Texas Department of Transportation

Technical Provisions

for

Southern Gateway

Design-Build Project

Attachment 2-1

Work Breakdown Structure Requirements

The Project Baseline Schedule shall be organized consistent with the WBS shown in Table 1. Additional WBS elements and levels may be added with TxDOT's approval.

The Schedule of Values shall be the rollup of all Payment Activities to the WBS Level 3, 4, or 5 as appropriate.

Table 1: WBS Minimum Requirements

1   [Name of Project]
   1.1. Project Administration
      1.1.1.   Mobilization
         1.1.1.1.   Developer
         1.1.1.2.   DB Contractor
      1.1.2.   Administrative Submittals and Permitting
         1.1.2.1.   (By Governmental Agency)
            1.1.2.1.1. (By Specific Permit/Submittal Requirement)
   1.2. Right of Way Acquisition
      1.2.1.   Acquisition by TxDOT
         1.2.1.1.   (By Parcel No.)
      1.2.2.   Acquisition by Developer
         1.2.2.1.   (By Parcel No.)
   1.3. Utility Adjustments
      1.3.1.   Utility Coordination
         1.3.1.1.   Administration and Planning
            1.3.1.1.1. Site Utility Engineering
            1.3.1.1.2. Conceptual Design
         1.3.1.2.   (By Owner)
            1.3.1.2.1. Master Agreements
            1.3.1.2.2. Utility Assemblies
      1.3.2.   Utility Relocations
         1.3.2.1.   (By Owner)
            1.3.2.1.1.   (By Line No.)
   1.4. Design
      1.4.1.   General Activities and Field Work
         1.4.1.1.   Design Mobilization
         1.4.1.2.   Schematics
         1.4.1.3.   Survey Work
         1.4.1.4.   Geotechnical Investigations
         1.4.1.5.   Additional Field Investigations
      1.4.2.   Develop Specifications
         1.4.2.1.   (By Discipline)
      1.4.3.   Geotechnical Design
         1.4.3.1.   General
         1.4.3.2.   Earthwork Geotech
         1.4.3.3.   Bridge Geotech
         1.4.3.4.   Culvert Geotech
         1.4.3.5.   Wall Geotech
      1.4.4.   Pavement Design
         1.4.4.1.   Data Analysis and Draft Report
         1.4.4.2.   Final Design and Report

Texas Department of Transportation   Request for Proposals – Addendum #1
Southern Gateway Project   1   Technical Provisions
December 19, 2016   Attachment 2-1

1.4. Design (Continued)

Texas Department of Transportation   Request for Proposals – Addendum #1
Southern Gateway Project   2   Technical Provisions
December 19, 2016   Attachment 2-1

1.5. Construction
    1.5.1. General
    1.5.2. Material Submittals, Procurement and Long-lead Items
    1.5.3. Mobilization
    1.5.4. Administration
    1.5.5. Quality Control
    1.5.6. By Phase
        1.5.6.1. Work Areas
        1.5.6.2. Removals
            1.5.6.2.1. Building Removals
            1.5.6.2.2. ROW Preparation
            1.5.6.2.3. Roadway Removals
            1.5.6.2.4. Bridge Removals
        1.5.6.3. Earthwork
            1.5.6.3.1. Topsoil Stripping and Placing
            1.5.6.3.2. Excavation
            1.5.6.3.3. Embankment
            1.5.6.3.4. Special Geotechnical Measures
        1.5.6.4. Landscaping
            1.5.6.4.1. Seeding and Sodding
            1.5.6.4.2. Fertilizer and Watering
            1.5.6.4.3. Special Aesthetic Landscaping (if applicable)
        1.5.6.5. Subgrade Treatment and Base
            1.5.6.5.1. Lime Treatment
            1.5.6.5.2. Flexible Base
        1.5.6.6. Pavement
            1.5.6.6.1. Asphalt Pavement
            1.5.6.6.2. Concrete Pavement
            1.5.6.6.3. Curb & Gutter
            1.5.6.6.4. Driveways
            1.5.6.6.5. Sidewalks and Median Paving
        1.5.6.7. Retaining Walls
            1.5.6.7.1. (By Wall No.)
        1.5.6.8. Bridges
            1.5.6.8.1. (By Bridge No.)
        1.5.6.9. Drainage
            1.5.6.9.1. Culverts
            1.5.6.9.2. Storm Sewer
            1.5.6.9.3. Riprap
        1.5.6.10. Traffic Control and Temporary Work
            1.5.6.10.1. Barricades, Signs & Traffic Handling
            1.5.6.10.2. Erosion Control
            1.5.6.10.3. Detour Construction/Removal
            1.5.6.10.4. Portable Traffic Barrier
            1.5.6.10.5. Workzone Pavement Marking
            1.5.6.10.6. Temporary Bridges
            1.5.6.10.7. Temporary Walls/Shoring
            1.5.6.10.8. Temporary Drainage
            1.5.6.10.9. Temporary Illumination

Texas Department of Transportation   Request for Proposals – Addendum #1
Southern Gateway Project   3   Technical Provisions
December 19, 2016   Attachment 2-1

1.5. Construction (Continued)

Texas Department of Transportation

Technical Provisions

for

Southern Gateway

Design-Build Project

Attachment 2-2

Not Used

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

1

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-2

Texas Department of Transportation

Technical Provisions

for

Southern Gateway

Design-Build Project

Attachment 2-3

I2MS Field Forms

I2MS Test Field Report

File: I2MSFieldReport.xls
File Type: Microsoft Excel (spreadsheet)
File Description: Describes what fields are required to be submitted per test, including pertinent header and footer information. All fields are required to be submitted if possible.

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

1

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

I2MS Test Form Fields

Purpose
The purpose of this document is to provide information on the tables and fields within I2MS.

Material Test Forms
Material Test Forms are forms used to run tests for a sample. A test form contains header and footer information which all forms have in common. Each test form also has a form body containing fields specific to the test method(s) being performed.

Header Fields
The header information is the metadata of the form. It is vital for searching for and analyzing records. All of the test forms have similar header information.

Table Name: HEADER_VALUE_OVT **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Course Lift	course_lift	nvarchar	250		TRUE
Direction	direction	nvarchar	250	CVL	TRUE
Distance From CL	dist_from_cl	nvarchar	250		TRUE
Feature	feature	nvarchar	250	CVL	TRUE
Grade	grade	nvarchar	100	CVL	TRUE
Material	material	nvarchar	100	CVL	TRUE
Misc	misc	nvarchar	250		TRUE
Report Type	report_type	nvarchar	250	CVL	TRUE
Roadway	roadway	nvarchar	250	CVL	TRUE
Sample ID	sample_id	nvarchar	13		TRUE
Sample Location	sample_location	nvarchar	250		TRUE
Sample Type	sample_type	nvarchar	100	CVL	TRUE
Sampled By	sampled_by	nvarchar	250	CVL	TRUE
Sampled Date	sampled_date	datetime		MM/dd/yyyy	TRUE
Section	section	nvarchar	100	CVL	TRUE
Spec Item	spec_item	nvarchar	100	CVL	TRUE
Spec Year	spec_year	nvarchar	250		TRUE
Special Provision	special_provision	nvarchar	250	CVL	TRUE
Split Sample ID	split_sample_id	nvarchar	250		TRUE
Station	station	nvarchar	250	Pattern: [0-9]+\+[0-9][0-9](\.[0-9][0-9])?	TRUE
Structure Number	structure_number	nvarchar	250	CVL	TRUE
Supplier	supplier	nvarchar	100	CVL	TRUE

Footer Fields
The footer contains approval data and comments for each of the test forms.

Table Name: FOOTER_VALUE_OVT **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Authorized By	authorized_by	nvarchar	100	CVL	TRUE
Authorized Date	authorized_date	smalldatetime		MM/dd/yyyy	TRUE
Completed Date	completed_date	smalldatetime		MM/dd/yyyy	TRUE
Digital Signature ID 1	dig_sig_id1	int			FALSE
Digital Signature ID 2	dig_sig_id2	int			FALSE
Remarks	remarks	text			TRUE
Reviewed By	reviewed_by	nvarchar	100	CVL	TRUE

Body Fields

Moisture Content of Aggregates (DB-103-E)

Table Name: VALUE_DB103E **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Dish No.	dish_no	nvarchar	100		FALSE
Mass of Dry Sample	dry_sample_tare	decimal	(19, 8)		FALSE
Moisture Content	moisture_content	decimal	(19, 8)		TRUE
Payable Weight of Class 2 Flex Base	payable_weight	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tare Mass	tare_mass	decimal	(19, 8)		FALSE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Mass of Wet Sample Tare	wet_sample_tare	decimal	(19, 8)		FALSE

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

2

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Liquid Limit, Plastic Limit, Plastic Index (DB-104-6)

Table Name: VALUE_DB104E Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Liquid Limit	liquid_limit_total	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB104E_SAMPLE Maximum Rows: 6

Field Description	Field Name	Datatype	Length	Values	Required
Dish No.	dish_no	nvarchar	100		FALSE
Liquid Limit (%)	liquid_limit	decimal	(19, 8)		FALSE
Mass of Dry Sample + Tare (g)	mass_dry_sample	decimal	(19, 8)		FALSE
Mass of Wet Sample + Tare (g)	mass_wet_sample	decimal	(19, 8)		FALSE
Moisture Content, %	moisture_content	decimal	(19, 8)		FALSE
Number of Blows	number_blows	int			FALSE
Tare Mass (g)	tare_mass	decimal	(19, 8)		FALSE

Table Name: VALUE_DB105E Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Plastic Limit	plastic_limit_total	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB105E_SAMPLE Maximum Rows: 3

Field Description	Field Name	Datatype	Length	Values	Required
Dish No.	dish_no	nvarchar	100		FALSE
Mass of Dry Sample + Tare (g)	mass_dry_sample	decimal	(19, 8)		FALSE
Mass of Wet Sample + Tare (g)	mass_wet_sample	decimal	(19, 8)		FALSE
Plastic Limit (%)	plastic_limit	decimal	(19, 8)		FALSE
Tare Mass (g)	tare_mass	decimal	(19, 8)		FALSE
Mass of Water (g)	water_mass	decimal	(19, 8)		FALSE

Table Name: VALUE_DB106E Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Plastic Index	plasticity_index	int			TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Use Bar Linear Shrinkage to Calculate Plasticity Index?	use_bar_linear	nvarchar	100	{Yes, No}	FALSE

Bar Linear Shrinkage (DB-107-E)

Table Name: VALUE_DB107E Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Calculate Plasticity Index	calculate_plasticity_index	bit		{Yes, No}	FALSE
Final Length	final_length	decimal	(19, 8)		FALSE
Initial Length	initial_length	decimal	(19, 8)		FALSE
Linear Shrinkage	linear_shrinkage	decimal	(19, 8)		TRUE
Maximum By Specification	maximum_by_specification	decimal	(19, 8)		FALSE
Minimum By Specification	minimum_by_specification	decimal	(19, 8)		FALSE
Plasticity Index	plasticity_index	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Unit	unit	nvarchar	100		FALSE

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

3

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Particle Size Analysis (DB-110-E)

Table Name: VALUE_DB110E_SIEVE **Maximum Rows: 6**

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Retained	cumulative_pct_retained	decimal	(19, 8)		TRUE
Cumulative Weight Retained	cumulative_weight_retained	decimal	(19, 8)		FALSE
Lower Spec Limit	lower_spec_limit	decimal	(19, 8)		FALSE
Master Grading	master_grading	nvarchar	100		TRUE
Sieve Size	sieve_size	nvarchar	100	CVL	TRUE
Upper Spec Limit	upper_spec_limit	decimal	(19, 8)		FALSE
Weight Retained	weight_retained	decimal	(19, 8)		FALSE

Table Name: VALUE_DB110E_TEST **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Method	individual_cumulative	nvarchar	100	{Cumulative, Individual}	FALSE
Negative No.40	negative_no_40	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Total	total	nvarchar	100		FALSE

Moisture-Density Work Sheet (DB-113-E)

Table Name: VALUE_DB113E **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Dry Density Scale Max	dry_density_scale_max	decimal	(19, 8)		FALSE
Dry Density Scale Min	dry_density_scale_min	decimal	(19, 8)		FALSE
Dry Density Scale unit	dry_density_scale_unit	decimal	(19, 8)		FALSE
Hygroscopic Moisture	hygroscopic_moisture	decimal	(19, 8)		FALSE
Max Density(kg)	max_density_kg	decimal	(19, 8)		FALSE
Max Density (pcf)	max_density_pcf	decimal	(19, 8)		TRUE
Moisture scale max	moisture_scale_max	decimal	(19, 8)		FALSE
Moisture scale min	moisture_scale_min	decimal	(19, 8)		FALSE
Moisture scale unit	moisture_scale_unit	decimal	(19, 8)		FALSE
Optimum Moisture	optimum_moisture	decimal	(19, 8)		TRUE
Oven Dry Weight	oven_dry_weight	decimal	(19, 8)		FALSE
Soil Description	soil_desc	nvarchar	100		TRUE
Specific Gravity (Apparent)	specific_gravity	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Weight of Aggr., Pycn. & Water	weight_of_aggr	decimal	(19, 8)		FALSE
Weight of Pycnometer & Water	weight_of_pycnometer	decimal	(19, 8)		FALSE

Table Name: VALUE_DB113E_SPECIMEN **Maximum Rows: 4**

Field Description	Field Name	Datatype	Length	Values	Required
Dry Density	dry_density	decimal	(19, 8)		FALSE
Dry Mass Material	dry_mass_material	decimal	(19, 8)		FALSE
Dry Mass Pan & Specimen	dry_mass_pan_specimen	decimal	(19, 8)		FALSE
Estimated Dry Density	est_dry_density	decimal	(19, 8)		FALSE
Height of Specimen	height_specimen	decimal	(19, 8)		FALSE
Mass Material	mass_material	decimal	(19, 8)		FALSE
Mass Water	mass_water	decimal	(19, 8)		FALSE
Mass Water Added	mass_water_added	decimal	(19, 8)		FALSE
Percent Water Content	pct_water_content	decimal	(19, 8)		FALSE
Percent Water On Total	pct_water_total	decimal	(19, 8)		FALSE
Tare Mass Mold	tare_mass_mold	decimal	(19, 8)		FALSE
Tare Mass Pan	tare_mass_pan	decimal	(19, 8)		FALSE
Volume Per Linear	volume_per_linear	decimal	(19, 8)		FALSE
Volume of Specimen	volume_specimen	decimal	(19, 8)		FALSE
Wet Density of Specimen	wet_density_specimen	decimal	(19, 8)		FALSE
Wet Mass Of Pan & Specimen	wet_mass_pan_specimen	decimal	(19, 8)		FALSE
Wet Mass Specimen	wet_mass_specimen	decimal	(19, 8)		FALSE
Wet Mass Specimen & Mold	wet_mass_specimen_mold	decimal	(19, 8)		FALSE

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

4

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Moisture-Density Relationship of Subgrade and Embankment Soils (DB-114-E)

Table Name: VALUE_DB114E　　　　　　　　　　　　　　　　　　　　　　　　**Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Dry Density Scale Max	dry_density_scale_max	decimal	(19, 8)		FALSE
Dry Density Scale Min	dry_density_scale_min	decimal	(19, 8)		FALSE
Dry Density Scale unit	dry_density_scale_unit	decimal	(19, 8)		FALSE
Hygroscopic Moisture	hygroscopic_moisture	decimal	(19, 8)		FALSE
Max Density (kg)	max_density_kg	decimal	(19, 8)		FALSE
Max Density (pcf)	max_density_pcf	decimal	(19, 8)		TRUE
Moisture scale max	moisture_scale_max	decimal	(19, 8)		FALSE
Moisture scale min	moisture_scale_min	decimal	(19, 8)		FALSE
Moisture scale unit	moisture_scale_unit	decimal	(19, 8)		FALSE
Optimum Moisture	optimum_moisture	decimal	(19, 8)		TRUE
Oven Dry Weight	oven_dry_weight	decimal	(19, 8)		FALSE
Soil Descript	soil_description	nvarchar	100		TRUE
Specific Gravity	specific_gravity	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Weight of Aggr., Pycn. & Water	weight_of_aggr	decimal	(19, 8)		FALSE
Weight of Pycnometer & Water	weight_of_pycnometer	decimal	(19, 8)		FALSE

Table Name: VALUE_DB114E_SPECIMEN　　　　　　　　　　　　　　　　　　**Maximum Rows: 4**

Field Description	Field Name	Datatype	Length	Values	Required
Dry Density	dry_density	decimal	(19, 8)		FALSE
Dry Mass Material	dry_mass_material	decimal	(19, 8)		FALSE
Dry Mass Pan & Specimen	dry_mass_pan_specimen	decimal	(19, 8)		FALSE
Estimated Dry Density	est_dry_density	decimal	(19, 8)		FALSE
Height of Specimen	height_specimen	decimal	(19, 8)		FALSE
Mass Material	mass_material	decimal	(19, 8)		FALSE
Mass Water	mass_water	decimal	(19, 8)		FALSE
Mass Water Added	mass_water_added	decimal	(19, 8)		FALSE
Percent Water Content	pct_water_content	decimal	(19, 8)		FALSE
Percent Water Total	pct_water_total	decimal	(19, 8)		FALSE
Tare Mass Mold	tare_mass_mold	decimal	(19, 8)		FALSE
Tare Mass Pan	tare_mass_pan	decimal	(19, 8)		FALSE
Volume Per Linear mm	volume_per_linear	decimal	(19, 8)		FALSE
Volume of Specimen	volume_specimen	decimal	(19, 8)		FALSE
Wet Density of Specimen	wet_density_specimen	decimal	(19, 8)		FALSE
Wet Mass of Pan & Specimen	wet_mass_pan_specimen	decimal	(19, 8)		FALSE
Wet Mass Specimen	wet_mass_specimen	decimal	(19, 8)		FALSE
Wet Mass Specimen & Mold	wet_mass_specimen_mold	decimal	(19, 8)		FALSE

Nuclear Density and Moisture Determination (DB-115-1)

Table Name: VALUE_DB115_1   **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Density Count	density_count	int			FALSE
Density, %	density_pct	decimal	(19, 8)		TRUE
Pass/Fail	density_pct_pass_fail	nvarchar	100		FALSE
Max Density Specification Requirement	density_specification_req_max	decimal	(19, 8)		FALSE
Low Density Specification Req	density_specification_req_min	decimal	(19, 8)		FALSE
density_standard	density_standard	int			FALSE
Determined By Test Method	determined_by_test_method	nvarchar	100	{DB-113-E, DB-114-E}	FALSE
Dry Density, pcf	dry_density_pcf	decimal	(19, 8)		TRUE
Gauge No.	gauge_no	nvarchar	100		TRUE
Maximum Dry Density	max_dry_density_pcf	decimal	(19, 8)		TRUE
Moisture Content, %	moisture_content_pct	decimal	(19, 8)		TRUE
Moisture Content Pct Pass or Fail	moisture_content_pct_pass_fail	nvarchar	100	{Pass, Fail}	FALSE
Moisture Count	moisture_count	int			FALSE
Max Moisture Specification Requirement	moisture_specification_req_max	decimal	(19, 8)		FALSE
Low Moisture Specification Req	moisture_specification_req_min	decimal	(19, 8)		FALSE
Moisture Standard	moisture_standard	int			FALSE
Optimum Moisture Content	optimum_moisture_content_pct	decimal	(19, 8)		TRUE
Probe Depth	probe_depth	decimal	(19, 8)		TRUE
Soil Description	soil_desc	nvarchar	100		TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Wet Density , pcf	wet_density_pcf	decimal	(19, 8)		FALSE

Soil /Aggregate Field Unit Weight Tests (DB-115-2)

Table Name: VALUE_DB115_2   **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Compaction, %	compaction_pct	decimal	(19, 8)		FALSE
Compaction Required	compaction_req_pct	decimal	(19, 8)		FALSE
Dry unit weight	dry_unit_weight	decimal	(19, 8)		FALSE
Dry Weight Total Moisture Sample	dry_weight_total_moisture	decimal	(19, 8)		FALSE
Final Weight Apparatus & Sand	final_weight_apparatus	decimal	(19, 8)		FALSE
Final Weight of Sand	final_weight_sand	decimal	(19, 8)		FALSE
Initial Weight Apparatus & Sand	initial_weight_apparatus	decimal	(19, 8)		FALSE
Initial Weight of Sand	initial_weight_sand	decimal	(19, 8)		FALSE
Maximum dry unit weight	max_dry_unit_weight	decimal	(19, 8)		FALSE
Moisture Required	moisture_req_pct	decimal	(19, 8)		FALSE
Optium Moisture (% if of dry unit weight)	optimum_moisture	decimal	(19, 8)		FALSE
Pass/Fail % Density	pass_fail_pct_density	nvarchar	100		FALSE
Pass/Fail % Moisture	pass_fail_pct_moisture	nvarchar	100		FALSE
% Moisture	pct_moisture	decimal	(19, 8)		FALSE
Sand bulk unit weight	sand_bulk_unit_weight	decimal	(19, 8)		FALSE
Soil Descript	soil_desc	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Total Volume-Sand Userd	total_volume	decimal	(19, 8)		FALSE
Volume of Hole	volume_hole	decimal	(19, 8)		FALSE
Volume of Surface	volume_surface	decimal	(19, 8)		FALSE
Weight of Material From Hole	weight_material_hole	decimal	(19, 8)		FALSE
Wet Unit Weight	wet_unit_weight	decimal	(19, 8)		FALSE
Wet Weight Total Moisture Sample	wet_weight_total_moisture	decimal	(19, 8)		FALSE

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

6

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Test Resistance to Degradation By Wet Ball Mill Method (DB-116-E)

Table Name: VALUE_DB116E　　　　　　　　　　　　　　　　　　　　　　　**Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Method	cumulative_method	nvarchar	50	{Cumulative, Individual}	FALSE
Total of 3000g weight retained	individual_weight_retained_3000g_total	decimal	(19, 8)		FALSE
Total of 3500g weight retained	individual_weight_retained_3500g_total	decimal	(19, 8)		FALSE
Percent Soil Binder	pct_soil_binder	decimal	(19, 8)		FALSE
Percent Soil Binder Increase	pct_soil_binder_increase	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Wet Ball Mill -No.40 Individual Percent Retained	wbm_individual_pct_retained_minusno40	decimal	(19, 8)		FALSE
Wet Ball Mill No.40 Individual Percent Retained	wbm_individual_pct_retained_no40	decimal	(19, 8)		FALSE
Wet Ball Mill Initial Weight	wbm_initial_weight	decimal	(19, 8)		FALSE
Wet Ball Mill Value	wbm_value	decimal	(19, 8)		TRUE
Wet Ball Mill -No.40 Weight Retained	wbm_weight_retained_minusno40	decimal	(19, 8)		FALSE
Wet Ball Mill No.40 Weight Retained	wbm_weight_retained_no40	decimal	(19, 8)		FALSE
Total of weight retained	weight_retained_total	decimal	(19, 8)		FALSE
Washed Sieve Analysis No.40 Individual Percent Retained	wsa_individual_pct_retained_no40	decimal	(19, 8)		FALSE
Washed Sieve Analysis -No.40 Individual Percent Retained	wsa_inidividual_pct_retained_minusno40	decimal	(19, 8)		FALSE
Washed Sieve Analysis Initial Weight	wsa_initial_weight	decimal	(19, 8)		FALSE
Washed Sieve Analysis -No.40 Weight Retained	wsa_weight_retained_minusno40	decimal	(19, 8)		FALSE
Washed Sieve Analysis No.40 Weight Retained	wsa_weight_retained_no40	decimal	(19, 8)		FALSE

Table Name: VALUE_DB116E_SIEVE　　　　　　　　　　　　　　　　　　　　**Maximum Rows: 7**

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Retained	cumulative_pct_retained	decimal	(19, 8)		FALSE
3000g Cumulative Weight Retained	cumulative_weight_retained_3000g	decimal	(19, 8)		FALSE
3500g Cumulative Weight Retained	cumulative_weight_retained_3500g	decimal	(19, 8)		FALSE
Individual Percent Retained	individual_pct_retained	decimal	(19, 8)		FALSE
3000g Individual Weight Retained	individual_weight_retained_3000g	decimal	(19, 8)		FALSE
3500g Individual Weight Retained	individual_weight_retained_3500g	decimal	(19, 8)		FALSE
Sieve Size	sieve_size	nvarchar	100		FALSE
Weight Retained	weight_retained	decimal	(19, 8)		FALSE

Triaxial Compression Tests (DB-117-E)

Table Name: VALUE_DB117E Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Corrected Strength, 00 psi	average_corrected_strength_0psi	decimal	(19, 8)		TRUE
Average Corrected Strength, 15 psi	average_corrected_strength_15psi	decimal	(19, 8)		TRUE
Classification	classification	nvarchar	100		FALSE
Cohesion, psi	cohesion_psi	decimal	(19, 8)		FALSE
Correlation Factor	correlation_factor	decimal	(19, 8)		FALSE
Grade, 00 psi	grade_0psi	nvarchar	100		FALSE
Grade, 15 psi	grade_15psi	nvarchar	100		FALSE
Internal Angle of Friction	internal_angle_friction	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB117E_SPECIMEN Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Area, in.^2	area	decimal	(19, 8)		FALSE
Avg. Cross Sectional Area, in^2	avg_cross_sectional_area	decimal	(19, 8)		FALSE
Average Diameter, in.	avg_diameter	decimal	(19, 8)		FALSE
Corrected Stress, psi.	corrected_stress_psi	decimal	(19, 8)		FALSE
Dry Density of Specimen, pcf	dry_density_specimen_pcf	decimal	(19, 8)		FALSE
Final Weight of Stones	final_weight_stones	decimal	(19, 8)		FALSE
Height of Stone 1, in.	height_stone1	decimal	(19, 8)		FALSE
Height of Stone 2, in.	height_stone2	decimal	(19, 8)		FALSE
I-Strain, in./in.	i_strain	decimal	(19, 8)		FALSE
Initial Height of Specimen, in.	initial_height	decimal	(19, 8)		FALSE
Lateral Pressure, psi.	lateral_pressure_psi	decimal	(19, 8)		FALSE
New Height of Specimen, in.	new_height	decimal	(19, 8)		FALSE
Moisture of Specimen, %	pct_moisture_specimen	decimal	(19, 8)		FALSE
% Strain , in./in.	pct_strain	decimal	(19, 8)		FALSE
Uncorrected Stress, psi.	uncorrected_stress_psi	decimal	(19, 8)		FALSE
Weight of Specimen	weight_specimen	decimal	(19, 8)		FALSE
Weight of Stones and Specimen	weight_stones_specimen	decimal	(19, 8)		FALSE

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

8

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Determining Soil pH (DB-128-E)

Table Name: VALUE_DB128E   **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Soil pH	soil_ph	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Measuring Resistivity of Soil Materials (DB-129-E)

Table Name: VALUE_DB129E   **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Resistance using resistivity meter	resistance_using_meter	decimal	(19, 8)		FALSE
Resistivity	resistivity_result	decimal	(19, 8)		TRUE
A= Area of one electrode	sbf_area	decimal	(19, 8)		FALSE
Distance between electrodes	sbf_distance	decimal	(19, 8)		FALSE
Soil Box Factor	sbf_factor	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Measuring Thickness of Pavement Layer (DB-140-E)

Table Name: VALUE_DB140E   **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Average Depth:	avg_depth	decimal	(19, 8)		TRUE
Depth 1:	depth_1	decimal	(19, 8)		FALSE
Depth 2:	depth_2	decimal	(19, 8)		FALSE
Depth 3:	depth_3	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Texas Department of Transportation   Request for Proposals – Addendum #1
Southern Gateway Project   9   Technical Provisions
December 19, 2016   Attachment 2-3

OVF HMAC Test Data: DB-200-F, DB-207-FPR, DB-227-F, DB-236-F, DB-207-F (DB-200/07/36)

