

## **SPECIAL PROVISIONS**

**CITY OF ST. CHARLES  
FIRST STREET STREETScape ELECTRIC & UTILITY IMPROVEMENTS**

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**CITY OF ST. CHARLES**  
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**SPECIAL PROVISIONS**

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016, the latest edition of the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" in effect on the date of invitation for bids, and the "Supplemental Specifications and Recurring Special Provisions", latest edition", the "Illinois Urban Manual", latest edition, the "Standard Specifications for Water & Sewer Main Construction in Illinois", latest edition, the City of St. Charles ordinances and the City of St. Charles Engineering Design and Inspection Policy Manual which apply to and govern the construction of all work included in these contract documents. In case of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and shall govern.

**SP-1 DESCRIPTION OF PROJECT**

The project consists of significant underground conduit and concrete encased duct installation for electric primary and secondary service along with conduit to serve A T & T, Comcast, irrigation, drainage and lighting systems. The project also includes construction of a transformer pad and bollards. Specific items include installation of two electric vaults, various concrete encased and non-encased PVC conduit for electric and communication purposes, streetlight footers, irrigation system piping, and minor drainage piping. Work needs to be performed in March 2016. Note that Contractor is responsible for all material except for the two Utility Concrete Products electric vaults MH#1 and MH#2 on the plans. The City has purchased the two manholes and they will be awaiting the Contractor excavation. Contractor is responsible for unloading manholes with a crane at the jobsite. Also note that the manhole installations will require the contractor to excavate all rock necessary to install the manholes (approximately 4' of bedrock). Visiting the site to examine the existing adjacent excavation is highly recommended. Traffic control, erosion control, site restoration and other appurtenant work is incidental for a complete improvement.

The City of St. Charles reserves the right to award a contract to the successful bidder.

**SP-2 CONTRACTOR EXPERIENCE**

The Contractor or his/her specialty subcontractor shall have been in business a minimum of five years, and shall be fully experienced in all aspects of the project described in SP-1. In particular, the Contractor must have past experience in parking lot and utility construction.

The Contractor shall submit a list of three (3) similar projects that the Contractor or his/her specialty subcontractor has completed, along with points of contact for these projects (refer to supplemental bid form for "Affidavit of Experience"). The submittal shall include the location, contract name, number, total value and completion dates for the projects. The submittal shall also include names, telephone numbers and fax numbers of a supervisory level point of contact at each facility or installation who has knowledge of

the Contractor's or specialty subcontractor's work performance and project with value of subcontracting contract.

### **SP-3 WAGE RATES**

Prevailing Wage Rates shall apply to this contract.

### **SP-4 SITE INSPECTION, LOCATION OF EXISTING UTILITIES**

The successful bidder shall, before submitting a proposal for a specific work site or project, carefully examine the Proposal, Plans, Details, Specifications, and Special Provisions. The successful bidder shall inspect in detail the site of the proposed work and be familiar with all the local conditions affecting the proposal and the detailed requirements of construction.

When existing structures, services, utilities, pipelines and improvements (both above and below ground) are shown on the plans, the locations shown are approximate only and are not guaranteed. Obstructions and improvements in addition to those shown on the plans may also be encountered in carrying out the work. The Contractor shall be responsible for carrying out all work under this contract without additional compensation for whatever condition is found above or below ground.

The Contractor shall notify all utility companies including the City of St. Charles Electrical Department, Water Department, Sewer, local electric companies, local telephone and communications companies, local natural gas companies, and local cable TV companies a minimum of two (2) working days (forty eight hours) prior to beginning any construction. The Contractor shall have the responsibility to determine from the public utility companies and the City of St. Charles Departments the locations of underground pipes, conduits, cables, or other surface or subsurface improvements adjoining or crossing the construction area.

The Joint Utility Locating Information for Excavators telephone number, 1-800-892-0123, is shown on the cover sheet of the plans. (J.U.L.I.E. SYSTEM)

### **SP-5 COMPLETION DATE**

The Contractor shall schedule their construction operations in such a manner so as to obtain substantial completion by April 1, 2016 and final completion by April 15, 2016.

Substantial Completion shall be defined as the construction / installation of all conduit and manholes including backfilling of all trenches within the Right-of-Way to allow adjacent building construction to continue. Final Completion shall be defined as the completion of all pay items and resolution of all punchlist items and the acceptance of all pay items by the City.

