# AGENDA FOR THE WORK / STUDY MEETING OF THE CITY COUNCIL OF THE CITY OF SPRINGVILLE, UTAH COUNCIL CHAMBERS, 110 SOUTH MAIN STREET AUGUST 20, 2013 – 5:15 P.M.

## MAYOR AND COUNCIL DINNER – 4:45 P.M.

*The Mayor and Council will meet in the Council Work Room for informal discussion and dinner. No action will be taken on any items.*

## CALL TO ORDER- 5:15 P.M.

## COUNCIL BUSINESS

1) Minutes

2) Calendar
   - August 27 – Board of Canvassers Meeting for the Primary Election
   - September 2 – Labor Day, City Offices Closed
   - September 3 – Work/Study Meeting 5:15 p.m., City Council Meeting 7:00 p.m.
   - September 10 – Work/Study Meeting 5:15 p.m.
   - September 11-13 – ULCT Annual Conference, Salt Lake City

3) Discussion on this evening's Regular Meeting agenda items
   a) Invocation – Cl. Child
   b) Pledge of Allegiance – Cl. Creer
   c) Consent Agenda
      1. Approval of all City purchase orders properly signed (Springville City Code §2-10-110(5))
      2. Approval of a Resolution which informs the State Of Utah Water Quality Board of actions taken by the City Council of Springville City concerning the Municipal Wastewater Planning Program Report for 2012 – Juan Garrido, Wastewater and Stormwater Superintendent

3. **DISCUSSIONS/PRESENTATIONS**
   a) Presentation of Service Awards – Rod Oldroyd, Administrative Services Manager
   b) Recreation – Charles Keeler, Recreation Director
   c) Subsidizing Detention Basin Water bills – Brad Stapley, Public Works Director
   d) Presentation of the Vehicle and Equipment spreadsheets – Troy Fitzgerald, City Administrator and Austin Roy, Intern to the City Administrator

This meeting was noticed in compliance with Utah Code 52-4-202 on August 15, 2013. Agendas and minutes are accessible through the Springville City website at www.springville.org/agendasminutes. Council Meeting agendas are available through the Utah Public Meeting Notice website at http://www.utah.gov/pmn/index.html. Email subscriptions to Utah Public Meeting Notices are available through their website.

In compliance with the Americans with Disabilities Act, the City will make reasonable accommodations to ensure accessibility to this meeting. If you need special assistance to participate in this meeting, please contact the City Recorder at (801) 489-2700 at least three business days prior to the meeting.

4. **MAYOR, COUNCIL, AND ADMINISTRATIVE REPORTS**
   a) Library Board of Directors – Mark Packard, Council representative
   b) Industrial Park Review Board – Rick Child, Council representative

5. **CLOSED SESSION – TO BE ANNOUNCED IN MOTION**

   *The Springville City Council may temporarily recess the meeting and convene in a closed session to discuss pending or reasonably imminent litigation, and the purchase, exchange, or lease of real property, as provided by Utah Code Annotated §52-4-205*

**ADJOURNMENT**

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# AGENDA FOR THE REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF SPRINGVILLE, UTAH COUNCIL CHAMBERS, 110 SOUTH MAIN STREET AUGUST 20, 2013 – 7:00 P.M.

## CALL TO ORDER

**INVOCATION AND PLEDGE**
**APPROVAL OF THE MEETING'S AGENDA**
**APPROVAL OF THE MINUTES**
**MAYOR'S COMMENTS**

**PUBLIC COMMENT:** *Audience members may bring any item not on the agenda to the Mayor and Council's attention. Please complete and submit a "Request to Speak" form. Comments will be limited to two or three minutes, at the discretion of the Mayor. State Law prohibits the Council from acting on items that do not appear on the agenda.*

## CONSENT AGENDA*

1. Approval of all City purchase orders properly signed (Springville City Code §2-10-110(5))
2. Approval of a Resolution which informs the State Of Utah Water Quality Board of actions taken by the City Council of Springville City concerning the Municipal Wastewater Planning Program Report for 2012 – Juan Garrido, Wastewater and Stormwater Superintendent

## REGULAR AGENDA

3. Consideration of a bid award and contract for the Springville PI System, Phase 1A – Bartholomew Pond project to the lowest responsible bidder, VanCon Inc., in the amount of $2,055,119.70 - Jeff Anderson, City Engineer

4. Consideration of a bid award and contract for the Springville 400 S Maintenance Compound – Interior Bay Finish project to the lowest responsible bidder – Jeff Anderson, City Engineer

5. Consideration of a contract transferring power infrastructure and changing service boundaries between Springville City and Spanish Fork City – Brandon Graham, Power Distribution Superintendent

This meeting was noticed in compliance with Utah Code 52-4-202 on August 15, 2013. Agendas and minutes are accessible through the Springville City website at www.springville.org/agendasminutes. Council Meeting agendas are available through the Utah Public Meeting Notice website at http://www.utah.gov/pmn/index.html. Email subscriptions to Utah Public Meeting Notices are available through their website. - Venla Gubler, City Recorder

The next regular Council Meeting will be held on September 3, 2013 at 7:00 p.m. in the Civic Center Council Chambers, 110 South Main Street, Springville, unless otherwise noticed. In compliance with the Americans with Disabilities Act, the City will make reasonable accommodations to ensure accessibility to this meeting. If you need special assistance to participate in this meeting, please contact the City Recorder at (801) 489-2700 at least three business days prior to the meeting.

*The Consent Agenda consists of items that are administrative actions where no additional discussion is needed. When approved, the recommendations in the staff reports become the action of the Council. The Agenda provides an opportunity for public comment. If after the public comment the Council removes an item from the consent agenda for discussion, the item will keep its agenda number and will be added to the regular agenda for discussion, unless placed otherwise by the Council.

6. Consideration of adopting the Electric Department Standards and Specifications Manual – Brandon Graham, Power Distribution Superintendent

## MAYOR, COUNCIL AND ADMINISTRATIVE REPORTS

## CLOSED SESSION

7. *The Springville City Council may temporarily recess the regular meeting and convene in a closed session to discuss pending or reasonably imminent litigation, and the purchase, exchange, or lease of real property, as provided by Utah Code Annotated §52-4-205*

## ADJOURNMENT

This meeting was noticed in compliance with Utah Code 52-4-202 on August 15, 2013. Agendas and minutes are accessible through the Springville City website at www.springville.org/agendasminutes. Council Meeting agendas are available through the Utah Public Meeting Notice website at http://www.utah.gov/pmn/index.html. Email subscriptions to Utah Public Meeting Notices are available through their website. - Venla Gubler, City Recorder

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*The Consent Agenda consists of items that are administrative actions where no additional discussion is needed. When approved, the recommendations in the staff reports become the action of the Council. The Agenda provides an opportunity for public comment. If after the public comment the Council removes an item from the consent agenda for discussion, the item will keep its agenda number and will be added to the regular agenda for discussion, unless placed otherwise by the Council.

**S T A F F  R E P O R T**

**DATE:** July 17, 2013

**TO:** Mayor and City Council

**FROM:** Juan Garrido, Storm Water/Waste Water Superintendent

**SUBJECT:** **MUNICIPAL WASTEWATER PLANNING PROGRAM ANNUAL REPORT**

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## RECOMMENDATION

Move to adopt resolution _____, which approves Springville City's Municipal Wastewater Planning Report for 2012.

## GOALS, OBJECTIVES AND STRATEGIES AT ISSUE

The Springville City General Plan discusses "Community Services and Facilities" and contains the following goal:

> *To provide functionally effective community facilities and services to support a safe, healthy, and vibrant community life.*

Objective 7 of this goal is to:

> *Provide a wastewater collection and treatment system that protects the health and safety of the City, is economical, and is designed to meet the needs of Springville City now and in the future.*

Strategy 7B within this objective encourages City staff to:

> *Adopt and carry out a system maintenance program (e.g., viewing the lines to identify problems, cleaning out lines to ensure capacity is maintained and the chance for back-up reduced).*

Strategy 7C within this objective encourages City staff to:

> *Continue working to ensure compliance with state and federal laws.*

This resolution verifies that the City's waste water collections system is being inspected, cleaned and repaired; and the waste water reclamation facility is in compliance with federal, and state permit requirements.

## DISCUSSION

The Municipal Wastewater Planning Annual Report is a program established by the State of Utah Department of Environmental Quality to assists cities in their awareness of their wastewater collection and treatment facilities.

The purpose of the Municipal Wastewater Planning Annual Report is to allow Springville City to identify and solve potential problems in the Wastewater Collection System and the Wastewater Treatment Plant before they become serious and costly.

The report is a self-assessment report developed by the Department of Environmental Quality. It includes, but is not limited to the following sections and subsections:

- Financial Evaluation
  - Operation and Maintenance
  - Capital Improvements
  - Projected Needs
- Collection system
  - System Age
  - Bypasses
  - New Development
  - Operator Certification
  - Facility Maintenance
- Mechanical Plant (Wastewater Treatment Plant)
  - Influent Information
  - Effluent Information
  - Facility Age
  - Bypasses
  - Solids Handling
  - New Development
  - Operator Certification
  - Facility Maintenance

## BENEFITS TO COMPLETING THE SELF-ASSESSMENT REPORT

Cities are requested to fill out and return the Self-Assessment Report and receive the following benefits when they do so:

- Completion of the Self-Assessment Report gives Springville City additional points on the Utah Wastewater Project Priority List/System. The Priority List is used to allocate funds under the wastewater grant and loan programs.
- The results are used to focus on State's technical assistance programs.
- Operator(s) completing these forms will be given operational continuing education units (CEU's) for each form returned.

## FISCAL IMPACT

No expenditures, however the possibility of grant and loan assistance is increased by participating in this program.

# STATE OF UTAH

## *MUNICIPAL WASTEWATER PLANNING PROGRAM*

## SELF-ASSESSMENT REPORT

FOR

SPRINGVILLE

2012

**Resolution Number** _____

**MUNICIPAL WASTEWATER PLANNING PROGRAM RESOLUTION**

RESOLVED that ***SPRINGVILLE*** informs the Water Quality Board the following actions were taken by the ***CITY COUNCIL***

1. Reviewed the attached Municipal Wastewater Planning Program Report for 2012.

2. Have taken all appropriate actions necessary to maintain effluent requirements contained in the UPDES Permit (If Applicable)

Passed by a (majority) (unanimous) vote on

_____
(date)

_____ _____

Mayor/Chairman Attest: Recorder/Clerk

# Municipal Wastewater Planning Program (MWPP)
# Financial Evaluation Section

Owner Name: *SPRINGVILLE*

Name and Title of Contact Person:

Rick Roberts

Plant Manager

Phone: 801-489-2745

E-mail: rroberts@springville.org

## PLEASE SUBMIT TO STATE BY: September 1, 2013

Mail to: MWPP - Department of Environmental Quality
c/o Paul Krauth, P.E.
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Phone : (801) 536-4346

*NOTE: This questionnaire has been compiled for your benefit by a state sponsored task force comprised of representatives of local government and service districts. It is designed to assist you in making an evaluation of your wastewater system and financial planning. Please answer questions as accurately as possible to give you the best evaluation of your facility. If you need assistance please call, Emily Cantŏn. Utah Division of Water Quality: (801) 536-4342.*

I. Definitions: The following terms and definitions may help you complete the worksheets and questionnaire:

**User Charge (UC)** - A fee established for one or more class(es) of users of the wastewater treatment facilities that generate revenues to pay for costs of the system.

**Operation and Maintenance Expense** - Expenditures incurred for materials, labor, utilities, and other items necessary for managing and maintaining the facility to achieve or maintain the capacity and performance for which it was designed and constructed.

**Repair and Replacement Cost** - Expenditures incurred during the useful life of the treatment works for obtaining and installing equipment, accessories, and/or appurtenances necessary to maintain the existing capacity and the performance for which the facility was designed and constructed.

**Capital Needs** - Cost to construct, upgrade or improve the facility.

**Capital Improvement Reserve Account** - A reserve established to accumulate funds for construction and/or replacement of treatment facilities, collection lines or other capital improvement needs.

**Reserve for Debt Service** - A reserve for bond repayment as may be defined in accordance with terms of a bond indenture.

**Current Debt Service** - Interest and principal costs for debt payable this year.

**Repair and Replacement Sinking Fund** - A fund to accumulate funds for repairs and maintenance to fixed assets not normally included in operation expenses and for replacement costs (defined above).

## Part I: OPERATION AND MAINTENANCE

Complete the following table:

| Question | Points Earned | Total |
|---|---|---|
| Are revenues sufficient to cover operation, maintenance, and repair & replacement (OM&R) costs ***at this time***? | YES = 0 points<br>NO = 25 points | 0 |
| Are the projected revenues sufficient to cover operation, maintenance, and repair & replacement (OM&R) costs for the ***next five years***? | YES = 0 points<br>NO = 25 points | 0 |
| Does the facility have sufficient staff to ensure proper O&M? | YES = 0 points<br>NO = 25 points | 0 |
| Has a dedicated sinking fund been established to provide for repair & replacement costs? | YES = 0 points<br>NO = 25 points | 0 |
| Is the repair & replacement sinking fund adequate to meet anticipated needs? | YES = 0 points<br>NO = 25 points | 0 |
| | **TOTAL PART I =** | 0 |

## Part II: CAPITAL IMPROVEMENTS

Complete the following table:

| Question | Points Earned | Total |
|---|---|---|
| Are present revenues collected sufficient to cover all costs and provide funding for capital improvements? | YES = 0 points<br>NO = 25 points | 0 |
| Are projected funding sources sufficient to cover all projected capital improvement costs for the ***next five years***? | YES = 0 points<br>NO = 25 points | 0 |
| Are projected funding sources sufficient to cover all projected capital improvement costs for the ***next ten years***? | YES = 0 points<br>NO = 25 points | 0 |
| Are projected funding sources sufficient to cover all projected capital improvement costs for the ***next twenty years***? | YES = 0 points<br>NO = 25 points | 0 |
| Has a dedicated sinking fund been established to provide for future capital improvements? | YES = 0 points<br>NO = 25 points | 0 |
| | **TOTAL PART II =** | 0 |

## Part III: GENERAL QUESTIONS

Complete the following table:

| Question | Points Earned | Total |
|---|---|---|
| Is the wastewater treatment fund a separate enterprise fund/account or district? | YES = 0 points<br>NO = 25 points | 0 |
| Are you collecting ***95%*** or more of your sewer billings? | YES = 0 points<br>NO = 25 points | 0 |
| Is there a review, at least annually, of user fees? | YES = 0 points<br>NO = 25 points | 0 |
| Are bond reserve requirements being met if applicable? | YES = 0 points<br>NO = 25 points | 0 |
| | **TOTAL PART III =** | 0 |

## Part IV: PROJECTED NEEDS

Estimate as best you can the following:

| Cost of projected capital improvements (in thousands) | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| | 1.573 | 623 | 542 | 1.493 | 550 |

## Point Summation

Fill in the values from Parts I through III in the blanks provided in column 1. Add the numbers to determine the MWPP point total that reflects your present financial position for meeting your wastewater needs.

| Part | Points |
|---|---|
| I | 0 |
| II | 0 |
| III | 0 |
| Total | 0 |

# Municipal Wastewater Planning Program (MWPP)
# Collection System Section

Owner Name: SPRINGVILLE

Name and Title of Contact Person:

Rick Roberts

Plant Manager

Phone: 801-489-2745

E-mail: rroberts@springville.org

PLEASE SUBMIT TO STATE BY: September 1, 2013

Mail to: MWPP - Department of Environmental Quality
c/o Paul Krauth, P.E.
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Phone : (801) 536-4346

Form completed by

Rick Roberts

## Part I: SYSTEM AGE

A. What year was your collection system first constructed (approximately)?

Year 1935

B. What is the oldest part of your present system?

Oldest part 78 years

## Part II: BYPASSES

A. Please complete the following table:

| Question | Number | Points Earned | Total Points |
|---|---|---|---|
| How many days last year was there a bypass, overflow or basement flooding by untreated wastewater in the system due to rain or snowmelt? | 0 | 0 times = 0 points<br>1 time = 5 points<br>2 times = 10 points<br>3 times = 15 points<br>4 times = 20 points<br>5 or more = 25 points | 0 |
| How many days last year was there a bypass, overflow or basement flooding by untreated wastewater due to equipment failure? (except plugged laterals) | 0 | 0 times = 0 points<br>1 time = 5 points<br>2 times = 10 points<br>3 times = 15 points<br>4 times = 20 points<br>5 or more = 25 points | 0 |
| | | **TOTAL PART II =** | 0 |

B. Please specify whether the bypass(es) was caused a contract or tributary communities, etc.

_____

_____

_____

_____

_____

_____

_____

_____

## Part III: NEW DEVELOPMENT

A. Please complete the following table:

| Question | Points Earned | Total Points |
|---|---|---|
| Has an industry (or other development) moved into the community or expanded production in the past two years, such that either flow or wastewater loadings to the sewerage system were significantly increased (10 - 20%)? | No = 0 points<br>Yes = 10 points | 0 |
| Are there any major new developments (industrial, commercial, or residential) anticipated in the next 2- 3 years, such that either flow or $BOD_5$ loadings to the sewerage system could significantly increase (25%)? | No = 0 points<br>Yes = 10 points | 0 |
| | **TOTAL PART III =** | 0 |

B. Approximate number of new residential sewer connections in the last year

127 new residential connections

C. Approximate number of new commercial/industrial connections in the last year

2 new commercial/industrial connections

D. Approximate number of new population serviced in the last year

381 new people served

## Part IV: OPERATOR CERTIFICATION

A. How many collection system operators are currently employed by your facility?

2 collection system operators employed

B. What is/are the name(s) of your DRC operator(s)?

Alan Robinson

C. You are required to have the collection DRC operator(s) certified at ***Grade III***

What is the current grade of the DRC operator(s)? Grade III

D. State of Utah Administrative Rules require all operators considered to be in DRC to be appropriately certified. List all the operators in your system by their certification class.

| | |
|---|---|
| *Not Certified* | |
| Small Lagoons | |
| Collection I | |
| Collection II | |
| Collection III | 1 |
| Collection IV | 1 |

E. Please complete the following table:

| *Question* | Points Earned | Total Points |
|---|---|---|
| Is/are your DRC operator(s) currently certified at the appropriate grade for this facility? (see C) | Yes = 0 points<br>No = 50 points | 0 |
| How many continuing education units has each of the DRC operator(s) completed over the last 3 years? | 3 or more = 0 points<br>less than 3 = 10 points | 0 |
| | **TOTAL PART IV =** | 0 |

## Part V: FACILITY MAINTENANCE

A. Please complete the following table:

| Question | Points Earned | Total Points |
|---|---|---|
| Do you follow an annual preventative maintenance program? | Yes = 0 points<br>No = 30 points | 0 |
| Is it written? | Yes = 0 points<br>No = 20 points | 0 |
| Do you have a written emergency response plan? | Yes = 0 points<br>No = 20 points | 0 |
| Do you have an updated operations and maintenance manual | Yes = 0 points<br>No = 20 points | 0 |
| Do you have a written safety plan? | Yes = 0 points<br>No = 20 points | 0 |
| | **TOTAL PART V =** | 0 |

## Part VI: SUBJECTIVE EVALUATION

***This section should be with the system operators.***

A. Describe the physical condition of the sewer collection system: (lift stations, etc. included)

Lift Stations are in good condition. The collections system infrastructure is in good condition for the most part, we have identified sewer lines that are in need of repair, the most common problems are low spots, cracks, infiltration, and roots. We are spending $140,000/year to do repairs based on a 1 -5 problem rating 5 being the worst.

B. What sewerage system improvements does the community have under consideration for the next 10 years?

4,200 feet of new sewer main on 1500 West in 2013-2014 FY, replace 3,000 feet of sewer main on 900 South, replace 1,600 feet of sewer main on 100 South and 1,300 feet of pipe size increase on 400 West.

C. Explain what problems, other than plugging have you experienced over the last year

None

D. Is your community presently involved in formal planning for system expansion/upgrading? If so explain.

We will be installing 4,200 feet of trunk line on 1500 West in this budget year

E. How many times in the last calendar year was there sewage in basements at any point in the collection system for any reason, except for plugging of the lateral connections?

There were 0 total basements with sewage in them in 2012.

How many different times different did flooding occur? 0

F. Does the municipality/district pay for the continuing education expenses of operators?

ALWAYS x SOMETIMES _____ NO _____

If they do, what percentage is paid?

approximately 100 %

G. Is there a written policy regarding continuing education and training for wastewater operators?

YES x NO _____

H. Any additional comments? (Attach additional sheets if necessary.)

## POINT SUMMATION

Fill in the values from Parts II through V in the blanks provided in column 1. Add the numbers to determine the MWPP point total that your wastewater facility has generated for the past twelve months.

| Part | Points |
|---|---|
| II | 0 |
| III | 0 |
| IV | 0 |
| V | 0 |
| Total | 0 |

# Municipal Wastewater Planning Program (MWPP)
# Mechanical Plant Section

Owner Name: *SPRINGVILLE*

Name and Title of Contact Person:

Rick Roberts

Plant Manager

Phone: 801-489-2745

E-mail: rroberts@springville.org

PLEASE SUBMIT TO STATE BY: September 1, 2013

Mail to: MWPP - Department of Environmental Quality
c/o Paul Krauth, P.E.
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Phone : (801) 536-4346

Form completed by

Rick Roberts

## Part I: INFLUENT INFORMATION

A. Please update (if needed) the average design flow and average design $BOD_5$ and TSS loading for your facility.

| | Average Design Flow (MGD) | Average Design $BOD_5$ Loading (lbs/day) | Average Design TSS Loading (lbs/day) |
|---|---|---|---|
| Design Criteria | 7.7 | 20,140 | 10,293 |
| 90% of the Design Criteria | 6.2 | 16,112 | 8,234 |

B. Please list the average monthly flows in millions of gallons per day (MGD) and $BOD_5$ and TSS loadings in milligrams per liter (mg/L) ***received*** at your facility during 2012. (Calculate the $BOD_5$ and TSS loadings in pounds per day (lbs/day).

| *Month* | (1) Average Monthly Flow (MGD) | (2) Average Monthly $BOD_5$ Concentration (mg/L) | (3) Average $BOD_5$ Loading (lbs/day) 1 | (4) Average Monthly TSS Concentration (mg/L) | (5) Average TSS Loading (lbs/day) 2 |
|---|---|---|---|---|---|
| January | 3.58 | 319 | 9,524 | 170 | 5,076 |
| February | 3.76 | 316 | 9,909 | 172 | 5,394 |
| March | 3.74 | 321 | 10,013 | 205 | 6,394 |
| April | 3.35 | 380 | 10,617 | 185 | 5,169 |
| May | 3.61 | 310 | 9,333 | 185 | 5,570 |
| June | 3.59 | 350 | 10,479 | 177 | 5,299 |
| July | 3.55 | 290 | 8,586 | 154 | 4,559 |
| August | 3.63 | 344 | 10,414 | 140 | 4,238 |
| September | 3.43 | 343 | 9,812 | 141 | 4,033 |
| October | 3.33 | 416 | 11,553 | 176 | 4,888 |
| November | 3.33 | 370 | 10,276 | 180 | 4,999 |
| December | 3.30 | 367 | 10,101 | 182 | 5,009 |
| *Average* | 3.52 | 344 | 10,099 | 172 | 5,049 |

*1 $BOD_5$ Loading (3) = Average Monthly Flow (1) x Average Monthly $BOD_5$ Concentration (2) x 8.34*
*2 TSS Loading (5) = Average Monthly Flow (1) x Average Monthly TSS Concentration (4) x 8.34*

C. Refer to the information in A & B to determine a point value for your facility. Please enter the points for each question in the blank provided.

| Question | Number | Points Earned | Total Points |
|---|---|---|---|
| How many times did the average monthly flow (Part B., Column 1) to the wastewater facility exceed 90% of design flow? | 0 | 0 = 0 points<br>1 - 2 = 10 points<br>3 - 4 = 20 points<br>5 or more = 30 points | 0 |
| How many times did the average monthly flow (Part B., Column 1) to the wastewater facility exceed the design flow? | 0 | 0 = 0 points<br>1 - 2 = 20 points<br>3 - 4 = 40 points<br>5 or more = 60 points | 0 |
| How many times did the average monthly $BOD_5$ loading (Part B., Column 3) to the wastewater facility exceed 90% of the design loading? | 0 | 0-1 = 0 points<br>1 - 2 = 10 points<br>3 - 4 = 20 points<br>5 or more = 30 points | 0 |
| How many times did the average monthly $BOD_5$ loading (Part B., Column 3) to the wastewater facility exceed the design loading? | 0 | 0 = 0 points<br>1 - 2 = 20 points<br>3 - 5 = 40 points<br>5 or more = 60 points | 0 |
| | | **TOTAL PART I =** | 0 |

## Part II: EFFLUENT INFORMATION

A. Please list the average monthly $BOD_5$, TSS, Ammonia ($NH_3$), monthly maximum $Cl_2$, minimum monthly DO, and 30-day geometric averages for Fecal and Total Coliform, or E-Coli produced by your facility during 2012.

| ***Month*** | (1) $BOD_5$ (mg/L) | (2) TSS (mg/L) | (3) Fecal Coliform (#/100 mL) | (4) Total Coliform (#/100 mL) | (5) E-Coli | (6) $Cl_2$ (mg/L) | (7) DO (mg/L) | (8) $NH_3$ (mg/L) |
|---|---|---|---|---|---|---|---|---|
| | Whole Numbers Only | | | | | One Decimal Place Only | | |
| January | 5 | 9 | | | 1 | | 8.7 | 0.6 |
| February | 3 | 5 | | | 1 | | 8.2 | 0.4 |
| March | 4 | 4 | | | 4 | | 6.6 | 2.6 |
| April | 7 | 4 | | | 8 | | 6.3 | 7.5 |
| May | 5 | 4 | | | 2 | | 6.2 | 1.5 |
| June | 4 | 5 | | | 4 | | 6.4 | 0.2 |
| July | 4 | 5 | | | 9 | | 6.3 | 0.2 |
| August | 7 | 8 | | | 12 | | 6.2 | 0.6 |
| September | 6 | 8 | | | 6 | | 6.5 | 0.3 |
| October | 5 | 7 | | | 3 | | 7.1 | 0.4 |
| November | 5 | 6 | | | 1 | | 7.3 | 0.3 |
| December | 6 | 7 | | | 2 | | 7.2 | 0.8 |
| *Average* | 5 | 6 | | | 4 | | 6.9 | 1.3 |

B. Please list the monthly average permit limits for the facility in the blanks below.

| | $BOD_5$ ($CBOD_5$) (mg/L) | maximum $Cl_2$ (mg/L) | $NH_3$ (mg/L) | minimum DO (mg/L) |
|---|---|---|---|---|
| Monthly Permit Limit | 25 | N/A | 4.2 | 5.0 |
| 80% of the Permit Limit | 20 | N/A | 3.4 | 6.0 |

C. Refer to the information in A & B and your operating reports to determine a point values for your facility.

| Question | Number | Points Earned | Total Points |
|---|---|---|---|
| How many months did the effluent $BOD_5$ ($CBOD_5$) exceed 80% of monthly permit limit? | 0 | 0 -1 = 0 points<br>2 = 5 points<br>3 = 10 points<br>4 = 15 points<br>5 or more = 20 points | 0 |
| How many months did the effluent $BOD_5$ ($CBOD_5$) exceed the monthly permit limits? | 0 | 0 = 0 points<br>1 - 2 = 10 points<br>3 or more = 20 points | 0 |
| How many months did the effluent TSS exceed 20 mg/L? | 0 | 0 -1 = 0 points<br>2 = 5 points<br>3 = 10 points<br>4 = 15 points<br>5 or more = 20 points | 0 |
| How many months did the effluent TSS exceed 25 mg/L? | 0 | 0 = 0 points<br>1 - 2 = 10 points<br>3 or more = 20 points | 0 |
| How many times did the $Cl_2$ exceed permit limit? | N/A | 0 = 0 points<br>1 - 2 = 15 points<br>3 or more = 30 points | N/A |
| How many times did the $NH_3$ exceed permit limits? | 1 | 0 = 0 points<br>1 - 2 = 15 points<br>3 or more = 30 points | 15 |
| How many times did the DO not meet permit limit? | 0 | 0 = 0 points<br>1 - 2 = 15 points<br>3 or more = 30 points | 0 |
| How many months did the 30-day fecal coliform exceed 200 #/100 mL? | N/A | 0 = 0 points<br>1 - 2 = 10 points<br>3 or more = 20 points | N/A |
| How many months did the 30-day total coliform exceed 2,000 #/100 mL? | N/A | 0 = 0 points<br>1 - 2 = 10 points<br>3 or more = 20 points | N/A |
| How many months did the 30-day E-coli exceed 126 #/100 mL? | 0 | 0 = 0 points<br>1 - 2 = 20 points<br>3 or more = 40 points | 0 |
| | | **TOTAL PART II =** | 15 |

## Part III: FACILITY AGE

In what year were the following process units constructed or underwent a major upgrade? To determine a point score subtract the construction or upgrade year from 2012.

Points = Age = Present Year - Construction or Upgrade Year.

Enter the calculated age below.

**If the point total exceeds 20 points, enter only 20 points.**

| Unit Process | Current Year | Construction or Last Upgrade Year | Age = Points |
|---|---|---|---|
| Headworks | 2012 | 1999 | 14 |
| Primary Treatment | 2012 | 1997 | 16 |
| Secondary Treatment | 2012 | 2009 | 3 |
| Solids Handling | 2012 | 2009 | 3 |
| Disinfection | 2012 | 2009 | 3 |
| | | **TOTAL PART III (not greater than 20) =** | 20 |

## Part IV: BYPASSES

Please complete the following table:

| Question | Number | Points Earned | Total Points |
|---|---|---|---|
| How many days in the past year was there a bypass or overflow of untreated wastewater due to high flows? | 0 | 0 = 0 points<br>1 = 5 points<br>2 = 10 points<br>3 = 15 points<br>4 = 20 points<br>5 or more = 25 points | 0 |
| How many days in the last year was there a bypass or overflow of untreated wastewater due to equipment failure? | 0 | 0 = 0 points<br>1 = 5 points<br>2 = 10 points<br>3 = 15 points<br>4 = 20 points<br>5 or more = 25 points | 0 |
| | | **TOTAL PART IV =** | 0 |

## Part V: SOLIDS HANDLING

A. Please complete the following table:

| Current Disposal Method (check all that apply) | Points Earned | Total Points |
|---|---|---|
| Landfill | Class B = 0 points<br>< Class B = 50 points | |
| Land Application | Site Life<br>0 - 5 years = 20 points<br>5 - 10 years = 10 points<br>10+ years = 0 points | |
| Give Away/Distribution and Marketing | Class A = 10 points<br>Class B = 20 points | 10 |
| | **TOTAL PART V =** | 10 |

## Part VI: NEW DEVELOPMENT

A. Please complete the following table:

| Question | Points Earned | Total Points |
|---|---|---|
| Has an industry (or other development) moved into the community or expanded production in the past two years, such that either flow or wastewater loadings to the sewerage system were significantly increased (10 - 20%)? | No = 0 points<br>Yes = 10 points | 0 |
| Are there any major new developments (industrial, commercial, or residential) anticipated in the next 2- 3 years, such that either flow or $BOD_5$ loadings to the sewerage system could significantly increase (25%)? | No = 0 points<br>Yes = 10 points | 0 |
| Have you experienced any upset due to septage haulers? | No = 0 points<br>Yes = 10 points | 0 |
| | **TOTAL PART VI =** | 0 |

## Part VI: NEW DEVELOPMENT (cont.)

B. Approximate number of new residential sewer connections in the last year

127 new residential connections

C. Approximate number of new commercial/industrial connections in the last year

2 new commercial/industrial connections

D. Approximate number of new population serviced in the last year

381 new people served

## Part VII: OPERATOR CERTIFICATION

A. How many operators are currently employed by your facility?

6 operator(s) employed

B. What is/are the name(s) of your DRC operator(s)?

Rick Roberts

C. You are required to have the treatment DRC operator(s) certified at GRADE III.

What is the current grade of the DRC operator(s)? Grade III

D. State of Utah Administrative Rules Require that all operators considered to be in DRC to be appropriately certified. List all the operators in your system by their certification class.

| | |
|---|---|
| Not Certified | |
| Treatment I | 1 |
| Treatment II | 3 |
| Treatment III | 1 |
| Treatment IV | 1 |

## Part VII: OPERATOR CERTIFICATION (cont.)

E. Please complete the following table:

| Question | Points Earned | Total Points |
|---|---|---|
| Is/are your DRC operator(s) currently certified at the appropriate grade for this facility? (see C) | Yes = 0 points<br>No = 50 points | 0 |
| How many continuing education units has each of the DRC operator(s) completed over the last 3 years? | 3 or more = 0 points<br>less than 3 = 10 points | 0 |
| | **TOTAL PART VII =** | 0 |

## Part VIII: FACILITY MAINTENANCE

A. Please complete the following table:

| Question | Points Earned | Total Points |
|---|---|---|
| Do you follow an annual preventative maintenance program? | Yes = 0 points<br>No = 30 points | 0 |
| Is it written? | Yes = 0 points<br>No = 20 points | 0 |
| Do you have a written emergency response plan? | Yes = 0 points<br>No = 20 points | 0 |
| Do you have an updated operations and maintenance manual | Yes = 0 points<br>No = 20 points | 0 |
| Do you have a written safety plan? | Yes = 0 points<br>No = 20 points | 0 |
| | **TOTAL PART VIII =** | 0 |

## Part IX: SUBJECTIVE EVALUATION

***This section should be completed with the facility operators.***

A. Do you consider your wastewater facility to be in good physical and structural condition?

YES x _____ NO _____

If NOT, why?

_____

_____

_____

_____

_____

B. What improvements do you think the plant will need in the next 5 years?

Larger screens in the head works
Anoxic tank before STM Aerotors

C. Where there any backups into basements at any point in the collection system in 2012.

YES _____ NO x _____

Why? (do not include backups due to clogged laterals)

_____

_____

_____

D. Does the municipality/district pay for the continuing education expenses of operators?

ALWAYS x _____ SOMETIMES _____ NO _____

If so, what percentage do they pay?

approximately 100 _____ %

E. Is there a written policy regarding continuing education and training for wastewater operators?

YES x NO _____

F. Have you done any major repairs or mechanical equipment replacement in 2012? (do not include construction or upgrade projects)

YES x NO _____

G. What was the approximate cost for those repairs or replacements?

$ 55,000

H. Any additional comments? (Attach additional sheets if necessary.)

## POINT SUMMATION

Fill in the values from Parts I through VIII in the blanks provided in column 1. Add the numbers to determine the MWPP point total that your wastewater facility has generated for the past twelve months.

| Part | Points |
|---|---|
| I | 0 |
| II | 15 |
| III | 20 |
| IV | 0 |
| V | 10 |
| VI | 0 |
| VII | 0 |
| VIII | 0 |
| Total | 45 |

**S T A F F  R E P O R T**

**DATE:** August, 12, 2013

**TO:** Mayor and City Council

**FROM:** Jeffrey L. Anderson, City Engineer

**SUBJECT:** **SPRINGVILLE PRESSURIZED IRRIGATION SYSTEM, PHASE 1A – BARTHOLOMEW POND**

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## RECOMMENDED ACTION

Motion to:

- Award the Springville PI System, Phase 1A – Bartholomew Pond project to the lowest responsible bidder, VanCon Inc., in the amount of $2,055,119.70 and authorize the Director of Public Works to issue a Notice to Proceed for the project, and
- Authorize the Director of Public Works to issue Change Orders or adjustments to quantities of the unit price items, as needed, not to exceed 10% of the contract amount.

## SUMMARY OF ISSUES/FOCUS OF ACTION

On April 20, 2010, the City Council approved a motion to submit and have the Mayor sign an application for the Central Utah Water Conservancy District (CUWCD) Water Conservation Credit Program for the Springville City Pressurized Irrigation System. In that meeting the pressure irrigation system was discussed at length and the City Council determined that it was in the best interests of the City to proceed forward with the grant application. Since then the following milestones have occurred:

- September 30, 2010 – The City was notified that the CUWCD Prioritization Committees recommends that the City receive $9 million in Section 207 grant funding contingent upon the dedication of 3,000 acre-feet of SUVMWA water to CUWCD for in-stream flows. The grant has typically been capped at $5 million dollars per application but the committee recommended our application be funded for $9 million provided the City dedicates the water.
- October 19, 2010 – City Council approves the dedication of 3,000 acre-feet of Springville allotted SUVMWA water to CUWCD in conjunction with the Water Conservation Credit Program grant.
- November 18, 2010 – SUVMWA Board approves the dedication of 3,000 acre-feet of Springville allotted SUVMWA water to CUWCD in conjunction with the Water Conservation Credit Program grant.

- July 5, 2011 - The City was notified that we had been approved for funding from the CUWCD Water Conservation Credit Program grant for the Springville City Pressurized Irrigation System Project. The agreement was sent to the City and it specified that the City would receive $9 million in Section 207 grant funding, with $3 million being funded in FY2012, $3million in FY 2013 and $3 million in FY 2014.
- May 13, 2011 – Lee Wimmer, Program Manager with CUWCD, emailed the City and announced that the recent budget turmoil in Washington resulted in Springville's $3,000,000 being cut from the CUWCD budget for the 2012 fiscal year. Lee committed that CUWCD is standing behind their tentative agreement with us and they still anticipate getting the $9,000,000 to Springville in calendar years 2013, 2014 and 2015.
- December 12, 2011 - CUWCD sends the City a revised contract/agreement between Springville City Corporation and the Central Utah Water Conservancy District to provide funding for the Springville City Secondary System Project as part of the Water Conservation Credit Program grant. The agreement has adjusted the funding dates to fund $3 million dollars per fiscal year for years 2013, 2014 and 2015.
- May 1, 2012 – The Mayor signs the agreement between the City and CUWCD to provide funding for the Springville City Secondary Water System Project as part of the Water Conservation Credit Program grant.
- June 21, 2013 – City placed Springville PI System, Phase 1B – Infill Lines project out for bid.
- June 26, 2013 – CUWCD Board of Directors approves the FY 2013-14 budget which includes the first $3 million of the grant funding.

## SCOPE OF WORK

The full grant funded PI project includes the construction of a new 36" distribution line from the mouth of Hobble Creek Canyon to 950 West. The proposed alignment of the pipeline would be River Bottom Road /800 South to 100 East. At 100 East it would move north to 700 South where it would continue west to 950 West. Some additional pipe runs are needed in the West Fields to connect existing subdivisions that already have PI lines installed. Additionally the project includes the construction of a 34 acre-foot storage pond at the City Bartholomew Park property and the installation of a 24" pipeline that will deliver water from the Highline Ditch to the pond. The City has proposed to phase the project into 3 Phases to coincide with the funding dates. The phases are described below:

- Phase 1A – Construction of the 34 acre-foot storage pond at the City Bartholomew Park property. Install the 24" pipeline form the Highline Ditch to the storage pond.
- Phase 1B - Various pipeline installations in the Westfield's area to connect the pressurized irrigation systems of existing subdivisions.
- Phase 2 – Installation of the 36" distribution line from 950 West to 800 East along 700 South and 800 South.
- Phase 3 – Installation of the 36" distribution line from 800 East to the storage pond along 900 South/River Bottom Road.

Phase 1A has been designed and put out to bid in hopes of getting the excavation for the pond and the pond clay liner installed before the weather turns too cold and the ground freezes. The project consists of constructing a 34 acre-ft regulating pond (approximately

65,000 CY of cut/fill) and piping for a pressure irrigation system, including site grading for a city park, grading and paving of a park trail, rehabilitation of open channels, construction of concrete water control structures, open trench excavation, asphalt road and trail repair, furnishing and installing approximately 4,800 LF of 26" HDPE pipe, 2,000 LF of 18" to 36" gravity-flow pipe, and 400 LF of 36" C-905 pipe, including appurtenances and related work.

**BID RESULTS**

JUB Engineers, Inc. prepared plans, specifications, and bidding documents for the project. These Contract Documents were placed on BidSync, an internet bidding service approved by the State of Utah. Bids were received and tabulated. The following were the bids received and the City's action with respect to each bid:

| Company | Bid | Comments |
|---|---|---|
| **1. VanCon Inc.** | **$2,055,119.70** | **Low Bidder** |
| 2. Hughes General Contractors | $2,254,088.25 | |
| 3. Skyview Excavation | $2,255,034.45 | |
| 4. B.D. Bush Excavation | $2,273,776.50 | |
| 5. S&L Inc | $2,286,934.10 | |
| 6. CraCar Construction | $2,468,399.52 | |
| 7. WW Clyde & Co | $2,534,973.00 | |
| 8. Condie Construction | $3,048,612.70 | |

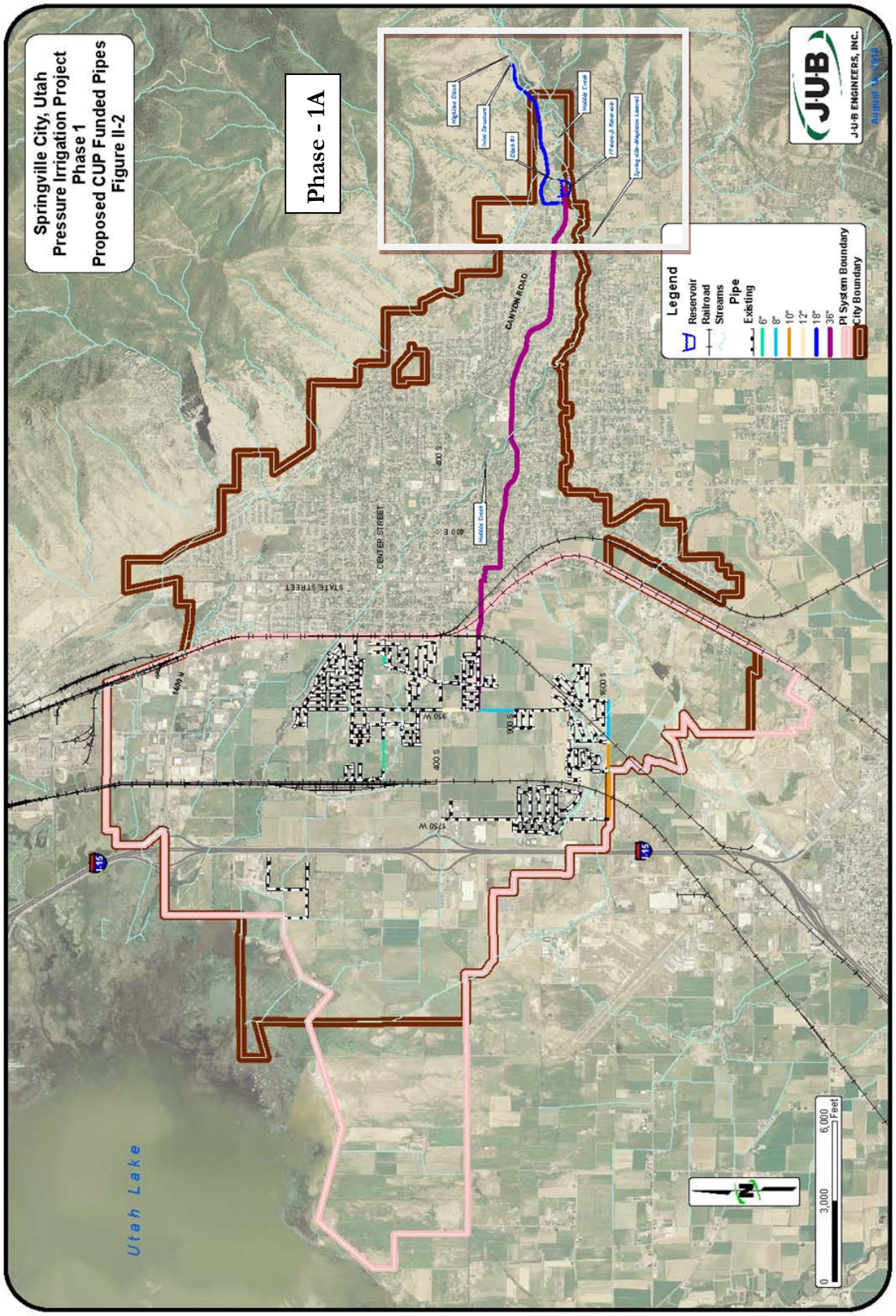
The Engineers Estimate for this phase was $2,385,392.75

**FISCAL IMPACT**

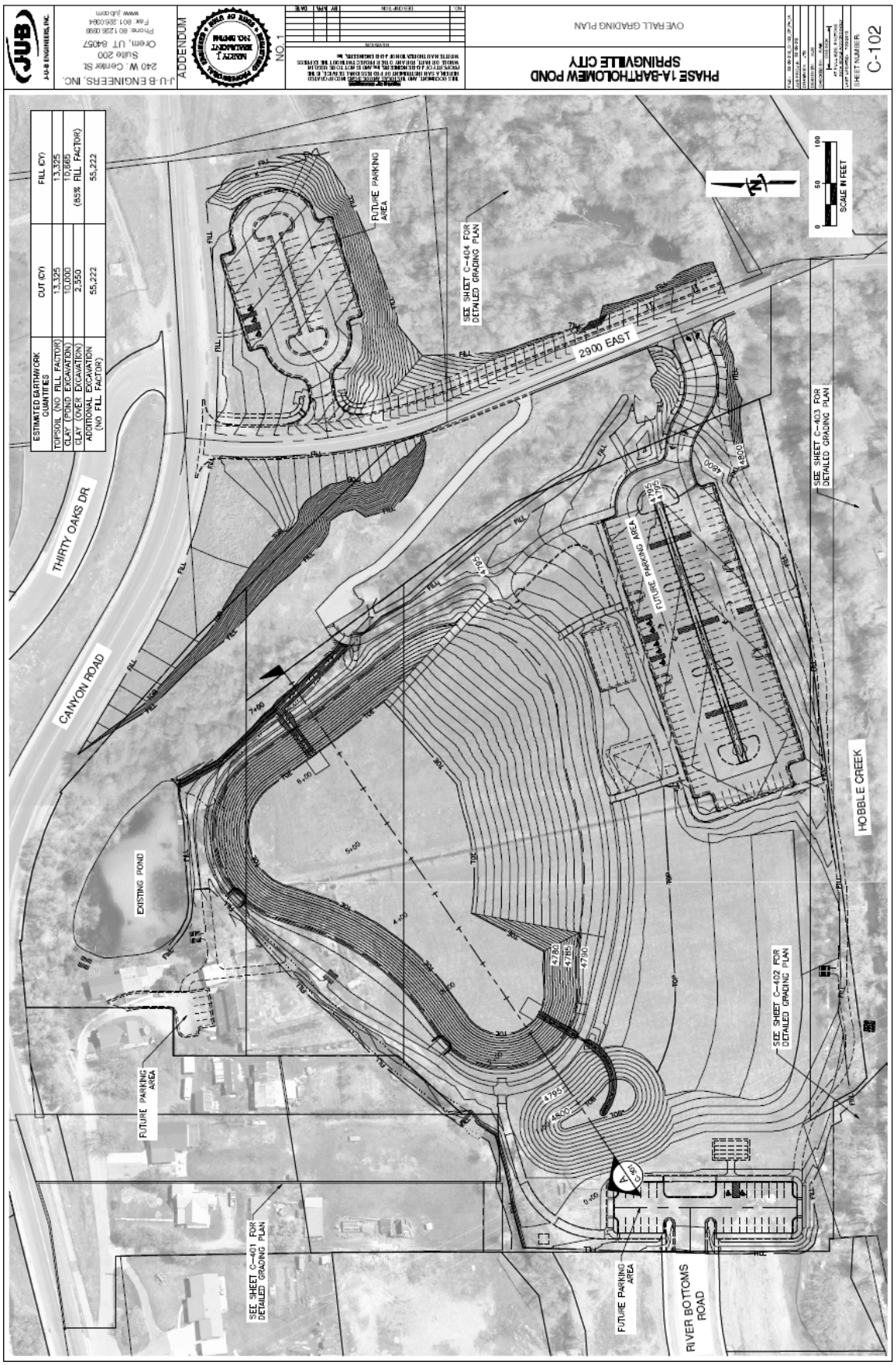
The total cost of the project (including the pond) comes to $14 million with the grant covering 65% of the cost and the City matching 35%. The breakdown of costs is as follows:

- The CUWCD grant is being funded for $9 million (65% of total project cost).
- The City's match $4.85 million (35% of total project cost) per the requirements of the grant. The City's match will consist of:
    - $4.16 million in existing infrastructure in the Westfields
    - $860,000 to cover remaining balance (GL# 51-6800-033 West Side PI System)
        - $410,000 was funded in the 2010-2011 budget with $200,000 of that being covered by Secondary Impact Fees.
        - The remaining balance of $450,000 was funded in the 2011-2012 and 2012-2013 fiscal years.
- The total grant funds of $9 million will be available over a three year period starting with $3 million in July 2013, $3 million in July 2014, and $3 million in July 2015.
- The City will utilize the $3 million dollar grant, the credit for the cost of the previously installed PI infrastructure ($4.16 million) and the funds in the water capital budget (GL# 51-6800-033 West Side PI System) to fund this project.

# Springville PI System Phase 1A – Bartholomew Pond



# Springville PI System Phase 1A – Bartholomew Pond (Detail)


J-U-B ENGINEERS, INC.
240 W. Center St.
Suite 200
Orem, UT 84057
Phone: 801 226 0990
Fax: 801 226 0994
www.jub.com
ADDENDUM
NO. 1
PHASE 1A-BARTHOLOMEW POND
SPRINGVILLE CITY
OVERALL GRADING PLAN
C-102
ESTIMATED EARTHWORK QUANTITIES
CUT (CY)
FILL (CY)
TOPSOIL (NO FILL FACTOR) 13,325 13,325
CLAY (POND EXCAVATION) 10,000 10,665
CLAY (OVER EXCAVATION) 2,550 (65% FILL FACTOR)
ADDITIONAL EXCAVATION (NO FILL FACTOR) 55,222 55,222
THIRTY OAKS DR
CANYON ROAD
2900 EAST
HOBBLE CREEK
RIVER BOTTOMS ROAD
EXISTING POND
FUTURE PARKING AREA
SEE SHEET C-401 FOR DETAILED GRADING PLAN
SEE SHEET C-402 FOR DETAILED GRADING PLAN
SEE SHEET C-403 FOR DETAILED GRADING PLAN
SEE SHEET C-404 FOR DETAILED GRADING PLAN
SCALE IN FEET
0 50 100

**S T A F F  R E P O R T**

**DATE:** August 12, 2013

**TO:** Mayor and City Council

**FROM:** Jeffrey L. Anderson, City Engineer

**SUBJECT: SPRINGVILLE 400 SOUTH MAINTENANCE COMPOUND - INTERIOR BAY FINISH**

---

## RECOMMENDED ACTION

Motion to:

- Award the Springville 400 South Maintenance Compound - Interior Bay Finish project to the lowest responsible bidder, XXXXXXXXX., in the amount not to exceed $XXXXXXX and authorize the Director of Public Works to issue a Notice to Proceed for the project, and
- Authorize the Director of Public Works to issue Change Orders or adjustments to quantities of the unit price items, as needed, not to exceed 10% of the contract bid amount noted above.

## SUMMARY OF ISSUES/FOCUS OF ACTION

The City Council apportioned monies in the City's current 2012-2013 annual budget to fund improvements to the City's 400 South Maintenance Compound (Compound). Public Works staff has evaluated the feasibility of constructing some of the needed improvements with the usefulness of the finished product. This evaluation has shown that the facilities needed to house the four (4) Public Works Divisions; portions of the Buildings & Grounds and Recreation departments and the Central Shop cannot be effectively sited within the Compound boundaries.

In February 2012 Brad Stapley, Public Works Director, presented a multi-phased plan to effectively site each department in such a manner that both initial and future needs of each department can be reasonably met as the City grows toward build out.

At the direction of the City Council and Administration, Public Works Staff moved forward with Phase I of the proposed plan which consisted of improvements to the City’s 400 S Maintenance Compound. This project is a part of the Phase I improvements.

## DISCUSSION

This project is part of the overall site improvements planned for the 400 South Maintenance Compound. The approved improvement plan called for the following:

1. The installation and/or extension of underground utilities through the site (including sanitary sewer, culinary water and storm drain)
2. An addition to the existing Water Division building, and construction of a new metal storage building
3. Paving of the compound site
4. Renovation of several of the buildings at the Compound
5. Installation of street-side landscaping and a solid material fence along the western border of the compound.

Presently items 1, 2 and 3 have been completed. This project is part of item 4. The remaining interior remodel work included in item 4 (remodel of the streets and solid waste buildings) will be put out to bid this month.

Curtis Minor Architects (CMA) was retained for the design and bid document creation for this project. Staff has worked closely with the consultant in completing the construction documents and getting this out to bid. The Streets Department is moving into most northerly buildings in the compound and are in need of office space, a break room and bathroom facilities. This project will take an existing vehicle storage bay and convert the space into an office, break room and bathroom facilities for the Streets workers. The scope of work for the Interior Bay Finish is detailed below:

Interior Bay Finish:

- Renovation of an approx. 20-foot by 40-foot vehicle bay.
- The renovation will include an office for the Streets Superintendent, 4 small desk top work stations, new bath room with shower and locker facilities, and a break room with a kitchen.
- The new space will new lighting, HVAC and windows installed..

## BID RESULTS

Public Works Staff, in coordination with CMA, put out a request for bid (RFB) for qualified contractors to bid on the project. The RFB was placed on BidSync, an internet bidding service approved by the State of Utah. Proposals were received and evaluated by CMA and City Personnel. The following is a tabulation of the companies and their bid:

| Company | Bid Amount | Comments |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

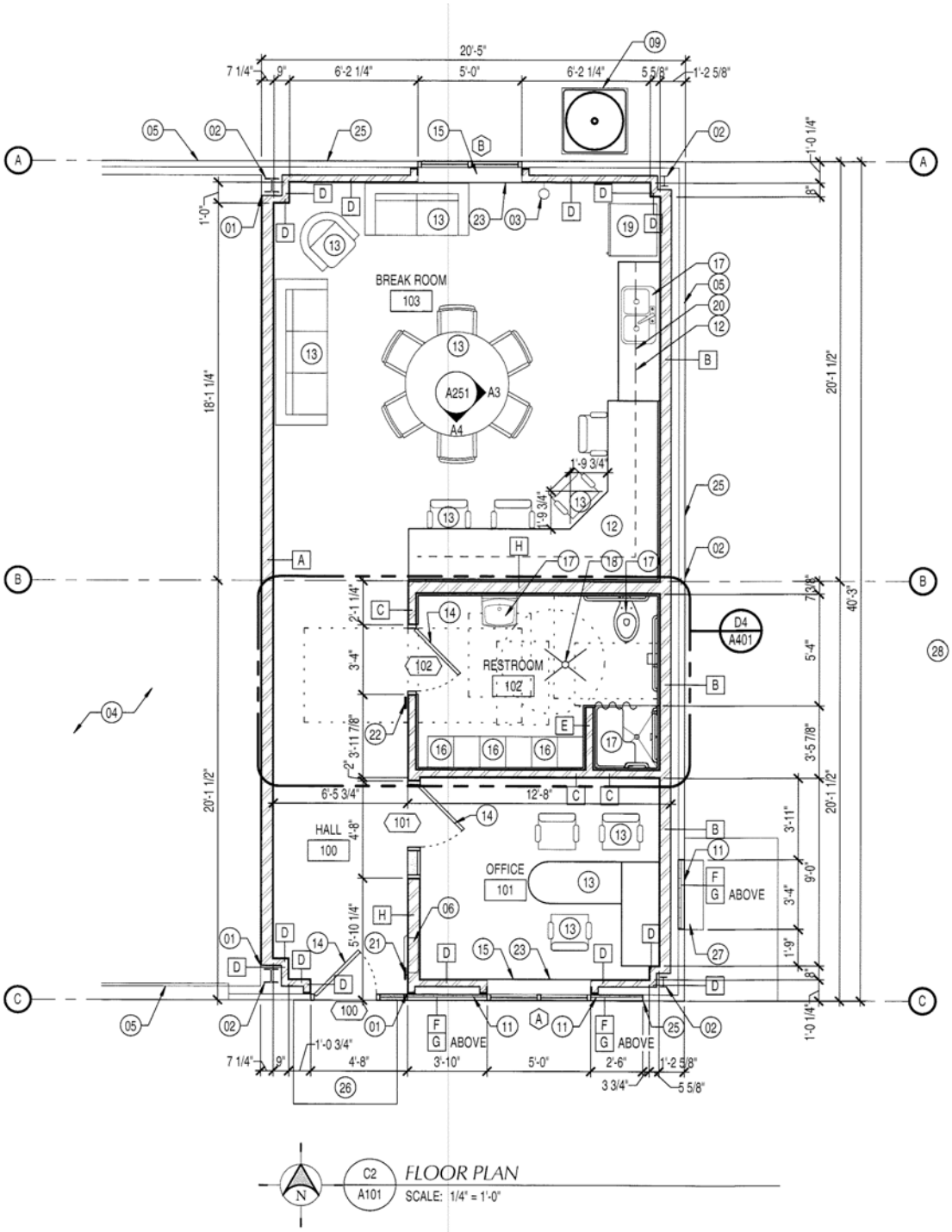
## FISCAL IMPACT

The proposed alternative site plans would be funded in the current 2012-2013 budget, which has $834,000 budgeted for the project from enterprise funds. To date the fund has

approximately $240,000 remaining to complete this project and the remaining interior remodels of the old Streets and Solid Waste buildings.

**PROJECT LOCATION:**

# Interior Bay Finish Plans:



**S T A F F  R E P O R T**

**DATE:** August 15, 2013

**TO:** Honorable Mayor and City Council

**FROM:** Distribution Superintendent Brandon Graham

**SUBJECT: TRANSFERRING POWER INFRASTRUCTURE FROM SPRINGVILLE CITY TO SPANISH FORK CITY**

---

## RECOMMENDED MOTION

Motion to accept a contract transferring power infrastructure from Springville City to Spanish Fork City for the sum of $87,017.94

## BACKGROUND

In 2006 Spanish Fork City annexed into our service territory, but has never built their infrastructure out to service the meters that are in that area. Now Spanish Fork has a developer that wants to develop in that area, and is willing to pay the extension fee that will bring their infrastructure into the area. At this time Springville Power would sell them the section of line that is in their service area. Our crews would then be making a dead end pole ending Springville Power's line at the boundary of Springville City and Spanish Fork City.

## DISCUSSION

Staff met with Spanish Fork and agreed on a formula to come up with the value the line and the current value that it is worth.
The formula is below:

Years of service X 2.2% = depreciation percentage value
New cost X depreciation percentage = current depreciation value
New cost – current deprecation value= current sale value

Then staff went and calculated how long it would take to build a new system from the ground up and then charged our extension fee labor rate. This allowed staff to come up with a total time and equipment cost for the line being transferred in the sale.
Adding the two values together for a total of $87,017.94.

Recently passed Senate bill 180 requires an electric service provider to transfer electric service facilities if requested, outside of municipal boundaries.

**ALTERNATIVES**

Proceed as is to maintain service to those meters; however annexation rules do allow the municipal to acquire the utility service points in the annexation boundary.

**FISCAL IMPACT**

The Gross Revenue from the ten meter's in the transfer area for the time period of August 2012 to July 2013 was $13,615.88. Net Revenue is approximately $4,765.55.This will no longer be rate revenue coming to the Electric Department.

Spanish fork City will pay Springville City $87,017.94 for the section of line that they are buying.

Name Brandon Graham
Title Distribution Superintendent

Attachments
Material list/ time and equipment rates
Map of the area
Contract

# CONTRACT

This agreement is made between Spanish Fork City and Springville City in order for Spanish Fork to compensate Springville for power lines, equipment, and labor belonging to Springville, which will be purchased by Spanish Fork following an annexation of unincorporated area into the city limits of Spanish Fork City.

## RECITALS

WHEREAS, Spanish Fork has annexed of number of acres of property adjacent to State Road 51 in unincorporated Utah County; and

WHEREAS, Springville has provided electric power to those parcels; and

WHEREAS, Utah state law allows annexing municipalities to serve areas within their city limits with electric power, but only after compensating the existing provider for their costs of the facilities in the annexed area; and

WHEREAS, Springville has conducted an inventory of its facilities, including costs of installation and has provided a buyout number to Spanish Fork, a copy of which is attached hereto as exhibit A and incorporated herein by this reference;

NOW THEREFORE, the parties hereto now hereby contract, covenant, and agree as follows:

## AGREEMENT

1. Spanish Fork will pay to Springville the sum of $87,017.94 in order to compensate Springville for its electric facilities, including equipment and labor costs, from approximately 5500 South (Utah County address) to approximately 5700 South (Utah County address) along SR-51.

2. Payment will be made within thirty days of each city council approving this agreement.

3. Springville will grant and convey to Spanish Fork title to all distribution lines, service lines, poles, transformers, and other facilities physically located in the area annexed into Spanish Fork. Springville further warrants that it has good title to the facilities sold to Spanish Fork.

4. Each city's electric utility crews will cooperate with each other to make a seamless transition such that any customers will be inconvenienced as little as possible.

5. Once the transition is made, Spanish Fork will be responsible for the maintenance, customer service, and any other obligations related to the facilities purchased.

6. This agreement represents the entire agreement between the parties concerning the buyout of this specific electric line and related facilities. This document supersedes all prior agreements, representations, negotiations, or understandings between the parties.

7. All amendments to this agreement shall be in writing, executed by each of the parties hereto.

8. This agreement is binding on the respective successors and assigns of the parties hereto.

9. In the event of breach of this agreement, the non-breaching party shall be entitled to recover its attorney's fees incurred in enforcing the terms hereof.

10. Each party represents that it has signed this agreement with the approval of its city council and has the authority of its respective council to sign the agreement.

DATED this ___ day of _____, 2013

SPANISH FORK CITY by:

_____

G. WAYNE ANDERSEN, Mayor

Attest:

_____

Kent R. Clark, City Recorder

SPRINGVILLE CITY by:

_____

WILFORD W. CLYDE, Mayor

Attest:

_____

Venla Gubler, City Recorder

# SPRINGVILLE CITY ELECTRIC DEPARTMENT

| | | | |
|---|---|---|---|
| NEW SUBDIVISION EXTENSION FEE ESTIMATE | | DATE: | 5/13/2013 |
| **SUBDIVISON NAME:** | **SPANISH FORK BUY OUT** | | |
| **UNDERGROUND PRIMARY DISTRIBUTION MATERIAL COSTS:** | | | |
| MATERIAL | QUANTITY | COST | EXTENDED |
| TRANSFORMER - 112.5 277 / 480 | | | |
| COOPER UNKNOWN URD (1994) | 1 | $6,511.00 | $6,511.00 |
| TRANSFORMER - 75 KVA 277 / 480 | | | |
| WESTINGHOUSE SERIAL #85JA349183 | 1 | $5,100.00 | $5,100.00 |
| TRANSFORMER - 50 KVA 120 / 240 | | | |
| UNKNOWN URD (2007) | 1 | $2,170.00 | $2,170.00 |
| TRANSFORMER - 25 KVA 120 / 240 | | | |
| WESTINGHOUSE SERIAL #87JH975248 | 1 | $1,258.00 | $1,258.00 |
| ABB UNKNOWN OVH (2001) | 1 | $1,258.00 | $1,258.00 |
| CENTRAL MALONEY UNKNOWN OVH (1995) | 1 | $1,258.00 | $1,258.00 |
| SOUTH WEST ELEC. SERIAL #57879-68 | 1 | $1,258.00 | $1,258.00 |
| TRANSFORMER - 15 KVA 120 / 240 | | | |
| ABB UNKNOWN OVH (2000) | 1 | $1,000.00 | $1,000.00 |
| HOWARD SERIAL #1108540492 | 1 | $1,000.00 | $1,000.00 |
| 200 AMP SECTIONALIZER - 3Ø | 1 | $1,256.00 | $1,256.00 |
| 40' WOOD POLE | | | |
| SW-D-4-0153 (DEAD END RISER POLE) | 1 | $1,067.00 | $1,067.00 |
| SW-D-4-0152 (OPEN BANK) | 1 | $997.05 | $997.05 |
| SW-D-4-0114 (1988) | 1 | $997.05 | $997.05 |
| SW-D-4-0115 (1995) | 1 | $997.05 | $997.05 |
| SW-D-4-0116 (1993) | 1 | $997.05 | $997.05 |
| SW-D-4-0113 (1997) | 1 | $997.05 | $997.05 |
| 45' WOOD POLE | | | |
| SW-D-4-0151 (1999) | 1 | $997.05 | $997.05 |
| SW-D-4-0150 (2000) | 1 | $997.05 | $997.05 |
| SW-D-4-0149 (2000) | 1 | $997.05 | $997.05 |
| SW-D-4-0148 (2000) | 1 | $997.05 | $997.05 |
| SW-D-4-0112 (2000) | 1 | $997.05 | $997.05 |
| NEW CONSTRUCTION DEAD END | 1 | $1,067.00 | $1,067.00 |
| WIRE | | | |
| 4" PVC PIPE | 1440 | $1.85 | $2,664.00 |
| 3" PVC PIPE | 480 | $1.33 | $638.40 |
| 1/0 15 KV PRIMARY URD | 1920 | $2.35 | $4,512.00 |
| #2 ACSR | 9824 | $0.63 | $6,189.12 |
| #6 COPPER | 500 | $0.38 | $190.00 |
| POLE CONSTRUCTION | | | |
| 15 KV FUSE CUT OUT | 14 | $68.00 | $952.00 |
| RISER TERMINATION | 4 | $45.10 | $180.40 |
| 15 KV ELBOW | 18 | $27.80 | $500.40 |
| MISCELLANEOUS | 1 | $2,000.00 | $2,000.00 |
| | | MATERIAL TOTAL | $51,999.82 |
| | HOURS | RATE | |
| EQUIPMENT | | | |
| FOREMAN SERVICE TRUCK (DAY RATE) | 120 | $25.00 | $3,000.00 |
| SERVICE BUCKET TRUCK | | $50.00 | $0.00 |
| LINE TRUCK (DAY RATE) | 80 | $75.00 | $6,000.00 |
| BUCKET TRUCK (DAY RATE) | 80 | $75.00 | $6,000.00 |
| DUMP-FLAT BED | | $35.00 | $0.00 |
| POLE TRAILER (DAY RATE) | 40 | $18.00 | $720.00 |
| THREE REEL TRAILER (DAY RATE) | 40 | $30.00 | $1,200.00 |
| CABLE PULLER (DAY RATE) | 40 | $50.00 | $2,000.00 |
| BACKHOE/LOADER (DAY RATE) | 40 | $75.00 | $3,000.00 |
| LABOR | | | |
| LINECREW SUPERVISOR | | | |
| Finlinson | 120 | $54.73 | $6,567.60 |
| Cropper | | $50.28 | $0.00 |
| POWER LINE TECHNICIAN-JOURNEY | | | |
| Allred | 120 | $48.47 | $5,816.40 |
| Palmer | 120 | $44.38 | $5,325.60 |
| McBride | | $48.42 | $0.00 |
| Snow | | $54.73 | $0.00 |
| Stansfield | | $48.44 | $0.00 |
| Freeland | 120 | $46.71 | $5,605.20 |
| METERING TECHNICIAN | | | |
| Bird | | $51.43 | $0.00 |
| Roylance | | $48.47 | $0.00 |
| QUOTE, DESIGN, AND INSPECTION | 10 | $56.62 | $566.20 |
| | | LABOR AND EQUIPMENT TOTAL | $45,801.00 |
| | | PROJECT ESTIMATED TOTAL | $77,237.86 |
| | | 10% Contingency as per Resolution 97-12 | $9,780.08 |
| | | **PROJECT ESTIMATED COST** | $87,017.94 |

# Power Line & Service Area Buyout

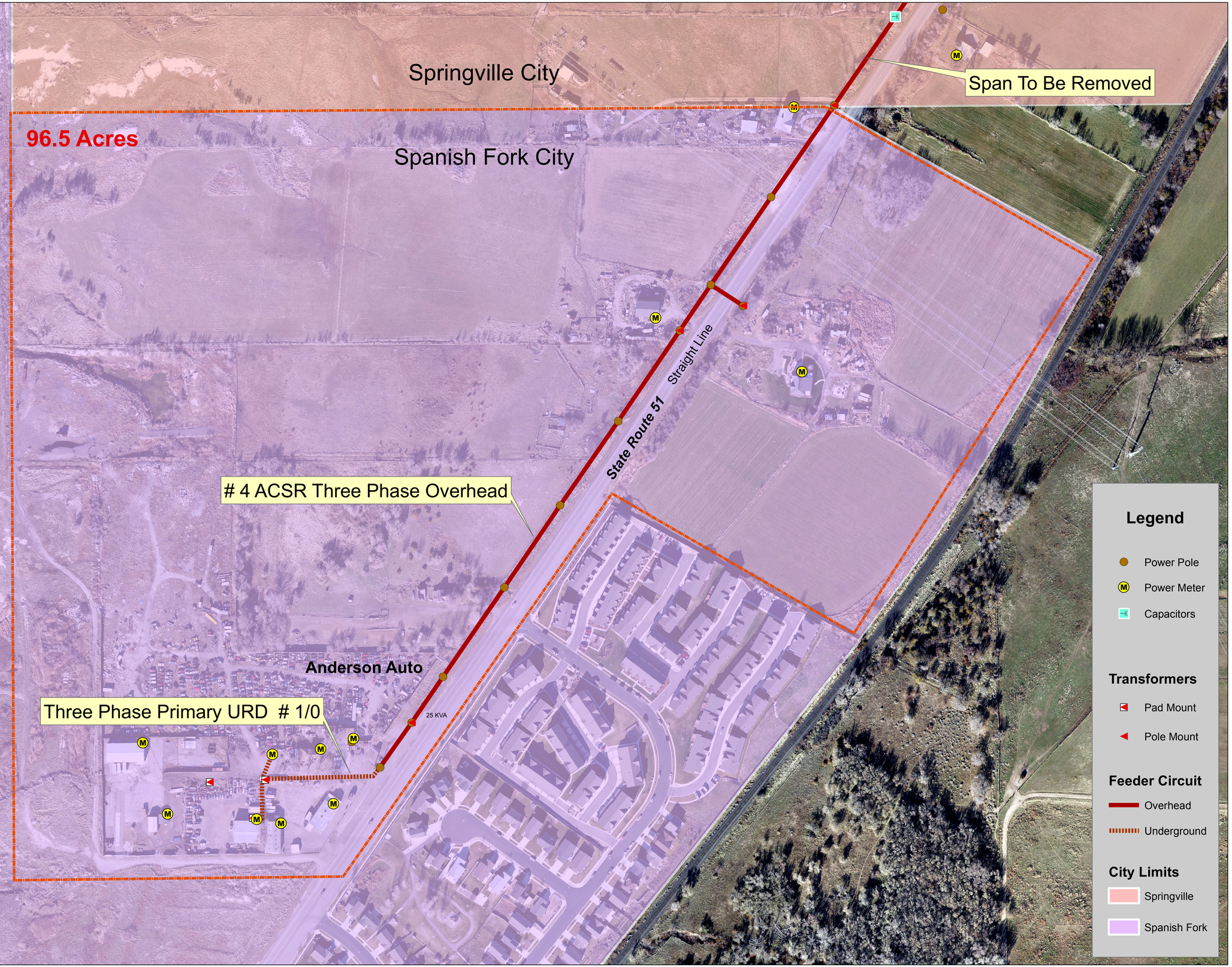
| MATERIAL | QUANTITY |
|---|---|
| TRANSFORMER - 112.5 277 / 480 | |
| COOPER UNKNOWN URD (1994) | 1 |
| TRANSFORMER - 75 KVA 277 / 480 | |
| WESTINGHOUSE SERIAL #85JA349183 | 1 |
| TRANSFORMER - 50 KVA 120 / 240 | |
| UNKNOWN URD (2007) | 1 |
| TRANSFORMER - 25 KVA 120 / 240 | |
| WESTINGHOUSE SERIAL #87JH975248 | 1 |
| ABB UNKNOWN OVH (2001) | 1 |
| CENTRAL MALONEY UNKNOWN OVH (1995) | 1 |
| SOUTH WEST ELEC. SERIAL #57879-68 | 1 |
| TRANSFORMER - 15 KVA 120 / 240 | |
| ABB UNKNOWN OVH (2000) | 1 |
| HOWARD SERIAL #1108540492 | 1 |
| 200 AMP SECTIONALIZER - 3 ø | 1 |
| 40' WOOD POLE | |
| SW-D-4-0153 (DEAD END RISER POLE) | 1 |
| SW-D-4-0152 (OPEN BANK) | 1 |
| SW-D-4-0114 (1988) | 1 |
| SW-D-4-0115 (1995) | 1 |
| SW-D-4-0116 (1993) | 1 |
| SW-D-4-0113 (1997) | 1 |
| 45' WOOD POLE | |
| SW-D-4-0151 (1999) | 1 |
| SW-D-4-0150 (2000) | 1 |
| SW-D-4-0149 (2000) | 1 |
| SW-D-4-0148 (2000) | 1 |
| SW-D-4-0112 (2000) | 1 |
| NEW CONSTRUCTION DEAD END | 1 |
| WIRE | |
| 4" PVC PIPE | 1440 |
| 3" PVC PIPE | 480 |
| 1/0 15 KV PRIMARY URD | 1920 |
| #2 ACSR | 9824 |
| #6 COPPER | 500 |
| POLE CONSTRUCTION | |
| 15 KV FUSE CUT OUT | 14 |
| RISER TERMINATION | 4 |
| 15 KV ELBOW | 18 |
| MISCELLANEOUS | 1 |

As of 6/26/07 Transfer includes:
# 4 ACSR 8,800 Feet
Urd Primary Cable 1500 Feet
45'Foot Wood Poles (12)
Wood Cross Arms (12)
Wood Brace (28)
Urd XFMR (3)
Pole Mount XFMR (5)
Primary Insulators:
Dead Ends (5)
Posts (30)
Spools (13)

Meters (10)

| | |
|---|---|
| Meter # 1787 | 2660 south state |
| Meter # 1227 | 2751 south state |
| Meter # 1543 | 2750 south state |
| Meter # 8283 | 2890 south state |
| Meter # 1730 | 2890 south state |
| Meter # 3972 | 2890 south state |
| Meter # 433 | 2940 south state |
| Meter # 8468 | 2944 south state |
| Meter # 1156 | 2930 south state |
| Meter # 8512 | 1154 North SR 51 |

Map is for reference only- Air photo 2011




JSnow 6-12- 2013

**S T A F F  R E P O R T**

**DATE: August 8, 2013**

**TO: Honorable Mayor and City Council**

**FROM: Distribution Superintendent Brandon Graham**

**SUBJECT: Springville City Electrical Requirements and Standards Manual**

## RECOMMENDED MOTION

Motion to approve, and adopt the Electric Departments Requirements and Standards Manual

## GOALS, OBJECTIVES AND STRETEGIES AT ISSUE

It is a goal of the department to provide the best customer service possible with the highest level of reliability and stable rates. The department strives to communicate with customers about electrical safety, energy efficiency, project planning, construction and operating improvements.

## BACKGROUND

The Electrical Requirements and Standards Manual was created to provide consistency for the installation and future maintenance of the distribution delivery system. It was developed with the assistance of an electrical engineer and has been in use since 2007. After review of City Council meeting minutes it was discovered that it has never been officially adopted by the Springville Council.

## DISCUSSION

Chapter 1 Springville Electric Code 4-1-103 states "The Superintendent of the Electrical Department may, and at the direction of the City Council shall, from time to time direct the making of the needed additions, improvements, alterations and repairs to the said system. The City Council may from time to time make such rules and regulations as it deems necessary for the operation and control of the City electrical system".

At this time Staff would like the City Council to adopt the Springville Power Electrical Requirements and Standards Manual to continue providing good installation practices for long term system maintenance and reliability.

## ALTERNATIVES

Not to adopt the Springville Electrical Requirements and Standards Manual and continue to provide direction for new installations based on best utility practices.

## FISCAL IMPACT

At this time there will be no Fiscal Impacts for the Department or City.

Name: Brandon Graham

Title: Distribution Superintendent

Attachments:
Electric Department Standards Manual

# SPRINGVILLE CITY ELECTRICAL REQUIREMENTS & STANDARDS MANUAL

Springville

Community. Service. Reliability.

# SPRINGVILLE CITY POWER DEPARTMENT

EFFECTIVE AS OF FEBRUARY 1, 2008, REVISED JULY 1, 2013
STANDARDS ARE SUBJECT TO REVIEW

# SPRINGVILLE CITY
# ELECTRICAL REQUIREMENTS & STANDARDS MANUAL
# TABLE OF CONTENTS


Section 1 – General Requirements

Purpose....1.1
Codes and Ordinances....1.1
Changes or Conflicts in Requirements and Guidelines....1.1
Application for Service....1.2
Types of Service Furnished....1.2
Overhead Service....1.2
Underground Service....1.2
Approval for Service....1.2
Permanent Service Connection....1.3
Seals....1.3
Work Activity near High Voltage Overhead Power Lines....1.3
Underground Primary/Secondary System Requirements of Subdivision and Commercial Areas....1.4
General....1.4
Application....1.4
Developer Responsibility....1.4

Section 2 – Trenching and Conduit

Scope....2.1
General....2.1
Trenching....2.1
Call Before You Dig....2.1
Depth....2.1
Width....2.2
Backfill....2.2
Joint Use....2.2
System Joint Use Trench....2.3
Secondary Residential Trench....2.4
Residential Conduit Requirements....2.4
Primary System Trench....2.4
Secondary and Street Lights in System Trench....2.5
Conduit....2.5

Backfill.....2.7
Burial Depth.....2.8
Directional Bore.....2.9
Section 3 – Residential Services
General.....3.1
Meter Socket Installation.....3.2
Overhead Service.....3.3
Underground Service.....3.4
Customer Responsibilities –
Single-Family Underground Service Requirements.....3.5
Installation of Underground Service Extension.....3.7
Service Trench Detail.....3.8
Section 4 – Secondary Junction Boxes.....4.1
Section 5 – Pad Mounted Transformers
Single-Phase Pad Mounted Transformers.....5.1
Single-Phase Typical Conduit Installation
For Residential Subdivisions.....5.2
Single-Phase Transformer Pad or Secondary Junction Box Location
With Planter and Sidewalk.....5.3
Single-Phase and Three-Phase
Pad Mounted Transformer Clearances.....5.4
Equipment Erosion Prevention.....5.5
Three-Phase Transformer Concrete Pad without CT Rack.....5.6
Three-Phase Transformer Pad with Metering Station.....5.7
Section 6 – Street Lighting
General.....6.1
Street Light Layouts.....6.1
Point(s) of Delivery for Decorative Lighting.....6.2
Street Lighting Conduit Requirements.....6.3
Springville City Power Standard Street Lights.....6.3
Decorative Street Lights.....6.3
Typical Street Lighting Layout.....6.4
Street Light Wiring.....6.5
Section 7 – Sectionalizers and Switches
Conduit Placement for Sectionalizers.....7.1
Conduit Placement for Switches.....7.2

| | | |
|---|---|---|
| Springville<br>Community. Service. Reliability. | SPRINGVILLE CITY<br>ELECTRICAL REQUIREMENTS<br>& STANDARDS MANUAL<br>TABLE OF CONTENTS | TABLE OF CONTENTS 3 |
| | | ELECTRICAL STANDARDS |
| | | SCALE: NONE |
| | | DATE: 8.23.07 |
| | | REV: |
| | | REV DATE: 7.16.2013 |

Section 8 – Developer Overview
Scope.....8.1
Basic Guidelines .....8.1
Section 9 – Temporary Power/Service .....9.1
Section 10 – Residential Electrical Inspection Requirements .....10.1

# GENERAL REQUIREMENTS

**Purpose**

This section was prepared to aid developers, contractors, engineers and customers in establishing electric service point***: Springville City service point of utility for connection to Springville Power will terminate at the point of connection immediately adjacent to overhead service masts (weather head) and on the meter terminals for underground services***, for new and remodeled structures. We recognize that you may require personal assistance from our staff, and we encourage you to contact us by calling Springville City Power to discuss electric service requirements with us. It is the desire of Springville City Power, and the local electrical code enforcing authority to provide you, the Customer (developers, contractors, owners, etc.) with high quality, safe electric service.

In order to avoid unnecessary repetition, the "Power Department" as used in the following pages shall mean Springville City Power Department.

The requirements are intended to apply to new developments.

As a general rule, if the matter in question is not presented herein, then it is not allowed unless approved by the Power Department.

Any power required for private use (i.e. light, sprinkler, etc.) shall be metered.

**Codes and Ordinances**

It is necessary that the construction of new or remodeled installations conform to applicable provisions of the National Electrical Code (NEC), National Electrical Safety Code (NESC), and State of Utah Electrical Service Regulations, as well as City and County ordinances and codes. This includes OSHA rules both during construction and maintenance.

**Changes or Conflicts in Requirements and Guidelines**

Some of the information in this section is based on the aforementioned governmental codes and ordinances as well as Springville City Power specific requirements as stated herein. These requirements and guidelines are issued with the intent of complying with all applicable codes, ordinances, regulations, and tariffs; however, in the case of conflict, the appropriate regulation, tariff, code, or ordinance will supersede the interpretation offered in this manual. In addition, these requirements are subject to change in the event that the governing codes, ordinances, regulations, or tariffs are changed. The Power Department should be consulted in case of doubt on the applicability of any item.

The phrase "consult Power Department" as used in this manual shall mean a consultation with Springville City Power Department Superintendent is to be made for each and every installation or project.

## Application for Service

It is important that the Power Department office be provided as early as possible with accurate load information and the date when the Customer will require service, so all necessary arrangements for the service may be completed. Request for service to large residential developments normally require 60 days advance planning by the Power Department in order to serve the load. Installations requiring transformers or other equipment not in stock may require six months lead time or more.

The Power Department is available to provide advice on service requirements and related problems relative to electric energy utilization for new, existing, and reconstructed installations. The Developer will be held liable for any damage to Power Department equipment.

When conditions are encountered during construction that require changes in the initial, agreed upon service arrangements, the Power Department must be consulted so mutually satisfactory alternative arrangements can be made. Adequate notice must be given to the Power Department and approval granted regarding changes or additions.

## Types of Service Furnished

The electric service available is 60 Hertz (cycles), alternating current, single or three-phase. The secondary voltages and connections available are given below:

## Overhead Service

No single-phase overhead services in excess of 150 Amps.

## Underground Service

Single-phase, 120/240 volt, three-wire, grounded
Three-phase, 120/208Y volt, four-wire, grounded wye
Three-phase, 277/480Y volt, four-wire, grounded wye

The nominal primary voltage of Springville City's power distribution system does not differ in the service area. Under certain conditions, primary delivery will be supplied at the distribution voltage standard for the location at which it is requested upon approval of the Power Department.

## Approval for Service

It is required that an electrical installation be approved by the electrical inspection authority having jurisdiction and by the Power Department, as stated herein, before it can be energized by the Power Department. The service will be energized by the Power Department only after all service requirements and inspections have been met. All electrical services are required to have an exterior main disconnect.

**Permanent Service Connection**

Only authorized Power Department employees shall make the permanent (or temporary) connection or disconnection of the Power Department's electric service to a building, structure or subdivision interconnections.

**Seals**

The purpose of seals by the Power Department on meters and associated service equipment is to prevent injury and/or tampering. A fee will be charged for any cut seals. All tampering and theft of power will be investigated and prosecuted per Springville City code.

Under normal circumstances, seals are not to be removed except by the Power Department. If an emergency should require seal removal (only by authorized electrical contractors) without prior notification, the Power Department must be notified as soon as possible, so the installation can be inspected and the seal replaced. When this occurs, the party removing the seal shall accept all liability for damage or alteration to equipment, injury to persons or property, and loss of revenue to the Power Department from the time the seal is removed until 72 hours after the Power Department has been notified that the equipment is ready to be re-sealed.

**Work Activity near High Voltage Overhead Power Lines**

As set forth in Section 54-8c-1 through 54-8c-7 of the Utah Code, no person or thing may be brought within 10 feet of any high voltage overhead line unless:

The responsible party has notified the Power Department or Utility operating the high voltage line of the intended activity; and

The responsible party and the Power Department or Utility have completed mutually satisfactory safety precautions for the activity; and

The responsible party has made prior arrangements to pay the Power Department or Utility for the mutually satisfactory safety precautions (if applicable).

The Power Department recommends a minimum of three business days' notice be given before any work near its lines is scheduled to begin.

NOTE: The National Electrical Safety Code requires that homes, buildings, bridges, signs, antennas, etc. have sufficient horizontal and vertical clearance to overhead power lines. Consult the Power Department for applicable distances.

**Underground Primary/Secondary System Requirements of Subdivision and Commercial Areas**

## General

The intent of this policy is to set forth the Developer's installation requirements and to outline specific installation standards. Along with requirements indicated in this section applicable requirements as indicated in other sections of this document apply to commercial and residential developments.

Where a development within the service area of the City is to be subdivided into residential or commercial lots and has been approved by the appropriate Planning and Zoning Boards, the electrical distribution system will be installed underground in accordance with the City's connection fee resolution and line extension policy. The subdivision Developer shall provide the City with the easements necessary for the most efficient installation of the required distribution system. All electrical systems installed by the Developer shall be front lot construction unless otherwise approved by the Springville City Power Department.

The following subsections serve as a guide for specific requirements of commercial and residential developments; however, the developer is responsible for coordinating with the Power Department to insure that the intents of this policy are met.

## Application

For commercial, industrial, residential subdivisions, mobile home parks, and apartment complex applications, the request for service shall include a plot plan indicating equipment size. Commercial or industrial plot plans should show preferred service and meter locations and a single-line diagram of the overall electrical system. The request must show all load information for commercial developments. Load information should include lighting, receptacle, water heating, cooking, electric heat, air conditioning, and motor loads, plus sufficient information on equipment operations to allow the kilowatt demand of the load to be estimated. The Power Department shall review the drawings and return the drawing set marked "Approved" or "Unapproved" with an indication of required changes.

## Developer Responsibility

1. Provide and install all power conduits for primary, secondary and street lighting circuits. All conduits shall be of a SCH 40 PVC rating. All conduits shall be installed at the required depths for type of circuit. All trench depths and conduits must be inspected by the Department before being backfilled. Backfill trenches according to trenching detail. Complete all inspections including all road crossing installations.

2. Provide and install all 90º rigid steel elbows with 10 mil tape. All 3-phase and 1-phase primary circuit conduits require the 36 inch sweep elbow. Any secondary circuit that is greater in length than 300 feet must be terminated with a rigid steel sweep elbow.

3. Provide materials for a riser pole if required. Must install the first 10 foot section of rigid or IMC conduit on standoff on the pole. Must use a 10 mil taped 90º rigid steel sweep at the pole. The department will finish installation with the materials provided by the developer to the point of termination.

4. A mule tape pull line of at least 2550 lbs. pulling strength shall be installed in all conduit lengths and secured at both ends. Ends of conduits shall be taped and sealed to prevent unwanted material entering. For residential service drops a 500-pound test or greater pull line shall be left in the conduit with at least 6 feet of line extending from each end.

5. All conduits shall terminate 3 to 6 inches above grade in junction boxes and ground sleeves. Identify with red paint on the conduit ends all primary conduits in the transformer ground sleeve.

6. Install all primary junction ground sleeves provided by the Department for the development.

7. Install all transformer ground sleeves provided by the Department for the development. Transformer ground sleeves shall be a minimum of 3 inches above the back of the sidewalk on compacted road base material.

8. Install all secondary junction boxes provided by the Department for the development. Secondary junction boxes shall be a minimum of 1 inch above the back of the sidewalk.

9. Install all required street lighting conduit at the required depth of the secondary conduit trench detail and junction boxes provided by the Department for the development.

10. The developer will be responsible for all equipment replacement even after cable is installed until all construction is completed and a final inspection is done to sign off on the bond assessment. Developer will sign a letter of material acceptance when materials are delivered and shall be responsible for all loss from the day that materials are on site.

11. URD cable will not be installed until curb and sidewalk are in place so that elevations of all power equipment will be correct. If not, all costs of relocation of facilities will be at the developer's expense. This will include installation of ground sleeves, junction boxes, and all other equipment.

12. No excavation is allowed until the curb and gutter is installed and the final grade is determined.

13. All workmanship is expected to be done with the highest of professional standards.

# TRENCHING & CONDUIT

## Scope

This standard describes trench requirements for underground primary and secondary distribution cable systems, including joint use with telephone or CATV cables and conduits.

## General

All other circuits installed in any trench containing Springville City Power (SCP) distribution circuits shall maintain the minimum 12 inch separation required by the current edition of the National Electric Safety Code Article 352.

Where trenching is provided by a contractor or customer, inspection of the trench and of conduits by SCP personnel shall be made prior to the installation of the select backfill.

Where county, state or other regulatory agency joint use, trench, backfill or compaction requirements exceed the requirements of SCP, the more stringent requirements shall apply. In no case shall this standard be used as justification to ignore or violate local regulations.

## Trenching

The developer is to provide the trench for all required conduit systems and, following installation of the conduit by the Developer, backfill to meet Power Department requirements. The Power Department, under the terms of the City's Line Extension New Connection policy (Resolution 97-12), will install both primary cables (medium voltage 12.47 kV or 4.16 kV) and secondary cables (480 Volts and below).

To assure the final grade has been established, the trenching will be started after the curbs and gutters have been installed unless approved by SCP.

## Call Before You Dig

Utah Law Section 54-8A-1 through 54-8A-11 requires the Blue Stakes One Call Location Center be notified at least two working days prior to excavation. The excavation must not be started until locations have been made. Blue Stake One Call Location Center can be contacted by calling either 811 or 1-800-662-4111.

## Inspection Fees

The first two trench inspections will be at no cost; all inspections after that will be $50.00 per inspection.

**Depth**

See chart on Figure 1 for trenching depths. The property owner is responsible at his own cost to insure that the proper burial depth clearance listed below is maintained even after excavation of the property. Any questions on impaired burial depths should be immediately brought to the attention of the Power Department. Under certain conditions, with prior Power Department approval, cable/conduit systems may be buried with less cover provided that mechanical protection is installed by the Developer to the Power Department's specifications.

**Width**

All trenches meet OSHA requirements. Primary/secondary combined trenches shall be a minimum of 18 inches wide at the bottom. Conduit shall be placed in the center of the combined trench. All single primary trenches shall be a minimum of 18 inches at the bottom. House service trenches shall be a minimum of 12 inches wide at the bottom.

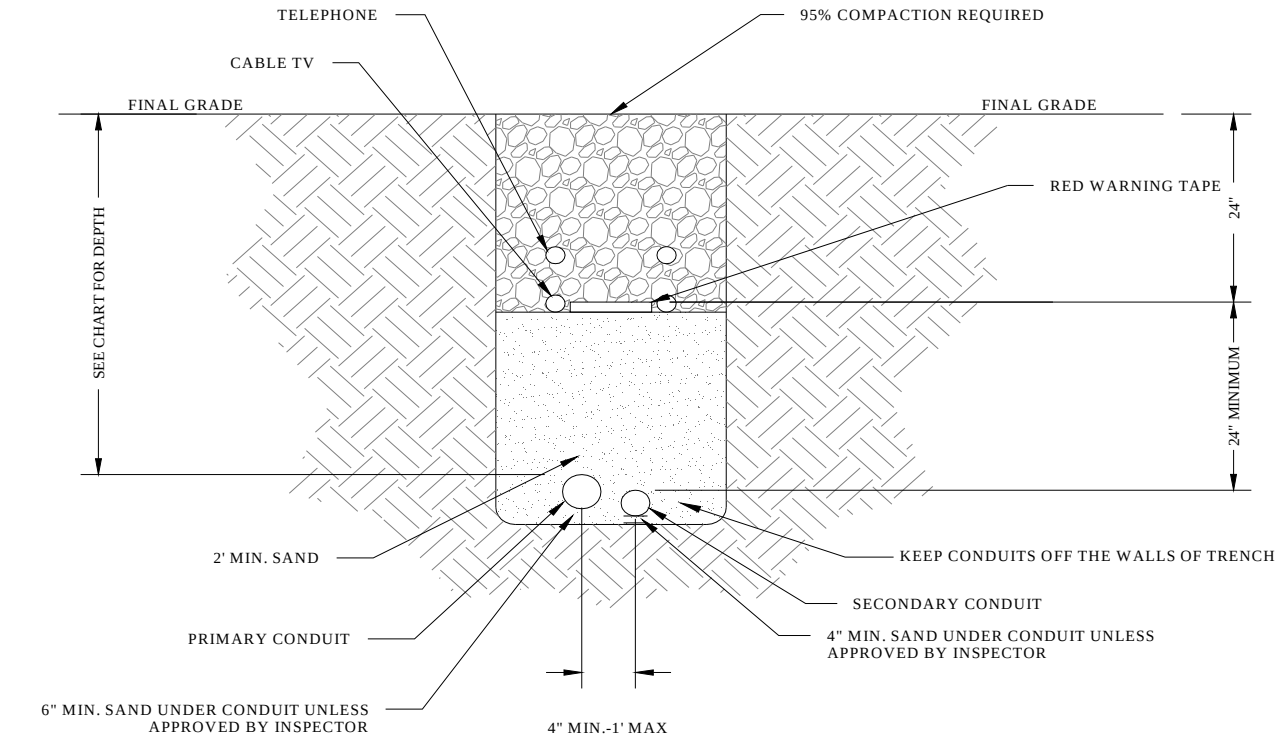
**Backfill**

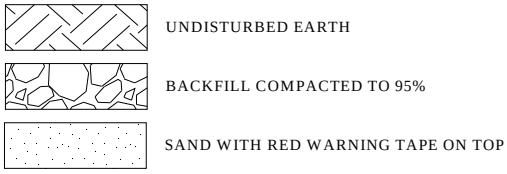
The developer will be responsible for backfilling trenches he provides. The Developer must provide the required amount of sand to be placed below and above the conduit. A red caution ribbon stating "CAUTION POWER BURIED BELOW" shall be placed on top of the sand. Where trenches cross structural fill, typical of road crossings, the trench backfill shall consist of like kind structural fill. All primary trenches and all road crossing trenches (including trenches for secondary cable) shall be compacted to 95% compaction of the maximum dry density.

**Joint Use**

Typically, joint use between other utilities of power department trenches is not allowed unless approved by the Power Department. Any joint use between telephone, TV, and other electrical communication cables must be pre-approved by the Power Department and installed in accordance with the Power Department specifications. The Power Department normally will not install electrical cables in a common trench with non-electric utilities such as water, gas, and sewer, unless unusual conditions such as adverse soil or route restrictions exist. All such installations require the prior approval of the Power Department. All installation will comply with the current National Electric Safety Code (NESC).

# System Joint Use Trench




| CONDUIT SIZES AND DEPTHS: | |
|---|---|
| CONDUIT SIZE | DEPTH |
| 2" | 4'-0" |
| 3" | 4'-0" |
| 4" | 4'-0" |
| 6" | 6'-0" |

Figure 1 – Trench Cross Section

**Secondary Residential Trench:**

The top of the conduit must be a minimum of 2 feet below the top of the back of the curb, or the existing grade.

There must be 4 inches of sand under the conduit.

After the depth inspection has been passed, a second inspection is required to check for a minimum 1 foot of sand on top of the conduit along with a red caution ribbon stating "CAUTION POWER BURIED BELOW". The entire trench must be level with sand.

The total bend on a single pull cannot exceed 360 degrees.

**Residential Conduit Requirements:**

For 100 to 150 Amp services 2 inch conduit is required with a trench of 12 inch minimum width.

For 200 Amp services 2 1/2 inch conduit is required.

For services larger than 200 Amps call the Power Department for conduit size.

Metallic elbows are required at the house end of the trench, wrapped with 10 mil corrosion proof tape to the point where the conduit leaves the earth. The metallic riser at the house shall also be taped to final grade, Plastic conduit not permitted for use as riser pipe

The total bend on a single pull cannot exceed 360 degrees.

**Primary System Trench**

A minimum of 4 feet deep and 24 inch wide trench from top of conduit to top back of curb, or final grade.

There must be 6 inches of sand under the conduit while maintaining final depth requirement.

After the depth inspection has been passed, a second inspection is required to check for a minimum 2 feet of sand on top of the conduit along with a red caution ribbon stating "CAUTION POWER BURIED BELOW". The entire width of the trench must be level with sand.

Separation between electric conduits and other utilities in a joint trench is a minimum 2 feet vertical.

All elbows are required to be wrapped metallic 36 inch style for the 3 inch single-phase primary.

Three-phase runs in 4 inch and larger conduit require the 36 inch long wrapped metallic sweeps.

When installing elbow at transformer, switch, or sectionalizer, the steel elbow will be placed at dirt level inside of electrical structure.

The total bend on a single pull cannot exceed 360 degrees.

**Primary System Road Crossing:**

Primary system road crossing must adhere to depth requirements. To meet road compaction requirements, 1 foot of sand is acceptable.

**Secondary and Street Lights in System Trench:**

Minimum of 4 feet deep from top of conduit to top back of curb, or final grade (will measure the lesser of the two).

There must be 4 inches of sand under the conduit.

Secondary conduit must be 3 inch with the exception of conduit for street lighting which shall be 2 inch.

Plastic elbows are only allowed when there are no more than 2 elbows, and the pull is less than 200 feet (2 lots long).

Wrapped rigid metallic elbows are required on pulls greater than 200 feet or pulls with more than 2 elbows.

**Conduit**

The Power Department requires the use of conduit for all underground primary and secondary cable installations, including lighting circuits. Rigid galvanized steel, IMC and gray electrical grade PVC schedule 40 (underground only) conduit are acceptable materials for conduits installed by the Customer or Developer. Plastic conduit not permitted for above ground riser pipes.

Rigid steel conduit is constructed of galvanized steel and uses threaded connections. It is stronger than other standard conduit materials and is suitable for applications requiring either conductive metal or high strength. Rigid steel conduit increases the reactance of cable installed in the conduit, which increases voltage drop. Rigid steel conduit must be effectively grounded.

Table 1 has conduit sizes used with standard primary, secondary, and service cables.

| Conduit Trade Size (inches) |
|---|
| 2 |
| 2 ½ |
| 3 |
| 4 |
| 6 |

Table 1 – Conduit Size

All conduit used for underground services will be sized by SCP at the time of application.

100 to 150 Amps – 2 inch
200 Amps – 2 ½ inch
300 Amps – 3 inch
400 Amps – 4 inch

All services larger than 400 Amps will require an instrument transformer cabinet. The cabinet will be installed by the contractor or homeowner to the National Electric Code and OSHA rules. SCP will help establish the location for this cabinet.

SCP will install all instrument transformers and test switches at the customer's expense.

Business and/or Commercial customers will supply and install conductors for service as required by the NEC. Customer shall also provide termination lugs at the pad mount transformer.

Cable pulls longer than 250 feet will need to be pulled by the residential customer.

All underground risers to the meter base will be installed by the homeowner or contractor. The riser will be anchored to the foundation above dirt level, and the clamp not to be connected to the taped sections of the riser pipe.

All underground primary voltage risers will have a 90-degree rigid steel bend with a minimum radius of 36 inches. Long sweep elbows are NOT required for residences.

All primary elbows are required to be steel wrapped with 10 mil non-corrosive tape.

All conduits shall be terminated at the open end with plastic bushings.

All below ground metallic conduit must be wrapped with corrosion tape suitable for the application.

Residential single phase primary conduit must be 3 inch. Secondary conduit shall be 3 inch from transformers to secondary junction boxes and as required by service size from the secondary junction box or transformer to the residence.

All conduit end points shall be sealed or taped to prevent debris from plugging the conduit. The Developer shall be responsible for cleaning or repairing conduits if the Power Department is unable to install or pull the service cable.

Along with conduits extending to secondary junction boxes, each transformer pad and secondary box shall have 10 foot conduit stub outs for interconnection to adjacent homes when required by Springville City Power.

Prior to backfilling, the Developer must notify the Power Department for an inspection, following the inspection the Power Department shall issue a notice to proceed, allowing backfilling.

**Backfill**

Whenever possible, the soil originally removed from the trench should be used as backfill after sand has been installed.

Sand primary conduits with 24 inches of sand over and 6 inches under with contractor installed red electrical warning tape on top of the sand.

Sand secondary conduits with 12 inches of sand over and 4 inches under with red electrical warning tape on top of the sand.

The sand fill will pass through a 1/4 inch sieve frame.

The sieved residue contains less than five percent rock solids by volume.

The backfill used in the remainder of the trench shall be free of rocks larger than 4 inches in diameter.

No material shall be placed in as fill when either material to be placed or material on which it is placed is frozen.

All trenches shall be backfilled within 48 hours after conduit is installed and notice to proceed is given. Grading shall be reasonably even and free from irregularities, and shall provide positive drainage without ditching or ponding.

Final grade for cable depth purposes is at the bottom of the curb if a curb exists or is planned.

If the grade is to be lowered, the depth of cuts must be added to the specified trench depth.

Installation of circuits should be postponed in areas where significant changes of grade are anticipated until final grade is allowed to be determined.

**Burial Depth**

Under normal circumstances, the conduits shall be placed so as to meet or exceed the minimum depths shown in Table 2.

| | Minimum Depth to Top of Conduit (inches) |
|---|---|
| Primary | 48 |
| Secondary | 48 |
| Residential Services, Stubs, and Drops | 24 |
| Street Lights | 24 |

Table 2 – Minimum Depths for Trenching and Conduits

When trenching hillsides the top of the conduit must be 48 inches deep at the minimum depth and the bottom of the trench must be flat.

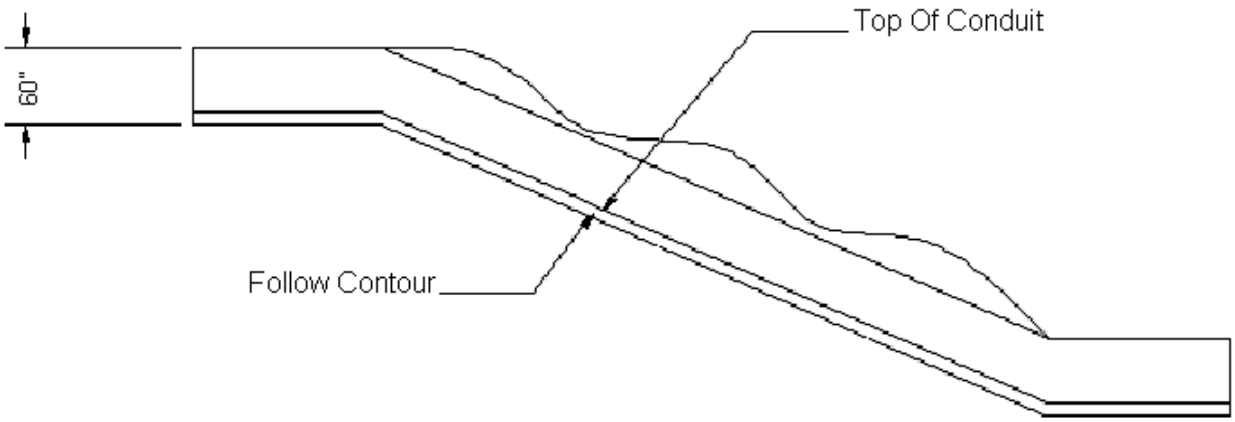



Figure 2 – Hillside Trench

**Directional Boring Policy**

Before a directional bore is attempted to install a power conduit, the contractor(s) doing the bore must contact the Power Department to conduct an on-site job briefing to discuss the work to be preformed. Upon approval from the Power Department contractor(s) may be permitted to bore in underground electrical conduit when digging in a conduit is not feasible, or if property damage is a concern. A bore pit must be dug at the beginning, and at the end of a bore, to the correct depth depending on the voltage to be installed. The conduit must be either gray in color, or black with a red stripe, and must maintain a minimum depth for the length of the run; after conduit is installed a rigid wrapped metal sweep elbow must be installed on both ends of the conduit. If possible, the contractor(s) must write down the depth of the bore every fifteen (15) feet. If this can not be accomplished, a tracer wire must be installed to verify depth prior to Power Department accepting the power conduit.

NOTE: After fusing the HDPE conduit, the bead created from the fusion process must be reamed and removed from the inside of the HDPE conduit for a non-obstructed path before conductors can be installed.

| | |
|---|---|
| Minimum Depth: | Primary, 6’ Secondary, 3’ |
| Approved Coupling: | Shur-Lock II, or equivalent |
| Conduit: | HDPE 11. Must be gray, or black with a red stripe. |

# RESIDENTIAL SERVICES

## General

The Power Department will determine the exact location of meters that do not meet the criteria established in this manual. If the customer is unsure if the meter location is acceptable, the Power Department should be contacted.

The location of the electrical service point on the customer's premises is an important consideration. Consult the Power Department to determine the point of attachment for overhead service drops and underground service laterals.

Install residential meters outdoors at a location acceptable to the Power Department. Locate the meter within ten feet of the street side (front side) of the residence, on the side of the residence closest to the Power Department's source. Avoid installations near windows or exterior walls that are likely to be fenced in. Never install the meter over window wells, steps in stairways, or in other unsafe or inconvenient locations. Keep shrubs and landscaping from obstructing access to the meter.

Written approval from the Power Department is required, prior to installation, for alternative meter socket locations when:

1. Conditions prohibit placing the meter base within ten feet of the front of the building.
2. Alley-fed services have access for meter reading.
3. Metering pedestals or poles are used.
4. Other special conditions exist.

Figure 2 below shows where an overhead residential meter socket should be located.

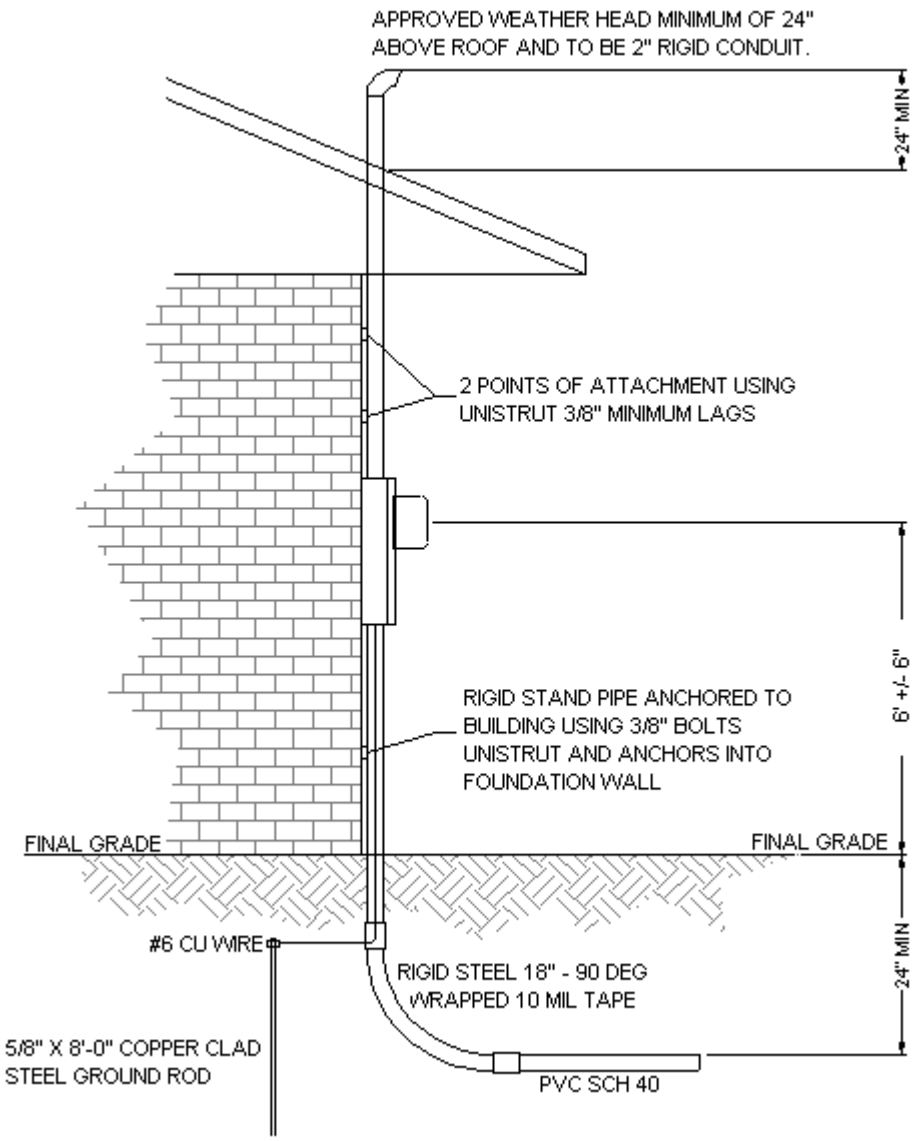



Figure 1 – Meter Socket Installation

**Overhead Electrical Service Point (150 amp or smaller, 200 amp aerial will not be accepted)**

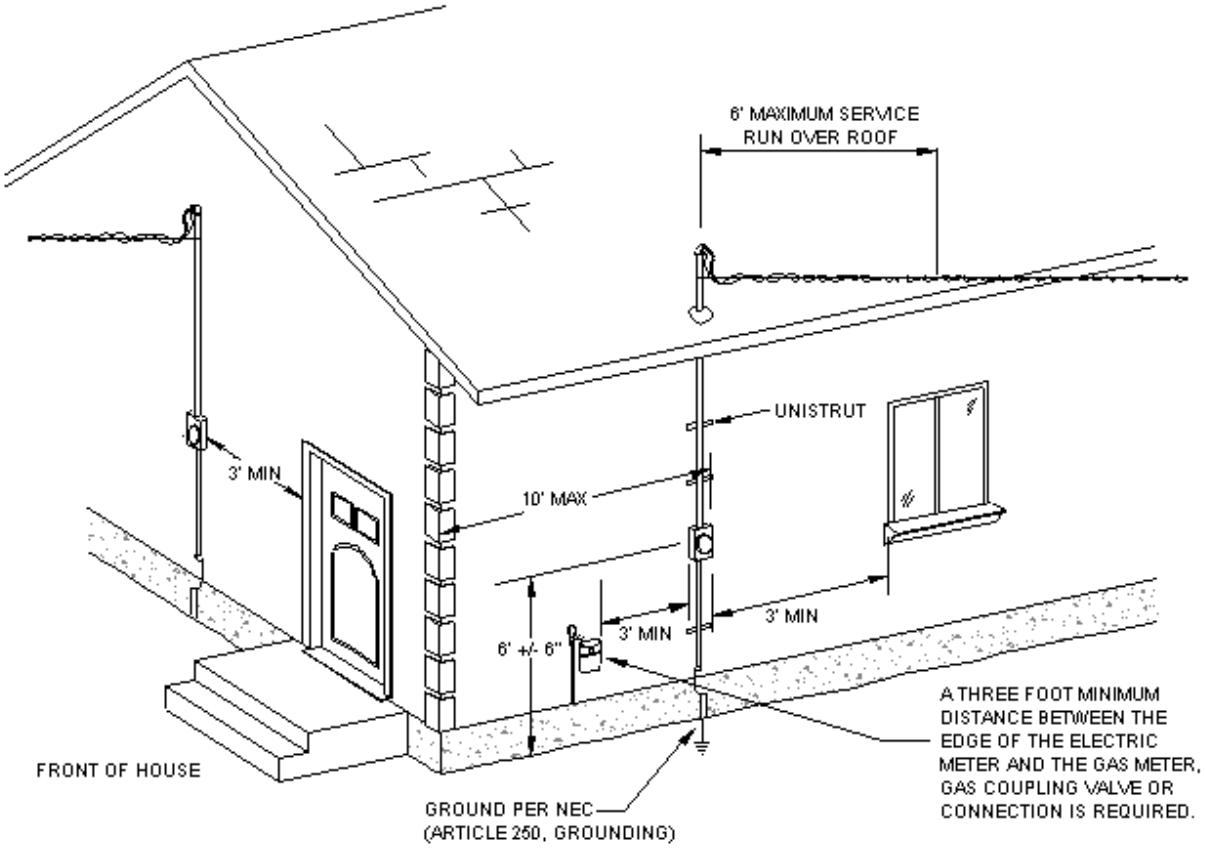



Figure 2 – Residential Meter Location for an Overhead Service

**Underground Electrical Service Point**

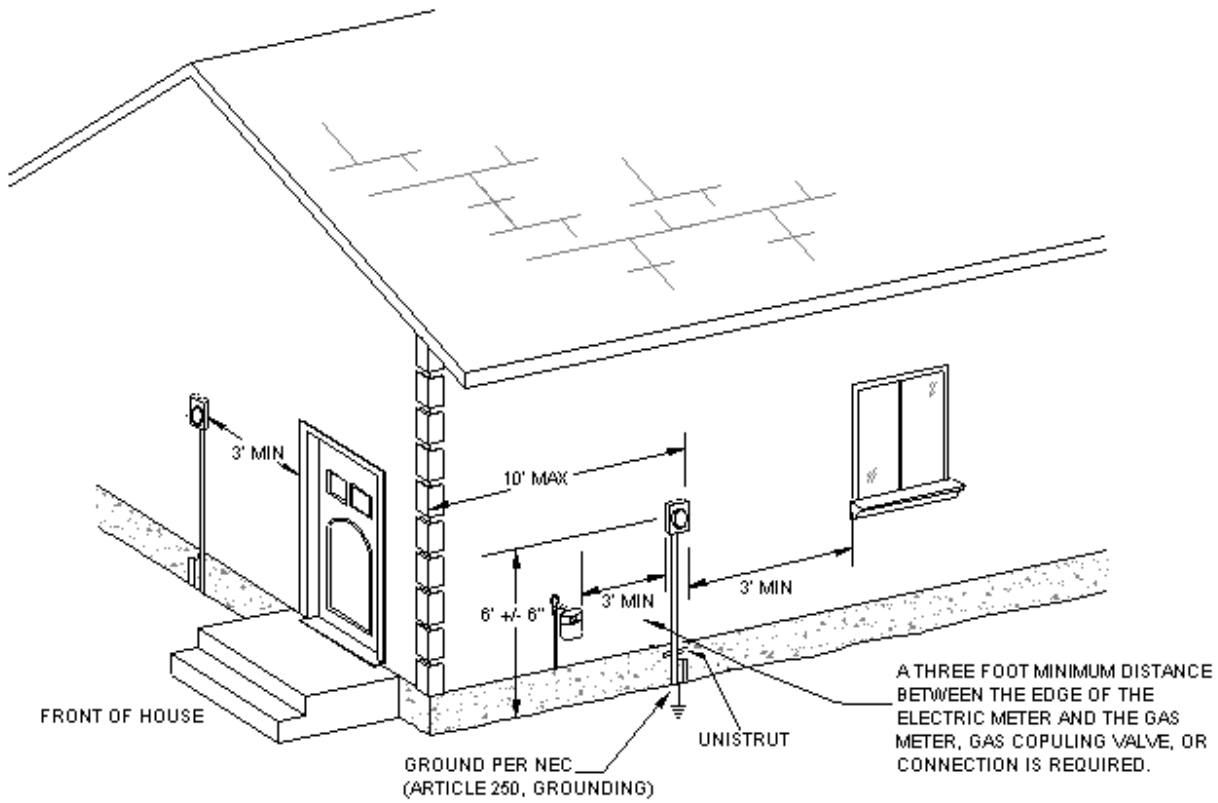



Figure 3 – Residential Meter Location for an Underground Service

Underground service can be provided to the customer from either an overhead or an underground distribution system.

All residential underground services shall be installed in Power Department approved, customer installed conduit per Section 2 of this standards manual. The Power Department will determine and install the appropriate size service conductor from its distribution line to the service point.

The Power Department owns and maintains the underground service lateral from its distribution line to the customer's electrical service point. The Power Department also owns and maintains the meter. The customer owns the meter socket, the meter base, and all wiring beyond the meter socket.

**Customer Responsibilities - Single-Family Underground Service Requirements:**

Utah Law Section 54-8A-1 through 54-8A-11 requires the Blue Stakes One Call Location Center be notified at least two working days prior to excavation. The excavation must not be started until locations have been made. The trench should be a minimum of 12 inches wide.

The customer shall furnish and install a meter socket suitable for an underground service and provide and install the conduit from the meter socket to the Power Department's point of source. The length of the service should be no more than 150 feet with no more than 360 degrees of total bend in the conduit. The underground conduit shall be Schedule 40 gray PVC. Metallic conduit shall be used above ground from the meter socket to the first 90 degree sweep which shall also be metallic. Below ground metallic conduit must be wrapped with 10 mil corrosion tape suitable for the application. Conduit shall be terminated at the open ends with plastic bushings. The conduit shall be properly glued. A 500-pound test or greater pull line shall be left in the conduit with at least 6 feet of line extending from each end.

Services of 100 to 150 Amps require 2 inch conduit and 200 Amp services require 2 1/2 inch conduit. Call the Power Department for assistance with services greater than 200 Amps.

Prior to backfilling, the customer must notify the Power Department for an inspection. There are two inspections. The first one will be for conduit depth and the conduit must be in the trench. There must be 24 inches of cover from the top of the conduit to the final grade. There must be 4 inches of sand under the conduit unless existing soil is approved by the inspector. Following the inspection the Power Department shall issue a notice to proceed, allowing backfill of sand. A second inspection is required to check for at least 1 foot of sand on top of the conduit and red caution ribbon stating “CAUTION POWER BURIED BELOW” on top of the sand. After the second inspection backfilling may be completed. The trench can have no rocks or foreign material in the backfill other than specified in section 2.7. All trenches shall be backfilled within 48 hours after the conduit is installed.

The customer must identify and remediate all potential surface or subsurface problems that may damage the Power Department's facilities including but not limited to, surface or sub-grade water flows, or frost heaves. The customer shall provide the trench, sand, backfill, compaction, and, where required, surface restoration.

In order for the permanent power to be connected, the main breaker panel cover must be in place on the meter base and secured as designed for the base being used. Also the outside cover must be in place over this cover with at least one screw in each corner. The inside breaker panel must also be covered with at least one screw in each corner of the cover.

Grounding shall be provided according to State adopted electrical codes.

If a compression fitting is used to attach the conduit to the meter base, a bonding bushing and bonding jumper are required. The jumper must go to the customer side of the meter base unless the base is designed to accept the jumper on the utility side, and utilize a hole in the ground bus of its own.

For temporary power while still under construction, a 120 Volt ground fault circuit interrupter must be in place somewhere in the house as required by the NEC. The most practical place to install it is in the laundry room.

On underground installations, there must be a ninety degree elbow in the junction box with a riser that terminates a minimum of three inches above the dirt floor of the junction box and not closer than ten inches from the bottom of the lid.

To prevent the riser from pulling out of the meter base during settling of the ground the conduit must be anchored to the foundation using unistrut, bolts, 3/8 inch minimum anchors, and a unistrut clamp. Corrosion tape must be remove where the clamp is installed to the riser pipe.

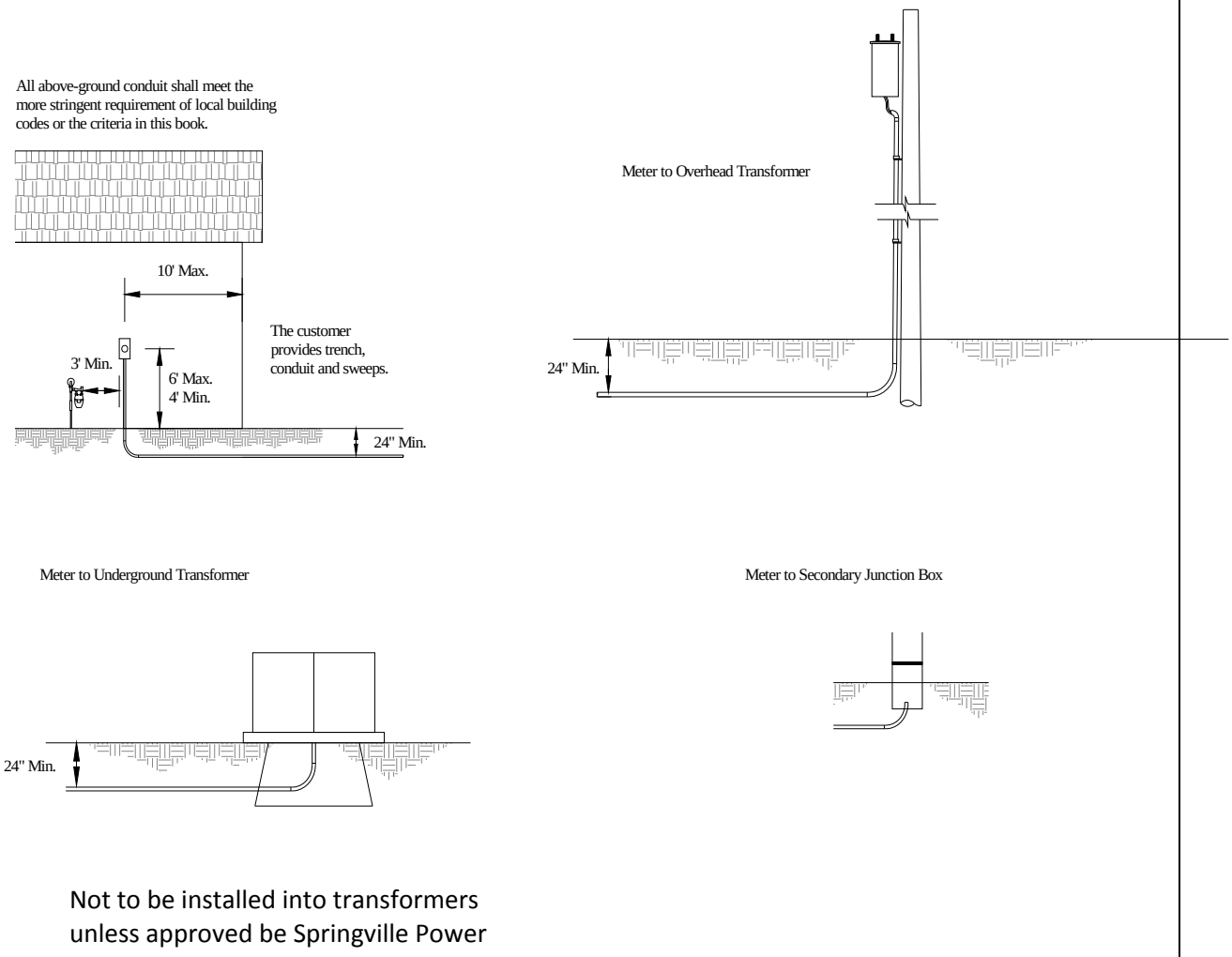
The location of the meter base shall be on the side of the house closest to the secondary power source and no more than 10 feet from the front wall. Contact dispatch at (801) 489-2750 Ext. 10 if the power source needs to be located. If no secondary power box is available on the lot contact the power department for further instructions.

The height of the meter base shall be 6 feet plus or minus 6 inches above ground at the center of the meter base opening.

On service changes the old main breaker must be saved for the inspector. Where no increase in amperage is paid for, the same size service must be used. Department policy allows for a maximum impact fee credit of 100 amps for any service that does not have a main breaker installed.

The first two inspections (temporary inspection, trench inspection, permanent power inspection, service change inspection) will be at no cost; all inspections after that will be $50.00 per inspection.

The following figures show the installation of an underground service extension from the house to a transformer, junction box, and power pole. The customer shall consult the Power Department to determine the conduit location adjacent to a Power Department pole, transformer, or junction box. The Power Department will assist with placement of conduit into Power Department facilities other than secondary junction boxes. Only licensed electrical contractors can access secondary junction boxes.




Not to be installed into transformers unless approved be Springville Power

Figure 3 – Installation of Underground Service Extension

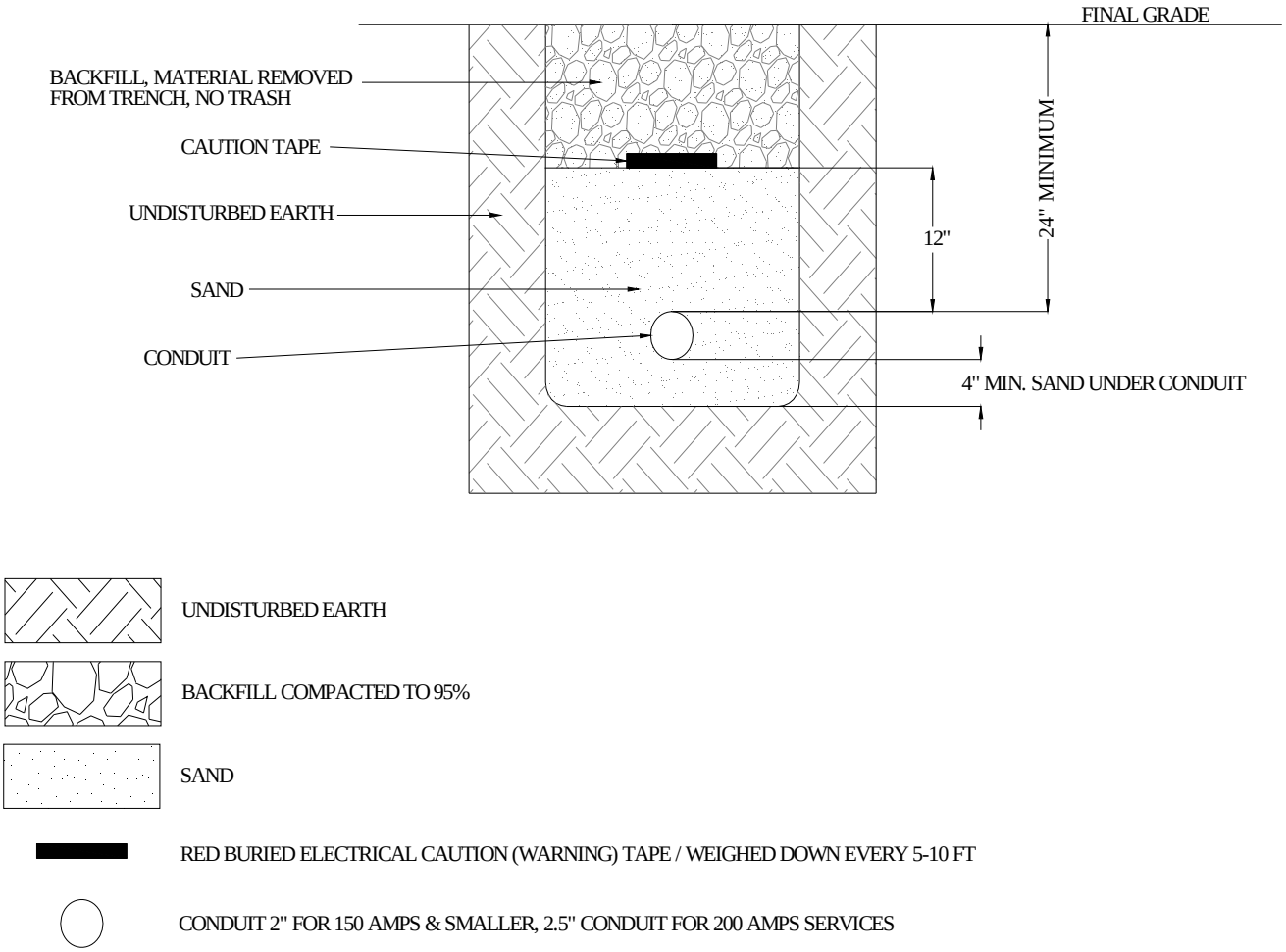
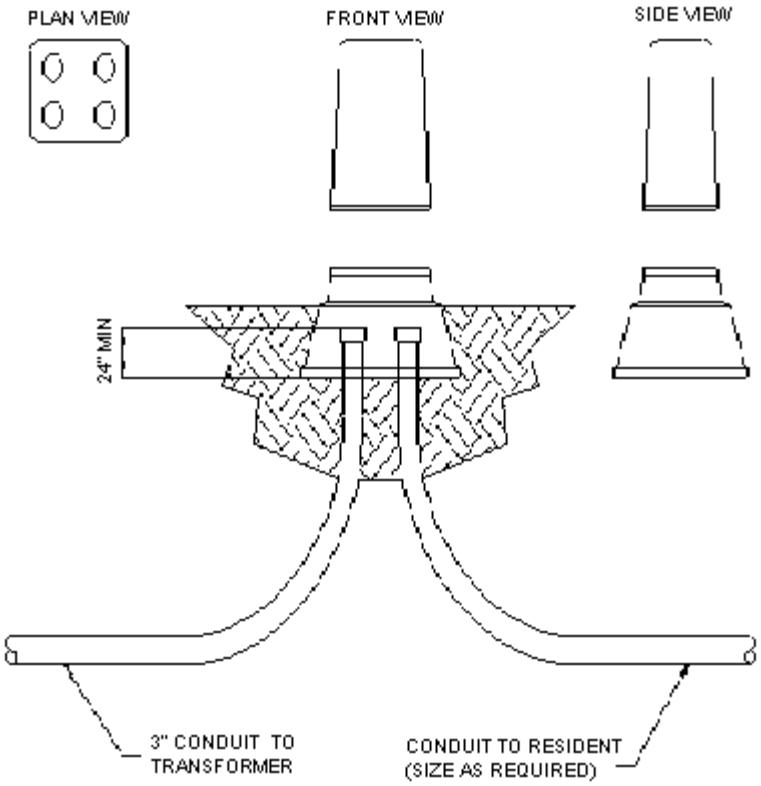



Figure 4 – Service Trench Detail

# SECONDARY JUNCTION BOXES

Required Secondary Junction Box Types:

1. PenCell AG-14HDXNL
2. Nordic PRMC-150

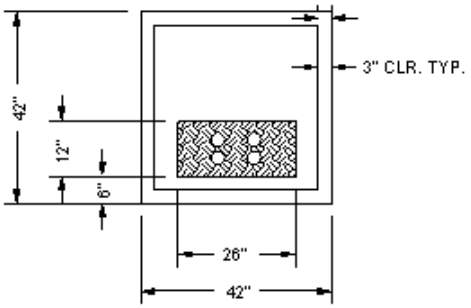


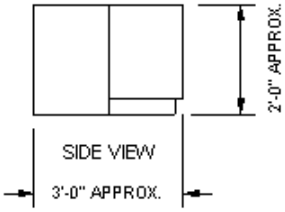

Notes:

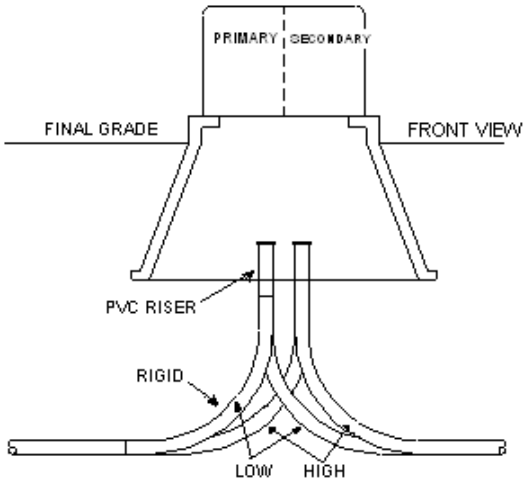
1. Springville City Power will provide the secondary junction boxes to the developer.
2. The developer shall provide the minimum spacing between conduits.
3. The developer will seal all conduit ends with tape to prevent plugging.
4. The developer is responsible for trenching and back filling.

| | | |
|---|---|---|
| Springville Community. Service. Reliability. | SPRINGVILLE CITY ELECTRICAL REQUIREMENTS & STANDARDS MANUAL SECONDARY JUNCTION BOXES | ELECTRIC 4.1 |
| | | SECONDARY JUNCTION BOXES |
| | | SCALE: NONE |
| | | DATE: 8.24.07 |
| | | REV: |
| | | REV DATE: 7.16.2013 |

# SINGLE-PHASE PAD MOUNTED TRANSFORMERS



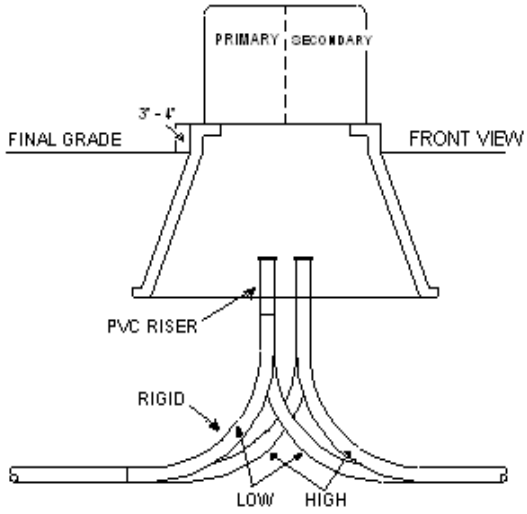

Notes:

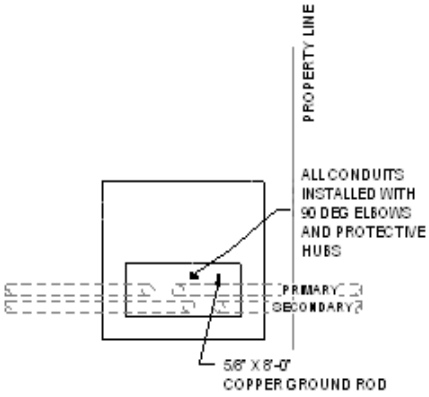
1. The developer will supply and install 5/8” X 8’ground rods, and conduit.
2. Springville City Power will supply transformer pads, transformers, and conductors.
3. Plastic couplings are required on all rigid metallic elbows.

Fill material under the primary pad or base shall be road base meeting stat specifications and shall be compacted to 95%. Road base fill shall extend from the bottom of the trench to the transformer pad and shall extend 3 inches on the back and sides and 1 inch on the front.

# SINGLE-PHASE TYPICAL CONDUIT INSTALLATION FOR RESIDENTIAL SUBDIVISIONS

| | | |
|---|---|---|
| Springville<br>Community. Service. Reliability. | SPRINGVILLE CITY<br>ELECTRICAL REQUIREMENTS<br>& STANDARDS MANUAL<br>PAD MOUNTED TRANSFORMERS | ELECTRIC 5.1 |
| | | PAD MOUNTED TRANSFORMERS |
| | | SCALE: NONE |
| | | DATE: 8.28.07 |
| | | REV: |
| | | REV DATE:7.16.13 |

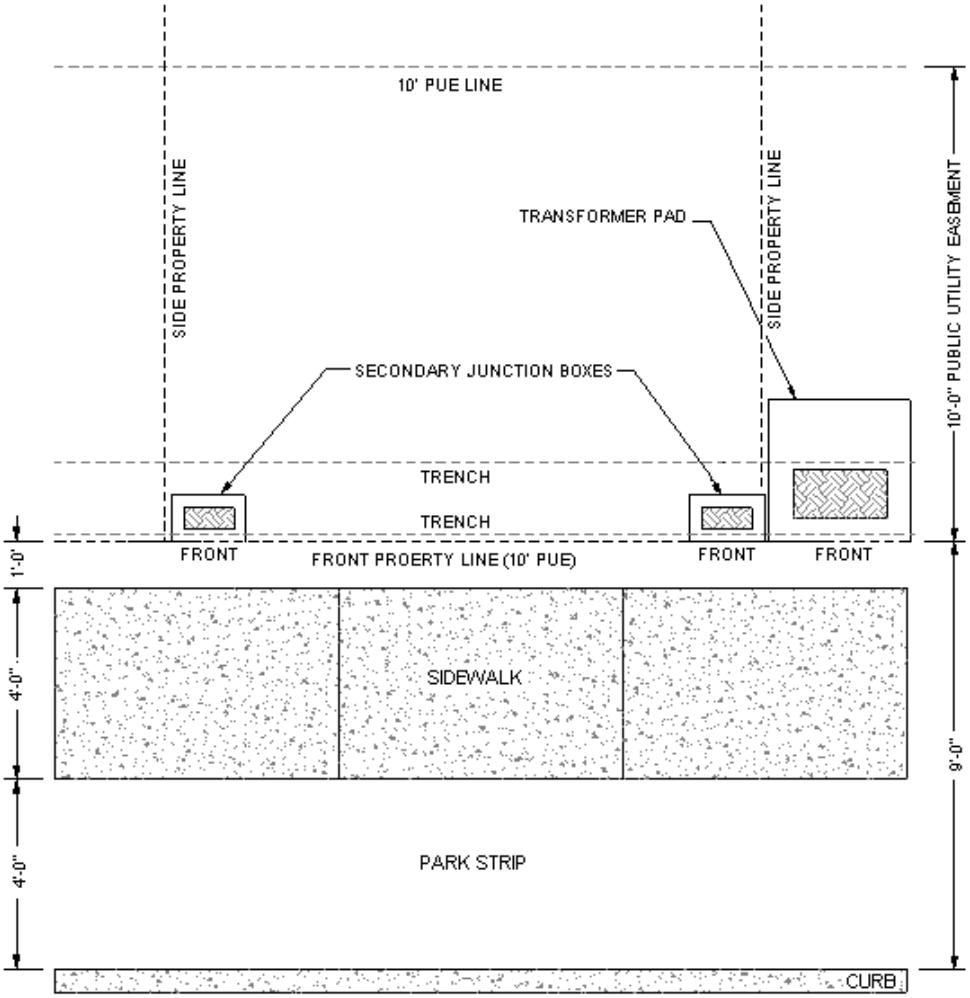



Notes:

1. The developer is responsible for the installation of conduit system as designed and specified.
2. All stub outs must point in the general direction of the front corner of the building and must extend beyond the property line of the lot being served.
3. For residential 200 Amp services use 2 ½ inch conduit and 3 inch conduit from transformers to secondary junction boxes.
4. Conduit for primary cable shall be a minimum of 3 inch. The developer is required to coordinate with the Power Department for the specific conduit sizes required.
5. Conduit sizes from 2 to 4 inches must be 4 feet deep and 6 inch conduit must be 6 feet deep.
6. Rigid conduit shall be used on riser poles and where otherwise specified by the Springville Power Department.
7. All 6 inch conduits shall use rigid steel 90's and fittings and must be wrapped.
8. All secondary conduits shall be stubbed 10 feet beyond the transformer pad where required for future extension of conduit system.
9. In transformer applications all primary conduits must be marked with red paint.

# SINGLE-PHASE TRANSFORMER PAD OR SECONDARY JUNCTION BOX LOCATION WITH PLANTER AND SIDEWALK

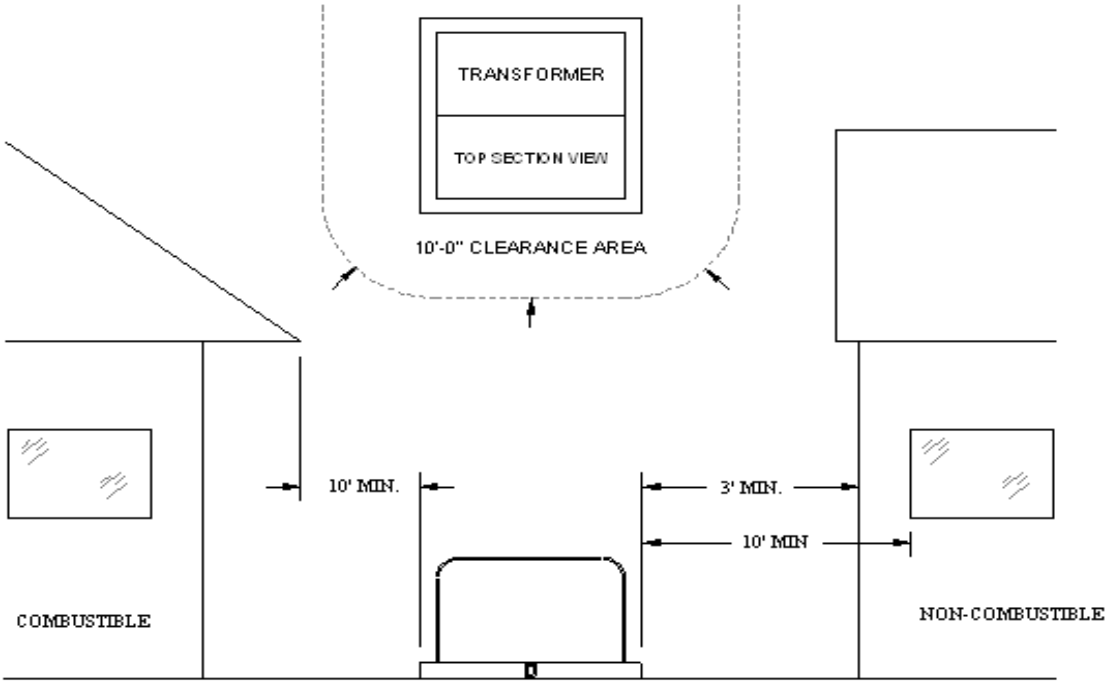



Notes:

1. Transformers and secondary junction boxes are to be offset from the property line on either side.
2. Transformers and secondary junction boxes are to be located as per the electrical design provided by Springville City.
3. Transformer and other equipment must be installed so that the front of the equipment faces the sidewalk. No obstructions are allowed in front of Springville City's power equipment.

| | | |
|---|---|---|
| Springville<br>Community. Service. Reliability. | SPRINGVILLE CITY<br>ELECTRICAL REQUIREMENTS<br>& STANDARDS MANUAL<br>PAD MOUNTED TRANSFORMERS | ELECTRIC 5.3 |
| | | PAD MOUNTED TRANSFORMERS |
| | | SCALE: NONE |
| | | DATE: 8.28.07 |
| | | REV: |
| | | REV DATE:7.16.13 |

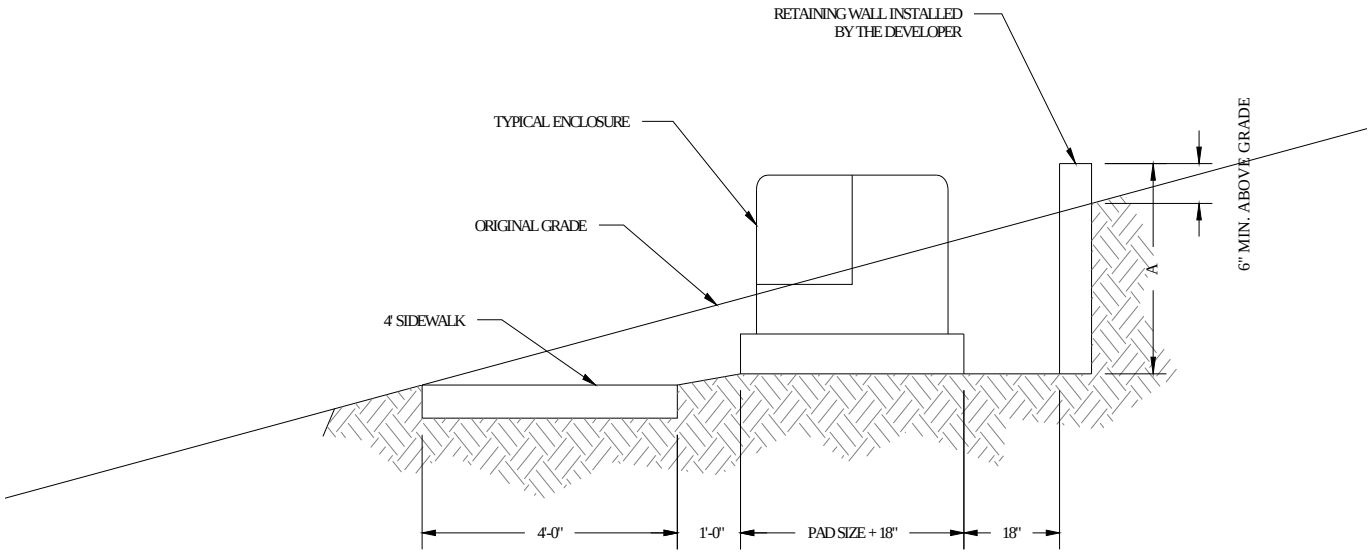
# SINGLE-PHASE AND THREE-PHASE PAD MOUNTED TRANSFORMER CLEARANCES




Notes:

1. A 10 foot clear area must be maintained in front of the equipment to allow for the use of hot sticks.
2. The front of pad-mounted transformers must be located away from building walls or other barriers to allow for safe working practices.
3. A 10 foot clearance is required from any transformer surface if the structure is of combustible material.
4. A 3 foot clearance is required to any non-combustible building surfaces that do not have any openings closer than 10 feet.
5. Consult the national electric safety code, NEC, state and local building and fire codes for additional requirements.
6. Consult the Springville Power Department for additional clearances that may be required for doors, windows, fire escapes, air vents, etc.
7. When pad-mounted transformers or other equipment is installed where it may be struck by a motor vehicle the customer will install and maintain Springville Power Department approved barrier posts to protect the equipment.

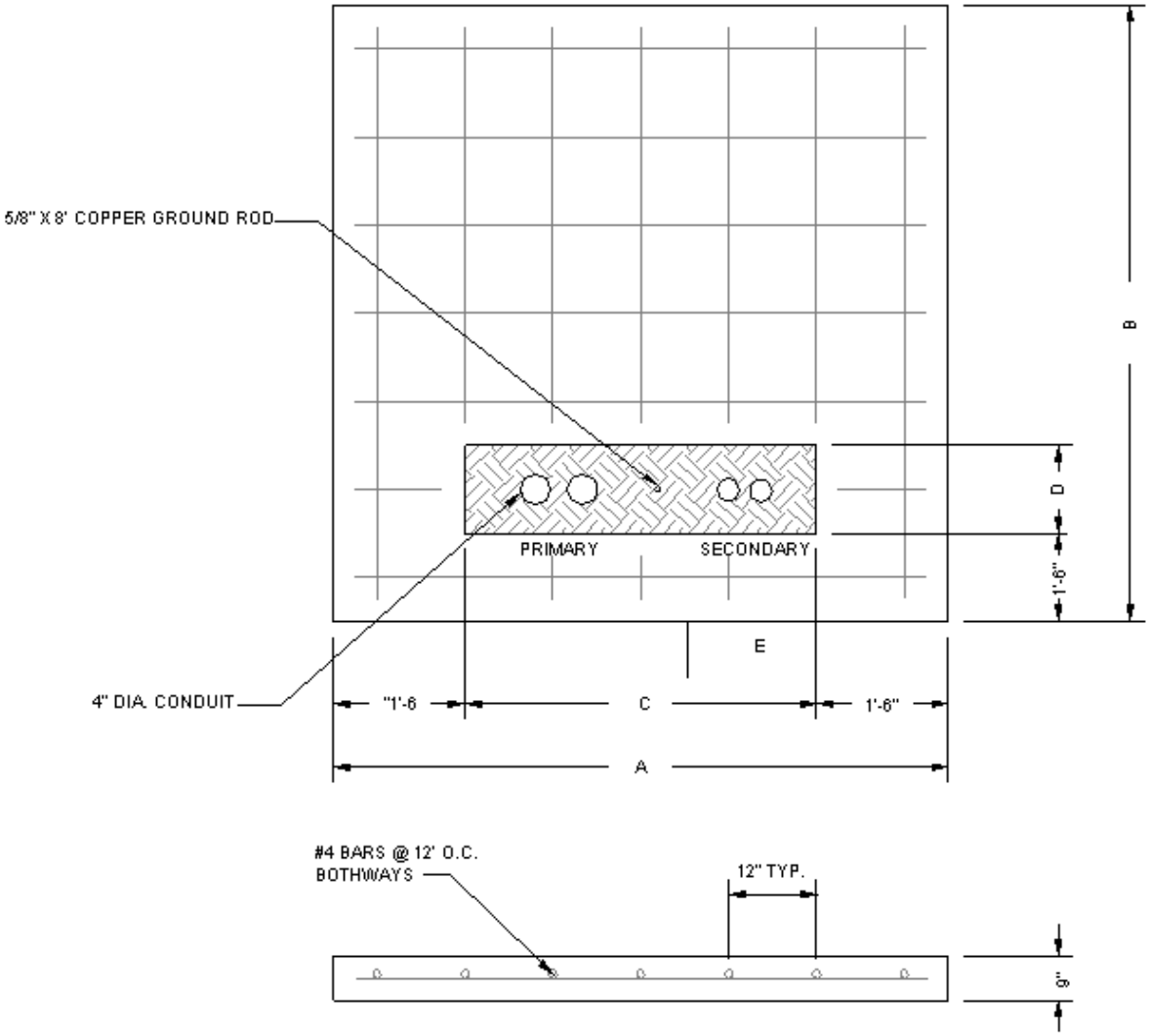
# EQUIPMENT EROSION PREVENTION




Notes:

1. When it becomes necessary to notch-out or fill a slope to install an enclosure or transformer the cleared area should be of sufficient size to accommodate the enclosure and shorings. The front of the pad shall be placed 2 inches maximum above the sidewalk.
2. The area under and behind the pad must be level and compacted as per the trench specification.
3. A retaining wall is required if dimension “A” is greater than 12 inches.
4. Side retaining walls are also required if dimension “A” is greater than 18 inches. The retaining wall shall be 6 inches above the existing grade and 18 inches from each side and the back of the enclosure.
5. All grading shall be performed by the developer.
6. Contact the Springville Power Department if assistance is required.

# THREE-PHASE TRANSFORMER CONCRETE PAD WITHOUT CT RACK

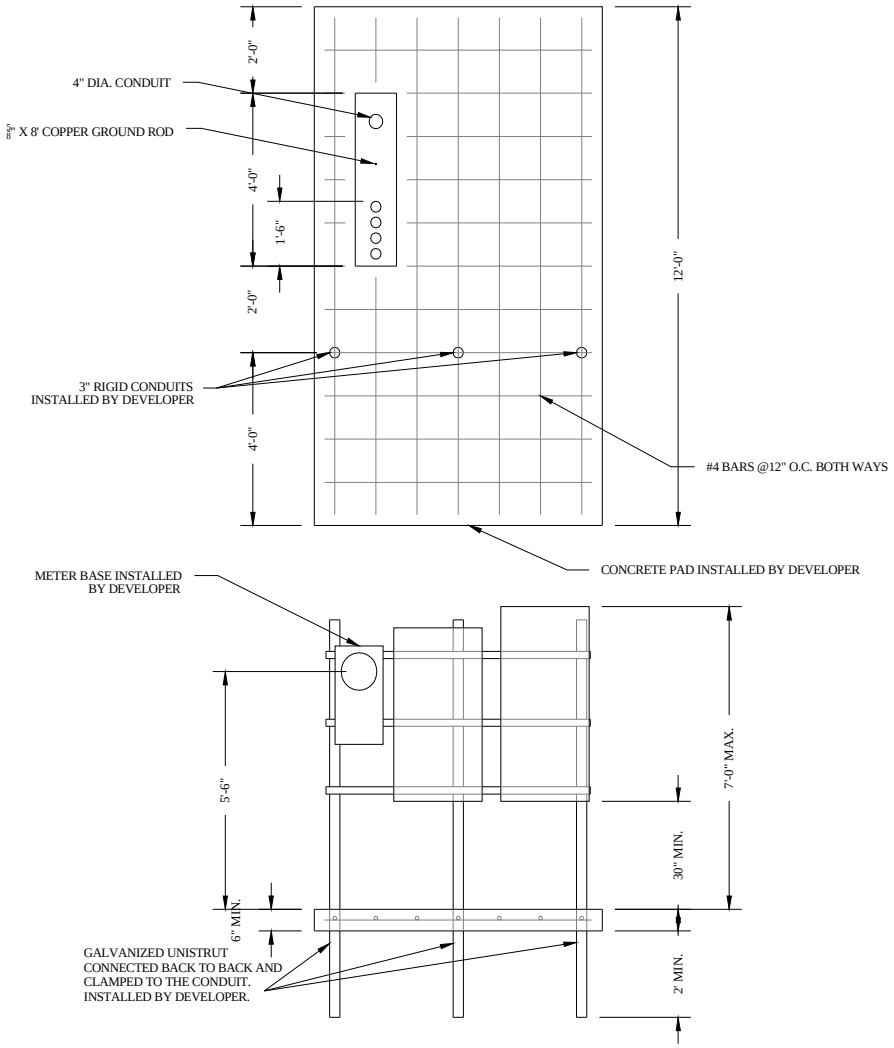



Transformer Pad Dimensions

| Transformer Rating | Dimensions | | | | |
|---|---|---|---|---|---|
| | A | B | C | D | E |
| 75 – 500 KVA | 78” | 84” | 42” | 15” | 20” |
| 750 – 2500 KVA | 96” | 96” | 60” | 16” | 30” |

| | | |
|---|---|---|
| Springville Community. Service. Reliability. | SPRINGVILLE CITY ELECTRICAL REQUIREMENTS & STANDARDS MANUAL PAD MOUNTED TRANSFORMERS | ELECTRIC 5.6 |
| | | PAD MOUNTED TRANSFORMERS |
| | | SCALE: NONE |
| | | DATE: 8.28.07 |
| | | REV: |
| | | REV DATE:7.16.13 |

# THREE-PHASE TRANSFORMER PAD
# WITH METERING STATION




Notes:

1. Springville City will not pull or terminate commercial services from the secondary side of the transformer.
2. The developer shall terminate all cables in the CT cans.
3. The contractor shall terminate all cables they run and provide lugs for the transformer secondary.

| | | |
|---|---|---|
| Springville Community. Service. Reliability. | SPRINGVILLE CITY<br>ELECTRICAL REQUIREMENTS<br>& STANDARDS MANUAL<br>PAD MOUNTED TRANSFORMERS | ELECTRIC 5.7 |
| | | PAD MOUNTED TRANSFORMERS |
| | | SCALE: NONE |
| | | DATE: 8.28.07 |
| | | REV: |
| | | REV DATE:7.16.13 |

# STREET LIGHTING

**General**

The following general requirements shall apply to street lights installed in new underground residential subdivisions or developments located within the service area of Springville City Power (within Springville City):

Springville City Power will provide electric power for street lights at no cost, except as otherwise provided below in the Street Light Layouts section.

Springville City Power standard street lights (poles, fixtures and wiring) shall be used except as provided below. Standard SCP pole is 35’ bronze fiberglass pole, 8’ bronze arm, with 30 or 80 pack LED fixture. Depending upon location.

Springville City Power standard street lights will be installed in accordance with Springville City Power's Line Extension Policy.

Springville City Power standard street lighting will be installed, owned and maintained by the Springville City Power Department. Conduit systems for street lighting wiring shall be installed by contractors or developers.

With Power Department approval, development specific decorative (non Springville City Power standard) street lighting (poles, fixtures and wiring) may be installed in subdivisions.

Decorative lighting (service disconnect, poles, luminaries, lamps, conduit and wiring) installed in underground subdivisions shall be installed by contractors or developers. Power and maintenance for the street lights will be provided by Springville City Power in accordance with the second paragraph above.

**Street Light Layouts**

The following layout requirements shall apply to Springville City Power standard and decorative street lighting installations:

Layouts for Springville City Power standard street light installations will be prepared by Springville City Power.

Layouts for decorative street light installations shall be prepared by contractors or developers utilizing the general requirements included in this section. Contractors or developers shall provide drawings of proposed layouts for decorative street lighting to Springville City Power for review and approval. Catalog information on the poles, luminaries and lamps proposed for use shall be provided by contractors or developers with the lighting layouts.

In general, street lights shall be placed at three and four way intersections, and at 90 degree turns. See Figure 1 for a typical street lighting layout.

Street lights shall also be installed between intersections at a staggered spacing of approximately 300 feet to 400 feet. Decorative street lights may be installed at lesser intervals. See Figure 1 for a typical street lighting layout.

Decorative street lights may be installed (300 foot to 400 foot non-staggered spacing) on medians (islands) in streets with islands at least 10 feet in width. Decorative street lights may be installed at lesser intervals.

Luminaries for decorative street lights shall be Type III, include a photo cell receptacle and shall be suitable for use with a LED. Use of luminaries with higher wattage lamps or other light sources (metal halide ) must be approved by Springville City Power. House side shields shall be provided if required. Street light poles shall provide a minimum mounting height for luminaries of 16 feet for decorative lighting.

**Point(s) of Delivery for Decorative Lighting**

The point(s) of delivery for decorative street lights shall be at a location(s) approved by Springville City Power. Contractors or developers shall provide drawings of proposed locations for points of delivery for decorative street lighting to the Springville City Power for review and approval. These points of delivery shall typically be proximate to Springville City Power owned pad mounted transformers or secondary junction boxes. The layout of decorative lights shall be so as to minimize the number of delivery points required.

All points of delivery for decorative street lights shall include a disconnect switch with over current protective device(s) [fuse(s) or breaker(s)]. The rating of the over current protection shall be compatible with the current rating of the wiring connected to the device. The disconnect equipment shall be service entrance rated, tamper proof, equipped with provisions for locking, installed in a NEMA 3R enclosure, and mounted on a building wall or substantial wood or steel post. The disconnect switch and appurtenant facilities shall be installed in accordance with the applicable articles of the National Electric Code (NEC).

Facilities installed at decorative street light points of delivery shall be inspected by the Springville City electrical inspector prior to connection to the Springville City Power electrical system.

Wiring between Springville City Power pad mounting transformers or secondary junction boxes for decorative lighting will be installed, owned and maintained by Springville City Power and installed in conduits (source side conduit systems) provided (furnished and installed) by contractors or developers. Springville City Power will own and maintain the conduits after the street light installation is completed.

**Street Lighting Conduit Requirements**

Springville City Power wiring for Springville City Power standard and decorative street lights shall be installed in direct buried conduit. The contractor or developer shall be responsible for the installation of street lighting conduit systems (2 inch diameter) extending from transformer or secondary junction boxes to lighting fixture locations. Where possible, lighting fixtures shall be located at street intersections and have a maximum spacing of approximately 400 feet. See Figure 1 for a typical street lighting layout. The contractor is responsible for proper location and centering of conduit end points for lighting fixture installations. The City, under the terms of its Line Extension Policy, shall furnish and install lighting fixtures and light fixture service cables.

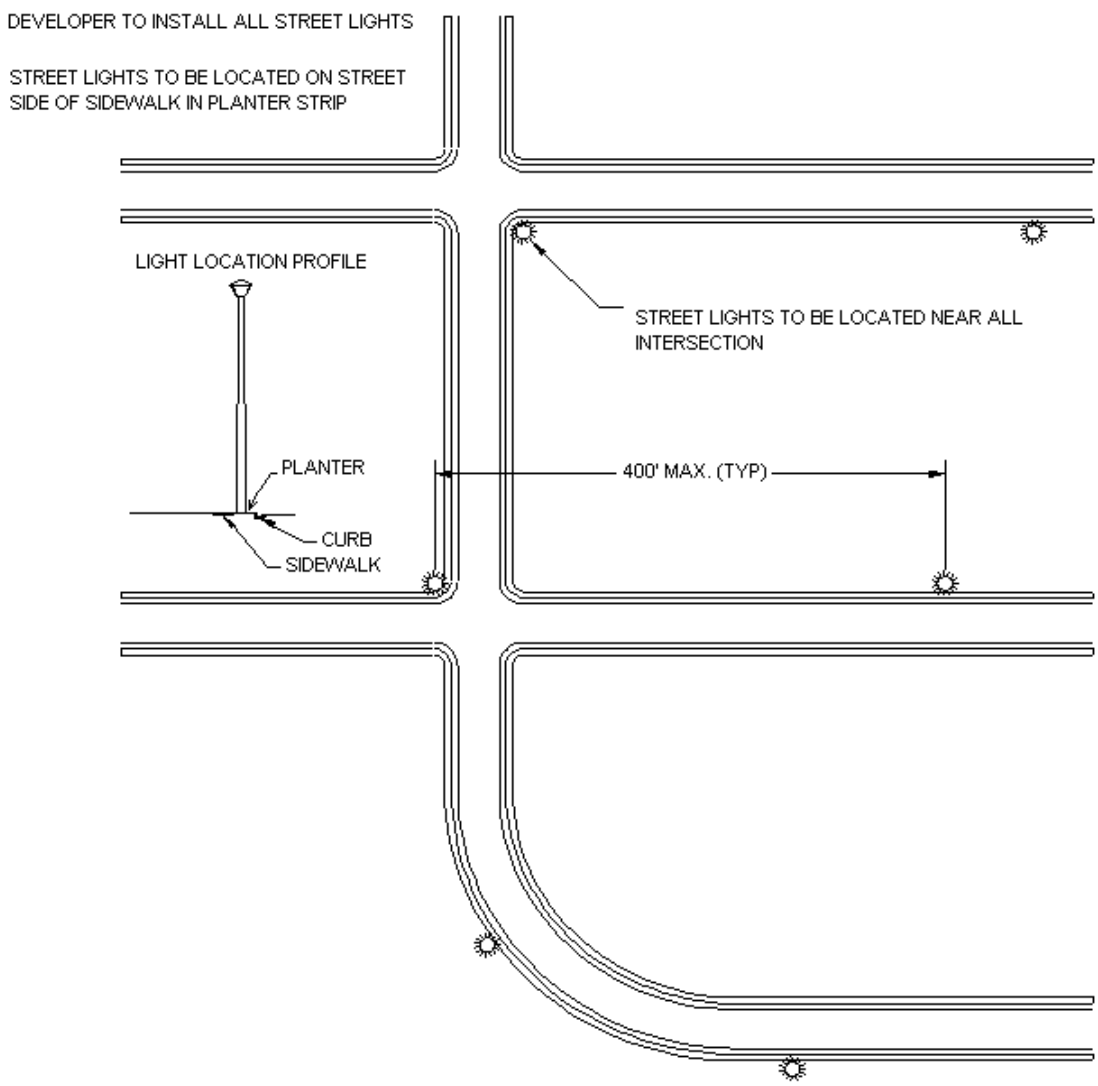
Commercial areas shall be required to place conduit to light city streets bordering their development. Lights shall be paid for by the Developer and installed by the Power Department. Light placement shall be at each intersection and one for every 150 feet as approved by the Power Department. Light type and size shall be determined by the Power Department according to road size and area.

**Springville City Power Standard Street Lights:**

Contractors or developers shall provide (purchase and install) all street lighting conduit systems (conduit, fitting, elbows, conduit cement, etc.) for Springville City Power standard street lights. Springville City Power will own and maintain the conduit systems after the street light installation is completed. The conduit systems shall extend from Springville City Power pad mounted transformers or secondary junction boxes to street light locations. The contractor or developer shall be responsible for proper routing and placement (burial depth, excavation, bedding, backfill and compaction) of conduit and for the location of conduit end points (stub ups) at pad mounted transformers and/or secondary junction boxes, and street light locations.

**Decorative Street Lights:**

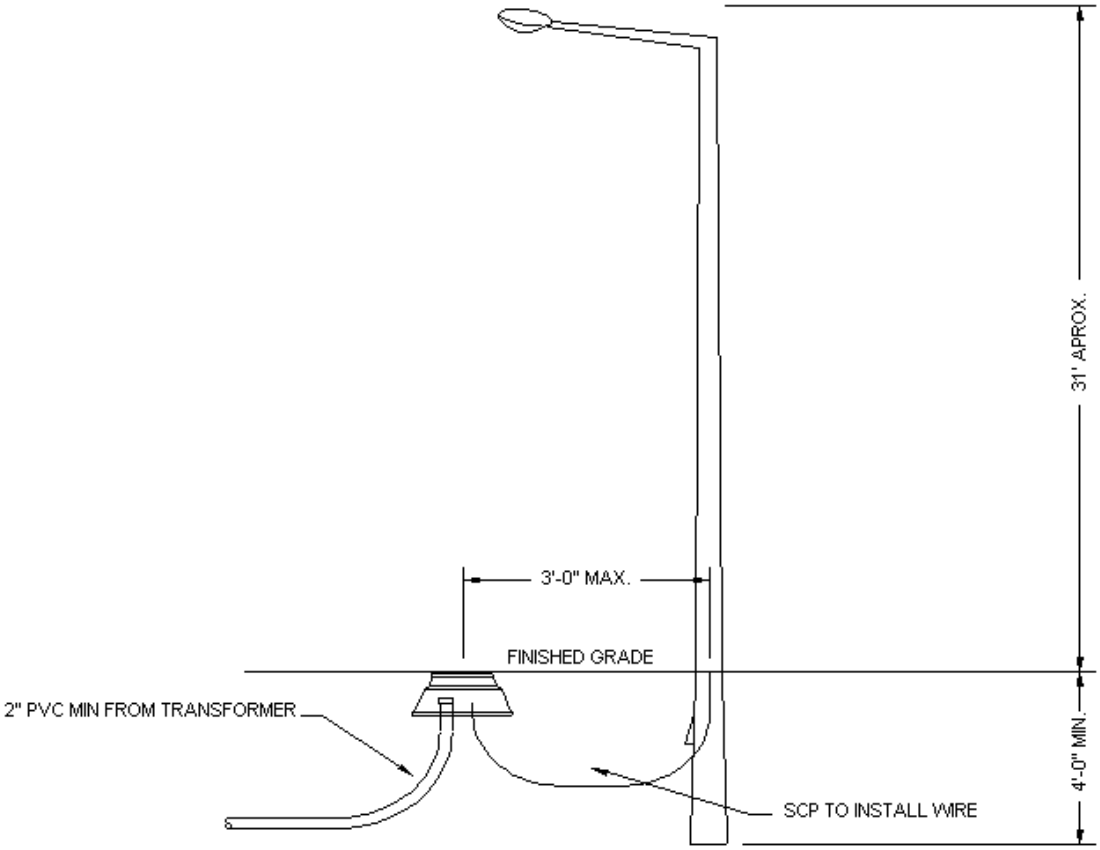
Contractors or developers shall provide (purchase and install) conduit systems between decorative street light delivery points and Springville City Power pad mounted transformers and/or secondary junction boxes. Springville City Power will own and maintain the conduit systems after the street light installation is completed. The contractor or developer shall be responsible for proper routing and placement of conduits, and for the location of conduit end points (stub ups) at pad mounted transformer or secondary junction box locations. Springville City Power will install the wiring from transformer or secondary junction box to the delivery point and terminate the wiring at the street light. Conduit types and capping shall be in accordance with the conduits paragraphs of this document.




Notes:

1. The lighting design and layout shall be provided by Springville City.
2. Inspection of street lighting shall be scheduled at the same time as the depth of system and compaction inspections.

Figure 1 – Typical Street Lighting Layout

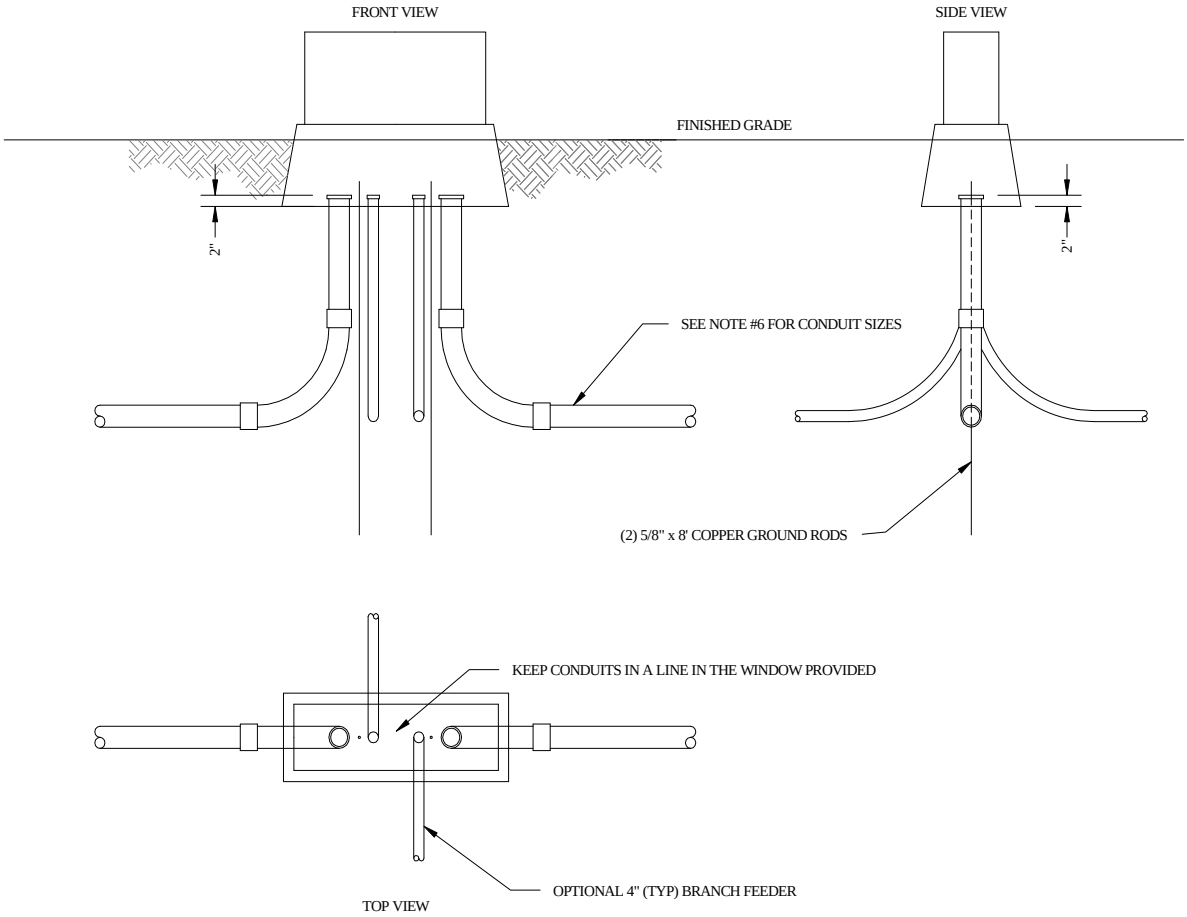



Notes:

1. The developer shall provide 2 inch conduit from the transformer to the secondary junction box.
2. Springville City Power will provide a lockable secondary junction box.
3. Springville City Power shall provide wire from the secondary junction box to the light pole.
4. Required secondary junction box will be provided for installation to the developer.

Figure 2 – Street Light Wiring

# SECTIONALIZERS AND SWITCHES
# CONDUIT PLACEMENT FOR SECTIONALIZERS




Notes:

1. All 90 degree elbows shall be rigid steel and PVC wrapped.
2. Bases will be provided by Springville City and installed by the Developer.
3. The developer shall provide and install all ground rods (5/8” x 8’ copper clad steel) and subsequent materials to complete the installation.
4. Conduit sizes and locations will be provided by Springville city on the subdivision electrical plans.
5. Support all conduits during backfilling keeping them as vertical as possible.

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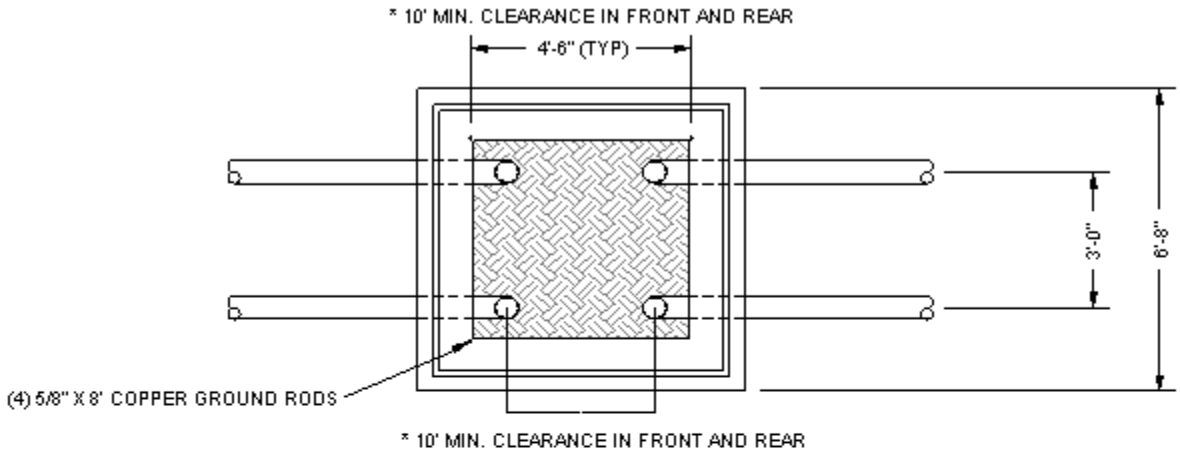
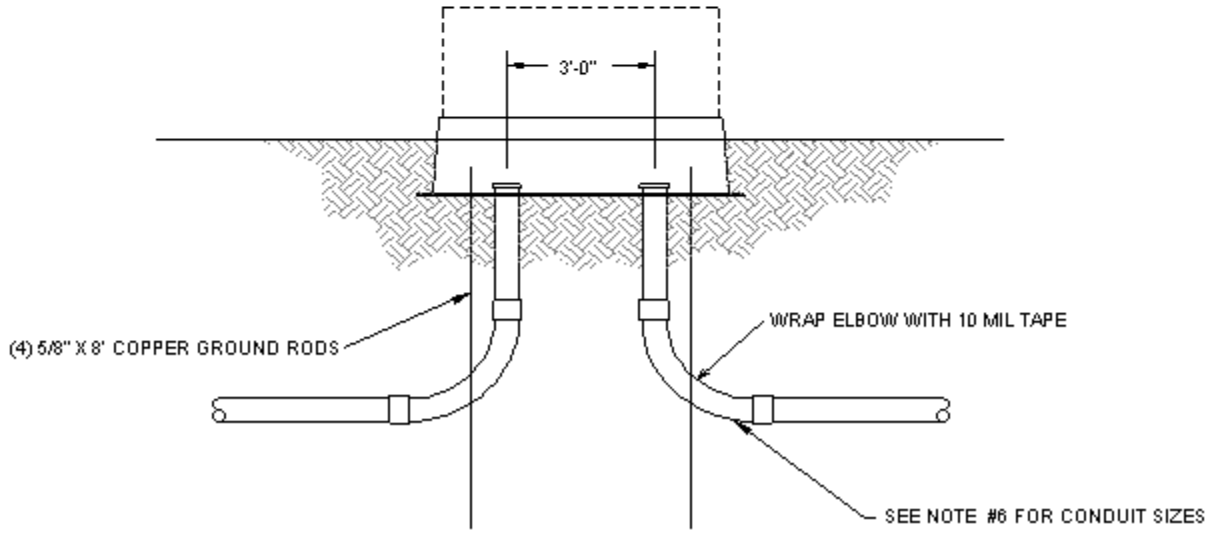
| | | SECTIONALIZERS AND SWITCHES |
| | | SCALE: NONE |
| | | DATE: 8.28.07 |
| | | REV: |
| | | REV DATE: 7.16.13 |

# SECTIONALIZERS AND SWITCHES
# CONDUIT PLACEMENT FOR SWITCHES

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| | | SECTIONALIZERS AND SWITCHES |
| | | SCALE: NONE |
| | | DATE: 8.28.07 |
| | | REV: |
| | | REV DATE: 7.16.13 |

# DEVELOPER OVERVIEW

## SCOPE

The purpose of this standard is to give a general overview of the most important rules set forth by the Springville City Power Department (SCP). This standard is only meant to give developers, contractors and individuals basic guidelines; further reading in this manual will be required to obtain the information needed.

## BASIC GUIDLINES

1. Primary circuits to be buried at 48 inches to the top of conduit from final grade.

2. Secondary lines to be buried at 24 inches to the top of conduit, except when in a joint trench.

3. Services to be buried at 24 inches to the top of conduit.

4. All meters to be placed within 10 feet of the front of the house on the side closest to power source. The power source is defined as a transformer or secondary box.

5. SCP to supply all transformers, conductors, switches and secondary boxes; the developer or contractor will pay SCP for this equipment as per Resolution 97-12.

6. All primary conduit rigid wrapped elbow sweeps to be a minimum of 36-inch radius.

7. Transformer basements, ground sleeve basements, and secondary boxes to be graveled with 1 inch minus gravel.

8. The first two trench inspections will be at no cost; all inspections after that will be $50.00 per inspection.

9. Inspections must take place before the trench is backfilled (2 trench inspections required).
   a) Trench depth and conduit depth inspection.
   b) Sand and tape inspection.

10. Secondary riser poles will have weather heads.

11. No meter bases will be allowed on SCP service poles or primary line poles.

12. Riser poles to have rigid 36 degree sweeps and metallic conduit the entire length of the riser.

13. All conduits to be schedule 40 or better.

# TEMPORARY POWER / SERVICE

1. Place the temporary pedestal 2 to 3 feet off the corner of the junction box at a 45 degree angle to the sides to avoid hitting conduit going to and from the junction box. The pedestal should be buried deep enough that it won't fall over if a man were to push on it. Temporary services may not be placed on utility poles. For a temporary aerial service pedestal, contractor will need to contact SCP for placement.

2. Use direct burial cable in conduit going down tout of the pedestal into the ground. The cable trench should allow for at least 24 inches of cover over the cable. Once inside the junction box there should be 3 feet of cable coiled up to make the connection. Transformers require 4 feet.

3. The wires must be stubbed into the junction boxes for connection to be made.

4. **Only if there is not secondary power in the lot may the contractor stub into a transformer, (contact electric department for placement and opening of transformers).**

5. A copper clad steel ground rod measuring 5/8 inch x 8 foot must be used (Blue Stake request is suggested before installing). In rocky soil it may be angled up to 45 degrees. It should be driven all the way in, with a slight hole around the top so the inspector can see the ground wire, clamp, and rod. The wire should be between the back side of the clamp and the rod, not under the screw. The ground wire shall be #6 copper wire or equivalent, or larger.

6. Only a ground rod clamp will be accepted for ground wire to rod connection.

7. Ground wire is not to be spliced.

8. All outlets shall be GFCI protected, and have weather proof covers.

9. All covers must be in place and stay in place while the temporary pedestal is energized.

10. The meter base cover shall be weather proof, and shall be fastened in place with all screws provided by the manufacturer.

11. No altering of the temporary pedestal base is permitted.

12. Temporary pedestals are not allowed to be set on houses, businesses, or on the power department's utility poles.

13. Neutrals must be bonded to the ground wire.

14. Underground temporary pedestals set further than 5 feet away from the source will follow the trench requirements.

15. Any temporary pedestal with physical damage or if deemed unsafe will not be connected and/or may be disconnected.

16. All outlets exposed to the weather will be required to have weatherproof covers.

17. No underground temporary pedestals will exceed the 200 Amp rating.

18. Temporary pedestals are not to be in place longer than 365 days. Department reserves the right to remove temporary meter or require additional fees if temporary pedestal is in place past 365 day limit.

19. No aerial temporary pedestals will exceed 150 Amp rating.

20. Aerial temporary pedestals must be supported to keep the structure from swaying.

21. Aerial temporary pedestals must have enough wire to make the connection at the pole.

22. Aerial temporary pedestals are to have at least a 2 inch mast with a weather head.

23. The first two temporary inspections will be at no cost; all inspections after that will be $50.00 per inspection.

# RESIDENTIAL ELECTRICAL INSPECTION REQUIREMENTS

1. The trench can have no rocks or foreign material in the backfill. Bedding is required for each trench. There are two inspections. The first one will be for conduit depth. The conduit must be in the trench. There has to be 24 inches of cover from the top of the conduit to finish grade. The second inspection will be for 12 inches of bedding above the conduit and red electrical caution tape on top of the bedding. Bedding is defined as sand.

2. Conduit must be a minimum of 2 inches inside diameter for services of 150 Amps or less, and 2 1/2 inches inside diameter for 200 Amp services. Electrical PVC conduit is acceptable underground. Any conduit that is open to the air must be rigid or intermediate metallic conduit (IMC). Rigid and IMC that is underground must be wrapped with corrosion proof tape. Meter bases must be used as intended, modifications will not be accepted. Examples: modifying existing knock outs or the addition of knock outs.

3. On underground installations, the 90 degree elbow at the house must be rigid, and wrapped with corrosion proof tape.

4. In order for the permanent power to be connected, the main breaker panel cover must be in place on the meter base, secured as designed for the base being used. Also the outside cover must be in place over this cover with at least one screw in each corner. There must be a disconnect switch at the meter base.

5. The inside breaker panel must also be covered, with at least one screw in each corner of the cover.

6. A 500-pound test or greater pull line shall be left in the conduit with at least 6 feet of line extending from each end.

7. Grounding shall be done according to the current adopted State electrical codes.

10. If a compression fitting is used to attach the conduit to the meter base, a bonding bushing and bonding jumper are required. The jumper must go to the customer side of the meter base, unless the base is designed to accept the jumper on the utility side, and utilize a hole in the ground bus of its own.

11. A 120 Volt GFCI must be in place somewhere in the house as required by the NEC. The most practical place to install it is in the laundry room or kitchen.

12. On underground installations, there must be a 90 degree elbow in the junction box with a riser that terminates a minimum of 3 inches above the dirt floor of the junction box and not closer than 10 inches from the bottom of the lid. If the edges of the opening of the conduit

are sharp enough to skin the insulation of the wire being pulled, it must have a smooth bushing on it to protect the wire.

13. To prevent the riser pulling out of the meter base during settling of the ground, the conduit must be anchored to the foundation using unistrut, 3/8 inch bolts and anchors, and a unistrut clamp.

14. The location of the meter base shall be on the side of the house closest to the power source and no more than 10 feet from the front wall. Base must be located in from of any fence constructed on property to meet accessibility requirements. Contact dispatch at 489-2750 Ext. 10 if the power source needs to be located.

15. The height of the meter base shall be 6 feet, plus or minus 12 inches at the center of the meter opening.

16. On service changes, the old main breaker must be saved for the inspector. Where no increase in amperage is paid for, the same size service must be used.

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# Springville City Electric Residential Service
# Net Metering Pilot Program

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A. Applicability: The Net Metering Pilot Program is available to any residential customers located within the city's current electrical service territory who:

1. Purchase electricity from the city under the provisions of the residential electric rate service schedule; and

2. Own and operate a solar, wind, or other qualified renewable generator located on the customer's premises that:

   a. Is primarily intended to offset part or all of the customer's own electrical requirements on the premises;

   **b.** Has a capacity **<u>Not to exceed the main breaker;</u>**

   c. Is interconnected with Springville City's electric system; and

   d. Operates in parallel with the city's distribution system.

B. Definitions: As used in this section:

1. "Net Energy" is the difference between the electricity supplied by the city to the customer through the city's electric distribution system and the electricity generated on the customer's premises which is fed back into the city's electric distribution system.

2. "Net Metering" is a method of measuring the difference between the electricity supplied by the city to the customer through the city's electric distribution system and the electricity generated on the customer's premises which is fed back into the city's electric distribution system.

C. Special Conditions:

1. The customer shall pay for the net energy used in accordance with the following formula:

   a. The customer shall pay for all electric energy supplied by the city to the customer in any billing period in excess of the amount of electric energy produced by the customer on the premises which is fed back into the city's electric distribution system during that same billing period.

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b. The customer shall receive a credit for all electric energy produced by the customer on the premises which is fed back into the city's electric distribution system during a billing period in excess of the amount of electric energy supplied by the city during that billing period, with such credit applied to the customer's future bills, except that any electric energy credit balance remaining in favor of the customer under the provisions of the subsection C1b at the time of their April billing each year shall be zeroed out with no further liability to the city and no credit to the customer for said balance.

c. In the event the customer terminates service under this electric service schedule, any electric energy credit balance in favor of the customer under the provisions of subsection C1b of this section shall be forfeited. The city will not make cash payments to customers based on their participation in the Net Metering Pilot Program for energy produced by the customer which is fed into the city's electric distribution system.

2. The price for electric energy provided to, or credited to, a customer participating in the Net Metering Pilot Program shall be the price charged by the city under the provisions of the electric service schedule for which the customer receives service absent this electric service Net Metering Pilot Program.

3. The Net Metering Pilot Program billing adjustment only applies to charges for energy. Participating customers are subject to all other charges, rates, terms and conditions of the electric service schedule under which the customer receives service except as expressly altered by this electric service Net Metering Pilot Program.

4. The customer will release to City all renewable energy credits (RECs), solar renewable-energy credits (S-RECs), or other renewable attributes as appropriate based on actual on-site electric generation from the Renewable Resource.

5. The customer shall provide, at the customer's own expense, all equipment necessary to meet applicable safety, power quality, and interconnection requirements established by the National Electric Code (NEC), the Institute of Electrical and Electronics Engineers (IEEE), Underwriters Laboratories (UL), and any applicable local and state agencies, including any equipment deemed necessary by the city's power department expressly to accommodate the customer's request to qualify for this electric service Net Metering Pilot Program. The customer must first obtain written approval from the city's power department before the customer's on site generating system is energized or interconnected with the city's electric system.

6. In order to participate in the city's Net Metering Pilot Program and to receive the benefits of this electric service Net Metering Pilot Program, the customer must

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first sign a Net Metering Pilot Program interconnection and service agreement with the city. The interconnection and service agreement allows the customer to interconnect and operate in parallel with the city's distribution system and allows the city to test and inspect the customer's system periodically to ensure the safety of electrical workers and the integrity of the city's electric distribution system. The interconnection and service agreement will contain additional terms and conditions for service under this electric service Net Metering Pilot Program, including specific terms of interconnection and parallel operation with the city's electrical system.

7. The Net Metering Pilot Program and this electric service Net Metering Pilot Program are presently made available to the customers on a trial basis. This electric service Net Metering Pilot Program and the Net Metering Pilot Program may be adjusted or discontinued by the Springville City Council for any reason, at any time, without any obligation to existing participants.

D. Supply Cost Adjustment: all monthly bills resulting in a balance due from the customer shall be billed in accordance with Springville Municipal Code §4-1-101, *et. seq*.

E. The City shall have the right to inspect a customer-generating facility after interconnection approval is granted, at reasonable hours and with reasonable prior notice to the Customer. If the city discovers that the customer-generating facility is not in compliance with the requirements of this policy, and the noncompliance adversely affects the safety or reliability of the electric distribution system, the City may require the Customer to disconnect the customer-generating facility until compliance is achieved.

F. The City shall have the right to disconnect the customer-generating facility in the event it causes unusual system problems. The customer will have the option of correcting the problem, at which time the system will be re-inspected before beginning operation again.

   The customer shall be required to install a manual disconnect located within ten (10) feet of the meter. The disconnect shall be readily accessible by City authorized personnel and located outside any fencing. In addition, roof mounted systems must have a roof mounted manual disconnect as per IEEE, NEC, and local codes.

G. The customer shall be responsible for any damage caused by the customer-generating facility to the City's distribution system and/or neighboring services. The customer shall be responsible for the installation and maintenance of applicable protection equipment, and for any damage caused by improper application, maintenance or faulty equipment. Springville City shall not be liable directly or indirectly for permitting or continuing to allow an attachment of a net metering facility, or for the acts or omissions of the customer-generator that cause loss or injury, including death, to any third party.

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