream reduction measures, the gross weight of the product is subtracted from a base weight of four (4) pounds per square foot of building area. This reduction is considered additional diversion and can be used in the waste reduction percentage calculations.
8. [HAULING COMPANY] will track and calculate the quantity (in tons) of all waste leaving the project and calculate the waste diversion rate for the project. [HAULING COMPANY] will provide Project Manager with an updated monthly report on gross weight hauled and the waste diversion rate being achieved on the project. [HAULING COMPANY's] monthly report will track separately the gross weights and diversion rates for commingled debris and for each source-separated waste stream leaving the project. In the event that [HAULING COMPANY] does not service any or all of the debris boxes on the project, the [HAULING COMPANY] will work with the responsible parties to track the material type and weight (in tons) in such debris boxes in order to determine waste diversion rates for these materials.
9. In the event that Subcontractors furnish their own debris boxes as part of their scope of work, such Subcontractors shall not be excluded from complying with the CWM Plan and will provide [HAULING COMPANY] weight and waste diversion data for their debris boxes.
10. In the event that site use constraints (such as limited space) restrict the number of debris boxes that can be used for collection of designated waste the project Superintendent will, as deemed appropriate, allocate specific areas onsite where individual material types are to be consolidated. These collection points are not to be contaminated with non-designated waste types.
11. Debris from jobsite office and meeting rooms will be collected by [DISPOSAL SERVICE COMPANY]. [DISPOSAL SERVICE COMPANY] will, at a minimum, recycle office paper, plastic, metal and cardboard.

Construction Waste Management (CWM) Worksheet

Note: This sample form may be used to assist in documenting compliance with the waste management plan.

Project Name: _____

Job Number: _____

Project Manager: _____

Waste Hauling Company: _____

Construction Waste Management (CWM) Plan

WASTE MATERIAL TYPE	DIVERSION METHOD:		PROJECTED DIVERSION RATE
	COMMINGLED AND SORTED OFF SITE	SOURCE SEPARATED ON SITE	
Asphalt			
Concrete			
Shotcrete			
Metals			
Wood			
Rigid insulation			
Fiberglass insulation			
Acoustic ceiling tile			
Gypsum drywall			
Carpet/carpet pad			
Plastic pipe			
Plastic buckets			
Plastic			
Hardiplank siding and boards			
Glass			
Cardboard			
Pallets			
Job office trash, paper, glass & plastic bottles, cans, plastic			
Alkaline and rechargeable batteries, toner cartridges, and electronic devices			
Other:			
Other:			
Other:			
Other:			

SAMPLE

Construction Waste Management (CWM) Acknowledgment

Note: This sample form may be used to assist in documenting compliance with the waste management plan.

Project Name: _____

Job Number: _____

Project Manager: _____

Waste Hauling Company: _____

CWM Plan Acknowledgment

The Foreman for each new Subcontractor that comes on site is to receive a copy of the Construction Waste Management Plan and complete this Acknowledgment Form.

I have read the Waste Management Plan for the project; I understand the goals of this plan and agree to follow the procedures described in this plan.

DATE	SUBCONTRACTOR COMPANY NAME	FOREMAN NAME	SIGNATURE

CLOSEOUT SUBMITTALS – 01 78 00

1. PROJECT RECORD DOCUMENTS: Submit documents to Architect with claim for final Application for Payment. Coordinate with Owner for other additional requirements for Project Closeout or if documents need to be submitted as a hard copy in addition to those listed below.
2. PROJECT RECORD DOCUMENTS: Maintain on site one set of following record documents; record actual revisions to Work: Drawings, Addenda, Change Orders and other modifications to Contract.
3. OPERATION AND MAINTENANCE DATA
    3.1. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
    3.2. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
    3.3. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
4. OPERATION AND MAINTENANCE DATA FOR MATERIALS AND FINISHES: For Each Product, Applied Material, and Finish: Product data, with catalog number, size, composition, and color and texture designations, Information for re-ordering custom manufactured products, Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
5. OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS: For Each Item of Equipment and Each System: Description of unit or system, and component parts, identify function, normal operating characteristics, and limiting conditions, Include performance curves, with engineering data and tests, Complete nomenclature and model number of replaceable parts.
    5.1. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut down, and emergency instructions. Include summer, winter, and special operating instructions.
    5.2. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
6. ASSEMBLY OF OPERATION AND MAINTENANCE MANUALS: Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in same sequence as, and identified by, specification sections. Where systems involve more than one specification section, provide separate tabbed divider for each system. Prepare instructions and data by personnel experienced in maintenance and operation of described products. Prepare data in form of an instructional manual.
    6.1. Binders: Commercial quality, 8-1/2 by 11-inch three D side ring binders with durable plastic covers; 2-inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
    6.2. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
7. WARRANTIES AND BONDS: Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.

SUSTAINABLE BUILDING REQUIREMENTS – 01 81 13

1. SUMMARY
   1.1. Section includes sustainable building requirements for project as necessary for certification of this project through 2015 Criteria.
   1.2. Related sections:
      a. Section 01 74 19 Construction Waste Management and Disposal
      b. Divisions 02 through 12, 14, 22, 23, 26, 28, 31 through 33 where related submittal, product, or execution requirements relate to Criteria. Requirements are not repeated but 01 81 13 is referenced within respective sections.
2. REFEENCES: 2015 Enterprise Green Communities Criteria
3. COORDINATION
   3.1. Coordinate and comply with requirements of 2015 Criteria contained throughout these Specifications, including successful compliance with and passage of visual inspections and performance tests by verifying party.
   3.2. ENERGY STAR verification: Coordinate with appropriate verification team members to ensure inspections and leakage tests can be performed at appropriate times and without delaying construction progress.
   3.3. Coordinate framers, plumbers, HVAC, insulators, and drywall trades to minimize uncontrolled air leakage pathways between residential units by sealing penetrations in walls, ceilings, and floors in units and by sealing vertical chases adjacent to units.
4. SUBMITTALS
   4.1. Submit ENERGY STAR New Home certificate for each dwelling unit in development.
5. PEST MANAGEMENT
   5.1. Seal interior and exterior wall, floor, and joint penetrations with low-VOC caulking or other appropriate nontoxic sealing method (window screens, door sweeps, escutcheon plates, elastomeric sealant) to prevent pest entry.
   5.2. Install rodent- and corrosion-proof screens (copper or stainless steel mesh, or rigid metal cloth) for openings greater than ¼ inch.
   5.3. Thoroughly seal entry points under kitchen and bathroom sinks to prevent pest entry.

DIVISION 02

DEMOLITION – 02 41 00

1. SCOPE OF DEMOLITION: work required for site as illustrated in Contract Documents.
   1.1. Site Demolition:
      a) Remove areas of parking lot, curb, drive, etc. as needed for new work.
      b) Remove trees, shrubs, soil and other material from site as required for placement of new work and general construction activities.
      c) Reference site clearing specification section 31 10 00 for additional requirements.
      d) All excavation and earthwork as required for new work.
   1.2. If hazardous materials are encountered on site notify Owner and Architect immediately.
2. GENERAL PROCEDURES AND PROJECT CONDITIONS: Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and public. Obtain required permits, comply with applicable requirements of NFPA 241, take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures and Provide, erect, and maintain temporary barriers and security devices.
   2.1. Use of explosives is not permitted.
   2.2. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
   2.3. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
   2.4. Perform demolition in a manner that maximizes salvage and recycling of materials.
3. EXISTING UTILITIES: Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits. Protect existing utilities to remain from damage.
4. DEBRIS AND WASTE REMOVAL: Remove debris, junk, and trash from site.
5. Doors, frames, windows, trim, and other items to be removed are shown dashed.
6. Provide temporary weather protection and security barriers during interval between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure that no water leakage or damage occurs to structure or to interior areas of existing building.
7. Existing construction shown to remain including but not limited to walls, partitions, doors, frames, etc. shall be protected during demolition. Damage to existing construction shown to remain shall be restored to match pre-damaged condition at no additional cost to Owner.
8. Protect from damage existing finish work to remain in place and which becomes exposed during demolition operation.
9. Where finishes are shown to be removed from existing construction, repair and patch remaining substrate and prepare for new finish. Carefully repair and patch remaining substrates that were originally concealed by existing finishes but will now be exposed in new construction.
10. All infill or replacement work is to match existing conditions in materials, construction and finish, unless specifically noted elsewhere in Contract Documents.
11. Items specifically noted for salvage on contract documents shall be certified by Contractor that they are in good working order prior to contracting or items shall be replaced in kind at no additional cost to Owner. Store salvage in a location as directed by Owner.
12. Remove existing plumbing items, mechanical items, electrical items in their entirety where noted in Contract Documents and where existing items will interfere with installation of new construction even if

not noted on Contract Documents, or where existing items will be exposed in new construction, unless specifically shown elsewhere in Contract Documents to remain with materials matching existing construction.

13. Items, plumbing, electrical, mechanical, structural, and other systems to remain shall be protected during demolition. Contractor is to investigate concealed spaces prior to demolition and note existing conditions. If system is discovered within a concealed space notify Architect and Owner.

DIVISION 03

Not included on this specification.

DIVISION 04

Not included on this specification.

DIVISION 05

Not included on this specification.

DIVISION 06

ROUGH CARPENTRY – 06 10 00

1. SCOPE OF WORK: Dimensional lumber as needed for framing, blocking, etc. as needed to complete design intent.
   1.1. Reference Structural drawings for additional requirements. If there is a conflict between this specification section and structural drawings, engineered solution provided on structural drawings shall govern.
2. DIMENSION LUMBER: Comply with PS 20 and requirements of specified grading agencies.
   2.1. Species: Spruce-Pine-Fir (South), unless otherwise indicated. Lumber of other species or grades is acceptable provided structural and appearance characteristics are equivalent to or better than products specified.
   2.2. Lumber fabricated from old growth timber is not permitted.
3. DIMENSION LUMBER FOR CONCEALED APPLICATIONS:
   3.1. Grading Agency: Western Wood Products Association; WWPA G-5. Nominal sizes as indicated on drawings, S4S, with Moisture Content: S-dry or MC19.
   3.2. Stud Framing (2 by 2 through 2 by 6): Spruce-Pine-Fir, Stud grade or better.
   3.3. Joist, Rafter, and Small Beam Framing (2 by 6 through 4 by 16): Hem Fir, Grade: No. 2.
   3.4. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring: S4S, No. 2 or Standard Grade. Blocking shall be minimum 2x6.
   3.5. Boards: Standard or No. 3.
4. BLOCKING: Concealed blocking shall consist of nominal lumber not less than 2"x6". Provide and install at wall mounted appliances and accessories as required, including but not limited to doors, casework, kitchen and bath accessories, etc.
5. EXPOSED BOARDS: Submit manufacturer's certificate that products meet or exceed specified requirements, in lieu of grade stamping. Moisture Content: Kiln-dry (15 percent maximum). Surfacing: S4S. Species: Douglas Fir, Grade No. 1, 1 Common, or Select.
6. ACCESSORIES
   6.1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
   6.2. Drywall Screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing.
   6.3. Joist Hangers: Hot dipped galvanized steel, sized to suit framing conditions. For contact with preservative treated wood in exposed locations, provide minimum G185 galvanizing complying with ASTM A653/A653M.
7. FACTORY WOOD TREATMENT: Treated Lumber and Plywood shall Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
   7.1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
   7.2. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.
8. INSTALLATION – GENERAL: Select material sizes to minimize waste. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

9. FRAMING INSTALLATION: Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members. Install structural members full length without splices unless otherwise specifically detailed. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes and AFPA (WFCM) Wood Frame Construction Manual. Install horizontal spanning members with crown edge up and not less than 1-1/2 inches of bearing at each end.
10. HEADERS: Wood headers over interior openings of NONBEARING partitions shall be as scheduled below. Headers over interior finished openings not greater than 3'-0” wide at BEARING partitions shall be a minimum of (2) 2x12, unless otherwise noted. Refer to Drawings for headers over BEARING partitions. Furnish and install a minimum of two (2) studs at ends of engineered headers and double joist headers. framing shall bear a minimum of 1-1/2 inches.
11. PLYWOOD: plywood shall be APA structural II, C-C, exterior or standard tongue and groove sheathing with exterior glue, thickness as indicated. plywood shall be identified with appropriate grade-trademark of APA and shall meet requirements of latest edition of DOC PS-1 "Construction and Industrial Plywood" and PS-2 "Performance Standard for Wood-based Structural Panels" or one of APA's performance proprietary specifications. applications shall be in accordance with recommendations of APA and DOC. Provide marine-grade plywood at locations of fiberglass seamless roofing, if applicable.
12. FRAMING ANCHORS: Provide a complete system of High Wind Resistant Framing Anchors to provide a continuous load path from ridge to foundation of structure as using products as manufactured and as recommended by USP Structural Connectors, Simpson Strong Tie, or equal. Products shall be galvanized steel and shall include, but not be limited to: ridge rafter strapping; rafter-to-top plate anchors; rafter-to-joist/stud strapping; beam/joist hangers; column caps; joist-to-sill plate strapping or anchors.

FINISH CARPENTRY – 06 20 00

1. SCOPE OF WORK: Finish trim on interior of walls, windows, doors, and cabinets.
2. SAMPLES: Submit two samples of wood trim 6 inch long.
3. ACCESSORIES: Wood Filler shall be Solvent base, tinted to match surface finish color.
4. FABRICATION: Shop assemble work for delivery to site, permitting passage through building openings.
5. INSTALLATION: Set and secure materials and components in place, plumb and level. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.
   5.1. All nails to be counter sunk and filled with wood FILLER.
   5.2. If new trim does not cover old paint lines, include patching and painting in this area.

CELLULAR PVC FABRICATIONS – 06 60 00

1. SCOPE OF WORK: Install cellular PVC as replacement for existing lower twelve inches (12”) of brick mold at each garage door jamb.
   1.1. Match existing material profile(s). V.I.F.
2. SUBMITTALS:
   2.1. Manufacturer's printed product data.
   2.2. Manufacturer's cleaning and maintenance data.
   2.3. Selection Samples: For each product indicated. Provide three 6” long samples in each specified color and texture.
3. QUALITY ASSURANCE: Installer Qualifications: Not less than five installations of comparable scope within past three years.
4. DELIVERY, STORAGE, AND HANDLING:
   4.1. Packing and Shipping: Pack to minimize shipping damage. Check for shipping damage during

unloading at site and notify manufacturer immediately of obvious damage.

4.2. Store products under cover, off ground, and protected from moisture.

4.3. Handle products to prevent physical damage.

4.4. Protect surfaces from staining, scratching, and other damage during handling and installation.

5. PROJECT CONDITIONS:

5.1. Field Measurements: Field verify profiles and dimensions of materials being replaced.

a) It is intent of this scope to replace bottom 12” of each jamb at a minimum. If a jamb exhibits rot or damage that exceeds that height replace damaged material up to and including entire jamb as required.

5.2. Coordination: Coordinate construction activities of this section with garage door panel replacement so as to avoid damage to newly installed jambs.

6. WARRANTY: Manufacturer's standard warranty on defective materials.

7. MANUFACTURER:

7.1. Azek Building Products (https://azek.com/).

7.2. Approved similar.

8. CONFIGURATION, COLOR AND PATTERN:

8.1. Match existing jamb material sizes and thicknesses.

8.2. Color: Manufacturer’s standard paintable finish; Wood grain texture.

9. FABRICATION: Field fabricate materials to match existing jamb profiles and sizes. Use tools as recommended by cellular pvc manufacturer.

10. EXAMINATION: Examine jambs prior to beginning installation to ensure there is acceptable blocking and framing to allow for proper installation of cellular pvc.

10.1. Replace damaged or rotted framing as required. Use treated wood for new framing.

11. INSTALLATION

11.1. Install in accordance with manufacturer's instructions. Install components plumb, level, and rigid. Neatly scribe to adjoining surfaces, and field trim for snug fit. Replace components that are cracked, chipped, broken, or otherwise defective.

11.2. Use manufacturer approved sealants and adhesives where allowed.

a) Adhesives and sealants to meet requirements (including but not limited to VOC content) of other portions of this manual.

12. PROTECTION: Protect installed products until completion of project. Touch-up, repair or replace damaged components before Substantial Completion.

CAST MARBLE FABRICATIONS – 06 61 50

13. SCOPE OF WORK: Window sills. Reference finish schedule for exact product.

14. SECTION INCLUDES: Synthetic marble window sills.

15. SUBMITTALS: Product Data: Manufacturer's printed product data indicating compliance with specified requirements. Manufacturer's cleaning and maintenance data.

15.1. Selection Samples: For each product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

15.2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches square, representing actual product, color, and patterns.

16. QUALITY ASSURANCE: Manufacturer Qualifications: Member of International Cast Polymer Association (ICPA), with not less than five years of experience in manufacturing products similar to those required for

this project.

16.1. Installer Qualifications: Not less than five installations of comparable scope within past three years.

17. DELIVERY, STORAGE, AND HANDLING: Packing and Shipping: Pack countertops, and other flat products in wooden crates to minimize shipping damage. Palletize other components. Check for shipping damage during unloading at site and notify manufacturer immediately of obvious damage. Store products under cover, off ground, and protected from moisture. Handle products to prevent physical damage. Protect surfaces from staining, scratching, and other damage during handling and installation.

18. PROJECT CONDITIONS: Field Measurements: Verify shop drawings with field measurements. Coordination: Coordinate construction activities of this section with construction activities specified in related sections.

19. WARRANTY: Window Sills, Thresholds, and Other Flat Items: Manufacturer's standard warranty on defective materials.

20. MANUFACTURERS

20.1. Central Marble Products; Rice, MN

20.2. Princess Marble; Burnsville, MN

21. MATERIALS: Provide cast marble fabrications made of proprietary resin and gel coat finish with finished properties as described under specific product types. Polishing Cream: As recommended by manufacturer.

22. ADHESIVES AND SEALANTS: As specified in Section 07 90 05, and as follows:

22.1. To adhere cast marble panels to gypsum wallboard, use LN-601 Liquid Nails, Nail-No-More, or other product recommended by manufacturer.

22.2. For joints between cast marble panels, use a mildew resistant 100 percent silicone joint sealer; siliconized calking compound is not acceptable.

22.3. For sealing cast marble panels at adjoining surfaces such as gypsum wallboard, use mildew resistant acrylic calk joint sealer, such as Phenoseal Acrylic Caulk by Gibson-Homans, or other product recommended by cast marble panel manufacturer.

23. CONFIGURATION, COLOR AND PATTERN: Minimum thickness of 3/4 inch; other dimensions as indicated in Finish Schedule.

24. FABRICATION: Use molds, materials, methods, and procedures that will result in proper texture and finish. Fabricate to required profiles and dimensions. To greatest extent possible, fabricate each unit as a continuous piece, without joints, and configured to minimize on-site cutting or other modifications. Ease edges and sand smooth; provide uniform gloss finish on exposed surfaces. Cure components prior to shipping and remove traces of material that may be toxic or incompatible with other building materials.

25. EXAMINATION: Do not begin installation until substrates have been properly prepared. If substrate preparation is responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

26. INSTALLATION: General: Install in accordance with manufacturer's instructions and approved shop drawings. Install components to be plumb, level, and rigid. Neatly scribe to adjoining surfaces, and field trim for snug fit. Replace component that is cracked, chipped, broken, or otherwise defective. Window Sills: Attach to solid substrate with silicone joint sealer, as recommended by manufacturer.

27. PROTECTION: Protect installed products until completion of project. Touch-up, repair or replace damaged components before Substantial Completion.

DIVISION 07

SHEET METAL FLASHING – 07 62 00

1. SCOPE OF WORK: Provide sheet metal flashing as required for exterior and interior applications required by product manufacturers, called out in contract documents or as otherwise to provide a complete waterproofed system. Including but not limited to:
   1.1. Flashing to be installed above head of exterior horizontal trim, head of windows and doors.
   1.2. Cut ends of flashing, fold and turn back towards building to wrap unfinished edge of material it is covering.
   1.3. Where flashing turns a corner, overlap material, cut, fold and turn around corner.
2. SECTION INCLUDES: Fabricated sheet metal items, including: flashings and counter-flashings; sealants for joints within sheet metal fabrications; reglets and accessories.
3. QUALITY ASSURANCE: Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.
4. DELIVERY, STORAGE, AND HANDLING: Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage. Prevent contact with materials that could cause discoloration or staining.
5. PRE-FINISHED ALUMINUM: ASTM B209 (ASTM B209M); 20 gage, (0.032 inch) thick; plain finish shop pre-coated with modified silicone coating.
   5.1. MODIFIED SILICONE POLYESTER COATING: Pigmented Organic Coating System, AAMA 2603; baked enamel finish system.
6. ACCESSORIES: Fasteners: Galvanized steel, with soft neoprene washers. Primer: Zinc chromate type. Sealant to be Concealed in Completed Work: Non-curing butyl sealant. Sealant to be Exposed in Completed Work: 1; elastomeric sealant, 100 percent silicone with minimum movement capability of plus/minus 25 percent and recommended by manufacturer for substrates to be sealed; clear. Plastic Cement: 1, Type I.
7. FABRICATION: Form sections true to shape, accurate in size, square, and free from distortion or defects. Form pieces in longest possible lengths. Hem exposed edges on underside 1/2 inch; miter and seam corners. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams. Fabricate corners from one piece with minimum 18 inch long legs; seam for rigidity, seal with sealant. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip. Fabricate flashings to allow toe to extend 2 inches over roofing gravel. Return and brake edges.
8. EXAMINATION: Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located. Verify roofing termination and base flashings are in place, sealed, and secure.
9. INSTALLATION: Conform to drawing details. Insert flashings into reglets to form tight fit; secure in place with lead wedges; pack remaining spaces with lead wool; seal flashings into reglets with sealant. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted. Apply plastic cement compound between metal flashings and felt flashings. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles. Seal metal joints watertight.

JOINT SEALERS – 07 90 05

1. SCOPE OF WORK: Install in locations required by contract documents and where required by material manufacturer's installation instructions. Where sealant comes in contact with a surface, utilize only sealant approved by that material manufacturer.
2. SEALANTS: Provide only products having lower volatile organic compound (VOC) content than required by South Coast Air Quality Management District Rule No.1168.

2.1. General Purpose Exterior Sealant: Polyurethane; ASTM C920, Grade NS, Class 25 minimum; Uses M, G, and A; single component. Color: Match adjacent finished surfaces.

2.2. Exterior Metal Lap Joint Sealant: Butyl or polyisobutylene, nondrying, nonskinning, noncuring.

2.3. General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C834, Type OP, Grade NF single component, paintable. Color: Match adjacent finished surfaces.

2.4. Bathtub/Tile Sealant: White silicone; ASTM C920, Uses I, M and A; single component, mildew resistant.

2.5. Concrete Paving Joint Sealant: Polyurethane, self-leveling; ASTM C920, Class 25, Uses T, I, M and A; single component. Color: Color as selected.

3. SILICONE SEALANT: ASTM C920, Grade NS, Class 25 minimum; Uses NT, A, G , M , O; single component, neutral curing, non-sagging, non-staining, fungus resistant, non-bleeding. Color: Match adjacent finished surfaces. Movement Capability: plus and minus 25 percent. Service Temperature Range: -65 to 180 degrees F.

4. ACCESSORIES: Joint Backing: Round foam rod compatible with sealant; ASTM D 1667, closed cell PVC; oversized 30 to 50 percent larger than joint width. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

5. INSTALLATION: Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions. Perform installation in accordance with ASTM C1193. Tool joints concave.

DIVISION 08

SLIDING GLASS DOORS – 08 32 00

1. SCOPE OF WORK: Provide and install new sliding glass doors at openings illustrated on exterior elevations. Door hardware to comply with accessible regulations for operation, shape and mounting location.
2. SECTION INCLUDES: Thermo-Tech® Classic Series Vinyl Doors
3. SUBMITTALS:
   - 3.1. Product Data: Submit following documents for each type of door. Manufacturer's technical data, product descriptions and installation manuals.
   - 3.2. Shop Drawings: Include elevations for each style door specified indicating size, color, glazing type, muntin type and design. Manufacturer's head, jamb and sill section details for each door type specified.
   - 3.3. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
   - 3.4. Test Reports: Submit certified independent testing agency reports indicating door units meet or exceed specified performance requirements.
4. QUALITY ASSURANCE:
   - 4.1. Manufacturer Qualifications: primary products specified in this section will be supplied by a single manufacturer with a minimum of twenty (20) years of experience.
   - 4.2. Installer Qualifications: products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of same type and scope as specified.
5. MOCK-UP: Provide a mock-up for evaluation of surface preparation techniques and application workmanship. Finish areas designated by Architect. Do not proceed with remaining work until workmanship and color are approved by Architect. Refinish mock-up area as required to produce acceptable work.
6. DELIVERY, STORAGE, AND HANDLING: Store products in manufacturer's unopened packaging until ready for installation. doors are to be handled and stored sill down in an upright position and not on sides or head. No more than 8 patio doors are to be stored in a stack and keep out of direct sunlight. Store and dispose of hazardous materials, and materials contaminated by hazardous materials, in accordance with requirements of local authorities having jurisdiction.
7. WARRANTY: At project closeout, provide to Owner or Owner’s Representative an executed copy of manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.
   - 7.1. UPVC Vinyl Frame and Sash Parts: 10 Years from Date of Manufacture.
   - 7.2. Door Hardware: 10 Years from Date of Manufacture.
   - 7.3. Insulated Glass Seal Failure: 10 Years from Date of Manufacture.
   - 7.4. Stress Cracks: 1 Year form Date of Manufacture.
   - 7.5. Labor on Warranty Parts: 1 Year from Date of Manufacture.
8. MANUFACTURER: AAMA Accredited Manufacturer: Thermo-Tech Premium Windows and Doors
9. SUBSTITUTIONS: Not permitted.
10. DOOR TYPE (D08): SLIMLINE SLIDING PATIO DOOR CONSTRUCTION
    - 10.1. Frame: 4 9/16 inch (116mm) multi-chambered design, made with Polyvinyl Chloride (PVC) with fusion welded corners.

10.2. Frame/Sash Color: White

10.3. Hardware: C-Handle with Dual Point locking system.

10.4. Color: Interior Complementing Color

10.5. Weather Stripping: Multi-layer weather stripping in compliance with AAMA 701.2

10.6. Screens: Color complementing aluminum frame with BetterVue® charcoal fiberglass mesh

10.7. Muntins / Grids: 5/8" Flat Grids between glass (GBG) dividers

10.8. Exterior Trim: Integral Nailing Fin to be coordinated with applicable adjacent materials and siding

10.9. Interior Trim: Jamb receptors to match interior door color (Field Applied): 11/16 inch

10.10. Extension Jambs: Vinyl Wrapped to Complement Interior Door Color Selection

11. PERFORMANCE:

11.1. Unit Size Tested: To be included with submittal documents for each door style.

11.2. Energy and structural performance results to be included with submittal for each door style.

11.3. Air Infiltration: Maximum .02 cfm/sq. ft. at 1.57 psf (25 mph) in accordance with ASTM E 283

11.4. Water Resistance: No leakage when tested at 7.50 psf in accordance with ASTM E 547

11.5. Performance Grade: R-30

11.6. Forced Entry Resistance: Grade 10

12. GLAZING: 7/8-inch (19mm) dual pane insulated glass units utilizing warm edge spacer system and (2) panes of 1/8" double strength glass secured to sash frame using a silicone sealant and glazing bead.

12.1. Type: Ultimate Premium High Performance 366 LoE³ with Argon and i89

12.2. U-Factor: 0.25

12.3. Solar Heat Gain Coefficient (SHGC): 0.22 (No Grids), 0.19 (With Grids)

12.4. Visible Light Transmittance: 0.51 (No Grids), 0.44 (With Grids)

12.5. Condensation Resistance: 42

12.6. Color / Tint: None

13. EXAMINATION: Do not begin installation until substrates have been properly prepared. If substrate preparation is responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

14. PREPARATION: Clean surfaces thoroughly prior to installation. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under project conditions.

15. INSTALLATION: Install in accordance with manufacturer's instructions.

16. PROTECTION: Protect installed products until completion of project. Touch-up, repair or replace damaged products before Substantial Completion.

17. ENERGY STAR PERFORMANCE REQUIREMENT: Windows must comply with at least one of following:

17.1. U-factor of 0.27 or less (any SHGC is allowed)

17.2. U-factor of 0.28 AND an SHGC of 0.32 or more

17.3. U-factor of 0.29 AND an SHGC of 0.37 or more

17.4. U-factor of 0.30 AND an SHGC of 0.42 or more

RESIDENTIAL OVERHEAD GARAGE DOOR REPAIR - 08 36 13.05

1. SCOPE OF WORK:
   1.1. Replacement of lower panel of residential garage doors.
2. RELATED SECTIONS
   2.1. 06 60 00 Cellular PVC Fabrications: For replacement of lower twelve inches (12”) of brick mold on each garage door jamb.
3. MATERIALS: Provide panels from same manufacturer as garage door. Match existing material, size, profile, finish, insulation, etc.
   3.1. Provide new manufacturer’s standard hardware as required for a complete installation.
   3.2. Provide manufacturer’s standard weather stripping, seals, etc.
4. WARRANTY:
   4.1. Provide minimum one-year warranty on workmanship.
   4.2. Provide manufacturer’s standard warranty on materials, including finish.
5. INSTALLATION
   5.1. Install panels per manufacturer’s written instructions.
   5.2. Ensure existing safety features are in place and operable at completion of installation.
   5.3. Test doors; correct installation if required.
   5.4. Clean entire door.

VINYL WINDOWS – 08 53 13

1. SCOPE OF WORK: Provide and install windows as illustrated in contract documents.
   1.1. Verify insulated glazing meets Energy Star and other MHFA energy requirements and other criteria as listed in Section 08 80 00.
   1.2. Townhome Units: Provide sliding units complying with egress requirements unless otherwise noted.
   1.3. Common Area: Windows to be slider units unless indicated as fixed pane/picture.
2. SECTION INCLUDES: Thermo-Tech Classic Series Vinyl Windows
3. SUBMITTALS: Product Data: Submit Manufacturer's technical data, product descriptions and installation manuals for each type of window
4. SHOP DRAWINGS: Elevations for each style window specified indicating its size, color, glazing type, muntin type and design. Manufacturer's head, jamb and sill section details for each window type specified.
5. SELECTION SAMPLES: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
6. TEST REPORTS: Submit certified independent testing agency reports indicating window units meet or exceed specified performance requirements. Window units must be tested to comply with AAMA/WDMA/CSA 101/I.S.2/A440-11
7. QUALITY ASSURANCE: Manufacturer Qualifications: primary products specified in this section will be supplied by a single manufacturer with a minimum of twenty (20) years of experience. Installer Qualifications: products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of same type and scope as specified.
8. EGRESS: Windows must comply with requirements of code bodies having jurisdiction over project. Install windows with following properties:
   8.1. Sill height must not exceed 44 inches above floor.

8.2. Minimum net clear opening must be 5.7 square feet with exception of grade level windows may have a minimum clear opening of 5 square feet.

8.3. Minimum net clear opening height must be 24 inches.

8.4. Minimum net clear opening width must be at least 20 inches.

9. MOCK-UP: Provide a mock-up for evaluation of surface preparation techniques and application workmanship. Finish area as selected by Architect. Do not proceed with remaining work until workmanship and color are approved by Architect. Refinish mock-up area as required to produce acceptable work.

10. DELIVERY, STORAGE, AND HANDLING: Store products in manufacturer's unopened packaging until ready for installation. windows and doors are to be handled and stored sill down in an upright position and not on sides or head. No more than 8 patio doors and 12 windows are to be stored in a stack and keep out of direct sunlight. Store and dispose of hazardous materials, and materials contaminated by hazardous materials, in accordance with requirements of local authorities having jurisdiction.

11. WARRANTY: At project closeout, provide to Owner or Owner’s Representative an executed copy of manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.

11.1. UPVC Vinyl Frame and Sash Parts: 10 Years from Date of Manufacture.

11.2. Window Hardware: 10 Years from Date of Manufacture.

11.3. Insulated Glass Seal Failure: 10 Years from Date of Manufacture.

11.4. Stress Cracks: 1 Year form Date of Manufacture.

11.5. Labor on Warranty Parts: 1 Year from Date of Manufacture.

12. MANUFACTURER: AAMA Accredited Manufacturer: Thermo-Tech Premium Windows and Doors

13. SUBSTITUTIONS: Not permitted.

14. CLASSIC SERIES WINDOW CONSTRUCTION:

14.1. Frame: 3 1/4 inch (83mm) multi-chambered design, made from Polyvinyl Chloride (PVC) with fusion welded corners.

14.2. Frame/Sash Color: White

14.3. Hardware: Metal lock and keeper system. Hardware Color: To match interior frame color.

14.4. Sliding window track-lock system locks closed or in place at 3” (76mm) for secure ventilation

14.5. Weather Stripping: Multi-layer weather stripping in compliance with AAMA 701.2

14.6. Screens: Color complemented aluminum frame with BetterVue® charcoal fiberglass mesh on operable units

14.7. Muntins/Grids: 5/8” Flat grids between glass (GBG) dividers

14.8. Exterior Trim: Integral Nailing Fin to be coordinated with applicable adjacent materials and siding.

14.9. Interior Trim: Jamb Receptors to Match Interior Window Color: 11/16 inch to coordinate with 5/8” drywall return. Extension Jambs: Complement Interior Window Color Selection

14.10. Window sill to coordinate with 3/4" thick cast marble sill.

15. PERFORMANCE:

15.1. Unit Size Tested: To be included with submittal documents for each window style.

15.2. Energy and structural performance results to be included with submittal for each window style.

15.3. Air Infiltration: Maximum 0.07 cfm/sq. ft. at 1.57 psf (25 mph) in accordance with ASTM E 283

15.4. Water Resistance: No leakage when tested at 6.06 psf in accordance with ASTM E 547

15.5. Performance Grade: Minimum of R-40

15.6. Forced Entry Resistance: Grade 10

16. SLIDING WINDOWS – CLASSIC SERIES
    16.1. Glazing: 7/8-inch dual pane insulated glass units utilizing warm edge spacer system and (2) panes of 1/8 inch (minimum) double strength glass secured to sash frame using a silicone sealant and glazing bead.
    16.2. Type: Premium High Performance 366 LoE³ with Argon and I89 on interior surface
    16.3. U-Factor: 0.25
    16.4. Solar Heat Gain Coefficient (SHGC): 0.22 (No Grids), 0.20 (With Grids)
    16.5. Visible Light Transmittance: 0.50 (No Grids), 0.44 (With Grids)
    16.6. Condensation Resistance: 46
    16.7. Color / Tint: None

17. EXAMINATION: Do not begin installation until substrates have been properly prepared. If substrate preparation is responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

18. PREPARATION: Clean surfaces thoroughly prior to installation. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under project conditions.

19. INSTALLATION: Install in accordance with manufacturer's instructions.

20. PROTECTION: Protect installed products until completion of project. Touch-up, repair or replace damaged products before Substantial Completion.

DOOR HARDWARE – 08 71 00

1. SCOPE OF WORK: Door hardware to be provided as outlined in this specification to meet intended functionality. Utilize a hardware consultant.

2. DOOR HARDWARE – GENERAL: Provide hardware specified or required to make doors fully functional, compliant with applicable codes, and secure to extent indicated. Provide items of a single type of same model by same manufacturer. Doors to include hinges, silencers, frames, levers/knobs, and other hardware as recommended by supplier/manufacturer for proper operation to meet design intent of Contract Documents.

3. SUBMITTALS: Within ten days after award of contract, submit detailed hardware schedule. Schedule format shall be consistent with recommendations for a vertical format as set forth in Door and Hardware Institute's (DHI) publication "Sequence and Format for Hardware Schedule". Hardware sets shall be consolidated to group multiple door openings which share similar hardware requirements. Schedule shall include following information:
    3.1. Door number, location, size, handing, and rating.
    3.2. Door and frame material, handing.
    3.3. Degree of swing.
    3.4. Manufacturer
    3.5. Product name and catalog number
    3.6. Function, type and style
    3.7. Size and finish of each item
    3.8. Mounting heights
    3.9. Explanation of abbreviations, symbols, etc.
    3.10. Numerical door index, indicating hardware set/ group number for each door.

4. GENERAL REQUIREMENTS
    4.1. HARDWARE CONSULTANT: hardware schedule will be prepared under direct supervision of a certified Architectural Hardware Consultant (AHC) employed by hardware distributor. hardware schedule shall be signed and embossed with DHI certification seal of supervising AHC. supervising AHC shall attend meetings related to project when requested by Architect.

    4.2. Check specified hardware for suitability and adaptability to details and surrounding conditions.

    4.3. Review drawings from related trades to verify compatibility with specified hardware. Indicate unsuitable or in compatible items, and proposed substitutions in hardware schedule.

    4.4. Provide documentation for hardware to be furnished on labeled fire doors indicating compliance with positive pressure fire testing UL 10C.

    4.5. Furnish manufacturers' catalog data for each item of hardware.

    4.6. Submit a sample of each type of hardware requested by Architect. Samples shall be of same finish, style, and function as specified herein. Tag each sample with its permanent location so that it may be used in final work.

    4.7. Furnish with first submittal, a list of required lead times for hardware items.

    4.8. After final approved schedule is returned, transmit corrected copies for distribution and field use in quantities by Division 1 - General Conditions.

    4.9. Furnish approved hardware schedules, template lists, and pertinent templates as requested by related trades.

    4.10. Furnish necessary diagrams, schematics, voltage and amperage requirements for electro-mechanical devices or systems by related trades.

    4.11. After receipt of approved hardware schedule, Hardware supplier shall initiate a meeting including Owner's representative to determine keying requirements. Upon completion of initial key meeting, hardware supplier shall prepare a proposed key schedule with symbols and abbreviations as set forth in door and hardware institute's publication "Keying Procedures, Systems, and Nomenclature". Submit copies of Owner approved key schedule for review and field use.

5. QUALITY ASSURANCE: Manufacturers and model numbers listed are to establish a standard of function and quality. Similar items by approved manufacturers that are equal in design, function, and quality, may be considered for prior approval of Architect, provided required data and physical samples are submitted for approval as set forth in Division One General Requirements.

    5.1. Obtain each type of hardware (hinges, latch and locksets, exit devices, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.

    5.2. Installation of hardware shall be installed or directly supervised and inspected by a skilled installer certified by manufacturer of locksets, door closers, and exit devices used on project, or with not less than 3 years’ experience in successful completion of projects similar in size and scope.

    5.3. Provide hardware for labeled fire doors, which complies with positive pressure fire testing UL 10C.

    5.4. Comply with applicable provisions of standards referenced within section 1.4 of this specification.

6. FASTENERS: exposed fasteners shall be Phillips head or as otherwise specified and shall match finish of adjacent hardware. fasteners ex-posed to weather shall be non-ferrous or stainless steel. Furnish correct fasteners to accommodate surrounding conditions. Coordinate required reinforcements for doors and frames. Seek approval of Architect prior to furnishing through-bolts. Furnish through-bolts for materials not readily reinforced.

7. BUTT HINGES: Unless otherwise specified, furnish following hinge quantities for each door leaf: 3 hinges for doors up to 90 inches. 1 additional hinge for every 30 inches on doors over 90 inches.

	Ives	Stanley	Hager
Standard Weight, Plain Bearing	5PB1	F179	1279
Standard Weight, Ball Bearing	5BB1	BB179	BB1279
Standard Weight, Ball Bearing, Non-Ferrous	5BB1	FBB19	BB1191

7.1. Unless otherwise specified, furnish hinge weight and type as follows:

a) Heavyweight: 4 ball bearing hinge 5BB1HWss for exterior openings unless otherwise listed in groups.

7.2. Unless otherwise specified:

a) Furnish hinges for exterior doors, fabricated from brass, bronze, or stainless steel.

b) Furnish hinges in following sizes: 4-1/2" x 4-1/2" for1-3/4" thick doors.

c) Furnish hinges with non-removable loose pins (NRP) at exterior doors.

d) Furnish hinges to template standards.

7.3. Furnish hinges with sufficient width to accommodate trim and allow for 180-degree swing.

7.4. Provide hinges on every swinging door.

a) Provide five-knuckle full mortise butt hinges unless otherwise indicated.

b) Provide hinges in quantities indicated.

8. LOCKS AND LATCHES

	Schlage
Grade 2 Cylindrical	AL Series Saturn
Grade 2 Tubular	F Series ELAN
Grade 2 Deadbolt	BC100 Kwikset

8.1. No substitutions allowed.

8.2. Unless otherwise specified, locks and latches to have: 2-3/4" Backset, 1/2" minimum throw latchbolt, 1" throw deadbolt, 6 pin cylinders, ANSI A115.2 strikes

8.3. Provide guarded latchbolts for locksets, and latchbolts with sufficient throw to maintain fire rating of both single and paired door assemblies.

8.4. Length of strike lip shall be sufficient to clear surrounding trim.

8.5. Provide wrought boxes for strikes at inactive doors, wood frames, and metal frames without integral mortar covers.

8.6. Provide a lock for every door, unless specifically indicated as not requiring locking.

a) If no hardware set is indicated for a swinging door provide an office lockset.

8.7. Trim: Provide lever handle or pull trim on outside of locks unless specifically stated to have no outside trim.

8.8. Lock Cylinders: Provide key access on outside of locks unless specifically stated to have no locking or no outside trim.

8.9. Lock Cylinders: Manufacturer’s standard tumbler type, six-pin standard core.

a) Provide cams and/or tailpieces as required for locking devices required.

8.10. Keying: Grand master keyed.

8.11. Latches: Provide a latch for every door that is not required to lock, unless specifically indicated "push/pull" or "not required to latch".

9. WEATHERSTRIP, GASKETING

	Pemko	NGP	Reese
Weatherstrip	2891APK	700NA	755A
Gasket	S88D	2525	797B
Edge Seal	S77	5060	*****
Sweeps	18061CP	B606A	964A
Sweep drip	345	*****	*****
Drip Cap	346A	16A	R201A

9.1. Where specified in hardware groups, furnish above products unless otherwise detailed in groups.

9.2. Provide weatherstripping exterior doors and where specified.

9.3. Provide intumescent and other required edge sealing systems by individual fire door listings to comply with positive pressure standards UL 10C.

9.4. Provide S88D smoke gaskets at fire rated doors and smoke and draft control assemblies.

10. THRESHOLDS

Pemko	NGP	Reese
171	425	S205

10.1. Hardware supplier shall verify finish floor conditions and coordinate proper threshold to insure a smooth transition between threshold and interior floor finish.

10.2. Threshold Types:

a) Unless otherwise specified, provide saddle threshold similar to Reese S205 for exterior openings with a interior floor finish less than or equal to 1/4" in height.

b) Unless otherwise specified, provide half saddle threshold similar to Reese S239 for exterior openings with a interior floor finish greater than 1/4" in height. Threshold height shall match thickness of interior floor finish.

11. KEYING: Match Existing

11.1. Provide locks and cylinders utilizing a patented keyway to prevent manufacturing and distribution of aftermarket key blanks by anyone other than factory authorized dealers.

11.2. Keying shall be by lock manufacturer where permanent records shall be kept.

11.3. Furnish a total of 2 keys per cylinder. Actual cut keys to be determined by Owner.

11.4. Master keys and control keys to be delivered by registered mail to Owner. Change keys shall be delivered in a set up key cabinet. Construction keys shall be delivered to Contractor.

11.5. Coordinate final keying requirements with Owner prior to material ordering.

12. EXAMINATION: Prior to installation of hardware, installer shall examine door frame installation to insure frames have been set square and plumb. Installer shall examine doors, door frames, and adjacent wall, floor, and ceiling for conditions, which would adversely affect proper operation and function of door assemblies. Do not proceed with hardware installation until such deficiencies have been corrected.

13. INSTALLATION: Before hardware installation, coordinate a hardware installation seminar with a 1 week notice to parties involved. seminar is to be conducted on installation of hardware, specifically of locksets, closers, exit devices, continuous hinges and overhead stops. Manufacturer's representative of above products to present seminar. Seminar to be held at job site and attended by installers of hardware (including low voltage hardware) for aluminum and wood doors. Training to include use of installation manuals, hardware schedule, templates and physical products samples.

13.1. Install hardware in accordance with approved hardware schedule and manufacturer's instructions for installation and adjustment.

13.2. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

13.3. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accord with industry standards.

13.4. Drill appropriate size pilot holes for hardware attached to wood doors and frames.

13.5. Shim doors to maintain proper operating clearance between door and frame.

13.6. Unless otherwise specified, locate hardware in accordance with recommended locations for builder's hardware for standard doors and frames as published by Door and Hardware Institute.

13.7. Use only fasteners supplied by or approved by manufacturer for each respective item of hardware.

13.8. Mortise and cut to close tolerance and conceal evidence of cutting in finished work.

13.9. Install hardware in accordance with supplemental "S" label instructions on fire rated openings.

13.10. Install wall stops to contact lever handles or pulls. Do not mount wall stops on casework, or equipment.

13.11. Where necessary, adjust doors and hardware to eliminate binding between strike and latchbolt. Doors should not rattle.

13.12. Install door closers on corridor side of lobby doors, room side of corridor doors, and stair side of stairways.

13.13. Adjust spring power of door closers to insure exterior and fire rated doors will consistently close and latch doors under existing conditions. Adjust other door closers to insure opening force does not to exceed 5 lbs.

13.14. Adjust "sweep", "latch", and "back check" valves on door closers to properly control door throughout opening and closing cycle. Adjust total closing speed to comply with applicable state and local building codes.

13.15. Unless otherwise specified or detailed, install thresholds with bevel in vertical alignment with outside door face. Notch and closely fit thresholds to frame profile. Set thresholds in full bed of sealant.

13.16. Compress sweep during installation as recommended by sweep manufacturer to facilitate a water-resistant seal.

13.17. Deliver to Owner 1 complete set of installation and adjustment instructions, and tools as furnished with hardware.

14. QUALITY ASSURANCE: After installation has been completed, hardware supplier and manufacturer's representative for locksets, door closers, exit devices, and overhead stops shall check project and verify compliance with installation instructions, adjustment of hardware items, and proper application according to approved hardware schedule. Hardware supplier shall submit a list of hardware that has not been installed correctly. After installation has been completed, hardware supplier and manufacturer's representative shall meet with Owner to explain functions, uses, adjustment, and maintenance of each item of hardware. Apply self-adhesive gasketing on frame stop at head and latch side and on rabbet of frame at hinge side.

15. ADJUSTMENT AND CLEANING: At final completion, and when H.V.A.C. equipment is in operation, installer shall make final adjustments to and verify proper operation of door closers and other items of hardware. Lubricate moving parts with type lubrication recommended by manufacturer. hardware shall be left clean and in good operation. Hardware found to be disfigured, defective, or inoperative shall be repaired or replaced.

Hardware Schedule – 08 71 01

(Spec): Reference component section above for information

Reference Door Schedule for required hardware rating

Group U01 – Unit Exterior, Swing: Entry Doors

Qty.	Type	Manufacturer	Number	Finish
2 Ea.	Spring Hinge	Ives	3SP1	(Spec)
1 Ea.	Hinge	Ives	5BB1 (Top)	(Spec)
1 Ea.	Passage Set	Schlage	F75	(Spec)
1 Ea.	Sgl. Cyl. Deadbolt	Schlage	B60RF6	(Spec)
1 Ea.	Door Stop (as req'd)	(Spec)	(Spec)	(Spec)
1 Ea.	Threshold	Profile as Req'd	(Spec)	(Spec)
1 Ea.	Rain Drip	Zero	142	Mfgr.
2 Ea.	Wide Angle Viewer	Ives	U698	626
	Additional Viewer at	Accessible Units		

WEATHERSEAL TO INCLUDE: Weatherstrip, Gasket, Edge Seal, Sweeps, Sweep Drip and Drip Cap by a single manufacturer as listed in WEATHERSTRIP, GASKETING above.

GLAZING – 08 80 00

1. SCOPE OF WORK: Provide glass materials as required in contract documents.
   1.1. Glazing Units: Insulated glass, compliant with Energy Star, IECC, HERS Rater's analysis.
   1.2. Insulated Units: High-performance LoE 366/Argon heat reflecting glass. Reference Section 08 53 13 "Vinyl Windows" for additional information.
2. MANUFACTURERS: Thermo-Tech or approved equal
3. SUBMITTALS: Provide 12"x12" sample of each type of glazing utilized in project to Architect for approval.
4. PERFORMANCE REQUIREMENTS - EXTERIOR GLAZING ASSEMBLIES
   4.1. Provide type and thickness of exterior glazing assemblies to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of glass.
      a) Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
      b) Provide glass edge support system sufficiently stiff to limit lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
      c) Glass thicknesses listed are minimum.
   4.2. Vapor Retarder and Air Barrier Seals: Provide completed assemblies that maintain continuity of building enclosure vapor retarder and air barrier. In conjunction with vapor retarder and joint sealer materials described in other sections.
   4.3. Thermal and Optical Performance: Provide glass products with performance properties as indicated. Performance properties are in accordance with manufacturer's published data as determined with following procedures and/or test methods:
      a) Center of Glass U-Value: Comply with NFRC 100 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 5.2/6.3 computer program.
      b) Center of Glass Solar Heat Gain Coefficient (SHGC): Comply with NFRC 200 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 5.2/6.3 computer program.
      c) Solar Optical Properties: Comply with NFRC 300 test method.
5. GLASS MATERIALS: Float Glass: Provide float glass based glazing unless noted otherwise.
   5.1. Annealed Type: ASTM C1036, Type I - Transparent Flat, Class 1 - Clear, Quality-Q3.
   5.2. Heat-Strengthened and Fully Tempered Types: ASTM C1048, Kind HS and FT.
   5.3. Tinted Type: ASTM C1036, Class 2 - Tinted , Quality-Q3, color and performance characteristics as indicated.
   5.4. Thicknesses: As indicated; provide greater thickness as required for exterior glazing wind load design.
6. INSULATING GLASS UNITS: Certified by an independent testing agency to comply with ASTM E2190.
   6.1. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
   6.2. Spacer Color: Black.
   6.3. Edge Seal Color: Black. Purge interpane space with dry air, hermetically sealed.
7. SAFETY GLASS: Furnish and install safety glass at hazardous locations in accordance with IBC requirements for "Hazardous Locations" as follows:
   7.1. Glazing in fixed and swinging exterior doors (means of egress).

7.2. Glazing in fixed and sliding panels of sliding (patio) doors.

7.3. Glazing in fixed or operable panels or windows with an exposed area of an individual pane of 9 SF, bottom edge less than 18 inches above floor, top edge greater than 36 inches above floor, one or more walking surfaces within 36 inches horizontally of glazing.

DIVISION 09

GYPSUM BOARD ASSEMBLIES – 09 21 16

1. SCOPE OF WORK: Provide new gypsum board on walls and ceilings.
   1.1. Gypsum board is to be a minimum of 5/8" thick.
   1.2. Gypsum board included as part of a fire rated assembly shall be fire rated units.
   1.3. Reduce jointing to a minimum; scrap pieces are not to be used to complete large sections but may be utilized in smaller areas.
   1.4. Fasten gypsum to structure as required in contract documents.
   1.5. Provide gypsum boards within garage, or in any way exposed to outdoors or an unconditioned space, rated for an exterior exposure.
2. MANUFACTURERS: USG Corporation, National Gypsum or Georgia-Pacific products only.
3. GYPSUM BOARD ASSEMBLIES: Provide completed assemblies complying with ASTM C840 and GA-216. Fire Rated Assemblies: Provide completed assemblies complying with applicable code.
4. BOARD MATERIALS: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut. Thickness: Vertical Surfaces at 1/2 inch. Ceilings at 5/8 inch.
5. BACKING BOARD FOR WET AREAS: For surfaces behind tile in wet areas including tub and shower surrounds and ceilings; sizes to minimum joints in place; ends square cut. Mold resistance score of 10 when tested in accordance with ASTM D3273.
6. BOARD INSTALLATION: Comply with ASTM C 840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
   6.1. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
   6.2. Fire-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.
   6.3. Installation on Metal Framing: Use screws for attachment of gypsum board except face layer of non-rated double-layer assemblies, which may be installed by means of adhesive lamination.
   6.4. Installation on Wood Framing: For rated assemblies, comply with requirements of listing authority.
7. ACOUSTIC SEALANT: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
8. JOINT MATERIALS: ASTM C475 and as recommended by gypsum board manufacturer for project conditions. Tape: 2 inch wide, creased paper tape for joints and corners , except as otherwise indicated. Ready-mixed vinyl-based joint compound.
9. FASTENING: Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant. Screws shall penetrate not less than 5/8 inch. Screw types shall be applied as per schedule below:
   9.1. Type W GWB to wood studs
   9.2. Type S GWB to cold formed steel
   9.3. Type G GWB to GWB
10. NAILS: Attachment to Wood Members ONLY: ASTM C514.
11. JOINT TREATMENT: Paper Faced Gypsum Board: Use paper joint tape, bedded with ready-mixed vinyl-based joint compound and finished with ready-mixed vinyl-based joint compound. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
    11.1. At existing walls and ceilings required to be patched match existing finish and texture.

11.2. Provide Level 4 walls and ceilings at areas to receive paint finish or wall coverings. Joints and interior angles shall have tape embedded in joint compound and three separate coats of joint compound applied over joints, angles, fastener heads, and accessories. Joint compound shall be smooth and free of tool marks and ridges. Coat prepared surface with a primer/sealer prior to application of final finishes. See painting/wallcovering specification for additional related information.

11.3. Provide Level 1 finish at Fire rated wall areas above finished ceilings, whether or not accessible in completed construction. Joints and interior angles shall have tape embedded in joint compound. Surface shall be free of excess joint compound. Tool marks and ridges are acceptable.

PAINTING AND COATING – 09 90 00

1. SCOPE OF WORK: Interior and Exterior: Unfinished surfaces to receive a full, warrantied, primer and paint system, unless specifically excluded in contract documents.
   1.1. Reference Scope of Work Matrix on sheet A901.
2. LOCATION: Where areas are identified to be finished: Finish interior and exterior surfaces exposed to view with minimum 1-coat of primer and 2-coats of finish paint, unless fully factory-finished and unless specifically otherwise indicated.
   2.1. Do Not Paint or Finish Following Items:
      a) Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
      b) Items indicated to receive other finishes.
      c) Items indicated to remain unfinished.
      d) Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
      e) Floors, unless specifically so indicated.
      f) Glass.
      g) Concealed pipes, ducts, and conduits.
3. SUBMIT SAMPLES: Submit two paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified. Where sheen is specified, submit samples in only that sheen.
4. MANUFACTURERS: Provide paint and coating products used in individual system from same manufacturer; no exceptions: Sherwin Williams unless listed otherwise in Finish Schedule.
5. PAINTS AND COATINGS – GENERAL: Ready mixed, unless intended to be a field-catalyzed coating. Supply each coating material in quantity required to complete entire project's work from a single production run. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions. Provide coatings that comply with most stringent requirements specified in following:
   5.1. SCAQMD Rule 1168.
   5.2. 40 CFR 59, Subpart D -- National Volatile Organic Compound Emission Standards for Architectural Coatings.
   5.3. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
6. PAINT SYSTEMS - EXTERIOR
   6.1. Paint WE-OP-3L - Wood, Opaque, Latex, 3 Coat:
      a) One coat of latex primer

b) 2 Coat: B20WJ8651 - Solo Satin VOC 100% Acylic Int/Ext Block resistant enamel

6.2. Paint ME-OP-3A - Ferrous Metals, Unprimed, Alkyd, 3 Coat:

a) One coat of alkyd primer
b) 2 Coat: B66W00651 - Pro Industrial 0 VOC Acrylic Semi-Gloss

7. PAINT SYSTEMS - INTERIOR

7.1. Paint WI-OP-3L - Wood, Opaque, Latex, 3 Coat:

a) One coat of latex primer sealer.
b) Eggshell: Two coats of latex enamel .

7.2. Paint WI-TR-VS - Wood, Transparent, Varnish, Stain:

a) Filler coat (for open grained wood only).
b) Two coats of stain .
c) One coat sealer .

7.3. Paint CI-OP-3L - Concrete/Masonry, Opaque, Latex, 3 Coat:

a) One coat of block filler.
b) Satin: Two coats of latex enamel .

7.4. Paint MI-OP-2L - Ferrous Metals, Primed, Latex, 2 Coat:

a) Touch-up with latex primer.
b) Semi-gloss: Two coats of latex enamel .

7.5. Paint GI-OP-3L - Gypsum Board/Plaster, Latex, 3 Coat:

a) One coat of latex primer sealer.
b) Eggshell: Two coats of latex enamel

8. PREPARATION: Clean surfaces thoroughly and correct defects prior to coating application. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under project conditions.

8.1. Tape, spackle, sand smooth and clean gypsum board joints.

9. APPLICATION: Apply products in accordance with manufacturer's instructions. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

FINISH SCHEDULE – 09 90 05		
ID CODE	**DESCRIPTION**	**LOCATION**
	INTERIOR FINISHES	
P1	Product: Paint Mfg: Sherwin Williams Color: SW7043 Worldly Gray Finish: P1A: Eggshell (Walls)	Unit walls
P2	Product: Paint Mfg: Sherwin Williams Color: SW7030 Anew Gray Finish: Eggshell	Field Color - common area walls unless otherwise specified.
P6	Product: Paint Mfg: Sherwin Williams Color: SW7570 Egret White Finish: Satin Enamel	Painted trim and casing
P7	Product: Paint Mfg: Sherwin Williams Color: SW7006 Extra White Finish: Flat (Ceilings) Eggshell (Walls)	All ceilings Maintenance Mechanical
WT 	Wall and Ceiling Texture: Knock Down Knock Down Procedure: Apply as spatter as described except use material at heavy latex-paint consistency. After spattering surface, wait about 10-15 min., then very lightly flatten only tops of spatters with flat blade or flat hand trowel. Size of spatters depends on pressures used. Application: Spray Equipment: Pole gun, hopper, or Binks 7D, Binks 7E2 gun or equivalent Sample: Provide a 2' x 2' sample for approval prior to starting work.	
CM2	Product: Cultured Marble Mfg.: Central Marble Products, Inc. Style: Pure White (145) Edge Style: Eased Edge Finish: Matte	Window Sills

WB1	Product: Wood Door Trim Mfg: TBD Profile: Square Color: Color to closely match Doors **Submit samples for Architect/designer approval. **	Door trim
CAB1 	Product: Cabinets Mfg.: Smart Cabinetry Style: Squire (Shaker, Standard Overlay) Wood: Match Existing Finish: Match Existing	Unit kitchen cabinets and bathroom vanities
HW1  (or approved equal)	Product: Hardware – Cabinet 96mm Pull Manufacturer: Jamison Collection by Charles McMurray Model: J444-SN Finish: Satin Nickel CTC: 3.75” Length: 4.25”	Unit and Common areas cabinet doors and drawers
BL1	Product: Window Blinds Manufacturer: SWF contract Style: 2” Composite Color: TBD from color selection submittals	Door sidelites
BL2	Product: Window Blinds Manufacturer: Hunter Douglas Style: 3-1/2” Composite Color: White	All other areas where BL1 is not specified

DIVISION 10

SIGNAGE – 10 14 00

1. SCOPE OF WORK: Provide and install new signage as required in contract documents:
   1.1. Site Monument sign.
2. SUBMITTALS: Manufacturer's product data; shop drawings indicating sign size, materials, finishes, and mounting.
3. MANUFACTURERS: Teems, Inc., Sign Source, Designer Sign Systems or approved equal.
4. ACCESSIBILITY COMPLIANCE: Comply with accessible standards indicated; in the event of conflicting requirements, comply with the most comprehensive and specific requirements.
5. CONCEALED SCREWS: Stainless steel, galvanized steel, chrome plated, or other non-corroding metal.
6. EXPOSED SCREWS: Chrome plated.
7. PARKING SIGNS: Reflective aluminum or hot dipped galvanized steel; completely painted with baked enamel; size and colors as indicated on design drawings.
   7.1. Mounted to galvanized steel posts. Coordinate installation with site concrete provider for footings.
8. MONUMENT SIGN: Provide design of graphics, mounting details, etc. for monument sign. Provide permit applications and fully comply with local signage ordinances for design, size, height, mounting and requirements for installer's qualifications and licensure. Coordinate lighting as noted, required by the Owner and/or as required by the authority having jurisdiction.
9. INSTALLATION: Install in accordance with manufacturer's instructions. Install neatly, with horizontal edges level. Locate signs and mount at heights indicated in accordance with ADA Standards and ICC A117.1. Locate signs as required by Owner. Protect from damage and repair or replace damaged items.

