Price Park Tank Sizing and Conceptual Design Study

City of Longmont, Colorado

Price Park Tank Study
Project No. 121465

4/8/2020

Price Park Tank Sizing and Conceptual Design Study

prepared for

City of Longmont, Colorado
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4/8/2020

prepared by

Burns & McDonnell Engineering Company, Inc.
Centennial, Colorado

INDEX AND CERTIFICATION

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Certification

I hereby certify, as a Professional Engineer in the state of Colorado, that the information in this document was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse by the City of Longmont, Colorado or others without specific verification or adaptation by the Engineer.

Nikole Rachelson P.E., CO 47887

Date: 4/8/2020

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LIST OF ABBREVIATIONS

Abbreviation	Term/Phrase/Name
ADD	Average Day Demands
AWWA	American Water Works Association
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
CDPHE	Colorado Department of Public Health and Environment
City	City of Longmont
CY	Cubic Yards
gpm	Gallons Per Minute
hp	Horsepower
HVAC	Heating, Ventilation, and Air Conditioning
IFC	International Fire Code
ITWSMP	Integrated Treated Water Supply Master Plan
MDD	Maximum Day Demands
MG	Million Gallon
MGD	Million Gallon Per Day
NPSH	Net Positive Suction Head
PVC	Polyvinylchloride
PRV	Pressure Reducing/Regulating Valve
SCADA	Supervisory Control and Data Acquisition

1.0 EXECUTIVE SUMMARY

The City of Longmont's (City) Integrated Treated Water Supply Master Plan (ITWSMP) recommends replacing the existing Price Park reservoirs. There are two covered reservoirs located on the Price Park site, one with a 2 million gallon (MG) capacity, originally constructed in 1955, and 7 MG capacity, originally constructed in 1922. The 2 MG reservoir has been taken out of service due to aging infrastructure concerns, but the 7 MG remains in service. The 7 MG reservoir is operated in a fill and draw scheme, accepting water from transmission lines fed by the Nelson-Flanders Water Treatment Plant, and discharging water to Zone 1. The piping layout in the 7 MG reservoir causes issues with water quality and chlorine residual. Additionally, the influent pipe does not meet Colorado Department of Public Health and Environment (CDPHE) standards for potable water lines, as it does not remain pressurized on site.

Due to aging infrastructure and water quality concerns, the 7 MG reservoir will need to be replaced. The site also contains additional structures including, power and communication equipment, an unused water storage tower, two pump stations, and a valve house. The yard piping on the Price Park site is an amalgam of piping, valves, and vaults from years of alterations to the site. There are several abandoned pipes with their associated valves, vaults, and meters located throughout the site.

Burns & McDonnell Engineering (Burns & McDonnell) completed an assessment of the Price Park site in 2017, recommending the construction of a new 5 MG concrete tank, as well as a pump station for emergency use, Zone 1 pressure reducing valve (PRV), and simplified yard piping connections. This complete assessment can be referenced in Appendix A.

Recent City evaluation of the ITWSMP revealed the need for additional potable water storage to accommodate emergency scenarios at current demands. The City identified two potential tank sizes that would help meet their emergency storage needs. The City requested that Burns & McDonnell evaluate an alternative design that would increase the storage tank size at Price Park to 8 MG. This expanded evaluation includes the original proposed pump station from the 2017 study; however the pump station has been upgraded from an emergency pump station to one that will operate daily as well as meet emergency demands. The purpose of this technical memorandum is to summarize the two tank size alternatives analysis and provide recommendations and cost estimates for both alternatives, including the pump station, piping, and other associated site work.

Both designs generally include the following at the Price Park site: construction of a new pre-stressed American Water Works Association (AWWA) D110 Type 3 (pre-stressed) concrete tank, as well as a 12 million gallon per day (MGD) pump station, several PRVs, and yard piping modifications to simplify

connections while maintaining functionality. The alternatives evaluated in this study were a 5 MG tank or an 8 MG tank. Table 1-1 below shows a cost comparison for the two alternatives, including total cost of ownership over 60 years.

Table 1-1: Net Present Worth of Alternatives

Alternative	Capital Cost(1)	Maintenance Cost over 60 Years	Net Present Worth (60 yrs) (2)	Total Cost of Ownership (60 yrs)
5 MG Tank	$21,900,000	$4,900,000	$26,800,000	$28,900,000
8 MG Tank	$24,900,000	$6,000,000	$30,900,000	$33,600,000

(1) – Includes total project costs
(2) – Based on 2% inflation rate and 1% discount

Although a 5 MG tank replacement project is identified in the City's current Master Plan, this tank volume does not allow the City to adequately respond to the defining emergency scenario as discussed in Section 2. To provide the City with the robustness and flexibility within their system to meet current, future, and emergency demands, Burns & McDonnell recommends the 8 MG tank size alternative for the Price Park replacement project.

2.0 INTRODUCTION

The City of Longmont's (City) is in need of replacing a reservoir in their distribution system, as delineated in the Integrated Treated Water Supply Master Plan (ITWSMP). There are two covered reservoirs located on the Price Park site, one with a 2 million gallon (MG) capacity, originally constructed in 1955, and 7 MG capacity, originally constructed in 1922. The 2 MG reservoir has been taken out of service due to aging infrastructure concerns, but the 7 MG remains in service.

The Price Park reservoirs are planned for replacement due to aging infrastructure, operation and maintenance costs, public employee safety concerns, and water quality concerns. The site also contains additional structures, including power and communication equipment, an unused water storage tower, two pump stations, and a valve house. The yard piping on the Price Park site is an amalgam of piping, valves, and vaults from years of alterations to the site. There are several abandoned pipes with their associated valves, vaults, and meters located throughout the site.

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2.1 Price Park Site Background

The Price Park Reservoir site is located near the Sunset Swimming Pool, on the northwest corner of Sunset Street and Longs Peak Avenue in the City of Longmont, Colorado. Adjacent to the site are established residential neighborhoods, Price Park, Sunset Golf Course, and as mentioned above, the Sunset Swimming Pool. The site is the highest point in the City east of Hover Street, making it a desirable location for water storage. The City has used the Price Park location, originally called Reservoir Hill, for water storage since 1882. As shown in Figure 2-1, the site contains the following structures:

- One 7 MG reservoir currently in service
- One 2 MG reservoir currently out of service
- Power and communication equipment
- An unused water storage tower repurposed as a communication tower
- Out of service pump station
- A valve house

The existing 2 MG reservoir was constructed in 1955 and was taken out of service in 1990 because the condition of the reservoir made it unusable. The original 7 MG reservoir was constructed in 1922, and has undergone major construction projects in 1974, 1987, 1990, and 2007. The current 7 MG reservoir is lined and covered. The reservoir is operated in a fill and draw scheme, accepting water from transmission lines fed by the Nelson-Flanders Water Treatment Plant, and discharging water to Zone 1. The current inlet and outlet piping are located in close proximity to one another within the reservoir, causing water to short-circuit within the reservoir. This piping layout in the 7 MG reservoir causes issues with water quality and chlorine residual. Additionally, the influent pipe does not meet Colorado Department of Public Health and Environment (CDPHE) standards for potable water pressure lines, as it does not remain pressurized on site.

The yard piping on the Price Park site is an amalgam of piping, valves, and vaults from years of alterations of the site (Figure 2-1). As discussed above, two transmission lines enter the site from the north, passing through one of two PRVs, and fill the 7 MG reservoir. The pipe serving Zone 1 exits the site on the west. Zone 3 piping crosses the site from the west to the east, splitting and feeding Zone 3 in five different locations. Additionally, Zone 3 passes through a PRV and feeds Zone 2, which also splits and feeds Zone 2 in two different locations on the east side of the site. There are several abandoned pipes with their associated valves, vaults, and meters located throughout the site.

EAST SIDE OF TANKS

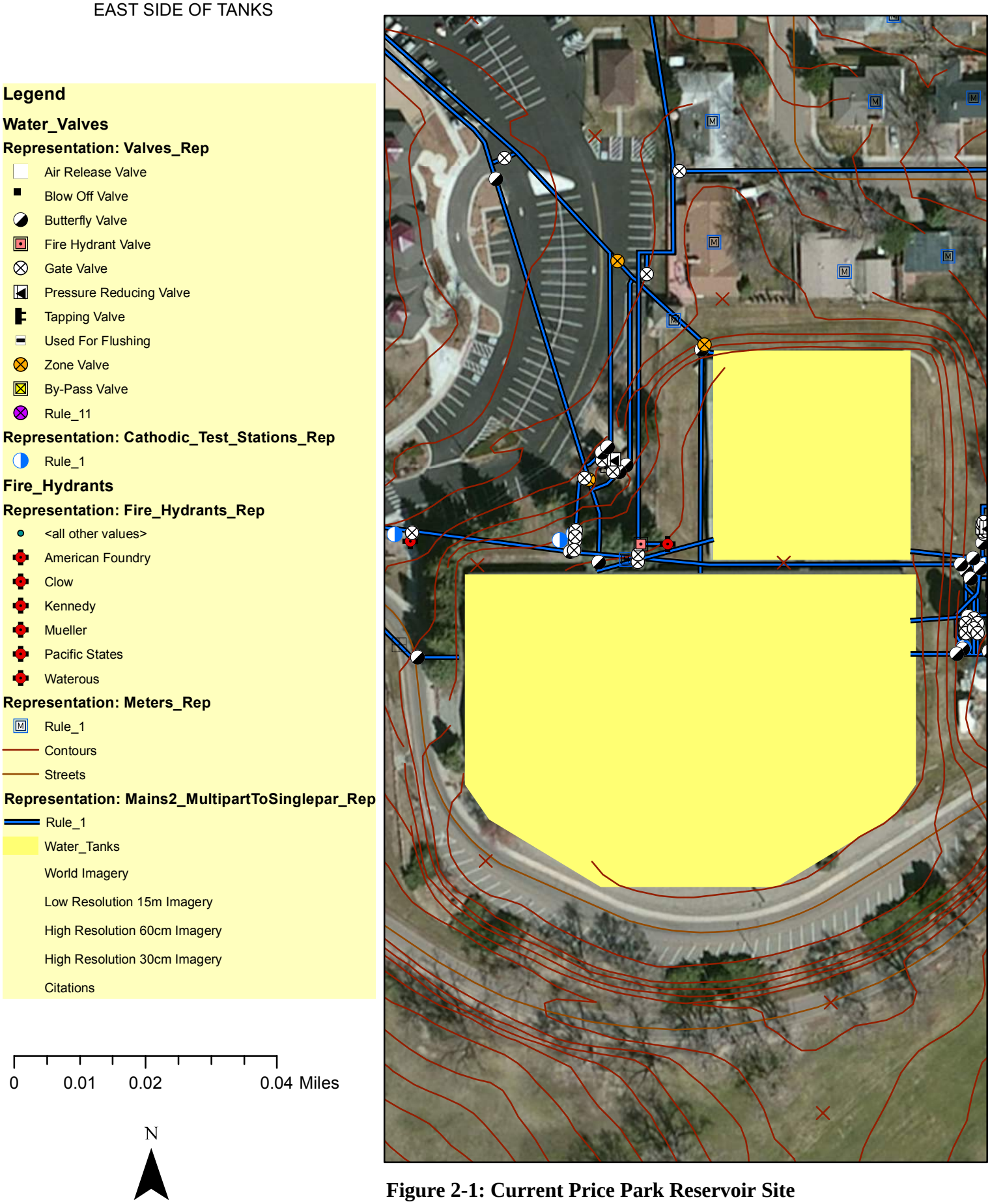


Figure 2-1: Current Price Park Reservoir Site

3.0 MASTER PLAN STORAGE REQUIREMENTS

The City's ITWSMP considered three primary functions when evaluating the adequacy of existing and planned potable water storage facilities: equalization storage, fire flow storage, and emergency storage. The City determined that it is in need of additional storage primarily for emergency storage. This additional storage would also maintain a better storage to demand ratio for future demands. A single firefighting event requires a smaller storage volume.

3.1 Equalization Storage

Equalization storage provides flow equalization between water treatment plant production and water distribution system demand. The distribution system has a diurnal demand pattern with system demands peaking in the morning and evening due to indoor household use and outdoor watering. The most efficient overall system operation allows treatment plant production and pumping facilities to run at a steady rate and relies on the drawdown of storage tanks to make up for temporary deficits between the system demand and the steady supply rate. The reservoirs are then refilled when the demand falls below the supply rate during the midday.

The ITWSMP analysis of the diurnal pattern and storage use for 2011 indicated that approximately 30% of the average day demand (ADD), 4 million gallons for current demands, and 8 million gallons for "buildout" demands, was needed for equalization storage. A City staff review of 2019 storage use shows a similar percentage. The ITWSMP noted that the current storage volume to ADD is slightly below the average of other front-range communities; but, would be reduced to the lower end of the range based on the master plan's recommended storage for emergency storage and future demand projections.

3.2 Fire Storage

Fire flow storage is required to ensure adequate water supply is available to meet fire flow requirements based on the adopted International Fire Code (IFC). The largest single firefighting service required within the City is currently estimated to be 3,500 gallons per minute (gpm) for a duration of four hours which results in a required fire flow volume of 0.84 million gallons.

3.3 Emergency Storage Scenario

In order to evaluate the additional emergency storage required, the City refined the risk analysis in the ITWSMP that identified the capital projects required to continue water service during current and future emergency scenario demands. The master plan evaluated a series of emergency scenarios for storage requirements from a water balance perspective. The analysis concluded that the failure of the 54-inch

transmission line along Highway 66, "Line C", was the critical emergency scenario in the water distribution system. In the revised analysis for this study, the key assumptions are:

- Only one emergency occurs at one time (i.e., no multi-system emergencies at one time).
- Nelson-Flanders WTP is the sole source of City treated water supply.
- Failure occurs in afternoon before peak evening water demands.
- Emergency is declared and water restrictions are issued within several hours.
- Customers reduce water demand from maximum day demands (MDD) to ADD within 1 day.
- Demand pattern and storage are based on current patterns and scaled to the projected demand.
- Difference between summer and winter demand patterns represents outdoor water usage that is reduced by restrictions.
- Interconnections are activated within two day shifts.
- Analysis calculates the minimum storage over 7 day period.

The first portion of the analysis revealed that existing conditions result in a depletion of water storage in less than 15 hours of the "Line C" emergency occurring, as shown in Figure 3-1.

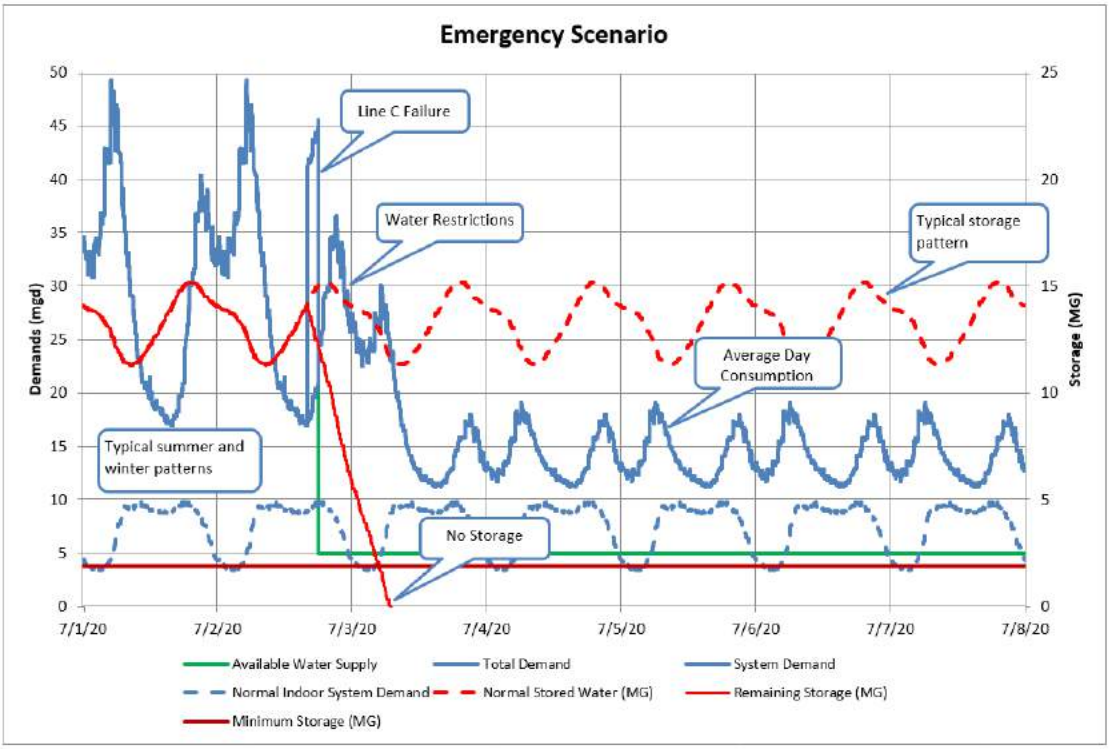


Figure 3-1. Emergency Scenario Modeling For Existing Conditions

For the second portion of the analysis, the City identified the capital projects required to maintain minimum storage during the "Line C" emergency scenario. Generally, the City identified that the four interconnections that are currently under construction, a larger Price Park tank replacement project with a pump station allowed minimum storage to be maintained, as shown in Figure 3-2.

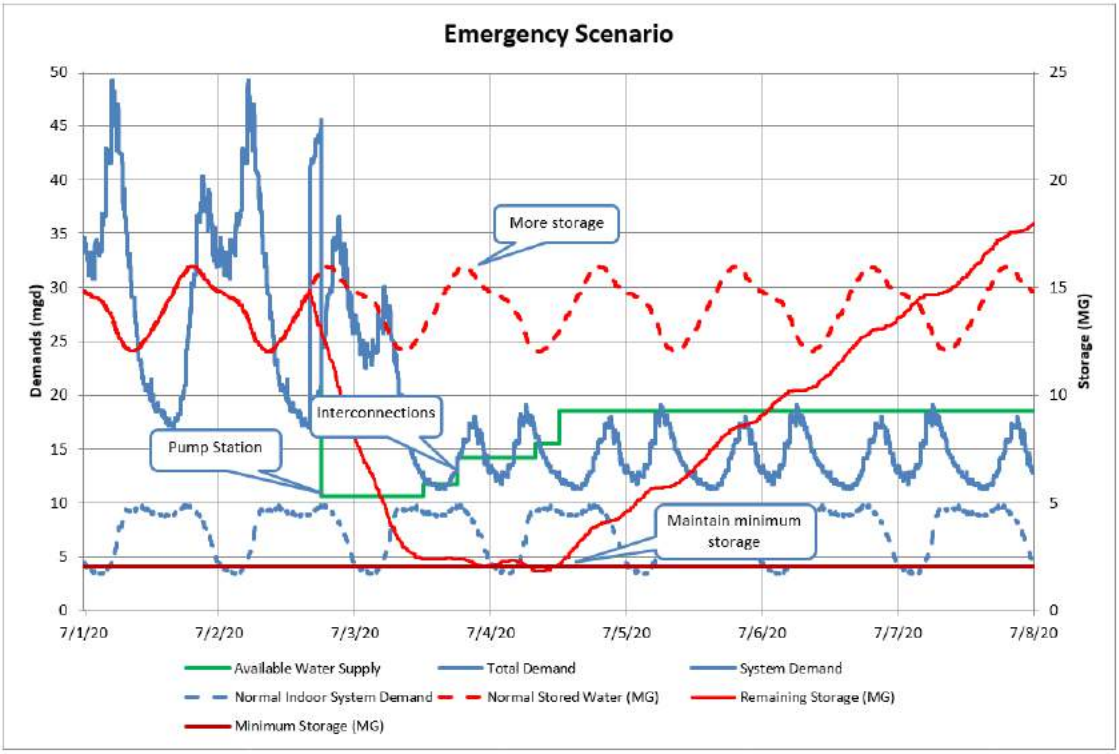


Figure 3-2. Emergency Scenario Modeling With Additional Capital Projects

The City's analysis concluded with the following recommended capital improvement projects to address current demand storage concerns from the ITWSMP.

- Interconnections with Left Hand Water District (outside the scope of this study)
  - 4 locations with a combined capacity of 8 MGD
- Price Park Tank Replacement (within the scope of this study)
  - Increase 5 MG tank to an 8 MG Tank
- 12 MGD Price Park Pump Station (within the scope of this study)
  - To deliver water into Zone 3 and maintain water quality

The larger Price Park tank would also improve the storage to demand ratio for equalization storage. With the economies of scale, an estimated 18% increase in the construction cost would increase the storage volume by 60%.

For future demand projections, the Reference Forecast (projections based on historic water consumption rates) will require either the second 8 MG North Tank as identified in the ITWSMP or replacement of the 27" transmission line from the Montgomery Tank to the parallel 20" and 22" transmission lines with a 36" transmission line and a control vault to deliver into Zone 3. For the Reference Forecast plus Variable Assumptions (redevelopment, allowance for larger industrial water user, climate variability, etc.), both the second North Tank and the larger 42" transmission line are needed to allow minimum storage to be maintained.

Note that the field investigations for the Price Park tank project found that the leakage on the parallel 20" and 22" transmission lines that supply the Price Park site has increased from approximately 105,000 gallons per day as measured in 2009 to 145,000 gallons per day in 2020.

This study includes an evaluation of the 5 MG tank as recommended by the ITSWMP and the revised 8 MG tank alternatives for the Price Park site, as well as design criteria for the associated 12 MGD pump station.

4.0 PRICE PARK DESIGN BASIS

4.1 Site Work

Demolition recommended on the Price Park site includes the valve house, fill valve building, pump station, two (2) pressure regulating valve (PRV) vaults, multiple isolation valve vaults, and the 2 MG and 7 MG covered reservoirs, as shown in Figure 4-1. The existing reservoirs are buried and will therefore require extensive excavation and concrete demolition to be removed. Based on existing drawings and tank elevations, as well as proposed site grading, it is expected that approximately 19,200 cubic yards (CY) of excavation and 30,600 CY of backfill will be required to remove the reservoirs and re-grade the site around the new tank.

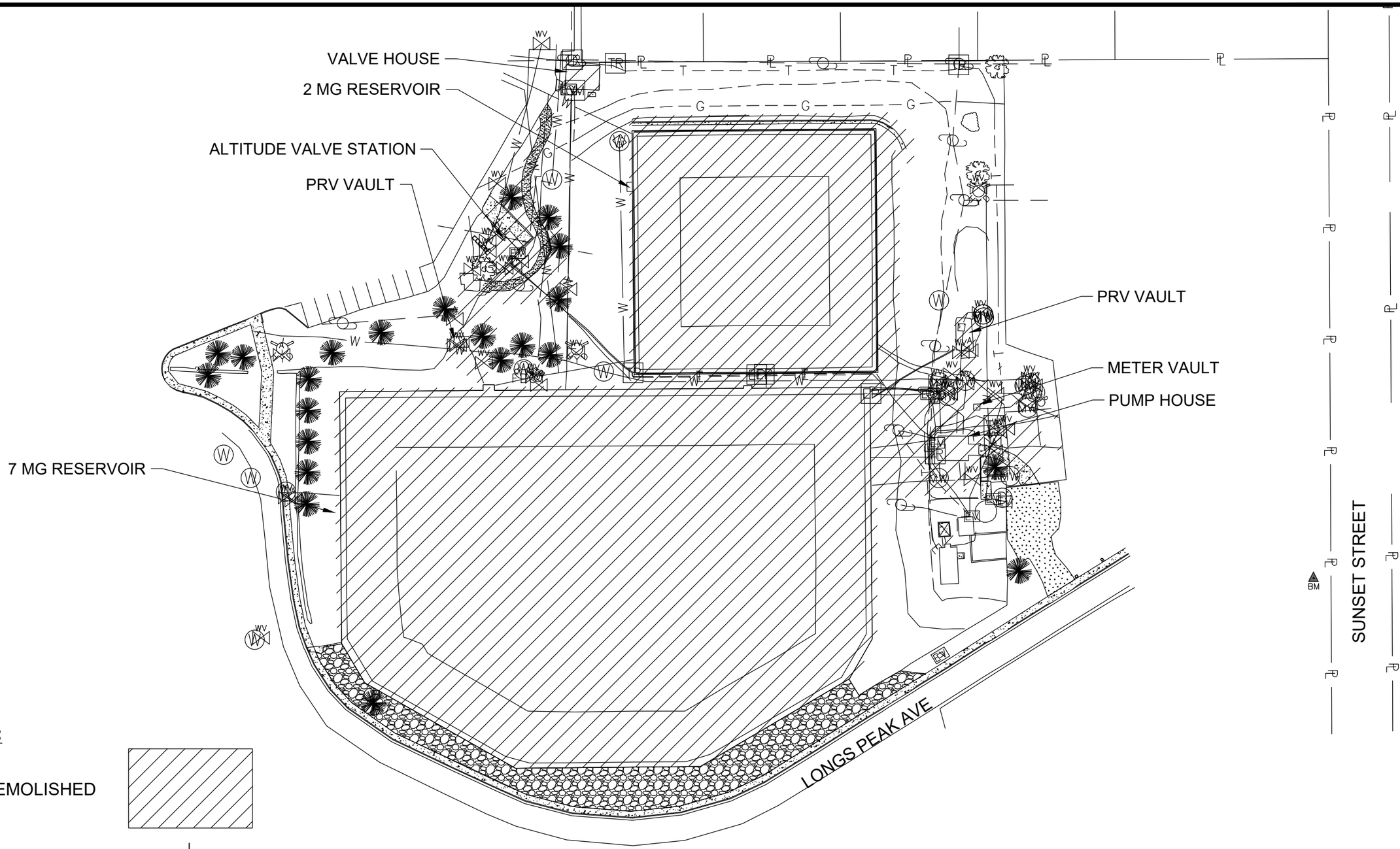
The following infrastructure will remain at the Price Park site as it is currently in use by Longmont Power and Communications: the water tower, generator building, and communication equipment on the southeast side of the site. The tower will be fenced off during construction and separate access will be maintained. Any yard piping, valves, and vaults that have been or will be abandoned will be removed if new piping is being installed in the immediate vicinity of the abandoned lines.

Proposed site work will allow for a more efficient and unified landscape with the adjacent pool and park, enhancing access and usability to public spaces. The site plan, as shown in Figure 4-2 with a 5 MG tank, also decreases the footprint of structure on the site. This allows for inclusion of low impact development infrastructure such as grassy swales and increases grassy surfaces, improving water infiltration on site. The proposed site plan moves the tank away from Longs Peak Avenue and neighboring residences and an ornamental fence will surround the site, improving safety and security for the water storage tank.

4.2 Tank Design

During the original site assessment in 2016, geotechnical borings and investigation for the site were provided. Based on the conditions discovered and the concerns for differential settlement, Burns & McDonnell recommended skin friction drilled piers for the foundation of the new tank. The 2017 study also included a tank type alternatives analysis, which recommended a post-tensioned concrete tank due to its relatively low comparative capital cost and comparatively lowest maintenance costs. Due to changes in the construction industry and market conditions, Burns & McDonnell no longer recommends this tank type for this project. Instead, Burns & McDonnell recommends a pre-stressed AWWA D110 Type 3 concrete tank. This tank type has many similar benefits to the originally recommended tank regarding costs; however this tank type is more readily available for construction in current market conditions.

After reviewing tank elevation options, it was determined that a tank floor elevation of 5089 feet provided the City with the most benefit, as shown in Figure 4-3. This tank height minimizing above grade structure height and doesn't require additional excavation from what is required for existing reservoir removal. This tank height also pressurizes the tank inlet line, increasing pressure in some service areas and increasing fire flows. The tank can be designed with either a domed roof or a flat roof, with a cost adder for the flat roof option. The tank architecture will be compatible with the surrounding properties. Piping associated with the tank includes an overflow pipe, a 12-inch tank drain, a tank mixing system interior to the tank itself, and a tank vent with a 24 mesh screen. The overflow will daylight outside of the tank, and the tank drain will tie into the existing tank drain line. Tank fill lines and valves will remain at the current 24-inch size.



LEGEND:

TO BE DEMOLISHED

0 65' 130'

SCALE IN FEET

NORTH

BURNS McDONNELL

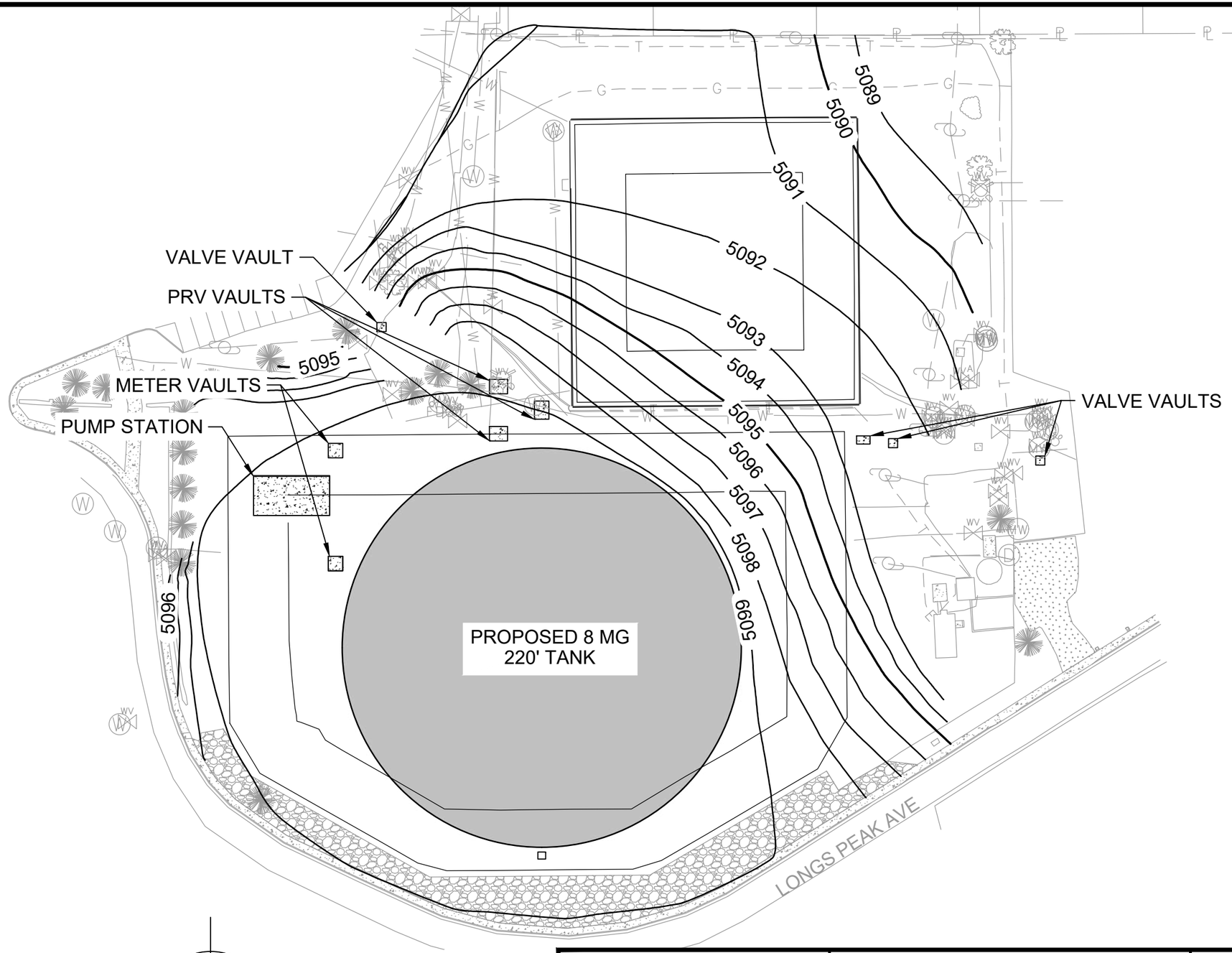
date: APRIL 2020

designed: N. RACHELSON

CITY OF LONGMONT COLORADO

project:
PRICE PARK TANK SIZING AND CONCEPTUAL DESIGN STUDY

drawing:
FIGURE 4-1



0 60' 120'
SCALE IN FEET

NORTH

BURNS McDONNELL

date: APRIL 2020

designed: N. RACHELSON

CITY OF LONGMONT COLORADO

project:
PRICE PARK TANK SIZING AND CONCEPTUAL DESIGN STUDY

drawing:
SITE PLAN
FIGURE 4-2

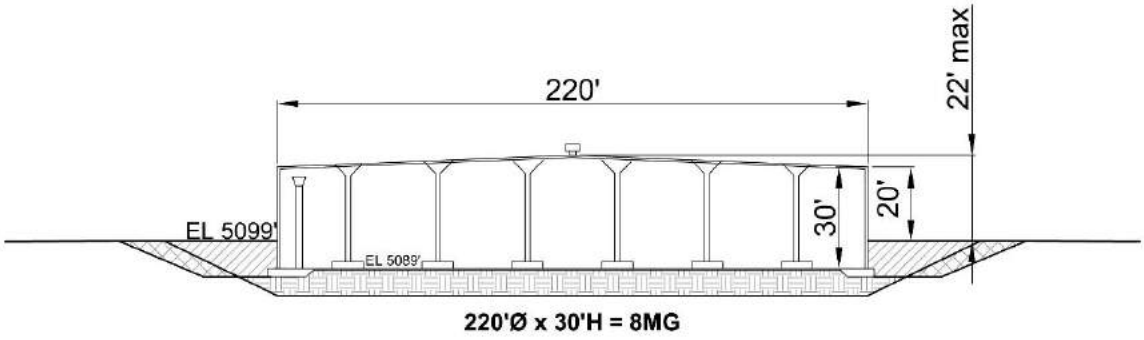


Figure 4-3: Comparison Of The Existing 7 MG Reservoir To The Proposed Elevations Of The New 5 MG Tank Alternative

4.2.1 Tank Sizing Alternatives

Two sizes were considered for the Price Park tank replacement. One alternative is to replace the existing 2 and 7 MG tanks with a 5 MG tank, as outlined in the City's ITWSMP. When the Price Park site was originally evaluated by the City, it was determined that replacing the entire 7 MG storage capacity of the existing reservoir wasn't necessary to meet current demands (equalization storage requirements) and that less volume would improve water quality in Zone 1 by lowering the storage to demand ratio at the Price Park site. The emergency scenario analysis placed additional storage at the North Tank site but did not evaluate the individual tank sites as presented in Section 3 of this report.

A 30-foot tall by 175-foot diameter 5 MG tank size would minimize additional excavation for the construction of a new tank but would require more imported material to backfill around the tank. For both alternatives, a 30-feet tall tank minimizes the tank footprint but increases the above grade structure height when compared to a 24-foot tall tank.

The second alternative for the Price Park tank replacement is to replace the existing 2 and 7 MG tanks with an 8 MG tank. An 8 MG tank would help meet the City's goal of having enough water storage to maintain a minimum storage during the emergency scenario discussed in Section 3 of this report, and would contribute to required storage for future equalization storage. This alternative assumes a 30-feet tall by 220-feet diameter tank, which would increase additional excavation for the construction of a new tank. However, this alternative would decrease the imported material to backfill around the tank and result in less construction truck traffic. To some degree, the additional excavation can be offset by stepped instead of sloped excavation walls.

Pump station sizing and yard piping sizing/configuration would remain the same for both alternatives. A summary of the major differences between these two tank sizes are listed below in Table 4-1.

Table 4-1: Tank Size Comparison

Characteristic	5 MG Tank	8 MG Tank
Diameter	175 feet	220 feet
Concrete Required (Slab, Piers, Etc.)	Less	More
Demands Met	Current Only	Current, Future, Current Emergency
Backfill Required	More	Less
Impermeable Surfaces	Less	More
Electrical Costs	Less (less pump runtime for water turnover)	More (more pump runtime for water turnover)

4.3 Pump Station

The 2017 study included a small packaged/pre-fabricated pump station that was intended to be operated in emergencies only without defining the emergency pumping needs. Preliminary sizing of pumps and/or design points (flow and head) for these pumps was not performed at that time. The City's analysis of the emergency scenario as discussed in Section 3.0 of this report has identified the need for a more robust pump station. The pump station included with this design is assumed to run on a daily basis for water turnover as well as to provide the full pumping capacity required to meet the demands of the emergency scenario.

Based on hydraulic modeling results from the City, it is anticipated that the pump station will operate from 1.8-2.5 MGD at current ADD and 3.5-5.0 MGD at current MDD. Current ADD flows are 13.74 MGD and current MDD flows are 28.12 MGD. Water will be pumped from Zone 1 to Zone 3 on a daily basis at a maximum flow of 7.3 MGD, while the full capacity of the pump station provides the recommended 12.1 MGD flow for the emergency scenario as described in Section 3.0 of this report. Daily operational hours will vary with the tank size selected, with the 8 MG tank being associated with a longer daily operational period for the pump station. Daily operation will maintain acceptable water quality in the tank by driving tank volume turnover.

Given the design conditions determined by the City during hydraulic modeling, preliminary pump sizes of 250 horsepower (hp) and 100 hp have been selected by Burns & McDonnell. Additionally, a bypass PRV is located in the proposed pump station that allows Zone 1 to be fed by Zone 3 and maintains flow in the transmission line to Zone 1. The PRV basis of design, as indicated by the City, is a model 106 8-inch Singer Valve. General pump design criteria are shown in Table 4-2, and pump operating conditions based on hydraulic modeling results are show in Table 4-3. A sketch of the pump station is shown in Figure 4-4. Elevations shown for pump centerline and pump station floor have been selected based on the following assumptions:

- Minimum Water Level In Tank (For Pump Control): 5092.00
- Net Positive Suction Head (NPSH) Required Based On Pump Selections: 12 Feet
- NPSH Available Based On Calcs: 26 feet
- Maximum Pump Centerline: 5090.00
- Grade Elevation: 5099.00
- Top of Pump Station: 1 Foot Above Grade

Table 4-2: Pump Design Criteria

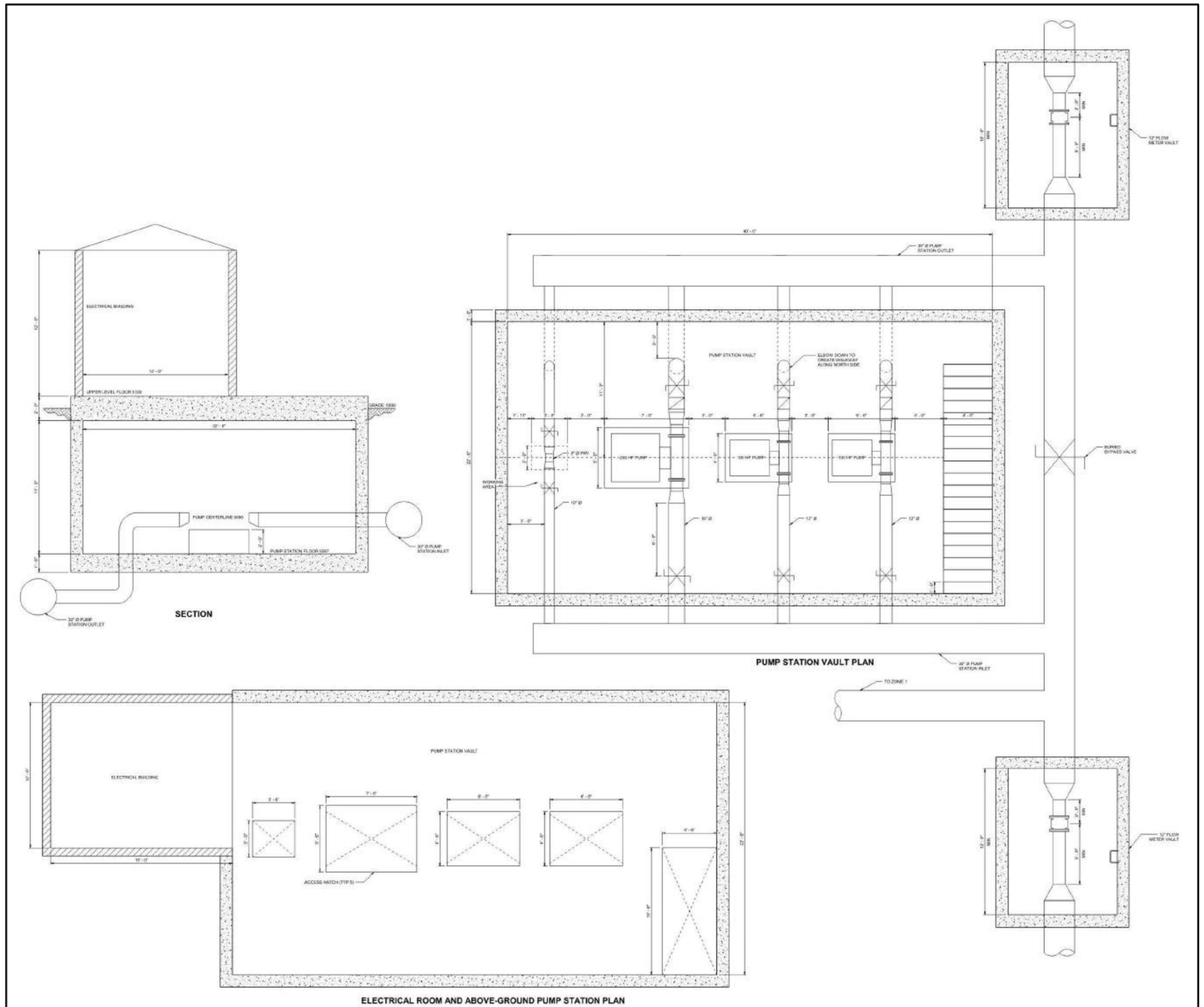
	Small Pumps	
	Flow (gpm / mgd)	Head (ft)
Design Point 1	2100 / 3.02	128
Design Point 2	1750 / 2.52	113
Design Point 3	1225 / 1.77	93
VFD	Yes	
HP	100	
No. of Pumps	2	
	Large Pump	
	Flow (gpm / mgd)	Head (ft)
Design Point 2	4200 / 6.04	129
Design Point 2	3500 / 5.04	117
Design Point 3	2450 / 3.54	93.5
VFD	Yes	
HP	250	
No. of Pumps	1	

Table 4-3: Pump Operational Conditions

	Small Pumps In Operation	**Large Pump In Operation**
Current ADD	1	0
Current MDD	2	0
	0	1
Current MDD Emergency	2	1
Buildout ADD	1	0
Buildout MDD	2	0
	0	1
Buildout MDD Emergency	2	1

A separate construction cost estimate for the pump station was developed and included in Appendix B. This cost estimate generally includes a vault-style pump station with a hatch, plus a stair arrangement for human access and hatches above all pumps and the PRV. The pump station is assumed to be cast-in-place

concrete with sloped floors to a sump. A sump pump and piping are provided, along with a unit heater. This design assumes that the meter is located in a separate vault outside of the pump station and is accounted for outside of the pump station cost estimate. The estimate also includes an above-ground masonry electrical building with associated heating, ventilation, and air conditioning (HVAC). The pump station could be constructed as a packaged/pre-fabricated pump station – this determination will be made during preliminary design.



BURNS McDONNELL

date: APRIL 2020

designed: N. RACHELSON

CITY OF LONGMONT COLORADO

project:
PRICE PARK TANK SIZING AND CONCEPTUAL DESIGN STUDY

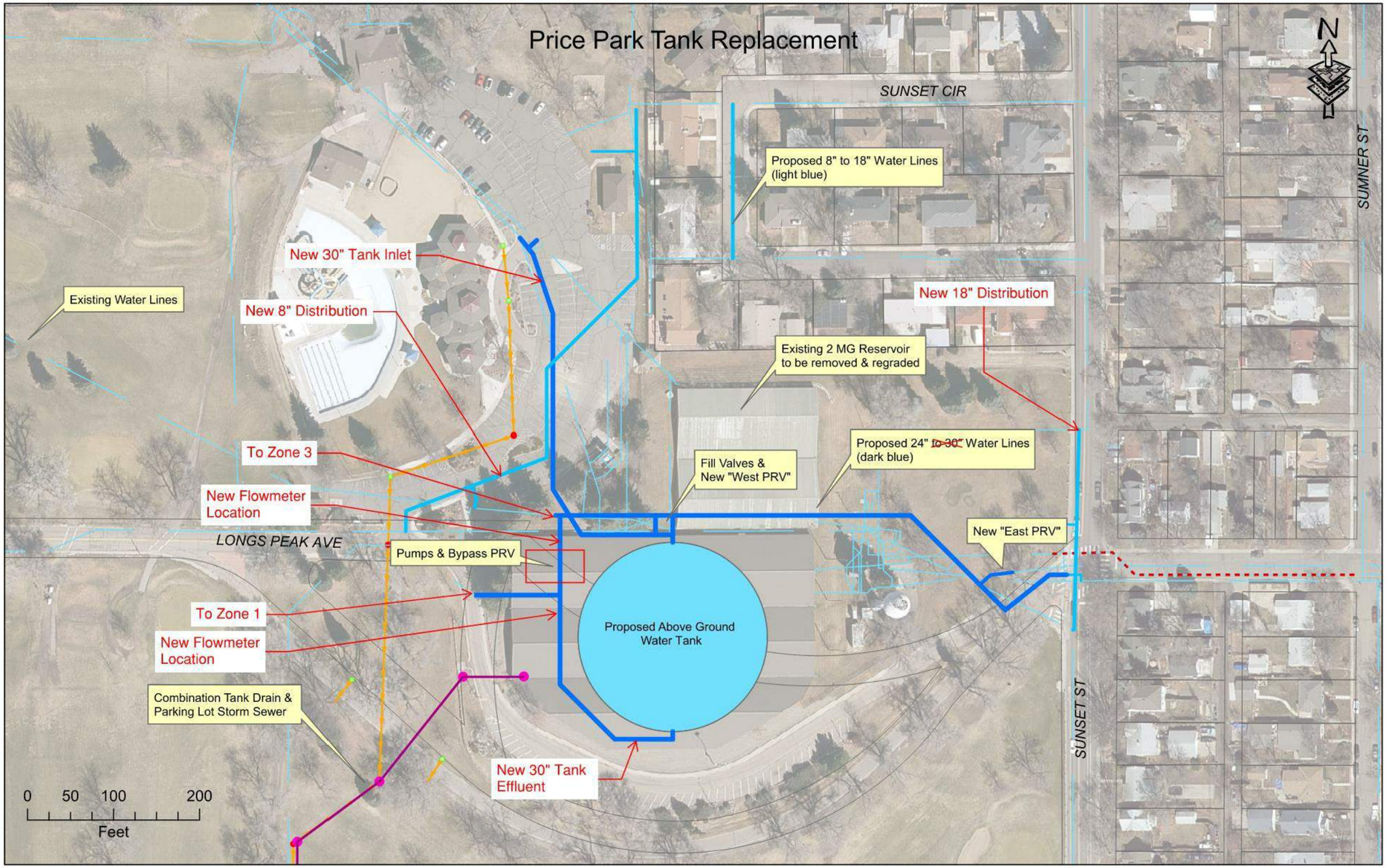
drawing:
FIGURE 4-4

4.4 Yard Piping

This design includes new yard piping, with simplified routing to add flexibility to the City's system as shown in Figure 4-5. The new yard piping will consist of:

- Zone 3 line that crosses the site west to east, and connects to Zone 3 on the east side of the site
- Transmission Zone lines from the north that will combine into one 30-inch polyvinyl chloride (PVC) line that will feed the tank and with a PRV to Zone 3 to replace the "West PRV"
- Zone 3 to Zone 2 PRV and associated Zone 2 connection, replacing the "East PRV"
- New overflow line
- 30-inch outlet of the tank feeding Zone 1

Price Park Tank Replacement



BURNS McDONNELL

date: APRIL 2020

designed: N. RACHELSON

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project:
PRICE PARK TANK SIZING AND CONCEPTUAL DESIGN STUDY

drawing:
FIGURE 4-5

4.5 Electric / Instrumentation and Controls

Included in this design is the ability to monitor and control the equipment via Supervisory Control and Data Acquisition (SCADA) programming. The following equipment will be monitored and controlled by SCADA:

- Level sensors in the tank
- Flow meter on the pump and tank effluent and PRVs
- Pressure transmitter on the pump effluent header and both sides of PRVs
- Variable frequency drives on the pumps
- Electrically actuated valves
- Water quality parameters
- Security alarms

The pump station will also include a magnetic flowmeter that will be monitored via SCADA. The control and monitoring programming will be inspected and tested during startup, along with the tank, valves, and pump station, verifying performance of the new infrastructure. The pump station electrical room will be located above-ground and house all electrical components, including pump VFDs, for the pump station.

Fiber communication lines that currently run through the site will be re-routed before the site demolition to maintain communications at the Sunset Pool Clubhouse. At this study phase, the design includes connections/contact for a portable generator at the site. During detailed design, electrical loads will be evaluated against current site electrical services to assess the need for additional services.

4.6 Sustainability

Longmont sustainability best practices were considered in the original 2016 study by Burns & McDonnell and in this updated design evaluation for the Price Park Tank. Appendix C includes a complete list of Longmont sustainability best practices and how they relate to this project. Additionally, the following are discussed below:

- Integration low impact development
- Public spaces
- Vegetation
- Hazard mitigation
- Business development
- Hydropower opportunities

- Material recycling opportunities

Due to the large surface area of the current 2 MG and 7 MG reservoirs, much of the site is impenetrable to water infiltration. Additionally, the reservoirs were built close to neighboring houses, Longs Peak Avenue, and the Sunset Swimming Pool parking lot. Site work completed as part of this project would allow for a more efficient and unified landscape with the adjacent park and pool, enhancing access and usability to public spaces. This design provides site grading with a gradual slope up to the tank, allowing for the connection of the Sunset Swimming Pool parking lot and Price Park. The updated site plan also decreases the footprint of structures on the site, allowing for the inclusion of low impact development infrastructure such as grassy swales, which improves water infiltration on the site due to increasing grassy surface area. Additionally, the tank will be moved away from Longs Peak Avenue and neighboring residences and an ornamental fence will surround the site, improving safety and security for the water storage tank. The existing site has several mature trees and an educational garden. Roughly three quarters of the existing tress can be preserved while accommodating pipe installations and regrading. The removed trees and the educational garden can be replaced in the reclaimed area on the north side of the site, retaining the community education on the site. Construction projects support local economy through the use and patronage of local businesses during construction.

An initial investigation into the feasibility of hydropower opportunities on the Price Park site was performed. The locations included in this investigation were the Alpine PRV, the Transmission Zone Feed to Price Park Fill Valve, and the Price Park West PRV. Turbine efficiency was assumed to be 70% for all locations, and the cost per kW-h used was $0.12 (not accounting for change in the demand charge). Table 4-4 below shows the results of the initial investigation. The Alpine PRV location was not evaluated further than selected a unit size, due to this location not being a feasible option for a hydropower opportunity. Operation and maintenance costs were not evaluated for these locations. In general, turbine maintenance is more alike to a pump than a valve and may require periodic outages for maintenance. The equipment costs stated below are in 2020 dollars and only include turbine equipment. The cost does not include engineering, construction, or any ancillary components.

Table 4-4: Hydropower Investigation Results

	Alpine PRV
Operational Assumptions	Downstream pressure = average of min and max historic values
	Downstream pressure is constant for all flowrates
	Operates 100% of the year (50% at min flow, 50% at max flow)
Unit Size Selected	6 kW
Power Generated	31,760 kW-h/year
Approximate Equipment Cost	$75,000
Payback Period	20-years
	Fill Valve
Operational Assumptions	Operates 16% of the summer, 10% of the winter
Unit Size Selected	42 kW
Power Generated	26,510 kW-h/year
Approximate Equipment Cost	$95,000
Payback Period	30-years
	Price Park West PRV
Operational Assumptions	Operates 30% of the summer, 36% of the winter
Unit Size Selected	3 kW

Initial geotechnical investigations on the site have revealed that the concrete foundation of the existing 7 MG reservoir doesn't contain rebar and is reinforced by a wire mesh. The City has experience on previous projects with recycling this type of concrete. It is assumed that the majority of the concrete demolition planned for the existing 7 MG tank may be considered recyclable, contributing to the City's sustainability best practices.

4.7 Cost Comparison

4.7.1 Total Project Capital Costs

The total project construction costs presented below (Table 4-5) include the capital costs of the tank, foundations, yard piping and valves, pumps, site work, utility structures, and electrical/SCADA, as well as general contractor conditions/overhead & profit and engineering design. Capital cost estimates are in line with AACE Class 4, which have an expected accuracy range of -15% to -30% on the low side and +20% to +50% on the high side. Appendix B includes a more detailed breakdown on these costs for each tank alternative. A total cost of ownership comparison was also completed for the tank alternatives. The cost of ownership was calculated over a 60-year period. Appendix D includes a more detailed breakdown on these costs for each option.

Table 4-5: Net Present Worth Of Tank Alternatives

Tank Options	Capital Cost(1)	Maintenance Cost over 60 Years	Net Present Worth (60 yrs) (2)	Total Cost of Ownership (60 yrs)
5 MG Tank	$21,900,000	$4,900,000	$26,800,000	$28,900,000
8 MG Tank	$24,900,000	$6,000,000	$30,900,000	$33,600,000

(1) - Includes total project costs.

(2) - Based on 2% inflation rate and 1% discount rate

These conceptual opinions of probable construction costs rely primarily on Burns and McDonnell's experience and judgments as professional consultants combined with information from past experience, vendors, and published sources. All cost opinions are shown in 2021 dollars. Consideration should be made for increases in material and labor costs for the construction during subsequent years.

The construction industry has experienced dramatic cost changes in materials in the past decade. Material costs for concrete, steel, copper, and other metals continue to fluctuate. Recent government and banking industry issues have contributed to even more overall economic uncertainty. The instability of fuel prices affects nearly all material costs.

Many other items can also influence the local bidding environment. Burns & McDonnell has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, government regulations and laws (including the interpretation thereof), competitive bidding or market conditions and other factors affecting such opinions or projections; consequently, the final costs may vary from the opinions of costs presented here. Moreover, the cost opinions presented here are only conceptual in nature and can vary significantly as design and detail is added to the project. Project budgets should continue to be carefully reviewed at regular intervals to assist in the decision-making process.

5.0 RECOMMENDATIONS

This report presented two alternatives for the Price Park Tank replacement project: to replace the existing tanks with either a 5 MG tank or an 8 MG tank. The benefits of the 5 MG include lower overall construction costs, as well as lower electrical costs from a shorter daily pump station operation timeframe.

The 8 MG tank alternative provides many benefits to the City, including increasing overall storage to demand ratio, maintaining minimum storage with buffer (during emergency scenario as described in Section 2), and potentially eliminating the need for additional interconnections from other water districts. This tank size does come with a cost increase, with generally 18% additional cost for a 60% increase in storage volume. This increase in storage volume over the 5 MG tank replacement would delay the need for the City to construct additional storage volume as demands increase in the future.

Although a 5 MG tank replacement project is identified in the City's current Master Plan, this tank volume does not allow the City to adequately respond to the defining emergency scenario as discussed in Section 3. To provide the City with the robustness and flexibility within their system to meet current, future, and emergency demands, Burns & McDonnell recommends the 8 MG tank size alternative for the Price Park replacement project.

APPENDIX A – BURNS & MCDONNELL PRICE PARK ASSESSMENT 2017

Engineering Report

City of Longmont, Colorado

Price Park Tank Evaluation
Project No. 92463

1/3/2017

Engineering Report

prepared for

City of Longmont, Colorado
Price Park Tank Evaluation

Project No. 92463

1/3/2017

prepared by

Burns & McDonnell Engineering Company, Inc.
Centennial, Colorado

INDEX AND CERTIFICATION

City of Longmont, Colorado
Engineering Report
Project No. 92463

Report Index

Certification

I hereby certify, as a Professional Engineer in the state of Colorado, that the information in this document was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse by the City of Longmont, Colorado or others without specific verification or adaptation by the Engineer.

Andy Hundley, P.E., CO 34267

Date: 1/3/2017

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LIST OF ABBREVIATIONS

Abbreviation	Term/Phrase/Name
AWWA	American Water Works Association
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
City	City of Longmont
CIP	Cast-in-Place Conventionally Reinforced Concrete
SCADA	Supervisory Control and Data Acquisition
gpm	Gallons per minute
ITWSMP	Integrated Treated Water Supply Master Plan
MG	Million gallons
Type 1	AWWA D110 Type 1 Prestressed Concrete Tank
Type 3	AWWA D110 Type 3 Prestressed Concrete Tank

1.0 EXECUTIVE SUMMARY

The City of Longmont's (City) Integrated Treated Water Supply Master Plan (ITWSMP) recommended replacing the existing Price Park reservoir. Funding for this replacement project has been budgeted in the water rate and fee study, and included in the 5-year Capital Improvement Program.

There are two covered reservoirs located on the Price Park Site, one with a 2 million gallon (MG) capacity and 7 MG capacity. The 2 MG reservoir has been taken out of service due to aging infrastructure concerns, but the 7 MG remains in service. Due to aging infrastructure and water quality concerns, the 7 MG reservoir will need to be replaced. Because the City does not need the full 7 MG of storage, the 7 MG reservoir will be replaced with a smaller 5 MG tank. Burns & McDonnell reviewed existing reservoir information, City documentation, and survey information of the Price Park site.

Additionally, Burns & McDonnell has provided geotechnical boring and investigation for the site. The geotechnical investigation indicated that there is no bedrock within the testing depth of 50 to 60 feet. The soils on the site are clay type, which are unsuitable for support of structure foundations. Due to concerns for differential settlement, Burns & McDonnell recommends skin friction drilled piers for the foundation of the new tank.

The tank's foundation may be located at different elevations on the site. Burns & McDonnell investigated three elevations, and recommend that constructing the new tank, with the dimensions of 30-feet tall by 175-feet diameter, with a floor elevation of 5,091 feet, would provide the City with the most benefit. These benefits include raising pressure in Zone 1 higher than the 55 psi benchmark in most homes, increasing fire flows by an average of 250 gpm, and minimizing the above grade structure height as well as the diameter of the tank.

Burns & McDonnell evaluated several tank types in this report for use as a tank replacement for the Price Park Reservoir. Water tanks can be made out of either steel or concrete, each having their own advantages and disadvantages. Steel tanks typically have a lower initial cost, but higher life-cycle costs. Concrete tanks have a greater initial cost, but are more durable and require less maintenance cost over time. Burns & McDonnell determined that for this application, a post-tensioned concrete tank has the lowest life-cycle costs, and therefore is recommended for this project (see Table 1-1).

Additionally, new yard piping and routing has been proposed to simplify the current piping layout and add flexibility to Longmont's system. A new pressure reducing valve (PRV) and pump station connecting Zone 1 and Zone 3 will be added to the site to allow water to pass between Zone 1 and Zone 3.

All of these updates have been included in several site drawings found in Appendix C, a complete collection of cost opinions for the different tank options are found in Appendix E, and site renderings are in Appendix F.

Table 1-1: Net Present Worth of tank alternatives

Tank Options	Capital Cost(1)	Maintenance Cost over 60 Years	Net Present Worth (60 yrs) (2)
Welded Steel Tank with Aluminum Dome Roof	$9,300,000	$5,200,000	$14,400,000
Bolted Steel Tank with Aluminum Dome Roof	$7,700,000	$7,700,000	$15,400,000
Conventionally Reinforced - Flat Roof	$9,800,000	$1,600,000	$11,400,000
Prestressed Concrete (Type 1) - Flat Roof	$9,700,000	$1,700,000	$11,300,000
Prestressed Concrete (Type 3) - Dome Roof	$9,400,000	$1,600,000	$11,700,000
Post-Tensioned Concrete - Flat Roof	$9,600,000	$1,300,000	$11,000,000

(1) - Includes total project costs.

(2) - Based on 2% inflation rate and 1% discount rate

2.0 PROJECT BACKGROUND

The City is in need of replacing a reservoir in their distribution system as delineated in the ITWSMP. The Price Park reservoir is planned for replacement due to operation and maintenance costs, public employee safety concerns, and water quality concerns. The Price Park Reservoir replacement has been budgeted in the City's water rate and fee study, and is included in the 5-year Capital Improvement Program. The project will include methods to consider differing viewpoints and feedback from stakeholders and the public during the bond election, final design, and construction services. Financing for this project is not included in the conceptual design.

The Price Park Reservoir site is located near the Sunset Swimming Pool, on the northwest corner of Sunset Street and Longs Peak Avenue in the City of Longmont, Colorado. The City has used the Price Park location for water storage since 1882. The site contains the following structures: two reservoirs, one used and one unused, power and communication equipment, an unused water storage tower, two pump stations, and a valve house (Figure 2-1). Adjacent to the site are established neighborhoods, Price Park, Sunset Golf Course, and as mentioned above, the Sunset Swimming Pool. The site is the highest point in the City east of Hover Street, making it a desirable location for water storage.

The two original reservoirs, with a combined capacity of 1.1 MG, were constructed in 1882. The 2 2 MG reservoir was constructed in 1955. The 2 MG reservoir was taken out of service in 1990 because the condition of the reservoir makes it unusable. The original 7 MG reservoir was constructed in 1922, and has undergone major construction projects in 1974, 1987, 1990, and 2007. See Appendix A for historical photographs, site plans, and newspaper articles of the Price Park site curtesy of the Longmont Museum.

The current 7 MG reservoir is lined and covered. The reservoir is operated in a fill and draw scheme, accepting water from transmission lines fed by the Nelson-Flanders Water Treatment Plant, and discharging water to Zone 1. The tank is filled until the tank level reaches 11 feet in the winter, or 13 feet in the summer. The current inlet and outlet piping are located in close proximity to one another, allowing water to short-circuit the reservoir. This piping layout in the 7 MG reservoir causes issues with water quality and chlorine residual. Additionally, the influent pipe does not meet CDPHE standards for potable water pressure lines, as it does not remain pressurized on site.

The yard piping on the Price Park site is an amalgam of piping, valves, and vaults from years of alterations of the site (Figure 2-1). As discussed above, two transmission lines enter the site from the north, passing through one of two PRVs, and fill the 7 MG reservoir. Piping serving Zone 1 exits the site on the west. Zone 3 piping crosses the site from the west to the east, splitting and feeding Zone 3 in two

EAST SIDE OF TANKS

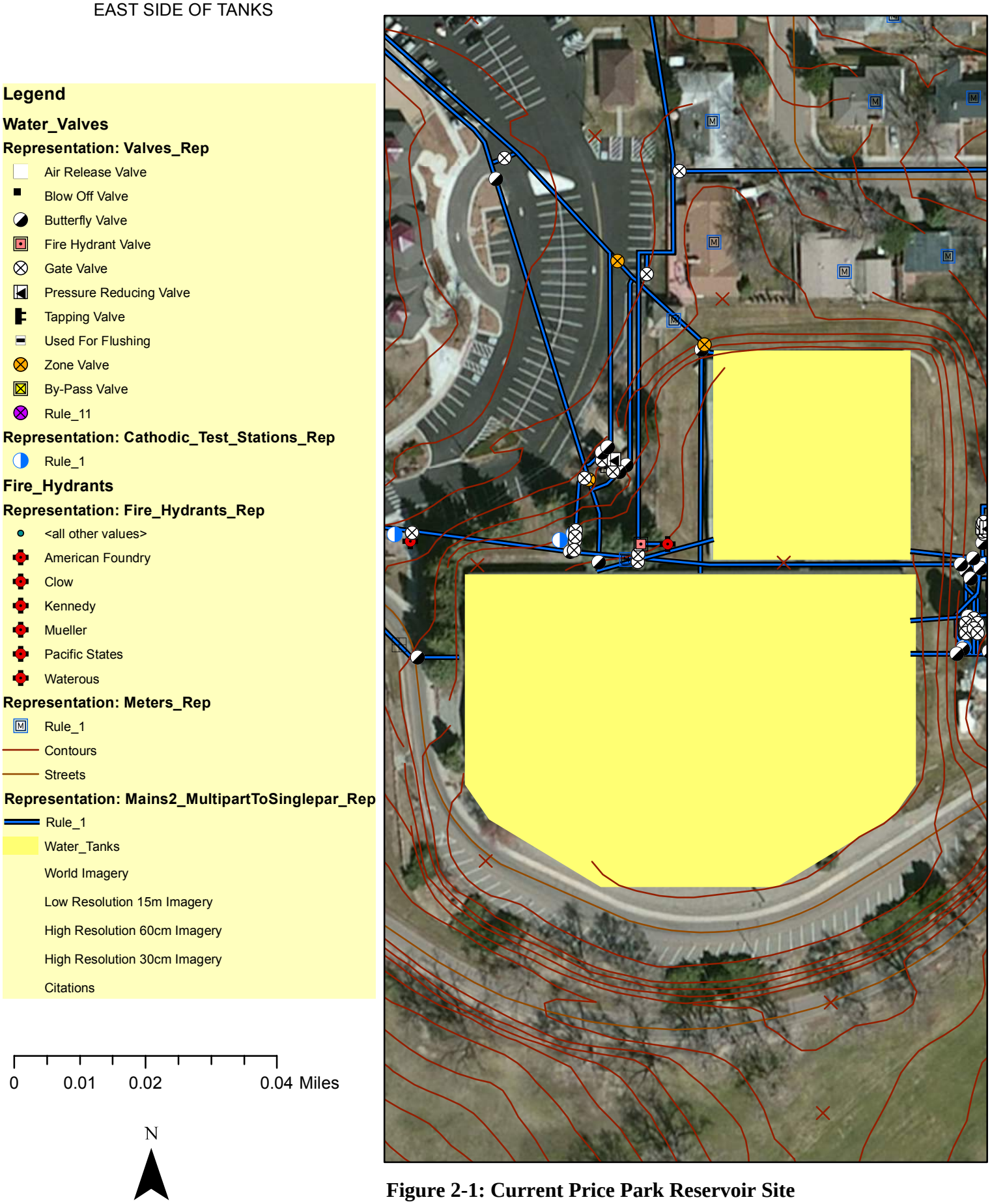


Figure 2-1: Current Price Park Reservoir Site

different locations. Additionally, Zone 3 also passes through a PRV and feeds Zone 2, which also splits and feeds Zone 2 in two different locations on the east side of the site. There are several abandoned pipes, with their associated valves, vaults, and meters, located throughout the site.

2.1 Existing Data Review

Table 2-1 describes new and existing data used in the compilation of this report. It summarizes existing drawings, reports, specifications, and photographs on the Price Park site. The existing site and reservoir drawings show details such as existing overflow elevations, floor elevations, and piping arrangements. The City has also provided Burns & McDonnell with preliminary hydraulic information of their distribution network. Burns & McDonnell used this data in conjunction with the survey and geotechnical information and reports to design the new tank.

Table 2-1: Price Park Site Existing Data Review

Document Name	By	Date	Information
Soil Investigation Existing Water Tank	CTL/Thompson, Inc.	May 1990	Gives information on soil compressibility beneath 7 MG reservoir
Integrated Treated Water Supply Master Plan	CH2M Hill	June 2013	Information regarding City's distribution network
Restoration of the Price Park Water Storage Reservoirs	Rothberg, Tamburini & Winsor, Inc.	September 1990	View cracks in 7 MG reservoir, inlet, outlet, and drain information
Preliminary Geotechnical Engineering Investigation	Burns & McDonnell and Kumar & Associates, Inc.	September 2016	Information on the soil borings around the 7 MG reservoir and gives foundation recommendation
Topographic Exhibit	Burns & McDonnell and Flatirons, Inc.	July 2016	Site survey data

3.0 PRICE PARK SITE STUDY

3.1 Sustainability Considerations

Longmont sustainability best practices were considered throughout the alternatives analysis for the new Price Park Tank. Certain aspects of the sustainable design will be discussed in later sections including: adaptability of the design, long-term maintenance and repairs, reliability, resilience, scale and massing, and site compatibility (Please see Appendix B for a complete list of Longmont sustainability best practices and where they are discussed in this report). Additionally, the following are discussed below:

- Ongoing monitoring and evaluation
- Commissioning
- Integration low impact development
- Public spaces
- Vegetation
- Hazard mitigation
- Business development

Included in the design of the tank and pump station is the ability to monitor and control the equipment via Supervisory Control and Data Acquisition (SCADA) programming. The following equipment will be monitored and controlled by SCADA: level sensors in the tank, flow meter on the pump and tank effluent, pressure transmitter on the pump effluent header, variable frequency drives on the pumps, electrically actuated valves. The control and monitoring programming will be inspected and tested during startup, along with the tank, valves, and pump station, verifying performance of the new infrastructure.

Due to the large surface area of the current 2 MG and 7 MG reservoirs, much of the site is impenetrable to water infiltration. Additionally, the reservoirs were built close to neighboring houses, Longs Peak Avenue, and the Sunset Swimming Pool parking lot. Site work completed as part of this project would allow for a more efficient and unified landscape with the adjacent park and pool, enhancing access and usability to public spaces (see Figure 3-1). This design provides site grading with a gradual slope up to the tank, allowing for the connection of the Sunset Swimming Pool parking lot and Price Park. This site plan also decreases the footprint of structures on the site, allows for the inclusion of low impact development infrastructure such as grassy swales, and increases grassy surfaces, improving water infiltration on site. During construction there will be heavy truck traffic which may be concerning to the neighboring residences. Following construction completion, this truck traffic will cease, improving safety and noise concerns. Additionally, the tank will be moved away from Longs Peak Avenue and neighboring residences and an ornamental fence will surround the site, improving safety and security for the water storage tank.

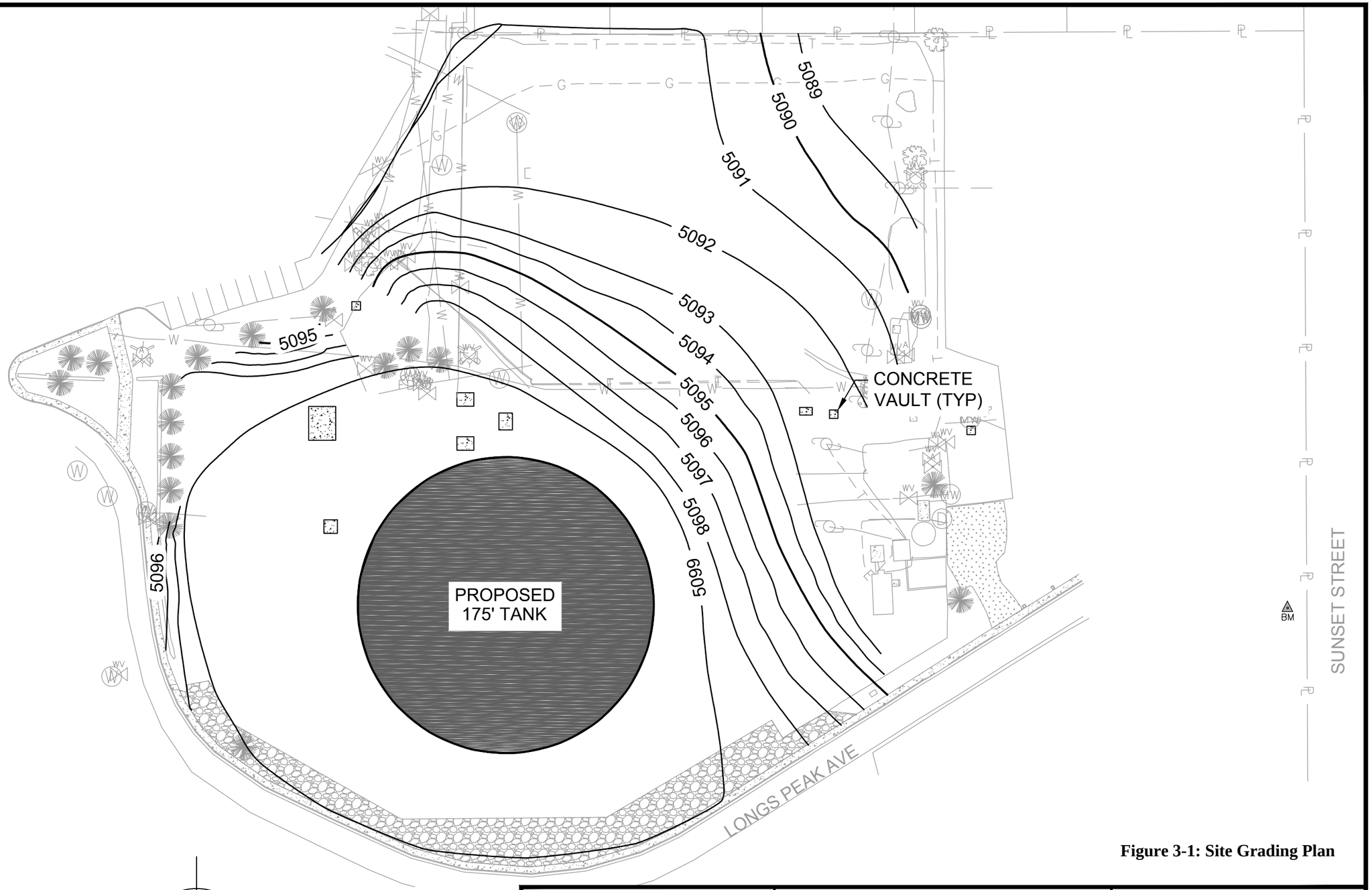
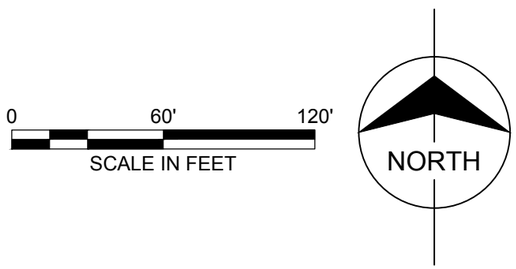


Figure 3-1: Site Grading Plan



BURNS McDONNELL

date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:

PRICE PARK TANK EVALUATION

drawing:

SITE PLAN
C105

The existing site has several mature trees and an educational garden. Roughly three quarters of the existing tress can be preserved while accommodating pipe installations and regrading. The removed trees and the educational garden can be replaced in the reclaimed area on the north side of the site, retaining the community education on the site. Finally, construction projects support local economy through the use and patronage of local businesses during construction.

3.2 Reservoir Elevation Alternatives and Excavation

The ITWSMP indicated that the 7 MG of storage in the Price Park Reservoir was unneeded, and recommended replacing with a smaller 5 MG Tank. As the next step following the master plan, the City requested that Burns & McDonnell investigate different floor elevations for the 5 MG tank.

Burns & McDonnell considered three different floor elevations. For Alternatives 1 and 2, the tank has a height of 30-feet, and a diameter of 175-feet. For Alternative 3, the tank diameter was increased to 200-feet and the height decreased to 24-feet. Burns & McDonnell resized the tank for Option 3 to minimize the height of the new tank at the highest floor elevation. Additionally, because this option did not require additional excavation area, the tank diameter can increase. Figure 3-2 below reviews the existing and proposed tank elevations.

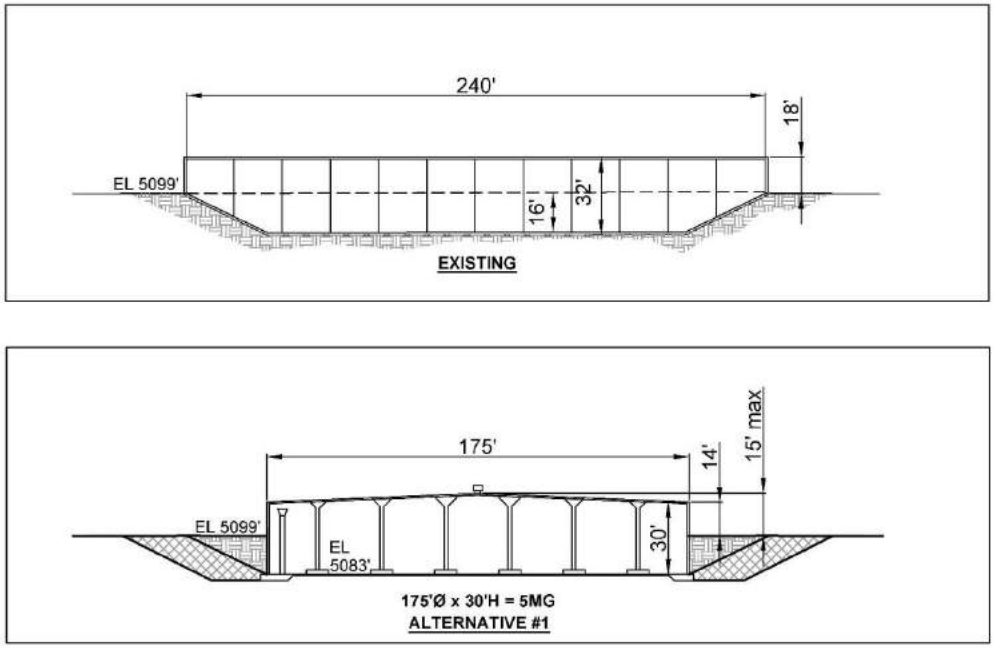


Figure 3-2: Comparison of the existing 7 MG Reservoir to the proposed elevations of the new 5 MG tank

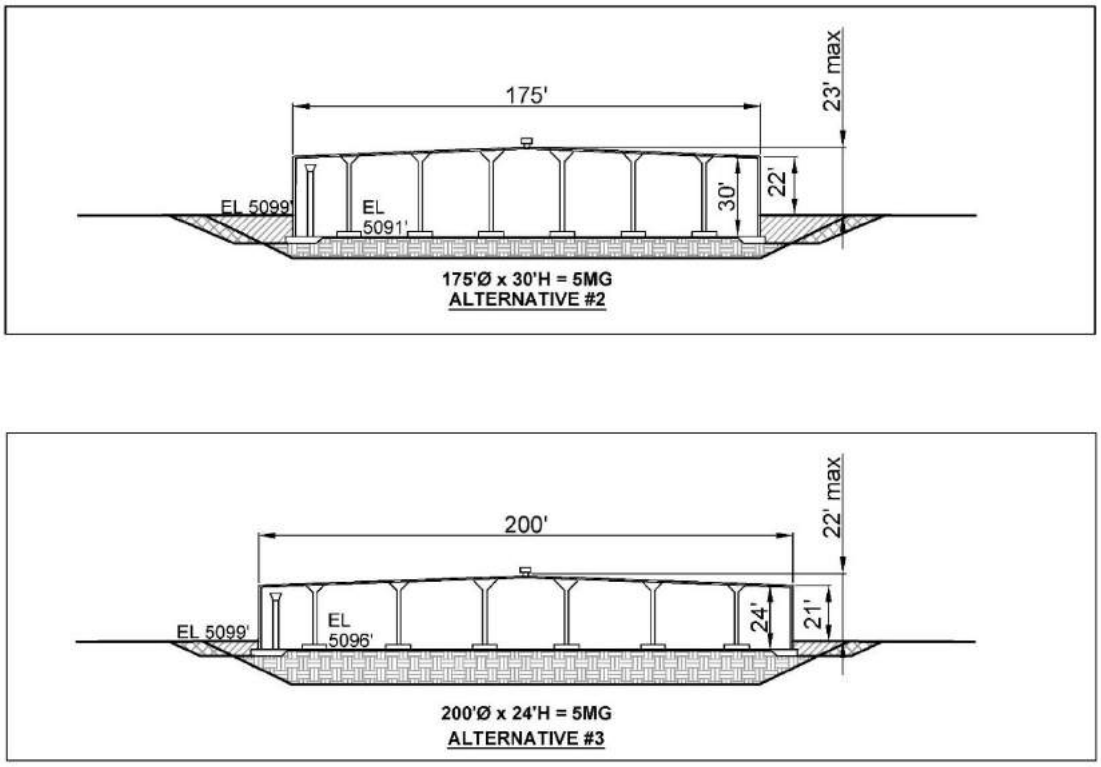


Figure 3-2: Comparison of the existing 7 MG Reservoir to the proposed elevations of the new 5 MG tank (cont)

Each option requires different excavation and backfill quantities, as shown in Table 3-1. The amount of excavation and backfill depends on the tank elevation alternatives. More excavation is required as the elevation of the tank decreases. However, if some excavated soil can be re-used for backfill, excavation may decrease the quantity additional backfill delivered to the site. Alternative 1 places the new tank at the same elevation as the existing 7 MG reservoir (Figure 3-3). Alternatives 2 and 3 place the new 5 MG tank at higher elevations. Estimated excavation, backfill, and the costs for each are listed in the table below.

Table 3-1: Replacement Tank Elevations

Alternative	Floor Elevation	Excavation (CY)	Backfill (CY)	Total Cost
1	5083	13,436	43,821	$667,775
2	5091	11,982	53,478	$715,000
3	5096	11,982	58,241	$762,000

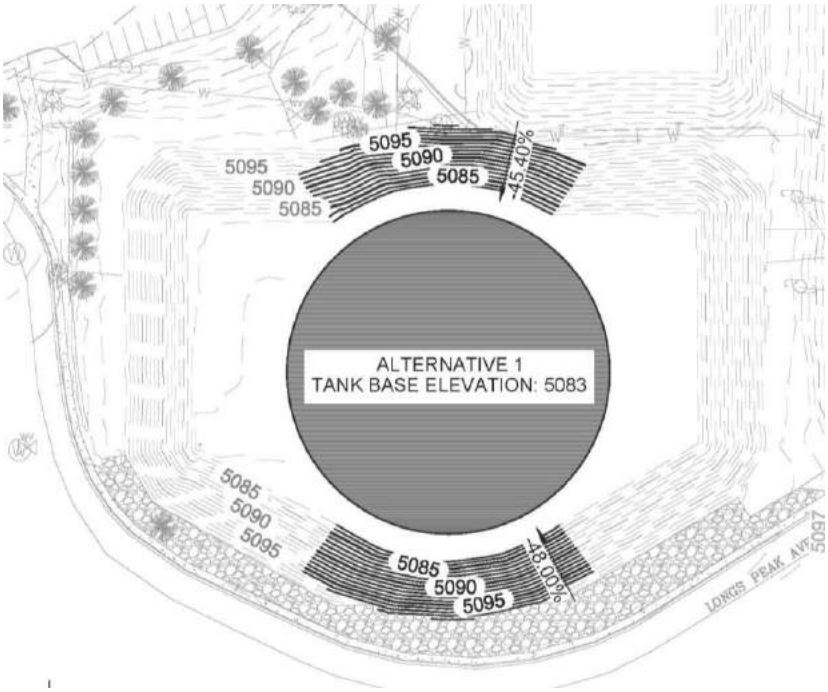


Figure 3-3: Alternative 1 floor elevation and required excavation

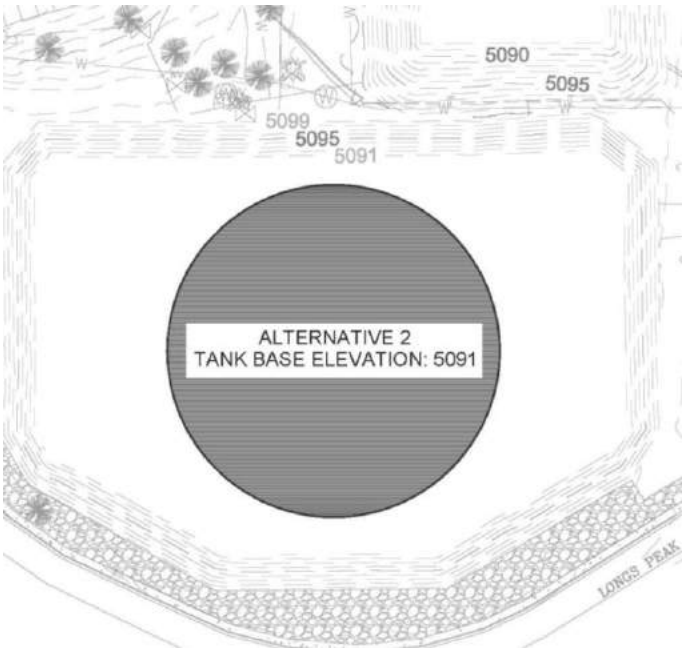


Figure 3-4: Alternative 2 floor elevation with excavation of site

Alternatives 2 and 3 would not require the additional excavation of the site due to their floor elevation. Adequate layback is available within the 7 MG reservoir footprint (Figure 3-4). Additional site plans are found in Appendix C.

3.2.1 Zone 1 Pressure and Fire Flows

Currently, Zone 1 is fed by the existing 7 MG reservoir as well as PRV interconnections with adjacent Zone 3. Due to the low hydraulic gradient line of the current reservoir, the pressure in Zone 1 is below Longmont's benchmark for standard of living, with many homes receiving water at pressures between 40-55 psi (Figure 3-5). Additionally, the fire flows for much of the zone are low.

All tank floor elevation alternatives raise the pressure in Zone 1 by raising the overflow height of the proposed tanks (Table 3-2), but alternative 2 provides the greatest increase in pressure for Zone 1. Therefore, Burns & McDonnell recommends that alternative tank floor elevation 2 be used for further analysis. Alternative 2 would increase the pressure in the zone so most homes will receive water above 55 psi (Figure 3-6). Additionally, this alternative would increase the fire flow in the zone by an average of 250 gpm (Figure 3-7).

Table 3-2: Pressure increase comparison based on floor elevation of the tank alternatives

Tank Alternative	Floor Elevation (ft)	Pressure Increase (psi)
1	5083	6.5
2	5091	10
3	5096	9.5

3.3 Geotechnical Investigation and Reporting

Burns & McDonnell utilized Kumar & Associates to drill, test, and report the subsurface profile and foundation recommendation for the Price Park site. The final report is attached in Appendix D.

The borings revealed a few inches of top soil followed by 3 to 10 feet of man-placed sandy lean clay fill, underlain by natural sandy lean clay. Bedrock was not found at any of the boring locations, and groundwater was encountered between 44 and 48 feet below the surface in three of the boring locations. Although groundwater was not detected until these depths, Longmont operations staff has indicated that groundwater has come up through the cracks in the bottom of the 2 MG reservoir during wet conditions. The materials encountered during the geotechnical study are considered unsuitable for the support of structure foundations.

PRICE PARK RESERVIOR

Legend

Junction

PRESSURE

- < 20
- 20 ~ 40
- 40 ~ 50
- 50 ~ 55
- 55 ~ 75
- 75 ~ 90
- >90

Pressure Zone 1

Print Date: 9/8/2016

File Name: Comparison Model

0 400 800 1,600 2,400 3,200 Feet

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Revisions		
Date:	Comments:	Init:

CITY of LONGMONT

385 Kimbark Street
Longmont, Co. 80501
Phone: 303-651-6304 FAX: 303-651-8352

PUBLIC WORKS & NATURAL RESOURCES DEPT.

No Revisions:

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PRICE PARK RESERVIOR EXISTING CONDITIONS ZONE 1 PRESSURES

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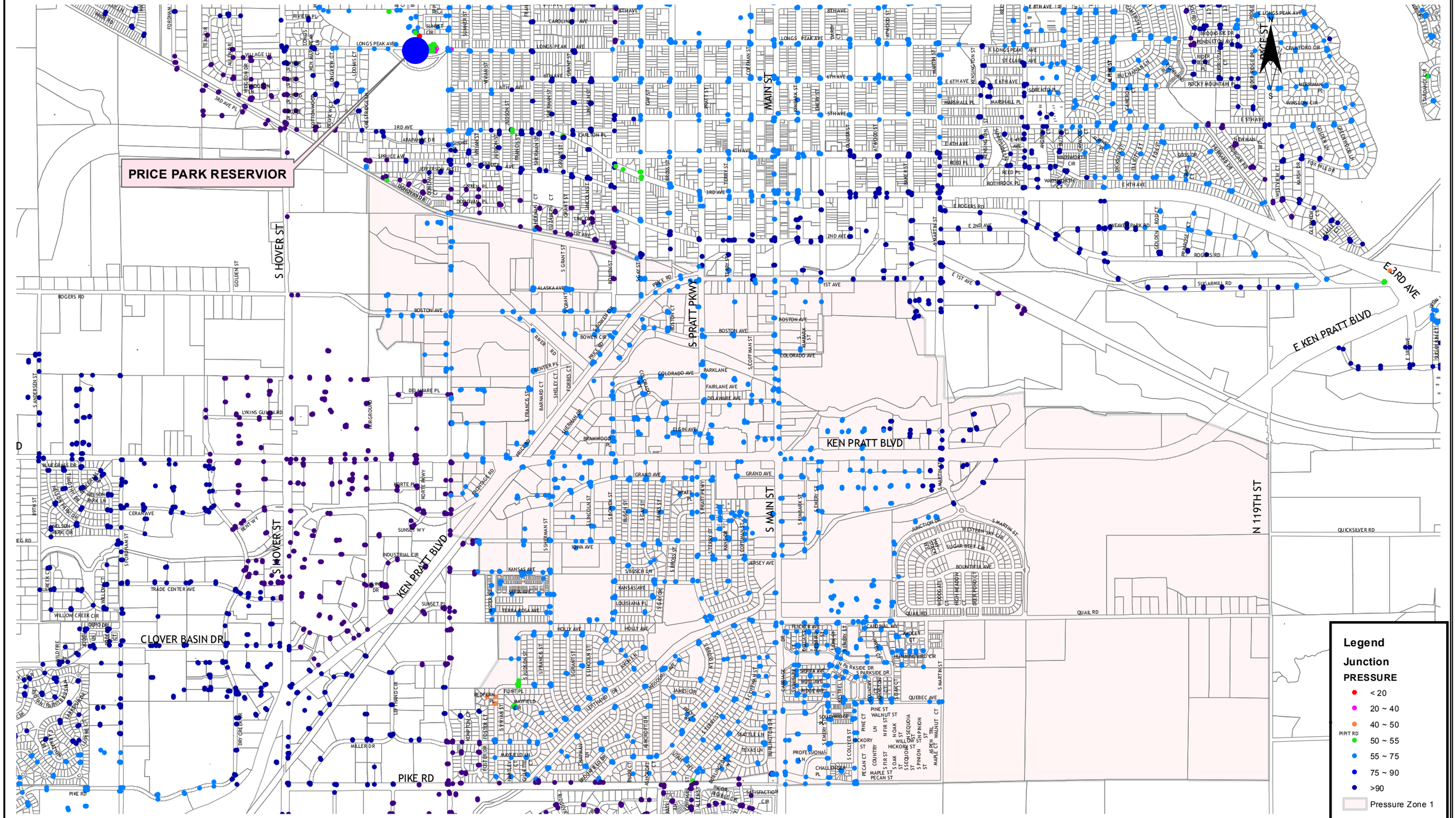
Figure 3-5: Existing Pressure in Zone 1



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PRICE PARK RESERVIOR
OPTION 2 TANK ALTERNATIVE
ZONE 1 PRESSURES

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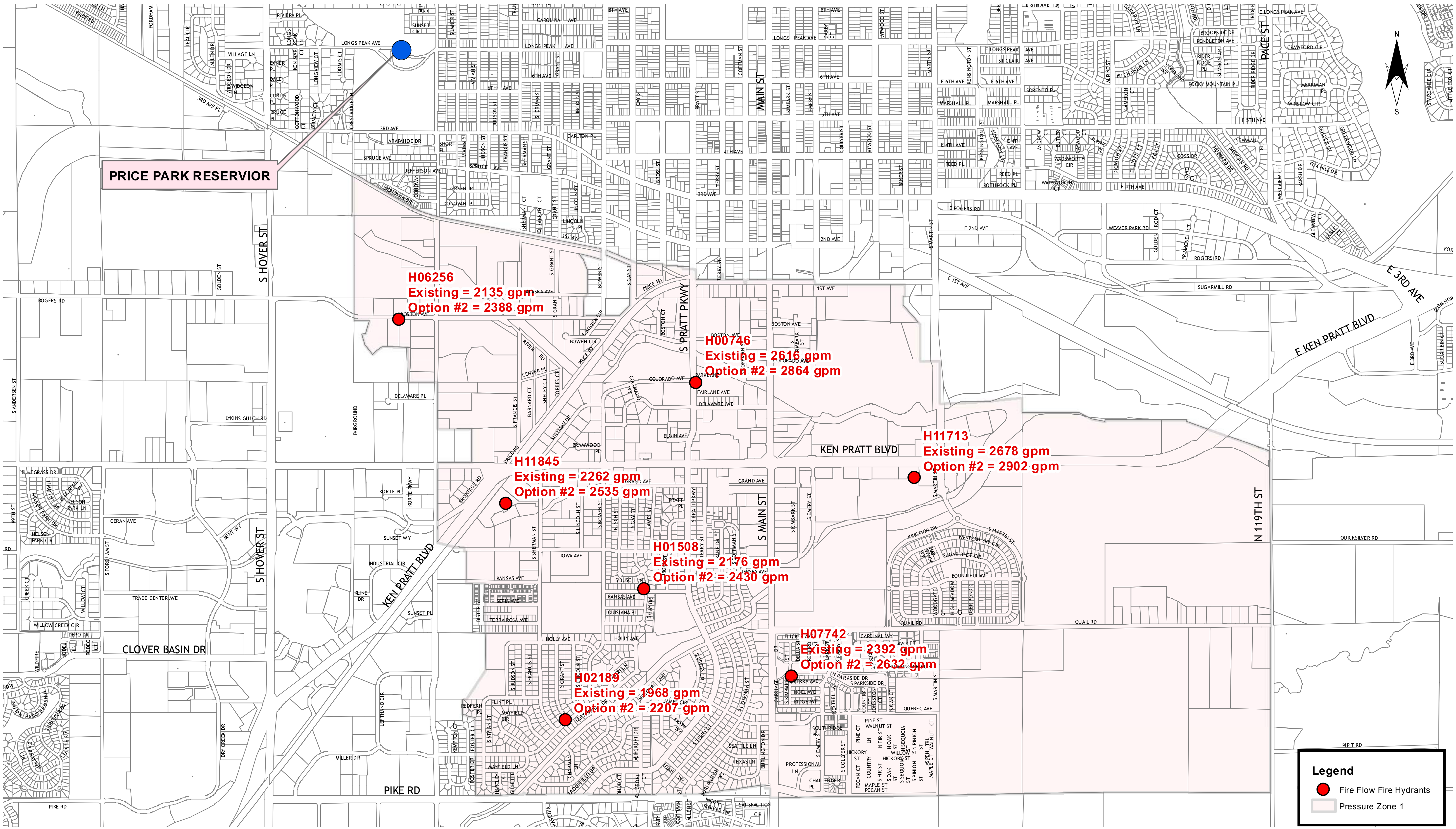
Figure 3-6: Improved Pressure in Zone 1 with Alternative 2



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File Name: Comparison Model

0 400 800 1,600 2,400 3,200 Feet

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No Revisions:
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PRICE PARK RESERVIOR
EX. CONDITIONS vs TANK OPTION 2
AVAILABLE FIRE FLOW

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352953
2016
Sheet Number: 1

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Figure 3-6: Improved Fire Flow in Zone 1 with Alternative 2

The resulting foundation recommendations presented in the Kumar & Associates report generally can be divided into 1) slab-on-grade foundation and 2) deep foundations. The base slab of the foundation can be thickened to accommodate forces that occur from the varying underground water table to prevent cracking.

A previous geotechnical report completed by CTL/Thompson, Inc., indicated that the soils beneath the 7 MG reservoir are susceptible to significant compression resulting in movements in the range of 1 to 2.5 inches. If a slab-on-grade foundation is desired, it would require removal of the undocumented fill materials and replacement with properly compacted structural fill. Alternatively, existing fill material may be considered acceptable for use as structural fill when properly moisture conditioned and compacted. Additional borings inside the existing tank should be completed if the foundation is designed to be a slab-on-grade (or post-tensioned slab-on-grade) due to the unknown soil layers, and the possible existence of void spaces, directly below the existing tank slab.

Due to the unknown quality and suitability of the fill beneath the 7 MG reservoir, Burns & McDonnell recommends that a deep foundation be used for the new tank, unless new drillings can be completed below the existing reservoir and an updated foundation system evaluated. The deep foundation recommendation would consist of skin-friction drilled piers. The friction piers would not use end bearing capacities to support the tank loads due to not encountering bedrock in the borings. Deep foundations would not require additional drilling inside the tank to determine soil layers directly below the existing tank slab.

3.4 Demolition Recommendation

As discussed above, the current site has multiple structures, water lines, valves, and vaults that have been abandoned. Burns & McDonnell recommends the following structures be demolished: the two abandoned pump stations, the valve house on the northwest side of the site, and the 2 MG and 7 MG covered reservoirs (Figure 3-8). It was suggested that the base slabs and a portion of the sloped tank bottoms could be left intact and build the new tank on top of the old concrete slabs. There are some issues with constructing the tank on top of the existing concrete slabs. They are: 1) the existing slabs may be undermined and have voids; 2) existing slabs may be founded on materials that have insufficient bearing capacities for the new tank loads; and 3) to install deep foundations, the floor must be demolished to install drilled shafts. The demolition of the existing reservoirs will include a significant quantity of reinforced concrete that may be recycled.

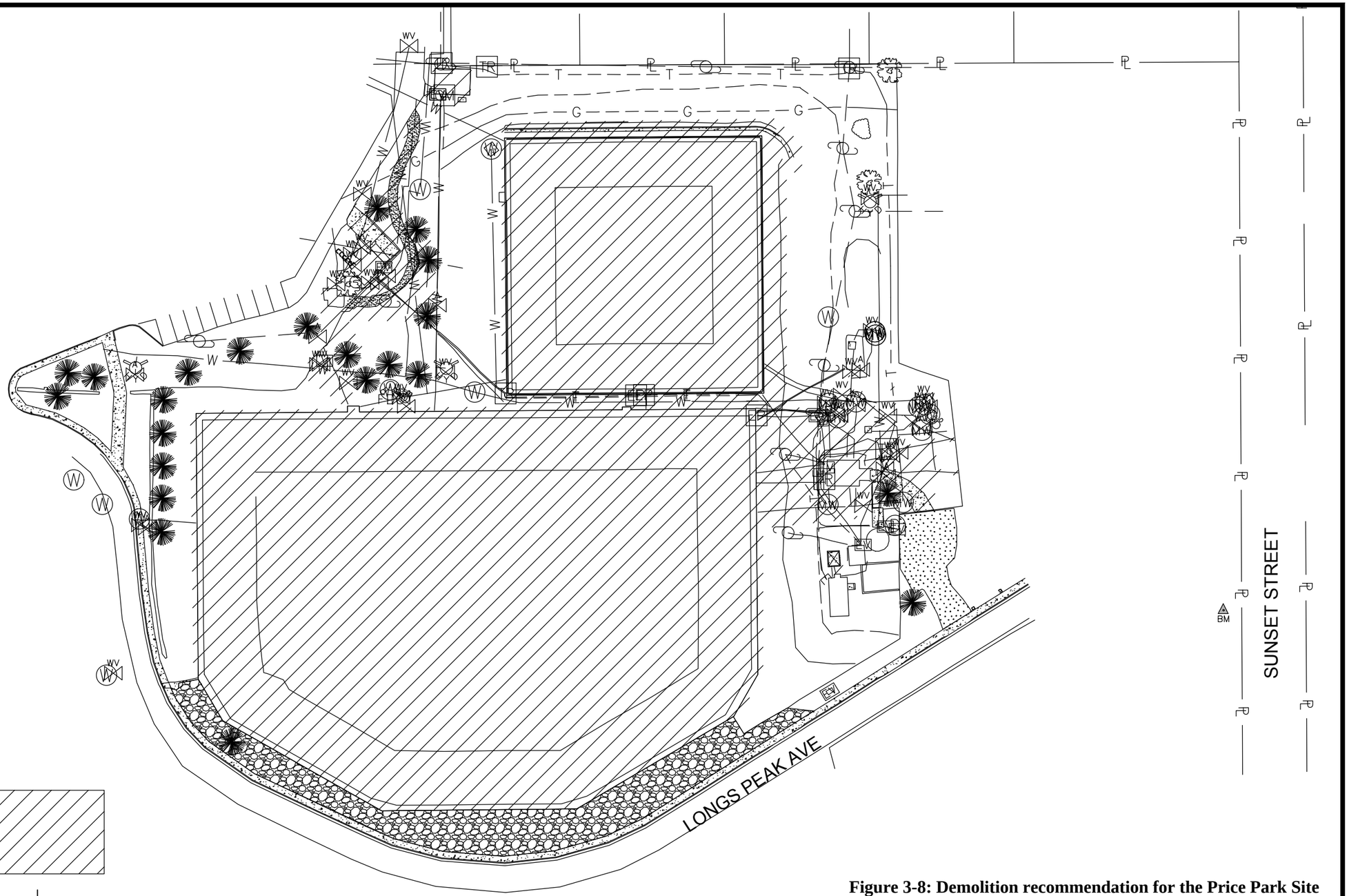


Figure 3-8: Demolition recommendation for the Price Park Site

BURNS McDONNELL

date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:

PRICE PARK TANK EVALUATION

drawing:

DEMOLITION PLAN
C102

The following structures will remain as they are currently in use by Longmont Power and Communications: the water tower, generator building, and communication equipment on the southeast side of the site.

The yard piping, valves, and vaults that have been, or will be, abandoned will be removed if new piping is being installed in the immediate vicinity of abandoned lines.

3.5 Yard Piping Considerations

As discussed above, the yard piping on the Price Park site is an amalgam of used and unused piping, valves, and vaults (Figure 3-9).

In order to simplify the current yard piping, and provide the City more versatility in their distribution system. Burns & McDonnell included a pump station to allow for Zone 1 storage in the Price Park tank to pump into Zone 3. Additionally, a PRV is located in the same pump station allows Zone 1 to be fed by Zone 3.

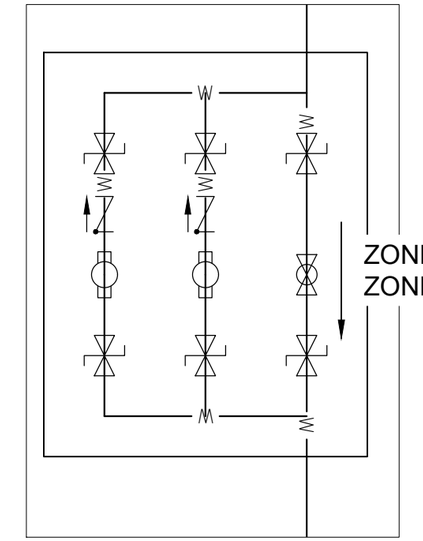
All other piping on site will be rerouted to simplify the current layout, and will be replaced in kind as indicated in Figure 3-9. The new yard piping will include the following:

- Zone 3 line that crosses the site west to east, and interconnections into Zone 3 on the east side of the site
- Transmission lines from the north that will combine into one 24" PVC line that will feed the tank and with a PRV to Zone 3 to replace the "West PRV"
- Zone 3 to Zone 2 PRV and associated Zone 2 interconnection, replacing the "East PRV"
- New overflow line
- 30" outlet of the tank feeding Zone 1

3.5.1 Drain, Overflow Piping, and Weir Sizing

An overflow pipe and inlet weir will be required inside the new tank. The inlet weir and overflow box will be designed to handle the maximum influent rate into the tank and allow for a maximum water level of 6 inches over the inlet weir.

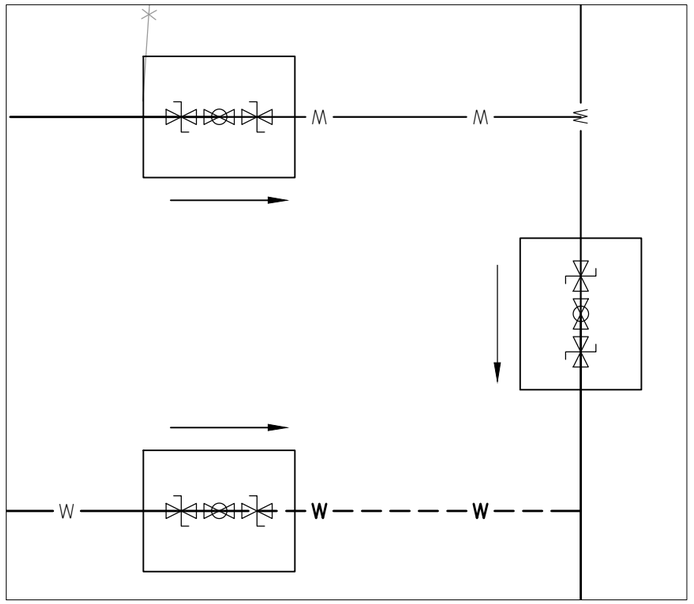
The tank overflow will be located on the south side of the new tank. The new 12-inch tank drain will be located at the center of the tank and tied into the overflow line outside of the tank footprint. A valve will be placed on the tank drain before it ties into the overflow pipe.



PUMP STATION 1 / D101

0 7.5' 10'

SCALE IN FEET



VALVE VAULTS 2 / D101

0 10' 20'

SCALE IN FEET

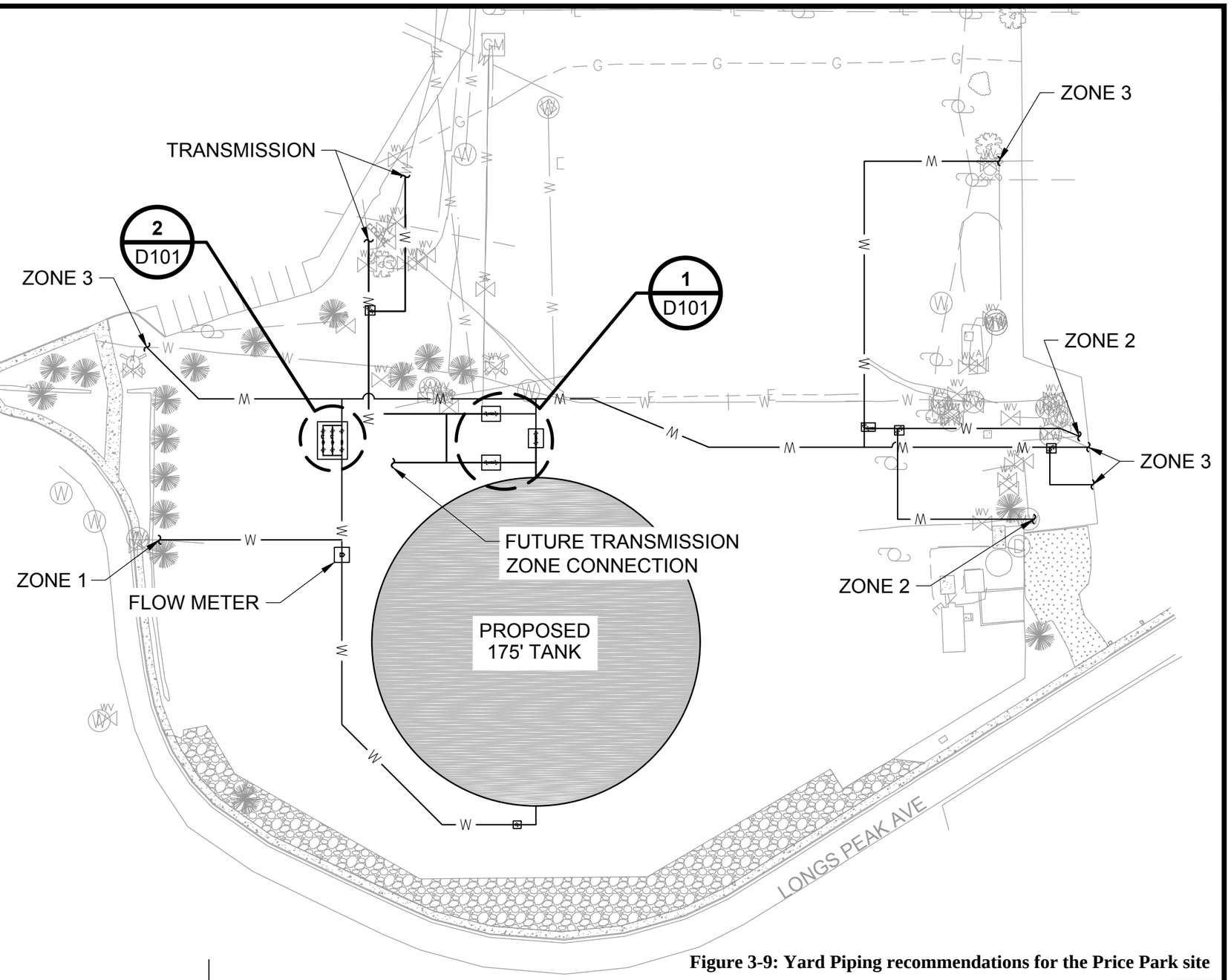


Figure 3-9: Yard Piping recommendations for the Price Park site

0 60' 120'

SCALE IN FEET

NORTH

BURNS McDONNELL

date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:

PRICE PARK TANK EVALUATION

drawing:

YARD PIPING PLAN
D101

3.5.2 Drain Pipe Sizing

The time-to-drain a tank was calculated based on three representative drain sizes. The times to drain are represented below and are shown in terms of Tank Level (Figure 3-10). It appears that a 12-inch drain line provides adequate drainage in a reasonable amount of time. It will take approximately 8 hours to drain the last 10 feet of water in the tank. The drain will be routed to a floor sump in the center of the tank. The drain line will be encased in concrete underneath the floor. The encasement will be attached to the floor slab.

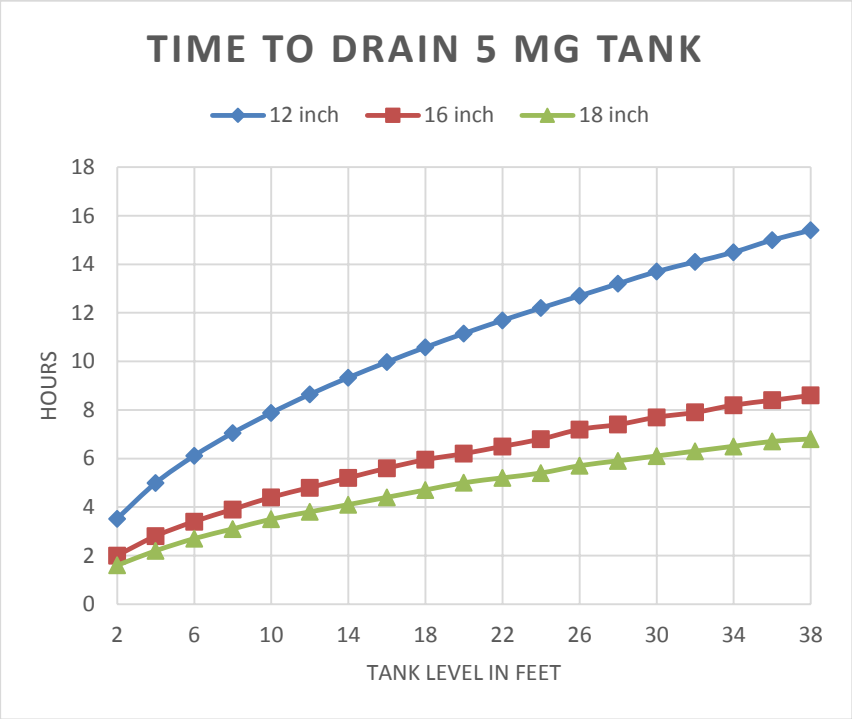


Figure 3-10: Graphs of Time to Drain the 5 MG Replacement Tanks

3.5.3 Inlet and Outlet Piping into Tank

The inlet piping into the tank will be altered to simplify the current piping layout on site. Currently, two different transmission lines that are 20-inches and 22-inches in diameter feed the Price Park Reservoir. Burns & McDonnell proposes that the pipelines be replaced with a new 24-inch PVC pipeline on site.

The inlet will enter the tank from the north, and the outlet will exit the tank from the south. This alignment will encourage flow through the tank; however, depending on temperature gradients in the tank and usage, short-circuiting and thermal gradients may still occur.

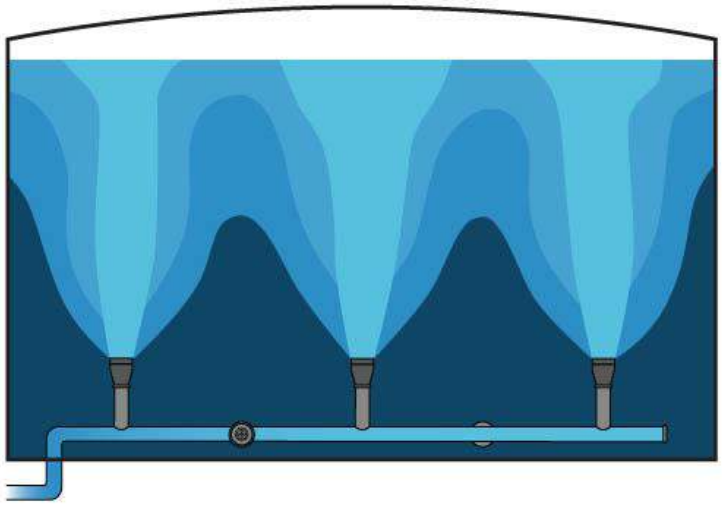


Figure 3-11: Tideflex mixing system example

The City has a fill and draw system implemented for their Skyline and Price Parks tanks in order to maintain water quality in their system. In addition to this fill and draw system, it is often helpful to install a mixing system in order to encourage complete mixing and turnover in tanks. Mixing systems help to prevent conditions that can cause chlorine residual loss, disinfection byproducts, and ice damage. Possible mixing systems include passive systems such as the Tidelfex that use the inflow of water to produce mixing (Figure 3-11), or mechanical solutions, like the SolarBee or PAX mixers, that use motorized equipment to continuously mix tanks. Burns & McDonnell has included a Tideflex mixing system in the cost estimate.

3.5.4 Tank Vent Sizing

The tank vent will be sized according to the rupture of the largest diameter pipe that is connected to the tank. The volume and time to draw the tank down will be correlated to the design of the vent in order to prevent damage to the tank from negative internal pressures. A frost proof tank vent will be provided that allows the vent screens to disengage during pressure or vacuum events. Screening will be provided according to the CDPHE requirements.

4.0 TANK TYPES ALTERNATIVES EVALUATION

4.1 Introduction

This section will compare tanks of different construction materials to determine a cost effective tank that can be used for final design. Circular tanks with a side water depth of 30-feet and a diameter of 175-feet are considered in this section.

4.2 Feasible Tank Alternatives

4.2.1 Tank Alternatives

The cost analysis presented in this report includes the following tank types:

- **AWWA D100 Welded Steel Tank with Aluminum Dome Roof**
- **AWWA D103 Bolted Steel Tank with Aluminum Dome Roof**
- **ACI 350 Conventionally Reinforced Concrete**
- **AWWA D110 Prestressed Concrete Type 1 Cast-in-Place Core Wall with Flat Roof**
- **AWWA D110 Prestressed Concrete Type 3 Precast Core Wall Tank with Dome Roof**
- **AWWA D115 Post-tensioned Concrete Tank**

All of the tank alternatives listed above are assumed to be 175-feet diameter and 30-feet high circular tanks. These geometries provide a 5.0 MG tank and are calculated to best match the required potable water storage as indicated by the City.

4.2.2 Tank Alternative Descriptions

4.2.2.1 AWWA D100 Welded Steel Tank with an Aluminum Dome Roof:

This type of tank would begin construction with a concrete ring beam foundation which bears on properly conditioned and compacted subgrade. The ring foundation is filled with structural fill and a thin layer of sand to support a welded steel floor plate. The floor plate is constructed of rectangular steel sheets that are overlapped and seal welded at the seams. These plates cannot be painted or sealed on the underside, therefore harbor corrosion issues. Corrosive soils can be mitigated by the use of a lime addition to the sand and soil subgrade. The welded

shell plates are attached to this floor plate and rings of rolled steel sheet form the walls. The primary difference between the welded steel and bolted steel tanks is that the shell connections are welded instead of bolted. Most steel tanks constructed today use automated welding machines to perform the horizontal welds on the shell (see Figure 4-1). Vertical welds are typically performed by hand. All welds are inspected and tested per AWWA D100. A portion of the welds are radiographically inspected for anomalies in the weld. The foundation, floor, and shell of the welded steel tank would be exactly the same as the Trust's existing Atoka tanks. However, the difference in the existing tanks and the welded steel tank proposed here is that a geodesic aluminum dome would be used for the roof structure (see Figures 4-2 and 4-3). Unlike the OCWUT's existing tanks which requires frequent repainting of the roof structure, the aluminum dome roof offers the durability of aluminum. An aluminum integrated structural space frame fabricated from alloy T6-6005 aluminum supports aluminum triangular panels is used for the roof structure. The aluminum panels are secured to the frame using silicon or neoprene gaskets and batten bars.

Figure 4-2: Automated Welding for a Steel Tank Shell

A roof bearing angle consisting of a rolled steel angle would be welded to the top of the tank shell to support the roof. The aluminum dome could be assembled on-site either below its final location or immediately adjacent to the tank. The assembled dome would be lifted into place with a crane or jacks. The roof would be secured to the bearing angle using a bearing isolation pad to separate the two metals and eliminate corrosion due to the dissimilar metals. No internal support columns would be necessary for this option. These roofs are very durable and only require periodic replacement of the gaskets and sealant (approximately every 20 to 25 years).

After assembly of all the steel tank components the tank would be painted inside and out. Properly preparing the surface for paint is an extremely important task and would be completed by abrasive blasting to bare steel. The interior steel would then be painted with a zinc rich primer (to mimic galvanization) and then top coated with two coats of epoxy paint. The exterior paint would consist of zinc rich primer, epoxy, and a top coat of urethane for UV resistance.

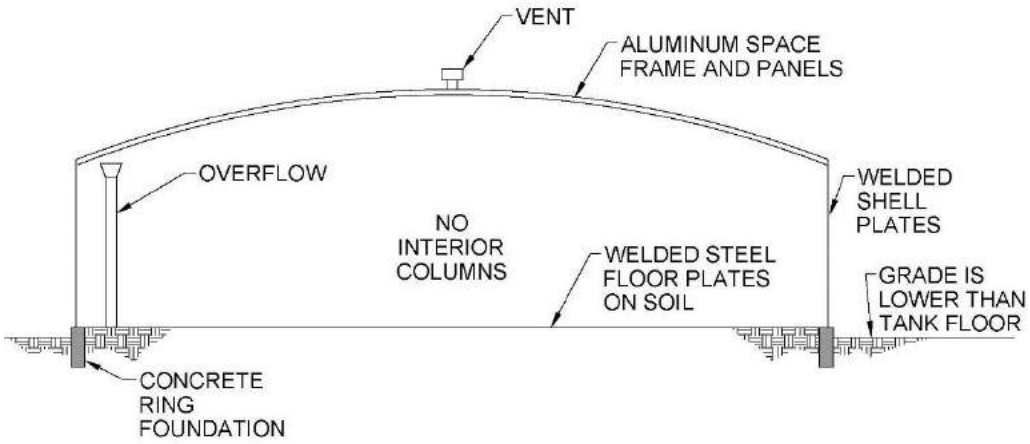


Figure 4-3: Welded Steel Tank with Aluminum Dome Roof

4.2.2.2 AWWA D103 Bolted Steel Tank with an Aluminum Dome Roof:

The welded steel tank and bolted steel tanks are very similar. However, in a bolted steel tank, the steel panels that make up the shell or walls of the tank are fused with a glass lining at the factory. The glass provides corrosion resistance to the inside surface of the tank. The plates are then lap bolted together with a sealant applied at each joint between the panels. Bolts are topped with plastic caps filled with sealant to help mitigate bolt corrosion (see Figure 4-4). The same type of roof as provided in the welded tank alternative would be used on the bolted steel tank alternative. The foundation for this system is similar to the welded tank except that the floor is constructed of a cast-in-place concrete slab and concrete ring wall. The bolted plates are connected to the concrete foundation with the use of an embedded steel starter ring (see Figure 4-5).

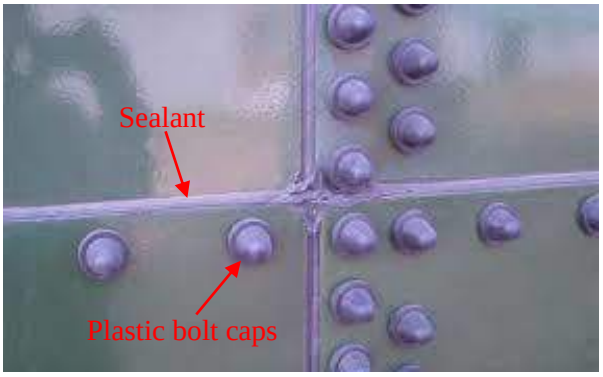


Figure 4-4: Bolted steel tank connections and sealant

The sealant material used is polysulfide sealant which may need to be replaced every 15 years. The removal and replacement may require the tank to be dewatered, bolts removed, panels disassembled, joints cleaned of sealant, and reassembled with new sealant. Alternatively, the tank can be repaired by applying sealant over existing sealant joints. However, this technique may not last as long as total sealant replacement and require the tank repairs be conducted more often.

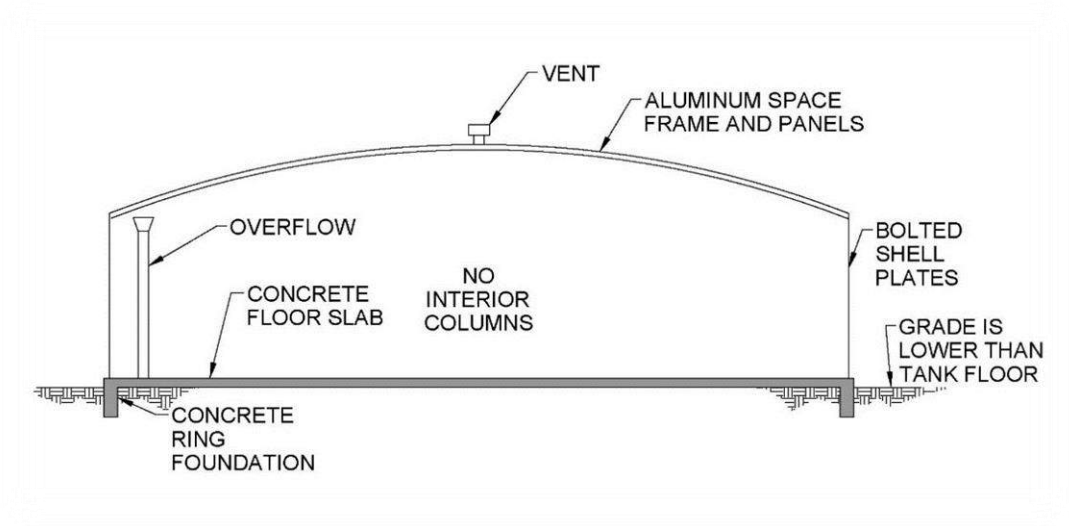


Figure 4-5: Bolted Steel Tank with Aluminum Dome Roof

4.2.2.3 Conventionally Reinforced Concrete

The CIP option would include a uniform base slab for the tank foundation. Based on the depth of water and the size of the tank, the base slab would be approximately 2'-6" thick and be fully reinforced with deformed concrete reinforcing. Due to the estimated 2500 cubic yards of concrete in the base slab, it will likely need to be placed utilizing more than one concrete pour. The walls of the tank would be 2'-0" thick due to the hydrostatic forces and be reinforced with conventional deformed rebar (Figure 4-6). Hoop bars would be designed to withstand the hoop stresses created in the circular walls. A column supported flat slab concrete roof would be sloped to shed water. Internal columns would support the roof slab but not use internal column pads like the prestressed tanks. See Figure 4-7 for a cross section of a conventionally reinforced tank. Most of the work associated with this type of tank could be completed by a local contractor.

Figure 4-6: Cast in Place Conventionally Reinforced Concrete

This type of tank can experience leaks especially at shrinkage cracks. However, the leakage is very minor and is less than what is required by AWWA leak testing. The walls, base slab, and roof are much ticker than typical walls in a prestressed concrete tank because conventionally reinforced concrete tanks do not include prestressing tendons which increase the strength of the

walls. This tank type is very corrosion resistant and has the best concrete cover over the steel of any of the concrete tank options. Concrete will need to be injected periodically if leaks do not heal naturally.

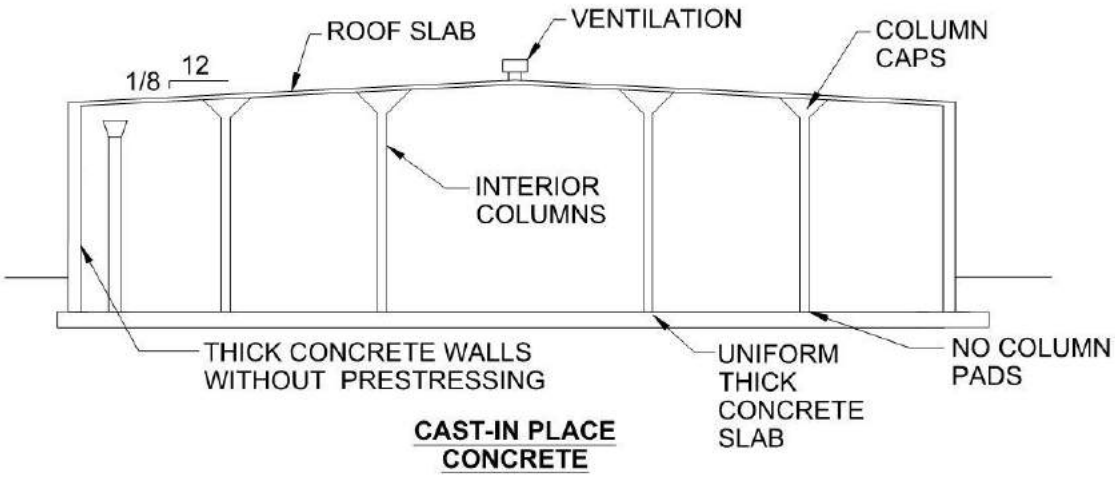


Figure 4-7: Cross section of a Cast-in Place Conventionally Reinforced Concrete Tank

4.2.2.4 AWWA D110 Prestressed Concrete Type 1 Cast-In-Place Core Wall Tank with Flat Roof:

The Type 1 prestressed tank is constructed by DN Tanks by their division formerly known as DYK tanks. It is the only company currently constructing this type of tank. The construction starts by constructing a uniform base slab/foundation on site, and then the concrete tank walls are cast as one complete unit. Vertical construction joints in the tank walls are used to break up large concrete placements. The joints are sealed with PVC water stop cast into the wall sections. After placement of the cast-in-place core walls and adequate curing of the concrete is completed, 1/2" diameter stressing cable is wound around the core wall with an automated cable winding machine (see Figure 4-8). An outer layer of shotcrete is placed on the exterior of the tank over the cable prestressing with the same machine fitted with a shotcrete nozzle. This machine applied process increases control of the amount of shotcrete placed on the structure. The roof structure

Figure 4-8: Type 1 winding machine

is a low slope concrete roof that is cast in the field. The roof is supported on multiple interior columns (see Figure 4-9).

Type 1 CIP Core Wall Tanks typically provide a long term durable tank, and is arguably the most durable tank of the prestressed concrete tank types. However, Type 1 tanks are not typically constructed in the midwest due to DN Tank's lack of experienced crew availability in that region. Moreover, the Type 1 prestressed tanks are typically more costly than the other prestressed tank options.

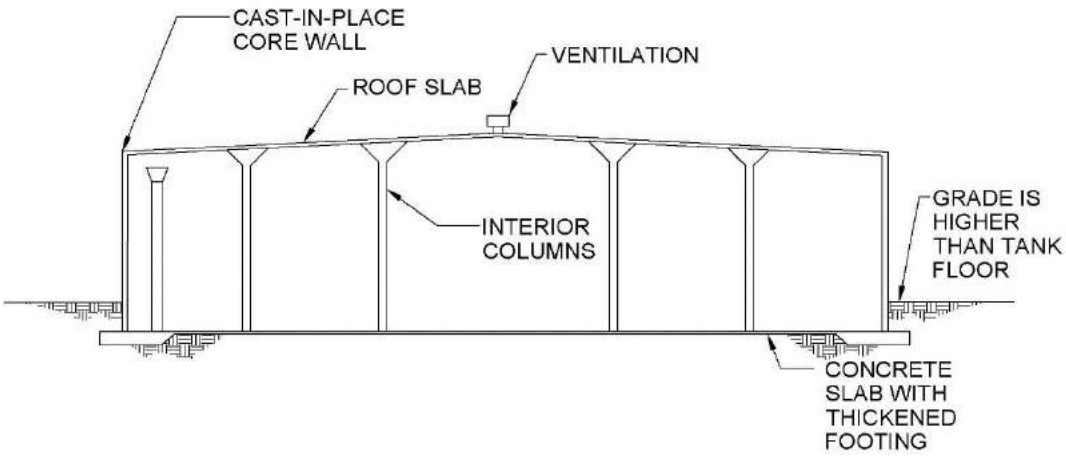


Figure 4-9: Type 1 Prestressed Concrete Tank w/Cast-in-place Core Wall

4.2.2.5 Type 3 Prestressed, Pre-cast Concrete Tank with Concrete Dome Roof:

This type of tank consists of a concrete cast-in-place floor which is thinner at the center of the tank and thicker under the tank walls (see Figure 4-10). Precast concrete walls are formed on the ground next to the tank and concrete is placed on diaphragm in layers each layer making up an individual wall panel (see Figure 4-11). The panels cure the required amount of time, lifted into place with a crane, and fastened together on top of the base slab. The gaps between dome panels and wall panels are filled with concrete after the pre-cast panel walls have been formed. The precast walls can be inspected easily for vibration and honeycomb defects. These defects are easily detected before installation and can be rejected and replaced. Cast-in-place vertical wall pours such as the ones constructed

Figure 4-10: Layered precast wall casting beds

for a type 1 prestressed tank are not detectable prior to form removal. At that point the wall must be repaired or demolished and replaced. Roof dome panels are also formed on the ground by careful construction of curved casting beds and curved screed boards made specifically for each set of panels. An intricate lattice of shoring is constructed inside the tank for the dome panels to sit on and a crane lifts the panels into position. The entire tank wall is then covered in a layer of shotcrete. Steel wires are then be wrapped around the tank and stressed while wrapping. Steel wire is applied with alternating layers of shotcrete until the proper stressing forces are applied to the tank. The exterior of the tank will be coated with a cementitious paint to create a uniform stucco finish. These tanks require a bigger site due to the panel casting beds and bigger cranes required for construction. Prestressed tanks are very leak resistant due to the prestressing forces applied to the walls. However, these tanks can experience corrosion of the wire wrapping if shotcrete depth is not maintained. These tanks also have more vertical wall joints that could possibly fail. If corrosion of the wire happens the whole tank may need to be re-wrapped with prestressing wire and re-shotcreted. Concrete may need to be patched periodically but is completed less frequently than maintenance on a steel tank.

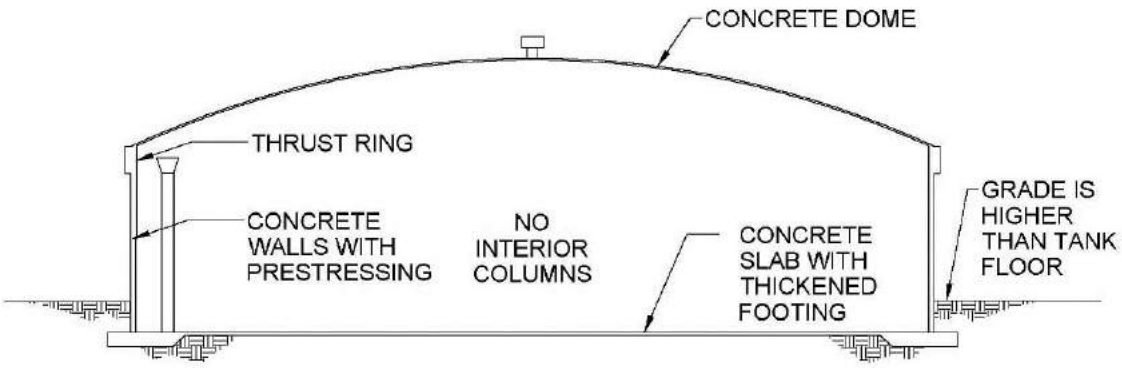


Figure 4-11: Prestressed Pre-cast Concrete Tank with Dome Roof

4.2.2.6 AWWA D115 Post-tensioned Concrete Tanks

Figure 4-12: Construction of a Post-tensioned concrete tank

Post-tensioned concrete tanks are prestressed concrete storage tanks reinforced with post-tensioning tendons. A post-tensioned concrete tank is similar to the cast-in-place tank due to the required interior columns to support the concrete roof. The tank includes a regular concrete slab with thickened internal pads for interior columns. Post-tensioned concrete tanks are typically associated with concrete members cast at the job site. Post-tensioning tendons are placed horizontally and vertically through watertight polyethylene ducts to provide compression to the concrete and to accommodate bending and thermal stresses to the tank walls. Post-tension tendons are different from prestressed tendons because the concrete contains large ducts for the cables to tighten after the concrete wall panels of the tank have been cast and placed upright. The tendons are tensioned after the concrete as reached a minimum design strength. Then, the ducts are injected with high-strength cementitious grouts to hold the strands in place (see Figure 4-12 and 4-13).

Post-tensioned concrete tanks has good corrosion protection due to the watertight ducts and grout. After installation, less maintenance is required for post-tensioned concrete tanks than the maintenance typically required for steel tanks. Similar to other concrete tanks, post-tensioned concrete tanks are susceptible to leakage due to tiny cracks from shrinkage in the concrete. However, cracks are typically minor and can be repaired by injection.

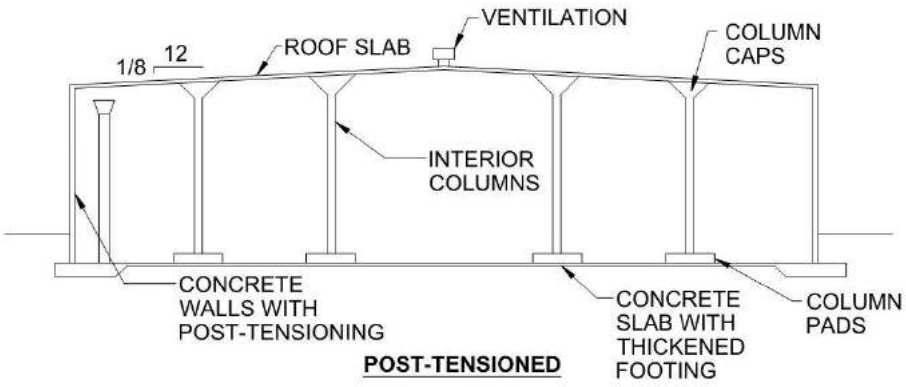


Figure 4-13: Cross section of a post-tensioned concrete tank

4.2.3 Comparison of Tank Options

Steel tanks have a lower capital cost. However, due to corrosion issues, the maintenance costs far exceed the maintenance costs of concrete tanks. Figure 4-14 below reviews the different areas that corrosion may occur. Most often, corrosion is concentrated above the water line. Additionally, steel tanks require the use of epoxy based coating systems that entail frequent recoating. These epoxy based coating systems contain volatile organic chemicals.

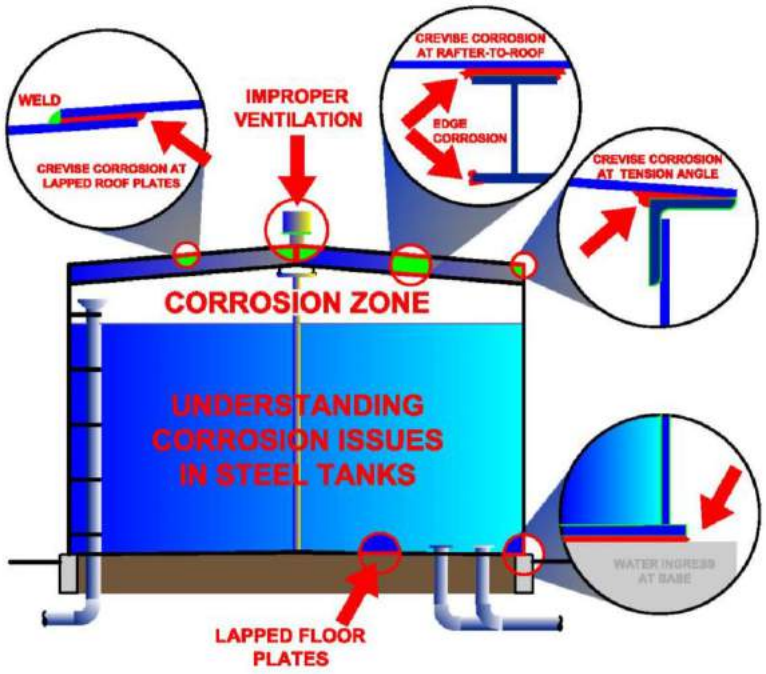


Figure 4-14: Steel tank corrosion locations

Traditional cast-in-place, conventionally reinforced concrete tanks generally have the most leakage, when compared to other concrete tanks. They also use the most concrete, due to the required wall thickness. The Type 1 and 3 prestressed tanks are very similar in construction, however, there are differences in the makeup of the core wall, roof, and details of the different tanks. The core wall make-up is probably the most notable. Figure 4-15 below shows a wall section of each of the prestressed concrete tank types (type 2 was not included in this alternatives analysis). The major difference in the core walls is that the Type 1 and Type 3 tanks rely on conventionally placed concrete for the core walls. Therefore, quality control of the shotcrete is crucial in providing a durable tank wall. Ensuring quality during shotcrete placement is difficult due to the many variables during placement. Quality control on the Type 1 tanks are still critical, however, it is easily managed by conventional inspection and testing.

A review of past prestressed tanks has provided evidence that shotcrete is a vulnerable area on Type 1 and 3 tanks and can lead to delamination failures.

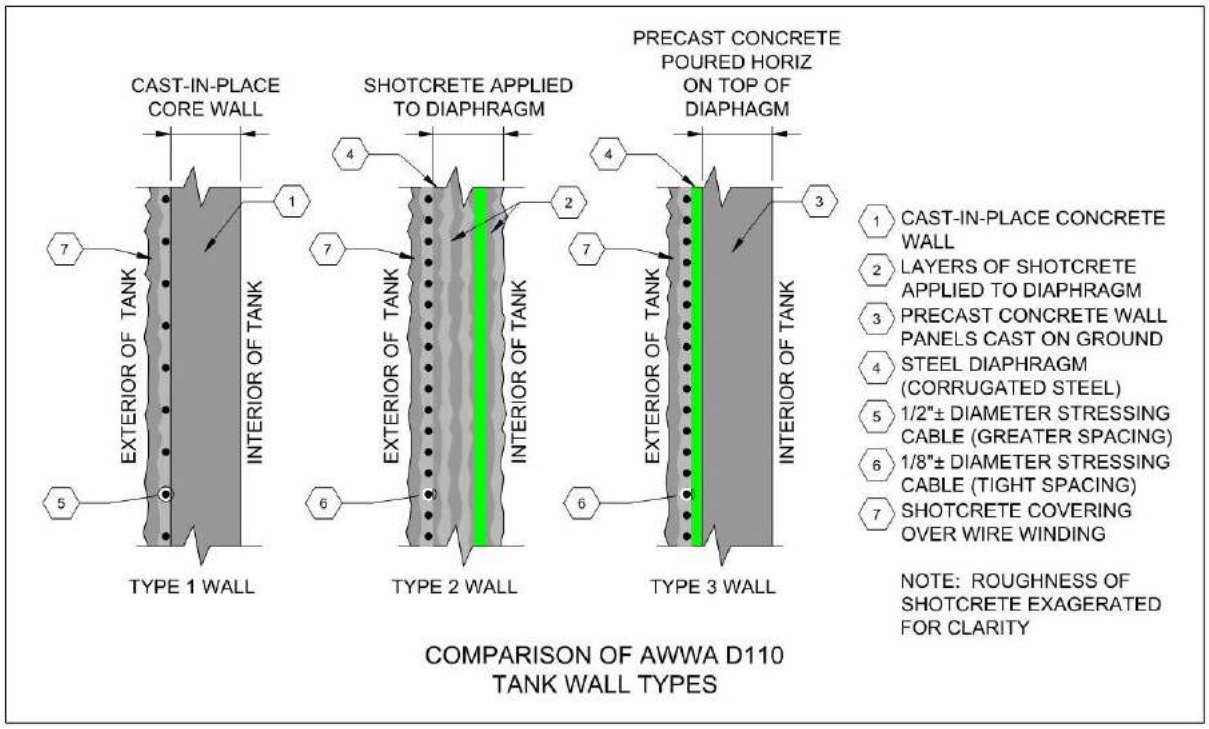


Figure 4-15: AWWA D110 Prestressed Concrete Tank Wall Comparison

Post-tensioned tanks generally have the least leakage of all the concrete tank types. Additionally, the maintenance costs over time are less than other concrete tanks because the cables are located within the concrete and they are less prone to corrosion than the AWWA D110 Type 1 or 3 tanks.

4.3 Tank Capital, Life Cycle, and Ownership Cost Comparison

4.3.1 Tank Only Costs

The construction costs presented below (Table 4-1) represent conceptual phase design and construction costs for the tank only and should only be used to compare relative costs of the tank alternatives presented. The costs presented below do not represent the total cost of the project. For total capital costs, see Section 4.3.2.

Table 4-1: Capital Costs of Tank Alternatives

Tank Type	Capital Cost Tank Only
Welded Steel Tank with Aluminum Dome Roof	$2,400,000
Bolted Steel Tank with Aluminum Dome Roof	$1,250,000
Conventionally Reinforced - Flat Roof	$2,300,000
Prestressed Concrete (Type 1) - Flat Roof	$2,200,000
Prestressed Concrete (Type 3) - Dome Roof	$2,100,000
Post-Tensioned Concrete - Flat Roof	$2,100,000

4.3.2 Total Capital Costs

The total project construction costs are presented below (Table 4-2) include the cost of the tank, foundations, yard piping and valves, pumps, site work, utility structures, electrical/SCADA, and general contractor conditions.

Table 4-2:Total capital construction costs of tank alternatives

Tank Type	Capital Cost Tank Only	Earthwork/ Excav and Foundation Cost	Exterior Improv.	Eng.*	GC's and Markups‡	Total Project Cost
Welded Steel Tank with Aluminum Dome Roof	$2,400,000	$2,140,000	$2,350,000	$1,760,000	$2,370,000	$9,300,000
Bolted Steel Tank with Aluminum Dome Roof	$1,250,000	$1,550,000	$2,350,000	$1,760,000	$1,980,000	$7,700,000
Conventionally Reinforced - Flat Roof	$2,300,000	$2,690,000	$2,350,000	$1,760,000	$2,520,000	$9,800,000
Prestressed Concrete (Type 1) - Flat Roof	$2,200,000	$2,690,000	$2,350,000	$1,760,000	$2,490,000	$9,700,000
Prestressed Concrete (Type 3) - Dome Roof	$2,100,000	$2,690,000	$2,350,000	$1,760,000	$2,400,000	$9,400,000

Tank Type	Capital Cost Tank Only	Earthwork/ Excav and Foundation Cost	Exterior Improv.	Eng.*	GC's and Markups‡	Total Project Cost
Post-Tensioned Concrete - Flat Roof	$2,100,000	$2,690,000	$2,350,000	$1,760,000	$2,450,000	$9,600,000

* Engineering costs are not added into the total project costs. This total includes a design fee of $811,000, and a construction management fee of $952,000.
‡ CG's and Markups include 5% Contingency.

4.3.3 60-Year Life Cycle Costs

A sixty-year life cycle cost comparison was completed for each tank alternative (Table 4-3).

Table 4-3: Maintenance costs of tank alternatives

Tank Options	Maintenance Cost over 60 Years
Welded Steel Tank with Aluminum Dome Roof	$5,200,000
Bolted Steel Tank with Aluminum Dome Roof	$7,700,000
Conventionally Reinforced - Flat Roof	$1,600,000
Prestressed Concrete (Type 1) - Flat Roof	$1,700,000
Prestressed Concrete (Type 3) - Dome Roof	$1,600,000
Post-Tensioned Concrete - Flat Roof	$1,300,000

The following assumptions were made for the cost comparison:

1. Welded Steel Tank: Periodic touchup of paint every 5 years, periodic repair of minor steel corrosion every 10 years, repair of aluminum dome gaskets every 20 years, and total replacement of paint every 20 years.

2. Bolted Steel Tank: Periodic touchup of paint every 10 years, repair of aluminum done gaskets every 20 years, and total replacement of wall panel sealant every 25 years.

3. Conventionally Reinforced Concrete Tank: Periodic touchup of paint every 5 years, periodic repair of concrete every 20 years.

4. Prestressed Concrete Tanks, Type 1 and 3: Minor exterior shotcrete repair every 5 years, and exterior paint replacement every 15 years.

5. Post-tensioned Concrete Tank: Periodic touchup of paint every 5 years, periodic repair of concrete every 20 years.

4.3.4 Cost of Ownership Comparison

A total cost of ownership comparison was completed for the tank alternatives. The cost of ownership was calculated over a 60-year period (Table 4-4). The same assumptions used for the present worth analysis were used to calculate the net present worth. For a breakdown of each of the tank cost options at the floor elevation of 5091 ft, please see Appendix E.

Table 4-4: Net Present Worth of tank alternatives

Tank Options	Capital Cost(1)	Maintenance Cost over 60 Years	Net Present Worth (60 yrs) (2)
Welded Steel Tank with Aluminum Dome Roof	$9,300,000	$5,200,000	$14,400,000
Bolted Steel Tank with Aluminum Dome Roof	$7,700,000	$7,700,000	$15,400,000
Conventionally Reinforced - Flat Roof	$9,800,000	$1,600,000	$11,400,000
Prestressed Concrete (Type 1) - Flat Roof	$9,700,000	$1,700,000	$11,300,000
Prestressed Concrete (Type 3) - Dome Roof	$9,400,000	$1,600,000	$11,700,000
Post-Tensioned Concrete - Flat Roof	$9,600,000	$1,300,000	$11,000,000

(1) - Includes total project costs.

(2) - Based on 2% inflation rate and 1% discount rate

These conceptual opinions of probable construction costs rely primarily on Burns and McDonnell's experience and judgments as professional consultants combined with information from past experience, vendors, and published sources. All cost opinions are shown in 2016 dollars. Consideration should be made for increases in material and labor costs for the construction during subsequent years.

The construction industry has experienced dramatic cost changes in materials in the past decade. Material costs for concrete, steel, copper, and other metals continue to fluctuate. Recent government and banking industry issues have contributed to even more overall economic uncertainty. The instability of fuel prices affect nearly all material costs.

Many other items can also influence the local bidding environment. Burns & McDonnell has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction

contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, government regulations and laws (including the interpretation thereof), competitive bidding or market conditions and other factors affecting such opinions or projections; consequently, the final costs may vary from the opinions of costs presented here. Moreover the cost opinions presented here are only conceptual in nature and can vary significantly as design and detail is added to the project. However, project budgets should continue to be carefully reviewed at regular intervals to assist in the decision making process.

5.0 RECOMMENDATIONS

Based on the information provided in Section 4.3, Burns & McDonnell recommends that the City replace their existing reservoir with a 5 MG post-tensioned concrete tank at a floor elevation of 5091 feet. The proposed dimensions for this tank are 30-feet height and 175 feet diameter. This tank option would raise the pressure in Zone 1 above 55 psi for the majority of the residences in the zone as well as increasing fire flows. The capital costs and 60-year life cycle costs for welded and bolted steel tanks far exceed all other option considered here. Type 1 and 3 prestressed concrete tanks have higher maintenance costs due to the added cost of shotcrete repairs. Therefore, a post-tensioned tank would provide the best value for the City. Figure 5-1 shows a rendering of the site with the post-tensioned tank installed (additional site renderings are found in Appendix F).

Along with the tank, the site will be regraded to allow for stormwater runoff, and provide an area that people can cross the site between the Price Park and Sunset Swimming Pool. The structures that Burns & McDonnell recommends undergo demolition are those that are in the path of construction, and include the two abandoned pump stations and the valve house. The structures that will stay are the Longmont Power and Communications buildings and the raised water storage tower. The yard piping that is in the immediate vicinity of new construction will be demolished.

The new yard piping will include the following:

- Zone 3 line that crosses the site west to east, and interconnections into Zone 3 on the east side of the site
- Transmission lines from the north that will combine into one 24” PVC line that will feed the tank and with a PRV to Zone 3 to replace the “West PRV”
- Zone 3 to Zone 2 PRV and associated Zone 2 interconnection, replacing the “East PRV”
- New overflow line
- 30” outlet of the tank feeding Zone 1

Figure 5-1: Price Park Tank Rendering, view from Sunset Golf Course

APPENDIX A – HISTORICAL PRICE PARK DOCUMENTS

Figure A-1: Arial view of the Price Park site circa 1950.

Figure A-2: Man descending into one of the Price Park Reservoirs.

Figure A-3: Construction of the 100,000-gallon water tower in 1940.

LONGMONT LEDGER

$1.50 PER ANNUM | LONGMONT, BOULDER CO., COLORADO, FRIDAY, AUGUST 11, 1922 | VOL. XLIII, No. 49

Longmont to Have New Reservoir

Council Votes to Start Work at Once

At a meeting of the City Council Tuesday it was decided that a new reservoir should be built to increase the water supply of Longmont. This will adjoin the present reservoir, have a capacity of 6,000,000 gallons, which is three or four times the present one, and be built from funds in the Water Department. Engineer Bice submitted complete drawings for the reservoir and work has started. Estimated cost is $50,000.

The Council also voted to buy banners to decorate the light poles for Fair Week.

A side walk was ordered laid on Lincoln street between Sixth avenue and Fedorra street.

The matter of selling the sprinkling wagon was left to the Street Department.

The Longmont Commercial Association presented a petition asking the Council to give them permanent headquarters in the Council Chamber of the City Hall. By motion the petition was laid on the table.

Bills amounting to $26,879.47 were allowed.

A Lively Time

Frank M. Smith, who is farming one of A. D. Holt's places northeast of town, had a live time for a few minutes Monday afternoon.

Mr. Smith was stacking hay and, with his son, Stanley, was running the rakes. It began to hail, not much, just a few big ones now and then. One of the hail stones hit a horse in Stanley's team and they began to run. Mr. Smith started to help, but another stone hit one of his horses and that settled it, both teams were running away. It looked as if they would run together and make a grand mix-up, two teams and two rakes, but missed each other by a fraction.

The teams ran but a short distance as they piled up in a deep ditch and could not get out. The only damage was a few teeth broken out of one of the rakes.

The hired man tried to come to their assistance but after being hit with the hail a couple of times, sought the shelter of the stack. Mr. Smith was hit once on the head which raised a large bump although he had on a stiff hat. Only the edge of the storm struck there or the result would have been more serious.

Big Yield of Wheat

Grant Hartman has just finished threshing a small patch of winter wheat which has yielded about 63 bushels to the acre. A patch of spring wheat yielded 40 bushels to the acre. This is very good as the water has been scarce and the season very hot.

Auto Accident Proves Fatal

Mrs. Mitchell Leavett, 24 years of age, who was fatally injured Sunday afternoon when the car in which she and her husband were riding, turned over two miles northeast of Boulder on the Valmont road, died Monday morning at the Boulder hospital to which she and Mr. Leavitt were taken.

Mrs. Leavitt suffered a broken upper jaw, her nose was nearly cut off, besides other facial injuries, and internal injuries which caused her death.

Mr. Leavitt suffered a fractured shoulder blade and jaw and severe injury to one eye, which may cost him the vision of the eye.

Mr. and Mrs. Leavitt were driving very fast and in turning a corner, the car went over the bank and turned over backwards, throwing Mr. Leavitt out and pinning Mrs. Leavitt under the car.

Mr. Leavitt is a vocational student in the engineering department of the University, and is Adjutant of the Wills Agin Post of Veterans of Foreign Wars, having served with the A. E. F. in France.

Mrs. Leavitt was assistant secretary in the Alumni office of the University. She leaves a little daughter, Vivinn, six years old who lives with her mother, Mrs. E. F. St. John, in Denver.

Girl Scouts at Peaceful Valley

The Girl Scouts of Troop 3 are enjoying this week at the Boy Scout camp at Peaceful Valley. Mrs. Ray Barnes and Miss Dorothy Mitchell had charge the first of the week and the latter part, Mrs. Vosberg and daughter, Amy, are with the Troop.

Those in camp are Wilma Barnes, Nonine Dudley, Maxine McCurdy, Maxine McLain, Melita Dickens, Olive Rice, Dorothy Large, Inez Beck, Fannie McCullock, Ruth Combs, Ruth Gregg and Minnie Adams.

Miss Marion Park Writes from Switzerland

On June 26 Miss Marian Park wrote from Interlaken, Switzerland: "Leave Interlaken in the morning for Meringer for one day and then on to Zurich. Came from Geneva by boat on Lake Geneva to Montreux. The electric train ride from Montreux to Interlaken was wonderful. We climbed rapidly into the mountains, went thru countless tunnels. Most railways in Switzerland are electrified. Went to the Grindelwald Glacier by the Metterhorn today and climbed around the glacier a little. Hope to see Jungfrau tomorrow. It has been hidden by clouds."

On July 20, Miss Park wrote that they had been to Luerne, Zurick, Oberamergon, Basel, Mayence, Coblenz, Cologne, Brussels and were now back in Paris studying.

They expect after finishing their short course at the University in Paris, to spend nine or ten days in Spain and as much time as possible in Italy. They have to sail on August 24 in order to get home in time for school. Even so they will probably be a week late. With all the wonders they have seen they say, "It is all splendid, but I am glad we will soon be thinking of the return trip. Colorado for me."

Bees Sting Horses to Death

Wm. Juliffe, a farmer living near Berthoud, while driving two horses with a load of hay south of Berthoud, drove into a swarm of bees which immediately attacked him and the horses. He tried to unharness the horses so that they could run but they were stung so badly that they died a few hours later although a veterinary was called. Mr. Juliffe was in a very serious condition but is improving now.

Longmont's Swimming Pool

The swimming pool near the reservoir west of town is the most popular place in town this summer, not only to the children but the grown-ups as well.

The Park Board have sanded the beach, built a diving tower, two bath houses or dressing rooms, equipped with shower baths, and strings of electric lights. There is plenty of room to park autos and these hot days find them there, with a few spectators but more bathers. The place is as popular in the evening as it is in the day time. The Park Board is to be congratulated upon fixing everything up so well.

Girls Club Work Instructive and Entertaining

The demonstrations to be given during Fair week by the Club girls in the new building provided by the Fair Board for club work exclusively, will be well worth seeing. There will be canning, cooking, millinery, dress-form, fashion shows and dyeing demonstrations, while the boys will explain radio, corn and poultry.

Any woman or group of women and girls who would care to have a demonstration given at this time along some special line may call the Longmont office, 9 W, or the Boulder office, Boulder 272, and every effort will be made to include the desired work in the program.

Boys Club Work of Very High Grade

A stock judging tour was held Tuesday, August 8th, at the Stanley Bixler farm northeast of Boulder. The work was under the direction of the County Extension workers, assisted by Mr. D. A. Jay, Animal Husbandry Specialist, and the local club leaders, N. H. Leggett and A. D. Poor. This tour was planned for the live-stock club members of the Davidson and Pleasant View communities, with fifteen boys, four leaders and two instructors in attendance.

If the boys continue to improve between this tour and Fair week as rapidly as they have since the first tour on May 29th, there will be some of the finest stock judging done at the Fair that the county has ever seen. Men who consider themselves experts in this line will do well to watch these boys at the judging contest during Fair week. The high boys will go to the State Fair to compete with boys from the other counties. Last year the Boulder County team took third place, with Bernard Buster as high man, in the state.

Veterans of Foreign Wars

Enough members have been secured to establish a Post of Veterans of Foreign Wars and a charter has been sent for. The next meeting will be Monday night at the Boy Scout rooms when a permanent organization will be effected.

SOCIETY ITEMS

EDITED BY MISS NELLIE BUTLER PHONE LONGMONT 206 W

The Missionary Society of the Baptist Church was entertained by Mrs. Mills Thursday afternoon with a goodly number present. The meeting was opened by the president, Mrs. Lane, who conducted the business. Mrs. Kemp, leader for the afternoon, gave an interesting temperance talk and also read a clever sketch of her own coposition entitled "Billy Bright's Mistake." Plans were laid for a meeting of all the women of the church on Thursday afternoon of this week to hear Mrs. McGouigle, a state worker. While the ladies enjoyed a social season the hostess served appetizing refreshments.

The Gleaners Society was entertained Friday afternoon by the Misses Luedtke. Nearly all the members were present and during the business meeting plans were laid for the sale of articles made by the girls. After the work hour a happy social season was enjoyed and delicious refreshments were served by the hostesses.

About one hundred members of the Mutual Benefit Class of the Methodist Church motored to Meadow Park Friday evening where a most delightful evening was spent. Games and various out-door sports were enjoyed under the direction of Mr. M. B. Alstadt. A delightful feature of the evening was the ""Canteloupe Feed," an annual event of the class, which is always a delight.

Mrs. R. M. Cessna was hostess for a splendid meeting of the Missionary Society of the United Brethren Church Tuesday. The attendance was large and ten guests enjoyed the meeting. The usual business meeting was held, after which Mrs. Galbreath conducted an interesting program. Mrs. Francis read a story, Mrs. Kraft sang a solo and readings were given by Dorothy Reid and Isabel Cessna. A social hour, during which refreshments were served, concluded the pleasant and profitable meeting.

Mrs. James Dunn was hostess for the H. E. O. Club Tuesday afternoon, entertaining at her lovely country home. The ladies enjoyed sociability while piecing quilt blocks, many stories adding to the merriment. At the close of the afternoon a dainty tea was served.

Mrs. Frank Wheatley gave a delightful party Saturday afternoon, honoring the eleventh birthday of her son, John. The host took his guests to the Isis theatre where they spent the time pleasantly, enjoying the pictures. At the close of the show the merry party returned to the Wheatley home where very nice refreshments were served by Mrs. Wheatley. The guests were Milo Maynard Bemis, Gerald Grange, Russell Hervey, Harold Oeler, Homer Stewart, Kenneth Glenn White, Kenyon Liljegrin and Charlie Kraft.

Mrs. Lyle Rice was hostess for the J. O. C. Club Tuesday afternoon, entertaining at the home of her mother, Mrs. Hunter. The afternoon was pleasantly spent at cards, the honors going to Mrs. Jesse Beeson. An elegant tea was served during the social season which was enjoyed after the game. Mrs. I. D. Williams and Mrs. G. E. Monson were club guests.

Mrs. J. R. White invited eleven boys and girls to a party, honoring the eighth birthday of her son, Glenn Many games indoors and out made a very happy afternoon and a delicious supper was served. A beautifully decorated cake upon which blazed the eight candles, was the center of attraction.

Thieves Enter Two Lyons Stores

Chief-of-Police Calloway Working on Case

The Lyons Mercantile Store and Ritchie-Tinsley Drug store were burglarized Tuesday night, the thieves gaining entrance by the removal of the rear windows.

Mr. U. G. Gilger, the proprietor of the Lyons Mercantile, says his loss is from $150 up. Two auto tires, four inner tubes, cheap jewelry, suits of clothing and under clothing, tobacco, fishing tackle, shirts, socks, etc., were taken.

The thieves must have needed the clothing badly as they made a complete change while in the store, leaving their soiled clothes just where they took them off. One of the under garments had a laundry mark on it and it is hoped this will help in identification. Mr. Gilger slept over the store but heard nothing.

The Lyons Drug Store lost pocket knives, flash lights, fishing tackle and watches, the loss estimated at $50 to $75.

National Guard Encampment Called Off

Co. I is much disappointed that the encampment at Golden will not take place as usual. Orders have been received from the Adjutant General cancelling the order as many of the National Guardsmen are employed in the shops just now.

The encampment was to have been held the last two weeks in August.

Everyone Loves a Baby Show

The Baby Show at the Boulder County Fair will be conducted again this year under the supervision of Mrs. Roy Coffin who conducted it so successfully last year. Miss Dora Millice will assist her as secretary and every effort will be put forth to make this department the most attractive feature at the Fair. The usual medals will be given and the necessary application blanks will be supplied upon request by all who wish to participate. Remember the dates of the Fair, September 5, 6, 7 and 8, 1922, Longmont.

Auto banners to advertise the Fair. Get yours on your car.
Tell the folks to meet you there
And have them come from near and far.

Longmont District Visited by Two Severe Storms

Hail Kills Chickens and Turkeys and Ruins Crops

The territory north and east of Longmont has suffered severely from two hail storms, one Monday and one Tuesday afternoon. The hail stones were as large as eggs and came down with so much force that chickens and turkeys were killed before they could get under shelter.

C. A. Daily, whose farm is nine miles east of Ninth avenue, suffered a very heavy loss. The hail ruined his big crop of tomatoes and opened up his watermelons, scarcely leaving one, killed forty chickens and a number of turkeys, and riddled the roof of his house so badly that it will have to be re-shingled. He was in both storms and what one did not get the other did.

One farmer lost five pigs, another some calves pounded to death by the hail stones. Beets were completely topped, trees were stipped of their leaves, grain, both standing and cut was badly damaged and gradens were completely ruined. In some places the hail was five inches deep. It took only thirty minutes to completely destroy the work of three months.

Severe Hail Storm Northeast of Longmont

The districts of Mead, Liberty Hall and Berthoud south were damaged quite severely Monday by a storm of rain and hail. Corn and beets were pretty badly cut, wheat still standing was flattened by the rain but wheat in the shock was not so severely hurt. Mead was not so badly hurt as the Berthoud district. The hail stones were very large and covered the ground an inch or more.

James Olcott, Brother of Mrs. J. W. Goss Dies Suddenly

Mr. and Mrs. J. W. Goss went to Denver Sunday and attended the funeral of Mrs. Goss' brother, James Olcott, of 1003 Lincoln street, Denver. Mr. Olcott was apparently in his usual health when he retired Tuesday night after motoring out to look over a new house he was having built for his and his family's home. Next morning his wife found him dead in his bed.

James Olcott has been a resident of Colorado for more than forty-two years, part of that time being spent at Hygiene where he had many friends. At the time of his death he was Assistant Building Inspector of the City of Denver. James O. Goss and John B. Goss, nephews, and wives of Hygiene, and Mr. and Mrs. Orla Binter of Grand Ledge, Michigan, the latter a niece of the deceased attended the funeral.

SENATE FAVORS DUTY ON SUGAR

NEW TARIFF SCHEDULE OF 2.3 CENTS A POUND IS COMPROMISE ON FORMER RATE.

LENROOT LEADS FIGHT

OPPOSED TO PAYING POTASH PRODUCERS BOUNTY FOR FIVE YEARS.

Washington.—The Senate approved an increase of three-tenths of a cent a pound in the tariff on sugar, rejected a plan for a government bounty of $8,500,000 for domestic potash producers and rescinded its former action in voting an impost of 2 cents a pound on white arsenic. Potash and white arsenic were placed on the free list.

The sugar rate of 2.3 cents a pound was a compromise between the 2.5 cents duty urged by Louisiana cane and western beet sugar producers, and the 2 cents proposed by the House and approved by the finance committee majority. It is three-tenths of a cent above the tariff in the existing emergency act and 1.05 cents above that in the Underwood act.

The compromise was offered by Senator Smoot of Utah, ranking Republican on the finance committee, and was accepted by the same vote that the Senate rejected the 2.5 cents duty, 37 to 35.

Before considering the bounty, the Senate voted 66 to 1 to strike out the provision by which a tariff duty would have been imposed on potash for five years at the same rates that it was proposed to pay the bounty 2½ cents a pound for the first two years, 2 cents for the third year, 1½ cents for the fourth year, and 1 cent for the fifth year. Senator Shortridge, Republican, California, alone voted against eliminating the duty, explaining that he thought the industry should be fostered by a tariff and not by a federal bounty.

Because of the operation of the 20 per cent tariff differential allowed to Cuba, the 2.3 cents rate on sugar would work out at 1.84 cents a pound on sugar from that country, which constitutes practically all of American imports. This rate on Cuban sugar is .24 of 1 cent above the existing tariff and .16 of 1 cent lower than proposed by Senator Broussard, Democrat, Louisiana, who led the fight for the 2.5 cents rate.

The sugar fight led to five roll calls, on several of which Republican leaders and the finance committee majority split. The Republican agricultural-tariff bloc voted practically solidly, however, first for the highest rate proposed and then for the Smoot compromise. On the first roll call, the senate rejected, 53 to 19, a proposal by Senator Gerry, Democrat, Rhode Island, to restore the Underwood rate of 1¼ cents a pound; then it voted down, 50 to 21, another amendment by Senator Gerry to make the rate 1.4 cents. Senator Willis proposed a rate of 2¼ cents, but this was disapproved, 48 to 22.

The committee sub-amendment proposing to pay potash producers a bounty over a period of five years led to a sharp fight, during which Senator Lenroot, Republican, Wisconsin denounced the proposition as one which would open the door of the federal treasury for a steady drain of the same sort in the future.

"Adopt this amendment," he said "and we embark on the sea of bounties from which we may never return."

Senator Smoot replied that as he saw the situation, "it was a question whether the United States was to give its industry an opportunity to develop or to permit the German and French Cartels to have complete domination."

Irish Factions Near Settlement.

London.—A message from Strabane received by the Exchange Telegraph Company stated that a settlement between the Ulster government and the Free State authorities was imminent, the terms of agreement having been practically arranged in negotiations proceeding in London. In Downing street, however, all knowledge of any such Irish negotiations was disclaimed and a telegram from Belfast quoted Ulster government officials as denying that a settlement with the Free State was at hand.

Claims Discussion Near End.

Washington—President Harding expects that the state department will shortly be able to announce the institution of negotiations for settlement of German-American claims arising out of the war.

Seeks New Hospital Plan.

Washington.—New policies of hospitalization for disabled veterans of the World war are to be taken up at once with President Harding, Director Forbes of the veterans' bureau announced after an inspection of nearly all of the veterans' hospitals in the country. The director said he had become convinced that what the tubercular and mental patients needed most were some other kind of institutions than hospitals.

Foster Assails Hamrock.

Omaha.—Featuring his address with an attack on Colorado authorities who ordered him from that state recently, William Z. Foster, a leader of the last steel strike, spoke to an audience of 300 at Omaha a few days ago. Foster bitterly scored Adjutant General Hamrock of Colorado, who, he said, ordered his arrest as a "dangerous radical," and alluded to the officers who escorted him to the Wyoming border as "constabulary gunmen."

ASKS PROBE OF PRESS

GOODING OF IDAHO INTRODUCES RESOLUTION.

SENATOR LENROOT UPSETS THE PLANS FOR FINAL VOTE ON AUGUST SEVENTEEN.

Washington.—Upsetting plans of Republican and Democratic leaders for a final vote on the administration tariff bill on Aug. 17, Senator Lenroot, Republican, Wisconsin, gave notice in the Senate that there would be no unanimous consent agreement for a final vote, at least until all important committee amendments to the measure had been discussed and acted upon.

The Wisconsin senator said he was anxious to limit debate and proposed an arrangement under which discussion would have been confined exclusively to the tariff with each senator limited to ten minutes' talk on amendments on the bill after Aug. 31. Senator Lodge, the Republican leader, objected to this, however, and the effort to come to an understanding in the open Senate ended.

Senator Gooding of Idaho, chairman of the Republican agricultural tariff bloc, introduced his resolution directing a special committee of five senators to inquire into and report to the Senate on:

"The financial interests of senators in the wool and sheep industries.

"The financial interests of Mr. Frank A. Munsey in European industries which compete with American industries: the amount and percentage of his income derived from advertisements placed in his newspapers by the importing department stores which have financed a campaign of defamation against the pending tariff bill and which will profit by the defeat of the bill.

"The number of senators owning or controlling or financially interested in newspapers, the amount of revenue obtained by these newspapers from its importing department stores, which will benefit financially by the defeat of the pending tariff bill.

"The financial interests of all members of the senate, or their relatives, in any American industry or in any property in any community in the United States which may be affected, directly or indirectly, either by the passage or defeat of any proposed schedule in the pending tariff bill."

The preamble of the resolution recited that charges had been made by the New York Herald, owned by Mr. Munsey, "that members of the senate are engaged in the sheep industry had thereby been financially interested in the wool schedule of the tariff bill."

Senator Harrison and Senator Simmons, Democrats, North Carolina, contended that the Gooding resolution seemed to propose an investigation of no publications other than the Munsey newspapers, and suggested that the inquiry be extended to all dailies attacking the tariff.

Chemical wool pulp was restored to the tariff free list by the senate, which rejected, 30 to 22, an amendment proposed by the finance committee majority to make it dutiable at 5 per cent ad valorem.

Business Improves Says Labor Bureau.

Washington.—Despite the coal and rail strikes, there is a strong undercurrent thruout the country in the direction of industrial recovery, the department of labor announced in an analysis of business conditions for the month ended July 30. An optimistic opinion prevails, the statement added, that with the settlement of the two major controversies the country will experience a rapid advance in industrial prosperity.

Shipowners Lose Millions.

London.—The shipowners of the world have lost 1,300,000,000 pounds sterling as a result of the recent slump in marine freights. This is the estimate of "Fairplay" in its semi-annual review of the shipping sale market. A cargo steamer of 7,500 tons brought £66,000 in March of this year, according to Fairplay. Then the freight market went to pieces, and to-day the same vessel would not bring more than £62,000.

Ten Held for Disturbance.

Lincoln, Neb.—Eight men, said to be striking Burlington railroad shop workers, and the wives of two of them were arrested at Lincoln by federal officers, charged with violation of the federal court injunction prohibiting interference with men at work in the railroad shops at Havelock, Neb.

U. S. Dry Agents Arrested.

Helena, Mont.—On complaint and warrant charging larceny, L. S. Groff and a man named Green, federal narcotic agents, were placed under arrest. The proceedings were started by Deputy County Attorney George W. Padbury, Jr., on complaint of three men, Woo Yu, Wong Kin and Toy Toy.

Unions Oppose Peace Move.

Washington.—President Harding's new proposal for settling the railroad strike apparently advances "no constructive program," leaders of the striking shopcrafts men announced after a protracted conference. B. M. Jewell, head of the shopcrafts federation, said the President's settlement proposals constituted "a most uncalled for attempt to help the railroads break the strike," and added that "nobody ought to get the idea the shop federations will accept."

U. S. Aerial Mail Makes Record.

Washington.—The transcontinental aerial mail service has had a perfect record for the past three weeks, according to reports received by Postmaster General Work from J. E. Whitbeck, in charge of the service at Hempstead, N. Y., headquarters for the division; E. R. Dunpry at Omaha, Neb.; of the east-central division, and A. C. Nelson at Salt Lake City, Utah, of the Western divison. All three divisions reported that every flight during the last three weeks was on time.

Yellowstone's Bandit Bear at Work

Jesse James is at it again. The famous holdup bear of Yellowstone Park is stopping whole processions of cars this year in his search for eats. Here he is on his usual "beat" on the road between the park entrance at Yellowstone and Yellowstone Lake.

37 KILLED IN REAR-END WRECK

HORROR REIGNS AT SCENE OF MISSOURI DISASTER AS SHRIEKS OF DYING ARISE.

GHOULS ROB VICTIMS

DEAD AND INJURED SPREAD OVER AN AREA OF SEVERAL CITY BLOCKS.

St. Louis.—Twenty-six of the victims of the Sulphur Springs wreck were brought to St. Louis to the city morgue where all but one has been identified. The name of the one dead person was given out but could not be positively identified, but is believed to be from St. Louis.

Sulphur Springs.—Failure of an engineer to heed a block signal caused a rear-end collision on the Missouri Pacific Railroad at Sulphur Springs, Mo., a few days ago, in which thirty-seven persons were killed and 138 injured, twenty-five seriously, according to John Cannon, assistant general manager of the road. Of the known dead all but one has been identified. Train No. 4, a vestibuled, steel fast passenger train, running at full speed, crashed into No. 32, a local composed of five wooden day coaches, a baggage and an express car, as the engine was taking on water with the coaches stretching back on a trestle over Gluise creek.

The impact hurled two of the local coaches down a fifty-foot embankment edging the Mississippi river and telescoped four other coaches, crushing a number of passengers to death in their seats.

Both trains were behind time and the fast passenger, running from Fort Worth, Texas, to St. Louis, Mo., carried 180 passengers and the local 100 persons.

According to Mr. Cannon, Matt W. (Ginger) Glenn of St. Louis, engineer of the fast passenger, failed to heed a block signal warning him that the track was not clear ahead. Glenn, 57 years old, an engineer for thirty-seven years without a black mark against his record, was killed when he jumped from his cabin just before the crash. Edward Tinsley, also of St. Louis, fireman of No. 4, remained at his post and was injured seriously.

Engineer Glenn shortly before arriving in Sulphur Springs received orders "on the run" to pull over on a siding at Cliff Cave, ten miles north of Sulphur Springs, to allow "Sunshine Special" No. 11, en route from St. Louis to Texas points, to pass, and Mr. Cannon explained the engineer failed to heed the block signal because he apparently was reading these orders when he passed the block. The orders were found near the body.

Ghouls appeared on the scene soon after the wreck and robbed the dead and dying of whatever they could. Only one was arrested, however, and he said he was William Hall of St. Louis. Several pieces of wearing apparel taken from the unfortunate were found on his person and a Bible was in his waist. The Bible, it was said, had been the property of the Rev. V. O. Pensley of De Soto, one of those killed.

The dead and injured were spread over an area of several city blocks.

Cox Lauds League of Nations.

Geneva.—"The welfare of the league of nations and the welfare of our own country would be advanced if we entered into full membership in the league of nations, but it is apparent from an intimate view of the situation in Switzerland that membership of the United States is not essential to the life of the league of nations," said James M. Cox, former governor of Ohio, before the members of the secretariat of the league of nations and prominent men of Switzerland.

American Schooner Seized.

Pensacola, Fla.—The auxiliary schooner Success was escorted into Key West harbor by a coast guard cutter, Assistant District Attorney Hoffman was advised officially, on suspicion of being engaged in the smuggling of Chinese and liquor into the United States. C. A. Moore, alleged by officials at Pensacola to have been identified with the operations of the smugglers, was arrested in Havana, Cuba, according to the same advices.

SAILORS JOIN GUARDS

FIRE UPON RIOTERS WHO HAD ERECTED BARRICADES

STORMING PARTIES RAID HOMES OF SOCIALIST LEADERS AND FIVE LABOR CHAMBERS.

Rome.—Milan, Ancon, Genoa and other Italian cities were kept in turmoil recently by bands of Fascisti bent on working reprisals against the Socialists and Communists. In Milan the Fascisti occupied the municipal building. They took over all the offices and when they reached the room where the Socialist aldermen were at work, they demanded the aldermen's resignations, charging that the Socialist administration showed itself unfit to rule the commune.

In the fighting in Milan, more than fifty persons were wounded, ten of whom are not expected to recover.

At Padua the Fascisti raided the home of Dante Galiani, Socialist deputy, charging that a shot had been fired at them from the house. Dr. Galiani is a well-known physician. The interior of the house was wrecked and the doctor, his wife and their children were forced to flee, escaping from a back window.

At Pistoja, in Tuscany, parties of Fascisti occupied the municipal building. In Asti and Puda the chambers of labor were set on fire, and in the villages of Pugezzano, Rebocco and Calappa, near Spezia, the Socialist headquarters were destroyed.

Besides occupying the Milan municipal buildings, bands of Fascisti attacked the editorial office and printing plant of the Socialist organ, Avanti.

Genoa.—Several hundred sailors were landed from the battleship Dante Alighieri and the cruiser Pisa and joined with the Royal Guard in firing upon rioters who had erected barricades in the streets. The fighting continued all night, by which time the barricades had been demolished by machine-gun fire.

Court Rulings Fail.

Washington.—Texts of additional opinions by the Mexican Supreme Court regarding the confiscatory provisions of the Mexican constitution have been received by the State Department, but have not resulted in any immediate evidence of a change of policy toward recognition of the Obregon government.

In all the department now has before it five opinions by the court, the number required by Mexican practice to establish a precedent. It has been indicated, however, that at least some of these, which have been sent to Washington from time to time as their text became available in Mexico City, are not regarded by officials in Washington as adequate to protect American interests.

Whether the delay of the Mexican President in accepting the treaty and thus directly showing his intention to protect American interests will be interpreted as weakening the effect of the court decisions, is not revealed by officials at Washington.

In some quarters it is even suggested that a pledge given by the Obregon administration itself would be highly desirable. It is pointed out that an opportunity to make such a pledge has been given General Obregon through the suggested treaty of amity submitted for his approval by the State Department several months ago but never acted upon favorably in Mexico City.

Men Plan Waiting Policy.

Chicago.—No immediate change in program of the maintenance of way union is contemplated at present, E. F. Grable, president of the organization, said at Chicago recently. He added, however, that if present practices on some railroads continue, "it is hard telling where the matter may lead." Mr. Grable said he expected to go to Washington with other union leaders to confer with President Harding regarding practices to which the union men object.

Twelve Rail Unions May Strike.

Chicago.—E. J. Manion of St. Louis, president of the Railway Telegraphers, has sent letters to the heads of the twelve railroad unions not on strike suggesting a meeting to discuss the growing tendency to involve their men in the shopmen's strike. Mr. Manion's letter, it was learned, pointed out that the members of the twelve unions still at work had many problems in relation to the strike and suggested the advisability of a conference of the twelve grand chiefs.

28,000 LIVES ARE LOST IN TYPHOON

SCENE RESEMBLES CARNAGE OF WAR AND DEAD BURIED IN GUNNY SACKS.

CHINESE CITY WRECKED

BODIES FLOAT 15 MILES OUT AT SEA AS TIDAL WAVE SWEEPS THROUGH HARBOR.

Hongkong.—The toll of the typhoon of Aug. 2 at Swatow already has mounted to 28,000 dead. Coffins are lacking to provide decent burial for many and the bodies are being interred in gunny sacks. The new figures of lives lost almost tripling previous estimates, were contained in a circular issued by the Hongkong branch of the Swatow Chamber of Commerce. The circular stated that 28,000 bodies of victims of the Swatow disaster already had been recovered. Benevolent societies attempting to care for the dead have been forced to use mattress covers and old bags as coffins for the myriad dead could not be provided. Charitable organizations of Hongkong are combining to organize for effectual relief measures for the stricken city.

To all appearances Swatow is the scene of a war-ravaged town—one heap of ruins. The tidal wave which swept the land, or road, along the harbor at the height of the typhoon, inflicted considerable damage to the waterfront buildings. Losses were heavy in this district.

The British in Hongkong have remitted $10,000 to the British consul at Swatow and are shipping rice for distribution among the homeless and destitute. The Swatow municipality charitable association is raising subscriptions for a relief fund.

The captain of the steamer Hsin wah, arriving at Hongkong from Swatow, told the Associated Press correspondent that his vessel, fifteen miles before reaching Swatow from Shanghai, encountered corpses and carcasses floating on the ebb tide. No wreckage was seen this far out.

On Double Island, which is the summer resort of Swatow's foreign community and the residence of pilots not a single house was intact, the captain reported. Inside Swatow harbor the boats that took refuge there presented one mass of intricate, varied wreckage. The refugees had been caught like rats in traps and corpses floated in a promiscuous heap. The stench was unbearable.

Washington.—A state department dispatch from Hongkong reported that the American consulate at Swatow has been unroofed in the recent disastrous storm there, but that so far as known no Americans lost their lives.

"Swatow and surrounding country swept by typhoon and tidal wave Aug 2 and 3," said the dispatch. "Worst in history. Estimated dead 1,000 in Swatow alone. Tens of thousands homeless. Property loss millions. No Americans known to be lost. Consulate unroofed and flooded, but damage slight."

Martial Law in Indiana.

Indianapolis.—Governor McCray has taken the first step in his effort to provide coal for Indiana's public institutions and essential industries by sending 750 national guardsmen into the coal fields in the southwestern part of the state. The governor prepared for possible interference by issuing a proclamation of martial law in the district in which it is proposed to mine coal under protection of the troops. Two strip mines near Staunton have been taken over and will be operated by the state.

Says Wars Not Ended.

Spokane, Wash.—America has not been freed of wars by any action or outgrowth of the Washington peace conference, Maj. Gen. Charles Stuar Farnsworth, chief of the infantry troops, declared in an address at Spokane.

General Farnsworth said that the principal accomplishment of the Washington conference was the modification of future wars to some extent. "Our American boys are born with a spirit of loyalty to their country," General Farnsworth added.

Cutting U. S. Budget.

Washington.—Budget bureau pruning knives are rapidly clipping down the estimate of government expenditures for the fiscal year 1924 to the $3,000,000,000 mark, is was said recently at the treasury.

Blocks Move to Probe Sugar.

Washington.—The blocking of efforts to obtain immediate action on the Harrison sugar investigation resolution and an impassioned denial by Senator Smoot, Republican of Utah that he had proposed a letter to Major General Crowder, American representative to Cuba, a reduction in the duty on sugar in return for the limitation of this year's Cuban sugar crop to 2,500,000 tons, marked senate consideration recently of the sugar schedule of the tariff bill.

Declare Ousting Lawful.

Washington.—Use of United States marines to oust the Mutual Oil Company from the Teapot Dome naval reserve in Wyoming was declared at the White House to have been "lawful and efficient." The White House spokesman, commenting on the protest recently forwarded President Harding by Governor Carey of Wyoming said it was imperative that the federal government protect its oil reserves and prevent trespassing which would result in court litigation.

Cleaned the Stream.

"Caught anything?"

"No, haven't even had a bite."

"That's queer. Old Man Johnson got 84 out of that place the day before yesterday.

"That so? He must have got them all then."

For the Umbrella.

Sponge a black silk umbrella with sweetened strong tea. The tea will restore the color of the fabric and the sugar will stiffen the fabric.

It is much easier to go to law than to get back.

Roll Butter.

The young housekeeper who told the fishman that she wanted some eels and when he asked her how much, replied, "About two yards and a half," has a rival in a Baltimore woman.

"I wish to get some butter, please," she said to the dealer.

"Roll butter, ma'am?" he asked, politely.

"No; we wish to eat it on toast. We seldom have rolls."

Art is the power of man's soul working outward.

If we don't know what to do, suppose we don't.

LATEST MARKET QUOTATIONS

Furnished by

U. S. BUREAU OF MARKETS

Washington, D. C.

Cotton.

Spot cotton prices declined 26 points during the week. New York October futures down 27 points. Spot cotton closed at 21.47c per pound. New York October futures 21.20c.

Hay.

Quoted: No. 1 timothy (old), New York $30.50, Philadelphia $24; (new), Cincinnati $17.50, Chicago $21, Minneapolis $16, St. Louis $20. No. 1 prairie, Minneapolis $15.50, Chicago 19. No. 1 alfalfa, Atlanta $25, Memphis $23.

Feed.

Quoted: Bran $14, middlings $17, flour middlings $22, 33 per cent linseed meal $45, Minneapolis; gluten feeds, $29.85 Chicago; 36 per cent cotton seed meal, $24 Memphis; white hominy feed, $24 St. Louis; No. 1 alfalfa meal, $18.75 Kansas City.

Grain.

Closing prices in Chicago cash market: No. 2 red winter wheat, $1.12; No. 2 hard winter wheat, $1.14; No. 2 mixed corn, 64c; No. 2 yellow corn, 65c; No. 3 white oats, 35c. Average farm prices: No. 2 mixed corn in central Iowa, 51c. Closing future prices: Chicago September wheat, $1.06¼; Chicago September corn, 62¾c; Minneapolis September wheat, $1.13¾; Kansas September wheat, $1.09½; Winnipeg October wheat, $1.11⅝.

Dairy Products.

Closing prices, 92 score butter: Chicago 34c, New York 34½c, Philadelphia 35c, Boston 36c.

Cheese markets lower and tone is somewhat unsettled. Prices at Wisconsin: Twins, 18c, daisies 18¾c, double daisies 17¾c, long horns 18c, square prints 20c. Young Americas 18¾c.

Fruits and Vegetables.

Prices reported: New Jersey sacked cobblers, No. 1, $1.15 to $1.50 per 100 pounds eastern markets, $1.60 Chicago, $1.05 to $1.15 f. o. b. north and south Jersey points; Minnesota early Ohios, $1.20 to $1.25 Chicago, $1 f. o. b. Kansas; early Ohios, 65c to $1 Kansas City and Chicago, 65c f. o. b. Kaw Valley points. Virginia barreled cobblers, $2 to $2.75 eastern cities, $2.75 to $3.25 in the Middle West, $1.90 to $2.10 f. o. b. Olney. North and South Carolina Tom Watson watermelons, $200 to $400 bulk, per car eastern markets; Georgia melons, $200 to $275 Chicago, $90 to $150 f. o. b.; Missouri stock, $200 to $375 in mid-western cities, $75 to $150 f. o. b.; Texas Tom Watsons, $2 to $2.50 bulk per 100 pounds. Georgia and North Carolina peaches, sixes and bushel baskets, Elbertas and Belles, $2 to $2.75 in city markets. Arkansas fruits, $1.75 to $2.75. The first of the north peach season may be expected with the heavy arrivals from New York and Michigan during the last two weeks of September. The movement at that time often approaches 3,000 cars per week. California salmon tint cantaloupes, Turlock section, standards 65s, $2.75 to $3.50. Arkansas melons, $1.60 to $2, Kansas City and St. Louis. Indiana green meats, $1.85 to $2.15, Chicago and Cincinnati; eastern green meats, 50c to 85c most eastern cities, eastern early apples, red varieties, $1.25 to $1.50, Jonathan, Rhode Island Greening, Michigan and Illinois yellow transparents, 50c to $1.10 in Chicago and Pittsburgh.

Live Stock and Meats.

Chicago prices: Hogs 10c, $11 bulk of sales, $7.50 to $10.60 medium and good beef steers $8.15 to $10.25; butcher cows and heifers, $4.15 to $9, feeder steers, $5.50 to $7.65, light and medium weight veal calves, $9.50 to $10.75, fat lambs, $12 to $13.50 feeding lambs, $11.50 to $12.50, yearlings, $8.50 to $11, fat ewes, $5.50 to $7.65. Veal, lamb, mutton and pork loins ranged from firm to $2 higher per 100 pounds; beef firm to 50c higher. Better grades of steer beef were firm to 50c higher, with lower grades weak under slow demand. Veal and mutton steady to weak. Lamb firm at some markets but weak at others. Pork loins slow at a wide range of prices with the average about steady. Prices good grade meats: Beef $14 to $16, veal $12 to $15, lamb $23 to $25, mutton $12 to $16, light pork loins $23 to $25, heavy loins $13 to $14.

DENVER MARKETS.

Cattle.

Receipts, 2,461. The best steers offered sold for $8.50, and bulk of the good grade stock found outlet at $8 to $8.25. One load of yearlings from a feed lot were sent across the scales to a packer for $9.25. Quotations on choice heavy dry-lot steers of prime finish continue to range from $8.75 to possibly $10. A new top on grass cows was established when an attractive load was sold for $6.15. Most of the good quality grass cows are selling from $5.25 to $5.75. No dry-lot cows were offered, but the call from killers continued good and quotations continued to range from $6.50 to $8.25. Feeder steers continued to meet with a fair trade, the choice kinds being quoted around $7.75, while most of the medium to fair grades found outlet at $6 to $7.

Hogs.

Receipts, 1,245. Top was $10.35, paid by small killers for two choice loads of stock, in comparison to a top at Omaha of $9.75. Omaha's bulk was $8.50 to $9.25, while in Denver the big end of the run was sold from $9.25 to $10. Packers' top was $10.25, paid for one small piece of a load. Packers' rough, heavy throw-outs hogs were quoted at $7.50, and rough, heavy stags sold generally at $6.50. The demand for pigs also continued strong and quotations were unchanged at $9.50 to $10.

Sheep.

Receipts, 653. All eastern markets were reported from 25c to 50c lower, and it was the opinion of dealers that the local market would have felt the decline, at least to the extent of a quarter, had there been anything here on which to trade. Supplies were limited to a few loads and these were still in first hands at a late hour, as dealers were unable to secure a release. Choice lambs were quoted from $11.75 to possibly $12, and dealers continued to quote the best quality handyweight ewes at $6.50.

DENVER SUGAR QUOTATIONS.

Manufacturer's Price.

Beet	$7.65
Cane	8.05

Wholesaler's Price.

Beet	$8.10
Cane	8.30

METAL MARKETS.

(Colorado settlement prices.)

Bar silver (American)	99¼
Bar silver (foreign)	69¾
Copper	13¾@14¼
Zinc	6.32½
Lead	5.75
Tungsten, per unit	3.50@4.00

HAY AND GRAIN PRICES.

Timothy, No. 1, ton	$18.50
Timothy No. 2, ton	17.50
South Park, No. 1, ton	17.50
South Park, No. 2, ton	16.00
Second bottom, No. 1, ton	13.50
Second bottom, No. 2, ton	10.50
Alfalfa, ton	17.00
Straw, ton	7.00
Corn, No. 3 yellow, per cwt.	1.18
Wheat, No. 1, per bushel	.78
Oats, per cwt.	1.24
Barley, per cwt.	1.20

Asks Harding to Name Mediators.

Chicago.—Col. A. A. Sprague, chairman of the American Legion's national rehabilitation committee, has suggested to Brig. Gen. Charles D. Sawyer, President Harding's physician, that the President be asked to appoint a committee of physicians to decide the controversy between the general and the Legion over the hospital care given wounded soldiers. Colonel Sprague made public his letter to General Sawyer, who is chief co-ordinator of the hospitalization board.

American Farm Bureau

Candidate for United States Senate Working in Cornfield.

Mrs. Izetta Brown, working in the corn field with her farm hands on "Juneland," her West Virginia farm. Her little five-and-a-half-year-old daughter, June, is standing on the wagon with her. Mrs. Brown has just been announced as a candidate for United States senator from West Virginia. She has for a number of years been prominent in national politics, is chairman of the National Women's party, a member of the women's committee of the American Farm Bureau federation and president of her local county farm bureau.

ACCOMPLISHMENTS OF BUREAU IN MICHIGAN

So Successful That Four Commodity Marketing Exchanges Have Affiliated.

A second membership campaign for reestablishment of the thousands of Michigan farmers who built the Michigan State Farm bureau has been announced by Clark L. Brody, secretary-manager of the bureau. Accomplishments of the bureau in the past three years as cited by Mr. Brody include construction of the most powerful farmers' organization Michigan has ever known. It has co-operated with other farm organizations in the state so successfully that the four great commodity marketing exchanges, the potato growers, the milk producers, the live stock exchange and the elevator exchange have affiliated with the farm bureau in the working out of common interests.

Within the past two years the farm bureau has given great stimulus to the co-operative marketing movement in Michigan. It has built the greatest co-operative seed handling agency in the

Clark L. Brody.

nation, an agency that is a pioneer in guaranteeing all its seed. The bureau also built the largest and most successful state elevator exchange in the United States. It consists of 101 local elevators marketing through a central agency. The bureau's purchasing department, transportation, taxation and legislative departments are declared to have been of great service to Michigan farmers. The Michigan farm bureau blazed a path in co-operative marketing by being the first institution of its kind to work out a state-wide farmers' seed and supplies purchasing agency and put them on a successful basis.

I. A. A. Providing Outings.

The Illinois Agricultural association is providing two week outings on the farms of Illinois for children from the slums of Chicago.

BUILDING HIGHWAYS IN VARIOUS STATES

Money Made Available for the Construction of Roads Connecting County Seats.

W. C. Markham, secretary of the American Association of State Highway Officials and representative of the American Farm Bureau Federation, completed his work in Washington recently upon the passage of the conference report on the Post Office bill, authorizing the appropriation of $50,000,000 for federal aid in road building in 1923, $65,000,000 in 1924, and $75,000,000 in 1925. This bill is a complement to the bill passed last summer providing a scheme for the building of farm-to-market roads which was advocated by the farm bureau. It makes the money available for the carrying out of a system of building highways connecting the various county seats in the states and other important roads. This is known as the seven per cent system in which the state highway commissioners collaborate with the federal road officials in laying out a system of roads for the states. When this seven per cent system of roads has been improved according to the plans promulgated in the beginning, another seven per cent is added, thus insuring the completion of the projects when once started.

Under the rules and regulations laid down by the United States bureau of roads, which administers the disposition of federal funds, there is included not only plans for the building of finished roads, but the expenditure of money for the proper grading of roads with the building of temporary service. This expedites the work where it might be impossible under other conditions.

The post-office bill merely carries the authorization for the appropriation and the appropriation itself for the next fiscal year may not be made by congress until next December. In the interim between June 30, the beginning of this next fiscal year, and December, contracts will be entered into by the state highway commissioners and approved by the federal authorities the same as though the money actually had been provided for. The secretary of agriculture's approval of any project will be deemed a contractual obligation of the federal government for the payment of its proportion of the cost of construction.

The strong feature about this road legislation is that the federal government makes plans for a three-year program. This is of special value because the legislatures which meet only every two years are convened next January in 37 of the states and they can make the plans necessary to co-operate with the federal government on this three-year building program.

Under the passage of the present bill it is estimated that $48,750,000 will be available for the fiscal year of 1923, $63,375,000 for 1924, and $73,125,000 for 1925.

Lean Market Producers.

Fat dairy cows that are lean producers should be sent to market.

BLAME UNORGANIZED FARMER

At Fault for Costly and Wasteful Speculative System Prevailing in Marketing.

It is the unorganized farmer who is at fault for the costly and wasteful speculative system now prevailing in the marketing of many agricultural commodities, Aaron Sapiro, famous co-operative attorney, told the milk producers of the Chicago district.

Mr. Sapiro has helped to organize forty-seven co-operative farmers' marketing associations, all of which have been successful.

"Don't blame the speculator," he said. "He is the natural result of the lack of organization in agriculture. What would you think if each one of the forty thousand stockholders in one of the largest meat packing companies would begin selling meat products independently of all the other stockholders? That is exactly what is happening in unorganized agriculture today. Is it any wonder that agriculture in many cases has not been receiving the price it deserved for its products?

"If farming is to be a successful business the farmer must organize along business lines and market his own product just as efficiently as other manufacturers."

To Pool 7,000 Pounds.

Gustavus R. Waeber of Iron River, Mich., promises to hold the record for the largest individual wool clip placed in the 1922 pool. He will ship some 7,000 pounds to the Lansing warehouse and will receive 2 40 per cent cash advance upon its arrival and grading. Mr. Waeber says a neighbor who has about 1,500 head of sheep is planning the same action.

To Market Apples.

The marketing committee of Kansas state farm bureau has worked out definite apple grades and is completing arrangements for the organization of apple shipping associations in apple growing communities of the state. The bureau will help distribute apples from these sections to communities which will have to ship in fruit.

CRISP COLORADO NEWS

COMING EVENTS.

Sept. 25-30—Colorado State Fair, Pueblo.
Aug. 30-31—Crowley County Fair, Sugar City.
Aug. 29-Sept. 1—Larimer County Fair, Loveland.
Sept. 6-8—Arkansas Valley Fair, Rocky Ford.
Sept. 5-8 — Boulder County Fair, Longmont.
Sept. 5-8—Intermountain Fair and Stock Show, Grand Junction.
Sept. 5-8—Phillips County Fair, Holyoke.
Sept. 6-8—Washington County Fair, Akron.
Sept. 12-15—Delta County Fair, Hotchkiss.
Sept. 12-15—Weld County Fair, Greeley.
Sept. 12-15—LaPlatta County Fair, Durango.
Sept. 12-15—Logan County Fair, Sterling.
Sept. 13-16 — Baca County Fair, Springfield.
Sept. 13-16—Adams County Fair, Brighton.
Sept. 14-16—Conejos County Fair, Manassa.
Sept. 14-16—Elbert County Fair, Keyser.
Sept. 19-22—Western Slope Fair, Montrose.
Sept. 19-22—Trinidad-Las Animas County Fair, Trinidad.
Sept. 20-21—Kiowa County Fair, Eads.
Sept. 20, 21, 22—Morgan Agricultural Fair, Fort Morgan.
Sept. 20-22—Rio Grande County Fair, Del Norte.
Sept. 21-22—Pueblo County Fair, Goodpasture.
Sept. 21-23—El Paso County Fair, Calhan.
Sept. 21-23—Lincoln County Fair, Hugo.
Sept. 20-23—Huerfano County Fair, Walsenburg.
Oct. 3-6—Kit Carson County Fair, Burlington.
Oct. 3-5—Douglass County Fair, Castle Rock.

Morrison.—Francis T. Green, 13, was drowned at Allen's lake, near Morrison, Colo., while swimming with boy companions.

Denver.—Reports reaching Adjt. Gen. P. J. Hamrock of the Colorado National Guard indicate that 500 of the normal force of 1,100 rail employés are working at La Junta, despite the strike of certain of the rail employés.

Pueblo.—D. Z. Bray and Mr. and Mrs. Phillip Morrow, negroes, were drowned recently when they were caught by a wall of water as they were crossing Peck creek, ten miles west of Pueblo, in an automobile. Mrs. D. Z. Bray was saved.

Loveland.—As William Juliffe of Berthoud was driving a load of hay along the highway, a swarm of bees descended upon his wagon. The team was stung to death and Mr. Juliffe has been in a serious condition since. He lives one mile south of Berthoud.

Boulder.—A bond election has been called by city officials for Aug. 22, on a reservoir project for University hill, involving an expenditure of $100,000. The growth of the city in that direction makes necessary the construction of a storage reservoir, city officials claim.

Boulder.—Mrs. Mitchell Leavitt, 24 years old, is believed to have been fatally injured, and her husband, Mitchell Leavitt, 26, suffered fractures of shoulder blade and jaw and may lose an eye, when their car failed to make a turn on the highway at Boulder a few days ago.

Trinidad.—J. E. Thatcher was painfully injured when a motor truck which he was driving was struck by a railroad handcar at a grade crossing at Trinidad. The truck was completely turned over, and nearly demolished. None of the occupants of the handcar were injured.

Colorado Springs.—Maywood Watson, 12 years old, son of Mr. and Mrs. J. P. Watson of Grand Junction, Colo., was severely injured when a motor car driven by his father plunged over a seventy-five-foot embankment in Ute Pass highway a few days ago. Mrs. William Emmal, a sister of Mrs. Watson, also was painfully injured while Mr. and Mrs. Watson escaped with comparatively slight injuries.

Trinidad.—Stella, 11-year-old daughter of Mr. and Mrs. Paul Conil, was severely injured when a railroad torpedo, with which she was playing, exploded. She hit the torpedo with an ax on the sidewalk in front of her home.

Brush.—Fire caused by an exploding film resulted in a stampede of the audience and damage of $500 at the Emerson theater at Brush. Because of a teachers' institute that was being held, a special feature was being shown and the film pavilion was crowded. Several received minor injuries in the rush for exits. The coolness of several ex-service men who were in the audience prevented anyone being seriously injured.

Grand Junction.—The fourth violent death in western slope counties in two days was reported recently in the death of Del McKinney, 23 years old, resident of Mesa. McKinney was swimming in the Gunnison river, near Delta, when overcome by heart disease. The other three deaths are: Suicide at Fruita of Fred T. Turner, 42 years old; drowning at Ekert of Lillian Williams, 2 years old, and the crushing out of the life of Charles Kile, 4, near Cedaredge, under a coal wagon.

Colorado Springs.—The geographical center of Colorado is located at a point in Park county, thirty miles northwest of Pike's peak, according to data given out by the United geological survey at Washington. The department has recently compiled data showing the geographical center of every state in the Union.

Superior.—Seven cars of a Colorado & Southern southbound freight train were derailed 200 feet west of the depot of Superior a few days ago. The cars were badly damaged. Iron ore was scattered for a great distance.

Pueblo.—The petition for the organization of the Pueblo flood protection district will be heard by Judge James A. Park in the District court Aug. 10. At this hearing the protests against the petition will be given hearing by the court and evidence taken. If the protests fail, the organization of the district will then be ordered by the court.

Denver.—After firing three shots into the floor of her home to test her revolver, Mrs. Luella Marsh, 47 years old, of 4874 Yates street, committed suicide by shooting herself in the head.

COLORADO NEWS NOTES.

Canon City.—There are 837 prisoners in the Colorado state prison at Canon City, according to a report to the governor's office from the penitentiary. Only once in the history of the state has there been more than that number in confinement. The record was established in February, 1916. The prison population has increased 42 per cent since December, 1920. Young men, many well educated, are swelling the prison roll today, in sharp contrast to the criminals of the last generation, the report said. The smallest prison population in Colorado's history was recorded in 1919, following the coming of prohibition in the state in 1916, according to Thomas J. Tynan, warden of the prison. The warden blames the aftermath of the war and the illicit liquor traffic for the present increase.

Denver.—Immediate relief from the Interstate Commerce Commission is in sight in the prompt movement of fruit and perishable produce from the western slope this season, following a detailed conference between the Interstate Commerce Commissioners of the federal government and representative fruit growers of Mesa, Delta, Montrose, Garfield and Eagle counties. Approximately 8,953 cars of peaches, pears, apples, potatoes and onions were shipped from these five counties last year, and it was estimated that 11,771 cars would be shipped this year.

Pueblo.—Establishment of a flood district at Pueblo will not be opposed by the railroads that traverse the Rocky mountain district. A conference at Denver in the offices of the Colorado & Southern railroad of legal representatives and engineers of the road took up discussion of the provisions of the flood conservation program. Representatives of the Colorado & Southern, the Rock Island, Missouri Pacific, Denver & Rio Grande Western and Santa Fé lines attended and declared themselves in harmony with the conservation program.

Monte Vista.—The San Luis Valley H. O. G. Stock Association, whose annual show, held at Monte Vista, has become one of Colorado's important events, is perfecting plans for the erection of a magnificent exhibition pavilion on the Stampede grounds near Monte Vista. The plans for the buildings were approved at a meeting of the building committee and bids are now being solicited for the work and the contract will no doubt be awarded in time for the completion of the buildings for the big show in February.

Pagosa Springs.—The archaeological expedition from the State Historical and Natural History Society and the University of Denver, which is working in the prehistoric ruins twenty-two miles west of Pagosa Springs, reports the finding of a rare piece of pottery in the form of a mountain sheep. This is an extremely valuable object, because of the fact that animal figurines made from pottery have been found in only one or two cases in the prehistoric ruins of the Southwest.

Walsenburg.—A ranchman searching for lost cattle came on the bodies of two men lying by a wrecked car in an arroyo of Big Sandy, a creek bed near the Pueblo-Walsenburg road. The bodies were identified as those of Antonio Tessitore and Frank Leone of Walsenburg. The two men were overtaken by a cloudburst in the arroyo a few days ago.

Denver.—Population figures showing that the number of residents in Denver is increasing at such a tremendous rate that the city is virtually assured of reaching its goal of "500,000 by 1930" were released recently from the office of Robert B. Rockwell, member of the "500,000 in 1930" publicity committee.

Denver.—Denver stands a good chance to win the national sanatorium to be built by the Grand Lodge of Colored Elks of the World, according to information received recently.

Sterling.—The body of P. P. Tyrell 53 years old, has been taken to his home in Snyder, where the coroner will hold an inquest to determine responsibility for his death. Tyrell was a garage keeper at Snyder. He was driving his automobile across the Union Pacific tracks near Snyder when his car was struck.

Fort Collins.—The Colorado Agricultural College at Fort Collins is among twenty-five institutions designated by the War Department as distinguished colleges in its last list, issued in Washington, of distinguished colleges and honorary military schools for 1922. It is the only "distinguished college" in the intermountain region.

Sterling.—John Dillenberg, who had been charged with the murder of his brother, Truey Dillenberg, at Sterling, July 3, slashed his throat while in the county jail, using a razor belonging to another prisoner. He died soon after the jail officials found him lying on the floor of his cell.

Delta.—The 2-year-old daughter of Mr. and Mrs. Percy Williams was drowned in Butte ditch near Eckert, eleven miles from Delta.

Cañon City.—Construction work on the Cañon City-Florence section of the Rainbow Route highway was begun recently by the C. A. Allen Construction Company of Morrison, Colo., to which the State Highway Commission recently awarded the contract for the rebuilding of this important road. The contract price for the completion of the road is $63,842.95. The length of the highway between Cañon City and Florence is practically nine miles, and extends from Ninth street, Cañon City, through Lincoln park to Florence by way of Brewster.

Colorado Springs.—Samuel H. Kinsley of Colorado Springs was elected president of the Colorado Bar Association at its final session in Colorado Springs. Herbert S. Hadley of Boulder was elected vice president and Robert G. Bosworth re-elected secretary-treasurer.

Estes Park.—J. E. Kitts of Greeley was killed by lightning on the top of Long's Peak a few days ago. J. E. Bullas of Topeka, Kan., was knocked unconscious at the same time, but recovered and made his way down the peak unassisted.

Small Saintly Congregation

Church Notice—"Splendid music will be a feature. Come early. All sinners are urged to assist in the choir."—Boston Transcript.

Forced Knowledge.

Wife—What do you men know about women's clothes?

Husband (bitterly)—The cost.

GARRIGUES' RECORD IS HIS PLATFORM IN SUPREME COURT RACE

The rare judicial ability which James E. Garrigues has displayed during his eighteen years' continuous service on the bench in Colorado—eight years as district judge and ten as a member of the State Supreme Court—have caused his friends and admirers throughout the state to insist that he be a candidate this year for the Republican nomination for justice of the State Supreme Court for the ten-year term. Judge Garrigues' name will be presented to the Republican State Assembly on Aug. 9 and to Republican voters in the primary, Sept. 12. His friends are confident that his long experience in judicial affairs and his proved ability will result in his nomination and election.

Before reaching the bench, Judge Garrigues served two terms of three years each as district attorney of the Eighth Judicial District, which at that time comprised the counties of Weld, Jackson, Larimer, Boulder, Morgan, Washington, Yuma, Phillips, Sedgwick and Logan.

At the expiration of Judge Garrigues' second term as district attorney, the Thirteenth Judicial District was formed out of part of the Eighth, leaving the counties of Boulder, Larimer Weld and Jackson. This was the period of the development of the great agricultural district of northern Colorado, railway, reservoir and ditch construction greatly increasing litigation To relieve the press of business before the courts, Governor Peabody appointed Judge Garrigues as an additional judge for the Eighth district. He served until the next election, and then was elected for the unexpired term of four years. At its expiration, he was nominated and elected for a third term of six years.

In 1910, while serving as district judge, Judge Garrigues was nominated by the Republican party for justice of the State Supreme Court. In the face of a Democratic landslide, he was one of two Republican candidates for state offices to be elected.

While district judge, Judge Garrigues had won a wide reputation for the rapidity with which he had cleared the docket and had put the court in a position to decide cases soon after filing. When Judge Garrigues became chief justice of the State Supreme Court, a similar condition confronted him. The court was two years behind on its docket; the number of undetermined cases before it were popularly referred to as "the mountain." As chief justice, Judge Garrigues quickly remedied this situation. In less than two years, as a result of the most untiring labor, the members of the court under the direction of Chief Justice Garrigues had cleared the docket For the first time in years, the court was ready to transact business punctually.

Judge Garrigues' friends believe that his record is such as to make him the strongest possible nominee for justice of the State Supreme Court, and that if he should receive the Republican nomination in the September primary, his election in November is assured.

Old Papers at Ledger Office.

Notice of Special Stockholders Meeting of The Lake Park Reservoir Company

Longmont, Colo., July 11, 1922.

The Stockholders of The Lake Park Reservoir Co. are hereby notified that a special stockholders meeting of said Company will be held at the residence of James Mills, West Ninth Ave., Longmont, Colo., August 12, 1922, at the hour of 7 o'clock p. m., for the purpose of authorizing the Directors to sell all the property of the Company, including certain real estate in the N. ½ of N. W. ¼ of Sec. 4, Twp. 2 N. R. 69 W., and for the transaction of such other business as may properly come before the meeting.

L. A. MANWELL, President

Attest: JAMES H. MILLS, Secretary.

LONGMONT LEDGER
EVERY FRIDAY
The Ledger Publishing Co.

Friday, August 11, 1922

Entered at the postoffice in Longmont as second-class matter.

C. W. BOYNTON—Editor and Manager

MEMBER COLORADO EDITORIAL ASSOCIATION

Do you know that more feelings are hurt from bad manners than from bad intentions?

TRAVEL RECORDS BROKEN

More than 6,000 autos containing 20,000 tourists from every state in the Union, had been registered to August 1 in the Overland Park camp grounds in Denver, a 50 per cent increase over 1921.

It's all over. Jack Pickford and Marilynn Miller are safely married for a few days. They have been the latest sensation in the movie world, and they have given the papers lots to print, while Miss Miller and Billie Burke have been throwing a few handfuls of mud. The next and usual developments will be waited with anticipation.—Jefferson County Republican.

The actual area under cultivation in Colorado this year is the largest in the state's history, being perhaps 800,000 acres greater than that for 1921. Colorado is one of the few important agricultural states which is showing a substantial increase in cultivated acreage each year over the preceeding year. The actual cultivated acreage this year is something more than 6,000,000 acres.

ONE OF NOAH'S PETS

It was swampy around Denver 2,000,000 years ago, according to Prof. J. D. Figgins, director of the Colorado Museum of Natural History. The traveler who wants to hobnob with the monsters of long ago can do so in the City Park collection, in Denver, where the skeleton of an animal closely related to the present-day rhinoceros is on exhibition, one-half of it covered with an imitation hide.

Putting boxes lined with different colored cloths in a place frequented by mosqitoes showed that by far the greater number of mosquitoes entered the boxes lined with dark blue. The numbers that the other boxes attracted were in this order: dark red, brown, scarlet, black, slate gray, olive green, light blue, ochre, white, orange. No mosqitoes were found in the boxes lined with yellow. It also appeared that a person dressed in dark clothes was attracted at once, whereas one clad in white flannels was unmolested.—Youths Companion.

Congressman Chas. B. Timberlake was chosen unanimously by the Republicans to succeed himself, for the Second Congressional District at the Assembly held in Golden Tuesday. Other candidates were not named and Arnold Odlum of Boulder withdrew his name from the race. Mr. Timberlake is a member of the Ways and Means Committee, and his influence and help are invaluable to Colorado. He is a friend of the farmer and does his bit to see that they get fair play. He made a splendid address to the Assembly and was greeted by cheers from the whole assembly.

DEMAND FOR STATE LAND INCREASES

The demand for state school lands shows a steady increase as money for investment become more available, according to the State Board of Land Commissioners.

While actual sales so far in 1922 are naturally far below those of two and three years ago, yet the increase over 1921 shows very decidedly the financial condition of the people. Inquiries have increased greatly and monthly sales will probably mark the closing of the year.

The next sale will be held at the State Capitol in Denver on August 16th, at which lands located in Jefferson, Kit Carson, Las Animas and Logan counties will be offered at public auction, aggregating 1,600 acres.

The Colorado State Tax Revision Committee says: "The intangible wealth of this State which is constantly increasing is now escaping taxation. The total assessed valuation of the State for 1921 in round figures was $1,500,000,000, but taxes were collected upon less than $20,000,000 of this valuation from moneys, notes, credits, bonds and other intangibles. In other words, only 1 1-3% of the taxes collected for the year 1921 were from intangible properties, while 98 2-3% of these taxes were collected from real estate, live stock, merchandise, household goods and other tangible properties. And the most unjust and disgraceful feature of this inequality of taxation is that this negligable 1 1-3% that was collected from intangibles was from the few patriotic people who made honest returns and from the estates of the dead and helpless."

Laundry Memorandums

If any one would like to keep tab on the laundry they send out we can furnish memorandum slips in pads of a hundred. Ledger Office.

Father of Geo. Russell Passes Away.

H. J. Russell of Denver, father of Geo. Russell of Longmont, passed away Friday night at the home of his daughter, Mrs. H. M. Barton, at the age of 81 years. He had been ill about a month and was taken with pneumonia from which he was unable to survive. Besides the son, Geo. Russell, and daughter, Mrs. Barton, he leaves another daughter, Miss Edna Russell of Denver.

Jas. Ballinger and Tiger Pet Expected in Mead Soon

J. L. Ballinger received a phone call from his son, James B. Ballinger, Tuesday, announcing his arrival in Denver. He stated that he had brought his pet tiger cub along and as soon as the former had sufficiently rested up, he would continue on to Mead. Jim arrived in this country from South America about three weeks ago, as stated in these columns, being sent home on account of an attack of yellow fever. He was under the care of a physician in New York city for several days, and while much improved in health, must continue to take care of himself. The young tiger which he captured in the south, has been attracting a great deal of attention since its arrival in this country.—Mead Messenger.

Mrs. G. D. Rider Nicely Located in Berkeley, California.

The Ledger is in receipt of a letter dated August 7, from Mrs. G. D. Rider, who is very well pleased with her new home. She and her daughter, Louise, left Longmont early in the summer to locate at Berkeley, where Louise will finish her college work. We publish a few extracts from Mrs. Rider's letter:

"The Tiffanys were here to see us yesterday and also Mrs. Stevens and Ralph. Ralph is the image of his father, both in features and size, still unmarried. Mary Kilgore and a brother live at Oakland but I have not seen them yet. We are nicely located in a seven-room flat and our books and dishes and Brunswick arrived Saturday, so it begins to look like home. Louise went to San Jose to visit Mrs. Nicholas Dunphy Saturday morning by auto bus from Oakland, about an hour and a half ride. She will return the last of this week. She is already to start to school, her credits have been accepted and she has three more than she needs."

Mrs. Rider sends her best wishes to her friends. She is located at 2211 Atherton street.

HOME NEWS

—Mrs. Herbert Daniel, who will be remembered as Miss Pansy Williams, is spending part of the summer in Estes Park and hopes to be in Longmont soon to see old friends. She will be the guest of Mrs. Grant Hartman while here.

—Mr. and Mrs. Harry Jakeman and son, Harry, Jr., came from Wahoo, Neb., by auto and are visiting Dr. J. A. Matlack and family, both in Longmont and at their cottage at Raymonds place. Mr. Jakeman is Mrs. Matlack's brother.

—Mr. B. F. Fleming of Denver, in a Nash touring car, ran into a Chevrolet owned by Frank Lebron of Brighton Wednesday at the corner of Fourth avenue and Main street, and broke the rear right wheel and dented the body of the Chevrolet. Mr. Fleming assumed the blame.

—Miss Julia Newton, an employe of the Daily Call, suffered a broken finger and a number of bruises Tuesday afternoon when returning to her home west of Longmont. She was riding with Wadsworth Viney and the horse he was driving became frightened at some burros and began to kick. Miss Newton jumped from the buggy and was taken to the home of Mrs. Tracey where a physician was called.

Made Famous Tea Shipment.

In Gracechurch lane, an obscure byway just outside one of London's busiest commercial centers, American tourists may see over a grocer's store the "sign of the crown and three gilt sugar loaves" that marks the location of the shop whence the tea was shipped in 1773 that ultimately went overboard in Boston harbor during the world's famous tea party.

Only the sign, which was recently restored and which bears in big gold numerals "1650," the year the firm was established, is suggestive of remote times.

The grocer's shop, conducted by descendants of the firm's founders, over which the sign hangs, is now housed in a modern brick building. Inside, nothing distinguishes the place from thousands of similar places of business.

The Easiest Way.

A young farmer of Clay county, who was soon to be married, was asking his older brother about such matters as getting the license and having the ceremony pronounced, when the brother asked: "Which are you going to have marry you, a preacher of the gospel or a justice of the peace?"

The prospective bridegroom hesitated. "I had a preacher of the gospel," his brother added.

The younger man thought of the caustic tongue his sister-in-law wagged.

"Yes, and you've been listening to sermons ever since," he retorted. "I guess I'll chance the peace route."—Indianapolis News.

Germany Lacks Anthem.

At the present time the German people have no national anthem, according to an official announcement of the Berlin government.

HIKING DOWN THE LONG BROWN PATH

Vacationists With Shelter Tents and Tin Cow Learning to Walk All Over Again.

Oh! it's not the pack that you carry on your back
Nor the rifle on your shoulder,
Nor the five inch crust of khaki-colored dust
That makes you feel your limbs are growing older;
And it's not the hike on the hard turnpike
That drives away your smile,
Nor the socks of sisters that raise the blooming blisters
It's the last long mile.
—Plattsburgh Marching Song.

Stringing out from the suburban transit terminals of New York every Sunday and holiday goes the army of khaki-clad hikers. There may be an automobile for every twenty of the country's population, but a host of city folks disprove the theory of a future leg-enfeebled citizenry and are learning to walk all over again.

To the more casual minded, the hike is just exercise, but to those who catch its real significance the hike means a great deal more. It is the cheapest form of recreation and therefore appeals to those living in crowded districts and unable to avail themselves of the more expensive amusements. And these people, be it noted, are just those the country is so anxious to have spread out and settled in the farming sections. The hike, indeed, has possibilities as a real starter for the "back to the farm" movement.

Doughboy and Boy Scout Lead Way

Just a brief survey of the rollicking groups which move off from the outlying terminals on holidays establishes a few general types. There is the ex-service man and his friends who will hear from him the story of more serious excursions on the muddy roads of France. He tightens a strap here and another there on the blanket roll adjustment or the "shelter half," in which the commissary is packed for the mid-day feast by the roadside. Expert directions come from him on the method of slinging the pack so it will not feel so heavy or interfere with the free body movement. He will pass along the information, gained in his army days, of how that same pack was evolved after numerous experiments to find the easiest way of carrying the heaviest load. With results he now compliments, but which he characterized when a doughboy as a "blankety blank total failure."

Then there are the boy scout parties, adept at everything pertaining to "shanks mare" traveling and woodcraft. The ex-service man and the boy scout are pioneers in the hiking game. Listen to one of them right off the train and making ready for a twelve mile jaunt: "Get that canteen over to the side, Jimmie, and it won't keep bouncing off your leg every step. Is it filled? Well, then, we drink. How about the eats? Let's check 'em off. You got the spuds, Bill; the bacon Jimmie. Who has the coffee and the Borden tin cow?"

"Right here," announces a freckled comrade of the road, patting his knapsack. "Snitched the mocha and the can of milk when Sis wasn't looking."

"Well, then, let's go!" snaps the commander of the expedition.

This party is traveling light for real distance. Another must expect to make a shorter hitch or else be counting greatly on its power of endurance. Perhaps the camp is not far off because the group is equipped for an over-night stay with heavy blanket rolls, hatches, lanterns, canvas waterpails, rubber ponchos, kettles, pots, new fangled firestand, etc., etc. The blankets are laid out for a better packing of the bags and cans of food. When the party commences to load up the members bristle all over with camp tools and equipment.

Back to the Farm

The veteran from the crowded city tenement has found a new territory to roam and one almost unknown to his associates. He is introducing them to this newly discovered land and teaching them how to be independent of any transportation but their own good legs and of any subsistence but what they can carry and prepare. "Walk, and cook your own," is his motto.

Who will say the leaven thus fermenting in the city crowds will not bear fruit in a keener appreciation of country delights, especially as these are added to by increased comforts on the farm. With his radio hitched up, the farmer listens in on the best entertainment the country has to offer. Modern home devices wipe out many hardships formerly imposed upon isolated dwellers. There is, in short, a rapid cutting down of the differential between farm and city life.

In the meantime, knowledge must precede a true appreciation of what the country holds, and this is what the hike supplies. There is more appeal in one apple tree in blossom than in reams of printed matter put out to induce the citizen of the city to change his abode to the country. The hikers constitute a growing army, equipped with bacon, spuds, coffee and tin cow for merely a day's outing but nevertheless seeing sights that make them yearn to be among them all the time. It is not too much to assume that the army may one day recruit the open places.

Hand-made gifts, hemstitching and pleatings, at the Gift Shop, 656 Fourth avenue. Phone 42 W.

Teachers' Examination

The regular Teachers' Examination will be held at the Preparatory building in Boulder at 9:00 a. m. on August 17 and 18. Examinations in High School subjects will be given on the 19th. Fee, $1.00.

ANNA J. EWING BITTNER,
County Superintendent.

HUMAN FACTORS IN FLYING

Things That May Appear Small in Themselves Have Been Found to Be of Importance.

Few people realize that a small part of the inner ear has much to do with seasickness, and that this same portion of the ear affects the ability of a man to handle an airplane or airship.

Since the close of the war the national research council has had several projects centering on the studying of human factors in flying, involving "behavioristic" experiments on man and animals, anatomical, physiological and psychological studies of the functions of the ear and associated eye movements; the writing of a history and the collection of a complete bibliography on the subject. Last year the workers in this field came together and organized themselves into a committee on vestibular research for the purpose of encouraging and coordinating work in this field. This committee has formulated a project on "The Experimental Study of Habituation to Rotation," which has been approved by the National Research council. This project forms a natural nucleus around which may be gathered data from field experience, clinical records of flyers, etc.

The project will be administered by an executive committee, at the present time composed of Dr. J. Gordon Wilson, chairman; Dr. Raymond Dodge and Dr. F. H. Pike, in co-operation with the chairman of the division of biology and agriculture, medical sciences and anthropology and psychology in the National Research council.

The air service is giving its active co-operation to the investigators through a special committee.—Aviation.

LISTENERS WOULD TAKE RISK

Danger of Falling From Grace Negligible on the Part of Practicer on Trombone.

Mr. Elisha Johnson's mind was troubled on a certain point of conscience and he determined to seek his pastor's advice.

"Do you think it would be wrong for a Methodist to play in a brass band?" he asked, his open and ingenuous countenance filled with eagerness and doubt.

"Well," said the parson, slowly, "it's for yourself you're asking, I suppose, Elisha?"

Mr. Johnson admitted that the case was his own.

"And what instrument had you fixed in your mind?" asked the minister.

"Well," said Elisha, with a gradually clearing face, "I kind of thought I'd tackle the trombone, if you said it was all right, and I wouldn't be falling from grace to do it."

"Elisha," said the minister, "if you can find any one who is willing to pass through the fiery ordeal of hearing you practice, I think you may risk the danger of falling from grace with a good courage."—Milwaukee Sentinel.

—Mrs. Louise B. Clark and Miss Elise Kraft will drive up to Ferncliff this evening to stay until Monday morning with Mr. and Mrs. C. W. Boynton.

NOTICE

Dr. Milton, The Moderate Priced Dentist, will commence his nineteenth visit to Longmont Monday, August 14, remaining ten days only. A good Set of Teeth (fit guaranteed) $12.50. Teeth Extracted absolutely without pain by the wonderful **Nerve Blocking Method.**

All persons contemplating getting artificial teeth this fall should have their teeth extracted and mouth prepared now. As this will be Dr. Milton's last visit to Longmont until the latter part of November or middle of December. No charge for examination or advice. Do not wait until the last day but call early.

Office at The Carlton.

Money to Loan

In sums of 1,000 to 25,000 dollars on first mortgage real estate security, farm lands, town, city or business property, for as long a term as 11 years at 5% per annum, with privilege of paying off loan at any time. Loans are made up to 80% of the appraised value of property, but on certificates only. Payments monthly, quarterly, semi-annually or annually. For particulars address H. K. Stephens & Co., 628 13th St. Denver, Colo.

WANTED

Young men, handy with carpenter tools, for permanent employment—rate, 47 cts. to 63 cts. per hour, depending upon ability and experience, with pay at rate of time and one-half after eight hours' work. Call on or write Master Mechanic, C. B. & Q. R. R., McCook, Nebraska.

T. T. MAXEY,
General Advertising Agent.

Notice of Final Settlement

Estate of Sixten E. S. Crona, Deceased

Notice is hereby given that on the 11th day of September, A. D. 1922, the undersigned will present to the County Court of Boulder County, Colorado, his accounts for final settlement of administration of said estate, when and where all persons in interest may appear and object to them, if they so desire.

L. W. NEWBY, Administrator.

L. W. Newby, Att'y Pro. se.
First pub. August 4, 1922.
Last pub. Sep. 1, 1922.

Subscribe for the Ledger, $1.50 a year

Job Printing at Ledger office.

Fall Plowing and Harvest Planning Time is Here

Still room for more fall plowing; smaller total tonnage in beet harvest should lead growers to reduce their cash outlay for help in delivery of crop.

Grain fields intended for beets next year should be double disked as soon as possible after the grain is cut. Whether you want to plow in the fall or in the spring this will preserve moisture and the plow will do better work.

Fall plowing has been emphasized for years but there is still room for a healthier response. Except in sandy soils given to blowing fall plowing is a decided advantage for any crop with perhaps the exception of potatoes.

Of course, on heavy and dry soils where the plow would turn over large clods, it is advisable to irrigate, where possible, before plowing. On the other hand, care must be taken not to plow these heavy soils when still too wet. It is not safe to trust to winter's moisture or snow improving a badly fall-plowed field.

With the prevailingly smaller individual beet acreage this season there is every reason to hope for a most economical beet harvest. In the last three years farmers have pushed their beet deliveries too fast for the best economy.

There should be no excuse this year for growers hiring extra men and teams at fancy prices, putting themselves to unwarranted expense and forcing their neighbors to pile beets unnecessarily.

WANTED—I repair all makes of sewing machines, work guaranteed. New Singers and used machines for sale. Singer Sewing Machine Co., 656 Fourth avenue, Longmont.

J. G. ALLISON, Manager.

UNCLE HANK

As long as there is any chewin' gum, there never will be any silent drama.

First Church of Christ, Scientist

Corner of Pratt St. and Fifth Ave.

Sunday School at 10:00 a. m.
Sunday Morning Services, 11 o'clock.
Wednesday Evening Meeting at 7:45 o'clock.

Subject: "Soul."

The Reading Room in connection with this church is at the same address and is open Tuesday, Thursday and Saturday from 2:30 to 4:30 p. m. All are invited to attend the services and to visit the Reading Room.

Sale Bills when you want them.
Job Work of all kinds at this office

Legal Blanks at this Office

HOME NEWS

—Paul Arvidson left Monday for Akron, Colo.

—Peter Fladung, son of Anton Fladung, fell from an apple tree Sunday and broke his arm.

—Mrs. C. E. Hanna of Ogden's store is spending this week at Raymonds with her son.

—Miss Amy Garrison of Kirksville, Mo., is visiting in the home of her uncle, Chas. A. Crook.

—Alex Befus was fined $10.00 and costs for driving a car while in an intoxicated condition.

—A. J. Slee, mail carrier for Route 4, is having his vacation and with his family has gone to Estes Park.

—Joe Weisberg and son returned Monday from St. Louis, where they were buying goods for the store.

—Miss Bessie Jordan came from Wichita, Kansas, Sunday and was met by her father, Dr. Harry Jordan, of Estes Park.

—W. C. Muth, Bruce McCurdy and Frank Chlanda returned Sunday from a fishing trip on the Little Poudre with a nice catch.

—Mrs. Lucy Moffit and her mother, Mrs. Lucy Strong, returned this week from Huntington, Ohio, where they spent several months.

—Mrs. Earl McBride and two little boys of Columbus Junction, Iowa, arrived Saturday to visit her parents, Mr. and Mrs. Harry Stapp.

—C. F. Holck is erecting a nice house on Fourth avenue, between Terry and Pratt streets. The basement is nearly completed.

—J. W. Mabe returned Monday from Upton, Ky., where he was called by the serious illness of his father, who died after his arrival there.

—Mr. and Mrs. Geo. Woodcock of Steamboat Springs came Friday to attend the funeral of their nephew, Melvin Goss. Mrs. Woodcock is a sister of Mrs. Goss.

—Francis Beckwith, who is running for the nomination of County Treasurer on the Democratic ticket, has been looking up old friends in Longmont this week.

—Mr. and Mrs. J. W. Denio have as their guests this week Mrs. Williams, her daughter, Helen, and son, John, of Omaha, Neb. Mrs. Williams is a niece of Mr. Denio.

—Eugene Cosslett spent the week-end with his parents, Mr. and Mrs. Thos. Cosslett. Eugene graduated from the University of Pennsylvania and is employed in Denver.

—Mr. and Mrs. Hugh Madison spent the week-end with Dr. and Mrs. U. S. G. Bowersox at their cottage at Heathermead and left Monday for their home in Chicago, Ill.

—Mrs. Sarah Pickard and daughter, Edith, who have been visiting their daughter and sister, Mrs. Lee Slater, for several weeks, will leave today for their home in Berkeley, Calif.

—Mr. and Mrs. Carl Baughman and two children returned the first of the week from Raymonds, where they spent two weeks. Mr. Baughman is again at work in the Penney Store.

—Mr. and Mrs. W. Y. Adkisson had as their guests for the week-end the Misses Jane and Julia Orman of Birmingham, Alabama, who are enroute to California. They all enjoyed a trip to Estes Park.

—Chas. Johnson of Lovell, Wyo., spent several days here this week visiting his sister, Mrs. Scott Hershey, and other relatives. He is recuperating from an eye operation and will be able to return to Lovell soon.

—John W. Bramwood, owner of the Bramwood Press of Indianapolis, Ind., is spending his vacation in Longmont with relatives and old friends, taking a few mountain trips and having a good time generally looking up old acquaintances.

—Mrs. Hershel Ray left Monday to join her parents, Mr. and Mrs. Will Dentner, in Denver. From Denver they will go to Las Vegas, Nevada, the home of Mr. and Mrs. Dentner, and later Mr. Ray will leave for that place where he expects to locate.

—C. M. Daughtry of Denver and his brother, Al Daughtry, were in Longmont Monday looking up friends of 1876, the year in which they came here. It has been 42 years since they were here and they noted a good many changes. They had just come from Grand Lake where they had had some fishing.

—H. R. Fleming and son, Clay, climbed Longs Peak Saturday night by moonlight. They left Longmont at 7:00 o'clock Saturday night and drove as far as the road went above Hewes-Kirkwood and made their climb. They were down again by 9:00 o'clock Sunday morning, having made excellent time.

—Chas. Carroll and Fred Thede, while returning from Idaho Springs Sunday, were held up with a hundred other cars by a wall of water six feet deep which swept across the road west of Lookout mountain. The water went down in half an hour or so and then they encountered a road covered with hail.

—The Rotarians Tuesday listened to a very interesting lecture given by Hon. A. Haanstadt on the geological effect of glaciers and water action in canyons, illustrated by pictures of our mountains taken from an aeroplane. The music was furnished by Miss Susan Brown at the piano and Mr. Fred Baxter with a violin, and was greatly enjoyed.

—J. R. Forsyth underwent a minor operation at the hospital Monday.

—Mr. Ray Littler of the Littler Grocery Co., spent the week-end in Greeley.

—Ben Edscorn, who has been visiting in the home of L. B. Dorer, left Saturday to return to his home in St. Louis.

—Mrs. Christine Larson left Saturday for Cheyenne to spend a week or more with her daughter, Mrs. H. W. Boland.

—Mr. and Mrs. Annas Jacobson and three children left Monday for Story, Iowa, to spend a month with home folks.

—Miss Mary Moore, a popular teacher in the Longmont schools, has accepted a position as teacher at Laramie, Wyo.

—Eighty members of the M. E. Class of the Methodist Church enjoyed a picnic at Meadow Park last Friday evening.

—Miss Florence Eastman of Casper, Wyo., arrived Sunday to be the guest of the Misses Norma and Louise Betts for a week.

—Mrs. R. F. Osborne, who spent two weeks with her son, R. E. Osborne, returned Saturday to her home in Ainsworth, Neb.

—The Misses Agnes Thompson and Sylvia Skram returned the last of the week from Denver, where they were guests of Miss Mildred Aaberg for a week.

Miss Fern Blair is having her vacation from the Fankell Tire Co. and accompanied by Miss Blanche Hastings, went to Estes Park for a week or two.

—J. F. Peters of Weld County is running for County Commissioner to succeed himself. he deserves his re-election for he has been faithful to his trust.

—Mr. and Mrs. Roy Goodwin motored to Evergreen Sunday and left the children to spend a couple of weeks with their grandparents, Mr. and Mrs. Desrick.

—Miss Buelah Clark is spending her vacation this week from the D. C. Donovan Lumber Co. in a cottage at the Chautauqua in Boulder, taking trips from there.

—Paul Wilson, who has been working in the Curtis Candy Store, has accepted a position with the Scholtz Mutual Drug Co. of Denver and will be in the store at 18th and Welton.

—Fire Chief Verne Campbell, Mrs. Campbell and daughter, Muriel, left Sunday by auto for Mt. Vernon, Ill., to be gone about three weeks. Clyde Mariotti will act as fire chief during Mr. Campbell's absence.

—Mr. and Mrs. R. B. Miller and daughter, Betty Ann, went to Denver Sunday to meet Mrs. Miller's sister, Mrs. Ray Ingle, and her two children, who have come from Wilmington, Deleware, for a visit.

—Monday morning a horse belonging to Ed Blodgett dropped dead on West Ninth avenue, presumably from heart trouble. Arthur Miller was driving a team to town with a load of wheat when the horse dropped in its harness.

—Mr. and Mrs. C. L. Dover of Longmont enjoyed a visit with Mr. and Mrs. F. W. Kimmell, who stopped over on their way from Mitchell, Neb., to Estes Park, where they are spending the rest of their vacation with Mr. Kimmell's parents, Mr. and Mrs. C. W. Kimmell.

—Mr. and Mrs. O. Thompson, Mr. and Mrs. O. I. Share and daughter, Valborg, Mr. and Mrs. O. L. Knutson and son, Chester, Bennie Brooks and Leila Skram returned Saturday from Colorado Springs where they spent a week. Mr. Knutson and Bennie Brooks climbed Pikes Peak.

—C. L. Williams, who announced himself as a candidate for Sheriff on the Republican ticket, has withdrawn his name from the race. It was a question whether Mr. Williams, Mr. Tobey or Mr. Euler had qualified for third place on the ticket and Mr. Williams dropped out believing it wasn't worth while to run.

—Mr. and Mrs. F. M. Marsh and Mr. and Mrs. Lester Hayne left Sunday in their car for a two weeks trip in Kansas and Nebraska. Mr. and Mrs. Marsh will visit their son, Emery in Norton, Kansas, and their daughter, Mrs. Hugh Byrne, at Blue Hill, Neb. Mr. and Mrs. Hayne will go to Oberlin, Kan.

—Mrs. Hunter Moneypenny of Longmont was hurt Sunday at Washington Park while in bathing. A man diving from the top of the diving tower struck her in the back, driving her under the water and rendering her unconscious. She was taken to a hospital but was able to return home late Sunday night.

—Ralph Kiteley, Harry St. Clair, C. C. Irvin and Frank Irvin started Monday for North Park, expecting to get a lot of fish. They went to the Claud Harmon ranch at the north end of the Park, came down to the Miller and Johnson ranch and returned Thursday by way of the Fall River road, having had a splendid trip.

—Mrs. J. H. Drinkwater and daughter, Miss Lucile, Mr. and Mrs. Coy Klingler and daughter, Dorothy, and Miss Ruth White left Tuesday morning by auto for a trip thru the Mesa Verda, now a national park. They went by way of Colorado Springs and crossed the range in the southern part of the state. Coming home they will stop a few days in Grand Junction, the home of Mr. and Mrs. Klingler, also in Delta to see Raymond White and return over the Tennesee Pass. They expect to be gone about three weeks.

BORN

JAMESON—In Longmont, Friday, August 4, 1922, to Mr. and Mrs. W. S. Jameson, a daughter.

WARD—Near Lyons, Saturday, August 5, 1922, to Mr. and Mrs. Frank A. Ward, a daughter.

BIEDERMAN—Near Longmont, Monday, August 7, 1922, to Mr. and Mrs. Edward Biederman, a son.

OLSON—In Longmont Tuesday, August 8, 1922, to Mr. and Mrs. E. A. Olson, a son.

BEFUS—Near Longmont, Monday, August 7, 1922, to Mr. and Mrs. P. H. Befus, a son.

MARRIED

HOVLID—GREGG—At the home of Mr. and Mrs. Roy Hardenburg, Sunday, August 6, 1922, Norman G. Hovlid and Miss Neva M. Gregg, Rev. Lane officiating.

Sunday morning at 10:00 o'clock Mr. Norman G. Hovlid and Miss Neva M. Gregg were united in marriage by Rev. Mr. Lane of the Baptist church. Miss Gregg was beautifully gowned in a brown chiffon taffeta dress with hat to match. She is the daughter of Mrs. John Price. She graduated from the Longmont High School in 1919 and was empployed at one time at the Fankell Tire Co. but has been up to the present time an operator at the telephone office.

Mr. Hovlid is the son of Mr. and Mrs. J. M. Hovlid of this city. He spent one year at the University of Colorado and then attended the Agricultural College at Fort Collins, where he was a popular student. He is now employed as parcel post carrier at the postoffice.

Mr. and Mrs. Hovlid left for a week's wedding trip.

PACE-LEWELLEN—In Denver, Tuesday, August 8, 1922, Chas. W. Pace and Mrs. Sarah R. Lewellen, Rev. Leon C. Hied of the Capitol Heights church, officiating.

Mr. Pace is one of the best known men in Longmont, having been a horse man of note, and a member of the Boulder County Fair Board. He has made his home in Longmont a great many years and has been actively engaged in community affairs.

Mrs. Pace is from Colorado Springs and a popular member of her social set.

Mr. and Mrs. Pace came to Longmont Tuesday evening and will make their home for the present at the C. E. Day residence on Third avenue.

NICKS—HARRIS—In Denver, Tuesday, August 8, 1922, Chas. Nicks and Mrs. Rose Harris.

The wedding of Mr. Chas. Nicks and Mrs. Rose Harris came as a surprise to friends of the couple as they did not announce their intentions before leaving for Denver. Mr. Nicks is engineer at the Longmont Ice & Cold Storage plant. They are residing at 224 Emery street.

DIED

PENNOCK—At the University Hospital in Boulder Monday, August 7, 1922, Chester C. Pennock, aged 72 years.

Chester C. Pennock was born at Rockford, Ill. April 30, 1850, and came to Longmont overland with an ox team with his parents December 23, 1861. They located south of town at what was then Burlington.

Mr Pennock with his father, A. J Pennock, took part in the Sand Creek battle with the Indians. He was educated in the public schools of Boulder, going back to Rockford, Ill., to attend business college, and taught penmanship in the schools there. He returned to Colorado, engaged in freighting from Cheyenne to Black Hawk, took up farming and also mining at Sunshine. He made trips to Alaska and to Germany.

For seven years he was Bailiff of the District Court but a stroke of paralysis made it impossible for him to work any longer, and for the last two years he took life easy.

Last Thursday he came to Longmont to spend the day with his sister, Mrs. Belle Abbott, and the following Monday was taken sick and passed away. He leaves besides his wife, two sons, Homer A. of Boulder, and Nathan T. of Osawattomie, Kansas, and one sister, Mrs. Belle Abbott of Longmont.

—Frank McClung returned the first of the week from Oberlin, Kansas, where he has been employed all summer, and will take up his school work this fall.

Mr. and Mrs Wilson of Andobow, Iowa, have spent the past three weeks in Longmont visiting in the home of their daughter, Mrs. John R. White. This was their first visit in Colorado and their enthusiasm over the climate and mountains was unbounded. Several trips into the mountains formed a large portion of the pleasure of their visit.

Two Autos Collide at Hygiene

At the corner north of Hygiene Sunday two cars collided, one driven by Wm. Heffner, the other by Bernard Frank. The right sides of both cars were stripped and the cars had to be pulled into Longmont for repairs. None of the occupants were thrown out but Mrs. Heffner suffered a broken arm and was brot to Longmont for treatment.

—Will Andrew and family of 219 Petit street, moved to Lafayette this week to make their home.

—Mr. and Mrs. Arthur Regnier are entertaining five relatives who have come from France for a visit.

—Mrs. A. W. Brott went to Golden Tuesday to attend the Republican Congressional Convention held at that place.

—J. G. Reinert is remodling the front of his clothing store on Main street and it will look very fine when it is finished.

—Miss Beulah James of Wayne, Neb., came Tuesday evening to spend two weeks with Miss Genevieve Dorsett, the librarian.

—Mr. and Mrs. J. D. Bestle and son Donovan, will leave tomorrow for Scottsbluff and Omaha to spend two weeks with relatives and friends.

—Joe Weisberg purchased the Haley-Ploof cottage at Raymonds as a birthday gift to his wife, and will take possession the last of the month

—Mr. and Mrs. Geo. Noble and daughter, Helen, will leave Sunday for a trip thru the southwestern part of the state, going first to Grand Lake.

—W. E. Pittinger and family and Mr. Lambright and family came home Sunday from the mountains where they spent a week fishing and sight seeing.

—The Misses Marjory Large and Eleanor Barnes and Kenneth Barnes returned Wednesday from Lyons where they spent several days with Mrs. C. E. Douglas.

—Mr. and Mrs. Harry Shumaker are entertaining the latter's parents, Mr. and Mrs. G. H. Howell, and brother, Kermit Howell, of Haiggville, Kansas, for a couple of weeks.

—George McIntosh and wife of Colorado Springs were presentt at the funeral of Melvin Goss last Saturday at the M. E. church at Hygiene. Mr. McIntosh was one of the singers.

—Mrs. Ray E. Thorndyke and daughter, Gladys May, of Vermillion, So. Dakota, are visiting the former's mother, Mrs. T. V. Ayer, and sisters, Mrs. C. H. Grange, and Mrs. Frank Hronek.

—Another party making the trip to Grand Lake by the Fall River road are Wm. Shinkle of Lyons and daughter, Eva May, of Princeton, New Jersey, Mrs. F. R. Shaw and sister, Mrs. Ethel Crooks.

—Mrs. Emma L. Root, is spending the week in the family of her nephew, Lowell S. Smith. Her home is in Denver and she is the mother of the well-known surgeon, Dr. Matt Root, of that city.

—Bryant Newby, Jr., shipped his household goods to Rand, Colo., in North Park and with his family left for that place to remain indefinitely. He took with him seven men to work in the hay fields.

—Miss Hazel Cook, who has spent six weeks in Denver visiting in the home of her brother, Shelby Cook, returned to Longmont Sunday. Mr. and Mrs. Shelby Cook returned with her to spend the day.

—Dr. Ayres Stradley and E. G. Dudley motored to Denver Monday to meet Mrs. Russell and her grandson, Carl Russell of Louisville, Ky. Carl Russell is a brother of Miss Alice Russell of Longmont.

—Mr. and Mrs. W. J. Bertram arrived home last Friday by auto from Cincinnati, Ohio, bringing with them Mr. Bertram's sister, Mrs. B. H. Steinhard, and her husband. Mr. and Mrs. Steinhard are on their wedding trip and will have some mountain trips before returning home. Mr. and Mrs. Bertram covered 3,200 miles on the entire trip.

Election Judges for Longmont Precincts

Primary Election September 12, Regular Election in November

The following judges, who will have charge of the primary September 12th and the election in November for the Longmont precincts, were announced Friday by County Clerk, Mrs. Etta Coons:

Ward 1, Precinct 1

Receiving—Mary T. Brenbarger, Susie Carr McGwire, Louise B. Clark.

Counting—Nevada Root, Nettie Dobbins, E. O. Nichols.

Ward 1, Precinct 2

Katherine Spangler, Isa M. Jones, Cora Speed.

Ward 2, Precinct 1

Receiving—Anna Heffner, E. Louise Atwood, Alfred Dworak.

Counting—W. H. Wheaton, Gussie Bacon, Elsie Lanyon.

Ward 2, Precinct 2

Florence Hanson, Nina E. Legg, Mrs. Walter Overstreet.

Ward 3, Precinct 1

Receiving—Nellie L. Butler, Maude F. Tracy, F. T. Brenbarger.

Counting—Mary P. Young, Frank Daum, Olive B. Armstrong.

Ward 3, Precinct 2

Receiving—Jessie R. McGrew, Nan E. Mayfield, Geo Phebus.

Counting—Kate Day, Emory N. Nickell, James Donovan.

All citizens who believe that the Republican and Democratic parties are not controlled by, nor are they in sympathy with, the masses of the people; that present economic conditions and the welfare of the nation demand the organization of a third party (The People's Party) to supplant the two old parties, are requested to send name, address and contribution, if any, to J. H. Chandler, National Organizer, 500 Fifth Avenue, New York City. Salary paid to organizers who qualify.

Call at the Longmont Commercial Association and get your auto banners to help advertise the Fair Beautiful. They can be put on the wind shield or the rear of the car. Be a booster for the Boulder County Fair.

Job Work of all kinds at this office

Sale Bills when you want them.

The Big-Town Round-Up

By WILLIAM MacLEOD RAINE

THE MATCH-MAKER

SYNOPSIS.—A foreword tells this: Motoring through Arizona, a party of easterners, father and daughter and a male companion, stop to witness a cattle round up. The girl leaves the car and is attacked by a wild steer. A masterpiece of riding on the part of one of the cowboys saves her life. Then the story begins: Clay Lindsay, range-rider on an Arizona ranch, announces his intention to visit the "big town," New York. On the train Lindsay becomes interested in a young woman, Kitty Mason, on her way to New York to become a motion-picture actress. She is marked as fair prey by a fellow traveler, Jerry Durand, gang politician and ex-prize fighter. Perceiving his intentions, Lindsay provokes a quarrel and throws Durand from the train. On his first day in New York Lindsay is splashed with water by a janitor. That individual the range-rider punishes summarily and leaves tied to a fire hydrant. A young woman who sees the occurrence invites Clay into her house and hides him from the police. Clay's "rescuer" introduces herself as Beatrice Whitford. Lindsay meets her father, Colin Whitford, and is invited to visit them again. He meets Kitty Mason by accident. She has been disappointed in her stage aspirations, and to support herself is selling cigarettes in a cabaret. Clay visits her there. Kitty is insulted by a customer. Clay punishes the annoyer. After a lively mixup Lindsay escapes. Outside, he is attacked by Jerry Durand and a companion and beaten insensible. Lindsay's acquaintance with Beatrice Whitford ripens.

CHAPTER VI—Continued.

—4—

But though Clarendon Bromfield had no doubt of the issue of his suit, the friendship of Beatrice for this fellow from Arizona stabbed his vanity. It hurt his class pride and his personal self-esteem that she should take pleasure in the man's society. Bee never had been well-broken to harness. He set his thin lips tight and resolved that he would stand no nonsense of this sort after they were married. If she wanted to flirt it would have to be with some one in their own set.

Beatrice could not understand herself. She knew that she was behaving rather indiscreetly, though she did not fathom the cause of the restlessness that drove her to Clay Lindsay. The truth is that she was longing for an escape from the empty life she was leading, had been seeking one for years without knowing it. Surely this round of social frivolities, the chatter of these silly women and smug tailor-made men, could not be all there was to life. She must have been made for something better than that.

And when she was with Clay she knew she had been. He gave her a vision of life through eyes that had known open, wide spaces, clean, wholesome, and sun-kissed. He stood on his own feet and did his own thinking. Simply, with both hands, he took hold of problems and examined them stripped of all trimmings. The man was elemental, but he was keen and broad-gauged. It amazed her one day to learn that he had read William James and understood his philosophy much better than she did.

There was in her mind no intention whatever of letting herself do anything so foolish as to marry him. But there were moments when the thought of it had a dreadful fascination for her. She did not invite such thoughts to remain with her.

For she meant to accept Clarendon Bromfield in her own good time and make her social position in New York absolutely secure. She had been in the fringes too long not to appreciate a chance to get into the social Holy of Holies.

* * * * *

A bow-legged little man in a cheap, wrinkled suit with a silk kerchief knotted loosely round his neck stopped in front of a window where a girl was selling stamps.

"I wantta see the postmaster."

"Corrid'y'right. Takel'vatorthir'door-left," she said, just as though it were two words.

At that the freckled-face little fellow opened wider his skim-milk eyes and his oak mouth. "Come again, ma'am, please."

"Corrid'y'right. Takel'vatorthir'door-left," she repeated. "Next."

The inquirer knew as much as he did before, but he lacked the courage to ask for an English translation. He shuffled away from the window and wandered helplessly, swept up by the tide of hurrying people that flowed continuously into the building and ebbed out of it. From this he was tossed into a backwater that brought him to another window.

"I wantta see the postmaster of this burg," he announced again with a plaintive whine.

"What about?" asked the man back of the grating.

"Important business, amigo. Where's he at?"

The man directed him to a door upon which was printed the legend, "Superintendent of Complaints."

"Well, sir! What can I do for you?" the man behind the big desk snapped.

"I wantta see the postmaster."

"What about?"

"I got important business with him."

"Who are you?"

"Me, I'm Johnnie Green of the B-in-a-Box ranch. I just dropped in from Arizona and I wantta see the postmaster."

"Suppose you tell your troubles to me."

Johnnie changed his weight to the other foot. "No, suh, I allow to see the postmaster himself personal."

"He's busy," explained the official. "He can't possibly see anybody without knowing his business."

"That's all right. I've lost my pal, I wantta see—"

The superintendent of complaints cut into his parrot-like repetition. "Yes, you mentioned that. But the postmaster doesn't know where he is, does he?"

"He might tell me where his mail goes, as the old sayin' is."

"When did you lose your friend?"

"I ain't heard from him since he come to New York. So bein' as I got a chance to go from Tucson with a jackpot trainload of cows to Denver, I kinda made up my mind to come on here the rest of the way and look him up. I'm afraid some one's done him dirt."

"Do you know where he's staying?"

"No, suh, I don't."

The superintendent of complaints tapped with his fingers on the desk. Then he smiled. The postmaster was fond of a joke. Why not let this odd little freak from the West have an interview with him?

Twenty minutes later Johnnie was telling his story to the postmaster of the city of New York. He had written three times to Clay Lindsay and had received no answer. So he had come to look for him.

"Is your friend like you?" asked the postmaster, interested in spite of himself.

"No suh." Johnnie, alias the Runt, began to beam. "He's a sure-enough go-getter, Clay is, every jump of the road. I'd follow his dust any day of the week. He's the livest proposition that ever come out of Graham county. You can ce'tainly gamble on that."

The postmaster touched a button. A clerk appeared, received orders, and disappeared.

The clerk presently returned with three letters addressed to Clay Lindsay, General Delivery, New York. The postmaster handed them to the little cow puncher.

"Evidently he never called for them," he said.

Johnnie's chin fell. He looked a picture of helpless woe. "They're the letters I set down an' wrote him my own se'f. Something has sure happened to that boy, looks like," he bemoaned.

"We'll try police headquarters. Maybe we can get a line on your friend," the postmaster said, reaching for the telephone. "But you must remember New York is a big place. It's not like your Arizona ranch. The city has nearly eight million inhabitants. You'll understand that when one man gets lost it isn't always possible to find him."

"Why not? We got some steers down in my country—about as many as you got men in this here town of yourn. That's what we ride the range for, so's not to lose 'em. We've traced a B-in-a-Box steer clear from Tucson to Denver, done it more'n once or twice too. I notice you got a big bunch of manpunchers in uniform here. Ain't it their business to rustle up-strays?"

"The police," said the postmaster, amused. "That is part of their business. We'll pass the buck to them, anyhow."

After some delay and repeated explanations of who he was, the postmaster got at the other end of the wire his friend the commissioner. Their conversation was brief. When the postmaster hung up he rang for a stenographer and dictated a letter of introduction. This he handed to Johnnie, with explicit instructions.

"Go to police headquarters, Center street, and take this note to Capt. Luke Byrne. He'll see that the matter is investigated for you. Do you know the way to police headquarters?"

"Go to Police Headquarters, Center Street, and Take This Note to Capt. Luke Byrne."

"I reckon I can find it. Is it fur?" The man from Arizona looked down at the high-heeled boots in which his tortured feet had clumped over the pavements of the metropolis all morning.

"I'll send you in a taxi." The postmaster was thinking that this babe in the woods of civilization never would be able to find his way alone.

As the driver swept the car in and out among the traffic of the narrow streets Johnnie clung to the top of the door fearfully. Every moment he expected a smash. His heart was in his throat. The hurricane deck of a bronco had no terrors for him, but this wild charge through the humming trenches shook his nerve.

"I come mighty nigh askin' you would you just as lief drive slower," he said with a grin to the chauffeur as he descended to the safety of the sidewalk. "I ain't awful hardy, an' I sure was plumb scared."

A sergeant took Johnnie in tow and delivered him at length to the office waiting-room of Captain Anderson, head of the bureau of missing persons. The Runt, surveying the numbers in the waiting-room and those passing in and out, was ready to revise his opinion about the possible difficulty of the job. He judged that half the population of New York must be missing.

After a time the captain's secretary notified Johnny that it was his turn. As soon as he was admitted the puncher began his little piece without waiting for any preliminaries.

"Say, captain, I want you to find my friend Clay Lindsay. He— "

"Just a moment," interrupted the captain. "Who are you? Don't think I got your name."

Johnnie remembered the note of introduction and his name at the same time. He gave both to the big man who spent his busy days and often part of the nights looking for the lost, strayed, and stolen among New York's millions.

The captain's eyes swept over the note. "Sit down, Mr. Green, and let's get at your trouble. This note says that you're looking for a man named Clay Lindsay who came to New York several months ago. Have you or has anybody else heard from him in that time?"

"We got a letter right after he got here. He ain't writ since."

"Perhaps he's dead. We'd better look up the morgue records."

"Morgue!" The Runt grew excited instantly. "That place where you keep folks that get drowned or bumped off? Say, captain, I'm here to tell you Clay was the livest man in Arizona, which is the same as sayin' anywheres. Cowpunchers don't take naturally to morgues. No, sir, Clay ain't in no morgue. Like as not he's helped fill this yere morgue if any crooks tried their rough stuff on him. Don't get me wrong, Cap. Clay is the squarest he-man ever God made. All I'm sayin' is—"

The captain interrupted. He asked sharp, incisive questions and got busy. Presently he reached for a 'phone, got in touch with a sergeant at the police desk in the upper corridor, and sent an attendant with Johnnie to the police department.

The Irish sympathies of the sergeant were aroused by the naive honesty of the little man. He sent for another sergeant, had card records brought, consulted a couple of patrolmen, and then turned to Johnnie.

"We've met your friend all right," he said with a grin. "He's wan helluva lad. Fits the description to a T. There can't be but one like him here." And he went on to tell the story of the adventure of the janitor and the hose.

The washed-out eyes of the puncher lit up. "That's him. That's sure him. Tell me where he's at?"

"We don't know. We can show you the place where he tied the janitor, but that's the best we can do." The captain hesitated. "If you find him, give him a straight tip from me. Tell him to buy a ticket for Arizona and take the train for home. This town is no healthy place for him. Your friend has made an enemy—a powerful one. He'll understand if you tell him."

"Who is this here enemy?"

"Never mind. He hit up too fast a pace."

"You can't tell me a thing against Clay—not a thing," protested Johnnie hotly. "He'll sure do to take along. Clay will. There can't any guy knock him to me, if he does wear a uniform."

"I'm not saying a thing against him," replied the officer impatiently. "I'm giving him a friendly tip to beat it, if you see him. Now I'm going to send you uptown with a plain-clothes man. He'll show you where your friend made his New York debut. That's all we can do for you."

An hour later the little cowpuncher was gazing wistfully at the hitching-post. His face was twisted pathetically to a question mark. It was as though he thought he could conjure from the post the secret of Clay's disappearance. Where had he gone from here? And where was he now?

In the course of the next two days the Runt came back to that post many times ... the starting-point for weary, high-heeled tramps through streets within a circuit of a mile. He could not have explained why he did so. Perhaps it was because this was the only spot in the city that held for him any tangible relationship to Clay. Some one claimed to have seen him vanish into one of these houses. Perhaps he might come back again. It was a very tenuous hope, but it was the only one Johnnie had. He clumped over the pavements till his feet ached in protest.

His patience was rewarded. On the second day, while he was gazing blankly at the post a groom brought two horses to the curb in front of the house opposite. One of the horses had a real cowboy's saddle. Johnnie's eyes gleamed. This was like a breath of honest-to-God Arizona. The door opened, and out of it came a man and a slim young woman. Both of them were dressed for riding, she in the latest togs of the town, he in a well-cut sack suit and high tan boots.

Johnnie threw up his hat and gave a yell. "You blamed old horn-toad! Might 'a' knowed you was all right!

"Hi Yi Yi! Doggone Yore Old Hide, If It Ain't You Big as Coffee, Clay!"

Might 'a' knowed you wouldn't bite off more'n you could chew! Oh, you Arizona!"

Clay gave one surprised look—and met him in the middle of the street. The little cowpuncher did a war dance of joy while he clung to his friend's hand. Tears brimmed into his faded eyes.

"Hi yi yi! Doggone yore old hide, if it ain't you big as coffee, Clay. Thinks I to myse'f, who is that pilgrim? And, by gum, it's old h—l-a-mile jes' a-hittin' his heels. Where you been at, you old skeezicks?"

"How are you, Johnnie? And what are you doin' here?"

"You didn't answer my letters, so I come to see if you was all right."

"You old scalawag. You came to paint the town red."

Johnnie, highly delighted at this charge, protested. "Honest I didn't, Clay. I wasn't feelin' so turrible peart. Seemed like the boys picked on me after you left. So I jes' up and come."

If Clay was not delighted to have his little Fidus Achates on his hands he gave no sign of it. He led him across the road and introduced him to Miss Whitford.

Clay blessed her for her kindness to this squat, snub-nosed adherent of his whose lonely heart had driven him two thousand miles to find his friend. Her hand went out instantly. A smile softened her eyes and dimpled her cheeks.

"I'm very glad to meet any friend of Mr. Lindsay. Father and I will want to hear all about Arizona after you two have had your visit out. We'll postpone the ride till this afternoon. That will be better, I think."

Clay agreed. With a cool little nod that included them both, she turned and ran lightly up the steps into the house.

"Some sure-enough queen," murmured Johnnie in naive admiration, staring after her with open mouth.

Clay smiled. He had an opinion of his own on that point.

CHAPTER VII

Johnnie Green—Match-Maker.

Johnnie Green gave an upward jerk to the frying-pan and caught the flapjack as it descended.

"Fust and last call for breakfast in the dining-cyar. Come and get it, old-timer," he sang out to Clay.

That young man emerged from his bedroom glowing. He was one or two shades of tan lighter than when he had reached the city, but the paint of Arizona's untempered sun still distinguished him from the native-born. If there are any such among the inhabitants of upper New York.

"You're one sure-enough cook," he drawled to his satellite. "Best flapjacks ever made in this town."

The Runt beamed all over. If he had really been a puppy he would have wagged his tail. Since he couldn't do that he took it out in grinning. Any word of praise from Clay made the world a sunshiny one for him.

The two men were baching it. They had a little apartment in the Bronx and Johnnie looked after it for his friend. One of Johnnie's vices—according to the standard of the B-in-a-Box boys—was that he was as neat as an old maid. He liked to hang around a mess-wagon and cook doughnuts and pies. His talent came in handy now, for Clay was no housekeeper.

After the breakfast things were cleared away Johnnie fared forth to a certain house adjoining Riverside drive, where he earned ten dollars a week as outdoors man. His business was to do odd jobs about the place. He cut and watered the lawn. He made small repairs. Beatrice had a rose garden, and under her direction he dug, watered and fertilized.

Incidentally, the snub-nosed little puncher with the unfinished features adored his young mistress in the dumb, uncritical fashion a schoolboy does a Ty Cobb or an Eddie Collins. In his heart he had hopes that Clay would fall in love with and marry her. But her actions worried him. Sometimes he wondered if she really understood what a catch Clay was.

He tried to tell her his notions on the subject the morning Clay praised his flapjacks.

She was among the rose-bushes, gloved and hatted, clipping American Beauties for the dining room, a dainty but very self-reliant little personality.

"Miss Beatrice, I been thinkin' about you and Clay," he told her, leaning on his spade.

"What have you been thinking about us?" the girl asked, snipping off a big rose.

"How you're the best-lookin' couple that a man would see anywheres."

Into her clear cheeks the color flowed. "If I thought nonsense like that I wouldn't say it," she said quietly. "We're not a couple. He's a man. I'm a woman. I like him and want to stay friends with him if you'll let me."

"Sure. I know that, but—" Johnnie groped helplessly to try to explain what he had meant. "Clay he likes you a heap," he finished inadequately.

The eyes of the girl began to dance. There was no use taking offense at this simple soul. "Does he? I'm sure I'm gratified," she murmured, busy with her scissors among the roses.

"Yep. I never knowed Clay to look at a girl before. He sure thinks a heap of you."

She gave a queer little bubbling laugh. "You're flattering me."

"Honest, I aint." Johnnie whispered a secret across the rose bushes. "Say, if you work it right I believe you can get him."

The girl sparkled. Here was a new slant on matrimonial desirability. Clearly the view of the little cowpuncher was that Clay had only to crook his fingers to summon any girl in the world that he desired.

"What would you advise me to do?" she dimpled.

"Sho! I dunno." He shyly unburdened himself of the warning he had been leading up to. "But I'd tie a can to that dude fellow that hangs around—the Bromfield guy. O' course I know he ain't one, two, three with you while Clay's on earth, but I don't reckon I'd take any chances, as the old sayin' is. Better get shet of the dude."

Miss Whitford bit her lip to keep from exploding in a sudden gale of mirth. But the sight of her self-appointed chaperon set her off into peals of laughter in spite of herself. Every time she looked at Johnnie she went off into renewed chirrups. He was so homely and so deadly earnest. The little waif was staring at her in perplexed surprise, mouth open and chin fallen. He could see no occasion for gayety at his suggestion. There was nothing subtle about the Runt. In his social code wealth did not figure. A forty-dollar-a-month bronco buster was free to offer advice to the daughter of a millionaire about her matrimonial prospects if it seemed best.

"Clay ain't one o' the common run of cowpunchers, ma'am. You bet you, by jollies, he ain't. Clay he owns a half-interest in the B-in-a-Box. O' course it ain't what he's got, but what he is that counts. He's the best darned pilgrim ever I did see."

"He's all right, Johnnie," the girl admitted with an odd smile. "Do you want me to tell him that I'll be glad to drop our family friends to meet his approval? I don't suppose he asked you to speak to me about it, did he?"

The little range-rider missed the irony of this. "No, ma'am, I jest butted in. Mebbe I hadn' ought to of spoke."

"You needn't feel bad, Johnnie. There's no harm done—if you don't say anything about it to Mr. Lindsay. But I don't think you were intended for a match-maker. That takes quite a little finesse, doesn't it?"

The word "finesse" was not in Johnnie's dictionary, but he acquiesced in her verdict.

"I reckon, ma'am, you're right."

* * * * *

Clay was waiting for lunch at a rotisserie on Sixth avenue, and in order to lose no time—of which he had more just now than he knew what to do with—was meanwhile reading a newspaper propped against a water-bottle. From the personal column there popped out at him three lines that caught his attention:

"If this meets the eye of C. L. of Arizona please write me. Box M-21, The Herald. Am in trouble.
Kitty M."

He read it again. There could be no doubt in the world. It was addressed to him, and from Kitty. He remembered that on the bus he had casually mentioned to her that he usually read the Herald.

After he had eaten, Clay walked down Broadway and left a note at the office of the Herald for Kitty.

The thought of her was in his mind all day. He had worried a good deal over her disappearance. It was not alone that he felt responsible for the loss of her place as cigarette-girl. One disturbing phase of the situation was that Jerry Durand must have seen her. What more likely than that he had arranged to have her spirited away? Lindsay had read that hundreds of girls disappeared every year in the city. If they ever came to the surface again it was as dwellers in that underworld in the current of which they had been caught.

He had an engagement that afternoon to walk with Beatrice Whitford. They crossed to Morningside park and moved through it to the northern end where the remains of Fort Laight, built to protect the approach to the city during the War of 1812, can still be seen and traced.

Beatrice had read the story of the earthworks. In the midst of the telling of it she stopped to turn upon him with swift accusation, "You're not listening."

"That's right, I wasn't," he admitted.

"Have you heard something about your cigarette girl?"

Clay was amazed at the accuracy of her center shot.

"Yes." He showed her the newspaper.

She read. The golden head nodded triumphantly. "I told you she could look out for herself. You see when she had lost you she knew enough to advertise."

Was there or was there not a faint note of malice in the girl's voice? Clay did not know. But it would have neither surprised nor displeased him. He had long since discovered that his imperious little friend was far from an angel.

At his rooms he found a note awaiting him.

"Come tonight after eleven. I am locked in the west rear room of the second story. Climb up over the back porch. Don't make any noise. The window will be unbolted. A friend is mailing this. For God's sake, don't fail me."

The note was signed "Kitty." Below were given the house and street number. Was it genuine? Or did it lead to a trap? He could not tell. It might be a plant or it might be a wail of real distress. There was only one way to find out unless he went to the police. That way was to go through with the adventure. He decided to play a lone hand except for such help as Johnnie could give him.

Clay took a downtown car and rode to the cross-street mentioned in the letter for a preliminary tour of investigation. The street designated was one of plain brownstone fronts with iron-grilled doors. The blank faces of the houses invited no confidence. It struck him that there was something sinister about the neighborhood, but perhaps the thought was born of the fear. Number 121 had windows barred with ornamental grilles. This might be to keep burglars out. It would serve equally well to keep prisoners in.

The cattleman did not linger in that street lined with houses of sinister faces. He did not care to call attention to his presence by staying too long. Besides, he had some arrangements to make for the night at his rooms.

These were simple and few. He oiled and loaded his revolver carefully, leaving the hammer on the one chamber left empty to prevent accidents, after the custom of all careful gunmen. He changed into the wrinkled suit he had worn when he reached the city, and substituted for his shoes a pair of felt-soled gymnasium ones.

The bowlegged little puncher watched his friend, just as a faithful dog does his master. He asked no questions. In good time he knew he would be told all it was necessary for him to know.

As they rode from the Bronx, Clay outlined the situation and told his plans so far as he had any.

"So I'm goin' to take a whirl at it, Johnnie. Mebbe they're lyin' low up in that house to get me. Mebbe the note's the real thing. You can search me which it is. The only way to find out is to go through with the thing. Yore job is to stick around in front of the hacienda and wait for me. If I don't show up inside of thirty minutes, get the police busy right away breakin' into the place. Do you get me, Johnnie?"

"Lemme go with you into the house, Clay," the little man pleaded.

Was There or Was There Not a Faint Note of Malice in the Girl's Voice?

"Say, why don't you go into the movies and be one of these here screen ideals?"

(TO BE CONTINUED.)

The Tabard Inn.

The Tabard inn was the best known of the historic inns of old London, for it was thence that Chaucer's pilgrims set out in showery April for the shrine of St. Thomas a Becket at Canterbury. It stood not far from the borough end of London bridge in High street, Southwark, convenient to the head of the Old Kent road. How old it was there is none can say, but it was certainly there in the Fourteenth century under that name. In the repair of the damage it sustained in the great fire its signboard was through lack of comprehension of an obsolescent name changed from the Tabard, or sleeveless jacket then and now retained only as the uniform of the heralds, to the Talbot or practically similar sound the name of a dog which seems to have been the progenitor of the bloodhound. As the Talbot it endured until 1866, when it was torn down to make room for the freight station of the Midland railway.

PAID BIG TRIBUTE TO VIOLINIST

Nashville Woman's Graceful Act Met With Equal Courtliness From Famous Ole Bull.

Ole Bull, the famous Norwegian violinist, on a visit to Nashville, Tenn., sometime in the forties, was invited to play in a rude hall, where but a rudely constructed platform had been erected, and the rough boards had not even been carpeted.

A lady who was known as an accomplished musician and one of the most elegant women in Nashville, noticed this. In order to convey her admiration for the artist and her regret for the commonest of the surroundings, she took off her large costly, black velvet mantle and spread it out smoothly on the rough floor near the edge of the stage where he would be expected to stand.

A few moments later the great master appeared on the stage and the audience eagerly watched to see what he would do. He advanced bowing and smiling and as he reached the handsome mantle lying there he made another courtly bow.

Then he stepped to one side, drew his bow across the strings of the violin and began to play.—Philadelphia Ledger.

Nature's Wonderful Power.

Beside the moist clods the slender flags arise filled with the sweetness of the earth. Out of the darkness under—that darkness which knows no day save when the plowshare opens its chinks—they have come to the light. . . . Yonder a steam-plow puffs up the hill, groaning with its own strength, yet all that strength and might of wheels, and piston, and chains, cannot drag from the earth one single blade like these. Force cannot make it; it must grow—an easy word to speak or write, in fact full of potency.—Richard Jefferies, in "Out of Doors."

Won't Jail Volstead Prisoners.

Santa Rosa, Calif.—Refusal of John M. Boyes, sheriff of Sonoma county, to accept as prisoners in the county jail two persons arrested in Santa Rosa on charges of violating the Volstead act, led to the statement by prohibition enforcement officers that an attempt would be made to force the sheriff to accept federal prisoners hereafter without process of any kind. Sheriff Boyes was firm in his position that he would render his bondsmen liable were he to acquiesce in the insistent demands from prohibition officers who are appearing continually at the Sonoma county bastile with strangers, asking that they be incarcerated without warrants for violating the dry law.

Postage Stamps to Be Changed.

Washington.—Postage stamps ranging in denomination from 1 cent to $5 are to undergo radical changes as to design and color, with a view to preventing losses by the Postoffice Department due to lack of distinctive features, it has been announced.

All stamps ranging in denomination from 1 to 7 cents now bear the portrait of George Washington, while an etching of Benjamin Franklin appears on those ranging from 8 cents to $5.

The department contemplates retaining the Washington and Franklin portraits upon certain of the stamps, but, it was said, will substitute portraits of leading figures in American history on the others.

The department was of the opinion, it was explained, that different designs and colors would enable postal employés to detect more readily short paid matter. The department in time would save thousands of dollars, officials said.

Army Officer Arrested for Theft.

El Paso, Texas.—Department of justice agents at El Paso have been attempting to recover more than $100,000 worth of government property alleged to have been taken in the last three months from Fort Bliss without proper authority. The search followed the arrest at the army post of Capt. Clifford E. Black of the Eighth Engineer regiment, by orders of Gen. Robert L. Howze, commander at Fort Bliss.

Labor Leader Acquitted.

Chicago.—Cornelius ("Con") Shea, one of the labor leaders being tried for conspiracy in connection with the death of Police Lieutenant Terrence Lyons, walked out of the court room recently a free man.

The state admitted that it had little evidence against him and moved dismissal of the charges. Judge Thomas Taylor, Jr., granted the motion.

This *startling point in the trial came* a few minutes before John Miller, confessed driver of the "death car," took the stand in his own behalf as the first witness for the defense.

Three defendants now remain: "Big Tim" Murphy, "Frenchy" Mader, and Daniel McCarthy.

Bubonic Plague in Hawaii.

Honolulu, T. H.—Dr. C. T. Wayson of the territorial board of health left recently for the island of Hawaii to investigate the fourth death there from bubonic plague reported since July 4. The last victim of the plague was a 8-year-old girl.

No Action Taken Against Booze Ships.

London.—Washington's request for "reciprocal" search of ships flying the British flag outside a twelve-mile zone, where such ships were suspected of carrying whisky cargoes to United States territory, in violation of the prohibition law, was brought to the attention of Parliament recently. Premier Lloyd George told the House of Commons that such a proposal had been made and that it is now being considered, but that the indications were that no action would be taken.

Proposals Turned Down.

Buenos Aires.—After having considered proposals from various banking interests for a loan to Argentina, the government has decided not to accept any of the proposals which have been received, according to official sources. It is understood the bids were turned down because the dates and conditions were unsatisfactory to the government. The bids included one of $150,000,000 at 6½ per cent interest, and another of 200,000,000 gold pesos at 6 per cent.

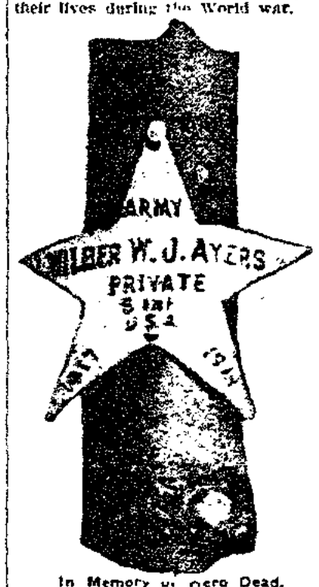
The AMERICAN LEGION

(Copy for This Department Supplied by the American Legion News Service.)

STARS ON MEMORIAL TREES

Living Monuments to 308 of Missouri's Hero Dead Line the Famous King's Highway.

Living memorials, sheltering those who come their way, always serving, 308 pleasant shade trees along King's highway in St. Louis stand as a monument to 308 Missouri lads who gave their lives during the World war.



In Memory of Hero Dead.

Each tree bears a gold star. A hero's name, the name of the unit and branch of service to which he was attached are engraved on each star.

The trees were planted on Arbor day by members of the American Legion. Many of the mothers of the men in whose memory the trees stand helped place the gold stars on the European sycamores, sweet gums and green oaks that line either side of the parkway.

RANKING WEST POINT CADET

Charles Barrett, Former "Buck" Private, Honor Man of Class of 1922 at Great Academy.

From a "buck private in the rear rank" in 1917 to the highest ranking cadet at West Point is the record of Charles J. Barrett, "honor man" of the 1922 class at the military academy.

Barrett went to France as a member of the 29th division. With 184 other "hand picked" soldiers he was chosen to take the examinations for West Point. He took highest honors.

At the academy, he was made regimental commander, editor of the school magazine and chairman of the board of governors. Despite his other activities, he has found time to do enough studying during his four years to land him at the head of his class.

MARSHAL FOCH HAD THE TIME

Famous French Fighter Aids Blind War Victim Seeking Wounded Soldiers' Institute.

The *splendid spirit of Marshal* Ferdinand Foch of France, who won the hearts of the American people when he toured this country as the guest of the American Legion last year is illustrated by a story from Paris.

A blind veteran tapped his way along the sidewalk. "Excuse me, am I near the wounded soldiers' institute?" he asked of a passing pedestrian. "I've only been there twice and I am not quite sure of the way."

"You are close to it now; let me take you," came the reply.

Arriving at the door of the institute, the guide said to the janitor: "Kindly take this man to the section for the blind."

"Take him yourself," growled the janitor. "Under the archway on the other side of the courtyard."

The civilian did take the veteran, but on the way out he addressed the janitor again.

"Could you not be a little more obliging to the blind?" he asked gently.

"There are too many and I haven't the time," was the surly response.

"It seems to me that it is your duty to help them," said the other. "I can find time—and I am Marshal Foch."

Plants 530 Memorial Trees.

Memorial trees for 530 veterans who gave their lives in the World war have been planted by the Washington (D. C.) post of the American Legion. As a part of the Memorial day exercises each year, wreaths made up to resemble the Legion insignia and American flags will be placed on each tree.

Ideally Cast.

Actor—In my new play I disappear in the first act, and from that moment on, everybody in the cast is on edge trying to find me.

Friend—Say, you must be the manager!—American Legion Weekly.

Favor Law Enforcement.

A straw vote on the subject of the enforcement of the prohibition amendment conducted in Cuyahoga county, Ohio, showed that 62 per cent of the ex-soldiers were in favor of stricter enforcement of the dry law.

BOXER WHO SINGS AND READS

W. H. Littleton, an Ex-Gob, One of Many Legion Sluggers to Carry Away Honors.

A boxer who sings baritone and reads classical literature is about as rare as gin rickey at a church social. William Harrison, better known as "Happy" Littleton, southern middleweight champion boxer, has an unusually good baritone voice which he uses when the boys get together to have a little harmony. A boxer *who peruses the classics might be* expected to be a "ten hound," and it is rumored that Littleton has been known to balance the china cup on his knee.

But the fact that Littleton can sing, read and drink tea doesn't keep him from being a good boxer. He recently wrecked the knuckles on both his hands on Billy Shade's head when the two met in New Orleans. He won the decision in that match just as he had in others with Joe Chip, Battling Ortega, Joe Borrell and Jack Bloomfield.

Littleton, an ex-gob, is one of the many American Legion boxers who have carried away the laurels in bouts in every section of the country.

INTERESTED IN LEGION WORK

Maj. Gen. John Lejeune Accepts Invitation to Attend Annual Convention in New Orleans.

In accepting the invitation of the American Legion to attend the fourth annual convention of the legion in New Orleans, La., in October, Maj. Gen. John A. Lejeune, commandant of the United States marine corps, expressed his appreciation of the legion and his interest in its activities.

"Louisiana is my native state, and for that reason, as well as on account of my interest in the American Legion, it will be a privilege for me to be with you at the convention," General Lejeune said.

The military career of the marine corps leader embraces service in the Spanish-American and World wars. He came into greatest prominence when he commanded the Fourth brigade of marines of the Second division, which saw service at St. Mihiel, Mont Blanc ridge, the Meuse-Argonne and in the Rhine country.

Governor Signs Bonus Bill.

Governor Cox of Massachusetts has signed a bill which makes more than 400 additional World war veterans eligible for the $100 state bonus. The bill provides that any man who was a resident of the state within the year preceding his enlistment is eligible for the bonus, or if the man's parents were in the state a year prior to his enlistment, although he may have been in another state, he can collect.

About to Arrest Mme. Joffre.

While Marshal Joffre of France was being received at the Pennsylvania station in New York city by a group of American Legion officials and members of the mayor's reception committee, Mme. Joffre went upstairs to wait for the hero of the French people. While Mme. Joffre waited, one of New York's "finest" told her to "move on." He was about to take action because his order was ignored when a rescue party headed by General Bullard arrived and escorted Mme. Joffre to her waiting automobile.

Aids Are Needed.

There is urgent need at hospitals of the veterans' bureau for reconstruction aides in physiotherapy and occupational therapy in connection with the rehabilitation of disabled veterans of the World war, according to an announcement made by the United States civil service commission. Applicants for these positions are not required to report for written examinations, but are rated upon the subjects of education, training experience and physical ability. *Information may be obtained from the U. S. civil service commission, Washington, D. C.*

Carrying On With the American Legion

Rumors that state prison labor is being used to compete with private industrial concerns has caused an investigation by the Seattle (Wash.) American Legion.

* * *

A Philadelphia concern is organizing an expedition to salvage the $5,000,000 known to have been on board the Lusitania when the vessel was sunk by a German torpedo.

* * *

Leonard T. Paulu, of Grinnell college, Ia., with a leg scarred by shrapnel wounds, recently broke 100 and 220-yard dash records in an intercollegiate track meet held in Chicago.

* * *

A memorial highway extending east and west across Virginia has been suggested by the Virginia American Legion as a memorial to the state's World war heroes.

* * *

Hanford MacNider, national commander of the American Legion, was made a member of the Sioux Indian tribe at a recent visit to the tribe's reservation at Devils Lake, N. D. The Legion chief was given the name of "Oheya," which means "The Winner."

* * *

Hundreds of postal employees in New York city, who served in the World war, have formed a post of the American Legion composed exclusively of those who attend to Uncle Sam's mail business.

THE KITCHEN CABINET

(©, 1922, by Western Newspaper Union.)

Few people, rich or poor, make the most of what they possess. In their anxiety to increase the amount of means for future enjoyment, they are apt to lose sight of their capability for the present.—Leigh Hunt.

FOR THE FAMILY MEAL

To avoid monotony and yet maintain a reasonable economy is the thrifty housewife's problem today.

Tamales.—Boil until tender a *good fat fowl*; strip the meat from the bones and chop fine. Chop one-half pound of raisins, one-half cupful of stoned olives, and one small red pepper, very fine. Mix all together and stir in two cupfuls of cornmeal which has been moistened with scalding water. Season with salt, onion juice and a teaspoonful of sugar. Add more water and cook for fifteen minutes, then add six hard-cooked eggs, chopped. Lay the paste on green corn husks, wrap and tie and drop into boiling salted water and cook until tender.

Frozen Pudding.—Make a custard of a pint of milk, three egg yolks, a cupful of sugar and a pinch of salt; when cool add a half teaspoonful of almond extract, fold in the whites of the eggs beaten stiff and a cupful of cream, also whipped. Steam a quarter of a cupful of raisins, two tablespoonfuls of sliced citron and the same of candied cherries; cut fine in shreds with the scissors and add to the custard, then freeze as usual. When *frozen, pack in a fancy mold.*

Stuffed Cabbage.—Take a small loosely packed cabbage, drop into boiling water and cook until wilted. Remove and drain, open the leaves in the center and place seasoned meat between the leaves, cut to the outside layer of leaves. Tie in a cheese cloth and cook until the cabbage is perfectly tender. Serve with a Hollandaise sauce.

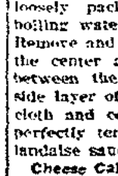
Cheese Cakes.—Mix with one pound of well-seasoned cottage cheese one-half cupful of sugar and one-half cupful of flour. Separate the yolks and whites of four eggs and add the beaten yolks to the cheese, add the stiffly beaten whites and sufficient milk to make the consistency of griddle cake batter. Spread on a sheet of well-greased paper laid in a dripping pan, cover the top with cinnamon, currants and bake twenty minutes in a moderate oven.

Pepper Steak.—Pound a round steak until well broken, cut in pieces, sprinkle with chopped green pepper, salt and pepper, lay on a piece of bacon, roll up and tie. Cook in the oven, basting often with water and the bacon fat. Onion may be added if liked or the pepper may be replaced by the onion. Pour over a thin cream sauce after removing the strings or skewers.

"The man who wins is an average man
Not built on any peculiar plan,
Not blest with any peculiar luck,
Just steady and earnest and full of pluck."

HOUSEHOLD HINTS

Pour hot coffee into the saucers of your geranium plants often; if very hot it cools before reaching the roots and a wealth of beautiful blossoms will be put forth. Coffee grounds worked into the earth around palms and ferns will keep the earth sweet and will lighten the soil.



In cutting raisins or candied peel, rub butter on the chopping knife to keep it from becoming sticky.

Rinse all pieces of paraffin when taken from the jelly and put them into an old coffee pot kept for that purpose. When ready to use, melt the paraffin and pour over the new jelly. This saves another dish and nothing could be more convenient for pouring.

When food is burnt on in granite or aluminium dust a thick coating of soda over the bottom of the dish and cover with cold water. Let stand for a few hours, then remove all the deposit, using steel wool, if it is not all removed, repeat with the soda.

Brass beds, fenders and andirons may be kept bright by washing in luke warm water in which a little muriatic acid, five drops to a quart has been added; this removes any dark stains; rinse well and rub with sweet oil, then polish with a chamoise skin.

Asparagus, green beans, or peas if left from dinner, may be washed and drained from the sauce and used in a salad, thus nothing is wasted.

Make your own card index, adding to it from day to day. Have a set of cards with recipes using bits of left-over food; for example, a cupful of cooked tomato—what can be done with it—tomato rarebit, see cook book page —, Spanish toast, see note book No. Three and so on, at a glance at a card one can decide what recipe will fit, the food to be used and the taste of the family or persons to be served.

An index of this kind will be the growth of years and will prove of inestimable value, for one can never carry in one small head all the things useful to know about leftovers or small amounts of food wisely used.

Nellie Maxwell

The Multitude of Stars.

Astronomers have counted the stars in typical districts and from these partial counts here and there we get some idea of the total number of stars and there are estimated to be between two and three thousand million stars.—J. A. Thomson in "The Outline of Science."

British Golf Old Fixture.

The British open golf championship has been a fixture of the empire since 1860, except during the 1914 to 1920 war period.

He Admits It.

"What did the fortune teller tell you?"

"Oh, a lot of foolishness. Said I would be lucky in love."

"Well, aren't you?" demanded his wife.

"I—er—sure."—Louisville Courier-Journal.

HOW BOOKS ARE DISINFECTED

Method Employed in France Is Said to Be the Most Successful Yet Devised.

The danger of contagion from books that have been in the hands of persons suffering from various diseases has led to the invention of methods of disinfecting, of which none appears to be more effective than that devised by a member of the municipal council of Paris.

This process consists of two features. In the first place, the books are placed in a "heater," where a strong current of air opens every leaf, and an aspirator sucks out the dust and deposits it in aseptic water. Then they are suspended in a disinfector, the covers being bent back and held by clips, so that the leaves are widely opened, and placed over a heater, which for a long time subjects them to a temperature of 107 degrees Fahrenheit. The paper is not damaged, and the efficiency of the process is said to be well demonstrated.

Prompt.

"You are strong in your praise of the Brokers and Stokers' Magazine."

"I am."

"Yet they have never printed any of your poetry."

"No, but it doesn't take them two months to decide that my stuff won't do. They get it back to me in the next mail."—Louisville Courier-Journal.

HAD STUDIED HIS SUBJECT

Little Bobby's Essay Showed He Knew Practically All There Was to Know About Doors.

Little Bobby Jones was told to write an essay on "Door," and the effort which he sent in was as follows:

"Most houses have all the doors that they need, and no house is complete without at least one. The two main differences between a door and a gate is: first, their opposite location; and, second, that people have much less respect for a gate, and would rather kick it than knock on it.

"But a gate is more useful than a door because it does everything that a door can do, and, besides that, it can be climbed over, and often is.

"The door handle is a small but important part of the door which people never appreciate until it comes off. Most people never notice the door handle unless it is brought to their notice on account of having jam spread all over it.

"Doors are great things to give people privacy, and would give them still more if it wasn't for the keyholes."—Exchange.

The Salary of M. P.'s.

The salary of an M. P. is £400 (nominally $2,000) a year, on which he has hitherto paid income tax. As an income this is inadequate, but in the days of anti-waste campaigns both ministry and house of commons shrink from increasing it. But the law officers of the crown suddenly discovered that an M. P.'s expenses may legitimately be reckoned against his income, so that the poorer of them will now pay no tax at all. A happy issue, relieving the poor M. P., endearing the government to his grateful heart and throwing no odium on parliament, ministry, since it seems that this is the ordinary law and always was, although no one suspected it till a few weeks ago.—New Republic.

Can Be Overdone.

"Some say slang enriches the language." "There's such a thing as getting too much dirt."

He Gets Full Benefit.

Hubby—I can't understand why you should always show such a mean and cranky disposition in the morning.

Wife—At what other time should I show it, may I ask? You're not here during the rest of the day.

DECLARED HIMSELF AT ONCE

New Yorker Saw Fearsome Possibility of Near Future and Gave Wife Due Warning.

Visitors to Central Park the other day saw a new angle of the family pet out for an airing, reports the New York correspondent of the Pittsburgh Dispatch. A young woman was out with her variegated parrot. The bird walked majestically about the lawn, but quickly came back and perched on the young woman's finger whenever she called. His comings and goings to and from the finger gave the parrot its prescribed exercise, whether it wanted it or not.

The young woman didn't seem to mind the crowd that gathered about to watch. In fact she seemed rather proud of the attention she and the bird were attracting. Jiggers, whose family pet is a dog, happened along with his wife and stopped to look.

"I suppose the next thing," he remarked to his wife, "will be that I'm to take the canary up to the park for a walk. Right here I announce the answer: Nothing doing!"

Quarrelsome.

"Before we were married her people said we would never get along."

"Well?"

"Well, they were partly right."—Detroit Free Press.

Dame fortune may knock on the door, but opportunity knocks on more doors.

ALLENS PARK

The marriage of Miss Dorothy Davis of Thermopolis, Wyo., to Chas. Alfred Horne of Thermopolis, was solemnized at Copeland Lake on an acre, which was recently purchased by the groom, from Mr. Walstrom. The ceremony was performed at 4 o'clock on Thursday afternoon by a Baptist minister from Berthoud. The attendants were Mr. and Mrs. Leslie Donnell. The bride wore a gown of Princess Mary blue, embroidered in salmon shades, which made a gorgeous pastel effect. She carried a corsage bouquet of white mountain flowers. The matron of honor wore a gown, marked for its sweet simplicity and her flowers were purple asters. The groom wore a business suit of a dark shade. About twenty guests enjoyed the ceremony out among the spruce and pine. Clustered among the trees were many huge boulders, and these served as seats for the guests, while a dainty lunch was served. In the evening mountain folks gathered at the Walstrom home and held a social hour for the newly-weds. The bride and groom will return to Thermopolis late in August, where they will each resume their duties as teachers in the schools. Next summer they plan to build on their acre at Copeland Lake.

The Commercial Club of Allens Park held an interesting meeting last week. Messrs. Ryan and Brown of the Forest Service were on hand and each made an inspiring talk on the big outdoors.

Mr. L. H. Dieterich, who is superintending work at Blue Bird Lake, came down for the week-end and was attending to business in the Park vicinity.

Mrs. Frank V. Gay and Mr. Andy Hansen went to Longmont last Wednesday to meet Mr. Gay, who later joined them and came on up to Allens Park, where he will enjoy several weeks.

I. B. Thompson of Longmont, with a party of friends, recently spent a few days in Allens Park.

—Mr. Will Hall of St. Louis is making great headway with his summer cottage, built of stone and logs, which is located a short distance from Copeland Lake Lodge.

Allens Park friends of Mrs. Louise B. Clark arranged some interesting bridge bouts on last Friday and Saturday, in honor of her guest, Miss Elise Kraft of Longmont. Mrs. Clark and Miss Kraft returned on Monday to Longmont, leaving Mr. and Mrs. Chas. Boynton at their Ferncliff home for a longer stay.

The many friends of Mrs. Chas. Bradford will be glad to learn that she is slowly improving from her recent illness, at the St. Vrain hospital in Longmont.

Mr. Dan Slaughter went to the valley on business last week. He wore a happy smile when he returned to his ranch in the hills, where he seems to think the mountain breeze is just about right.

Many children tourists are enjoying the witchery of the mountains. Some are taken on jaunts in touring cars, but there seems to be a general whooping for joy when a crowd starts out afoot or else on the back of a burro. One little fellow in the Park was seen starting on a fishing trip. His tackle consisted of a knotty pole and a twine string, to which was attached a bent pin. Evening found him coming home, with one trout and heaps of bug bites on his little body, but 'twas the end—of a perfect day.

A large number attended the services conducted by Bishop Mize in Allens Park Sabbath evening.

Mr. Stalker opened the doors of his Ferncliff cottage early in the summer to Denver relatives, who came and had a glorious time. He is now alone, the first since early June.

Mrs. Moore and daughter, Evelyn, of Longmont are in their cottage at Ferncliff.

HIGHLAND LAKE

This locality has been visited with three fine rains recently, one last Saturday morning, one Monday and Tuesday afternoon, and each rain was accompanied by hail, but not enough to do much harm to the crops. The rain was badly needed.

Mr. Smith enjoyed a visit over Sunday with home folks in Longmont.

There is a fine apple crop in this locality this season.

Several of the threshing machine men began their work here the first of this week but were not able to keep it up on account of the recent heavy rains.

A large number of people from around here attended the late Mr. Kitts' funeral in Greeley last Sunday afternoon.

Mr. G. F. Welty's friends are pleased to see him able to be out again.

Mr. Hale and family of Loveland enjoyed a visit over Sunday in the home of Mrs. Hale's parents here.

Harley Markham from near Loveland, visited friends and relatives here last week.

Mr. McMullen of Denver was a business caller here Monday.

Mr. G. F. Welty purchased the farm that Ned Dorsey is living on from Mrs. Dorsey, Ned Dorsey's mother. This gives Mr. Welty a very nice farm to rent or farm it himself.

Several of the farmers here were not able to irrigate their sugar beets on account of a shortage of water, but the recent rains will be a great help to them.

There will be nine teachers employed in the Mead school for the coming school term. There was too much work for the former number of teachers.

A Denver poultry buyer was here Tuesday.

The rain and hail storm of Tuesday afternoon was accompanied by a severe wind that broke large limbs and branches off the trees and tore leaves from the sugar beets, but the storm was more severe east of here.

Mr. McMillen of Longmont was attending to business affairs in this locality Thursday.

B. V. and Jerry McCreedy are expecting a visit from their parents. They would have been here now except for the delay caused by the railroad strike.

Mr. Harmon of Mead was a Platteville business visitor Tuesday and reports a very severe wind storm and hail storm in that locality.

NIWOT

Don't forget August 21—Monday night—Play at Nelson's Hall—"The Rummage Sale."

Mrs. C. A. Lippincott, Misses Nettie and Ruth Lippincott and Miss Mary Doan went to Denver to campmeeting Thursday. Mr. Lippincott will go Friday.

Ruth Lippincott spent Tuesday with Mrs. Perrine Bottom.

Mr. W. H. Hogsett and family spent Wednesday in Boulder with Dr. Warren Hilyer and wife. Mrs. Hogsett's and Mrs. Hillyer's brother, who has been visiting them, left for Illinois Thursday.

The C. E. Society of Niwot U. B. Church had a beefsteak fry at Nels Anderson's home Tuesday evening.

Miss Bessie Madden is spending the week in Boulder with her friend, Miss Bernice Friend.

Mr. and Mrs. Mosier of Greeley visited Mrs. F. L. Bottom Sunday.

Rolland Bottom and Loren Hornbaker have been with the threshing crew this week.

Paul Lippincott went as nurse to the Boulder Sanitarium Sunday.

Did you ever hear of varnishing floors with molasses? Did you know that Niwot had a real policeman who stands outside of Esgar's store on the corner of Sunshine and Main streets just like Daniels and Fishers?

Did you know that August 21st was on Monday? If you don't watch out for the Big Night.

Misses Violet and Edna Rhen went to Greeley Sunday to attend the funeral of Mr. Jesse Kitts. They returned home Monday evening.

The Ladies Aid held their meeting in the church basement Thursday afternoon. The officers elected for the coming year were as follows: President, Mrs. Florence Dodd; Vice President, Rose Palmer; Secretary, Ethel Manker; Treasurer, Lettie Ereckson; Executive Committee, Mrs. Minnie Harvey, Maggie Dodd, Julia Buckley. A delicious lunch was served by Mesdames John Hill and Herbert Jessie. Nineteen members and two visitors were present.

Mr. Elmer Cain of Whittier, Calif., who is on his way to visit his old home in Illinois, stopped off for a visit with his sisters, Mrs. Walter Hogsett, Mrs. C. B. Whitehouse and Mrs. Warren Hillyer.

Mr. and Mrs. Irl Davis left Tuesday for their home in Canon City. Mr. Davis attended Y. M. C. A. school at Estes Park for two weeks. Mrs. Davis has been visiting with friends and relatives here.

Mr. Walter Hogsett has purchased a new Jewett car.

Mr. and Mrs. Robert Austin and Robert, Jr., left Saturday for a trip to Coolidge, Kansas.

Mr. and Mrs. Earl Gregg and son, Philip, spent Sunday with Mr. and Mrs. Frank Palmer.

Mrs. Clyde Carson and son of Erie visited her parents, Mr. and Mrs. Thos. Kneale Sunday.

Mr. Eugene Laybourne of Windsor visited his sister, Mrs. Courtney Dodd, Sunday.

Mrs. Mary Richart, Mrs. Alice Anson and Mr. Martin McFarran went to Denver Wednesday to attend S. D. A. campmeeting at Rocky Mountain Park.

Mr. Charles Sherman, Mr. James Jesse, Mrs. Arthur Sampson and baby, June Jessee and Mrs. Julia Buckley were in Longmont Tuesday.

Mrs. J. C. Nelson and children of Greeley are visiting Mrs. Courtney Dodd.

Mr. Thos. Kneale and Albert Kneale were in Boulder Monday.

Miss Violet and Edna Rhen went to Denver Wednesday.

Rev. Allen Rhen spent Tuesday in Loveland and Wednesday in Longmont.

Misses Martha and Charline Tiffs of Denver are visiting at the Austin home this week.

PLUMB'S SIDING

The Social Hour Club met Thursday afternoon with Mrs. Elizabeth McCarthy as hostesses, there being a good attendance. After the business meeting there was a short program in honor of our State, the beautiful Colorado. In response to roll call each lady read a paper she had written on Colorado's wonders. The club guests were Mrs. Mattie Richards of Erie and Miss Evelyn Rehnolds of Greeley. The hostess served a lovely lunch late in the afternoon. The club adjourned to meet with Mrs. Lula Peterson August 31.

The Girls Hour Club met with Miss Adelia Nelson on Wednesday afternoon. The girls spent a very pleasant afternoon with sewing and visiting. The hostess served refreshments, after which the club adjourned to meet with Miss Mattie Wiggett on the 16th.

HYGIENE

Miss Geneva Loomiller took dinner with Miss Bertha Johnson Sunday.

Mr. and Mrs. C. F. Daly entertained Mr. and Mrs. Gilbert Feltham of Longmont at dinner Sunday.

Miss Vera Buster has gone to Longmont to spend a few days with her sister, Mrs. Olin Williams.

Mrs. May Laycook and children of Boulder visited her sister, Mrs. Charlie Goss, and attended the funeral of her nephew, Melvin Goss.

Mr. and Mrs. Pope, who have been living in Mrs. Brackett's house, have moved in the house on the corner of Mr. Matt Sadar's place.

Mr. Dick Wilson is threshing for Mr. Walton McKelvie.

Mrs. Armstrong entertained Mrs. Lohr and Mrs. McIntosh of Colorado Springs at dinner Friday.

A heavy hail storm visited Loveland, Mead and Liberty Hall Monday, doing much damage.

Mr. and Mrs. Frank Sadar of Denver visited Mrs. C. F. Daly Saturday and Sunday.

Melvin Goss died at his parents' home in Hygiene Thursday at ten o'clock. Services were held at the Methodist church in Hygiene and his body was laid to rest in the Longmont cemetery. He leaves to mourn his loss his father and mother and little sister, Bonnie, and hosts of friends in Hygiene.

Mr. Parkins of Collbran, Colo., is visiting at the Misses McKelvie home.

Mrs. Olin Williams and children of Longmont visited her mother, Mrs. Ed. Buster, Wednesday.

Mr. Harold Forbess is theshing for Mr. Vern Campbell.

Miss Alice Sadar of Denver is spending this week with her grandparents, Mr. and Mrs. Matt Sadar.

Mr. McIntosh and wife and son of Colorado Springs are visiting his sister, Mrs. George Lohr.

Mr. Charlie Williams, who is thrashing on Arthur Turner's place near Liberty Hall, got his cook car badly battered up with the hail. It ruined the roof and tore the canvas on the car.

The Ladies Aid will meet with Mrs. Ingalls next Thursday.

Big Whiskey Still Sized

Tuesday night the officers of Boulder county raided a ranch four miles south of Marshall and captured a still probably the largest found in the county.

Two four-gallon copper cookers, 60 barrels of mash, 30 gallons of whiskey and 25 five-gallon jugs were taken, the whole valued at about $1,500. Four young men were in the house and were completely surprised when the officers came in from the rear and offered no resistance. They were taken to the county jail and the still locked up there also. The men are Ralph Perry of Boulder, J. E. Bonnell and Harry Rosser of Louisville and Victor Lowe of Denver.

Card of Thanks

We desire to acknowledge the kindness of our neighbors and friends at the time of the illness, death and funeral of our son, Melvin Goss. We do appreciate the loving sympathy, the beautiful flowers, the singing and everything done to comfort and aid us in our time of sorrow.

Mr. and Mrs. Charles N. Goss and Daughter.

LONGMONT LEDGER

$1.50 PER ANNUM | LONGMONT, BOULDER CO., COLORADO, FRIDAY, JUNE 15, 1923 | VOL. XLIV, No. 38

High Water Caused by Heavy Rains

Such wetness this spring you never did see!

It began to rain in May, just showers, well peppered with hail, and the hail did a powerful lot of damage. Then it began to rain for longer periods and all of last week was given up to showers during the day.

Friday night about ten o'clock it began to pour down and for twenty-four hours it never stopped. Business was at a stand-still on Saturday and the question every where was, "would there be a flood?"

The St. Vrain was higher than it had been for years and many bridges were washed out. The stream rose 13 inches in five hours.

Three bridges on the North Fork were washed out and the mail from Estes Park had to be taken to Allenspark and down the South Fork. Two bridges on the Big Thompson were washed out which leaves Estes Park cut off on a direct route, the trip into the Park being made up the South Fork.

No bridges went out on the South Fork as the majority of the road remains on the north side of the creek, the bridges being eliminated partly for this reason. At the little narrows the creek was running over in places and heavy cars and trucks were forbidden to go over it.

Boulder and Left Hand creeks were out of their banks in places and washing the fields badly.

The high temperature and the rain melted the snows rapidly on the hills and caused the water to come up quickly. Had it been a cold rain, there would have been much less water.

Kohloss on Prohibition

Says Young Men are Main Consumers of Bootleg Whiskey

Robert H. Kohloss, divisional prohibition director, spoke at the Christian church Sunday night under the auspices of the W. C. T. U., to a large and appreciative audience.

Mr. Kohloss is a forceful speaker and his main theme was the need of cooperation of the citizens of the country in stamping out the illegal manufacture and sale of bootleg whiskey which is nothing more or less than poison.

One of the worst features of the consumption of this whiskey is, that the young men from 18 to 25 years of age are the ones who are dinking the majority of it. Older men realize that it is a slow, sure poison but the young men cannot be made to see this fact.

Mr. Kohloss said that the women were the real aids in this fight for a clean country but the men were slow to help even when they could.

He also stated that the propaganda for the manufacture of light wines and beer could be traced to French and Italian dealers and wine makers, that the American people as a whole were most decidedly in favor of prohibition.

Presbyterian Bible School Opened Monday

The daily vacation bible school opened Monday morning with 80 children enrolled and a few more have joined this week.

The children are very enthusiastic over the school and the work and delighted that they can go.

Rev. J. R. Warnick is the general supervisor, but works mostly with the intermediate department of which Miss Katherine Cessna is the assistant. In this department also are the Misses Dorothy Maxson, Mary Everly, Elaine Rienert and Raymond Parks. The Junior department is in charge of Mrs. W. L. Shacklett and James Johnson, while the primary have for their leaders, Evelyn Joy Pierson and Dorothy Reid.

The bell rings at nine o'clock and the children march in behind the leaders carrying flags.

The morning is given to Bible study memory work, missionary, secular and nature stories, hand-craft work and athletics.

Children from all Sunday Schools are attending and teachers from the other churches are also helping.

This is a fine thing in many ways for the little folks.

Mrs. E. G. Lane Gives Library to Baptist Woman's College

Mrs. E. G. Lane has given a large part of her late husband's library to the Baptist Woman's College in Denver, of which Rev. E. G. Lane was a trustee.

These books, a collection of a life time, make a wonderful gift to the College and a memorial to one of the best loved men of the Church.

Prof. C. C. CASEY
(Courtesy of Boomerang)

C. C. Casey has been Superintendent of Schools for Longmont for nine years and previously served four years as Principal of the High School.

Mr. Casey is very progressive and want the best there is for our schools, and goes to a great deal of trouble to get it.

The first of next week he will leave for San Francisco, Calif., to attend the meeting of the National Educational Association which will convene there from July 1 to 7, and also attend the World's Educational Alliance which begins June 28th. Mr. Casey expects to stop at the Grand Canyon on the way to California and take in the trips there.

Prof. ARCHIBALD TAYLOR
(Courtesy of Boomerang)

Archibald Taylor has served as Principal for the Longmont High School for the past year, having been Principal of the Junior High two years previously.

Mr. Taylor has made a splendid principal and will continue his work in the same capacity next year.

Prof. D. W. SPANGLER
(Courtesy of Boomerang)

D. W. Spangler, known by the students of L. H. S. and many others as "Spang," has completed his 27th year of teaching in the Longmont High School. Previous to the opening of the High School Mr. Spangler taught three years in the old Academy, making thirty years of teaching, and in all these years he has been one of the best beloved teachers, always square and generous and a favorite with pupils and teachers.

Rebekahs Elect Officers

Thursday evening, June 7, the Rebekah Lodge elected their officers for the coming six months:

Noble Grand—Mrs. Mary Wall.
Vice Grand—Mrs. Edna Culver.

The other officers hold over and are, Recording Secretary, Mrs. Della Payne; Financial Secretary, Mrs. Emma Richmond; Treasurer, Mrs. Lottie Rimer.

The installation will take place Thursday, July 5th, and appointive officers be named.

There will be a rummage sale Friday evening and all day Saturday at the Imperial sample rooms by the Welfare Association.

SOCIETY ITEMS

EDITED BY MISS NELLIE BUTLER PHONE LONGMONT 286 W

The O. V. Club was entertained Friday afternoon by Mrs. Sam Brinkerhuff. A large number of club members were present and several invited guests enjoyed the afternoon with them. After the business meeting an interesting "dress form" demonstration was given by Mrs. Ferguson. This was followed by a musical program. Mrs. Jack Daziel of Eaton and Miss Irene Howlett sang very pleasing solos and Miss Marie Brinkerhuff played a delightful piano solo. The hostess was assisted by her daughters in serving a dainty tea while the ladies enjoyed a social season.

Mrs. Jennie McKiernan was hostess for a dinner party of charming appointments Thursday evening at the Curtis. The tables were beautifully decorated with snow balls and silver tinsel, a very lovely combination, and places were laid for twenty. A delicious menu of four courses was served, after which cards were enjoyed at the home of Mr. and Mrs. A. H. McKiernan. Mrs. D. C. Donovan and Mr. Chas Kistler were the fortunate winners of the lovely prizes.

Mesdames Stamper, Norrish, Nichols, Jones and Tracy were hostesses for the children's meeting of the Matrons Society Thursday afternoon. The annual meeting with the children of the members as honor guests is one of the most delightful affairs of the year and despite the storm a large number were present. Mrs. George Lang conducted the devotional exercises, after which a very enjoyable program of music and recitations was given by the children. Late in the afternoon the hostesses served refreshments.

Mrs. Grant Hartman was hostess for the Pleasure Club Thursday afternoon. Current events were given in response to roll call and Mrs. Jewett read a paper on prohibition prepared by Mrs. J. W. Goss. Mrs. Kieth Spangler played delightful piano selections and an orchestra, composed of Mrs. Frank Hartman, Mrs. Jesse Peek, Jack and Junior Hartman, played several most pleasing selections. Delicious refreshments were served during an enjoyable social half hour.

The Priscillas met Friday afternoon in the parlor of the Congregational church with Mesdames Gunning, Wiggins, Williams, Dudley, Heitt, Allison, and Miss Butler as hostesses. A brief business meeting was held after which a lovely program was given, each number being appropriate to June, the month of roses. Bowls and baskets of roses and other flowers adorned the room, making a pretty setting for the program, which consisted of music by the Kamiki orchestra, directed by Miss Ruth White, vocal solos by Mrs. Ray Smith and Mrs. T. I. Terrell, readings by Mrs. Rollin Bonner, a trio by Mrs. W. R. Neeley, Mrs. Ralph Kiteley and Miss Rustad, and piano solo by Miss Vivian Gunning. The hostesses served dainty refreshments while the ladies enjoyed a social season.

The Friday Auction Bridge Club was entertained last week by Mrs. W. C. Muth. Three tables accommodated the players and at the close of the spirited game the first prize went to Miss Healy, second to Mrs. C. D. Bohn and consolation to Mrs. Walter Smith. Dainty refreshments were served after the game. Mrs. R. L. Hudson and Mrs. G. E. Monson were club guests.

Twenty ladies of the Kensington Club enjoyed a pleasant evening Friday when they dined at the Curtis and after dinner attended the "Robin Hood" picture at the America theatre making a delightful outing.

Miss Marian St. Clair entertained at a delightful Bridge party Friday afternoon. Miss Elizabeth Pollard was the fortunate player, winning a dainty prize, and consolation went to Miss Maxine Dudley. An elegant tea completed the happy afternoon. The guests were the Misses Alice Whitney, Marian Donovan, Verda Frazier, Helen Noble, Maxine Dudley, Ruth Bohn, Elizabeth Pollard and Freda Dudley.

Mrs. Agnes Clark was hostess for the Kensington Club Tuesday, entertaining at the A. L. Gibson home. The election of officers for the next club season resulted as follows: President, Mrs. Will Bose; Vice President, Mrs. Perry Gortner; Secretary-Treasurer, Mrs. U. S. G. Bowersox. As this was the last meeting of the year several matters of business were discussed and the completion of the book reading by Mrs. H. T. Clark concluded a pleasant and interesting year for the club.

Mrs. Thomas Batt was the charming hostess for a card party of pretty appointments Wednesday afternoon. Three tables were used for the game of Five Hundred which made the time pass very pleasantly. At the close of the game Mrs. J. N. McLellan won first prize while consolation went to Mrs. I. L. Eidemiller. An elegant tea was served late in the afternoon.

The girls of the Kamiki Orchestra, under the able direction of Miss Ruth White, gave a most delightful party Tuesday evening at which the guests were their fathers and mothers and a few friends. The beautiful home of Mr. and Mrs. Lloyd Harris was the scene of the happy affair. The evening was spent in a social way, music by the girls being a delightful addition to the enjoyment and appetizing refreshments were served. The girls comprising the orchestra are Carolyn and Margaret Louise Harris, Maxine and Marian Andrew, Elizabeth Irvin, Eloise Pollard, Frances Hamm, Frances Allen, Ruth Gregg, Jean Hershey, Alice Russell, Evelyn Pierson, Betty Keeler, Dorothy Almquist and Esther Chlanda.

Mrs. Dolph was hostess for the H.

(Continued on Page 4)

To Celebrate Golden Wedding Anniversary

Mr. and Mrs. C. E. Pughe will celebrate their 50th wedding anniversary on the 29th of June. A family dinner will be held, the out-of-town members of the family coming for the event.

Mrs. Coy Klingler, nee Edna Pughe, has already come from Grand Junction with her daughter, Dorothy, and Mrs. Drinkwater of Denver with her daughter, Lucille, will also be present.

Mr. and Mrs. Pughe have resided on the farm, two and one-half miles east of town, for over thirty years and are among Longmont's most highly respected citizens.

Mr. and Mrs. Pughe were married in Denver in 1873. Seven children were born to them: Will S., now on his father's farm; Mary Pughe Drinkwater, whose home is in Denver; Frank, who farms near Hygiene; Emma, living at home; Arthur, an attorney at Craig, Colo.; Edna Klingler, now of Grand Junction and a baby, Chas. Edgar, who died when eight months old.

Boys Bicycle Race Creates Much Interest

Payne, Hildreth and Harless Win Medals

Tuesday morning fifteen boys entered the bicycle race which was put on by Clif Koutz, Iverson & Lewis Furniture Co. and the U. S. Bicycle Association.

This is an annual event backed by the U. S. Bocycle Association and taken up by the local bicycle dealers.

The boys were started at nine o'clock from the flag pole on Main street. Some were given several minutes handicap and were started in groups of three. The first fellows had a seven minute start of the last ones but the officials had this very well worked out.

The course was 24 miles, going to the end of the pavement south and return four times.

The first fellow to come in was Owen Spencer, closely followed by Glenn Payne and Leonard Hildreth.

Glenn Payne made the best time, 1 hour, 24 minutes, and received the gold medal from the racing esseciation.

Lenoard Hildreth came second on time receiving the silver medal and Joe Harless third, winning the bronze medal.

There were twenty-five prizes offered so each boy chose his prize in the order of coming in on the race.

1. Owen Spencer—Gold Watch.
2. Glenn Payne—Gold Watch.
3. Leonard Hildreth—Pair Racing Tires.
4. Amos Hatfield—A Tire Rim.
5. George Cessna—Fountain Pen.
6. Joe or "Pat" Harless—The Big Cake from the Longmont Bakery.
7. Louis Dakan—
8. Eatwell—
9. Keith Houx—
10. Merlin Oats—
11. George Woods—
12. Donald Landers—
13. Hickman—
14. Ostrander—
15. Kenneth Kendahl—

Quite a crowd assembled at the flag pole to see the finish, mostly boys.

Pictures of the contestants were taken by John Alstadt for the Bicycle Association.

The prizes were on display in Eugene Miller's window and from there the boys made their selection.

LATEST MARKET QUOTATIONS

Furnished by
U. S. BUREAU OF MARKETS
Washington, D. C.

Hay.

Scarcity of good quality timothy hay at principal markets continues to hold prices firm. Low grade hay and clovers dull and slow sale. Country loading light. Southern demand improved by better financial conditions. Quoted: No. 1 timothy, Boston, $27.50; New York, $27, Philadelphia, $23; Pittsburgh, $22; Cincinnati, $21; Chicago, $23.50; St. Louis, $23.50; Minneapolis, $17; Memphis, $26. No. 1 alfalfa, Kansas City, $25.25. No. 1 prairie, Kansas City, $19.50; Minneapolis, $17; St. Louis, $23.

Feed.

Markets very quiet. Prices unchanged to easier; wheatfeeds weak and sales light. Quoted: Bran, $22.50, middlings, $26, flour middlings, $29 Minneapolis; 36 per cent cottonseed meal, $36.50 Memphis, $37.50 Atlanta; 32 per cent linseed meal, $36.50 Minneapolis, $38 Buffalo; white hominy feed, $33 St. Louis, $34.25 Chicago; gluten feed, $37.15 Chicago.

Live Stock and Meats.

Chicago prices: Hogs top, $8.80; bulk of sales, $8.50 to $8.75; medium and good beef steers, $8 to $10.50; butcher cows and heifers, $4 to $9.85; feeder steers, $6 to $8.40; light and medium weight veal calves, $7.50 to $10.50; fat lambs, $12 to $14.85; spring lambs, $13.75 to $16; yearlings, $8.25 to $13; fat ewes, $3 to $6.25. Prices good grade meats: Beef, $15 to $17; veal, $14 to $15; lambs, $24 to $29; mutton, $9 to $14; light pork loins, $14 to $16; heavy loins, $10 to $13.50.

Dairy and Poultry Products

Butter markets unsettled and irregular. Prices 92 score butter: New York, 39½c; Chicago, 38½c; Philadelphia, 40½c; Boston, 40½c.

Cheese markets about steady. Prices at Wisconsin cheese markets: Flats, 24½c; Daisies, 24¼c; Double Daisies, 24c; Young Americas, 24¼c; Longhorns, 24¼c; Square Prints, 26c.

Cotton.

Spot cotton prices advanced 166 points during the week. New York July future contracts advanced 188 points.

Spot cotton closed at 28.70c per pound. New York July futures at 27.78c.

Fruits and Vegetables.

Prices reported: South Carolina cobblers, $6 to $6.50 per bbl. in city markets, $4.50 to $4.75 f. o. b. North Carolina cobblers, $4.50 to $6.25 eastern markets, $4.50 to $4.65 f. o. b. Louisiana and Alabama sacked Bliss Triumphs, $2.75 to $3 per 100 lbs. Maryland, Delaware and New Jersey straweberries, 25c to 30c quart basis in eastern markets, $3 to $4.50 per 32-quart crate in Pittsburgh, Kentucky, Missouri and Tennessee aromas, $3 to $4.50 per 24-quart crate in city markets. Kentucky aromas, $2.25 to $3.50 f. o. b. shipping points. Missouri aromas, $2.50 to $4.50 at auction in producing sections. Georgia, Uneeda peaches, sixes, $1.75 f. o. b. shipping points, $2 to $4 eastern markets, $2.75 to $3 in Chicago. Mayflowers ranged $2.50 to $2.75. North Carolina Mayflowers, $2.25 to $2.50. Florida Tom Watson, 24-28 pound watermelons sold at 25c to 50c unit basis. Melons, 22-27-lb. sold Chicago, $400 to $725 bulk per car, $2.50 to $4.60 bulk per 100 lbs. other markets. Florida tomatoes sixes sold mostly $4 to $6. Repacked stock, $7 to $8.25 in Chicago and Kansas City. South Carolina tomatoes, $6.25 in Philadelphia. Mississippi fours, $1.75 to $2 in Chicago.

Grain.

Grain prices uncertain and erratic at times. Prices in Chicago cash market: No. 2 red winter wheat, $1.25; No. 2 hard winter wheat, $1.14; No. 2 mixed corn, 83c, No. 2 yellow corn, 84c; No. 3 white oats, 45c.

Average farm prices: No. 2 mixed corn in central Iowa, 70c; No. 1 dark northern wheat in central North Dakota, 96c; No. 2 hard winter wheat in central Kansas, 94c. Future prices: Chicago July wheat, $1.11⅝; Chicago July corn, 81⅝c; Winnipeg July wheat, $1.14⅜; Kansas City July wheat, $1.04; Winnipeg July wheat, $1.17⅛.

DENVER LIVE STOCK MARKET

Cattle.

The top price of $8 was paid for one 1,150-pound cow. Small lots sold at $7.50, $6.75 and $6.50. A carload of Texas cows averaging 904 pounds brought $6.10. Fifteen 1,000-pound cows were taken at $5.75, and others in the fresh beef class sold down to $4 for poor stock. Cutters cost $3.90 down to $3.60, while canners sold at $2.75 to $2.

Four choice veal calves averaging 172 pounds went at $13.50, one at $12.50 and a few at $11. Seven head sold at $10 and ten at $9.25. From this level prices tapered off to $5.25 for killing stock. Feeder and stock calves sold at $4.75 down to $2.15.

A carload of 35 heifers at 618 pounds sold to large local packer for $8.35 and another load at $.780. Medium and inferior stock sold at $6 down to $4.50, and feeders were picked at $5, $5.65 and $4.75.

Mixed cattle sold in a good market, $9 being paid for 24 head averaging 696 pounds and $8.90 for 32 at 692 pounds, while 24 of the same weight but inferior finish brought $8 from a kosher butcher. Five head went to the feed lots at $1.

Hogs.

Market steady. Good local support by all classes of buyers saved the Denver hog market from following in the downward trend of the Missouri river prices. Omaha dispatches state that the estimated average of $6 to $6.05 in that city is the lowest since Nov. 27, 1911. In Denver, hogs sold at a top price of $6.40 for two carloads and the bulk of sales was at $6 to $6.35, which would place the average at $6.15 to $6.20. Two carloads and a half load sold at $6.35, two loads at $6.30, small lots at $6.25, a load at $6.15, a load and a half load at $6.20, the same quantity at $6.10, and two loads and two half loads at $6.

Packer cows brought $5.50 for a carload of 58 averaging 371 pounds, but all others sold at $5, while rough stags were a dollar less. Killing pigs sold at a standard price of $5.35 and stock pigs at $5.

Sheep.

Several carloads of Idaho range lambs, totaling 952 head and averaging 76 pounds, sold to a large packer at $14.50 flat while 74 culls at 62 pounds brought $12. A couple of 120-pound yearlings sold at $11 and twelve at 82 pounds brought $9. Clipped ewes of poor quality in a string of nine and weighing 166 pounds were taken at $5.50, while four wethers averaging 135 pounds went at $6, and two bucks weighing 215 pounds each sold for $3.

Hay and Grain

Timothy, No. 1, ton	$32.00
Timothy, No. 2, ton	30.00
South Park, No. 1, ton	31.00
South Park, No. 2, ton	29.50
Second bottom, No. 1, ton	24.00
Second bottom, No. 2, ton	23.00
Alfalfa, ton	25.00
Straw, ton	10.00
Oats, per cwt.	1.53
Corn, No. 2 yellow, per cwt.	1.65
Wheat, No. 1, per bushel	.80c to .85

METAL MARKET

(Colorado settlement prices)

Silver, American	.99⅝
Silver, London	.65⅝
Lead	7.25
Copper, per lb.	.15@ .16
Zinc	6.35
Tungsten, per unit	9.00@10.00

DENVER SUGAR QUOTATIONS

Manufacturers' Quotations

Beet	$10.75
Cane	10.75

Wholesale Quotations.

Beet	$11.00
Cane	11.20

The Angelus oil well near Deming reports that the big drill is now twenty-three feet in the pay sand with a good showing of oil. The hole is down to the depth of 3,400 feet with the casing most of the way.

ARMY IS RAISED TO DOWN REBELS

ALLIED DIPLOMATS AT LONDON ARE ANXIOUS OVER COURSE OF EVENTS

BULGARS IN REVOLT

"USURPERS" OF THRONE WILL BE PUNISHED SAYS PARIS LEGATION

Paris. — A Bulgarian "volunteer army," now numbering 100,000 men and steadily increasing in size, is "preparing to punish the usurpers," says a statement given out by the Bulgarian legation here, summarizing an official dispatch from M. Daskaloff, Bulgarian minister at Prague. The statement adds that these troops are guarding the frontiers and the suburbs of Sofia.

London.—The only telegrams received by the Bulgarian legation in London from Sofia since the revolt in Bulgaria have been three code messages regarding routine affairs, one of which instructs the minister to withhold the payment of salaries of the London staff until further notice.

Diplomatic circles here believe that Stephan Panaretoff, the Bulgarian minister at Washington, will be permitted to remain at his post, as he is declared to be persona grata to all factions in Bulgaria and to have preserved a neutral attitude throughout the country's recurring interior commotions. It is thought most of the other Bulgaria representatives abroad will be recalled.

Allied diplomats do not attempt to disguise their anxiety over the future course of events in Bulgaria. Information has reached London from Prague that Raiko Daskaloff, former minister of commerce and the interior, will assume the leadership of the agrarian parties if M. Stambouglisky is imprisoned or killed. M. Daskaloff is described as Bulgaria's second strong man.

The dramatic flight of Premier Stambouliisky of Bulgaria, hard-pressed by troops, was described in a dispatch to the Times from Sofia. The premier would probably already have been killed but for the government orders that he must be taken alive, the message says.

The official account of the flight given in the dispatch says Stambouliisky left Slavovitza with his adherents for Tatar Bazardjik, but the adherents gradually deserting him, the fleeing premier, seeing his only chance of escape lay in speed, took to a powerful automobile and made off with a few friends by night. The car, with its occupants, got clear of the first pursuit, but a rifle shot from an infantryman wounded the chauffeur while the automobile was running through a ravine. The chauffeur fainted and the car ran into a ditch.

Bandits Free Foreign Prisoners

Tsaochwang.—Eight captives, the last of the foreigners kidnaped by Chinese bandits who held up the Shanghai-Peking express near Suchow, May 6, and held at the Paotzuku mountain headquarters of the outlaws since that time, have been released. Final negotiations for the release of the Paotzuku bandits' captives had been slightly delayed because of the brigands' learning that a number of Italian detectives, ostensibly working under instructions from Italy, have been prowling around the mountain headquarters of the outlaws.

Germans Start Night Attacks

Dusseldorf.—The killing of three French soldiers, one in Gelsenkirchen and two in Dortmund, within the last few days, has convinced the French military authorities that an organized effort has been launched by the Germans to carry on night attacks against the forces of occupation. Hence drastic measures have been taken against the two municipalities concerned. It was one of these measures, the restriction of street traffic after 9 o'clock in the evening that led to the shooting of nine Germans.

Girl Wins Gum Chewing Title

Salem, Ore.—Miss Helen Paulding of Silverton, Ore., claims the northwest record as a gum chewer, but she won by only half a length (of a stick of gum) from Miss Bernice Stand. At the initiation of Silverton high school graduates into the alumni association the initiates were compelled to put on a gum chewing contest. Miss Paulding chewed forty-four sticks at one time and Miss Sand forty- three and a half.

Thousands Homeless in Tulsa Flood

Tulsa, Okla.—With 3,000 to 4,000 people driven from their homes by the flood waters of the Arkansas river, Tulsa was in the grip of the worst flood in its history. The only ray of cheer to those who fled as the muddy waters encroached on their homes was word from Ralston, seventy-five miles northwest of here, that the crest had passed. Approximately 3,000 refugees left the area between Tulsa and Sand Springs. The number of refugees from West Tulsa is estimated at 1,000.

Illinois Votes to Repeal Seizure Law

Springfield, Ill.—Catching the contagion from New York and Wisconsin, the Illinois House of Representatives voted for a referendum on the question of repeal of the Illinois search and seizure law and the prohibition enforcement act by adopting a motion by Representative Thomas O'Grady, Chicago, that his bill making this provision be advanced to second reading without reference to committee. The vote was 78 to 70.

ALVA B. ADAMS

Alva B. Adams, who was appointed Democratic senator from Colorado. He is a son of Alva Adams, three times governor of Colorado, and served with distinction during the World war.

BOMB OFFICIAL'S HOME

OPPOSING SIDES SEEKING CONTROL OF TAXI COMPANY.

SEVERAL EMPLOYES SLUGGED AND OFFICIALS HOME BOMBED IN ELECTION FIGHT

Chicago.—The police and the state attorney's office intervened when rivalry between opposing factions of a co-operative taxicab company became so spirited a few days ago that one man was killed, the home of an official was bombed and several employes were slugged in clashes between the factions. Forty-five arrests were made.

T. F. Neary, secretary and treasurer of the company, said the violence had been caused when agents of one man attempted to gain enough proxies from the driver stockholders to elect him head of the company. Fifteen of the men were arrested in a downtown hotel room by police, who said they all were agents of one of the candidates. Thirty others were arrested in a restaurant on West Roosevelt road.

One man was killed when the opposing factions opened fire on each other in the streets. State's Attorney Crowe, who warned Neary against further violence, has begun an investigation to determine those responsible for the violence and killing.

Automobiles were used as weapons by two taxi drivers who blocked traffic in the loop when they staged a duel because one taxi had taken two passengers the other was waiting for. The duel ended when both were placed under arrest.

One taxi drove up to a hotel where the other company maintained a stand and obtained two passengers. The other driver sent his car into the first one, hurling it crosswise with the street. The first cab returned the blow. Further action was blocked by a traffic officer who arrested both drivers on charge of disorderly conduct.

The two girl passengers of the first cab were unhurt.

Postpones Governors Dry Meeting

Washington.—The conference of state governors, which the President intends to call for a discussion of prohibition enforcement, may be postponed until next fall. At the White House it was said the conference was "somewhat up in the air" and that a definite announcement would be forthcoming soon. Although President Harding had hoped to have the governors meet before he leaves on his trip to Alaska, the present sessions of some State Legislatures, officials said, might force a postponement of the conference, at least until after the President returns to Washington.

Moffat Tunnel Act Is Legal

Washington.—The act of the Colorado Legislature creating the Moffat tunnel improvement district for the construction of a tunnel through the continental divide was declared valid by the Supreme Court. It had been attacked in a case brought by Mary L. Milhelm and other taxpayers, who complained that it proposed to tax them for a tunnel not intended for public use, taking their property without due process of law. They alleged also that the time allowed for the presentation of protests was unreasonable, in that it deprived them of a hearing.

France Refuses German Offer

Paris.—The German reparations offer, elaborated in the note delivered to the entente allies remains entirely unacceptable to France, it was declared in government circles. It makes no appreciable advance over the previous offers, and France cannot even discuss it with Germany, for, as was decided at Brussels, the passive resistance in the Ruhr must be abandoned before any negotiations can begin.

Montana Twister Kills Two

Missoula.—W. V. Johnson, 60, and Olaf Hoagland, 30, were killed when a "twister" hit Camp No. 3 of the Anaconda Copper Mining Company's lumber department, about thirty-seven miles west of Missoula.

Mount Vesuvius Is Active

Naples.—Mount Vesuvius is becoming very active and inhabitants in villages at the foot of the volcano are abandoning their homes and moving to safer quarters.

AUSTRIA OFFERS LOAN TO AMERICA

SYNDICATE HEADED BY J. P. MORGAN TO HANDLE ISSUE MARKETED RECENTLY

AMOUNT NOT EXCESSIVE

PUBLIC OFFERING OF $25,000,000 AUSTRIAN GOVERNMENT BONDS PART OF INTERNATIONAL LOAN

New York.—Public offering of $25,000,000 Austrian government bonds, a part of an international loan of $126,000,000 to the Austrian republic, was made in the United States by a syndicate of bankers headed by J. P. Morgan and Co.

The issue, which consists of twenty-year 7 per cent sinking fund gold bonds, will be offered at 90 to yield investors 8 per cent. The bonds are guaranteed as to principal, interest and redemption payments by the governments of Great Britain, France, Czecho-Slovakia, Italy, Belgium, Sweden, Denmark and Holland, and are secured by a first charge on the gross receipts of the Austrian customs and tobacco monopoly.

"The importance of the Austrian loan which was issued recently," J. P. Morgan, head of the banking firm of J. P. Morgan and Co., said in announcing the offering, "lies in the fact that the attitude of American investors to this loan will show they are interested in helping those nations of Europe which are prepared to help themselves toward the reestablishment of their credit.

"Last year at the bankers' conference, held at Paris, I stated that it was my opinion that if the security to be given was clearly good and the investors of other leading nations would co-operate to the extent that they felt themselves able to do, I believed that the American market would participate in an important extent in the rehabilitation in the European financial situation. At that time these conditions could not be satisfied. Now, however, for the first time, a loan is offered which fulfills both conditions.

"The amount, while large, is not excessive, and every present indication justifies my confidence that we shall find the American investing public in accord with us in our belief that the new Austrian bonds are a good investment and that the extension of this credit is an important step on the road to peace and normal conditions."

Five Lives Lost in Kansas Floods

Kansas City.—At least five persons are believed to have lost their lives as a result of floods in Kansas recently. Virtually every stream in the state was out of its banks. Many cities over the state reported that the losses in their particular neighborhood would run into hundreds of thousands of dollars. Two casualties were reported at Arkansas City, which suffered the worst flood in its history. The body of one unknown youth was seen floating down a swollen stream and an aged woman, marooned in her home, shot herself through fear that she would be drowned.

Treasury Will Seek Loan

Washington.—The treasury has announced it would seek a loan of $150,000,000 to round out its financing for the current fiscal year, ending June 30. The new certificate of indebtedness will mature in six months and, it is expected, will be retired largely by tax receipts in the next two quarterly payments. The interest rate will be 4 per cent, slightly lower than previous offerings of government securities have paid. The new issue will enable the government to conclude the refunding of its short dated debt, begun in 1921, and no further financing will be necessary, it was stated officially, until the middle of September.

Rail Workers Get Pay Increase

Chicago.—Nearly 22,000 maintenance of way men on the Missouri Pacific and Illinois Central railroads have been granted increases in pay, A. F. Stout, vice president of the United Brotherhood of Maintenance of Way Men and Railroad Workers has announced.

Power Contract Given

Washington.—The Alabama Interstate Power Company, a subsidiary of the Alabama Power Company, Henry Ford's chief competitor for Muscle Shoals, was authorized by the federal power commission to construct a 105,000 horsepower project on the Talahoosa river in Alabama.

C. F. & I. Profits by 8-Hour Day

New York.—Stockholders and employees of the Colorado Fuel and Iron Company have benefited since the eight-hour day was inaugurated by the company five years ago, according to a letter from its president, J. F. Welborn, made public by the Federal Council of Churches, which has taken exception to the Iron and Steel Institute's recent report unfavorable to elimination of the twelve-hour day from the steel industry. The eight-hour day on the whole has brought results that have only begun to be realized.

Religious Advisers Favor Reparation

Washington.—A series of pronouncements adopted by the conference of religious and welfare workers called by Secretary Weeks, was submitted to him at the conclusion of the meeting. The religious advisers of the War Department, who included representatives of Protestant, Roman Catholic and Jewish denominations, joined unanimously in the assertion that peace at home and abroad was the mission to which America was devoted.

SEES POLITICAL PLOT

NEGOTIATIONS FOR RELEASE OF FOREIGNERS NEAR

ATTACK ON TRAIN NOW BELIEVED TO HAVE BEEN PART OF HUGE POLITICAL MOVE

Tsaochwang.—Negotiations for release of eight foreigners held by Chinese bandits on Paotzuku mountain are believed to have reached their final stage and it is confidently predicted that all will be free within the next few days.

Father Potte, Catholic medical missionary, returned from the Paotzuku prison compound with the information that Leon Friedman and Lee Solomon, two of the Americans who have been ill with malaria, had recovered. G. D. Musso, the wealthy Italian, also held, who for some time was unable to walk, owing to an infected leg, is on his feet again, according to Father Potte.

Tientsin.—Whether the bandit attack on the Shanghai-Peking express May 6, in which a number of foreigners kidnaped, was the result of a political plot is the point on which the international commission of inquiry, headed by Brig. Gen. W. D. Connor, U. S. A., is now concentrating.

The commission is seeking to determine first whether the train crew had previous knowledge of the bandits' plans to attack the express, and second, whether the armed guard aboard the train made any effort to resist the bandits.

The process of enrolling the bandits in the Chinese army is still going on slowly and officials are opposed to attempting to speed it up for fear of arousing the suspicions of the outlaws and creating a breach.

Bandits now are familiar figures on the streets of Tsaochwang. At first when the parleys were opened, they entered the city only in great uneasiness. Now, however, their manner has changed. They face cameras and moving picture machines with all the assurance of veteran screen actors, grin broadly, wave their hats and sway their fans in truly approved picture style.

It is understood that, at the request of the brigand chiefs, the international commission's airplane which has been reconnoitering the outlaw stronghold on Paotzuku mountain has ceased its flights in that district.

Father Potte, German medical missionary, who a few days ago was ordered out of the outlaw camp under suspicion of spying there, has been permitted to return following his explanation that he was attending the captives' need of his care at the express instruction of the pope.

Tells of Slayer Killing

Seattle, Wash. — Information received by Sheriff Matt Starwich at Seattle caused initiation of search for Otis Hefner, a big Texan, whom authorities believe may have been one of a gang of five bandits who slew William Desmond Taylor, motion picture director, in his home at Hollywood, Calif., last year. Hefner was arrested in Seattle in May, 1922, four months after Taylor was killed. He was charged with having stolen an automobile and given a suspended sentence. Today a lawyer told the sheriff that Hefner had admitted having been a member of a gang who killed Taylor, thought asserting that another had done the actual slaying.

Rock Island Increases Wages

Chicago.—Mechanical forces of the Chicago, Rock Island and Gulf roads, including machinists, helpers, apprentices, boilermakers, blacksmiths, sheet metal workers, electricians, car men and their helpers and apprentices will receive an increase of two cents an hour, effective June 16, the management announced through L. C. Fritch, vice president in charge of operation. About 7,500 men will be affected and the increase is estimated to mean an additional annual expenditure of $400,000.

Power of Kansas Industrial Court

Washington.—The challenge of the Kansas Court of Industrial Relations made by the Charles Wolfe Packing Company of Topeka, a subsidiary of the allied packers, was sustained by the Supreme Court on the ground that the business of the company was not clothed with such a public interest as to give the state the authority to regulate the wages paid by the company.

Hog Prices Hit Low Mark

Chicago.—Hog values touched $6.75, the lowest price since January, 1912. It was announced by the United States Department of Agriculture. In 1912 the price was quoted at $6.70 and the June low price of 1911 was $6.72. Large receipts of hogs the past few days was given as a reason for the decline.

To Probe Stock Frauds

New York.—State's Attorney Sherman announced he and five deputies had begun a sweeping investigation into the affairs of several stock brokerage houses holding membership in the New York curb market. The announcement was made in connection with the bankruptcy of L. L. Winkelman and Company, largest active house connected with the curb market. "Investigation of other members of the curb will go on," he said. "We began our active campaign some time ago.

Paris.—Premier Poincare's note on the subject of German reparations was delivered in London a few days ago for presentation to the British cabinet. It expresses the hope that Great Britain will join France and Belgium in telling Germany that passive resistance in the Ruhr must cease. "It says if Germany complies, France will be disposed to consider with her allies a solution of the reparations question, provided the discussion keeps within the limits of the French proposal of January."

HON. YVONNE GAGE

One of the English girls whom, it is suggested, the prince of Wales may make his wife, is the Hon. Yvonne Rosamond Gage, an exceptionally handsome debutante twenty years old. She is the youngest of three sisters of Viscount Gage, and a great favorite in court circles.

MANY DEAD IN KANSAS FLOODS

THOUSANDS HOMELESS IN FLOODS IN KANSAS AND OKLAHOMA

PROPERTY LOSS HEAVY

GUARDSMEN PATROL DEVASTATED AREA—RED CROSS WORKERS HASTEN RELIEF

Kansas City, Mo.—Seven dead, many reported missing, thousands homeless and property loss exceeding $5,000,000 was the known toll of floods, which sent virtually every stream in Kansas to the highest stage in years.

In southern Kansas the valleys of the Verdigris, Neosho, Walnut and other streams were inundated. Thousands of acres of rich farm lands were covered with water.

Arkansas City and Winfield, in south central Kansas, the cities hardest hit, were under patrol of American Legion and Kansas National Guardsmen, Red Cross and other agencies took care of the homeless.

The chamber of commerce at Arkansas City appealed to other cities for $500,000 to aid the flood sufferers. The chamber estimated the damage there at more than $3,000,000. At Winfield the damage was estimated between one and one and one-half million.

At Wichita, where damage in excess of $1,000,000 was caused by flooding of four square miles in the east section of the city, the situation was reported greatly improved. Hundreds of men were working to prevent further breaks in the dams.

At Garden City the crest of the flood waters in the Big Arkansas was reported past and danger of floods west of Hutchinson seemed removed.

Although many were reported missing at Arkansas City and 3,000 were homeless, only one person is known to have perished.

The Little Arkansas broke through its banks north of Wichita and inundated several miles of territory, with the subsequent flooding of homes.

Hundreds of American Legion men and city employees worked feverishly to prevent further breaks in the dikes.

In Winfield the scenes of havoc and ruin were said to surpass those of any other disaster in the city's fifty years of existence.

The Kansas river stood at nineteen and three-tenths feet at Topeka, and was slowly falling.

The Smoky Hill and Solomon rivers were reported to be out of their banks at low points.

Oklahoma City, Okla.—Flood damage running into millions of dollars was reported from northern Oklahoma as a rush of water swept down from southern Kansas. Hundreds of persons are homeless at various points along flooded rivers, but there were no confirmed reports of loss of life.

Train service was interrupted as the result of the washing out of important main line bridges, both in northern and western Oklahoma. Damage to state highways will run to nearly $1,000,000, officials estimated.

The Arkansas river was out of its banks from the Kansas border to the eastern end of the state, where it flows into Arkansas, flooding thousands of acres of farm lands.

Farm Laborers Go on Strike

Berlin.—Terrorism prevailed in the Upper Silesian territory northeast and southwest of Liegnitz, where a number of outlaw strikes have broken out among the farm laborers and other workmen, according to newspaper dispatches from Breslau. The Lokal Anzeiger's correspondent reports that in the Steinau district bands of from 300 to 400 men each are going about the country using clubs to chase from the fields those laborers who are willing to work.

Majestic Curtails Rum Stores.

Southampton. — Announcement is made that the White Star line steamer Majestic, the first vessel to sail under the new United States regulations, will have its liquor stores curtailed one-half.

Telegraphers' Bank to Open

St. Louis, Mo.—The Telegraphers' National Bank will have deposits of more than $1,500,000 besides its $500,000 capital stock and $100,000 surplus, when it opens in St. Louis.

W. N. U., DENVER, NO. 24-1923.

HAD FORGOTTEN ONE THING

Over-Ambitious Bride Remembered Too Late Where Her Pie-Making Effort Had Been Faulty.

I had invited my husband's people to dinner, and, like a foolish bride, decided to make pies and cakes. The cakes were flat when they came out of the oven, so I set my hopes on the pies. In my excitement I forgot all about shortening, mixed the flour and cold water, adding more flour and flour until the paste was almost hard, and then, believing the peaches inside would make up for the tough dough, I generously filled the pies. They baked nice, looking fine, and I was pleased, but—my guests were not. They nearly choked to death over the crust.

Hot with embarrassment I suddenly remembered I had omitted the shortening, tried to explain, made matters worse, finally fled from the room in tears.—Chicago Tribune.

Where He Was Ahead.

Jimmy is in the same grade at school as a playmate who is two years older.

When asked by a friend of the family if he and Edward were in the same class, Jimmy replied: "Yes. You see, Edward is ahead of me in olds, but not in thinks."

A word to the unwise is superfluous.

The Light of Western Stars

A ROMANCE *by* ZANE GREY

"BUT YOU'RE NO THOROUGHBRED, MAJESTY HAMMOND, ADIOS!"

For a moment Madeline sat on her horse with shut eyes. She dreaded the light.

"Now you can't say you've never been kissed," Stewart said. His voice seemed a long way off. "But that was coming to you, so be game. Here!"

She felt something hard and cold and metallic thrust into her hand. He made her fingers close over it, hold it. The feel of the thing revived her. She opened her eyes. Stewart had given her his gun. He stood with his broad breast against her knee, and she looked up to see that old mocking smile on his face.

"Go ahead! Throw my gun on me! Be a thoroughbred!"

Madeline did not yet grasp his meaning.

"You can put me down in that quiet place on the hill—beside Monty Price."

Madeline dropped the gun with a shuddering cry of horror. The sense of his words, the memory of Monty, the certainty that she would kill Stewart if she held the gun an instant longer, tortured the self-accusing cry from her.

Stewart stopped to pick up the weapon.

"You might have saved me a h—l of a lot of trouble," he said, with another flash of the mocking smile. "You're beautiful and sweet and proud, but you're no thoroughbred! Majesty Hammond, adios!"

A bit tempestuous? Well, rather, but it's only one dramatic situation in a red-blooded story of the cattle range near the Mexican border. There are others a-plenty. Madeline Hammond owns "Her Majesty's Rancho" and Stewart is her foreman. She is a transplanted Eastern girl who has come to love life under "The Light of the Western Stars." The life of the range has recreated a wealthy, spoiled society girl into a fine woman. And her influence has saved Stewart, a wild, handsome, brave, dissolute, efficient cowboy—a college man and a gentleman once. Of course they fall in love. But he glories in it, while she is slow to admit it even to herself. Of course, also, they clash—two dominant personalities. And then the girl is jealous—whereupon there is the dickens to pay. And what a dramatic ending!

The author? Why, Zane Grey. That should be enough to guarantee a stirring tale, with color and adventure and swift actions. He's the writer of the hour for outdoor Western stories, with success after success to his credit.

CHAPTER I

—1—

A Gentleman of the Range.

When Madeline Hammond stepped from the train at El Cajon, New Mexico, it was nearly midnight, and her first impression was of a huge dark space of cool, windy emptiness, strange and silent, stretching away under great blinking white stars.

"Miss, there's no one to meet you," said the conductor anxiously.

"I wired my brother," she replied. "He will be here presently. But, if he should not come—surely I can find a hotel?"

"There's lodgings to be had. If you'll excuse me—this is no place for a lady like you to be alone at night. It's a rough little town—mostly Mexicans, miners, cowboys. And they carouse a lot. Besides, the revolution across the border has stirred up some excitement along the line. Miss, I guess it's safe enough, if you—"

"Thank you. I am not in the least afraid."

As the train started to glide away Miss Hammond walked toward the dimly lighted station. She entered the empty waiting-room. An oil-lamp gave out a thick yellow light. A telegraph instrument clicked faintly.

Madeline Hammond crossed the waiting-room to a window and, holding aside her veil, looked out. At first she could descry only a few dim lights, and these blurred in her sight. As her eyes grew accustomed to the darkness she saw a superbly built horse standing near the window. Beyond was a bare square. Through a hole in the window-glass came a cool breeze, and on it breathed a sound that struck coarsely upon her ear—a discordant mingling of laughter and shout, and the tramp of boots to the hard music of a phonograph.

"Western revelry," mused Miss Hammond, as she left the window. "Now, what to do? I'll wait here. Perhaps the station agent will return soon, or Alfred will come for me."

As she sat down to wait she reviewed the causes which accounted for the remarkable situation in which she found herself. That Madeline Hammond should be alone, at a late hour, in a dingy little western railroad station, was indeed extraordinary.

The close of her debutante year had been marred by the only unhappy experience of her life—the disgrace of her brother and his leaving home. She dated the beginning of a certain thoughtful habit of mind from that time, and a dissatisfaction with the brilliant life society offered her.

There had been months of unrest, of curiously painful wonderment that her position, her wealth, her popularity no longer sufficed. She believed she had lived through the dreams and fancies of a girl to become a woman of the world. And she had gone on as before, a part of the glittering show, but no longer blind to the truth—that there was nothing in her luxurious life to make it significant. And at last she knew what she needed—to be alone, to brood for long hours, to gaze out on lonely, silent, darkening stretches, to watch the stars, to race her soul, to find her real self.

Then it was she had first thought of visiting the brother who had gone west to cast his fortune with the cattlemen. As it happened, she had friends who were on the eve of starting for California, and she made a quick decision to travel with them. When she calmly announced her intention of going out west her mother had exclaimed in consternation; and her father, surprised into pathetic memory of the black sheep of the family, had stared at her with glistening eyes. "Why, Madeline! You want to see that wild boy!" Then he had reverted to the anger he still felt for his wayward son, and he had forbidden Madeline to go. Her mother forgot her haughty poise and dignity. Madeline stood her ground, even to reminding them that she was twenty-four and her own mistress. In the end she had prevailed.

Madeline had planned to arrive in El Cajon on October 3, her brother's birthday, and she had succeeded, though her arrival occurred at the twenty-fourth hour. Her train had been several hours late. Whether or not the message had reached Alfred's hands she had no means of telling, and the thing which concerned her now was the fact that she had arrived and he was not there to meet her.

As Madeline sat waiting in the yellow gloom she heard the faint, intermittent click of the telegraph instrument, the low hum of wires, the occasional stamp of an iron-shod hoof, and a distant vacant laugh rising above the sounds of the dance. She became conscious of a slight quickening of her pulse. Madeline had only a limited knowledge of the West. Like all of her class, she had traveled Europe and had neglected America. She had been astounded at the interminable distance she had traveled, and if there had been anything attractive to look at in all that journey she had passed it in the night.

A faint sound like the rattling of thin chains diverted Madeline's attention. At first she imagined it was made by the telegraph wires. Then she heard a step. The door swung wide; a tall man entered, and with him came the clinking rattle. She realized then that the sound came from his spurs.

"Will you please direct me to a hotel?" asked Madeline, rising.

The cowboy removed his sombrero, and the sweep he made with it and the accompanying bow, despite their exaggeration, had a kind of rude grace. He took two long strides toward her.

"Lady, are you married?"

In the past Miss Hammond's sense of humor had often helped her to overlook critical exactions natural to her breeding. She kept silence, and she

She Became Conscious of a Slight Quickening of Her Pulse.

imagined it was just as well that her veil hid her face at the moment. She had been prepared to find cowboys rather striking, and she had been warned not to laugh at them.

This gentleman of the range deliberately reached down and took up her left hand. Before she recovered from her start of amaze he had stripped off her glove.

"Fine spark, but no wedding ring," he drawled. "Lady, I'm glad to see you're not married."

He released her hand and returned the glove.

"You see, the only hotel in this here town is against boarding married women. Bad business for hotels to have married women. Keeps the boys away. You see, this isn't Reno."

Then he laughed rather boyishly, and from that, and the way he slouched on his sombrero, Madeline realized he was half drunk. As she instinctively recoiled she not only gave him a keener glance, but stepped into a position where a better light shone on his face. It was like red bronze, bold, raw, sharp. Like that of all women whose beauty and charm had brought them much before the world, Miss Hammond's intuition had been developed until she had a delicate and exquisitely sensitive perception of the nature of men and of her effect upon them. This crude cowboy, under the influence of drink, had affronted her; nevertheless, whatever was in his mind, he meant no insult.

"I shall be greatly obliged to you if you will show me to the hotel," she said.

"Lady, you wait here," he replied, slowly, as if his thought did not come swiftly. "I'll go fetch the porter."

She thanked him, and as he went out, closing the door, she sat down in considerable relief. It occurred to her that she should have mentioned her brother's name. Then she fell to wondering what living with such uncouth cowboys had done to Alfred. She alone of her family had ever believed in any latent good in Alfred Hammond, and her faith had scarcely survived the two years of silence.

Waiting there, she again found herself listening to the moan of the wind through the wires. Then Madeline heard a rapid pattering, low at first and growing louder, which presently she recognized as the galloping of horses. She went to the window, thinking, hoping her brother had arrived. But as the clatter increased to a roar, shadows sped by—lean horses, flying manes and tails, sombrero-ed riders, all strange and wild in her sight. Recalling what the conductor had said, she was at some pains to quell her uneasiness. Then out of the gloom two figures appeared, one tall, the other slight. The cowboy entered, pulling a disheveled figure—that of a priest, a padre, whose mantle had manifestly been disarranged by the rude grasp of his captor. Plain it was that the padre was extremely terrified.

Madeline Hammond gazed in bewilderment at the little man, so pale and shaken, and a protest trembled upon her lips; but it was never uttered, for this half-drunken cowboy now appeared to be a cool, grim-smiling devil; and stretching out a long arm, he grasped her and swung her back to the bench.

"You stay there!" he ordered.

His voice, though neither brutal nor harsh nor cruel, had the unaccountable effect of making her feel powerless to move. No man had ever before addressed her in such a tone. It was the woman in her that obeyed—not the personality of proud Madeline Hammond.

The padre lifted his clasped hands as if supplicating for his life, and began to speak hurriedly in Spanish. Madeline did not understand the language. The cowboy pulled out a huge gun and brandished it in the priest's face. Then he lowered it, apparently to point it at the priest's feet. There was a red flash, and then a thundering report that stunned Madeline. The room filled with smoke and the smell of powder. When she could see distinctly through the smoke she experienced a sensation of immeasurable relief that the cowboy had not shot the padre. But he was still waving the gun, and now appeared to be dragging his victim toward her. What possibly could be the drunken fool's intention? This must be, this surely was a cowboy trick. Madeline no sooner thought of it than she made certain her brother was introducing her to a Wild West amusement. She could scarcely believe it, yet it must be true. Probably he stood just outside the door or window laughing at her embarrassment.

Anger checked her panic. She straightened up with what composure this surprise had left her and started for the door. But the cowboy barred her passage—grasped her arms. Then Madeline divined that her brother could not have any knowledge of this indignity. It was no trick. Poise, dignity, culture — all the acquired habits of character—fled before the instinct to fight. She was athletic. She fought. She struggled desperately. But he forced her back with hands of iron. She had never known a man could be so strong.

"What—do you—mean?" she panted.

"Dearie, ease up a little on the bridle," he replied, gaily.

Madeline thought she must be dreaming. She could not think clearly. She not only saw this man, but also felt his powerful presence. And the shaking priest, the haze of blue smoke, the smell of powder—these were not unreal.

Then close before her eyes burst another blinding red flash, and close at her ears bellowed another report. Unable to stand, Madeline slipped down onto the bench. Her drifting faculties refused clearly to record what transpired during the next few moments; presently, however, as her

She Fought. She Struggled Desperately.

mind steadied somewhat, she heard, though as in a dream, the voice of the padre hurrying over strange words. It ceased, and then the cowboy's voice stirred her.

"Lady, say Si—Si. Say it—quick! Say it—Si!"

From sheer suggestion, a force irresistible at this moment when her will was clamped by panic, she spoke the word.

"And now, lady—so we can finish this properly—what's your name?"

Still obeying mechanically, she told him.

He stared for a while, as if the name had awakened associations in a mind somewhat befogged. He leaned back unsteadily.

"What name?" he demanded.

"Madeline Hammond. I am Alfred Hammond's sister."

He put his hand up and brushed at an imaginary something before his eyes. "You're not—Majesty Hammond?"

How strange—stranger than anything that had ever happened to her before—was it to hear that name on the lips of this cowboy! It was a name by which she was familiarly known, though only those nearest and dearest to her had the privilege of using it. And now it revived her dulled faculties, and by an effort she regained control of herself.

"You are Majesty Hammond," and this time he affirmed wonderingly rather than questioned.

Madeline rose and faced him.

"Yes, I am."

He slammed his gun back into its holster.

"Well, I reckon we won't go on with it, then."

"With what, sir? And why did you force me to say Si to this priest?"

"I reckon that was a way I took to show him you'd be willing to get married."

"Oh! . . . You—you! . . ." Words failed her.

This appeared to galvanize the cowboy into action. He grasped the padre and led him toward the door, cursing and threatening, no doubt enjoining secrecy. Then he pushed him across the threshold and stood there breathing hard and wrestling with himself.

"Here—wait—wait a minute, Miss Hammond," he said, huskily. "You could fall into worse company than mine—though I reckon you sure think not. I'm pretty drunk, but I'm—all right otherwise. Just wait—a minute."

She stood quivering and blazing with wrath, and watched this savage fight his drunkenness. Madeline saw the dark, damp hair lift from his brows as he held it up to the cool wind.

The cowboy turned and began to talk.

"You see—I was pretty drunk," he labored. "There was a fiesta—and a wedding. I do fool things when I'm drunk. I made a fool bet I'd marry the first girl who came to town. . . . If you hadn't worn that veil—the fellows were joshing me—and Ed Linton was getting married—and everybody always wants to gamble. . . . I must have been pretty drunk."

"Explanations are not necessary," she interrupted. "I am very tired—distressed. The hour is late. Have you the slightest idea what it means to be a gentleman?"

His bronzed face burned a flaming crimson.

"Is my brother here—in town tonight?" Madeline went on.

"No. He's at his ranch."

"But I wired him."

"Like as not the message is over in his box at the P. O. He'll be in town tomorrow. He's shipping cattle for Stillwell."

"Meanwhile I must go to a hotel. Will you please—"

If he heard her last words he showed no evidence of it. A noise outside had attracted his attention. Madeline listened. Low voices of men, the softer liquid tones of a woman, drifted in through the open door. They spoke in Spanish, and the voices grew louder. Then the woman's voice, hurried and broken, rising higher, was eloquent of vain appeal.

The cowboy's demeanor startled Madeline into anticipation of something dreadful. She was not deceived. From outside came the sound of a scuffle—a muffled shot, a groan, the thud of a falling body, a woman's low cry, and footsteps padding away in rapid retreat.

Madeline Hammond leaned weakly back in her seat, cold and sick, and for a moment her ears throbbed to the tramp of the dancers across the way and the rhythm of the cheap music. Then into the open door-place flashed a girl's tragic face, lighted by dark eyes and framed by dusky hair. The girl reached a slim brown hand round the side of the door and held on as if to support herself.

"Senor—Gene!" she exclaimed; and breathless glad recognition made a sudden break in her terror.

"Bonita!" The cowboy leaped to her. "Girl! Are you hurt?"

"No, senor."

He took hold of her. "I heard—somebody got shot. Was it Danny?"

"No, senor."

"Did Danny do the shooting? Tell me, girl."

"No, senor."

"I'm sure glad. I thought Danny was mixed up in that. He had Stillwell's money for the boys—I was afraid. . . . Say, Bonita, but you'll get in trouble. Who was with you? What did you do?"

"Senor Gene—they Don Carlos vaqueros—they quarrel over me. I only dance a leetle, smile a leetle, and they quarrel. I beg they be good—watch out for Sheriff Hawe . . . and now Sheriff Hawe put me in jail. I so frighten; he try make leetle love to Bonita once, and now he hate me like he hate Senor Gene."

"Pat Hawe won't put you in jail. Take my horse and hit the Peloncillo trail, Bonita, promise to stay away from El Cajon."

"Si, Senor."

He led her outside. Madeline heard the horse snort and champ his bit. The cowboy spoke low; only a few words were intelligible—"stirrups . . . wait . . . out of town . . . mountain . . . trail . . . now ride!"

A moment's silence ensued, and was broken by a pounding of hoofs, a pattering of gravel. Then Madeline saw a big, dark horse run into the wide space. She caught a glimpse of wind-swept scarf and hair, a little form low down in the saddle. The horse was outlined in black against the line of dim lights. There was something wild and splendid in his flight.

Directly the cowboy appeared again in the doorway.

"Miss Hammond, I reckon we want to rustle out of here. Been bad goings-on. And there's a train due."

She hurried into the open air, not daring to look back or to either side. Her guide strode swiftly. She had almost to run to keep up with him.

Suddenly aware that she had been led beyond the line of houses, she spoke:

"Where are you taking me?"

"To Florence Kingsley," he replied.

"Who is she?"

"I reckon she's your brother's best friend out here."

Madeline kept pace with the cowboy for a few moments longer, and then she stopped. It was as much from necessity to catch her breath as it was from recurring fear. The cowboy, missing her, came back the few intervening steps. Then he waited, still silent, looming beside her.

"It's so dark, so lonely," she faltered. "How do I know . . . what warrant can you give me that you—that no harm will befall me if I go farther?"

"None, Miss Hammond, except that I've seen your face."

"I shall not tell my brother of your—your rudeness to me."

(TO BE CONTINUED.)

HOLD RACING MEETS IN DESERT

Picturesque Scenes When Natives of Mesopotamia Gather for Their Favorite Sport.

Horseracing is a sport beloved by the natives of Mesopotamia. They swarm to the Basrah races, and the autumn meet of this Arab Epsom is a curious and diverting sight. A European innovation is the new brick grandstand with a substantial roof and benches spread with many-colored Persian rugs. Behind the grandstand are the wooden sheds roofed with matting to exclude the heat. Here the horses are stabled and here resort the trainers, stewards and the all important "Totalisator," with his bangers-on. The paddock is a patch of desert—like the course itself. Native gamblers also congregate around the sheds. They are shaggy and picturesque—at a distance. At close quarters they are indescribably dirty and ragged. They sit in circles in the dust, like a lot of dingy crows, heedless of the crowds surging around them as they make their game and choose their favorites for the race. The desert man is a reckless bidder, he stakes his all upon his favorite horse. In stoicism he resembles the American Indian, for whether he wins or loses his expression never changes.

Shakespeare's Vocabulary Rivaled.

Probably no living poet has a more extensive vocabulary than Gabriele d'Annunzio, who is to visit Paris in the spring of this year. "Most people," he once said, "use only 800 words. I employ 15,000, which I cull from different volumes, some taken from an old book on agriculture, some from an old translation of Ovid, others from Machiavelli's works. Old Italian authors are my daily bread."

Never Regretted Silence.

I regret often that I have spoken, never that I have been silent.—Publius Syrus.

Some Spring Thoughts.

When the worm turns he meets either a chicken or a fisherman.—Enid Eagle.

April showers bring May doubleheaders.—Boston Herald.

A rake will seem as light as a feather after putting in a hard winter with a snow shovel.—Milwaukee Journal.

INFORMATION DEPARTMENT

Commercial inquiries answered and information gladly furnished without cost. Address any firm above.

GRAZING REGULATION REVISION TO BE URGED

Committee Representing Live Stock Growers to Confer With Officials

Denver.—The committee of six members appointed at Ogden, Utah, last March to represent the live stock growers of thirteen western states at a conference with the government forestry service will meet at the Brown Palace hotel on June 23, two days before the session with the foresters. The purpose of this advance meeting is to allow anyone who has complaints or suggestions to make in regard to the grazing regulations in the national forest reserve to present his case. This will put into the hands of the committee the necessary information with which to meet the government officials two days later.

The conference on June 25 will be for the purpose of revising the manual that regulates the grazing of sheep and cattle in the public forests. The original manual, which was formulated exclusively by the government about twenty years ago, never has been revised, and there have been many changes in conditions since then, besides certain weaknesses in the old manual that have been discovered by experience, that make a revision imperative. In carrying out this work the stockmen have been allowed a representation, to present their angles of the grazing question, and the cattle and sheep drovers as well as the wool growers, acting through their various state organizations, selected the committee of six.

The members of this committee are: Richard Dillon, chairman, Sedalia, Colo.; Fenn S. Hildreth of Arizona and Vernon Metcalf of Nevada, representing the cattle drovers, and F. R. Marshall of Utah, Worth Lee of Idaho and M. R. Otero of New Mexico, representing the sheep and wool growers.

All persons who have anything of interest to say on the grazing question should communicate with Chairman Dillon at Sedalia or the Colorado Stockgrowers' Association, Live Stock Exchange building, Denver, and should be prepared to meet the committee at the Brown Palace hotel on June 23.

Dies from Blow of Pitched Ball

St. Louis.—The Arlingtons won their ball game from the Mount Pleasants, 3 to 2, but it cost the life of Charles Olemander, 14, second baseman for the victors. The teams were playing an elimination game in the public school league, and in the fifth inning, when Olemander was at bat, he was struck in the head by a pitched ball. He died several hours later from a fractured skull.

Earth Shock Reported in Utah

Logan, Utah.—A slight earth shock, accompanied by rumbling sounds, was felt in Logan and vicinity a few days ago. In many homes dishes were broken and pictures dislodged from walls, but otherwise no damage has been reported.

Tram Slides Down Hill

New York.—A runaway trolley car killed 12-year-old Margaret McLaughlin and injured three other persons when it rolled backward to the foot of a hill at 125th street and Amsterdam avenue and crashed into a five-story tenement house. The car and lower floors of the building were wrecked. The child was playing in the street when the car struck her. Slippery rails caused by a heavy rain were believed to have caused the accident. The car had just reached the top of the hill when it started its backward slide.

Deny Acts Against Swiss

Berne.—Although the soviet authorities deny acts against Swiss residents in Russia for the assassination of M. Vorovsky at Lausanne, advices received from some of the Swiss in that country report that Communists have organized a regular pogrom against them. At Odessa, the chairman of the Swiss colony has been killed and two other prominent Swiss residents have been badly injured. Numerous Swiss have been arrested at Petrograd, Moscow and Kiev, and Swiss stores pillaged.

Colorado Pageant of Progress

Some of the world's greatest features will be presented at Overland Park, Denver, July 2 to 15 inclusive, at the Colorado Pageant of Progress, according to announcement made today by Manager Harry Niles Shafer of the Pageant.

Afternoon and evening attractions of world renown merit will be presented, embracing automobile racing, airplane stunting, an aerial circus, auto polo with its countless thrills, parachute leaps, the Flying Miller troups, undisputed champions of the air, the Larole troupe, high wire walking artists from the far east, and Earl Strouts military band.

Notice of Adjustment Day

Estate of Grace Howard, Deceased.

All persons having claims against said estate are hereby notified to present them for adjustment to the County Court of Boulder County, Colorado, on the 18th day of June, A. D. 1923.

FLORENCE M. SCHEY,
Executrix of Estate of Grace Howard Deceased.
J. S. SCHEY, Attorney.
1st pub. May 18, 1923.
Last pub. June 15, 1923.

Notice of Special Stockholders, Meeting

Longmont, Colorado, June 2, 1923.

The Stockholders of the Longmont Building and Loan Association are hereby notified that a special meeting of said Company will be held at the Farmers National Bank, Longmont, Colorado, on the 14th day of July, 1923, at ten o'clock a. m., for the purpose of considering the propriety of dissolving the said Corporation.

JOHN ANDREW,
President.
W. C. COULEHAN,
Secretary.

Fist pub. June 8, 1923.
Last pub. July 13, 1923.

Legal Blanks at Ledger Office

Sale Bills when you want them.

Burlington Time Table

Southbound	Northbound
9:21	4:30

G. & S. Time Table

SOUTH BOUND TRAINS

No. 30, Due ---------- 8:13 a. m.
No. 22, Due ---------- 9:28 a. m.
No. 32, Due ---------- 4:30 p. m.

NORTH BOUND TRAINS

No. 31, Due ---------- 9:55 a. m.
No. 23, Due ---------- 4:15 p. m.
No. 29, Due ---------- 7:38 p. m.

LONGMONT LEDGER

.....EVERY FRIDAY.....

Ledger Pablishing Company

Friday, June 15, 1923

Entered at the postoffice in Longmont as second-class matter.

C. W. BOYNTON--Editor and Manager.
Mrs. LOUISE B. CLARK—Associate Editor and Assistant Manager.

MEMBER COLORADO EDITORIAL ASSOCIATION

If the government of Denver goes along smoothly, the common people will soon forget who is in office. But let some careless slip be made and then look for trouble.

The files of the Longmont Ledger are kept in the Longmont public library in bound form, and any one desiring to look up old records are privileged to do so. Some of the papers date back to 1879.

"You search the Scriptures because you suppose that in them you will find the Life of the Ages; and it is those Scriptures that yield testimony concerning Me; and yet you are unwilling to come to Me that you may have Life."--John 5:39. Weymouth Translation of the New Testament in Modern Speech.

The work of reforestation is slowly going on by the forest service, over 4,000 acres having been planted in the Rocky Mountain region during 1922. But the careless smoker will throw a match down and burn up the trees faster than planted. But we believe that is going to be improved upon. The smoker is going to think first before he throws down a lighted match.

If it is true there is joy in numbers then Washington, D. C., was full of joy last week at the Shriners Convention or Carnival. According to the Washington Post there was a street parade three miles long, with 300,000 people in it, and a dance on the street a mile long, a hundred thousand persons participating. It would bother Longmont to take care of such a crowd.

A REVIEW NUMBER

The Louisiana Planter and Sugar Manufacturer, of New Orleans is out with a Review number of 132 pages inside of cover, and devoted to sugar interests as usual, but the past is also considered. It commenced its good work in July, 1888, and is now the leading sugar periodical in the United States, and contains sugar news from all over the sugar world. This issue is unusually well illustrated, not forgetting to show how to irrigate sugar beets.

FIRST FIRE

The first fire of the season of 1923 on the Colorado National Forest was caused by a smoker according to a report received from the Estes Park District. Fortunately the first was extinguished before any damage resulted.

Forest Officers are becoming psychological in studying this particular cause of Forest Fires. Just why a smoker will spend an appreciable amount of time in lighting a cigar or cigarette, let it go out several times and spend some more time relighting it but can find no time nor inclination to extinguish the discarded stub and matches is a question the answer to which would be interesting.

PRESIDENT HARDING AND COMMITTEE IN HARMONY

President Harding, it is learned, is entirely satisfied with the attitude of the national committee on the question of the league of nations and the world court and is distinctly not in sympathy with the attempt of a Republican faction, in which the Democrats are gleefully joining, to foment discord in the Republican hierarchy. Just as the President does not believe in coercing congress, he does not believe in dictating to the Republican national committee. He does not demand that the committee espouse the world court proposal in the absence of a party mandate to do so. He is trying to convince his party that it should indorse his world court plan in the convention next year.

THE PRESIDENT'S TRIP

President Harding is going to Alaska, and will take in the great west while on the way, and give about twenty addresses. He will leave Washington June 20th and speak first at St. Louis on the evening of June 21st. He will be absent from Washington about seven weeks.

This tour will be watched with great interest, by all classes and grades of those interested in our great nation. Some will watch for flaws and mistakes and will probably find some, for no one is perfect. Others will look for the best and the most hopeful signs and words from the president of the whole American people. His journey will not be all work, for the presidential party will visit the Yellowstone, Zion and Yosemite parks.

The nearest the president will come to Longmont will be in Denver June 25th, in the morning, where he will deliver an address. This address will be radio broadcasted and the tune is said to be KFAF station. This will enable all radio stations to receive the full address without the owners going to Denver.

Library Board Elect Members

The Library Board held an adjourned meeting Monday evening and re-elected three members to serve a two-year term, C. W. Boynton, Mrs. Rae H. Kiteley and Miss Mae Plumb. Those holding over for another year are Archibald Taylor, E. L. Moore and Mrs. E. L. Montgomery.

Miss Genevieve Dorsett was re-elected librarian much to the satisfaction of all.

The librarian reported, received from fines, $12.65; from 5 cent books, $12.50; number of books exchanged during May, 2082; new patrons, 33.

Frances Lyons, 10 years Old, Drowns at Lyons

Little 10 year old Frances Lyons, daughter of Mr. and Mrs. Pat Lyons of Lyons, Colo., fell into the North St. Vrain at Meadow Park Tuesday afternoon and was swept away by the high water and fast rushing stream.

The little girl, with the Montgomery children, was trying to fish and her hook became tntangled and in trying to loosen it she lost her balance and fell into the water. Her uncle, Richard Chapman, was with her but she was swept away so quickly that it was impossible to save her.

Dr. W. R. Kincaid was hastily summoned and a search started immediately for the child's body, all hope of life being gone. Phone messages of the accident were sent to people living along the stream as well as to Longmont to recover the body. The body was found an hour later about a quarter of a mile from where the child fell in, lodged in a brush at the junction of the North and South Forks of the St. Vrain.

Every effort was made to restore life but without avail.

Frances was the youngest of four children, the others being Mrs. Margaret King, and the Misses Winifred and Grace Lyons.

City Council Rescind Former Action Regarding Building of Reservoir

The City Council met Tuesday evening with all members present.

L. W. Newby, City Attorney, explained that the action of the Council in rejecting all bids for construction of the new reservoir was illegal. After much discussion Alderman McCarty moved that "the action of the City Council at the meeting of May 22, 1923, in rejecting all bids for the construction of the new reservoir and the employment of Arthur Dalby to complete the work under the supervision of the City Engineer and the Superintendent of Water Works, be rescinded." Alderman McKeirnan voted no, all the other aldermen voted yes. After this decision it was concluded the bids be re-considered.

E. S. Bice, City Engineer, then read a contract between the City and the Boise-Payette Lumber Co. for the purchase of cement. Mr. Clark, president of the Engineering Construction Co., said that he be awarded the contract for the reservoir he would take over the cement contract.

Arthur Dalby, who has been doing the cement work, notified the Council that he would expect compensation for work already done.

Alderman Lugg moved that the contract for the completion of the work on the reservoir be awarded to the Engineering Construction Co. of Greeley, who had been the lowest bidder.

Alderman Bestle, Chlanda, Lugg and McCarty voted yes. McKeirnan voted no, while Heggem did not vote.

It was moved and carried that the City Clerk and Mayor be authorized to hign said contract, all voting yes, except McKeirnan.

Alderman Bestle moved that all the banks of the city be made depositories for the city funds and the personal bonds of the directors of said banks be accepted. Carried.

Alderman Chlanda moved that concrete footings be placed in the bottom of the new reservoir for posts as supports in case a roof should at some time be needed. Motion carried.

Alderman McKeirnan was excused from further attendance on account of the lateness of the hour.

It was unanimously voted to retain Jay F. Brown as superintendent of electricity. The placing of speed limit signs at the city limits was referred to the street and alley committee with power to act.

Monthly reports of officers were read and accepted and bills allowed amounting to $26,071.13.

The Very One

A certain automobile manufacturer claimed to have put a car together in seven minutes.

A few weeks after this event was heralded in the newspapers, a voice on the telephone asked:

"Is it true that your factory put a car together in seven minutes?"

"Yes. Why?"

"Oh, nothing. But I believe I have the car."—Southern Telephone News (Atlanta, Ga.)

PERTAIN TO MEN AND MULES

Only Known Animals That, Willingly and Unwillingly, Are Known to Wear Collars.

Collars are tubular articles of apparel worn about the neck by men and mules. The reason that the last named animal wears them is obvious. A collar consists of several square inches of linen made into a strangling noose and starched to add to its potency. Some are uprights, other grands and still others simply instruments.

They are of varying heights, according to the hardihood of the wearer, observes a writer for the New York Sun. Some men are so hardboiled that they wear collars with protruding points in front and play a game with them. The object of the game is to prevent the points from working through the under jaw and destroying the molars. Fortunately the collar does not often win and the stretching exercises incidental to the play are beneficial.

Many good farmhands have been ruined because of a burning ambition to wear a collar perennially. The problem of the exodus to the cities might be solved by a public exposure of the implement. For some reason office slavery is called white-collar work and those who do not carry the hod are said to be white-collar workers, but this is only a flowery figure of speech, the collar that will stay white on the job not having been made.

In families the men of which have worn collars for generations that unlovely protuberance known as Adam's apple is virtually nonexistent. Among those who have but recently joined the collar corps the old perambulating pippin puts up a hard fight, but is finally pushed back, to the evident discomfort of the windpipe. It is fortunate that only the air passage suffers and never the one through which food must travel.

ODD VARIETIES OF MEDICINE

Cobweb Pills Supposed Good for Ague, and Snake's Head Broth for Various Diseases.

The heads of venomous serpents have held an important place in medicine. A strong broth made from them and mixed with salt and spices, and one hundred other remedies, was employed under the name of theriac as a cure for every conceivable disease.

Curious survivals of this old belief in the efficacy of certain reptiles and insects as cures for human ills occasionally come to light, even in this advanced age. In New England, cobweb pills are supposed to be good for the ague, and in the South a certain knuckle bone in a pig's foot is a cure for rheumatism, if it be carried in the pocket or worn suspended from a string around the neck.

The spider-web pill originated in China, where all species of insects have certain positive or negative values in medicine.—Cleveland Plain Dealer.

Sacred Horses in Jap Park.

In the famed park in Nara, Japan, there is a sacred horse. This shaggy, undersized animal is said to be about the funniest thing in Japan. He is pure white, and has one blue eye and one pink eye. He is kept in a small stable with a square hole for him to poke out his head to eat the cats which tourists bring him. The third largest bell in Japan hangs in Nara park, which contains 1,250 acres, and throughout which more than 3,000 stone and metal lanterns are scattered. Six hundred tame deer roam at will in the park.

Also in Nara park there is one of the three gigantic bronze Buddhas, and the largest. The others are at Osaka and Kamakura. One of the most venerated of Shinto shrines—Kasuga no Miya—is the goal of thousands of pilgrims every year. It has existed for 1,210 years.

Considerate of the Bank.

An English sailor just home from a long cruise entered a bank in Hull and greeted the clerk with: "What cheer, matey! How's your business doing, hey?"

"Not very brisk at present," answered the clerk, "but I hope to see it improve shortly."

"That's 'ard!" said the tar sympathetically. He fished out a check for £100.

"How'll you have it?" asked the clerk.

The sailor hesitated a moment, then leaned over the counter and said in a hoarse whisper: "Well, matey, I don't want to be 'ard on yer. Gimme ten pun' now and I'll take the rest a pun' a week."—Boston Transcript.

When He Remembered.

An absent-minded man came home one day after a heavy rainstorm, very bedraggled and wet. His wife met him at the door, and as he greeted her he made the remark that he had forgotten his umbrella.

She was surprised to think that he even remembered that he had forgotten anything, and asked him when he had thought of it.

With a smile of satisfaction he replied:

"Why, my dear, when it stopped raining and I went to shut it."

Asked Advice and Get It.

Young Man—I want a word of advice.

Mr. Wader (grimly)—Well?

"What is the best way to approach you for a loan?"

"If you are sensitive, better write for it, and, when you get my reply, tear it up without reading it."—London Answers.

—The Boys Band gave their concert Friday evening in the auditorium to a well filled house. The rainy weather made impossible the outdoor concert as planned but it was well attended and the boys show a great improvement, due to constant practice and their able leader, Prof. Geo, Roy.

Subscribe for the Ledger, $1.50 a year

Old Papers at Ledger Office.

SOCIETY ITEMS

(Continued from First Page)

E. O. Club Tuesday afternoon, entertaining at the home of her mother, Mrs. Sam Brinkerhuff. The business meeting was brief and the remainder of the time was spent in a social way with music and readings interspersed. Miss Marie Brinkerhuff played several piano selections, Miss Irene Howlett sang and Miss Kathleen Smith gave clever readings. Late in the afternoon a delicious tea was served.

One of the most delightful affairs held in church circles for a long time occurred Wednesday when the Golden Circle of the Presbyterian Church entertained the Matrons of the Methodist Church Tables were arranged in the form of a hollow square with the hostesses on one side facing their guests and the officers' table in the center. The room was beautifully and appropriately decorated with flags and a splendid Flag Day program was given. Devotional exercises were conducted by Mrs. J. R. Warnick, Mrs. Sidney Reeder sang in her always charming way, Mrs. L. P. McGwire gave a splendid talk, telling the history of the Flag and Betsey Ross, clever and appropriate recitations were given by Jimmie Williamson Beatrice Dobbins, Archer Taylor, Charlotte Brown, Eleanor Throndson, and Wilma Boze. Mrs. Irma Gregg costumed as Columbia sang a delightful solo, Mrs. George White gave a pleasing reading and a cornet solo by Dicky Westerberg completed the most excellent program. An elaborate tray lunch was served, the trays being artistically decorated with the national colors and flags. About one hundred and fifteen ladies enjoyed the happy occasion.

W. C. T. U. Flower Mission meeting Tuesday.

Sunshine Club Wednesday, hostess, Mrs. Grant Hartman.

W. R. C. Thursday in Schey Hall.

Four May Children Arrive Safely in New York

Mr. Whitley of Denver received a telegram from Mr. Lowry of New York saying:

"The May children arrived O. K., Train 1 hour late. Very nice children, they will leave on the Tivies Wednesday morning. Met them myself and will not charge anything for them."

(Signed) S. K. HILL,
Manager of Holly Hotel.

These four children are now on the water and in another week will be in the home of a loving grandmother.

From Longmont, Colo., to Kingston, Jamaica, is a long way for four little tots to go alone but these four, the oldest ten, the youngest two, are making this trip, and going to a home where loving care will be given them.

Farm Bureau Poultry Producers Plan Changes

Delegates from widely sperated areas of Colorado met in Denver, Colorado, June 5, at the Auditorium Hotel, and listened to Aaron Sapiro of California discuss the plans of cooperative marketing of poultry and eggs. Mr. Sapiro gave in detail the steps that the poultry producers of California had passed through before arriving at the efficient method they now have for marketing eggs. They are now shipping eggs as far as London, England, and are regular shippers to the New York market. They study market conditions and because of Chicago's "Big Five," who control the market there, they never ship an egg to that market. Mr. Sapiro pointed out the fundamentals in organization, laying especial emphasis on a sale and re-sale type of contract. He also explained in detail the National Sales Agency plans that were outlined at a meeting held in Chicago May 28. This plan will ultimately unite all the large egg producing states in a National Sales Agency.

Because of the completeness of the new plan and the opportunity offered Colorado to unite with other states, the State Farm Bureau Poultry meeting decided to change the type of contract they now are using and adopt the uniform contract recommended by the National meeting.

Delegates from the following communities were present at the state meeting: Bennett, Deer Trail, Adams City, Brighton, East Lake, Fort Lupton, Greeley, Fort Collins, Briggsdale, Wellington, Loveland, Sedalia, Castle Rock, Littleton, Broomfield, Longmont and Fort Morgan.

Temporary officers were chosen and committees appointed to work out the new contract. Plans are being laid to carry the poultry organization work into every county in Colorado. One million hens laying eggs under contract will be the aim of the Farm Bureau Poultry Association. Geo. Gordon of Bennett was elected president, Ralph Cumings of Fort Collins, vice president, and Vern Hill, of Denver, secretary-treasurer. The new officers will constitute an executive committee to coordinate Colorado poultry associations with the National plan of cooperative poultry marketing.

Colorado has been asked to select a representative on the National Committee and the Executive Committee will plan to appoint a delegate to represent Colorado at the next meeting of the National Committee.

Sale Bills when you want them.

Louise Thompson Wins Elks Prize

Miss Louise Thompson has been chosen as having written the best essay on the "Flag" and has won the $15.00 prize offered by the Longmont Elks Lodge. Miss Alice Whitney's essay was given the second prize for which she will receive $10.00, and Miss Mary Woody's third, winning the $5.00 prize.

The three young ladies are from the Longmont High School, the latter two graduating in this spring's class.

Miss Thompson, the winner, will be a Senior next year. She read her essay last night at the Flag Day exercises, held by the Elks, and it was well written and well read.

Old Papers at Ledger Office.

Subscribe for the Longmont Ledger $1.50 per year.

Mrs. H. J. Park Made Secretary of District W. C. T. U.

Last Friday the District Convention of the W. C. T. U. was held in Loveland, many going from Longmont. Thirty girls and boys under the leadership of Mrs. Skram sang, and were a pleasing part of the program. Mrs. Allison also pleased the convention with her solos.

Mrs. Henry J. Park of Longmont was made secretary of the district, the other officers being from Loveland and Boulder.

ROTARY CLUB

The Rotary Club took up the boy question at their luncheon Tuesday and will cooperate with other organizations to promote boy welfare. The boy scouts will receive special help and a furthering of their activities this summer.

Short talks were given by the members at roll call.

The next meeting will be a golf party at 4 o'clock in the afternoon at Sunset Park, followed by a seven o'clock dinner at the hotel.

Depending on diplomacy for peace reminds us of the man who wears a hat until he becomes bald and then wears a hat to hide his baldness.--Baltimore Evening Sun.

First Church of Christ, Scientist

Corner of Pratt St. and Fifth Ave.

Sunday School at 10:00 a. m

Sunday Morning Services, 11 o'clock.

Subject: "God the Preserver of Man."

Wednesday Evening Meeting at 7:45 o'clock.

The Reading Room in connection with this church is at the same address and is open Tuesday, Thursday and Saturday from 2:30 to 4:30 p. m.

All are invited to attend the services and to visit the Reading Room

Legal Blanks at this Office

HOME NEWS

—Miss Jean Zweck went to Boulder Tuesday to visit Miss Louise Rice.

—Mrs. Fred Sager and son, Bobby, returned Sunday from a visit in Brush.

—Dr. W. J. White enjoyed a visit Sunday with Lieut. Frost of the U. S. A. Air Service.

—Mrs. Grant Knox left Saturday for Guthrie, Okla., to spend a couple of weeks with her mother.

—Miss Ann Moe spent the week-end with Mr. and Mrs. Walter McCaslin and returned to Boulder Tuesday.

—M. H. Foote returned this week from a business trip thru Kansas in the interests of the J. C. Penney Co.

—J. A. St. Clair spent a few days with his brother, Murray St. Clair, in Fort Collins and returned home Monday.

—Mr. and Mrs. Jack Huffman of Cheyenne spent a few days with the latter's father, R. J. Headrick, of Longmont.

—Mr. and Mrs. Dan Huyett and two children went to the Brinwood Hotel in Estes Park Sunday to stay for a couple of weeks.

—The Misses Jessie Ingmire and Margaret Clennon have gone to Greeley to take the summer course at the State Teachers College.

J. A. Thompson of Newton, Miss., arrived Monday evening for an extended visit with his brother, Dr. J. L. Thompson and wife.

Lawrence Flanders is having a vacation from the Farmers National Bank and has taken his family to their cottage in Estes Park.

Rev and Mrs. Monroe Markley are in Boulder this week attending the Colorado Congregational Conference being held in that city.

Mr. and Mrs. Orton Painter of Estes Park were forced to make a longer visit in Longmont than planned on account of the heavy rain Saturday.

Mrs. Fred Fankell has returned from a visit with her parents at Rice-lake, Wis., her sister, Miss Sockness, returning with her to spend the summer.

—Mrs. James Mellmyer left Monday to join her son, Robert, at Atchison, Kansas. Robert has been attending school there and after a short visit they will both return to Longmont.

Mr. and Mrs. Clark Shepherd of Cleveland, Ohio, are visiting the latter's father, J. P. Lynch. Mrs. Shepherd will be remembered as Miss Sarah Lynch.

Miss Grace Shawhan was taken critically ill the first of the week with appendicitis and an immediate operation performed. She is getting along nicely now.

Mrs. A. W. Peterson of Oklahoma City, who has been visiting her parents, Mr. and Mrs. Chas. Parker, left Saturday for a month's visit in Colorado Springs.

Harold Rosencrans tried to motor to Denver Tuesday evening but could not get across Boulder creek on account of the high water and was compelled to return home.

Dave Mitchell returned Sunday from Cuba where he has been a sugar chemist. He joined his mother, Mrs. A. J. Mitchell, at Creston, Iowa, and they returned together.

Miss Marian Rustad went to Denver to take the three weeks course in music at the Matthews Conservatory. Miss Annette Rustad accompanied her to remain a few days.

Mr. and Mrs. H. T. Kopplin and two sons, Walter and Frederick, are returning this week from California, where they spent the winter. They are making the trip by auto.

—T. J. Cavey of Keota, Colo., was compelled to make a longer visit in Longmont than he had planned on account of the rain washed roads. He returned to his home Wednesday.

—Mrs. Chas. Peterson and daughter, Lucille, of Cheyenne, Wyo., are guests in the home of Mr. and Mrs. Arthur Ostrander. Upon leaving here they will visit relatives in Golden.

—Miles McPhillips and R. J. Beckstead made a round trip to California on a motorcycle, returning Sunday. They expected to locate there but have found Colorado much more to their liking.

—Mrs. Mary Drinkwater and daughter, Miss Lucille of Denver, expect to motor to Longmont Saturday morning to spend the week-end in the home of the former's parents, Mr. and Mrs. C. E. Pughe.

—Miss Gladys Hubbard, accompanied by her niece, Havis Choate, went to Greeley to enter the State Teachers College. The little girl will attend the childrens training school in connection with the college.

—Mrs. W. R. Paddock arrived Monday from Rockport, Ill., and stayed until Wednesday with Mrs. D. D. Clark, going on to Estes Park for a few days, after which she will return to the home of Mrs. Clark.

—Mrs. Eugene Miller and two children, Billy and Betty Jane, are expected home Sunday from Manhatten, Kansas, where they have been visiting the former's mother for the past six weeks. Six year old Billy has improved a little in health and his parents expect to keep him in the mountains the entire summer hoping for additional benefit.

—F. A. Parker returned from Sterling Friday after spending the winter in that place.

—John Treadway and Wm. Shoe of Clinton, Mo., arrived Friday for an indefinite stay.

—Mr. and Mrs. H. H. Stodick left Friday evening to return to their home in Dixes, Wyo.

—Chlanda-Harris Furniture Co. shipped a truck load of furniture to Estes Park Thursday.

—Mr. and Mrs. Oskar Shavdahl went to Orin, Wyo., Friday to spend several days with relatives.

—Harold Booth, a 1923 graduate of L. H. S., has gone to Estes Park to be employed for the summer.

—Mrs. Cora M. Long went to Denver Saturday to visit her granddaughter, Mrs. W. A. Long.

—Mr. and Mrs. Chas. Reed of the Brinwood hotel at Estes Park were in town this week on business.

—Mr. and Mrs. B. W. Tinklespaugh and son of Boulder have moved to Longmont to make their home.

—Mr. and Mrs. John Cusey and three little girls, were week-end visitors in the D. C. Donovan home.

—Mrs. George Russell and son, Max, returned this week from Los Angeles where they went the first of the year.

—Mrs. Mary Felix left Friday to return to her home in Fairfield, Ill., after visiting her son, Walter Felix, of Longmont.

—Mrs. Guy Rardin and daughter, Patricia, left Friday for Horton, Kansas, to spend several weeks with relatives.

—"The Light of Western Stars," by Zane Grey, begins in this issue of the Ledger and is well worth reading. It will run serially.

D. C. Donovan returned Saturday from Riverton, Wyo., where he spent a couple of weeks with his daughter, Mrs. J. S. Witherow.

—Mrs. Jake Vonalt left Saturday for Springfield, Mo., to visit her parents, and other relatives. She will return the last of July.

—Mr and Mrs. Archibald Taylor and two sons went up to Raymonds place Thursday to occupy the McDonald cottage for a week.

—Mrs. A. J. Waller, formerly of Longmont, but whose home is now in Loveland, underwent an operation at the Longmont hosuital Tuesday and is doing nicely.

—Mrs. Coy Klinger and daughter, Dorothy, came last week from their home in Grand Junction for a visit with the former's parents, Mr. and Mrs. C. E. Pughe.

—Mrs. Van Hood and Miss Lillian Richart took their Sunday School classes to the hills last night and it is needless to say that the young people had a delightful time.

—Mrs. Mary Turrell Davis of Boulder entertained the Mutual Improvement club at luncheon Thursday, and Mrs. Lucy Moffitt, Mrs. D. A. Strong and Mrs. John Lawson attended.

—Mrs. Geo. Williams and daughter, Miss Leola, expect to leave tomorrow on a trip thru the east, to be gone a month. Miss Williams is having her vacation from the Farmers National Bank.

—C. C. Calkins, who went to a College class re-union in Ballston, New York, about two weeks ago, was taken ill while there and with Mrs. Calkins and daughter, Lillian, left there the first of the week to return home.

—Carl Peters of Mead and Miss Mary Clifford, a teacher in L. H. S., motored to Palmer Lake Sunday to meet the latter's mother, who came from Chicago to spend a few weeks at the Lake. Mr. Peters returned alone.

—Mrs. Eugene Husted, who has been visiting her parents, Mr. and Mrs. Geo. Powell, of near Longmont, returned to her home in Denver Friday, accompanied by Miss Jennie Brinkerhaff and Miss Crystabelle Ramsell.

—Mr. and Mrs. Frank Schauer came up from Denver Wednesday night to make a short visit with their son, Russell, and family. They expect to leave the first of next week for San Jose, Calif., with the expectation of remaining.

—Mrs. Myrtle Thompson and son, Felix, left Friday for Okmulgee, Okla., where Mrs. Thompson will take up her new work in the children's department of the library. She has completed a special course in Greeley in order to take up this work.

—Mr. and Mrs. C. C. Casey and two sons went up to their cottage at Raymonds place Thursday to spend the summer. Mr. Casey will stay just a few days this trip as he leaves next week for California. Mrs. Casey will be the correspondent for the Ledger for that section during the summer.

—Walter H. Ziegler left Longmont Wednesday for Denver to spend one day with his parents, Mr. and Mrs. Wm. Ziegler, and Thursday morning left by auto for Grand Junction to take up his work with the Holly Sugar Co. Mr. and Mrs. Resch and baby of Eaton made the trip at the same time, the two cars keeping together.

—Miss Harriet Smith returned Saturday morning from Casper, Wyo., where she has taught the past year. In a few days Miss Smith and her mother, Mrs. C. E. Smith, will leave for San Francisco to spend the summer with Mr. and Mrs A. R. Kinne. Miss Smith will attend summer school in California.

BORN

WOODCOCK—In Longmont, Thursday June 7, 1923, to Mr. and Mrs. Chester Woodcock, a son.

SCHLAGEL—Near Longmont, Friday, June 8, 1923, to Mr. and Mrs. Pete Schlagel, a son.

WILSON—In Longmont, Tuesday, June 12, 1923, to Mr. and Mrs. John Wilson, a son.

WRIDE—In Longmont, Monday, June 11, 1923, to Mr. and Mrs. Harry Wride, a son.

DIED

SJOGREN—In Lyons, Saturday, June 9, 1923, Mrs. Charlotte Sjorgen, aged 62 years, 4 months and 19 days.

Mrs. Sjorgen had been in poor health for some time but was slowly improving and able to be up but the excitement caused by the rising waters during the storm caused heart failure and she died very suddenly.

She was born in Sweden January 21, 1861, and came to America in 1888.

For the past thirty-four years the family have made their home in Lyons.

Mrs. Sjorgen is survived by her husband, three sons, and one sister, Mrs. Ida Nelson of Salt Lake.

—Father Nicholas went to Pueblo on business Saturday.

E. D. Welker and daughter, Miss Edith, left Tuesday for Santa Cruz, Calif., to visit the former's sister for a month or two.

I. F. Powers has arrived to spend the summer with his daughter, Mrs. S. B. Wilson, and family. He spent the winter in Daytona, Florida.

—Mrs. Dan Barnsley and two children arrived the first of the week for a visit with Mrs. Barnsley's parents, parents, Mr. and Mrs. H. G. Nowels.

Miss Ruth Bowers, sister of Mrs. C. W. Ostrander of Longmont, underwent an operation for appendicitis at the Sanitarium in Boulder, and is doing nicely.

—Miss Ethelyn Sautter returned home last week from Colorado Springs where she has been attending school, and will spend the summer with her parents, Mr. and Mrs. Miles Sautter.

—A number of Longmont Elks attended the convention in Colorado Springs last week, going down by auto. The convention next year will be held in Greeley, Colo.

A large number from Longmont attended the Congregational Conference in Boulder this week, among whom were Mr. and Mrs. Frank Haney, Miss Nellie Butler, Mrs. John Lawson, Mrs. Christine Hollister, Mrs. Lucy Moffitt, Mrs. D. A. Strong, Wm. Butler, Mrs. Mary McDougal, Mr. and Mrs. N. C. Williams and Mrs. J. B. Thompson.

LIONS CLUB

At the Lions Club luncheon yesterday Dr. W. J. White, chairman of the boys work committee, reported that the committee had met with committees from three other organizations and at such meeting it was agreed that each organization sponcer a separate troop of the Boy Scouts.

This means that each organization will furnish a scout master and oversee all picnics and special gatherings.

C. A. Gunning, All-Round Trapshooting Champion

The Denver News Thursday morning announced that Chas. Gunning of Longmont had been crowned the all-round champion amateur trapshooter of Colorado at the state tournament in Denver.

Gunning took the Colorado championship over a field of fifty-five shooters by breaking 96 out of a possible 100 targets at 22 yards.

National Parks

Our National Parks, 1922-23! These two years are beyond question the system since the creation of the Yellowstone—the first national park in the world—which celebrated its semi-centennial last summer.

Dr. Hubert Work is now Secretary of the Interior in place of Albert B. Fall, resigned. That is a factor in the situation second to none in importance from the viewpoint of the national park enthusiasts. The secretary of the interior is exofficio boss of the national park service, has the say-so with Director Hather and is subject only to the nod of the President and the fussing of Congress.

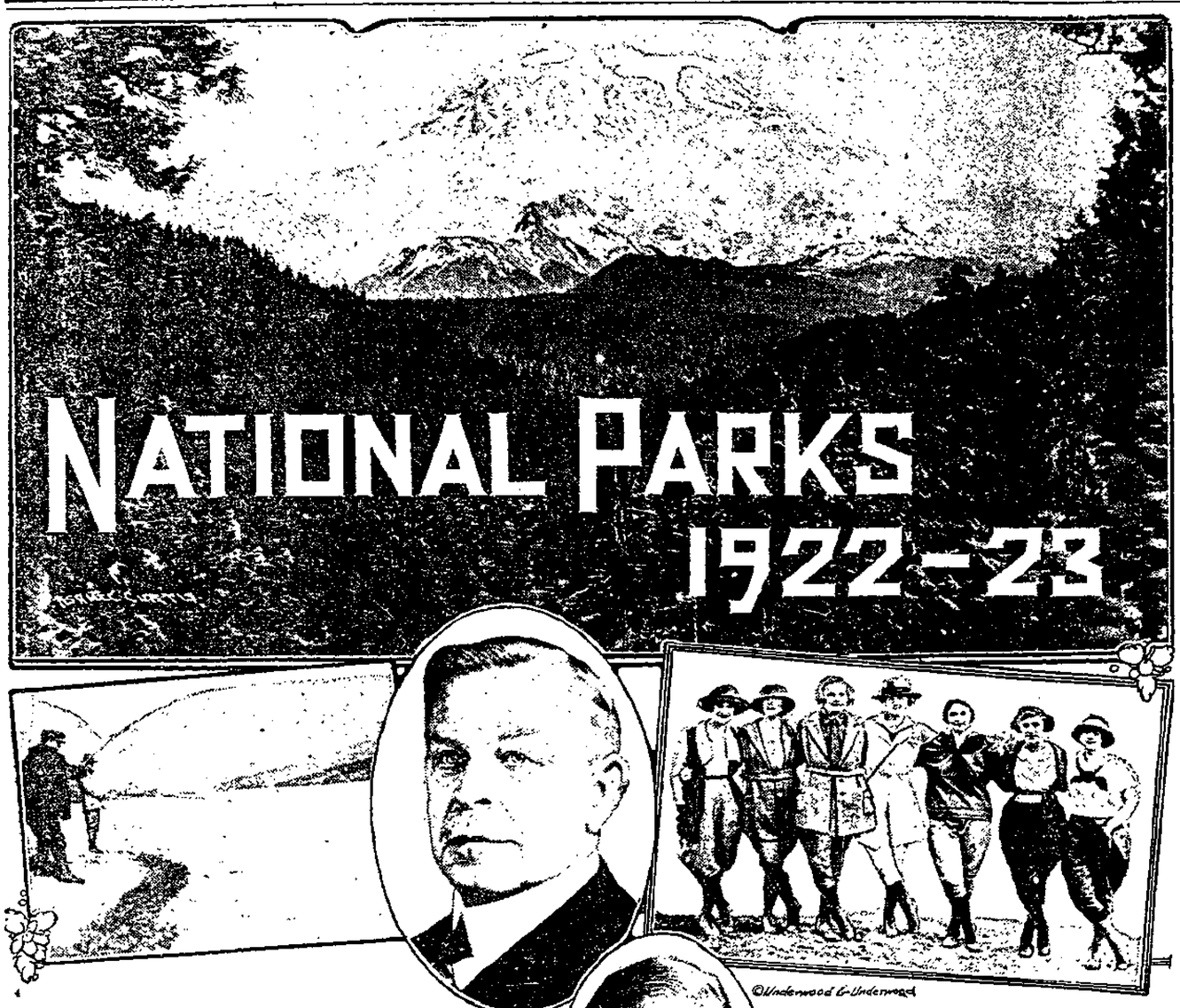
Read the interesting article on this subject on another page in this paper.

Harry Emmons Gets Top Price for Herefords

The Denver Record-Stockman says:

One of the finest loads of cattle that has been marketed in Denver during the past six months, was sold Monday by Harry Emmons of Longmont. Although the cattle did not establish a new mark, they sold within 15 cents of the top end of the college experimental cattle and within 15 cents of the season's top.

Mr. Emmons' shipment consisted of 35 head of choice quality heavy beef steers of the Hereford type. They were of good uniform size, showed lots of finish and averaged 1,180 lbs. One of the large packers purchased them for $10.25.



By JOHN DICKINSON SHERMAN

OUR National Parks, 1922-23! These two years are beyond question the most momentous in the history of the system since the creation of the Yellowstone—the first national park in the world—which celebrated its semi-centennial last summer.

The biggest thing of all is that the American people have within these two years seized upon the national parks as a part of their conception of the greatness of America. The plain people now feel toward their public playgrounds somewhat as they feel toward Old Glory—"Hands off!" They passionately desire to defend them and keep them inviolate. That is why the people won a series of brilliant victories in the Sixty-seventh congress against the organized assaults of industrial and commercial private interests. That is why, under the leadership of the National Parks association, the General Federation of Women's clubs and scores of nation-wide organizations all of one mind as to the national parks, they have developed strength to see that congress shall legislate wisely for their playgrounds.

Other things that make these two years momentous are these: 1922 was a record season in attendance; 1923 will undoubtedly set a new record far in advance. The appropriations for the fiscal year beginning July 1 are larger than ever before and provide for many permanent improvements.

Dr. Hubert Work is now secretary of the interior in place of Albert B. Fall, resigned. That is a factor in the situation second to none in importance from the viewpoint of the national park enthusiasts. The secretary of the interior is ex-officio boss of the national park service, has the say-so with Director Mather and is subject only to the nod of the president and the fussing of congress. The National Parks association makes no bones of saying in point that it is glad of the change in secretaries. Secretary Fall was a good friend of outdoor recreation, it says, but he undertook to change the national park policy into one which would turn the system into an aggregation of hundreds of little camping grounds. "Wherever I can find a pleasant place for local people to go and camp," he said, "there I shall have a national park."

Now, the late Franklin K. Lane in 1918 established the national park policy thus: "In studying new park projects you should seek to find scenery of supreme and distinctive quality or some natural feature so extraordinary or unique as to be of national interest and importance. . . . The national park system as now constituted should not be lowered in standard, dignity and prestige by the inclusion of areas which express in less than the highest terms the particular class or kind of exhibit which they represent."

The new secretary has made no official announcement about his policy at this writing, but he knows his way around in politics and he saw what the army of enthusiasts did to Secretary Fall. Certain it is that he stands for efficiency as surely as his last name is Work. He proved that as postmaster general. For the rest, he is a Coloradoan who won fame and fortune as a doctor of medicine, a college graduate and a man of affairs. Here, in part, is his public statement of his attitude toward the problems of his department:

> I believe that the work done and the problems confronting the government should be placed frankly before the people. . . . So in the conduct of the Department of the Interior there shall be no subterranean or camouflaged policies, no issues tucked away to bind smoke screens, but an open and frank exposition of all actions deemed essential to the public interest.

And here is Secretary Work's official invitation to us to visit the national parks this summer—mark the second sentence!:

> With a lavish hand nature has molded throughout our land the most magnificent and awe-inspiring scenery, surpassing in beauty and grandeur that offered by any foreign country. These spots—our national parks—have been set aside by the American government to be maintained unmarred by the inroads of modern civilization so that you and your children may enjoy them. Roads have been built through deep-cut canyons, across towering mountain ranges, beside rippling streams filled with lighting trout, and into primal forests. Hotels and camps have been erected to provide comfortable accommodations in the most distant and inaccessible places. Free camp grounds have been provided for those who wish to bring their own equipment and camp out. These unspoiled bits of native America are for you. They are the playgrounds and the recreation parks of the people. To visit them and see them is to inspire pride and make more real your love for America. In the name of the government I invite you to be its guest.

Director Stephen T. Mather of the national park service is still on the job—another factor whose importance can hardly be overestimated from the viewpoint of the national park enthusiast. For beyond question Director Mather is a rara avis. He's rich, can take the time from his private business and is so fond of the national parks that he worries himself half-sick over them. His salary is a small part of what he gives to the parks each year. He certainly has accomplished a lot in his eight years of service. Even in the most acrimonious debates in congress, somebody usually takes occasion to pay him a compliment, generally referring to him as "the highest type of public servant."

The Sixty-seventh congress (March 4, 1921 to March 3, 1923) was practically one continuous battle ground. A victory for the national park forces with far-reaching results was that in the fight over the bill for the All-Year National park in and about the Mescalero Indian reservation in New Mexico. Senator Bursum of New Mexico got it through the senate. In the house Secretary Fall got it referred to the Indian Affairs committee instead of the public lands committee and in person supported it at the committee hearing. The proposed area, according to its opponents, was everything that a national park ought not to be; even New Mexico rose in revolt against it. The bill died in committee and is said to be too dead to be resuscitated.

Another exceedingly important victory was the defeat of the bill of Senator Walsh of Montana for the damming of Yellowstone lake for commercial irrigation purposes. Senator Walsh circularized congress and made speeches in Montana for the bill. The result was the election of a conservation Montana congressman over a dam partisan and the death of the bill in committee.

The battle over the Barbour bill for the Roosevelt-Sequoia National park (an enlarged Sequoia) ended in a draw, with the national park forces holding the advantage. They forced Barbour to amend his bill by inserting a clause exempting the park from the control of the water-power commission. The Los Angeles-Southern California Edison company interests through the late Representative Osborne gave notice that they would offer a water-power amendment. "Congressional courtesy" prevented a vote, owing to the illness and death of Representative Osborne.

The Slemp bill, for an Appalachian national park of 5,000 acres of mountain top to be donated to the government, was approved by Secretary Fall. It was fought by the national park forces on the ground that the area was unsuitable. The bill died in committee.

So far, so good, say the national park forces, but there is yet a still bigger battle to be won—the complete safeguarding in perpetuity of all national parks against every economical and commercial use of whatever kind. The American Association for the Advancement of Science passed a resolution defining the issue at its last meeting in Washington. This organization is international, has 12,000 members in the United States and Canada and at its head is Dr. Charles D. Walcott, executive secretary of the Smithsonian institution. The preamble sets forth that the national parks of the United States constitute a system of "National Museums of Native America"; that the combined national park systems of the United States and Canada if preserved untouched will constitute an "unique continental exposition of inestimable value to science and to the popular education of future generations"; that at the option of a single government official several of the American parks and all but one of the Canadian parks are open to mining and grazing; that the control of water-power in the future American parks has been recently surrendered by congress to the water-power commission, and that interference with the natural condition of these parks will destroy their usefulness to science and education. The resolution calls upon the people of America and Canada "to secure such amendments of existing law and the enactment of such new laws as will give to all units in the international parks system complete conservation alike and will safeguard them against every industrial use either under private or public control at least until careful study shall justify the elimination of any part from park classification."

The General Federation of Women's Clubs passed a resolution to the same effect at its recent mid-biennial council at Atlanta.

The national park appropriations for the fiscal year beginning July 1 aggregate an increase of $243,210 over those of the current year. In the table that follows the first column of dollars contains the sums set apart for administration, maintenance and protection; the second the sums for permanent improvements; the third the total appropriations for the several parks. The fourth column shows the attendance at each park for the calendar year of 1922.

Park	A. M. & P.	P. I.	Totals	Visitors
Crater Lake ..	$ 24,200	$ 5,800	$ 30,000	33,016
General Grant..	10,000	40,000	50,000	50,456
Glacier	100,000	125,000	225,000	23,935
Grand Canyon	60,000	65,400	125,400	84,700
Hawaii	10,000	.....	10,000	27,750
Hot Springs ..	65,600	2,000	67,600	306,164
Lafayette	30,000	....	30,000	75,775
Lassen	5,000	....	5,000	10,000
Mesa Verde ..	25,000	10,000	35,000	4,251
Mt. McKinley .	8,000	.....	8,000	7
Mt. Rainier ...	60,000	72,000	132,000	70,371
Nat. M'nm'ts.	12,500	....	12,500	171,876
Platt	10,000	.....	10,000	70,000
Rocky Mt.	55,000	11,000	74,280	219,164
Sequoia	35,000	85,000	120,000	27,514
Sully's Hill ..	.....	....	.....	9,448
Wind Cave	10,000	....	10,000	31,016
Yellowstone ..	320,000	48,000	368,000	98,272
Yosemite	225,000	70,000	295,000	109,506
Zion	13,770	133,000	146,750	4,109
Wash. Office ..	33,200	....	33,200	.....
Forest Fires ..	25,000	....	25,000	.....
Acct'g Services	6,000	....	6,000	.....
Totals	$1,143,250	$671,200	$1,822,730	1,216,385

As to the permanent improvements: General Grant gets $38,878 for a sanitary and water-supply system. Glacier gets $100,000 toward the construction of an east and west road through the park across the Continental Divide; it also gets funds for an administration building at Bolton, the west entrance. Grand Canyon's item includes $40,000 for the Hermit's Rest Rim road and $6,000 for a community building. Most of Mesa Verde's $10,000 will go into a water system at Spruce Tree camp. Mount Rainier gets $38,000 for the widening of the Paradise Valley road to permit two-way automobile traffic; $25,300 is for a new camp ground at Longmire Springs. Rocky Mountain gets $8,280 for the purchase of land for a public camp ground. Sequoia gets $54,000 for the completion of the Middle Fork road to Giant Forest; $18,000 goes for a water system in Giant Forest. Yellowstone's item provides $25,000 for a sewer system at Yellowstone Lake and $15,000 for additional camp grounds. Yosemite gets $35,000 for an administration building. Zion gets $133,000 through an item in the deficiency bill; it will be used for the building of roads and trails and for a bridge across the Rio Virgin on public lands outside the park.

Visitors to the parks this season will find many and various improvements. Rocky Mountain has been declared an all-year park; an administration building is going up on a site donated by the Estes Park Woman's club. Mount Rainier has a new shelter cabin at 10,000 feet elevation. Travel to the parks is 30 per cent by rail and 70 per cent by private car. Mount McKinley will be practically inaccessible until 1924. The annual cost to the people of the national parks is one cent and one mill per capita. Park visitors in 1922 spent about $85,000,000.

REPAIRING CABLES IS DANGEROUS

Work That Calls for Skill and Seamanship That Must Be of the Highest Order.

During the storms of winter and early spring, breakages in telegraph cables under the ocean often occur. Strong as they are, cables cannot stand buffeting day after day without feeling the effects.

The officers on the repair ship have its exact position on their charts. When a break occurs they can put their fingers almost on the exact spot where the fracture happened, though storms will often sweep the broken ends miles apart.

The cable ship, a fine vessel modeled much on the lines of a steam yacht, steams for the area of the breakage. There she drops anchor.

If the depth tallies with the charts, the engineers know that they are somewhere near the right spot.

Anchor is weighed and the ship steams ahead in a fixed working area. Every now and then she throws over marking buoys, great red globes with mushroom anchors to mark the limits of her steaming.

All eyes are turned toward the dynamometer, a small, clock-like machine that indicates the strain on the grapnel. Normally the fingers on the grapnel remain pretty steady. As soon as the grapnel grips anything on the bottom, this fact is shown by violent jerks on the face of the dynamometer.

The cable ship steams forward at almost right angles to her grapnel. The dynamometer is anxiously watched. As soon as the pointer shows that the grapnel has picked up something, the winches are set to work and the rope is hauled in. At length the grapnel appears, the cable held fast in its steel teeth.

Near the captain's bridge is the testing room. To this is brought the cable for thorough examination.

The American Legion

Copy for This Department Supplied by the American Legion News Service.)

COMRADESHIP SPIRIT SHOWN

Minnesota Veteran Receives Wallet Lost During War and Found by British Soldier.

The spirit of comradeship between soldiers of the allied armies of the World war, as demonstrated by the formation of the Interallied Veterans' association, of which the American Legion is a member body, has been shown in a number of instances.

One of the most interesting examples of this friendly feeling between comrades was revealed in the finding of the personal wallet of Francis E. Ellis a veteran of St. James, Minn., by Bert Gocke of London, a former British soldier.

Ellis served with Co. M., 145th infantry, toward the close of the war and was moving up with his company when the Germans were turning back through Belgium. He lost his wallet, together with his registration card and other personal memoranda on the trip.

Recently he received a letter from Bert Gocke, under a London date line. The note read:

"I am sending you this wallet which I believe to be your property. I trust it finds you alive and in the best of health after the terrible strife we have been through.

"I don't know if you recollect traveling in some box cars through Belgium in the latter end of 1918. I, myself, being wounded on the Ypres front, was, after a week or two, discharged from a dressing station and posted as a temporary guard on Vlamuetinghe siding, where your train was unloaded. On finding your wallet, it has been my ambition since to forward it to you. I am inclosing a photo of myself. Possibly you saw me while your regiment was passing my post. . . . Trusting you will drop me a line, I am, yours sincerely, Bert Gocke."

TO FORM SPARTANAIRE CLUB

Organization to Give American Boys Character Training, Business Management and Salesmanship.

The American Legion Weekly has formulated plans for the organization of a national boys' club, based on the tradition of the endurance of the Spartan boys, to give to young Americans an opportunity in character training, business management and salesmanship. The organization is called the Spartanaire club.

The following points have been adopted as the code of the Spartanaire: 1. The Spartanaire puts his whole heart into everything he does; he strives to be 100 per cent American. 2. He is proud of everything he accomplishes; but never brags or gloats over his success. 3. He is a good sportsman and knows how to lose without whining; he never makes the same mistake twice. 4. He plays square and fair in everything he does; his word is absolute. 5. His name is like a trademark; if he says or does anything, his friends know he is right. 6. He studies his mistakes so that he will turn them into victories next time. 7. He does not believe that he is all-perfect; but he knows that he is nearer to it today than he was yesterday. 8. He is always learning something that will be of value to him when he grows older. 9. He gets a full day's value of work, play and rest in every 24 hours. 10. He is never selfish and is always ready to help others. 11. He is true blue and his friends are proud of his friendship. 12. He is a Spartanaire and he sticks to everything he undertakes.

HOSPITAL AT CAMP CUSTER

New Institution Will Have Thirty Buildings Spread Over Tract of 500 Acres.

Plans have been drawn for the construction by the federal government of a million and a half dollar hospital for former service men suffering from nervous and mental diseases on the site of the Camp Custer cantonment. The hospital will have thirty buildings spread over a tract of 500 acres. It is one of five for which congress appropriated $18,000,000.

The government hospital will have facilities for the treatment of 500 patients. It will be built around a commodious two-story structure, winged with general wards on one side and wards for "disturbed" patients on the other. At one end of the hospital group will be located the cottage for tubercular patients, equipped with sleeping porches and the most modern methods of treating this disease.

There is a group of buildings for "continued treatment" cases, containing large day rooms on the first floor with wards above. Three separate buildings will provide accommodations for nurses, female attendants and male attendants. There will be separate structures for the vocational training shops, garage and repair shops.

Has Uniformed Legion Band.

Brockton, Mass., American Legion members claim to have the only uniformed Legion band in the state. Twenty-eight musicians, all Legionnaires, compose the band. Nearly 50 per cent of them are overseas men.

Legion Men Capture Robber.

American Legion members in Wellsboro, Pa., turned policemen and captured the author of a series of mysterious robberies recently. A vigilance committee was formed from the ranks of the ex-service men when police appealed for assistance. Legionnaires were stationed every night in dark corners about the town. Legion men finally cornered the culprit "pulling a job." In appreciation a fund which had been raised for further police protection was turned over to the post by grateful citizens.

SONG OF LEGION AUXILIARY

"The Call of the Flag," Given to Organization by Author, Used in Americanism Campaign.

The patriotic appeal of the song, "The Call of the Flag," is to become one of the factors of the Americanism campaign which is being waged by the American Legion Auxiliary. This song, which has been adopted by the Auxiliary as its official composition, has a stirring air and possesses words which create a high enthusiasm among the hearers. The song was first heard by Legionnaires and Auxiliary members at the New Orleans convention, where it received the official endorsement of the Auxiliary.

Mrs. Madge King Johnston, national vice-president and chairman of the Americanism committee of the Auxiliary, plans to make wide use of the official song in the work which is being undertaken by the Auxiliary along the lines of Americanism. The song is now being distributed by the national organization of the Auxiliary through its departments and local units. Recent popularization of the song has been assisted by broadcasting from various radio stations throughout the country, particularly

Mrs. Madge King Johnston.

on one patriotic holiday, when it was made a part of a special program.

Other ways of putting the composition before the public are being urged by Mrs. Johnston and through her efforts and those of other members of the committee, local units of the Auxiliary have received the endorsement of many civic, patriotic and fraternal organizations throughout the nation for the new song.

Mrs. L. D. Westfelt of New Orleans, who composed the song, turned over the plates, rights and arrangements for publication of future editions to the women of the Auxiliary. She advanced considerable money for the initial work, but freely gave this. Word has just been received by Mrs. Johnston from New Orleans telling of Mrs. Westfelt's death shortly after landing from a trip to Egypt and the Mediterranean sea.

A letter received by Mrs. Johnston told of her pleasure at returning home, and of her intense interest in the progress of the song. Mrs. Johnston, in a message to national headquarters of the Auxiliary says: "We will now feel that our work is a sacred obligation bequeathed to us in fulfilling her desires to aid the boys in this way."

The song may be obtained in sheet music form, orchestrations band arrangements and on player piano rolls. All rights to the composition have been relinquished by the composer to the Auxiliary.

FORD HOSPITAL DOORS OPEN

Detroit Institution to Admit Disabled War Veterans Who Are in Need of Attention.

A personal plea from Alvin Owsley, national commander of the American Legion, to Henry Ford has resulted in hospitalization for 200 disabled war veterans of Michigan.

Ford has agreed to throw open the doors of his big hospital in Detroit to every disabled ex-service man and woman in the state, following Commander Owsley's statement of the hopeless fight the Michigan veterans were making because the government failed to simplify the formal procedure through which applicants for hospitalization are forced to go and which has resulted in long delay in obtaining relief for the war fighters.

After hearing the Legion head's appeal, Mr. Ford immediately instructed the superintendent of the Henry Ford hospital to receive at once any man in need of hospital treatment who could produce proof of war service. The Ford hospital covers 20 acres in the heart of Detroit. It was used as United States general hospital No. 36 during and after the war.

Form Units of "Polar Bears."

Members of the detachment of American troops which served in Russia during the World war are forming units of the "Polar Bears." These men include a number of prominent Legionnaires who were on duty in the frozen north while their comrades were in France. They find much to talk about, according to reports of their meetings. Hard tack at $10, cigarettes at $2.50 a package, nights in "pup" tents with the thermometer flirting around 50 below—these are among the topics of the former members of the A. E. F. in Russia. Units of the organization have been formed in Chicago and in Detroit.

The Little Spendthrift.

A Hawaiian took his son, Akana, to the theater and the pair took seats in the front row of the gallery. The play was a thrilling melodrama of the old-style type and grew so exciting that the boy, leaning further and further over the rail, finally lost his balance and plunged down.

In much agitation his father peered into the darkened depths.

"Akana, Akana!" he bellowed. "For the love of Heaven come back! It costs a dollar down there!"—American Legion Weekly.

Limitations to Ether.

John was getting nervous as the doctor prepared to administer the anaesthetic.

"Will it make me sick?" he asked.

"Not a bit," said the doctor, reassuringly.

"How long will it be before I know anything?" he queried, as the mask was adjusted.

"You're asking a good deal of the ether," was the doctor's reply.

What would you do in his place?

The steeplejack lights his pipe and goes on painting

Imagine, if you can, a steeplejack 487 feet above the street level. Hanging on by his teeth he is applying a more or less rough-and-ready coat of paint to a flagpole.

It may seem foolish that a flagpole 487 feet in the air should need a coat of paint; but anyway, that's the case.

Right in the midst of a busy morning's painting an adventurous bee buzzes into the picture. In fact, there are two bees, both buzzing viciously.

What should the steeplejack do?

There being in the profession no local rules for buzzing bees, your average steeplejack probably would get the all-clear signal from below and slide promptly down to safety.

But not Our Hero.

He takes out his pipe, lights it, and goes on painting.

"It soothes the nerves," he says frankly about pipe smoking.

And, by the way, although there are only twenty-five genuine, no-scaffold steeplejacks in the country, Our Hero is one of them.

We have no way of knowing what kind of tobacco the steeplejack pours into his pipe on these bee-buzzing occasions, but we have a feeling that it is Edgeworth.

For Edgeworth does much to give the smoker a sense of calm and peaceful security.

Of course, we wouldn't care to go on record as claiming that smoking a can of Edgeworth is as good as a two-weeks' rest cure in the mountains; but we would like to register very strongly the opinion that smoking any pipe makes life seem more worth living and that smoking a pipe filled with Edgeworth helps a lot.

At least, smokers from all parts of the country write in to tell how much Edgeworth helps them in the general pursuit of health, happiness and several good pipefuls a day.

If you are interested in finding out more about Edgeworth, the most sensible plan is for you to let Larus & Brother Company send you some free samples so that you can try the tobacco for yourself.

Just write your name and address down on a postcard and you will receive immediately generous helpings both of Edgeworth Plug Slice and Ready-Rubbed. If you will also include the name and address of your tobacco dealer, we will make it easier for you to get Edgeworth regularly.

For the free samples address Larus & Brother Company, 75 South 21st Street, Richmond, Virginia.

To Retail Tobacco Merchants: If your jobber cannot supply you with Edgeworth, Larus & Brother Company will gladly send you prepaid by parcel post a one- or two-dozen carton of any size of Edgeworth Plug Slice or Ready-Rubbed for the same price you would pay the jobber.

American Farm Bureau

Through an arrangement made with New England county farm bureaus, the North Dakota Farm Bureau federation sold 1,052 North Dakota horses direct to Eastern buyers.

The horses were sold at public auction, the sale being conducted by the county farm bureau.

The North Dakota farm bureau conducted the insurance and every horse injured and two lost in shipment from pneumonia were paid for from the insurance fund.

Horses were shipped direct through to the East and kept out of infected horse stables en route. The horses were thus delivered to the users free from disease.

The Eastern county farm bureaus appoint a committee to inspect and hitch every horse before the sale at the farm bureau auctions. This committee reports to the buyers exactly what they find when the horse or team is led into the ring. This method of handling through the farm bureau inspires greater confidence in the horses on the part of the buyers and thus brings greater net returns to the North Dakota shippers. Men in charge of this work in the East say this method of handling horses would be impossible without the farm bureau in North Dakota and the farm bureau in New England working in co-operation.

FIGHT TUBERCULOSIS IN STEUBEN COUNTY

New York Community Leads in Eradication of Disease.

According to a report from the United States Department of Agriculture, Steuben county, New York, now leads the country in the eradication of tuberculosis from its dairy herds, having more cattle under supervision than any other county in the United States.

The county farm bureau began the eradication work two years ago with the employment of a single veterinarian whose services were paid for by local dairymen. The dairy farmers of the county became interested in the work and launched a county-wide campaign to rid their herds of the disease.

In approximately 15 days 30 veterinarians supplied by the state and national departments of animal industry tested 45,000 head of cattle. To follow up the work and make it permanent the Steuben county supervisors appropriated funds to employ a full-time veterinarian. Subsequent tests that have been made have materially increased the total of herds under supervision.

It is estimated that as a result of the bovine tuberculosis eradication, cattle values have increased about $5 a head in the county. The county farm bureau reports that since the campaign a large number of cattle shipments have been made outside the county. "Certified and Grade A milk producers in the environs of large Eastern cities are coming to Steuben county to buy their milkers," says a statement from the farm bureau.

Recently the state federation appointed a tuberculosis committee composed of H. E. Babcock, member of the legislative committee of the National Live Stock association; L. A. Dean, president of the State Guernsey breeders' club; E. R. Zimmer, secretary of the State Holstein-Friesian association; M. E. Buckley of the Linden School of Agriculture, Westchester county, New York, and Jay Coryell, state leader of farm bureaus. This committee is investigating the accredited herd plan as it is administered in the various counties of New York state with a view to formulating a permanent policy which will be acceptable to the dairymen of the state.

The New York state legislature has been asked to appropriate about $2,000,000 to pay indemnities owed dairymen on cattle slaughtered under the accredited herd plan and a sufficient sum in addition to carry on the work efficiently during the coming year.

Appointed on Loan Board.

C. E. Jones of Hartford, Pa., treasurer of the Federal Land bank at Baltimore, has been appointed to fill the position on the federal farm loan board formerly held by Capt. W. S. A. Smith. Mr. Jones is a trustee of the Pennsylvania Agricultural college and was formerly a member of the house and senate of Pennsylvania.

INVENTION BY BLOOM RETURNS BIG PROFIT

Michigan Bureau Official Shows How to Sell Rhubarb.

Two years ago Frank A. Bloom, manager of the Michigan Farm Bureau Produce exchange, noticed that rhubarb was sold on the Detroit market in bunches tied together with a string and the string bruised the stalks. The bunches were of varying weight. Mr. Bloom thought there could be an improvement. He evolved a cardboard box which would hold just five pounds of rhubarb. Then a carton was made that would hold just ten of these five-pound boxes. The plan worked. The growers found they could get more money for their rhubarb. In boxes it shipped better, there was less discount for spoilage or freezing. But Mr. Bloom was not content with just improving the pack-

Manager Frank A. Bloom.

age. Three grades, choice, fancy and extra fancy, were adopted. Strict grading methods were adhered to. A brand label was adopted for the extra fancy grade.

Did it pay? A comparison of results under the string tied bunch method and 50-pound carton method is shown in the following table:

The Old Way.

67 6-lb bunches at 50c	$33.50
17 6-lb bunches at 25c	4.25
Total	$37.75
Cost of dry goods boxes	1.50
Net return to grower	$36.25

The New Method.

40 5-lb. boxes at $1.25	$ 50.00
40 5-lb. boxes at 1.10	44.00
20 5-lb. boxes at .75	15.00
Total	$109.00
Cartons	5.00
Return to grower	$104.00

Over $68—153% more for same amount of rhubarb.

Mr. Bloom says little about the accomplishment. "Just another demonstration," he says, "that it pays to co-operate, standardize, advertise and be honest."

These are the principles on which the Michigan Farm Bureau Produce exchange is founded.

LABOR SHORTAGE IS SHOWN

Several States Farmer Is Adjusting Himself to Do Work by Himself and Family.

A farm labor survey just completed by the American Farm Bureau federation shows a definite labor shortage in Alabama, California, Colorado, Illinois, Iowa, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Nebraska, New York, North Dakota, Ohio, Rhode Island, South Dakota, Vermont, Washington. There is no shortage of farm labor in Kansas, Kentucky, New Mexico or Texas.

Colorado, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Minnesota, Missouri, Nebraska, New Mexico, New York, North Carolina, North Dakota, Ohio, Rhode Island, South Dakota, Texas, Vermont and Washington, the farmer is adjusting his operations so that all the work will be done by himself and family. In California and Illinois this cannot be done, according to the reports from these states.

Illinois, Kansas, Maine, Maryland, Michigan, Minnesota, New Mexico, North Dakota, Ohio, Rhode Island and South Dakota, say that the shortage in farm labor will result in reduction in production, while in Alabama, California, Colorado, Iowa, Kentucky, Louisiana, Missouri, New York, North Carolina, Texas, Vermont and Washington no reduction is anticipated.

Wages are tending higher in the following states: California, Colorado, Illinois, Iowa, Kansas, Maine, Maryland, Missouri, Nebraska, New Mexico, New York, North Dakota, Ohio, Rhode Island, South Dakota, Virginia and Washington.

State farm bureau secretaries were unanimous in their opinion that agriculture should not attempt to bid against industry for labor at present wage rates and present prices of farm products.

Clean Incubators.

Thoroughly clean and disinfect all incubators at the close of the hatching season, before stowing them away for next year and give them a good sun bath.

CRISP COLORADO NEWS

Colorado Springs.—American Legion Post No. 5, Colorado Springs, plans to erect a building.

Durango.—Motorists will not be able to cross Wolf Creek pass in safety until June 15, according to highway officials.

Branson.—Citizens of Branson recently voted favorably on a $35,000 bond issue for the installation of a water works system.

Boulder.—The Kappa Kappa Gamma sorority took out a building permit for $40,000 and awarded the contract for a new home to Allison Stocker of Denver.

Placerville.—Fire recently destroyed the residence property of E. J. Charest in Placerville. The loss, estimated at several thousand dollars, is partly covered by insurance.

Pueblo.—One man was killed and another seriously injured by a cave-in at a clay mine of the Standard Fire Brick Company near Graneros, thirty-five miles south of Pueblo.

Niwot.—Two automobiles were destroyed in a fire that wiped out the big barn on the Gaynor ranch near Niwot. The fire was caused by lightning. The loss is estimated around $4,000.

Fort Collins.—Degrees were conferred upon 117 graduates of the Colorado School of Agriculture when the annual commencement exercises were held in the college auditorium.

Boulder.—A hail storm did considerable damage north of Boulder a few days ago. Farmers claim that the wheat was ruined. The storm was in the vicinity of Haystack mountain.

Greeley.—The theft of four automobiles within twenty-four hours is the record set by two Sterling youths, according to officers who arrested the boys and lodged them in the Weld county jail.

Boulder.—Persons belonging to secret societies cannot attend the Boulder high school after Sept. 1, unless they revoke their membership. This action was taken by the school board recently.

Boulder.—A carload of tungsten concentrates, valued at $20,000, was shipped to McKeesport, Pa., by the Wolf Tongue Mining and Milling Company, Boulder. This was the second shipment within a month.

Denver.—Adjutant generals of the states of Oklahoma, Arizona, New Mexico and Colorado, comprising the Forty-fifth division area, will meet at the headquarters of the Colorado National Guard in Denver, June 20, Adjutant General Paul Newlon has announced.

Glenwood Springs.—The Colorado Lions clubs' district convention will be held in Pueblo next year. The selection was made at the convention in Glenwood Springs, Pueblo having almost no opposition. Dr. Fred Schemerhorn of Montrose was elected district president.

Idaho Springs.—Col. J. H. (Jake) Robeson, prominent in Democratic politics of Clear Creek county and the state for many years, dropped dead in Oklahoma City while playing billiards with Dr. F. M. Bailey, with whom he was visiting, according to word received at Idaho Springs.

Fort Collins.—Maynard Miles, 6-year-old son of Mr. and Mrs. Clarence C. Miles, of Livermore, was instantly killed when the automobile in which he was riding with his brother, Herschel Miles, 16, run off the edge of a culvert near Ingleside, and turned over. The youth's head was crushed when he was caught under the back of the front seat. It is believed a broken steering gear caused the accident.

Golden.—The county commissioners have ordered that all resorts in Starbuck must close at midnight from this date forward.

Pueblo.—Soleda Lasos, aged 28, was shot to death, Pamilo Marlos wounded in the side, and Pedro Calduron stabbed, during a fight resulting from a drinking party in the Mexican settlement in Schley avenue. Calduron is alleged to have done the shooting and he escaped immediately afterward. Lasos is reported to have inflicted the stab wounds on Calduron. Lasos was shot down in front of his own home, his wife witnessing the murder as she gazed from a window.

Greeley.—Will Shafroth, son of the late Senator John F. Shafroth, recently appointed manager for Weld county of the Colorado Potato Growers' Exchange, began the task of signing up the potato growers for the co-operative plan of marketing. It will be necessary to have 50 per cent or more of the acreage in Weld county enrolled for the co-operative plan before the first of July. The hearty enthusiasm shown by the farmers for the plan seems to indicate that at least that amount will be obtained.

Boulder.—Alleging that the verdict of $50,000 returned against them in the case of Rufus F. Jones was "given under the influence of passion or prejudice," the Order of Railway Conductors filed a motion in the District Court asking that the verdict be set aside and a new trial be granted.

Greeley.—Crops in the vicinity of Platteville were badly damaged, railroad tracks washed out, two trains were tied up for several hours and at least 150 automobiles stalled, when an irrigation ditch burst during a severe hail and rain storm a few days ago.

Denver.—Twenty-five thousand members of the Fraternal Order of Eagles, many of them accompanied by their families, will visit Denver in August when the Grand Aerie convention is held here Aug. 5 to 12, inclusive, according to Sim Loeb, president of the Denver aerie and chairman of the convention committee.

Boulder.—Motion for a new trial in the damage suit of Rufus F. Jones against the Order of Railroad Conductors was overruled by Judge Neil F. Graham in the District Court after two days of argument.

COLORADO NEWS NOTES

La Junta.—Modification of the Volstead act and the legalizing of the manufacture and sale of light wines and beer was favored in a resolution passed in the final session of the Colorado State Federation of Labor meeting held in La Junta. The resolution pointed out in strong terms the existing evils under prohibition and the seemingly steady increase in bootlegging and the illicit manufacture of liquor in all parts of the country, and stated that in the belief of the members of the federation a modification of the act, with the return of light wines and beer, would materially decrease, if not bring to an end such evils. The resolution was passed unanimously without general discussion. The resolutions will be sent to all Colorado senators and representatives of the national Congress. Another resolution passed at the meeting was one strongly censuring Secretary of State Carl Milliken for his action in awarding to the Michigan state penitentiary the contract for the furnishing of 1924 automobile license plates for Colorado. It was the contention of the federation members that this contract should have been awarded to a Colorado firm rather than to a penitentiary, and especially a penitentiary of an eastern state.

Ignacio.—The order of the State Public Utilities commission that the Denver & Rio Grande Western railroad build a new depot at Ignacio will be obeyed, I. H. Lake, assistant chief operating official of the railroad informed the commission that he had authority to construct the building and that work upon it would be begun at once. The old building burned and a box car has been used for a station. Ignacio citizens complained to the commission and the commission ordered a new structure. Ignacio is on the Durango line of the railroad and the Ute reservation adjoins. The new depot will have separate waiting rooms for the Indians.

Denver.—W. B. Greely, chief forester in charge of operation of the United States forest service, will be in Denver June 24 to attend the convention of live stock growers of the thirteen western states, which will be held in Denver on that date. Several other officials of high standing will also be in attendance at the convention to discuss the revision of grazing regulations in national forests. Secretary of Agriculture Wallace, under whose department the forest service operates, will be in Denver on June 25.

Greeley.—One life was lost, many thousands of dollars' worth of crops were damaged and dozens of farm houses marooned in the flood which swept down through the Big Thompson and Cache la Poudre river canons a few days ago. Richard Foote, 10, whose home was in Chicago and who was staying with his uncle, F. J. Mason, at a farm house ten miles west of Loveland, was drowned and his body carried down stream when he fell into the raging torrent of the Redstone river.

Durango.—One of the richest gold strikes around Durango in the last twenty-five years was announced officially a few days ago by W. Goff Black, president of the Cumberland Mining Company of Denver. Black said that an enormously rich vein of ore had been tapped in a cross-cut tunnel started last December in the May Day mine. The May Day has produced about $5,00,000, it is said. George Steele, Denver attorney, is a director of the company.

Pueblo.—Officers were elected in Pueblo at the annual state convention of the State Journeymen Barbers' Association and those in attendance recommended the reappointment of John E. Connelly to the State Barbers' Board. The new officers are: President, C. E. Blackburn, Trinidad; first vice president, John Brooks, Pueblo; second vice president, J. F. Reed, Pueblo; secretary-treasurer, Ed Anderson, Denver.

Limon.—A deal closed recently resulted in the transfer of the J. O. D. ranch, a tract of 8,000 acres near Aroyn, from D. Schilling to A. R. Kilburn of Kansas City. The purchase price was $240,000. The ranch is one of the oldest stock ranches in Cheyenne county. Schilling purchased it in 1904 and since that time has converted it into a hog ranch, raising high-grade hogs.

Glenwood Springs.—While Glenwood Springs Lions were preparing a stage for the Denver Lions minstrel show, a heavy curtain roller fell from its place in the flies. Erle E. Hubbard, prominent business man and member of the Glenwood club, was struck on the face by the roller.

Pagosa Springs.—Sheepmen in the vicinity of Pagosa Springs will have disposed of their wool by July 1, receiving from 40 to 42 cents per pound. Interest in the sheep industry around Pagosa is picking up.

Denver.—Mrs. Mary E. Holland and Mrs. Frank M. Keezer were named by Gov. Sweet to represent the state of Colorado at the national conference in Moose Heart, Ill., June 24, on child labor laws.

Cripple Creek.—Official confirmation of a strike of phenomenal richness made in virgin ground on the 1,000-foot level of the Cresson gold mine was made at Cripple Creek recently. Ore taken from the stope has varied in value from $5 to $75 a pound. The scene, as reflected in the white light of a carbide lamp, resembles a veritable jewelry shop from which ore of exceptional richness has been taken. The new stope, known as 1,620, varies in width from eight to fifty feet and is 125 feet long. It has not been developed to its full dimensions.

Montrose.—Helen Gray, 13 years old, who had wandered lost in the hills for more than a week, died a few moments after being discovered by a rescue party a few days ago. The little girl resided on a farm between Norwood and Madvale and was sent after the cows the evening of Saturday, May 25.

Colorado Springs.—Sand creek, usually a dry run, was a roaring torrent, 400 feet wide, following a cloudburst recently. A temporary bridge at Jimmy Camp crossing on the Farmers' highway, nine miles east of Colorado Springs, was washed out.

The KITCHEN CABINET

(©, 1923, Western Newspaper Union.)

Do you know what fairy palaces you may build of good thoughts?—Ruskin.

It is a greater compliment to be trusted than to be loved.

GOOD THINGS WE MAY ENJOY

Liver is a dish which most families serve "once in a while," but usually fried. Try this method of the Italian woman: Slice the liver as for frying and cook at a simmering temperature for 15 to 20 minutes in salted water. Drain and chop fine, mix with a tablespoonful of chopped onion (or a clove of garlic is delicious if you are trained to appreciate it), salt and pepper to taste. Into the bottom of a casserole place a half cupful of well-washed rice, spread over this one chopped carrot, then the liver and the liquor in which it was cooked; there should be two cupfuls; two tablespoonfuls of butter are then spread over the contents of the dish and bake for sufficient time to cook the rice. Just before taking from the oven add one-half cupful of cream and a tablespoonful of parsley sprinkled over the top. Remove the cover and let stand in the oven for five minutes, then serve.

Beef and Barley Stew.—Take two cupfuls of barley, wash and cover with four cupfuls of boiling water and soak three hours. Turn the barley and water into a casserole, add one pound of beef cut in serving-sized pieces, one carrot and one onion finely sliced. Season with salt and paprika, cover and bake four hours.

Cornish Pasty.—Make a good, rich biscuit dough, roll half an inch thick and line a deep pie pan—the size of the family will determine the amount of meat and vegetables needed for the meal. Into the pastry-lined dish place half-inch cubes of round steak with plenty of fat or suet, sprinkle with salt and pepper, cover with a layer of sliced potatoes, a few slices of turnip or rutabaga, an onion or two, season well, cover with a top crust, making vents for the steam, adding a tablespoonful of water, or none at all if the vegetables are fresh and full of water, and bake slowly for two hours. When the vegetables are tender remove from the oven and wrap the pasty with a large cloth to steam for ten to fifteen minutes; the steam flavors the crust making it much more palatable.

Apples in Maple Sirup.—Cut eight apples into halves and remove the cores, put into a saucepan with one cupful of maple sirup, two tablespoonfuls of butter, one and one-half cupfuls of water. Bake until the sirup is thick. Serve cold with whipped cream. Pears are delicious baked in this way using lemon juice, butter and sugar instead of the sirup.

The moon and the stars are commonplace things.
The flower that blooms and the bird that sings;
But sad were the world, and dark our lot,
If the flower failed and the sun shone not
And God who sees each separate soul,
Out of commonplace lives makes a beautiful whole
—Susan Coolidge.

SPRING VEGETABLES

Perhaps there is some vegetable better than tender well-cooked asparagus, dressed with a generous allowance of butter, perfectly seasoned and hot, on crisp well-buttered toast; if so it may be a dish of tender sweet green peas simmered to the nth degree of delectability and buttered lavishly; both are dishes fit for the epicure, and he who does not enjoy them is indeed hard to suit.

Asparagus Soup.—Cook two cupfuls of asparagus in three cupfuls of water; when tender rub through a puree strainer, add one pint of white sauce, using two cupfuls of milk thickened with two tablespoonfuls each of butter and flour well-cooked together; season with one and one-half teaspoonfuls of salt, a few dashes of cayenne and one-fourth of a teaspoonful of white pepper, with a teaspoonful of sugar. Boil up once and serve with a spoonful of whipped cream on top of each cup and with crisp, thinly-shaved bread well-browned in the oven.

Chicken Smothered in Asparagus.—Cook a fowl until very tender and divide into eight pieces of serving size. Roll in seasoned flour and brown lightly in sweet fat. Make toast cut in good-sized rounds, butter them and lay in a shallow serving dish, place a piece of chicken on each round and surround with hot cooked asparagus which has been cut in half-inch lengths. Pour over all a hot white sauce to which beaten egg yolk has been added after taking from the fire. Stir rapidly to prevent curdling and garnish with toast points.

Puree of Peas.—Boil four cupfuls of peas until tender in salted water with an onion, a bunch of parsley and two sprigs of mint. Rub through a colander and return to the fire, adding one cupful of strong stock; season with salt and pepper and one teaspoonful of sugar.

Nellie Maxwell

Weakness in Dissimulation.

Dissimulation is but a faint kind of policy or wisdom; for it asketh a strong wit and a strong heart to know when to tell truth, and to do it; therefore it is the weaker sort of politicians that are the greatest dissemblers.—Bacon.

"Dog Watch."

The term "dog watch" is a corruption of "dodge" watch, the "dodge" being an arrangement to prevent men from being on duty every day at the same hours.

No Objection From Father.

He—I love the good, the true, the beautiful, the innocent.

She—This is rather sudden, but I think father will consent.—Lehigh Burr.

No Dancer.

"He's not much of a dancer."

"I should say not. He actually wants to quit after the first twenty dances."

Primed by Mamma.

The night cashier had his little six-year-old niece over to breakfast with him. They had grapefruit, smothered steak, which he had to cut—for her; French fried potatoes, etc., and got so full they couldn't eat another bite. Chef Goggins did his best for them, and said he never saw a little girl eat more. Then they visited a store where he bought her a pair of new shoes. As they were coming out of the store she said, "Uncle, I want to whisper to you." He bent down and heard: "Mamma told me to get a haircut out of you if I could."—"Bix," in Lincoln Journal.

Arithmetical Complaints.

Two men were discussing the ups and downs of fortune in the Finance building recently. Said one: "My life can be likened to an arithmetic problem."

"How is that?"

"Well, when my father's estate was settled years ago there were seven of us. I suffered from long division."

"Yes?"

"And last week my fourth child was born. Now I'm suffering from multiplication."

Ravages of the Pine Beetle.

During the last ten years in southern Oregon and northern California, the western pine beetle is estimated to have killed over $3,600,000 worth of merchantable pine timber, or 50 times as much as has been killed by fire in the same time.

Many a busy man keeps his conscience in cold storage.

Indorse.

The children were required to use ten words in sentences as part of their home work in spelling. "Indorse" was one of the words. On one paper appeared the following sentence: "As the weather is stormy, we will have to stay indorse this winter."

Many a true word has been spoken regardless of grammar.

"Bill' Bryan is going to make it his business to fight the theory of evolution. He may prove that monkeys didn't make men of themselves, but he cannot prove that some don't make monkey's of themselves.—Springfield (Illinois) State Register.

A Positive Character

A country doctor, says the Argonaut, was driving along a mountain road when a man by the roadside hailed him.

"Say, doc, has that man up the creek got smallpox?" he asked.

"Well, I can't say just now," said the doctor; "I'm not sure."

"My mother-in-law says its smallpox."

"Really! Has your mother-in-law seen the case?"

"Naw."

"Well, has your mother-in-law ever seen a case of smallpox."

"Naw. But that don't make no difference to my mother-in-law!" Youths Companion.

Rev. J. L. Hedbloom, former pastor of the local Baptist church, has accepted a call to the Bethel Baptist church in Denver. Rev. Hedbloom has been preaching at Brighton for the last two years.—Brighton Bulletin.

Body of Emery B. Multer Brought Here For Burial

Last Friday Mrs. E. B. Multer arrived in Longmont with the body of her husband, Emery B. Multer.

Mr. Multer was born January 9, 1852, and died February 4, 1922, at Los Angeles, Calif.

The first Mrs. Multer passed away in 1887 and one son in 1920 and interment was made here. The present Mrs. Multer had the body moved from California and placed beside the first wife, Mrs. Multer going on to New York to make her home.

In the early eighties the late Mr. Multer purchased the farm two and one-half miles east, now owned by C. E. Pughe, from the late T. N. Boynton, father of C. W. Boynton, where he lived until the death of his first wife. He then sold the farm to Mr. Pughe and moved away.

HYGIENE

Miss Josephine Daly, Correspondent
Phone 320 J 5

Mr. and Mrs. Shears and Miss Josephine and Francis Cunningham of Mooreland, Oklahoma, are visiting at Mr. and Mrs. William Gammon's.

Mrs. Slaven of California is visiting her mother, Mrs. Brackett.

Mr. and Mrs. Pierce and family have moved to Littleton.

Mr. and Mrs. Scobee and daughter and Mr. and Mrs. Adams left Tuesday for Oregon.

The funeral of Mrs. Harry Smead was held at the church in Hygiene Tuesday.

The Ladies Aid will meet with Mrs. Mrs. McKnight next Thursday.

Miss Edith Moody returned home from Estes Park Tuesday.

Mr. and Mrs. Will Neighbors and children visited Mrs. Scott Depue Sunday.

Mrs. Lohr returned home from Colorado Springs Tuesday where she has been visiting her brother.

Mr. and Mrs. C. F. Daly returned home from Denver Wednesday, where they were visiting relatives and friends. Coming home they found the bridge out on the Lincoln Highway and went by Niwot, going through water over the running board but the Dodge carried them through.

The children's Day exercises, given at the church Sunday were enjoyed by all who were present.

Mr. and Mrs. Vohns and son visited relatives in Hygiene Tuesday.

Miss Geneva Loomiller went to Estes Park Wednesday to spend a few days.

Mrs. T. O. Rusho returned home from Indiana Thursday.

Mr. Pete Gralbian and Mr. Joe Sadar visited Denver Monday.

Mr. and Mrs. Will McKelvie and children are visiting friends and relatives in Hygiene.

We have been having so much rain that the ditches and creeks are very full.

Mr. and Mrs. Vern Campbell and children visited Mrs. Harry Campbell Sunday.

Mr. and Mrs. Scobee and Mr. and Mrs. Williams enjoyed a trip to the mountains Sunday.

ALLENSPARK

Mrs. Clay Vanatta, Correspondent

Mrs. Cora Bishop of Casper, Wyo., arrived in the park Thursday to spend the summer.

Miss Thelma Haworth of Boulder is spending several days with her friend Robert Will.

W. B. Jones has been quite poorly for several days and went to Longmont recently to consult a doctor.

Mr. and Mrs. Kent L. Sanborn and little daughters of Longmont returned to their home Saturday, after spending a week in the Spangler cottage at Ferncliff.

Mrs. E. L. Kiteley and sons of Longmont are at Copeland Lake to spend the summer.

Mrs. G. V. Smith and daughter, Margaret, of Tulsa, Oklahoma, are guests at Crystal Springs Hotel for the summer.

Clinton Foltz and a party of friends of Fort Morgan, Colo., are spending several days in Bishop Mize's cabin.

Mr. Roady and Wm. Morgan spent Monday in Denver. Mr. Roady's daughter, Mrs. Buell, and daughters, Virginia and Betty, of Nebraska returned home with them to spend the summer.

Mr. and Mrs. Phil Pennock spent from Sunday until Tuesday with the latter's parents, Mr. and Mrs. J. A. Miller.

Mrs. Chas. Wheeler and children, Vaughn, Helen and Scott, of Akron, Ohio, arrived Thursday evening to spend three months with her parents, Mr. and Mrs. Scott Vanatta, at Ferncliff.

Miss Golda Miller returned home Sunday after several weeks visit with her sister near Longmont.

Mrs. Durman and family and a lady friend from Illinois are here to spend the summer.

Mr. and Mrs. Burns Will were in Pueblo a couple of days last week to attend the funeral of their son-in-law's father, Mr. Darrow.

Miss Leona Long of Boulder arrived at the Will resort Saturday evening where she is employed for the summer.

Everyone enjoyed the dance Saturday night and another will be given this Saturday night.

Mr. and Mrs. N. E. Miller were Longmont visitors Thursday.

N. E. Miller, Scott Vanatta and William Morgan, each are driving Dodge cars now and Wolfe and Lorton and Chick Jensen have a new Ford.

Reports of about 25,000 farmers to the State Immigration department indicate that the acreage of corn grown in Colorado this year will be greater than the acreage of winter wheat, for the first time in about eight years. The acreage of corn this year will be the greatest ever grown in the state, while the area of winter wheat to be harvested will be below 1,000,000 acres for the first time since 1917.

First Prize Essay on "The Flag"

Won by Grace Brown of the Eighth Grade

The Daughters of the American Revolution offered two prizes to the students of the Junior High School, $10.00 for the best essay on the Flag and $5.00 for the second best.

The first prize was awarded to Grace Brown, daughter of Mr. and Mrs. Gerald P. Brown, and the second to Leona Walker of the Eeventh grade.

Those receiving honorable mention are Earl Chubb, James Montgomery, and Clark Gibson.

The judges were Mrs. John Lawson Mrs. Fred West and Mrs. Louise B. Clark.

Each week we will publish one of the essays as they are exceptionally good and are very interesting.

The first prize essay appears this week:

"Old Glory"

We cannot love our country with too deep a reverence; we cannot love her with an affection too pure. We should not only honor our flag but we should love it.

Even to other nations our flag is the symbol of hope and happiness. It is not like others that stand for tyranny and oppression.

It is the flag of the free. Oliver Wendell Holmes has called it "The Flower of Liberty."

Our flag stands for courage, chivalry, generosity, and honor. It is an emblem of freedom and equality.

Our country does not expect us to die for it but it does expect us to live for it.. The flag also stands for self-sacrifice and the good of the people.

The white means unity, the red bravery, and blue, justice.

Though our flag is stained with blood for a righteous cause, may it never in any case be stained with shame. An immortal honor hangs thick on every square inch of it.

If our flag could find expression it might say, "I was first made by Betsy Ross, who lived in Philadelphia in a house which is now 239 Arch street. I was made of a red petticoat, a blue army coat, and a white shirt. I am the oldest flag in existence and I have never been conquered. My birthday is June 14, and people now celebrate that day as 'Flag Day.'

"I am sometimes called 'Old Glory' because I am twenty-three years older than the present flag of Great British, seventeen years older than the French tri-color, nearly one hundred years older than the present flag of Germany, and eight years older than the flag of Spain.

"When we were permanently broken away from our mother country, Congress appointed a committee to make a flag. This committee resolved that I should have thirteen stripes, alternating red and white, and that there be thirteen white stars in a blue field representing a new constellation. At first they added a stripe for every new state but the states came into the union so fast that they decided not to do this but to add a new star for every state."

The whole inspiration of our life as a nation flows out from the waving of this banner.

There are many flags in many lands
There are flags of every hue,
But there is no flag however grand
Like our red, white and blue.

Reception for Rev. and Mrs. Ellyson Tuesday Evening a Delightful Affair

A most delightful reception was given to Rev. and Mrs. George Ellyson at the Baptist church Tuesday evening. About two hundred members of the congregation gathered to welcome the new minister and his charming wife.

W. A. Fisher gave a short history of the Church and extended to Rev. and Mrs. Ellyson a cordial welcome. Members of the Longmont Ministerial Association and their wives were seated on the platform and Rev. Warnick, as President, welcomed the new minister and family into the community. A very pleasing program was given. Mr. W. Williams rendered a Baritone solo, which was followed by a duet sung by the Misses Leola Williams and Pearl Fisher; A whistling solo by Miss Lillian Thomas; A reading by Mrs. Kemp; Yodling songs by Harry Burns; and a violin solo by Miss Peak.

At the conclusion of the program twenty girls dressed in white tossed a shower of flowers at the feet of Rev. and Mrs. Ellyson, the former making a very happy response.

Refreshments were served by the Woman's Missionary Society.

In winter Europe suffers starvation and cold, and in summer it thinks of war. Something ought to be done about it.—Chicago News.

Mrs. W. F. Heagney and little Billy, returned home Monday afternoon from their visit in Longmont, Colorado, much to the delight of Daddy Bill.—Lovell, (Wyo.) Chronicle.

David Dobbins Improves Store Front

Last week we made mention of the change and improvements being made at the store of the A and B Shoe Co., and did not give David Dobbins, owner of the building, the credit for making the change.

The larger display windows and added shelf room will be a great advantage to the Shoe Co., but the work is being done by Mr. Dobbins.

Some Editors Were Disappointed

A lot of editors of Northern Colorado were sadly grieved last Saturday morning when they realized that it had rained all night and still the wet came down. They had been invited to become the guests of the Estes Park Commercial Association, which included a golf game, fish fry, and other good things. Of course these editors are always hungry and it was expected that a trial would be had as to which of said editors could eat the most trout.

As the editor of this paper and his assistant, including the wife, expected to be present and watch the others eat, we are among the disappointed class. But Editor A. B. Harrie, of the Estes Park Trail, who has done much to engineer this matter, assures us that it is only postponed. They are going to give the editors another chance.

They that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety. Benjamin Franklin.

Co. I. Boys Leave for Golden

The boys of Co. I, with C. A. Flanders, Captain, left Sunday, June 10th, for Golden, Colo., to participate in the Rifle Range. They will be gone two weeks and will receive military instruction, enter the drilling contests and army maneuvers. Base ball games will be played to determine the championship and at the close, a track and field meet will be held.

The two weeks will be an enjoyable and profitable vacation for all of the boys.

I. F. Daniel Furnished Horses for Government

I. F. Daniel, who has fine saddle horses, has rented fifteen of them to the government and accompanied by his son, Charles, took them to Golden last Friday to be used at the Rifle Range encampment. Co. I of Longmont are there with other companies of the state.

Lightning Acts Funny Again

During one of the electric storms last week a bolt of lightning struck a corner of the barn on Will Dickens place. Part of it was grounded but part followed the electric light wires to the house, struck the switch on the wall of the living room, tearing it from the wall and throwing it at Melita Dickens who was sitting in the room. The little girl was more frightened than hurt. Very little harm was done to the house and wires. A few shingles were torn off the barn.

APPENDIX B – LONGMONT SUSTAINABILITY EVALUATION SYSTEM

LONGMONT SUSTAINABILITY EVALUATION SYSTEM - MODULE 1

Best Practices *Organizational*	This category includes topics related to how the project meets larger organizational objectives.	**Alignment**	Does the project have any relationship to other City plans or policies and if so, is it aligned with the goals or directives in those plans and policies? Alignment helps insure that the project meets broader community goals.	The project was identified in the ITWSMP; budgeted in the water rate and fee study; and included in the 5-year CIP. (Section 1.0)
		Integration	Does the project include opportunities for combining or coordinating it with other plans or projects? Sharing resources encourages efficiency and can reduce costs.	There is potential for park improvements on the north side of the property depending on the site grading (section 3.1).
		Partnerships	Are any internal or external partnerships identified that would benefit this project? Partnerships can provide better access to, and utilization of, resources, increase project efficiency, and foster relationships for present and future support.	
		Stakeholder engagement	Does the project include any methods or techniques for considering viewpoints and feedback from affected parties? Informing and including stakeholders increases the chances for project acceptance and success.	Later during the bond election, final design and construction phases (Section 2.0).

Best Practices *Assets and Infrastructure*	This category includes topics related to the features of a project that verify performance, improve long-term reliability, reduce maintenance and repair efforts and increase resiliency.	**Adaptation/Adaptability**	Does the project incorporate features that can adapt to, or be readily modified to adapt to different operating or environmental conditions? The ability to adapt to future or changing conditions can extend project life and reduce risk of failure.	Pumps and control valves are included in the design increase the ability to delivery to all pressure zones (Section 3.5).
		Commissioning	Is initial performance verification needed for the project and if so, are applicable methods and required performance parameters identified? Verifying performance protects the integrity of the project's intent and purpose.	Inspection and startup testing will be completed during construction phase (Section 3.1).
		Ongoing monitoring & evaluation	Are there provisions for ongoing monitoring and evaluation of the project's performance, including identification of applicable performance parameters, monitoring frequencies, etc.? Continued monitoring helps ensure that the project functions as intended throughout its useful life.	SCADA will be installed to monitor and control the equipment; and monitoring water quality (section 3.1).
		Long-term maintenance and repair	Have long-term maintenance and repair efforts and costs been adequately considered and quantified for the life of the project? Long-term maintenance needs must be identified in as much detail as possible early in the alternative evaluation process to insure that future O&M needs are thoroughly considered in life cycle project costs.	The tank type selection and design considers maintenance and repair costs (Section 4.3.4).
		Reliability	Does the project include features that reduce the potential of failure, increase durability or otherwise improve its overall reliability or the reliability of associated	Same comment as Adaptation / Adaptability (Section 3.5).

			assets and/or infrastructure? Maximizing reliability of a project involves identifying potential failure points and minimizing the resultant risks, which also reduces the financial risk of unplanned maintenance and repair.	
		Resilience	Does the project, by itself or in conjunction with other projects, improve the City's capacity to recover after unplanned failures of critical infrastructure? Features that increase resiliency reduce the consequences associated with reduction or loss of essential resources.	Same comment as Adaptation / Adaptability (section 3.5).

Best Practices *Financial*	This category includes topics related to financing, budgeting and cost recovery.	**Debt ratios**	Is the total debt/total asset ratio of the funding source for this project still within an acceptable range based on City/Department guidelines after the cost of this project is added? Keeping the ratio reasonable meets legal debt requirements and promotes greater financial stability.	
		Funding of capital costs	Have all options for funding capital costs of the project been identified and evaluated in order to determine which option is the most financially sustainable?	
		Operations & Maintenance (O&M) cost recovery	Has long-term financing been identified to fund life cycle operational and maintenance costs? Making sure these costs are properly considered supports sustainable asset management.	Financing is not including in the conceptual design; however, a new tank and vaults will reduce O&M costs (Section 2.0).
		Rate impacts	Will the project result in rate changes that affect users' ability to pay? Ensuring that future rates do not create undue financial burdens, especially for the lowest income users, demonstrates responsible planning and improves customer confidence.	
		Resilience	Will the project, by itself or in conjunction with other projects, improve the City's capacity to sustain financial health during periods of unplanned economic adversity (i.e. business failures, tax revenue decreases, etc.)? Financial resilience reduces the need to increase taxes or fees to deal with negative economic impacts.	

Buildings and Infrastructure	This category encompasses topics that are related to growth, development or urbanization.	**Accessibility**	Does the project improve or enhance the accessibility of urban features such as transportation corridors/hubs/links, retail and commercial business areas, work places, open space and greenways, etc.? Easier accessibility to urban amenities for all users improves quality of life.	
		Ambient light and noise	Does the project address minimizing and managing light and glare, light trespass, and ambient noise levels? Mitigating the effects of these helps protect public health and the environment.	
		Cultural and historic preservation	Does the project involve identifying, preserving and/or rehabilitating historic or cultural resources? These resources help retain a unique community identity.	
		Development footprint	Is the project's footprint on its site, both during and after construction, minimized to the extent possible? Reducing the project footprint uses land more efficiently and can minimize environmental impacts.	Two tank diameters were evaluated for impacts on earthwork and water system performance (Section 3.1).
		Floodplain protection	Is the project located out of the floodplain or include features that preclude any damage or resultant flood damage? Limiting development or the consequences of development in floodplains reduces the costs of responding to and managing floods and supports community resilience.	
		Heat island effect	Does the project include features that will mitigate localized temperature rises? Options such as light colored pavement or roofs concrete pavement or green roofs helps reduce temperatures.	

		Housing options	Does the project involve housing or affect availability of housing? A mix of housing types supports residents of different income levels and varied life stages.	
		Indoor air quality	Are appropriate ventilation and treatment mechanisms and air quality monitoring tools included in the project to ensure a healthy indoor environment? Maintaining good indoor air quality protects people from exposure to harmful substances during and after construction.	
		Infill or redevelopment	Does the project involve redeveloping underutilized land or developing pockets of undeveloped land encircled by existing development? Infill and redevelopment promote efficient use of existing resources and promote diverse development.	
		Low impact development (LID)	Does the project include LID infrastructure such as bio-retention, grassed swales, ponds, permeable pavement, etc.? LID features increase infiltration, reduce runoff and erosion, and preserve the balance between managed and natural lands.	There is potential for LID improvements on the north side of the property depending on the site grading (Section 3.1).
		Public spaces	Is facilitating community access to public spaces incorporated into the project? Access to public spaces promotes a stronger sense of community, fosters community engagement, and supports stewardship of the environment.	There is potential for park improvements on the north side of the property depending on the site grading (Section 3.1).
		Scale and massing	Does the project include an analysis of scale and massing (such as height, setbacks, and form) to help identify potential impacts such as solar access, shadows, runoff, snow storage, blockage of views, and visual/aesthetic consistency? Accounting	The new tank height is similar to the existing roof height. The new tank is set back further from the street and roughly 5 times further

			for scale and massing can improve public perception and acceptance of the project and reduce operating costs for street maintenance, snow removal, etc..	from the residences north of the site (Section 3.1).
		Site compatibility	Does the project include consideration of how the physical features of the site (drainage, soil types, groundwater, proximity to natural resources, vegetation) are compatible with the project? Insuring that a project is suitable for a site can reduce capital and life-cycle costs and environmental impacts.	Soil assessment has been completed for the project to evaluate appropriate foundation support (Section 3.3).
		Vegetation	Does the project involve preservation of existing vegetation and soils, or planting species that are native or suited to local conditions and the intended use of the project site? Using appropriate vegetation supports ecological balance and can reduce maintenance costs.	Roughly three quarters of the existing trees can be preserved while accommodating pipe installations and re-grading. Removed trees can be replaced in the reclaimed area on the north side of the site (Section 3.1).
		Spatial awareness and navigation	Does the project include signs, distinctive features or other physical attributes that allow visitors and community members to orient themselves within a facility or area? Facilitating awareness of location and orientation in the community helps people navigate streets, transportation options and City facilities more efficiently.	

Energy	This category includes topics related to energy sources and energy use.	**Alternative fuels**	Does the project consider the use of alternative fuels (low-sulfur, natural gas, bio-fuels) in machinery and vehicles? Alternative fuels can help improve air quality and reduce greenhouse gas emissions.	
		Energy efficiency	Does the project include features that provide for efficient use of energy over the life of the project (e.g. high efficiency motors, power management, low wattage lighting, etc.)? Energy efficient equipment can decrease costs and reduce greenhouse gas emissions and other pollutants.	
		Renewable energy	Will the project produce or use renewable energy? Renewables and energy harvesting can reduce the economic and environmental costs of project operations and extend the life of existing utility infrastructure (power plants, distribution systems, etc.)	
		Embodied energy	Does the project include a consideration of the cost of the embodied energy associated with manufacturing or transporting materials and equipment? Materials and equipment that use less energy to produce or transport conserve resources and reduce pollution.	

Transportation	This category includes topics related to transportation options.	**Bicyclists and pedestrians**	Does the project address needs of bicyclists and pedestrians? Protecting and facilitating pedestrians and bicycles encourages multiple modes of travel, which helps reduce vehicle emissions and congestion.	The increased setback from the street should improve safety (Section 3.1).
		Freight delivery systems	Does the project impact the volume and/or routes of freight traffic, including trains, trucks, and airplanes? Optimizing the concentration and routing of freight travel mitigates noise, traffic, air pollution, and other byproducts of freight carriers.	.
		Level of service	Does the project affect the traffic amounts in existing and/or proposed transportation corridors? Reducing volume-to-capacity ratios for key intersections and roadways can mitigate traffic congestion and its negative impacts.	There will be heavy truck traffic during construction – on the order of 3000 trips (Section 3.1).
		Parking	Does the project address types/availability of parking (locations, amounts, free vs paid, etc.) and parking alternatives (walking, public transport, etc.)? Parking design influences transportation choices as well as the experience of citizens, businesses, employees. and visitors	
		Transit	Does the project improve affordability, accessibility, comfort, timeliness, locations, and safety of various transit services?	
		Vehicle miles traveled (VMT)	Does the project have aspects that manage total VMT? Optimizing and reducing VMT reduces greenhouse gas emissions, air pollution, and congestion.	

Community and Individual Well-being	This category includes topics that contribute to the identity of the community and the health, safety, and wellness of its residents.	**Arts and culture**	Are arts and cultural resources an integral part of the project or incorporated into the project design? Cultural and artistic aspects of a project enhance the community's image and identity.	
		Crime and law enforcement	Are there aspects of the project that may affect crime, such as lighting, visibility, underpasses, etc.? Collaboration with community law enforcement and the public during project design can reduce the risk of criminal activity.	
		Diversity and rights	Does the project support the City's goals of respecting and upholding civil and human rights? Including community values in planning, design and implementation of a project ensures that the project meets the needs of the entire community.	
		Education	Does the project provide opportunities to educate the community about the project and its purpose? Integrating educational features into a project can increase community support and engagement.	
		Environmental justice	Are there aspects of the project that eliminate or reduce pollution and neighborhood impacts for all ethnic and economic groups? Environmental equity helps protect disadvantaged populations from health and safety hazards.	
		Food and nutrition	Does the project address physical and economic access to nutrition education and fresh, nutritious food for all residents? Increasing access to these resources supports local food security and community health.	

		Hazard mitigation	Have potential human-created and natural hazards been identified, and features or systems to minimize or mitigate those hazards been incorporated into the design? Preparing for these types of hazards addresses health and economic concerns.	Placement of fencing may minimize safety concerns (Section 3.1).
		Health and human services	Does the project pertain to access and availability of healthcare for residents? Local, accessible healthcare facilities and related resources encourage a healthy and productive community.	
		Safety Features	Does the project address safety of the public and public employees? Project designs that prevent or minimize the risk of potential dangers reduce injuries to people and property.	A new tank design will improve public employee safety and water quality in the water distribution system (Section 2.0).
		Sense of community	Does the project build-upon and cultivate the local community and its culture? Providing venues and opportunities for community events and the sharing of information with the community promotes community identity and increases connections between citizens.	

Economic Vitality	This category covers topics related to sustaining existing businesses, attracting new businesses to diversify the local economy and supporting jobs and housing for a local workforce.	**Business development**	Does the project support existing business and/or attract new or more diverse businesses? Supporting a healthy business climate fosters economic prosperity and stability.	Construction projects support local businesses during construction (Section 3.1).
		Affordable Housing	Does the project increase or encourage more affordable housing? Maintaining a varied, affordable supply of housing options improves community diversity and moderates increases in housing costs.	
		Jobs	Does the project add to or diversify employment opportunities? Expanding opportunities for jobs that take advantage of local skills and capabilities and promote stable, higher wage jobs supports upward mobility and higher standards of living.	
		Local commodities and services	Does the project provide opportunities for using local commodities and services? Investing in local goods and services supports the local economy and community self-reliance.	
		Resilience	Will the project, by itself or in conjunction with other projects, improve the City's capacity to recover after unplanned economic losses? Increasing resilience reduces consequences associated with losing jobs, industries or commodities during times of economic difficulty.	

Materials and Waste	This category covers topics related to waste management, reuse, and materials sourcing.	**Deconstruction/Reuse**	Does the project have opportunities for deconstruction and reuse of materials and equipment? Reusing materials maximizes economic efficiency and minimizes adverse effects on the environment.	Demolition of the existing reservoirs will include a significant quantity of reinforced concrete (Section 3.4).
		Materials sourcing	Are materials with low VOCs, containing high recycled content, or third-party certified renewable being utilized in the project? These types of materials support producers, suppliers and manufacturers of sustainable products.	The selection of a tank type will evaluate tank types that require fewer VOC-containing coatings (Section 4.2.3).
		Waste	Does the project include minimizing the production or use of waste materials throughout the project's lifetime? This minimizes the volume of material sent to landfills and reduces both environmental impacts and disposal costs.	The selection of a tank type considers types with less maintenance which will minimize waste (Sections 4.2.3 and 4.3.4).

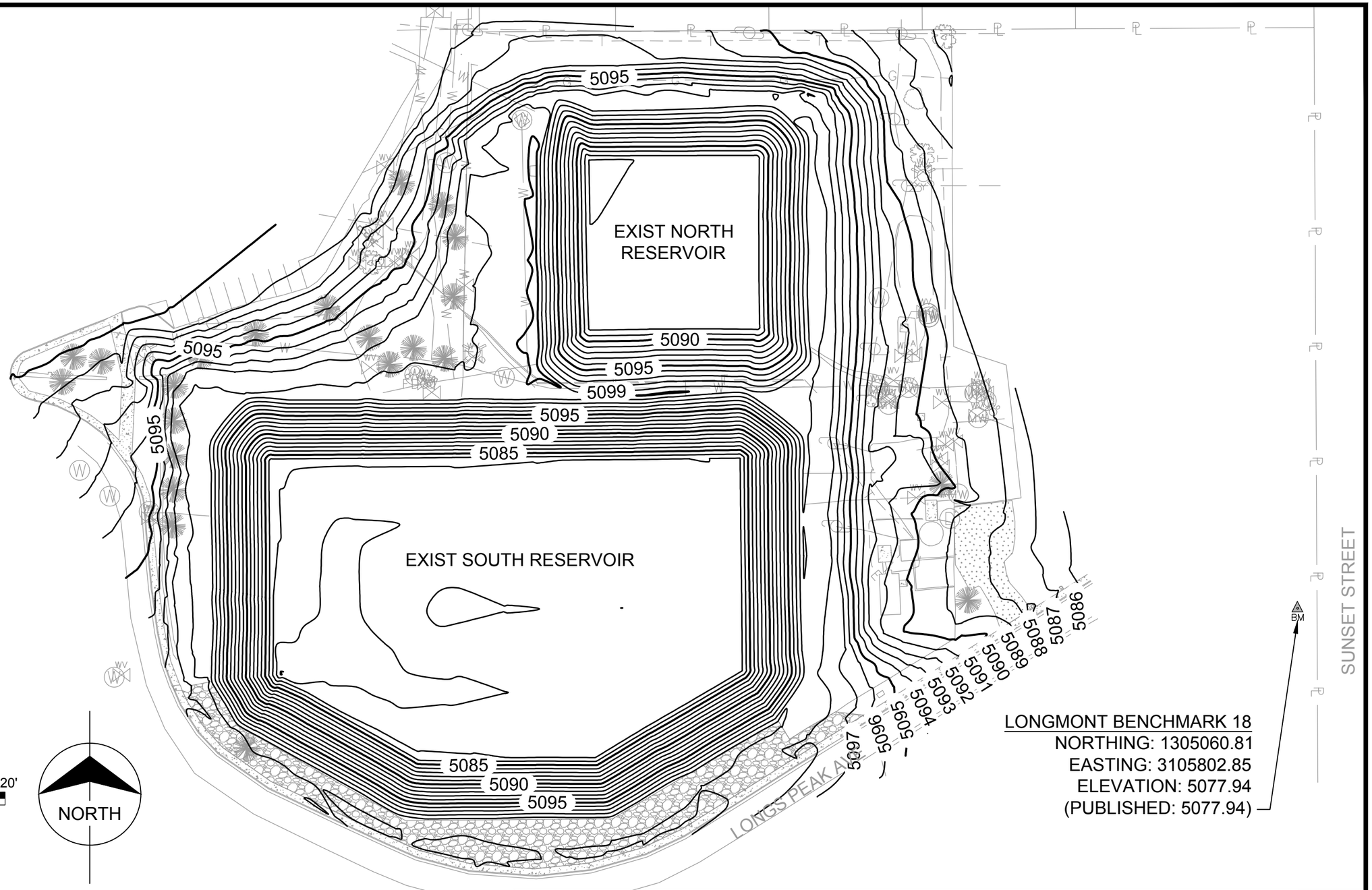
Natural Environment	The category covers topics related to land management, ecosystems and habitats, air quality, and other natural resources.	**Agricultural lands**	Does the project protect and maintain farms, ranches, and other working lands? Agriculture supports the local economy, local food supplies and self-sufficiency.	
		Air quality	Does the project ensure that air quality remains high during both ambient and transient conditions? Good air quality reduces both human and environmental health problems associated with air pollution.	
		Aquatic habitat	Does the project protect and restore the biological characteristics, quality, and hydrological integrity of surface water and groundwater? Aquatic habitat management and protection of water quality helps maintain ecosystem functionality.	
		Climate adaptation	Does the project anticipate and implement measures to address climate-related risks (droughts, floods, etc.)? Preparing for climate adaptation improves community resiliency.	
		Ecological connectivity	Does the project prevent the fragmentation of open spaces and other habitat areas and retain ecological buffer zones? Ecological connectivity helps preserve and protect native ecosystems.	
		Natural floodplains	Does the project limit development in floodplains and maintain natural floodplain systems and riparian areas? Allowing or encouraging natural floodplains to the extent possible helps mitigate the effects of flooding on the community, reduces the costs of hard infrastructure and protects the integrity of riparian ecosystems.	

		Greenhouse gas emissions (GHG)	Does the project result in a reduction in greenhouse gas emissions? Short and long-term reductions in greenhouse gases help reduce the anthropogenic climate change.	
		Tree canopy	Does the project protect, maintain, and/or enhance tree canopy area? The tree canopy provides wildlife habitat, reduces energy use through shading and helps prevent erosion caused by stormwater runoff.	Roughly three quarters of the existing trees can be preserved while accommodating pipe installations and re-grading. Removed trees can be replaced in the reclaimed area on the north side of the site (Section 3.1).
		Wildlife and habitat	Does the project preserve or restore non-aquatic wildlife species and habitat? Wildlife and habitat preservation promotes biodiversity and helps maintain a balance between nature and development.	

Water Resources	This category covers topics related to protection of potable water sources and sustainable water supplies.	**Irrigation Efficiency**	Does the project use low-water/xeric landscaping and high efficiency irrigation where possible? An effort to implement irrigation efficiency and native vegetation preserves water resources for other uses.	
		Water Conservation	Does the project use the least amount of water possible and/or reduce future water use? Insuring that a project uses water appropriately and efficiently and includes features that promote ongoing water conservation helps maintain an adequate water supply for the future.	
		Water source protection	Does the project protect raw water sources from pollutants that might be a result of wildfires, runoff and erosion, land use, human activities, etc.? Protecting the watershed ensures that potable water supplies are reliable and safe.	
		Water management	Does the project include mechanisms to adjust sources, delivery and use of water in response to changing conditions (e.g., precipitation, temperature) and forecasts (e.g., snowpack levels, reservoir storage)? Good water management techniques, including efficient delivery methods and appropriate end uses, conserve resources and help insure a sustainable water supply.	

Water Quality	This category covers topics related to water pollution.	**Watershed health**	Does the project result in an improvement in the chemical or biological quality of water in the watershed, including improvements to aquatic habitat and aquatic life? Projects that include pollution prevention or treatment protect the ecological integrity of the watershed.	
		Pollution control	Does the project minimize the use, production or discharge of chemicals (pesticides, fertilizers) organic matter, sediment/suspended solids and other pollutants? Managing or eliminating contaminants maintains the health of soils, groundwater and surface water, which protects beneficial uses and the environment.	
		Stormwater management	Does the project include features that control stormwater runoff to reduces flows and encourage infiltration? Stormwater management reduces pollutants and helps protect surface water quality and conditions for aquatic life.	

APPENDIX C – SITE PLANS



LONGMONT BENCHMARK 18
NORTHING: 1305060.81
EASTING: 3105802.85
ELEVATION: 5077.94
(PUBLISHED: 5077.94)

SURVEY CONTROL NOTES:

1. DATUM INFORMATION:

   COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM 1983 (NAD83).

BURNS McDONNELL

date: NOVEMBER 2016

designed: J. SCHAEFER

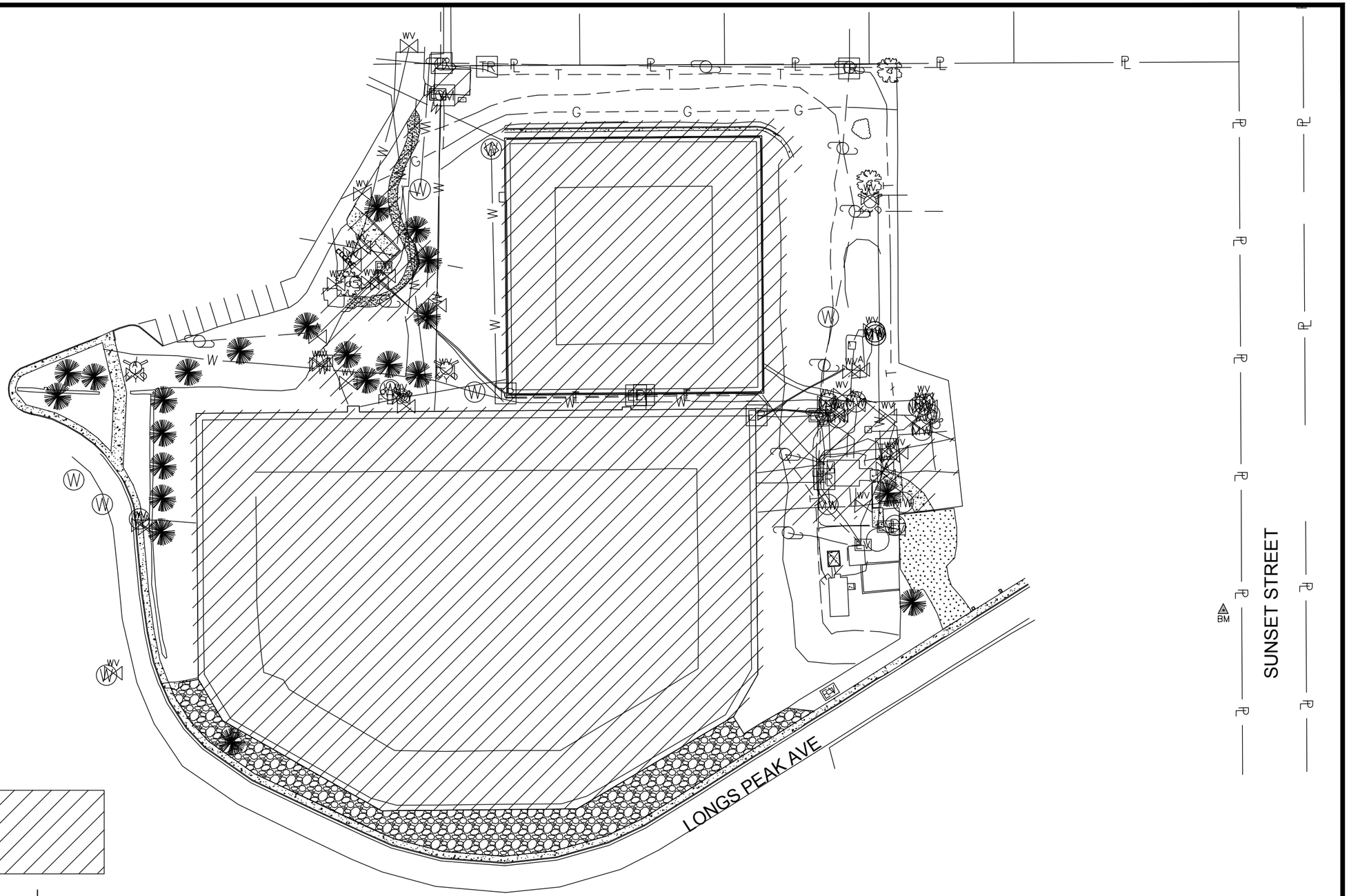
CITY OF LONGMONT COLORADO

project:

PRICE PARK TANK EVALUATION

drawing:

EXISTING SITE PLAN
C101



LEGEND:

TO BE DEMOLISHED

0 65' 130'

SCALE IN FEET

NORTH

BURNS McDONNELL

date: NOVEMBER 2016

designed: J. SCHAEFER

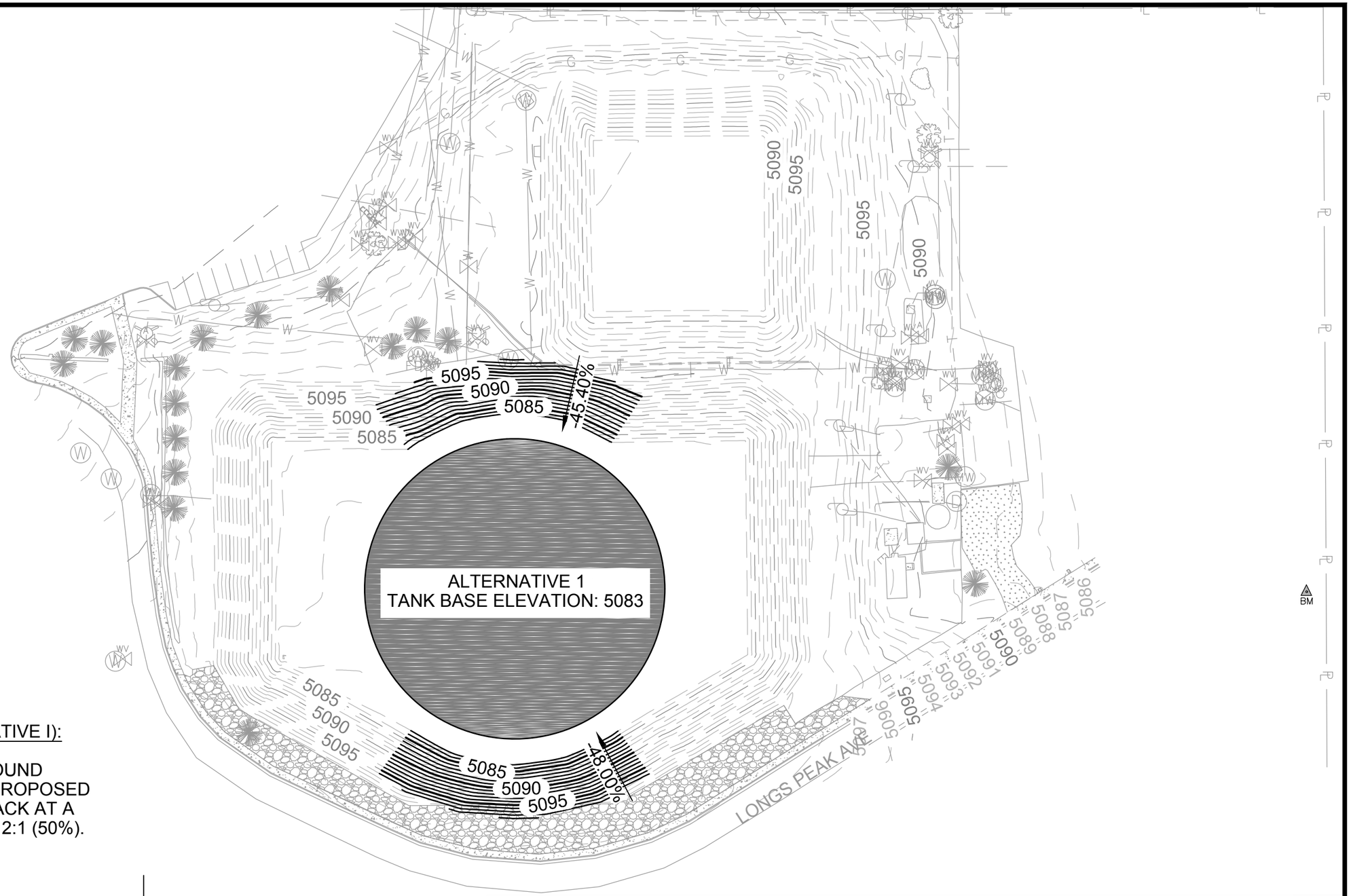
CITY OF LONGMONT COLORADO

project:

PRICE PARK TANK EVALUATION

drawing:

DEMOLITION PLAN
C102



EXCAVATION NOTES (ALTERNATIVE I):

1. ALL EXISTING SLOPED GROUND SURFACES WITHIN 15' OF PROPOSED TANK SHALL BE SLOPED BACK AT A GRADE NO STEEPER THAN 2:1 (50%).

0 60' 120'
SCALE IN FEET

NORTH

BURNS McDONNELL

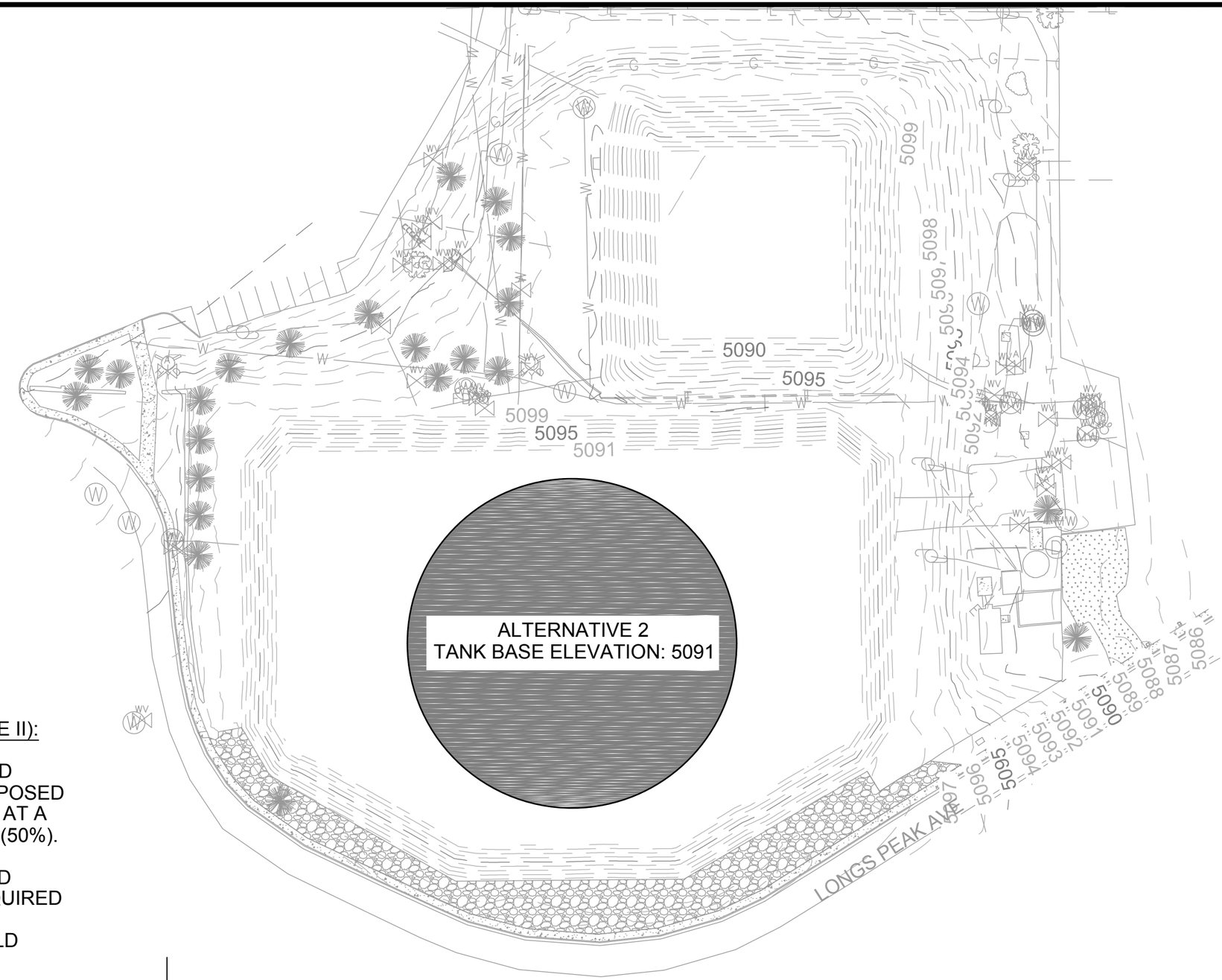
date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:
PRICE PARK TANK EVALUATION

drawing:
EXCAVATION PLAN I
C103



EXCAVATION NOTES (ALTERNATIVE II):

1. ALL EXISTING SLOPED GROUND SURFACES WITHIN 15' OF PROPOSED TANK SHALL BE SLOPED BACK AT A GRADE NO STEEPER THAN 2:1 (50%).

2. SLOPING OF EXISTING GROUND DOES NOT APPEAR TO BE REQUIRED FOR DESIGN ALTERNATIVE II, HOWEVER, THIS SHALL BE FIELD VERIFIED BY CONTRACTOR.

0 60' 120'
SCALE IN FEET

NORTH

BURNS McDONNELL

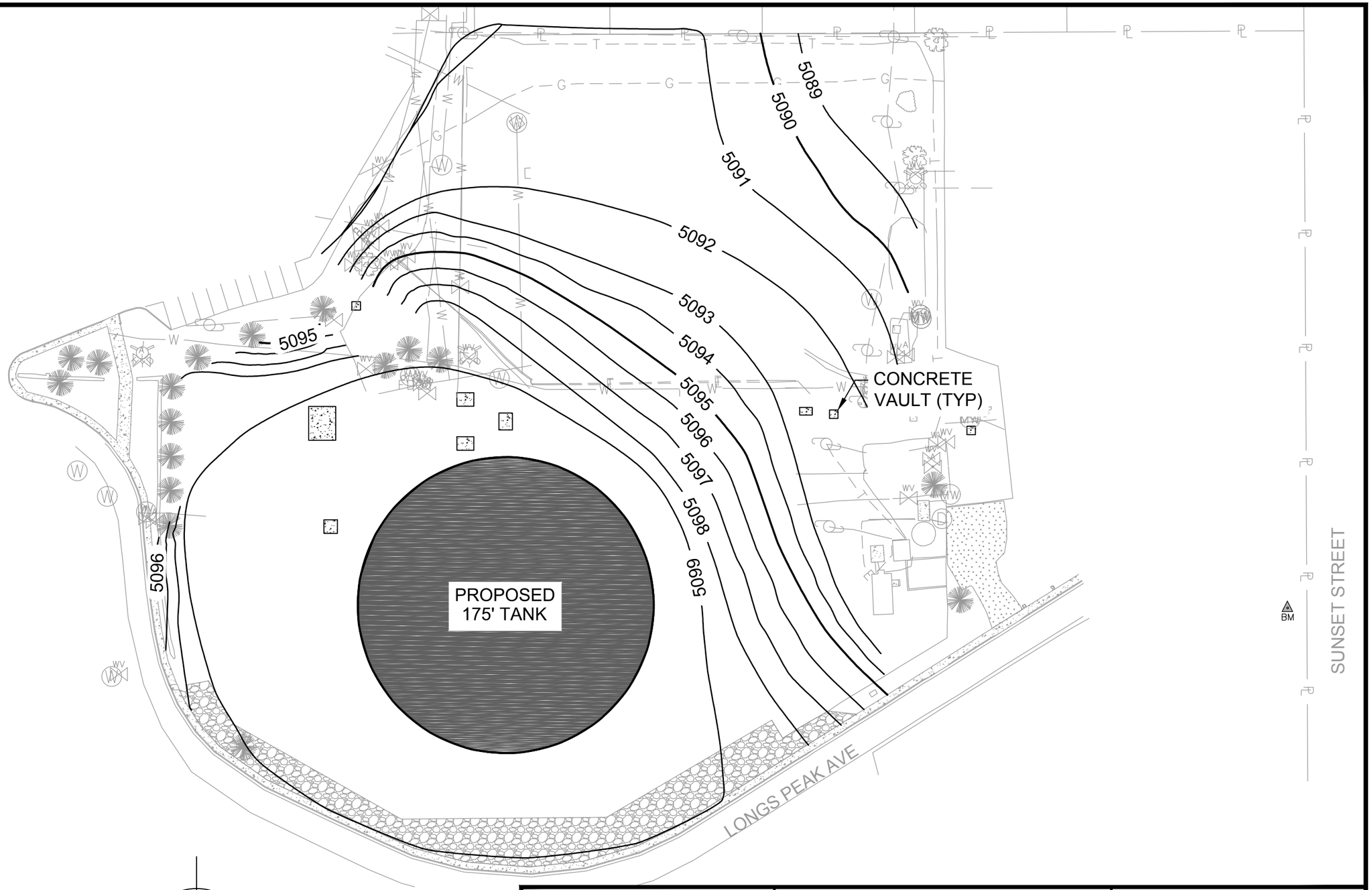
date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:
PRICE PARK TANK EVALUATION

drawing:
EXCAVATION PLAN II
C104



0 60' 120'

SCALE IN FEET

NORTH

BURNS McDONNELL

date: NOVEMBER 2016

designed: J. SCHAEFER

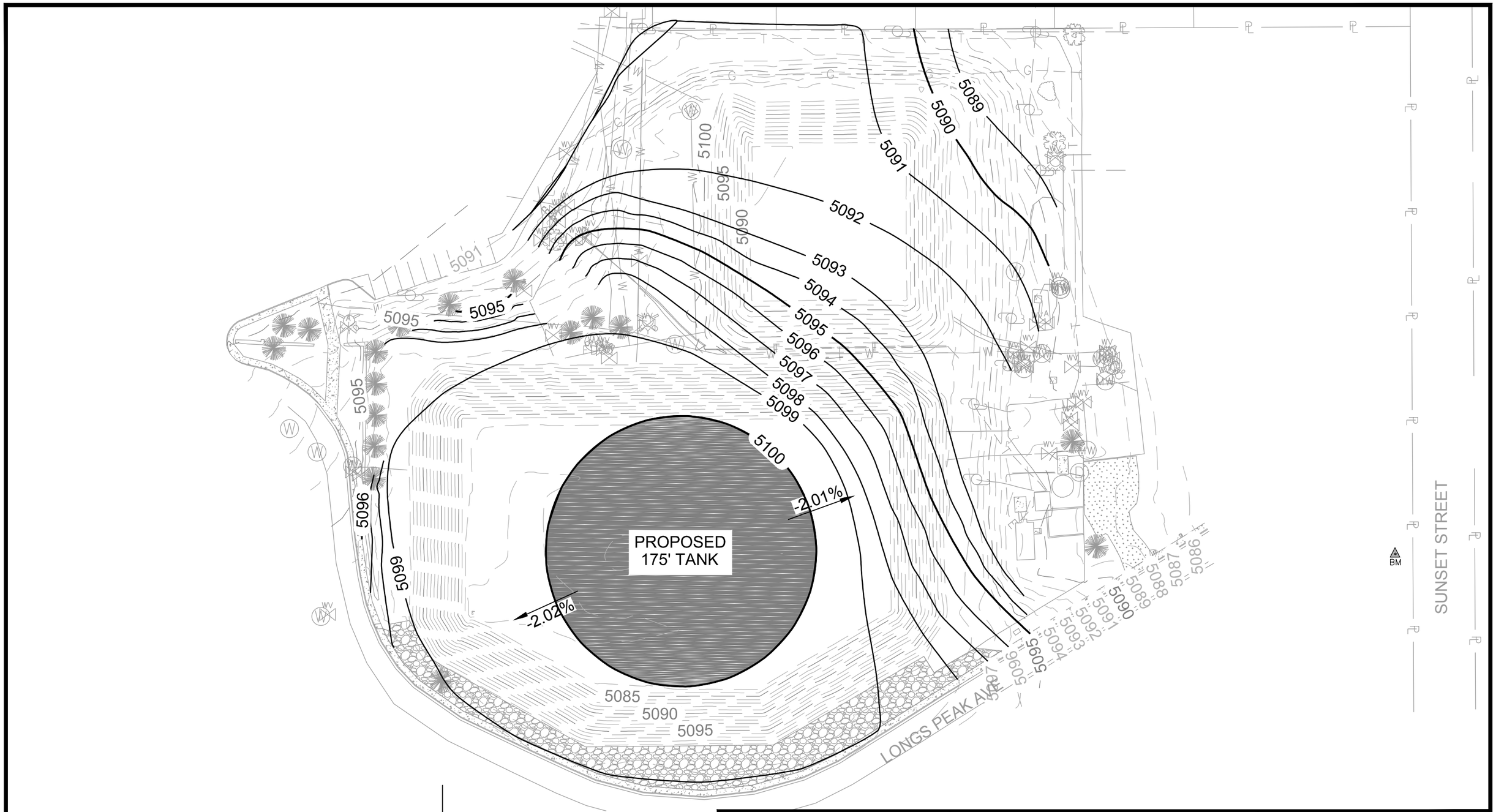
CITY OF LONGMONT COLORADO

project:

PRICE PARK TANK EVALUATION

drawing:

SITE PLAN
C105



0 60' 120
SCALE IN FEET

NORTH

BURNS McDONNELL

date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:

PRICE PARK TANK EVALUATION

drawing:

GRADING PLAN
C106

EROSION CONTROL NOTES:

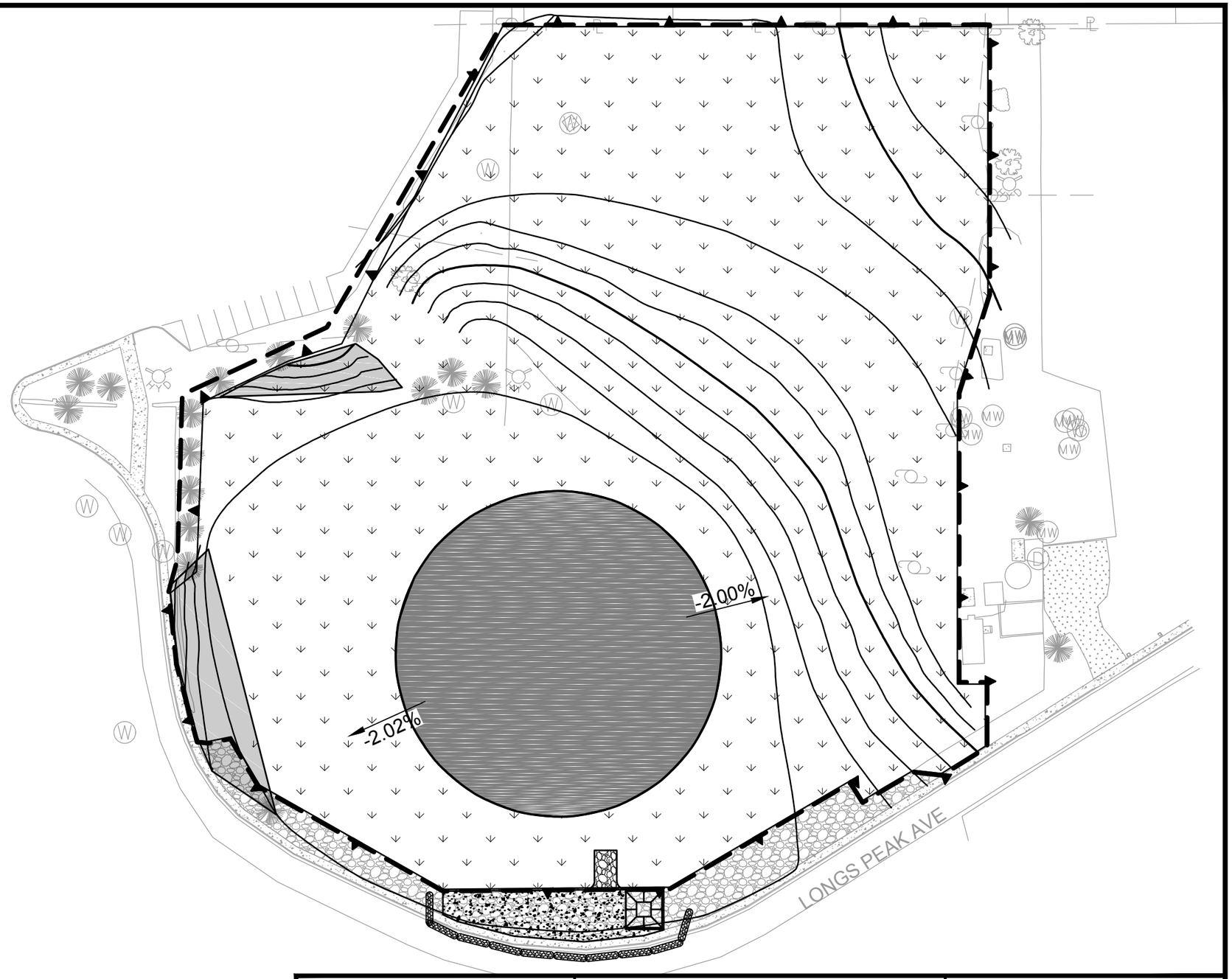
1. AREAS ADJACENT TO TEMPORARY STAGING AREA, INCLUDING EXISTING STORMWATER INLET DRAINS AND AREAS INTENDED TO ALLOW SHEET FLOW RUNOFF ONTO ADJACENT PROPERTY SHALL BE PROTECTED USING SEDIMENT CONTROL LOGS, ROCK SOCKS, OR OTHER SEDIMENT CONTROL MEASURES.

LEGEND:

- VEHICLE TRACKING CONTROL
- CONCRETE WASHOUT AREA
- STABILIZED STAGING AREA
- EROSION CONTROL BLANKET
- SILT FENCE
- ROCK SOCK
- LIMITS OF CONSTRUCTION
- SEEDING

0 60' 120'
SCALE IN FEET

NORTH



BURNS McDONNELL

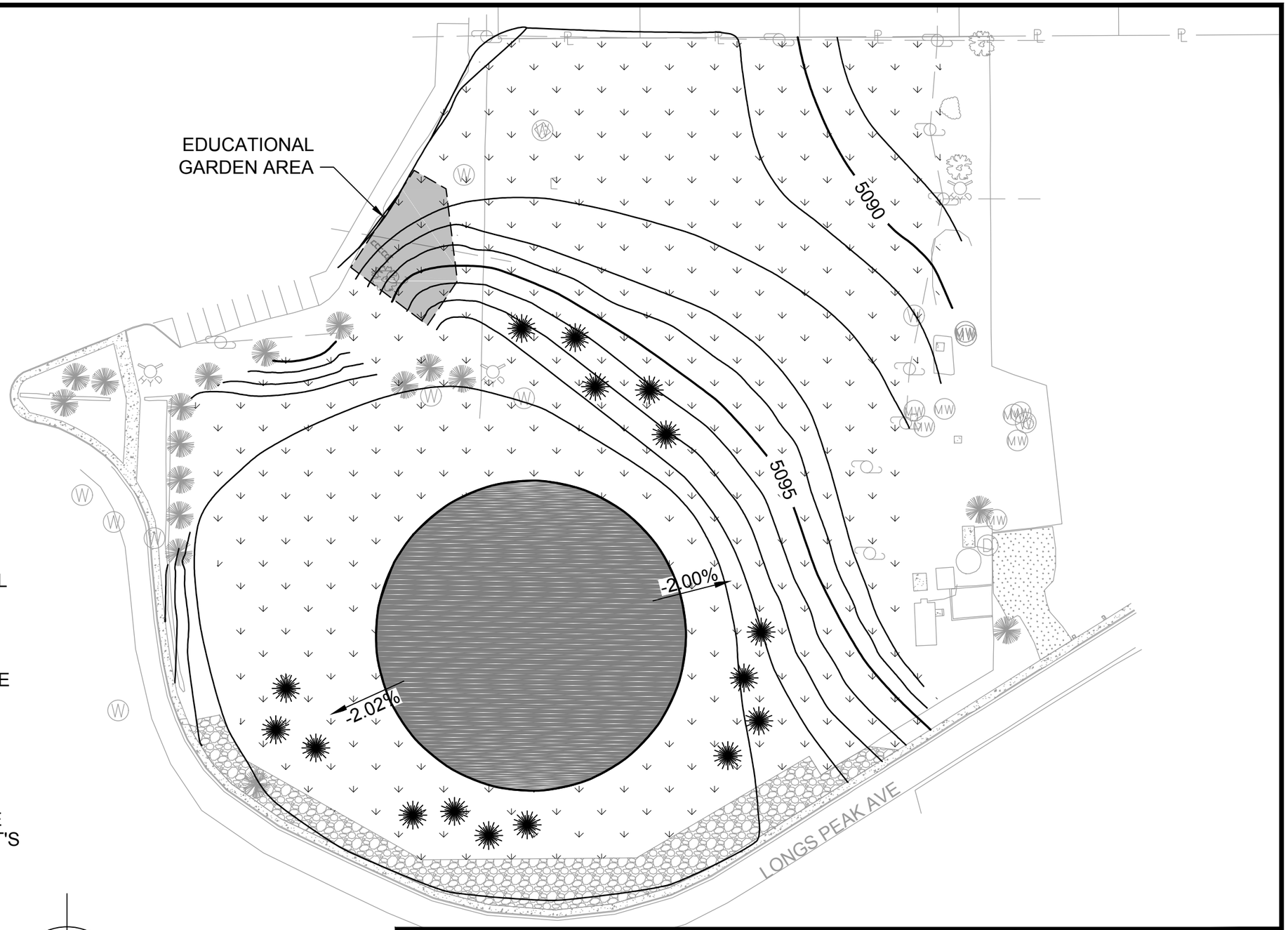
date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:
PRICE PARK TANK EVALUATION

drawing:
EROSION CONTROL PLAN
C107



LANDSCAPING NOTES:

1. ALL DISTURBED AREAS NOT RECEIVING HARD SURFACING SHALL BE SEEDED WITH NATIVE GRASS SPECIES.

2. BRISTLECONE PINE, OR OTHER OWNER APPROVED TREES SHALL BE PLANTED AS INDICATED.

3. MINIMUM TREE SIZE:

   3.1. 8 FT. TALL AND 2 IN. CALIPER

4. EDUCATIONAL GARDEN AREA TO BE INSTALLED PER CITY OF LONGMONT'S SPECIFICATION.

0 60' 120'
SCALE IN FEET

NORTH

BURNS McDONNELL

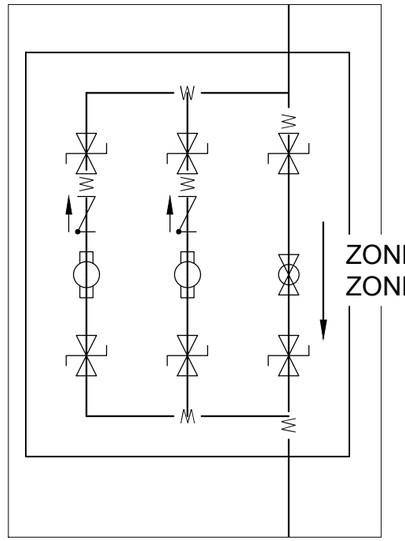
date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:
PRICE PARK TANK EVALUATION

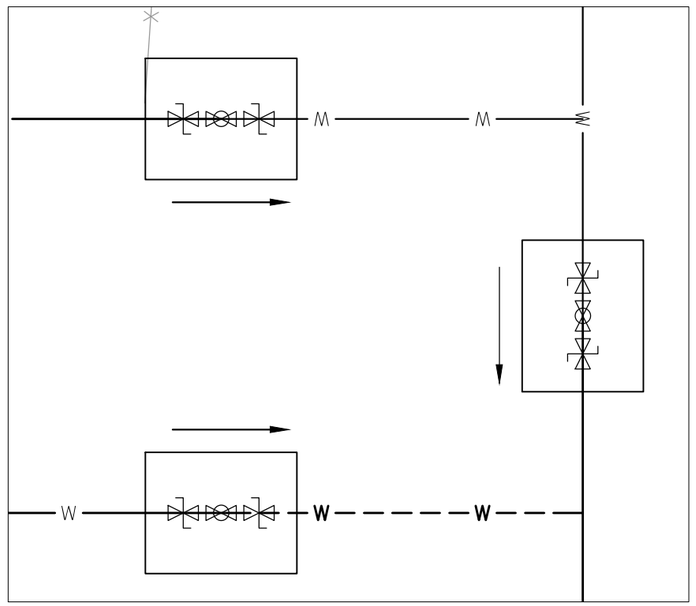
drawing:
LANDSCAPING PLAN
C108



PUMP STATION — 1 / D101

0 7.5' 10'

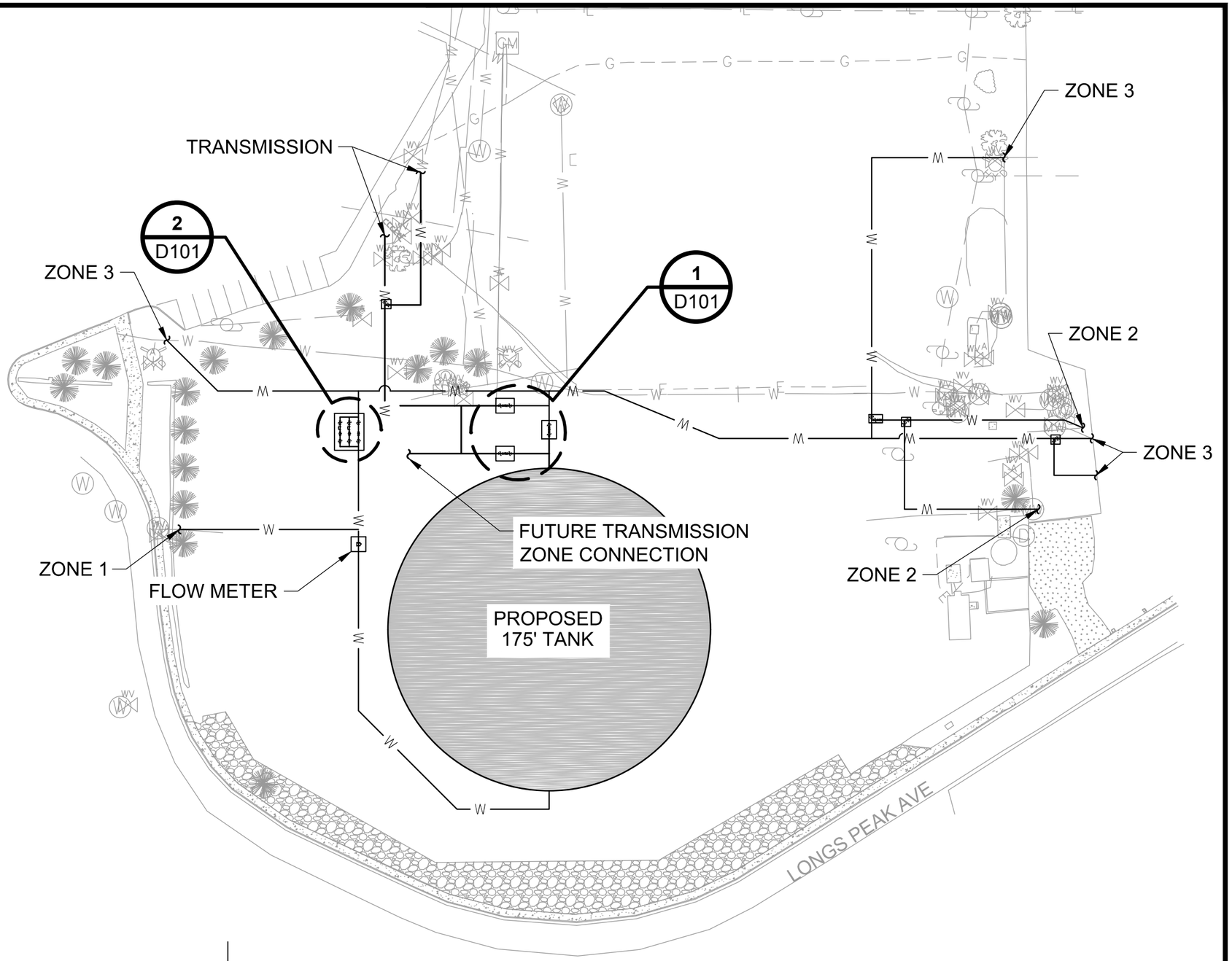
SCALE IN FEET



VALVE VAULTS — 2 / D101

0 10' 20'

SCALE IN FEET



0 60' 120'

SCALE IN FEET

NORTH

BURNS McDONNELL

date: NOVEMBER 2016

designed: J. SCHAEFER

CITY OF LONGMONT COLORADO

project:

PRICE PARK TANK EVALUATION

drawing:

YARD PIPING PLAN
D101

APPENDIX D – GEOTECHNICAL REPORT

Kumar & Associates, Inc.
Geotechnical and Materials Engineers
and Environmental Scientists

ACEC MEMBER

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Fort Collins, CO 80524
phone: (970) 416-9045
fax: (303) 742-9666
email: kaftcollins@kumarusa.com
www.kumarusa.com

Office Locations: Denver (HQ), Colorado Springs, Fort Collins, and Frisco, Colorado

PRELIMINARY GEOTECHNICAL ENGINEERING INVESTIGATION PROPOSED PRICE PARK WATER STORAGE TANK LONGS PEAK AVENUE AND SUNSET STREET LONGMONT, COLORADO

Prepared By:

David Castelbaum, P.E.

Reviewed By:

Wade Gilbert, P.E.

Prepared For:

Burns & McDonnell
9785 Maroon Circle, Suite 400
Centennial, Colorado 80112

Attention: Ms. Bethany Yaffe

Project No. 16-3-151

September 30, 2016

TABLE OF CONTENTS

SUMMARY

1. The borings encountered a few inches of topsoil or gravel surfacing overlying approximately 3 to 10 feet of man-placed sandy lean clay fill underlain by natural, medium to very stiff, sandy lean clay to lean clay with sand, with occasional layers of clayey sand.

   Groundwater was encountered at the time of drilling in three borings at depths ranging from about 44 to 48 feet below the ground surface and in the same borings when measured up to 10 days later at depths ranging from about 42 to 44 feet.

2. The existing fills are undocumented and considered to be unsuitable for support of structure foundations, exterior hardscape or pavements. Generally, samples of the natural lean clay tested exhibited no movement to slight compression due to wetting. The compression exhibited by the samples at surcharge pressures applied prior to and after wetting indicates low to moderate compressibility. Results from the previous investigations also indicated similar behavior of no movement to slight compression due to wetting. However, the compression at surcharge pressures applied prior to and after wetting was comparatively much higher, particularly those tested by CTL/Thompson, indicating potential high compressibility of the natural lean clay soils, particularly those beneath the existing reservoir.

3. We believe that shallow foundation systems are feasible. Should the new tank floor elevation be kept the same as that of the existing tank, subgrade improvement will likely be required for foundation support and to help reduce differential settlement. Subgrade improvement alternatives would include over-excavation of the on-site soils and replacement with structural fill, or installation of geopiers. Raising the floor elevation of the new tank would provide a relatively thick, stable structural fill platform for foundation and slab construction and eliminate the need for ground modification of the soils beneath the existing tank.

4. Shallow foundation alternatives can be evaluated based on allowable soil bearing pressures of ranging from 2,500 to 3,000 psf, or higher allowable pressures depending on the extent of ground improvements, including the type and amount of structural fill placed beneath the tank floor. Settlement, particularly differential settlement between the center and perimeter, of the new tank would be a concern if the floor elevation remains the same as the existing tank. Due to the relatively uniform type and condition of the native soils encountered in the borings, raising the floor level would result in a more uniform distribution of stress in the soils below the tank and an associated reduction on the risk of unacceptable differential settlement.

PURPOSE AND SCOPE OF STUDY

This report presents the results of a preliminary geotechnical investigation for a proposed 5-million-gallon (MG) water storage tank for the City of Longmont, Colorado. The project site is located at the existing Price Park Reservoir located at the northwest corner of Longs Peak Avenue and Sunset Street in Longmont, Colorado. The study was conducted in accordance with the scope of work in our proposal P-16-457 to Burns & McDonnell dated June 6, 2016.

The following documents were also reviewed: 1) Letter from Charles C. Bowman Associates, Inc., dated April 23, 1984 (new vault), and 2) Letter from CTL/Thompson, Inc., dated May 14, 1990 (tank roof structures). The results in these documents were considered in preparation of this preliminary report.

A field exploration program consisting of exploratory borings was conducted to obtain information on subsurface conditions. Samples of the soils and bedrock obtained during the field exploration program were tested in the laboratory to determine their classification and engineering characteristics. The results of the field exploration and laboratory testing programs were analyzed to develop preliminary geotechnical engineering recommendations and considerations for design and construction of the project.

This report has been prepared to summarize the data obtained during this study and to present our conclusions and preliminary recommendations based on the proposed construction and the subsurface conditions encountered. Preliminary design parameters and a discussion of geotechnical engineering considerations related to construction of the proposed tank are included in the report.

PROPOSED CONSTRUCTION

The proposed project is the construction of a new 5-MG water storage tank. The new tank will replace the existing 7-MG and 2-MG tanks currently on the site. We understand that there have been previous maintenance/repair efforts to address leakage and cracking of the existing tanks. Currently, the project is at 10% design review and details such as dimensions (i.e., diameter and height) and final floor subgrade elevation of the new tank, replacement of pumping station, pipeline(s), and other related ancillary features are not known.

The new 5-MG tank is proposed to be located within the footprint of the existing 7-MG tank. Several construction options for the tank type, dimensions and final floor subgrade elevation are being considered. Options for tank type include: 1) conventionally reinforced concrete; 2) pre-stressed concrete with precast core wall; 3) pre-stressed concrete with cast-in-place core wall; and 4) post-tensioned concrete tank. Options being considered for the final floor elevation and dimensions of the new tank are:

Option 1: A 175-foot-diameter by 30-foot-high tank with a final floor subgrade elevation of 5,083 feet (i.e., the same as the existing 7-MG tank)

Option 2: A 175-foot-diameter by 30-foot-high tank with a final floor subgrade elevation of 5,091 feet (i.e., 8 feet higher than the existing 7-MG tank).

Option 3: A 200-foot-diameter by 24-foot-high tank with a final floor subgrade elevation of 5,096 feet (i.e., 13 feet higher than the existing 7-MG tank).

Options 2 and 3 will require placement of fill on the order of 7,100 and 15,200 cubic yards, respectively, beneath the new tank to achieve the proposed final floor subgrade elevation. We understand through discussions with Burns and McDonald that loads for the new tank are anticipated to be uniformly distributed and on the order of 2,500 to 3,000 psf, and that minimizing differential settlements are critical, and that of the 3 options above, Option 2 is the more likely option. Minimizing construction costs associated with concrete removal and fill material required is highly desirable to the City of Longmont.

SITE CONDITIONS

AS previously discussed, the project site is occupied by two (2) existing water storage tanks: a nearly rectangular 7-MG tank (240 foot by 340 foot) bordered to the south by Longs Peak Drive, and a 160-foot square 2-MG tank adjacent to the north side of the 7-MG tank. The new tank is proposed to be constructed within the footprint of the 7-MG tank. To the east of the 7-MG tank are ancillary structures and equipment including a pump house, other small concrete equipment buildings, a meter vault, and a generator. There is an existing elevated water tower, also to the east of the 7-MG tank.

The site is situated at the crest of a hill/knoll that has been graded flat across the top where the existing water tanks are located and then slopes gently to moderately downward in all directions away from the site. The areas surrounding the existing tanks are vegetated with irrigated grasses, as well as evergreen and deciduous trees.

FIELD EXPLORATION

The field exploration program for the project consisted of drilling four (4) exploratory borings at the approximate locations shown on Fig. 1 on July 28 and 29, 2016. The borings ranged in depth from approximately 50 to 60 feet below the existing ground surface. Logs of the exploratory borings and associated legend and explanatory notes are presented on Figs. 2 and 3, respectively.

The borings were drilled with a truck-mounted drill rig using 4-inch-diameter continuous flight augers. The borings were logged by a representative of Kumar & Associates, Inc., and samples of the soils and bedrock materials were obtained with a 2-inch I.D. California type sampler. The sampler was driven into the various strata with blows from a 140-pound hammer falling 30 inches in general conformance with the standard penetration test procedure described in ASTM Method D1586. The interpreted penetration resistance values provide an indication of the relative consistency or density of the soils. Depths at which the samples were taken and the penetration resistance values (i.e., blow counts) are shown on the boring logs.

SUBSURFACE CONDITIONS

The following subsurface descriptions are of a generalized nature to highlight the major stratification and groundwater conditions encountered in the borings. The boring logs should be referenced for more detailed information on the subsurface conditions encountered.

Soils: The borings encountered a few inches of topsoil or gravel surfacing overlying approximately 3 to 10 feet of man-placed fill material consisting of sandy lean clay. The fill was underlain by natural sandy lean clay to lean clay with sand, with occasional layers of clayey sand, extending to the full depths explored of approximately 50 to 60 feet. The natural sandy clays were generally moist and medium to very stiff in consistency based on field penetration resistance tests.

Groundwater: Groundwater was encountered at the time of drilling in Borings B-1, B-2, and B-4 at depths ranging from about 44 to 48 feet below the ground surface and in the same borings when measured up to 10 days later at depths ranging from about 42 to 44 feet. Groundwater levels are expected to fluctuate seasonally, and may fluctuate upward after wet weather or subsequent to site and area-wide irrigation.

LABORATORY TESTING

Samples obtained from the exploratory borings were visually classified in the laboratory by the project engineer. Laboratory testing was performed on selected soil samples to determine classification and engineering characteristics, including: in-situ moisture content and dry unit weight, Atterberg limits, particle-size distribution (gradation), swell-consolidation, unconfined compressive strength, moisture-density relationship, and corrosivity. The results of the laboratory tests are shown on the boring logs on Fig. 2 and summarized in Table I. Results of swell-consolidation and gradation tests plotted on Figs. 4 through 8. The testing was conducted in general accordance with recognized test procedures, primarily those of the American Society for Testing of Materials (ASTM) and the Colorado Department of Transportation (CDOT).

Swell-Consolidation: Swell-consolidation tests were performed on samples of the natural lean clay soils in order to evaluate their compressibility and swell characteristics under loading and when submerged in water. Results of the swell-consolidation tests are shown on Figs. 4 through 7. Upon wetting under a surcharge of 1,000 psf, five relatively undisturbed samples exhibited no movement to slight additional compression, and one sample remolded to approximately 95% of the maximum dry density at a moisture content near optimum moisture content exhibited slight swell potential. Two samples exhibited slight to low additional compression when wetted under surcharge pressures of 2,400 and 3,000 psf, which represent the approximate overburden pressures at the sampled depths.

Review of the results of swell-consolidation tests performed for the previous investigations showed similar results to those for this current study: one sample exhibited no movement when wetted under a 500 psf surcharge pressure[1], and 6 samples exhibited no movement to slight additional compression when wetted under a 1,000 psf surcharge pressure[2].

[1] Investigation by Charles C. Bowman Associates, Inc. (1984).
[2] Investigation by CTL/Thompson, Inc. (1990).

Index Properties: Laboratory testing was performed to determine the index properties of the fill and natural soils found at the site including: liquid limit and plasticity index, and particle-size distribution. The index properties were used to classify the soils into categories of similar engineering properties according to the American Association of Highway Transportation Officials (AASHTO) soil classification system and the Unified Soil Classification System (USCS) (ASTM D2487). The results of a gradation test are shown on Fig. 8.

Strength, Load-Bearing and Compaction Characteristics: The strength and load bearing characteristics of the existing fill and natural lean clay soils were evaluated based on the results of unconfined compressive strength (UC) and California Bearing Ratio (CBR) testing of samples from the borings. The UC test is a rapid, inexpensive test procedure used to evaluate the undrained shear strength (c) of the tested material. Results from UC testing performed on three relatively undisturbed samples indicated unconfined compressive strength, q_u, values of 2,250 and 4,790 psf for the natural lean clay soils and 1,420 psf for the lean clay fill.

Review of UC test data from the previous investigations showed q_u, values that varied widely. Values estimated for samples with comparatively lower moisture contents than the current soil samples using a hand penetrometer[1] ranged from 500 psf to 4,000 psf, whereas values from laboratory tested samples[2] with comparatively higher moisture contents ranged from 550 psf to 890 psf.

GEOTECHNICAL ENGINEERING CONSIDERATIONS

The existing fills around the perimeter areas of the existing tanks were likely tested at the time of construction of the existing storage tanks. However, no documentation of field compaction testing performed is available and, therefore, the existing fill materials are generally assumed to be unsuitable for support of structure foundations or pavements. Generally, the complete removal of undocumented fill materials and replacement by properly compacted structural fill is recommended. Typically, complete removal and replacement of fill is performed for areas below foundations and reduced removal is performed below slab and pavement areas. The proposed construction will likely result in removal of a significant amount, if not all, of the existing fill to allow adequate accessibility for construction equipment and activities. The existing fill materials are generally considered acceptable for use as structural fill when properly moisture conditioned and compacted.

[1] Investigation by Charles C. Bowman Associates, Inc. (1984).
[2] Investigation by CTL/Thompson, Inc. (1990).

Results from the field and laboratory portions of this investigation indicate the natural lean clay soils that underlie the existing tanks vary in moisture content from approximately 8% to18 % and are sandy to very sandy and generally medium stiff to stiff. Generally, samples of the natural lean clay tested exhibited no movement to slight compression due to wetting. The compression exhibited by the samples at surcharge pressures applied prior to and after wetting indicates low to moderate compressibility. Results from the previous investigations also indicated similar behavior of no movement to slight compression due to wetting. However, the compression at surcharge pressures applied prior to and after wetting was comparatively much higher, particularly those tested by CTL/Thompson, indicating potential high compressibility of the natural lean clay soils, particularly those beneath the existing reservoir.

Foundation Alternatives: Based on the subsurface conditions encountered, the current design level and previous experience with similar construction, we believe that feasible foundation system alternatives for the proposed water tank are: 1) spread footings or pads and grade beams, 2) tank bottom slab, or 3) a post-tensioned slab-on-grade. Should the new tank floor elevation be kept the same as that of the existing tank, subgrade improvement will likely be required for foundation support and to help reduce differential settlement. Subgrade improvement alternatives would include over-excavation of the on-site soils to depths possibly ranging from approximately of 6 to 8 feet and replacement with structural fill, or installation of geopiers to depths extending 10 to 15 feet below foundation subgrade elevation. Raising the floor elevation of the new tank would provide a relatively thick, stable structural fill platform for foundation and slab construction and eliminate the need for ground modification of the soils beneath the existing tank.

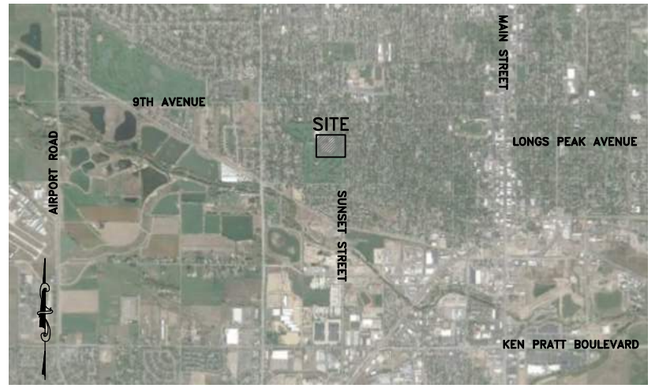
Shallow foundation alternatives can be evaluated based on allowable soil bearing pressures of ranging from 2,500 to 3,000 psf, or higher allowable pressures depending on the extent of ground improvements, including the type and amount of structural fill placed beneath the tank floor. Settlement, particularly differential settlement between the center and perimeter, of the new tank would be a concern if the floor elevation remains the same as the existing tank. Due to the relatively uniform type and condition of the native soils encountered in the borings, raising the floor level would result in a more uniform distribution of stress in the soils below the tank and an associated reduction on the risk of unacceptable differential settlement.

Due to the comparatively significant differences in strength and compressibility behavior of the on-site soils between our investigation and that of previous investigations, the criteria presented herein represent a possible worst-case scenario with regard to the current in-situ conditions of the soils beneath the existing tank. We strongly recommend that the soils directly beneath the existing 7-MG tank be investigated in order to provide design-level recommendations and criteria for design and construction of the tank.

LIMITATIONS

This report has been prepared in accordance with generally accepted geotechnical engineering practices in this area for use by the client for preliminary design and planning purposes. The preliminary conclusions and recommendations submitted in this report are based upon the data obtained from the widely spaced exploratory borings drilled at the locations indicated on the exploratory boring plan. Additional investigation must be conducted once final tank floor elevation has been determined to provide design-level recommendations. We recommend on-site observation of site grading by a representative of the geotechnical engineer.

DC/wg/es
cc: Andy Hundley (Burns and McDonnell)
Book, file



VICINITY MAP
LONGMONT, COLORADO
NOT TO SCALE

50 0 50 100
APPROXIMATE SCALE-FEET

LEGEND:

B-1 ●	INDICATES APPROXIMATE LOCATION OF EXPLORATORY BORING.
ELEV.=	ELEVATION (FT) ABOVE MEAN SEA LEVEL.
*	BOTH EXISTING 2MG AND 5MG RESERVOIRS TO BE DEMOLISHED.
MG	MILLION GALLON.

September 20, 2016 - 10:41am
V:\Projects\2016\16-3-151 Price Park 5 Water Tank\Drafting\163151-01.dwg

16-3-151	Kumar & Associates	PRICE PARK WATER STORAGETANK	LOCATION OF EXPLORATORY BORINGS	Fig. 1

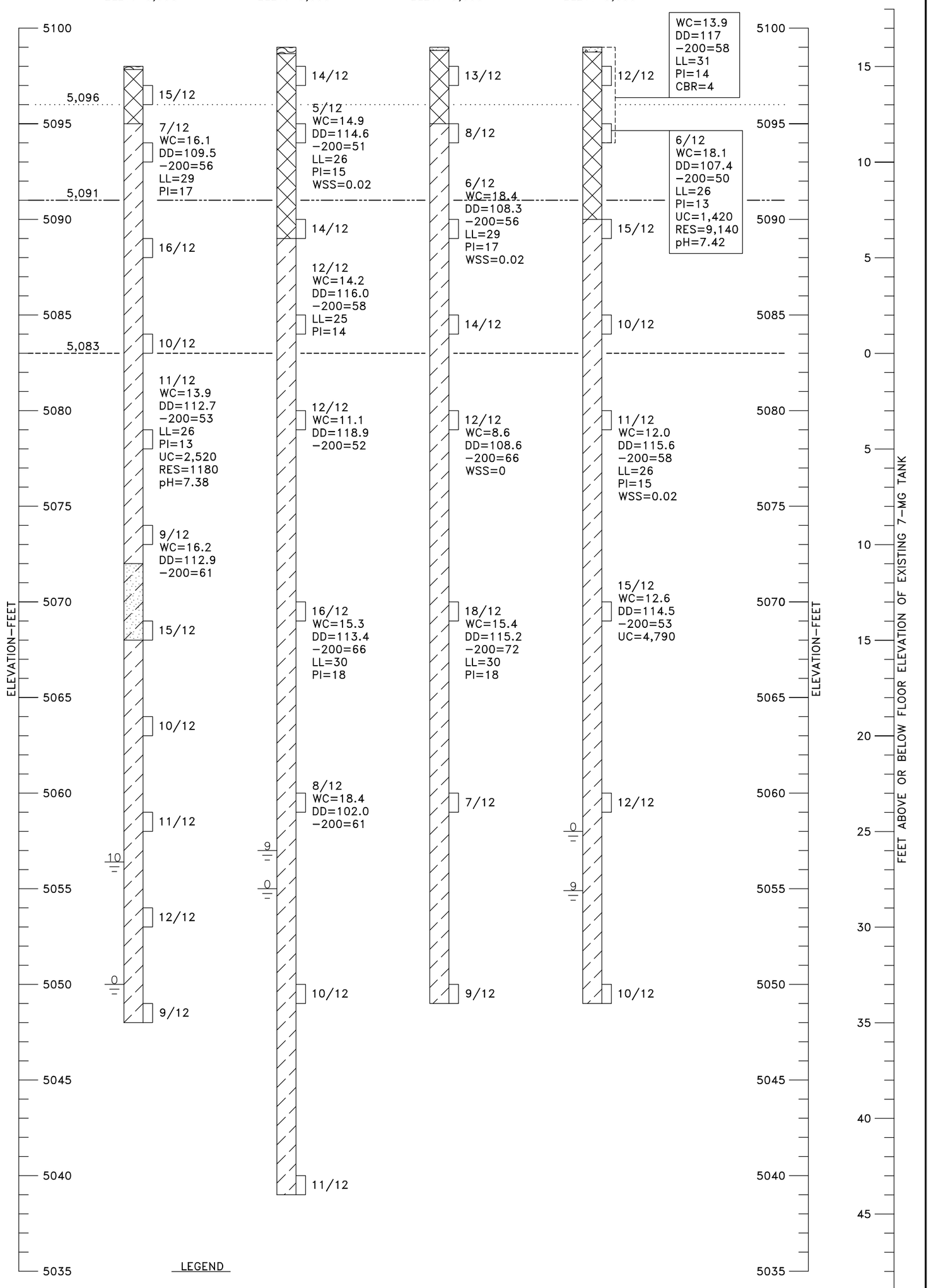
16-3-151

Kumar & Associates

PRICE PARK WATER STORAGETANK

LOGS OF EXPLORATORY BORINGS

Fig. 2



LEGEND

GRAVEL/AGGREGATE BASE COURSE SURFACING.

FILL: SANDY LEAN CLAY (CL), OCCASIONAL SMALL GRAVEL, MOIST, MEDIUM STIFF TO STIFF, LIGHT BROWN TO BROWN, GRAYISH-BROWN.

SANDY LEAN CLAY (CL), MEDIUM STIFF TO VERY STIFF, MOIST, BROWN TO GRAYISH-BROWN.

CLAYEY SAND (SC), FINE TO COARSE GRAINED, MEDIUM DENSE, MOIST, BROWN.

DRIVE SAMPLE, 2.5-INCH O.D. SAMPLER WITH 2-INCH O.D. CALIFORNIA LINERS.

15/12 DRIVE SAMPLE BLOW COUNT. INDICATES THAT 15 BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES WERE REQUIRED TO DRIVE A 2.5-INCH O.D. SAMPLER 12 INCHES.

DISTURBED BULK SAMPLE.

DEPTH TO WATER LEVEL AND NUMBER OF DAYS AFTER DRILLING MEASUREMENT WAS MADE.

NOTES

1. THE EXPLORATORY BORINGS WERE DRILLED ON JULY 28 AND 29, 2016 WITH 4-INCH DIAMETER CONTINUOUS FLIGHT POWER AUGER.

2. THE LOCATIONS OF THE EXPLORATORY BORINGS WERE MEASURED APPROXIMATELY BY PACING FROM FEATURES SHOWN ON THE SITE PLAN PROVIDED.

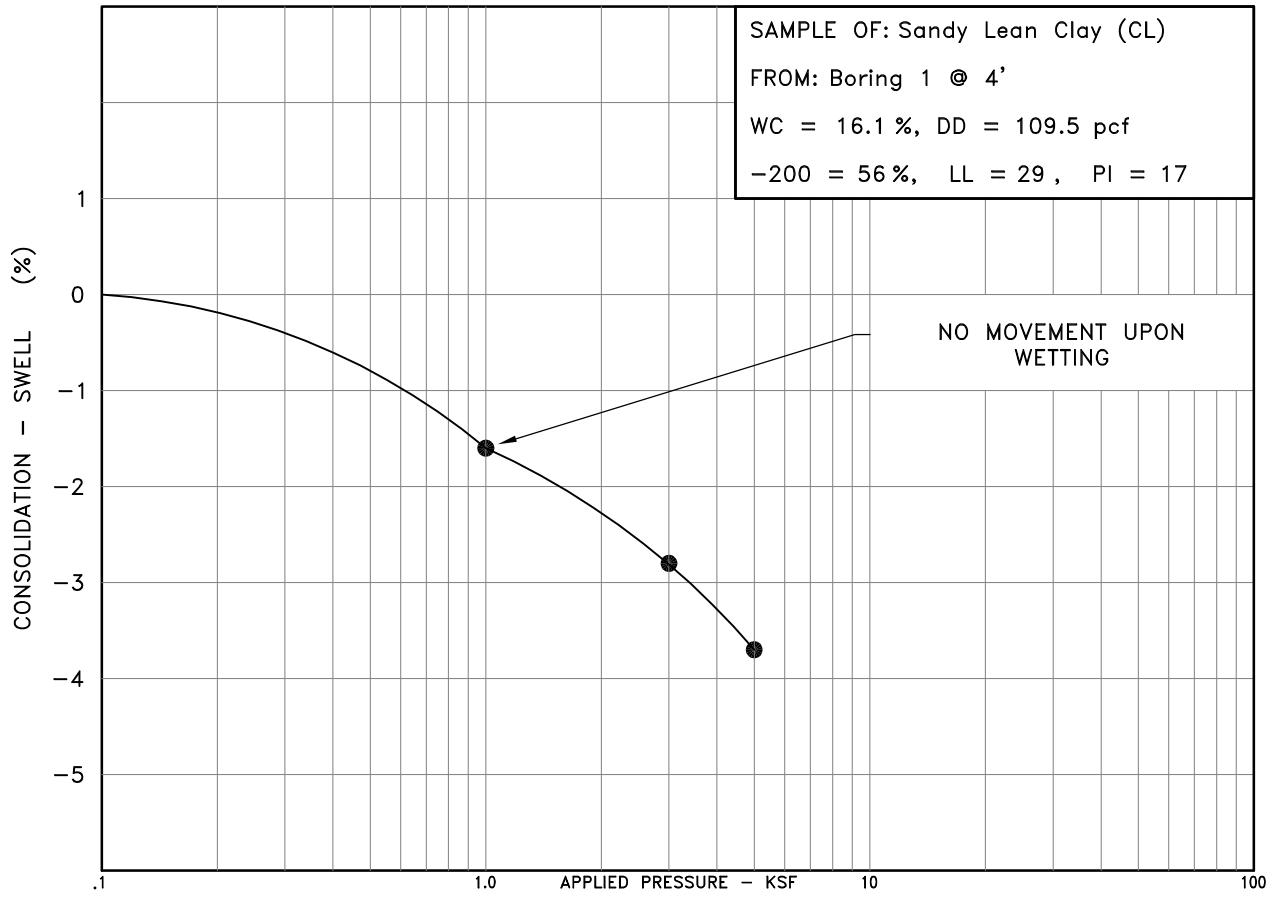
3. THE ELEVATIONS OF THE EXPLORATORY BORINGS WERE OBTAINED BY INTERPOLATION BETWEEN CONTOURS ON THE SITE PLAN PROVIDED.

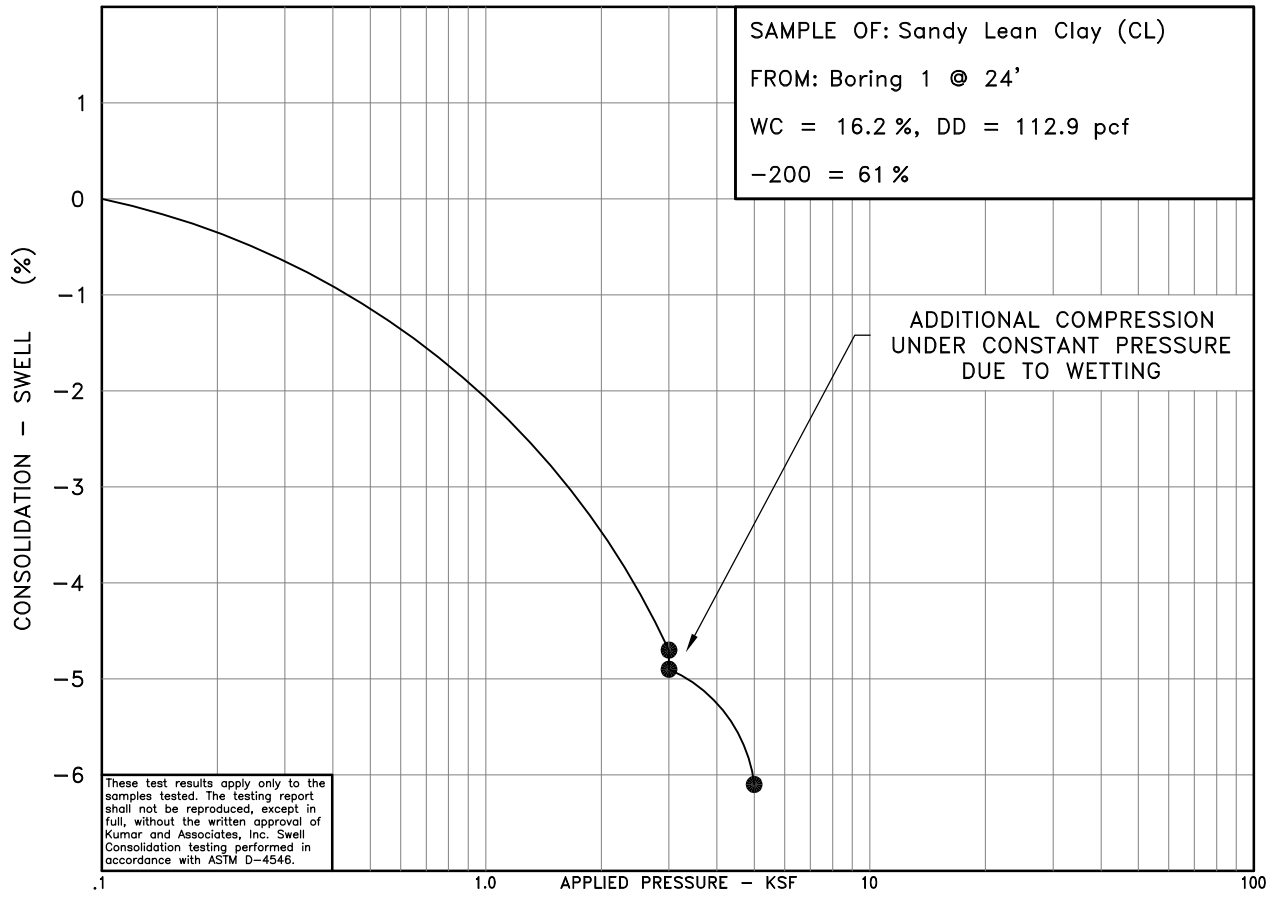
4. THE EXPLORATORY BORING LOCATIONS AND ELEVATION SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

5. THE LINES BETWEEN MATERIALS SHOWN ON THE EXPLORATORY BORING LOGS REPRESENT THE APPROXIMATE BOUNDARIES BETWEEN MATERIAL TYPES AND THE TRANSITIONS MAY BE GRADUAL.

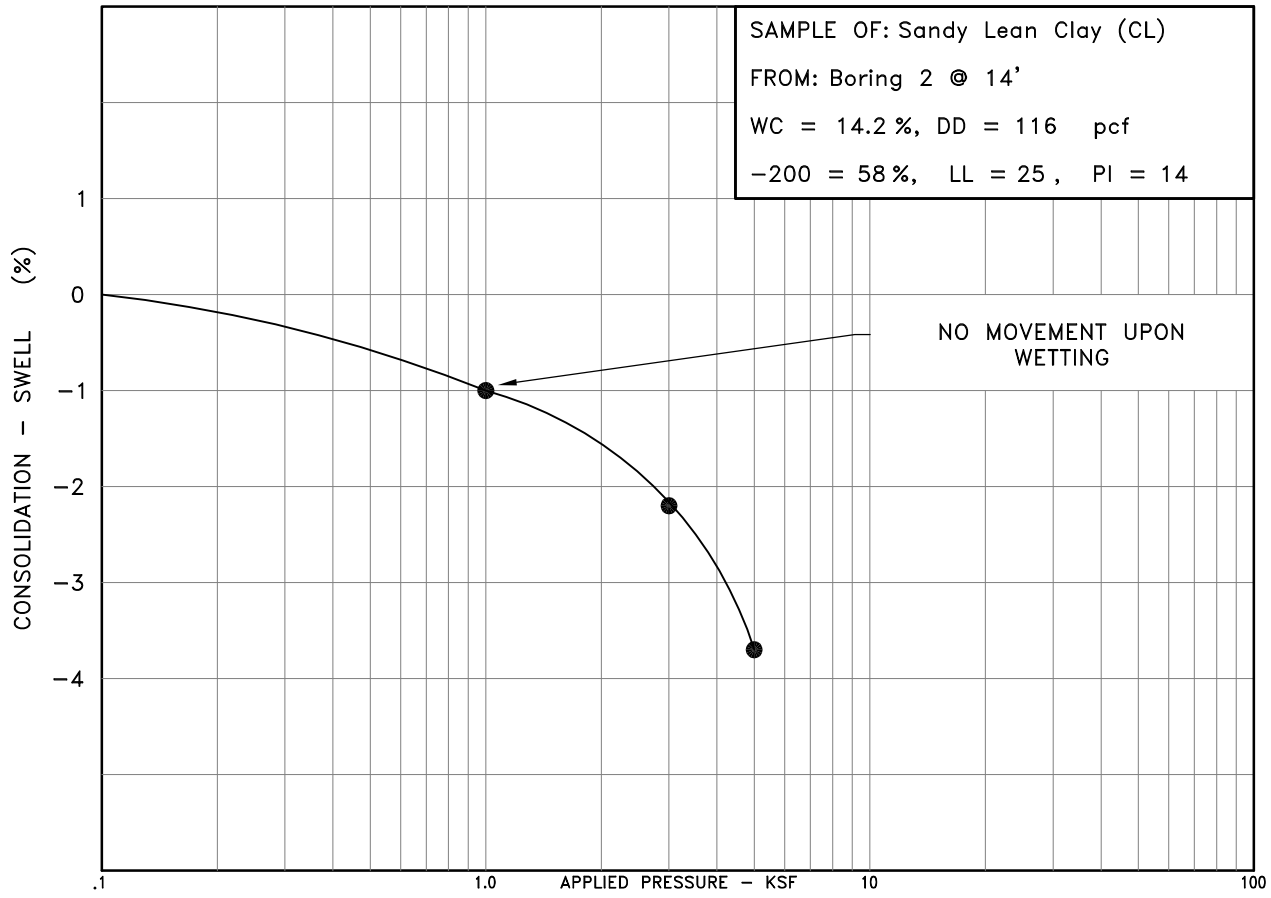
6. GROUNDWATER LEVELS SHOWN ON THE LOGS WERE MEASURED AT THE TIME AND UNDER CONDITIONS INDICATED. FLUCTUATIONS IN THE WATER LEVEL MAY OCCUR WITH TIME.

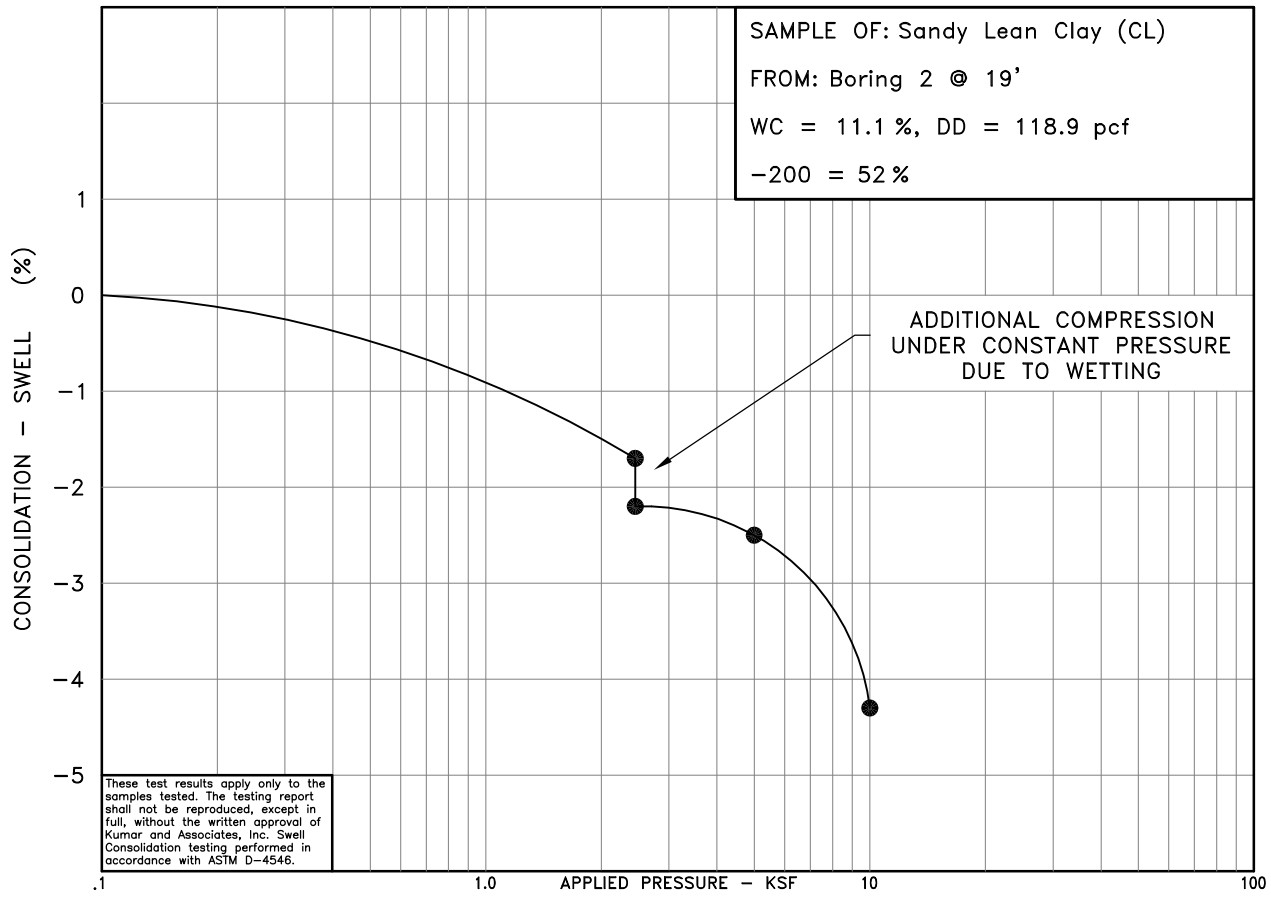
7. LABORATORY TEST RESULTS:
   WC = WATER CONTENT (%) (ASTM D 2216);
   DD = DRY UNIT WEIGHT (pcf);
   -200= PERCENTAGE PASSING NO. 200 SIEVE (ASTM D 1140);
   LL = LIQUID LIMIT (ASTM D 4318);
   PI = PLASTICITY INDEX (ASTM D 4318);
   UC = UNCONFINED COMPRESSIVE STRENGTH (psf) (ASTM D 2166);
   CBR = CALIFORNIA BEARING RATIO (AT 95% OF MDD) (ASTM D 1883);
   WSS = WATER SOLUBLE SULFATES (%) (CP-L 2103);
   pH = HYDROGEN ION CONCENTRATION (ASTM E 70);
   RES = MINIMUM LABORATORY RESISTIVITY (ohm-cm.) (ASTM G 57).



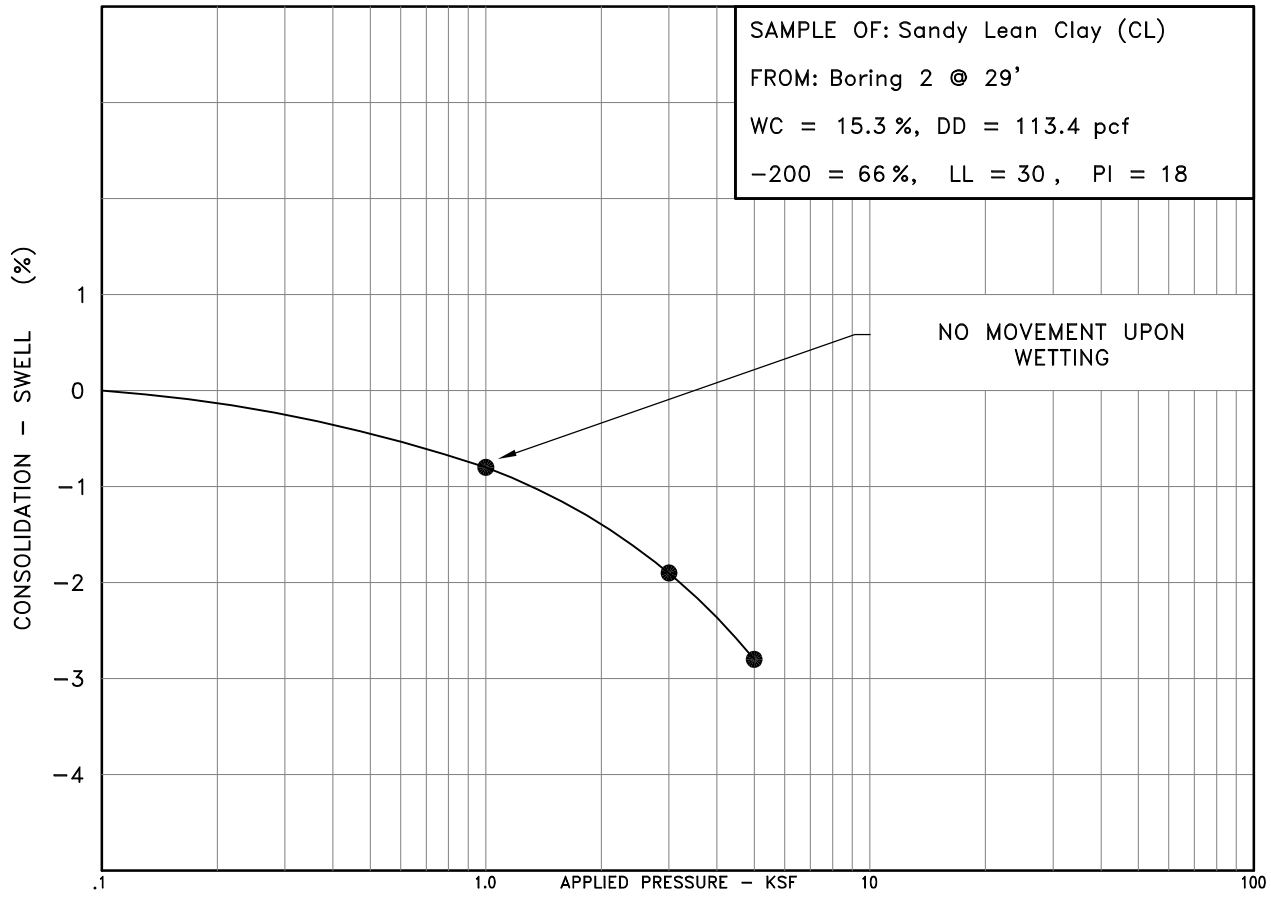


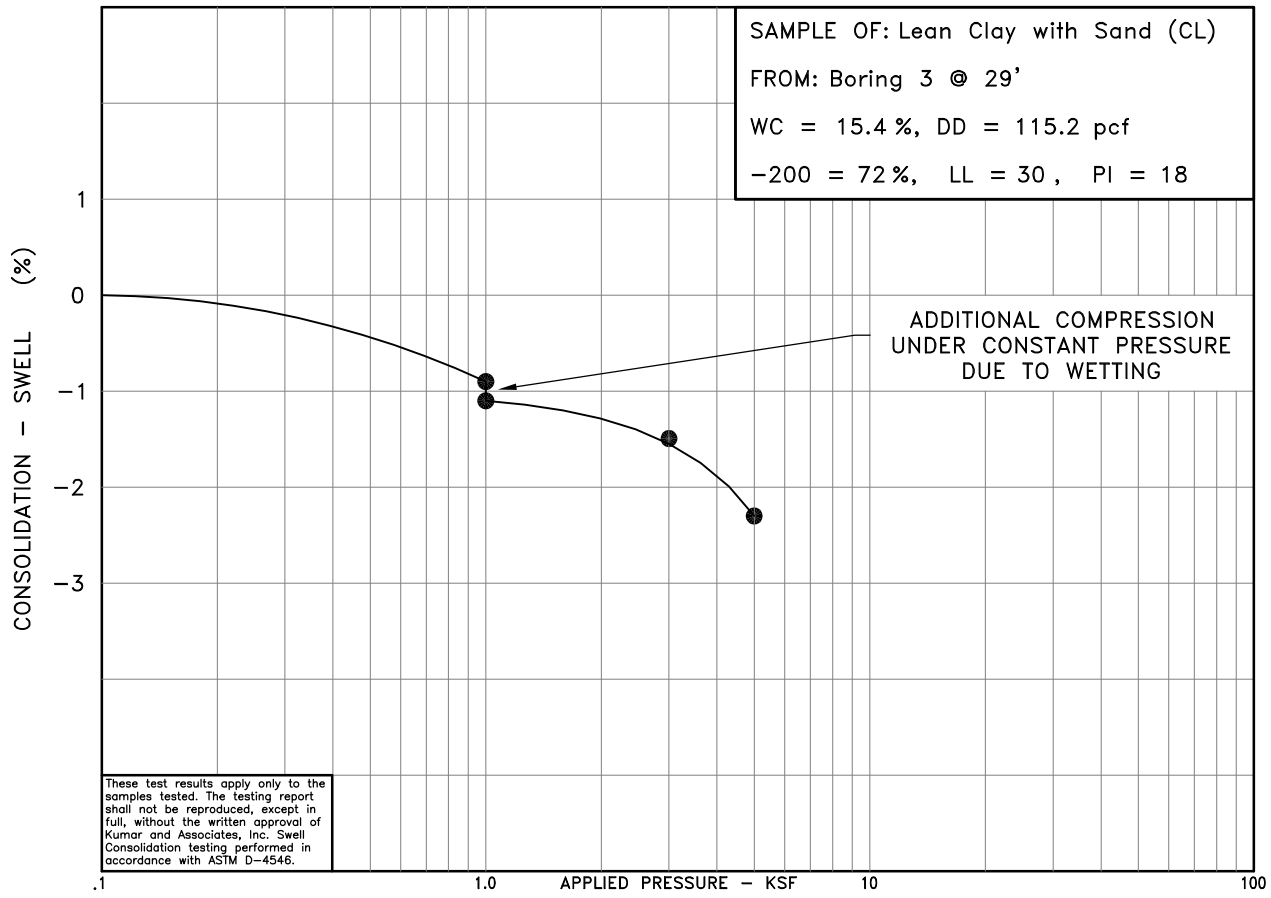
16−3−151	Kumar & Associates	SWELL−CONSOLIDATION TEST RESULTS	Fig. 4



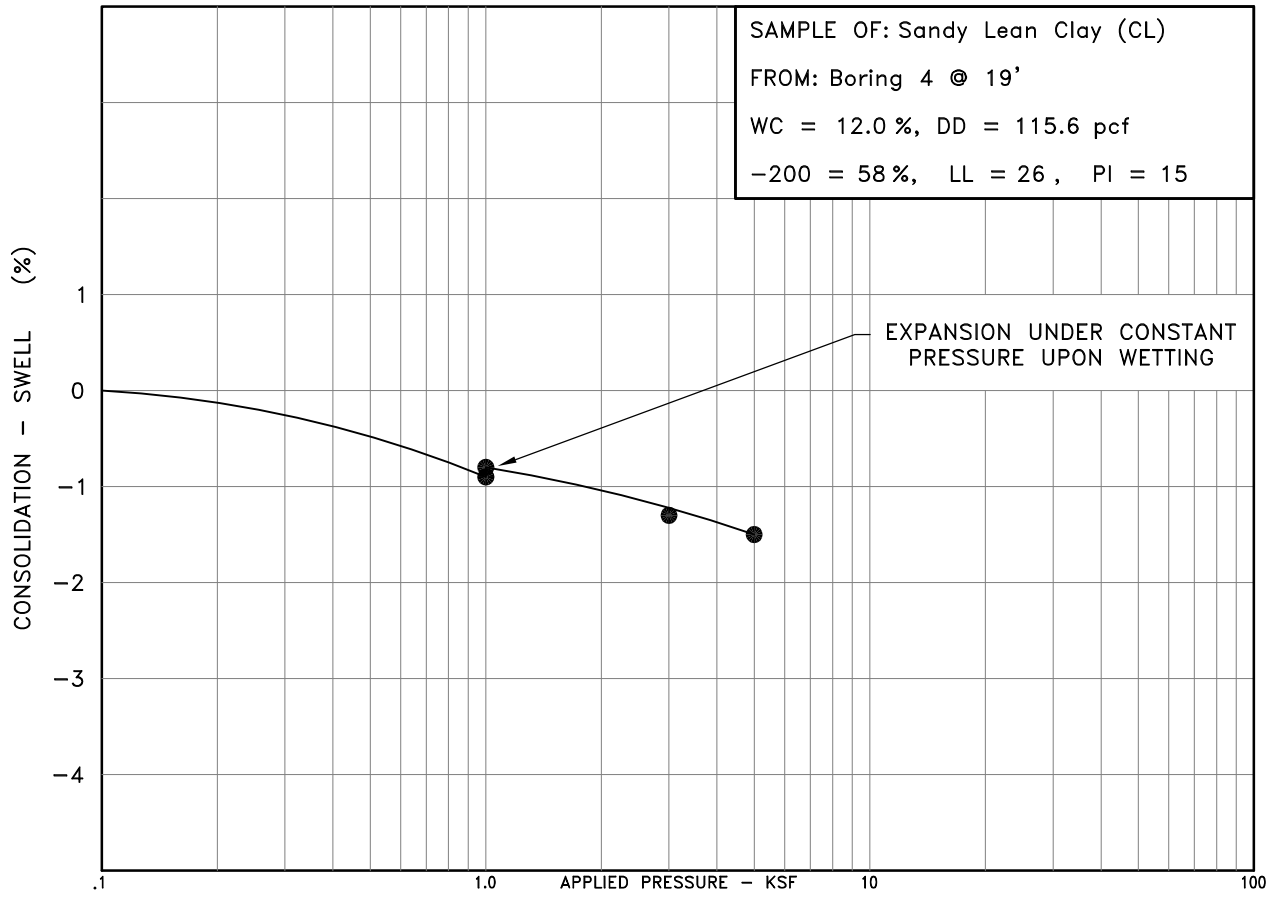


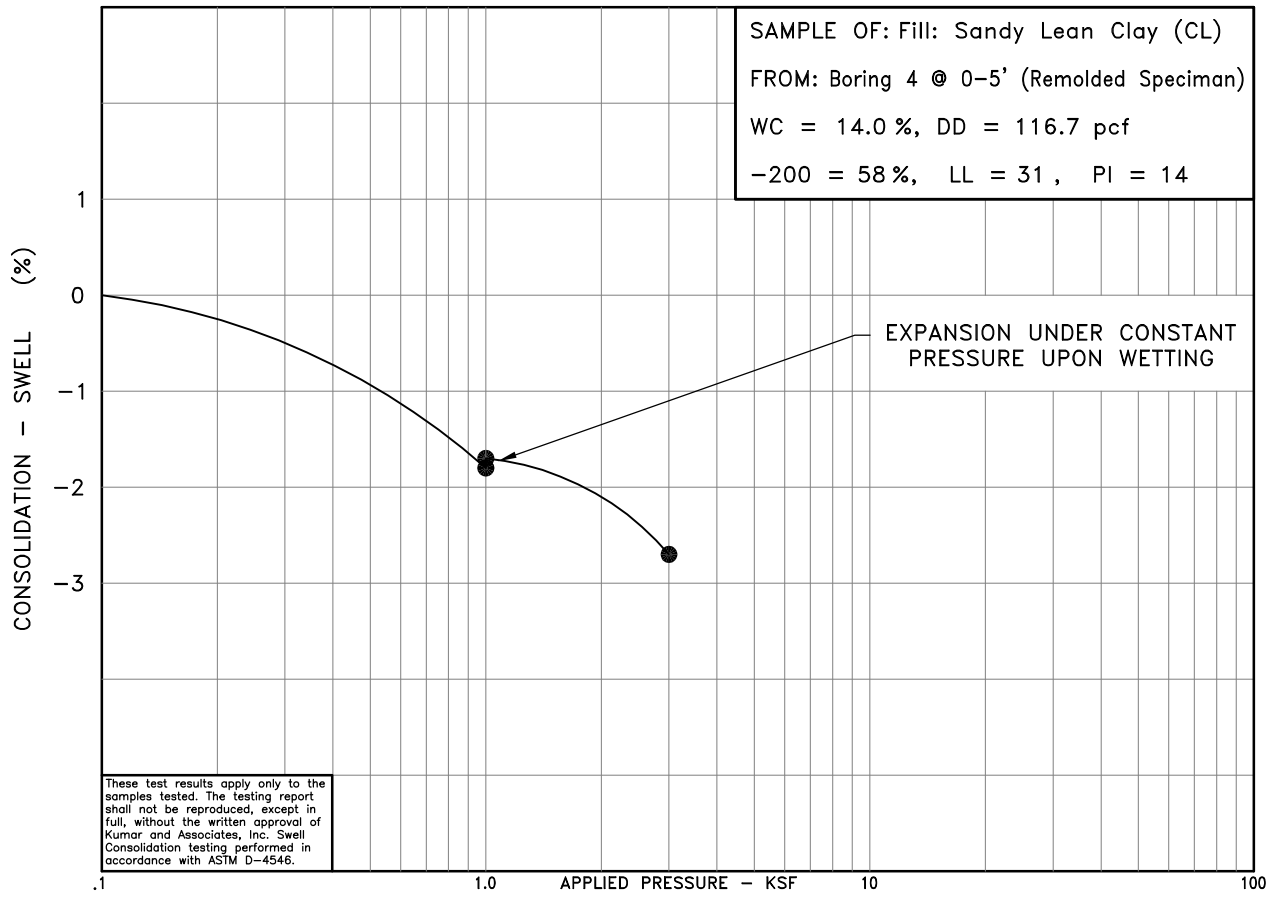
16−3−151	Kumar & Associates	SWELL−CONSOLIDATION TEST RESULTS	Fig. 5



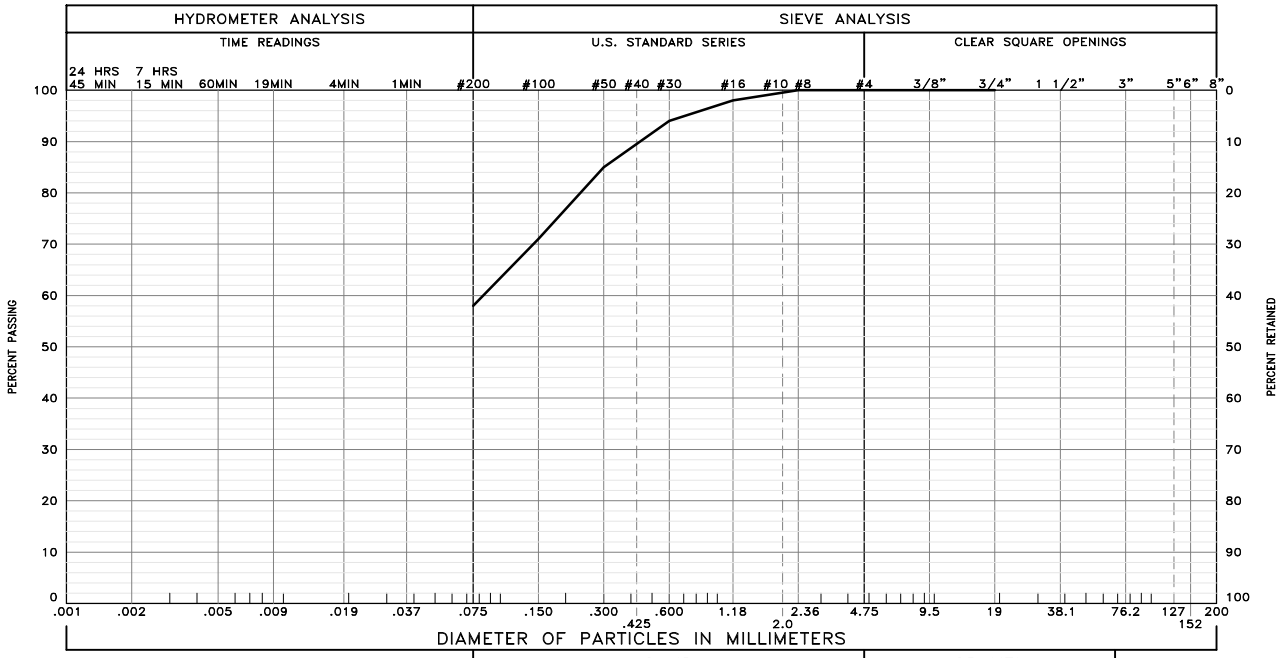


16-3-151	Kumar & Associates	SWELL-CONSOLIDATION TEST RESULTS	Fig. 6





16-3-151	Kumar & Associates	SWELL-CONSOLIDATION TEST RESULTS	Fig. 7



GRAVEL 0 % SAND 42 % SILT AND CLAY 58 %

LIQUID LIMIT 31 PLASTICITY INDEX 14

SAMPLE OF: Sandy Lean Clay (CL) FROM: Boring 4 @ 0–5'

These test results apply only to the samples which were tested. The testing report shall not be reproduced, except in full, without the written approval of Kumar & Associates, Inc. Sieve analysis testing is performed in accordance with ASTM D422, ASTM C136 and/or ASTM D1140.

16–3–151	Kumar & Associates	GRADATION TEST RESULTS	Fig. 8

Table I
Summary of Laboratory Test Results

Project No.: 16-3-151
Project Name: Price Park Water Tank
Date Sampled: June 28 and 29, 2016
Date Received: June 29, 2016

Sample Location		Natural Moisture Content (%)	Natural Dry Unit Weight (pcf)	Gradation		Percent Passing No. 200 Sieve	Atterberg Limits		Unconfined Compressive Strength (psf)	Classification and Description	
Boring	Depth (Feet)			Gravel (%)	Sand (%)		Liquid Limit (%)	Plasticity Index (%)		AASHTO Group (Group Index)	USCS Group Name (Group Symbol)
1	4	16.1	109.5			56	29	17		A-6 (6)	Sandy Lean Clay (CL)
1	19	13.9	112.7			53	26	13	2,520	A-6 (3)	Sandy Lean Clay (CL)
1	24	16.2	112.9			61					Sandy Lean Clay (CL)
2	4	14.9	114.6			51	26	15		A-6 (4)	Fill: Sandy Lean Clay (CL)
2	14	14.2	116.0			58	25	14		A-6 (5)	Sandy Lean Clay (CL)
2	19	11.1	118.9			52					Sandy Lean Clay (CL)
2	29	15.3	113.4			66	30	18		A-6 (9)	Sandy Lean Clay (CL)
2	39	18.4	102.0			61					Sandy Lean Clay (CL)
3	9	18.4	108.3			56	29	17		A-6 (6)	Sandy Lean Clay (CL)
3	19	8.6	108.6			66					Sandy Lean Clay (CL)
3	29	15.4	115.2			72	30	18		A-6 (10)	Lean Clay with Sand (CL)
4	4	18.1	107.4			50	26	13	1,420	A-6 (3)	Fill: Sandy Lean Clay (CL)
4	19	12.0	115.6			58	26	15		A-6 (5)	Sandy Lean Clay (CL)
4	29	12.6	114.5			53			4,790		Sandy Lean Clay (CL)
4	0-5	13.9[1]	117.0[1]		42	58	31	14		A-6 (5)	Fill: Sandy Lean Clay (CL)

[1] Values indicated represent optimum moisture content and maximum dry unit weight (ASTM D 698).

APPENDIX E – OPINION OF PROBABLE CONSTRUCTION COSTS

OPINION OF PROBABLE CONSTRUCTION COST
Price Park Tank: Alternative 2
5 MG Welded Steel Tank
City of Longmont

BMcD - 92463

Description	Unit	Quantity	Unit Cost	Total Cost
General Requirements (Included in GC's below)				
Demolition				
Concrete Demolition	CY	952	$125	$118,963
Concrete Column Removal	EA	179	$100	$17,900
Building Removal	LF	104,347	$5	$521,735
Earthwork				
Excavation	TON	11,982	$15	$179,733
Backfill	TON	53,478	$10	$534,778
Yard Piping				
24" PVC (Transmission Lines, Zone 3, Zone 2)	LF	1,358	$200	$271,600
30" PVC (Zone 1)	LF	407	$240	$97,680
18" PVC (Zone 3)	LF	150	$180	$27,000
12" PVC (Zone 2, Zone 3)	LF	140	$115	$16,100
8" PVC (Zone 3)	LF	110	$100	$11,000
PRVs	EA	4	$50,000	$200,000
Butterly Valves	EA	16	$6,000	$96,000
Flow Meter	EA	1	$15,000	$15,000
Package Pump Station	EA	1	$275,000	$275,000
Pre-Cast Concerete				
Valve and Meter Vaults	EA	7	$20,000	$140,000
Concrete Foundation				
Ring Foundation	LF	3,336	$250	$834,093
Special Construction				
5 MG Bolted Steel Tank	LS	1	$2,400,000	$2,400,000
Mixing System	LS	1	$170,000	$170,000
Exterior Improvements				
Fence	LS	1	$370,000	$370,000
Landscaping	LS	1	$330,000	$330,000
Pavement	LS	1	$100,000	$100,000
Electrical	LS	1	$160,000	$160,000
HVAC	LS	1	$6,000	$6,000
Material and Labor Subtotal				**$6,892,582**
Contractor's General Conditions (12%)				$827,000
Subtotal				**$7,719,582**
Contractor Overhead and Profit (15%)				$1,158,000
Contingency (5%)				$386,000
Total Cost				**$9,263,582**

(1) - All values are conceptual construction costs.

OPINION OF PROBABLE CONSTRUCTION COST
Price Park Tank: Alternative 2
5MG Bolted Steel Tank
City of Longmont

BMcD - 92463

Description	Unit	Quantity	Unit Cost	Total Cost
General Requirements (Included in GC's below)				
Demolition				
Concrete Demolition	CY	952	$125	$118,963
Concrete Column Removal	EA	179	$100	$17,900
Building Removal	LF	104,347	$5	$521,735
Earthwork				
Excavation	TON	11,982	$15	$179,733
Backfill	TON	53,478	$10	$534,778
Yard Piping				
24" PVC (Transmission Line, Zone 3, Zone 2)	LF	1,358	$200	$271,600
30" PVC (Zone 1)	LF	407	$240	$97,680
18" PVC (Zone 3)	LF	150	$180	$27,000
12" PVC (Zone 2, Zone 3)	LF	140	$115	$16,100
8" PVC (Zone 3)	LF	110	$100	$11,000
PRVs	EA	4	$50,000	$200,000
Butterly Valves	EA	16	$6,000	$96,000
Flow Meter	EA	1	$15,000	$15,000
Package Pump Station	EA	1	$275,000	$275,000
Pre-Cast Concrete				
Valve and Meter Vaults	EA	7	$20,000	$140,000
Concrete Foundation				
Ring Foundation	LF	3,336	$250	$834,093
Special Construction				
5 MG Bolted Steel Tank	LS	1	$1,250,000	$1,250,000
Mixing System	LS	1	$170,000	$170,000
Exterior Improvements				
Fence	LS	1	$370,000	$370,000
Landscaping	LS	1	$330,000	$330,000
Pavement	LS	1	$100,000	$100,000
Electrical	LS	1	$160,000	$160,000
HVAC	LS	1	$6,000	$6,000
Material and Labor Subtotal				**$5,742,582**
Contractor's General Conditions (12%)				$689,000
Subtotal				**$6,431,582**
Contractor Overhead and Profit (15%)				$965,000
Contingency (5%)				$322,000
Total Cost				**$7,718,582**

(1) - All values are conceptual construction costs.

OPINION OF PROBABLE CONSTRUCTION COST
Price Park Tank: Alternative 2
Conventionally Reinforced Concrete Tank
City of Longmont

BMcD - 92463

Description	Unit	Quantity	Unit Cost	Total Cost
General Requirements (Included in GC's below)				
Demolition				
Concrete Demolition	CY	952	$125	$118,963
Concrete Column Removal	EA	179	$100	$17,900
Building Removal	LF	104,347	$5	$521,735
Earthwork				
Excavation	TON	11,982	$15	$179,733
Backfill	TON	53,478	$10	$534,778
Yard Piping				
24" PVC (Transmission Lines, Zone 3, Zone 2)	LF	1,358	$200	$271,600
30" PVC (Zone 1)	LF	407	$240	$97,680
18" PVC (Zone 3)	LF	150	$180	$27,000
12" PVC (Zone 2, Zone 3)	LF	140	$115	$16,100
8" PVC (Zone 3)	LF	110	$100	$11,000
PRVs	EA	4	$50,000	$200,000
Butterly Valves	EA	16	$6,000	$96,000
Flow Meter	EA	1	$15,000	$15,000
Package Pump Station	EA	1	$275,000	$275,000
Pre-Cast Concerete				
Valve and Meter Vaults	EA	7	$20,000	$140,000
Concrete Foundation				
Base Slab and Void Forms	SF	1,500	$500	$750,000
Drilled Piers (Assume 20 ft Depth)	LF	2,506	$250	$626,375
Concrete Tank				
Walls	CY	1,300	$700	$910,000
Column	EA	42	$4,000	$167,033
Roof	CY	900	$800	$720,000
Special Construction				
Conventionally Reinforced Construction	LS	1	$500,000	$500,000
Mixing System	LS	1	$170,000	$170,000
Exterior Improvements				
Fence	LS	1	$370,000	$370,000
Landscaping	LS	1	$330,000	$330,000
Pavement	LS	1	$100,000	$100,000
Electrical	LS	1	$160,000	$160,000
HVAC	LS	1	$6,000	$6,000
Material and Labor Subtotal				**$7,331,898**
Contractor's General Conditions (12%)				$880,000
Subtotal				**$8,211,898**
Contractor Overhead and Profit (15%)				$1,232,000
Contingency (5%)				$411,000
Total Cost				**$9,854,898**

(1) - All values are conceptual construction costs.

OPINION OF PROBABLE CONSTRUCTION COST
Price Park Tank: Alternative 2
D110 Type-1 Concrete Tank with Flat Roof
City of Longmont

BMcD - 92463

Description	Unit	Quantity	Unit Cost	Total Cost
General Requirements (Included in GC's below)				
Demolition				
Concrete Demolition	CY	952	$125	$118,963
Concrete Column Removal	EA	179	$100	$17,900
Building Removal	LF	104,347	$5	$521,735
Earthwork				
Excavation/Backfill	TON	11,982	$15	$179,733
Backfill	TON	53,478	$10	$534,778
Yard Piping				
24" PVC (Transmission Lines, Zone 3, Zone 2)	LF	1,358	$200	$271,600
30" PVC (Zone 1)	LF	407	$240	$97,680
18" PVC (Zone 3)	LF	150	$180	$27,000
12" PVC (Zone 2, Zone 3)	LF	140	$115	$16,100
8" PVC (Zone 3)	LF	110	$100	$11,000
PRVs	EA	4	$50,000	$200,000
Butterly Valves	EA	16	$6,000	$96,000
Flow Meter	EA	1	$15,000	$15,000
Package Pump Station	EA	1	$275,000	$275,000
Pre-Cast Concerete				
Valve and Meter Vaults	EA	7	$20,000	$140,000
Concrete Foundation				
Base Slab and Void Forms	SF	1,500	$500	$750,000
Drilled Piers (Assuming 20 ft depth)	LF	2,506	$250	$626,375
Special Construction				
AWWA D-110 Type 1 w/ Dome Roof	LS	1	$2,200,000	$2,200,000
Mixing System	LS	1	$170,000	$170,000
Exterior Improvements				
Fence	LS	1	$370,000	$370,000
Landscaping	LS	1	$330,000	$330,000
Pavement	LS	1	$100,000	$100,000
Electrical	LS	1	$160,000	$160,000
HVAC	LS	1	$6,000	$6,000
Material and Labor Subtotal				**$7,228,864**
Contractor's General Conditions (12%)				$867,000
Subtotal				**$8,095,864**
Contractor Overhead and Profit (15%)				$1,214,000
Contingency (5%)				$405,000
Total Cost				**$9,714,864**

(1) - All values are conceptual construction costs.

OPINION OF PROBABLE CONSTRUCTION COST
Price Park Tank: Alternative 2
D110 Type-3 Concrete Tank with Flat Roof
City of Longmont

BMcD - 92463

Description	Unit	Quantity	Unit Cost	Total Cost
General Requirements (Included in GC's below)				
Demolition				
Concrete Demolition	CY	952	$125	$118,963
Concrete Column Removal	EA	179	$100	$17,900
Building Removal	LF	104,347	$5	$521,735
Earthwork				
Excavation/Backfill	TON	56,222	$10	$562,221
Yard Piping				
24" PVC (Transmission Lines, Zone 3, Zone 2)	LF	1,358	$200	$271,600
30" PVC (Zone 1)	LF	407	$240	$97,680
18" PVC (Zone 3)	LF	150	$180	$27,000
12" PVC (Zone 2, Zone 3)	LF	140	$115	$16,100
8" PVC (Zone 3)	LF	110	$100	$11,000
PRVs	EA	4	$50,000	$200,000
Butterly Valves	EA	16	$6,000	$96,000
Flow Meter	EA	1	$15,000	$15,000
Package Pump Station	EA	1	$275,000	$275,000
Pre-Cast Concerete				
Valve and Meter Vaults	EA	7	$20,000	$140,000
Concrete Foundation				
Base Slab and Void Forms	SF	1,500	$500	$750,000
Drilled Piers (Assuming 20 ft depth)	LF	2,506	$250	$626,375
Special Construction				
AWWA D-110 Type 3 w/ Dome Roof	LS	1	$2,100,000	$2,100,000
Mixing System	LS	1	$170,000	$170,000
Exterior Improvements				
Fence	LS	1	$370,000	$370,000
Landscaping	LS	1	$330,000	$330,000
Pavement	LS	1	$100,000	$100,000
Electrical	LS	1	$160,000	$160,000
HVAC	LS	1	$6,000	$6,000
Material and Labor Subtotal				**$6,982,574**
Contractor's General Conditions (12%)				$838,000
Subtotal				**$7,820,574**
Contractor Overhead and Profit (15%)				$1,173,000
Contingency (5%)				$391,000
Total Cost				**$9,384,574**

(1) - All values are conceptual construction costs.

OPINION OF PROBABLE CONSTRUCTION COST
Price Park Tank: Alternative 2
Post-Tensioned Concrete Tank
City of Longmont

BMcD - 92463

Description	Unit	Quantity	Unit Cost	Total Cost
General Requirements (Included in GC's below)				
Demolition				
Concrete Demolition	CY	952	$125	$118,963
Concrete Column Removal	EA	179	$100	$17,900
Building Removal	LF	104,347	$5	$521,735
Earthwork				
Excavation	TON	11,982	$15	$179,733
Backfill	TON	53,478	$10	$534,778
Yard Piping				
24" PVC (Transmission Lines, Zone 3, Zone 2)	LF	1,358	$200	$271,600
30" PVC (Zone 1)	LF	407	$240	$97,680
18" PVC (Zone 3)	LF	150	$180	$27,000
12" PVC (Zone 2, Zone 3)	LF	140	$115	$16,100
8" PVC (Zone 3)	LF	110	$100	$11,000
PRVs	EA	4	$50,000	$200,000
Butterly Valves	EA	16	$6,000	$96,000
Flow Meter	EA	1	$15,000	$15,000
Package Pump Station	EA	1	$275,000	$275,000
Pre-Cast Concerete				
Valve and Meter Vaults	EA	7	$20,000	$140,000
Concrete Foundation				
Base Slab and Void Forms	SF	1,500	$500	$750,000
Drilled Piers (Assumed 20 ft Depth)	LF	2,506	$250	$626,375
Concrete Foundation				
Roof	LS	1	$500,000	$500,000
Columns	EA	12	$8,000	$96,000
Post-tensioning	LS	1	$750,000	$750,000
Tank Walls	LS	1	$750,000	$750,000
Mixing System	LS	1	$170,000	$170,000
Exterior Improvements				
Fence	LS	1	$370,000	$370,000
Landscaping	LS	1	$330,000	$330,000
Pavement	LS	1	$100,000	$100,000
Electrical	LS	1	$160,000	$160,000
HVAC	LS	1	$6,000	$6,000
Material and Labor Subtotal				**$7,130,864**
Contractor's General Conditions (12%)				$856,000
Subtotal				**$7,986,864**
Contractor Overhead and Profit (15%)				$1,198,000
Contingency (5%)				$399,000
Total Cost				**$9,583,864**

(1) - All values are conceptual construction costs.

APPENDIX F – SITE RENDERINGS

Figure F-1: Rendering of Northeast Tank Price Park Tank View

Figure F-2: Rendering of Northwest Price Park Tank View

Figure F-3: Rendering of South Price Park Tank View

Figure F-4: Rendering of West Price Park Tank View

BURNS McDONNELL

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Burns & McDonnell World Headquarters
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Kansas City, MO 64114
O 816-333-9400
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APPENDIX B – OPINIONS OF PROBABLE CONSTRUCTION COSTS

OPINION OF PROBABLE CONSTRUCTION COST
Price Park Tank: 5 MG Tank
D110 Type-3 Concrete Tank with Domed Roof
City of Longmont

BMcD - 121465

Description	Unit	Quantity	Unit Cost	Total Cost
General Requirements (Included in GC's below)				
Demolition				
Concrete Demolition	CY	2,757	$135	$372,195
Building Removal	SF	104,347	$7	$730,429
Earthwork				
Excavation	CY	11,982	$8	$95,856
Backfill - Onsite	CY	11,982	$10	$119,820
Backfill - Hauled	CY	39,694	$25	$992,350
Exterior Improvements				
Fence	LS	1	$370,000	$370,000
Landscaping	LS	1	$330,000	$330,000
Pavement	LS	1	$180,000	$180,000
Yard Piping				
30" PVC	LF	920	$450	$414,000
24" PVC	LF	700	$400	$280,000
18" PVC (Distribution Lines)	*LF*	*300*	*$350*	*$105,000*
8" PVC (Distribution Lines)	*LF*	*920*	*$250*	*$230,000*
PRVs	EA	5	$60,000	$300,000
Butterly Valves	EA	16	$10,000	$160,000
Flow Meter	EA	7	$35,000	$245,000
Pump Station	EA	1	$1,632,200	$1,632,200
Pre-Cast Concerete				
Valve and Meter Vaults	EA	7	$120,000	$840,000
Concrete Foundation				
Base Slab and Void Forms	SF	2,000	$610	$1,220,000
Drilled Piers (Assuming 20 ft depth)	LF	3,500	$210	$735,000
Special Construction				
AWWA D-110 Type 3 w/ Dome Roof	LS	1	$3,105,000	$3,105,000
Flat Roof Adder (Not included in total cost)				*$465,750*
Mixing System	LS	1	$180,000	$180,000
Temporary Generator Hook-Up	LS	1	$30,000	$30,000
Permanent Generator Adder (Not included in total cost)				*$130,000*
Electrical	LS	1	$165,000	$165,000
Material and Labor Subtotal				**$12,831,850**
Contractor's General Conditions (12%)				$1,540,000
Subtotal				**$14,371,850**
Contractor Overhead and Profit (15%)				$2,156,000
Contingency (20%)				$2,874,000
Subtotal				**$19,401,850**
Engineering				$1,315,250
Construction Management				$1,150,000
Total Cost				**$21,867,100**

(1) - All values are conceptual construction costs.

OPINION OF PROBABLE CONSTRUCTION COST
Price Park Tank: 8 MG Tank
D110 Type-3 Concrete Tank with Domed Roof
City of Longmont

BMcD - 121465

Description	Unit	Quantity	Unit Cost	Total Cost
General Requirements (Included in GC's below)				
Demolition				
Concrete Demolition	CY	2,757	$135	$372,195
Building Removal	LF	104,347	$7	$730,429
Earthwork				
Excavation	CY	19,171	$8	$153,368
Backfill - Onsite	CY	19,171	$10	$191,710
Backfill - Hauled	CY	11,412	$25	$285,300
Exterior Improvements				
Fence	LS	1	$370,000	$370,000
Landscaping	LS	1	$330,000	$330,000
Pavement	LS	1	$180,000	$180,000
Yard Piping				
30" PVC	LF	920	$450	$414,000
24" PVC	LF	700	$400	$280,000
18" PVC (Distribution Lines)	*LF*	*300*	*$350*	*$105,000*
8" PVC (Distribution Lines)	*LF*	*920*	*$250*	*$230,000*
PRVs	EA	5	$60,000	$300,000
Butterly Valves	EA	16	$10,000	$160,000
Flow Meter	EA	7	$35,000	$245,000
Pump Station	EA	1	$1,632,200	$1,632,200
Pre-Cast Concerete				
Valve and Meter Vaults	EA	7	$120,000	$840,000
Concrete Foundation				
Base Slab and Void Forms	SF	3,000	$610	$1,830,000
Drilled Piers (Assuming 20 ft depth)	LF	5,500	$210	$1,155,000
Special Construction				
AWWA D-110 Type 3 w/ Dome Roof	LS	1	$4,370,000	$4,370,000
Flat Roof Adder (Not included in total cost)				*$655,500*
Mixing System	LS	1	$200,000	$200,000
Temporary Generator Hook-Up	LS	1	$30,000	$30,000
Permanent Generator Adder (Not included in total cost)				*$130,000*
Electrical	LS	1	$165,000	$165,000
Material and Labor Subtotal				**$14,569,202**
Contractor's General Conditions (12%)				$1,748,000
Subtotal				**$16,317,202**
Contractor Overhead and Profit (15%)				$2,448,000
Contingency (20%)				$3,263,000
Subtotal				**$22,028,202**
Engineering				$1,650,000
Construction Management				$1,200,000
Total Cost				**$24,878,202**

(1) - All values are conceptual construction costs.

Conceptual
OPINION OF PROBABLE CONSTRUCTION COST
City of Longmont
Price Park Pump Station

Description	Unit	Quantity	Unit Cost	Total Cost
DIVISION 01				
General Requirements				
See Below				
DIVISION 03				
Concrete				**$253,150**
Pump Station Upper Vault Slab	CY	80	$800	$64,000
Pump Station Base Slab	CY	60	$600	$36,000
Pump Station Exterior Walls	CY	80	$750	$60,000
Pump Pads	EA	3	$2,500	$7,500
Electrical Equipment Pads	EA	2	$500	$1,000
Drilled Shafts - Pump Station	LF	350	$210	$73,500
Void Form	SF	1,030	$5	$5,150
Electrical Building Slab	CY	10	$600	$6,000
DIVISION 04				
Masonry				**$26,000**
8" CMU (Exterior) - Electrical Building	SF	650	$20	$13,000
Veneer	SF	650	$20	$13,000
DIVISION 05				
Metals				**$116,400**
Architectural & Structural Steel (Roof Trusses)	SF	180	$35	$6,300
Handrails and Railings (aluminum)	LF	15	$100	$1,500
Stairs (aluminum)	LS	1	$15,000	$15,000
Hatches	EA	5	$10,000	$50,000
1.5" Metal Deck (EB Roof)	SF	200	$7	$1,400
Miscellaneous Metals	LS	1	$10,000	$10,000
Pipe supports	LS	1	$30,000	$30,000
6" Bollards	EA	4	$300	$1,200
Gutters and downspout	LS	1	$1,000	$1,000
DIVISION 06				
Wood, Plastics and Composites				**$15,000**
Rough Carpentry	LS	1	$10,000	$10,000
Anchors and Fasteners	LS	1	$5,000	$5,000
DIVISION 07				
Thermal and Moisture Protection				**$24,030**
Bituminous Dampproofing	SF	1,470	$4	$5,880
Caulking/Sealant	LS	1	$10,000	$10,000
Building Insulation	SF	650	$3	$1,950
Roof Insulation	SF	200	$4	$800
Metal Roofing	SF	200	$27	$5,400
DIVISION 08				
Openings				**$10,500**
Single Man Door	EA	1	$4,500	$4,500

Double Man Door	EA	1	$6,000	$6,000
DIVISION 09				
Finishes				**$23,900**
Painting - Walls	SF	650	$6	$3,900
Painting - Pipe	LS	1	$20,000	$20,000
DIVISION 10				
Specialties				**$1,000**
Fire Extinguishers	EA	2	$500	$1,000
DIVISION 22				
Plumbing				**$11,750**
Hose Bibbs	EA	1	$500	$500
Valves	EA	2	$120	$240
Potable Water Piping	LS	1	$5,000	$5,000
Water Meter	EA	1	$500	$500
Backflow Preventer	EA	1	$2,500	$2,500
Pipe Insulation	LF	100	$5	$510
Sump Pump & Piping	EA	1	$2,500	$2,500
DIVISION 23				
Heating, Ventilating and Air Conditioning (HVAC)				**$69,700**
Air handling unit / Air cooled unit	EA	1	$15,000	$15,000
Exhaust Fan - Pump Room	EA	1	$7,500	$7,500
Louvers/Dampers	EA	2	$4,500	$9,000
Motorized Dampers	EA	2	$1,000	$2,000
Unit Heater	EA	3	$4,000	$12,000
Baseboard Heater	EA	1	$500	$500
Ductwork and Fittings	LS	1	$7,500	$7,500
Grilles and Diffusers	EA	3	$400	$1,200
Controls	LS	1	$15,000	$15,000
DIVISION 26				
Electrical				**$325,350**
30KVA transformer	EA	1	$3,850	$3,850
Panelboards	EA	1	$8,000	$8,000
Switchboard 1	EA	1	$25,000	$25,000
VFD 100HP	EA	2	$50,000	$100,000
VFD 250HP	EA	1	$82,000	$82,000
Lighting	EA	13	$500	$6,500
Conduit and Conductors	LS	1	$80,000	$80,000
Miscellaneous	LS	1	$20,000	$20,000
DIVISION 31				
In Main Estimate				**$0**
Division 33				
Utility			**Division 33 Total:**	**$661,400**
PS Interior Piping & Micellaneous				**$661,400**
PS Steel Pipe & Fittings	LS	1	$75,000	$75,000
30" Butterfly Valve w/ Handwheel FL x FL	EA	2	$15,000	$30,000
12" Butterfly Valve w/ Handwheel FL x FL	EA	6	$3,000	$18,000
12" Altitude Valve	EA	1	$15,000	$15,000

12" Check Valve	EA	3	$12,000	$36,000
12" Dismantling Joint	EA	6	$2,500	$15,000
4" Slow Closing Air/Vacuum Valve	EA	4	$5,000	$20,000
3" Expansion Joint	EA	6	$400	$2,400
6 MGD Horizontal Split-Case Pumps	EA	1	$250,000	$250,000
3 MGD Horizontal Split-Case Pumps	EA	2	$100,000	$200,000
Division 40				
Process Integration				**$94,000**
Pressure Transmitter	EA	2	$2,000	$4,000
PLC cabinet	LOT	1	$25,000	$25,000
Miscellaneous	LOT	1	$65,000	$65,000
Subtotal				**$1,632,200**
Construction Cost Subtotal				**$1,632,200**

APPENDIX C – LONGMONT SUSTAINABILITY EVALUATION SHEET

LONGMONT SUSTAINABILITY EVAULATION SYSTEM - MODULE 1

Best Practices *Organizational*	This category includes topics related to how the project meets larger organizational objectives.	**Alignment**	Does the project have any relationship to other City plans or policies and if so, is it aligned with the goals or directives in those plans and policies? Alignment helps insure that the project meets broader community goals.	The project was identified in the ITWSMP; budgeted in the water rate and fee study; and included in the 5-year CIP.
		Integration	Does the project include opportunities for combining or coordinating it with other plans or projects? Sharing resources encourages efficiency and can reduce costs.	There is potential for park and/or parking on the north side of the property depending on the tank project needs.
		Partnerships	Are any internal or external partnerships identified that would benefit this project? Partnerships can provide better access to, and utilization of, resources, increase project efficiency, and foster relationships for present and future support.	
		Stakeholder engagement	Does the project include any methods or techniques for considering viewpoints and feedback from affected parties? Informing and including stakeholders increases the chances for project acceptance and success.	The project may be presented in public discussion for the bond election. Informal meetings with City staff (Utility Operations, LPC, Forestry, Golf, Recreation, and Transportation) have been held for the study. Further public meetings are expected during the design and construction phases.

Best Practices *Assets and Infrastructure*	This category includes topics related to the features of a project that verify performance, improve long-term reliability, reduce maintenance and repair efforts and increase resiliency.	**Adaptation/Adaptability**	Does the project incorporate features that can adapt to, or be readily modified to adapt to different operating or environmental conditions? The ability to adapt to future or changing conditions can extend project life and reduce risk of failure.	Pumps and control valves are included in the design increase the ability to delivery to all pressure zones.
		Commissioning	Is initial performance verification needed for the project and if so, are applicable methods and required performance parameters identified? Verifying performance protects the integrity of the project's intent and purpose.	Inspection and startup testing will be completed during construction phase
		Ongoing monitoring & evaluation	Are there provisions for ongoing monitoring and evaluation of the project's performance, including identification of applicable performance parameters, monitoring frequencies, etc.? Continued monitoring helps ensure that the project functions as intended throughout its useful life.	SCADA will be installed to monitor and control the equipment, and to monitor water quality.
		Long-term maintenance and repair	Have long-term maintenance and repair efforts and costs been adequately considered and quantified for the life of the project? Long-term maintenance needs must be identified in as much detail as possible early in the alternative evaluation process to insure that future O&M needs are thoroughly considered in life cycle project costs.	The tank type selection and design considers maintenance and repair costs.
		Reliability	Does the project include features that reduce the potential of failure, increase durability or otherwise improve its overall reliability or the reliability of associated	Same comment as Adaptation / Adaptability

			assets and/or infrastructure? Maximizing reliability of a project involves identifying potential failure points and minimizing the resultant risks, which also reduces the financial risk of unplanned maintenance and repair.	
		Resilience	Does the project, by itself or in conjunction with other projects, improve the City's capacity to recover after unplanned failures of critical infrastructure? Features that increase resiliency reduce the consequences associated with reduction or loss of essential resources.	Same comment as Adaptation / Adaptability

Best Practices *Financial*	This category includes topics related to financing, budgeting and cost recovery.	**Debt ratios**	Is the total debt/total asset ratio of the funding source for this project still within an acceptable range based on City/Department guidelines after the cost of this project is added? Keeping the ratio reasonable meets legal debt requirements and promotes greater financial stability.	
		Funding of capital costs	Have all options for funding capital costs of the project been identified and evaluated in order to determine which option is the most financially sustainable?	
		Operations & Maintenance (O&M) cost recovery	Has long-term financing been identified to fund life cycle operational and maintenance costs? Making sure these costs are properly considered supports sustainable asset management.	The study includes life cycle costs. The new tank, pipes and vaults will reduce O&M costs.
		Rate impacts	Will the project result in rate changes that affect users' ability to pay? Ensuring that future rates do not create undue financial burdens, especially for the lowest income users, demonstrates responsible planning and improves customer confidence.	
		Resilience	Will the project, by itself or in conjunction with other projects, improve the City's capacity to sustain financial health during periods of unplanned economic adversity (i.e. business failures, tax revenue decreases, etc.)? Financial resilience reduces the need to increase taxes or fees to deal with negative economic impacts.	

Buildings and Infrastructure	This category encompasses topics that are related to growth, development or urbanization.	**Accessibility**	Does the project improve or enhance the accessibility of urban features such as transportation corridors/hubs/links, retail and commercial business areas, work places, open space and greenways, etc.? Easier accessibility to urban amenities for all users improves quality of life.	
		Ambient light and noise	Does the project address minimizing and managing light and glare, light trespass, and ambient noise levels? Mitigating the effects of these helps protect public health and the environment.	
		Cultural and historic preservation	Does the project involve identifying, preserving and/or rehabilitating historic or cultural resources? These resources help retain a unique community identity.	
		Development footprint	Is the project's footprint on its site, both during and after construction, minimized to the extent possible? Reducing the project footprint uses land more efficiently and can minimize environmental impacts.	A single, taller circular tank will have a significantly smaller footprint.
		Floodplain protection	Is the project located out of the floodplain or include features that preclude any damage or resultant flood damage? Limiting development or the consequences of development in floodplains reduces the costs of responding to and managing floods and supports community resilience.	
		Heat island effect	Does the project include features that will mitigate localized temperature rises? Options such as light colored pavement or roofs concrete pavement or green roofs helps reduce temperatures.	

		Housing options	Does the project involve housing or affect availability of housing? A mix of housing types supports residents of different income levels and varied life stages.	
		Indoor air quality	Are appropriate ventilation and treatment mechanisms and air quality monitoring tools included in the project to ensure a healthy indoor environment? Maintaining good indoor air quality protects people from exposure to harmful substances during and after construction.	
		Infill or redevelopment	Does the project involve redeveloping underutilized land or developing pockets of undeveloped land encircled by existing development? Infill and redevelopment promote efficient use of existing resources and promote diverse development.	
		Low impact development (LID)	Does the project include LID infrastructure such as bio-retention, grassed swales, ponds, permeable pavement, etc.? LID features increase infiltration, reduce runoff and erosion, and preserve the balance between managed and natural lands.	With the smaller footprint, there is potential for LID improvements on the north side of the property.
		Public spaces	Is facilitating community access to public spaces incorporated into the project? Access to public spaces promotes a stronger sense of community, fosters community engagement, and supports stewardship of the environment.	There is potential for park and/or parking on the north side of the property depending on the tank project needs.
		Scale and massing	Does the project include an analysis of scale and massing (such as height, setbacks, and form) to help identify potential impacts such as solar access, shadows, runoff, snow storage, blockage of views, and visual/aesthetic consistency? Accounting	The new tank walls are similar to the existing building height; although a domed tank roof would be higher at the center. The new tank is set back

			for scale and massing can improve public perception and acceptance of the project and reduce operating costs for street maintenance, snow removal, etc.	further from the street and roughly 5 times further from the residences north of the site.
		Site compatibility	Does the project include consideration of how the physical features of the site (drainage, soil types, groundwater, proximity to natural resources, vegetation) are compatible with the project? Insuring that a project is suitable for a site can reduce capital and life-cycle costs and environmental impacts.	Site drainage is expected to be improved by the smaller structure footprint.
		Vegetation	Does the project involve preservation of existing vegetation and soils, or planting species that are native or suited to local conditions and the intended use of the project site? Using appropriate vegetation supports ecological balance and can reduce maintenance costs.	Roughly three quarters of the existing trees can be preserved while accommodating pipe installations and re-grading. Removed trees can be replaced in the reclaimed area on the north side of the site.
		Spatial awareness and navigation	Does the project include signs, distinctive features or other physical attributes that allow visitors and community members to orient themselves within a facility or area? Facilitating awareness of location and orientation in the community helps people navigate streets, transportation options and City facilities more efficiently.	

Energy	This category includes topics related to energy sources and energy use.	**Alternative fuels**	Does the project consider the use of alternative fuels (low-sulfur, natural gas, bio-fuels) in machinery and vehicles? Alternative fuels can help improve air quality and reduce greenhouse gas emissions.	
		Energy efficiency	Does the project include features that provide for efficient use of energy over the life of the project (e.g. high efficiency motors, power management, low wattage lighting, etc.)? Energy efficient equipment can decrease costs and reduce greenhouse gas emissions and other pollutants.	The project will include high efficiency motors.
		Renewable energy	Will the project produce or use renewable energy? Renewables and energy harvesting can reduce the economic and environmental costs of project operations and extend the life of existing utility infrastructure (power plants, distribution systems, etc.)	Use of power generating water turbines as control valves is considered in the study.
		Embodied energy	Does the project include a consideration of the cost of the embodied energy associated with manufacturing or transporting materials and equipment? Materials and equipment that use less energy to produce or transport conserve resources and reduce pollution.	

Transportation	This category includes topics related to transportation options.	**Bicyclists and pedestrians**	Does the project address needs of bicyclists and pedestrians? Protecting and facilitating pedestrians and bicycles encourages multiple modes of travel, which helps reduce vehicle emissions and congestion.	The increased setback from the street should improve safety.
		Freight delivery systems	Does the project impact the volume and/or routes of freight traffic, including trains, trucks, and airplanes? Optimizing the concentration and routing of freight travel mitigates noise, traffic, air pollution, and other byproducts of freight carriers.	
		Level of service	Does the project affect the traffic amounts in existing and/or proposed transportation corridors? Reducing volume-to-capacity ratios for key intersections and roadways can mitigate traffic congestion and its negative impacts.	There will be heavy truck traffic during construction – on the order of 2000 trips.
		Parking	Does the project address types/availability of parking (locations, amounts, free vs paid, etc.) and parking alternatives (walking, public transport, etc.)? Parking design influences transportation choices as well as the experience of citizens, businesses, employees. and visitors	There is potential for parking on the north side of the property depending on the tank project needs.
		Transit	Does the project improve affordability, accessibility, comfort, timeliness, locations, and safety of various transit services?	
		Vehicle miles traveled (VMT)	Does the project have aspects that manage total VMT? Optimizing and reducing VMT reduces greenhouse gas emissions, air pollution, and congestion.	

Community and Individual Well-being	This category includes topics that contribute to the identity of the community and the health, safety, and wellness of its residents.	**Arts and culture**	Are arts and cultural resources an integral part of the project or incorporated into the project design? Cultural and artistic aspects of a project enhance the community's image and identity.	
		Crime and law enforcement	Are there aspects of the project that may affect crime, such as lighting, visibility, underpasses, etc.? Collaboration with community law enforcement and the public during project design can reduce the risk of criminal activity.	
		Diversity and rights	Does the project support the City's goals of respecting and upholding civil and human rights? Including community values in planning, design and implementation of a project ensures that the project meets the needs of the entire community.	
		Education	Does the project provide opportunities to educate the community about the project and its purpose? Integrating educational features into a project can increase community support and engagement.	
		Environmental justice	Are there aspects of the project that eliminate or reduce pollution and neighborhood impacts for all ethnic and economic groups? Environmental equity helps protect disadvantaged populations from health and safety hazards.	
		Food and nutrition	Does the project address physical and economic access to nutrition education and fresh, nutritious food for all residents? Increasing access to these resources supports local food security and community health.	

		Hazard mitigation	Have potential human-created and natural hazards been identified, and features or systems to minimize or mitigate those hazards been incorporated into the design? Preparing for these types of hazards addresses health and economic concerns.	Placement of fencing may minimize safety concerns.
		Health and human services	Does the project pertain to access and availability of healthcare for residents? Local, accessible healthcare facilities and related resources encourage a healthy and productive community.	
		Safety Features	Does the project address safety of the public and public employees? Project designs that prevent or minimize the risk of potential dangers reduce injuries to people and property.	A new tank design will improve public employee safety and water quality in the water distribution system.
		Sense of community	Does the project build-upon and cultivate the local community and its culture? Providing venues and opportunities for community events and the sharing of information with the community promotes community identity and increases connections between citizens.	

Economic Vitality	This category covers topics related to sustaining existing businesses, attracting new businesses to diversify the local economy and supporting jobs and housing for a local workforce.	**Business development**	Does the project support existing business and/or attract new or more diverse businesses? Supporting a healthy business climate fosters economic prosperity and stability.	Construction projects support local businesses during construction.
		Affordable Housing	Does the project increase or encourage more affordable housing? Maintaining a varied, affordable supply of housing options improves community diversity and moderates increases in housing costs.	
		Jobs	Does the project add to or diversify employment opportunities? Expanding opportunities for jobs that take advantage of local skills and capabilities and promote stable, higher wage jobs supports upward mobility and higher standards of living.	
		Local commodities and services	Does the project provide opportunities for using local commodities and services? Investing in local goods and services supports the local economy and community self-reliance.	
		Resilience	Will the project, by itself or in conjunction with other projects, improve the City's capacity to recover after unplanned economic losses? Increasing resilience reduces consequences associated with losing jobs, industries or commodities during times of economic difficulty.	A larger tank and pump station will significantly improve the City's capacity to maintain water service during an emergency in the water distribution system.

Materials and Waste	This category covers topics related to waste management, reuse, and materials sourcing.	**Deconstruction/Reuse**	Does the project have opportunities for deconstruction and reuse of materials and equipment? Reusing materials maximizes economic efficiency and minimizes adverse effects on the environment.	Demolition of the existing reservoirs will include a significant quantity of metal and concrete that may be suitable for recycling.
		Materials sourcing	Are materials with low VOCs, containing high recycled content, or third-party certified renewable being utilized in the project? These types of materials support producers, suppliers and manufacturers of sustainable products.	The selection of a concrete tank will largely eliminate VOC-containing coatings associated with steel tanks.
		Waste	Does the project include minimizing the production or use of waste materials throughout the project's lifetime? This minimizes the volume of material sent to landfills and reduces both environmental impacts and disposal costs.	The selection of a concrete tank has less maintenance which will minimize waste materials.

Natural Environment	The category covers topics related to land management, ecosystems and habitats, air quality, and other natural resources.	**Agricultural lands**	Does the project protect and maintain farms, ranches, and other working lands? Agriculture supports the local economy, local food supplies and self-sufficiency.	
		Air quality	Does the project ensure that air quality remains high during both ambient and transient conditions? Good air quality reduces both human and environmental health problems associated with air pollution.	
		Aquatic habitat	Does the project protect and restore the biological characteristics, quality, and hydrological integrity of surface water and groundwater? Aquatic habitat management and protection of water quality helps maintain ecosystem functionality.	
		Climate adaptation	Does the project anticipate and implement measures to address climate-related risks (droughts, floods, etc.)? Preparing for climate adaptation improves community resiliency.	
		Ecological connectivity	Does the project prevent the fragmentation of open spaces and other habitat areas and retain ecological buffer zones? Ecological connectivity helps preserve and protect native ecosystems.	
		Natural floodplains	Does the project limit development in floodplains and maintain natural floodplain systems and riparian areas? Allowing or encouraging natural floodplains to the extent possible helps mitigate the effects of flooding on the community, reduces the costs of hard infrastructure and protects the integrity of riparian ecosystems.	

		Greenhouse gas emissions (GHG)	Does the project result in a reduction in greenhouse gas emissions? Short and long-term reductions in greenhouse gases help reduce the anthropogenic climate change.	
		Tree canopy	Does the project protect, maintain, and/or enhance tree canopy area? The tree canopy provides wildlife habitat, reduces energy use through shading and helps prevent erosion caused by stormwater runoff.	Roughly three quarters of the existing trees can be preserved while accommodating pipe installations and re-grading. Removed trees can be replaced in the reclaimed area on the north side of the site.
		Wildlife and habitat	Does the project preserve or restore non-aquatic wildlife species and habitat? Wildlife and habitat preservation promotes biodiversity and helps maintain a balance between nature and development.	

Water Resources	This category covers topics related to protection of potable water sources and sustainable water supplies.	**Irrigation Efficiency**	Does the project use low-water/xeric landscaping and high efficiency irrigation where possible? An effort to implement irrigation efficiency and native vegetation preserves water resources for other uses.	
		Water Conservation	Does the project use the least amount of water possible and/or reduce future water use? Insuring that a project uses water appropriately and efficiently and includes features that promote ongoing water conservation helps maintain an adequate water supply for the future.	
		Water source protection	Does the project protect raw water sources from pollutants that might be a result of wildfires, runoff and erosion, land use, human activities, etc.? Protecting the watershed ensures that potable water supplies are reliable and safe.	
		Water management	Does the project include mechanisms to adjust sources, delivery and use of water in response to changing conditions (e.g., precipitation, temperature) and forecasts (e.g., snowpack levels, reservoir storage)? Good water management techniques, including efficient delivery methods and appropriate end uses, conserve resources and help insure a sustainable water supply.	

Water Quality	This category covers topics related to water pollution.	**Watershed health**	Does the project result in an improvement in the chemical or biological quality of water in the watershed, including improvements to aquatic habitat and aquatic life? Projects that include pollution prevention or treatment protect the ecological integrity of the watershed.	
		Pollution control	Does the project minimize the use, production or discharge of chemicals (pesticides, fertilizers) organic matter, sediment/suspended solids and other pollutants? Managing or eliminating contaminants maintains the health of soils, groundwater and surface water, which protects beneficial uses and the environment.	
		Stormwater management	Does the project include features that control stormwater runoff to reduces flows and encourage infiltration? Stormwater management reduces pollutants and helps protect surface water quality and conditions for aquatic life.	

APPENDIX D – LIFE CYCLE COSTS

Price Park Improvements Project Life Cycle Costs

Annual Pumping Electrical Cost & Tank Life Cycle Cost

Assumptions	
Electricity	**$/kW-h**
Electrical Cost ($/KW-hr)	$ 0.10

Tank Life Cycle Cost

Tank Description	Project Cost(1)	Maintenance Cost over 60 yrs	Net Present Worth (60 yrs) (2)	Total Cost of Ownership (60 yrs)
Price Park - 5 MG Tank	$ 21,900,000	$ 4,900,000	$ 26,800,000	$ 28,900,000
Price Park - 8 MG Tank	$ 24,900,000	$ 6,000,000	$ 30,900,000	$ 33,600,000

(1) - Includes total project costs.
(2) - Based on 3% inflation rate and 1% discount rate.

Sheet Notes and Assumptions:
1) All values are conceptual construction costs.
2) Values in this sheet are linked to the 'Cost Estimate' sheets. Look in the same folder if you would like edit incoming values.
3) This excel workbook only calculates the 40 and 60 year life cycle costs for the tank types indicated.
4) Repair and Maintenance Cost schedules/time span are assumed for calculation. The amount of repairs and types may need to be edited per type of tank.

AWWA D110 TYPE 3 PRESTRESSED CONCRETE CAST-IN-PLACE CORE WALL TANK W/ DOMED ROOF - 5 MG

Overall Cost to Construct	$ 21,867,100

Periodic Painting:	$ 25,000.00	(Every 5 years)
Operation (Pump & Actuator) Costs:	$ 33,968	(Annual)
Periodic Repair Concrete Damage:	$ 150,000	(Every 20 years)
Total Recoat (Exterior):	$ 266,001	
Inflation Rate	3%	
Discount Rate:	1%	

Related to sqft

Tot Paint cost	Engineering/Admin
$ 204,616	$ 266,001

60-Year Life-Cycle Cost

Year	Cost to Construct	Operation Costs	Painting	Concrete Repair	Total Recoat	Total Cost	Present Worth
2021	$ 21,867,100.00					$ 21,867,100.00	$ 21,867,100.00
2022		$ 34,987.17				$ 34,987.17	$ 34,640.76
2023		$ 36,006.21				$ 36,006.21	$ 35,296.74
2024		$ 37,025.25				$ 37,025.25	$ 35,936.35
2025		$ 38,044.30				$ 38,044.30	$ 36,559.82
2026		$ 39,063.34	$ 28,750.00			$ 67,813.34	$ 64,522.07
2027		$ 40,082.38				$ 40,082.38	$ 37,759.42
2028		$ 41,101.43				$ 41,101.43	$ 38,336.04
2029		$ 42,120.47				$ 42,120.47	$ 38,897.55
2030		$ 43,139.51				$ 43,139.51	$ 39,444.18
2031		$ 44,158.56	$ 32,500.00			$ 76,658.56	$ 69,397.99
2032		$ 45,177.60				$ 45,177.60	$ 40,493.76
2033		$ 46,196.65				$ 46,196.65	$ 40,997.18
2034		$ 47,215.69				$ 47,215.69	$ 41,486.66
2035		$ 48,234.73				$ 48,234.73	$ 41,962.43
2036		$ 49,253.78	$ 36,250.00			$ 85,503.78	$ 73,648.63
2037		$ 50,272.82				$ 50,272.82	$ 42,873.73
2038		$ 51,291.86				$ 51,291.86	$ 43,309.70
2039		$ 52,310.91				$ 52,310.91	$ 43,732.82
2040		$ 53,329.95				$ 53,329.95	$ 44,143.33
2041		$ 54,348.99		$ 240,000.00	$ 425,600.98	$ 719,949.98	$ 590,031.02
2042		$ 55,368.04				$ 55,368.04	$ 44,927.30
2043		$ 56,387.08				$ 56,387.08	$ 45,301.17
2044		$ 57,406.13				$ 57,406.13	$ 45,663.23
2045		$ 58,425.17				$ 58,425.17	$ 46,013.68
2046		$ 59,444.21	$ 43,750.00			$ 103,194.21	$ 80,467.59
2047		$ 60,463.26				$ 60,463.26	$ 46,680.53
2048		$ 61,482.30				$ 61,482.30	$ 46,997.31
2049		$ 62,501.34				$ 62,501.34	$ 47,303.24
2050		$ 63,520.39				$ 63,520.39	$ 47,598.50
2051		$ 64,539.43	$ 47,500.00			$ 112,039.43	$ 83,124.62
2052		$ 65,558.48				$ 65,558.48	$ 48,157.76
2053		$ 66,577.52				$ 66,577.52	$ 48,422.10
2054		$ 67,596.56				$ 67,596.56	$ 48,676.49
2055		$ 68,615.61				$ 68,615.61	$ 48,921.10
2056		$ 69,634.65	$ 51,250.00			$ 120,884.65	$ 85,334.19
2057		$ 70,653.69				$ 70,653.69	$ 49,381.63
2058		$ 71,672.74				$ 71,672.74	$ 49,597.89
2059		$ 72,691.78				$ 72,691.78	$ 49,805.02
2060		$ 73,710.82				$ 73,710.82	$ 50,003.19
2061		$ 74,729.87		$ 330,000.00	$ 585,201.35	$ 989,931.22	$ 664,890.41
2062		$ 75,748.91				$ 75,748.91	$ 50,373.26
2063		$ 76,767.96				$ 76,767.96	$ 50,545.47
2064		$ 77,787.00				$ 77,787.00	$ 50,709.34
2065		$ 78,806.04				$ 78,806.04	$ 50,865.00
2066		$ 79,825.09	$ 58,750.00			$ 138,575.09	$ 88,557.09
2067		$ 80,844.13				$ 80,844.13	$ 51,152.32
2068		$ 81,863.17				$ 81,863.17	$ 51,284.25
2069		$ 82,882.22				$ 82,882.22	$ 51,408.56
2070		$ 83,901.26				$ 83,901.26	$ 51,525.38
2071		$ 84,920.30	$ 62,500.00			$ 147,420.30	$ 89,637.27
2072		$ 85,939.35				$ 85,939.35	$ 51,737.09
2073		$ 86,958.39				$ 86,958.39	$ 51,832.25
2074		$ 87,977.44				$ 87,977.44	$ 51,920.45
2075		$ 88,996.48				$ 88,996.48	$ 52,001.83
2076		$ 90,015.52	$ 66,250.00			$ 156,265.52	$ 90,403.99
2077		$ 91,034.57				$ 91,034.57	$ 52,144.61

2078		$ 92,053.61				$ 92,053.61	$ 52,206.25
2079		$ 93,072.65				$ 93,072.65	$ 52,261.57
2080		$ 94,091.70				$ 94,091.70	$ 52,310.67
2081		$ 95,110.74		$ 420,000.00	$ 744,801.72	$ 1,259,912.46	$ 693,518.33
						$ 28,943,141.25	$ 26,764,232.11

Price Park Motor List - 5 MG Tank					
Description	**HP**	**Power (kW)**	**Yearly KW-h**	**Yearly Cost**	**Assumptions / Notes**
Pumps					Assume operating 50% of the time, split between two duty pumps
Pump 1	100	18.6	163,308	$ 16,331	
Pump 2	100	18.6	163,308	$ 16,331	
Pump 3	250	0.0	-	$ -	
Valve Actuators					Assume valves are modulating 50% of the time
PRV Inlet Valve	0.5	0.2	1633	$ 163	
PRV Outlet Valve	0.5	0.2	1633	$ 163	
Pump 1 Inlet Valve	0.5	0.2	1633	$ 163	
Pump 1 Outlet Valve	0.5	0.2	1633	$ 163	
Pump 2 Inlet Valve	0.5	0.2	1633	$ 163	
Pump 2 Outlet Valve	0.5	0.2	1633	$ 163	
Pump 3 Inlet Valve	0.5	0.2	1633	$ 163	
Pump 3 Outlet Valve	0.5	0.2	1633	$ 163	
Total	454	39	339,681	$ 33,968	

AWWA D110 TYPE 3 PRESTRESSED CONCRETE CAST-IN-PLACE CORE WALL TANK W/ DOMED ROOF - 8 MG

Overall Cost to Construct	$ 24,878,202

Periodic Painting:	$ 40,000.00	(Every 5 years)
Operation (Pump & Actuator) Costs:	$ 33,968.12	(Annual)
Periodic Repair Concrete Damage:	$ 240,000	(Every 20 years)
Periodic Total Recoat (Exterior):	$ 384,311	
Inflation Rate	3%	
Discount Rate:	1%	

Related to sqft

Tot Paint cost	Engineering/Admin
$ 295,624	$ 384,311

60-Year Life-Cycle Cost

Year	Cost to Construct	Operation Costs	Painting	Concrete Repair	Total Recoat	Total Cost	Present Worth
2021	$ 24,878,202.00					$ 24,878,202.00	$ 24,878,202.00
2022		$ 34,987.17				$ 34,987.17	$ 34,640.76
2023		$ 36,006.21				$ 36,006.21	$ 35,296.74
2024		$ 37,025.25				$ 37,025.25	$ 35,936.35
2025		$ 38,044.30				$ 38,044.30	$ 36,559.82
2026		$ 39,063.34	$ 46,000.00			$ 85,063.34	$ 80,934.85
2027		$ 40,082.38				$ 40,082.38	$ 37,759.42
2028		$ 41,101.43				$ 41,101.43	$ 38,336.04
2029		$ 42,120.47				$ 42,120.47	$ 38,897.55
2030		$ 43,139.51				$ 43,139.51	$ 39,444.18
2031		$ 44,158.56	$ 52,000.00			$ 96,158.56	$ 87,051.09
2032		$ 45,177.60				$ 45,177.60	$ 40,493.76
2033		$ 46,196.65				$ 46,196.65	$ 40,997.18
2034		$ 47,215.69				$ 47,215.69	$ 41,486.66
2035		$ 48,234.73				$ 48,234.73	$ 41,962.43
2036		$ 49,253.78	$ 58,000.00			$ 107,253.78	$ 92,382.98
2037		$ 50,272.82				$ 50,272.82	$ 42,873.73
2038		$ 51,291.86				$ 51,291.86	$ 43,309.70
2039		$ 52,310.91				$ 52,310.91	$ 43,732.82
2040		$ 53,329.95				$ 53,329.95	$ 44,143.33
2041		$ 54,348.99		$ 384,000.00	$ 614,897.65	$ 1,053,246.64	$ 863,182.46
2042		$ 55,368.04				$ 55,368.04	$ 44,927.30
2043		$ 56,387.08				$ 56,387.08	$ 45,301.17
2044		$ 57,406.13				$ 57,406.13	$ 45,663.23
2045		$ 58,425.17				$ 58,425.17	$ 46,013.68
2046		$ 59,444.21	$ 70,000.00			$ 129,444.21	$ 100,936.51
2047		$ 60,463.26				$ 60,463.26	$ 46,680.53
2048		$ 61,482.30				$ 61,482.30	$ 46,997.31
2049		$ 62,501.34				$ 62,501.34	$ 47,303.24
2050		$ 63,520.39				$ 63,520.39	$ 47,598.50
2051		$ 64,539.43	$ 76,000.00			$ 140,539.43	$ 104,269.43
2052		$ 65,558.48				$ 65,558.48	$ 48,157.76
2053		$ 66,577.52				$ 66,577.52	$ 48,422.10
2054		$ 67,596.56				$ 67,596.56	$ 48,676.49
2055		$ 68,615.61				$ 68,615.61	$ 48,921.10
2056		$ 69,634.65	$ 82,000.00			$ 151,634.65	$ 107,041.05
2057		$ 70,653.69				$ 70,653.69	$ 49,381.63
2058		$ 71,672.74				$ 71,672.74	$ 49,597.89
2059		$ 72,691.78				$ 72,691.78	$ 49,805.02
2060		$ 73,710.82				$ 73,710.82	$ 50,003.19
2061		$ 74,729.87		$ 528,000.00	$ 845,484.26	$ 1,448,214.13	$ 972,697.57
2062		$ 75,748.91				$ 75,748.91	$ 50,373.26
2063		$ 76,767.96				$ 76,767.96	$ 50,545.47
2064		$ 77,787.00				$ 77,787.00	$ 50,709.34
2065		$ 78,806.04				$ 78,806.04	$ 50,865.00
2066		$ 79,825.09	$ 94,000.00			$ 173,825.09	$ 111,083.78
2067		$ 80,844.13				$ 80,844.13	$ 51,152.32
2068		$ 81,863.17				$ 81,863.17	$ 51,284.25
2069		$ 82,882.22				$ 82,882.22	$ 51,408.56
2070		$ 83,901.26				$ 83,901.26	$ 51,525.38
2071		$ 84,920.30	$ 100,000.00			$ 184,920.30	$ 112,438.72
2072		$ 85,939.35				$ 85,939.35	$ 51,737.09
2073		$ 86,958.39				$ 86,958.39	$ 51,832.25
2074		$ 87,977.44				$ 87,977.44	$ 51,920.45
2075		$ 88,996.48				$ 88,996.48	$ 52,001.83
2076		$ 90,015.52	$ 106,000.00			$ 196,015.52	$ 113,400.48

2077		$ 91,034.57				$ 91,034.57	$ 52,144.61
2078		$ 92,053.61				$ 92,053.61	$ 52,206.25
2079		$ 93,072.65				$ 93,072.65	$ 52,261.57
2080		$ 94,091.70				$ 94,091.70	$ 52,310.67
2081		$ 95,110.74		$ 672,000.00	$ 1,076,070.88	$ 1,843,181.62	$ 1,014,578.62
						$ 33,585,591.99	$ 30,861,798.44

Price Park Motor List - 8 MG Tank					
Description	**HP**	**Power (kW)**	**Yearly KW-h**	**Yearly Cost**	**Assumptions / Notes**
Pumps					Assume operating 50% of the time, split between two duty pumps
Pump 1	100	18.6	163,308	$ 16,331	
Pump 2	100	18.6	163,308	$ 16,331	
Pump 3	250	0.0	-	$ -	
Valve Actuators					Assume valves are modulating 50% of the time
PRV Inlet Valve	0.5	0.2	1633	$ 163	
PRV Outlet Valve	0.5	0.2	1633	$ 163	
Pump 1 Inlet Valve	0.5	0.2	1633	$ 163	
Pump 1 Outlet Valve	0.5	0.2	1633	$ 163	
Pump 2 Inlet Valve	0.5	0.2	1633	$ 163	
Pump 2 Outlet Valve	0.5	0.2	1633	$ 163	
Pump 3 Inlet Valve	0.5	0.2	1633	$ 163	
Pump 3 Outlet Valve	0.5	0.2	1633	$ 163	
Total	454	39	339,681	$ 33,968	

APPENDIX E - RENDERINGS

BURNS McDONNELL

CREATE AMAZING.

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