HEATING SYSTEMS
OF THE
ORCHARD HOUSE
AT
WHITE HOUSE RANCH

RESEARCH PROJECT

FOR

ARCHITECTURE AND COMMUNITY DESIGN

PUBLIC ADMINISTRATION 598

May 11, 1983

Introduction

The heating systems of the Orchard House at White House Ranch illustrate the various eras it has experienced, from its original construction in 1907, through the period of its main habitation during the 1940's, and until its acquisition by the City of Colorado Springs in the 1970's. Although the house was designed by MacLaren and Thomas in the Dutch South African style (patterned after the home of Jan Christian Smuts, the Prime Minister of South Africa), they recognized the severe requirements of Colorado's cold mountain winters. These two factors conflicted with each other, since the house's architectural design actually made it more difficult to heat to a comfortable level. In recognition of this difficulty, MacLaren designed a multi-faceted heating system.

The Original Heating System

The blueprints (Attachment 1) and Specifications (Attachment 2) for the original heating system show evidence of the careful thought given to the heating needs of the residents of the Orchard House. The original system was centered around a coal fired steam boiler which fed a series of steam radiators located throughout the house. The pressure of the steam forced it throughout the steam piping to each radiator (all the way to the third floor). After each radiator, a "steam trap" held back

the steam and allowed "condensate" (water condensed from the supplied steam due to the cooling of the steam as it radiates heat through the radiators to the rooms of the house) to drain back down to the boiler in the basement. This type of steam heating system is called a "gravity" system, since the condensate drains back to the boiler by gravity, to be heated again and re-vaporize to hot steam. In fact, this is the technical reason why the boiler had to be located in the basement. (although that's a nice place for it from an aesthetic standpoint too.) This "condensate" type of steam heating system also conserves water, since only enough water needs to be added to the system (after it is originally filled) to replace steam lost through leaks in the piping system.

In addition to "direct radiation" (radiators heat rooms and people directly by radiating heat to them), the Orchard House has warm air heating in the Drawing Room and the Hall. MacLaren called this "indirect radiation" because it used steam piping to heat air in metal ductwork in the basement, which then rose through air ducts to heat these two rooms, which <u>do not</u> have any radiators. The reason for the use of indirect warmed air heat in these two rooms instead of using radiators could possible be aesthetic, since the Drawing Room was the showpiece of the house, and steam radiators were neither quiet nor elegant. These air ducts are also connected to the outside of the house; so that, by re-positioning dampers within the ducts, fresh outside air can be admitted to these rooms in

warmer weather.

This original heating system was fueled by coal. The supply of coal was located in the coal bin located across from the boiler. Stoking of the boiler was accomplished by one of the servants on a regular basis during cold weather. It was probably the Livery man who shoveled the coal, as well as supervising the delivery of coal from the supplier and its unloading into the coal chutes.

Temperature control was accomplished with valves mounted on each radiator; so that the residents (or their servants) could turn on or off the steam supply to any room as desired. The normal temperature maintained in heated rooms was probably about 70 degrees, because the Specifications require the heating contractor to guarantee that the heating will be able to heat all rooms with radiators to 70 degrees during the coldest winter weather. There is evidence that the heating contractor took this requirement seriously, because hand-written changes to the Specifications indicate that the sizes of the boiler and radiators were increased substantially over the sizes originally specified. These changes were probably made during the original construction. These hand-written changes are simulated in Attachment 3.

Heating System Modifications

The original system in the Orchard House has been modified at least twice. The original coal fired steam boiler was converted to burn fuel oil, probably in the 1940's. This conversion is discernible because the data on the boiler shows that it was manufactured in 1906, but it is set up to use an oil burner, rather than the grates necessary for burning coal. Fuel oil became the predominant heating fuel in the 1940's, replacing coal nationally in that regard. Fuel oil produced less pollution than coal, and there was also an ample supply of petroleum products after the end of World War II, due to a world-wide decrease in demand. Fuel oil also eliminated the need to shovel coal regularly into the boiler, since the fuel oil was piped directly from a storage tank into the burner of the boiler. Another good reason to expect that this conversion took place in the 1940's is that this corresponds to the time when the house was being refurbished for the occupancy of the Vrooman family. The storage tank for the fuel oil was buried outside the house beneath the north lawn. Although this underground storage tank is no longer used, it is still located just north of the east porch (pergola) of the house. Its position may well be visible during the summer, due to differences in the vegetation pattern of the grass over the tank. (NOTE: This fuel tank should be located and filled with sand or other material, to prevent its eventual collapse, which would result in a large hole in the lawn, and which could possible injure someone.) These details

