

Instruction for:
Nebraska Base Drawings NE600-20-004a,
NE600-20-004b, NE600-20-004c, NE600-20-004d, and
NE600-20-004e

Sprinkler Irrigation System - Pipeline
Details

Fill in the following data fields to automatically fill in the necessary data fields on the drawing.

Title block

Title line(s)

Design City

County, NE

Sheet number of

Who / When

Designed

Drawn

Checked

Drawing Notes: _____

Left click data fields to enter required information.

Drawings may be printed and filled or modified with indelible ink to fit the needs of a specific project.

Additional Drawings or Specifications may be inserted to create a packet.

Underground Pipeline for Center Pivot

CERTIFICATION of INSTALLATION

I certify the quantities shown as "as-built" are accurate and reflect actual field measurements. I certify this system was installed according to the requirements of NRCS construction specifications S430, NE-32, NE-81, NE-208 and NE-209, as applicable.

Signature _____

Date _____

TABLE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QUANTITY		SIZE (in.)		RATING (psi)	
		Design	As-built	Design	As-built	Design	As-built
Chemigation Valve with Air/Vac Valve. Must be certified by Nebraska Department of Environmental Quality.	EA					---	---
Pressure Relief Valve (PRV), set to open at _____ psi.	EA						
Gear Operated Butterfly Valve	EA					---	---
Flow meter (see NE-ENG-83 Data Sheet for Flow Meter for installation details).	EA					---	---
Continuous Acting Air Release Valve	EA					---	---
Air and Vacuum Relief Valve (Air/Vac)	EA					---	---
Pressure Gauge, shall be oil filled and rated for the expected operating range.	EA					---	---
Z-pipes and/or Risers; steel shall be zinc coated (galvanized) or coated with epoxy polyamide paint to a thickness of 8.0 mils.	EA					---	---
Pipeline, SDR _____, (_____ PSI) PIP PVC	LF						
Concrete for Thrust Blocks, minimum 28 day compressive strength shall be 2,000 psi.	CY					---	---

