



October 26, 2001

KL&J Management
Park Tower Apartments
280 Island Avenue
Reno, Nevada 89501

Attention: Mr. Kevin Johnson

Re: Due Diligence Report for Property at
Park Tower Apartments
280 Island Avenue
Reno, Nevada

J-3701

CONSULTING
ENGINEERS
FOR
• MECHANICAL
• ELECTRICAL
• AIRFIELD
ELECTRICAL
SYSTEMS

Dear Kevin:

An assessment of the mechanical, plumbing, and electrical systems for the subject building located at 280 Island Avenue in downtown Reno was made on Friday, September 14, 2001, and the following observations are presented for your information:

General Information

The facility is located on the corner of Arlington Ave. and Island Ave. in downtown Reno, and is directly adjacent to the Truckee River. Since the building is approximately 40 years old and no drawings of the facility exist, we met with the building maintenance supervisor for a site familiarization walk-through, followed by a close examination of electrical and mechanical systems. Because the building is mostly occupied, examination of all apartments was not possible. Therefore, a few unoccupied apartments were reviewed, and it is felt that the findings from these apartments should give a good representation of the condition of the entire building.

In an earlier meeting at the site, we were shown the chiller and pressure booster pumps which are located in a storage room under the stairwell in the basement, and the hot and cold domestic water storage tanks and the single domestic water heater located in the 18th floor mechanical room. This walk-through was to prepare a report for the Washoe County Health Department regarding the domestic water system in the building. That report is included herein as no changes to that system appear to have been made since that report was prepared.

385 GENTRY WAY

RENO, NEVADA

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Domestic Water and Pressure Booster System

Attached is a rough schematic diagram showing the existing domestic water system for this facility. The existing well has been abandoned, and new domestic and fire water services have been provided from the Truckee Meadows Water Authority's (TMWA) system, with all associated back flow prevention for each service. TMWA is the new water system provider composed of the City of Reno, City of Sparks, and Washoe

County which purchased the water system from Sierra Pacific Power Company (SPPCo). The new water services enter the building in the basement and connect to the existing distribution system piping in the basement level ahead of the existing pressure booster.

As shown on the attached piping schematic diagram, the existing booster system for the domestic water consists of a primary 15-Hp pump, and a 7½-Hp jockey pump which takes water from the well discharge piping and discharges to a storage tank located on the 18th floor. Name plate data from the existing booster pump was recorded, and a pump curve for this pump was obtained (see pump curve attached herein). The primary pressure booster is a base mounted, centrifugal, end-suction pump, which is powered by a 15-Hp motor operating at 3500 rpm. Indications from the name plate are that the impeller trim fitted is a 6¾" diameter impeller. This agrees with the pump curve data shown as the 6¾" diameter impeller is non-overloading over the entire pump curve with a 15-Hp motor installed. With the new domestic water service from TMWA connected to the existing piping, the existing distribution and pressure booster systems operate in the same manner as the previous operation. That is, incoming water for domestic service is boosted in pressure from a separate pump, and pumped up through the building to a storage tank located in the penthouse mechanical room. Domestic hot water for the entire building is also generated in the penthouse mechanical room through a hot water coil, which is fed from the primary heating system boilers, in a separate storage tank.

Mechanical Systems

The building is heated and cooled by a four-pipe fan-coil system. This type of system provides hot and chilled water throughout the facility through separate piping systems so that separate apartments can be heated and cooled simultaneously. The hot water piping loop is heated from hot water boilers, two, which are located in the penthouse mechanical room, and the chilled water piping loop is cooled by a central water cooled chiller which is located in the basement. The following items concerning the HVAC systems for the building are noted:

1. In the previous arrangement of water service for the building, all water was taken from a well located beneath the building. This water provided service for not only fire sprinkler systems, but also for domestic water and cooling water for the building chiller. Well water was pumped "once-through" the chiller for cooling, and then discharged to building drain piping. This condition is not allowed by present City of Reno Codes and Regulations, nor has it been allowed for some time. This fact was evidently understood at some point in time, because a forced-draft cooling tower was purchased and is presently sitting on the premises. However, the cooling tower has never been connected to the chiller. No records are available, and the cooling tower appears to be about five to eight years old. In order to put the cooling tower into service, separate piping, a pump, electrical power, and automatic controls will need to be installed. This work will need to be completed as soon as possible to be in compliance with all City and County Codes and Ordinances.
2. The apartment fan-coil units are the original units installed, and the units observed in our walk-through appear to have been well maintained. However, the extent of preventative maintenance given these units is not known, and the usual operation is to fix units as problems occur. Therefore, it is recommended that all fan-coil units have a complete servicing by a qualified contractor, to include items such as chilled and heating water coils thoroughly cleaned, blowers (fans) thoroughly cleaned, controls checked and serviced to assure positive

stop on actuation. This will not only assure the owners that the units are operating correctly and efficiently, but also that the primary heating and cooling systems are operating efficiently.

3. The boilers are extremely old and probably near the end of their useful life. It is recommended that these boilers be replaced with new units which have modulating gas burners to maximize system efficiency.
4. The chiller room is not ventilated as required by existing mechanical codes for protection to maintenance personnel against refrigerant system leaks.

Plumbing Systems

The plumbing system, as it exists today, appears to be essentially the same as when it was installed except for the changes in the service as described earlier within this report. The following comments address specific items observed during our walk-through:

1. The existing domestic water service comes into the property at the north side of the building from a water main in Island Avenue.
2. Plumbing fixtures are as noted: Water closets are floor mounted, flush tank models with "round" bowls, approximately 40 years old. Presumably, as remodeling to various apartments has occurred over the years, most plumbing fixtures in individual apartments have been upgraded during the remodels. However, water closets, and other similar plumbing fixtures, may not be of the "low consumption" design which use 1.6 gallons per flush (gpf) as required by present Code. Because this is a relatively recent Code requirement, it is assumed that most of the plumbing fixtures in the building do not meet this requirement. It is only noted in this report that as remodels to various apartments occur, upgrading individual fixtures to those that comply with present Codes is required. But wholesale replacement of plumbing fixtures throughout the building is not required.

Fire Protection

1. The building is fully sprinkled throughout the facility, and dropped fire sprinkler heads are utilized in all areas.
2. The fire sprinkler system main riser is located near the northeast corner of the basement. Backflow prevention for the main supply piping is presently installed ahead of the existing fire pump as was described earlier in this report.

Electrical Systems

The following comments regarding the electrical systems in the building address specific items observed during our walk-through:

Main Entry Landing

1. The Fire Command Room consists of two ADT panels which are completely labeled, with batteries, and no alarms, trouble lights, nor paging lights are on which would indicate service or attention required; all systems appear to be in good working condition.

2. The fire alarm system appears to be working properly as the asbestos removal crew set off the alarm system several times and the Fire Department responded each time.
3. All system boxes are located in the Fire Command Room.
4. Conduits have been run from various floors to this room.
5. Fire control valves are in the same room area, and at small restroom.
6. Video cameras are located in the office, and the control box is located in the Fire Command Room.

1st Level

1. The main electrical service is located in the west corner of the main level garage. The main switchboard is a Federal Pacific Electric Co. unit, rated at 2000 amps, 120/208 volts, 3-phase, 4-wire. Bus fuses are 2000 amp and are inline with main Bus. The main service appears to be fed from underneath.
2. There are three meters with fuses stacked above electrical gutters with 100/2 individual room breakers. Each meter and breaker has a corresponding number.
3. The south section of the service has 12 (twelve) meters, and might have problems as the end cover to the meter section is missing. It is a 24" x 8'-0" opening which needs to be corrected. Also, at the bottom of this section, the bottom cover is open and needs screws to make it tight to the meter main section.
4. There are open gutters running above the Main Electric Room which need to be covered and secured.
5. Receptacles in the Electric Room need cover plates installed. Additionally, fluorescent light fixtures with cords are connected to these receptacles.
6. The elevator switches are in this same board.
7. There is a separate distribution board in this room with switches, but most of them are spares.
8. The main chiller breaker (Westinghouse 600/3), the Laundry Room main breaker, and other miscellaneous breakers all need bus covers. There is an open bus which is corroded and needs a cover. There is no panel index, but existing breakers in use are marked individually.
9. There are two load centers in this room for entrance lights which are on a time clock. Miscellaneous office electrical outlets, water heater, pressure pumps, etc., are controlled here. One load center is a 40-circuit unit by Square D, and the other is a 32-circuit unit by Federal Pacific.

10. It appears that water has penetrated the ceiling in the Main Electric Room as rusting is visible on the meter main sections.
11. There is an emergency battery powered light pack installed at the ceiling in front of the main switch board that is inoperative as the test switch did not activate the lights.
12. There is a SPPCo. Room to the west of the Main Electric Room which is noted as "High Voltage".
13. The Garage area has surface mounted conduits and 8-foot fluorescent strip light fixtures with 2-lamps and no wire tube guards.

Basement Level

1. Lighting for the basement is the same as is installed in the 1st floor garage.
2. The same type of battery light packs for emergency lighting are installed on columns throughout the basement level, and all were tested and working.
3. There are some disconnect switches in the basement with no identification labels.
4. Some electrical conduits need to have additional supports installed.

2nd Floor, Typical Apartment

The apartment walked through, Room #202 which is currently being remodeled, is considered to be typical of apartments in the entire building. The followings items were noted:

1. The apartment has a cable TV feed, battery powered smoke detectors, a 6-circuit load center, 20/1, made by Federal Pacific and is located in the hall closet.
2. The kitchen range is an electric unit with a 40amp, 2-pole breaker.
3. The main breaker is located in the Electric Room on the 1st Floor.
4. The smoke detector is located in the hallway.

3rd Floor, Typical Apartment

The apartment walked through, Room #306 is also currently being remodeled. The same observations listed for Room #202 were observed in Room #306, and also it was noted that some receptacles and switches have ground wires, but this was a random occurrence. Also, it is noted that the cooling tower mentioned in the Mechanical section is stored on the deck outside this room.

Elevator Lobbies/Stairwells

1. The Elevator Lobby on the second floor, and all other floors also, has a fire alarm pull station, emergency lights, smoke detector, speaker, 1' x 4' w-lamp fluorescent light fixture, and exit lights.

2. The exit light in the Elevator Lobby on the 2nd floor has a broken lense, but the lamps are lighted.
3. The Stairwells have keyless exit signs mounted on walls which are not powered, pull stations, fire extinguishers, and surface mounted sprinkler piping. Some lights at landings have burned out bulbs that need to be replaced.
4. There are smoke detectors mounted in all stairwells.
5. Dropped (lay-in type) ceilings have been removed in Elevator Lobbies on Floors 14, 15, & 16 to check for asbestos, and the ADT pull station was dangling by its wires, as were the ceiling mounted speaker and smoke detector.
6. Some smoke detectors are missing, that is, only the detector base is in place.

17th Floor Typical Studio Apartment, #1703 Room "C"

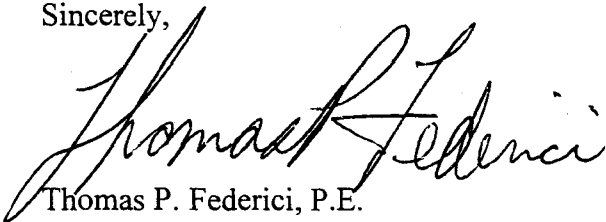
1. This apartment has some surface mounted wire conduit, "Wire Mold".
2. Ceiling mounted lights need to be secured to junction boxes above ceiling.
3. The receptacles mounted in the bathroom were ordinary receptacles, that is, they are not GFI receptacles.

Elevator Equipment Room

1. Currently, the elevators are currently being upgraded.
2. There is a 42-circuit panel in the Elevator Equipment Room made by Federal, which needs a cover for the bus and breaker spaces.

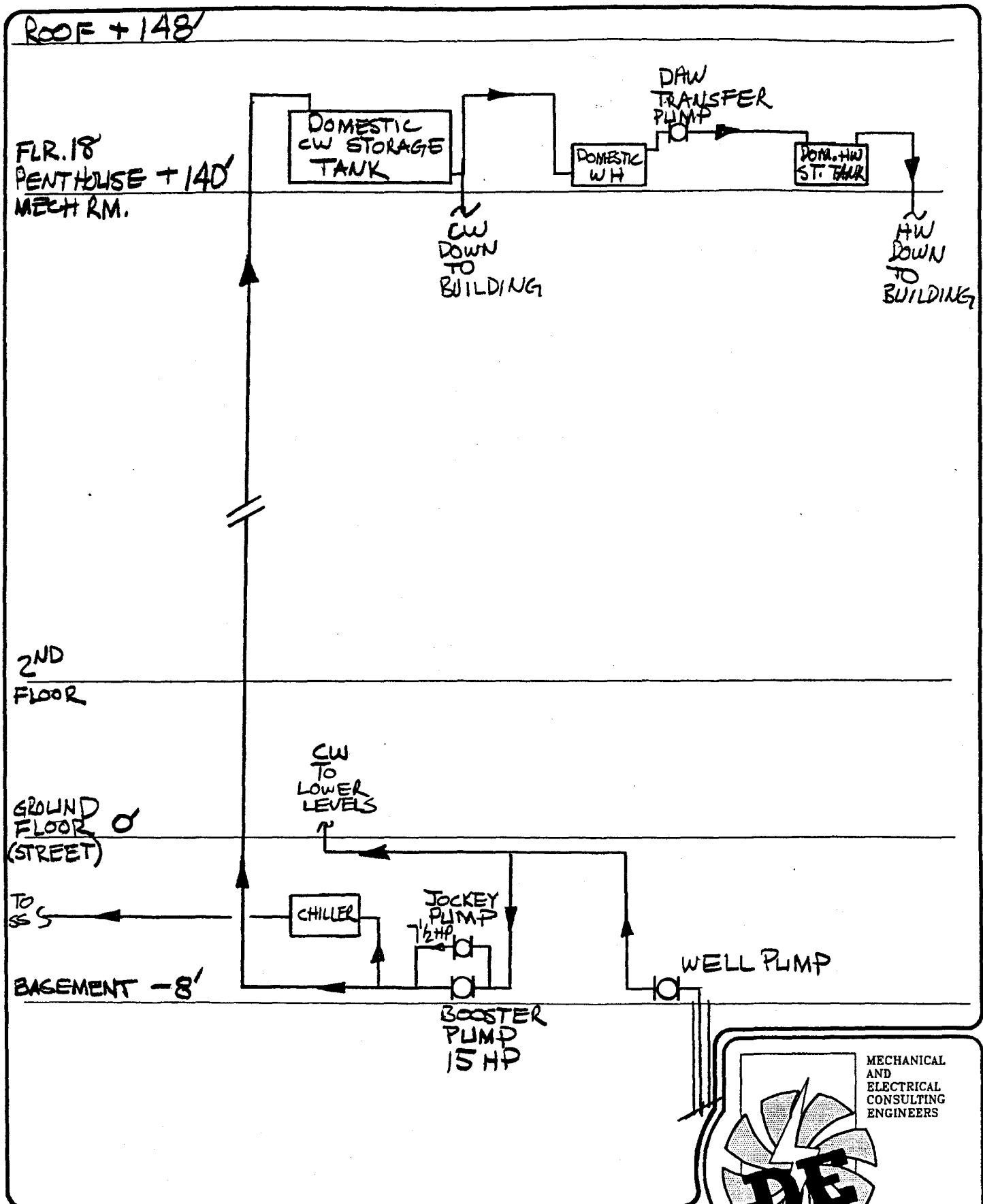
If you should have any questions, please feel free to give our office a call.

Sincerely,



Thomas P. Federici, P.E.
Mechanical Department Manager

cc: Jerry Anastassatos, Dinter Engineering Co.



TITLE: DOMESTIC WATER SYSTEM
 SHEET NO.: P-1 OF 1
 JOB NAME: PARK TOWERS APTS.
 CALCULATED BY: TPF DATE: 3-19-01
 CHECKED BY: _____ DATE: _____

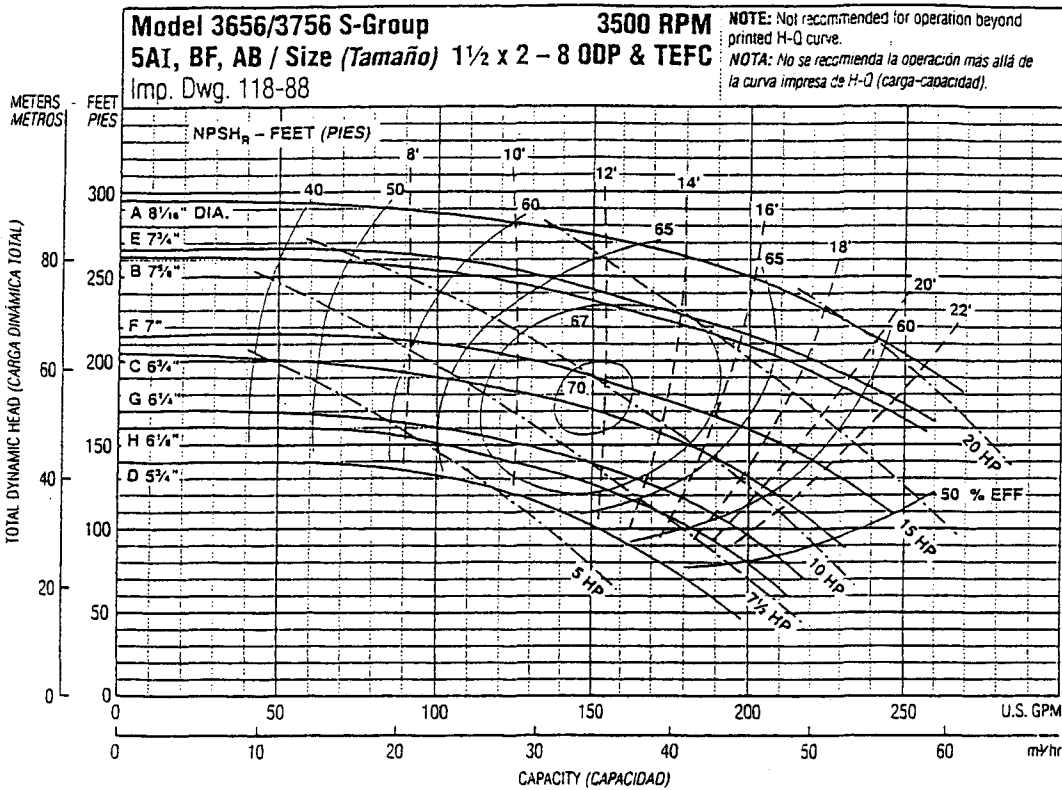
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D I N T E R
 E N G I N E E R I N G
 C O.

J-365A

Performance Curves - 60 Hz, 3500 RPM
Curvas de desempeño - 60 Hz, 3500 RPM

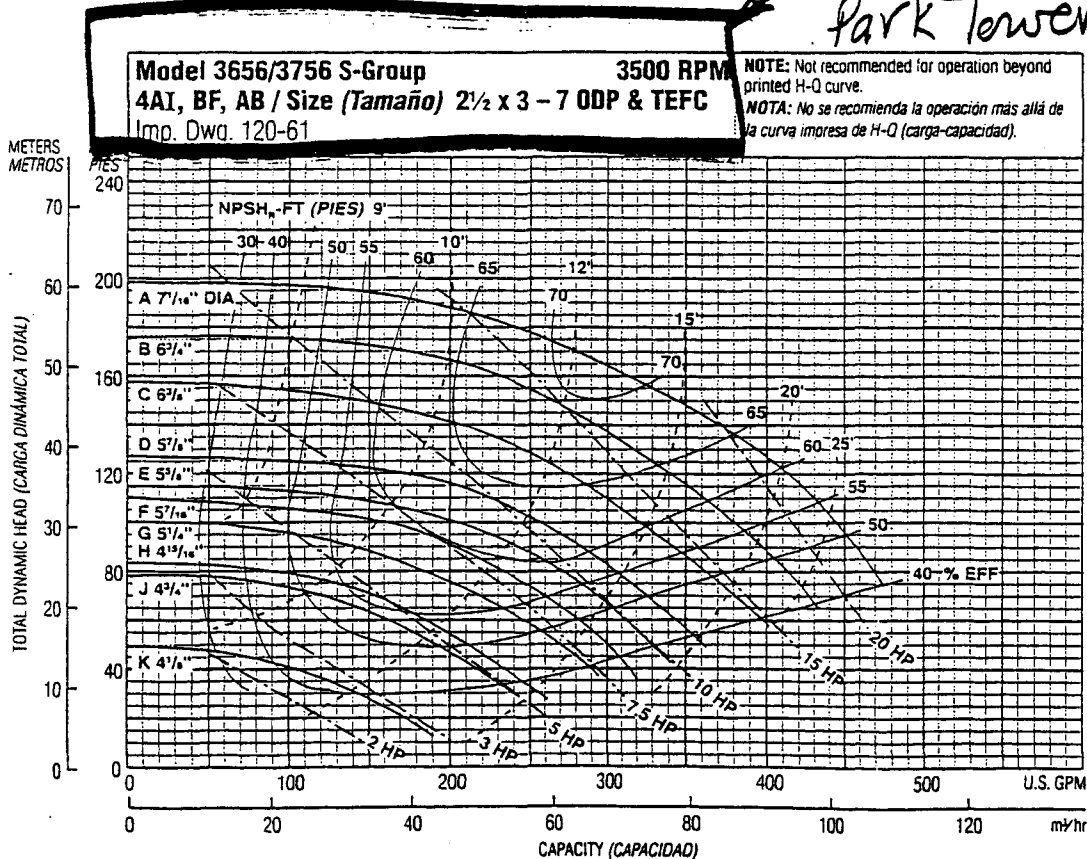


Optional Impeller
Impulsor optativo

Ordering Code	Dia.
Código de pedido	Diá.
A	8 1/16"
E	7 1/4"
B	7 1/8"
F	7"
C	6 3/4"
G	6 1/2"
H	6 1/4"
D	5 3/4"

NOTE: Pump will pass a sphere to 3/16" diameter.
 NOTA: La bomba dejará pasar una esfera de hasta 3/16 de pulgada de diámetro.

*Installed pump @
 Park Towers Apts., Reno*



Optional Impeller
Impulsor optativo

Ordering Code	Dia.
Código de pedido	Diá.
A	7 1/16"
B	6 3/4"
C	6 3/8"
D	5 7/8"
E	5 5/8"
F	5 1/2"
G	5 1/4"
H	4 15/16"
J	4 3/4"
K	4 1/8"

NOTE: Pump will pass a sphere to 1/16" diameter.
 NOTA: La bomba dejará pasar una esfera de hasta 1/16 de pulgada de diámetro.