Special attention is called to the provisions for liquidated damages in the contract documents which shall be strictly adhered to in the event the Contractor fails to complete the project by the above-specified completion dates.

**SP-6 PERMIT COMPLIANCE**

The Contractor shall comply with the all requirements of the project permits from the City of St. Charles and the Illinois Environmental Protection Agency.

**SP-7 CONTRACTOR PAYMENT**

The City of St. Charles reserves the right to pay for completed work items based on the observed percentage of completed work as a percentage of LUMP SUM. If a change in the scope of work for a pay item occurs during construction the completed work shall be discussed, approved by the City and measured for payment if determined necessary by the City.

**SP-8 CONTROL OF MATERIALS**

All material used shall meet the requirements of the Illinois Department of Transportation and as outlined in these specifications.

All materials will be inspected, tested, and approved by the City before incorporation into the work.

Any work in which untested and unacceptable materials are used without approval or written permission of the City shall be performed at the Contractor's risk and may be considered as unacceptable and unauthorized and will not be paid for.

*The Contractor shall provide the City with letters of certification from each supplier.*

**SP-9 RESPONSIBILITY OF WORK**

During the progress of the work, the Contractor shall assume total risk and liability, and will be responsible of any and all damages to the work, or to persons, or to public or private property caused by, or in any way resulting from doing the work, including actions of Subcontractors or Material Suppliers.

**SP-10 WORK AREA**

The Contractor shall confine all work to the project limits shown on the plans. Any damage to public streets, curbs, walkways shall be repaired, replaced or restored by the Contractor to the satisfaction of the owner and the City of St. Charles at the Contractor's expense. No additional compensation will be allowed.

**SP-11 MAINTENANCE OF ROADWAYS**

Beginning on the date that the CONTRACTOR begins work on this project, he shall assume responsibility for the normal maintenance of all streets affected by the construction of these improvements. This normal maintenance shall include all repair work deemed necessary by the City of St. Charles, but shall not include snow removal

operations. Traffic control and protection for this work will be provided by the CONTRACTOR as required by the City.

The Contractor shall at all times be responsible for maintaining dust-free conditions. The Contractor shall clean the pavement of all dirt and debris **at the end of each day's operations**, and at other times as directed by the Engineer by means of high pressure washing or by mechanical sweeping.

If the Contractor does not meet the requirement of controlling dust and/or cleaning the pavement, within three (3) hours of notification by the City, the City shall make the necessary arrangements to control the dust and clean the pavement(s). The cost of such action will be deducted from any monies due or to become due to the Contractor. **Additionally, the City will deduct \$1,000.00 per day from monies due, or to become due, for each day that the Contractor fails to comply with this special provision.** Such sum to be charged not as a penalty but as liquidated damages. The parties agree that actual damages to the City of St. Charles would be uncertain and difficult to calculate, and the amount of such liquidated damages is a reasonable estimate of the supervision costs likely to be incurred by the City of St. Charles as a result of the Contractor's failure to control dust and clean the pavement(s) as required.

The work involved in maintaining the existing pavement as above specified will be considered as incidental to the Contract, and the traffic control and protection required for this work shall be considered incidental to the contract.

#### **SP-12 WATER FOR CONSTRUCTION PURPOSES**

City water for construction purposes will be available to the Contractor at his cost. Temporary hydrant meters are available to the contractor upon making a formal application at the Finance Office and payment of an amount equal to the actual cost of meter, fittings, backflow prevention device and wrench.

Temporary hydrant meters shall be removed from hydrants daily. Under no circumstances shall unattended hydrant meters be installed on hydrants overnight. Hydrant meters shall be removed when unattended.

#### **SP-13 CLEANING ALL STRUCTURES AND STAGING AREAS**

Before final acceptance, all structures, construction easement areas and staging areas that were occupied by the Contractor in connection with this work shall be cleaned of all rubbish, excess materials, and other foreign materials deposited or accumulated on or in the structures and areas. The cleaning shall be performed in accordance with the plans and specifications or as directed by the Engineer and shall be at the Contractor's expense.

No materials or equipment may be stored or staged in the Public ROW without the prior written consent of the City.

