11.8 WORKING SPACE

11.81 A clear and level working area equal to the full width of the padmount operating compartments shall extend ten (10) feet minimum in front of the compartment opening. A minimum of three (3) feet of clear working area shall be provided on all sides of padmounted equipment without operating compartments including sides with cooling fans. A minimum of three (3) feet of clear working space is required in front of each meter. (See figure 9).

11.9 TRANSFORMER LOCATIONS

11.91 The City will install padmount transformers, submersible transformers, and oil-filled switches using the clearances listed below. Clearances between padmount transformers and structures shall be measured from the metal portion of the transformer closest to the building or structure. This includes any overhangs within the following minimum clearances: (See figure 10)

Three (3) feet from non-combustible walls (including brick, concrete, steel and stone) provided the side of the transformer facing the wall does not have doors.

Ten (10) feet from combustible walls (including stucco), doors, windows, vents, fire escapes, and other building openings.

Fifteen (15) feet from the water's edge of a swimming pool or any body of water.

Twenty (20) feet from facilities used to dispense or store hazardous liquids or gases (for example, service station gas pumps and tanks, propane bulk dispensing tanks and emergency generator fueling points).

Contact the City of Newark Electric Department to verify proper clearances before starting any project.

12. SERVICES

12.1 EXTENSIONS

12.11 Owners of a building and residential, commercial and industrial developers shall contact the City while in the planning stage of their projects whether or not City facilities already exist at the construction site. Existing facilities may not be adequate to support the proposed project. Customers will be required to pay a portion or all costs for extensions or upgrades of City facilities.

12.2 OVERHEAD TO UNDERGROUND CONVERSIONS

12.21 Where an overhead service drop to a customer exists and an underground service is requested, the City shall be contacted to determine the location and routing of

the service. The customer will be required to install and own the underground service.

12.3 OVERHEAD SERVICE LENGTH

12.31 The maximum length of overhead service wires shall be limited to one hundred (100) feet to limit the tension on the structure at the attachment point. For heavy duty commercial or industrial service, this length may be shortened substantially at the City's discretion. The customer may be required to install a mast and guy to maintain proper clearances above ground. (See figure 6 and figure 15).

12.4 PROTECTION FOR UNDERGROUND SERVICES

12.41 Customers are required to provide electrical conduit, size specified by the City, when the proposed cable route is to be covered by paving, decks, stoops, patios, etc., prior to the installation of their cables. The conduit provides mechanical protection for the cables as well as facilitating their replacement without digging.

12.5 AERIAL SERVICE DROPS

12.51 Service entrance conductors shall extend at-least thirty-six (36) inches beyond the service head to permit the attachment to the service drop conductors with a drip loop. The service entrance conductors shall have a weatherhead installed higher than the attachment hook and within twenty-four (24) inches of the hook.

12.6 ATTACHMENT HOOKS (POINT OF ATTACHMENT)

The customer is responsible for providing a device on a structure near the service head at the location approved by the City, which has enough strength to hold the tension of the aerial service drop. The City will not reattach hooks which have detached from the structure for any reason. If the point of attachment is detached from a structure, the City will disconnect electric service. Once a licensed electrician makes necessary repairs and demonstrates compliance with the National Electric Code, the service will be reenergized.

12.7 MULTI-UNIT BUILDINGS

12.71 **All metering and disconnecting devices shall be grouped together and be arranged so that the service for each unit can be properly and independently controlled from a point readily accessible to both the customer and the City. Additionally, each meter or disconnect shall be permanently marked with the address served by that equipment. The interior of meter boxes shall also be marked appropriately. Keys to rooms with multiple meters shall be supplied to the City.**

12.72 All duplex homes fed aerially shall only have one (1) service drop extended on the center of both homes by the City. One (1) meter box shall be installed on each side of the duplex. Existing homes shall be converted to this configuration if customer owned meter boxes or service entrance cables are being replaced.

12.8 COLOR CODING

12.81 For three phase 120/240 volt services, the power wire or high leg (the phase wire having the highest voltage to ground - 208 volts nominally) shall be located on the right side of the meter box and shall be identified by the color orange. When parallel service conductors are run, conductors of the same phase shall be identified as such.

12.82 Three phase 240 or 208 volt service will not normally be supplied for residential service.

12.9 TROUGHS

12.91 Troughs installed for multi tenant structures shall be installed by the owner. The electrical contractor is required to make all connections within the trough for electric services.

12.10 DISCONNECT SWITCH

12.101 The customer shall install a visible break, lockable disconnect switch ahead of any 200 amp or smaller 277/480 volt service.

12.20 LOAD BALANCE

12.201 Customers shall balance loads at all times.

12.30 FINAL CONNECTION

12.301 The final connection between the customer's installation and the City's service supply lines shall be made by, or under the supervision of a representative of the City **except for standard single-phase secondary aerial service,** in which case the customer shall make the final connection in accordance with the City's standard requirements. (See figure 12)