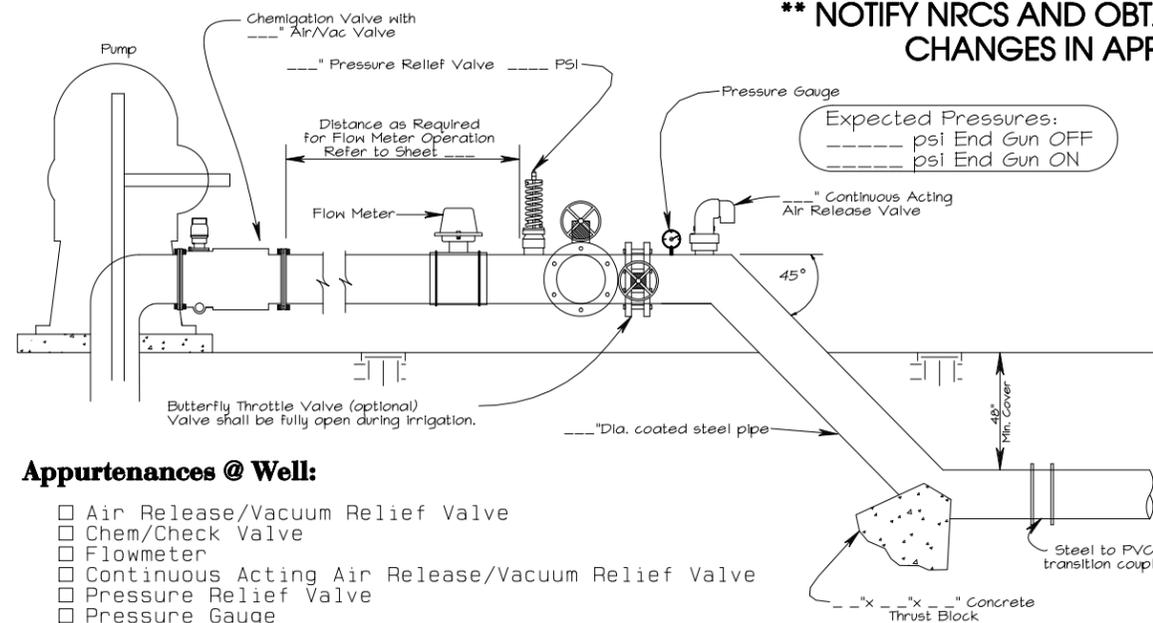
BM Description: _____

BM Elev. _____

CONSTRUCTION NOTES

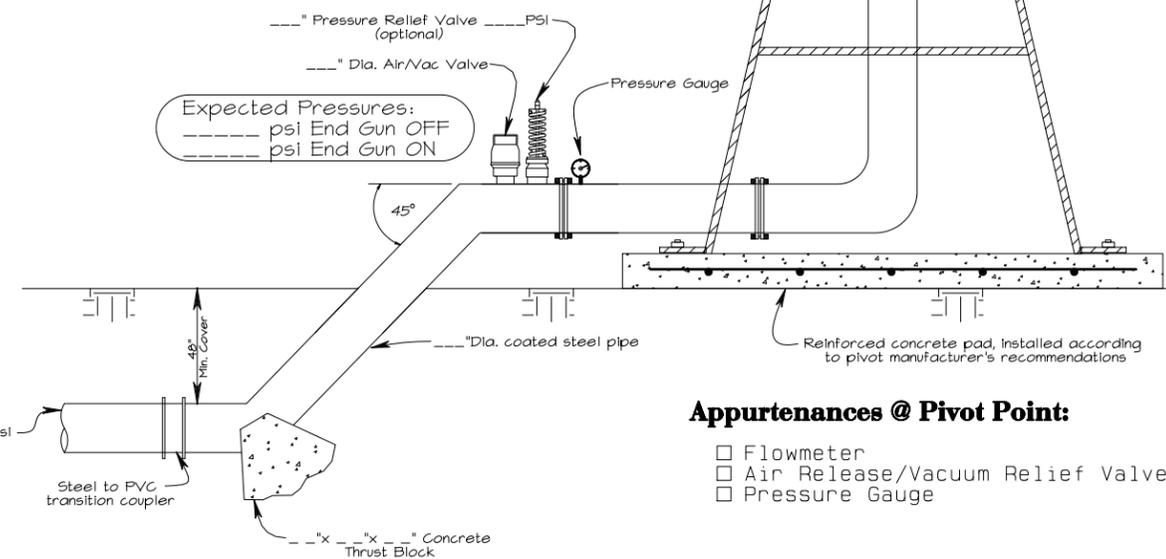
- The contractor will inspect the construction area for the presence of Utility facilities both surface and subsurface, and notify the Nebraska One Call System (<http://www.ne-diggers.com>) before construction activities begin. The contractor will use extra safety precautions when working near or around pipelines, power lines, power poles, underground cables, or other utility installations. Diggers Hotline: 1-800-331-5666
- Pipeline layout will be completed by, or approved by NRCS prior to construction.
- Location and sizes of appurtenances and pipeline shall not be varied from the plans without the designer's approval.
- Pressure Relief Valves will be stamped with the design cracking pressure.
- Metal pipe sections exposed to concrete (such as thrust blocks) shall have a minimum of 10 mil plastic or equivalent as separation between pipe surface and concrete.
- Planned minimum depth of cover over the top of the pipeline is 4 ft.
- Thrust blocks shall be placed against undisturbed trench wall. Bearing area of block shall be approximately square.
- Pipe connections may be either flange or "ring-lock" type, unless otherwise required.
- Thrust blocking is required when "ring-lock" type connections are used.
- Butterfly/shut-off valve, if installed, shall be a slow closing gear operated valve. Lever operated valves may be substituted only upon written NRCS designer's approval.
- Rigid "Z" pipe and/or metal pipe riser shall be made of rust resistant material or coated with rust resistant paint. Metal pipe sections encased in concrete shall have a minimum of 10 mL plastic covering or equivalent.