Table Name: **VALUE_DB207F**   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Specific Gravity of Asphalt Binder	specific_gravity	decimal	(19, 3)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	FALSE
Voids in Mineral Aggregate (VMA)	vma	decimal	(19, 1)		TRUE

Table Name: **VALUE_DB207FPR**   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Actual Specific Gravity (Ga):	GA	nvarchar	100		TRUE
Lab Molded Density, %:	LMD	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: **VALUE_DB227F**   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Rice Specific Gravity (Gr):	rice_specific_gravity	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: **VALUE_DB229F**   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: **VALUE_DB229F_SIEVE**   Maximum Rows: 10

Field Description	Field Name	Datatype	Length	Values	Required
Current JMF	Current_JMF	nvarchar	100		FALSE
Design JMF	Design_JMF	nvarchar	100		FALSE
Adjusted Individual % Retained	pct	decimal	(19, 8)		TRUE
Sieve Size	sieve_size	nvarchar	100	CVL	TRUE

Table Name: **VALUE_DB236F**   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Asphalt Content, %:	AC	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Texas Department of Transportation   Request for Proposals – Addendum #1
Southern Gateway Project   10   Technical Provisions
December 19, 2016   Attachment 2-3

Sieve Analysis of Non-Surface Treatment Aggregates (DB-200-F)

Table Name: VALUE_DB200F **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Weight Retained Minusno14	cumulative_weight_retained_minusno14	decimal	(19, 8)		FALSE
Dry Weight After Washing	dry_weight_after_washing	decimal	(19, 8)		FALSE
Limit As Percent	limit_as_percent	nvarchar	100	{Passing, Retained}	FALSE
Original Dry Weight	original_dry_weight	decimal	(19, 8)		FALSE
Sieve Analysis Result 1	sieve_analysis_result1	nvarchar	100		FALSE
Sieve Analysis Result 2	sieve_analysis_result2	decimal	(19, 8)		FALSE
Sieve Analysis Result 3	sieve_analysis_result3	decimal	(19, 8)		FALSE
Sieve Analysis Result 4	sieve_analysis_result4	decimal	(19, 8)		FALSE
Sieving Loss	sieving_loss	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Total Weight	total_weight	decimal	(19, 8)		FALSE
Washing Loss	washing_loss	decimal	(19, 8)		FALSE

Table Name: VALUE_DB200F_SIEVE **Maximum Rows: 12**

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Passing	cumulative_pct_passing	decimal	(19, 8)		TRUE
Cumulative Percent Retained	cumulative_pct_retained	decimal	(19, 8)		FALSE
Cumulative Weight Retained	cumulative_weight_retained	decimal	(19, 8)		FALSE
Individual Weight Retained	individual_weight_retained	decimal	(19, 8)		FALSE
Lower Limit Grading	lower_limit_grading	decimal	(19, 8)		FALSE
Sieve Size	sieve_size	nvarchar	100	{2", 1-3/4", 1-1/2", 1-1/4", 1", 7/8", 3/4", 5/8", 1/2", 7/16", 3/8", 5/16", 1/4", No. 4, No. 6, No. 8, No. 10, No. 14, No. 16, No. 20, No. 30, No. 40, No. 50, No. 80, No. 100, No. 200 }	TRUE
Upper Limit Grading	upper_limit_grading	decimal	(19, 8)		FALSE
Within Grading Limits	within_grading_limits	bit			TRUE

Sand Equivalent (DB-203-F)

Table Name: VALUE_DB203F **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Average Sand Equivalent	average_sand_equivalent	decimal	(19, 8)		TRUE
Clay No.1 Reading	clay1_reading	decimal	(19, 8)		FALSE
Clay No.2 Reading	clay2_reading	decimal	(19, 8)		FALSE
Sand No.1 Calculated	sand1_calculated	decimal	(19, 8)		FALSE
Sand No.1 Reading	sand1_reading	decimal	(19, 8)		FALSE
Sand No.1 Reported	sand1_reported	decimal	(19, 8)		FALSE
Sand No.2 Calculated	sand2_calculated	decimal	(19, 8)		FALSE
Sand No.2 Reading	sand2_reading	decimal	(19, 8)		FALSE
Sand No.2 Reported	sand2_reported	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

QC/QA Test Data (DB-207-FPL)

Table Name: VALUE_DB207FPL **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
In Place Air Void, %	air_void	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

11

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Deleterious Material & Decantation For Coarse Aggr (DB-217-F)

Table Name: VALUE_DB217F **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Original Weight Retained	part1_orig_weight_retained	decimal	(19, 8)		FALSE
Percent Deterious Material	part1_pct_deleterious_material	decimal	(19, 8)		TRUE
Sieve Size	part1_sieve_size	nvarchar	100		FALSE
Weight Deleterious Material	part1_weight_deleterious_material	decimal	(19, 8)		FALSE
Dry Weight after Washing	part2_dry_weight_after_washing	decimal	(19, 8)		FALSE
Percent Loss By Decantation	part2_loss_by_decantation	decimal	(19, 8)		TRUE
Original Weight Retained	part2_orig_weight_retained	decimal	(19, 8)		FALSE
Sieve Size	part2_sieve_size	nvarchar	53		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Sieve Analysis for Fine & Coarse Aggregate (DB-401-A)

Table Name: VALUE_DB401A **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Equivalent Exceed 85	equivalent_exceed_85	bit			FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Total	total	decimal	(19, 8)		FALSE

Table Name: VALUE_DB401A _SIEVE **Maximum Rows: 8**

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Passing	cumulative_pct_passing	decimal	(19, 8)		FALSE
Cumulative Percent Retained	cumulative_pct_retained	decimal	(19, 8)		TRUE
Cumulative Weight Retained	cumulative_weight_retained	decimal	(19, 8)		FALSE
Individual Weight Retained	individual_weight_retained	decimal	(19, 8)		FALSE
Lower Spec Limit	lower_retained_spec_limit	decimal	(19, 8)		FALSE
Sieve Size	sieve_size	nvarchar	100		TRUE
Upper Spec Limit	upper_retained_spec_limit	decimal	(19, 8)		FALSE
Within Master Grading	within_master_grading	varchar	20		TRUE

Table Name: VALUE_DB402A **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Fineness Modulus	fineness_modulus	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	FALSE

Decantation Test For Concrete Aggregates (DB-406-A)

Table Name: VALUE_DB406A **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Dry Mass After Washing	dry_mass_after_washing	decimal	(19, 8)		FALSE
Mass of Pycnometer Containing Sample and Water To Fill After Washing	mass_of_pycnometer_after_washing	decimal	(19, 8)		FALSE
Mass of Pycnometer Containing Sample and Water To Fill Before Washing	mass_of_pycnometer_before_washing	decimal	(19, 8)		FALSE
Mass of Pycnometer Filled With Water at Approx. Same Temperature as above	mass_of_pycnometer_with_water	decimal	(19, 8)		FALSE
Original Dry Mass of Sample	original_dry_mass	decimal	(19, 8)		FALSE
% Loss	percent_loss_part1	decimal	(19, 8)		TRUE
Percent Loss	percent_loss_part2	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Test By:	test_by	nvarchar	100	{Part I - Lab Method, Part II - Field Method}	FALSE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested By - Part II	tested_by_part2	nvarchar	100	CVL	FALSE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Tested Date - Part II	tested_date_part2	datetime		MM/dd/yyyy	FALSE

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

12

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Organic Impurities in Fine Aggregate for Concrete (DB-408-A)

Table Name: VALUE_DB408A   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Color of the Supernatant Liquid	color_of_supernatant_liquid	nvarchar	100	{LIGHTER THAN STANDARD, EQUAL TO STANDARD, DARKER THAN STANDARD}	TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Deleterious Material (DB-413-A)

Table Name: VALUE_DB413A   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Clay	clay_value1	decimal	(19, 8)		FALSE
Clay Percentage	clay_value2	decimal	(19, 8)		TRUE
Friable	friable_value1	decimal	(19, 8)		FALSE
Friable Percentage	friable_value2	decimal	(19, 8)		TRUE
Laminated	laminated_value1	decimal	(19, 8)		FALSE
Laminated Percentage	laminated_value2	decimal	(19, 8)		TRUE
Other	other_value1	decimal	(19, 8)		FALSE
Othesr Percentage	other_value2	decimal	(19, 8)		FALSE
Deleterious Material Retained	percent_deleterious_material_retained	decimal	(19, 8)		TRUE
Shale	shale_value1	decimal	(19, 8)		FALSE
Shale Percentage	shale_value2	decimal	(19, 8)		TRUE
Sieve Size	sieve_size	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Total	total	decimal	(19, 8)		FALSE
Total Weight Sample	total_weight_sample	decimal	(19, 8)		FALSE

Field Form Concrete Sample - Cylinders (DB-418-A)

Table Name: VALUE_DB418A   **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Actual Water	actual_water	nvarchar	100		TRUE
Agg. Correction Factor	agg_correction_factor	nvarchar	100	CVL	TRUE
Agg. Size	agg_size	nvarchar	100	CVL	TRUE
Air Temperature	air_temperature	nvarchar	100		TRUE
Batch Size	batch_size	nvarchar	100		TRUE
Batch Time	batch_time	nvarchar	100		TRUE
Class of Concrete	class_of_concrete	nvarchar	100	CVL	TRUE
Concrete Temperature	concrete_temperature	nvarchar	100		TRUE
Corrected Air Content	corrected_air_content	decimal	(19, 8)		TRUE
Design Water	design_water	nvarchar	100		TRUE
Mix ID	mix_id	nvarchar	100		TRUE
Placement Air	placement_air	decimal	(19, 8)		TRUE
Placement Slump	placement_slump	decimal	(19, 8)	CVL	TRUE
Pump Air Loss	pump_air_loss	decimal	(19, 8)		TRUE
Pump Slump Loss	pump_slump_loss	decimal	(19, 8)		TRUE
Req. Strength	req_strength	nvarchar	100		TRUE
Sample Time	sample_time	nvarchar	100		TRUE
Average 7 Day Compressive Strength	seven_day_average	decimal	(19, 8)		FALSE
Slump	slump	decimal	(19, 8)		TRUE
Specimen Size	specimen_size	nvarchar	100	{4x8, 6x12}	TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Ticket #	ticket_number	nvarchar	100		TRUE
Total Water	total_water	nvarchar	100		TRUE
Truck #	truck_number	nvarchar	100		TRUE
Average 28 Day Compressive Strength	twenty_eight_day_average	decimal	(19, 8)		FALSE
Unit Wt.	unit_weight	nvarchar	100		TRUE
Water Added	water_added	nvarchar	100		TRUE

Table Name: VALUE_DB418A _AVERAGE   **Maximum Rows: 3**

Field Description	Field Name	Datatype	Length	Values	Required
Average Age	average_age	nvarchar	100		TRUE
Average Strength	average_strength	decimal	(19, 8)		TRUE

Table Name: VALUE_DB418A _SPECIMEN   **Maximum Rows: 7**

Field Description	Field Name	Datatype	Length	Values	Required
Age(days)	age	nvarchar	100	CVL	TRUE
Area	area	decimal	(19, 8)		TRUE
Load(lbs)	load_lbs	decimal	(19, 8)		TRUE
Pass/Fail	pass_fail	nvarchar	5		FALSE
Specimen	specimen	nvarchar	100		FALSE
Strength	strength	decimal	(19, 8)		TRUE
Test Date	test_date	smalldatetime		MM/dd/yyyy	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Type Fracture	type_fracture	varchar	50	{A, B, C, D, E}	TRUE

Determining Pavement Thickness By Direct Measurement (DB-423-A)

Table Name: VALUE_DB423A   **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Measure Unit	measure_unit	nvarchar	100	{Inches, Millimeters}	FALSE
Pavement Depth	pavement_depth	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB423A _LOCATION   **Maximum Rows: 1**

Field Description	Field Name	Datatype	Length	Values	Required
Average	average	decimal	(19, 8)		TRUE
Measurement 1	measurement_1	decimal	(19, 8)		FALSE
Measurement 2	measurement_2	decimal	(19, 8)		FALSE
Measurement 3	measurement_3	decimal	(19, 8)		FALSE
Measurement Identification / Location	measurement_id_location	nvarchar	100		FALSE

Texas Department of Transportation   Request for Proposals – Addendum #1
Southern Gateway Project   14   Technical Provisions
December 19, 2016   Attachment 2-3

Soil-Cement, Soil-Lime Testing (DB-120-E) ** INACTIVE **

Table Name: VALUE_DB120E   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Avg. Corrected Stress, psi:	avg_corrected_stress_psi	decimal	(19, 8)		FALSE
Percent Cement, (%)	percent_cement	decimal	(19, 8)		TRUE
Performed By DB-120-E:	performed_by	nvarchar	200		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Target Percent Cement, %:	target_percent_cement	decimal	(19, 8)		FALSE
Target Stress, psi:	target_stress_psi	decimal	(19, 8)		FALSE
Tested By	tested_by	nvarchar	200	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB120E_SPECIMEN   Maximum Rows: 3

Field Description	Field Name	Datatype	Length	Values	Required
Area, in.^2:	area	decimal	(19, 8)		FALSE
Avg. Corrected Stress, psi:	avg_corrected_stress	decimal	(19, 8)		FALSE
Avg. Cross Sectional Area, in^2:	avg_cross_section_area	decimal	(19, 8)		FALSE
Average Diameter, in.:	avg_diameter	decimal	(19, 8)		FALSE
Circumference, in.:	circumference	decimal	(19, 8)		FALSE
Corrected Stress, psi.:	corrected_stress	decimal	(19, 8)		FALSE
Dead Load, lbs.:	dead_load	decimal	(19, 8)		FALSE
Deformation at Max Load, in.	deformation_at_max_load	decimal	(19, 8)		FALSE
Height of Stone 1, in.	height_stone1	decimal	(19, 8)		FALSE
Height of Stone 2, in.	height_stone2	decimal	(19, 8)		FALSE
I-Strain, in./in.:	i_strain	decimal	(19, 8)		FALSE
Initial Height of Specimen, in.:	initial_height_specimen	decimal	(19, 8)		FALSE
Lateral Pressure, psi.:	lateral_pressure	decimal	(19, 8)		FALSE
Max. Load Reading, div.	max_load_reading	decimal	(19, 8)		FALSE
New Height of Specimen, in.:	new_height_specimen	decimal	(19, 8)		FALSE
% Strain , in./in.:	pct_strain	decimal	(19, 8)		FALSE
Percent Cement, (%)	percent_cement	decimal	(19, 8)		FALSE
Ring Factor, lbs./div	ring_factor	decimal	(19, 8)		FALSE
Specimen Number:	specimen_no	int			FALSE
Uncorr'd Stress, psi.:	uncorrected_stress	decimal	(19, 8)		FALSE

**Soil-Lime Testing: DB-121-E (DB-121-E) ** INACTIVE **

Table Name: VALUE_DB121E   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Corrected Strength, 00 psi	average_corrected_strength_0psi	decimal	(19, 8)		TRUE
Average Corrected Strength, 15 psi	average_corrected_strength_15psi	decimal	(19, 8)		FALSE
Classification	classification	nvarchar	100		FALSE
Cohesion, psi	cohesion_psi	decimal	(19, 8)		FALSE
Correlation Factor	correlation_factor	decimal	(19, 8)		FALSE
Grade, 00 psi	grade_0psi	nvarchar	100		FALSE
Grade, 15 psi	grade_15psi	nvarchar	100		FALSE
Internal Angle of Friction	internal_angle_friction	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB121E_SPECIMEN   Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Area, in.^2	area	decimal	(19, 8)		FALSE
Avg. Cross Sectional Area, in^2	avg_cross_sectional_area	decimal	(19, 8)		FALSE
Average Diameter, in.	avg_diameter	decimal	(19, 8)		FALSE
Corrected Stress, psi.	corrected_stress_psi	decimal	(19, 8)		FALSE
Dry Density of Specimen, pcf	dry_density_specimen_pcf	decimal	(19, 8)		FALSE
Final Weight of Stones	final_weight_stones	decimal	(19, 8)		FALSE
Height of Stone 1, in.	height_stone1	decimal	(19, 8)		FALSE
Height of Stone 2, in.	height_stone2	decimal	(19, 8)		FALSE
I-Strain, in./in.	i_strain	decimal	(19, 8)		FALSE
Initial Height of Specimen, in.	initial_height	decimal	(19, 8)		FALSE
Lateral Pressure, psi.	lateral_pressure_psi	decimal	(19, 8)		FALSE
New Height of Specimen, in.	new_height	decimal	(19, 8)		FALSE
Moisture of Specimen, %	pct_moisture_specimen	decimal	(19, 8)		FALSE
% Strain , in./in.	pct_strain	decimal	(19, 8)		FALSE
Uncorrected Stress, psi.	uncorrected_stress_psi	decimal	(19, 8)		FALSE
Weight of Specimen	weight_specimen	decimal	(19, 8)		FALSE
Weight of Stones and Specimen	weight_stones_specimen	decimal	(19, 8)		FALSE

Density of Asphalt Stabilized Base (DB-126-E) ** INACTIVE *

Table Name: VALUE_DB126E   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Percent Asphalt in Mix(max)	asphalt_pct_max	decimal	(19, 8)		FALSE
Percent Asphalt in Mix(min)	asphalt_pct_min	decimal	(19, 8)		FALSE
Broken Method	broken_method	nvarchar	20	{Fast Break, Slow Break}	FALSE
Date Broken(max)(max)	date_broken_max	smalldatetime		MM/dd/yyyy	FALSE
Date Broken(min)	date_broken_min	smalldatetime		MM/dd/yyyy	FALSE
Density of Specimen(max)	density_of_specimen_max	decimal	(19, 8)		FALSE
Density of Specimen(min)	density_of_specimen_min	decimal	(19, 8)		FALSE
Gauge Reading(max)	gague_reading_psi_max	decimal	(19, 8)		FALSE
Gauge Reading (min)	gague_reading_psi_min	decimal	(19, 8)		FALSE
Height of Specimen(max)	height_max	decimal	(19, 8)		FALSE
Height of Specimen(min)	height_min	decimal	(19, 8)		FALSE
Measured Weight(max)	measured_weight_max	decimal	(19, 8)		FALSE
Measured Weight(min)	measured_weight_min	decimal	(19, 8)		FALSE
Minimum Allowable Density	min_allowable_density	decimal	(19, 8)		FALSE
Minimum Percent Density	min_pct_density	decimal	(19, 8)		FALSE
Minimum Specimen Unconfined Compressive Strength	min_specimen_UCS	decimal	(19, 8)		FALSE
Mold Number(max)	mold_number_max	nvarchar	100		FALSE
Mold Number(min)	mold_number_min	nvarchar	100		FALSE
Date Molded(max)	molded_date_max	smalldatetime		MM/dd/yyyy	FALSE
Date Molded(min)	molded_date_min	smalldatetime		MM/dd/yyyy	FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Unconfined Compressive Strength (max)	UCS_max	nvarchar	100		FALSE
Unconfined Compressive Strength (min)	UCS_min	nvarchar	100		FALSE
Volume of Mold(max)	volume_of_mold_max	decimal	(19, 8)		FALSE
Volume of Mold(min)	volume_of_mold_min	decimal	(19, 8)		FALSE
Volume of Specimen(max)	volume_of_specimen_max	decimal	(19, 8)		FALSE
Volume of Specimen(min)	volume_of_specimen_min	decimal	(19, 8)		FALSE
Weight of Filters(max)	weight_of_filters_max	decimal	(19, 8)		FALSE
Weight of Filters(min)	weight_of_filters_min	decimal	(19, 8)		FALSE
Weight of Material(max)	weight_of_mat_max	decimal	(19, 8)		FALSE
Weight of Material(min)	weight_of_mat_min	decimal	(19, 8)		FALSE
Weight of Plates(max)	weight_of_plates_max	decimal	(19, 8)		FALSE
Weight of Plates(min)	weight_of_plates_min	decimal	(19, 8)		FALSE
Weight of Specimen(max)	weight_of_specimen_max	decimal	(19, 8)		FALSE
Weight of Specimen(min)	weight_of_specimen_min	decimal	(19, 8)		FALSE

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

17

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Sieve Analysis of Surface Treatment Aggregate (DB-200-ST) ** INACTIVE **

Table Name: VALUE_DB200ST   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Sphalt	asphalt_pct	decimal	(19, 8)		FALSE
Dry Weight After Washing	dry_weight_after_washing	decimal	(19, 8)		FALSE
Moisture	moisture_pct	decimal	(19, 8)		FALSE
Original Dry Weight	orig_dry_weight	decimal	(19, 8)		FALSE
Total	pan_weight	decimal	(19, 8)		FALSE
Percent Difference	percent_difference	decimal	(19, 8)		FALSE
Sieving Loss	sieving_loss	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Total Weight	total_weight	decimal	(19, 8)		FALSE
Type	type	nvarchar	100	{A, B, C, D, E, L, PA, PB, PC, PD, PE, PL}	FALSE
Washing Loss	washing_loss	decimal	(19, 8)		FALSE
Weight Difference	weight_difference	decimal	(19, 8)		FALSE
PrePan	weight_retained	decimal	(19, 8)		FALSE

Table Name: VALUE_DB200ST_SIEVE   Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Passing	cumulative_percent_passing	decimal	(19, 8)		FALSE
Lower Retained Limit	lower_retained_limit	decimal	(19, 8)		FALSE
Cumulative Percent Retained	percent_retained_cumulative	decimal	(19, 8)		FALSE
Individual Percent Retained	percent_retained_individual	decimal	(19, 8)		FALSE
Sieve Size	sieve_size	nvarchar	100		FALSE
Upper Retained Limit	upper_retained_limit	decimal	(19, 8)		FALSE
Cumulative Weight Retained	weight_retained_cumulative	decimal	(19, 8)		FALSE
Individual weight Retained	weight_retained_individual	decimal	(19, 8)		FALSE
Within Master Grading	within_master_grading	nvarchar	100		FALSE

Determining Flakiness Index (DB-224-F) ** INACTIVE **

Table Name: VALUE_DB224F   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Flakiness Index	flakiness_index	decimal	(19, 8)		TRUE
Number of Particles	num_particles_1	decimal	(19, 8)		FALSE
Number of Particles	num_particles_2	decimal	(19, 8)		FALSE
Number of Particles	num_particles_3	decimal	(19, 8)		FALSE
Number of Particles Passing for 1/4" slot	slot_1_4	decimal	(19, 8)		FALSE
Number of Particles Passing for 3/8" slot	slot_3_8	decimal	(19, 8)		FALSE
Number of Particles Passing for 5/32" slot	slot_5_32	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Total Particles	total_particles	decimal	(19, 8)		FALSE
Total Passing Particles	total_passing_particles	decimal	(19, 8)		FALSE

Texas Department of Transportation   Request for Proposals – Addendum #1
Southern Gateway Project   18   Technical Provisions
December 19, 2016   Attachment 2-3

Determining Draindown Characteristics in Bituminous Materials (DB-235-F) ** INACTIVE **

Table Name: VALUE_DB235F   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Percent of Draindown for Two Samples	avg_pct_draindown	decimal	(19, 8)		FALSE
Final Weight Plate	final_weight_plate_1	decimal	(19, 8)		FALSE
Final Weight Plate	final_weight_plate_2	decimal	(19, 8)		FALSE
Initial Sample Weight	init_sample_weight_1	decimal	(19, 8)		FALSE
Initial Sample Weight	init_sample_weight_2	decimal	(19, 8)		FALSE
Initial Weight Plate	init_weight_plate_1	decimal	(19, 8)		FALSE
Initial Weight Plate	init_weight_plate_2	decimal	(19, 8)		FALSE
Percent Of Draindown	pct_draindown_1	decimal	(19, 8)		FALSE
Percent Of Draindown	pct_draindown_2	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Resistance To Degradation By Abrasion & Impact in Los Angeles Machine (DB-410-A) ** INACTIVE **

Table Name: VALUE_DB410A   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Final Weight	final_weight	decimal	(19, 8)		FALSE
Initial Weight	initial_weight	decimal	(19, 8)		FALSE
La Abrasion Type	la_abrasion_type	nvarchar	100	CVL	FALSE
La Abrasion Value	la_abrasion_value	decimal	(19, 8)		FALSE
Loss of Weight	loss_of_weight	decimal	(19, 8)		FALSE
Number of Spheres	number_of_spheres	int			FALSE
Percent Loss	percent_loss	decimal	(19, 8)		FALSE
Sieve	sieve	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Weight of Charge	weight_of_charge	nvarchar	100		FALSE

Table Name: VALUE_DB410A _SAMPLE   Maximum Rows: 4

Field Description	Field Name	Datatype	Length	Values	Required
Actual Weight	actual_weight	decimal	(19, 8)		FALSE
Passing Sieve	passing_sieve	nvarchar	100		FALSE
Projected Weight	projected_weight	nvarchar	100		FALSE
Retained Sieve	retained_sieve	nvarchar	100		FALSE
Within Range	within_range	bit			FALSE

Magnesium Sulfate Soundness (DB-411-M) ** INACTIVE **

Table Name: VALUE_DB411M   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Normalized Individual Percent Retained Total	ni_pct_retained_total	decimal	(19, 8)		FALSE
% Loss Total	pct_loss_total	decimal	(19, 8)		FALSE
Soundness Loss	soundness_loss	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Weighted Average % Loss Total	weighted_avg_pct_loss_total	decimal	(19, 8)		FALSE

Table Name: VALUE_DB411M_CYCLE   Maximum Rows: 5

Field Description	Field Name	Datatype	Length	Values	Required
Cycle	cycle	nvarchar	5		FALSE
In Oven Date	in_oven_date	smalldatetime		MM/dd/yyyy	FALSE
In Oven Time In	in_oven_time_in	smalldatetime		MM/dd/yyyy	FALSE
In Oven Time Out	in_oven_time_out	smalldatetime		MM/dd/yyyy	FALSE
In Solution Date	in_solution_date	smalldatetime		MM/dd/yyyy	FALSE
In Solution Time In	in_solution_time_in	smalldatetime		MM/dd/yyyy	FALSE
In Solution Time Out	in_solution_time_out	smalldatetime		MM/dd/yyyy	FALSE
Out Oven Date	out_oven_date	smalldatetime		MM/dd/yyyy	FALSE
Out Oven Time In	out_oven_time_in	smalldatetime		MM/dd/yyyy	FALSE
Out Oven Time Out	out_oven_time_out	smalldatetime		MM/dd/yyyy	FALSE
Out Solution Date	out_solution_date	smalldatetime		MM/dd/yyyy	FALSE
Out Solution Time In	out_solution_time_in	smalldatetime		MM/dd/yyyy	FALSE
Out Solution Time Out	out_solution_time_out	smalldatetime		MM/dd/yyyy	FALSE
Remarks	remarks	nvarchar	250		FALSE

Table Name: VALUE_DB411M_PARTICLE   Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Final Weight (g)	final_weight	decimal	(19, 8)		FALSE
Initial Weight (g)	initial_weight	decimal	(19, 8)		FALSE
Loss of Weight (g)	loss_of_weight	decimal	(19, 8)		FALSE
Normalized Individual Percent Retained	ni_pct_retained	decimal	(19, 8)		FALSE
% Loss	pct_loss	decimal	(19, 8)		FALSE
Particle Size Range Passing	size_range_passing	nvarchar	100		FALSE
Particle Size Range Retained	size_range_retained	nvarchar	100		FALSE
Weighted Average % Loss	weighted_avg_pct_loss	decimal	(19, 8)		FALSE

Testing Of Drilled Cores Of Portland Cement Concrete (DB-424-A, Part III) ** INACTIVE *

Table Name: VALUE_DB424A   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested By - Part II	tested_by_part2	nvarchar	100	CVL	FALSE
Tested By - Part III	tested_by_part3	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Tested Date - Part II	tested_date_part2	datetime		MM/dd/yyyy	FALSE
Tested Date - Part III	tested_date_part3	datetime		MM/dd/yyyy	FALSE

