



Welcome to Bluebonnet Electric Cooperative

Bluebonnet Electric Cooperative Inc. was incorporated in 1939 as the Lower Colorado River Electric Cooperative. The name was changed to Bluebonnet Electric Cooperative, Inc. in 1964 to enhance a separate identity from the Lower Colorado River Authority (LCRA).

Bluebonnet is one of the largest electric cooperatives in Texas, with a 3,800 square mile service territory, which includes all or part of 14 counties, serving over 98,000 meters. Five Member Service Centers are located throughout Bluebonnet's service territory to assist members with issues ranging from bill payment to service installation. A distribution cooperative, Bluebonnet purchases most of its power wholesale from LCRA. Bluebonnet operates and maintains approximately 11,619 miles of distribution lines. The organization owns 20 substations and purchases power at 21 additional substations owned by LCRA.

Bluebonnet provides this packet to all developers and their agents and it should be used as a guide in planning the installation of electrical equipment for receiving electrical power from Bluebonnet's distribution system.

The information presented is subject to change and will be revised periodically to reflect any changes which may develop. Please refer to our website at www.bluebonnet.coop for any additional information as well as an online source of this packet.

We look forward to working with you as your electrical provider.

Thank you,

Bluebonnet Project Coordination Staff

Table of Contents

Development Information Request Form	Page 3
Developer's Checklist	Page 4
Developer's Fees and Information	Page 5
➤ Development Fees	
➤ Street Lighting	
Easements/Right of Way	Page 6
➤ Front Lot / Back Lot Facilities	
Inspection Guidelines and Procedures	Page 7
Bluebonnet Specifications	Page 8
➤ Ditch and Conduit Placement	Page 9
➤ Road Crossing	Page 10
➤ Pad Mounted Switchgear Easement Requirements	Page 11
➤ Dimensions and Wiring Single-Phase Transformer	Page 12
➤ Dimensions and Wiring Single-Phase Sectionalizer	Page 13
➤ Three-Phase Transformer Pad 45-750 kVA	Page 14
➤ Three-Phase Transformer Pad 1000-2500 kVA	Page 15
➤ Dimensions for Three-Phase Sectionalizer 600A	Page 16
➤ Standard Residential Streetlight	Page 17
➤ Right-of-Way Clearing Guide	Page 18
➤ Dimensions for Pad Mounted Switchgear	Page 19
➤ Meter Loop Specifications (Multiple)	Page 20-37

Development Information Request Form

SUBDIVISION or PROJECT NAME: _____

LOCATION OF PROJECT: _____

DEVELOPER'S NAME: _____

REPRESENTED BY: _____ PHONE: _____

E-mail: _____

MAILING ADDRESS: _____

ENGINEERING FIRM: _____

REPRESENTED BY: _____ PHONE: _____

E-mail: _____

TYPE OF PROJECT: (Check all that apply)	SECTION (Insert Section #)	NUMBER OF LOTS (In this section)	TOTAL LOTS (In all sections)
<input type="checkbox"/> RESIDENTIAL	_____	_____	_____
<input type="checkbox"/> APARTMENTS	_____	_____	_____
<input type="checkbox"/> MOBILE HOME/RV PARK	_____	_____	_____
<input type="checkbox"/> COMMERCIAL	_____	_____	_____
<input type="checkbox"/> OTHER _____	_____	_____	_____

Taxing jurisdiction(s) and entities in which development falls (ie. City Limits, County, etc.) as well as physical (911) Address of Development _____

Estimated number of units to be constructed and occupied within the first 12 months. _____

Anticipated total project completion date. _____

Homebuilder & Contact Person _____ Phone # (____) _____

OTHER UTILITY PROVIDERS (Company Name)

- ☐ WATER _____
- ☐ GAS (YES or NO) _____
- ☐ CABLE _____
- ☐ TELEPHONE _____

LOAD EXPECTATIONS: (Check All That Apply)

- ☐ LIFT STATION/WASTE WATER PLANT
- ☐ WATER WELL
- ☐ HOME SIZES FROM _____ TO _____ SQ FT.
- ☐ AMENITY CENTER, PARKS, CLUB HOUSE
- ☐ COMMERCIAL SITES WITHIN DEVELOPMENT
- ☐ STREETLIGHTING – Responsible party for monthly lighting charges _____
- ☐ IRRIGATION SYSTEMS
- ☐ OTHER: _____

Upon completion of this form, please return via fax to (979)542-4150, attn: Project Coordination.

By signing this form, you are acknowledging receipt and understanding of this packet and you agree to abide and comply with all requirements and policies within.

Developer / Agent / Owner

Date

Developer's Checklist

Responsibility of Developer:

- ☐ Developer must fill out a Development Information Request Form and submit to Bluebonnet along with design fee if required.
- ☐ Developer is responsible for confirming all Bluebonnet easement requirements with Bluebonnet prior to platting.
- ☐ Developer must have an engineering firm submit preliminary plan of development in digital (AutoCAD) format to Bluebonnet Engineering Department. These plans must include streets, wet utilities, grading plans, and streetlight locations (if required) as well as any other utilities planned for said development.
- ☐ A design/re-design fee could be required either prior to or following the design process as a result of any changes to design out of original scope of project. This decision will be made at the discretion of Bluebonnet on a case by case basis. These fees are non-refundable and are subject to revision at Bluebonnet's discretion.
- ☐ Prior to Bluebonnet construction, two (2) hard copies of the approved plat must be submitted.
- ☐ Developer must provide and install all underground conduits at road crossings in the designated location per Bluebonnet Crossing Plans and if applicable, all electrical conduits in designated locations per Bluebonnet Construction Plans (see Bluebonnet Specifications in this packet).
- ☐ Developer is responsible for following Bluebonnet inspection policies and procedures prior to and during conduit installation if using his own contractor (see Page 7).
- ☐ Property pins must be set and clearly visible at all lot corners, at developer's expense, prior to Bluebonnet commencing construction.
- ☐ Developer is responsible for submitting contribution-in-aid of construction to cover Bluebonnet's construction costs prior to Bluebonnet commencing construction. Bluebonnet's construction cannot commence until 20 working days after receipt of this payment.
- ☐ Developer is responsible for all right-of-way clearing and grubbing to Bluebonnet specifications. Bluebonnet will clear the right-of-way for proposed overhead facilities for an additional charge to be quoted should developer choose this option. See attached Bluebonnet Specifications.
- ☐ Developer is responsible for ensuring conduit contractor and/or subcontractor adherence to all Bluebonnet Construction Specifications at all times.
- ☐ Developer to provide ALL materials necessary for the conduit system he installs for his Bluebonnet Underground System. Bluebonnet will own these materials after proper installation is certified by a Bluebonnet Inspector.

Developer's Fees and Information

Development Fees

1. A design/re-design fee of could be required either prior to or following the design process should the project change dramatically from its original scope. This decision will be made at the discretion of Bluebonnet on a case by case basis. These fees are non-refundable and are subject to revision at Bluebonnet's discretion.
2. Every request for design and every alteration to all scopes for design services may be considered as an individual request and, therefore are subject to additional fees to be determined by Bluebonnet.
3. When the developer or prospective developer enters into a line extension agreement with Bluebonnet for service, monies received for engineering design estimates of service will be applied to the cost of construction. Bluebonnet's Line Extension Policy can be found in the Bluebonnet Member Welcome Kit or on the "Residential Development" link on our website located at www.bluebonnet.coop.
4. If the developer or prospective developer does not notify Bluebonnet within a 180 day period of initial design with the intent to proceed, any design fees paid to date will be forfeited and the prospective project will be treated as new.
5. A maintenance fee of \$1 per linear foot of trench will be required at the time of contribution by the developer to cover the cost of any necessary repairs in the first year following the completion of Bluebonnet facilities installation.

Street Lighting

1. Bluebonnet agrees to install street lighting at locations within Site designated by the developer as needed to comply with City or County ordinances and regulations.
2. Bluebonnet does not offer any custom lighting solutions at this time. Bluebonnet will install our standard streetlight (see Bluebonnet Specifications in this packet) unless the developer wishes to install his own custom lighting. In this case, Bluebonnet will determine and provide a metering point(s) and the developer will be able to power his custom lighting facilities from this point(s). Developer will be responsible for all installation, operation, and maintenance of custom lighting facilities.
3. Bluebonnet will own, operate, maintain and repair the standard lighting facilities. The monthly charge for street lighting service will be according to the applicable rate schedule for lighting service in the Bluebonnet Electric Cooperative Tariff. Payment of the monthly charge for street lighting service will be the responsibility of the developer or an entity designated by the developer.

Easements / Right of Way

1. Bluebonnet shall be granted, at no cost and in writing on recorded plat, all rights-of-way and easements necessary to serve member, overhead or underground for the erection, maintenance, repair, replacement, removal, or use of all wires, poles, machinery, fixtures, or equipment needed to supply and deliver electric service to the member.
2. Bluebonnet does not allow any member equipment or material to be attached to its property, except where said equipment and/or materials are required to provide electrical service and said equipment and/or material has been authorized by Bluebonnet.
3. Developers and their respective Homebuilders must give Bluebonnet the rights, privileges and easements necessary to construct, operate, repair, replace and perpetually maintain electric facilities located on the member's owned or leased property, and in or on all streets, roads or highways abutting their property. All service lines providing members with electricity and all switches, meters and other appliances and equipment constructed or installed on the property belong solely to Bluebonnet, and Bluebonnet can access the property to repair or service them and, upon discontinuance of service, remove them.
4. Bluebonnet shall, at any time deemed necessary, access any equipment owned and/or operated by Bluebonnet. Any obstructions in a platted public utility easement or exclusive Bluebonnet easement such as landscaping, trees, fences, etc. will be removed if discovered by necessity or inspection. Developers and their respective Homebuilders will adhere to equipment clearance requirements noted in attached specifications AND on equipment labels. If the existing items mentioned above are removed, damaged, etc. by Bluebonnet, Bluebonnet expresses no guarantee, written or implied, that these items will be repaired or replaced. Requests for replacement or repair of landscaping, grass, trees, soil, etc. will be addressed and ruled on by Bluebonnet on a case by case basis. Bluebonnet will make every attempt to disturb existing items as little as possible granted their locations do not violate NESC, NEC, or Bluebonnet clearance requirements.

Front Lot Facilities / Back Lot Facilities

All overhead or underground distribution lines in a subdivision will be built on the front lot lines along public streets. Lines can be constructed along rear lot lines if the following conditions exist.

1. There is an accessible roadway from a public road (dedicated to the public or Bluebonnet) along the route of the proposed distribution line. The dedication will include language that prohibits obstructions being placed in the roadway that would prevent ready access, including but not limited to, fences, storage buildings, etc. and are required to be recorded in the deed restrictions for the applicable area(s).
2. The accessible, dedicated roadway will be an all-weather road, thirty (30) feet in width and constructed of asphalt, concrete, or crushed rock.
3. An all-weather road is defined with adequate culverts, bridges, and base material to support vehicles weighing up to 50,000 pounds during all weather conditions.

Inspection Guidelines and Procedures

1. Developer to provide all pertinent conduit contractor information to Bluebonnet Project Coordinator prior to conduit installation. Bluebonnet Project Coordinator will provide all pertinent Bluebonnet Inspector information to developer.
2. Developer will schedule and conduct a pre-construction meeting between Bluebonnet Inspector and contractor, who will install conduit at a time mutually agreeable to all parties involved.
3. Contractor foreman will review Bluebonnet construction specifications and acknowledge review and receipt prior to trenching and conduit installation.
4. Bluebonnet will respond within 48 hours of contractor notification prior to intended trenching times so inspection dates and times can be coordinated.
5. Trenches will remain open until inspected and approved by Bluebonnet inspector. Upon inspection, contractor will be advised as to what may or may not be backfilled.
6. Bluebonnet retains the right to terminate any conduit installation if inspection reveals non-compliance with Bluebonnet inspection policies, procedures, or specifications until said issues are resolved and approved through re-inspection.
7. Bluebonnet Inspector will inspect all road crossings as they are being installed by Road Contractor.
8. Equipment pad installation and conduit stubs must meet clearance requirements on all sides as outlined in Bluebonnet Specifications.
9. Developer must ensure that his conduit contractor cooperates with Bluebonnet's Inspector and corrects any problems noted. Otherwise, the Bluebonnet certification of the conduit system will be withheld and Bluebonnet's installation of electrical facilities cannot commence. Developers who fail to facilitate prompt resolution to conduit installation problems noted by Bluebonnet's Inspector will not be allowed to install conduit for Bluebonnet on existing or future projects.
10. Developer or his/her contractor is responsible for acquiring any and all permits and remitting any necessary fees for trench and conduit installation (excavation plans, traffic control plans, digging permits, etc.)

BLUEBONNET INSPECTORS

Tim Joswiak – 979-251-4044, tim.joswiak@bluebonnet.coop
Pat Majewski – 512-227-2043, pat.majewski@bluebonnet.coop
Carl Miller – 979-540-6495, carl.miller@bluebonnet.coop
George Martinez – 512-888-6310 george.martinez@bluebonnet.coop

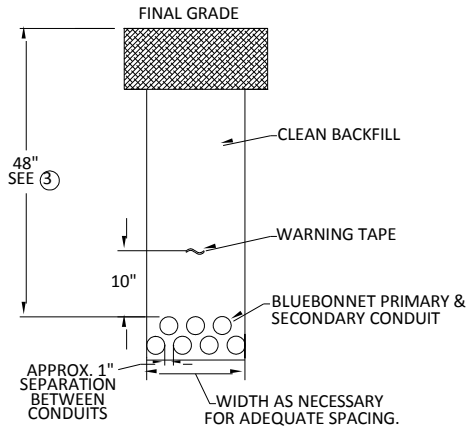
Bluebonnet Specifications

Ditch and Conduit Placement
Road Crossing
Pad Mount Switchgear Easement Requirements
Dimensions and Wiring Single-Phase Transformer
Dimensions and Wiring Single-Phase Sectionalizer
Three-Phase Transformer Pad 45-750 kVA
Three-Phase Transformer Pad 1000-2500 kVA
Dimensions for Three-Phase Sectionalizer 600A
Standard Residential Streetlight
Right-of-Way Clearing Guide
Switchgear Dimensions and Installation
Meter Loop Specifications (Multiple)

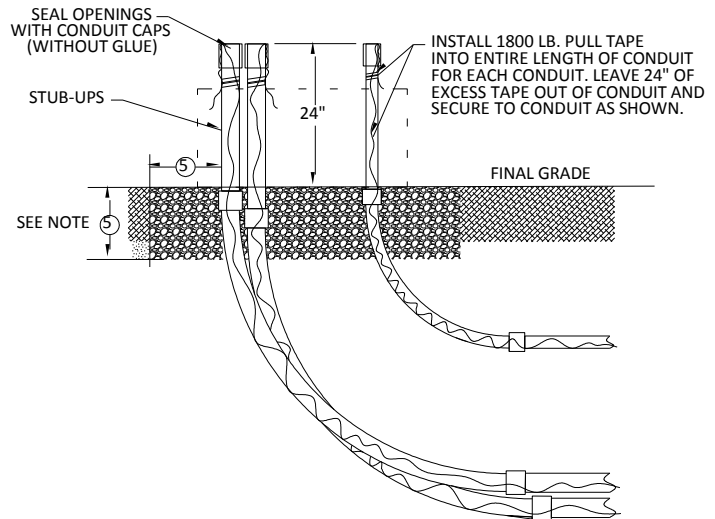
DITCH AND CONDUIT PLACEMENT

NON-ROAD CROSSING

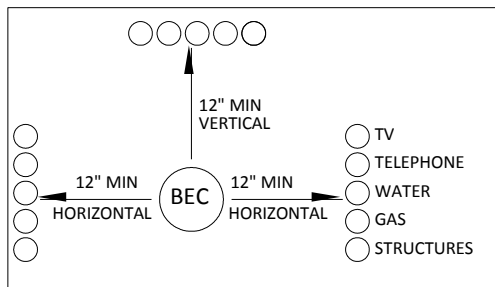
DITCH ASSIGNMENT
FRONT VIEW



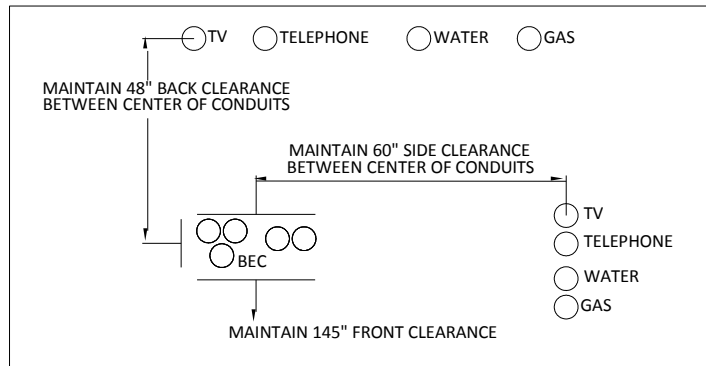
CONDUIT STUB-UP
SIDE VIEW



CONDUIT CLEARANCES
FRONT VIEW



CONDUIT STUB-UP CLEARANCES
TOP VIEW



ANY CONDUITS STUBBED OUT FOR FUTURE USE SHALL EXTEND A MINIMUM OF 5' FROM EQUIPMENT. ENDS SHALL BE MARKED WITH 3" DIAMETER GREY PVC CONDUIT, EXTENDING 4' ABOVE GRADE AND PAINTED RED.