**** NOTIFY NRCS AND OBTAIN APPROVAL PRIOR TO MAKING CHANGES IN APPURTENANCE INSTALLATION ****



Appurtenances @ Well:

- Air Release/Vacuum Relief Valve
- Chem/Check Valve
- Flowmeter
- Continuous Acting Air Release/Vacuum Relief Valve
- Pressure Relief Valve
- Pressure Gauge



Appurtenances @ Pivot Point:

- Flowmeter
- Air Release/Vacuum Relief Valve
- Pressure Gauge

NOT TO SCALE

Designed: _____
Date: _____

Drawn: _____

Checked: _____

Approved: _____

Pipeline and Appurtenances

COUNTY, NEBRASKA

NRCS
Natural Resources Conservation Service

File No. v10.60g

Drawing No. 4a

Sheet ___ of ___

Underground Pipeline for Center Pivot

CERTIFICATION of INSTALLATION

I certify the quantities shown as "as-built" are accurate and reflect actual field measurements. I certify this system was installed according to the requirements of NRCS construction specifications S430, NE-32, NE-81, NE-208 and NE-209, as applicable.

Signature _____

Date _____

TABLE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QUANTITY		SIZE (in.)		RATING (psi)	
		Design	As-built	Design	As-built	Design	As-built
Chemigation Valve with Air/Vac Valve. Must be certified by Nebraska Department of Environmental Quality.	EA					---	---
Pressure Relief Valve (PRV), set to open at _____ psi.	EA						
Gear Operated Butterfly Valve	EA					---	---
Flow meter (see NE-ENG-83 Data Sheet for Flow Meter for installation details).	EA					---	---
Continuous Acting Air Release Valve	EA					---	---
Air and Vacuum Relief Valve (Air/Vac)	EA					---	---
Pressure Gauge, shall be oil filled and rated for the expected operating range.	EA					---	---
Z-pipes and/or Risers; steel shall be zinc coated (galvanized) or coated with epoxy polyamide paint to a thickness of 8.0 mils.	EA					---	---
Pipeline, SDR _____, (_____ PSI) PIP PVC	LF						
Concrete for Thrust Blocks, minimum 28 day compressive strength shall be 2,000 psi.	CY					---	---

