

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: STP 2B24 (429)MM

CONTROL: 0028-02-097

COUNTY: HARRIS

LETTING: 06/05/2024

REFERENCE NO: 0528

PROPOSAL ADDENDUMS

-
- PROPOSAL COVER
 - BID INSERTS (SH. NO.: ALL)
 - GENERAL NOTES (SH. NO.: ALL)

 - SPEC LIST (SH. NO.:)
 - SPECIAL PROVISIONS:)
 - ADDED:)

 - DELETED:

 - SPECIAL SPECIFICATIONS:
 - ADDED:

 - DELETED:

 - OTHER: PLAN SHEETS AND OTHER SHEETS

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

*****BID INSERTS*****
ADDED BID ITEM: 105-6014
REVISED QUANTITIES FOR THE FOLLOWING BID ITEMS:
4075-6001

*****GENERAL NOTES*****
SHEET L: REVISED NOTE
SHEET Z: REVISED NOTE
SHEETS A THRU NN: SHEETS SHIFTED DUE TO REVISED NOTE

*****PLAN SHEETS*****
PLAN SHEETS 166A, 166B & 166C: REVISED SHEET
PLAN SHEETS 55 & 56: REVISED TCP SHEET
PLAN SHEET 17E: REVISED GENERAL NOTES
PLAN SHEET 17L: REVISED GENERAL NOTES
PLAN SHEET 22 : REVISED QUANTITIY
PLAN SHEET 19: REVISED SUMMARY SHEET
PLAN SHEET17T: ADDED QUANTITY
PLAN SHEET 17Z: REVISED QUANTITY
DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

(CONTINUED)

PLAN SHEET 17T THRU 17Z: SHEETS SHIFTED DUE TO REVISION

County: Harris

Control: 0028-02-097, etc

Highway: US90

Item 8: Prosecution and Progress

Create, maintain, and submit for approval, a Critical Path Method (CPM) project schedule using computer software that is fully compatible with the latest version of Primavera Systems, Inc. or Primavera Project Planner (P3 or P6).

The Department will supply bidders, upon written request, one electronic copy of the time determination schedule. The time determination schedule provided is for informational use only and is not intended for bidding or construction purposes.

The Department will not adjust the number of days for the project and milestones, if any, due to differences in opinion regarding any assumptions made in the preparation of the schedule or for errors, omissions, or discrepancies found in the time determination schedule.

Working days will be computed and charged based on a Standard workweek in accordance with Section 8.3.1.4.

Provide a virus-free computer disk or other acceptable electronic media containing the Primavera construction schedule.

The maximum number of days the time charges on this contract may be suspended due to contractor mobilization, and material fabrication/accumulation or processing delays is 90 days. The Engineer and the Contractor may mutually agree, in writing, to decrease this maximum number of days.

Item 100: Preparing Right of Way

Obtain a City of Houston plumbing permit and a demolishing permit or removing permit before demolishing or removing existing houses or commercial buildings.

Clean existing ditches under fill sections of undesirable materials including grass, muck, and trash. Perform this work in accordance with the Construction section of the Item, "Preparing Right of Way." This work is subsidiary to this bid Item.

The Item, "Preparing Right of Way" will be measured for payment only in those designated areas shown on the plans. Preparing right of way necessary to perform construction that is outside designated areas is subsidiary to this bid Item.

Remove abandoned utilities that are in conflict with the new utilities, at no expense to the Department.

Reestablish and maintain right of way stakes after completing the right of way preparation activities and until the new utilities are in place.

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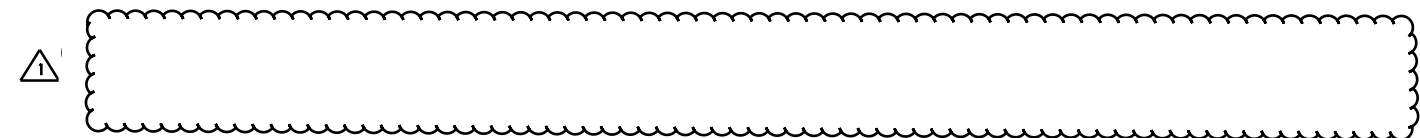
Remove and assume ownership of the existing ground mounted signs within the limits of roadway construction unless otherwise noted or directed. This work is subsidiary to the Item, "Preparing Right of Way."

Item 104: Removing Concrete

Removing concrete curb is paid as a separate bid item if the existing pavement on which it rests is not removed at the same time.

Item 105: Removing Treated and Untreated Base and Asphalt Pavement

Removing curb on cement-treated and untreated base or on cement treatment being removed at the same time is subsidiary to this bid Item.



Store the treated material salvaged from this project at the project sites designated by the Engineer.

Item 104: Removing Concrete

Item 105: Removing Treated and Untreated Base and Asphalt Pavement

Item 305: Salvaging, Hauling, and Stockpiling Reclaimable Asphalt Pavement

Case 5 - Concrete pavement over base
Removing the concrete pavement material is paid under the Item, "Removing Concrete."

Removing the base material and any asphalt bondbreaker material is paid under the Item, "Removing Treated and Untreated Base and Asphalt Pavement."

Item 110: Excavation

If manipulating the excavated material requires moving the same material more than once to accomplish the desired results, the excavation is measured and paid for only once regardless of the manipulation required.

Transition the ditch grades and channel bottom widths at structure locations. Use only approved channel excavation in the embankment.

The total excavation quantity shown on the plans includes the quantity for excavating to 2 ft. behind the back of the proposed curb.

⚠	1	5/24/2024	Removed note under Item 105	RLS
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Highway: US90

Furnish one Type E structure for the field office. Ensure the windows for the structure have burglar bars.

Provide a Type E field office meeting the requirements of a Type C structure. Provide this as a single structure with a minimum of 500 sq. ft. of floor space and 3 rooms. Provide the structure with the following facilities. The cost of providing these items is subsidiary to this bid Item:

1. Three desks with 3 swivel chairs, two 5-drawer file cabinets and 3 straight back chairs.
2. Telephone service and equipment consisting of a minimum of one telephone with one extension. Include the call-waiting feature in the service.
3. Potable water with an electric water cooler, a cup dispenser, and cups.
4. Adequate heating, air conditioning, lighting, and a sufficient number of electrical outlets.
5. A commercially available toilet or equivalent facility for the field office and each laboratory.
6. A suitable printer/copier/fax machine for the field office as approved by the Engineer.

Provide a fenced enclosure approximately 100 ft. by 200 ft. Provide an appropriate parking area covered with a suitable base material and with a minimum of 2 security lights, one on each end of the lot. Cost of the work and materials to provide the enclosure are subsidiary to the various bid items.

The above requirements are subsidiary to the various bid items.

Assume ownership of temporary chain link security fences.

Equip each field office with a first aid kit and at least a 20 lb. ABC type fire extinguisher.

Item 506: Temporary Erosion, Sedimentation and Environmental Controls

A Storm Water Pollution Prevention Plan (SWP3) is required. Since the disturbed area is more than 5 acres, a "Notice of Intent" (NOI) is also required.

Use appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. Remove and dispose of materials in compliance with State and Federal laws.

Before starting construction, review with the Engineer the SWP3 used for temporary erosion control as outlined on the plans. Before construction, place the temporary erosion and sedimentation control features as shown on the SWP3.

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Schedule the seeding or sodding work as soon as possible. The project schedule provides for a vegetation management plan.

After completing earthwork operations, restore and reseed the disturbed areas in accordance with the Department's specifications for permanent or temporary erosion control.

Implement temporary and permanent erosion control measures to comply with the National Pollution Discharge Elimination System (NPDES) general permit under the Clean Water Act.

Before starting grading operations and during the project duration, place the temporary or permanent erosion control measures to prevent sediment from leaving the right of way.

Item 512: Portable Traffic Barrier

Transport Standard Height Portable Traffic Barriers (including J-J Hook and Safety Shape) used for traffic handling from the Department's stockpile located on the south side of IH 610 at Cedar Crest Blvd. (located across IH 610 from Long Drive).

Use only the J-J Hook type connection between barriers.

After completing the project, return Standard Height Portable Traffic Barriers (including J-J Hook and Single Slope) used for traffic handling, to the Department's stockpile located on the south side of at IH 610 at Cedar Crest Blvd. (located across IH 610 from Long Drive.) After completing the project, return the associated Single Slope barrier connecting hardware to the area office or as directed.



After completing the project, return Low Profile Concrete Barriers (LPCB) used for traffic handling, to the Departments stockpile located on the north side of IH 610 at Long Drive. After completing the project, return the associated LPCB connecting hardware to the area office or as directed.

Item 514: Permanent Concrete Traffic Barrier

Add a 3/4-in. longitudinal chamfer to the Single Slope Concrete Barrier (SSCB) railing. Provide a continuous chamfer typically located 6 in. above the final grade. The cost of this is subsidiary to the Item, "Permanent Concrete Traffic Barrier."

Item 529: Concrete Curb, Gutter, and Combined Curb and Gutter

Item 531: Sidewalks

An air-entraining admixture is not required.

For concrete curbs, use Grade 7 aggregate conforming to Section 421.2.6 of the Item, "Hydraulic Cement Concrete."

