

February 17, 1993

en

WATER
RESOURCES
DEPARTMENT

Steve Schneider
Schneider Equipment and Drilling Co., Inc.
21811 River Road NE
St. Paul, OR 97137

Dear Steve:

The Water Resources Department has received your special standards request on the City of Troutdale well located in Township 1N, Range 3E, Section 36 of Multnomah County.

In your request, you indicate that the 5" liner/screen is not centered in the 12" casing and therefore the bottom of the hole is currently inaccessible to down-hole equipment. You propose to install a riser guide that will help guide the tools into the lower section of the well.

Your special standards request is approved. The repair should allow greater access to the lower portion of the well, and facilitate down-hole equipment entry. If you have any questions concerning this letter, please contact me at the address or phone number listed below.

Sincerely,



Rob Carter
Well Construction Specialist

cc: Greg Beaman, Watermaster
Richard Edwards, Well Inspector



3850 Portland Rd NE
Salem, OR 97310
(503) 378-3739
FAX (503) 378-8130

STATE OF OREGON
WATER RESOURCES DEPARTMENT

REQUEST FOR WRITTEN APPROVAL TO USE CONSTRUCTION METHODS NOT
INCLUDED IN THE RULES AND REGULATIONS PRESCRIBING GENERAL STANDARDS
FOR THE CONSTRUCTION AND MAINTENANCE OF WELLS IN OREGON

Before approval can be considered the following questions must be answered.

Requests shall be submitted to the Watermaster Division, 3850 Portland Road,
NE, Salem, OR 97310.

Date: 2/12/93

Well Constructor: Steve Schneider WWC 649
21881 River Rd NE, St. Paul, OR 97137

(1) Location of Well: SE 1/4 SE 1/4 of Section 36,
Township 1N, Range 3E, Multnomah County.

Address at well site or nearest known address: 1220 SE 26th St
Troutdale OR 97060

(2) Name and address of Landowner: City of Troutdale
104 SE Kibling
Troutdale, OR 97060

(3) The distance to the nearest well and septic drainfield: unknown. —
city sanitary services in the area.

(4) The unusual conditions existing at the well site: 5" liner/screen
is not centered in 12" casing and cannot get
tools (bailey TV, etc.) into 5" without putting in a 6"
guide string of pipe everytime it is desired

(5) The proposed construction methods that the well constructor or landowner
constructing the well believes will be adequate for his particular well:

Install special riser section that will hopefully
guide tools into 5" liner. The only need
for variance is that this section would not
overlap 5" liner by 8' because existing pack
would have to be removed and volume of reserve
pack in annulus would be reduced. Pack has
been known to settle as a result of sand production

Installation of this riser section would provide additional pack reserve. Also, 8' overlap would cover "relief" liner perforations.

- (6) A diagram showing the pertinent features of the proposed well design and construction (attach additional sheet if necessary):

See attached logs & sketch.

(Signed) Stephen J. Schneider
 (WELL CONSTRUCTOR)

For Water Resources Department Use Only

Date: 2-17-93

Approved by: [Signature]

Denied by: _____

Remarks: _____

NOTE:

- (1) If approval, all other phases of construction must be in compliance with State Well Construction Standards.
- (2) If it should be determined at some future date that the well, due to its construction, is offering an avenue for pollution of the ground water body, it will be necessary for you to return to the site to correct any well deficiencies.

PORT
CON

JAN 9 1991 MAR 2
WATER RESOURCES DEPT
SALEM, OREGON

State Well No. 1135-3600

Permit No. 7

OWNER:

City of Troutdale - Well # 7
Address City Hall
City Troutdale State Ore. 97060

(2) TYPE OF WORK (check):

New Well Deepening Reconditioning Abandon
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:

Rotary Air Driven
Rotary Mud Dig
Cable Bored

(4) PROPOSED USE (check):

Domestic Industrial Municipal
Irrigation Test Well Other
Thermal Withdrawal Refraction

(5) CASING INSTALLED:

Steel Threaded Plastic Welded
12" Diam. from 42 ft. to 355 ft. Gauge .312
5" Diam. from 300 ft. to 337 ft. Gauge .250

LINER INSTALLED:

" Diam. from ft. to ft. Gauge

(6) PERFORATIONS:

Perforated? Yes No

Type of perforator used
Size of perforations in. by in.
perforations from ft. to ft.
perforations from ft. to ft.
perforations from ft. to ft.