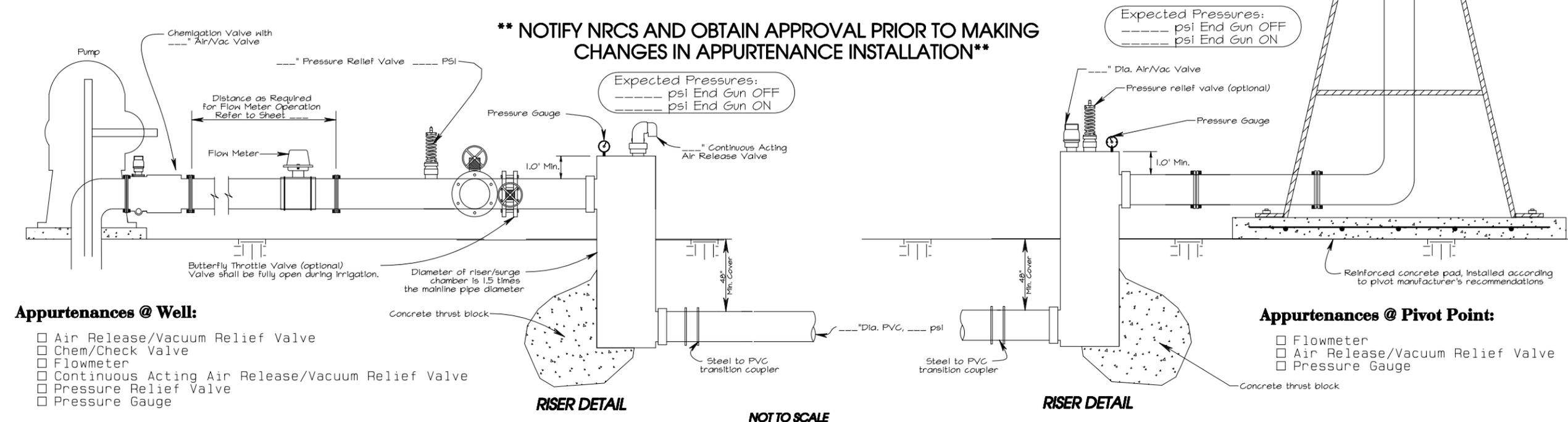
BM Description: _____

BM Elev. _____

CONSTRUCTION NOTES

- The contractor will inspect the construction area for the presence of Utility facilities both surface and subsurface, and notify the Nebraska One Call System (<http://www.ne-diggers.com>) before construction activities begin. The contractor will use extra safety precautions when working near or around pipelines, power lines, power poles, underground cables, or other utility installations. Diggers Hotline: 1-800-331-5666
- Pipeline layout will be completed by, or approved by NRCS prior to construction.
- Location and sizes of appurtenances and pipeline shall not be varied from the plans without the designer's approval.
- Pressure Relief Valves will be stamped with the design cracking pressure.
- Metal pipe sections exposed to concrete (such as thrust blocks) shall have a minimum of 10 mil plastic or equivalent as separation between pipe surface and concrete.
- Planned minimum depth of cover over the top of the pipeline is 4 ft.
- Thrust blocks shall be placed against undisturbed trench wall. Bearing area of block shall be approximately square.
- In lieu of thrust blocks, hand-compacted backfill can be used between the riser and the undisturbed trench wall. Degree of compaction will be equal to or greater than the density of the surrounding undisturbed soil.
- Pipe connections may be either flange or "ring-lock" type, unless otherwise required on this datasheet.
- Thrust blocking is required when "ring-lock" type connections are used.
- Butterfly/shut-off valve, if installed, shall be a slow closing gear operated valve. Lever operated valves may be substituted only upon written NRCS designer's approval.
- Rigid "Z" pipe and/or metal pipe riser shall be made of rust resistant material or coated with rust resistant paint. Metal pipe sections encased in concrete shall have a minimum of 10 mL plastic covering or equivalent.

** NOTIFY NRCS AND OBTAIN APPROVAL PRIOR TO MAKING CHANGES IN APPURTENANCE INSTALLATION **



Date _____
 Designed _____
 Drawn _____
 Checked _____
 Approved _____

Pipeline and Appurtenances
 COUNTY, NEBRASKA



File No. v10.60g
 Drawing No. 4b
 Sheet ___ of ___

Pump Direct Connect to Center Pivot

CERTIFICATION of INSTALLATION

I certify the quantities shown as "as-built" are accurate and reflect actual field measurements. I certify this system was installed according to the requirements of NRCS construction specifications S430, NE-32, NE-81, NE-208 and NE-209, as applicable.

Signature _____

Date _____

TABLE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QUANTITY		SIZE (in.)		RATING (psi)	
		Design	As-built	Design	As-built	Design	As-built
Chemigation Valve with Air/Vac Valve. Must be certified by Nebraska Department of Environmental Quality.	EA					---	---
Pressure Relief Valve (PRV), set to open at _____ psi.	EA						
Gear Operated Butterfly Valve	EA					---	---
Flow meter (see NE-ENG-83 Data Sheet for Flow Meter for installation details).	EA					---	---
Continuous Acting Air Release Valve	EA					---	---
Air and Vacuum Relief Valve (Air/Vac)	EA					---	---
Pressure Gauge, shall be oil filled and rated for the expected operating range.	EA			---	---	---	---