FIRE PROTECTION SPECIALTIES– 10 44 00

1. SECTION INCLUDES: Fire extinguishers.
2. SCOPE OF WORK: Provide and install new fire extinguishers as illustrated in contract documents and as directed by local code official.
   2.1. Include one extinguisher in each townhome.
3. SUBMITTALS: Provide extinguisher operational features.
4. MANUFACTURERS:
   4.1. Fire Extinguishers: Ansul, a Tyco Business; Pyro-Chem or JL Industries, Inc
5. FIRE EXTINGUISHERS: Comply with product requirements of NFPA 10 and applicable codes, whichever is more stringent.
   5.1. Multipurpose Dry Chemical Type Fire Extinguishers: Carbon steel tank, with pressure gage.
   5.2. Class: A:B:C type.
   5.3. Finish: Baked polyester powder coat, red color.
6. EXTINGUISHER BRACKETS: Formed steel, chrome-plated.
7. EXAMINATION: Verify existing conditions before starting work. Verify rough openings for cabinet are correctly sized and located.
8. INSTALLATION: Install in accordance with manufacturer's instructions. Install cabinets plumb and level in wall openings. Secure rigidly in place. Place extinguishers in cabinets. Provide testing and inspection tags to extinguishers when placed for operation.

WALL MOUNTED STANDARDS AND SHELVING – 10 56 17

1. SCOPE OF WORK: Provide and install new shelving, brackets, rods and fasteners as illustrated in contract documents. Include following in each type of room:
   1.1. Unit Linen Closet: Set of 5 shelves, brackets and standards. Shelves to be full depth and width of closet and equally spaced vertically along standards.
   1.2. Unit Bedroom Closet: Closet Rod: installed at 44” a.f.f. and 12” clear of back wall. Shelf: one 15” deep shelf installed at 48” a.f.f.
   1.3. Unit Storage Closet: Set of 5 shelves, brackets and standards. Shelves to be 15” deep by full width of closet and equally spaced vertically along standards.
2. SECTION INCLUDES: Shelf standards, brackets, and accessories. Closet rods for mounting on brackets.
3. SUBMITTALS: Product Data: Manufacturer's data sheets on each product to be used. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns. Maintenance Materials: Furnish following for Owner's use in maintenance of project. Extra Brackets: Ten of each size of standard straight bracket.
4. DELIVERY, STORAGE, AND HANDLING: Store products under cover and elevated above grade. Store products in manufacturer's unopened packaging until ready for installation.
5. MANUFACTURERS: Knape and Vogt Manufacturing Company
6. STANDARD DUTY SHELF STANDARDS: Single-slotted channel standards for brackets adjustable in 1-inch increments along entire length of standard, drilled and countersunk for screws.
   6.1. Load Capacity: Recommended by manufacturer for loading of 120 to 320 pounds per pair of standards.
   6.2. Face Width: 5/8 inch.
   6.3. Material: 16 gage, 0.0598 inch sheet steel.
   6.4. Lengths: As indicated on drawings.
   6.5. Finish: Electroplated, chrome-look.
   6.6. Brackets: 14 gage, 0.0747 inch sheet steel, locking into slots; size to suit shelves; zinc coated finish.
   6.7. Bracket Quantity: Provide one bracket for each 12 inches of standard length.
7. CLOSET RODS: Steel tubing for wall mounting in flange fittings.
   7.1. Type: Round stainless steel, standard duty; 1-1/16 inch outside diameter, 0.087 inch wall thickness.
   7.2. Length: As required for application, up to 12 feet.
   7.3. Provide mounting fittings to suit application.
8. FASTENERS: Screws as recommended by manufacturer for intended application or as otherwise required by project conditions.
9. EXAMINATION: Do not begin installation until substrates have been properly prepared. If substrate preparation is responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
10. PREPARATION: Clean surfaces thoroughly prior to installation. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under project conditions.
11. INSTALLATION: Install in accordance with manufacturer's instructions. Mount standards to solid backing capable of supporting intended loads. Install brackets, shelving, and accessories.
12. PROTECTION: Protect installed products until completion of project. Touch-up, repair or replace damaged products before Substantial Completion.

DIVISION 11

PLAYGROUND EQUIPMENT – 11 68 13

1. SCOPE OF WORK: Provide and install whole and complete playground as selected by Owner.
   1.1. Include allowance and coordinate with subdrainage section.
   1.2. Include allowance to provide and install protective surfacing.
2. CURB: Include alternates for concrete curb system as detailed in contract documents as well as a fully designed system consisting of rubber curbing produced by same manufacturer as playground equipment.
3. SECTION INCLUDES: Playground layout (staking). Concrete footings for playground equipment. Playground equipment.
4. SUBMITTALS:
   4.1. Product Data: For manufactured equipment, provide manufacturer's product data showing materials of construction, compliance with specified standards, installation procedures, safety limitations, and number of users permitted.
   4.2. Shop Drawings: Detailed scale drawings showing play event layout, Use Zone perimeters, and fall height for each play event.
   4.3. Maintenance Data: Provide manufacturer's recommended maintenance instructions and list of replaceable parts for each equipment item, with address and phone number of source of supply.
   4.4. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
5. QUALITY ASSURANCE:
   5.1. Maintain one copy of latest edition of ASTM F1487 and CPSC Pub. No. 325 at project site.
   5.2. Manufacturer Qualifications: Company regularly engaged in manufacturing materials and products specified in this section, with not less than three years of experience.
6. DELIVERY, STORAGE, AND HANDLING: Deliver, handle, and store equipment to project site in accordance with manufacturer's recommendations.
7. Store materials in a dry, covered area, elevated above grade.
8. WARRANTY: Manufacturer’s lifetime warranty.
9. MANUFACTURERS: MN/WI Playground; GameTime, Inc; Landscape Structures, Inc; or Park Structures, Inc
10. DESIGN ASSUMPTIONS: Because safety of playground depends on strict conformance to design criteria, this information is provided for Contractor's information.
    10.1. There shall be two different areas
    10.2. Playground has been designed for children ages 2 through 5.
    10.3. Playground has been designed for children ages 5 through 12.
    10.4. If deviations from specified dimensions, especially fall heights, is required, obtain approval prior to proceeding; follow approval request procedure as specified for substitutions.
11. FOOTINGS: Mount equipment on concrete footings, unless otherwise indicated.
12. SUPPORT MOUNTS: Provide supports as required to mount equipment at proper height above finish and sub-grades to allow installation of sufficient depth of protective surfacing; portion of support below top of surfacing must comply with specified requirements for equipment.
13. SUPPORT FINISH: Paint portion of support that is intended to be installed below top surface of protective surfacing a different color, or mark in other permanent way, so that installers and maintainers of protective surfacing can easily determine whether sufficient depth has been installed.

14. EQUIPMENT LABELS: Label each equipment item with permanent labels stating age group that equipment was designed for, manufacturer identification, and warning labels in accordance with ASTM F1487.
15. PLAYGROUND EQUIPMENT: Comply with ASTM F1487 and CPSC Pub. No. 325; provide equipment complying with specific requirements for relevant age group(s). Provide components having factory-drilled holes. Do not use components with extra holes that will not be filled by hardware or covered by other components.
16. STEEL PIPE AND TUBE: Conforming to ASTM A135/A135M, ASTM A500/A500M, or ASTM A513/A513M; hot-dipped galvanized and free of excess weld and spatter. Tensile Strength: 45,000 psi, minimum. Yield Point: 33,000 psi, minimum. Galvanizing: Hot-dip metal components in zinc after fabrication, in accordance with ASTM A123/A123M; remove tailings and sharp protrusions and burnish edges.
17. EXTRUDED ALUMINUM: ASTM B221 or ASTM B221M, Alloy 6061, 6062, or 6063. Tensile Strength: 39,000 psi, minimum. Yield Point: 36,500 psi, minimum.
18. HARDWARE: Provide design without hazardous protrusions, corners, or finishes, and requiring tools for removal after installation; countersunk fasteners are preferred. Use stainless steel for metal-to-metal connections; select type to minimize galvanic corrosion of materials connected by hardware. Use stainless steel for wood-to-wood and wood-to-metal connections. Use stainless steel with plastic components. Bearings: Self-lubricating. Hooks, Including S-Hooks: Closed loop; maximum gap 0.04 inches, less than thickness of a dime. Rails, Loops, and Hand Bars: Same metal as item is mounted on or aluminum; with powder coating. Anchors: In accordance with manufacturer's recommendations.
19. BOARDS AND TIMBERS: Free of holes, cracks, and loose knots; do not use wood or wood coatings that contain pesticides; do not utilize used lumber.
20. CONCRETE: To meet ASTM C94/C94M ready mix concrete; 28 days strength of 3,000 psi.
21. VERIFICATION OF CONDITIONS: Verify that playground area has been graded to subgrade elevations required and that excess soil, rocks, and debris have been removed. Verify that playground equipment footings have been installed in proper locations and at proper elevations. Verify location of underground utilities and facilities in playground area; damage to underground utilities and facilities will be repaired at Contractor's expense.
22. PREPARATION: Stake location of playground elements, including Use Zone perimeters, perimeter of protective surfacing, access and egress points, hard surfaces, walls, fences, and structures, and planting locations. Stake layout of entire Use Zone perimeter before starting work and before subbase under resilient surfacing is laid.
23. USE ZONE: Verify that Use Zone perimeters do not overlap hard surfaces, whether currently installed or not. Verify that Use Zones are free of obstructions that would extend into resilient portion of protective surfacing. If conflicts or obstructions exist, notify Architect. Do not proceed until revised drawings have been provided, showing corrected layout, and obstructions have been removed.
24. INSTALLATION: Coordinate work with preparation for and installation of protective surfacing. Install protective surfacing after playground equipment installation. Install concrete footings with top surface a minimum of 1/2 inch below required subgrade elevation. Install in accordance with CPSC Pub. No. 325, ASTM F1487, manufacturer's instructions, and requirements of authorities having jurisdiction (AHJ). Anchor equipment securely below bottom elevation of resilient surfacing layer. Install without sharp points, edges, or protrusions; entanglement hazards; or pinch, crush, or shear points. Do not modify play events on site without written approval of manufacturer. Install required signage if not factory-installed.
25. CLEANING: Restore adjacent existing areas that have been damaged from construction. Clean playground equipment of construction materials, dirt, stains, filings, and blemishes due to shipment or installation. Clean in accordance with manufacturer's instructions, using cleaning agents as recommended by manufacturer. Clean playground area of excess construction materials, debris, and waste. Remove excess and waste material and dispose of off-site in accordance with requirements of authorities having jurisdiction.

26. PROTECTION: Protect installed products until Date of Substantial Completion. Replace damaged products before Date of Substantial Completion.

DIVISION 12

VERTICAL LOUVER BLINDS – 12 21 16

1. SCOPE OF WORK: Provide and install complete blind system and accessories on windows throughout townhome areas.
2. MANUFACTURERS: Hunter Douglas. Vertical Solutions. 3-1/2” wide flame-retardant vanes. Wand Control. Color: White. In width and height to fully fill window openings. Stack on non-operational side of windows.
3. SUBMITTALS: Manufacturer's data sheets on each product to be used, including: Preparation instructions and recommendations, Storage and handling requirements and recommendations, and Installation methods.
4. SELECTION SAMPLES: For vanes; submit color chips or material samples representing manufacturer's full range of available colors and patterns.
5. VERTICAL LOUVER BLINDS: Color as selected Architect. Horizontal travel, vertical vane louver units complete with tracks, pivot and traversing mechanisms, and accessories as well as: Vanes: NFPA 701 compliant PVC vanes of size adequate and appropriate for opening size with Integrally colored, extruded smooth PVC; flat, 3-1/2 inches (80mm) wide, Operation Manual, and Wand operation.
6. BLIND RESTING POSITION: Over fixed pane of glass.
7. MOUNTING: Inside (between jambs).
8. TRACKS: Channel tracks for type of operation, extruded aluminum with clear anodized finish, with end caps. Sized in a Manufacturer's standard dimension, selected for suitability for installation conditions, span, and weight of vanes.
9. PIVOT MECHANISM: Geared for synchronous 180 degrees rotation of vanes and type of operation indicated.
10. LOUVER CARRIERS: Injection molded PVC carriers with 8 prong rotation system carriers have self-lubricating wheels for reduced friction. Carriers allow for 180-degree simultaneous rotation.
11. BRACKETS AND MOUNTING HARDWARE: As recommended by manufacturer for mounting configuration and span indicated; provide manufacturer’s standard L- bracket with clip for outside mounting and clip only for inside mounting.
12. FABRICATION: Field measure finished openings prior to ordering or fabrication.
13. INSTALLATION: Install in accordance with manufacturer's instructions using mounting style as indicated. Adjust blinds for smooth operation.
14. WARRANTY: Minimum 2-year manufacturer warranty.

RESIDENTIAL CASEWORK – 12 35 30

1. SCOPE OF WORK: Provide and install new cabinet fronts, doors, and hardware. Reference Unit key notes on unit plans for scope of work.
    1.1. Field verify quantities and sizes.
2. MANUFACTURERS: Smart Cabinets. Mortise and tenon door, veneer flat panel, solid drawer front, square edge profile, standard overlay.
    2.1. Approved similar.
3. GENERAL CABINET NOTES:
    3.1. Install Drip-Tite liners at kitchen sink cabinets.
    3.2. Do not use materials that contain added urea-formaldehyde.
    3.3. Provide hardware at cabinet doors and drawers.
        a) Include new side-mounted drawer glides.

3.4. See finish schedule for product information

4. SUBMITTALS: Provide component dimensions and construction details.
5. SHOP DRAWINGS: Indicate casework locations, large scale plans, elevations, clearances required, rough-in and anchor placement dimensions and tolerances.
6. QUALITY ASSURANCE: Complying with ANSI/KCMA A161.1 and KCMA Certified.
7. COUNTERTOPS: As specified in Section 12 36 00.
8. DOOR AND DRAWER FRONTS: Solid wood.
9. BOLTS, NUTS, WASHERS AND SCREWS: Of size and type to suit application.
10. HARDWARE: BHMA A156.9, Types as recommended by fabricator.
11. FABRICATION: Shop assemble for delivery to site in units easily handled and to permit passage through building openings. Fabricate corners and joints without gaps.
12. FINISHES: surfaces exposed to view shall be Stain, seal, and varnish.

    12.1. Match existing wood species and finish.

13. INSTALLATION: Install casework components and accessories in accordance with manufacturer's instructions. Use anchoring devices to suit conditions and substrate materials encountered. Set casework items plumb and square and securely anchored.

DIVISION 13

PRE-ENGINEERED BUILDINGS – 13 12 00

1. SCOPE OF WORK: Provide and install Pre-Engineered buildings (storage sheds) as indicated on design drawings.
2. RELATED SECTIONS: 32 13 13 Concrete Paving: For concrete pad under shed.
3. SUBMITTALS: Manufacturer's data sheets, including: Preparation instructions and recommendations, Storage and handling requirements and recommendations, and Installation methods.
4. SELECTION SAMPLES: Submit samples of full range of available finish options and colors for review and approval.
5. WARRANTY: Provide manufacturer’s standard seven (7) year warranty on materials and workmanship.
6. MANUFACTURERS: Tuff Shed (https://www.tuffshed.com).
    6.1. Approved similar.
    6.2. Model: Premier Ranch.
7. INSTALLATION: Verify concrete slab is installed, cured, and ready to receive shed.
    7.1. Installation by shed manufacturer.

DIVISION 14 - 20

1. Not included on this specification.

DIVISION 21

1. Not included on this specification.

DIVISION 22

PLUMBING DESIGN CRITERIA – 22 00 00

1. SCOPE OF WORK: Provide and install a complete plumbing system including materials and labor as indicated in contract documents.
   1.1. Provide WaterSense labeled fixtures at replaced toilets, showerheads, and faucets.
   1.2. Unit Bathrooms: Vanity sink with faucet, toilet, tub with spigot and shower head on adjustable mounting.
   1.3. Unit Mechanical: Hot water heater.
   1.4. Sanitary line, supply and return lines, drains, condensate, venting for fixtures, equipment and appliances as required.
   1.5. Whole and complete gas piping, valves, hangers and metered system. Including natural gas connection to fireplace.
2. CODE: Design and install plumbing work in accordance with governing authorities, ordinances and codes.
3. DESIGN BUILD: Plumbing design scope shall be fully engineered and documented as part of Contractor's base bid. Submission to authority having jurisdiction and information, drawings, cut-sheets, etc. that are required for permitting shall be sole responsibility of Contractor.
4. ACCESSIBILITY COMPLIANCE: plumbing fixtures within accessible apartments, amenity spaces, restrooms, common areas, corridors, or otherwise required to comply with accessibility codes shall be, if new, located as required by governing accessibility code or if existing, relocated to meet governing accessibility code. If there is found to be a conflict in field or manufacture's or suppliers specified fixture and governing accessibility code, provide a compliant fixture installed as required by governing code and notify Architect immediately. Reference typical accessibility mounting heights and clearances within contract documents for new and existing fixture locations.
5. Shop drawings shall be required for Owner’s review and approvals. Shop drawings shall include required drawings, equipment and fixture submittals and calculations.
6. Visit site to become fully informed as to existing conditions before submitting proposal. No additional compensation or allowances shall be granted for failure to fully understand existing conditions prior to design and construction.
7. Coordinate closely with General Contractor and other Contractors to perform work. Provide sufficient materials and labor as required to maintain progress with phases of construction.
8. Provide submittals within final O and M manuals.
9. Provide as built drawings of installed work.
10. INSTALLATION: Install in accordance with manufacturer's instructions.
11. COORDINATION: Coordinate with other trades to prevent interference between beams, joists, structures, wiring, ductwork, etc.
12. Verify location of plumbing fixtures and devices with Owner prior to roughing in work. Actual and final locations of fixtures are subject to Owner's approval.
13. Avoid placement of piping in exterior walls or other areas subject to freezing. However, where such placement is necessary, place piping on warm-in-winter side of insulation or other acceptable measures as proposed by Contractor and approved by Owner to ensure no pipe freezing may be accepted.
14. Pitch laterals to drain at or greater than as required by local governing plumbing code.
15. Floor drains are to have associated air break and trap.
16. Provide thermostatic mixing valve at hand sinks and lavatories.
17. Insulate hot water piping and place piping on warm-in-winter side of wall, floor and/or ceiling insulation.

18. Provide new shut-off valves at fixtures and units.
19. New supply piping shall be minimum of 1/2" dia. unless specifically noted otherwise.
20. FINAL INSPECTION, TESTING, CLEANING AND ADJUSTING: At completion of work, parts of installation and equipment shall be inspected, tested, adjusted, cleaned, and left in a safe, proper operating condition to satisfaction of Owner.
21. GUARANTEE: Materials and equipment furnished for this project shall be new and free of defects. Work shall be of good quality, free of faults and defects. Guarantee work, materials and equipment for one (1) full year from date of certificate of occupancy. Manufacturer's warranties shall exceed Contractor's guarantee.
22. STARTING EQUIPMENT AND SYSTEMS: Provide manufacturer's approved field representative to prepare and start equipment. Adjust for proper operation within manufacturer's published tolerances. Demonstrate proper operation of equipment to Owner's designated representative. Video tape demonstration and turn over to Owner

DIVISION 23

HVAC DESIGN CRITERIA – 23 00 00

1. SCOPE OF WORK: Provide and install new, complete HVAC system as described in contract documents
   1.1. Interior and Exterior of Units: Furnace, fans, condensing units, line-sets, grilles, and ductwork.
   1.2. As an alternate to base bid in Laundry Room, provide and install a Mini-Split system and provide engineered design.
2. CODE: Design and install mechanical work in accordance with governing authorities, ordinances and codes.
3. DESIGN BUILD: Fully engineer and document Mechanical design scope. Submission to authority having jurisdiction and information, drawings, cut-sheets, etc. that are required for permitting shall be sole responsibility of Contractor.
4. Shop drawings shall be required for Owner's review and approvals. Shop drawings shall include required drawings, equipment and fixture submittals and calculations.
5. Visit site to become fully informed as to existing conditions before submitting proposal. No additional compensation or allowances shall be granted for failure to fully understand existing conditions prior to design and construction.
6. Coordinate closely with General Contractor and other Contractors to perform work. Provide sufficient materials and labor as required to maintain progress with phases of construction.
7. Guarantee work, materials and equipment against defect for one year beyond date of acceptance.
8. Provide submittals within final O and M manuals
9. Provide as built drawings of installed work.
10. INSTALLATION: Install in accordance with manufacturer's instructions.
11. COORDINATION: Coordinate with other trades to prevent interference between beams, joists, structures, piping, wiring, etc.
12. Penetrations through fire rated assemblies shall be installed in accordance with required rating. At request of building official or Contractor Architect will supply UL design numbers to accommodate specific existing conditions.
13. TEMPERATURE CONTROL: system shall be designed to maintain an indoor temperature of 68°f at a point 3'-0" above floor on design heating day.
14. ENERGY CONSERVATION: Heating, ventilating and air conditioning systems of structures shall be designed and installed for efficient utilization of energy in accordance with Owner's provided energy report, international energy conservation code as well as local AHJ.
15. Ducts, fans and distribution system shall be designed to minimize air noise and sensibility of air movement.
16. Exterior air conditioning units shall be located and installed on pads as per code in locations as approved by Owner. Include hurricane tie-down clips at units.
17. FINAL INSPECTION, TESTING, CLEANING AND ADJUSTING: At completion of work, parts of installation and equipment shall be inspected, tested, adjusted, cleaned, and left in a safe, proper operating condition to satisfaction of Owner.
18. GUARANTEE: materials and equipment furnished for this project shall be new and free of defects. work shall be of good quality, free of faults and defects. work, materials and equipment shall be guaranteed for one (1) full year from date of certificate of occupancy. manufacturer's warranties shall be in excess of Contractor's guarantee.
19. STARTING EQUIPMENT AND SYSTEMS: Provide manufacturer's approved field representative to prepare and start equipment. Adjust for proper operation within manufacturer's published tolerances.

Demonstrate proper operation of equipment to Owner's designated representative. Video tape demonstration and turn over to Owner.

DIVISION 24 – 25

1. Not included on this specification.

DIVISION 26

ELECTRICAL DESIGN CRITERIA – 26 00 00

1. SCOPE OF WORK: Provide and install complete exterior and site lighting, power, low voltage emergency lighting, and alarm systems as indicated in contract documents.
    1.1. Including control panels, feeder, service connection, main and sub panels, connections to mechanical equipment, pumps and fans, building grounding/bonding, switching devices, ground fault devices, duplex devices, quadplex devices, horns, strobes, smoke detectors, carbon monoxide detectors, occupancy sensors, specialty power for equipment and coordination with Owner's security and tele/data consultant.
2. CODE: Design and install electrical work in accordance with governing authorities, ordinances and codes.
3. DESIGN BUILD: Fully engineer and document electrical design scope as part of base bid. Submission to authority having jurisdiction, and information, drawings, cut-sheets, etc. that are required for permitting shall be sole responsibility of Contractor.
4. Shop drawings shall be required for Owner's review and approvals. Shop drawings shall include required drawings, equipment and fixture submittals and calculations.
    4.1. Shop drawings should also include a foot candle plot of specified lighting fixtures in areas with new lighting; both interior and exterior.
5. Visit site to become fully informed as to existing conditions before submitting proposal. No additional compensation or allowances shall be granted for failure to fully understand existing conditions prior to design and construction.
    5.1. Coordinate closely with General Contractor and other Contractors to perform work. Provide sufficient materials and labor as required to maintain progress with phases of construction.
6. Verify location of electrical devices with Owner prior to roughing in work. Actual and final locations of devices are subject to Owner's approval.
7. NEW DEVICES: New power devices shall be temper resistant. As required by code new devices shall be arc fault. Verify exact scope and include as part of base bid.
8. BRANCH CIRCUIT WIRING: Complete with final connections to equipment, devices, light fixtures, receptacles, motors, and other equipment as required. Minimum wire size for lighting and power circuits shall be as per local governing electrical code. Larger wire sizes shall be provided as required to carry connected loads without excessive voltage drop.
9. JUNCTION AND OUTLET BOXES: Provide device boxes suitable for intended service and in compliance with local governing electrical code. Furnish and install junction and pull boxes as required.
10. GROUNDING: Electrical equipment shall be connected to ground network. Ground cable size, type, and connection shall be as required by local governing electrical code.
11. Battery backed-up devices, including smoke detectors and carbon monoxide detectors shall be tested and replaced if found to not be in working order.
12. Recessed fixtures that are mounted in insulated cavities shall be IC rated. other recessed fixtures shall be provided with a physical barrier keeping min. 3" clear of insulation around sides with no insulation resting on top of fixture.
13. SMOKE AND CARBON MONOXIDE DETECTORS: Detectors shall be provided and installed as required by local official and hard wired in accordance with state and local fire codes. Reference General Notes for required minimum locations as well as Electrical Sheets.
14. GUARANTEE: Materials and equipment furnished for this project shall be new and free of defects. Work shall be of good quality, free of faults and defects. Work, materials and equipment shall be guaranteed for one (1) full year from date of certificate of occupancy. Manufacturer's warranties shall be in addition to Contractor's guarantee.

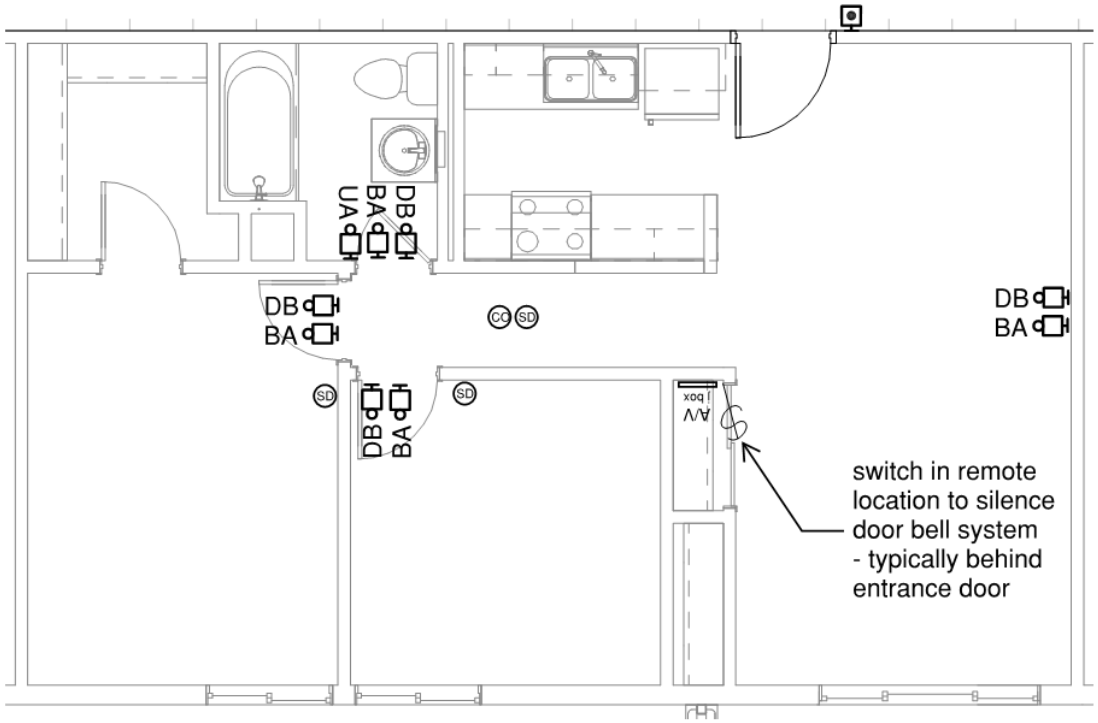
15. Provide submittals within final O and M manuals.
16. Provide as built drawings of installed work.
17. INSTALLATION: Install in accordance with manufacturer's instructions.
18. COORDINATION: Coordinate with other trades to prevent interference between beams, joists, structures, piping, ductwork, etc.
19. STARTING EQUIPMENT AND SYSTEMS: Provide manufacturer's approved field representative to prepare and start equipment. Adjust for proper operation within manufacturer's published tolerances. Demonstrate proper operation of equipment to Owner's designated representative.
20. Unless specifically noted on drawings, no new raceways or conduits shall be exposed on finished side of any interior or exterior surface. Concealed wiring, conduit, junction boxes, etc. shall be installed as per requirements of local electrical code. If concealed within a fire-rated assembly, proper encasement/penetrations shall be included as part of a complete installation.

HEARING AND VISUAL IMPAIRMENT DEVICES – 26 00 01

1. SCOPE OF WORK: Units noted to be for Hearing and Visually Impaired shall comply fully with ANSI A117.1 Chapter 7 and other relevant sections of this specification. Coordinate exact devices as illustrated in contract documents. If not specified elsewhere, provide and install following:
    1.1. UNIT SMOKE DETECTION: smoke detectors in units shall be interconnected and include an audible and strobe notification device similar to BRK 7010BSL. If a CO detector is needed, a separate interconnected device needs to be installed.
    1.2. UNIT FIRE ALARM SYSTEM – Provide unit fire alarm system. System wiring shall be extended to a point within unit in vicinity of each bedroom. Lens on devise shall be CLEAR similar to Edwards Signaling Combination Devices, 869 Series.
    1.3. UNIT PRIMARY ENTRANCE – A hard-wired electric doorbell shall be provided. A button shall be provided on public side of unit primary entrance. Activation of button shall initiate an audible tone along with a strobe within unit. combination signaling device shall have a BLUE lens similar to Edwards Signaling Combination Devices, 869 Series. Doorbell button basis of design: Viking Electronics, DB40-WH.
    1.4. VISUAL IDENTIFICATION SYSTEM - A means for visually identifying a visitor without opening residential dwelling unit entry door shall be provided and shall allow for a minimum 180 degree range of view. In doors, peepholes that include prisms clarify image and should offer a wide-angle view of hallway or exterior for both standing persons and wheelchair users. Such peepholes can be placed at a “standard height” of 60” AFF and permit a view from several feet from door. A second viewer at 42” AFF shall be installed. Basis of design: Doorscope DS238 Metallic Ultra-Wide Angle.

2. BASIS OF DESIGN LAYOUT FOR DEVICES:

2.1. Locate devices in areas as illustrated in contract documents as well as per illustration below.



Unit Door Bell	DB	 amber lens	Edwards Signaling Combination Devices, 869 Series Xenon strobe light source with horn • Flash rate 60 fpm • 100dB at 1 meter/90dB at 10ft. (measured in anechoic chamber) Provide permanent label.
Building Alarm	BA	 clear lens	
Unit Alarm - strobe only	UA	 clear lens	
Unit Smoke Detector	SD		BRK 7010BSL - 177 candela strobe Xenon light
Unit CO2	CO		standard detector interconnected with smoke detectors
System On/Off switch			Provide ON/OFF switch in remote location for Audio/Visual system. Provide permanent label.
Signaling device			Provide Audio/Visual Signaling device with Horn/Strobe, lighted pushbutton with engraved plate & transformer. Edwards Signaling - 7005G5
J Box	A/V j box		Provide 6"x6" Hoffman box for 100VA transformer & hearing impaired wiring

DIVISION 27 – 30

1. Not included on this sheet

DIVISION 31

SITE CLEARING – 31 10 00

1. SCOPE OF WORK: Provide site clearing as needed to accommodate new work and as illustrated in contract documents.
2. SECTION INCLUDES: Clearing and protection of vegetation. Removal of existing debris.
3. REFERENCE STANDARDS:
   - 3.1. MnDOT Standard Specifications for Construction: Standard Specifications for Construction, Latest Edition, published by Minnesota Department of Transportation.
   - 3.2. CEAM Standard Specifications: Standard Specifications, Latest Edition, published by City Engineers Association of Minnesota.
   - 3.3. ASTM International:
     a) ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
     b) ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lb:£'ft3 (600 kN-mlm3))
     c) ASTM D2419 - Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
     d) ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head).
     e) ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
     f) ASTM D30 17 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).
   - 3.4. Local utility standards when working within 24 inches of utility lines
4. SUBMITTALS: Site Plan Showing: Vegetation removal limits. Areas for temporary construction and field offices.
5. SITE CLEARING: Minimize production of dust due to clearing operations. Do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
6. EXISTING UTILITIES AND BUILT ELEMENTS: Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits. Protect existing utilities to remain from damage. Do not disrupt public utilities without permit from authority having jurisdiction. Protect existing structures and other elements that are not to be removed.
7. VEGETATION SCOPE: Remove trees, shrubs, brush, and stumps in areas to be covered by building structure, paving, playing fields, lawns, and planting beds.
   - 7.1. Do not remove or damage vegetation beyond limits indicated on drawings. If not specifically illustrated following shall be coordinated on site with requirements of project:
     a) 40 feet outside building perimeter.
     b) 10 feet each side of surface walkways, patios, surface parking, and utility lines less than 12 inches in diameter.
     c) 15 feet each side of roadway curbs and main utility trenches.
     d) 25 feet outside perimeter of pervious paving areas that must not be compacted by construction traffic.
     e) Exception: Specific trees and vegetation indicated on drawings to be removed.
     f) Exception: Selective thinning of undergrowth specified elsewhere.
   - 7.2. Install substantial, highly visible fences at least 3 feet high to prevent inadvertent damage to vegetation to remain at vegetation removal limits.
   - 7.3. In areas where vegetation must be removed but no construction will occur other than pervious

paving, remove vegetation with minimum disturbance of subsoil.

7.4. Vegetation Removed: Do not burn, bury, landfill, or leave on site, except as indicated. Chip, grind, crush, or shred vegetation for mulching, composting, or other purposes; preference should be given to on-site uses.

7.5. Trees: Sell if marketable; if not, treat as specified for other vegetation removed; remove stumps and roots to depth of 18 inches.

7.6. Existing Stumps: Treat as specified for other vegetation removed; remove stumps and roots to depth of 18 inches.

7.7. Sod: Re-use on site if possible; otherwise sell if marketable, and if not, treat as specified for other vegetation removed.

7.8. Fill holes left by removal of stumps and roots, using suitable fill material, with top surface neat in appearance and smooth enough not to constitute a hazard to pedestrians.

7.9. Dead Wood: Remove dead trees (standing or down), limbs, and dry brush on entire site; treat as specified for vegetation removed.

7.10. Restoration: If vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations, replace at no cost to Owner.

8. DEBRIS: Remove debris, junk, and trash from site. Leave site in clean condition, ready for subsequent work. Clean up spillage and wind-blown debris from public and private lands.

GRADING – 31 22 00

1. SCOPE OF WORK: Provide necessary rough and finish grading to accommodate elevations indicated on contract documents. grading shall in general slope away from finished floor of buildings and direct flow of water to drain into storm water management system.
2. SITE CLEARING: Provide clearing, grubbing and removal of site debris as required to execute work. Dispose of debris and soil if applicable in environmentally sound and Code approved manner. During operations maintain positive drainage and control of soil erosion and sediment in an approved manner. trees and shrubs shall have stumps removed to a minimum of 12 inches below grade. Strip and store topsoil for use in Final Grading and Landscaping. waste disposal shall comply with requirements of local authority.
3. ROUGH GRADING: Remove topsoil from areas to be further excavated, re-landscaped, or re-graded, without mixing with foreign materials. Remove subsoil from areas to be further excavated, re-landscaped, or re-graded. When excavating through roots, perform work by hand and cut roots with sharp axe.
4. SOIL REMOVAL: Stockpile topsoil and subsoil to be re-used on site; remove remainder from site. Stockpiles: Use areas designated on site; pile depth not to exceed 8 feet; protect from erosion.
5. FINISH GRADING: Where topsoil is to be placed, scarify surface to depth of 3 inches. Place topsoil where required to level finish grade. Remove roots, weeds, rocks, and foreign material while spreading. Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contour of subgrade. Lightly compact placed topsoil.
6. TOLERANCES: Top Surface of Subgrade: Plus or minus 0.10 foot (1-3/16 inches) from required elevation. Top Surface of Finish Grade: Plus or minus 0.04 foot (1/2 inch).

EROSION AND SEDIMENT CONTROL – 31 25 00

1.01 SECTION INCLUDES

A. Provide prevention against erosion and control of transport of sediment by wind or water.
   1. Provide structural measures indicated on Drawings and performance measures during execution of Work to prevent erosion of soils.

2. Provide internal and perimeter structural measures indicated on Drawings to control transport of sediment.
3. Provide additional performance and structural measures where needed to prevent erosion and control sediment as Work progresses, coordinated with Work of Related Sections.

B. Provide inspection, maintenance, and removal of erosion prevention and sediment control devices.
1. Schedule monitoring, cleaning, replacing, and reporting as required by Regulatory Authorities.
2. Provide removal of devices and coordination for surface restoration.

C. Provide cleaning in surrounding areas to remove sediment transported off site.

1.02 REFERENCES

A. City of Princeton Engineering Standards.
B. Minnesota Pollution Control Agency (MPCA), *State of Minnesota Stormwater Manual*, 2005 edition with current updates.
C. Metropolitan Council, *Minnesota Urban Small Sites BMP Manual: Stormwater Best Management Practices for Cold Climates*, 2001 edition.
D. Minnesota Department of Transportation (Mn/DOT), Standard Specifications for Stormwater Management and Erosion Control, current edition with supplements.

1.03 SYSTEM DESCRIPTION

A. General: project is required to be permitted under a National Pollutant Discharge Elimination System (NPDES) General Stormwater Permit for Construction Activity for phases of project.
B. Design and performance requirements
1. Erosion prevention and sediment control devices and practices indicated on Drawings are minimum requirement.
2. Provide additional design and implementation of Best Management Practices (BMPs), consistent with references and regulatory requirements of this Section; and in accordance with means, methods, techniques, procedures, and sequence of construction.
3. Remove and dispose of temporary devices when areas contributing run off are stabilized and provide coordination for surface restoration in areas occupied by devices.

1.04 SUBMITTALS

A. Permits: Evidence of permits applied for and received.
1. Submit at pre-construction meeting.
2. For information only.

1.05 QUALITY ASSURANCE

A. Qualifications
1. Designers, installers, and inspectors of erosion prevention and sediment control devices shall have thorough knowledge of References and requirements of NPDES Permit.
2. Authorize those responsible for performance or supervision of Work to render decisions on behalf of Contractor.

B. Regulatory requirements
1. Minnesota Pollution Control Agency - NPDES Permit
a. With Owner, provide a Storm Water Pollution Prevention Plan (SWPPP) for this project, incorporating project Drawings and Specifications relating to erosion prevention, sediment control, and final restoration of disturbed surfaces.
b. Complete and submit permit application and pay necessary fees.
c. Comply with permit requirements for trash and debris removal, handling and storing potentially hazardous materials and waste, spill protection including concrete washout,

site inspections, cleaning and maintenance, and removal of erosion prevention and sediment control devices.

d. With Owner, complete and submit Application for Permit Transfer/Modification or Notice of Termination when responsibility for Work of this project or phase is complete.

2. Other: Comply with additional permit or regulatory requirements of City, County, water management organization, or other Regulatory Authority.
3. Damages: Contractor is solely responsible for required cleanup and restoration of storm water conveyance system, river, stream, lake, reservoir, ground, roadway surface, or other property upon which sediment may be deposited as a result of failure to provide proper controls.

C. Pre-construction meetings: Installers, inspectors, and those responsible for performance or supervision of Work shall attend pre-construction meetings for Work of Related Sections to provide for coordination of SWPPP prior to beginning demolition or land disturbing activity or subsequent construction that may require temporary removal, relocation, or additional installation of erosion prevention or sediment control measures or devices.

1.06 SEQUENCING AND SCHEDULING

A. Determine sequence and schedules for site clearing and grading, temporary storage of soil materials, utility installation, building excavation, paving, final turf restoration, and other work that constitutes land disturbing activity.
B. As Work progresses, include detailed schedule for installation of erosion prevention and sediment control measures in SWPPP.

2.01 MATERIALS

A. Materials as specified in SWPPP or noted on Drawings.

3.01 EXAMINATION

A. Examine areas affected by Work prior to start of land disturbing activities.
B. Determine extent and condition of on-site and downstream surface water conveyance system.
C. Notify Owner of conditions that may be construed as being damaged by failure to complete work.
D. Provide documentation of detrimental downstream conditions that may be construed as being caused by Work and inform Regulatory Authorities of such condition prior to beginning.

3.02 INSTALLATION

A. Install erosion prevention and sediment control devices at perimeter locations indicated on Drawings prior to initiation of soil disturbing activities.
B. Install additional erosion prevention and sediment control devices as Work progresses in accordance with means, methods, techniques, procedures, and sequence of construction.
C. Install devices as specified in References or noted on Drawings.
D. Interface with Other Work
   1. Coordinate installation sequence with schedules for Work of Related Sections, such that disturbed soil areas, temporary stockpiles, dewatering discharge locations, and drainage systems will not be unprotected.
   2. Remove and replace erosion prevention and sediment control devices as needed for progress of construction and coordination between Work of Related Sections.

3.03 FIELD QUALITY CONTROL

A. Maintain copies of References at project site.
B. Provide for inspections and maintain log in accordance with NPDES Permit requirements.

3.04 MAINTENANCE

A. Inspect erosion prevention and sediment control devices a minimum of once weekly while Work is active, after each run-off event, and daily during prolonged rainfalls.
B. Repair structural measures immediately on detection of damage.
C. Replace filters when capacity is reduced to 50 percent by clogging.
D. Remove sediment deposits when 33 percent of available storage space within or up slope of control device is met or exceeded.
E. Offsite cleaning: Provide street sweeping and other measures required to immediately clean up sediment transported beyond project limits.

3.05 REMOVAL

A. Remove temporary erosion prevention and sediment control devices after permanent ground cover on runoff contributing areas has been established and approved by Owner.
B. Provide coordination for final surface restoration at locations of removal as designated for new construction in surrounding area.

DIVISION 32

ASPHALT PAVING – 32 12 16

1.01 SECTION INCLUDES

A. Asphalt roadways, fire lanes, driveways, parking surfaces.

1. Resurfacing the parking lot. Ensure finished parking lot and drives have no low spots that will hold water. 100% drainage is required.

B. Pavement marking.

1.02 RELATED SECTIONS

A. Provisions of Contract including Contracting and General Requirements.
B. Section 31 22 00 – Grading
C. Section 32 13 13 – Concrete Paving

1.03 REFERENCES

A. City of Princeton Engineering Standards.
B. Minnesota Department of Transportation (Mn/DOT) Standard Specifications for Construction, current edition with supplements.
C. American Association of State Highway Transportation Officials (AASHTO).
1. M20/ASTM D946 – Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction.
2. M140/ASTM D977 – Specification for Emulsified Asphalt.
3. M208/ASTM D2397 – Specification for Cationic Emulsified Asphalt.
4. M226/ASTM D3381 – Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction.
5. M248 – Specification for Ready-Mixed White, Blue, and Yellow Traffic Paints.
6. M320/ASTM D6373 – Specification for Performance-Graded Asphalt Binder.
D. ASTM International (ASTM).
1. C33 – Specification for Concrete Aggregates.
2. C131 – Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in Los Angeles Machine.
3. D1074 – Test Method for Compressive Strength of Bituminous Mixtures.
4. D2950 – Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.
5. D5581 – Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus.
E. Asphalt Institute: Mix Design Methods for Asphalt Concrete, Manual MS-4, Marshall Stability Method.

1.04 SYSTEM DESCRIPTION

A. Design Requirements
1. Provide a mix design for each type of pavement from locally available materials.
2. Meet requirements of References, local Regulatory Authorities, as specified herein, or as recommended in Geotechnical Report; whichever results in higher quality.
3. In Lieu of Mix Design: Provide certification from asphalt supplier of mixes approved during most recent production season by local or state authorities, with verification that mixes delivered are same as approved.
B. Performance Requirements: Compacted asphalt in vehicular areas shall provide Marshall Stability of not less than 1125 and contain air voids of 3.0 to 3.5 percent.

1.05 SEQUENCING AND SCHEDULING

A. Do not begin paving until abutting concrete has received a minimum 7 days of cure time and curbs have been backfilled sufficient to provide support against displacement.

B. Coordinate schedule to allow time for placing embedded items, final adjustment of utility castings, and removal and replacement of sediment control devices.
C. Notify Testing Laboratory when items of work requiring observation or testing are scheduled and allow time for same.
D. Allow pavement to cool to ambient temperature before applying pavement marking paint.
E. Obtain necessary permissions from Owner or Regulatory Authorities for Work that must be performed outside of normal work hours; either as necessary to maintain schedule, minimize interference with traffic, or for convenience of Contractor.

2.01 MATERIALS

A. General
1. Public Improvements: Comply with design standards of public Regulatory Authority for materials and mixes used within public rights of way or easements.
2. Meet Performance Requirements listed in Part 1, System Description, and following minimum criteria for other.

B. Wear Course Aggregate
1. Coarse Fraction
a. Clean, sound, durable particles of crushed stone or gravel and sharp sand.
b. Maximum dimension of coarse fraction shall not exceed 2/3 of pavement course lift thickness.
2. Fine Fraction
a. Upper limit: Clean sharp sand, screenings from aggregate crushing process.
b. Lower limit: Rock flour, Portland cement

C. Base and Binder Course Aggregate: May contain recycled or reclaimed material content up to limits allowed by local or State standards.

D. Asphalt Binder
1. Wear Course: AASHTO M320, PG 58-28
2. Base and Binder Courses: May contain up to 50 percent recycled asphalt pavement unless noted otherwise on Drawings.

2.02 ACCESSORIES

A. Tack Coat: Emulsified asphalt, SS-1, SS-1H, CSS-1, or CSS-1H, diluted with up to 50 percent of volume with water.
B. Pavement Marking Paint: Chlorinated rubber-alkyd type, AASHTO M248 (Federal Specification TT-P-115F), Type II, factory mixed, and non-bleeding.
C. Herbicide: Round Up, Monsanto Corp.

2.03 SOURCE QUALITY CONTROL

A. Obtain materials from same source throughout construction.
B. Test aggregate for hydrophilic properties and determine if anti-stripping additive is required.

3.01 EXAMINATION

A. Verify aggregate base was placed as specified in Related Sections.
B. Verify utility castings are set in full bed of grout and have been adjusted to final elevations.
C. Verify cure time for abutting concrete.
D. Verify curbs have been backfilled to subgrade with compaction as specified.

3.02 PREPARATION

A. Protection of Persons
1. Provide temporary barricades as needed to prohibit unauthorized access to active Work areas.
2. Sequence and schedule Work to maintain access to site for personnel requiring access by Regulatory Authorities and emergency response vehicles.
3. Provide traffic control, signing, and notification to affected agencies or institutions in accordance with requirements of Mn/DOT Sections 1404 and 1710 when work interferes with a traveled roadway.

B. Protection of Property
   1. Protect benchmarks and monuments established for Work.
   2. Protect adjacent finished surfaces from overspray of tack coat material, staining with paving material, or by wheel tracking.
   3. Prevent displacement of abutting structures or embedded objects by wedging action of spreading or compacting equipment.

C. Surface Preparation
   1. Remove loose material from aggregate base or provide surface recompaction.
   2. Apply prime and tack coats to provide uniform coverage on abutting contact surfaces and subgrade surfaces and allow drying time.
   3. Wash and sweep pavement surfaces before application of pavement markings and allow drying time.

3.03 PLACING MIX

A. Place mixture by paving machine in nominal 10-foot-wide strips.
B. Place areas inaccessible to paving machine by hand and spread to uniform thickness with rakes or lutes.
C. Place each course of paving in as complete segments as practicable to minimize cold joints for subsequent Work.
D. Complete each course and allow time for observation and testing prior to placing subsequent courses.
E. Construct joints to ensure continuous bond between adjoining strips and to have same texture, density, and smoothness of adjacent paving.
F. Adjust width of strips to provide overlapping of joints between courses to greatest extent practicable.

3.04 COMPACTING

A. Begin initial rolling of strips at outside edges or edges abutting adjacent paving or structures.
B. Roll joints between strips immediately after pavement will bear roller weight without excessive displacement.
C. Continue rolling while mixture is hot until specified density is achieved, and roller marks are eliminated.
D. Compact mixture in areas inaccessible to rollers with hot vibratory plate compactors or hand tampers.

3.05 FIELD QUALITY CONTROL

A. Submit bag samples in quantity determined by Testing Laboratory and approved by Owner from each day's production for Marshall density, stability, and extraction tests.
B. Determine constructed density with a portable nuclear testing device by random sampling on a 25 to 50-foot grid for each constructed lift.
C. The Owner reserves right to take corings of paving to verify field test results.
D. Test surface smoothness with a minimum 10-foot straight edge in presence of Owner.
E. Observations for ponded water shall be conducted by Owner following a rainfall event that produces a measurable amount of runoff.

3.06 TOLERANCES

A. Compacted Density: mean of density tests shall be 96 percent of Marshall density established in laboratory with no test less than 92 percent.
B. Thickness
   1. Base Course: Minus 1/2 inch
   2. Binder and Wear Courses: Minus 1/4 inch
   3. Pavement Total Thickness: Minus 1/4 inch
C. Surface Smoothness: 3/16 inch in 10 feet
D. Depth of Ponded Water: 1/16 inch

3.07 PAVEMENT MARKING
- A. Apply in 2 coats at Manufacturer's recommended rates.
- B. Use equipment, masking, or templates to produce uniform sharp edges.

3.08 PROTECTION
- A. Restrict traffic on new pavement until temperature is less than 140 degrees F.
- B. Restrict traffic on pavement marking until dry.
- C. Obtain prior approval for use of paving as temporary parking or construction staging surface.
  1. Provide additional protective covering when subjecting pavements to extreme construction traffic wheel loads or outriggers for lifting equipment.
  2. Provide protection against leaking fluids from vehicles that may soften or otherwise weaken pavement.
  3. Avoid static or slow speed turning movements by construction or delivery vehicles.

CONCRETE PAVING – 32 13 13

1.01 SECTION INCLUDES
1. Portland cement sidewalks and curbs.

1.02 RELATED SECTIONS
- A. Provisions of Contract including Contracting and General Requirements.
- B. Section 31 22 00 – Grading
- C. Section 32 12 16 – Asphalt Paving

1.03 REFERENCES
- A. City of Princeton Engineering Standards.
- B. Minnesota Department of Transportation (Mn/DOT) Standard Specifications for Construction, current edition with supplements.
- C. ASTM International (ASTM).
  1. A185 – Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
  2. C31 – Practice for Making and Curing Concrete Test Specimens in Field.
  3. C33 – Specification for Concrete Aggregates.
  4. C39 – Test Method for Compressive Strength of Cylindrical Concrete Specimens.
  5. C94 – Specification for Ready-Mixed Concrete.
  6. C131 – Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in Los Angeles Machine.
  7. C150 – Specification for Portland Cement.
  8. C172 – Practice for Sampling Freshly Mixed Concrete.
  9. C260 – Specification for Air-Entraining Admixtures for Concrete.
  10. C309 – Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
  11. C494 – Specification for Chemical Admixtures for Concrete.
  12. D1751 – Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
  13. D1752 – Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.
- D. American Concrete Institute (ACI): SP-15 – Field Reference Manual: Standard Specifications for Structural Concrete with Selected ACI and ASTM References.
- E. International Code Council/American National Standards Institute (ICC/ANSI): A117.1, 705 Detectable Warnings.

1.04 SYSTEM DESCRIPTION
- A. Design Requirements
  1. Provide a mix design for each type of concrete from locally available materials.
  2. Meet requirements of References, of local Regulatory Authorities, as specified herein, or as recommended in Geotechnical Report; whichever results in higher quality.

3. In Lieu of Mix Design: Provide certification from concrete producer of mixes approved during most recent production season by local or state authorities, with verification that mixes delivered are same as approved.

B. Performance Requirements:
1. 28 day compressive strength: Not less than 4,000 psi
2. Entrained air content: 5 to 8 percent
3. Maximum Water/Cement Ratio: 0.49
4. Slump: 4 inches

1.05 SEQUENCING AND SCHEDULING

A. Install curbs, etc. in advance of abutting asphalt paving to provide minimum 7 day cure time.
B. Provide other sequencing and scheduling as indicated in Related Sections.

2.01 MATERIALS

A. Portland Cement: Type 1A, or Type 1 with approved air-entraining admixture.
B. Coarse Aggregate: Non-reactive crushed quarry or mine trap rock of igneous or metamorphic types; including basalt, diabase, gabbro, gneiss, quartzite, or granite.
C. Fine Aggregate: Washed, sharp, natural or crushed sand consisting of particles of sound durable rock of igneous or metamorphic origin.
D. Exposed Aggregate: Washed river rock, 3/4 inch minus; verify color and texture.
E. Recycled content; including aggregates, fly ash, slag, or other constituent; shall be used only to amounts and quality as allowed by local or state Regulatory Authorities' standards, on recommendation of Testing Laboratory with approval of Owner.
F. Admixtures for workability, water reducing, retarding, or accelerating shall be used only on recommendation of Testing Laboratory and approval of Owner.

2.02 ACCESSORIES

A. Form Materials
1. Plywood, metal, metal framed plywood, or other panel type materials providing full depth, continuous, straight, smooth exposed surfaces.
2. Use flexible or curved forms for 100 foot radius or less.
B. Form-Release Agent: Commercially formulated that will not bond with, stain, or affect surfaces nor impair subsequent treatments, attachments, or finishes.
C. Joint Filler: Conforming to References.
D. Curing Compound: White, water based, dissipating, membrane forming – Type 2, Class B
E. Fiber Reinforcement: Virgin polypropylene fibrillated fibers, type MD, 1.5 lb./CY mixed at plant.

2.03 SOURCE QUALITY CONTROL

A. All materials, admixtures, and accessories shall conform to References.
B. Obtain materials from same source throughout construction.
C. Provide prequalification testing and obtain approval for change in source.

3.01 EXAMINATION

A. Verify aggregate base was placed as specified in Related Sections.
B. Verify utility castings are set in full bed of grout and embedded items have been installed.

3.02 PREPARATION

A. Protection of Persons
1. Provide temporary barricades as needed to prohibit unauthorized access to active Work areas.
2. Sequence and schedule Work to maintain access to site for personnel requiring access by Regulatory Authorities and emergency response vehicles.
3. Provide traffic control, signing, and notification to affected agencies or institutions in accordance with requirements of Mn/DOT Sections 1404 and 1710 when work interferes with a traveled roadway.
B. Protection of Property

1. Protect benchmarks and monuments established for Work.
2. Protect adjacent finished surfaces from splashing or smearing with concrete material or curing compound.

C. Surface Preparation
1. Remove loose material from aggregate base or provide surface recompaction.
2. Moisture condition base in accordance with ACI Standards.

D. Forming
1. Provide qualified personnel for establishment of line and grade from benchmarks and baselines established for Work.
2. Place and adequately secure forms to prevent displacement.
3. Assemble and coat forms to permit stripping without damage to pavement.
4. Coordinate formwork with Work of Related Sections to facilitate placement of embedded items such as sidewalk grates, trench drains, and like.
5. Machine placement by slip form may be used at Contractor's option.
   a. Provide appropriate mix design for slip form construction.
   b. Provide full depth expansion joints and specified depth of contraction joints at spacing indicated.

E. Joint Fillers
1. Place full width and depth at expansion joints and as shown on Drawings.
2. Place plumb and in alignment or coincident with contraction or decorative tooled joints.
3. Place with top flush to concrete surfaces or depressed 1/2 to 3/4 inch where joint sealer is indicated.
4. Secure to prevent displacement during concreting operations.
5. Protect top edges with temporary pre-manufactured cap.

3.03 CONCRETE PLACING

A. Place and consolidate concrete in accordance with References.

B. Place in one course of monolithic construction eliminating "cold" construction joints to greatest extent practicable.

C. Remove and discard placed concrete back to nearest planned joint when concreting is interrupted such that placed concrete has reached flash set point or for more than one-half hour.

D. Install embedded detectable warning strips and drainage grate appurtenances in accordance with manufacturer's recommendations.

3.04 JOINTS

A. General
1. Align joints across abutting sidewalks, curbs, and pavements paying particular attention to spacing of expansion joints and special scoring patterns indicated on Drawings.
2. Divide panels into nominally equal areas with tooled joints unless indicated otherwise.
3. Sawn contraction joints are permitted only as indicated on Drawings or to increase depth of tooled joints for Contractor's convenience.

B. Expansion Joints
1. Install transverse joints at following maximum intervals.
   a. Sidewalks and Maintenance Strips: 40 feet and 5 to 10 feet each side of sidewalk grates spaced to match nominal scoring pattern.
   b. Curbs: 60 feet, 5 to 10 feet each side of curb drain inlets, and ends of curved sections
2. Install lateral joints against abutting surfaces where concrete is confined between or penetrated by rigid structures or furnishings such as buildings, stoops, planters, pole supports or bases, posts, utilities and sleeves, thicker pavement sections, etc.
3. Install additional joints where indicated on Drawings.

C. Contraction Joints
1. Install joints to coincide with tooled joints at not greater than following nominal intervals.
   a. Sidewalks: 8 to 10 feet
   b. Curbs and Aprons: 12 to 15 feet
2. Install additional joints where indicated on Drawings.

3. Tool or saw joints to 1/3 nominal thickness of pavement section or curb.

3.05 FINISHING AND CURING

A. Edging
   1. Tool joints and edges with 1/8 inch radius tool or as indicated on Details.
   2. Retool edges and joints following broom finishing leaving trowel finish tool marks when indicated on Drawings.
   3. Clean out expansion joints.

B. Surface Finishes
   1. Sidewalks: Light broom perpendicular to direction of travel.
   2. Curbs: Medium broom perpendicular to direction of travel.

C. Curing
   1. Apply curing compound on exposed surfaces immediately after finishing.
   2. Apply uniformly in accordance with Manufacturer's recommendations at a minimum rate of one gallon per 200 square feet.
   3. Apply compound on exposed surfaces if forms are removed before 7 days of cure time.

3.06 TOLERANCES

A. Comply with ACI 117 tolerances and following.
   1. Lateral Alignment and Spacing of Bars and Dowels: 1 inch
   2. Vertical Alignment of Bars and Dowels: 1/4 inch
   3. Joint Spacing: 2 inches
   4. Joint Width: Plus 1/8 inch
   5. Thickness: Minus 1/4 inch in dimension
   6. Elevation: Plus or minus 1/8 inch
   7. Plumb and Alignment: Plus or minus 1/4 inch in 10 feet
   8. Surface Smoothness: 1/4 inch in 10 feet
   9. Ponded Water Depth: 1/16 inch
   10. Contraction Joint Depth: Minus 1/8 inch

B. Provide tolerance checking in presence of Owner, if requested.

3.08 FIELD QUALITY CONTROL

A. Tests and Observations
   1. Conduct tests in accordance with References.
   2. Obtain a minimum of two sets of test cylinders for compressive strength testing for each type of concrete placed daily.
   3. Test for slump and air content.
   4. Provide field curing of additional cylinders for testing results of cold weather placing and curing.
   5. Obtain additional cylinders and perform higher frequency of daily testing if recommended by Testing Laboratory and approved by Owner.

