PART 1 GENERAL

1.00 SECTION INCLUDES

A. Summary of the Work including work by the City, City-furnished Products, work sequence, future work, Contractor use of Premises, special conditions for substantial completion and City occupancy.

1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. Work of the Contract is for construction of North Post Oak BRT Connection which includes reconstruction of North Post Oak Road from 60 feet north of Chatsworth Drive to 100 feet south of the Eastbound I-10 Frontage Road. Addition of Bus Rapid Transit Lanes in the center of North Post Oak Road on the bridge over I-10 main lanes and on Old Katy Road from North Post Oak Road to the Northwest Transit Center driveway. The elements of work include the following, which are further described in detail in subsequent paragraphs:

- Demolition
- Waterlines and appurtenances
- Sanitary sewers
- Storm sewers and Drainage
- Paving for North Post Oak Main lanes
- Paving for Dedicated Bus Lanes
- Street Lights
- Signing and Pavement Markings
- Communications System
- Conduits for AT&T Texas / SWBT
- Conduits for Zayo
- Traffic signals
- Traffic control
- Streetscape and landscaping
- Storm Water Pollution Prevention Plan
- Other items

B. Demolition

Removal and proper disposal of pavement and subgrade, sidewalks, utilities, and other items noted on the Drawings. The demolition shall be done in phases and sequences, corresponding to the Traffic Control Plan.

C. Water lines and Appurtenances

Waterline construction is limited within this scope of work to the adjustment and relocation of existing meter boxes outside of the proposed pavement limits and to proposed grade.

Existing waterlines should not conflict with the proposed storm sewer based on existing survey and record drawing information. In the event of a conflict the contractor shall notify the engineer.
D. Sanitary Sewer

Sanitary sewer construction is limited within this scope of work to the adjustment of approximately 3 existing sanitary manholes to the proposed roadway elevation.

E. Storm Sewers and Drainage

Construction of approximately 3,127 linear feet of 24-inch RCP, 30-inch RCP, 19-inch by 30-inch elliptical RCP, 4-foot by 4-foot RCB, and 5-foot by 4-foot RCB along North Post Oak Road from Chatsworth Drive to South of the I-10 Eastbound Frontage Road. Construction of Junction Boxes and Type A, E, C, and C-1 Inlets.

The construction of the storm system shall include the removal of existing storm manholes, existing inlets, and existing storm sewers in varying sizes. The construction will also include trench protection.

The construction activities shall be such as to ensure proper drainage of the project area for the duration of the project, and any drainage ditch or structure disturbed during construction shall be restored to the satisfaction of the owning authority.

F. Paving for Post Oak Main Lanes

The proposed roadway and dedicated bus lanes will include excavation and backfill, 8-inch cement stabilized crushed concrete subgrade, 6% lime for soils or 2% lime and 8% fly ash for san, clayey sand, silty sand soils, 4-inch hot mix asphalt concrete base, and 11.5-inch reinforced concrete pavement. The amount of lime and/or fly ash shall be determined by conducting laboratory tests on the exposed subgrade during construction.

G. Street Lights

The construction of street lights will include 30" diameter drilled shaft foundations for timber street light poles, pull boxes, 2-inch PVC Schedule 40 conduits, 2-inch PVC schedule 80 conduits, and appurtenances.

H. Signing and Pavement Markings

The installation of Signing and Pavement Markings shall include and removal of existing traffic signs and replacing with new traffic signs. Construction work shall also include placement of Type I Striping including, but not limited to, 4-inch yellow solid stripes, 6-inch white solid stripes, 12-inch green solid stripes, 24-inch white solid stripes, and Type II striping, including but not limited to, 12-inch yellow solid, with Type I arrow symbols, and elongated words. Construction work shall also include placement of raised pavement markers, including but not limited to, Type II-C-R, and Type II-B-B.

The contractor shall be responsible to remove and replace permanent signs and pavement markings, as noted in the plans.

I. Communications System

The installation of a main communications duct bank consisting of a 2 – 4" PVC conduits. The duct bank will serve the following users, each have a dedicated conduit. Each user will have separate junction boxes and pull boxes, all locked.

- City of Houston
- METRO
J. Conduits for AT&T Texas / SWBT

Adjustment and relocation of conduit and pull boxes.

K. Conduits for Zayo

Adjustment and relocation of conduit and pull boxes.

