

Change Order #10

Regional Linear Park Phase II (Hike & Bike Trail)

Owner: Hidalgo County Precinct #2

To: Texas Cordia Construction, LLC
3149-A Center Pointe Drive
Edinburg, Texas 78539

From: B2Z Engineering

Project: Regional Linear Park Phase II
Project#: STP 2019 (086) TP
Contract: C-18-199-02-12
CSJ: 0921-02-409
Limits: Hall Acres to Ridge Road

Change Order #10 has been approved to make the following Contract Changes:

Description & Purpose:

Change Order #10 includes plan sheet and quantity changes for various items of work on the project. This change order allows the County to pay for additional chain linked fence near the gun range, an additional 55Lf for metal beam guard fence, one Guardrail End Treatment (GET), one Downstream Anchor Terminal (DAT), and relocates the two recessed gates at the Moore Road trail entrance for traffic safety. Change Order #10 also includes plan quantity adjustments for lighting conduit, electrical wire and drilled shaft for luminaires. Plan quantity errors include, illumination drill shafts, 2" Conduit (PVC Schedule 40), the No. 8 Bare Wire and the No. 10 Insulated Wire as shown on the attached plan sheets. The tunnel conduit and wiring located at Ridge Road, that runs from the ridged metal to the service meter was not included. This Change Order is approved by the County and will be added to the current Advanced Funding Agreement (AFA) for payment.

The change order has been signed by the contractor and AE. Third party funding is involved, and additional funds have been reviewed by the County to amend the current Advanced Funding Agreement to reflect the changes shown on CO #10. The changes do not impact the original environmental assessment, do not impact TDLR elements, do not impact wetlands, or waters of the US, archeological, historical or social issues; endangered species, or any other regulated areas within the project will not see changes. The changes do not cause disturbances larger than 1 acre or require an CSN or NOI.

B2Z has reviewed all the changes and there are no new items to include. The existing prices have been accepted by the contractor and Precinct #2 for payment according to the governing Specification 1L-9L. The status of this change order is awaiting approval. The original plans were prepared by L&G Engineering and the change order was prepared by B2Z Engineering. See TxDOT Change Order Form 2146-L for a description of the items, prices, change in quantities,

and the total cost of changes. The attached plan sheets include 13a, 14a, 64a, 66a, 67a, 125a, 128a, 131a, 139a, 144a and 145a.

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIME:
Original Contract Price <u>\$3,409,415.00</u>	Original Contract Time <u>400 Working Days</u>
Previous Change Orders <u>\$415,119.75</u>	Previous Change Orders <u>0 Working Days</u>

Contract Price prior to this Change Order <u>\$3,824,534.75</u>	Contract Time prior to this Change Order <u>400 Working Days</u>
Net increase of this Change Order <u>\$28,846.11</u>	Net increase of this Change Order <u>0 Working Days</u>
Contract Price with all approved Change Orders <u>\$3,853,380.86</u>	Contract Time with all approved Change Orders <u>400 Working Days</u>

CONSTRUCTION CONTRACT CHANGE ORDER NUMBER: 10

1. CONTRACTOR: Texas Cordia Construction, LLC
2. Change Order Work Limits: Sta. 158+74 to Sta. 506+00
3. Type of Change (on federal-aid non-exempt projects): Minor (Major/Minor)
4. Describe the change and the reason for the change order. When necessary, include exceptions to this agreement.

Change Order #10 was created to include plan sheet changes and plan quantity changes for various items of work within the project. The plan sheet changes include additional chain linked fence near the gun range, 55Lf MBSF, one Guardrail End Treatment (GET), one Downstream Anchor Terminal (DAT) and relocates two recessed gates at the Moore Road trail entrance. This CO also includes quantity adjustments for lighting errors with drilled shafts and wiring items.

CCSJ:	<u>0921-02-409</u>
Project:	<u>STP 2019 (086) TP</u>
Highway:	<u>Hike & Bike</u>
County:	<u>Hidalgo</u>
District:	<u>Pharr</u>
Contract Number:	<u>C-18-199-02-12</u>

5. New or revised plan sheet(s) are attached and numbered: 13a, 14a, 64a, 66a, 67a, 125a, 128a, 131a, 139a, 144a, 145a

Each signatory hereby warrants that each has the authority to execute this Change Order.

<p>By signing this change order, the contractor agrees to waive any and all claims for additional compensation due to any and all other expenses; additional changes for time, overhead and profit; or loss of compensation as a result of this change. Further, the contractor agrees that this agreement is made in accordance with Item 4 and the Contract. Exceptions should be noted in the response for #5 above.</p>	<p>The following information must be provided</p> <p>Time Ext. #: <u>0</u> Days added on this C.O.: <u>0</u></p> <p>Amt. added by this change order: <u>\$28,846.11</u></p>
	<p>For TxDOT use only:</p> <p>Days participating: <u>0</u></p> <p>Amount participating: <u>\$0.00</u></p> <p>Signature _____ Date _____</p> <p>Name/Title _____</p>
<p>THE CONTRACTOR Date <u>9-30-20</u></p> <p>By <u>[Signature]</u></p> <p>Typed/Printed Name <u>Yara M. Corbitt</u></p> <p>Typed/Printed Title <u>CEO</u></p>	

RECOMMENDED FOR EXECUTION:

<p><u>[Signature]</u> <u>10-1-2020</u></p> <p>Name/Title _____ Date _____</p>	<p>Name/Title _____ Date _____</p> <p><input type="checkbox"/> APPROVED <input type="checkbox"/> REQUEST APPROVAL</p>
<p>Name/Title _____ Date _____</p>	<p>Name/Title _____ Date _____</p> <p><input type="checkbox"/> APPROVED <input type="checkbox"/> REQUEST APPROVAL</p>
<p>Name/Title _____ Date _____</p>	<p>Name/Title _____ Date _____</p> <p><input type="checkbox"/> APPROVED <input type="checkbox"/> REQUEST APPROVAL</p>
<p>Name/Title _____ Date _____</p> <p>Engineer's Seal:</p>	<p>Name/Title _____ Date _____</p> <p><input type="checkbox"/> APPROVED</p>



Propose Request #10

PROJECT: Regional Linear Park Phase II

Date: 9/11/2020

OWNER: Hidalgo County Precinct #2

Owner's Project No.: STP 2019 (086) TP

ADDRESS: _____

CONTRACTOR: Texas Cordia Construction, LLC

Engineer: BZZ Engineering

ADDRESS: 3149-A Center Pointe Drive, Edinburg, TX 78539

Item	Description	Quantity	Unit	Unit Price	Net Change
432-6045	RIPRAP (MOW STRIP)(4 IN)	6.5	CY	\$ 252.00	\$ 1,638.00
540-6001	MTL W-BEAM GD FEN (TIM POST)	55	LF	\$ 30.00	\$ 1,650.00
540-6016	DOWNSTREAM ANCHOR TERMINAL	1	EA	\$ 1,700.00	\$ 1,700.00
544-6001	GUARDRAIL END TREATMENTS (INST)	1	EA	\$ 3,500.00	\$ 3,500.00
550-6001	CHAINLINK FENCE (INSTALL)(6')	150	LF	\$ 17.00	\$ 2,550.00
416-6029	DRILL SHAFT (RDWY ILL POLE)(30")	56	EA	\$ 215.00	\$ 12,040.00
620-6007	ELEC CONDR (NO. 8) BARE	770	LF	\$ 2.00	\$ 1,540.00
IC 002-600	HB TRAIL ELECTRICAL CONDUCTOR	790	LF	\$ 1.75	\$ 1,382.50
618-6023	COND(PVC)(SCH 40) (2")	320	LF	\$ 8.00	\$ 2,560.00
					\$ -
					\$ -
					\$ -
					\$ -
SUB TOTAL					\$ 28,560.50

BOND 1%	\$ 285.61
----------------	------------------

TOTAL	\$ 28,846.11
--------------	---------------------

Change In Contract Time (WD's)	

K:\Counties\HDA\Precinct 2\Hike & Bike Project\Linear Park Project\Microstation Data SEC2\01 GENERAL V05 E&O\HKE_BKZ-ELD.dgn

8/23/2018

CO #10

SUMMARY OF PLAN & PROFILE SHEETS

PLAN & PROFILE SHEET	400	400	402	420	432	432	450	464	464	464	464	465	465	465	465	465	479
	6006 CUT & RESTORE PAVEMENT	6011 SAND BACKFILL	6001 TRENCH EXCAVATION PROTECTION	6066 CL C CONC (RAIL FOUNDATION)	6001 RIPRAP CONC (4 IN)	6045 RIPRAP (MOW STRIP) (4")	6103 RAIL (TY PR1)	6038 RC PIPE (CL III) (18 IN) (SPL) (LF)	6039 RC PIPE (CL III) (24 IN) (SPL) (LF)	6040 RC PIPE (CL III) (30 IN) (SPL) (LF)	6043 RC PIPE (CL III) (48 IN) (SPL) (LF)	6005 JCT BOX (COMPL) (PJB) (3FT X 3FT) (EA)	6006 JCT BOX (COMPL) (PJB) (4FT X 4FT) (EA)	6011 JCT BOX (COMPL) (PJB) (6FT X 6FT) (EA)	6071 MH (COMPL) (PSL RC) (4FT X 4FT) (EA)	6076 MH (COMPL) (PSL RC) (6FT X 6FT) (EA)	6001 ADJUSTING MANHOLES (EA)
	(SY) EST.	(CY) EST.	(LF) EST.	(CY) EST.	(CY) EST.	(CY) EST.	(LF) EST.	(LF) EST.	(LF) EST.	(LF) EST.	(LF) EST.	EST.	EST.	EST.	EST.	EST.	EST.
REG. LINEAR PARK (LEG 1)																	
SHEET 1 OF 13																	
SHEET 2 OF 13																	
SHEET 3 OF 13																	
SHEET 4 OF 13																	
SHEET 5 OF 13		2	42	44	130	14	316	242				1					
SHEET 6 OF 13		13	242	61	225	5	434										
SHEET 7 OF 13																	
SHEET 8 OF 13		3	53														
SHEET 9 OF 13																	
SHEET 10 OF 13																	
SHEET 11 OF 13						10											
SHEET 12 OF 13						5											
SHEET 13 OF 13																	
REG. LINEAR PARK (LEG 2)																	
SHEET 1 OF 1																	
REG. LINEAR PARK (LEG 3)																	
SHEET 1 OF 7		18	162	53	164	2	376			162		1			1		
SHEET 2 OF 7		23	288		30					288		2					
SHEET 3 OF 7																	
SHEET 4 OF 7																	
SHEET 5 OF 7																	
SHEET 6 OF 7																	
SHEET 7 OF 7																	
REG. LINEAR PARK (LEG 4)																	
SHEET 1 OF 3																	
SHEET 2 OF 3																	
SHEET 3 OF 3																	
REG. LINEAR PARK (LEG 5)																	
SHEET 1 OF 2	30	67	247	57	244	2	410				247		1		1		
SHEET 2 OF 2				52	164	18	371										
GRAND TOTAL	30	126	1034	267	1084	10	1907	337	288	162	247	1	3	1	1	1	1

110.5Cy

9.25Cy

8.25Cy

11.00Cy

CO #10 - Change Order #10
 Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
 Add Luminaire Drill Shaft
 Add Luminaire Wiring



HIDALGO COUNTY
 PRECINCT 2
 COMMISSIONER EDGE CANTU

L & G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105

2100 W. Expressway 83
 Mercedes, TX. 78570
 Phone : (956) 585-9813
 Fax : (956) 585-9818

900 S. Stewart Rd., Ste. 10
 Mission, TX. 78572
 Phone : (956) 585-1909
 Fax : (956) 585-1927

REGIONAL LINEAR PARK PROJECT
 SUMMARY SHEET OF ESTIMATED QUANTITIES

SHEET 2 of 4

DRAWING: TC	FED. DIST. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CKI/DAS	6	TEXAS	STP 2019 (086) TP	RLPP
ENGINEER: TC	STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.
CKI/DAS	PHR	HIDALGO	921	2
REVIEW:	JOB NO.	SHEET NO.		
CKI	409	13		

