

ELECTRIC SPECIFICATION DRAWINGS



ELECTRIC SPECIFICATION DRAWINGS

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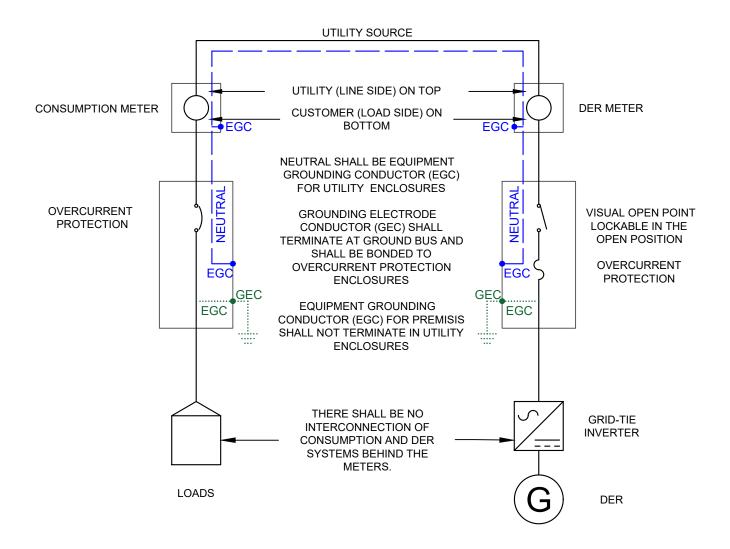
Issued: January 2023

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.

METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU.

Under no circumstances may loads be served through the DER Meter. Parasitic energy use by DER-required electronics is the only allowable exception.

Under no circumstances may the Consumption meter be subjected to power flow from the customer premises toward the utility source.

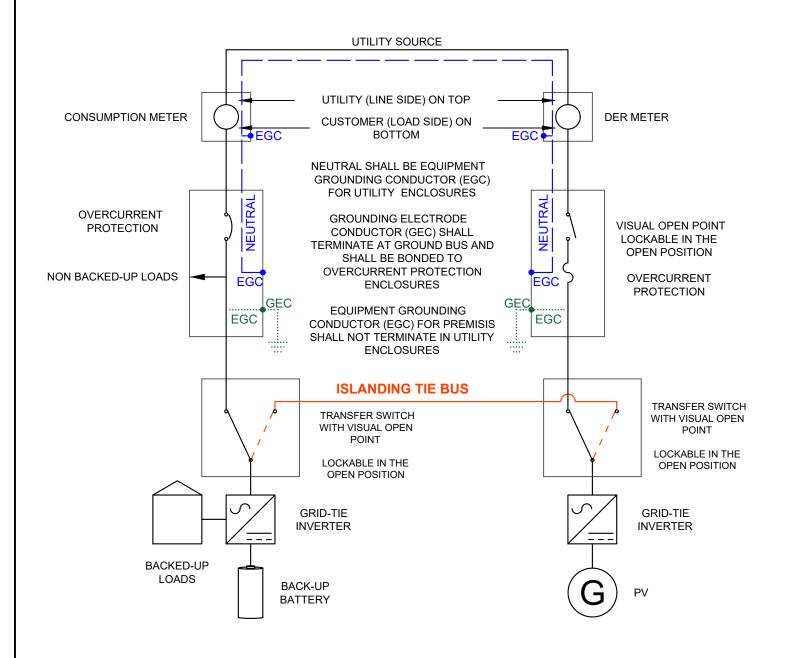




Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 CUSTOMER-OWNED GENERATION INTERCONNECTION

ISSUED SCALE DRAWING NUMBER RG-010

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation. METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU. Under no circumstances may loads be served through the DER Meter. Parasitic energy use by DER-required electronics is the only allowable exception. Islanding Tie Bus shall be connected using approved manually-operated, open transition, double throw transfer switches. Switching to island configuration must disconnect from each Utility Source before connecting to the Islanding Tie Bus. Under no circumstances may the Consumption meter be subjected to power flow from the customer premises toward the utility source. There shall be no interconnection of Consumption and DER systems behind the meters while either meter is connected to Utility Source.





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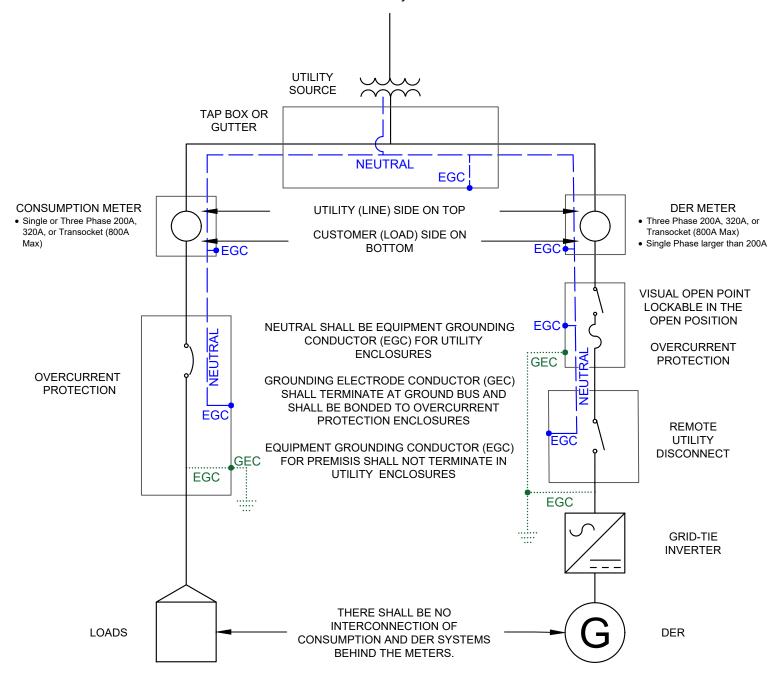
CUSTOMER-OWNED GENERATION INTERCONNECTION WITH ISLAND CAPABLE BATTERY BACKUP

ISSUED	SCALE	DRAWING NUMBER
8/21	NTS	EG-011

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.

METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU. Under no circumstances may loads be served through the DER Meter. Parasitic energy use by DER-required electronics is the only allowable exception.

Under no circumstances may the Consumption meter be subjected to power flow from the customer premises toward the utility source.



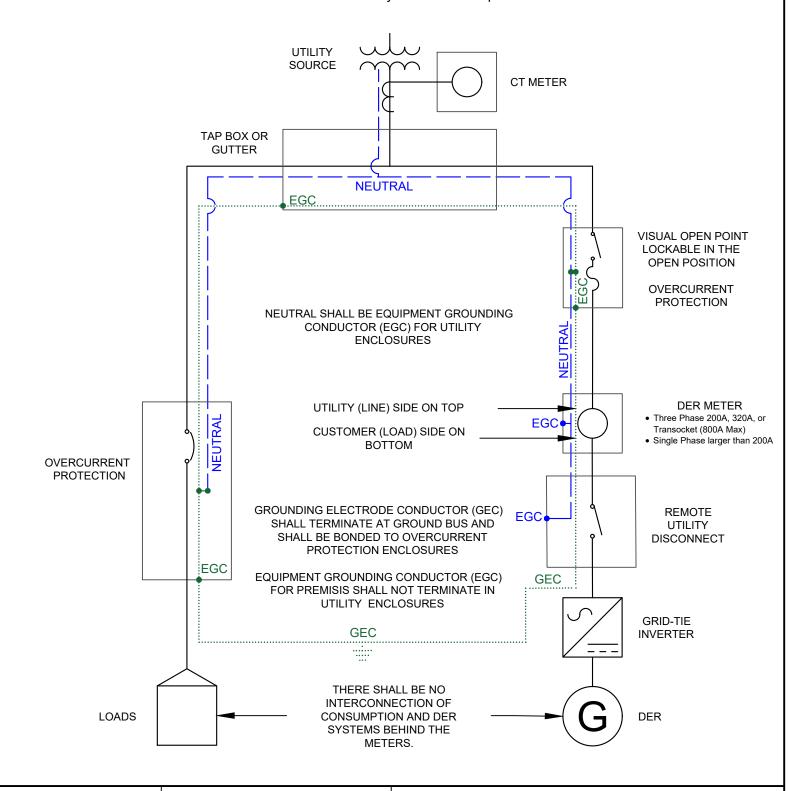


Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 DER INTERCONNECTION OTHER THAN 200 AMP SINGLE PHASE AT SHARED TRANSFORMER

ISSUED	SCALE	DRAWING NUMBER
8/21	NTS	EG-012

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.

METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU. Under no circumstances may loads be served through the DER Meter. Parasitic energy use by DER-required electronics is the only allowable exception.



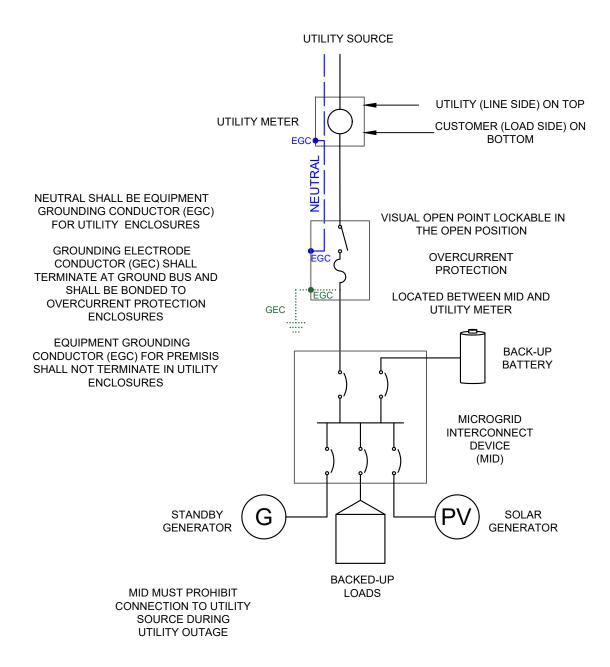


Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 DER INTERCONNECTION OTHER THAN 200 AMP SINGLE PHASE AT DEDICATED TRANSFORMER

8/21 NTS DRAWING NUMBER EG-013

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation. METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU. An approved double throw switch, either manually or automatically operated, must be provided in the service entrance equipment of the customer. This switch shall break the inital position before making the next position (open transition). In addition, no collar control device may be installed between a meter socket and NBU's meter. Such device installation is considered meter tampering.

SYSTEMS SHALL COMPLY WITH NEC ARTICLE 705





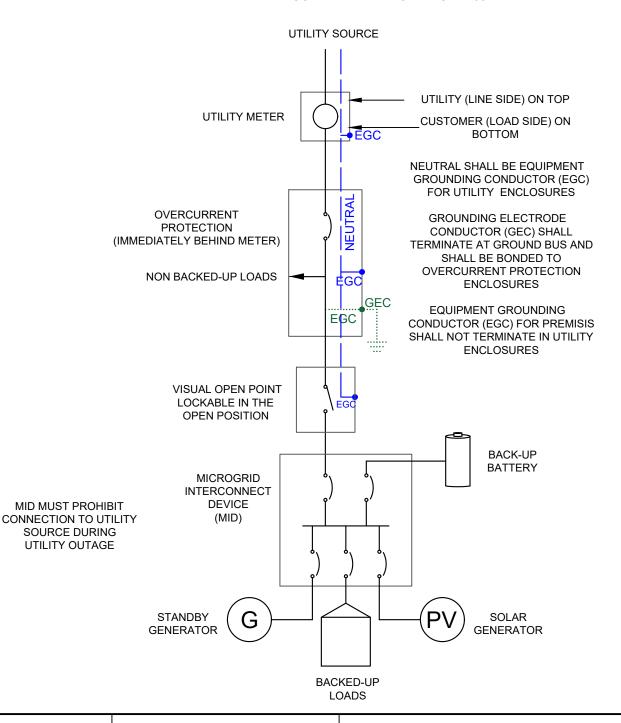
Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 ISLAND-CAPABLE, PARALLELING MICROGRID INTERCONNECTION

SCALE DRAWING NUMBER

8/21 NTS EG-014

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation. METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU. An approved double throw switch, either manually or automatically operated, must be provided in the service entrance equipment of the customer. This switch shall break the inital position before making the next position (open transition). In addition, no collar control device may be installed between a meter socket and NBU's meter. Such device installation is considered meter tampering.

SYSTEMS SHALL COMPLY WITH NEC ARTICLE 705



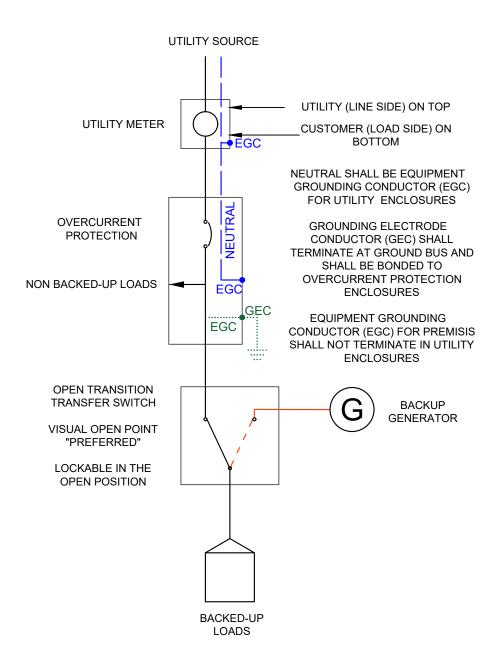


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ISLAND-CAPABLE, PARALLELING SERVICE ENTRANCE MICROGRID INTERCONNECTION

ISSUED	SCALE	DRAWING NUMBER
8/21	NTS	EG-015

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation. METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU. Under no circumstances may the utility meter be subjected to power flow from the customer premises toward the utility source. An approved double throw switch, either manually or automatically operated, must be provided in the service entrance equipment of the customer. This switch shall break the inital position before making the next position (open transition). In addition, no collar control device may be installed between a meter socket and NBU's meter. Such device installation is considered meter tampering. SYSTEMS SHALL COMPLY WITH NEC ARTICLE 702

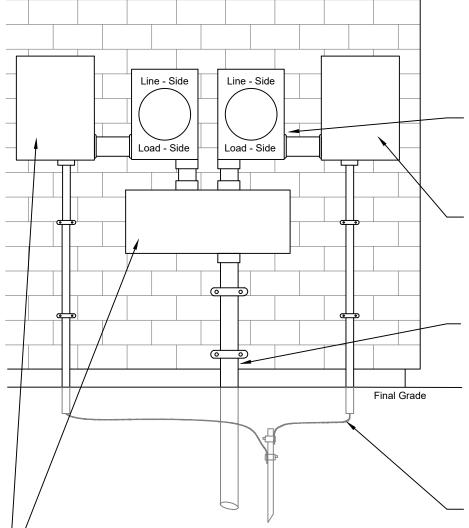




Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 CUSTOMER-OWNED BACK-UP GENERATION INTERCONNECTION

ISSUED SCALE DRAWING NUMBER

8/21 NTS EG-016



Weatherproof Tap Enclosure: Must open toward the front. Opening height must be at least two times the depth dimension. Enclosure must be lockable by NBU. Secure at four corners to sturdy structure. Enclosure to be located such that existing utility service conductors may be re-used. End of utility service conduit may not extend higher than 6' above final ground grade. Enclosure shall meet requirements of NEC Article 314.

Weatherproof Generator Disconnect: Located adjacent to Generation Meter Socket. Generation Disconnect must provide visible open point, and be lockable in the open position. Overcurrent Protection is required as close to the utility source as feasible. Refer to NEC Articles 690 and 694 for labeling and other requirements.

Minimum 3' unobstructed clearance in front of all utility service equipment. All enclosures shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. Neutral conductors to be marked with white tape inside all enclosures.

Generation and Consumption Meter Sockets: 4' minimum and 6' maximum from center of socket to final ground grade, when measured 3' in front of socket. Electrical equipment must be secured at 4 points.

Weatherproof Main Disconnect: Located adjacent to Consumption Meter Socket. Distribution panel may be located adjacent to main disconnect or inside building (not inside a closet). Overcurrent Protection is required as close to the utility source as feasible.

Utility Conduit: To be sized by NBU. Conduit should be secured with two 2-hole straps, sized to fit conduit and attached with galvanized anchors appropriate for the mounting surface. Conduit straps to be placed at a distance from each end equal to 25% lenath of exposed conduit. of the Customer-owned pipes, conduits. or equipment may not be installed in front of, behind, or otherwise interfere with access to utility conduits.

All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Shall be installed in one continous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained. Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 UNDERGROUND RESIDENTIAL GENERATION INTERCONNECTION WITH INTERMEDIATE TAP ENCLOSURE

ISSUED SCALI

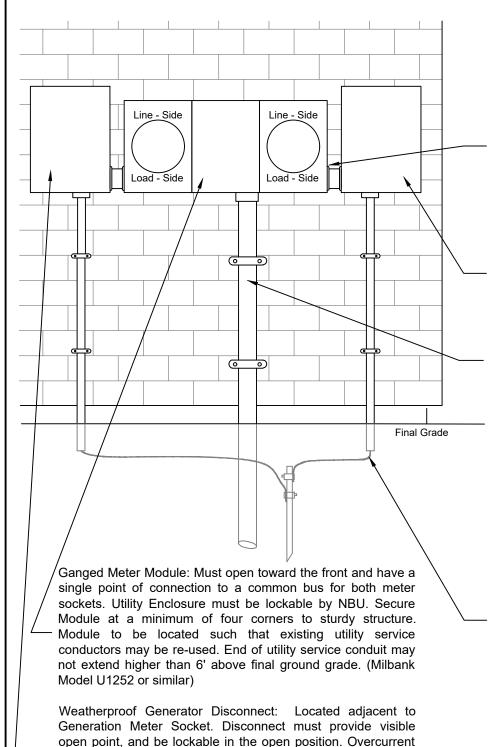
2/22

NTS

DRAWING NUMBER

ΓS

EG-020



Minimum 3' unobstructed clearance in front of all utility service equipment. All enclosures shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. Neutral conductors to be marked with white tape inside all enclosures.