△	1	5/24/2024	ADDENDUM #1	RLS
	NO.	DATE	REVISION	APP



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0028-02-097

DISTRICT Houston
HIGHWAY US 90

COUNTY Harris

CONTROL SECTION JOB				0028-02-074		0028-02-097		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00070619		A00128853			
COUNTY				Harris		Harris			
HIGHWAY				US 90		US 90			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL	EST.	FINAL		
	100-6002	PREPARING ROW	STA	43.720		19.700		63.420	
	104-6001	REMOVING CONC (PAV)	SY	1,890.000				1,890.000	
	104-6009	REMOVING CONC (RIPRAP)	SY	8,317.000		947.000		9,264.000	
	104-6021	REMOVING CONC (CURB)	LF	790.000				790.000	
	104-6023	REMOVING CONC (CTB)	LF	9,306.000		2,118.000		11,424.000	
	105-6014	REMOVING STAB BASE & ASPH PAV (7"-12")	SY	2,162.000				2,162.000	⚠
	110-6001	EXCAVATION (ROADWAY)	CY	7,135.000		7,431.000		14,566.000	
	110-6002	EXCAVATION (CHANNEL)	CY	35,436.000		301.000		35,737.000	
	132-6001	EMBANKMENT (FINAL)(ORD COMP)(TY A)	CY	6,467.000		417.000		6,884.000	
	132-6006	EMBANKMENT (FINAL)(DENS CONT)(TY C)	CY	202,314.000		5,919.000		208,233.000	
	132-6035	EMBANK(FINAL)(DC)(TY E)(CSBE)	CY	16,951.000		4,283.000		21,234.000	
	132-6036	EMB(FNL)(DC)(TYE)(CSBE)(RWALL FND IMPR	CY	23,556.000				23,556.000	
	161-6017	COMPOST MANUF TOPSOIL (4")	SY	8,932.000		2,523.000		11,455.000	
	162-6002	BLOCK SODDING	SY	68,816.000		21,113.000		89,929.000	
	162-6003	STRAW OR HAY MULCH	SY	68,816.000		18,034.000		86,850.000	
	164-6009	BROADCAST SEED (TEMP) (WARM)	SY	68,816.000		18,034.000		86,850.000	
	164-6025	CELL FBR MLCH SEED(PERM)(URBAN)(SANDY)	SY			8,788.000		8,788.000	
	164-6051	DRILL SEED (TEMP)(WARM OR COOL)	SY	68,816.000		18,034.000		86,850.000	
	166-6001	FERTILIZER	AC	17.040		7.080		24.120	
	168-6001	VEGETATIVE WATERING	MG	2,044.690		849.370		2,894.060	
	260-6001	LIME (HYDRATED LIME (DRY))	TON			28.000		28.000	
	260-6006	LIME TRT (EXST MATL) (6")	SY	58,957.000		16,907.000		75,864.000	
	260-6012	LIME(HYD,COM OR QK)(SLRY)OR QK(DRY)	TON	875.000		251.000		1,126.000	
	260-6079	LIME TRT (SUBGRADE)(6")	SY			1,725.000		1,725.000	
	276-6224	CEM TRT(PLNT MX) (CL N)(TY E)(GR 4)(6")	SY	58,957.000		16,907.000		75,864.000	
	292-6002	ASPHALT STAB BASE (GR 2)(PG 64)	TON	1,620.000				1,620.000	
	305-6055	SALV, HAUL & STKPL RCL APH PAV (4"-14")	SY	2,162.000				2,162.000	
	360-6006	CONC PVMT (CONT REINF - CRCP) (12")	SY	4,879.000				4,879.000	
	360-6008	CONC PVMT (CONT REINF - CRCP) (14")	SY	62,082.000		16,373.000		78,455.000	
	360-6028	CONC PAV (JOINT REINF) (6")	SY			1,446.000		1,446.000	
	400-6001	STRUCT EXCAV	CY	23,556.000				23,556.000	
	400-6005	CEM STABIL BKFL	CY	2,017.000		137.000		2,154.000	
	400-6009	CEMENT STAB BACKFILL (INLET OR MH)	CY	639.000		30.000		669.000	
	401-6001	FLOWABLE BACKFILL	CY	16.000		20.000		36.000	
	402-6001	TRENCH EXCAVATION PROTECTION	LF	3,010.000		811.000		3,821.000	
	416-6001	DRILL SHAFT (18 IN)	LF			320.000		320.000	
	416-6004	DRILL SHAFT (36 IN)	LF	2,044.000				2,044.000	

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DISTRICT	COUNTY	CCSJ	SHEET
Houston	Harris	0028-02-097	17T



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0028-02-097

DISTRICT Houston
HIGHWAY US 90

COUNTY Harris

CONTROL SECTION JOB				0028-02-074		0028-02-097		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00070619		A00128853			
COUNTY				Harris		Harris			
HIGHWAY				US 90		US 90			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL	EST.	FINAL		
	416-6005	DRILL SHAFT (42 IN)	LF			1,820.000		1,820.000	
	416-6008	DRILL SHAFT (60 IN)	LF			1,710.000		1,710.000	
	416-6012	DRILL SHAFT (84 IN)	LF	840.000		1,530.000		2,370.000	
	416-6015	DRILL SHAFT (NON - REINFORCED) (12 IN)	LF	14.000		14.000		28.000	
	416-6018	DRILL SHAFT (SIGN MTS) (24 IN)	LF	24.000				24.000	
	416-6021	DRILL SHAFT (SIGN MTS) (42 IN)	LF	888.000		104.000		992.000	
	416-6027	DRILL SHAFT (HIGH MAST POLE) (66 IN)	LF	200.000		80.000		280.000	
	416-6032	DRILL SHAFT (TRF SIG POLE) (36 IN)	LF	45.000				45.000	
	416-6034	DRILL SHAFT (TRF SIG POLE) (48 IN)	LF	44.000				44.000	
	420-6011	CL B CONC (FLUME)	CY			20.000		20.000	
	420-6013	CL C CONC (ABUT)	CY	126.400		204.600		331.000	
	420-6029	CL C CONC (CAP)	CY			320.500		320.500	
	420-6031	CL C CONC (CAP)(MASS)	CY			158.700		158.700	
	420-6037	CL C CONC (COLUMN)	CY	229.800		516.800		746.600	
	420-6068	CL C CONC (SIGN COLUMN)	CY	219.000		22.000		241.000	
	420-6134	CL C CONC (SIGN FOOTING)	CY	80.000		10.000		90.000	
	420-6182	CL F CONC (CAP)(INVT)	CY	307.400				307.400	
	422-6001	REINF CONC SLAB	SF	42,744.000		93,772.000		136,516.000	
	423-6003	RETAINING WALL (TEMP WALL)	SF	1,260.000				1,260.000	
	423-6008	RETAINING WALL (CAST - IN - PLACE)	SF			2,910.000		2,910.000	
	423-6042	RETAINING WALL (MSE) (VERTICAL SCHEME)	SF	107,743.000				107,743.000	
	425-6038	PRESTR CONC GIRDER (TX46)	LF	5,261.840				5,261.840	
	425-6040	PRESTR CONC GIRDER (TX62)	LF			8,757.410		8,757.410	
	432-6001	RIPRAP (CONC)(4 IN)	CY	199.000		236.000		435.000	
	432-6002	RIPRAP (CONC)(5 IN)	CY	3,697.000		475.000		4,172.000	
	432-6006	RIPRAP (CONC)(CL B)	CY	4.100				4.100	
	432-6009	RIPRAP (CONC) (CL B) (4")	CY	32.000		4.000		36.000	
	432-6031	RIPRAP (STONE PROTECTION)(12 IN)	CY			3,394.000		3,394.000	
	432-6045	RIPRAP (MOW STRIP)(4 IN)	CY	245.000		86.000		331.000	
	434-6008	ELASTOMERIC BEARING (EE6)	EA			15.000		15.000	
	434-6016	ELASTOMERIC BEARING (EF6)	EA			15.000		15.000	
	442-6001	STR STEEL (PLATE GIRDER)	LB			2,078,594.000		2,078,594.000	
	450-6023	RAIL (TY SSTR)	LF	9,269.000				9,269.000	
	450-6054	RAIL (TY SSTR) (W/DRAIN SLOTS)	LF	894.000		4,040.000		4,934.000	
	454-6018	SEALED EXPANSION JOINT (4 IN) (SEJ - M)	LF	265.000				265.000	
	454-6019	SEALED EXPANSION JOINT (5 IN) (SEJ - M)	LF			560.000		560.000	
	462-6008	CONC BOX CULV (5 FT X 4 FT)	LF			76.000		76.000	

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DISTRICT	COUNTY	CCSJ	SHEET
Houston	Harris	0028-02-097	17U



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0028-02-097

DISTRICT Houston
HIGHWAY US 90

COUNTY Harris

CONTROL SECTION JOB				0028-02-074		0028-02-097		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00070619		A00128853			
COUNTY				Harris		Harris			
HIGHWAY				US 90		US 90			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL	EST.	FINAL		
	462-6030	CONC BOX CULV (10 FT X 6 FT)	LF	154.000				154.000	
	464-6003	RC PIPE (CL III)(18 IN)	LF	4.000		20.000		24.000	
	464-6005	RC PIPE (CL III)(24 IN)	LF	2,496.000		81.000		2,577.000	
	464-6007	RC PIPE (CL III)(30 IN)	LF	342.000		78.000		420.000	
	464-6008	RC PIPE (CL III)(36 IN)	LF	33.000				33.000	
	464-6009	RC PIPE (CL III)(42 IN)	LF	16.000				16.000	
	464-6011	RC PIPE (CL III)(54 IN)	LF	12.000				12.000	
	464-6026	RC PIPE (CL V)(24 IN)	LF	758.000				758.000	
	465-6005	JCTBOX(COMPL)(PJB)(3FTX3FT)	EA	10.000				10.000	
	465-6006	JCTBOX(COMPL)(PJB)(4FTX4FT)	EA	3.000				3.000	
	465-6010	JCTBOX(COMPL)(PJB)(5FTX6FT)	EA			1.000		1.000	
	465-6013	INLET (COMPL)(PCO)(3FT)(NONE)	EA	4.000				4.000	
	465-6172	INLET (COMPL)(TY AZR2G)	EA	31.000				31.000	
	465-6174	MANH (COMPL)(TY B)	EA			1.000		1.000	
	465-6177	INLET (COMPL)(TY AZ2G)	EA	2.000				2.000	
	465-6557	INLET (CURB)(SPL)	EA	1.000				1.000	
	466-6154	WINGWALL (FW - 0) (HW=7 FT)	EA	2.000				2.000	
	467-6006	SET (TY I) (24 IN) (4: 1) (C)	EA			2.000		2.000	
	467-6177	SET (TY I)(S= 5 FT)(HW= 4 FT)(4:1) (C)	EA			1.000		1.000	
	467-6388	SET (TY II) (24 IN) (RCP) (3: 1) (C)	EA	28.000				28.000	
	467-6394	SET (TY II) (24 IN) (RCP) (6: 1) (C)	EA	4.000				4.000	
	467-6395	SET (TY II) (24 IN) (RCP) (6: 1) (P)	EA	1.000				1.000	
	467-6417	SET (TY II) (30 IN) (RCP) (3: 1) (C)	EA	1.000				1.000	
	467-6419	SET (TY II) (30 IN) (RCP) (4: 1) (C)	EA			1.000		1.000	
	467-6422	SET (TY II) (30 IN) (RCP) (6: 1) (C)	EA	3.000				3.000	
	467-6448	SET (TY II) (36 IN) (RCP) (3: 1) (C)	EA	2.000				2.000	
	467-6461	SET (TY II) (42 IN) (RCP) (3: 1) (C)	EA	1.000				1.000	
	467-6485	SET (TY II) (54 IN) (RCP) (3: 1) (C)	EA	1.000				1.000	
	471-6007	GRATE AND FRAME (BRIDGE DRAIN)	EA	10.000				10.000	
	481-6011	PIPE (PVC) (SCH 40) (4 IN)	LF	178.000				178.000	
	481-6024	PIPE (PVC) (SCH 80) (8 IN)	LF	338.000				338.000	
	496-6004	REMOV STR (SET)	EA	10.000		2.000		12.000	
	496-6007	REMOV STR (PIPE)	LF	814.000		93.000		907.000	
	500-6001	MOBILIZATION	LS			1.000		1.000	
	502-6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	30.000		16.000		46.000	
	506-6001	ROCK FILTER DAMS (INSTALL) (TY 1)	LF			30.000		30.000	
	506-6002	ROCK FILTER DAMS (INSTALL) (TY 2)	LF	363.000		84.000		447.000	

