

# **SPECIFICATIONS FOR CONSTRUCTION**

In general, unless specifically set forth herein, the work, materials, and methods of measurement and payment shall conform to the applicable divisions and paragraphs (as noted on the Bid Proposal or in the plans) of the most current edition of the:

**COMMONWEALTH OF KENTUCKY  
TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS, FRANKFORT**

Standard Specifications  
for  
Road and Bridge Construction

## **SPECIAL PROVISIONS**

### **ITEMS 105.07 / 107.15 - COOPERATION WITH UTILITIES**

All portions of Item 105.07 and Item 107.15 of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction shall apply.

At least two (2) working days prior to commencing construction operations in an area which may involve underground utility facilities as shown on the plans, the Contractor shall notify the Engineer, the registered utility protection service, and the owners of each underground utility facility not members of the registered utility protection service.

The existing underground utilities are shown as accurately as possible on the plans, based on information available. The Owner and/or the Engineer do not assume any liability for location of these underground utility service lines. Any utility services damaged that were previously marked in the field shall be replaced at the Contractor's expense.

Where the plans provide for pipe to be connected to, or to cross either over or under, or close to an existing underground structure, it shall be the responsibility of the Contractor to locate the existing structure, both as to line and grade, before he starts to lay the proposed pipe, in order to assure compatibility with line and grade of the proposed pipe. Payment for all operations described above shall be included in the unit price bid for the pertinent pipe item.

The Contractor shall adjust or arrange with utility company to adjust to proposed grade all existing utility facilities, i.e., manholes, catch basins, valves, boxes, etc., prior to the commencement of paving operations. This shall include utility facilities not shown on the plans, which may be found to be located within the pavement area. Work performed on the utility facilities shall be in strict accordance with the specifications of the applicable utility company and shall be performed under the direction, supervision, and inspection of said company.

### **COORDINATION WITH UTILITIES**

Coordination of work schedules with affected utilities will be required. Upon the contract award, the coordination of all necessary relocations or adjustment of all utility facilities become the responsibility of the Contractor.

### **ITEM 105.06 - COOPERATION BETWEEN CONTRACTORS**

The Contractor shall coordinate his work with other Contractors within or adjacent to the project limits. All improvements completed under this contract shall meet the line and grade of other work in an acceptable manner.

**ITEM 106 - CONTROL OF MATERIAL**

Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of proper quality and sufficient for the purpose contemplated. The Contractor shall furnish, if so required, satisfactory evidence as to type and quality of materials and workmanship.

All items of equipment and/or material proposed by the Contractor for substitutions must be approved by the Engineer in writing and shall be equal or superior to the items specified in the contract documents. If said substitution proposed by the Contractor for a specified item requires engineering revisions, the total expense of said revisions shall be paid by the Contractor.

Any items of labor and materials required, but not shown as a separate pay item in the proposal, shall be furnished and installed as incidental to the contract, except as noted in the plans and specifications.

**ITEM 106.08 - STORAGE OF MATERIALS**

The Contractor shall obtain prior approval in writing from the Owner for the locations to be used for the temporary storage of construction materials, tools, and/or machinery. All such materials, tools, and machinery shall be neatly and compactly piled in such a manner as to cause the least inconvenience to the property owners and to traffic. Under no circumstances shall existing drainage courses be blocked or water hydrants, valves, or meter pits covered. All materials, tools, machinery, etc., stored upon public thoroughfares must be provided with warning lights and reflective sheeting at nighttime and weekends to alert traffic of such obstructions.

**ITEM 108.02 - PRECONSTRUCTION CONFERENCE**

Prior to the commencement of construction activities, the Engineer will arrange a meeting between the Contractor, the representatives of the Owner, and the representatives of each of the utility companies. The time, date, and location of said meeting will be determined after the awarding of the contract, and the parties will be notified by the Engineer.

The agenda for the preconstruction meeting shall include the following items:

1. Announcement of Award
2. Utility Company Requirements
3. Designation of Emergency 24-hour Contractor Contacts
4. Discussion of Critical Plan Items
5. Review of Testing and Inspection Procedures
6. Operations Schedule
7. Listing of Haul Roads
8. Identification of Subcontractors

9. Review of Change Order Process
10. Payment Request Submittal Procedure

The Contractor shall coordinate all work with the Engineer. A detailed schedule of operations shall be furnished by the Contractor to the Engineer at the preconstruction meeting and shall list the order of operations and the time frame for the completion of each item of work. The schedule of operations shall be approved by the Engineer and the Owner in writing prior to the beginning of the work. Changes to said schedule are to be issued in writing and approved by the Engineer and the Owner before operations are changed or rescheduled. No payment will be made to the Contractor while he is delinquent in the submission of a progress schedule.

