



(X) INTERSYSTEM BOND - NEC 250.94
 REQUIRES A LISTED INTERSYSTEM BONDING TERMINATION WITH A MINIMUM OF THREE (3) ADDITIONAL TERMINALS PER NEC 250.9.4. THE ONLY APPROVED DEVICE IS THE BURNDY BDT1 WITH NO EXCEPTIONS ALLOWED.

(W) UFER GROUND - NEC 250.52(3)
 NOTE: REQUIRED ON ALL NEW SERVICE INSTALLATIONS UFER GROUND CONSISTING OF #4 AWG CONNECTED TO: 20 FT. OF MIN. 1/2" DIAMETER REBAR USING A LISTED CONNECTOR OR
 #4 AWG CU. RUN TO FOOTING DEPTH THEN CONTINUOUS AS 20 FT. OF #4 AWG CU. WIRE RUN HORIZONTALLY IN THE CONCRETE FOOTING. THE UFER GROUND SHALL BE COVERED BY A 2" MIN. OF CONCRETE ON ALL SIDES. THE UFER GROUND WIRE IS NOT REQUIRED TO BE INSTALLED IN CONDUIT UNLESS EXPOSED ABOVE GRADE. UFER CONNECTS AT THE FIRST POINT OF DISCONNECT.

CLEARANCES
 MIN. 10'-0" AT POINT OF ATTACHMENT
 MIN. 12'-0" OVER RESIDENTIAL PROPERTY & DRIVEWAYS
 MIN. 18'-0" OVER DRIVEWAYS & PARKING AREAS THAT ARE SUBJECT TO TRUCK TRAFFIC
 MIN. 3'-0" RISER PIPE TO WINDOW
 MIN. 3'-0" SERVICE DROP TO WINDOW
 MIN. 3'-0" RISER PIPE TO CORNER OF STRUCTURE

NOTES:
 (1) MOUNTING CLAMP WITH 1/2" BOLTS, NUTS AND WASHERS.
 (2) STEEL CONDUIT HUB 2-1/2" LISTED FOR SERVICE EQUIPMENT.
 (3) USE 2" X 4" BLOCKING SOLIDLY INSTALLED BETWEEN RAFTERS.
 (4) RIGID STEEL CONDUIT 2-1/2" FOR UP TO 200 AMP SERVICE.
 NOTE: USE OF IMC IS NOT PERMITTED FOR THIS APPLICATION.

NOTES:
 (1) FOR INTERIOR: RIGID GALVANIZED STEEL PIPE, IMC, EMT & FITTINGS WITH CONDUCTORS 200 AMP - (2) #2/0 PHASE AND (1) #2/0 NEUTRAL, THWN COPPER CONDUCTORS IN 2" PIPE. IDENTIFY NEUTRAL WITH WHITE TAPE PER NEC 310.15(B)(7)(2) 100 AMP - (2) #4 PHASE AND (1) #4 NEUTRAL, THWN COPPER CONDUCTORS IN 1-1/4" PIPE. IDENTIFY THE NEUTRAL WITH WHITE TAPE PER NEC 310.15(B)(7)(2).
 (2) 200 AMP MILBANK CAT. # U7607-PL-200-KK; 100 AMP MILBANK# U7607-PL-100-KK
 (3) METER SOCKET REQUIREMENTS (METER BY THE UTILITY):
 200 AMP - MILBANK CAT. # U8949-RL-TG-KK
 OVER 200 AMP - CONSULT UTILITY ENGINEERING DEPT.
 METER SOCKET MUST BE SECURED TO BUILDING STRUCTURAL ELEMENT, NOT JUST SIDING. AN EXTERNAL BREAKER IS REQUIRED AT ALL NEWLY CONSTRUCTED SINGLE FAMILY HOMES AND TOWNHOMES. IN CASE OF EXISTING HOMES WHERE A METER SOCKET REPLACEMENT TAKES PLACE DUE TO CUSTOMER INITIATED WORK SUCH AS A SERVICE UPGRADE, SERVICE RELOCATION OR MODERNIZATION OF THE SERVICE, AN EXTERNAL BREAKER IN THE NEW METER SOCKET IS REQUIRED.
 (4) EACH TENANT/PREMISE MUST HAVE A READY ACCESSIBLE MAIN DISCONNECT, WHICH IS INTERPRETTED AS A MAIN DISCONNECT INSIDE THE TENANT SPACE OR PREMISE, UNLESS GIVEN EXCEPTION BY THE CITY OR ST. CHARLES ELECTRIC OR BUILDING AND CODE ENFORCEMENT DEPARTMENTS.
 (5) PANELBOARD MUST BE SOLIDLY SECURED TO THE WALL AT TOP AND BOTTOM, WHEN MOUNTED ON CONCRETE OR MASONRY WALLS, A MINIMUM 1/2" STEEL CHANNEL OR 1/2" THICK PLYWOOD SHALL BE MOUNTED BEHIND ELECTRICAL PANEL. PROVIDE A MINIMUM OF 36" OF CLEAR WORKING SPACE IN FRONT OF THE PANELBOARD. (WIDTH OF CLEAR WORKING SPACE TO BE 36")
 (6) A 1/2" RIGID GALVANIZED STEEL PIPE OR IMC WITH #6 CU. INSULATED GROUND WIRE. CONDUIT TO INCLUDE SUITABLE CONNECTOR AT END TO PREVENT GROUND WIRE FROM BEING PULLED OUT OF METER SOCKET. BOTH ENDS OF CONDUIT ARE TO BE BONDED PER NEC 250.64(E).
 (7) IF THERE IS NO EXTERIOR BREAKER, AN INSULATED GROUND CONDUCTOR IS TO BE CONTINUOUS TO THE MAIN PANEL, NOT TO BE CONNECTED AT THE METER SOCKET. WHERE AN EXTERNAL BREAKER IS UTILIZED, THE #6 CU. GROUND CONDUCTOR FROM THE GROUND ROD IS REQUIRED TO BE LANDED IN ITS ENCLOSURE AT THE SERVICE NEUTRAL GROUNDING POINT.
 (8) GROUND ROD CONNECTOR MUST BE VISIBLE. USE GROUND HUB CONNECTORS AT BOTH ENDS OF THE CONDUIT TO PREVENT CONDUCTOR PULL-OUT AND TO BOND RACEWAYS AS PER NEC 250.64(E).
 (9) 5/8" X 8' COPPER CLAD GROUND RODS INSTALLED IN UNDISTURBED SOIL. THE GROUND RODS MAY BE LOOP CONNECTED TOGETHER.
 (10) A 1/2" CONDUIT WITH GROUND WIRE OR A BARE ARMORED GROUND.
 (11) 100 AMP - NO. 8 COPPER GROUND WIRE
 200 AMP - NO. 4 COPPER GROUND WIRE
 (12) WHERE AN EXTERNAL BREAKER IS UTILIZED, THE GROUND ELECTRODE CONDUCTOR FROM THE WATER PIPE SHALL BE LANDED IN THE BREAKER'S ENCLOSURE. IT IS TO BE INSTALLED IN ITS OWN SEPARATE CONDUIT ALL THE WAY TO THE OUTSIDE ENCLOSURE. BOTH ENDS OF CONDUIT TO BE BONDED TO THE CONDUCTOR AS IT EXITS THE RACEWAY PER NEC 250.64(E). BOTH WATER PIPE GROUND AND GROUND ROD CONDUCTOR TO BE CONNECTED IN EXTERNAL BREAKER ENCLOSURE.
 (13) A 1/2" EMT CONDUIT END HUB CONNECTOR - SECURE CONDUCTOR TO THE CONDUIT.
 (14) USE 1/2" CONDUIT STRAPS (TYPICAL)
 (15) GROUND CONDUCTOR AS SHOWN WITH A JUMPER ACROSS THE WATER METER.
 (16) GROUND CONDUCTOR TO THE WATER LINE WITH A LISTED CONNECTOR.
 (17) WATER METER (PROVIDED BY THE UTILITY)
 (18) INCOMING WATER LINE FROM THE UTILITY
 (19) NATURAL GAS METER MUST BE A MINIMUM OF 5'-0" FROM THE SERVICE EQUIPMENT.
 (20) ELECTRIC METER MUST BE A MINIMUM OF 3'-0" FROM ANY WINDOW WELL.

NOTE: MINIMUM SERVICE SIZE FOR NEW ONE OR TWO FAMILY DWELLING IS 200 A. MINIMUM SERVICE SIZE FOR NEW MULTI FAMILY OR 3 OR MORE ATTACHED FAMILY IS 100 A PER UNIT DWELLING.