of the fuel oil system, and the existence of a fuel oil fired domestic hot water heater (for hot running water), are found on the blueprints of the 1973 remodelling project designed by architect DeRos Hogue (Attachment 4).

This remodelling project included the second modification of the heating system, which converted it from the use of fuel oil to the use of natural gas. This conversion is shown both on the blueprints prepared by DeRos Hogue and on City of Colorado Springs records. The remodelling plans called for the disconnection of the oil burner controls on both the steam boiler and the hot water heater, and called for the installation of a new natural gas fired steam boiler next to the original boiler. The decision to leave the original boiler in place, even though it was to be disconnected and unused, exhibits a sensitivity to maintain the historical character of the house while meeting the needs of modernizing the mechanical demands of the building. Several different City of Colorado Springs records also verify this conversion from fuel oil to natural gas in 1973. First, City Park and Recreation budget estimates for 1970 include maintenance and repair needs for converting the Orchard House from oil to natural gas (as well as converting two Caretaker Cottages from butane to natural gas). In addition, City Gas Division records show the original installation schematics of the natural gas lines to the serve the buildings on the ranch, and are dated July and October of 1973. These records are included as Attachments 5, 6, and 7.

Fireplaces

In addition to the steam heating system in the house, there are also six fireplaces located on the first and second floors. These six fireplaces share two vertical shafts where their flues are aligned. The four fireplaces on the south end of the house all share the same vertical shaft, and the Dining Room and second floor Guest Room share the other vertical shaft with the flues from the boiler, Laundry Room, and Kitchen stove. These shared arrangements conserved floor space by avoiding the additional space which would have been required for separated flues. These two shafts also house "ash drops" from each fireplace. These ash drops allow ashes from each fireplace to be swept into a small opening in the floor of the fireplace. The ashes then drop down chutes to large ash bins located in the basement, where a servant can shovel them out and dispose of them.

The wood burned in the fireplaces was stored in the Wood Bin located in the basement next to the Kitchen Coal Bin, and would have been carried up to the fireplaces by one of the servants. The fires in the fireplaces added additional radiant heat to those rooms, but at the same time increased the amount of exfiltration from the house. Exfiltration is the loss of heated air from within a building; this air being drawn up the chimneys causes cold outside air to be sucked into the house through window sills and around doors, and the net heating efficiency of these open fireplaces would have been negative; that is,

the house would actually be kept at a lower temperature than it would have been if there were no fireplaces at all. However, although the room temperatures may have been lower, the people in the rooms may nonetheless have felt warmer, because they received a large amount of direct radiant energy from the burning fire. All three of these energy sources; coal, fuel oil, and natural gas; evidence the longtime American tradition of cheap energy.

1980's Energy Efficiency

Now that cheap energy is a thing of the past, a program is in order for improving the energy efficiency of the house without compromising the historical or architectural character it represents. New heating technology has been developed in the last few years which is substantially more energy efficient than the existing system. For example, the existing boiler is about 60% efficient, and new boilers now available can achieve up to 98% efficiency. However, the expense of purchasing a new boiler may make other less expensive measures more cost effective first. For example, weatherstripping and caulking around all openings in the house can save over 15% of the energy used during cold weather. Sealing the fireplace openings (perhaps with glass covers like the one in the Drawing Room) will greatly decrease heat loss up the chimneys, especially when the fireplaces are not being used. (Chimney dampers are not very effective for this purpose, because they do not seal very tightly.) Turning the

