

*Underfloor heating  
pipe*

*Hot water pipe*

*Cold water pipe*

*Radiator*

*Manifold*

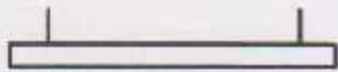
*Circulating pump*

*Temperature sensor*

*Three way valve*

*Mixing valve*

g

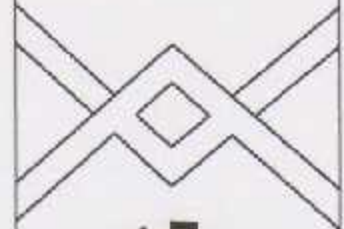


S



or

### GENERAL NOTES



*Palestine Polytechnic  
University*

*Mechanical Eng.  
Department*

#### *Designed By:*

*Hazem Qasrawi  
Ahmad Massad  
Ahmad Hour*

#### *Supervisor :*

*Eng. Jamal Shwibi*

#### **Project**

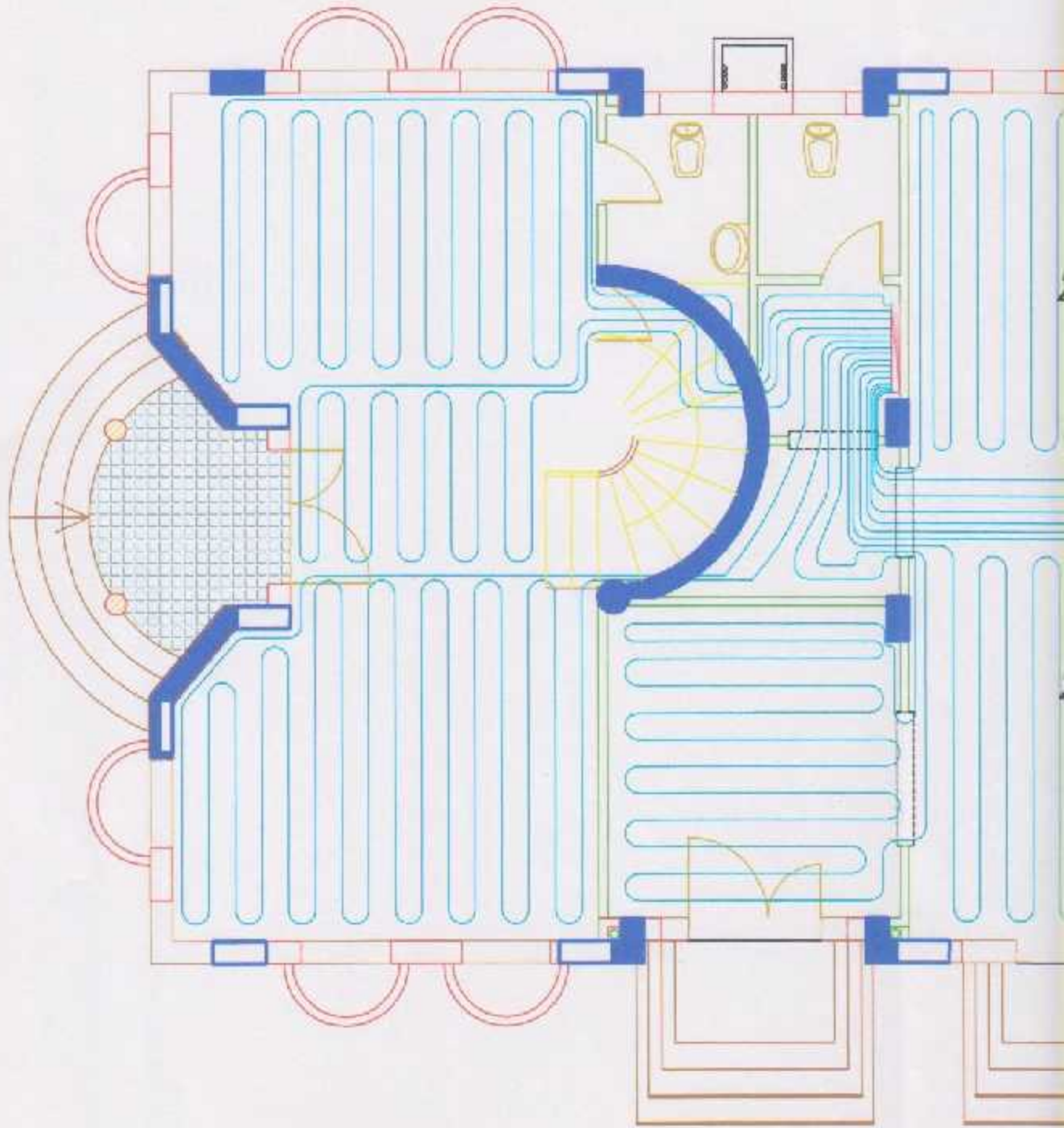
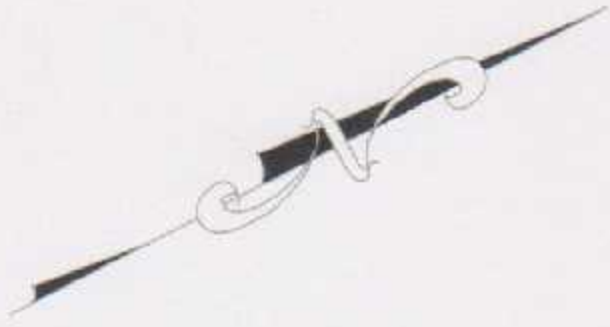
*The Design of Radiant  
Floor Heating System  
Combined With Other  
Types of Heating System  
Using Solar Evacuated  
Tubes*

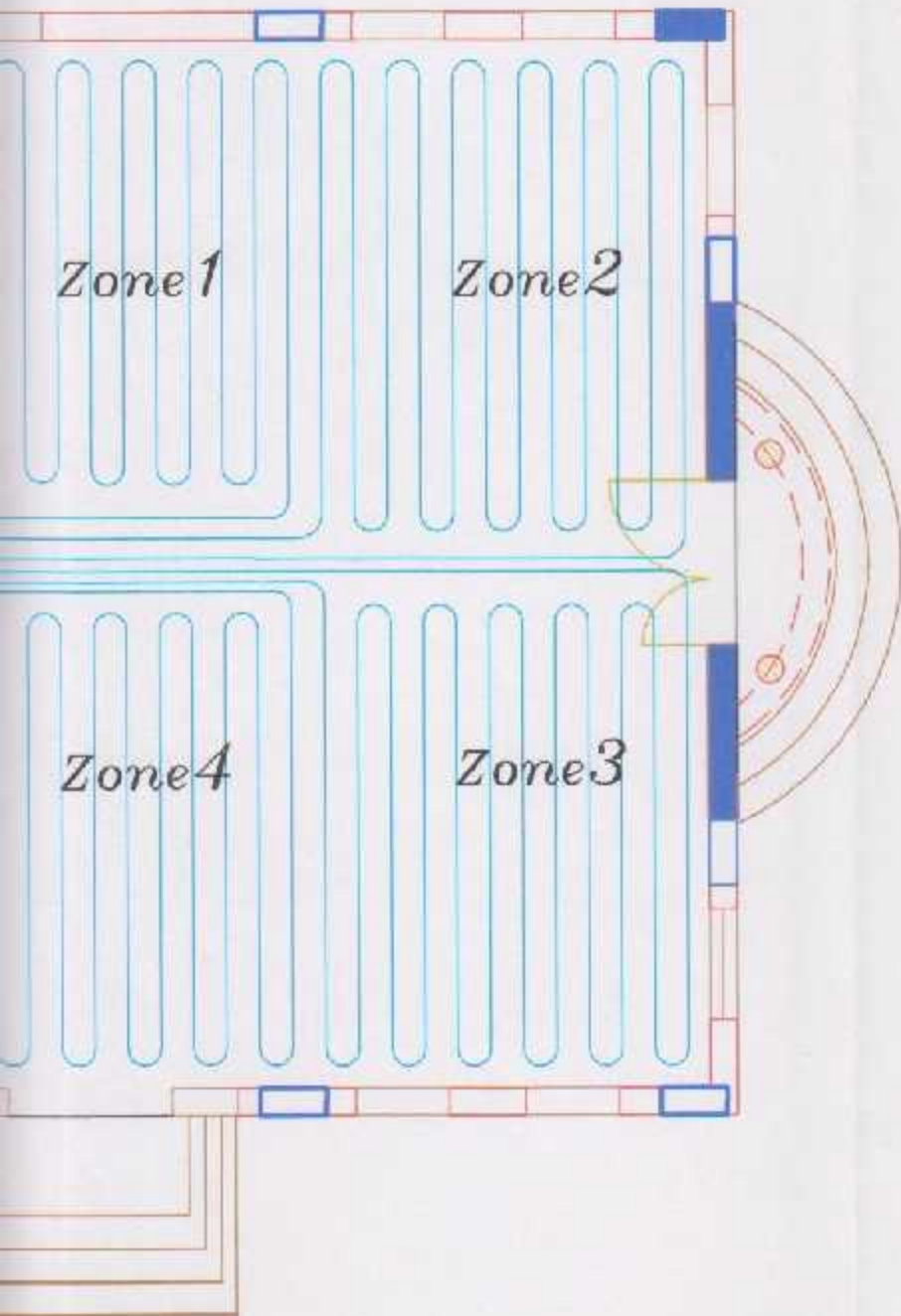
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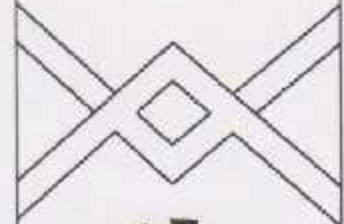
#### **Date**

*2007-2008*





**GENERAL NOTES**



*Palestine Polytechnic  
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*Mechanical Eng.  
Department*

