



**NOTICE OF MEETING AND AGENDA  
PLANNING COMMISSION  
OCTOBER 13, 2026 AT 7:00 P.M.**  
City Council Chambers  
110 South Main Street  
Springville, Utah 84663

The agenda will be as follows:

**Call to Order**

- Approval of the Agenda
- Approval of Minutes: September 22, 2026

**Consent Agenda - No Items**

*The Consent Agenda includes administrative actions where no additional discussion is needed. When approved, the recommendations in the staff reports become the action of the Commission. A call for objection or comment will be made on the consent agenda items. If there is any opposition or comment, the item will be removed from the consent agenda and put on the regular administrative session meeting agenda for discussion. Without objections or comments, the item(s) will pass without further consideration.*

**Administrative Session - No Items**

**Legislative Session – Public Hearing**

- 1) Springville Power proposes amendments to Power Department Standards and Specifications.

The proposed amendments would update and standardize electrical specifications for new commercial and residential service connections. This is a legislative policy decision about electrical standards for residential and commercial development in Springville. The Planning Commission will make a recommendation to the City Council. The City Council will make the final decision at a later public meeting.

**Adjournment**

THIS AGENDA SUBJECT TO CHANGE WITH A MINIMUM OF 24-HOURS NOTICE

This meeting was noticed in compliance with Utah Code 52-4-202 on October 8, 2026. Agendas and minutes are accessible through the Springville City website at [www.springville.org/agendas-minutes](http://www.springville.org/agendas-minutes). Planning Commission meeting agendas are available through the Utah Public Meeting Notice website at [www.utah.gov/pmn/index.html](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 Community Development department at (801) 491-7861 at least three business days prior to the meeting.

**IN ATTENDANCE**

**Commissioners Present:** Brett Nelson, Ralph Calder, Hunter Huffman, Tyler Patching, Peter Pratt, and Mariah Hurst

**Commissioners Excused:** BJ Smith

**City Staff:** Josh Yost, Community Development Director  
Heather Goins, Executive Assistant

**City Council:** Mindi Wright, Mike Snelson

**CALL TO ORDER**

Chair Huffman called the meeting to order at 7:05 p.m.

**APPROVAL OF THE AGENDA**

Commissioner Patching moved to approve the agenda as written. Commissioner Calder seconded the motion. The vote to approve the agenda was unanimous.

**APPROVAL OF THE MINUTES**

***September 8, 2026***

Commissioner Calder moved to approve the September 8, 2026 meeting minutes.

Commissioner Patching seconded the motion. The vote to approve the meeting minutes was unanimous.

**ADMINISTRATIVE SESSION**

***No Items***

**LEGISLATIVE SESSION:**

***1) Lakeside Land Partners, LLC, proposes amendments to Springville City Code Title 11 Chapter 9, The Lakeside Landing Special District Overlay Zone and Pattern Book. The proposed amendments would increase the flexibility of the requirements for certain Lot Types and revise the North Part Regulating Plan to reconfigure thoroughfares and blocks to accommodate a proposed development. This is a legislative policy decision about the development standards in the Lakeside Landing Special District Overlay and Pattern Book. The Planning Commission will make a recommendation to the City Council. The City Council will make the final decision at a later public meeting.***

Josh Yost, Community Development Director, presented. The primary item under consideration was a proposed amendment to Lot Type 15, a compact townhouse lot type, allowing reduced setbacks when the lots front on a common court. The applicant requested reducing the building setback from 15 feet to 12 feet and the porch setback from 7 feet to 4 feet.

Director Yost explained that a common court is a publicly accessible courtyard with a minimum width of 16 feet. He recommended allowing reduced setbacks only when the front elevation faces another front elevation across the common court, or when no building is directly opposite the front elevation. Where a front elevation faces the side elevation of another building, the existing 15-foot building and 7-foot porch setbacks would remain in effect. This would maintain a minimum building-to-building separation of approximately 36 feet in those locations.

The Commissioners discussed the following points:

- The purpose and potential effect of the reduced setbacks on unit yield;
- Building separation and pedestrian connectivity;
- Parking requirements and the provision of visitor parking;
- The cumulative effect of previous Lakeside Landing amendments;
- Housing-type and price-tier diversity requirements;
- The balance between maintaining the original vision of Lakeside Landing and allowing flexibility for current market conditions;
- The administrative burden of requiring Planning Commission and City Council approval for relatively minor design modifications;
- Whether the Lakeside Landing regulatory framework should eventually be revised to provide greater flexibility while maintaining the overall development vision; and
- The need to ensure future amendments do not cumulatively undermine the intent of the Lakeside Landing Special District Overlay.

Director Yost explained that the proposed amendment would not increase the overall maximum development entitlement but would allow the applicant to more efficiently achieve the proposed townhouse product. The housing-tier requirements would continue to apply across the development and the City would track the required mix through the preliminary plat process.

Director Yost presented the updated regulating plan and map revisions. The revisions reconcile the regulating plan with current engineering, surveyed property boundaries, street alignments, roundabouts, green streets, alleys, utility corridors, and other site conditions. The revisions do not substantively change the development yield or net developable area but exceed the flexibility currently delegated to staff and therefore require Commission consideration.

Chair Huffman invited the applicant, Glen Lent, to speak. He stated that the proposed changes do not alter the overall vision for Lakeside Landing. Market conditions have shifted from multifamily development toward smaller attached and single-family products and he has worked with staff to refine the plan while maintaining walkability, courtyards, green streets, pocket parks, and housing diversity. Mr. Lent indicated that he is

87 agreeable to retaining the existing 15-foot building and 7-foot porch setbacks if the  
88 Commission preferred that approach.

89 Commissioner Nelson opened the Public Hearing at 8:19 p.m. Seeing no speakers,  
90 Commissioner Patching moved to close the Public Hearing. Commissioner Nelson  
91 seconded. The public hearing was closed at 8:19 p.m.  
92

93 Commissioner Nelson moved that the Planning Commission recommend approval of the  
94 Lot Type 15 amendment, allowing 12-foot building and 4-foot porch setbacks only where  
95 fronts face fronts across the same common court or no building is directly opposite;  
96 retaining 15-foot building and 7-foot porch setbacks where fronts face side elevations;  
97 and incorporating the staff revisions to this report, which will also include changes to the  
98 regulating plan and maps. Forward this recommendation with the previously reviewed  
99 amendments for City Council consideration together. Commissioner Hurst seconded the  
100 motion. The vote to approve the Legislative Session item was 5 in favor and 1 opposed.

101 With nothing further to discuss, Commissioner Hurst moved to adjourn the meeting.  
102 Commissioner Nelson seconded the motion. Chair Huffman adjourned the meeting at  
103 8:21 p.m.



**To:** Planning Commission

**From:** Carla Wiese, Planner/Econ Dev  
Jason Miller, Director Springville City Power

**Date:** October 8, 2026

**Re:** **Springville Power proposes amendments to Power Department Standards and Specifications.**

The Planning Commission is considering this item tonight to comply with Utah State Code

Under the advice of John Penrod, City Attorney the revised edition of any standard or specification that must be followed in order to develop within Springville City is a land use regulation under Utah State Code and therefore, requires the Planning Commission to review and make recommendations to the City Council (Title 10-20-302, UCA).

A land use regulation is defined in Utah State Code as:

#### **Title 10-20-102(43)(a) Definitions**

(43) "Land use regulation"

(a) means a legislative decision enacted by ordinance, law, code, map, resolution, **engineering or development standard, specification for public improvement. fee, or rule that governs the use or development of land;**

The Standards and Specifications Manual describes power service installation requirements, which are based on the National Electrical Code (NEC) and have been adopted by Utah and Springville City. The Manual also contains information on City processes and requirements to initiate development involving power system connections.

#### **Recommended Motion**

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Motion to recommend adoption by the City Council of the 2026 Springville City Power Standards and Specifications.



## **Alternative Motions**

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Motion to not recommend adoption by the City Council of the 2026 Springville City Power Standards and Specifications.

Motion to continue discussion of the 2026 Springville City Power Standards and Specifications

## **Attachments**

**Attachment 1: 2026 Springville City Power Standards and Specifications**



COMMUNITY  
DEV

# SPRINGVILLE CITY POWER DEPARTMENT STANDARDS AND SPECIFICATIONS MANUAL



SPRINGVILLE CITY  
POWER DEPARTMENT



STANDARDS ARE SUBJECT TO REVIEW

**Latest Revision 10/13/2026**



# Table of Contents

Contact Information ..... 8

Applicable Codes and Standards.....10

Requirements for New or Modified Service.....10

    Request for Service .....10

    Rocky Mountain Power Review.....11

    Inspections.....11

    New of Modified Power Service Requests .....12

**Springville City Power Department Residential Subdivision Checklist**.....12

Important Planning Notes: .....12

Preconstruction Meeting with the SCPD Required .....12

Available Service Connections .....12

Available electric service is sixty (60) hertz (cycles), alternating current, single or three-phase.

Available secondary voltages and connections are described below: .....12

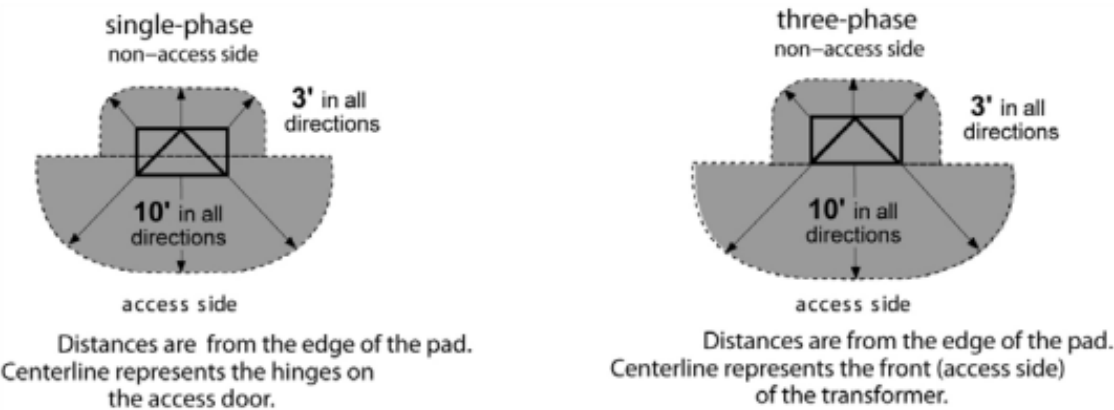
Work Activity near High Voltage Overhead Power Lines.....13

Public Utility Easements .....13

    Project Planning.....15

    Materials, Equipment, and Installation Responsibilities .....15

    Clearance between Equipment Pads and Buildings .....15



.....17



|                                                                       |    |
|-----------------------------------------------------------------------|----|
| Notes on Clearances between Equipment Pads and Buildings: .....       | 17 |
| Firewalls (Blast Walls) .....                                         | 19 |
| Trenching Requirements.....                                           | 19 |
| Call before You Dig.....                                              | 19 |
| Required Depth .....                                                  | 19 |
| Sand.....                                                             | 20 |
| Caution Tape .....                                                    | 20 |
| Required Trench Widths .....                                          | 20 |
| Primary Service Trench .....                                          | 20 |
| Joint Use Trenches .....                                              | 21 |
| Trench Road Crossing .....                                            | 23 |
| Secondary Trenches.....                                               | 23 |
| Street Lighting Trenches .....                                        | 23 |
| Backfill .....                                                        | 23 |
| Trench Inspections.....                                               | 24 |
| Directional Boring .....                                              | 24 |
| Conduits.....                                                         | 25 |
| Sweep Specifications .....                                            | 25 |
| Required Conduit Burial Depths.....                                   | 26 |
| Additional Conduit Standards .....                                    | 26 |
| Residential Installations .....                                       | 27 |
| Multifamily and Commercial Installations .....                        | 28 |
| Streetlighting Installations .....                                    | 29 |
| Electrical Service Points .....                                       | 29 |
| General Information .....                                             | 29 |
| Residential ESPs .....                                                | 29 |
| Additional Requirements for Multi-Family Dwelling Unit Services ..... | 30 |



|                                                                                                                                                                                                                                                                                                        |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Service lateral conduits from the City's point of secondary service shall be three (3) inch minimum for multi-family dwelling units. A load calculation study shall be performed for multi-family dwelling units and submitted to the SCPD. All other residential service requirements also apply..... | 30 |
| Additional Requirements for Commercial & Industrial Services .....                                                                                                                                                                                                                                     | 31 |
| Service entrance conductors & conduits shall be sized in accordance with the applicable SCPD Standards. The SCPD shall approve all locations & installations of conduits, service disconnection means, and meters. ....                                                                                | 31 |
| Meters .....                                                                                                                                                                                                                                                                                           | 32 |
| Location .....                                                                                                                                                                                                                                                                                         | 32 |
| Additional Meter Standards .....                                                                                                                                                                                                                                                                       | 36 |
| Service Upgrades or Modifications .....                                                                                                                                                                                                                                                                | 38 |
| Additional Equipment Installation Diagrams .....                                                                                                                                                                                                                                                       | 39 |
| Secondary Junction Box .....                                                                                                                                                                                                                                                                           | 39 |
| Pad-Mounted Transformers.....                                                                                                                                                                                                                                                                          | 40 |
| Single-Phase Transformer Pad or Secondary Junction Box .....                                                                                                                                                                                                                                           | 41 |
| Single Phase and Three Phase Pad-Mounted Transformer Clearances .....                                                                                                                                                                                                                                  | 42 |
| Three-Phase Transformer Pad without CT Rack .....                                                                                                                                                                                                                                                      | 43 |
| Three-Phase Transformer Pad with Metering Station.....                                                                                                                                                                                                                                                 | 44 |
| Sectionalizers and Switches.....                                                                                                                                                                                                                                                                       | 45 |
| Switches .....                                                                                                                                                                                                                                                                                         | 46 |
| Equipment Erosion Prevention .....                                                                                                                                                                                                                                                                     | 47 |
| Street Lighting .....                                                                                                                                                                                                                                                                                  | 48 |
| Streetlight System Design .....                                                                                                                                                                                                                                                                        | 49 |
| Points of Delivery for Decorative Lighting.....                                                                                                                                                                                                                                                        | 51 |
| Streetlight Installation .....                                                                                                                                                                                                                                                                         | 51 |
| Temporary Power.....                                                                                                                                                                                                                                                                                   | 52 |
| Service Approvals .....                                                                                                                                                                                                                                                                                | 54 |
| Springville City Code Chapter 10-3 ELECTRICAL CODE requires that electrical installations to the meter be approved by the SCPD prior to energization. The service will be activated by the SCPD after all outstanding service requirements have been met and confirmed by inspection. ....             | 54 |



|                                                                                                             |           |
|-------------------------------------------------------------------------------------------------------------|-----------|
| Equipment Seals .....                                                                                       | 54        |
| Electric Vehicle Charging Stations .....                                                                    | 55        |
| Appendix 1: Request for Service Checklist .....                                                             | 56        |
| <b>Springville City Power Department Subdivision RFS Submission Checklist .....</b>                         | <b>56</b> |
| Appendix 2- New or Modified Electrical Service Point Fee for Connection to the Municipal Power System ..... | 57        |
| Appendix 3: General Design and Planning Considerations .....                                                | 59        |
| Appendix 4: Additional Diagrams .....                                                                       | 61        |
| <br>                                                                                                        |           |
| <b>Figure 1-MINIMUM CLEARANCES BETWEEN EQUIPMENT PADS &amp; BUILDINGS .....</b>                             | <b>16</b> |
| <b>Figure 2 SECONDARY SERVICE LATERAL TRENCH DETAIL .....</b>                                               | <b>20</b> |
| <b>Figure 3 : JOINT-USE TRENCH CROSS SECTION .....</b>                                                      | <b>22</b> |
| <b>Figure 4 INSTALLATION OF TYPICAL UNDERGROUND SERVICE EXTENSION .....</b>                                 | <b>30</b> |
| <b>Figure 5 SINGLE-PHASE TYPICAL CONDUIT INSTALLATION FOR RESIDENTIAL SUBDIVISION .....</b>                 | <b>31</b> |
| <b>Figure 6 RESIDENTIAL METER LOCATION FOR UNDERGROUND SERVICE .....</b>                                    | <b>33</b> |
| <b>Figure 7 RESIDENTIAL METER LOCATION FOR OVERHEAD SERVICE .....</b>                                       | <b>34</b> |
| <b>Figure 8 METER SOCKET INSTALLATION .....</b>                                                             | <b>35</b> |
| <b>Figure 9 METER SOCKET CLEARANCES .....</b>                                                               | <b>37</b> |
| <b>Figure 10 WORKSPACE CLEARANCES .....</b>                                                                 | <b>38</b> |
| <b>Figure 11 SECONDARY JUNCTION BOX ORIENTATION &amp; CLEARANCE .....</b>                                   | <b>40</b> |
| <b>Figure 12 SINGLE PHASE TRANSFORMER PAD OR SECONDARY JUNCTION BOX LOCATION WITH PLANTER .....</b>         | <b>41</b> |
| <b>Figure 13 SINGLE-PHASE &amp; THREE-PHASE PAD MOUNTED TRANSFORMER CLEARANCES .....</b>                    | <b>42</b> |
| <b>Figure 14 THREE-PHASE TRANSFORMER CONCRETE PAD.....</b>                                                  | <b>43</b> |
| <b>Figure 15 THREE-PHASE TRANSFORMER PAD WITH METERING STATION.....</b>                                     | <b>44</b> |
| <b>Figure 16 CONDUIT PLACEMENT FOR SECTIONALIZERS .....</b>                                                 | <b>45</b> |
| <b>Figure 17 CONDUIT PLACEMENT FOR SWITCHES .....</b>                                                       | <b>46</b> |
| <b>Figure 18 EQUIPMENT EROSION PREVENTION .....</b>                                                         | <b>47</b> |
| <b>Figure 19 TYPICAL STREETLIGHT LAYOUT.....</b>                                                            | <b>50</b> |
| <b>Figure 20 STREETLIGHT WIRING .....</b>                                                                   | <b>52</b> |
| <b>Figure 21 THREE-PHASE PRIMARY JUNCTION BOX DIMENSIONS &amp; CLEARANCE.....</b>                           | <b>61</b> |
| <b>Figure 22 THREE-PHASE TRANSFORMER 75-500 KVA DIMENSIONS &amp; CLEARANCES .....</b>                       | <b>62</b> |
| <b>Figure 23 THREE-PHASE TRANSFORMER 750-2500 KVA DIMENSIONS &amp; CLEARANCES.....</b>                      | <b>63</b> |
| <b>Figure 24 SINGLE-PHASE TRANSFORMER DIMENSIONS &amp; CLEARANCES.....</b>                                  | <b>64</b> |
| <b>Figure 25 SINGLE-PHASE PRIMARY JUNCTION BOX DIMENSIONS &amp; CLEARANCES .....</b>                        | <b>65</b> |



**Figure 26 SWITCH DIMENSIONS & CLEARANCES ..... 66**



## Contact Information

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### Springville City Power Department

Main Phone: (801) 489-2750

Website: [Power | The Art City](#)

## Definitions

**Customer** – Developer, owner, service account holder; the individual or entity which brings a request to the Springville City Power Department for electrical service.