domestic hot water heater off (or lowering the setting of the water temperature) except when it is needed, will likewise save unused energy. One project that would improve the house's energy efficiency would also restore it to a condition more like its original condition: the addition of functional external window shutters and heavy inside drapes. These additions, if used like they were in the early 1900's, would noticeably decrease the heat loss out of the windows. In addition, shutters on the south side of the house could be closed during the summer to keep the house cooler. Another way to keep the house cooler in the summer, is to open the windows at night to allow the cool night mountain air to fill the house, and then close the windows in the morning. Another significant way to decrease the energy use of the house during the winter is to "winterize" it. That is, if the house is not open to the public, and if only one or two people are using it during cold weather, relocate them somewhere else and turn off the heating system. This would also necessitate the turning off of the water system and draining of the piping, but the savings in natural gas (at today's prices) would be significant, and the money saved might be much better spent on the house during its open season.

Future possibilities for more detailed energy analysis could include a comprehensive Energy Audit of the house. After speaking with the City Energy Conservation Office, it appears that City Park and Recreation employees could perform this audit, which could also include a computer analysis of past utility bills to determine

what factors most affect the energy consumption of the house.

Other Possibilities

Also included in this paper are a copy of the property description from City records (Attachment 8) and a letter and newspaper article from a woman who indicates that she has an extensive file of information on the Colorado College Museum, which might well contain more data about the Sclaters. Finally, included in Attachment 1, MacLaren's original blueprints for the Orchard House, is one sheet with detailed plans for the construction of a stable for the Sclaters. It seems likely that this stable was never built, since it is not shown on any of the past records of the White House Ranch. If any future building project were to be considered for the ranch, it would be appropriate to consider building MacLaren's stable from his original plans.

Any future projects should also include considerations of security and safety. Exterior shutters on the house would not only improve the energy efficiency of the house, but they would also improve the security of the house by detering vandalism and break-ins. (This will be especially important if the house contains valuable period displays in the future.) Safety would be improved on the grounds of the ranch if the buried natural gas lines serving the ranch were positively located and marked. These gas lines are made of plastic and could easily be penetrated by someone digging with a shovel. One of these lines

appears from Attachment 7 to run through the area occupied by the Rocky Mountain Arboretum, and is thus susceptible to damage from excavation associated with planting trees.

SPECIFICATIONS FOR LOW PRESSURE STEAM HEATING APPARATUS

TO BE INSTALLED IN THE RESIDENCE FOR

W. L. SCLATER, ESQ.

May 23, 1907

TO BE ERECTED ON THE OLD CHAMBER'S RANCH NEAR THE GARDEN OF THE GODS ACCORDING TO PLANS PREPARED BY MAC LAREN & THOMAS, ARCHITECTS, THE WORK TO BE DONE UNDER THEIR SUPERVISION AND TO THEIR SATISFACTION AND APPROVAL

GENERAL CONDITIONS: The heating contractor to furnish all material, labor, and tools to install a complete plant in all its details, according to these specifications and plans submitted by the architects, the work to be carried out in strict compliance with the same.

HEATING APPARATUS: The residence to be warmed throughout with a low pressure steam apparatus by direct and indirect radiation, returning all water or condensation back to boiler.

BOILER: Furnish and set up in basement where shown on plans, one #516 American sectional safety steam boiler with a capacity of 1500 square feet of direct radiation, boiler to be furnished complete with all tools and trimmings necessary and usual with this type of boiler. Boiler to set on brick foundation provided by heating contractor. Boiler to be set at a sufficient depth to receive an easy flow of water from all radiators and piping. Boiler to be covered with asbestos cement, properly on and trowelled down and painted with Asphaltum varnish.

SMOKE CONNECTIONS: Boiler to be connected with smake opening in flue in boiler room by #16 plain iron smoke pipe with round elbow damper and cleanout. Smoke connection to be well secured in place and to be covered with three layers of heavy asbestos paper cut in strips and fastened on with copper wire.

