Christian Fuller
CSCI 4125
Phase 10 – Task 1

1. Primary key: ID, OfficeAddr

“Proof”:
ID, OfficeAddr
ID, OfficeAddr, ParkingSpot
ID, Name, Phone, AssistantID, RoomNumber, OfficeAddr, ParkingSpot
ID, Name, Phone, AssistantID, RoomNumber, OfficeAddr, Neighborhood, OfficePhone, Manager, ParkingSpot
ID, Name, Phone, AssistantID, RoomNumber, Floor, View, Windows, OfficeAddr, Neighborhood, OfficePhone, Manager, ParkingSpot

Christian Fuller
CSCI 4125
Phase 10 – Task 1

2. 2NF:

AGENT_PARKING (ID, OfficeAddr, ParkingSpot)

OFFICE (OfficeAddr, Neighborhood, OfficePhone, Manager)

AGENT (ID, Name, Phone, AssistantID, RoomNumber, Floor, View, Windows)

Christian Fuller
CSCI 4125
Phase 10 – Task 1

3. 3NF:

AGENT_PARKING (ID, OfficeAddr, ParkingSpot)

OFFICE (OfficeAddr, Neighborhood, OfficePhone, Manager)

AGENT (ID, Name, Phone, AssistantID, RoomNumber)

AGENT_ROOM (RoomNumber, Floor, View, Windows)

Christian Fuller
CSCI 4125
Phase 10 – Task 2

4. 1NF:

SELLER (SSN, Name, Phone)

5. Yes, this relation would produce redundancies. Functional dependencies:

Phone → SSN
Phone → Name
SSN → Name

6. 3NF:

SELLER (SSN, Name)

SELLER_PHONE (SSN, Phone)