L. Traffic Signals

The construction of temporary and permanent traffic signals at the intersections of:

- Old Katy Road
- IH-10 Frontage Road
- NWTC Main Driveway
- NWTC East Driveway
- Oakford Drive

The traffic signals will include all stainless steel mast arms, stainless steel poles, stainless steel pedestrian poles, mountable audible pedestrian signals, pedestrian push button stations, traffic controller & cabinets, pull boxes, conduit, cable, wiring, loop detectors and all labor, equipment, and materials necessary for the operation and maintenance of traffic. All new traffic signal poles, mast arms, signal heads, and pedestrian poles shall comply with the standards of METRO and the City of Houston as shown on plans.

Contractor shall remove existing stainless steel poles, stainless steel mast arms, shields, illuminated street name signs, pedestrian push button stations and stainless steel sign rings after installation of temporary traffic signals as shown in the design drawings, store and reinstall them as part of permanent signals. Any additional stainless steel poles, stainless steel mast arms, shields, illuminated street name signs and pedestrian push button stations called out on the plans shall be picked up METRO warehouse for installation. The Contractor shall refer to the Traffic Signal General Notes for clarification.

M. Traffic Control

The contractor shall be responsible to maintain adequate traffic control for the duration of the project, as provided in the plans. Traffic control shall be in accordance with the latest version of the Texas Manual of Uniform Traffic Control Devices (TMUTCD).

N. Streetscape and Landscaping

Driveways and sidewalks within the right-of-way shall be replaced as shown in the plans. Existing sidewalks shall be removed and replaced with sidewalks as indicated on the plans. Proposed sidewalks and wheelchair ramps shall comply with current City of Houston, and Texas Department of Licensing and Regulation (TDLR) requirements including, but not limited to, constructing wheelchair ramps with truncated domes.

The construction of Streetscape will include Concrete sidewalks and ADA ramps, including truncated dome detectable warning pavers.
• Specialty paving, including concrete paving with special finishes, unit pavers and cobble paving.
• Site furnishings, including METRO standard granite bollard and tree paver grates.
• Specialty concrete work, including cast-in-place curbs and walls along Right-of-Way, and seat walls and seat walls with precast concrete caps at corners.
• Specialty screen fencing for growing plants.
• Site lighting, including conduit and electrical for pedestrian lights, uplights, and specialty lighting.
• Planting, including trees, plants, planting soil, staking, root barrier, mulch and edging.
• Irrigation system, including permit, tap and meter and connection, sleeves, and backflow preventer.

O. Storm Water Pollution Prevention Plan

The contractor shall be responsible for implementation of the Storm Water Pollution Prevention Plan (SWPPP) and use best practices during construction and is responsible for associated permit fees.

P. Other Items

1. The condition of the road and/or right-of-way upon completion of job, shall be as good as or better than the condition prior to starting the work.

2. The Contractor shall be responsible for coordinating with residents, landlords and/or the commercial property owners on handling of any private features within the right-of-way and temporary construction easements a minimum of 72 hours prior to any construction activities which may impact these features. These features may include, but are not limited to: existing irrigation systems (including spray and rotary heads and related piping and electrical wiring), streetscape, backfills, existing yard drains, building signs, etc. Contractor shall use caution while working within the proximity of these types of facilities so as to avoid impacts. Should impacts occur, restoration shall be to a condition that is equal or better than prior to start of construction. The repair or replacement of these types of facilities, necessitated by construction activities, shall be the contractor’s responsibility and incidental to the project with no additional cost.

3. The contractor shall be responsible to use caution and due diligence where the proposed improvements are in proximity to existing private utilities including gas lines, buried or overhead cables, etc., so as to not adversely impact such private utilities within the project area. The contractor will contact and coordinate with the private utility agencies whose facilities may be impacted by the proposed improvements, as required.

4. Contractor is to obtain all necessary permits related to the proposed construction activities. These include, but are not limited to, lane closures, street cut, driveway, and tree removal.

1.02 SCHEDULE AND INCENTIVES

A. The Contractor shall expect the issuance of construction Notice to Proceed (NTP) may take up to six months from the Award Date. This may be due to restrictions from private utility relocations, clearance of Right-of-Way, or other agreements. The contractors shall bid accordingly.