WATER CONNECTIONS: Connect to water supply in boiler room with 3/4 inch galvanized pipe and carry to boiler and make connections with the same. This supply to have a separate controlling valve conveniently located.

PIPE: Furnish and run a gravity system of piping. All pipes to be of ample size and so adjusted as to insure a delivery of dry steam to all radiators and an easy flow of water of condensation back to the boiler. All joints to be steam tight and the pipe of best quality.

Leaving boiler with 4 inch steam main thence carry 3½ inch main to a point underneath each indirect, making a complete circuit of the basement and connection with return opening in boiler. The indirect radiation to have separate returns carried under basement. All risers for direct radiation to be of ample size and to be secreted in partition. All fittings to be of heavy gray cast iron of good quality. All mains in basement to be supported by neat and strong hangers properly fastened to stringers over head.

FLOOR AND CEILING PLATES: Where the pipes pass through the walls, floor, or ceiling, the openings to be covered with nickel plated plates.

RADIATOR VALVES: Each radiator to be provided with a union valve of heavy pattern best steam metal with Jenkins discs. Valves to be nickel plated all over. Each radiator and each indirect stack to be provided with nickel plated automatic air valve of best make.

RADIATION: To be located where shown on drawings and to be plain cast iron radiators of the Corinth and Acme patterns. The indirect radiation to be of the Excelsior pattern, 12 ft. to the section. The distribution of the radiation to be as follows:

Distribution of Radiation.

ATTIC:		
Bath Room	1 -- 4 loop 38"	high 2-column Acme radiator
Sewing Room	1 -- 5 loop 38"	" " " "
Servants' Room #1		
rough in for	1 -- 6 loop 38"	" " " "
Servants' Room #2	1 -- 5 loop 38"	" " " "
Servants' Room #3	1 -- 4 loop 38"	" " " "
SECOND STORY:		
Guests' Room #1	2 -- 6 loop 38"	high 2-column Acme radiator
Guests' Room #2	1 -- 6 loop 38"	" " " "
North Bath Room	1 -- 5 loop 38"	" " " "
Dressing Room	1 -- 6 loop 26"	" " " "
East Bath Room	1 -- 5 loop 38"	" " " "
Own Room	2 --11 loop 26"	" " " "
Morning Room,		
rough in for	2 -- 6 loop 38"	" " " "
Hall	1 -- 5 loop 38"	" " " "
FIRST STORY:		
Drawing Room,	2 -- stack of indirects containing 120 square feet	
Hall	1 -- stack " " 48 " "	
Vestibule	1 -- 9 loop 38"	2-column Acme radiator
Servants' Hall	1 -- 8 loop 38"	" " "
Service Hall	1 -- 5 loop 38"	" " "
Study	1 --10 loop 38"	" " "
Breakfast Room	1 -- 8 loop 38"	3-column Corinth radiator
Dining Room	1 --12 loop 38"	" " "
Toilet Room	1 -- 7 ft. section	Colonial wall coil
Pantry	2 -- 7 ft. "	" " "

PAINTING AND BRONZING: All exposed pipes and radiators above floors to be given a coat of shellac and finished with pale gold bronze.

FINALLY: This specification is intended to provide a complete and perfect apparatus in every respect and to cover all work and materials necessary for the completion of the heating plant as above specified including register and galvanized iron work for the indirect radiation.

GUARANTEE: The heating contractor is to guarantee to heat all rooms in which radiators are placed to a temperature of 70 degrees during coldest winter weather providing heating plant is given proper care and attention and that suitable fuel for this purpose is used. Should there not be sufficient radiation as per above schedule to accomplish this, the heating contractor must furnish and put in place at his own cost, additional radiation to maintain the above temperature. Heating contractor must guarantee all workmanship and material to be the best of their respective kind and to be free from defects and to replace at own cost any material proven defective for a period of one year from date of completion.

SPECIFICATIONS FOR LOW PRESSURE STEAM HEATING APPARATUS

TO BE INSTALLED IN THE RESIDENCE FOR
Land + ~~pler~~ Company of
Colorado Springs
W. L. SCLATER, ESQ.