**Electric Service Point (ESP)** - The point of power service connection immediately adjacent to overhead service masts (weather head) or on meter terminals for underground-fed services. The meter base, service mast (if overhead), and above-ground portions of risers are customer owned and the meter is City-owned for any service connection.

**Equipment Pad** – A prefabricated or poured cement (three phase transformers) pad set beneath transformers or other equipment.

**Gateways** – Entrance corridors to Springville City including 1600 S, Main Street, 1400 N, and 400 S.

**Line Extension Fee Resolution (LEFR)** – City Resolution # \_\_\_\_\_ which governs the establishment of new ESPs or modification of existing ESPs.

**Municipal Utility Easement (MUE)** - The municipality or the municipality's affiliated governmental entity uses and occupies to provide a utility service, including sanitary sewer, culinary water, electrical, storm water, or communications or data lines and is used or occupied with the consent of the municipality in accordance with an authorized franchise or other agreement (Utah Code 10-9a-103/10-9a-529).

**National Electric Code (NEC)** – The National Electrical Code, as published by the National Fire Protection Association and adopted by the State of Utah, including all State statutes, amendments and regulations, is adopted as the City Electrical Code [Chapter 10-3 ELECTRICAL CODE](#). Additional standards and specifications are contained in the Springville City Power Department Standards and Specifications Manual.



**National Electric Service Code (NESC)** - The NESC is used in whole or in part by statute, regulation, or consent as the standard (or basis of the standard) of safe practice for public and private utilities in the United States, as well various jurisdictions and industries in other countries. The purpose of the NESC is the practical safeguarding of persons during the installation, operation, and maintenance of electric supply and communication facilities, under specified conditions.

**Public Utility Easement (PUE)** – The area on a recorded plat map or other recorded document that is dedicated to the use and installation of public utility facilities. A public utility easement provides a public utility with: (i) the right to install, maintain, operate, repair, remove, replace, or relocate public utility facilities; and (ii) the rights of ingress and egress within the public utility easement for public utility employees, contractors, and agents (Utah Code 54-3-27). Required as part of the new development process to ensure safe Springville City Power Department access to power system equipment for servicing and repair.

**Request for Service (RFS)** – Form that must be submitted to initiate a project with power requirements, including upgrades, new development, or modified service. A link is located below:

[REQUEST FOR SERVICE](#)

**Sand** – Sand used as fill material above and below conduits shall be cyclone or bedding sand or equivalent. Crushed rock will not be permitted in system trenches.

**Specifications** – SCPD may have required specifications for specific materials and equipment. Customers will be informed of any specifications relevant to their project at or prior to invoicing.

**Springville City Power Department (SCPD)** – Springville City Department responsible for assisting Customers in ESP design and creation. The SCPD manages and maintains the Springville City power system and builds new power infrastructure to meet Customer demand.

**Standard Streetlight** - A thirty-five (35) foot bronze fiberglass pole, eight (8) foot bronze arm, with an LED fixture that is sufficient for the location and is powered by 120 - 240 Volts AC.



The Springville City Power Department (SCPD) Standards and Specifications Manual (Manual) provides the requirements for developers, contractors, and other customers (collectively, Customers) to establish a project electric system and an Electric Service Point (ESP) within Springville City. The SCPD staff are eager to assist you in the design and construction of your project and ESP. SCPD's top priority is to provide customers with reliable and safe electrical service.

## Applicable Codes and Standards

Projects shall meet all provisions of the National Electrical Code (NEC), the National Electric Safety Code (NESC), Springville City Code, and this Manual. Occupational Safety and Health Administration (OSHA) requirements and standards shall also be followed when completing any work or project within the City. These codes and standards shall apply to any power system interconnection within the SCPD's jurisdiction.

Springville City adopts the NEC as its electrical code under Springville City Code 10-3-101. Utility-owned facilities are designed and maintained in accordance with the NESC. Premises wiring and customer-owned equipment (including meter sockets, service equipment, and interior systems) shall comply with the NEC. Utility-side facilities shall comply with the NESC.

Requirements found in this Manual are subject to change if governing codes, regulations, or ordinances are modified by a land use or regulating authority having jurisdiction over the SCPD. In the event of any perceived regulatory conflict or if you have questions about the applicability of an item, please consult with the SCPD. You may contact SCPD by submitting a [POWER INQUIRY FORM](#) online or calling the Springville City Power Department main phone line at (801) 489-2750.

## Requirements for New or Modified Service

The ESP and any project electric system within the SCPD service area shall be subject to NEC, Springville City codes, this Manual, fee and impact fee schedules (if applicable), and the Line Extension Policy (see LEP, Appendix 2).

### Request for Service

Customers shall complete a [REQUEST FOR SERVICE](#) (RFS) to initiate a project and establish a new ESP or modify an existing connection. The RFS is included in the building permit application forms. A checklist describing information to be included is also found in



Appendix 1 (see RFS Checklist, [Appendix 1](#)). It is imperative that all the required information is provided in the RFS to ensure your power infrastructure and ESP connection may be completed in a timely manner. Early planning and communication are critical as many requests require significant advance planning by the SCPD. Large subdivisions and commercial development RFSs may require even longer planning horizons depending on location, potential loads, and development complexity. Requests requiring the installation of transformers or other equipment that may not be immediately available may also add extended procurement lead times to scheduling. Therefore, early planning and communication with the SCPD are critical to the timely completion of your project. The SCPD is available for consultation on planning, service requirements, and related issues for new, existing, and reconstructed ESP installations.

### Rocky Mountain Power Review

Any project anticipated to require greater than one (1) megawatt of power requires a review by Rocky Mountain Power. The SCPD will facilitate this review and charges from Rocky Mountain Power will be assessed to the Customer.

### Inspections

The following table describes inspection types, typical order, and the Springville City department that conducts each given inspection.

| Inspection Type                  | Springville City Department                           | Notes                    |
|----------------------------------|-------------------------------------------------------|--------------------------|
| Temporary Power                  | Power                                                 | If Applicable            |
| Trench (Two Inspections)         | Power                                                 | If Applicable            |
| Transformer Pad Inspection       | Power                                                 | If Applicable            |
| Additional Equipment Inspections | Power                                                 | If Applicable            |
| Permanent Power                  | Building Division of Community Development, and Power | Both Departments Inspect |

Electrical permits and inspections are administered per Springville City Code Title 10-3 (City electrical inspector) with SCPD field checks. No energization occurs until the City inspection is passed.



### New or Modified Power Service Requests

New subdivisions have initial submission requirements as described in the checklist below:

| <b>Springville City Power Department Residential Subdivision Checklist</b>                                     |
|----------------------------------------------------------------------------------------------------------------|
| Primary power plan designed in accordance with Springville City Power Department Standards and Specifications. |
| Proposed transformer and meter base locations.                                                                 |
| Labeled service sizes with amperage and voltage per lot.                                                       |
| Drawn conduit stubs for future electrical development.                                                         |
| Public Utility Easements (PUEs), existing and proposed.                                                        |

### Important Planning Notes:

It shall be the responsibility of the Developer to connect to existing utilities or improvements wherever they are located and extend those improvements to and through the development to the edge of the next adjacent development. This requirement includes hooking up existing homes within the development to all utilities. Electrical lines in new developments shall be underground unless permission to retain overhead lines is received from the SCPD during the planning process. Underground power lines shall have minimum separation distance from other utility lines as described in the NEC. Underground power lines may not share a trench with water, sewer, natural gas, or pressurized irrigation utility lines.

### Preconstruction Meeting with the SCPD Required

A preconstruction meeting (PCM) with SCPD is required before beginning any project to ensure the Customer understands applicable installation requirements, standards, and that any issues are resolved in a timely manner. If a project involves Springville Public Works, a joint PCM with both City departments may be coordinated and held.

### Available Service Connections

Available electric service is sixty (60) hertz (cycles), alternating current, single or three-phase. Available secondary voltages and connections are described below:

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

Only authorized SCPD employees shall make service connections or disconnections to a building, structure, or subdivision interconnection.

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

The SCPD requires a minimum of three (3) business days' notice be provided dispatch prior to any work being completed within ten (10) horizontal feet or below overhead power lines.

#### Overhead Electrical Power Line Clearances

Section 54-8c-1 through Section 54-8c-7 of the Utah Code [UTAH HIGH-VOLTAGE CODE](#) explains that no person or thing may be brought within ten (10) feet of any high voltage overhead power line unless:

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

- The responsible party and the Electric Division or Utility have completed mutually satisfactory safety precautions for the activity; and
- The responsible party has made prior arrangements to pay the Electric Division or Utility for the mutually satisfactory safety precautions (if applicable)

No building, dwelling, sign, bridge, antennae, or structure shall be constructed, or placed underneath any overhead electrical power lines, and all shall meet current NESC and State clearance requirements, both vertically and horizontally, from said power lines.

If existing buildings or structures already exist under power lines, those same buildings or structures shall not be modified, remodeled or constructed to further encroach upon the clearances from said power lines.

Work within ten feet of high-voltage overhead lines shall comply with Utah Code 54-8c-2 (notification to the utility and mutually satisfactory precautions). Clearances to buildings, openings, and equipment shall comply with NESC Section 23 tables as applicable. Where existing conditions prevent literal compliance, the SCPD may approve an alternate method only where it meets or exceeds the level of safety required by the NESC and State law.

#### Public Utility Easements

Where City-owned facilities traverse private property, the Customer shall dedicate and record a Public Utility Easements (PUE) or Municipal Utility Easement (MUE) acceptable to



the City attorney and shall be provided by the Customer to the SCPD at no cost, to facilitate efficient installation, operation, maintenance, repair, removal, replacement, relocation, and ingress/egress. Written easement descriptions shall be submitted with an accompanying drawn exhibit and submissions must be recorded by Utah County and evidence provided to the SCPD. See Utah Code Sections 54-3-27 (PUE), 10-8-14.5, 10-20-102(50), and 10-20-615; and Title 11, the electrical distribution system. Easements are required to ensure all electrical systems may be safely accessed by SCPD personnel, maintenance equipment, and utility vehicles. MUEs and PUEs will be designed, coordinated, and granted during the planning process.

The Customer shall provide easements for all utility extensions through private property and along public rights-of-way. Single family home lots shall have ten (10) foot MUEs or PUEs along public rights-of-way. MUEs and PUEs along other property lines are not required unless a utility is planned for that location. Developments, including structures other than single-family homes, shall provide ten (10) foot MUEs or PUEs along all property lines. If setbacks are less than ten (10) feet or not included, MUEs and PUEs shall extend for the entire setback or be alternatively designed in other areas. If nonstandard in size or design, MUEs and PUEs must be preapproved by the SCPD.

An easement larger than the minimum described above shall be necessary under certain circumstances such:

- If designation of an MUE or PUE is not possible on one side of a given piece of equipment, a larger, compensating PUE on an alternative side may be needed to ensure safe access.
- Certain equipment, such as large switches or vaults, may need larger MUEs or PUEs to ensure adequate and safe access.
- Where SCPD facilities are placed off-frontage or cross private tracts, the Customer shall record an MUE location approved by the SCPD and the City Attorney before final approval. MUEs shall run to the ESP or to utility junctions to ensure continuous access.
- The SCPD does not determine the placement direction of service laterals. However, once installed and inspected the lateral shall have an associated easement.



- If service laterals cross property with different ownership an easement shall be obtained so access to the lateral will be possible (e.g., placement below a parking lot).

Documentation demonstrating easements have been submitted for recording will be required prior to installation of any power infrastructure to ensure correct equipment placement and service access. MUEs or PUEs are generally not required for service laterals, although the SCPD may recommend them to ensure service and repair access.

## Project Planning

### Materials, Equipment, and Installation Responsibilities

General project responsibilities are described in the following table:

| <b>Materials and Equipment</b>                        | <b>Provider</b> |
|-------------------------------------------------------|-----------------|
| Secondary three-phase conductor or exceeding 200 amps | Customer        |
| All other materials and equipment                     | SCPD            |
| <b>Installation</b>                                   | <b>Provider</b> |
| Trenching, backfill, conduit, and mule tape           | Customer        |
| Ground sleeve setting                                 | Customer        |
| Box-setting (e.g., secondary, streetlight)            | Customer        |
| Three-phase transformer poured pads                   | Customer        |

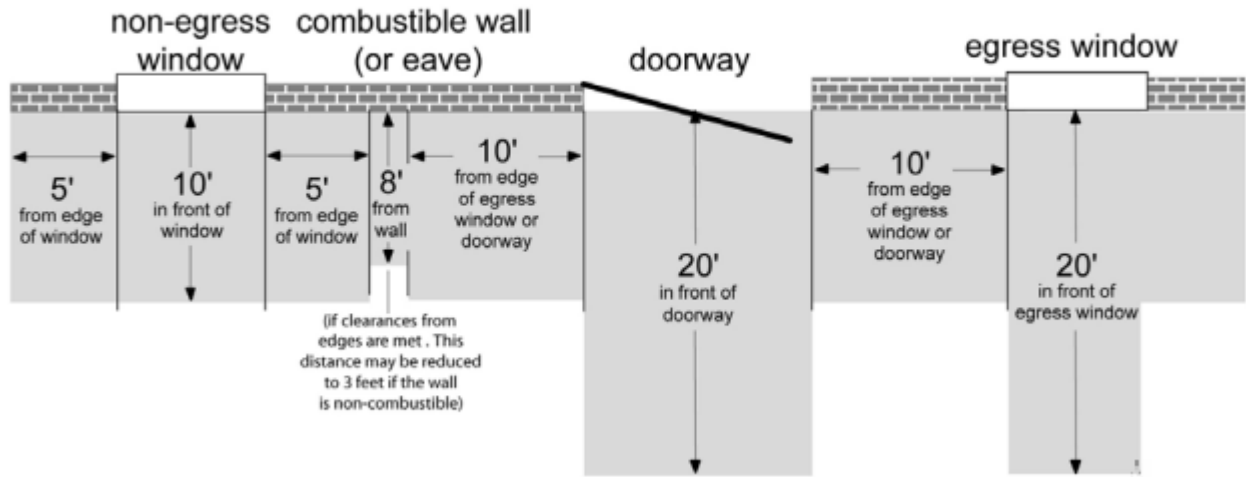
### Clearance between Equipment Pads and Buildings

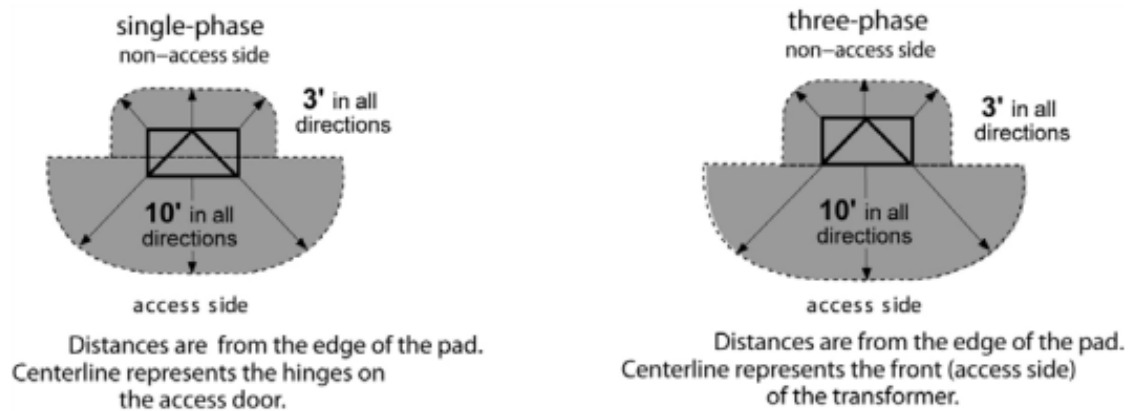
New subdivisions with development agreements or code-based planning may have additional or modified requirements beyond those in the following sections. Planning meetings with the SCPD shall be conducted to ensure standards are being met under these circumstances.

Please refer to Appendix 3 - General Design and Planning Standards for a summary of project planning and design standards. Generally, the Customer shall design projects with the clearances illustrated in Figure 1 below:



Figure 1-MINIMUM CLEARANCES BETWEEN EQUIPMENT PADS & BUILDINGS





#### Notes on Clearances between Equipment Pads and Buildings:

1. Distances noted in Figure 1 and Table 1 (following) are measured from the edge of the equipment pad or the edge of the installed equipment if the pad does not have defined edges.
2. If the building has any type of overhang, clearances are measured from the outside edge of the overhang.
3. Outside edges of any attachments to the building, such as ramps and stairs, will be considered part of the building perimeter.
4. Distances less than those specified in Table 1 (but not less than the required working space shown in Figure 1) may be allowed if approved by the SCPD. This may require alternate means of fire protection per NEC Section 450.27 and NESC Section 152 (A)(2), including fire barriers, fire-rated walls (see "Firewalls" section below), sprinkler systems, oil-containment means, or other measures. Use of an alternate means of fire protection shall be approved by the SCPD and the Springville Chief Building Official prior to installation.
5. The final grade at the location of the transformer shall provide gravity drainage (for any oil leaks) away from the building. Otherwise, an adequate oil containment mechanism is required.
6. No vegetation over six (6) inches in height shall be present in the clear workspace clearances designated in Figure 1.



7. Trip hazards (e.g., gutters and water spigots) shall not exist within the clear workspace clearances designated in Figure 1. Curbs may be acceptable within the designated clear workspace area with prior approval from the SCPD.
8. A minimum of seventy-two (72) inches of clearance between fire hydrants and metallic pad-mounted equipment shall be maintained. This clearance may be reduced to forty-eight (48) inches for non-metallic equipment with prior approval from the SCPD.
9. Where equipment is exposed to vehicular traffic (e.g., parking lots or areas without protective curbing), barrier posts are required. Please consult with SCPD to discuss installation-specific questions and considerations.
10. Additional clear workspace areas may be required for other types of pad-mounted equipment.
11. All equipment must be placed at least two (2) feet away from any driveway or other vehicle or pedestrian pathway.

Table 1-SUMMARY OF MINIMUM CLEARANCE BETWEEN OIL-FILLED, PAD-MOUNTED EQUIPMENT AND STRUCTURES, AND STRUCTURE OPENINGS

| Type of Framing       | Clearance in Front of Framing (ft.) | Clearance to Side of Framing (ft.) | Vertical Clearance from Framing (ft.) |
|-----------------------|-------------------------------------|------------------------------------|---------------------------------------|
| Fire Escape           | 20                                  | 10                                 | -                                     |
| Doorway               | 20                                  | 10                                 | -                                     |
| Window (operable)     | 20                                  | 10                                 | -                                     |
| Window (non-operable) | 10                                  | 5                                  | 10                                    |
| Air Vent Intake       | 20                                  | 10                                 | 25                                    |
| Air Vent Exhaust      | 10                                  | 10                                 | 25                                    |
| Combustible Surface   | 8                                   | 10                                 | -                                     |



|                         |   |    |   |
|-------------------------|---|----|---|
| Non-Combustible Surface | 3 | 10 | - |
|-------------------------|---|----|---|

### Firewalls (Blast Walls)

At locations where the clearances in Table 1 are not met, a firewall (also called a blast wall) may be constructed. The firewall design shall be approved by the SCPD prior to construction. The firewall shall be constructed such that the heat and flame from a dynamic event are deflected away from a combustible surface or storage tank.

## Trenching Requirements

The Customer shall excavate trenches for all conduit systems. Following the Customer's installation of the conduit and an SCPD inspection, the trench shall be backfilled by the Customer in accordance with SCPD requirements. The SCPD, under the terms of the LEP (see Appendix A), shall install both primary cables (medium voltage 12.47 kV) and secondary cables. Secondary cables (services exceeding 200 amps) used in commercial projects will be provided and installed by the Customer and inspected by the SCPD.

All trenches shall meet OSHA safety requirements to ensure the safety of excavators and SCPD personnel during inspections, including, but not limited to, egress and mitigation of risks associated with flooding and/or collapse.

### Call before You Dig

[Utah State Code Section 54-8a](#) requires the *Blue Stakes One Call Location Center* to be contacted prior to any excavation. [Blue Stakes](#) requires Locate Requests to be submitted no later than forty-eight (48) hours before excavation begins, or at least twenty-one (21) calendar days before the commencement of excavation work. Excavation shall not be started until the locations of existing infrastructure have been identified.

The *Blue Stakes One Call Location Center* may be reached by calling 811 or by visiting <https://www.bluestakes.org>.

### Required Depth

The Customer is responsible for ensuring that the proper burial depth clearance described below is maintained, even after excavation on the property. The SCPD shall be notified immediately of any questions related to impaired conduit burial depths. Any



improvements or additions undertaken after the power infrastructure has been placed shall meet and/or maintain burial depth clearances.

#### Sand

Sand placed above and below conduits in trenches shall be cyclone or bedding sand or an equivalent alternative material.

#### Caution Tape

A red caution ribbon stating “CAUTION: POWER BURIED BELOW” shall be placed on top of sand (added to the depth specified in the following sections) for conduit coverage.

#### Required Trench Widths

Primary/secondary combined trenches shall be a minimum of eighteen (18) inches wide at the bottom. Conduits shall be placed in the center of a combined trench.

- Residential service trenches shall be a minimum of twelve (12) inches wide at the bottom.
- All single primary trenches shall be a minimum of eighteen (18) inches wide at the bottom.

#### Primary Service Trench

A minimum four (4) foot-deep and twenty-four (24) inches-wide trench is required from the top of the conduit to the top of the back of the curb, or to the final grade (whichever is less). There shall be six (6) inches of sand under the conduit, and final depth requirements shall be maintained.

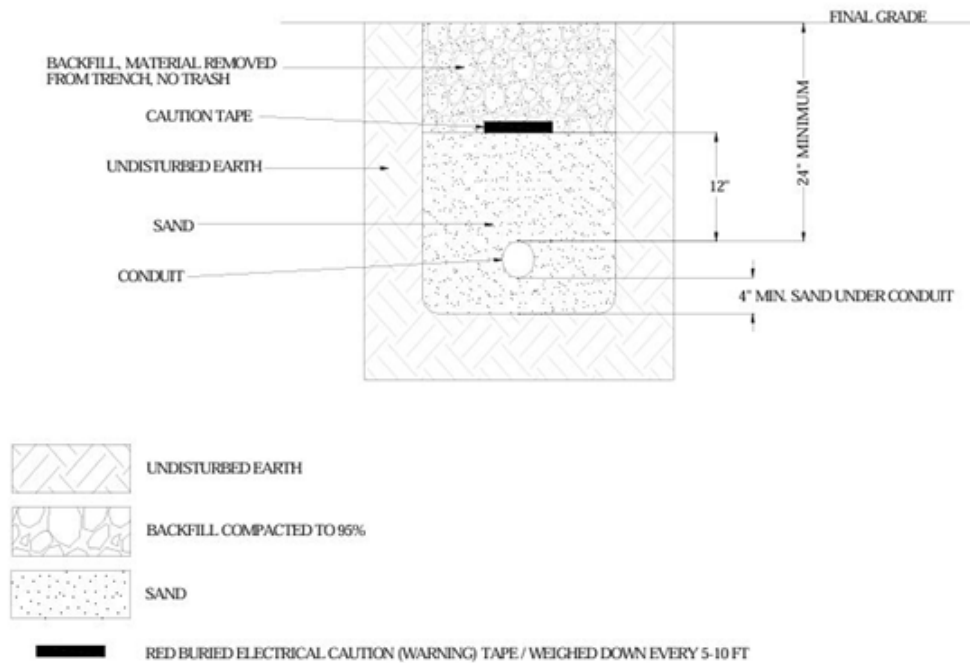
A minimum of two (2) feet vertical separation and two (2) feet minimum horizontal separation is required between electric conduits and other utilities in a joint trench and shall not be placed under any electrical boxes owned by SCPD.

When installing an elbow at an electrical structure, the elbow with coupling installed shall be placed one (1) foot below finished grade at dirt level inside the electrical structure.

A minimum of one (1) foot of sand shall be placed on top of the conduit along with the red caution tape noted earlier, and the entire trench shall be leveled with sand.

Figure 2 SECONDARY SERVICE LATERAL TRENCH DETAIL



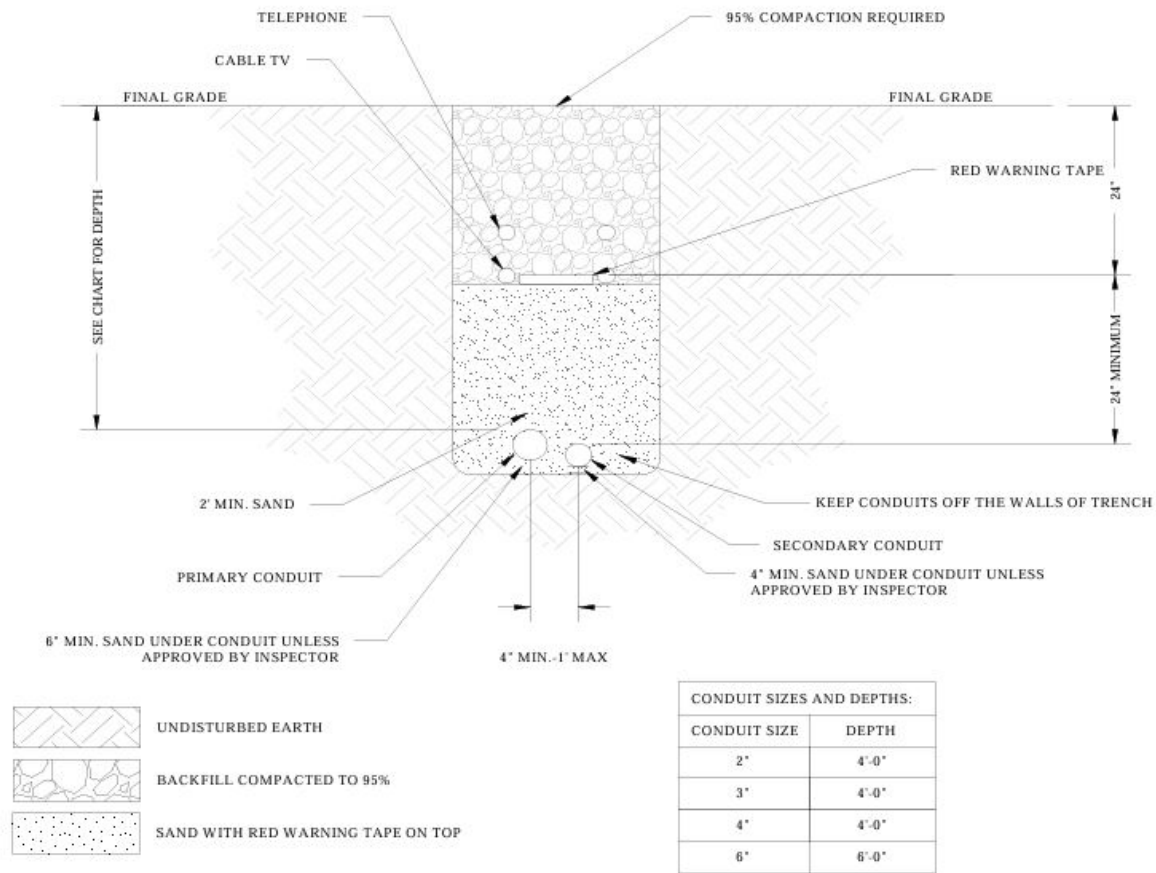


### Joint Use Trenches

Joint usage of power trenches is not allowed unless pre-approved by the SCPD. Any joint use request that is within a PUE shall maintain a minimum of twenty-four (24) inches of vertical separation. Joint use with telephone, telecommunications, and other electrical communication cables shall be preapproved by the SCPD. The SCPD will not install electrical cables in a common trench with non-electrical utilities such as gas, water, or sewer unless adverse soil conditions or route restrictions exist. All such installations require prior approval from the SCPD and shall comply with the NESC.



Figure 3 : JOINT-USE TRENCH CROSS SECTION



### Trench Road Crossing

Construction in the public right-of-way or in public easements requires a Springville Public Works encroachment permit, fees, and bonding, and must comply with the Standard Specifications and Drawings for trenching, compaction, and restoration.

Trenches crossing roads shall adhere to the same depth requirements as a primary system trench. Trenches shall also meet road compaction requirements and be bedded with material as specified in [Springville City Public Works Standards and Specifications](#). Per these standards Customer shall also secure encroachment permits, bonding (where applicable), and comply with right-of-way requirements.

### Secondary Trenches

All secondary laterals to houses and businesses must have a minimum two (2) foot depth from the top of the conduit to the lesser of the top of grade or the top of the back of the curb. There shall be four (4) inches of sand under the conduit.

A minimum of one (1) foot of sand shall be placed on top of the conduit along with the red caution tape noted earlier, and the entire trench shall be leveled with sand.

### Street Lighting Trenches

There shall be a minimum of four (4) feet from the top of the conduit to the top of the back of the curb or final grade (will measure the lesser of the two). Four (4) inches of sand shall be placed under the conduit.

A minimum of one (1) foot of sand shall be placed on top of the conduit along with the red caution tape noted earlier, and the entire trench shall be leveled with sand.

### Backfill

The Customer will be responsible for backfilling trenches they excavate. The Customer shall provide and place the specified amount of sand below and above the conduit. Where trenches cross structural fill, typical of road crossings, the trench backfill shall consist of like-kind fill. All primary trenches and all road crossing trenches (including for secondary cable) shall be compacted to ninety-five percent (95%) of the maximum dry density.

Whenever possible, the soil originally removed from the trench should be used as backfill material after sand has been installed. No rock of any size is permitted.



The backfill material used in the remainder of the trench shall be free of rocks larger than four (4) inches in diameter. No frozen material shall be used as fill, nor shall any fill be placed on any material that is frozen (e.g., snow or ice). Trench collapses shall be cleared prior to sand placement around the conduit.

All trenches shall be backfilled within forty-eight (48) hours of the conduit being installed and notice to proceed having been obtained from the SCPD. Grading shall be reasonably even, free from irregularities and shall provide positive drainage without ditching or ponding.

#### Trench Inspections

A minimum of two (2) trench inspections is required. After the depth inspection has been passed, a second inspection is required to verify the amount of sand on the top of the conduit and that a red caution ribbon (see previous Caution Tape section) has been placed.

After two (2) failed inspections, payment of an additional fee will be required for additional inspections. All fees shall be paid prior to any additional inspections.

The final grade is measured from the existing or planned top of the back of the curb or the sidewalk, whichever is greater. No cutting of grade is allowed after the depth inspection is passed. If the grade is to be lowered, minimum depth requirements shall be maintained, or the Customer shall repair the depth at their expense. Installation of circuits should be postponed in areas where significant changes in grade are anticipated until the final allowable grade is determined. If no curb and gutter exist, survey grade stakes shall be installed every twenty (20) feet.

#### Directional Boring

Before a directional bore is attempted, the Customer shall contact the SCPD to conduct an on-site job briefing to discuss the work to be performed. Upon approval from the SCPD, the Customer may be permitted to bore for underground electrical conduit placement when trenching is not feasible or if potential property damage is a concern. A bore pit shall be excavated at the beginning and end of a bore run to the correct depth, determined by the voltage to be installed as specified previously.

The conduit shall be either gray or black, with a red stripe, and shall maintain the minimum required depth for the entire run. After the conduit is installed, a rigid, wrapped-metal



sweep elbow shall be installed at both ends of the conduit. The contractor shall record the depth and mark the location of the bore every fifteen (15) feet with marking paint. If marking the depth is not feasible, a tracer wire shall be installed to verify depth prior to the SCPD approving the power conduit installation. The SCPD shall be notified daily of location markings or when the bore is complete, whichever is sooner. Primary bores shall be a minimum of six (6) feet deep.

Boring requirements:

- Minimum Depth for a Primary Bore Installation: Six (6) feet
- Minimum Depth for a Secondary Bore Installation: Three (3) feet
- Approved Coupling: Shur-Lock II®, or equivalent
- Conduit: HDPE 11, shall be gray or black with a red stripe

After fusing the HDPE conduit, the bead formed during fusion shall be reamed and removed from the inside of the conduit to provide an unobstructed path prior to conductor installation.

## Conduits

SCPD requires the use of conduits for all underground primary and secondary cable installations, including lighting circuits. Acceptable materials for conduit include:

- Rigid galvanized steel
- Intermediate metal conduit
- Fiberglass
- Gray electrical grade PVC schedule 40 (underground only) in stick or roll form

**Plastic or fiberglass conduit is not permitted for above-ground riser pipes.**

## Sweep Specifications

Underground sweeps shall be constructed of:

- Rigid galvanized steel
- Fiberglass
- Gray electrical grade PVC schedule 40 (underground only)

PVC conduit may be heated and bent at the bottom of a trench to form abnormal angles so long as the internal diameter is maintained.



Table 2 CONDUIT SIZE AND SWEEP DIMENSIONS

| Conduit Diameter | Radius of Sweep |
|------------------|-----------------|
| 2"               | 12"-18"         |
| 3" (secondaries) | 13" minimum     |
| 3" (primaries)   | 36"             |
| 4"               | 36"             |
| 6"               | 48"             |

### Required Conduit Burial Depths

The following table outlines burial depth requirements by conduit size.

Table 3 CONDUIT SIZE AND BURIAL DEPTH

| CONDUIT SIZES AND BURIAL DEPTH |                           |
|--------------------------------|---------------------------|
| Conduit Size                   | Top of Conduit to Surface |
| 2" (service lateral)           | 2'                        |
| 2" (streetlights)              | 2'                        |
| 3"                             | 4'                        |
| 4"                             | 4'                        |
| 6"                             | 6'                        |

### Additional Conduit Standards

- All conduit end points shall be sealed or taped to prevent plugging from debris. The Customer shall be responsible for cleaning or repairing the conduit if the SCPD is unable to install or pull the service cable. The SCPD does not allow more than three (3) current-carrying conductors in a single conduit.
- All underground primary voltage risers will have a ninety (90°) degree wrapped rigid steel bend with a minimum radius of thirty-six (36) inches. For 4" conduit or smaller, the total bend on a single pull shall not exceed three hundred and sixty (360) degrees. For 6" conduit, the total bend on a single pull shall not exceed two hundred and seventy (270) degrees.
- For three (3) and four (4) inch single-phase primary conduits, all non-riser elbows shall be wrapped steel or fiberglass thirty-six (36) inch sweeps.
- Three-phase runs in four (4) inch and larger conduit require thirty-six (36) inch long wrapped metallic or fiberglass sweeps.



- All steel primary elbows shall be wrapped with ten (10) millimeter non-corrosive tape.
- All conduits shall be terminated at the open end with plastic pull bushings.
- Where long sweeps rise to ground level, extra trench depth must be used to ensure the top of the fitting is one (1) foot below grade or the top of the curb.

### Residential Installations

For one hundred (100) amp services, a minimum of a two (2) inch conduit is required. For a one hundred and twenty-five (125) to two hundred (200) amp services, a minimum of a three (3) inch conduit is required. For services greater than two hundred (200) amps, please contact the SCPD to determine conduit sizing and ensure transformer capacity availability.

Table 4 CONDUCTOR, CONDUIT SIZES, & CONDUIT DEPTHS

| Service Size | Service Conductor Size (AWG) | Conduit Size         | Conduit Depth (ft) |
|--------------|------------------------------|----------------------|--------------------|
| 100 amp      | #2 alum.                     | 2" (non-streetlight) | 4'                 |
| 125 amp      | 1/0 alum.                    | 3"                   | 4'                 |
| 150 amp      | 2/0 alum.                    | 3"                   | 4'                 |
| 200 amp      | 4/0 alum.                    | 3"                   | 4'                 |
| 200+ amps    | Please consult the SCPD      |                      |                    |

Metallic elbows are required at the house end of the trench and shall be wrapped with ten (10) millimeter corrosion-proof tape to the point where the conduit leaves the ground surface level. The metallic riser at the house shall also be taped to the final grade.



For services routed up a pole, the Customer shall provide metallic conduit to the top of the pole and all necessary hardware to complete installation. Customers shall install the first ten (10) foot section on top of the sweep elbow and leave the required materials for the SCPD to install at energization. Materials shall include weatherheads, standoffs, clamps, Unistrut, lag bolts, etc.

Additional residential service conduit specifications:

- Installation of underground risers to the meter base is the responsibility of the Customer. The riser shall be anchored to the foundation above ground, and the clamp shall not be installed over the taped section of the riser pipe.
- Residential single-phase primary conduit shall be three (3) inches.
- Residential cable pulls longer than one hundred and fifty (150) feet shall be provided and installed by the Customer. If routing a conductor into an energized transformer, an appointment with the SCPD shall be made to facilitate installation.
- Long sweep elbows are not required for residences.
- Secondary conduit shall be placed three (3) inches from the transformer to the secondary junction boxes.
- All services larger than four hundred (400) amps require an instrument transformer cabinet. The cabinet shall be supplied and installed by the Customer to NEC standards.
- Customers shall also provide termination lugs at pad-mounted transformers.

#### Multifamily and Commercial Installations

Commercial Customers shall supply and install conductors required for service.