B. Owner reserves right to take corings of concrete or to order non-destructive testing to verify field test results.

C. Observations for ponded water will be conducted by Owner with Contractor present following a rainfall event that produces a measurable amount of runoff.

3.09 PROTECTION

A. Protect newly placed concrete from detrimental effects of weather in accordance with References.

B. Do not allow traffic on roadways, drives, or aprons until minimum cure time of 14 days has passed or as recommended by Testing Laboratory.

C. Do not allow vehicular traffic or storage of concentrated loads on unreinforced or minimally cured concrete.

D. Do not allow direct contact with concrete surfaces of material that may cause staining or discoloration.

E. Delay placing of curbs across temporary haul roads or provide temporary ramps and covering of curbs that must be traveled over.

3.10 CLEANING

A. Sweep pavement and remove stains and discoloration prior to final inspection.

TACTILE WARNING SURFACING – 32 17 26

1. SCOPE OF WORK: Locate tactile warnings:
   1.1. At curb ramps
   1.2. At parking access aisles, including from accessible stalls, building entrances, at side walk corners or other access from sidewalk to parking area
   1.3. In compliance with ADA Standards
   1.4. As direct by AHJ.
2. PRICING: Provide a price for each unit pricing. Include minimum six full width units.
3. SEALANT: Elastomeric sealant of color to match adjacent surfaces; approved by surfacing tile manufacturer.
4. INSTALLATION, GENERAL: Install in accordance with manufacturer's written instructions. Locate relative to curb line in compliance with PROWAG, Sections 304 and 305. Orient so dome pattern is aligned with direction of ramp.

SEEDING – 32 92 19

1. SCOPE OF WORK: Provide an allowance as part of base bid to completely install and restore areas affected by construction activity, to comply with contract documents and as per Owner's direction.
2. SEED MIXTURE: Residential Turf Grass: Kentucky Blue Grass at 50 percent, Creeping Red Fescue Grass at 30 percent, Red Top at 10 percent and Norlea Perennial Rye at 10 percent.
3. SEEDING: Apply seed at a rate of 3-4 lbs per 1000 sq ft evenly in two intersecting directions. Rake in lightly. Do not seed areas in excess of that which can be mulched on same day. Immediately following seeding and compacting, apply mulch to a thickness of 1/8 inches. Maintain clear of shrubs and trees.
4. SOIL MATERIALS: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay or impurities, plants, weeds and roots; pH value of minimum 5.4 and maximum 7.0.
5. MULCHING MATERIAL: Oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.
6. FERTILIZER: Recommended for grass, with fifty percent of elements derived from organic sources; of proportion necessary to eliminate deficiencies of topsoil.
7. FERTILIZING: Apply fertilizer in accordance with manufacturer's instructions. Apply after smooth raking of topsoil and prior to roller compaction. Do not apply fertilizer at same time or with same machine as will be used to apply seed.
8. WATER: Clean, fresh and free of substances or matter that could inhibit vigorous growth of grass. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.

SODDING – 32 92 23

1. SCOPE OF WORK: Provide an allowance as part of base bid to completely install and restore areas affected by construction activity, to comply with contract documents and as per Owner's direction.
2. SOD: TPI, Certified Turfgrass Sod quality; cultivated grass sod; type indicated in plant schedule on Drawings; with strong fibrous root system, free of stones, burned or bare spots; containing no more than 5 weeds per 1000 sq ft. Minimum age of 18 months, with root development that will support its own weight without tearing, when suspended vertically by holding upper two corners. Shall be 50 percent

Kentucky Blue Grass.

3. LAYING SOD: Moisten prepared surface immediately prior to laying sod. Lay sod immediately after delivery to site to prevent deterioration. Lay sod smooth and tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces. Water sodded areas immediately after installation. Saturate sod to 4 inches of soil. After sod and soil have dried, roll sodded areas to ensure good bond between sod and soil and to remove minor depressions and irregularities. Roll sodded areas with roller not exceeding 200 lbs.
4. TOPSOIL: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay, or i616mpurities, plants, weeds and roots; pH value of minimum 5.4 and maximum 7.0.
5. FERTILIZER: Recommended for grass, with fifty percent of elements derived from organic sources; of proportion necessary to eliminate deficiencies of topsoil, as indicated by analysis.
6. FERTILIZING: Apply fertilizer in accordance with manufacturer's instructions.

PLANTS – 32 93 00

1. SCOPE OF WORK: Provide an allowance as part of base bid to provide and install new planting as illustrated in contract documents.
2. DESIGN: If required by AHJ, engage services of a licensed Landscape Architect to provide required documents to AHJ and Landscaper.
3. FIELD CONDITIONS: Do not install plant life when ambient temperatures may drop below 35 degrees F or rise above 90 degrees F.
4. WARRANTY: One year. Include coverage for one continuous growing season; replace dead or unhealthy plants.
5. REPLACEMENTS: Plants of same size and species as specified, planted in next growing season, with a new warranty commencing on date of replacement.
6. PLANTS: Species and size identified by Landscaper or Landscape Architect, grown in climatic conditions similar to those in locality of work.
7. PLANTING: Place plants for best appearance. Set plants vertical. Saturate soil with water when pit or bed is half full of topsoil and again when full.
8. TOPSOIL: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay or impurities, plants, weeds and roots; minimum pH value of 5.4 and maximum 7.0.
9. TOP SOIL MIX: A uniform mixture of 1 part peat and 3 parts topsoil by volume.
10. PLACING TOPSOIL: Spread topsoil to a minimum depth of 4 inches over area to be planted. Rake smooth.
11. FERTILIZER: Containing fifty percent of elements derived from organic sources; of proportion necessary to eliminate deficiencies of topsoil, as indicated in analysis.
12. FERTILIZING: Apply fertilizer in accordance with manufacturer's instructions.
13. WATER: Clean, fresh, and free of substances or matter that could inhibit vigorous growth of plants.
14. MULCHING MATERIAL: Wood shavings, free of growth or germination inhibiting ingredients.
15. WRAPPING MATERIALS: Burlap.
16. STAKES: Softwood lumber, pointed end.
17. CABLE, WIRE, EYE BOLTS AND TURNBUCKLES: Non-corrosive, of sufficient strength to withstand wind pressure and resulting movement of plant life.
18. MAINTENANCE: Provide maintenance at no extra cost to Owner; Owner will pay for water.

Appendix A

Geotechnical Evaluation Report

West Birch Apartment Building
1206 5th Street North
Princeton, Minnesota

Prepared for

Central Minnesota Housing Partnership, Inc.

Professional Certification:
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Tyler J. Reich, PE
Project Engineer
License Number: 54944
February 13, 2018

Project B1800529

Braun Intertec Corporation

BRAUN INTERTEC
The Science You Build On.

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The Science You Build On.

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

February 13, 2018

Project B1800529

Mr. Jason Krebsbach
Central Minnesota Housing Partnership, Inc.
37 28th Avenue North, Suite #102
St. Cloud, MN 56303

Re: Geotechnical Evaluation
West Birch Apartment Building
1206 5th Street North
Princeton, Minnesota

Dear Mr. Krebsbach:

We are pleased to present this Geotechnical Evaluation Report for the West Birch Apartment building at the above referenced site.

Thank you for making Braun Intertec your geotechnical consultant for this project. If you have questions about this report, or if there are other services that we can provide in support of our work to date, please contact Tyler Reich at 612.418.6116 (treich@braunintertec.com).

Sincerely,

BRAUN INTERTEC CORPORATION

Tyler J. Reich, PE
Project Engineer

Colette Brandenburg for

Chad R. Lukkarila, PE
Associate Principal – Senior Engineer

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Appendix

A. Introduction

A.1. Project Description

This Geotechnical Evaluation Report addresses the design and construction of the West Birch Apartment Building in the lot to the east of the existing West Birch Townhomes located at 504 13th Avenue North in Princeton, Minnesota. The project will include the construction of a three-story, concrete or pre-cast and wood-framed, slab-on-grade building. The first floor will consist of parking and common areas and the upper floors will consist of apartment space. There will also be additional parking on the north side of the site connecting to West Branch Street. Detailed loading or grading conditions were not provided at the time of this proposal, so we have assumed loading conditions based on our experience with similar projects. Tables 1 and 2 provide project details and our assumptions.

Table 1. Building Description

Aspect	Description
Below grade levels	0 (Provided)
Above grade levels	3 (Provided)
Lowest level floor elevation	977 (Assumed)
Column loads (kips)	350 (Assumed)
Wall loads (kips)	10 (Assumed)
Nature of construction	Concrete or pre-cast 1st story and wood-framed for 2nd and 3rd floors. (Provided)
Cuts or fills for buildings	< 3 feet (Assumed)
Tolerable building settlement	1-inch (Assumed)

Table 2. Site Aspects and Grading Description

Aspect	Description
Pavement types	Flexible and rigid
Assumed pavement loads	Light-duty: <50,000 ESALs*
	Heavy-duty: 100,000+ ESALs*
Grade changes	< 3 feet (Assumed)

*Equivalent 18,000-lb single axle loads based on 20-year design.

The figure below shows an illustration of the proposed site layout.

Figure 1. Site Layout

Figure provided by Blumentals Architecture, dated December 12, 2017.

A.2. Site Conditions and History

Currently, the site exists as a vegetated field between the existing West Birch Townhomes to the west and West Branch Street to the east. There are sparse copses of trees scattered around the site.

Current grades range from 975 to 980. Generally, the site is flat to gently rolling.

Historically, there were other buildings located on the site as shown in the following aerial photograph provided by Google Earth® in 2009. Although we did not encounter any existing fill in our borings, fill may be present related to these older structures or other past site activities.

Photograph 1. Aerial Photograph of the Site in 2009

Photograph provided by Google Earth®.

A.3. Purpose

The purpose of our geotechnical evaluation was to characterize subsurface geologic conditions at selected exploration locations and evaluate their impact on the design and construction of the proposed apartment building and associated paved parking areas.

A.4. Background Information and Reference Documents

We reviewed the following information:

- Preliminary Site Layout prepared by Blumentals Architecture, dated December 20, 2017.
- Aerial photographs of the project area using Google Earth®. The background drawing for the Soil Boring Location Sketch in the Appendix is one of the aerial photographs obtained from Google Earth®.
- Geologic resources from the Minnesota Geological Survey website (www.mngs.umn.edu).

We have described our understanding of the proposed construction and site to the extent others reported it to us. Depending on the extent of available information, we may have made assumptions based on our experience with similar projects. If we have not correctly recorded or interpreted the project details, the project team should notify us. New or changed information could require additional evaluation, analyses and/or recommendations.

A.5. Scope of Services

We performed our scope of services for the project in accordance with our Proposal for a Geotechnical Evaluation, dated December 29, 2017, and authorized on January 17, 2018. The following list describes the geotechnical tasks completed in accordance with our authorized scope of services.

- Reviewing the background information and reference documents previously cited.
- Staking and clearing the exploration location of underground utilities. We selected and staked the new exploration locations. We acquired the surface elevations and locations with GPS technology using the State of Minnesota's permanent GPS base station network. The Soil Boring Location Sketch included in the Appendix shows the approximate locations of the borings.

- Performing 5 standard penetration test (SPT) borings, denoted as ST-1 to ST-5, to nominal depths of 20 feet below grade across the site.

- Performing laboratory testing on select samples to aid in soil classification and engineering analysis.

- Preparing this report containing a boring location sketch, logs of soil borings, a summary of the soils encountered, results of laboratory tests, and recommendations for structure and pavement subgrade preparation and the design of foundations, floor slabs, exterior slabs, utilities, stormwater improvements, and pavements.

We submitted a proposal for environmental services and those will be reported under a separate cover.

B. Results

B.1. Geologic Overview

Our referenced documents and past project experience in this area indicate that the site is underlain with sandy glacial outwash soils.

We based the geologic origins used in this report on the soil types, in-situ and laboratory testing, and available common knowledge of the geological history of the site. Because of the complex depositional history, geologic origins can be difficult to ascertain. We did not perform a detailed investigation of the geologic history for the site.

B.2. Boring Results

Table 3 provides a summary of the soil boring results, in the general order we encountered the strata. Please refer to the Log of Boring sheets in the Appendix for additional details. The Descriptive Terminology of Soil sheet in the Appendix includes definitions of abbreviations used in Table 3.

Table 3. Subsurface Profile Summary*

Strata	Soil Type - ASTM Classification	Range of Penetration Resistances	Commentary and Details
Glacial outwash	SP, SP-SM, SM	2 to 20 BPF	▪ General penetration resistance of 8 to 10 blows per foot. ▪ Dark brown near the surface to brown ▪ Encountered at boring locations until boring termination depth. ▪ Predominately consists of fine-grained sand. ▪ Moisture condition generally moist to wet. ▪ Penetration resistances indicate a loose to medium dense condition.

*Abbreviations defined in the attached Descriptive Terminology of Soil sheet.

For simplicity in this report, we define existing fill to mean existing, uncontrolled, or undocumented fill.

B.3. Groundwater

Table 4 summarizes the depths where we observed groundwater; the attached Log of Boring sheets in the Appendix also include this information and additional details.

Table 4. Groundwater Summary

Location	Surface Elevation	Measured or Estimated Depth to Groundwater (ft)	Corresponding Groundwater Elevation (ft)
ST-1	979	19 1/2	959 1/2
ST-2	977.8	19 1/2	958 1/2
ST-3	975.2	17	958
ST-4	980.1	19 1/2	960 1/2
ST-5	977.7	18 1/2	959

At the time of our observation, the groundwater surface elevation appeared to be about elevation 958 to 960 1/2 feet. Seasonal and annual fluctuations of groundwater, however, should be anticipated.

B.4. Laboratory Test Results

The boring logs show the results of our moisture content and mechanical testing we performed, next to the tested sample depth.

Our mechanical analyses indicated that the fine-grained sand contained 5 percent silt and clay by weight and had a moisture content of 5 percent.

C. Recommendations

C.1. Design and Construction Discussion

C.1.a. Site Preparation and Earthwork

Based on the results of our subsurface exploration and evaluation, spread footing foundations bearing on the native soils or engineered fill can support the proposed building after performing typical subgrade preparation. Typical subgrade preparation includes removing existing fill and topsoil or organic soils below the footings and oversize areas, and surface compacting exposed bearing soils.

C.1.b. Groundwater

Static groundwater is anticipated to be below general excavation depths at this site. However, if perched water is present, it should be removed from excavations prior to backfill placement or foundation construction. Sump pumps installed outside the building footprint may be suitable for short-term removal of perched water.

C.2. Site Grading and Subgrade Preparation

C.2.a. Building Subgrade Excavations

We recommend removing topsoil and existing fill below building foundations and their oversize areas. Based on the borings, we do not anticipate soil corrections below the proposed footing elevations. We also recommend having a geotechnical engineer, or an engineering technician working under the direction of a geotechnical engineer, (geotechnical representative) evaluate the suitability of exposed subgrade soils to support the proposed structure.

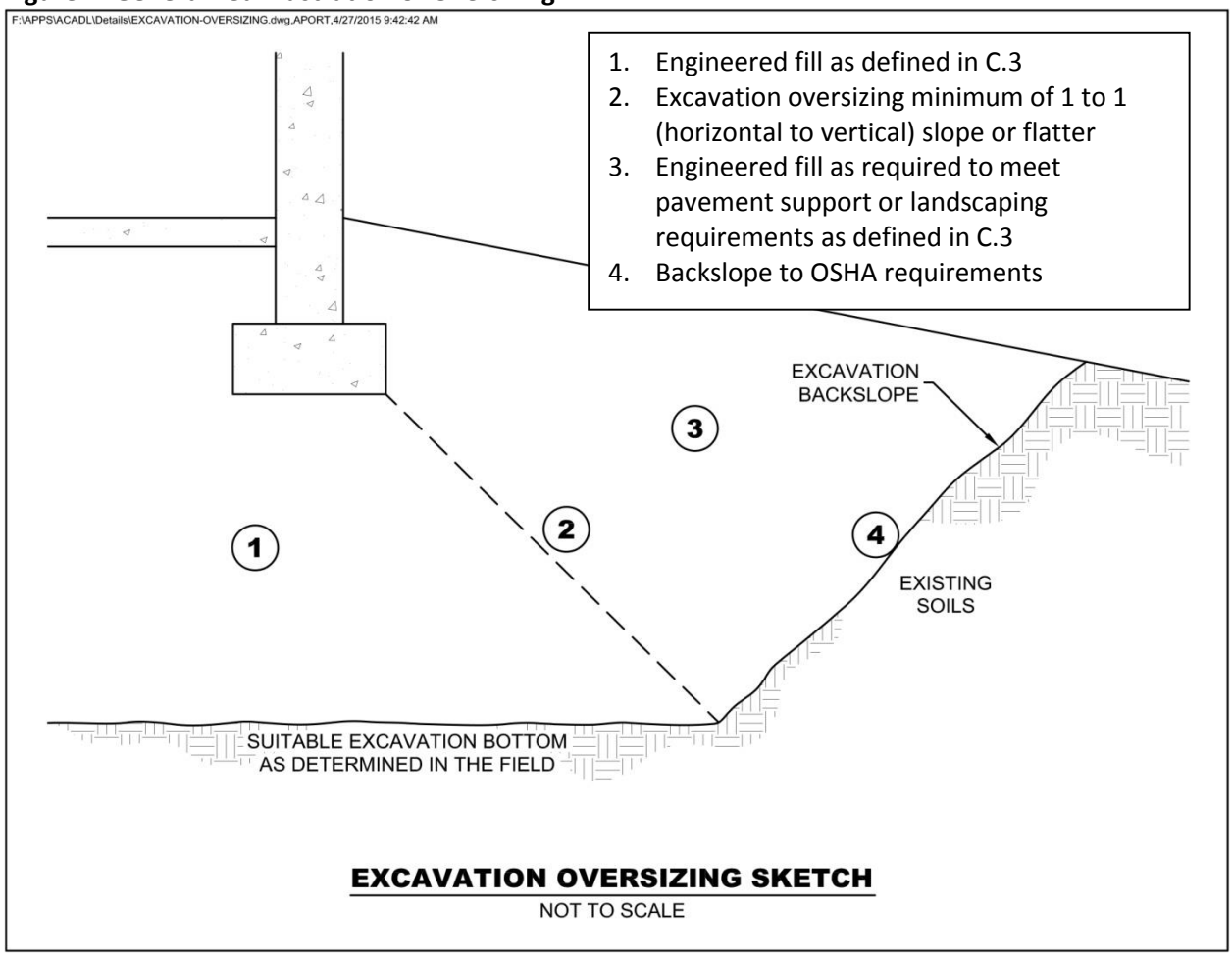
Prior to the placement of engineered fill or footings, we recommend surface compacting the exposed soils in the bottoms of the excavations to a minimum of 98 percent of the standard Proctor. Areas that yield or pump during surface compaction may require additional subcutting.

The contractor should use equipment and techniques to minimize soil disturbance. If soils become disturbed or are wet, we recommend excavating the disturbed material and backfilling using the compaction recommendations described in Section C.2.g

C.2.b. Excavation Oversizing

When removing unsuitable materials below structures or pavements, we recommend the excavation extend outward and downward at a slope of 1H:1V (horizontal:vertical) or flatter. See Figure 2 for an illustration of excavation oversizing.

Figure 2. Generalized Illustration of Oversizing



C.2.c. Excavated Slopes

Based on the borings, we anticipate on-site soils in excavations will consist of fine-grained sand. These soils are typically considered Type C Soil under OSHA (Occupational Safety and Health Administration) guidelines. OSHA guidelines indicate unsupported excavations in Type c soils should have a gradient no steeper than 1.5H:1V. Slopes constructed in this manner may still exhibit surface sloughing. OSHA requires an engineer to evaluate slopes or excavations over 20 feet in depth.

An OSHA-approved qualified person should review the soil classification in the field. Excavations must comply with the requirements of OSHA 29 CFR, Part 1926, Subpart P, "Excavations and Trenches." This document states excavation safety is the responsibility of the contractor. The project specifications should reference these OSHA requirements.

C.2.d. Excavation Dewatering

We do not anticipate significant dewatering on this project. However, if water enters an excavation, it should be removed. Sumps and pumps can be considered for excavations in low-permeability silt- and clay-rich soils, or where groundwater can be drawn down 2 feet below the bottoms of excavations in more permeable sands. In large excavations, or where groundwater must be drawn down more than 2 feet, a well contractor should review our logs to determine if wells are required, how many will be required, and to what depths they will need to be installed.

In sands, we do not recommend attempting to dewater from within an excavation. Upward seepage will loosen and disturb the excavation bottom. Rather, groundwater should be drawn down at least 2 feet below the anticipated excavation in advance of excavation.

C.2.e. Pavement and Exterior Slab Subgrade Preparation

We recommend the following steps for pavement and exterior slab subgrade preparation. Note that project planning may need to require additional subcuts to limit frost heave.

1. Strip the topsoil, existing topsoil fill, and vegetation.

2. Have a geotechnical representative observe the excavated subgrade to evaluate if additional subgrade improvements are necessary.

3. Surface compact the subgrade with a self-propelled vibrating sheepsfoot compactor.

4. Place pavement fill to grade and compact in accordance with Section C.2.g to bottom of pavement and exterior slab section. See Section C.5 for additional considerations related to frost heave.

5. Proofroll the pavement or exterior slab subgrade as described in Section C.2.f.

To improve long-term pavement performance, we recommend incorporating 12 to 18 inches of free draining fill in paved areas, in addition to the recommendations above, as a sand subbase. Section C.6 provides recommended pavement design sections with and without the sand subbase. Note, we recommend sloping subgrade soils to promote drainage and removal of accumulated water.

C.2.f. Pavement Subgrade Proofroll

After preparing the subgrade as described above and prior to the placement of the aggregate base, we recommend proofrolling the subgrade soils with a fully loaded tandem-axle truck. We also recommend having a geotechnical representative observe the proofroll. Areas that fail the proofroll likely indicate soft or weak areas that will require additional soil correction work to support pavements.

The contractor should correct areas that display excessive yielding or rutting during the proofroll, as determined by the geotechnical representative. Possible options for subgrade correction include moisture conditioning and recompaction, subcutting and replacement with soil or crushed aggregate, chemical stabilization and/or geotextiles. We recommend performing a second proofroll after the aggregate base material is in place.

C.2.g. Engineered Fill Materials and Compaction

Table 5 below contains our recommendations for engineered fill materials.

Table 5. Engineered Fill Materials*

Locations To Be Used	Engineered Fill Classification	Possible Soil Type Descriptions	Gradation	Additional Requirements
▪ Below foundations ▪ Below interior slabs	Structural fill		100% passing 2-inch sieve	< 2% Organic Content (OC)
▪ Drainage layer ▪ Non-frost-susceptible	▪ Free-draining ▪ Non-frost-susceptible fill	GP, GW, SP, SW	100% passing 1-inch sieve < 50% passing #40 sieve < 5% passing #200 sieve	< 2% OC
Behind below-grade walls, beyond drainage layer	Retained fill	SP, SW, SP-SM, SW-SM, SM	100% passing 3-inch sieve < 20% passing #200 sieve	< 2% OC Plasticity Index (PI) < 4%
Pavements	Pavement fill	SP, SM, SC, CL	100% passing 3-inch sieve	< 2% OC PI < 15%
Below landscaped surfaces, where subsidence is not a concern	Non-structural fill		100% passing 6-inch sieve	< 10% OC

*Engineered fill materials should satisfy the approved Response Action Plan (RAP), or applicable environmental requirements. More select soils comprised of coarse sands with < 5% passing #200 sieve may be needed to accommodate work occurring in periods of wet or freezing weather.

We recommend spreading engineered fill in loose lifts of approximately 12 inches thick. We recommend compacting engineered fill in accordance with the criteria presented below in Table 6. The project documents should specify relative compaction of engineered fill, based on the structure located above the engineered fill, and vertical proximity to that structure.

Table 6. Compaction Recommendations Summary

Reference	Relative Compaction, percent (ASTM D698 – Standard Proctor)	Moisture Content Variance from Optimum, percentage points	
		< 12% Passing #200 Sieve (typically SP, SP-SM)	> 12% Passing #200 Sieve (typically CL, SC, ML, SM)
Below foundations, interior slabs, and oversizing zones	98	±3	-1 to +3
Within 3 feet of pavement subgrade	100	±3	-1 to +3
More than 3 feet below pavement subgrade	95	±3	±3
Below landscaped surfaces	90	±5	±4

The project documents should not allow the contractor to use frozen material as engineered fill or to place engineered fill on frozen material. Frost should not penetrate under foundations during construction.

We recommend performing density tests in engineered fill to evaluate if the contractors are effectively compacting the soil and meeting project requirements.

C.2.h. Special Inspections of Soils

We recommend including the site grading and placement of engineered fill within the building pad under the requirements of Special Inspections, as provided in Chapter 17 of the International Building Code, which is part of the Minnesota State Building Code. Special Inspection requires observation of soil conditions below engineered fill or footings, evaluations to determine if excavations extend to the anticipated soils, and if engineered fill materials meet requirements for type of engineered fill and compaction condition of engineered fill. A licensed geotechnical engineer should direct the Special Inspections of site grading and engineered fill placement. The purpose of these Special Inspections is to evaluate whether the work is in accordance with the approved Geotechnical Report for the project. Special Inspections should include evaluation of the subgrade, observing preparation of the subgrade (surface compaction or dewatering, excavation oversizing, placement procedures, and materials used for engineered fill, etc.), and compaction testing of the engineered fill.

C.3. Spread Footings

Table 7 below contains our recommended parameters for foundation design.

Table 7. Recommended Spread Footing Design Parameters

Item	Description
Maximum net allowable bearing pressure (psf) Interior column pad footings Perimeter strip footings	3,000
Minimum factor of safety for bearing capacity failure	3.0
Minimum width (inches)	16
Minimum embedment below final exterior grade for heated structures (inches)	42
Minimum embedment below final exterior grade for unheated structures or for footings not protected from freezing temperatures during construction (inches)	60
Total estimated settlement (inches)	1
Differential settlement	Typically about 2/3 of total settlement*

*Actual differential settlement amounts will depend on final loads and foundation layout. When tying into the existing buildings, the total settlement of this new building will be differential to the existing building. We can evaluate differential settlement based on final foundation plans and loadings.

C.4. Interior Slabs

C.4.a. Subgrade Modulus

The anticipated floor subgrade is silty sand or poorly graded sand with silt. We recommend using a modulus of subgrade reaction, k, of 150 pounds per square inch per inch of deflection (pci) to design the slabs. If the slab design requires placing 6 inches of compacted crushed aggregate base immediately below the slab, the slab design may increase the k-value by 30 pci. We recommend that the aggregate base materials be free of bituminous. In addition to improving the modulus of subgrade reaction, an aggregate base facilitates construction activities and is less weather sensitive.

C.4.b. Moisture Vapor Protection

Excess transmission of water vapor could cause floor dampness, certain types of floor bonding agents to separate, or mold to form under floor coverings. If project planning includes using floor coverings or coatings, we recommend placing a vapor retarder or vapor barrier immediately beneath the slab. We also recommend consulting with floor covering manufacturers regarding the appropriate type, use, and installation of the vapor retarder or barrier to preserve warranty assurances.

C.5. Frost Protection

C.5.a. General

Silty sands will underlie all or some of the exterior slabs. We consider this material moderately to highly frost susceptible. Soils of this type can retain moisture and heave upon freezing. In general, this characteristic is not an issue unless these soils become saturated, due to surface runoff or infiltration, or are excessively wet in situ. Once frozen, unfavorable amounts of general and isolated heaving of the soils and the surface structures supported on them could develop. This type of heaving could affect design drainage patterns and the performance of exterior slabs and pavements, as well as any isolated exterior footings and piers.

Note that general runoff and infiltration from precipitation are not the only sources of water that can saturate subgrade soils and contribute to frost heave. Roof drainage and irrigation of landscaped areas in close proximity to exterior slabs, pavements, and isolated footings and piers, contribute as well.

C.5.b. Frost Heave Mitigation

To address most of the heave related issues, we recommend setting general site grades and grades for exterior surface features to direct surface drainage away from buildings, across large paved areas, and away from walkways. Such grading will limit the potential for saturation of the subgrade and subsequent heaving. General grades should also have enough “slope” to tolerate potential larger areas of heave, which may not fully settle after thawing.

Even small amounts of frost-related differential movement at walkway joints or cracks can create tripping hazards. Project planning can explore several subgrade improvement options to address this condition.

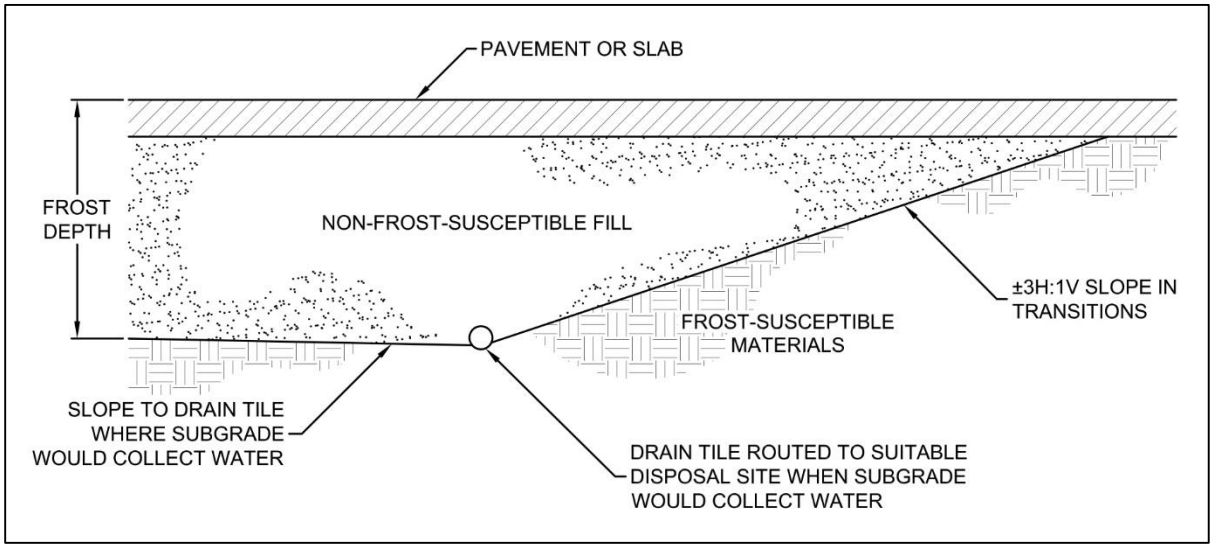
One of the more conservative subgrade improvement options to mitigate potential heave is removing any frost-susceptible soils present below the exterior slab areas down to a minimum depth of 5 feet below subgrade elevations. We recommend filling the resulting excavation with non-frost-susceptible fill. We also recommend sloping the bottom of the excavation toward one or more collection points to remove any water entering the engineered fill. This approach will not be effective in controlling frost heave without removing the water.

An important geometric aspect of the excavation and replacement approach described above is sloping the banks of the excavations to create a more gradual transition between the unexcavated soils considered frost susceptible and the engineered fill in the excavated area, which is not frost susceptible.

The slope allows attenuation of differential movement that may occur along the excavation boundary. We recommend slopes that are 3H:1V, or flatter, along transitions between frost-susceptible and non-frost-susceptible soils.

Figure 3 shows an illustration summarizing some of the recommendations.

Figure 3. Frost Protection Geometry Illustration



Another option is to limit frost heave in critical areas, such as doorways and entrances, via frost-depth footings or localized excavations with sloped transitions between frost-susceptible and non-frost-susceptible soils, as described above.

Over the life of the slabs, cracks will develop and joints will open up, which will expose the subgrade and allow water to enter from the surface and either saturate or perch atop the subgrade soils. This water intrusion increases the potential for frost heave or moisture-related distress near the crack or joint. Therefore, we recommend implementing a detailed maintenance program to seal and/or fill any cracks and joints. The maintenance program should give special attention to areas where dissimilar materials abut one another, where construction joints occur, and where cracks develop.

C.6. Pavements and Exterior Slabs

C.6.a. Design Sections

Our scope of services for this project did not include laboratory tests on subgrade soils to determine an R-value for pavement design. Based on our experience with similar silty sand soils anticipated at the pavement subgrade elevation, we recommend pavement design assume an R-value of 30.

Note the contractor may need to perform limited removal of unsuitable or less suitable soils to achieve this value. Table 8 provides recommended pavement sections, based on the soils support and traffic loads. We based the concrete pavement designs on a modulus of subgrade reaction (k) of 150 pci.

Table 8. Recommended Pavement Sections

	Use	Light Duty	Light Duty with Sand Subbase	Heavy Duty	Heavy Duty with Sand Subbase
Bituminous pavement sections	Minimum asphalt thickness (inches)	1 1/2 wear course 2 non-wear course	1 1/2 wear course 1 1/2 non-wear course	2 wear course 2 non-wear course	2 wear course 2 non-wear course
	Minimum aggregate base thickness for asphalt pavement (inches)	8	6	9	7
	Minimum granular subbase for asphalt pavement (inches)	---	18	---	18
Concrete pavement sections	Minimum concrete thickness (inches)	5	---	6	---
	Minimum aggregate base for concrete (inches)	6	---	6	---

C.6.b. Concrete Pavements

We assumed the concrete pavement sections in Table 8 will have edge support. We recommend placing an aggregate base below the pavement to provide a suitable subgrade for concrete placement, reduce faulting, and help dissipate loads. Appropriate mix designs, panel sizing, jointing, doweling, and edge reinforcement are critical to performance of rigid pavements. We recommend you contact your civil engineer to determine the final design or consult with us for guidance on these items.

C.6.c. Pavement Materials and Compaction

We recommend specifying crushed aggregate base meeting the requirements of Minnesota Department of Transportation (MnDOT) Specification 3138 for Class 5. We recommend that the bituminous wear and non-wear courses meet the requirements of Specifications 2360, with the following designations:

- Wear: SPWEA240B or SPWEB240B
- Non-wear: SPNWA230B or SPNWB230B

In the above mixes, aggregate A (as in SPWE**A**240B), a 1/2-inch maximum size, will provide a surface with less visible aggregate than B (3/4-inch maximum size).

We recommend asphalt grade B (as in SPWEA240**B**), or 58-28. Additional resistance to rutting, scuffing, and dimpling can be obtained with a 64-28/E grade asphalt. A PG 58-34/C asphalt grade will provide additional resistance to cold weather cracking.

We recommend compacting the aggregate base to meet the requirements of MnDOT Specification 2211.3.D.2.c (Penetration Index Method for the dynamic cone penetrometer (DCP)). We recommend compacting bituminous pavements to at least 92 percent of their maximum theoretical (Rice) density.

We recommend specifying concrete for pavements that has a minimum 28-day compressive strength of 4,000 psi, and a modulus of rupture (M_r) of at least 600 psi. We also recommend Type I cement meeting the requirements of ASTM C 150. We recommend specifying 5 to 7 percent entrained air for exposed concrete to provide resistance to freeze-thaw deterioration, and a water/cement ratio of 0.45 or less for concrete exposed to deicers.

C.6.d. Subgrade Drainage

We recommend installing perforated drainpipes throughout pavement areas at low points, around catch basins, and behind curb in landscaped areas. We also recommend installing drainpipes along pavement and exterior slab edges where exterior grades promote drainage toward those edge areas. The contractor should place drainpipes in small trenches, extended at least 8 inches below the granular subbase layer, or below the aggregate base material where no subbase is present.

C.6.e. Performance and Maintenance

We based the above pavement designs on a 20-year performance life for bituminous and a 35-year life for concrete. This is the amount of time before we anticipate the pavement will require reconstruction.

This performance life assumes routine maintenance, such as seal coating and crack sealing. The actual pavement life will vary depending on variations in weather, traffic conditions, and maintenance.

It is common to place the non-wear course of bituminous and then delay placement of wear course. For this situation, we recommend evaluating if the reduced pavement section will have sufficient structure to support construction traffic.

Many conditions affect the overall performance of the exterior slabs and pavements. Some of these conditions include the environment, loading conditions, and the level of ongoing maintenance. With regard to bituminous pavements in particular, it is common to have thermal cracking develop within the first few years of placement, and continue throughout the life of the pavement. We recommend developing a regular maintenance plan for filling cracks in exterior slabs and pavements to lessen the potential impacts for cold weather distress due to frost heave or warm weather distress due to wetting and softening of the subgrade.

C.7. Utilities

C.7.a. Subgrade Stabilization

Earthwork activities associated with utility installations located inside the building area should adhere to the recommendations in Section C.2.

For exterior utilities, we anticipate the soils at typical invert elevations will be suitable for utility support. However, if construction encounters unfavorable conditions such as soft clay, organic soils, or perched water at invert grades, the unsuitable soils may require some additional subcutting and replacement with sand or crushed rock to prepare a proper subgrade for pipe support. Project design and construction should not place utilities within the 1H:1V oversizing of foundations.

C.7.b. Corrosion Potential

Based on our experience, the soils encountered by the borings are moderately corrosive to metallic conduits, but only marginally corrosive to concrete. We recommend specifying non-corrosive materials or providing corrosion protection, unless project planning chooses to perform additional tests to demonstrate the soils are not corrosive.

C.8. Equipment Support

The recommendations included in the report may not be applicable to equipment used for the construction and maintenance of this project. We recommend evaluating subgrade conditions in areas of shoring, scaffolding, cranes, pumps, lifts, and other construction equipment prior to mobilization to

determine if the exposed materials are suitable for equipment support, or require some form of subgrade improvement. We also recommend project planning consider the effect that loads applied by such equipment may have on structures they bear on or surcharge – including pavements, buried utilities, below-grade walls, etc. We can assist you in this evaluation.

D. Procedures

D.1. Penetration Test Borings

We drilled the penetration test borings with a truck-mounted core and auger drill equipped with hollow-stem auger. We performed the borings in general accordance with ASTM D6151 taking penetration test samples at 2 1/2-foot intervals in general accordance to ASTM D1586. The boring logs show the actual sample intervals and corresponding depths.

D.2. Exploration Logs

D.2.a. Log of Boring Sheets

The Appendix includes Log of Boring sheets for our penetration test borings. The logs identify and describe the penetrated geologic materials, and present the results of penetration resistance tests performed. The logs also present the results of laboratory tests performed on penetration test samples, and groundwater measurements.

We inferred strata boundaries from changes in the penetration test samples and the auger cuttings. Because we did not perform continuous sampling, the strata boundary depths are only approximate. The boundary depths likely vary away from the boring locations, and the boundaries themselves may occur as gradual rather than abrupt transitions.

D.2.b. Geologic Origins

We assigned geologic origins to the materials shown on the logs and referenced within this report, based on: (1) a review of the background information and reference documents cited above, (2) visual classification of the various geologic material samples retrieved during the course of our subsurface exploration, (3) penetration resistance testing performed for the project, (4) laboratory test results, and (5) available common knowledge of the geologic processes and environments that have impacted the site and surrounding area in the past.

D.3. Material Classification and Testing

D.3.a. Visual and Manual Classification

We visually and manually classified the geologic materials encountered based on ASTM D2488. When we performed laboratory classification tests, we used the results to classify the geologic materials in accordance with ASTM D2487. The Appendix includes a chart explaining the classification system we used.

D.3.b. Laboratory Testing

The exploration logs in the Appendix note the results of the laboratory tests performed on geologic material samples. We performed the tests in general accordance with ASTM procedures.

D.4. Groundwater Measurements

The drillers checked for groundwater while advancing the penetration test borings, and again after auger withdrawal. We then filled the boreholes as noted on the boring logs.

E. Qualifications

E.1. Variations in Subsurface Conditions

E.1.a. Material Strata

We developed our evaluation, analyses, and recommendations from a limited amount of site and subsurface information. It is not standard engineering practice to retrieve material samples from exploration locations continuously with depth. Therefore, we must infer strata boundaries and thicknesses to some extent. Strata boundaries may also be gradual transitions, and project planning should expect the strata to vary in depth, elevation, and thickness away from the exploration locations.

Variations in subsurface conditions present between exploration locations may not be revealed until performing additional exploration work, or starting construction. If future activity for this project reveals any such variations, you should notify us so that we may reevaluate our recommendations. Such variations could increase construction costs, and we recommend including a contingency to accommodate them.

E.1.b. Groundwater Levels

We made groundwater measurements under the conditions reported herein and shown on the exploration logs, and interpreted in the text of this report. Note that the observation periods were relatively short, and project planning can expect groundwater levels to fluctuate in response to rainfall, flooding, irrigation, seasonal freezing and thawing, surface drainage modifications, and other seasonal and annual factors.

E.2. Continuity of Professional Responsibility

E.2.a. Plan Review

We based this report on a limited amount of information, and we made a number of assumptions to help us develop our recommendations. We should be retained to review the geotechnical aspects of the designs and specifications. This review will allow us to evaluate whether we anticipated the design correctly, if any design changes affect the validity of our recommendations, and if the design and specifications correctly interpret and implement our recommendations.

E.2.b. Construction Observations and Testing

We recommend retaining us to perform the required observations and testing during construction as part of the ongoing geotechnical evaluation. This will allow us to correlate the subsurface conditions exposed during construction with those encountered by the borings and provide professional continuity from the design phase to the construction phase. If we do not perform observations and testing during construction, it becomes the responsibility of others to validate the assumption made during the preparation of this report and to accept the construction-related geotechnical engineer-of-record responsibilities.

E.3. Use of Report

This report is for the exclusive use of the addressed parties. Without written approval, we assume no responsibility to other parties regarding this report. Our evaluation, analyses, and recommendations may not be appropriate for other parties or projects.

E.4. Standard of Care

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

Appendix

DENOTES APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING

40' 0 80'

SCALE: 1"= 80'

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BRAUN INTERTEC
The Science You Build On.
11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Drawing Information

Project No:	B1800529
Drawing No:	B1800529
Drawn By:	JAG
Date Drawn:	1/24/18
Checked By:	TR
Last Modified:	2/7/18

Project Information

West Birch Apartment Building

504 13th Avenue No.

Princeton, Minnesota

Soil Boring Location Sketch

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LOG OF BORING

Braun Project B1800529
GEOTECHNICAL EVALUATION
West Birch Apartment Building
1206 5th Street North
Princeton, Minnesota

BORING: **ST-1**

LOCATION: See attached sketch.

DRILLER: R. Hansen | METHOD: 3 1/4" HSA, Autohammer | DATE: **1/29/18** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	p200 %	Tests or Notes
979.0	0.0	SP-SM	POORLY GRADED SAND with SILT, fine-grained, dark brown, frozen to moist, loose. (Glacial Outwash)	10		5	5	
975.0	4.0	SP	POORLY GRADED SAND, fine-grained, brown, moist, loose to medium dense. (Glacial Outwash)	6				
				7				
				9				
				12				
961.0	18.0			10				
		SP	POORLY GRADED SAND, fine- to medium-grained, brown, wet, loose. (Glacial Outwash)		▽			
958.0	21.0			6				
			END OF BORING.					
			Water observed at 19 1/2 feet with 19 1/2 feet of hollow-stem auger in the ground.					An open triangle in the water level (WL) column indicates the depth at which groundwater was observed while drilling. Groundwater levels fluctuate.
			Boring then backfilled with bentonite grout.					

(See Descriptive Terminology sheet for explanation of abbreviations)

LOG OF BORING N:\GINT\PROJECTS\AX PROJECTS\2018\00529.GPJ BRAUN_V8_CURRENT.GDT 2/13/18 08:29

BRAUN INTERTEC

LOG OF BORING

Braun Project B1800529
GEOTECHNICAL EVALUATION
West Birch Apartment Building
1206 5th Street North
Princeton, Minnesota

BORING: **ST-2**

LOCATION: See attached sketch.

DRILLER: R. Hansen | METHOD: 3 1/4" HSA, Autohammer | DATE: **1/29/18** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
977.8	0.0	SM	SILTY SAND, fine-grained, dark brown, frozen to moist, medium dense. (Glacial Outwash)	20		
973.8	4.0	SP	POORLY GRADED SAND, fine-grained, brown, moist, loose. (Glacial Outwash)	7		
				8		
968.8	9.0	SP	POORLY GRADED SAND, fine- to medium-grained, brown, moist, medium dense. (Glacial Outwash)	13		
				13		
				16		
959.8	18.0	SP	POORLY GRADED SAND, fine-grained, brown, wet, loose. (Glacial Outwash)		▽	
956.8	21.0			7		
			END OF BORING. Water observed at 19 1/2 feet with 19 1/2 feet of hollow-stem auger in the ground. Boring then backfilled with bentonite grout.			

(See Descriptive Terminology sheet for explanation of abbreviations)

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BRAUN INTERTEC

LOG OF BORING

Braun Project B1800529
GEOTECHNICAL EVALUATION
West Birch Apartment Building
1206 5th Street North
Princeton, Minnesota

BORING: **ST-3**

LOCATION: See attached sketch.

DRILLER: R. Hansen | METHOD: 3 1/4" HSA, Autohammer | DATE: **1/29/18** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
975.2	0.0	SM	SILTY SAND, fine-grained, dark brown, frozen to moist, loose. (Glacial Outwash)	8		
971.2	4.0	SP	POORLY GRADED SAND, fine-grained, brown, moist, loose. (Glacial Outwash)	6		
				8		
966.2	9.0	SP	POORLY GRADED SAND, fine- to medium-grained, brown, moist to wet, very loose to loose. (Glacial Outwash)	7		
				6		
				2	▽	
957.2	18.0	SP	POORLY GRADED SAND, fine- to coarse-grained, with Gravel, brown, wet, medium dense. (Glacial Outwash)			
954.2	21.0			15		
			END OF BORING.			
			Water observed at 19 1/2 feet with 19 1/2 feet of hollow-stem auger in the ground.			
			Water observed at 17 feet after last sample.			
			Boring then backfilled with bentonite grout.			

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BRAUN INTERTEC

LOG OF BORING

Braun Project B1800529
GEOTECHNICAL EVALUATION
West Birch Apartment Building
1206 5th Street North
Princeton, Minnesota

BORING: **ST-4**

LOCATION: See attached sketch.

DRILLER: R. Hansen | METHOD: 3 1/4" HSA, Autohammer | DATE: **1/29/18** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
980.1	0.0	SM	SILTY SAND, fine-grained, dark brown, frozen to moist, medium dense. (Glacial Outwash)	15		
976.1	4.0	SP	POORLY GRADED SAND, fine-grained, brown, moist, loose to medium dense. (Glacial Outwash)	7		
				9		
969.1	11.0			14		
		SP	POORLY GRADED SAND, fine- to medium-grained, brown, moist, loose to medium dense. (Glacial Outwash)	13		
				5		
962.1	18.0	SP	POORLY GRADED SAND, fine-grained, brown, wet, loose. (Glacial Outwash)		▽	
959.1	21.0			5		
			END OF BORING. Water observed at 19 1/2 feet with 19 1/2 feet of hollow-stem auger in the ground. Boring then backfilled with bentonite grout.			

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BRAUN INTERTEC

LOG OF BORING

Braun Project B1800529
GEOTECHNICAL EVALUATION
West Birch Apartment Building
1206 5th Street North
Princeton, Minnesota

BORING: **ST-5**

LOCATION: See attached sketch.

DRILLER: R. Hansen | METHOD: 3 1/4" HSA, Autohammer | DATE: **1/29/18** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
977.7	0.0	SP-SM	POORLY GRADED SAND with SILT, fine-grained, dark brown to brown, frozen to moist, medium dense. (Glacial Outwash)	15		
973.7	4.0	SP	POORLY GRADED SAND, fine-grained, brown, moist, loose to medium dense. (Glacial Outwash)	12		
				8		
966.7	11.0			12		
		SP	POORLY GRADED SAND, fine- to medium-grained, brown, moist, loose. (Glacial Outwash)	8		
				6		
959.7	18.0	SP	POORLY GRADED SAND, fine-grained, brown, wet, very loose. (Glacial Outwash)		▽	
956.7	21.0			2		
			END OF BORING.			
			Water observed at 19 1/2 feet with 19 1/2 feet of hollow-stem auger in the ground.			
			Water observed at 18 1/2 feet after last sample.			
			Boring then backfilled with bentonite grout.			

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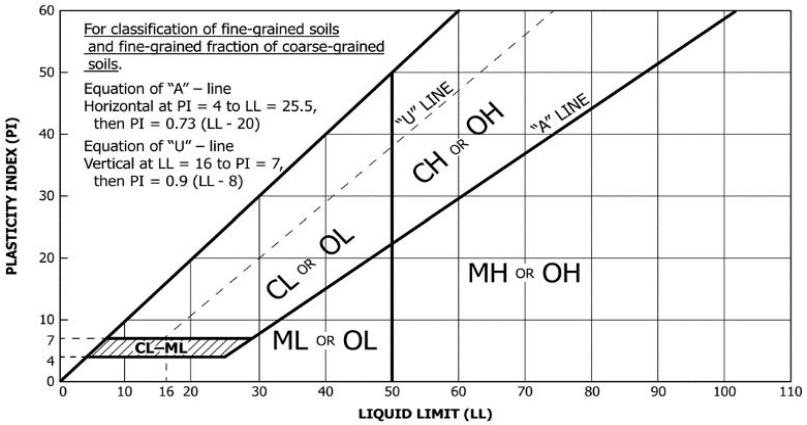
Descriptive Terminology of Soil

Based on Standards ASTM D 2487-11/2488-09a
(Unified Soil Classification System)

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]				Soil Classification	
				Group Symbol	Group Name[B]
Coarse-grained Soils (more than 50% retained on No. 200 sieve)	Gravels (More than 50% of coarse fraction retained on No. 4 sieve)	Clean Gravels (Less than 5% fines[C])	$C_u \geq 4$ and $1 \leq C_c \leq 3^D$	GW	Well-graded gravel[E]
			$C_u < 4$ and/or ($C_c < 1$ or $C_c > 3$)[D]	GP	Poorly graded gravel[E]
		Gravels with Fines (More than 12% fines[C])	Fines classify as ML or MH	GM	Silty gravel[E F G]
			Fines Classify as CL or CH	GC	Clayey gravel[E F G]
	Sands (50% or more coarse fraction passes No. 4 sieve)	Clean Sands (Less than 5% fines[H])	$C_u \geq 6$ and $1 \leq C_c \leq 3^D$	SW	Well-graded sand[I]
			$C_u < 6$ and/or ($C_c < 1$ or $C_c > 3$)[D]	SP	Poorly graded sand[I]
		Sands with Fines (More than 12% fines[H])	Fines classify as ML or MH	SM	Silty sand[F G I]
			Fines classify as CL or CH	SC	Clayey sand[F G I]
Fine-grained Soils (50% or more passes the No. 200 sieve)	Silts and Clays (Liquid limit less than 50)	Inorganic	PI > 7 and plots on or above "A" line[J]	CL	Lean clay[K L M]
			PI < 4 or plots below "A" line[J]	ML	Silt[K L M]
		Organic	Liquid Limit – oven dried / Liquid Limit – not dried <0.75	OL	Organic clay[K L M N] / Organic silt[K L M O]
	Silts and Clays (Liquid limit 50 or more)	Inorganic	PI plots on or above "A" line	CH	Fat clay[K L M]
			PI plots below "A" line	MH	Elastic silt[K L M]
		Organic	Liquid Limit – oven dried / Liquid Limit – not dried <0.75	OH	Organic clay[K L M P] / Organic silt[K L M Q]
Highly Organic Soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

A. Based on the material passing the 3-inch (75-mm) sieve.
B. If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
C. Gravels with 5 to 12% fines require dual symbols:
   GW-GM well-graded gravel with silt
   GW-GC well-graded gravel with clay
   GP-GM poorly graded gravel with silt
   GP-GC poorly graded gravel with clay
D. $C_u = D_{60} / D_{10}$ $C_c = (D_{30})^2 / (D_{10} \times D_{60})$
E. If soil contains ≥ 15% sand, add "with sand" to group name.
F. If fines classify as CL-ML, use dual symbol GC-GM or SC-SM.
G. If fines are organic, add "with organic fines" to group name.
H. Sands with 5 to 12% fines require dual symbols:
   SW-SM well-graded sand with silt
   SW-SC well-graded sand with clay
   SP-SM poorly graded sand with silt
   SP-SC poorly graded sand with clay
I. If soil contains ≥ 15% gravel, add "with gravel" to group name.
J. If Atterberg limits plot in hatched area, soil is CL-ML, silty clay.
K. If soil contains 15 to < 30% plus No. 200, add "with sand" or "with gravel", whichever is predominant.
L. If soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name.
M. If soil contains ≥ 30% plus No. 200 predominantly gravel, add "gravelly" to group name.
N. PI ≥ 4 and plots on or above "A" line.
O. PI < 4 or plots below "A" line.
P. PI plots on or above "A" line.
Q. PI plots below "A" line



Particle Size Identification

Boulders..... over 12"
Cobbles..... 3" to 12"
Gravel
  Coarse..... 3/4" to 3" (19.00 mm to 75.00 mm)
  Fine..... No. 4 to 3/4" (4.75 mm to 19.00 mm)
Sand
  Coarse..... No. 10 to No. 4 (2.00 mm to 4.75 mm)
  Medium..... No. 40 to No. 10 (0.425 mm to 2.00 mm)
  Fine..... No. 200 to No. 40 (0.075 mm to 0.425 mm)
Silt..... No. 200 (0.075 mm) to .005 mm
Clay..... < .005 mm

Relative Proportions[L, M]

trace..... 0 to 5%
little..... 6 to 14%
with..... ≥ 15%

Inclusion Thicknesses

lens..... 0 to 1/8"
seam..... 1/8" to 1"
layer..... over 1"

Apparent Relative Density of Cohesionless Soils

Very loose ..... 0 to 4 BPF
Loose ..... 5 to 10 BPF
Medium dense..... 11 to 30 BPF
Dense..... 31 to 50 BPF
Very dense..... over 50 BPF

Consistency of Cohesive Soils	Blows Per Foot	Approximate Unconfined Compressive Strength
Very soft	0 to 1 BPF	< 1/4 tsf
Soft	2 to 4 BPF	1/4 to 1/2 tsf
Medium	5 to 8 BPF	1/2 to 1 tsf
Stiff	9 to 15 BPF	1 to 2 tsf
Very Stiff	16 to 30 BPF	2 to 4 tsf
Hard	over 30 BPF	> 4 tsf

Moisture Content:

Dry: Absence of moisture, dusty, dry to the touch.
Moist: Damp but no visible water.
Wet: Visible free water, usually soil is below water table.

Drilling Notes:

BPF: Numbers indicate blows per foot recorded in standard penetration test, also known as "N" value. The sampler was set 6 inches into undisturbed soil below the hollow-stem auger. Driving resistances were then counted for second and third 6-inch increments, and added to get BPF.

Partial Penetration: If the sampler cannot be driven the full 12 inches beyond the initial 6-inch set, the number of blows for that partial penetration is shown as "No./X" (i.e., 50/2"). If the sampler cannot be advanced beyond the initial 6-inch set, the depth of penetration will be recorded in the Notes column as "No. to set X" (i.e., 50 to set 4").

WH: WH indicates the sampler penetrated soil under weight of hammer and rods alone; driving not required.

WR: WR indicates the sampler penetrated soil under weight of rods alone; hammer weight and driving not required.

WL: WL indicates the water level measured by the drillers either while drilling or following drilling.

Laboratory Tests

DD	Dry Density, pcf	**OC**	Organic content, %	**PL**	Plastic limit, %
WD	Wet Density, pcf	**q_p**	Pocket penetrometer strength	**LL**	Liquid limit, %
P200	% Passing #200 sieve	**MC**	Moisture conent, %	**PI**	Plasticity Index, %

Appendix B

FINAL
STORMWATER ANALYSIS, DESIGN, AND REPORT

FOR

WEST BIRCH APARTMENTS

CENTRAL MINNESOTA HOUSING PARTNERSHIP
18-135

AUGUST 2018
REVISED JANUARY 2019

PREPARED BY:

STARK ENGINEERING
www.starkengineer.com
320-249-2611
Sauk Rapids, Minnesota

Civil Engineering
Site Planning
Sustainable Design

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Date: 1/31/19

Wayne C.B. Stark, P.E.
Registration Number 26093

PROJECT INFORMATION

The project site is located at 101 West Branch Street in Princeton, Minnesota. The 1.61-acre site is bounded by the above referenced street on the north side, vacated railroad right-of-way on the east side and residential developments on the south and west sides. This vacant lot has no existing impervious surface area.

According to the Web Soil Survey, the existing soils on this site are Zimmerman fine sand (D60B) which are classified as hydrologic soil group A. A geotechnical investigation on this site found mostly poorly graded sands (SP) with groundwater measured at 17 feet to 19.5 feet below the surface.

The proposed improvements include a three-story, 12,301 square foot (SF) apartment building with adjacent surface parking spaces and access drives. Site grading, City utilities and an infiltration basin will be constructed as well. This results in an proposed impervious surface area of 0.80 acres or 49.7%.

RECOMMENDATIONS

The stormwater analysis and design for this site is presented for review and comment along with the revised preliminary plans. There is no stormwater management for this site to meet the current City of Princeton requirements. Therefore, an infiltration basin is proposed to treat the proposed stormwater flows from the improvements on this site.

ANALYSIS AND DESIGN

Procedurally, the surface water hydrological conditions for the existing and proposed conditions on the site were analyzed for each of the statistical Atlas 14 rainfall events included. The events analyzed are:

- 1-year, 24-hour rainfall of 2.37 inches
- 10-year, 24-hour rainfall of 4.02 inches
- 100-year, 24-hour rainfall of 6.43 inches

The analysis is accomplished using the HydroCAD, Version 10.0, Stormwater Modeling System software by HydroCAD Software Solutions, LLC. Within the software, the user selects certain methods and techniques that are dependent upon the user preferences and the application. For the design of the proposed post-development systems, the following methods and preferences are used:

Site Specific Soil/Surface Cover Conditions:	SCS* TR-20 Methods
Time of Concentration:	SCS TR-55 Methods
Unit Hydrograph:	SCS TR-20 Methods
Reach Routing / Pond Routing:	Storage-Indication Method

*SCS (Soil Conservation Service) is now known as NRCS (Natural Resources Conservation Service).

Each of these methods or techniques is explained in detail in the National Engineering Handbook: Section 4 - Hydrology, as well as several additional references.

EXISTING SITE DRAINAGE

With the existing conditions, one drainage area consisting of the 2.39-acre site overland flows to an existing low area on the project site and it has no impervious surface area.

An analysis of the runoff rates and volumes from this drainage area for the design rainfall events was completed using the HydroCAD model. This analysis indicated that the peak stormwater runoff rates and elevations for this site are all infiltrated in the low area with no runoff as follows:

- 1-year, 24-hour rainfall = 0.0 cubic feet per second (cfs), 973.0'
- 10-year, 24-hour rainfall = 0.0 cfs, 973.53'
- 100-year, 24-hour rainfall = 0.0 cfs, 975.35'

A copy of the Existing Conditions Summary Output is attached.

POST-DEVELOPMENT SITE DRAINAGE

With the previously described site improvements, the site has one drainage area as defined below:

P1 – This 2.39-acre area flows overland and via an onsite storm sewer system to the proposed infiltration basin located near the southeast corner of the proposed apartment building. It includes the roof area of the apartment building, adjacent sidewalks and all of the paved parking and drive areas. Its impervious surface area is 33.7%.

Based on the Minnesota Stormwater Manual, the soils in the area of the infiltration basin are classified as hydrologic soils group A with a design infiltration rate of 0.8 inches per hour. The infiltration basin will have 4:1 side slopes, a bottom elevation of 976.0 and a top elevation of 979.6 with native seed mix applied. It has an emergency overflow elevation of 979.55 along the east side that would discharge to the adjacent vacated railroad right-of-way. However, all of the stormwater runoff from the design rainfall events will infiltrate within the proposed basin.