Table Name: VALUE_DB424A _CORE   Maximum Rows: 4

Field Description	Field Name	Datatype	Length	Values	Required
Age (Days)	age	int			FALSE
Compressive Strength	compressive_strength1	decimal	(19, 8)		FALSE
Compressive Strength	compressive_strength2	decimal	(19, 8)		FALSE
Diameter of Core (inches)	core_diameter1	decimal	(19, 8)		FALSE
Diameter of Core (inches)	core_diameter2	decimal	(19, 8)		FALSE
Length of Core (inches)	core_length1	decimal	(19, 8)		FALSE
Length of Core (inches)	core_length2	decimal	(19, 8)		FALSE
Core Number	core_number1	nvarchar	100		FALSE
Core Number	core_number2	nvarchar	100		FALSE
Failure Type	failure_type1	nvarchar	100		FALSE
Failure Type	failure_type2	nvarchar	100		FALSE
Max Load (Lbs)	max_load1	decimal	(19, 8)		FALSE
Max Load (Lbs)	max_load2	decimal	(19, 8)		FALSE

Texture Depth By Sand Patch Method (DB-436-A) ** INACTIVE *

Table Name: VALUE_DB436A   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Diameter	avg_diameter	decimal	(19, 8)		FALSE
Diameter 1	measurement_1	decimal	(19, 8)		FALSE
Diameter 2	measurement_2	decimal	(19, 8)		FALSE
Diameter 3	measurement_3	decimal	(19, 8)		FALSE
Diameter 4	measurement_4	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	varchar	200	CVL	FALSE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	FALSE
Thickness	thickness	decimal	(19, 8)		FALSE
Volume of Cylinder	vol_cylinder	decimal	(19, 8)		FALSE

Concrete Sample - Beams (DB-448-A) ** INACTIVE **

Table Name: VALUE_DB448A   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Actual Water	act_water	decimal	(19, 8)		FALSE
Added Gal	added_gal	decimal	(19, 8)		FALSE
Agg. Correction Factor	agg_corr_factor	decimal	(19, 8)	CVL	FALSE
Agg Size	agg_size	nvarchar	100	CVL	FALSE
Air Temperature	air_temp	decimal	(19, 8)		FALSE
Batch Size	batch_size	decimal	(19, 8)		FALSE
Batch Time	batch_time	smalldatetime		MM/dd/yyyy	FALSE
Class of Concrete	class_concrete	nvarchar	100	CVL	FALSE
Concrete Temperature	concrete_temp	decimal	(19, 8)		FALSE
Corrected Air Content	corrected_air_content	decimal	(19, 8)	CVL	FALSE
Design Water	des_water	decimal	(19, 8)		FALSE
Mix ID	mix_id	nvarchar	100	CVL	FALSE
Qty Load	qty_load	decimal	(19, 8)		FALSE
Req. Strength, psi	req_strength	decimal	(19, 8)		FALSE
Sample Time	sample_time	smalldatetime		MM/dd/yyyy	FALSE
Slump	slump	decimal	(19, 8)	CVL	FALSE
Specimen Dimensions	spec_dimensions	nvarchar	100	CVL	FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Ticket Number	ticket_num	decimal	(19, 8)		FALSE
Total Water	total_water	decimal	(19, 8)		FALSE
Truck Number	truck_num	decimal	(19, 8)		FALSE
Unit Weight	unit_weight	decimal	(19, 8)		FALSE

Table Name: VALUE_DB448A _SPECIMEN   Maximum Rows: 6

Field Description	Field Name	Datatype	Length	Values	Required
Age	age	nvarchar	100	CVL	FALSE
Avg Depth	avg_depth	decimal	(19, 8)		FALSE
Avg. Width	avg_width	decimal	(19, 8)		FALSE
Correction Factor	corr_factor	decimal	(19, 8)		FALSE
Max Load, lbs	max_load_psi	decimal	(19, 8)		FALSE
Mod Rupture	mod_rupture	decimal	(19, 8)		FALSE
Pass Fail	pass_fail	nvarchar	100		FALSE
Specimen	specimen	nvarchar	100		FALSE
Test Date	test_date	smalldatetime		MM/dd/yyyy	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE

Coarse Aggregate Angularity By Fractured Faces Count (DB-460-A) ** INACTIVE **

Table Name: VALUE_DB460A   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Number of Particles w/ one or no FF	number_of_particles_with_one	int			FALSE
Number of Particles w/ 2 or more FF	number_of_particles_with_two	int			FALSE
Number of Questionable Particles	number_of_questionable_particles	int			FALSE
Percent Crushed Particles	percent_crushed_particles	decimal	(19, 8)		FALSE
Percent Crushed Particles	percent_crushed_particles_result	decimal	(19, 8)		TRUE
Sieve Size	sieve_size	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Total Number of Particles	total_number_of_particles	int			FALSE

Effect of Water On Bituminous Paving Mixtures (DB-530-C) ** INACTIVE **

Table Name: VALUE_DB530C   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Estimated Percent of Stripping	est_pct_stripping	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE

Determining Chloride and Sulfate Content in Soils (DB-620-J) ** INACTIVE **

Table Name: VALUE_DB620J   Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Chloride (CL) (PPM)	chloride_ppm	decimal	(19, 8)		FALSE
Crucible + Residue Weight	crucible_residue_weight	decimal	(19, 8)		FALSE
Crucible Weight	crucible_weight	decimal	(19, 8)		FALSE
Ending	ending	decimal	(19, 8)		FALSE
Normality of AgNO3	normality_of_agno3	decimal	(19, 8)		FALSE
Residue Weight	residue_weight	decimal	(19, 8)		FALSE
Sample Weight	sample_weight_chloride	decimal	(19, 8)		FALSE
Sample Weight	sample_weight_sulfate	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Starting	starting	decimal	(19, 8)		FALSE
Sulfate (SO4) (PPM)	sulfate_ppm	decimal	(19, 8)		FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	nvarchar	100		FALSE
Total	total	decimal	(19, 8)		FALSE

<u>CQAF Sample</u>

File: CQAFSample.xml
File Type: XML (Extensible Markup Language). The de facto standard for transferring data.
File Description: An example of an electronic submission that can be read into I2MS. The example provided was used for a previous project and passed the verification process for that particular project's inputs. This file can be submitted to I2MS via a web service run on I2MS using SOAP (Simple Object Access Protocol), which is a standard programming protocol by which software developers send data between systems.

CQAF Sample

```xml
<?xml version='1.0' encoding='UTF-8'?>
<form name="DB-115-1" version_no="1.0" key="0020905270501151" date="2009-05-27T00:00:00" display_key="00209052705">
        <owner_name value="CQAF" />
        <security username="CQAFDataXfer" password="as9-3958$h@" />
        <header>
                <column name="sample_id" value="00209052705" />
                <column name="sampled_date" value="5/27/2009 12:00:00 AM" />
                <column name="sample_type" value="Random-Independent" />
                <column name="split_sample_id" />
                <column name="report_type" value="Original" />
                <column name="section" value="5.1" />
                <column name="sampled_by" value="Al Jones" />
                <column name="spec_year" value="2004" />
                <column name="material" value="14" />
                <column name="spec_item" value="247" />
                <column name="supplier" value="Pit" />
                <column name="special_provision" />
                <column name="structure_number" />
                <column name="grade" value="1" />
                <column name="sample_location" />
                <column name="feature" value="Mainlane" />
                <column name="course_lift" value="2" />
                <column name="station" value="342+49" />
                <column name="dist_from_cl" value="5' LT" />
                <column name="misc" />
                <column name="roadway" value="Loop 375" />
                <column name="direction" value="NB" />
        </header>
        <test name="DB-115-1">  <!-- This can be the same value as the form name. -->
                <table name="VALUE_DB115_1">
                        <row>
                                <column name="determined_by_test_method" value="DB-113-E" />

                                <column name="max_dry_density_pcf" value="132.5" />
                                <column name="optimum_moisture_content_pct" value="7.7" />
                                <column name="density_standard" value="4200" />
                                <column name="moisture_standard" value="420" />
                                <column name="density_count" value="1045" />
                                <column name="moisture_count" value="231" />
                                <column name="probe_depth" value="10" />
                                <column name="wet_density_pcf" value="140.5" />
                                <column name="dry_density_pcf" value="133.5" />
                                <column name="moisture_content_pct" value="5.2" />
                                <column name="gauge_no" value="3242" />
                                <column name="moisture_content_pct_pass_fail" />
                                <column name="density_pct" value="100.7" />
                                <column name="density_pct_pass_fail" />
```

CQAF Sample

```
                                    <column name="density_specification_req_max" />
                                    <column name="moisture_specification_req_max" />
                                    <column name="soil_desc" />
                                    <column name="density_specification_req_min" value="100" />
                                    <column name="moisture_specification_req_min" value="5.2" />
                                    <column name="tested_by" value="Al Jones" />
                                    <column name="tested_date" value="5/27/2009 12:00:00 AM" />
                                    <column name="stamp_code" value="1" />
                        </row>
                </table>
        </test>

        <footer>
                <column name="remarks" />
                <column name="reviewed_by" />
                <column name="completed_date" />
                <column name="authorized_by" />
                <column name="authorized_date" />
        </footer>
 </form>
```

Web Form Validation

File: WebFormValidation.xsd
File Type: XSD (XML Schema Document). Describes a schema used for an XML document.
File Description: Describes elements, annotations, and documentation used in the aforementioned XML. XSD files are the standard used to describe XML file formats and are often used to assist in developing XML files with added features such as intellisense (which is an added type ahead feature used by developers).

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

27

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Web Form Validation

```xml
<?xml version="1.0" encoding="utf-8"?>
<xs:schema id="FormValidation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
   <xs:element name="form">
     <xs:complexType>
       <xs:sequence>
         <xs:choice minOccurs="1" maxOccurs="1" id="owner">
             <xs:annotation>
                 <xs:documentation>
                     The owner of the record must be supplied to upload successfully. The user login provided in the security element
                     must have permission to add a record for the owner as part of the validation process.

                     The record owner can be identified by a variety of properties.  In general, when submitting XML from an external source,
                     the owner_name attribute is the preferred method.
                 </xs:documentation>
             </xs:annotation>
           <xs:element name="owner_name" minOccurs="1" maxOccurs="1">
             <xs:annotation>
                 <xs:documentation>
                     The name of the owner of this record.  For example, "OVF" or "CQAF".
                 </xs:documentation>
             </xs:annotation>
             <xs:complexType>
                <xs:attribute name="value" type="xs:string" use="required" />
             </xs:complexType>
           </xs:element>
           <xs:element name="owner_guid" minOccurs="1" maxOccurs="1">
             <xs:complexType>
                <xs:attribute name="value" type="xs:string" use="required" />
             </xs:complexType>
           </xs:element>
           <xs:element name="owner_id" minOccurs="1" maxOccurs="1">
             <xs:complexType>
                <xs:attribute name="value" type="xs:int" use="required" />
             </xs:complexType>
           </xs:element>
         </xs:choice>
         <xs:element name="security" minOccurs="1" maxOccurs="1">
             <xs:annotation>
                 <xs:documentation>
                     User login credentials must be provided to upload a record. Supply a username and password.
                 </xs:documentation>
             </xs:annotation>
             <xs:complexType>
```

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

28

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Web Form Validation

```
<xs:attribute name="user_guid" type="xs:string" />
<xs:attribute name="username" type="xs:string" />
<xs:attribute name="password" type="xs:string" />
    </xs:complexType>
</xs:element>
<xs:element name="header" minOccurs="0" maxOccurs="1">
    <xs:annotation>
        <xs:documentation>
            The collection of header column values common to multiple forms.
        </xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:sequence>
        <xs:element name="column" type="ColumnType" maxOccurs="unbounded" />
      </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="test" minOccurs="0" maxOccurs="unbounded">
    <xs:annotation>
        <xs:documentation>
            Container element for Body Table elements, which contain the
data specific to the form type being uploaded.
            This element can be used to logically group the body tables by the
test method they represent, but it is not required to do so.
            All body table elements can be placed under one test element,
and the test name attribute is inconsequential.
        </xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:sequence>
        <xs:element name="table" minOccurs="1" maxOccurs="unbounded">
            <xs:annotation>
                <xs:documentation>
                    A collection of rows of form data for a specific table.

                    The number of rows permitted for each table depends on the
form and table name. For testing forms, the number of rows allowed for each table can be found
in the I2MS Test Form Fields report.
                </xs:documentation>
            </xs:annotation>
            <xs:complexType>
              <xs:sequence>
                <xs:element name="row" minOccurs="0" maxOccurs="unbounded">
                    <xs:annotation>
                        <xs:documentation>
                            A collection of body column values.
                        </xs:documentation>
                    </xs:annotation>
```

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

29

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Web Form Validation

```
                                <xs:complexType>
                                <xs:sequence>
                                    <xs:element          name="column"          type="ColumnType"
minOccurs="0" maxOccurs="unbounded" />
                                </xs:sequence>
                            </xs:complexType>
                        </xs:element>
                    </xs:sequence>
                    <xs:attribute name="name" type="xs:string" use="required">
                        <xs:annotation>
                            <xs:documentation>
                                The name of the body table.

                                For testing forms, the list of supported table names
can be found in the I2MS Test Form Fields report.
                            </xs:documentation>
                        </xs:annotation>
                    </xs:attribute>
                </xs:complexType>
            </xs:element>
        </xs:sequence>
        <xs:attribute name="name" type="xs:string" use="required" />
    </xs:complexType>
</xs:element>
<xs:element name="footer" minOccurs="0" maxOccurs="1">
    <xs:annotation>
        <xs:documentation>
            The collection of footer column values common to multiple forms.
        </xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element          name="column"          type="ColumnType"          minOccurs="0"
maxOccurs="unbounded" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
</xs:sequence>
<xs:attribute name="name" form="unqualified" type="xs:string" use="required" >
    <xs:annotation>
        <xs:documentation>
            The  short  name  of  the  I2MS  form  for  which  data  is  being
submitted.  This value determines the data columns that are supported and required
            for the header, body, and footer elements.

            For testing forms, the list of supported form names can be found
in the I2MS Test Form Fields report.
```

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

30

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

<u>Web Form Validation</u>

The form name is the value in parentheses for each subheading under the Body Fields section.
```
                </xs:documentation>
            </xs:annotation>
        </xs:attribute>
        <xs:attribute name="key" form="unqualified" use="required">
            <xs:annotation>
                <xs:documentation>
                    A value representing the test record in I2MS.  This value is
required to be unique for each owner (OVF/CQAF).
                    The same key is used for all revisions of the record.  To add a
new revision, supply the same key with the new form data and a
                    new value for the version_no attribute.
                </xs:documentation>
            </xs:annotation>
            <xs:simpleType>
                <xs:restriction base="xs:string">
                    <xs:maxLength value="100"></xs:maxLength>
                </xs:restriction>
            </xs:simpleType>
        </xs:attribute>
        <xs:attribute name="version_no" use="required">
            <xs:annotation>
                <xs:documentation>
                    The version number of this revision within the series of revisions
identified by the key attribute.
                    The revision in the series with the greatest version number will be
considered the latest revision regardless of the order in which revisions were submitted to I2MS.
                    Submitting a record with the same key and version number as
another record in the system is an error.
                </xs:documentation>
            </xs:annotation>
            <xs:simpleType>
                <xs:restriction base="xs:decimal">
                    <xs:totalDigits value="19" />
                    <xs:fractionDigits value="9" />
                </xs:restriction>
            </xs:simpleType>
        </xs:attribute>
        <xs:attribute name="display_key">
            <xs:annotation>
                <xs:documentation>
                    The value displayed to users as the ID value of the record (for
example, Sample ID for testing forms).
                    This value is not required to be unique.
                </xs:documentation>
            </xs:annotation>
            <xs:simpleType>
                <xs:restriction base="xs:string">
```

Web Form Validation

```
                              <xs:maxLength value="100"></xs:maxLength>
                      </xs:restriction>
              </xs:simpleType>
      </xs:attribute>
      <xs:attribute name="version_key">
              <xs:annotation>
                      <xs:documentation>
                              An optional identifier for this revision.  For example, when
submitting XML to I2MS from an external source,
                              this could be the Version ID of the record in the external system.
                      </xs:documentation>
              </xs:annotation>
              <xs:simpleType>
                      <xs:restriction base="xs:string">
                              <xs:maxLength value="100"></xs:maxLength>
                      </xs:restriction>
              </xs:simpleType>
      </xs:attribute>
      <xs:attribute name="action_name" type="xs:string">
              <xs:annotation>
                      <xs:documentation>
                              The name of a custom workflow action to execute when
submitting the form.  The user login submitting the form
                              must have permissions in I2MS for the action and validation rules
must pass before allowing the action.

                              When submitting XML to I2MS from an external source, this
attribute should generally be omitted unless other
                              instructions have been provided.
                      </xs:documentation>
              </xs:annotation>
      </xs:attribute>
      <xs:attribute name="date" type="xs:dateTime">
              <xs:annotation>
                      <xs:documentation>
                              The value displayed to users as the date of the record (for
example, Sampled Date for testing forms).
                      </xs:documentation>
              </xs:annotation>
      </xs:attribute>
    </xs:complexType>
  </xs:element>

      <xs:complexType name="ColumnType">
      <xs:attribute name="name" type="xs:string" use="required">
              <xs:annotation>
                      <xs:documentation>
                              The name of the column for which a value is being provided.
```

<u>Web Form Validation</u>

```
                    For testing forms, the list of supported data columns can be found
in the I2MS Test Form Fields report.
                    </xs:documentation>
                </xs:annotation>
            </xs:attribute>
        <xs:attribute name="value" type="xs:string" use="optional">
            <xs:annotation>
                <xs:documentation>
                        The value of the column.
                </xs:documentation>
            </xs:annotation>
        </xs:attribute>
        </xs:complexType>

</xs:schema>
```

Form Submission Service

File: FormSubmissionService.wsdl
File Type: WSDL (Web Services Description Language). Describes a web service and its respective protocols in XML format.
File Description: Describes the web service used by I2MS for submitting data electronically for the purposes of Validation (i.e. Verification) and Submission. The I2MS system takes in data electronically via a web service (often via the SOAP protocol), for the purposes of verifying or submitting a test (submitted in XML format).

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

34

Request for Proposals – Addendum #1
Technical Provisions
Attachment 2-3

Form Submission Service

```xml
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions                                    xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"          xmlns:tns="http://tempuri.org/"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
targetNamespace="http://tempuri.org/" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
   <s:schema elementFormDefault="qualified" targetNamespace="http://tempuri.org/">
    <s:element name="SubmitForm">
     <s:complexType>
      <s:sequence>
       <s:element minOccurs="0" maxOccurs="1" name="xmlForm" type="s:string" />
      </s:sequence>
     </s:complexType>
    </s:element>
    <s:element name="SubmitFormResponse">
     <s:complexType>
      <s:sequence>
       <s:element minOccurs="1" maxOccurs="1" name="SubmitFormResult" type="s:int" />
      </s:sequence>
     </s:complexType>
    </s:element>
    <s:element name="ValidateForm">
     <s:complexType>
      <s:sequence>
       <s:element minOccurs="0" maxOccurs="1" name="xmlForm" type="s:string" />
      </s:sequence>
     </s:complexType>
    </s:element>
    <s:element name="ValidateFormResponse">
     <s:complexType>
      <s:sequence>
       <s:element minOccurs="0" maxOccurs="1" name="ValidateFormResult" type="s:string" />
      </s:sequence>
     </s:complexType>
    </s:element>
   </s:schema>
  </wsdl:types>
  <wsdl:message name="SubmitFormSoapIn">
   <wsdl:part name="parameters" element="tns:SubmitForm" />
  </wsdl:message>
  <wsdl:message name="SubmitFormSoapOut">
   <wsdl:part name="parameters" element="tns:SubmitFormResponse" />
  </wsdl:message>
```

Form Submission Service

```xml
<wsdl:message name="ValidateFormSoapIn">
  <wsdl:part name="parameters" element="tns:ValidateForm" />
</wsdl:message>
<wsdl:message name="ValidateFormSoapOut">
  <wsdl:part name="parameters" element="tns:ValidateFormResponse" />
</wsdl:message>
<wsdl:portType name="FormSubmissionServiceSoap">
  <wsdl:operation name="SubmitForm">
    <wsdl:input message="tns:SubmitFormSoapIn" />
    <wsdl:output message="tns:SubmitFormSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="ValidateForm">
    <wsdl:input message="tns:ValidateFormSoapIn" />
    <wsdl:output message="tns:ValidateFormSoapOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding                                    name="FormSubmissionServiceSoap"
type="tns:FormSubmissionServiceSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="SubmitForm">
    <soap:operation soapAction="http://tempuri.org/SubmitForm" style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="ValidateForm">
    <soap:operation soapAction="http://tempuri.org/ValidateForm" style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding                                    name="FormSubmissionServiceSoap12"
type="tns:FormSubmissionServiceSoap">
  <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="SubmitForm">
    <soap12:operation soapAction="http://tempuri.org/SubmitForm" style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
```

Form Submission Service

```
   </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="ValidateForm">
   <soap12:operation soapAction="http://tempuri.org/ValidateForm" style="document" />
   <wsdl:input>
    <soap12:body use="literal" />
   </wsdl:input>
   <wsdl:output>
    <soap12:body use="literal" />
   </wsdl:output>
  </wsdl:operation>
 </wsdl:binding>
 <wsdl:service name="FormSubmissionService">
  <wsdl:port                                        name="FormSubmissionServiceSoap"
binding="tns:FormSubmissionServiceSoap">
   <soap:address                                              location="https://i2ms-
sh130.txdot.gov/i2ms/i2ms/formsubmissionservice.asmx" />
  </wsdl:port>
  <wsdl:port                                      name="FormSubmissionServiceSoap12"
binding="tns:FormSubmissionServiceSoap12">
   <soap12:address                                            location="https://i2ms-
sh130.txdot.gov/i2ms/i2ms/formsubmissionservice.asmx" />
  </wsdl:port>
 </wsdl:service>
</wsdl:definitions>
```

Texas Department of Transportation

Technical Provisions

for

Southern Gateway

Design-Build Project

Attachment 2-4

Minimum Construction Hold Points

The minimum milestones at which construction QA hold points shall be established shall include the following:

i. **Environmental Mitigation Measures**
   a. Prior to crossing any stream, dewatering, diverting watercourses, or building cofferdams
   b. Before beginning construction for conformance with the Storm Water Pollution Prevention Plan (SWPPP) and NPDES permit
   c. Bi-weekly and after each rainfall event of one-half (½) inch or more, for monitoring and maintaining temporary erosion and pollution control devices

ii. **Embankments**
   a. One per shift per crew for drainage and utility installation with QA pre-backfill inspection documentation for all associated work provided at the hold point
   b. After all clearing, grubbing, and excavation, prior to embankment placement
   c. Before beginning borrow pit excavation for permissions and materials testing
   d. Per specifications for lift requirements (applicable to all embankments, including walls)
   e. Prior to removal of surcharge
   f. Prior to placing embankment or MSE backfill on ground improvements

iii. **Drainage**
   a. Before placing drainage pipe for bedding and pipe conditions
   b. After pipe placement and bedding compaction and before beginning backfill
   c. After backfill for roundness of pipe and other defects
   d. Before opening for structure grouting and pipe and structure cleanliness

iv. **Structures**
   Bridges
   a. At completion of bridge embankment settlement and before start of bridge foundation pile driving
   b. At QA approval of pile-driving submittals (including design calculations, wave analysis, and hammer specification)
   c. After completion of pile driving at each structure support (pile group), including pile-driving results and records
   d. After excavation for drilled shafts and spread footings
   e. Before sonic logging drilled shafts
   f. Before beginning drilled shaft remediation, if needed
   g. Before placement of reinforced concrete in superstructure and substructure elements, including pre-drilled piling
   h. Before and after construction of MSE fill system behind abutments
   i. After removal of unsound bridge deck concrete from existing bridges
   j. Before and after structural steel erection.
   k. Before allowing traffic below erected structural steel girders or concrete beams
   l. Before and after post-tensioning and grouting operations
   m. Before backfilling bridge components
   n. Before placement of reinforcing steel above permanent steel stay-in-place deck forms and above partial depth precast concrete deck panels
   o. Before filling full-depth concrete deck panels grout pockets
   Walls
   p. Before placement of leveling pad for any retaining wall system
   q. After placement of every 10 feet (measured vertically) of MSE wall panels or blocks
   r. Before placement of reinforced concrete

s. After rebar placement but before final form placement for cast-in-place retaining walls

t. Before backfilling at any type of retaining wall system

u. Before and after post-tensioning and grouting operations for tie-back anchors and soil nails

Drainage Box Structures

v. After excavation for drainage box structures

w. Before placement of reinforced concrete for drainage box structures;

x. After rebar placement but before final form placement for drainage box structures taller than 6 feet

y. Before backfilling drainage box structures

Sign, Signal, Lighting and ITS Support Structures

z. After installation of foundations for sign, signal, lighting, and ITS support structures

Temporary Structures

aa. Prior to allowing traffic on, below, above, or adjacent to temporary structures, shoring, or bracing

v.   Surfacing, Paving, and Concrete

a. After batch plants are set up, for calibration

b. Before placement of each course above subgrade on permanent roadway components (treated base, granular base, etc.)

c. Before placement of each lift of asphalt or PCC paving on permanent roadway components

d. Before any placement of concrete

vi.   Traffic Devices and Management of Traffic

a. Before opening to traffic

b. Before implementation of a full or partial closure on any roadway

c. Before changing the traffic configuration or alignment on any roadway

vii.   Lighting

a. Before installation of High Mast light tower poles

b. Before installation of lighting systems to any structural element

Texas Department of Transportation

Technical Provisions

for

Southern Gateway

Design-Build Project

Attachment 6-1

Utility Adjustment Forms

Utility Installation Request

PERMIT NUMBER	
GLOBAL POSITIONING SYSTEM COORDINATES **(GPS)** NORTH AMERICAN DATUM 1983, (1993 ADJUSTMENT) IN DECIMAL DEGREES(DD)	

	LATITUDE (DD)	LONGITUDE (DD)
BEGIN		
END		

To the Texas Transportation Commission

c/o District Engineer, Texas Department of Transportation   Date: _____

_____ , Texas

Formal notice is hereby given that _____

proposes to place a _____

line within the right of way of _____ , RM _____ , Displ. _____ , to RM _____ , Displ. _____ , in .

_____ County Texas, MNT Sec. No. _____ as follows: (give location, length, general design, etc. Use

additional sheet as needed)

_____

_____

_____

We will construct and maintain the line on the highway right of way as shown on the attached drawing and in accordance with the rules, regulations and policies of the Texas Department of Transportation (TxDOT), and all governing laws, including, but not limited to, the "Texas Engineering Practice Act," "Federal Clean Water Act," the "National Endangered Species Act," "Americans with Disabilities Act," and the "Federal Historic Preservation Act." Upon request by TxDOT at any time, we will submit to TxDOT proof of compliance with all governing laws, rules and regulations before commencement of construction. Plans shall include the design, proposed location, vertical elevations, and horizontal alignments of the facility based on the department's survey datum, the relationship to existing highway facilities and the right of way line, traffic safety and access procedures, and location of existing utilities that may be affected by the proposed utility facility. The location and description of the proposed line and appurtenances is more fully shown by a complete set of drawings attached to this Utility Installation Request (Request). We will give plans to TxDOT for each future proposed modification or expansion to our facility and TxDOT will have 30 days to review and approve the plans prior to commencement of the work. A new Request may be required as a condition of approval. Our organization will use Best Management Practices to minimize erosion and sedimentation resulting from the proposed installation, and we will revegetate the project area as indicated under "Revegetation Special Provisions." We will also ensure that traffic control measures complying with applicable portions of the Texas Manual of Uniform Traffic Control Devices will be installed and maintained for the duration of this installation.