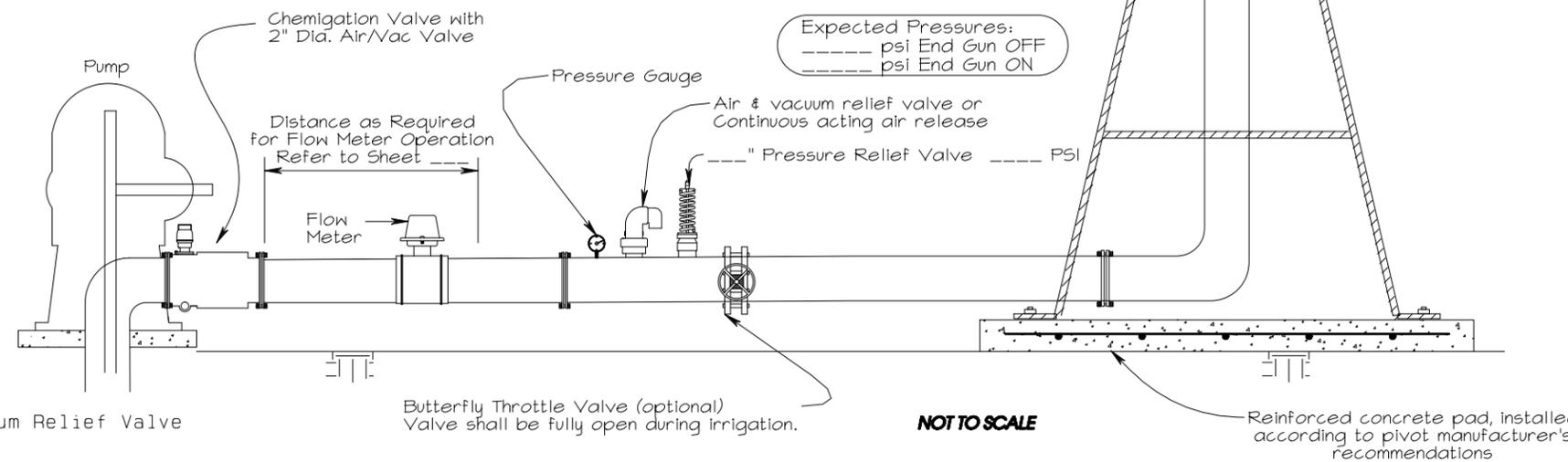
BM Description: _____

BM Elev. _____

CONSTRUCTION NOTES

- The contractor will inspect the construction area for the presence of Utility facilities both surface and subsurface, and notify the Nebraska One Call System (<http://www.ne-diggers.com>) before construction activities begin. The contractor will use extra safety precautions when working near or around pipelines, power lines, power poles, underground cables, or other utility installations. Diggers Hotline: 1-800-331-5666
- Pipeline layout will be completed by, or approved by NRCS prior to construction.
- Location and sizes of appurtenances and pipeline shall not be varied from the plans without the designer's approval.
- Pressure Relief Valves will be stamped with the design cracking pressure.
- Pipe connections may be either flange or "ring-lock" type, unless otherwise required on this datasheet.
- Butterfly/shut-off valve, if installed, shall be a slow closing gear operated valve. Lever operated valves may be substituted only upon written NRCS designer's approval.

**** NOTIFY NRCS AND OBTAIN APPROVAL PRIOR TO MAKING CHANGES IN APPURTENANCE INSTALLATION ****



Appurtenances @ Well:

- Air Release/Vacuum Relief Valve
- Chem/Check Valve
- Flowmeter
- Continuous Acting Air Release/Vacuum Relief Valve
- Pressure Relief Valve
- Pressure Gauge

Designed: _____
 Drawn: _____
 Checked: _____
 Approved: _____

Pipeline and Appurtenances

COUNTY, NEBRASKA



File No. v10.60g

Drawing No. 4c

Sheet __ of __

Underground Pipeline for Surge Valve

CERTIFICATION of INSTALLATION

I certify the quantities shown as "as-built" are accurate and reflect actual field measurements. I certify this system was installed according to the requirements of NRCS construction specifications S430, NE-32, NE-81, NE-208 and NE-209, as applicable.

Signature _____

Date _____

Date _____
 Designed: _____
 Drawn: _____
 Checked: _____
 Approved: _____

TABLE OF QUANTITIES

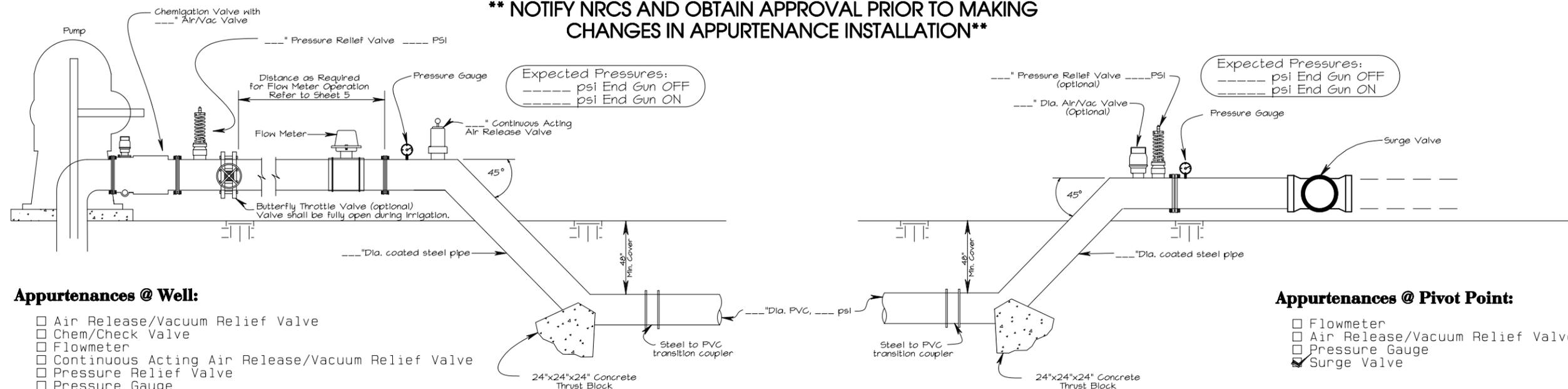
ITEM DESCRIPTION	UNIT	QUANTITY		SIZE (in.)		RATING (psi)	
		Design	As-built	Design	As-built	Design	As-built
Chemigation Valve with Air/Vac Valve, shall be Waterman CPC-30 or equivalent. Must be certified by Nebraska Department of Environmental Quality.	EA					---	---
Pressure Relief Valve (PRV), set to open at _____ psi, and shall be Waterman AA-60 (aluminum), Waterman AA-96 (steel), Fresno Series 3100 or equivalent.	EA						
Gear Operated Butterfly Valve, shall be Waterman VBE2-W, Fresno Series 8400 or equivalent.	EA					---	---
Flow meter (see NE-ENG-83 Data Sheet for Flow Meter for installation details).	EA					---	---
Continuous Acting Air Release Valve, shall be Waterman CR-101, Fresno Series 3500 Model 35 or equivalent.	EA					---	---
Air and Vacuum Relief Valve (Air/Vac) shall be a Waterman AV-150, Fresno Series 3000 or equivalent.	EA					---	---
Pressure Gauge, shall be oil filled and rated for the expected operating range.	EA					---	---
Z-pipes and/or Risers; steel shall be zinc coated (galvanized) or coated with epoxy polyamide paint to a thickness of 8.0 mils.	EA					---	---
Pipeline, SDR _____, PIP PVC Installation depth is 48 inches.	LF						
Concrete for Thrust Blocks, minimum 28 day compressive strength shall be 2,000 psi.	CY					---	---
Surge Valve with Controller	EA						

BM Description: _____ BM Elev. _____

CONSTRUCTION NOTES

- The contractor will inspect the construction area for the presence of Utility facilities both surface and subsurface, and notify the Nebraska One Call System (<http://www.ne-diggers.com>) before construction activities begin. The contractor will use extra safety precautions when working near or around pipelines, power lines, power poles, underground cables, or other utility installations. Diggers Hotline: 1-800-331-5666
- Pipeline layout will be completed by, or approved by NRCS prior to construction.
- Location and sizes of appurtenances and pipeline shall not be varied from the plans without the designer's approval.
- Pressure Relief Valves will be stamped with the design cracking pressure.
- Metal pipe sections exposed to concrete (such as thrust blocks) shall have a minimum of 10 mil plastic or equivalent as separation between pipe surface and concrete.
- Planned minimum depth of cover over the top of the pipeline is 4 ft.
- Thrust blocks shall be placed against undisturbed trench wall. Bearing area of block shall be approximately square.
- Pipe connections may be either flange or "ring-lock" type, unless otherwise required on this datasheet.
- Thrust blocking is required when "ring-lock" type connections are used.
- Butterfly/shut-off valve, if installed, shall be a slow closing gear operated valve. Lever operated valves may be substituted only upon written NRCS designer's approval.
- Rigid "Z" pipe and/or metal pipe riser shall be made of rust resistant material or coated with rust resistant paint. Metal pipe sections encased in concrete shall have a minimum of 10 mL plastic covering or equivalent.

** NOTIFY NRCS AND OBTAIN APPROVAL PRIOR TO MAKING CHANGES IN APPURTENANCE INSTALLATION **



Appurtenances @ Well:

- Air Release/Vacuum Relief Valve
- Chem/Check Valve
- Flowmeter
- Continuous Acting Air Release/Vacuum Relief Valve
- Pressure Relief Valve
- Pressure Gauge

Appurtenances @ Pivot Point:

- Flowmeter
- Air Release/Vacuum Relief Valve
- Pressure Gauge
- Surge Valve

NOT TO SCALE

Pipeline and Appurtenances

COUNTY, NEBRASKA



File No. v10.60g

Drawing No. 4d

Sheet 4 of 5

Existing Underground Pipeline for Center Pivot

CERTIFICATION of INSTALLATION

I certify the quantities shown as "as-built" are accurate and reflect actual field measurements. I certify this system was installed according to the requirements of NRCS construction specifications S430, NE-32, NE-81, NE-208 and NE-209, as applicable.

Signature _____

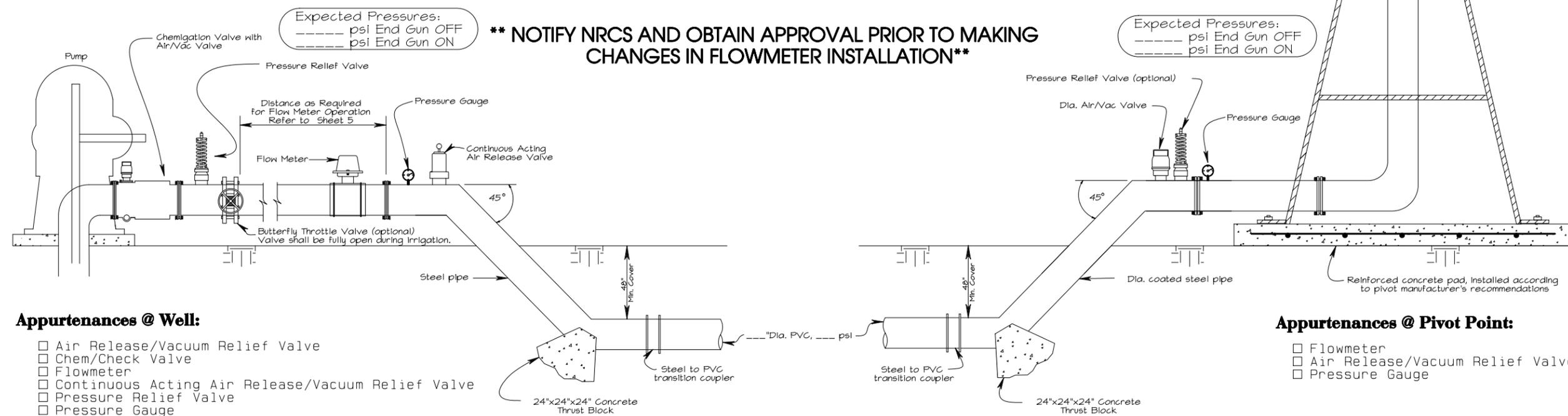
Date _____

TABLE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QUANTITY		SIZE (in.)	
		Design	As-built	Design	As-built
Flow meter (see NE-ENG-83 Data Sheet for Flow Meter for installation details).	EA				
BM Description: _____					
BM Elev. _____					

CONSTRUCTION NOTES

- The contractor will inspect the construction area for the presence of Utility facilities both surface and subsurface, and notify the Nebraska One Call System (<http://www.ne-diggers.com>) before construction activities begin. The contractor will use extra safety precautions when working near or around pipelines, power lines, power poles, underground cables, or other utility installations. Diggers Hotline: 1-800-331-5666
- Pipeline and all appurtenances (except flowmeter) has or will be installed by the landowner without NRCS technical assistance. As such, the pipeline and appurtenances likely do not meet NRCS practice standards for Irrigation Pipeline (430), and the Landowner will assume all liability for the integrity or operation/maintenance of the pipeline.



Pipeline and Appurtenances

COUNTY, NEBRASKA



File No. v10.60g

Drawing No. 4e

Sheet 4 of 5