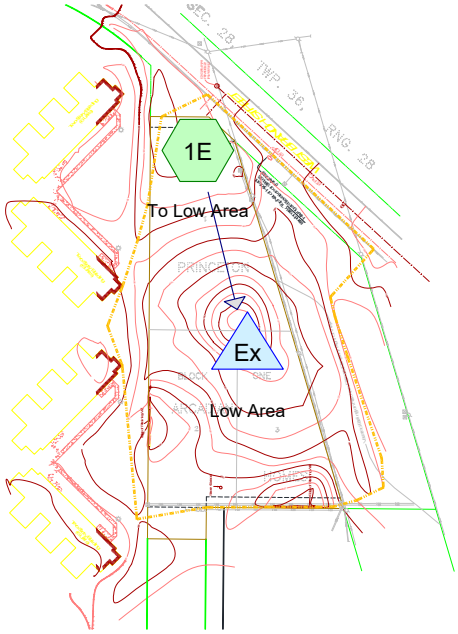
Analysis of the runoff rates and volumes for the design rainfall events were completed using the HydroCAD model. This analysis shows that the peak stormwater runoff rates and elevations are as follows:

- 1-year, 24-hour rainfall = 0.0 cfs, 976.11'
- 10-year, 24-hour rainfall = 0.0 cfs, 977.44'
- 100-year, 24-hour rainfall = 0.0 cfs, 979.51'

The proposed basin infiltrates all of the stormwater runoff directed to it for all of the design rainfall events. The stormwater runoff impacts from the proposed development therefore meet the current City requirements.

A copy of the Post-Development Summary Output is attached.

EXISTING CONDITIONS
SUMMARY OUTPUT



Subcat Reach Pond Link

Routing Diagram for 18-135 Existing 7-31-18
Prepared by Stark Engineering, Printed 7/31/2018

Summary for Subcatchment 1E: To Low Area

Runoff = 0.00 cfs @ 1.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.37"

Area (sf)	CN	Description
104,165	43	Woods/grass comb., Fair, HSG A
104,165	43	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	241	0.0515	0.18		**Sheet Flow, HP to LP** Grass: Dense n= 0.240 P2= 2.40"

Summary for Pond Ex: Low Area

Inflow Area = 104,165 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-Year event
Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0 cf
Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 973.00' @ 1.00 hrs Surf.Area= 429 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	973.00'	7,680 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
973.00	429	0	0
974.00	1,774	1,102	1,102
975.00	3,207	2,491	3,592
976.00	4,968	4,088	7,680

Device	Routing	Invert	Outlet Devices
#1	Discarded	973.00'	**0.800 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.00 cfs @ 1.00 hrs HW=973.00' (Free Discharge)
↑—**1=Exfiltration** (Passes 0.00 cfs of 0.01 cfs potential flow)

Summary for Subcatchment 1E: To Low Area

Runoff = 0.07 cfs @ 13.16 hrs, Volume= 1,112 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=4.02"

Area (sf)	CN	Description
104,165	43	Woods/grass comb., Fair, HSG A
104,165	43	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	241	0.0515	0.18		**Sheet Flow, HP to LP** Grass: Dense n= 0.240 P2= 2.40"

Summary for Pond Ex: Low Area

Inflow Area = 104,165 sf, 0.00% Impervious, Inflow Depth = 0.13" for 10-Year event
Inflow = 0.07 cfs @ 13.16 hrs, Volume= 1,112 cf
Outflow = 0.02 cfs @ 18.56 hrs, Volume= 1,112 cf, Atten= 72%, Lag= 323.8 min
Discarded = 0.02 cfs @ 18.56 hrs, Volume= 1,112 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 973.53' @ 18.56 hrs Surf.Area= 1,145 sf Storage= 419 cf

Plug-Flow detention time= 263.7 min calculated for 1,112 cf (100% of inflow)
Center-of-Mass det. time= 263.5 min (1,242.2 - 978.7)

Volume	Invert	Avail.Storage	Storage Description
#1	973.00'	7,680 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
973.00	429	0	0
974.00	1,774	1,102	1,102
975.00	3,207	2,491	3,592
976.00	4,968	4,088	7,680

Device	Routing	Invert	Outlet Devices
#1	Discarded	973.00'	**0.800 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.02 cfs @ 18.56 hrs HW=973.53' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.02 cfs)

Summary for Subcatchment 1E: To Low Area

Runoff = 1.41 cfs @ 12.43 hrs, Volume= 7,277 cf, Depth= 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.43"

Area (sf)	CN	Description
104,165	43	Woods/grass comb., Fair, HSG A
104,165	43	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	241	0.0515	0.18		**Sheet Flow, HP to LP** Grass: Dense n= 0.240 P2= 2.40"

Summary for Pond Ex: Low Area

Inflow Area = 104,165 sf, 0.00% Impervious, Inflow Depth = 0.84" for 100-Year event
Inflow = 1.41 cfs @ 12.43 hrs, Volume= 7,277 cf
Outflow = 0.07 cfs @ 19.53 hrs, Volume= 7,277 cf, Atten= 95%, Lag= 426.5 min
Discarded = 0.07 cfs @ 19.53 hrs, Volume= 7,277 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 975.35' @ 19.53 hrs Surf.Area= 3,823 sf Storage= 4,821 cf

Plug-Flow detention time= 877.8 min calculated for 7,277 cf (100% of inflow)
Center-of-Mass det. time= 877.6 min (1,765.2 - 887.6)

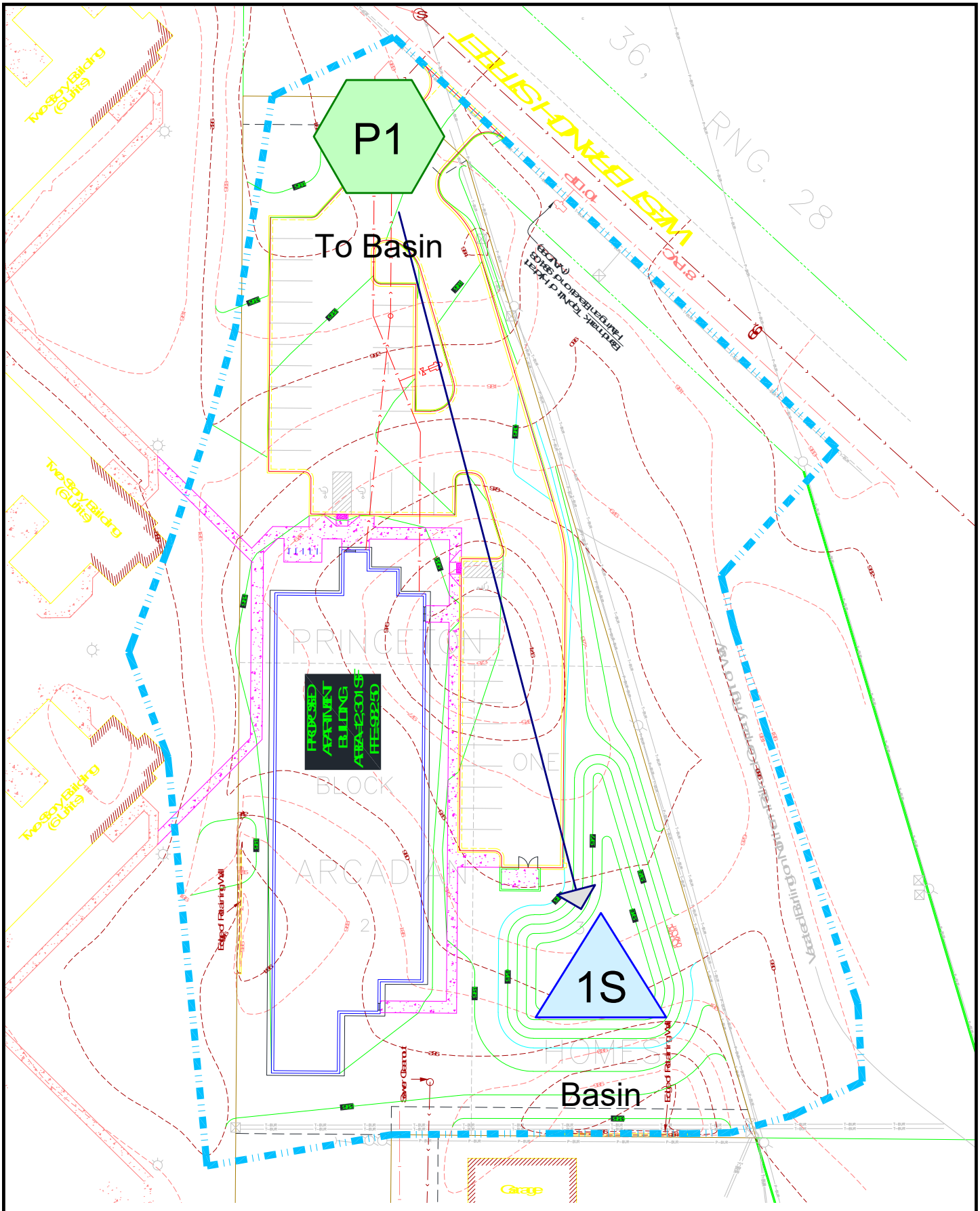
Volume	Invert	Avail.Storage	Storage Description
#1	973.00'	7,680 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
973.00	429	0	0
974.00	1,774	1,102	1,102
975.00	3,207	2,491	3,592
976.00	4,968	4,088	7,680

Device	Routing	Invert	Outlet Devices
#1	Discarded	973.00'	**0.800 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 19.53 hrs HW=975.35' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.07 cfs)

POST-DEVELOPMENT
SUMMARY OUTPUT



Routing Diagram for 18-135 Proposed 1-31-19
Prepared by Stark Engineering, Printed 1/31/2019

Summary for Subcatchment P1: To Basin

Runoff = 0.12 cfs @ 12.51 hrs, Volume= 1,052 cf, Depth= 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.37"

Area (sf)	CN	Description
12,301	98	Roofs, HSG A
22,824	98	Paved parking, HSG A
69,040	39	>75% Grass cover, Good, HSG A
104,165	59	Weighted Average
69,040	39	66.28% Pervious Area
35,125	98	33.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry, Minimum**

Summary for Pond 1S: Basin

Inflow Area = 104,165 sf, 33.72% Impervious, Inflow Depth = 0.12" for 1-Year event
Inflow = 0.12 cfs @ 12.51 hrs, Volume= 1,052 cf
Outflow = 0.04 cfs @ 13.79 hrs, Volume= 1,052 cf, Atten= 66%, Lag= 76.8 min
Discarded = 0.04 cfs @ 13.79 hrs, Volume= 1,052 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 976.11' @ 13.79 hrs Surf.Area= 2,123 sf Storage= 235 cf

Plug-Flow detention time= 60.1 min calculated for 1,051 cf (100% of inflow)
Center-of-Mass det. time= 60.2 min (997.2 - 937.0)

Volume	Invert	Avail.Storage	Storage Description
#1	976.00'	14,733 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
976.00	1,998	0	0
977.00	3,095	2,547	2,547
978.00	4,290	3,693	6,239
979.00	5,585	4,938	11,177
979.60	6,270	3,557	14,733

Device	Routing	Invert	Outlet Devices
#1	Primary	979.55'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	976.00'	**0.800 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 13.79 hrs HW=976.11' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=976.00' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment P1: To Basin

Runoff = 1.80 cfs @ 12.27 hrs, Volume= 6,269 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=4.02"

Area (sf)	CN	Description
12,301	98	Roofs, HSG A
22,824	98	Paved parking, HSG A
69,040	39	>75% Grass cover, Good, HSG A
104,165	59	Weighted Average
69,040	39	66.28% Pervious Area
35,125	98	33.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry, Minimum**

Summary for Pond 1S: Basin

Inflow Area = 104,165 sf, 33.72% Impervious, Inflow Depth = 0.72" for 10-Year event
Inflow = 1.80 cfs @ 12.27 hrs, Volume= 6,269 cf
Outflow = 0.07 cfs @ 17.68 hrs, Volume= 6,269 cf, Atten= 96%, Lag= 324.4 min
Discarded = 0.07 cfs @ 17.68 hrs, Volume= 6,269 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 977.44' @ 17.68 hrs Surf.Area= 3,625 sf Storage= 4,035 cf

Plug-Flow detention time= 713.2 min calculated for 6,264 cf (100% of inflow)
Center-of-Mass det. time= 713.6 min (1,577.7 - 864.1)

Volume	Invert	Avail.Storage	Storage Description
#1	976.00'	14,733 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
976.00	1,998	0	0
977.00	3,095	2,547	2,547
978.00	4,290	3,693	6,239
979.00	5,585	4,938	11,177
979.60	6,270	3,557	14,733

Device	Routing	Invert	Outlet Devices
#1	Primary	979.55'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	976.00'	**0.800 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 17.68 hrs HW=977.44' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=976.00' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment P1: To Basin

Runoff = 6.31 cfs @ 12.25 hrs, Volume= 18,392 cf, Depth= 2.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.43"

Area (sf)	CN	Description
12,301	98	Roofs, HSG A
22,824	98	Paved parking, HSG A
69,040	39	>75% Grass cover, Good, HSG A
104,165	59	Weighted Average
69,040	39	66.28% Pervious Area
35,125	98	33.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					**Direct Entry, Minimum**

Summary for Pond 1S: Basin

Inflow Area = 104,165 sf, 33.72% Impervious, Inflow Depth = 2.12" for 100-Year event
Inflow = 6.31 cfs @ 12.25 hrs, Volume= 18,392 cf
Outflow = 0.11 cfs @ 19.81 hrs, Volume= 17,937 cf, Atten= 98%, Lag= 453.6 min
Discarded = 0.11 cfs @ 19.81 hrs, Volume= 17,937 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 979.51' @ 19.81 hrs Surf.Area= 6,170 sf Storage= 14,188 cf

Plug-Flow detention time= 1,411.5 min calculated for 17,925 cf (97% of inflow)
Center-of-Mass det. time= 1,399.2 min (2,235.1 - 836.0)

Volume	Invert	Avail.Storage	Storage Description
#1	976.00'	14,733 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
976.00	1,998	0	0
977.00	3,095	2,547	2,547
978.00	4,290	3,693	6,239
979.00	5,585	4,938	11,177
979.60	6,270	3,557	14,733

Device	Routing	Invert	Outlet Devices
#1	Primary	979.55'	**10.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	976.00'	**0.800 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.11 cfs @ 19.81 hrs HW=979.51' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.11 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=976.00' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Appendix C

Asbestos-Containing Building Materials Inspection Report

West Birch Townhomes
504 13th Avenue North
Princeton, Minnesota

Prepared for

Central Minnesota Housing Partnership, Inc.

Project B1800529.00
February 28, 2018

Braun Intertec Corporation

BRAUN INTERTEC
The Science You Build On.

BRAUN INTERTEC
The Science You Build On.

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

February 28, 2018

Project B1800529.00

Mr. Jason Krebsbach
Central Minnesota Housing Partnership, Inc.
37 28th Avenue, Suite #102
St. Cloud, MN 56303

Re: Asbestos-Containing Building Materials Inspection Report
West Birch Townhomes
504 13th Avenue North
Princeton, Minnesota

Dear Mr. Krebsbach:

The enclosed report provides the results of the asbestos-containing building materials inspection conducted on February 1, 2018, at the West Birch Townhomes located at 504 13th Avenue North in Princeton, Minnesota (Site). Braun Intertec Corporation was authorized to conduct this inspection in accordance with our Proposal QTB070763 dated January 12, 2018 and the Braun Intertec General Conditions.

The following outline provides the structure of the report.

- Scope of Services
- Site Description
- Results
- Discussion
- Limitations

If you have any questions or need further assistance, please call Gaia Ewing at 612.751.4018 or Robert Nordby at 952.995.2424.

Sincerely,

BRAUN INTERTEC CORPORATION

Gaia I. Ewing
Environmental Technician

Robert E. Nordby
Associate Principal – Senior Scientist

Attachments:
Asbestos-Containing Building Materials Inspection Report

Table of Contents

Appendices

A. Scope of Services

The scope of our services was limited to:

- Visually examine accessible areas and identify locations of suspect asbestos-containing material (ACM).
- Collect and analyze representative bulk samples of materials suspected of containing asbestos.
- Assign a hazard rating based on asbestos content with respect to the materials condition, friability, accessibility, and hazard potential.
- Document the various materials' current conditions and ACM quantities.
- Generate a final report documenting the sample locations, analysis results, conditions, ACM quantities.

B. Site Description

The subject of the inspection is the West Birch Townhomes located at 504 13th Avenue North in Princeton, Minnesota. The property has four existing uniform townhome buildings each are two-story wood structures that encompasses approximately 9,750 square feet. The townhomes are constructed of wood and concrete with slab on grade foundations. The typical interior finishes included sheetrock/joint compound, linoleum, and ceiling texture. The exterior of the buildings have wood siding with asphalt roof shingle roof systems. The buildings were occupied at the time of the inspection.

C. Results

C.1. Asbestos

Forty (40) bulk samples were collected on February 1, 2018 and submitted to EMSL Analytical, Inc. a microscopy laboratory that is fully accredited for bulk analysis.

C.1.a. Asbestos-Containing Materials

The following is a summary of building materials found or assumed to contain greater than one percent asbestos (asbestos-containing materials by regulatory definition).

- **No asbestos-containing building materials were detected at the time of this inspection**.

C.1.b. Non-Asbestos-Containing Materials

The following is a summary of building materials found to contain no asbestos or materials that contain one percent or less asbestos (non-asbestos-containing materials by regulatory definition).

- 12-inch by 12-inch floor tile (blue w/ blue streaks) and adhesive (clear)
- 12-inch by 12-inch floor tile (gray mottled) and adhesive
- Ceiling texture
- Exterior window glazing
- Linoleum (blue) square pattern with flower accents and adhesive
- Linoleum (gray /tan mottled) 6-inch by 6-inch pattern and adhesive
- Linoleum (gray mottled) 9-inch by 9-inch pattern
- Linoleum (tan and pink) 8-inch by 8-inch square pattern and adhesive
- Linoleum (tan) 12-inch by 12-inch pattern (2-layers)
- Linoleum (tan) 6-inch by 6-inch pattern (2-layers)
- Linoleum (tan) 8-inch by 8-inch square pattern and backing
- Linoleum (tan) textured 12-inch by 12-inch tile pattern (2-layers) and adhesive
- Linoleum (white w/specks) 4-inch by 4-inch pattern
- Sheetrock/joint compound
- Sink undercoating (black)
- Sink undercoating (white)
- Vinyl baseboard (gray) and adhesive
- Vinyl baseboard (tan) and adhesive

Refer to Table I in Appendix A, which lists individual functional spaces of the building, the suspect materials identified in that functional space, whether the suspect material was identified by analysis to be an asbestos-containing material, an estimated amount of each suspect material for the functional space, and includes condition, assessment categories and hazard ratings based on subjective observations made by our representatives.

Refer to Table II in Appendix B, which lists the homogenous material sample numbers, sample locations, suspect material descriptions, and the analysis results for each sample. This table summarizes the results from the Bulk Asbestos Laboratory Report, which is attached in Appendix C.

Bulk asbestos analysis was conducted in accordance with the Environmental Protection Agency's (EPA) Method 40 CFR, Chapter 1, Part 763, Subpart F, and Appendix A (7/1/87 Edition).

D. Limitations

This inspection was limited to areas available for observation via non-destructive means. In any building, the potential exists for hazardous building materials to be located inside walls, above ceilings, under floors, and other inaccessible areas. Braun Intertec cannot be held responsible for the presence of any such hidden materials. In the case of building renovation/demolition, contractors involved in the project

should be made aware of this potential. If previously unidentified suspect hazardous building materials are exposed during their activities they should be sampled and analyzed for content prior to any disturbance.

Note: *It should also be noted that in order to maintain the integrity of the roof systems, no roofing materials were sampled. For the purpose of this report, the roofing and flashing materials are assumed to contain asbestos until proven otherwise by sampling and analysis.*

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

E. Asbestos Inspector Certification

I, the undersigned, do hereby certify that I am an accredited Asbestos Inspector in the State of Minnesota. A photocopy of my current asbestos inspector certificate is attached in Appendix D.

Signature: _____ Date: 2-28-2018

Gaia I. Ewing
Environmental Technician
Minnesota Department of Health Asbestos Inspector No: AI13299

Appendix A

Table I. Asbestos Building Inspection Results

BRAUN INTERTEC
The Science You Build On.

Table I. Asbestos Building Inspection Results

Client: Central Minnesota Housing Partnership, Inc.
Location: West Birch Townhomes; Princeton, MN
Date of Inspection: February 1, 2018
Project: B1800529.00

Functional Space	Homogeneous Material Description	Contains Asbestos (Yes/No)	Ref. Client Sample No. (See Table II)	Estimated Quantity Units	Material Condition[1]	Hazard Category[2]
500 Building						
Unit 504	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 504	Sheetrock/joint compound	No	2	Throughout	ND	0
Unit 504	Ceiling texture	No	3A-E	1,300 ft.²	ND	0
Unit 504	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	34 ft.²	ND	0
Unit 504	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 502	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 502	Sheetrock/joint compound	No	2	Throughout	ND	0
Unit 502	Ceiling texture	No	3A-E	990 ft.²	ND	0
Unit 502	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	24 ft.²	ND	0
Unit 502	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 506	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 506	Sheetrock/joint compound	No	2	Throughout	ND	0
Unit 506	Ceiling texture	No	3A-E	1,100 ft.²	ND	0
Unit 506	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	24 ft.²	ND	0
Unit 506	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 508	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 508	Sheetrock/joint compound	No	2	Throughout	ND	0
Unit 508	Ceiling texture	No	3A-E	1,300 ft.²	ND	0
Unit 508	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	34 ft.²	ND	0
Unit 508	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 510	Sheetrock/joint compound	No	2	Throughout	ND	0
Unit 510	Ceiling texture	No	3A-E	1,100 ft.²	ND	0

Functional Space	Homogeneous Material Description	Contains Asbestos (Yes/No)	Ref. Client Sample No. (See Table II)	Estimated Quantity Units	Material Condition[1]	Hazard Category[2]
Unit 510	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	34 ft.²	ND	0
Unit 510	Linoleum (tan) 6-inch by 6-inch pattern (2-layers)	No	6	260 ft.²	ND	0
Unit 510	Linoleum (tan) 12-inch by 12-inch pattern (2-layers)	No	7	145 ft.²	ND	0
Unit 510	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 512	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	200 ft.²	ND	0
Unit 512	Linoleum (tan) 12-inch by 12-inch pattern (2-layers)	No	7	120 ft.²	ND	0
Unit 512	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	200 ft.²	ND	0
Unit 512	Ceiling texture	No	3A-E	990 ft.²	ND	0
Unit 512	Sink undercoating (white)	No	8	1 sink	ND	0
Unit 512	Sheetrock/joint compound	No	2	Throughout	ND	0
500 Building - Maintenance Room	Sheetrock/joint compound	No	2	Throughout	ND	0
500 Building - Maintenance Room	Ceiling texture	No	3A-E	70 ft.²	ND	0
600 Building						
Unit 604	Linoleum (tan) 6-inch by 6-inch pattern (2-layers)	No	6	410 ft.²	ND	0
Unit 604	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	34 ft.²	ND	0
Unit 604	Ceiling texture	No	9A-E	1,300 ft.²	ND	0
Unit 604	Sheetrock/joint compound	No	10	Throughout	ND	0
Unit 604	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 602	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	320 ft.²	ND	0
Unit 602	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	24 ft.²	ND	0
Unit 602	Linoleum (tan) 6-inch by 6-inch pattern (2-layers)	No	6	24 ft.²	ND	0
Unit 602	Ceiling texture	No	9A-E	990 ft.²	ND	0
Unit 602	Sheetrock/joint compound	No	10	Throughout	ND	0
Unit 602	Sink undercoating (white)	No	8	1 sink	ND	0
Unit 606	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	420 ft.²	ND	0
Unit 606	Sink undercoating (black)	No	5	1 sink	ND	0

Functional Space	Homogeneous Material Description	Contains Asbestos (Yes/No)	Ref. Client Sample No. (See Table II)	Estimated Quantity Units	Material Condition[1]	Hazard Category[2]
Unit 606	Ceiling texture	No	9A-E	1,100 ft.²	ND	0
Unit 606	Sheetrock/joint compound	No	10	Throughout	ND	0
Unit 606	Linoleum (tan) textured 12-inch by 12-inch tile pattern (2-layers) and adhesive	No	11	36 ft.²	ND	0
Unit 608	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	440 ft.²	ND	0
Unit 608	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 608	Sheetrock/joint compound	No	10	Throughout	ND	0
Unit 608	Ceiling texture	No	9A-E	1,300 ft.²	ND	0
Unit 610	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 610	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	24 ft.²	ND	0
Unit 610	Sheetrock/joint compound	No	10	Throughout	ND	0
Unit 610	Ceiling texture	No	9A-E	1,100 ft.²	ND	0
Unit 610	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 612	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	24 ft.²	ND	0
Unit 612	Linoleum (gray mottled) 9-inch by 9-inch pattern	No	12	410 ft.²	ND	0
Unit 612	Sheetrock/joint compound	No	10	Throughout	ND	0
Unit 612	Ceiling texture	No	9A-E	990 ft.²	ND	0
Unit 612	Sink undercoating (black)	No	5	1 sink	ND	0
600 Building - Laundry	12-inch by 12-inch floor tile (blue w/ blue streaks) and adhesive (clear)	No	13	70 ft.²	ND	0
600 Building - Laundry	Vinyl baseboard (gray) and adhesive	No	14	21 lin. ft..	ND	0
600 Building - Laundry	Sheetrock/joint compound	No	10	Throughout	ND	0
600 Building - Laundry	Ceiling texture	No	9A-E	70 ft.²	ND	0
1200 North Building						
1200 North Building - Laundry	12-inch by 12-inch floor tile (blue w/ blue streaks) and adhesive (clear)	No	13	70 ft.²	ND	0
1200 North Building - Laundry	Vinyl baseboard (gray) and adhesive	No	14	21 lin. ft..	ND	0
1200 North Building - Laundry	Sheetrock/joint compound	No	15	Throughout	ND	0
1200 North Building - Laundry	Ceiling texture	No	16A-E	70 ft.²	ND	0

Functional Space	Homogeneous Material Description	Contains Asbestos (Yes/No)	Ref. Client Sample No. (See Table II)	Estimated Quantity Units	Material Condition[1]	Hazard Category[2]
Unit 1201	Linoleum (blue) square pattern with flower accents and adhesive	No	17	450 ft.²	ND	0
Unit 1201	Sheetrock/joint compound	No	15	Throughout	ND	0
Unit 1201	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	36 ft.²	ND	0
Unit 1201	Ceiling texture	No	16A-E	990 ft.²	ND	0
Unit 1201	Sink undercoating (white)	No	8	1 sink	ND	0
Unit 1203	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 1203	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	24 ft.²	ND	0
Unit 1203	Sheetrock/joint compound	No	15	Throughout	ND	0
Unit 1203	Ceiling texture	No	16A-E	1,100 ft.²	ND	0
Unit 1203	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 1205	Ceiling texture	No	16A-E	1,300 ft.²	ND	0
Unit 1205	Sheetrock/joint compound	No	15	Throughout	ND	0
Unit 1205	Linoleum (tan) 6-inch by 6-inch pattern (2-layers)	No	6	150 ft.²	ND	0
Unit 1205	Linoleum (gray /tan mottled) 6-inch by 6-inch pattern and adhesive	No	18	100 ft.²	ND	0
Unit 1205	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	36 ft.²	ND	0
Unit 1205	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 1205	Vinyl baseboard (gray) and adhesive	No	14	14 lin. ft..	ND	0
Unit 1205	Linoleum (tan and pink) 8-inch by 8-inch square pattern and adhesive	No	19	80 ft.²	ND	0
Unit 1207	Linoleum (tan) textured 12-inch by 12-inch tile pattern (2-layers) and adhesive	No	11	300 ft.²	ND	0
Unit 1207	Ceiling texture	No	16A-E	1,100 ft.²	ND	0
Unit 1207	Sheetrock/joint compound	No	15	Throughout	ND	0
Unit 1207	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 1207	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	110 ft.²	ND	0
Unit 1209	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	28 ft.²	ND	0

Functional Space	Homogeneous Material Description	Contains Asbestos (Yes/No)	Ref. Client Sample No. (See Table II)	Estimated Quantity Units	Material Condition[1]	Hazard Category[2]
Unit 1209	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 1209	Ceiling texture	No	16A-E	1,300 ft.²	ND	0
Unit 1209	Sheetrock/joint compound	No	15	Throughout	ND	0
Unit 1209	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 1211	Ceiling texture	No	16A-E	990 ft.²	ND	0
Unit 1211	Sheetrock/joint compound	No	15	Throughout	ND	0
Unit 1211	Linoleum (gray mottled) 9-inch by 9-inch pattern	No	12	410 ft.²	ND	0
Unit 1211	Sink undercoating (black)	No	5	1 sink	ND	0
1200 South Building						
1200 South Building - Laundry	12-inch by 12-inch floor tile (gray mottled) and adhesive	No	20	70 ft.²	ND	0
1200 South Building - Laundry	Vinyl baseboard (tan) and adhesive	No	21	21 lin. ft..	ND	0
1200 South Building - Laundry	Sheetrock/joint compound	No	22	Throughout	ND	0
1200 South Building - Laundry	Ceiling texture	No	23A-E	70 ft.²	ND	0
Unit 1210	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	36 ft.²	ND	0
Unit 1210	Linoleum (tan) textured 12-inch by 12-inch tile pattern (2-layers) and adhesive	No	11	400 ft.²	ND	0
Unit 1210	Ceiling texture	No	23A-E	1,300 ft.²	ND	0
Unit 1210	Sheetrock/joint compound	No	22	Throughout	ND	0
Unit 1210	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	125 ft.²	ND	0
Unit 1210	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 1208	Sheetrock/joint compound	No	22	Throughout	ND	0
Unit 1208	Ceiling texture	No	23A-E	1,100 ft.²	ND	0
Unit 1208	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 1208	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 1206	Ceiling texture	No	23A-E	1,100 ft.²	ND	0
Unit 1206	Sheetrock/joint compound	No	22	Throughout	ND	0
Unit 1206	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 1206	Sink undercoating (black)	No	5	1 sink	ND	0

Functional Space	Homogeneous Material Description	Contains Asbestos (Yes/No)	Ref. Client Sample No. (See Table II)	Estimated Quantity Units	Material Condition[1]	Hazard Category[2]
Unit 1204	Ceiling texture	No	23A-E	990 ft.²	ND	0
Unit 1204	Sheetrock/joint compound	No	22	Throughout	ND	0
Unit 1204	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 1204	Linoleum (white w/specks) 4-inch by 4-inch pattern	No	4	36 ft.²	ND	0
Unit 1204	Sink undercoating (white)	No	8	1 sink	ND	0
Unit 1212	Ceiling texture	No	23A-E	1,100 ft.²	ND	0
Unit 1212	Sheetrock/joint compound	No	22	Throughout	ND	0
Unit 1212	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 1212	Sink undercoating (black)	No	5	1 sink	ND	0
Unit 1214	Sheetrock/joint compound	No	22	Throughout	ND	0
Unit 1214	Ceiling texture	No	23A-E	990 ft.²	ND	0
Unit 1214	Linoleum (tan) 8-inch by 8-inch square pattern and backing	No	1	410 ft.²	ND	0
Unit 1214	Sink undercoating (black)	No	5	1 sink	ND	0
Exterior - Front Door All Units	Window glazing	No	24	Throughout	ND	0

1. Condition of ACM:

ND = Not Damaged

D = Damaged

SD = Significantly Damaged

2. Hazard Category:

0 = No hazard - material does not contain asbestos

1 = ACM with potential for damage

2 = ACM with potential for significant damage

3 = Damaged or significantly damaged asbestos-containing miscellaneous material

4 = Damaged or significantly damaged friable asbestos-containing thermal system insulation

5 = Damaged or significantly damaged friable asbestos-containing surfacing material

Appendix B

Table II. Bulk Asbestos Analytical Results

BRAUN INTERTEC
The Science You Build On.

Table II. Bulk Asbestos Analytical Results

Client: Central Minnesota Housing Partnership, Inc.
Location: West Birch Townhomes; Princeton, MN
Date of Inspection: February 1, 2018
Project: B1800529.00

Sample No.	Sample Location			Material	Asbestos Content (%)[1]
1	Unit 504	First Floor	Entry	Linoleum (tan) 8-inch by 8-inch square pattern and backing	N.D.[2]
2	Unit 504	First Floor	Entry	Sheetrock/joint compound	N.D.
3A	Unit 504	First Floor	Entry	Ceiling texture	N.D.
3B	Unit 504	First Floor	Stairwell	Ceiling texture	N.D.
3C	Unit 504	First Floor	Living Room	Ceiling texture	N.D.
3D	Unit 504	First Floor	Hallway	Ceiling texture	N.D.
3E	Unit 504	Second Floor	Bedroom	Ceiling texture	N.D.
4	Unit 504	First Floor	Utility Closet	Linoleum (white w/specks) 4-inch by 4-inch pattern	N.D.
5	Unit 504	First Floor	Kitchen	Sink undercoating (black)	N.D.
6	Unit 510	First Floor	Entry	Linoleum (tan) 6-inch by 6-inch pattern (2-layers)	N.D.
7	Unit 510	First Floor	Kitchen	Linoleum (tan) 12-inch by 12-inch pattern (2-layers)	N.D.
8	Unit 512	First Floor	Kitchen	Sink undercoating (white)	N.D.
9A	Unit 604	First Floor	Entry	Ceiling texture	N.D.
9B	Unit 604	First Floor	Stairwell	Ceiling texture	N.D.
9C	Unit 604	First Floor	Living Room	Ceiling texture	N.D.
9D	Unit 604	Second Floor	Hallway	Ceiling texture	N.D.
9E	Unit 604	Second Floor	Bedroom	Ceiling texture	N.D.
10	Unit 604	First Floor	Closet	Sheetrock/joint compound	N.D.
11	Unit 606	Second Floor	Bathroom	Linoleum (tan) textured 12-inch by 12-inch tile pattern (2-layers) and adhesive	N.D.
12	Unit 612	First Floor	Laundry	Linoleum (gray mottled) 9-inch by 9-inch pattern	N.D.
13	1200 North Building	Laundry Room	-	12-inch by 12-inch floor tile (blue w/ blue streaks) and adhesive (clear)	N.D.
14	1200 North Building	Laundry Room	-	Vinyl baseboard (gray) and adhesive	N.D.
15	1200 North Building	Laundry Room	-	Sheetrock/joint compound	N.D.
16A	1200 North Building	Laundry Room	-	Ceiling texture	N.D.
16B	Unit 1201	First Floor	Entry	Ceiling texture	N.D.
16C	Unit 1201	First Floor	Stairwell	Ceiling texture	N.D.
16D	Unit 1201	First Floor	Living Room	Ceiling texture	N.D.
16E	Unit 1201	Second Floor	Hallway	Ceiling texture	N.D.
17	Unit 1201	First Floor	Entry	Linoleum (blue) square pattern with flower accents and adhesive	N.D.
18	Unit 1205	First Floor	Entry	Linoleum (gray /tan mottled) 6-inch by 6-inch pattern and adhesive	N.D.
19	Unit 1205	First Floor	Kitchen	Linoleum (tan and pink) 8-inch by 8-inch square pattern and adhesive	N.D.
20	1200 South Building	Laundry Room	-	12-inch by 12-inch floor tile (gray mottled) and adhesive	N.D.
21	1200 South Building	Laundry Room	-	Vinyl baseboard (tan) and adhesive	N.D.

Sample No.	Sample Location			Material	Asbestos Content (%)[1]
22	1200 South Building	Laundry Room	-	Sheetrock/joint compound	N.D.
23A	1200 South Building	Laundry Room	-	Ceiling texture	N.D.
23B	Unit 1210	First Floor	Entry	Ceiling texture	N.D.
23C	Unit 1210	First Floor	Living Room	Ceiling texture	N.D.
23D	Unit 1210	Second Floor	Hallway	Ceiling texture	N.D.
23E	Unit 1210	Second Floor	Bedroom	Ceiling texture	N.D.
24	Unit 1210	Exterior	Front Door	Exterior window glazing	N.D.

* Materials containing 1 percent of asbestos or less are not considered to be asbestos-containing materials by the U.S.EPA.

1. Asbestos content is indicated as an approximate percent by area.
2. N.D. = None Detected

Appendix C

Bulk Asbestos Analysis Reports

BRAUN INTERTEC

EMSL Analytical, Inc.

1830 Elm St. S.E. Minneapolis, MN 55414

Tel/Fax: (612) 607-6457 / (952) 852-7131

http://www.EMSL.com / minneapolislabih@EMSL.com

EMSL Order:	101800196
Customer ID:	BRAU50
Customer PO:	
Project ID:	

Attention:	Rob Nordby	**Phone:**	(952) 995-2000
	Braun Intertec	**Fax:**	(952) 995-2020
	11001 Hampshire Avenue South	**Received Date:**	02/02/2018 4:20 PM
	Bloomington, MN 55438	**Analysis Date:**	02/05/2018 - 02/06/2018
		Collected Date:	02/01/2018
Project:	B1800529.00504 13th Ave Princeton		

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1 *101800196-0001*	504 13th Ave 1st Floor Entry - Linoleum Tan 8x8" pattern + backing	Gray/Tan/Yellow Fibrous Heterogeneous	25% Cellulose <1% Glass	75% Non-fibrous (Other)	None Detected
2 *101800196-0002* *This is a composite result of gypsum and paper*	504 13th Ave 1st Floor Entry - SR/JC	Brown/White Non-Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (Other)	None Detected
3A *101800196-0003*	504 13th Ave 1st Entry - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
3B *101800196-0004*	504 13th Ave 1st Stairs - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
3C *101800196-0005*	504 13th Ave 1st Living - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
3D *101800196-0006*	504 13th Ave 2nd Hall - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
3E *101800196-0007*	504 13th Ave 2nd Bedrm - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
4 *101800196-0008*	504 13th Ave 1st Utility closet - Linoleum White w/ dots 4x4" pattern/look	Gray/Tan Non-Fibrous Heterogeneous	25% Cellulose 3% Synthetic	72% Non-fibrous (Other)	None Detected
5 *101800196-0009*	504 13th Ave 1st Utility kitchen - Sink Undercoating (Black)	Black Non-Fibrous Homogeneous		3% Micaceous Flakes 97% Non-fibrous (Other)	None Detected
6-Linoleum 1 *101800196-0010*	510 1st Entry - Linoleum Tan 6x6" pattern (2 layers)	Gray/Tan Non-Fibrous Heterogeneous	25% Cellulose 2% Synthetic	73% Non-fibrous (Other)	None Detected
6-Linoleum 2 *101800196-0010A*	510 1st Entry - Linoleum Tan 6x6" pattern (2 layers)	Gray/Tan Non-Fibrous Heterogeneous	25% Cellulose <1% Glass	75% Non-fibrous (Other)	None Detected
7-Linoleum 1 *101800196-0011*	510 1st Kitchen - Linoleum Tan 12x12" pattern (2 layers)	Gray/White Fibrous Homogeneous	5% Glass	95% Non-fibrous (Other)	None Detected
7-Linoleum 2 *101800196-0011A*	510 1st Kitchen - Linoleum Tan 12x12" pattern (2 layers)	Gray Fibrous Heterogeneous	13% Cellulose <1% Glass	87% Non-fibrous (Other)	None Detected
8 *101800196-0012*	512 1st Kitchen - Sink Undercoating White	White Fibrous Homogeneous	25% Cellulose	75% Non-fibrous (Other)	None Detected
9A *101800196-0013*	604 1st Entry - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected

Initial report from: 02/06/2018 17:48:17

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1830 Elm St. S.E. Minneapolis, MN 55414
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http://www.EMSL.com / minneapolislabih@EMSL.com

EMSL Order: 101800196
Customer ID: BRAU50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
9B *101800196-0014*	604 1st Stairs - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
9C *101800196-0015*	604 1st Living - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
9D *101800196-0016*	604 2nd Hall - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
9E *101800196-0017*	604 2nd Bedroom - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
10-Joint Compound *101800196-0018*	604 1st Closet - SR/JC	White Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
10-Tape *101800196-0018A*	604 1st Closet - SR/JC	White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
10-Gypsum *101800196-0018B*	604 1st Closet - SR/JC	White Fibrous Homogeneous	15% Cellulose <1% Glass	85% Non-fibrous (Other)	None Detected
11-Linoleum 1 *101800196-0019*	606 2nd Bath - Linoleum Tan Textured 12x12" pattern w/ accented grout line 2 layer	Gray/Tan/White Fibrous Heterogeneous	25% Cellulose <1% Glass	75% Non-fibrous (Other)	None Detected
11-Linoleum 2 *101800196-0019A*	606 2nd Bath - Linoleum Tan Textured 12x12" pattern w/ accented grout line 2 layer	Gray Fibrous Heterogeneous	25% Cellulose 2% Synthetic	73% Non-fibrous (Other)	None Detected
12 *101800196-0020*	612 1st Laundry - 9x9" Linoleum gray mottle	Gray/Tan Non-Fibrous Heterogeneous	25% Cellulose <1% Glass	75% Non-fibrous (Other)	None Detected
13-Floor Tile *101800196-0021*	1200 N. Bldg Laundry Floor - 12x12" Floor Tile blue w/ blue streaks + adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
13-Adhesive *101800196-0021A*	1200 N. Bldg Laundry Floor - 12x12" Floor Tile blue w/ blue streaks + adhesive	Yellow/Clear Fibrous Homogeneous	1% Cellulose	99% Non-fibrous (Other)	None Detected
14-Baseboard *101800196-0022*	1200 N. Building Laundry - Gray Vinyl baseboard + adhesive	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
14-Adhesive *101800196-0022A*	1200 N. Building Laundry - Gray Vinyl baseboard + adhesive	Yellow Fibrous Homogeneous	2% Cellulose	98% Non-fibrous (Other)	None Detected
15-Joint Compound *101800196-0023*	1200 N. Building Laundry - Sheetrock/JC	White Non-Fibrous Homogeneous		2% Micaceous Flakes 98% Non-fibrous (Other)	None Detected
15-Tape *101800196-0023A*	1200 N. Building Laundry - Sheetrock/JC	White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
15-Gypsum *101800196-0023B*	1200 N. Building Laundry - Sheetrock/JC	Brown/White Fibrous Homogeneous	35% Cellulose <1% Glass	65% Non-fibrous (Other)	None Detected

Initial report from: 02/06/2018 17:48:17

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EMSL Order: 101800196
Customer ID: BRAU50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
16A *101800196-0024*	1200 N. Building Laundry - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
16B *101800196-0025*	1201 1st Entry - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
16C *101800196-0026*	1201 1st Stairs - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
16D *101800196-0027*	1201 1st Living - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
16E *101800196-0028*	1201 2nd Hall - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
17 *101800196-0029*	1201 1st Entry - Linoleum Blue square pattern w/ flower accents	Gray/Tan/White Fibrous Heterogeneous	30% Cellulose <1% Glass	70% Non-fibrous (Other)	None Detected
18 *101800196-0030*	1205 1st Entry - Linoleum 6x6" Gray/Tan mottled	Gray Non-Fibrous Heterogeneous	25% Cellulose <1% Glass	75% Non-fibrous (Other)	None Detected
19 *101800196-0031*	1205 1st Kitchen - 8x8" Linoleum Sheet Tan + Pink square pattern	Gray Fibrous Heterogeneous	25% Cellulose <1% Glass	75% Non-fibrous (Other)	None Detected
20-Floor Tile *101800196-0032*	1200 S. Building Laundry - 12x12" Floor Tile gray mottled + adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
20-Adhesive *101800196-0032A*	1200 S. Building Laundry - 12x12" Floor Tile gray mottled + adhesive	Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (Other)	None Detected
21-Baseboard *101800196-0033*	1200 S. Building Laundry - Vinyl baseboard tan + adhesive	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
21-Adhesive *101800196-0033A*	1200 S. Building Laundry - Vinyl baseboard tan + adhesive	Yellow Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
22-Joint Compound *101800196-0034* *Minimal quantity of sample.*	1200 S. Building Laundry - Sheetrock/JC	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
22-Tape *101800196-0034A*	1200 S. Building Laundry - Sheetrock/JC	White Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
22-Gypsum *101800196-0034B*	1200 S. Building Laundry - Sheetrock/JC	Brown/White Fibrous Heterogeneous	20% Cellulose <1% Glass	80% Non-fibrous (Other)	None Detected
23A *101800196-0035*	1200 S. Building Laundry - Ceiling Texture	White Non-Fibrous Homogeneous		1% Micaceous Flakes 99% Non-fibrous (Other)	None Detected
23B *101800196-0036*	1210 1st Entry - Ceiling Texture	White Non-Fibrous Homogeneous		5% Micaceous Flakes 95% Non-fibrous (Other)	None Detected

Initial report from: 02/06/2018 17:48:17

EMSL Analytical, Inc.
1830 Elm St. S.E. Minneapolis, MN 55414
Tel/Fax: (612) 607-6457 / (952) 852-7131
http://www.EMSL.com / minneapolislabih@EMSL.com

EMSL Order: 101800196
Customer ID: BRAU50
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
23C *101800196-0037*	1210 1st Living - Ceiling Texture	White Non-Fibrous Homogeneous		5% Micaceous Flakes 95% Non-fibrous (Other)	None Detected
23D *101800196-0038*	1210 2nd Hall - Ceiling Texture	White Non-Fibrous Homogeneous		2% Micaceous Flakes 98% Non-fibrous (Other)	None Detected
23E *101800196-0039*	1210 2nd Bedroom - Ceiling Texture	White Non-Fibrous Homogeneous		2% Micaceous Flakes 98% Non-fibrous (Other)	None Detected
24 *101800196-0040*	1210 Exterior Front Door - Window Glazing	White Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (Other)	None Detected

Analyst(s)
Steve Felton (53)

Mark Erickson, Laboratory Manager
or Other Approved Signatory

Initial report from: 02/06/2018 17:48:17

OrderID: 101800196

EMSL ANALYTICAL, INC.
LABORATORY•PRODUCTS•TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number *(Lab Use Only)*: 101800196

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

Company : Braun Intertec Corp.	**EMSL-Bill to:** ☐ Same ☒ Different If Bill to is Different note instructions in Comments**
Street: 11001 Hampshire Avenue South	*Third Party Billing requires written authorization from third party*
City: Minneapolis **State/Province:** MN	**Zip/Postal Code:** 55438 **Country:** USA
Report To (Name): Robert Nordby/ Gaia Ewing	**Telephone #:** 952.995.2000
Email Address: rnordby@braunintertec.com ~~gewing~~@braunintertec.com → Gwarden@	**Fax #:** 953.995.2020 **Purchase Order:**
Project Name/Number: B1800529.00 504 13th Ave Princeton	**Please Provide Results:** ☐ Fax ☒ Email
U.S. State Samples Taken: Minnesota	**CT Samples:** ☐ Commercial/Taxable ☐ Residential/Tax Exempt

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☒ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PLM - Bulk (reporting limit)	TEM – Bulk
☒ PLM EPA 600/R-93/116 (<1%)	☐ TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1
☐ PLM EPA NOB (<1%)	☐ NY ELAP Method 198.4 (TEM)
Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)	☐ Chatfield Protocol (semi-quantitative)
Point Count w/Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%)	☐ TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2
☐ NIOSH 9002 (<1%)	☐ TEM Qualitative via Filtration Prep Technique
☐ NY ELAP Method 198.1 (friable in NY)	☐ TEM Qualitative via Drop Mount Prep Technique
☐ NY ELAP Method 198.6 NOB (non-friable-NY)	**Other**
☐ OSHA ID-191 Modified	☒ Point Count (400-non/grav.) if results are <1%, do not Point Count if N.D.
☐ Standard Addition Method	

☒ **Check For Positive Stop – Clearly Identify Homogenous Group** **Date Sampled:** 2/1/18

Samplers Name: Gaia Ewing (MDH #AI 13294) **Samplers Signature:** [signature]

Sample #	HA #	Sample Location	Material Description
		SEE ATTACHED "TABLE II"	

Client Sample # (s): See above or see attached table 1 - 24 **Total # of Samples:**

Relinquished (Client): Gaia Ewing (MDH #AI 13294 **Date:** 2/2/18 **Time:** 9:40AM

Received (Lab): [signature] Courier **Date:** 2/2/18 **Time:** 16:20

Comments/Special Instructions: OK to send to other EMSL locations. Point Count (400-non/grav.) up to 5 samples, if >5 samples call for approval. Invoice sent to: Jen Croft (jcroft@braunintertec.com) - same address.

Controlled Document – Asbestos COC – R6 – 11/29/2012

Page 1 of 3 pages

Received: [signature] / Pace BC , Dan Nguyen 2/2/18 ; 940
[signature] Pace 2-2-18 1230

OrderID: 101800196

101800196

BRAUN INTERTEC
The Science You Build On.

Table II. Bulk Asbestos Analytical Results

1/2

Client: Central MN Housing Partnership, Inc
Location: 504 13th Ave. N. Princeton, MN
Date of Inspection: 2/1/18
Project: B1800529.00

Sample No.	Sample Location			Material	Asbestos Content (%)[1]
1	504 13th Ave	1st floor Entry		Linoleum Tan 8x8" pattern + Backing	
2	↓	↓		SR/JC	
3A		1st	Entry	ceiling texture	
3B		↓	Stairs		
3C		↓	Living		
3D		2nd	Hall		
3E	↓	↓	Bedrm	↓	
4	↓	1st	Utility/ closet	Linoleum White w/ dots 4x4" pattern/Look	
5	↓	↓	Kitchen	Sink undercoating (Black)	
6	510	1st	Entry	Linoleum 6x6" pattern — Tan (2 layers)	
7	↓	↓	Kitchy	Linoleum Tan 12x12" pattern (2 layers)	
8	512	↓	↓	Sink undercoating white	
9A	604	1st	Entr	ceiling texture	
9B			Stairs Entry		
9C		↓	Livn Stairs		
9D		2nd	Hall Livn		
9E		↓	Hall Bedroom	↓	
10	↓	1st	Closet	SR/JC	
11	606	2nd	Bath	Linoleum Tan Textured 12x12" pattern w/ accented grout line 2 laye	
12	612	1st	Landing	9x9" Linoleum glue mastic	
13	1200 N. Bridge	Laundry	Floor	12x12" floor tile blue w/ blue streaks + adhesive clear	

101800196

Table II. Bulk Asbestos Analytical Results

Project # B1800529.00

Sample No.	Sample Location			Material	Asbestos Content (%)[1]
14	1200 N. Building	Laundry		Gray vinyl baseboard + Adhesive	
15	↓	↓		Sheetrock/JC	
16A	↓	↓		Ceiling texture	
16B	1201	1st	entry		
16C			Stairs		
16D		↓	Living		
16E	↓	2nd	Hall		
17	↓	1st	entry	Linoleum Blue square pattern w/ flow of accents	
18	1205	1st	Entry	Linoleum 16x16" Gray/tan mottled	
19	↓	↓	kitchen	8x8" Linoleum sheet Tan + pink square pattern	
20	1200 S. Building	Laundry		12x12" floor tile gray mottled + Adhesive	
21	↓	↓		Vinyl baseboard Tan + Adhesive	
22	↓	↓		Sheetrock/JC	
23A	↓	↓		Ceiling + Texture	
23B	1210	1st	entry		
23C		↓	Living		
23D		2nd	Hall		
23E	↓	↓	bathroom	↓	
24	1210	Exterior	Front Door	Window glazing	

BRAUN INTERTEC

Appendix D

Asbestos Inspector Certificate

BRAUN INTERTEC

Certificate No: 5LM06121702IR

Expiration Date: June 12, 2018

This is to certify that

Gaia Ewing

has attended and successfully completed an

ASBESTOS INSPECTOR REFRESHER TRAINING COURSE

permitted by

the State of Minnesota under Minnesota Rules 4620.3702 to 4620.3722

and meets the requirements of

Section 206 of Title II of the Toxic Substances Control Act (TSCA)

conducted by

Lake States Environmental, Ltd.

in

Hudson, WI on June 12, 2017

Examination Date: June 12, 2017

Lake States Environmental, Ltd
P. O. Box 645, Rice Lake, WI 54868
(800) 254-9811

Training Instructor

Appendix D

Phase I Environmental Site Assessment

West Birch Townhomes and Proposed 16-Unit Apartment Building
1206 5th Street North and 101 West Branch Street
Princeton, Minnesota

Prepared For

Central Minnesota Housing Partnership, Inc.

Minnesota Housing Finance Agency

West Birch Estates of Princeton, Limited Partnership

and

West Birch Estates, LLC

BRAUN INTERTEC
The Science You Build On.

Project B1800529.00
February 16, 2018

Braun Intertec Corporation

BRAUN INTERTEC
The Science You Build On.

Braun Intertec Corporation
11001 Hampshire Avenue S
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

February 16, 2018 Project B1800529.00

Mr. Jason Krebsbach
Central Minnesota Housing Partnership, Inc.
37 28th Avenue North, Suite 102
Saint Cloud, MN 56303

Re: Phase I Environmental Site Assessment
West Birch Townhomes and Proposed 16-Unit Apartment Building
1206 5th Street North and 101 West Branch Street
Princeton, Minnesota

Dear Mr. Krebsbach:

In accordance with your written authorization, Braun Intertec Corporation conducted a Phase I environmental site assessment (ESA) of the above-referenced site (Site). The objective of the Phase I ESA was to evaluate the Site for indications of recognized environmental conditions and to assist in satisfying All Appropriate Inquiries (AAI) standards and practices. The Phase I ESA was conducted in general conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Practice E1527-13 and 40 Code of Federal Regulations (CFR) Part 312.

The Phase I ESA was prepared on behalf of, and for use by Central Minnesota Housing Partnership, Inc., Minnesota Housing Finance Agency, West Birch Estates of Princeton, Limited Partnership, and West Birch Estates, LLC. No other party has a right to rely on the contents of the Phase I ESA without written authorization by Braun Intertec. The Phase I ESA was prepared in association with the purchase and redevelopment of the Site. Please refer to the attached report for the scope, methods and conclusions of our assessment.

We appreciate the opportunity to provide our professional services for you for this project. If you have any questions regarding this letter or the attached report, please contact Danielle Tautges at 952.995.2466 or Mark Ciampone at 651.487.7015.

Sincerely,

BRAUN INTERTEC CORPORATION

Danielle S. Tautges
Project Scientist

Mark A. Ciampone, PG
Associate Principal - Senior Scientist

Attachment:
Phase I Environmental Site Assessment Report

Table of Contents

Description **Page**

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Appendices

Executive Summary

Braun Intertec Corporation conducted a Phase I Environmental Site Assessment (ESA) of the West Birch Townhomes and Proposed 16-Unit Apartment Building located at 1206 5th Street North and 101 West Branch Street in Princeton, Minnesota (Site) in general conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Practice E1527-13 and 40 Code of Federal Regulations (CFR) Part 312.

At the time of the reconnaissance, the Site consisted of two parcels totaling approximately 7 acres. The west portion of the Site was developed with four townhome buildings constructed in 1998, each consisting of six townhome units and garages. The buildings were primarily two-story slab-on-grade, with the exception of one-story end units on all of the buildings. Each unit has a natural gas forced-air furnace. Paved parking area were located on the west of each of the buildings. The east portion of the Site was vacant grass covered land.

Our research indicates that the Site was developed from at least 1938 with a farmstead on the southwest portion of the Site and the remainder of the Site was used for cultivated agricultural. Use of the Site for agricultural purposes appeared to end in the 1970s. The east portion of the Site was developed by 1984 with three, fourplex buildings known as Arcadian Homes. These buildings were demolished in 2010. The west portion of the Site was developed with the existing West Birch Townhomes in 1998.

This assessment identified no recognized environmental conditions in connection with the Site.

This assessment identified no controlled recognized environmental conditions in connection with the Site.

A. Introduction

A.1. Purpose

Braun Intertec Corporation received authorization from Ms. Deanna Hemmesch of Central Minnesota Housing Partnership, Inc. (Client) to conduct a Phase I Environmental Site Assessment (ESA of the West Birch Townhomes and Proposed 16-Unit Apartment Building located at 1206 5th Street North and 101 West Branch Street in Princeton, Minnesota (Site). The objective of the Phase I ESA was to evaluate the Site for indications of recognized environmental conditions and to assist in satisfying All Appropriate Inquiries (AAI) standards and practices. The Phase I ESA was conducted in general conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Practice E1527-13 and 40 Code of Federal Regulations (CFR) Part 312. No intentional deviations from the ASTM Practice E1527-13 were made in conducting this Phase I ESA for the Site. The Phase I ESA was prepared on behalf of, and for the use by Central Minnesota Housing Partnership, Inc., Minnesota Housing Finance Agency, West Birch Estates of Princeton, Limited Partnership, and West Birch Estates, LLC (collectively the "User") in accordance with the contract between Central Minnesota Housing Partnership, Inc. and Braun Intertec, including the Braun Intertec General Conditions. No other party has a right to rely on the contents of the Phase I ESA without written authorization by Braun Intertec. All authorized parties are entitled to rely on the attached report according to our contract with Client, and under the same terms, conditions and circumstances. Please note that our contract with Client may contain a limitation of our total liability. If so, such limitation also applies to all those receiving this permission.

According to the User, the Phase I ESA was conducted in association with the purchase and redevelopment of the Site.

The purpose of this Phase I ESA was to evaluate the Site for indications of "recognized environmental conditions." A recognized environmental condition is defined by ASTM Practice E1527-13 as: "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment, 2) under conditions indicative of a release to the environment, or 3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions."

In addition, a "controlled recognized environmental condition" is also a recognized environmental condition. A controlled recognized environmental condition is defined by ASTM Practice E1527-13 as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls."

A.2. Scope of Services

Services provided for this project included:

- Preparing a description of the Site location, current use and improvements, and surrounding area.
- Preparing a general description of the topography, soils, geology, and groundwater flow direction at the Site.
- Reviewing reasonably ascertainable and practically reviewable regulatory information published by state and federal agencies, health, and/or environmental agencies.
- Reviewing the history of the Site, including aerial photographs, fire insurance maps, directories, and other readily available Site development data.
- Conducting a reconnaissance and environmental review of the Site, including observations of the Site for indications of hazardous materials, petroleum products, polychlorinated biphenyls (PCBs), wells, storage tanks, solid waste disposal, pits and sumps, and utilities.
- Conduct short-term radon testing in the townhome units at the Site.
- Conducting an area reconnaissance, including a brief review of adjoining property uses and pertinent environmental information noted in the Site vicinity.
- Interviewing current owners and/or occupants of the Site and accessible past Site owners, operators and/or occupants, as available.
- Interviewing local government officials or agencies having jurisdiction over hazardous waste disposal or other environmental matters in the area of the Site, as available.
- Reviewing previous environmental reports prepared for the Site, if provided.
- Preparing a written report of our methods, results, and conclusions.

The Standard Scope of the ASTM Practice E1527-13 is not intended to provide a universal analysis of potential environmental risks and hazards. This assessment included no analysis of non-standard scope environmental risks and hazards unless otherwise listed above. Analysis of other non-standard scope issues by Braun Intertec would require additional contractual arrangements.