#### **SP-14 UTILITY LOCATIONS**

The Contractor must exercise extreme caution while working around existing utilities. The Contractor shall notify JULIE (1-800-892-0123) and the City of St. Charles Electrical Department, a minimum of 48 hours before commencing construction for utility locations within the scope of the project. It is recommended that the Contractor conduct a joint utility meet. It is the responsibility of the Contractor to contact agencies who may or may not be part of the JULIE system to obtain the horizontal and vertical field locations of their facilities within the limits of the proposed improvements.

The City of St Charles does not guarantee the accuracy or completeness of this information. The Contractor shall make his own investigation to determine the existence, nature, and location of all utility lines and appurtenances within the limits of the improvement. The Contractor shall locate all utilities far enough in advance to avoid all conflicts in grade separation between the proposed improvements. If the Contractor encounters a conflict between the proposed improvements and existing utilities that was not located in advance by the Contractor, then the Contractor shall, at no cost to the City of St Charles, relocate the proposed improvements and/or the utility to avoid conflict.

The Contractor will be required to cooperate with all utility companies involved in connection with the removal, temporary relocation, reconstruction, or abandonment by these companies of any and all services or facilities owned or operated by them within the limits of this improvement.

Before doing any work which will damage, disturb or leave unsupported or unprotected any utility lines or appurtenances encountered, the Contractor shall notify the prospective Owner thereof, who will make arrangements for relocating, adjusting or otherwise maintaining or abandoning service on lines that fall within the limits of the proposed construction without cost to the Contractor, including the removal of all cables, manhole covers and other appurtenances which the Owner desires to salvage. After such arrangements have been made, the Contractor will proceed with the work as directed by the Engineer. All utility lines and appurtenances, which are abandoned by the Owner, shall be removed and disposed of by the Contractor.

The Contractor shall be responsible for facilitating prompt and timely removal, relocation, reconstruction, or abandonment of their facilities by all utility companies involved, and the coordination of his work with that of these companies to the end that work on this improvement is not delayed because of necessary changes in the existing utilities, public or private.

No extra compensation will be allowed to the Contractor for any expenses incurred by complying with these requirements or because delay, inconvenience or interruption in his work resulting from the failure of any utility company to remove, relocate, reconstruct, or abandon their services.

#### **SP-15 PUBLIC SAFETY AND CONVENIENCE**

The Contractor shall maintain parking spaces, drives, entrances, and side roads along the proposed improvement to allow emergency and local vehicle access to all adjacent properties. This access should not allow the passage of non-local vehicular traffic, which should abide by the approved traffic control plan. Interference with traffic movements and inconvenience to abutting property owners and the public shall be kept to a

minimum. The contractor shall not park in the private parking lot located north of the project site as noted on the plans. The Contractor shall maintain at least one lane open to traffic at all times for emergency vehicles on all streets affected by the construction of these improvements. Adequate use of flaggers and other traffic control devices shall be used to permit such arrangements during working hours.

#### **SP-16 GUARANTEE**

The Contractor shall guarantee all equipment and materials furnished and installed by him against defects in material and workmanship for a period of one (1) year from the date of formal project closure. Any repair or replacement of defective equipment or materials shall be promptly executed to the City's satisfaction at no cost to the City.

#### **SP-17 PRE-CONSTRUCTION MEETING**

A pre-construction meeting shall be held prior to start of construction after execution of the contract documents. The Engineer shall establish the time and place of the pre-construction meeting. At this time, the Contractor shall be required to furnish and discuss the following:

- Written progress schedule.
- Names of Subcontractors and Material Suppliers.
- Names of Project Manager and or Field Supervisor, including the name and phone number of a responsible individual who can be reached 24 hours per day.
- General clean-up of the work site at the end of each day
- Name of person responsible for soil erosion and sediment control on the site, including name and phone number of responsible individual who can be reached 24 hours per day.
- Protection of existing pavement
- Submittal of a Traffic Control Plan and Site Access/Staging Plan, prepared by the Contractor, to be approved by the City Engineer.
- A J.U.L.I.E meeting at the project site, scheduled by the Contractor, prior to commencement of any work.
- All permits required for construction.
- Provide a shop drawing / catalog cut submittal log for the project.

Upon receipt of the notice of the award, the Contractor shall prepare a project schedule setting forth the hours and days of operation for each task required by the Contract. The project schedule shall be reviewed, and revised as required, and submitted with each payment request and/or request for extension of time.

### **SP-18 MOBILIZATION**

This work shall be in accordance with applicable portions of Section 671 of the Standard Specifications for Road and Bridge Construction, except as modified herein and in the plans. This work shall consist of preparatory work and operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site for the establishment of temporary facilities necessary for work on the project and for all other work or operations which must be performed or costs incurred when beginning work on the project.

### **SP-19 UTILITY SPOIL MANAGEMENT**

The City is aware, and previous soil testing has determined soil concentrations near the area of work above Tier 1 ingestion ROs. A majority of the work described will be performed in areas which have potential to be impacted or "hot" soil. Accordingly, the City has determined that all trench spoils shall be stockpiled at a single location within the First Street Phase 3 project limits. The specific location will be determined by the City and in conjunction with adjacent development construction. The contractor shall coordinate their work effort with the adjacent development work to not impeded or delay adjacent work. It is anticipated the spoil stockpile will be tested subsequent to this contract and material removed or left on-site as appropriate. The contractor shall clearly identify, segregate and contain the limits of spoil material from this contract to facilitate testing. Any mixing or dumping outside specified areas will result in the contractor to be responsible for testing and removal of all such spoil materials.

### **SP-20 TRENCH BACKFILL**

This item of work shall be performed in accordance with Section 208 of the Standard Specifications. ALL excavation including: concrete encased duct, conduit of any type, irrigation sleeves and drainage pipe shall be backfilled with Trench Backfill material as specified herein. The trench backfill material shall be IDOT gradation CA-7 to match grade prior to trench excavation.

### **SP-21 INLET FILTERS**

This work shall be in accordance with the applicable portions of Section 280 of the Standard Specifications and the following provisions:

Inlet filters will be installed at all inlet, catch basin and manhole locations as directed by the City and determined necessary by project work staging. Prior to ordering materials, the Contractor will determine the size and shape of the various drainage structures being protected. Removal of debris, accumulated silt and trapped sediment will be considered included in the cost of the inlet filter and disposed of according to Article 202.03.

The inlet filters shall conform to the detail in the plans and shall be as furnished by:

Marathon Materials, Inc.  
25523 West Schultz Street  
Plainfield, IL 60544  
(800) 983-9493  
[www.marathonmaterials.com](http://www.marathonmaterials.com)

or approved equal.

The contractor shall properly maintain all erosion control items installed as required by the standard specifications and as directed by the City of St. Charles.

## **SP-22 TEMPORARY CONCRETE WASHOUT FACILITY**

TEMPORARY CONCRETE WASHOUT FACILITY is used to contain concrete liquids when the chutes of concrete trucks are rinsed out after delivery of concrete to the construction site. These washout facilities function to consolidate solids for disposal and prevent runoff liquids associated with concrete. Details of the construction of the non-portable facilities are included in the plans as "temporary concrete washout facilities". Failure to comply with appropriate washout location requirements will result in monetary deficiency deduction against the contractor.

### **GENERAL REQUIREMENTS:**

- The contractor must submit a plan of his/her proposed temporary concrete washout facility to the resident engineer for his/her approval at least 10 days prior to the first concrete pour.
- Temporary concrete washout facilities are to be in place before any delivery of concrete to the construction site.
- Temporary concrete washout facilities are to be located at least 30 feet from storm drain inlets, open drainage facilities, or water bodies. Each facility is to be located away from construction traffic or access areas to prevent disturbance or tracking.
- A sign is to be installed adjacent to each temporary concrete washout facility to inform concrete equipment operators of the designated washout facility.

### **DESIGN:**

1. Two types of temporary concrete washouts are available for use on IDOT construction projects with details provided in the plans:
  - a. Prefabricated Portable Facilities
    - i. Various products are now being marketed specifically for this purpose. Product must be water tight.
  - b. Non-Portable Facilities – see details
    - i. Above Grade
      1. Constructed using a barrier wall and polyethylene sheeting.
      2. Barrier walls are constructed to create a berm, then lined with a single sheet of 30-mil. Polyethylene sheeting, which is free of holes, tears, or other defects which may compromise the impermeability of the material. Sandbags are used to hold the sheeting in place on top of the berm.
      3. Sheeting must extend over entire basin and berm to prevent escape of discharge.
    - ii. Below Grade
      1. Constructed via excavation and the use of polyethylene sheeting and sandbags.
      2. A pit is first excavated in a designated location and then lined with a single sheet of 30-mil polyethylene sheeting

which is free of holes, tears, or other defects, which may compromise the impermeability of the material.