May 23, 1907

TO BE ERECTED ON THE OLD CHAMBER'S RANCH NEAR THE GARDEN OF THE GODS ACCORDING TO PLANS PREPARED BY MAC LAREN & THOMAS, ARCHITECTS, THE WORK TO BE DONE UNDER THEIR SUPERVISION AND TO THEIR SATISFACTION AND APPROVAL

GENERAL CONDITIONS: The heating contractor to furnish all material, labor, and tools to install a complete plant in all its details, according to these specifications and plans submitted by the architects, the work to be carried out in strict compliance with the same.

HEATING APPARATUS: The residence to be warmed throughout with a low pressure steam apparatus by direct ~~and indirect~~ radiation, returning all water or condensation back to boiler.

BOILER: Furnish and set up in basement where shown on plans, one #516 American sectional safety steam boiler with a capacity of ~~1500~~ 2625 square feet of direct radiation, boiler to be furnished complete with all tools and trimmings necessary and usual with this type of boiler. Boiler to set on brick foundation provided by heating contractor. Boiler to be set at a sufficient depth to receive an easy flow of water from all radiators and piping. Boiler to be covered with asbestos cement, properly on and trowelled down and painted with Asphaltum varnish.

SMOKE CONNECTIONS: Boiler to be connected with smake opening in flue in boiler room by #16 plain iron smoke pipe with round elbow damper and cleanout. Smoke connection to be well secured in place and to be covered with three layers of heavy asbestos paper cut in strips and fastened on with copper wire.

WATER CONNECTIONS: Connect to water supply in boiler room with 3/4 inch galvanized pipe and carry to boiler and make connections with the same. This supply to have a separate controlling valve conveniently located.

PIPE: Furnish and run a gravity system of piping. All pipes to be of ample size and so adjusted as to insure a delivery of dry steam to all radiators and an easy flow of water of condensation back to the boiler. All joints to be steam tight and the pipe of best quality.

Leaving boiler with 4 inch steam main thence carry 3½ inch main to a point underneath each indirect, making a complete circuit of the basement and connection with return opening in boiler. The indirect radiation to have separate returns carried under basement. ~~All risers for direct radiation to be of ample size and to be secreted in partition.~~ All fittings to be of heavy gray cast iron of good quality. All mains in basement to be supported by neat and strong hangers properly fastened to stringers over head.

FLOOR AND CEILING PLATES: Where the pipes pass through the ~~walls~~, floor, or ceiling, the openings to be covered with nickel plated plates.

RADIATOR VALVES: Each radiator to be provided with a ~~union valve of heavy pattern best steam metal with Jenkins discs.~~ Valves to be nickel plated all over. Each radiator and each indirect stack to be provided with nickel plated automatic air valve of best make.

RADIATION: To be located where shown on drawings and to be plain cast iron radiators of the Corinth and Acme patterns. The indirect radiation to be of the Excelsior pattern, ~~12 ft. to the section~~. The distribution of the radiation to be as follows:

Distribution of Radiation.

ATTIC:			
Bath Room	1 -- 4 loop 38" high 2-column Acme radiator	32	32
Sewing Room	1 -- 5 loop 38" " " " "	28	40
Servants' Room #1 rough in for	1 -- 6 loop 38" " " " "	40	24
Servants' Room #2	1 -- 5 loop 38" " " " "	30	20
Servants' Room #3	1 -- 4 loop 38" " " " "	22	16
SECOND STORY:			
Guests' Room #1	2 -- 6 loop 38" high 2-column Acme radiator	64	48
Guests' Room #2	1 -- 6 loop 38" " " " "	32	24
North Bath Room	1 -- 5 loop 38" " " " "	26	20
Dressing Room	1 -- 6 loop 26" " " " "	26	26
East Bath Room	1 -- 5 loop 38" " " " "	24	20
Own Room	2 --11 loop 26" " " " "	82	87
Morning Room, rough in for	2 -- 6 loop 38" " " " "	16	48
Hall	1 -- 5 loop 38" " " " "	32	30
FIRST STORY:		216	240
Drawing Room	2 -- stack of indirects containing 120 square feet	10	
Hall	1 -- stack " " 48 "	72	
Vestibule	1 -- 9 loop 38" 2-column Acme radiator	72	
Servants' Hall	1 -- 8 loop 38" " " "	48	
Service Hall	1 -- 5 loop 38" " " "	30	
Study	1 --10 loop 38" " " "	64	
Breakfast Room	1 -- 8 loop 38" 3-column Corinth radiator		
Dining Room	1 --12 loop 38" " " "	85	
Toilet Room	1 -- 7 ft. section Colonial wall coil	12	
Pantry	2 -- 7 ft. " " " "	18	