- All future development stub-outs will be run to the border of the development/subdivision.
- All services larger than four hundred (400) amps require an instrument transformer cabinet. The cabinet shall be supplied and installed by the Customer in accordance with NEC standards.
- Any three-phase primary shall use long sweep elbows.
- Any secondary circuit that is greater in length than three hundred (300) feet shall be installed with a rigid short sweep elbow.



- Each transformer pad shall have a ten (10) foot conduit stub-out for interconnection to adjacent homes when required by the SCPD.
- Customers shall also provide termination lugs at pad-mounted transformers.
- Secondary conduit shall be placed three (3) inches from the transformer to the secondary junction boxes.
- In transformer applications, all primary conduits shall be marked with red paint.

### Streetlighting Installations

The following standards apply to conduit used for streetlighting:

- Secondary street lighting conduits shall be two (2) inches minimum.
- Long sweep elbows shall not be used at secondary junction boxes or streetlight boxes.

## Electrical Service Points

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### General Information

The ESP's location on the Customer's premises is an important consideration. Please consult the SCPD to determine the point of attachment for overhead service drops and underground service laterals prior to construction.

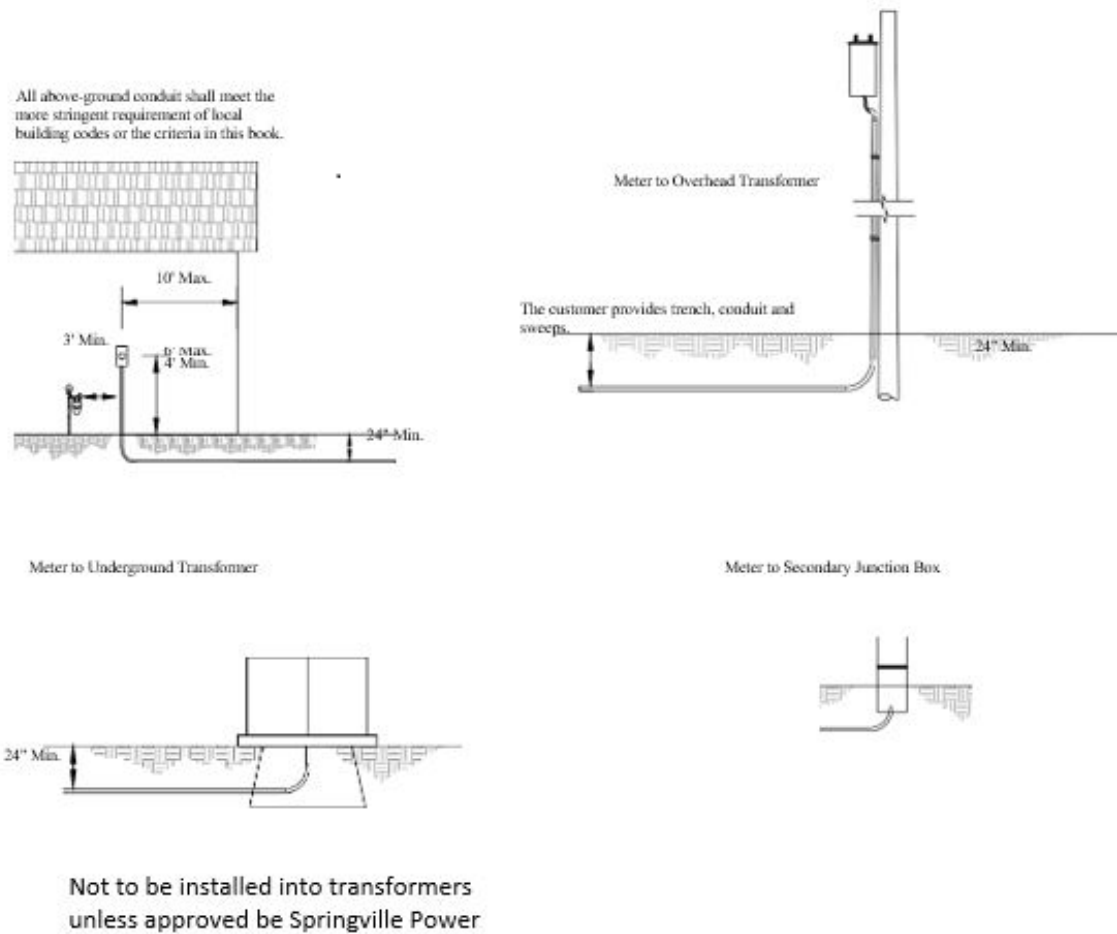
All ESPs shall have a main service disconnect. SCPD owns and maintains the conductor within an underground service lateral conduit from the distribution line to the customer's ESP. Conduit repairs shall be the responsibility of the property owner.

### Residential ESPs

The Customer shall be responsible for installing the conduit system as designed and specified. On underground installations, there shall be a ninety (90) degree elbow in the junction box with a riser that terminates a minimum of three (3) inches above the dirt floor of the junction box and not closer than ten (10) inches from the bottom of the lid. PVC end bell sockets shall be installed at the ends of all conduits rising into secondary junction boxes and transformers. The length of the service shall be no more than one hundred fifty (150) feet without prior SCPD authorization.



Figure 4 INSTALLATION OF TYPICAL UNDERGROUND SERVICE EXTENSION



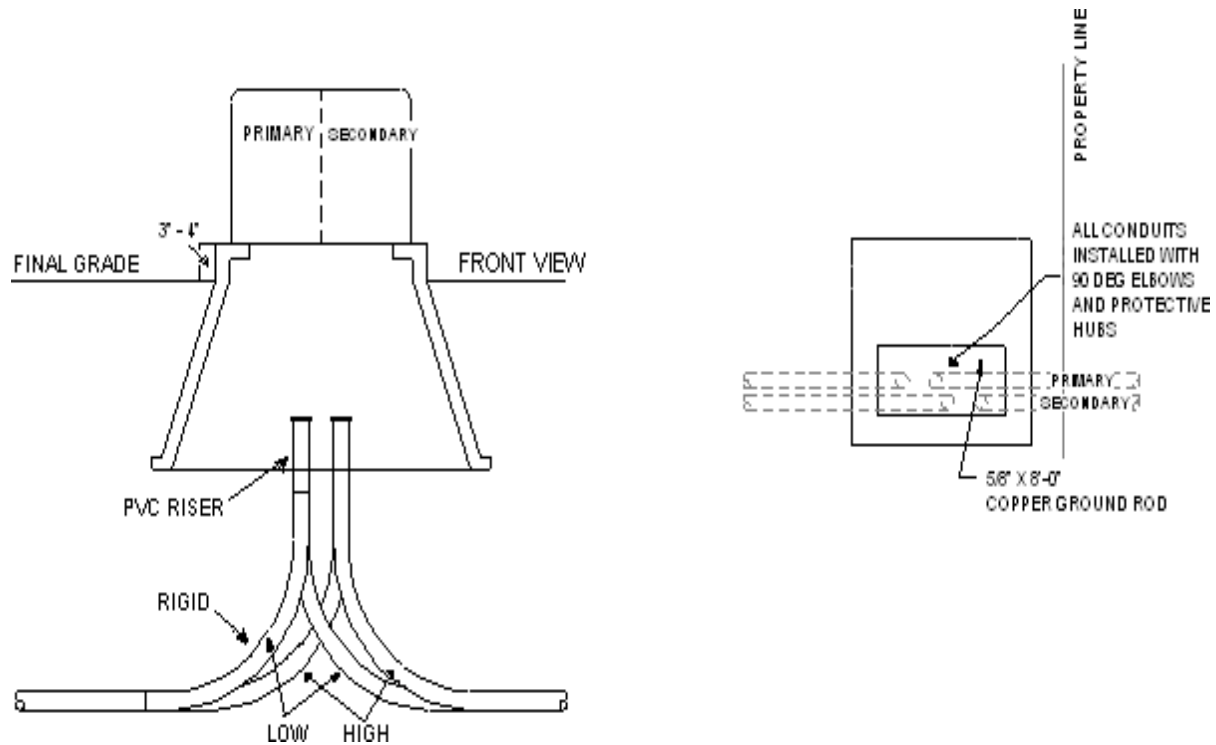
Please refer to Figure 3 for a detailed service trench cross-section diagram.

#### Additional Requirements for Multi-Family Dwelling Unit Services

Service lateral conduits from the City's point of secondary service shall be three (3) inch minimum for multi-family dwelling units. A load calculation study shall be performed for multi-family dwelling units and submitted to the SCPD. All other residential service requirements also apply.



Figure 5 SINGLE-PHASE TYPICAL CONDUIT INSTALLATION FOR RESIDENTIAL SUBDIVISION



### Additional Requirements for Commercial & Industrial Services

Service entrance conductors & conduits shall be sized in accordance with the applicable SCPD Standards. The SCPD shall approve all locations & installations of conduits, service disconnection means, and meters.

- All commercial & industrial buildings shall have an accessible, exterior main disconnect which can stop all service loads from the building or structure wiring.
- All services rated eight hundred one (801) amps or more supplied by a four-wire, three-phase 277 / 480-volt wye-connected system shall have a ground fault test performed for the protection of equipment.
- All services, equipment, cabinets, conduits, etc. shall be grounded & bonded according to applicable NEC & City codes.
- The service disconnecting means shall be identified as suitable for use as service equipment.
- A building or structure may only be served by one service lateral or service drop, unless otherwise approved by the SCPD.



## Meters

Customers shall provide a suitable SCPD-approved location, space, and provisions for mounting a meter socket. The SCPD owns and maintains the meter. In ESP installations where service is fed through overhead service masts, the mast (or weather head) is Customer-owned. The Customer owns the meter socket, the meter base, and all wiring beyond the meter socket into the home or business. Springville City Code Title 4 Chapter 1-112-1 ([Meters](#)) requires that meters shall be located in accessible areas, and that free access to meters be provided to the SCPD.

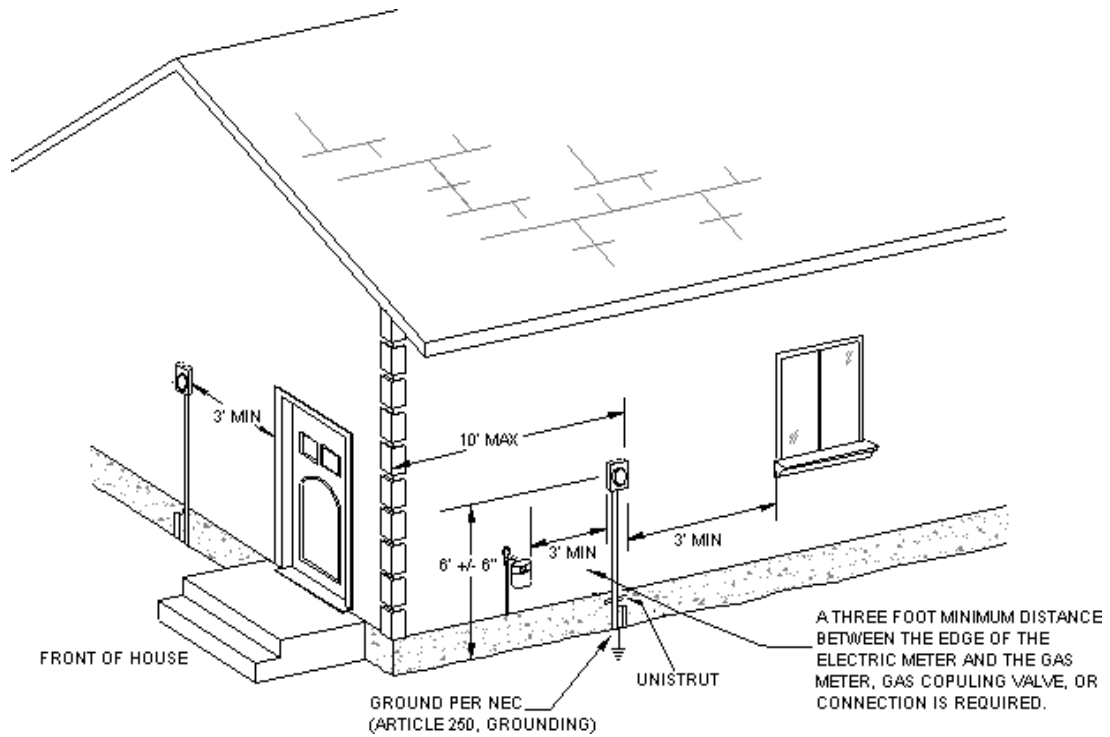
### Location

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 SCPD's point of source.

The location of the meter base shall be on the side of the house closest to the secondary power source and no more than ten (10) feet from the front wall. When impractical, the meter base may be placed outside the ten (10) foot perimeter with the SCPD's approval. If no secondary power box is available on the lot, please contact SCPD for further instructions. The height of the meter base shall be six (6) feet plus or minus six (6) inches above ground at the center of the meter base opening.



Figure 6 RESIDENTIAL METER LOCATION FOR UNDERGROUND SERVICE



**PLEASE NOTE: Overhead ESP (150 amp or smaller services only).**



Figure 7 RESIDENTIAL METER LOCATION FOR OVERHEAD SERVICE

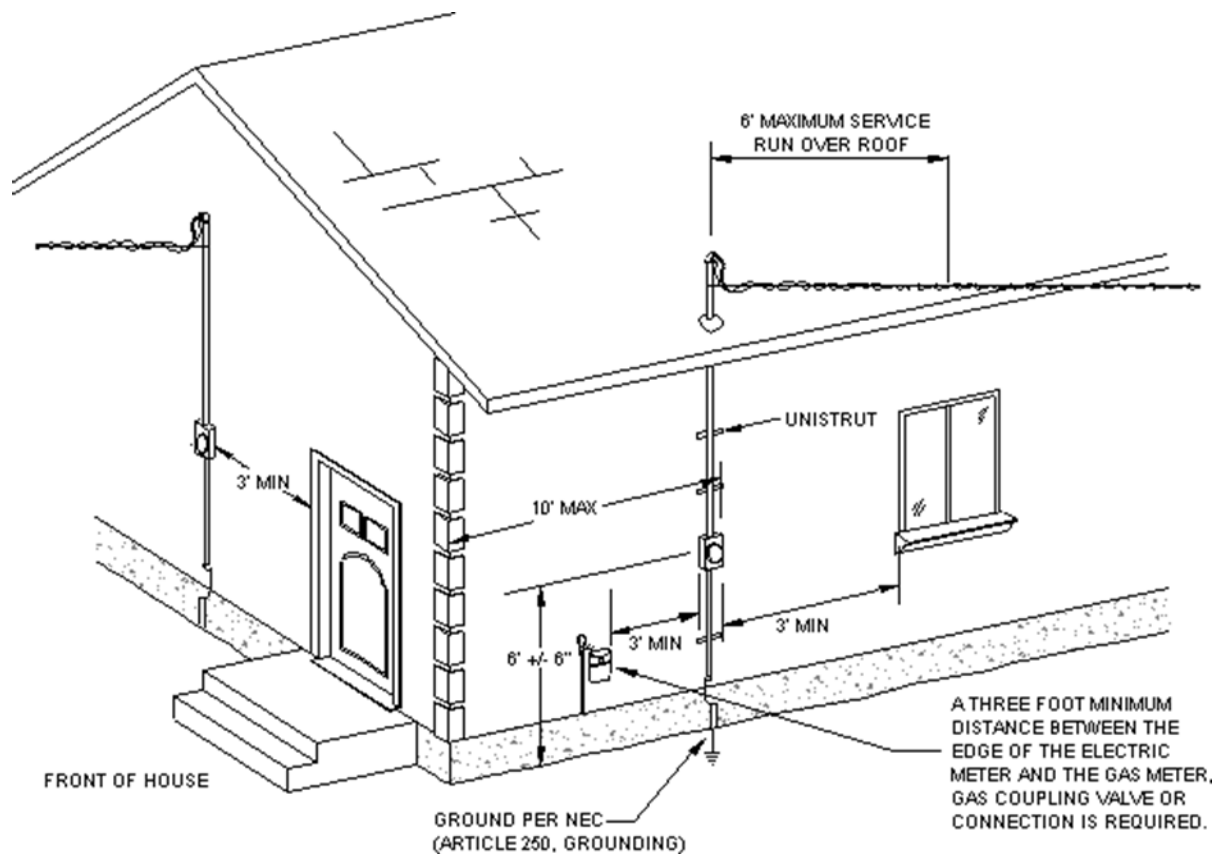
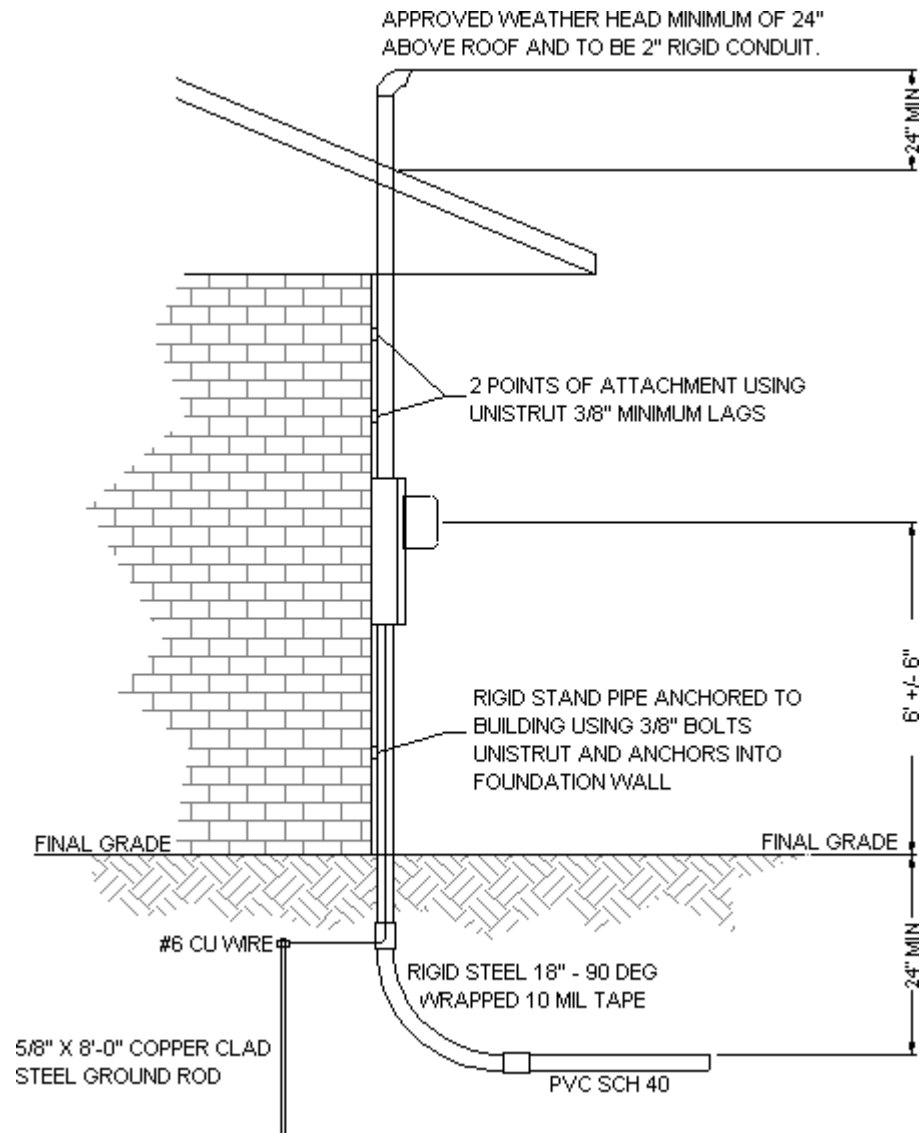


Figure 8 METER SOCKET INSTALLATION



Metering equipment shall not be installed in the following locations:

1. Any hazardous location for electrical equipment, as defined by the NEC.
  2. Directly over any window well, stairway, ramp, or steps.
  3. In any entryway.
  4. In any place where moisture, fumes, or dust may damage the meter or may interfere with the operation of the meter.
  5. On any surface subject to excessive vibration.
  6. On SCPD poles or equipment.
  7. In an area where access to metering equipment is likely to be obstructed by fencing.
  8. Where the meter face or the door to the metering equipment is or may be obstructed.
  9. Where the door to the metering equipment is on (or recessed in) an external surface built within seven (7) feet of a property line, alleyway, or driveway, unless approved in advance by the SCPD.
  10. Where they may be blocked by any shrubs, landscaping, or other vegetation.
  11. Areas adjacent to fuel storage units, including permanently mounted generator fuel tanks.
  12. Closer than thirty-six (36) inches horizontally from gas meters, gas valves, fixed or threaded fittings, separable valves or unions, or regulators.
  13. Meters should not be installed within thirty-six (36) inches of windows that have a view of a living space or restroom or within thirty-six (36) inches of a door.
- Exceptions may be reviewed for approval by the SCPD.

The SCPD shall 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 SCPD should be contacted.

#### **Additional Meter Standards**

For permanent power to be connected, the main breaker panel cover shall be in place on the meter base and secured as designed for the appropriate base. The outside cover shall be in place over the main breaker panel with at least one (1) screw in each corner.

Grounding shall be provided in accordance with NEC requirements.



If compression fittings are used to attach the conduit to the meter base, a bonding bushing and bonding jumper are required. The jumper shall 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.

To prevent the riser from pulling out of the meter base during ground settling, the conduit shall be anchored to the foundation using Unistrut, bolts, three-eighths (3/8) inch minimum anchors, and a Unistrut clamp. Corrosion tape shall be removed where the clamp is installed to the riser pipe.

Multi-socket meter bases shall be labeled with an engraved hard plastic or metallic label. Labels shall correspond to the address on the door to which it feeds.

Figure 9 METER SOCKET CLEARANCES

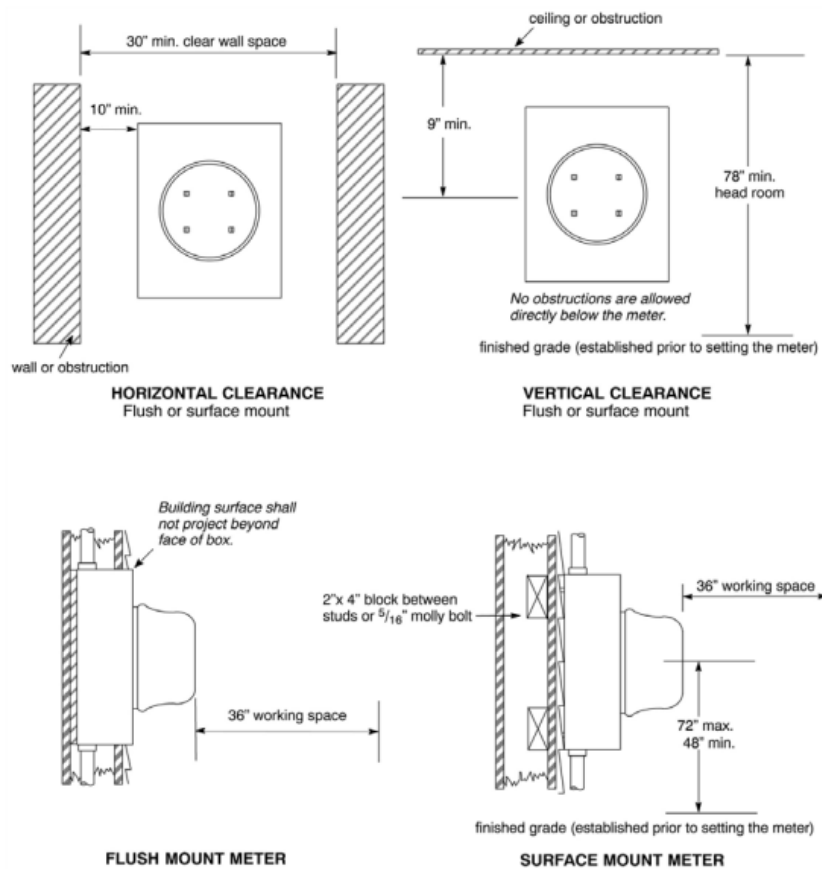
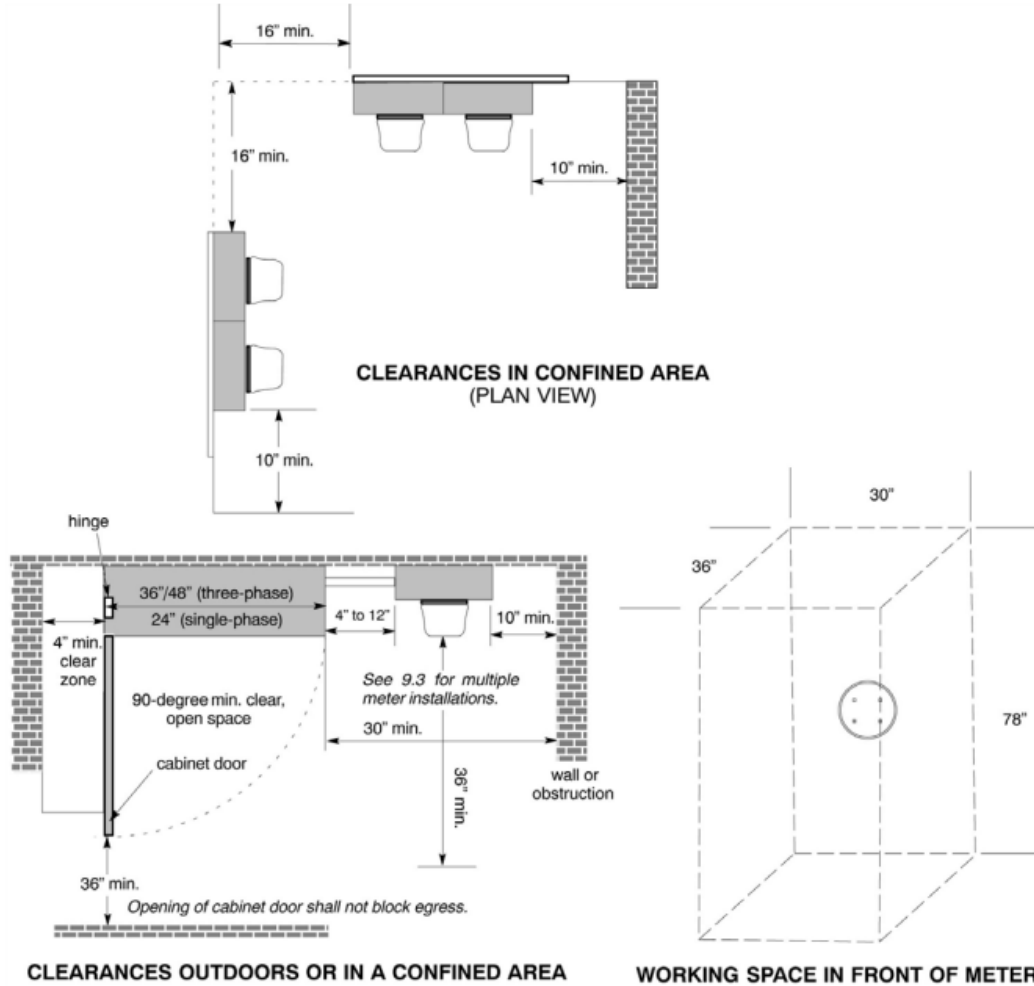


Figure 10 WORKSPACE CLEARANCES



### Service Upgrades or Modifications

During service changes, the original main breaker shall be saved for the inspector. Where no increase in amperage is requested and paid for, the same size service shall be used. The SCPD allows for a maximum impact fee credit equivalent to a one-hundred (100) amp service for any service that does not have a main breaker installed.



## Additional Equipment Installation Diagrams

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### Secondary Junction Box

Two types of secondary junction boxes are available:

1. Flat Lid
2. Dome Lid

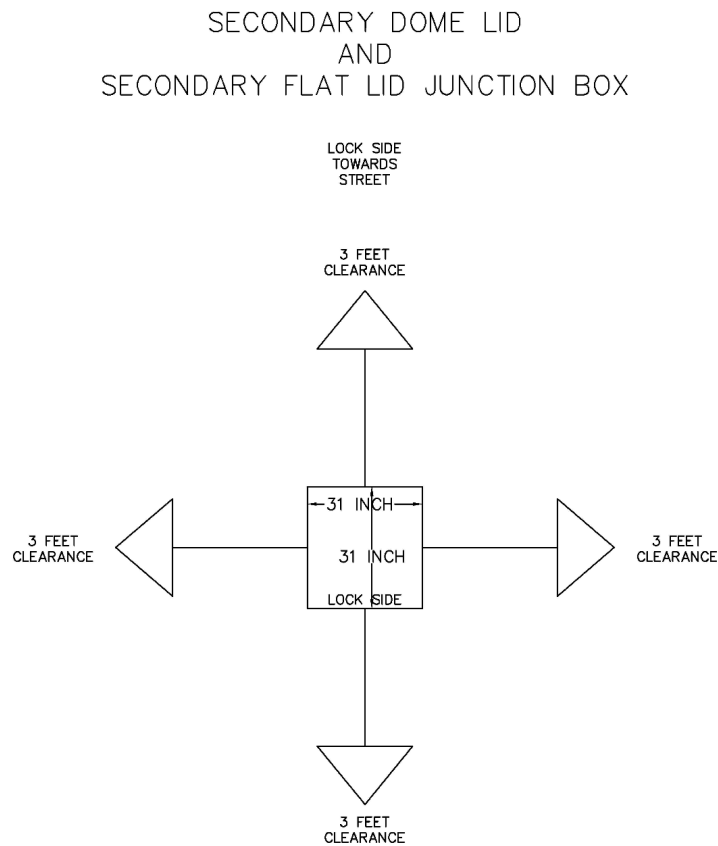
SCPD shall provide the secondary domed junction boxes to the Customer, who shall provide the minimum required spacing between conduits.

The Customer shall be responsible for trenching and backfilling to the following specifications:

1. Flat Lid: To the top of boxes buried to match the slope of the final grade.
2. Dome Lid: The bottom section of the dome lid box shall protrude from the ground three (3) to four (4) inches above the final grade.



Figure 11 SECONDARY JUNCTION BOX ORIENTATION & CLEARANCE



## Pad-Mounted Transformers

The Customer shall supply and install one (1) five-eighths inch by eight-foot (5/8" X 8') ground rod and conduit for transformer installations. The SCPD shall supply transformer pads, transformers, and conductors.

All rigid elbows supplied by Customers shall have end bell sockets.

Fill material under the primary pad or base shall be one (1) foot of road base meeting Utah and Springville City Public Works specifications and shall be compacted to ninety-five (95)



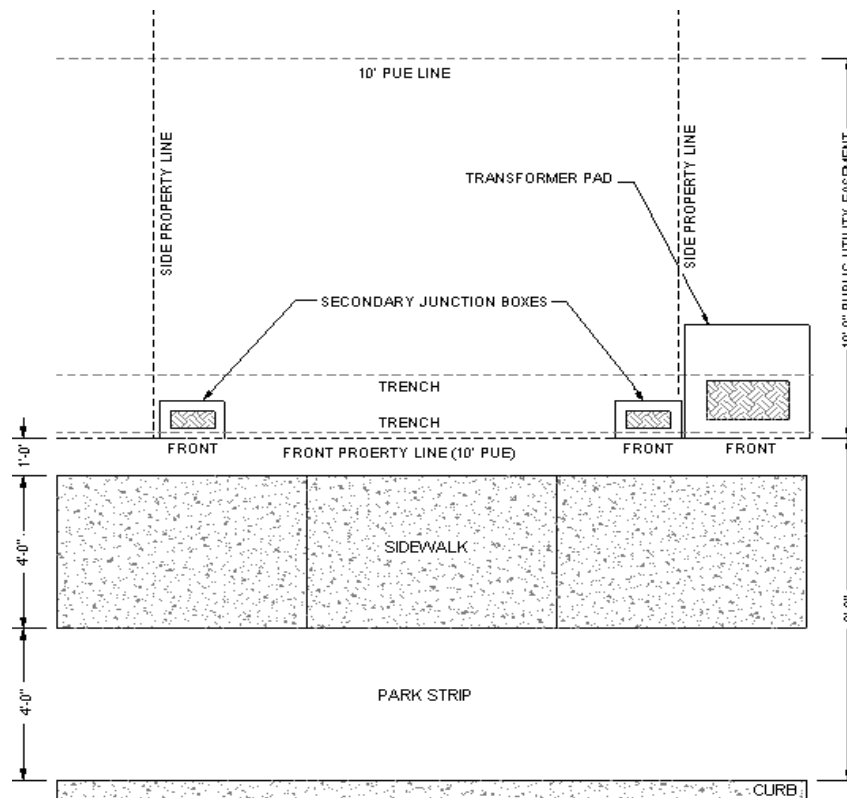
percent. Road base fill shall extend from the bottom of the trench to the transformer pad and shall extend three (3) inches on the back and sides and one (1) inch on the front.

## Single-Phase Transformer Pad or Secondary Junction Box

Transformers and secondary junction boxes shall be offset from the property line on either side. Transformers and secondary junction boxes shall be located per the electrical design approved by the SCPD (Figures 10 & 11).

Transformers and other equipment shall be installed with the front of the equipment facing the sidewalk. To enable servicing, no obstructions are allowed in front of SCPD equipment.

Figure 12 : SINGLE PHASE TRANSFORMER PAD OR SECONDARY JUNCTION BOX LOCATION WITH PLANTER



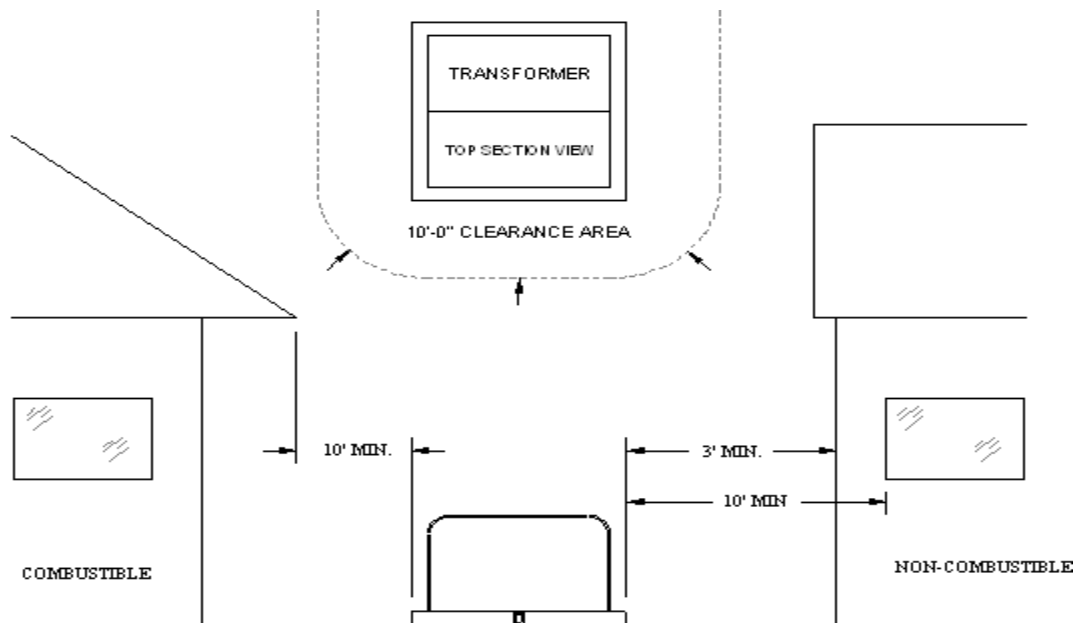
## Single Phase and Three Phase Pad-Mounted Transformer Clearances

A ten (10) foot clearance area shall be maintained in front of the equipment to allow for safe servicing of the equipment.

The front of pad-mounted transformers shall be located away from building walls or other barriers to allow for safe working practices. A ten (10) foot clearance is required away from any transformer surface if the structure is of combustible material. A three (3) foot clearance is required from any non-combustible building surfaces that do not have any openings closer than ten (10) feet. Three (3) feet clearance shall be maintained from doors, windows, fire escapes, air vents, etc.

When pad-mounted transformers or other equipment are installed where they may be struck by a motor vehicle and are not protected by curbing, the customer shall install and maintain SCPD-preapproved barrier posts to protect the equipment. When barrier posts are used, they shall not interfere with the operation of the equipment they are protecting, and all doors of the equipment shall be able to open as designed by the manufacturer.

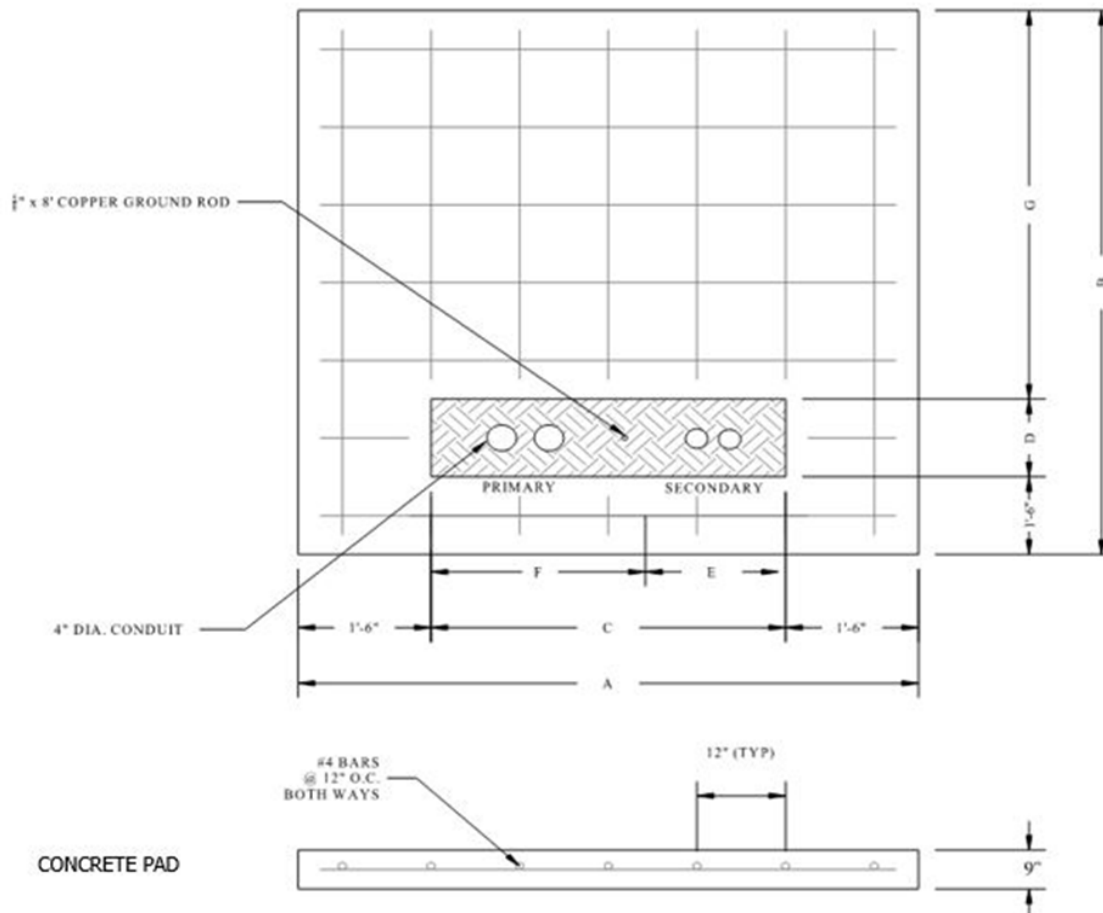
Figure 13 SINGLE-PHASE & THREE-PHASE PAD MOUNTED TRANSFORMER CLEARANCES



## Three-Phase Transformer Pad without CT Rack

All three-phase transformer pads shall be constructed as pour-in-place.

Figure 14 THREE-PHASE TRANSFORMER CONCRETE PAD



| TRANSFORMER PAD DIMENSIONS |            |     |     |     |     |     |     |
|----------------------------|------------|-----|-----|-----|-----|-----|-----|
| Transformer Rating         | Dimensions |     |     |     |     |     |     |
|                            | A          | B   | C   | D   | E   | F   | G   |
| 75-500 KVA                 | 78"        | 84" | 42" | 15" | 20" | 22" | 51" |
| 750-2500 KVA               | 96"        | 96" | 60" | 16" | 30" | 30" | 62" |

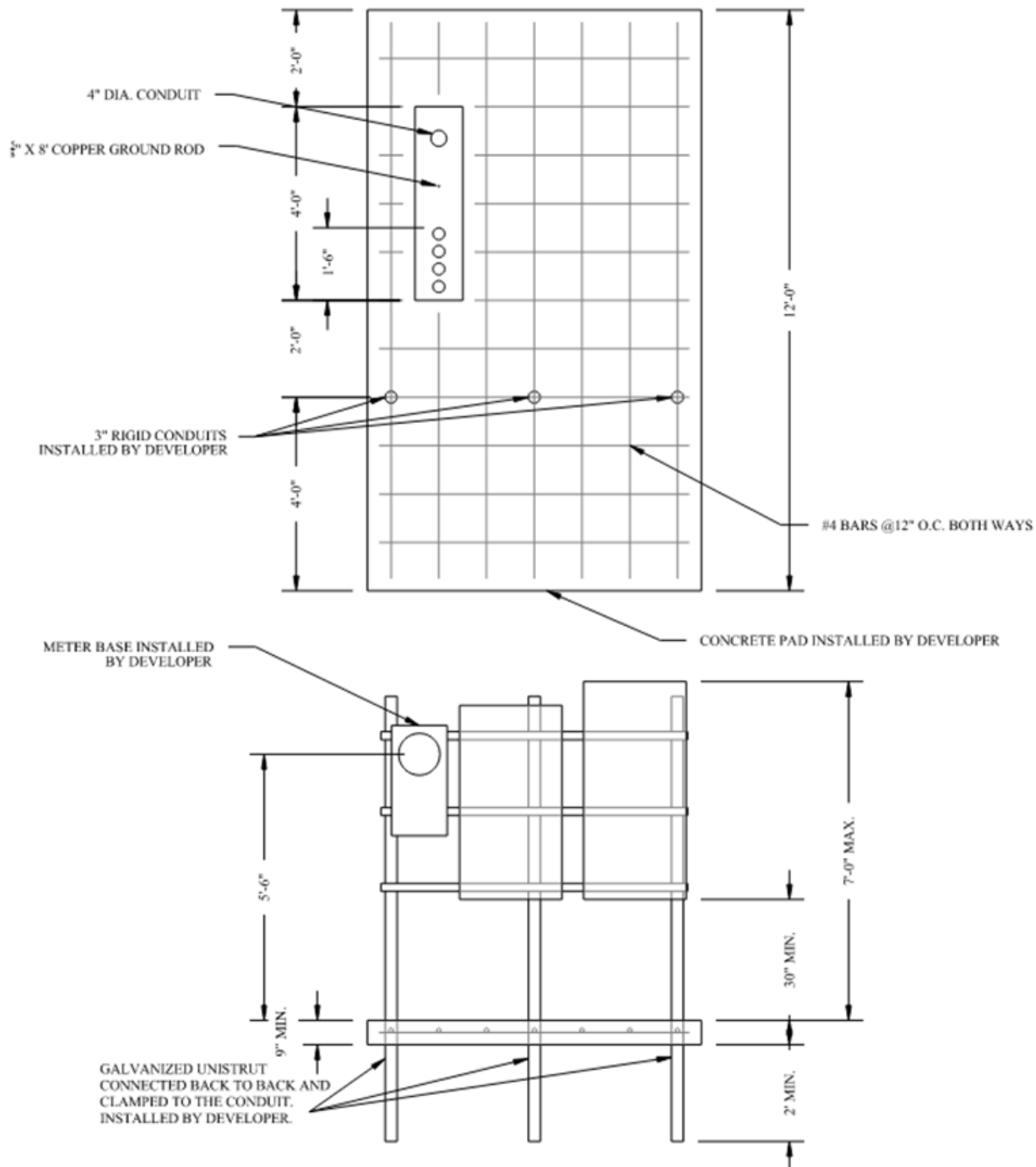


## Three-Phase Transformer Pad with Metering Station

SCPD will not pull or terminate commercial services from the secondary side of the transformer. The Customer shall terminate all cables in the CT cans. The contractor shall terminate all cables they run and provide lugs for the transformer secondary.

Windows shall be compatible with the transformer size.

Figure 15 THREE-PHASE TRANSFORMER PAD WITH METERING STATION

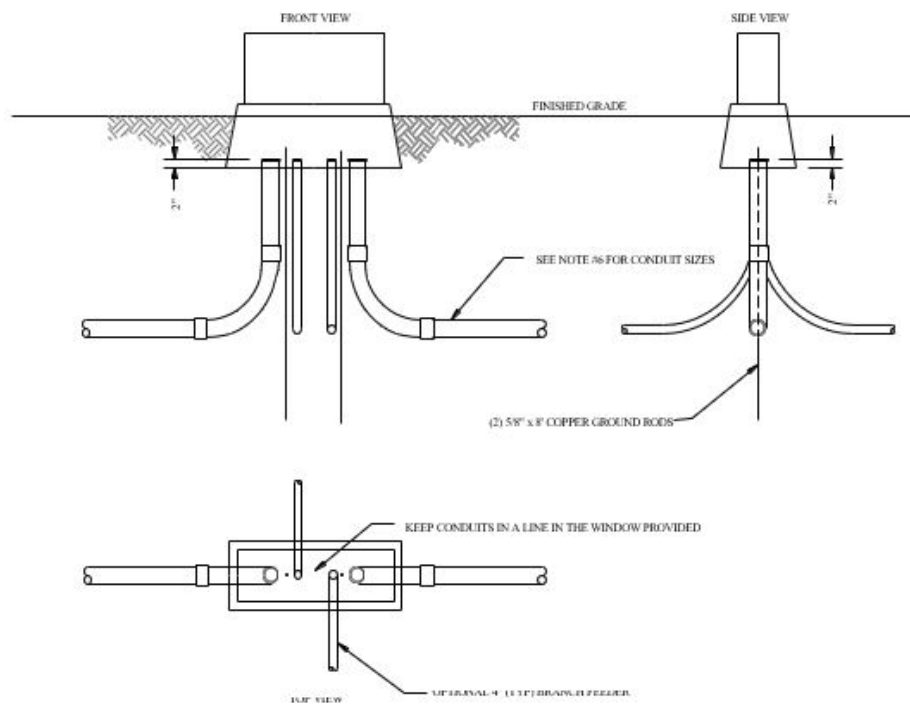


## Sectionalizers and Switches

Sectionalizer bases will be provided by SCPD and installed by the Customer.

The Customer shall provide and install two (2) ground rods (5/8" x 8' copper clad steel) and additional materials required to complete the installation. Conduit sizes and locations shall be provided by the Customer for SCPD approval on the subdivision electrical plans. All conduits shall be supported during backfilling to keep them as vertical as possible

Figure 16 CONDUIT PLACEMENT FOR SECTIONALIZERS

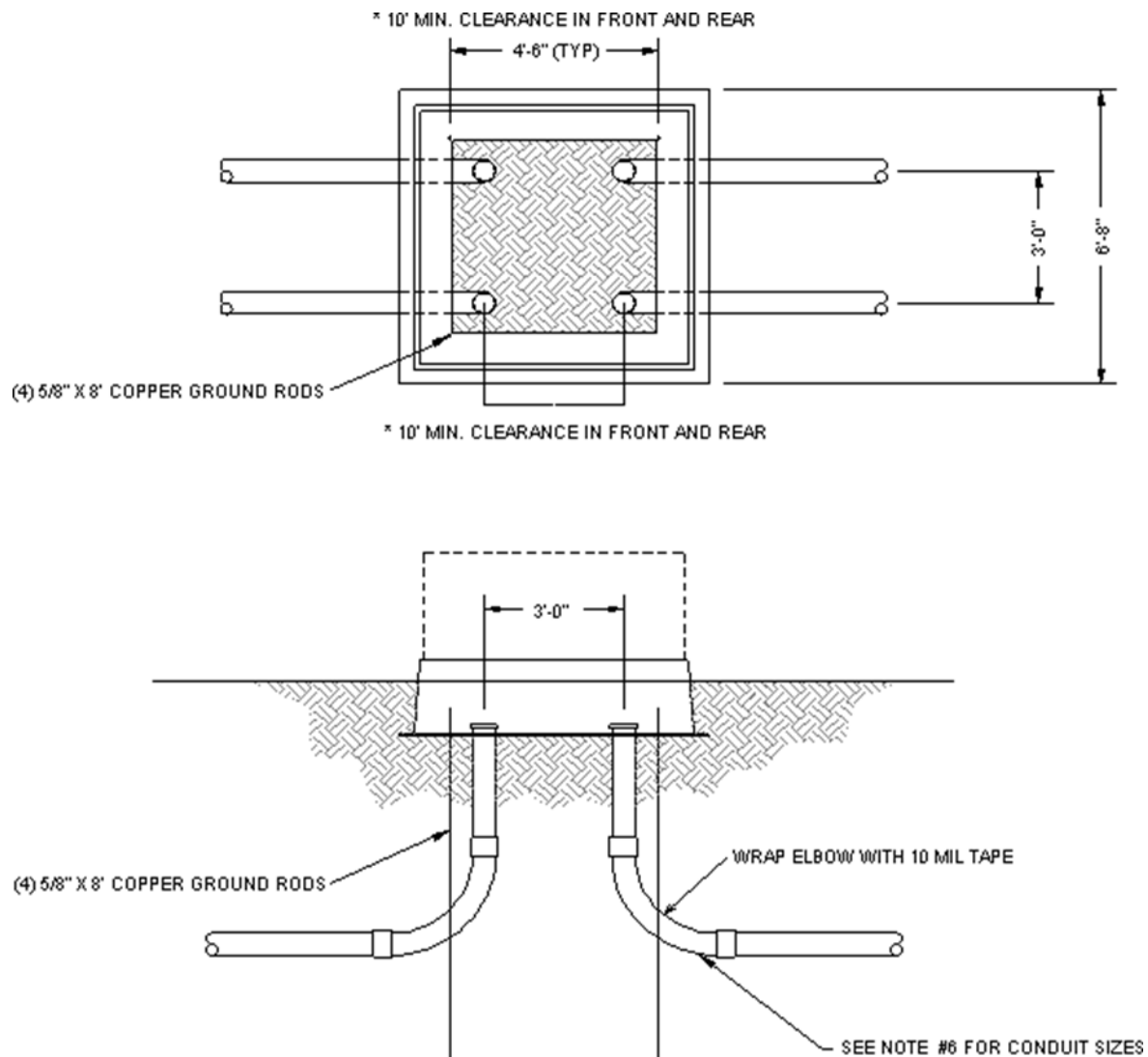


## Switches

Switch bases will be provided by the SCPD and installed by the Customer.

The Customer shall provide and install four (4) ground rods (5/8" x 8' copper clad steel) and subsequent materials to complete the installation. Conduit sizes and locations shall be provided by SCPD on the subdivision electrical plans. All conduits shall be supported during backfilling to keep them as vertical as possible.

Figure 17 CONDUIT PLACEMENT FOR SWITCHES



## Equipment Erosion Prevention

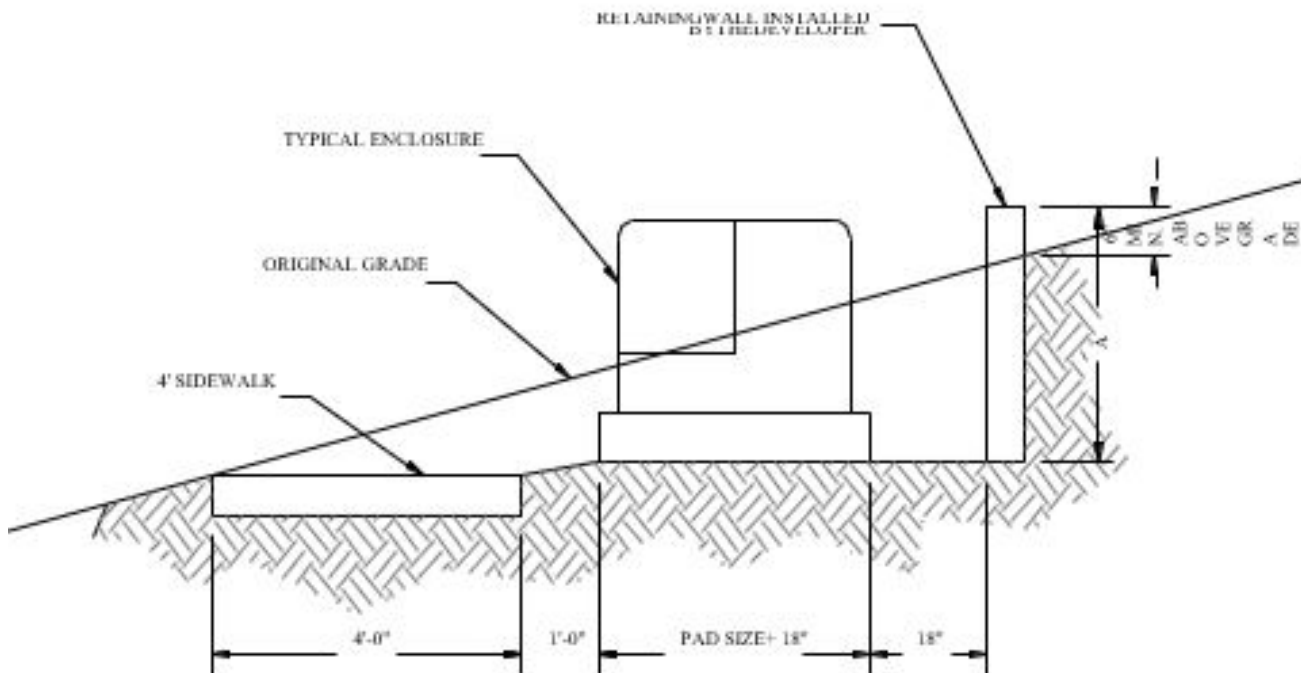
If it is necessary to “notch out” or fill a slope to install an enclosure or transformer, the cleared area shall be of sufficient size to accommodate the enclosure and shoring. The front of the pad shall be placed two (2) inches maximum above the sidewalk. The area under and behind the pad shall be level and compacted in accordance with the trench specifications.

A retaining wall is required if dimension “A” (see below) is greater than twelve (12) inches.

Side retaining walls are also required if dimension “A” is greater than eighteen (18) inches. The retaining wall shall be six (6) inches above the existing grade and eighteen (18) inches from each side and the back of the enclosure.

All grading shall be performed by the Customer. Please contact the SCPD if assistance is required.

Figure 18 EQUIPMENT EROSION PREVENTION



## Street Lighting

SCPD standard streetlighting shall be installed, owned, and maintained by the SCPD.

Conduit systems for streetlighting wiring shall be installed by Customers. If conduit has been previously installed by Springville City, the Customer will repay the proportional cost for installing the conduit based on the new development frontage.

SCPD provides energy and performs operations and maintenance on City-owned streetlighting assets. During development, energy is provided **at no cost to the developer** as specified herein.

The following shall apply to streetlight installation located within the SCPD service area.

- A standard streetlight pole is specified as a thirty-five (35) foot bronze fiberglass pole, eight (8) foot bronze arm, with an LED fixture that is sufficient for the location and is powered by 120 - 240 Volts AC. Poles will be installed by the SCPD in accordance with the SCPD LEP.
- SCPD standard streetlights (poles, fixtures, and wiring) shall be used except as provided below.
- With prior SCPD approval, development-specific decorative (non-SCPD standard) streetlighting (poles, fixture, and wiring) may be installed in subdivisions. SCPD approval for non-SCPD-standard decorative lighting shall be obtained prior to any installation. Decorative lighting (service disconnect, poles, LED luminaries, lamps, conduit, and wiring) installed in subdivisions shall be completed by the Customers at their expense. Power and maintenance for streetlights shall be provided by SCPD in accordance with the second bullet (above) unless it is a private light (e.g., yard security light).
- In City Gateways, decorative streetlights may be required instead of standard streetlights. If previously installed by the City, the costs of decorative streetlights will be repaid by the Customer based on the frontage of the new development and the number of streetlights previously installed on that frontage.