NOTES:

1. CONDUIT SHALL BE GREY SCHEDULE 40 PVC. | PRIMARY & SECONDARY= 3" | LIGHTING= 2"
2. CONDUIT ELBOW: PRIMARY & SECONDARY= 90°, 48" SWEEP | STREETLIGHT = 90°, 24" SWEEP
3. NORMAL DITCH COVER DEPTH IS 48". ADJUSTMENTS MAY BE MADE TO 48" DEPTH IF NECESSARY UPON BLUEBONNET APPROVAL.
4. SEPARATION FROM OTHER UTILITIES SHALL BE 12" MINIMUM OR SUFFICIENT TO PREVENT ANY FORESEEN DAMAGE OF EITHER FACILITY TO THE OTHER.
5. GRAVEL FOR PADS SHALL BE 3/8" WASHED PEA GRAVEL. DEPTH AND WIDTH SHALL BE TO EQUIPMENT SPECIFICATION.



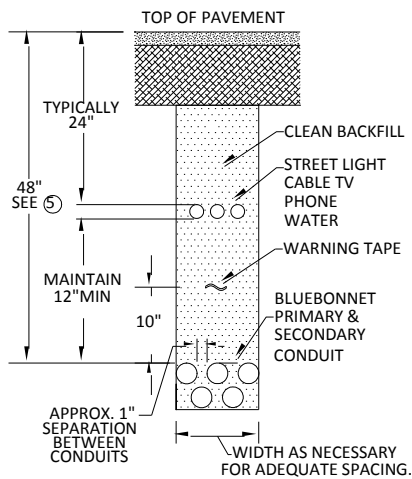
DATE APPROVED:
SEPTEMBER 8, 2016

UNDERGROUND DISTRIBUTION

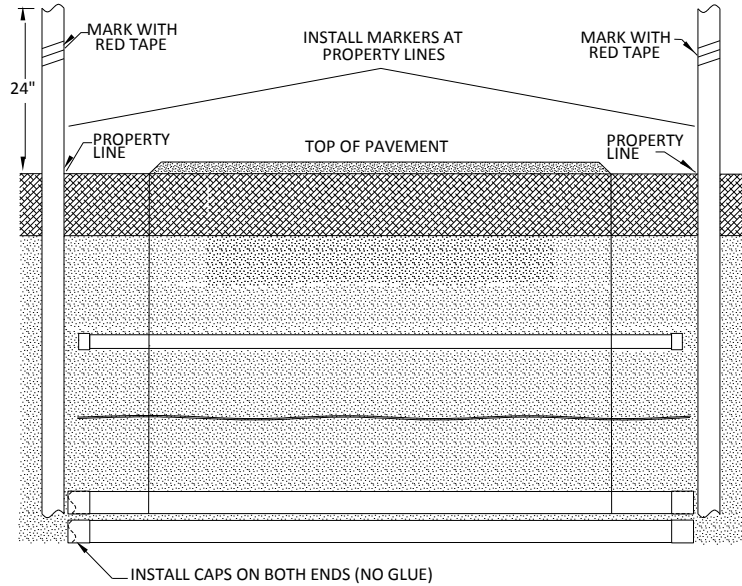
J-3

DITCH AND CONDUIT PLACEMENT ROAD CROSSING

**CONDUIT
FRONT VIEW**



**CONDUIT
SIDE VIEW**



ANY CONDUITS STUBBED OUT FOR FUTURE USE SHALL EXTEND A MINIMUM OF 5' FROM EQUIPMENT. ENDS SHALL BE MARKED WITH 3" DIAMETER GREY PVC CONDUIT, EXTENDING 4' ABOVE GRADE AND PAINTED RED.

NOTES:

1. STATE AND LOCAL CODES MAY REQUIRE DIFFERENT STANDARDS, IN WHICH CASE THE MOST STRINGENT CODE SHALL TAKE PRECEDENCE.
2. CONDUIT SHALL BE MINIMUM GRAY SCHEDULE 40 PVC. | PRIMARY & SECONDARY = 3" | LIGHTING = 2"
3. CONDUIT ELBOW: PRIMARY & SECONDARY = 90°, 48" SWEEP | LIGHTING = 90°, 24" SWEEP
4. LENGTH OF CONDUITS SHALL BE FROM PROPERTY LINE TO PROPERTY LINE.
5. NORMAL COVER DEPTH IS 48". ADJUSTMENTS MAY BE MADE TO 48" DEPTH IF NECESSARY UPON BLUEBONNET APPROVAL.

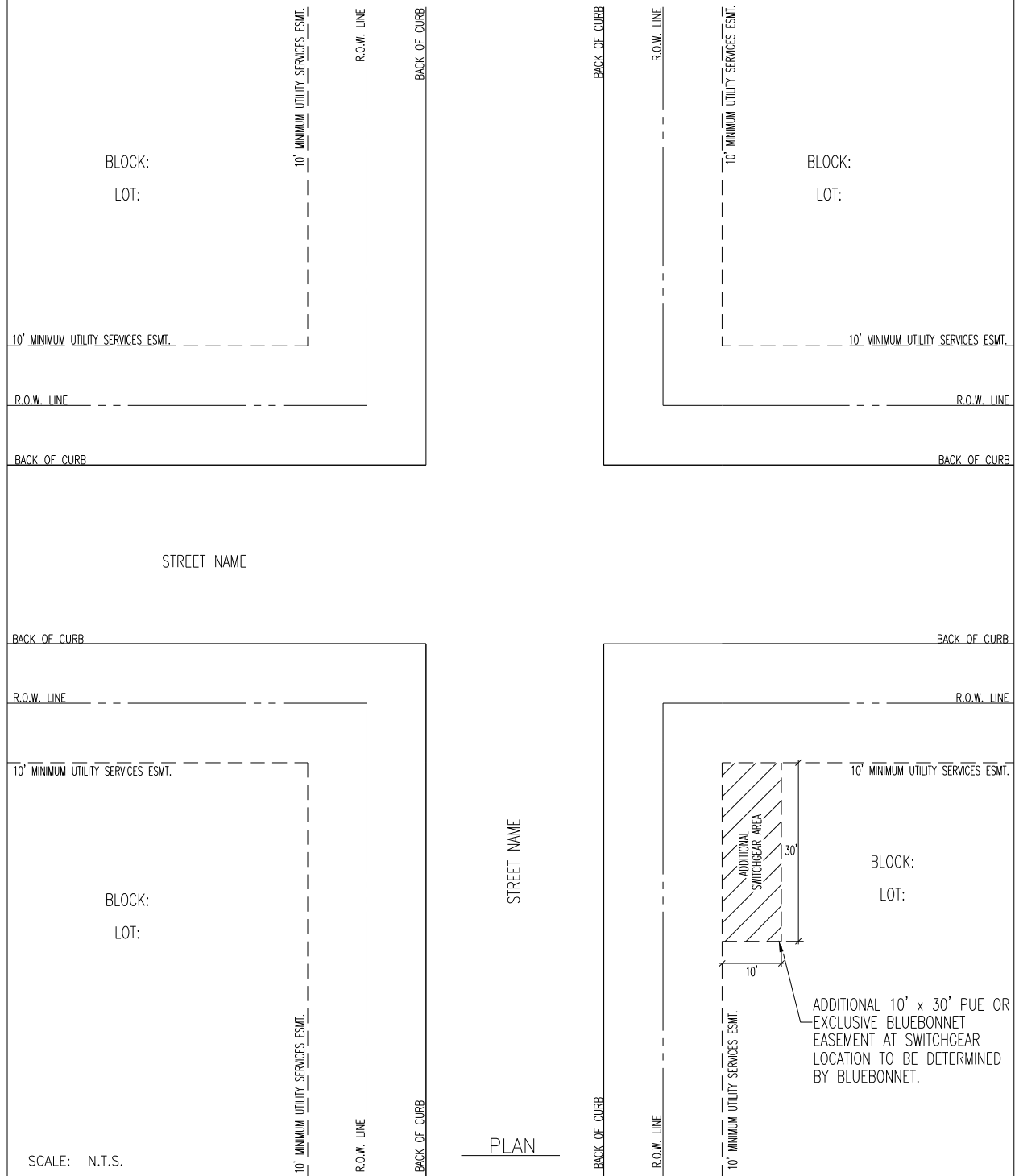


DATE APPROVED:
SEPTEMBER 8, 2016

UNDERGROUND DISTRIBUTION

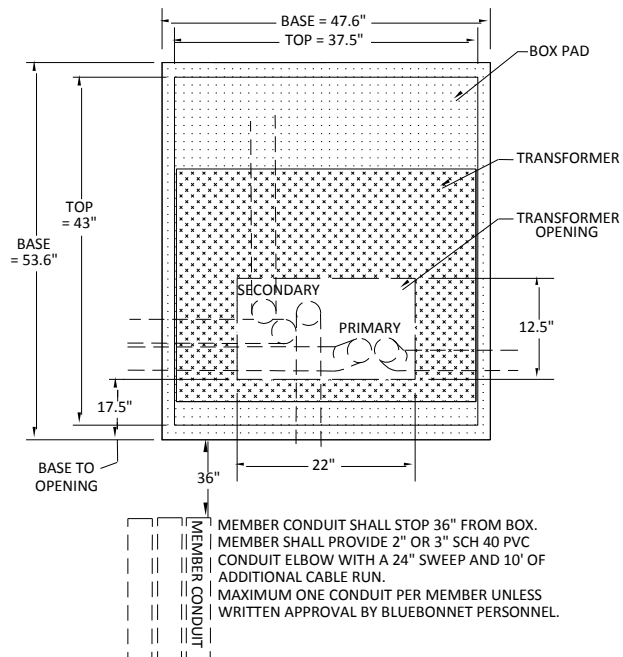
J-4

BLUEBONNET ELECTRIC COOPERATIVE REQUIREMENTS FOR SWITCHING EQUIPMENT PLACEMENT

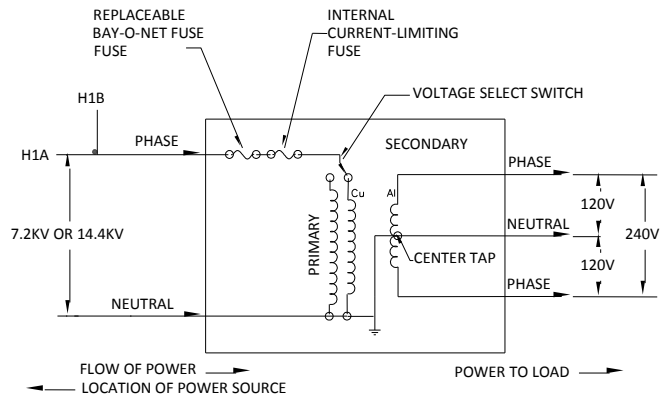


1PH PADMOUNT TRANSFORMER DIMENSIONS AND WIRING

TOP VIEW

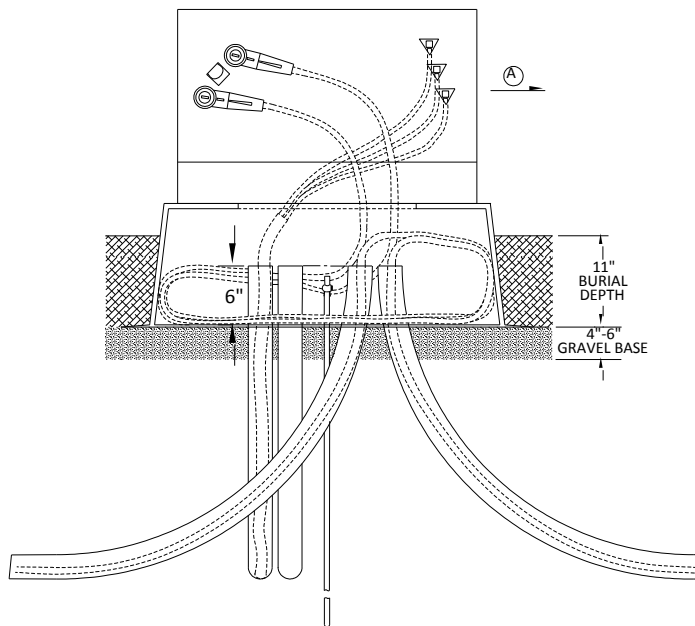


WIRING DIAGRAM

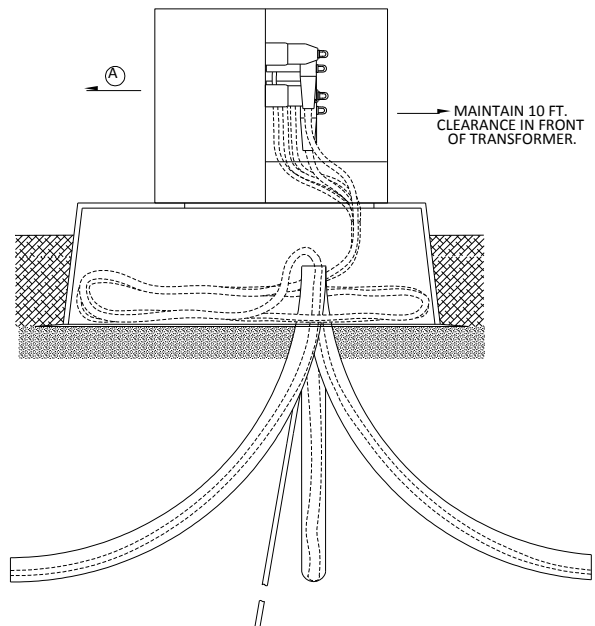


- Ⓐ CLEARANCE BETWEEN WALLS AND TRANSFORMER:
NON-COMBUSTIBLE - 3 FT.
COMBUSTIBLE: UP TO 75 kVA - 10 FT.
GREATER THAN 75 kVA - 20 FT.

FRONT VIEW



SIDE VIEW



DATE APPROVED:
SEPTEMBER 8, 2016

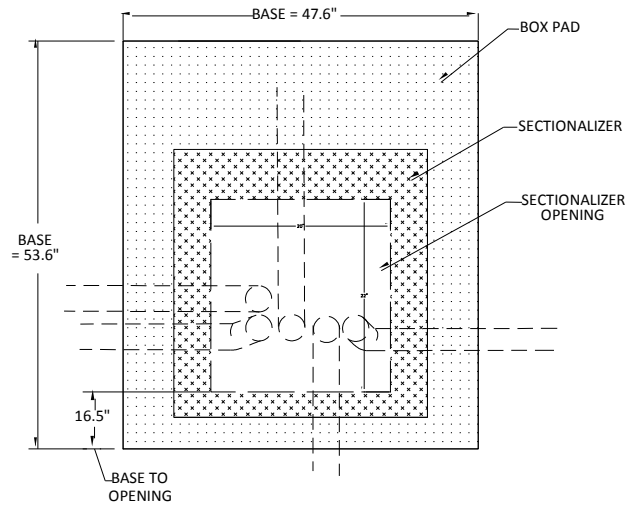
UNDERGROUND DISTRIBUTION

A-2

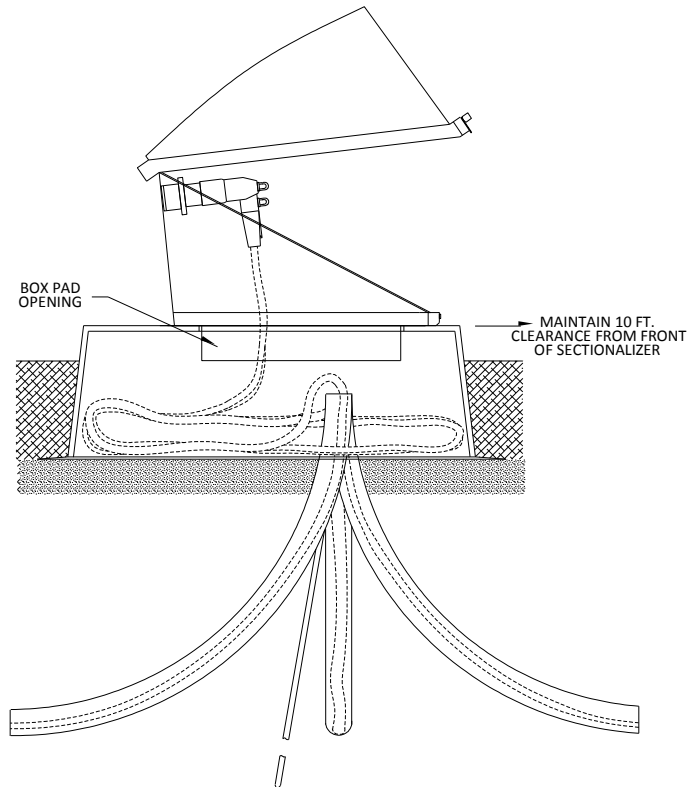
1PH PADMOUNT SECTIONALIZER

DIMENSIONS AND WIRING

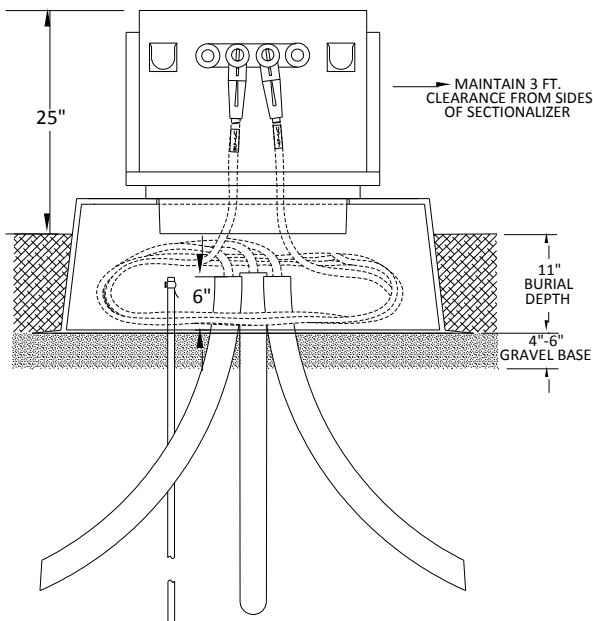
TOP VIEW



SIDE VIEW

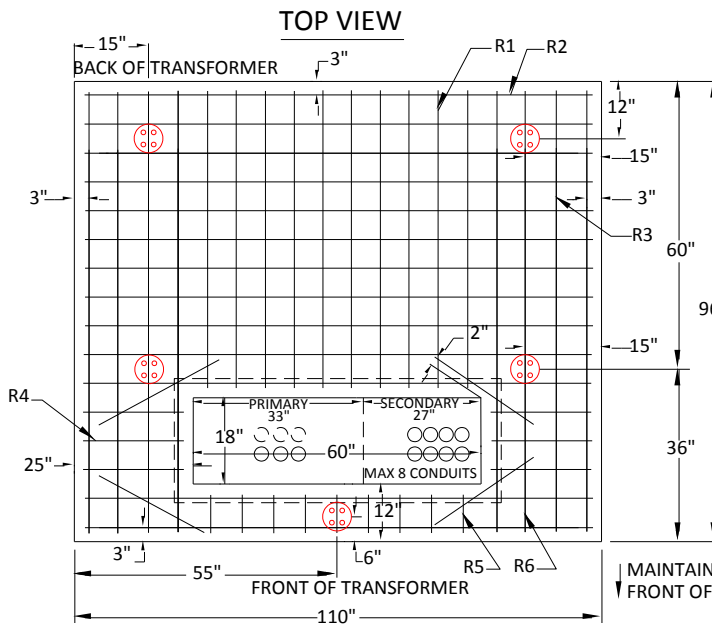


FRONT VIEW



3PH TRANSFORMER PAD

1000 - 2500 KVA (UM3-B)



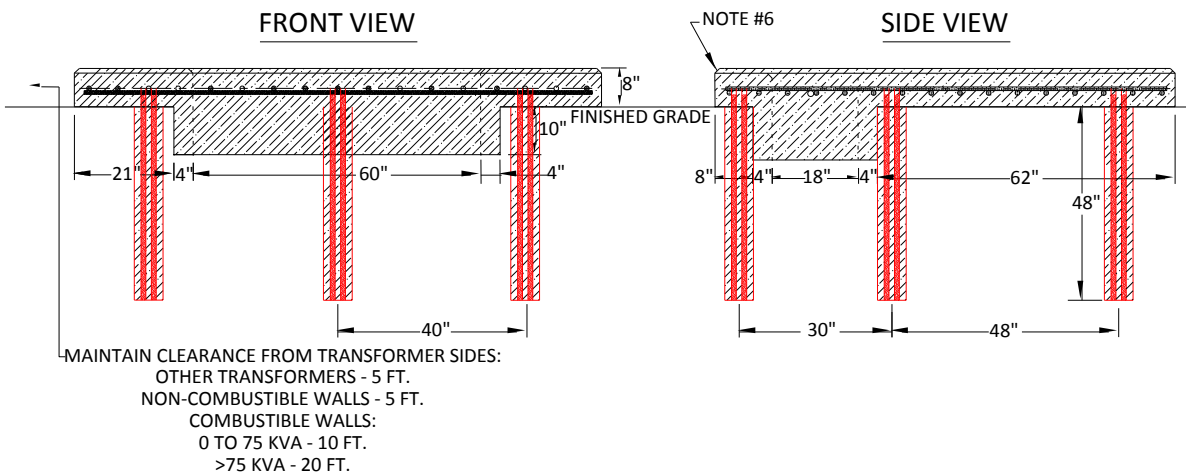
NOTES:

1. PIERS SHALL BE INSTALLED UNDER PAD WHEN DIRT HAS BEEN DISTURBED UNDER THE LOAD BEARING AREA OF PAD. TAMP BACKFILL (95%) TO TOP OF PIER SUPPORTS.
2. SUPPORT PIERS TO BE 6" IN DIAMETER.
3. PLACE PIERS AS SHOWN WITH PIER REBAR TIED INTO REBAR FOR PAD STRUCTURE.
4. TOP OF PIERS SHOULD BE LEVEL WITH FINISHED GRADE AND INSTALLED TO A DEPTH OF 48" OR BOTTOM OF DITCH.

REINFORCING BARS; 1/2"					
R1	R2	R3	R4	R5	R6
10 X 62"	13 X 106"	8 X 92"	6 X 21"	9 X 8"	4 X 25"

SEE NOTE #3

MAINTAIN 10' CLEARANCE IN
FRONT OF TRANSFORMER DOORS



NOTES:

1. TAMP GROUND UNDER PAD BEFORE SETTING TO PREVENT UNEVEN SETTLING.
2. CONCRETE: 3000 POUNDS MIN. PER SQUARE INCH; 4% TO 6% ENTRAINED AIR, 3/4" MAX. SIZE AGGREGATE.
3. REINFORCING STEEL: ATSM-A615 GRADE 60; EVENLY SPACE APPROXIMATELY 6" O.C. EACH WAY AND SECURELY TIED TOGETHER.
4. MINIMUM 2 INCH CONCRETE COVER OVER REINFORCING STEEL.
5. WOOD FLOAT LEVEL FINISH LEAVING NO DEPRESSIONS.
6. 3/4" CHAMFER ALL EDGES.
7. PRIMARY AND SECONDARY CONDUIT SHALL BE INSTALLED AND SEALED BEFORE POURING PAD.
8. MAXIMUM OF 8 CONDUITS, 4" SCHEDULE 40 PVC PIPES ARE ALLOWED IN THE SECONDARY COMPARTMENT.
9. STUB THE SECONDARY PIPES AS CLOSE TO THE EDGE SECONDARY CUTOUT AS POSSIBLE. (SEE DRAWING)
10. MAXIMUM OF 6 CONDUITS, 3" SCHEDULE 40 PVC PIPES ARE ALLOWED IN THE PRIMARY COMPARTMENT.



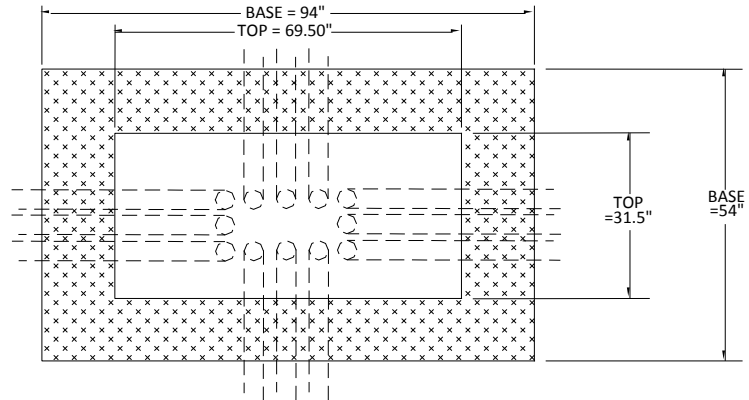
DATE APPROVED:
December 28, 2018

UNDERGROUND DISTRIBUTION

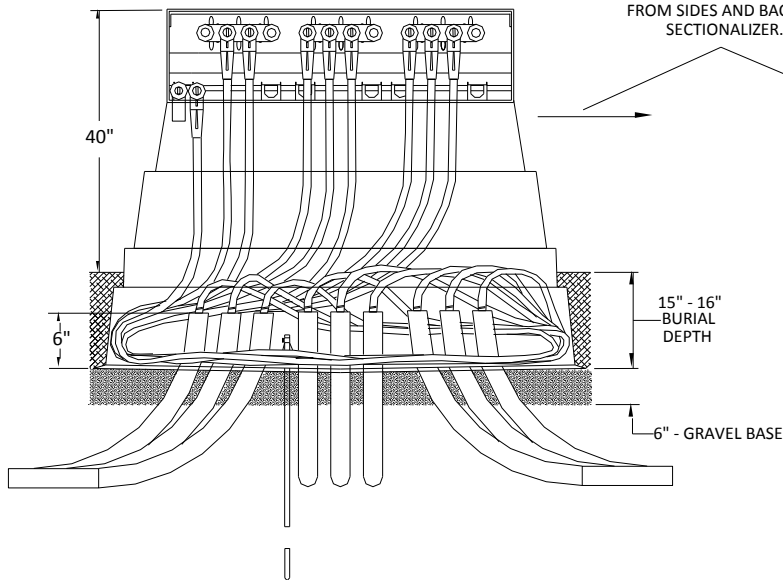
B-6

3PH 600A SECTIONALIZER - DIMENSIONS

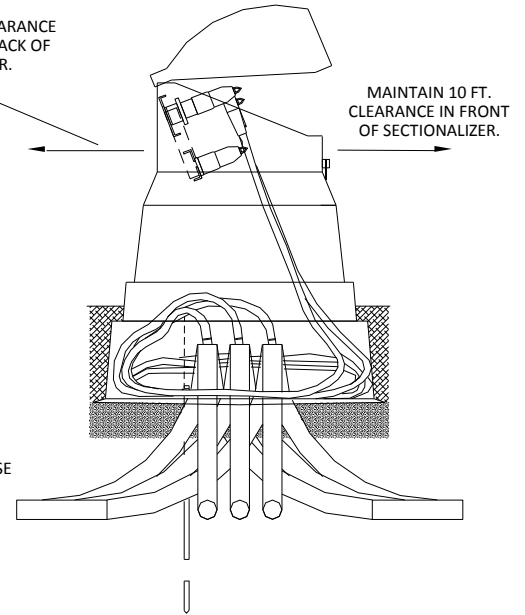
TOP VIEW



FRONT VIEW



SIDE VIEW



ANY CONDUITS STUBBED OUT FOR FUTURE USE SHALL EXTEND A MINIMUM OF 5' FROM EQUIPMENT. ENDS SHALL BE MARKED WITH 3" DIAMETER GREY PVC CONDUIT, EXTENDING 4' ABOVE GRADE AND PAINTED RED.

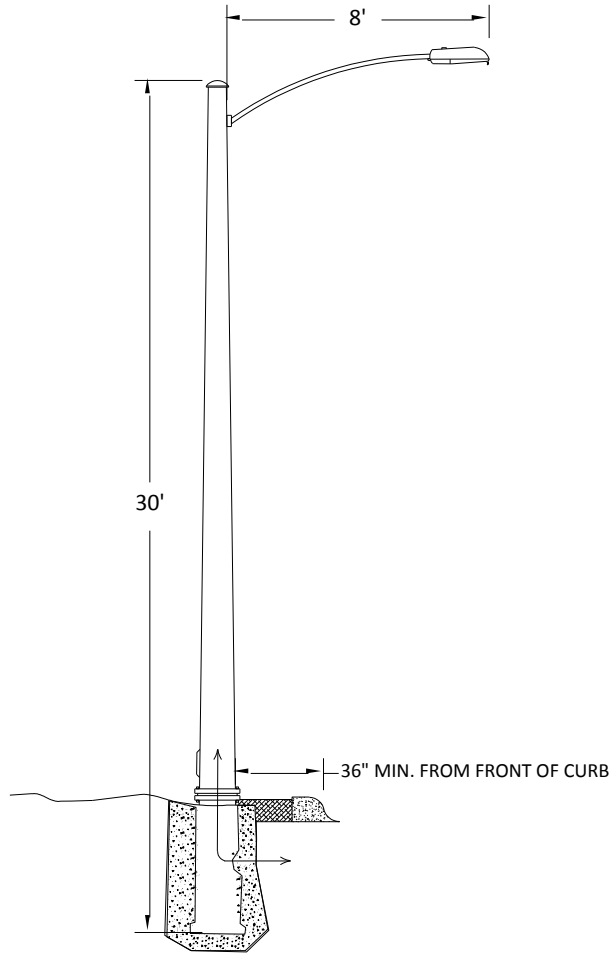


Bluebonnet

DATE APPROVED:
SEPTEMBER 8, 2016

UNDERGROUND DISTRIBUTION D-2B

STANDARD RESIDENTIAL STREETLIGHT MAST, ARM AND HEAD



NOTES:

1. COBRAHEAD FIXTURE, LED PHOTOCELL CONTROLLED.
2. IN THE ABSENCE OF A RAISED CURB, BLUEBONNET WILL DETERMINE THE LOCATION OF STREETLIGHT POLES BASED ON APPLICABLE ZONE CRITERIA.