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DISTRICT	COUNTY	CCSJ	SHEET
Houston	Harris	0028-02-097	17V



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0028-02-097

DISTRICT Houston
HIGHWAY US 90

COUNTY Harris

CONTROL SECTION JOB				0028-02-074		0028-02-097		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00070619		A00128853			
COUNTY				Harris		Harris			
HIGHWAY				US 90		US 90			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL	EST.	FINAL		
	506-6011	ROCK FILTER DAMS (REMOVE)	LF	363.000		114.000		477.000	
	506-6020	CONSTRUCTION EXITS (INSTALL) (TY 1)	SY			10.000		10.000	
	506-6024	CONSTRUCTION EXITS (REMOVE)	SY			10.000		10.000	
	506-6038	TEMP SEDMT CONT FENCE (INSTALL)	LF			3,966.000		3,966.000	
	506-6039	TEMP SEDMT CONT FENCE (REMOVE)	LF			3,966.000		3,966.000	
	506-6041	BIODEG EROSN CONT LOGS (INSTL) (12")	LF	70.000		70.000		140.000	
	506-6043	BIODEG EROSN CONT LOGS (REMOVE)	LF	70.000		70.000		140.000	
	512-6013	PORT CTB (DES SOURCE)(SGL SLP)(TY 1)	LF	2,610.000				2,610.000	
	512-6025	PORT CTB (MOVE)(SGL SLP)(TY 1)	LF	630.000				630.000	
	512-6037	PORT CTB (STKPL)(SGL SLP)(TY 1)	LF	2,610.000				2,610.000	
	514-6001	PERM CTB (SGL SLOPE) (TY 1) (42)	LF	4,769.000		2,736.000		7,505.000	
	529-6005	CONC CURB (MONO) (TY II)	LF	985.000				985.000	
	529-6010	CONC CURB (U-TURN)	LF	1,434.000				1,434.000	
	531-6003	CONC SIDEWALKS (6")	SY	494.000				494.000	
	531-6004	CURB RAMPS (TY 1)	EA	4.000				4.000	
	531-6010	CURB RAMPS (TY 7)	EA	4.000				4.000	
	531-6016	CURB RAMPS (TY 21)	EA	1.000				1.000	
	536-6002	CONC MEDIAN	SY	2,725.000				2,725.000	
	540-6001	MTL W-BEAM GD FEN (TIM POST)	LF	6,910.000		787.500		7,697.500	
	540-6006	MTL BEAM GD FEN TRANS (THRIE-BEAM)	EA	2.000				2.000	
	540-6016	DOWNSTREAM ANCHOR TERMINAL SECTION	EA	11.000		4.000		15.000	
	542-6001	REMOVE METAL BEAM GUARD FENCE	LF	218.000				218.000	
	544-6001	GUARDRAIL END TREATMENT (INSTALL)	EA	13.000		5.000		18.000	
	544-6003	GUARDRAIL END TREATMENT (REMOVE)	EA			2.000		2.000	
	545-6002	CRASH CUSH ATTEN (DES SOURCE)	EA	3.000				3.000	
	545-6003	CRASH CUSH ATTEN (MOVE & RESET)	EA	1.000				1.000	
	545-6005	CRASH CUSH ATTEN (REMOVE)	EA	4.000		2.000		6.000	
	545-6007	CRASH CUSH ATTEN (INSTL)(L)(N)(TL3)	EA	2.000		2.000		4.000	
	610-6105	IN RD IL (U/P) (TY 1) (250W EQ) LED	EA	8.000				8.000	
	610-6107	IN RD IL (U/P) (TY 2) (250W EQ) LED	EA	8.000				8.000	
	613-6008	HI MST IL POLE (175 FT)(100 MPH)	EA	5.000		2.000		7.000	
	618-6046	CONDT (PVC) (SCH 80) (2")	LF	2,937.000		1,168.000		4,105.000	
	618-6047	CONDT (PVC) (SCH 80) (2") (BORE)	LF	575.000		105.000		680.000	
	618-6053	CONDT (PVC) (SCH 80) (3")	LF	870.000				870.000	
	618-6054	CONDT (PVC) (SCH 80) (3") (BORE)	LF	700.000				700.000	
	618-6062	CONDT (RM) (3/4")	LF	659.000				659.000	
	620-6003	ELEC CONDR (NO.12) BARE	LF	815.000				815.000	

1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP
DISTRICT	COUNTY	CCSJ	SHEET
Houston	Harris	0028-02-097	17W



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0028-02-097

DISTRICT Houston
HIGHWAY US 90

COUNTY Harris

CONTROL SECTION JOB				0028-02-074		0028-02-097		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00070619		A00128853			
COUNTY				Harris		Harris			
HIGHWAY				US 90		US 90			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL	EST.	FINAL		
	620-6004	ELEC CONDR (NO.12) INSULATED	LF	1,630.000				1,630.000	
	620-6007	ELEC CONDR (NO.8) BARE	LF	5,173.000		344.000		5,517.000	
	620-6008	ELEC CONDR (NO.8) INSULATED	LF	6,886.000		688.000		7,574.000	
	620-6009	ELEC CONDR (NO.6) BARE	LF			965.000		965.000	
	620-6010	ELEC CONDR (NO.6) INSULATED	LF			1,930.000		1,930.000	
	620-6012	ELEC CONDR (NO.4) INSULATED	LF	410.000				410.000	
	621-6005	TRAY CABLE (4 CONDR) (12 AWG)	LF	2,165.000				2,165.000	
	624-6009	GROUND BOX TY D (162922)	EA	2.000				2.000	
	624-6010	GROUND BOX TY D (162922)W/APRON	EA	25.000		6.000		31.000	
	628-6051	ELC SRV TY A 240/480 060(SS)SS(E)GC(O)	EA	1.000		1.000		2.000	
	628-6145	ELC SRV TY D 120/240 060(NS)SS(E)SP(O)	EA	1.000				1.000	
	636-6002	ALUMINUM SIGNS (TY G)	SF	208.500		60.000		268.500	
	636-6003	ALUMINUM SIGNS (TY O)	SF	1,603.500		1,161.750		2,765.250	
	644-6001	IN SM RD SN SUP&AM TY10BWG(1)SA(P)	EA	16.000		7.000		23.000	
	644-6004	IN SM RD SN SUP&AM TY10BWG(1)SA(T)	EA	18.000		9.000		27.000	
	644-6030	IN SM RD SN SUP&AM TYS80(1)SA(T)	EA	5.000		2.000		7.000	
	644-6033	IN SM RD SN SUP&AM TYS80(1)SA(U)	EA	2.000				2.000	
	644-6064	IN BRIDGE MNT CLEARANCE SGN ASSM(TY N)	EA	2.000				2.000	
	644-6065	IN BRIDGE MNT CLEARANCE SGN ASSM(TY S)	EA	2.000				2.000	
	644-6066	IN SM RD SN SUP&AM (RAIL MOUNT)	EA	2.000		2.000		4.000	
	644-6067	IN SM RD SN SUP&AM (INST SIGN ONLY)	EA	2.000				2.000	
	644-6068	RELOCATE SM RD SN SUP&AM TY 10BWG	EA	3.000				3.000	
	644-6070	RELOCATE SM RD SN SUP&AM TY S80	EA			2.000		2.000	
	644-6076	REMOVE SM RD SN SUP&AM	EA	17.000		5.000		22.000	
	644-6078	REMOVE SM RD SN SUP&AM (SIGN ONLY)	EA	3.000		1.000		4.000	
	647-6001	INSTALL LRSS (STRUCT STEEL)	LB	1,056.600		423.400		1,480.000	
	647-6003	REMOVE LRSA	EA			1.000		1.000	
	650-6031	INS OH SN SUP(30 FT BAL TEE)(SPAN ONLY)	EA	1.000				1.000	
	650-6041	INS OH SN SUP(35 FT CANT)(SPAN ONLY)	EA	7.000		1.000		8.000	
	650-6204	REMOVE OVERHD SIGN SUP	EA			3.000		3.000	
	658-6013	INSTL DEL ASSM (D-SW)SZ (BRF)CTB	EA	247.000		84.000		331.000	
	658-6027	INSTL DEL ASSM (D-SY)SZ (BRF)CTB (BI)	EA	144.000		62.000		206.000	
	658-6047	INSTL OM ASSM (OM-2Y)(WC)GND	EA	17.000		15.000		32.000	
	662-6063	WK ZN PAV MRK REMOV (W)4"(SLD)	LF	2,265.000				2,265.000	
	662-6076	WK ZN PAV MRK REMOV (W)4"(BKN W/MRKR)	LF	720.000				720.000	
	662-6095	WK ZN PAV MRK REMOV (Y)4"(SLD)	LF	1,440.000				1,440.000	
	668-6077	PREFAB PAV MRK TY C (W) (ARROW)	EA	20.000				20.000	