3. Sandbags are then to hold the sheeting in place.

#### SIZE OF WASHOUTS:

- The number and size of each washout facility is to be determined by the contractor. It is his/her responsibility to provide enough storage for the excess concrete and water produced on the target.
- Non-portable facilities are to have a minimum length and width of 10' and minimum depth of 3'.

#### INSPECTION/MAINTENANCE/REMOVAL:

- Temporary concrete washout facilities are to be inspected by the resident engineer during his/her weekly erosion and sediment control inspection, after a storm event of  $\frac{1}{2}$ " or greater and at the end of any day when concrete has been poured on the construction site. The inspector is to ensure that there are no leaks, no spills, and that the facilities' capacity has not yet been compromised.
- Any overflowing of the washout facilities onto the ground must be cleaned up and removed within 24 hours of discovery.
- If a rain or snow event is forecasted, a non-collapsing, non-water collecting cover shall be placed over the washout facility and secured to prevent accumulation and overflow of precipitation.
- Contents of each concrete washout facility are not to exceed 75% of its designed capacity. If the contents reach 75% capacity, discontinue pouring concrete into the facility until it has been cleaned out.
- Allow slurry to evaporate or remove from the site in a safe manner (i.e., vacuum truck). All hardened material can then be removed and disposed of properly.
- Slurry shall not be discharged into streams or wetlands.
- If a lined basin is used, immediately replace the liner if it becomes damaged.
- Remove temporary concrete washout facilities when they are no longer needed and restore the disturbed areas to their original condition.
- Note the locations of temporary concrete washout facilities and any changes to these facilities on the SWPPP.

#### **SP-23 TEMPORARY CONSTRUCTION FENCE**

**Description of Work.** This work shall include all labor and materials necessary to install, maintain, replace, and remove temporary construction fencing to limit access to the work site after the beginning of construction. Construction fencing is present at the project location currently and the contractor shall utilize the same for this project ensuring it is not damaged and remains at the same location and type and configuration as when the project began.

#### **SP-24 CONSTRUCTION LAYOUT AND AS-BUILT SURVEY**

**Description of Work.** This work shall consist of furnishing a construction survey crew and all necessary equipment, materials, tools, and expertise needed for construction surveying, layout, and preparation of As-Built Plans. The CONTRACTOR shall be required to furnish and place construction layout stakes for this project. The ENGINEER will provide adequate reference points and benchmarks as shown on the plans.

The CONTRACTOR shall provide field forces, equipment and material to set all additional stakes for this project, which are needed to establish reference points and any other horizontal or vertical controls, including supplementary benchmarks, necessary to secure a correct layout of the work. Stakes for line shall be set at sufficient station intervals (not to exceed 50 feet) to assure substantial conformance to the plan lines. The CONTRACTOR will not be required to set additional stakes to determine property lines between private properties.

The CONTRACTOR shall be responsible for having the finished work substantially conform to the lines and dimensions called for in the plans. Any inspection or checking of the CONTRACTOR'S layout by the CITY and the acceptance of all or any part of it shall not relieve the CONTRACTOR of his/her responsibility to secure the proper dimensions. The CONTRACTOR shall exercise care in the preservation of stakes and benchmarks and shall have them reset at his/her expense when any are damaged, lost, displaced or removed or otherwise obliterated.

### **SP-25 TRAFFIC CONTROL AND PROTECTION**

Traffic control shall be in accordance with the applicable sections of the *Standard Specifications for Road and Bridge Construction*, the *Recurring Special Provisions and Supplemental Specifications*, the *Illinois Manual on Uniform Traffic Control Devices for Streets and Highways* and any special details and Highway Standards contained herein and in the Traffic Specifications or Highway Specifications. Special attention is called to Article 107.09 of the Standard Specifications for Road and Bridge Construction.

The Contractor shall submit to the Project Coordinator, at the pre-construction meeting, a "Traffic Control" plan for approval by the Engineer. The Contractor shall adhere to the approved "Traffic Control Plan". Alterations or deviations from the Traffic Control Plan shall be approved in writing by the Engineer forty-eight (48) hours prior to their implementation.