13a

K:\Counties\HDA\Precinct 2 Mile & Bike Project\Linear Park Project\Microstation Data SEC2\01 GENERAL USE ESO\NHKL.BK2-E.S0.dgn 9/23/2018

PLAN & PROFILE SHEET	CO #10 SUMMARY OF PLAN & PROFILE SHEETS (CONT.)														
	496 6002 REMOVE STR (INLET)	496 6003 REMOVE STR (MANHOLE)	496 6007 REMOVE STR (PIPE)	531 6001 CONC SIDEWALKS (4")	540 6001 MTL W- BEAM GD FEN (TIM POST) (LF)	540 6016 DWN STRM ANCHOR SECTION (EA)	542 6001 REMOVE METAL BEAM GD FENCE (LF)	542 6002 REMOVE TERM ANCHOR SECTION (EA)	544 6001 GRD RAIL END TREAT (INSTALL) (EA)	544 6003 GRD RAIL END TREAT (REMOVE) (EA)	550 6001 CHAIN LINK FENCE (INSTALL) (6') (LF)	550 6003 CHAIN LINK FENCE (REMOVE) (6') (LF)	550 6006 GATE (REMOVE) (EA)	550 6022 GATE (INSTALL) (DOUBLE) (6'X16') (EA)	
	(EA) EST.	(EA) EST.	(LF) EST.	(SY) EST.	(LF) EST.	(EA) EST.	(LF) EST.	(EA) EST.	(EA) EST.	(EA) EST.	(LF) EST.	(LF) EST.	(EA) EST.	(EA) EST.	
REG. LINEAR PARK (LEG 1)															
SHEET 1 OF 13															
SHEET 2 OF 13															
SHEET 3 OF 13															
SHEET 4 OF 13			36												
SHEET 5 OF 13			55		77	1	77	1	1	1	550		1	1	
SHEET 6 OF 13					81	1	69	1	1	1	150		1	1	
SHEET 7 OF 13											100				
SHEET 8 OF 13			36								500				
SHEET 9 OF 13															
SHEET 10 OF 13															
SHEET 11 OF 13															
SHEET 12 OF 13															
SHEET 13 OF 13					199	1			1		328				
REG. LINEAR PARK (LEG 2)											120				
SHEET 1 OF 1					0		70				42	42	1	1	
REG. LINEAR PARK (LEG 3)											443		1	1	
SHEET 1 OF 7			80								79				
SHEET 2 OF 7	1		130				50						1		
SHEET 3 OF 7															
SHEET 4 OF 7												145			
SHEET 5 OF 7															
SHEET 6 OF 7															
SHEET 7 OF 7				40			40				79		1		
REG. LINEAR PARK (LEG 4)															
SHEET 1 OF 3															
SHEET 2 OF 3															
SHEET 3 OF 3				55							361		1		
REG. LINEAR PARK (LEG 5)											148				
SHEET 1 OF 2		1	77								64				
SHEET 2 OF 2											514				
GRAND TOTAL	1	1	414	75	302	2	306	2	2	2	3326	187	7	4	

357Lf

3Ea

3Ea

3486Lf

CO #10 - Change Order #10
 Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
 Add Luminaire Drill Shaft
 Add Luminaire Wiring

© 2018
Texas Department of Transportation

HIDALGO COUNTY
 PRECINCT 2
 COMMISSIONER EDDIE CANTU

L&G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105

2100 W. Expressway 83
 Mercedes, TX, 78570
 Phone : (956) 565-9813
 Fax : (956) 565-9018

900 S. Stewart Rd., Ste. 10
 Mission, TX, 78572
 Phone : (956) 585-1909
 Fax : (956) 585-1927

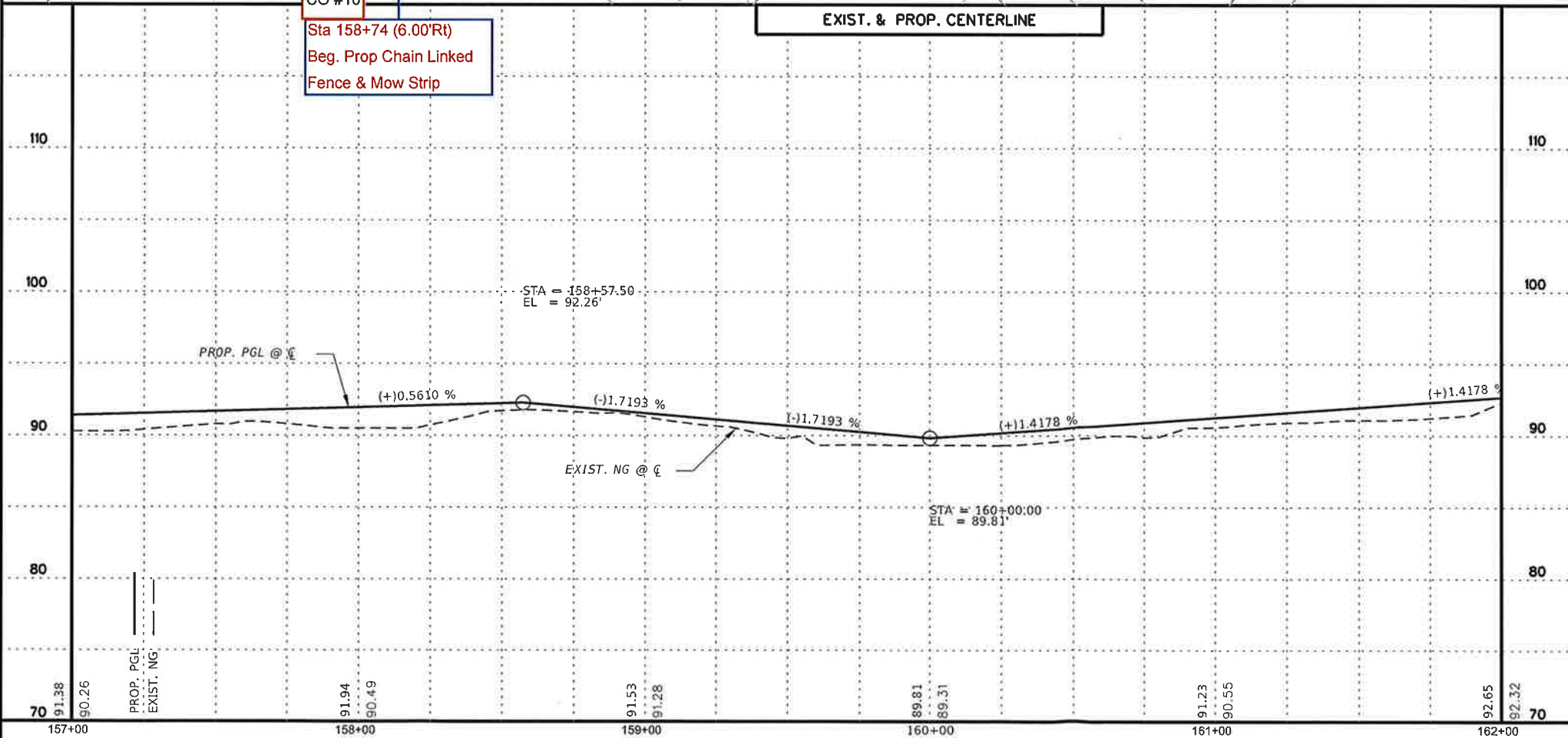
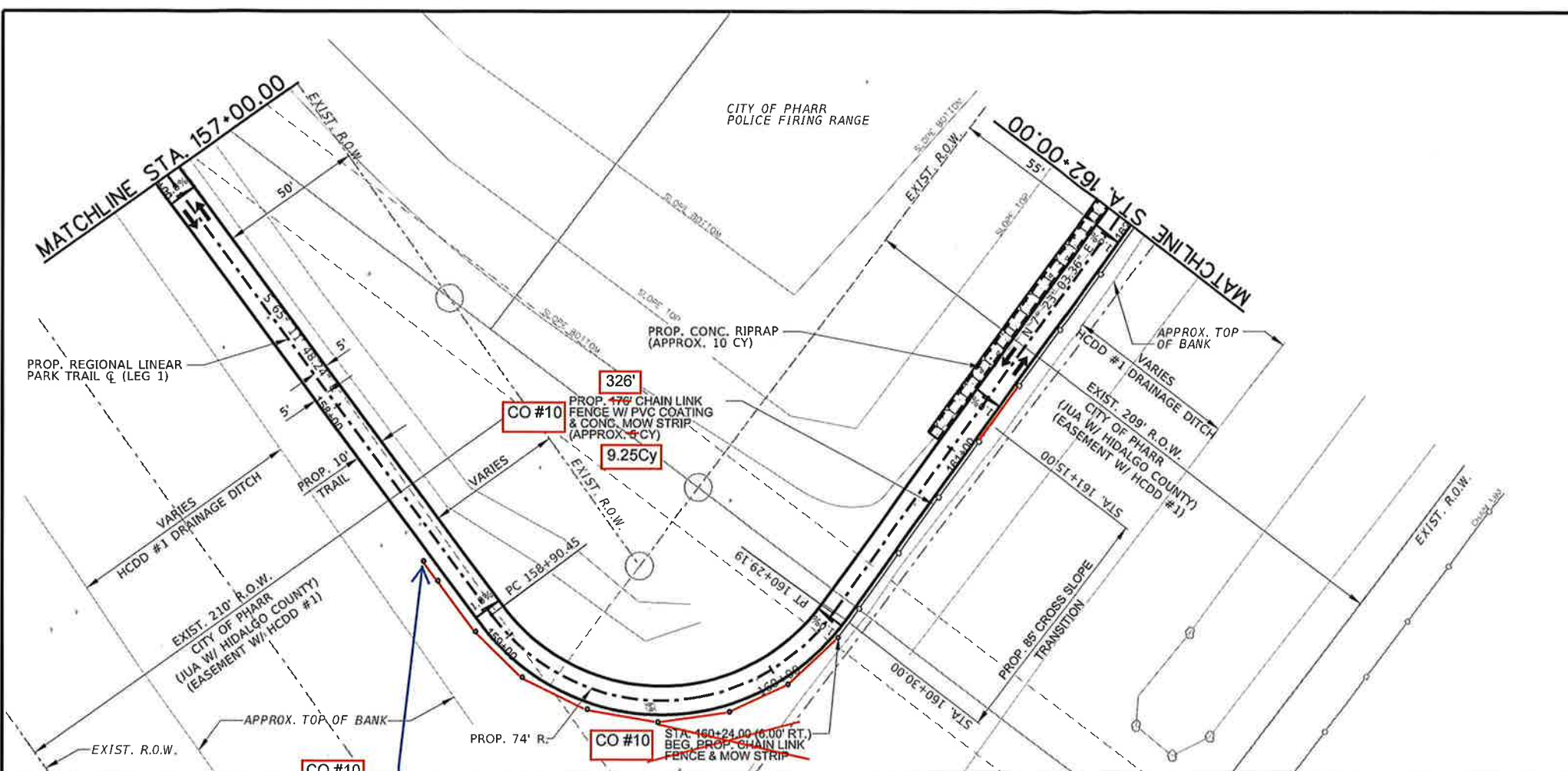
REGIONAL LINEAR PARK PROJECT
 SUMMARY SHEET OF ESTIMATED QUANTITIES

SHEET 3 of 4

DRAWING: TC	FED. NO.	STATE	PROJECT NO.	HIGHWAY NO.
CK: DAS	6	TEXAS	STP 2019 (086) TP	RLPP
ENGINEER: TC	STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.
CK: DAS	PHR	HIDALGO	921	2
REVIEW: CK				JOB NO. SHEET NO.
				409 14

14a

K:\Counties\HID\Precinct 2\Bike & Bike Project (Linear Park Project)\Microstation Data SEC2\03 ROADWAY\02 P&P\PHB_PP_LEG1_1.dgn 8/23/2018



SHEET SUMMARY			
ITEM	DESCRIPTION	UNIT	QUANTITY
432	RIPRAP CONC. (4")	CY	10
432	RIPRAP CONC. (4") (MOW STRIP)	CY	5
550	CHAIN LINK FENCE (INSTALL)16'	LF	176
CO #10		9.25Cy	326Ft

LEGEND:

- DIRECTION OF TRAFFIC
- ⊗ TO BE REMOVED UNDER ITEM 496 INCLUDES PAYMENT FOR REMOVAL OF ALL APPURTENANCES

NOTES:

- SEE ALIGNMENT DATA SHEET FOR PROP. CENTERLINE DATA.
- SEE SURVEY DATA SHEET FOR BM STATIONS, OFFSET, ELEV., ETC.