**Designed By:**

*Hazem Qasrawi  
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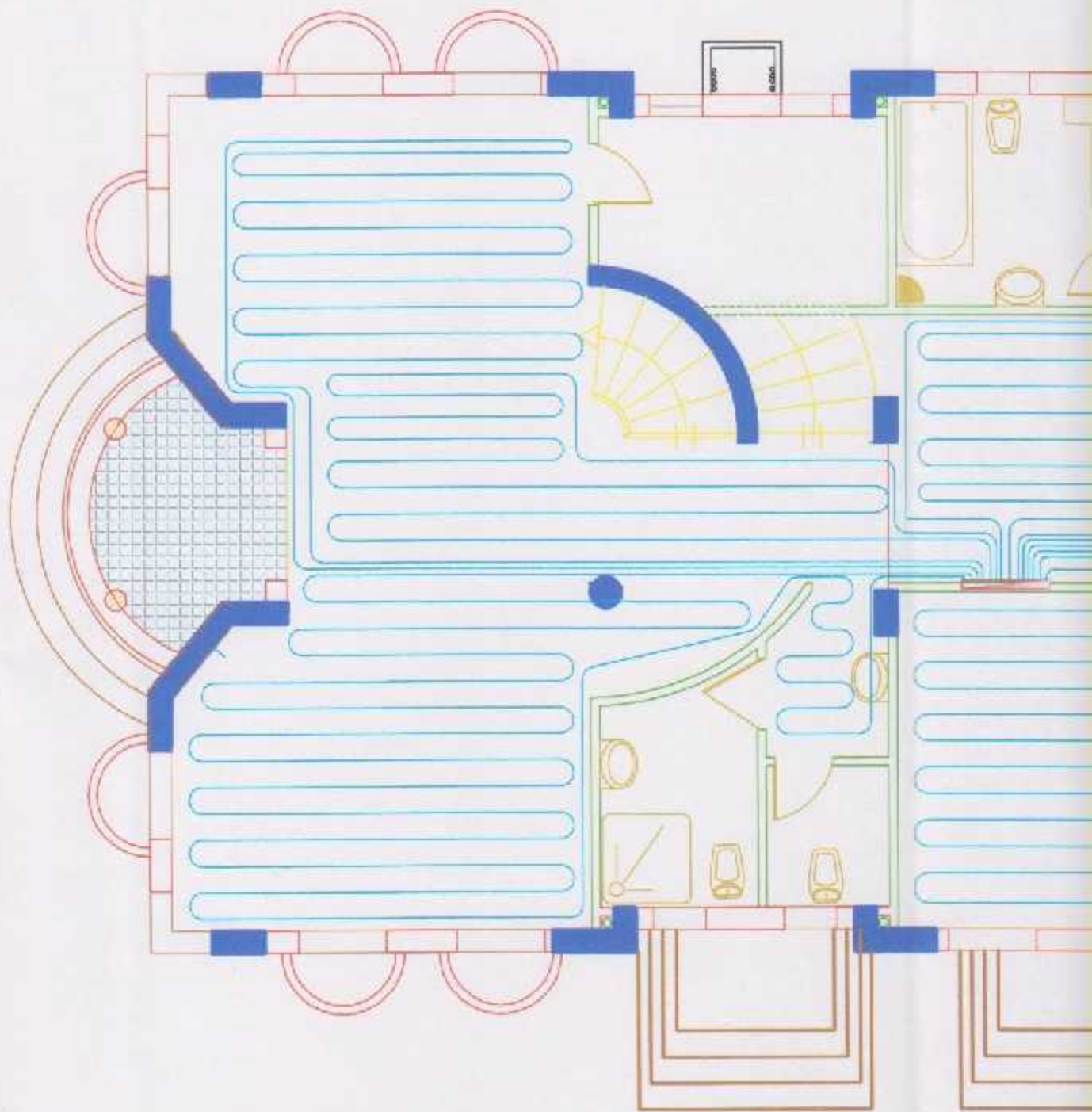
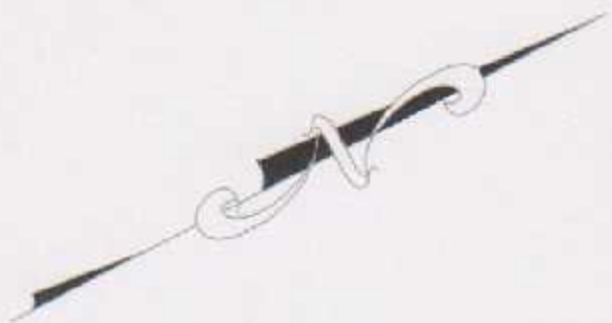
**Project**

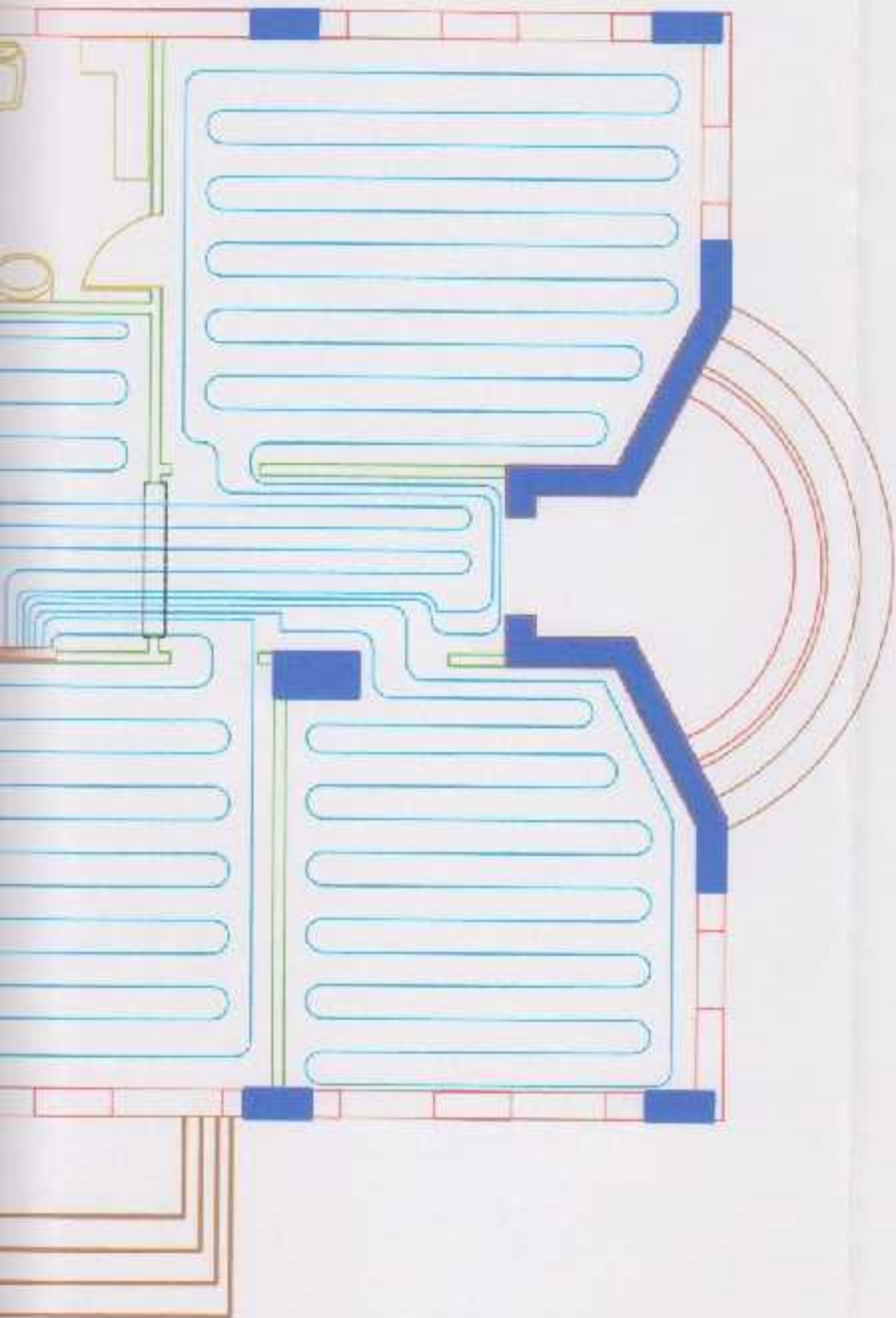
*The Design of Radiant  
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Tubes*

**Sheet Title**

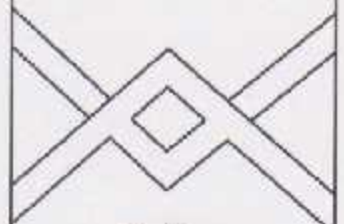
*First Floor*

**Date**  
*2007-2008*





**GENERAL NOTES**



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University*

*Mechanical Eng.  
Department*

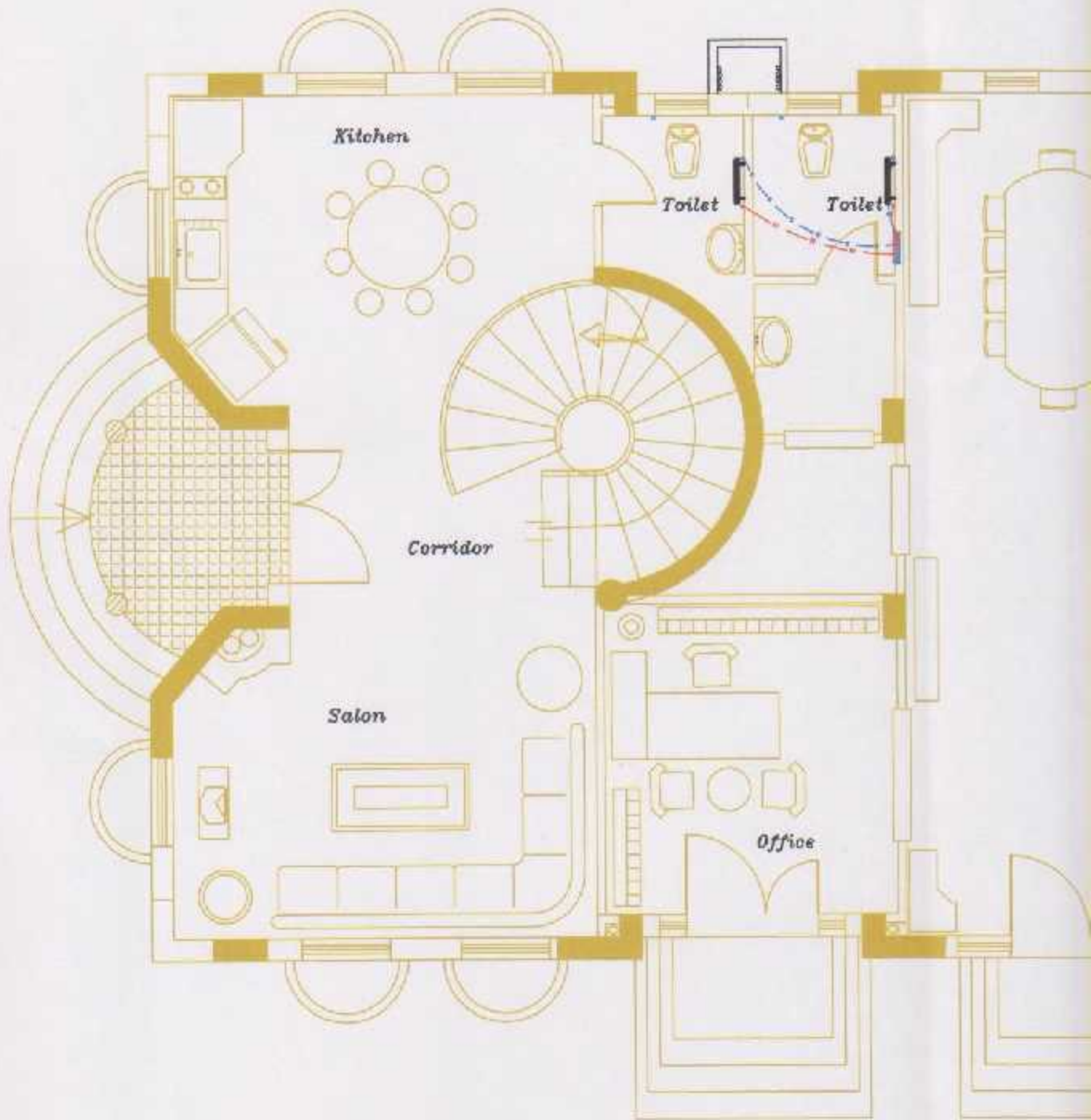
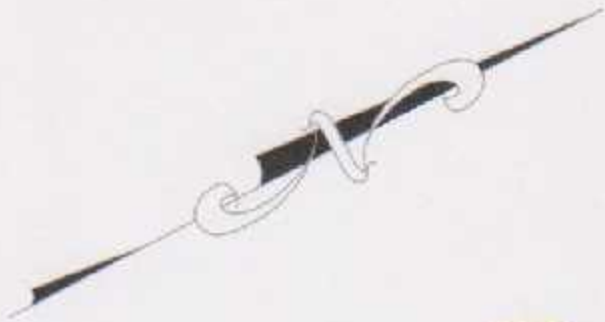
**Designed By:**  
*Hazem Qasrawi  
 Ahmad Massad  
 Ahmad Hour*