When installing, modifying or maintaining our utility on controlled access facilities, we shall conform to the Texas Transportation Code, Title 6 Roadways, Chapter 203, Subchapter C, Control of Access, §203.031 (http://www.statutes. legis.state.tx.us/). We shall limit access for servicing this installation to access via (a) frontage roads where provided, (b) nearby or adjacent public roads or streets, (c) trails along or near the highway right of way lines, connecting only to an intersecting road; from any one or all of which entry may be made to the outer portion of the highway right of way for normal service and maintenance operations. Our rights of access to the through traffic roadways and ramps shall be subject to the same rules and regulations that apply to the general public.

It is expressly understood that TxDOT does not purport hereby to grant any right, claim, title or easement in or upon highway right of way. TxDOT may require us to relocate this line, subject to the provisions of governing laws, by giving us at least 30 days written notice. We understand a new Request will be required for the relocation. We will notify TxDOT prior to commencement of any operation which requires pruning of trees so that TxDOT may provide specifications to govern performance of work, including trimming, topping, tree balance, type of cuts, painting cuts and

clean up. We understand that these specifications are intended to preserve TxDOT's considerable investment in highway beautification plantings and by reducing damage due to trimming and to protect known endangered species.

Our installation shall not damage any part of the roadway structure or associated appurtenances. We will make adequate provisions to cause minimum inconveniences to the traveling public and adjacent property owners. We will not open-cut driveways or intersecting roadways without specific written permission from the owner.

Following approval, we will begin construction on or after

_____

Month / Day / Year

We understand TxDOT may place additional provisions and requirements as listed below, based upon, but not limited to, the type of utility being installed, local site conditions, soil types and traffic.

Additional Provisions and Requirements (for TxDOT input only)
• **General Special Provisions:**
☒ Are attached.
☐ Are not attached.
• **As-built Plans/Certifications of Construction:**
☐ Are required and shall be certified as accurate by an authorized representative of the company.
☐ Are required and shall be signed and sealed by a State of Texas Licensed Professional Engineer.
☐ Are not required
☐ Certification that utility was installed as approved
• **Re-vegetation Special Provisions:** In order to minimize erosion and sedimentation resulting from the proposed installation, the project area will be re-vegetated:
☐ In accordance with TxDOT's Standard Specification Item 164 which specifies the appropriate grass seed mix to be used; **or**
☐ As indicated on the attachment.
TxDOT Representative to be notified 48 hours prior to beginning construction:

If approved, we understand we will assume all risks associated with this installation within the TxDOT right of way. These risks include injuries to our workers, damage to contiguous utility lines that may be in the area and injuries or damage resulting from our failure to properly install and maintain the line.

If the character, use or function of our installation is materially changed from that approved under this Request, we will notify TxDOT within 30 days after the change. In the event of a voluntary or involuntary loss of public utility status, or other legal authority for longitudinal placement of the utility facility in the highway, or there is an abandonment of the facility without the approval of TxDOT, we will, at our expense, remove the unauthorized portion of the facility from the right of way.

If installation of the line is not begun prior to the 91st calendar day from date of issuance, we acknowledge that, unless otherwise extended, TxDOT's approval of this Request will automatically **expire**, and we will be required to resubmit our Request. All Request submissions, whether due to expiration of approval under this paragraph or new Requests for modifications and relocations shall be in accordance with the governing laws, rules, regulations and policies existing at the time of submission. In the event we fail to comply with any or all of the requirements as set forth in this Request, the State may take such action as it deems appropriate to compel our compliance.

By signing as/for the requestor below, I certify that I am authorized to represent the requestor, that I agree to the provisions and requirements included in this Utility Installation Request, and our commencement of construction will further attest to our review and acceptance of said additional provisions and requirements.

REQUESTOR	APPROVED BY TXDOT
Date:	Date:
By:	By:
Signature:	Signature:
Title:	Title: District Engineer (or designee)
Address:	Address:
City State Zip Code	City State Zip Code
( )	**( )**
Area Code Telephone Number	Area Code Telephone Number

GENERAL SPECIAL PROVISION

1. Requestor agrees to perform all project coordination, scheduling, notifications, permit requirements and submittals through TxDOT's designated Design Build Contractor listed below:

[Insert contractors contact information]

County: _____
ROW CSJ No.:   _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.:   _____
Limits: _____ to _____

EXHIBIT A

PLANS, SPECIFICATIONS, COST ESTIMATES AND ALLOCATION

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT B

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(SPD ROW-U-UAAA-DM)

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT A

PLANS, SPECIFICATIONS, COST ESTIMATES AND ALLOCATION

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT B

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(SPD ROW-U-UAAA-OM)

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT C

STATEMENT COVERING CONTRACT WORK

STATEMENT COVERING UTILITY CONSTRUCTION CONTRACT WORK

(AS APPEARING IN ESTIMATE)

U-No. _____

District: _____

County: _____   ROW CSJ No.: _____

Federal Project No.: _____   Highway No.: _____

I, _____, a duly authorized and qualified representative of _____, hereinafter referred to as **Owner**, am fully cognizant of the facts and make the following statements in respect to work which will or may be done on a contract basis as appears in the estimate to which this statement is attached.

It is more economical and/or expedient for **Owner** to contract this adjustment, or **Owner** is not adequately staffed or equipped to perform the necessary work on this project with its own forces to the extent as indicated on the estimate.

Procedure to be Used in Contracting Work

☐ A. Solicitation for bids is to be accomplished through open advertising and contract is to be awarded to the lowest qualified bidder who submits a proposal in conformity with the requirements and specifications for the work to be performed.

☐ B. Solicitation for bids is to be accomplished by circulating to a list of pre-qualified contractors or known qualified contractors and such contract is to be awarded to the lowest qualified bidder who submits a proposal in conformity with the requirements and specifications for the work to be performed. Such presently known contractors are listed below:

     1. _____

     2. _____

     3. _____

     4. _____

     5. _____

☐ C. The work is to be performed under an existing continuing contract under which certain work is regularly performed for **Owner** and under which the lowest available costs are developed. (If only part of the contract work is to be done under an existing contract, give detailed information by attachment hereto.)

☐ D. The utility proposes to contract outside the foregoing requirements and therefore evidence in

support of its proposal is attached to the estimate in order to obtain the concurrence of the State, and the Federal Highway Administration Division Engineer where applicable, prior to taking action thereon (approval of the agreement shall be considered as approval of such proposal).

☐ E. The utility plans and specifications, with the consent of the State, will be included in the construction contract awarded by the State.

[Signature of Officer/Representative]   Date

[Title of Officer/Representative]

Texas Department of Transportation
Form SPD ROW-U-AdjCheck
REV 04/2015

DBA UTILITY ADJUSTMENT CHECKLIST

(To be included with Utility Assembly Submittal)

U-No.: _____

District: _____

Utility Owner: _____

County(ies): _____

CSJ No(s).: R-_____ C-_____

Project Limits: _____ to _____

Federal ROW Project No.: _____

Reimbursement (*check __one__ (1) box*):   Actual Cost ☐   Lump Sum ☐   Non-Reimbursable ☐

Alternate Procedure Approval Date: _____

Description of Work (*Approximate from/to stationing and line type*):

Estimated Start Date: _____, 20_____

Estimated Completion or Duration: _____, 20_____

Estimated Total Adjustment Costs: $0.00

Estimated Betterment (*in dollars and calculated %*): $0.00   0%

Estimated Accrued Depreciation: $0.00

Estimated Salvage: $0.00

Credits and Vouchers: $0.00

Eligibility Ratio (*calculated and supported %*) $0.00   0%

Noteworthy Issues/Items: _____

ASSEMBLY PACKAGE

1.   Have the required number of Utility Adjustment Assemblies of which the TxDOT Copy is color coded, been submitted?

Yes ☐   No ☐   N/A ☐

2.   Have the following forms been submitted?

PUAA/UAAA:	Yes ☐	No ☐	N/A ☐
UJUA:	Yes ☐	No ☐	N/A ☐
Statement - Contract Work:	Yes ☐	No ☐	N/A ☐
U-1 Affidavit:	Yes ☐	No ☐	N/A ☐
Quitclaim Deed:	Yes ☐	No ☐	N/A ☐
UM/UDC Sign Off:	Yes ☐	No ☐	N/A ☐

3.   Are all forms submitted complete and correct for the situation/circumstance of the Utility Adjustment?

Yes ☐   No ☐   N/A ☐

TRANSMITTAL MEMO

4.   If the Adjustment has unique characteristics, does the transmittal include explanations and clarifications?

Yes ☐   No ☐   N/A ☐

5.   Has a recommendation for approval been stated?

Yes ☐   No ☐   N/A ☐

6.   If the Utility Adjustment is in more than one (1) RCSJ (Local Jurisdictional Boundary), have the percentages in each jurisdiction been detailed?

Yes ☐   No ☐   N/A ☐

UTILITY ADJUSTMENT AGREEMENT

7.   Have language modifications to the utility agreement been approved by TxDOT?

        Yes ☐   No ☐   N/A ☐

8.   Has the Utility consultant-engineering contract been reviewed and approved by DB Contractor's Utility Manager (UM)?

        Yes ☐   No ☐   N/A ☐

UTILITY ADJUSTMENT PLANS AND SPECIFICATIONS

9.   Plans folded so as to fit into 8.5" x 11" file?

        Yes ☐   No ☐   N/A ☐

10.   Have the Utility Adjustments been designed for the Proposed Configuration?

        Yes ☐   No ☐   N/A ☐

11.   Project or vicinity plan provided?

        Yes ☐   No ☐   N/A ☐

12.   Have the plans for the Utility Adjustment been sealed by a Registered Professional Engineer (PE)?

        Yes ☐   No ☐   N/A ☐

13.   Has the Utility Owner signed the cover sheet of the plans verifying review and approval, if DB Contractor is responsible for Engineering on either Owner Managed or DB Contractor Managed Agreement?

        Yes ☐   No ☐   N/A ☐

14.   Backfill requirements met (item 400 referenced)?

        Yes ☐   No ☐   N/A ☐

15.   If excavation is required, do the plans included a note on OSHA trench excavation protection?

        Yes ☐   No ☐   N/A ☐

16.   Is a note provided in the plans that the adjustment will conform with the TMUTCD?

        Yes ☐   No ☐   N/A ☐

17.   If the adjustment involves a plastic water, sanitary sewer, or gas line, has a metal detection wire been included in the estimate or with detailed in the plans?

        Yes ☐   No ☐   N/A ☐

18.   Has Barlow's Formula information been submitted for un-encased high pressure pipelines? (The Barlow's calculation must be provided by the utility owner. The following information is required to complete Barlow's formula. S=Yield Strength, Wall thickness = t, Outside Diameter = D, Design Factor = F. Maximum Operating Pressure must also be given and compared to the pressure calculated with Barlow's. The Barlow calculation must be shown with the submission.)

        Yes ☐   No ☐   N/A ☐

19.   If the pipeline is un-encased, is there adequate coating, wrapping and cathodic protection?

        Yes ☐   No ☐   N/A ☐

20.   Information on plans sufficient and adequate to:

Determine necessity and justification of proposed work?

        Yes ☐   No ☐   N/A ☐

Demonstrate Utility Accommodation Rules compliance?

        Yes ☐   No ☐   N/A ☐

Indicate highway stationing, existing and proposed ROW, offsets from proposed ROW, existing and proposed grades, and edge of pavement lines?

        Yes ☐   No ☐   N/A ☐

Provide any other necessary or essential information such as pressure, flow, offset, type, condition, wall thickness, specifications etc.?

        Yes ☐   No ☐   N/A ☐

21.   Is this Utility Adjustment within ROW project limits or directly related to work required within project limits?

        Yes ☐   No ☐   N/A ☐

22.   Are any of the proposed utility facilities installed longitudinally within a control of access?

        Yes ☐   No ☐   N/A ☐

COST ESTIMATE

23. Has DB Contractor's Utility Design Coordinator located on the plans the major items of material listed on the estimate by scaling or stationing?

    Yes ☐   No ☐   N/A ☐

24. If the agreed sum method has been marked, has a detailed, itemized estimate and matching plans been provided?

    Yes ☐   No ☐   N/A ☐

25. Is the estimate properly and adequately itemized and detailed?

    Yes ☐   No ☐   N/A ☐

26. Are overheads and loadings checked for reasonableness?

    Yes ☐   No ☐   N/A ☐

27. Replacement utility ROW charges justified and supported?

    Yes ☐   No ☐   N/A ☐

28. Eligibility ratio calculated and recommended?

    Yes ☐   No ☐   N/A ☐

29. Betterment credit applicable?

    Yes ☐   No ☐   N/A ☐

    If yes, is credit calculated and applied properly?

    Yes ☐   No ☐   N/A ☐

30. Accrued Depreciation credit applicable?

    Yes ☐   No ☐   N/A ☐

    If yes, is credit calculated and applied properly?

Yes ☐   No ☐   N/A ☐

31.   Salvage credit applicable?

Yes ☐   No ☐   N/A ☐

If yes, is credit applied properly?

Yes ☐   No ☐   N/A ☐

32.   Estimate extensions checked?

Yes ☐   No ☐   N/A ☐

AFFIDAVIT OF PROPERTY INTEREST

33.   Proof of compensable property interest established by utility where applicable?

Yes ☐   No ☐   N/A ☐

If yes, according to the "**Real Property Interest**" paragraph of the PUAA:

Does the estimate detail reimbursement for "New Property" interest?

Yes ☐   No ☐   N/A ☐

Does the estimate detail compensation for relinquishing "Existing Property" interest?

Yes ☐   No ☐   N/A ☐

Did the utility owner provide a letter stating that they will quitclaim their property interest at no costs or an agreed sum if new utility property interests are not being acquired?

Yes ☐   No ☐   N/A ☐

34.   Have the parcel ID numbers to be Quitclaimed been identified?

Yes ☐   No ☐   N/A ☐

35.   Has the owner provided a signed letter of intent to Quitclaim, and has a copy of the correct Quitclaim Deed(s) been submitted?

Yes ☐   No ☐   N/A ☐

R.O.W. MAPS

36.   Approved and current ROW Maps on file with project office?

         Yes ☐   No ☐   N/A ☐

37.   Have the existing and proposed utility facilities been plotted on the ROW map and attached to this assembly?

         Yes ☐   No ☐   N/A ☐

COMMENTS: _____

Prepared by: _____   _____
                      Utility Design Coordinator   Date

Recommended for
Approval by: _____   _____
                      Quality Control   Date

Approved by: _____   _____
                      Utility Manager   Date

County:	_____	
ROW CSJ No.:	_____	
Const. CSJ No.:	_____	
Highway:	_____	
Fed. Proj. No.:	_____	
Limits:	_____ to _____	

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(DB Contractor-Managed)

(Amendment No. _____ to Agreement No.: _____ -U-_____)

THIS AMENDMENT TO PROJECT UTILITY ADJUSTMENT AGREEMENT (this "Amendment"), by and between, [DB Contractor] hereinafter identified as the "**DB Contractor**" and [Utility Owner], hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE of TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "**TxDOT**", proposes to construct the project identified above (the "Project", as more particularly described in the "Original Agreement", defined below); and

WHEREAS, pursuant to that certain Design Build Agreement ("DBA") by and between TxDOT and the DB Contractor with respect to the Project, the DB Contractor has undertaken the obligation to design, construct, and potentially maintain the Project, including causing the removal, relocation, or other necessary adjustment of existing Utilities impacted by the Project (collectively, "Adjustment"); and

WHEREAS, the Owner and DB Contractor are parties to that certain executed Project Utility Adjustment Agreement (PUAA) designated by the "Agreement No." indicated above, as amended by previous amendments, if any (the "Original Agreement"), which provides for the Adjustment of certain Utilities owned and/or operated by the Owner (the "Owner Utilities"); and

WHEREAS, the parties are required to utilize this Amendment form in order to modify the Original Agreement to add the Adjustment of Owner Utilities facilities not covered by the Original Agreement; and
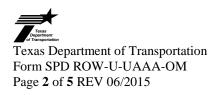
WHEREAS, the parties desire to amend the Original Agreement to add additional Owner Utility facility(ies), on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the agreements contained herein, the parties hereto agree as follows:

1.   <u>**Amendment**</u>. The Original Agreement is hereby amended as follows:

   1.1   <u>**Plans**</u>.

   (a)   The description of the Owner Utilities and the proposed Adjustment of the Owner Utilities in the Original Agreement is hereby amended to add the following Utility facility(ies) ("**Additional Owner Utilities**") and proposed Adjustment(s) to the Owner Utilities described in the Original Agreement *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00)]*: _____ .

   (b)   The Plans, as defined in Paragraph 1 of the Original Agreement, are hereby amended to add thereto the Plans, specifications and cost estimates attached hereto as <u>Exhibit A</u>; and

   (c)   The Plans attached hereto as <u>Exhibit A</u>, along with this Amendment, shall be submitted upon execution to TxDOT in accordance with Paragraph 2 of the Original Agreement, and Paragraph 2 shall apply to this Amendment and the Plans attached hereto in the same manner as if this Amendment were the Original Agreement. If the Owner claims an Existing Utility Property Interest for any of the Additional Owner Utilities, documentation with respect to such claim shall be submitted to TxDOT as part of this Amendment and the attached Plans, in accordance with Paragraph 15(a) of the Original Agreement.

   1.2   <u>**Reimbursement of Owner's Indirect Costs.**</u> For purposes of Paragraph 6 of the Original Agreement, the following terms apply to the Additional Owner Utilities and proposed Adjustment:

   (a)   DB Contractor agrees to reimburse the Owner its share of the Owner's indirect costs (e.g., engineering, inspection, testing, ROW) as identified in <u>Exhibit A</u>. When requested by the Owner, monthly progress payments will be made. The monthly payment will not exceed 90% of the estimated indirect work done to date. Once the indirect work is complete, final payment of the eligible indirect costs will be made. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

   (b)   The Owner's indirect costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below *[check only <u>one</u> (1) box]*:

   ☐   (1)   Actual related indirect costs accumulated in accordance with:

   (i)   A work order accounting procedure prescribed by the applicable Federal or State regulatory body; or

(ii) Established accounting procedure developed by the Owner and which the Owner uses in its regular operations;

*(either (i) or (ii) referred to as "***Actual Cost***")*, or

☐ (2) The agreed sum of $\underline{\$\quad}$ ("**Agreed Sum**") as supported by the analysis of the Owner's estimated costs attached hereto as part of <u>Exhibit A</u>.

1.3 **Advancement of Funds by Owner for Construction Costs.**

(a) Advancement of Owner's share, if any, of estimated costs. <u>Exhibit A</u> shall identify all estimated engineering and construction-related costs, including labor, material, equipment and other miscellaneous construction items. <u>Exhibit A</u> shall also identify the Owner's and DB Contractor's respective shares of the estimated costs.

The Owner shall advance to the DB Contractor its allocated share, if any, of the estimated costs for construction and engineering work to be performed by DB Contractor, in accordance with the following terms:

☐ The Adjustment of the Owner's Utilities does not require advancement of funds.

☐ The Adjustment of the Owner's Utilities does require advancement of funds and the terms agreed to between the DB Contractor and Owner are listed below.

[Insert terms of advance funding to be agreed between DB Contractor and Owner.]

_____

(b) Adjustment Based on Actual Costs or Agreed Sum.

[Check the <u>one</u> (1) appropriate provision, if advancement of funds is required]:

☐ The Owner is responsible for its share of the DB Contractor Actual Cost for the Adjustment, including the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Amendment:

(i) The Owner shall pay to the DB Contractor the amount, if any, by which the Actual Cost of the Betterment (as determined in Paragraph 9(b)) *plus* the Actual Cost of Owner's share of the Adjustment (based on the allocation set forth in <u>Exhibit A</u>) exceeds the estimated cost advanced by the Owner; or

(ii)   The DB Contractor shall refund to the Owner the amount, if any, by which such advance exceeds such Actual Cost, as applicable.

☐   The Agreed Sum is the agreed and final amount due for the Adjustment, including any Betterment, under this Amendment. Accordingly, no adjustment (either up or down) of such amount shall be made based on Actual Costs.

1.4   **Responsibility for Costs of Adjustment Work.** For purposes of Paragraph 4 of the Original Agreement, responsibility for the Agreed Sum or Actual Cost, as applicable, of all Adjustment work to be performed pursuant to this Amendment shall be allocated between the DB Contractor and the Owner as identified in Exhibit A hereto and in accordance with §203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio, if appropriate, as detailed in Exhibit A; *provided however*, that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 9 of the Original Agreement.
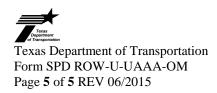
1.5   **Betterment**.

(a)   Paragraph 9(b) (Betterment and Salvage) of the Original Agreement is hereby amended to add the following *[Check the one (1) box that applies, and complete if appropriate]*:

☐   The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, does not include any Betterment.

☐   The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, includes Betterment to the Additional Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____.

The DB Contractor has provided to the Owner comparative estimates for (i) all work to be performed by the DB Contractor pursuant to this Amendment, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Owner. The estimated cost of the DB Contractor work under this Amendment which is attributable to Betterment is $_____, calculated by *subtracting* (ii) from (i). The percentage of the total cost of the DB Contractor work under this Amendment which is attributable to Betterment is _____%, calculated by *subtracting* (ii) from (i), which remainder is *divided* by (i).

(b)   If the above Paragraph 1.5(a) identifies Betterment, the Owner shall advance to the DB Contractor, at least **14 days** prior to the date scheduled for commencement of construction for Adjustment of the Additional Owner Utilities, the estimated cost attributable to Betterment as set forth in Paragraph 1.5(a) of this Amendment. If the Owner fails to advance payment to the DB Contractor on

or before the foregoing deadline, the DB Contractor shall have the option of commencing and completing (without delay) the Adjustment work without installation of the applicable Betterment. *[Check the <u>one</u> (1) appropriate provision]*:

☐   The estimated cost stated in Paragraph 1.5(a) of this Amendment is the agreed and final amount due for Betterment under this Amendment, and accordingly no adjustment (either up or down) of such amount shall be made based on actual costs.

☐   The Owner is responsible for the DB Contractor Actual Cost for the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Amendment, (i) the Owner shall pay to the DB Contractor the amount, if any, by which the Actual Cost of the Betterment (determined as provided below in this paragraph) exceeds the estimated cost advanced by the Owner, or (ii) the DB Contractor shall refund to the Owner the amount, if any, by which such advance exceeds such Actual Cost, as applicable. Any additional payment by the Owner shall be due within **60 days** after the Owner's receipt of the DB Contractors invoice therefor, together with supporting documentation; any refund shall be due within **60 days** after completion of the Adjustment work under this Amendment. The Actual Cost of Betterment incurred by the DB Contractor shall be calculated by *multiplying* (i) the Betterment percentage stated in Paragraph 1.5(a) of this Amendment, by (ii) the Actual Cost of all work performed by the DB Contractor pursuant to this Amendment (including work attributable to the Betterment), as invoiced by the DB Contractor to the Owner.

(c)   The determinations and calculations of Betterment described in this Amendment shall exclude right of way acquisition costs. Betterment in connection with right of way acquisition is addressed in Paragraph 15 of the Original Agreement.

1.6   **Miscellaneous**.

(a)   The Owner and the DB Contractor agree to refer to this Amendment, designated by the "Amendment No." and "Agreement Number" indicated on page 1 above, on all future correspondence regarding the Adjustment work that is the subject of this Amendment and to track separately all costs relating to this Amendment and the Adjustment work described herein.

(b)   *[Include any other proposed amendments allowed by applicable Law.]*

2.   **General.**

(a)   All capitalized terms used in this Amendment shall have the meanings assigned to them in the Original Agreement, except as otherwise stated herein.

(b)   This Amendment may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one (1) and the same instrument.

(c)   Except as amended hereby, the Original Agreement shall remain in full force and effect. In no event shall the responsibility, as between the Owner and the DB Contractor, for the preparation of the Plans and the Adjustment of the Owner Utilities be deemed to be amended hereby.

(d)   This Amendment shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the DB Contractor) signing this Amendment, and (b) the completion of TxDOT's review and approval as indicated by the signature of TxDOT's representative below.

APPROVED BY:

TEXAS DEPARTMENT OF TRANSPORTATION

By: _____
[Printed Name]

By: _____
Authorized Signature

District Engineer (or designee)

Date: _____

OWNER

By: _____
[Print Name]

By: _____
Duly Authorized Representative Signature

[Title]
[Company]

Date: _____

DB CONTRACTOR

By: _____
[Print Name]

By: _____
Duly Authorized Representative

[Title]
[Company]

Date: _____

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(Owner-Managed)

(Amendment No. _____ to Agreement No.: _____ - U - _____ **)**

THIS AMENDMENT TO PROJECT UTILITY ADJUSTMENT AGREEMENT (this "Amendment"), by and between, [DB Contractor] hereinafter identified as the "**DB Contractor**" and [Utility Owner], hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE of TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "**TxDOT**", proposes to construct the project identified above (the "Project", as more particularly described in the "Original Agreement", defined below); and

WHEREAS, pursuant to that certain Design Build Agreement ("DBA") by and between TxDOT and the DB Contractor with respect to the Project, the DB Contractor has undertaken the obligation to design, construct, and potentially maintain the Project, including causing the removal, relocation, or other necessary adjustment of existing Utilities impacted by the Project (collectively, "Adjustment"); and

WHEREAS, the Owner and DB Contractor are parties to that certain executed Project Utility Adjustment Agreement (PUAA) designated by the "Agreement No." indicated above, as amended by previous amendments, if any (the "Original Agreement"), which provides for the Adjustment of certain Utilities owned and/or operated by the Owner (the "Owner Utilities"); and

WHEREAS, the parties are required to utilize this Amendment form in order to modify the Original Agreement to add the Adjustment of Owner Utilities facilities not covered by the Original Agreement; and

WHEREAS, the parties desire to amend the Original Agreement to add additional Owner Utility facility(ies), on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the agreements contained herein, the parties hereto agree as follows:

1.   **Amendment**. The Original Agreement is hereby amended as follows:

        Plans.

        (a)   The description of the Owner Utilities and the proposed Adjustment of the Owner
                 Utilities in the Original Agreement is hereby amended to add the following Utility
                 facility(ies) ("**Additional Owner Utilities**") and proposed Adjustment(s) *[insert below a*

description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00")]: _____.

(b)   The Plans, as defined in Paragraph 1 of the Original Agreement, are hereby amended to add thereto the Plans, specifications and cost estimates attached hereto as Exhibit A.

(c)   The Plans attached hereto as Exhibit A, along with this Amendment, shall be submitted upon execution to TxDOT in accordance with Paragraph 2 of the Original Agreement, and Paragraph 2 shall apply to this Amendment and the Plans attached hereto in the same manner as if this Amendment were the Original Agreement. If the Owner claims an Existing Utility Property Interest for any of the Additional Owner Utilities, documentation with respect to such claim shall be submitted to TxDOT as part of this Amendment and the attached Plans, in accordance with Paragraph 16(a) of the Original Agreement.

(d)   Paragraph 4(f) of the Original Agreement is hereby amended to add the following deadline for the Adjustment of the Additional Owner Utilities *[check one (1) box that applies]*:

☐   Owner shall complete all of the Utility reconstruction and relocation work, including final testing and acceptance thereof, on or before **[Month] [Day]**, **2015**.

☐   Owner shall complete all of the Utility reconstruction and relocation work, including final testing and acceptance thereof, within _____ **calendar days** after delivery to Owner of a notice to proceed by DB Contractor;

(e)   For purposes of Paragraph 5(b) of the Original Agreement, the Owner's costs associated with Adjustment of the Additional Owner Utilities shall be developed pursuant to the method checked and described below *[check only one (1) box]*:

☐   (1)   Actual costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body ("**Actual Cost**");

☐   (2)   Actual costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations ("**Actual Cost**"); or

☐   (3)   The agreed sum of $_____ ("**Agreed Sum**"), as supported by the analysis of estimated costs attached hereto as part of Exhibit A.

(f)   For purposes of Paragraph 6 of the Original Agreement, responsibility for the Agreed Sum or Actual Cost, as applicable, of all Adjustment work to be performed pursuant to this Amendment shall be allocated between the DB Contractor and the Owner as identified in Exhibit A and in accordance with §203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio,

if appropriate, as detailed in <u>Exhibit A</u>; *provided, however*, that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 10 of the Original Agreement.