1	5/24/2024	ADDENDUM #1	RLS
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DISTRICT	COUNTY	CCSJ	SHEET
Houston	Harris	0028-02-097	17X



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0028-02-097

DISTRICT Houston
HIGHWAY US 90

COUNTY Harris

CONTROL SECTION JOB				0028-02-074		0028-02-097		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00070619		A00128853			
COUNTY				Harris		Harris			
HIGHWAY				US 90		US 90			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL	EST.	FINAL		
	668-6078	PREFAB PAV MRK TY C (W) (DBL ARROW)	EA	4.000				4.000	
	668-6085	PREFAB PAV MRK TY C (W) (WORD)	EA	12.000				12.000	
	668-6092	PREFAB PAV MRK TY C (W) (36")(YLD TRI)	EA	23.000				23.000	
	672-6010	REFL PAV MRKR TY II-C-R	EA	1,307.000		593.000		1,900.000	
	677-6001	ELIM EXT PAV MRK & MRKS (4")	LF	4,425.000				4,425.000	
	677-6002	ELIM EXT PAV MRK & MRKS (6")	LF	32,557.000		15,027.000		47,584.000	
	677-6003	ELIM EXT PAV MRK & MRKS (8")	LF	7,515.000		4,241.000		11,756.000	
	677-6005	ELIM EXT PAV MRK & MRKS (12")	LF	12,899.000		7,934.000		20,833.000	
	677-6008	ELIM EXT PAV MRK & MRKS (ARROW)	EA	9.000		12.000		21.000	
	677-6012	ELIM EXT PAV MRK & MRKS (WORD)	EA	9.000		9.000		18.000	
	677-6028	ELIM EXT PV MRK & MRKS (RUMBLE STRIP)	LF	4,318.000		503.000		4,821.000	
	678-6002	PAV SURF PREP FOR MRK (6")	LF	76,485.000		39,180.000		115,665.000	
	678-6004	PAV SURF PREP FOR MRK (8")	LF	5,960.000		3,755.000		9,715.000	
	678-6006	PAV SURF PREP FOR MRK (12")	LF	3,635.000		1,230.000		4,865.000	
	678-6008	PAV SURF PREP FOR MRK (24")	LF	740.000				740.000	
	678-6009	PAV SURF PREP FOR MRK (ARROW)	EA	20.000				20.000	
	678-6010	PAV SURF PREP FOR MRK (DBL ARROW)	EA	4.000				4.000	
	678-6016	PAV SURF PREP FOR MRK (WORD)	EA	12.000				12.000	
	678-6023	PAV SURF PREP FOR MRK (36")(YLD TRI)	EA	23.000				23.000	
	680-6003	INSTALL HWY TRF SIG (SYSTEM)	EA	1.000				1.000	
	682-6001	VEH SIG SEC (12")LED(GRN)	EA	14.000				14.000	
	682-6002	VEH SIG SEC (12")LED(GRN ARW)	EA	2.000				2.000	
	682-6003	VEH SIG SEC (12")LED(YEL)	EA	14.000				14.000	
	682-6004	VEH SIG SEC (12")LED(YEL ARW)	EA	2.000				2.000	
	682-6005	VEH SIG SEC (12")LED(RED)	EA	14.000				14.000	
	682-6006	VEH SIG SEC (12")LED(RED ARW)	EA	4.000				4.000	
	682-6018	PED SIG SEC (LED)(COUNTDOWN)	EA	14.000				14.000	
	682-6049	BACKPLATE W/REFL BRDR(4 SEC)	EA	2.000				2.000	
	682-6060	BACKPLATE W/REFL BRDR(3 SEC)	EA	14.000				14.000	
	684-6007	TRF SIG CBL (TY A)(12 AWG)(2 CONDR)	LF	4,020.000				4,020.000	
	684-6009	TRF SIG CBL (TY A)(12 AWG)(4 CONDR)	LF	4,330.000				4,330.000	
	684-6012	TRF SIG CBL (TY A)(12 AWG)(7 CONDR)	LF	3,230.000				3,230.000	
	686-6043	INS TRF SIG PL AM(S)1 ARM(40')LUM	EA	2.000				2.000	
	686-6047	INS TRF SIG PL AM(S)1 ARM(44')LUM	EA	1.000				1.000	
	686-6055	INS TRF SIG PL AM(S)1 ARM(50')LUM	EA	1.000				1.000	
	686-6195	INS TRF SIG PL AM(S)2 ARM(50-44')LUM	EA	1.000				1.000	
	687-6001	PED POLE ASSEMBLY	EA	13.000				13.000	

1	5/24/2024	ADDENDUM #1	RLS
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DISTRICT	COUNTY	CCSJ	SHEET
Houston	Harris	0028-02-097	17Y



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0028-02-097

DISTRICT Houston
HIGHWAY US 90

COUNTY Harris

CONTROL SECTION JOB				0028-02-074		0028-02-097		TOTAL EST.	TOTAL FINAL
PROJECT ID				A00070619		A00128853			
COUNTY				Harris		Harris			
HIGHWAY				US 90		US 90			
ALT	BID CODE	DESCRIPTION	UNIT	EST.	FINAL	EST.	FINAL		
	688-6001	PED DETECT PUSH BUTTON (APS)	EA	13.000				13.000	
	688-6003	PED DETECTOR CONTROLLER UNIT	EA	1.000				1.000	
	740-6004	ANTI - GRAFFITI COATING(PERMNENT-TY II)	SF	107,743.000				107,743.000	
	760-6001	DITCH CLEANING AND RESHAPING (FOOT)	LF			136.000		136.000	
	3021-6001	WIDE FLANGE PAVEMENT TERMINALS	LF	264.000		240.000		504.000	
	3076-6041	D-GR HMA TY-D SAC-A PG70-22	TON	4,864.000		1,395.000		6,259.000	
	4021-6001	TIP TESTING(DRILL SHAFT)	EA	2.000		4.000		6.000	
	4075-6001	WICK DRAINS	LF	881,899.000		375,360.000		1,257,259.000	⚠
	6001-6001	PORTABLE CHANGEABLE MESSAGE SIGN	DAY	28.000		28.000		56.000	
	6004-6031	ITS COM CBL (ETHERNET)	LF	200.000				200.000	
	6038-6004	MULTIPOLYMER PAV MRK (W)(6")(SLD)	LF	22,590.000		10,810.000		33,400.000	
	6038-6005	MULTIPOLYMER PAV MRK (W)(6")(BRK)	LF	13,810.000		6,850.000		20,660.000	
	6038-6006	MULTIPOLYMER PAV MRK (W)(6")(DOT)	LF	355.000		435.000		790.000	
	6038-6007	MULTIPOLYMER PAV MRK (W)(8")(SLD)	LF	5,960.000		3,755.000		9,715.000	
	6038-6011	MULTIPOLYMER PAV MRK (W)(12")(SLD)	LF	2,035.000		1,230.000		3,265.000	
	6038-6012	MULTIPOLYMER PAV MRK (W)(12")(LNDP)	LF	1,600.000				1,600.000	
	6038-6013	MULTIPOLYMER PAV MRK (W)(24")(SLD)	LF	740.000				740.000	
	6038-6017	MULTIPOLYMER PAV MRK (Y)(6")(SLD)	LF	25,920.000		14,235.000		40,155.000	
	6038-6024	MULTIPOLYMER PAV MRK (BLK)(6")(BRK)	LF	13,810.000		6,850.000		20,660.000	
	6058-6001	BBU SYSTEM (EXTERNAL BATT CABINET)	EA	1.000				1.000	
	6156-6002	LED HI MST IL ASM (6 FIXT)(ASYM)(TY A)	EA	3.000		2.000		5.000	
	6156-6003	LED HI MST IL ASM (6 FIXT) (ASYM)(TY B)	EA	2.000				2.000	
	6185-6003	TMA (MOBILE OPERATION)	HR	24.000		24.000		48.000	
	6292-6004	RVDS(PRESENCE DET ONLY)(INSTALL ONLY)	EA	6.000				6.000	
	6292-6005	RVDS(ADVANCE DET ONLY)(INSTALL ONLY)	EA	4.000				4.000	
	06	TRAFFIC SIGNAL CONTROLLER (PARTICIPATING)	LS	1.000				1.000	
	18	EROSION CONTROL MAINTENANCE: CONTRACTOR FORCE ACCOUNT WORK (PART)	LS	1.000		1.000		2.000	
		SAFETY CONTINGENCY: CONTRACTOR FORCE ACCOUNT WORK (PARTICIPATING)	LS	1.000		1.000		2.000	
		LAW ENFORCEMENT: CONTRACTOR FORCE ACCOUNT WORK (PARTICIPATING)	LS	1.000		1.000		2.000	

1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP
DISTRICT	COUNTY	CCSJ	SHEET
Houston	Harris	0028-02-097	17Z

SUMMARY OF REMOVAL ITEMS															
LOCATION	104 6001	104 6009	104 6021	104 6023	105 6014	305 6055	496 6004	496 6007	542 6001	544 6003	545 6005	644 6076	644 6078	647 6003	650 6204
	REMOVING CONC (PAV)	REMOVING CONC (RIPRAP)	REMOVING CONC (CURB)	REMOVING CONC (CTB)	REMOVING STAB BASE & ASPH PAV (7"-12")	SLV, HAUL & STKPL RCL APPH PV (4" TO 14")	REMOV STR (SET)	REMOV STR (PIPE)	REMOVE METAL BEAM GUARD FENCE	GUARDRAIL END TREATMENT (REMOVE)	CRASH CUSH ATTEN (REMOVE)	REMOVE SM RD SN SUP&AM	REMOVE SM RD SN SUP&AM (SIGN ONLY)	REMOVE LRSA	REMOVE OVERHD SIGN SUP
	SY	SY	LF	LF	SY	SY	EA	LF	LF	EA	EA	EA	EA	EA	EA
CSJ: 0028-02-097															
SHEET 1 OF 9 - STA 242+00 TO STA 264+00.00														1	1
SHEET 2 OF 9 - STA 264+00.00 TO STA 286+00.00		225		1203						1	2	1	1		1
SHEET 3 OF 9 - STA 286+00.00 TO STA 308+00.00		105		915						1		4			1
CSJ: 0028-02-074															
SHEET 4 OF 9 - STA 308+00.00 TO STA 330+00.00				4401								3			
SHEET 5 OF 9 - STA 330+00.00 TO STA 340+00.00				2000								1			
SHEET 6 OF 9 - STA 340+00.00 TO STA 362+00.00	1940	1807	736	1702	2162	2162	2	666	218			5	2		
SHEET 7 OF 9 - STA 362+00.00 TO STA 384+00.00	12	5655	54				6	109							
SHEET 8 OF 9 - STA 384+00.00 TO STA 406+00.00		855		1203			2	39			1	6	1		
SHEET 9 OF 9 - STA 406+00.00 TO END OF PROJECT												2			
CSJ: 0028-02-097 GRAND TOTAL		330		2118						2	2	5	1	1	3
CSJ: 0028-02-074 GRAND TOTAL	1952	8317	790	9306	2162	2162	10	814	218		1	17	3		
PROJECT TOTALS	1952	8647	790	11424	2162	2162	10	814	218	2	3	22	4	1	3



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1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP



AECOM 19219 KATY FREEWAY
SUITE 100
AECOM Technical Services Inc. 3580 HOUSTON, TX 77094

**US90 AT
GREENS BAYOU & PURPLE SAGE
SUMMARY OF
REMOVAL QUANTITIES**

CSJ: 0028-02-097, ETC SHEET 1 OF 1

FED. RD. DIV. RD.	STATE	PROJECT NO.		SHEET NO.	
6	TEXAS			19	
STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	HIGHWAY NO.
HOUSTON	HARRIS	0028	02	097, ETC	US90

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SUMMARY OF RETAINING WALL ITEMS							
	132 6006	132 6036	400 6001	423 6042	*556 6005	740 6004	4075 6001
RETAINING/SOUND WALLS	EMBANKMENT (FINAL) (DENS CONT) (TY C)	EMB (FNL) (DC) (TYE) (CSBE) (RWALL FND IMPR	STRUCT EXCAV	RETAINING WALL (MSE) (VERTICAL SCHEME)	PIPE UNDERDRAINS (TY 5) (6")	ANTI - GRAFFITI COATING (PERM NENT-TY II)	WICK DRAINS
	CY	CY	CY	SF	LF	SF	LF
CSJ: 0028-02-074							881899
WALL A	6644	2257	2257	10897	710	10897	
WALL B	6568	2555	2555	11102	828	11102	
WALL AB	2070	946	946	2375	181	2375	
WALL C	17924	7772	7772	40925	2920	40925	
WALL D	18883	9025	9025	39555	3001	39555	
WALL CD	2827	1001	1001	2889	132	2889	
CSJ 0028-02-097							375360
CSJ: 0028-02-074 GRAND TOTAL	54916	23556	23556	107743	7772	107743	881899
CSJ: 0028-02-097 GRAND TOTAL							375360
PROJECT TOTALS	54916	23556	23556	107743	7772	107743	1257259

* CONTRACTOR INFO ONLY. PAYMENT SUBSIDIARY TO ITEM 423



1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP



AECOM 19219 KATY FREEWAY
SUITE 100
AECOM Technical Services Inc.- 3580 HOUSTON, TX 77094

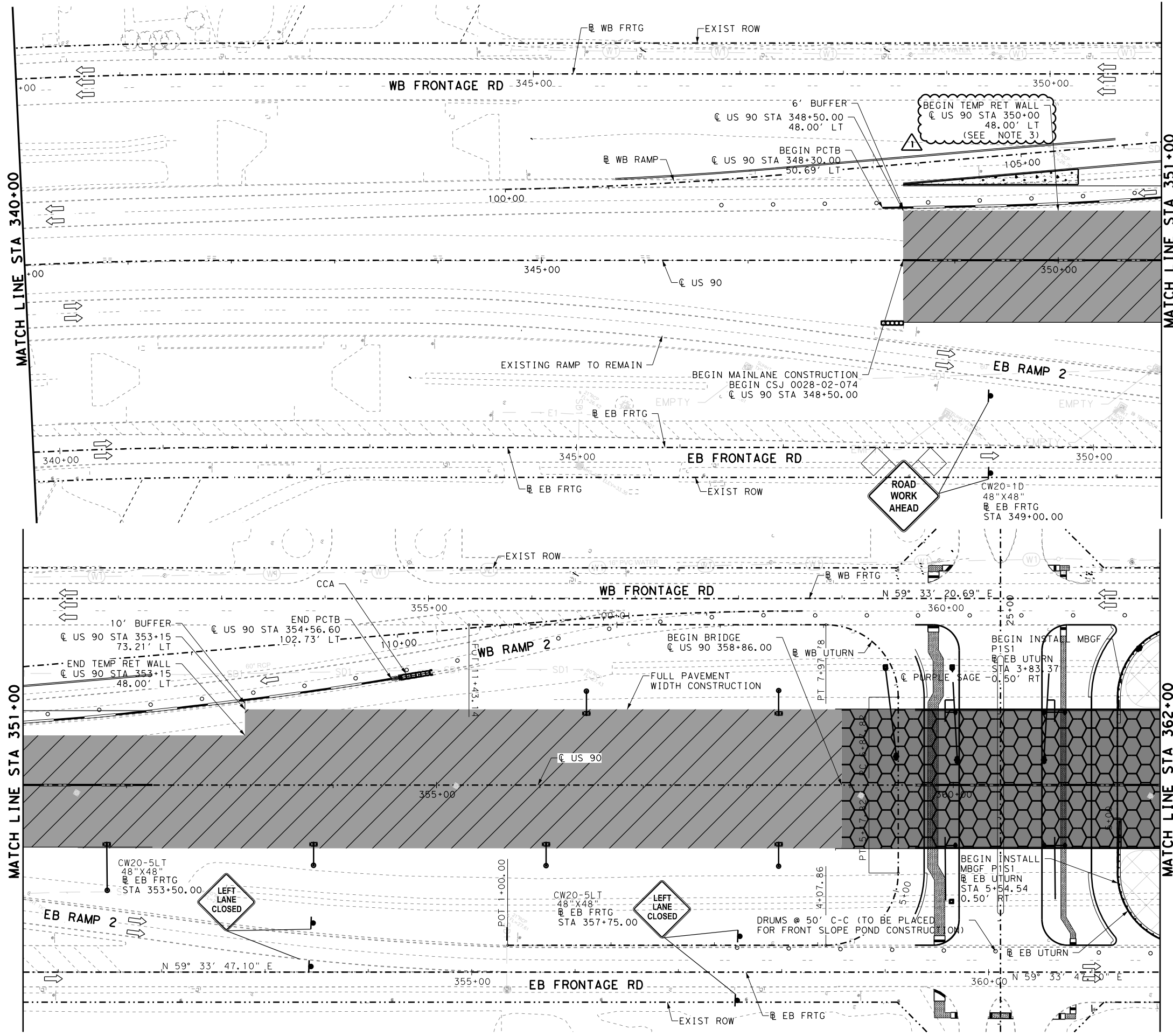
**US90 AT
GREENS BAYOU & PURPLE SAGE
SUMMARY OF
RETAINING WALL QUANTITIES**

CSJ: 0028-02-097, ETC SHEET 1 OF 1

FED. RD. DIV. NO.	STATE	PROJECT NO.		SHEET NO.
6	TEXAS			22
STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.
HOUSTON	HARRIS	0028	02	097, ETC
				US90

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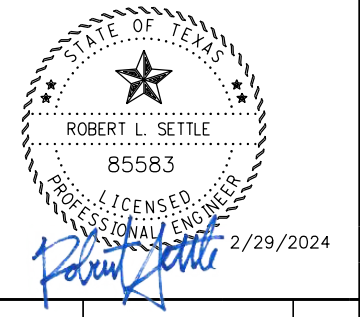
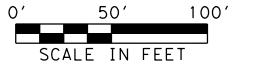
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TCP PLAN LEGEND

- PERMANENT CONSTRUCTION THIS STEP
- PERMANENT CONSTRUCTION PREVIOUS STEP
- PERMANENT BRIDGE THIS STEP
- PERMANENT BRIDGE CONSTRUCTION PREVIOUS STEP
- PERMANENT POND CONSTRUCTION THIS STEP
- PROP TRAFFIC FLOW
- EXIST TRAFFIC FLOW
- TYPE III BARRICADE
- TEMP GROUND MOUNTED SIGN
- CHANNELIZING DEVICES
- WK ZN REMOV (W) (4") (SLD)
- WK ZN REMOV (W) (4") (BRK W/MRK)
- WK ZN REMOV (Y) (4") (SLD)

- NOTES:
- PRIOR TO BEGINNING PHASE 1 STEP 2, ALL PHASE 1 STEP 1 CONSTRUCTION SHALL BE COMPLETE INCLUDING THE CONSTRUCTION OF CANTILEVER OVERHEAD SIGNS, PONDS, AND RESTRIPING OF MAINLANES AND RAMPS. RESTRIPING TO BE DONE UTILIZING STANDARD TCP(3-2).
 - SEE SIGNING & PAVEMENT MARKING LAYOUT SHEETS FOR DETAILS OF PERMANENT STRIPING AND SIGNING.
 - SEE SHEET 56 FOR TEMP RET WALL PROFILE.