PAINTING AND BRONZING: All exposed pipes and radiators above floors to be given a coat of shellac and finished with pale gold bronze.

FINALLY: This specification is intended to provide a complete and perfect apparatus in every respect and to cover all work and materials necessary for the completion of the heating plant as above specified including register and galvanized iron work for the indirect radiation.

GUARANTEE: The heating contractor is to guarantee to heat all rooms in which radiators are placed to a temperature of 70 degrees during coldest winter weather providing heating plant is given proper care and attention and that suitable fuel for this purpose is used. Should there not be sufficient radiation as per above schedule to accomplish this, the heating contractor must furnish and put in place at his own cost, additional radiation to maintain the above temperature. Heating contractor must guarantee all workmanship and material to be the best of their respective kind and to be free from defects and to replace at own cost any material proven defective for a period of one year from date of completion.

COLORADO SPRINGS PARK & RECREATION DEPT.
White House Ranch Properties
Garden of the Gods

Maintenance & Repair Estimate

A. Items to be accomplished during summer of 1969:

1.	Land east of Camp Creek - general clean-up and seeding of wild grasses (240 man hours plus equipment).	725.00
2.	Repairs and outside painting of 5 stall garage	125.00
3.	Dredge bottom of fish pond (Rental plus operator - 6 hrs)	150.00
	A	1000.00

B. Items to be accomplished after January 1, 1970.

1.	Convert heating in two buildings from butane gas, and in one building from oil to natural gas. White House 300.00 2 caretakers houses @ $350. each 700.00	[illegible]
2.	Sewer lines to various buildings -- 1,250 feet @ $4.25 per ft.	[illegible]
3.	Asst. Caretaker - full time in Garden of the Gods area - Responsible for White House Ranch properties - $[illegible] per month, 12 months	[illegible]
4.	Monthly maintenance and utilities - $575.00 per month	~~6900.00~~
5.	Furniture & Fixtures - chairs, tables, desks, rugs, drapes, etc.	[illegible]
6.	Plants and landscaping materials	500.00
	4B	19,[illegible]95.00

C. Items to be accomplished during next several years:

CAPITAL

Roads, parking areas, restrooms, sprinkler systems, lighting, bridges, paths 47,[illegible]00.00

INTERPRETIVE TEAM — 7,500

DIRECTOR-NATURALIST — 12,500

A, B, C → 39,975.00

Chambers Way
North 30th Street (White House Ranch)

LOT # BLOCK # [illegible] Date 10/8 197 3

MAIN HP 1¼" [illegible] CI SIZE TAP ½" ; SAD. YES MAIN DEPTH 3'
LP WI NO
[illegible] Ft. [illegible] From [illegible] Pl. Street Alley
In Box ALDYL-A P. E.
Stop Cock [illegible] No

Service Is 1" Plastic [illegible]
[illegible] 38 Dresser [illegible]

Form 116

BUILT TO COMPANY STANDARDS MAOP [illegible]
WHICH CONFORM TO B31.8 & D.O.T.
CODE. TESTED W/ [illegible] TO P.S.I. [illegible] FOR
[illegible] MIN/HRS. WELDS SOAP TESTED

FOREMAN [illegible]
DEMPUBCO PL(M)5000 JT

North 30th Street White House Ranch

LOT # BLOCK # [illegible] Date 1/8 197 [illegible]