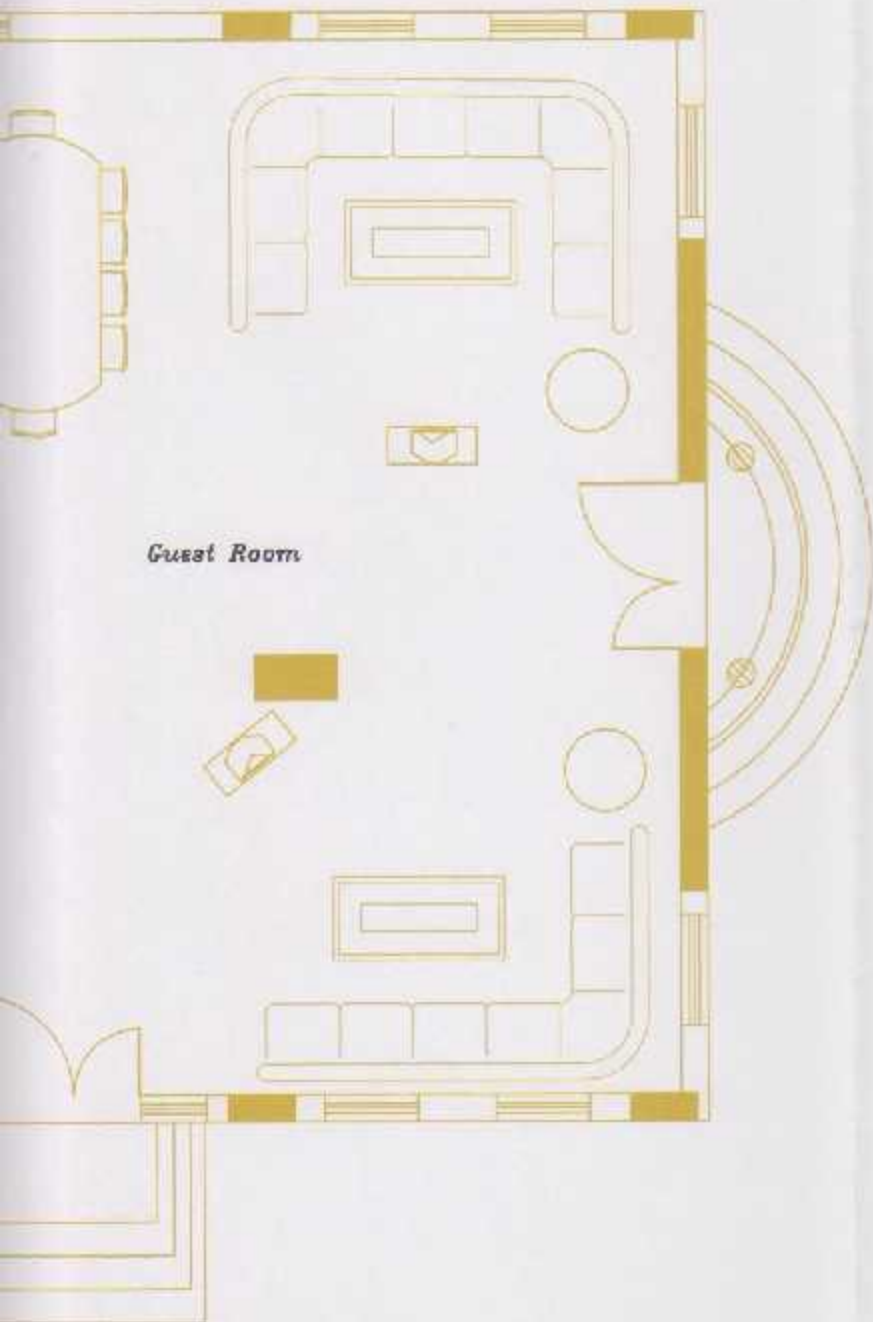
**Supervisor :**  
*Eng. Jamal Shwiki .*

**Project**  
*The Design of Radiant  
 Floor Heating System  
 Combined With Other  
 Types of Heating System  
 Using Solar Evacuated  
 Tubes*

**Sheet Title**  
*Second Floor*

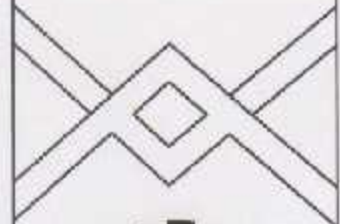
**Year**  
*2007-2008*





*Guest Room*

**GENERAL NOTES**



*Palestine Polytechnic  
University*

*Mechanical Eng.  
Department*

**Designed By:**

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Ahmad Massad  
Ahmad Hoor*

**Supervisor :**

*Eng. Jamal Shwiki .*

**Project**

*The Design of Radiant  
Floor Heating System  
Combined With Other  
Types of Heating System  
Using Solar Evacuated  
Tubes*