This assessment does not include vapor encroachment screening as defined in ASTM Practice E2600-15, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*. ASTM Practice E2600-15 is not a requirement or component of "all appropriate inquiry," but a tool for evaluating vapor migration. Its results are not determinative of whether hazardous substances from a release are or may be present at the property for the sake of "all appropriate inquiry" or ASTM Practice E1527-13. An ASTM Practice E2600-15 vapor encroachment screen is not within the scope of this Phase I ESA and will not be conducted unless specifically requested by the User. However, vapors present or likely present from hazardous substances or petroleum products are considered no differently than hazardous substances or petroleum products present or likely present as a result of a release to the environment. Therefore, while a vapor encroachment screening per the ASTM Practice E2600-15 standard is not part of this assessment, the potential for impacts to the property from vapor migration that is a result of a release of hazardous substances and/or petroleum products to the environment will be considered when assessing for the presence of a recognized environmental condition as defined by ASTM E1527-13.

A.3. User-Provided Information

The purpose of this section is to describe tasks to be performed by the "User." The "User" as defined by ASTM Practice E1527-13, is "the party seeking to use ASTM Practice E1527-13 to complete an environmental site assessment of the property. A User may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager."

As stated in 40 CFR 312 (the rule), the Brownfields Amendments provide important liability protections for Users who qualify as contiguous property owners, bona fide prospective purchasers, or innocent landowners. To meet the statutory requirements for any of these Landowner Liability Protections (LLPs), a User must meet certain threshold requirements and satisfy certain continuing obligations. To qualify as one of the three LLPs, the User must perform "all appropriate inquiries" (AAI) on or before the date on which the User acquired the Site. The rule defines AAI, which includes inquiries and activities performed by the User and an environmental professional (EP).

The rule allows (but does not mandate) the User performing AAI to conduct inquiries or activities that may include searches for environmental liens, assessments of any specialized knowledge on the part of the User, an assessment of commonly known or reasonably ascertainable information about the Site, and an assessment of the relationship of the purchase price to fair market value. However, if the User performing AAI conducts one or more of these inquiries and/or activities, the rule allows (but does not mandate) that the User may communicate information gathered from these inquiries and/or activities to their EP to identify a possible recognized environmental condition.

Braun Intertec provided a User Questionnaire to the Client as a means to communicate information gathered from these inquiries and/or activities to the EP. The User may elect whether to communicate this information to the EP and/or to communicate this information to the EP by other means (e.g., through conversation or submission of documents). As indicated in our contract, if multiple Users are requesting reliance on the Phase I ESA, the Client was responsible for forwarding a copy of the questionnaire to all appropriate entities (collectively the User).

User-supplied information is discussed in applicable sections of this report. Sections A.3.a through A.3.f present any information communicated to us by the User that the EP has determined to indicate the possible presence or likely presence of a recognized environmental condition.

A.3.a. Environmental Liens

An environmental lien is a charge, security, or encumbrance, upon title to the Site to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of environmental issues at the Site.

The User was not aware of a record or awareness of environmental liens recorded against the Site.

A.3.b. Activity and Use Limitations

Activity and Use Limitations (AULs) are legal or physical restrictions or limitations on the use of, or access to, a Site to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil, soil vapor, groundwater, and/or surface water on the Site or to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. AULs, which may include institutional and/or engineering controls, are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil, groundwater, and/or surface water on the Site.

The User was not aware of a record or awareness of AULs recorded against the Site.

A.3.c. Specialized Environmental Knowledge

Specialized environmental knowledge includes any information and/or experience related to the Site or adjoining properties including, but not limited to, any obvious indicators that point to the presence or likely presence of environmental issues at the Site.

The User was not aware of specialized environmental knowledge for the Site.

A.3.d. Valuation Reduction for Environmental Issues

Valuation reduction for environmental issues includes the relationship of the purchase price to the fair market value of the property.

The User was not aware of information indicating any reduction in purchase price or fair market value due to environmental issues.

A.3.e. Commonly Known or Reasonably Ascertainable Information

Commonly known or reasonably ascertainable information includes information about the Site that generally is known to the public within the community where the Site is located and can be easily sought and found from individuals familiar with the Site or from easily attainable public sources of information.

The User was not aware of commonly known or reasonably ascertainable information for the Site.

A.3.f. Degree of Obviousness

The User must consider the degree of obviousness of the presence or likely presence of releases or threatened releases at the Site and the ability to detect releases or threatened releases by appropriate investigation.

The User was not aware of any obvious indications of the presence or likely presence of releases or threatened releases at the Site.

B. Records Review

The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the Site. We consulted only those regulatory and historical sources that were readily available, practically reviewable, and likely to be useful to develop a history of previous uses of the Site and surrounding area within the time and cost constraints of this Phase I ESA.

B.1. Site Location

We accessed various documents and online sources to obtain Site location information. The following is a summary our findings:

Address:	1206 5th St N	101 West Branch St
City:	Princeton	Princeton
County:	Mille Lacs	Mille Lacs
State:	Minnesota	Minnesota
Property Identification Number:	24-028-3700	24-686-0010
Construction Year:	1998	
Owner:	West Birch Townhomes of Princeton Limited Partnership	City of Princeton
Legal Description:	City of Princeton A TR N of Lots 2, 3 & 4, Block 2 Oakland Addition and S of West Branch Rd, of SW of SW 28 3626 4.30	Lots 1, 2 and 3 Block 1, Princeton Arcadian Homes
Latitude:	45.575 North	45.575 North
Longitude:	93.590 West	93.590 West
Section, Township, Range:	Section 28, Township 36 North, Range 26 West	Section 28, Township 36 North, Range 26 West
Elevation:	970 to 980 feet above mean sea level	970 to 980 feet above mean sea level
Size:	5.66 acres	1.34 acres

A Site location map and Site sketch are attached in Appendices A and B, respectively. Information obtained from the Mille Lacs County Property Information web page is attached in Appendix C.

B.1.a. Soil

We reviewed the United States Department of Agriculture (USDA) National Resource Conservation Service (NRCS) website to obtain soil information regarding the Site. According to the NRCS, the soil at the Site consists of fine sand of the Zimmerman unit with 1 to 6 percent slopes.

B.1.b. Geology

The depth to bedrock in the vicinity of the Site is between 50 and 200 feet below the ground surface (bgs) (Olsen and Mossler, 1982) and it is comprised of the Saint Cloud, Rockville, and Reformatory granites of east-central Minnesota (Morey and Meints, 2000).

B.1.c. Hydrogeology

The depth to groundwater in the vicinity of the Site ranges from approximately 20 to 30 feet below land surface. According to the USGS 7.5-minute topographic map series, Princeton, Minnesota quadrangle, the surface gradient in the vicinity of the Site is generally to the east-northeast. Accordingly, the regional groundwater flow direction within the consolidated deposits in the vicinity of the Site may also be generally to the east-northeast. However, the regional groundwater flow direction in the vicinity of the Site could not be ascertained, due to lack of available hydrogeological information. The local direction of groundwater flow may be affected by nearby streams, lakes, wells, and/or wetlands and may vary seasonally.

The Site-specific groundwater flow direction was not determined through direct measurement during this Phase I ESA. Additional field investigation, beyond the Scope of Services of this Phase I ESA, would be required to determine this information.

B.2. Regulatory Report

We obtained regulatory database information pertaining to the Site and surrounding area from GeoSearch. The GeoSearch report is a compilation of records of facilities that are included on current federal and state environmental regulatory databases. The databases were searched based on the specified minimum search distances from the Site as established by ASTM Practice E1527-13.

The GeoSearch report also includes a description, source reference, date of acquisition, and the specified approximate minimum search distance criteria for each database and list. A copy of the GeoSearch report is attached in Appendix D.

We reviewed the GeoSearch report to identify records that indicate known or potential recognized environmental conditions on the Site and/or surrounding area and to evaluate the likelihood for those recognized environmental conditions to impact the Site based on the information obtained in this Phase I ESA.

B.2.a. Site

The Site is not listed in the GeoSearch report on any of the standard environmental record sources as specified in the ASTM Standard.

B.2.b. Adjoining Properties

The following facilities are identified on properties that adjoin the Site in the GeoSearch report:

- Hatch Excavating Inc., 1304 Branch, located on an adjoining property west of the Site. The GeoSearch report indicates that the facility listed on the What's In My Neighborhood (WIMN) database due to having generated hazardous waste. Identification of the facility on the WIMN database does not imply that a release has occurred at the facility.

B.2.c. Surrounding Area

We reviewed the GeoSearch report for facilities located beyond adjoining properties that may indicate a release or likely release of hazardous substances and/or petroleum products that may impact the Site. Based on factors that include regulatory status, distance from the Site, and/or location relative to the regional groundwater flow direction, as referenced in Section B.1., no facilities are identified in the GeoSearch report that warrant further consideration as potential recognized environmental conditions.

B.2.d. Unmapped Sites

The GeoSearch report identified unmappable sites, which, because of poor or inadequate address information could not be mapped by GeoSearch. Using online mapping resources, all unmappable sites were identified outside the appropriate minimum search distances for the Site or could not be located based on the information provided. It is our opinion the unmappable sites do not warrant further consideration as potential recognized environmental conditions.

B.3. Additional Federal, State, and Local Environmental Records

To enhance and supplement the regulatory database report, we obtained or reviewed practically reviewable or reasonably ascertainable local city and/or county records and/or additional state records to identify records that indicate known or potential recognized environmental conditions at the Site.

B.3.a. Well Databases

The Minnesota Geological Survey (MGS) maintains the Minnesota Well Index (MWI), which is a limited database of water well records. The MCWI was accessed through the Minnesota Department of Health (MDH) website. Not all private water wells are listed in that database.

Our review of the MWI database revealed no documentation of water wells located on the Site.

B.3.b. State Regulatory Web Pages

We accessed MPCA's Aboveground/Underground Storage Tank and Leak Site Search web page, Minnesota Department of Agriculture (MDA) "What's In My Neighborhood" Agricultural Interactive Mapping web page and the MPCA's "What's In My Neighborhood" web pages for information regarding the potential for the Site, adjoining properties, or surrounding properties to be of environmental concern that were not identified in the regulatory database report.

We did not identify facilities on the state regulatory web pages we accessed that were not already listed in the GeoSearch report discussed in Section B.2 above.

B.4. Regulatory Agency File and Records Review

The purpose of the regulatory file review is to obtain sufficient information to assist in determining if a recognized environmental condition, historical recognized environmental condition, controlled recognized environmental condition, or a *de minimis* condition exists at the Site in connection with a regulatory report listing.

Based on our review of the regulatory report, it is our opinion that a regulatory agency file and records review is not warranted due to factors that include regulatory status, distance from the Site, and/or location relative to the regional groundwater flow direction, as referenced in Section B.1.

B.5. Historical-Use Information

The objective of the historical-use information review was to develop a history of the previous uses of the Site and surrounding area, and to help evaluate the likelihood of past uses having led to recognized environmental conditions in connection with the Site. The following table summarizes the historical information reviewed. Details regarding the information reviewed are provided in the sections below.

Historical Source	Provided By:	Years Available
Historical Maps	Historical Information Gatherers, Inc. (HIG)	No FIMs were identified for the Site
Topographic Maps	HIG	1968, 1982, 2013, 2016
Aerial Photographs	HIG	1938, 1953, 1957, 1963, 1970, 1980, 1984, 1991, 1998, 2003, 2008, 2015
City Directories	HIG	N. 13th Ave (1979-2012)

B.5.a. Historical Maps/Fire Insurance Maps

According to HIG, no historic map coverage is available for the Site. A copy of the no coverage letter is attached in Appendix E.

B.5.b. Historical Topographic Maps

Copies of the historical topographic maps are attached in Appendix F. The following is a summary of the information reviewed.

1968 through 1982

A dwelling is depicted on the southern portion of the Site. Roads are depicted along the north, west and south boundaries of the Site that are labeled West Branch Drive, 13th Avenue North, and 4th Street. A railroad track is depicted along the east Site boundary. The areas south of the Site are shaded pink on the map, which indicates that this area was considered urban at the time the map was published. The adjoining property west of the Site is labeled as a cemetery. The 1982 topographic map depicted Highway 95 north of the Site beyond West Branch Drive.

2013

The 2013 map only shows topography, roads and other such features with no specific land use noted.

B.5.c. Aerial Photographs

Copies of the aerial photographs are attached in Appendix G. The following is a summary of the information reviewed.

1938 through 1970

The Site is primarily used for agricultural purposes. A farmstead with associated buildings is located on the southern portion of the Site. Roads border the Site to the north, west and south that are consistent with the current alignment of West Branch Drive, 13th Avenue North, and 4th Street. A linear feature is visible along the east Site boundary that appears to be railroad tracks. Cultivated agricultural land is visible to the north of the Site, residential dwellings/farmsteads are visible on the adjoining properties to the east, south and southwest and a cemetery is visible to the west of the Site. The railroad tracks no longer appear to be active by 1970.

1980

No significant changes are noted at the Site. North of the Site beyond West Branch Drive, Highway 95 is visible.

1984 through 1991

The Site no longer appears to be used for cultivated agricultural purposes. The east portion of the Site is developed with three multi-family buildings.

1998 through 2008

The west portion of the Site is developed with the four existing townhome buildings currently located at the Site.

2015

The three multi-family buildings located on the east portion of the Site on the previous aerial photographs are no longer visible and the east portion of the Site appears vacant.

B.5.d. City Directory Information

The Site address 504 13th Avenue North is listed as West Birch Townhomes on the 2007 and 2012 city directories. The adjoining properties along 13th Avenue North were listed as residential.

C. Interviews

We contacted the following individual to obtain knowledge or historical and current land-use information regarding the Site:

Mr. Jason Krebsbach, Community Development Director, Central Minnesota Housing Partnership, Inc. (Site representative)

According to Mr. Krebsbach the Site consists of two parcels. He said that the west Site parcel was developed with the West Birch Townhomes constructed in the late 1990s and the east Site parcel was vacant City of Princeton land formerly developed with three fourplex residential buildings. He said the fourplex buildings became condemned and were eventually demolished. Mr. Krebsbach was not aware of any environmental concerns associated with the Site.

We made inquiry to the following local government offices and/or officials with the city of Princeton to obtain knowledge or records of historical and current land-use information regarding the Site and surrounding area:

Mr. Bob Gerold, Public Works Director, City of Princeton

We interviewed Mr. Gerold on February 7, 2018. Mr. Gerold stated that the Site was formerly agricultural land with a farmstead located on the south portion of the west Site parcel. He said that the dwelling associated with the farmstead was burnt as a training exercise by the fire department in the 1990s and all remnants of the building were hauled off-Site for disposal. He said the west Site parcel was redeveloped in 1998 with the existing West Birch Townhomes. Mr. Gerold stated that the east Site parcel was developed with three fourplex residential buildings in 1983 known as Arcadian Homes. He said that a sewer issue caused health issues at Arcadian Homes and eventually the buildings became condemned. The City of Princeton purchased the parcel and had the buildings demolished in 2010. He said that the fire department also used these buildings as a training exercise and burned the buildings prior to all demolition debris being removed from the Site. He said that water and sewer piping has also been removed from the Site. Mr. Gerold stated that he was not aware of any tanks having been located on either Site parcel or any other issues of environmental concern.

The City of Princeton Administrative Assistant provided information for 101-123 West Branch Street, the addresses associated with the buildings formerly located on the east portion of the Site. The paperwork documented that in 2010 The City of Princeton acquired the Arcadian Homes project at 101-123 West Branch Street. Arcadian Homes, constructed in 1983, contained three fourplex buildings.
Over time, “the overall condition and maintenance of these structures deteriorated because of a poorly constructed and maintained sewer connection that failed to adequately drain the residential sewage, causing repeated back-ups and health risks for the tenants. In April 2010, the City acquired the vacant project and subsequently demolished the buildings, using NSP1 funds. The City removed the private

sewer connection and water lines from the property and completed a site perimeter (property line) survey." The City has been soliciting for development proposals for this parcel since that time. In order to meet the NSP nation objective, low-moderate-middle income residential units need to be developed on this parcel.

D. Site Reconnaissance

The objective of the Site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the Site.

A Braun Intertec environmental professional, Danielle Tautges, conducted a Site reconnaissance on February 1, 2018. We were accompanied during the Site reconnaissance by the following individual:

Mr. Jim Kerns, on-Site Caretaker, West Birch Townhomes (Site representative)

At the time of the Site reconnaissance, the weather was cold and windy with a temperature of about -5 degrees Fahrenheit.

D.1. Methodology

Observations made at the time of the Site reconnaissance were conducted by physically traversing and visually observing the exterior aspects of the Site and its improvements, as well the interior areas, such as common, mechanical, storage, maintenance, repair and manufacturing areas, or other interior areas that were deemed representative of such Site improvements. Adjoining properties were visually observed from the Site boundaries or nearby public right-of-way areas.

D.2. Site Characteristics

At the time of the reconnaissance, the Site consisted of two parcels totaling approximately 7 acres. The west portion of the Site was developed with four townhome buildings each consisting of six townhome units. The east half of the Site consisted of vacant land. The Site topography was relatively flat with a gentle slope downward toward the west on the west portion of the Site.

D.3. Adjoining Property Use and Characteristics

The Site was bordered on the north by West Branch Drive with vacant land and Highway 95 located beyond; on the east by vacant land formerly occupied by railroad tracks with residential properties

located beyond; on the south by residential properties and 4th Street with residential properties located beyond; and on the west by 13th Avenue and a cemetery with Highway 169 located beyond. The Site was located in a residential area within the city of Princeton.

No observations of environmental concern were noted on adjoining properties to the Site at the time of the reconnaissance.

D.4. Site Improvements and Layout

The west portion of the Site was developed with four townhome buildings constructed in 1998, each consisting of six townhome units and garages. The buildings were primarily two-story slab-on-grade, with the exception of one-story end units on all of the buildings. Each unit has a natural gas forced-air furnace. Paved parking area were located on the west of each of the buildings. The east portion of the Site was vacant grass covered land. A Site Sketch and Site Photographs are attached in Appendices B and H, respectively.

D.5. Pits, Ponds, Pools of Liquid, or Lagoons

No indications of pits, ponds, pools of liquid, or lagoons having the potential to contain hazardous substances or petroleum products were observed at the Site or on adjoining properties at the time of our reconnaissance.

D.6. Stained Soil, Pavement, or Corroded Surfaces

No stained or discolored soil or pavement was observed at the time of the Site reconnaissance, with the exception of small oil stains located within the parking areas and unit garages. It is our opinion that this staining is considered a *de minimis* condition for the Site.

D.7. Solid Waste Disposal

At the time of the reconnaissance, no indications of waste disposal areas, observed fill, mounds, depressions, burn pits or graded areas by non-natural causes were observed at the Site that would indicate a potential for the presence of trash, construction debris, demolition debris, or other solid waste disposal.
Solid wastes generated at the Site are disposed in dumpsters serviced by a waste disposal contractor.

D.8. Stressed Vegetation

No areas of stressed, discolored, stained or dead vegetation beyond what would be expected due to seasonal conditions were observed at the time of the Site reconnaissance.

D.9. Hazardous Substances

No indications of current and/or historic use, storage, staining, or spills of hazardous substances were observed at the Site at the time of the reconnaissance. We did not access all of the townhome unit garages on the Site. It is likely that minor quantities of hazardous substances including cleaning products and paint are stored within the townhome units and garages located on the Site.

D.10. Petroleum Products

No indications of current and/or historic use, storage, staining, or spills of petroleum products were observed at the Site at the time of the reconnaissance. We did not access all of the townhome unit garages on the Site. It is likely that minor quantities of petroleum products including motor oil are stored within the garages.

One maintenance shed was located on the center of the west Site parcel. Less than 15 gallons of gasoline used for fueling lawn and snow removal equipment was stored inside the maintenance shed. No staining was observed beneath the containers.

D.11. Storage Tanks

No indications of aboveground or underground storage tanks (AST/UST) were noted at the Site at the time of the reconnaissance.

D.12. Unidentified Drums and Containers

No drums containing unidentified substances suspected of being a hazardous substance or petroleum product were observed at the Site at the time of our reconnaissance.

D.13. Odors

No indications of strong, pungent, or noxious odors were observed at the time of the Site reconnaissance.

D.14. Potential PCB-Containing Electrical and Hydraulic Equipment

Two slab-mounted electrical transformers and one pole-mounted transformer were located throughout the development. The transformers appeared to be in good condition with no indications of leaking or staining.

D.15. Wastewater Discharges

No indications of wastewater discharging into a drain, ditch, underground injection system, or stream on or adjacent to the Site were observed at the time of the reconnaissance.

D.16. Sewage Disposal System

According to Mr. Krebsbach, the West Birch Townhomes are connected to municipal sewer services. Mr. Gerold stated that all water and sewer piping has been removed from the east Site parcel owned by the City of Princeton; however, stated that municipal services would be available upon development.

D.17. Wells

No indications of wells such as monitoring wells, dry wells, irrigation wells, injection wells, abandoned wells, or other non-potable wells were observed at the Site at the time of the reconnaissance.

D.18. Potable Water Supply

According to Mr. Krebsbach, the West Birch Townhomes are connected to municipal water services. Mr. Gerold stated that all water and sewer piping has been removed from the east Site parcel owned by the City of Princeton, however, stated that municipal services would be available upon development.

E. Additional Scope Services

We understand that the project may include financing through Minnesota Housing Finance Agency (MHFA). MHFA requested that radon testing be conducted at the Site by a Radon Professional.

Braun Intertec personnel conducted the short-term radon testing in general conformance with the *Protocol for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings* (ANSI/AARST MAMF-2017) herein referred as the ANSI/AARST Testing Protocol. For this testing event,

Braun Intertec utilized short-term radon test kits manufactured by Air-Chek, Inc. of Mills River, North Carolina. The Air-Chek laboratory is currently certified by the National Radon Proficiency Program as 101138-AL.

One test kit was placed in each of the residential units on the lowest livable level of the Site buildings and testing ten percent of the units on the second floor. We deployed thirty-two short-term charcoal radon test kits, which included the following: 27 tests between the first and second floors; three samples were placed side by side with other tests in the Site buildings to evaluate precision and are known as duplicate measurements; and two samples were analyzed that were intentionally not exposed for sampling that are known as blanks.

A Radon Notification Form was provided to the Property Manager for distribution to all residents. The Radon Notification Form indicates that the residents must comply with certain test requirements so the tests can be completed under closed building conditions. Braun Intertec personnel placed the test kits on February 1, 2018 and collected them on February 5, 2018.

The laboratory report indicates that all radon concentrations in the samples collected from the Site building are below the U.S. Environmental Protection Agency (EPA) recommended action guideline level of 4.0 picocuries per liter (pCi/l).

Radon results for all kits deployed at the Site are attached in Appendix I.

There is an uncertainty with any measurement result due to statistical variations and other factors such as daily and seasonal variations in radon concentrations. Variations may be due to changes in the weather, operation of the building, or possible interference with the necessary test conditions. Current guidelines suggest that radon testing should be completed at on a periodic basis (at least every five years) or after renovation occurs that meet the following criteria: replacement of the HVAC systems; excavation on the ground floor of the building; addition or extension of the concrete slab, or reconfiguration of any interior building condition that would affect air movement or create a chimney effect within a building.
In performing its services, Braun Intertec uses that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

F. Limiting Conditions and Data Gaps

The findings and conclusions presented in this report are based on procedures described in ASTM Practice E1527-13, inquiries with public officials, available literature cited in this report, conditions noted at the time of our Phase I ESA, and our interpretation of the information obtained as part of this Phase I ESA. Our findings and conclusions are limited to the specific project and properties described in this report and by the accuracy and completeness of information provided by others.

An environmental site assessment cannot wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property within reasonable limits of time and cost.

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

No limiting condition or data gaps were encountered during the Phase I ESA process.

G. Findings

The findings include identified known or suspect recognized environmental conditions, controlled recognized environmental conditions, historical recognized conditions, *de minimis* conditions and additional issues in connection with the Site.

The following findings are based on the results of our assessment:

- Information regarding the Site was available back to 1938. The information indicates that the Site was developed at that time with an apparent farmstead and residence. Based on available information and local experience, it is reasonable to assume that the first developed use of the Site was for cultivated agricultural land and farmstead use.

- The west portion of the Site was developed with the existing West Birch Townhomes in 1998.

- The east portion of the Site was developed by 1984 with three, fourplex buildings known as Arcadian Homes. These buildings were demolished in 2010.

- A minimal amount of hazardous substances and petroleum products were observed at the Site, primarily associated with maintenance activities.

- The government database records review identified several regulated facilities within the vicinity of the Site.

H. Opinions

According to the User, the Phase I ESA was conducted in association with the purchase and redevelopment of the Site. Opinions expressed herein are influenced by the stated reason for conducting the Phase I ESA. Furthermore, the expressed opinions might not be applicable to alternate reasons for reliance on the content of the Phase I ESA.

H.1. Recognized Environmental Conditions

A recognized environmental condition is defined by ASTM Practice E1527-13 as: "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment, 2) under conditions indicative of a release to the environment, or 3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions."

This assessment identified no recognized environmental conditions in connection with the Site.

H.2. Controlled Recognized Environmental Conditions

A controlled recognized environmental condition is defined by ASTM Practice E1527-13 as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls."

This assessment identified no controlled recognized environmental conditions in connection with the Site.

H.3. Historical Recognized Environmental Conditions

A historical recognized environmental condition is defined by ASTM Practice E1527-13 as "a past release of any hazardous substances or petroleum products that has occurred in connection with the Site and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the Site to any required controls."

This assessment identified no historical recognized environmental conditions in connection with the Site.

H.4. *De Minimis* Conditions

A *de minimis* condition is defined by ASTM Practice E1527-13 as "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

The following findings are considered *de minimis* conditions:

- Portion of the Site was used for cultivated agricultural purposes from at least 1938 until the 1970s. Use of the Site for agricultural purposes is considered a *de minimis* condition for the Site.

- The Site has been used for residential purposes including single-family, fourplex, and townhomes since at least 1938. It is our opinion that the use of the Site for residential purposes is considered a *de minimis* condition for the Site.

- According to the City of Princeton, the former buildings on the Site were used for fire department training exercises and were burnt prior to all demolition debris associated with the former buildings being hauled off-Site. Therefore, the former buildings on the Site are considered a *de minimis* condition.

- A minimal amount of hazardous substances and petroleum products were observed at the Site, primarily associated with maintenance activities. Based on the quantity and good housekeeping practices observed, the hazardous substances and petroleum products used and stored at the Site appear to represent a *de minimis* condition for the Site.

- The government database records review identified several regulated facilities in the vicinity of the Site. Based on mitigating factors that affect the apparent significance of the identified facilities on the Site, such as regulatory status, distance from the Site, location of the facility in relation to the groundwater flow direction, and/or the database(s) the identified regulated facilities are listed on, it is our opinion that the identified regulated facilities are considered *de minimis* conditions.

I. Conclusions

We have conducted this Phase I ESA of the Site in general conformance with the scope and limitations of ASTM Practice E1527-13. Any exceptions to, or deletions from, this practice are described in Section F of this report.

This assessment identified no recognized environmental conditions in connection with the Site.

This assessment identified no controlled recognized environmental conditions in connection with the Site.

J. References

References are listed in Appendix J.

K. Environmental Professional Statement and Qualifications

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all-appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Qualifications of the environmental professional and the qualifications of the personnel conducting the site reconnaissance and interviews, if conducted by someone other than an environmental professional, are attached in Appendix K.

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312.

BRAUN INTERTEC CORPORATION

Danielle S. Tautges
Project Scientist

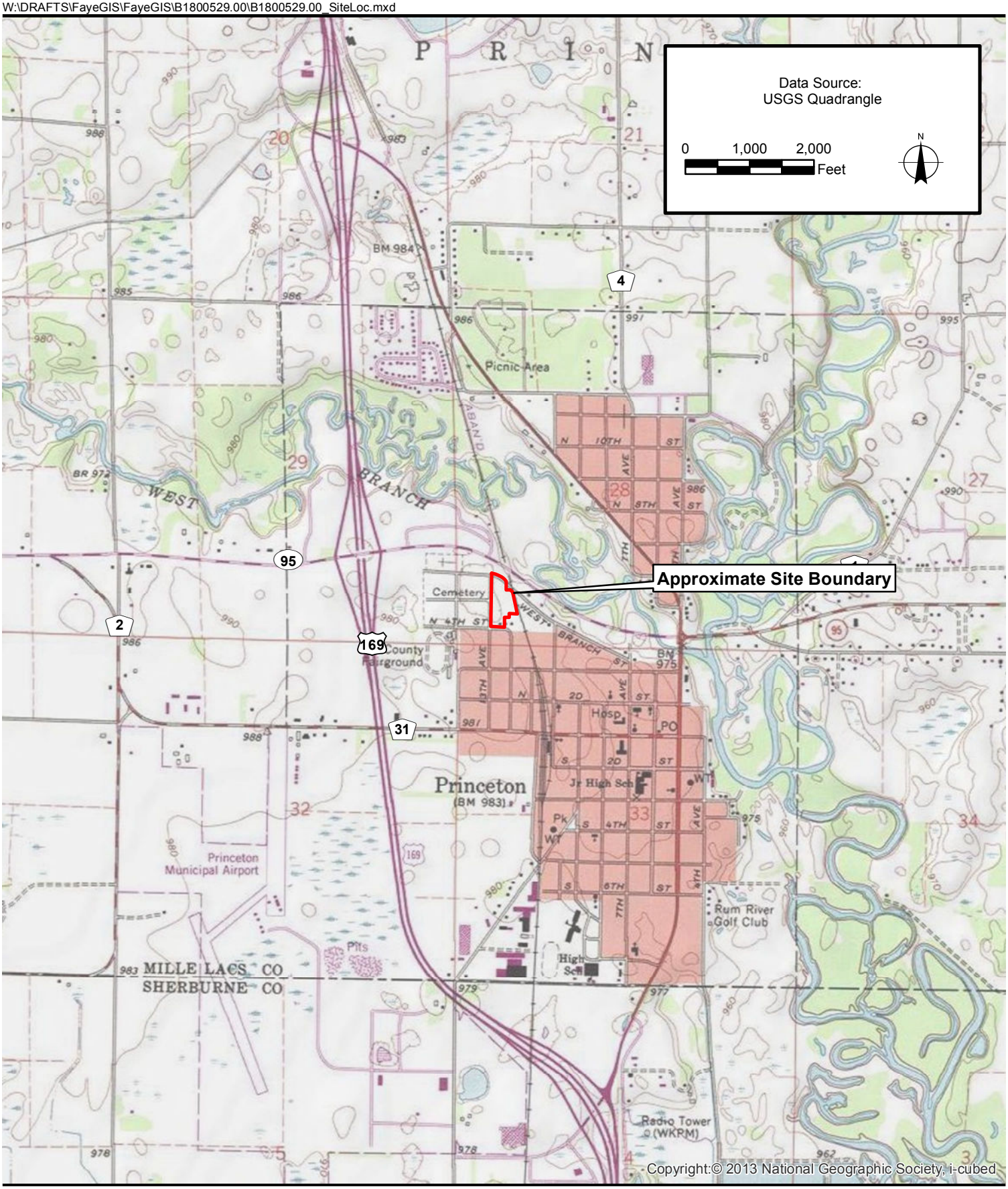
Mark A. Ciampone, PG
Associate Principal – Senior Scientist

Appendix A

Site Location Map

BRAUN INTERTEC

W:\DRAFTS\FayeGIS\FayeGIS\B1800529.00\B1800529.00_SiteLoc.mxd



BRAUN INTERTEC
The Science You Build On.

11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No:	B1800529.00
Drawing No:	B1800529.00_SiteLoc
Drawn By:	FER
Date Drawn:	1/23/2018
Checked By:	DST
Last Modified:	1/23/2018

West Birch Estates & Proposed 16-Unit Apartment Building

504 13th Avenue North and PID 24-686-0010

Princeton, Minnesota

Site Location Map

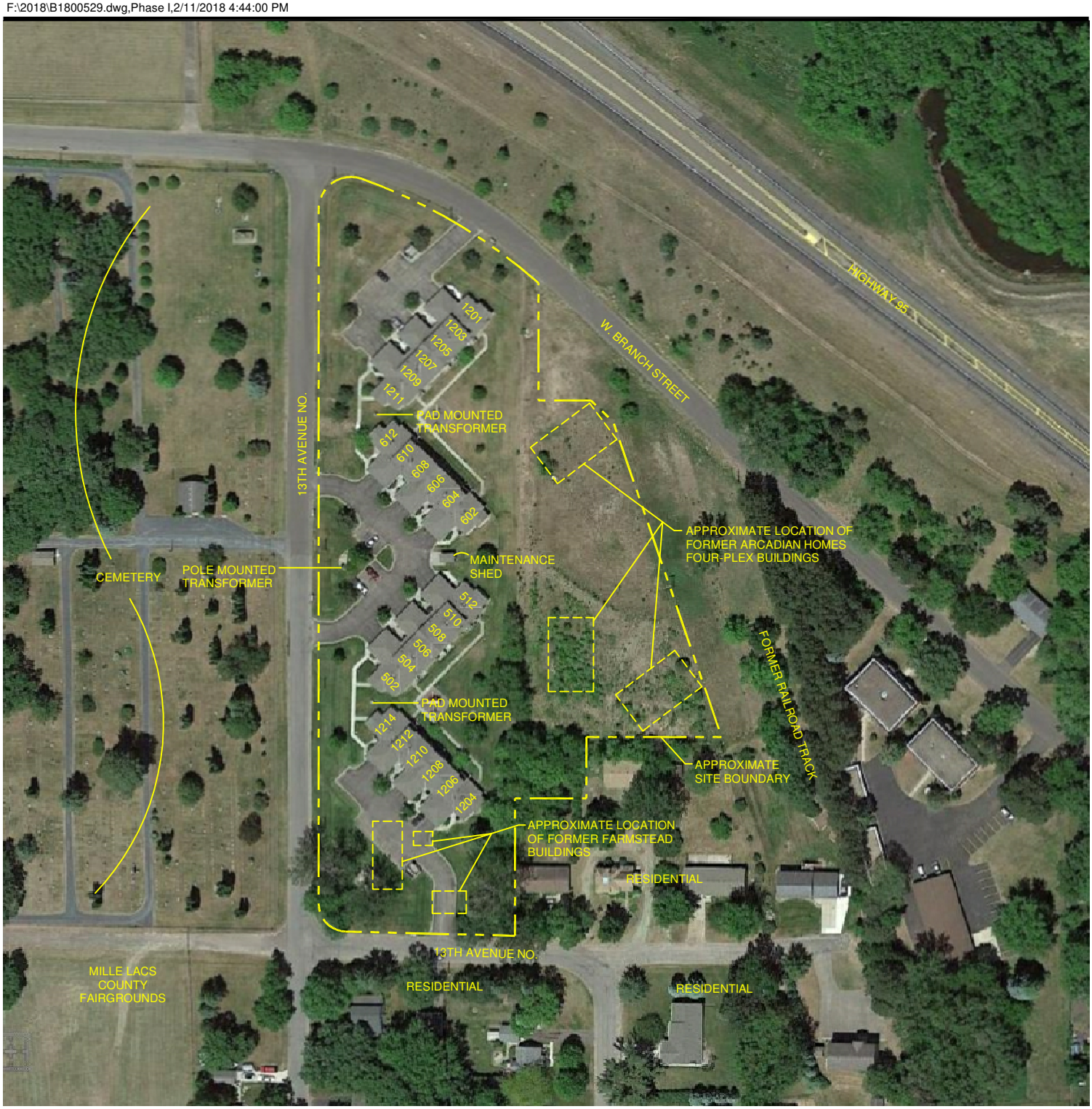
Figure 1

Appendix B

Site Sketch

BRAUN INTERTEC

F:\2018\B1800529.dwg,Phase I,2/11/2018 4:44:00 PM



75' 0 150'

SCALE: 1"= 150'

BRAUN INTERTEC
The Science You Build On.

11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No: B1800529.00

Drawing No: B1800529

Drawn By:	JAG
Date Drawn:	2/9/18
Checked By:	DST
Last Modified:	2/11/18

West Birch Estates and Proposed 16 Unit Apartment Building

504 13th Avenue No. and PID 24-686-0010

Princeton, Minnesota

Site Sketch

Figure 2

Appendix C

Mille Lacs County Property Information

BRAUN INTERTEC

These data are provided on an "AS-IS" basis, without warranty of any type, expressed or implied, including but not limited to any warranty as to their performance, merchantability, or fitness for any particular purpose.

Date: 2/7/2018

MILLE LACS COUNTY

MILLE LACS COUNTY EST. 1857

Parcel Report

Parcel Number: 24-028-3700

General Information

Township/City: PRINCETON

Taxpayer Name: WEST BIRCH TOWNHOMES OF

Taxpayer Address: PRINCETON LIMITED PTNR
37 28TH AVE N SUITE 102
ST CLOUD MN 56303

Property Address: 1206 5TH ST N

Plat: 0 -

Township: 36

Acres: 5.66

Range: 26

Section: 28

Legal Description: CITY OF PRINCETON A TR N OF LOTS 2, 3 & 4, BLK 2 OAKLAND ADDN & S OF WEST BRANCH RD, OF SW OF SW 28 36 26 4.30

Rural Service District: 0

Tax Increment: Yes

School District: 477 - PRINCETON SCHOOL DIST

Tax Information

Class: 4 OR MORE UNITS, QUALIFING 4D LOW INCOME

Homestead: NON HOMESTEAD

Estimated Land Value:	$81,300.00
Estimated Building Value:	$731,300.00
Estimated Total Value:	$812,600.00
Total Taxable Value:	$812,600.00

MILLE LACS COUNTY EST. 1857

Parcel Report

Parcel Number: 24-686-0010

General Information

Township/City: PRINCETON

Taxpayer Name: PRINCETON/CITY OF

Taxpayer Address: 705 2ND ST N
PRINCETON MN 55371

Property Address: 101 WEST BRANCH ST

Plat: 686 - PRINCETON ARCADIAN HOMES

Township: 36

Acres: 0

Range: 26

Section: 28

Legal Description: & LOTS 2 & 3 BLOCK 1

Rural Service District: 0

Tax Increment: No

School District: 477 - PRINCETON SCHOOL DIST

Tax Information

Class: MUNICIPAL PROP ALL OTHER

Homestead: NON HOMESTEAD

Estimated Land Value:	$47,700.00
Estimated Building Value:	$0.00
Estimated Total Value:	$47,700.00
Total Taxable Value:	$0.00

Appendix D

GeoSearch Report

BRAUN INTERTEC

GeoSearch
On time. On target. In touch.™

Radius Report

Satellite view

Target Property:

West Birch Estates
504 13th Ave N
Princeton, Mille Lacs County, Minnesota

Prepared For:

Historical Information Gatherers

Order #: 100764
Job #: 220286
Project #: 2013193
Date: 01/24/2018

Table of Contents

Disclaimer

This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquiries Rule (40 CFR §312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal,state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFR §312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

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Target Property Summary

Target Property Information

West Birch Estates
504 13th Ave N
Princeton, Minnesota

Coordinates
Area centroid (-93.590899, 45.5753632)
980 feet above sea level

USGS Quadrangle
Princeton, MN

Geographic Coverage Information

County/Parish: Mille Lacs (MN)
ZipCode(s):
Princeton MN: 55371

Radon
* Target property is located in Radon Zone 2.
Zone 2 areas have a predicted average indoor radon screening level between 2 and 4 pCi/L (picocuries per liter).

Database Summary

FEDERAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
EMERGENCY RESPONSE NOTIFICATION SYSTEM	ERNSMN	0	0	TP/AP
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	TP/AP
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	NLRRCRAC	0	0	TP/AP
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	NLRRCRAT	0	0	TP/AP
RCRA SITES WITH CONTROLS	RCRASC	0	0	TP/AP
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR	RCRAGR05	0	0	0.1250
FEMA OWNED STORAGE TANKS	FEMAUST	0	0	0.2500
BROWNFIELDS MANAGEMENT SYSTEM	BF	0	0	0.5000
DELISTED NATIONAL PRIORITIES LIST	DNPL	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM	SEMS	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM ARCHIVED SITE INVENTORY	SEMSARCH	0	0	0.5000
NATIONAL PRIORITIES LIST	NPL	0	0	1.0000
PROPOSED NATIONAL PRIORITIES LIST	PNPL	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	RCRAC	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - SUBJECT TO CORRECTIVE ACTION FACILITIES	RCRASUBC	0	0	1.0000

SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
CERCLIS LIENS	SFLIENS	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	TP/AP
EPA DOCKET DATA	DOCKETS	0	0	TP/AP
ENFORCEMENT AND COMPLIANCE HISTORY INFORMATION	ECHOR05	0	0	TP/AP
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR05	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	ICIS	0	0	TP/AP
SEMS LIEN ON PROPERTY	SEMSLIENS	0	0	TP/AP
TOXIC SUBSTANCE CONTROL ACT INVENTORY	TSCA	0	0	TP/AP
TOXICS RELEASE INVENTORY	TRI	0	0	TP/AP
ALTERNATIVE FUELING STATIONS	ALTFUELS	0	0	0.2500
HISTORICAL GAS STATIONS	HISTPST	0	0	0.2500

Database Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INTEGRATED COMPLIANCE INFORMATION SYSTEM DRYCLEANERS	ICISCLEANERS	0	0	0.2500
MINE SAFETY AND HEALTH ADMINISTRATION MASTER INDEX FILE	MSHA	0	0	0.2500
MINERAL RESOURCE DATA SYSTEM	MRDS	0	0	0.2500
URANIUM MILL TAILINGS RADIATION CONTROL ACT SITES	USUMTRCA	0	0	0.5000
FORMER MILITARY NIKE MISSILE SITES	NMS	0	0	1.0000
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM	FUSRAP	0	0	1.0000

SUB-TOTAL		0	0	

Database Summary

STATE (MN) LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
SITES WITH INSTITUTIONAL CONTROLS	IC	0	0	TP/AP
HAZARDOUS WASTE CLEANUP SITES	HWCS	0	0	0.1250
WATER DISCHARGE PERMITS	WDP	0	0	0.1250
REGISTERED STORAGE TANKS	UAST	0	0	0.2500
CERCLIS SITES	CERCLIS	0	0	0.5000
CLOSED LANDFILLS	CLF	0	0	0.5000
HAZARDOUS WASTE TREATMENT STORAGE DISPOSAL SITES	HWSTSD	0	0	0.5000
OPEN SOLID WASTE FACILITIES	SWF	0	0	0.5000
PETROLEUM BROWNFIELDS PROGRAM SITES	PBF	0	0	0.5000
POTENTIAL VOLUNTARY INVESTIGATION AND CLEANUP PROGRAM SITES	PVICP	0	0	0.5000
REGISTERED LEAKING STORAGE TANKS	LUAST	13	1	0.5000
UNPERMITTED DUMP SITES	UNPERMDUMPS	1	0	0.5000
VOLUNTARY INVESTIGATION AND CLEANUP PROGRAM SITES	VICP	2	0	0.5000
MPCA REMEDIATION SITES	REMSITES	32	1	1.0000
SUPERFUND SITE INFORMATION LISTING	SF	1	0	1.0000

SUB-TOTAL		49	2	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	TP/AP
CONTAMINATED SOIL TREATMENT FACILITIES	CSTF	0	0	TP/AP
SPILLS LISTING	PCASPILLS	0	0	TP/AP
TIER TWO FACILITY LISTING	TIERII	0	0	TP/AP
BULK STORAGE PERMITS	BULKSTORAGE	0	0	0.2500
AGRICULTURAL CONTINGENCY SITES	CONTINGENCIES	1	0	0.5000
AGRICULTURAL SPILLS LISTING	AGSPILLS	4	0	0.5000
WHAT'S IN MY NEIGHBORHOOD DATABASE	WIMN	49	3	0.5000

SUB-TOTAL		54	3	

TRIBAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	USTR05	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR05	0	0	0.5000
OPEN DUMP INVENTORY ON TRIBAL LANDS	ODINDIAN	0	0	0.5000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	INDIANRES	0	0	1.0000
SUB-TOTAL		0	0	

TOTAL		103	5	

Database Radius Summary

FEDERAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DOCKETS	0.0200	0	NS	NS	NS	NS	NS	0
EC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
ECHOR05	0.0200	0	NS	NS	NS	NS	NS	0
ERNSMN	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
HMIRSR05	0.0200	0	NS	NS	NS	NS	NS	0
ICIS	0.0200	0	NS	NS	NS	NS	NS	0
NLRRCRAC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
NLRRCRAT	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
RCRASC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
SEMSLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SFLIENS	0.0200	0	NS	NS	NS	NS	NS	0
TRI	0.0200	0	NS	NS	NS	NS	NS	0
TSCA	0.0200	0	NS	NS	NS	NS	NS	0
RCRAGR05	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
ALTFUELS	0.2500	0	0	0	NS	NS	NS	0
FEMAUST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
HISTPST	0.2500	0	0	0	NS	NS	NS	0
ICISCLEANERS	0.2500	0	0	0	NS	NS	NS	0
MRDS	0.2500	0	0	0	NS	NS	NS	0
MSHA	0.2500	0	0	0	NS	NS	NS	0
BF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
DNPL	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SEMS	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SEMSARCH	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
USUMTRCA	0.5000	0	0	0	0	NS	NS	0
FUSRAP	1.0000	0	0	0	0	0	NS	0
NMS	1.0000	0	0	0	0	0	NS	0
NPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
PNPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRASUBC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**

SUB-TOTAL		0	0	0	0	0	0	0

Database Radius Summary

STATE (MN) LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
CDL	0.0200	0	NS	NS	NS	NS	NS	0
CSTF	0.0200	0	NS	NS	NS	NS	NS	0
IC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
PCASPILLS	0.0200	0	NS	NS	NS	NS	NS	0
TIERII	0.0200	0	NS	NS	NS	NS	NS	0
HWCS	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
WDP	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
BULKSTORAGE	0.2500	0	0	0	NS	NS	NS	0
UAST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
AGSPILLS	0.5000	0	0	0	4	NS	NS	4
CERCLIS	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
CLF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
CONTINGENCIES	0.5000	0	0	0	1	NS	NS	1
HWSTSD	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
LUAST	**0.5000**	**0**	**0**	**1**	**12**	**NS**	**NS**	**13**
PBF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
PVICP	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SWF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
UNPERMDUMPS	**0.5000**	**0**	**0**	**1**	**0**	**NS**	**NS**	**1**
VICP	**0.5000**	**0**	**0**	**0**	**2**	**NS**	**NS**	**2**
WIMN	0.5000	0	1	4	44	NS	NS	49
REMSITES	**1.0000**	**0**	**0**	**1**	**15**	**16**	**NS**	**32**
SF	**1.0000**	**0**	**0**	**0**	**0**	**1**	**NS**	**1**
SUB-TOTAL		0	1	7	78	17	0	103

Database Radius Summary

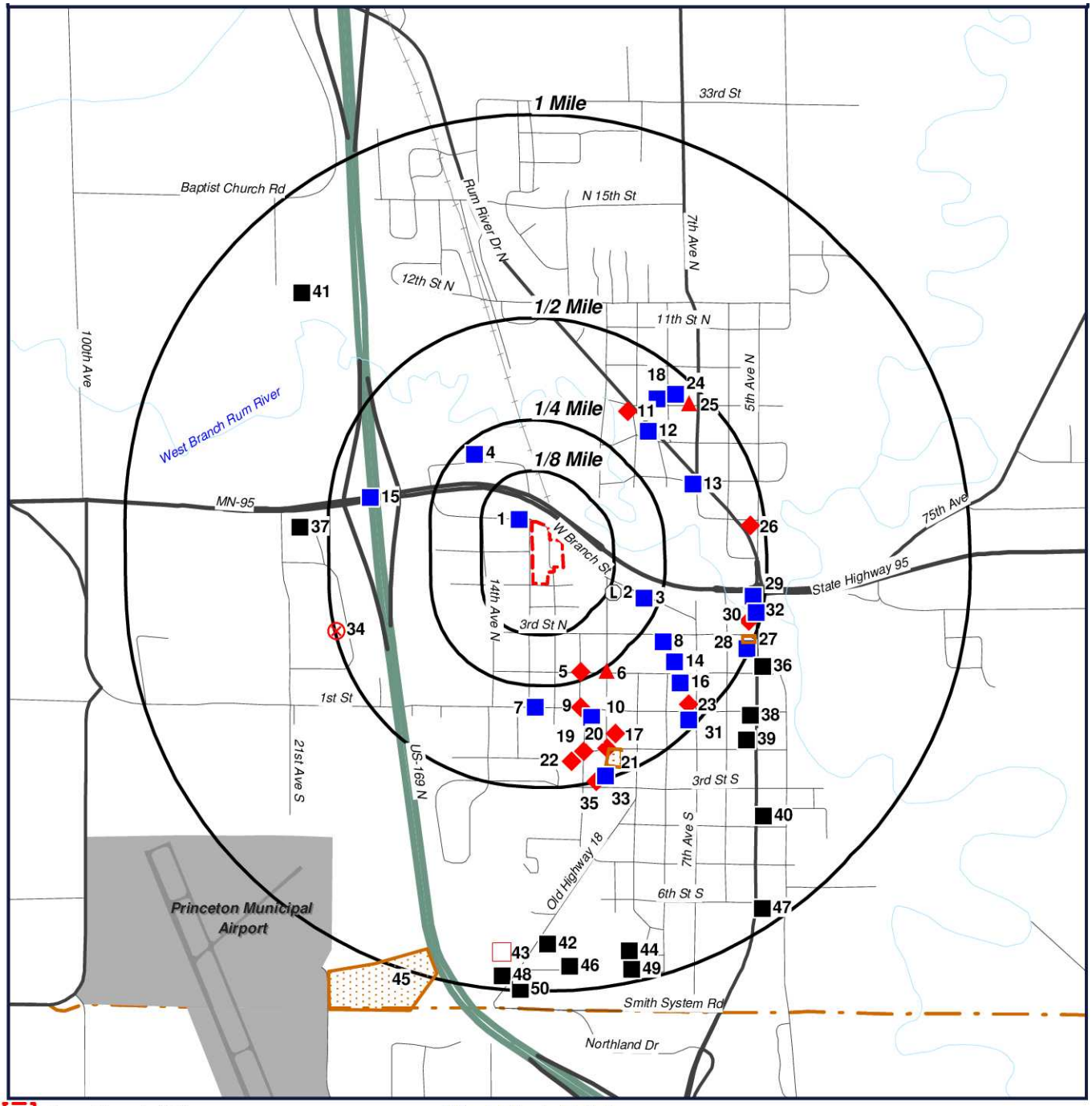
TRIBAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
USTR05	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
LUSTR05	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
ODINDIAN	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
INDIANRES	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0
TOTAL		0	1	7	78	17	0	103

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

Radius Map 1



Target Property (TP)
WIMN
UNPERMDUMPS
LUAST
AGSPILLS
AGSPILLS
CONTINGENCIES
WIMN
LUAST
REMSITES
VICP
REMSITES
SF

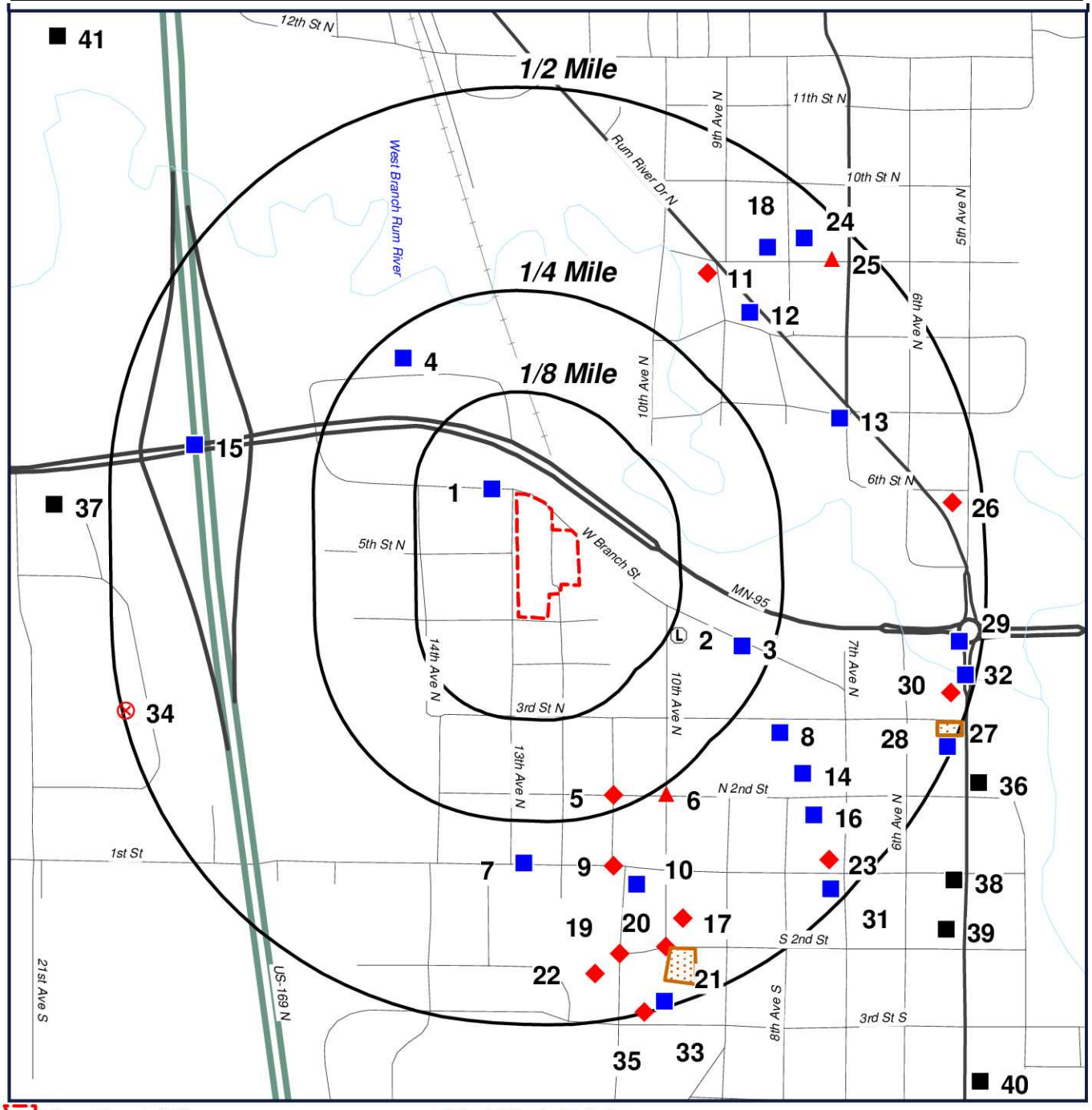
West Birch Estates
504 13th Ave N
Princeton, Minnesota

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

Click here to access Satellite view

Radius Map 2



Target Property (TP)
WIMN
UNPERMDUMPS
LUAST
AGSPILLS
AGSPILLS
CONTINGENCIES
WIMN
LUAST

REMSITES
VICP
REMSITES
SF

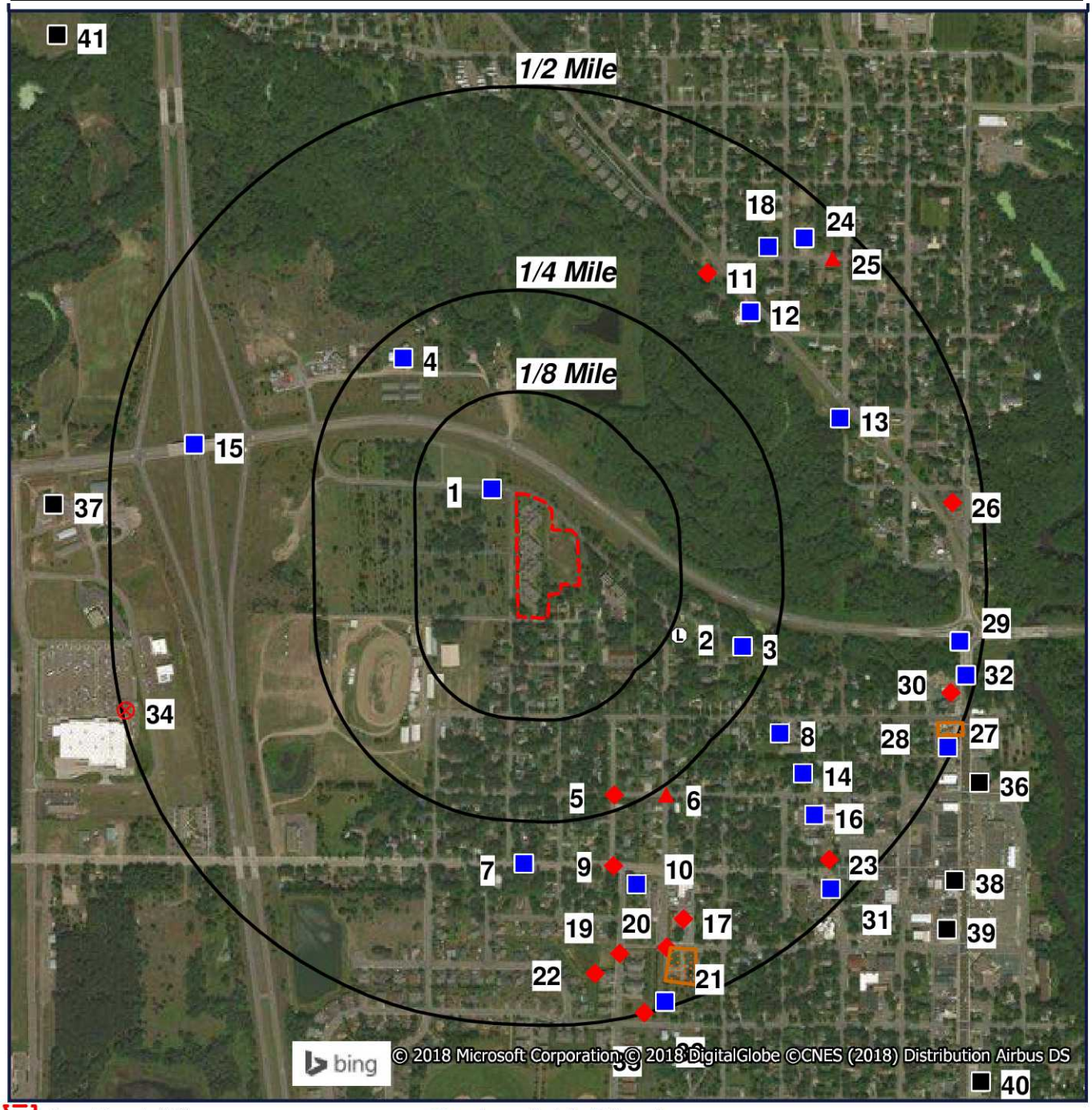
West Birch Estates
504 13th Ave N
Princeton, Minnesota

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

[Click here to access Satellite view]