The Contractor shall supply to the Engineer at the preconstruction meeting, a list of the local roads to be used for the purpose of hauling equipment and/or material to or from the job site. Only the local roads in the vicinity of the project have to be listed; state and/or federal roads do not have to be included. Where necessary, the list shall include the extent of the roads to be affected and any special restrictions, such as height or weight restrictions, which may be applicable along said roads. Construction shall not commence until the Engineer and/or Owner has reviewed the haul road list and approved the haul roads in writing.

The submission of the list to and the review and approval of the list by the Engineer do not relieve the Contractor of the responsibility for the conforming to and the obeying of all applicable height and weight restrictions on the haul roads and of the responsibility for any damage done to and/or along said haul roads. The Contractor is referred to Item 105.10 concerning load restrictions.

#### **ITEM 107.04 - PERMITS, LICENSES AND TAXES**

The Contractor shall insure that all required notices are given and all permits acquired before the commencement of work. The Engineer will discuss any special permits required for this project at the preconstruction meeting.

#### **ITEM 107.14 - CONTRACTOR'S RESPONSIBILITY FOR WORK**

It shall be the responsibility of the Contractor to perform his work in such a manner as not to damage or destroy any existing feature (i.e., existing inlets, pipes, etc.), which is not marked for replacement or removal. The Contractor shall exercise due care during construction so as not to destroy any trees, plants, shrubs or structures not specifically marked for removal or relocation within the work limits. In some instances, the Contractor will be required to excavate under and around the existing utilities. Extreme care should be used not to damage the utility during this operation. The Contractor shall schedule his operations so that the improved areas have had sufficient time to cure, set and/or harden before the area is opened to traffic or use. The Contractor shall be responsible for the immediate repair of the improved area if any damage is done by traffic. The Contractor shall also be responsible for the immediate rectification of

problems created in areas outside of the improved areas which are attributable to the failure of the improved area, i.e., the tracking of materials into unimproved areas.

The Contractor shall be responsible for the protection of areas outside of the designated work limits, but which may be adjacent to those work limits. This will include those areas used by construction traffic for access to and from the work areas. Where the Engineer and/or the Owner determine that the Contractor's operations have been responsible for damage to areas outside of the work limits, the Contractor shall be responsible for the repair of the area subject to the approval of the Engineer. No additional compensation will be due to the Contractor for any such repairs as described above.

### **ITEM 112 – MAINTAINING TRAFFIC**

Contractor shall be permitted to block off half of the pavement width of sections of W. Vernon Ln., S. Vernon Ln., and E. Vernon Ln. during working hours. Local traffic must be maintained at all times. Note that the streets within the project area are designated for one-way traffic. The Contractor shall adequately mark, through the use of barrels, flashing lights, portable gates and/or other devices approved by the Engineer, the limits of the project area and those areas of the site which are temporarily closed to traffic. Contractor will be responsible for supplying and maintaining the signage throughout construction.

During the course of the normal working day, the Contractor shall insure the safety of the public by providing a sufficient number of flaggers to assist the traffic flow through the construction area. If, at the completion of the normal working day, any trench for pavement construction and/or construction of proposed sewer has not been completely backfilled and restored, a temporary cover, such as a metal plate or another approved device, shall be placed over that portion of the trench remaining open.

The Contractor shall notify the residents at least 48 hours in advance of when their driveways will be blocked during construction. In those areas where existing pavement is to be removed and replaced, the Contractor shall conduct his operations so as to maintain driveway traffic through the construction area. Length of residential driveway closures shall be kept to a minimum.

Maximum closure length shall be 96 hours. The Contractor shall place new driveway aprons within 24 hours of removal. The Contractor shall keep driveways closed for a 72-hour period after concrete placement to permit the curing of concrete curbs, driveway aprons, or sidewalk across driveways. The Contractor will be responsible for barricading off and signing portions of the street sufficient in length to park all of the residents' cars whose driveways will be blocked. Where concrete restoration is involved, this inconvenience will be held to a minimum by revising curing specifications and permitting cars to use the driveway 72 hours after pouring.

The Contractor shall note that any interim material used for providing driveway ingress and egress will not be a separate pay item. The cost of Item 112 shall be incidental to the project.