MAIN HP 1¼" Plastic CI SIZE TAP ; SAD. YES MAIN DEPTH [illegible]
LP WI NO
6 Ft. [illegible] From [illegible] Pl. Street Alley
In Box ALDYL-A P. E.
Stop Cock [illegible] Riser No

Service Is 1¼" Plastic to [illegible] main [illegible] fire
Hydrant [illegible] of fire Hydrant
[illegible] 38 Dresser [illegible]

Form 116

BUILT TO COMPANY STANDARDS MAOP [illegible]
WHICH CONFORM TO B31.8 & D.O.T.
CODE. TESTED W/ [illegible] TO P.S.I. [illegible] FOR
[illegible] MIN/HRS. WELDS SOAP TESTED

FOREMAN [illegible]
DEMPUBCO PL(M)5000 JT

---

2 Chambers Way
North 30th Street White House Ranch

LOT # BLOCK # [illegible] Cottage #1 Date 10/8 197 3

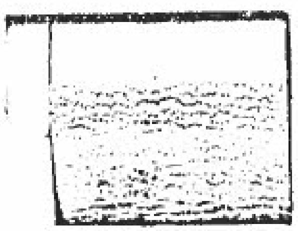
MAIN HP 1¼" [illegible] CI SIZE TAP ½" ; SAD. YES MAIN DEPTH 3'
LP WI NO
47 Ft. [illegible] From [illegible] Pl. Street Alley
In Box ALDYL-A P. E.
Stop Cock [illegible] Riser No

Service Is 1" Plastic 35' [illegible]
[illegible] 38 Dresser [illegible]

Form 116

BUILT TO COMPANY STANDARDS MAOP [illegible]
WHICH CONFORM TO B31.8 & D.O.T.
CODE. TESTED W/ [illegible] TO P.S.I. [illegible] FOR
[illegible] MIN/HRS. WELDS SOAP TESTED

FOREMAN [illegible]
DEMPUBCO PL(M)5000



White House Ranch new card
#4 3204 Chambers Way

LOT # BLOCK # Caretakers Cottage #2 Date 7/23 197 6

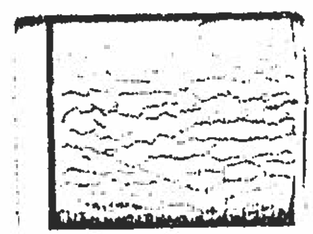
MAIN HP 1¼" Plastic CI SIZE TAP ½" ; SAD. YES MAIN DEPTH
LP WI NO
Ft. From Pl. Street Alley
In Box
Stop Cock No