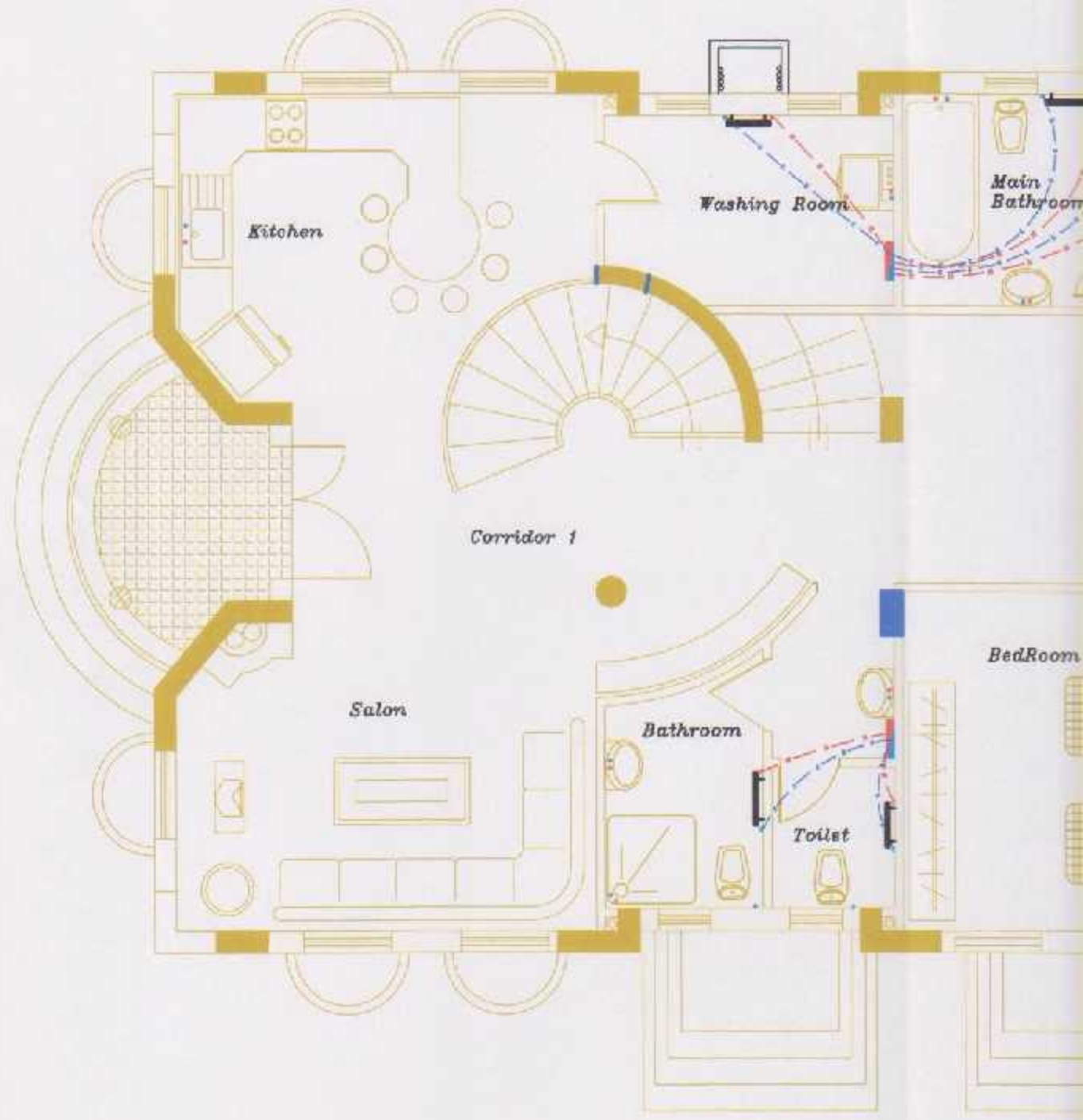
**Sheet Title**

*Water Radiator Distribution for  
1st Floor*

**Date**

*2007-2008*





*Kitchen*

*Washing Room*

*Main Bathroom*

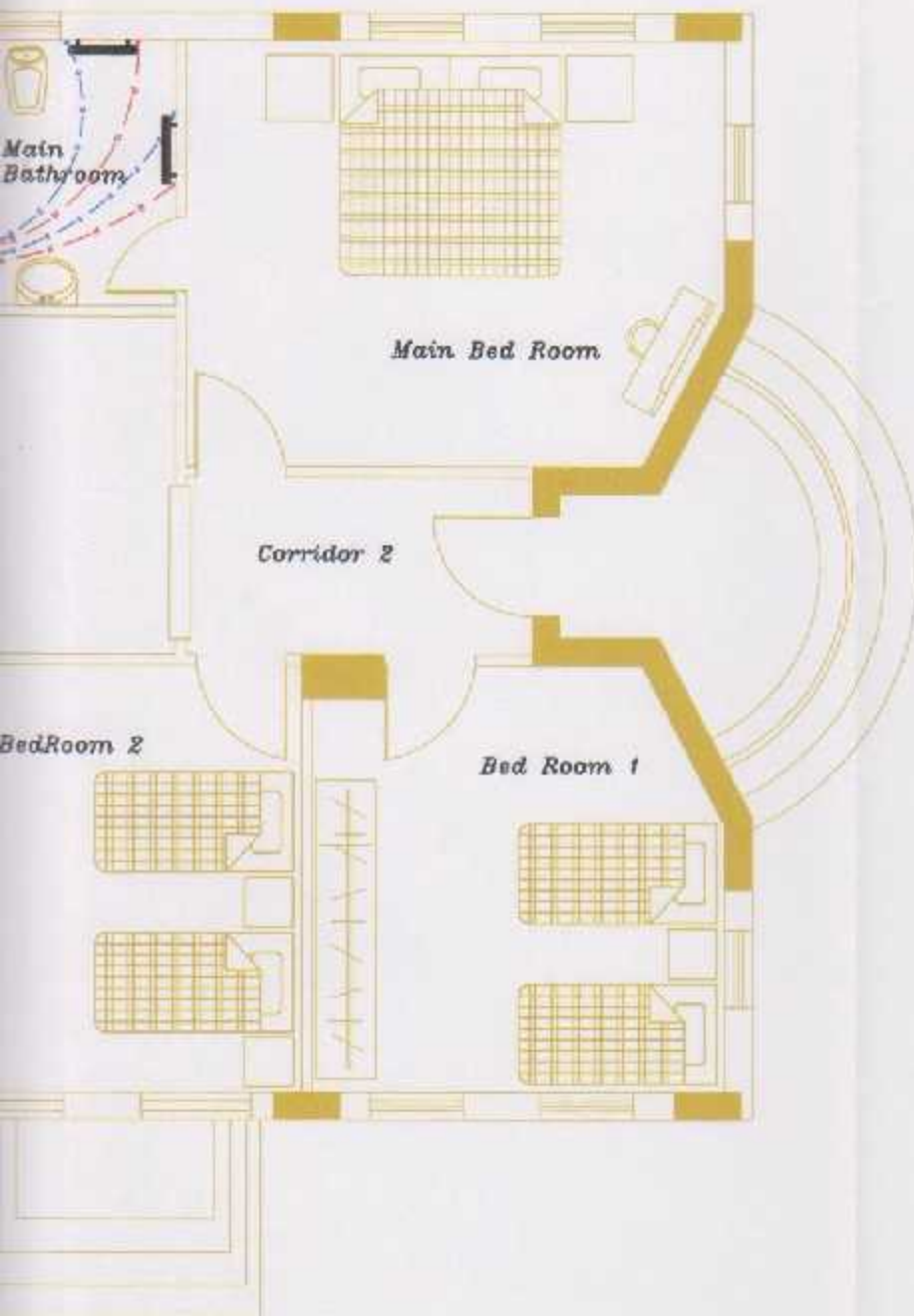
*Corridor 1*

*Salon*

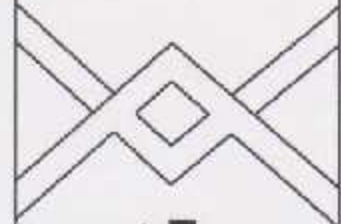
*Bathroom*

*BedRoom*

*Toilet*



**GENERAL NOTES**



*Palestine Polytechnic University*

*Mechanical Eng. Department*

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Ahmad Massad  
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**Supervisor :**

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**Project**

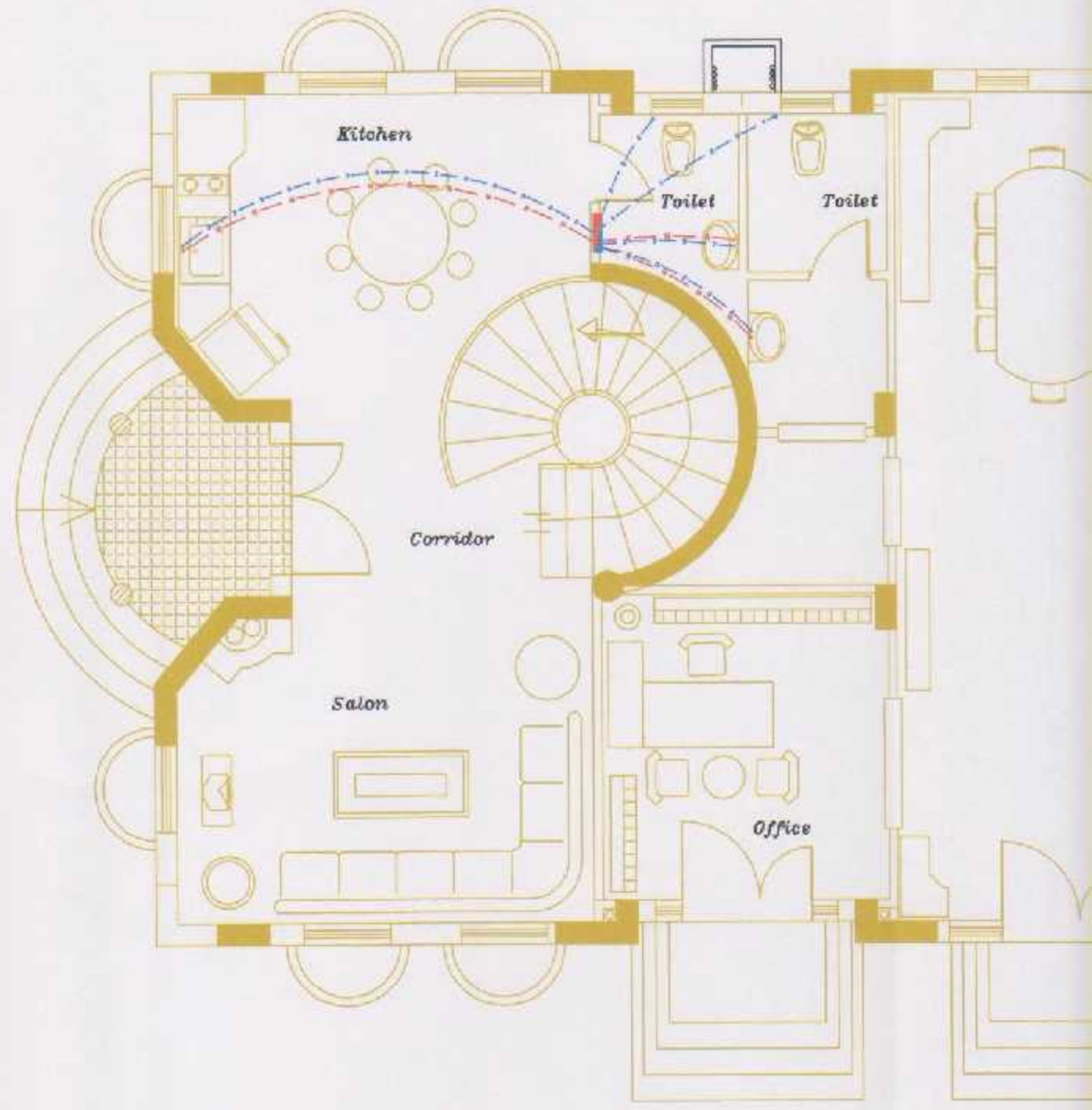
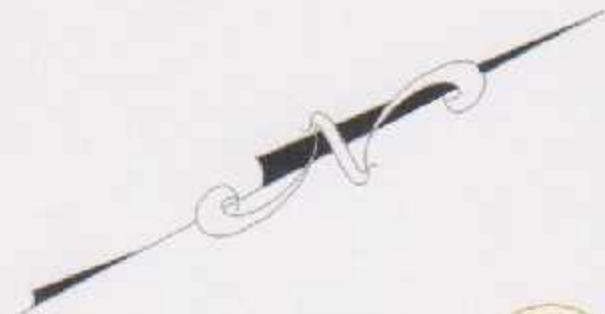
*The Design of Radiant Floor Heating System Combined With Other Types of Heating System Using Solar Evacuated Tubes*

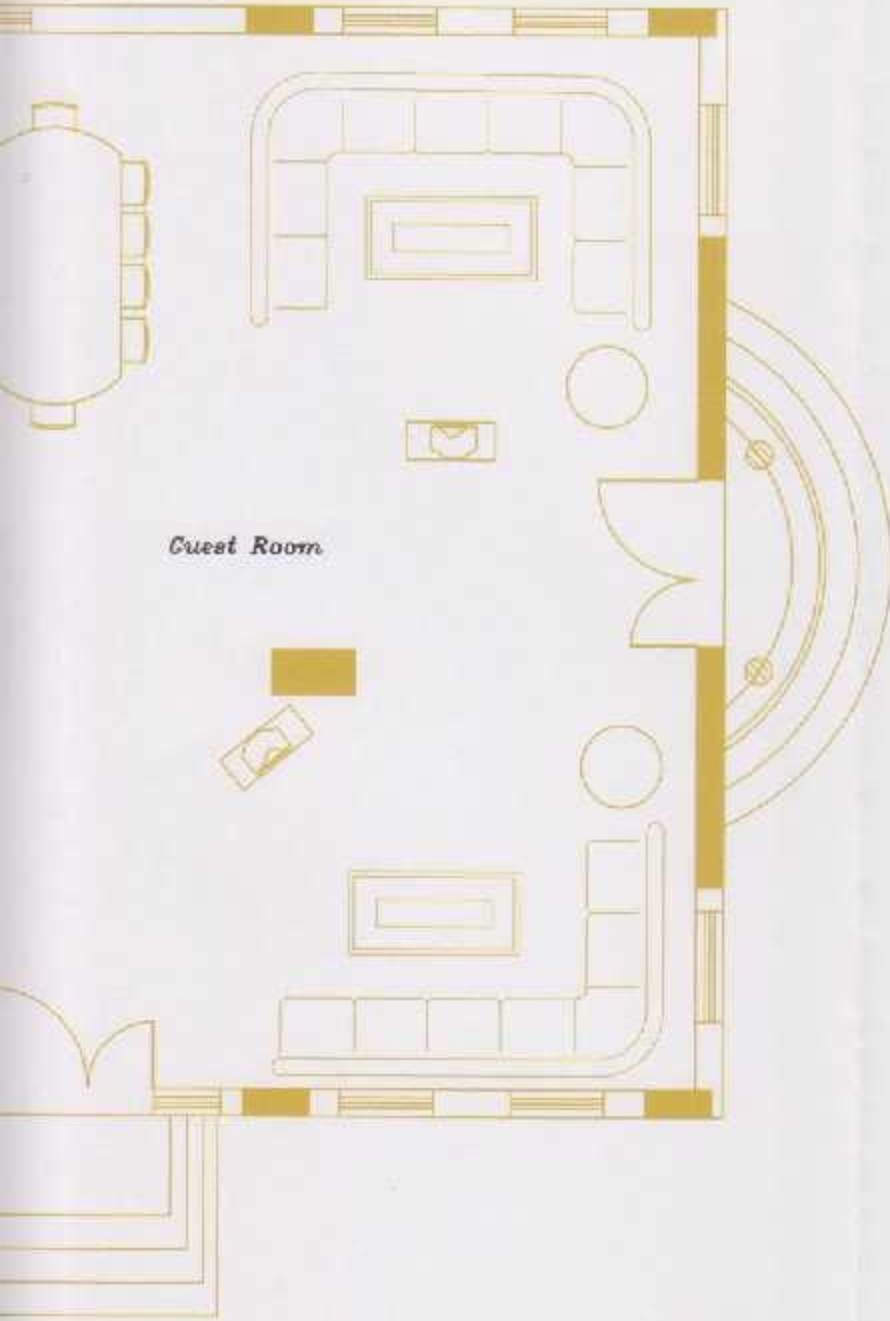
**Sheet Title**

*Radiator Distribution for 2nd Floor*

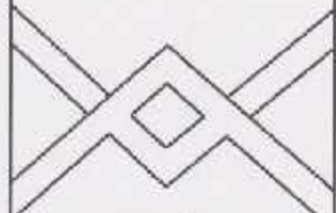
**Year**

*2007-2008*





**GENERAL NOTES**



*Palestine Polytechnic University*

*Mechanical Eng. Department*

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*Hazem Qasrawi  
Ahmad Massad  
Ahmad Floor*

