



TOWN OF JACKSON PLANNING & BUILDING DEPARTMENT

TRANSMITTAL MEMO

Town of Jackson

- Public Works/Engineering
- Building
- Title Company
- Town Attorney
- Police

Joint Town/County

- Parks and Recreation
- Pathways
- Joint Housing Dept

Teton County

- Planning Division

- Engineer
- Surveyor- *Nelson*
- Assessor
- Clerk and Recorder
- Road and Levee

State of Wyoming

- Teton Conservation
- WYDOT
- TC School District #1
- Game and Fish
- DEQ

Federal Agencies

- Army Corp of Engineers

Utility Providers

- Qwest
- Lower Valley Energy
- Bresnan Communications

Special Districts

- START
- Jackson Hole Fire/EMS
- Irrigation Company

Date: April 8, 2019

Item #: P19-068

Planner: Tyler Sinclair

Phone: 733-0440 ext. 1301

Fax: 734-3563

Email: tsinclair@jacksonwy.gov

Owner

Roderick Lucas and Joyce Family
PO Box 1804
Jackson, WY 83001

Applicant:

Richard Blasey Bergmann
7050 W. Saginaw Hwy
Lansing, MI 48917

REQUESTS:

The applicant is submitting a request for a Utility Connection for the property located at 2500 South Park Loop Rd, legally known as LOT 3, SEC. 7, TWP. 40, RNG. 116 PARCEL A.

For questions, please call Tyler Sinclair at 733-0440, x1301 or email to the address shown below. Thank you.

Please respond by: April 29, 2019 (with Comments)

May 20, 2019 (Town Council)

RESPONSE: For Departments not using Trak-it, please send responses via email to:
tstolte@jacksonwy.gov



PLANNING PERMIT APPLICATION
Planning & Building Department

150 E Pearl Ave. | ph: (307) 733-0440
P.O. Box 1687 | www.townofjackson.com
Jackson, WY 83001

For Office Use Only

Fees Paid _____

Date & Time Received _____

Application #s _____

Please note: Applications received after 3 PM will be processed the next business day.

PROJECT.

Name/Description: **Jackson Hole Classical Academy**
Physical Address: **2500 South Park Loop Road**
Lot, Subdivision: **Lot 3, Sec.7, Twp. 40, RnG 116, Parcel A** PIDN: **01-004551**

PROPERTY OWNER.

Name: **Lucas, Roderick P. & Joyce I. Family LTD** *PARTNERSHIP* Phone: **733-3498**
Mailing Address: **P.O. Box 1804, Jackson, WY 83001** ZIP: _____
E-mail: _____

APPLICANT/AGENT.

Name: **Bergmann, Richard Blasey** Phone: **517.272.9835**
Mailing Address: **7050 W Saginaw Hwy, Lansing MI** ZIP: **48917**
E-mail: **rblasey@bergmannpc.com**

DESIGNATED PRIMARY CONTACT.

Property Owner Applicant/Agent

TYPE OF APPLICATION. Please check all that apply; review the type of application at www.townofjackson.com/200/Planning

Use Permit	Physical Development	Interpretations
<input type="checkbox"/> Basic Use	<input type="checkbox"/> Sketch Plan	<input type="checkbox"/> Formal Interpretation
<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Development Plan	<input type="checkbox"/> Zoning Compliance Verification
<input type="checkbox"/> Special Use	<input type="checkbox"/> Design Review	Amendments to the LDRs
Relief from the LDRs	Subdivision/Development Option	<input type="checkbox"/> LDR Text Amendment
<input type="checkbox"/> Administrative Adjustment	<input type="checkbox"/> Subdivision Plat	<input type="checkbox"/> Map Amendment
<input type="checkbox"/> Variance	<input type="checkbox"/> Boundary Adjustment (replat)	Miscellaneous
<input type="checkbox"/> Beneficial Use Determination	<input type="checkbox"/> Boundary Adjustment (no plat)	<input checked="" type="checkbox"/> Utility Connections
<input type="checkbox"/> Appeal of an Admin. Decision	<input type="checkbox"/> Development Option Plan	<input type="checkbox"/> Environmental Analysis

PRE-SUBMITTAL STEPS. To see if pre-submittal steps apply to you, go to www.townofjackson.com/200/Planning and select the relevant application type for requirements. Please submit all required pre-submittal steps with application.

Pre-application Conference #: _____ Environmental Analysis #: _____

Original Permit #: _____ Date of Neighborhood Meeting: _____

SUBMITTAL REQUIREMENTS. Please ensure all submittal requirements are included. The Planning Department will not hold or process incomplete applications. Partial or incomplete applications will be returned to the applicant. Go to www.townofjackson.com/200/Planning and select the relevant application type for submittal requirements.

Have you attached the following?

Application Fee. Fees are cumulative. Go to www.townofjackson.com/200/Planning and select the relevant application type for the fees.

Notarized Letter of Authorization. A notarized letter of consent from the landowner is required if the applicant is not the owner, or if an agent is applying on behalf of the landowner. Please see the Letter of Authorization template at www.townofjackson.com/DocumentCenter/View/102/Town-Fee-Schedule-PDF.

Response to Submittal Requirements. The submittal requirements can be found on the TOJ website for the specific application. If a pre-application conference is required, the submittal requirements will be provided to applicant at the conference. The submittal requirements are at www.townofjackson.com/200/Planning under the relevant application type.

Note: Information provided by the applicant or other review agencies during the planning process may identify other requirements that were not evident at the time of application submittal or a Pre-Application Conference, if held. Staff may request additional materials during review as needed to determine compliance with the LDRs.

Under penalty of perjury, I hereby certify that I have read this application and associated checklists and state that, to the best of my knowledge, all information submitted in this request is true and correct. I agree to comply with all county and state laws relating to the subject matter of this application, and hereby authorize representatives of Teton County to enter upon the above-mentioned property during normal business hours, after making a reasonable effort to contact the owner/applicant prior to entering.

Lee S. Lucas
Signature of Property Owner or Authorized Applicant/Agent

3-26-19

Date

Lee S. Lucas
Name Printed

Pres. of General Partner
Title

of the Roderick P. & Joyce I. Lucas Family
Limited Partnership

Lee Lucas
Planning Permit Application

Jackson Hole Classical Academy – Utility Connections

The proposed project is to construct a non-profit private school at 2500 South Park Loop Road in Teton County, Wyoming.

Jackson Hole Classical Academy (JHCA) has served families in the area since 2011. During this time, enrollment has grown to over 100 students, and 612 student-years of instruction have been provided. Anticipating future enrollment growth, the school plans to build a new facility on land adjacent to the site of Jackson Hole's first-ever school, built in 1896. The selling family, fifth-generation ranchers, are pleased to see the property restored to its historic use.

The proposed new JHCA campus will be built to accommodate a total of 265 students and 40 faculty members. A performing arts auditorium, a potential future addition to the school, is included in the proposal to assure adequate utility capacity. The water and sewer demand for the campus have been calculated based upon the peak demands of the proposed occupancies. Water will be provided using an 8-inch tap of the existing 12-inch water main that runs along the west side of South Park Loop Road. The sewer will be provided using an on-site private gravity system that feeds to a private lift station that ultimately discharges into the existing 6-inch force main located along the west site of South Park Loop Road. Additional information on the proposed systems have been included with this application.

Division 7.7, Required Utilities, in the Teton County Land Development Regulations, requires that an applicant connect to sanitary sewer and provide adequate connections if a public sewer system is located within 500 feet of the subject property. The proposed school is within 500 feet of an existing 6-inch force main and an existing 12-inch water main.

For: Brian Lenz
Town of Jackson - Public Works

Date: March 29th, 2019

Jackson Hole Classical Academy (JHCA) is proposing to install a new 8" waterline to provide domestic and fire flow to the entire school campus. The proposed waterline will be installed, operated, and maintained by the school as the line is proposed to be private. The waterline will be built to Town of Jackson standards. The proposed 8-inch line will be connected to the existing 12-inch line that runs parallel along the west side of South Park Loop Road within the right of way. The proposed connection is approximately 400 feet north of the existing 3 Creeks Drive.

As part of the design, Bergmann worked with Jorgenson Associates to model the existing system to determine the size of the proposed connection. Jorgenson used their existing model of the Town of Jackson's water system as well as updating nearby hydrant flows with field tested data. The result of the report has been included with this submission of your review. Based on the proposed water demands and the capacity of the existing system, it was determined that an 8-inch water main connection is sufficient to meet the required demands.

A brief description of the design criteria is listed below:

Existing Conditions

- 12inch water main on west side of South Park Loop Road
- Hydrant flow tests from 09/06/18
 - FH#1: Cottonwood 94 psi
 - FH#2: Red House 98 psi
 - FH#3: 3C Main 3-221 106 psi
 - FH#4 3C Main 3-187 112 psi
 - FH#5 3C Main 3-188 114 psi
- The model static pressure at the JHCA connection point was 94.4 psi.

Proposed Conditions (JHCA)

1. One 8-inch water connection
2. Internal loop around the campus for fire protection
3. One-meter location with the meter located in a meter pit.
4. Fire hydrant locations spaced accordingly to provide appropriate fire protection
5. Proposed Water Demands:
 - Average domestic water flow: 20 GPM
 - Maximum domestic flow: 9360 GPD
 - Average day: 8 hours
 - Peak Domestic flow: 170 GPM (based on fixture count)
 - Fire Demand: 300 GPM

For: Brian Lenz
Town of Jackson - Public Works

Date: March 29th, 2019

Jackson Hole Classical Academy (JHCA) is proposing to install a new sewer lift station to provide sewer service to their proposed school located along South Park Loop Road across from 3 Creeks. The lift station will be a private system that is owned, maintained and operated by the school. The lift station will be designed to accommodate the full school buildout and operations. The final discharge of the JHCA lift station will connect to the existing 6" force main that serves the 3 Creeks development on the west side of South Park Loop Road which, in turn, discharges to the existing 8-inch gravity sanitary sewer near Cottonwood Park (please refer to the attached Exhibit drawing describing an overview of the system). A similar connection to a water main will be made with the appropriate back flow connections on both the JHCA line and the 3 Creeks line.

The JHCA sanitary sewer system design meets all the Wyoming Department of Environmental Quality design standards. Because of the anticipated disparity in hours of operation and peak flows, the proposed JHCA sanitary system design will operate in *coordination* with the existing 3 Creeks lift station to ensure that velocities within the proposed and existing force mains will be between 2.5 and 5 feet per second, and that the capacity of the downstream sanitary sewer will not be compromised.

Conversely, the proposed JHCA lift station could be designed to operate independently from the 3 Creeks lift station, but this would theoretically result in a significant decrease in the proposed JHCA pump cycle time and would increase the opportunity to create stagnant wastewater.

A brief description of the design criteria is listed below:

Existing Conditions

- Existing 3 Creeks Lift Station Pumps are duplex 40hp pumps that operate in series and are capable of delivering the following:
 - Flow Rate: 320 GPM
 - Total Dynamic Head: 145 feet
- Existing Force Main Size: 6 inch CL150 C900 PVC
- Existing Force Main Length: 10,800 feet
- Downstream Discharge to: 8-inch sanitary sewer in Cottonwood Park
 - Existing Rim Elevation: Approximately 6111.50
 - Existing Invert Elevation: Approximately 6107.50



Proposed Conditions (JHCA)

1. Sewer Demand (see attached worksheet)
 - Average domestic sanitary sewer flow: 9360 GPD
 - Average day: 8 hours
 - Peaking factor: 4
 - Peak Sanitary flow: 80 GPM
2. Sewer Lift Station Design (see attached worksheet)
 - 6 foot diameter manhole wet well
 - Force main size: 3 inches (3.63 ft/s)
 - Force Main Length: 500 feet
 - Downstream Discharge to: Existing 6-inch Force Main
 - i. Existing Invert Elevation: Approximately: 6077.50
 - ii. Remaining 6" Force Main to travel: 6,100 feet
 - Static head: 43 feet
 - FM head Loss Lift station to connection: 10 feet
 - FM head Loss Connection to Man Hole: 4 feet
 - *Total Head loss: (43+10+4=57 feet)*
 - *Potential pump size: 3 hp (See Attached pump curve)*
 - *Proposed lift station will include:*
 - i. *Duplex pumps operating in series*
 - ii. *Capable of delivering 80 gpm at 60 feet Total Dynamic Head*
 - iii. *Wetwell capacity of 423 gallons*
 - 1. *Reserve capacity of 212 gallons*
 - iv. *Anticipated pump cycle time:*
 - 1. *Run for 1.51 minutes*
 - 2. *On every 5.3 minutes*

Project Name: Jackson Hole Classical Academy

Project Number: 12260.01

Date: 3/29/2019

Designed: RFB

Checked: PAF

Type of Facility	Flow Rate Per	Flow Rate Per	Persons	Units	Gal./Day
	Person	Unit (gal./day)			
Schools (Per Student)					
Day, w/ gym, cafeteria and showers	15		375	0	5625
ARU's					
2 Bedroom Teacher Housing		280	0	6	1680
3 Bedroom Head Master Residence		390	0	2	780
Auditorium					
Per seat	3		425	0	1275

Proposed Sewer Diameter (in) 8
Sewer Slope (%) 0.4Capacity = 0.76 CFS
341 GPM

Capacity 341 > Flow 80 okay

Velocity Flowing Full 2.18 CFS

Req Velocity 2.00 < Proposed Velocity 2.18 okay

Average Domestic Water Demand/Sanitary Sewer Flow 9360 GPD Based on 0% Water Savings

Average Domestic Water Demand/Sanitary Sewer Flow 20 GPM Based on 8 hr day

Peak Domestic Water Demand 80 GPM Based on 4 Peaking Factor

Peak Sanitary Sewer Flow 80 GPM Based on 4 Peaking Factor



DRAWING TITLE:

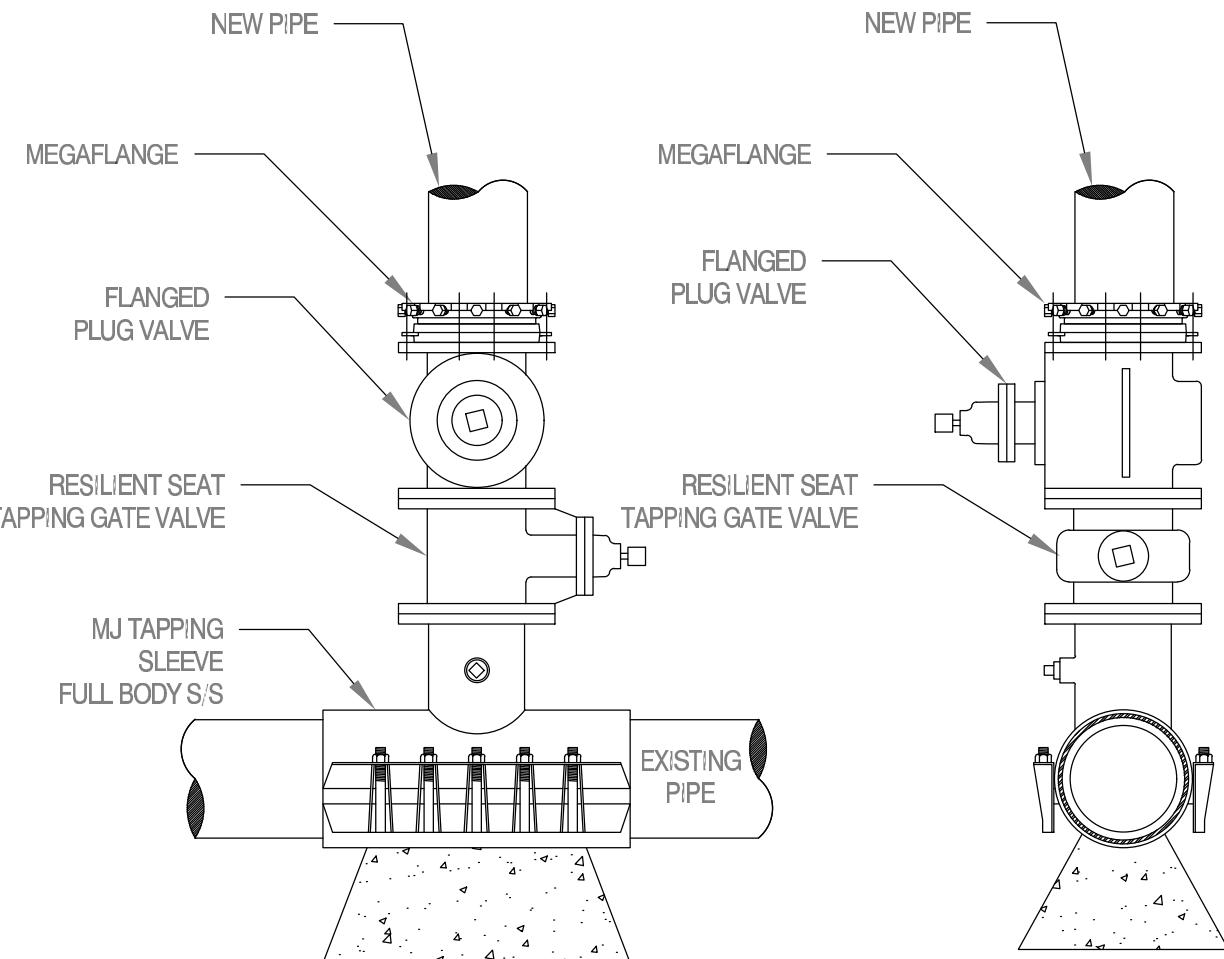
FORCE MAIN CONNECTION DETAILS

BY:
R.BLASEY

CHK'D BY:
P.FURTAW

DATE:
03/29/2019

SCALE:
1"=1'



PLAN

SECTION



DRAWING TITLE:

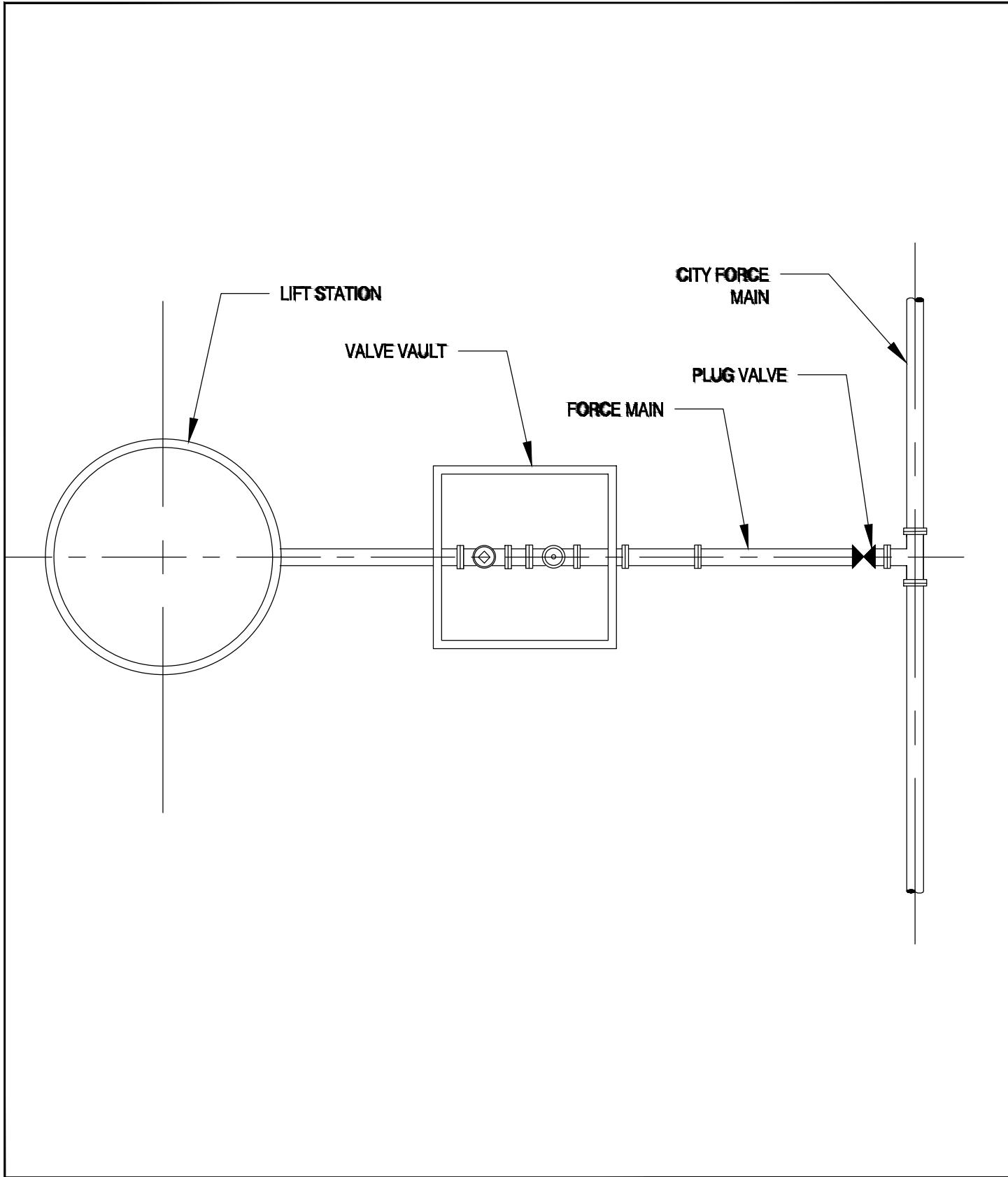
FORCE MAIN CONNECTION DETAILS

BY:
R.BLASEY

CHK'D BY:
P.FURTAW

DATE:
03/29/2019

SCALE:
1"=1'



Jackson Hole Classical Academy

draft WATER MODEL STUDY

JA Project No. 17047.10 BY: AJ

Date: 09/06/2018

WATER SYSTEM STATIC PRESSURE			
Location	Water Model Node	Field Static Pressure (psi)	Model Static Pressure (psi)
FH#1 Cottonwood	J-300	94.0	83.8
FH#2 Red House 3-186	J-405	98.0	89.0
FH#3 3C Main 3-221	J-404	106.0	94.2
FH#4 3C Maint 3-187	J-403	112.0	101.1
FH#5 3C South 3-188	J-406	114.0	105.5
JHCA Connection	J-501	N/A	94.4

Note:

Field Measurements taken 2 pm 8/24/2018

WATER SYSTEM SCENARIO #1 - 8" Main		
Demand (gpm)	TOJ MDD Pressure (psi)	Auto Fire Flow Pressure (psi)
0	94.4	88.4
650	75.7	65.8
1000	60.2	50.7
1500	38.2	31.5
2000	16.0	7.0

Note:

Based on 8" Main Connection at South Park Loop Road

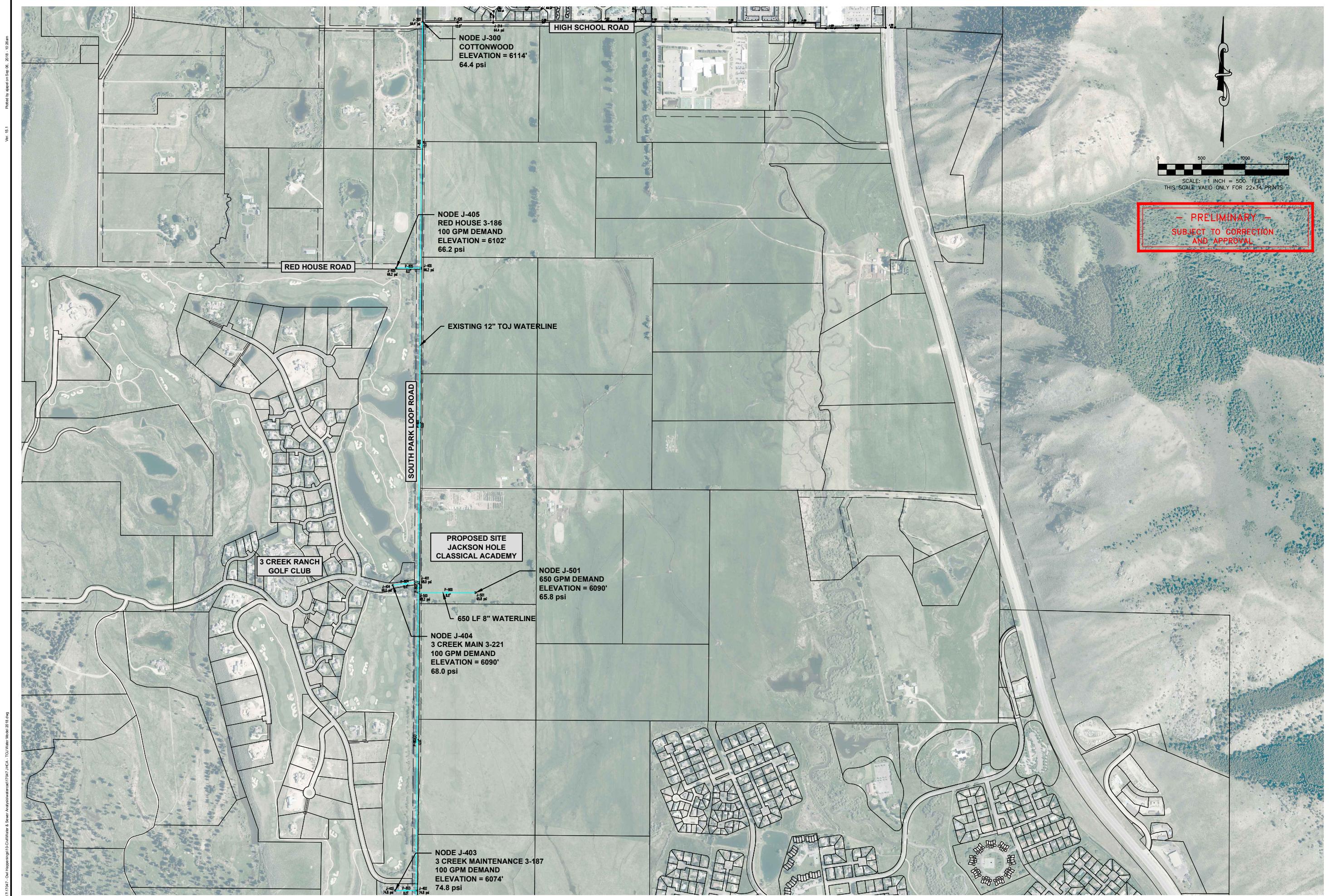
Additional demand modeled at Node J-501 (650' from connection point)

WATER SYSTEM SCENARIO #2 - 10" Main		
Demand (gpm)	TOJ MDD Pressure (psi)	Auto Fire Flow Pressure (psi)
0	94.4	88.4
650	77.3	67.4
1000	63.6	54.1
1500	45.9	38.8
2000	28.4	19.4

Note:

Based on 10" Main Connection at South Park Loop Road

Additional demand modeled at Node J-501 (650' from connection point)



PROJECT TITLE:
JACKSON HOLE CLASSICAL ACADEMY
2500 SOUTH PARK LOOP ROAD
LOT 3, SECTION 7, T40N, R116W, 6th PM
TETON COUNTY, WYOMING

SHEET TITLE:
WATER MODEL EXHIBIT

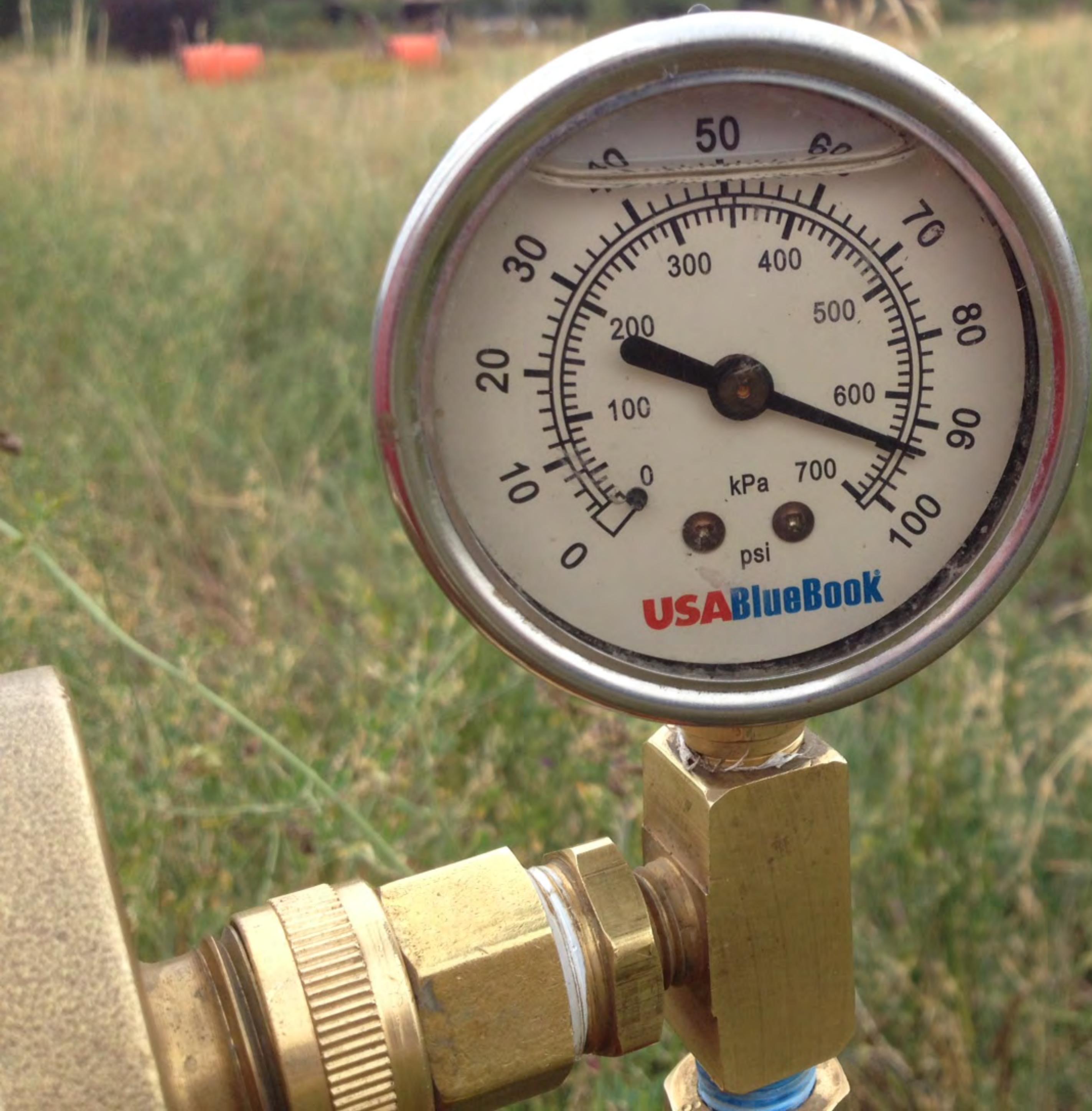
DRAFTED BY: AJ
REVIEWED BY: TK
PLAN VERSION DATE
Model Exhibit 08/27/2018

PROJECT NUMBER
16101.00

SHEET
1 of 1



Jackson Hole
Classical Academy



USABlueBook



3-186

BUCK

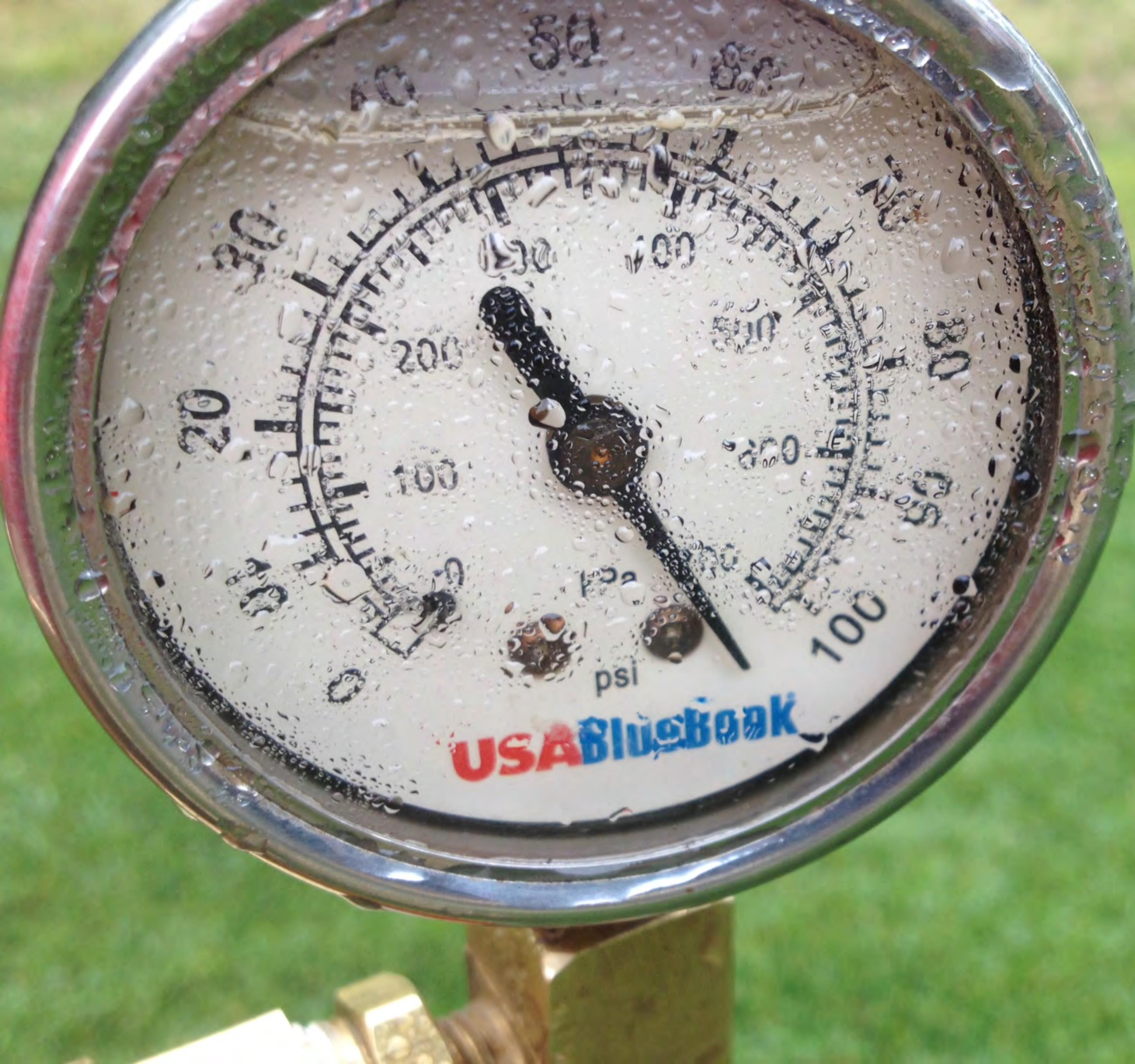
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USA

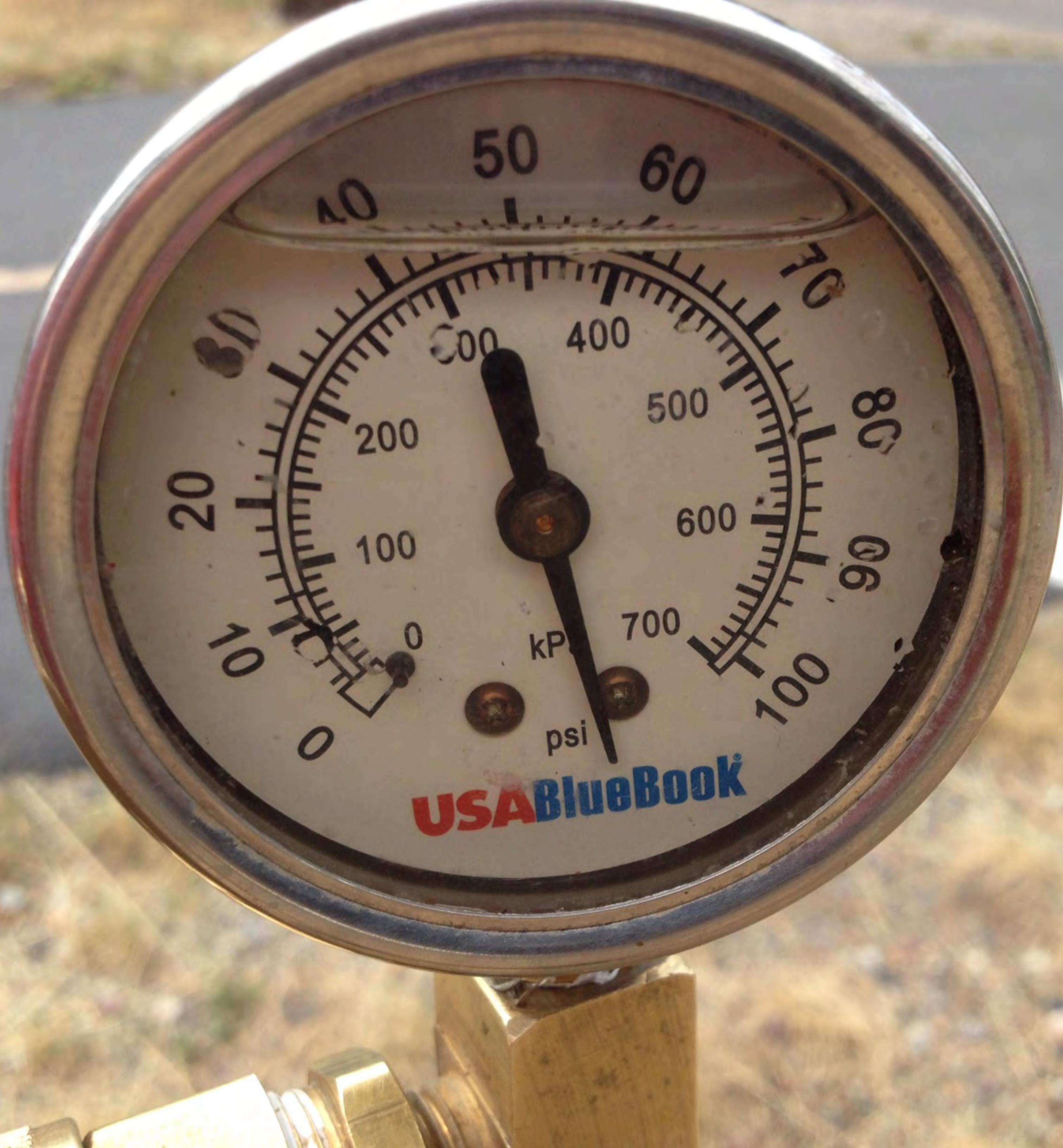


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