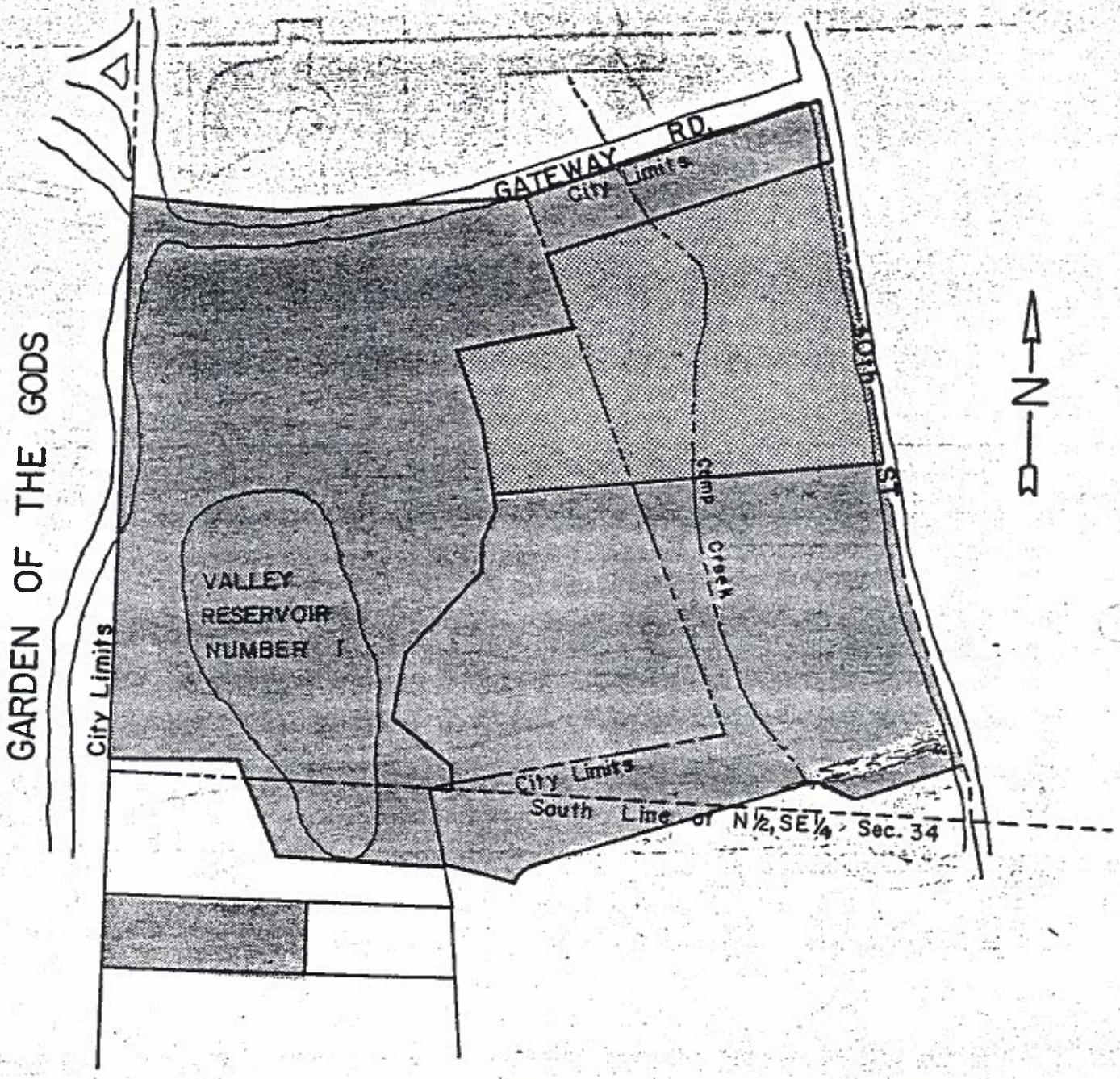
OR ON S. H/L OF CRAFTSHOP.
Service Is 1" 3' W.E. H.L. & 13' N. N. H.L.
Tie-in 1" style 38 Dresser.

Form 116

BUILT TO COMPANY STANDARDS MAOP
WHICH CONFORM TO B31.8 & D.O.T.
CODE. TESTED W/ TO P.S.I. FOR
MIN/HRS. WELDS SOAP TESTED

FOREMAN R. [illegible]
DEMPUBCO PL(M)5000 JT





TITLE: GARDEN OF GODS (continued from previous page)

DEPARTMENT: GENERAL CITY - PARK & RECREATION

DESCRIPTION: See Document or Deed Number 3276 & 3540, 4995

City Hall ..... Land Office X

REMARKS:

1620 E. Cache la Poudre
Colo. Spgs. Colo. 80909
~~Oct.~~ 1, 1974

Mr. Richard C. Buerkle
~~Director~~ Parks & Recreation
Colo. Spgs, Colo.

Dear Mr. Buerkle:

Am enclosing a copy of an article I did for the Landmarks Council during our efforts to keep high rises away from the Garden of the Gods. Perhaps it might be of value to you in your White House Ranch file.

I have in my files a copy of a study of the Colo. College Museum done by its local curator. Perhaps you might like to copy some portions of it. It is much too bulky to send herewith. If you are interested I will bring it to your office.

It indicates that Lon Hutley Sclater, for whom the White House was built, was here from 1902 to 1910.

Sincerely,