**Supervisor :**

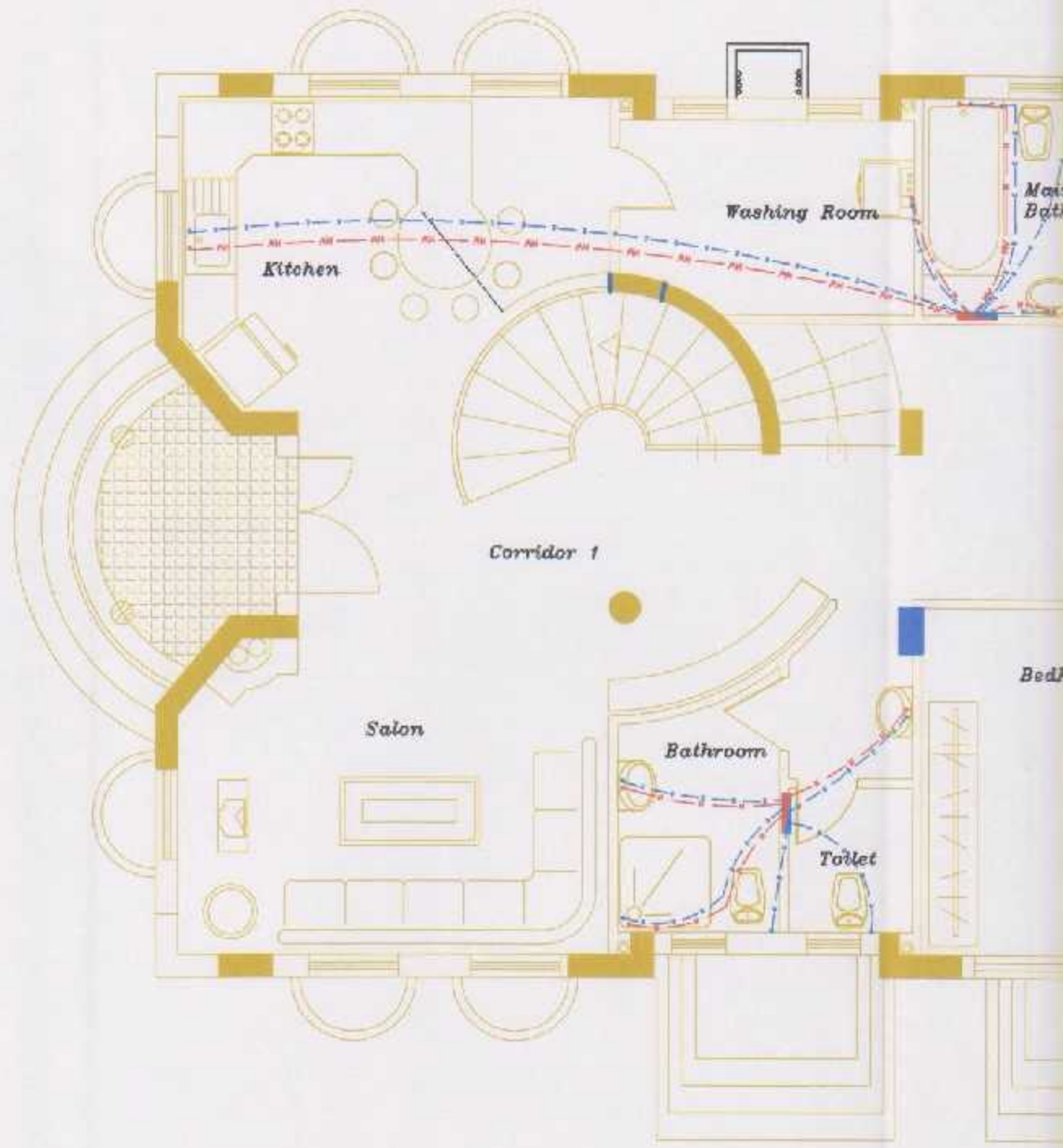
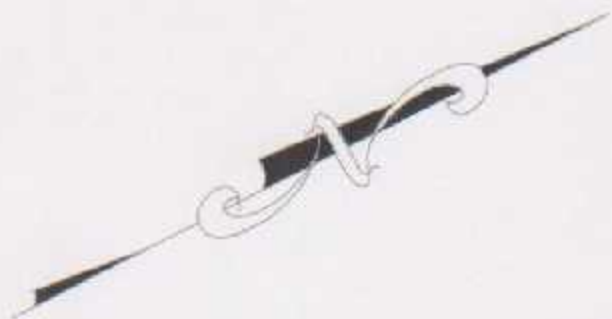
*Eng. Jamal Shwiki .*

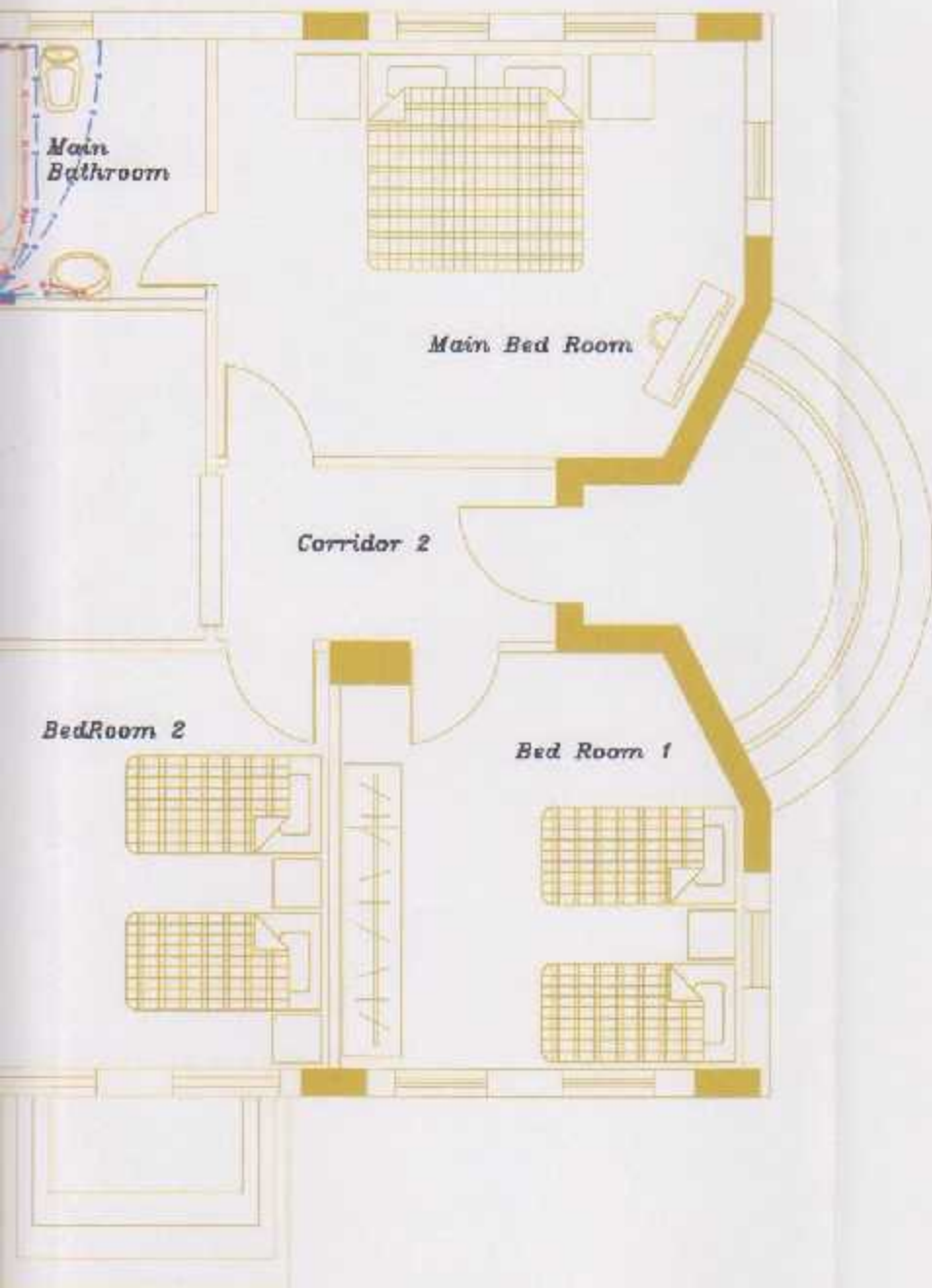
**Project**

*The Design of Radiant Floor Heating System Combined With Other Types of Heating System Using Solar Evacuated Tubes*

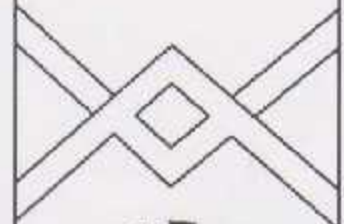
**Sheet Title**  
*DHW Distribution for 1st Floor*

**Date**  
*2007-2008*





**GENERAL NOTES**



*Palestine Polytechnic University*

*Mechanical Eng. Department*

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**Supervisor :**

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**Project**

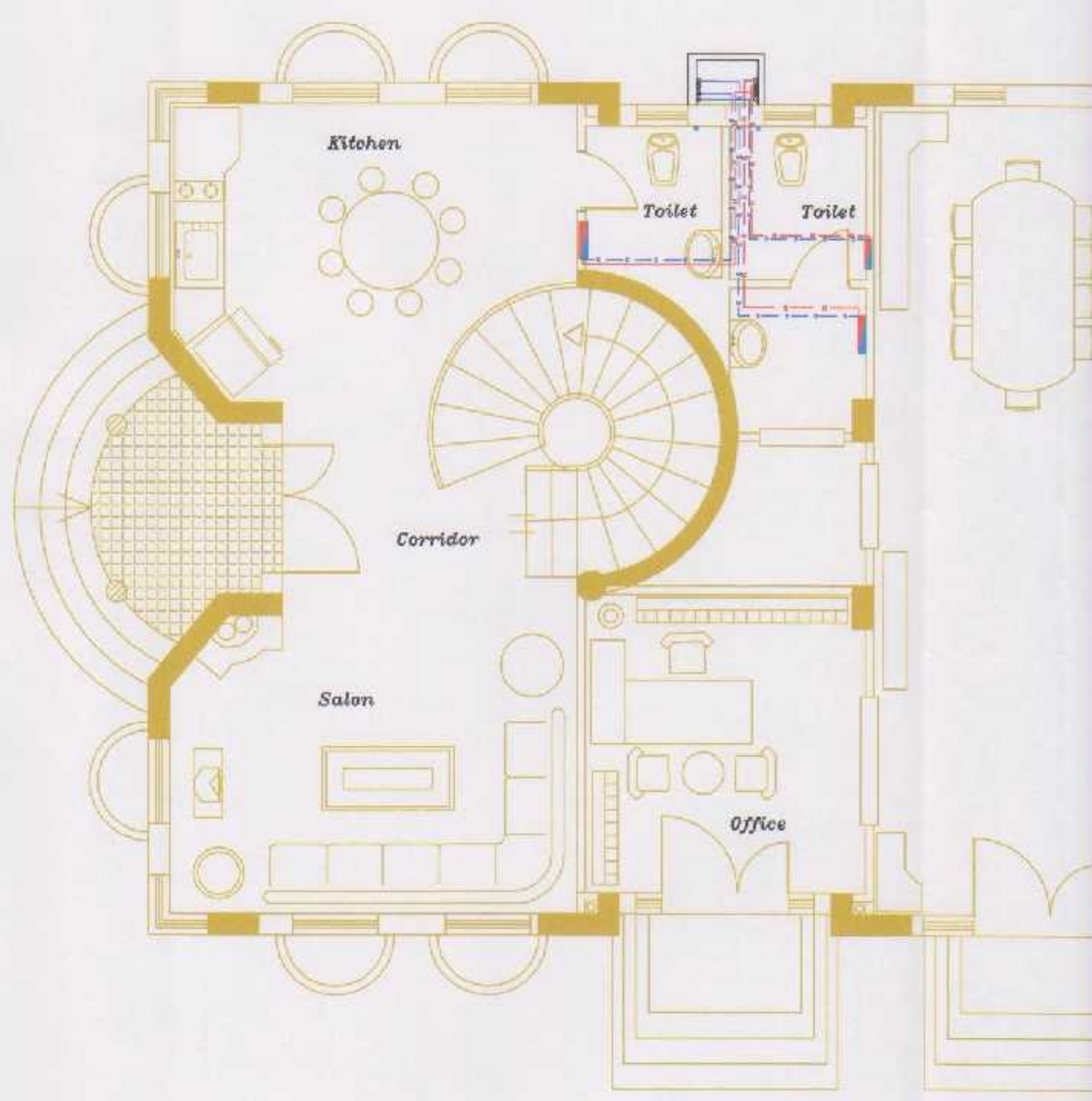
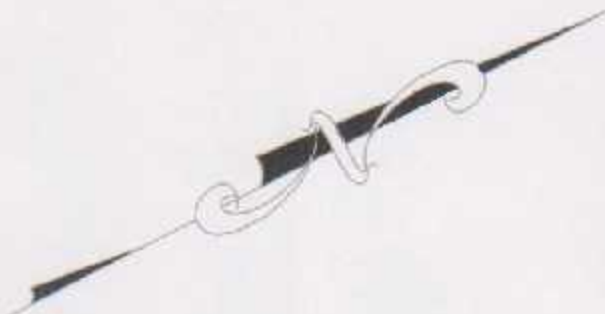
*The Design of Radiant Floor Heating System Combined With Other Types of Heating System Using Solar Evacuated Tubes*

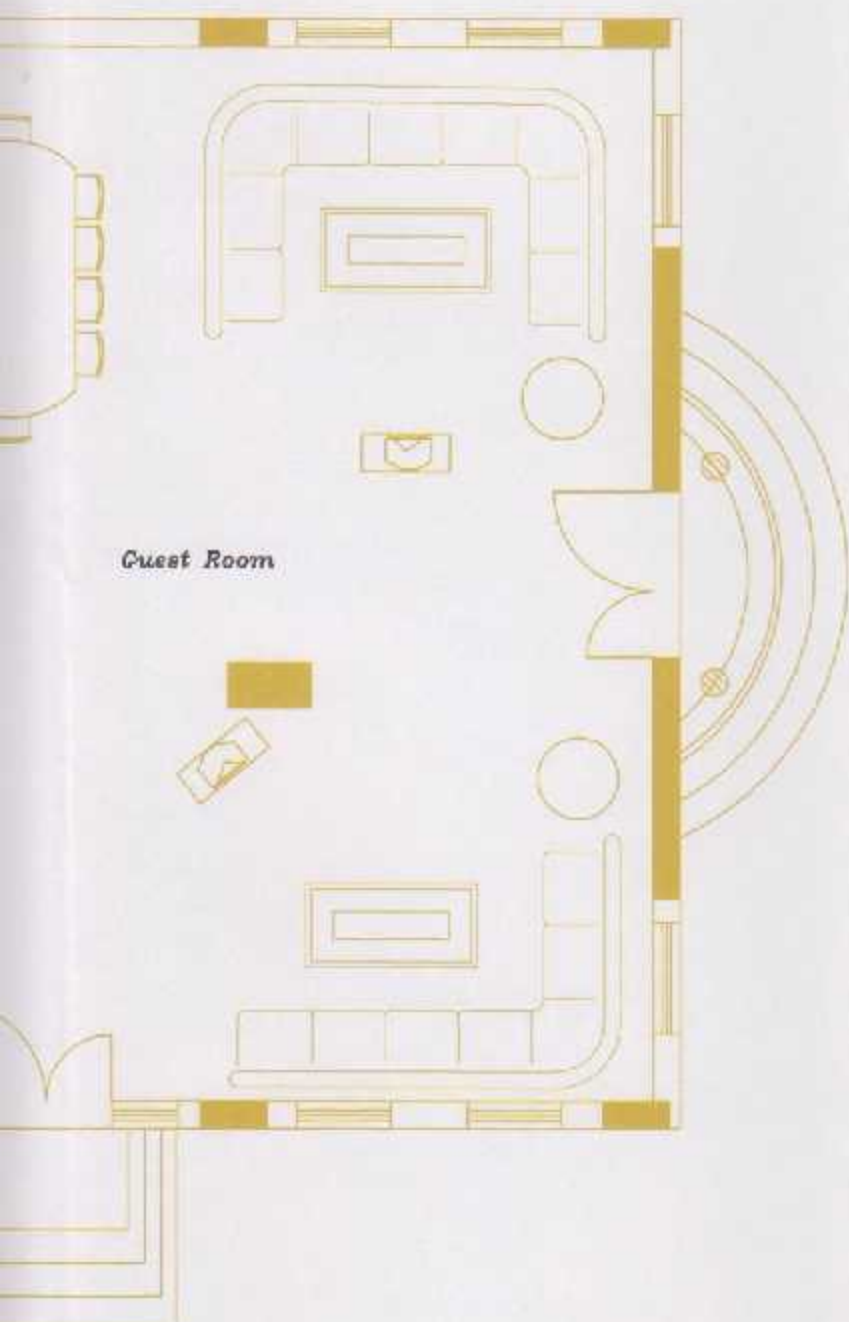
**Sheet Title**

*DHW Distribution for 2nd Floor*

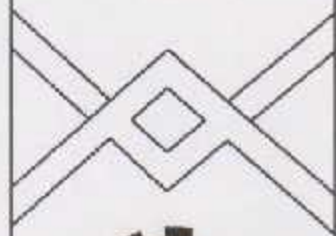
**Date**

*2007-2008*





**GENERAL NOTES**



*Palestine Polytechnic University*

*Mechanical Eng. Department*

**Designed By:**

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Ahmad Massad  
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**Project**

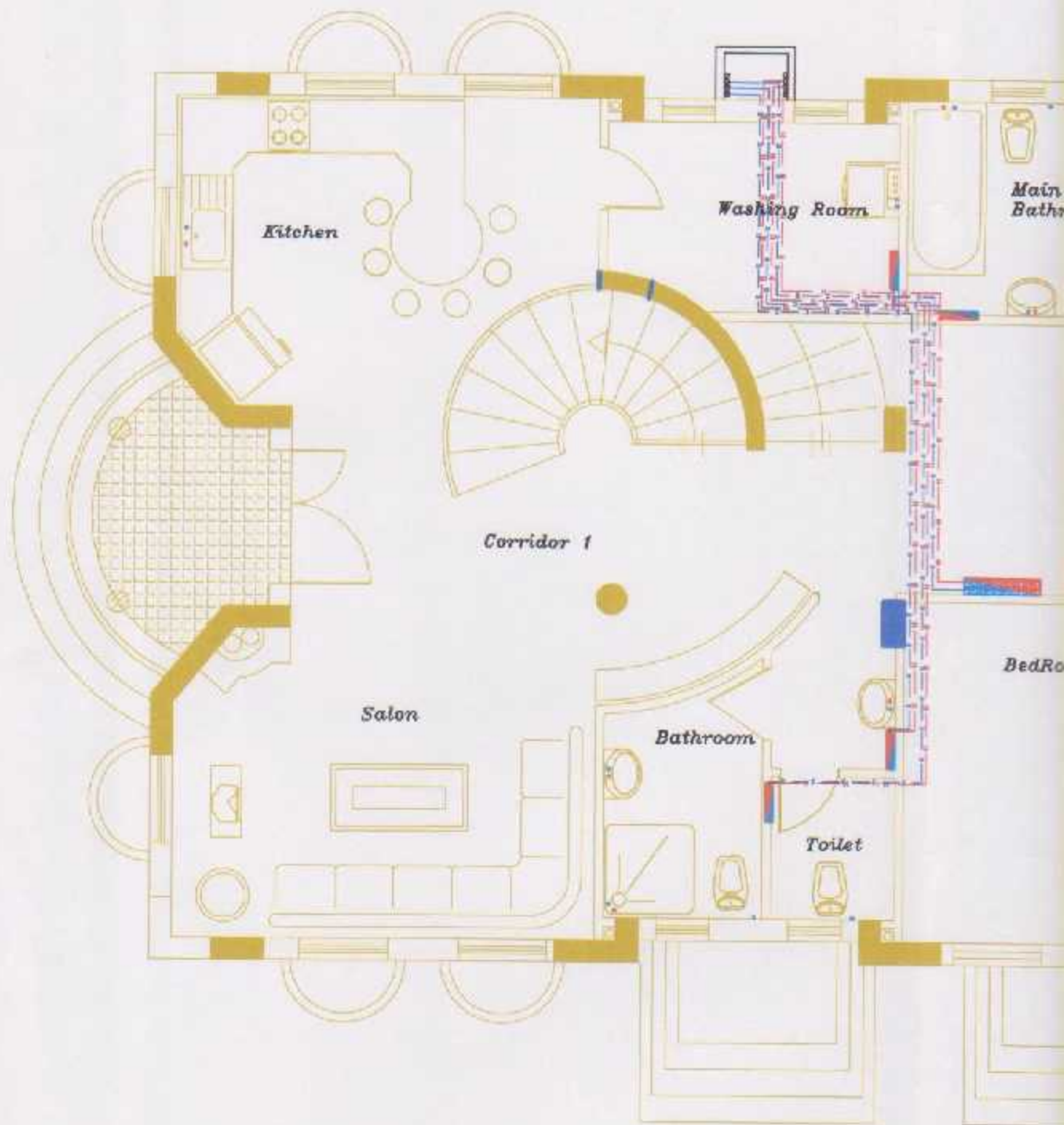
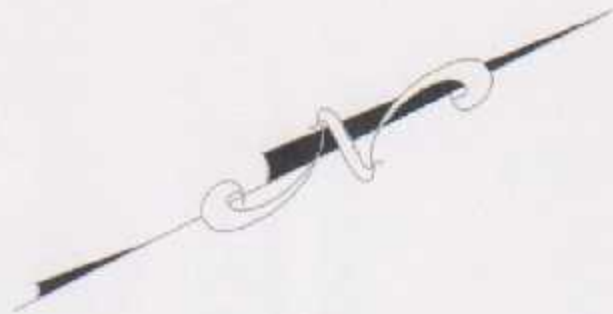
*The Design of Radiant Floor Heating System Combined With Other Types of Heating System Using Solar Evacuated Tubes*

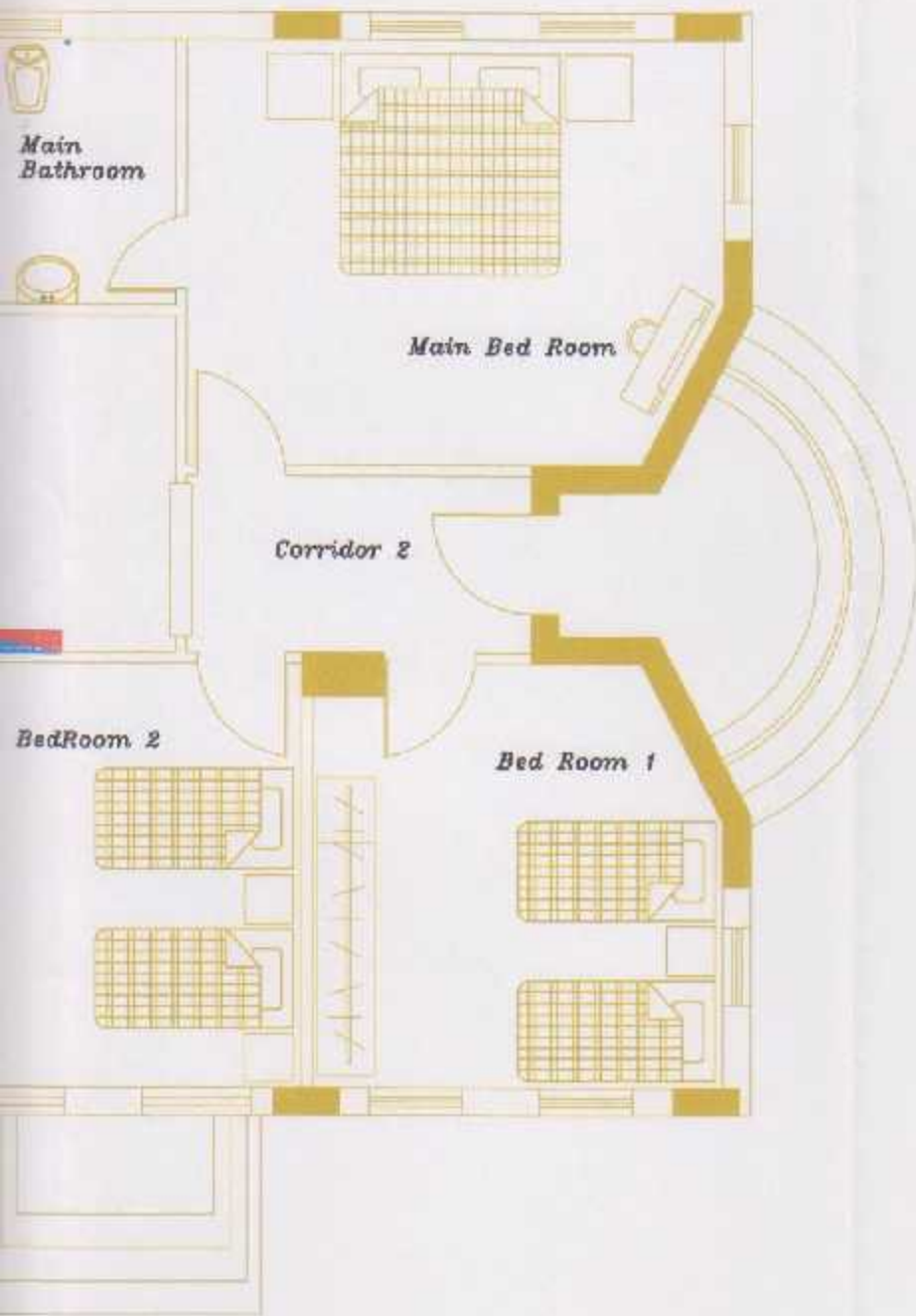
**Sheet Title**

*Main Supply & Return Water Pipes for 1st Floor*

**Date**  
*2007-2008*







**GENERAL NOTES**



*Palestine Polytechnic University*

*Mechanical Eng. Department*

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Ahmad Massad  
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**Project**

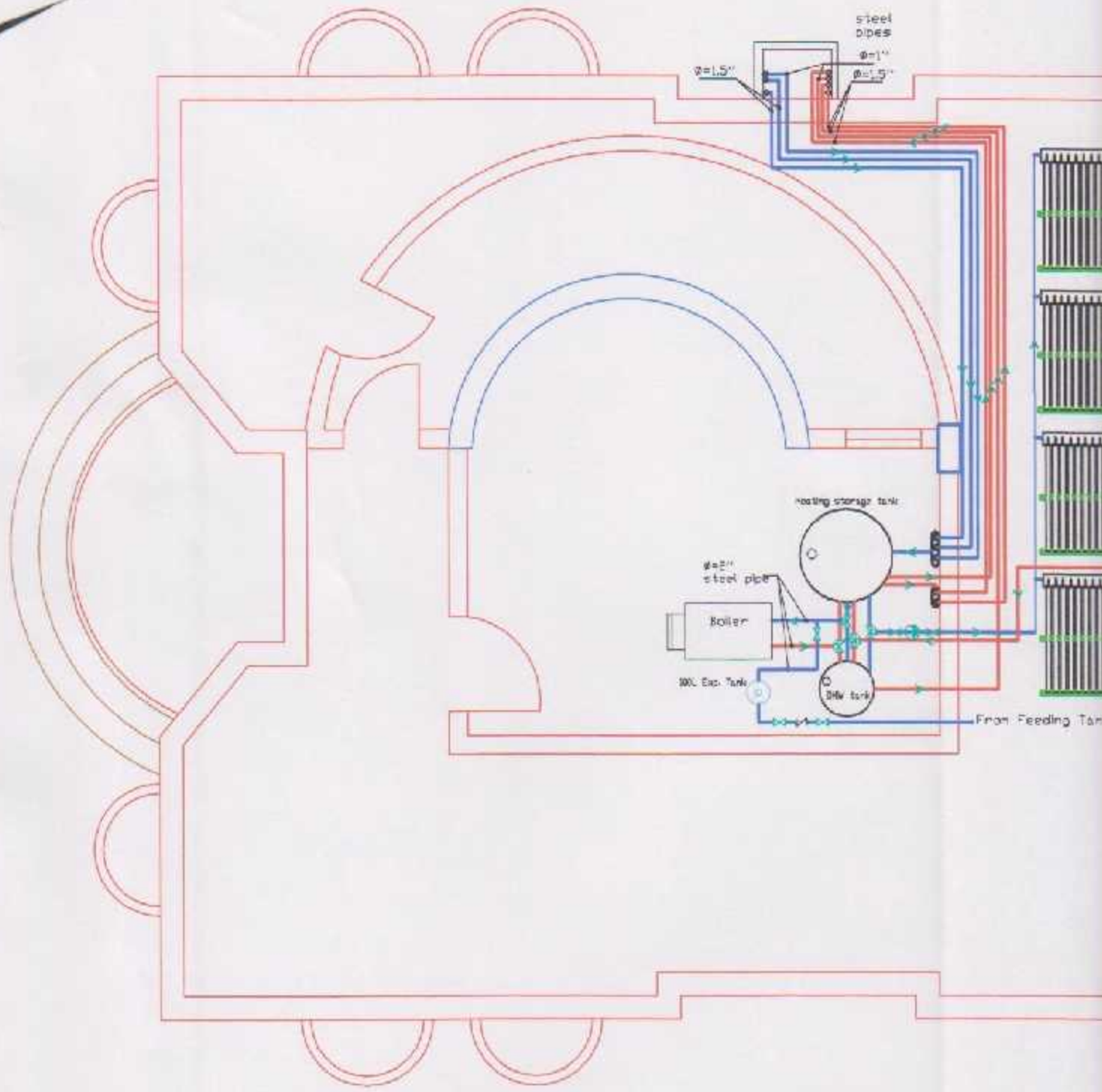
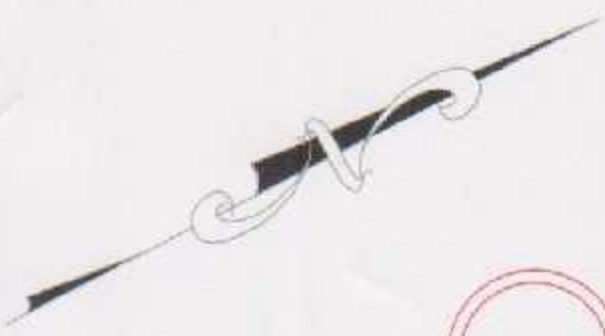
*The Design of Radiant Floor Heating System Combined With Other Types of Heating System Using Solar Evacuated Tubes*

**Sheet Title**

*Main Supply & Return Water Pipes for 2nd Floor*

**Date**

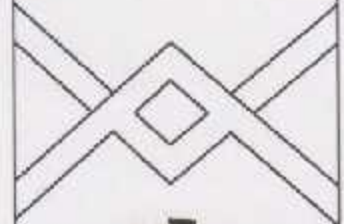
*2007-2008*



steel pipes  
ø=1.5"  
ø=1"  
ø=1.5"

heating storage tank  
Boiler  
100 Gal. Tank  
30 Gal. Tank  
4" steel pipe  
From Feeding Tank

**GENERAL NOTES**



*Palestine Polytechnic  
University*

*Mechanical Eng.  
Department*

**Designed By:**

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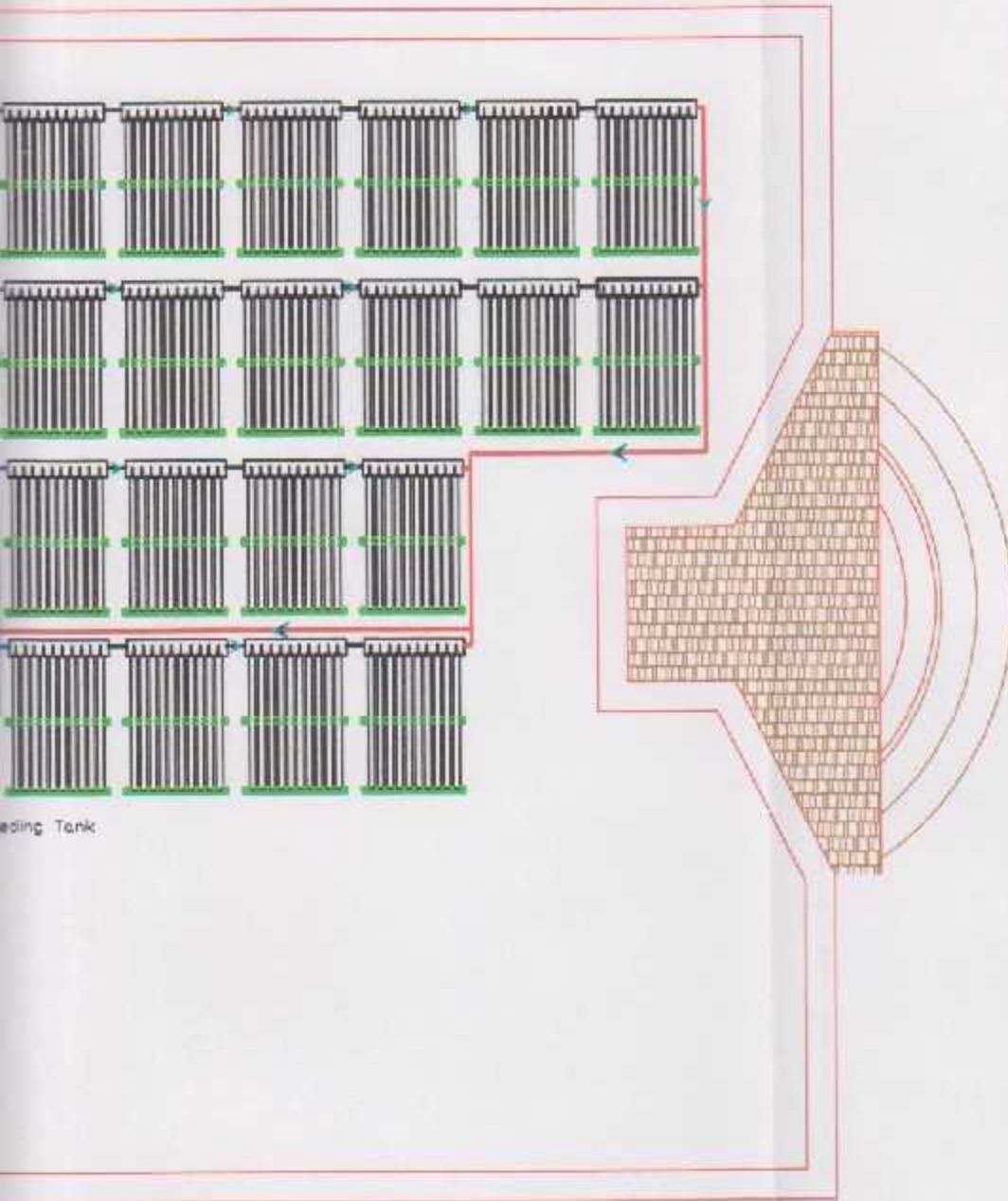
**Project**

*The Design of Radiant  
Floor Heating System  
Combined With Other  
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Using Solar Evacuated  
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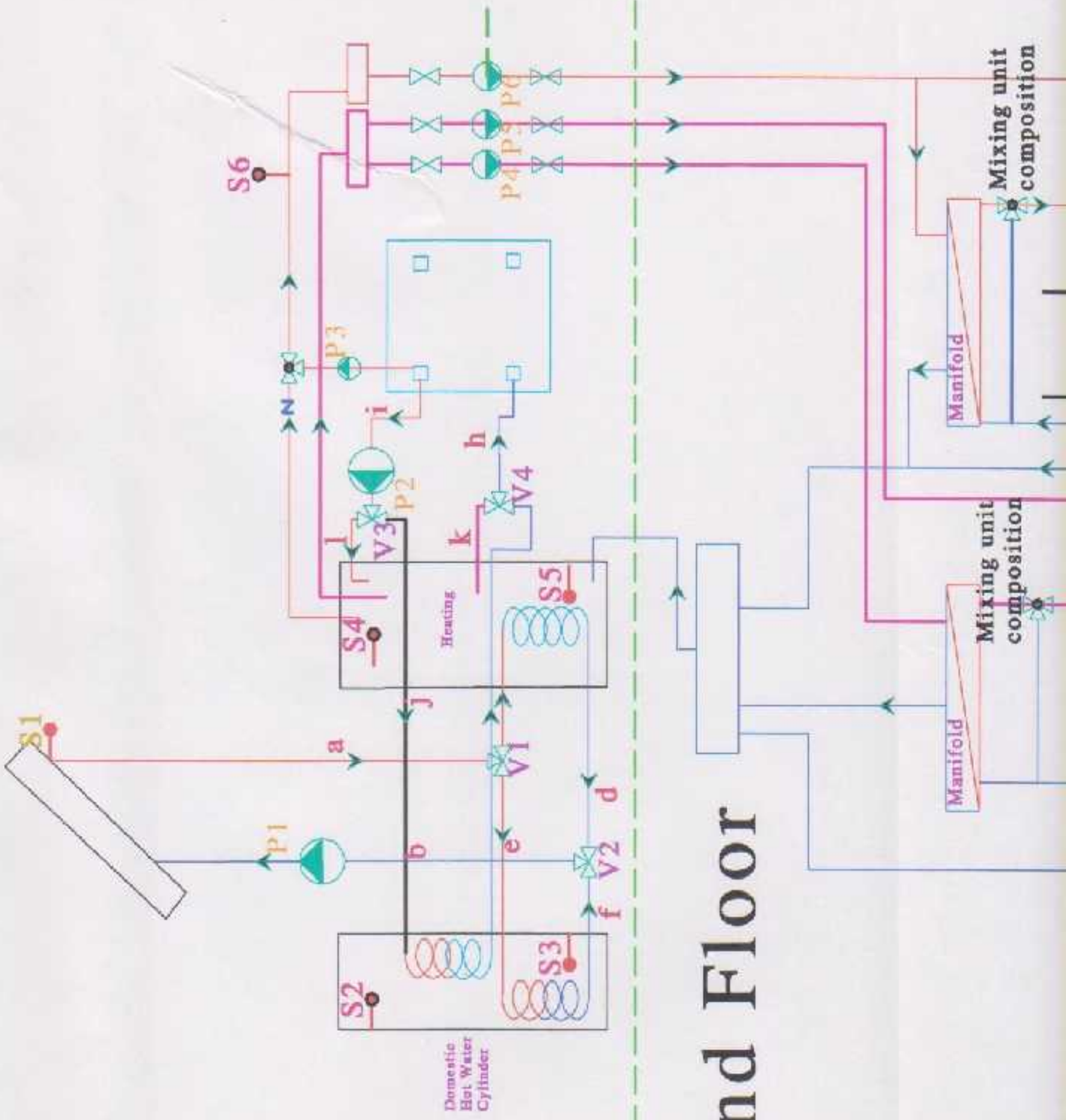
**Sheet Title**

*Boiler Room & Solar  
Collector Distribution*

**Date**  
*2007-2008*



Feeding Tank



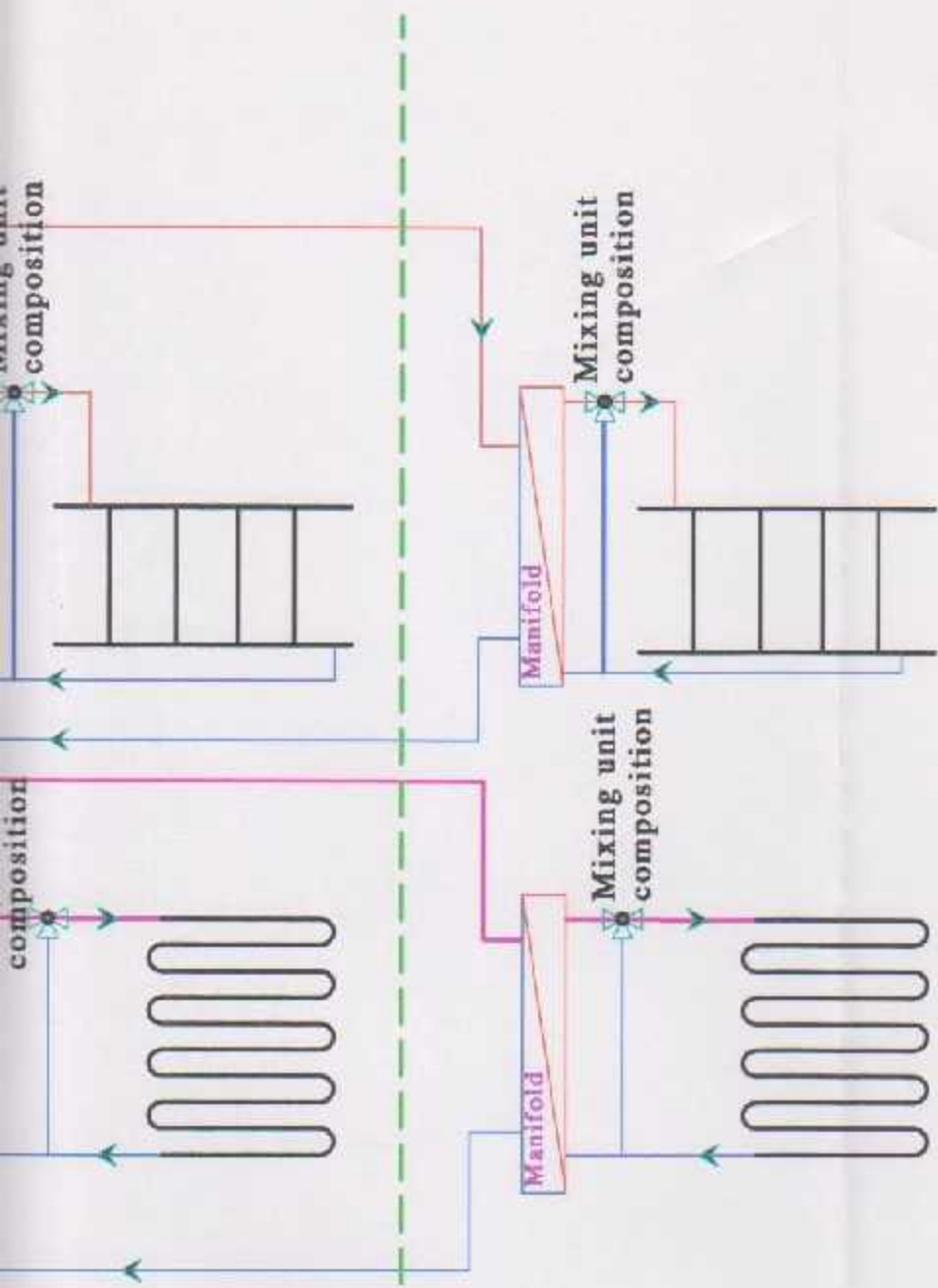
# Second Floor

Mixing unit  
composition

Mixing unit  
composition

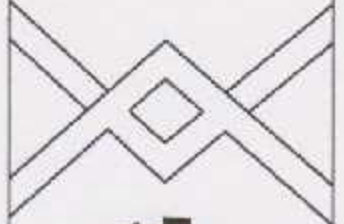
Manifold

Manifold



# First Floor

## GENERAL NOTES



*Palestine Polytechnic University*

*Mechanical Eng. Department*

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**Project**

*The Design of Radiant Floor Heating System Combined With Other Types of Heating System Using Solar Evacuated Tubes*

**Sheet Title**

*Control System*

**Date**

*2007-2008*