(7) SCREENS:

Well screen installed? Yes No

Manufacturer's Name Johnson
Type Stainless
Diam. 5" Slot Size 100 Set from 360 ft. to 385 ft.
Diam. 5" Slot Size " Set from 465 ft. to 475 ft.

(8) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? Yes No If yes, by whom? A&H PUMP SERV.
Yield: 1000 gal/min. with 40 ft. drawdown after 17 hrs.
Air test gal/min. with drill stem at ft. hrs.
Baller test 70 gal/min. with 0 ft. drawdown after 2 hrs.
Arterian flow g.p.m.
Temperature of water Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes No

Well seal—Material used CEMENT
Well sealed from land surface to 20 ft.
Diameter of well bore to bottom of seal 16 in.
Diameter of well bore below seal 12 in.
Number of sacks of cement used in well seal 28 sacks
How was cement grout placed? Pumped

Was pump installed? No Type HF Depth ft.
Was a drive shoe used? Yes No Plugs Size: location ft.
Did any strata contain unconsolidated water? Yes No
Type of Water? depth of strata
Method of sealing strata off
Was well gravel packed? Yes No Size of gravel: 1/8" - 7/8" was used
Gravel placed from 320 ft. to 538 ft.

(10) LOCATION OF WELL:

County Multnomah Driller's well number
SE 1/4 SE 1/4 Section 36 T. 1N R. 3E W.M.
Tax Lot # Lot Blk Subdivision
Address at well location:

(11) WATER LEVEL: Completed well

Depth at which water was first found ft.
Static level 174' ft. below land surface, Date 12-8-80
Artesian pressure lbs. per square inch, Date

(12) WELL LOG:

Diameter of well below casing

Depth drilled 575 ft. Depth of completed well 537 ft.
Formations: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Red Clay Cobble Conglomerate	0	14	cecrete
Brn Clay Cobble Conglomerate	14	19	" "
Brn Clay Cobble Conglomerate	19	36	" "
Red-Brn Cemented Sand	36	65	
Dk. Brn Sandstone W/Black Sand	65	129	
Brown Sandstone	129	155	135'
Dk. Brn Sandstone W/Black Sand	155	165	
Dk. Brn Congl. W/some Cobbles			
Boulders	165	177	
Hard, Red-Brn Clay	177	185	
Sandy-Brn Claystone	185	205	
Lt. Brn Claystone W/Grey Strips	205	210	
Blue Sticky Clay	210	358	
Cemented Gravel W/Green-Grey Sand & Mica	358	363	160'
Same W/ Clay Strips	363	370	
Same W/O Clay Strips	370	388	
Green Clay	388	390	
Sandy Clay W/Grey-White Sand/G	390	400	
Green Clay	400	438	
Sandy Clay	438	441	

Work started 8-19 1980 Completed 12-9 1980
Date well drilling machine moved off of well 12-9 1980

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
(Signed) [Signature] Date 12-24 1980
Drilling Machine Operator
Drilling Machine Operator's License No. 967

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name Orvail Buckner Well Drilling, Inc.
Address 1580 N.E. Negus Way, Redmond, Ore. 97756
(Signed) [Signature] (Water Well Contractor)
Contractor's License No. 608 Date 12-24 1980

R WELL REPORT
STATE OF OREGON

JAN 9 1981
WATER RESOURCES DEPT
SALEM, OREGON

RECEIVED

MAR 20 1981

State Well No. 11/3e-36dd
State Permit No. #7

(1) OWNER:

Name City of Troutdale- Well # 7
Address City Hall, 104 Kibling St.
City Troutdale Stat Ore. 97060

(2) TYPE OF WORK (check):

New Well Deepening Reconditioning Abandon

If abandonment, describe material and procedure in item 12.

(3) TYPE OF WELL:

Rotary Air Driven
Rotary Mud Dug
Cable Bored

(4) PROPOSED USE (check):

Domestic Industrial Municipal
Irrigation Test Well Other
Thermal Withdrawal Rejection

(5) CASING INSTALLED:

Steel Threaded Plastic Welded
12" Diam from +2 ft. to 355 ft. Gauge 312
5" Diam from 300 ft. to 537 ft. Gauge 250

LINER INSTALLED:

Diam from ft. to ft. Gauge

(6) PERFORATIONS:

Perforated? Yes No

Type of perforator used

Size of perforations in by in.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

(7) SCREENS:

Well screen installed? Yes No

Manufacturer's Name Johnson

Type Stainless Model No.

Diam 5" Slot Size 100 Set from 360 ft. to 385 ft.

Diam 5" Slot Size W Set from 465 ft. to 475 ft.

Drawdown is amount water level is lowered below static level

(8) WELL TESTS:

Was a pump test made? Yes No If yes, by whom? AA H PUMP SERV

Yield: 1000 gal/min with 63 ft. drawdown after 17 hrs.

Air test gal/min with drill stem at ft. hrs.

Boiler test 70 gal/min with 0 ft. drawdown after 2 hrs.

Artesian flow R.P.T.

Temperature of water 51 Depth artesian flow encountered ft.

(9) CONSTRUCTION:

Special standards: Yes No

Well seal—Material used Cement

Well sealed from land surface to 20 ft.

Diameter of well bore to bottom of seal 16 in.

Diameter of well bore below seal 12 in.

Number of sacks of cement used in well seal 28 sacks

How was cement grout placed? Pumped

Was pump installed? Type HP Depth ft.

Was a drive shoe used? Yes No Plug Size; location ft.

Did any strata contain unusable water? Yes No

Type of Water? depth of strata

Method of sealing strata off

Was well gravel packed? Yes No

Gravel placed from 320 ft. to 538 ft. Size of gravel 3/8" WP bed

(10) LOCATION OF WELL:

County Multnomah Driller's well number

SE 4 SE 4 Section 36 T. 1N R. 3E W.M.

Tax Lot # Lot Blk Subdivision

Address at well location:

(11) WATER LEVEL: Completed well

Depth at which water was first found ft.

Static level 176' ft. below land surface, Date 12-8-80

Artesian pressure lbs per square inch, Date

(12) WELL LOG:

Diameter of well below casing 5-8"

Depth drilled 575 ft. Depth of completed well 537 ft.

Formation; Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
Sand W/ Wood & Grey Mica	441	445	
Sand W/ Clay Embedded (Grey)	445	454	
Grey Sand W/ Clay & Pea Gravel	454	461	
Clay Conglomerate W/ Dk. Grn. Clay & Gravels	461	525	
Very Loose Gravels W/ Some Grey Sand	525	530	176'
Green Sticky Clay	530	575	
Back-filled hole to 538' w/ cobbles & gravel			
while developing well- dropped gravel between 12" & 5" casing- 30"			

Work started 8-19 19 80 Completed 12-9 19 80

Date well drilling machine moved off of well 12-9 19 80

Drilling Machine Operator's Certification:

This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.

(Signed) [Signature] Date 12-24, 19 80

Drilling Machine Operator's License No. 967

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Name Orvall Buckner Well Drilling, Inc.

Address 1686 N.E. Negus Way, Redmond, Ore. 97756

(Signed) [Signature] (Water Well Contractor)

Contractor's License No. 608 Date 12-24, 19 80

STATE OF OREGON
WATER WELL REPORT
(as required by ORS 537.763)

(START CARD) # 26815

(1) OWNER: Well Number: 7
 Name City of Troutdale
 Address 104 SE Kibling
 City Troutdale State OR Zip 97060

(2) TYPE OF WORK:
 New Well Deepen Recondition Abandon

(3) DRILL METHOD
 Rotary Air Rotary Mud Cable
 Other

(4) PROPOSED USE:
 Domestic Community Industrial Irrigation
 Thermal Injection Other

(5) BORE HOLE CONSTRUCTION:
 Special Construction approval Yes No Depth of Completed Well 529 ft.
 Explosives used Type _____ Amount _____

HOLE		SEAL		Amount sacks or pounds
Diameter	From To	Material	From To	
	Not changed		Not changed	

How was seal placed: Method A B C D E
 Other _____
 Backfill placed from _____ ft. to _____ ft. Material _____
 Gravel placed from 319 ft. to 347 ft. Size of gravel 3/8" Pea

(6) CASING/LINER:

Casing/Liner	Diameter	From To	Gauge	Material			
				Steel	Plastic	Welded	Threaded
Casing	Not changed			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	12	+2	?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner	Not changed			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5	318	?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of sheets: _____

(7) PERFORATIONS/SCREENS:
 Perforations Method Rotary wheel type
 Screens Type _____ Material _____

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
318	348	1X1	450			<input type="checkbox"/>	<input checked="" type="checkbox"/>
335	348	1X1	65			<input type="checkbox"/>	<input checked="" type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour
 Pump Bailor Air Flowing Artesian
 Yield gal/min _____ Drawdown _____ Drill stem at _____ Time _____

Performed by owner using _____ 1 hr.
 permanent pump

Temperature of water 50°-55° F Depth Artesian Flow Found _____
 Was a water analysis done? Yes By whom _____
 Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
 Depth of strata: _____

(9) LOCATION OF WELL by legal description:
 County Multnomah Latitude _____ Longitude _____
 Township 1N N or S. Range 3E E or W. W.M.
 Section 36 SE SE
 Tax Lot Tract A Lot Sandee Palisades Park Block _____ Subdivision _____
 Street Address of Well (or nearest address) 1220 SE 26th St.
Troutdale, OR 97060

(10) STATIC WATER LEVEL:
171 ft. below land surface. Date 5/16/91
 Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
 Depth at which water was first found 171'

From	To	Estimated Flow Rate	SWL
Unknown			

(12) WELL LOG: Ground elevation Approx. 190'

Material	From	To	SWL
No drilling - repairs consisted of:			
(1) Bailing			
(2) Perforating			
(3) Replacing gravel pack			
(4) Developing			
(5) Disinfecting			

Well was reported as being originally drilled in 1980 by No. 608.

Date started 5/9/91 Completed 5/22/91

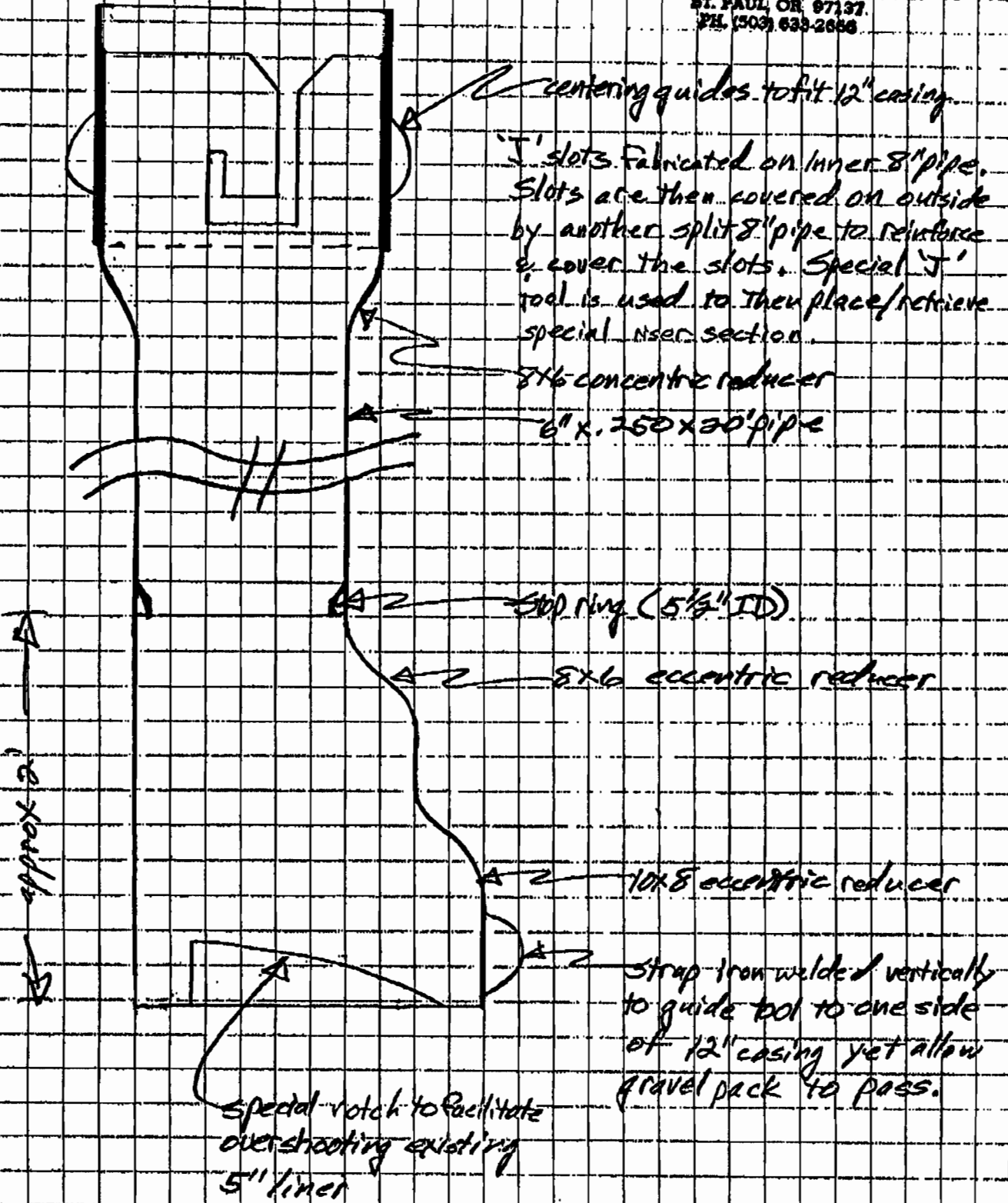
(unbonded) Water Well Constructor Certification:
 I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.
 Signed _____ WWC Number _____ Date _____

(bonded) Water Well Constructor Certification:
 I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.
 Signed [Signature] WWC Number 649 Date 6/20/91

City of Troutdale Well #7 Special Riser Section

Proposed
2/12/93

SCHNEIDER EQUIPMENT, INC.
21001 RIVER RD, N.E.
ST. PAUL, OR 97137
PH. (503) 633-2666



centering guides to fit 12" casing

'J' slots fabricated on inner 8" pipe. Slots are then covered on outside by another split 8" pipe to reinforce & cover the slots. Special 'J' tool is used to then place/retrieve special riser section.

8x6 concentric reducer

6" x .250 x 30' pipe

500 ring (5 1/2" ID)

8x6 eccentric reducer

10x8 eccentric reducer

strap iron welded vertically to guide tool to one side of 12" casing yet allow gravel pack to pass.

special notch to facilitate overshooting existing 5" liner

e x odds