Ortho Map



Target Property (TP)
WIMN
UNPERMDUMPS
LUAST
AGSPILLS
AGSPILLS
CONTINGENCIES
WIMN
LUAST
REMSITES
VICP
REMSITES
SF

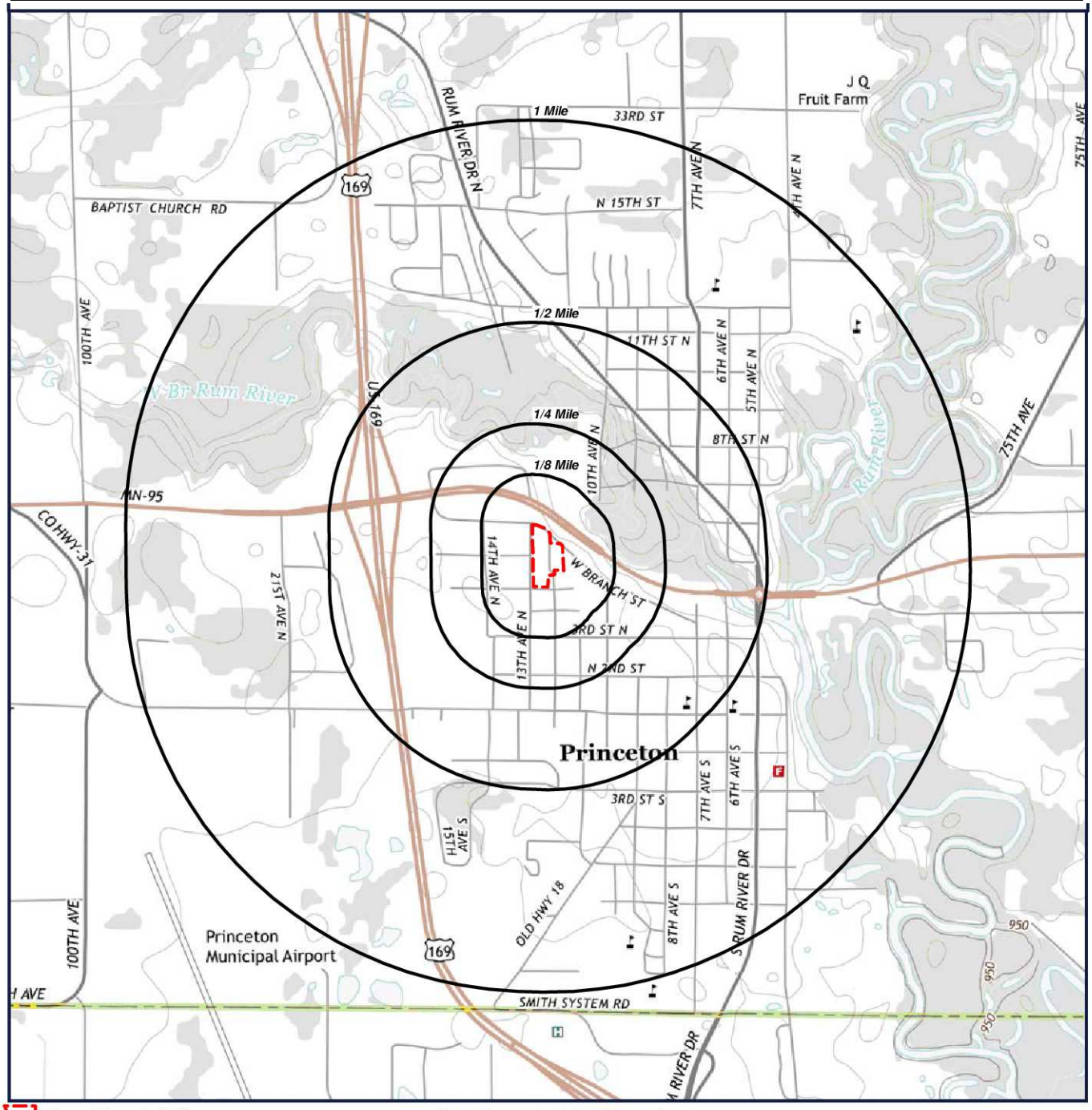
Quadrangle(s): Princeton
West Birch Estates
504 13th Ave N
Princeton, Minnesota

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

[Click here to access Satellite view]

Topographic Map



Target Property (TP)

Quadrangle(s): Princeton
Source: USGS, 08/16/2013
West Birch Estates
504 13th Ave N
Princeton, Minnesota

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

[Click here to access Satellite view]

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
1	WIMN	14333	Equal (980 ft.)	0.03 mi. W (158 ft.)	HATCH EXCAVATING INC	1304 BRANCH, PRINCETON, MN 55371	23
2	***UNPERMDUMPS***	***129231UDS***	***Higher (982 ft.)***	***0.137 mi. ESE (723 ft.)***	***PRINCETON CITY OF HOME***	***316 10TH AVE N, PRINCETON, MN 55371***	***24***
2	WIMN	129231	Higher (982 ft.)	0.137 mi. ESE (723 ft.)	PRINCETON CITY OF HOME	316 10TH AVE N, PRINCETON, MN 55371	25
3	WIMN	152102	Lower (972 ft.)	0.214 mi. ESE (1130 ft.)	WEST BRANCH ST. ROADWAY & UTILITY IMPROV	ADDRESS UNKNOWN, PRINCETON, MN 55371	26
4	WIMN	60106	Higher (983 ft.)	0.217 mi. NW (1146 ft.)	STEINBRECHER PAINTING INC	1408 7TH ST N, PRINCETON, MN 55371	27
5	***LUAST***	***12728LUAST***	***Equal (980 ft.)***	***0.232 mi. SSE (1225 ft.)***	***PRINCETON OIL CO***	***11TH AVE N & 2ND ST N, PRINCETON, MN 55371***	***28***
5	***REMSITES***	***187264***	***Equal (980 ft.)***	***0.232 mi. SSE (1225 ft.)***	***PRINCETON OIL CO***	***11TH AVE N & 2ND ST N, PRINCETON, MN 55371***	***29***
5	WIMN	187264	Equal (980 ft.)	0.232 mi. SSE (1225 ft.)	PRINCETON OIL CO	11TH AVE N & 2ND ST N, PRINCETON, MN 55371	30
6	AGSPILLS	9251	Equal (980 ft.)	0.263 mi. SE (1389 ft.)	CITY OF PRINCETON	2ND ST & 10 AVE N, PRINCETON, MN 55371	31
7	WIMN	51457	Higher (981 ft.)	0.301 mi. S (1589 ft.)	CSAH 31 (FIRST ST.) RECONSTRUCTION	FROM TH 95 TO 7TH AVE, PRINCETON, MN 55371	32
8	WIMN	116579	Equal (980 ft.)	0.306 mi. ESE (1616 ft.)	OAKS APARTMENTS	801 N 3RD ST, PRINCETON, MN 55371	33
9	***LUAST***	***12727LUAST***	***Equal (980 ft.)***	***0.316 mi. SSE (1668 ft.)***	***FORMER PRINCETON COOP NORTH***	***11TH AVE N & 1ST ST, PRINCETON, MN 55371***	***34***
9	***REMSITES***	***112004***	***Equal (980 ft.)***	***0.314 mi. SSE (1658 ft.)***	***OAKWOOD LAND DEVELOPMENT***	***11TH AVE N & 1ST ST, PRINCETON, MN 55371***	***35***
9	WIMN	112004	Equal (980 ft.)	0.314 mi. SSE (1658 ft.)	OAKWOOD LAND DEVELOPMENT	11TH AVE N & 1ST ST, PRINCETON, MN 55371	36
10	WIMN	15274	Equal (980 ft.)	0.344 mi. SSE (1816 ft.)	MIK COOP TRUCKING ASSOC	106 11TH AVE S, PRINCETON, MN 55371	37
11	***LUAST***	***19388LUAST***	***Higher (983 ft.)***	***0.345 mi. NE (1822 ft.)***	***FORMER PRINCETON GAS STATION***	***903 9TH AVE N, PRINCETON, MN 55371***	***38***
11	***REMSITES***	***190671***	***Higher (983 ft.)***	***0.345 mi. NE (1822 ft.)***	***FORMER PRINCETON GAS STATION***	***903 9TH AVE N, PRINCETON, MN 55371***	***39***
11	WIMN	149793	Higher (983 ft.)	0.345 mi. NE (1822 ft.)	FORMER GAS STATION	903 9TH AVE N, PRINCETON, MN 55371	40
11	WIMN	190671	Higher (983 ft.)	0.345 mi. NE (1822 ft.)	FORMER PRINCETON GAS STATION	903 9TH AVE N, PRINCETON, MN 55371	41
12	WIMN	110789	Higher (981 ft.)	0.346 mi. NE (1827 ft.)	CASEYS GENERAL STORE #1128	810 N RUM RIVER DR, PRINCETON, MN 55371	42

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
13	WIMN	12432	Higher (982 ft.)	0.355 mi. ENE (1874 ft.)	PRINCETON RADIATOR SERVICE	701 LA GRANDE AVE N, PRINCETON, MN 55371	43
14	WIMN	204062	Equal (980 ft.)	0.359 mi. ESE (1896 ft.)	PRINCETON, CITY OF	706 2ND ST N, PRINCETON, MN 55372	44
15	WIMN	31410	Equal (980 ft.)	0.399 mi. W (2107 ft.)	EVERGREEN LOG HOMES LTD	HIGHWAY 169 & HIGHWAY 95, PRINCETON, MN 55371	45
16	WIMN	34682	Equal (980 ft.)	0.403 mi. SE (2128 ft.)	PRINCETON CITY HALL	705 2ND ST N, PRINCETON, MN 55371	46
16	WIMN	3890	Equal (980 ft.)	0.403 mi. SE (2128 ft.)	PRINCETON WWTP	705 2ND ST N, PRINCETON, MN 55371	47
17	***LUAST***	***4452LUAST***	***Equal (980 ft.)***	***0.406 mi. SSE (2144 ft.)***	***PUBLIC UTILITIES COMMISSION***	***907 1ST ST, PRINCETON, MN 55371***	***48***
17	***REMSITES***	***188074***	***Equal (980 ft.)***	***0.406 mi. SSE (2144 ft.)***	***PUBLIC UTILITIES COMMISSION***	***907 1ST ST, PRINCETON, MN 55371***	***49***
17	WIMN	111282	Equal (980 ft.)	0.406 mi. SSE (2144 ft.)	PRINCETON PUBLIC UTILITIES	907 1ST ST, PRINCETON, MN 55371	50
17	WIMN	188074	Equal (980 ft.)	0.406 mi. SSE (2144 ft.)	PUBLIC UTILITIES COMMISSION	907 1ST ST, PRINCETON, MN 55371	51
17	WIMN	2115	Equal (980 ft.)	0.406 mi. SSE (2144 ft.)	PRINCETON PUBLIC UTILITIES COMMISSION	907 1ST ST, PRINCETON, MN 55371	52
18	WIMN	10555	Higher (983 ft.)	0.419 mi. NE (2212 ft.)	SKUZA MR	802 9TH ST N, PRINCETON, MN 55371	53
19	***LUAST***	***13415LUAST***	***Equal (980 ft.)***	***0.422 mi. SSE (2228 ft.)***	***FORMER CENTRAL RIVERS COOP BULK FACILITY***	***11TH AVE S & 2ND ST S, PRINCETON, MN 55371***	***54***
19	***REMSITES***	***197504***	***Equal (980 ft.)***	***0.422 mi. SSE (2228 ft.)***	***FORMER CENTRAL RIVERS COOP BULK FACILITY***	***11TH AVE S & 2ND ST S, PRINCETON, MN 55371***	***55***
19	WIMN	197504	Equal (980 ft.)	0.422 mi. SSE (2228 ft.)	FORMER CENTRAL RIVERS COOP BULK FACILITY	11TH AVE S & 2ND ST S, PRINCETON, MN 55371	56
20	AGSPILLS	14907	Equal (980 ft.)	0.432 mi. SSE (2281 ft.)	PRINCETON MILL	MILLE LACS COUNTY, PRINCETON, MN 55371	57
20	AGSPILLS	4673	Equal (980 ft.)	0.432 mi. SSE (2281 ft.)		907 2ND ST S, PRINCETON, MN 55371	58
20	CONTINGENCIES	14907	Equal (980 ft.)	0.432 mi. SSE (2281 ft.)	PRINCETON MILL	MILLE LACS COUNTY, PRINCETON, MN 55371	59
20	WIMN	12427	Equal (980 ft.)	0.432 mi. SSE (2281 ft.)	PRINCETON MILL INC	907 2ND ST S, PRINCETON, MN 55371	60
21	***LUAST***	***16215LUAST***	***Equal (980 ft.)***	***0.43 mi. SSE (2270 ft.)***	***ABANDONED LOT***	***10TH AVE S & 2ND ST S, PRINCETON, MN 55371***	***61***

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
21	***REMSITES***	***200783***	***Equal (980 ft.)***	***0.43 mi. SSE (2270 ft.)***	***ABANDONED LOT***	***10TH AVE S & 2ND ST S, PRINCETON, MN 55371***	***62***
21	WIMN	124423	Equal (980 ft.)	0.43 mi. SSE (2270 ft.)	10TH AVE S & 2ND ST S IMPROVEMENTS - CSW	SEE LOCATION DESCRIPTION, PRINCETON, MN 55371	63
21	WIMN	200783	Equal (980 ft.)	0.43 mi. SSE (2270 ft.)	ABANDONED LOT	10TH AVE S & 2ND ST S, PRINCETON, MN 55371	64
22	***LUAST***	***12725LUAST***	***Equal (980 ft.)***	***0.441 mi. S (2328 ft.)***	***HOFMAN OIL***	***11TH AVE S, PRINCETON, MN 55371***	***65***
22	***REMSITES***	***187098***	***Equal (980 ft.)***	***0.441 mi. S (2328 ft.)***	***HOFMAN OIL***	***11TH AVE S, PRINCETON, MN 55371***	***66***
22	***REMSITES***	***194009***	***Equal (980 ft.)***	***0.444 mi. SSE (2344 ft.)***	***PRINCETON 2ND AND 11TH***	***1101, 1105, 1109 SECOND ST S, PRINCETON, MN 55371***	***67***
22	***VICP***	***194009VICP***	***Equal (980 ft.)***	***0.444 mi. SSE (2344 ft.)***	***PRINCETON 2ND AND 11TH***	***1101, 1105, 1109 SECOND ST S, PRINCETON, MN 55371***	***68***
22	WIMN	187098	Equal (980 ft.)	0.441 mi. S (2328 ft.)	HOFMAN OIL	11TH AVE S, PRINCETON, MN 55371	69
22	WIMN	194009	Equal (980 ft.)	0.444 mi. SSE (2344 ft.)	PRINCETON 2ND AND 11TH	1101, 1105, 1109 SECOND ST S, PRINCETON, MN 55371	70
23	***LUAST***	***18009LUAST***	***Equal (980 ft.)***	***0.456 mi. ESE (2408 ft.)***	***PRINCETON SCHOOLS DISTRICT OFFICE***	***706 1ST ST, PRINCETON, MN 55371***	***71***
23	***REMSITES***	***103289***	***Equal (980 ft.)***	***0.456 mi. ESE (2408 ft.)***	***PRINCETON SCHOOLS DISTRICT OFFICE***	***706 1ST ST, PRINCETON, MN 55371***	***72***
23	WIMN	103289	Equal (980 ft.)	0.456 mi. ESE (2408 ft.)	PRINCETON SCHOOLS DISTRICT OFFICE	706 1ST ST, PRINCETON, MN 55371	73
23	WIMN	11553	Equal (980 ft.)	0.456 mi. ESE (2408 ft.)	ISD 477	706 1ST ST, PRINCETON, MN 55371	74
23	WIMN	12426	Equal (980 ft.)	0.456 mi. ESE (2408 ft.)	PRINCETON HOSPITAL FAIRVIEW	704 1ST ST, PRINCETON, MN 55371	75
24	WIMN	111351	Higher (983 ft.)	0.457 mi. NE (2413 ft.)	PRINCETON MAINTENANCE SHOP	706 9TH ST N, PRINCETON, MN 55371	76
24	WIMN	15437	Higher (983 ft.)	0.457 mi. NE (2413 ft.)	MILLE LACS COUNTY HIGHWAY DEPT/PRINCETON	706 N 9TH ST, PRINCETON, MN 55371	77
24	WIMN	93871	Higher (983 ft.)	0.457 mi. NE (2413 ft.)	PRINCETON COUNTY SHOP	706 N 9TH ST, PRINCETON, MN 55371	78
25	AGSPILLS	3836	Higher (981 ft.)	0.461 mi. NE (2434 ft.)		MILLE LACS COUNTY, PRINCETON, MN 55371	79
26	***LUAST***	***5589LUAST***	***Higher (986 ft.)***	***0.462 mi. E (2439 ft.)***	***PRINCETON OIL CO INC***	***513 N 6TH ST, PRINCETON, MN 55371***	***80***
26	***REMSITES***	***110490***	***Higher (986 ft.)***	***0.462 mi. E (2439 ft.)***	***VACANT WAREHOUSE/FORMER GAS STATION***	***513 N 6TH ST, PRINCETON, MN 55371***	***81***

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
26	WIMN	110490	Higher (986 ft.)	0.462 mi. E (2439 ft.)	VACANT WAREHOUSE/FORMER GAS STATION	513 N 6TH ST, PRINCETON, MN 55371	82
26	WIMN	125645	Higher (986 ft.)	0.462 mi. E (2439 ft.)	FORMER PRINCETON OIL CO	513 N 6TH ST, PRINCETON, MN 55371	83
27	***LUAST***	***14655LUAST***	***Lower (974 ft.)***	***0.471 mi. ESE (2487 ft.)***	***FEDERATED COOPS***	***211 N LAGRANDE, PRINCETON, MN 55371***	***84***
27	***LUAST***	***19696LUAST***	***Lower (974 ft.)***	***0.471 mi. ESE (2487 ft.)***	***HYTECH AUTO***	***211 RUM RIVER DR, PRINCETON, MN 55371***	***85***
27	***REMSITES***	***100884***	***Lower (974 ft.)***	***0.471 mi. ESE (2487 ft.)***	***HYTECH AUTO***	***211 RUM RIVER DR, PRINCETON, MN 55371***	***86***
27	***REMSITES***	***195378***	***Lower (974 ft.)***	***0.471 mi. ESE (2487 ft.)***	***FEDERATED COOPS***	***211 N LAGRANDE, PRINCETON, MN 55371***	***87***
27	WIMN	100884	Lower (974 ft.)	0.471 mi. ESE (2487 ft.)	HYTECH AUTO	211 RUM RIVER DR, PRINCETON, MN 55371	88
27	WIMN	195378	Lower (974 ft.)	0.471 mi. ESE (2487 ft.)	FEDERATED COOPS	211 N LAGRANDE, PRINCETON, MN 55371	89
28	***REMSITES***	***194222***	***Lower (974 ft.)***	***0.495 mi. ESE (2614 ft.)***	***209 RUM RIVER DRIVE N***	***209 RUM RIVER DR N, PRINCETON, MN 55371***	***90***
28	WIMN	10792	Lower (974 ft.)	0.495 mi. ESE (2614 ft.)	STERNQUIST IMPLEMENT INC	209 5TH AVE N, PRINCETON, MN 55371	91
28	WIMN	194222	Lower (974 ft.)	0.495 mi. ESE (2614 ft.)	209 RUM RIVER DRIVE N	211 RUM RIVER DR N, PRINCETON, MN 55371	92
29	WIMN	128221	Lower (965 ft.)	0.473 mi. E (2497 ft.)	SP 4810-17 (TH 95) PRINCETON	SEE LOCATION DESCRIPTION, PRINCETON, MN 55371	93
30	***LUAST***	***1658LUAST***	***Lower (965 ft.)***	***0.475 mi. ESE (2508 ft.)***	***PARK ALIGNMENT INC***	***301 N LAGRANDE AVE, PRINCETON, MN 55371***	***94***
30	***REMSITES***	***111493***	***Lower (965 ft.)***	***0.475 mi. ESE (2508 ft.)***	***PARK ALIGNMENT INC***	***301 N LAGRANDE AVE, PRINCETON, MN 55371***	***95***
30	WIMN	111493	Lower (965 ft.)	0.475 mi. ESE (2508 ft.)	PARK ALIGNMENT INC	301 N LAGRANDE AVE, PRINCETON, MN 55371	96
30	WIMN	16260	Lower (965 ft.)	0.475 mi. ESE (2508 ft.)	HY TECH AUTOMOTIVE - PRINCETON	301 N RUM RIVER DR, PRINCETON, MN 55371	97
31	WIMN	110792	Equal (980 ft.)	0.481 mi. ESE (2540 ft.)	ELIM HOME	101 S 7TH AVE, PRINCETON, MN 55371	98
31	WIMN	132857	Equal (980 ft.)	0.49 mi. SE (2587 ft.)	ELIM CARE & REHAB CENTER	701 1ST ST, PRINCETON, MN 55371	99
32	WIMN	98291	Lower (965 ft.)	0.488 mi. E (2577 ft.)	CSAH 29 (DUNN BRIDGE) SAP 48-629-10	CSAH 29, PRINCETON, MN 55371	100

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
33	WIMN	16261	Equal (980 ft.)	0.491 mi. SSE (2592 ft.)	HY TECH AUTOMOTIVE OF PRINCETON	908 3RD ST S, PRINCETON, MN 55371	101
34	***REMSITES***	***192720***	***Higher (990 ft.)***	***0.495 mi. W (2614 ft.)***	***WAL-MART STORE NO. 3102-00***	***SEE LOCATION DESCRIPTION, PRINCETON, MN 55371***	***102***
34	***VICP***	***192720VICP***	***Higher (990 ft.)***	***0.495 mi. W (2614 ft.)***	***WAL-MART STORE NO. 3102-00***	***SEE LOCATION DESCRIPTION, PRINCETON, MN 55371***	***103***
34	WIMN	135983	Higher (990 ft.)	0.495 mi. W (2614 ft.)	WALMART SUPERCENTER 3102	300 21ST AVE N, PRINCETON, MN 55371	104
34	WIMN	192720	Higher (990 ft.)	0.495 mi. W (2614 ft.)	WAL-MART STORE NO. 3102-00	SEE LOCATION DESCRIPTION, PRINCETON, MN 55371	105
35	***LUAST***	***12726LUAST***	***Equal (980 ft.)***	***0.5 mi. SSE (2640 ft.)***	***FORMER MAINTENANCE GARAGE***	***3RD ST S, PRINCETON, MN 55371***	***106***
35	***REMSITES***	***189598***	***Equal (980 ft.)***	***0.5 mi. SSE (2640 ft.)***	***FORMER MAINTENANCE GARAGE***	***3RD ST S, PRINCETON, MN 55371***	***107***
35	WIMN	189598	Equal (980 ft.)	0.5 mi. SSE (2640 ft.)	FORMER MAINTENANCE GARAGE	3RD ST S, PRINCETON, MN 55371	108
36	***REMSITES***	***191657***	***Lower (975 ft.)***	***0.548 mi. ESE (2893 ft.)***	***AMERICAN LEGION NO 216***	***202 N RUM RIVER DR, PRINCETON, MN 55371***	***109***
37	***REMSITES***	***113025***	***Higher (987 ft.)***	***0.567 mi. W (2994 ft.)***	***AMOCO-HOFMAN OIL CO INC***	***509 19TH AVE N HIGHWAYS 169 & 95 W, PRINCETON, MN 55371***	***110***
38	***REMSITES***	***191600***	***Higher (982 ft.)***	***0.587 mi. ESE (3099 ft.)***	***BUILDING 501 1ST ST***	***501 1ST ST, PRINCETON, MN 55371***	***111***
39	***REMSITES***	***12809***	***Higher (982 ft.)***	***0.618 mi. ESE (3263 ft.)***	***GROWING EDGE SERVICE***	***502 S 2ND ST, PRINCETON, MN 55371***	***112***
40	***REMSITES***	***123490***	***Equal (980 ft.)***	***0.778 mi. SE (4108 ft.)***	***HOLIDAY STATIONSTORE #17***	***308 S RUM RIVER DR, PRINCETON, MN 55371***	***113***
41	***REMSITES***	***104117***	***Lower (975 ft.)***	***0.797 mi. NW (4208 ft.)***	***PRINCETON DUMP***	***SEE LOCATION DESCRIPTION, PRINCETON, MN 55371***	***114***
42	***REMSITES***	***193349***	***Lower (979 ft.)***	***0.882 mi. S (4657 ft.)***	***DON WESTLING PROPERTY***	***700 OLD HWY 18 S, PRINCETON, MN 55371***	***116***
43	***REMSITES***	***2361***	***Lower (977 ft.)***	***0.911 mi. S (4810 ft.)***	***WESTLING MANUFACTURING CO***	***705 HIGHWAY 18 S, PRINCETON, MN 55371***	***117***
43	***SF***	***2361SF***	***Lower (977 ft.)***	***0.911 mi. S (4810 ft.)***	***WESTLING MANUFACTURING CO***	***705 HIGHWAY 18 S, PRINCETON, MN 55371***	***119***
44	***REMSITES***	***117494***	***Lower (978 ft.)***	***0.921 mi. SSE (4863 ft.)***	***SOUTH ELEMENTARY SCHOOL***	***805 S 8TH AVE, PRINCETON, MN 55371***	***120***
45	***REMSITES***	***110326***	***Lower (974 ft.)***	***0.934 mi. SSW (4932 ft.)***	***SYLVA CORPORATION INC***	***900 AIRPORT RD, PRINCETON, MN 55371***	***121***
46	***REMSITES***	***118395***	***Lower (977 ft.)***	***0.939 mi. S (4958 ft.)***	***GOOD ROADS EQUIP CO***	***708 OLD HIGHWAY 18 S, PRINCETON, MN 55371***	***122***
46	***REMSITES***	***15387***	***Lower (977 ft.)***	***0.939 mi. S (4958 ft.)***	***GOOD ROADS EQUIPMENT CO***	***OLD HIGHWAY 18, PRINCETON, MN 55371***	***123***

Located Sites Summary

*NOTE: Standard environmental records are displayed in **bold**.*

Map ID#	Database Name	Site ID#	Relative Elevation	Distance From Site	Site Name	Address	PAGE #
47	REMSITES	144502	Lower (973 ft.)	0.956 mi. SE (5048 ft.)	FLEETWAY	602 S RUM RIVER DR, PRINCETON, MN 55371	125
48	REMSITES	27970	Lower (976 ft.)	0.965 mi. S (5095 ft.)	AIRWAY PRODUCTS INC	803 S OLD HIGHWAY 18, PRINCETON, MN 55371	126
49	REMSITES	11554	Lower (978 ft.)	0.967 mi. SSE (5106 ft.)	ISD 477 PRINCETON HIGH SCHOOL	807 8TH AVE S, PRINCETON, MN 55371	127
50	REMSITES	191188	Lower (976 ft.)	0.995 mi. S (5254 ft.)	STERLING POINTE	1250 NORTHLAND DR, PRINCETON, MN 55371	128

Elevation Summary

Elevations are collected from the USGS 3D Elevation Program 1/3 arc-second (approximately 10 meters) layer hosted at the NGTOC. .

Target Property Elevation: 980 ft.

*NOTE: Standard environmental records are displayed in **bold**.*

EQUAL/HIGHER ELEVATION

Map ID#	Database Name	Elevation	Site Name	Address	Page #
1	WIMN	980 ft.	HATCH EXCAVATING INC	1304 BRANCH, PRINCETON, MN 55371	23
2	***UNPERMDUMPS***	***982 ft.***	***PRINCETON CITY OF HOME***	***316 10TH AVE N, PRINCETON, MN 55371***	***24***
2	WIMN	982 ft.	PRINCETON CITY OF HOME	316 10TH AVE N, PRINCETON, MN 55371	25
4	WIMN	983 ft.	STEINBRECHER PAINTING INC	1408 7TH ST N, PRINCETON, MN 55371	27
5	***LUAST***	***980 ft.***	***PRINCETON OIL CO***	***11TH AVE N & 2ND ST N, PRINCETON, MN 55371***	***28***
5	***REMSITES***	***980 ft.***	***PRINCETON OIL CO***	***11TH AVE N & 2ND ST N, PRINCETON, MN 55371***	***29***
5	WIMN	980 ft.	PRINCETON OIL CO	11TH AVE N & 2ND ST N, PRINCETON, MN 55371	30
6	AGSPILLS	980 ft.	CITY OF PRINCETON	2ND ST & 10 AVE N, PRINCETON, MN 55371	31
7	WIMN	981 ft.	CSAH 31 (FIRST ST.) RECONSTRUCTION	FROM TH 95 TO 7TH AVE, PRINCETON, MN 55371	32
8	WIMN	980 ft.	OAKS APARTMENTS	801 N 3RD ST, PRINCETON, MN 55371	33
9	***LUAST***	***980 ft.***	***FORMER PRINCETON COOP NORTH***	***11TH AVE N & 1ST ST, PRINCETON, MN 55371***	***34***
9	***REMSITES***	***980 ft.***	***OAKWOOD LAND DEVELOPMENT***	***11TH AVE N & 1ST ST, PRINCETON, MN 55371***	***35***
9	WIMN	980 ft.	OAKWOOD LAND DEVELOPMENT	11TH AVE N & 1ST ST, PRINCETON, MN 55371	36
10	WIMN	980 ft.	MIK COOP TRUCKING ASSOC	106 11TH AVE S, PRINCETON, MN 55371	37
11	***LUAST***	***983 ft.***	***FORMER PRINCETON GAS STATION***	***903 9TH AVE N, PRINCETON, MN 55371***	***38***
11	***REMSITES***	***983 ft.***	***FORMER PRINCETON GAS STATION***	***903 9TH AVE N, PRINCETON, MN 55371***	***39***
11	WIMN	983 ft.	FORMER GAS STATION	903 9TH AVE N, PRINCETON, MN 55371	40
11	WIMN	983 ft.	FORMER PRINCETON GAS STATION	903 9TH AVE N, PRINCETON, MN 55371	41
12	WIMN	981 ft.	CASEYS GENERAL STORE #1128	810 N RUM RIVER DR, PRINCETON, MN 55371	42
13	WIMN	982 ft.	PRINCETON RADIATOR SERVICE	701 LA GRANDE AVE N, PRINCETON, MN 55371	43
14	WIMN	980 ft.	PRINCETON, CITY OF	706 2ND ST N, PRINCETON, MN 55372	44
15	WIMN	980 ft.	EVERGREEN LOG HOMES LTD	HIGHWAY 169 & HIGHWAY 95, PRINCETON, MN 55371	45
16	WIMN	980 ft.	PRINCETON CITY HALL	705 2ND ST N, PRINCETON, MN 55371	46
16	WIMN	980 ft.	PRINCETON WWTP	705 2ND ST N, PRINCETON, MN 55371	47
17	***LUAST***	***980 ft.***	***PUBLIC UTILITIES COMMISSION***	***907 1ST ST, PRINCETON, MN 55371***	***48***
17	***REMSITES***	***980 ft.***	***PUBLIC UTILITIES COMMISSION***	***907 1ST ST, PRINCETON, MN 55371***	***49***
17	WIMN	980 ft.	PRINCETON PUBLIC UTILITIES	907 1ST ST, PRINCETON, MN 55371	50

Elevation Summary

Map ID#	Database Name	Elevation	Site Name	Address	Page #
17	WIMN	980 ft.	PUBLIC UTILITIES COMMISSION	907 1ST ST, PRINCETON, MN 55371	51
17	WIMN	980 ft.	PRINCETON PUBLIC UTILITIES COMMISSION	907 1ST ST, PRINCETON, MN 55371	52
18	WIMN	983 ft.	SKUZA MR	802 9TH ST N, PRINCETON, MN 55371	53
19	***LUAST***	***980 ft.***	***FORMER CENTRAL RIVERS COOP BULK FACILITY***	***11TH AVE S & 2ND ST S, PRINCETON, MN 55371***	***54***
19	***REMSITES***	***980 ft.***	***FORMER CENTRAL RIVERS COOP BULK FACILITY***	***11TH AVE S & 2ND ST S, PRINCETON, MN 55371***	***55***
19	WIMN	980 ft.	FORMER CENTRAL RIVERS COOP BULK FACILITY	11TH AVE S & 2ND ST S, PRINCETON, MN 55371	56
20	AGSPILLS	980 ft.	PRINCETON MILL	MILLE LACS COUNTY, PRINCETON, MN 55371	57
20	AGSPILLS	980 ft.		907 2ND ST S, PRINCETON, MN 55371	58
20	CONTINGENCIES	980 ft.	PRINCETON MILL	MILLE LACS COUNTY, PRINCETON, MN 55371	59
20	WIMN	980 ft.	PRINCETON MILL INC	907 2ND ST S, PRINCETON, MN 55371	60
21	***LUAST***	***980 ft.***	***ABANDONED LOT***	***10TH AVE S & 2ND ST S, PRINCETON, MN 55371***	***61***
21	***REMSITES***	***980 ft.***	***ABANDONED LOT***	***10TH AVE S & 2ND ST S, PRINCETON, MN 55371***	***62***
21	WIMN	980 ft.	10TH AVE S & 2ND ST S IMPROVEMENTS - CSW	SEE LOCATION DESCRIPTION, PRINCETON, MN 55371	63
21	WIMN	980 ft.	ABANDONED LOT	10TH AVE S & 2ND ST S, PRINCETON, MN 55371	64
22	***LUAST***	***980 ft.***	***HOFMAN OIL***	***11TH AVE S, PRINCETON, MN 55371***	***65***
22	***REMSITES***	***980 ft.***	***HOFMAN OIL***	***11TH AVE S, PRINCETON, MN 55371***	***66***
22	***REMSITES***	***980 ft.***	***PRINCETON 2ND AND 11TH***	***1101, 1105, 1109 SECOND ST S, PRINCETON, MN 55371***	***67***
22	***VICP***	***980 ft.***	***PRINCETON 2ND AND 11TH***	***1101, 1105, 1109 SECOND ST S, PRINCETON, MN 55371***	***68***
22	WIMN	980 ft.	HOFMAN OIL	11TH AVE S, PRINCETON, MN 55371	69
22	WIMN	980 ft.	PRINCETON 2ND AND 11TH	1101, 1105, 1109 SECOND ST S, PRINCETON, MN 55371	70
23	***LUAST***	***980 ft.***	***PRINCETON SCHOOLS DISTRICT OFFICE***	***706 1ST ST, PRINCETON, MN 55371***	***71***
23	***REMSITES***	***980 ft.***	***PRINCETON SCHOOLS DISTRICT OFFICE***	***706 1ST ST, PRINCETON, MN 55371***	***72***
23	WIMN	980 ft.	PRINCETON SCHOOLS DISTRICT OFFICE	706 1ST ST, PRINCETON, MN 55371	73
23	WIMN	980 ft.	ISD 477	706 1ST ST, PRINCETON, MN 55371	74
23	WIMN	980 ft.	PRINCETON HOSPITAL FAIRVIEW	704 1ST ST, PRINCETON, MN 55371	75
24	WIMN	983 ft.	PRINCETON MAINTENANCE SHOP	706 9TH ST N, PRINCETON, MN 55371	76
24	WIMN	983 ft.	MILLE LACS COUNTY HIGHWAY DEPT/PRINCETON	706 N 9TH ST, PRINCETON, MN 55371	77
24	WIMN	983 ft.	PRINCETON COUNTY SHOP	706 N 9TH ST, PRINCETON, MN 55371	78
25	AGSPILLS	981 ft.		MILLE LACS COUNTY, PRINCETON, MN 55371	79
26	***LUAST***	***986 ft.***	***PRINCETON OIL CO INC***	***513 N 6TH ST, PRINCETON, MN 55371***	***80***
26	***REMSITES***	***986 ft.***	***VACANT WAREHOUSE/FORMER GAS STATION***	***513 N 6TH ST, PRINCETON, MN 55371***	***81***

Elevation Summary

Map ID#	Database Name	Elevation	Site Name	Address	Page #
26	WIMN	986 ft.	VACANT WAREHOUSE/FORMER GAS STATION	513 N 6TH ST, PRINCETON, MN 55371	82
26	WIMN	986 ft.	FORMER PRINCETON OIL CO	513 N 6TH ST, PRINCETON, MN 55371	83
31	WIMN	980 ft.	ELIM HOME	101 S 7TH AVE, PRINCETON, MN 55371	98
31	WIMN	980 ft.	ELIM CARE & REHAB CENTER	701 1ST ST, PRINCETON, MN 55371	99
33	WIMN	980 ft.	HY TECH AUTOMOTIVE OF PRINCETON	908 3RD ST S, PRINCETON, MN 55371	101
34	***REMSITES***	***990 ft.***	***WAL-MART STORE NO. 3102-00***	***SEE LOCATION DESCRIPTION, PRINCETON, MN 55371***	***102***
34	***VICP***	***990 ft.***	***WAL-MART STORE NO. 3102-00***	***SEE LOCATION DESCRIPTION, PRINCETON, MN 55371***	***103***
34	WIMN	990 ft.	WALMART SUPERCENTER 3102	300 21ST AVE N, PRINCETON, MN 55371	104
34	WIMN	990 ft.	WAL-MART STORE NO. 3102-00	SEE LOCATION DESCRIPTION, PRINCETON, MN 55371	105
35	***LUAST***	***980 ft.***	***FORMER MAINTENANCE GARAGE***	***3RD ST S, PRINCETON, MN 55371***	***106***
35	***REMSITES***	***980 ft.***	***FORMER MAINTENANCE GARAGE***	***3RD ST S, PRINCETON, MN 55371***	***107***
35	WIMN	980 ft.	FORMER MAINTENANCE GARAGE	3RD ST S, PRINCETON, MN 55371	108
37	***REMSITES***	***987 ft.***	***AMOCO-HOFMAN OIL CO INC***	***509 19TH AVE N HIGHWAYS 169 & 95 W, PRINCETON, MN 55371***	***110***
38	***REMSITES***	***982 ft.***	***BUILDING 501 1ST ST***	***501 1ST ST, PRINCETON, MN 55371***	***111***
39	***REMSITES***	***982 ft.***	***GROWING EDGE SERVICE***	***502 S 2ND ST, PRINCETON, MN 55371***	***112***
40	***REMSITES***	***980 ft.***	***HOLIDAY STATIONSTORE #17***	***308 S RUM RIVER DR, PRINCETON, MN 55371***	***113***

LOWER ELEVATION

Map ID#	Database Name	Elevation	Site Name	Address	Page #
3	WIMN	972 ft.	WEST BRANCH ST. ROADWAY & UTILITY IMPROV	ADDRESS UNKNOWN, PRINCETON, MN 55371	26
27	***LUAST***	***974 ft.***	***FEDERATED COOPS***	***211 N LAGRANDE, PRINCETON, MN 55371***	***84***
27	***LUAST***	***974 ft.***	***HYTECH AUTO***	***211 RUM RIVER DR, PRINCETON, MN 55371***	***85***
27	***REMSITES***	***974 ft.***	***HYTECH AUTO***	***211 RUM RIVER DR, PRINCETON, MN 55371***	***86***
27	***REMSITES***	***974 ft.***	***FEDERATED COOPS***	***211 N LAGRANDE, PRINCETON, MN 55371***	***87***
27	WIMN	974 ft.	HYTECH AUTO	211 RUM RIVER DR, PRINCETON, MN 55371	88
27	WIMN	974 ft.	FEDERATED COOPS	211 N LAGRANDE, PRINCETON, MN 55371	89
28	***REMSITES***	***974 ft.***	***209 RUM RIVER DRIVE N***	***209 RUM RIVER DR N, PRINCETON, MN 55371***	***90***
28	WIMN	974 ft.	STERNQUIST IMPLEMENT INC	209 5TH AVE N, PRINCETON, MN 55371	91
28	WIMN	974 ft.	209 RUM RIVER DRIVE N	211 RUM RIVER DR N, PRINCETON, MN 55371	92
29	WIMN	965 ft.	SP 4810-17 (TH 95) PRINCETON	SEE LOCATION DESCRIPTION, PRINCETON, MN 55371	93

Elevation Summary

Map ID#	Database Name	Elevation	Site Name	Address	Page #
30	LUAST	965 ft.	PARK ALIGNMENT INC	301 N LAGRANDE AVE, PRINCETON, MN 55371	94
30	REMSITES	965 ft.	PARK ALIGNMENT INC	301 N LAGRANDE AVE, PRINCETON, MN 55371	95
30	WIMN	965 ft.	PARK ALIGNMENT INC	301 N LAGRANDE AVE, PRINCETON, MN 55371	96
30	WIMN	965 ft.	HY TECH AUTOMOTIVE - PRINCETON	301 N RUM RIVER DR, PRINCETON, MN 55371	97
32	WIMN	965 ft.	CSAH 29 (DUNN BRIDGE) SAP 48-629-10	CSAH 29, PRINCETON, MN 55371	100
36	REMSITES	975 ft.	AMERICAN LEGION NO 216	202 N RUM RIVER DR, PRINCETON, MN 55371	109
41	REMSITES	975 ft.	PRINCETON DUMP	SEE LOCATION DESCRIPTION, PRINCETON, MN 55371	114
42	REMSITES	979 ft.	DON WESTLING PROPERTY	700 OLD HWY 18 S, PRINCETON, MN 55371	116
43	REMSITES	977 ft.	WESTLING MANUFACTURING CO	705 HIGHWAY 18 S, PRINCETON, MN 55371	117
43	SF	977 ft.	WESTLING MANUFACTURING CO	705 HIGHWAY 18 S, PRINCETON, MN 55371	119
44	REMSITES	978 ft.	SOUTH ELEMENTARY SCHOOL	805 S 8TH AVE, PRINCETON, MN 55371	120
45	REMSITES	974 ft.	SYLVA CORPORATION INC	900 AIRPORT RD, PRINCETON, MN 55371	121
46	REMSITES	977 ft.	GOOD ROADS EQUIP CO	708 OLD HIGHWAY 18 S, PRINCETON, MN 55371	122
46	REMSITES	977 ft.	GOOD ROADS EQUIPMENT CO	OLD HIGHWAY 18, PRINCETON, MN 55371	123
47	REMSITES	973 ft.	FLEETWAY	602 S RUM RIVER DR, PRINCETON, MN 55371	125
48	REMSITES	976 ft.	AIRWAY PRODUCTS INC	803 S OLD HIGHWAY 18, PRINCETON, MN 55371	126
49	REMSITES	978 ft.	ISD 477 PRINCETON HIGH SCHOOL	807 8TH AVE S, PRINCETON, MN 55371	127
50	REMSITES	976 ft.	STERLING POINTE	1250 NORTHLAND DR, PRINCETON, MN 55371	128

MAP ID# 1

Distance from Property: 0.03 mi. (158 ft.) W
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **14333**
SITE ID: **14333**
SITE NAME: **HATCH EXCAVATING INC**
ADDRESS: **1304 BRANCH**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=14333**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MND076489012**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MND076489012**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **SITE PREPARATION CONTRACTORS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Unpermitted Dump Sites (UNPERMDUMPS)

MAP ID# 2

Distance from Property: 0.137 mi. (723 ft.) ESE
Elevation: 982 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **129231UDS**
SITE ID: **129231**
SITE NAME: **PRINCETON CITY OF HOME**
ADDRESS: **316 10TH AVE N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=129231**

FACILITY DETAILS

ID: **DEM00140**
TYPE: **SOLID WASTE**
WATERSHED: **RUM RIVER**
ACTIVE?: **YES**
INDUSTRY CLASSIFICATION: **PRIVATE HOUSEHOLDS**
INSTITUTIONAL CONTROLS: **NO**

Back to Report Summary

MAP ID# 2

Distance from Property: 0.137 mi. (723 ft.) ESE
Elevation: 982 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **129231**
SITE ID: **129231**
SITE NAME: **PRINCETON CITY OF HOME**
ADDRESS: **316 10TH AVE N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=129231**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **SOLID WASTE, UNPERMITTED SOLID WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **SOLID WASTE, UNPERMITTED SOLID WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **DEM00140**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **DEM00140**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **SOLID WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SOLID WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **PRIVATE HOUSEHOLDS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 3

Distance from Property: 0.214 mi. (1,130 ft.) ESE
Elevation: 972 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **152102**
SITE ID: **152102**
SITE NAME: **WEST BRANCH ST. ROADWAY & UTILITY IMPROV**
ADDRESS: **ADDRESS UNKNOWN**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=152102**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **C00041031**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **C00041031**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **ST**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 4

Distance from Property: 0.217 mi. (1,146 ft.) NW
Elevation: 983 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **60106**
SITE ID: **60106**
SITE NAME: **STEINBRECHER PAINTING INC**
ADDRESS: **1408 7TH ST N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=60106**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MNR000107219**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MNR000107219**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **PAINTING AND WALL COVERING CONTRACTORS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Registered Leaking Storage Tanks (LUAST)

MAP ID# 5

Distance from Property: 0.232 mi. (1,225 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **12728LUAST**
LEAK ID: **12728**
NAME: **PRINCETON OIL CO**
ADDRESS: **11TH AVE N & 2ND ST N**
PRINCETON, MN 55371
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORT: **10/01/1998 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **08/04/1999 00:00:00**
COMTAMINATED SOILS REMAINING: **UNKNOWN**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **UNKNOWN**

GROUND WATER

DRINKING WATER CONTAMINATION: **NOT REPORTED**
FREE PRODUCT OBSERVED: **NOT REPORTED**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **NOT REPORTED**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:05**
DELETED LEAK SITE	**12/01/2006 07:16:55**

Back to Report Summary

MAP ID# 5

Distance from Property: 0.232 mi. (1,225 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **187264**
AGENCY INTEREST(AI) ID: **187264**
ITEM ID: **187264-AREA0000000001**
AGENCY INTEREST(AI) NAME: **PRINCETON OIL CO**
ADDRESS: **11TH AVE N & 2ND ST N**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0012728**
SITE NAME: **PRINCETON OIL CO**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **10/1/1998**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **8/4/1999**

Back to Report Summary

MAP ID# 5

Distance from Property: 0.232 mi. (1,225 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **187264**
SITE ID: **187264**
SITE NAME: **PRINCETON OIL CO**
ADDRESS: **11TH AVE N & 2ND ST N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=187264**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **LS0012728**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0012728**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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Agricultural Spills Listing (AGSPILLS)

MAP ID# 6

Distance from Property: 0.263 mi. (1,389 ft.) SE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

ID #: **9251**
CASE FILE #: **CF-2929**
NAME: **CITY OF PRINCETON**
LOCATION DESCRIPTION: **NOT REPORTED**
ADDRESS: **2ND ST & 10 AVE N**
PRINCETON, MN 55371
CONTAMINATION: **FERTILIZER**
DATE CLOSED: **12/11/2000**

CONTACT INFORMATION

NAME: **MDA DATA PRACTICES RECORDS MNG**
PHONE: **(651) 201-6698**

Back to Report Summary

MAP ID# 7

Distance from Property: 0.301 mi. (1,589 ft.) S
Elevation: 981 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **51457**
SITE ID: **51457**
SITE NAME: **CSAH 31 (FIRST ST.) RECONSTRUCTION**
ADDRESS: **FROM TH 95 TO 7TH AVE**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=51457**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **C00008327**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **C00008327**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **ST**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 8

Distance from Property: 0.306 mi. (1,616 ft.) ESE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **116579**
SITE ID: **116579**
SITE NAME: **OAKS APARTMENTS**
ADDRESS: **801 N 3RD ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=116579**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **UNDERGROUND TANKS**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **TS0018139**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TS0018139**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 9

Distance from Property: 0.316 mi. (1,668 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **12727LUAST**
LEAK ID: **12727**
NAME: **FORMER PRINCETON COOP NORTH**
ADDRESS: **11TH AVE N & 1ST ST**
PRINCETON, MN 55371
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORT: **10/01/1998 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **08/04/1999 00:00:00**
COMTAMINATED SOILS REMAINING: **UNKNOWN**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **UNKNOWN**

GROUND WATER

DRINKING WATER CONTAMINATION: **NOT REPORTED**
FREE PRODUCT OBSERVED: **NOT REPORTED**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **NO**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:05**
DELETED LEAK SITE	**12/01/2006 07:16:55**

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MPCA Remediation Sites (REMSITES)

MAP ID# 9

Distance from Property: 0.314 mi. (1,658 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **112004**
AGENCY INTEREST(AI) ID: **112004**
ITEM ID: **112004-AREA0000000001**
AGENCY INTEREST(AI) NAME: **OAKWOOD LAND DEVELOPMENT**
ADDRESS: **11TH AVE N & 1ST ST**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0012727**
SITE NAME: **FORMER PRINCETON COOP NORTH**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **10/1/1998**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **8/4/1999**

Back to Report Summary

MAP ID# 9

Distance from Property: 0.314 mi. (1,658 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **112004**
SITE ID: **112004**
SITE NAME: **OAKWOOD LAND DEVELOPMENT**
ADDRESS: **11TH AVE N & 1ST ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=112004**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **ABOVEGROUND TANKS; PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0012727; TS0119704**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR; TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP; TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 10

Distance from Property: 0.344 mi. (1,816 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **15274**
SITE ID: **15274**
SITE NAME: **MIK COOP TRUCKING ASSOC**
ADDRESS: **106 11TH AVE S**
PRINCETON, MN 55371-1726 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=15274**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **308255991**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **308255991**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 11

Distance from Property: 0.345 mi. (1,822 ft.) NE
Elevation: 983 ft. (Higher than TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **19388LUAST**

LEAK ID: **19388**

NAME: **FORMER PRINCETON GAS STATION**

ADDRESS: **903 9TH AVE N**
PRINCETON, MN 55371

RELEASE DISCOVERED: **07/24/2013 00:00:00**

RELEASE REPORT: **01/27/2014 00:00:00**

CONDITIONAL CLOSURE DATE: **NOT REPORTED**

COMPLETE SITE CLOSURE DATE: **04/02/2014 00:00:00**

COMTAMINATED SOILS REMAINING: **YES**

OFFSITE COMTAMINATION: **NO**

PRODUCT RELEASED: **GASOLINE, TYPE UNKNOWN**

GROUND WATER

DRINKING WATER CONTAMINATION: **NO**

FREE PRODUCT OBSERVED: **NO**

FREE PRODUCT THICKNESS: **NOT REPORTED**

GROUNDWATER CONTAMINATION: **NO**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:
LEAK SITE

LAST UPDATE:
11/10/2014 08:17:06

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MPCA Remediation Sites (REMSITES)

MAP ID# 11

Distance from Property: 0.345 mi. (1,822 ft.) NE
Elevation: 983 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **190671**
AGENCY INTEREST(AI) ID: **190671**
ITEM ID: **190671-AREA0000000001**
AGENCY INTEREST(AI) NAME: **FORMER PRINCETON GAS STATION**
ADDRESS: **903 9TH AVE N**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0019388**
SITE NAME: **FORMER PRINCETON GAS STATION**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **ROBERTA WIRTH-FEENEY (FORMER)**
RELEASE DISCOVERED: **7/24/2013**
RELEASE REPORTED: **1/27/2014**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **4/2/2014**

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MAP ID# 11

Distance from Property: 0.345 mi. (1,822 ft.) NE
Elevation: 983 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **149793**
SITE ID: **149793**
SITE NAME: **FORMER GAS STATION**
ADDRESS: **903 9TH AVE N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=149793**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **UNDERGROUND TANKS**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **TS0126332**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TS0126332**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 11

Distance from Property: 0.345 mi. (1,822 ft.) NE
Elevation: 983 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **190671**
SITE ID: **190671**
SITE NAME: **FORMER PRINCETON GAS STATION**
ADDRESS: **903 9TH AVE N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=190671**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **LS0019388**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0019388**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 12

Distance from Property: 0.346 mi. (1,827 ft.) NE
Elevation: 981 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **110789**
SITE ID: **110789**
SITE NAME: **CASEYS GENERAL STORE #1128**
ADDRESS: **810 N RUM RIVER DR**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=110789**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **UNDERGROUND TANKS**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **TS0008068**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TS0008068**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 13

Distance from Property: 0.355 mi. (1,874 ft.) ENE
Elevation: 982 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **12432**
SITE ID: **12432**
SITE NAME: **PRINCETON RADIATOR SERVICE**
ADDRESS: **701 LA GRANDE AVE N**
PRINCETON, MN 55371-1338 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=12432**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **WCERT1001143**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **WCERT1001143**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **AUTOMOTIVE REPAIR SHOPS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 14

Distance from Property: 0.359 mi. (1,896 ft.) ESE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **204062**
SITE ID: **204062**
SITE NAME: **PRINCETON, CITY OF**
ADDRESS: **706 2ND ST N**
PRINCETON, MN 55372 SCOTT
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=204062**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **SSTS**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **SSTS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **L3726**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **L3726**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SS**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **SSTS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SSTS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 15

Distance from Property: 0.399 mi. (2,107 ft.) W
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **31410**
SITE ID: **31410**
SITE NAME: **EVERGREEN LOG HOMES LTD**
ADDRESS: **HIGHWAY 169 & HIGHWAY 95**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=31410**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MNS000215335**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MNS000215335**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NEW HOUSING FOR-SALE BUILDERS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 16

Distance from Property: 0.403 mi. (2,128 ft.) SE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **34682**
SITE ID: **34682**
SITE NAME: **PRINCETON CITY HALL**
ADDRESS: **705 2ND ST N**
PRINCETON, MN 55371-1550 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=34682**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **147699847**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **147699847**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **EXECUTIVE OFFICES**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 16

Distance from Property: 0.403 mi. (2,128 ft.) SE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **3890**
SITE ID: **3890**
SITE NAME: **PRINCETON WWTP**
ADDRESS: **705 2ND ST N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=3890**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **WASTEWATER, MUNICIPAL NPDES/SDS PERMIT; WASTEWATER, MUNICIPAL NPDES/SDS PERMIT, MUNICIPAL SDS PERMIT; WASTEWATER, MUNICIPAL SDS PERMIT**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MN0024538**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MN0024538**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **WW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **WATER QUALITY**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **WATER QUALITY**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **SEWAGE TREATMENT FACILITIES**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 17

Distance from Property: 0.406 mi. (2,144 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **4452LUAST**
LEAK ID: **4452**
NAME: **PUBLIC UTILITIES COMMISSION**
ADDRESS: **907 1ST ST**
PRINCETON, MN 55371
RELEASE DISCOVERED: **08/27/1991 00:00:00**
RELEASE REPORT: **08/27/1991 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **08/26/1992 00:00:00**
COMTAMINATED SOILS REMAINING: **NO**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **UNKNOWN**

GROUND WATER

DRINKING WATER CONTAMINATION: **NOT REPORTED**
FREE PRODUCT OBSERVED: **NOT REPORTED**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **NO**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:06**
DELETED LEAK SITE	**11/14/2006 08:34:25**

Back to Report Summary

MPCA Remediation Sites (REMSITES)

MAP ID# 17

Distance from Property: 0.406 mi. (2,144 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **188074**
AGENCY INTEREST(AI) ID: **188074**
ITEM ID: **188074-AREA0000000001**
AGENCY INTEREST(AI) NAME: **PUBLIC UTILITIES COMMISSION**
ADDRESS: **907 1ST ST**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0004452**
SITE NAME: **PUBLIC UTILITIES COMMISSION**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JEAN HANSON (NO LONGER AT MPCA)**
RELEASE DISCOVERED: **8/27/1991**
RELEASE REPORTED: **8/27/1991**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **8/26/1992**

Back to Report Summary

MAP ID# 17

Distance from Property: 0.406 mi. (2,144 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **111282**
SITE ID: **111282**
SITE NAME: **PRINCETON PUBLIC UTILITIES**
ADDRESS: **907 1ST ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=111282**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **ABOVEGROUND TANKS; UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **TS0053115**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TS0053115**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 17

Distance from Property: 0.406 mi. (2,144 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **188074**
SITE ID: **188074**
SITE NAME: **PUBLIC UTILITIES COMMISSION**
ADDRESS: **907 1ST ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=188074**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **LS0004452**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0004452**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 17

Distance from Property: 0.406 mi. (2,144 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **2115**
SITE ID: **2115**
SITE NAME: **PRINCETON PUBLIC UTILITIES COMMISSION**
ADDRESS: **907 1ST ST**
PRINCETON, MN 55371-1559 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=2115**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **AIR QUALITY; HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **09500011; MND985682434**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **AQ; HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **AIR QUALITY; HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **FOSSIL FUEL ELECTRIC POWER GENERATION ; ELECTRIC POWER DISTRIBUTION**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 18

Distance from Property: 0.419 mi. (2,212 ft.) NE
Elevation: 983 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **10555**
SITE ID: **10555**
SITE NAME: **SKUZA MR**
ADDRESS: **802 9TH ST N**
PRINCETON, MN 55371-1231 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=10555**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MNENF480**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MNENF480**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Registered Leaking Storage Tanks (LUAST)

MAP ID# 19

Distance from Property: 0.422 mi. (2,228 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **13415LUAST**
LEAK ID: **13415**
NAME: **FORMER CENTRAL RIVERS COOP BULK FACILITY**
ADDRESS: **11TH AVE S & 2ND ST S**
PRINCETON, MN 55371
RELEASE DISCOVERED: **05/05/2000 00:00:00**
RELEASE REPORT: **05/05/2000 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **01/31/2007 00:00:00**
COMTAMINATED SOILS REMAINING: **YES**
OFFSITE COMTAMINATION: **YES**
PRODUCT RELEASED: **DIESEL**

GROUND WATER

DRINKING WATER CONTAMINATION: **NO**
FREE PRODUCT OBSERVED: **YES**
FREE PRODUCT THICKNESS: **.08**
GROUNDWATER CONTAMINATION: **YES**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:05**
DELETED LEAK SITE	**12/04/2006 07:24:41**

Back to Report Summary

MAP ID# 19

Distance from Property: 0.422 mi. (2,228 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **197504**
AGENCY INTEREST(AI) ID: **197504**
ITEM ID: **197504-AREA0000000001**
AGENCY INTEREST(AI) NAME: **FORMER CENTRAL RIVERS COOP BULK FACILITY**
ADDRESS: **11TH AVE S & 2ND ST S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0013415**
SITE NAME: **FORMER CENTRAL RIVERS COOP BULK FACILITY**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **ADAM SEKELY (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **SARAH LARSEN (FORMER)**
RELEASE DISCOVERED: **5/5/2000**
RELEASE REPORTED: **5/5/2000**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **1/31/2007**

Back to Report Summary

MAP ID# 19

Distance from Property: 0.422 mi. (2,228 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **197504**
SITE ID: **197504**
SITE NAME: **FORMER CENTRAL RIVERS COOP BULK FACILITY**
ADDRESS: **11TH AVE S & 2ND ST S**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=197504**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **LS0013415**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0013415**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Agricultural Spills Listing (AGSPILLS)

MAP ID# 20

Distance from Property: 0.432 mi. (2,281 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

ID #: **14907**
CASE FILE #: **CF-8559**
NAME: **PRINCETON MILL**
LOCATION DESCRIPTION: **AB-PRINCETON**
ADDRESS: **MILLE LACS COUNTY**
PRINCETON, MN 55371

INVESTIGATION TYPE: **EMERGENCY**
INVESTIGATION STATUS: **CLOSED**
CONTAMINATION: **UNKNOWN**
DATE CLOSED: **3/1/2004**

CONTACT INFORMATION

NAME: **MDA DATA PRACTICES RECORDS MNG**
PHONE: **(651) 201-6698**
CONTAMINATION: **UNKNOWN**
DATE CLOSED: **03/01/2004**

CONTACT INFORMATION

NAME: **MDA DATA PRACTICES RECORDS MNG**
PHONE: **(651) 201-6698**

Back to Report Summary

Agricultural Spills Listing (AGSPILLS)

MAP ID# 20

Distance from Property: 0.432 mi. (2,281 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

ID #: **4673**
CASE FILE #: **94-0026**
NAME: **NOT REPORTED**
LOCATION DESCRIPTION: **NOT REPORTED**
ADDRESS: **907 2ND ST S**
PRINCETON, MN 55371
CONTAMINATION: **UNKNOWN**
DATE CLOSED: **2/1/1994**

CONTACT INFORMATION

NAME: **MDA DATA PRACTICES RECORDS MNG**
PHONE: **(651) 201-6698**

Back to Report Summary

Agricultural Contingency Sites (CONTINGENCIES)

MAP ID# 20

Distance from Property: 0.432 mi. (2,281 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

CASE FILE #: **CF-8559**
INVESTIGATION LOCATION ID: **14907**
INVESTIGATION NAME: **PRINCETON MILL**
INVESTIGATION TYPE: **EMERGENCY**
INVESTIGATION STATUS: **CLOSED**
MERLA SITE: **NO**
CONTACT NAME: **MDA DATA PRACTICES RECORDS MNG**
CONTACT PHONE: **(651) 201-6698**