**ITEMS 202 / 203 REMOVALS**

When a bid item is to include the cost of removal of a classified or unclassified material, it shall be the responsibility of the Contractor to verify in the field the type of material and the thickness of the material to be removed prior to submitting his bid. No additional allowance will be due the Contractor for added expense of removals due to unknown materials or thickness.

**ITEMS 202 / 203 - DEBRIS REMOVAL**

The Contractor will be responsible for removal of all construction debris from the site. All debris shall be disposed of in a proper manner and shall be as directed by all applicable local, State, or Federal regulations.

**ITEM 505 - SIDEWALK AND/OR DRIVEWAY APRON FINISH**

The finish applied to the portland cement concrete surface used as a sidewalk or driveway apron shall be a broom finish. All joints and outside edges of the pavement shall be tooled with an edger or joint tool after brooming the final finish. Final finish, joints, and edges shall be subject to the approval of the Engineer.

It is the Contractor's responsibility to protect the new surface until it cures.

**ITEM 505 - CONCRETE WALK REPLACEMENT AND ADA CURB RAMP**

The unit price bid for Item 505 shall include all labor, material, and equipment necessary for the removal and disposal of the existing concrete walk and placement of the new concrete walk. The walk shall be four (4) inches in thickness, except in walk areas through the driveway aprons and curb ramps, where the thickness shall be increased to six (6) inches.

Preformed expansion joint material, 3/4-inch thick, shall be placed at maximum 40 feet spacing and / or adjacent to all existing remaining walk or structures.

Curb ramp construction shall conform to National ADA Standards. Curb ramp standard dimensions will be adjusted as required by the Engineer in the field to provide adequate access for handicapped persons in the vicinity of poles or other fixed objects behind the curb. Curb ramps in new concrete walks will be measured as the number of each complete and shall include the cost of any additional materials, grading, forming and finishing not included in the concrete walk item (separate), which is measured through the curb ramp area. Placement of proper "Sidewalk Closed" signage is required and will be incidental to this item.

It is the Contractor's responsibility to protect the new surface until it cures.

Sections of the sidewalk to be replaced will be marked in the field by the Owner or Engineer.

**ITEM 505 - CONCRETE DRIVEWAY APRON REPLACEMENT**

The unit price bid for Item 505 shall include all labor, material, and equipment necessary for the removal and disposal of the existing concrete driveway, excavation to proposed subgrade, subgrade compaction and the placement of the new concrete driveway, including integral concrete curb

In the event the driveway has settled, a stone fill leveling course shall be added to bring the driveway back to the grade of the existing sidewalk or curb, and shall be incidental to the driveway replacement item.

The finish applied to the concrete driveways shall be a light broom finish. All joints and outside edges of the pavement shall be tooled with an edger or joint tool after brooming or hand finishing of the final finish.

The Contractor must notify the affected residents in writing at least 48-hours prior to closing driveways. If the residents and businesses have not been notified 48-hours in advance of the anticipated drive closure, the contractor will be prohibited from making these closures until such time as the proper advance notification is made.

The maximum time period for driveway closure shall be ninety-six (96) hours. The contractor shall place new driveways twenty-four (24) hours after removal.

The contractor shall keep driveways closed for a seventy-two (72) hour period after concrete placement to permit the curing of concrete curbs and driveways.

It is the Contractor's responsibility to protect the new concrete surface until it cures.

All existing driveway aprons shall be removed and replaced with concrete, unless noted otherwise.

Sections of the driveway apron to be replaced will be marked in the field by the Owner or Engineer.

**ITEM 505 - CONCRETE CURB REPLACEMENT**

The unit price bid for this item shall include all labor, equipment and material necessary for removal and disposal of the existing concrete curb and the construction of the new curb.

The maximum spacing between contraction joints shall be ten (10) feet. Expansion joints shall be constructed on a maximum spacing of forty (40) feet. Where new curb begins or ends at an existing structure or curb, the Contractor shall install new expansion joint material, the cost of which is to be included in the unit price bid for the curb replacement. Finish of the new curb shall be a light brush finish.

Contractor shall adjust curb elevation to provide a consistent slope without any sudden dips or high points. To raise the curb elevation, a stone fill leveling course shall be placed under the proposed curb and shall be considered incidental to the curb and gutter installation. Additional fill required behind the curb to bring the adjacent yard area flush with the proposed curb shall be incidental to this item.

It is the Contractor's responsibility to protect the new surface until it cures.

Sections of the curb to be replaced will be marked in the field by the Owner or Engineer.

**ITEM 601 - CONCRETE - GENERAL**

All concrete for roadway paving, curbs, sidewalks, drive aprons, steps and headwalls shall have a minimum of 5 percent entrained air and a maximum of 8 percent entrained air. For each sample, the average strength of the 7-day and the two 28-day tests shall equal or exceed 4000 psi, and no individual strength test shall fall below 3500 psi.

If the averages of all sets of three consecutive strength test results meet the following strengths, an extended guarantee will be required on all concrete work.

- a) 3500 psi to 3799 psi - 3 year guarantee
- b) 3800 psi to 3999 psi - 2 year guarantee

Concrete Roadway Pavement shall be as per the Fort Thomas Subdivision Regulations with the following exceptions:

- No Fly Ash shall be allowed in concrete mixture.
- Aggregate for concrete roadway pavement shall be crushed limestone aggregate from an approved KYTC source.
- A six (6) bag cement per cubic yard concrete mix shall be provided for public roadway pavement.
- Expansion for joint filler material shall consist of a flexible foam material such as Ceramar by W.R. Meadows or approved equal.
- Curing and sealing compound containing 25% solids such as Kure & Seal 25LV or approved equal.

**UTILITY ADJUSTMENTS**

Sanitary manhole adjustments to grade shall be paid each as per Sanitation District No. 1 Specifications. Contractor shall notify Sanitation District No. 1 prior to adjustment and coordinate to have SD1 Inspector present. The other adjustments shall be considered incidental to the contract.

**ITEM 701 – REVIEW OF DRAINAGE FACILITIES**

Before any work is started on the project and again before final acceptance by the Owner, the Contractor, with the Engineer, shall make an inspection of the existing sewers within the work limits, which are to remain in service and which may be affected by the work. The condition of the existing pipes and their appurtenances shall be determined from field observations. Written records of the inspection and/or photographic documentation shall be kept by the Engineer.

All existing sewers inspected initially by the above-mentioned parties shall be maintained and left in a condition reasonably comparable to that determined by the original inspection. Any change in the condition resulting from the Contractor's operations shall be corrected by the Contractor to the satisfaction of the Engineer. All existing and/or new pipes, inlets, catch basins, and manholes constructed and/or cleaned as a part of the project shall be free of all foreign matter and in a clean condition before the project will be accepted by the Owner.

Payment for all operations described above shall be included in the unit prices bid for the pertinent item.

### **ITEM 701 – TRENCH FOR SEWER CONSTRUCTION**

Per Sanitation District No. 1 Specifications Section 02630.

Trench excavation for sewer construction shall be adequately maintained and protected with barricades at all times.

Placement of proposed sewer pipe and backfill material shall follow as closely as possible behind excavation operations. The length of sewer trench, which is open at any one time, shall be held to a minimum and shall, at all times, be subject to the approval of the Engineer.

### **ITEM 701 – STORM SEWER PIPE MATERIAL**

As per Sanitation District No. 1 Specifications Section 02630.

### **ITEMS 701 / 710 – STORM SEWER, DRAINAGE AND UTILITY ITEMS**

Unless otherwise specified on the plans, the unit price bid for the pertinent pipe, drainage and/or utility item shall include the cost of all necessary appurtenances, connections, fittings, plugs, tees, collars, etc.

Unless otherwise noted on the plans, the unit price for the pertinent pipe, drainage and/or utility item is to include the costs involved in the excavation of the trench in unclassified material, the supplying and placing of the required bedding material and the backfilling of the trench with the specified material to the appropriate subgrade elevations.

Any additional fill required due to the relocation of storm sewer shall be included in the storm sewer unit price. All backfill in pavement areas shall consist of flowable fill.

### **FINAL CLEAN-UP**

Sweeping shall be completed within six (6) hours of material application. Initial sweeping shall remove all loose or unbounded material. All debris shall be removed from the job site. A second sweeping shall be accomplished immediately prior to asphalt paving.

### **INSPECTION**

The contractor shall complete one street at a time, which shall be inspected and accepted by the Engineer. This provision shall not include sweeping. Should the engineer determine that any

section of work is unsatisfactory, the contractor shall immediately take steps to insure that proper repairs are made.

### **VERIFICATION OF QUANTITIES**

Scale tickets on liquid binder shall be provided to inspection personnel on a daily basis.

Scale tickets shall include:

1. Date and time of loading.
2. List streets where material will be placed.

### **METHOD OF MEASUREMENT**

The method of measurement shall be the actual number of square yards of pavement treated in accordance with specifications and as accepted by the engineer.

### **"OR APPROVED EQUAL" ITEMS**

In the preparation of these documents and plans, several proprietary products may have been specified. In all such cases, it is to be understood that the Contractor may offer a substitute for the specified product, as indicated by the words "Or Approved Equal." However, the Contractor must be aware that, before commencement of construction, he must provide information to the Engineer concerning the substituted product, and that the Engineer must approve in writing the offered product as being equal to the specified product before use or incorporation into the work.

Unless otherwise modified by the Engineer, proprietary products are to be installed and/or constructed in strict compliance with the pertinent Manufacturer's specifications.

### **PAYMENT**

No adjustments to unit prices shall be due to the Owner or the Contractor for increases or decreases in the Engineer's approximate unit quantities shown in the proposal resulting from changes in the amount of work performed.

**THE OWNER RESERVES THE RIGHT TO AWARD OR DELETE ANY OR ALL COMBINATIONS.**

# DUKE ENERGY

## ELECTRIC UTILITY NOTES

1. **DANGER** - Contractor shall contact the company prior to excavation in vicinity of electric underground facilities (approximate plan location shown) or when working near overhead electric facilities.
  - (A) For Field Inspector to locate underground electric line, in Ohio call "Ohio Utilities Protection Service" at 1-800-362-2764, and in Kentucky call "Kentucky Underground Protection Service (KUPS)" at 1-800-752-6007 (at least 48 hours in advance), excluding hours Sat., Sun., and State Legal Holidays.
  - (B) For notification of construction activity near energized electric facilities, call Mr. Bob Schroeder, 287-3426.
  - (C) For additional underground electric record information, call 287-2454.
  - (D) For electric engineering notification, agreements and correspondence, address to Mr. James Dugan, Central Accounting Marketing Section, Duke Energy, P. O. Box 960, Cincinnati, Ohio 45202-0960.
2. Contractor shall be responsible for all damages to electric facilities during construction.
3. Electric facilities to be kept in service at all times.
4. Contractor shall be responsible for supporting existing electric facilities affected by the proposed construction.
  - A. Where high pressure oil filled pipe type cable installations are exposed or otherwise interfered with by the Contractor, protection by the Contractor will be required against damage to the coating or surrounding thermal sand envelope.
  - B. Where concrete encased conduit systems or direct buried cable systems are exposed or otherwise interfered with, the Contractor shall protect the system as necessary against damage. As soon as feasible, the Contractor shall take additional appropriate steps to provide permanent measures to restore support. The methods used shall be based on conditions to be determined by the utility.
  - C. Where poles or anchors that support overhead electric facilities are exposed or otherwise interfered with, the contractor shall protect them from damage and provide temporary support to insure the integrity of the system. As soon as feasible, the Contractor shall take additional appropriate steps to provide permanent measures to restore support. The methods used shall be based on conditions to be determined by the utility.
  - D. Where the depth of excavation for the proposed work is greater than five (5) feet, the Contractor shall sheet and shore the trench to continuously maintain the support of electric facilities at locations where the electric facilities are within the zone of influence adjacent to the excavation as determined by the natural angle of repose of the soil.
  - E. All damage to electric facilities and services requiring adjustments, relocations and/or repairs will be made at the Contractor's cost.
5. Contractor shall not backfill exposed electric facilities until the company has inspected its facility or performed any adjustments and/or maintenance that may be required.

**NOTE:** Should Contractor damage electric facilities, Contractor shall immediately notify the Electric Service Desk through the Company Operator (381-2000). Contractor shall keep everyone clear of damaged electric facilities until company personnel arrive at the work site.

# **DUKE ENERGY GAS FACILITY NOTES**

## **Gas Facility Notes**

- I. For Gas Engineering Notification, agreements, and official correspondence, address to:  
  
Duke Energy  
139 East Fourth Street  
P.O. Box 960, Room 460-A  
Cincinnati, Ohio 45202
- II. The gas main information provided shows the approximate locations and depths of cover and is provided to comply with statutory regulations. This information should be used only for planning, not construction.
- III. All gas main depths of cover noted are approximate depths of cover recorded at the time of installation. Any resulting grade changes since the time of the main installation will cause the existing depth of cover to be different. Extreme care must be taken to ensure safe excavation when approaching known or suspected gas facilities.
- IV. All gas services were installed at a minimum of 1'-6" of cover. See item III above.
- V. For additional gas facility record information, call 1-800-372-7612.
- VI. To comply with federal and state regulations concerning damage prevention programs, the utility companies must be contacted at least 48 hours (two working days) prior to excavation by calling the OHIO UTILITIES PROTECTION SERVICE (OUPS), toll free, at 1-800-362-2764.

## **Construction Notes**

- I. Gas facilities are to be kept in service at all times.
- II. The contractor shall be responsible for all damages to gas facilities during or as a result of the Contractor's construction. All damage to gas facilities requiring adjustments, relocations and/or repairs will be made at the contractor's cost.
- III. The contractor shall sheet and shore all excavations as required to continuously support gas facilities within the zone of influence (as determined by the natural angle of repose of the soil).
- IV. Crossing buried gas facilities with heavy construction equipment may cause damage to the gas facilities. Contact the Duke Energy Gas Engineering Department for details on how to protect the gas facilities from damage.

- V. The contractor shall not backfill exposed gas facilities until the utility has inspected its facilities and performed any maintenance and/or adjustments that may be required.
- VI. The contractor is responsible for preventing any damage to our gas facilities. This includes protection of coatings and wrappings on steel gas mains. It also includes any damage with may have occurred to plastic gas mains, such as crimps or gouges.
- VII. When cast iron or similar gas facilities are exposed or interfered with by the contractor, replacement or reinforcement by Duke Energy may be required at the contractor's expense. Backfill with control low strength material will be required.
- VIII. Blasting or other construction procedures which may transmit loads or vibrations in the vicinity of gas facilities must be approved by Duke Energy Gas Engineering Department. A blasting plan, identifying all pertinent information, must be submitted in writing by a blasting expert prior to any work.

**Proposed Developments at Gas R/W & Easements (If Applicable)**

- I. Proposed development plans around and near gas facilities within private easements must be submitted to Duke Energy Gas Engineering Dept. for review. These plans must be approved before any work may begin within our easements.
- II. Specified easement widths must be maintained in order for Duke Energy to protect its facilities.
- III. No permanent structures may be built within the easements.
- IV. Cuts and fills are generally not permitted within the easements. Some fills may be allowed, and will be reviewed on an individual basis. Any permitted fills will be limited to an amount which will allow Duke Energy to properly maintain its facilities.
- V. Perpendicular utility crossings of gas easements are acceptable, provided proper clearances are maintained. Parallel installations are normally not allowed.

# NORTHERN KENTUCKY WATER DISTRICT NOTES

All work pertaining to water district items shall be done in strict accordance with the specifications of the Northern Kentucky Water Service District here within, and under the direction, supervision and inspection of the Water District. Water main items are to be constructed in accordance with the provisions of the Kentucky Transportation Cabinet / Department of Highways, Standard Specifications for Road and Bridge Construction, latest edition, and the Part B Specifications.

A cushion of 12" shall be maintained between the proposed water mains and the existing sewers, inlet connections, and drains. If a greater clearance is desired, it will be so designated. Building sewer laterals are not to be disturbed or trapped. Existing drains, sewers and culverts are not be disturbed. If the water main is to be under culverts or pipe sewers, they shall be tunneled and backfilled with Class "T" concrete.

It shall be the Contractor's responsibility to arrange for removal and replacement of any poles and guys necessary for the installation of the proposed water mains, and any cost connected thereto shall be his expense.

## SANITARY SEWER NOTES

Sanitary sewer and/or combination sewer items are to be constructed in accordance with the provisions of the Sanitation District No. 1, and under the direction, supervision and inspection of the Sanitation District No. 1. Sanitation sewer items are to be constructed in accordance with the provisions of the Kentucky Transportation Cabinet / Department of Highways, Standard Specifications for Road and Bridge Construction, (latest edition).

The Contractor shall supply separate bid items for raising manholes using manhole adjustment rings and for using brick and mortar. If only one bid item is received, the Contractor shall raise all manholes with brick and mortar. Sewer manhole adjustment prior to machine paving shall be done in accordance with the Sanitation District No. 1 Rules and Regulations.

In the event that manhole adjusting rings cannot be used on sanitary and/or storm sewer manholes, the Contractor shall be required to use brick masonry and to adjust manholes to grade. Stacking of adjusting rings shall not be permitted. Substandard or damaged manhole casting shall be replaced with standard casting.