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PROJECT:	<b>Gavilan Joint CCD</b>	DATE:	September 22, 2005
MEETING:	FMP-Input and Planning Process Infrastructure Upgrades	PLACE:	North Lounge
PROJECT NO:	3165	TIME:	1:00 PM

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PREPARED BY:	Casey Michaelis, Kitchell	File:	Gavilan Infrastructure Meeting Notes 9.22.05
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## I. Topographic Survey

- A. Aerial survey did not include building elevations and spot elevations at exterior doors, courtyards, plazas, etc.
- B. BFGC to coordinate with consultants.

## II. Water System

- A. Water tank on hill. 1966 metal tank - welded.
- B. Capacity of tank is adequate. (975,000 gallon tank)
- C. Bulging from earthquake.
- D. Areas of the tank are rusting.
- E. The maintenance dept. currently looks at the location of the flag to determine when it needs to be filled.
- F. Need to look at how it's monitored, what the condition is and adequacy of the system is – present system is monitored manually/visual inspection & refilling.
- G. BFGC is getting a budgetary proposal from consultant to replace the tank.
- H. Will look at concrete tank in lieu of steel.
- I. Will look at pump system from well and telemetry.
  - a. Pump replaced about 3 years ago.
  - b. Quality of water is good from well.
  - c. Getting 75-100 psi at buildings - adequate pressure.
- J. Meet with state/local fire marshal to determine requirements.
- K. Landscape/irrigation.
  - a. Use reclaimed water – talk to city.
- L. Does concrete tank have to be above ground.
  - a. Not necessarily but cost may be higher to excavate.
  - b. May look better and help insulate tank.
  - c. Consider tree shading with above-ground tank.
- M. Need to take soil borings in area of tank.
- N. May have to improve road access for concrete trucks, etc.
- O. City tie-in is at north entrance to campus.
- P. Looking at separate utility services for the golf course area.
  - a. Student Housing
  - b. Faculty Housing
  - c. Active Adult Living
- Q. Art said transite lines are okay.
  - a. Two leaks in last five years.
  - b. Only feeds irrigation and golf course.
  - c. Could be tied into reclaim system.
- R. Other water leaks were in boiler return and supply lines.

- S. Locater service to field-check water lines to determine material/locations.
  - a. Metallic will be able to locate.
  - b. Locate valves.
  - c. Replace metallic pipe laterals.
  - d. Replace hot water piping – underground & overhead.
- T. Sectionalize/zone valves to allow individual building isolation with new design.
- U. Boilers are real problem – safety. Replace with 2 or 3 as part of the Infrastructure Project.
  - a. Business boiler leaking today.
  - b. Existing pool boiler is about 35% efficient.
- V. Gym hot water storage tanks are in very poor condition – one could fail at anytime.
  - a. Should be able to get by with one – temporarily.
- W. Won't have to run through DSA since will be replacing with like kind.
- X. Use stand-alone boiler for on-demand system.
- Y. All boilers are the same age. Kewanee boilers.
- Z. Feed lines to new boiler systems – add meters to know if have leak.
  - a. Could put in leak detection.
  - b. Alfa Tech will look at 2-3 options available.
- AA. Check pumps.
- BB. Check chlorination system.
- CC. Like to have a backup pump. Have it valved to isolate.
- DD. Hot Water Piping (8-10 years ago, supposedly re-piped)
  - a. Art said is steel pipe.
  - b. Replaced a portion of return system.
  - c. Alfa Tech recommends replacing entire piping for efficiency to help the pumps.
  - d. Will reduce energy costs.
- EE. Dave spoke to Joe Keeler prior to meeting.
  - a. District said to proceed with investigations.

### III. Sanitary Sewer System

- A. Problems with sewer lines by CJ500 and Theater - roots. Need to video existing lines to determine blockage.
- B. Dave spoke to Joe Keeler prior to meeting.
  - a. District said to proceed with videoing the existing lines.

### IV. Storm Drain System

- A. Art couldn't think of any problems with the existing storm drain system other than capacity – may need more outlets with new design.
- B. Need to look at the west side of the tennis courts
- C. Dave spoke to Joe Keeler prior to meeting.
  - a. District said to proceed with videoing the existing lines.

### V. Electrical

- A. Electrical
  - a. Existing condition is one meter at PG&E switchgear.
  - b. Does District want sub-meter to monitor each building.
    - i. Art said has one at library but don't use.
    - ii. Art said don't have need for sub-metering.
    - iii. Primary replaced recently
- B. May have problem with conductors - not getting 220V.
- C. Look at what the District is getting in terms of power into campus from PG&E
  - a. Alfa Tech to contact PG&E (Art to provide contact name and number).
- D. First Portion of Site Lighting will be included in this infrastructure package.
  - a. Security and safety issue.
- E. Solar
  - a. For buildings, not feasible.

- b. Swimming pools, ideal application.
- c. Site lighting a good possibility.
  - i. Not cheap.
  - ii. Substantial savings on energy. Look at life cycle cost.
- d. Alfa Tech to perform life cycle analysis.
- e. Need minimum one foot-candle.
- f. May do a pilot installation on site lighting.
- g. Talk to PG&E for rebates. Savings by Design.
- h. Look for payback within 3-5 years. Over 5 years not cost-effective.

## **VI. Gas**

- A. Replace campus wide.
- B. Zone so can shut down areas/buildings.

## **VII. Telecommunications**

- A. Existing fiber is in good condition – not old (about 5 years).
- B. Need to provide loop.
- C. Need to provide extra conduit (future pathways/capacity).
- D. Need to identify location of Data Center – centralize. Library is an ideal location.
  - a. Separate A/C.
  - b. Generator.
- E. Mimi to get drawings to BFGC.

**End of Notes**