Generation and Consumption Meter Sockets: 4' minimum and 6' maximum from center of sockets to final ground grade, when measured 3' in front of socket. Electrical equipment must be secured at 4 points.

Weatherproof Main Disconnect: Located adjacent to Consumption Meter Socket. Distribution panel may be located adjacent to main disconnect or inside building (not inside a closet). Overcurrent Protection is required as close to the utility source as feasible.

Utility Conduit: **To be sized by NBU**. Conduit should be secured with two 2-hole straps, sized to fit conduit and attached with galvanized anchors appropriate for the mounting surface. Conduit straps to be placed at a distance from each end equal to 25% of the length of exposed conduit. All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use. Customer-owned pipes, conduits, or other equipment may not be installed in front of, behind, or otherwise interfere with access to utility conduits.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Shall be installed in one continous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained. Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.



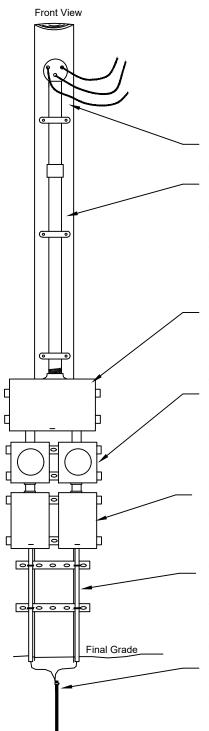
requirements.

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Protection is required as close to the utility source as feasible. Refer to NEC Articles 690 or 694 for labeling and other

UNDERGROUND RESIDENTIAL GENERATION INTERCONNECTION WITH GANGED METER MODULE

ISSUED | SCALE | DRAWING NUMBER | 2/22 | NTS | EG-025



Weatherhead: Maximum 24" from top of pole.

Rigid metal conduit: GRC, IMC, or rigid aluminum secured to pole with a minimum of three appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws. Minimum 3' excess length out of weatherhead.

Neutral shall be marked with white tape in meter socket and at the weatherhead. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor.

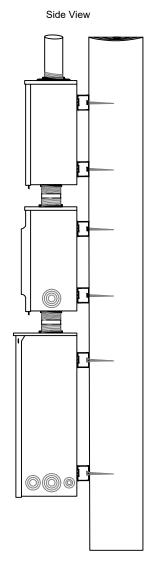
Weatherproof Tap Enclosure: Enclosure must be lockable by NBU. Secure at four corners to sturdy structure. Enclosure shall meet requirements of NEC Article 314.

Generation and Consumption Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Position to face road or driveway, or as directed/approved by NBU. Allow 2" space between meter bases. Secure each socket to two mounting channels in four locations. Meter socket enclosures shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

Generation and Consumption weatherproof main disconnect: Located below meter socket, with minimum 3' unobstructed clearance in front. Secure each disconnect in four locations to 2 appropriately spaced mounting channels. Each disconnect device shall have permanent address marking.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Enclose in 1/2" sunlight resistant PVC and continuing 2" below final ground grade. Secure each conduit to two appropriately spaced mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit. Install appropriate Intersystem Bond as per NEC 250.94 if installed on the GEC then GEC must remain continuous and the PVC protection must be maintained.

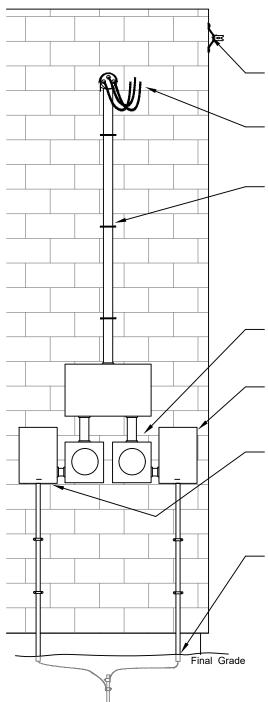
Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.





Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 OVERHEAD RESIDENTIAL GENERATION INTERCONNECTION WITH INTERMEDIATE TAP ENCLOSURE ON POLE

ISSUED | SCALE | DRAWING NUMBER | 12/22 | NTS | EG-030



Minimum 3' unobstructed clearance in front of all utility service equipment. All enclosures shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. Neutral conductors to be marked with white tape inside all enclosures and at the weatherhead.

Point of attachment: 17' above final ground grade recommended; minimum 12'-6". Shall not be more than 24" above bottom of weatherhead. Must be capable of withstanding a pull of 300 lbs. Attachment part Blackburn 6912 or equivalent.

Weatherhead: Final ground grade to bottom of weatherhead 12' minimum. Drip loop shall have 10'-6" minimum clearance to final ground grade. Minimum 3' excess length out of weatherhead.

Rigid metal conduit: Minimum 2" GRC, IMC, or rigid aluminum secured to wall with a minimum of three appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws.

Allowable Single Phase Dwelling Services per NEC 310-15 (B)(7)(1)

Weatherproof Tap Enclosure: Enclosure must be lockable by NBU. Secure at four corners to sturdy structure. Enclosure shall meet requirements of NEC Article 314.

Generation and Consumption Meter Sockets: 4' minimum and 6' maximum from center of socket to final ground grade, when measured 3' in front of socket. All electrical equipment must be secured at 4 points.

Weatherproof Main Disconnect: Located next to Consumption Meter Socket. Distribution panel may be located adjacent to main disconnect or inside building (not inside a closet). Overcurrent Protection is required as close to the utility source as feasible.

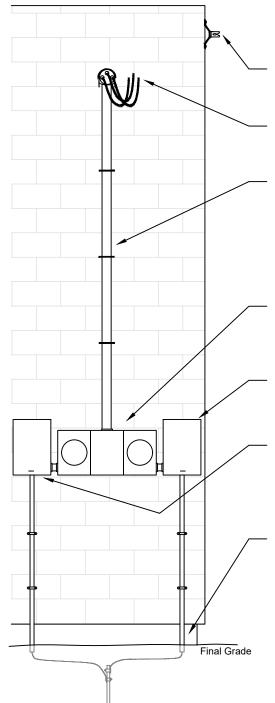
Weatherproof Generator Disconnect: Located next to Generation Meter Socket. Generation Disconnect must provide visible open point, and be lockable in the open position. Overcurrent Protection is required as close to the utility source as feasible. Refer to NEC Articles 690 and 694 for labeling and other requirements.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Shall be installed in one continous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained. Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 OVERHEAD RESIDENTIAL GENERATION INTERCONNECTION
WITH INTERMEDIATE TAP ENCLOSURE

ISSUED | SCALE | DRAWING NUMBER | 6/22 | NTS | EG-035



Minimum 3' unobstructed clearance in front of all utility service equipment. All enclosures shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. Neutral conductors to be marked with white tape inside all enclosures and at the weatherhead.

Point of attachment: 17' above final ground grade recommended; minimum 12'-6". Shall not be more than 24" above bottom of weatherhead. Must be capable of withstanding a pull of 300 lbs. Attachment part Blackburn 6912 or equivalent.

Weatherhead: Final ground grade to bottom of weatherhead 12' minimum. Drip loop shall have 10'-6" minimum clearance to final ground grade. Minimum 3' excess length out of weatherhead.

Rigid metal conduit: Minimum 2" GRC, IMC, or rigid aluminum secured to wall with a minimum of three appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws.

Allowable Single Phase Dwelling Services per NEC 310-15 (B)(7)(1)

Ganged Meter Module: Must open toward the front and have a single point of connection to a common bus for both meter sockets. Utility Enclosure must be lockable by NBU. Secure Module at a minimum of four corners to sturdy structure. Module to be located such that existing utility service conductors may be re-used. End of utility service conduit may not extend higher than 6' above final ground grade. (Milbank Model U1252 or similar). All electrical equipment must be secured at 4 points.

Weatherproof Main Disconnect: Located next to Consumption Meter Socket. Distribution panel may be located adjacent to main disconnect or inside building (not inside a closet). Overcurrent Protection is required as close to the utility source as feasible.

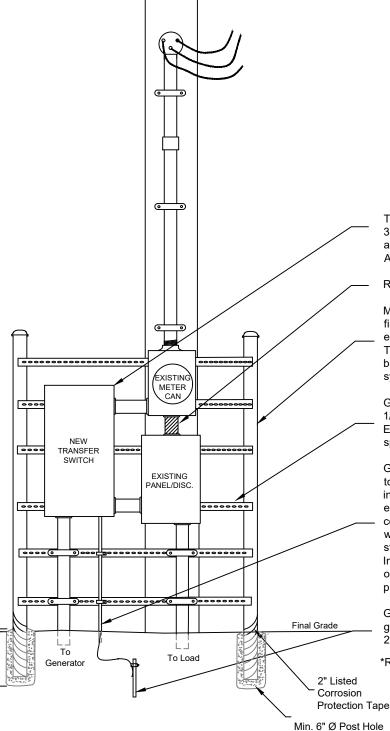
Weatherproof Generator Disconnect: Located next to Generation Meter Socket. Generation Disconnect must provide visible open point, and be lockable in the open position. Overcurrent Protection is required as close to the utility source as feasible. Refer to NEC Articles 690 and 694 for labeling and other requirements.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Shall be installed in one continous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained. Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 OVERHEAD RESIDENTIAL GENERATION INTERCONNECTION WITH GANGED METER MODULE

This specification does not necessarily meet all requirements of local Building Departments. The contractor is responsible to ensure that the installation meets all AHJ requirements. This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation. All customer installations require inspection by NBU. GEC and OCPD shall be in first enclosure after the meter.



Transfer switch: Located adjacent to meter socket, with minimum 3' unobstructed clearance in front. Transfer switch will need to be a double throw switch, either manually or automatically operated. All electrical equipment must be secured at 4 points.

Remove and cap between the meter can and panel/disc.

Meter rack: 2" GRC, or IMC, continuing a minimum of 2' below final ground grade with listed corrosion protection tape or polywrap extending 2" above and encased in concrete, 4 sack mix minimum. Top of pipe to have rain proof cap. NBU inspection required before concrete encasement. Pole cannot be used as support system.

Galvanized mounting channel, Kendorf or equivalent, 1 1/2" x 1 1/2": Welded or bolted to stand with galvanized bolts. All Electrical Equipment must be secured at four points to two appropriately spaced mounting channels.

Grounding electrode conductor: Minimum #6 copper, connected to transfer switch neutral bar (NEC 250.24(A)(1)). Shall be installed in one continuous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure conduit to rack with two appropriately spaced mounting channels with Kendork straps or equivalent, or galvanized U bolts, sized to fit conduit. Install appropriate Intersystem Bond as per NEC 250.94 if installed on the GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.

Remove Ground wire from existing panel/disconnect

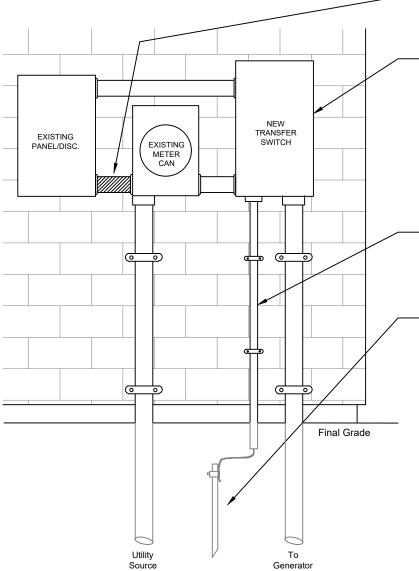
NEW BRAUNFELS UTILITIES

24"

Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 OVERHEAD RESIDENTIAL BACKUP GENERATOR SERVICE ON A POLE

ISSUED | SCALE | DRAWING NUMBER | 12/22 | NTS | EG-045

This specification does not necessarily meet all requirements of local Building Departments. The contractor is responsible to ensure that the installation meets all AHJ requirements. This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation. All customer installations require inspection by NBU. GEC and OCPD shall be in first enclosure after the meter.



Remove and cap between the meter can and panel/disc.

Transfer switch: Located adjacent to meter socket, with minimum 3' unobstructed clearance in front. Transfer switch will need to be a double throw switch, either manually or automatically operated. All electrical equipment must be secured at 4 points.

Schedule with NBU if source feeds from energized equipment. Customer-owned pipes, conduits, or other equipment may not be installed in front of, behind, or otherwise interfere with access to utility conduits.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24 (A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps sized to fit conduit and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

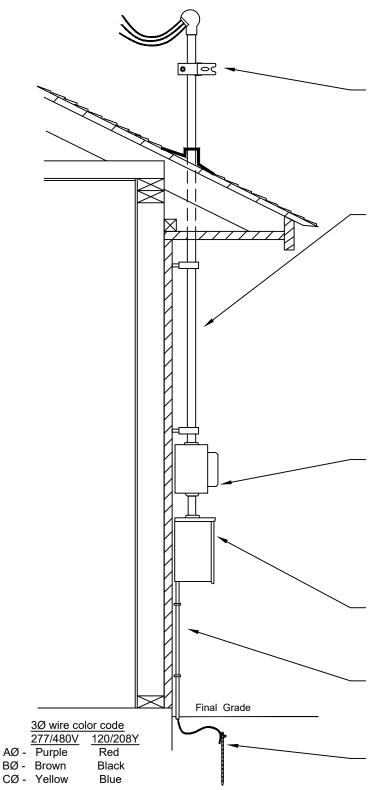
Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

Remove Ground wire from existing panel/disconnect



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 UNDERGROUND RESIDENTIAL BACKUP GENERATOR SERVICE ON BUILDING

ISSUED SCALE DRAWING NUMBER
12/22 NTS EG-050



If NBU conductors cross more than 4 linear feet of roof, clearance must be increased from 18" to 36". If wires cross more than 6 linear feet of roof, clearance must be greater than 8'.

Point of attachment: 17' above final ground grade recommended; minimum 12'-6". Customer to install point of attachment 6" below and opposite weatherhead, facing toward NBU service lead. Attachment eye part Blackburn 6912 or equivalent.

Metal flashing: If metal roof, plastic may be substituted. Special roof problems shall be coordinated with NBU.

Rigid metal conduit: GRC, or IMC secured to wall with two appropriately spaced 2-hole straps, sized to fit conduit, and attached with galvanized lag screws.

100 amp loop: 1 1/4" minimum, residential application only. 200 amp loop: 2" minimum, residential application only. Minimum 3' excess length out of weatherhead.

(NEC Table 310.15(B)(16))

WIRE TYPE		
SERVICE MAIN	ALUMINUM	COPPER
RATING	75°C	75°C
100 Amp	#1	#3
125 Amp	#1	#2
200 Amp	4/0	2/0

Allowable Single Phase Dwelling Services per NEC 310-15 (B)(7)(1)

Neutral shall be marked with white tape in the meter socket and at the weatherhead.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U9701 = 200amp

Milbank # U2594 = 320amp

Substitution must be approved by NBU.

Weatherproof main disconnect: Located below or adjacent to meter socket, with minimum 3' unobstructed clearance in front.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then the GEC must remain continuous and PVC protection must be maintained.

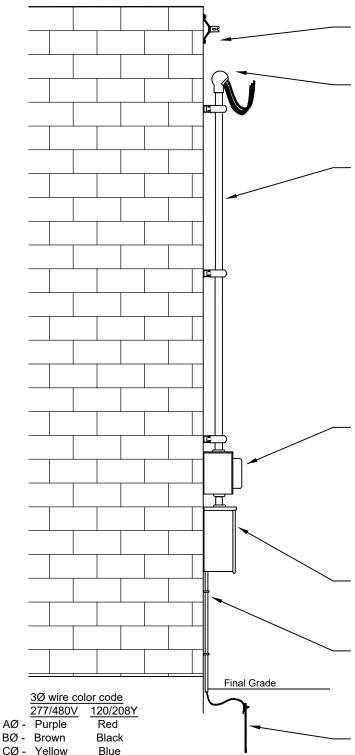
Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

METERING ASSEMBLY MAST THROUGH ROOF 100 AMP & 200 AMP

ISSUED	SCALE	DRAWING NUMBER
2/22	NTS	EH-010



Point of attachment: 17' above final ground grade recommended; minimum 12'-6". Shall not be more than 24" above bottom of weatherhead. Must be capable of withstanding a pull of 300 lbs. Attachment part Blackburn 6912 or equivalent.

Weatherhead: Final ground grade to bottom of weatherhead 12' minimum. Drip loop shall have 10'-6" minimum clearance to final ground grade.

Rigid metal conduit: GRC, IMC, or rigid aluminum secured to wall with a minimum of three appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws.

100 amp loop: 1 1/4" minimum, residential application only. 200 amp loop: 2" minimum, residential application only. Minimum 3' excess length out of weatherhead.

(NEC Table 310.15(B)(16))

WIRE TYPE		
SERVICE MAIN	ALUMINUM	COPPER
RATING	75°C	75°C
100 Amp	#1	#3
125 Amp	#1	#2
200 Amp	4/0	2/0

Allowable Single Phase Dwelling Services per NEC 310-15 (B)(7)(1)

Neutral shall be marked with white tape in the meter socket and at the weatherhead.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

 $3\ensuremath{\text{\varnothing}}$ meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket:

Milbank # U9701 = 200amp

Milbank # U2594 = 320amp

Substitution must be approved by NBU.

Weatherproof main disconnect: Located below or adjacent to meter socket, with minimum 3' unobstructed clearance in front.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.