CHECKLIST AND LEGEND REVISION DATE: 5/17/2016

<input type="checkbox"/>	(A) ELECTRIC UTILITY SERVICE CONDUCTORS AND DEAD-END CONNECTOR (BY UTILITY).
<input type="checkbox"/>	(B) HOUSE ATTACHMENT BRACKET (OSLYN CAT# F7692, OR EQUIVALENT) 2-HOLE ATTACHMENT BRACKET PULL-OFF PLATE.
<input type="checkbox"/>	(C) WEATHERHEAD SUITABLE FOR RIGID GALVANIZED STEEL (RGS) SERVICE PIPE. LEAVE A MINIMUM OF 24" OF CONDUCTOR TAILS FOR THE CITY SPlicing SERVICE AND TO PROVIDE A "DRIP LOOP" TO ALLOW WATER TO SHED FROM CONDUCTORS.
<input type="checkbox"/>	(D) FOR EXTERIOR: RIGID GALVANIZED STEEL PIPE AND CONDUCTORS 100 A - (2) #4 PHASE AND (1) #4 NEUTRAL, THWN COPPER CONDUCTORS IN 1-1/4" PIPE (IDENTIFY NEUTRAL WITH WHITE TAPE) NEC 310.15(B)(7)(1). 200 A - (2) #2/0 PHASE AND (1) #2/0 NEUTRAL, THWN COPPER CONDUCTORS IN 2" PIPE (IDENTIFY NEUTRAL WITH WHITE TAPE) NEC 310.15(B)(7)(1). SERVICE CONDUIT IS NOT TO BE USED FOR PULL-OFF STRUCTURE, WHERE IT IS NECESSARY A SEPARATE STRUCTURAL SUPPORT IS TO BE PROVIDED AND FIRMLY ANCHORED TO THE BUILDING STRUCTURAL MEMBER OTHER THAN THE SERVICE CONDUCTORS PROVIDED BY THE UTILITY. ALL SERVICE FEEDER, GROUND AND BRANCH CIRCUIT CONDUCTORS ARE REQUIRED TO BE COPPER.
<input type="checkbox"/>	(E) 2-1/2" RISER PIPE (RGS) IF USED AT PLACE OF ATTACHMENT FOR 200A SERVICE. NO COUPLINGS PERMITTED ABOVE LAST ATTACHMENT STRAPS BELOW ROOF OR EAVE.
<input type="checkbox"/>	(F) WEATHERPROOF THREADED PIPE CONNECTIONS (TYPICAL ON EXTERNAL FITTINGS).
<input type="checkbox"/>	(G) 2-HOLE CONDUIT STRAPS (TYPICAL EVERY 5 FEET)
<input type="checkbox"/>	(H) THREADED METER SOCKET HUB CONNECTOR.
<input type="checkbox"/>	(I) INSULATED RIGID GALVANIZED STEEL BONDING BUSHING CONNECTOR WITH BOTH ENDS OF THE SERVICE ENTRANCE PIPE TO BE BONDED PER NEC 250.92
<input type="checkbox"/>	(J) WHERE AN EXTERNAL BREAKER IS UTILIZED, AN EQUIPMENT GROUND CONDUCTOR IS REQUIRED FROM THE METER SOCKET TO THE PANEL AND IF RINGS REMAIN FROM CONCENTRIC KNOCKOUTS, BONDING JUMPPERS SIZED PER NEC 250.122 ARE REQUIRED.
<input type="checkbox"/>	(K) METER SOCKET REQUIREMENTS (METER BY THE UTILITY): 200 AMP - MILBANK CAT. # U8949-RL-TG-KK OVER 200 AMP - CONSULT UTILITY ENGINEERING DEPT. METER SOCKET MUST BE SECURED TO BUILDING STRUCTURAL ELEMENT, NOT JUST SIDING. AN EXTERNAL BREAKER IS REQUIRED AT ALL NEWLY CONSTRUCTED SINGLE FAMILY HOMES AND TOWNHOMES. IN CASE OF EXISTING HOMES WHERE A METER SOCKET REPLACEMENT TAKES PLACE DUE TO CUSTOMER INITIATED WORK SUCH AS A SERVICE UPGRADE, SERVICE RELOCATION OR MODERNIZATION OF THE SERVICE, AN EXTERNAL BREAKER IN THE NEW METER SOCKET IS REQUIRED. (200 AMP MILBANK CAT. # U7607-PL-200-KK; 100 AMP MILBANK# U7607-PL-100-KK)
<input type="checkbox"/>	(L) 200 AMP - (2) #2/0 PHASE AND (1) #2/0 NEUTRAL, THWN COPPER CONDUCTORS IN 2" PIPE. IDENTIFY NEUTRAL WITH WHITE TAPE PER NEC 310.15(B)(7)(2) 100 AMP - (2) #4 PHASE AND (1) #4 NEUTRAL, THWN COPPER CONDUCTORS IN 1-1/4" PIPE. IDENTIFY THE NEUTRAL WITH WHITE TAPE PER NEC 310.15(B)(7)(2).
<input type="checkbox"/>	(M) PANELBOARD WITH MAIN (100 AMP OR 200 AMP) CIRCUIT BREAKER