SITE DETAILS

CONTAMINATED MEDIA: **SOIL**
CONTINGENCY AREA TYPE: **SITE BOUNDARY**
CONTINGENCY AREA DESCRIPTION: **LOW RISK ABANDONED SITE**
CONTINGENCY TYPE: **CONTINGENT CLOSURE**
PLUME: **NO**
APPROXIMATE PLUME FLOW DIRECTION: **NOT REPORTED**
GROUNDWATER DEPTH RANGE AFFECTED: **NOT REPORTED**
AGRICULTURAL CHEMICAL TYPE: **UNKNOWN**
DATE CLOSED: **3/1/2004**

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MAP ID# 20

Distance from Property: 0.432 mi. (2,281 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **12427**
SITE ID: **12427**
SITE NAME: **PRINCETON MILL INC**
ADDRESS: **907 2ND ST S**
PRINCETON, MN 55371-1725 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=12427**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **147700736**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **147700736**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Registered Leaking Storage Tanks (LUAST)

MAP ID# 21

Distance from Property: 0.43 mi. (2,270 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **16215LUAST**
LEAK ID: **16215**
NAME: **ABANDONED LOT**
ADDRESS: **10TH AVE S & 2ND ST S**
PRINCETON, MN 55371
RELEASE DISCOVERED: **05/19/2005 00:00:00**
RELEASE REPORT: **05/19/2005 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **02/10/2009 00:00:00**
COMTAMINATED SOILS REMAINING: **UNKNOWN**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **DIESEL**

GROUND WATER

DRINKING WATER CONTAMINATION: **NOT REPORTED**
FREE PRODUCT OBSERVED: **NOT REPORTED**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **YES**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:06**
DELETED LEAK SITE	**02/10/2009 16:13:43**

Back to Report Summary

MPCA Remediation Sites (REMSITES)

MAP ID# 21

Distance from Property: 0.43 mi. (2,270 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **200783**
AGENCY INTEREST(AI) ID: **200783**
ITEM ID: **200783-AREA0000000001**
AGENCY INTEREST(AI) NAME: **ABANDONED LOT**
ADDRESS: **10TH AVE S & 2ND ST S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0016215**
SITE NAME: **ABANDONED LOT**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **ANDREW EDDY (FORMER)**
RELEASE DISCOVERED: **5/19/2005**
RELEASE REPORTED: **5/19/2005**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **2/10/2009**

Back to Report Summary

MAP ID# 21

Distance from Property: 0.43 mi. (2,270 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **124423**
SITE ID: **124423**
SITE NAME: **10TH AVE S & 2ND ST S IMPROVEMENTS - CSW**
ADDRESS: **SEE LOCATION DESCRIPTION**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=124423**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **C00022477**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **C00022477**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **ST**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 21

Distance from Property: 0.43 mi. (2,270 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **200783**
SITE ID: **200783**
SITE NAME: **ABANDONED LOT**
ADDRESS: **10TH AVE S & 2ND ST S**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=200783**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **LS0016215**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0016215**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Registered Leaking Storage Tanks (LUAST)

MAP ID# 22

Distance from Property: 0.441 mi. (2,328 ft.) S
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **12725LUAST**
LEAK ID: **12725**
NAME: **HOFMAN OIL**
ADDRESS: **11TH AVE S**
PRINCETON, MN 55371
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORT: **10/01/1998 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **08/04/1999 00:00:00**
COMTAMINATED SOILS REMAINING: **YES**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **DIESEL**

GROUND WATER

DRINKING WATER CONTAMINATION: **NOT REPORTED**
FREE PRODUCT OBSERVED: **NOT REPORTED**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **NO**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:05**
DELETED LEAK SITE	**12/01/2006 07:16:55**

Back to Report Summary

MAP ID# 22

Distance from Property: 0.441 mi. (2,328 ft.) S
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **187098**
AGENCY INTEREST(AI) ID: **187098**
ITEM ID: **187098-AREA0000000001**
AGENCY INTEREST(AI) NAME: **HOFMAN OIL**
ADDRESS: **11TH AVE S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0012725**
SITE NAME: **HOFMAN OIL**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **10/1/1998**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **8/4/1999**

Back to Report Summary

MPCA Remediation Sites (REMSITES)

MAP ID# 22

Distance from Property: 0.444 mi. (2,344 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **194009**
AGENCY INTEREST(AI) ID: **194009**
ITEM ID: **194009-AREA0000000001**
AGENCY INTEREST(AI) NAME: **PRINCETON 2ND AND 11TH**
ADDRESS: **1101, 1105, 1109 SECOND ST S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP17700**
SITE NAME: **PRINCETON 2ND AND 11TH**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **DAVE SCHEER**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **AMY MILLER**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **6/16/2003**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **10/3/2003**

Back to Report Summary

Voluntary Investigation and Cleanup Program Sites (VICP)

MAP ID# 22

Distance from Property: 0.444 mi. (2,344 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **194009VICP**
SITE ID: **194009**
SITE NAME: **PRINCETON 2ND AND 11TH**
ADDRESS: **1101, 1105, 1109 SECOND ST S**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=194009**

FACILITY DETAILS

ID: **VP17700**
TYPE: **BROWNFIELDS**
WATERSHED: **RUM RIVER**
ACTIVE?: **NO**
INDUSTRY CLASSIFICATION: **NOT REPORTED**
INSTITUTIONAL CONTROLS: **NO**

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MAP ID# 22

Distance from Property: 0.441 mi. (2,328 ft.) S
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **187098**
SITE ID: **187098**
SITE NAME: **HOFMAN OIL**
ADDRESS: **11TH AVE S**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=187098**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **LS0012725**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0012725**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 22

Distance from Property: 0.444 mi. (2,344 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **194009**
SITE ID: **194009**
SITE NAME: **PRINCETON 2ND AND 11TH**
ADDRESS: **1101, 1105, 1109 SECOND ST S**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=194009**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **BROWNFIELDS, VOLUNTARY INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **BROWNFIELDS, VOLUNTARY INVESTIGATION AND CLEANUP**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **VP17700**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **VP17700**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Registered Leaking Storage Tanks (LUAST)

MAP ID# 23

Distance from Property: 0.456 mi. (2,408 ft.) ESE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **18009LUAST**

LEAK ID: **18009**

NAME: **PRINCETON SCHOOLS DISTRICT OFFICE**

ADDRESS: **706 1ST ST**
PRINCETON, MN 55371-1502

RELEASE DISCOVERED: **05/26/2010 00:00:00**

RELEASE REPORT: **05/26/2010 00:00:00**

CONDITIONAL CLOSURE DATE: **NOT REPORTED**

COMPLETE SITE CLOSURE DATE: **10/20/2010 00:00:00**

COMTAMINATED SOILS REMAINING: **UNKNOWN**

OFFSITE COMTAMINATION: **UNKNOWN**

PRODUCT RELEASED: **FUEL OIL 1 & 2**

GROUND WATER

DRINKING WATER CONTAMINATION: **NOT REPORTED**

FREE PRODUCT OBSERVED: **NOT REPORTED**

FREE PRODUCT THICKNESS: **NOT REPORTED**

GROUNDWATER CONTAMINATION: **NO**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:06**

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MPCA Remediation Sites (REMSITES)

MAP ID# 23

Distance from Property: 0.456 mi. (2,408 ft.) ESE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **103289**
AGENCY INTEREST(AI) ID: **103289**
ITEM ID: **103289-AREA0000000003**
AGENCY INTEREST(AI) NAME: **PRINCETON SCHOOLS DISTRICT OFFICE**
ADDRESS: **706 1ST ST**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0018009**
SITE NAME: **PRINCETON SCHOOLS DISTRICT OFFICE**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **MICHELLE OIE (FORMER)**
RELEASE DISCOVERED: **5/26/2010**
RELEASE REPORTED: **5/26/2010**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **10/20/2010**

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MAP ID# 23

Distance from Property: 0.456 mi. (2,408 ft.) ESE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **103289**
SITE ID: **103289**
SITE NAME: **PRINCETON SCHOOLS DISTRICT OFFICE**
ADDRESS: **706 1ST ST**
PRINCETON, MN 55371-1502 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=103289**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **ABOVEGROUND TANKS; PETROLEUM REMEDIATION, LEAK SITE; UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0018009; TS0123401**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR; TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP; TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 23

Distance from Property: 0.456 mi. (2,408 ft.) ESE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **11553**
SITE ID: **11553**
SITE NAME: **ISD 477**
ADDRESS: **706 1ST ST**
PRINCETON, MN 55371-1502 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=11553**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MNR000030767**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MNR000030767**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **ELEMENTARY AND SECONDARY SCHOOLS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 23

Distance from Property: 0.456 mi. (2,408 ft.) ESE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **12426**
SITE ID: **12426**
SITE NAME: **PRINCETON HOSPITAL FAIRVIEW**
ADDRESS: **704 1ST ST**
PRINCETON, MN 55371-1502 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=12426**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE; UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MND036182392; TS0008083**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW; TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE; TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **HOSPITALS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 24

Distance from Property: 0.457 mi. (2,413 ft.) NE
Elevation: 983 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **111351**
SITE ID: **111351**
SITE NAME: **PRINCETON MAINTENANCE SHOP**
ADDRESS: **706 9TH ST N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=111351**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **UNDERGROUND TANKS**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **TS0008078**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TS0008078**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 24

Distance from Property: 0.457 mi. (2,413 ft.) NE
Elevation: 983 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **15437**
SITE ID: **15437**
SITE NAME: **MILLE LACS COUNTY HIGHWAY DEPT/PRINCETON**
ADDRESS: **706 N 9TH ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=15437**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **WCERT1001150**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **WCERT1001150**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **REGULATION AND ADMINISTRATION OF TRANSPORTATION PROGRAMS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 24

Distance from Property: 0.457 mi. (2,413 ft.) NE
Elevation: 983 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **93871**
SITE ID: **93871**
SITE NAME: **PRINCETON COUNTY SHOP**
ADDRESS: **706 N 9TH ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=93871**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **INDUSTRIAL STORMWATER**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **INDUSTRIAL STORMWATER**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **A00012340**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **A00012340**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **ST**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION CONTRACTORS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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Agricultural Spills Listing (AGSPILLS)

MAP ID# 25

Distance from Property: 0.461 mi. (2,434 ft.) NE
Elevation: 981 ft. (Higher than TP)

SITE INFORMATION

ID #: **3836**
CASE FILE #: **FY90I083**
NAME: **NOT REPORTED**
LOCATION DESCRIPTION: **NOT REPORTED**
ADDRESS: **MILLE LACS COUNTY**
PRINCETON, MN 55371
CONTAMINATION: **UNKNOWN**
DATE CLOSED: **8/23/1990**

CONTACT INFORMATION

NAME: **MDA DATA PRACTICES RECORDS MNG**
PHONE: **(651) 201-6698**

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 26

Distance from Property: 0.462 mi. (2,439 ft.) E
Elevation: 986 ft. (Higher than TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **5589LUAST**
LEAK ID: **5589**
NAME: **PRINCETON OIL CO INC**
ADDRESS: **513 N 6TH ST**
PRINCETON, MN 55371
RELEASE DISCOVERED: **08/19/1992 00:00:00**
RELEASE REPORT: **08/27/1992 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **10/15/2009 00:00:00**
COMTAMINATED SOILS REMAINING: **YES**
OFFSITE COMTAMINATION: **YES**
PRODUCT RELEASED: **GASOLINE UNLEADED**

GROUND WATER

DRINKING WATER CONTAMINATION: **NO**
FREE PRODUCT OBSERVED: **NO**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **YES**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:05**
DELETED LEAK SITE	**11/17/2006 06:58:20**

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MPCA Remediation Sites (REMSITES)

MAP ID# 26

Distance from Property: 0.462 mi. (2,439 ft.) E
Elevation: 986 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **110490**
AGENCY INTEREST(AI) ID: **110490**
ITEM ID: **110490-AREA0000000002**
AGENCY INTEREST(AI) NAME: **VACANT WAREHOUSE/FORMER GAS STATION**
ADDRESS: **513 N 6TH ST**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0005589**
SITE NAME: **PRINCETON OIL CO INC**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **ADAM SEKELY (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **SARAH LARSEN (FORMER)**
RELEASE DISCOVERED: **8/19/1992**
RELEASE REPORTED: **8/27/1992**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **10/15/2009**

Back to Report Summary

MAP ID# 26

Distance from Property: 0.462 mi. (2,439 ft.) E
Elevation: 986 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **110490**
SITE ID: **110490**
SITE NAME: **VACANT WAREHOUSE/FORMER GAS STATION**
ADDRESS: **513 N 6TH ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=110490**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **ABOVEGROUND TANKS; PETROLEUM REMEDIATION, LEAK SITE; UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0005589; TS0012540; TS0054482**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR; TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP; TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 26

Distance from Property: 0.462 mi. (2,439 ft.) E
Elevation: 986 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **125645**
SITE ID: **125645**
SITE NAME: **FORMER PRINCETON OIL CO**
ADDRESS: **513 N 6TH ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=125645**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MNS000128157**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MNS000128157**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Registered Leaking Storage Tanks (LUAST)

MAP ID# 27

Distance from Property: 0.471 mi. (2,487 ft.) ESE
Elevation: 974 ft. (Lower than TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **14655LUAST**
LEAK ID: **14655**
NAME: **FEDERATED COOPS**
ADDRESS: **211 N LAGRANDE**
PRINCETON, MN 55371
RELEASE DISCOVERED: **03/06/2002 00:00:00**
RELEASE REPORT: **03/06/2002 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **04/03/2003 00:00:00**
COMTAMINATED SOILS REMAINING: **YES**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **DIESEL**

GROUND WATER

DRINKING WATER CONTAMINATION: **NO**
FREE PRODUCT OBSERVED: **NO**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **YES**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:05**
DELETED LEAK SITE	**12/04/2006 08:48:13**

Back to Report Summary

Registered Leaking Storage Tanks (LUAST)

MAP ID# 27

Distance from Property: 0.471 mi. (2,487 ft.) ESE
Elevation: 974 ft. (Lower than TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **19696LUAST**
LEAK ID: **19696**
NAME: **HYTECH AUTO**
ADDRESS: **211 RUM RIVER DR**
PRINCETON, MN 55371
RELEASE DISCOVERED: **12/12/2014 00:00:00**
RELEASE REPORT: **12/12/2014 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **01/06/2016 00:00:00**
COMTAMINATED SOILS REMAINING: **UNKNOWN**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **GASOLINE UNLEADED**

GROUND WATER

DRINKING WATER CONTAMINATION: **NO**
FREE PRODUCT OBSERVED: **NO**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **YES**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**01/06/2016 11:20:08**
LEAK SITE	**12/12/2014 15:03:23**

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MPCA Remediation Sites (REMSITES)

MAP ID# 27

Distance from Property: 0.471 mi. (2,487 ft.) ESE
Elevation: 974 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **100884**
AGENCY INTEREST(AI) ID: **100884**
ITEM ID: **100884-AREA0000000001**
AGENCY INTEREST(AI) NAME: **HYTECH AUTO**
ADDRESS: **211 RUM RIVER DR**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0019696**
SITE NAME: **HYTECH AUTO**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MARK SMITH (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **ALLEN DOTSON (FORMER)**
RELEASE DISCOVERED: **12/12/2014**
RELEASE REPORTED: **12/12/2014**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **1/6/2016**

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MPCA Remediation Sites (REMSITES)

MAP ID# 27

Distance from Property: 0.471 mi. (2,487 ft.) ESE
Elevation: 974 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **195378**
AGENCY INTEREST(AI) ID: **195378**
ITEM ID: **195378-AREA0000000001**
AGENCY INTEREST(AI) NAME: **FEDERATED COOPS**
ADDRESS: **211 N LAGRANDE**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0014655**
SITE NAME: **FEDERATED COOPS**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **JOHN KAEHLER (NO LONGER AT MPCA)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JIM MCCANN (FORMER)**
RELEASE DISCOVERED: **3/6/2002**
RELEASE REPORTED: **3/6/2002**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **4/3/2003**

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MAP ID# 27

Distance from Property: 0.471 mi. (2,487 ft.) ESE
Elevation: 974 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **100884**
SITE ID: **100884**
SITE NAME: **HYTECH AUTO**
ADDRESS: **211 RUM RIVER DR**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=100884**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE; UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0019696; TS0010666**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR; TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP; TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 27

Distance from Property: 0.471 mi. (2,487 ft.) ESE
Elevation: 974 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **195378**
SITE ID: **195378**
SITE NAME: **FEDERATED COOPS**
ADDRESS: **211 N LAGRANDE**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=195378**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **LS0014655**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0014655**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 28

Distance from Property: 0.495 mi. (2,614 ft.) ESE
Elevation: 974 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **194222**
AGENCY INTEREST(AI) ID: **194222**
ITEM ID: **194222-AREA0000000001**
AGENCY INTEREST(AI) NAME: **209 RUM RIVER DRIVE N**
ADDRESS: **209 RUM RIVER DR N**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **SITE ASSESSMENT SITE**
SITE ID: **SA0000318**
SITE NAME: **209 RUM RIVER DRIVE N**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **NOT REPORTED**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

TYPE OF REMEDIATION SITE: **SITE ASSESSMENT SITE**
SITE ID: **SA0000318**
SITE NAME: **HY TECH AUTOMOTIVE**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **KEVIN SIKKILA**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **KEVIN SIKKILA**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **10/30/2015**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

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MAP ID# 28

Distance from Property: 0.495 mi. (2,614 ft.) ESE
Elevation: 974 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **10792**
SITE ID: **10792**
SITE NAME: **STERNQUIST IMPLEMENT INC**
ADDRESS: **209 5TH AVE N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=10792**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE; UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MND022995781; TS0008321**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW; TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE; TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 28

Distance from Property: 0.495 mi. (2,614 ft.) ESE
Elevation: 974 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **194222**
SITE ID: **194222**
SITE NAME: **209 RUM RIVER DRIVE N**
ADDRESS: **211 RUM RIVER DR N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=194222**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **SITE ASSESSMENT**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **SITE ASSESSMENT**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **SA0000318**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SA0000318**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 29

Distance from Property: 0.473 mi. (2,497 ft.) E
Elevation: 965 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **128221**
SITE ID: **128221**
SITE NAME: **SP 4810-17 (TH 95) PRINCETON**
ADDRESS: **SEE LOCATION DESCRIPTION**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=128221**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **C00029972**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **C00029972**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **ST**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

Registered Leaking Storage Tanks (LUAST)

MAP ID# 30

Distance from Property: 0.475 mi. (2,508 ft.) ESE
Elevation: 965 ft. (Lower than TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **1658LUAST**
LEAK ID: **1658**
NAME: **PARK ALIGNMENT INC**
ADDRESS: **301 N LAGRANDE AVE**
PRINCETON, MN 55371
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORT: **10/04/1989 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **06/08/1990 00:00:00**
COMTAMINATED SOILS REMAINING: **NO**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **GASOLINE, TYPE UNKNOWN**

GROUND WATER

DRINKING WATER CONTAMINATION: **NOT REPORTED**
FREE PRODUCT OBSERVED: **NOT REPORTED**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **NO**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:05**
DELETED LEAK SITE	**11/09/2006 14:39:30**

Back to Report Summary

MPCA Remediation Sites (REMSITES)

MAP ID# 30

Distance from Property: 0.475 mi. (2,508 ft.) ESE
Elevation: 965 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **111493**
AGENCY INTEREST(AI) ID: **111493**
ITEM ID: **111493-AREA0000000001**
AGENCY INTEREST(AI) NAME: **PARK ALIGNMENT INC**
ADDRESS: **301 N LAGRANDE AVE**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0001658**
SITE NAME: **PARK ALIGNMENT INC**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MICHAEL CHIODI (NO LONGER AT MPCA)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **ANN BIDWELL (NO LONGER AT MPCA)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **10/4/1989**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **6/8/1990**

Back to Report Summary

MAP ID# 30

Distance from Property: 0.475 mi. (2,508 ft.) ESE
Elevation: 965 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **111493**
SITE ID: **111493**
SITE NAME: **PARK ALIGNMENT INC**
ADDRESS: **301 N LAGRANDE AVE**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=111493**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE; UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0001658; TS0008092**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR; TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP; TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 30

Distance from Property: 0.475 mi. (2,508 ft.) ESE
Elevation: 965 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **16260**
SITE ID: **16260**
SITE NAME: **HY TECH AUTOMOTIVE - PRINCETON**
ADDRESS: **301 N RUM RIVER DR**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=16260**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MND059038836**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MND059038836**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **AUTOMOTIVE BODY, PAINT, AND INTERIOR REPAIR AND MAINTENANCE**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 31

Distance from Property: 0.481 mi. (2,540 ft.) ESE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **110792**
SITE ID: **110792**
SITE NAME: **ELIM HOME**
ADDRESS: **101 S 7TH AVE**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=110792**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **ABOVEGROUND TANKS; UNDERGROUND TANKS**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **TS0008074**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TS0008074**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TL**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **TANKS**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MAP ID# 31

Distance from Property: 0.49 mi. (2,587 ft.) SE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **132857**
SITE ID: **132857**
SITE NAME: **ELIM CARE & REHAB CENTER**
ADDRESS: **701 1ST ST**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=132857**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE, MINIMAL QUANTITY GENERATOR**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MNS000166991**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MNS000166991**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NURSING CARE FACILITIES (SKILLED NURSING FACILITIES)**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 32

Distance from Property: 0.488 mi. (2,577 ft.) E
Elevation: 965 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **98291**
SITE ID: **98291**
SITE NAME: **CSAH 29 (DUNN BRIDGE) SAP 48-629-10**
ADDRESS: **CSAH 29**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=98291**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **C00029154**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **C00029154**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **ST**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **STORMWATER**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 33

Distance from Property: 0.491 mi. (2,592 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **16261**
SITE ID: **16261**
SITE NAME: **HY TECH AUTOMOTIVE OF PRINCETON**
ADDRESS: **908 3RD ST S**
PRINCETON, MN 55371-1701 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=16261**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **HAZARDOUS WASTE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MND985687656**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **MND985687656**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **AUTOMOTIVE REPAIR, SERVICES, AND PARKING**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

Back to Report Summary

MPCA Remediation Sites (REMSITES)

MAP ID# 34

Distance from Property: 0.495 mi. (2,614 ft.) W
Elevation: 990 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **192720**
AGENCY INTEREST(AI) ID: **192720**
ITEM ID: **192720-AREA0000000001**
AGENCY INTEREST(AI) NAME: **WAL-MART STORE NO. 3102-00**
ADDRESS: **SEE LOCATION DESCRIPTION**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP27910**
SITE NAME: **WAL-MART STORE NO. 3102-00**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **AMY HADIARIS**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **NOT REPORTED**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **11/30/2011**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **1/4/2012**

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Voluntary Investigation and Cleanup Program Sites (VICP)

MAP ID# 34

Distance from Property: 0.495 mi. (2,614 ft.) W
Elevation: 990 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **192720VICP**
SITE ID: **192720**
SITE NAME: **WAL-MART STORE NO. 3102-00**
ADDRESS: **SEE LOCATION DESCRIPTION**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=192720**

FACILITY DETAILS

ID: **VP27910**
TYPE: **BROWNFIELDS**
WATERSHED: **RUM RIVER**
ACTIVE?: **NO**
INDUSTRY CLASSIFICATION: **NOT REPORTED**
INSTITUTIONAL CONTROLS: **NO**

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MAP ID# 34

Distance from Property: 0.495 mi. (2,614 ft.) W
Elevation: 990 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **135983**
SITE ID: **135983**
SITE NAME: **WALMART SUPERCENTER 3102**
ADDRESS: **300 21ST AVE N**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=135983**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **MULTIPLE ACTIVITIES**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **CONSTRUCTION STORMWATER; HAZARDOUS WASTE, VERY SMALL QUANTITY GENERATOR**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **MULTIPLE IDS**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **C00033331; MNS000186338**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HW; ST**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **MULTIPLE PROGRAMS**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **HAZARDOUS WASTE; STORMWATER**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **WAREHOUSE CLUBS AND SUPERCENTERS**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MAP ID# 34

Distance from Property: 0.495 mi. (2,614 ft.) W
Elevation: 990 ft. (Higher than TP)

FACILITY INFORMATION

UNIQUE ID: **192720**
SITE ID: **192720**
SITE NAME: **WAL-MART STORE NO. 3102-00**
ADDRESS: **SEE LOCATION DESCRIPTION**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=192720**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **BROWNFIELDS, VOLUNTARY INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **BROWNFIELDS, VOLUNTARY INVESTIGATION AND CLEANUP**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **VP27910**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **VP27910**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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Registered Leaking Storage Tanks (LUAST)

MAP ID# 35

Distance from Property: 0.5 mi. (2,640 ft.) SSE
Elevation: 980 ft. (Equal to TP)

SITE INFORMATION

Note: See updated LUAST information in REMSITES

GEOSEARCH ID: **12726LUAST**
LEAK ID: **12726**
NAME: **FORMER MAINTENANCE GARAGE**
ADDRESS: **3RD ST S**
PRINCETON, MN 55371
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORT: **10/01/1998 00:00:00**
CONDITIONAL CLOSURE DATE: **NOT REPORTED**
COMPLETE SITE CLOSURE DATE: **08/04/1999 00:00:00**
COMTAMINATED SOILS REMAINING: **UNKNOWN**
OFFSITE COMTAMINATION: **UNKNOWN**
PRODUCT RELEASED: **WASTE OIL**

GROUND WATER

DRINKING WATER CONTAMINATION: **NOT REPORTED**
FREE PRODUCT OBSERVED: **NOT REPORTED**
FREE PRODUCT THICKNESS: **NOT REPORTED**
GROUNDWATER CONTAMINATION: **NO**

CLEANUP ACTIONS

- NO CLEANUP ACTIONS REPORTED

INTEREST TYPE:	LAST UPDATE:
LEAK SITE	**11/10/2014 08:17:05**
DELETED LEAK SITE	**12/01/2006 07:16:55**

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MPCA Remediation Sites (REMSITES)

MAP ID# 35

Distance from Property: 0.5 mi. (2,640 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **189598**
AGENCY INTEREST(AI) ID: **189598**
ITEM ID: **189598-AREA0000000001**
AGENCY INTEREST(AI) NAME: **FORMER MAINTENANCE GARAGE**
ADDRESS: **3RD ST S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0012726**
SITE NAME: **FORMER MAINTENANCE GARAGE**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **10/1/1998**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **8/4/1999**

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MAP ID# 35

Distance from Property: 0.5 mi. (2,640 ft.) SSE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

UNIQUE ID: **189598**
SITE ID: **189598**
SITE NAME: **FORMER MAINTENANCE GARAGE**
ADDRESS: **3RD ST S**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=189598**

FACILITY DETAILS

MPCA ACTIVITY OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
COMMA-DELIMITED LIST OF MPCA ACTIVITIES OF INTEREST AT THE SITE: **PETROLEUM REMEDIATION, LEAK SITE**
MPCA ID ASSOCIATED WITH AN ACTIVITY AT THE SITE: **LS0012726**
COMMA-DELIMITED LIST OF MPCA IDS ASSOCIATED WITH ACTIVITIES AT THE SITE: **LS0012726**
COMMA-DELIMITED LIST OF CODES FOR PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **SR**
NAME OF THE MPCA PROGRAM ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
COMMA-DELIMITED LIST OF NAMES OF MPCA PROGRAMS ASSOCIATED WITH ACTIVITIES AT THE SITE: **INVESTIGATION AND CLEANUP**
PRIMARY INDUSTRIAL CLASSIFICATION ASSOCIATED WITH THE SITE: **NOT REPORTED**
INDICATES THE PRESENCE OF INSTITUTIONAL CONTROLS AT THE SITE: **NO**

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MPCA Remediation Sites (REMSITES)

MAP ID# 36

Distance from Property: 0.548 mi. (2,893 ft.) ESE
Elevation: 975 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **191657**
AGENCY INTEREST(AI) ID: **191657**
ITEM ID: **191657-AREA0000000001**
AGENCY INTEREST(AI) NAME: **AMERICAN LEGION NO 216**
ADDRESS: **202 N RUM RIVER DR**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0016079**
SITE NAME: **AMERICAN LEGION NO 216**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **KEVIN MUSTONEN (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **AMY JENDRO (FORMER)**
RELEASE DISCOVERED: **5/17/2005**
RELEASE REPORTED: **5/17/2005**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **7/1/2009**

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MPCA Remediation Sites (REMSITES)

MAP ID# 37

Distance from Property: 0.567 mi. (2,994 ft.) W
Elevation: 987 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **113025**
AGENCY INTEREST(AI) ID: **113025**
ITEM ID: **113025-AREA0000000002**
AGENCY INTEREST(AI) NAME: **AMOCO-HOFMAN OIL CO INC**
ADDRESS: **509 19TH AVE N HIGHWAYS 169 & 95 W**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0019908**
SITE NAME: **AMOCO/BP CONVENIENCE STORE**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **GARY ZARLING**
RELEASE DISCOVERED: **9/29/2015**
RELEASE REPORTED: **9/29/2015**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

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MPCA Remediation Sites (REMSITES)

MAP ID# 38

Distance from Property: 0.587 mi. (3,099 ft.) ESE
Elevation: 982 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **191600**
AGENCY INTEREST(AI) ID: **191600**
ITEM ID: **191600-AREA0000000001**
AGENCY INTEREST(AI) NAME: **BUILDING 501 1ST ST**
ADDRESS: **501 1ST ST**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0010922**
SITE NAME: **BUILDING 501 1ST ST**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **ANDREW EDDY (FORMER)**
RELEASE DISCOVERED: **9/18/1997**
RELEASE REPORTED: **9/22/1997**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **10/26/2010**

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MAP ID# 39

Distance from Property: 0.618 mi. (3,263 ft.) ESE
Elevation: 982 ft. (Higher than TP)

FACILITY INFORMATION

GEOSEARCH ID: **12809**
AGENCY INTEREST(AI) ID: **12809**
ITEM ID: **12809-AREA0000000001**
AGENCY INTEREST(AI) NAME: **GROWING EDGE SERVICE**
ADDRESS: **502 S 2ND ST**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0010715**
SITE NAME: **CENTRAL RIVERS COOPERATIVE**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JIM MACARTHUR (FORMER)**
RELEASE DISCOVERED: **9/3/1997**
RELEASE REPORTED: **9/3/1997**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **11/20/1997**

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0005680**
SITE NAME: **FEDERATED CO-OPS INC.**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **JIM PENNINO (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **AMY JENDRO (FORMER)**
RELEASE DISCOVERED: **9/16/1992**
RELEASE REPORTED: **9/17/1992**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **9/4/2009**

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MPCA Remediation Sites (REMSITES)

MAP ID# 40

Distance from Property: 0.778 mi. (4,108 ft.) SE
Elevation: 980 ft. (Equal to TP)

FACILITY INFORMATION

GEOSEARCH ID: **123490**
AGENCY INTEREST(AI) ID: **123490**
ITEM ID: **123490-AREA0000000001**
AGENCY INTEREST(AI) NAME: **HOLIDAY STATIONSTORE #17**
ADDRESS: **308 S RUM RIVER DR**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0000034**
SITE NAME: **HOLIDAY STATIONSTORE #17**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MICHAEL CHIODI (NO LONGER AT MPCA)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **ANN BIDWELL (NO LONGER AT MPCA)**
RELEASE DISCOVERED: **6/1/1981**
RELEASE REPORTED: **6/1/1981**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **10/8/1990**

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MAP ID# 41

Distance from Property: 0.797 mi. (4,208 ft.) NW
Elevation: 975 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **104117**
AGENCY INTEREST(AI) ID: **104117**
ITEM ID: **104117-AREA0000000001**
AGENCY INTEREST(AI) NAME: **PRINCETON DUMP**
ADDRESS: **SEE LOCATION DESCRIPTION**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **SITE ASSESSMENT SITE**
SITE ID: **SA0008094**
SITE NAME: **PRINCETON DUMP**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **GREGORY SMALL (FORMER)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **1/3/2000**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **6/30/2003**

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP16580**
SITE NAME: **PRINCETON DUMP**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **KEVIN SIKKILA (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **DAVID KNIGHT**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **9/16/2002**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **12/1/2011**

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP16581**
SITE NAME: **PRINCETON DUMP #2**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **DAVID KNIGHT**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **DAVID KNIGHT**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **9/24/2012**

DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **12/23/2013**

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MPCA Remediation Sites (REMSITES)

MAP ID# 42

Distance from Property: 0.882 mi. (4,657 ft.) S
Elevation: 979 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **193349**
AGENCY INTEREST(AI) ID: **193349**
ITEM ID: **193349-AREA0000000001**
AGENCY INTEREST(AI) NAME: **DON WESTLING PROPERTY**
ADDRESS: **700 OLD HWY 18 S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP7770**
SITE NAME: **DON WESTLING PROPERTY**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MARK ELLIOTT**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **AMY MILLER (FORMER)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **11/25/1996**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

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MAP ID# 43

Distance from Property: 0.911 mi. (4,810 ft.) S
Elevation: 977 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **2361**
AGENCY INTEREST(AI) ID: **2361**
ITEM ID: **2361-AREA0000000001**
AGENCY INTEREST(AI) NAME: **WESTLING MANUFACTURING CO**
ADDRESS: **705 HIGHWAY 18 S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **SITE ASSESSMENT SITE**
SITE ID: **SA0000317**
SITE NAME: **WESTLING MANUFACTURING CO.**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **TIMOTHY GRAPE**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **12/21/2015**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

TYPE OF REMEDIATION SITE: **SUPERFUND SITE**
SITE ID: **SR0000182**
SITE NAME: **WESTLING MANUFACTURING CO. OU-1**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MARK ELLIOTT**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **HEIDI BAUMAN**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **12/30/1990**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **4/15/2002**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

TYPE OF REMEDIATION SITE: **SUPERFUND SUB-AREA**
SITE ID: **SR0000302**
SITE NAME: **WESTLING MANUFACTURING CO. OU-2**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MARK ELLIOTT**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **HEIDI BAUMAN**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **10/30/1984**

DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **12/30/1990**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **4/7/2011**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

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MAP ID# 43

Distance from Property: 0.911 mi. (4,810 ft.) S
Elevation: 977 ft. (Lower than TP)

FACILITY INFORMATION

UNIQUE ID: **2361SF**
SITE ID: **2361**
SITE NAME: **WESTLING MANUFACTURING CO**
ADDRESS: **705 HIGHWAY 18 S**
PRINCETON, MN 55371 MILLE LACS
SITE URL: **https://cf.pca.state.mn.us/wimn/siteInfo.cfm?siteid=2361**

FACILITY DETAILS

ID: **SR0000302**
TYPE: **SUPERFUND**
WATERSHED: **RUM RIVER**
ACTIVE?: **YES**
INDUSTRY CLASSIFICATION: **NOT REPORTED**
INSTITUTIONAL CONTROLS: **NO**

ID: **SR0000182**
TYPE: **SUPERFUND**
WATERSHED: **RUM RIVER**
ACTIVE?: **NO**
INDUSTRY CLASSIFICATION: **NOT REPORTED**
INSTITUTIONAL CONTROLS: **NO**

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MPCA Remediation Sites (REMSITES)

MAP ID# 44

Distance from Property: 0.921 mi. (4,863 ft.) SSE
Elevation: 978 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **117494**
AGENCY INTEREST(AI) ID: **117494**
ITEM ID: **117494-AREA0000000001**
AGENCY INTEREST(AI) NAME: **SOUTH ELEMENTARY SCHOOL**
ADDRESS: **805 S 8TH AVE**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0006148**
SITE NAME: **SOUTH ELEMENTARY SCHOOL**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **STEVE GEYEN (NO LONGER AT MPCA)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JESSICA EBERTZ (FORMER)**
RELEASE DISCOVERED: **3/8/1993**
RELEASE REPORTED: **3/8/1993**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **9/6/1994**

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MPCA Remediation Sites (REMSITES)

MAP ID# 45

Distance from Property: 0.934 mi. (4,932 ft.) SSW
Elevation: 974 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **110326**
AGENCY INTEREST(AI) ID: **110326**
ITEM ID: **110326-AREA0000000003**
AGENCY INTEREST(AI) NAME: **SYLVA CORPORATION INC**
ADDRESS: **900 AIRPORT RD**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0019030**
SITE NAME: **SYLDA INC**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **BRITTNEY SCHULLER (FORMER)**
RELEASE DISCOVERED: **2/11/2013**
RELEASE REPORTED: **2/12/2013**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **2/22/2013**

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MAP ID# 46

Distance from Property: 0.939 mi. (4,958 ft.) S
Elevation: 977 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **118395**
AGENCY INTEREST(AI) ID: **118395**
ITEM ID: **118395-AREA0000000001**
AGENCY INTEREST(AI) NAME: **GOOD ROADS EQUIP CO**
ADDRESS: **708 OLD HIGHWAY 18 S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **SITE ASSESSMENT SITE**
SITE ID: **SA0004019**
SITE NAME: **GERBER IND/GOOD ROADS EQUIP CO**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **NOT REPORTED**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **1/1/1987**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **5/19/1998**

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0003972**
SITE NAME: **GOOD ROADS EQUIP CO**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MICHAEL CHIODI (NO LONGER AT MPCA)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **JEAN HANSON (NO LONGER AT MPCA)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **4/29/1991**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **9/15/1992**

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MAP ID# 46

Distance from Property: 0.939 mi. (4,958 ft.) S
Elevation: 977 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **15387**
AGENCY INTEREST(AI) ID: **15387**
ITEM ID: **15387-AREA0000000001**
AGENCY INTEREST(AI) NAME: **GOOD ROADS EQUIPMENT CO**
ADDRESS: **OLD HIGHWAY 18**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **SITE ASSESSMENT SITE**
SITE ID: **MN0000451120**
SITE NAME: **GOOD ROADS EQUIPMENT CO.**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **NOT REPORTED**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

TYPE OF REMEDIATION SITE: **RCRA REMEDIATION SITE**
SITE ID: **MND985711340**
SITE NAME: **GOOD ROADS (RCRA)**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **SCOTT CARLSTROM (NO LONGER AT MPCA)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **NOT REPORTED**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **8/11/1992**

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP0290**
SITE NAME: **GOOD ROADS (VIC)**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MARK ELLIOTT**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **AMY MILLER**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **11/3/1994**

DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **1/1/1997**

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MPCA Remediation Sites (REMSITES)

MAP ID# 47

Distance from Property: 0.956 mi. (5,048 ft.) SE
Elevation: 973 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **144502**
AGENCY INTEREST(AI) ID: **144502**
ITEM ID: **144502-AREA0000000001**
AGENCY INTEREST(AI) NAME: **FLEETWAY**
ADDRESS: **602 S RUM RIVER DR**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **LEAK SITE**
SITE ID: **LS0001170**
SITE NAME: **FLEETWAY**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **MICHAEL CHIODI (NO LONGER AT MPCA)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **ANN BIDWELL (NO LONGER AT MPCA)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **6/2/1989**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **3/22/1991**

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MAP ID# 48

Distance from Property: 0.965 mi. (5,095 ft.) S
Elevation: 976 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **27970**
AGENCY INTEREST(AI) ID: **27970**
ITEM ID: **27970-AREA0000000001**
AGENCY INTEREST(AI) NAME: **AIRWAY PRODUCTS INC**
ADDRESS: **803 S OLD HIGHWAY 18**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **SITE ASSESSMENT SITE**
SITE ID: **MND006162267**
SITE NAME: **AIRWAY PRODUCTS INC**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **NOT REPORTED**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **NOT REPORTED**

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP3840**
SITE NAME: **AIRWAY PRODUCTS**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **BARB GNABASIK (FORMER)**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **NOT REPORTED**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **5/3/1993**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **3/19/1997**

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MPCA Remediation Sites (REMSITES)

MAP ID# 49

Distance from Property: 0.967 mi. (5,106 ft.) SSE
Elevation: 978 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **11554**
AGENCY INTEREST(AI) ID: **11554**
ITEM ID: **11554-AREA0000000001**
AGENCY INTEREST(AI) NAME: **ISD 477 PRINCETON HIGH SCHOOL**
ADDRESS: **807 8TH AVE S**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP6590**
SITE NAME: **PRINCETON ISD #477**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **DAVID FAWCETT (FORMER)**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **1/16/1996**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **7/5/1998**

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MPCA Remediation Sites (REMSITES)

MAP ID# 50

Distance from Property: 0.995 mi. (5,254 ft.) S
Elevation: 976 ft. (Lower than TP)

FACILITY INFORMATION

GEOSEARCH ID: **191188**
AGENCY INTEREST(AI) ID: **191188**
ITEM ID: **191188-AREA0000000001**
AGENCY INTEREST(AI) NAME: **STERLING POINTE**
ADDRESS: **1250 NORTHLAND DR**
PRINCETON, MN 55371

FACILITY DETAILS

TYPE OF REMEDIATION SITE: **BROWNFIELD SITE**
SITE ID: **VP26070**
SITE NAME: **STERLING POINTE**
MPCA HYDROGEOLOGIST OR HYDROLOGIST ASSIGNED TO THE SITE: **NOT REPORTED**
MPCA PROJECT MANAGER ASSIGNED TO THE SITE: **EDWARD OLSON**
RELEASE DISCOVERED: **NOT REPORTED**
RELEASE REPORTED: **NOT REPORTED**
DATE THE APPLICATION / NOTIFICATION RECEIVED: **4/19/2010**
DATE THIS SITE WAS LISTED ON THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELISTED FROM THE PERMANENT LIST OF PRIORITIES (THE STATE SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
DATE THIS SITE WAS DELETED FROM NATIONAL PRIORITIES LIST (THE FEDERAL SUPERFUND LIST): **NOT REPORTED**
SITE CLOSURE DATE: **9/19/2011**

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Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

Database Name	Site ID#	Site Name	Address	City/State/Zip/County
LUAST	134LUAST	PUBLIC SUPPLY WELL CONTAMINATION	123 ADDRESS UNKNOWN	PRINCETON, MN 55371 SHERBURNE
REMSITES	193312	PUBLIC SUPPLY WELL CONTAMINATION	ADDRESS UNKNOWN	PRINCETON, MN 55371 MILLE LACS
WIMN	15475	HOME	707 7TH AVE	PRINCETON 55371-1325 Mille Lacs
WIMN	125373	MARIGOLD/KEMPS	1ST ST	PRINCETON 55371 Mille Lacs
WIMN	193312	PUBLIC SUPPLY WELL CONTAMINATION	ADDRESS UNKNOWN	PRINCETON, MN 55371 MILLE LACS

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 07/01/16

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 08/03/15

This database includes site locations where Engineering and/or Institutional Controls have been identified as part of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ECHOR05 Enforcement and Compliance History Information

VERSION DATE: 08/26/17

The EPA's Enforcement and Compliance History Online (ECHO) database, provides compliance and enforcement information for facilities nationwide. This database includes facilities regulated as Clean Air Act stationary sources, Clean Water Act direct dischargers, Resource Conservation and Recovery Act hazardous waste handlers, Safe Drinking Water Act public water systems along with other data, such as Toxics Release Inventory releases.

ERNSMN Emergency Response Notification System

VERSION DATE: 10/15/17

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

HMIRSR05 Hazardous Materials Incident Reporting System

VERSION DATE: 08/30/17

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 5. Region 5 includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

ICIS Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 09/23/17

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

NLRRCRAC No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 10/17/17

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NLRRCRAT No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 10/17/17

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

RCRASC RCRA Sites with Controls

VERSION DATE: 11/21/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous

waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with institutional controls in place.

SEMSLIENS SEMS Lien on Property

VERSION DATE: 12/11/17

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs. This is a listing of SEMS sites with a lien on the property.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete.

TRI Toxics Release Inventory

VERSION DATE: 12/31/16

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA Toxic Substance Control Act Inventory

VERSION DATE: 12/31/12

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and

importer site.

RCRAGR05 Resource Conservation & Recovery Act - Generator

VERSION DATE: 10/17/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities currently generating hazardous waste. EPA Region 5 includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

ALTFUELS Alternative Fueling Stations

VERSION DATE: 05/16/17

Nationwide list of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE).

FEMAUST FEMA Owned Storage Tanks

VERSION DATE: 12/01/16

This is a listing of FEMA owned underground and aboveground storage tank sites. For security reasons, address information is not released to the public according to the U.S. Department of Homeland Security.

HISTPST Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

ICISCLEANERS Integrated Compliance Information System Drycleaners

VERSION DATE: 09/23/17

This is a listing of drycleaner facilities from the Integrated Compliance Information System (ICIS). The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

MRDS Mineral Resource Data System

VERSION DATE: 03/15/16

MRDS (Mineral Resource Data System) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS.

MSHA Mine Safety and Health Administration Master Index File

VERSION DATE: 09/01/17

The Mine dataset lists all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970. It includes such information as the current status of each mine (Active, Abandoned, NonProducing, etc.), the current owner and operating company, commodity codes and physical attributes of the mine. Mine ID is the unique key for this data. This information is provided by the United States Department of Labor - Mine Safety and Health Administration (MSHA).

BF Brownfields Management System

VERSION DATE: 11/21/17

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL Delisted National Priorities List

VERSION DATE: 12/11/17

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

SEMS Superfund Enterprise Management System

VERSION DATE: 12/11/17

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response,

Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 12/11/17

The Superfund Enterprise Management System Archive listing (SEMS-ARCHIVE) has replaced the CERCLIS NFRAP reporting system in 2015. This listing reflect sites that have been assessed and no further remediation is planned and is of no further interest under the Superfund program.

USUMTRCA Uranium Mill Tailings Radiation Control Act Sites

VERSION DATE: 03/04/17

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

FUSRAP Formerly Utilized Sites Remedial Action Program

VERSION DATE: 03/04/17

The U.S. DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

NMS Former Military Nike Missile Sites

VERSION DATE: 12/01/84

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites.

During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Environmental Records Definitions - FEDERAL

NPL National Priorities List

VERSION DATE: 12/11/17

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL Proposed National Priorities List

VERSION DATE: 12/11/17

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 10/17/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with corrective action activity.

RCRASUBC Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 10/17/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities subject to corrective actions.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 09/14/17

This listing of clandestine methamphetamine laboratories is provided by the Minnesota Department of Health. Each meth lab, spill or dump is a potential hazardous waste site, requiring assessment and remediation by experienced and qualified personnel. Former meth lab sites are being cleaned (or remediated) in many Minnesota communities. In these communities, the cleanups are being guided by city and county ordinances, local housing laws, and Minnesota Statute 145A, the Public Health Nuisance Statute.

CSTF Contaminated Soil Treatment Facilities

VERSION DATE: 10/15/17

Contaminated soil treatment facilities are places that the Minnesota Pollution Control Agency (MPCA) has approved or permitted to take petroleum-contaminated soils from leak sites and provide treatment through a number of different processes. The processes include thermal treatment (usually by roasting soils at high temperatures), composting, or thin-spreading soils and allowing natural microorganisms to biodegrade the petroleum.

IC Sites with Institutional Controls

VERSION DATE: 11/26/17

Institutional controls are defined by Minnesota Statute, Section 115B.02, subdivision 9a, as legally enforceable restrictions, conditions, or controls on the use of real property, ground water, or surface water located at or adjacent to a facility where response actions are taken that are reasonably required to assure that the response actions are protective of public health or welfare or the environment. Institutional controls include restrictions, conditions, or controls enforceable by contract, easement, restrictive covenant, statute, ordinance, or rule, including official controls such as zoning, building codes, and official maps. An affidavit required under section 115B.16, subdivision 2, or similar notice of a release recorded with real property records is also an institutional control.

PCASPILLS Spills Listing

VERSION DATE: 11/17/17

The Minnesota Pollution Control Agency's Emergency Response Team maintains this listing of reported petroleum product, hazardous substance, and/or other spills.

TIERII Tier Two Facility Listing

VERSION DATE: 04/19/17

The Minnesota Department of Public Safety’s Emergency Planning and Community Right-to-Know Act Program (EPCRA) maintains this listing of Tier Two facilities which store hazardous chemicals on-site. These facilities subject to EPCRA reporting submit Tier II forms which provide information such as the Material Safety Data

Sheet (MSDS) chemical or common name, emergency contact information, approximate amount of chemical stored, along with the location of the chemical at the facility.

HWCS Hazardous Waste Cleanup Sites

VERSION DATE: 11/25/17

Soil and or groundwater cleanup under RCRA Corrective Action is conducted by the Site Remediation Division of the Minnesota Pollution Control Agency. The Hazardous Waste Treatment, Storage, or Disposal Facilities enter the RCRA corrective action program through the permitting process. Interim Status Facilities enter the RCRA Correction Action Program through a negotiated process initiated by the MPCA (these facilities at one time applied for a RCRA treatment, storage and or disposal permit, but did not complete the permitting process). Hazardous Waste Generators usually enter the RCRA remediation program through evidence of suspected releases to soil and or ground water from improper management of hazardous wastes or hazardous constituents uncovered during hazardous waste inspections conducted by state, county or city inspectors.

WDP Water Discharge Permits

VERSION DATE: 06/08/17

This Minnesota Pollution Control Agency (MPCA) database includes the following types of water permits: Construction Stormwater Permits, Construction Stormwater Site Subdivisions, Industrial Stormwater Permits, MS4 Projects, and Wastewater Dischargers. A construction stormwater permit is designed to limit pollution during and after construction by controlling the erosion associated with construction activities. A construction stormwater site subdivision is a site where a construction project with an existing stormwater permit has been sub-divided into smaller parcels. Industrial stormwater permits are designed to limit the amount of harmful contaminants that reach surface water and groundwater, by requiring good practices for storing and handling materials. A Municipal Separate Storm Sewer System (MS4) is a system of conveyances - such as gutters, ditches, city streets and storm drains - which is used as a path for stormwater. Regulated MS4s cover large areas, and are owned or operated by a public entity such as a city, county, township, watershed district or university. A wastewater discharger is a facility that generates or treats wastewater for discharge onto land or into water.

BULKSTORAGE Bulk Storage Permits

VERSION DATE: 06/14/17

The Minnesota Department of Agriculture's Licensing Information System (LIS) lists individuals or companies who hold licenses, certificates and/or permits required by state law and regulated by the Department. This database only contains those LIS licenses related to anhydrous ammonia storage facilities and bulk pesticide/ fertilizer storage facilities. Please note the data is real time and therefore constantly changing.

UAST Registered Storage Tanks

VERSION DATE: 11/17/17

The Registered Storage Tanks Database provides information on aboveground and underground storage tanks

registered with the Minnesota Pollution Control Agency. Owners of USTs and ASTs with a capacity of 500 gallons or more which contain petroleum or hazardous substances must notify the MPCA of the existence of these tanks. Tanks not subject to notification include farm and residential motor fuel tanks less than 1,100 gallons; heating oil tanks less than 1,100 gallons; flow-through process tanks; septic tanks; and agricultural chemical tanks. Some of the data included reflects storage tanks reported in the old "TALES" database. New data reported here is from the MPCA's new "TEMPO" database.

AGSPILLS Agricultural Spills Listing

VERSION DATE: 06/08/17

This list of reported spill incidents is provided by the Minnesota Department of Agriculture (MDA). The MDA is the lead agency for response to, and cleanup of, agricultural chemical contamination (pesticides and fertilizers) in Minnesota. The MDA has grouped these spills into three categories: Old Emergencies, Small Spills and Investigations, and Investigations Boundaries. Old Emergencies represent emergencies which were closed prior to March 1, 2004. These files and the locations plotted have not been reviewed for accuracy and completeness. Smalls Spills and Investigations represent the location of small spills and investigations, which were closed after March 1, 2004. Investigation Boundaries represent the approximate extent of large spills and other types of facility investigations. Facility Investigations are further subdivided into the following program areas: Awaiting Prioritization Investigation files of known or potential agricultural chemical contamination that are waiting to be prioritized; Prioritized Investigation files of known or potential agricultural chemical contamination that have been prioritized and are awaiting activation; Comprehensive Facility Investigation/MERLA Investigation files of known or potential agricultural chemical contamination that have been activated in MDA's Comprehensive Facility Investigation Program or are active Superfund sites under MDA's oversite; AgVIC Investigation files of known or potential agricultural chemical contamination that have enrolled in the MDA's Agricultural Voluntary Investigation and Cleanup (AgVIC) Program; and Agricultural Chemical Emergency Response Investigation files that were reported as emergency spills of agricultural chemicals and are large enough in size to be represented by a polygon.

CERCLIS CERCLIS Sites

VERSION DATE: 01/17/18

CERCLIS sites are places that are listed in the federal Comprehensive Environmental Response, Compensation and Liability Information System. This means that they are or were suspected of being contaminated. The CERCLIS database contains information on preliminary assessments, site inspections, and cleanup activities for these sites. After CERCLIS sites are investigated, they may be elevated to state or federal Superfund lists, or it may be determined that no action is necessary. This database is provided by the Minnesota Pollution Control Agency.

CLF Closed Landfills

VERSION DATE: 11/25/17

This database includes closed solid waste facilities and sites that have been entered into the PCA's Closed Landfill Program (CLP). The CLP is a voluntary program established by the legislature in 1994 to properly close,

monitor, and maintain Minnesota's closed municipal sanitary landfills. Any MPCA-permitted mixed-municipal solid waste landfill that stopped accepting mixed municipal solid waste (MMSW) by April 9, 1994, and demolition debris before May 1, 1995, can qualify for application to this program.

CONTINGENCIES Agricultural Contingency Sites

VERSION DATE: 06/08/17

The Minnesota Department of Agriculture (MDA) Incident Response Unit (IRU) is the state lead agency for the investigation and remediation of incidents involving agricultural chemicals (pesticides and fertilizer). This MDA IRU database includes sites with a soil or ground water contingency, deed restriction, local ordinance, restrictive covenant or deed affidavit in place. The accuracy of these sites can be variable. In most cases, the site boundaries should be considered as only representing the vicinity of the soil or ground water contingency area or plume.

HWSTSD Hazardous Waste Treatment Storage Disposal Sites

VERSION DATE: 11/30/17

A hazardous waste Treatment Storage and /or Disposal facility (TSD) is any business designed to treat, store and / or dispose of hazardous waste.These facilities typically collect hazardous wastes for other businesses and treat it or dispose of it properly. TSD facilities must have valid operating permits issued by the Minnesota Pollution Control Agency (MPCA). This means that they are required to develop detailed plans to train and protect their workers and the environment. This database contains active and inactive TSD facilities.

LUAST Registered Leaking Storage Tanks

VERSION DATE: 04/01/16

The Minnesota Pollution Control Agency maintains this listing of leaking aboveground and underground storage tanks. Tank owners are required to immediately report a leak or spill of more than five gallons of petroleum, or any amount of a hazardous substance, from any tank or piping. All leaks and spills from USTs and ASTs and associated piping must be cleaned up to protect the environment and public health.

PBF Petroleum Brownfields Program Sites

VERSION DATE: 01/01/18

This listing of Petroleum Brownfield sites, including those with Development Response Action Plans dated between 2008 and 2012, is provided by the Minnesota Pollution Control Agency (MPCA). The Petroleum Brownfields Program (formerly VPIC) provides the technical assistance and liability assurance needed to facilitate and expedite the development, transfer, investigation and/or cleanup of property that is contaminated with petroleum. Even after cleanup or MPCA file closure most properties will have contamination remaining. State law requires that persons properly manage contaminated soil and water they uncover or disturb - even if they are not the party responsible for the contamination. Property owners, purchasers or developers of property where contaminated soil or water might be encountered may include provisions - called "response actions" - in development plans describing how petroleum contaminated soil and water will be managed if encountered. For

some properties, special construction might be needed to prevent the further spreading of the contamination and/or to prevent petroleum vapors from entering buildings or utility access shafts.

PVICP Potential Voluntary Investigation and Cleanup Program Sites

VERSION DATE: 04/22/16

This listing of Potential Voluntary Investigation and Cleanup Program sites is provided by the Minnesota Pollution Control Agency. These potential sites have not yet entered into the VIC Program until an application has been received at the MPCA.

SWF Open Solid Waste Facilities

VERSION DATE: 11/25/17

Open landfills are regulated by Minnesota Rules 7001 and 7035. They actively accept, under the terms and conditions of a Minnesota Pollution Control Agency permit, certain types of wastes for disposal. They are part of a larger and integrated collection of open solid waste management facilities that process, transfer and receive waste for disposal in Minnesota. Open landfills fall into several categories, which include: demolition, industrial, mixed municipal and municipal waste combustor ash.

UNPERMDUMPS Unpermitted Dump Sites

VERSION DATE: 12/27/17

Unpermitted dump sites are landfills that never held a valid permit from the Minnesota Pollution Control Agency (MPCA). Generally, these dumps existed prior to the permitting program established with the creation of the MPCA in 1967. These dumps are not restricted to any type of waste, but were often old farm or municipal disposal sites that accepted household waste. State assessment staff have investigated many of these dump sites.

VICP Voluntary Investigation and Cleanup Program Sites

VERSION DATE: 11/25/17

The Voluntary Investigation and Cleanup (VIC) Program site listing is provided by the Minnesota Pollution Control Agency. This program encourages timely property transactions by reducing potential health or environmental risks from contamination and promoting the redevelopment of these properties.

WIMN What's In My Neighborhood Database

VERSION DATE: 11/25/17

This online application offers you a way to access a wide variety of environmental information about your community. You can search for: A.) Potentially contaminated sites: Since the early 1980s when major federal and state cleanup programs were created, the MPCA has been aggressively searching for and helping to clean up contaminated properties, from very small to large. This website contains a searchable inventory of those

properties, as well as sites that have already been cleaned up and those currently being investigated or cleaned up. B.) Environmental permits and registrations: This Web application also contains a searchable inventory of businesses that have applied for and received different types of environmental permits and registrations from the MPCA.

REMSITES MPCA Remediation Sites

VERSION DATE: 11/17/17

This is a temporary database of MPCA remediation sites. This is the only updated source of remediation data available while the MPCA migrates their information to an updated platform. The environmental site types that are included are Brownfield, Integrated Remediation, Leaking Storage Tank, RCRA Remediation, Superfund, and Site Assessment Sites.

SF Superfund Site Information Listing

VERSION DATE: 01/01/18

The Minnesota Pollution Control Agency's Superfund Program identifies, investigates and determines appropriate cleanup plans for abandoned or uncontrolled hazardous waste sites where a release or potential release of a hazardous substance poses a risk to human health or the environment. Superfund does not deal with Resource Conservation and Recovery Act (RCRA) sites or petroleum storage tank releases.

Environmental Records Definitions - TRIBAL

USTR05 Underground Storage Tanks On Tribal Lands

VERSION DATE: 04/26/17

This database, provided by the United States Environmental Protection Agency (EPA), contains underground storage tanks on Tribal lands located in EPA Region 5. Region 5 includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

LUSTR05 Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 04/26/17

This database, provided by the United States Environmental Protection Agency (EPA), contains leaking underground storage tanks on Tribal lands located in EPA Region 5. Region 5 includes the following states: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

ODINDIAN Open Dump Inventory on Tribal Lands

VERSION DATE: 11/08/06

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

INDIANRES Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.

Appendix E

Fire Insurance Map No Coverage Letter

BRAUN INTERTEC

Fire Insurance Maps No Coverage Statement

Site Location
West Birch Estates
504 13th Ave N
Princeton, MN

Requested by
Braun Intertec Corporation
11001 Hampshire Ave S
Bloomington, MN

HIG Project #
2013193
Client Project #
B1800529.00
Date Created
01/25/2018

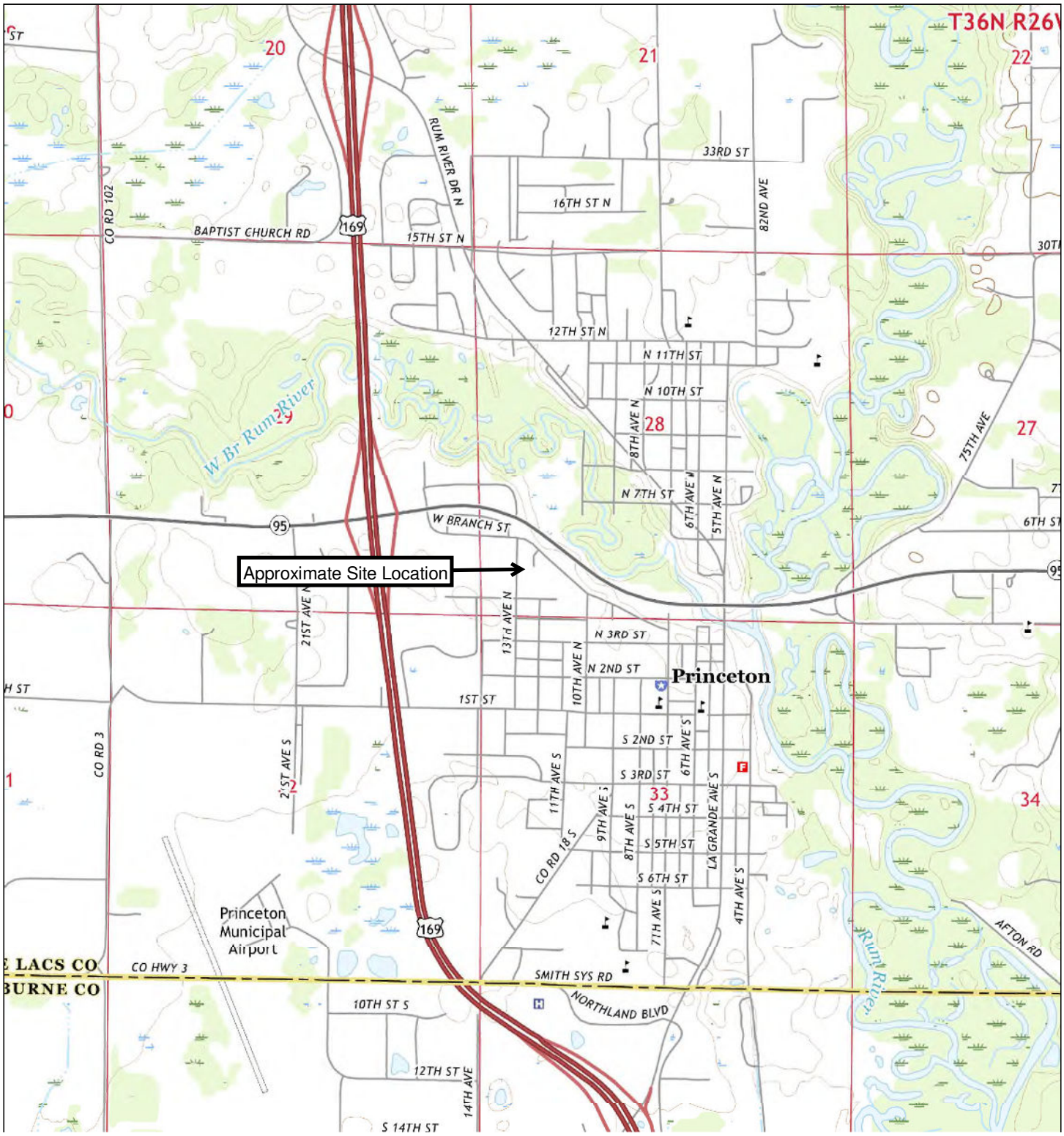
Historical Information Gatherers

The HIG Historical Map Collection and the United States Library of Congress Map Collection were searched for fire insurance maps (FIM), real estate atlases and similar maps for the site location and adjoining properties. No FIMs or similar maps were identified for the site location and/or adjacent properties.

Appendix F

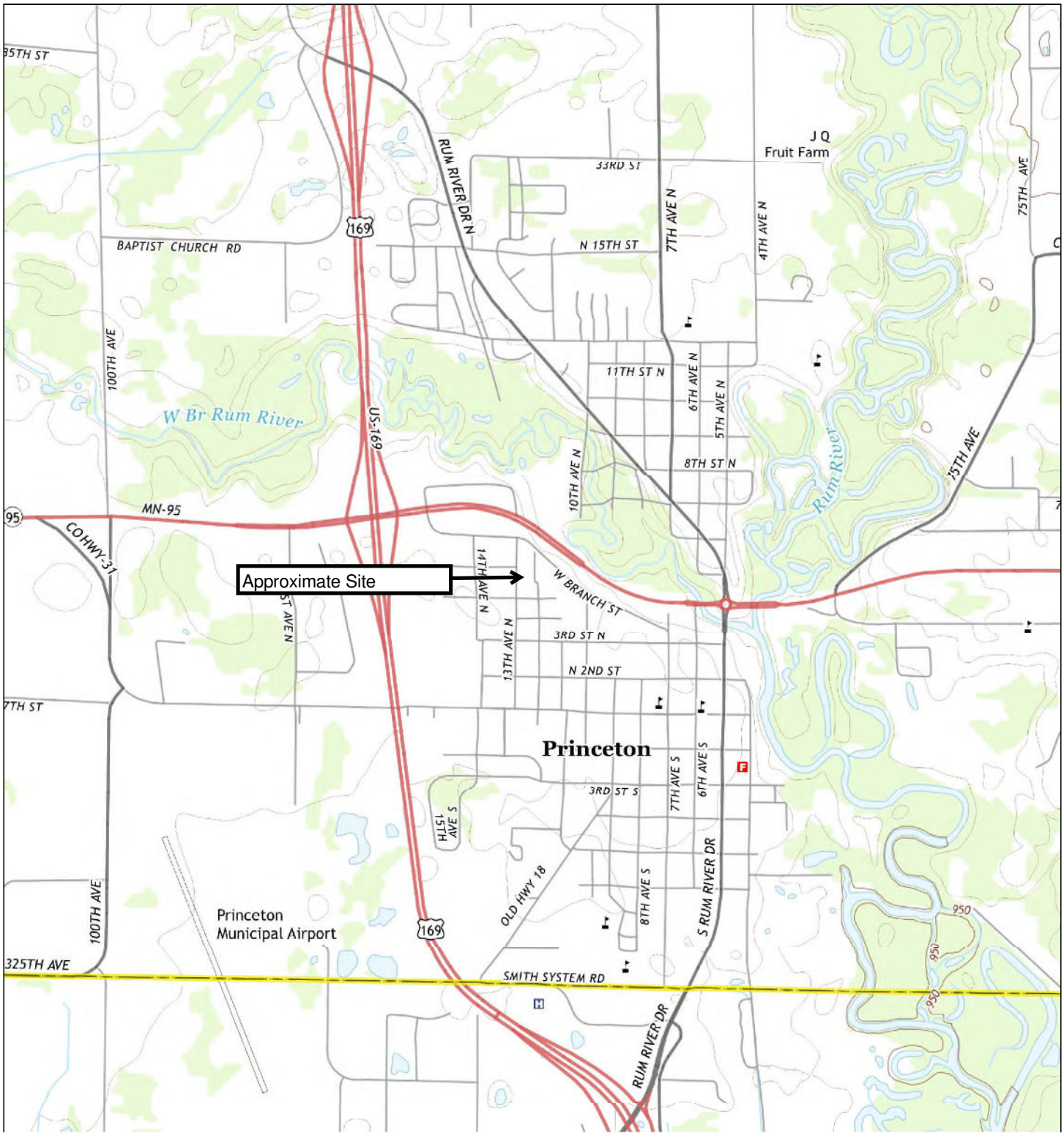
Historical Topographic Maps

BRAUN INTERTEC



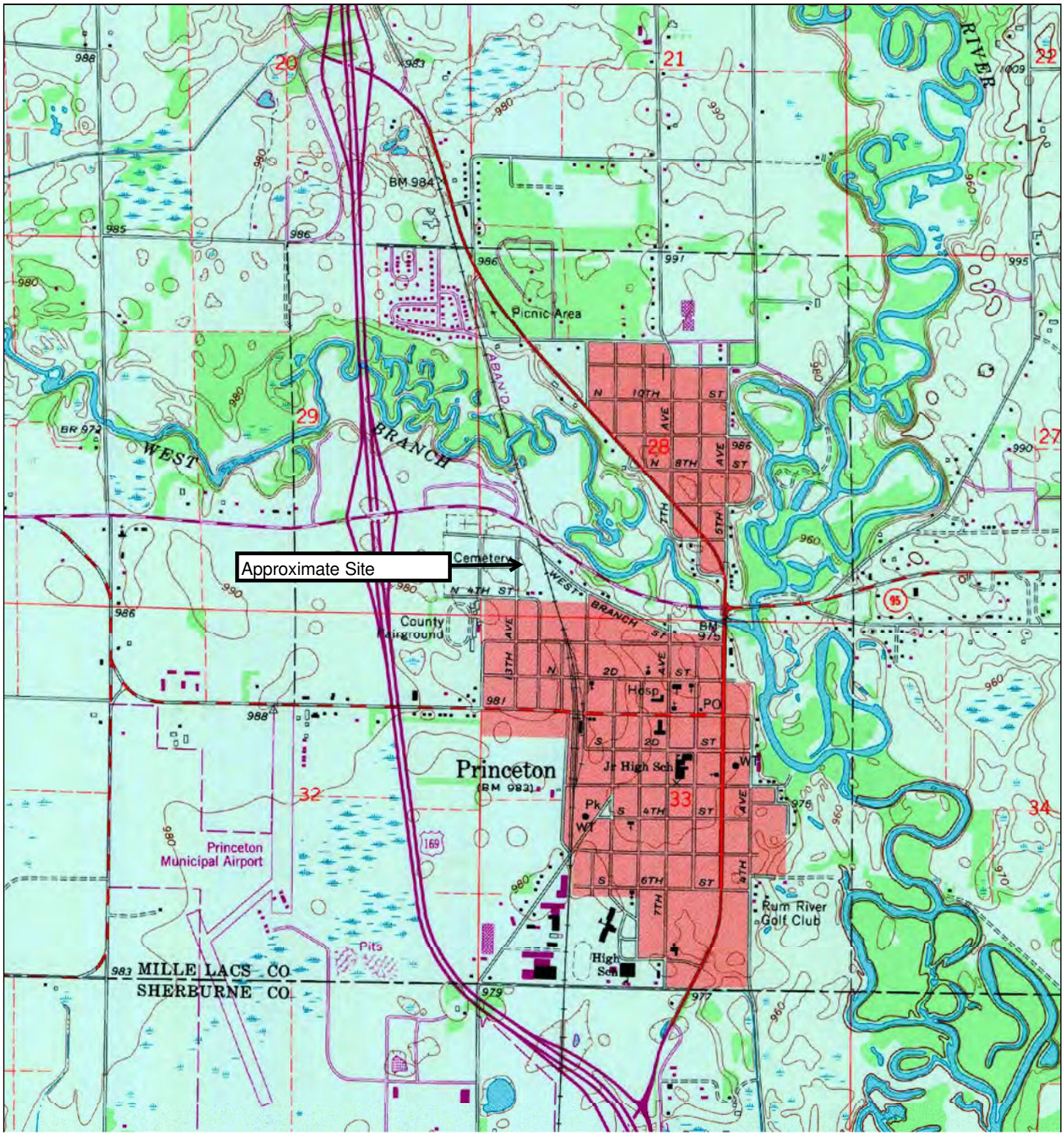
2016	0 Distance in Miles 1 1: 24,000 (1"=2,000') NAD 1983 UTM Zone 15N	Site information: West Birch Estates 504 13th Ave N Princeton, MN
Unified maps show subdued modern topo features where corresponding maps of the same year were not published.		Braun Intertec Corporation project #B1800529.00 HIG #2013193 completed: 01/24/2018

Zone	Topographic Map Name	Publisher	Map Size	Base Map	Aerial Photo Topo Updates Photo Year	Inspected	Revised
All	Princeton, MN	USGS	7½' x 7½'	2016	--	--	--



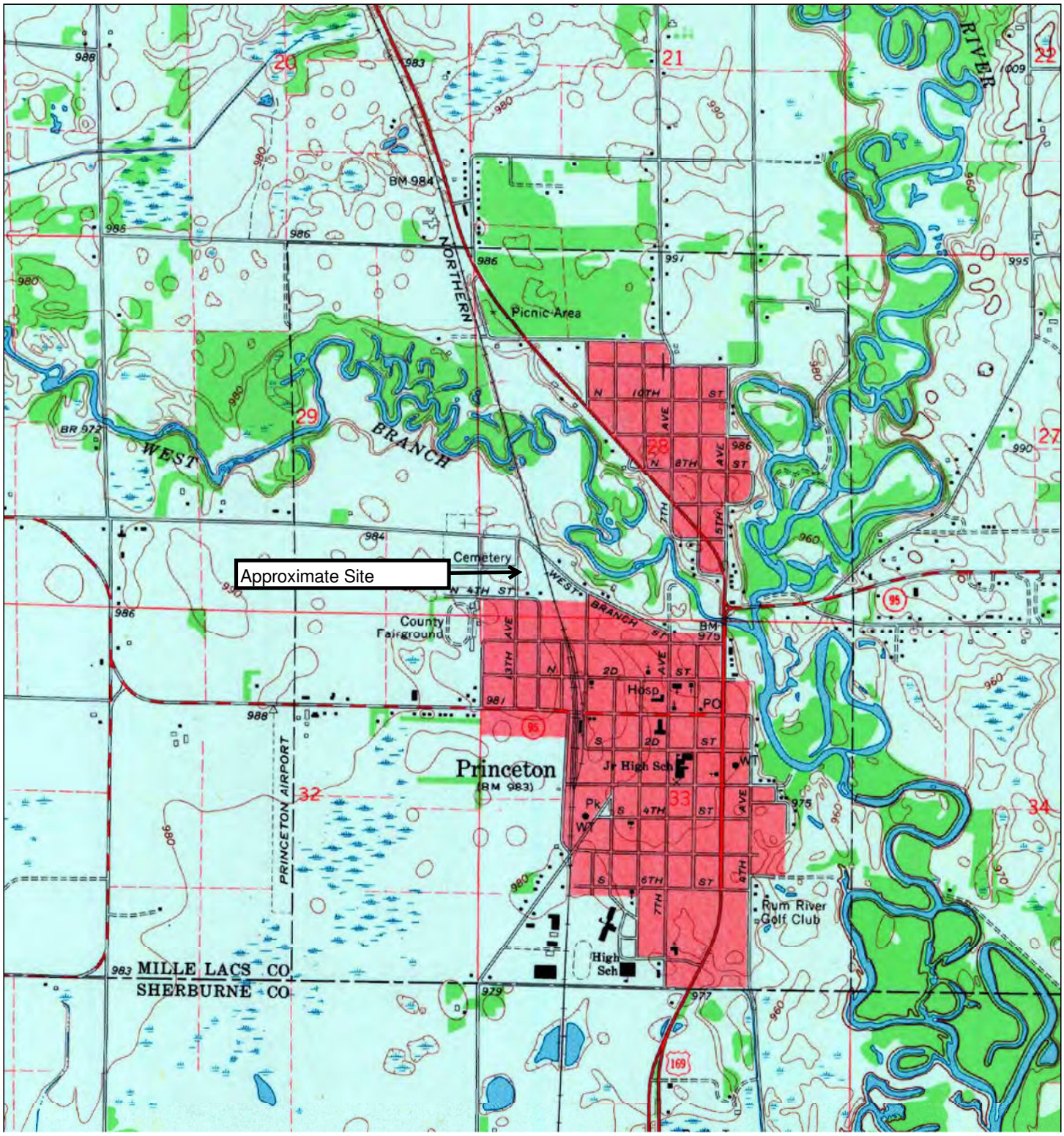
2013	0 Distance in Miles 1 1: 24,000 (1"=2,000') NAD 1983 UTM Zone 15N	Site information: West Birch Estates 504 13th Ave N Princeton, MN
Unified maps show subdued modern topo features where corresponding maps of the same year were not published.		Braun Intertec Corporation project #B1800529.00 HIG #2013193 completed: 01/24/2018

Zone	Topographic Map Name	Publisher	Map Size	Base Map	Aerial Photo Topo Updates Photo Year	Inspected	Revised
All	Princeton, MN	USGS	7½' x 7½'	2013	--	--	--



1982	0 Distance in Miles 1 1: 24,000 (1"=2,000') NAD 1983 UTM Zone 15N	Site information: West Birch Estates 504 13th Ave N Princeton, MN
Unified maps show subdued modern topo features where corresponding maps of the same year were not published.	Braun Intertec Corporation project #B1800529.00 HIG #2013193 completed: 01/24/2018	

Zone	Topographic Map Name	Publisher	Map Size	Base Map	Aerial Photo Topo Updates Photo Year	Inspected	Revised
All	Princeton, MN	USGS	7½' x 7½'	1968	1980	--	1982



1968	0 Distance in Miles 1 1: 24,000 (1"=2,000') NAD 1983 UTM Zone 15N	Site information: West Birch Estates 504 13th Ave N Princeton, MN
Unified maps show subdued modern topo features where corresponding maps of the same year were not published.	Braun Intertec Corporation project #B1800529.00 HIG #2013193 completed: 01/24/2018	

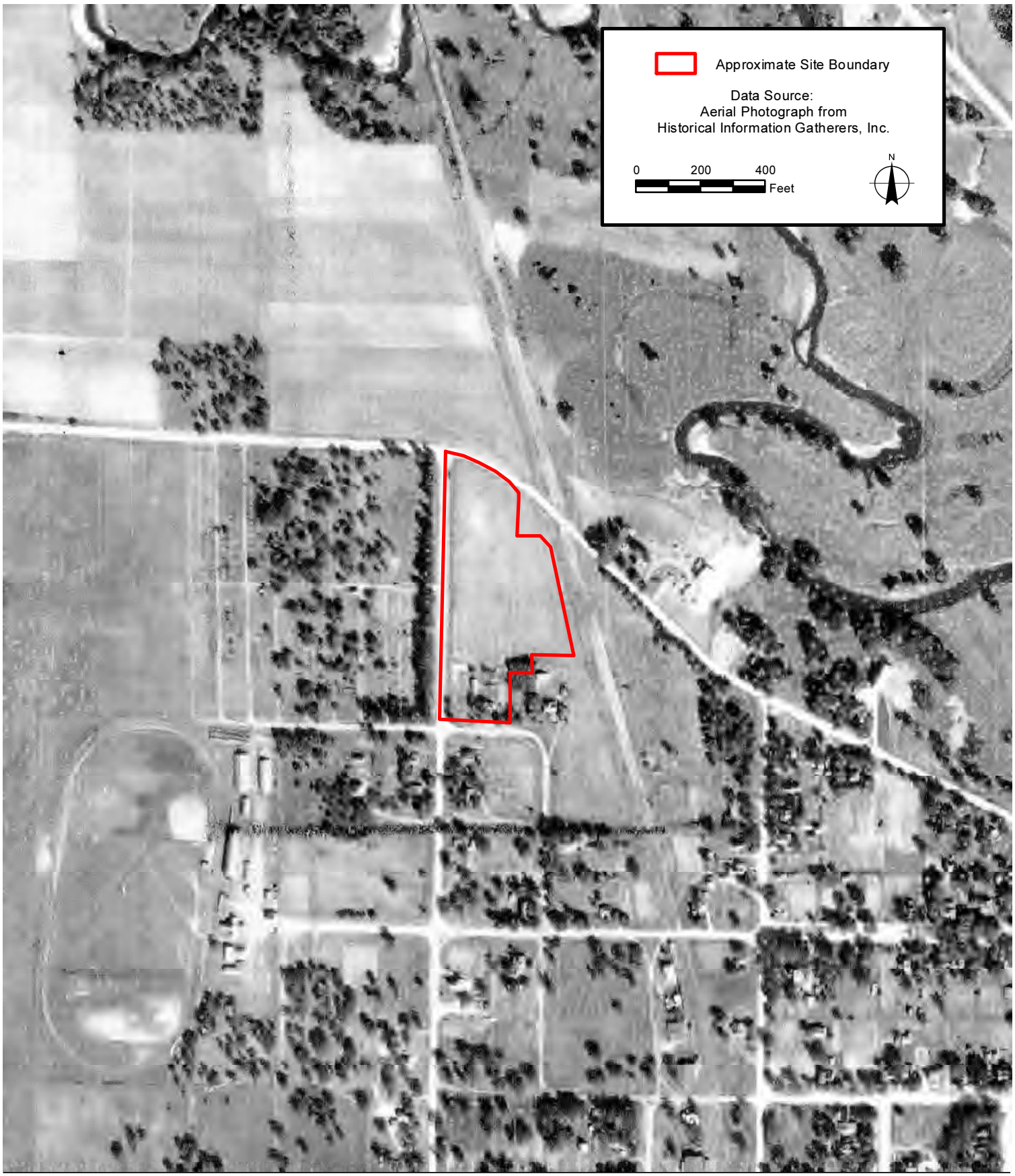
Zone	Topographic Map Name	Publisher	Map Size	Base Map	Aerial Photo Topo Updates Photo Year	Inspected	Revised
All	Princeton, MN	USGS	7½' x 7½'	1968	1966	--	--

Appendix G

Aerial Photographs

BRAUN INTERTEC

W:\DRAFTS\FayeGIS\FayeGIS\B1800529.00\B1800529.00_Historical.mxd



BRAUN INTERTEC
11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No: B1800529.00

Drawing No: B1800529.00_Historical

Drawn By:	FER
Date Drawn:	1/26/2018
Checked By:	DST
Last Modified:	1/26/2018

West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1938

Sheet: 1 of 12

Fig: 3

W:\DRAFTS\FayeGIS\FayeGIS\B1800529.00\B1800529.00_Historical.mxd

BRAUN INTERTEC
11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No: B1800529.00

Drawing No: B1800529.00_Historical

Drawn By:	FER
Date Drawn:	1/26/2018
Checked By:	DST
Last Modified:	1/26/2018

West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1953

Sheet: 2 of 12

Fig: 3

W:\DRAFTS\FayeGIS\FayeGIS\B1800529.00\B1800529.00_Historical.mxd

BRAUN INTERTEC
11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No: B1800529.00

Drawing No: B1800529.00_Historical

Drawn By:	FER
Date Drawn:	1/26/2018
Checked By:	DST
Last Modified:	1/26/2018

West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1957

Sheet: 3 of 12

Fig: 3

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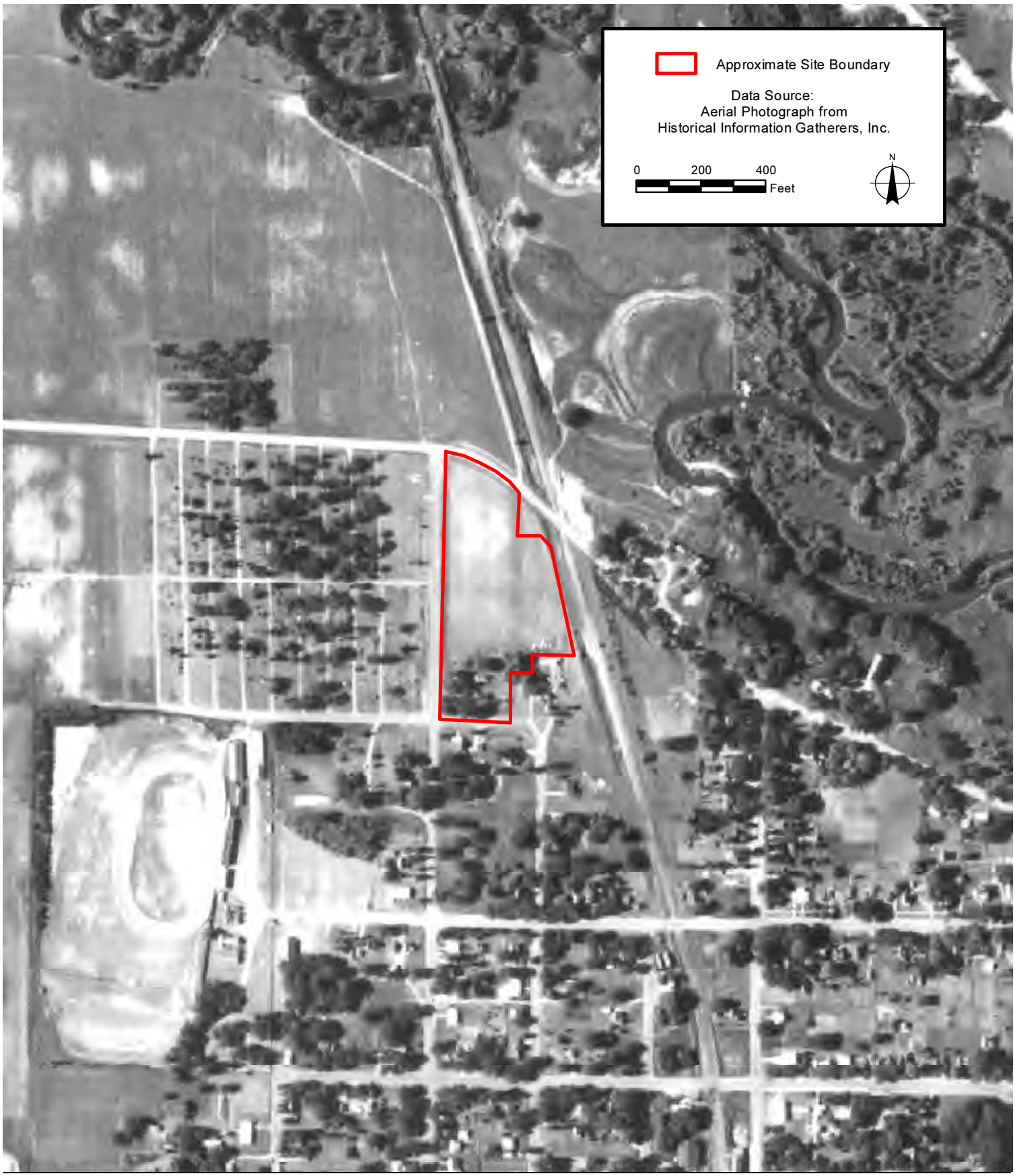

BRAUN INTERTEC
11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No: B1800529.00

Drawing No: B1800529.00_Historical

Drawn By:	FER
Date Drawn:	1/26/2018
Checked By:	DST
Last Modified:	1/26/2018

West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1963

Sheet: 4 of 12

Fig: 3

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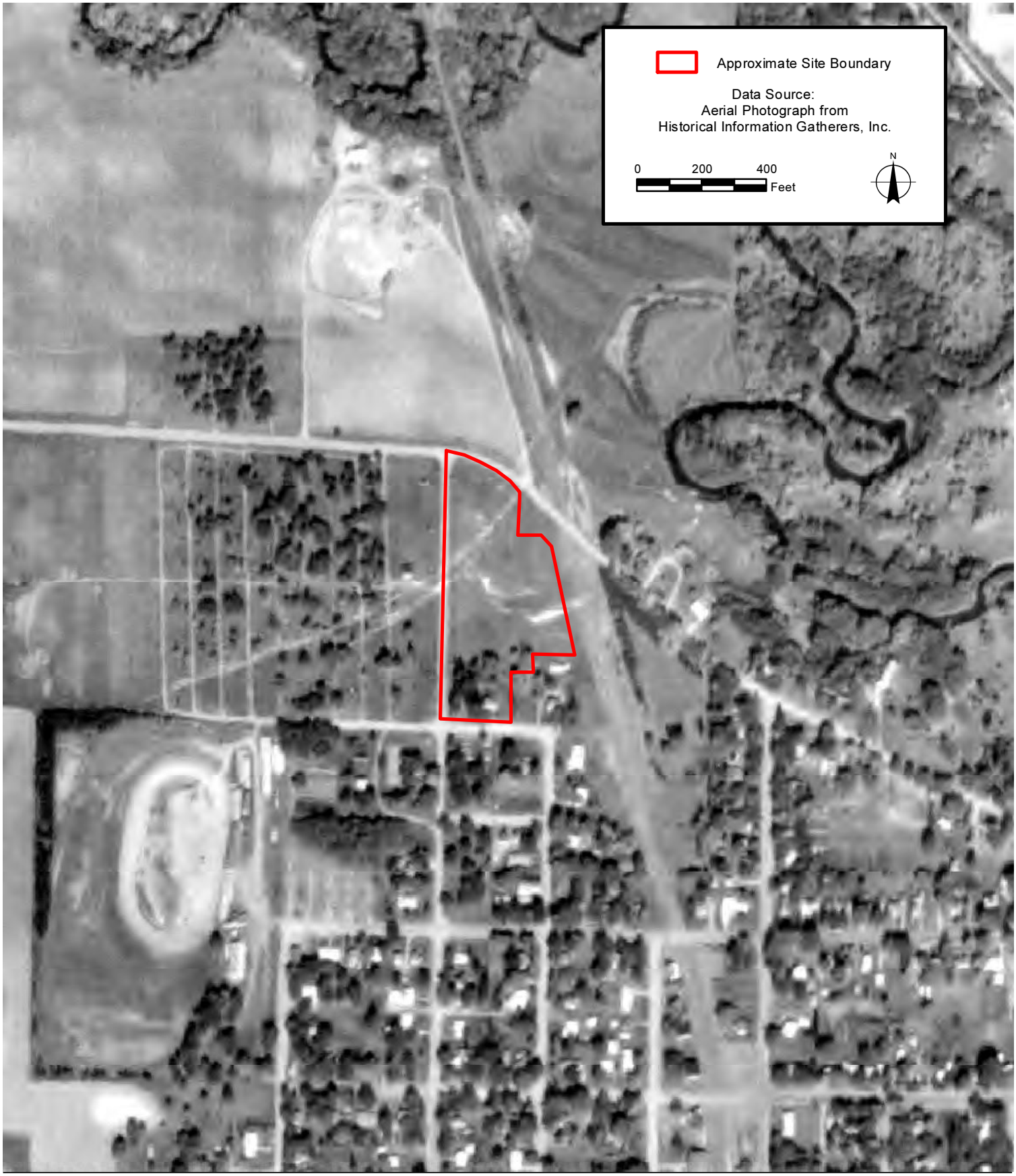

BRAUN INTERTEC
11001 Hampshire Avenue S
Minneapolis, MN 55438
952.995.2000
braunintertec.com

Project No: B1800529.00

Drawing No: B1800529.00_Historical

Drawn By:	FER
Date Drawn:	1/26/2018
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Last Modified:	1/26/2018

West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1970

Sheet: 5 of 12

Fig: 3

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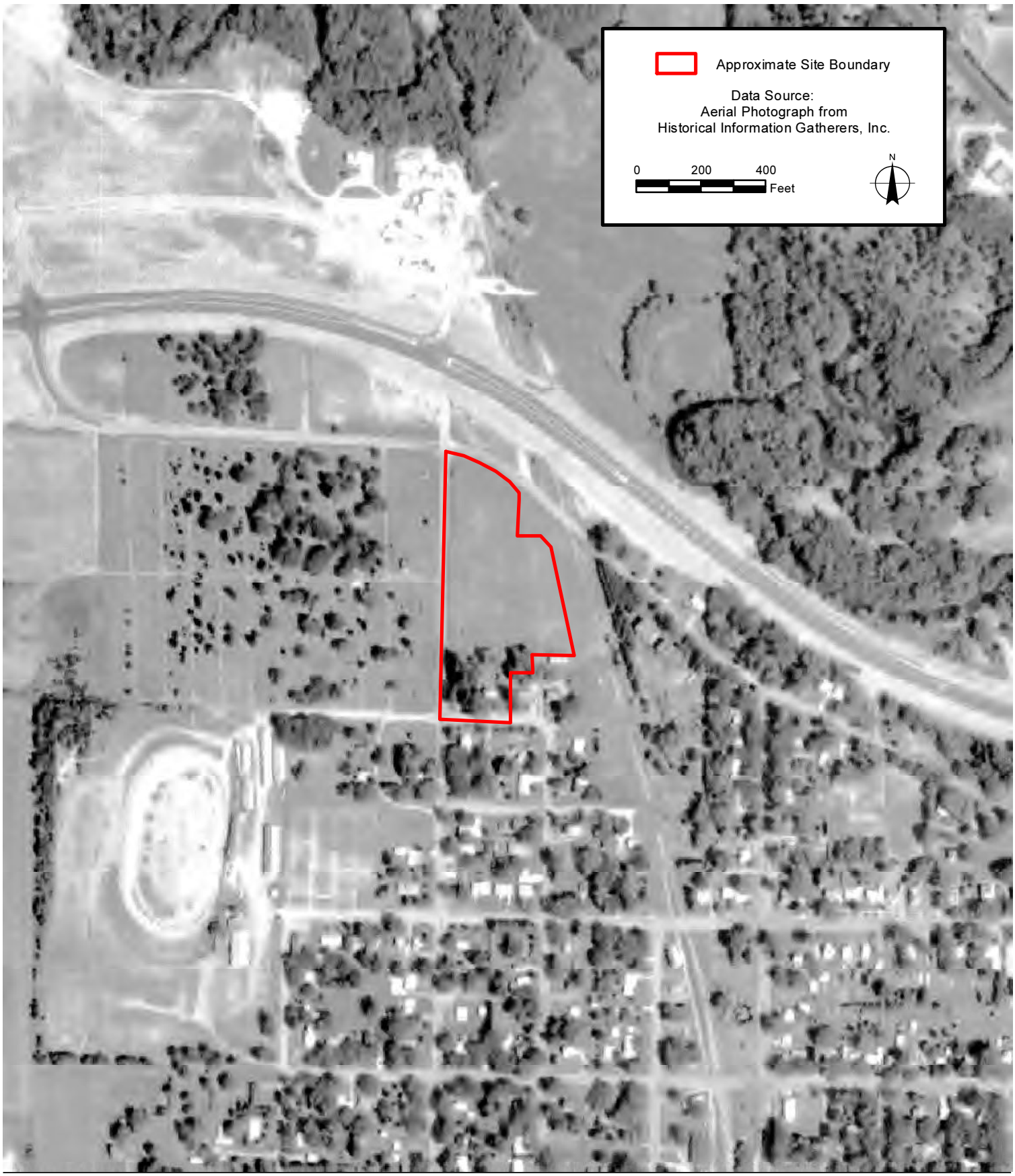

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Drawing No: B1800529.00_Historical

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West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1980

Sheet: 6 of 12

Fig: 3

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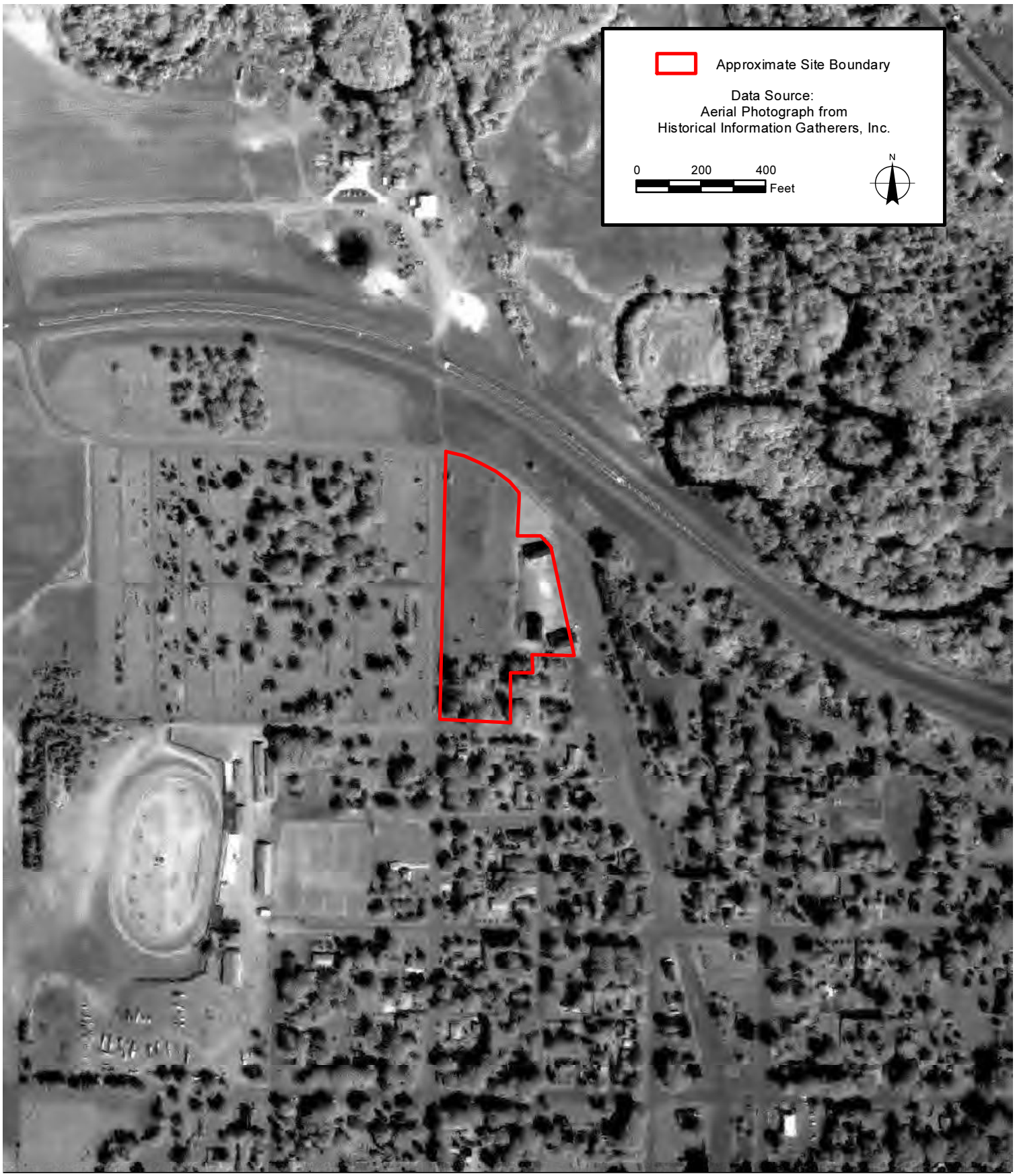

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Drawing No: B1800529.00_Historical

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West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1984

Sheet: 7 of 12

Fig: 3

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Drawing No: B1800529.00_Historical

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West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1991

Sheet: 8 of 12

Fig: 3

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West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 1998

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Fig: 3

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West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 2003

Sheet: 10 of 12

Fig: 3

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West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 2008

Sheet: 11 of 12

Fig: 3

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Project No: B1800529.00

Drawing No: B1800529.00_Historical

Drawn By:	FER
Date Drawn:	1/26/2018
Checked By:	DST
Last Modified:	1/26/2018

West Birch Estates

504 13th Avenue North

Princeton, Minnesota

Historic Aerial 2015

Sheet: 12 of 12

Fig: 3

Appendix H

Site Photographs

BRAUN INTERTEC

Photograph #1	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing east	
Subject:	View from the northwest corner of the Site	

Photograph #2	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing south	
Subject:	View from the northwest corner of the Site	

Photograph #3	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing south-southwest	
Subject:	The 1201-1211 Site building and associated parking lot	

Photograph #4	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing east-southeast	
Subject:	The 602-612 Site building and associated parking lot	

Photograph #5	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing east-northeast	
Subject:	The 502-512 Site building and associated parking lot	

Photograph #6	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing north	
Subject:	The 1204-1214 Site building and associated parking lot	

Photograph #7	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing west-southwest	
Subject:	View from the north boundary of the east Site parcel	

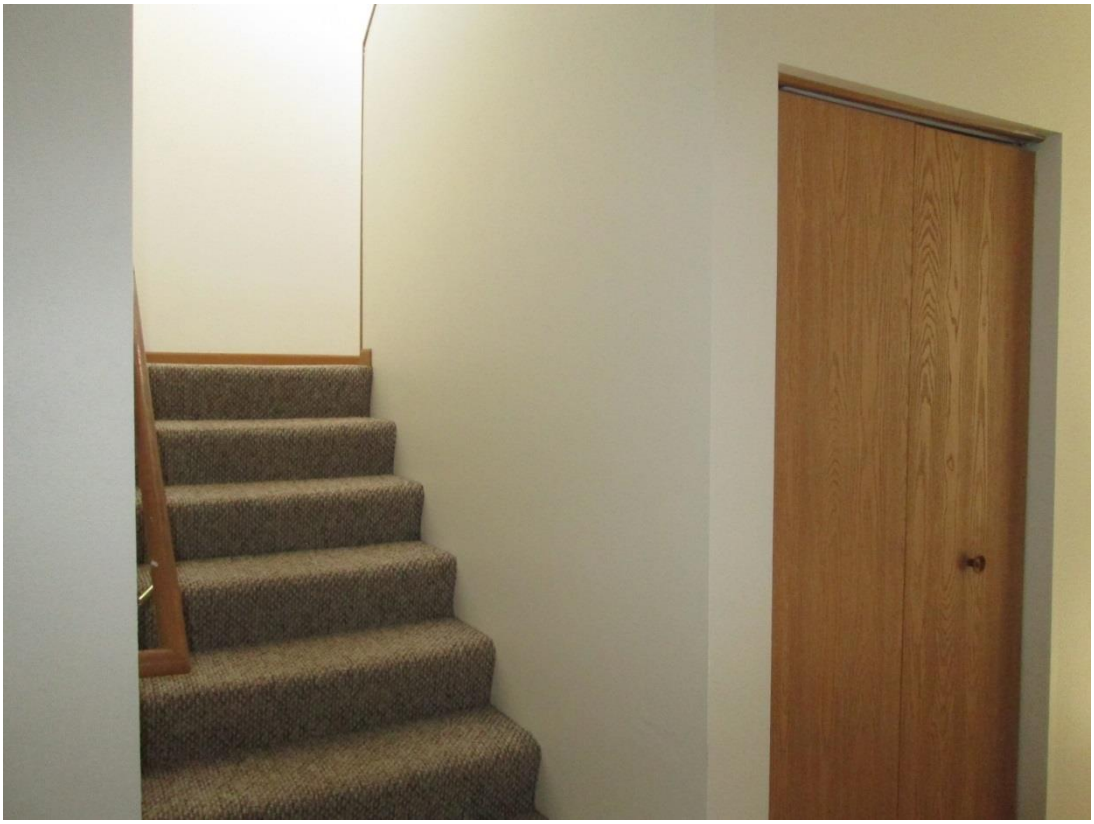
Photograph #8	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing south	
Subject:	View of the east Site parcel	

Photograph #9	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing southwest	
Subject:	South portion of the east Site parcel	

Photograph #10	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Direction:	Facing northeast	
Subject:	View of the east Site parcel	

Photograph #11	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Location:	Inside a vacant unit	
Subject:	Typical livingroom	

Photograph #12	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Location:	Inside a vacant unit	
Subject:	Typical kitchen and dinning area	



Photograph #13	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Location:	Inside a vacant unit	
Subject:	Stairs to second floor	

Photograph #14	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Location:	Inside a vacant unit	
Subject:	Bedrooms on second floor	

Photograph #15	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Location:	Inside a vacant unit	
Subject:	Typical natural gas forced air furnace	

Photograph #16	West Birch Estates & Proposed 16-Unit Apartment	B1800529.00
Date:	February 1, 2018	BRAUN INTERTEC
Location:	Inside the maintenance shed	
Subject:	Gasoline for snow removal & lawn equipment	

Appendix I

Short-Term Radon Results

BRAUN INTERTEC

Short-Term Radon Testing Results
West Birch Estates
Princeton, Minnesota
B1800529.00

Kit Number	Start Date	Start Time	End Date	End Time	Temperature	Facility	Building	Room	Floor	Result
7933204	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	1201	LIVINGROOM	1	1.7
7933205	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	1203	LIVINGROOM	1	0.9
7933206	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	1205	LIVINGROOM	1	0.8
7933207	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	1205	BEDROOM	2	0.8
7933208	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	1207	LIVINGROOM	1	0.8
7933209	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	1209	LIVINGROOM	1	0.8
7933210	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	1211	LIVINGROOM	1	1.3
7933211	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	1211	LIVINGROOM	1	1.6
7933212	2018-02-01	9:00 am	2018-02-05	9:00 am	70	WEST BIRCH ESTATES	612	LIVINGROOM	1	1.4
7933213	2018-02-01	9:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	610	LIVINGROOM	1	0.8
7933214	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	608	LIVINGROOM	1	1.1
7933215	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	608	LIVINGROOM	1	< 0.3
7933216	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	606	LIVINGROOM	1	0.7
7933217	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	604	LIVINGROOM	1	0.8
7933218	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	604	BEDROOM	2	0.7
7933219	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	602	LIVINGROOM	1	2
7933220	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	512	LIVINGROOM	1	0.9
7933221	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	510	LIVINGROOM	1	0.8
7933222	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	508	LIVINGROOM	1	1.2
7933223	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	506	LIVINGROOM	1	0.9
7933224	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	504	LIVINGROOM	1	0.8
7933225	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	504	LIVINGROOM	1	0.9
7933226	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	504	BEDROOM	2	0.9
7933227	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	502	BEDROOM	1	< 0.3
7933228	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	1214	LIVINGROOM	1	0.8
7933229	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	1212	LIVINGROOM	1	0.9
7933230	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	1210	LIVINGROOM	1	0.8
7933231	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	1210	LIVINGROOM	1	0.8
7933232	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	1208	LIVINGROOM	1	0.9
7933233	2018-02-01	10:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	1206	LIVINGROOM	1	1
7933234	2018-02-01	11:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	1204	LIVINGROOM	1	0.8
7933235	2018-02-01	11:00 am	2018-02-05	10:00 am	70	WEST BIRCH ESTATES	OFFICE	LIVINGROOM	1	< 0.3

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1201

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933204	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	1.7 ± 0.3	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1203

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933205	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	0.9 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1204

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933234	LIVINGROOM	2018-02-01 @ 11:00 am	2018-02-05 @ 10:00 am	0.8 ± 0.2	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1205

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933207	BEDROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	0.8 ± 0.2	2018-02-06
7933206	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	0.8 ± 0.2	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1206

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933233	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	1.0 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1207

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933208	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	0.8 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1208

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933232	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.9 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1209

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933209	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	0.8 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1210

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933230	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.8 ± 0.2	2018-02-06
7933231	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.8 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1211

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933210	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	1.3 ± 0.2	2018-02-06
7933211	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	1.6 ± 0.3	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1212

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933229	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.9 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
1214

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933228	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.8 ± 0.2	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
502

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933227	BEDROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	< 0.3	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
504

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933226	BEDROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.9 ± 0.2	2018-02-06
7933224	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.8 ± 0.2	2018-02-06
7933225	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.9 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
506

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933223	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.9 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
508

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933222	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	1.2 ± 0.2	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
510

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933221	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.8 ± 0.2	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
512

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933220	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.9 ± 0.2	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
602

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933219	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	2.0 ± 0.3	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
604

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933218	BEDROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.7 ± 0.2	2018-02-06
7933217	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.8 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
606

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933216	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	0.7 ± 0.2	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
608

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933214	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	1.1 ± 0.2	2018-02-06
7933215	LIVINGROOM	2018-02-01 @ 10:00 am	2018-02-05 @ 10:00 am	< 0.3	2018-02-06

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February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
610

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933213	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 10:00 am	0.8 ± 0.2	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

February 6, 2018 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
WEST BIRCH ESTATES
612

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7933212	LIVINGROOM	2018-02-01 @ 9:00 am	2018-02-05 @ 9:00 am	1.4 ± 0.3	2018-02-06

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

Appendix J

References

BRAUN INTERTEC

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"Web Soil Survey: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture," *Web Soil Survey*,* n.d., http://websoilsurvey.nrcs.usda.gov/app/, (02/06/2018).

Appendix K

Resumes

BRAUN INTERTEC

DANIELLE S. TAUTGES

Project Scientist

EDUCATION

B.S., Geography,
University of North Dakota

CERTIFICATIONS

NEHA-NRPP: Accredited
Radon Measurement Provider
NRPP ID No. 107541 RT

AARST-NRPP Advanced Certificate Program
Multifamily Measurement

AARST Radon Professional
Radon Measurement
Multifamily Measurement

40-Hour HAZWOPER Certification and Annual Refresher Training

OSHA 29 CFR 1910.120
Hazmat Training

OSHA 29 CFR 1910.132
Personal Protective Equipment Training

OSHA 29 CFR 1910.134
Respiratory Protection Training

USEPA: Accredited
Asbestos Inspector
No. AI11323

MEMBERSHIP

American Association of Radon Scientist and Technologists (AARST) since 2014

ENVIRONMENTAL SITE ASSESSMENTS

Ms. Tautges is responsible for conducting Environmental Site Assessments (ESA) at various locations nationwide. Danielle's work involves collecting data, researching historical and regulatory records, conducting site field studies and reconnaissance, and reporting the results. She has more than 11 years of experience conducting Phase I ESAs requiring additional attention to client specifications beyond the industry standard. She meets the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. Danielle has conducted assessments and prepared reports in accordance with requirements of AAI, ASTM, Environmental Protection Agency (EPA), Minnesota Pollution Control Agency (MPCA), the U.S. Department of Housing and Urban Development (HUD), Minnesota Housing and Finance Authority (MHFA), and the Small Business Administration (SBA) and various lending and financial institutions.

Danielle's Phase I investigations have involved:

- Undeveloped sites
- Farmsteads
- Single-family dwellings
- Multi-family residential properties
- Commercial buildings
- Office buildings
- Warehouse buildings
- Restaurants
- Retail mall and shopping centers
- National retail stores
- Airports
- Manufacturing facilities
- Light industrial facilities
- Printing facilities
- Hospitals
- Corridors
- Railroad parcels
- Filling stations
- Automotive repair facilities
- Portfolio projects
- State Superfund Sites
- National Priority List Sites

Danielle also has provided professional consulting services related to Phase II ESAs, sub-slab soil-gas investigations, and indoor air quality investigations.

RADON MEASUREMENT PROFESSIONAL

Danielle was educated and began testing for radon in 2009 and has been a certified radon measurement professional with the National Radon Proficiency Program (NRPP) since 2014. With this certification she provides education, consulting and radon measurement services for her clients in accordance with national standards, including ANSI/AARST, HUD, Freddie Mac, MHFA, and other applicable state and/or local requirements. Danielle has continued her education by completing the American Association of Radon Scientists and Technologist and National Radon Proficiency Program (AARST-NRPP) Advanced Certificate Program for Multifamily Measurement. She is considered an AARST Radon Professional in the area of Radon Measurement and Multifamily Measurement. Radon knowledge and education is a passion of Danielle's, leading her to become a member of AARST and help oversee this service area for Braun Intertec.

Danielle has demonstrated the ability to work well with clients by monitoring the day-to-day status of existing projects, keeping an eye on project budgets, coordinating schedules, staying in touch with clients throughout the project process, and adhering to the client's desired schedule.

DANIELLE S. TAUTGES

Project Scientist

SELECTED PROJECT EXPERIENCE INCLUDES:

- *Various States in the United States* — Worked on multiple large portfolios for a major real estate funding company.
- *Eagan, MN* — Aided in completing more than 40 ESA properties as part of a large-scale city redevelopment and revitalization project.
- *Naval Industrial Reserve Ordnance Plant (NIROP)/British Aerospace Systems (BAE Systems)/FMC Corp. Fridley Plant (FMC Site), Fridley, MN* — In conjunction with a Principal Engineer, completed a Phase I ESA on two parcels totaling approximately 122 acres developed with a 2,048,052-square-foot industrial facility that formerly manufactured gun mounts for the US Navy. A multi-tenant industrial facility at the time of the assessment, the largest tenant was BAE Systems (formerly United Defense). The operations and support facilities for the former manufacturing activities included welding, cutting, grinding, vapor degreasing of metal parts and products, painting, foundry operations, heat treating, plating, annealing, etching, bulk gasoline and fuel oil storage, chemical storage, on-site waste storage and disposal, and machining. Soil and groundwater contamination remain at this property and there have been significant environmental remedial investigations and remedial actions at the facility that started in approximately 1981 and continue to the present.
- *Former Viking Foods, Bloomington, MN* — Project manager responsible for completing a Phase I ESA, sub-slab soil-gas and indoor air sampling report, requesting and receiving a No Association Determination letter from the MPCA and expediting groundwater sampling at the site.
- *France Avenue Business Park I, II, and III, Brooklyn Park, MN* — Project manager responsible for conducting a Phase I ESA for a client prior to purchase of a State Superfund Site (Joslyn Manufacturing) that had been delisted from the federal National Priority List. Joslyn Manufacturing treated wood using creosote, pentachlorophenol, and copper-arsenic solution methods. Current actions at the former Joslyn site include operating a groundwater recovery system and a dense non-aqueous phase liquid (DNAPL) recovery system.
- *Highway 7 Business Center, St. Louis Park, MN* — Project manager responsible for conducting a Phase I ESA for a client prior to purchase of a State Superfund Site (National Lead) that had been delisted from the federal National Priority List. The site was used in the past for manufacturing, smelting, foundry operations, machine shops, heat-treating and automotive salvage.
- *Minneapolis FBI Field Office, Brooklyn Center, MN* — Project manager responsible for conducting a large-scale short-term radon in air testing and radon in water sampling project on a new building prior to government occupancy in accordance with project specifications provided by the government.
- *Various Sites in Minnesota* — Project manager on numerous Phase I ESAs in order to obtain funding from HUD. In addition, Danielle was the radon measurement professional for these projects due to radon testing being one of the additional scope items with the requirement that radon testing be conducted to the HUD standards and protocols.

MARK A. CIAMPONE, PG

Associate Principal, Senior Scientist

EDUCATION

M.S., Geochemistry
University of Cincinnati

B.A., Geology
University of Minnesota, Morris

PROFESSIONAL REGISTRATIONS

MN Professional Geologist
No. 30368

CERTIFICATIONS

40-Hour HAZWOPER Certification and Annual Refresher Training

OSHA 29 CFR 1910.120
Hazmat Training

OSHA 29 CFR 1910.132
Personal Protective Equipment Training

OSHA 29 CFR 1910.134
Respiratory Protection Training

OSHA 29 CFR 1910.146
Confined Space Entry Training

PROFESSIONAL AFFILIATIONS

National Groundwater Association

Mr. Ciampone is responsible for the management of Phase I and II Environmental Site Assessments (ESAs); hydrogeologic evaluations related to site assessments; remedial investigations and feasibility studies for underground and above-ground storage tank and pipeline sites; RCRA hazardous waste sites; and Superfund (CERCLA) sites. Mark is also responsible for evaluating, designing and implementing soil and groundwater remediation plans.

Years of environmental testing firm experience: 17

PROJECT EXPERIENCE

Mark has more than 17 years of experience in managing soil and groundwater investigation projects for voluntary cleanup and environmental due diligence related to commercial property transactions.

Specific project responsibilities include:

- Developing and implementing investigation work plans, Response Action Plans (RAPs) and contingency plans.
- Communicating daily with regulatory personnel and enrolling sites in Minnesota's Voluntary Investigation and Cleanup (VIC) program.
- Managing clients, developing and administering project budgets.
- Writing proposals and final reports, supervising field implementation and providing senior report review.
- Performing Phase I ESAs in accordance with American Society for Testing and Materials (ASTM) Standard for Commercial Real Estate Transactions, Practice No. E-1527.

Selected project experience includes:

- *Mixon, Inc. Due Diligence and Cleanup, St. Paul, MN* — Conducted Phase I and II ESAs, developed RAP and Construction Contingency Plan. Other work included hazardous materials surveys, lead dust abatement oversight and demolition specifications for disposal of building materials designated as hazardous waste.
- *Maplewood, MN* — Performed Limited Phase I ESA on neighborhood redevelopment area of about 200 acres. The limited Phase I ESA was areas of environmental concern.
- *Corridor Phase I ESA, White Bear Lake, MN* — Performed Phase I ESA on 2-mile railroad corridor along Highway 61 related to acquisition of the corridor for conversion into recreational trails.
- *Hugo, MN* — Managed Phase II ESA of three parcels to be acquired by county officials as part of a right-of-way expansion for a county State Aid highway. Two

of the parcels were enrolled in the Petroleum Brownfields Program and planned activities include preparation of a DRAP for upcoming right-of-way construction activities. Procurement of a No Action letter for both parcels is anticipated by project completion.

- *Rural Minnesota* — Conducted multi-site Phase I ESA for portfolio of fast-food retail buildings in Minneapolis-St. Paul and central Minnesota.
- *Minneapolis, MN* — Conducted Phase I ESA on multi-parcel city block in downtown area for acquisition and redevelopment into a high-rise office building.
- *Ohio and Kentucky* — Conducted multi-site Phase I ESA for portfolio of glass-replacement facilities in southern Ohio and northern Kentucky.
- *North Central North Dakota* — Conducted multi-site Phase I ESA and limited Phase II ESA portfolio on grain elevators in the Minot, ND region for due diligence associated with a business acquisition.
- *Corridor Phase I ESA, Blaine, MN* — Conducted Phase I ESA on 1-mile corridor consisting of commercial, light industrial and undeveloped properties for the proposed installation of service road for Trunk Highway 65. Conducted Phase II ESA on former auto salvage parcel that the proposed corridor bisected. The results of the Phase II ESA did not show significant contamination in the area of the proposed corridor.
- *Minneapolis, MN* — Managed the investigation and cleanup of a former bus garage and auto repair facility. Activities included conducting a Phase I ESA, Phase II ESA and preparing and implementing a development response action plan (DRAP). The site was redeveloped into transition housing by a local charity organization. A site closure-No Action letter was obtained due to successful DRAP implementation.
- *St. Louis Park, MN* — Managed field implementation of the cleanup of a creosote-contaminated property that received waste runoff from an adjacent former wood-preservation facility. Conducted Phase I and Phase II ESAs, implemented the RAP and procured initial liability assurance letters necessary to start site development. The site was developed into a luxury apartment complex.
- *Edina, MN* — Conducted Phase I ESA of a former sheet metal fabrication facility, identifying several recognized environmental conditions. Conducted Phase II ESA and subsequent Remedial Investigation (RI) at the site, identifying the presence, extent and magnitude of petroleum contamination in the area from several former bulk aboveground storage tanks (ASTs). The RI results were used to obtain site closure from the MPCA.
- *Bigelow, MN* — Managed a Phase II ESA of a parcel that was acquired by the Minnesota Department of Transportation for new alignment of Trunk Highway 60 from Worthington, MN to Bigelow, MN. The parcel was occupied by a drainage contractor. The Phase II ESA found only minor petroleum

contamination. The results allowed MnDOT officials to understand the environmental risks associated with the parcel.

- *Minneapolis, MN* — Managed Phase I and Phase II ESAs of a 5.5-acre parcel, formerly occupied by an electric machinery company and a foundry. Several areas of non-petroleum and petroleum-related contamination were identified. Designed and implemented a vapor intrusion soil investigation to evaluate the potential for vapor migration into the existing structures. Based on the findings, developed a Response Action Plan (RAP) that included installation of a soil vapor extraction system to mitigate vapor issues. Another component was a bituminous cap over unpaved areas of the site, restricting access to the contaminants. Assisted with procurement of State and County-funded environmental cleanup grants. Site is currently in the voluntary program and activities will include implementing the RAP and working toward No Action status.
- *Culver, IN* — Conducted Phase I ESA of a former automobile exhaust system manufacturer. Managed the Phase II ESA of the site, which identified several areas of soil and groundwater contamination. Managed the remedial investigation of the areas of contamination. Planned activities for this site including the submittal of Phase II ESA and RI results with recommendations for groundwater monitoring and subsequent issuance of a Certificate of Completion and Covenant not to sue.