### Streetlight System Design

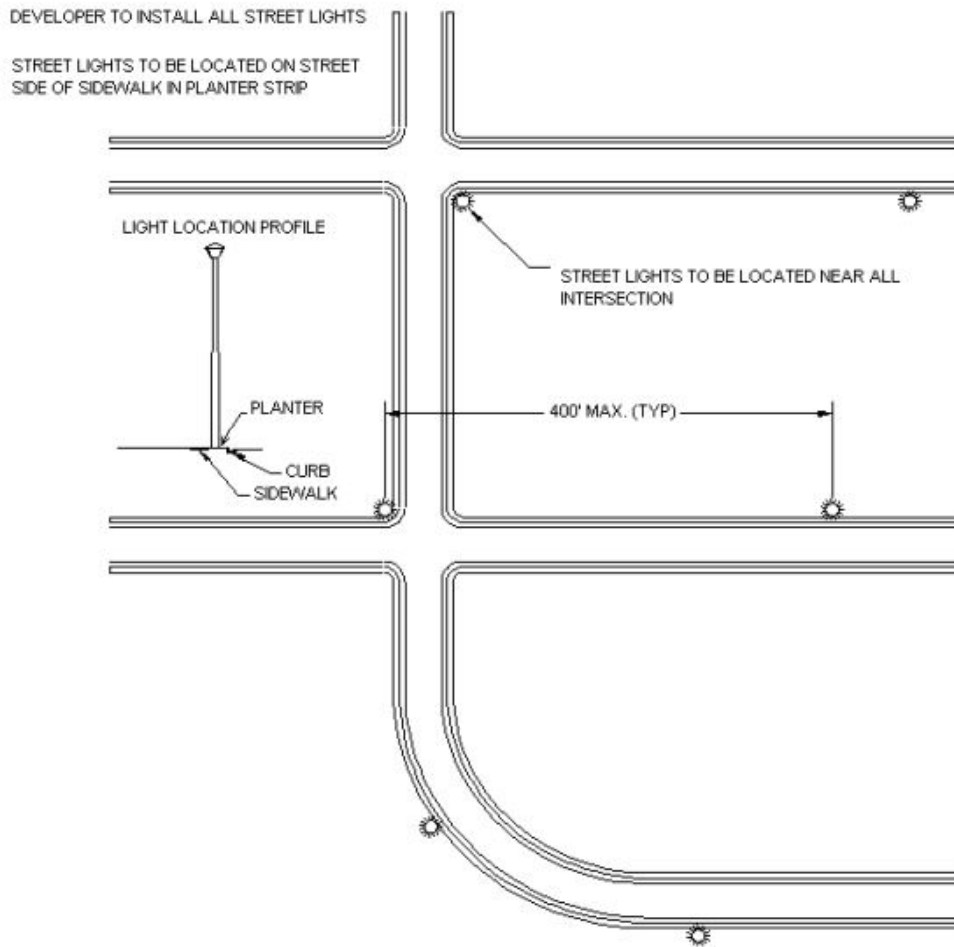
The following layout requirements shall apply to SCPD standard and decorative street lighting installations.

Layouts for decorative streetlight installations shall be prepared by contractors or Customers in accordance with the general requirements in this section. Contractors and Customers shall provide drawings of proposed layouts for decorative street lighting to SCPD for review and approval. Catalog information on the poles, luminaries, and lamps proposed for use shall be provided by contractors or Customers with the lighting layouts.

In general, streetlights shall be placed at three and four-way intersections, and at ninety (90) degree turns.



Figure 19 TYPICAL STREETLIGHT LAYOUT



- Standard streetlights shall be installed between intersections at intervals of approximately three hundred (300) to four hundred (400) feet. Decorative streetlights may be installed at shorter intervals with SCPD approval.
- Decorative streetlights may be installed one hundred (100) to three hundred (300) feet, with non-staggered spacing on medians (islands) on streets with islands at least ten (10) feet in width. Decorative streetlights may be installed at shorter intervals only when approved by the SCPD and identified on approved power plan drawings.



- Luminaries for decorative streetlights shall be Type III, include a seven (7) pin photocell receptacle, and shall be suitable for use with LED. Use of luminaries with higher-wattage lamps or other light sources requires prior approval from SCPD.
- House side shields shall be provided by the Customer when applicable. Customers shall be responsible for providing house shields for decorative lighting up to one (1) year from the issuance of a Certificate of Occupancy.
- Streetlight poles shall provide a minimum mounting height for luminaries of sixteen (16) feet for decorative lighting.

#### Points of Delivery for Decorative Lighting

The points of delivery for decorative streetlights shall be at locations approved by the SCPD. Locations shall be proximate to SCPD-owned pad-mounted transformers or secondary junction boxes. The layout of decorative lights shall be designed to minimize the number of delivery points required.

All delivery points for decorative streetlights shall include a disconnect switch with overcurrent protective devices, such as fuses or breakers. The overcurrent protection rating 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 locking provisions, installed in a NEMA 3R enclosure, and mounted on a building wall or a substantial wood or steel post. The disconnect switch and appurtenant facilities shall be installed in accordance with the applicable NEC requirements.

Facilities installed at decorative streetlight points of delivery shall be inspected by the SCPD electrical inspector prior to connection to the SCPD electrical system. Wiring between SCPD pad-mounted transformers or secondary junction boxes for decorative lighting shall be installed, owned, and maintained by SCPD and installed in conduits (source-side conduit systems) provided (furnished and installed) by contractors or Customers. SCPD shall own and maintain the conduits once the streetlight installation is completed.

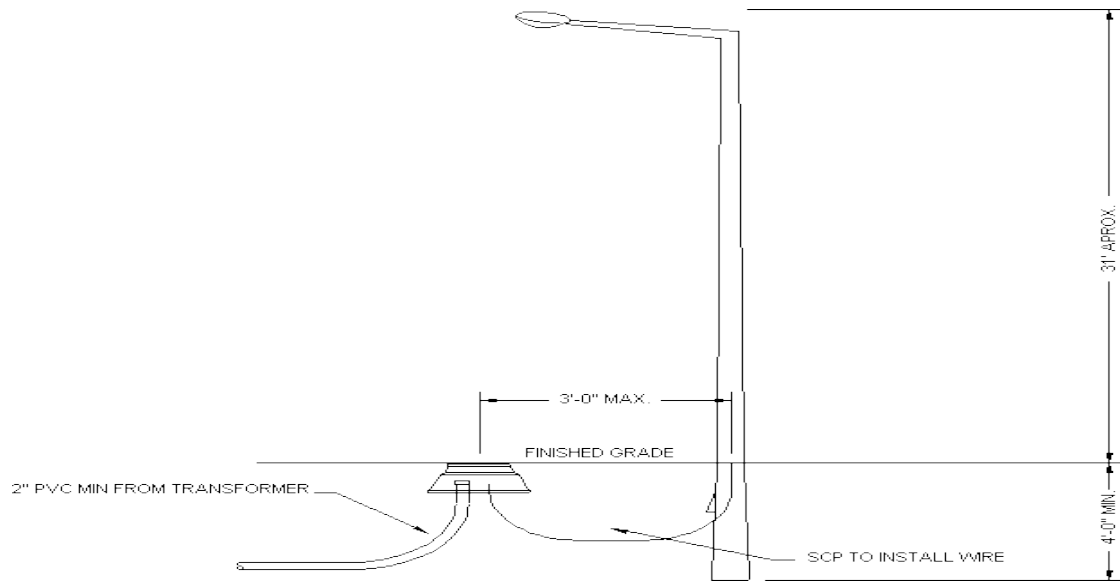
#### Streetlight Installation

The Customer shall provide a two (2) inch conduit from the transformer to the secondary junction box. SCPD shall provide a lockable secondary junction box. SCPD shall provide



wire from the secondary junction box to the light pole. Required secondary junction boxes shall be provided for installation to the Customer.

Figure 20 STREETLIGHT WIRING



## Temporary Power

Temporary power may be provided upon request to Springville Community Development, Building Division. Once a permit is acquired and applicable fees are paid, the SCPD will inspect the installation prior to energization. The first two (2) temporary inspections will be at no cost. After two (2) failed inspections, a reinspection fee shall be assessed. No underground temporary pedestals shall exceed the two hundred (200) amp rating unless preapproved by the SCPD, and an additional fee may be required in this instance.

Temporary power pedestals may not remain in place more than three hundred and sixty-five (365) days without pre-authorization from the SCPD. The SCPD reserves the right to



remove the temporary meter or charge additional fees if the temporary pedestal remains beyond this time limit.

- No aerial temporary pedestals shall exceed a one hundred and fifty (150) amp rating. Aerial temporary pedestals shall be supported to keep the structure from swaying. Aerial temporary pedestals shall have enough wire to make the connection at the pole. Aerial temporary pedestals shall have at least a two (2) inch mast with a weather head.
- Temporary power pedestals shall be placed two (2) to three (3) feet off the back corner of the junction box at a forty-five (45) degree angle to the sides to avoid hitting conduit running to and from the junction box.
- The temporary pedestal shall be buried deep enough to avoid falling over if bumped with a heavy force of two hundred (200) pounds.
- Temporary services shall not be placed on utility poles. For an aerial temporary pedestal, please contact SCPD for placement.
- Direct burial cables shall be used in conduit exiting the pedestal and running underground.
- The cable trench shall allow for at least twenty-four (24) inches of cover over the conduit. Once inside the junction box, there shall be three (3) feet of cable available, coiled, for the connection.
- Transformers require four (4) feet of available cable.
- Wires shall be stubbed into the junction boxes for connections to be made.
- If secondary power is not available on the lot, the SCPD may access a transformer to provide electricity. The SCPD shall be contacted for the placement of junction boxes and for any openings in transformers.
- A copper-clad steel ground rod measuring five eighths (5/8) inches by eight (8) feet shall be used (Blue Stakes request shall be made prior to installation). In rocky soil, it may be angled up to forty-five (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. Only a ground rod clamp shall be accepted for the ground wire to rod connection.



- Ground wire shall not be spliced. All outlets shall be Ground Fault Circuit Interrupter (GFCI) protected and shall have weatherproof covers.
- All covers shall remain in place while the temporary pedestal is energized.
- The meter base cover shall be weatherproof and shall be fastened in place with all screws provided by the manufacturer.
- No altering of the temporary pedestal base shall be permitted. Temporary pedestals shall not be set on houses, businesses, or on SCPD utility poles.
- Neutrals shall be bonded to the ground wire.
- Underground temporary pedestals set further than five (5) feet away from the source shall follow the trench requirements.
- All outlets exposed to weather shall be required to have weatherproof covers.
- Any temporary pedestal with physical damage or if deemed unsafe shall not be connected and/or may be disconnected by SCPD.

## Service Approvals

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Springville City Code [Chapter 10-3 ELECTRICAL CODE](#) requires that electrical installations to the meter be approved by the SCPD prior to energization. The service will be activated by the SCPD after all outstanding service requirements have been met and confirmed by inspection.

Developments may be energized when the following are completed and accepted by the SCPD.

1. Electric conduit.
2. Electrical boxes and proper access to the boxes.
3. Secondary wiring, except that required for street lighting.

### Equipment Seals

Seals on meters and associated service equipment installed by the SCPD prevent injury and/or tampering. A fee will be charged for any cut or damaged seals. Unauthorized tampering or theft of power will be investigated and prosecuted.



Seals shall not be removed or modified unless authorized by SCPD, except in emergency situations. If an emergency requires seal removal without prior SCPD notification, SCPD shall be notified as soon as possible, the installation shall be inspected, and the seal replaced. In the event of an emergency, the seal shall only be removed by an authorized electrical contractor. The party removing the seal accepts liability for damage to SCPD equipment, injury to persons or property, and loss of revenue to the SCPD from the time the seal is removed until seventy-two (72) hours after the SCPD has been notified that the equipment is ready to be resealed.

## Electric Vehicle Charging Stations

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Charging facilities shall comply with all national codes and regulations, regardless of the type of installation. The Customer is responsible for obtaining all required permits from Springville City and the SCPD.

Electric Vehicle (EV) requirements continue to evolve. The SCPD shall be consulted on all projects involving EV charging stations, and the most recently adopted safety standards and requirements shall govern EV infrastructure and installation.



## Appendix 1: Request for Service Checklist

A site plan for developments should indicate equipment specifications and sizing.

- All plans shall show preferred service and meter locations with a single line diagram of the comprehensive electrical system.
- Drawings included in the RFS shall also show all applicable load information for the development, including lighting, power receptacles, water heating, cooking, electric heating, air conditioning, and any motor loads.
- Sufficient operational information to facilitate demand estimation.

Submissions for new subdivisions should include information described in the table below:

| <b>Springville City Power Department Subdivision RFS Submission Checklist</b>                                    |
|------------------------------------------------------------------------------------------------------------------|
| Street lighting plan designed in accordance with Springville City Power Department Standards and Specifications. |
| Primary power plan designed in accordance with Springville City Power Department Standards and Specifications.   |
| Secondary power plan designed in accordance with Springville City Power Department Standards and Specifications. |
| Public Utility Easements (PUEs), existing and proposed.                                                          |



## Appendix 2- New or Modified Electrical Service Point Fee for Connection to the Municipal Power System

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1. When any connection to, upgrade of, or extension of the Springville City power system is made for a developer or property owner (developer and property owner are collectively referred to as “Developer” herein), the installation of the connection or extension will be made by Springville City Power Department (SCPD) employees, once conduits are installed by Developer as described in the Springville City Power Department Standards and Specifications Manual. Developer shall pay all costs incurred by SCPD in installing and constructing the power infrastructure improvements. Costs shall include, but shall not be limited to:
  - a. meter or meters;
  - b. all conductors, connectors, transformers, switches, and other materials required to make the connection or extension;
  - c. all labor of SCPD employees in making the connection or extension;
  - d. use of city equipment in making the connection or extension; and
  - e. Any required inspections.All estimated costs for installing, constructing, and inspecting power infrastructure improvements to be paid by Developer shall be referred to herein as “Estimated Power Costs.” Any impact fees assessment will be billed independently of the aforementioned costs.
2. Developers are responsible, at Developer’s cost, for designing all connections and extensions of the power system to and within the Developer’s project. All design work shall meet all requirements of the Power Department’s Standards and Specifications and shall be submitted as part of the Development Review Process or other applicable approval process for the desired development activity. All installed electrical infrastructure connecting the Springville City power system and property meter base becomes property of Springville City upon acceptance. The meter base and the masthead (if fed overhead) and electrical systems beyond remain the Developer’s responsibility.
3. Estimated Power Costs for each project, connection, or extension will be provided to the Developer by the SCPD based on the power plans approved by Springville City Community Development and will be valid for 120 calendar days.
4. A 15% contingency will be added to the Power Cost estimate for installing and



constructing the power improvements for Developer's project.

5. Developer will pay the full Estimated Power Costs prior to the SCPD beginning construction and installation of the power infrastructure improvements. The contingency fee will be based on items 1b, 1c, and 1d above, but will not be added to meter costs.
6. At the completion of installing the power infrastructure improvements in accordance with the approved power plans and final project approval and acceptance, actual costs will be calculated and provided to the Developer within 180 days. If the Estimated Power Costs exceed the actual costs, SCPD will return the difference to Developer. If the actual costs to install the power infrastructure improvements exceed the Estimated Power Costs, the Developer shall be required to pay the difference between the actual costs and Estimated Power Costs prior to the power improvements being commissioned.
7. The procedures and fees provided by this resolution shall also apply in cases where a user or facility is served by the municipal power system but desires an increase in the capacity of the connection.

1.



## Appendix 3: General Design and Planning Considerations

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### 1. Design

- 1.1. Electrical systems shall be designed in coordination with the SCPD.
- 1.2. Customers shall install and extend primary stubs to adjacent developments.
- 1.3. Customers shall show building perimeters on lots, which lots the buildings cross, and identify building structure types for each perimeter.
- 1.4. All future electrical requirements with their approximate locations shall be included on the plan (e.g., sprinkler clocks, irrigation pumps, signs, communication boosters, security infrastructure, flagpole lighting, water pumps) and shall illustrate electrical connectivity.
- 1.5. Any design changes made after the final stamped design shall be resubmitted and approved by the SCPD. The new final stamped design shall be distributed to and approved by impacted stakeholders.

### 2. Infrastructure placement

- 2.1. Primary power structures shall be placed with doors facing away from buildings, toward streets, and away from other structures. Clearances apply (excluding switches) as described in this Manual.
- 2.2. Switch doors should be placed facing away from any obstructions. Clearances apply as described in this Manual.

### 3. Guidelines for sizing and labeling infrastructure

- 3.1. Plans shall provide conduit lengths (in feet).
- 3.2. Plans shall differentiate conduit sizes, and all conduit sizes should be labeled.
- 3.3. Six hundred (600) amp primary runs shall not be over six hundred (600) feet and shall not exceed two hundred seventy (270) degrees of bend.
- 3.4. Two hundred (200) amp primary runs shall not be over six hundred (600) feet and shall not exceed three hundred sixty (360) degrees of bend.
- 3.5. An eight (8) kVA per meter standard shall be used to size single-phase transformers and shall round up to the next standard size, up to a maximum of 100 kVA.
- 3.6. Two (2) primary conduits per transformer are the maximum allowed.

### 4. Additional details

- 4.1. Plans shall distinguish proposed infrastructure from existing infrastructure.
- 4.2. Plans shall distinguish between three-phase and single-phase circuits.
- 4.3. Plans shall calculate the total lengths of conductor with and without tails. Fifty (50) foot tails should be used for risers, fifteen (15) foot tails for primaries, and seven (7) foot tails for secondaries and streetlights.



## **5. Secondary detail and planning considerations**

- 5.1. Three-phase transformers are limited to the number of secondary conduits that will fit within the window.
- 5.2. Three-phase transformers will feed directly to services (three-phase secondary junction boxes are not allowed).
- 5.3. Five (5) secondary conduits per single-phase transformer is the maximum allowable.
- 5.4. Secondary strings on a single-phase transformer shall not be over three hundred fifty (350) feet. No more than two (2) secondary junction boxes per string (excluding street light junction boxes) are allowed.
- 5.5. Identify secondary conductor sizes to accommodate service size not to exceed 350 MCM aluminum triplex. Secondary conductor size from a transformer to one secondary junction box shall be four/zero (4/0) and secondary conductor size for a string of two (2) secondary junction boxes shall be three hundred fifty (350) MCM aluminum triplex.
- 5.6. Place all secondary and primary power structures in areas which avoid vehicle access.
- 5.7. Show secondary laterals to every lot and building. The lot or building shall be fed from that location.
- 5.8. All secondary conductors shall be sized for the anticipated load and not exceed three hundred fifty (350) MCM aluminum triplex (monitor secondary strings). This excludes three phase transformers.
- 5.9. No more than twelve (12) meters run per one hundred (100) KVA transformers is allowed.
- 5.10. No more than eight (8) meters per section of three hundred fifty (350) MCM aluminum triplex is allowed.

## **6. Streetlight detail**

- 6.1. The plan shall illustrate one hundred twenty/two hundred forty volts (120/240V) or one hundred twenty/ two hundred eight volts (120/208V) single-phase power to all streetlights. Streetlights will not be allowed at two hundred seventy-seven volts (277/480V).
- 6.2. Streetlights shall be indicated on city roads at three hundred (300) to four hundred (400) foot intervals.



## Appendix 4: Additional Diagrams

The following reference diagrams are provided for additional clarity. Please note that diagrams show the dimensions of the equipment pad and not the size of the equipment. Clearances are from the equipment pad. Please direct any questions regarding these diagrams to the SCPD.

Figure 21 THREE-PHASE PRIMARY JUNCTION BOX DIMENSIONS & CLEARANCE

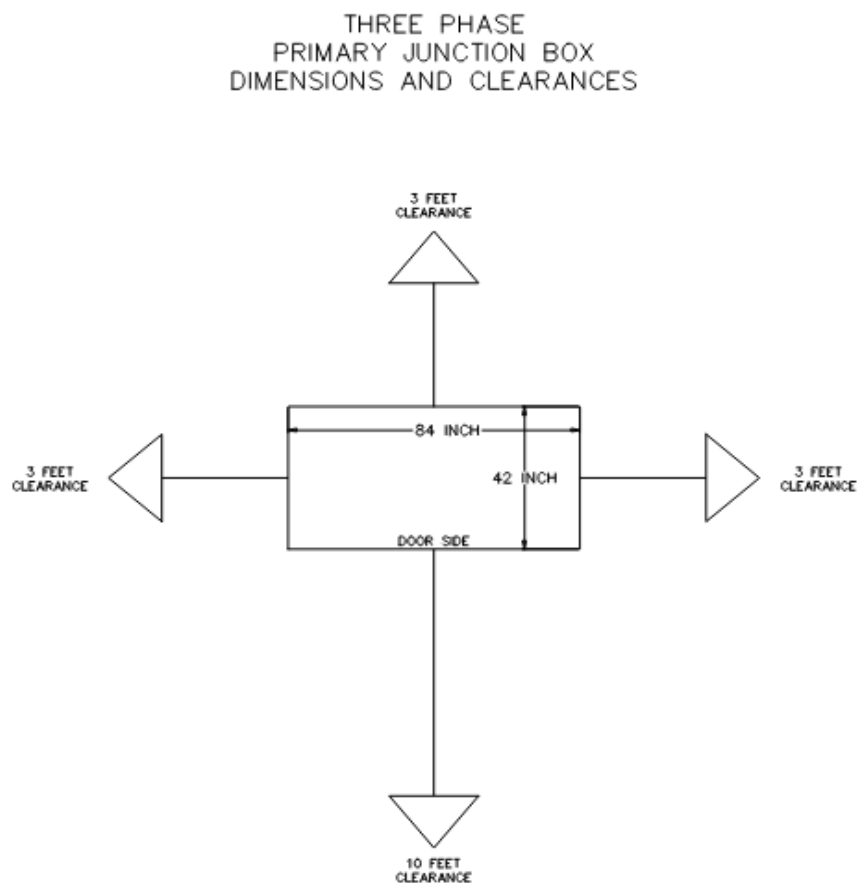


Figure 22 THREE-PHASE TRANSFORMER 75-500 KVA DIMENSIONS & CLEARANCES

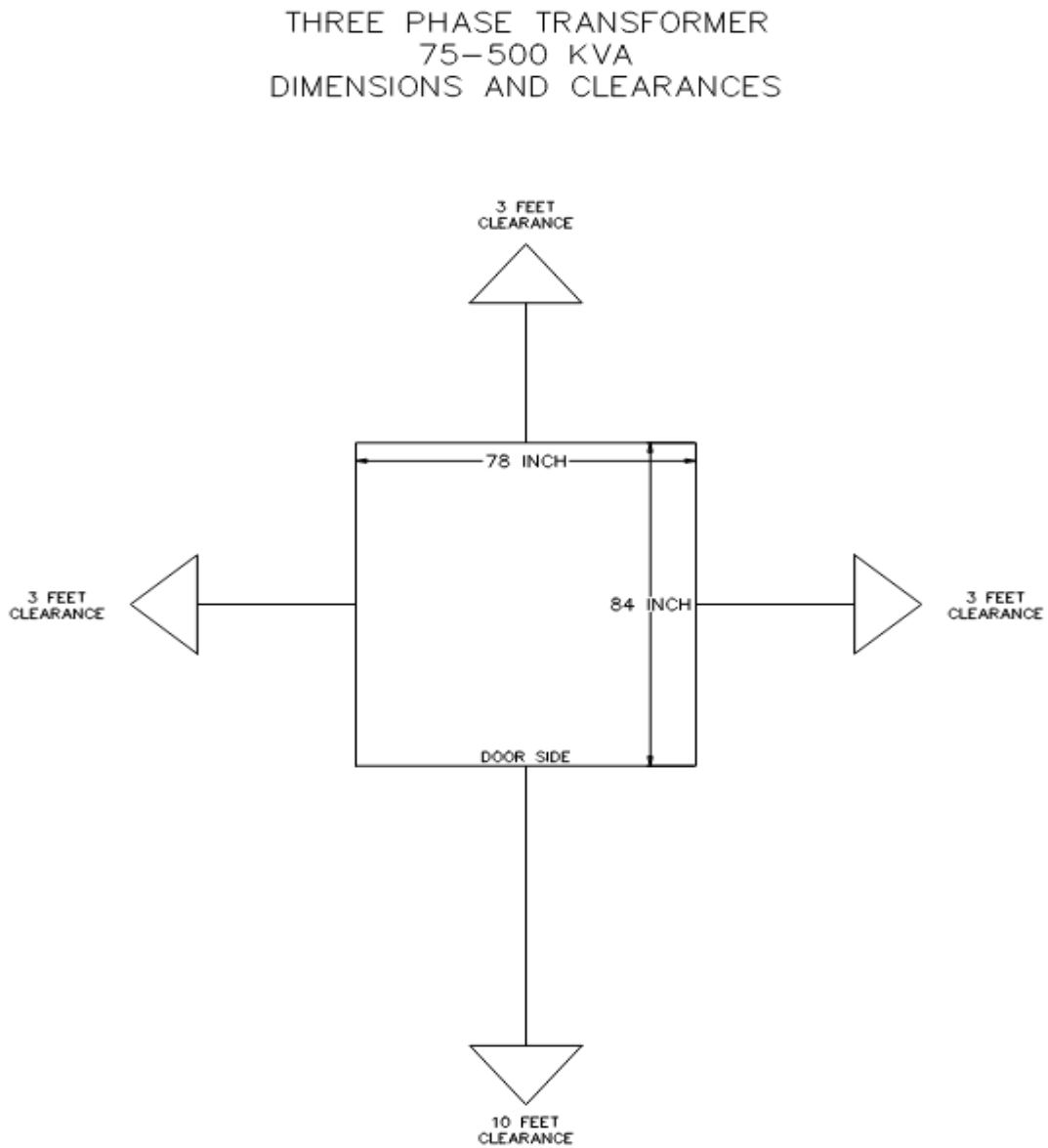


Figure 23 THREE-PHASE TRANSFORMER 750-2500 KVA DIMENSIONS & CLEARANCES

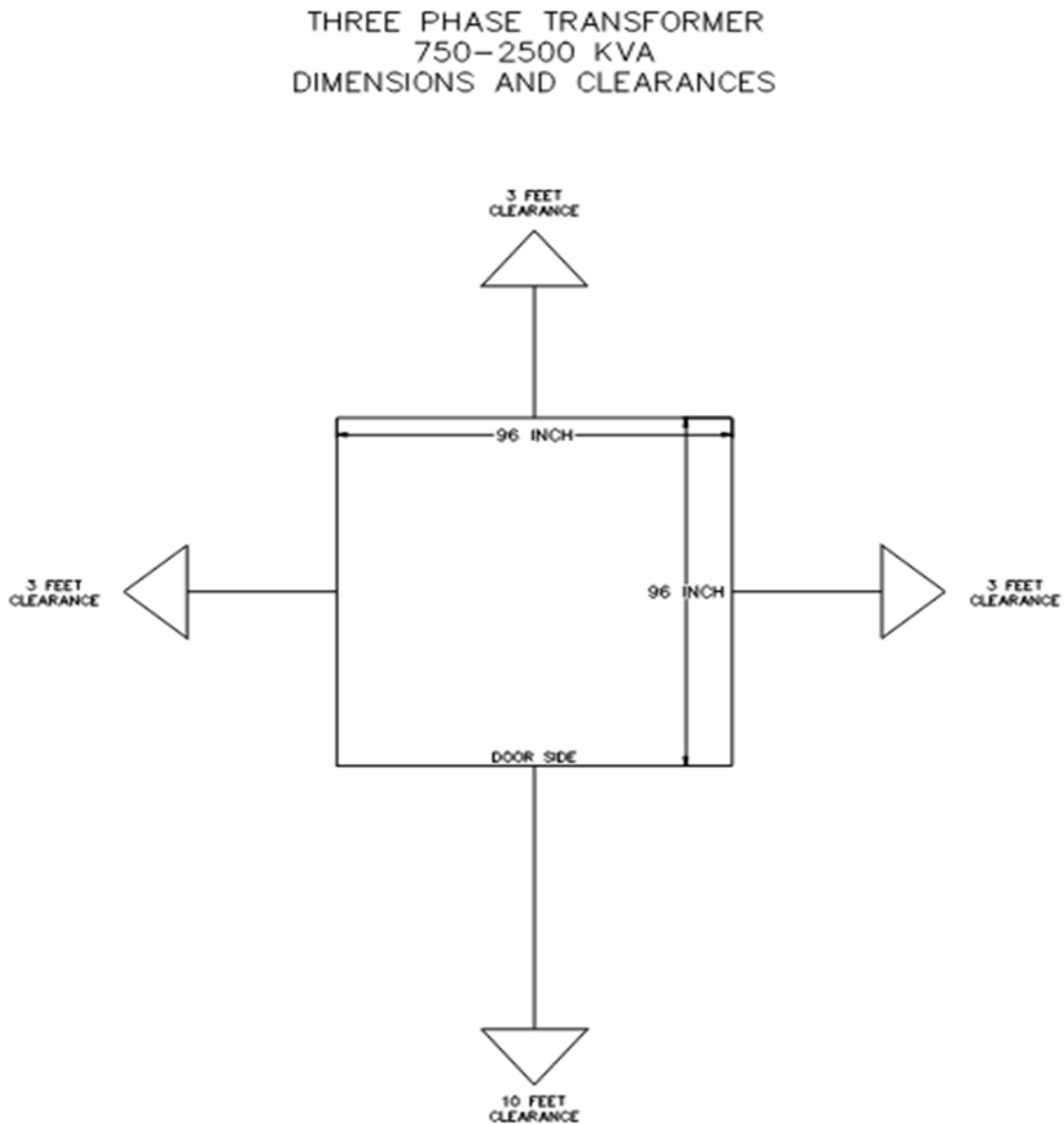


Figure 24 SINGLE-PHASE TRANSFORMER DIMENSIONS & CLEARANCES

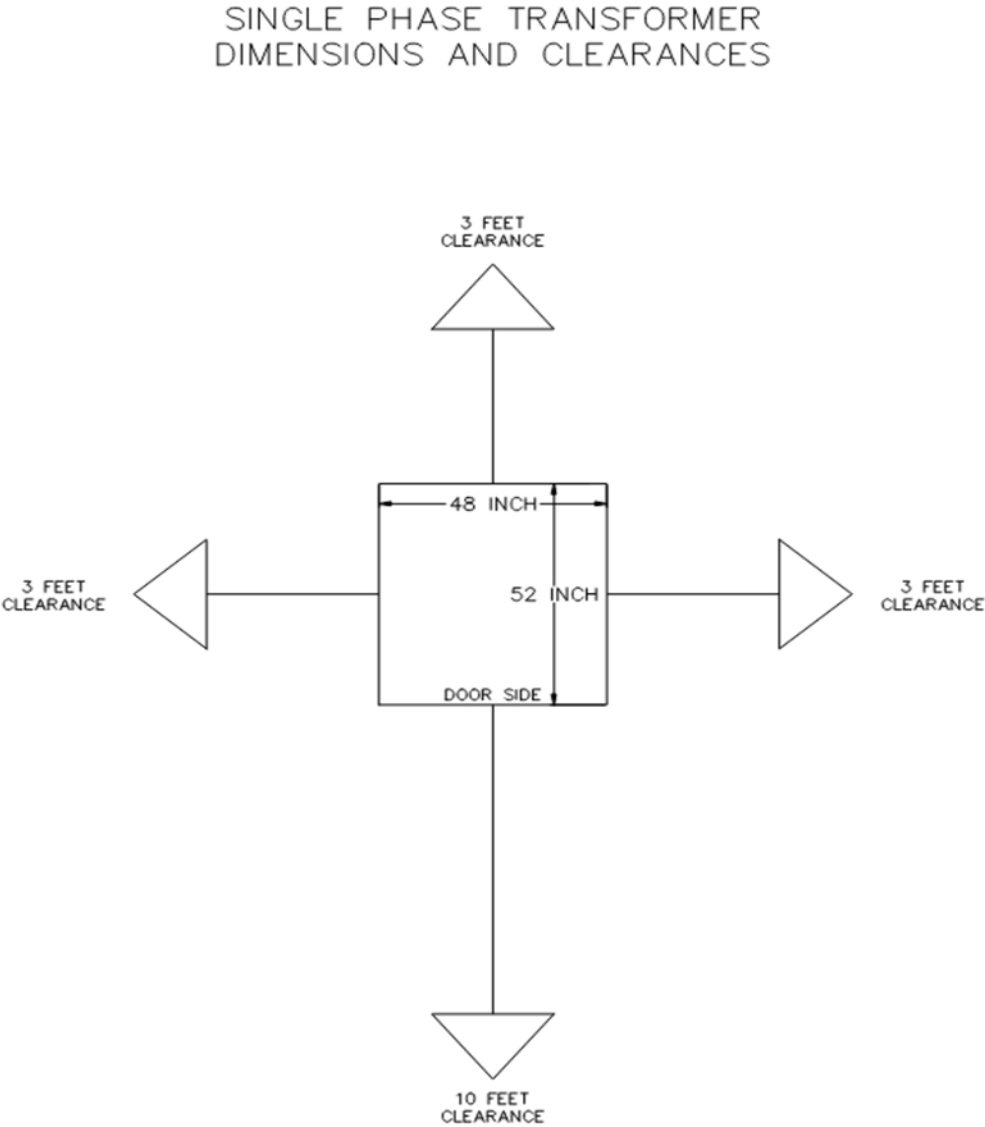


Figure 25 SINGLE-PHASE PRIMARY JUNCTION BOX DIMENSIONS & CLEARANCES

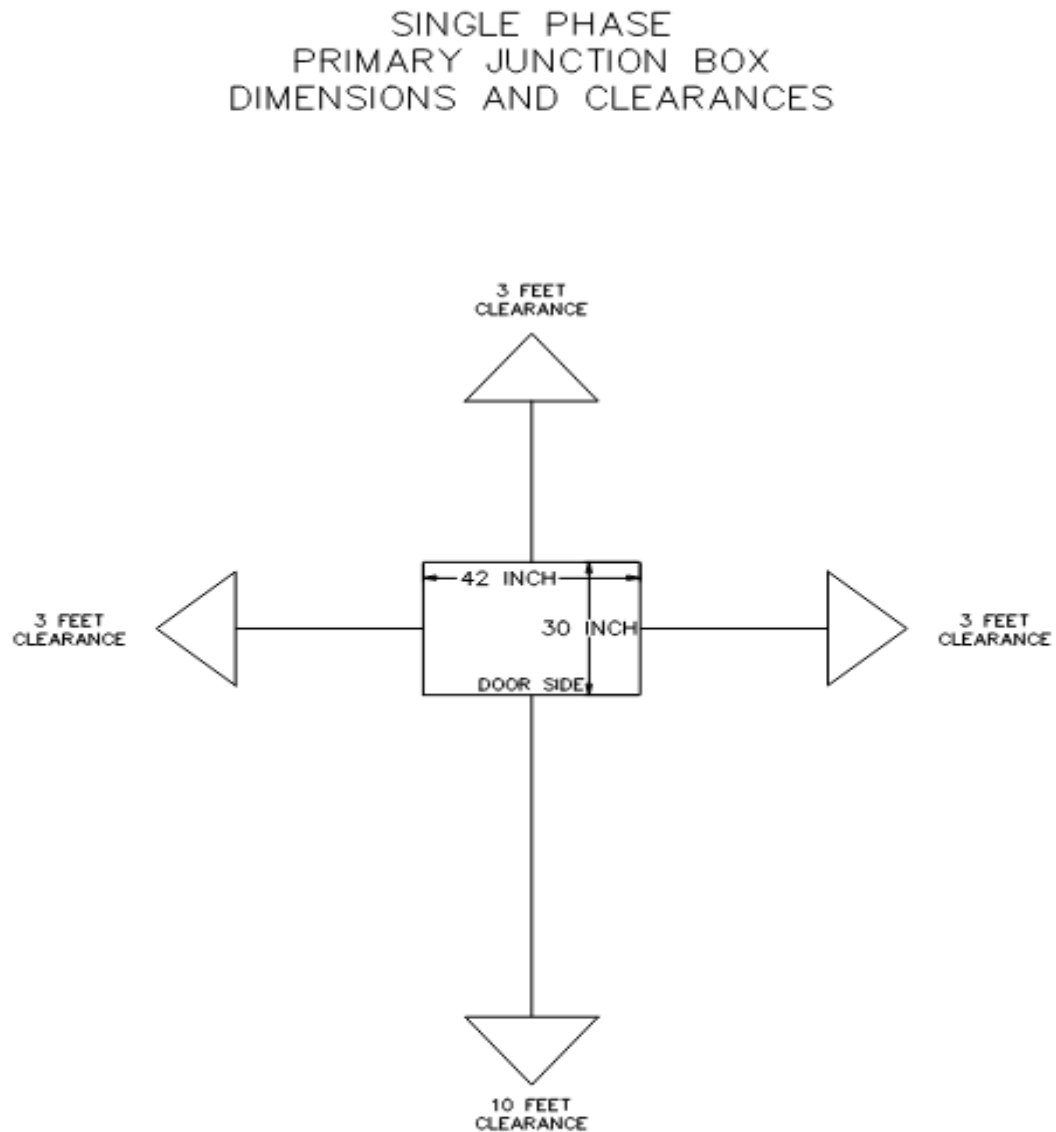


Figure 26 SWITCH DIMENSIONS & CLEARANCES