CO #10 - Change Order #10
Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
 Add Luminaire Drill Shaft
 Add Luminaire Wiring



HIDALGO COUNTY
 PRECINCT 2
 COMMISSIONER EDDIE CANTU

L & G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105

2100 W. Expressway 83
 Mercedes, TX. 78570
 Phone : (956) 665-9813
 Fax : (956) 665-9018

900 S. Stewart Rd., Ste. 10
 Mission, TX. 78572
 Phone : (956) 585-1909
 Fax : (956) 685-1927

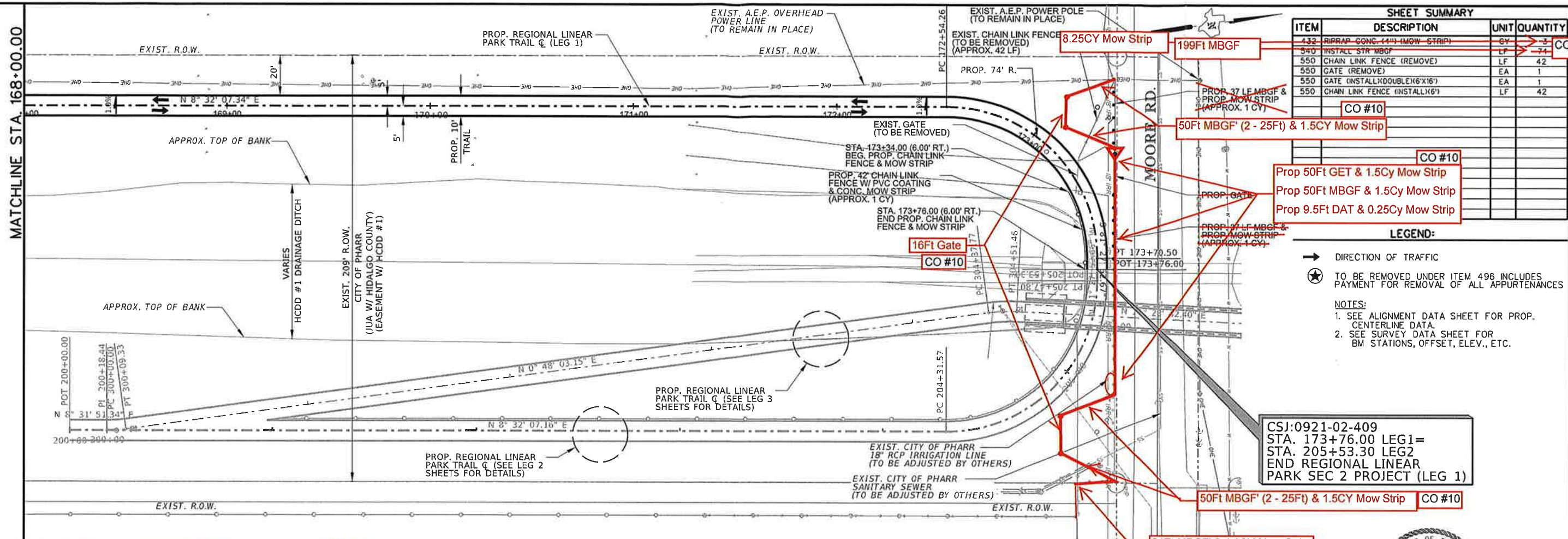
REGIONAL LINEAR PARK PROJECT
 PLAN & PROFILE (LEG 1)
 STA. 157+00 TO STA. 162+00

SCALE:
 HOR: 1"=50'
 VERT: 1"=10'

SHEET 11 of 13

CHK: DWS	DES: TC	APP: TC	DATE: 8/23/18
STATE: TEXAS	COUNTY: HIDALGO	PROJECT NO.: STP 2019 (086) TP	SHEET NO.: 64a
SECTION NO.: 0921	SECTION NO.: 02	JOB NO.: 409	HIGHWAY NO.: RLPP

MATCHLINE STA. 168+00.00



SHEET SUMMARY			
ITEM	DESCRIPTION	UNIT	QUANTITY
432	RIPRAP CONC. (4") (MOW STRIP)	CY	3
540	INSTALL STR MBGF	LF	74
550	CHAIN LINK FENCE (REMOVE)	LF	42
550	GATE (REMOVE)	EA	1
550	GATE (INSTALL) (DOUBLE) (6'X16')	EA	1
550	CHAIN LINK FENCE (INSTALL) (6')	LF	42

- LEGEND:**
- DIRECTION OF TRAFFIC
 - ★ TO BE REMOVED UNDER ITEM 496 INCLUDES PAYMENT FOR REMOVAL OF ALL APPURTENANCES
- NOTES:**
- SEE ALIGNMENT DATA SHEET FOR PROP. CENTERLINE DATA.
 - SEE SURVEY DATA SHEET FOR BM STATIONS, OFFSET, ELEV., ETC.

CSJ:0921-02-409
 STA. 173+76.00 LEG1=
 STA. 205+53.30 LEG2
 END REGIONAL LINEAR
 PARK SEC 2 PROJECT (LEG 1)



L & G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105

2100 W. Expressway 83
 Mercedes, TX. 78570
 Phone : (956) 566-9813
 Fax : (956) 566-9016

900 S. Stewart Rd., Ste. 10
 Mission, TX. 78572
 Phone : (956) 585-1909
 Fax : (956) 585-1927

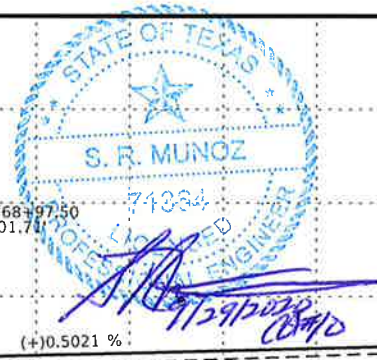
REGIONAL LINEAR PARK PROJECT
 PLAN & PROFILE (LEG 1)
 STA. 168+00 TO STA. 173+76.00

SCALE:
 HOR: 1"=50'
 VERT: 1"=10'

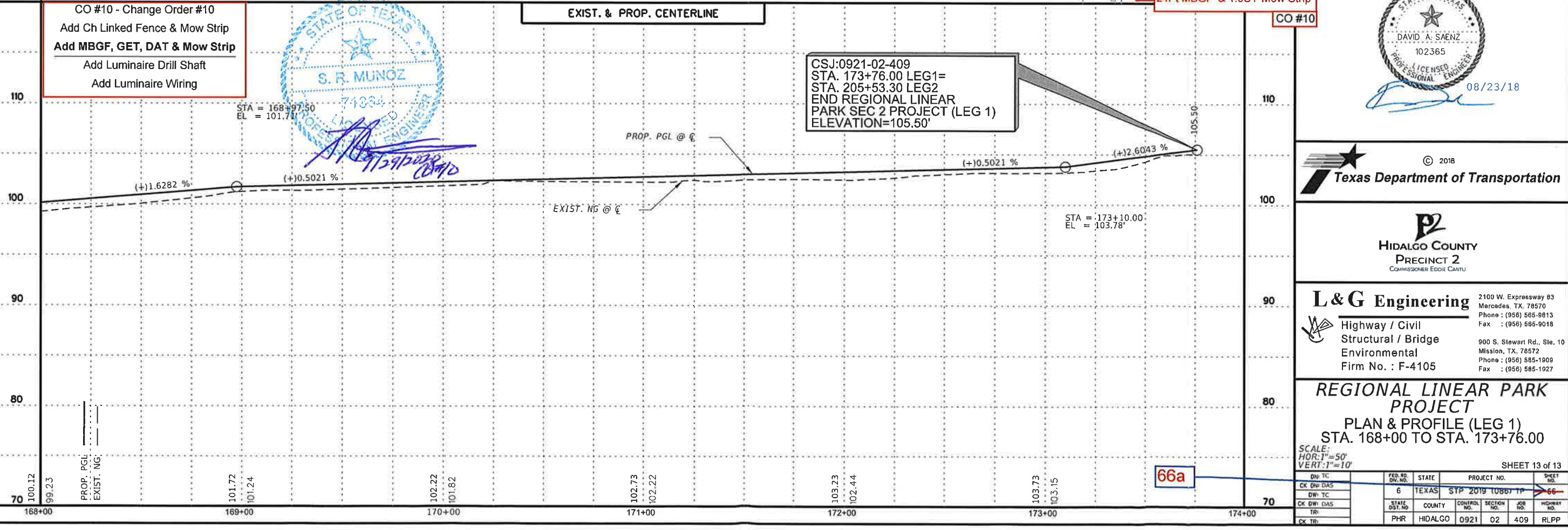
SHEET 13 of 13

CHK'D BY:	DATE:	STATE:	PROJECT NO.:	SHEET NO.:
CK'D BY:	06/23/18	TEXAS	STP 2019 (UBST) TP	66
TR:	STATE DIST. NO.:	COUNTY:	CONTROL NO.:	SECTION NO.:
CK'TD:	PHR	HIDALGO	0921	02
				JOB NO.:
				409
				HIGHWAY NO.:
				RLPP

CO #10 - Change Order #10
 Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
 Add Luminaire Drill Shaft
 Add Luminaire Wiring



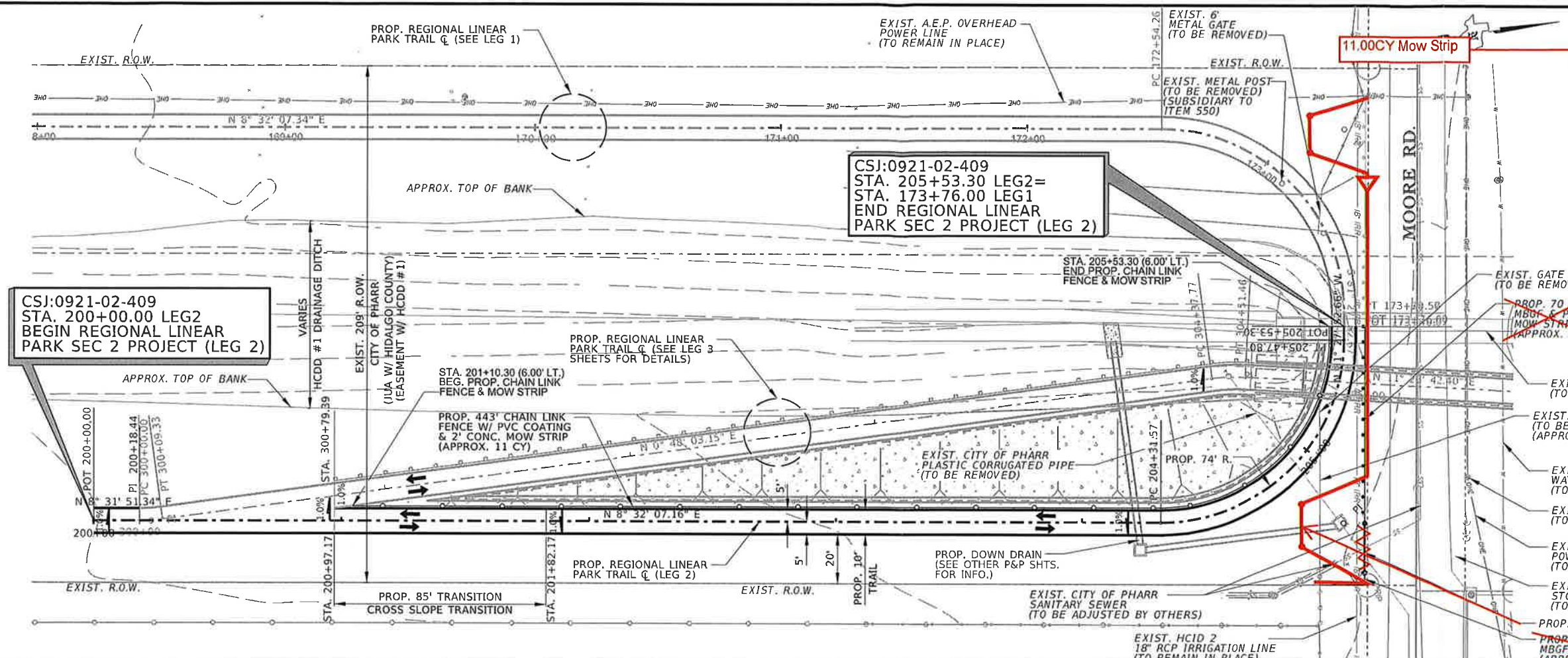
CSJ:0921-02-409
 STA. 173+76.00 LEG1=
 STA. 205+53.30 LEG2
 END REGIONAL LINEAR
 PARK SEC 2 PROJECT (LEG 1)
 ELEVATION=105.50'