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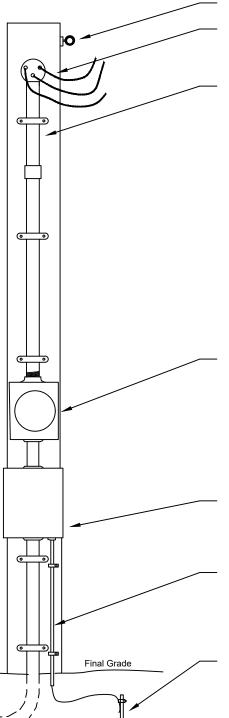
METERING ASSEMBLY MAST ON BUILDING 100 AMP & 200 AMP

SCALE DRAWING NUMBER
2/22 NTS EH-015

This specification does not necessarily meet all requirements of local Building Departments. The contractor is responsible to ensure that the installation meets all AHJ requirements.

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.

METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU.



Pole and point of attachment installed by NBU.

Weatherhead: Maximum 24" from top of pole.

Rigid metal conduit: GRC, IMC, or rigid aluminum secured to pole with a minimum of 3 appropriately spaced 2-hole straps, sized to fit conduit, and attached with galvanized lag screws.

100 amp loop: 1 1/4" minimum, residential application only. 200 amp loop: 2" minimum, residential application only. Minimum 3' excess length out of weatherhead.

(NEC Table 310.15(B)(16))

WIRE TYPE		
SERVICE MAIN	ALUMINUM	COPPER
RATING	75°C	75°C
100 Amp	#1	#3
125 Amp	#1	#2
200 Amp	4/0	2/0
AU 11 01 1 D1	ъ ш. о .	NEO

Allowable Single Phase Dwelling Services per NEC 310-15 (B)(7)(1)

Neutral shall be marked with white tape in the meter socket and at the weatherhead.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Position to face road or driveway, or as directed/approved by NBU. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U9701 = 200amp Substitution must be approved by NBU.

Weatherproof main disconnect: Located below meter socket, with minimum 3' unobstructed clearance in front.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to pole with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.



3Ø wire color code

AØ - Purple

BØ - Brown

CØ - Yellow

277/480V 120/208Y

Red

Black

Blue

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METERING ASSEMBLY ON POLE 100 AMP & 200 AMP

ISSUED	SCALE	DRAWING NUMBER	
2/22	NTS	EH-020	

Ю 3Ø wire color code 120/208Y 277/480V AØ - Purple Red BØ - Brown Black CØ - Yellow Blue 320 AMP Disconnect #2 Service Service Equipment Equipment (200 Amp) (100 or 200 Amp) Final Grade 24" Listed Corrosion **Protection Tape** Min. 6" Ø Post Hole

Pole and point of attachment installed by NBU.

Weatherhead: Maximum 24" from top of pole.

Rigid metal conduit: GRC, IMC, or Rigid Aluminum secured to pole with a minimum of 4 appropriately spaced 2-hole straps, sized to fit conduit, and attached with galvanized lag screws.

320 amp loop: 3" minimum, residential application only.

Minimum 3' excess length out of weatherhead.

(NEC Table 310-16)

WIRE TYPE		
SERVICE MAIN	ALUMINUM	COPPER
RATING	75°C	75°C
320 Amp	500	350

Allowable Single Phase Dwelling Services per NEC 310-15 (B)(7)(1)

Conductors to be un-spliced from weatherhead to meter socket, and then from meter socket to main disconnects. Neutral shall be marked with white tape in the meter socket and at the weatherhead. Enclosure bonding shall be in accordance with NEC 250.92.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade when measured within 3' in front of meter. Secure at four points to two appropriately spaced mounting channels. All electrical equipment must be secured at 4 points.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U2594 = 320amp Substitution must be approved by NBU.

Weatherproof main disconnect(s): Located adjacent to meter socket, with minimum 3' unobstructed clearance in front. Secure at four points to two appropriately spaced mounting channels.

Meter rack: 2" GRC, or IMC, continuing a minimum of 2' below final ground grade with listed corrosion protection tape or polywrap extending 2" above and encased in concrete, 4 sack mix minimum. Top of pipe to have rain proof cap. NBU inspection required before concrete encasement.

Galvanized mounting channel, Kendorf or equivalent, 1 1/2" x 1 1/2": Welded or bolted to stand with galvanized bolts.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar. Shall be installed in one continuous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to pole with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on the GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.



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METERING ASSEMBLY ON POLE 320 AMP

ISSUED SCALE DRAWING NUMBER
4/22 NTS EH-025

Pole and point of attachment installed by NBU.

Weatherhead: Maximum 24" from top of pole.

Galvanized mounting channel(s), Kendorf or equivalent, 1 1/2" x 1 1/2": Secure to pole with 3/8" galvanized lag screws.

Rigid metal conduit: GRC, IMC, or rigid aluminum secured with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit, to a minimum of 3 appropriately spaced mounting channels.

100 amp loop: 1 1/4" minimum, residential application only. 200 amp loop: 2" minimum, residential application only.

Minimum 3' excess length out of weatherhead.

(NEC Table 310.15(B)(16)

WIRE TYPÈ

SERVICE MAIN	ALUMINUM	COPPER
RATING	75°C	75°C
100 Amp	#1	#3
125 Amp	#1	#2
200 Amp	4/0	2/0

Allowable Single Phase Dwelling Services per NEC 310-15 (B)(7)

Neutral shall be marked with white tape in meter socket and at the weatherhead. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Position to face road or driveway, or as directed/approved by NBU. Allow 2" space between meter bases. Secure each socket to two mounting channels in four locations. Meter socket enclosures shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

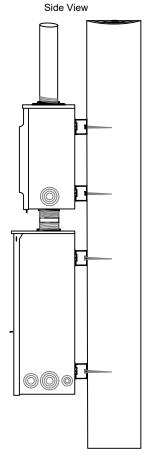
3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U9701 = 200amp Substitution must be approved by NBU.

Weatherproof main disconnect: Located below meter socket, with minimum 3' unobstructed clearance in front. Secure each disconnect in four locations to 2 appropriately spaced mounting channels. Each disconnect device shall have permanent address marking.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Enclose in 1/2" sunlight resistant PVC and continuing 2" below final ground grade. Secure each conduit to two appropriately spaced mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit. Install appropriate Intersystem Bond as per NEC 250.94 if installed on the GEC then GEC must remain continuous and the PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.



3Ø wire co	olor code
277/480V	120/208Y

	211/48UV	120/2081
AØ -	Purple	Red
BØ -	Brown	Black
CØ -	Yellow	Blue



Final Grade

Front View

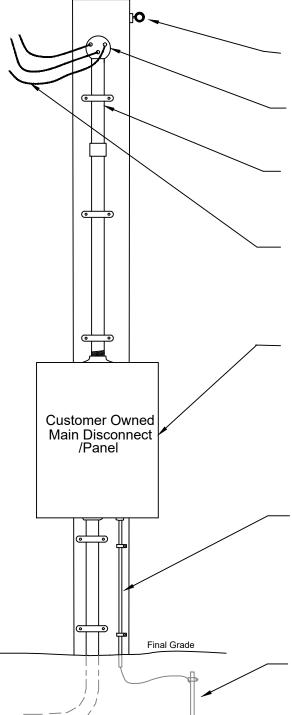
Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 METERING ASSEMBLY
TWO METER LOOPS ON POLE

ISSUED	SCALE	DRAWING NUMBER
2/22	NTS	EH-030

This specification does not necessarily meet all requirements of local Building Departments. The contractor is responsible to ensure that the installation meets all AHJ requirements.

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.

METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU.



Pole and point of attachment installed by NBU.

Weatherhead: Maximum 24" from top of pole.

Rigid metal conduit: GRC, IMC, or rigid aluminum secured to pole with a minimum of 3 appropriately spaced 2-hole straps, sized to fit conduit, and attached with galvanized lag screws.

Conductor sizing per NEC 310.15 (B)(16). Wire size(s) above 500MCM, customer shall be responsible for providing connectors.

Weatherproof main disconnect: Max height per NEC requirements. Position to face road or driveway, or as directed/approved by NBU.

Note: This panel arrangement can be installed on a building without the pole. Location must be approved by NBU prior to construction.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to pole with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 MAIN DISCONNECT/PANEL ASSEMBLY ON POLE (400AMPS AND ABOVE)

ISSUED SCALE DRAWING NUMBER SH-035

This specification does not necessarily meet all requirements of local Building Departments. The contractor is responsible to ensure that the installation meets all AHJ requirements.

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.

METER LOCATION(S) DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU.

Up to 6 meters: May be installed at one location without a main disconnect.

More than 6 meters: Installed at one location require a main disconnect furnished and installed by the customer.

Point of attachment, furnished and installed by customer, shall be properly sized and installed 17' above final ground grade recommended; minimum 12'-6".

Meter mounting equipment shall be commercially available horizontal gang or bussed gutter type. Proposed catalog numbers shall be submitted for approval. Any other design or equipment arrangement shall be submitted for approval. Meter mounting equipment shall be installed such that the center of the highest meter socket will be 4' minimum and 6' maximum from final ground grade.

 $3\ensuremath{\text{\varnothing}}$ meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket:

Milbank # U9701 = 200amp

Milbank # U2594 = 320amp

Substitution must be approved by NBU.

Each metered circuit shall have a weatherproof submain switch or circuit breaker.

Each disconnect device shall have permanent address marking. These markings by the customer should be plain and permanent, giving the street number to the door of the premise served, or the symbol appearing on the entrance door when this door does not carry a street number. The name of the customer will not suffice for identification. The meter sockets in multitenant buildings shall be clearly and durably marked.

Conductor to be sized according to NEC and local code requirements, and have minimum 3' excess length out of weatherhead with neutral marked with white tape. Conductor shall be enclosed in properly sized rigid metal conduit, secured to wall with 2 appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws.

Properly sized ground wire shall be enclose in sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with 2 appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Metal conduit acceptable, but must comply with NEC 250.92(b).

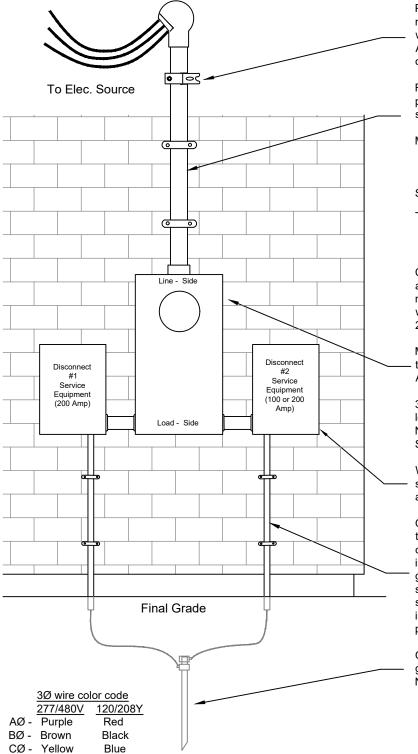
Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.



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METERING ASSEMBLY MULTIPLE METERS

ISSUED SCALE DRAWING NUMBER
12/20 NTS EH-045



Point of attachment: 17' above final ground grade recommended; minimum 12'-6". Shall not be more than 24" above bottom of weatherhead. Must be capable of withstanding a pull of 300 lbs. Attachment part Blackburn 6912 or equivalent. (Can be mounted on wall)

Rigid metal conduit: GRC, IMC, or Rigid Aluminum secured to pole with a minimum of 4 appropriately spaced 2-hole straps, sized to fit conduit, and attached with galvanized lag screws. 320 amp loop: 3" minimum, residential application only. Minimum 3' excess length out of weatherhead.

(NEC Table 310-16)

WIRE TYPE		
SERVICE MAIN	ALUMINUM	COPPER
RATING	75°C	75°C
320 Amp	500	350
Allowable Single Phas	se Dwelling Services po	er NEC
310-15 (B)(7)(1)		

Conductors to be un-spliced from weatherhead to meter socket, and then from meter socket to main disconnects. Neutral shall be marked with white tape in the meter socket and at the weatherhead. Enclosure bonding shall be in accordance with NEC 250.92.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade when measured within 3' in front of meter. All electrical equipment must be secured at 4 points.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U2594 = 320amp Substitution must be approved by NBU.

Weatherproof main disconnect(s): Located adjacent to meter socket, with minimum 3' unobstructed clearance in front. Secure at four points.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar. Shall be installed in one continuous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to pole with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on the GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.

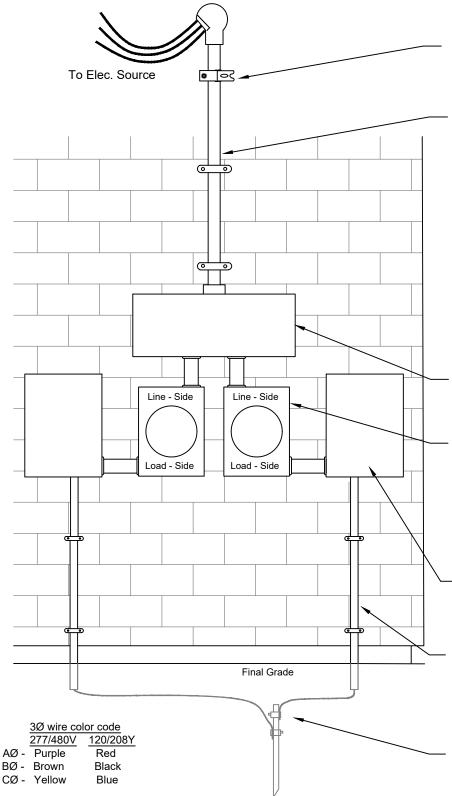
Allowable Single Phase Dwelling Services NEC 310.15 (B)(7)(1)



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METERING ASSEMBLY MAST ON BUILDING 320 AMP

ISSUED | SCALE | DRAWING NUMBER | 4/22 | NTS | EH-050



Point of attachment: 17' above final ground grade recommended; minimum 12'-6". Shall not be more than 24" above bottom of weatherhead. Must be capable of withstanding a pull of 300 lbs. Attachment part Blackburn 6912 or equivalent. (Can be mounted on wall)

Rigid metal conduit: GRC, IMC, or rigid aluminum secured to wall with a minimum of three appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws.

100 amp loop: 1 1/4" minimum, residential application only. 200 amp loop: 2" minimum, residential application only. Minimum 3' excess length out of weatherhead.

(NEC Table 310.15(B)(16))

WIRE TYPE		
SERVICE MAIN	ALUMINUM	COPPER
RATING	75°C	75°C
100 Amp	#1	#3
125 Amp	#1	#2
200 Amp	4/0	2/0

Allowable Single Phase Dwelling Services per NEC 310-15 (B)(7)(1)

Neutral shall be marked with white tape in the meter socket and at the weatherhead

Weatherproof Tap Enclosure: Enclosure must be lockable by NBU. Secure at four corners to sturdy structure. Enclosure shall meet requirements of NEC Article 314.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U9701 = 200amp Substitution must be approved by NBU.

Weatherproof Main Disconnects: Located adjacent to Meter Socket, with 3' unobstructed clearance in front.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained

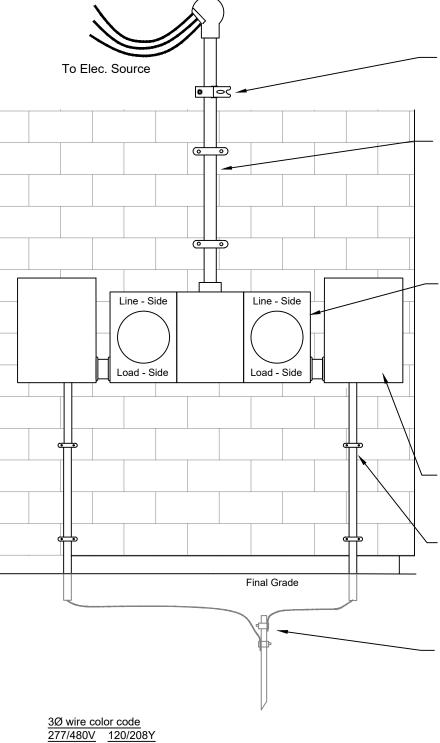
Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.



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METERING ASSEMBLY OVERHEAD TWO METER LOOPS WITH TAP ENCLOSURE (OPTION 1)

ISSUED | SCALE | DRAWING NUMBER | 2/22 | NTS | EH-055



Point of attachment: 17' above final ground grade recommended; minimum 12'-6". Shall not be more than 24" above bottom of weatherhead. Must be capable of withstanding a pull of 300 lbs. Attachment part Blackburn 6912 or equivalent. (Can be mounted on wall)

Rigid metal conduit: GRC, IMC, or rigid aluminum secured to wall with a minimum of three appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag

100 amp loop: 1 1/4" minimum, residential application only. 200 amp loop: 2" minimum, residential application only. Minimum 3' excess length out of weatherhead.

Neutral shall be marked with white tape in the meter socket and at the weatherhead.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

Ganged Meter Module: Must open toward the front and have a single point of connection to a common bus for both meter sockets. Utility Enclosure must be lockable by NBU. Secure Module at a minimum of four corners to sturdy structure. Module to be located such that existing utility service conductors may be re-used. End of utility service conduit may not extend higher than 6' above final ground grade. (Milbank Model U1252 or similar)

Weatherproof Main Disconnects: Located adjacent to Meter Socket, with 3' unobstructed clearance in front.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.

AØ - Purple Red

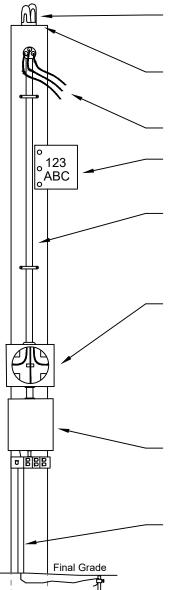
BØ - Brown Black CØ - Yellow Blue



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METERING ASSEMBLY OVERHEAD TWO METER LOOPS WITH GANGED METER MODULE (OPTION 2)

ISSUED DRAWING NUMBER EH-060 NTS 2/22



Point of attachment: One pointer or eye type screw, Blackman SW 33 B or equivalent, furnished and installed by customer.