B. Complete entire Work within project duration from Date of Commencement, as defined in Document 00700 – General Conditions. Failure to meet calendar day completion will result in liquidated damages in accordance with Document 00800 – Supplementary Conditions.
C. Incentive Allowance – To Be Determined

1.03 CASH ALLOWANCES

A. Include the following specific Cash Allowances in Contract Price under provision of General Conditions Paragraph 3.11:

5. Street Cut Permit
6. Lane Closure Permit
7. Sidewalk Closure Permit
8. TPDES NOI/NOT
9. TDLR TAS Permit-Inspection
10. Centerpoint Energy Street Lighting

1.04 CITY-FURNISHED PRODUCTS

A. Items Furnished by the City for Installation and final connection by Contractor:
   Water meter.

B. Contractor’s Responsibilities:

1. Arrange and pay for Product delivery to the site.
2. Receive and unload Products at the site; jointly with the City, inspect for completeness or damage.
3. Handle, store, Install, and finish Products.
4. Repair or replace damaged items.

1.05 WORK SEQUENCE

A. Construct the Work in Phases during the construction period; coordinate construction schedule and operations with the City of Houston. The work of the project shall be phased so that the impact to residences and businesses in the vicinity can be kept to a minimum for the duration of the project. The work in each phase shall be conducted in segments as shown in the plans. All work within each phase shall be in a “substantially complete condition” prior to beginning the construction of the next Phase or the contractor may begin a new phase of construction with consent of the METRO representative and the City of Houston.

B. The term ‘work’ as used below refers to the following sequence of construction activities, as applicable: construction of the drainage systems and appurtenances, construction of the proposed water lines and appurtenances, construction of all pavement work, construction of the traffic signal system and operations, construction of streetscape work, and construction of signage and pavement marking. The work also includes tree protection, storm water pollution prevention, traffic control, site restoration and inspections.

   Phase 0: Remove median and install temporary asphalt on North Post Oak Road.
   Phase 1: Construct northbound lanes and Shared Use Path on North Post Oak Road.
   Phase 2: Construct southbound lanes on North Post Oak Road.
   Phase 3: Construct proposed Old Katy Lanes.
C. For projects with no Phases, do not disturb more than 50% of total project linear feet of disturbed right-of-way and easement until site restored in accordance with Section 01740 – Site Restoration.

D. Coordination of the Work: Refer to Section 01312 - Coordination and Meetings.

1.06 CONTRACTOR USE OF PREMISES

A. Comply with procedures for access to the site and Contractor’s use of rights-of-way as specified in Section 01145 - Use of Premises.

B. Construction Operations: Limited to the City’s rights-of-way provided by the City and areas shown or described in the Contract documents.

C. Utility Outages and Shutdown: Provide a minimum of 48 hours notice to the City and private utility companies (when applicable), excluding weekends and holidays, in advance of required utility shutdown. Coordinate all work as required.

1.07 STREET CUT ORDINANCE

A. Excavations on or under pavement in the City’s right-of-way must have a permit. Comply with City of Houston, Texas Ordinance No. 2000-1115, an ordinance amending Chapter 40 of the Code of Ordinances, Houston, Texas, relating to excavating in the Public right-of-way.


C. Quantities are included for street cut pavement repair and replacement in applicable Specification sections for Unit Price contracts.

1.08 Coordination with Other Work

A. Private Utility Relocation Projects
Various private utility systems will be relocated or adjusted to accommodate the Project within the Contract limits. The Contractor may require that the private utility work be done under a separate traffic control plan, or within the Contractor’s traffic control plan.

B. City of Houston Projects
The City of Houston owns, operates, and maintains all public infrastructure within the Project limits. The Contractor shall coordinate activities with any other City contractors and provide access to their work sites, as necessary.
- No known construction or major maintenance project is known to be scheduled during the Contract period. The METRO Representative will notify the Contractor if any occur.
- The City crews may require access to their facilities for maintenance, operations, and emergency purposes.

C. TxDOT Projects
- TxDOT will construct IH 610 Dedicated Bus Lanes from IH Post Oak Boulevard to Oakford Drive. The bus lanes will be on North Post Oak from north of Memorial Drive to Oakford Drive.

D. Private Development Projects
1.09 WARRANTY

A. Comply with warranty requirements in accordance with Document 00700 - General Conditions.

1.10 ADDITIONAL CONDITIONS FOR SUBSTANTIAL COMPLETION

A. In addition to requirements outlined in Document 00700 – General Conditions, for Contractor to be substantially complete with the Work and call for inspection by Project Manager to confirm, the following conditions must be met or completed:
   1. All testing shall be completed and accepted by the Project Manager.
   2. All safety related work including pavement striping, signing, and signalization shall be complete.
   3. All pay items complete report and noted.

B. No additional condition described in Paragraph 1.10 may be included in Contractor’s punch list.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION