2026 REVISION TABLE

(To the 2025 Electric Line Extension and Service Standards)

From, Type, Reason	CHAPTER	TITLE	REVISION DESCRIPTION
Timothy Scheiderer – City Attorney, Clarification - Added reference to NESC code.	4.02a	General Restrictions of Easements/Rights-Of-Way:	Revised following text: "Changes in grades and elevations may not reduce safe ground clearances of overhead wires or reduce the depth of burial of underground cables as established by **NESC** Code~~s~~ and/or Colorado Springs Utilities."
Chris Graves and Jamin Pieper, Common Lot with 1-phase transformers having the option for Field Engineering to designate as an "Unground Residential Development"	10.01a1	Commercial Underground Systems	Revised following text: "The following service and requirements will apply to development of commercial businesses, industrial businesses, schools, apartment complexes (five-family and up), townhouses, and condominiums (consisting of a cluster of buildings constructed on one common lot or prescribe plot of ground **with 3-phase transformers, lots with 1-phase transformers may be considered as an "Underground Residential Development" and follow the Chapter 8 policy per Field Engineering's approval**).
Cory Hazen, Downtown Network customer owned secondary cable limiters.	10.06c3g	Colorado Springs Network Service Area/ Electrical System Design	Revised following text: "For the purpose of protecting customer owned equipment, it is ~~recommended~~ **required** that cable limiters be installed on all customer owned secondary cable and bus equipment."
Carianne Pieper, Added timeframe for CSU Electric Service to Schedule Outage.	Chapter 10 Forms	Chapter 10 Forms	Added the following text "**(Requires at least two business days advance notice)**" to the "Call CSU Electric Service to Schedule Shutdown" box on the "Commercial Scheduling Outages Flowchart (Disconnect and Reconnect)".
Timothy Scheiderer – City Attorney, Updated definition of "Intersection" as referenced in the City Code.	12.01.05.A	Roadway and Security Lighting / Category 1 Exemption	Revised following text: "Intersections are the area in which two or more legally designated streets or rights of way converge. ~~The Code of the City of Colorado Springs~~ **City Code** §10.1.202 defines ~~intersections~~ **"Intersection"** as: "[t]he area embraced within the prolongation of the lateral curb lines or, if none, then the lateral boundary lines of **the roadways of two highways which join one another at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict. Where a highway includes two roadways thirty feet or more apart, every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. In the event such intersecting highway also includes two roadways thirty feet or more apart, every crossing of two roadways of such highways shall be regarded as a separate intersection. The junction of an alley with a street or highway does not constitute an intersection**. ~~of two or more streets or highways that join one another at an angle, whether or not one street or highway crosses another." Intersection may be further defined by an amended version of the City Code.~~

2026 REVISION TABLE

(To the 2025 Electric Line Extension and Service Standards)

Jeremy Herrold, Removal of meter socket blanks once installer has completed the installation.	13.05k	Generation with Inverter (PV) Applicable Standards	Added new text: **k) Meter Socket Inserts:** **1) Use of meter socket blanks is allowed only during testing and acceptance of a system and may not be left in the socket once the installer has completed the installation.**
Elizabeth Ritchey, Removed statement that this option has not been approved.	Chapter 13 Diagram #9	Chapter 13 Diagrams	Removed statement from Line Side Tap – Microgrid Forming Switch on Customer Owned Meter Socket + PV + Battery drawing #9. "~~As of the Publication date this design option has not been approved. Contact Colorado Springs Demand Side Management for approval of this option~~"
Anne Aldrich, Updated maximum size of transformer that can be installed on a polymer pad.	Appendix F, 7-4	Padmount 1-Phase Transformer Installations	-Pg. 2/5 Note 2 & Pg. 3/5: "See drawing on page 3 for duct placement "7.2KV: DUCT PLACEMENT IN POLYMER PAD (10-~~75~~**50** KVA)". -Pg. 4/5 Note E: "Field Engineer to specify precast pads on all commercial installations, regardless of the transformer size and on residential installations greater than ~~75~~**50** kVA."
Warren Stewart, Prohibit use of 5-way junctions in a 4x4 vault.	Appendix F, 10-6	15kV 200-Amp 1-Phase Vault 4x4 & Padmount	Pg.1/2 Added Note 6 "**The use of 5-way junctions are prohibited in 4x4 vaults.**"
Warren Stewart, Added dimensions for installation of 4-Way & 5-Way Junctions. Note that the use of 5-way junctions in a 4x7 vault is not preferred.	Appendix F, 10-7	15kV 200-Amp 3-Phase Vault 4x7	Added dimensions for 4-Way & 5-Way Junctions and added Note 5 "**The installation of 5-way junctions is not preferred but may be used when installing another 4x7 vault is not possible.**"
-Lisa Ross, Adam Garcia & Standards, Stormwater Clearances. -Adam Garcia, Note 4, additional horizontal and vertical separation requirements in the WLESS & WWLESS	Appendix F, 18-304	Clearances Of UG Electric Conduit/Cable from Other Facilities	-Lisa Ross, Added note "**g Clearances for stormwater facilities to other stormwater facilities are determined by the City of Colorado Springs. Refer to the City of Colorado Springs standards and regulations.**" -Adam Garcia, Added text to Note 4. "See Water & Wastewater Line Extension and Service Standards, latest edition, **for additional horizontal and vertical separation requirements, (WLESS Sections 2.7.F & 2.7.G) (WWLESS Section 2.6.D).**" -Added clearance for Telecom/Fiber to Telecom/Fiber and to the Clearance Matrix Tables. -Revised the Elec. Primary to Gas Main as 1/~~5~~**3** in the crossing/vertical Clearance Matrix table. -Added the following text to note 10. "**See Colorado Springs Utilities "Street Cross Sections" within the Water & Wastewater Line Extension and Service Standards at the following web address link: https://www.csu.org/building-development/construction-standards**"
Updated Phone List	Phone Numbers & Contact Information	Phone Numbers & Contact Information	Updated Phone List and FE Maps.

pools, patios, patio covers, antennas, etc) under, over or within 5 feet measured horizontally on both sides of low voltage overhead or underground service drops (under 600 volts) without prior written approval of Colorado Springs Utilities except that in the case of a swimming pool, the horizontal clearance requirement may be larger (see Appendix F, 18-211). Any changes in the location of the facilities shall be at the sole expense of the customer.

4.02 General Restrictions of Easements/Rights-Of-Way:

a) To comply with the requirements of the National Electrical Safety Code, it is necessary that easements and rights-of-way grades not be changed by excavation or filling by more than 6 inches without prior written approval from Colorado Springs Utilities for all utility lines involved. Changes in grades and elevations may not reduce safe ground clearances of overhead wires or reduce the depth of burial of underground cables as established by NESC Code~~s~~ and/or Colorado Springs Utilities. No grading is allowed within 15' of the centerline of an underground transmission line and excavations will not reduce support strength of overhead line structures. Full cost of any alteration or relocation of utility lines will be borne by the customer requesting the change.

Commented [TS1]: Which Code? NESC? City Code?

b) It is permissible to install fences and landscaping in easements, except where such fences will stop access to utility lines or conflict with utility equipment. Other permanent structures and buildings are not acceptable. This includes but is not limited to permanent structures such as water quality, water detention, swales or drop structures, and retaining walls. In the event a fence or landscaping must be removed, it is Colorado Springs Utilities policy to replace existing facilities to meet or exceed the original installation.

c) Colorado Springs Utilities must have access at all times for operation, maintenance, construction, and inspection purposes. Landscaping of easements is permissible; however, it is necessary for utility crews to have adequate access to vaults and padmount equipment, and structures.

1) For distribution systems, a minimum 36 inch wide path and clear opening is required in fence gates to replace equipment in residential rear-lot installations. Access clearances for Colorado Springs Utilities vaults and padmount equipment are shown in Appendix F, Construction Standard 18-302. No trees, shrubs, fences, large landscape rocks (Over 1.5 inches in size), or other obstruction will be permitted in the access area. Trees should be planted far enough away from padmounted equipment so that when they reach maturity, overhanging branches will not obstruct a crane setting or removing equipment. It is best to select trees with supple branches that can be tied back without danger of breaking their limbs. Trees may not be planted within 6 feet of electric lines. The 6 feet is measured from the base of the tree to the electric line. A temporary exception is in place for recently constructed lots (constructed mid-2019 to Spring 2020). Some of the lots constructed during that period had electric lines installed; however, trees were not planted due to insufficient space in the right-of-way to meet the separation criteria (revised layouts were being worked on). The exception for those lots allows for specific species of City approved, medium or small, single-stem trees (listed below) to be planted within 6 feet of the electric lines; however, planting must occur prior to the end of 2021. The tree list below is approved by Colorado Springs City Forestry and is consistent with the Colorado Springs Approved Street Tree List.

CHAPTER 10

COMMERCIAL/INDUSTRIAL DEVELOPMENT

10.01 Commercial Underground Systems:

a) General:

1) The following service and requirements will apply to development of commercial businesses, industrial businesses, schools, apartment complexes (five-family and up), townhouses, and condominiums (consisting of a cluster of buildings constructed on one common lot or prescribe plot of ground with 3-phase transformers, lots with 1-phase transformers may be considered as an "Underground Residential Development" and follow the Chapter 8 policy per Field Engineering's approval). This includes all other service requests not covered under Chapter 7 "Permanent Residential Services". Contact the South Area Field Engineering Section (see Phone Section) and see section 10.06 for requirements in the downtown network system. Commercial underground electric distribution is an electrical system complete with conduit, primary voltage conductor, vaults, and padmounted transformers to reduce the primary system voltage to a standard usable voltage (listed in paragraph 3.02) and/or secondary service conductor installed to a designated termination as outlined below. Refer to paragraph 5.02d, for Multiple Outdoor Meters. The type of service and voltage specified by Colorado Springs Utilities is dependent on the location and load requirement of the customer.

2) Regional Building Department permits are required for all installations whether metered or non-metered. See paragraph 10.01 e) 3) for details regarding non-metered services.

3) Grading, excavation, ground rod, stake or post installation work will not be started until an underground facilities location has been completed. Call 811 for utility locates. See 2.03b for Underground locate requirements.

b) Request for Service:

1) To initiate a request to serve a given development, complex, or building, the customer must submit the following to Colorado Springs Utilities Field Engineering:

(a) A completed Load Data Form (see form at the end of this chapter). Blank forms are also supplied by Colorado Springs Utilities Field Engineering. The design of the Colorado Springs Utilities' electrical service is based on information furnished by the Customer at the time of initial service design; therefore, no additions or changes shall be made to the Customer's installation without providing a new load data form and receiving subsequent approval from Colorado Springs Utilities.

(b) A complete set of plans consisting of a plot plan with vicinity map, street profile plans, electrical and mechanical plans, grading plans, and a plan showing the location of all other utilities.

2) Please note that if a current recorded plat of subdivision and current approved addressing is not provided for the project, the customer will need to submit a Utilities Addressing Plan (UAP) to Colorado Springs Utilities. A Utilities Design CAD File will need to be submitted to Colorado Springs Utilities. Any questions regarding the UAP or Utility Design CAD File should be directed to Colorado Springs Utilities (see Appendix B).

service or changing an existing service within the Network System boundaries. Long lead times for network equipment may affect the Customer's service date. Alterations and additions to this System generally require a great deal of time and coordination between Colorado Springs Utilities and the Customer.

c) Electrical System Design:

1) After the load data form has been received, Colorado Springs Utilities will reply with a letter stating the fault current on the Network System. The fault currents are higher in the Network System because there are multiple sources paralleled together serving the secondary wires that serve the Customer. Diversified demands and metering requirements will be provided to the Customer.

2) Colorado Springs Utilities limits the capacity to any "spot" Customer on the Network System to 2000 kVA diversified load and limits the capacity to any "grid" building on the Network System to 300 kVA diversified load. If the "grid" building has multiple services, the load of the building is still limited to 300kVA diversified. In the event the requested service is higher than these limits, Colorado Springs Utilities will work with the Customer on a case by case basis to meet their needs. This may require alternatives to Network service.

3) Grid (208Y/120):

(a) A "grid" Network System has its (208Y/120 volt) secondaries paralleled together and serves small loads located within the boundaries of the network.

(b) Maximum allowable load to any new or existing Customer will be up to 300 kVA diversified load. Colorado Springs Utilities is no longer expanding the areas served by the "grid". Each request will need to be evaluated due to the age and design of the Network System. Please contact the South Area Field Engineering Section (see Phone Section) for information.

(c) The point of common coupling is determined by Colorado Springs Utilities. The point of common coupling for the Network System will differ from typical commercial installations. The Customer is responsible for the service from the service entrance up to the point of common coupling. The point of common coupling may be from a vault or possibly back to the transformer.

(d) The Customer shall be responsible for purchase, installation, and maintenance of the service lateral conduits in accordance with Colorado Springs Utilities' specifications from the point of common coupling to the Customer's service entrance. Colorado Springs Utilities' personnel shall directly supervise all work involving Customer penetration into Colorado Springs Utilities' equipment (handhole, manhole, or vault).

(e) Secondary cable permitted in the Network System is 600 volt class, rated for wet locations, a temperature of 90 degree C. Secondary cable shall be approved by Colorado Springs Utilities. The required size of the secondary cable is 250 kcmil Cu.

How can this be enforced?

(f) Service equipment shall be capable of interrupting the available fault current.

(g) For the purpose of protecting customer owned equipment, it is ~~recommended~~ required that cable limiters be installed on all customer owned secondary cable and bus equipment. Failure to do so could result in damage to customer owned

equipment and reduced reliability. See Appendix C Table 3 for approved manufacturers and models of cable limiters.

4) Spot (480Y/277):

(a) A "spot" Network System (480Y/277 volt) consists of two or more transformers in one above ground vault, or other suitable facility, serving an individual Customer with large loads within the boundaries of the network. Typical design is for a multistory office building.

(b) The maximum diversified load of a spot vault is 2000 kVA. This will consist of a maximum of 3-1000 kVA transformers.

(c) Colorado Springs Utilities will supply the medium voltage supply cable, modules, transformers and network protectors. A "Spot Network Customer Vault Agreement" form shall be signed. After the form is signed, Colorado Springs Utilities will order the equipment.

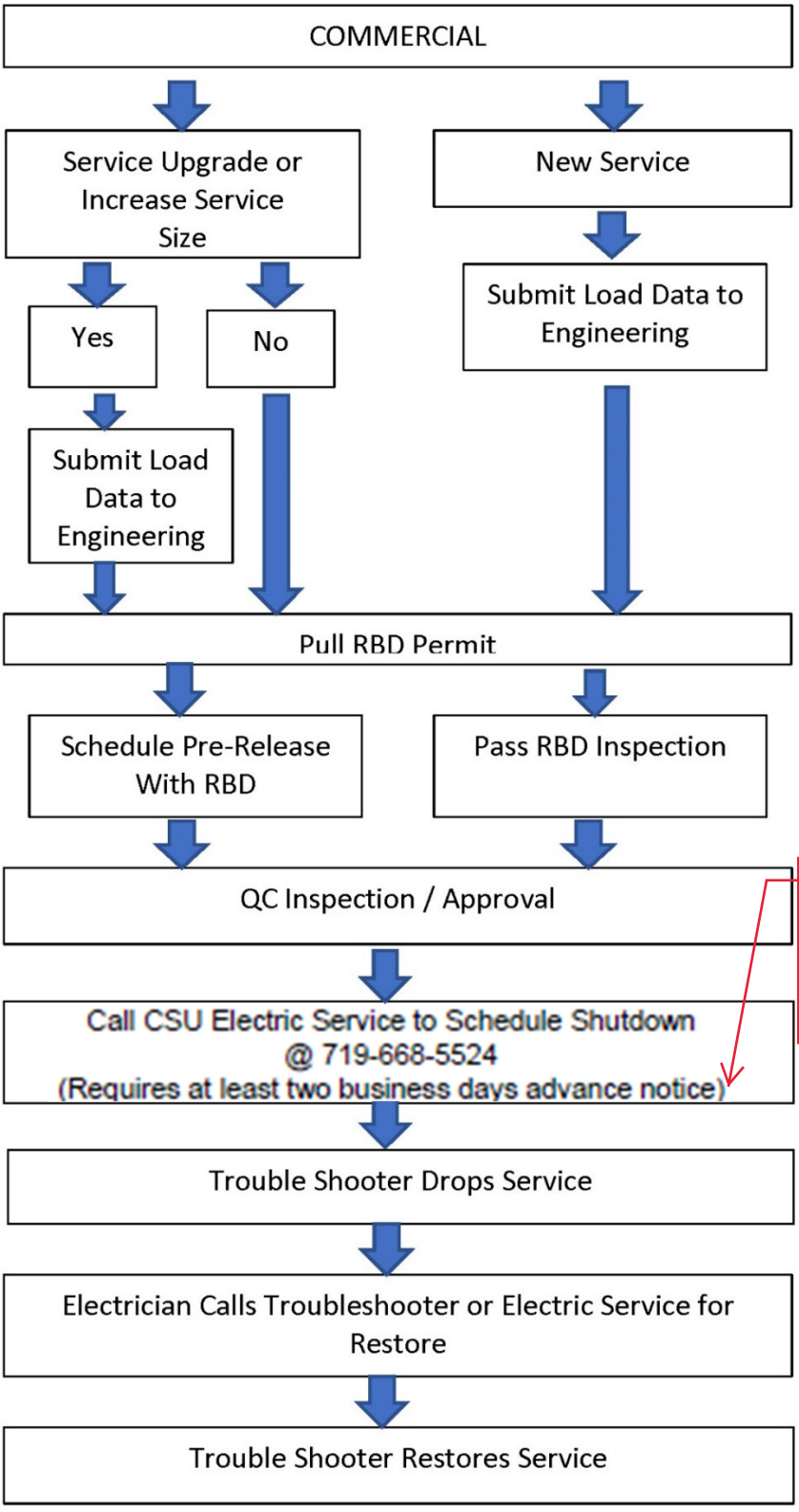
(d) The Customer shall provide the property necessary for an above ground vault or other suitable facility to house network equipment. The Customer is responsible for the purchase and installation of the vault, or other suitable facility, which shall be approved by Colorado Springs Utilities. All above ground level Spot Network Vaults shall conform to Colorado Springs Utilities' Specification 16-1. This shall be understood to be a minimum requirement. Any deviation from this specification shall be approved in writing by Colorado Springs Utilities.

(e) After the Spot Network Vault is completed and accepted by Colorado Springs Utilities, the Spot Network Vault shall be designated as Colorado Springs Utilities' equipment, and Colorado Springs Utilities' personnel shall approve and directly supervise all work involving Customer penetration into the Colorado Springs Utilities' equipment (e.g. vault, building). This includes, but is not limited to, all future customer services and vault modifications.

(f) The Customer is responsible for the purchase and installation of a secondary network bus and switchgear in a location approved by Colorado Springs Utilities. It shall adhere to Colorado Springs Utilities' material specification 194-8 (Low Voltage Busway for 277/480V Spot Networks). Maintenance of the secondary network bus shall be the responsibility of the Property Owner and/or Customer. The Property Owner and/or Customer shall be qualified to work around energized, electrical equipment, will perform maintenance as specified by the manufacturer of the Customer's bus and Colorado Springs Utility material specification 194-8 (Low Voltage Busway for 277/480V Spot Networks) and will document the maintenance for Colorado Springs Utilities' review. For each transformer/network protector unit inside a downtown spot network vault, three-phase AC disconnect switches shall be installed between the network protector and the 480-Volt bus. These AC disconnect switches shall be rated for 1875 A or higher and shall be mounted just inside the vault wall. The 480-Volt bus shall be mounted outside of the spot network vault.

(g) The Property Owner and/or Customer is responsible for the maintenance of the vault including, but not limited to, structural integrity, exterior condition and unobstructed entry to the vault, including doors and ventilation ducts. The Property

COMMERCIAL SCHEDULING OUTAGES FLOWCHART (DISCONNECT AND RECONNECT)



Note: The customer must get PPRBD (Pikes Peak Regional Building Department) to inspect their facility, within three business days after the reconnection of a meter that was removed for electrical work.

where there are no identifiable public safety issues, either existing or in the future, that requires street lighting.

12.01.05.A Category 1 Exemption

The Category 1 Exemption process allows an area to be exempt from roadway intersection[1] street lights, but individual residents may request additional street lights in the future. The process for a Category 1 Exemption is as follows:

a) A homeowners association (HOA) must submit a letter to Colorado Springs Utilities Field Engineering requesting a Category 1 Exemption specifying that street lighting service is not desired within the boundaries of the HOA.

b) Upon receipt of the letter, Colorado Springs Utilities will consult with the City of Colorado Springs Traffic Engineering, Police and Fire departments to identify any public safety issues that require street lights. Colorado Springs Utilities reserves the right to condition any street light exemption request. Such conditions may be for reasons of public safety, which may necessitate leaving existing street lights in place or which may require installing new street lights at anytime in the future at Colorado Springs Utilities expense if a public safety need is identified at that future date. If public safety issues are discovered, then Colorado Springs Utilities shall communicate these to the HOA. Upon completion of the review, Colorado Springs Utilities will send a letter to the HOA confirming that the area does or does not qualify for a Category 1 Exemption and any conditions that Colorado Springs Utilities determines must be placed on the exemption.

c) If residents within an area that has qualified for a Category 1 Exemption want intersection or mid-block street lights installed in the future, then the requestor shall contact Colorado Springs Utilities Field Engineering to initiate a small area petition process. Colorado Springs Utilities Field Engineering will review the location of the proposed light and will prepare the petition, designate the affected property owners and send a letter to the requestor(s) with the list of affected property owners and the petition. The requestor(s) are responsible for obtaining the necessary signatures. A minimum of 67 percent (two out of three) of the property owners within a 100 foot radius of the location of the proposed light must approve the petition. If a property is under joint ownership, then all property owners for a parcel must sign the petition. Each parcel counts as one vote on the petition. All signatures must be obtained within a 60 day period starting from the date of the Colorado Springs Utilities letter to the requestor(s). Upon receipt of an approved petition, Colorado Springs Utilities Field Engineering will proceed with the installation of the street light. The cost of the installation will be paid by Colorado Springs Utilities.

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[1] Intersections are the area in which two or more legally designated streets or rights of way converge. ~~The Code of the City of Colorado Springs~~City Code §10.1.202 defines ~~intersections~~ "Intersection" as: "[t]he area embraced within the prolongation of the lateral curb lines or, if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict. Where a highway includes two roadways thirty feet or more apart, every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. In the event such intersecting highway also includes two roadways thirty feet or more apart, every crossing of two roadways of such highways shall be regarded as a separate intersection. The junction of an alley with a street or highway does not constitute an intersection.~~area embraced within the prolongation of lateral curb lines or, if none, then the lateral boundary lines of two or more streets or highways that join one another at an angle, whether or not one street or highway crosses another." Intersection may be further defined by an amended version of the City Code.~~

k) Meter Socket Inserts:

7)1) Use of meter socket blanks is allowed only during testing and acceptance of a system and may not be left in the socket once the installer has completed the installation.

13.06 Energy Storage:

a) Battery systems or other energy storage devices that may back-feed power into the Utilities electric system shall meet the applicable requirements as shown for generators in section 13.02, 13.03, 13.04 or 13.05, for the type of connection that applies.

13.07 Photovoltaic (PV) Systems With Battery Storage:

a) All requirements for a Typical photovoltaic installation in section 13.01, 13.02, 13.05, and 13.06 apply unless noted in this section.

b) Utilities allows battery installations meeting these requirements.
- **1)** The system will be open transition in the event of a loss of utility power, as defined in 13.03.
- **2)** The system may be able to isolate and form a single customer "microgrid" forming with the photovoltaic panels, batteries, and customer loads.
- **3)** This system will not be able to backfeed the utility grid with the loss of utility power.
- **4)** The customer loads can be a whole house backup or a protected loads panel, provided it complies with one of the approved configurations in the drawings that follow.

c) Batteries:
- **1)** Batteries must have a visible disconnect. The disconnect can be integral to the ESS (energy storage system) if it meets NEC 706.15 requirements, as well as those listed in 13.05.
- **2)** Batteries on the customer generation side of the production meter may charge only from the photovoltaic system. This ensures accurate metering of production.

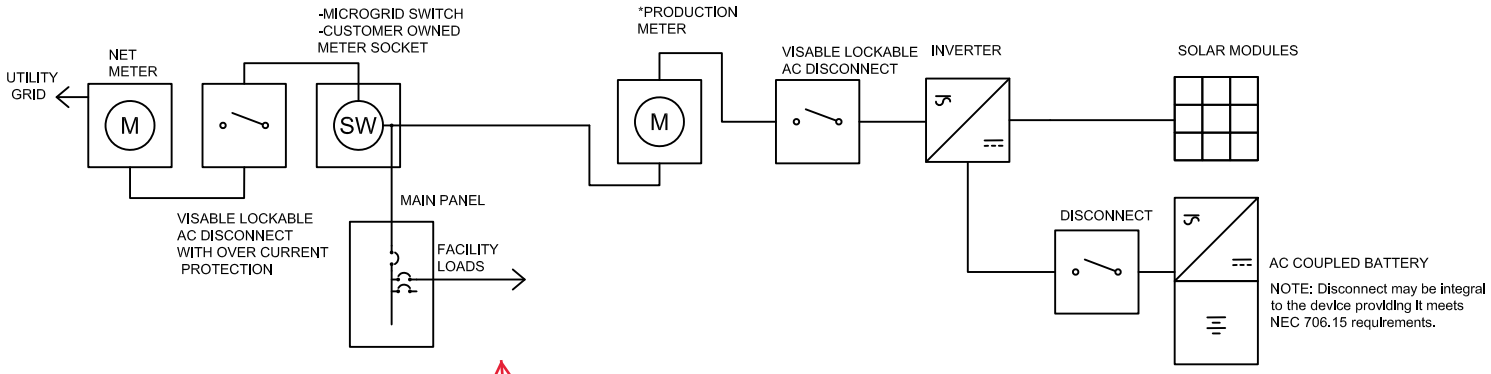
d) Protected Loads:
- **1)** All customer loads (including protected loads) must be normally connected on the utility side of the production meter.

13.08 Meter Installations at Primary Metered Generation Sites 150 kW and Above:

a) General:
- **1)** Any generation site that is equal to 150 kW and greater, but less than 500kW in size requires MV90 data for settlements and an Aclara KV2c meter is required. Any generation site equal to or greater than 500 kW in size requires both MV90 data and real-time data interface to the utility, i.e. SCADA, via an SEL-735 meter.

b) Equipment Requirements for sites equal or greater than 500 kW:
- **1)** The required meter shall be the SEL-735, which provides MV90 and SCADA data. (See Appendix E – Material Specification 193-SPP-SCA for list of required data points)
- **2)** The meter will be installed in a SCADA enclosure with a swing out panel kit. (See Appendix E - Material Specification 193-SPP-SCA)
- **3)** If the site includes solar or wind generation, a weather station and/or equivalent sensors are required (preferably located at the geographic mid-point of the renewable generation site) to provide Utilities with relevant weather conditions that impact performance/generation at the site. The customer must provide conduits and wiring from

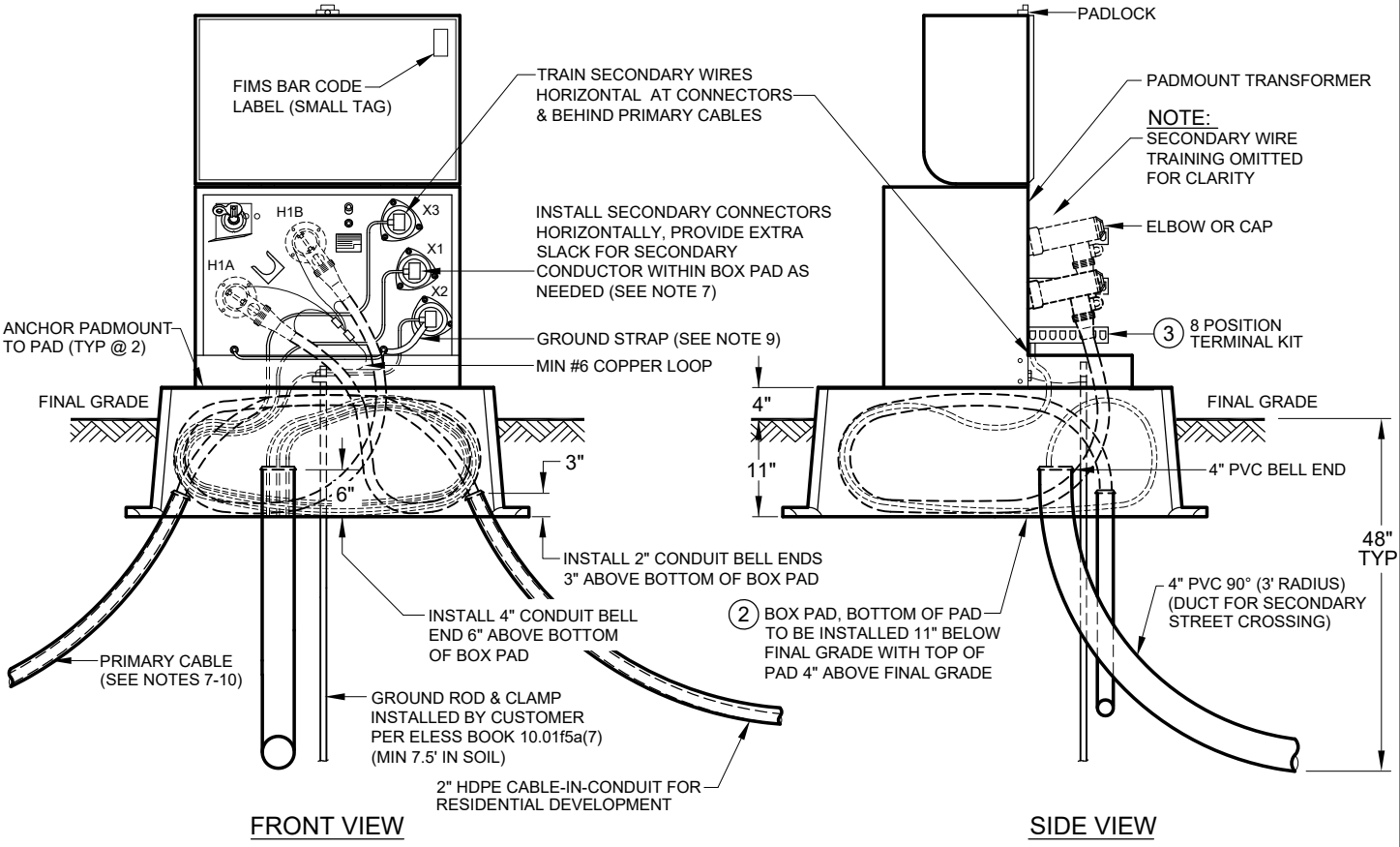
9) LINE SIDE TAP - MICROGRID FORMING SWITCH ON CUSTOMER OWNED METER SOCKET + PV + BATTERY



Removed statement from Line Side Tap - Microgrid Forming Switch on Customer Owned Meter Socket + PV + Battery drawing #9. "~~As of the Publication date this design option has not been approved. Contact Colorado Springs Demand Side Management for approval of this option~~"

* The solar production meter socket will be wired with the line side / production of the solar panels into the top of the meter. The utility grid side will be wired to the bottom of the meter.

7.2KV RESIDENTIAL BOX PAD



NOTES:

1. See page 1 notes for drawing notes.
2. Duct placement in Box Pad has similar pad opening (21"x12") as the Polymer Pad. See drawing on page 3 for duct placement "7.2KV: DUCT PLACEMENT IN POLYMER PAD (10-50 KVA)".
3. Duct ends should point toward the box pad window opening for future wire pulling.

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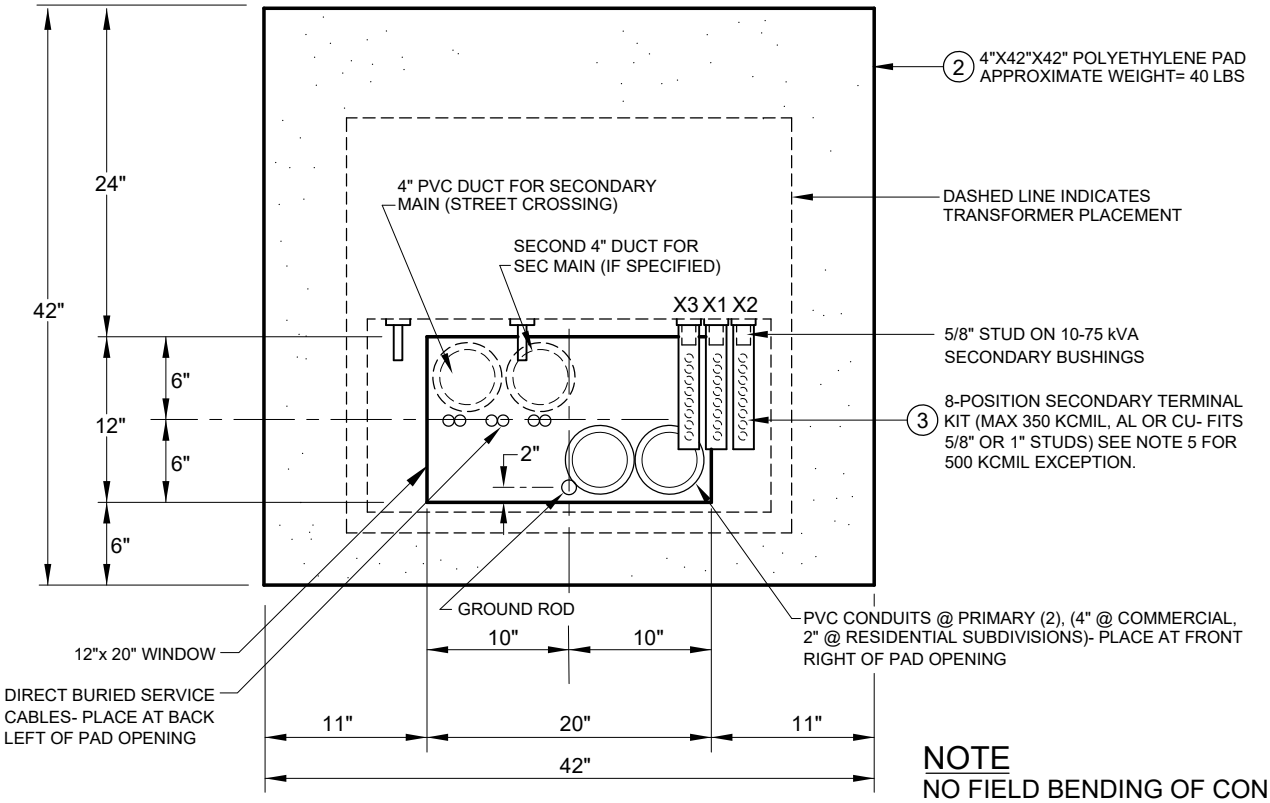
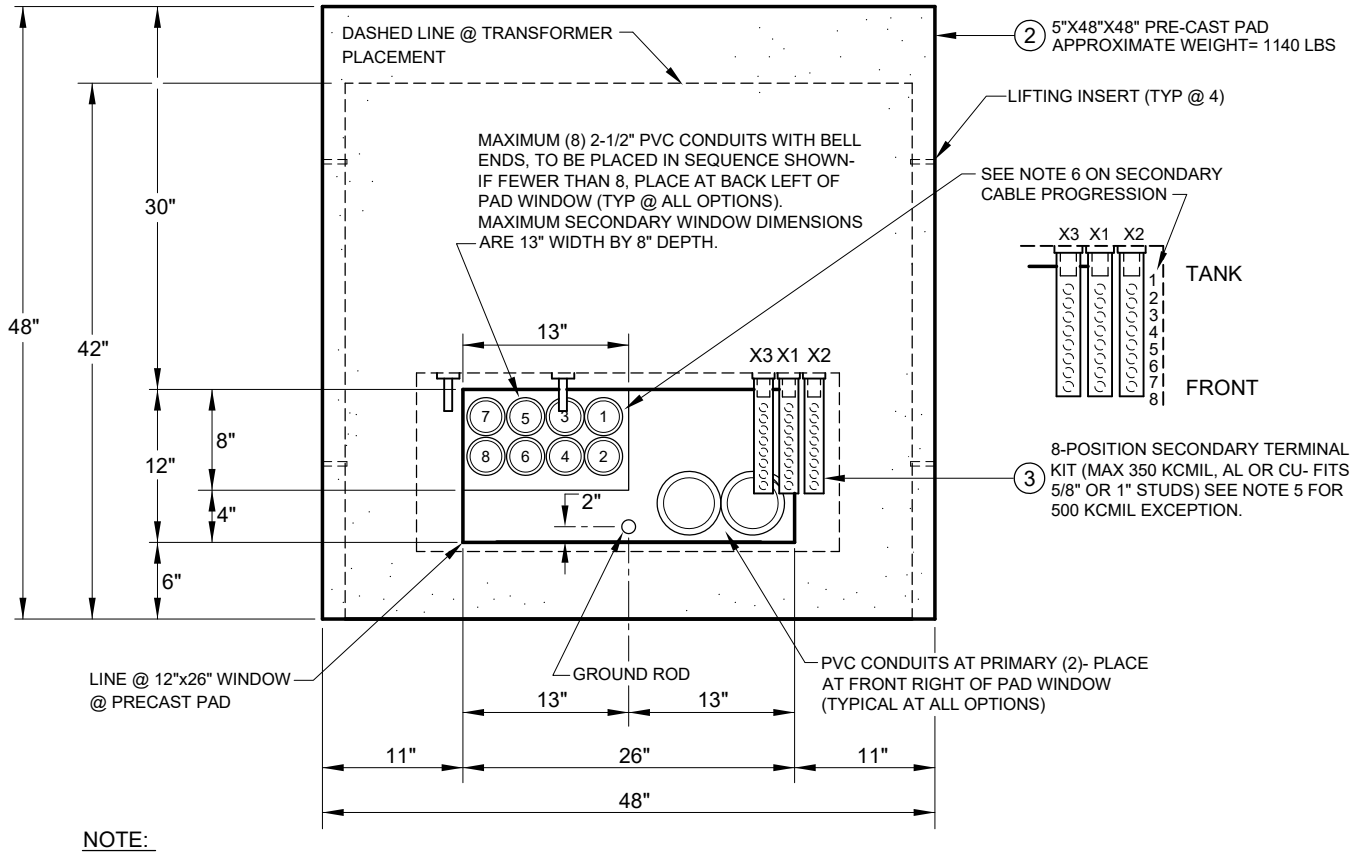


7.2KV: DUCT PLACEMENT IN POLYMER PAD (10-50 KVA)

FIGURE 1

NOTE

NO FIELD BENDING OF CONDUIT IS ALLOWED, ONLY FACTORY BENDS ARE ACCEPTABLE.



NOTE:
TRANSFORMER TO BE BOLTED TO TOP OF PAD.

7.2KV: DUCT PLACEMENT IN CONCRETE PAD

FIGURE 2

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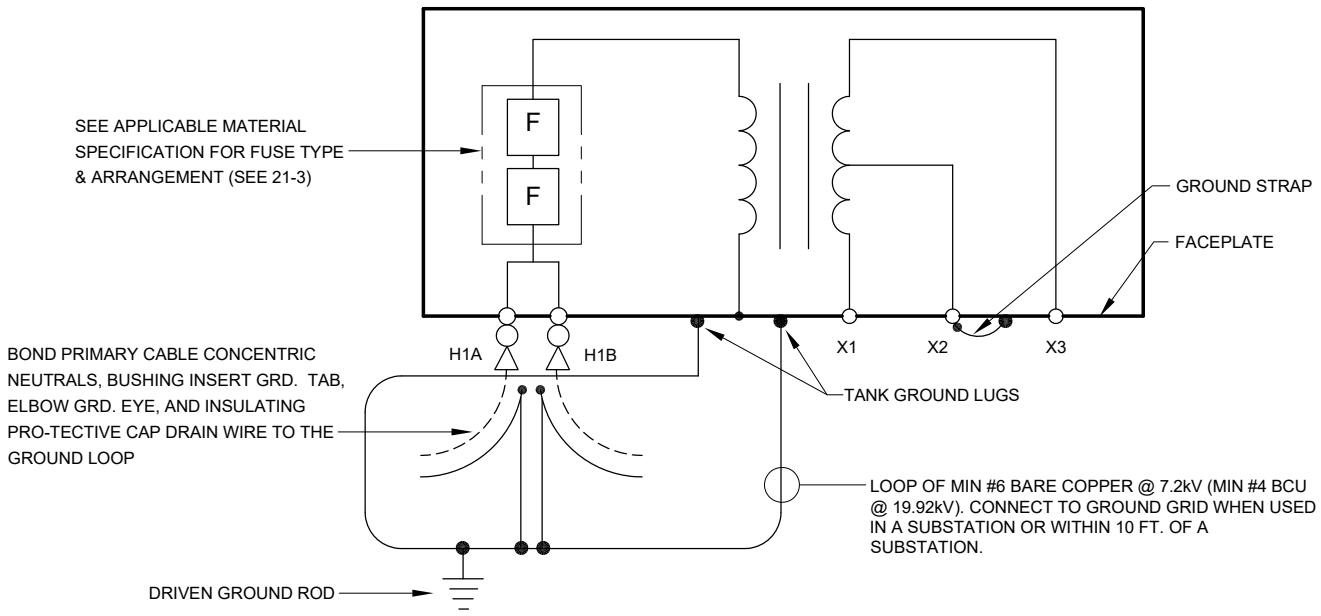
ONE LINE SCHEMATIC DIAGRAM 7.2 & 19.92KV PADMOUNTS



PADMOUNT LEVELING GUIDE

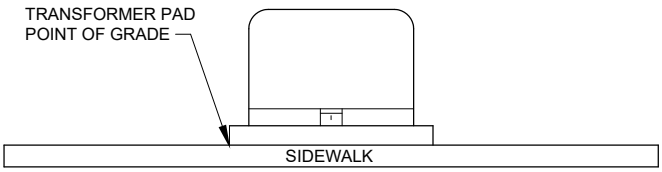


FIGURE A

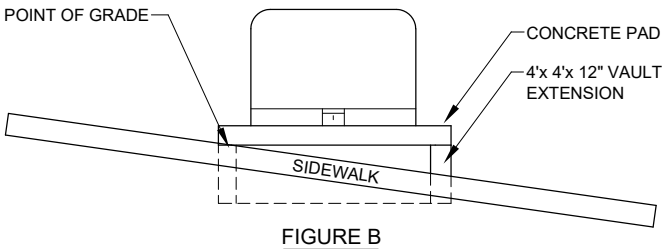


FIGURE B

NOTES:

A. Transformer pad shall be installed on level and compacted earth if terrain slope is 5% or less in any direction.

B. If terrain slope is greater than 5%, a 4'x 4'x 12" vault extension (CUID "VLT4X4-EXT12") shall be installed level in all directions from point of grade (see Figure B).

C. Vault extension shall be filled with earth and compacted to provide a solid base for the transformer pad.

D. For installation uniformity, 5% grade is interpreted to be 5/8" vertical rise or fall per each foot (12") of horizontal run.

E. Field Engineer to specify precast pads on all commercial installations, regardless of the transformer size and on residential installations greater than 50 kVA. Residential site conditions may require the use of precast pads on sizes that normally call of a polymer pad on installations that require a larger pad window opening.

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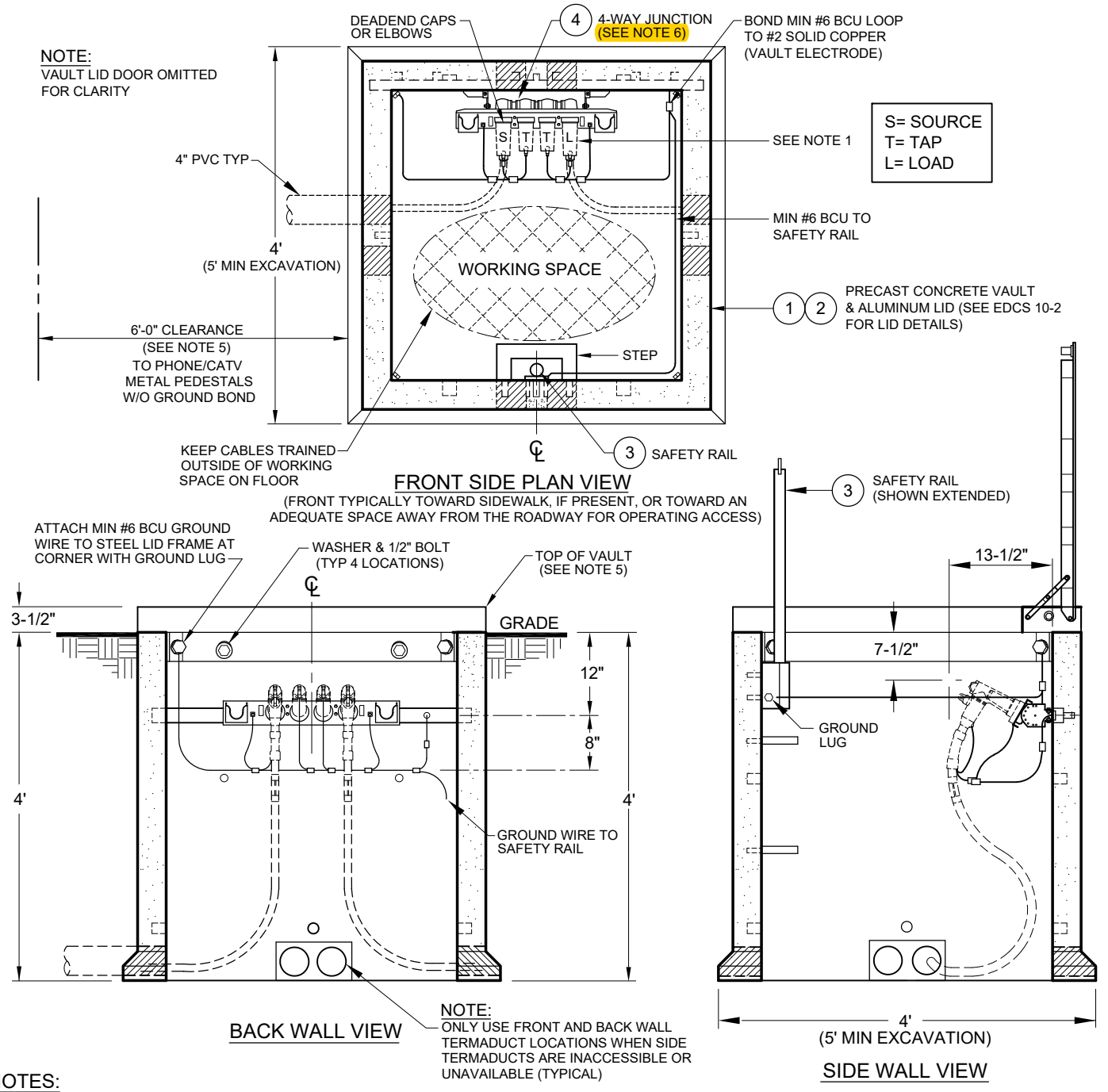
4X4 VAULT INSTALLATION

(PREFERRED INSTALLATION)



FRONT SIDE PLAN VIEW

(FRONT TYPICALLY TOWARD SIDEWALK, IF PRESENT, OR TOWARD AN ADEQUATE SPACE AWAY FROM THE ROADWAY FOR OPERATING ACCESS)

BACK WALL VIEW

NOTE:
ONLY USE FRONT AND BACK WALL TERMADUCT LOCATIONS WHEN SIDE TERMADUCTS ARE INACCESSIBLE OR UNAVAILABLE (TYPICAL)

SIDE WALL VIEW

NOTES:

1. All sources and loads will be terminated as shown. These will be indicated on job construction prints. Source, Tap, Tap, Load is the preferred termination configuration. In congested 4x7 (3 phase) vaults, this sequence can be rearranged as necessary to keep cables from crossing each other, as long as Source & Load are not located in the center two bushings.
2. Use foam sealer (Item #100-106-965) between vault lid (± 3") and concrete vault when raising vault lid to meet grade, typical for sealing new or existing lids.
3. Use 3/8" dia. pea gravel, 4" thick inside vault for drainage in muddy or poor soil conditions (one ton will cover approximately 6 vaults).
4. Specify a pedestrian or heavy duty rated cover for flush mount applications (pedestrian lid is for pedestrian traffic only, heavy duty lid for off-street/incidental (unintentional) traffic locations only, e.g. sidewalks, residential driveways, parking lots, road shoulder etc., not in roadways or alleyways). See EDCS 10-2 for application limits and details for flush mounting in sidewalks.
5. NESC Rule 384C: Bond all above ground metallic supply and communication enclosures that are separated by 6 feet or less. Use minimum #6 bare copper wire direct buried a minimum 18" below grade, to a suitable bolted or screw connection that can be temporarily opened when locating cables. Treat open ground connections as energized!
6. The use of 5-way junctions are prohibited in 4x4 vaults.

CUID EXAMPLE:
E.VLT4X4&H20-1PH-4WAY

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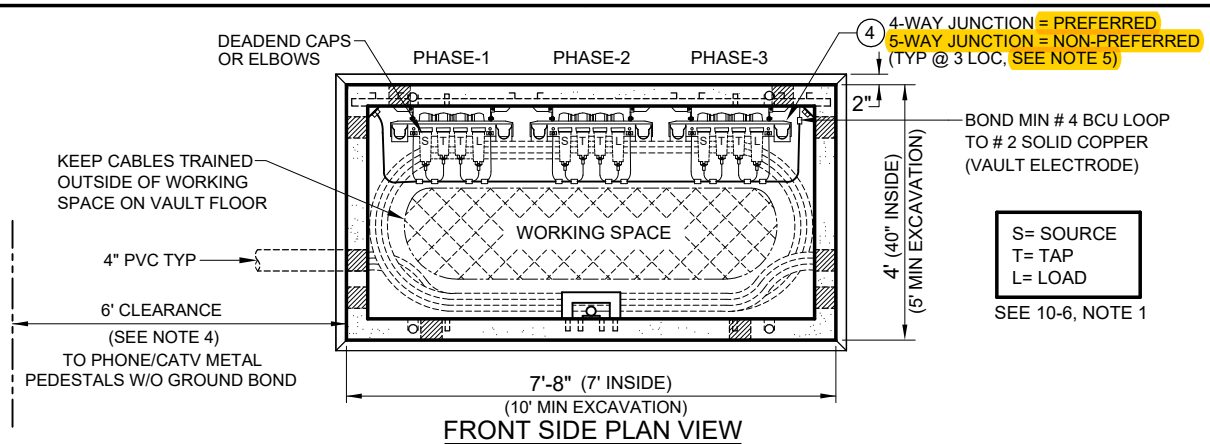
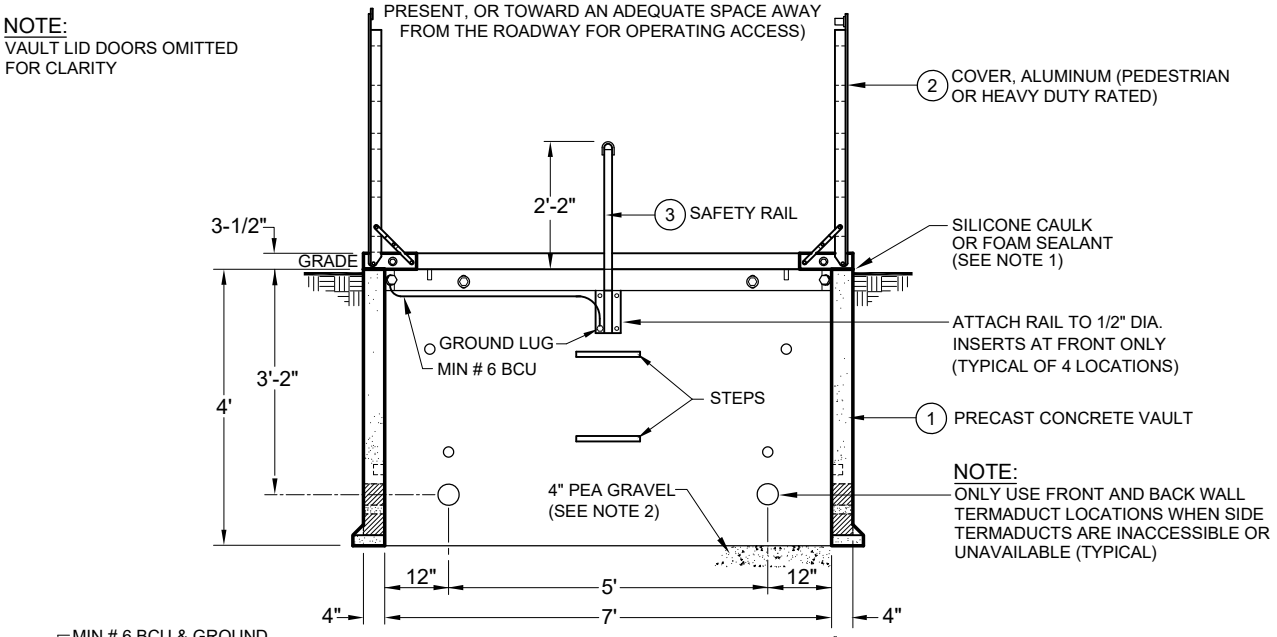


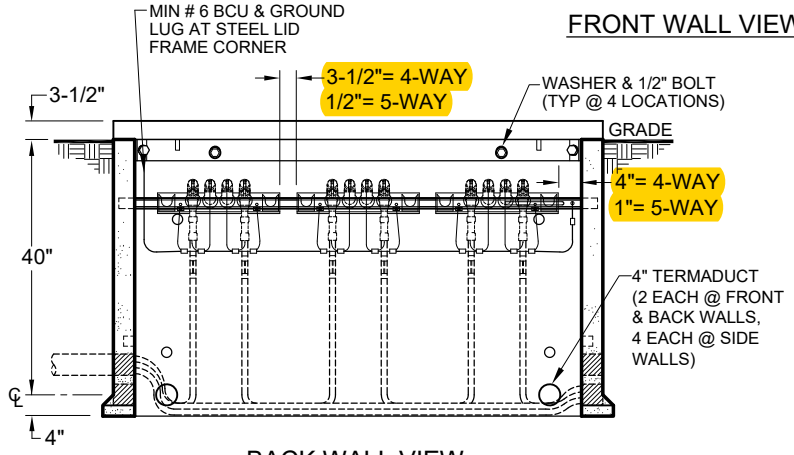
FRONT SIDE PLAN VIEW

(FRONT TYPICALLY TOWARD SIDEWALK, IF PRESENT, OR TOWARD AN ADEQUATE SPACE AWAY FROM THE ROADWAY FOR OPERATING ACCESS)

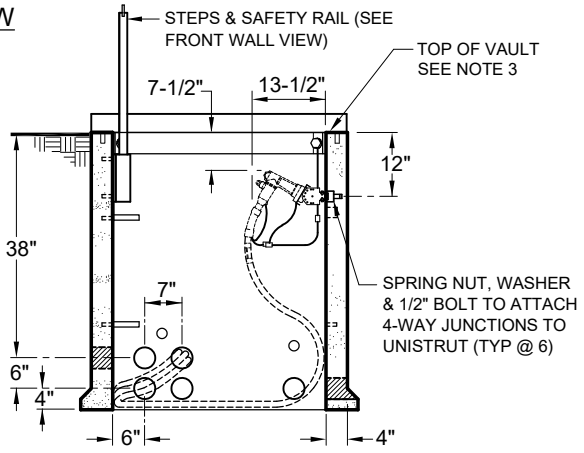
NOTE:
VAULT LID DOORS OMITTED FOR CLARITY



FRONT WALL VIEW



BACK WALL VIEW



SIDE WALL VIEW

NOTES:

1. Use foam sealer (Item #100-106-965) between vault lid and concrete vault when raising lid (+/- 3") to meet grade, typical for sealing new or existing lids.
2. Use 3/8" dia. pea gravel, 4" thick inside vault for drainage in muddy or poor soil conditions (one ton will cover approximately 2-1/2 vaults).
3. Specify a pedestrian or heavy duty rated cover for flush mount applications (pedestrian lid is for pedestrian traffic only, heavy duty lid for off-street/incidental (unintentional) traffic locations only, e.g. sidewalks, residential driveways, parking lots, road shoulder etc., not in roadways or alleyways). See EDCS 10-3 for flush mounting in sidewalks.
4. NESC Rule 384C: Bond all above ground metallic supply and communication enclosures that are separated by 6 feet or less. Use minimum #6 bare copper wire direct buried a minimum 18" below grade, to a suitable bolted or screw connection that can be temporarily opened when locating cables. Treat open ground connections as energized!
5. The installation of 5-way junctions is not preferred but may be used when installing another 4x7 vault is not possible.

CUID EXAMPLE:
E.VLT4X7&H20-3PH-4WAY
E.VLT4X7&H20-3PH-5WAY

ELECTRIC DISTRIBUTION CONSTRUCTION STANDARDS

Colorado Springs Utilities
It's how we're all connected

APPROVED AS OF: 4-9-2025	15KV 200-AMP 3-PHASE VAULT 4X7	10-7	PG. 1/1

T02–01626

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Typical Parallel/Horizontal Clearance Matrix for Colorado Springs Underground Utilities (Separate Trenches):

(All dimensions are in feet) All separations shown are the clear horizontal distance between two objects measured surface to surface

Colorado Springs Utilities (Underground)	Potable Water	Non-Potable Water	Waste-water	Storm Sewer	Gas mains 150 psig (MAOP)	Gas main	Gas Service	Electric Primary up to 34.5kV	Electric Secondary (0-480 Volt)	Telecom / Fiber
Potable Water	X	10	10	10 [c]	10	6	3	10 [d]	3	5
Non-Potable Water	10	X	10	10	10	6	3	10	3	5
Wastewater	10	10	X	10 [c]	10	6	3	10 [d]	3	5
Storm Sewer	10 [c]	10	10 [c]	X[g]	10	6	3	10	3	5
Gas mains 150 psig (MAOP)	10	10	10	10	X	6	6	10	10	10
Gas main	6	6	6	6	6	X	3	6	3	5 [e]
Gas Service	3	3	3	3	6	3	X	3	3	3
Electric Primary up to 34.5kV	10 [d]	10	10 [d]	10	10	6	3	X	3	5 [e]
Electric Secondary (0-480 Volt)	3	3	3	3	10	3	3	3	X	5 [e]
Telecom / Fiber	5	5	5	5	10	5 [e]	3	5 [e]	5 [e]	~~X~~2

Typical Crossings/Vertical Clearance Matrix for Colorado Springs Underground Utilities:

(All dimensions are in feet) All separations shown are the clear vertical distance between two objects measured surface to surface

Colorado Springs Utilities (Underground):	Potable Water	Non-Potable Water	Waste-water	Storm Sewer	Gas mains 150 psig (MAOP)	Gas main	Gas Service	Electric Primary up to 34.5kV	Electric Secondary (0-480 Volt)	Telecom / Fiber
Potable Water	X	1.5 [a]	1.5 [a]	1.5 [a]	5	1	1	1	1	1
Non-Potable Water	1.5 [a]	X	1.5 [a]	1.5 [a]	5	1	1	1	1	1
Wastewater	1.5 [a]	1.5 [a]	X	1.5	5	1	1	1	1	1
Storm Sewer	1.5 [a]	1.5 [a]	1.5 [a]	X[g]	5	1	1	1	1	1
Gas mains 150 psig (MAOP)	5	5	5	5	X		5	5	5	5
Gas main	1	1	1	1		X	1	1/~~3~~5 [b]	1	1
Gas Service	1	1	1	1	5	1	X	1	1	1
Electric Primary up to 34.5kV	1	1	1	1	5	1/~~3~~5 [b]	1	X	0	1
Electric Secondary (0-480 Volt)	1	1	1	1	5	1	1	0	X	1
Telecom / Fiber	1	1	1	1	5	1	1	1	1	~~X~~1

[a] These utilities require a sleeve when crossing under another utility.
[b] 1' separation from electric primary to plastic pipe gas main and 3' separation from electric primary to metallic gas main.
[c] Exception: Minimum 5' separation if meets the means of secondary containment listed in the Water Line Extension and Service Standards Book 2.6.F.2 Separation Criteria and Wastewater Line Extension and Service Standards Book 2.5.D.2 Separation Criteria.
[d] Exception: Minimum 6'-10" clearance from Electric Primary to Potable Water and Wastewater.
[e] Exception: Telecom/fiber may be permitted to have a 3' horizontal separation from gas mains, electric primary or electric secondary in locations where the gas main and electric primary or secondary are behind the curb and either in the tree lawn or under sidewalk. The exception may be allowed when the following requirements are met:

1) potholing and exposing the pipe every 50 feet must occur when directional drilling is within 5 feet of the electric or gas pipe;
2) the use of pneumatic missiles must be in compliance with City Policy and may prohibit the use of pneumatic methods for installation of underground utilities in the right-of-way and public utility/improvement easements. If the City Policy does allow for the use of pneumatic methods to install underground utilities, then potholing and exposing pipe every 25 feet is required when pneumatic missiles/moles are used within 5 feet of electric or gas pipe;
3) for bores less than 50 feet and within 5 feet of electric or gas pipe (regardless of trenchless technology used), a minimum of one pothole is required;
4) potholing and exposing electric or gas pipe where points of typical deviation may occur (e.g., hydrants, transformers, etc.) and;
5) compliance with all State and local excavation, boring, and damage prevention rules and regulations.

All other scenarios must comply with clearance requirements in the matrix table above. If any one of the 5 listed requirements are not met, a 5-foot clearance is required. In all cases, the high pressure gas main requires a 10-foot horizontal clearance with no exceptions.

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The horizontal clearance distance also applies to fiber appurtenances, to include boxes (boxes must be the required horizontal and vertical distance away from gas and electric and shall not be placed over electric or gas pipe.)

[f] Clearances for stormwater facilities to other stormwater facilities are determined by the City of Colorado Springs. Refer to the City of Colorado Springs standards and regulations.

[g] Clearances for stormwater facilities to other stormwater facilities are determined by the City of Colorado Springs. Refer to the City of Colorado Springs standards and regulations.

1. If compliance with these separation requirements, or those set forth in the Clearance Matrix cannot be met they will be addressed on a case-by-case basis following variance procedures described in the applicable Line Extension and Service Standard book. This includes areas of redevelopment within alleys. Colorado Springs Utilities subject matter experts for the utility being impacted will make the determination regarding clearances.
2. These clearance matrix table dimensions are for separate trenches. Joint trench between Gas and Colorado Springs Utilities Telecom./ Fiber requires a 1' radial separation. Joint trench between Electric and Colorado Springs Utilities Telecom./ Fiber requires a 3" in concrete and 6" in fill earth radial separation.
3. See the Gas Line Extension and Service Standards 2.02c for certain exceptions.
4. See Water & Wastewater Line Extension and Service Standards, latest edition, for additional horizontal and vertical separation requirements, (WLESS Sections 2.7.F & 2.7.G) (WWLESS Section 2.6.D).
5. Clearance to other Colorado Springs utilities (telecommunication, fiber optics, etc.) or high voltage underground transmission cables shall be determined on a case-by-case basis by Field Engineering.
6. Storm Sewer clearances must be verified by City Engineering.
7. Larger clearances than shown may be required – clearances must meet all requirements set forth in all four of the Colorado Springs Utilities Line Extension and Service Standards, Colorado Springs City Codes, NEC, and NESC, latest editions.
8. Additional support structures may be required at crossings.
9. For separation from trees to gas and electric line, see GLESS 2.02c and ELESS 4.02c1.
10. See City of Colorado Springs Standard Drawings #1 "Street Cross Sections" and Drawings #2 "Street Sections Plan View" at the following web address link: https://coloradosprings.gov/public-works/page/standard-drawings. See Colorado Springs Utilities "Street Cross Sections" within the Water & Wastewater Line Extension and Service Standards at the following web address link: https://www.csu.org/building-development/construction-standards

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COLORADO SPRINGS UTILITIES
ELECTRIC LINE EXTENSION/SERVICE INSTALLATION

PHONE NUMBERS & CONTACT INFORMATION

P L A N N I N G

Utilities Development Services 668-8259

Utility Data Management (FIMS)
Land Base Maps & Plat Maps 668-8779
Electric and Street Light GIS Data..... 668-3524 Opt. 3
Utilities Addressing Plan (UAP) and Utilities Design CAD Files (UDCF) 668-7920

Underground Utility Line Locations
Before you dig (All Utilities, ex: Springs Utilities, phone, cable) - Call 3 business days before digging.....811
Utilities Locating Dispatch (For Colorado Springs Utilities gas, electric, water and wastewater)
Main Number.....668-7205

D E S I G N

Design of Electric Line Extensions & Street Lights (Field Engineering)
Field Engineering Supervisor: Tim Benedict .....Office 668-3574.....Cell 661-5505
North Area Main Number.....668-4985 South Area Main Number 668-4985

North Workcenter Field Engineering
7710 Durant Drive, Colorado Springs, CO 80947-2150/ Fax: 719-668-4998

Name	Title	Area	Office	Cell
Dylan Quintana	Engineer Support Supervisor	Gas & Joint Trench	719-668-8330	719-675-0099
Andrea Anderson	Field Engineer	Joint Trench	719-668-4409	719-756-2160
Tony Gius	Field Engineer	Joint Trench	719-668-3575	719-500-1943
~~Steve Travnicek~~	~~Field Engineer~~	~~Gas & Joint Trench~~	~~719-668-7716~~	~~719-728-3271~~
Tim Wendt	Field Engineer	Gas & Joint Trench	719-668-4962	719-237-7968
Jason Luukkonen	Field Engineer	Gas	719-668-8331	719-318-8963
Justin Noel	Field Engineer	Gas	719-668-4872	719-377-0419
Ryan Pogue	Field Engineer	Gas	719-668-7840	719-828-4618
Santiago Tijerina	Field Engineer	Gas	719-668-3572	719-828-1772
Timothy Williams Jr	Field Engineer	Gas	719-668-7276	719-257-8426

South Workcenter Field Engineering
1521 Hancock Expressway, Colorado Springs, CO 80947-1812/ Fax: 719-668-5956

Name	Title	Area	Office	Cell
Joe Reuter	Field Engineering Supervisor	Electric	719-668-7885	719-499-5798
~~Jim Bradbury~~	~~Field Engineer~~	~~Electric~~	~~719-668-3243~~	~~719-433-3112~~
Dave Coker	Field Engineer	Electric	719-668-8796	719-649-2665
Rudy Duran	Field Engineer	Electric	719-668-8762	719-464-7961
Mike Garcia	Field Engineer	Electric	719-668-7887	719-756-1716
Chris Graves	Field Engineer	Electric	719-668-7886	719-641-9963
Josh Hoepfner	Field Engineer	Electric	719-668-3242	719-322-6048
Kyle Leibhart	Field Engineer	Electric	719-668-8767	719-313-1504

John Martinez	**Field Engineer**	**Electric**	**719-668-3244**	**719-323-4778**

Street Light Requests Outside City Limits:

Cherokee Metropolitan District Mark Cuchiara 597-5080 1335 Valley Street Colorado Springs, CO 80915 Phone: 597-5080	**Green Mountain Falls** 7035 Oak Street Green Mountain Falls, CO 80819 Phone: Town Clerk 684-9414 *(Closed on Wednesdays)*

CONSTRUCTION

Construction Scheduling
North Area .....668-4991 South Area 668-5557

Inspections (Q.C. – Quality Control).....668-5416

SERVICE INSTALLATION

Electric Service Department
Utilities Electric Meter and Service Installation, Construction Temporary Electric Service Installation & Outage Requests 668-5524

Joint Trench Gas/Electric Scheduling Inspections and Tie-Ins 668-2TIE (2843)

Pikes Peak Regional Building Department
Building Permits 327-2880
Electrical Inspections.....327-2883

OTHER TELEPHONE NUMBERS

Main Customer Service Number
Overhead Power-Line Cover, Tree Trimming Near Overhead Electric Power Lines 448-4800

Damage Claims.....385-5960

Energy Construction Operations and Maintenance Department Managers
Construction and Maintenance …668-5957 Operations and Engineering 668-5723

Engineering and Planning
Demand Side Management and Renewable Energy Planning (Solar/Distributed Generation) 668-7719
Standards .....668-~~5806~~4994
Substation and Transmission Engineering 668-8361

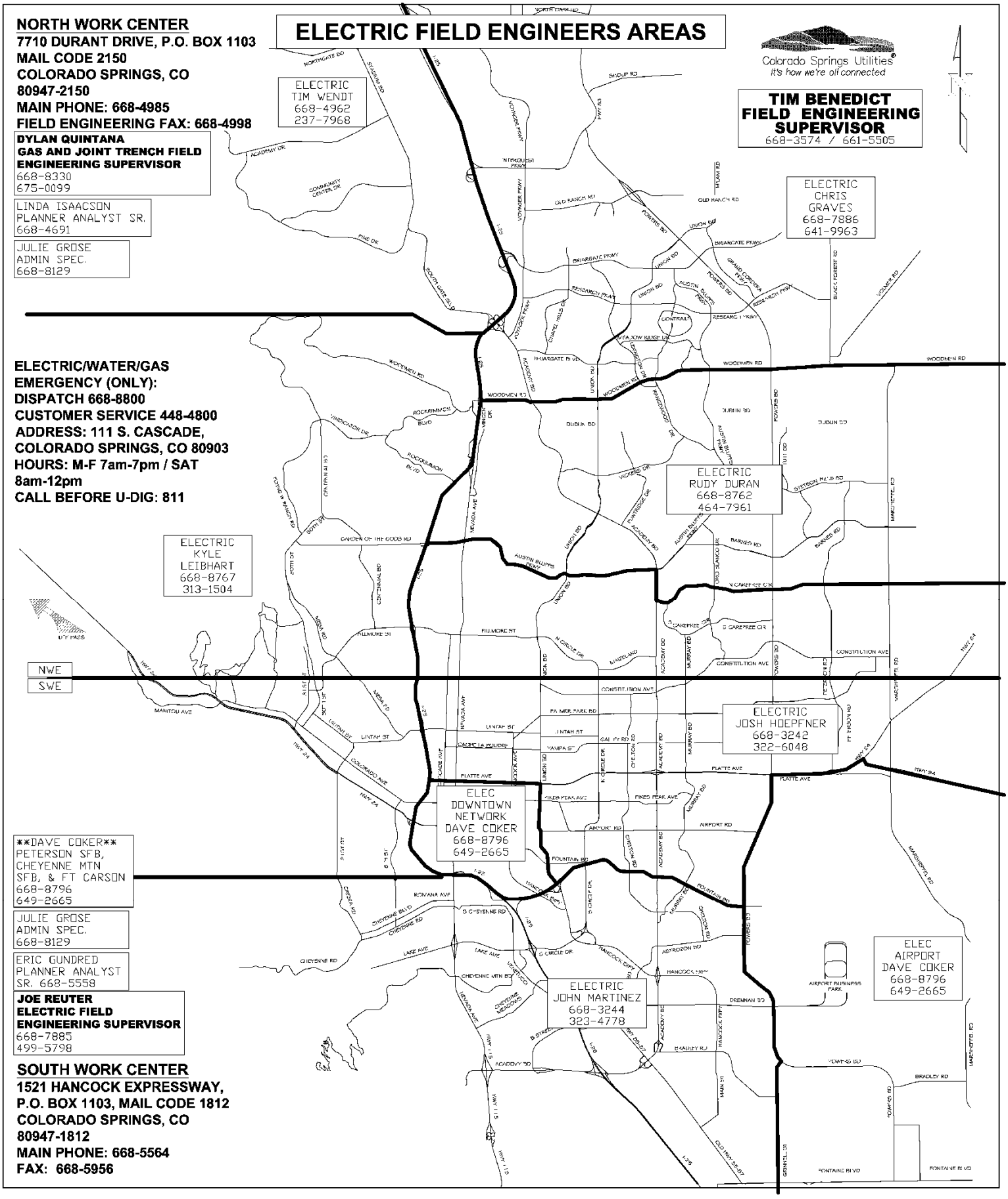
General Accounting (Inquiry for Time-and-Material Refunds).....668-8550

Meter Shop (AMT - Advanced Metering Technologies Group).....668-5525
Supervisor 668-3505

Repairs: Cable & Utility Line/Street Light
Colorado Springs Utilities Street Light Malfunction.....448-4800
Colorado Springs Utilities (Electric, Gas, Water & Wastewater).....448-4800
City Traffic Signals 385-6721
Comcast (Cable Repair).....633-6616
CenturyLink Customer Service Repair 1-800-573-1311

Utility Safety Outreach and Education
Schedule a free utility safety outreach and education at communityrelations@csu.org 668-8386

Warehouse
North Work Center 668-4981
South Work Center.....668-5550


ELECTRIC FIELD ENGINEERS AREAS
Colorado Springs Utilities
It's how we're all connected
NORTH WORK CENTER
7710 DURANT DRIVE, P.O. BOX 1103
MAIL CODE 2150
COLORADO SPRINGS, CO
80947-2150
MAIN PHONE: 668-4985
FIELD ENGINEERING FAX: 668-4998
DYLAN QUINTANA
GAS AND JOINT TRENCH FIELD
ENGINEERING SUPERVISOR
668-8330
675-0099
LINDA ISAACSON
PLANNER ANALYST SR.
668-4691
JULIE GROSE
ADMIN SPEC.
668-8129
ELECTRIC
TIM WENDT
668-4962
237-7968
TIM BENEDICT
FIELD ENGINEERING
SUPERVISOR
668-3574 / 661-5505
ELECTRIC
CHRIS
GRAVES
668-7886
641-9963
ELECTRIC/WATER/GAS
EMERGENCY (ONLY):
DISPATCH 668-8800
CUSTOMER SERVICE 448-4800
ADDRESS: 111 S. CASCADE,
COLORADO SPRINGS, CO 80903
HOURS: M-F 7am-7pm / SAT
8am-12pm
CALL BEFORE U-DIG: 811
ELECTRIC
RUDY DURAN
668-8762
464-7961
ELECTRIC
KYLE
LEIBHART
668-8767
313-1504
NWE
SWE
ELECTRIC
JOSH HOEPFNER
668-3242
322-6048
ELEC
DOWNTOWN
NETWORK
DAVE COKER
668-8796
649-2665
DAVE COKER
PETERSON SFB,
CHEYENNE MTN
SFB, & FT CARSON
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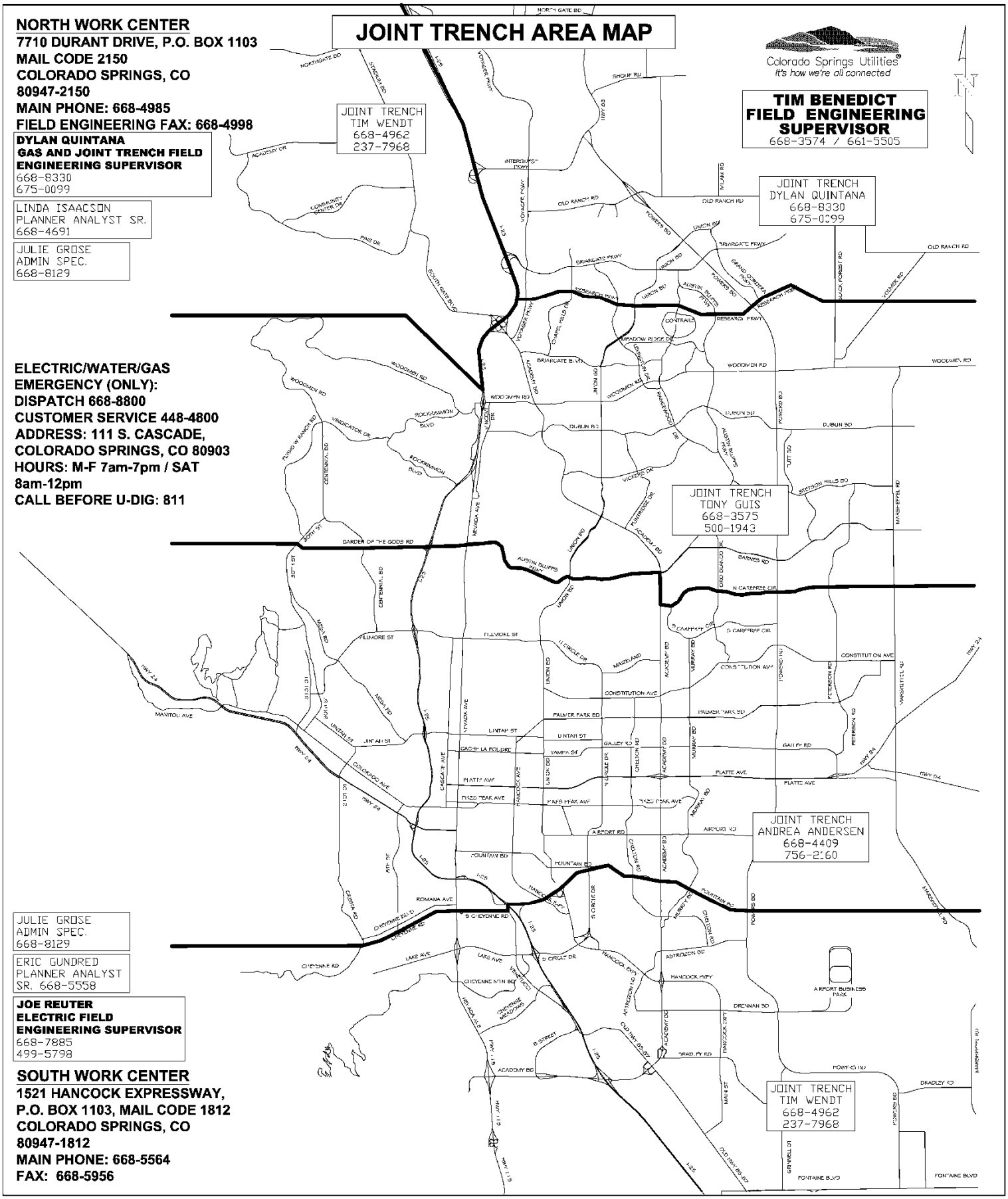
649-2665
JULIE GROSE
ADMIN SPEC.
668-8129
ERIC GUNDRED
PLANNER ANALYST
SR. 668-5558
JOE REUTER
ELECTRIC FIELD
ENGINEERING SUPERVISOR
668-7885
499-5798
ELECTRIC
JOHN MARTINEZ
668-3244
323-4778
ELEC
AIRPORT
DAVE COKER
668-8796
649-2665
SOUTH WORK CENTER
1521 HANCOCK EXPRESSWAY,
P.O. BOX 1103, MAIL CODE 1812
COLORADO SPRINGS, CO
80947-1812
MAIN PHONE: 668-5564
FAX: 668-5956

JOINT TRENCH AREA MAP



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