(g)   Paragraph 10(b) of the Original Agreement is hereby amended to add the following *[Check the <u>one (1)</u> box that applies]*:

☐   The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, does not include any Betterment.

☐   The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, includes Betterment to the Additional Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____.

The Owner has provided to the DB Contractor comparative estimates for (i) all costs for work to be performed by the Owner pursuant to this Amendment, including work attributable to the Betterment, and (ii) the cost to perform such work without Betterment, which estimates are hereby approved by the DB Contractor. The estimated amount of the Owner's costs for work under this Agreement which is attributable to Betterment is $_____, calculated by *subtracting* (ii) from (i). The percentage of the total cost of the Owner's work hereunder which is attributable to Betterment is _____%, calculated by *subtracting* (ii) from (i) which remainder shall be *divided* by (i).

(h)   The following shall apply to any Betterment described in Paragraph 1(g) of this Amendment:

(i)   If the Owner's costs are developed under procedure (3) described in Paragraph 1(e) of this Amendment, then the Agreed Sum stated in that Paragraph includes any credits due to the DB Contractor on account of the identified Betterment, and no further adjustment shall be made on account of same.

(ii)   If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 1(e) of this Amendment, the parties agree as follows *[check the <u>one</u> (1) appropriate provision]*:

☐   The estimated cost stated in Paragraph 1(g) of this Amendment is the agreed and final amount due for Betterment under this Amendment. Accordingly, each intermediate invoice submitted for Adjustment(s) of the Additional Owner Utilities pursuant to Paragraph 7(b) of the Original Agreement shall credit the DB Contractor with an appropriate amount of the agreed Betterment amount, proportionate to the percentage of completion reflected in such invoice. The final invoice submitted for Adjustment(s) of the Additional Owner Utilities pursuant to Paragraph 7(a) of the Original Agreement shall reflect the full amount of the agreed Betterment credit. For each invoice described in this paragraph, the credit for Betterment shall be applied before calculating the DB Contractor's share (pursuant to Paragraph 1(e) of this Amendment) of the cost of the Adjustment work. No other adjustment (either up or down) shall be made based on actual Betterment costs.

☐   The Owner is responsible for the Actual Cost of the identified Betterment, determined by *multiplying* (a) the Betterment percentage stated in Paragraph 1(g) of this Amendment, by (b) the actual cost of all work performed by the Owner pursuant to this Amendment (including work attributable to the Betterment), as invoiced by the Owner to the DB Contractor. Accordingly, each invoice submitted for Adjustment of the Additional Owner Utilities pursuant to either Paragraph 7(a) or Paragraph 7(b) of the Original Agreement shall credit the DB Contractor with an amount calculated by *multiplying* (x) the Betterment percentage stated in Paragraph 1(g) of this Amendment, by (y) the amount billed on such invoice.

(i)   The determinations and calculations of Betterment described in this Amendment shall exclude right of way acquisition costs. Betterment in connection with ROW acquisition is addressed in Paragraph 16 of the Original Agreement.

(j)   Owner and the DB Contractor agree to refer to this Amendment, designated by the "Amendment No." and "Agreement number" indicated on page 1 above, on all future correspondence regarding the Adjustment work that is the subject of this Amendment and to track separately all costs relating to this Amendment and the Adjustment work described herein.

(k)   *[Include any other proposed amendments in compliance with the applicable Law.]*

2.   **General**.

(a)   All capitalized terms used in this Amendment shall have the meanings assigned to them in the Original Agreement, except as otherwise stated herein.

(b)   This Amendment may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one (1) and the same instrument.

(c)   Except as amended hereby, the Original Agreement shall remain in full force and effect. In no event shall the responsibility, as between the Owner and the DB Contractor, for the preparation of the Plans and the Adjustment of the Owner Utilities be deemed to be amended hereby.

(d)   This Amendment shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the DB Contractor) signing this Amendment, and (b) the completion of TxDOT's review and approval as indicated by the signature of TxDOT's representative below.

APPROVED BY:

TEXAS DEPARTMENT OF TRANSPORTATION

By: _____
    [Printed Name]

By: _____
    Authorized Signature

    District Engineer (or designee)

Date: _____

OWNER

By: _____
    [Print Owner Name]

By: _____
    Duly Authorized Representative

    [Title]
    [Company]

Date: _____

DB CONTRACTOR

By: _____
    [Print Name]

By: _____
    Duly Authorized Representative

    [Title]
    [Company]

Date: _____

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

PROJECT UTILITY ADJUSTMENT AGREEMENT
(DB Contractor-Managed)

Agreement No.: _____ -U- _____

THIS AGREEMENT, by and between [DB Contractor], hereinafter identified as the "**DB Contractor**" and [Utility Owner], hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE OF TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "TxDOT", is authorized to design, construct, operate, maintain, and improve projects as part of the state highway system throughout the State of Texas, all in conformance with the applicable provisions of Chapters 201, 203, 222, 223, 224 and 228 of the Texas Transportation Code, as amended; and

WHEREAS, TxDOT proposes to construct a project identified as [Project Name] (the "Project") and classified as either Interstate, Toll or Traditional (meaning eligibility based on existing compensable interest in the land occupied by the facility to be relocated within the proposed highway right of way limits) as indicated below (*check one (1) box*). Reimbursement will be authorized by the type of project selected below in conformance with §203.092 of the Transportation Code,

☐ Interstate

☐ Toll

☐ Traditional

; and

WHEREAS, pursuant to that certain Design Build Agreement ("DBA") by and between TxDOT and DB Contractor with respect to the Project, DB Contractor has undertaken the obligation to design, construct, finance, operate and maintain the Project and adhere to all requirements in the DBA; and

WHEREAS, DB Contractor's duties pursuant to the DBA include causing the relocation, removal or other necessary adjustment of existing Utilities impacted by the Project (collectively, "Adjustment"), subject to the provisions herein; and

WHEREAS, the Project may receive Federal funding, financing and/or credit assistance; and

WHEREAS, DB Contractor has notified the Owner that certain of its facilities and appurtenances (the "Owner Utilities") are in locational conflict with the Project (and/or with the Ultimate Configuration of the Project), and the Owner has requested that DB Contractor undertake the Adjustment of the Owner Utilities as necessary to accommodate the Project (and the Ultimate Configuration) and the Owner agrees that the "Project" will be constructed in accordance with §203.092 of the Texas Transportation Code, as amended, and 23 CFR 645 Subpart A (Utility Relocations, Adjustments and Reimbursement); and

WHEREAS, the Owner Utilities and the proposed Adjustment of the Owner Utilities are described as follows *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00)]*:

_____; and

WHEREAS, the Owner recognizes that time is of the essence in completing the work contemplated herein; and

WHEREAS, DB Contractor and the Owner desire to implement the Adjustment of the Owner Utilities by entering into this Agreement.

<div align="center">

AGREEMENT

</div>

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, DB Contractor and the Owner agree as follows:

1. **Preparation of Plans.** [*Check one (1) box that applies:*]

    ☐   DB Contractor has hired engineering firm(s) acceptable to the Owner to perform all engineering services needed for the preparation of plans, required specifications, and cost estimates, attached hereto as <u>Exhibit A</u> (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. DB Contractor represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), as set forth in 43 Texas Administrative Code Part 1, Chapter 21, Subchapter C, *et seq.* (the "UAR"). By its execution of this Agreement or by the signing of the Plans, the Owner hereby approves and confirms that the Plans are in compliance with the "standards" described in Paragraph 3(a)(4).

    ☐   The Owner has provided plans, required specifications and cost estimates, attached hereto as <u>Exhibit A</u> (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. The Owner represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), as set forth in 43 Texas Administrative Code Part 1, Chapter 21, Subchapter C, *et seq.* (the "UAR"). By its execution of this Agreement, DB Contractor and the Owner hereby approve the Plans. The Owner also has provided to DB Contractor a Utility plan view map illustrating the location of existing and proposed Utility facilities on DB Contractor's right of way map of the Project. With regard to its preparation of the Plans, the Owner represents as follows *[check one (1) box that applies]*:

☐   The Owner's employees were utilized to prepare the Plans, and the charges therefore do not exceed the Owner's typical costs for such work.

☐   The Owner utilized consulting engineers to prepare the Plans, and the fees for such work are not based upon a percentage of construction costs. Further, such fees encompass only the work necessary to prepare the Plans for Adjustment of the Owner Utilities described herein, and do not include fees for work done on any other project. The fees of the consulting engineers are reasonable and are comparable to the fees typically charged by consulting engineers in the locale of the Project for comparable work for the Owner.

2.   **Review by TxDOT.** The parties hereto acknowledge and agree as follows:

(a)   Upon execution of this Agreement by DB Contractor and the Owner, DB Contractor will submit this Agreement, together with the attached Plans, to TxDOT for its review and approval as part of a package referred to as a "Utility Assembly". The parties agree to cooperate in good faith to modify this Agreement and/or the Plans, as necessary and mutually acceptable to all parties, to respond to any comments made by TxDOT thereon. Without limiting the generality of the foregoing:

    (1)   The Owner agrees to respond (with comment and/or acceptance) to any modified Plans and/or Agreement prepared by DB Contractor in response to TxDOT comments within **14 Business Days** after receipt of such modifications; and

    (2)   If the Owner originally prepared the Plans, the Owner agrees to modify the Plans in response to TxDOT comments and to submit such modified Plans to DB Contractor for its comment and/or approval (and re-submittal to TxDOT for its comment and/or approval) within **14 Business Days** after receipt of TxDOT's comments.

The Owner's failure to timely respond to any modified Plans submitted by DB Contractor pursuant to this paragraph shall be deemed the Owner's approval of same. If the Owner fails to timely prepare modified Plans which are its responsibility hereunder, then DB Contractor shall have the right to modify the Plans for the Owner's approval as if DB Contractor had originally prepared the Plans. The process set forth in this paragraph will be repeated until the Owner, DB Contractor and TxDOT have all approved this Agreement and the Plans.

(b)   The parties hereto acknowledge and agree that TxDOT's review, comments and approval of a Utility Assembly or any component thereof shall constitute TxDOT's approval of the location and manner in which a Utility Assembly will be installed, adjusted, or relocated within the State Highway right of way (the "ROW"), subject to DB Contractor and the Owner's satisfactory performance of the Adjustment work in accordance with the approved Plans. TxDOT has no duty to review Owner Utilities or components for their quality or adequacy to provide the intended Utility service.

3. **Design and Construction Standards.**

    (a)   All design and construction performed for the Adjustment work which is the subject of this Agreement shall comply with and conform to the following:

        (1)   All applicable local and State Laws, regulations, decrees, ordinances and policies, including the UAR, the *Utility Manual* issued by TxDOT (to the extent its requirements are mandatory for the Utility Adjustment necessitated by the Project, as communicated to the Owner by DB Contractor or TxDOT), the requirements of theDBA, and the policies of TxDOT;

        (2)   All Federal Laws, regulations, decrees, ordinances and policies applicable to projects receiving Federal funding, financing and/or credit assistance, including without limitation, 23 CFR 645 Subpart A and B; and the Buy America provisions of 23 U.S.C. §313 and 23 CFR 635.410. The Utility Owner shall supply, upon request by DB Contractor or TxDOT, proof of compliance with the aforementioned Laws, rules and regulations prior to the commencement of construction;

        (3)   The terms of all governmental permits or other approvals, as well as any private approvals of third parties necessary for such work;

        (4)   The standard specifications, standards of practice, and construction methods (collectively, "standards") which the Owner customarily applies to Utility facilities comparable to the Owner Utilities that are constructed by the Owner or for the Owner by its contractors at the Owner's expense, which standards are current at the time this Agreement is signed by the Owner, and which the Owner has submitted to DB Contractor in writing; and

        (5)   Owner agrees that all service matters must be placed outside of the State ROW.

    (b)   Such design and construction also shall be consistent and compatible with:

        (1)   DB Contractor's current design and construction of the Project;

        (2)   The Ultimate Configuration for the Project; and

        (3)   Any other Utilities being installed in the same vicinity.

    The Owner acknowledges receipt of Project plans and Ultimate Configuration documents from DB Contractor as necessary to comply with the foregoing. In case of any inconsistency among any of the standards referenced in this Agreement, the most stringent standard shall apply.

    (c)   The plans, specifications, and cost estimates contained in Exhibit A shall identify and detail all Utility facilities that the Owner intends to abandon in place rather than remove, including material type, quantity, size, age and condition. No facilities containing hazardous or contaminated materials may be abandoned, but shall be specifically

identified and removed in accordance with the requirements of subparagraph (a). It is understood and agreed that DB Contractor shall not pay for the assessment and remediation or other corrective action relating to soil and ground water contamination caused by the Utility facility prior to the removal.

4.   **Responsibility for Costs of Adjustment Work.** With the exception of any Betterment (hereinafter defined), the parties shall allocate the cost of any Adjustment between themselves as identified in Exhibit A and in accordance with §203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio, if appropriate, as detailed in Exhibit A.

5.   **Construction by DB Contractor.**

(a)   The Owner hereby requests that DB Contractor perform the construction necessary to adjust the Owner Utilities and DB Contractor hereby agrees to perform such construction. All construction work hereunder shall be performed in a good and workmanlike manner, and in accordance with the Plans (except as modified pursuant to Paragraph 16).

(b)   DB Contractor shall retain such contractor or contractors as are necessary to adjust the Owner Utilities.

(c)   DB Contractor shall obtain all permits necessary for the construction to be performed by DB Contractor hereunder, and the Owner shall cooperate in that process as needed.

6.   **Reimbursement of Owner's Indirect Costs.**

(a)   DB Contractor agrees to reimburse the Owner its share, if applicable, of the Owner's indirect costs (e.g., engineering, inspection, testing, ROW) as identified in Exhibit A. When requested by the Owner, monthly progress payments will be made. The monthly payment will not exceed 90% of the estimated indirect work done to date. Once the indirect work is complete, final payment of the eligible indirect costs will be made. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

(b)   The Owner's indirect costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below [*check only one (1) box*]:

☐   (1)   Actual related indirect costs accumulated in accordance with:

(i)   A work order accounting procedure prescribed by the applicable Federal or State regulatory body, or

(ii)   Established accounting procedure developed by the Owner and which the Owner uses in its regular operations

*(either (i) or (ii) referred to as "**Actual Cost**")*, OR

☐   (2)   The agreed sum of $_____ ("**Agreed Sum**") as supported by the analysis of the Owner's estimated costs attached hereto as part of Exhibit A.

(c)   All indirect costs charged to DB Contractor by the Owner shall be reasonable and shall be computed using rates and schedules not exceeding those applicable to similar work performed by or for the Owner at the Owner's expense. DB Contractor's performance of the Adjustment work hereunder and payment of DB Contractor's share of the Owner's costs pursuant to this Agreement, if applicable, shall be full compensation to the Owner for all costs incurred by the Owner in adjusting the Owner Utilities (including without limitation, costs of relinquishing and/or acquiring right of way).

7.   **Advancement of Funds by Owner for Construction Costs.**

(a)   Advancement of Owner's share, if any, of estimated costs, Exhibit A shall identify all estimated engineering and construction-related costs, including labor, material, equipment and other miscellaneous construction items. Exhibit A shall also identify the Owner's and DB Contractor's respective shares of the estimated costs. The Owner shall advance to DB Contractor its allocated share, if any, of the estimated costs for construction and engineering work to be performed by DB Contractor, in accordance with the following terms:

☐   The Adjustment of the Owner's Utilities does not require advancement of funds.

☐   The Adjustment of the Owner's Utilities does require advancement of funds and the terms agreed to between DB Contractor and the Owner are listed below.

[Insert terms of advance funding to be agreed between DB Contractor and Owner]

———

(b)   Adjustment Based on Actual Costs or Agreed Sum

[*Check the one (1) appropriate provision, if advancement of funds is required*]:

☐   The Owner is responsible for its share of DB Contractor's actual cost for the Adjustment, including the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Agreement, (i) the Owner shall pay to DB Contractor the amount, if any, by which the actual cost of the Betterment (as determined in Paragraph 9(b)) *plus* the actual cost of Owner's share of the Adjustment (based on the allocation set forth in Exhibit A) exceeds the estimated cost advanced by the Owner, or (ii) DB Contractor shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable.

☐   The Agreed Sum is the agreed and final amount due for the Adjustment, including any Betterment, under this Agreement. Accordingly, no adjustment (either up or down) of such amount shall be made based on actual costs.

8.   **Invoices.** On invoices prepared by either the Owner or DB Contractor, all costs developed using the "**Actual Cost**" method described in Paragraph 6(b)(1) shall be itemized in a format allowing for comparisons to the approved estimates, including listing each of the services performed, the

amount of time spent and the date on which the service was performed. The original and three (3) copies of each invoice, together with (i) such supporting information to substantiate all invoices as reasonably requested, and (ii) such waivers and releases of liens as the other party may reasonably require, shall be submitted to the other party at the address for notices stated in Paragraph 21, unless otherwise directed pursuant to Paragraph 22.

The Owner and DB Contractor shall make commercially reasonable efforts to submit final invoices no later than 120 days after completion of work. The Owner and DB Contractor hereby acknowledge and agree that any costs submitted to the other party within 12 months following completion of all Adjustment work to be performed by the parties pursuant to this Agreement shall be deemed to have been abandoned and waived.

9.   **Betterment and Salvage.**

(a)   For purposes of this Agreement, the term "Betterment" means any upgrading of an Owner Utility being adjusted that is not attributable to the construction of the Project and is made solely for the benefit of and at the election of the Owner, including but not limited to an increase in the capacity, capability, efficiency or function of the adjusted Utility over that provided by the existing Utility or an expansion of the existing Utility; *provided, however*, that the following are not considered Betterments:

(1)   Any upgrading which is required for accommodation of the Project;

(2)   Replacement devices or materials that are of equivalent standards although not identical;

(3)   Replacement of devices or materials no longer regularly manufactured with the next highest grade or size;

(4)   Any upgrading required by applicable Laws, regulations or ordinances;

(5)   Replacement devices or materials which are used for reasons of economy (e.g., non-stocked items that may be uneconomical to purchase); or

(6)   Any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(a)(4) and deemed to be of direct benefit to the Project.

[*Include the following for fiber optic Owner Utilities only:*] Extension of an adjustment to the nearest splice boxes shall not be considered a Betterment if required by the Owner in order to maintain its written telephony standards.

(b)   It is understood and agreed that DB Contractor shall not pay for any Betterments and that the Owner shall be solely responsible therefor. No Betterment may be performed hereunder which is incompatible with the Project or the Ultimate Configuration or which cannot be performed within the other constraints of applicable Law, any applicable governmental approvals, including without limitation the scheduling requirements thereunder.

Accordingly, the parties agree as follows [*check the <u>one</u> (1) box that applies, and complete if appropriate*]:

☐   The Adjustment of the Owner Utilities pursuant to the Plans does not include any Betterment.

☐   The Adjustment of the Owner Utilities pursuant to the Plans includes a Betterment to the Owner Utilities by reason of *[Insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____.

DB Contractor has provided to the Owner comparative estimates for (i) all work to be performed by DB Contractor pursuant to this Agreement, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Owner. The estimated cost of DB Contractor's work hereunder which is attributable to Betterment is $_____, calculated by *subtracting* (ii) from (i). The percentage of the total cost of DB Contractor's work hereunder which is attributable to Betterment is _____%, calculated by *subtracting* (ii) from (i), which remainder is *divided* by (i).

(c)   If Paragraph 9(b) identifies Betterment, the Owner shall advance to DB Contractor, at least **14 Business Days** prior to the date scheduled for commencement of construction for Adjustment of the Owner Utilities, the estimated cost attributable to Betterment as set forth in Paragraph 9(b). Should the Owner fail to advance payment to DB Contractor **14 Business Days** prior to commencement of the Adjustment construction, DB Contractor shall have the option of commencing and completing (without delay) the Adjustment work without installation of the applicable Betterment. *[If Paragraph 9(b) identifies Betterment, check the <u>one</u> (1) appropriate provision]*:

☐   The estimated cost stated in Paragraph 9(b) is the agreed and final amount due for Betterment hereunder, and accordingly no adjustment (either up or down) of such amount shall be made based on actual costs.

☐   The Owner is responsible for DB Contractor's actual cost for the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Agreement, (i) the Owner shall pay to DB Contractor the amount, if any, by which the actual cost of the Betterment (determined as provided below in this paragraph) exceeds the estimated cost advanced by the Owner, or (ii) DB Contractor shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable. Any additional payment by the Owner shall be due within **60 calendar days** after the Owner's receipt of DB Contractor's invoice therefor, together with supporting documentation; any refund shall be due within **60 calendar days** after completion of the Adjustment work hereunder. The actual cost of Betterment incurred by DB Contractor shall be calculated by *multiplying* (i) the Betterment percentage stated in Paragraph 9(b), by (ii) the actual cost of all work performed by DB Contractor pursuant to this Agreement (including work attributable to the Betterment), as invoiced by DB Contractor to the Owner.

(d)   If Paragraph 9(b) identifies Betterment, the amount allocable to Betterment in the Owner's indirect costs shall be determined by applying the percentage of the Betterment calculated in Paragraph 9(b) to the Owner's indirect costs. The Owner's invoice to DB Contractor for DB Contractor's share of the Owner's indirect costs, shall credit DB Contractor with any Betterment amount determined pursuant to this Paragraph 9(d).

(e)   For any Adjustment from which the Owner recovers any materials and/or parts and retains or sells the same, after application of any applicable Betterment credit, the Owner's invoice to DB Contractor for its costs shall credit DB Contractor with the salvage value for such materials and/or parts.

(f)   The determinations and calculations of Betterment described in this Paragraph 9 shall exclude right of way acquisition costs. Betterment in connection with right of way acquisition is addressed in Paragraph 15.

10.   **Management of the Adjustment Work.** DB Contractor will provide project management during the Adjustment of the Owner Utilities.

11.   **Utility Investigations.** At DB Contractor's request, the Owner shall assist DB Contractor in locating any Utilities (including appurtenances) which are owned and/or operated by the Owner and may be impacted by the Project. Without limiting the generality of the foregoing, in order to help assure that neither the adjusted Owner Utilities nor existing, unadjusted Utilities owned or operated by the Utility Owner are damaged during construction of the Project, the Owner shall mark in the field the location of all such Utilities horizontally on the ground in advance of Project construction in the immediate area of such Utilities.

12.   **Inspection and Acceptance by the Owner.**

(a)   Throughout the Adjustment construction hereunder, the Owner shall provide adequate inspectors for such construction. The work shall be inspected by the Owner's inspector(s) at least once each working day, and more often if such inspections are deemed necessary by Owner. Further, upon request by DB Contractor or its Subcontractors, the Owner shall furnish an inspector at any reasonable time in which construction is underway pursuant to this Agreement, including occasions when construction is underway in excess of the usual 40 hour work week and at such other times as reasonably required. The Owner agrees to promptly notify DB Contractor of any concerns resulting from any such inspection.

(b)   The Owner shall perform a final inspection of the adjusted Owner Utilities, including conducting any tests as are necessary or appropriate, within **five (5) Business Days** after completion of construction hereunder. The Owner shall accept such construction if it is consistent with the performance standards described in Paragraph 3, by giving written notice of such acceptance to DB Contractor within said **five (5) day** period. If the Owner does not accept the construction, then the Owner shall, not later than the expiration of said **five (5) day** period, notify DB Contractor in writing of its grounds for non-acceptance and suggestions for correcting the problem, and if the suggested corrections are justified, DB Contractor will comply. The Owner shall re-inspect any revised construction (and retest if appropriate) and give notice of acceptance, no later than **five (5) Business Days** after completion of corrective work. The Owner's failure to inspect

and to give any required notice of acceptance or non-acceptance within the specified time period shall be deemed accepted.

(c)   From and after the Owner's acceptance (or deemed acceptance) of an adjusted Owner Utility, the Owner agrees to accept ownership of, and full operation and maintenance responsibility for, such Owner Utility.

13.   **Design Changes.** DB Contractor will be responsible for additional Adjustment design and construction costs necessitated by design changes to the Project, upon the terms specified herein.

14.   **Field Modifications.** DB Contractor shall provide the Owner with documentation of any field modifications, including Utility Adjustment Field Modifications as well as minor changes described in Paragraph 16(b), occurring in the Adjustment of the Owner Utilities.

15.   **Real Property Interests.**

(a)   The Owner has provided, or upon execution of this Agreement shall promptly provide to DB Contractor, documentation acceptable to TxDOT indicating any right, title or interest in real property claimed by the Owner with respect to the Owner Utilities in their existing location(s). Such claims are subject to TxDOT's approval as part of its review of DB Contractor Utility Assembly as described in Paragraph 2. Claims approved by TxDOT as to rights or interests are referred to herein as "**Existing Utility Property Interests**".

(b)   If acquisition of any new easement or other interest in real property ("**Replacement Utility Property Interest**") is necessary for the Adjustment of any Owner Utilities, then the Owner shall be responsible for undertaking such acquisition. The Owner shall implement each acquisition hereunder expeditiously so that related Adjustment construction can proceed in accordance with DB Contractor's Project schedules. DB Contractor shall be responsible for its share (as specified in Paragraph 4) of the actual and reasonable acquisition costs of any such Replacement Utility Property Interest (including without limitation the Owner's reasonable overhead charges and reasonable legal costs as well as compensation paid to the landowner), excluding any costs attributable to Betterment as described in Paragraph 15(c), and subject to the provisions of Paragraph 15(e); *provided, however*, that all acquisition costs shall be subject to DB Contractor's prior written approval. Eligible acquisition costs shall be segregated from other costs on the Owner's estimates and invoices. Any such Replacement Utility Property Interest shall have a written valuation and shall be acquired in accordance with applicable Law.

(c)   DB Contractor shall pay its share only for a replacement in kind of an Existing Utility Property Interest (e.g., in width and type), unless a Replacement Utility Property Interest exceeding such standard:

(1)   Is required in order to accommodate the Project or by compliance with applicable Law; or

(2)   Is called for by DB Contractor in the interest of overall Project economy.

Any Replacement Utility Property Interest which is not DB Contractor's responsibility pursuant to the preceding sentence shall be considered Betterment to the extent that it

upgrades the Existing Utility Property Interest which it replaces, or in its entirety if the related Owner Utility was not installed pursuant to an Existing Utility Property Interest. Betterment costs shall be solely the Owner's responsibility.

(d)   For each Existing Utility Property Interest located within the Project right of way, upon completion of the related Adjustment work and its acceptance by the Owner, the Owner agrees to execute a quitclaim deed or other appropriate documentation relinquishing such Existing Utility Property Interest to TxDOT, unless the affected Owner Utility is remaining in its original location or is being reinstalled in a new location within the area subject to such Existing Utility Property Interest. If the Owner's facilities are remaining within the existing property interest, a Utility Joint Use Acknowledgement will be required. All quitclaim deeds or other relinquishment documents shall be subject to TxDOT's approval as part of its review of the Utility Assembly as described in Paragraph 2. For each such Existing Utility Property Interest relinquished by the Owner, DB Contractor shall do one (1) of the following to compensate the Owner for such Existing Utility Property Interest, as appropriate:

(1)   If the Owner acquires a Replacement Utility Property Interest for the affected Owner Utility, DB Contractor shall reimburse the Owner for DB Contractor's share of the Owner's actual and reasonable acquisition costs in accordance with Paragraph 15(b), subject to Paragraph 15(c); or

(2)   If the Owner does not acquire a Replacement Utility Property Interest for the affected Owner Utility, DB Contractor shall compensate the Owner for DB Contractor's share of the market value of such relinquished Existing Utility Property Interest, as mutually agreed between the Owner and DB Contractor and supported by a written valuation.

The compensation, if any, provided to the Owner pursuant to either subparagraph (i) or (ii) above shall constitute complete compensation to the Owner for the relinquished Existing Utility Property Interest and any Replacement Utility Property Interest, and not further compensation shall be due to the Owner from DB Contractor or TxDOT on account of such Existing Utility Property Interest or Replacement Utility Property Interest.

(e)   All Utility Joint Use Acknowledgments (UJUA) or Utility Installation Requests, Form 1082 shall be subject to TxDOT approval as part of its review of the Utility Assembly as described in Paragraph 2. A Utility Joint Use Acknowledgment is required where an Existing Utility Property Interest exists and the existing or proposed Utility will remain or be adjusted within the boundaries of the Existing Utility Property Interest. All other accommodations not located on Existing Utility Property Interests will require a Utility Installation Request, Form 1082.

16.   **Amendments and Modifications.** This Agreement may be amended or modified only by a written instrument executed by the parties hereto, in accordance with Paragraph 16(a) or Paragraph 16(b) below:

(a) Except as otherwise provided in Paragraph 16(b), any amendment or modification to this Agreement or the Plans attached hereto shall be implemented by a Utility Adjustment

Agreement Amendment ("**UAAA**") in the form of Exhibit B hereto (DB-ROW-U-UAAA-DM). The UAAA form can be used for a new scope of work with concurrence of DB Contractor and TxDOT as long as the design and construction responsibilities have not changed. Each UAAA is subject to the review and approval of TxDOT, prior to its becoming effective for any purpose and prior to any work being initiated thereunder. The Owner agrees to keep and track costs for each UAAA separately from other work being performed.

(b) For purposes of this Paragraph 16(b), "**Utility Adjustment Field Modification**" shall mean any horizontal or vertical design change from the Plans included in a Utility Assembly previously approved by TxDOT, due either to design of the Project or to conditions not accurately reflected in the approved Utility Assembly (e.g., shifting the alignment of an 8 inch water line to miss a modified or new roadway drainage structure). A Utility Adjustment Field Modification agreed upon by DB Contractor and the Owner does not require a UAAA, provided that the modified Plans have been submitted to TxDOT for its review and comment. A minor change (e.g., an additional water valve, an added Utility marker at a ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification and will not require a UAAA, but shall be shown in the documentation required pursuant to Paragraph 14.

(c) This Agreement does not alter and shall not be construed in any way to alter the obligations, responsibilities, benefits, rights, remedies, and claims between DB Contractor and TxDOT to design and construct the Project, including the Adjustment.

17. **Entire Agreement.** This Agreement embodies the entire agreement between the parties and there are no oral or written agreements between the parties or any representations made which are not expressly set forth herein.

18. **Assignment; Binding Effect; TxDOT as Third-Party Beneficiary.** Neither the Owner nor DB Contractor may assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other party and of TxDOT, which consent may not be unreasonably withheld or delayed; *provided, however*, that DB Contractor may assign any of its rights and/or delegate any of its duties to TxDOT or to any other entity engaged by TxDOT to fulfill DB Contractor's obligations, at any time without the prior consent of the Owner.

This Agreement shall bind the Owner, DB Contractor and their successors and permitted assigns, and nothing in this Agreement nor in any approval subsequently provided by any party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, any contractor or other party retained for the Adjustment work or the public in general; *provided, however*, that the Owner and DB Contractor agree that although TxDOT is not a party to this Agreement, TxDOT is intended to be a third-party beneficiary to this Agreement.

19. **Breach by the Parties.**

(a) If the Owner claims that DB Contractor has breached any of its obligations under this Agreement, the Owner will notify DB Contractor and TxDOT in writing of such breach, and DB Contractor shall have **30 days** following receipt of such notice in which to cure such breach, before the Owner may invoke any remedies which may be available to it as a result of such breach; *provided, however*, that both during and after such period TxDOT

shall have the right, but not the obligation, to cure any breach by DB Contractor. Without limiting the generality of the foregoing:

(1)   TxDOT shall have no liability to the Owner for any act or omission committed by DB Contractor in connection with this Agreement, including without limitation any claimed defect in any design or construction work supplied by DB Contractor or by its Subcontractors; and

(2)   In no event shall TxDOT be responsible for any repairs or maintenance to the Owner Utilities adjusted pursuant to this Agreement.

(b)   If DB Contractor claims that the Owner has breached any of its obligations under this Agreement, DB Contractor will notify the Owner and TxDOT in writing of such breach, and the Owner shall have **30 days** following receipt of such notice in which to cure such breach, before DB Contractor may invoke any remedies which may be available to it as a result of such breach.

20.   **Traffic Control.** DB Contractor shall provide traffic control or shall reimburse the Owner for DB Contractor's share (if any, as specified in Paragraph 4) of the costs for traffic control made necessary by the Adjustment work performed by either DB Contractor or the Owner pursuant to this Agreement, in compliance with the requirements of the Texas *Manual on Uniform Traffic Control Devices*. Betterment percentages calculated in Paragraph 9 shall also apply to traffic control costs.

21.   **Notices.** Except as otherwise expressly provided in this Agreement, all notices or communications pursuant to this Agreement shall be sent or delivered to the following:

Owner: Address Line #1
                                Address Line #2
                                City, State Zip
                                Phone: (   )   -
                                Fax: (   )   -

DB Contractor: Address Line #1
                                Address Line #2
                                City, State Zip
                                Phone: (   )   -
                                Fax: (   )   -

A party sending notice of default of this Agreement to another party shall also send a copy of such notice to TxDOT at the following address:

TxDOT: Texas Department of Transportation
                                Attention: Strategic Projects Division – ROW Office
                                125 E 11th Street
                                Austin, TX 78701-2483

Any notice or demand required herein shall be given (a) personally, (b) by certified or registered mail, postage prepaid, return receipt requested, or (c) by reliable messenger or overnight courier to the appropriate address set forth above. Any notice served personally shall be deemed delivered upon receipt, and any notice served by certified or registered mail or by reliable messenger or overnight courier shall be deemed delivered on the date of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier. Any party may designate any other address for this purpose by written notice to all other parties; TxDOT may designate another address by written notice to all parties.

22. **Approvals.** Any acceptance, approval, or any other like action (collectively "**Approval**") required or permitted to be given by DB Contractor, the Owner or TxDOT pursuant to this Agreement:

    (a)   Must be in writing to be effective (except if deemed granted pursuant hereto);

    (b)   Shall not be unreasonably withheld or delayed; and if Approval is withheld, such withholding shall be in writing and shall state with specificity the reason for withholding such Approval, and every effort shall be made to identify with as much detail as possible what changes are required for Approval; and

    (c)   Except for approvals by TxDOT, and except as may be specifically provided otherwise in this Agreement, shall be deemed granted if no response is provided to the party requesting an Approval within the time period prescribed by this Agreement (or if no time period is prescribed, then **14 calendar days**), commencing upon actual receipt by the party from which an Approval is requested or required, of a request for Approval from the requesting party. All requests for Approval shall be sent out by the requesting party to the other party in accordance with Paragraph 21.

23. **Time.**

    (a)   Time is of the essence in the performance of this Agreement.

    (b)   All references to "days" herein shall be construed to refer to calendar days, unless otherwise stated.

    (c)   No party shall be liable to another party for any delay in performance under this Agreement from any cause beyond its control and without its fault or negligence ("**Force Majeure**"), such as acts of God, acts of civil or military authority, fire, earthquake, strike, unusually severe weather, floods or power blackouts.

24. **Continuing Performance.** In the event of a dispute, the Owner and DB Contractor agree to continue their respective performance hereunder to the extent feasible in light of the dispute, including paying billings, and such continuation of efforts and payment of billings shall not be construed as a waiver of any legal right.

25. **Equitable Relief.** DB Contractor and the Owner acknowledge and agree that delays in Adjustment of the Owner Utilities will impact the public convenience, safety and welfare, and that (without limiting the parties' remedies hereunder) monetary damages would be inadequate to

compensate for delays in the construction of the Project. Consequently, the parties hereto (and TxDOT as well, as a third-party beneficiary) shall be entitled to specific performance or other equitable relief in the event of any breach of this Agreement which threatens to delay construction of the Project; *provided, however*, that the fact that specific performance or other equitable relief may be granted shall not prejudice any claims for payment or otherwise related to performance of the Adjustment work hereunder.

26. **Authority.** The Owner and DB Contractor each represent and warrant to the other party that the warranting party possesses the legal authority to enter into this Agreement and that it has taken all actions necessary to exercise that authority and to lawfully authorize its undersigned signatory to execute this Agreement and to bind such party to its terms. Each person executing this Agreement on behalf of a party warrants that he or she is duly authorized to enter into this Agreement on behalf of such party and to bind it to the terms hereof.

27. **Cooperation.** The parties acknowledge that the timely completion of the Project will be influenced by the ability of the Owner (and its contractors) and DB Contractor to coordinate their activities, communicate with each other, and respond promptly to reasonable requests. Subject to the terms and conditions of this Agreement, the Owner and DB Contractor agree to take all steps reasonably required to coordinate their respective duties hereunder in a manner consistent with DB Contractor's current and future construction schedules for the Project.

28. **Termination.** If the Project is canceled or modified so as to eliminate the necessity of the Adjustment work described herein, then DB Contractor shall notify the Owner in writing and DB Contractor reserves the right to thereupon terminate this Agreement. Upon such termination, the parties shall negotiate in good faith an amendment that shall provide mutually acceptable terms and conditions for handling the respective rights and liabilities of the parties relating to such termination.

29. **Nondiscrimination.** Each party hereto agrees, with respect to the work performed by such party pursuant to this Agreement that such party shall not discriminate on the grounds of race, color, sex, national origin or disability in the selection and/or retention of contractors and consultants, including procurement of materials and leases of equipment.

30. **Applicable Law, Jurisdiction and Venue.** This Agreement shall be governed by the Laws of the State of Texas, without regard to the Conflict of Laws principles thereof. Venue for any action brought to enforce this Agreement or relating to the relationship between any of the parties shall be the District Court of _____ County, Texas [or the United States District Court for the Western District of Texas (Austin)].

31. **Relationship of the Parties.** This Agreement does not in any way, and shall not be construed to, create a principal/agent or joint venture relationship between the parties hereto and under no circumstances shall the Owner or DB Contractor be considered as or represent itself to be an agent of the other.

32. **Waiver of Consequential Damages.** No party hereto shall be liable to any other party to this Agreement, whether in contract, tort, equity, or otherwise (including negligence, warranty, indemnity, strict liability, or otherwise) for any punitive, exemplary, special, indirect, incidental,

or consequential damages, including, without limitation, loss of profits or revenues, loss of use, claims of customers, or loss of business opportunity.

33.   **Captions.** The captions and headings of the various paragraphs of this Agreement are for convenience and identification only, and shall not be deemed to limit or define the content of their respective paragraphs.

34.   **Counterparts.** This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one (1) and the same instrument.

35.   **Effective Date.** This Agreement shall become effective upon the later of (a) the date of signing by the last party (either the Owner or DB Contractor) signing this Agreement, and (b) the date of TxDOT's approval as indicated by the signature of TxDOT's representative below.

APPROVED BY:

TEXAS DEPARTMENT OF TRANSPORTATION

By: _____
    [Printed Name]

By: _____
    Authorized Signature

    District Engineer (or designee)

Date: _____

OWNER

By: _____
    [Print Owner Name]

By: _____
    Duly Authorized Representative

    [Title]
    [Company]

Date: _____

DB CONTRACTOR

By: _____
    [Print Name]

By: _____
    Duly Authorized Representative

    [Title]
    [Company]

Date: _____

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

PROJECT UTILITY ADJUSTMENT AGREEMENT
(Owner-Managed)

Agreement No.: _____ -U- _____

THIS AGREEMENT, by and between <u>DB Contractor</u>, hereinafter identified as the "**DB Contractor**" and [Utility Owner], hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE OF TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "TxDOT", is authorized to design, construct, operate, maintain, and improve projects as part of the state highway system throughout the State of Texas, all in conformance with the applicable provisions of Chapters 201, 203, 222, 223, 224 and 228 of the Texas Transportation Code, as amended; and

WHEREAS, TxDOT proposes to construct a project identified as the [Project Name] (the "Project") and classified as either Interstate, Toll or Traditional (meaning eligibility based on existing compensable interest in the land occupied by the facility to be relocated within the proposed highway right of way limits) as indicated below (*check <u>one (1)</u> box*). Reimbursement will be authorized by the type of project selected below in conformance with Transportation Code 203.092,

☐   Interstate

☐   Toll

☐   Traditional

;and

WHEREAS, pursuant to that certain Design Build Agreement ("DBA") by and between TxDOT and the DB Contractor with respect to the Project, the DB Contractor has undertaken the obligation to design, construct, finance, operate and maintain the Project and adhere to all requirements in the DBA; and

WHEREAS, the DB Contractor's duties pursuant to the DBA include causing the relocation, removal, or other necessary adjustment of existing Utilities impacted by the Project (collectively, "Adjustment"), subject to the provisions herein; and

WHEREAS, the Project may receive Federal funding, financing and/or credit assistance; and

WHEREAS, the DB Contractor has notified the Owner that certain of its facilities and appurtenances (the "Owner Utilities") are in locational conflict with the Project (and/or the Ultimate Configuration of the

Project), and the Owner has decided to undertake the Adjustment of the Owner Utilities and agrees that the "Project" will be constructed in accordance with §203.092 of the Texas Transportation Code, as amended, and 23 CFR 645 Subpart A (Utility Relocations, Adjustments and Reimbursement); and

WHEREAS, the Owner Utilities and the proposed Adjustment of the Owner Utilities are described as follows *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00")]:*

_____ ; and

WHEREAS, the Owner recognizes that time is of the essence in completing the work contemplated herein; and

WHEREAS, the DB Contractor and the Owner desire to implement the Adjustment of the Owner Utilities by entering into this Agreement.

<div align="center">

AGREEMENT

</div>

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, the DB Contractor and the Owner agree as follows:

1.   **Preparation of Plans.** [*Check one (1) box that applies:*]

☐   The DB Contractor has hired engineering firm(s) acceptable to the Owner to perform all engineering services needed for the preparation of plans, required specifications, and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. The DB Contractor represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), set forth in 43 Texas Administrative Code, Part 1, Chapter 21, Subchapter C, *et seq.* (the "UAR"). By its execution of this Agreement or by the signing of the Plans, the Owner hereby approves and confirms that the Plans are in compliance with the "standards" described in Paragraph 3(a)(4).

☐   The Owner has provided plans, required specifications and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. The Owner represents and warrants that the Plans conform to the Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), as set forth in 43 Texas Administrative Code Part 1, Chapter 21, Subchapter C, *et seq.* (the "UAR"). By its execution of this Agreement, the DB Contractor and the Owner hereby approve the Plans. The Owner also has provided to the DB Contractor a Utility plan view map illustrating the location of existing and proposed Utility facilities on the DB Contractor's right of way map of the Project. With regard to its preparation of the Plans, the Owner represents as follows *[check one (1) box that applies]*:

☐   The Owner's employees were utilized to prepare the Plans, and the charges therefore do not exceed the Owner's typical costs for such work.

☐   The Owner utilized consulting engineers to prepare the Plans, and the fees for such work are not based upon a percentage of construction costs. Further, such fees encompass only the work necessary to prepare the Plans for Adjustment of the Owner Utilities described herein, and do not include fees for work done on any other project. The fees of the consulting engineers are reasonable and are comparable to the fees typically charged by consulting engineers in the locale of the Project for comparable work for the Owner.

2.   **Review by TxDOT**. The parties hereto acknowledge and agree as follows:

(a)   Upon execution of this Agreement by the DB Contractor and the Owner, the DB Contractor will submit this Agreement, together with the attached Plans, to TxDOT for its review and approval as part of a package referred to as a "Utility Assembly". The parties agree to cooperate in good faith to modify this Agreement and/or the Plans, as necessary and mutually acceptable to all parties, to respond to any comments made by TxDOT thereon. Without limiting the generality of the foregoing:

(1)   The Owner agrees to respond (with comment and/or acceptance) to any modified Plans and/or Agreement prepared by the DB Contractor in response to TxDOT comments within **14 business days** after receipt of such modifications; and

(2)   If the Owner originally prepared the Plans, the Owner agrees to modify the Plans in response to TxDOT comments and to submit such modified Plans to the DB Contractor for its comment and/or approval (and resubmit to TxDOT for its comment and/or approval) within **14 business days** after receipt of TxDOT's comments.

The Owner's failure to timely respond to any modified Plans submitted by the DB Contractor pursuant to this paragraph shall be deemed the Owner's approval of same. If the Owner fails to timely prepare modified Plans which are its responsibility hereunder, then the DB Contractor shall have the right to modify the Plans for the Owner's approval as if the DB Contractor had originally prepared the Plans. The DB Contractor shall be responsible for providing Plans to and obtaining comments on and approval of the Plans from the DB Contractor. The process set forth in this paragraph will be repeated until the Owner, the DB Contractor and TxDOT have all approved this Agreement and the Plans.

(b)   The parties hereto acknowledge and agree that TxDOT's review, comments, and/or approval of a Utility Assembly or any component thereof shall constitute TxDOT's approval of the location and manner in which a Utility Assembly will be installed, adjusted, or relocated within the State Highway right of way (the "ROW"), subject to the DB Contractor and Owner's satisfactory performance of the Adjustment work in accordance with the approved Plans. TxDOT has no duty to review Owner facilities or components for their quality or adequacy to provide the intended Utility service.

3.   **Design and Construction Standards**.

   (a)   All design and construction performed for the Adjustment work which is the subject of this Agreement shall comply with and conform to the following:

      (1)   All applicable local and State Laws, regulations, decrees, ordinances and policies, including the UAR, the Utility Manual issued by TxDOT (to the extent its requirements are mandatory for the Utility Adjustment necessitated by the Project, communicated to the Owner by the DB Contractor or TxDOT), the requirements of the DBA, and the policies of TxDOT;

      (2)   All Federal Laws, regulations, decrees, ordinances and policies applicable to projects receiving Federal funding, financing and/or credit assistance, including without limitation 23 CFR 645 Subparts A and B and the Buy America provisions of 23 U.S.C § 313 and 23 CFR 635.410. The Utility Owner shall supply, upon request by the DB Contractor or TxDOT, proof of compliance with the aforementioned Laws, rules and regulations prior to the commencement of construction;

      (3)   The terms of all governmental permits or other approvals, as well as any private approvals of third parties necessary for such work;

      (4)   The standard specifications, standards of practice, and construction methods (collectively, "standards") which the Owner customarily applies to facilities comparable to the Owner Utilities that are constructed by the Owner or for the Owner by its contractors at the Owner's expense, which standards are current at the time this Agreement is signed by the Owner, and which the Owner has submitted to the DB Contractor in writing; and

      (5)   Owner agrees that all service meters must be placed outside of the State ROW.

   (b)   Such design and construction also shall be consistent and compatible with:

      (1)   The DB Contractor's current design and construction of the Project;

      (2)   The Ultimate Configuration for the Project; and

      (3)   Any other utilities being installed in the same vicinity.

      The Owner acknowledges receipt from the DB Contractor of Project plans and Ultimate Configuration documents as necessary to comply with the foregoing. In case of any inconsistency among any of the standards referenced in this Agreement, the most stringent standard shall apply.

   (c)   The plans, specifications, and cost estimates contained in Exhibit A shall identify and detail all Utility facilities that the Owner intends to abandon in place rather than remove, including material type, quantity, size, age, and condition. No facilities containing hazardous or contaminated materials may be abandoned, but shall be specifically identified and removed in accordance with the requirements of subparagraph (a). It is understood and agreed that the DB Contractor shall not pay for the assessment and

remediation or other corrective action relating to soil and ground water contamination caused by the utility facility prior to the removal.

4. **Construction by the Owner; Scheduling**.

(a) The Owner hereby agrees to perform the construction necessary to adjust the Owner Utilities. All construction work hereunder shall be performed in a good and workmanlike manner, and in accordance with the Plans (except as modified pursuant to Paragraph 17). The Owner agrees that during the Adjustment of the Owner Utilities, the Owner and its contractors will coordinate their work with the DB Contractor so as not to interfere with the performance of work on the Project by the DB Contractor or by any other party. "Interfere" means any action or inaction that interrupts, interferes, delays or damages Project work.

(b) The Owner may utilize its own employees or may retain such contractor or contractors as are necessary to adjust the Owner Utilities, through the procedures set forth in Form "Statement Covering Contract Work" attached hereto as Exhibit C. If the Owner utilizes its own employees for the Construction work portion of the Adjustment of Owner Utilities, this form is not required.

(c) The Owner shall obtain all permits necessary for the construction to be performed by the Owner hereunder, and the DB Contractor shall cooperate in that process as needed. The Owner shall submit a traffic control plan to the DB Contractor as required for Adjustment work to be performed on existing road rights of way.

(d) The Owner shall commence its construction for Adjustment of each Owner Utility hereunder promptly after (i) receiving written notice to proceed therewith from the DB Contractor, and (ii) any Project right of way necessary for such Adjustment has been acquired either by DB Contractor (for adjusted facilities to be located within the Project right of way) or by the Owner (for adjusted facilities to be located outside of the Project right of way), or a right-of-entry permitting Owner's construction has been obtained from the landowner by the DB Contractor or by the Owner with the DB Contractor's prior approval. The Owner shall notify the DB Contractor at least 72 hours prior to commencing construction for the Adjustment of each Owner Utility hereunder.

(e) The Owner shall expeditiously stake the survey of the proposed locations of the Owner Utilities being adjusted, on the basis of the final approved Plans. The DB Contractor shall verify that the Owner's Utilities, whether moving to a new location or remaining in place, clear the planned construction of the Project as staked in the field as well as the Ultimate Configuration.

(f) The Owner shall complete all of the Utility reconstruction and relocation work, including final testing and acceptance thereof *[check one (1) box that applies]*:

☐ On or before **[Month] [Day]**, **20[15]**.

☐ A duration not to exceed ＿＿＿ calendar days upon notice to proceed by the DB Contractor.

(g)   The amount of reimbursement due to the Owner pursuant to this Agreement for the affected Adjustment(s) shall be reduced by 10% for each 30-day period (and by a pro rata amount of said 10% for any portion of a 30-day period) by which the final completion and acceptance date for the affected Adjustment(s) exceeds the applicable deadline. The provisions of this Paragraph 4(g) shall not limit any other remedy available to the DB Contractor at Law or in equity as a result of the Owner's failure to meet any deadline hereunder.

The above reduction applies except to the extent due to:

(1)   Force Majeure as described in Paragraph 24(c);

(2)   Any act or omission of the DB Contractor, if the Owner fails to meet any deadline established pursuant to Paragraph 4(f); or

(3)   If the DB Contractor and/or TxDOT determine, in their sole discretion, that a delay in the relocation work is the result of circumstances beyond the control of the Owner or Owner's contractor and the DB Contractor will not reduce the reimbursement.

5.   **Costs of the Work**.

(a)   The Owner's costs for Adjustment of each Owner Utility shall be derived from:

(1)   The accumulated total of costs incurred by the Owner for design and construction of such Adjustment, *plus*

(2)   The Owner's other related costs to the extent permitted pursuant to Paragraph 5(b) (including without limitation the eligible engineering costs incurred by the Owner for design prior to execution of this Agreement), *plus*

(3)   The Owner's right of way acquisition costs, if any, which are reimbursable pursuant to Paragraph 16.

(b)   The Owner's costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below *[check only <u>one</u> (1) box]*:

☐   (1)   Actual costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body ("**Actual Cost**");

☐   (2)   Actual costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations ("**Actual Cost**"); or

☐   (3)   The agreed sum of $<u>   </u> ("**Agreed Sum**"), as supported by the analysis of estimated costs attached hereto as part of <u>Exhibit A</u>.

6.   **Responsibility for Costs of Adjustment Work**. The Agreed Sum or Actual Cost, as applicable, of all work to be performed pursuant to this Agreement shall be allocated between the DB Contractor and the Owner as identified in <u>Exhibit A</u> and in accordance with § 203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio, if appropriate, as detailed in <u>Exhibit A</u>; *provided, however*, that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 10. All costs charged to the DB Contractor by the Owner shall be reasonable and shall be computed using rates and schedules not exceeding those applicable to similar work performed by or for the Owner at the Owner's expense. Payment of the costs allocated to the DB Contractor pursuant to this Agreement (if any) shall be full compensation to the Owner for all costs incurred by the Owner in Adjusting the Owner Utilities (including without limitation costs of relinquishing and/or acquiring right of way).

7.   **Billing, Payment, Records and Audits: Actual Cost Method**. The following provisions apply if the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b):

    (a)   After (i) completion of all Adjustment work to be performed pursuant to this Agreement, (ii) the DB Contractor's final inspection of the Adjustment work by Owner hereunder (and resolution of any deficiencies found), and (iii) receipt of an invoice complying with the applicable requirements of Paragraph 9, the DB Contractor shall pay to the Owner an amount equal to 90% of the DB Contractor's share of the Owner's costs as shown in such final invoice (less amounts previously paid, and applicable credits). After completion of the DB Contractor's audit referenced in Paragraph 7(c) and the parties' mutual determination of any necessary adjustment to the final invoice resulting therefrom, the DB Contractor shall make any final payment due so that total payments will equal the total amount of the DB Contractor's share reflected on such final invoice (as adjusted, if applicable).

    (b)   When requested by the Owner and properly invoiced in accordance with Paragraph 9, the DB Contractor shall make intermediate payments to the Owner based upon the progress of the work completed at not more than monthly intervals, and such payments shall not exceed 90% of the DB Contractor's share of the Owner's eligible costs as shown in each such invoice (less applicable credits). Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

    (c)   The Owner shall maintain complete and accurate cost records for all work performed pursuant to this Agreement. The Owner shall maintain such records for four (4) years after receipt of final payment hereunder. The DB Contractor and their respective representatives shall be allowed to audit such records during the Owner's regular business hours. Unsupported charges will not be considered eligible for reimbursement. The parties shall mutually agree upon (and shall promptly implement by payment or refund, as applicable) any financial adjustment found necessary by the DB Contractor's audit. TxDOT, the Federal Highway Administration (FHWA), and their respective representatives also shall be allowed to audit such records upon reasonable notice to the Owner, during the Owner's regular business hours.

8. **Billing and Payment: Agreed Sum Method**. If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the DB Contractor shall pay its share of the Agreed Sum to the Owner after completion of:

   (a)   All Adjustment work to be performed pursuant to this Agreement;

   (b)   The DB Contractor's final inspection of the Adjustment work by Owner hereunder (and resolution of any deficiencies found); and

   (c)   The receipt of an invoice complying with the applicable requirements of Paragraph 9.

9. **Invoices**. If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), then Owner shall list each of the services performed, the amount of time spent and the date on which the service was performed. The original and three (3) copies of each invoice shall be submitted to the DB Contractor at the address for notices stated in Paragraph 22, unless otherwise directed by the DB Contractor pursuant to Paragraph 23, together with:

   (a)   Such supporting information to substantiate all invoices as reasonably requested by the DB Contractor; and

   (b)   Such waivers or releases of liens as the DB Contractor may reasonably require.

   The Owner shall make commercially reasonable efforts to submit final invoices not later than 120 days after completion of work. Final invoices shall include any necessary quitclaim deeds pursuant to Paragraph 16, and all applicable record drawings accurately representing the Adjustment as installed. The Owner hereby acknowledges and agrees that any right it may have for reimbursement of any of its costs not submitted to the DB Contractor within 12 months following completion of all Adjustment work to be performed by both parties pursuant to this Agreement shall be deemed to have been abandoned and waived. Invoices shall clearly delineate total costs and those costs that are reimbursable pursuant to the terms of this Agreement.

10. **Betterment**.

    (a)   For purposes of this Agreement, the term "Betterment" means any upgrading of an Owner Utility being adjusted that is not attributable to the construction of the Project and is made solely for the benefit of and at the election of the Owner, including but not limited to an increase in the capacity, capability, efficiency or function of the adjusted Utility over that provided by the existing Utility facility or an expansion of the existing Utility facility; provided, however, that the following are not considered Betterments:

       (1)   Any upgrading which is required for accommodation of the Project;

       (2)   Replacement devices or materials that are of equivalent standards although not identical;

       (3)   Replacement of devices or materials no longer regularly manufactured with the next highest grade or size;

       (4)   Any upgrading required by applicable Laws, regulations or ordinances;

(5)   Replacement devices or materials which are used for reasons of economy (e.g., non-stocked items may be uneconomical to purchase); or

(6)   Any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(a)(4) and deemed to be of direct benefit to the Project.

[Include the following for fiber optic Owner Utilities only:] Extension of an Adjustment to the nearest splice boxes shall not be considered a Betterment if required by the Owner in order to maintain its written telephony standards.

(b)   It is understood and agreed that the DB Contractor will not pay for any Betterments and that the Owner shall not be entitled to payment therefor. No Betterment may be performed in connection with the Adjustment of the Owner Utilities which is incompatible with the Project or the Ultimate Configuration or which cannot be performed within the other constraints of applicable Law and any applicable governmental approvals, including without limitation the scheduling requirements thereunder. Accordingly, the parties agree as follows *[check the underline one (1) box that applies and complete if appropriate]*:

☐   The Adjustment of the Owner Utilities pursuant to the Plans does not include any Betterment.

☐   The Adjustment of the Owner Utilities pursuant to the Plans includes Betterment to the Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____ .   The Owner has provided to the DB Contractor comparative estimates for (i) all costs for work to be performed by the Owner pursuant to this Agreement, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the DB Contractor. The estimated amount of the Owner's costs for work hereunder which is attributable to Betterment is $ _____ , calculated by *subtracting* (ii) from (i). The percentage of the total cost of the Owner's work hereunder which is attributable to Betterment is _____ %, calculated by *subtracting* (ii) from (i), which remainder shall be *divided* by (i).

(c)   If Paragraph 10(b) identifies Betterment, then the following shall apply:

(1)   If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the Agreed Sum stated in that Paragraph includes any credits due to the DB Contractor on account of the identified Betterment, and no further adjustment shall be made on account of same.

(2)   If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), the parties agree as follows *[If Paragraph 10(b) identifies Betterment and the Owner's costs are developed under procedure (1) or (2), check the underline one (1) appropriate provision]*:

☐   The estimated cost stated in Paragraph 10(b) is the agreed and final amount due for Betterment hereunder. Accordingly, each intermediate invoice submitted pursuant to Paragraph 7(b) shall include a credit for an
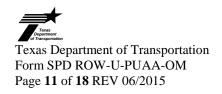
appropriate percentage of the agreed Betterment amount, proportionate to the percentage of completion reflected in such invoice. The final invoice submitted pursuant to Paragraph 7(a) shall reflect the full amount of the agreed Betterment credit. For each invoice described in this paragraph, the credit for Betterment shall be applied before calculating the DB Contractor's share (pursuant to Paragraph 6) of the cost of the Adjustment work. No other adjustment (either up or down) shall be made based on actual Betterment costs.

☐   The Owner is responsible for the actual cost of the identified Betterment, determined by *multiplying* (a) the Betterment percentage stated in Paragraph 10(b), by (b) the actual cost of all work performed by the Owner pursuant to this Agreement (including work attributable to the Betterment), as invoiced by the Owner to the DB Contractor. Accordingly, each invoice submitted pursuant to either Paragraph 7(a) or Paragraph 7(b) shall credit the DB Contractor with an amount calculated by *multiplying* (x) the Betterment percentage stated in Paragraph 10(b), by (y) the amount billed on such invoice.

(d)   The determinations and calculations of Betterment described in this Paragraph 10 shall exclude right of way acquisition costs. Betterment in connection with right of way acquisition is addressed in Paragraph 16.

11.   **Salvage**. For any Adjustment from which the Owner recovers any materials and/or parts and retains or sells the same, after application of any applicable Betterment credit, the DB Contractor is entitled to a credit for the salvage value of such materials and/or parts. If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), then the final invoice submitted pursuant to Paragraph 7(a) shall credit the DB Contractor with the full salvage value. If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the Agreed Sum includes any credit due to the DB Contractor on account of salvage.

12.   **Utility Investigations**. At the DB Contractor's request, the Owner shall assist the DB Contractor in locating any Utilities (including appurtenances) which are owned and/or operated by Owner and may be impacted by the Project. Without limiting the generality of the foregoing, in order to help assure that neither the adjusted Owner Utilities nor existing, unadjusted Utilities owned or operated by the Owner are damaged during construction of the Project, the Owner shall mark in the field the location of all such Utilities horizontally on the ground in advance of Project construction in the immediate area of such Utilities.

13.   **Inspection and Ownership of Owner Utilities**.

(a)   The DB Contractor shall have the right, at its own expense, to inspect the Adjustment work performed by the Owner or its contractors, during and upon completion of construction. All inspections of work shall be completed and any comment provided within **five (5) business days** after request for inspection is received.

(b)   The Owner shall accept full responsibility for all future repairs and maintenance of said Owner Utilities. In no event shall the DB Contractor or TxDOT become responsible for making any repairs or maintenance, or for discharging the cost of same. The provisions of this Paragraph 13(b) shall not limit any rights which the Owner may have against the DB
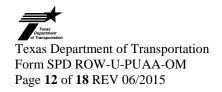
Contractor if either party respectively damages any Owner Utility as a result of its respective Project activities.

14. **Design Changes**. The DB Contractor will be responsible for additional Adjustment design and responsible for additional construction costs necessitated by design changes to the Project made after approval of the Plans, upon the terms specified herein.

15. **Field Modifications**. The Owner shall provide the DB Contractor with documentation of any field modifications, including Utility Adjustment Field Modifications as well as minor changes as described in Paragraph 17(b), occurring in the Adjustment of the Owner Utilities.

16. **Real Property Interests**.

   (a)   The Owner has provided, or upon execution of this Agreement shall promptly provide to the DB Contractor, documentation acceptable to TxDOT indicating any right, title or interest in real property claimed by the Owner with respect to the Owner Utilities in their existing location(s). Such claims are subject to TxDOT's approval as part of its review of the DB Contractor's Utility Assembly as described in Paragraph 2. Claims approved by TxDOT as to rights or interests are referred to herein as "**Existing Utility Property Interests**".

   (b)   If acquisition of any new easement or other interest in real property ("**Replacement Utility Property Interest**") is necessary for the Adjustment of any Owner Utilities, then the Owner shall be responsible for undertaking such acquisition. The Owner shall implement each acquisition hereunder expeditiously so that related Adjustment construction can proceed in accordance with the DB Contractor's Project schedules. The DB Contractor shall be responsible for its share (if any, as specified in Paragraph 6) of the actual and reasonable acquisition costs of any such Replacement Utility Property Interest (including without limitation the Owner's reasonable overhead charges and reasonable legal costs as well as compensation paid to the landowner), excluding any costs attributable to Betterment as described in Paragraph 16(c), and subject to the provisions of Paragraph 16(e); *provided, however*, that all acquisition costs shall be subject to the DB Contractor's prior written approval. Eligible acquisition costs shall be segregated from other costs on the Owner's estimates and invoices. Any such Replacement Utility Property Interest shall have a written valuation and shall be acquired in accordance with applicable Law.

   (c)   The DB Contractor shall pay its share only for a replacement in kind of an Existing Utility Property Interest (e.g., in width and type), unless a Replacement Utility Property Interest exceeding such standard:

      (1)   Is required in order to accommodate the Project or by compliance with applicable Law; or

      (2)   Is called for by the DB Contractor in the interest of overall Project economy.

   Any Replacement Utility Property Interest which is not the DB Contractor's cost responsibility pursuant to the preceding sentence shall be considered a Betterment to the extent that it upgrades the Existing Utility Property Interest which it replaces, or in its
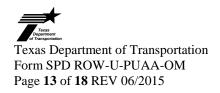
entirety if the related Owner Utility was not installed pursuant to an Existing Utility Property Interest. Betterment costs shall be solely the Owner's responsibility.

(d)   For each Existing Utility Property Interest located within the Project right of way, upon completion of the related Adjustment work and its acceptance by the Owner, the Owner agrees to execute a quitclaim deed or other appropriate documentation relinquishing such Existing Utility Property Interest to TxDOT, unless the affected Owner Utility is remaining in its original location or is being reinstalled in a new location within the area subject to such Existing Utility Property Interest. All quitclaim deeds or other relinquishment documents shall be subject to TxDOT's approval as part of its review of the Utility Assembly as described in Paragraph 2. For each Existing Utility Property Interest relinquished by the Owner, the DB Contractor shall do one (1) of the following to compensate the Owner for such Existing Utility Property Interest, as appropriate:

   (1)   If the Owner acquires a Replacement Utility Property Interest for the affected Owner Utility, the DB Contractor shall reimburse the Owner for the DB Contractor's share of the Owner's actual and reasonable acquisition costs in accordance with Paragraph 16(b) and subject to Paragraph 16(c); or

   (2)   If the Owner does not acquire a Replacement Utility Property Interest for the affected Owner Utility, the DB Contractor shall compensate the Owner for the DB Contractor's share of the market value of such relinquished Existing Utility Property Interest, as mutually agreed between the Owner and the DB Contractor and supported by a written valuation.

   The compensation, if any, provided to the Owner pursuant to either subparagraph (i) or subparagraph (ii) above shall constitute complete compensation to the Owner for the relinquished Existing Utility Property Interest and any Replacement Utility Property Interest, and no further compensation shall be due to the Owner from the DB Contractor or TxDOT on account of such Existing Utility Property Interest or Replacement Utility Property Interest.

(e)   All Utility Joint Use Acknowledgments (UJUA) or Utility Installation Requests (UIR), Form 1082 shall be subject to TxDOT approval as part of its review of the Utility Assembly as described in Paragraph 2. A Utility Joint Use Acknowledgment is required where an Existing Utility Property Interest exists and the existing or proposed Utility will remain or be adjusted within the boundaries of the Existing Utility Property Interest. All other accommodations not located on Existing Utility Property Interests will require a Utility Installation Request, Form 1082.

17.   **Amendments and Modifications**. This Agreement may be amended or modified only by a written instrument executed by the parties hereto, in accordance with Paragraph 17(a) or Paragraph 17(b) below:

(a)   Except as otherwise provided in Paragraph 17(b), any amendment or modification to this Agreement or the Plans attached hereto shall be implemented by a Utility Adjustment Agreement Amendment ("**UAAA**") in the form of <u>Exhibit B</u> hereto (DB-ROW-U-UAAA-OM). The UAAA form can be used for a new scope of work with concurrence of the DB Contractor and TxDOT as long as the Design and Construction responsibilities have not changed. Each UAAA is subject to the review and approval of TxDOT, prior to

its becoming effective for any purpose and prior to any work being initiated thereunder. The Owner agrees to keep and track costs for each UAAA separately from other work being performed.

(b)   For purposes of this Paragraph 17(b), "**Utility Adjustment Field Modification**" shall mean any horizontal or vertical design change from the Plans included in a Utility Assembly previously approved by TxDOT, due either to design of the Project or to conditions not accurately reflected in the approved Utility Assembly (e.g., shifting the alignment of an 8 inch water line to miss a modified or new roadway drainage structure). A Utility Adjustment Field Modification agreed upon by the DB Contractor and the Owner does not require a UAAA, provided that the modified Plans have been submitted to TxDOT for its review and comment. A minor change (e.g., an additional water valve, an added Utility marker at a ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification and will not require a UAAA, but shall be shown in the documentation required pursuant to Paragraph 15.

18.   **Entire Agreement**. This Agreement embodies the entire agreement between the parties and there are no oral or written agreements between the parties or any representations made which are not expressly set forth herein.

19.   **Assignment; Binding Effect; TxDOT as Third Party Beneficiary**. The Owner and the DB Contractor may not assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other parties and of TxDOT, which consent may not be unreasonably withheld or delayed; *provided, however*, that the DB Contractor may assign any of its rights and/or delegate any of its duties to TxDOT or to any other entity with which TxDOT contracts to fulfill the DB Contractor's obligations at any time without the prior consent of the Owner.

This Agreement shall bind the Owner, the DB Contractor and their successors and permitted assigns, and nothing in this Agreement nor in any approval subsequently provided by any party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, any contractor or other party retained for the Adjustment work or the public in general; *provided, however*, that the Owner and the DB Contractor agree that although TxDOT is not a party to this Agreement, TxDOT is intended to be a third-party beneficiary to this Agreement.

20.   **Breach by the Parties**.

(a)   If the Owner claims that the DB Contractor has breached any of its obligations under this Agreement, the Owner will notify the DB Contractor and TxDOT in writing of such breach, and the DB Contractor shall have **30 days** following receipt of such notice in which to cure such breach, before the Owner may invoke any remedies which may be available to it as a result of such breach; *provided, however*, that both during and after such period TxDOT shall have the right, but not the obligation, to cure any breach by the DB Contractor. Without limiting the generality of the foregoing:

(1)   TxDOT shall have no liability to the Owner for any act or omission committed by the DB Contractor in connection with this Agreement; and

(2)   In no event shall TxDOT be responsible for any repairs or maintenance to the Owner Utilities adjusted pursuant to this Agreement.

(b)   If the DB Contractor claims that the Owner has breached any of its obligations under this Agreement, the DB Contractor will notify the Owner and TxDOT in writing of such breach, and the Owner shall have **30 days** following receipt of such notice in which to cure such breach, before the DB Contractor or the DB Contractor may invoke any remedies which may be available to it as a result of such breach.

21.   **Traffic Control**. The DB Contractor shall provide traffic control or shall reimburse the Owner for the DB Contractor's share (if any, as specified in Paragraph 6) of the costs for traffic control made necessary by the Adjustment work performed by either the DB Contractor or the Owner pursuant to this Agreement, in compliance with the requirements of the Texas Manual on *Uniform Traffic Control Devices*. Betterment percentages calculated in Paragraph 10 shall also apply to the traffic control costs.

22.   **Notices**. Except as otherwise expressly provided in this Agreement, all notices or communications pursuant to this Agreement shall be sent or delivered to the following:

Owner: Address Line #1
                                Address Line #2
                                City, State Zip
                                Phone: (   )   -
                                Fax: (   )   -

DB Contractor: Address Line #1
                                Address Line #2
                                City, State Zip
                                Phone: (   )   -
                                Fax: (   )   -

A party sending a notice of default of this Agreement to another party shall also send a copy of such notice to TxDOT at the following address:

TxDOT: Texas Department of Transportation
                                Attention: Strategic Projects Division - ROW Office
                                125 E. 11th Street
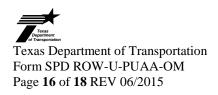   Austin, Texas 78701-2483

Any notice or demand required herein shall be given (a) personally, (b) by certified or registered mail, postage prepaid, return receipt requested, or (c) by reliable messenger or overnight courier to the appropriate address set forth above. Any notice served personally shall be deemed delivered upon receipt and served by certified or registered mail or by reliable messenger or overnight courier shall be deemed delivered on the date of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier. Any party may designate any other address for this purpose by written notice to all other parties; TxDOT may designate another address by written notice to all parties.
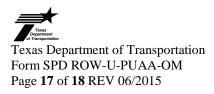
23.   **Approvals**. Any acceptance, approval, or any other like action (collectively "**Approval**") required or permitted to be given by either the DB Contractor or the Owner pursuant to this Agreement:

    (a)   Must be in writing to be effective (except if deemed granted pursuant hereto);

    (b)   Shall not be unreasonably withheld or delayed; and if Approval is withheld, such withholding shall be in writing and shall state with specificity the reason for withholding such Approval, and every effort shall be made to identify with as much detail as possible what changes are required for Approval; and

    (c)   Except for approvals by TxDOT, and except as may be specifically provided otherwise in this Agreement, shall be deemed granted if no response is provided to the party requesting an Approval within the time period prescribed by this Agreement (or if no time period is prescribed, then **14 calendar days**), commencing upon actual receipt by the party from which an Approval is requested or required, of a request for Approval from the requesting party. All requests for Approval shall be sent out by the requesting party to the other party in accordance with Paragraph 22.
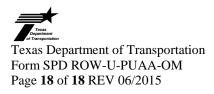
24.   **Time; Force Majeure**.

    (a)   Time is of the essence in the performance of this Agreement.

    (b)   All references to "days" herein shall be construed to refer to calendar days, unless otherwise stated.

    (c)   No party shall be liable to another party for any delay in performance under this Agreement from any cause beyond its control and without its fault or negligence ("**Force Majeure**"), such as acts of God, acts of civil or military authority, fire, earthquake, strike, unusually severe weather, floods or power blackouts. If any such event of Force Majeure occurs, the Owner agrees, if requested by the DB Contractor, to accelerate its efforts hereunder if reasonably feasible in order to regain lost time, so long as the DB Contractor agrees to reimburse the Owner for the reasonable and actual costs of such efforts.

25.   **Continuing Performance**. In the event of a dispute, the Owner and the DB Contractor agree to continue their respective performance hereunder to the extent feasible in light of the dispute, including paying billings, and such continuation of efforts and payment of billings shall not be construed as a waiver of any legal right.

26.   **Equitable Relief**. The DB Contractor and the Owner acknowledge and agree that delays in Adjustment of the Owner Utilities will impact the public convenience, safety and welfare, and that (without limiting the parties' remedies hereunder) monetary damages would be inadequate to compensate for delays in the construction of the Project. Consequently, the parties hereto (and TxDOT as well, as a third party beneficiary) shall be entitled to specific performance or other equitable relief in the event of any breach of this Agreement which threatens to delay construction of the Project; *provided, however*, that the fact that specific performance or other equitable relief may be granted shall not prejudice any claims for payment or otherwise related to performance of the Adjustment work hereunder.

27. **Authority**. The Owner and the DB Contractor each represent and warrant to the other party that the warranting party possesses the legal authority to enter into this Agreement and that it has taken all actions necessary to exercise that authority and to lawfully authorize its undersigned signatory to execute this Agreement and to bind such party to its terms. Each person executing this Agreement on behalf of a party warrants that he or she is duly authorized to enter into this Agreement on behalf of such party and to bind it to the terms hereof.

28. **Cooperation**. The parties acknowledge that the timely completion of the Project will be influenced by the ability of the Owner (and its contractors) and the DB Contractor to coordinate their activities, communicate with each other, and respond promptly to reasonable requests. Subject to the terms and conditions of this Agreement, the Owner and the DB Contractor agree to take all steps reasonably required to coordinate their respective duties hereunder in a manner consistent with the DB Contractor's current and future construction schedules for the Project. The Owner further agrees to require its contractors to coordinate their respective work hereunder with the DB Contractor.

29. **Termination**. If the Project is canceled or modified so as to eliminate the necessity of the Adjustment work described herein, then the DB Contractor shall notify the Owner in writing and the DB Contractor reserves the right to thereupon terminate this Agreement. Upon such termination, the parties shall negotiate in good faith an amendment that shall provide mutually acceptable terms and conditions for handling the respective rights and liabilities of the parties relating to such termination.

30. **Nondiscrimination**. Each party hereto agrees, with respect to the work performed by such party pursuant to this Agreement that such party shall not discriminate on the grounds of race, color, sex, national origin or disability in the selection and/or retention of contractors and consultants, including procurement of materials and leases of equipment.

31. **Applicable Law, Jurisdiction and Venue**. This Agreement shall be governed by the Laws of the State of Texas, without regard to the conflict of laws principles thereof. Venue for any action brought to enforce this Agreement or relating to the relationship between any of the parties shall be the District Court of _____ County, Texas [or the United States District Court for the Western District of Texas (Austin)].

32. **Relationship of the Parties.** This Agreement does not in any way, and shall not be construed to, create a principal/agent or joint venture relationship between the parties hereto and under no circumstances shall the Owner or the DB Contractor be considered as or represent itself to be an agent of the other.

33. **Waiver of Consequential Damages**. No party hereto shall be liable to any other party to this Agreement, whether in contract, tort, equity, or otherwise (including negligence, warranty, indemnity, strict liability, or otherwise), for any punitive, exemplary, special, indirect, incidental, or consequential damages, including, without limitation, loss of profits or revenues, loss of use, claims of customers, or loss of business opportunity.

34. **Captions**. The captions and headings of the various paragraphs of this Agreement are for convenience and identification only, and shall not be deemed to limit or define the content of their respective paragraphs.

35.   **<u>Counterparts</u>**. This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one (1) and the same instrument.

36.   **<u>Effective Date</u>**. This Agreement shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the DB Contractor) signing this Agreement, and (b) the date of TxDOT's approval as indicated by the signature of TxDOT's representative below.
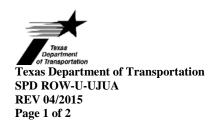
APPROVED BY:

**TEXAS DEPARTMENT OF
TRANSPORTATION**

OWNER

By: _____

[Printed Name]

By: _____

[Print Owner Name]

By: _____

Authorized Signature

District Engineer (or designee)

By: _____

Duly Authorized Representative

[Title]
[Company]

Date: _____

Date: _____

DB CONTRACTOR

By: _____

[Print Name]

By: _____

Duly Authorized Representative

[Title]
[Company]

Date: _____

UTILITY JOINT USE ACKNOWLEDGMENT
REIMBURSABLE UTILITY ADJUSTMENT

Agreement No.: _____

ROW CSJ: _____   County: _____

District: _____   Highway: _____

Fed. Proj. No.: _____   Limits:

Projected Letting Date: _____   From _____ to _____

WHEREAS, the State of Texas, ("**State**"), acting by and through the Texas Department of Transportation ("**TxDOT**"), proposes to make certain highway improvements on that section of the above-indicated highway; and
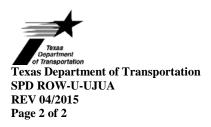
WHEREAS, the _____, ("**Utility**"), proposes to adjust or relocate certain of its facilities, if applicable, and retain title to any property rights it may have on, along or across, and within or over such limits of the highway right of way as indicated by the location map attached hereto.

NOW, THEREFORE, in consideration of the covenants and acknowledgments herein contained, the parties mutually agree as follows:

It is agreed that joint usage for both highway and utility purposes will be made of the area within the highway right of way limits as such area is defined and to the extent indicated on the aforementioned plans or sketches. Nothing in this Acknowledgment shall serve to modify or extinguish any compensable property interest vested in the **Utility** within the above described area. If the facilities shown in the aforementioned plans need to be altered or modified or new facilities constructed to either accommodate the proposed highway improvements or as part of **Utility's** future proposed changes to its own facilities, **Utility** agrees to notify **TxDOT** at least 30 days prior thereto, and to furnish necessary plans showing location and type of construction, unless an emergency situation occurs and immediate action is required. If an emergency situation occurs and immediate action is required, **Utility** agrees to notify **TxDOT** promptly. If such alteration, modification or new construction is in using said highway, **TxDOT** shall have the right, after receipt of such notice, to prescribe such regulations as necessary for the protection of the highway facility and the traveling public using said highway. Such regulations shall not extend, however, to requiring the placement of intended overhead lines underground or the routing of any lines outside of the area of joint usage above described.

If **Utility's** facilities are located along a controlled access highway, **Utility** agrees that ingress and egress for servicing its facilities will be limited to frontage roads where provided, nearby or adjacent public roads and streets, or trails along or near the highway right of way lines which only connect to an intersecting road. Entry may be made to the outer portion of the highway right of way from any one or all access points. Where supports, manholes or other appurtenances of the **Utility's** facilities are located in medians or interchange areas, access from the through-traffic roadways or ramps will be allowed by permit issued by the **State** to the **Utility** setting forth the conditions for policing and other controls to protect highway users. In an emergency situation, if the means of access or service operations as herein provided will not permit emergency repairs as required for the safety and welfare of the public, the **Utility** shall have a temporary right of access to and from the through-traffic roadways and ramps as necessary to accomplish the required repairs, provided **TxDOT** is notified immediately highway traffic. Except as expressly provided herein, the **Utility's** rights of access to the through-traffic roadways and/or ramps shall be subject to the same rules and regulations that apply to the general public.

If **Utility's** facilities are located along a non-controlled access highway, the **Utility's** rights of ingress and egress to the through-traffic roadways and/or ramps are subject to the same rules and regulations that apply to the general public.

Participation in actual costs incurred by the Utility for any future adjustment, removal or relocation of utility facilities required by highway construction shall be in accordance with applicable laws of the State of Texas.

Utility will, by written notice, advise **TxDOT** of the beginning and completion dates of the adjustment, removal or relocation, and thereafter, agrees to perform such work diligently, and to conclude said adjustment, removal or relocation by the stated completion date. The completion date shall be extended for delays caused by events outside **Utility's** control, including an event of Force Majeure, which shall include a strike, war or act of war (whether an actual declaration of war is made or not), insurrection, riot, act of public enemy, accident, fire, flood or other act of God, sabotage, or any other event in which **Utility** has exercised all due care in the prevention thereof so that the causes or other events are beyond the control and without the fault or negligence of **Utility**.
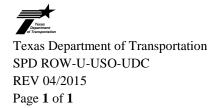
It is expressly understood that **Utility** conducts the new installation, adjustment, removal and/or relocation at its own risk and that **TxDOT** makes no warranties or representations regarding the existence or location of utilities currently within its right of way.

The **Utility** and the **State**, by execution of this Acknowledgment, do not waive or relinquish any right that they may have under the law.

The signatories to this Acknowledgment warrant that each has the authority to enter into this Acknowledgment on behalf of the party represented.

IN WITNESS WHEREOF, the parties hereto have affixed their signatures.

UTILITY   **EXECUTION RECOMMENDED:**

Utility: _____

         Name of Utility   _____

                                    District Engineer,   District

By: _____

         Authorized Signature

                                      THE STATE OF TEXAS

          _____

         Print or Type Name   Executed and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

Title: _____

                                       By: _____

                                          District Engineer (or designee)

Date: _____

                                       Date: _____

DB Contractor's Utility Design Coordinator

Utility No Conflict Sign-Off Form

Utility Design Coordinator: _____

Date plans received: _____

Utility Company: _____

Assembly "U" number: _____

Type of Utilities: _____

Date on Utility's plans: _____   No. of sheets in Utility's plans: _____

I, _____, the Utility Design Coordinator (UDC) on behalf of DB Contractor (_____) certify that a review of the above referenced Utility Plans concerning the proposed highway improvements on the _____ has been completed and have not identified any conflicts between the Utility's proposed relocation and any design features.

Design features include but are not limited to pavement structures, drainage facilities, bridges, retaining walls, traffic signals, illumination, signs, foundations, duct/conduit, ground boxes, erosion control facilities, water quality facilities and other DB Contractor-Managed Utilities.

Any design changes to the _____ after the signing of this form will be coordinated through DB Contractor's Utility Manager and the affected Utility Owner.

☐   Check box if any areas of concern and insert comments below:

Utility Design
Coordinator: _____   _____
(UDC)   (Signature)   Date

                    _____
                    (Print Name)

Utility   _____
Coordination   (Print Name)
Firm:

**This form must be completed/signed and included in each Utility Assembly
submitted to the Texas Department of Transportation.**

DB Contractor's Utility Manager

Utility No Conflict Sign-Off Form

Utility Manager: _____

Date plans received: _____

Utility Company: _____

Assembly "U" number: _____

Type of Utilities: _____

Date on Utility's plans: _____   No. of sheets in Utility's plans: _____

I, _____, the Utility Manager (UM) working on behalf of DB Contractor (_____) certify that a review of the above referenced Utility Plans concerning the proposed highway improvements on the _____ has been completed and have not identified any conflicts between the Utility's proposed relocation and any existing and/or proposed Utilities.

The proposed Utility Plans conform to Title 43 of the Texas Administrative Code, Section 21.31 – 21.56 of the Utility Accommodation Rules.

☐   Check box if any areas of concern and insert comments below:

Utility Manager: _____   _____
(UM)   (Signature)   Date

_____
(Print Name)

Utility Design   _____   _____
Coordinator: (Signature)   Date
(UDC)

_____
(Print Name)

Utility
Coordination
Firm: _____
             (Print Name)

This form must be completed/signed and included in each Utility Assembly
submitted to the Texas Department of Transportation.

Texas Department of Transportation

Technical Provisions

for

The Southern Gateway

Attachment 19-1

Performance and Measurement Table

TP ATTACHMENT 19-1 - BASELINE PERFORMANCE AND MEASUREMENT TABLE DURING CONSTRUCTION

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
0) ROADWAY - Existing Pavement within the Maintenance Limits										
	0.1	Obstructions and Debris	Roadway and clear zone free from obstructions and debris	2 hrs	N/A	N/A	Visual Inspection	0.1.1	Number of obstructions and debris	Nil
	0.2	Pavement	All roadways have a smooth surface course (including bridge decks, covers, gratings, frames and boxes) with adequate skid resistance and free from Defects.	24 hrs	28 days	28 days	Failures including potholes, base failures, punchouts and concrete pavement failures	0.2.1	Occurrence of any failure	Nil
	0.3	Temporary Pavement/Cross Overs	Crossovers and other paved areas are free of Defects.	24 hrs	28 days	28 days	Failures including potholes, base failures, punchouts and concrete pavement failures	0.3.1	Occurrence of any failure	Nil
	0.4	Edge Dropoffs	No edge dropoffs	24 hrs	28 days	28 days	Physical measurement of edge drop-off level compared to adjacent surface	0.4.1	Instances of edge drop-off greater than 2" (Number)	Nil
1) ROADWAY - New Alignments on Reconstructed Pavement										
							Unless stated otherwise, measurements shall be conducted using procedures, techniques, and measuring equipment consistent with TxDOT's Pavement Management Information System Rater's Manual. Unless otherwise stated, pavement performance measurement records relate to 0.1-mile sections as described in the Pavement Management Information System Rater's Manual.			
	1.1	Ruts	All roadways are free from surface depressions in wheel path exceeding measurement record thresholds.	24 hours	28 days	28 days	a. Depth as measured using an automated device in compliance with TxDOT Standards.	1.1.1	Percentage of wheel path length with ruts greater than 1/4" in depth in each Performance Section. • Mainlanes, shoulders, and ramps - less than or equal to 3% • Cross streets - less than or equal to 3% • Frontage roads - less than or equal to 10%	100%
							b. 10-ft straight edge used to measure rut depth for localized areas.	1.1.2	No depth of rut at any location greater than 1/2".	100%
	1.2	Ride quality	All roadways have a smooth surface course (including bridge deck approaches, covers, gratings, frames and boxes).	24 hours	28 days	28 days	a. Measurement of International Roughness Index (IRI) according to TxDOT standard Tex-1001-S, Operating Inertial Profilers and Evaluating Pavement Profiles.	1.2.1	For 100% of all Performance Sections measured excluding Performance Sections with bridge deck and/or bridge approach slab, average IRI is less than or equal to: • Mainlanes, ramps - 95" per mile • Cross Streets - 95" per mile • Frontage roads - 105" per mile	100%
							b. 10-ft straightedge used to measure discontinuities for localized areas.	1.2.2	For 100% of all Performance Sections measured in localized areas, excluding bridge decks and the 100' length of pavement on either side of the bridge decks, maximum 1/8" variation of the pavement surface from the testing edge of the straightedge between any two straightedge contact points with the pavement surface.	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

1

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
	1.2	Ride Quality						1.2.3	For 100% of all Performance Sections that include a bridge deck and/or bridge approach slab, maximum 1/4" variation of the pavement surface from the testing edge of the straightedge between any two straightedge contact points with the pavement surface, measured at any location within the 100 feet length of pavement on either side of the bridge deck. For clarification this measurement shall allow one contact point of the straightedge on the traveled surface supported by the structure and the other contact point on the pavement approach to the structure.	100%
							a. Measurement of International Roughness Index (IRI) according to TxDOT standard Tex-1001-S, Operating Inertial Profilers and Evaluating Pavement Profiles.	1.2.4	For 100% of all mainlane Performance Sections that include a bridge deck and/or bridge approach slab, excluding the IRI profile lengths on bridge deck and the 100 feet of pavement on either side of the bridge deck, average IRI for each Performance Section is less than or equal to 95" per mile.	100%
								1.2.5	For 100% of all Performance Sections, no localized roughness deviations calculated in accordance with the method set forth in Section 7 of TEX-1001-S exceeding 0.15" or less than -0.15" (positive deviations are bumps and negative deviations are dips).	100%
	1.3	Not used								
	1.4	Not used								
	1.5	Not used								
	1.6	Failures	All roadways are free from failures.	24 hours	28 days	N/A	Physical measurement	1.6.1	No failures exceeding the failure criteria set forth in the TxDOT PMIS Rater's Manual, including potholes, base failures, punchouts and jointed concrete pavement failures.	100%
	1.7	Edge drop-offs	All roadways are free from edge drop-offs exceeding measurement record thresholds.	24 hours	28 days	28 days	Physical measurement	1.7.1	No edge drop-off greater than 2".	100%
	1.8	Wet weather crash performance	Road users warned of potential skidding hazards.	24 hours	28 days	N/A	Visual inspection	1.8.1	Road Users warned of potential skidding hazard where a requirement for corrective action is identified.	100%
	1.9	Joints in concrete	All joints exceeding measurement record thresholds in concrete paving are sealed.	24 hours	28 days	28 days	Visual inspection	1.9.1	No unsealed joints with width greater than 1/4".	100%
			No tied longitudinal joint separation exceeding measurement record thresholds.					1.9.2	No tied longitudinal joint width greater than 1/4"	100%
			No longitudinal or transverse joint discontinuity / faulting exceeding measurement record thresholds.					1.9.3	No individual longitudinal or transverse joint with discontinuity / faulting greater than 1/4" between two sides of any joint.	100%
			No expansion joint separation exceeding measurement record thresholds.					1.9.4	No expansion joint width greater than 1.0".	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

2

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
2) DRAINAGE										
	2.1	Pipes, ditches, channels, catch basins, inlets, manholes and outfalls	Each element of the drainage system is maintained in its proper function by cleaning, clearing and/or emptying as appropriate including any vegetation, debris and silt from the point at which water drains from the travel way to the outfall or drainage way.	24 hours	28 days	28 days	Visual inspection	2.1.1	Performance objective met.	100%
	2.2	Drainage treatment devices	Drainage treatment and balancing systems, flow and spillage control devices function correctly, are free of silt and debris and their location and means of operation is recorded adequately to permit their correct operation in Emergency.	24 hours	28 days	28 days	Visual inspection	2.2.1	Performance objective met.	100%
	2.3	Travel way	The travel way is free from water to the extent that such water would represent a hazard because of its position or depth.	24 hours	28 days	6 months	Visual inspection	2.3.1	Performance objective met.	100%
	2.4	Discharge systems	Surface water discharge systems perform their proper function and discharge to groundwater and waterways complies with the relevant legislation and permits.	24 hours	28 days	3 months	Visual inspection	2.4.1	Performance objective met.	100%
	2.5	Protected species	Named species and habitats are protected.	24 hours	28 days	6 months	Visual inspection	2.5.1	Performance objective met.	100%
	2.6	Erosion	Address erosion greater than 12" deep along ditches, swales, ponds, and channels.	24 hours	28 days	28 days	Visual inspection	2.6.1	Performance objective met.	100%
	2.7	Channels and ditches – Permanent Erosion Control Measures	Where permanent erosion control measures such as rock or concrete riprap are utilized: free of undermined or damaged erosion control measures.	24 hours	28 days	28 days	Visual inspection	2.7.1	Performance objective met.	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

3

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
3) STRUCTURES										
	3.1	Structure components (Structures having an opening measured along the center of the roadway of more than 20 feet between faces of abutments or spring lines of arches or extreme ends of the openings for multiple box culverts or multiple pipes that are 60 inches or more in diameter and that have a clear distance between openings of less than half of the smallest pipe diameter)	(i) Substructures and superstructures are free of: • undesirable vegetation • debris and bird droppings • blocked drains, weep pipes, manholes and chambers • blocked drainage holes in structural components • defects in joint sealants • defects in pedestrian protection measure • scour damage • corrosion of rebar • paint system failures • impact damage (ii) Expansion joints free of: • dirt, debris and vegetation • defects in drainage system • loose nuts and bolts • defects in gaskets and/or seals (iii) The deck drainage system is free of all debris and operates as intended. (iv) Parapets free of: • loose nuts and bolts • blockages of hollow section drain holes • undesirable vegetation • impact damage • concrete spalling	24 hours	28 days	6 months	(a) The National Bridge Inspection Standards (NBIS) of the Code of Federal Regulations, 23 Highways – Part 650 (b) The TxDOT Bridge Inspection Manual (c) The Federal Highway Administration's Bridge Inspector's Reference Manual (d) Visual Inspection	3.1.1	Performance objective is met and records maintained as required in the TxDOT Bridge Inspection Manual.	100%
			v) Bearings and bearing seats are: • properly aligned horizontally and vertically • clean and in full contact with each other (vi) Sliding and roller surfaces are clean and greased to ensure satisfactory performance. Additional advice contained in bearing manufacturers' instructions in the structure maintenance manual is followed. (vii) Special finishes are clean and perform to the appropriate standards. (viii) All non-structural items such as hoists and electrical fixings, operate correctly, are clean and lubricated as appropriate, in accordance with the manufacturer's recommendations and certification of lifting devices is maintained.					3.1.2	Condition rating equal to or greater than seven (7) for any deck, superstructure or substructure.	
	3.2	Non-bridge class culverts	Non-bridge class culverts are free of: • vegetation, debris and silt • defects in sealant at movement joints • scour damage • corrosion of rebar • impact damage	24 hours	28 days	28 days	Visual inspection	3.2.1	Performance objective met.	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

4

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
	3.3	Not Used								
	3.4	Gantries and high-masts	Sign signal gantries, high-masts are structurally sound and free of: • loose nuts and bolts • defects in surface protection systems	24 hours	28 days	6 months	Visual inspection	3.4.1	Performance objective met.	100%
	3.5	Access points	All hatches and points of access have fully operational and lockable entryways.	24 hours	28 days	6 months	Visual Inspection	3.5.1	Performance objective met.	100%
	3.6	Retaining walls	Retaining walls are free of: • undesirable vegetation • defects in sealed joints • defects in pedestrian protection • scour damage • corrosion of rebar • paint system failure • concrete spalling • impact damage • blocked weep holes Parapets are free of: • loose nuts and bolts • blockage of drain holes • undesirable vegetation • impact damage • concrete spalling	24 hours	28 days	28 days	Visual inspection	3.6.1	Performance objective met.	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

5

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
4) PAVEMENT MARKINGS, OBJECT MARKERS, BARRIER MARKERS AND DELINEATORS										
	4.1	Pavement markings	Pavement markings are: • clean and visible during the day and at night • whole and complete and of the correct color, type, width and length • placed to meet the TMUTCD and TxDOT's Pavement Marking Standard Sheets	24 hours	28 days	28 days	**a) Markings - General** Visual inspection (to include a record of visibility of markings under low beam headlights.)	4.1.1	Performance Requirement met	100%
							b) Profile Markings			
							Visual inspection	4.1.2	Performance Requirement met	100%
	4.2	Raised reflective markers	Raised reflective pavement markers are: • clean and clearly visible • of the correct color and type • reflective or retroreflective in accordance with TxDOT standards • correctly located, aligned and at the correct level • are firmly fixed • are in a condition that will ensure that they remain at the correct level.	24 hours	28 days	6 months	Visual inspection	4.2.1	Performance Requirement met	100%
	4.3	Delineators & markers	Object markers, mail box markers and delineators are: • clean and visible • of the correct color and type • legible and reflective • straight and vertical	24 hours	28 days	28 days	Visual inspection	4.3.1	Performance Requirement met	100%
5) CURBS, GUARDRAILS, SAFETY BARRIERS AND IMPACT ATTENUATORS										
	5.1	Curbs	Curbs are free of cracks, chips and separation and are in proper grade and alignment.	24 hours	28 days	28 days	Visual inspection	5.1.1	Performance Requirement met	100%
	5.2	Guardrails and safety barriers	All guardrails, safety barriers, and concrete barriers are maintained free of defects. They are appropriately placed and correctly installed at the correct height and distance from roadway or obstacles.	24 hours	28 days	28 days	Visual inspection	5.2.1	Performance Requirement met	100%
	5.3	Impact attenuators	All impact attenuators are appropriately placed, correctly installed, and free of damage.	24 hours	28 days	6 months	Visual inspection	5.3.1	Performance Requirement met	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

6

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
6) TRAFFIC SIGNS										
	6.1	General – All signs	(i) Signs are clean, correctly located, clearly visible, legible, reflective, at the correct height and free from structural and electrical defects (ii) Identification markers are provided, correctly located, visible, clean and legible (iii) Sign mounting posts are vertical, structurally sound and rust free (iv) All break-away sign mounts are clear of silt or other debris that could impede break-away features and shall have correct stub heights (v) Obsolete and redundant signs are removed or replaced as appropriate (vi) Visibility distances meet the stated requirements (vii) Sign information is of the correct size, location, type and wording to meet its intended purpose and any statutory requirements (viii) All structures and elements of the signing system are kept clean and free from debris and have clear access provided (ix) All replacement and repair materials and equipment are in accordance with the requirements of the TMUTCD	24 hours	28 days	28 days	Visual inspection	6.1.1	Performance Requirement met	100%
	6.2	Warning and regulatory signs	Requirements as 6.1, plus: Warning and regulatory signs are clean, legible and undamaged.	2 hours	24 hours	N/A	Visual inspection	6.2.1	Performance Requirement met	100%
7) TRAFFIC SIGNALS										
	7.1	General	(i) Traffic signals and their associated equipment shall be: • clean and visible • correctly aligned and operational • free from damage caused by accident or vandalism • bulbs are not burned out (ii) Signal timing and operation is correct (iv) Comply with National Electric Code regulations. (iii) Traffic signals are structurally sound. (v) Signals have identification markers and the telephone number for reporting faults are correctly located, clearly visible, clean and legible. (vi) Contingency plans are in place to rectify Category 1 Defects not immediately repairable to assure alternative traffic control is provided during a period of failure.	2 hours	24 hours	28 days	Visual inspection	7.1.1	Performance Requirement met	100%
	7.2	Pedestrian elements and vehicle detectors	All pedestrian elements and vehicle detectors are correctly positioned and fully functional.	24 hours	28 days	28 days	Visual inspection	7.2.1	Performance Requirement met	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

7

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
8) LIGHTING										
	8.1	Roadway lighting – General	i) All lighting is free from defects and provides acceptable uniform lighting quality ii) Lanterns are clean, clearly visible and correctly positioned iii) Lighting units are free from accidental damage or vandalism iv) Columns are upright, correctly founded, visually acceptable and structurally sound	24 hours	28 days	28 days	Night time inspection or automated logs	8.1.1	Performance Requirement met	100%
	8.2	Sign lighting	Sign lighting is fully operational.	24 hours	28 days	28 days	Night time inspection or automated logs	8.2.1	Performance Requirement met	100%
	8.3	Aesthetic lighting	Aesthetic lighting is fully operational.	24 hours	28 days	28 days	Night time inspection or automated logs	8.3.1	Performance Requirement met	100%
	8.4	Electrical supply	Electricity supply, feeder pillars, cabinets, switches and fittings are electrically, mechanically and structurally sound and functioning.	24 hours	7 days	28 days	Testing to meet National Electric Code regulations, visual inspection	8.4.1	Performance Requirement met	100%
	8.5	Access panels	All access panels in place and secure at all times.	24 hours	7 days	28 days	Visual Inspection	8.5.1	Performance Requirement met	100%
	8.6	High-mast lighting	(i) All high-mast luminaries functioning on each pole (ii) All obstruction lights are present and working (if required) (iii) Compartment door is secure with all bolts in place (iv) All winch and safety equipment are correctly functioning and maintained without rusting or corrosion (for structural requirements refer to Element Category 3)	24 hours	7 days	28 days	Night time inspections or automated logs	8.6.1	Performance Requirement met	100%
9) FENCES, WALLS AND SOUND ABATEMENT										
	9.1	General	Integrity and structural condition of fences, walls and/or sound abatement elements are maintained and are free of: • blocked weep holes • undesirable vegetation • defects in joint sealants • defects in pedestrian protection • scour damage • corrosion of rebar • paint system failure • concrete spalling • impact damage	24 hours	28 days	28 days	Visual inspection and structural assessment if visual inspection warrants	9.1.1	Performance Requirement met	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

8

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
10) ROADSIDE MANAGEMENT (comply with specified minimum condition)										
	10.1	Vegetated areas – Except landscaped areas – General	Vegetation is maintained so that: (i) Height of grass and weeds is kept within the limits described for rural or urban areas. Mowing begins before vegetation reaches the maximum height. (ii) Spot mowing at intersections, ramps or other areas maintains visibility of appurtenances and sight distance. (iii) Grass or vegetation does not encroach into or on paved shoulders, mainlanes, sidewalks, islands, riprap, traffic barrier or curbs. (iv) A herbicide program is undertaken in accordance with the TxDOT Roadside Vegetation Manual and the TxDOT Herbicide Operations Manual to control noxious weeds and to eliminate grass in pavement or concrete. (v) A full width mowing cycle is completed after the first frost (vi) Wildflowers are preserved utilizing the guidelines in the mowing specifications and TxDOT Roadside Vegetation Management Manual	24 hours	7 days	28 days	Physical measurement	10.1.1	Urban Areas - Individual measurement areas have 95% of height of grass and weeds between 5" and 18". Rural areas - Individual measurement areas have 95% of height of grass and weeds between 5" and 30".	100%
							Visual inspection	10.1.2	Other performance objectives met.	100%
	10.2	Landscaped areas	(i) All landscaped areas are maintained to their originally constructed condition. Landscaped areas are as designated in the Plans. (ii) Mowing, litter pickup, irrigation system maintenance and operation, plant maintenance, pruning, insect, disease and pest control, fertilization, mulching, bed maintenance, watering is undertaken as per Maintenance Management Plan. (iii) The height of grass and weeds is kept between 2" and 8". Mowing begins before vegetation reaches 8". (iv) Damaged or dead vegetation is replaced	24 hours	7 days	28 days	Visual inspection	10.2.1	Performance objective met.	100%
	10.3	Fire hazards	Fire hazards are controlled.	24 hours	7 days	28 days	Visual inspection	10.3.1	Performance objective met.	100%

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
	10.4	Trees, brush and ornamentals	(i) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with TxDOT standards. (ii) Trees, brush and ornamentals are trimmed to insure they do not interfere with vehicles or sight distance, or inhibit the visibility of signs. (iii) Dead trees, brush, ornamentals and branches are removed. Potentially dangerous trees or limbs are removed. (iv) All undesirable trees and vegetation are removed. Diseased trees or limbs are treated or removed by licensed contractors.	24 hours	7 days	28 days	Visual inspection	10.4.1	Performance objective met.	100%
	10.5	Wetlands	Wetlands are managed in accordance with the permit requirements	24 hours	7 days	28 days	Visual inspection and records of compliance	10.5.1	Performance objective met.	100%
	10.6	Sidewalks and pedestrian curb ramps	Compliance with TxDOT Design Standards and Americans with Disabilities Act (ADA) requirements and maintain at a standard to be free of defects as follows: (i) unsealed cracks or joints (ii) broken sections (iii) vertical displacement or misalignment	24 hours	7 days	28 days	Visual inspection	10.6.1	Performance objective met.	100%
11) REST AREAS AND PICNIC AREAS (NOT USED)										
12) EARTHWORKS, EMBANKMENTS AND CUTTINGS										
	12.1	Slope failure	All structural or natural failures of the embankment and cut slopes of the Project are repaired.	24 hours	28 days	6 months	Visual inspection	12.1.1	Performance objective met.	100%
	12.2	Slopes - General	Slopes are maintained in general conformance to the original graded cross-sections, the replacement of landscaping materials, reseeding and re-vegetation for erosion control purposes and removal and disposal of all eroded materials from the roadway and shoulders.	24 hours	28 days	6 months	Visual inspection	12.2.1	Performance objective met.	100%
	12.3	Slopes – Erosion	Slopes are maintained to prevent erosion leading to further deterioration.	24 hours	28 days	3 months	Visual inspection	12.3.1	No erosion greater than six inches deep.	100%
	12.4	Slopes - Permanent Erosion Control Measures	Where permanent erosion control measures such as rock or concrete riprap are utilized: no undermined or damaged erosion control measures and keep concrete slope protection joints sealed and free from vegetation.	24 hours	28 days	3 months	Visual inspection	12.4.1	Performance objective met.	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

10

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
13) ITS EQUIPMENT										
	13.1	ITS Equipment - Maintenance	All ITS equipment is fully functional and housing is functioning and free of defects. i) All equipment and cabinet identification numbers are visible, sites are well drained and access is clear. ii) Steps, handrails and accesses are kept in a good condition. iii) Access to all communication hubs, ground boxes, cabinets and sites is clear. iv) All drainage is operational and all external fixtures and fittings are in a satisfactory condition. v) All communications cable markers, cable joint markers and duct markers are visible and missing markers are replaced. vi) Backup power supply system is available at all times.	24 hours	14 days	28 days	Visual inspection and records of existing malfunctions	13.1.1	ITS equipment is fully functional and and Performance Requirement met.	100%
	13.2	Dynamic Message Sign Equipment	Dynamic Message Signs are free from faults such as: i) Any signal displaying a message which is deemed to be a safety hazard. ii) Failure of system to clear sign settings when appropriate. iii) 2 or more contiguous sign failures that prevent control office setting strategic diversions. iv) Signs displaying an incorrect message.	2 hours	24 hours	14 days	Visual inspection and records of existing malfunctions	13.2.1	Dynamic message sign is fully functional and Performance Requirement met.	100%
	13.3	CCTV Equipment	CCTV Systems are free from serious faults that significantly limit the availability of the operators to monitor the area network, such as: i) Failure of CCTV Systems to provide control offices with access and control of CCTV images. ii) Failure of a CCTV camera or its video transmission system. iii) Failure of a Pan / Tilt unit or its control system. iv) Moisture ingress onto CCTV camera lens. v) Faults that result in significant degradation of CCTV images.	2 hours	24 hours	14 days	Visual inspection and records of existing malfunctions	13.3.1	CCTV system is fully functional and Performance Requirement met	100%
	13.4	Vehicle Detection Equipment	All equipment free of defects and operational problems such as: i) Inoperable loops ii) Malfunctioning camera controllers	2 hours	24 hours	28 days	Visual inspection and records of existing malfunctions	13.4.1	Vehicle detection equipment is fully functional and Performance Requirement met	100%
14) TOLLING FACITLITIES AND BUILDINGS (NOT USED)										

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

11

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
15) AMENITY										
	15.1	Graffiti	Graffiti is removed in a manner and using materials that restore the surface to a like appearance similar to adjoining surfaces (i) Category 1 Defect – Obscene, apparent gang-related, or highly visible graffiti (ii) Category 2 Defect – Graffiti other than Category 1 Defect	1 hour	4 hours	3 days	Visual inspection	15.1.1	Graffiti is not present	100%
	15.2	Animals	All dead or injured animals are removed	2 hours	N/A	N/A	Visual inspection	15.2.1	Dead or injured animals are not present.	100%
	15.3	Abandoned vehicles and equipment	All abandoned vehicles and equipment are removed	1 hour	3 days	N/A	Visual inspection	15.3.1	Abandoned vehicles or equipment are not present.	100%
16) SNOW AND ICE CONTROL										
	16.1	Travel lanes	Maintain travel way free from snow and ice	2 hours	N/A	N/A	Records of all snow and ice controls	16.1.1	Response times are met for all snow and ice controls: (i) Maximum 1 hr response time to complete manning and loading of spreading vehicles (ii) Maximum 2 hrs from departure from loading point to complete treatment and return to loading point (iii) Maximum 1 hr response time for snow and ice clearance vehicles to depart from base	100%
17) INCIDENT RESPONSE										
	17.1	General	(i) Monitor the Project and respond to Incidents in accordance with the Maintenance Management Plan (MMP). (ii) Monitor the Project and respond to Incidents involving Hazardous Materials in accordance with the Maintenance Management Plan. (iii) Evaluate structural damage to structures and liaise with emergency services to ensure safe working environment while clearing the Incident.	1 hour	N/A	N/A	Records of all incident and emergency responses	17.1.1	Response times are met for 98% of Incidents measured on a 1 year rolling basis and no complaints from Emergency Services.	100%
	17.2	Temporary and permanent remedy	(i) Propose and implement temporary measures or permanent remedies to Defects arising from the Incident. Iii) Ensure the structural safety of any structures affected by the Incident.	24 hours	28 days	N/A	Review and inspection of the Incident site	17.2.1	Performance objective met.	100%

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

12

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REMEDY PERIOD			INSPECTION AND MEASUREMENT METHOD	REF	MEASUREMENT RECORD	TARGET
				Cat 1	Cat 1	Cat 2				
				Hazard Mitigation	Permanent Remedy	Permanent Repair				
18) CUSTOMER RESPONSE										
	18.1	Response to inquiries	Timely and effective response to customer inquiries and complaints: (i) Contact the customer within 48 hours following initial customer inquiry. (ii) All work resulting from customer requests is scheduled within 48 hours of customer contact. (iii) All customer concerns/requests are resolved to TxDOT's satisfaction within 2 weeks of the initial inquiry.	48 hours	14 days	N/A	Records of all customer inquires and responses	18.1.1	Performance objective met.	100%
	18.2	Customer Contact Line	Telephone line manned during business hours and 24 hour availability of messaging system. Faults to telephone line or message system rectified.	24 hours	7 days	N/A	Availability of the customer contact line	18.2.1	No instances of line out of action or unmanned.	100%
19) SWEEPING AND CLEANING										
	19.1	Obstructions and debris	Roadway and clear zone free from obstructions and debris including at a minimum objects, luminaire poles, and tires.	2 hours	N/A	N/A	Visual Inspection	19.1.1	No obstructions and debris on roadway and clear zone.	100%
	19.2	Sweeping	i) Keep all channels, hard shoulders, gore areas, ramps, intersections, islands and frontage roads swept clean ii) Clear and remove debris from traffic lanes, hard shoulders, verges and central reservations, footways and cycle ways iii) Remove all sweepings without stockpiling in the right of way and dispose of at approved tip.	24 hours	3 days	N/A	Visual Inspection	19.2.1	No buildup of dirt, ice, rock, debris, etc. on roadways and bridges to accumulate greater than 18" wide or 1/2" deep.	100%
	19.3	Litter	i) Keep the right of way in a neat condition, remove litter regularly. ii) Pick up large litter items before mowing operations. Iii) Dispose of all litter and debris collected at an approved solid waste site.	24 hours	3 days	N/A	Visual Inspection	19.3.1	No more than 30 pieces of litter (rural) and 50 pieces of litter (urban) per roadside mile shall be visible when traveling at highway speed.	100%

NOTES FOR PERFORMANCE AND MEASUREMENT TABLE DURING CONSTRUCTION

1. "Cat 1 Hazard Mitigation" shall be an action taken by DB Contractor to mitigate a hazard to Users or imminent risk of damage or deterioration to property or the environment.

2. "Cat 1 Permanent Remedy" shall be an action taken by DB Contractor to restore the condition of an Maintenance Element following "Cat 1 Hazard Mitigation" of a Category 1 Defect: (a) to the standard required for new construction; or (b) to a condition such that the Target is achieved for each "Measurement Record".

3. "Cat 2 Permanent Repair" shall be an action taken by DB Contractor to restore the condition of an Maintenance Element for which a Category 2 Defect has been recorded: (a) to the standard required for new construction; or (b) to a condition such that the Target is achieved for each "Measurement Record".

Texas Department of Transportation
Southern Gateway Project
December 19, 2016

13

Request for Proposals – Addendum #1
Technical Provisions
Attachment 19-1