



## Re-submittal Form

Case Name/ Number: PRC2025-00014

Case Manager: Nick Eagleson

### Re-submitted Items:

- ☐ Development Plan/ Site Plan
- ☒ Plat
- ☐ Parking/ Landscape Plan
- ☐ Engineering Documents
- ☐ Subdivision Improvements Agreement (Microsoft Word version)
- ☒ Other: septic permit

**\* All re-submittals must have this cover sheet and a cover letter addressing review comments.**

**Please note the re-submittal review period is 21 days.**

The cover letter must include the following information:

- Restate each comment that requires a response
- Provide a response below the comment with a description of the revisions
- Identify any additional changes made to the original document

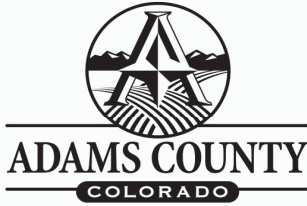
For County Use Only:

Date Accepted:

Staff (accepting intake):

Resubmittal Active: Engineering; Planner; Right-of-Way; Addressing; Building Safety;

Neighborhood Services; Environmental; Parks; Attorney; Finance; Plan Coordination



Community & Economic Development Department  
4430 S. Adams County Pkwy.  
1st Floor, Suite W2000B  
Brighton, CO 80601  
PHONE 720.523.6800  
EMAIL [epermitcenter@adcogov.org](mailto:epermitcenter@adcogov.org)  
[adcogov.org](http://adcogov.org)

### Development Review Team Comments

**Date:** 12/8/2025

**Project Number:** PRC2025-00014

**Project Name:** Todd Creek Metro District Office

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**Commenting Division:** Planner Review

**Name of Reviewer:** Nick Eagleson

**Date:** 12/08/2025

**Email:**

**Resubmittal Required**

REQUESTS: 1. Minor Subdivision-Final Plat to create one lot approx. 1.6 acres in size; 2. A Major Amendment to the Todd Creek Village PDP to remove the 1.6 acre parcel from the PUD; and 3. Zoning Map Amendment (Rezone) to change the existing PUP(P) zoning and establish a Commercial-2 zone district.

PLN01: Case number PRC2025-00014 can be placed at top right of final plat document.

**Response:** Case number has been updated on the plat.

PLN02: Minimum lot width is being met for the C-2 zone district. Existing office use is permitted.

**Response:** Acknowledged.

PLN03: The future land use is designated as institutional, which is reserved for education facilities, hospitals, public buildings, fire stations, etc. These types of land uses can be found in almost any zone district.

**Response:** Acknowledged.

PLN04: Is the PDP document submitted what was originally approved? It should be titled "Todd Creek Village Planned Unit Development/Preliminary Development Plan Amendment 1."

**Response:** During the virtual meeting on 12/10/2025, Nick stated we could ignore this comment.

PLN05: The amended PDP document should have case PRC2025-00014 placed at top right.

**Response:** During the virtual meeting on 12/10/2025, Nick stated we could ignore this comment.

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**Commenting Division:** Addressing Review

**Name of Reviewer:** Ian Cortez

**Date:** 12/05/2025

**Email:**

**Complete**

No comment

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BOARD OF COUNTY COMMISSIONERS

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DISTRICT 1

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DISTRICT 2

Emma Pinter

DISTRICT 3

Steve O'Dorisio

DISTRICT 4

Lynn Baca

DISTRICT 5

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**Commenting Division:** ROW Review

**Name of Reviewer:** Thayeng Chang

**Date:** 12/04/2025

**Email:**

**Resubmittal Required**

ROW1: The title report is from 2023. The title report must have a current date or dated within 30 days of this hearing to be scheduled. This will revise the plat NOTES. It must provide hyperlinks for all cited documents, and contain a schedule A and B. The legal m/b description in this title report must match that verbatim on the plat.

**Response:** Updated title work will be provided once the hearing has been scheduled.

ROW2: Revise the Case No. to PRC2025-00014

**Response:** Case number has been updated on the plat.

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**Commenting Division:** Neighborhood Services Review

**Name of Reviewer:** Meagan Cordova

**Date:** 12/03/2025

**Email:**

**Complete**

There are no open violations at this location at this time. No comment.

**Response:** Thank you.

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**Commenting Division:** Attorney Review

**Name of Reviewer:** Sally Daggett

**Date:** 12/02/2025

**Email:**

**Resubmittal Required**

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**Commenting Division:** Attorney Review

**Name of Reviewer:** Sally Daggett

**Date:** 12/02/2025

**Email:**

**Comment**

1. ROW to review the plat for compliance with County requirements. needs to be added to the upper right hand corner of the plat (3 sheets)

At a minimum, the updated Case No.

**Response:** Case number has been updated on the plat.

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**Commenting Division:** Development Engineering Review

**Name of Reviewer:** Laurie Clark

**Date:** 12/01/2025

**Email:**

**Complete**

ENG1: There are no engineering requirements associated with this application. All infrastructure to support the parcel and the use is in place.

**Response:** Thank you.

ENG2: Applicant has previously submitted an application to construct onsite improvements to correct drainage patterns and direct flows to the existing offsite detention pond. Grading Permit GRD2023-00013 has been closed due to inactivity. A new application will be required if the applicant wants to pursue these improvements in the future.

**Response:** Acknowledged.

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DISTRICT 3

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DISTRICT 4

**Lynn Baca**

DISTRICT 5

---

**Commenting Division:** Environmental Analyst Review

**Name of Reviewer:** Megan Grant

**Date:** 11/25/2025

**Email:**

**Resubmittal Required**

The following comments apply to septic:

ENV1. The septic tanks and leach field for the existing building are not located on the subject parcel.

Refer to file "PUD FDP\_FINAL PLAT\_SUBMITTAL 01.PDF" page 34 for diagram.

The septic system, including its leach field, for the proposed lot will need to be contained within the lot boundaries with appropriate setbacks.

**Response:** See the attached septic permit, which shows the locations of the septic components on page 20 within the offsite easement.

ENV2. Adams County Health Department (ACHD) review and approval will be required. This documentation will be provided for Adams County review.

**Response:** As noted during the virtual meeting on 12/10/2025 and per the attached septic permit, the existing permit was reviewed and approved by the Tri-County Health Department.

ENV3. An updated site plan is required to show the actual location of each septic system component to include tanks, soil treatment area (leach field), and piping system, location building, as well as horizontal distances in feet between septic components and site features (building, property lines, etc.).

**Response:** An updated site plan has not been provided. As discussed in the 12/10/2025 virtual meeting, the intent is to abandon the existing septic system and connect to the Todd Creek sanitary sewer collection system in the future.

ENV4. Per ACHD Regulation O-22, setback distances from septic tanks, pipes, and soil treatment areas (also called leach fields) must be maintained for proposed and existing structures. The regulation, including setback requirements, can be found at <https://adamscountyhealthdepartment.org/onsite-wastewater-treatment-systems-septic-systems>.

**Response:** Setback distances from the septic easement to the existing building are adequate. No new buildings are proposed.

ENV5. No driving, parking, building, or storage would be permitted on top of the septic system components.

**Response:** Acknowledged.

**ENV6. OWTS – Proposed Subdivision**

The OWTS system(s) must be permitted, inspected, and operated in accordance with ACHD's current OWTS Regulation. Specific mechanisms for accomplishing this may consist of plat note(s), newsletters, reminder letters, and distribution of ACHD's "On-Site Wastewater Treatment System Homeowner Guidelines," which can be found at <https://adamscountyhealthdepartment.org/onsite-wastewater-treatment-systems-septic-systems>.

An example plat note would read:

"Lots within the [insert name of subdivision] will be served by Onsite Wastewater Treatment Systems. Adams County Health Department requires that septic tanks be pumped and inspected every four years. At least every four years, each property owner shall have their septic tank pumped and inspected by a systems cleaner licensed by Adams County Health Department and shall submit a receipt indicating that the septic system has been pumped and inspected to the Adams County Health Department [EHWaterProgram@adcogov.org](mailto:EHWaterProgram@adcogov.org)."

**Response:** This application is to create a single legal lot for the existing improvements at 10450 E. 159<sup>th</sup> Court. The existing septic system was reviewed and approved through the Tri-County Health Department. The intent is to abandon the septic system and connect to the Todd Creek sanitary sewer collection system in the future.

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ENV7. OWTS – Abandonment

The applicant has indicated a future removal of the existing OWTS on the subject property. The existing OWTS shall be abandoned in accordance with Regulation No. O-14, Section 11.3. ACHD must be notified in writing once the system has been properly abandoned. For more information, or to submit the notification, the applicant may contact [EHWaterProgram@adcogov.org](mailto:EHWaterProgram@adcogov.org).

Response: Acknowledged.

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**Commenting Division:** Parks Review

**Name of Reviewer:** Ashley Coleman

**Date:** 11/13/2025

**Email:**

**Complete**

No comment.

Response: Thank you.

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DISTRICT 1

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DISTRICT 4

**Lynn Baca**

DISTRICT 5

MINOR SUBDIVISION OF  
TODD CREEK METRO DISTRICT OFFICE  
A PARCEL OF LAND LOCATED IN THE NORTHEAST QUARTER OF SECTION 10, TOWNSHIP 1 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,  
CITY OF BRIGHTON, COUNTY OF ADAMS, STATE OF COLORADO

CERTIFICATE OF OWNERSHIP AND DEDICATION

Know all men by these presents that West South Platte Water and Reservoir Company, LLLP being the sole owner of the following described tract of land:

DEED DESCRIPTION

A tract of land being located in the Northeast Quarter of the Northeast Quarter of Section 10, Township 1 South, Range 67 West of the Sixth Principal Meridian, County of Adams, State of Colorado, being more particularly described as follows:

Basis of Bearings: The North line of the Northeast Quarter of the Northeast Quarter of said Section 10 being monumented at the Northwest corner of the Northeast Quarter of the Northeast Quarter of said Section 10 by a 2" aluminum cap stamped "LS 23027, 1999" and at the Northeast Quarter of said Section 10 by a 2" aluminum cap stamped "ALPHA ENGRG., L.S. 25937, 1996" being assumed to bear N89°31'31"E, a distance of 1325.66 feet.

Commencing at the Northeast corner of said Section 10;  
THENCE S02°53'08"W a distance of 666.15 feet to the intersection of the Westerly right of way line of Havana Street and the Southerly right of way line of Havana Way and the POINT OF BEGINNING;

THENCE S00°33'24"E, along the Westerly right of way line of said Havana Street, a distance of 220.08 feet;  
THENCE S89°30'57"W, a distance of 288.83 feet;  
THENCE N00°29'03"W, a distance of 240.08 feet to the Southerly right of way line of Havana Way;  
THENCE along said Southerly right of way line the following two (2) courses and distances:  
1. N89°30'57"E, a distance of 268.53 feet;  
2. S45°31'14"E, a distance of 28.30 feet to the POINT OF BEGINNING,

COUNTY OF ADAMS,  
STATE OF COLORADO.

AS-SURVEYED DESCRIPTION (Rotated Bearings and Surveyed Dimensions for reference purposes only, not intended to revise or replace deed description)

A parcel of land being a portion of the Northeast Quarter of the Northeast Quarter of Section Ten (10), Township One South (T.1S.), Range Sixty-seven West (R.67W.), Sixth Principal Meridian (6th P.M.), County of Adams, State of Colorado, being more particularly described as follows

COMMENCING at the Northeast Corner of said Section 10 and assuming the East line of the Northeast Quarter of said Section 10 as bearing South 00° 07' 50" East a distance of 2639.54 feet with all other bearings contained herein relative thereto.

THENCE South 00° 07' 50" East along said East line of the Northeast Quarter of Section 10 a distance of 664.86 feet;  
THENCE South 89° 52' 10" West a distance of 40.00 feet to the Westerly Right of Way line of Havana Street and to the POINT OF BEGINNING.

THENCE South 00° 07' 50" East along the Westerly Right of Way line of said Havana Street a distance of 220.08 feet;  
THENCE South 89° 56' 31" West a distance of 288.83 feet;  
THENCE North 00° 03' 29" West a distance of 240.08 feet to the Southerly Right of Way line of E. 159th Court;  
THENCE North 89° 56' 31" East along the Southerly Right of Way line of said E. 159th Court a distance of 268.53 feet;  
THENCE South 45° 05' 40" East continuing along the Southerly Right of Way line of E. 159th Court a distance of 28.30 feet to the POINT OF BEGINNING.

Said described parcel of land contains 69,106 sq. ft. or 1.59 acres, more or less (±).

Has by these presents laid out, platted and subdivided the same into a lot and drainage and utility easements as shown on this plat under the name and style of TODD CREEK METRO DISTRICT OFFICE. The undersigned does hereby dedicate, grant and convey to Adams County those Public Easements as shown on the plat; and further restricts the use of all Public Easement to Adams County and/or its assigns, provided however, that the sole right and authority to release or quitclaim all or any such Public Easements shall remain exclusively vested in Adams County.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

OWNER: West South Platte Water and Reservoir Company, LLLP

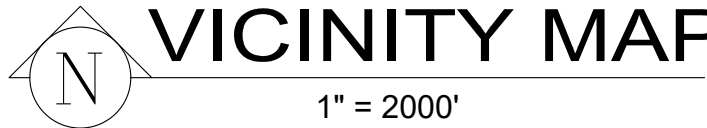
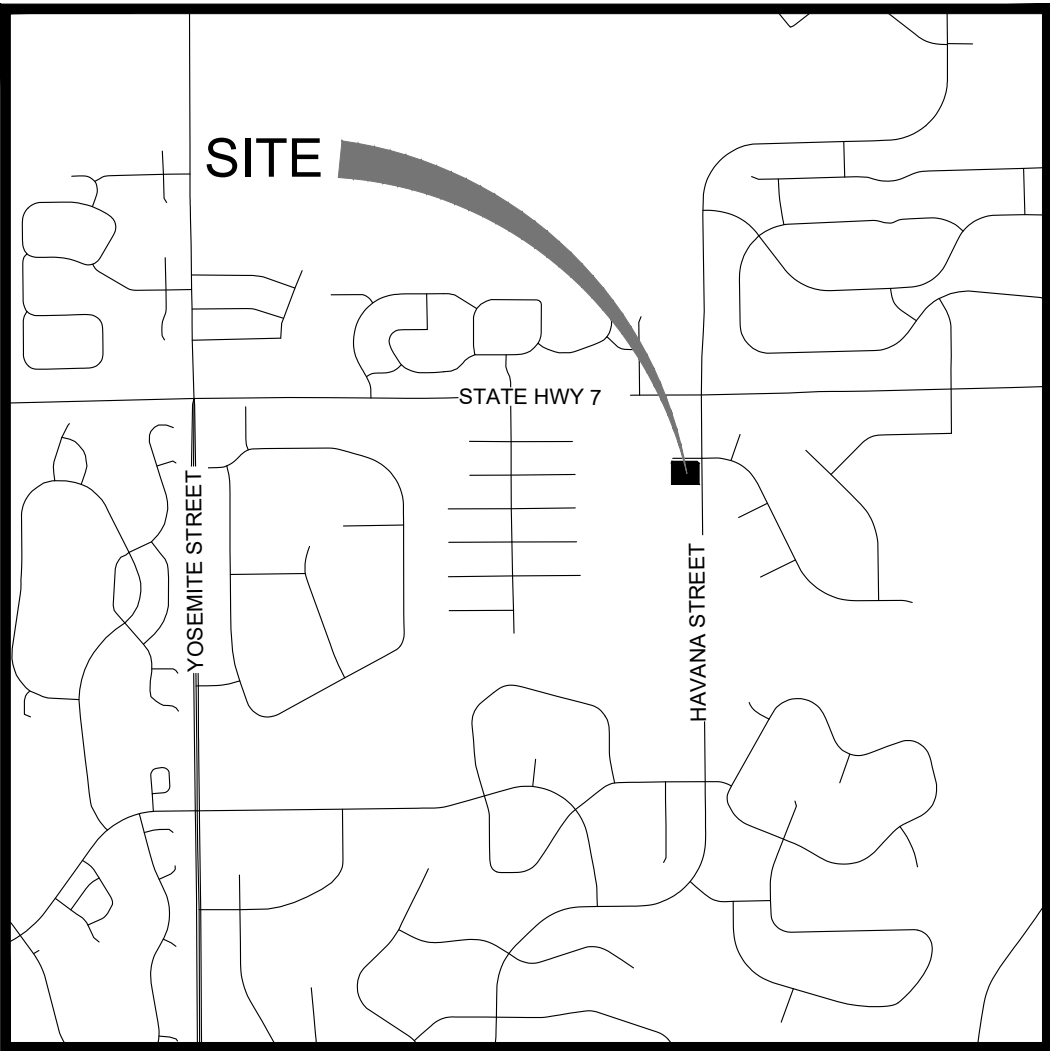
George R. Hanlon Jr., General Partner

ACKNOWLEDGEMENT:

STATE OF \_\_\_\_\_ )  
 )ss.  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me by George R. Hanlon Jr. , as General Partner for West South Platte Water and Reservoir Company, LLLP this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
My commission expires: \_\_\_\_\_

Notary Public  
Address: \_\_\_\_\_



SURVEYOR NOTES:

- 1) This survey does not constitute a title search by EPS Group to determine ownership or easements of record. Land Title Guarantee Company, Property Information Binder Order Number ABC70747361 and Policy No.: PIB70747361.25855396, dated November 2, 2023 at 5:00 P.M. was utilized in preparation of this survey.
- 2) Basis of Bearings is the East line of the Northeast Quarter of Section 10 as bearing South 00° 07' 50" East (assumed bearing), with the northeast corner of Section 10 being a #6 rebar with 2-1/2" aluminum cap and the east quarter corner of Section 10 being a #6 rebar with 2-1/2" aluminum cap.
- 3) The lineal unit used in the preparation of this survey is the U.S. Survey Foot. Pursuant to C.R.S. 38-52-103(2) Metric conversion is: one meter equals 3937/1200 feet.
- 4) Maintenance of the detention pond/drainage easement is the responsibility of the owner.
- 5) FLOOD ZONE DESIGNATION: According to FEMA FIRM Panel 08001C0326H , EFFECTIVE 3/5/2007, the site is located outside any mapped floodplain.

STATEMENTS AS REQUIRED BY THE CITY OF BRIGHTON:

EASEMENT STATEMENT

Six-foot (6') wide utility easements are hereby dedicated on private property adjacent to the front lot lines of each lot in the subdivision. In addition, eight-foot (8') wide dry utility easements are hereby dedicated around the perimeter of tracts, parcels and/or open space areas. These easements are dedicated to Adams County for the benefit of the applicable utility providers for the installation, maintenance, and replacement of utilities. Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation.

STORM DRAINAGE FACILITIES STATEMENT

The policy of the County requires that maintenance access shall be provided to all storm drainage facilities to assure continuous operational capability of the system. The property owners shall be responsible for the maintenance of all drainage facilities including inlets, pipes, culverts, channels, ditches, hydraulic structures, and detention basins located on their land unless modified by the subdivision development agreement. Should the owner fail to maintain said facilities, the County shall have the right to enter said land for the sole purpose of operations and maintenance. All such maintenance cost will be assessed to the property owners.

SURVEYOR'S STATEMENT

I, Robert C. Tessely, a Registered Professional Land Surveyor in the State of Colorado, do hereby state that this Minor Subdivision Plat was prepared by me or under my direct supervision, and that it is true and correct to the best of my knowledge, information and belief.

Robert C. Tessely  
Colorado Professional Land Surveyor P.L.S. No. 38470  
For and on Behalf of EPS Group, Inc.

PLANNING COMMISSION APPROVAL

Recommended for approval by the Adams County Planning Commission this \_\_\_\_\_ day of

\_\_\_\_\_, A.D., 20\_\_\_\_.

Chair

BOARD OF COUNTY COMMISSIONERS' APPROVAL

Approved by the Adams County Board of Commissioners this \_\_\_\_\_ day of

\_\_\_\_\_, A.D., 20\_\_\_\_.

Chair

ADAMS COUNTY ATTORNEY'S OFFICE

Approved as to form this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 20\_\_\_\_.

Adams County Attorney

CLERK AND RECORDER'S CERTIFICATE

This Final Plat was filed for record in the Office of the Adams County Clerk and Recorder, in the State

of Colorado at \_\_\_\_\_.M., on this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 20\_\_\_\_.

Deputy Clerk and Recorder

Reception Number

DRAFT  
12/15/2025  
PRELIMINARY - NOT FOR CONSTRUCTION,  
RECORDING PURPOSES OR IMPLEMENTATION

NOTICE:  
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years after the date of the certificate shown hereon.

SECTION: 10	TOWNSHIP: 1 SOUTH	RANGE: 67 WEST OF 6TH PM
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PROJECT: 1904-002	DATE: 12/15/2025	CLIENT: WSP&R CO	SCALE: 1" = 150'	REVIEWED BY: R. TESSELY
DRAWN BY: J. BUNNER				



MINOR SUBDIVISION OF  
TODD CREEK METRO  
DISTRICT OFFICE  
CITY OF BRIGHTON, ADAMS COUNTY, COLORADO

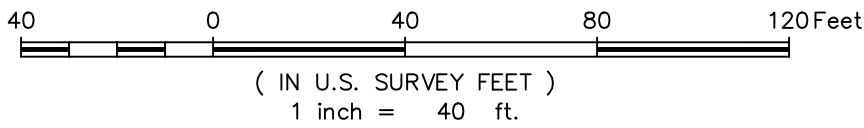
Sheet  
1  
Of 3 Sheets





MINOR SUBDIVISION OF  
TODD CREEK METRO DISTRICT OFFICE

A PARCEL OF LAND LOCATED IN THE NORTHEAST QUARTER OF SECTION 10, TOWNSHIP 1 SOUTH, RANGE 67 WEST OF THE 6TH P.M.,  
CITY OF BRIGHTON, COUNTY OF ADAMS, STATE OF COLORADO

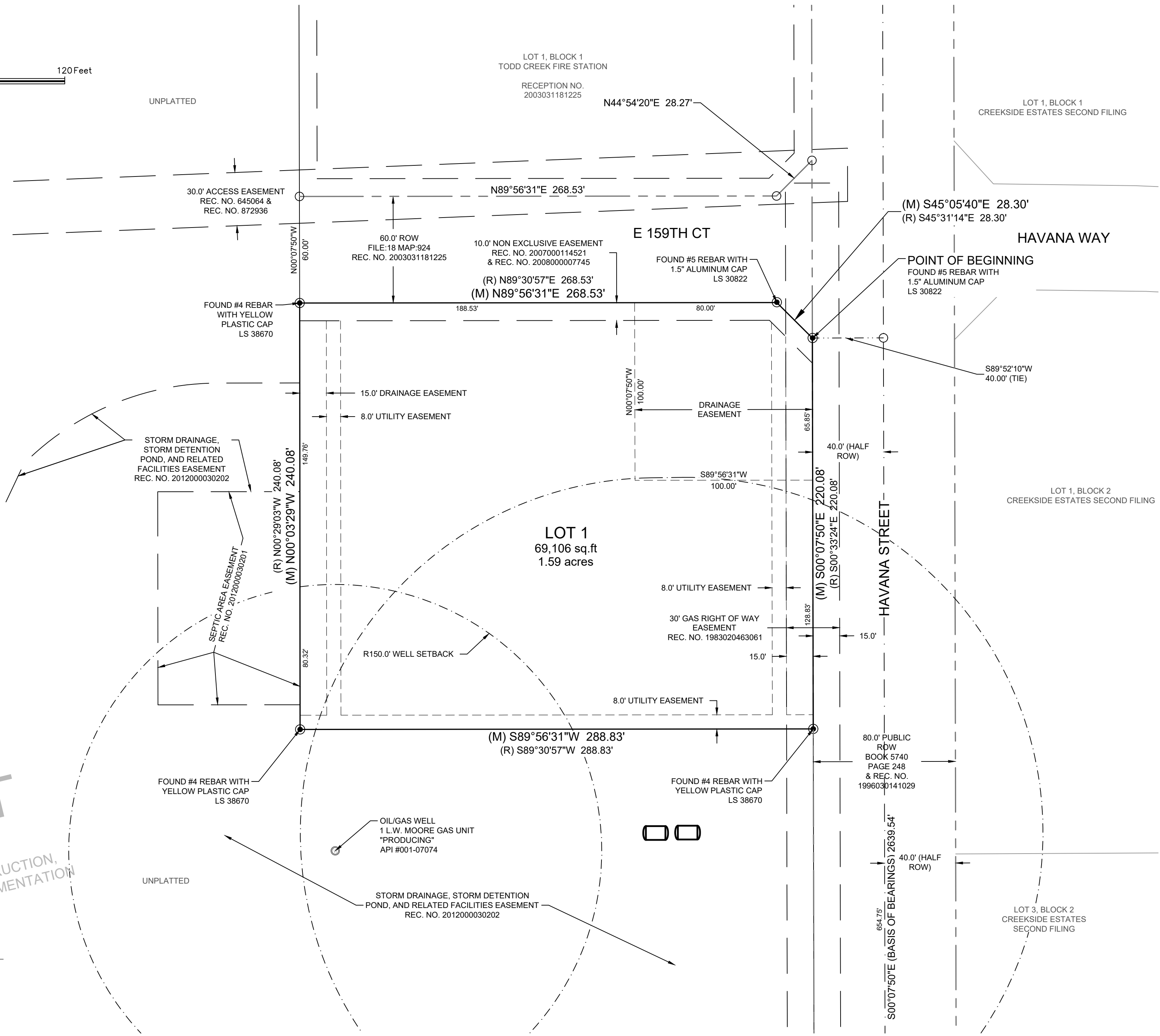


SYMBOL LEGEND	
	FOUND SECTION CORNER
	FOUND PROPERTY MONUMENT
	CALCULATED POSITION
	TANK BATTERY
	OIL/GAS WELL

LINE LEGEND	
	BOUNDARY LINE
	SECTION LINE
	LOT LINE
	RIGHT OF WAY
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	OIL/GAS SETBACK

**DRAFT**  
12/15/2025  
PRELIMINARY - NOT FOR CONSTRUCTION,  
RECORDING PURPOSES OR IMPLEMENTATION

Robert C. Tessely  
Colorado Professional Land Surveyor No. 38470  
For and on behalf of EPS Group, Inc.



**NOTICE:**  
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you discover such defect. In no event may any action be commenced upon any defect in this survey be commenced more than ten years after the date of the certificate shown hereon.

SECTION:	10	TOWNSHIP:	1 SOUTH	RANGE:	67 WEST OF 6TH PM
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PROJECT:	1904-002	CLIENT:	WSP&R CO	DRAWN BY:	J. BUNNER
DATE:	12/15/2025	SCALE:	1" = 40'	REVIEWED BY:	R. TESSELY

epsgruppinc.com  
970.221.4158  
ARIZONA | COLORADO

MINOR SUBDIVISION OF  
**TODD CREEK METRO DISTRICT OFFICE**  
CITY OF BRIGHTON, ADAMS COUNTY, COLORADO

# Final Visit Worksheet

Printed

Permit Number 20059647

AS/400 Reference 0

## Property Information:

Address 15959 HAVANA ST BRIGHTON, CO 80602

County

Owner Colorado Property Investments

Installer

5088  
39.98440  
104.86691

Number of Bedrooms

## Site Information

Keys for completing information on installed tanks:

Usage: D - Dosing T - Treatment V - Vault

Tank Type: C - Concrete PT - Polyethylene FG - Fiberglass

## Tank Information

Tank 1	
Size	1000
Type:	<input checked="" type="checkbox"/> C <input type="checkbox"/> PT <input type="checkbox"/> FG
Use:	<input type="checkbox"/> D <input checked="" type="checkbox"/> T <input type="checkbox"/> V
T's or Baffles:	<input checked="" type="checkbox"/> T <input type="checkbox"/> B <input type="checkbox"/> UK
Effluent Screen:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> UK

Tank 2	
Size	1000
Type:	<input checked="" type="checkbox"/> C <input type="checkbox"/> PT <input type="checkbox"/> FG
Use:	<input checked="" type="checkbox"/> D <input checked="" type="checkbox"/> T <input type="checkbox"/> V
T's or Baffles:	<input checked="" type="checkbox"/> T <input type="checkbox"/> B <input type="checkbox"/> UK
Effluent Screen:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> UK

Tank 3	
Size	
Type:	<input type="checkbox"/> C <input type="checkbox"/> PT <input type="checkbox"/> FG
Use:	<input type="checkbox"/> D <input type="checkbox"/> T <input type="checkbox"/> V
T's or Baffles:	<input type="checkbox"/> T <input type="checkbox"/> B <input type="checkbox"/> UK
Effluent Screen:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> UK

## Secondary Treatment System

☐SF-Sand Filter

☐AS-Aerobic System

☐Yes ☒No If Yes, type:

☐CW-Constructed Wetlands

☐RSF-Recirculating Sand Filter

☐TG-Trickling Filter

☐OT-Other

## Final Treatment Type

☐BD-Bed

☐ET-ET

☐BD\_CH-Bed (chambers)

☐TR-CH-Trench (chambers)

☐MD-Nound

☐PD-Pond

☐TR-SB-Trench SB-2

☐OT-Other

☐T-Trench

☐SF-Sand Filter

☒DR-Drip Irrigation

Area Size (sf)

2800

Depth (inches)

If chambers  
used, number

## Method of Waste Water Application

☒DP-Dosed w/pump

☐UD-Uniformly dosed w/ pump

☐DS-Dosed w/ siphon

☐UDS-Uniformly dosed w/ siphon

☐Gr-Gravity

## Final Visit Worksheet

Printed

Permit Number 20059647

AS/400 Reference 0

## Record of Site Visits:

Visit 1 Date 12/1/08 By EHS Name S. CHEVALIER EHS # 1835

Visit 2 Date By EHS Name EHS #

Visit 3 Date By EHS Name EHS #

Visit 4 Date By EHS Name EHS #

GPS Coordinates Elevation N: W:

## Comments:

☒ Need As-built drawing

☒ Need Engineer's letter

Final approval given? ☐Yes ☒No

Date of final

approval:

By EHS Name:

12/04/08

S. Chevalier

☐ Received As-built drawing

☐ Received Engineer's letter

EHS #

1835

## Final Visit Worksheet

Permit Number

Printed:

AS/400 Reference 0

### RECORD OF SITE VISITS:

Visit 1 Date	<u>12/1/08</u>	By (EHS #)	<u>1835</u>
Visit 2 Date	_____	By (EHS #)	_____
Visit 3 Date	_____	By (EHS #)	_____
Visit 4 Date	_____	By (EHS #)	_____

### Comments:

12/1/08 NEED ENG. APPROVAL LATER AND SIGNED AS-BUILT. \* NOTE  
TO INSTALLER: BECAUSE OF NEARBY CONSTRUCTION ACTIVITY, PLEASE  
POST OFFER FLAG FIELD TO PREVENT FURTHER COMPACTION. OK TO  
COVER.

12/04/08 RECEIVED AS-BUILT + ENG. APPROVAL.

Final Approval Given ☒ Yes ☐ No

By (EHS #) 1835

# Site Visit Worksheet

Printed 11/07/2008  
AS/400 Reference 0

Permit Number 20059647

## Property Information:

Address 15959 HAVANA ST BRIGHTON, CO  
80602

County

Owner Colorado Property Investments

## Summary of Engineers Data Reported on S-100 and S-101

### Percolation Rate:

#### Holes:

One 480 Two 160 Three 120 Four Five Six Average Rate 253 Sizing Rate \*

Bedrock encountered? ☒ Yes ☐ No If yes type: ☐ SS-SandStone ☒ CS-Claystone ☐ OT-Other Depth to bedrock (ft) 7

Groundwater encountered? ☐ Yes ☒ No If yes depth to groundwater (ft) n/a

Ground slope at absorption area  
(%) 1 1/2

If system is NOT engineered, maximum depth of absorption area (in) (not to exceed depth of percolation test holes, minus 6") \*

If system is not engineered, minimum depth of absorption area (in) \*

### Soil Classification: Most prohibitive soil below bottom of absorption area (circle one)

<input checked="" type="checkbox"/> BR-CS Bedrock Claystone	<input type="checkbox"/> GM Silty Gravel	<input type="checkbox"/> SM Silty Sand
<input type="checkbox"/> BR-OT Bedrock Other	<input type="checkbox"/> GM-GC Silty Clayey Gravel	<input type="checkbox"/> SM-SC Silty Clayey Sand
<input type="checkbox"/> BR-SS Bedrock Sandstone	<input type="checkbox"/> MH Silt (high plasticity)	<input type="checkbox"/> SP Sand, Poorly Graded
<input type="checkbox"/> CH Clay (high plasticity)	<input type="checkbox"/> ML Silt (low-med plasticity)	<input type="checkbox"/> SW Sandy Well Graded
<input type="checkbox"/> CL Clay (low-med plasticity)	<input type="checkbox"/> ML-CL Silt & Clay	
<input type="checkbox"/> GC Clayey Gravel	<input type="checkbox"/> SC Clayey Sand	

## Verification of Engineer's Data

Test pit waived? ☒ Yes ☐ No ☐ NA

If test pit IS waived, are reported percolation rates consistent with expected percolation rates from Form S-233A? ☒ Yes ☐ No ☐ NA

If test pit is NOT waived, are test pit observations consistent with engineer's data? ☐ Yes ☐ No ☒ NA

## Site Visit Worksheet

Permit Number \_\_\_\_\_

Printed: \_\_\_\_\_

AS/400 Reference 0 \_\_\_\_\_

### RECORD OF SITE VISITS:

Visit 1 Date 11/10/08 By (EHS #) 1805  
Visit 2 Date \_\_\_\_\_ By (EHS #) \_\_\_\_\_  
Visit 3 Date \_\_\_\_\_ By (EHS #) \_\_\_\_\_

### Special Conditions:

11/10/08 -

Install field over perc holes. Maintain all applicable  
regulation setbacks including field and septic tanks  
must be located at least 10 feet from man-made  
ditch that will be constructed west of district office and  
east of septic absorption field and septic tanks. Install as  
per Earth Engineering project # 08-01-115 calling for a 2,400 sq ft  
Comments: field. JM

11/10/08 -

GPS N-39.98430 W-104.86690 Elev = 5087 feet JM

Signature of TCHD Inspector

JM McCaron

Date 11/10/08

Approved to Issue Permit

Yes

No

## Directions to Property

1-25 TO Hwy 7 HEAD EAST TO HAVANA STREET

TURN SOUTH ON HAVANA - HAVANA WAY IS JUST PASSED

FIRE STATION ON WEST SIDE, THE SEPTIC IS WEST  
ON BUILDING ON SOUTH SIDE OF HAVANA WAY "



## TEST PIT "WAIVER" WORKSHEET

Address of Proposed ISDS: \_\_\_\_\_

Engineer who submitted soils and percolation test: \_\_\_\_\_

-----  
If the system is engineered for the following conditions, a test pit may be waived:

1. When the average percolation rate is slower than one (1) inch in sixty (60) minutes or faster than one (1) inch in five (5) minutes.
2. Where the maximum seasonal level of the groundwater table is less than four (4) feet below the bottom of the proposed absorption system.
3. Where bedrock or Dawson sand exists less than four (4) feet below the bottom of the proposed absorption system
4. Where the ground slope is in excess of (20%) percent.

-----  
If the system is **not** engineered for reasons 1-4 above, the EHS **must** consider the following criteria to determine if a "test pit" is necessary. A "yes" answer to any question will require a test pit, except as noted on question #1.

1. Is one or more of the **individual** test hole percolation rates greater than 60 minutes per inch, but the **average** percolation rate (for all test holes) is less than 60 minutes per inch?

Yes \_\_\_\_\_ No \_\_\_\_\_

For example: Hole #1: 24 mpi; Hole #2: 16 mpi; Hole #3 90 mpi; Average: 43

**If the owner agrees to have the system engineered for the highest percolation rate, the test pit can be waived.**

2. Did the engineer answer "yes" to the question; "Did water remain in the hole after the overnight soaking period", and the average percolation rate is less than 60 mpi?

Yes \_\_\_\_\_ No \_\_\_\_\_

3. This question only applies to soils classified as SW (sand, well graded), SP (sand, poorly graded). Did the engineer report a blow count of 20/12 (twenty blows to drive the sampler 12 inches) or more, but does not indicate that bedrock is present?

Yes \_\_\_\_\_ No \_\_\_\_\_

4. Did the engineer indicate that bedrock or groundwater are present within 8 feet of the surface?

Yes \_\_\_\_\_ No \_\_\_\_\_

5. Did the engineer indicate that the soils are "wet" and not indicate that groundwater is present?

Yes \_\_\_\_\_ No \_\_\_\_\_

**TEST PIT REQUIRED?** YES \_\_\_\_\_ NO \_\_\_\_\_

EHS: \_\_\_\_\_ EHS Number: \_\_\_\_\_ Date: \_\_\_\_\_



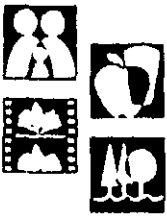
# TRI-COUNTY HEALTH DEPARTMENT

## RECORD OF COMMUNICATION

Permit Number and/or Address of System:

Notes[(indicate date, EHS, person contacted (indicate whether property owner, builder, installer, soils engineer, design engineer, etc.), and what was discussed and agreed upon]:





# Tri-County Health Department

Serving Adams, Arapahoe and Douglas Counties

## CERTIFICATION OF AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM

This Certifies that the system installed at 15959 HAVANA ST BRIGHTON, CO 80602 has been installed in conformance with Tri-County Health Department's current Individual Sewage Disposal System Regulation

Property Location: 15959 Havana ST  
BRIGHTON, CO 80602

Legal Description: Lot/Block:  
Subdivision: County: Adams

### SUMMARY OF INFORMATION

The permit number for the system is: 20059647

The soils and percolation test was performed by: EARTH ENGINEERING CONSULTANTS INC

The design engineer for the system was: EARTH ENGINEERING CONSULTANTS INC

The system was installed by: Benex Excavating, Inc.

The system consists of:

2800 square foot absorption area

1000 T-Treatment tank

1000 D-Dosing tank

The system is sized for 0 bedrooms

If additional bedrooms are added, an expansion may be necessary.

#### Maintenance Requirements:

The septic tank must be pumped and inspected every 4 years.

If the septic or dosing tank is equipped with an effluent filter, the filter must be cleaned annually.

If the system has alternating beds or is a drip irrigation system, beds or zones must be rotated annually.

Additional maintenance requirements may apply. Refer to the operations manual or the engineer's report for specific requirements.

Signature

Steven Chevalier

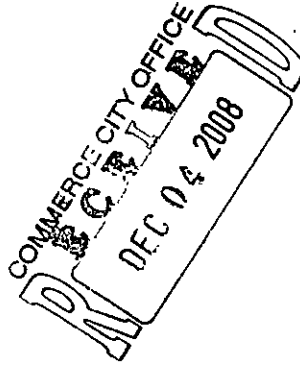
Date: 12/1/18

November 25, 2008

Colorado Property Investments, Inc.  
9055 East Mineral Circle, Suite 100  
Centennial, Colorado 80112

Attn: Mr. Gene Osborne

Re: Septic Field Observations  
Metro District ISDS  
Adams County, Colorado  
EEC Project No. 08-01-115



EARTH ENGINEERING  
COMPANY, INC.

Mr. Osborne:

Earth Engineering Company, Inc. (EEC) personnel have completed the requested observations of the drip-irrigation individual sewage disposal system (ISDS) system for the referenced property. The results of those observations along with site photos are included with this report.

On October 14, 2008, EEC personnel completed a design of a drip-irrigation ISDS for the referenced project. That design was prepared in accordance with the reference materials obtained from the Tri-County Health Department and was sized for an office building with 10 workers, with an average percolation rate in the area of the ISDS of 253.3 minutes per inch. That design incorporated a total of 4 zones with three laterals per zone, resulting in a net area of 2,400 ft<sup>2</sup>.

On November 25, 2008, an EEC project engineer observed the drip irrigation system at the referenced office building. The installed system contained 2 zones of five laterals and 1 zone of 3 laterals approximately 100 feet in length were observed resulting in a net area of 2,600 ft<sup>2</sup>. As installed, the system exceeds the required area specified in the original design. The zone manifolds were checked with a hand level and were observed to be level. The main manifold was observed to be relatively level and incorporated 3 globe valves controlling the zone supply lines. The portion of the supply line in place leading from the second septic tank to the main manifold was observed to have adequate fall. The check valve at the high point was not observed and will be placed prior to backfilling.



EEC Project No. 08-01-115  
November 25, 2008  
Page 2

Each zone was installed with a vent pipe and both septic tanks were observed. The pump was not installed in the second chamber of the second tank at the time of our observations and will be placed prior to backfilling.

Based on our site observations, it appeared that the ISDS for the referenced property was installed in general accordance with the referenced design.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding this report or if we can be of further service to you in any other way, please do not hesitate to contact us.

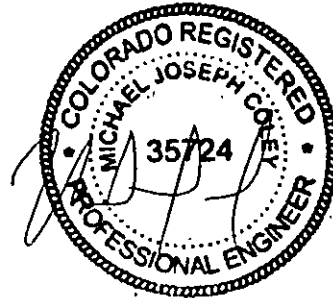
Very truly yours,  
**Earth Engineering Company, Inc.**

Shane M. Morris  
Project Manager

SMM/MJC/dla

cc: Ted Dale – [ted@equinoxland.com](mailto:ted@equinoxland.com)

Reviewed by:



Michael J. Coley, P.E.  
Principal Engineer

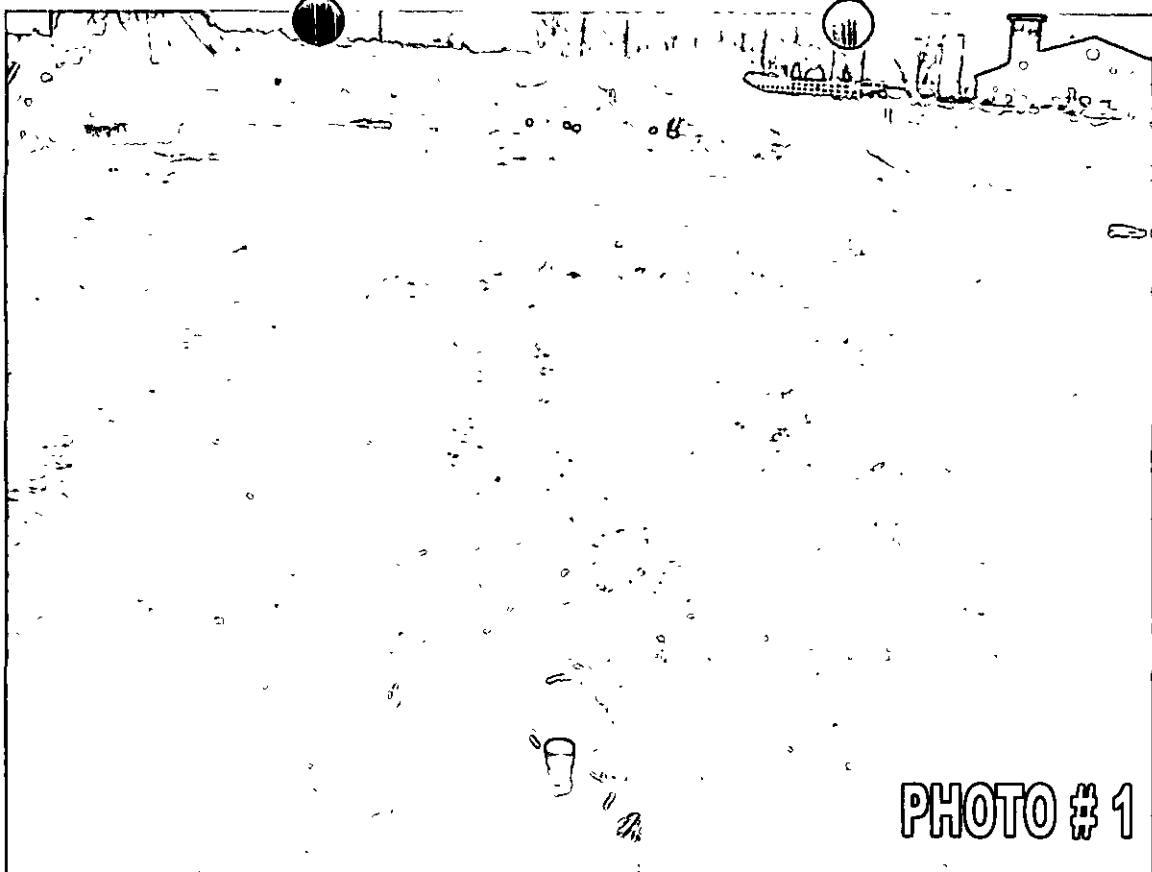


PHOTO # 1

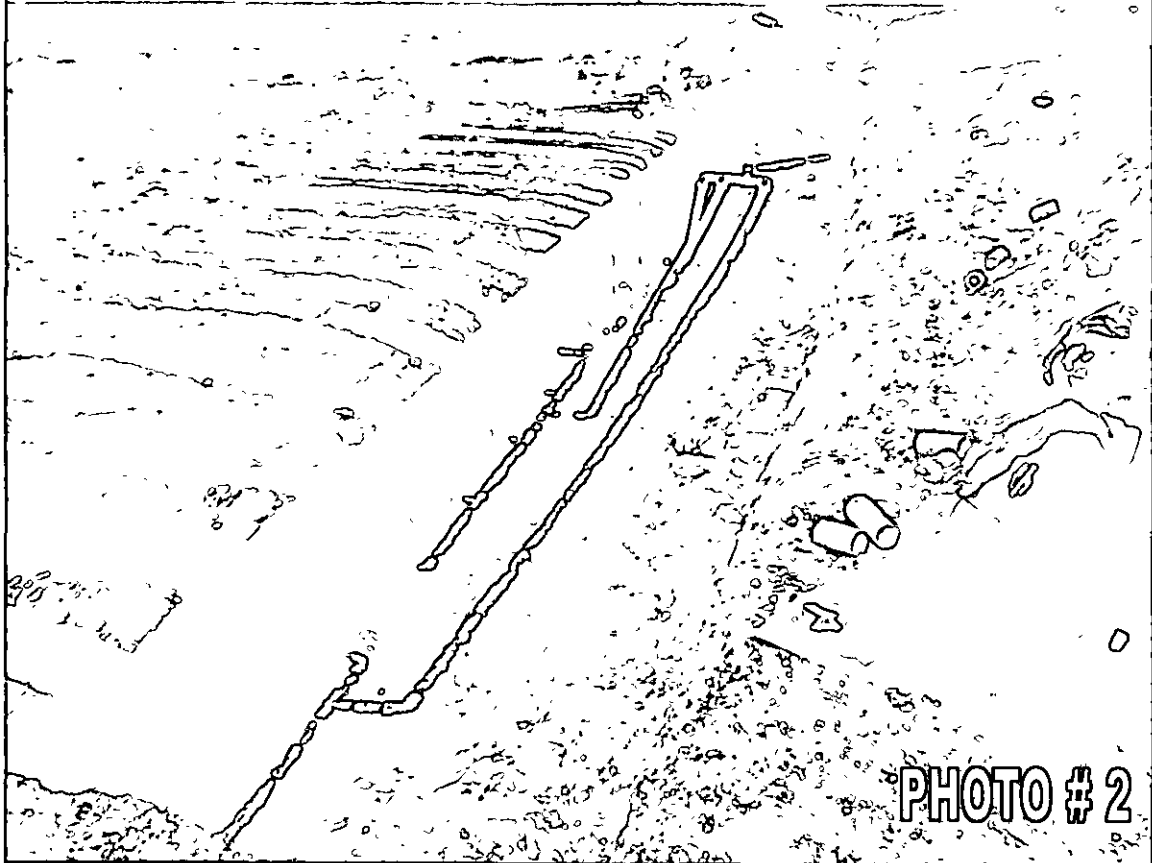
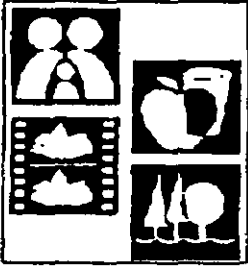


PHOTO # 2

METRO DISTRICT ISDS  
BRIGHTON, COLORADO  
EEC PROJECT No. 08-01-115  
NOVEMBER 2008

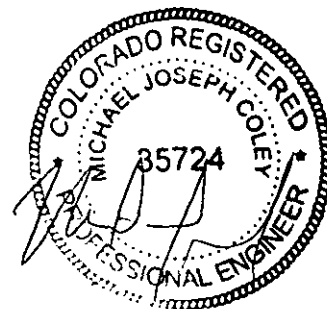
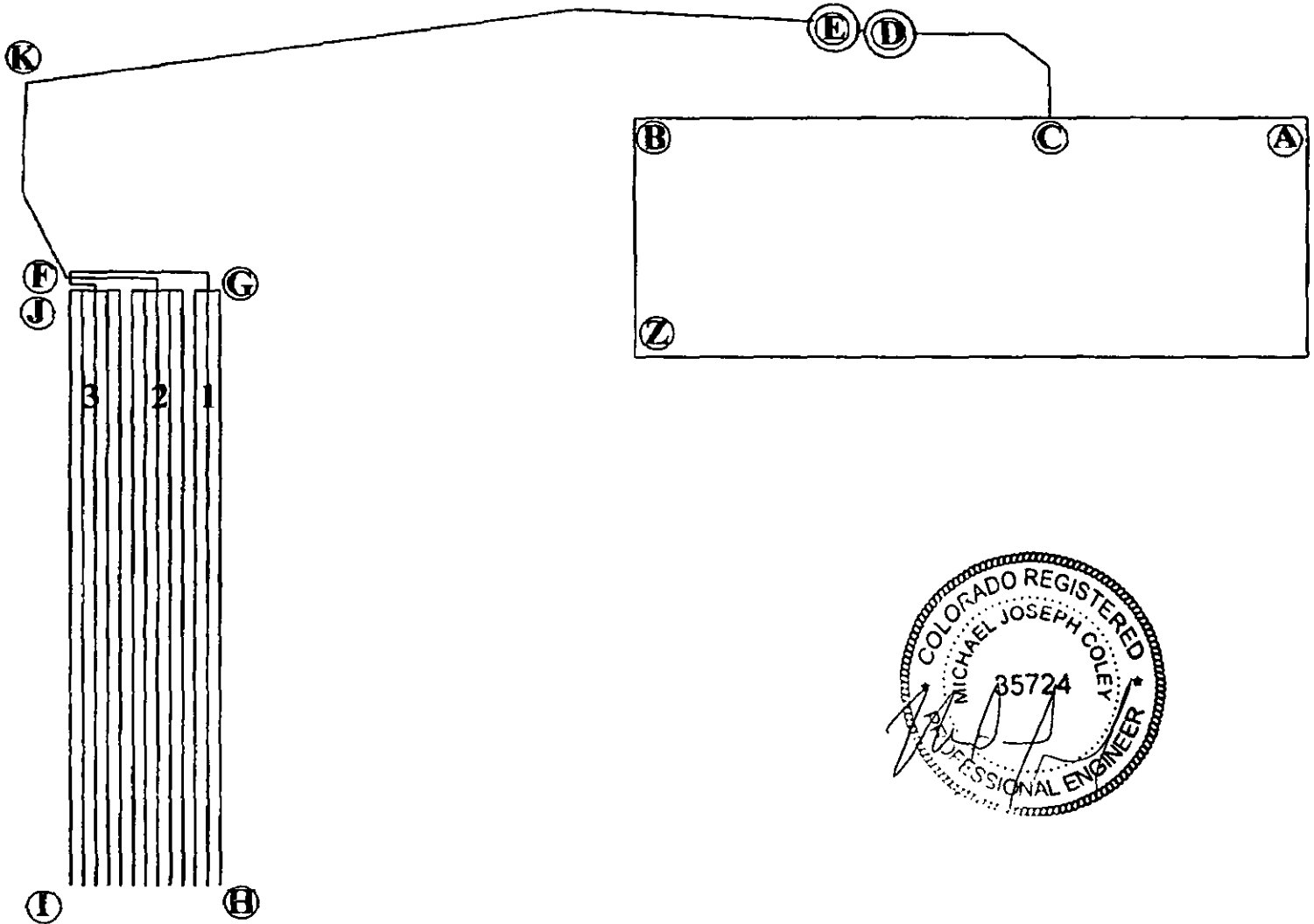




**ON-SITE  
AS-BUILT  
DRAWING**

Property Address: **10200 E. 1<sup>st</sup> St / 15959 Havana St**  
 Permit #: **20059647**  
 Date Completed: **November 25th 2008**  
 Contractor Name: **BENEX EXCAVATING Inc.**  
 Contractor License #: **2005 - 60008159**  
 Contractor Address and Phone: **2897 MATHER ST. BRIGHTON CO.  
80601 303-345-3975**

FIELD INFORMATION		RELATIVE ELEV.			TABLE OF HORIZ. DISTANCES			
		END	MID	END				
# OF SECTIONS	2	1	5.69	5.74	(A) - (C)	42	(B) - (C)	66
# OF PIPES PER SECTION	5	2	5.60	5.66	(A) - (D)	68	(B) - (D)	43
# OF SECTIONS	1	3	5.78	5.69	(Z) - (E)	77	(B) - (E)	35
# OF PIPES PER SECTION	3	4			(Z) - (F)	154	(B) - (F)	171
TOTAL FIELD AREA (SF)	2600	5			(Z) - (G)	129	(B) - (G)	143
		6			(Z) - (H)	176	(B) - (H)	205
		7			(Z) - (I)	194	(B) - (I)	220
		8			(Z) - (J)	152	(B) - (J)	142
		9			(Z) - (K)	175	(B) - (K)	164
					(J) - (G)	26	-	
					(J) - (I)	100	-	



# 15959 Havana St





Permit Number 20059647

**Tri-County Health Department**

Serving Adams, Arapahoe and Douglas Counties

**Non Refundable Permit to Install  
An Individual Sewage Disposal System  
Tri-County Health Department  
7000 East Belleview Avenue #301  
Greenwood Village, CO 80111**

Owner: Colorado Property Investments  
Property Location: 15959 Havana ST  
BRIGHTON, CO 80602

Legal Description  
County:

Lot/Block:  
Old Reference: N/A

---

**System Requirements:**

**Design Requirements:**

Trench System:

Bed  
System:

Minimum Disposal Area (in s.f.)

Engineered System

Number of Chambers Engineered System

Max Depth of Disposal Area (Bed or Trench) 30 Inches

Min Depth of Disposal Area (Bed or Trench) 12 Inches

**Special Conditions**

Install field over perc holes. Maintain all applicable regulation setbacks including absorption field and septic tanks must be located at least 10 feet from man-made ditch that will be constructed west of district office and east of septic absorption field and septic tanks. Install as per Earth Engineering project #08-01-115 calling for a 2,400 square foot field.

**ELECTRICAL WORK REQUIRED**

It shall be the responsibility of the System Contractor to ensure that all electrical components are permitted, inspected and approved by the electrical inspector from the agency having jurisdiction (AHJ). Tri-County Health Department may inspect the electrical line from the building or residence to the splice box at the time of their final inspection.

If Arapahoe or Douglas County will issue a General Building Permit for other work, the electrical work for the ISDS may be done under the General Permit. For Adams County, if the Colorado State Electrical Board issues an electrical permit for the structure, the electrical work for the ISDS may be done under that permit.

If no General Permit or electrical permit for the structure will be issued, it shall be the responsibility of a registered electrical contractor or qualified homeowner to obtain an electrical permit from the AHJ.

---

A Permit to **Install** shall expire One Year from the date of issuance unless extended to a fixed date upon request by the Applicant and approved by the Tri-County Health Department.

This Permit Expires: 11/10/2009

Issued By: Jeff McCarron Jeff McCarron EHS

Reviewed by: Man [Signature]

Tri-County Health Department on: 11-12-08 (Date)

Owner: Colorado Property Investments  
Property Location: 15959 Havana ST  
BRIGHTON, CO 80602

County:

Old Reference: N/A

**OWNER MUST MAKE SURE THAT HIS/HER ENTIRE INDIVIDUAL SEWAGE DISPOSAL SYSTEM REMAINS OPEN FOR INSPECTION UNTIL IT HAS RECEIVED APPROVAL BY TRI-COUNTY HEALTH DEPARTMENT. TRI-COUNTY HEALTH DEPARTMENT CANNOT ASSUME RESPONSIBILITY IN CASE OF FAILURE OR INADEQUACY OF A INDIVIDUAL SEWAGE DISPOSAL SYSTEM BEYOND CONSULTING IN GOOD FAITH WITH THE PROPERTY OWNER.**

---

**Fee Paid:** 1023.0000    **Check Number:** 11/10/2008

**Received By:** Donna Hammond    11/07/2008

☐ Owner

☐ Building Department

☐ Installer





**SINGLE FAMILY RESIDENTIAL GENERAL INFORMATION:**

Number of Bedrooms \_\_\_\_\_ Basement: Full (F) Walkout(W) Partial(P) None(N)

Basement Plumbed: Yes No

Are Additional Bedrooms Planned? Yes No Are the premises within 400 ft. of a sewer line? Yes No

Is property within boundaries of a sewer district? Yes No

If Yes, name of sewer district \_\_\_\_\_

**COMMERCIAL GENERAL INFORMATION:**Type of Business: OFFICE

TCHD Use Only: SIC Code \_\_\_\_\_

Number of Employees 3Design Flow > 3,000 Gallons/Day Yes No

If Yes, has Site Approval been given from CDPHE? Yes No

(Note: Permit cannot be issued until site approval is given from CDPHE)

Floor Drains Yes NoEPA Shallow Injection Well Inventory Request Form Completed Yes NoDate Paid: 11/7/08 Received By: Danna Hammond

Payment Type: Cash

Check (# 168)

Charge

Other \_\_\_\_\_

Amount Paid \$ 1023.00Applicant's Name TED DALE  
Please PrintApplicant's Signature [Signature]Date 11-07-08Aurora  
15400 E. 14<sup>th</sup> Place  
Suite 309  
Aurora, CO 80011  
303-341-9370Castle Rock  
4400 Castleton Court  
Castle Rock, CO 80109  
303-663-7650Commerce City  
4201 E. 72<sup>nd</sup> Avenue  
Commerce City, CO 80022  
303-288-6816Bellevue East  
7100 E Bellevue, Suite 102  
Greenwood Village, CO 80111  
303-783-7133

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
SHALLOW WASTE DISPOSAL SYSTEM/WELL INVENTORY REQUEST FORM**

Shallow waste disposal systems/wells (Class V injection wells) release waste fluids into or above shallow ground water and include: commercial or industrial septic systems, sumps, drain fields, french drains, cesspools, abandoned drinking water wells, dry wells, and infiltration galleries. The Underground Injection Control (UIC) regulations require inventory information for all disposal systems/wells and additional information for certain types of systems/wells.

This form is designed to collect basic information for all systems/wells, to determine which are used for underground disposal of waste fluids, and additional information for those systems/wells with a greater potential for contaminating ground water.

**I. IDENTIFICATION OF DISCHARGE/DISPOSAL SYSTEM/WELL**

Please circle YES or NO to ALL items that pertain to the way your business or facility disposes of waste fluids (including wash water, storm water, sanitary bathroom wastes, and spills).

(Please call Valois Shea at 1-800-227-8917 ext. 6276 or 303-312-6276 if you need assistance.)

- |  |     |                                     |
|--|-----|-------------------------------------|
| 1. Does your business dispose of waste fluids through a connection to a municipal sewer system?  | YES | <input checked="" type="radio"/> NO |
| 2. Excluding sanitary waste, does your business dispose of <u>any</u> waste fluids through a connection to a septic system with a drain field?   | YES | <input checked="" type="radio"/> NO |
| 3. Are waste fluids discharged from your business facility to a holding tank that is pumped periodically?  | YES | <input checked="" type="radio"/> NO |
| 4. Does your business have a floor drain or sink in a shop area, engine service or maintenance bay, or vehicle/equipment washing operation that is connected to a septic system, drain field, french drain, abandoned drinking water well, or dry well?          | YES | <input checked="" type="radio"/> NO |
| 5. Is your business facility run as a dry shop (i.e. no water, sewer or septic connections)?   | YES | <input checked="" type="radio"/> NO |
| 6. Are waste fluids discharged from your business facility to a lagoon or pond?  | YES | <input checked="" type="radio"/> NO |
| 7. Are waste fluids from your business facility discharged to surface water, lake, river, stream or wetland?   | YES | <input checked="" type="radio"/> NO |
| 8. Are waste fluids from your business facility stored and/or hauled away (recycled)?<br>This includes wash water, oil, fuel, solvents, antifreeze, etc.<br>Please list _____  | YES | <input checked="" type="radio"/> NO |
| 9. If you do discharge <u>solely</u> sanitary (e.g., bathroom) wastes, does your disposal (e.g., septic) system(s) have the physical capacity to treat waste fluids generated by 20 or more persons per day (i.e., approximately 2,000 or more gallons per day)? | YES | <input checked="" type="radio"/> NO |

If you answered YES to either questions #2, #4, or #9, please complete Section II below.

**II. BASIC INVENTORY INFORMATION.** Inventory all systems/wells separately. If more space is needed, please use and attach separate sheets. Please call Valois Shea at 1-800-227-8917, ext. 6276 should you need assistance.

1. Type of Business or Facility (please include standard industry code(s) if known): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SEE OTHER SIDE**

2. Operating Status (AC = Active, AN = Abandoned, UC = Under Construction, TA = Temporarily Abandoned):  
System/Well #1 \_\_\_\_\_  
System/Well #2 \_\_\_\_\_
3. General Location (please attach a diagram of the system(s)/well(s) including construction design):  
System/Well #1 \_\_\_\_\_  
System/Well #2 \_\_\_\_\_
4. Date of Construction:  
System/Well #1 \_\_\_\_\_  
System/Well #2 \_\_\_\_\_
5. Depth of Well/System (and ground water if known):  
System/Well #1 \_\_\_\_\_  
System/Well #2 \_\_\_\_\_
6. Average and Maximum Volumes of Disposed Fluids (gallons/day):  
System/Well #1 \_\_\_\_\_  
System/Well #2 \_\_\_\_\_
7. Source and Nature of Disposed Fluids (i.e., solvents, waste oil, brake fluid, antifreeze, waste paint, wash water, snow melt, cooling water, boiler blow down water, industrial process waste, miscellaneous spills, etc.):  
System/Well #1 \_\_\_\_\_  
\_\_\_\_\_  
System/Well #2 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### III. CERTIFICATION

I certify, under penalty of law, that this document was prepared under my guidance and supervision, and that I am assured that qualified personnel properly gathered and evaluated the information reported here. To the best of my knowledge, the information presented above is true, accurate and complete.

Signature: 

Date: 11-07-08

Name (please print): TED DALE

Title: \_\_\_\_\_

Name of Company: EQUINOX GROUP

Phone: 303 908 0375

Address: 9055 E MINERAL CIRCLE SUITE 100 CENTENNIAL CO 80112

Property Owner (If different than above): COLORADO PROPERTY INVESTMENTS INC

Property Owner Address: 9055 E MINERAL CIRCLE SUITE 100 CENTENNIAL CO 80112

Please return this Form to: U.S. Environmental Protection Agency,

Attention: Valois Shea, Mail Code: 8P-W-GW-UIC, 999 18th Street, Suite 300, Denver, CO 80202-2466

FIRE STATION

N  
Not To Scale

STREET E

TO HIGHWAY 7

HAVANA WAY

(2) 1000 GAL SEPTIC TANKS

DRIVEWAY

15959

HAVANA ST

DISTRICT OFFICE

HAVANA STREET

PERCOLATION TEST AREA RESULTS

- # 1-- 480 MIN/INCH
- # 2-- 160 MIN/INCH
- # 3-- 120 MIN/INCH

AVERAGE-- 253.3 MIN/INCH

LEGEND

⊕ B-1 BORING LOCATION

*[Signature]*

11-07-08

ISDS LOCATION DIAGRAM  
METRO DISTRICT ISDS  
ADAMS COUNTY, COLORADO  
PROJECT NUMBER: 08-01-115 DATE: OCTOBER 2008

EARTH ENGINEERING COMPANY

**Property Address**

1588 JACKSON ST.

Permit #

System Completion Date

Installer Name TRAVIS CHURCH - BACKHOE SERVICES

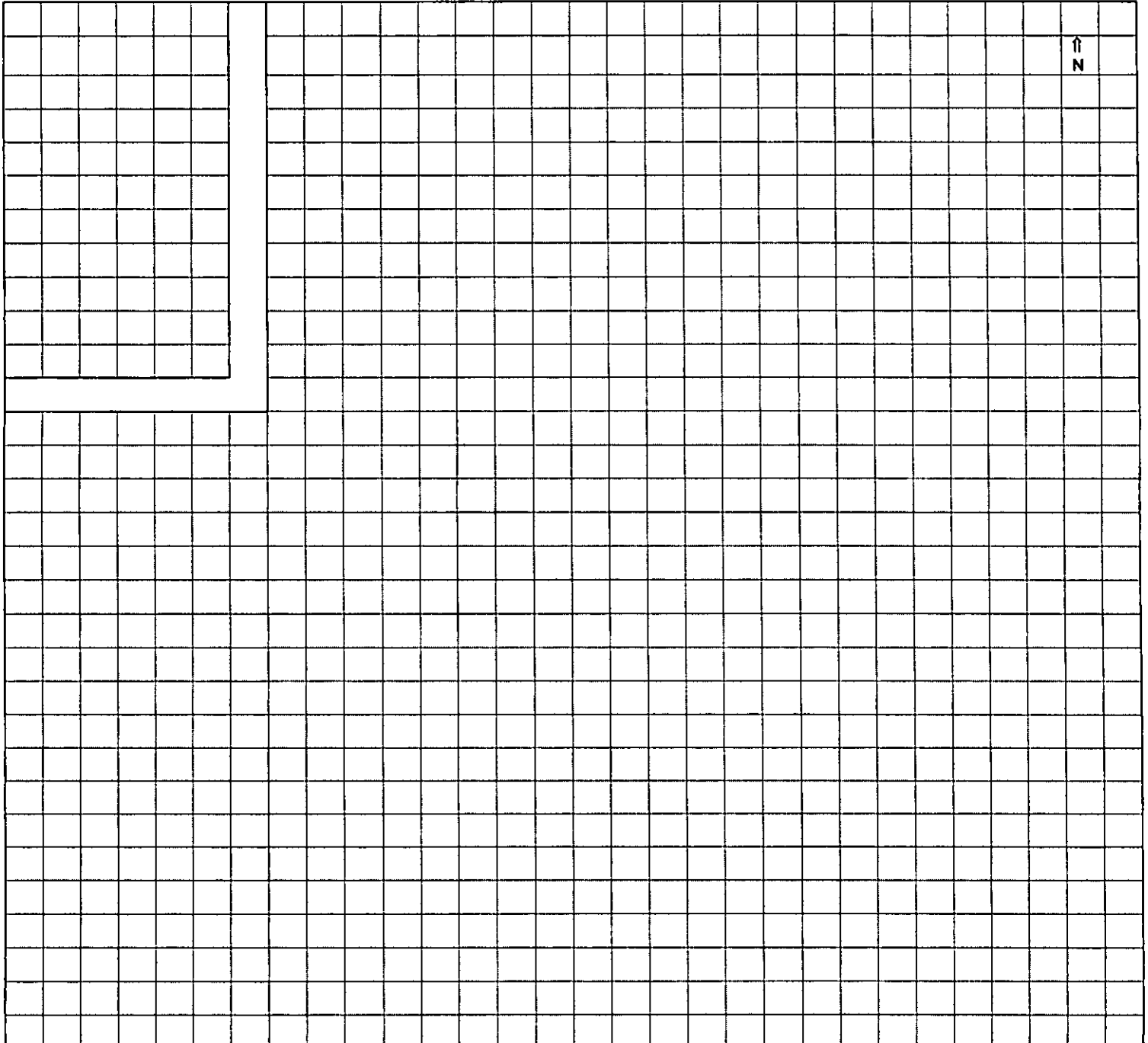
**Installer License #**

### Installer Address

## Installer Phone

### Table of Horizontal Distances

**\*Indicate location of well (if known).**





# TRI-COUNTY HEALTH DEPARTMENT

## PERCOLATION TEST AND SOILS DATA FORM

Property Address: 15959 HAVANA ST.  
BRIGHTON, CO 80602

Legal Description: \_\_\_\_\_

Property Owner: \_\_\_\_\_

Name: COLORADO PROPERTY INVESTMENTS, INC.

Address: 9055 EAST MINERAL CIRCLE, SUITE 100

Phone: CENTENNIAL, CO 80112  
(303) 754-2424

### Note:

- Percolation Test Form, Site Plan and Grain Size Distribution Curve of the Sample must be submitted with this form.
- For all lots < 5 acres the site plan must include the entire lot. Test locations must be accurately tied to lot corners or other permanent markers.

### Saturation and Swelling

Date and time presoak water added:  
10/7/08 12:00 PM

Amount of presoak added (gallons):  
5

Date and time percolation test is started:  
10/8/08 1:55 PM

Did water remain in hole after the overnight swelling period:

Hole 1 ☒ Yes ☐ No Hole 4 ☐ Yes ☐ No

Hole 2 ☒ Yes ☐ No Hole 5 ☐ Yes ☐ No

Hole 3 ☐ Yes ☒ No Hole 6 ☐ Yes ☐ No

Percolation Rate Measure:

Hole 1 480 Hole 4 \_\_\_\_\_

Hole 2 160 Hole 5 \_\_\_\_\_

Hole 3 120 Hole 6 \_\_\_\_\_

Average 253.3

### Groundwater

Groundwater Encountered: ☐ Yes ☒ No

If yes, at what depth: \_\_\_\_\_ feet

Estimated depth to maximum seasonal water table if not encountered in profile: 78'

Is area believed to be subject to seasonal fluctuations which could result in a seasonal water table within 8' of surface?

☐ Yes ☒ No

Slope determination in absorption area: 1 %  
to the SOUTH (direction)

### Bedrock

Bedrock Encountered: ☒ Yes ☐ No

If yes, bedrock encountered at 7 feet.

Type of bedrock (if present):

☐ Sandstone ☒ Claystone ☐ Siltstone

☐ Other: \_\_\_\_\_

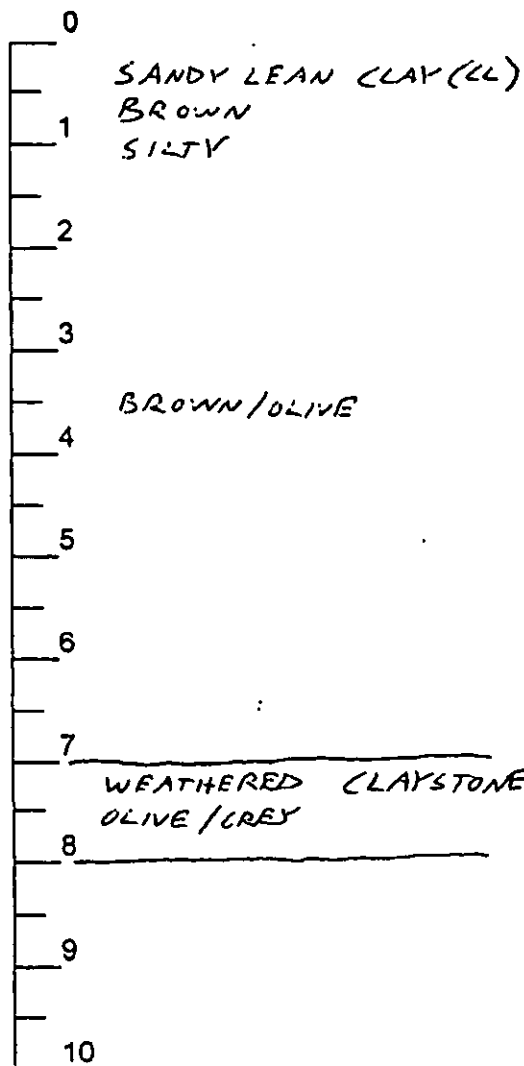
If present is bedrock fractured or weathered:

☒ Yes ☐ No

# Profile Hole Information (Continued)

Soils must be classified using Unified System ASTM D2487

## Profile Hole Log



Blow Counts at Depth of Bed: 18

Atterberg Limits:

PL: 17

LL: 43

PI: 26

### Certification

I certify that the above information is correct and complete to the best of my knowledge and that all tests were performed in accordance with the provisions of Tri-County Health Department Regulation I-96 by myself or under my supervision

*[Signature]*

Original Signature

10/16/08

Date

EARTH ENGINEERING COMPANY

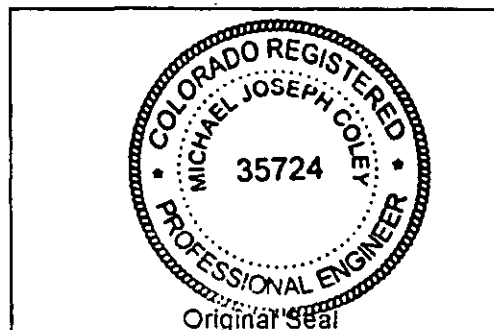
Company Name

P.O. BOX 271428  
FORT COLLINS, CO 80527

Address

(970) 545-3908

Phone





- 1) Field Notes shall be recorded on this form or in this format; typed copies of field records may be submitted on this form.
- 2) A four hour test must be conducted unless (a) water remains in the hole after the presoak in which case one 30 min. interval is sufficient, (b) the first 6" of water seeps away in <30 minutes in which case a one-hour test of 6-10 minute time intervals may be used, (c) the test is being conducted in sand (SW or SP) in which case a one-hour test of 6-10 minute time intervals may be used, (d) three successive water level drops do not vary by more than 1/16 inch in which case a two-hour test may be conducted, (e) test is in Dawson Sands, in which case the test must be run a minimum of four hours until the last three successive water level drops vary by less than 1/16 inch.

- 1) Field Notes shall be recorded on this form or in this format; typed copies of field records may be submitted on this form.
- 2) A four hour test must be conducted unless (a) water remains in the hole after the presoak in which case one 30 min. interval is sufficient, (b) the first 6" of water seeps away in <30 minutes in which case a one-hour test of 6-10 minute time intervals may be used, (c) the test is being conducted in sand (SW or SP) in which case a one-hour test of 6-10 minute time intervals may be used, (d) three successive water level drops do not vary by more than 1/16 inch in which case a two-hour test may be conducted, (e) test is in Dawson Sands, in which case the test must be run a minimum of four hours until the last three successive water level drops vary by less than 1/16 inch.



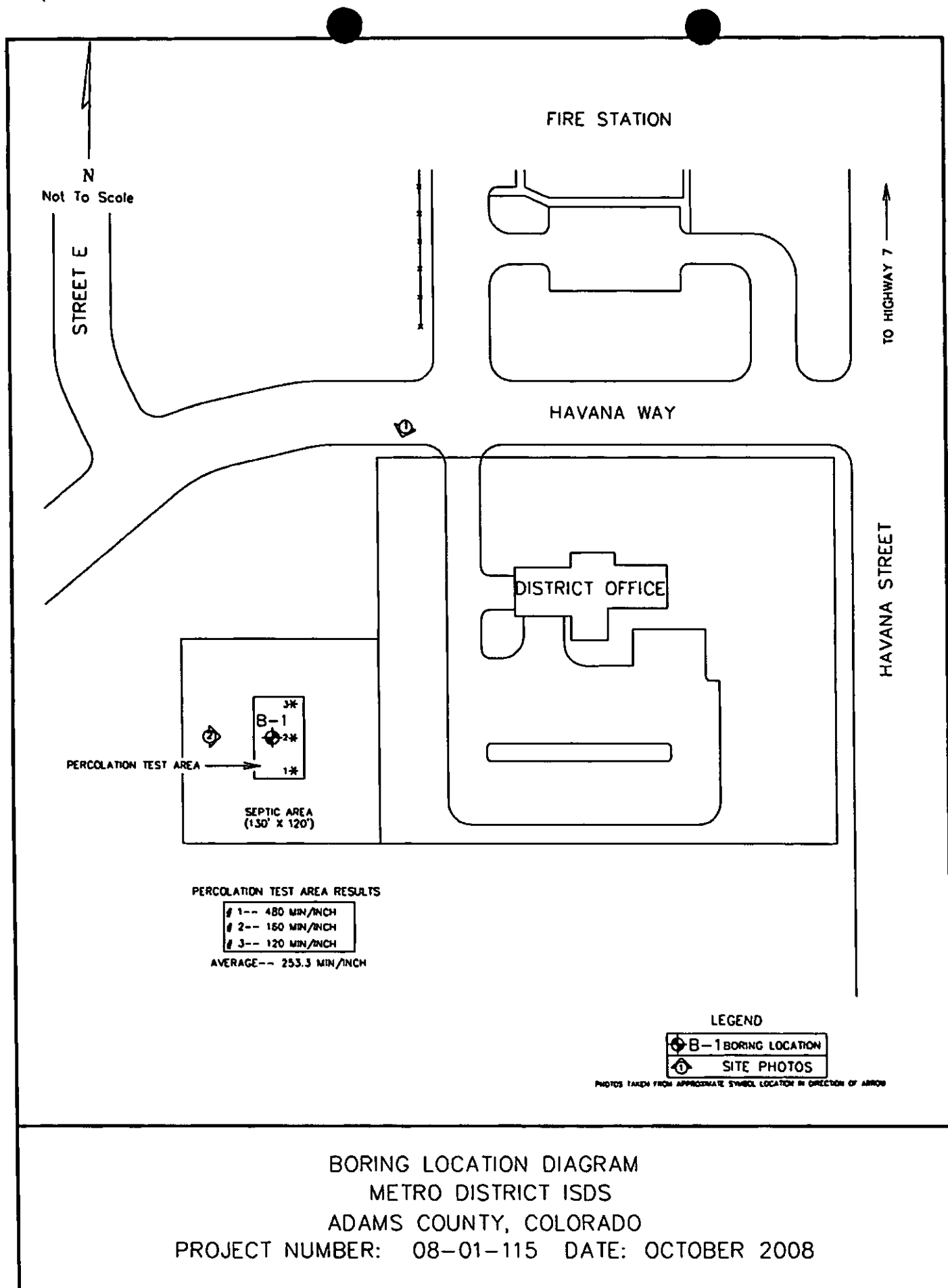
# TRI-COUNTY HEALTH DEPARTMENT

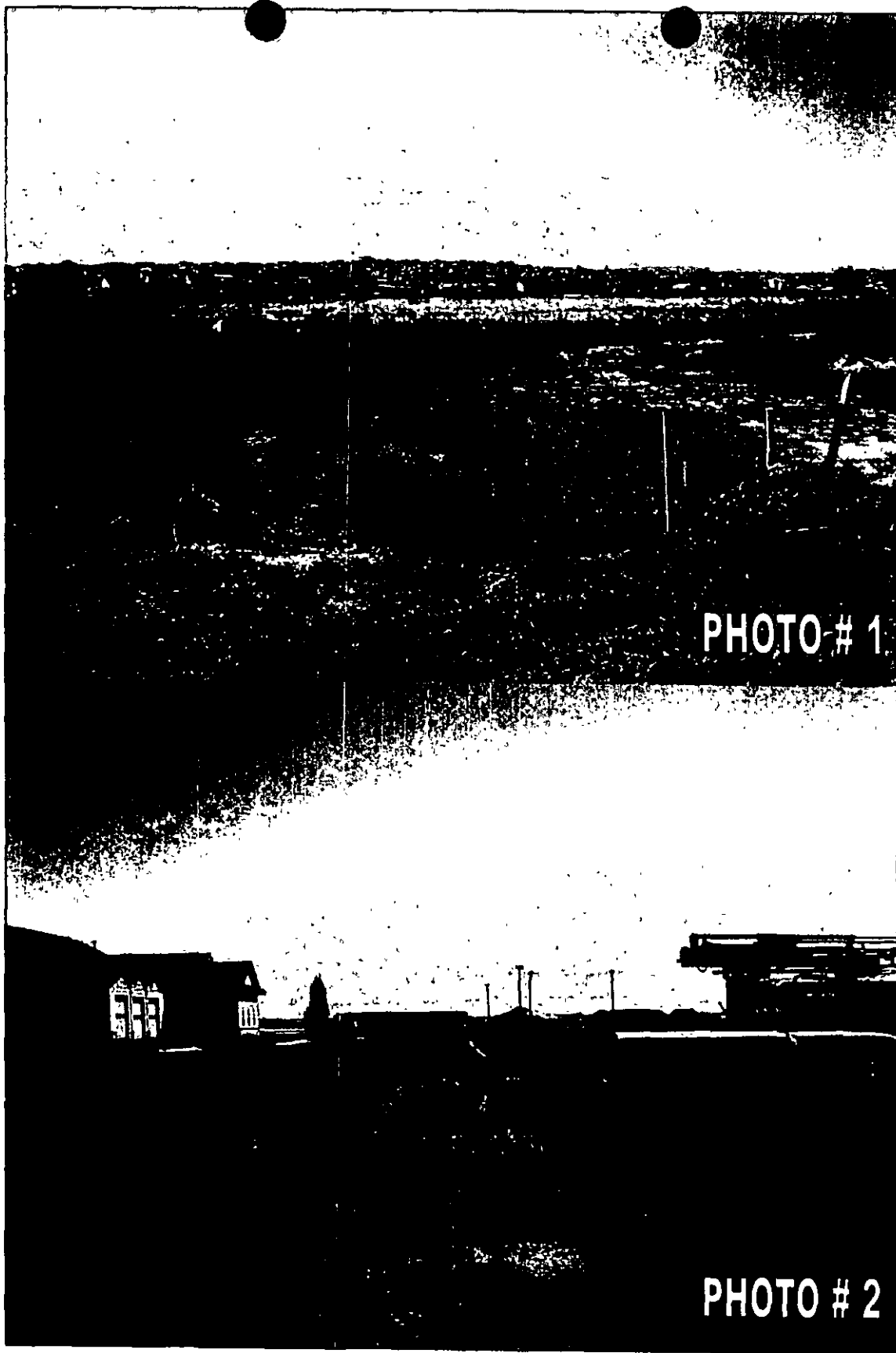
## PERCOLATION TEST RESULT FORM

Hole No.	Hole Depth (in.)	Length of interval (min.)	Water Depth @ Start of Interval (in.)	Water Depth @ End of Interval (in.)	Drop in Level (in.)	Percolation Rate @ Final Interval (min./in.)
3	35"	30	28 1/2"	29 3/16"	9/16"	
3	35"	30	29 3/16"	29 3/8"	3/16"	
3	35"	30	29 3/8"	29 7/8"	1/2"	
3	35"	30	29 7/8"	30 1/8"	1/4"	
3	35"	30	27 1/8"	27 3/8"	1/4"	
3	35"	30	27 3/8"	27 1/2"	1/8"	
3	35"	30	27 1/2"	27 5/16"	7/16"	
3	35"	30	27 5/16"	28 3/16"	1/4"	120

### Note:

- 1) Field Notes shall be recorded on this form or in this format; typed copies of field records may be submitted on this form.
- 2) A four hour test must be conducted unless (a) water remains in the hole after the presoak in which case one 30 min. interval is sufficient, (b) the first 6" of water seeps away in <30 minutes in which case a one-hour test of 6-10 minute time intervals may be used, (c) the test is being conducted in sand (SW or SP) in which case a one-hour test of 6-10 minute time intervals may be used, (d) three successive water level drops do not vary by more than 1/16 inch in which case a two-hour test may be conducted, (e) test is in Dawson Sands, in which case the test must be run a minimum of four hours until the last three successive water level drops vary by less than 1/16 inch.





METRO DISTRICT ISDS  
BRIGHTON, COLORADO  
EEC PROJECT No. 08-01-115  
OCTOBER 2008



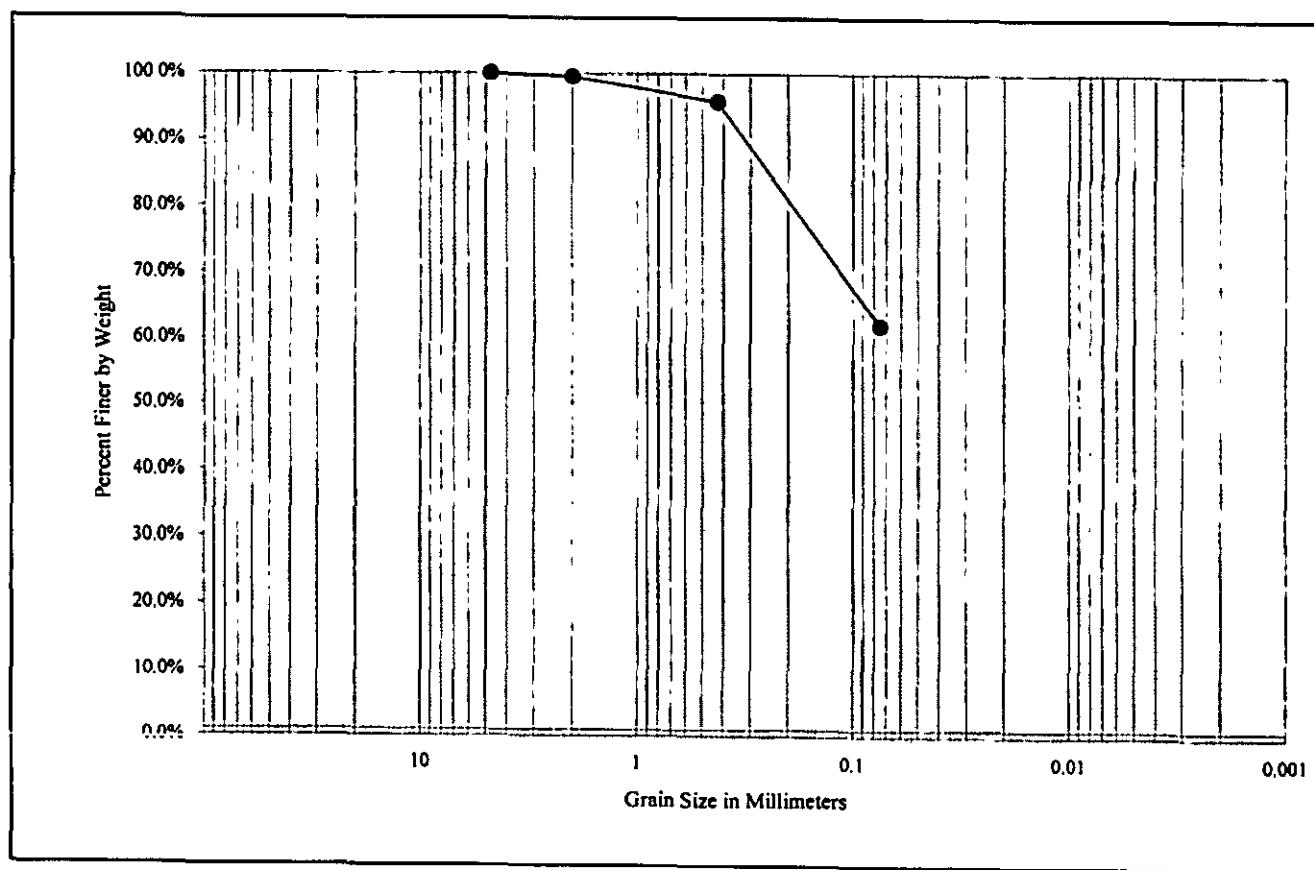
**METRO DISTRICT ISDS  
ADAMS COUNTY, COLORADO**

<b>PROJECT NO: 08-01-115</b>		<b>LOG OF BORING B-1</b>					<b>DATE: OCTOBER 2008</b>			
<b>RIG TYPE: CME45</b>		<b>SHEET 1 OF 1</b>					<b>WATER DEPTH</b>			
<b>FOREMAN: SM</b>		<b>START DATE</b>		<b>10/7/2008</b>		<b>WHILE DRILLING</b>		<b>None</b>		
<b>AUGER TYPE: 4" CFA</b>		<b>FINISH DATE</b>		<b>10/7/2008</b>		<b>AFTER DRILLING</b>		<b>None</b>		
<b>SPT HAMMER: AUTO</b>		<b>SURFACE ELEV</b>		<b>N/A</b>		<b>24 HOUR</b>		<b>None</b>		
<b>SOIL DESCRIPTION</b>		<b>D</b>	<b>N</b>	<b>QU</b>	<b>MC</b>	<b>DD</b>	<b>A-LIMITS</b>		<b>-200</b>	<b>SWELL</b>
<b>TYPE</b>	<b>(FEET)</b>	<b>(BLOWS/FT)</b>	<b>(PSF)</b>	<b>(%)</b>	<b>(PCF)</b>	<b>LL</b>	<b>PI</b>	<b>(%)</b>	<b>PRESSURE</b>	<b>% @ 500 PSF</b>
SANDY LEAN CLAY (CL) brown silty moist	1									
	2									
	3									
	4	18	9000+	11.8		43	26	62.2		
	5									
	6									
	7									
WEATHERED CLAYSTONE olive/grey moderately hard, moist	8									
	9									
8" BOTTOM OF BORING	10									
	11									
	12									
	13									
	14									
	15									
	16									
	17									
	18									
	19									
	20									
	21									
	22									
	23									
	24									
	25									

Earth Engineering Company

# Earth Engineering Company, Inc.

## Summary of Laboratory Gradation Test

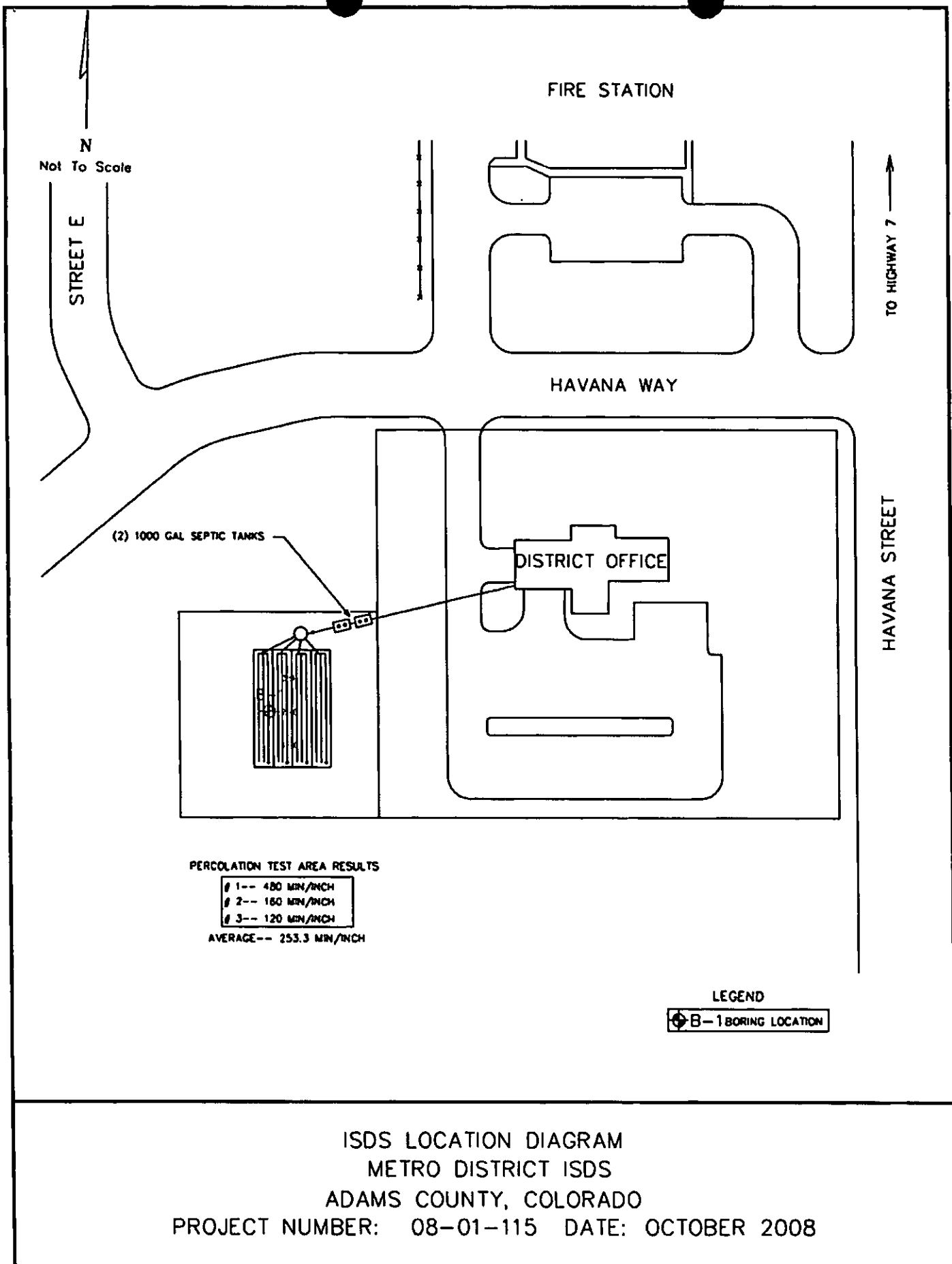


Sieve Size	Percent Passing
No. 4	100%
No. 10	100%
No. 40	96%
No. 200	62%

Project: Metro District ISDS  
City Location: Adams County, Colorado  
Project Number: 08-01-115  
Date: October 2008

Sample Location: B-1, S-1 @ 3'  
Description: Brown/Olive Sandy Lean Clay







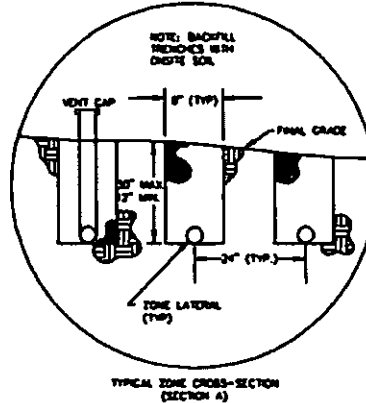
### DESIGN CALCULATIONS

10 OFFICE WORKERS  $\Rightarrow$  0-150 GAL/DAY  
 AVERAGE PERCOLATION RATE = 253.3 MIN/INCH  
 EXISTING GROUND SLOPE ACROSS PROPOSED FIELD : ~2.5%  
 DISPOSAL RATE,  $R = 0.15$  GAL/SQ.FT./DAY  
 $AREA = (Q/R) \cdot 1.5 \cdot 1.6 \cdot 0.75 \cdot 1.17$   
 $AREA = 2,108$  SQ.FT.  
 REQUIRED AREA = 2,400 SQ.FT.  
 REQUIRED LINEAL FEET OF PIPE IN LATERALS = 1,200 FT.

### TREATMENT UNIT

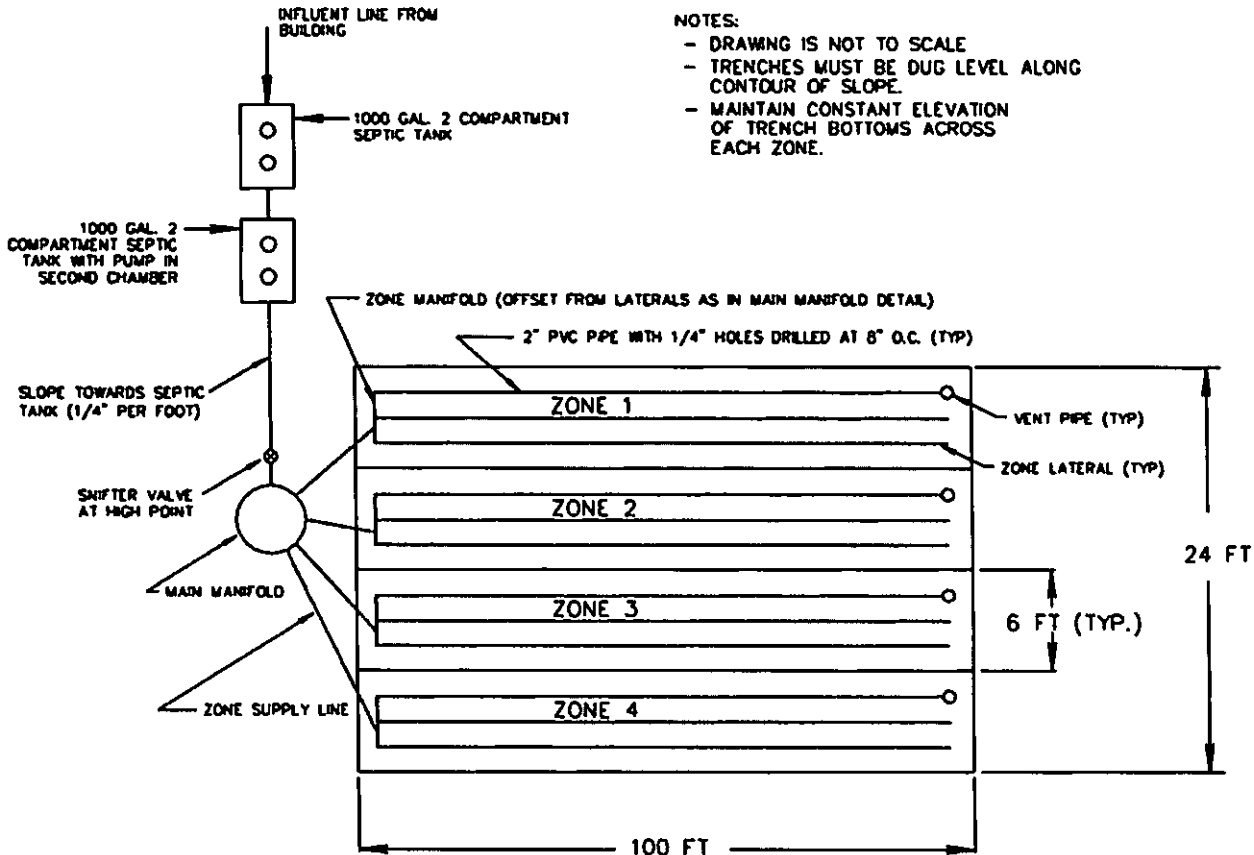
TWO 1000 GAL. SEPTIC TANKS  
 SCREENED PUMP IN SECOND VAULT OF SECOND TANK  
 PUMP: 0.4 HP GOULD  
 ALARM/CONTROL LOCATION AT OWNER'S REQUEST  
 DRAIN BACK TO PUMP CHAMBER OR FIELD

NO. OF ZONES/SECTION    WIDTH    LINES PER ZONE  
 4                                  A                                  6 FT.                                  3



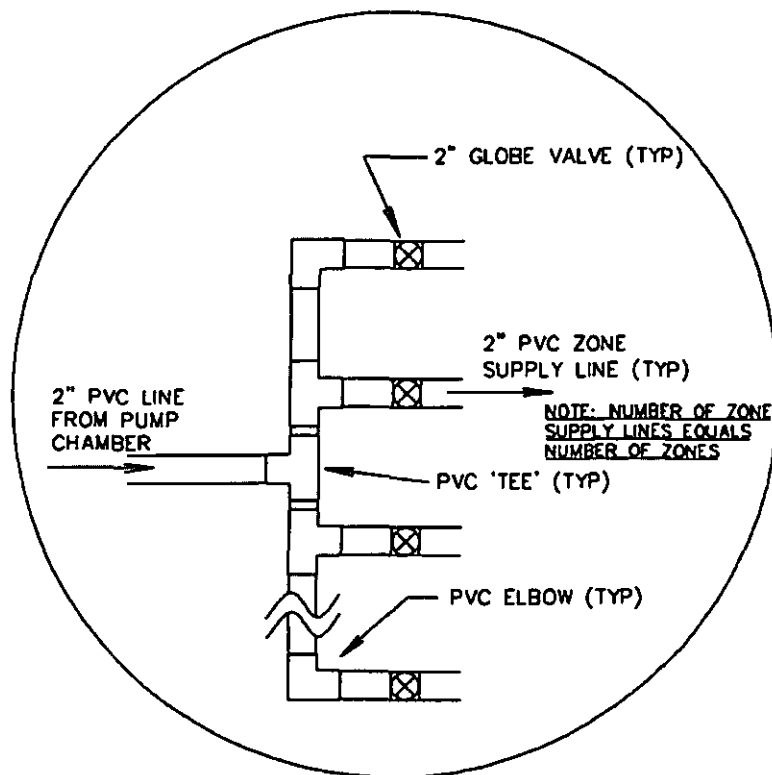
### NOTES:

- DRAWING IS NOT TO SCALE
- TRENCHES MUST BE DUG LEVEL ALONG CONTOUR OF SLOPE.
- MAINTAIN CONSTANT ELEVATION OF TRENCH BOTTOMS ACROSS EACH ZONE.



DRIP IRRIGATION SEPTIC SYSTEM DESIGN  
 METRO DISTRICT ISDS  
 ADAMS COUNTY, COLORADO  
 PROJECT NUMBER: 08-01-115    DATE: OCTOBER 2008

EARTH ENGINEERING COMPANY



MAIN MANIFOLD DETAIL

DRIP IRRIGATION SEPTIC SYSTEM DETAIL  
 METRO DISTRICT ISDS  
 ADAMS COUNTY, COLORADO  
 PROJECT NUMBER: 08-01-115 DATE: OCTOBER 2008

EARTH ENGINEERING COMPANY