ESTIMATED QUANTITIES			PAVING & STORM DRAIN									PROJECT TOTAL	TOTAL
Item #	Item Description	Unit	SHEET 7	SHEET 8	SHEET 9	SHEET 10	SHEET 11	SHEET 12	SHEET 13	SHEET 13A	SHEET 17		
Earthwork & Paving													
P1	Preparing Right of Way	STA	4.5	3	4.5	4.5	4.5	5	2				28
P2	Unclassified Roadway Excavation	CY										2490	2490
P3	Embankment (Density Control)	CY										3479	3479
P4	Sawcut, Remove, & Dispose Ex Concrete	SY	61	28	34	165	65	18	603				974
P5	Lime Treated Subgrade (6")	SY	2354	1307	2323	3250	2482	1690	356				13762
P6	Lime (Est. 41#/SY)	TON	48.3	26.8	47.6	66.6	50.9	34.6	7.3				282
P7	8" Reinforced Concrete Pavement	SY	1955	1228	2177	3040	2295	1546	324				12565
P8	8" Reinforced Concrete Pavement (Temporary)	SY	236										236
P9	6" Monolithic Curb	LF	690	478	1020	1068	1070	1012	234				5572
P10	18" Curb & Gutter	LF	35						258				293
P11	Concrete Street Header (For Existing Pvmt)	LF	48	37					25				110
P12	Concrete Street Header (For Future Pvmt)	LF	37			73							110
P13	Asphalt Driveway	SY	66										66
P14	4" Reinforced Concrete Sidewalk	SY		134	304	222				1420			2080
P15	BFR	EA				4							4
P16	Relocate Ex Fire Hydrant & Meter	EA	1										1
1 P17	MBGF	LF			75	112.5							187.5
Storm Drainage													
D1	18"RCP	LF		49	109			52			25		235
D2	21"RCP	LF				39	71	104					214
D3	8'x5' RCB	LF									411		411
D4	10' Recessed Curb Inlet	EA		1	2	1	4	3			2		13
D5	Remove & Dispose Ex Inlet	EA					2						2
D6	Storm Trench Excavation Protection	LF	0	49	109	39	71	156			25		449

ESTIMATED QUANTITIES			CONDUIT		EROSION CONTROL	PVMT MARKING	PROJECT TOTAL	BASE BID QUANTITY
Item #	Item Description	Unit	SHEET 18	SHEET 19	SHEET 20	SHEET 21		
Traffic Control								
T1	Sign & Sign Post Assembly	EA				26		26
T2	8" White Solid Markers	LF				2915		2915
T3	12" Yellow Median Line Markers	LF				160		160
T4	4" Yellow Solid Edge Line Markers	LF				1200		1200
T5	4" White Broken Lane Markers	LF				6610		6610
T6	24" White Solid Stop Bar	LF				154		154
T7	24" Yellow Solid Traffic Gore Channelization Markers	LF				810		810
T8	Type II-C-R Buttons	EA				164		164
T9	Type II-A-A Buttons	EA				162		162
T10	Single Reflective Jiggle Bars Cl A, Type I-C	EA				224		224
T11	Reflective Pavment Marker (Turn Arrow)	EA				8		8
T12	Reflective Pavment Marker (Only)	EA				6		6
T13	Type III Barricades	LF				106		106
T14	Work Zone Traffic Control	LS					1	1
T15	Type "A" Ground Box w/Concrete Apron (Illumination)	EA	6	8				14
T16	Type "D" Pullbox	EA	12	16				28
T17	PVC Sch. 40 Conduit (2")(w/ps)(illum)	LF		210				210
1 T18	PVC Sch. 40 Conduit (City of Frisco)	LF		210				210
T19	PVC Sch. 40 Conduit (Frisco ISD)	LF		420				420
T20	PVC Sch. 40 Conduit (2")(w/ps)(illum) Bored	LF	265	320				585
T21	PVC Sch. 40 Conduit (City of Frisco) Bored	LF	265	320				585
T22	PVC Sch. 40 Conduit (Frisco ISD) Bored	LF	530	640				1170
T23	Single Guardrail Terminal	EA					1	1
T24	Terminal Anchor Section	EA					1	1
Erosion Control & Irrigation								
L1	Silt Fence (Install / Maintain / Remove)	LF			5140			5140
L2	Inlet Protection	EA			13			13
L3	Topsoil (4")	CY			1176			1176
L4	Hydromulch	SY			12250			12250
L5	Curlex	SY			10580			10580
L6	Storm Water Pollution Prevention Plan	LS			1			1
L7	Project Mowing & Landscape Maintenance	MO						4
L8	PVC (Sch 40) (2" Sleeve)	LF		210				210
L9	PVC (Sch 40) (6" Sleeve)	LF		210				210
L10	Valve Box	EA	6	8				14
L11	PVC (Sch 40) (2" Sleeve) Bored	LF	265	320				585
L12	PVC (Sch 40) (6" Sleeve) Bored	LF	265	320				585

MISC. INFORMATION

REVISION	DATE	DESCRIPTION
1	2-18-09	REVISED ITEMS P-17T17-T24, L8-L12.

RLK ENGINEERING

TEXAS REGISTRATION NO. 579

RLK ENGINEERING, INC
6136 Frisco Square Blvd, Ste 325
Frisco, Texas 75034
(214) 619-1733 Off
(214) 619-1833 Fax

STATE OF TEXAS
R. KYLE JONES
101126
LICENSED PROFESSIONAL ENGINEER
P.E.
Date: 2-18-09

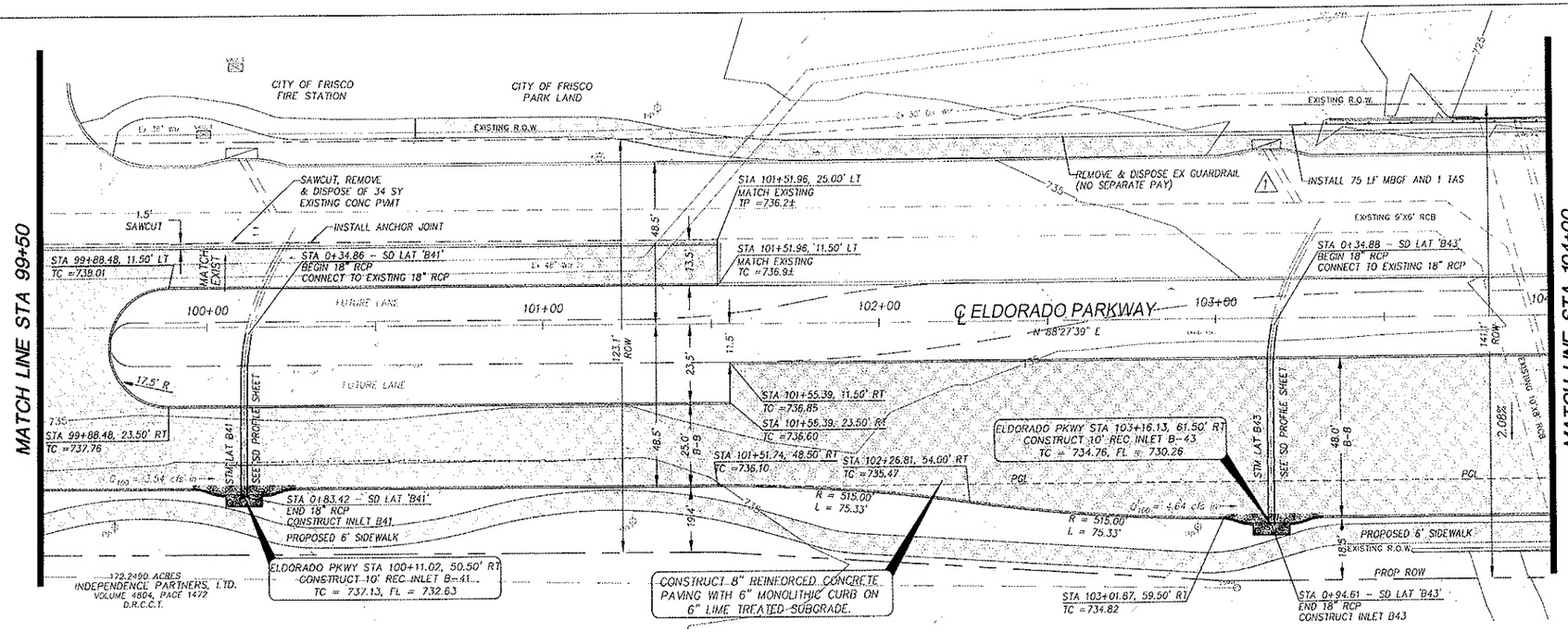
FRISCO

Eldorado Independence Improvements

Intersection Improvements

QUANTITY TABULATION

DESIGNED BY	TECH REVIEW	DRAWING FILE	DRAWING SCALE	SHEET
CAW/RKJ	JDS	QUANTITIES.DWG	N/A	5 OF 68
DRAWN BY	PEER REVIEW	DRAWING DATE	PROJECT NUMBER	
RKJ	CAP	January 2009	RLK 07014F	



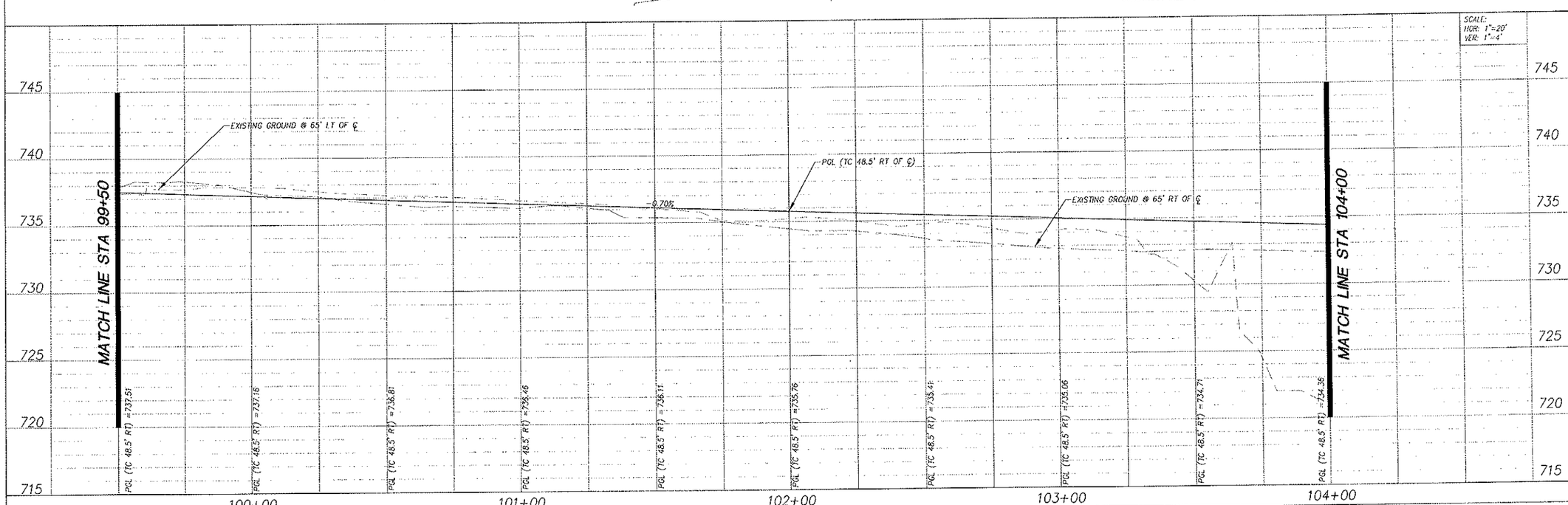
NOTE !!

PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.

20 10 0 20 40

PAVING SHEET NOTES:

1. CONSTRUCT CURB LAYDOWNS AT INTERSECTION APPROACH FOR FUTURE BARRIER FREE RAMPS. (SEE PAVING DETAILS)
2. SEE CONDUIT LAYOUT SHEET FOR ILLUMINATION AND FIBEROPTIC CONDUIT LOCATIONS. (INSTALL PRIOR TO PAVING)
3. REMOVE AND DISPOSE OF EXISTING FENCE LOCATED WITHIN R.O.W., UNLESS NOTED OTHERWISE. (NO PAY ITEM)
4. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING ALL SIDEWALKS & BARRIER FREE RAMPS PER DETAILS AND IN ACCORDANCE WITH THE LATEST T.D.L.R. AND FEDERAL A.D.A. REQUIREMENTS.
5. CONTRACTOR SHALL ADJUST ALL EXISTING FIRE HYDRANTS, WATER VALVES, AND WATER METERS TO PROPOSED GRADE. (NO PAY ITEM)
6. ALL PIPE BENDS AND WYES SHALL BE MANUFACTURED. CONCRETE COLLARS SHALL BE CONSTRUCTED AT PIPE SIZE CHANGE LOCATIONS. MANUFACTURED REDUCERS MAY BE USED IN LIEU OF THIS REQUIREMENT.
7. ALL STORM SEWER RCP SHALL BE CLASS III UNLESS OTHERWISE NOTED.
8. ALL WORK NECESSARY TO COMPLETE STORM SEWER CONNECTIONS TO PROPOSED AND EXISTING LINES, CULVERTS, MANHOLES, JUNCTION BOXES, ETC. SHALL BE SUBSIDIARY TO BID ITEMS IN CONTRACT DOCUMENTS.



Survey Control:

CONTROL #3
"X" CUT ON TOP OF INLET
PAVING STA 105+10.02, 227.08' LT
NORTHING = 7114867.44
EASTING = 2503773.42
ELEV = 736.15

CONTROL #4
"X" CUT ON TOP OF CURB
PAVING STA 141+35.05, 2.00' LT
NORTHING = 7114676.49
EASTING = 2507400.40
ELEV = 733.01

Alignment Data:

ELDORADO ALIGNMENT DATA

STATION	NORTHING	EASTING	DIRECTION	DESC
51+43.00	7114605.72	2499468.78		POB
83+72.80	7114608.03	2501836.63	N 89°57'37" E	PI
99+99.18	7114634.53	2503155.74	N 89°57'37" E	PI
141+24.24	7114674.38	2506393.61	N 89°57'37" E	PI
149+16.74	7114680.39	2506981.55	N 89°57'37" E	POC

MISC. INFORMATION	REVISION	DATE	DESCRIPTION
	1	2-18-09	REVISED MBGF AND TAS

RLK ENGINEERING
TEXAS REGISTRATION NO. 579

RLK ENGINEERING, INC
6136 Frisco Square Blvd, Ste 325
Frisco, Texas 75034
(214) 619-1733 Off
(214) 619-1833 Fax

STATE OF TEXAS
R. KYLE JONES
101126
LICENSED
PROFESSIONAL ENGINEER
R. Kyle Jones, P.E.
Date: 2-18-09

FRISCO

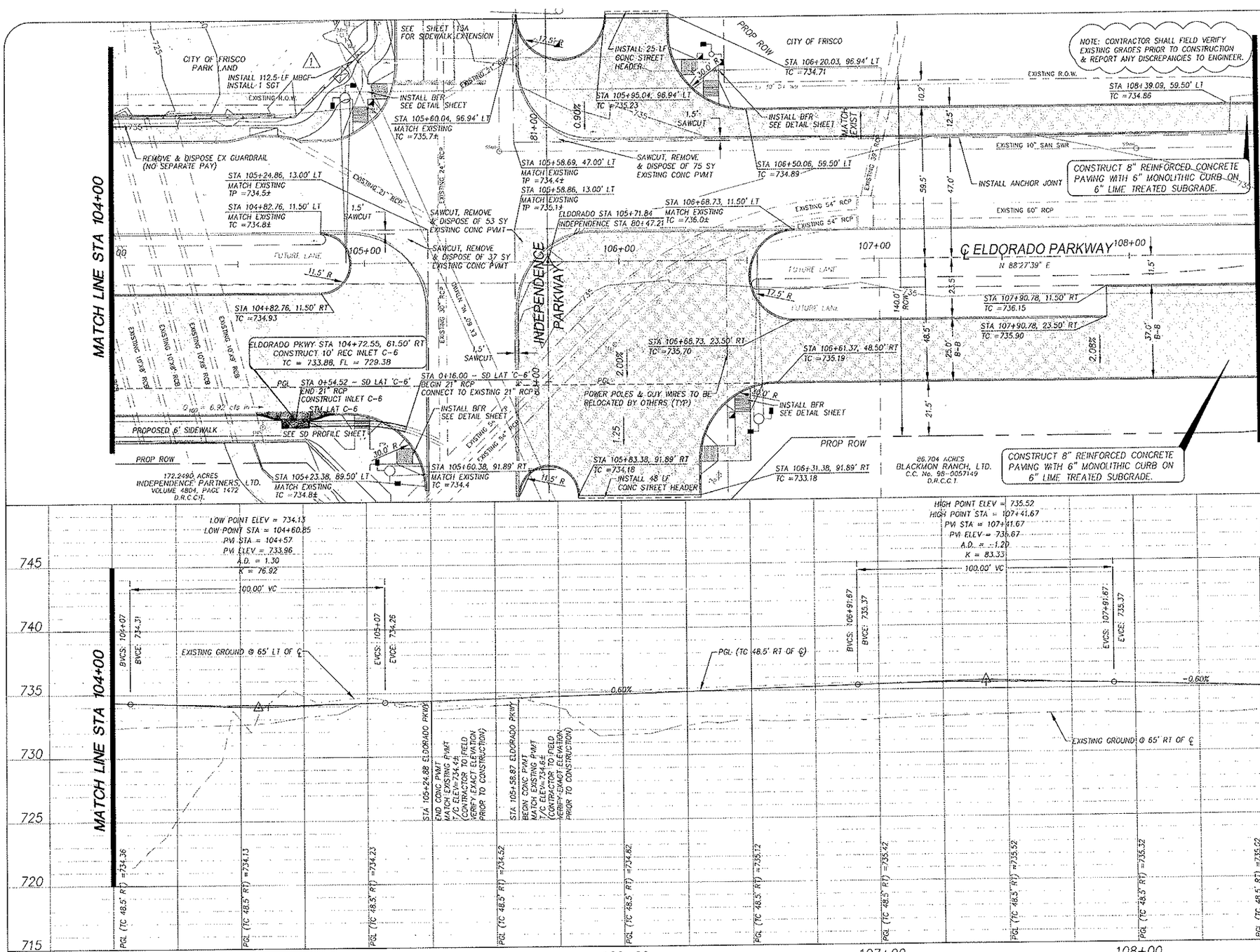
Eldorado Independence Improvements

Intersection Improvements

PAVING PLAN & PROFILE

STA 99+50 TO STA 104+00

DESIGNED BY	TECH REVIEW	DRAWING FILE	DRAWING SCALE	SHEET
CAP/RKJ	JDW	PP-03.DWG	1"=20' H, 1"=4' V	9 OF 68
DRAWN BY	PEER REVIEW	DRAWING DATE	PROJECT NUMBER	
RKJ	CAP	November 2008	RLK 07041F	



NOTE II

PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.

20 10 0 20 40

PAVING SHEET NOTES:

1. CONSTRUCT CURB LAYDOWNS AT INTERSECTION APPROACH FOR FUTURE BARRIER FREE RAMPS. (SEE PAVING DETAILS)
2. SEE CONDUIT LAYOUT SHEET FOR ILLUMINATION AND FIBEROPTIC CONDUIT LOCATIONS. (INSTALL PRIOR TO PAVING)
3. REMOVE AND DISPOSE OF EXISTING FENCE LOCATED WITHIN R.O.W., UNLESS NOTED OTHERWISE. (NO PAY ITEM)
4. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING ALL SIDEWALKS & BARRIER FREE RAMPS PER DETAILS AND IN ACCORDANCE WITH THE LATEST T.D.L.R. AND FEDERAL A.D.A. REQUIREMENTS.
5. CONTRACTOR SHALL ADJUST ALL EXISTING FIRE HYDRANTS, WATER VALVES, AND WATER METERS TO PROPOSED GRADE. (NO PAY ITEM)
6. ALL PIPE BENDS AND WYES SHALL BE MANUFACTURED. CONCRETE COLLARS SHALL BE CONSTRUCTED AT PIPE SIZE CHANGE LOCATIONS. MANUFACTURED REDUCERS MAY BE USED IN LIEU OF THIS REQUIREMENT.
7. ALL STORM SEWER RCP SHALL BE CLASS III UNLESS OTHERWISE NOTED.
8. ALL WORK NECESSARY TO COMPLETE STORM SEWER CONNECTIONS TO PROPOSED AND EXISTING LINES, CULVERTS, MANHOLES, JUNCTION BOXES, ETC. SHALL BE SUBSIDIARY TO BID ITEMS IN CONTRACT DOCUMENTS.

SCALE:
HOR: 1"=20'
VER: 1"=4'

Survey Control:

CONTROL #3
"X" CUT ON TOP OF INLET
PAVING STA 105+10.05, 227.08' LT
NORTHING = 7114867.44
EASTING = 2503773.42
ELEV = 735.15

CONTROL #4
"X" CUT ON TOP OF CURB
PAVING STA 141+35.05, 2.00' LT
NORTHING = 7114676.49
EASTING = 2507400.40
ELEV = 733.01

Alignment Data:

ELDORADO ALIGNMENT DATA

STATION	NORTHING	EASTING	DIRECTION	DESC.
514+43.60	7114555.22	2495656.22	N 89°59'30" E	POB
626+22.68	7114558.05	2500638.67	N 89°59'37" E	PC
884+90.18	7114524.53	2503755.74	N 89°27'39" E	PT
1141+24.24	7114474.35	2507389.84	N 89°59'55" E	PT
1409+18.24	7114469.33	2510181.52		POE

MISC INFORMATION	REVISION	DATE	DESCRIPTION
	1	2-18-09	REVISED MBGF AND SGT

RLK ENGINEERING
TEXAS REGISTRATION NO. 579

RLK ENGINEERING, INC
6136 Frisco Square Blvd, Ste 325
Frisco, Texas 75034
(214) 619-1733 Off
(214) 619-1833 Fax

STATE OF TEXAS
R. KYLE JONES
101126
LICENSED PROFESSIONAL ENGINEER
Date: 7-16-09

FRISCO

Eldorado Independence Improvements

Intersection Improvements

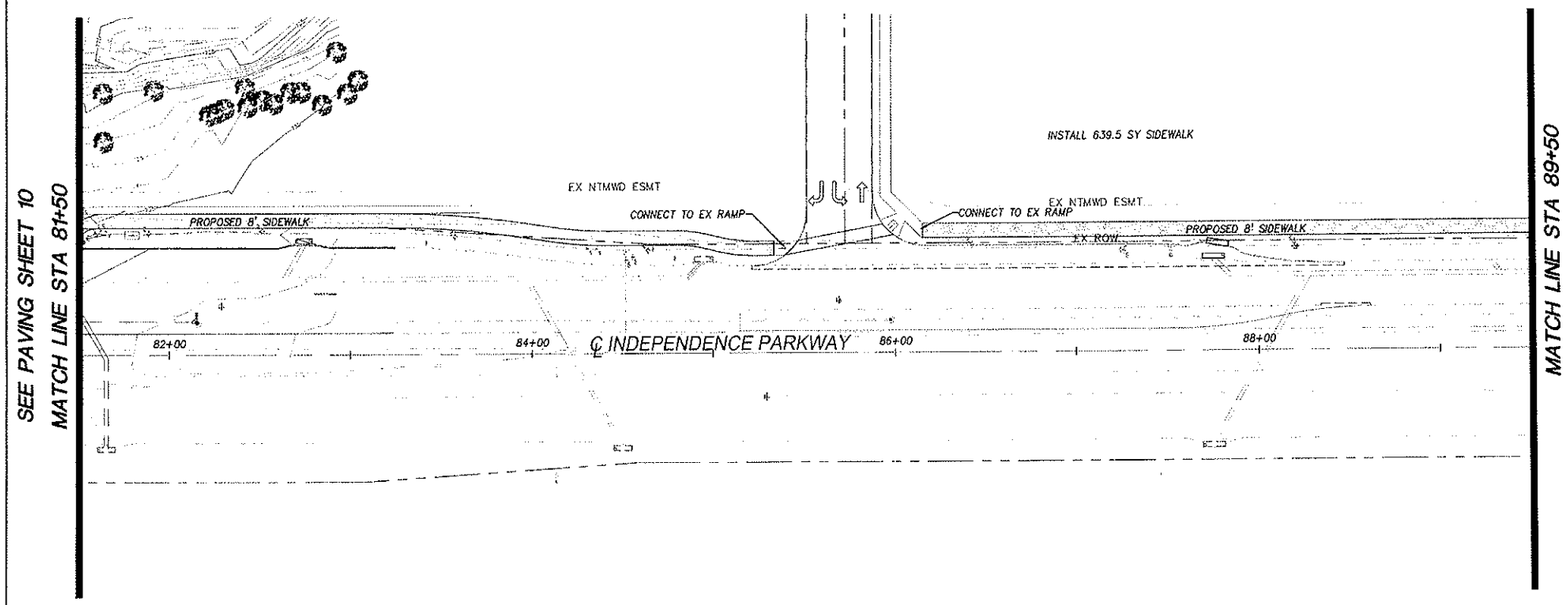
PAVING PLAN & PROFILE

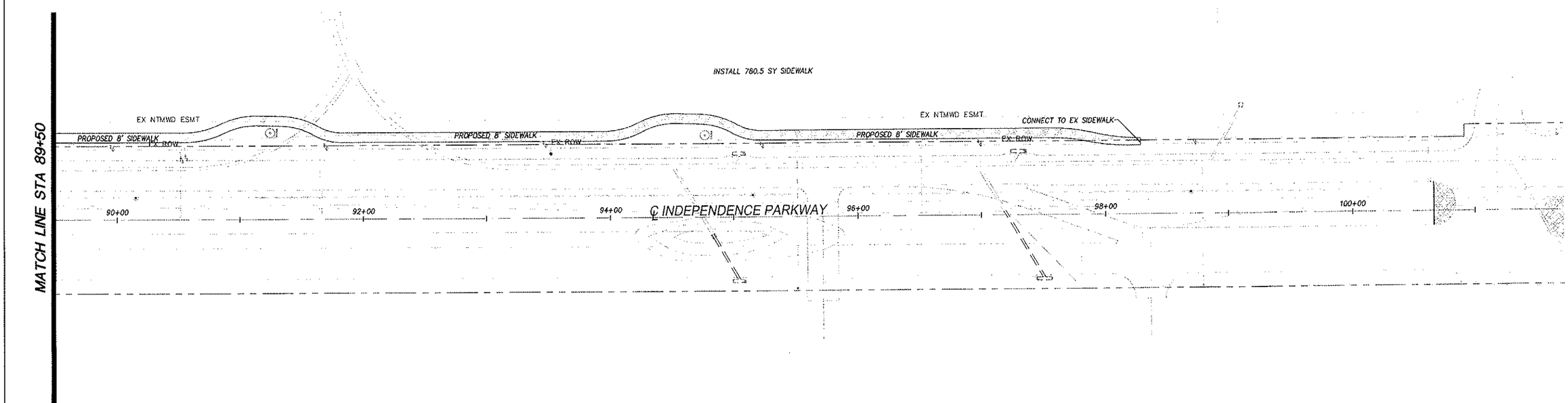
STA 104+00 TO STA 108+50

DESIGNED BY	TECH REVIEW	DRAWING FILE	DRAWING SCALE	SHEET
CAW/RKJ	JDW	FO-01.DWG	1"=20' H 1"=4' V	10 OF 68
DRAWN BY	PEER REVIEW	DRAWING DATE	PROJECT NUMBER	
RKJ	CAP	April 2008	RLK 070441	

NOTE II

PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.





40 20 0 40 80

1" = 40'

MISC. INFORMATION	REVISION	DATE	DESCRIPTION
	1	2-18-09	REVISED SIDEWALK AROUND NTMWD VAULTS

RLK ENGINEERING

TEXAS REGISTRATION NO. 579

RLK ENGINEERING, INC
6136 Frisco Square Blvd, Ste 325
Frisco, Texas 75034
(214) 619-1733 Off
(214) 619-1833 Fax

STATE OF TEXAS
R. KYLE JONES
101126
LICENSED PROFESSIONAL ENGINEER

R. Kyle Jones, P.E.
Date: 2-18-09

FRISCO

Eldorado Independence Improvements

Intersection Improvements

SIDEWALK PLAN

DESIGNED BY	TECH REVIEW	DRAWING FILE	DRAWING SCALE	SHEET
CAP/RKJ	JDS	SIDEWALK.DWG	1"=40' H	13A OF 68
DRAWN BY	PEER REVIEW	DRAWING DATE	PROJECT NUMBER	
RKJ	CAP	January 2009	RLK. 070445	

TxDOT ITEM NO.	DESCRIPTION	UNIT OF MEASURE	INDEPENDENCE / ELDORADO
416	DRILL SHAFT (TRF SIG POLE) (36 IN)	LF	13
416	DRILL SHAFT (TRF SIG POLE) (48 IN)	LF	66
500	MOBILIZATION	LS	1
502	BARRICADES, SIGNS AND TRAFFIC HANDLING	MO	2
618	CONDUIT (RM) (2") (MOUNTED)	LF	15
618	CONDUIT (PVC) (SCHD 40) (2")	LF	375
618	CONDUIT (PVC) (SCHD 40) (2") (BORED)	LF	455
618	CONDUIT (PVC) (SCHD 40) (3")	LF	75
618	CONDUIT (PVC) (SCHD 40) (4")	LF	170
618	CONDUIT (PVC) (SCHD 40) (4") (BORED)	LF	455
620	ELEC CONDUCTOR (NO. 4) INSULATED	LF	590
620	ELEC CONDUCTOR (NO. 6) BARE	LF	950
620	ELEC CONDUCTOR (NO. 8) INSULATED	LF	3,140
620	ELEC CONDUCTOR (NO. 12) INSULATED	LF	800
624	GROUND BOX TYPE C (162911) W/APRON	EA	5
626	ELECTRICAL SERVICE TYPE D (120/240)070(NS)GS(E)PS(U)	EA	1
680	INSTALLATION OF HWY TRAF SIG (ISOLATED)	EA	1
682	INSTALL (CITY FURNISHED) COUNTDOWN PEDESTRIAN SIGNAL	EA	8
682	BACK PLATE (12 IN) (3 SEC)	EA	8
682	BACK PLATE (12 IN) (5 SEC)	EA	7
682	INSTALL (CITY FURNISHED) VEH SIG SEC (12 IN) LED (GRN ARW)	EA	7
682	INSTALL (CITY FURNISHED) VEH SIG SEC (12 IN) LED (GRN)	EA	15
682	INSTALL (CITY FURNISHED) VEH SIG SEC (12 IN) LED (YEL ARW)	EA	7
682	INSTALL (CITY FURNISHED) VEH SIG SEC (12 IN) LED (YEL)	EA	15
682	INSTALL (CITY FURNISHED) VEH SIG SEC (12 IN) LED (RED)	EA	15
684	TRF SIG CBL (TY A) (14 AWG) (5 CONDR)	LF	480
684	TRF SIG CBL (TY A) (14 AWG) (7 CONDR)	LF	310
684	TRF SIG CBL (TY A) (14 AWG) (10 CONDR)	LF	175
684	TRF SIG CBL (TY A) (14 AWG) (20 CONDR)	LF	795
687	PED POLE ASSEMBLY	EA	1

LIST OF ITEMS SUBSIDIARY TO ITEM 680

TxDOT ITEM NO.	DESCRIPTION	UNIT OF MEASURE	INDEPENDENCE / ELDORADO
680	250W METAL HALIDE LUMINAIRE	EA	4
680	INSTALL NEMA TS-2 CONTROLLER CABINET (FURNISHED BY CITY)	EA	1
680	INSTALL TRAFFIC SIGNAL CONTROLLER FOUNDATION	EA	1
680	INSTALL ILLUMINATED STREET NAME SIGN (FURNISHED BY CITY)	EA	4
680	INSTALL SHIELDED CABLE (6 PR) (18 AWG) (CITY FURNISHED)	LF	1,025
680	INSTALL (CITY FURNISHED) VIVDS PROCESSOR SYSTEM	EA	1
680	INSTALL (CITY FURNISHED) VIVDS CAMERA ASSEMBLY	EA	4
680	INSTALL (CITY FURNISHED) VIVDS SET-UP SYSTEM	EA	1
680	RED-INDICATION CONFIRMATION LIGHT	EA	4
680	INSTALL OPTICOM CABLE, 3M #138 (CITY FURNISHED)	LF	990
680	INSTALL OPTICOM DETECTOR, 3M #721 (1 CHANNEL, 2 EYE), W/MT. BKT. (CITY FURNISHED)	EA	4
680	INSTALL OPTICOM DISCRIMINATOR MODULE (4 CHANNEL), 3M #754 (CITY FURNISHED)	EA	1
680	INSTALL PED DETECT (2 INCH PUSH BTN) (CITY FURNISHED)	EA	8
680	INSTALL (CITY FURNISHED) TRF SIG PL AM(S) 1 ARM (48') LUM & ILSN	EA	1
680	INSTALL (CITY FURNISHED) TRF SIG PL AM(S) 1 ARM (65') LUM & ILSN	EA	3

SUMMARY OF SMALL SIGNS

PLAN SHEET NO.	SIGN NO.	SIGN TYPE	SIGN TEXT	SIGN DIMENSIONS (IN. X IN.)	REFLECTIVE SHEETING	PLYWOOD (TYPE A)	ALUMINUM (TYPE A)	SIGN PANELS			GROUND MOUNT (CITY STD.)
								R10-12	R3-4	R9-3a	
25	A	R10-12	LEFT TURN YIELD ON GREEN	30 x 36	C		✓	1			
25	C	R10-12	LEFT TURN YIELD ON GREEN	30 x 36	C		✓	1			
25	D	R3-4	NO U-TURN	30 x 30	C		✓		1		
25	F	R9-3a	NO PEDESTRIAN CROSSING	30 x 30	C		✓			1	
25	G	R10-12	LEFT TURN YIELD ON GREEN	30 x 36	C		✓	1			
25	H	R3-4	NO U-TURN	30 x 30	C		✓		1		
25	J	R9-3a	NO PEDESTRIAN CROSSING	30 x 30	C		✓			1	
25	K	R10-12	LEFT TURN YIELD ON GREEN	30 x 36	C		✓	1			
25	L	R3-4	NO U-TURN	30 x 30	C		✓		1		
							TOTAL NEW SIGNS	4	3	2	

Kimley-Horn and Associates, Inc.
801 Cherry St., Suite 1300, Unit 11, Fort Worth, TX 76102 817-339-2400

No.	Revision	By	Date

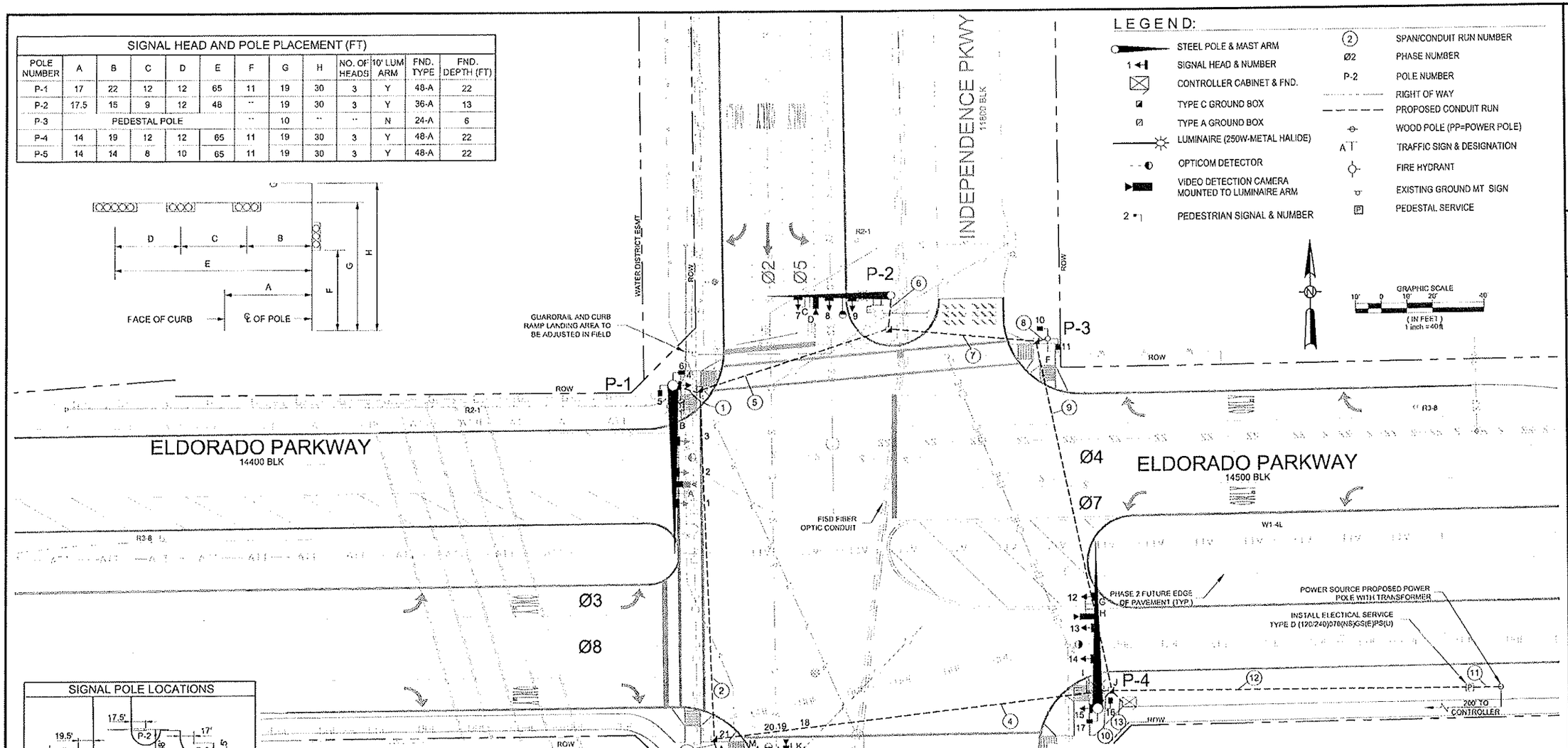
City of Frisco, Texas
Traffic Signal Design

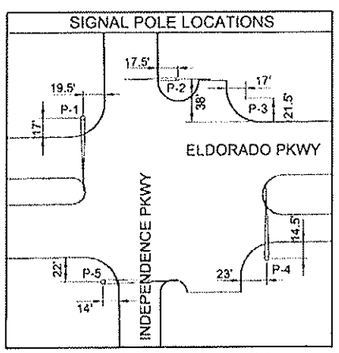
Traffic Signal Summary Charts

DATE: FEBRUARY 2008
DESIGN: EPH
DRAWN: EPH
CHECKED: SRA
KHA NO.: 061123012
CITY NO.:

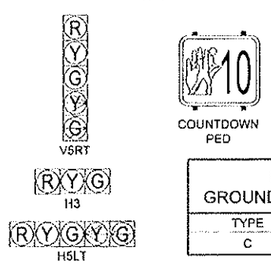
SHEET
24

SIGNAL HEAD AND POLE PLACEMENT (FT)												
POLE NUMBER	A	B	C	D	E	F	G	H	NO. OF HEADS	10' LUM ARM	FND. TYPE	FND. DEPTH (FT)
P-1	17	22	12	12	65	11	19	30	3	Y	48-A	22
P-2	17.5	15	9	12	48	--	19	30	3	Y	36-A	13
P-3	PEDESTAL POLE					--	10	--	--	N	24-A	6
P-4	14	19	12	12	65	11	19	30	3	Y	48-A	22
P-5	14	14	8	10	65	11	19	30	3	Y	48-A	22





MEASURED FROM FACE OF CURB



ITEM 624 GROUND BOX SUMMARY	
TYPE	EACH
C	5

ITEM 682 SIGNAL HEADS WITH LED LAMPS								
SIGNAL HEAD NO.	SIGNAL HEAD TYPE	STATUS	12" SIGNAL INDICATION				VEH SIG SEC(EA)	PED SIG SEC(EA)
			BACKPLATE			LOUVER		
			3 SEC(EA)	4 SEC(EA)	5 SEC(EA)			
2, 3, 8, 9, 13, 14, 19, 20	H3	I	8				24	
1, 7, 12, 18	H5LT	I			4		20	
4, 15, 21	V5RT	I			3		15	
5, 6, 10, 11, 16, 17, 22, 23	PED	I						8
TOTAL (NEW)			8		7		59	8

NOTES:

1. SEVERAL UTILITIES EXIST IN THE AREA AND ALL UTILITIES (OVERHEAD AND UNDERGROUND) SHOWN ON THE PLANS ARE APROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING 1-800-DIG-TESS, THE CITY OF FRISCO AT 972-292-5400, AND ALL AFFECTED UTILITY COMPANIES FOR UTILITY LOCATES PRIOR TO ANY DRILLING OR EXCAVATION ON THE PROJECT.
2. THE SERVICE PANEL SHALL BE TYPE D(120/240)070(NS)GS(E)PS(U) AND SHALL BE FURNISHED BY THE CITY AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL THE SERVICE PANEL WITHIN 10 DAYS AFTER IT IS RECEIVED AND CONTACT CO-SERV ELECTRIC OR TXU TO OBTAIN POWER FOR THE PANEL (LEAD-TIMES CAN BE AS LONG AS 60-90 DAYS).
3. RED-INDICATION CONFIRMATION LIGHTS SHALL BE INSTALLED ON POLES P-1, P-2, P-4, AND P-5.
4. THE CONTRACTOR SHALL STAKE ALL SIGNAL POLE LOCATIONS, CONTROLLER FOUNDATION LOCATION, AND PULL-BOX LOCATIONS AFTER UTILITY LOCATES ARE FINALIZED. THE CITY MUST APPROVE THESE LOCATIONS PRIOR TO ANY DRILLING OR EXCAVATION ON THE PROJECT.
5. THE CITY OF FRISCO SHALL FURNISH THE FOLLOWING EQUIPMENT ITEMS REQUIRED BY THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST 48 HOURS PRIOR TO PICKING UP THESE MATERIALS FROM THE CITY. THE CONTRACTOR SHALL PROVIDE LABOR AND EQUIPMENT SUBSIDIARY TO ITEM 680 TO UNLOAD TRAFFIC SIGNAL POLES ONCE THEY ARE DELIVERED TO THE JOB SITE OR LOCATION APPROVED BY THE CITY. (A) SIGNAL CABINET AND ALL INTERNAL COMPONENTS (B) VEHICLE IMAGE VEHICLE DETECTION SYSTEM (VIVDS) CAMERAS AND CABLE (C) OPTICOM DETECTORS, LEAD-IN CABLE, AND CABINET EQUIPMENT (D) ILLUMINATED STREET NAME SIGNS (ILSN SIGNS) (E) COUNT DOWN PED DISPLAYS (F) ELECTRICAL PEDESTAL POLE AND SERVICE PANEL (G) TRAFFIC SIGNAL POLE ASSEMBLIES AND LUMINAIRE ARMS (H) PEDESTRIAN PUSHBUTTONS.
6. ALL LUMINARIES SHALL BE 250 WATT METAL HALIDE WITH A CLEAR FLAT-GLASS INSERT.
7. THE CONTRACTOR SHALL LEAVE ONE PULL-STRING (JET LINE) EXTENDING FROM THE SIGNAL CABINET TO THE VERTICAL SUPPORT CLOSEST (P-4) TO THE SIGNAL CABINET. THIS PULL-STRING WILL ALLOW CITY FORCES TO INSTALL A MOTOROLA CANOPY RADIO AFTER THE PROJECT IS COMPLETE.
8. THE CONTRACTOR SHALL NOTIFY BRIAN MOEN AT 972-292-5400 AT LEAST 48 HOURS PRIOR TO THE SIGNAL TURN-ON. A SIGNAL TECHNICIAN FROM THE CITY SHALL BE PRESENT WHEN THE NEW SIGNAL IS PLACED INTO OPERATION. THE INTERSECTION SHALL REMAIN IN 4-WAY FLASH FOR AT LEAST 3 DAYS PRIOR TO BEING PLACED IN STOP-AND-GO-OPERATION. DURING THIS TIME, THE CITY WILL PROVIDE ALL TIMING FOR THE CONTROLLER. PROPER TRAFFIC CONTROL SHOULD BE COORDINATED WITH THE CITY OF FRISCO AND CITY OF FRISCO POLICE.

Kimley-Horn and Associates, Inc.
801 Cherry St., Suite 900, Unit 11, Ft. Worth, TX 76102 817-339-2601

No.	Revision	By	Date

City of Frisco, Texas

Traffic Signal Design

FRISCO

Traffic Signal Independence / Eldorado Intersection Layout

DATE:	FEBRUARY 2009
DESIGN:	EPH
DRAWN:	EPH
CHECKED:	SKA
KHA NO.:	061123012
CITY NO.:	

Sht E1

25

CONDUIT / CABLE RUNS

RUN NO.	CONDUIT STATUS	ITEM 618 SIZE/TYPE CONDUIT (FT): 1.5" RM MOUNTED	2" PVC TRENCHED	2" PVC BORED	2" RM MOUNTED	3" RM MOUNTED	3" PVC TRENCHED	4" PVC TRENCHED	4" PVC BORED	4" RM MOUNTED	CABLE STATUS	ITEM 620 ELECTRICAL CONDUCTORS: NO.4 XHHW WIRE	NO. 6 XHHW WIRE	NO. 6 BARE WIRE	NO. 8 XHHW WIRE (LUMINAIRE)	NO. 8 XHHW WIRE (ILSN)	6 PR. 18 AWG (VIDEO)	OPTICOM CABLE	ITEM 684 CABLE TYPE A: 5 CNDR 14 AWG	7 CNDR 14 AWG	10 CNDR 14 AWG	20 CNDR 14 AWG	LENGTH OF RUN	RUN NO.
1	I						15				I			1	4	4	1	1				1	15	1
2	I*		20	120							I												140	2
	I							20	120		I			1	2	2	1	1				1		
3	I						15				I			1	4	4	1	1				1	15	3
4	I*		40	120							I												160	4
	I							40	120		I			1	2	2	2	2				2		
5	I*		20	65							I												85	5
	I							20	65		I			1	2	2								
6	I						20				I			1	2	2	1	1				1	20	6
7	I*		30	30							I												60	7
	I							30	30		I			1			1	1				1		
8	I						10				I			1							1		10	8
9	I*		30	120							I												150	9
	I							30	120		I			1			1	1			1	1		
10	I						15				I			1	4	4	1	1				1	15	10
11	I		75		15						I	3		1									90	11
12	I		145								I	2		1	4	4							145	12
13	I		15								I	2		1									15	13
	I							15			I			1			4	4			1	4		
	I							15			I			1										
TOT. (NEW)		0	375	455	15	0	75	170	455	0		590	0	950	1,570	1,570	795	795	0	0	175	795		

STATUS: E = EXISTING, I = INSTALL,* = FUTURE USE

CABLE TERMINATION CHART

CNDR. NO.	CONDUCTOR COLOR	CABLE 1 20 CNDR. FROM P-1 TO CNTRL.	CABLE 2 20 CNDR. FROM P-2 TO CNTRL.	CABLE 3 10 CNDR. FROM P-3 TO CNTRL.	CABLE 4 20 CNDR. FROM P-4 TO CNTRL.	CABLE 5 20 CNDR. FROM P-5 TO CNTRL.	CNDR. NO.
1	BLACK	SH 1 ~~<Y~~	SH 7 ~~<Y~~	SPARE	SH 12 ~~<Y~~	SH 18 ~~<Y~~	1
2	WHITE	SIGNAL COM	SIGNAL COM	SIGNAL COM	SIGNAL COM	SIGNAL COM	2
3	RED	SH 1, 2, 3, 4 R	SH 7, 8, 9	SH 10 DW	SH 12,13,14,15 R	SH 18, 19, 20, 21 R	3
4	GREEN	SH 1, 2, 3, 4 G	SH 7, 8, 9 G	SH 10 W	SH 12,13,14,15 G	SH 18, 19, 20, 21 G	4
5	ORANGE	SH 1, 2, 3, 4 Y	SH 7, 8, 9 Y	SH 10 PED CALL	SH 12,13,14,15 Y	SH 18, 19, 20, 21 Y	5
6	BLUE	SH 1 ~~<G~~	SH7 ~~<G~~	SPARE	SH 12 ~~<G~~	SH 18 ~~<G~~	6
7	WHITE/BLACK	PB COM	SPARE	PB COM	PB COM	PB COM	7
8	RED/BLACK	SH 5 DW	SPARE	SH 11 W	SH 16 DW	SH 22 DW	8
9	GREEN/BLACK	SH 5 W	SPARE	SH 11 DW	SH 16 W	SH 22 W	9
10	ORANGE/BLACK	SH 4 ~~Y>~~	SPARE	SH 11 PED CALL	SH 15 ~~Y>~~	SH 21 ~~Y>~~	10
11	BLUE/BLACK	SH 4 ~~G>~~	SPARE		SH 15 ~~G>~~	SH 21 ~~G>~~	11
12	BLACK/WHITE	SH 5 PED CALL	SPARE		SH 16 PED CALL	SH 22 PED CALL	12
13	RED/WHITE	SPARE	SPARE		SPARE	SPARE	13
14	GREEN/WHITE	SH 6 W	SPARE		SH 17 W	SH 23 W	14
15	BLUE/WHITE	SH 6 DW	SPARE		SH 17 DW	SH 23 DW	15
16	BLACK/RED	SH 6 PED CALL	SPARE		SH 17 PED CALL	SH 23 PED CALL	16
17	WHITE/RED	Ø4 RED	Ø6 RED		Ø6 RED	Ø2 RED	17
18	ORANGE/RED	SPARE	SPARE		SPARE	SPARE	18
19	BLUE/RED	SPARE	SPARE		SPARE	SPARE	19
20	RED/GREEN	SPARE	SPARE		SPARE	SPARE	20

NOTE: SH 11 AND SH 16 SHALL REMAIN BAGGED UNTIL THE COMPLETION OF PHASE 2 ROADWAY CONSTRUCTION.

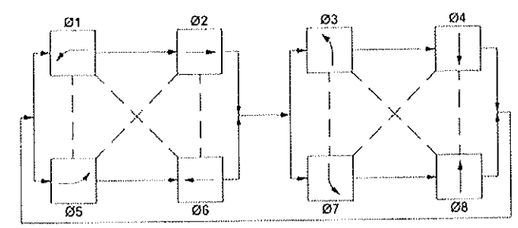
TRAFFIC SIGNAL SIGNS SUMMARY

ID	TYPE	LEGEND	INSTALL	FURNISH & INSTALL	LOCATION
A	R10-12	LEFT TURN YIELD ON GREEN		1	P-1 ARM
B*	ILSN	STREET NAME	1		P-1 ARM
C	R10-12	LEFT TURN YIELD ON GREEN		1	P-2 ARM
D	R3-4	NO U-TURN		1	P-2 ARM
E*	ILSN	STREET NAME	1		P-2 ARM
F	R9-3a	NO PEDESTRIAN CROSSING		1	P-3 POLE
G	R10-12	LEFT TURN YIELD ON GREEN		1	P-4 ARM
H	R3-4	NO U-TURN		1	P-4 ARM
I*	ILSN	STREET NAME	1		P-4 ARM
J	R9-3a	NO PEDESTRIAN CROSSING		1	P-4 POLE
K	R10-12	LEFT TURN YIELD ON GREEN		1	P-5 ARM
L	R3-4	NO U-TURN		1	P-5 ARM
M*	ILSN	STREET NAME	1		P-5 ARM
		TOTAL	4	9	

* FURNISHED BY THE CITY

PEDESTRIAN DETAILS

PED INDICATION	LOCATION	STATUS	PED BUTTONS (EA)
Ø2	P-1, P-5	INSTALL	2
Ø4	P-1, P-3	INSTALL	2
Ø6	P-3, P-4	INSTALL	2
Ø8	P-4, P-5	INSTALL	2
		TOTAL	8



PHASE SEQUENCE

— — COMPATIBLE PHASES

Ø1, Ø3, Ø5, AND Ø7 SHALL BE LEADING ONLY PROTECTED-PERMITTED.

CABLE/WIRE INSIDE POLE (FEET)

POLE NUMBER	ITEM 684 TY-A CABLE: 5 CNDR 14 AWG	7 CNDR 14 AWG	ITEM 620: NO. 12 * XHHW	6 PAIR 18 AWG (VIDEO)	OPTICOM CABLE
P-1	130	90	200	65	55
P-2	85	60	200	55	45
P-3	30	0	0	0	0
P-4	125	85	200	60	50
P-5	110	75	200	50	45
TOTAL	480	310	800	230	195

* FOR LUMINAIRES

11700 INDEPENDENCE 11800

SIGN 'B' - ILSN

14400 ELDORADO 14500

SIGN 'D' - ILSN

11800 INDEPENDENCE 11700

SIGN 'F' ILSN

14500 ELDORADO 14400

SIGN 'H' ILSN

R10-12
(30"x36")

PROPOSED ELECTRICAL SERVICE DATA

SERVICE TYPE	ELECTRICAL SERVICE DESCRIPTION SEE ED(4)	SERVICE CONDUIT SIZE (RMC)	SERVICE CONDUCTORS NO /SIZE	MAIN DISCONNECT CKT. BKR. POLE/AMP	TWO-POLE CONTACTOR AMPS	PANELBD./ LOADCENTER AMP RATING (MIN.)	CIRCUIT NO.	BRANCH CKT. BRK. POLE/AMPS	KVA LOAD
TYPE D	D (120/240) 070 (NS) GS (E) PS (U)	1½"	3/#4	2P/70	30	100	T.S. Lighting Photocell ILSN	1P/50 2P/20 1P/15 1P/15	<7.1

Kimley-Horn and Associates, Inc.
801 Cherry St., Suite 1300, Unit 11, Ft. Worth, TX 76102 817-335-6511

No.	Revision	By	Date

City of Frisco, Texas

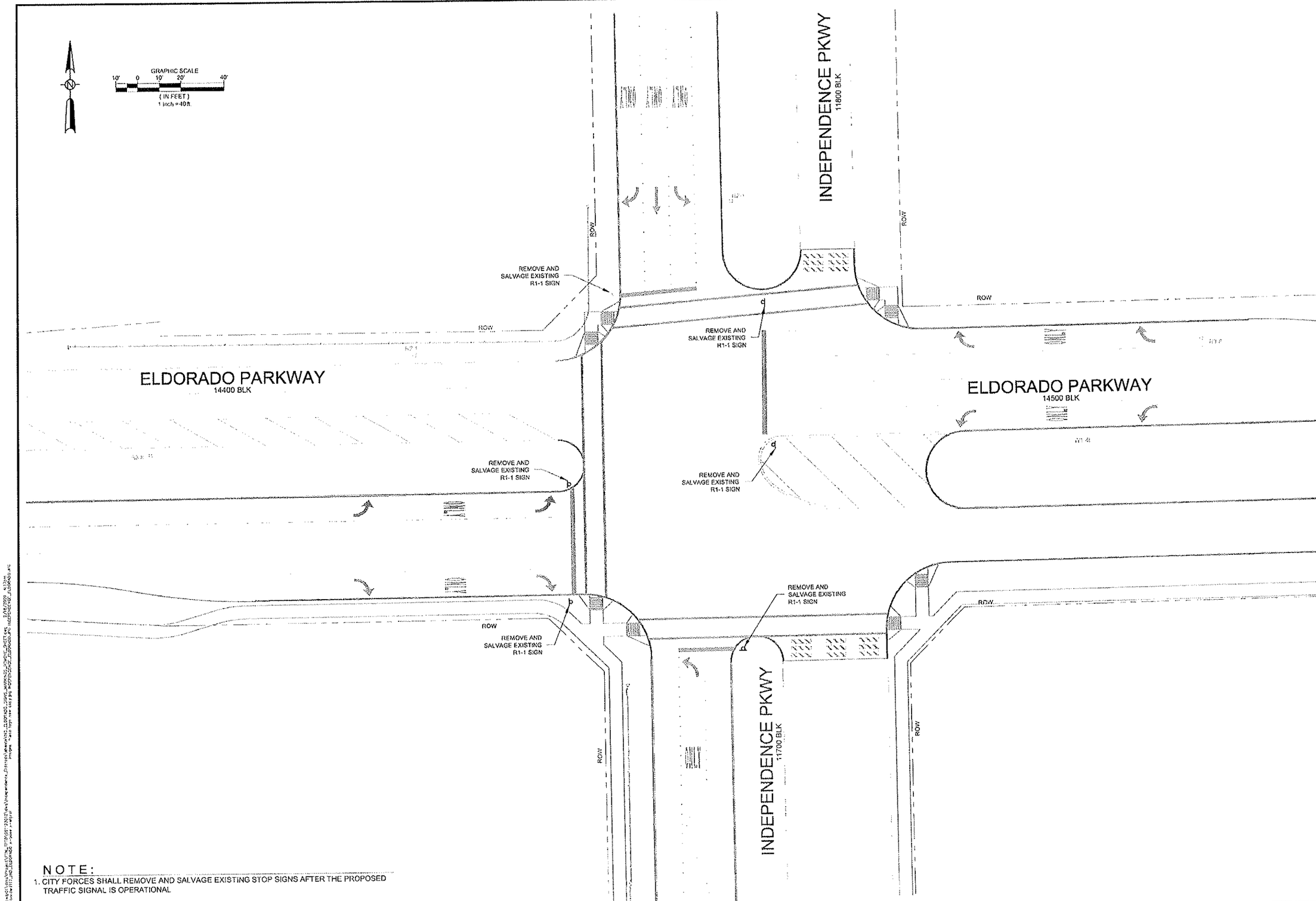
Traffic Signal Design

Traffic Signal Independence / Eldorado Summary Sheet

DATE: FEBRUARY 2009
DESIGN: EPH
DRAWN: EPH
CHECKED: SRA
KHA NO.: 061123012
CITY NO.:

SHEET

26



NOTE:

1. CITY FORCES SHALL REMOVE AND SALVAGE EXISTING STOP SIGNS AFTER THE PROPOSED TRAFFIC SIGNAL IS OPERATIONAL

Kimley-Horn and Associates, Inc.

No.	Revision	By	Date

City of Frisco, Texas

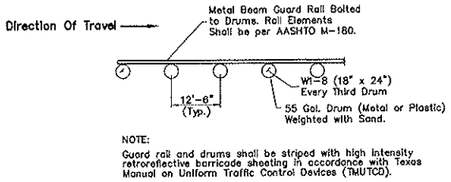
Traffic Signal Design

Traffic Signal Independence / Eldorado Signs and Markings Layout

DATE: FEBRUARY 2009
DESIGN: EPH
DRAWN: EPH
CHECKED: SRA
K+A NO.: 061123012
CITY NO.:

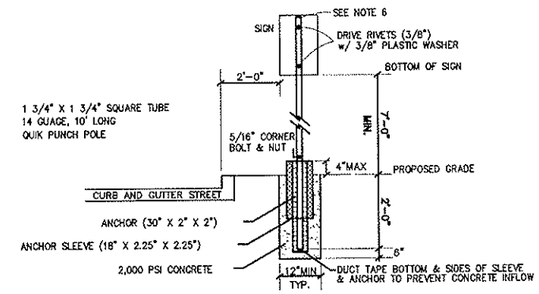
SHEET

27

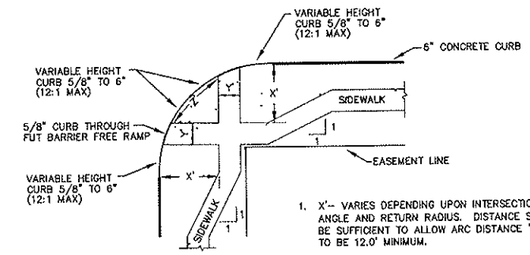


NOTE:
Guard rail and drums shall be striped with high intensity retroreflective barricade sheeting in accordance with Texas Manual on Uniform Traffic Control Devices (TMUTCD).

Drum Supported Guard Rail Detail
NTS

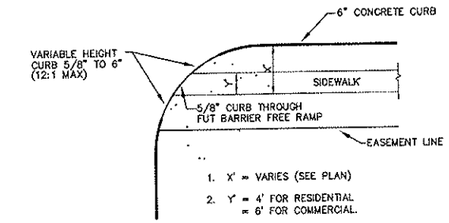


Sign Post Detail
NO SCALE



1. X'-- VARIES DEPENDING UPON INTERSECTION ANGLE AND RETURN RADIUS. DISTANCE SHALL BE SUFFICIENT TO ALLOW ARC DISTANCE "Z" TO BE 12.0' MINIMUM.
2. Y' = 4' FOR RESIDENTIAL
   = 6' FOR COMMERCIAL.

AT INTERSECTING STREETS
N.T.S.



1. X' = VARIES (SEE PLAN)
2. Y' = 4' FOR RESIDENTIAL
   = 6' FOR COMMERCIAL.

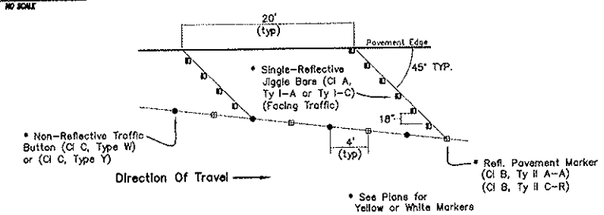
AT DRIVEWAYS
N.T.S.

NOTE:
ALL BARRIER FREE RAMPS TO CONFORM TO LATEST VERSION OF TEXAS ACCESSIBILITY STANDARDS IN THE ARCHITECTURAL BARRIERS. ACT. (Article 9102, Texas Civil Statutes)

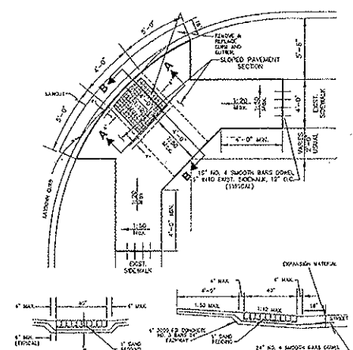
BARRIER FREE RAMP CURB TAPERS
N.T.S.

TRAFFIC CONTROL NOTES:

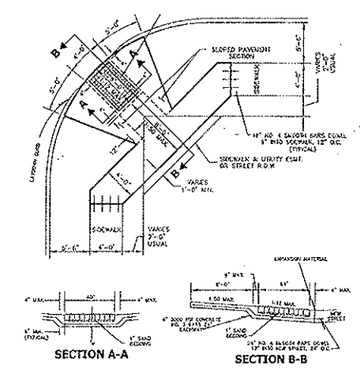
1. ALL SIGNAGE, BARRICADES, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE STANDARD HIGHWAY SIGN DESIGN FOR TEXAS (2003).
2. LOCATIONS SHOWN FOR SIGNAGE AND PAVEMENT MARKINGS ARE APPROXIMATE; FINAL LOCATIONS MAY CHANGE DUE TO POST CONSTRUCTION CONDITIONS AND PRESENCE OF OTHER PHYSICAL FEATURES. FINAL LOCATION OF ALL TRAFFIC CONTROL DEVICES SHALL BE FIELD VERIFIED WITH CITY PRIOR TO INSTALLATION.
3. ALL PAVEMENT MARKINGS OTHER THAN BUTTONS SHALL BE THERMOPLASTIC UNLESS OTHERWISED NOTED.
4. ALL SIGNS SHALL BE DIAMOND GRADE AND THE SIZES SHALL BE STANDARD UNLESS OTHERWISE NOTED.
5. ALL TRAFFIC SIGNS, POSTS, AND MATERIALS SHALL BE INSTALLED PER DETAIL THIS SHEET.
6. FOR STOP SIGNS THAT WILL ACCEPT FUTURE STREET SIGNS, EXTEND POST ABOVE STOP SIGN SO THAT 2 HOLES ARE AVAILABLE FOR MOUNTING. (FOR ALL OTHERS, POST SHALL NOT EXTEND ABOVE SIGN)
7. CHANGES TO TYPICAL SIGN POST LOCATION MADE AT ENGINEER'S DISCRETION.



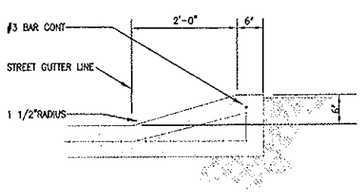
Lane Drop Channelization Marker Layout
NTS



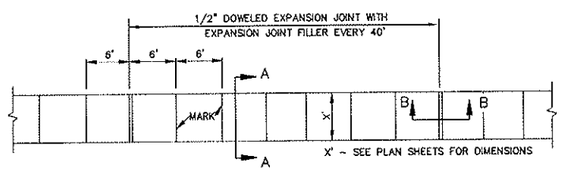
TYPICAL B.F.R. AT INTERSECTION WITH NO R.O.W. CORNER CLIP
N.T.S.



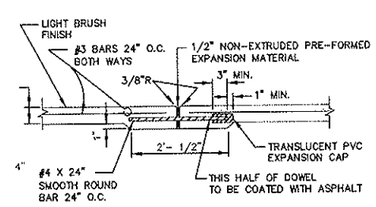
TYPICAL B.F.R. AT INTERSECTION WITH R.O.W. CORNER CLIP
N.T.S.



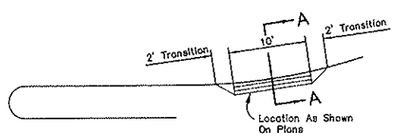
SECTION A – A
N.T.S.



PLAN
N.T.S.

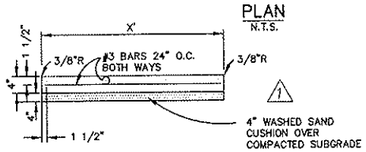


SECTION "B–B"
N.T.S.



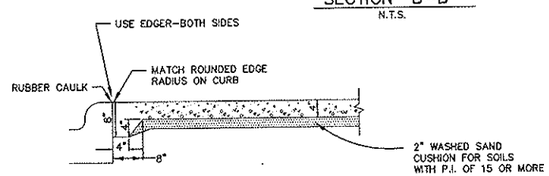
Mountable Curb Detail – Plan View

LANDSCAPE MAINTENANCE RAMP



X' - SEE PLAN SHEETS FOR DIMENSIONS

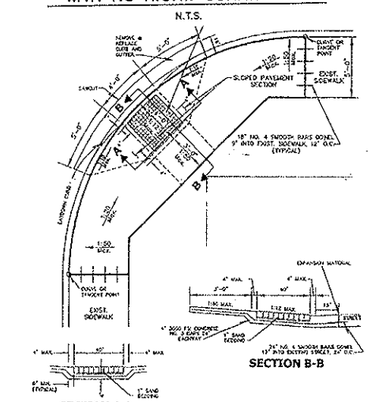
SECTION "A–A"
N.T.S.



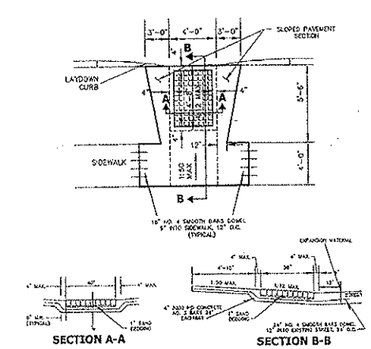
JOINT LUG DETAIL FOR MEDIAN PAVEMENT OR SIDEWALK ADJACENT TO CURB
N.T.S.

NOTE:
1. SIDEWALK SHALL BE CLASS "A" CONCRETE UNLESS OTHERWISE SPECIFIED BY OWNER.
2. ALL HONEYCOMB IN BACK OF CURB TO BE TROWEL-PLASTERED BEFORE POURING SIDEWALK.
3. LUG MAY BE FORMED BY SHAPING SUBGRADE TO APPROXIMATE DIMENSIONS SHOWN.
4. ALL SIDEWALK CONSTRUCTION TO CONFORM TO LATEST VERSION OF TEXAS ACCESSIBILITY STANDARDS IN THE ARCHITECTURAL BARRIERS. ACT. (Article 9102, Texas Civil Statutes)

REINFORCED CONCRETE SIDEWALKS
N.T.S.



TYPICAL B.F.R. AT INTERSECTION WITH SIDEWALK ADJACENT TO CURB
N.T.S.



TYPICAL B.F.R. AT MID-BLOCK LOCATION
N.T.S.

North Central Texas Council of Governments

MISC. INFORMATION	REVISION	DATE	DESCRIPTION
	1	2-18-09	REVISED SIDEWALK DETAIL TO INCLUDE SAND CUSHION

RLK ENGINEERING
TEXAS REGISTRATION NO. 579

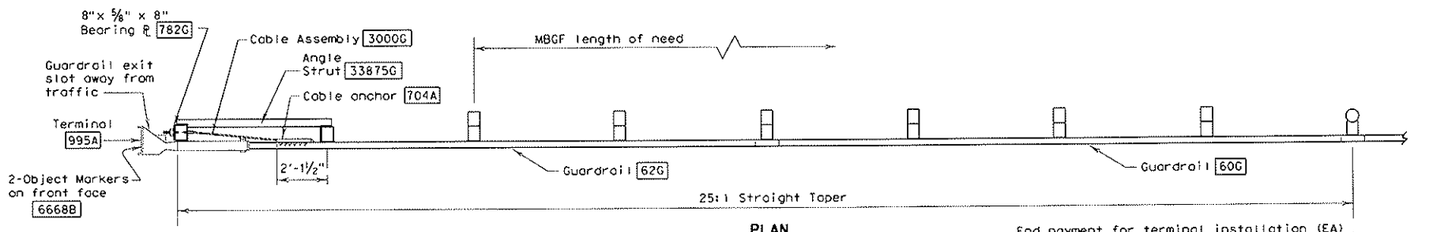
RLK ENGINEERING, INC
6136 Frisco Square Blvd, Ste 325
Frisco, Texas 75034
(214) 619-1733 Off
(214) 619-1833 Fax

STATE OF TEXAS
R. KYLE JONES
101126
LICENSED PROFESSIONAL ENGINEER
R. Kyle Jones, P.E.
Date: 2-18-09

FRISCO

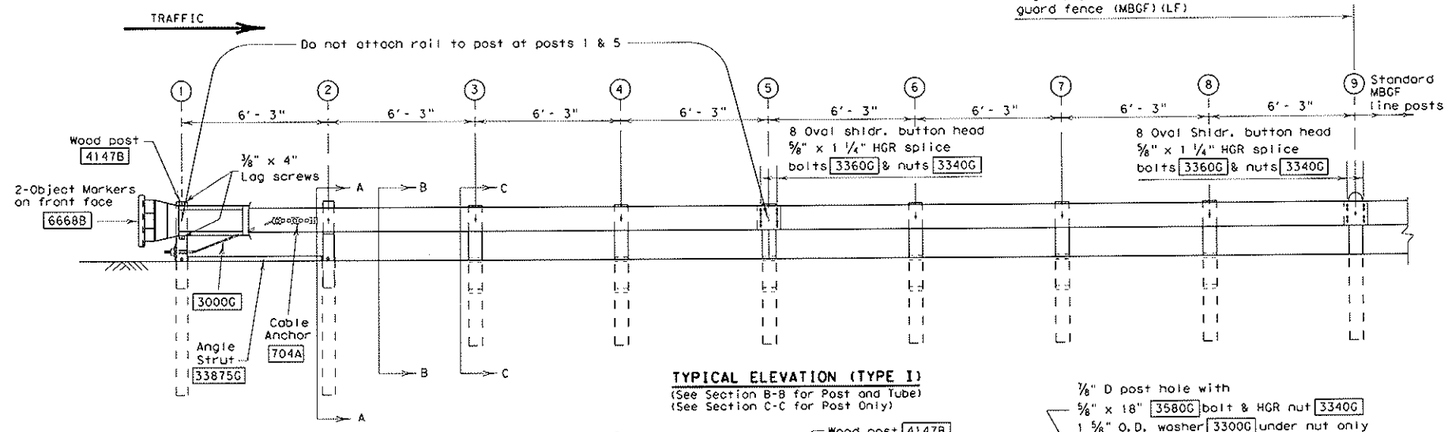
Eldorado Independence Improvements
Intersection Improvements
PAVING & STORM SEWER STANDARD DETAILS
SHEET 2 OF 2

DESIGNED BY: RLK ENGINEERING, INC	TECH REVIEW: RLK ENGINEERING, INC	DRAWING FILE: PAVING STD02.DWG	DRAWING SCALE: N/A	SHEET: 56 OF 68
DRAWN BY: RLK ENGINEERING, INC	PEER REVIEW: RLK ENGINEERING, INC	DRAWING DATE: November 2008	PROJECT NUMBER: RLK 07044F	

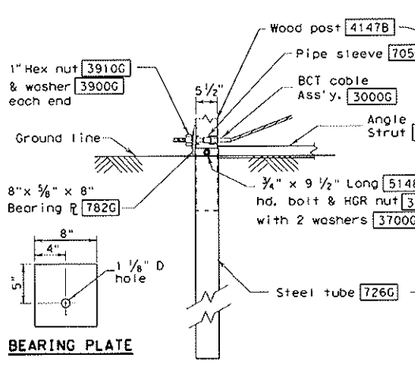


PLAN

End payment for terminal installation (EA) begin payment for standard metal beam guard fence (MBGF) (LF)

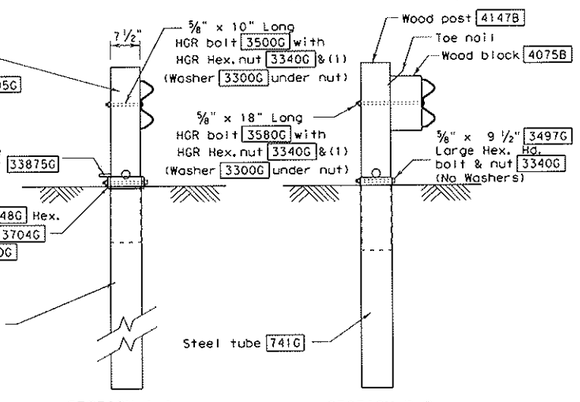


TYPICAL ELEVATION (TYPE I)
(See Section B-B for Post and Tube)
(See Section C-C for Post Only)

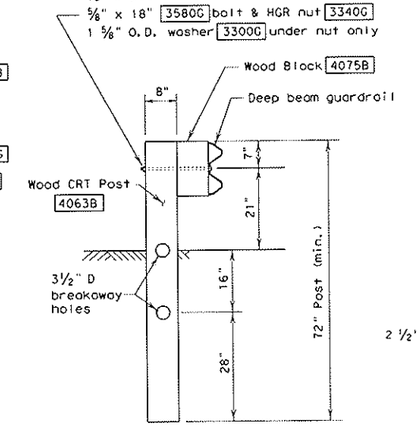


BEARING PLATE

PARTIAL VIEW AT POST #1

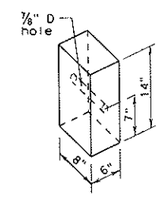


SECTION A-A
(at post 2)

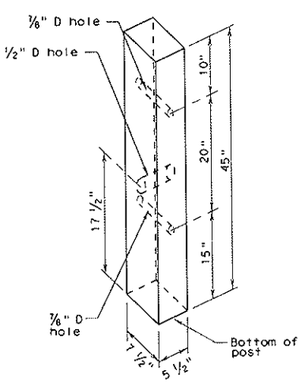


SECTION B-B
(Typ. at Posts 3 thru 8, Type II & III)

SECTION C-C
(Typ. at post only positions)

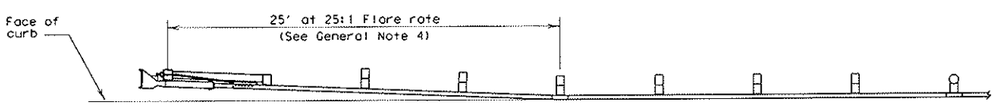


WOOD BLOCKOUT
4075B

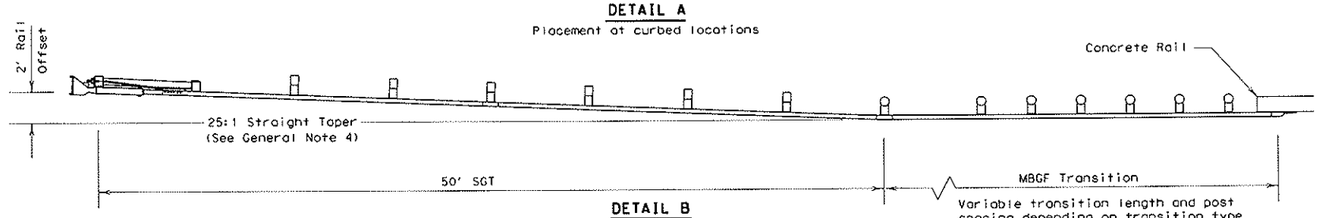


All measurements should be taken from bottom of posts.

WOOD POST
4147B



DETAIL A
Placement at curbed locations



DETAIL B
Usual minimum placement to protect bridge ends

Variable transition length and post spacing depending on transition type

GENERAL NOTES

1. The Type of SGT unit will be specified elsewhere in the plans. Numbers in circles indicate post position. The Type of SGT unit chosen is a maintenance consideration and does not affect the systems performance.

Post & Tube Options		Post Only
Type I	Posts ① thru ②	Posts ③ thru ⑧
Type II	Posts ① thru ④	Posts ⑤ thru ⑧
Type III	Posts ① thru ⑧	None

2. If the SGT system must be placed on a radius, the minimum radius is 150 feet.
3. All bolts, nuts, cable assemblies, cable anchors, steel tubes & bearing plates shall be galvanized.
4. For non-curb installations, the MBGF will be flared at a rate of 25:1 over the first 50 foot of the system to prevent the terminal head from encroaching on the shoulder. The flare may be decreased or eliminated for specific installations if directed by the Engineer. A 25:1 flare rate will be used at curb sections, beginning at post number 5 and ending at post number one.
5. The steel tubes shall not protrude more than 4 inches above ground. Site grading may be necessary to meet this requirement.
6. The steel tubes may be driven with an approved driving head. They shall not be driven with the wood post in the tube. If the steel tubes are placed in drilled holes, the backfill material must be satisfactorily compacted to prevent tube settlement.
7. When rock excavation is encountered, a 12 inch diameter post hole, 20 inches deep may be used if approved by the Engineer. Granular material will be placed in the bottom of the hole approximately 2 ½ inches deep to provide drainage. The steel tube sleeves will be field cut to 20 inches in length, placed in the hole and backfilled with adequately compacted material excavated from the hole.
8. The breakaway cable assembly must be taut. A locking device, (vice grips or channel lock pliers) should be used to prevent the cable from twisting when tightening the nuts.
9. The wood blockouts shall be "toe nailed" to the rectangular wood posts to prevent them from turning when the wood shrinks.
10. For curb installations, the soil tubes and posts shall be installed at the proper ground elevation behind the curb. The posts will then require field drilling new holes to accommodate the rail to post connection bolt to maintain the proper height of the rail above the gutter pan. The excess post length above the rail will be removed if directed by the Engineer.
11. An object marker shall be installed on the front of the impact head as detailed on D&OM(VIA).
12. A special site evaluation should be considered, prior to using this end treatment where there is less than 25 feet between the extrusion side of the end treatment and any adjacent driving lane.

BILL OF MATERIAL

Code #	Post & Tube Options Type I Qty.	Type II Qty.	Type III Qty.	DESCRIPTION
62G	1	1	1	#1 Deep Beam Guardrail (12 Ga) at 25'
60G	1	1	1	#2 Deep Beam Guardrail (12 Ga) at 25'
726G	2	2	2	Steel Tube - 6"x 8"x 72"x 1/8" min
741G	0	2	6	Steel Tube - 6" x 8" x 54" x 1/8" min
4147B	2	4	8	Wood Posts - 5 1/2" x 7 1/2" x 45"
4063B	6	4	0	Wood CRT Posts - 6"x 8"x 72"
4075B	6	6	6	Wood Block - 6"x 8"x 14"
705G	1	1	1	Pipe Sleeve - 2" std. pipe x 5 1/2"
782G	1	1	1	Bearing Plate - 8"x 8"x 5/8"
704A	1	1	1	Cable Anchor
3000G	1	1	1	Cable Assembly (3/4" x 78")
33875G	1	1	1	Angle Strut
995A	1	1	1	ET-2000 Plus Guardrail Terminal
				HARDWARE
5148G	2	2	2	3/4" x 9 1/2" Hex Hd (Top of tubes 1&2)A325
3300G	7	7	7	5/8" Washers
3478G	2	2	2	5/8" x 7 1/2" Hex Bolt
3500G	1	1	1	5/8" x 10" Post Bolt (Post 2 of LET)
3580G	6	6	6	5/8" x 18" HGR Post Bolt (posts ③ thru ⑧)
3360G	16	16	16	5/8" x 1 1/4" HGR Splice Bolt
3340G	25	27	31	5/8" HGR Nut (16-spl, 7-posts)
4228G	2	2	2	3/8" x 4" Lag Screw
3910G	2	2	2	1" Hex Nut (Anchor Cable)
3900G	2	2	2	1" Washer (Anchor Cable)
6668B	2	2	2	Object Marker (12" x 12")
3700G	4	4	4	3/4" Washer
3704G	2	2	2	3/4" Heavy Hex Nut
3497G	0	2	6	5/8" x 9 1/2" Hex Hd (Top of Tubes 3-8)A307

POST & TUBE OPTIONS		
Type I	Posts ①	thru ②
Type II	Posts ①	thru ④
Type III	Posts ①	thru ⑧

R = Radius
D = Diameter

Texas Department of Transportation
Design Division (Roadway)

SINGLE GUARDRAIL TERMINAL
(ET-2000 PLUS)
(WOOD POST)

SGT(7)-03A

FILE: sgt703a.dgn	DN: MAM	CK: MAM	DW: BGD	CK:
©TxDOT APRIL 1997	DIST	FEDERAL AID PROJECT		SHEET 64A
REVISIONS	COUNTY		CONTROL / SECT / JOB	HIGHWAY

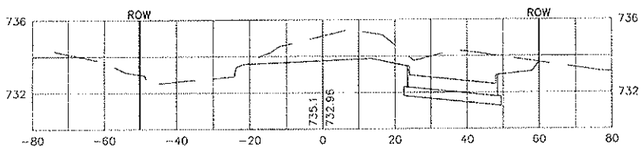
DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

LEVELS DISPLAYED

NOTE II

PRIOR TO ANY CONSTRUCTION ACTIVITIES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITY LINE LOCATIONS IN THE AREA. THE INFORMATION SHOWN ON THESE PLANS REPRESENTS APPROXIMATE LOCATIONS FROM MAPS AND/OR FIELD SURVEY AND MAY NOT INCLUDE ALL LINES.

115+00



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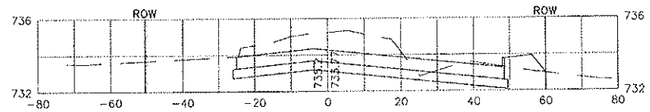

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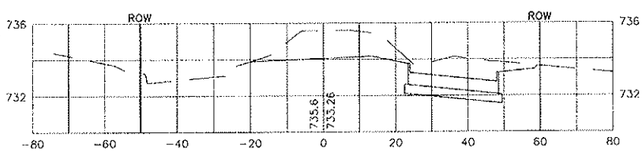

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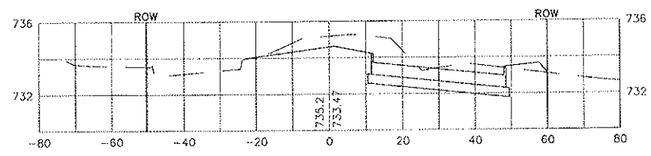

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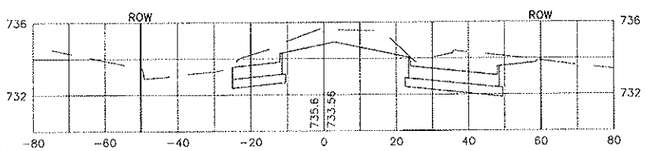

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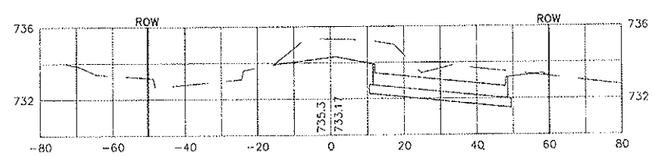

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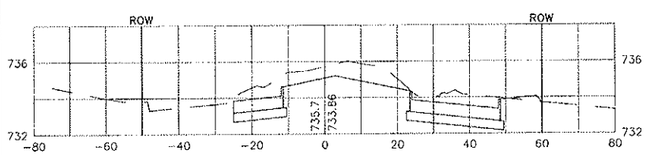

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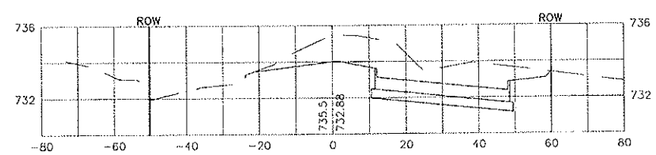

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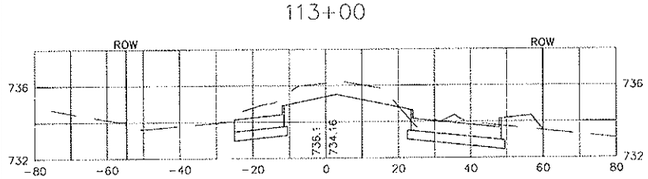

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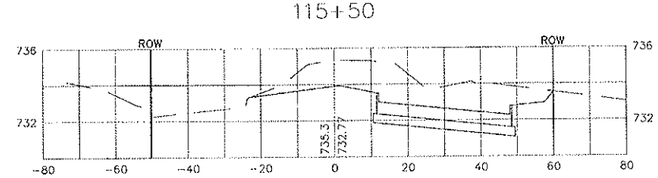
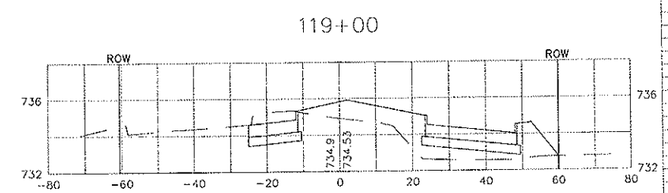


⚠ EMBANKMENT MATERIAL FROM OFFSITE SOURCES SHALL BE OF SUITABLE MATERIAL APPROVED BY THE ENGINEER. THE CONTRACTOR MUST PROVIDE THE SOURCE LOCATION AND MAY BE REQUIRED TO PERFORM ADDITIONAL MATERIAL TESTING AT THE CONTRACTOR'S EXPENSE AS PROOF OF QUALITY. IN GENERAL, MATERIALS FROM AUSTIN GROUP FORMATION SHALL BE CONSIDERED ACCEPTABLE FOR THIS PROJECT AND MATERIALS FROM THE EAGLE FOR FORMATION ARE NOT SUITABLE FOR THIS PROJECT.

119+00



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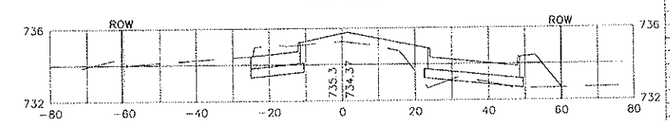

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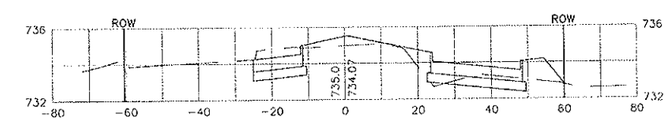

STATION	AREAS Square Feet CUT	AREAS Square Feet FILL	VOLUMES Cubic Yards CUT	VOLUMES Cubic Yards FILL	CUMULATIVE VOLUMES Cubic Yards CUT	CUMULATIVE VOLUMES Cubic Yards FILL
79+00	0.00	0.00				
79+50	2.05	21.11	1.90	19.55	1.90	19.55
80+00	0.00	28.93	1.90	48.34	3.81	67.89
80+50	0.00	26.96	0.00	51.75	3.81	119.64
81+00	1.45	8.35	1.35	32.69	5.15	152.32
81+50	13.27	4.22	13.63	11.63	18.78	163.96
82+00	26.12	6.30	36.47	9.74	55.26	173.70
82+50	26.50	7.99	48.76	13.23	103.52	186.93
83+00	25.99	2.35	51.85	9.57	155.36	196.50
83+50	17.53	15.01	44.00	16.67	199.36	213.17
			0.00	0.00	199.36	213.17

STATION	AREAS Square Feet CUT	AREAS Square Feet FILL	VOLUMES Cubic Yards CUT	VOLUMES Cubic Yards FILL	CUMULATIVE VOLUMES Cubic Yards CUT	CUMULATIVE VOLUMES Cubic Yards FILL
96+50	26.49	6.58	48.73	6.68	48.73	6.68
97+00	27.14	0.84	61.69	0.59	114.09	7.27
97+50	43.36	0.00	113.10	0.00	227.12	7.27
98+00	78.77	0.00	165.10	1.13	392.22	8.41
98+50	99.54	1.22	163.65	10.76	555.87	19.17
99+00	77.21	10.46	213.53	68.44	769.41	87.61
99+50	45.46	63.57	168.82	69.85	938.22	148.46
100+00	18.12	2.21	98.61	12.43	986.84	160.89
100+50	45.18	11.22	44.84	56.49	1031.68	217.34
101+00	3.25	58.75	4.28	84.45	1035.96	301.79
101+50	1.37	41.46	3.63	67.31	1039.59	369.10
102+00	2.44	31.24	2.76	83.89	1042.35	452.99
102+50	0.00	59.36	0.00	130.92	1042.35	583.91
103+00	0.00	62.03	0.00	152.04	1042.35	735.95
103+50	0.00	82.17	0.00	192.92	1042.35	928.87
104+00	0.00	126.19	0.00	212.10	1042.35	1140.97
104+50	0.00	162.88	26.82	101.32	1069.17	1242.29
105+00	28.97	6.54	43.58	31.60	1112.75	1273.89
105+50	18.10	27.55	23.57	106.81	1136.32	1380.69
106+00	7.35	87.77	6.81	151.53	1143.13	1532.23
106+50	0.00	75.88	0.00	164.90	1143.13	1697.13
107+00	0.00	102.21	0.00	176.87	1143.13	1874.00
107+50	0.00	88.80	1.14	151.35	1144.27	2025.35
108+00	1.23	74.65	3.86	112.54	1148.13	2137.88
108+50	2.97	46.89	8.52	67.76	1156.65	2205.64
109+00	6.24	26.39	11.65	50.99	1168.30	2256.64
109+50	6.34	34.18	8.67	80.85	1176.97	2337.49
110+00	2.97	53.14	5.22	111.47	1182.19	2448.96
110+50	2.67	67.25	13.67	121.59	1195.86	2570.55
111+00	12.10	66.07	11.26	103.15	1207.12	2673.70
111+50	0.67	47.53	26.76	64.44	1233.88	2738.15
112+00	28.83	23.86	29.42	36.93	1263.30	2775.07
112+50	24.54	17.02	46.30	24.23	1309.60	2799.30
113+00	25.47	8.55	58.46	0.24	1368.05	2813.54
113+50	38.78	1.42	83.64	1.52	1452.69	2815.06
114+00	51.66	0.00	100.19	0.00	1552.88	2815.06
114+50	58.33	0.00	122.18	0.00	1675.06	2815.06
115+00	75.62	0.00	173.74	0.00	1848.80	2815.06
115+50	112.01	0.00	195.12	0.00	2043.91	2815.06
116+00	98.71	0.00	199.85	0.19	2243.76	2815.25
116+50	73.95	0.19	117.38	3.12	2361.14	2818.37
117+00	52.84	3.83	94.73	13.07	2455.87	2831.43
117+50	49.47	10.28	48.20	35.01	2504.07	2866.43
118+00	2.55	27.52	2.36	71.50	2506.43	2937.93
118+50	0.00	49.69	0.00	111.82	2506.43	3049.74
119+00	0.00	71.67	2.28	101.66	2508.71	3151.40
119+50	2.46	38.72	2.28	116.85	2510.99	3268.25
120+00	0.00	57.51	0.00	0.00	2510.99	3268.25

UNCLASSIFIED ROADWAY EXCAVATION = 2490 CY
COMPACTED FILL = 3479 CY

NOTE:
EARTHWORK CALCULATIONS SHOWN ARE FOR CONTRACTOR'S INFORMATION ONLY. VOLUMES SHOWN ARE NOT FACTORED FOR SHRINK AND SWELL CONDITIONS. PAYMENT FOR EARTHWORK SHALL BE PLAN QUANTITY AMOUNT ON THIS SHEET. NO ADDITIONS OR SUBTRACTIONS SHALL BE MADE UNLESS BY DESIGN CHANGE.

MISC. INFORMATION	REVISION	DATE	DESCRIPTION
	⚠	2-18-09	ADDED NOTE DESCRIBING ACCEPTABLE FILL MATERIAL

RLK ENGINEERING
TEXAS REGISTRATION NO. 579

RLK ENGINEERING, INC
6136 Frisco Square Blvd, Ste 325
Frisco, Texas 75034
(214) 619-1733 Off
(214) 619-1833 Fax

STATE OF TEXAS
R. KYLE JONES
101126
LICENSED PROFESSIONAL ENGINEER
P.E.
Date: 12-18-08

FRISCO

Eldorado Independence Improvements

Intersection Improvements

CROSS SECTIONS

STA 113+00 TO STA 120+00

DESIGNED BY	TECH REVIEW	DRAWING FILE	DRAWING SCALE	SHEET
CAP/RKJ	JDW	X-SECTS.DWG	N/A	68 OF 68
DRAWN BY	PEER REVIEW	DRAWING DATE	PROJECT NUMBER	
RNJ	CAP	December 2008	RLK 07044F	