Streets shall remain open to traffic at all times unless otherwise approved by the City of St. Charles.

Included and in addition to other items in the Contractor's Traffic Control Plan, the Contractor shall furnish the following traffic control items:

All orange signs used shall be fluorescent orange in color. Deteriorated, damaged, or signs with non-original material on the front surface will not be allowed.

Prior to the start of work the Contractor shall have a sufficient number of barricades, signs, and flagmen at the jobsite for the scheduled work. If satisfactory traffic control as determined by the Engineer is not in place, the Engineer shall order the work to be halted. Traffic control devices shall not be removed without prior written notice and approval of the Engineer.

The Contractor shall obtain, erect, maintain, and remove all signs, barricades, flagmen and other traffic control devices as may be necessary for the purposes of regulating, warning or guiding traffic.

This item of work shall include the traffic/pedestrian control signs and barricades shown on the plans.

The Contractor shall provide a traffic control contact person with 24-hour telephone number to address any questions or issues regarding traffic control for the duration of the project.

**SP-26 UNDERDRAIN, 6" PVC SDR 26**

All drainage pipe work shall be in accordance with Section 550 of the Standard Specifications for Road and Bridge Construction. All underdrain pipe shall be PVC SDR-26 or as approved by the City. All pipe shall be bedded with a minimum of 4 inches of CA-6 or CA-7. All trench backfill shall be CA-7 to match existing grades.

The connection of drainage pipe to existing drainage structures is incidental to this item and shall include a core drill of the existing concrete structure. All connections shall be mortared to provide a secure connections. If existing conditions do not warrants a suitable connection the City shall be notified immediately to find resolution.

All drainage pipe shall have a minimum cover of two feet from existing grade unless noted otherwise on the plans or directed by the City. All drainage pipe ends shall be stubbed up a minimum of 12 inches above existing grade by providing an elbow and cap to seal the open end.

All bends and fitting shall be included in the unit price per LF noted in the LUMP SUM Bid Proposal.

**SP-27 IRRIGATION SLEEVE 4" PVC SCHEDULE 40**

All irrigation sleeves work shall be in accordance with Section 810 of the Standard Specifications for Road and Bridge Construction. This pipe is intended to serve as a sleeve for pulling irrigation piping to serve landscape planters. All pipe shall be PVC Schedule 40 or as approved by the City. When not placed on concrete duct, all pipe shall be bedded with a minimum of 4 inches of CA-6 or CA-7. All trench backfill shall be CA-7 to match existing grades.

All irrigation sleeves pipe shall have a minimum cover of two feet from existing grade unless noted otherwise on the plans or directed by the City. All irrigation sleeve ends shall be stubbed up a minimum of 12 inches above existing grade by providing an elbow and cap to seal the open ends. All pipe stubs shall be labelled as to function.

All sleeves shall have mule tape pulled in after pipe installation as proof of continuity, the mule tape and installation shall be considered incidental to each pipe per foot unit cost.

All bends and fitting shall be included in the unit price per LF noted in the LUMP SUM Bid Proposal.

**SP-28 FIBER CONDUIT, 1-1/4 " PVC SCHEDULE 40**

All fiber conduit work shall be in accordance with Section 810 of the Standard Specifications for Road and Bridge Construction. This conduit is intended to facilitate fiber cable to be pulled by others. All pipe shall be PVC Schedule 40 or as approved by the City. When not placed on concrete duct, all pipe shall be bedded with a minimum of 4 inches of CA-6 or CA-7. All trench backfill shall be CA-7 to match existing grades.

All fiber conduit shall have a minimum cover of two and one half feet from existing grade unless noted otherwise on the plans or directed by the City. All fiber conduit are intended to terminate at a manhole or transformer location. If this changes as directed by the City, all conduit ends shall be stubbed up a minimum of 12 inches above existing grade by providing an elbow and cap to seal the open ends. All pipe stubs shall be labelled as to function.

All conduits shall have mule tape pulled in after pipe installation as proof of continuity, the mule tape and installation shall be considered incidental to each pipe per foot unit cost.

All bends and fitting shall be included in the unit price per LF noted in the LUMP SUM Bid Proposal.

