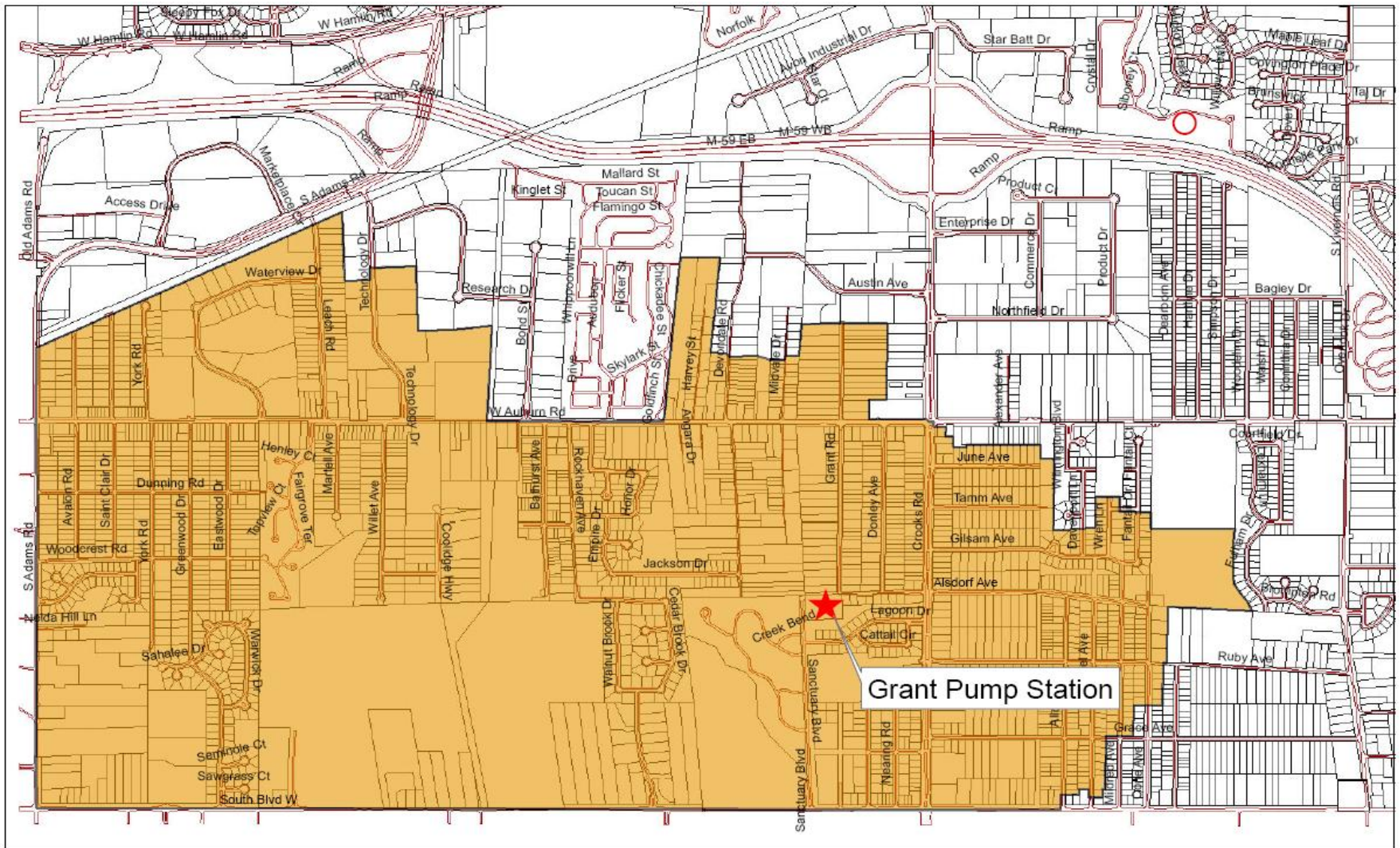


# Grant Pump Station Replacement Project



Presented by: DPS/Engineering  
December 5, 2011

# Location & Service Area Map



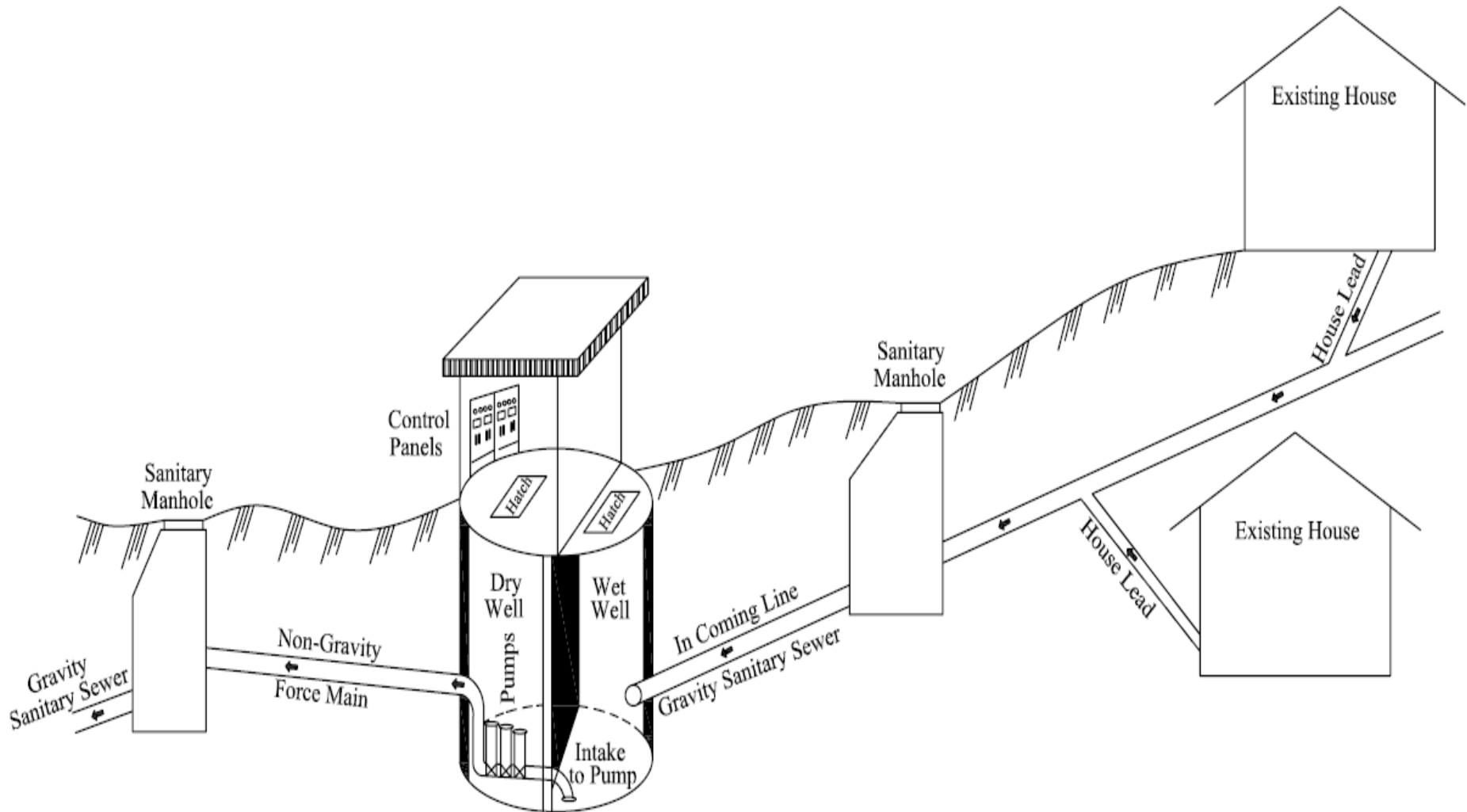
# Aerial View, Grant Pump Station



# *Background*

- The Grant Pump Station was constructed in 1979. There are three pumps in the station, two were installed in 1979 and the third was installed in 1989.
- The Grant Pump Station serves approximately 2,000 customer accounts (100 industrial/commercial users)
- The pump station consists of a drywell /wetwell system.

# Grant Pump Station Schematic





Wetwell



Drywell

# Lifespan

	<u>Planned</u>	<u>Actual</u>
• Building	50 yrs	33 yrs
• Generator (diesel)	20 yrs	33 yrs
• Pumps	20 yrs	22–33 yrs
• Controls	10 yrs	22 yrs
• Elevator	20 yrs	33 yrs
• Roof	20 yrs	10 yrs
• Odor Control Unit	20 yrs	14 yrs
• Wetwell Appurtenances (piping, ladder, metal brackets)	20 yrs	33 yrs

# *Pumps & Motors*

- Pumps 1 & 2 installed in 1979
- Existing Pumps are 75 HP, new pumps will be 20 HP
- Frames are original & in poor condition
- New motors will be more efficient
- Less maintenance
- Improved technology





# Controls

- Outdated and some replacement parts are no longer available
- SCADA is 10 yrs old



*The proposed Grant Pump Station will look similar to the Michelson Pump Station*



Existing Grant Pump Station

Michelson Pump Station



# *Why consider a total replacement?*

- Bids were obtained in October 2010 to replace the existing three pumps and motors. The lowest bid was approximately \$350,000.
- The Michelson Pump Station was constructed in 2008 for approximately \$400,000.
- The Engineer's preliminary construction cost estimate for the Grant Pump Station is \$800,000.

## *Summary, why a total replacement?*

- Age of existing station & all of the equipment including electrical controls
- The costs with replacing the pumps and motors themselves
- Increased pump efficiency and decreased maintenance
- Decreased facility operations and maintenance cost (no heat, lighting, elevator, leaking roof, building)
- Electrical consumption decrease from smaller horsepower pumps
- Included in the 2012 Adopted CIP and the 2012 Adopted Budget

*Any Questions?*