1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP



AECOM 19219 KATY FREEWAY
 SUITE 100
 AECOM Technical Services Inc. 3580 HOUSTON, TX 77094

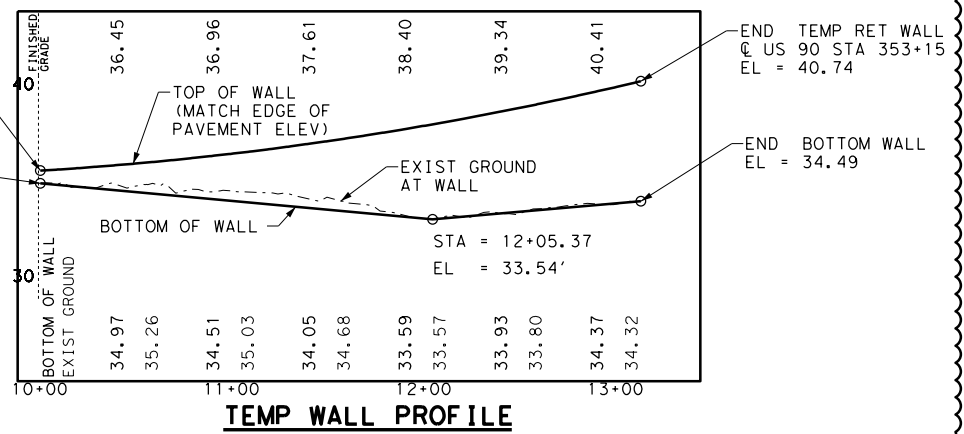
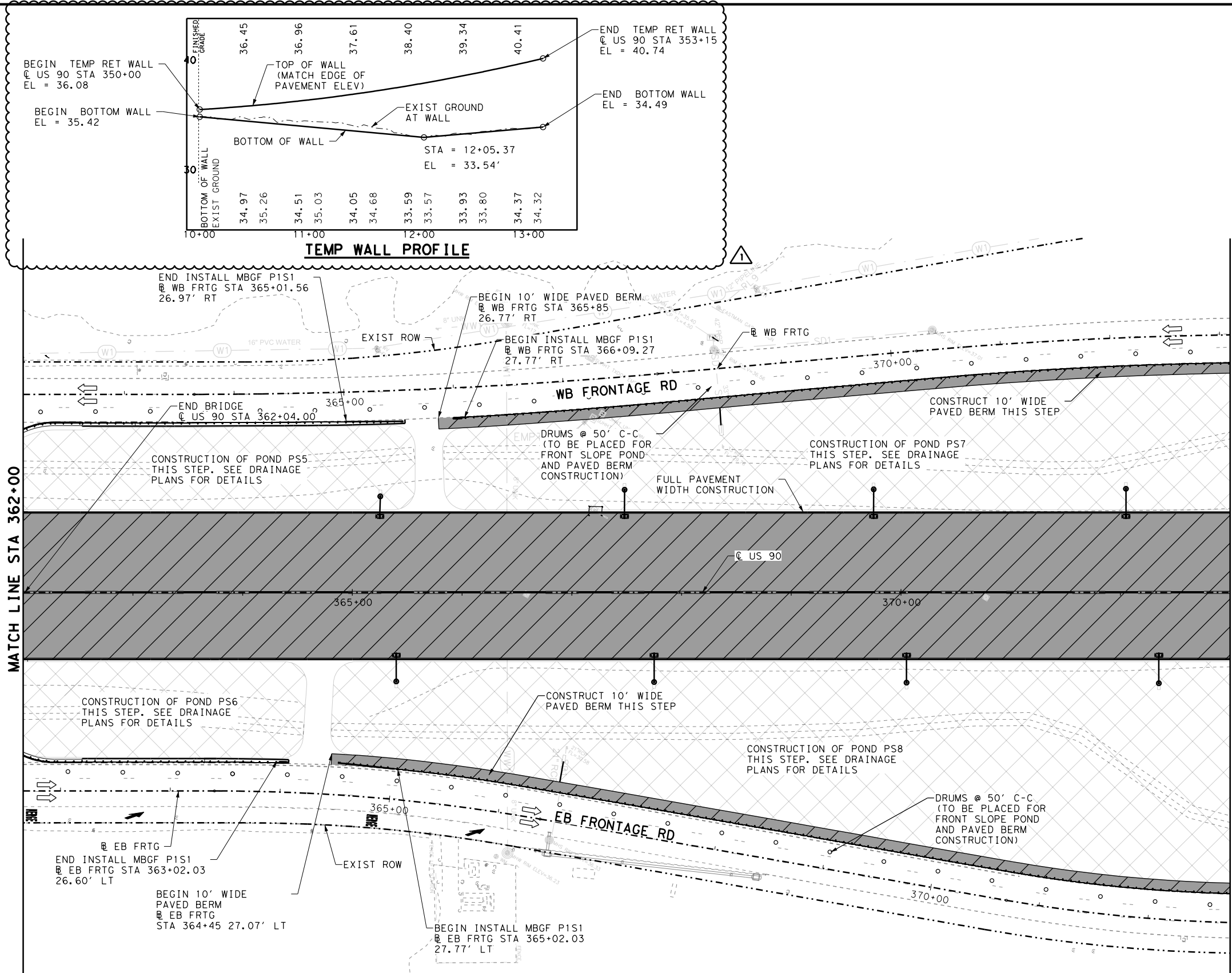
US90 AT GREENS BAYOU & PURPLE SAGE TRAFFIC CONTROL PLAN PHASE 1 STEP 1

STA 340+00 TO STA 362+00
 CSJ:0028-02-097, ETC SHEET 6 OF 10

FED. RD. DIV. NO.	STATE	PROJECT NO.	SHEET NO.
6	TEXAS		55
STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.
HOUSTON	HARRIS	0028	02
		JOB NO.	HIGHWAY NO.
		097, ETC	US90

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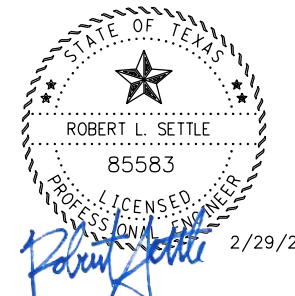
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TCP PLAN LEGEND

- PERMANENT CONSTRUCTION THIS STEP
- PERMANENT CONSTRUCTION PREVIOUS STEP
- PERMANENT BRIDGE THIS STEP
- PERMANENT BRIDGE CONSTRUCTION PREVIOUS STEP
- PERMANENT POND CONSTRUCTION THIS STEP
- PROP TRAFFIC FLOW
- EXIST TRAFFIC FLOW
- TYPE III BARRICADE
- TEMP GROUND MOUNTED SIGN
- CHANNELIZING DEVICES
- WK ZN REMOV (W) (4") (SLD)
- WK ZN REMOV (W) (4") (BRK W/MRK)
- WK ZN REMOV (Y) (4") (SLD)

NOTES:
 1. PRIOR TO BEGINNING PHASE 1 STEP 2, ALL PHASE 1 STEP 1 CONSTRUCTION SHALL BE COMPLETE INCLUDING THE CONSTRUCTION OF CANTILEVER OVERHEAD SIGNS, PONDS, AND RESTRIPING OF MAINLANES AND RAMPS. RESTRIPING TO BE DONE UTILIZING STANDARD TCP(3-2).
 2. SEE SIGNING & PAVEMENT MARKING LAYOUT SHEETS FOR DETAILS OF PERMANENT STRIPING AND SIGNING.



NO.	DATE	REVISION	APP
1	5/24/2024	ADDENDUM #1	RLS

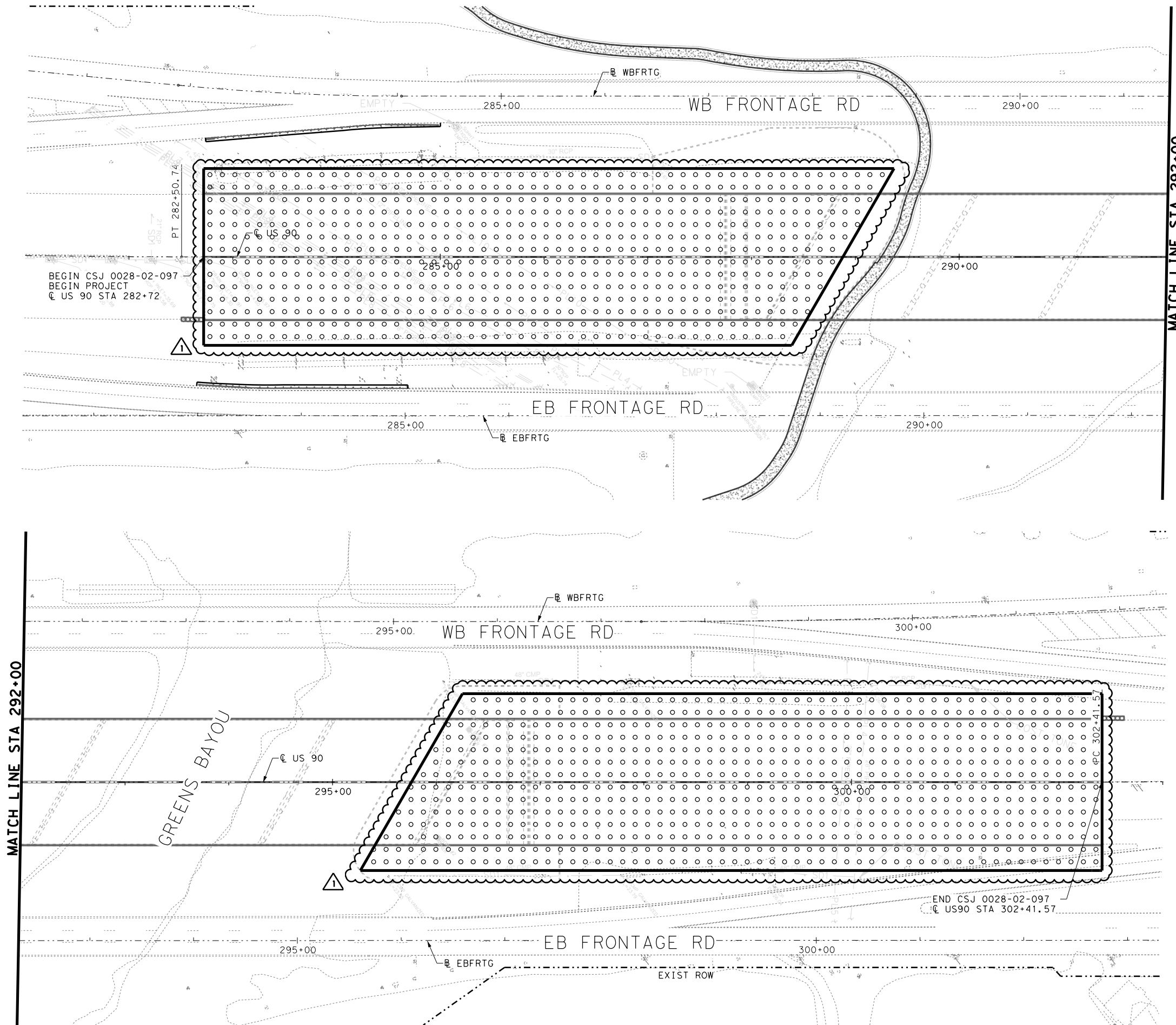


AECOM 19219 KATY FREEWAY
 SUITE 100
 HOUSTON, TX 77094

US90 AT GREENS BAYOU & PURPLE SAGE TRAFFIC CONTROL PLAN PHASE 1 STEP 1

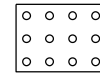
STA 362+00 TO STA 373+00
 CSJ:0028-02-097, ETC SHEET 7 OF 10