STOCK:	QTY:	MATERIAL:	
10202	40	CABLE, #14/2 W/GROUND	
10566	1	FOUNDATION, STEEL STREET LIGHT POLE	
14842	1	POLE, ALUMINUM 30 FT. STREET LIGHT W/ 8 FT. ARM	SL53-8S
15580	1	LUMINAIRE, 53 WATT LED W/ PHOTOCELL (USED ON SL53-8S ONLY)	
15970	1	LED, STREETLIGHT MULTI VOLT 200/250W EQUIVALENT (USED ON SL94-8S ONLY)	SL94-8S
15971	1	LED, STREETLIGHT MULTI VOLT 4/400W EQUIVALENT (USED ON SL140-8S ONLY)	
10311	1	CONN, GROUND TRANS #8- 2/0	SL140-8S

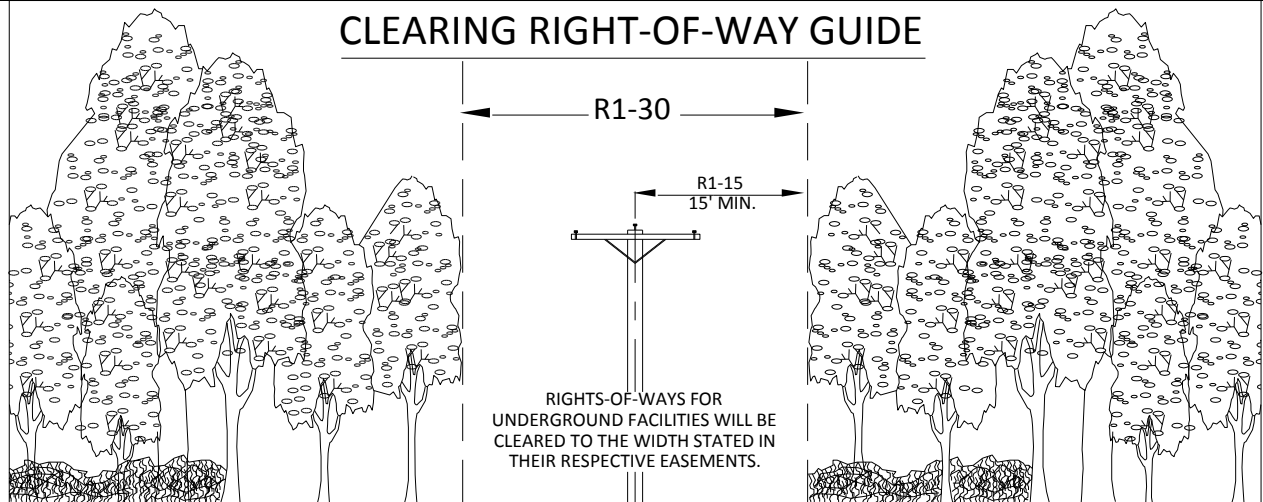


Bluebonnet

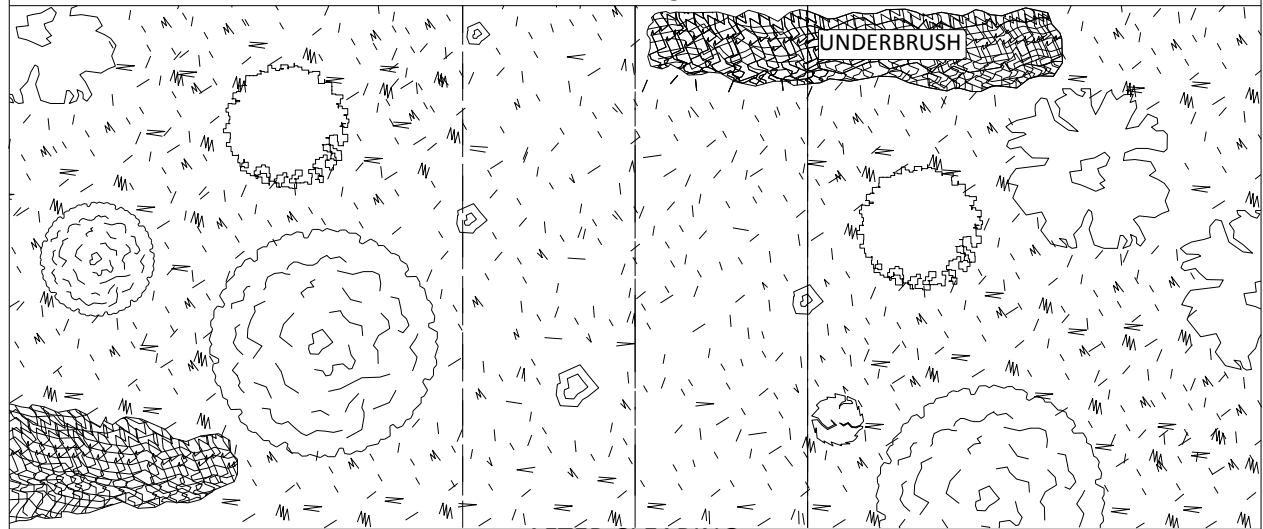
DATE APPROVED:
NOVEMBER 15, 2016

UNDERGROUND DISTRIBUTION

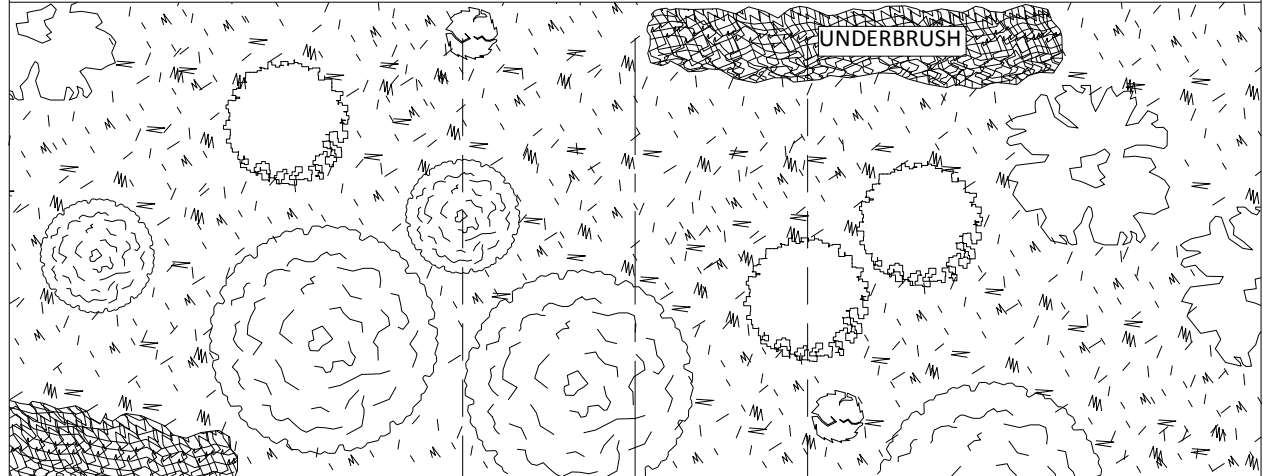
CLEARING RIGHT-OF-WAY GUIDE



ELEVATION



AFTER CLEARING



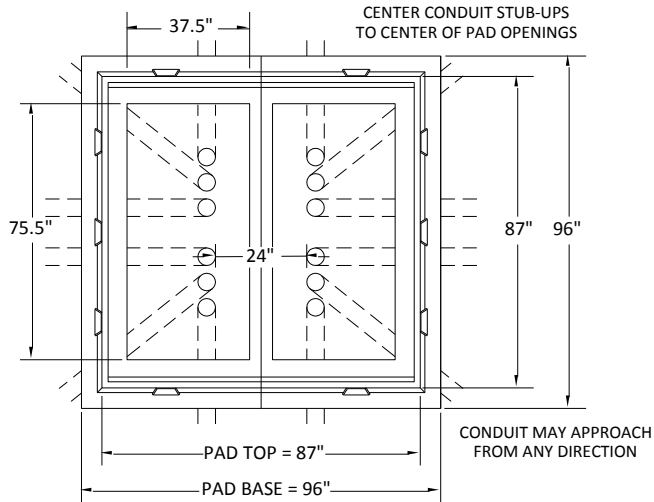
BEFORE CLEARING



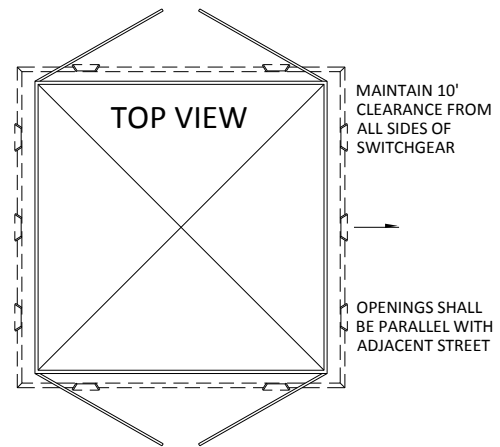
UNDERGROUND DISTRIBUTION

SWITCHGEAR - DIMENSIONS

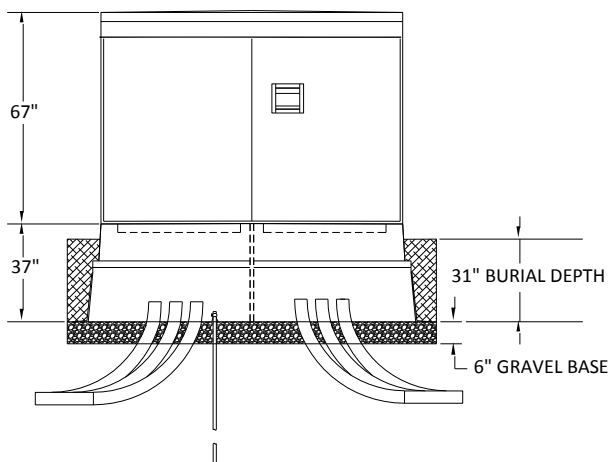
TOP VIEW



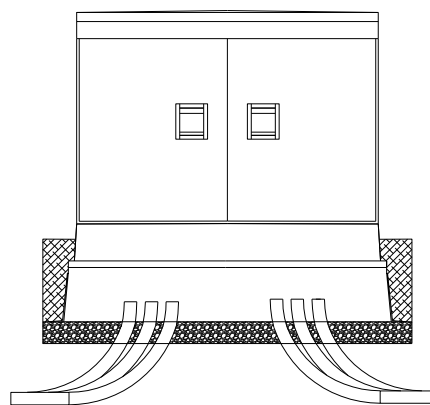
CLEARANCES



FRONT VIEW



SIDE VIEW



DATE APPROVED:
SEPTEMBER 8, 2016

UNDERGROUND DISTRIBUTION

Notes:

1. Neutral (must be insulated) may be reduced no more than two sizes on residential application. No reduction of the neutral is allowed on commercial applications.
2. Weatherproof fittings required.
3. This meter loop specification is good for the following voltages: 120/240, 120/208, 240/480 & 277/480. Please use MS-301 for straight 480 Delta applications only.
4. Meter pole must remain free of structures and private attachments other than meter loop.
5. Bluebonnet Electric will supply ground rod.
6. On steel poles use a 3/8" X 1 1/2" self tapping screw.

FOR THREE PHASE APPLICATIONS DESCRIPTION:

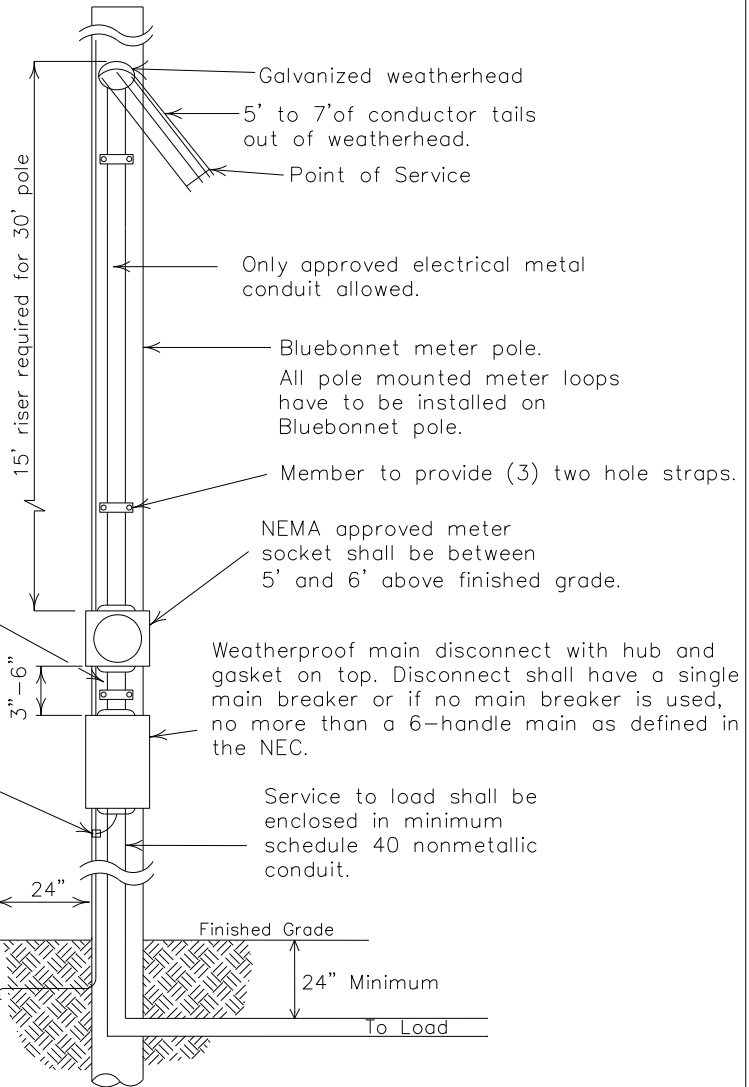
200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, on NEMA 3R. Meter cans are available for purchase through Techline or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Techline (512-332-2978)

Galvanized metal conduit with (1) locknut and fiber bushing inside meter can on nipple and (1) locknut under meter can. Maintain 3-6" distance between the meter can and the disconnect. Member shall use a metal nipple. A Straight or offset nipple is acceptable.

#6 solid, bare ground wire and clamp attached to Bluebonnet's pole ground. Ground rod provided by Bluebonnet.

* WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE, SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN BLUEBONNET SPECIFICATIONS. *

FOR THE MEMBER'S SAFETY, WIRING INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.



Latest update can be found at
<http://www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx>

CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENTS OF STANDARD WIRE SIZES (RHH, RHW, THW, THWN, THHN, AND XHHW)

THIS GUIDE REFERS TO TABLE 310.15 (B)(7), SINGLE PHASE DWELLING SERVICES. REFER TO NEC FOR OTHER CALCULATIONS.

COPPER CONDUCTOR			ALUMINUM CONDUCTOR		
Wire Size	Breaker Size	Conduit/Nipple Size	Wire Size	Breaker Size	Conduit/Nipple Size
#6	60 Amp	1 1/4" Conduit	#4	60 Amp	1 1/4" Conduit
#4	100 Amp	1 1/4" Conduit	#2	100 Amp	1 1/4" Conduit
#2	125 Amp	1 1/2" Conduit	#1/0	125 Amp	1 1/2" Conduit
#1	150 Amp	2" Conduit	#2/0	150 Amp	2" Conduit
#2/0	200 Amp	2" Conduit	#4/0	200 Amp	2" Conduit

15' METER LOOP

1Ø OR 3Ø 60-200 AMP
METER LOOP ON METER POLE

(GOOD FOR VOLTAGES: 120/240, 120/208, 240/480, 277/480)



DATE	REVISIONS	Drawn By :	Checked By :	Approved By :
11-27-17	Added Nipple after conduit size	RG	MS COMMITTEE	TE
		Scale :	Date:	
		NONE	11-27-2017	MS-10115

Notes:

1. Neutral (must be insulated) may be reduced no more than two sizes on residential application. No reduction of the neutral is allowed on commercial applications.
2. Weatherproof fittings required.
3. This meter loop specification is good for the following voltages: 120/240, 120/208, 240/480 & 277/480. Please use MS-301 for straight 480 Delta applications only.
4. Meter pole must remain free of structures and private attachments other than meter loop.
5. Bluebonnet Electric will supply ground rod.
6. On steel poles use a $\frac{3}{8}$ " X $1\frac{1}{2}$ " self tapping screw.

FOR THREE PHASE APPLICATIONS

DESCRIPTION:

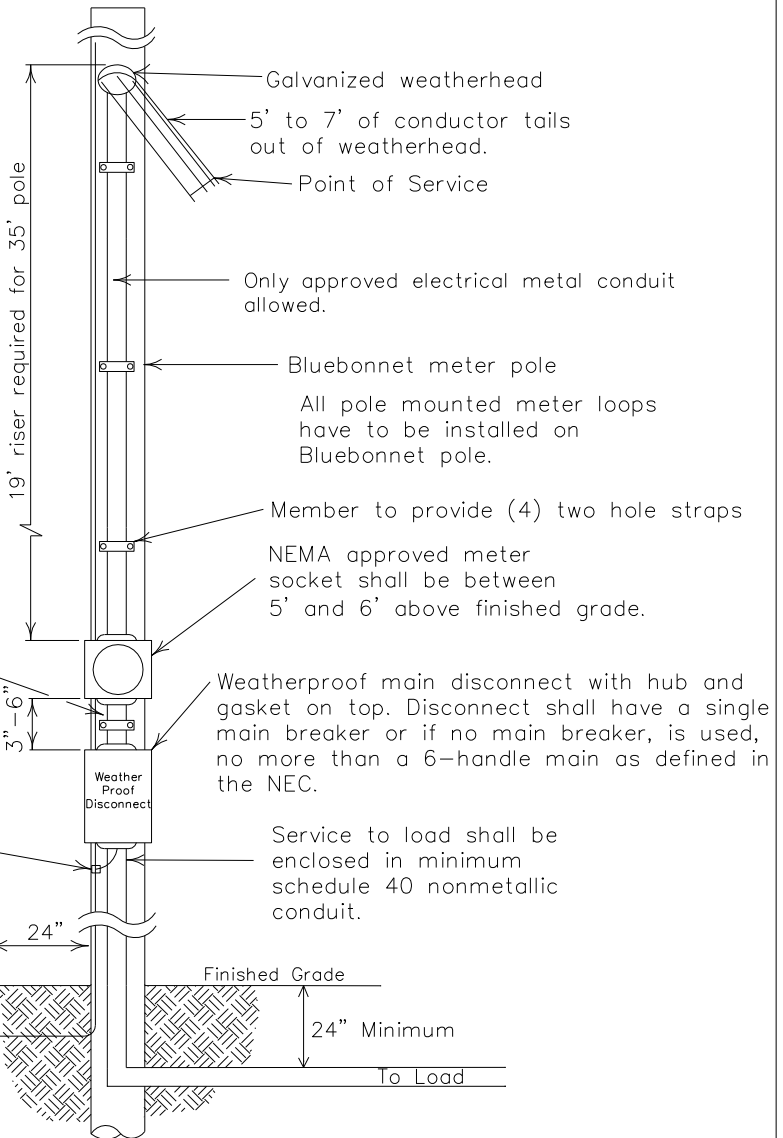
200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, an NEMA 3R. Meter cans are available for purchase through Techline or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Techline (512-332-2978)

Galvanized metal conduit with (1) locknut and fiber bushing inside meter can on nipple and (1) locknut under meter can. Maintain 3-6" distance between the meter can and the disconnect. Member shall use a metal nipple. A Straight or offset nipple is acceptable.

#6 solid, bare ground wire and clamp attached to Bluebonnet's pole ground. Ground rod provided by Bluebonnet.

* WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE, SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN BLUEBONNET SPECIFICATIONS. *

FOR THE MEMBER'S SAFETY, WIRING INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.



Latest update can be found at


<http://www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx>

CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENTS OF STANDARD WIRE SIZES

(RHH, RHW, THW, THWN, THHN, AND XHHW)

THIS GUIDE REFERS TO TABLE 310.15 (B)(7), SINGLE PHASE DWELLING SERVICES. REFER TO NEC FOR OTHER CALCULATIONS.

<u>COPPER CONDUCTOR</u>			<u>ALUMINUM CONDUCTOR</u>		
Wire Size	Breaker Size	Conduit/Nipple Size	Wire Size	Breaker Size	Conduit/Nipple Size
#6	60 Amp	1¼" Conduit	#4	60 Amp	1¼" Conduit
#4	100 Amp	1¼" Conduit	#2	100 Amp	1¼" Conduit
#2	125 Amp	1½" Conduit	#1/0	125 Amp	1½" Conduit
#1	150 Amp	2" Conduit	#2/0	150 Amp	2" Conduit
#2/0	200 Amp	2" Conduit	#4/0	200 Amp	2" Conduit

<u>19' METER LOOP</u>		 Bluebonnet		
1Ø OR 3Ø 60–200 AMP METER LOOP ON METER POLE (GOOD FOR VOLTAGES: 120/240, 120/208, 240/480, 277/480)				
DATE	REVISIONS	Drawn By :	Checked By :	Approved By :
11–27–17	Added Nipple after conduit size	RG	MS COMMITTEE	TE
		Scale :	Date:	
		NONE	11–27–2017	MS–10119

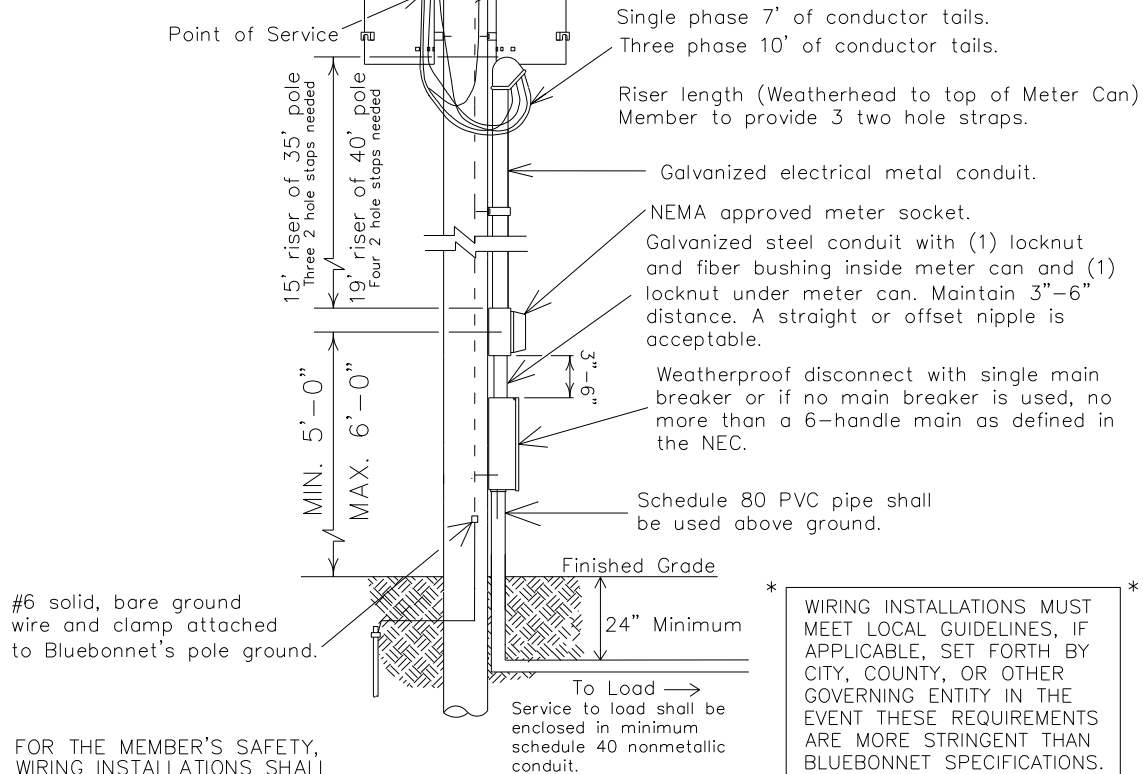
FOR THREE PHASE APPLICATIONS

DESCRIPTION:

200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R. Meter cans are available for purchase through Techline (Red Rock 512-332-2978) or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications.

Notes:

1. Neutral must be insulated and may be reduced no more than two sizes on residential application. No reduction of the neutral is allowed on commercial application.
2. Weatherproof fittings required.
3. Bluebonnet's pole must remain free of structures and private attachments other than meter loop.
4. All secondary connections made by BEC.
5. This meter loop specification is good for the following voltages: 120/240, 120/208, 277/480, 240/480 (Single phase only). Please use MS-301 for straight 480 Delta applications.
6. Bluebonnet Electric will supply ground rod.
7. On steel poles use a $\frac{3}{8}$ " x $1\frac{1}{2}$ " self tapping screw.



FOR THE MEMBER'S SAFETY,
WIRING INSTALLATIONS SHALL
CONFORM TO THE REQUIREMENTS
OF THE NEC, TDLR AND NESC.


Latest update can be found at
<http://www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx>

CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENTS OF STANDARD WIRE SIZES

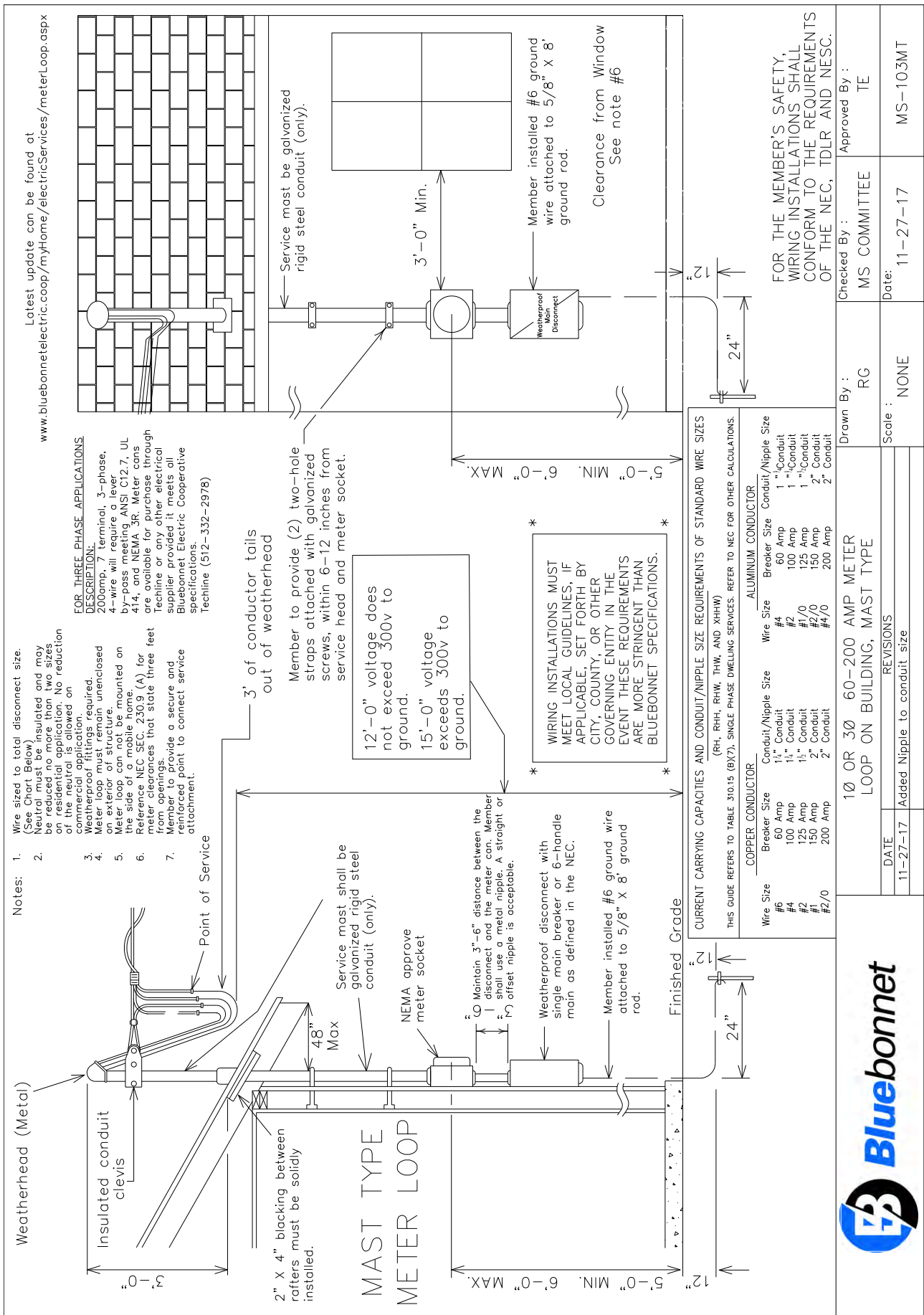
(RHH, RHW, THW, THWN, AND XHHW)

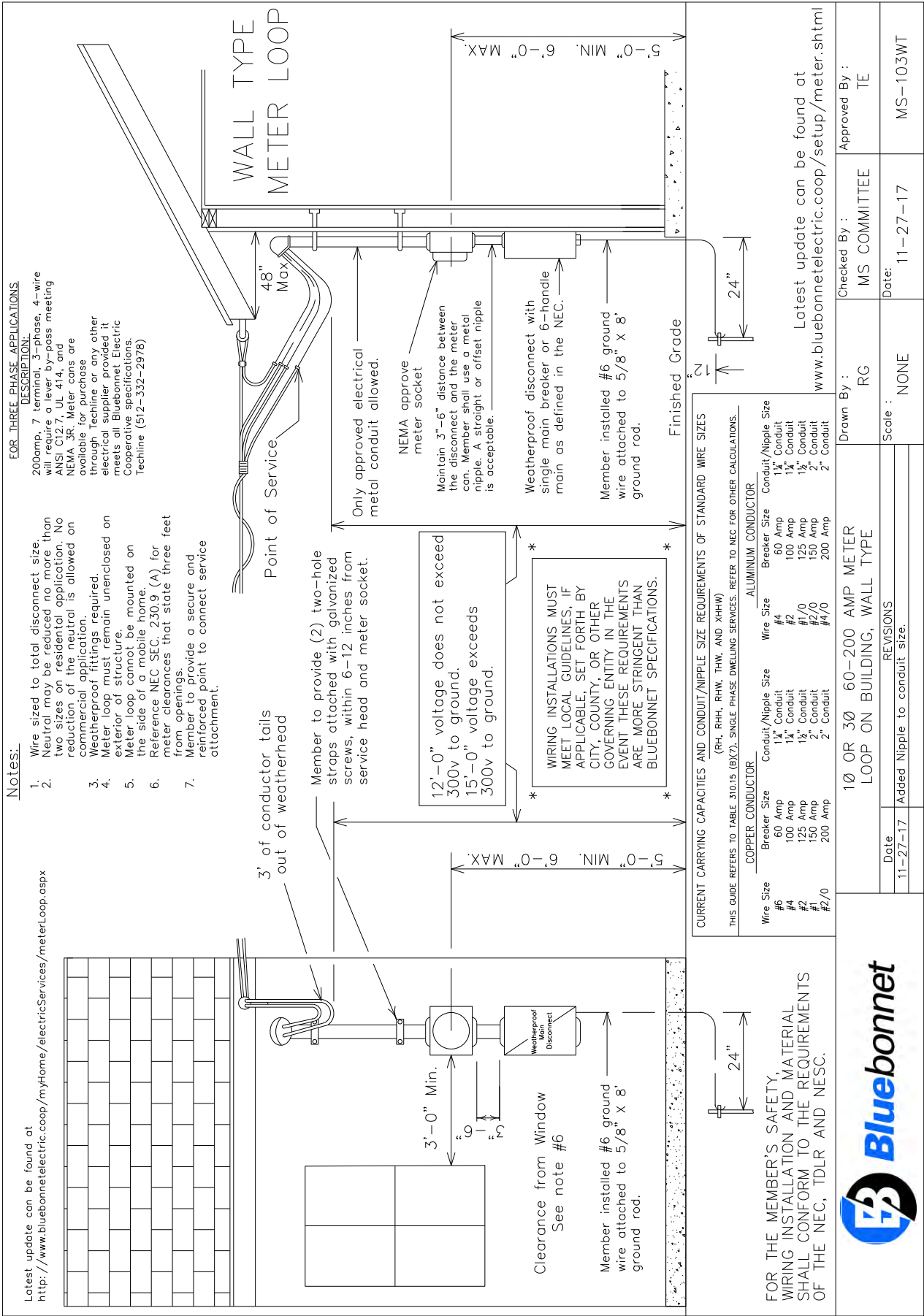
THIS GUIDE REFERS TO TABLE 310.15 (B)(7), SINGLE PHASE DWELLING SERVICES. REFER TO NEC FOR OTHER CALCULATIONS.

COPPER CONDUCTOR			ALUMINUM CONDUCTOR		
Wire Size	Breaker Size	Conduit/Nipple Size	Wire Size	Breaker Size	Conduit/Nipple Size
#6	60 Amp	1 1/4" Conduit	#4	60 Amp	1 1/4" Conduit
#4	100 Amp	1 1/4" Conduit	#2	100 Amp	1 1/4" Conduit
#2	125 Amp	1 1/2" Conduit	#1/0	125 Amp	1 1/2" Conduit
#1	150 Amp	2" Conduit	#2/0	150 Amp	2" Conduit
#2/0	200 Amp	2" Conduit	#4/0	200 Amp	2" Conduit

1Ø OR 3Ø 60–200 AMP METER LOOP ON TRANSFORMER POLE			 Bluebonnet		
DATE	REVISIONS				
11–27–17	Added nipple after conduit size.				

Drawn By :	Checked By :	Approved By :
RG	MS COMMITTEE	TE
Scale :	Date:	
NONE	11–27–17	MS–102





Notes:

- Line taps shall be made in the galvanized trough by the electrical contractor.
No more than (2) conductors per phase shall be allowed.
- No more than (2) risers will be connected per installation.
- Weatherproof fittings required.
- Wire sized to total disconnect sizes.
- Neutral(s) may be reduced no more than two sizes on residential application. No reduction of the neutral is allowed on commercial application.
- Bluebonnet pole must remain free of structures and private attachments other than meter loop riser assembly.
- Meter assembly must remain unenclosed on exterior of structure.
- Meter assembly cannot be mounted on a mobile home.
- If secondary service exceeds (2) 2", 3", or 4" approved electrical metal conduit; BEC will install a primary underground transformer at member's expense.
- Maintain 3"-6" distance between the disconnect and the meter can. Member shall use a metal nipple. A straight or offset nipple is acceptable.

FOR THREE PHASE APPLICATIONS
DESCRIPTION:

200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R. Meter cans are available for purchase through Techline or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Techline (512-332-2978)

No more than four 60-200 amp metersockets and weatherproof main disconnects.

8' ground rod to be driven 12" below grade

3000 PSI. Concrete Min.

24" Minimum

To Load

Service to load cable enclosed in minimum schedule 40 nonmetallic conduit.

FOR THE MEMBER'S SAFETY, WIRING INSTALLATION AND MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.

RISER ONLY

Only 2", 3", or 4" approved electrical metal conduit allowed above finished grade. Risers will not exceed 2 risers per pole. Member will provide 10' of conductor tails from top of weatherhead. BEC to supply Stand-Offs. (Bluebonnet to mount risers to pole)

Equipment rack 2" or 3" steel pipe with uni-strut horizontal support.

Galvanized Trough

Rack minimum 6'

Building minimum 15'

Maximum 100'

Center of Meter

5' MIN. - 6' MAX.

Finished Grade

24" Minimum

8" Min. Dia.

30" MIN

Minimum schedule 40 rigid nonmetallic service conduit below finished grade.

No schedule 40 conduit allowed above ground level on source side of main disconnect.

Transformer Pole Riser Length:

35' Pole = 20' Riser
40' Pole = 24' Riser

Service Pole Riser Length:

30' Pole = 20' Riser
35' Pole = 24' Riser

Member's Conduit

Member's conduit shall be installed 8"-12" from pole.

Transformer Pole Application

Service Pole Application

Point of Service at Transformer Pole

Point of Service at Service Pole

BEC To Supply Stand-Offs

Pipe grounding strap to be used. (Member Provided)

Schedule 80 PVC pipe shall be stubbed up 8"-12" above the ground.

* WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE, SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN BLUEBONNET SPECIFICATIONS. *

Latest update can be found at
www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx

CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENT OF STANDARD WIRE SIZE. (RHH, RHW, THW, THWN, THHN, AND XHHW)					
THIS GUIDE REFERS TO TABLE 310.15 (B)(7), SINGLE PHASE DWELLINGS SERVICES.REFER TO NEC FOR OTHER CALCULATIONS.					
WIRE SIZE	COPPER CONDUCTOR/ BREAKER SIZE	CONDUIT/NIPPLE SIZE	WIRE SIZE	ALUMINUM CONDUCTOR/ BREAKER SIZE	CONDUIT/NIPPLE SIZE
#6	60 AMP	1 1/4" CONDUIT	#4	60 AMP	1 1/4" CONDUIT
#4	100 AMP	1 1/2" CONDUIT	#2	100 AMP	1 1/2" CONDUIT
#2	125 AMP	1 3/4" CONDUIT	#1/0	125 AMP	1 3/4" CONDUIT
#1	150 AMP	2" CONDUIT	#2/0	150 AMP	2" CONDUIT
#2/0	200 AMP	2" CONDUIT	#4/0	200 AMP	2" CONDUIT

1Ø OR 3Ø 60-200 AMP MULTIPLE METERS ON RACK OR BUILDING NOT TO EXCEED A TOTAL OF 800 AMPS

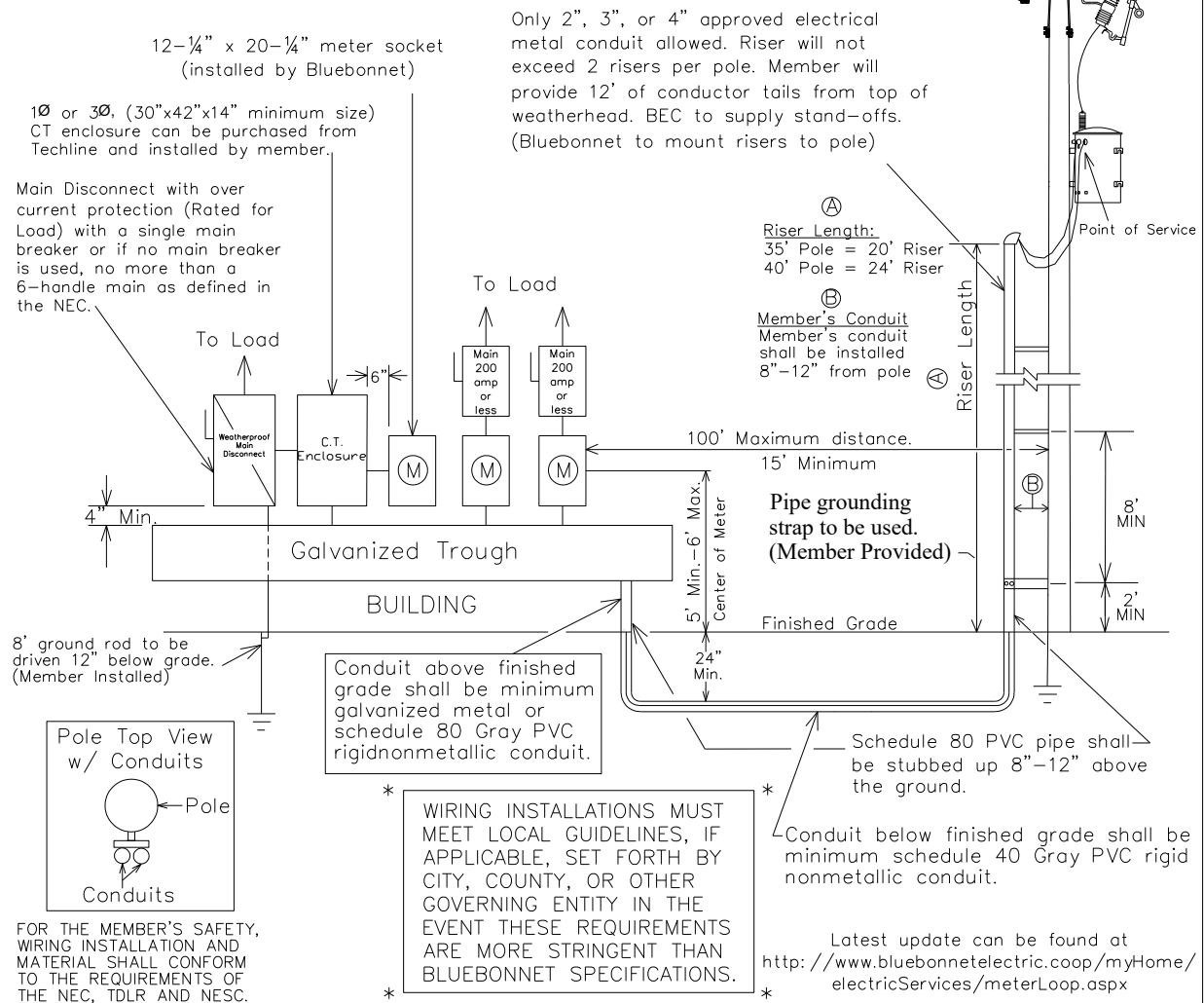


DATE	REVISIONS	Drawn By :	Checked By :	Approved By :
12-07-2017	ADDED WIRE SIZING CHART.	RG	MS COMMITTEE	TF
		Scale :	Date :	Revised January 2019
		NONE	12-07-2017	MS-105

Notes:

1. Line taps shall be made in the galvanized wiring trough by the electrical contractor.
2. Weatherproof fittings Required.
3. (2) disconnects could be substituted with (1) disconnect. All disconnects shall have over current protection installed.
4. No more than (2) risers or (2) conductors per phase shall be allowed.
5. Wire shall be sized to total name plate disconnect sizes.
6. Neutral(s) may be reduced no more than two sizes on residential application. No reduction of the neutral(s) is allowed on commercial application.
7. The electrical contractor will notify Bluebonnet 72 hours in advance to schedule Bluebonnet personnel to deliver the CT's before the service wire is pulled. The electrician shall install them on the rack with the correct polarity before the conductor is brought thru the 30"x42" (minimum size) CT enclosure. Call 800-842-7708 to schedule a connect.

8. More than (6) main disconnects require a properly sized main disconnect ahead of the galvanized trough.
9. Bluebonnet pole must remain free of structures and private attachments other than meter loop riser assembly.
10. Meter assembly must remain unenclosed on exterior of structure.
11. Type K-4, Bolt-in type meter can: Description: 400 amp, 4 terminals, 3-wire, residential/commercial socket single phase self-contained, large cover plate. These meter cans are available for purchase through Techline (512-332-2978) or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Maintain 3"-6" distance from the disconnect and the meter can. Member shall use a metal nipple. A straight or offset nipple is acceptable.



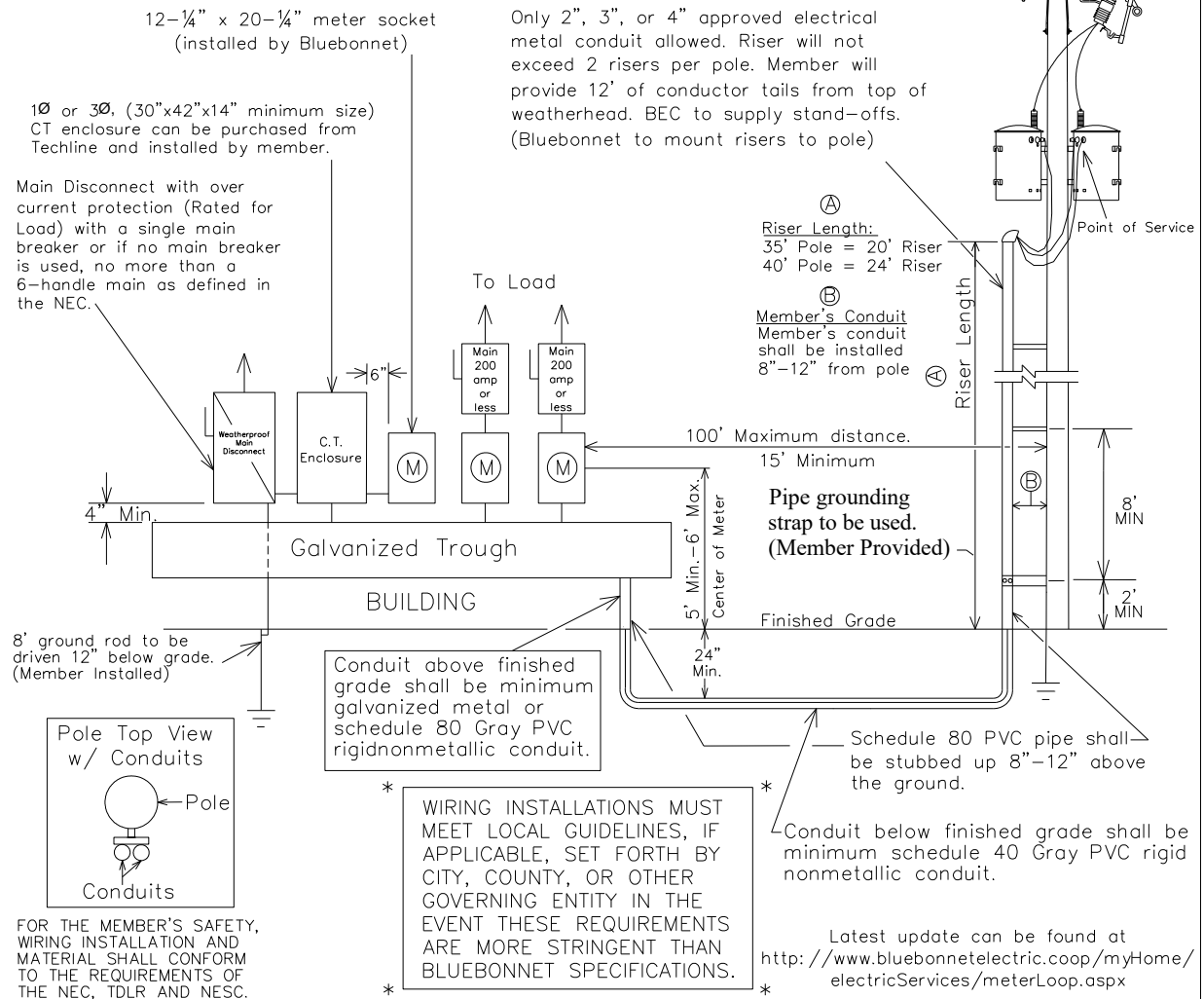
10 400-800 TOTAL AMPS WITH MULTIPLE METERING POINTS ON BUILDING. (RISER TYPE)



DATE	REVISIONS	Drawn By :	Checked By :	Approved By :
01-29-2017	Changed the dimensions of the CT Enclosure.	RG	MS COMMITTEE	TE
11/28/2017	Bold lettering of Pipe grounding Strap	Scale :	Date :	MS-114A1
		NONE	11/28/2017	

Notes:

- Line taps shall be made in the galvanized wiring trough by the electrical contractor.
- Weatherproof fittings Required.
- (2) disconnects could be substituted with (1) disconnect. All disconnects shall have over current protection installed.
- No more than (2) risers or (2) conductors per phase shall be allowed.
- Wire shall be sized to total name plate disconnect sizes.
- Neutral(s) may be reduced no more than two sizes on residential application. No reduction of the neutral(s) is allowed on commercial application.
- The electrical contractor will notify Bluebonnet 72 hours in advance to schedule Bluebonnet personnel to deliver the CT's before the service wire is pulled. The electrician shall install them on the rack with the correct polarity before the conductor is brought thru the 30"x42" (minimum size) CT enclosure. Call 800-842-7708 to schedule a connect.
- More than (6) main disconnects require a properly sized main disconnect ahead of the galvanized trough.
- Bluebonnet pole must remain free of structures and private attachments other than meter loop riser assembly.
- Meter assembly must remain unenclosed on exterior of structure.
- Type K-4, Bolt-in type meter can: Description: 400 amp, 4 terminals, 3-wire, residential/commercial socket single phase self-contained, large cover plate. These meter cans are available for purchase through Techline (512-332-2978) or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Maintain 3"-6" distance from the disconnect and the meter can. Member shall use a metal nipple. A straight or offset nipple is acceptable.



3 PHASE 200-800 TOTAL AMPS WITH
MULTIPLE METERING POINTS ON BUILDING.
(RISER TYPE)



DATE	REVISIONS	Drawn By :	Checked By :	Approved By :
01-29-2017	Changed the dimensions of the CT Enclosure.	RG	MS COMMITTEE	TE
11/28/2017	Bold lettering of pipe grounding strap	Scale :	Date :	MS-114B3
		NONE	11/28/2017	

CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENT OF STANDARD WIRE SIZE.
(RHW, THWN, THHN, AND XHHW)
THIS GUIDE REFERS TO TABLE 310.15 (B)(7), SINGLE PHASE DWELLINGS SERVICES REFER TO NEC FOR OTHER CALCULATIONS.

WIRE SIZE	BREAKER SIZE	CONDUIT/NIPPLE SIZE
#6	60 AMP	1 1/2" CONDUIT
#4	100 AMP	1 1/2" CONDUIT
#2	125 AMP	1 1/2" CONDUIT
#1	150 AMP	2" CONDUIT
#2/0	200 AMP	2" CONDUIT

WIRE SIZE	ALUMINUM CONDUCTOR BREAKER SIZE	CONDUIT/NIPPLE SIZE
#4	60 AMP	1 1/2" CONDUIT
#2	100 AMP	1 1/2" CONDUIT
#1	125 AMP	1 1/2" CONDUIT
#2/0	150 AMP	2" CONDUIT
#4/0	200 AMP	2" CONDUIT

Single Phase Transformer Layout

Transformer
Transformer Opening
Side of Transformer
MEMBER CONDUIT
36"
36"
Front of Transformer
PRIMARY
SECONDARY
MEMBER CONDUIT

MEMBER CONDUIT SHALL STOP 36" FROM BOX. MEMBER SHALL PROVIDE ELBOW WITH A 24" SWEEP AND 10' OF ADDITIONAL CONDUIT PER MEMBER UNLESS WRITTEN APPROVAL BY BLUEBONNET PERSONNEL

Notes:

1. Weatherproof fittings required.
For all URD jobs, electricians shall call TEXAS811 for locates before digging to Bluebonnet equipment. No private utilities will be located.

2. Shall install an additional 10' of wire for termination.
Main disconnect shall have a single main breaker or 6-handle main as defined in the NEC.

3. Neutral may be reduced no more than two sizes on residential application. No reduction of the neutral is allowed on commercial application.

4. Metering point must remain unenclosed on exterior of structure. Metering point can not be mounted on the side of a mobile home.

5. All connections inside pad mounted transformer and UJB's will be made by Bluebonnet.

6. THREE PHASE APPLICATIONS ONLY DESCRIPTION:
200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R. Meter cans are available for purchase through Techline or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Giddings(979-542-8657), Brenham (979-277-7240), Red Rock (512-332-2978) Member must contact Bluebonnet to determine where the secondary conduit is to be run to the transformer. Conduit to be installed 36" to the side of transformer. Call 800-842-7708 to schedule an appointment.

7. Member/Electrician shall coordinate with Bluebonnet personal to install oil conduit and the pulling of the secondary wire to the transformer. Member/Electrician shall notify Bluebonnet 48 hours in advance to schedule a time/date to perform the work.

8. If additional trips are made to the site by Bluebonnet personnel, applicable fees may be applied.

Conduit above finished grade shall be minimum galvanized metal or schedule 80 Gray PVC rigid nonmetallic conduit.

Latest update can be found at www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx

Meter rack placement from transformer:
5' from side of transformer, 10' from front of transformer and a maximum distance of a 100'.

Conduit below finished grade from underground transformer (or UJB) shall be minimum schedule 40 Gray PVC rigid nonmetallic conduit.

8' ground rod to be driven 12" below grade.
(Member Installed)

FOR THE MEMBER'S SAFETY, WIRING INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.

200 amp meter socket and weatherproof main disconnect.

Equipment rack 2" steel pipe with horizontal uni-strut supports.

Service to load cable enclosed in minimum schedule 40 Gray PVC nonmetallic conduit.

5' Min.-6' Max

12"

24" Minimum

8" Min. Dia.

To Load

Weather Proof Disconnect

Metal nipple required.

Min. 3000psi Conc.

24" Minimum

Finished Grade

Available 2" or 3" service conduit stub outs could exist on facilities installed after November, 2009. Older installations will require the installation of members conduit and elbow by Bluebonnet at transformer. If stub out does not match members conduit then member shall provide a new stub out or reducer.

Conduit below finished grade from underground transformer (or UJB) shall be minimum schedule 40 Gray PVC rigid nonmetallic conduit.

8' ground rod to be driven 12" below grade.
(Member Installed)

FOR THE MEMBER'S SAFETY, WIRING INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.

Back of Transformer

Transformer Opening

Side of Transformer

MEMBER CONDUIT

36"

36"

Front of Transformer

PRIMARY

SECONDARY

MEMBER CONDUIT

Transformer (or UJB)

Point of service Transformer secondary bushings.

Front of Transformer

Bluebonnet primary (or secondary) cable

* WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE. SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN BLUEBONNET SPECIFICATIONS. *

Drawn By : CV

Checked By : MS COMMITTEE

Approved By : BS

Scale : NONE

Date : 03/29/2018

MS-201

10 OR 30, 60-200 AMP UNDERGROUND SERVICE ON RACK OR BUILDING

DATE

REVISIONS

11/29/2017

ADDED NIPPLE AFTER CONDUIT SIZE

03/29/2018

MOVED DISCONNECT TO SIDE OF METER

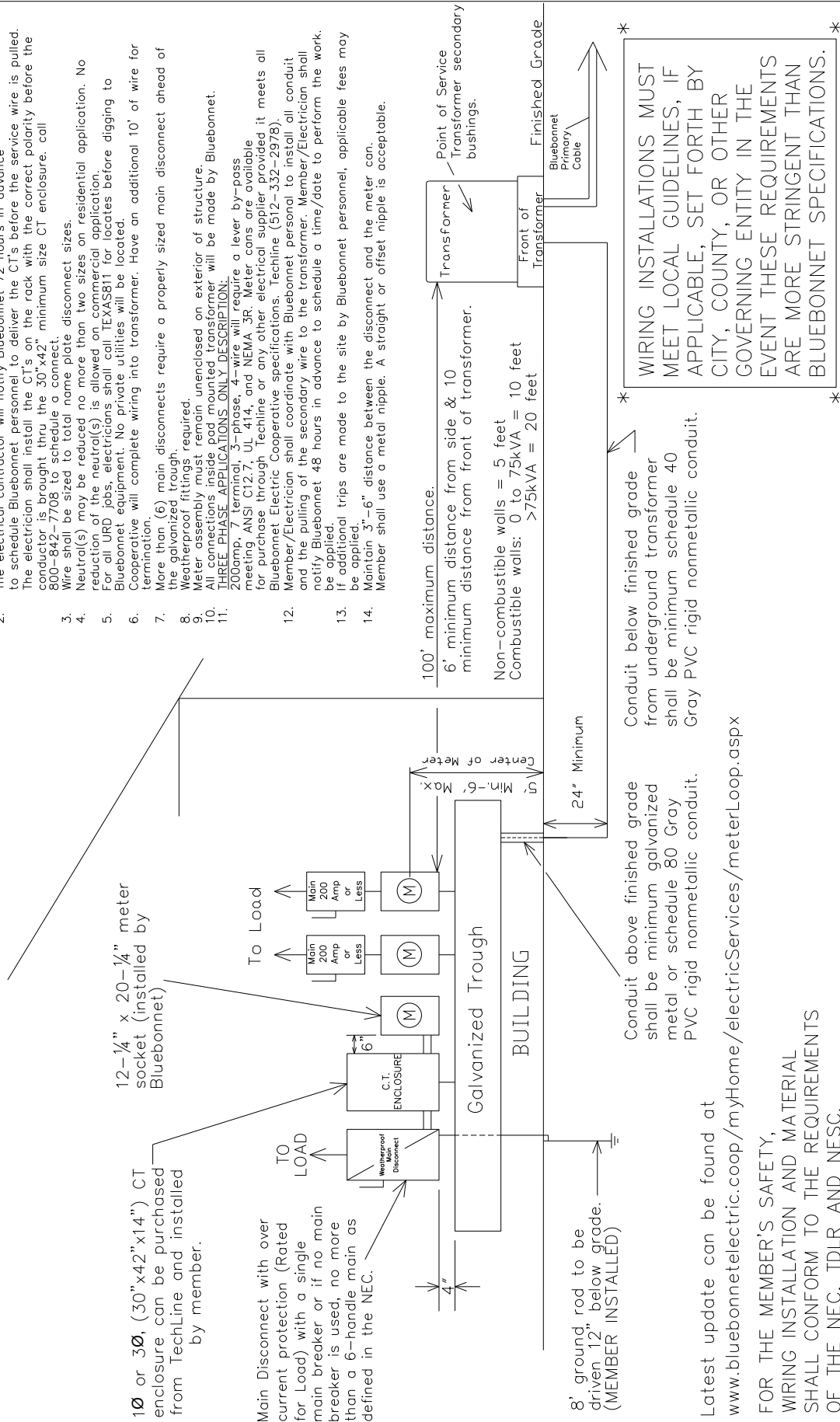
Bluebonnet

- 29 -

Revised January 2019

Notes:

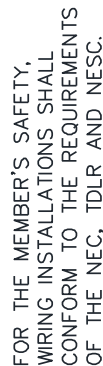
- Line taps shall be made in the galvanized wiring trough by the electrical contractor.
- The electrical contractor will notify Bluebonnet 72 hours in advance to schedule Bluebonnet personnel to deliver the CT's before the service wire is pulled. The electrician shall install the CT's on the rock with the correct polarity before the conductor is brought thru the 30"x42" minimum size CT enclosure, call 800-842-7708 to schedule a connect.
- Wire shall be sized to total name plate disconnect sizes.
- Neutral(s) may be reduced no more than two sizes on residential application. No reduction of the neutral(s) is allowed on commercial application.
- For all URD jobs, electricians shall call TEXAS811 for locates before digging to Bluebonnet equipment. No private utilities will be located.
- Cooperative will complete wiring into transformer. Have an additional 10' of wire for termination.
- More than (6) main disconnects require a properly sized main disconnect ahead of the galvanized trough.
- Weatherproof fittings required.
- Meter assembly must remain unenclosed on exterior of structure.
- All connections inside pad mounted transformer will be made by Bluebonnet.
- THREE PHASE APPLICATIONS ONLY DESCRIPTION:
200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R. Meter cans are available for purchase through Techline or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Techline (512-332-2978).
- Member/Electrician shall coordinate with Bluebonnet personnel to install all conduit and the pulling of the secondary wire to the transformer. Member/Electrician shall notify Bluebonnet 48 hours in advance to schedule a time/date to perform the work, be applied.
- If additional trips are made to the site by Bluebonnet personnel, applicable fees may be applied.
- Maintain 3"-6" distance between the disconnect and the meter can.
- Member shall use a metal nipple. A straight or offset nipple is acceptable.



1 PHASE >400 AMP UNDERGROUND WITH MULTIPLE METERING POINTS AND CT METERING ON BUILDING.		Drawn By :	Checked By :	Approved By :
DATE	REVISIONS	RG	MS COMMITTEE	TE
01-30-2017	Changed the dimensions of the CT Enclosure.	Scale :	Date :	MS-202A1
		NONE	01-30-2017	

1. Main disconnect panel may not be used as a electrical race way.
2. Line taps shall be made by the electrical contractor if a galvanized wiring trough is used.
3. Weatherproof fittings required.
4. Any combination of six disconnects totaling no more than 400 amps can be used. REF. NEC, SEC 230.71
5. Recommended wire size is either parallel 2/0 THHN copper or parallel 4/0 THHN aluminum.
6. Neutrals may be reduced no more than two sizes on residential applications. No reduction of the neutrals is allowed on commercial applications.
7. Member shall install an additional of 10' wire for termination
8. Weatherproof main disconnect panels shall have a single main breaker or 6-handle main as defined in the NEC.
9. Metering point must remain unenclosed on exterior of structure.
10. Metering cannot be mounted on the side of a mobile home

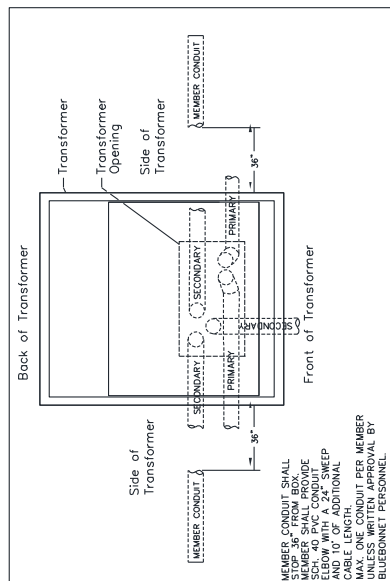
WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE, SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN BLUEBONNET SPECIFICATIONS.



1	Ø 400 AMP URD SERVICE ON RACK OR BUILDING WITH K BASE BOLTED IN METER SOCKET		Drawn By : RG	Checked By : MS COMMITTEE	Approved By : TE
	DATE	REVISIONS			
	-	-			
			Scale :	Date :	MS-203
				08-17-2016	

WIRING INSTALLATION AND MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.

1. Line taps shall be made in the galvanized trough by the electrical contractor.
2. Weatherproof fittings required.
3. Two disconnects could be substituted with (1) disconnect. All disconnects shall have over current protection.
4. Wire shall be sized to total disconnect sizes.
5. Neutral(s) may be reduced no more than two sizes on residential application. No reduction of the neutral(s) is allowed on commercial application.
6. Member shall contact Bluebonnet Electric to determine the secondary conduit location. Conduit to be installed 36" to the side of transformer. Call 800-842-7708 to schedule an appointment.
7. Bluebonnet will complete wiring into transformer. Have sufficient amount of wire for termination. Member shall install an additional 10' of wire for termination.
8. All secondary connections to be made inside transformer by Bluebonnet.
9. Bluebonnet to provide the CT's.
10. Meter assembly must remain unclosed on exterior of structure.
11. Member/Electrician shall coordinate with Bluebonnet personal to install all conduit and the pulling of the secondary wire to the transformer. Member/Electrician shall notify Bluebonnet 48 hours in advance to schedule a time/date to perform the work.
12. If additional trips are made to the site by Bluebonnet personnel, applicable fees may be applied.
13. Member shall use a metal nipple. A straight or offset nipple is acceptable.

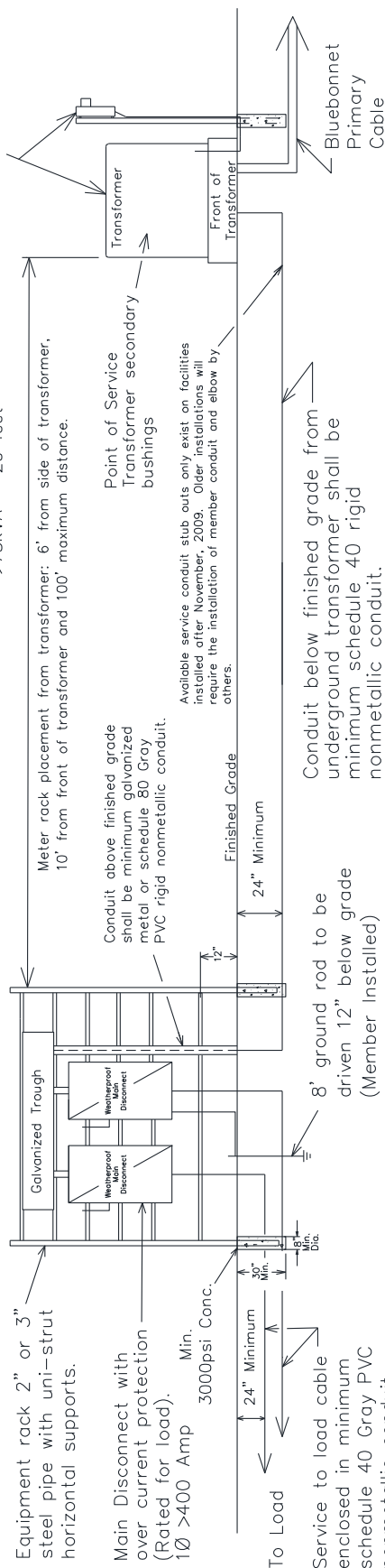


Single Phase Transformer Layout


WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE, SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN BLUEBONNET SPECIFICATIONS.

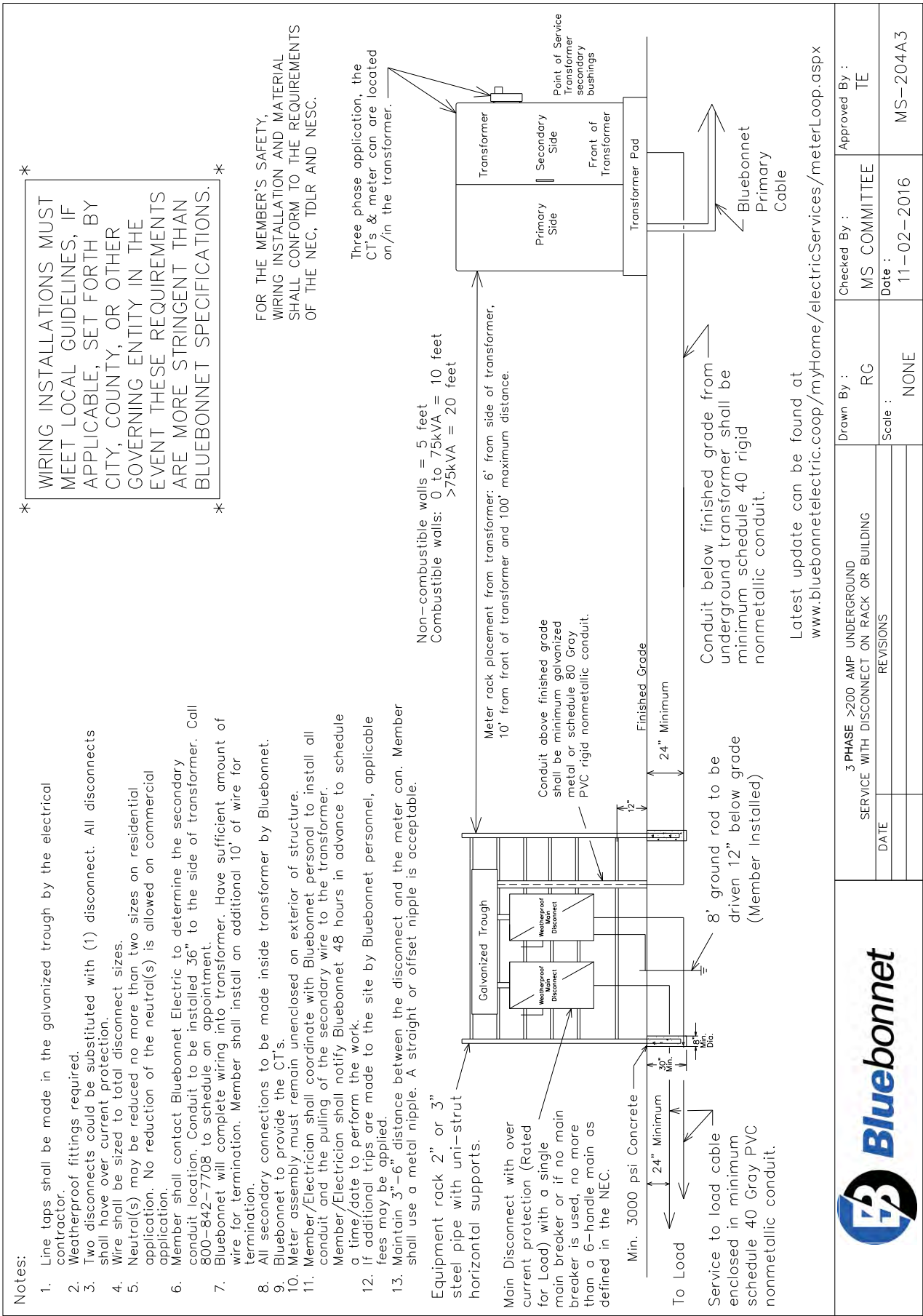
Single Phase application, the CT's are located in the transformer the meter can be located on the meter rack installed and provided by Bluebonnet.

Non-combustible walls = 5 feet
Combustible walls: 0 to 75kVA = 10 feet
 >75kVA = 20 feet



Latest update can be found at
www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx

	1 PHASE >400 AMP UNDERGROUND SERVICE WITH DISCONNECT ON RACK OR BUILDING.		Drawn By : RG	Checked By : MS COMMITTEE	Approved By : TE
	DATE	REVISIONS	Scale :	Date :	
				07-25-2016	
			NONE	MS-204A1	



Single Phase Transformer Layout

Notes:

- Line taps shall be made in the galvanized trough by the electrical contractor.
- More than (6) main disconnects require a properly sized main disconnect ahead of the galvanized trough.
- Weatherproof fittings required.
- Wire shall be sized to total disconnect sizes.
- Neutral(s) may be reduced no more than two sizes on residential application. No reduction of the neutral(s) is allowed on commercial application.
- For all URD jobs, electricians shall call TEXAS811 for locates before digging to Bluebonnet equipment. No private utilities will be located. Bluebonnet will complete wiring into transformer. Have 10 additional amount of wire for termination.
- Meter loop must remain unenclosed on the side of a mobile home.
- Meter loop can not be mounted on the side of a mobile home.
- All secondary connections made by Bluebonnet.
- THREE PHASE APPLICATIONS ONLY DESCRIPTION: 200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, and NEMA 3R. Meter cans are available for purchase through Techline or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Giddings 979-542-8657, Red Rock 512-332-2978, Brenham 979-277-7240.
- Member/Electrician shall coordinate with Bluebonnet personnel to install all conduit and the pulling of the secondary wire to the transformer. Member/Electrician shall notify Bluebonnet 48 hours in advance to schedule a time/date to perform the work. If additional trips are made to the site by Bluebonnet personnel, applicable fees may be applied.

WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE, SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN BLUEBONNET SPECIFICATIONS.

No more than four 60-200 Amp meter sockets and weatherproof main disconnects.

FOR THE MEMBER'S SAFETY, WIRING INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.

Service to load cable enclosed in minimum schedule 40 Gray PVC nonmetallic conduit.

8' ground rod to be driven 12" below grade. (Member installed)

Latest update can be found at www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx

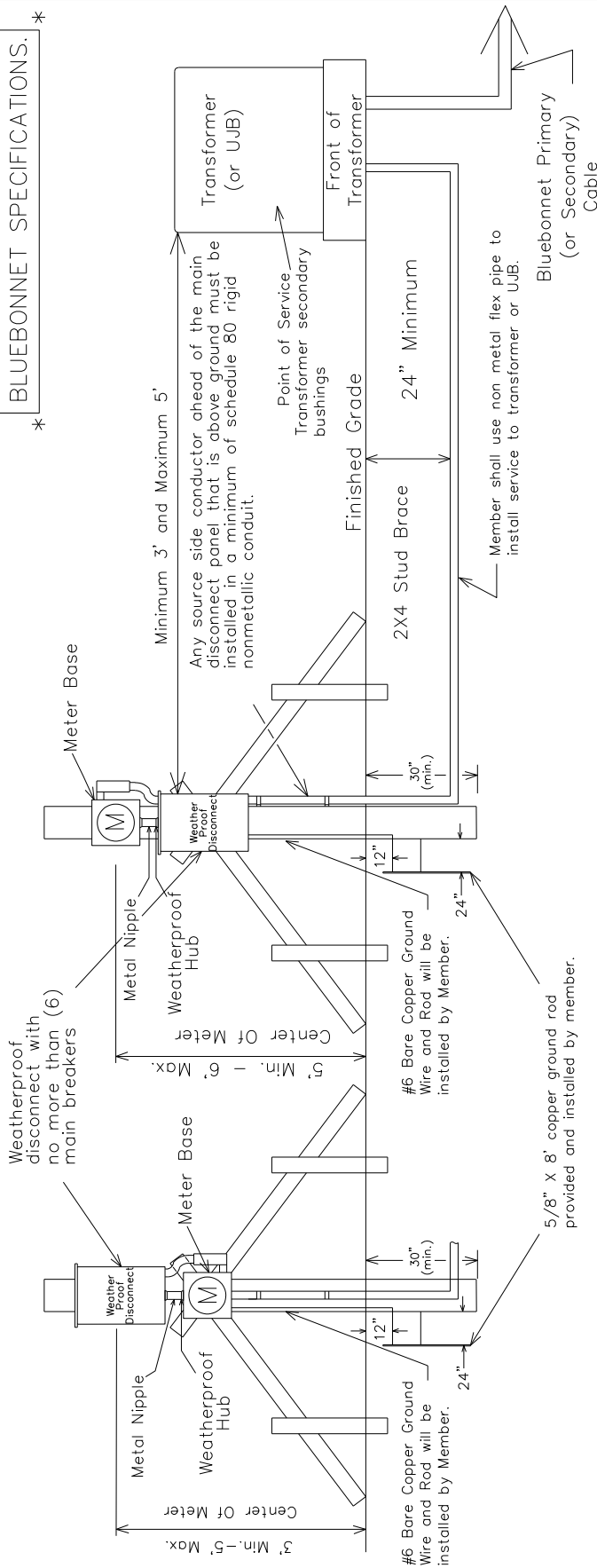
COPPER CONDUCTOR		ALUMINUM CONDUCTOR	
WIRE SIZE	BREAKER SIZE	WIRE SIZE	BREAKER SIZE
#6	60 AMP	#4	60 AMP
#4	100 AMP	#2	100 AMP
#2	125 AMP	#1/0	125 AMP
#1	150 AMP	#2/0	150 AMP
#2/0	200 AMP	#4/0	200 AMP

THIS GUIDE REFERS TO TABLE 310.15 (B)(7). SINGLE PHASE DWELLINGS SERVICES-REFER TO NEC FOR OTHER CALCULATIONS.
(RHH, RHW, THW, THHN, AND XHHW)

Notes:

1. All temporary wiring shall meet national electrical code standards.
2. All outlets attached to meter, loop shall have ground-fault circuit interrupter protection.
3. For all URD jobs, electricians shall call TEXAS811 for locates before digging to Bluebonnet equipment.
4. No private utilities will be located. Service wires shall be brought to the top side of the meter base.
5. Bluebonnet does inspect temporary meter loops and a fee shall be charged per trip for wiring inspection. Bluebonnet will refuse service if hazardous conditions exist and/or if connections do not meet specifications.
6. Bluebonnet will complete wiring into transformer or UJB. Member shall have sufficient amount of wire for termination.
7. All connections inside pad mounted transformer and UJB's will be made by Bluebonnet.
8. Temporary Meter Loop Services are good for up to 24 months of service or less.

WIRING INSTALLATIONS MUST MEET LOCAL GUIDELINES, IF APPLICABLE, SET FORTH BY CITY, COUNTY, OR OTHER GOVERNING ENTITY IN THE EVENT THESE REQUIREMENTS ARE MORE STRINGENT THAN BLUEBONNET SPECIFICATIONS.



FOR MEMBER SAFETY,
WIRING INSTALLATION AND
MATERIAL SHALL CONFORM
TO THE REQUIREMENTS OF
THE NEC, TDLR AND NESC.

Latest update can be found at
www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx

CURRENT CARRYING CAPACITIES AND CONDUIT/NIPPLE SIZE REQUIREMENT OF STANDARD WIRE SIZE
(RHH, RHW, THW, THWN, THHN, AND XHHW)
THIS GUIDE REFERS TO TABLE 310.15 (B)(7), SINGLE PHASE DWELLINGS SERVICES, REFER TO NEC FOR OTHER CALCULATIONS.

COPPER CONDUCTOR		ALUMINUM CONDUCTOR	
WIRE SIZE	BREAKER SIZE	WIRE SIZE	BREAKER SIZE
#6	60 AMP	#4	60 AMP
#4	100 AMP	#2	100 AMP
#2	125 AMP	#1/0	125 AMP
#1	150 AMP	#2/0	150 AMP
#2/0	200 AMP	#4/0	200 AMP



TEMPORARY METER LOOP FOR UNDERGROUND SERVICE

DATE	REVISIONS
11/29/2017	ADDED NIPPLE AFTER CONDUIT SIZE
03/29/2018	ADDED ADDITIONAL METER SETUP.

Drawn By :
RG
Checked By :
MS COMMITTEE
Approved By :
RG

Scale :
NONE
DATE:
03/29/2018

MS-302

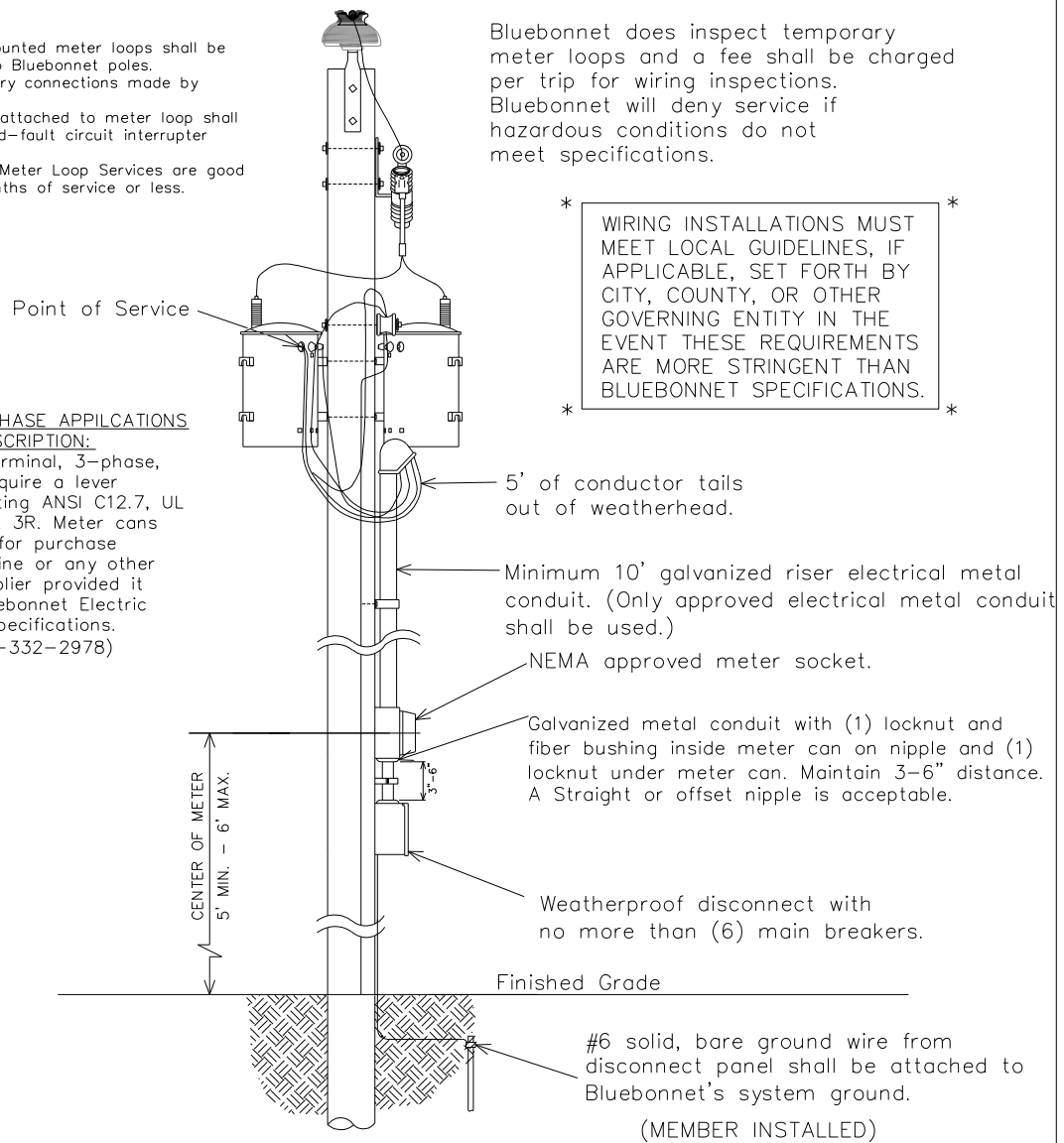
Notes:

1. All pole mounted meter loops shall be mounted to Bluebonnet poles.
2. All secondary connections made by Bluebonnet.
3. All outlets attached to meter loop shall have ground-fault circuit interrupter protection.
4. Temporary Meter Loop Services are good for 24 months of service or less.

Bluebonnet does inspect temporary meter loops and a fee shall be charged per trip for wiring inspections. Bluebonnet will deny service if hazardous conditions do not meet specifications.

FOR THREE PHASE APPLICATIONS
DESCRIPTION:

200amp, 7 terminal, 3-phase, 4-wire will require a lever by-pass meeting ANSI C12.7, UL 414, an NEMA 3R. Meter cans are available for purchase through Techline or any other electrical supplier provided it meets all Bluebonnet Electric Cooperative specifications. Techline (512-332-2978)




FOR THE MEMBER'S SAFETY, WIRING INSTALLATION AND MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE NEC, TDLR AND NESC.

Latest update can be found at www.bluebonnetelectric.coop/myHome/electricServices/meterLoop.aspx

CURRENT CARRYING CAPACITIES AND CONDUIT SIZE REQUIREMENT OF STANDARD WIRE
SIZE - (RHH, RHW, THW, THWN, THHN, AND XHHW)

THIS GUIDE REFERS TO TABLE 310.15 (B)(7), SINGLE PHASE DWELLINGS SERVICES.REFER TO NEC FOR OTHER CALCULATIONS.

<u>COPPER CONDUCTOR</u>			<u>ALUMINUM CONDUCTOR</u>		
Wire Size	Breaker Size	Conduit Size	Wire Size	Breaker Size	Conduit Size
#6	60 Amp	1¼" Conduit	#4	60 Amp	1¼" Conduit
#4	100 Amp	1¼" Conduit	#2	100 Amp	1¼" Conduit
#2	125 Amp	1½" Conduit	#1/0	125 Amp	1½" Conduit
#1	150 Amp	2" Conduit	#2/0	150 Amp	2" Conduit
#2/0	200 Amp	2" Conduit	#4/0	200 Amp	2" Conduit

1Ø OR 3Ø 60–200 AMP TEMPORARY METER LOOP FOR TRANSFORMER AND SERVICE POLES					
DATE	REVISIONS				
–	–				
–	–				
–	–				

Drawn By :	Checked By :	Approved By :
RG	MS COMMITTEE	TE
Scale :	DATE:	
NONE	08–18–2016	MS–303