**SP-29 STREET LIGHT CONDUIT (DECORATIVE & HIGHWAY) PVC SCHEDULE 40**

All street light conduit conduit work shall be in accordance with Section 810 of the Standard Specifications for Road and Bridge Construction. This conduit is intended to facilitate electric street light cable to be pulled by others for decorative lighting as well as highway lighting. All pipe shall be PVC Schedule 40 or as approved by the City. When not placed on concrete duct, all pipe shall be bedded with a minimum of 4 inches of CA-6 or CA-7. All trench backfill shall be CA-7 to match existing grades.

All street light conduit shall have a minimum cover of two and one half feet from existing grade unless noted otherwise on the plans or directed by the City. All street light conduit are intended to terminate at a manhole or light pole foundation. If this changes as directed by the City, all conduit ends shall be stubbed up a minimum of 12 inches above existing grade by providing an elbow and cap to seal the open ends. All pipe stubs shall be labelled as to function.

All conduits shall have mule tape pulled in after pipe installation as proof of continuity, the mule tape and installation shall be considered incidental to each pipe per foot unit cost.

All bends and fitting shall be included in the unit price per LF noted in the LUMP SUM Bid Proposal.

**SP-30 CONCRETE ENCASED PRIMARY ELECTRIC DUCT, PVC EB-20**

All concrete encased electric duct work shall be in accordance with Section 810 of the Standard Specifications for Road and Bridge Construction. These duct packages have a variety of PVC conduit sizes and configurations. The contractor shall follow plan call outs related to conduit number, size and placement for each specific duct package. ALL

PVC shall be EB20 unless approved otherwise by the City. All trench backfill shall be CA-7 to match existing grades. All pipe bends shall be galvanized steel or fiberglass.

All concrete encasement conduit shall have a minimum cover of two and one half feet from existing grade to top of concrete unless noted otherwise on the plans or directed by the City. All concrete encased primary duct are intended to terminate at a manhole or transformer pad.

All conduits shall have mule tape pulled in after pipe installation as proof of continuity, the mule tape and installation shall be considered incidental to each pipe per foot unit cost.

All bends and fittings, excavation, rock breaking and removal, spacers, concrete shall be included in the unit price per LF noted in the LUMP SUM Bid Proposal.

### **SP-31 CONCRETE ENCASED SECONDARY ELECTRIC DUCT, 4" PVC EB-20**

All concrete encased electric duct work shall be in accordance with Section 810 of the Standard Specifications for Road and Bridge Construction. These duct packages have 4" PVC in either a 4 or 6 duct package. The contractor shall follow plan call outs related to conduit number and placement for each specific duct package. ALL PVC shall be EB20 unless approved otherwise by the City. All trench backfill shall be CA-7 to match existing grades. All pipe bends shall be galvanized steel or fiberglass.

All concrete encasement conduit shall have a minimum cover of two and one half feet from existing grade to top of concrete unless noted otherwise on the plans or directed by the City. All concrete encased primary duct are intended to terminate at transformer pad building service entrance or be stubbed up for future use. All conduit ends shall be stubbed up a minimum of 12 inches above existing grade by providing an elbow and cap to seal the open ends. All pipe stubs shall be labelled as to function.

All conduits shall have mule tape pulled in after pipe installation as proof of continuity, the mule tape and installation shall be considered incidental to each pipe per foot unit cost.

All bends and fittings, excavation, rock breaking and removal, spacers, concrete shall be included in the unit price per LF noted in the LUMP SUM Bid Proposal.

### **SP-32 COMCAST, 2" PVC SCHEDULE 40**

All Comcast conduit work shall be in accordance with Section 810 of the Standard Specifications for Road and Bridge Construction. This conduit is intended to facilitate Comcast communications cable to be pulled by others. All pipe shall be PVC Schedule 40 or as approved by the City. When not placed on concrete duct, all pipe shall be bedded with a minimum of 4 inches of CA-6 or CA-7. All trench backfill shall be CA-7 to match existing grades.

All Comcast conduit shall have a minimum cover of two and one half feet from existing grade unless noted otherwise on the plans or directed by the City. All Comcast conduit are intended to terminate at an existing or proposed Comcast handhole or a pedestal to be set by Comcast. If this changes as directed by the City, all conduit ends shall be

stubbed up a minimum of 12 inches above existing grade by providing an elbow and cap to seal the open ends. All pipe stubs shall be labelled as to function.

All conduits shall have mule tape pulled in after pipe installation as proof of continuity, the mule tape and installation shall be considered incidental to each pipe per foot unit cost.

All bends and fitting shall be included in the unit price per LF noted in the LUMP SUM Bid Proposal.

### **SP-33 A T & T, 4" PVC SCHEDULE 40**

All A T & T conduit work shall be in accordance with Section 810 of the Standard Specifications for Road and Bridge Construction. This conduit is intended to facilitate A T & T communications cable to be pulled by others. All pipe shall be PVC Schedule 40 or as approved by the City. When not placed on concrete duct, all pipe shall be bedded with a minimum of 4 inches of CA-6 or CA-7. All trench backfill shall be CA-7 to match existing grades.

All A T & T conduit shall have a minimum cover of two and one half feet from existing grade unless noted otherwise on the plans or directed by the City. All A T & T conduit are intended to terminate at an existing or proposed A T & T handhole or a pedestal. If this changes as directed by the City, all conduit ends shall be stubbed up a minimum of 12 inches above existing grade by providing an elbow and cap to seal the open ends. All pipe stubs shall be labelled as to function. A T & T will make all connections from conduit to manholes or junction boxes.

All conduits shall have mule tape pulled in after pipe installation as proof of continuity, the mule tape and installation shall be considered incidental to each pipe per foot unit cost.

All bends and fitting shall be included in the unit price per LF noted in the LUMP SUM Bid Proposal.

### **SP-34 LIGHT POLE FOUNDATIONS (DECORATIVE & HIGH MAST)**

All light pole foundation work for both the Pedestrian and High Mast poles (Details B & D on the plans) shall be in accordance with Section 836 of the Standard Specifications for Road and Bridge Construction. This work includes all excavation, concrete, reinforcing steel, anchor bolts, backfill, conduit, elbows and grounding rod necessary to provide a complete foundation assembly suitable for pole mounting by others.

It is noted that the top of the foundation is a formed and finished surface to be located within a sidewalk. The elevation of the foundation shall be checked and verified by the contractor prior to placing concrete. Record elevations of foundation heights shall be provided prior to final payment.

All reinforcing steel shall be epoxy coated.

All exposed concrete surfaces shall be treated with a protective coat in conformance with section 1023 of the Standard Specifications for Road and Bridge Construction.

If the foundation depth specified on the plans is not possible due to rock elevation, the weathered bedrock shall be removed and the contractor shall drill anchor bolts into solid rock in lieu of depth. The size and number of bolts shall be determined by the contractor based on the pole type and depth and approved by the City prior to pouring concrete.

#### **SP-35 TRANSFORMER PAD**

The contractor shall provide a concrete transformer pad in accordance with the detail depicted on the plans entitled "3 Phase Transformer Pad". All work shall be in accordance with applicable sections of the Standard Specifications for Road and Bridge Construction. All concrete shall be class SI. All reinforcing steel shall be epoxy coated. All exposed concrete surfaces shall be treated with a protective coat in conformance with section 1023 of the Standard Specifications for Road and Bridge Construction.

All conduit bends (fiberglass or galvanized steel) with ground bushings to the transformer primary compartment, the ground grid, absorption pit and any and all other

#### **SP-36 TRANSFORMER BOLLARD**

The contractor shall provide a protective bollard adjacent to the proposed transformer location in accordance with the detail depicted on the plans entitled "Vehicular Barrier". All work shall be in accordance with applicable sections of the Standard Specifications for Road and Bridge Construction. The bollard shall be painted prior to final payment with color and paint material to be determined by the City.

#### **SP-37 ELECTRIC STRAIGHT MANHOLE**

THE City has purchased two Electric Straight Manholes as depicted on the plans from Utility Concrete Products. The contractor is responsible to excavate, arrange for delivery, facilitate off-loading of manholes, storage and staging, placement and adjustment of purchased manholes in accordance with the plans.

Rock excavation for placement of the manhole is included in the cost of this item.

This item includes cast iron frame and lid, concrete adjusting rings, grounding of the manhole, backfill, a minimum bedding depth of 4 inches and any and all items depicted in the detail on the plans are incidental to this item.

All manhole cores are 6 inches in diameter. Any and all revisions or reductions from 6 inch to small pipe diameter necessary to make a suitable connection from conduit to the manhole shall be provided and are incidental to this item.