FED. RD. DIV. RD.	STATE	PROJECT NO.	SHEET NO.
6	TEXAS		56
STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.
HOUSTON	HARRIS	0028	02
			JOB NO.
			097, ETC
			HIGHWAY NO.
			US90

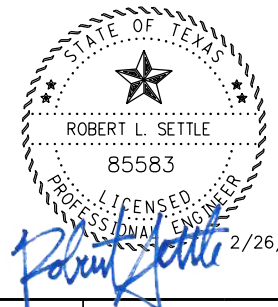


NOTES:

1. SEE GEOTECH ADDENDUM DATED NOVEMBER 8, 2023 FOR ADDITIONAL WICK DRAIN DETAILS.
2. WICK DRAINS TO BE SPACED AT 5'-0".
3. MONITORING POINTS TO BE PLACED AT BASELINE/CENTERLINE AND FUTURE EDGES OF PAVEMENT EVERY 30'-0".
4. PROPOSED MONITORING PLAN TO BE SUBMITTED FOR APPROVAL BY ENGINEER.
5. MONITORING POINTS MUST BE PROTECTED FROM ALL CONSTRUCTION ACTIVITY.



PRELOADING AREA



1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP



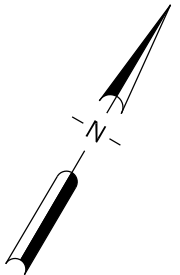
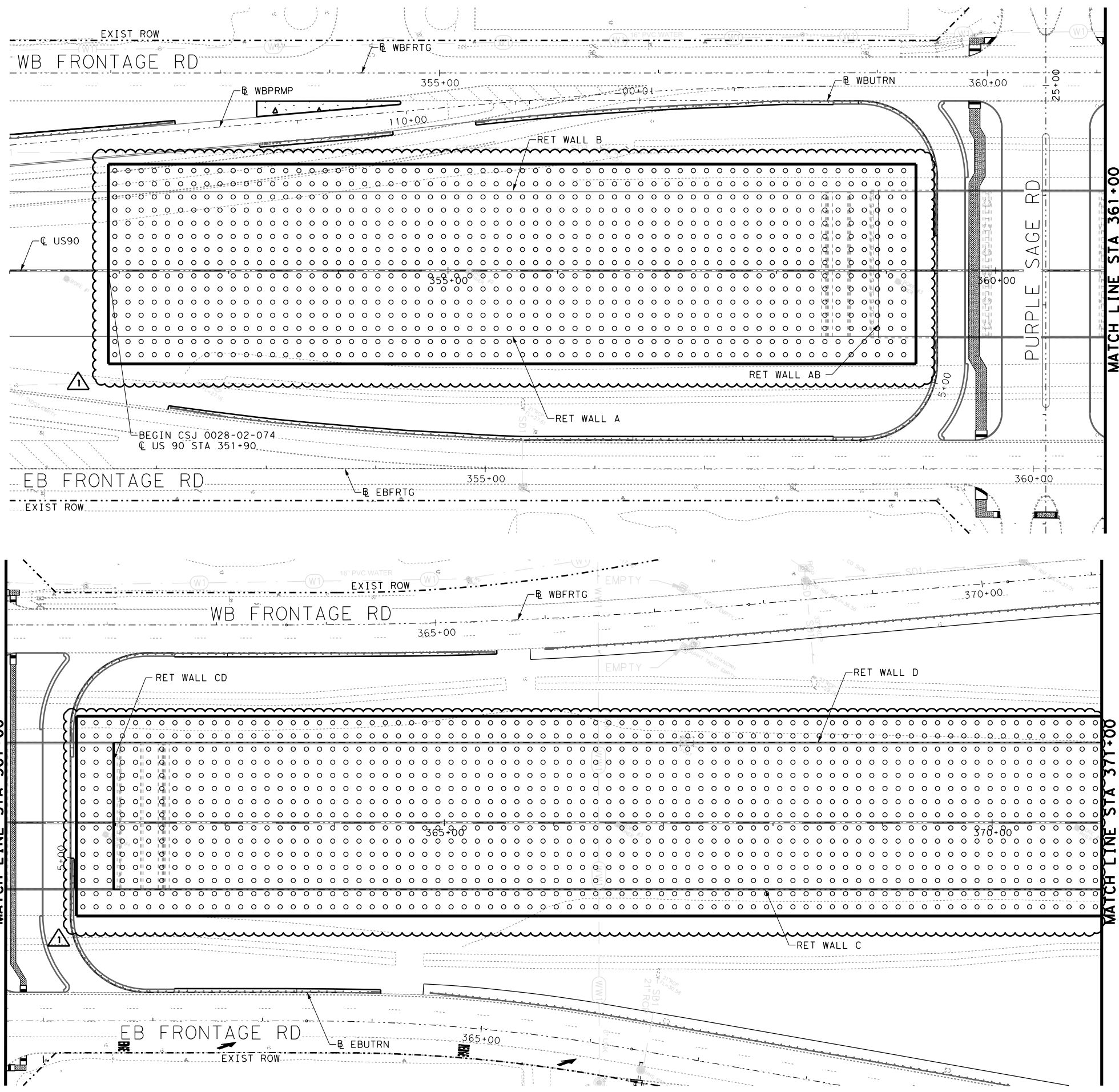
US90 AT GREENS BAYOU & PURPLE SAGE
PRELOADING AT GREENS BAYOU

CSJ: 0028-02-097, ETC SHEET 1 OF 1

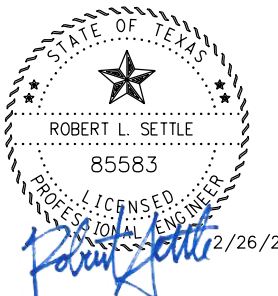
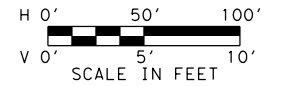
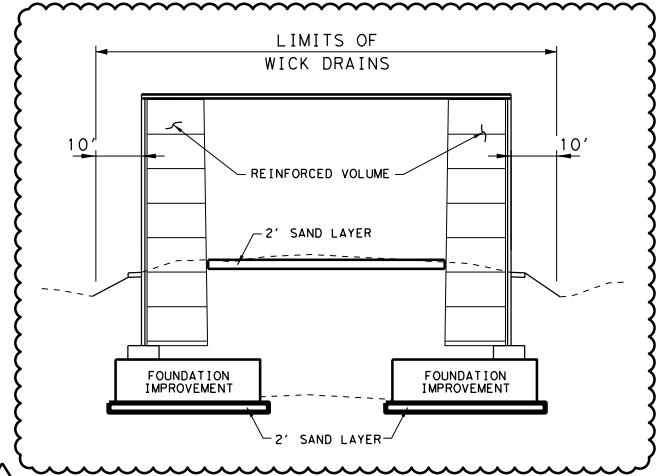
FED. RD. DIV. RD.	STATE	PROJECT NO.		SHEET NO.
6	TEXAS			166A
STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO. HIGHWAY NO.
HOUSTON	HARRIS	0028	02	097, ETC US90

