

<b>Utility Meter Update 12-7-12</b>						
<b>Building (In order of site visit)</b>	<b>Steam Meter</b>	<b>Chilled Water Meter</b>	<b>Domestic Water Meter</b>	<b>Electric Meter</b>	<b>Natural Gas Meter</b>	<b>NAE</b>
Facilities Management			X		X	X
Cooling Towers			X			X (E)
<b>Parking Lot W-5 (East Service Stalls)</b>						
Chilled Water Plant			X			X (E)
Stewart Sky Suites	X	X	X			X (E,V)
<b>Parking Lot A-8</b>						
Stromberg Center & Swenson Building	X (E,V)	X (2-E)	X			X (E,V)
Lampros Hall	X (E)	X (E)	X			X
<b>Parking Lot A-2</b>						
Technical Education	X (2)	X	X			X
Building #3 & #4	X (E,V)					X
Engineering Technology	X	X (E)	X			X
Science Lab	X	X	X			X
Wattis Building	X	X	X			X
Miller Administration	X	X	X			X
Shepherd Union - West	X (E)	X (E)	X (E)			X (E)
Shepherd Union - East	X (E)	X (E)	X (E)	X-Solar PV		X (E) X
Kimball Visual Arts	X (E)	X (E)	X			X
<b>Parking Lot A-12</b>						
Hurst Center			X (E) X (E.V)		X	X (E)
<b>Dee Events Center West Lot</b>						
Dee Events Center			X			X (E)
Center For Continuing Education			X	X	X	X(E)
Davis Building #2			X		X	X (E)

<b>E = Existing V=Operational Verification Required</b>	<b>Steam Meter</b>	<b>Chilled Water Meter</b>	<b>Domestic Water Meter</b>	<b>Electric Meter</b>	<b>Natural Gas Meter</b>	<b>NAE</b>
Total # New	6 (7)	5	15	2	4	10
Total # Existing	6 (7)	7	4 (5)			10

<b>Domestic Water Meters</b>						
New Meters: Onicon F-1200 or Approved Equal						
<b>Building</b>	<b>Building Letter ID</b>	<b>New Meter Req'd?</b>	<b>Approx. Line Size*</b>	<b>Meter Type</b>	<b>Existing/Suggested Location</b>	<b>Comments/Special Considerations</b>
Cooling Towers (Make-Up)	CT	See Comments	4"	<b>Existing</b> Vortex	Pressure Reducing Station	Meter Compatability & Trending Capabilities Need to be Verified Tie into Existing NAE in CW Plant
Chilled Water Plant (Make-Up)	CL	Yes	4"	Insertion Turbine	Make-Up Line Past 1' PRV on S/E Wall of Plant	Tie new meter into Existing NAE
Davis Building #2	D2	Yes	4"	Insertion Turbine	Mechanical Room #123	Locate new meter downstream from PRV. Tie into Existing NAE
Center For Continuing Education (Davis)	CCE	Yes	2"	Insertion Turbine	Mechanical Room #106C	Relocate existing drain valve to allow for installation.
Dee Events Center	DC	Yes	6"	Insertion Turbine	Boiler Room	
Engineering Tech	ET	Yes	3"	Insertion Turbine	South-East Building Tunnel Before PRV	
Facilities Management	FM	Yes	3"	Insertion Turbine	South Wall of Mechanical Room	Locate new meter above PRV on 3" line
Hurst Center-Main	HC	<b>No</b>	4"	<b>Existing</b> Insertion Vortex- Hersey #350	Pressure Reducing Station on North Wall of Mech Room	Meter Compatability To Existing NAE & Trending Capabilities Need to be Verified
Hurst Center- CW Make-Up	HC	<b>No</b>	1"	<b>Existing</b> Onicon System 10	Pressure Reducing Station	Requires Connection to Existing NAE & Trending Only. Totalizer Function Req'd W/Main Meter
Kimball Visual Arts	KA	Yes	2"	Insertion Turbine	South-East Wall of Mechanical Room	Locate new meter on down-stream side of PRV