Treated 4" x 4" post: Minimum length 14'. Final height above final ground grade shall be 12'; minimum below ground of 2'. Four wood braces required, minimum 2" x 4", secured with 2" x 4" stakes or 3/4" metal rods, driven securely into ground. Braces shall not be attached to trees, other NBU poles, etc.

Drip loop: Minimum 10' from final ground grade.

Site Address: Marked with 3" lettering.

Rigid conduit: GRC, AL, IMC, EMT or Schedule 40 PVC. Secure to post with two appropriately spaced straps, sized to fit conduit, and attached with lag screws.

100 amp loop: 1 1/4" minimum. 200 amp loop: 2" minimum.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade and positioned to face road or driveway, or as directed/approved by NBU. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor.

Conductors to be installed by customer from weatherhead, with minimum 3' excess length, to meter socket and from meter socket to main disconnect per table below. Neutral to be marked with white tape in meter socket and at weatherhead.

Approved disconnect device(s) in exterior enclosure. Receptacles shall be in weatherproof enclosure per NEC requirements. Circuit shall have minimum of one 240V, 20 amp GFCI receptacle.

Grounding electrode conductor: Minimum #6 soft drawn copper, 1/2" PVC, and Straps; 5/8" x 8' copper-clad ground rod, driven 2" below final ground grade, or a grounding plate at 30" below ground grade per NEC code. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.

(NEC Table 310.15(B)(16))

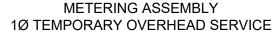
(NEO Table 010:10(B)(10))		(((()))
WIRE TYPE		
SERVICE MAIN	ALUMINUM	COPPER
RATING	75°C	75°C
100 Amp	#1	#3
125 Amp	#1	#2
200 Amp	4/0	2/0

Note: Other service rating shall be submitted to NBU Electric Engineering for approval.

Allowable Single Phase Dwelling Services per NEC 310.15 (B)(7)(1)



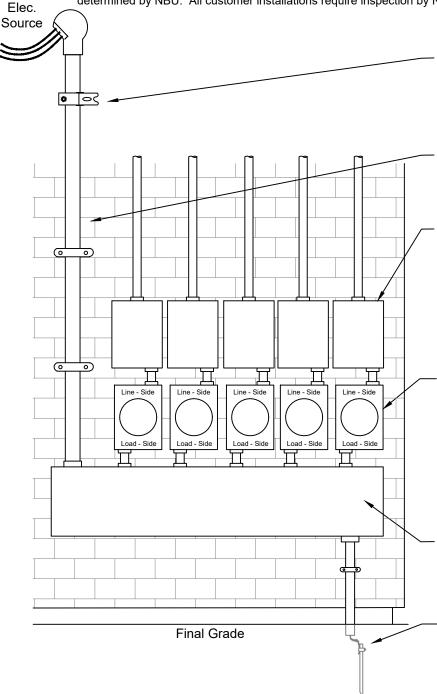
Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951



Side View

ISSUED SCALE DRAWING NUMBER

12/20 NTS EH-110



 $\begin{array}{c} \underline{3\emptyset \text{ wire color code}} \\ \underline{277/480V} \\ \underline{A\emptyset - \text{Purple}} \end{array} \begin{array}{c} \underline{120/208Y} \\ \text{Red} \end{array}$

BØ - Brown Black CØ - Yellow Blue

Point of attachment: 17' above final ground grade recommended; minimum 12'-6". Shall not be more than 24" above bottom of weatherhead. Must be capable of withstanding a pull of 300 lbs. Attachment part Blackburn 6912 or equivalent. (Can be mounted on wall)

Conductor to be sized according to NEC and local code requirements, and have minimum 3' excess length out of weatherhead with neutral marked with white tap. Conductor shall be enclosed in property sized rigid metal conduit: GRC or IMC secured to wall with 2 appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws.

Weatherproof main disconnect: Located adjacent to meter socket, with minimum 3' unobstructed clearance in front.

Each metered circuit shall have a weatherproof submain switch or circuit breaker.

More than 6 meters installed at one location shall require a main disconnect furnished and installed by the customer.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

 $3\emptyset$ meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket:

Milbank # U9701 = 200amp Milbank # U2594 = 320amp

Substitution must be approved by NBU.

Gutter must have a means to be lockable by NBU. (Gutter size shall be min. 18"H x 12"D x Length)

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24 (A) (1)), enclosed in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade and secured to two mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

Each disconnect device shall have permanent address marking. These markings by the customer should be plain and permanent, giving the street number to the door of the premise served, or the symbol appearing on the entrance door when this door does not carry a street number. The name of the customer will not suffice for identification. The meter sockets in multitenant buildings shall be clearly and durably marked.

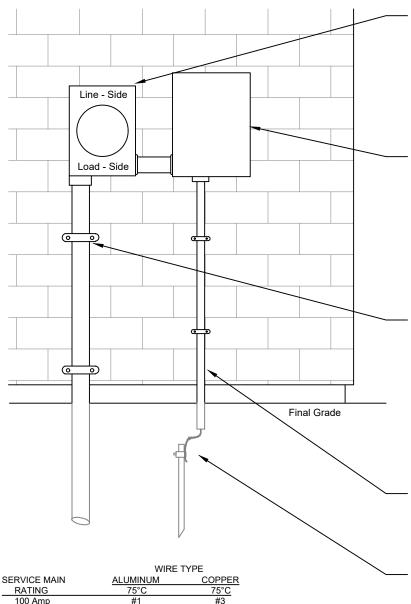


To

Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 OVERHEAD SERVICE - MULTIPLE OCCUPANCY BUILDING 200 AMP - 320 AMP

ISSUED SCALE DRAWING NUMBER

4/22 NTS EH- 115



Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U9701 = 200amp Substitution must be approved by NBU.

Weatherproof main disconnect: Located adjacent to meter socket, with minimum 3' unobstructed clearance in front. House panel may be located adjacent to main disconnect or inside building (not inside a closet). All electrical equipment must be secured at 4 points.

Neutral to be marked with white tape in meter socket.

Conduit: **To be sized by NBU**. Conduit should be placed on the opposite side of meter socket from main disconnect.

Secure conduit with two appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws. When required, a reducer supplied by NBU shall be installed at the meter socket. Underground conduit installed according to NBU specification EU-910. Customer shall connect to NBU installed conduit stub. Pull string to be installed in conduit by customer. Schedule with NBU if source feeds from energized equipment. All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use. Customer-owned pipes, conduits, or other equipment may not be installed in front of, behind, or otherwise interfere with access to utility conduits.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24 (A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps sized to fit conduit and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

Note: Other service rating shall be submitted to NBU Electric Engineering for approval.

Allowable Single Phase Dwelling Services NEC 310.15 (B)(7)(1)

#1

4/0

3Ø wire color code 277/480V 120/208Y

 AØ Purple
 Red

 BØ Brown
 Black

 CØ Yellow
 Blue



125 Amp

200 Amp

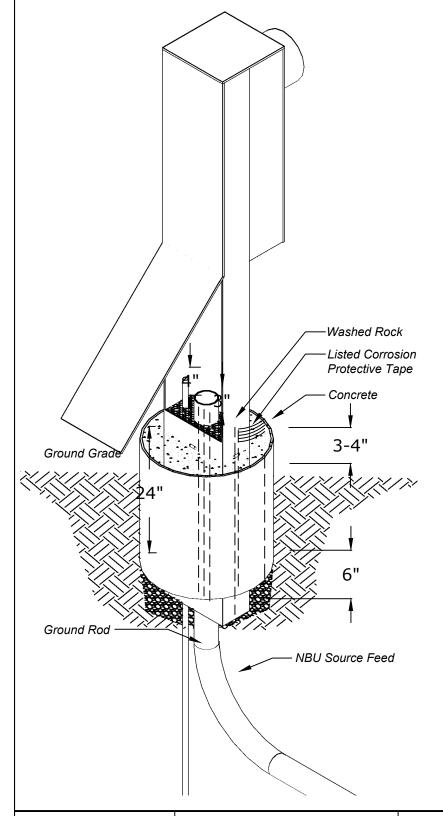
Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

#2

2/0

METERING ASSEMBLY UNDERGROUND SERVICE ON BUILDING 100 AMP - 200 AMP

	100711111	200711111
ISSUED	SCALE	DRAWING NUMBER
2/22	NTS	EU-010



Approved Meter Pedestals:

Milbank U5136 - 0 - 100 100 AMP Milbank U5136 - 0 - 200 200 AMP

Milbank U5059-X-2/200 320 AMP*
*EPI Enclosures NEMA 3R Pedestal

Other manufacturers are accepted but must be approved by NBU. Meter height shall be 50" above final ground grade. Meter should face street or driveway. Mark with address number if not otherwise posted on property.

Meter shall have a minimum 3' unobstructed clearance in front.

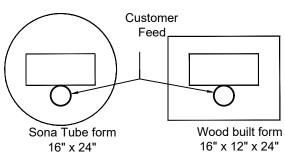
Conduit: To be sized by NBU and installed by customer. The source feed conduit will be inside enclosure 3" above opening. Underground conduit installed according to NBU specification EU-910. Customer shall connect to NBU installed conduit stub.

Ground rod: 5/8" x 8' copper-clad, installed inside enclosure 4" above opening. Minimum # 6 copper, connected to neutral lug or neutral bar.

Forms: 16" Sona Tube or 16" x 12" wood form. Protective tar tape, polywrap tape or rubber spray paint from 2" above encased concrete to the bottom of enclosure. All forms must be removed after concrete poured.

Fill inside cavity of pedestal with washed rock up to ground grade to restrict conduit movement.

Pullstring: To be installed in conduit by customer. Schedule with NBU if source feeds from energized equipment.



Pedestal centered inside form.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

METERING ASSEMBLY UNDERGROUND SERVICE PEDESTAL, 100 AMP, 200 AMP, 320 AMP

ISSUED | SCALE | DRAWING NUMBER | 12/20 | NTS | EU-015

Line-Side Load-Side 000 9 90 1" 24" Listed Corrosion Protection Tape Min. 6" Ø Post Hole WIRE TYPE SERVICE MAIN ALUMINUM COPPER **RATING** 75°C 75°C 100 Amp #3 #2 125 Amp #1 200 Amp 4/0 2/0

Note: Other service rating shall be submitted to NBU Electric Engineering for approval.

Allowable single phase dwelling services, NEC 310-15 (B)(7)(1)

Meter stand: 2" GRC, or IMC, continuing a minimum of **24 inches** below final ground grade with listed corrosion protection tape or polywrap extending 2" above and encased in concrete, 4 sack mix minimum. Top of pipe to have rain proof cap. As an alternative, a commercially available meter/disconnect pedestal will be acceptable. Proposed catalog numbers with complete description shall be submitted for approval.

Galvanized mounting channel, Kendorf or equivalent, 1 1/2" x 1 1/2": Welded or bolted to stand with galvanized bolts.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade when measured within 3' in front of meter. All electrical equipment must be secure at four points to two appropriately spaced mounting channels. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor.

Neutral to be marked with white tape in meter socket.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U9701 = 200amp Substitution must be approved by NBU.

Weatherproof main disconnect: Located adjacent to meter socket, with minimum 3' unobstructed clearance in front. Secure at four points to two appropriately spaced mounting channels.

Conduit: **To be sized by NBU**. Install conduit to meter socket bottom knockout with greatest distance from main disconnect. Secure conduit to two appropriately spaced mounting channels with Kendorf strap or equivalent, or galvanized U bolt sized to fit conduit. When required, a reducer supplied by NBU shall be installed at the meter socket. All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use. Install underground conduit and pull string according to NBU specification EU-910. Connect to NBU installed conduit stub.

Grounding electrode conductor: Minimum #6 copper. Connect to main disconnect/panel neutral bar (NEC 250.24 (A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade and secure to two mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit. If required, install appropriate Intersystem Bond as per NEC 250.94 if installed one the GEC then the GEC must remain continuous and PVC protection must be maintained.

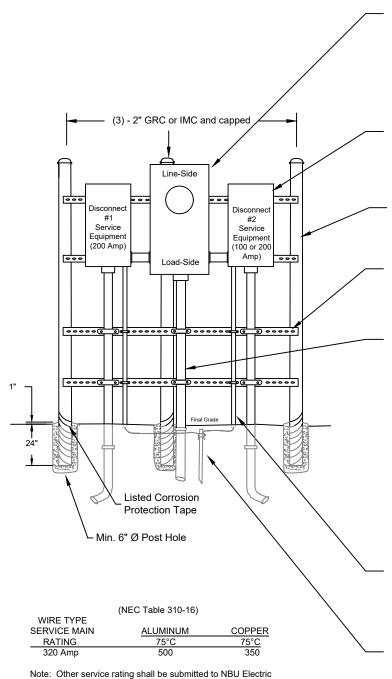
Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

	3Ø wire color code	
	277/480V	120/208Y
AØ -	Purple	Red
BØ -	Brown	Black
CØ -	Yellow	Blue



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 METERING ASSEMBLY UNDERGROUND SERVICE ON RACK 100AMP - 200 AMP

ISSUED	SCALE	DRAWING NUMBER
4/22	NTS	EU-020



Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade when measured within 3' in front of meter. All electrical equipment must be secure at four points to two appropriately spaced mounting channels.

 $3\emptyset$ meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U2594 = 320amp Substitution must be approved by NBU.

Weatherproof main disconnect(s): Located adjacent to meter socket, with minimum 3' unobstructed clearance in front. Secure at four points to two appropriately spaced mounting channels.

Meter stand: 2" GRC, or IMC, continuing a minimum of 24" below final ground grade with listed corrosion protection tape or polywrap extending 2" above and encased in concrete, 4 sack mix minimum. Top of pipe to have rain proof cap. NBU inspection required before concrete encasement.

Galvanized mounting channel(s): Kendorf or equivalent, 1 1/2" x 1 1/2", welded or bolted to stand with galvanized bolts.

Conduit: **To be sized by NBU**. Secure conduit to two appropriately spaced mounting channels with Kendorf strap or equivalent, or galvanized U bolt sized to fit conduit.

All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use. Underground conduit installed according to NBU specification EU-910. Customer shall connect to NBU installed conduit stub. Pull string to be installed in conduit by customer. Schedule with NBU if source feeds from energized equipment.

Customer to install conductors from disconnect to meter socket per NEC specifications. Neutral to be marked with white tape in meter socket. Conductors to comply with 310-16 N.E.C. from load side of meter socket to line side of disconnects. Minimum #6 copper bonding shall be provided where necessary (all non-current carrying parts) to ensure electrical continuity.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect/panel neutral bar (NEC 250.24 (A)(1)). Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure conduit to mounting channel with Kendorf strap or equivalent, or galvanized U bolt, sized to fit conduit. If required, install appropriate Intersystem Bond as per NEC 250.94 if installed on the GEC then the GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

3Ø wire co	3Ø wire color code		
277/480V	120/208Y		
AØ - Purple	Red		
BØ - Brown	Black		
CØ - Yellow	Blue		



Engineering for approval.

Allowable single phase dwelling services, NEC Table 310-15 (B)(7)(1)

Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 METERING ASSEMBLY UNDERGROUND SERVICE ON RACK 320 AMP

JZU AWI		
ISSUED	SCALE	DRAWING NUMBER
11/22	NTS	EU-025

Line - Side Disconnect Disconnect #1 Service Service Equipment Equipment (200 Amp) (100 or 200 Amp) Load - Side Final Grade (NEC Table 310-16) WIRE TYPE SERVICE MAIN ALUMINUM 75°C RATING 75°C 320 Amp

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

 $3\ensuremath{\text{\varnothing}}$ meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U2594 = 320amp Substitution must be approved by NBU.

Weatherproof main disconnect: Located adjacent to meter socket, with minimum 3' unobstructed clearance in front.

Neutral to be marked with white tape in meter socket.

Conduit: **To be sized by NBU**. Conduit should be placed on the opposite side of meter socket from main disconnect. Secure conduit with two appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws. Underground conduit installed according to NBU specification EU-910. Pull string to be installed in conduit by customer. Schedule with NBU if source feeds from energized equipment. Customer-owned pipes, conduits, or other equipment may not be installed in front of, behind, or otherwise interfere with access to utility conduits.

All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24 (A)(1)). Shall be installed in one continuous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps sized to fit conduit and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: $5/8" \times 8'$ copper-clad, driven 2" below final ground grade.

3Ø wire color code 277/480V 120/208Y AØ - Purple Red BØ - Brown Black CØ - Yellow Blue

Note: Other service rating shall be submitted to NBU Electric Engineering for approval.

Allowable single phase dwelling services, NEC Table 310-15 (B)(7)(1)

NEW BRAUNFELS UTILITIES Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

METERING ASSEMBLY UNDERGROUND SERVICE ON BUILDING 320 AMP

ISSUED | SCALE | DRAWING NUMBER | 11/22 | NTS | EU-035

This specification does not necessarily meet all requirements of local Building Departments. The contractor is responsible to ensure that the installation meets all AHJ requirements.

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.

METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU

Up to 6 meters: May be installed at one location without a main disconnect.

More than 6 meters: Installed at one location require a main disconnect furnished and installed by the customer.

Meter mounting equipment shall be commercially available horizontal gang or bussed gutter type. Proposed catalog numbers and complete description shall be submitted for approval. Any other design or equipment arrangement shall be submitted for approval. Meter mounting equipment shall be installed such that the center of the highest meter will be 4' minimum and 6' maximum from final ground grade.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket:

Milbank # U9701 = 200amp

Milbank # U2594 = 320amp

Substitution must be approved by NBU.

Each metered circuit shall have a weatherproof submain switch or circuit breaker.

Each disconnect device shall have permanent address marking. These markings by the customer should be plain and permanent, giving the street number to the door of the premise served, or the symbol appearing on the entrance door when this door does not carry a street number. The name of the customer will not suffice for identification. The meter sockets in multitenant buildings shall be clearly and durably marked.

Conductor to be sized according to NEC and local code requirements. Conductor shall be enclosed in properly sized conduit, secured to wall with 2 appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws.

All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2 for electrical use.

Underground conduit: Installed according to NBU specification EU-910. Customer shall connect to NBU installed conduit stub. Pull string to be installed in conduit by customer.

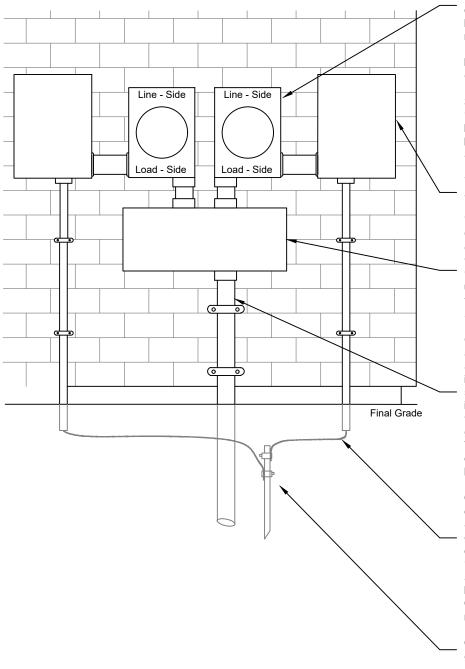
Where a separate conduit is required for the ground wire, a properly sized ground wire shall be enclosed in sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with 2 appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Metal conduit acceptable, but must comply with NEC 250.92(b).

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 METERING ASSEMBLY MULTIPLE METERS UNDERGROUND SERVICES

| SCALE | DRAWING NUMBER | 12/20 | NTS | EU-045



Meter Sockets: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

Neutral conductors to be marked with white tape inside all enclosures.

 $3\emptyset$ meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U9701 = 200amp NBU approved 3Ø meter socket: Milbank # U2594 = 320amp Substitution must be approved by NBU.

Weatherproof Main Disconnects: Located adjacent to Meter Socket, with 3' unobstructed clearance in front.

Weatherproof Tap Enclosure: Must open toward the front. Opening height must be at least two times the depth dimension. Enclosure must be lockable by NBU. Secure at four corners to sturdy structure. Enclosure to be located such that existing utility service conductors may be re-used. End of utility service conduit may not extend higher than 6' above final ground grade. Enclosure shall meet requirements of NEC Article 314.

Conduit: **To be sized by NBU**. Secure conduit with two appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws. Underground conduit installed according to NBU specification EU-910. Customer shall connect to NBU installed conduit stub. Pull string to be installed in conduit by customer. Schedule with NBU if source feeds from energized equipment.All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use. Customer-owned pipes, conduits, or other equipment may not be installed in front of, behind, or otherwise interfere with access to utility conduits.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Shall be installed in one continuous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

3Ø wire	3Ø wire color code		
277/480	V 120/208Y		
AØ - Purple	Red		
BØ - Brown	Black		
CØ Vollow	Rlue		



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 METERING ASSEMBLY UNDERGROUND TWO METER LOOPS WITH TAP ENCLOSURE (OPTION 1)

ISSUED | SCALE | DRAWING NUMBER | 2/22 | NTS | EU-055

Meter Sockets: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket – enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

Neutral conductors to be marked with white tape inside all enclosures.

Weatherproof Main Disconnects: Located adjacent to Meter Socket, with 3' unobstructed clearance in

front.

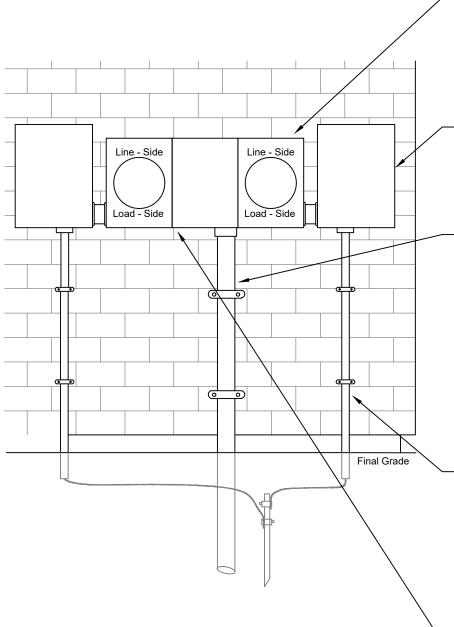
conduits.

Conduit: **To be sized by NBU**. Secure conduit with two appropriately spaced 2-hole straps, sized to fit conduit and attached with galvanized lag screws. Underground conduit installed according to NBU specification EU-910. Customer shall connect to NBU installed conduit stub. Pull string to be installed in conduit by customer. Schedule with NBU if source feeds from energized equipment. All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for

electrical use. Customer-owned pipes, conduits, or other equipment may not be installed in front of, behind, or otherwise interfere with access to utility

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect neutral bar (NEC 250.24(A)(1)). Shall be installed in one continuous length without a splice to grounding electrode. Enclose in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade. Secure to wall with two appropriately spaced straps, sized to fit conduit, and attached with galvanized lag screws. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained. Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

Ganged Meter Module: Must open toward the front and have a single point of connection to a common bus for both meter sockets. Utility Enclosure must be lockable by NBU. Secure Module at a minimum of four corners to sturdy structure. Module to be located such that existing utility service conductors may be re-used. End of utility service conduit may not extend higher than 6' above final ground grade. (Milbank Model U1252 or similar)



3Ø wire color code 277/480V 120/208Y

AØ - Purple Red BØ - Brown Black CØ - Yellow Blue

NEW BRAUNFELS UTILITIES Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

METERING ASSEMBLY UNDERGROUND TWO METER LOOPS WITH GANGED METER MODULE (OPTION 2)

ISSUED | SCALE | DRAWING NUMBER | 2/22 | NTS | EU-060

This meter stand is used when metering PT's and CT's are located within the secondary compartment of the padmount transformer.

Meter assembly stand must be positioned 4' to the side of the transformer pad. Meter **CANNOT** be located in front of the transformer pad due to hot stick access requirements.

Meter stand: 2" GRC or IMC, continuing a minimum of 2' below final ground grade with listed corrosion protection tape or polywrap extending 2" above and encased in concrete, 4 sack mix minimum. Top of pipe to have rain proof cap.

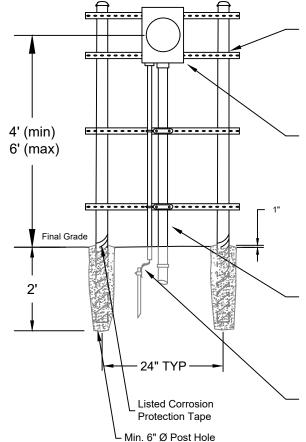
Galvanized mounting channel: Kendorf or equivalent, 1 1/2" x 1 1/2", welded or bolted to stand with galvanized bolts.

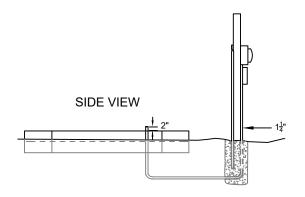
Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade when measured 3' in front of meter. Secure at four points to two appropriately spaced mounting channels.

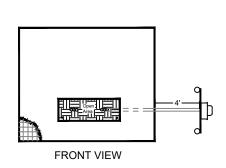
All exposed conduit to be 1 1/4" sunlight resistant Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use. Secure conduit to two appropriately spaced mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit. Pull string to be installed in conduit by customer.

Grounding electrode conductor: Minimum #6 copper, connected to neutral lug in meter socket or neutral bar (NEC 250.24 (A) (1)), enclosed in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade and secured to two mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit. Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

CT Meter socket may be mounted on a structure exterior, within 20 ft. to the front of the transformer, and with prior approval of NBU.







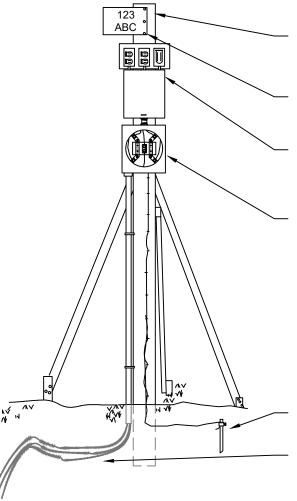


Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 METERING ASSEMBLY CT RACK

SCALE DRAWING NUMBER
6/21 NTS EU-070

This specification does not necessarily meet all requirements of local Building Departments. The contractor is responsible to ensure that the installation meets all AHJ requirements.

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.



Treated 4" \times 4" post: Height above final ground grade shall be 7' and a minimum below ground of 2'. Three wood braces required, minimum 2" \times 4", secured with 2" \times 4" stakes driven securely into ground. Braces shall not be attached to trees or other structures.

Temp should be placed towards front corner of transformer or secondary box to avoid stub outs.

Site Address: Marked on 1' x 1' exterior (painted) or marine plywood.

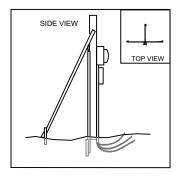
Approved disconnect device(s) in exterior enclusure. Receptacles shall be in weatherproof enclosure per NEC requirements. Circuits shall have GFCI protection. Customer to install a minimum of one 120V, 20 amp receptacle and one 240V, 20 amp receptacle, as required

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade and positioned to face road or driveway, or as directed/approved by NBU. Source connections shall be made on top side of meter socket.

Conductors: Service lateral conductors shall be sized according to the table below, as a minimum, based upon the main bus rating of the disconnect device; unless otherwise approved by NBU. Conductor insulation shall be rated for direct burial (wet locations). Neutral to be marked with white tape in meter socket. minimum #6 copper bonding shall be provided where necessary (all non-current carrying parts) to ensure electrical continuity.

Grounding electrode conductor: minimum #6 soft drawn copper, stapled to post; 5/8" x 8' copper-clad ground rod, driven 2" below final ground grade, or a grounding plate at 30" below ground grade per NEC code.

Conductor shall be buried from post to within 6" of service equipment, at a minimum depth of 18" and have 10' leads at service equipment.



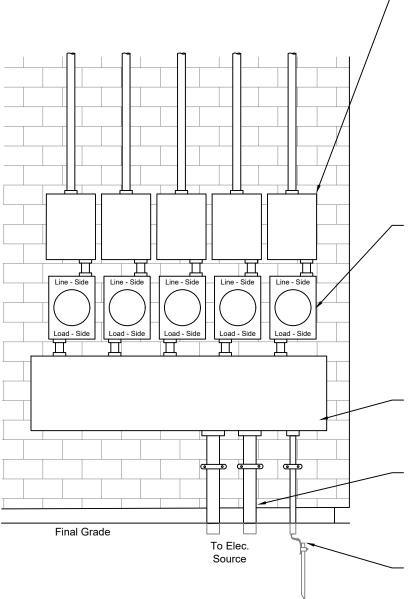


Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

METERING ASSEMBLY 1Ø TEMPORARY UNDERGROUND SERVICE

SCALE DRAWING NUMBER

6/21 NTS EU-110



Weatherproof main disconnect: Located adjacent to meter socket, with minimum 3' unobstructed clearance in front.

Each metered circuit shall have a weatherproof submain switch or circuit breaker.

More than 6 meters installed at one location shall require a main disconnect furnished and installed by the customer.

Each disconnect device shall have permanent address marking. These markings by the customer should be plain and permanent, giving the street number to the door of the premise served, or the symbol appearing on the entrance door when this door does not carry a street number. The name of the customer will not suffice for identification. The meter sockets in multitenant buildings shall be clearly and durably marked.

Meter socket: 4' minimum and 6' maximum from center of socket to final ground grade, when measured within 3' in front of socket. Meter socket enclosure shall be electrically connected to line-side grounded neutral conductor and to load-side grounded neutral conductor. All electrical equipment must be secured at 4 points.

Neutral conductors to be marked with white tape inside all enclosures.

3Ø meter socket shall have plexiglass shield over meter jaws with lever bypass.

NBU approved 3Ø meter socket: Milbank # U9701 = 200amp NBU approved 3Ø meter socket: Milbank # U2594 = 320amp Substitution must be approved by NBU.

Gutter: It must have a means to lock or secure by NBU. Secure at four points to two appropriately spaced mounting channels. (Gutter size shall be min. 18" H x 12"D x Length)

Underground conduit: Installed according to NBU specification EU-910. Pull string to be installed in conduit by customer. Conduit/conductor shall be sized by NBU. All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use. Customer-owned pipes, conduits, or other equipment may not be installed in front of, behind, or otherwise interfere with access to utility conduits.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect/panel neutral bar (NEC 250.24 (A) (1)), enclosed in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade and secured to two mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade.

3Ø wire color code		
277/480V	120/208Y	
AØ - Purple	Red	
BØ - Brown	Black	
CØ - Yellow	Blue	



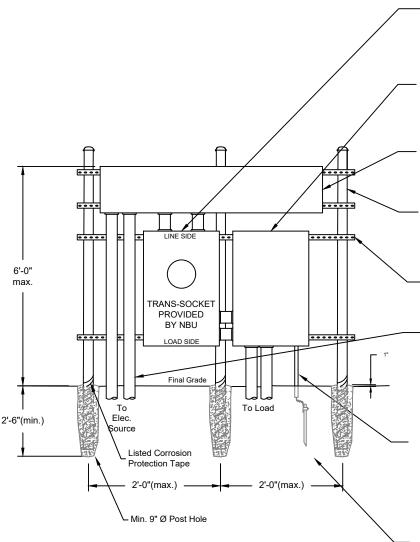
Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 UNDERGROUND SERVICE - MULTIPLE OCCUPANCY BUILDING 200 AMP - 320 AMP

200 AIVIP - 320 AIVIP			
SSUED SCALE		DRAWING NUMBER	
4/22	NTS	EU- 115	

This specification does not necessarily meet all requirements of local Building Departments. The contractor is responsible to ensure that the installation meets all AHJ requirements.

This specification shall be used only in conjunction with the NBU Electrical Connection Policy and may not reflect all requirements of a specific installation.

METER LOCATION IS DETERMINED BY NBU. ALL CUSTOMER INSTALLATIONS REQUIRE INSPECTION BY NBU.



Trans-socket: 3'-0" minimum and 3'-6" max from center of socket on rack to final grade. All electrical equipment must be secure at four points to two appropriately spaced mounting channels. Note: This meter set can be installed on a building without the rack. Location must be approved by NBU prior to construction.

Weatherproof main disconnect/panelboard. Located adjacent to trans-socket, with minimum 3'-0" unobstructed clearance in front. Secure at four points to two appropriately spaced mounting channels.

Gutter: minimum size of 12"W x 12"H x 30"L for residential and for commercial to be approved by NBU. It must have a means to lock or secure by NBU. Secure at four points to two appropriately spaced mounting channels.

Meter stand: (3) - 3" GRC or IMC continuing a minimum of 2'-6" below final ground grade with listed corrosion protection tape or polywrap extending 2" above, post shall be set in concrete, 3,000 psi minimum. Top of pipe to have rain proof cap.

Galvanized mounting channel: Kendorf or equivalent, 1 1/2" \times 1 1/2", welded or bolted to stand with galvanized bolts.

Conduit and Conductor: **To be sized by NBU**. All exposed conduit above ground shall be Schedule 80 PVC. All PVC will meet NEMA TC-2-1998 for electrical use. Secure exposed conduit to mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit.

Grounding electrode conductor: Minimum #6 copper, connected to main disconnect/panel neutral bar (NEC 250.24 (A) (1)), enclosed in 1/2" sunlight resistant PVC conduit, continuing 2" below final ground grade and secured to two mounting channels with Kendorf straps or equivalent, or galvanized U bolts, sized to fit conduit. Install appropriate Intersystem Bond as per NEC 250.94 if installed on GEC then GEC must remain continuous and PVC protection must be maintained.

Ground rod: 5/8" x 8' copper-clad, driven 2" below final ground grade. Other grounding electrodes meeting NEC 250.52 and NEC 250.53 may be acceptable upon approval by NBU.

3Ø wire co	3Ø wire color code		
277/480V	120/208Y		
AØ - Purple	Red		
BØ - Brown	Black		
CØ - Yellow	Blue		

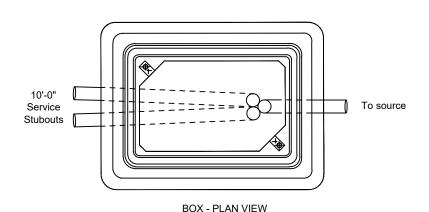


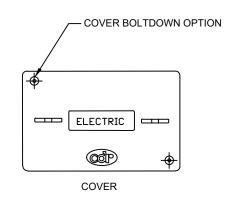
Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 TRANS-SOCKET METERING ON RACK

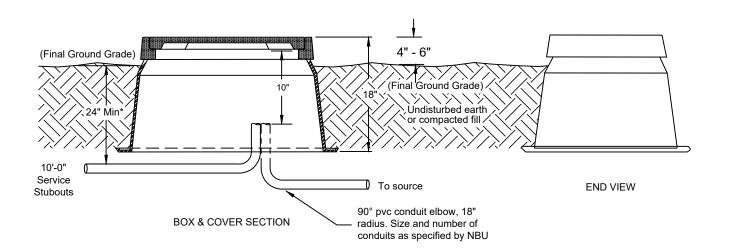
ISSUED	SCALE	DRAWING NUMBER
4/22	NTS	EU-120

The electric system layout design, to include secondary enclosure locations, is determined by NBU.

*Additional depth maybe required at the discretion of a NBU Electric Inspector.







Enclosure furnished and installed by customer/developer. Enclosure shall be manufactured by CDR Systems Corporation. Box = B10132418A Cover = C10132402A017

If installed in street, alley, or driveway.

Box = B12132418A Cover = C12132402A017

Note: Size of enclosure shall be determined by NBU. Make sure that conduit is not located under lip of box. Secondary stubouts shall be determined by NBU



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

SECONDARY ENCLOSURE

ISSUED	SCALE	DRAWING NUMBER
12/22	NTS	EU-210

Locations are determined by NBU. All customer installations require inspection by NBU.

A, B, C = Conductor phase; Phase orientation shall be verified prior to installation.

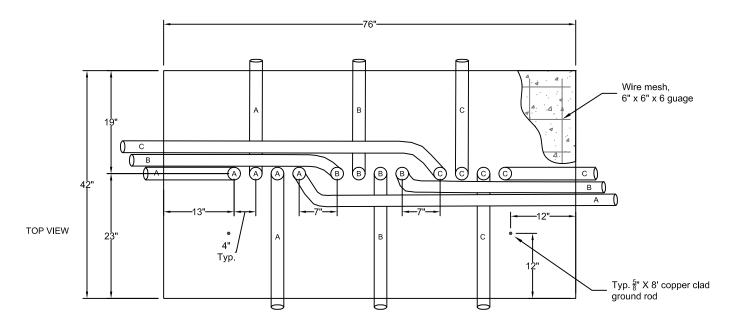
Underground condult to be Installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above concrete, 36" radius, 90° sweeps. Pull string to be installed by customer.

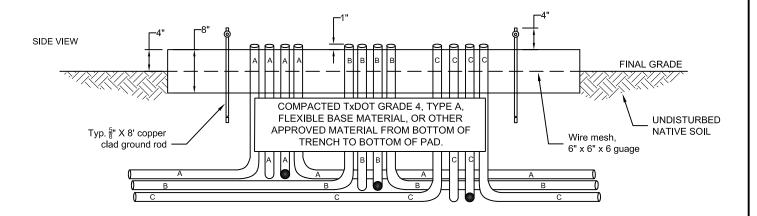
Copper-clad ground rods, 5/8" x 8', 2 required, to have 4" projection above top on concrete.

Concrete shall be 3000 PSI minimum.

All primary shall be 5' minimum.

Condult positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured







Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

THREE PHASE 4 PLACE, 200AMP PRIMARY ENCLOSURE PAD

ISSUED	SCALE	DRAWING NUMBER
10/18	NTS	EU-310

Locations are determined by NBU. All customer installations require inspection by NBU.

A, B, C = Conductor phase; Phase orientation shall be verified prior to installation.

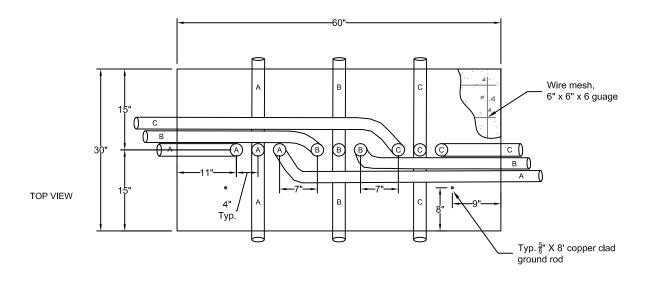
Underground conduit to be installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above concrete, 36" radius, 90° sweeps. Pull string to be installed by customer.

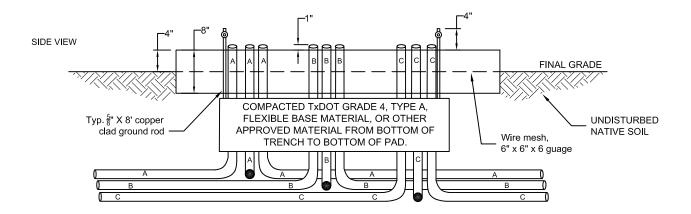
Copper-clad ground rods, 5/8" x 8', 2 required, to have 4" projection above top on concrete.

Concrete shall be 3000 PSI minimum.

All primary shall be 5' minimum.

Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured







Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

THREE PHASE 3 PLACE, 200AMP PRIMARY ENCLOSURE PAD

ISSUED	SCALE	DRAWING NUMBER
10/18	NTS	EU-315

Locations are determined by NBU. All customer installations require inspection by NBU.

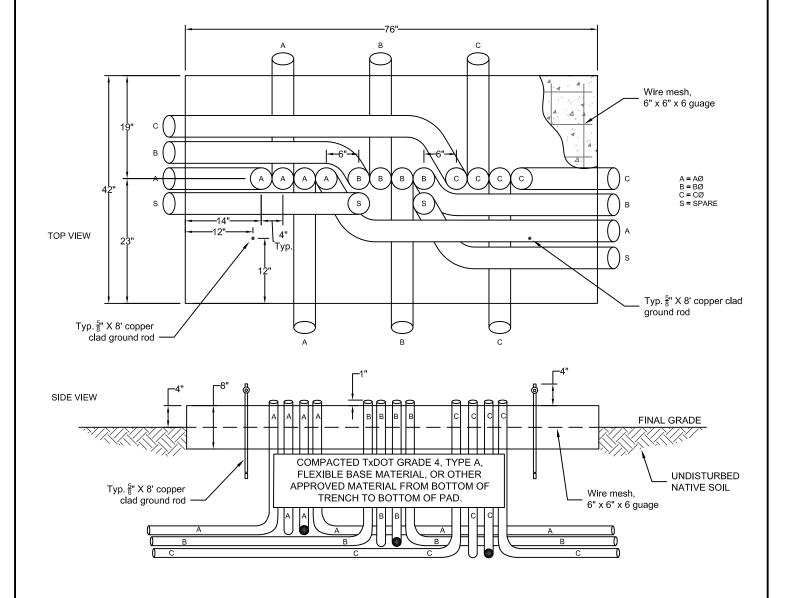
A, B, C = Conductor phase; Phase orientation shall be verified prior to installation.

Underground condult to be Installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above concrete, 36" radius, 90° sweeps. Pull string to be installed by customer.

Copper-clad ground rods, 5/8" x 8', 2 required, to have 4" projection above top on concrete.

Concrete shall be 3000 PSI minimum.

Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured





Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 THREE PHASE 4 PLACE, 600AMP PRIMARY ENCLOSURE PAD

ISSUED	SCALE	DRAWING NUMBER
4/22	NTS	EU-320

Locations are determined by NBU. All customer installations require inspection by NBU.

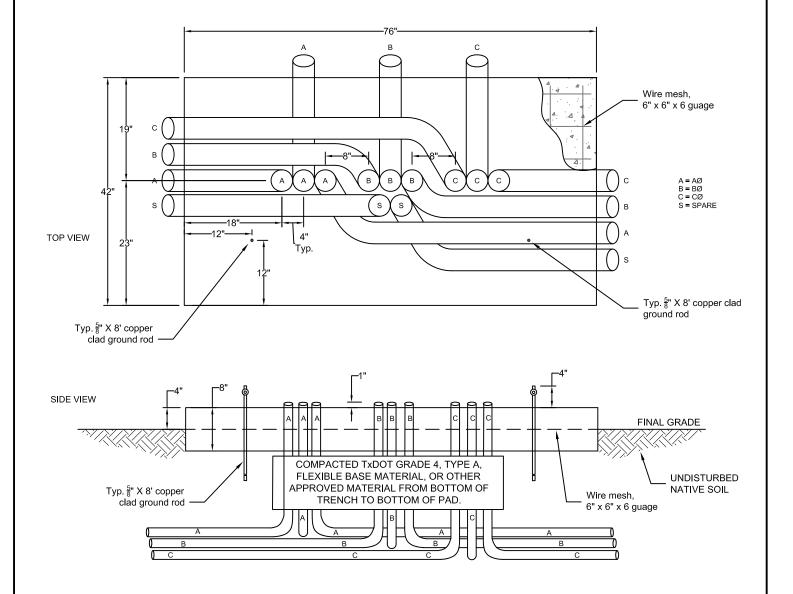
A, B, C = Conductor phase; Phase orientation shall be verified prior to installation.

Underground condult to be Installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above concrete, 36" radius, 90° sweeps. Pull string to be installed by customer.

Copper-clad ground rods, 5/8" x 8', 2 required, to have 4" projection above top on concrete.

Concrete shall be 3000 PSI minimum.

Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured





Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 THREE PHASE 3 PLACE, 600AMP PRIMARY ENCLOSURE PAD

ISSUED SCALE DRAWING NUMBER

4/22 NTS EU-325

Locations are determined by NBU. All customer installations require inspection by NBU.

A, B, C = Conductor phase; Phase orientation shall be verified prior to installation.

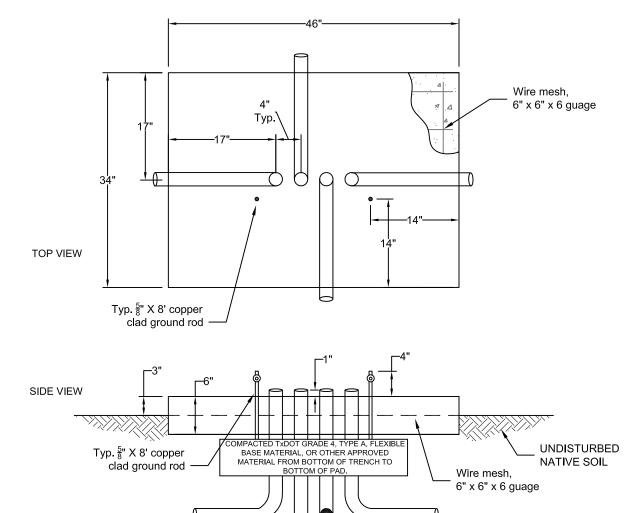
Underground conduit to be installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above concrete, 36" radius, 90° sweeps. Pull string to be installed by customer.

Copper-clad ground rods, 5/8" x 8', 2 required, to have 4" projection above top on concrete.

Concrete shall be 3000 PSI minimum.

All primary shall be 5' minimum.

Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured





Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

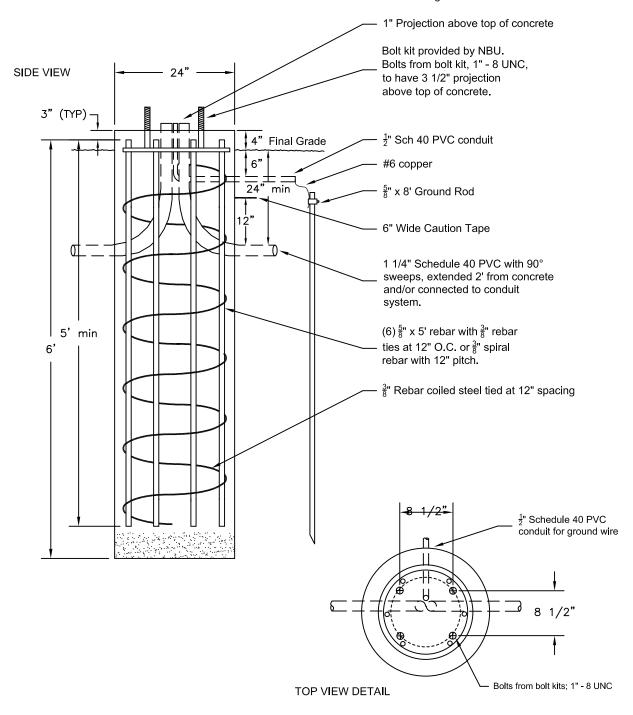
SINGLE PHASE PRIMARY ENCLOSURE PAD

ISSUED	SCALE	DRAWING NUMBER
10/18	NTS	EU-330

Locations are determined by NBU.

Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured.

Concrete to be 3000 PSI with a 4" tooled radius on edge.





Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

STANDARD LIGHT FOUNDATION

ISSUED	SCALE	DRAWING NUMBER
04/21	NTS	EU-410

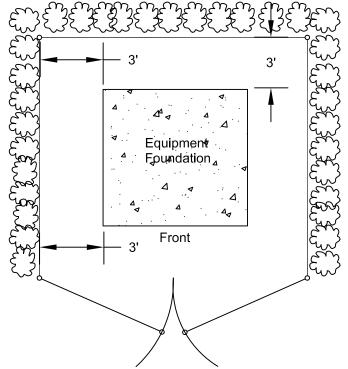
3' Top View

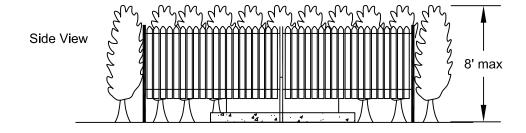
Transformer or pullbox location must be accessible at all times. Clearance around NBU equipment to any barrier shall be 3' minimum.

Any installation that would enclose any metering/disconnect assemble within the barrier shall be approved by NBU.

Barrier can be vegetation, chain link, wood, concrete block, or appropriate material. Fencing/gate material shall be designed to allow for adequate air circulation around equipment and is subject to NBU approval.

Site grading within the front 10' of a foundation shall not exceed a 7:1 slope. Access infrastructure, if necessary, shall be built as permanent structures, and shall meet requirements of any applicable right-of-way owner.



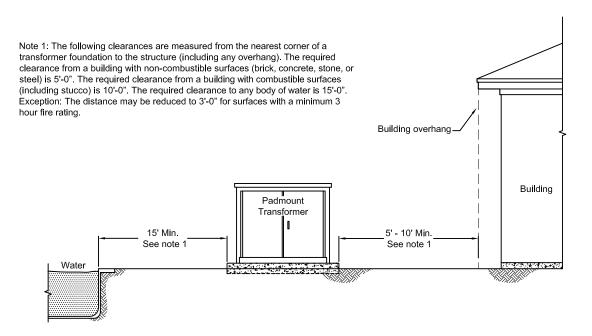


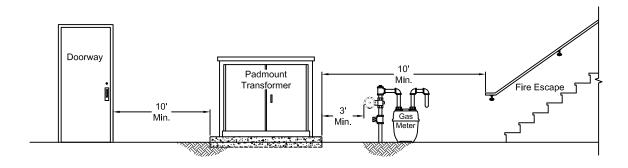


Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

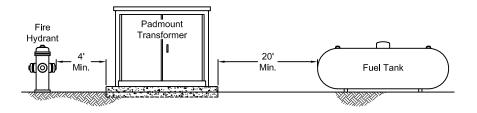
PADMOUNT EQUIPMENT BARRIER CLEARANCES

ISSUED SCALE DRAWING NUMBER NTS EU-500 10/18





Note 2: Per the National Electric Safety Code rule 380D padmounted equipment and other above ground electrical equipment should be located not less than 4'-0" from fire hydrants. Exception: Where conditions do not permit a clearance of 4'-0", a clearance of not less than 3'-0" is allowed.





Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 MINIMUM CLEARANCES FROM PADMOUNT EQUIPMENT PADS

ISSUED SCALE DRAWING NUMBER

10/18 NTS EU-501

Location of Bollards shall be determined by NBU Electric Engineering

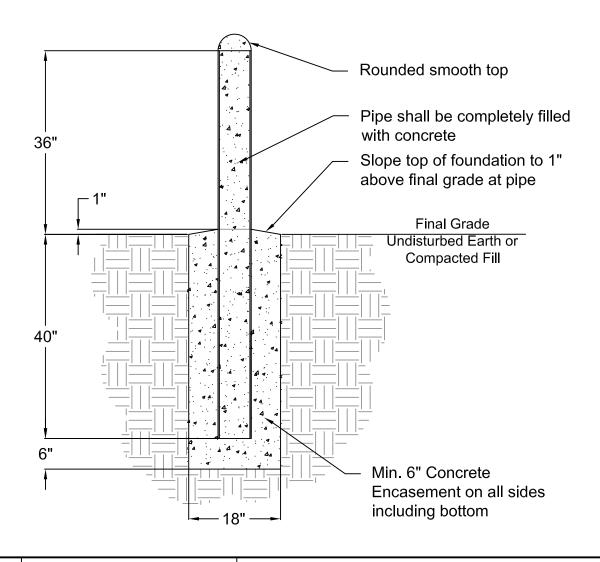
Bollards shall be 6" Diameter Schedule 80 Galvanized Steel Pipe

Concrete shall be minimum 3000 PSI

Exposed portions of Bollards shall be finished with one coat of rust inhibitive primer and two coats of epoxy paint (Safety Yellow)

Bollard foundation shall be 18" Diameter and 46" deep measured from final grade

Bollards shall be required where NBU equipment pads are within 6' to the front face of curb and/or 6' to a readily drivable surface (including driveways).





Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

EQUIPMENT PROTECTION BOLLARD

ISSUED	SCALE	DRAWING NUMBER
10/18	NTS	EU-505

Locations are determined by NBU. All customer installations require inspection by NBU.

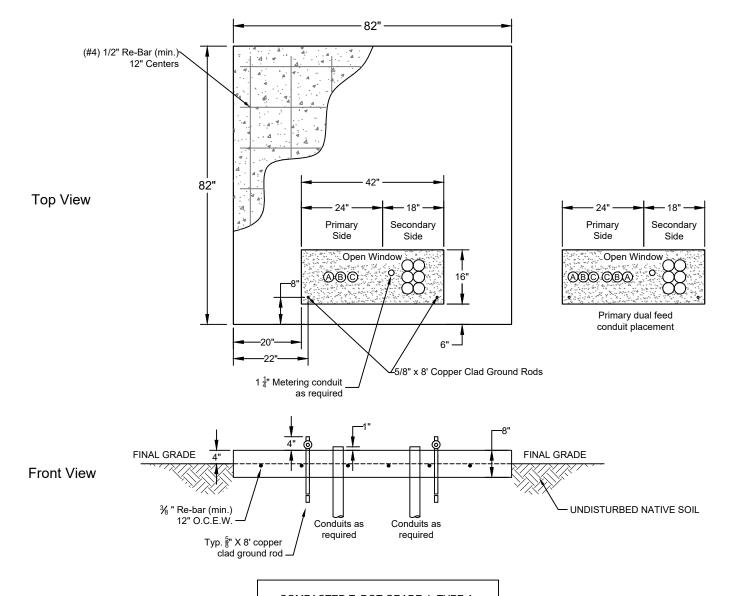
Underground conduit to be installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above concrete, 36" radius, 90° sweeps. Pull string to be installed by customer.

Copper-clad ground rods, 5/8" x 8', 2 required, to have 4" projection above top on concrete.

Concrete shall be 3000 PSI minimum.

All primary and secondary stub outs shall be 10'-0" minimum.

Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured



COMPACTED TXDOT GRADE 4, TYPE A, FLEXIBLE BASE MATERIAL, OR OTHER APPROVED MATERIAL FROM BOTTOM OF TRENCH TO BOTTOM OF PAD.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

THREE PHASE TRANSFORMER PAD 75 - 300 kVA

12/22 NTS DRAWING NUMBER EU-510

Locations are determined by NBU. All customer installations require inspection by NBU.

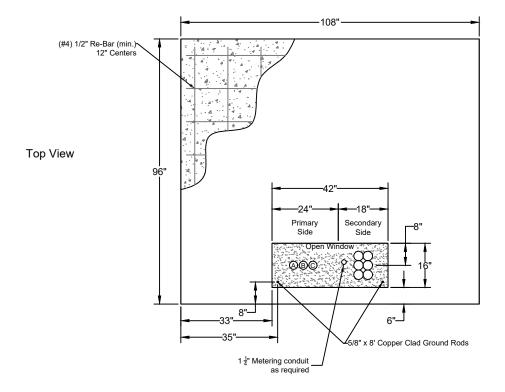
Underground conduit to be installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above concrete, 36" radius, 90° sweeps. Pull string to be installed by customer.

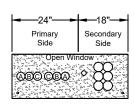
Copper-clad ground rods, 5/8" x 8', 2 required, to have 4" projection above top on concrete.

Concrete shall be 3000 PSI minimum.

All primary and secondary stub outs shall be 10'-0" minimum.

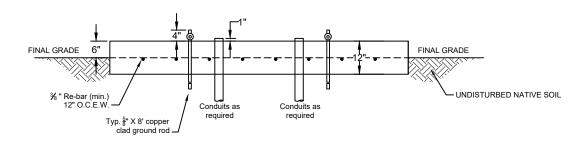
Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured





Primary dual feed conduit placement

Front View



COMPACTED TXDOT GRADE 4, TYPE A, FLEXIBLE BASE MATERIAL, OR OTHER APPROVED MATERIAL FROM BOTTOM OF TRENCH TO BOTTOM OF PAD.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

THREE PHASE TRANSFORMER PAD 75 - 2500 KVA

ISSUED SCALE DRAWING NUMBER

12/22 NTS EU-515

Locations are determined by NBU. All customer installations require inspection by NBU.

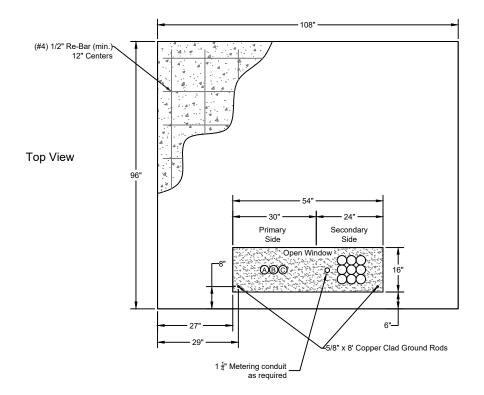
Underground conduit to be installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above concrete, 36" radius, 90° sweeps. Pull string to be installed by customer.

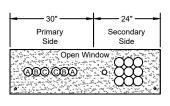
Copper-clad ground rods, 5/8" x 8', 2 required, to have 4" projection above top on concrete.

Concrete shall be 3000 PSI minimum.

All primary and secondary stub outs shall be 10'-0" minimum.

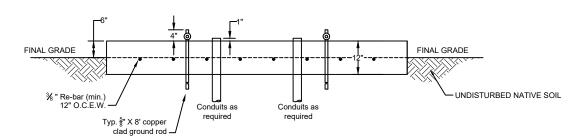
Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured





Primary dual feed conduit placement

Front View



COMPACTED TXDOT GRADE 4, TYPE A, FLEXIBLE BASE MATERIAL, OR OTHER APPROVED MATERIAL FROM BOTTOM OF TRENCH TO BOTTOM OF PAD.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951 THREE PHASE TRANSFORMER FOUNDATION 500 - 2500 kVA

ISSUED SCALE DRAWING NUMBER

12/22 NTS EU-520

Locations are determined by NBU Electrical Engineering. All customer installations require inspection by NBU.

Underground conduit installed according to NBU specification EU-910. **Conduit to be sized by NBU** and have 1" projection above top of concrete. Pull string to be installed by customer in each conduit.

Install #6 copper inside 1/2" conduit. Connect #6 copper to ground rod and leave 5' coil buried outside of slab at 12" depth.

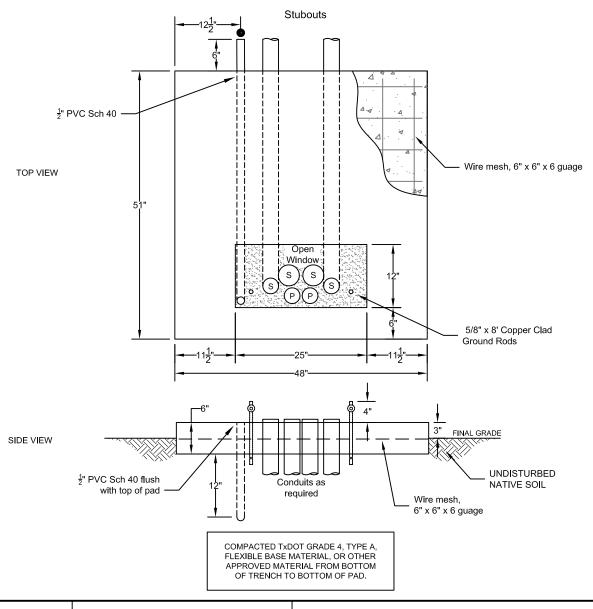
Copper-clad ground rods, 5'8" x 8', 2 required, to have 4" projection above top of concrete.

Concrete shall be 3000 PSI minimum.

All primary and secondary stub outs shall be 10'-0" minimum.

Conduit positions, concrete forms, re-bar, and trench compaction to be approved by NBU before concrete is poured

DiversiTech Part # F4851-62CL1225 suitable substitute for poured-in-place.

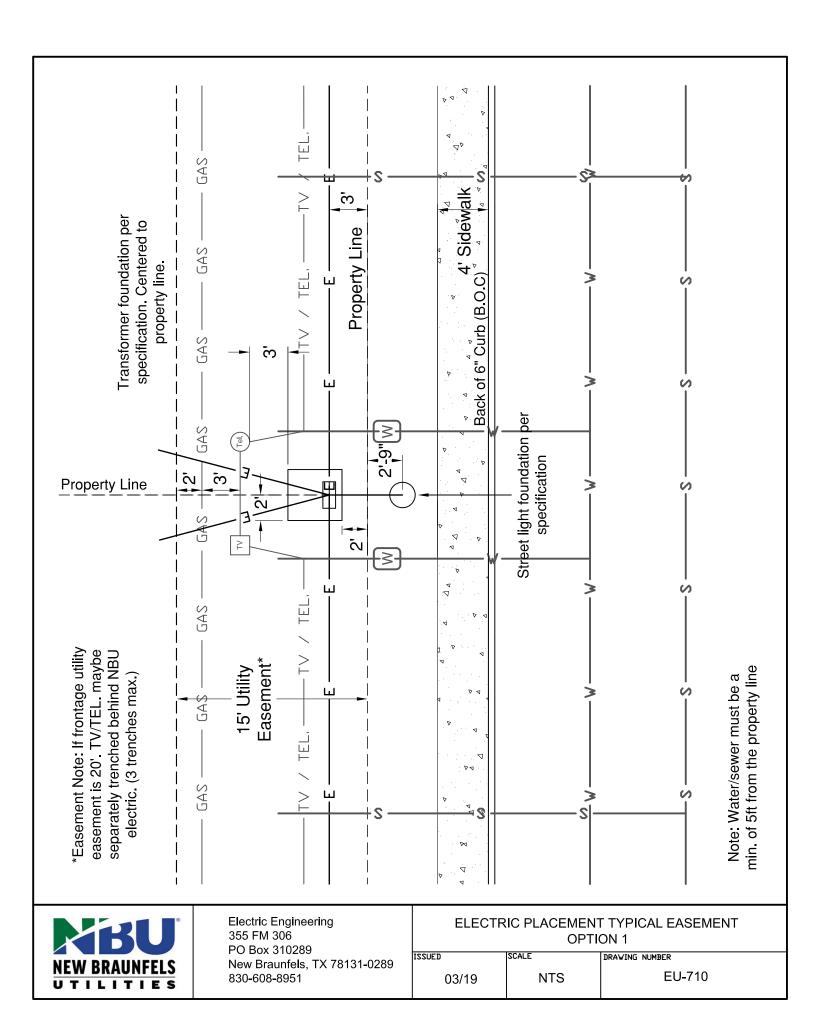


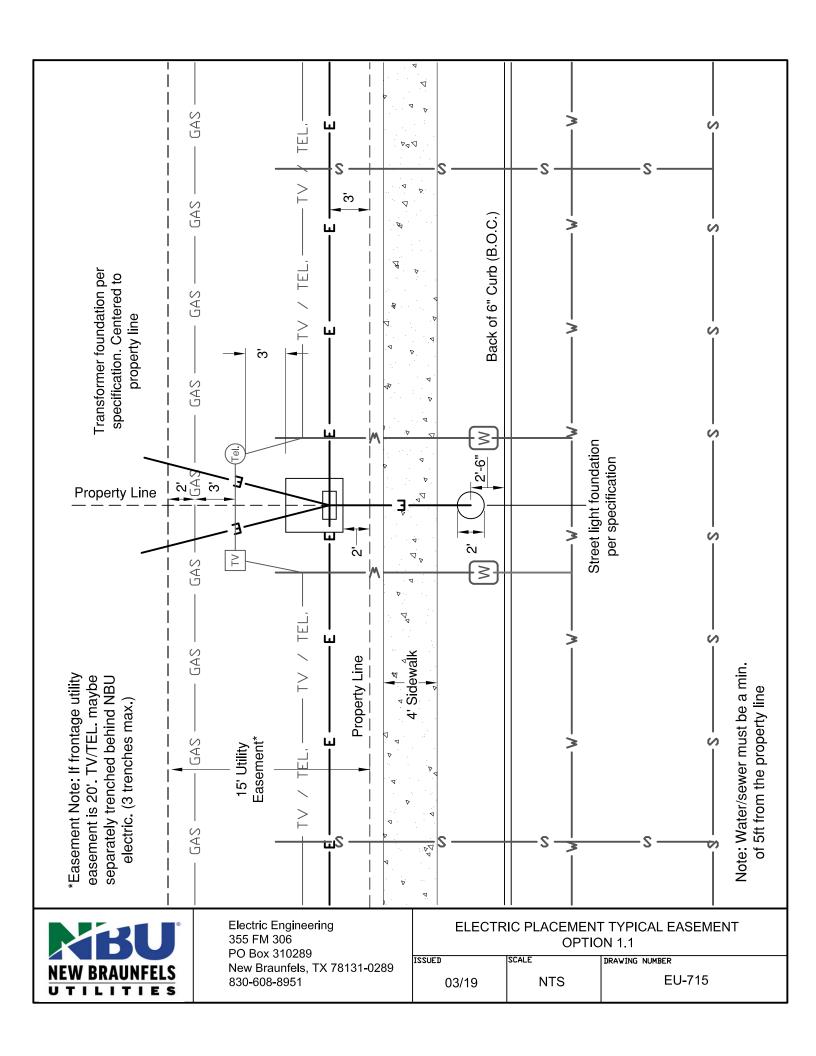


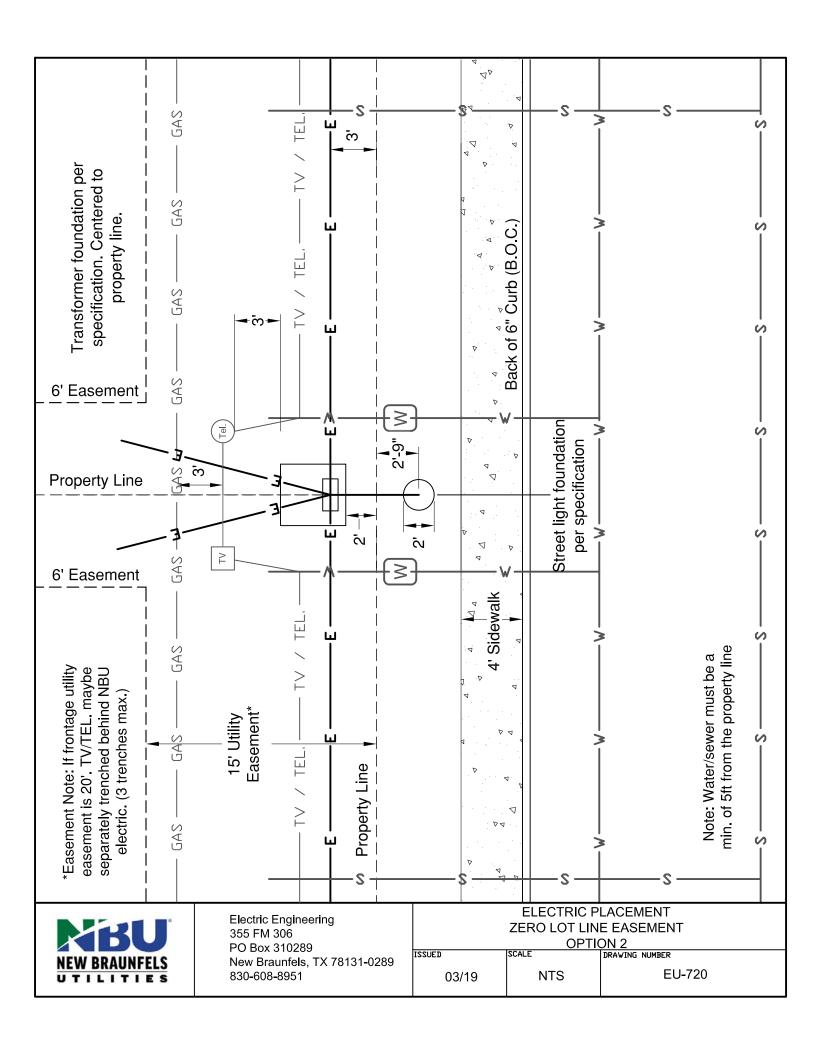
Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

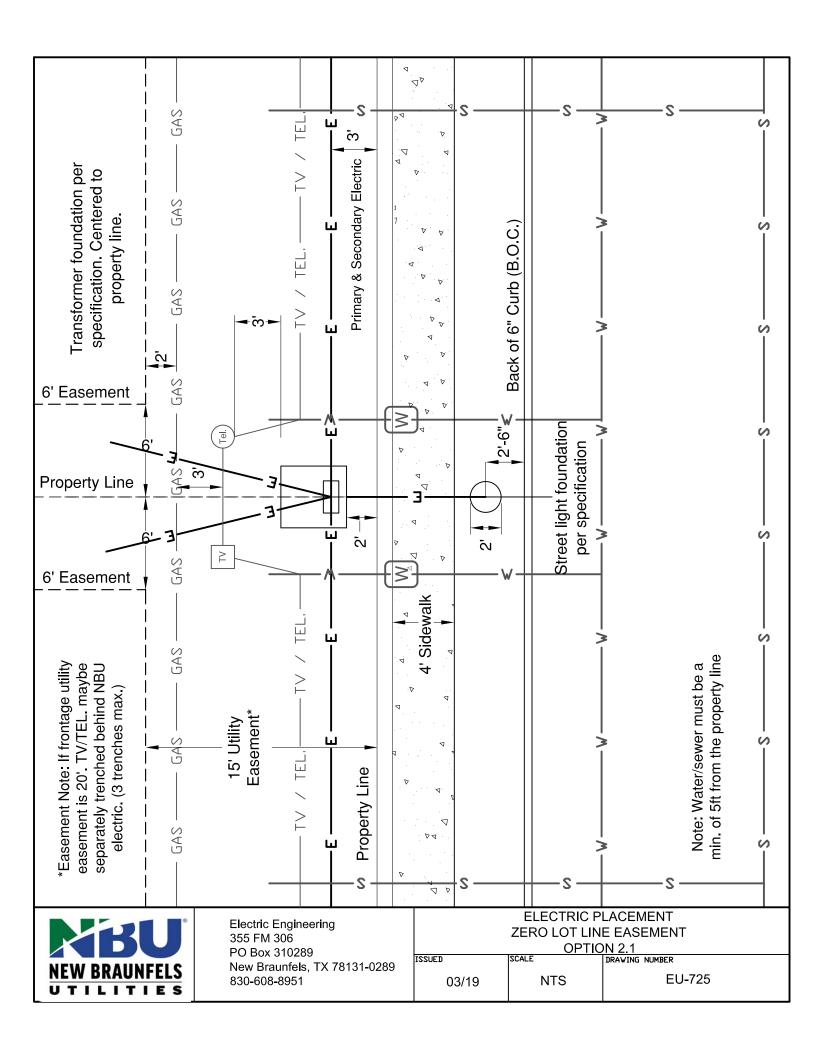
SINGLE PHASE TRANSFORMER PAD

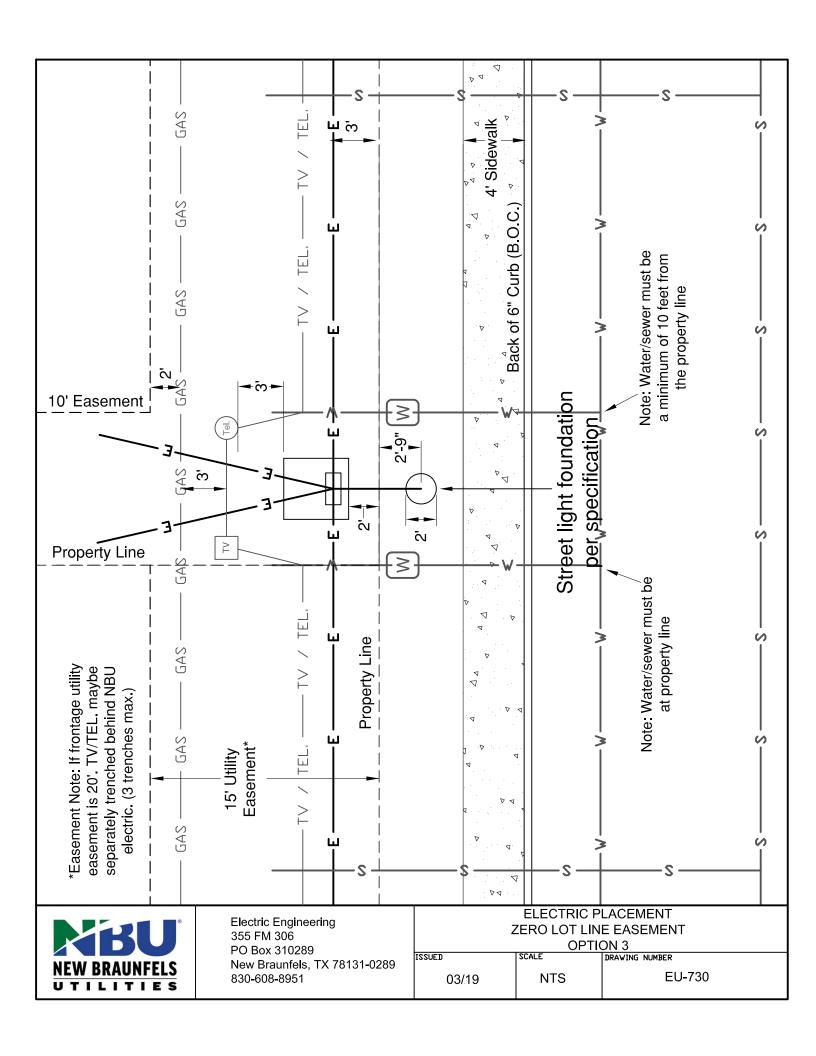
ISSUED	SCALE	DRAWING NUMBER	
04/21	NTS	EU-530	

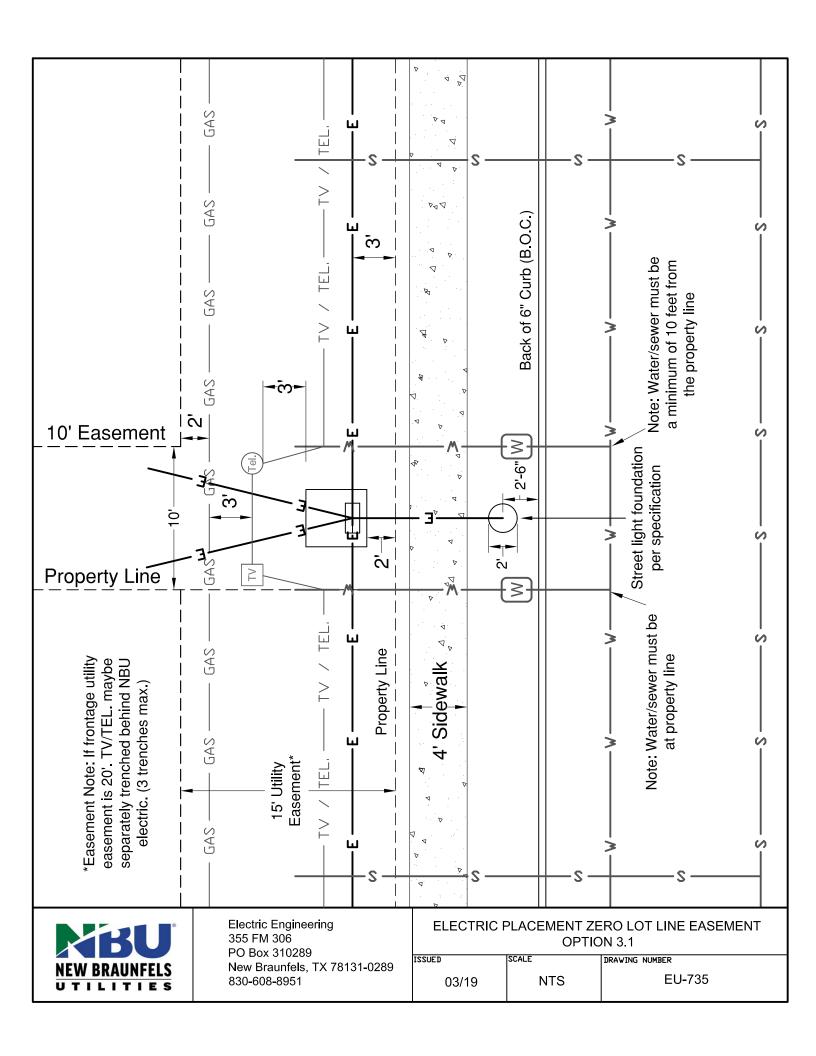


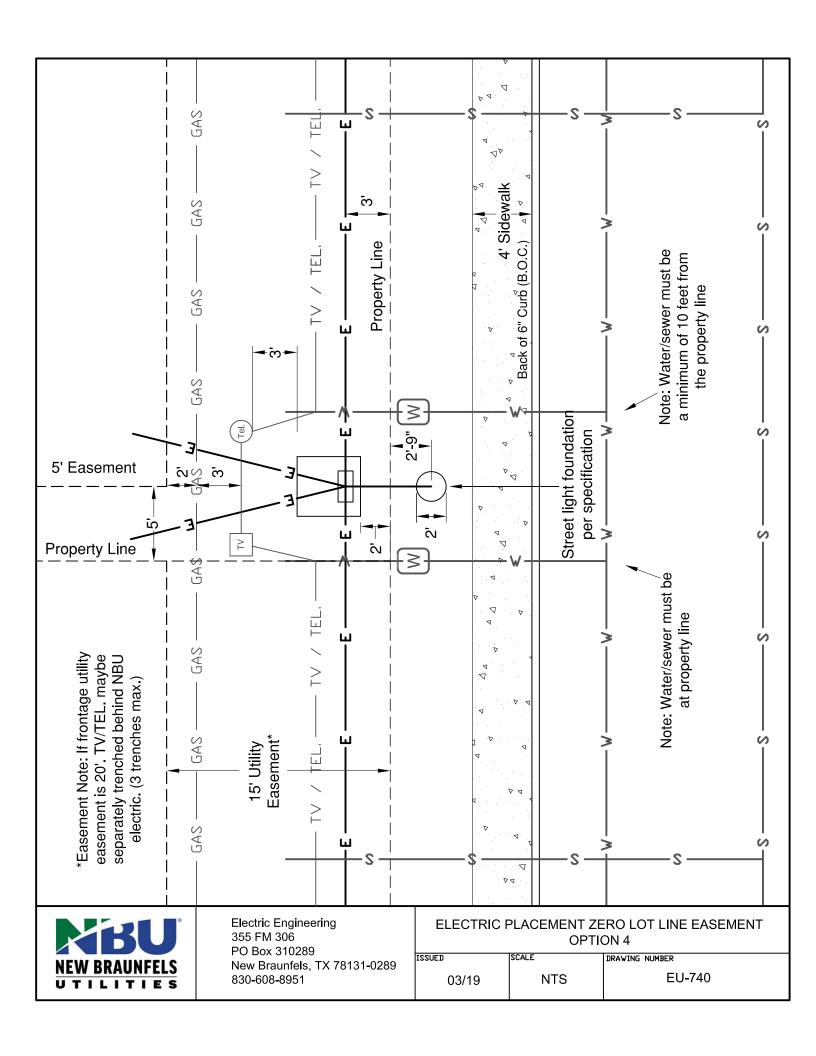


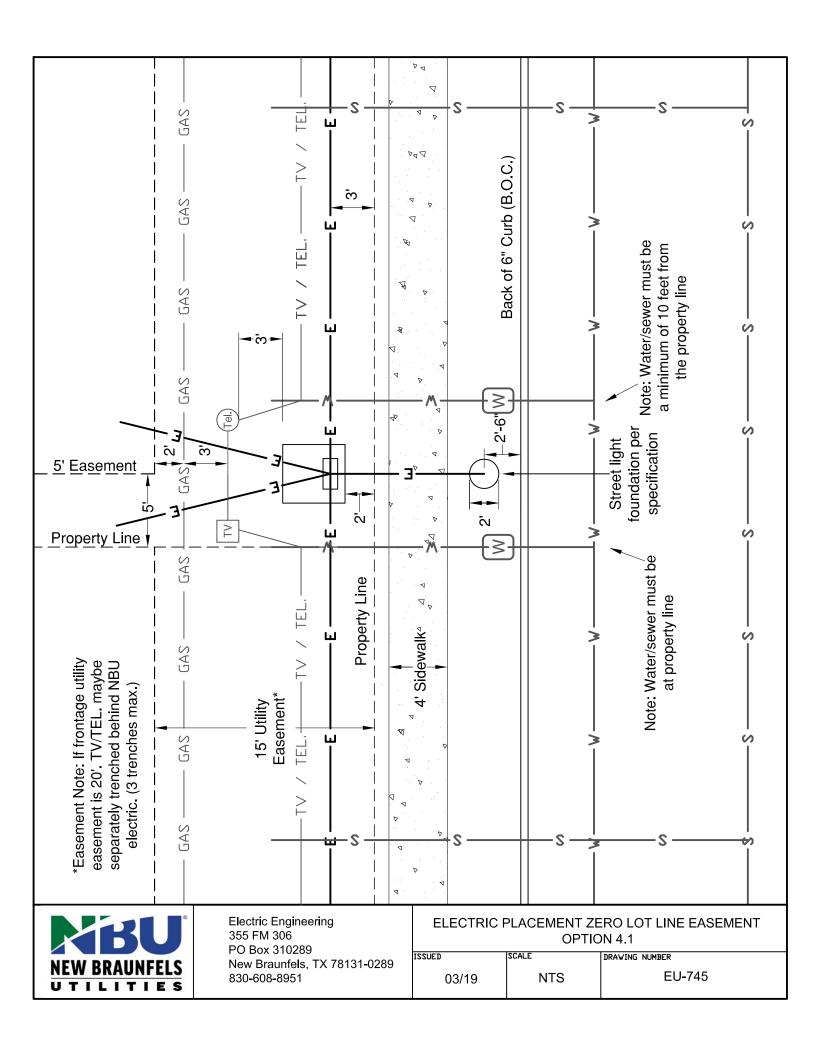




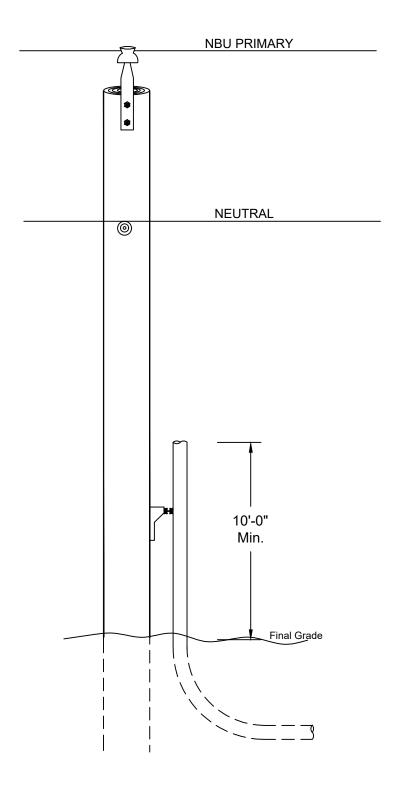








Locations are determined by NBU. All customer installations require inspection by NBU.



Pole and bracket installed by NBU. Call 830-608-8800 when ready for bracket installation. Stub out (to NBU installed riser) must be plumb with pole and attached to bracket by temporary means (taped, wired, etc.)

Offset from pole to center of conduit shall be 7 1/2". Extend conduit 10'-0" min. above final ground grade.

Schedule 80 PVC shall be used for all exposed conduit above ground. Underground conduit, including stub out, is sized by NBU and installed according to specification EU-910. Call 830-608-8951 to verify conduit size.



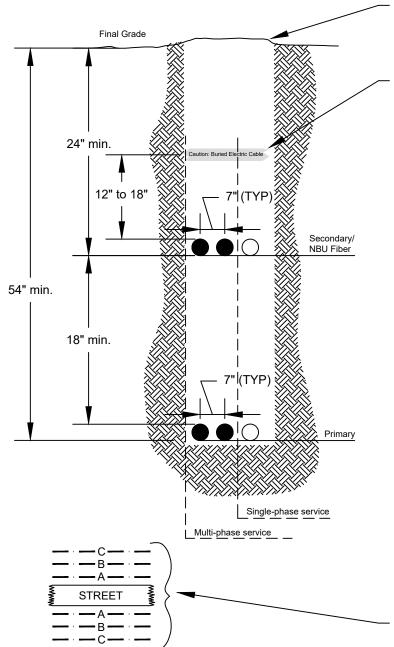
Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

RISER POLE STUB OUT

ISSUED | SCALE | DRAWING NUMBER | 12/20 | NTS | EU-800

Locations are determined by NBU. All customer installations require inspection by NBU.

All Primary and Secondary stubouts shall be 5' minimum.



Mound earth 3" to 4" above final ground grade.

A 6" wide plastic caution tape, red or yellow in color with black lettering reading, "Caution: Buried Electric Cable Below", will be placed in the trench 12" to 18" above electrical conduit but below any communication cables. For more than 2 conduits horizontally in trench, 2 tapes shall be installed.

Customer shall excavate trench to proper depth and install PVC Schedule 40 Electrical Conduit NEMA TC 2. Conduit elbows (sweeps) for primary shall have 36" minimum radius. Conduit elbows for secondary shall have 18" minimum radius.

CONDUIT SHALL BE SIZED BY NBU.

Conduit installations shall have a 3" minimum sand bed below and beside conduit and 12" minimum above.

Where electrical equipment foundations (for transformers, junctions boxes, switchgear) lie on top of trench line, the foundation area shall be back filled with approved compacted base material for the entire depth of the trench.

Trenches which cross or will be under streets, commercial driveways, or parking lots shall be back filled with approved compacted base material.

Customer to furnish and install pull string.

No pipe, gas, or water line shall be closer than 36" horizontally from any underground electrical conduit (parallel construction). No pipe, gas, or water line shall be closer than 12" vertically from any underground electrical conduit (perpendicular crossing).

At no time shall any electric line, primary or secondary, be connected for service if found to cross under any building foundation.

Additional depth maybe required at the discretion of a NBU Electric Inspector.

For multi-phase service, conductor phase orientation shall be as shown unless approved otherwise by NBU.



Electric Engineering 355 FM 306 PO Box 310289 New Braunfels, TX 78131-0289 830-608-8951

UNDERGROUND CONDUIT INSTALLATION (ELECTRIC ONLY)

		<u> </u>
ISSUED	SCALE	DRAWING NUMBER
11/22	NTS	EU-910

Locations are determined by NBU. All customer installations require inspection by NBU.

All Primary and Secondary stubouts shall be 5' minimum.

Final Grade Comm. 24"- 36' Communication Cable (opt) 48" min.* (TYP) 12"-18" Secondary/ NBU Fiber 72" min.* 18" min. Primary Single-phase service Multi-phase service STREET

Mound earth 3" to 4" above final ground grade.

Communication cable/conduit shall be installed above all electrical conduit(s) and caution tape. All communication cable(s) shall be pulled through conduit, no direct burial.

A 6" wide plastic caution tape, red or yellow in color with black lettering reading, "Caution: Buried Electric Cable Below", will be placed in the trench 12" to 18" above electrical conduit but below any communication cables. For more than 2 conduits horizontally in trench, 2 tapes shall be installed.

Customer shall excavate trench to proper depth and install PVC Schedule 40 Electrical Conduit NEMA TC 2. Conduit elbows (sweeps) for primary shall have 36" minimum radius. Conduit elbows for secondary shall have 18" minimum radius.

CONDUIT SHALL BE SIZED BY NBU.

Where trenches consist of rock, conduit installations shall have a 3" minimum sand bed below and beside conduit and 12" minimum above. NBU Electric Inspector reserves the right to determine backfill material.

Where electrical equipment foundations (for transformers, junctions boxes, switchgear) lie on top of trench line, the foundation area shall be back filled with approved compacted base material for the entire depth of the trench

Trenches which cross or will be under streets, commercial driveways, or parking lots shall be back filled with approved compacted base material.

Customer to furnish and install pull string.

No pipe, gas, or water line shall be closer than 36" horizontally from any underground electrical conduit (parallel construction). No pipe, gas, or water line shall be closer than 12" vertically from any underground electrical conduit (perpendicular crossing).

At no time shall any electric line, primary or secondary, be connected for service if found to cross under any building foundation.

*Service conduits from meter back to source shall be installed at 24" min. Additional depth maybe required at the discretion of a NBU Electric Inspector.

For multi-phase service, conductor phase orientation shall be as shown unless approved otherwise by NBU.



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UNDERGROUND CONDUIT INSTALLATION (COMMON TRENCH)

ISSUED	SCALE	DRAWING NUMBER
11/22	NTS	EU-915