66a

K:\Counties\HID\Precinct 2\Mike & Bike Project\Linear Park Project\Microstation Data SEC2\03 ROADWAY\02 P&P\HMB_PP_LEG1_3.dgn

K:\Counties\HID\Precinct 2\Hike & Bike Project\Linear Park Project\Microstation Data_SEC2\03 ROADWAY\02 P&P\H&B_PP_LEG2_01.dgn
8/23/2018



SHEET SUMMARY			
ITEM	DESCRIPTION	UNIT	QUANTITY
432	REMOVE CONC (14") (MOW STRIP)	CY	14
540	INSTALL STR MBGF	LF	70
542	REMOVE STR MBGF	LF	70
550	GATE (INSTALL) DOUBLE (18'x16')	EA	1
550	CHAIN LINK FENCE (INSTALL) (6')	LF	443
550	GATE (REMOVE)	EA	1

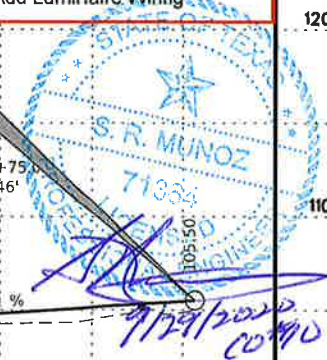
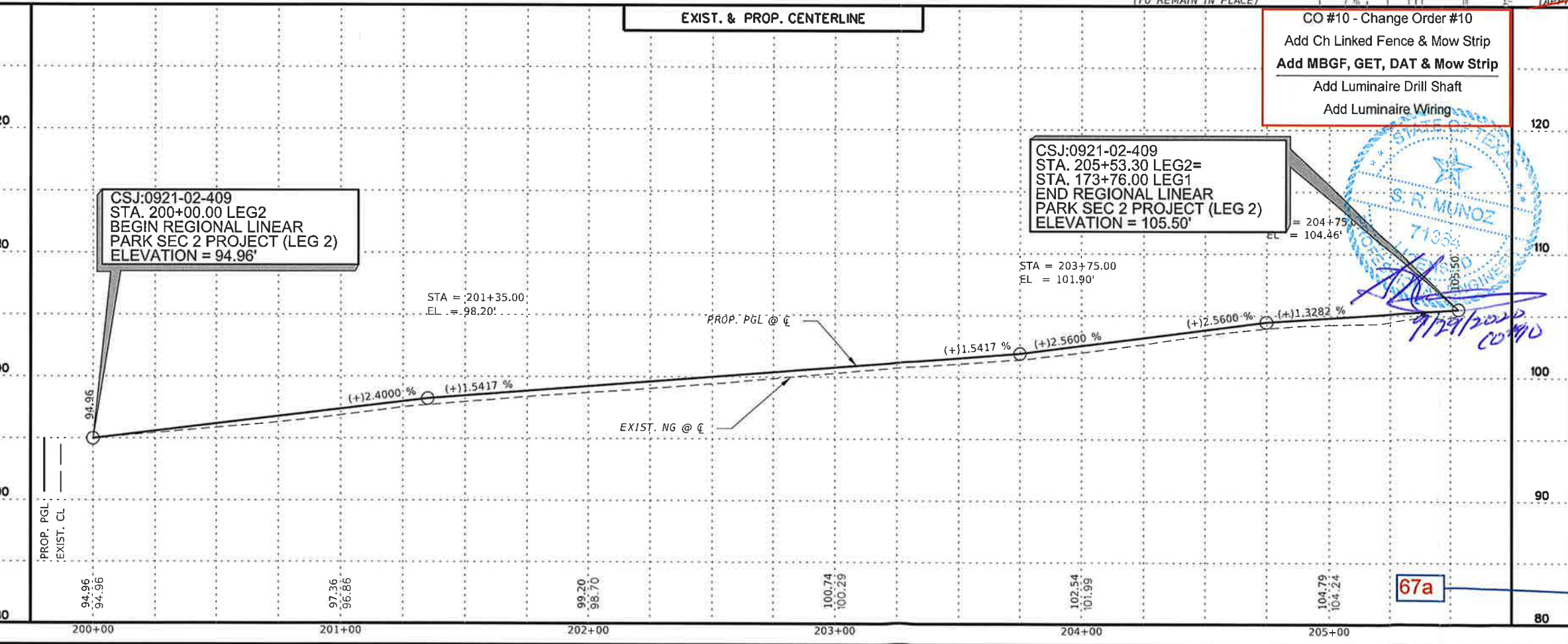
LEGEND:

→ DIRECTION OF TRAFFIC

★ TO BE REMOVED UNDER ITEM 496 INCLUDES PAYMENT FOR REMOVAL OF ALL APPURTENANCES

NOTES:

- SEE ALIGNMENT DATA SHEET FOR PROP. CENTERLINE DATA.
- SEE SURVEY DATA SHEET FOR BM STATIONS, OFFSET, ELEV. ETC.



L&G Engineering
Highway / Civil
Structural / Bridge
Environmental
Firm No. : F-4105

2100 W. Expressway 83
Mercedes, TX. 78570
Phone : (956) 585-9813
Fax : (956) 585-9018

900 S. Stewart Rd., Ste. 10
Mission, TX. 78572
Phone : (956) 585-1309
Fax : (956) 585-1927

REGIONAL LINEAR PARK PROJECT
PLAN & PROFILE (LEG 2)
STA. 200+00 TO STA 205+53.30

SCALE:
HOR: 1"=50'
VERT: 1"=10'

SHEET 1 of 1

DN: TC	FED. RD. DIV. NO.	STATE	PROJECT NO.	SHEET NO.
CK DN: DAS	6	TEXAS	STP 2019 (UB8) TP	67
DN: TC	STATE DIST. NO.	COUNTY	CONTROL NO.	SECTION NO.
CK DN: DAS	PHR	HIDALGO	0921	02
TR: 1				
CK TR: 1				

67a

PROPOSED REGIONAL LINEAR PARK PROJECT II ILLUMINATION QUANTITIES - SHEET TOTALS

ITEM	DESCR CODE	DESCRIPTION	UNIT	QUANTITIES																				PROJECT TOTAL
				SHEET 1	SHEET 2	CO #10 SHEET 3	SHEET 4	SHEET 5	CO #10 SHEET 6	SHEET 7	SHEET 8	SHEET 9	SHEET 10	SHEET 11	SHEET 12	CO #10 SHEET 13	SHEET 14	SHEET 15	SHEET 16	SHEET 17	CO #10 SHEET 18	SHEET 19	SHEET 20	
416	6029	DRILL SHAFT (RDWY ILL POLE) (30 IN)	LF	24	32	40	32	32	32	32	40	32	32	32	32	40	72	40	40	56	72	88	800	
432	6006	RIPRAP (CONC) (CL B)	CY			0.7													0.4			1		
HC 011		FURNISH AND INSTALL VISIONAIRE LIGHTING PREMIER II (PRE-2-T4-48LC-3-4K-UNV-PT-FINISH) EQ LUMINAIRE FIXTURE AND LUMINAIRE POLE TRADITIONAL CONCRETE INC. D412-SG-EA-3T COMPLETE IN PLACE, INCLUDING ALL COMPONENTS AND FOUNDATION.	EA																			11	11	
HC 001		FURNISH AND INSTALL LIGHTING FIXTURE (LED WATERPROOF) TYPE ILX3525-055UV-F5M-55ND-SSL (IP68) WITH AN IP68 GLAND, IP68 JUNCTION BOX AND STEEL WIRE MESH COVER ASSEMBLY PROTECTION	EA						4							4					4	2	14	
610	6500	IN RD IL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB [1]	EA	3	4	4	4	4	4	4	5	4	4	4	4	5	7	5	5	7	9	7	93	
610	6500	IN RD IL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB				1										2					4		7	
618	6023	CONDT (PVC) (SCH 40) (2")	LF	410	500	430	510	500	590	600	600	520	450	510	550	610	1395	630	690	505	2205	1475	610	14290
618	6024	CONDT (PVC) (SCH 40) (2") (BORE)	LF						120														120	
618	6070	CONDT (RM) (2")	LF						40														40	
620	6007	ELEC CONDR (NO.8) BARE	LF	410	500	430	510	500	755	600	600	520	450	510	550	610	1490	630	690	470	1,180	1725	610	13740
621	6007	TRAY CABLE (4 CONDR) (8 AWG)	LF	500	620	580	630	620	690	720	750	640	570	630	670	760	1,480	780	840	680	1,450	1,490		15,100
684	6009	TRF SIG CBL (TY A) (12 AWG) (4 CONDR)	LF																		180	805	985	
HC 002		ELEC CONDR (NO.10) PVC JACKET, 90 DEGREE CELCIUS INSULATION, 600V	LF						370							560					610	0	1540	
HC 009		GALVANIZED RIGID STEEL CONDUIT (1-1/4")	LF						160							130					150	50	490	
624	6001	GROUND BOX TY A (122311)	EA	2	1	2	1	1	3	2	2	1	1	2	3	2	6	3	1	6	2	7	4	52
628	6003	ELC SRV TY A 120/240 060 (NS) AL (E) PS (U)	EA						1														1	
628	6009	ELC SRV TY A 120/240 060(NS)SS(E)SP(O)	EA	1											1		1				1		4	

CO #10

CO #10 CO #3

CO #10

CO #10

CO #3

CO #3
Plans did not account for existing utility easement adjacent to the hike and bike trail. In order to place conduit, wiring, poles and luminaires outside of the easement, the alignment will cross to the inside of the trail. Plan sheets were originally prepared by consultant L&G and modified by B2Z engineering. Modified to show new alignment. An additional expense to pay for conduit, only, placed on the wrong side before modifying the alignment.

CO #10 - Change Order #10
Add Ch Linked Fence & Mow Strip
Add MBGF, GET, DAT & Mow Strip
Add Luminaire Drill Shaft
Add Luminaire Wiring



L&G Engineering
2100 W. Expressway 83
Mercedes, TX 78570
Phone : (956) 565-9813
Fax : (956) 565-9018
900 S. Stewart Rd., Ste. 10
Mission, TX 78572
Phone : (956) 585-1909
Fax : (956) 585-1927

ETSI
Ergonomic Transportation Solutions, Inc.
5300 Hollister Road, Suite 220
Houston, Texas 77040
Tel. (713) 956-9601 Fax (713) 956-9667
TEXAS REGISTERED ENGINEERING FIRM NO. F - 000625



REGIONAL LINEAR PARK PROJECT SEC. 2
LIGHTING LAYOUT
BASIS OF ESTIMATE

125a

DATE: 8/22/2018 9:36:12 AM
FILE: N:\CLIENTS\IL&GH\BIKE_BIKE_JI\ETSI_WORK\QUANTITIES\QUANTITIES.dgn

CK.DW:	MNR	CONT	SECT	JOB	HIGHWAY
	RLM	0921	02	409	RLPP
CK.DW:	HCS	DIST	COUNTY	SHEET NO.	
CK.TR:	PHR	PHR	HIDALGO	426	

ILLUMINATION QUANTITIES - SHEET TOTALS				
ITEM	DESCR CODE	DESCRIPTION	UNIT	QUANTITIES
				SHEET 3
416	6029	DRILL SHAFT (RDWY ILL POLE) (30 IN)	LF	40
432	6006	RIPRAP (CONC) (CL B)	CY	0.7
610	6500	IN RD IL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB [1]	EA	4
610	6500	IN RD IL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB		1
618	6023	CONDT (PVC) (SCH 40) (2")	LF	430
620	6007	ELEC CONDR (NO.8) BARE	LF	430
621	6007	TRAY CABLE (4 CONDR) (8 AWG)	LF	580
624	6001	GROUND BOX TY A (122311)	EA	2

[1] THIS POLE HAS BEEN MODIFIED TO SHOW A LUMINAIRE WITH A 15° TILT FROM THE HORIZONTAL. SEE DETAIL A AND ROADWAY ILLUMINATION POLE STANDARD SHEET RIP (3)-17 PAGE 3 OF 4

CO #10

NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION TO AVOID CONFLICT WITH OR DAMAGE TO THESE UTILITIES.
2. ALL STATIONS AND OFFSETS ARE WITH REFERENCE TO THE CENTERLINE OF THE PATHWAY.
3. ALL LUMINAIRES ALONG STRAIGHT PORTIONS OF THE PATHWAY ARE TO BE PLACED AT A SPACING OF 135', AN OFFSET OF 8' FROM THE CENTERLINE OF THE PATHWAY, ORIENTED PERPENDICULAR TO IT AND LUMINAIRE HEADS ARE TO BE TILTED 15° (SEE DETAIL A) UNLESS OTHERWISE NOTED.
4. THE STATIONS, OFFSETS, ORIENTATIONS AND TILT FOR ONLY THOSE LUMINAIRES THAT ARE NON TYPICAL HAVE BEEN LISTED IN THE TABLE.
5. CONDUITS ARE MEASURED AND PAID HORIZONTALLY ONLY.
6. CONDUCTORS ARE MEASURED AND PAID BOTH HORIZONTALLY AND VERTICALLY.

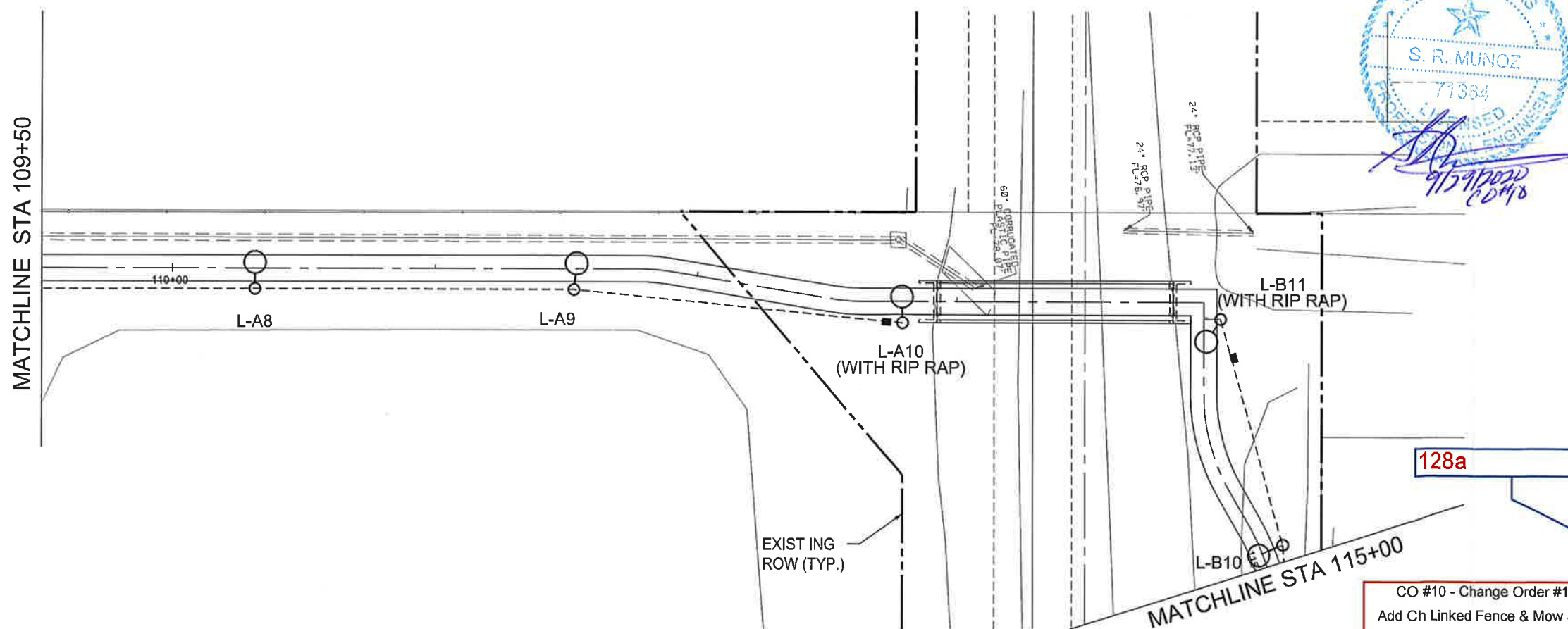
LOCATION & ORIENTATION TABLE

LUM ID	STA.	OFFSET	*ORIENTATION	**TILT
L-A9	111+52.87	7.93' RT	6.18° CW	15°
L-A10	112+79.26	8.25' RT	1.54° CCW	15°
L-B11	114+00.61	6.34' LT	57.42° CCW	0°
L-B10	114+94.35	8.41' LT	1.62° CCW	15°

*ORIENTATION IS MEASURED FROM A PERPENDICULAR LINE TO THE PATHWAY.
 CW - CLOCKWISE
 CCW - COUNTER CLOCKWISE
 **SEE DETAIL A

LEGEND

- PROPOSED GROUND BOX TYPE A
- IN RD IL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB
- ⊗ PROPOSED OVERHEAD TUNNEL LIGHTING FIXTURE IWL-3-035UV-2M-55 (IP68) OR EQUIVALENT
- ⊗ PROPOSED OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE OR EQUAL
- ⊗ EXISTING OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE
- PROP. ELECTRICAL SERVICE
- PROPOSED 2" (SCH 40) PVC CONDUIT
- === PROPOSED 2" (SCH 80) PVC CONDUIT BORE
- PROPOSED 1-1/4" GALVANIZED RIGID STEEL CONDUIT



HIDALGO COUNTY
 PRECINCT 2
 COMMISSIONER EDDIE CANN

C. SIMEONIDIS
 REGISTERED PROFESSIONAL ENGINEER
 60919

8/22/2018

L&G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105

2100 W. Expressway 83
 Mercedes, TX. 78570
 Phone : (956) 565-9813
 Fax : (956) 565-9018

900 S. Stewart Rd., Ste. 10
 Mission, TX. 78572
 Phone : (956) 585-1909
 Fax : (956) 585-1927

ETSI
 Ergonomic Transportation Solutions, Inc.
 TEXAS REGISTERED ENGINEERING FIRM NO. F - 000825

5300 Hollister Road, Suite 220
 Houston, Texas 77040
 Tel. (713) 956-9601 Fax (713) 956-9667

© 2018
Texas Department of Transportation

REGIONAL LINEAR PARK PROJECT SEC. 2
 LIGHTING LAYOUT

CO #10 - Change Order #10
 Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
 Add Luminaire Drill Shaft
 Add Luminaire Wiring

SHEET 3 OF 20

CK DN:	MNR	CONT	SECT	JOB	HIGHWAY
CK DN:	RLM	0921	02	409	RLPP
CK TR:	HCS	DIST	COUNTY	COUNTRY	SHEET NO.
		PHR	HIDALGO		128

DATE: 8/22/2018 12:59:56 PM
 FILE: N:\CLIENTS\SL&GHKE_BIKE_IJETS\WORKLIGHING LAYOUT\LP_3.dgn

ILLUMINATION QUANTITIES - SHEET TOTALS				
ITEM	DESCR CODE	DESCRIPTION	UNIT	QUANTITIES
				SHEET 6
416	6029	DRILL SHAFT (RDWY ILL POLE) (30 IN)	LF	32
HC 001		FURNISH AND INSTALL LIGHTING FIXTURE (LED WATERPROOF) TYPE ILX3525-055UV-F5M-55ND-SSL (IP68) WITH AN IP68 GLAND, IP68 JUNCTION BOX AND STEEL WIRE MESH COVER ASSEMBLY PROTECTION	EA	4
610	6500	IN RD IL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB [1]	EA	4
618	6023	CONDT (PVC) (SCH 40) (2")	LF	590
618	6024	CONDT (PVC) (SCH 40) (2") (BORE)	LF	120
618	6070	CONDT (RM) (2")	LF	40
620	6007	ELEC CONDR (NO.8) BARE	LF	755
621	6007	TRAY CABLE (4 CONDR) (8 AWG)	LF	690
HC 002		ELEC CONDR (NO.10) PVC JACKET, 90 DEGREE CELCIUS INSULATION, 600V	LF	370
HC 009		GALVANIZED RIGID STEEL CONDUIT (1-1/4")	LF	160
624	6001	GROUND BOX TY A (122311)	EA	3
628	6003	ELC SRV TY A 120/240 060 (NS) AL (E) PS (U)	EA	1

[1] THIS POLE HAS BEEN MODIFIED TO SHOW A LUMINAIRE WITH A 15° TILT FROM THE HORIZONTAL. SEE DETAIL A AND ROADWAY ILLUMINATION POLE STANDARD SHEET RIP (3)-17 PAGE 3 OF 4

NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION TO AVOID CONFLICT WITH OR DAMAGE TO THESE UTILITIES.
2. ALL STATIONS AND OFFSETS ARE WITH REFERENCE TO THE CENTERLINE OF THE PATHWAY.
3. ALL LUMINAIRE ALONG STRAIGHT PORTIONS OF THE PATHWAY ARE TO BE PLACED AT A SPACING OF 135', AN OFFSET OF 8' FROM THE CENTERLINE OF THE PATHWAY, ORIENTED PERPENDICULAR TO IT AND LUMINAIRE HEADS ARE TO BE TILTED 15° (SEE DETAIL A) UNLESS OTHERWISE NOTED.
4. THE STATIONS, OFFSETS, ORIENTATIONS AND TILT FOR ONLY THOSE LUMINAIRE THAT ARE NON TYPICAL HAVE BEEN LISTED IN THE TABLE.
5. CONDUITS ARE MEASURED AND PAID HORIZONTALLY ONLY.
6. CONDUCTORS ARE MEASURED AND PAID BOTH HORIZONTALLY AND VERTICALLY.

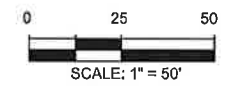
LOCATION & ORIENTATION TABLE

LUM ID	STA.	OFFSET	*ORIENTATION
L-B1	125+86.5	9.02' LT	1.5° CW
L-C4	126+46.01	0.0'	0.0°
L-C3	126+75.98	0.0'	0.0°
L-C2	127+06.05	0.0'	0.0°
L-C1	127+36.10	0.0'	0.0°
L-D1	128+22.0	13.5' LT	0.0°

*ORIENTATION IS MEASURED FROM A PERPENDICULAR LINE TO THE PATHWAY.
 CW - CLOCKWISE
 CCW - COUNTER CLOCKWISE

LEGEND

- PROPOSED GROUND BOX TYPE A
- IN RD IL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB
- ⊗ PROPOSED OVERHEAD TUNNEL LIGHTING FIXTURE IWL-3-035UV-2M-55 (IP68) OR EQUIVALENT
- ⊗ PROPOSED OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE OR EQUAL
- ⊗ EXISTING OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE
- ⬡ PROP. ELECTRICAL SERVICE
- PROPOSED 2" (SCH 40) PVC CONDUIT
- === PROPOSED 2" (SCH 80) PVC CONDUIT BORE
- — PROPOSED 1-1/4" GALVANIZED RIGID STEEL CONDUIT



8/22/2018

L&G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105

2100 W. Expressway 83
 Mercedes, TX. 78570
 Phone : (956) 565-9813
 Fax : (956) 565-9018

900 S. Stewart Rd., Ste. 10
 Mission, TX. 78572
 Phone : (956) 585-1909
 Fax : (956) 585-1927

ETSI
 Ergonomic Transportation Solutions, Inc.
 TEXAS REGISTERED ENGINEERING FIRM NO. F - 000625

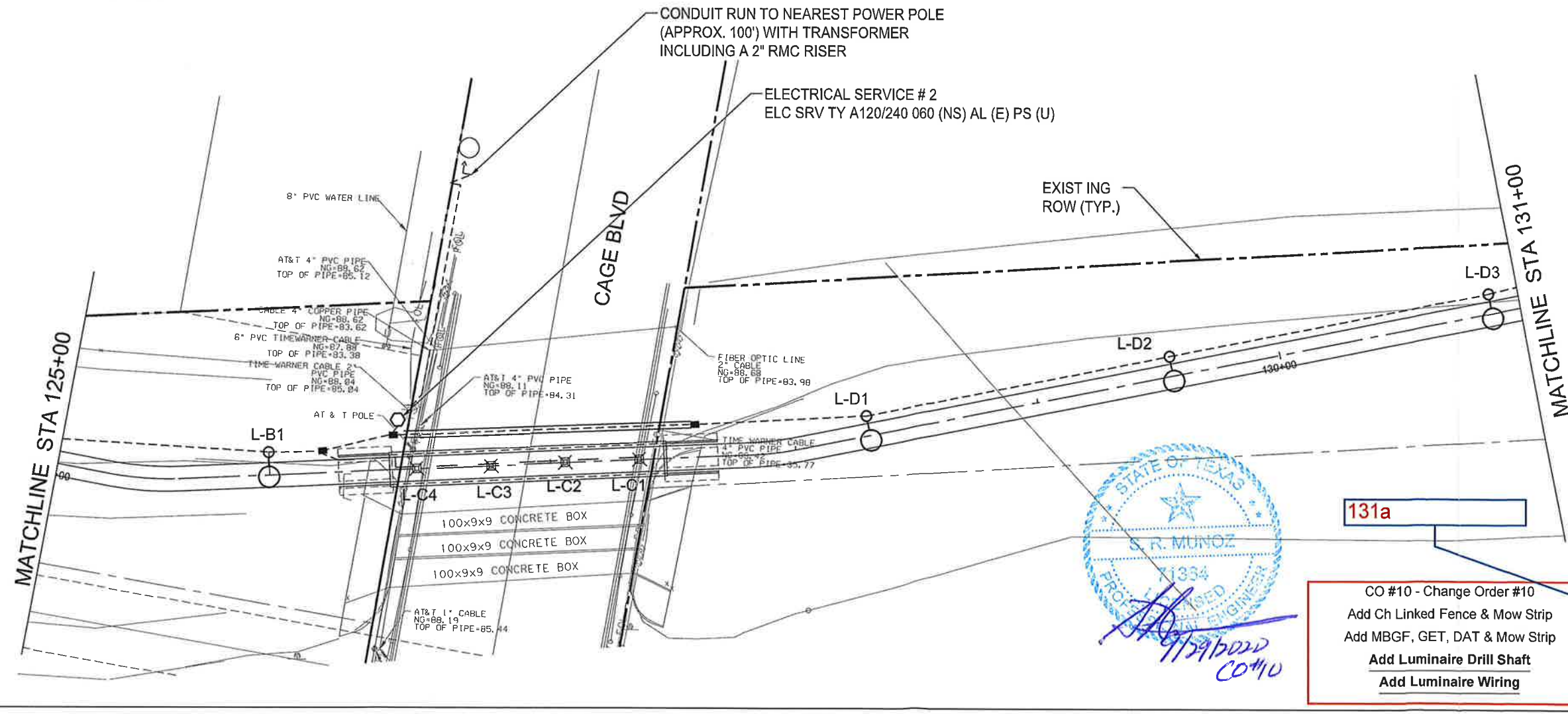
5300 Hollister Road, Suite 220
 Houston, Texas 77040
 Tel. (713) 956-9601 Fax (713) 956-9667



REGIONAL LINEAR PARK PROJECT SEC. 2
LIGHTING LAYOUT

SHEET 6 OF 20

CHKD BY:	MNR	CON:	RECT:	JOB:	HIGHWAY:
CHKD BY:	RLM	0921	02	408	RLPP
CHKD BY:	HCS	DIST:	COUNTY:	CITY:	SHEET NO.
CHKD BY:		PHR	HIDALGO		131



131a

CO #10 - Change Order #10
 Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
Add Luminaire Drill Shaft
Add Luminaire Wiring

9/29/2022
 CO #10



DATE: 8/22/2018 12:57:09 PM
 FILE: NCLIENTS\L&G\HIKE_BIKE_IJETS\WORKING\LAYOUT\LP_6.dgn

ILLUMINATION QUANTITIES - SHEET TOTALS				
ITEM	DESCR CODE	DESCRIPTION	UNIT	QUANTITIES
				SHEET 14
416	6029	DRILL SHAFT (RDWY ILL POLE) (30 IN)	LF	72 CO #10
HC 001		FURNISH AND INSTALL LIGHTING FIXTURE (LED WATERPROOF) TYPE ILX3525-055UV-F5M-55ND-SSL (IP68) WITH AN IP68 GLAND, IP68 JUNCTION BOX AND STEEL WIRE MESH COVER ASSEMBLY PROTECTION	EA	4
610	6500	IN RD ILL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB [1]	EA	7
610	6500	IN RD ILL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB		2
618	6023	CONDT (PVC) (SCH 40) (2")	LF	1395 CO #10
620	6007	ELEC CONDR (NO.8) BARE	LF	1490 CO #10
621	6007	TRAY CABLE (4 CONDR) (8 AWG)	LF	1,480
HC 002		ELEC CONDR (NO.10) PVC JACKET, 90 DEGREE CELCIUS INSULATION, 600V	LF	560 CO #10
HC 009		GALVANIZED RIGID STEEL CONDUIT (1-1/4")	LF	130
624	6001	GROUND BOX TY A (122311)	EA	6

[1] THIS POLE HAS BEEN MODIFIED TO SHOW A LUMINAIRE WITH A 15° TILT FROM THE HORIZONTAL. SEE DETAIL A AND ROADWAY ILLUMINATION POLE STANDARD SHEET RIP (3)-17 PAGE 3 OF 4

NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION TO AVOID CONFLICT WITH OR DAMAGE TO THESE UTILITIES.
2. ALL STATIONS AND OFFSETS ARE WITH REFERENCE TO THE CENTERLINE OF THE PATHWAY.
3. ALL LUMINAIRES ALONG STRAIGHT PORTIONS OF THE PATHWAY ARE TO BE PLACED AT A SPACING OF 135', AN OFFSET OF 8' FROM THE CENTERLINE OF THE PATHWAY, ORIENTED PERPENDICULAR TO IT AND LUMINAIRE HEADS ARE TO BE TILTED 15° (SEE DETAIL A) UNLESS OTHERWISE NOTED.
4. THE STATIONS, OFFSETS, ORIENTATIONS AND TILT FOR ONLY THOSE LUMINAIRES THAT ARE NON TYPICAL HAVE BEEN LISTED IN THE TABLE.
5. CONDUIT RUNS ARE HORIZONTAL ONLY.
6. CONDUCTOR RUNS ARE BOTH HORIZONTAL AND VERTICAL.

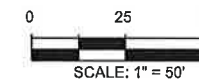
LOCATION & ORIENTATION TABLE

LUM ID	STA.	OFFSET	*ORIENTATION	**TILT
L-F3	173+28.6	7.0' LT	7.1° CCW	0.0°
L-F4	204+90.3	10.2' LT	8.4° CCW	0.0°
L-F5	203+76.3	8.0' RT	0.0°	15.0°
L-F6	202+43.9	8.0' RT	0.0°	15.0°
L-F7	201+05.71	8.0' RT	0.0°	15.0°
L-F8	301+60.71	8.0' RT	0.0°	15.0°
L-F9	302+79.45	8.0' RT	0.0°	15.0°
L-F10	304+14.46	8.0' RT	0.0°	15.0°
L-G4	304+84.53	0.0'	0.0°	0.0°
L-G3	305+10.85	0.0'	0.0°	0.0°
L-G2	305+37.96	0.0'	0.0°	0.0°
L-G1	305+64.88	0.0'	0.0°	0.0°

*ORIENTATION IS MEASURED FROM A PERPENDICULAR LINE TO THE PATHWAY.
 CW - CLOCKWISE
 CCW - COUNTER CLOCKWISE
 **SEE DETAIL A

LEGEND

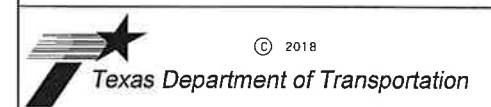
- PROPOSED GROUND BOX TYPE A
- IN RD ILL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB
- ⊗ PROPOSED OVERHEAD TUNNEL LIGHTING FIXTURE IWL-3-035UV-2M-55 (IP68) OR EQUIVALENT
- ⊗ PROPOSED OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE OR EQUAL
- ⊗ EXISTING OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE
- PROP. ELECTRICAL SERVICE
- PROPOSED 2" (SCH 40) PVC CONDUIT
- ==== PROPOSED 2" (SCH 80) PVC CONDUIT BORE
- PROPOSED 1-1/4" GALVANIZED RIGID STEEL CONDUIT



8/22/2018

L&G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105
 2100 W. Expressway 83
 Mercedes, TX. 78570
 Phone : (956) 565-9813
 Fax : (956) 565-9018
 900 S. Stewart Rd., Ste. 10
 Mission, TX. 78572
 Phone : (956) 565-1909
 Fax : (956) 565-1927

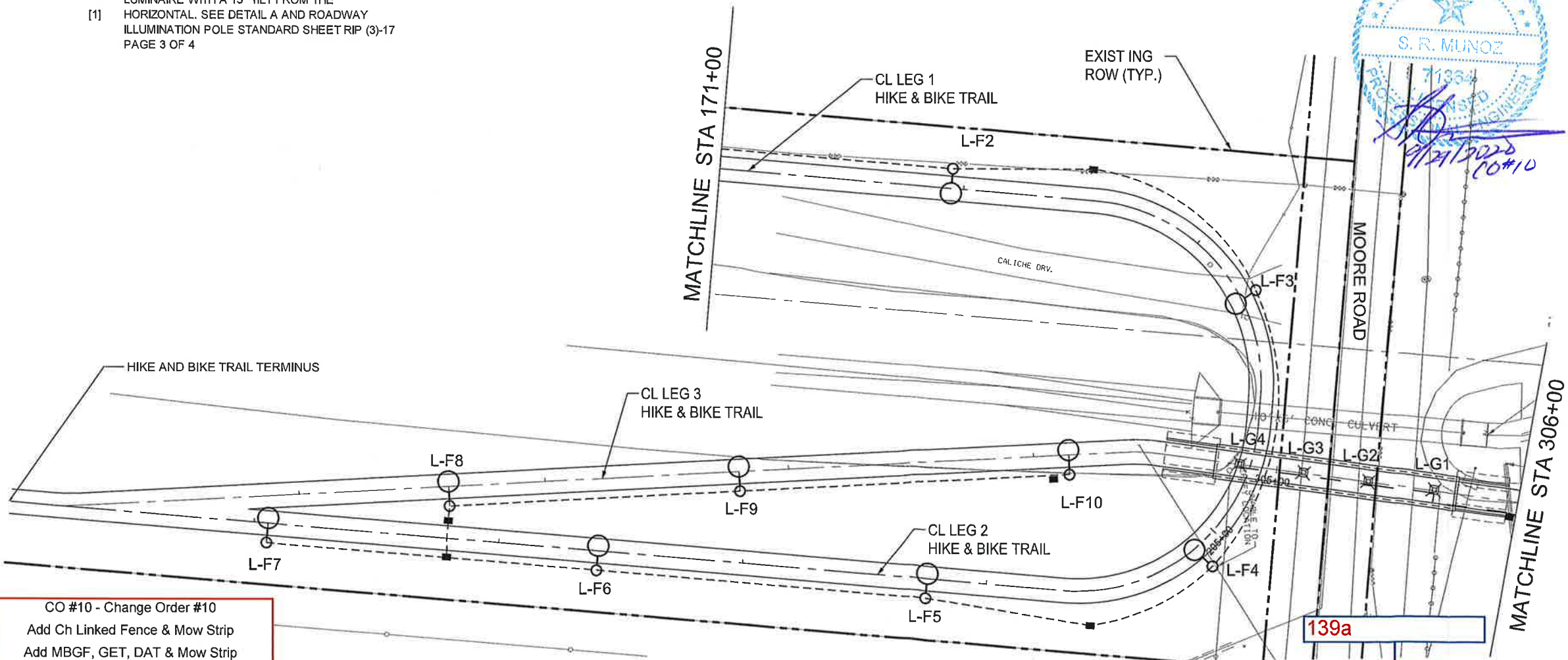
ETSI
 Ergonomic Transportation Solutions, Inc.
 TEXAS REGISTERED ENGINEERING FIRM NO. F - 000625
 5300 Hollister Road, Suite 220
 Houston, Texas 77040
 Tel. (713) 956-9601 Fax (713) 956-9667



REGIONAL LINEAR PARK PROJECT SEC. 2 LIGHTING LAYOUT

SHEET 14 OF 20

CK DN:	MNR	CONT	SECT	JOB	HIGHWAY
CK DW:	RLM	0921	02	409	RLPP
CK TR:	HCS	DIST	COUNTY	SHEET NO.	
		PHR	HIDALGO	139	



CO #10 - Change Order #10
 Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
 Add Luminaire Drill Shaft
 Add Luminaire Wiring

DATE: 8/22/2018 1:51:08 PM FILE: N:\CLIENTS\SL&G\HIKE_BIKE_JIETS\WORK\LIGHTING LAYOUT\LP_14.dgn

ILLUMINATION QUANTITIES - SHEET TOTALS					
ITEM	DESCR CODE	DESCRIPTION	UNIT	QUANTITIES	
					SHEET 19
416	6029	DRILL SHAFT (RDWY ILL POLE) (30 IN)	LF	88	CO #10
HC 001		FURNISH AND INSTALL LIGHTING FIXTURE (LED WATERPROOF) TYPE IXL3525-055UV-F5M-SSND-SSL (IP68) WITH AN IP68 GLAND, IP68 JUNCTION BOX AND STEEL WIRE MESH COVER ASSEMBLY PROTECTION	EA	4	
610	6500	IN RD ILL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB (1)	EA	7	
610	6500	IN RD ILL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB		4	
618	6023	CONDT (PVC) (SCH 40) (2")	LF	1475	CO #10
620	6007	ELEC CONDR (NO.8) BARE	LF	1725	CO #10
621	6007	TRAY CABLE (4 CONDR) (8 AWG)	LF	1,490	
684	6009	TRF SIG CBL (TY A) (12 AWG) (4 CONDR)	LF	180	
HC 002		ELEC CONDR (NO.10) PVC JACKET, 90 DEGREE CELCIUS INSULATION, 600V	LF	610	CO #10
HC 009		GALVANIZED RIGID STEEL CONDUIT (1-1/4")	LF	150	
624	6001	GROUND BOX TY A (122311)	EA	7	
628	6009	ELC SRV TY A 120/240 060(NS)SS(E)SP(O)	EA	1	

(1) THIS POLE HAS BEEN MODIFIED TO SHOW A LUMINAIRE WITH A 15° TILT FROM THE HORIZONTAL. SEE DETAIL A. AND ROADWAY ILLUMINATION POLE STANDARD SHEET RIP (3)-17 PAGE 3 OF 4

NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION TO AVOID CONFLICT WITH OR DAMAGE TO THESE UTILITIES.
2. ALL STATIONS AND OFFSETS ARE WITH REFERENCE TO THE CENTERLINE OF THE PATHWAY.
3. ALL LUMINAIRES ALONG STRAIGHT PORTIONS OF THE PATHWAY ARE TO BE PLACED AT A SPACING OF 135', AN OFFSET OF 8' FROM THE CENTERLINE OF THE PATHWAY, ORIENTED PERPENDICULAR TO IT AND LUMINAIRE HEADS ARE TO BE TILTED 15° (SEE DETAIL A) UNLESS OTHERWISE NOTED.
4. THE STATIONS, OFFSETS, ORIENTATIONS AND TILT FOR ONLY THOSE LUMINAIRES THAT ARE NON TYPICAL HAVE BEEN LISTED IN THE TABLE.
5. CONDUITS ARE MEASURED AND PAID HORIZONTALLY ONLY.
6. CONDUCTORS ARE MEASURED AND PAID BOTH HORIZONTALLY AND VERTICALLY.

LOCATION & ORIENTATION TABLE

LUM ID	STA.	OFFSET	*ORIENTATION	**TILT
L-J8	501+42.7	8.0' LT	0.0°	15°
L-J7	408+38.1	8.0' LT	0.0°	15°
L-J5	409+71.0	8.0' LT	0.0°	15°
L-J3	411+02.7	14.4' LT	2.9° CW	0°
L-J2	411+92.8	14.5' LT	30.4° CW	0°
L-J1	336+34.0	11.9' RT	7.7° CW	0°
L-K1	335+22.4	11.0' RT	4.2° CCW	0°
L-L1	505+06.4	0.0'	0.0°	0°
L-L2	505+34.4	0.0'	0.0°	0°
L-L3	505+62.4	0.0'	0.0°	0°
L-L4	505+90.4	0.0'	0.0°	0°

*ORIENTATION IS MEASURED FROM A PERPENDICULAR LINE TO THE PATHWAY.
 CW - CLOCKWISE
 CCW - COUNTER CLOCKWISE
 **SEE DETAIL A

CO #10 - Change Order #10
 Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
 Add Luminaire Drill Shaft
 Add Luminaire Wiring

LEGEND

- PROPOSED GROUND BOX TYPE A
- IN RD ILL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB
- ⊗ PROPOSED OVERHEAD TUNNEL LIGHTING FIXTURE IWL-3-035UV-2M-55 (IP68) OR EQUIVALENT
- ⊗ PROPOSED OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE OR EQUAL
- ⊗ EXISTING OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE
- PROP. ELECTRICAL SERVICE
- PROPOSED 2" (SCH 40) PVC CONDUIT
- ==== PROPOSED 2" (SCH 80) PVC CONDUIT BORE
- PROPOSED 1-1/4" GALVANIZED RIGID STEEL CONDUIT



HIDALGO COUNTY
 PRECINCT 2
 COMMISSIONER EDDIE CANTU

C. SIMEONIDIS
 60919
 REGISTERED PROFESSIONAL ENGINEER

8/22/2018

L&G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105

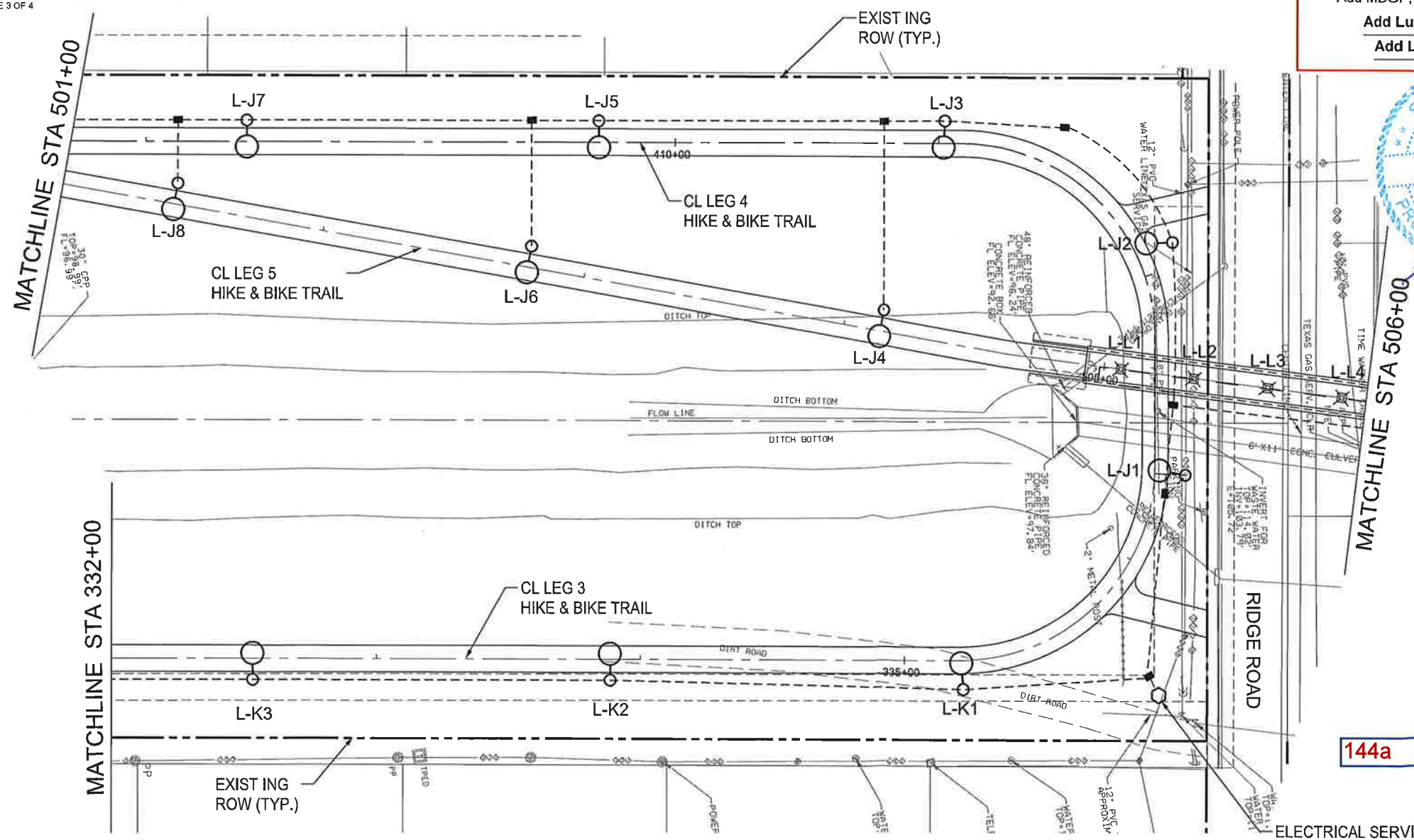
ETSI
 Ergonomic Transportation Solutions, Inc.
 TEXAS REGISTERED ENGINEERING FIRM NO. F - 000625

© 2018
 Texas Department of Transportation

REGIONAL LINEAR PARK PROJECT SEC. 2
 LIGHTING LAYOUT

SHEET 19 OF 20

CK DN:	MNR	CONF	SECT	JOB	HIGHWAY
CK DW:	RLM	0921	02	409	RLPP
CK TR:	HCS	DIST	COUNTY	COUNTY	SHEET NO.
	PHR		HIDALGO		144



144a

ELECTRICAL SERVICE #5
 ELC SRV TY A 120/240 060 (NS) SS (E) SP (O)

DATE: 8/22/2018 1:10:45 PM
 FILE: \CLIENTS\SL&GH\HIKE_BIKE_J\ETSI_WORK\LIGHTING LAYOUT\LP_19.dgn

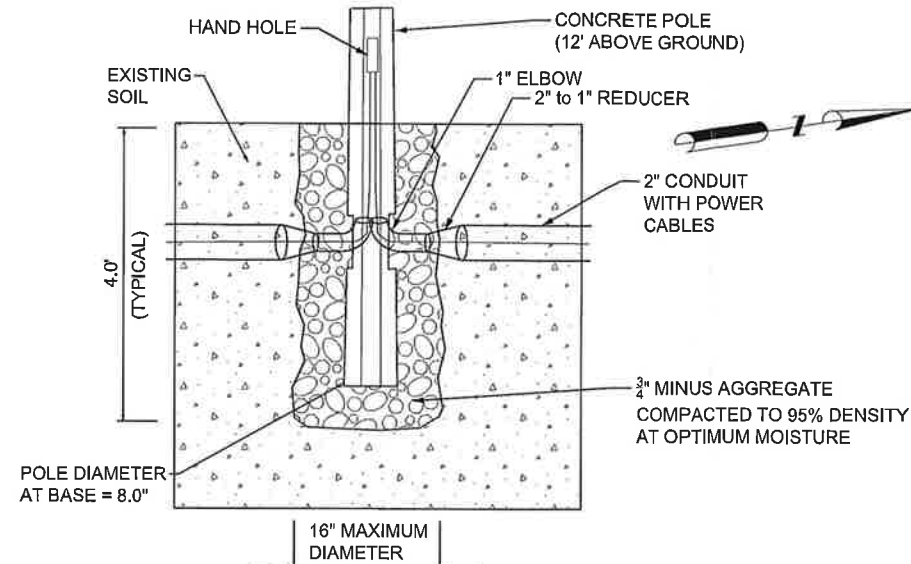
ILLUMINATION QUANTITIES - SHEET TOTALS					
ITEM	DESCR CODE	DESCRIPTION	UNIT	QUANTITIES	
					SHEET 20
HC 011		FURNISH AND INSTALL VISIONAIRE LIGHTING PREMIER II (PRE-2-T4-48LC-3-4K-UNV-PT-FINISH) EQ LUMINAIRE FIXTURE AND LUMINAIRE POLE TRADITIONAL CONCRETE INC. D412-SG-EA-3T COMPLETE IN PLACE, INCLUDING ALL COMPONENTS AND FOUNDATION.	EA	11	
HC 001		FURNISH AND INSTALL LIGHTING FIXTURE (LED WATERPROOF) TYPE ILX3525-055UV-F5M-55ND-SSL (IP68) WITH AN IP68 GLAND, IP68 JUNCTION BOX AND STEEL WIRE MESH COVER ASSEMBLY PROTECTION	EA	2	
618	6023	COND (PVC) (SCH 40) (2")	LF	610	
620	6007	ELEC CONDR (NO.8) BARE	LF	610	
684	6009	TRF SIG CBL (TY A) (12 AWG) (4 CONDR)	LF	805	
HC 002		ELEC CONDR (NO.10) PVC JACKET, 90 DEGREE CELCIUS INSULATION, 600V	LF	0	CO #10
HC 009		GALVANIZED RIGID STEEL CONDUIT (1-1/4")	LF	50	
624	6001	GROUND BOX TY A (122311)	EA	4	

[1] THIS POLE HAS BEEN MODIFIED TO SHOW A LUMINAIRE WITH A 15° TILT FROM THE HORIZONTAL. SEE DETAIL A AND ROADWAY ILLUMINATION POLE STANDARD SHEET RIP (3)-17 PAGE 3 OF 4

LOCATION & ORIENTATION TABLE

LUM ID	STA.	OFFSET	*ORIENTATION
L-M1	506+97.82	9' LT	0.0°
L-M2	507+38.53	9' LT	0.0°
L-M3	507+78.53	9' LT	0.0°
L-M4	508+18.53	9' LT	0.0°
L-M5	508+58.53	9' LT	0.0°
L-M6	508+98.53	9' LT	0.0°
L-M7	509+38.53	9' LT	0.0°
L-M8	509+78.53	9' LT	0.0°
L-M9	510+18.53	9' RT	0.0°
L-M10	510+58.53	9' RT	0.0°
L-M11	510+98.53	9' RT	0.0°
** LP-D25	228+95.14	7.92' LT	13.96° CCW
** LP-D26	228+56.70	7.98' LT	0.25° CW
L-L5	506+18.4	0.0'	0.0°
L-L6	506+46.4	0.0'	0.0°

*ORIENTATION IS MEASURED FROM A PERPENDICULAR LINE TO THE PATHWAY.
 CW - CLOCKWISE
 CCW - COUNTER CLOCKWISE
 STATIONS AND OFFSETS ARE MEASURED FROM THE
 **EXISTING HIKE AND BIKE TRAIL

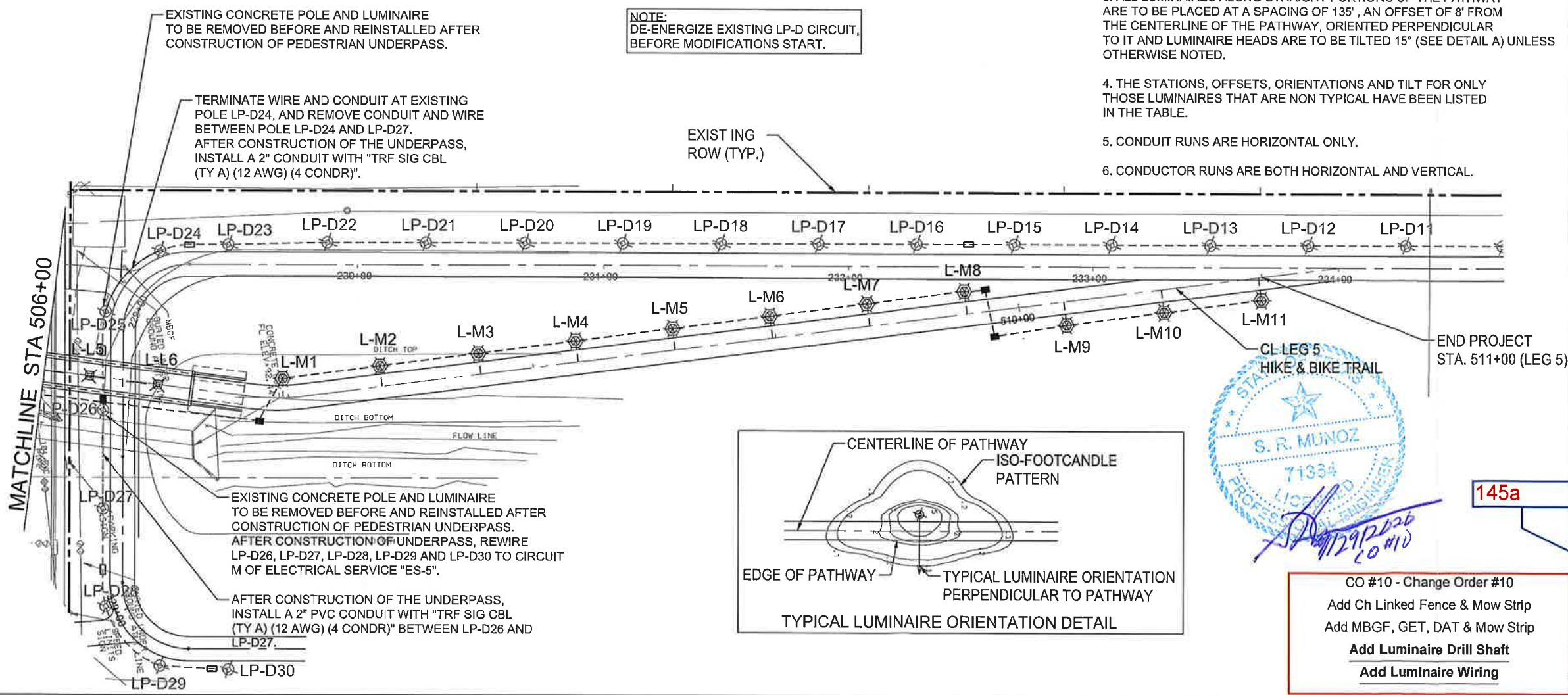


POLE EMBEDMENT DETAIL (TYP.) FOR L-M1 THRU L-M11

NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION TO AVOID CONFLICT WITH OR DAMAGE TO THESE UTILITIES.
2. ALL STATIONS AND OFFSETS ARE WITH REFERENCE TO THE CENTERLINE OF THE PATHWAY.
3. ALL LUMINAIRES ALONG STRAIGHT PORTIONS OF THE PATHWAY ARE TO BE PLACED AT A SPACING OF 135', AN OFFSET OF 8' FROM THE CENTERLINE OF THE PATHWAY, ORIENTED PERPENDICULAR TO IT AND LUMINAIRE HEADS ARE TO BE TILTED 15° (SEE DETAIL A) UNLESS OTHERWISE NOTED.
4. THE STATIONS, OFFSETS, ORIENTATIONS AND TILT FOR ONLY THOSE LUMINAIRES THAT ARE NON TYPICAL HAVE BEEN LISTED IN THE TABLE.
5. CONDUIT RUNS ARE HORIZONTAL ONLY.
6. CONDUCTOR RUNS ARE BOTH HORIZONTAL AND VERTICAL.

LEGEND	
	PROPOSED GROUND BOX TYPE A
	IN RD IL (TY SA) 30S-4 (400W EQ) LED WITH TRASTAR DURALIGHT DURA-ST40-4K-120-2-GR-SCLB
	PROPOSED OVERHEAD TUNNEL LIGHTING FIXTURE IWL-3-035UV-2M-55 (IP68) OR EQUIVALENT
	PROPOSED OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE OR EQUAL
	EXISTING OCTAGONAL CONCRETE POLE WITH "VISIONAIRE LIGHTING PREMIER II" FIXTURE
	PROP. ELECTRICAL SERVICE
	PROPOSED 2" (SCH 40) PVC CONDUIT
	PROPOSED 2" (SCH 80) PVC CONDUIT BORE
	PROPOSED 1-1/4" GALVANIZED RIGID STEEL CONDUIT



NOTE: DE-ENERGIZE EXISTING LP-D CIRCUIT, BEFORE MODIFICATIONS START.

EXISTING CONCRETE POLE AND LUMINAIRE TO BE REMOVED BEFORE AND REINSTALLED AFTER CONSTRUCTION OF PEDESTRIAN UNDERPASS.

TERMINATE WIRE AND CONDUIT AT EXISTING POLE LP-D24, AND REMOVE CONDUIT AND WIRE BETWEEN POLE LP-D24 AND LP-D27. AFTER CONSTRUCTION OF THE UNDERPASS, INSTALL A 2" CONDUIT WITH "TRF SIG CBL (TY A) (12 AWG) (4 CONDR)".

EXISTING CONCRETE POLE AND LUMINAIRE TO BE REMOVED BEFORE AND REINSTALLED AFTER CONSTRUCTION OF PEDESTRIAN UNDERPASS. AFTER CONSTRUCTION OF UNDERPASS, REWIRE LP-D26, LP-D27, LP-D28, LP-D29 AND LP-D30 TO CIRCUIT M OF ELECTRICAL SERVICE "ES-5".

AFTER CONSTRUCTION OF THE UNDERPASS, INSTALL A 2" PVC CONDUIT WITH "TRF SIG CBL (TY A) (12 AWG) (4 CONDR)" BETWEEN LP-D26 AND LP-D27.

145a
 CO #10 - Change Order #10
 Add Ch Linked Fence & Mow Strip
 Add MBGF, GET, DAT & Mow Strip
 Add Luminaire Drill Shaft
 Add Luminaire Wiring

Hidalgo County Precinct 2
 Commissioner Edna Cantu

C. SIMEONIDIS
 60919
 REGISTERED PROFESSIONAL ENGINEER

8/22/2018

L&G Engineering
 Highway / Civil
 Structural / Bridge
 Environmental
 Firm No. : F-4105

2100 W. Expressway 83
 Mercedes, TX, 78570
 Phone : (956) 565-9813
 Fax : (956) 565-9018

908 S. Stewart Rd., Ste. 10
 Mission, TX, 78572
 Phone : (956) 585-1909
 Fax : (956) 585-1927

ETSI
 Ergonomic Transportation Solutions, Inc.
 TEXAS REGISTERED ENGINEERING FIRM NO. F - 00625

5300 Hollister Road, Suite 220
 Houston, Texas 77040
 Tel. (713) 956-9601 Fax (713) 956-9667

Texas Department of Transportation
 © 2018

REGIONAL LINEAR PARK PROJECT SEC. 2
 LIGHTING LAYOUT

SHEET 20 OF 20

CKD:	MNR	CONT	SECT	JOB	HIGHWAY
CKDW:	RLM	0921	02	409	RLPP
CKTR:	HCS	DIST	COUNTY	COUNTY	SHEET NO.
		PHR	HIDALGO		145

DATE: 8/22/2018 1:12:57 PM
 FILE: N\CLIENTS\I&G\HIKE_BIKE_I\ETSI_WORK\LIGHTING LAYOUT\LP_20.dgn