Lampros Hall	LP	Yes	2"	Insertion Turbine	West Wall of Mechanical Room	
Miller Administration	MA	Yes	2 1/2"	Insertion Turbine	Tunnel North of Mechanical Room	
Science Lab	SL	Yes	6"	Insertion Turbine	N/E Side of Mechanical Room	Water Line supplies Science Lab and Lind Lecture
Stuart Sky Suites	SK	Yes	3"	Insertion Turbine	Mechanical Room #110	Verify Ability For Tie In to Existing NAE Located in Office Complex
Shepherd Union-East	SU (East)	<b>No</b>		<b>Existing</b> Onicon F-1200	East Mechanical Room	Requires Connection to New NAE & Trending Only
Shepherd Union-West	SU (West)	<b>No</b>		<b>Existing</b> Onicon F-1200	West Mechanical Room	Requires Connection to New NAE & Trending Only
Stromberg Center & Swenson Building	SB & SW	Yes	4"	<b>Onicon F-3500 Insertion Electromagnetic, or Equal This Location Only</b>	N/E Corner of East-(Swenson) Mechanical Room	Very Tight Locatiuon, May Have to Locate in Shallow Tunnel Next to PRV
Technical Education	TE	Yes	3"	Insertion Turbine	Shallow Tunnel on West Side of Main Mechanical Room	
Wattis Business	WB	Yes	2 1/2"	Insertion Turbine	NW Side of Main Mechanical Room	
<b>Total # New Meters = 14</b>						Type 316 Stainless Steel on all wetted parts.
<b>Total # Existing Meters = 6</b>						All new meters to be Bac-Net Compatible
* Field Verify Before Ordering New Meters						<u>Operational Verification Required</u> on All Existing Meters Prior to

<b>Natural Gas</b>						
Onicon F-5200 or Equal						
<b>Building</b>	<b>Building Letter ID</b>	<b>New Meter Req'd?</b>	<b>Approx. Line Size*</b>	<b>Meter Type</b>	<b>Suggested Location</b>	<b>Comments/Special Considerations</b>
Davis Building #2	C2	Yes	2"	Thermal Mass Insertion W/Local Display	Mechanical Shop #125A	
Center For Continuing Education (Davis)	CCE	Yes	1-1/4"	Thermal Mass Inline W/O Local Display	Above Ceiling Line in Break Room @ NW Corner - Main Floor	
Hurst Center	HC	Yes	1"	Thermal Mass Inline W Local Display	Mechanical Room #002	
Facilities Management	FM	Yes	2"	Thermal Mass Insertion W/Local Display	Mechanical Room	
<b>Total # New Meters = 4</b>						
* Field Verify Before Ordering New Meters						All new meters to be Bac-Net Compatible
<b>Electric</b>						
Center For Continuing Education (Davis)	CCE	Yes	N/A	Veris "Hawkeye" 8100 Series or Equal	First Floor Panel Room	
Shepherd Union Building PV	SU	Yes	N/A	Veris "Hawkeye" 8100 Series or Equal	S E. Stairwell Between Third and Fourth Floors	
<b>Total # New Meters = 2</b>						All new meters to be Bac-Net Compatible
<i>Revised 11/20/12</i>						

<b>Utility Meter Project Summary - Energy Loan</b>						
<b>Steam Meters</b>						
EMCO V-Bar-700 or Approved Equal						
<b>Building</b>	<b>Building Letter ID</b>	<b>New Meter Req'd ?</b>	<b>Approx. Line Size*</b>	<b>Meter Type</b>	<b>Suggested Location</b>	<b>Comments/Special Considerations</b>
Building #3 & #4	B3 & B4	See Comments	4"	Inline Vortex	<u>Existing</u> In Tunnel	<u>Operational Verification Required</u> on Existing Meter Prior to Connection to New NAE & Trending
Engineering Tech	ET	Yes	6"	Insertion Vortex	In Tunnel Adjacent to North Mechanical Room	
Kimball Visual Arts	KA	<b>No</b>	6"	Inline Vortex	Existing In Tunnel to Main Mechanical Room	Requires Connection to New NAE & Trending Only
Lampros Hall	LP	<b>No</b>		Yewflow Ultrasonic Digital Vortex	Existing in Mechanical Room	Requires Connection to New NAE & Trending Only
Miller Administration	MA	Yes	4"	Insertion Vortex	In Tunnel Adjacent to Mechanical Room	Abandon Existing Meter In-Place
Science Lab	SL	Yes	8"	Insertion Vortex	In Tunnel Downstream from PRV	
Shepherd Union-East	SU (East)	<b>No</b>		EMCO - V-Bar-700 Insertion Vortex	East Mechanical Room	Requires Connection to Existing NAE & Trending Only
Shepherd Union-West	SU (West)	<b>No</b>		EMCO - V-Bar-700 Insertion Vortex	West Mechanical Room	Requires Connection to Existing NAE & Trending Only
Stewart Sky Suites	SK	Yes	3"	Insertion Vortex	Mechanical Room #110	Verify Ability For Tie In to Existing NAE Located in Office Complex
Stromberg Center & Swenson Building	SB & SW	See Comments	8"	Existing Diamond II Annubar Type DCR -25	Tunnel To East (Swenson Mechanical Room)	<u>Operational Verification Required</u> on Existing Meter Prior to Connection to New NAE & Trending
Technical Education	TE	Yes (2)	6" & 4"	Insertion Vortex	Mechanical Room	Two Meters Required with Totalizer Function
Wattis Business	WB	Yes	3"	Insertion Vortex	N/W Mechanical Room Before PRV	
<b>Total # New Meters = 7/9</b>						
<b>Total # New Existing Meters = 4/6</b>						
* Field Verify Before Ordering New Meters						
						All new meters to be Bac-Net Compatible
						<u>Operational Verification Required</u> on All Existing Meters Prior to Connection to New NAE & Trending
<b>Chilled Water Meters</b>						

"Onicon" System 10 W/Local Display or Approved Equal						
Building	Building Letter ID	New Meter Req'd ?	Approx Line Size*	Meter Type	Suggested Location	Comments/Special Considerations
Engineering Tech	ET	No	6"	Existing Onicon System 10 W/Local Display	Tunnel Adjacent to North Mechanical Room	Requires Electrical Connection and Tie-In to New NAE
Kimball Visual Arts	KA	No	6"	Existing Onicon System 10 W/Local Display	Existing In Main Mechanical Room	Requires Connection to New NAE & Trending Only
Lampros Hall	LP	No	4"	Existing Onicon System 10 W/Local Display	Existing in Tunnel North of Mechanical Room	Requires Connection to New NAE & Trending Only
Miller Administration	MA	Yes	5"	Insertion Turbine W/Local Display	In Tunnel Adjacent to Mechanical Room	Abandon Existing Meter In-Place
Science Lab	SL	Yes	Field Verify	Insertion Turbine W/Local Display	Main Mechanical Room	Supply Line Size is Different than Return Line Size
Shepherd Union-East	SU (East)	No		Existing Onicon System 10 W/Local Display	East Mechanical Room	Requires Connection to Existing NAE & Trending Only
Shepherd Union-West	SU (West)	No		Existing Onicon System 10 W/Local Display	West Mechanical Room	Requires Connection to Existing NAE & Trending Only
Stewart Sky Suites	SK	Yes	4"	Insertion Turbine W/Local Display	Mechanical Room #110	Verify Ability For Tie In to Existing NAE Located in Office Complex
Stromberg Center	SB	No		Existing Onicon System 10 W/Local Display	Stromberg Mechanical Room	Electrical & Controls Connection Required - Tie into SW
Swenson Building	SW	No		Existing Onicon System 10 W/Local Display	Tunnel to East (Swenson) Mech. Room	Requires Connection to New NAE & Trending Totalizer Function Req'd W/SB Display Provided by WSU
Technical Education	TE	Yes	4"	<b>Onicon F-3500 Insertion Electromagnetic With System 10 BTU Meter Or Equal This location Only</b>	Main Mechanical Room	Intercept CW Lines In Shallow Tunnel Next to air Handlers
Wattis Business	WB	Yes	6"	Insertion Turbine W/Local Display	N/W Mechanical Room	
<b>Total # New Meters = 5</b>						
<b>Total # Existing Meters = 7</b>						
* Field Verify Before Ordering New Meters						
						All new meters to be Bac-Net Compatible
						<u>Operational Verification Required on All Existing Meters Prior to Connection to New NAE &amp; Trending</u>