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- NOTES:
1. SEE GEOTECH ADDENDUM DATED NOVEMBER 8, 2023 FOR ADDITIONAL WICK DRAIN DETAILS.
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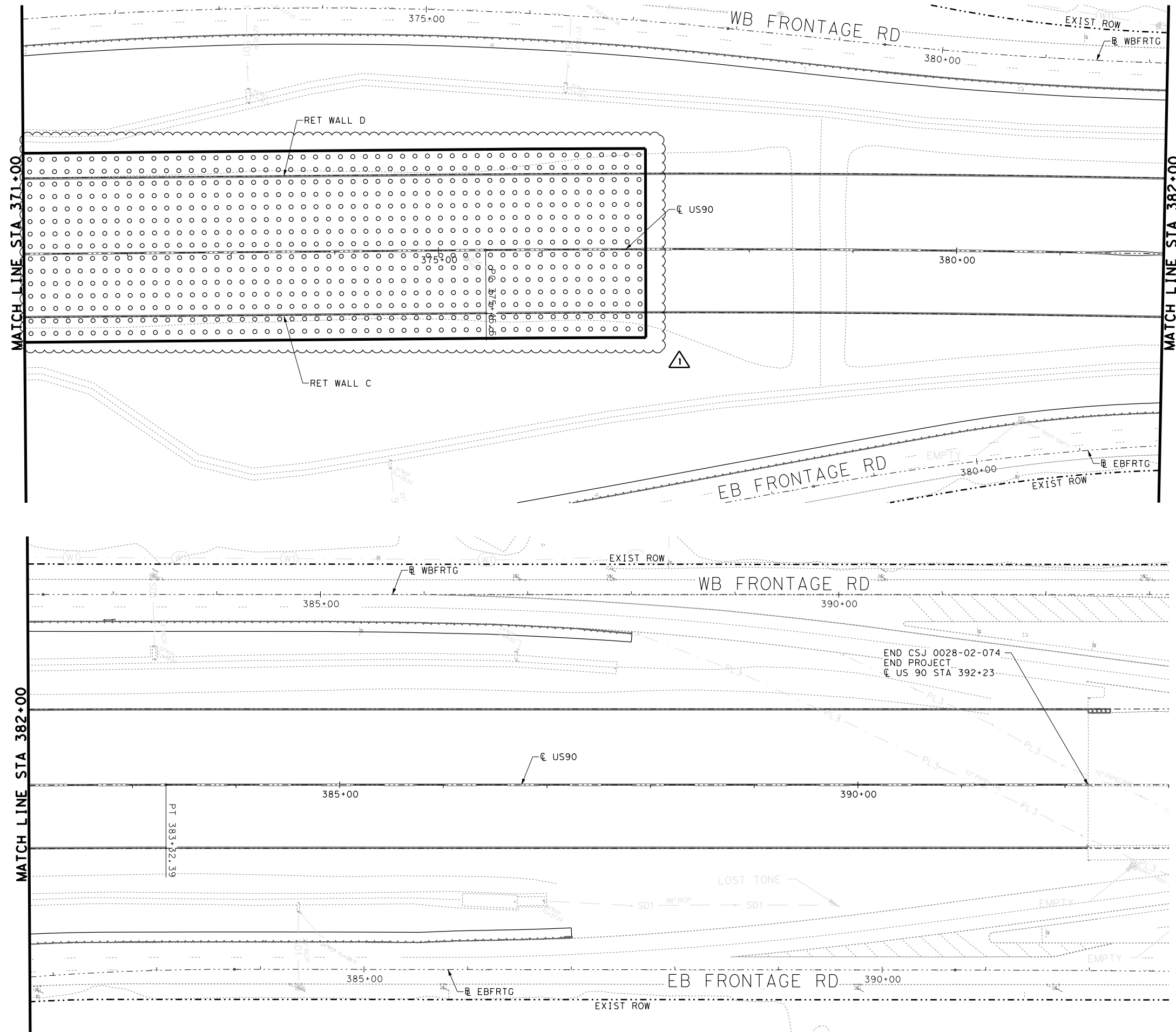
1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP



US90 AT
 GREENS BAYOU & PURPLE SAGE
 PRELOADING AT
 PURPLE SAGE

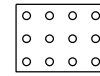
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FED. RD. DIV. RD.	STATE	PROJECT NO.	SHEET NO.
6	TEXAS		166B
STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.
HOUSTON	HARRIS	0028	02
		JOB NO.	HIGHWAY NO.
		097, ETC	US90

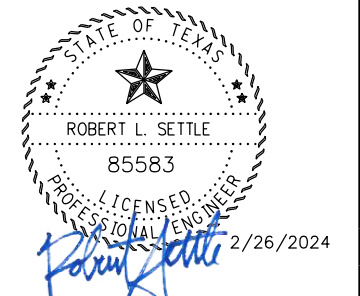


NOTES:

1. SEE GEOTECH ADDENDUM DATED NOVEMBER 8, 2023 FOR ADDITIONAL WICK DRAIN DETAILS.
2. WICK DRAINS TO BE SPACED AT 5'-0".
3. MONITORING POINTS TO BE PLACED AT BASELINE/CENTERLINE AND FUTURE EDGES OF PAVEMENT EVERY 30'-0".
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PRELOADING AREA



1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP



AECOM 19219 KATY FREEWAY
 SUITE 100
 AECOM Technical Services Inc. 3580 HOUSTON, TX 77094

US90 AT GREENS BAYOU & PURPLE SAGE
PRELOADING AT PURPLE SAGE

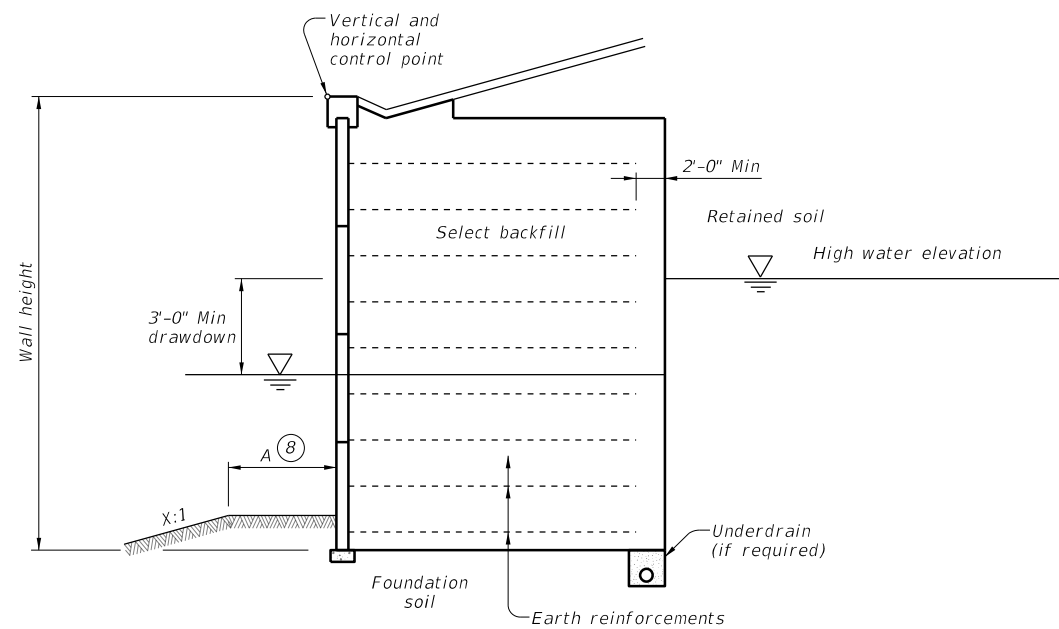
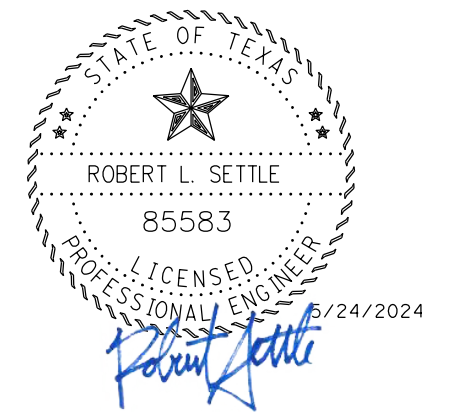
CSJ: 0028-02-097, ETC SHEET 2 OF 2

FED. RD. DIV. NO.	STATE	PROJECT NO.		SHEET NO.
6	TEXAS			166C
STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.
HOUSTON	HARRIS	0028	02	097, ETC
				HIGHWAY NO.
				US90

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WALL SUMMARY

MSE Retaining Wall	Begin Station ①	End Station ①	Retained Soil Friction Angle ②	Foundation Soil Friction Angle ②	Ground Improvement ③	Min Earth Reinf. Length ④	Min Wall Embedment ⑤	Underdrain Required ⑥	Drawdown Analysis ⑦	Bench Width ⑧
RET WALL A	STA 50+03.35	STA 56+94.35	34 DEG	30 DEG	NO	8' or 90% of H	1'	YES	NO	2'
RET WALL AB	STA 10+00.00	STA 11+34.42	34 DEG	30 DEG	NO	8' or 90% of H	1'	YES	NO	2'
RET WALL B	STA 50+03.35	STA 56+94.35	34 DEG	30 DEG	NO	8' or 90% of H	1'	YES	NO	2'
RET WALL C	STA 60+00.00	STA 89+04.31	34 DEG	30 DEG	NO	8' or 90% of H	1'	YES	NO	2'
RET WALL CD	STA 10+00.00	STA 11+34.42	34 DEG	30 DEG	NO	8' or 90% of H	1'	NO	NO	2'
RET WALL D	STA 60+00.00	STA 89+04.31	34 DEG	30 DEG	NO	8' or 90% of H	1'	YES	NO	2'



TYPICAL SECTION
(Rapid drawdown condition.)

- ① Indicate limits for which the stated soil design requirements and assumptions are applicable.
- ② Base the listed retained and foundation friction angle on local experience or measured/correlated long term strength values.
- ③ Indicate if ground improvement is required or not required. If shown as required, refer to ground improvement detail(s) shown elsewhere in the plans for additional information.
- ④ Indicate on table both the minimum length and length ratio required. The minimum default length of earth reinforcements is either 8 feet or 70% of the wall height, whichever is greater. Wall height and design wall height may differ depending on project geometry and loading conditions. Note: Wall height at bridge abutments is equal to the distance between the top of leveling pad and finished grade at the bridge abutment backwall.
- ⑤ Guidance to wall designer of record for determination of minimum wall embedment. Unless noted elsewhere in the plans, provide a minimum embedment from the top of leveling pad to finish grade of
 - 1 foot for level ground where there is no potential for erosion or future excavation, or
 - 2 feet for sloping ground (4.0H:1.0V or steeper) or where there is potential for removal of soil in front of the wall.
- ⑥ Indicate if underdrain is required or not required.
- ⑦ Indicate if rapid drawdown analysis is required.
- ⑧ Horizontal bench width at base of wall varies. Use the following criteria to establish base width:
 - A = 2-foot Min for X > 4 or
 - A = 4-foot Min for X ≤ 4
 Applicable to both drawdown and dry condition.

1	5/24/2024	ADDENDUM #1	RLS
NO.	DATE	REVISION	APP
			Bridge Division Standard
MECHANICALLY STABILIZED EARTH RETAINING WALL DESIGN DATA			
RW(MSE)DD			
FILE: RW-MSEDD-22.dgn	DN: TxDOT	CK: RLE	DW: JER
0028	02	097, ETC	US90
DIST	COUNTY	SHEET NO.	
HOU	HARRIS	177	

DATE:
FILE: