DWG No. CSI-0007

TRACK ALIGNMENT

HORIZONTAL

BSP	BEARING OF TANGENT AT SPO
CC	CENTER OF CIRCULAR CURVE
CS	POINT OF CHANGE FROM CIRCULAR CURVE TO SPIRAL
CS1	POINT OF CHANGE FROM FIRST CIRCULAR CURVE TO COMPOUND SPIRAL
CS2	POINT OF CHANGE FROM SECOND CIRCULAR CURVE TO LAST SPIRAL
D	DEGREE OF CURVE
Es	EXTERNAL DISTANCE OF SPIRAL CURVE
k	TANGENT DISTANCE FROM TS OR ST TO PC OR PT OF THE EXTENDED CIRCULAR CURVE OF A SPIRALIZED CURVE
Lc	TOTAL LENGTH OF CIRCULAR CURVE
LC	LONG CHORD
Ls	TOTAL LENGTH OF SPIRAL
LSC	LENGTH OF COMPOUND SPIRAL (FROM CS1 TO SC2)
LS1	TOTAL LENGHT OF SPIRAL DOWNSTATION
LS2	TOTAL LENGHT OF SPIRAL UPSTATION
L.T.	LONG TANGENT - SPIRAL
p	OFFSET FROM THE TANGENT TO THE PC OR PT OF THE EXTENDED CIRCULAR CURVE OF A SPIRALIZED CURVE
PC	POINT OF CHANGE FROM TANGENT TO CIRCULAR CURVE
PCC	POINT OF COMPOUND CURVATURES
PCS	POINT OF COMPOUND SPIRAL
PF	POINT OF FROG
PI	POINT OF INTERSECTION OF TWO TANGENTS
PIc	POINT OF INTERSECTION - CIRCULAR CURVE
PITO	POINT OF INTERSECTION OF TURNOUT
PIs	POINT OF INTERSECTION - SPIRAL
POC	POINT ON CURVE
POS	POINT ON SPIRAL
POST	POINT ON SEMI-TANGENT
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVES
PS	POINT OF SWITCH
PT	POINT OF CHANGE FROM CIRCULAR CURVE TO TANGENT
R	RADIUS OF CURVATURE
Rc	RADIUS OF CIRCULAR CURVE
SC	SPIRAL TO CURVE
SC1	POINT OF CHANGE FROM FIRST SPIRAL TO FIRST CIRCULAR CURVE
SC2	POINT OF CHANGE FROM COMPOUND SPIRAL TO SECOND CIRCULAR CURVE
SPO	POINT OF ORIGIN ON COMPOUND SPIRAL
SS	POINT OF CHANGE FROM ONE SPIRAL TO ANOTHER
ST	POINT OF CHANGE FROM SPIRAL TO TANGENT
S.T.	SHORT TANGENT OF SPIRAL
T	LENGTH OF TANGENT
Tc	TANGENT LENGTH OF CIRCULAR CURVE
Ts	TANGENT DISTANCE FROM TS OR ST TO PI
TS	TANGENT TO SPIRAL
V	DESIGN VELOCITY IN MILES PER HOUR
Xs	TANGENT DISTANCE FROM TS TO SC OR ST TO CS
Ys	TANGENT OFFSET AT SC OR CS
Δ	TOTAL CENTRAL ANGLE OF SPIRAL AND CIRCULAR CURVES
θ_c	CENTRAL ANGLE OF CIRCULAR CURVES
θ_{c1}	SUFFIX (1) AT THE SYMBOL DENOTES DATA FOR THE FIRST CIRCULAR CURVE OF A COMPOUND CURVE
θ_{c2}	SUFFIX (2) SAME AS ABOVE-SECOND CIRCULAR CURVE
θ_s	CENTRAL ANGLE OF SPIRAL OR SPIRAL ANGLE
θ_{oAC}	CENTRAL ANGLE OF COMPOUND SPIRAL OR COMPOUND SPIRAL ANGLE (FROM CS1 TO SC2)
θ_{sAT}	TOTAL CENTRAL ANGLE OF COMPOUND SPIRAL OR TOTAL COMPOUND SPIRAL ANGLE (FROM SPO TO SC2)

NIC

VERTICAL

LVC	LENGTH OF VERTICAL CURVE (PVC TO PVT)
POVC	POINT ON VERTICAL CURVE
POVT	POINT ON VERTICAL TANGENT
PVC	POINT OF VERTICAL CURVE
PVCC	POINT OF COMPOUND VERTICAL CURVE
PVI	POINT OF INTERSECTION OF TWO PROFILE TANGENTS
PVRC	POINT OF REVERSE VERTICAL CURVE
PVT	POINT OF VERTICAL TANGENT
VC	VERTICAL CURVE

MISCELLANEOUS

A	AMPERE
ABD	ABANDONED
A/E	ARCHITECT/ENGINEER
A/G	AT GRADE
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ACI	AMERICAN CONCRETE INSTITUTE
AGG	AGGREGATE
AGG B	AGGREGATE BASE
AGG SB	AGGREGATE SUB-BASE
AHD	AHEAD
AISC	AMERICAN INSTITUTE OF STEEL CONST, INC.
AISI	AMERICAN IRON AND STEEL INSTITUTE
AL	ALUMINUM
APPROX	APPROXIMATE
ASBCP	ASBESTOS CEMENT PIPE
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASPH	ASPHALT
ATSF	ATCHISON, TOPEKA & SANTA FE RAILROAD COMPANY
AVE	AVENUE
AWG	AMERICAN WIRE GAUGE
AZ	AZIMUTH
B/B	BACK TO BACK
B/C	BACK OF CURB
BEG	BEGINNING
BF	BOTH FACES
BH	BORED HOLE
BIT	BITUMINOUS
BK	BACK
BKF	BACKFILL
℄	BASELINE
B/L	BUILDING LINE
BLDG	BUILDING
BLK	BLOCK
BLVD	BOULEVARD
B.M.	BENCH MARK
BNRR	BURLINGTON NORTHERN RAILROAD COMPANY
BOT	BOTTOM
BRG	BEARING
B/S	BOTTOM OF SLOPE
BS	BOTH SIDES
BSMT	BASEMENT
BTWN	BETWEEN
BW	BOTH WAYS
CB	CATCH BASIN
CBD	CENTRAL BUSINESS DISTRICT
C/C	CUT & COVER
CC	CENTER OF CURVE
C to C	CENTER TO CENTER
CEM	CEMENT
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CG	CONCRETE GUTTER
C & G	CURB AND GUTTER
CH	CHANNEL
CHD	CHORD
CI	CAST IRON
CIP	CAST IRON PIPE
℄	CENTERLINE
C/L	CURB LINE
CL	CLASS
CLR	CLEARANCE, CLEAR
CMP	CORRUGATED METAL PIPE
CND	CONDUIT
CO	CLEAN OUT
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUATION, CONTINUOUS
CORR	CORRUGATED
CP	CONCRETE PIPE
CPPEP	CORRUGATED PLASTIC POLYETHYLENE PIPE
CTB	CEMENT TREATED BASE
CTR	CENTER
CULV	CULVERT
CY	CUBIC YARD
DART	DALLAS AREA RAPID TRANSIT
DCU	DART CONTRACT UNIT
DEG	DEGREE
DEP	DEPRESSED
DET	DETAIL
DI	DROP INLET
DIA	DIAMETER
DIST	DISTANCE
DPL	DALLAS POWER & LIGHT COMPANY
DCDR	DALLAS COUNTY DEED RECORDS
DRWY	DRIVEWAY
DWG	DRAWING
E	EAST
Ea	ACTUAL SUPERELEVATION IN INCHES
EA	EACH
EC	EXPOSED CONSTRUCTION
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRIC, ELECTRICAL
EMER	EMERGENCY
ENCL	ENCLOSURE
ENT	ENTRANCE
E/P	EDGE OF PAVEMENT
EQ	EQUAL
EQUIV	EQUIVALENT
E/S	EDGE OF SHOULDER
ESMT	EASEMENT
EST	ESTIMATE
EI	TOTAL SUPERELEVATION IN INCHES
ET AL	AND OTHERS
ET UX	AND WIFE
ET CON	AND HUSBAND
ETC	ET CETERA
Eu	SUPERELEVATION UNBALANCED IN INCHES
EXIST	EXISTING
EXP	EXPANSION
EXPJT	EXPANSION JOINT
EXPO	EXPOSED
EXPWY	EXPRESSWAY
FDN	FOUNDATION
FF	FINISH FLOOR
F to F	FACE TO FACE
FG	FINISH GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH
FIR	FOUND IRON ROD
FL	FLOW LINE
FLR	FLOOR
FOW	FACE OF WALL
FRWY	FREEWAY
FS	FAR SIDE
FT	FOOT OR FEET
FTG	FOOTING
FURN	FURNISH
GA	GAUGE
GALV	GALVANIZED
GALVS	GALVANIZED STEEL
GENL	GENERAL
G/L	GROUND LINE
GM	GAS METER
GND	GROUND
GR	GRADE
G/R	GUARD RAIL
GRTG	GRATING
GSC	GALVANIZED STEEL CONDUIT
GV	GAS VALVE
GVL	GRAVEL
HGL	HYDRAULIC GRADE LINE
HMAC	HOT MIX ASPHALTIC CONCRETE
HORIZ	HORIZONTAL
HPT	HIGH POINT
HW	HEADWALL
HWL	HIGH WATER LINE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IN	INCHES
INCL	INCLUDE
INV	INVERT
IP	IRON PIPE
IR	INSIDE RADIUS
JT	JOINT
LB	POUND
LF	LINEAR FOOT
LG	LENGTH
LH	LEFT HAND
LIN	LINEAR
LOC	LOCATION
LONG	LONGITUDINAL
LPT	LOW POINT
LSG	LONE STAR GAS
L/T	LEFT TRACK
MACH	MACHINE
MAINT	MAINTENANCE
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MKT	MISSOURI-KANSAS-TEXAS RAILROAD COMPANY
MON	MONUMENT
MPH	MILES PER HOUR
MSL	MEAN SEA LEVEL
MATL	MATERIAL
N	NORTH
N/A	NOT APPLICABLE
NF	NEAR FACE
N/F	NOW OR FORMERLY
NIC	NOT IN CONTRACT
No.	NUMBER
NOM	NOMINAL
N/S	NORTH/SOUTH
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
O to O	OUT TO OUT
OPNG	OPENING
OPP	OPPOSITE
ORD	ORDINANCE
P	PILASTER
P/C	PRECAST
PCY	POUNDS PER CUBIC YARD
PED	PEDESTRIAN
PERF	PERFORATED
PGL	PROFILE GRADE LINE
PS	POINT OF SWITCH
POB	POINT OF BEGINNING
PP	POWER POLE
PROP	PROPOSED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVMT	PAVEMENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REF	REFERENCE
REINF	REINFORCE, REINFORCING, REINFORCEMENT
REQD	REQUIRED
REV	REVISED, REVISION
RH	RIGHT HAND
ROW	RIGHT-OF-WAY
RR	RAILROAD
R/T	RIGHT TRACK
RTRN	RAILTRAN
RW	RETAINING WALL
RY	RAILWAY
S	SOUTH
SCHED	SCHEDULE
SD	STORM DRAIN
SDWK	SIDEWALK
SERV	SERVICE
Sq Ft	SQUARE FOOT
SH	STATE HIGHWAY
SHC	SHOT CRETE
SHLD	SHOULDER
SHT	SHEET
℄	SURVEY LINE
SPT	SOUTHERN PACIFIC TRANSPORTATION COMPANY
SUBD	SUBDIVISION
SPC	SPACE
SQ	SQUARE
SS	SANITARY SEWER
STA	STATION
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURE
STY	STORY
SUB	SUBSTATION
SURF	SURFACE
SY	SQUARE YARD
SYM	SYMMETRICAL
SYS	SYSTEM
TAN	TANGENT
TBD	TO BE DETERMINED
TBM	TEMPORARY BENCHMARK
T/B	TEST BORING
T & B	TOP AND BOTTOM
T/C	TOP OF CURB
T/D	TOP OF DITCH
TEM	TEMPORARY
TERM	TERMINAL
T/G	TOP OF GROUND LINE
THK	THICK, THICKNESS
TLT	TRANSMISSION LINE TOWER
TMUTCD	TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
TOC	TOP OF CONCRETE
TOPO	TOPOGRAPHY
TPL	TEXAS POWER & LIGHT COMPANY
T/P	TOP OF PAVEMENT
TRD	TREAD
TRF SIG	TRAFFIC SIGNAL
TRK	TRACK
T/R	TOP OF RAIL
T/S	TOP OF SLOPE
T/W	TOP OF WALL
TYP	TYPICAL
TUE	TEXAS UTILITIES ELECTRIC COMPANY
UC	UNDERCUT
UD	UNDERDRAIN
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UP	UNION PACIFIC RAILROAD COMPANY
VAR	VARIABLE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VOL	VOLUME
W	WEST
W/	WITH
WHSE	WAREHOUSE
W/O	WITHOUT
WP	WORK POINT
WS	WATER SURFACE
WTR	WATER
WI	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
X-ING	CROSSING
X-OVER	CROSSOVER
X-SECT	CROSS SECTION

7-7-99

CONFORMED

CONTRACT SHEET No. 5 of 95

REV	DATE	DESCRIPTION	BY	DES	CHK	APP	REV	DATE	DESCRIPTION	BY	DES	CHK	APP
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STATE OF TEXAS — RICHARD D. SEITZ — 63424 — REGISTERED PROFESSIONAL ENGINEER

4-23-92

HUITT~ZOLLARS
3131 MCKINNEY AVENUE/SUITE 600
DALLAS, TEXAS/214-871-3311
Sverdrup Corporation
Barton-Aschman Associates, Inc.
Arredondo, Brunz & Associates, Inc.
LS Transit Systems
Hellmuth Obata & Kassabaum, Inc.

DART PROJECT

DART

SCALE	NO SCALE
DRAWN	DART CADD
DESIGNED	E. A. RAINDSEK
CHECKED	S. HEBB
IN CHARGE	D.P. KELLY
DATE	06 FEB 92

CAES

CIVIL STANDARD

ABBREVIATIONS

CONTRACT C-97000136 | DWG No. CSI-0007 | REV 0