

Eastern

State of Idaho
Department of Water Resources

Permit To Appropriate Water

NO. 21-07567

RECEIVED

DEC 03 1997

Department of Water Resources
Eastern Region

Proposed Priority: September 4, 1997 Maximum Diversion Rate: 0.22 CFS

This is to certify, that FALL RIVER RURAL ELECTRIC COOPERATIVE
PO BOX 830
ASHTON ID 83420-0830
has applied for a permit to appropriate water from: GROUNDWATER
and a permit is APPROVED for development of water as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
HEATING	01/01 to 12/31	0.22 CFS
COOLING	01/01 to 12/31	0.22 CFS
DOMESTIC	01/01 to 12/31	0.04 CFS
	Totals	0.22 CFS

LOCATION OF POINT(S) OF DIVERSION: SWNW , Sec. 2, Township 08N, Range 42E
FREMONT County

PLACE OF USE: HEATING

TWN RGE SEC

08N 42E 2 SWNW

PLACE OF USE: COOLING, same as HEATING use

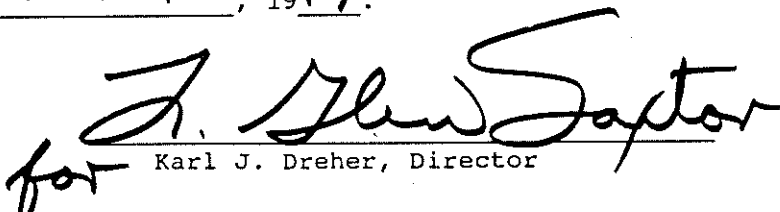
PLACE OF USE: DOMESTIC, same as HEATING use

CONDITIONS OF APPROVAL AND REMARKS

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before December 1, 1998.
2. Subject to all prior water rights.
3. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code.
4. Construction of the well shall comply with Idaho well construction standards.
5. Return flow discharged to a subsurface system must be authorized by a separate injection well permit.
6. Heating, cooling, and domestic uses are for a commercial building.

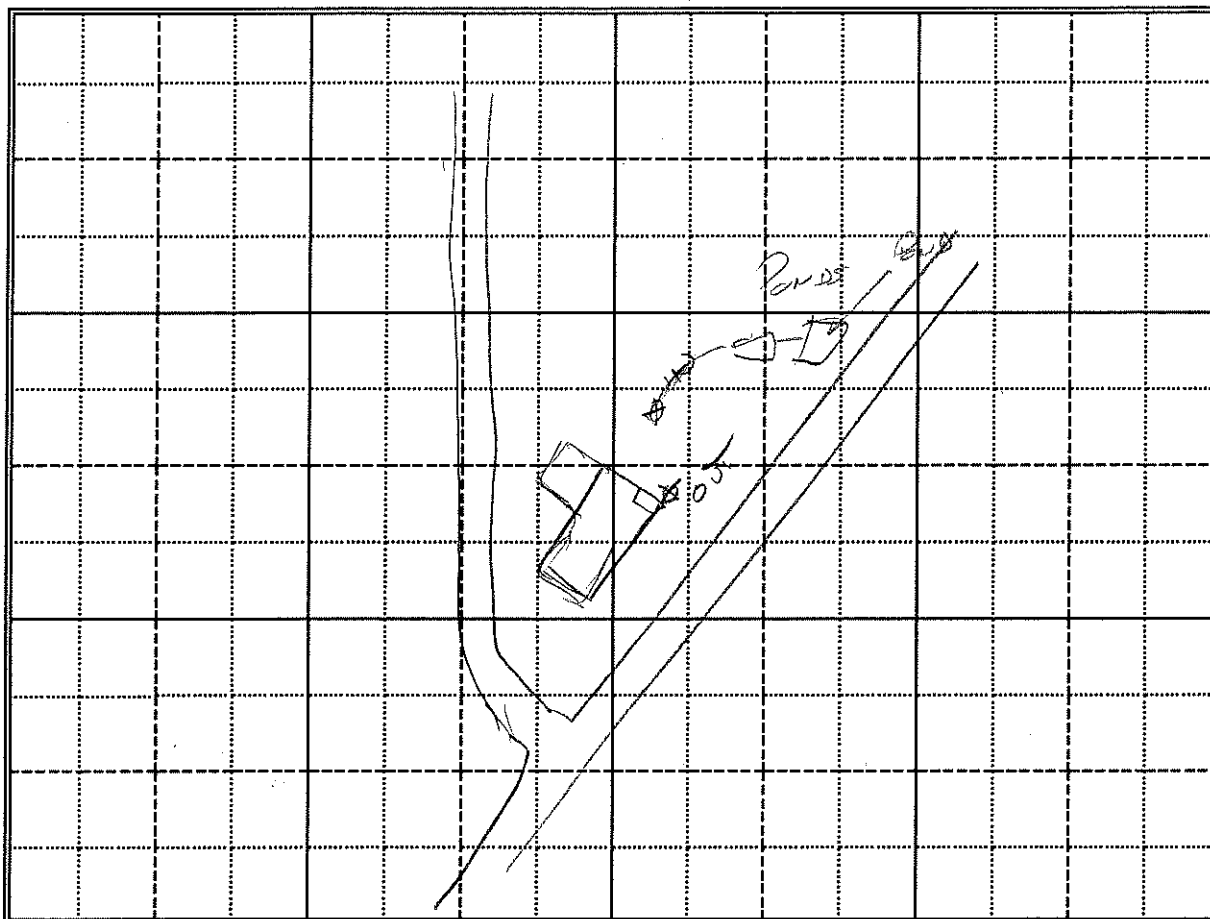
This permit is issued pursuant to the provisions of Section 42-204, Idaho Code.
Witness the signature of the Director, affixed at Boise, this

26th day of November, 1997.

for 
Karl J. Dreher, Director

[illegible]

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable.



Scale: 1" = _____

_____ Copy of USGS Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required).

_____ Aerial Photo Attached (required for irrigation of 10+ acres)

_____ Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
	Ac Motor	154p	66 M8120-15	HITACHI	68909 E

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date

2. Measurements:

E. NARRATIVE/REMARKS/COMMENTS

Heat pumps

Heat pumps over warehouse - $3 \times 16 \text{ GPM} + 1 \times 2 \text{ GPM}$

0.19

" office $3 \times 6 \text{ GPM} + 2 \times 8 \text{ GPM} + 1 \times 2 \text{ GPM}$

→ 866 gpm

28 employees - open all year

2 wells - one input into system for domestic use at facility, the other is for effluent from heating/cooling. Effluent well had problems at time of exam. Could not take effluent and was overflowing. This is common problem, so system of ponds built to hold overflow from system. Ponds are fed thru pipes from pitless adapter and creek/culverts.

2 wells - one input into system for domestic use at facility, the other is (an injection well) for effluent from heating & cooling. Effluent well (injection well) had problems at time of exam. Could not take Effluent and was overflowing. This is common problem, so system of ponds built to hold overflow from system. Ponds are fed thru pipes from pitless adapter and creek/culverts.

Have conditions of permit approval been met? ☒ yes ☐ no

F. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

Heating & cooling flow capacity from heat pumps $Q = 86 \text{ gpm} = 0.19 \text{ cfs}$

$$Q_{\text{THEORETICAL}} = \frac{hp (8.814) \text{ eff}}{\text{Lift} + (PSI \times 2.308)} = \frac{15 (8.814) 0.7}{80 + (60 \times 2.308)} = 0.42 \text{ cfs} \quad Q_{\text{LIMITED TO PERMITTED AMOUNT}} \\ Q = 0.22 \text{ cfs}$$

hp = 15 Lift assume 60' drawdown = 80'
 eff = 70% PSI assume 60 psi
 Static H₂O level = 20 ft

G. VOLUME CALCULATIONS**1. Volume Calculations for Irrigation:**

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = \underline{\hspace{2cm}}$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 = \underline{\hspace{2cm}}$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} = \underline{\hspace{2cm}}$$

2. Volume Calculations for Other Uses:

$$V_{\text{Heating \& Cooling}} = 130 \times 0.22 \text{ cfs} \times 1.9835 = 56.7 \text{ afa}$$

Assume 10 hr/day & 6 day/wk = 130 day operating

$$\left(\frac{10 \text{ hr}}{\text{day}}\right) \left(\frac{1 \text{ day}}{24 \text{ hr}}\right) \left(\frac{6 \text{ days}}{\text{wk}}\right) \left(\frac{52 \text{ wk}}{\text{yr}}\right) = 130 \text{ days operating @ capacity}$$

$$V_{\text{DOM}} = (50 \text{ gal}) (365 \text{ days}) (28 \text{ people}) = 511,000 \text{ gal} \div 325,850 \text{ gal/afa} = 1.56 \text{ af} = 1.6 \text{ afa}$$

Assume 50 gal/day/person 365 days/yr

H. RECOMMENDATIONS**1. Recommended Amounts**

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
Heating	1/1	12/31	0.22	56.7
Cooling	1/1	12/31	0.22	56.7
Domestic	1/1	12/31	0.04	1.6
Totals:			<u>0.22 cfs</u>	<u>58.3 afa</u>

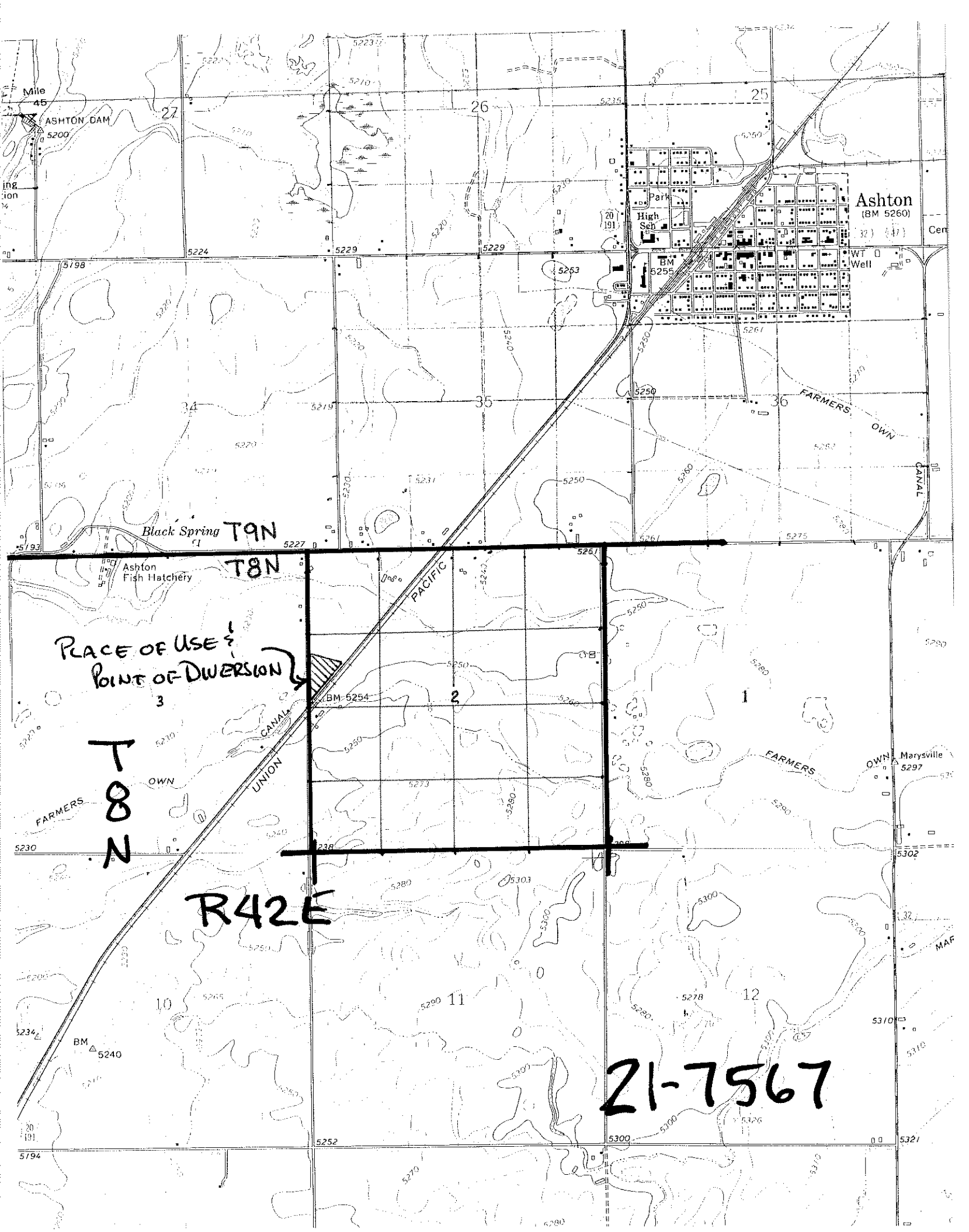
2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None
☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

I. AUTHENTICATIONField Examiner's Name Paul Meyer Date 8-18-1999

Reviewer _____ Date _____

SEAL



Mile 4.5
ASHTON DAM
5200

Ashton
(BM 5260)

Black Spring T9N

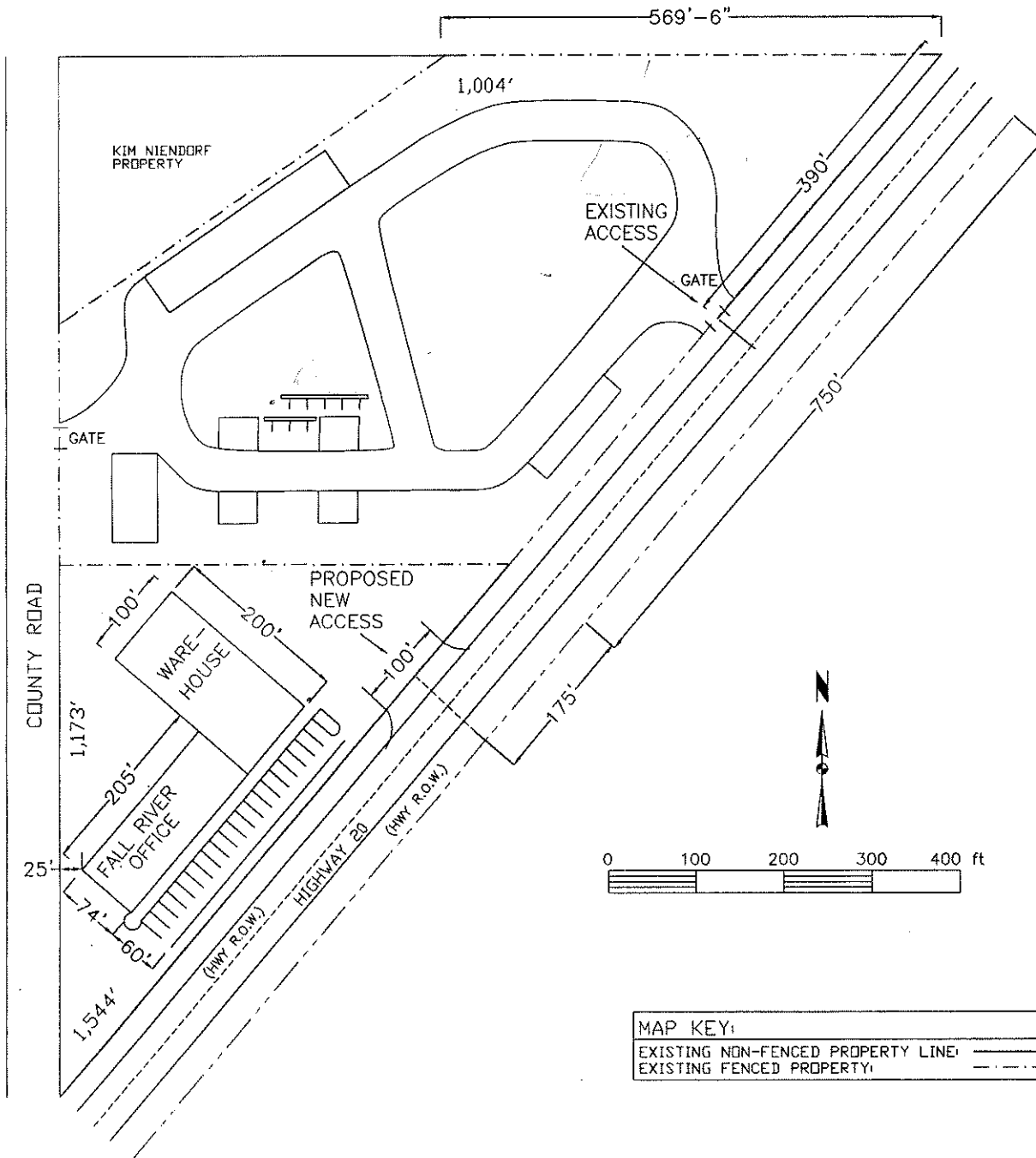
T8N

PLACE OF USE &
POINT OF DIVERSION

T
8
N

R42E

21-7567



FALL RIVER RURAL ELECTRIC COOPERATIVE, INC.

EXISTING POLE YARD, PROPOSED NEW OFFICE COMPLEX
APPLICATION FOR NEW ACCESS FROM STATE HWY 20

DATE: 1/97

CAD FILE: PY-ACCESS.DWG

DRAWN BY: RH, LB

PLOT SCALE: 1=1200